



VOLUME IV | TECHNICAL PROPOSAL | STATE PROJECT NO. H.004791

BELLE CHASSE BRIDGE AND TUNNEL REPLACEMENT PUBLIC-PRIVATE PARTNERSHIP PROJECT

ORIGINAL ELECTRONIC PUBLIC COPY | PLENARY INFRASTRUCTURE BELLE CHASSE

TABLE OF CONTENTS

VOLUME IV - PUBLIC COPY*

TECHNICAL PROPOSAL

COVER LETTER	PAGE 1-2
EXECUTIVE SUMMARY	PAGE 1-7
SECTION 1 – LEGAL	PAGE 1-135
Form of Proposal	
Form A	
Form B	
Form C	
Secretary of State Certification, or Commitment to Become Registered	
Licensing Information	
Non-Collusion Form	
Form D	
Form E	
Organizational Conflict of Interest Disclosure	
Form F	
Approvals for Changes in Key Personnel or Organization	
Form G	
Surety(ies) Commitment Letter	
Proposal Bond	
SECTION 2 – DESIGN-BUILD	PAGE 1-91
Structures	
Design-Build Organization and Approach	
Public Information and Communication	
Demolition and Decommissioning of Existing Infrastructure	
Schedule, Cost Control, and Risk Management	
Design-Build Quality Management and Safety	
Vehicular and Marine Maintenance of Traffic	
Operations and Maintenance of the Current Facility	
SECTION 4 – OPERATIONS AND MAINTENANCE	PAGE 1-23
Routine Maintenance, Rehabilitation, and Handback	
Operations and Maintenance Management Plan	
Operations and Maintenance Quality Management	
SECTION 5 – KEY PERSONNEL AND EXPERIENCE	PAGE 1-48
Form H	
Key Personnel Resumes	

*Technical Proposal - Section 3 and the entire Financial Proposal are omitted due to the documents containing confidential proprietary or trade secret information.

TABLE OF CONTENTS

VOLUME IV - PUBLIC COPY*

TECHNICAL PROPOSAL - APPENDIX

APPENDIXPAGE XX

Organization Charts

Plan Set

Roadway Design Reports

Utility Conflict Matrix and Utility Conflict Plans

Approved ATC List/Index

Schedule

CONFIDENTIAL CONTENTS

VOLUME I | TECHNICAL PROPOSAL

SECTION 3 – TOLLING **PAGE 1-50**

Belle Chasse Tolling Systems and Operations
Form I
LA 1 Tolling Systems and Operations

Justifying Statement: Louisiana Public Records Law, Title 44 Public Records and Recorders, Chapter 1 Public Records, §3.2. Proprietary and trade secret information expressly exempts Section 3 of the proposal, because this document contains proprietary and trade secret information pertaining to patterns, designs, devices, methods, and processes which are proprietary or trade secret.

VOLUME III | FINANCIAL PROPOSAL

The entire Volume III, Financial Proposal is to be treated and considered confidential proprietary or trade secret information.

Justifying Statement: The entire Volume III, Financial Proposal is to be treated and considered confidential proprietary information as it contains financial and performance related information for private companies.

The image shows a cover letter page with a decorative background. The background is a grayscale photograph of a building with a stone wall and a black metal fence in the foreground. The fence has ornate fleur-de-lis finials. A semi-transparent teal horizontal band is overlaid across the middle of the page. The text 'COVER LETTER' is centered in white, bold, uppercase letters within this band. Two thin, light-colored horizontal lines are positioned above and below the text. On the right side of the page, there is a vertical purple bar with the text 'COVER LETTER' written vertically in white, uppercase letters.

COVER LETTER

1. ADMINISTRATIVE

1.1 COVER LETTER

March 18, 2019

Louisiana Department of Transportation and Development

Attn.: Peggy Jo Paine, Innovative Procurement Manager
and Nicholas Olivier, PE, Project Manager

Innovative Procurement Manager's Office | Room 302-CC

1201 Capitol Access Road, Room 303-A

Baton Rouge, LA 70802-4438

Re: Request for Proposal for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project

Dear Ms. Paine,

On behalf of the Plenary Infrastructure Belle Chasse (PIBC) consortium, I am delighted to present our response to the Request for Proposal (RFP) issued by the Louisiana Department of Transportation and Development (LA DOTD) for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (the Project). The best-in-class team that PIBC assembled during the RFQ stage and that is reintroduced below, has developed a technical and financial solution for the Project which best achieves the LA DOTD's project objectives.

- **Plenary Group USA Concessions Ltd.** – who will perform the role of long-term Equity Investor and members of the Lead Operations and Maintenance and Tolling Operator teams;
- **Traylor Bros., Inc.** – who, as a member of the Lead Contractor Joint Venture, specializes in the cutting-edge construction of complex bridges;
- **Massman Construction Co.** – who, as a member of the Lead Contractor Joint Venture, is a leader in heavy civil and marine construction, having successfully completed over 1,700 projects;
- **Huval & Associates, Inc.** – who, as Lead Designer and based in Louisiana, is an engineering design firm specializing in bridge and roadway engineering solutions;
- **DBi Services, LLC** – who, as member of the Lead Operations and Maintenance team, is an operations and maintenance leader with over 25,000 lane miles and 4,000 structures in its portfolio; and
- **Kapsch TrafficCom USA, Inc.** – who, as Toll Systems Provider and member of the Tolling Operator team, is a leader in intelligent transportation systems in the fields of tolling and traffic management.

Our team's approach during the RFP period was to develop a solution for the Project that provided maximum value-for-money to the LA DOTD and all Project stakeholders. We were relentless in our pursuit to uncover innovative construction methods, efficient design approaches, an optimal tolling solution, and a market-leading fully committed financial package. As a result of this approach, we are confident that the solution we have provided is the one that best achieves the goals of LA DOTD.

Consistent with our open, collegial approach to one-on-one meetings during the RFP period, PIBC remains willing to discuss alternative tolling classification and rate structures should LA DOTD have interest in doing so.

We have thoroughly enjoyed the challenge that this Project presented to us, and we are excited by the opportunity to progress this submission to Financial Close, and ultimately to deliver and operate an aesthetically pleasing new bridge that will serve the people of Plaquemines Parish for generations to come.

Please consider this submission as an indication of our desire to be considered for the Project. If you have any questions, please do not hesitate to contact me, PIBC's single point of contact, at the address below.

Yours Truly,

PLENARY INFRASTRUCTURE BELLE CHASSE LLC



Mike Schutt, Authorized Representative

Plenary Infrastructure Belle Chasse LLC

Mike.schutt@plenarygroup.com

(813) 387-3878 (o)

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Tampa, FL 33602



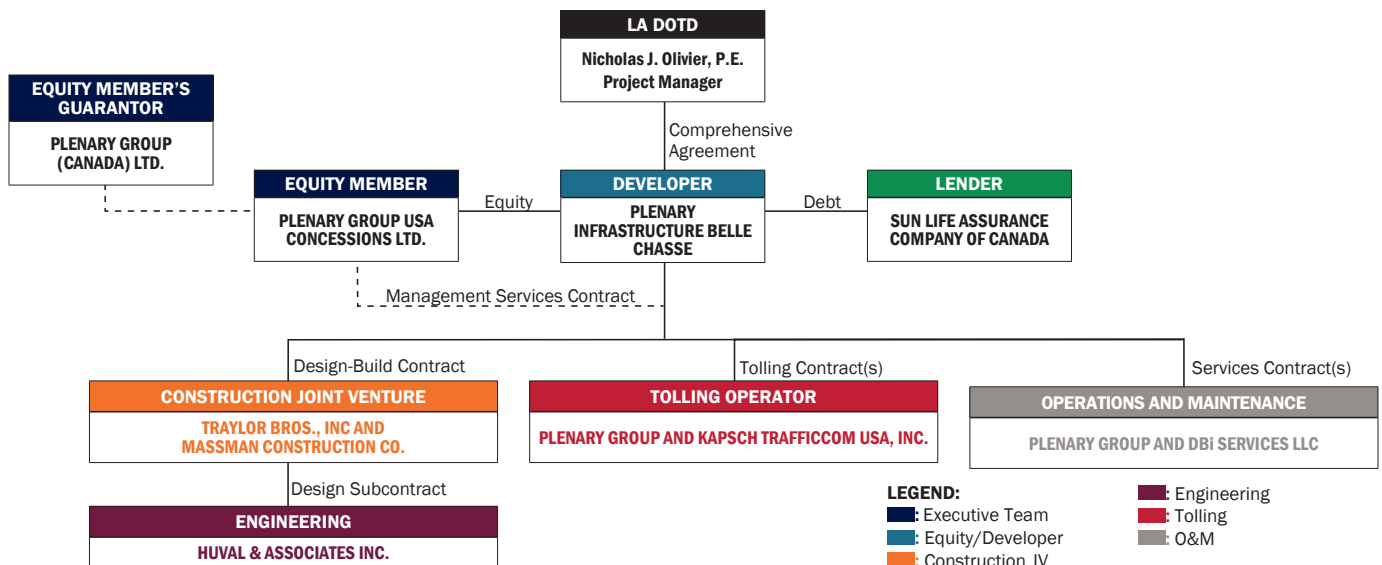
EXECUTIVE SUMMARY

1.2 EXECUTIVE SUMMARY

Plenary Infrastructure Belle Chasse (PIBC) has assembled a best-in-class team that possesses specific technical experience, local resources, self-perform capabilities, and DBFOM expertise to deliver the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Belle Chasse Project or the Project). Plenary Group USA Concessions Ltd. (Plenary) has formed a team consisting of Traylor Bros., Inc. (Traylor), Massman Construction Co. (Massman), Huval & Associates, Inc. (Huval), DBi Services, LLC (DBi), and Kapsch TrafficCom USA, Inc. (Kapsch), to become the partner of choice for the successful development, delivery, operations, and long-term maintenance of the Project. The PIBC team includes the following roles and responsibilities:

TEAM PARTNER	RESPONSIBILITIES
	Provides ongoing accountability and performance focus as the long term Equity Member, part of the Lead Operations and Maintenance Team, and part of the Tolling Operations Team
	As a member of the Lead Contractor Joint Venture, specializes in the cutting-edge construction of complex bridges
	As a member of the Lead Contractor Joint Venture, is a leader in heavy civil and marine construction, having successfully completed over 1,700 projects
	As Lead Designer and based in Louisiana, is an engineering design firm specializing in bridge engineering solutions for the LA DOTD and clients throughout the US
	As part of the Lead Operations and Maintenance Team, is an operations and maintenance leader with over 25,000 lane miles and 4,000 structures in its portfolio
	As Toll Systems Provider and responsible for Tolling Operations Services, is a leader in intelligent transportation systems in the fields of tolling and traffic management, and other transportation related technology systems and services

PLENARY INFRASTRUCTURE BELLE CHASSE TEAM STRUCTURE



OUR APPROACH TO THE BELLE CHASSE PROJECT

PROPOSED FACILITY

One of the initial steps in arriving at the most efficient bridge solution for the Project was a detailed bridge study. Early in the RFP, our Team came to the conclusion that structure depth versus bridge length was the critical criteria in arriving at a solution that meets the goals of the Project while also minimizing impacts to the surrounding community. Ultimately, our team decided on a 3-span continuous steel plate girder main span bridge solution. The following are just a few of the many benefits that our chosen structure type provides:

- Efficient and economical design and optimized span lengths is directly related to **lowest toll rates**;
- Main Span structure type and span solution will **minimize impacts to navigational traffic**;
- Bridge elements were chosen to have a **reduced need for future maintenance and rehabilitation** during the term of this Project and beyond; and
- Our team is very experienced in building this structure type and therefore is confident in a **safe and efficient delivery that minimizes inconvenience to travelers**.

The new bridge structure will be located between the existing vertical lift bridge and tunnel. The ends of the bridge curve toward the east to allow roadway approaches to tie into the existing alignment of LA 23 prior to the existing canal bridges located on both the north and south end of the Project. The new structure extends further than the existing vertical lift bridge and tunnel due to the required 73-ft. vertical clearance and 150-ft. wide horizontal clearance of the navigation channel. **Minimizing the bridge length meets three of LA DOTD's stated project goals of lowest toll rate for shortest duration, maintaining and enhancing community infrastructure connections, and minimizing inconvenience to travelers during Project construction.** The following are important features that reduce impacts in the navigational channel:

- Placing the main piers on each side of the navigational channel as close to the edges of the 150-ft. horizontal clearance envelope as possible minimizes required structure length and limits impacts to the community; and
- Skewing the main pier to match the navigational channel skew allows for the absolute minimum main span length and most shallow structure depth.

PLAN VIEW OF THE PROPOSED STRUCTURE



The type of bridge superstructure elements selected by our team are commonly encountered among LA DOTD bridges. The approaches to the main span consist of LA DOTD's preferred beam type, "LG" prestressed concrete girders supporting a concrete deck, while the main span will consist of a 3-span continuous steel plate girder superstructure supporting a concrete deck.

Blending both economy and aesthetics led to choosing pile bents using large, 30-inch square prestressed pile at the shorter approach span bents and similarly shaped square, tapered columns as the bent height exceeded an efficient pile bent design. To further maintain consistency of substructure form, we chose to avoid switching back and forth between pile bents and column bents where column bents were required. The result is a smooth, arching structure that begins at the end bents and climbs quickly above the open green area spaces below the structure.

Aesthetic features of the structure include:

1. Color scheme on exterior bridge railing and exterior girder;
2. Painted structural elements and color on the bottom portion of all columns and piles;
3. Use ends of caps to feature art or graphics as guided by public input; and
4. Coordinate texture, patterns, and colors of bridge end MSE/retaining walls.

CONCEPT RENDERING OF THE BRIDGE STRUCTURE AND POSSIBLE AESTHETIC ENHANCEMENTS



PLAN TO FINANCE, DEVELOP, & OPERATE THE PROPOSED FACILITY

PIBC has developed a cost efficient approach to financing the Project helping drive towards the lowest toll rate for the new bridge. In addition to the public funding contribution provided by the LA DOTD, Plenary has committed to an equity investment and arranged a fully committed privately placed debt instrument with a third party institutional investor to fund the Project. These equity and debt investments will be repaid over the full Project term, ensuring the alignment of interests between Plenary, the institutional investor, LA DOTD and Project stakeholders. Furthermore, these funds will be fully committed upfront at Financial Close, reflective of a robust and certain financing structure.

In addition to structuring a competitive financing solution which includes its' equity investment, Plenary has led the development of the PIBC technical solution during the RFP phase and will continue to do so should PIBC be selected as the Preferred Proposer by the LA DOTD. Plenary is a unique P3 Developer in that it remains fully engaged in a Project Management role through the life of the projects in which it invests. This detailed understanding and oversight of the technical requirements and implementation approaches of our projects is a key risk mitigation measure, and helps support market leading cost-efficient financing plans. With qualified technical personnel, Plenary will have individuals overseeing the delivery of the new bridge. Once complete, the operation of the facility will be led by the PIBC O&M Manager, Christian Guevara. Christian's involvement from day 1 of the RFP has enabled him to develop an intimate knowledge of the Project's unique goals and challenges.

Christian will be supported on-the-ground in Belle Chasse by a team of highly qualified O&M professionals. In addition to their O&M responsibilities, this team will be responsible for level 1 tolling operations responsibilities, along with oversight and audit of the toll system and processing services. The two key outcomes of this approach are (i) a more cost effective long-term solution and (ii) direct accountability for tolling operations on site in Belle Chasse. Plenary has structured tolling operations scope such that toll processing, toll customer service, and tolling operations services for levels 2 and 3 maintenance will be performed by Kapsch.

PUBLIC INFORMATION & COMMUNICATIONS

The lead agency for communications and stakeholder engagement on the PIBC team is Franklin Associates, LLC (Franklin). Franklin is a Louisiana-based consulting firm with expertise in communications, public outreach, and stakeholder engagement. Franklin will work as a subcontractor to PIBC, and in conjunction with LA DOTD and key Plaquemines Parish stakeholders, will develop and implement a comprehensive communications and outreach strategy that will be multifaceted in its approach. It will engage residents, community leaders, businesses, tourists, and elected and appointed officials.

Franklin will develop a Public Information & Communications Plan (PICP) to ensure that three key outcomes are achieved:

1. First and foremost, the safety of the traveling public will be maximized;
2. The Public is aware of the benefits of the new bridge as a community enhancing asset; and
3. The Public is educated about tolling costs and the process through which tolls will be assessed and paid.

As the Project evolves, appropriate communications with stakeholders will be necessary to provide consistent and comprehensive messaging. The PICP will outline PIBC's approach to the following:

- **Establishing** communication modes that are essential to informing the target population
- **Providing** details on project milestones and specific communication strategies to be utilized
- **Identifying** targeted stakeholders
- **Communicating** with stakeholders about construction, tolling, transponders, and emergencies

As an added benefit to Project stakeholders, Plenary will also be directly involved in the development and implementation of the PICP. With a portfolio of 32 projects across North America, on each of which Plenary plays an integral role in public outreach efforts, Plenary has extensive experience executing complex P3 projects to the satisfaction of relevant stakeholders. Working with Franklin, Plenary will help to ensure an effective delivery of the PICP, keeping stakeholders engaged and informed of key Project milestones and tolling information throughout the Project term.

CONSTRUCTION SEQUENCING, TRAFFIC MANAGEMENT, & MOBILITY, INCLUDING O&M OF THE JUDGE PEREZ BRIDGE & BELLE CHASSE TUNNEL

CONSTRUCTION/TRAFFIC SEQUENCING PLAN: The overall construction phasing plan consists of three phases of construction, focused on minimizing disruption to the traveling public:

- **Phase 1** – Construction of LA 23 Bridge over GIWW; entire length of LA 23 northbound lanes and the southbound lanes except for a portion on the bridge approaches
- **Phase 2** – Construction of remainder of LA 23 Bridge approaches; LA 23 southbound lanes of traffic are shifted onto new complete LA 23 northbound lanes. Decommissioning of the existing tunnel begins.
- **Phase 3** – Demolition and abandonment of existing vertical lift bridge.

Two lanes of traffic in each direction will be maintained throughout construction with the exception of short-term lane closures to complete mill and overlay of existing LA 23. Roadway construction will be done concurrently with bridge construction.

TRAFFIC INCIDENT MANAGEMENT PLAN: PIBC's Traffic Incident Management Plan (TIMP) will provide a consistent level of service to the traveling public while ensuring public safety and enjoyable travel through the Project area. The time-and-event-proven, comprehensive TIMP will be prepared with and including input from LA DOTD, Emergency Services, and applicable Governmental Entities. PIBC will have fully equipped vehicles capable of responding to any incident including spill kits, traffic control equipment, and access to external sub-contractors capable of addressing issues. The PIBC Team will also have staff available 24-7 to respond to any incident.

The TIMP includes a specific **Motorist Assistance Plan**, focused on removing non-functioning vehicles; an **Emergency Vehicle Access and Response Plan**, developed to work with local authorities to protect workers, residents, tourists, and the Project in the event of an emergency or extreme weather event; and a **Hurricane Preparation and Evacuation Plan**. PIBC understands tropical storms and hurricanes are a part of life in Belle Chasse. Our team's Hurricane Preparation and Evacuation Plan (HPEP) will be tailored specifically to address the unique features of this Project and encompass training and coordination, an action plan, dry run events, steps for securing materials and equipment, temporary structure designs, and will incorporate terms, conditions, and directives from the latest USCG Plan.

O&M OF THE EXISTING JUDGE PEREZ BRIDGE & BELLE CHASSE TUNNEL: PIBC includes a team of established asset managers who have experience maintaining existing structures similar to the existing bridge and tunnel in performance based environments. PIBC will perform an in-depth condition assessment of the existing infrastructure that will be maintained during construction. In coordination with the initial assessments, PIBC will develop a Baseline Element Condition Report (BECR) to denote the current conditions and identify elements which will require high priority rehabilitation. PIBC will also work with LA DOTD to interview current staff that have been engaged in maintaining and operating the existing movable bridge and the tunnel. This will allow our team to gain an understanding of conditions and nuances with operating the existing infrastructure.

The development of PIBC's Operations and Maintenance Management Plan (MMP) will be bolstered by three key factors: (i) PIBC's extensive experience and expertise in assessing the condition of movable bridges throughout the US, (ii) the transfer of knowledge from the incumbent bridge tenders and maintenance personnel to PIBC personnel, and (iii) the information provided by the BECR which will quickly provide a condition baseline for the assets. The MMP will outline and schedule all routine maintenance activities, incorporating additional preventative measures, and an efficient outline to address outstanding repairs as well as those that may be systemic in nature due to advanced deterioration. The goal of the MMP is to preserve the structures' condition and operational characteristics to provide safe use to the public in a cost-efficient manner.

OPERATIONS, MAINTENANCE, & REHABILITATION WORK

PIBC has developed a programmed maintenance schedule and progressive lifecycle plan for the maintenance needs of the structure. The plan optimizes the serviceability of the infrastructure through active management, and is mindful of the specific performance requirements set forth by the LA DOTD both during the operating phase and at handback. The Maintenance Management Plan (MMP) will provide specific details of our programs for routine maintenance, major repair, and rehabilitation activities. Rooted and developed through the participation of the O&M team in the design process during the RFP period and continuing through full design development and construction, the development of the MMP will ensure that (i) the performance of the new infrastructure is optimized, and (ii) that proper execution of the MMP will fortify the performance of the infrastructure and ultimately maintain reliability of the Project.

TOLL LANE OPERATIONS, INCLUDING TOLL COLLECTION, ENFORCEMENT, CUSTOMER RELATIONS, & INTEROPERABILITY

PIBC has experience in designing, developing and implementing toll systems throughout the world. We recognize that the experience of our end users is of primary importance. As a result, we have designed a toll system that will provide for a reliable and efficient customer-oriented experience. We will deliver an Electronic Toll Collection System and service, providing a proven, and reliable toll collection infrastructure for LA DOTD. Through innovative technology, transparent Back Office System (BOS) operations and proven call center procedures, our solution offers multiple benefits to LA DOTD, including but not limited to:

- Timely responses to customer queries
- Efficient, free-flow travel through the tolling collection zone and over the GIWW
- Transponder system providing for automatic payment and electronic account management

TOLLING COLLECTION: The roadside toll collection system is designed to efficiently collect and distribute toll transactions that occur in the toll collection zone in a free-flow manner. For vehicles without transponders, our cutting-edge video tolling solutions provide reliable and accurate license plate capture. All data on registered and unregistered vehicles is sent to the next-generation BOS, where revenue is processed in a transportation-focused financial system with effective customer relationship management, data privacy management, and fully auditable technology.

TOLLING ENFORCEMENT: PIBC has structured an effective methodology for recovering funds from unregistered accounts and violations. Once a transaction ages to violation, our system makes it easy for customers to quickly resolve an outstanding balance at any stage of the process. The highly configurable system consolidates violations to reduce mailing, includes a configurable number of customer notices, and manages the process all the way to court, collections and DMV hold.

TOLLING CUSTOMER RELATIONS: Multiple channels improve customer service by connecting with customers’ method of choice. These all provide effective correspondence with customers and include retail, online, phone (including IVR technology), smartphone, traditional mail, fax, and SMS. We will provide excellent customer satisfaction through highly trained customer service representatives and first-call resolution. Customer self-service options are available 24/7 for customer convenience, improving overall satisfaction and ease of payment. The IVR, website, and mobile app contact methods include features to perform payments, update personal information and contact preferences, as well as viewing/downloading correspondence and invoices.

TOLLING INTEROPERABILITY: Kapsch maintains effective and reliable connections with partner agencies to enable tolling from foreign transactions. With our extensive experience and support for nationwide interoperability, PIBC provides a scheme for both current and future service support. The proposed Roadside Toll Collection System (RTCS) and BOS is fully designed and equipped to support interoperability at the state, regional and national level with both transponder and plate-based exchanges. The RTCS is supplied with a multiprotocol reader that supports the desired protocols, and can be configured in support of any of the other major interoperability providers.

SCHEMATIC & ANY INNOVATIVE CONCEPTS & APPROVED ALTERNATIVE TECHNICAL CONCEPTS (ATC)

PIBC worked relentlessly to drive innovation with the goal of structuring a solution that provides the lowest toll for the shortest period of time. The below chart summarizes our approved and implemented ATCs:

PIBC’S APPROVED AND INCLUDED ATCS

ATC #	ATC TITLE	FEATURES / BENEFITS
ATC 2	Partial Depth Precast Deck Forms	Innovative use of proven design features from neighboring state transportation departments enhances safety of the construction workforce and reduces the overall construction duration.
ATC 17	Pile Bents at Cross Streets	Provides continuity of aesthetic structural features while minimizing the toll rate for the community, as well as expediting construction durations.
ATC 24	Tunnel Demolition Debris	Reduces impacts to the community by minimizing the offsite waste disposal and reducing the presence of large debris hauling vehicles traveling into and out of the Project-site.
ATC 28	Existing Lift-Span Bridge Piers into Railroad Bridge Protection	Compared to the minimum requirements provides enhanced vessel collision protection for the existing NOGC Railway structure while providing a unique opportunity to honor the historical significance of the existing Judge Perez Bridge and also affords an opportunity to engage the public input into aesthetic features of the Project.

In addition to the above list of ATCs included in PIBC’s proposal, it is important to mention that while conditionally approved ATC 1 has not been included in our proposal, we fully recognize its potential benefits to the LA DOTD. Further, we reaffirm our commitment to work as partners with the LA DOTD to further consider and evaluate solutions to the noted conditions, engage in dialogue with impacted stakeholders, and determine if this ATC could ultimately be implemented into the Project prior to closing.

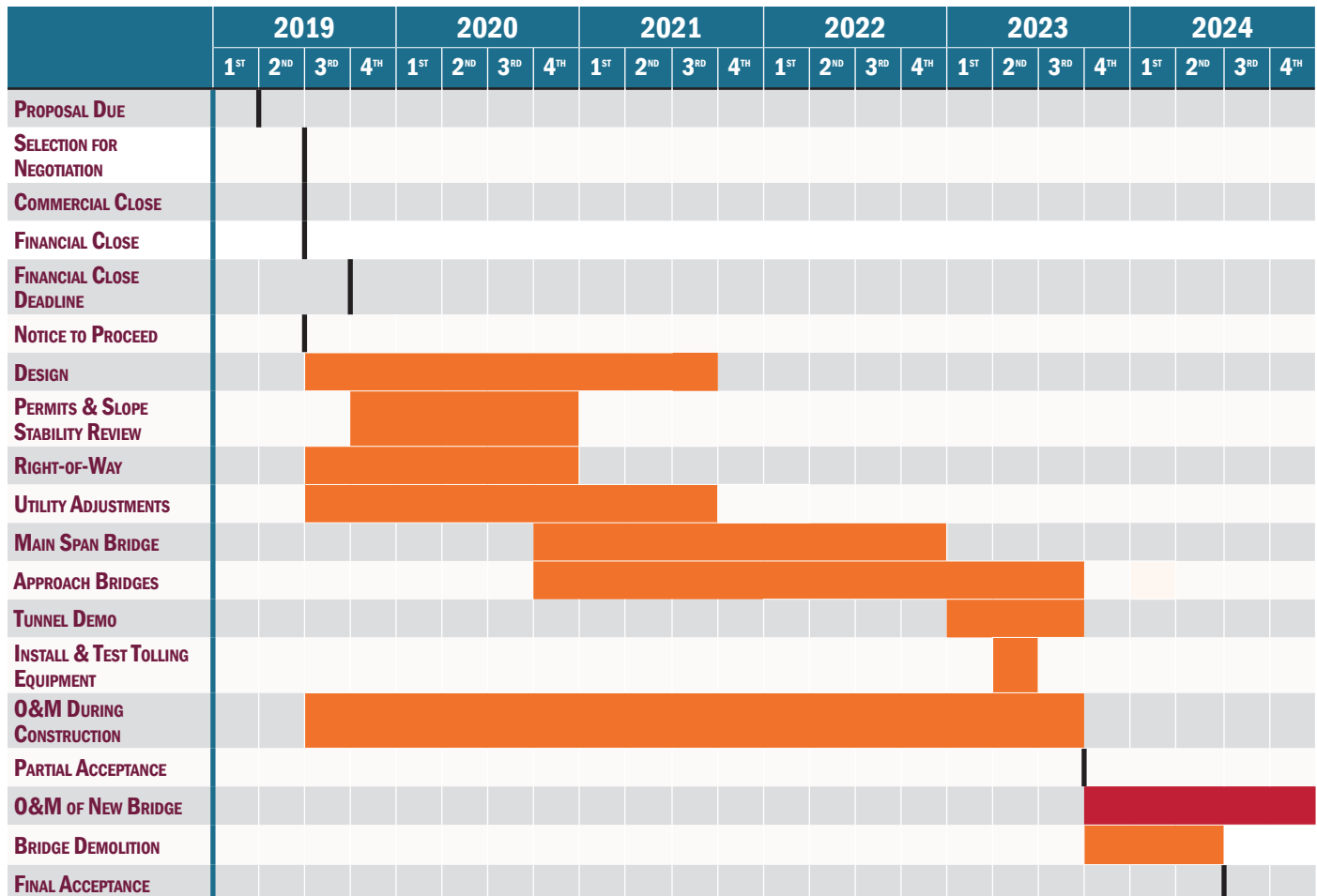
PRELIMINARY BASELINE SCHEDULE & KEY MILESTONES

PIBC’s Preliminary Project Baseline Schedule (PBS-1) uses reliable activity durations based on accurate quantities and historical production rates. This approach is used on all field activities as well as design elements, ROW procurement, and utility relocations. By doing so, we limit guesswork, providing LA DOTD with a reliable schedule that can be closely monitored. Using the three-week look-ahead schedule, commodity curves, and a simple monthly schedule comparison, PIBC will keep LA DOTD current on Project performance with reliable and accurate information. The table to the right lists key milestone dates and activity sequencing. Although this PBS-1 will go through more development and refinement, it will be used as a robust foundation on which to build.

MILESTONE DATES

MILESTONE ACTIVITY	MILESTONE DATE
FINANCIAL CLOSE DATE	August 14, 2019
FINANCIAL CLOSE DEADLINE (SUBMISSION +210 DAYS)	October 14, 2019
NOTICE TO PROCEED	August 14, 2019
COMMENCE DESIGN & UTILITY/ROW ACTIVITIES	August 14, 2019
COMMENCE CONSTRUCTION – MAIN SPAN PIERS	October 15, 2020
COMMENCE CONSTRUCTION – APPROACHES	November 27, 2020
COMPLETE MAIN SPAN	November 09, 2022
COMPLETE APPROACHES – PHASE 1	February 28, 2023
SWITCH TRAFFIC TO PARTIALLY COMPLETE BRIDGE	March 02, 2023
COMPLETE APPROACHES – PHASE 2	October 12, 2023
PARTIAL ACCEPTANCE – OPEN TO TRAFFIC	October 13, 2023
ANTICIPATED TOLLING - START	October 13, 2023
FINAL ACCEPTANCE DATE	May 22, 2024

HIGH LEVEL SCHEDULE BAR CHART

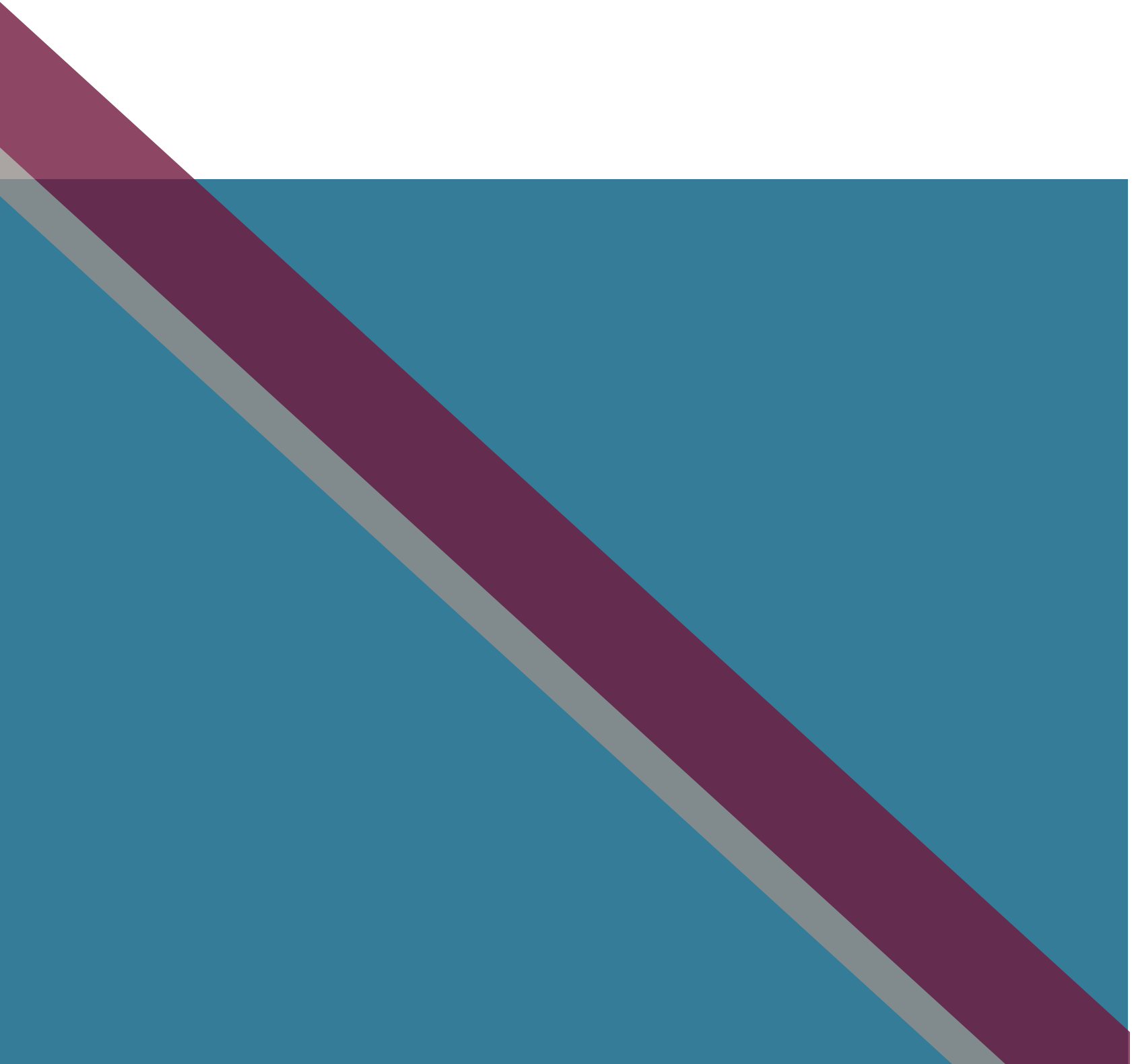




LEGAL

LEGAL

FORM OF PROPOSAL



FORM OF PROPOSAL

PROPOSAL OF Plenary Infrastructure Belle Chasse LLC

NAME Mike Schutt **TELEPHONE** (813) 387-3878

ADDRESS 100 N. Tampa Street, Suite 2840, Tampa, FL 33602

CONTRACTOR'S LICENSE No.: Traylor Bros., Inc. – 1029/Massman Construction CO.- 271

ENGINEER'S LICENSE No.: Huval & Associates, Inc. - EF.0001542/Survey – PLS0002015

TO THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT:

The undersigned (the “Proposer”) submits this Proposal in response to the Request for Proposals (RFP) issued by the Louisiana Department of Transportation and Development (LA DOTD), an agency of the State of Louisiana, dated October 4, 2018, as amended, to develop, design, construct, finance, operate, and maintain the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (the “Project”) in Plaquemines Parish, as more specifically described herein and in the RFP. Initially capitalized terms not otherwise defined herein shall have the meanings set forth in the RFP.

The undersigned undertakes:

A) To keep this Proposal open for acceptance initially for 210 days after the Proposal due date, without unilaterally varying or amending its terms and without any member or partner withdrawing or any other change being made in the composition of the partnership/joint venture/limited liability company/consortium on whose behalf this Proposal is submitted, without first obtaining the prior written consent of the LA DOTD, in the LA DOTD’s discretion; and

B) If this Proposal is accepted, to provide security for the due performance of the Comprehensive Agreement as stipulated in the Comprehensive Agreement and the RFP.

If selected by the LA DOTD, Proposer agrees to do the following or to cause Developer to do the following: (1) if requested by the LA DOTD in its discretion, enter into good faith negotiations with the LA DOTD regarding the terms of the Comprehensive Agreement, in accordance with the requirements of the RFP; (2) enter into the Comprehensive Agreement without varying or amending its terms (except for modifications agreed to by the LA DOTD in its discretion), and satisfy all other conditions to award of the Comprehensive Agreement; and (3) perform its obligations as set forth in the RFP and Comprehensive Agreement, including compliance with all commitments contained in this Proposal.

The following individual is designated as Proposer’s single point of contact in accordance with Section A2.2(A) of Appendix A – Technical Proposal Instructions to the ITP:

Mike Schutt

Enclosed, and by this reference incorporated herein and made a part of this Proposal, are the following:

- Executive Summary;
- Technical Proposal, including the Proposal Bond; and
- Financial Proposal.

Proposer acknowledges receipt of the following Addenda and sets of questions and responses:

Addendum No. 1 issued November 8, 2018
Addendum No. 2 issued November 20, 2018
Addendum No. 3 issued December 21, 2018
Addendum No. 4 issued January 8, 2019
Addendum No. 5 issued January 11, 2019
Addendum No. 6 issued January 25, 2019
Addendum No. 7 issued February 7, 2019
Addendum No. 8 issued February 18, 2019
Addendum No. 9 issued February 26, 2019

Responses issued:

Belle Chasse RFP Responses to Proposer Questions 10-18-2018
Belle Chasse RFP Responses to Proposer Questions 11-08-2018
Belle Chasse RFP Responses to Proposer Questions 11-20-2018
Belle Chasse RFP Responses to Proposer Questions 12-07-2018
Belle Chasse RFP Responses to Proposer Questions 12-21-2018
Belle Chasse RFP Responses to Proposer Questions 01-11-2019
Belle Chasse RFP Responses to Proposer Questions 02-07-2019
Belle Chasse RFP Responses to Proposer Questions 02-18-2019
Belle Chasse RFP Responses to Proposer Questions 02-26-2019

Proposer certifies that its Proposal is submitted without reservation, qualification, assumptions, or conditions. Proposer certifies that it has carefully examined and is fully familiar with all of the provisions of all of the RFP; has reviewed the Reference Documents, the Addenda (if any), and the LA DOTD's responses to questions; and is satisfied that the RFP provides sufficient detail regarding the obligations to be performed by Developer and do not contain internal inconsistencies. The Proposer certifies that it has carefully checked all the words, figures, and statements in this Proposal; that it has conducted such other field investigations and additional design development which are prudent and reasonable in preparing this Proposal; and that it has notified the LA DOTD of any deficiencies in or omissions from the RFP or other documents provided by the LA DOTD and of any unusual site conditions observed prior to the date hereof.

Proposer represents that all statements made in the Statement of Qualifications (SOQ) previously delivered to the LA DOTD are true, correct, and accurate as of the date hereof, except as otherwise specified in the enclosed Proposal and Proposal forms. Proposer agrees that such SOQ,

Louisiana Department of Transportation and Development

except as modified by the enclosed Proposal and Proposal forms, is incorporated as if fully set forth herein.

Proposer understands that the LA DOTD is not bound to accept the Proposal offering the highest payment to the LA DOTD, requesting the least public funds, or any Proposal the LA DOTD may receive.

Proposer further understands that all costs and expenses incurred by it in preparing this Proposal and participating in the RFP process will be borne solely by Proposer, except any payment for work product (stipend) that may be paid in accordance with the RFP.

Proposer consents to the LA DOTD's disclosure of its Proposal in accordance with the Louisiana Public Records Law (L.R.S. 48:44.1 *et seq.*) and as set forth in the RFP.

Proposer agrees that the LA DOTD will not be responsible for any errors, omissions, inaccuracies, or incomplete statements in this Proposal.

This Proposal shall be governed by and construed in all respects according to the laws of the State of Louisiana.

Proposer's business address:

100 N. Tampa Street, Suite 2840
(No.) (Street) (Floor or Suite)

Tampa, Florida 33602 USA
(City) (State) (Postal Code) (Country)

State or Country of Incorporation/Formation/Organization: Delaware

1. Plenary Infrastructure Belle Chasse LLC

By: 

Print Name: Mike Schutt

Title: Vice President

STATE OF Florida)
PARISH OF Hillsborough) SS

SUBSCRIBED AND SWORN TO ME ON THIS:

11th DAY OF March
Katrina Baletyne
NOTARY PUBLIC



My Commission Expires: July 10, 2020

ADDITIONAL INFORMATION TO BE PROVIDED WITH PROPOSAL LETTER:

- A) Describe in detail the legal structure of Proposer/Developer and Equity Members. If any entity is not yet formed or if a modification is contemplated prior to award, so state and provide a brief description of the proposed legal structure of each such entity.
- 1) If Proposer/Developer/Equity Member is a corporation or includes a corporation as a joint venture member, partner, or member, provide articles of incorporation and bylaws for Proposer/Developer and each corporation certified by an appropriate individual. If any entity is not yet formed or if a modification to existing articles of incorporation and/or bylaws is contemplated prior to award, so state, indicate that these documents will be provided prior to award, and provide applicable draft documents for each such entity.
 - 2) If Proposer/Developer/Equity Member is a partnership or includes a partnership as a joint venture member, partner, or member, attach full names and addresses of all partners and the equity ownership interest of each entity, provide the incorporation, formation and organizational documentation for Proposer/Developer/Equity Member (partnership agreement and certificate of partnership for a partnership, articles of incorporation and bylaws for a corporation, operating agreement for a limited liability company, and joint venture agreement for a joint venture) certified by an appropriate individual. If any entity is not yet formed or if a modification to the organization documents is contemplated prior to award, so state, indicate that these documents will be provided for such entity prior to award, and provide applicable draft documents for each such entity.
 - 3) If Proposer/Developer/Equity Member is a joint venture or includes a joint venture as a joint venture member, partner, or member, attach full names and addresses of all joint venture members and the equity ownership interest of each entity, provide the incorporation, formation and organizational documentation for Proposer/Developer/Equity Member (partnership agreement and certificate of partnership for a partnership, articles of incorporation and bylaws for a corporation, operating agreement for a limited liability company, and joint venture agreement for a joint venture) certified by an appropriate individual. If any entity is not yet formed or if a modification to the organization documents is contemplated prior to award, so state, indicate that these documents will be provided prior to award, and provide applicable draft documents for each such entity.
 - 4) If Proposer/Developer/Equity Member is a limited liability company or includes a limited liability company as a joint venture member, partner, or member, attach full names and addresses of all members and the equity ownership interest of each entity, provide the incorporation, formation, and organizational documentation for Proposer/Developer/Equity Member (partnership agreement and certificate of partnership for a partnership, articles of incorporation and bylaws for a corporation, operating agreement for a limited liability company, and joint venture agreement for

a joint venture) certified by an appropriate individual. If any entity is not yet formed or if a modification to the organization documents is contemplated prior to award, so state, indicate that these documents will be provided prior to award, and provide applicable draft documents for each such entity.

- B) With respect to authorization of execution and delivery of the Proposal and validity thereof, if Proposer is a corporation, it shall provide evidence in the form of a resolution of its governing body certified by an appropriate officer of the corporation. If Proposer is a partnership, such evidence shall be in the form of a partnership resolution and a general partner resolution (as to each general partner) providing such authorization, in each case, certified by an appropriate officer of the general partner. If Proposer is a limited liability company, such evidence shall be in the form of a limited liability company resolution and a managing member(s) resolution providing such authorization, certified by an appropriate officer of the managing member(s). If there is no managing member, each member shall provide the foregoing information. If Proposer is a joint venture, such evidence shall be in the form of a resolution of each joint venture member, certified by an appropriate officer of such joint venture member. If Proposer is a joint venture or a partnership, the Proposal must be executed by all joint venture members or all general partners, as applicable.
- C) Developer's organizational documents, including an agreement to which all equity owners, either directly or through intermediaries, are a party (partnership agreement, limited liability company operating agreement, and joint venture agreement, as applicable), must include an express provision satisfactory to the LA DOTD, in its discretion, stating that, in the event of a dispute between or among joint venture members, partners, or members, as applicable, no joint venture member, partner, or member, as applicable, shall be entitled to stop, hinder, or delay work on the Project. Proposer shall submit the applicable organizational documents (or draft organizational documents if Developer is not yet formed) and identify on a cover page where in the agreement the provision can be found. If Developer is wholly owned by a single entity but has more than one equity owner through one or more intermediaries, Proposer shall submit organizational documents for Developer, the entity that is directly held by the ultimate equity owners of Developer, and each intermediary. For purposes of this paragraph (C), the term "equity owner" shall mean any entity having a direct or indirect through intermediaries equity interest in Developer of at least 10%.

1. LEGAL

A) FORM OF PROPOSAL

ADDITIONAL INFORMATION TO BE PROVIDED WITH THE PROPOSAL LETTER:

A) LEGAL STRUCTURE OF PROPOSER/DEVELOPER AND EQUITY MEMBERS

Proposer, Plenary Infrastructure Belle Chasse LLC, is an indirect, wholly owned subsidiary of the Equity Member, Plenary Group USA Concessions Ltd.

Plenary Group USA Concessions Ltd., a Nevada corporation, is the sole direct owner of the Delaware corporation Plenary Investments VIII America Ltd., which is the sole direct owner of the Delaware corporation Plenary Infrastructure Belle Chasse HoldCo Ltd., which is the sole Member of the Delaware limited liability company Plenary Infrastructure Belle Chasse, LLC.

**A1. ARTICLES OF INCORPORATION OF THE
MEMBER OF THE PROPOSER ENTITY -
PLENARY INFRASTRUCTURE BELLE CHASSE
HOLDCO LTD.**

The page features three horizontal decorative bars. The top bar is a wide, solid maroon band. Below it is a thinner, solid teal band. The bottom bar is a wide, solid grey band that extends to the bottom of the page.

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF INCORPORATION OF "PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD.", FILED IN THIS OFFICE ON THE ELEVENTH DAY OF MAY, A.D. 2018, AT 12:54 O`CLOCK P.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.




Jeffrey W. Bullock, Secretary of State

6882356 8100
SR# 20183642697

Authentication: 202678488
Date: 05-11-18

You may verify this certificate online at corp.delaware.gov/authver.shtml

**CERTIFICATE OF INCORPORATION
OF
PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD.**

To form a corporation pursuant to the General Corporation Law of the State of Delaware (the "General Corporation Law"), the undersigned hereby certifies as follows:

1. Name. The name of the corporation is Plenary Infrastructure Belle Chasse HoldCo Ltd.
2. Registered Office and Registered Agent. The address of the registered office of the corporation in Delaware is The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, DE 19801, County of New Castle, and the name of its registered agent at that address is The Corporation Trust Company.
3. Purposes. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.
4. Capital Stock. The total number of shares of capital stock that the corporation is authorized to issue is 1,000 shares of common stock having a par value of \$1.00 per share.
5. Bylaws. The board of directors of the corporation is expressly authorized to adopt, amend or repeal bylaws of the corporation.
6. Limitation of Directors' Liability; Indemnification. The personal liability of a director of the corporation to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director shall be eliminated to the fullest extent permitted by law. The corporation is authorized to indemnify (and advance expenses to) its directors and officers to the fullest extent permitted by law. Neither the amendment, modification or repeal of this Article nor the adoption of any provision in this certificate of incorporation inconsistent with this Article shall adversely affect any right or protection of a director or officer of the corporation with respect to any act or omission that occurred prior to the time of such amendment, modification, repeal or adoption.
7. Elections of Directors. Elections of directors need not be by written ballot unless the bylaws of the corporation shall so provide.
8. Incorporator. The name and mailing address of the incorporator are Edward Snider, c/o Plenary Group USA Ltd., 10100 Santa Monica Boulevard, Suite 410, Los Angeles, CA 90067.

9. Initial Board of Directors. The number of Directors of the corporation shall be determined in the manner provided by the Bylaws and may be increased or decreased from time to time in the manner provided therein. The name and address of the initial Directors are:

<u>Name</u>	<u>Address</u>
Brian Budden	333 Bay Street, Suite 4920 Toronto, Ontario M5H 2R2 CANADA
Stuart Marks	10100 Santa Monica Boulevard, Suite 410 Los Angeles, CA 90067

Dated: May 11, 2018



Edward Snider, Incorporator

PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD.

BYLAWS

MAY 11, 2018

Table of Contents

	<u>Page</u>
Preamble	1
Article 1. Stockholders' Meetings.....	1
1.1 Place of Meetings.....	1
1.2 Annual Meeting	1
1.3 Special Meetings.....	1
1.4 Remote Communications.....	1
1.5 Notice of Meetings.....	1
1.6 Quorum	2
1.7 Adjournment of Meetings.....	2
1.8 Voting List	2
1.9 Vote Required	3
1.10 Chairperson; Secretary.....	3
1.11 Rules of Conduct.....	3
1.12 Inspectors of Elections	3
1.13 Record Date	3
1.14 Written Consent	3
Article 2. Directors.....	4
2.1 Number and Qualifications	4
2.2 Term of Office	4
2.3 Resignation	4
2.4 Vacancies	4
2.5 Regular Meetings	4
2.6 Special Meetings.....	4
2.7 Notice.....	4
2.8 Quorum	5
2.9 Vote Required	5
2.10 Chairperson; Secretary.....	5
2.11 Use of Communications Equipment.....	5
2.12 Action Without a Meeting	5
2.13 Compensation of Directors	5
2.14 Committees	5
2.15 Chairperson and Vice Chairperson of the Board	6
Article 3. Officers	6
3.1 Offices Created; Qualifications; Election	6
3.2 Term of Office	6
3.3 Removal of Officers.....	6
3.4 Resignation	6
3.5 Vacancies	6
3.6 Compensation	6

3.7	Powers.....	6
3.8	Chief Executive Officer	7
3.9	President.....	7
3.10	Vice Presidents.....	7
3.11	Chief Financial Officer	7
3.12	Chief Operating Officer	7
3.13	Treasurer	7
3.14	Assistant Treasurers	8
3.15	Controller	8
3.16	Secretary	8
3.17	Assistant Secretaries	8
Article 4. Capital Stock.....		8
4.1	Stock Certificates	8
4.2	Registration; Registered Owners	9
4.3	Stockholder Addresses.....	9
4.4	Transfer of Shares	9
4.5	Lost, Stolen, Destroyed or Mutilated Certificates	9
Article 5. General Provisions		9
5.1	Waiver of Notice.....	9
5.2	Electronic Transmissions.....	10
5.3	Fiscal Year	10
5.4	Voting Stock of Other Organizations	10
5.5	Corporate Seal.....	10
5.6	Amendment of Bylaws	10
Article 6. Indemnification		10
6.1	Indemnification	10
6.2	Advancement of Expenses	10
6.3	Non-Exclusivity	11
6.4	Heirs and Beneficiaries	11
6.5	Effect of Amendment.....	11

**BYLAWS
OF
PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD.**

Adopted by the Board of Directors on May 11, 2018.

Article 1. Stockholders' Meetings

1.1 Place of Meetings. Meetings of the stockholders shall be held at such place, either within or without the State of Delaware, as the board of directors shall determine. Rather than holding a meeting at any place, the board of directors may determine that a meeting shall be held solely by means of remote communications, which means shall meet the requirements of the Delaware General Corporation Law.

1.2 Annual Meeting. The annual meeting of the stockholders for the election of the directors and the transaction of such other business as may properly be brought before the meeting shall be held in January on the day and at the time designated by the board of directors.

1.3 Special Meetings. Special meetings of the stockholders for any purpose or purposes may be called by the board of directors. No other person or persons may call a special meeting. The business to be transacted at any special meeting shall be limited to the purposes stated in the notice.

1.4 Remote Communications. The board of directors may permit the stockholders and their proxy holders to participate in meetings of the stockholders (whether such meetings are held at a designated place or solely by means of remote communication) using one or more methods of remote communication that satisfy the requirements of the Delaware General Corporation Law. The board of directors may adopt such guidelines and procedures applicable to participation in stockholders' meetings by means of remote communication as it deems appropriate. Participation in a stockholders' meeting by means of a method of remote communication permitted by the board of directors shall constitute presence in person at the meeting.

1.5 Notice of Meetings. Notice of the place, if any, date and hour of any stockholders' meeting shall be given to each stockholder entitled to vote. The notice shall state the means of remote communications, if any, by which stockholders and proxy holders may be deemed present in person and vote at the meeting. If the voting list for the meeting is to be made available by means of an electronic network or if the meeting is to be held solely by remote communication, the notice shall include the information required to access the reasonably accessible electronic network on which the corporation will make its voting list available either prior to the meeting or, in the case of a meeting held solely by remote communication, during the meeting. Notice of a special meeting shall also state the purpose or purposes for which the meeting has been called. Unless otherwise provided in the Delaware General Corporation Law, notice shall be given at least 10 days but not more than 60 days before the date of the meeting. Without limiting the manner by which notice may otherwise be given, notice may be given by a form of electronic transmission that satisfies the requirements of the Delaware General

Corporation Law and has been consented to by the stockholder to whom notice is given. If mailed, notice shall be deemed given when deposited in the U.S. mail, postage prepaid, directed to the stockholder's address as it appears in the corporation's records. If given by a form of electronic transmission consented to by the stockholder to whom notice is given, notice shall be deemed given at the times specified with respect to the giving of notice by electronic transmission in the Delaware General Corporation Law. An affidavit of the corporation's secretary, an assistant secretary or an agent of the corporation that notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated in the affidavit.

1.6 Quorum. The presence, in person or by proxy, of the holders of a majority of the voting power of the stock entitled to vote at a meeting shall constitute a quorum. Where a separate vote by a class or series or classes or series of stock is required at a meeting, the presence, in person or by proxy, of the holders of a majority of the voting power of each such class or series shall also be required to constitute a quorum. In the absence of a quorum, either the chairperson of the meeting or the holders of a majority of the voting power of the stock present, in person or by proxy, and entitled to vote at the meeting may adjourn the meeting in the manner provided in Section 1.7 until a quorum shall be present. A quorum, once established at a meeting, shall not be broken by the withdrawal of the holders of enough voting power to leave less than a quorum. If a quorum is present at an original meeting, a quorum need not be present at an adjourned session of that meeting.

1.7 Adjournment of Meetings. Either the chairperson of the meeting or the holders of a majority of the voting power of the stock present, in person or by proxy, and entitled to vote at the meeting may adjourn any meeting of stockholders from time to time. At any adjourned meeting the stockholders may transact any business that they might have transacted at the original meeting. Notice of an adjourned meeting need not be given if the time and place, if any, or the means of remote communications to be used rather than holding the meeting at any place are announced at the meeting so adjourned, except that notice of the adjourned meeting shall be required if the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting.

1.8 Voting List. At least 10 days before every meeting of the stockholders, the secretary of the corporation shall prepare a complete alphabetical list of the stockholders entitled to vote at the meeting showing each stockholder's address and number of shares. This voting list does not need to include electronic mail addresses or other electronic contact information for any stockholder nor need it contain any information with respect to beneficial owners of the shares of stock owned, although it may do so. For a period of at least 10 days before the meeting, the voting list shall be open to the examination of any stockholder for any purpose germane to the meeting either on a reasonably accessible electronic network (*provided that* the information required to gain access to the list is provided with the notice of the meeting) or during ordinary business hours at the corporation's principal place of business. If the list is made available on an electronic network, the corporation may take reasonable steps to ensure that it is available only to stockholders. If the stockholders' meeting is held at a place, the voting list shall be produced and kept at that place during the whole time of the meeting. If the stockholders' meeting is held solely by means of remote communications, the voting list shall be made available for inspection on a reasonably accessible electronic network during the whole time of the meeting. In either case, any stockholder may inspect the voting list at any time during the meeting.

1.9 Vote Required. Subject to the provisions of the Delaware General Corporation Law requiring a higher level of votes to take certain specified actions and to the terms of the corporation's certificate of incorporation that set special voting requirements, the stockholders shall take action on all matters other than the election of directors by a majority of the voting power of the stock present, in person or by proxy, at the meeting and entitled to vote on the matter. The stockholders shall elect directors by a plurality of the voting power of the stock present, in person or by proxy, at the meeting and entitled to vote on the matter.

1.10 Chairperson; Secretary. The following people shall preside over any meeting of the stockholders: the chairperson of the board of directors, if any, or, in the chairperson's absence, the vice chairperson of the board of directors, if any, or in the vice chairperson's absence, the chief executive officer, or, in the absence of all of the foregoing persons, a chairperson designated by the board of directors, or, in the absence of a chairperson designated by the board of directors, a chairperson chosen by the stockholders at the meeting. In the absence of the secretary and any assistant secretary, the chairperson of the meeting may appoint any person to act as secretary of the meeting.

1.11 Rules of Conduct. The board of directors may adopt such rules, regulations and procedures for the conduct of any meeting of the stockholders as it deems appropriate including rules, regulations and procedures regarding participation in the meeting by means of remote communication. Except to the extent inconsistent with any applicable rules, regulations or procedures adopted by the board of directors, the chairperson of any meeting may adopt such rules, regulations and procedures for the meeting, and take such actions with respect to the conduct of the meeting, as the chairperson of the meeting deems appropriate. The rules, regulations and procedures adopted may include, without limitation, ones that (i) establish an agenda or order of business, (ii) are intended to maintain order and safety at the meeting, (iii) restrict entry to the meeting after the time fixed for its commencement and (iv) limit the time allotted to stockholder questions or comments. Unless otherwise determined by the board of directors or the chairperson of the meeting, meetings of the stockholders need not be held in accordance with the rules of parliamentary procedure.

1.12 Inspectors of Elections. The board of directors or the chairperson of a stockholders' meeting may appoint one or more inspectors of election and any substitute inspectors to act at the meeting or any adjournment thereof. Inspectors may be officers, employees or agents of the corporation. Each inspector, before entering on the discharge of the inspector's duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of the inspector's ability. Inspectors shall have the duties prescribed by the Delaware General Corporation Law. At the request of the chairperson of the meeting, the inspector or inspectors shall prepare a written report of the results of the votes taken and of any other question or matter that that inspector or inspectors determined.

1.13 Record Date. If the corporation proposes to take any action for which the Delaware General Corporation Law would permit it to set a record date, the board of directors may set such a record date as provided under the Delaware General Corporation Law.

1.14 Written Consent. Any action required or permitted to be taken at a meeting of the stockholders may be taken without a meeting, without prior notice and without a vote by means

of a stockholder written consent meeting the requirements of the Delaware General Corporation Law. Prompt notice of the taking of action without a meeting by less than a unanimous written consent shall be given to those stockholders who have not consented as required by the Delaware General Corporation Law.

Article 2. Directors

2.1 Number and Qualifications. The board of directors shall consist of such number as may be fixed from time to time by resolution of the board of directors or the stockholders. Directors need not be stockholders.

2.2 Term of Office. Each director shall hold office until his or her successor is elected or until his or her earlier death, resignation or removal.

2.3 Resignation. A director may resign, as a director or as a committee member or both, at any time by giving notice in writing or by electronic transmission to the corporation addressed to the board of directors, the chairperson of the board of directors, the president or the secretary. A resignation will be effective upon its receipt by the corporation unless the resignation specifies that it is to be effective at some later time or upon the occurrence of some specified later event.

2.4 Vacancies. Any vacancy in the board of directors, including a vacancy resulting from an enlargement of the board of directors, may be filled by a vote of the majority of the remaining directors, although less than a quorum, or by a sole remaining director. If the corporation at the time has outstanding any classes or series or class or series of stock that have or has the right, alone or with one or more other classes or series or class or series, to elect one or more directors, then any vacancy in the board of directors caused by the death, resignation or removal of a director so elected shall be filled only by a vote of the majority of the remaining directors so elected, by a sole remaining director so elected or, if no director so elected remains, by the holders of those classes or series or that class or series. A director appointed by the board of directors shall hold office for the remainder of the term of the director he or she is replacing.

2.5 Regular Meetings. The board of directors may hold regular meetings without notice at such times and places as it may from time to time determine, *provided that* notice of any such determination shall be given to any director who is absent when such a determination is made. A regular meeting of the board of directors may be held without notice immediately after and at the same place as the annual meeting of the stockholders.

2.6 Special Meetings. Special meetings of the board of directors may be called by the chairperson of the board of directors, the chief executive officer or by any director. Notice of any special meeting shall be given to each director and shall state the time and place for the special meeting.

2.7 Notice. Any time it is necessary to give notice of a board of directors' meeting, notice shall be given (i) in person or by telephone to the director at least 24 hours in advance of the meeting, (ii) by personally delivering written notice to the director's last known business or home address at least 48 hours in advance of the meeting, (iii) by delivering an electronic transmission (including, without limitation, via telefacsimile or electronic mail) to the director's

last known number or address for receiving electronic transmissions of that type at least 48 hours in advance of the meeting, (iv) by depositing written notice with a reputable delivery service or overnight carrier addressed to the director's last known business or home address for delivery to that address no later than the business day preceding the date of the meeting or (v) by depositing written notice in the U.S. mail, postage prepaid, addressed to the director's last known business or home address no later than the third business day preceding the date of the meeting. Notice of a meeting need not be given to any director who attends a meeting without protesting prior to the meeting or at its commencement to the lack of notice to that director. A notice of meeting need not specify the purposes of the meeting.

2.8 Quorum. A majority of the directors in office at the time shall constitute a quorum. Thereafter, a quorum shall be deemed present for purposes of conducting business and determining the vote required to take action for so long as at least a third of the total number of directors are present. In the absence of a quorum, the directors present may adjourn the meeting without notice until a quorum shall be present, at which point the meeting may be held.

2.9 Vote Required. The board of directors shall act by the vote of a majority of the directors present at a meeting at which a quorum is present.

2.10 Chairperson; Secretary. If the chairperson and the vice chairperson are not present at any meeting of the board of directors, or if no such officers have been elected, then the board of directors shall choose a director who is present at the meeting to preside over it. In the absence of the secretary and any assistant secretary, the chairperson may appoint any person to act as secretary of the meeting.

2.11 Use of Communications Equipment. Directors may participate in meetings of the board of directors or any committee of the board of directors by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other. Participation in a meeting in this manner shall constitute presence in person at the meeting.

2.12 Action Without a Meeting. Any action required or permitted to be taken at any meeting of the board of directors may be taken without a meeting if all of the directors consent to the action in writing or by electronic transmission. The writing or writings or electronic transmission or transmissions shall be filed with the minutes of the proceedings of the board of directors or of the relevant committee.

2.13 Compensation of Directors. The board of directors shall from time to time determine the amount and type of compensation to be paid to directors for their service on the board of directors and its committees.

2.14 Committees. The board of directors may designate one or more committees, each of which shall consist of one or more directors. The board of directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously

appoint another member of the board of directors to act at the meeting in place of any such absent or disqualified member. Any committee shall, to the extent provided in a resolution of the board of directors and subject to the limitations contained in the Delaware General Corporation Law, have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation. Each committee shall keep such records and report to the board of directors in such manner as the board of directors may from time to time determine. Except as the board of directors may otherwise determine, any committee may make rules for the conduct of its business. Unless otherwise provided in a resolution of the board of directors or in rules adopted by the committee, each committee shall conduct its business as nearly as possible in the same manner as is provided in these bylaws for the board of directors.

2.15 Chairperson and Vice Chairperson of the Board. The board of directors may elect from its members a chairperson of the board and a vice chairperson. If a chairperson has been elected and is present, the chairperson shall preside at all meetings of the board of directors and the stockholders. The chairperson shall have such other powers and perform such other duties as the board of directors may designate. If the board of directors elects a vice chairperson, the vice chairperson shall, in the absence or disability of the chairperson, perform the duties and exercise the powers of the chairperson and have such other powers and perform such other duties as the board of directors may designate.

Article 3. Officers

3.1 Offices Created; Qualifications; Election. The corporation shall have a president, a secretary, a treasurer and such other officers, if any, as the board of directors from time to time may appoint. Any officer may be, but need not be, a director or stockholder. The same person may hold any two or more offices. The board of directors may elect officers at any time.

3.2 Term of Office. Each officer shall hold office until his or her successor has been elected, unless a different term is specified in the resolution electing the officer, or until his or her earlier death, resignation or removal.

3.3 Removal of Officers. Any officer may be removed from office at any time, with or without cause, by the board of directors.

3.4 Resignation. An officer may resign at any time by giving notice in writing or by electronic transmission to the corporation addressed to the board of directors, the chairperson of the board of directors, the president or the secretary. A resignation will be effective upon its receipt by the corporation unless the resignation specifies that it is to be effective at some later time or upon the occurrence of some specified later event.

3.5 Vacancies. A vacancy in any office may be filled by the board of directors.

3.6 Compensation. Officers shall receive such amounts and types of compensation for their services as shall be fixed by the board of directors.

3.7 Powers. Unless otherwise specified by the board of directors, each officer shall have those powers and shall perform those duties that are (i) set forth in these bylaws (if any are

so set forth), (ii) set forth in the resolution of the board of directors electing that officer or any subsequent resolution of the board of directors with respect to that officer's duties or (iii) commonly incident to the office held.

3.8 Chief Executive Officer. The chief executive officer, if any, shall, subject to the direction and control of the board of directors, have general control and management of the business, affairs and policies of the corporation and over its officers and shall see that all orders and resolutions of the board of directors are carried into effect. The chief executive officer shall have the power to sign all certificates, contracts and other instruments on behalf of the corporation.

3.9 President. The president shall be subject to the direction and control of the chief executive officer, if any, and the board of directors and shall have general active management of the business, affairs and policies of the corporation. The president shall have the power to sign all certificates, contracts and other instruments on behalf of the corporation. If the board of directors has not elected a chief executive officer, the president shall be the chief executive officer. If the board of directors has elected a chief executive officer and that officer is absent, disqualified from acting, unable to act or refuses to act, then the president shall have the powers of, and shall perform the duties of, the chief executive officer.

3.10 Vice Presidents. The vice presidents, if any, shall be subject to the direction and control of the board of directors, the chief executive officer and the president and shall have such powers and duties as the board of directors, the chief executive officer or the president may assign to them. If the board of directors elects more than one vice president, then it shall determine their respective titles, seniority and duties. If the president is absent, disqualified from acting, unable to act or refuses to act, the most senior in rank of the vice presidents (as determined by the board of directors) shall have the powers of, and shall perform the duties of, the president.

3.11 Chief Financial Officer. The chief financial officer, if any, shall be subject to the direction and control of the board of directors and the chief executive officer, shall have primary responsibility for the financial affairs of the corporation and shall perform such other duties as the chief executive officer may assign.

3.12 Chief Operating Officer. The chief operating officer, if any, shall be subject to the direction and control of the board of directors and the chief executive officer, shall have primary responsibility for the management and supervision of the day-to-day operations of the corporation and shall perform such other duties as the chief executive officer may assign.

3.13 Treasurer. The treasurer shall have charge and custody of and be responsible for all funds, securities and valuable papers of the corporation. The treasurer shall deposit all funds in the depositories or invest them in the investments designated or approved by the board of directors or any officer or officers authorized by the board of directors to make such determinations. The treasurer shall disburse funds under the direction of the board of directors or any officer or officers authorized by the board of directors to make such determinations. The treasurer shall keep full and accurate accounts of all funds received and paid on account of the corporation and shall render a statement of these accounts whenever the board of directors or the

chief executive officer shall so request. If the board of directors has not elected a chief financial officer, the treasurer shall be the chief financial officer. If the board of directors has not elected a controller, the treasurer shall be the controller.

3.14 Assistant Treasurers. The assistant treasurers, if any, shall have such powers and duties as the board of directors, the chief executive officer, the president or the treasurer may assign to them. If the board of directors elects more than one assistant treasurers, then it shall determine their respective titles, seniority and duties. If the treasurer is absent, disqualified from acting, unable to act or refuses to act, the most senior in rank of the assistant treasurers (as determined by the board of directors) shall have the powers of, and shall perform the duties of, the treasurer.

3.15 Controller. The controller, if any, shall be the chief accounting officer of the corporation and shall be in charge of its books of account, accounting records and accounting procedures.

3.16 Secretary. The secretary shall, to the extent practicable, attend all meetings of the stockholders and the board of directors. The secretary shall record the proceedings of the stockholders and the board of directors, including all actions by written consent, in a book or series of books to be kept for that purpose. The secretary shall perform like duties for any committee of the board of directors if the committee so requests. The secretary shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the board of directors. Unless the corporation has appointed a transfer agent, the secretary shall keep or cause to be kept the stock and transfer records of the corporation. The secretary shall have such other powers and duties as the board of directors, the chief executive officer or the president may determine.

3.17 Assistant Secretaries. The assistant secretaries, if any, shall have such powers and duties as the board of directors, the chief executive officer, the president or the secretary may assign to them. If the board of directors elects more than one assistant secretary, then it shall determine their respective titles, seniority and duties. If the secretary is absent, disqualified from acting, unable to act or refuses to act, the most senior in rank of the assistant secretaries (as determined by the board of directors) shall have the powers of, and shall perform the duties of, the secretary.

Article 4. Capital Stock

4.1 Stock Certificates. The corporation's shares of stock shall be represented by certificates, *provided that* the board of directors may, subject to the limits imposed by law, provide by resolution or resolutions that some or all of any or all classes or series shall be uncertificated shares. Notwithstanding the adoption of such a resolution, every holder of shares of stock represented by certificates and every holder of uncertificated shares, upon request, shall be entitled to have a certificate representing such shares in such form as shall be approved by the board of directors. Stock certificates shall be numbered in the order of their issue and shall be signed by or in the name of the corporation by (i) the chairperson or vice chairperson, if any, of the board of directors, the chief executive officer, president or a vice president *and* (ii) the chief financial officer, treasurer, an assistant treasurer, the secretary or an assistant secretary. Any or

all of the signatures on a certificate may be a facsimile. In case any officer, transfer agent or registrar who signed or whose facsimile signature has been placed upon a certificate shall have ceased to be an officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. Each certificate that is subject to any restriction on transfer shall have conspicuously noted on its face or back either the full text of the restriction or a statement of the existence of the restriction. Each certificate shall have on its face or back a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences or rights.

4.2 Registration; Registered Owners. The name of each person owning a share of the corporation's capital stock shall be entered on the books of the corporation together with the number of shares owned, the number or numbers of the certificate or certificates covering such shares and the dates of issue of each certificate. The corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes regardless of any transfer, pledge or other disposition of such stock until the shares have been properly transferred on the books of the corporation.

4.3 Stockholder Addresses. It shall be the duty of each stockholder to notify the corporation of the stockholder's address.

4.4 Transfer of Shares. Registration of transfer of shares of the corporation's stock shall be made only on the books of the corporation at the request of the registered holder or of the registered holder's duly authorized attorney (as evidenced by a duly executed power of attorney provided to the corporation) and upon surrender of the certificate or certificates representing those shares properly endorsed or accompanied by a duly executed stock power. The board of directors may make further rules and regulations concerning the transfer and registration of shares of stock and the certificates representing them and may appoint a transfer agent or registrar or both and may require all stock certificates to bear the signature of either or both.

4.5 Lost, Stolen, Destroyed or Mutilated Certificates. The corporation may issue a new stock certificate of stock in the place of any certificate theretofore issued by it alleged to have been lost, stolen, destroyed or mutilated. The board of directors may require the owner of the allegedly lost, stolen or destroyed certificate, or the owner's legal representatives, to give the corporation such bond or such surety or sureties as the board of directors, in its sole discretion, deems sufficient to indemnify the corporation against any claim that may be made against it on account of the alleged loss, theft or destruction or the issuance of such new certificate and, in the case of a certificate alleged to have been mutilated, to surrender the mutilated certificate.

Article 5. General Provisions

5.1 Waiver of Notice. Any stockholder or director may execute a written waiver or give a waiver by electronic transmission of notice of the meeting, either before or after such meeting. Any such waiver shall be filed with the records of the corporation. If any stockholder

or director shall be present at any meeting it shall constitute a waiver of notice of the meeting, except when that stockholder or director attends for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting is not lawfully called or convened. A waiver of notice of meeting need not specify the purposes of the meeting.

5.2 Electronic Transmissions. For purposes of these bylaws, “*electronic transmission*” shall mean a form of communication not directly involving the physical transmission of paper that satisfies the requirements with respect to such communications contained in the Delaware General Corporation Law.

5.3 Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the board of directors.

5.4 Voting Stock of Other Organizations. Except as the board of directors may otherwise designate, each of the chief executive officer and the treasurer may waive notice of, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for the corporation (with power of substitution) at any meeting of the stockholders, members or other owners of any other corporation or organization the securities or ownership interests of which are owned by the corporation.

5.5 Corporate Seal. The Corporation shall have no seal.

5.6 Amendment of Bylaws. These bylaws, including any bylaws adopted or amended by the stockholders, may be amended or repealed by the board of directors.

Article 6. Indemnification

6.1 Indemnification. The corporation shall, to the fullest extent permitted by law, indemnify every person who is or was a party or is or was threatened to be made a party to any action, suit or proceeding, whether civil, criminal, administrative or investigative (an “*Action*”), by reason of the fact that such person is or was a director or officer of the corporation or is or was serving at the request of the corporation as a director, officer, trustee, plan administrator or plan fiduciary of another corporation, partnership, limited liability company, trust, employee benefit plan or other enterprise (an “*Indemnified Person*”), against all expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement or other disposition that the Indemnified Person actually and reasonably incurs in connection with the Action and shall reimburse each such person for all legal fees and expenses reasonably incurred by such person in seeking to enforce its rights to indemnification under this Article (by means of legal action or otherwise).

6.2 Advancement of Expenses. Upon written request from an Indemnified Person, the corporation shall pay the expenses (including attorneys’ fees) incurred by such Indemnified Person in connection with any Action in advance of the final disposition of such Action. The corporation’s obligation to pay expenses pursuant to this Section shall be contingent upon the Indemnified Person providing the undertaking required by the Delaware General Corporation Law.

6.3 Non-Exclusivity. The rights of indemnification and advancement of expenses contained in this Article shall not be exclusive of any other rights to indemnification or similar protection to which any Indemnified Person may be entitled under any agreement, vote of stockholders or disinterested directors, insurance policy or otherwise.

6.4 Heirs and Beneficiaries. The rights created by this Article shall inure to the benefit of each Indemnified Person and each heir, executor and administrator of such Indemnified Person.

6.5 Effect of Amendment. Neither the amendment, modification or repeal of this Article nor the adoption of any provision in these bylaws inconsistent with this Article shall adversely affect any right or protection of an Indemnified Person with respect to any act or omission that occurred prior to the time of such amendment, modification, repeal or adoption.

PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD.

**CONSENT IN LIEU OF ORGANIZATION MEETING
OF
BOARD OF DIRECTORS**

The undersigned, being all of the Directors of Plenary Infrastructure Belle Chasse HoldCo Ltd., a Delaware corporation (the “*Company*”), by this instrument in lieu of the organization meeting of the Board of Directors of the Company, hereby consent to the adoption of the following resolutions, which resolutions will be deemed adopted when all of the Directors have signed this Consent:

1. **Bylaws**

RESOLVED, that the bylaws entitled “Bylaws of Plenary Infrastructure Belle Chasse HoldCo Ltd.” are hereby adopted as the Company’s bylaws, and the Secretary is instructed to file the bylaws in the Company’s minute book.

2. **Composition of Board of Directors**

RESOLVED, that the Board of Directors shall consist of two (2) Directors.

3. **Election of Officers**

RESOLVED, that the following persons are elected to serve as officers of the Company, in the office or offices set forth opposite their respective names, until the next annual meeting of directors of the Company and until their respective successors are elected and qualified:

<u>Name</u>	<u>Office</u>
Brian Budden	President
Stuart Marks	Vice President
Nigel Kirkwood	Vice President
Tina Chen	Secretary

4. **Fiscal Year**

RESOLVED, that the fiscal year end of the Company shall be December 31st.

5. **Acceptance of Stock Subscription**

RESOLVED, that the Company accepts the offer of the following named entity to purchase, for the cash consideration specified, the number of common shares of the Company set forth opposite its respective name:

<u>Purchaser</u>	<u>Number of Shares</u>	<u>Consideration</u>
Plenary Investments America VIII Ltd.	100	\$100.00

RESOLVED FURTHER, that upon receipt of the specified consideration from the foregoing purchaser and execution of such form of stock subscription agreement, if any, as the appropriate officers of the Company shall require, the appropriate officers of the Company are authorized and directed to sign and deliver to such purchaser a certificate or certificates representing the specified number of common shares, and such shares are declared to be duly authorized, validly issued, fully paid and nonassessable.

6. **Banking**

RESOLVED, that the Company shall establish one or more accounts for the deposit and withdrawal of the Company's funds with such financial institutions as any officer of the Company may from time to time determine.

FURTHER RESOLVED, that the Secretary is instructed to file in the Company's minute book the appropriate forms of resolutions required by such financial institutions to evidence the authority conferred by the foregoing resolution, and all such resolutions shall be deemed to be approved and adopted hereby and incorporated by reference herein.

7. **General Authority**

RESOLVED, that any and all actions taken by the officers of the Company as deemed by such officers to be necessary or advisable to effectuate the transactions contemplated by the foregoing resolutions, whether prior to or subsequent to this action by this Board of Directors, are hereby authorized, approved and ratified, and the taking of any and all such actions and the performance of any and all such things in connection with the foregoing shall conclusively establish such officers' authority therefore from the Company and the approval and ratification thereof by this Board of Directors.



Brian Budden

Dated: May 11, 2018



Stuart Marks

Dated: May 11, 2018

**A.4 ORGANIZATIONAL AND OWNERSHIP
INFORMATION FOR PROPOSER -
PLENARY INFRASTRUCTURE BELLE CHASSE LLC**



PLENARY INFRASTRUCTURE BELLE CHASSE LLC

LIMITED LIABILITY COMPANY AGREEMENT

MAY 11, 2018

Table of Contents

Article 1 General	1
1.1 Certificate of Formation and Limited Liability Company Agreement	1
1.2 Name	1
1.3 Principal Place of Business	1
1.4 Name and Address of the Sole Member	2
1.5 Term of Existence	2
1.6 Duties of the Member	2
1.7 Duties of Managers	2
1.8 Liabilities of Managers	2
Article 2 Definitions	2
Article 3 Purpose and Character of the Business	3
Article 4 Member	4
Article 5 New Members; Units; Certificates	4
5.1 Admission of New Members	4
5.2 UCC Article 8; Legends.....	4
Article 6 Management and Operation of Company Business	5
6.1 Board of Managers.....	5
6.2 Number, Qualification; Term of Office; Vote	5
6.3 Initial Board	6
6.4 Place of Meetings.....	6
6.5 Regular Meetings	6
6.6 Special Meetings.....	6
6.7 Adjournments.....	6
6.8 Notice of Meetings.....	6
6.9 Quorum	6
6.10 Absent Managers	6
6.11 Conference Communications.....	7
6.12 Removal	7
6.13 Acts of Managers	7
6.14 Written Action	7
6.15 Proxies.....	7
6.16 Committees	7
6.17 Compensation	7
Article 7 Officers	8
7.1 Officers	8
7.2 Election, Term of Office and Qualifications.....	8
7.3 Removal and Vacancies.....	8
7.4 Duties	8
7.5 Compensation	8

Article 8 Indemnification	8
8.1 Indemnification	8
8.2 Indemnification Procedures; Survival.....	10
Article 9 Transfers	10
Article 10 Books of Account; Reports and Fiscal Matters	11
10.1 Books and Records	11
10.2 Company Funds	11
Article 11 Capital	11
11.1 Capital Contributions; Units	11
11.2 Loans to the Company	11
11.3 Creditor’s Interest in the Company.....	11
Article 12 Liability; Tax Status	11
12.1 Liability of the Member	11
12.2 Tax Status.....	11
Article 13 Allocation of Income, Gains and Losses; Distributions.....	12
Article 14 Dissolution and Liquidation	12
14.1 Events of Dissolution.....	12
14.2 Liquidation and Winding Up	12
Article 15 Amendment.....	12
Article 16 Approval of Reorganizations and Bankruptcy.....	13
Article 17 Miscellaneous Provisions	13
17.1 Pronouns	13
17.2 Headings	13
17.3 Governing Law	13
17.4 Third Party Benefit	13
EXHIBIT 1	15
EXHIBIT 2	16
SCHEDULE A.....	18

**LIMITED LIABILITY COMPANY AGREEMENT
OF
PLENARY INFRASTRUCTURE BELLE CHASSE LLC**

This **LIMITED LIABILITY COMPANY AGREEMENT** is made and entered into as of this 11th day of May, 2018 by Plenary Infrastructure Belle Chasse HoldCo Ltd., a corporation formed under the laws of Delaware (the “Member”).

WHEREAS, the Delaware Limited Liability Company Act, as amended (the “Act”), permits the formation of a limited liability company with a single member; and

WHEREAS, the undersigned has caused the formation of Plenary Infrastructure Belle Chasse LLC, a Delaware limited liability company (the “Company”), of which the undersigned constitutes the sole member;

NOW, THEREFORE, the undersigned hereby adopts the following Articles, which shall constitute the “limited liability company agreement” of the Company within the meaning of Section 18-101(7) of the Act.

**Article 1
General**

1.1 Certificate of Formation and Limited Liability Company Agreement. The sole Member hereby adopts, approves and ratifies the execution and filing in the office of the Secretary of State of the State of Delaware of the certificate of formation of the Company by Edward Snider, an individual resident of the State of California, on May 11, 2018 (the “*Certificate of Formation*”) in the form attached hereto as Exhibit 1 and acknowledges, approves and ratifies her designation as an “authorized person” of the Company in the Certificate of Formation as contemplated by Section 18-201(a) of the Act. This Agreement shall be effective as of the date of filing of the Certificate of Formation in the office of the Secretary of State, and the Act shall govern the rights, duties and obligations of the Member, except as otherwise expressly stated herein.

1.2 Name. The name of the Company shall be and the business shall be conducted under the name of “Plenary Infrastructure Belle Chasse LLC” or under such other name or names as the Member may determine. The Member is authorized to execute and deliver or file such documents and to take such actions as it may consider advisable to permit the Company to use and to ensure the Company’s right to use such name or names.

1.3 Principal Place of Business. The location of the principal place of business of the Company shall be such place as the Member may from time to time determine (the “*Principal Office*”). The Company may maintain offices and places of business at such other place or places within or outside the State of Delaware as the Member deems advisable. The Member is authorized and directed to execute and deliver or file such documents and to take such actions as it may consider advisable to permit the Company to conduct its business in such states.

1.4 Name and Address of the Sole Member. The name and address of the Member are as set forth in Schedule A.

1.5 Term of Existence. The Company shall be formed as of the time of the filing of the Certificate of Formation in the Office of the Secretary of State of Delaware and its existence shall be perpetual, unless earlier terminated, dissolved or liquidated in accordance with the provisions of this Agreement.

1.6 Duties of the Member. The only duties of the Member to the Company shall be those established in this Agreement, and there shall be no other express or implied duties of the Member to the Company.

1.7 Duties of Managers. Each Manager shall owe duties of care and loyalty to the Company and the Member.

1.8 Liabilities of Managers. No Manager shall be personally liable to the Company or the Member for monetary damages for breach of fiduciary duty as a Manager except:

- (a) for any breach of the Manager's duty of loyalty to the Company or the Member,
- (b) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, or
- (c) for any transaction from which the Manager derived an improper personal benefit.

No amendment to or repeal of this Section 1.8 shall apply to or have any effect on the liability or alleged liability of any Manager for or with respect to any acts or omissions of such Manager that occurred before such amendment or repeal.

Article 2 **Definitions**

Unless the context otherwise specifies or requires, the terms defined in this Article 2 shall, for the purposes of this Agreement, have the meanings herein specified. Certain other capitalized terms used herein are defined elsewhere in the Agreement.

“*Act*” means the Delaware Limited Liability Company Act, as amended from time to time.

“*Agreement*” means this Limited Liability Company Agreement, as it may be amended or supplemented from time to time.

“*Board of Managers*” means the Board of Managers of the Company established pursuant to Article 6.

“*Capital Contribution*” means the amount of money or the fair market value of any property contributed to the Company by the Member pursuant to Section 11.1.

“*Code*” means the Internal Revenue Code of 1986, as amended, and the Treasury Regulations promulgated thereunder. All references in this Agreement to a section of the Code or the Treasury Regulations shall be considered to include any subsequent amendment or replacement of that section.

“*Company*” means Plenary Infrastructure Belle Chasse LLC, the Delaware limited liability company formed pursuant to the filing of the Certificate of Formation in Delaware and the terms of this Agreement.

“*Company Assets*” means all assets and property, whether tangible or intangible and whether real, personal or mixed, at any time owned by the Company.

“*Manager*” or “*Managers*” means the Person or Persons appointed to the Board of Managers pursuant to Section 6.2.

“*Member*” means Plenary Infrastructure Belle Chasse HoldCo Ltd., a corporation organized under the laws of Delaware.

“*Person*” means any natural person, corporation, limited liability company, association, partnership (whether general or limited), joint venture, proprietorship, governmental agency, trust, estate, association, custodian, nominee or any other individual or entity, whether acting in an individual, fiduciary, representative or other capacity.

“*Principal Office*” is defined in Section 1.3.

“*Treasury Regulations*” or “*Treas. Reg.*” refers to the regulations promulgated by the United States Treasury Department under the Code. Any reference in this Agreement to a Section of the Treasury Regulations shall be considered also to include any subsequent amendment or replacement of that Section.

“*Units*” means the interest of the Member in the Company, which Units represent the ownership interest of the Member in the Company.

Article 3 Purpose and Character of the Business

The purpose and character of the business of the Company shall be to undertake and carry on any lawful business, purpose, or activity permitted under the Act and approved by the Board of Managers.

Article 4
Member

Plenary Infrastructure Belle Chasse HoldCo Ltd., a corporation organized under the laws of Delaware, shall be the sole member of the Company and shall have all of the rights, powers and privileges of a member under the Act.

Article 5
New Members; Units; Certificates

5.1 Admission of New Members. Additional members may be admitted to the Company as the Member may determine.

5.2 UCC Article 8; Legends. The Company hereby irrevocably elects that all Units shall be “securities” within the meaning of Section 8-102(a)(15) and as provided by Section 8-103(c) of the Uniform Commercial Code as in effect in the State of Delaware and analogous provisions under Article 8 of the Uniform Commercial Code in effect in any other applicable jurisdictions. Certificates representing the Units of membership interest shall be issued by the Company substantially in the form of **Exhibit 2** hereto and each certificate evidencing Units shall bear the following legends in addition to any other legends that may be applicable:

THIS CERTIFICATE EVIDENCES UNITS OF MEMBERSHIP INTEREST IN PLENARY INFRASTRUCTURE BELLE CHASSE LLC THAT SHALL BE SECURITIES FOR PURPOSES OF, AND GOVERNED BY, ARTICLE 8 OF THE UNIFORM COMMERCIAL CODE AS IN EFFECT IN THE STATE OF DELAWARE AND ANY OTHER APPLICABLE JURISDICTIONS.

THE UNITS OF MEMBERSHIP INTEREST REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON THEIR TRANSFER AND ALL OF THE OTHER TERMS AND CONDITIONS SET FORTH IN THE LIMITED LIABILITY COMPANY AGREEMENT DATED MAY 11, 2018, AS AMENDED, BY AND BETWEEN THE MEMBER AND THE COMPANY.

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD OR OFFERED FOR SALE EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER SUCH ACT AND ANY APPLICABLE STATE SECURITIES LAWS OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

Article 6
Management and Operation of Company Business

6.1 Board of Managers. The business and affairs of the Company shall be managed by or under the authority of the Board of Managers, except as otherwise required by the Act or this Agreement. In addition to such powers and authorities as may be provided by law or elsewhere in this Agreement, the Managers, for and on behalf of the Company, shall have full power and authority, at the expense of the Company (by direct payment or reimbursement):

(a) to make, renew, amend, and cancel leases and other occupancy, use, easement, and license agreements as to all or any part of the Company property for such price or consideration, and on such terms, covenants, and conditions as they deem advisable;

(b) to sell, exchange, assign, transfer, or convey and otherwise dispose of or deal with all or any part of the Company property for such price or consideration as they deem advisable;

(c) to borrow money and to mortgage or otherwise hypothecate all or any part of the Company property, both real and personal; to prepay, in whole or in part, or refinance, recast, increase, modify, renew or extend any such mortgage or secured loan; to agree to repay any loan over a term extending longer than the stated term or extended term of the Company; to execute mortgage notes, mortgages, collateral assignments of rents and leases, tax and insurance escrow agreements, and do all such other things in such form and manner as may be required by any lender; to assign and convey Company property to a nominee for the purpose of mortgage financing and to reacquire the Company property from such nominee;

(d) to build upon, remodel, add on, demolish, rebuild and otherwise alter or improve any Company property and any structures and improvements thereon;

(e) to purchase, lease, or otherwise acquire the ownership or possession of real property, whether improved or unimproved;

(f) to employ from time to time persons, firms, or corporations for the operation and management of the Company business or property; and

(g) to do all other things and acts, though not expressly authorized, as may be reasonably necessary, advisable, or incidental to effectuate any of the foregoing, and to make, execute, and deliver such instruments and documents as may be necessary, advisable, or incidental to carry out the foregoing.

6.2 Number, Qualification; Term of Office; Vote. The number of members of the initial Board of Managers shall be Two (2) (the “*Managers*”). The Managers (each, a “*Manager*”) shall be appointed from time to time by the Member. A Manager shall hold office until such Manager’s successor shall have been appointed, or until the earlier death, resignation, removal or disqualification of such Manager. The Member may increase the number of Managers at any time or from time to time. At any time at which there is more than one

Manager, each Manager shall have one vote in all matters to come before the Board of Managers. The provisions of Section 6.4 through Section 6.11 apply (i) when more than one Manager is serving and (ii) with respect to any committee established by the Board of Managers.

6.3 Initial Board. The initial Board of Managers shall consist of the following individuals:

Brian Budden
Stuart Marks

6.4 Place of Meetings. Meetings of the Board of Managers shall be held at the Principal Office or at such other place as may be agreed by the Managers from time to time.

6.5 Regular Meetings. Regular meetings of the Board of Managers shall be held on a quarterly or other less frequent periodic basis as may be determined by the Managers.

6.6 Special Meetings. A special meeting of the Board of Managers may be called for any purpose or purposes at any time by the Chair or any Manager upon 10 business days' prior notice, unless such notice requirement is waived by all Managers.

6.7 Adjournments. Any meeting of the Board of Managers may be adjourned from time to time to another date, time and place. If any meeting of the Board of Managers is so adjourned, no notice as to such adjourned meeting need be given if the date, time and place at which the meeting will be reconvened are announced at the time of adjournment.

6.8 Notice of Meetings. Unless otherwise required by law, written notice of each meeting of the Board of Managers, stating the date, time and place and, in the case of a special meeting, the purpose or purposes, shall be given at least five days and not more than 90 days prior to the meeting to every member of the Board of Managers. A member of the Board of Managers may waive notice of the date, time, place and purpose or purposes of a meeting of the Board of Managers. A waiver of notice is effective whether given before, at or after the meeting, and whether given in writing, orally or by attendance. Attendance by a Manager at a meeting is a waiver of notice of that meeting, unless the Manager objects at the beginning of the meeting to the transaction of business because the meeting is not lawfully called or convened, or objects before a vote on an item of business because the item may not lawfully be considered at that meeting and does not participate in the consideration of the item at that meeting.

6.9 Quorum. A majority of the members of the Board of Managers constitute a quorum for the transaction of business at each meeting of the Board of Managers.

6.10 Absent Managers. A member of the Board of Managers may give advance written consent or opposition to a proposal to be acted on at a meeting of the Board of Managers. If such member is not present at the meeting, such consent or opposition to a proposal does not constitute presence for purposes of determining the existence of a quorum, but such consent or opposition shall be counted as a vote in favor of or against the proposal and shall be entered in the minutes or other record of action at the meeting, if the proposal acted on at the meeting is substantially the same or has substantially the same effect as the proposal to which the member has consented or objected.

6.11 Conference Communications. Any or all of the Managers may participate in any meeting of the Board of Managers, or of any duly constituted committee thereof, by any means of communication through which the participating Managers may simultaneously hear each other during such meeting. For the purposes of establishing a quorum and taking any action at the meeting, Managers participating pursuant to this Section 6.11 shall be deemed present in person at the meeting; and the place of the meeting shall be the place of origination of the conference telephone conversation or other comparable communication technique.

6.12 Removal. Any Manager may be removed from office at any time, with or without cause, by the action of the Member.

6.13 Acts of Managers. Except as otherwise provided herein, the Board of Managers shall take action by the affirmative vote of those Managers who have the power to vote more than 75% of all votes held by the Managers, and any such act shall be deemed to be the action of the Board of Managers for all purposes of this Agreement and the Act.

6.14 Written Action. Any action which might be taken at a meeting of the Board of Managers, or any duly constituted committee thereof, may be taken without a meeting if done in writing and signed by a number of Managers, or committee members, whose approval would be sufficient to approve the action at a meeting at which all of the Managers (or such committee) were present.

6.15 Proxies. A Manager may cast or authorize the casting of a vote by filing a written appointment of proxy with the Chair at or before the meeting at which the appointment is to be effective. Any copy of the original of such appointment may be filed in lieu of the original if it is a complete and legible reproduction of the entire original and the filing may be made by any means of transmission so long as the transmission contains information sufficient to determine that the Manager authorized such transmission.

6.16 Committees.

(a) A resolution approved by the Board of Managers may establish committees having the authority of the Board of Managers in the management of the business of the Company to the extent provided in the resolution. A committee shall consist of one or more Persons, who need not be members of the Board of Managers. Committees are subject to the direction and control of, and vacancies in the membership thereof shall be filled by, the Board of Managers.

(b) A majority of the members of a committee present at a meeting is a quorum for the transaction of business, unless a larger or smaller proportion or number is provided in the resolution of the Board of Managers creating the committee.

6.17 Compensation. Managers shall not be compensated by the Company for serving in such capacity. The Company shall bear the expenses, if any, incurred by each Manager's attendance at meetings of the Board of Managers and shall reimburse Managers for reasonable out-of-pocket expenses incurred in the course of providing services for the Company.

Article 7 Officers

7.1 Officers. The officers of the Company, all of whom shall be natural persons, shall consist of such officers and agents as the Board of Managers may designate from time to time by a written designation filed with the records of the Company. Persons designated to act as officers of the Company may have such titles as the Board of Managers deems appropriate, including Chair, President, Vice President, Treasurer, and Secretary. Any person appointed as an officer of the Company with a title customarily held by an officer of a corporation shall have the same power and authority to act on behalf of the Company as an officer holding the same title would customarily have in a corporation organized under the laws of Delaware. Any person may hold two or more offices.

7.2 Election, Term of Office and Qualifications. The Board of Managers shall elect all officers at such time as it deems appropriate. Such officers shall hold office until their successors are elected and qualified, or until such office is eliminated by a vote of the majority of all Managers. An officer who is a Manager shall hold office until the election and qualification of his or her successor even though he or she may cease to be a Manager.

7.3 Removal and Vacancies. Any officer may be removed from his or her office with or without cause by the Managers. Such removal shall be without prejudice to the contract rights of the person so removed. A vacancy among the officers by death, resignation, removal or otherwise shall be filled for the unexpired term by the Board of Managers, unless such office is eliminated.

7.4 Duties. Unless otherwise directed by the Board of Managers, an officer holding a title customarily held by an officer of a corporation shall have the same duties and responsibilities as an officer holding the same title would customarily have in a corporation organized under the laws of Delaware. The duties of such other officers and agents as the Board of Managers may designate shall be set forth in the resolution creating such office or agency or by subsequent resolution.

7.5 Compensation. The officers, agents and employees of the Company shall receive such compensation for their services as may be determined from time to time by the Board of Managers or as shall be set forth in a written agreement.

Article 8 Indemnification

8.1 Indemnification.

(a) To the fullest extent permitted by law, each Manager and Named Officer and their respective Affiliates, directors, officers, employees, members, managers, partners, shareholders, assigns, representatives and agents (individually, an “*Indemnitee*”) shall be indemnified, held harmless and defended by the Company from and against any and all losses, claims, damages, liabilities, whether joint or several, expenses (including legal fees and expenses), judgments, fines and other amounts paid in settlement, incurred or suffered by such Indemnitee, as a party or otherwise, in connection with any threatened, pending or completed claim, demand, action, suit

or proceeding, whether civil, criminal, administrative or investigative, and whether formal or informal, arising out of or in connection with the business or the operation of the Company and by reason of the Indemnitee's status as a Manager or Named Officer regardless of whether the Indemnitee continues to be a Manager or Named Officer of the Company at the time any such loss, claim, damage, liability or other expense is paid or incurred if

(i) the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in the best interests of the Company and, with respect to any criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful;

(ii) the Indemnitee's conduct did not constitute intentional misconduct or a material breach of the terms of this Agreement; and

(iii) the Indemnitee's conduct did not involve a transaction from which the Manager or Named Officer derived an improper personal benefit.

The termination of any action, suit or proceeding by judgment, order, settlement or upon a plea of nolo contendere, or its equivalent, shall not, of itself, create a presumption that the Indemnitee acted in a manner contrary to the standards specified in clauses (i), (ii) or (iii) of this Section 8.1(a). To the fullest extent permitted by law, expenses incurred by an Indemnitee in defending any claim, demand, action, suit or proceeding subject to this Section 8.1 shall, from time to time, be advanced by the Company prior to the final disposition of such claim, demand, action, suit or proceeding upon receipt by the Company of an undertaking by or on behalf of the Indemnitee to repay such amount unless it is determined that such Indemnitee is entitled to be indemnified therefor pursuant to this Section 8.1.

(b) The indemnification provided by this Section 8.1 shall be in addition to any other rights to which any Indemnitee may be entitled under any other agreement, pursuant to any vote of the Managers, as a matter of law or otherwise, and shall inure to the benefit of the heirs, legal representatives, successors, assigns and administrators of the Indemnitees.

(c) Any indemnification under this Section 8.1 shall be satisfied solely out of the assets of the Company and no Indemnitee shall have any recourse against the Member with respect to such indemnification.

(d) An Indemnitee shall not be denied indemnification in whole or in part under this Section 8.1 merely because the Indemnitee had an interest in the transaction with respect to which the indemnification applies, if the transaction was not otherwise prohibited by the terms of this Agreement and the conduct of the Indemnitee satisfied the conditions set forth in Section 8.1(a).

(e) The Company may, but shall have no obligation to, purchase and maintain insurance covering any potential liability of the Indemnitees for any actions or omissions for which indemnification is permitted hereunder, including such types of insurance (including extended coverage liability and casualty and workers' compensation) as would be customary for any person engaged in a similar business, and may name the Indemnitees as additional insured parties thereunder.

8.2 Indemnification Procedures; Survival.

(a) Promptly after receipt by an Indemnitee of notice of the commencement of any action that may result in a claim for indemnification pursuant to Section 8.1, the Indemnitee shall notify the Company in writing within 30 days thereafter; provided, however, that any omission so to notify the Company will not relieve it of any liability for indemnification hereunder as to the particular item for which indemnification may then be sought (except to the extent that the failure to give notice shall have been materially prejudicial to the Company) nor from any other liability that it may have to any Indemnitee.

(b) An Indemnitee shall have the right to employ separate counsel in any action as to which indemnification may be sought under any provision of this Agreement and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of such Indemnitee unless (i) the Company has agreed in writing to pay such fees and expenses, (ii) the Company has failed to assume the defense thereof and employ counsel within a reasonable period of time after being given the notice required above or (iii) the Indemnitee has been advised by its counsel that representation of such Indemnitee and other parties by the same counsel would be inappropriate under applicable standards of professional conduct (whether or not such representation by the same counsel has been proposed) due to actual or potential differing interests between them. It is understood, however, that the Company shall, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of only one separate firm of attorneys at any time for all such Indemnitees having actual or potential differing interests with the Company, unless but only to the extent, the Indemnitees have actual or potential differing interests with each other.

(c) The Company shall not be liable for any settlement of any such action effected without its written consent, but if settled with such written consent, or if there is a final judgment against the Indemnitee in any such action, the Company agrees to indemnify and hold harmless the Indemnitee to the extent provided above from and against any loss, claim, damage, liability or expense by reason of such settlement or judgment.

(d) Any amendment or repeal of this Article 8 shall not adversely affect any right or protection of an Indemnitee who was serving at the time of such amendment or repeal, and such rights and protections shall survive such amendment or repeal with respect to events that occurred before such amendment or repeal.

(e) The indemnification obligations set forth in this Article 8 shall survive the termination of this Agreement.

Article 9 Transfers

The Member's Units may be transferred by the Member in whole or in part at any time upon notice to the Company.

Article 10
Books of Account; Reports and Fiscal Matters

10.1 Books and Records. The Company shall maintain such books of account and such financial information as may be required by the Member and the Act. The Member or a designee shall retain a copy of this Agreement and all written actions of the Member and the Board of Managers at the Principal Office or at such other place as the Member may designate.

10.2 Company Funds. The Company's funds may be deposited in such banking institutions as the Board of Managers determines, and withdrawals shall be made on such signature or signatures as the Board of Managers determines.

Article 11
Capital

11.1 Capital Contributions; Units. The Member shall make such Capital Contributions as it may determine from time to time. The Member shall initially receive 100 Units.

11.2 Loans to the Company. The Member may, but is not obligated to, make loans to the Company from time to time. Any such loans shall not be treated as Capital Contributions to the Company for any purpose hereunder, but the Company shall be obligated to the Member for the amount of any such loans pursuant to the terms thereof.

11.3 Creditor's Interest in the Company. No creditor who makes a loan to the Company shall have or acquire at any time as a result of making the loan any direct or indirect interest in the profits, capital or property of the Company, other than such interest as may be accorded to a secured creditor. Notwithstanding the foregoing, this provision shall not prohibit in any manner whatsoever a secured creditor from participating in the profits of operation or gross or net sales of the Company or in the gain on sale or refinancing of the Company, all as may be provided in its loan or security agreements.

Article 12
Liability; Tax Status

12.1 Liability of the Member. Except as otherwise provided in the Act, the Member, as such, shall have no personal liability whatsoever to the Company or any of the creditors of the Company for the debts, liabilities, contracts or other obligations of the Company or any of the Company's losses beyond the Member's Capital Contribution and, solely to the extent and for the period required by applicable law, the amount of the Member's Capital Contribution, if any, which is returned to it.

12.2 Tax Status. The Member intends that the Company will be classified solely for federal income tax purposes as an "eligible entity" that is disregarded as an entity separate from its owner as provided in Treasury Regulations Section 301.7701-3(a).

Article 13
Allocation of Income, Gains and Losses; Distributions

The income, profits, gains, losses, tax credits of the Company and distributions of cash or property of the Company to the Member shall be treated for federal income tax purposes as if the Company were a division of the Member in accordance with Treasury Regulation Section 301.7701-2(a). Distributions shall be made to the Member at the times and in the aggregate amounts determined by the Board of Managers.

Article 14
Dissolution and Liquidation

14.1 Events of Dissolution. The Company shall be dissolved upon the occurrence of any of the following events:

- (a) The written consent of the Member; or
- (b) The entry of a decree of judicial dissolution under § 18-802 of the Act.

14.2 Liquidation and Winding Up. If dissolution of the Company should be caused by reason of any of the events set forth in Section 14.1, the Company shall be liquidated and the Managers (or other Person or Persons designated by a decree of court) shall wind up the affairs of the Company. The Managers or other Persons winding up the affairs of the Company shall promptly proceed to the liquidation of the Company and, in settling the accounts of the Company, the assets and the property of the Company shall be distributed in the following order of priority:

- (a) To the payment of all debts and liabilities of the Company in the order of priority as provided by law (other than outstanding loans from the Member);
- (b) To the establishment of any reserves deemed necessary by the Managers or the Person winding up the affairs of the Company for any contingent liabilities or obligations of the Company;
- (c) To the repayment of outstanding loans from the Member to the Company;
and
- (d) The balance, if any, to the Member.

Article 15
Amendment

The Certificate of Formation and this Agreement may be amended only by the Member. Any amendment of this Agreement shall be in writing and a copy thereof shall be kept with a copy of this Agreement at the Principal Office of the Company.

Article 16
Approval of Reorganizations and Bankruptcy

Without the consent of the Member, (i) the Company shall not engage in any Reorganization or (ii) commence any proceedings or the filing of any petition seeking relief under Title 11 of the United States Code, as now constituted or hereafter amended, or any other federal or state bankruptcy, insolvency or similar law.

Article 17
Miscellaneous Provisions

17.1 Pronouns. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural, as the identity of the person or entity may require.


17.2 Headings. Section headings contained in this Agreement are inserted for convenience of reference only, shall not be deemed to be a part of this Agreement for any purpose, and shall not in any way define or affect the meaning, construction or scope of any of the provisions hereof.

17.3 Governing Law. This Agreement, the rights and obligations of the parties hereto, and any claims or disputes relating thereto, shall be governed by and construed in accordance with the laws of the State of Delaware (but not including the choice of law rules thereof).

17.4 Third Party Benefit. Nothing in this Agreement, express or implied, is intended to confer upon any other Person any rights, remedies, obligations or liabilities of any nature whatsoever; provided, however, that the Indemnitees shall, as intended third-party beneficiaries thereof, be entitled to the enforcement of Article 8, but only insofar as the obligations sought to be enforced thereunder are those of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Agreement as of the date first above written.

**PLENARY INFRASTRUCTURE BELLE
CHASSE HOLDCO LTD.**

By:  _____
Name: Brian Budden
Title: President

CERTIFICATE OF FORMATION
OF
PLENARY INFRASTRUCTURE BELLE CHASSE LLC

The undersigned, for the purpose of complying with the provisions of the Delaware Limited Liability Company Act (6 *Del. C.* § 18-101, *et seq.*) and forming a limited liability company thereunder, hereby certifies as follows:

1. **Name.** The name of the limited liability company formed hereby is Plenary Infrastructure Belle Chasse LLC (the “*Company*”).

2. **Registered Agent.** The name and address of the registered agent for service of process of the Company in the State of Delaware is The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801.

IN WITNESS WHEREOF, the undersigned authorized person has executed this Certificate of Formation this 11th day of May, 2018.



Edward Snider, Authorized Person

MEMBERSHIP CERTIFICATE

**PLENARY INFRASTRUCTURE BELLE CHASSE LLC
a Delaware limited liability company**

Certificate Number 001


THIS CERTIFIES THAT PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD. a Delaware corporation (the “**Sole Member**”), is the owner of 100 units of the membership interests in the above limited liability company (the “**Company**”) and certain other rights in connection therewith in the Company, as set forth in that certain Limited Liability Company Agreement of the Company dated as of February 19, 2016 (as amended, modified, restated, and supplemented from time to time, the “**Limited Liability Company Agreement**”).

This Membership Certificate is not negotiable or transferable except in connection with the transfer of the membership interests evidenced hereby as provided in the Limited Liability Company Agreement, provided, however, that this Membership Certificate, when coupled with an assignment sufficient to convey an interest in the Company duly executed in blank or assigned to the named assignee, may be deposited with the Company and shall constitute direction by the registered owner of this Membership Certificate to the Company to register the change of ownership of the membership interests evidenced hereby to such assignee and to issue a new certificate reflecting the change of ownership to the assignee.

IN WITNESS WHEREOF, the Company has caused this Membership Certificate to be signed by its duly authorized officer and the issuance recorded in its Company books as of this 11th day of May, 2018.

**PLENARY INFRASTRUCTURE BELLE
CHASSE LLC**

By: **PLENARY INFRASTRUCTURE BELLE
CHASSE HOLDCO LTD.**
a Delaware corporation
its Sole Member

By: 
Name: Stuart Marks
Title: Vice president

THIS CERTIFICATE EVIDENCES A MEMBERSHIP INTEREST IN PLENARY INFRASTRUCTURE BELLE CHASSE LLC AND SHALL BE A SECURITY FOR THE PURPOSES OF, AND GOVERNED BY, ARTICLE 8 OF THE UNIFORM COMMERCIAL CODE AS IN EFFECT IN THE STATE OF DELAWARE AND ANY OTHER APPLICABLE JURISDICTIONS.

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES LAWS OF ANY STATE OR JURISDICTION, AND MAY NOT BE SOLD, ASSIGNED, TRANSFERRED, PLEDGED OR OTHERWISE DISPOSED OF EXCEPT IN COMPLIANCE WITH THE REQUIREMENTS OF SUCH ACT AND SECURITIES LAWS.

THE UNITS OF MEMBERSHIP INTEREST REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON THEIR TRANSFER AND ALL OF THE OTHER TERMS AND CONDITIONS SET FORTH IN THE PLEDGE AGREEMENT DATED AS OF MAY 11, 2018, AS SUCH AGREEMENT MAY FROM TIME TO TIME BE AMENDED IN ACCORDANCE WITH THE PROVISIONS THEREOF, A COPY OF WHICH AGREEMENT IS ON FILE AND AVAILABLE FOR INSPECTION AT THE PRINCIPAL OFFICE OF THE COMPANY.

SCHEDULE A

<u>Name of Address of Member</u>	<u>Capital Contribution</u>	<u>Units</u>
Plenary Infrastructure Belle Chasse HoldCo Ltd. 400 Burrard Street, Suite 2000 Vancouver, British Columbia V6C 3A6 CANADA	\$100.00	100

B. Authorization and Execution of Delivery of Proposal



PLENARY INFRASTRUCTURE BELLE CHASSE LLC

UNANIMOUS CONSENT RESOLUTION OF THE BOARD OF MANAGERS

The undersigned, being all the managers of the board of managers of Plenary Infrastructure Belle Chasse LLC, a Delaware limited liability company (the "Company") that has been formed for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (the "Project"), by this instrument in lieu of a special meeting, do hereby adopt the following resolutions and do hereby consent to the taking of the actions therein set:

APPROVAL OF BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PUBLIC-PRIVATE PARTNERSHIP PROJECT PROPOSAL

WHEREAS, the Company shall submit a proposal in response to that certain Request for Proposals (the "RFP") issued by the Louisiana Department of Transportation and Development ("LA DOTD"), dated October 4, 2018, as amended, for the comprehensive performance and financing of certain obligations by the Company (the "Proposal") in relation to a project involving the design, construction, financing, operation and maintenance of the Project; and

WHEREAS, it is deemed to be in the best interest of the Company to submit its Proposal.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the form, terms, and provisions of the Proposal are hereby approved, and that Mike Schutt is hereby authorized, in the name of and on behalf of the Company, to execute and deliver the Proposal.

This consent may be delivered in writing or by electronic transmission to the Company. The execution of this consent, whether by facsimile or Adobe Acrobat PDF signature, will constitute an original signature, and shall constitute a written waiver of any notice required by state law or the Company's governing documents. This consent may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together shall constitute one instrument.

Dated: March 18, 2019



Brian Budden
Manager

Dated: March 18, 2019



Stuart Marks
Manager

PLENARY GROUP USA CONCESSIONS LTD.

CONSENT RESOLUTION OF THE SOLE MEMBER

The undersigned, being all the directors of the board of directors of Plenary Group USA Concessions Ltd., a Delaware corporation (the "Sole Member") and its capacity as a member of Plenary Infrastructure Belle Chasse LLC, a Delaware limited liability company (the "Company") that has been formed for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (the "Project"), by this instrument in lieu of a special meeting, do hereby adopt the following resolutions and do hereby consent to the taking of the actions therein set:

APPROVAL OF BELLE CHASSE BRIDGE & TUNNEL REPLACEMENT PUBLIC-PRIVATE PARTNERSHIP PROJECT PROPOSAL

WHEREAS, the Company is member managed by the Sole Member;

WHEREAS, the Company shall submit a proposal in response to that certain Request for Proposals (the "RFP") issued by the Louisiana Department of Transportation and Development ("LA DOTD"), dated October 4, 2018, as amended, for the comprehensive performance and financing of certain obligations by the Company (the "Proposal") in relation to a project involving the design, construction, financing, operation and maintenance of the Project; and

WHEREAS, it is deemed to be in the best interest of the Company to submit its Proposal.

NOW, THEREFORE, BE IT HEREBY RESOLVED that the form, terms, and provisions of the Proposal are hereby approved, and that Mike Schutt is hereby authorized, in the name of and on behalf of the Company, to execute and deliver the Proposal.

This consent may be delivered in writing or by electronic transmission to the Sole Member. The execution of this consent, whether by facsimile or Adobe Acrobat PDF signature, will constitute an original signature, and shall constitute a written waiver of any notice required by state law or the Sole Member's governing documents. This consent may be executed in one or more counterparts, each of which shall be deemed an original and all of which, when taken together shall constitute one instrument.

Dated: March 18, 2019



Brian Budden
Director

Dated: March 18, 2019



Stuart Marks
Director

**C. PLENARY INFRASTRUCTURE BELLE CHASSE
LLC - MEMBER CONSENT**

The page features three horizontal decorative bars. The top bar is a wide, solid maroon band. Below it is a thinner, solid teal band. The bottom bar is a wide, solid grey band that extends to the bottom of the page.

PLENARY INFRASTRUCTURE BELLE CHASE LLC

UNANIMOUS CONSENT RESOLUTION OF THE MEMBERS

The undersigned, being the sole member of Plenary Infrastructure Belle Chasse LLC, a Delaware limited liability company (the “Company”), by this instrument in lieu of a special meeting, does hereby consent to the adoption of the following resolution, which resolution will be deemed adopted when the sole member has signed this Consent:

PROJECT DISPUTE LIMIT

WHEREAS, the Company believes it is in its best interest to submit a bid for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (the “Project”);

WHEREAS, in connection with the Project submittal, the Company must limit any potential dispute actions between or among joint venture members, partners, or members of the Company, as applicable, that may affect work on the Project;


THEREFORE, BE IT RESOLVED, that, in connection with the Project, in the event of a dispute between or among joint venture members, partners, or members of the Company, as applicable, no joint venture member, partner, or member of the Company, as applicable, shall be entitled to stop, hinder, or delay work by the Company on the Project.

GENERAL AUTHORITY

RESOLVED, that any and all actions taken by any one or more of the Managers of the Company as deemed by such Manager(s) to be necessary or advisable to effectuate the foregoing resolution, whether prior to or subsequent to this action by the sole Member of the Company, are hereby authorized, approved and ratified, and the taking of any and all such actions and the performance of any and all such things in connection with the foregoing resolution shall conclusively establish such Manager’s or Managers’ authority therefor from the Company and the approval and ratification thereof by the sole Member of the Company.

**PLENARY INFRASTRUCTURE BELLE
CHASSE HOLDCO LTD.**

Dated: March 18, 2019

By:  _____

Name: Brian Budden _____

Title: Manager _____

By:  _____

Name: Stuart Marks _____

Title: Manager _____

SIGNATURE AUTHORIZATION DOCUMENTS





Plenary Group USA Concessions Ltd.

100 N. Tampa St.

Suite 2840

Tampa, FL 33602

Telephone: 813.387.3880

www.plenarygroup.com

March 18, 2019

Peggy Jo Paine
Innovative Procurement Manager
Louisiana Department of Transportation & Development
1201 Capitol Access Road, Room 302-CC
Baton Rouge, LA 70802-4438

Dear Ms. Paine:

Re: Proposal for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (State Project No. H.004791) – Section A2.2 (A) Form of Proposal, Signature Authorization (the “Proposal”)

On behalf of Plenary Infrastructure Belle Chasse LLC, in connection with the submission of the Proposal, I confirm that Mike Schutt, Authorized Representative, is hereby delegated authority to sign on behalf of the Plenary Infrastructure Belle Chasse LLC consortium.

Sincerely,

PLENARY INFRASTRUCTURE BELLE CHASSE LLC

A handwritten signature in blue ink, appearing to read "B. Budden", with a long horizontal line extending to the right.

Brian Budden
President, Plenary Infrastructure Belle Chasse LLC



Plenary Group USA Concessions Ltd.

100 N. Tampa St.
Suite 2840
Tampa, FL 33602
Telephone: 813.387.3880
www.plenarygroup.com

March 18, 2019

Peggy Jo Paine
Innovative Procurement Manager
Louisiana Department of Transportation & Development
1201 Capitol Access Road, Room 302-CC
Baton Rouge, LA 70802-4438

Dear Ms. Paine:

Re: Proposal for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (State Project No. H.004791) – Section A2.2(A) Form of Proposal Signature Authorization (the “Proposal”)

On behalf of Plenary Group USA Concessions Ltd., the Equity Member of Plenary Infrastructure Belle Chasse LLC, in connection with the submission of the Proposal, I confirm Mike Schutt, Authorized Representative, is hereby delegated authority to act as representative of Plenary Group USA Concessions Ltd. and has the authority to sign on behalf of Plenary Group USA Concessions Ltd.

Sincerely,
PLENARY GROUP USA CONCESSIONS LTD.

A handwritten signature in blue ink, appearing to read "B. Budden", followed by a horizontal line.

Brian Budden
President, Plenary Group USA Concessions Ltd.

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that Traylor Bros., Inc., a corporation organized and existing under the laws of the State of Indiana, by its duly authorized officer, Michael T. Traylor, has made, constituted and appointed and by these presents does make, constitute and appoint C. John Meagher, Vice President of Traylor Bros., Inc., its true and lawful attorney to:

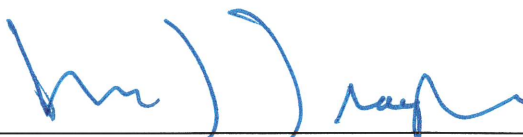
1. Execute any and all bid documents, contracts, agreements and instruments for and on behalf of **Plenary Infrastructure Belle Chasse** (the "Joint Venture"), in connection with any and all business which the Joint Venture has authority to conduct in connection with the Belle Chasse Bridge and Tunnel Replacement P3 Project (the "Project"), and thereby to bind the Joint Venture in accordance with the terms of such contracts, agreements and instruments;

2. Settle, adjust or compromise any and all claims, accounts or debts owing to or by the Joint Venture in connection with the above-mentioned project, and to take or deliver all necessary and proper releases therefor;

3. Grant, bargain, sell, exchange, lease, mortgage or otherwise convey any part or all of the real estate or personal property now owned or hereafter acquired by the Joint Venture in connection with the above-mentioned contract, or to which it may now have or may in the future acquire any interest, whether legal or equitable, and in its name to make, execute, acknowledge and deliver good and sufficient deeds, leases, deeds of trust, bills of sale, mortgages or other conveyances of the same;

IN TESTIMONY WHEREOF, Traylor Bros., Inc. by its duly authorized officer, Michael T. Traylor, has executed this Power of Attorney this 13th day of March 2019.

TRAYLOR BROS., INC.

By: 

Michael T. Traylor, Co-President

STATE OF CALIFORNIA)
) SS:
COUNTY OF LOS ANGELES)

Before me, the undersigned, a Notary Public in and for said County and State personally appeared the within named Michael T. Traylor of Traylor Bros., Inc., and acknowledged the execution of the foregoing Power of Attorney to be his free and voluntary act and deed, for and on behalf of Traylor Bros., Inc. He further certified his full corporate authority to execute said instrument on behalf of Traylor Bros., Inc.

WITNESS my hand and notarial seal this 13th day of March 2019.

see attached Acknowledgment
Jennifer Espinoza, Notary Public
My Commission Expires: February 12, 2021
Resident of Los Angeles County, California

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)
County of Los Angeles)

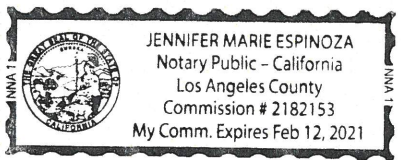
On March 13, 2019 before me, Jennifer Marie Espinoza, Public Notary,
Date Here Insert Name and Title of the Officer

personally appeared Michael T. Traylor
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature Jennifer Marie Espinoza
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document: Power of Attorney - Plenary Infrastructure Belle Chase Document Date: 3/13/19
Number of Pages: 1 Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Michael T. Traylor
 Corporate Officer — Title(s): Co-President
Partner — Limited General
Individual Attorney in Fact
Trustee Guardian or Conservator
Other: _____
Signer Is Representing: _____

Signer's Name: _____
Corporate Officer — Title(s): _____
Partner — Limited General
Individual Attorney in Fact
Trustee Guardian or Conservator
Other: _____
Signer Is Representing: _____

CERTIFIED COPY OF RESOLUTION

“WHEREAS, the Corporation intends to submit a Proposal in response to that certain Request for Proposal (“Proposal”) for the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project

NOW, THEREFORE, IT BE RESOLVED, that Henry J. Massman, IV, as President of the Corporation, be and is hereby authorized to enter into negotiations, to execute and deliver the Proposal for the Project on behalf of the Corporation, and upon award of the Project, to execute and deliver the Project Contract and related documents.”

I, Amy Hinkle, certify that I am Secretary of MASSMAN CONSTRUCTION CO., a Missouri Corporation (“Corporation”).

I certify that:(1) The resolution quoted above was adopted by the Board of Directors on December 10, 2018; (2) Any action of the directors of the Corporation may be taken without a formal meeting if the directors consent in writing; (3) The minutes of the meeting have been filed in the minute book of the Corporation; and (4) The resolution has not been revoked or amended and is now in full force and effect.

SIGNED AND SEALED ON March 18, 2019



Amy Hinkle, Chief Financial Officer

RESOLUTION

BE IT RESOLVED by the Board of Directors of Huval & Associates, Inc., a corporation organized and existing under the laws of the State of Louisiana, and domiciled in the City of Lafayette that David S. Huval, Sr., President of the Corporation, and/or Colby Guidry, Vice President of the Corporation, be, and are hereby authorized and empowered to execute any and all contracts of whatever kind on behalf of the Corporation for engineering consulting services.

CERTIFICATE

I, David S. Huval, Jr., Secretary of Huval & Associates, Inc, do hereby certify that the foregoing resolution is a true and exact copy unanimously adopted by the Board of Directors of said corporation at a meeting thereof legally held on the 27th day of February, 2019; that said resolution is duly entered into the records of said corporation; that it has not been rescinded or modified; and that it is now in full force and effect.

IN TESTIMONY WHEREOF, I have unto set my hand and the seal of said corporation this 27th day of February 2019.


SECRETARY

DBI SERVICES, LLC

JOINT ACTION BY UNANIMOUS CONSENT IN WRITING OF THE MEMBER AND MANAGERS

THE UNDERSIGNED, being the member (“Member”) and the managers (“Managers”) of DBI Services, LLC, a Delaware limited liability company (“Company”), hereby adopt, by this Joint Action by Unanimous Consent in Writing (“Annual Consent”), in accordance with applicable provisions of the Delaware Limited Liability Company Act, as amended, the following resolutions with the same force and effect as if unanimously adopted at duly convened meetings of the Member and Managers of Company, respectively, at which a quorum was present and voting throughout:

RESOLVED, that the following persons be and are hereby elected to the offices of Company, set opposite their respective names, to serve in such capacity until their respective successors have been selected and qualified or until their earlier death, resignation or removal:

Mark D. Robinson – President/Chief Operating Officer
Roger Zino – Chief Executive Officer
Gary Edwards – Treasurer/Assistant Secretary
William Hartman, Executive Vice President
Joseph G. Ferguson – Secretary

FURTHER RESOLVED, that the officers of Company are hereby authorized, empowered and directed, for and on behalf of Company, to execute and deliver any and all agreements, documents, and instruments, and to pay or incur any costs, fees or expenses, and to take any other actions, as may be necessary or advisable in order to effectuate the foregoing resolutions;


FURTHER RESOLVED, that **ROGER ZINO, MARK D. ROBINSON, GARY EDWARDS** and **JOSEPH G. FERGUSON** are appointed as the Managers of the Company to serve in such capacity until their respective successors have been selected and qualified or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that any actions previously taken by the officers, Member and/or Managers of Company in furtherance of the foregoing resolutions are hereby ratified and approved; and


FURTHER RESOLVED, that this consent may be executed in counterparts, including counterparts executed by facsimile or other electronic form of signature, each of which shall be deemed an original and all of which, when taken together, shall be deemed to be one document.

NOTICE WAIVED and ACTION CONSENTED TO by the undersigned Member and Managers as of the 1st day of November, 2018.

DBI Holding, LLC, Member

By: 
Mark D. Robinson, President

Roger Zino, Manager



Mark D. Robinson, Manager


Gary Edwards, Manager

Joseph G. Ferguson Manager

NOTICE WAIVED and **ACTION CONSENTED TO** by the undersigned Member and Managers as of the 1st day of November, 2018.

DBI Holding, LLC, Member

By: _____
Mark D. Robinson, President



Roger Zho, Manager

Mark D. Robinson, Manager

Gary Edwards, Manager

Joseph G. Ferguson Manager

NOTICE WAIVED and ACTION CONSENTED TO by the undersigned Member and Managers as of the 1st day of November, 2018.

DBI Holding, LLC, Member

By: _____
Mark D. Robinson, President

Roger Zino, Manager

Mark D. Robinson, Manager



Gary Edwards, Manager

Joseph G. Ferguson Manager

NOTICE WAIVED and ACTION CONSENTED TO by the undersigned Member and Managers as of the 1st day of November, 2018.

DBI Holding, LLC, Member

By: _____
Mark D. Robinson, President

Roger Zino, Manager

Mark D. Robinson, Manager

Gary Edwards, Manager



Joseph G. Ferguson Manager

**UNANIMOUS WRITTEN CONSENT TO ACTION
OF THE BOARD OF DIRECTORS OF
KAPSCH TRAFFICCOM IVHS INC.
TAKEN WITHOUT A MEETING**

The undersigned, being all of the members of the Board of Directors of Kapsch TrafficCom IVHS Inc., a Delaware corporation (the “Corporation”), pursuant to Article III Section 8 of the Amended and Restated Bylaws of the Corporation, permitting such action as to be taken without a meeting, hereby consent in writing to the adoption of the following resolutions:

Review and Approval Policy; Appointment of Directors, Officers

WHEREAS, the Corporation determined to adopt an updated Review and Approval Policy, along with supporting materials and guidance, as provided in Exhibit A hereto;

WHEREAS, the Corporation is required to be certified on a state by state basis to bid on professional consulting services contracts for various projects, by submitting an application for a Certificate of Authorization signed by a Professional Engineer;

WHEREAS, Jeffrey Adler, an employee and Vice President for the Corporation, is a Professional Engineer registered in several of the states;

WHEREAS, the Board of Directors had determined it to be in the best interests of the Corporation to add Jeffrey Adler as an Officer of the Corporation with the limited power to sign the Professional Services Certificate of Authorization applications in his capacities as Officer and Professional Engineer upon written request of the Corporation;

WHEREAS, the Board of Directors wishes to add JB Kendrick, in her capacity as the Senior Vice President, Sales and Business Development, as an Officer of the Corporation;

RESOLVED, that effective as of September 1, 2017, the Corporation will implement and abide by the Review and Approval Policy and associated guidance;

RESOLVED, that effective as of September 1, 2017, that the following persons be, and hereby are Directors of the Corporation, and elected to the offices of the Corporation as Officers as set forth opposite their names below, to serve in such capacities until the next annual meeting of directors or until their successors are duly elected and qualified:

- Gerhard Plaschka Chairman
- Chris Murray CEO and President, Director

Kapsch TrafficCom IVHS Inc.
Directors and Officers – September 1, 2017
Proprietary and Confidential
Page 1 of 3

- Michael Hofer CFO, Secretary, Treasurer, Director

RESOLVED, that effective as of September 1, 2017, that the following persons by, and hereby are Officers of the Corporation, empowered to act in accordance with the Corporation's Bylaws and its various policies and procedures:

- Robert Corion SVP, PMO
- Janet Eichers SVP, GC, Secretary
- JB Kendrick SVP, Sales/BD
- Jeffrey Adler VP, Engineer of Record

Omnibus Resolutions

RESOLVED, that the officers of the Corporation are, and each acting alone is, hereby authorized and directed, for and on behalf of the Corporation, to do and perform any and all such acts, including execution of any and all documents and certificates, as such officers deem necessary or advisable, in order to carry out the full intent and purposes of the foregoing resolution; and

RESOLVED FURTHER, that all prior acts or actions taken by the officers of the Corporation in connection with the foregoing resolution are within the authority conferred thereby and are hereby ratified, confirmed, and approved as the acts and deeds of the Corporation.

This Unanimous Written Consent may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

This Unanimous Written Consent shall be filed in the Minute Book of the Corporation and become part of the records of the Corporation.

This Unanimous Written Consent shall be effective for all purposes as of **September 1, 2017**.



Christopher F. Murray, Director



Michael Hofer, Director



Gerard Plaszka, Chairman

EXHIBIT A

Kapsch TrafficCom IVHS Inc.
Directors and Officers – September 1, 2017
Proprietary and Confidential
Page 3 of 3

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "KAPSCH TRAFFICOM IVHS INC.", CHANGING ITS NAME FROM "KAPSCH TRAFFICOM IVHS INC." TO "KAPSCH TRAFFICOM USA, INC.", FILED IN THIS OFFICE ON THE TWENTY-EIGHTH DAY OF SEPTEMBER, A.D. 2017, AT 7:53 O`CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE FIRST DAY OF OCTOBER, A.D. 2017 AT 11 O`CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.




Jeffrey W. Bullock, Secretary of State

2143281 8100
SR# 20176394135

Authentication: 203319627
Date: 09-29-17

You may verify this certificate online at corp.delaware.gov/authver.shtml

STATE OF DELAWARE
CERTIFICATE OF AMENDMENT
OF CERTIFICATE OF INCORPORATION
OF KAPSCH TRAFFICCOM IVHS INC.

Kapsch TrafficCom IVHS Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That all members of the Board of Directors of Kapsch TrafficCom IVHS Inc. (the "**Corporation**"), were presented with resolutions that were adopted setting forth a proposed amendment of the Certificate of Incorporation of the Corporation, declaring said amendment to be advisable and calling a meeting of the stockholders of the Corporation for consideration thereof. The resolution setting forth the proposed amendment is as follows:

RESOLVED, that, it being advisable to change the name of Kapsch TrafficCom IVHS Inc., an amendment to the Corporation's Certificate of Incorporation to change the name of the Corporation to Kapsch TrafficCom USA, Inc. be and the same is hereby authorized and approved; and

FURTHER RESOLVED, that the Certificate of Incorporation of the Corporation shall be amended by changing the Article thereof entitled "FIRST" so that, as amended said Article shall be and read as follows:

"FIRST: The name of this Corporation (hereinafter called the "Corporation") is: Kapsch TrafficCom USA, Inc."

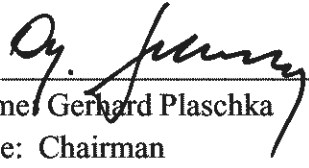
SECOND: That thereafter, pursuant to a resolution of the Corporation's Board of Directors, the above resolution was submitted to the Stockholders of the Corporation who authorized the amendment of the Certificate of Incorporation to change the name of the Corporation to Kapsch TrafficCom USA, Inc. and approved the above resolution by unanimous written consent as provided in Section 228 of the General Corporation Law of the State of Delaware.

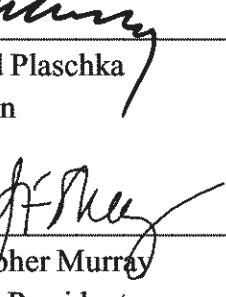
THIRD: That this Amendment to the Corporation's Certificate of Incorporation was duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

FOURTH: That this Amendment to the Corporation's Certificate of Incorporation is to become effective on October 1, 2017 at 11:00am EDT.

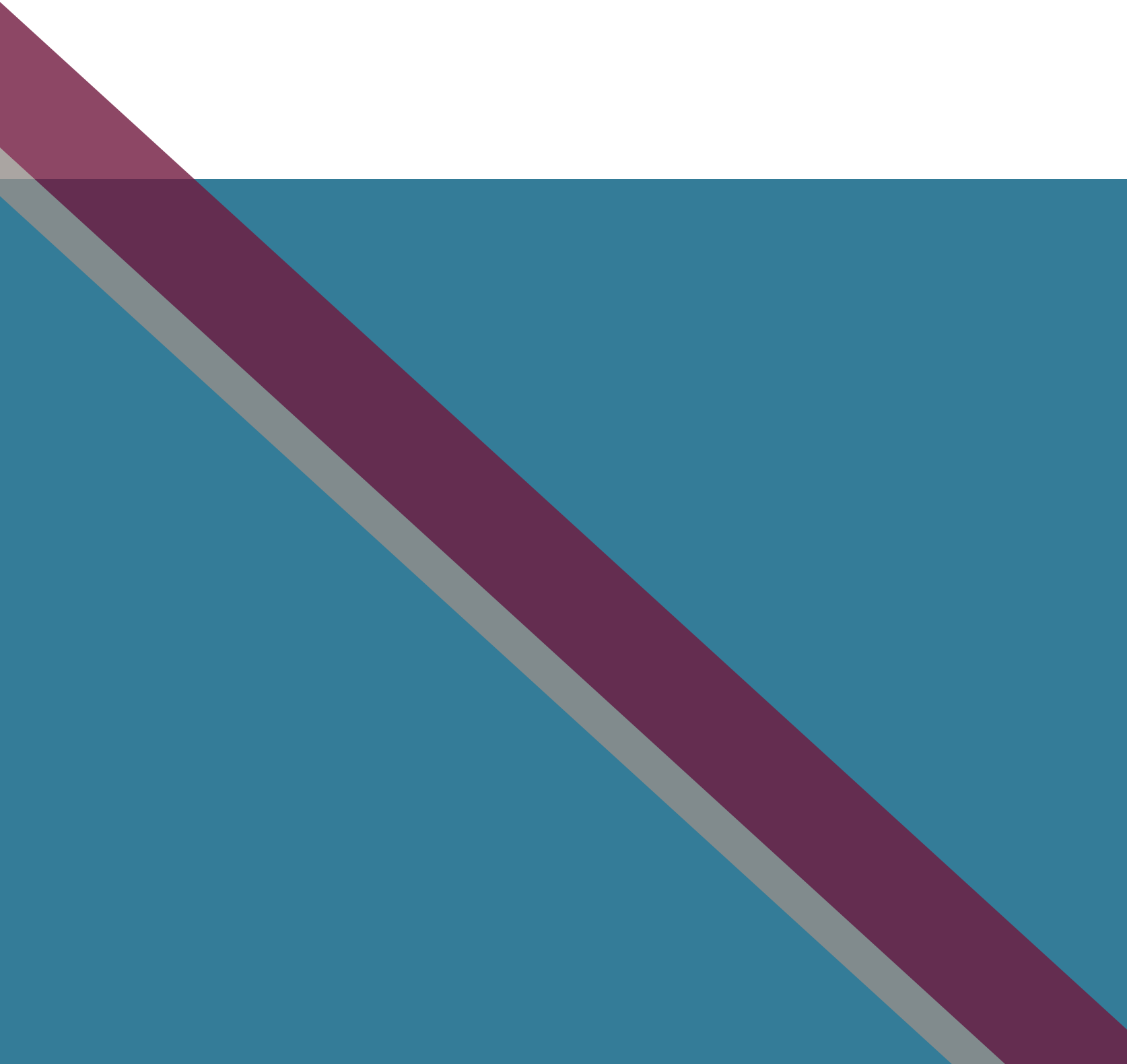
[signature page follows]

IN WITNESS WHEREOF, said Corporation has caused this Certificate of Amendment to be signed this 25th day of September, 2017.

By: 
Name: Gerhard Plaschka
Title: Chairman

By: 
Name: Christopher Murray
Title: CEO and President

FORM A



FORM A
PROPOSER'S ORGANIZATION INFORMATION
 (add boxes as needed)

PROPOSER: Plenary Infrastructure Belle Chasse				
Address: 100 N. Tampa Street, Suite 2840, Tampa, FL 33602				
Contact Name: Mike Schutt		Title: Vice President		
Telephone Number: (813) 387-3878		E-mail: Mike.Schutt@plenarygroup.com		
NAME(S) OF PROPOSER TEAM MEMBERS				
Company Name	Address, E-mail Address, and Telephone Number	State of Incorporation	Equity Member (include percent)	
			Yes	No
Equity Member(s)				
Plenary Group USA Concessions Ltd.	555 W. 5 th Street, Ste 3150, Los Angeles, CA 90013	Nevada	Yes 100%	
	Mike.Schutt@plenarygro up.com			
	(310) 975-9483			
Lead Designer				
Huval & Associates, Inc.	922 W. Pont Des Mouton Road, Lafayette, LA 70507	Louisiana		
	BSchmidt@huvalassoc.c om			
	(337) 234-3798			
Lead Contractor(s)				
Traylor Bros., Inc.	835 N. Congress Avenue, Evansville, IN 47715	Indiana		
	GCangelosi@traylor.com			
	(985) 258-0004			
Massman Construction Co.	1000 Edwards Ave., Suite A, Harahan, LA 70123	Missouri		
	PSCharmer@massman.n et			
	(913) 291-2600			
Lead Operations and Maintenance Firm(s)				

Louisiana Department of Transportation and Development

DBI Services, LLC	100 North Conahan Drive, Hazelton, PA 18201	Delaware	
	WYannuzzi@dbiservices.com		
	(570) 459-1112		
Plenary Group USA Concessions Ltd.	555 W. 5 th Street, Ste 3150, Los Angeles, CA 90013	Nevada	
	Mike.Schutt@plenarygroup.com		
	(310) 975-9483		
Toll System Provider			
Kapsch TrafficCom USA, Inc.	8201 Greensboro Drive, Suite 1002, McLean, VA 22102	Delaware	
	Don.Hicks@kapsch.net		
	(615) 509-5880		
Tolling Operator(s)			
Plenary Group USA Concessions Ltd.	555 W. 5 th Street, Ste 3150, Los Angeles, CA 90013	Nevada	
	Mike.Schutt@plenarygroup.com		
	(310) 975-9483		
Kapsch TrafficCom USA, Inc.	8201 Greensboro Drive, Suite 1002, McLean, VA 22102	Delaware	
	Don.Hicks@kapsch.net		
	(615) 509-5880		
Other Firms – Financial Advisors			
J.P. Morgan Securities, LLC	383 Madison Ave., 3 rd Floor, New York, NY 10179	Delaware	
	Antti.m.suhonen@jpmorgan.com		
	(303) 244-3385		
Goldman Sachs & Co. LLC	200 West Street, New York, NY 10282	New York	
	Chris.Elmore@gs.com		
	(212) 357-2991		

FORM B

FORM B

NAMED SUBCONTRACTORS AND SUPPLIERS

Proposer Name: Plenary Infrastructure Belle Chasse LLC

Subcontractor/Supplier Name/ Contact	Address of Head Office	Telephone/E-mail Address	Specialty	For the last two Projects, list the Project Name; Owner; and Owner's Contact's Name, Telephone Number, and E-mail Address	
				Project 1	Project 2
Traylor Bros., Inc. / Greg Cangelosi	835 N. Congress Ave., Evansville, IN 47715	(985) 258-0004/ gcangelosi@traylor.com	Bridge Construction	Airport Guideway and Stations (Ongoing); Honolulu Authority for Rapid Transportation; Gregory Rapp; (808) 768-6243; grapp@honolulu.gov	Stan Musial Veterans Memorial Bridge; Missouri Department of Transportation; Greg Horn; (314) 453-1800; Gregory.Horn@modot.mo.gov
Massman Construction Co. / Paul Scharmer	4400 W. 109th St., Suite 300, Overland Park, KS 66211	(913) 291.2600/ pscharmer@massman.net	Heavy Civil/ Marine Construction	Champ Clark Bridge Replacement – Louisiana, MO; Missouri Department of Transportation; Brandi Baldwin; (660) 676.8934;	Broadway Bridge – Little Rock, AR; Arkansas Department of Transportation; Mark Trickey; (501)258.1278; mark.trickey@ardot.gov

Louisiana Department of Transportation and Development

				brandi.baldwin@modot.mo.gov	
DBI Services, LLC/ Wendy Yanuzzi	100 North Conahan Drive Hazleton, PA 18201	570-459-1112 wyannuzzi@dbiservices.com	Asset Maintenance	Indian River FDOT Sara Storey 772-429-4921 Sara.storey@dot.state.fl.us	Staunton North VDOT Ryan Thompson 804-371-6732 Ryan.thompson@vdot.virginia.gov
Franklin Associates/ Perry Franklin	2148 Government St. Baton Rouge, LA 70806	225-768-9060 info@franklinassoc.com	Public Engagement/ Governmental Relations	Project Name: I-49 Inner City Connector, Shreveport, LA LADOTD Project # H.003915 Project Owner: Providence Engineering (prime consultant to LaDOTD) Contact's Name: Kerry Oriol, P.E. Phone: 225-766-7400 Email: kerryoriol@providenceeng.com	Project Name: I-10 Improvements (LA 415 to Essen Lane), Baton Rouge, LA LADOTD Project # H.004100.2 Project Owner: Providence Engineering (prime consultant to LaDOTD) Contact's Name: Kerry Oriol, P.E. Phone: 225-766-7400 Email: kerryoriol@providenceeng.com

Louisiana Department of Transportation and Development

Cardno, Inc. / Ben Hall	10212 Patriot Drive, Baton Rouge, LA 70816	(225) 752-8322 / Ben.Hall@cardno.com	Utility Coordination	Comite Diversion Canal LADOTD JoAnn Kurts, PE (225) 379-1427 joann.kurts@la.gov	Essen Lane Widening (Route 3064), Perkins Road to I-10b LADOTD JoAnne Kurts, PE (225) 379-1427 joann.kurts@la.gov
Coastal Environments, Inc. / Sara Hahn	1260 Main Street, Baton Rouge, LA 70802	(225) 383-7455 Ext.132 / shahn@coastalenv.com	HAER Documentation	Bayou Boeuf Bridge on LA 1177 LADOTD Carey Coxé (225) 242-4520 carey.coxe@la.gov	HAER Level II Photography of 4 Historic Vessels New York Power Authority Robert Panapinto (914) 681-6404 Robert.Panepinto@nypa. gov
Dana Brown & Associates, Inc. / Dana Brown	1836 Valence Street New Orleans, LA 70115	(504) 345-2639 / dbrown@danabrownass ociates.com	Landscape Architecture & Stormwater Management	North Causeway Approach City of Mandeville Louissette Scott (985) 624-3103 lscott@cityofmandevill e.com	Forest Community Park BREC Ted Jack (225) 273-6405 tjack@brec.org

Louisiana Department of Transportation and Development

<p>GeoEngineers, Inc./ Larry D. Sant, PE</p>	<p>11955 Lakeland Park Blvd., Suite 100 Baton Rouge, LA 70809</p>	<p>(225) 663-1522</p>	<p>Geotechnical Engineering & Testing</p>	<p>S.P.H 004932, Design- Build US 90 @ LA318 Interchange St. Mary Parish, LA LADOTD Timothy Nickel, PE (225) 379-1110 Timothy.Nickel@la.gov</p>	<p>S.P.H 010151, I-210 Cove Lane Interchange Lake Charles, Calcasieu Parish, LA LADOTD Timothy Nickel, PE (225) 379-1110 Timothy.Nickel@la.gov</p>
<p>GOTECH, Inc. / Rhaoul Guillaume, Sr.</p>	<p>8383 Bluebonnet Blvd Baton Rouge, LA 70810</p>	<p>(225) 766-5358 / rhaoul@gotech-inc.com</p>	<p>Survey</p>	<p>Move Ascension Henry Road Safety Widening Parish of Ascension Joan Shivers (225) 450-1014 jshivers@apgov.us</p>	<p>I-10 at Crowder SPN: H.013442.5 LADOTD Mark Chenevert, PE (225) 379-1591 Mark.Chenevert@la.gov</p>
<p>Huval & Associates, Inc. / Bob Schmidt</p>	<p>922 West Pont Des Mouton Rd. Lafayette, LA 70507</p>	<p>(337) 234-3798 / bschmidt@huvalassoc.com</p>	<p>Bridge Design, Roadway Design</p>	<p>US 90 (I-49 South), Alberton's Parkway to Ambassador Caffery, Design-Build Project LADOTD Peggy Jo Paine, PE (225) 379-1065 Peggy.Paine@la.gov</p>	<p>I-10 Design-Build (LA 73 to Highland) LADOTD Peggy Jo Paine, PE (225) 379-1065 Peggy.Paine@la.gov</p>

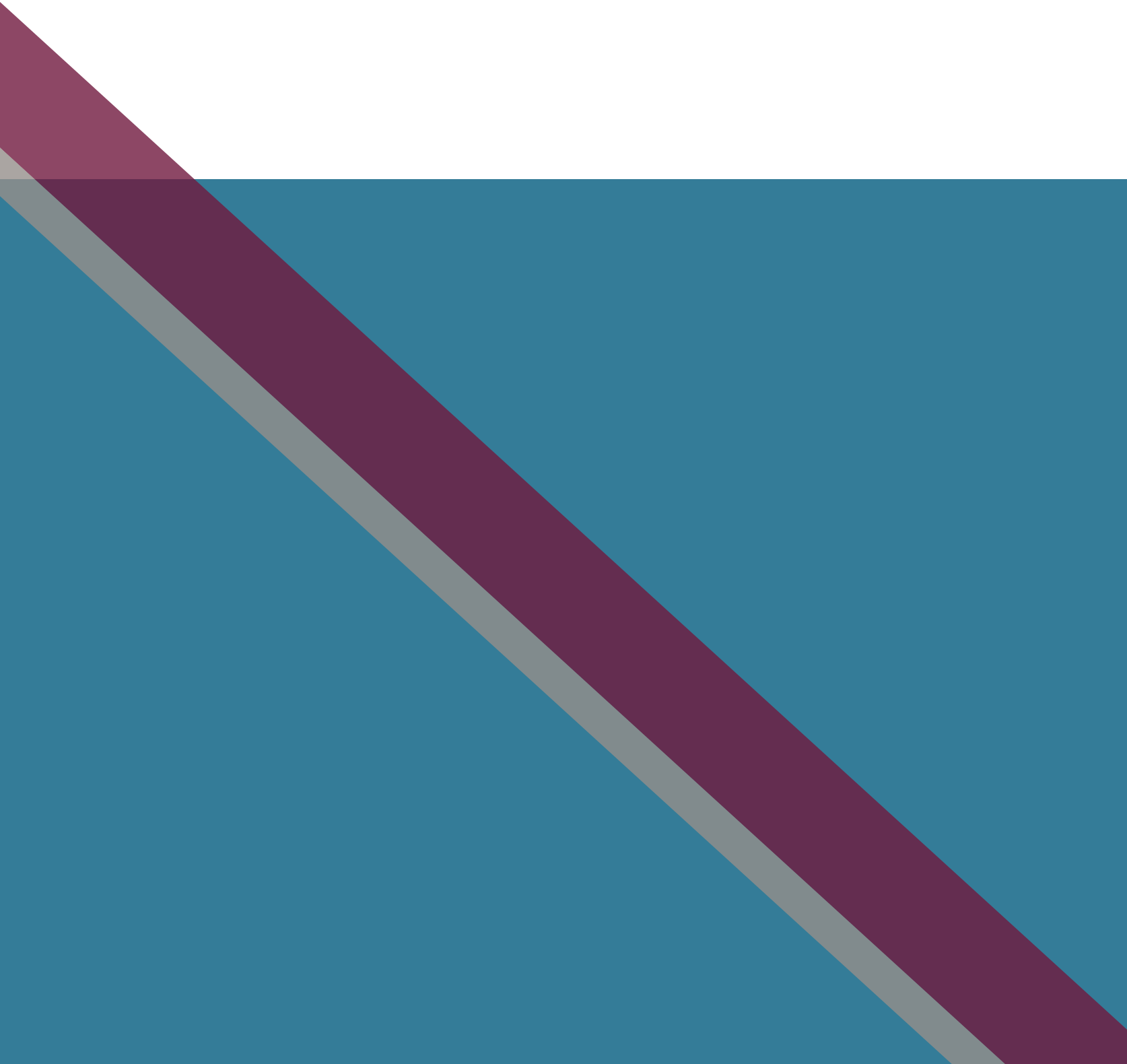
Louisiana Department of Transportation and Development

Modjeski and Masters / Joseph G. Strenkoski, PE	100 Sterling Parkway, Suite 302 Mechanicsburg, PA 17050	(717) 790-9565 / jgstrenkoski@modjeski.com	Electrical Engineering Roadway and Bridge Lighting, Power, Control	I-12 at Walker Roundabout Lighting Design LADOTD Michael Armentor Michael.Armentor@la.gov	I-10: Texas St. Line to East of Coone Gully Lighting Design LADOTD Michael Armentor Michael.Armentor@la.gov
Providence Engineering and Design, LLC / Roy Payne, PE	1201 Main Street Baton Rouge, LA 70802	(225) 766-7400 / roypayne@providenceeng.com	Environmental/ Permitting/ NEPA/ Construction Engineering and Inspection	I-10: LA 415 to Essen Lane on I-10 and I-12 Stage 1 Environmental Assessment LADOTD Mr. Brian Kendrick (225) 379-1197 brian.kendrick@la.gov	SR 44 Columbia, Marion County, MS Mississippi Department of Transportation (MDOT) Mr. Rhea Vincent (601) 359-7920 vincent@mdot.ms.gov
Sigma Consulting Group, Inc. / Geoffrey Wilson, PE	10305 Airline Highway Baton Rouge, LA 70816	(225) 298-0800 / gwilson@sigmacg.com	Drainage	I-10: Highland to LA 73 Design-Build Project State Project No. H.009250 LADOTD Peggy Jo Paine, PE Peggy.Paine@la.gov (225) 379-1065	I:10 East Jct. I-49 to LA 328 State Project No. H.003003 LADOTD Nick Olivier, PE (225) 379-1133 Nicholas.Olivier@la.gov
Vectura Consulting Services, LLC /	P.O. Box 14269 Baton Rouge, LA 70898	(225) 223-6685 / bferlito@vecturacs.com	Traffic Engineering	I-110 ITS Deployment Systems Engineering	Retainer Contract for Traffic Engineering

Louisiana Department of Transportation and Development

<p>Brin Ferlito, PE, PTOE</p>	<p>8000 Innovation Park Dr. Baton Rouge, LA 70820</p>			<p>Analysis LADOTD Stephen Glascock (225) 379-2516 Stephen.Glascock@la.gov</p>	<p>Management Roadway Projects LADOTD Joshua Harrouch (225) 242-4640 Joshua.Harrouch@la.gov</p>
<p>Kapsch TrafficCom USA, Inc.</p>	<p>8201 Greensboro Drive, Suite 1002, McLean, VA, 22102</p>	<p>(615) 509-5880 Don.Hicks@kapsch.net</p>	<p>Toll Systems Integration</p>	<p>Louisville Southern Indiana Ohio River Bridges Project (LSIORB) – “RiverLink” Joint Board of Indiana and Kentucky Megan McLain, Esq. Innovative Finance Manager Office: (859) 940-7763 megan.mclain@ky.gov</p>	<p>Golden Gate Bridge Replacement Toll Collection System Golden Gate Bridge Highway and Transportation District POC: Jennifer Mennucci, Director of Budget and Electronic Revenue Office: (415) 923-2358 Mobile: (415) 418-9290 JMennucci@goldengate.org</p>

FORM C



PLENARY INFRASTRUCTURE BELLE CHASSE LLC



FORM C

RESPONSIBLE PROPOSER QUESTIONNAIRE

PROPOSER'S NAME: Plenary Infrastructure Belle Chasse LLC

NAME OF ENTITY ON WHOSE BEHALF FORM IS PROVIDED:
Plenary Infrastructure Belle Chasse LLC

A) Questions

Proposer/Equity Member shall respond either "yes" or "no" to each of the following questions. If the response is "yes" to any question(s), a detailed explanation of the circumstances shall be provided in the space following the question. Proposer/Equity Member shall attach additional documentation as necessary to fully explain said circumstances. Failure to either respond to the questions or provide adequate explanations may preclude consideration of the Proposal and require its rejection.

Within the past ten years, has the identified entity, any Affiliate, or any officer, director, responsible managing officer, or responsible managing employee of such entity or Affiliate who has a proprietary interest in such entity:

- 1) Been disqualified, debarred, removed, or otherwise prevented from bidding or proposing on or completing a federal, state, or local contract anywhere in the United States or any other country because of a violation of law or safety regulation?

Yes _____ No X

If yes, please explain the circumstances.

- 2) Been convicted by a court of competent jurisdiction of any criminal charge of fraud, bribery, collusion, conspiracy, or any act in violation of state, federal, or foreign antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Yes _____ No X

If yes, please explain the circumstances.

- 3) Had filed against it, him or her, any criminal complaint, indictment, or information alleging fraud, bribery, collusion, conspiracy, or any action in violation of state or

Louisiana Department of Transportation and Development

federal antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Yes _____ No X

If yes, please explain the circumstances.

- 4) Had filed against it, him, or her, any civil complaint (including, but not limited to, a cross-complaint) or other claim arising out of a public works contract alleging fraud, bribery, collusion, conspiracy, or any act in violation of state or federal antitrust law in connection with the bidding or proposing upon, award of or performance of any public works contract with any public entity?

Yes _____ No X

If yes, please explain the circumstances.

- 5) Been found, adjudicated, or determined by any federal or state court or agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs, and any applicable Louisiana governmental agency) to have violated any laws or Executive Orders relating to employment discrimination or affirmative action, including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000e *et seq.*); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Louisiana law.

Yes _____ No X

If yes, please explain the circumstances.

- 6) Been found, adjudicated, or determined by any state court, state administrative agency, federal court, or federal agency to have violated or failed to comply with any law or regulation of the United States or any state governing prevailing wages (including, but not limited to, payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

Yes _____ No X

If yes, please explain the circumstances.

Louisiana Department of Transportation and Development

7) Been convicted of violating a state or federal law respecting the employment of undocumented aliens?

Yes _____ No X

If yes, please explain the circumstances.

8) Been assessed liquidated or other damages for failure to complete any contract on time?

Yes _____ No X

If yes, please explain the circumstances.

Explain the circumstances underlying any “yes” answers for the aforementioned questions on separate sheets attached hereto.

B) Verification / Declaration

I declare under penalty of perjury under the laws of the State of Louisiana that the foregoing declaration is true, correct, and accurate to the best of my knowledge following due inquiry.

Executed March 18, 2019



(Signature)

Mike Schutt_____

(Name Printed)

Authorized Representative, Plenary Infrastructure
Belle Chasse LLC

(Title)

Plenary Group USA Ltd._____

(Name of Organization)

PLENARY GROUP USA CONCESSIONS LTD.



FORM C

RESPONSIBLE PROPOSER QUESTIONNAIRE

PROPOSER’S NAME: Plenary Infrastructure Belle Chasse LLC

NAME OF ENTITY ON WHOSE BEHALF FORM IS PROVIDED:
Plenary Group USA Concessions Ltd.

A) Questions

Proposer/Equity Member shall respond either “yes” or “no” to each of the following questions. If the response is “yes” to any question(s), a detailed explanation of the circumstances shall be provided in the space following the question. Proposer/Equity Member shall attach additional documentation as necessary to fully explain said circumstances. Failure to either respond to the questions or provide adequate explanations may preclude consideration of the Proposal and require its rejection.

Within the past ten years, has the identified entity, any Affiliate, or any officer, director, responsible managing officer, or responsible managing employee of such entity or Affiliate who has a proprietary interest in such entity:

- 1) Been disqualified, debarred, removed, or otherwise prevented from bidding or proposing on or completing a federal, state, or local contract anywhere in the United States or any other country because of a violation of law or safety regulation?

Yes _____ No ✓

If yes, please explain the circumstances.

- 2) Been convicted by a court of competent jurisdiction of any criminal charge of fraud, bribery, collusion, conspiracy, or any act in violation of state, federal, or foreign antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Yes _____ No ✓

If yes, please explain the circumstances.

- 3) Had filed against it, him or her, any criminal complaint, indictment, or information alleging fraud, bribery, collusion, conspiracy, or any action in violation of state or federal antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Louisiana Department of Transportation and Development

Yes _____ No

If yes, please explain the circumstances.

- 4) Had filed against it, him, or her, any civil complaint (including, but not limited to, a cross-complaint) or other claim arising out of a public works contract alleging fraud, bribery, collusion, conspiracy, or any act in violation of state or federal antitrust law in connection with the bidding or proposing upon, award of or performance of any public works contract with any public entity?

Yes _____ No

If yes, please explain the circumstances.

- 5) Been found, adjudicated, or determined by any federal or state court or agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs, and any applicable Louisiana governmental agency) to have violated any laws or Executive Orders relating to employment discrimination or affirmative action, including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000e *et seq.*); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Louisiana law.

Yes _____ No

If yes, please explain the circumstances.

- 6) Been found, adjudicated, or determined by any state court, state administrative agency, federal court, or federal agency to have violated or failed to comply with any law or regulation of the United States or any state governing prevailing wages (including, but not limited to, payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

Yes _____ No

If yes, please explain the circumstances.

Louisiana Department of Transportation and Development

7) Been convicted of violating a state or federal law respecting the employment of undocumented aliens?

Yes _____ No ✓

If yes, please explain the circumstances.

8) Been assessed liquidated or other damages for failure to complete any contract on time?

Yes _____ No ✓

If yes, please explain the circumstances.

Explain the circumstances underlying any “yes” answers for the aforementioned questions on separate sheets attached hereto.

B) Verification / Declaration

I declare under penalty of perjury under the laws of the State of Louisiana that the foregoing declaration is true, correct, and accurate to the best of my knowledge following due inquiry.

Executed March 18, 2019.



(Signature)

Mike Schutt

(Name Printed)

Authorized Representative

(Title)

Plenary Group USA Concessions Ltd.

(Name of Organization)

[Evidence of signature authorization for such individual must be provided with the Form of Proposal.]

PLENARY GROUP (CANADA) LTD.



FORM C

RESPONSIBLE PROPOSER QUESTIONNAIRE

PROPOSER’S NAME: Plenary Infrastructure Belle Chasse LLC

NAME OF ENTITY ON WHOSE BEHALF FORM IS PROVIDED:
Plenary Group (Canada) Ltd.

A) Questions

Proposer/Equity Member shall respond either “yes” or “no” to each of the following questions. If the response is “yes” to any question(s), a detailed explanation of the circumstances shall be provided in the space following the question. Proposer/Equity Member shall attach additional documentation as necessary to fully explain said circumstances. Failure to either respond to the questions or provide adequate explanations may preclude consideration of the Proposal and require its rejection.

Within the past ten years, has the identified entity, any Affiliate, or any officer, director, responsible managing officer, or responsible managing employee of such entity or Affiliate who has a proprietary interest in such entity:

- 1) Been disqualified, debarred, removed, or otherwise prevented from bidding or proposing on or completing a federal, state, or local contract anywhere in the United States or any other country because of a violation of law or safety regulation?

Yes _____ No ✓

If yes, please explain the circumstances.

- 2) Been convicted by a court of competent jurisdiction of any criminal charge of fraud, bribery, collusion, conspiracy, or any act in violation of state, federal, or foreign antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Yes _____ No ✓

If yes, please explain the circumstances.

- 3) Had filed against it, him or her, any criminal complaint, indictment, or information alleging fraud, bribery, collusion, conspiracy, or any action in violation of state or federal antitrust law in connection with the bidding or proposing upon, award of, or performance of any public works contract with any public entity?

Louisiana Department of Transportation and Development

Yes _____ No

If yes, please explain the circumstances.

- 4) Had filed against it, him, or her, any civil complaint (including, but not limited to, a cross-complaint) or other claim arising out of a public works contract alleging fraud, bribery, collusion, conspiracy, or any act in violation of state or federal antitrust law in connection with the bidding or proposing upon, award of or performance of any public works contract with any public entity?

Yes _____ No

If yes, please explain the circumstances.

- 5) Been found, adjudicated, or determined by any federal or state court or agency (including, but not limited to, the Equal Employment Opportunity Commission, the Office of Federal Contract Compliance Programs, and any applicable Louisiana governmental agency) to have violated any laws or Executive Orders relating to employment discrimination or affirmative action, including but not limited to Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C. Sections 2000e *et seq.*); the Equal Pay Act (29 U.S.C. Section 206(d)); and any applicable or similar Louisiana law.

Yes _____ No

If yes, please explain the circumstances.

- 6) Been found, adjudicated, or determined by any state court, state administrative agency, federal court, or federal agency to have violated or failed to comply with any law or regulation of the United States or any state governing prevailing wages (including, but not limited to, payment for health and welfare, pension, vacation, travel time, subsistence, apprenticeship or other training, or other fringe benefits) or overtime compensation?

Yes _____ No

If yes, please explain the circumstances.

Louisiana Department of Transportation and Development

7) Been convicted of violating a state or federal law respecting the employment of undocumented aliens?

Yes _____ No ✓

If yes, please explain the circumstances.

8) Been assessed liquidated or other damages for failure to complete any contract on time?

Yes _____ No ✓


If yes, please explain the circumstances.

Explain the circumstances underlying any “yes” answers for the aforementioned questions on separate sheets attached hereto.

B) Verification / Declaration

I declare under penalty of perjury under the laws of the State of Louisiana that the foregoing declaration is true, correct, and accurate to the best of my knowledge following due inquiry.

Executed March 18, 2019



(Signature)

Brian Budden

(Name Printed)

President and CEO

(Title)

Plenary Group (Canada) Ltd.

(Name of Organization)

[Evidence of signature authorization for such individual must be provided with the Form of Proposal.]

SECRETARY OF STATE CERTIFICATION

Delaware

Page 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF FORMATION OF "PLENARY INFRASTRUCTURE BELLE CHASSE LLC", FILED IN THIS OFFICE ON THE ELEVENTH DAY OF MAY, A.D. 2018, AT 12:58 O`CLOCK P.M.




Jeffrey W. Bullock, Secretary of State

6882361 8100
SR# 20183642913

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202678814
Date: 05-11-18

CERTIFICATE OF FORMATION
OF
PLENARY INFRASTRUCTURE BELLE CHASSE LLC

The undersigned, for the purpose of complying with the provisions of the Delaware Limited Liability Company Act (6 *Del. C.* § 18-101, *et seq.*) and forming a limited liability company thereunder, hereby certifies as follows:

1. **Name.** The name of the limited liability company formed hereby is Plenary Infrastructure Belle Chasse LLC (the "*Company*").

2. **Registered Agent.** The name and address of the registered agent for service of process of the Company in the State of Delaware is The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801.

IN WITNESS WHEREOF, the undersigned authorized person has executed this Certificate of Formation this 11th day of May, 2018.



Edward Snider, Authorized Person

R. Kyle Ardoin
SECRETARY OF STATE

State of Louisiana
Secretary of State



COMMERCIAL DIVISION
225.925.4704

05/15/2018

Administrative Services
225.932.5317 Fax
Corporations
225.932.5314 Fax
Uniform Commercial Code
225.932.5318 Fax

ONLINE FILING
Jacob@recordsearch.com

PLENARY INFRASTRUCTURE BELLE CHASSE LLC

It has been a pleasure to approve and place on file your application for certificate of authority. The appropriate evidence is attached for your files.

Payment of the filing fee is acknowledged by this letter.

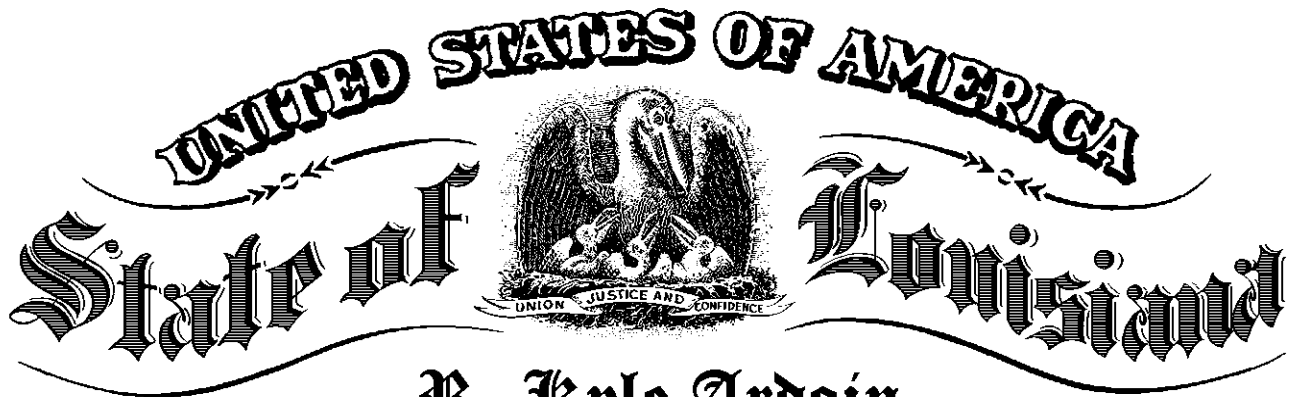
In addition to email and text notifications, business owners now have the option to enroll in our secured business filings (SBF) service. This service is available for a one-time fee of \$35 accompanied by a notarized affidavit. Upon enrollment, an amendment cannot be made to your entity without approval using your personal identification number. This is another way to protect your business from fraud and identity theft.

Please note that as of January 1, 2018, business owners in the following parishes will be required to file all available business documents online through **geauxBIZ**: Ascension, Bossier, Caddo, Calcasieu, East Baton Rouge, Jefferson, Lafayette, Livingston, Orleans, Ouachita, Rapides, St. Tammany, Tangipahoa and Terrebonne.

Online filing options are available if changes are necessary to your registration or if you need to file an annual report. Please visit our website at **GeauxBiz.com** for your future business needs.

Sincerely,

The Commercial Division
WEB



R. Kyle Ardoin
SECRETARY OF STATE

As Secretary of State of the State of Louisiana, I do hereby Certify that

the Application Form for Certificate of Authority of

PLENARY INFRASTRUCTURE BELLE CHASSE LLC

Domiciled at WILMINGTON, DELAWARE,

Was filed and recorded in this Office on May 15, 2018.

Thus authorizing the limited liability company to exercise the same rights and privileges accorded similar domestic limited liability companies, subject to the provisions of R. S. Title 12, Chapter 22, Part VIII.

In testimony whereof, I have hereunto set my hand and caused the Seal of my Office to be affixed at the City of Baton Rouge on,

May 15, 2018

Secretary of State

WEB 43060721Q



Certificate ID: 10952397#83P83

To validate this certificate, visit the following web site, go to **Business Services, Search for Louisiana Business Filings, Validate a Certificate**, then follow the instructions displayed.
www.sos.la.gov

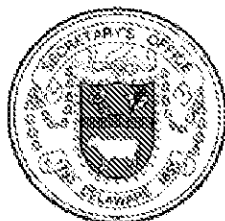
Delaware

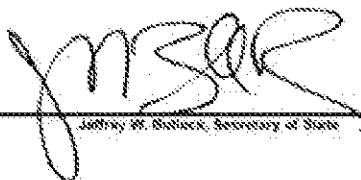
The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "PLENARY INFRASTRUCTURE BELLE CHASSE LLC" IS DULY FORMED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE FOURTEENTH DAY OF MAY, A.D. 2018.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "PLENARY INFRASTRUCTURE BELLE CHASSE LLC" WAS FORMED ON THE ELEVENTH DAY OF MAY, A.D. 2018.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL TAXES HAVE BEEN ASSESSED TO DATE.




Jeffrey W. Bullock, Secretary of State

6882361 8300

SR# 20183724702

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202690534

Date: 05-14-18



Agent Affidavit and Acknowledgement of Acceptance

Charter Number: 43060721Q

Charter Name: PLENARY INFRASTRUCTURE BELLE CHASSE LLC

The agent / agents listed below accept the appointment of registered agent for and on behalf of the Charter Name above.

Date Responded	Agent(s)	Agent(s) Electronic Signature
05/15/2018	C T CORPORATION SYSTEM	JAMES H TANKS III

R. Kyle Ardoin
SECRETARY OF STATE

State of Louisiana
Secretary of State



COMMERCIAL DIVISION
225.925.4704

10/23/2018

Administrative Services
225.932.5317 Fax
Corporations
225.932.5314 Fax
Uniform Commercial Code
225.932.5318 Fax

ONLINE FILING
edward.snider@plenarygroup.com

PLENARY INFRASTRUCTURE BELLE CHASSE LLC

It has been a pleasure to approve and place on file your Statement of Change. The appropriate evidence is attached for your files.

Payment of the filing fee is acknowledged by this letter.

In addition to email and text notifications, business owners now have the option to enroll in our secured business filings (SBF) service. This service is available online, at no charge, by filing a notarized affidavit. Upon enrollment, an amendment cannot be made to your entity without approval using your personal identification number. This is another way to protect your business from fraud and identity theft.

Please note that as of January 1, 2018, business owners in the following parishes will be required to file all available business documents online through **geauxBIZ**: Ascension, Bossier, Caddo, Calcasieu, East Baton Rouge, Jefferson, Lafayette, Livingston, Orleans, Ouachita, Rapides, St. Tammany, Tangipahoa and Terrebonne.

Online filing options are available if changes are necessary to your registration or if you need to file an annual report. Please visit our website at **GeauxBiz.com** for your future business needs.

Sincerely,

The Commercial Division
WEB

R. Kyle Ardoin
SECRETARY OF STATE

State of Louisiana
Secretary of State

COMMERCIAL DIVISION
225.925.4704



October 23, 2018

Administrative Services
225.932.5317 Fax
Corporations
225.932.5314 Fax
Uniform Commercial Code
225.932.5318 Fax

The attached document of PLENARY INFRASTRUCTURE BELLE CHASSE LLC was received and filed on October 23, 2018.

WEB 43060721Q

STATEMENT OF CHANGE

Charter Number: 43060721Q

Name: PLENARY INFRASTRUCTURE BELLE CHASSE LLC

ADDRESSES:

Principal office address in state or country of incorporation/organization:

C/O THE CORPORATION TRUST COMPANY, CORPORATION TRU 1209 ORANGE STREET

WILMINGTON, DE, 19801

Principal business office address:

555 W 5TH STREET STE 3150

LOS ANGELES, CA, 90013

Principal business establishment in Louisiana:

C/O C T CORPORATION SYSTEM, 3867 PLAZA TOWER DRIVE

BATON ROUGE, LA, 70816

Mailing Address:

555 W 5TH STREET STE 3150

LOS ANGELES, CA, 90013

LOUISIANA REGISTERED OFFICE ADDRESS:

Registered office address in Louisiana:

3867 PLAZA TOWER DR.

BATON ROUGE, LA, 70816

AGENTS:

Agent Name:

C T CORPORATION SYSTEM

3867 PLAZA TOWER DR.

BATON ROUGE, LA, 70816

MEMBERS/MANAGERS:

Member/Manager Name:

PLENARY INFRASTRUCTURE BELLE CHASSE HOLDCO LTD, SO (MEMBER)

555 W 5TH STREET STE 3150

LOS ANGELES, CA, 90013

BRIAN BUDDEN (MANAGER)

333 BAY STREET STE 4920

TORONTO, ON, M5H 2R2

STUART MARKS (MANAGER)

555 W 5TH STREET STE 3150

LOS ANGELES, CA, 90013

The filing of a false public record, with the knowledge of its falsity, is a crime, subjecting the filer to fine or imprisonment or both under R.S. 14:133.

TO BE ELECTRONICALLY SIGNED BY AUTHORIZED INDIVIDUAL.
ELECTRONIC SIGNATURE: ED SNIDER (10/23/2018)
TITLE: ASST CONTROLLER

LICENSING INFORMATION



State of  Louisiana

State Licensing Board for Contractors

This is to Certify that:

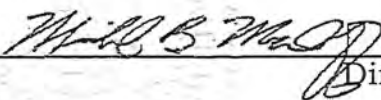
TRAYLOR BROS., INC.
835 N. CONGRESS AVE.
Evansville, IN 47715

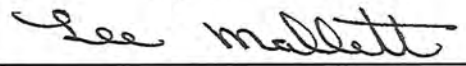
is duly licensed and entitled to practice the following classifications

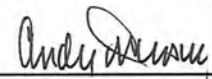
HEAVY CONSTRUCTION; HIGHWAY, STREET AND BRIDGE CONSTRUCTION



Witness our hand and seal of the Board dated,
Baton Rouge, LA 7th day of April 2018


Director


Chairman


Treasurer

Expiration Date: April 06, 2020

License No: 1029

This License Is Not Transferrable



The Louisiana Professional Engineering and Land Surveying Board has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Traylor Bros., Inc.	Traylor Bros., Inc. Mr. Christopher S. Traylor 835 North Congress Avenue Evansville, IN 47715

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)	Supervisee (s)
EF.0003236	Active	01/11/2005	03/31/2019	Mr. Robert Leonard DeLouche # PE.0022806 - Active	

Generated on: 5/2/2017 11:03:15 AM

State of  Louisiana

State Licensing Board for Contractors

This is to Certify that:

MASSMAN CONSTRUCTION CO.
4400 W. 109th St., Suite 300
Overland Park, KS 66211-1319

is duly licensed and entitled to practice the following classifications


BUILDING CONSTRUCTION; HEAVY CONSTRUCTION; HIGHWAY, STREET AND BRIDGE
CONSTRUCTION



Witness our hand and seal of the Board dated,
Baton Rouge, LA 3rd day of December 2016


Director


Chairman


Treasurer

Expiration Date: December 02, 2019

License No: 271

This License Is Not Transferrable



The Louisiana Professional Engineering and Land Surveying Board
has the following information on file:

Lookup Detail View

Contact

Name	Public Address
Huval & Associates, Inc.	Huval & Associates, Inc. Mr. David Huval, Sr. 922 West Pont des Mouton Road Lafayette, LA 70507-4008

License/Certificate Information w/ Supervision

License	Status	First Issuance Date	Expiration Date	Supervisor(s)
EF.0001542	Active	05/07/1990	09/30/2020	Mr. David Sanders Huval Sr. # PE.0009931 - Active


Generated on: 10/22/2018 11:10:19 AM



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 5/14/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. David Sanders Huval Sr.
922 West Pont des Mouton Road
Lafayette, LA 70507

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS) 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	Mr. David Sanders Huval Sr.	
License/Certificate Type - Number	Expiration Date	
PLS.0002015	03/31/2019	
Status: Active		

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Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer

All information provided by LAPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LAPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LAPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LAPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LAPELS.

If you need to make changes to your contact information, please choose one of the following options below:

Contact update for [Individuals](#)

Contact update for [Firms](#)

License/Certificate Types:

EF = Engineering Firm

VF = Land Surveying Firm

CPD = Continuing Professional Development Sponsor/Provider

*PE = Professional Engineer

*PLS = Professional Land Surveyor

*EI = Engineer Intern

*LSI = Land Surveyor Intern

*PE Discipline Codes


AG	Agricultural	ME	Mechanical
AR	Architectural	MI	Mining or Mineral
CH	Chemical	MT	Metallurgical
CE	Civil	MU	Manufacturing
CS	Control Systems	NV	Naval Architecture & Marine
EE	Electrical & Computer	NU	Nuclear
EV	Environmental	ST	Structural *
FP	Fire Protection	PT	Petroleum
IE	Industrial		
<p>* An engineer that has passed the Structural I exam is listed as a Civil Engineer. An engineer that has passed both the Structural I and II exams is listed as Structural (ST) and a Civil (CE) Engineer.</p>			



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Colby John Guidry
1833 Sawmill Road
Breux Bridge, LA 70517



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)**

9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Colby John Guidry

License/Certificate Type - Number	Expiration Date
PE.0031338	09/30/2020

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Cut Here

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LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Larry Dean Sant
11955 Lakeland Park Boulevard, Suite 100
Baton Rouge, LA 70809



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)**

9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Larry Dean Sant

License/Certificate Type - Number	Expiration Date
PE.0035625	09/30/2020

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

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Disclaimer


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LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Robert W. Schmidt
1330 Stanford Avenue
Baton Rouge, LA 70808



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)**
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Robert W. Schmidt

License/Certificate Type - Number	Expiration Date
PE.0022837	09/30/2019

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Cut Here

Fold Here

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Disclaimer


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LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LPELS) has the following information on file:

Mr. Rudolph McLellan
6510 Rollins Road
Zachary, LA 70791

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LPELS) 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	Mr. Rudolph McLellan	
License/Certificate Type - Number	Expiration Date	
PE.0019994	03/31/2020	
Status: Active		

← Cut Here

Fold Here →

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer


All information provided by LPELS on this web page, and on its other web pages and internet sites, is made available to provide immediate access for the convenience of interested persons. While LPELS believes the information to be reliable, human or mechanical error remains a possibility, as does delay in the posting or updating of information. Therefore, LPELS makes no guarantee as to the accuracy, completeness, timeliness, currency, or correct sequencing of the information. Neither LPELS, nor any of the sources of the information, shall be responsible for any errors or omissions, or for the use or results obtained from the use of this information. Other specific cautionary notices may be included on other web pages maintained by LPELS.



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Thomas Millard Gattle III
207 Worth Avenue
Lafayette, LA 70508



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)**

9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Thomas Millard Gattle III

License/Certificate Type - Number	Expiration Date
PE.0030779	09/30/2019

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Cut Here

Fold Here

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

Disclaimer

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NON-COLLUSION FORM

NON-COLLUSION FORM

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

AFFIDAVIT

I hereby certify that I am (a) Vice President, Plenary Group USA Ltd. and duly authorized representative of the firm of Plenary Infrastructure Belle Chasse LLC, whose address is 100 N. Tampa Street, Suite 2840, Tampa, FL 33602, and that neither I nor the above firm I represent has participated in any of the following activities:

- A) Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration any firm or person (other than a bona fide employee working solely for me or the above Proposer) to solicit or secure the Comprehensive Agreement; and
- B) Agreed, as an express or implied condition for obtaining the Comprehensive Agreement, to employ or retain the services of any firm or person in connection with carrying out the Comprehensive Agreement; or
- C) Paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me or the above Proposer) any fee, contribution, donation, or consideration of any kind for or in connection with procuring or carrying out the Comprehensive Agreement.

I acknowledge that this affidavit is furnished to the Louisiana Department of Transportation and Development (LA DOTD) in connection with the Comprehensive Agreement and is subject to applicable state and federal laws, both criminal and civil.

[Handwritten Signature]
(Signature)

3/11/19
(Date)

SWORN TO AND SUBSCRIBED BEFORE ME AT 4:04 pm,

THIS 11th DAY OF March.



BY: *[Handwritten Signature]*
(Notary Public)

NON-COLLUSION FORM

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

AFFIDAVIT

I hereby certify that I am (a) Vice President, Plenary Group USA Ltd. and duly authorized representative of the firm of Plenary Group USA Concessions Ltd., whose address is 555 W. 5th Street, Ste 3150, Los Angeles, CA 90013, and that neither I nor the above firm I represent has participated in any of the following activities:

- A) Employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration any firm or person (other than a bona fide employee working solely for me or the above Proposer) to solicit or secure the Comprehensive Agreement; and
- B) Agreed, as an express or implied condition for obtaining the Comprehensive Agreement, to employ or retain the services of any firm or person in connection with carrying out the Comprehensive Agreement; or
- C) Paid, or agreed to pay, to any firm, organization, or person (other than a bona fide employee working solely for me or the above Proposer) any fee, contribution, donation, or consideration of any kind for or in connection with procuring or carrying out the Comprehensive Agreement.

I acknowledge that this affidavit is furnished to the Louisiana Department of Transportation and Development (LA DOTD) in connection with the Comprehensive Agreement and is subject to applicable state and federal laws, both criminal and civil.

(Signature) *Melissa* _____ 3/14/19
(Date)

SWORN TO AND SUBSCRIBED BEFORE ME AT 3:02 pm,

THIS 14th DAY OF March.



BY: *Katrina Baletyne*
(Notary Public)

FORM D

FORM D

DISADVANTAGED BUSINESS ENTERPRISE CERTIFICATION

State Project: H.004791

Highway: LA 23

Parish: Plaquemines

**DISADVANTAGED BUSINESS ENTERPRISE
REQUIREMENTS**

The following goal for participation by Disadvantaged Business Enterprises (DBE) is established for construction and services for the Project:

DBE

5%

Disadvantaged Business Enterprise Certification

By signing the Proposal, the Proposer certifies that (A) the above DBE goal will be met by obtaining commitments equal to or exceeding the DBE percentage or that Proposer will provide a good faith effort to substantiate the attempt to meet the goal; and (B) if awarded the Comprehensive Agreement, the Proposer will meet the requirements set forth in the Comprehensive Agreement Exhibit M.

Signed: 

Printed Name: Mike Schutt

Title: Authorized Representative, Plenary Infrastructure Belle Chasse LLC

Date: March 18, 2019

FORM E

PLENARY INFRASTRUCTURE BELLE CHASSE LLC



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:


1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement; and

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement the undersigned shall complete and submit Standard Form-LLL, “**Disclosure Form to Report Lobbying**” in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019



Signature

Authorized Representative, Plenary Infrastructure
Belle Chasse LLC
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

PLENARY GROUP USA CONCESSIONS LTD.



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:


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2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement the undersigned shall complete and submit Standard Form-LLL, “**Disclosure Form to Report Lobbying**” in accordance with its instructions.

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019



Signature

Authorized Representative, Plenary Group USA
Concessions Ltd.
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

PLENARY GROUP (CANADA) LTD.



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019



Signature

President and CEO, Plenary Group (Canada) Ltd.
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

TRAYLOR BROS., INC.



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:

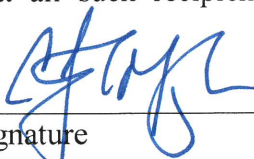
1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement; and

2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement the undersigned shall complete and submit Standard Form-LLL, “**Disclosure Form to Report Lobbying**” in accordance with its instructions.

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 13, 2019



Signature

Vice President

Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

MASSMAN CONSTRUCTION CO.



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:

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2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal contract, grant, loan, or cooperative agreement the undersigned shall complete and submit Standard Form-LLL, “**Disclosure Form to Report Lobbying**” in accordance with its instructions.

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019


Signature

President
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

HUVAL & ASSOCIATES, INC.

FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019



Signature

President

Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

DBI SERVICES, LLC



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

The undersigned certifies, to the best of its knowledge and belief (after due inquiry and investigation) to the following:


1. No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement; and

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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 18, 2019



Signature

Secretary
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

KAPSCH TRAFFICCOM USA, INC.



FORM E

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

**STATE PROJECT NO. H.004791
PLAQUEMINES PARISH**

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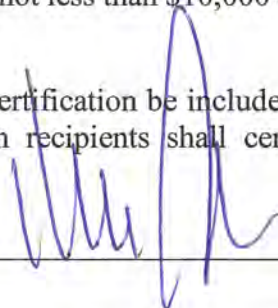
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The undersigned shall require that the language of this certification be included in all lower tier subcontracts which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

Date: March 14, 2019

Signature



Michael Hofer, CFO, Kapsch TrafficCom USA, Inc.
Title

[The Proposer may duplicate or modify this form as necessary so that it accurately describes the entity making the Proposal and so that it is signed on behalf of all partners, members, or joint venturers of the Proposer.]

ORGANIZATIONAL CONFLICT OF INTEREST DISCLOSURE

1. LEGAL

J) POTENTIAL ORGANIZATIONAL CONFLICTS OF INTEREST

TRAYLOR BROS., INC.:

HNTB

Traylor Bros., Inc. has participated in approximately 12 design-build procurements where HNTB Corporation was designated as a designer or construction engineer for various design-build joint ventures of which Traylor was a member in the last 15 years. Of those, the Huey P. Long Bridge Widening Project for the Louisiana Department of Transportation and Development project and the Missouri Safe and Sound Bridge Improvement Project for the Missouri Department of Transportation were the only two procurements where the teams on which Traylor and HNTB participated were awarded the projects. Both projects have been completed for several years. One current procurement, where an HNTB affiliate is involved, is the Hudson Tunnel Project for the Gateway Program Development Corp. (with HNTB New York Engineering & Architecture, PC). Other than that, there are no active contracts between Traylor and HNTB. That procurement involves a tunnel, which is handled by a different division with different personnel from the division which is involved in the procurement for the Belle Chasse project. The teams involved in the two procurements will not share information regarding the respective projects.

HDR

Henningson, Durham & Richardson, Architecture & Engineering, PC (HDR) is the designer on the Tappan Zee Bridge project in New York. Traylor Bros., Inc. is a member of Tappan Zee Constructors, LLC, the design-builder on the project. Traylor Bros., Inc. does not have a direct contract with HDR. The Traylor personnel working on the Tappan Zee project will not share information with the Traylor personnel working on the Belle Chasse procurement.

MASSMAN CONSTRUCTION CO.:

HNTB

Massman Construction Co. has past, present, and currently planned contractual relationships with HNTB Corporation.

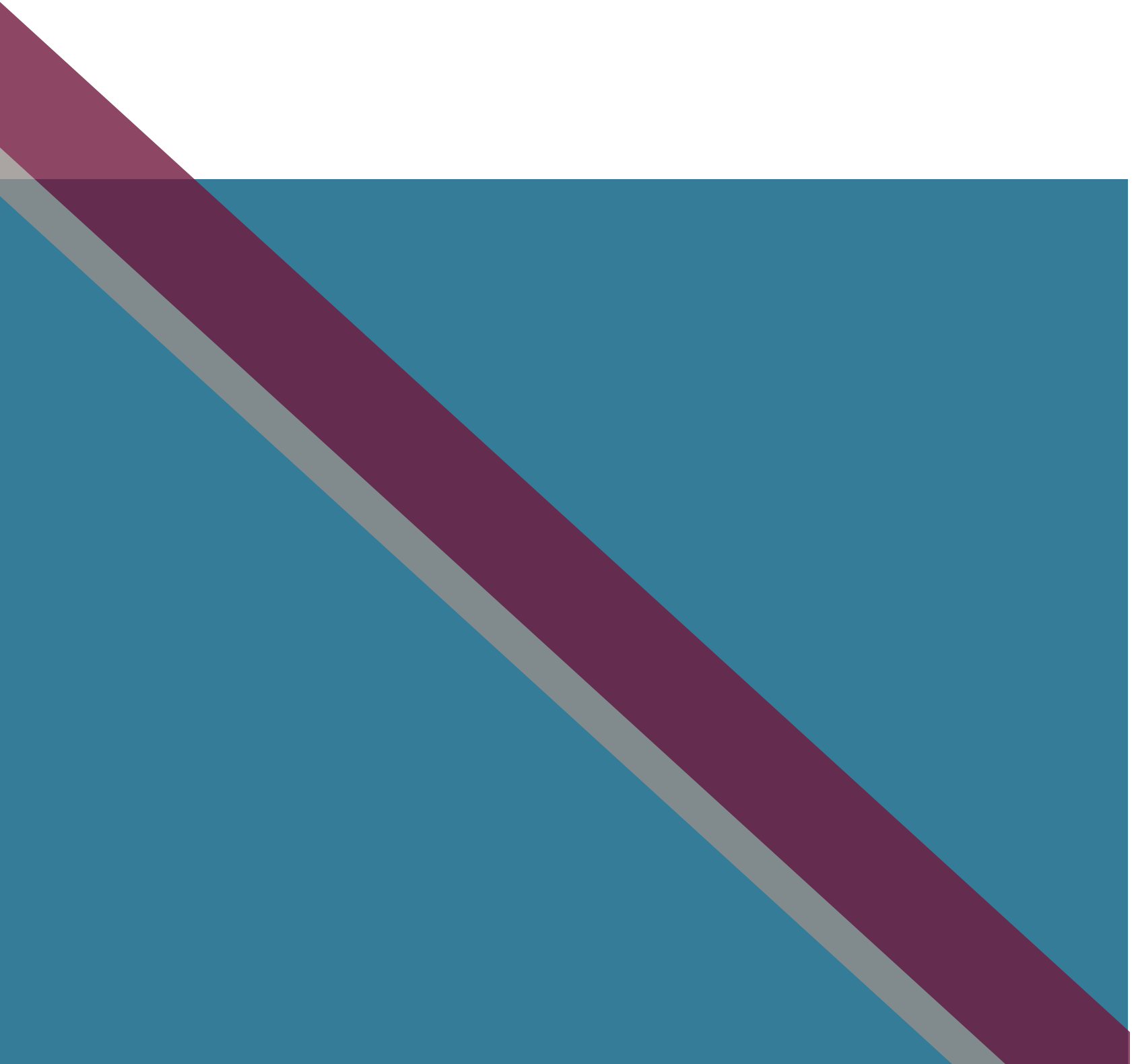
Past: HNTB provided construction engineering services to a Massman joint venture for the Huey P. Long Bridge Widening Project for the Louisiana Department of Transportation and Development. Massman provided construction services to HNTB for the US-82 Bridge repair project over the Mississippi River at Greenville, Mississippi. HNTB provided engineering services to Massman for the Fairfax Bridge Proposal in Kansas City, Missouri, in addition to several, less recent design-build pursuits.

Present: Massman is currently in a contractual relationship with HNTB on the Champ Clark Bridge design-build project in Louisiana, Missouri.

Currently Planned: Massman and HNTB have had teaming discussions regarding the design-build pursuits for two potential bridge replacement projects for the Missouri Department of Transportation.

Present: Massman is currently part of a construction joint venture pursuing the 30 Crossing design-build project in Little Rock, Arkansas. HDR is a subconsultant to the joint venture's lead designer.

FORM F



FORM F

COMMITMENT TO ASSIGN IDENTIFIED RESOURCES TO PROJECT

Proposer's Name: Plenary Infrastructure Belle Chasse LLC

Understanding the Louisiana Department of Transportation and Development's (LA DOTD) concern that the Key Personnel resources specifically represented and listed in this Proposal actually be assigned to the Comprehensive Agreement (if awarded to this Proposer) and not also be committed to other Projects, Plenary Infrastructure Belle Chasse LLC (Name of Proposer) commits that the Key Personnel resources shown in the Proposal will be available to the extent within this Proposer's control. If awarded the Comprehensive Agreement, this Proposer will undertake all reasonable efforts to provide all the Key Personnel identified in its Proposal on a full time basis for the periods necessary to fulfill their responsibilities.

Signed:  _____

Printed Name: Mike Schutt

Title: Authorized Representative, Plenary Infrastructure Belle Chasse LLC

Date: March 18, 2019

(To be executed by the Proposer's designated point of contact.)

APPROVALS FOR CHANGES IN KEY PERSONNEL OR ORGANIZATION



1. LEGAL

L) CHANGES TO PROPOSER'S KEY PERSONNEL

The Plenary Infrastructure Belle Chasse Proposer team has remained the same since submission of our SOQ and no changes to the Proposer's Key Personnel and/or organization have been requested.

FORM G

FORM G

CERTIFICATION REGARDING DISCRIMINATORY BOYCOTTS OF ISRAEL

STATE PROJECT NO. H.004791

By signing the Proposal, the Proposer certifies and agrees that the following information is correct:

In preparing its Proposal, the Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. Proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. LA DOTD reserves the right to reject the Proposal of the Proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.

Signed: 

Printed Name: Mike Schutt

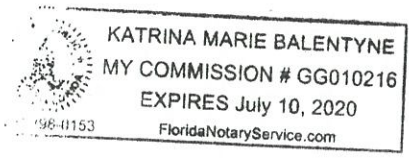
Title: Authorized Representative,
Plenary Infrastructure Belle Chasse LLC

Date: March 18, 2019

STATE OF Florida)
) ss
PARISH OF Hillsborough)

SUBSCRIBED AND SWORN TO ME ON THIS:
14th DAY OF March
Katrina Baletyne

NOTARY PUBLIC
My Commission Expires: July 10, 2020



FORM G

CERTIFICATION REGARDING DISCRIMINATORY BOYCOTTS OF ISRAEL

STATE PROJECT NO. H.004791

By signing the Proposal, the Proposer certifies and agrees that the following information is correct:

In preparing its Proposal, the Proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. Proposer also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. LA DOTD reserves the right to reject the Proposal of the Proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.

Signed: _____
Mike Schutt

Printed Name: Mike Schutt

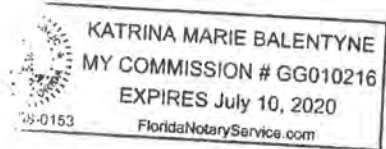
Title: Authorized Representative,
Plenary Group USA Concessions Ltd.

Date: March 18, 2019

STATE OF Florida)
PARISH OF Hillsborough) SS

SUBSCRIBED AND SWORN TO ME ON THIS:
11th DAY OF March
Katrina Baletnyne

NOTARY PUBLIC
My Commission Expires: July 10, 2020



SURETY COMMITMENT LETTER(S)



One Tower Square, Bond/SPB
Hartford, CT 06183

March 11, 2019

Louisiana Department of Transportation and Development
1201 Capitol Access Road
Baton Rouge, LA 70802

RE: Traylor – Massman, Joint Venture
RFP: Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project
State Project No.: H.004791

To Whom It May Concern:

Traylor – Massman, Joint Venture is designated as the Lead Contractor who will have a direct contract with the Developer for the Design-Build Work project referenced above if awarded.

The surety for Traylor Brothers is Travelers Casualty and Surety Company of America. Travelers Casualty and Surety Company of America has an A.M. Best rating of “A++” with a financial class rating of XV as well as a U.S. Treasury Limit of \$2,101,287,000. Massman Construction’s Surety Company is Zurich American Insurance Company. Zurich American Insurance Company has an A.M. Best rating of “A+” with a financial class rating of XV as well as a U.S. Treasury Limit of \$718,238,000.

Travelers and Zurich have evaluated the Lead Contractors’ backlog and work-in-progress and have determined the Lead Contractor is capable of obtaining the Performance and Payment bonds, each being in the amount of 100% of the aggregate value of the Design-Build Work for this project. Should bonds be issued, Travelers Casualty and Surety Company of America and Zurich American Insurance Company are bound in solido for the full amount of the bond(s).

It should be understood that any arrangement for bonds is strictly a matter between Traylor Brothers and Massman Construction and their sureties, and they assume no liability to you or any third party if for any reason they do not execute said bonds.

If you have any questions in regard to this letter, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Salena Wood". The signature is fluid and cursive.

Salena Wood,
Attorney-in-Fact for
Travelers Casualty and Surety Company of America
Zurich American Insurance Company

ACKNOWLEDGEMENT BY SURETY

STATE OF MISSOURI
COUNTY OF ST. LOUIS CITY

On this 11th day of March, 2019, before me, Barbara Pannier, a Notary Public, within and for said County and State, personally appeared Salena Wood to me personally known to be the Attorney-in-Fact of and for Travelers Casualty and Surety Company of America, Zurich American Insurance Company acknowledged that s/he executed the said instrument as the free act and deed of said Company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the aforesaid County, the day and year in this certificate first above written.



Notary Public in the State of Missouri
County of St. Louis City





**Travelers Casualty and Surety Company of America
Travelers Casualty and Surety Company
St. Paul Fire and Marine Insurance Company**

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company are corporations duly organized under the laws of the State of Connecticut (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint **Salena Wood** of **ST LOUIS Missouri**, their true and lawful Attorney-in-Fact to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed, and their corporate seals to be hereto affixed, this **3rd** day of **February**, 2017.



State of Connecticut

City of Hartford ss.

By: *Robert L. Raney*
Robert L. Raney, Senior Vice President

On this the **3rd** day of **February**, 2017, before me personally appeared **Robert L. Raney**, who acknowledged himself to be the Senior Vice President of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.

My Commission expires the **30th** day of **June**, 2021



Marie C. Tetreault
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, **Kevin E. Hughes**, the undersigned, Assistant Secretary of Travelers Casualty and Surety Company of America, Travelers Casualty and Surety Company, and St. Paul Fire and Marine Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which remains in full force and effect.

Dated this **11th** day of **March**, 2019



Kevin E. Hughes
Kevin E. Hughes, Assistant Secretary

**To verify the authenticity of this Power of Attorney, please call us at 1-800-421-3880.
Please refer to the above-named Attorney-in-Fact and the details of the bond to which the power is attached.**

**ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND
POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS: That the ZURICH AMERICAN INSURANCE COMPANY, a corporation of the State of New York, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, a corporation of the State of Illinois, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND a corporation of the State of Illinois (herein collectively called the "Companies"), by **Robert D. Murray, Vice President**, in pursuance of authority granted by Article V, Section 8, of the By-Laws of said Companies, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, do hereby nominate, constitute, and appoint **Susan R. SCHWARTZ, Salena WOOD, Thomas U. KRIPPENE, Catherine L. GEIMER, Eric D. SAUER, Christina BARATTI, Jennifer WILLIAMS and Barbara PANNIER**, all of St. Louis, Missouri, EACH, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Companies, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the ZURICH AMERICAN INSURANCE COMPANY at its office in New York, New York., the regularly elected officers of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at its office in Owings Mills, Maryland., and the regularly elected officers of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at its office in Owings Mills, Maryland., in their own proper persons.

The said Vice President does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article V, Section 8, of the By-Laws of said Companies, and is now in force.

IN WITNESS WHEREOF, the said Vice-President has hereunto subscribed his/her names and affixed the Corporate Seals of the said ZURICH AMERICAN INSURANCE COMPANY, COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 6th day of March, A.D. 2019.



ATTEST:
ZURICH AMERICAN INSURANCE COMPANY
COLONIAL AMERICAN CASUALTY AND SURETY COMPANY
FIDELITY AND DEPOSIT COMPANY OF MARYLAND

By: *Robert D. Murray*
Vice President

By: *Dawn E. Brown*
Secretary

**State of Maryland
County of Baltimore**

On this 6th day of March, A.D. 2019, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, **Robert D. Murray, Vice President and Dawn E. Brown, Secretary** of the Companies, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and acknowledged the execution of same, and being by me duly sworn, depose and saith, that he/she is the said officer of the Company aforesaid, and that the seals affixed to the preceding instrument are the Corporate Seals of said Companies, and that the said Corporate Seals and the signature as such officer were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporations.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



Constance A. Dunn, Notary Public
My Commission Expires: July 9, 2019

EXTRACT FROM BY-LAWS OF THE COMPANIES

"Article V, Section 8, Attorneys-in-Fact. The Chief Executive Officer, the President, or any Executive Vice President or Vice President may, by written instrument under the attested corporate seal, appoint attorneys-in-fact with authority to execute bonds, policies, recognizances, stipulations, undertakings, or other like instruments on behalf of the Company, and may authorize any officer or any such attorney-in-fact to affix the corporate seal thereto; and may with or without cause modify or revoke any such appointment or authority at any time."

CERTIFICATE

I, the undersigned, Secretary of the ZURICH AMERICAN INSURANCE COMPANY, the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY, and the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that Article V, Section 8, of the By-Laws of the Companies is still in force.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the ZURICH AMERICAN INSURANCE COMPANY at a meeting duly called and held on the 15th day of December 1998.

RESOLVED: "That the signature of the President or a Vice President and the attesting signature of a Secretary or an Assistant Secretary and the Seal of the Company may be affixed by facsimile on any Power of Attorney...Any such Power or any certificate thereof bearing such facsimile signature and seal shall be valid and binding on the Company."

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the COLONIAL AMERICAN CASUALTY AND SURETY COMPANY at a meeting duly called and held on the 5th day of May, 1994, and the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seals of the said Companies, this 11th day of March, 2019.



Brian M. Hodges

By: Brian M. Hodges
Vice President

TO REPORT A CLAIM WITH REGARD TO A SURETY BOND, PLEASE SUBMIT A COMPLETE DESCRIPTION OF THE CLAIM INCLUDING THE PRINCIPAL ON THE BOND, THE BOND NUMBER, AND YOUR CONTACT INFORMATION TO:

Zurich Surety Claims
1299 Zurich Way
Schaumburg, IL 60196-1056
www.reportsfclaims@zurichna.com
800-626-4577

Everest Reinsurance Company
461 Fifth Avenue, 4th Floor
New York, NY 10017-6234



175 Capital Bld, Ste 100
Rocky Hill, CT 06067
Aspen-insurance.com

March 8, 2019

Louisiana Department of Transportation and Development
1201 Capitol Access Road
Baton Rouge, LA 70802-4438

RE: Kapsch TrafficCom USA, Inc.
Belle Chasse Bridge and Tunnel Replacement Public Private Partnership Project
ECP \$12,000,000

Kapsch TrafficCom USA, Inc. is a valued client of Aspen American Insurance Company and the Everest Reinsurance Company and currently has capacity for single projects of approximately \$150 million with an aggregate capacity of approximately \$350 million.

Aspen American Insurance Company has an A.M. Best Rating of A, Everest Reinsurance Company has an A.M. Best Rating of A+ and both sureties currently hold a Certificate of Authority as an acceptable surety company with the U.S. Department of the Treasury listing of Approved Sureties. Aspen and Everest are prepared to issue the required performance/payment bonds for 100% of the aggregate value of the design-build work related to the above referenced project. The co-sureties are bound in solido for the full amount of the bond.

Naturally, the execution of any bonds are subject to our normal underwriting review, including, but not limited to, review of the bond forms, contract terms, conditions and evidence on the adequacy of financing.

It is our understanding that this information will not be disclosed to other persons. Should you require further information, please do not hesitate to contact us at (860) 269-2179.

Victoria P. Parkerson
Attorney-in-Fact



**POWER OF ATTORNEY
EVEREST REINSURANCE COMPANY
DELAWARE**

KNOW ALL PERSONS BY THESE PRESENTS: That Everest Reinsurance Company, a corporation of the State of Delaware ("Company") having its principal office located at 477 Martinsville Road, Liberty Corner, New Jersey 07938, do hereby nominate, constitute, and appoint: **Victoria P. Parkerson**

its true and lawful Attorney-in-fact to make, execute, attest, seal and deliver for and on its behalf, as surety, and as its act and deed, where required, any and all bonds and undertakings in the nature thereof, for the penal sum of no one of which is in any event to exceed UNLIMITED, reserving for itself the full power of substitution and revocation.

Bond No.: N/A

Principal: Kapsch TrafficCom USA, Inc.

Obligee: Louisiana Department of Transportation and Development

Such bonds and undertakings, when duly executed by the aforesaid Attorney-in-fact shall be binding upon the Company as fully and to the same extent as if such bonds and undertakings were signed by the President and Secretary of the Company and sealed with its corporate seal.

This Power of Attorney is granted and is signed by facsimile under and by the authority of the following Resolutions adopted by the Board of Directors of Company ("Board") on the 28th day of July 2016:

RESOLVED, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby appointed by the Board as authorized to make, execute, seal and deliver for and on behalf of the Company, any and all bonds, undertakings, contracts or obligations in surety or co-surety with others and that the Secretary or any Assistant Secretary of the Company be and that each of them hereby is authorized to attest to the execution of any such bonds, undertakings, contracts or obligations in surety or co-surety and attach thereto the corporate seal of the Company.

RESOLVED, FURTHER, that the President, any Executive Vice President, and any Senior Vice President and Anthony Romano are hereby authorized to execute powers of attorney qualifying the attorney named in the given power of attorney to execute, on behalf of the Company, bonds and undertakings in surety or co-surety with others, and that the Secretary or any Assistant Secretary of the Company be, and that each of them is hereby authorized to attest the execution of any such power of attorney, and to attach thereto the corporate seal of the Company.

RESOLVED, FURTHER, that the signature of such officers named in the preceding resolutions and the corporate seal of the Company may be affixed to such powers of attorney or to any certificate relating thereto by facsimile, and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be thereafter valid and binding upon the Company with respect to any bond, undertaking, contract or obligation in surety or co-surety with others to which it is attached.

IN WITNESS WHEREOF, Everest Reinsurance Company has caused their corporate seals to be affixed hereto, and these presents to be signed by their duly authorized officers this 28th day of July 2016.



Attest: Nicole Chase, Assistant Secretary

Everest Reinsurance Company

By: Anthony Romano, Vice President

On this 28th day of July 2016, before me personally came Anthony Romano, known to me, who, being duly sworn, did execute the above instrument; that he knows the seal of said Company; that the seal affixed to the aforesaid instrument is such corporate seal and was affixed thereto; and that he executed said instrument by like order.

LINDA BOISSELLE
Notary Public, State of New York
No 01B06239736
Qualified in Queens County
Term Expires April 25, 2019

Linda, Boisselle, Notary Public

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Company, at the Liberty Corner, this 8th day of March 2019.



Aspen American Insurance Company
175 Capital Boulevard, Rocky Hill, CT 06067

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, THAT Aspen American Insurance Company, a corporation duly organized under the laws of the State of Texas, and having its principal offices in Rocky Hill, Connecticut, (hereinafter the "Company") does hereby make, constitute and appoint: Woodrow M. Baird; Richard A Leveroni ; Russell M. Canterbury; Steven E. Susanin; Jessica L. Piccirillo; Kathleen M. Flanagan; Diane Moraski; Adam Martin and Victoria P. Parkerson of Alliant Insurance Services, Inc. its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge on behalf of the Company, at any place within the United States, the following instrument(s) by his/her sole signature and act: any and all bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking and any and all consents incident thereto, and to bind the Company thereby as fully and to the same extent as if the same were signed by the duly authorized officers of the Company. All acts of said Attorney(s)-in-Fact done pursuant to the authority herein given are hereby ratified and confirmed. This appointment is made under and by authority of the following Resolutions of the Board of Directors of said Company effective on April 7, 2011, which Resolutions are now in full force and effect;

VOTED: All Executive Officers of the Company (including the President, any Executive, Senior or Assistant Vice President, any Vice President, any Treasurer, Assistant Treasurer, or Secretary or Assistant Secretary) may appoint Attorneys-in-Fact to act for and on behalf of the Company to sign with the Company's name and seal with the Company's seal, bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said Executive Officers at any time may remove any such appointee and revoke the power given him or her.

VOTED: The foregoing authority for certain classes of officers of the Company to appoint Attorneys-in-Fact by virtue of a Power of Attorney to sign and seal bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, as well as to revoke any such Power of Attorney, is hereby granted specifically to the following individual officers of Aspen Specialty Insurance Management, Inc.:

Michael Toppi, Executive Vice President, Scott Sadowsky, Senior Vice President, Kevin W. Gillen, Senior Vice President, Mathew Raino, Senior Vice President, Ryan Field, Senior Vice President; Timothy P. Griffin, Vice President, Casey Sullivan, Vice President, Keith Flannery, Vice President, Mary E. Duroske, Vice President, Frank Campiglia, Vice President, Ray Philippon, Assistant Vice President and Lucas Lomax, Assistant Vice President. This Power of Attorney may be signed and sealed by facsimile (mechanical or printed) under and by authority of the following Resolution voted by the Boards of Directors of Aspen American Insurance Company, which Resolution is now in full force and effect:

VOTED: That the signature of any of the Officers identified by title or specifically named above may be affixed by facsimile to any Power of Attorney for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any and all consents incident thereto, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company. Any such power so executed and certified by such facsimile signature and/or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking so executed.

IN WITNESS WHEREOF, Aspen American Insurance Company has caused this instrument to be signed and its corporate seal to be hereto affixed this 22nd day of February, 2019

STATE OF CONNECTICUT

SS. ROCKY HILL

COUNTY OF HARTFORD

Aspen American Insurance Company

Kevin Gillen, Senior Vice President

On this 22nd day of February, 2019 before me personally came Kevin Gillen, to me known, who being by me duly sworn, did depose and say; that he/she is Senior Vice President, of Aspen American Insurance Company, the Company described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he/she executed the said instrument on behalf of the Company by authority of his/her office under the above Resolutions thereof.

Patricia C. Taber

Notary Public

My commission expires: May 31, 2021

Patricia C. Taber
Notary Public

State of Connecticut

My Commission Expires May 31, 2021

CERTIFICATE

I, the undersigned, Kevin Gillen, of Aspen American Insurance Company, a stock corporation of the State of Texas, do hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the Boards of Directors, as set forth above, are now and remain in full force and effect.

Given under my hand and seal of said Company, in Rocky Hill, Connecticut, this 8th day of March, 2019

By: Kevin Gillen

Name: Kevin Gillen, Senior Vice President



* For verification of the authenticity of the Power of Attorney you may call (860) 760-7728 or email: Patricia.Taber@aspen-insurance.com

PROPOSAL BOND

PROPOSAL BOND

Plenary Infrastructure Belle Chasse LLC _____, as Principal and

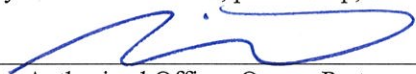
Atlantic Specialty Insurance Company _____, as Surety, are bound unto the State of Louisiana, Department of Transportation and Development, (hereinafter called the LA DOTD) in the sum of five percent of the aggregate amount of the Design-Build Work, of which the Principal and Surety bind themselves and their heirs, executors, administrators, successors, and assigns, as solidary obligors.

Signed and sealed this 14th day of March, 2019

The condition of this obligation is such that, whereas the Principal has submitted a Proposal to the LA DOTD on a Comprehensive Agreement for the construction of State Project No. H.004791, the Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project, located in Plaquemines Parish, if the Proposal is accepted and the Principal, within the specified time, enters into the Comprehensive Agreement in writing, gives bond with Surety acceptable to the LA DOTD for payment and performance of said Comprehensive Agreement, and completes Financial Close, this obligation will be void; otherwise to remain in effect.

Plenary Infrastructure Belle Chasse LLC

Principal (or, if Proposer is a Joint Venture, partnership, Limited Liability Company, Lead Equity Member of the JV, partnership, or LLC)

By:  _____
Authorized Officer-Owner-Partner

Nigel Kirkwood, Vice President

Typed or Printed Name

By:  _____
Authorized Officer-Owner Partner

Tina Chen, Secretary

Typed or Printed Name

Atlantic Specialty Insurance Company

Surety

By:  _____

Jane L. Fedorczyk, Attorney-in-fact

Typed or Printed Name

To receive a copy of the Comprehensive Agreement and subsequent correspondence/communication from LA DOTD with respect to the Proposal Bond, the following information must be provided:

Construction Risk Partners

Bonding Agency or Company Name

150 South Warner Road, Suite 420
King of Prussia, PA 19406

Address

Gary V. Rispoli

Agent or Representative

484-654-0579/484-654-0590

Telephone/Facsimile Number

ACKNOWLEDGEMENT OF PRINCIPAL

STATE /PROVINCE: British Columbia
COUNTY/CITY: Vancouver

ON THE 14th DAY OF March 2019, BEFORE ME PERSONALLY CAME Nigel Kirkwood, TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY THAT (S)HE RESIDES AT Vancouver, BC, THAT (S)HE IS THE Vice President OF PLENARY INFRASTRUCTURE BELLE CHASSE LLC, THE LIMITED LIABILITY COMPANY DESCRIBED IN AND WHICH EXECUTED THE ATTACHED INSTRUMENT, AND THAT (S)HE SIGNED HIS/HER NAME THERETO BY ORDER OF THE BOARD OF MANAGERS OF SAID LIMITED LIABILITY COMPANY.

[Signature]
Notary Public

ACKNOWLEDGEMENT OF PRINCIPAL

STATE /PROVINCE: British Columbia
COUNTY/CITY: Vancouver

ON THE 14th DAY OF March 2019, BEFORE ME PERSONALLY CAME Tina Chen, TO ME KNOWN, WHO BEING BY ME DULY SWORN, DID DEPOSE AND SAY THAT (S)HE RESIDES AT Richmond, BC, THAT (S)HE IS THE Secretary OF PLENARY INFRASTRUCTURE BELLE CHASSE LLC THE LIMITED LIABILITY COMPANY DESCRIBED IN AND WHICH EXECUTED THE ATTACHED INSTRUMENT; THAT (S)HE SIGNED HIS/HER NAME THERETO BY ORDER OF THE BOARD OF MANAGERS OF SAID LIMITED LIABILITY COMPANY.

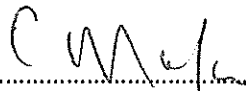
[Signature]
Notary Public

ACKNOWLEDGMENT OF SURETY COMPANY

STATE OF NEW JERSEY

COUNTY OF SOMERSET

ON THIS 14TH DAY OF MARCH, 2019, BEFORE ME PERSONALLY CAME JANE L. FEDORCZYK TO ME KNOWN, WHO, BEING BY ME DULY SWORN, DID DEPOSE AND SAY; THAT SHE IS THE ATTORNEY-IN-FACT OF THE ATLANTIC SPECIALTY INSURANCE COMPANY, THE CORPORATION DESCRIBED IN WHICH EXECUTED THE ABOVE INSTRUMENT; THAT SHE KNOWS THE SEAL OF SAID CORPORATION; THAT THE SEAL AFFIXED TO SAID INSTRUMENT IS SUCH CORPORATE SEAL; THAT IT WAS SO AFFIXED BY THE BOARD OF DIRECTORS OF SAID CORPORATION; AND THAT SHE SIGNED HER NAME THERETO BY THE AUTHORITY OF THE POWER OF ATTORNEY OF SAID COMPANY, OF WHICH A CERTIFIED COPY IS HERETO ATTACHED, AND THAT SHE SIGNED SAID INSTRUMENT AS AN ATTORNEY-IN-FACT OF SAID COMPANY BY LIKE AUTHORITY.



.....
Notary Public

**ANN MARIE KEANE
NOTARY PUBLIC OF NEW JERSEY
MY COMMISSION EXPIRES MAY 19, 2020**

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS, that ATLANTIC SPECIALTY INSURANCE COMPANY, a New York corporation with its principal office in Plymouth, Minnesota, does hereby constitute and appoint: **John J Sciortino, Peter H. Forenza, AnnMarie Keane, Elizabeth Riga, Robert S. Rapp Jr., William X. Linney, Jane L. Fedorczyk, Gary V. Rispoli, Richard A. Nocella, Fred Nicholson**, each individually if there be more than one named, its true and lawful Attorney-in-Fact, to make, execute, seal and deliver, for and on its behalf as surety, any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof; provided that no bond or undertaking executed under this authority shall exceed in amount the sum of: **sixty million dollars (\$60,000,000)** and the execution of such bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof in pursuance of these presents, shall be as binding upon said Company as if they had been fully signed by an authorized officer of the Company and sealed with the Company seal. This Power of Attorney is made and executed by authority of the following resolutions adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the President, any Senior Vice President or Vice-President (each an "Authorized Officer") may execute for and in behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and affix the seal of the Company thereto; and that the Authorized Officer may appoint and authorize an Attorney-in-Fact to execute on behalf of the Company any and all such instruments and to affix the Company seal thereto; and that the Authorized Officer may at any time remove any such Attorney-in-Fact and revoke all power and authority given to any such Attorney-in-Fact.

Resolved: That the Attorney-in-Fact may be given full power and authority to execute for and in the name and on behalf of the Company any and all bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof, and any such instrument executed by any such Attorney-in-Fact shall be as binding upon the Company as if signed and sealed by an Authorized Officer and, further, the Attorney-in-Fact is hereby authorized to verify any affidavit required to be attached to bonds, recognizances, contracts of indemnity, and all other writings obligatory in the nature thereof.

This power of attorney is signed and sealed by facsimile under the authority of the following Resolution adopted by the Board of Directors of ATLANTIC SPECIALTY INSURANCE COMPANY on the twenty-fifth day of September, 2012:

Resolved: That the signature of an Authorized Officer, the signature of the Secretary or the Assistant Secretary, and the Company seal may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing an Attorney-in-Fact for purposes only of executing and sealing any bond, undertaking, recognizance or other written obligation in the nature thereof, and any such signature and seal where so used, being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS WHEREOF, ATLANTIC SPECIALTY INSURANCE COMPANY has caused these presents to be signed by an Authorized Officer and the seal of the Company to be affixed this twenty-sixth day of October, 2017.


STATE OF MINNESOTA
HENNEPIN COUNTY



By 
Paul J. Brehm, Senior Vice President

On this twenty-sixth day of October, 2017, before me personally came Paul J. Brehm, Senior Vice President of ATLANTIC SPECIALTY INSURANCE COMPANY, to me personally known to be the individual and officer described in and who executed the preceding instrument, and he acknowledged the execution of the same, and being by me duly sworn, that he is the said officer of the Company aforesaid, and that the seal affixed to the preceding instrument is the seal of said Company and that the said seal and the signature as such officer was duly affixed and subscribed to the said instrument by the authority and at the direction of the Company.





Notary Public

I, the undersigned, Secretary of ATLANTIC SPECIALTY INSURANCE COMPANY, a New York Corporation, do hereby certify that the foregoing power of attorney is in full force and has not been revoked, and the resolutions set forth above are now in force.

Signed and sealed. Dated 14th day of MARCH, 2019



This Power of Attorney expires
October 1, 2019


Christopher V. Jerry, Secretary



Atlantic Specialty Insurance Company

P&C Balance Sheet


Period Ended 12/31/2018

Dollars displayed in thousands

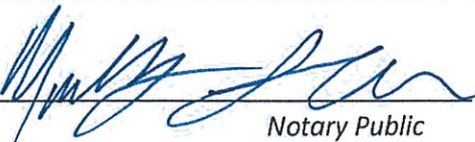
Admitted Assets		Liabilities and Surplus	
Investments:		Liabilities	
Bonds	\$ 1,145,948	Loss Reserves	\$ 765,181
Preferred Stocks	-	Loss Adjustment Expense Reserves	251,149
Common Stocks	748,692	Total Loss & LAE Reserves	1,016,330
Mortgage Loans	-	Unearned Premium Reserve	497,525
Real Estate	-	Total Reinsurance Liabilities	13,531
Contract Loans	-	Commissions, Other Expenses, and Taxes due	40,413
Derivatives	-	Derivatives	-
Cash, Cash Equivalents & Short Term Investments	72,158	Payable to Parent, Subs or Affiliates	13,790
Other Investments	25,782	All Other Liabilities	201,194
Total Cash & Investments	1,992,580	Total Liabilities	1,782,783
Premiums and Considerations Due	237,607	Capital and Surplus	
Reinsurance Recoverable	95,839	Common Capital Stock	9,001
Receivable from Parent, Subsidiary or Affiliates	-	Preferred Capital Stock	-
All Other Admitted Assets	75,952	Surplus Notes	-
Total Admitted Assets	2,401,978	Unassigned Surplus	(70,080)
		Other Including Gross Contributed	680,275
		Capital & Surplus	619,195
		Total Liabilities and C&S	2,401,978

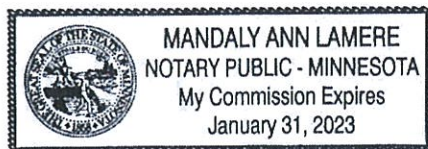
State of Minnesota
County of Hennepin

I, Christopher Jerry, Secretary of Atlantic Specialty Insurance Company, do hereby certify that the foregoing statement is a correct exhibit of the assets and liabilities of the said Atlantic Specialty Insurance Company, on the 31st day of December, 2018, according to the best of my information knowledge and belief.


Secretary

Subscribed and sworn to, before me, a Notary Public of the State of Minnesota on this 4th day of March, 2018.


Notary Public





DESIGN-BUILD

STRUCTURES



2. DESIGN-BUILD APPROACH

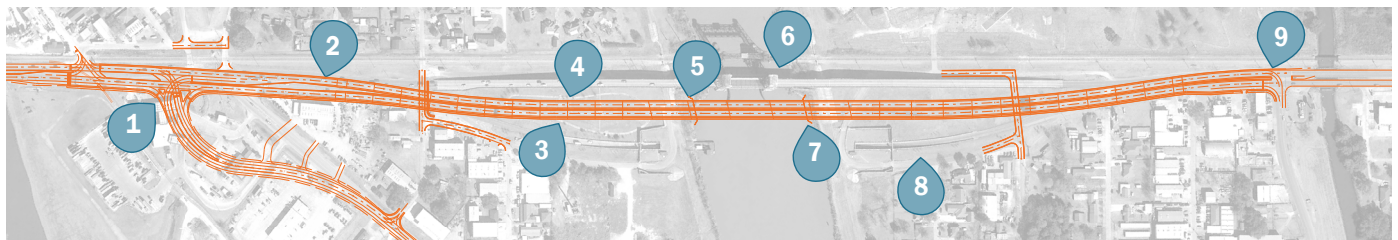
2.1 STRUCTURES

2.1.1 INTRODUCTION

PIBC used LA DOTD’s stated project goals as a guide in determining the structure type most suited to this project. Through various phases of analysis, the structure selected consists of precast prestressed concrete girder approach spans with a 3-span continuous steel unit over the Gulf Intracoastal Waterway (GIWW). The superstructure elements are supported by a combination of pile bents, column bents, and a concrete main pier system within the GIWW, which is designed for vessel collision. The new bridge will be situated between the existing vertical lift bridge and existing tunnel, as seen in Figure 1. This structure type meets the following goals as set forth by LA DOTD:

- Economical substructure type paired with optimized span lengths results in the lowest toll rates.
- Bridge superstructure and substructure elements were chosen to reduce the need for future maintenance and rehabilitation as well as providing high-quality durable infrastructure with a proven track record in the state of Louisiana.
- A comprehensive design strikes a balance between economics and an aesthetically pleasing structure.
- Our team’s experience in building the structure type selected allows for bridge construction that minimizes inconvenience to travelers during the Project construction and public service & safety access are maintained.

FIGURE 1: PIBC OVERALL PROJECT ALIGNMENT AND BENEFITS



#	BENEFIT
1	Improves traffic flow along LA 23 at Engineers Road (ATC # 1 to be reviewed further with DOTD for possible incorporation which could reduce DOTD ROW purchase costs, if selected)
2	Structure depth and type minimizes impact to ROW
3	Landscape design provides enhanced greenspace
4	Provides continuity and enhanced aesthetic features while reducing toll rate by efficient bridge type selection (ATC 17)
5	Innovative use of proven design features from neighboring state DOT departments enhances safety of the construction workforce and reduces the overall construction duration (ATC 2)*
6	Minimal impacts to existing railroad bridge structure and navigable waterway by leaving in existing vertical lift bridge piers, which are stronger than the required fender system; provides enhanced protection (ATC 28)
7	Eliminating falsework minimizes impact to marine traffic
8	Reduces impacts to the community by minimizing the off-site waste disposal and reducing the presence of debris-hauling vehicles (ATC 24)
9	Selected alignment allows for maintaining two lanes of traffic in each direction; our team understands project constraints and have designed within them

Please see Vol. II Technical Proposal Appendix, which contains plans and details of the selected bridge for reference.

*Following are LA DOTD’s goals that were considered during our main span structure type analysis:

- A) Lowest toll rates for the shortest term;
- B) Interoperable toll systems;
- C) A reduced need for future maintenance;
- D) Maximize mobility and safety improvements;
- E) Maintain community connections;
- F) Develop a partnership to perform O&M of a toll facility;
- G) Minimize inconvenience to travelers during construction;
- H) Use of Innovative construction; and
- I) Minimize the cost related to operating LA 1.

One of the initial steps in arriving at the most efficient bridge solution for the Project was an analysis of different structure types for the main span over the GIWW. Structure types were evaluated on construction speed, cost, structure depth, long-term durability, safety during construction, and aesthetics. Table 2 compares several different structure types in each of these categories.

TABLE 2: MAIN SPAN STRUCTURE TYPE BENEFITS TABLE

BRIDGE TYPE	MATERIAL	SPEED	COST	DEPTH	DURABILITY	SAFETY	AESTHETICS
SIMPLY SUPPORTED CONCRETE GIRDERS	Concrete	✓		✓	✓	✓	
CONTINUOUS STEEL PLATE GIRDERS	Steel	✓	✓	✓	✓	✓	✓
SPICED TAPERED PRESTRESSED CONCRETE GIRDERS	Concrete			✓		✓	✓
SEGMENTAL CONCRETE BOX GIRDER	Concrete						✓
TRUSS	Steel						
CABLE STAY	Composite						✓
EXTRA-DOSE	Composite						✓
SUSPENSION	Composite						✓

Initial construction cost, future O&M costs, and stability risks during construction (and their impact on the toll rate) eliminated the Cable Stay, Truss, Extra-dosed, and Suspension options, as seen in the above table.

A refined study was then performed among the remaining options to determine what main span structure type would result in the most efficient overall structure and best meet the Project goals. The Project team understands that structure depth versus bridge length is a critical criteria in arriving at a solution that minimizes impacts to the surrounding community both during construction and after completion. A solution that minimized structure depth, bridge length and overall construction cost was pursued. Additional constraints that were considered include the location of the levees on each side of the channel as well as the skew of the channel. Various combinations of main span lengths and structure types were studied and their effects on structure length and cost were compared. Table 3 represents the refined alternatives, which were studied in order to arrive at our chosen alternative.

Our team ultimately determined the structure type that was most efficient and best meets the goals of the Project is a 3-span continuous steel plate girder main span with prestressed concrete girder approaches. This proven structure type has been used successfully throughout the state of Louisiana and the entire Gulf Coast Region. The proposed steel main span can be constructed without the use of falsework, reducing construction and scheduling risks. The proposed steel span also has a minimal structure depth which results in fewer impacts to the surrounding community and properties.

TABLE 3: REFINED MAIN SPAN STRUCTURE TYPES OPTIONS ANALYSIS

#	MAIN SPAN TYPE	MAIN SPAN & FLANKING SPAN CONFIGURATIONS (FT)	BRIDGE EST. COST	STRUCTURE DEPTH (FT)	VERTICAL CURVE LENGTH (FT)	MAIN PIER DESIGNED FOR VESSEL COLLISION	SKREW	BRIDGE LENGTH (FT)	COMMENTS
1	Spliced Tapered Prestressed Concrete Girder	150-225-150	\$\$	11'-8'	1000'	Y	N	3900'	Midrange structure depth under tapers at edges of channel with resulting midrange bridge length/cost. Eliminates painting O&M cost.
2	Concrete Girder	174.17' (Simple Span)	\$\$	9'	620'	Y	Y	3825'	Shortest span length possible to provide 150' navigation clearance. Deeper structure depth over channel increases height of profile and increases overall bridge length/cost. Increased bridge length could affect MOT options. Eliminates painting O&M cost.
3	Steel Plate Girder	160-225-160	\$\$	7'	620	Y	N	3605'	Shallower structure depth over channel reduces height of profile and reduces bridge length/cost. Increased O&M for steel painting.
4	Steel Plate Girder	280-360-280	\$\$\$\$	11.5'	620	Y	N	4100'	Only 2 piers between levees. Deeper structure depth over channel increases height of profile and increases overall bridge length/cost. Increased O&M for steel painting. Increased bridge length could affect MOT options.
5	Steel Plate Girder	160-175-160	\$	5.75'	620'	Y	Y	3468'	Shortest span length possible to provide 150' navigation clearance. Shallower structure depth over channel reduces height of profile and reduces overall bridge length. Increased O&M cost for steel painting.
6	Concrete Segmental Box Girder	160-225-160	\$\$\$\$	11'	620'	Y	N	4045'	Deeper structure depth over channel increases height of profile and increases overall bridge length/cost. Reduced O&M Cost without painting requirement. Concern with long-term durability based on corrosion issues experienced in Florida.

The primary components of the structure that were influenced by the lifecycle analysis were the pre-stressed concrete girders of the approach spans, deck wearing surface, pier walls designed for impact, and the expansion joint configuration. These elements of the structure design optimize the durability and maintainability of the structure and provide efficient lifecycle performance. For example, lifecycle considerations are the main driver in designing piers for impact. With this design enhancement, the need for a fender system is reduced, which minimizes the amount of material, equipment and personnel necessary for maintaining a bridge fender system after impact. This creates an efficient operation and reduces the overall resources necessary for lifecycle management of the infrastructure.

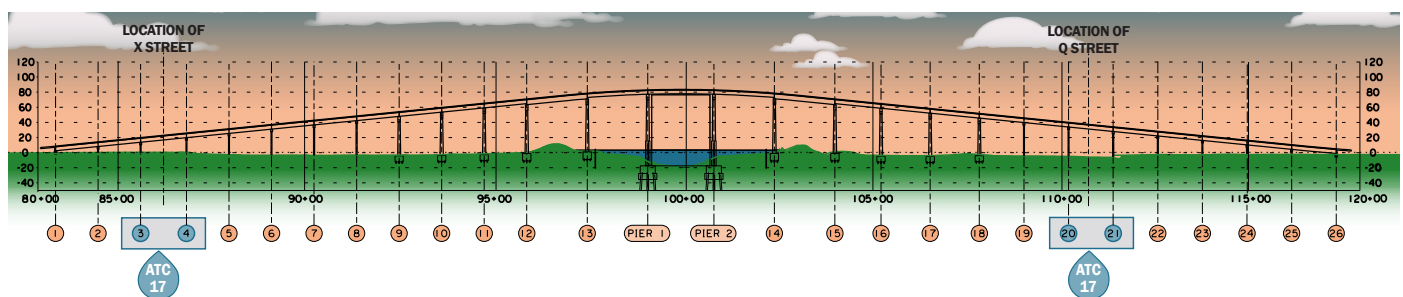
2.1.2 GENERAL STRUCTURE GEOMETRY

The new bridge structure will be located between the existing vertical lift bridge and tunnel, primarily parallel to and approximately 100-ft. west of the existing vertical lift bridge. The ends of the bridge curve toward the east to allow the roadway approaches to tie into the existing alignment of LA 23 prior to the existing slab span bridges located on both the north and south end of the Project.

The proposed bridge structure extends further to the north and south of both the existing vertical lift bridge and tunnel due to the required 73-ft. vertical clearance and 150-ft. wide horizontal clearance of the navigation channel. **Minimizing the bridge length meets three of LA DOTD’s stated project goals of lowest toll rate for shortest duration, maintaining and enhancing community infrastructure connections, as well as minimizing inconvenience to travelers during project construction.** A maximum approach grade of 5% is used to minimize the required structure length and limit impacts to the surrounding community. The overall bridge length is also limited by placing the main piers on each side of the navigational channel as close to the edges of the 150-ft. horizontal clearance envelope as possible. Skewing the main pier to match the navigational channel skew allows for the absolute minimum main span length and most shallow structure depth. These are important features that reduce the impacts to the existing local businesses along the Project right-of-way. Minimizing impacts to the traveling public and ensuring a continuous, safe hurricane evacuation route, two lanes of traffic are maintained in each direction throughout the Project by applying phased construction techniques to the roadway, end bents, and conflicting pile bents near the bridge ends.

Installing fender pads directly onto the new bridge piers avoids the long-term maintenance costs associated with a timber fender system, and placement of the main piers close to horizontal limits of the navigation channel also has a secondary benefit. The remaining NOGC Railway lift span bridge located east of the proposed bridge structure currently provides a 125-ft. navigation channel width. The existing LA 23 vertical lift bridge substructure protects it from collision from eastbound marine vessels. Placement of the new bridge piers at the minimum spacing widens the opening by only about 13-ft. on each side of the channel and allows the new bridge piers to continue providing significant protection to the railway structure and serve as a channel marker for approaching marine vessels. Please see Figure 4 for an elevation view of our team’s proposed bridge structure.

FIGURE 4: ELEVATION VIEW OF THE PROPOSED STRUCTURE



Finally, we have incorporated conditionally approved ATC 28, which re-purposes the existing LA 23 Bridge mainspan pier substructure elements to continue providing protection for the NOGC Railway Bridge. This ATC far exceeds the protection that would be provided by a fender system designed to meet the minimum protection requirements. Please see Figure 5 for a plan view of the bridge structure alignment.

FIGURE 5: PLAN VIEW OF THE PROPOSED STRUCTURE



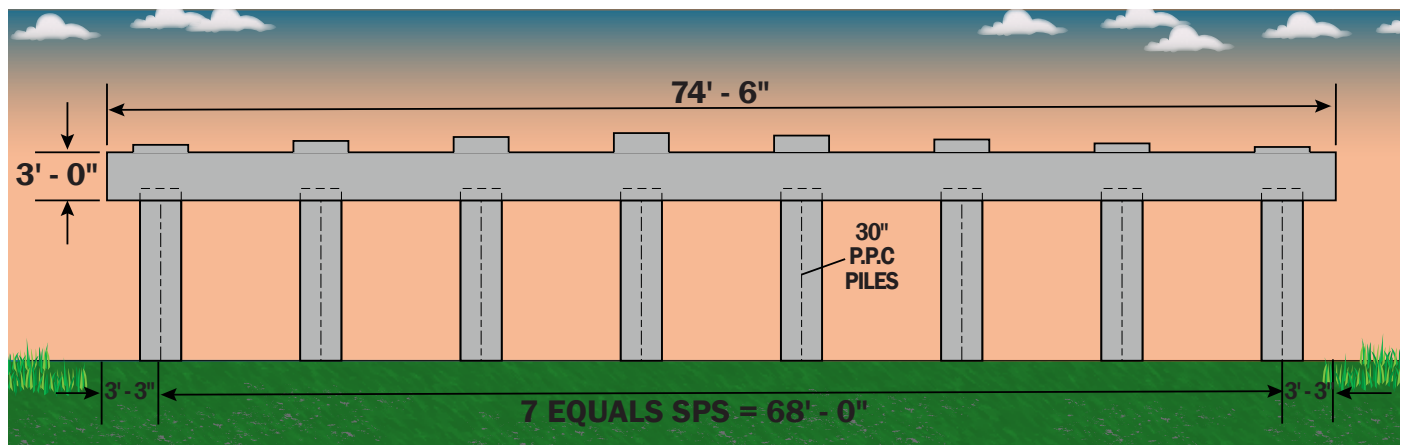
Please see Vol. II Technical Proposal Appendix, which contains plans and details of the selected bridge for reference.

2.1.3 SUBSTRUCTURE

The bridge substructure elements that will support the superstructure include pile bents, tapered square column bents, and specialized piers adjacent to the navigable waterway, which are designed for vessel impact. End bents will use double row 24 in. square precast prestressed concrete (PPC) piles. The end bent piles will be longitudinally battered at a ratio of 1.5 on 12.

Pile bents are used from the end bents on both ends of the bridge toward the center until the unbraced length of the piles prevents an efficient application of this substructure type. Pile bents will use 30 in. square precast prestressed concrete piles, please see Figure 6.

FIGURE 6: SECTION VIEW OF PILE BENT SUBSTRUCTURE ELEMENTS



Incorporation of ATC 17 has allowed the team to place pile bents at cross streets, which creates a more economical structure and results in a more uniform appearance of the bridge when viewing from the side. Tapered square column bents are used as the substructure elements from the point at which pile bents become uneconomical due to bridge height to the main piers on either side of the navigation channel. High-density concrete is used for all substructure elements which provides increased surface resistivity. This increases the substructure's durability.

Column bents consist of a square tapered cap and two tapered square columns which rest on footings supported by 9-each, 24 in. square precast prestressed concrete piles, please see Figure 7.

The piers located adjacent to the navigable waterway are designed to withstand vessel impact and consist of 18 each – 48-inch-diameter steel pipe piles with a wall thickness of 0.875 in. supporting the 10-ft. thick footings. The footings support subshafts that extend up to elevation +15. From the top of this subshaft, the substructure transitions into a pair of tapered square columns that support the tapered square bent cap. Please see Figure 8 for our Main Pier Elevation diagram.

A Class 3 Special Finish will be applied to all applicable substructure elements in accordance with the requirements in LA DOTD BDTM 72. The Class 3 Special Finish is primarily applied to substructure elements which will be visible to the public. This special finish is mold and mildew resistant which will enhance the bridge’s appearance and reduce future O&M costs.

2.1.4 SUPERSTRUCTURE

The type of bridge superstructure elements selected by our team are commonly used on LA DOTD bridges. The approaches to the main span consist of LA DOTD’s new LG-type prestressed concrete girders, which will support a concrete deck. The LG-type prestressed concrete girders utilize high strength (10 ksi) concrete. The high strength concrete allows for longer span ranges for the selected girder size and also promotes long term durability. This construction technique incorporates partial depth prestressed deck panels using Texas Department of Transportation (TXDOT) standards as required by conditionally approved ATC 2.

FIGURE 7: SECTION VIEW OF COLUMN BENT SUBSTRUCTURE ELEMENTS

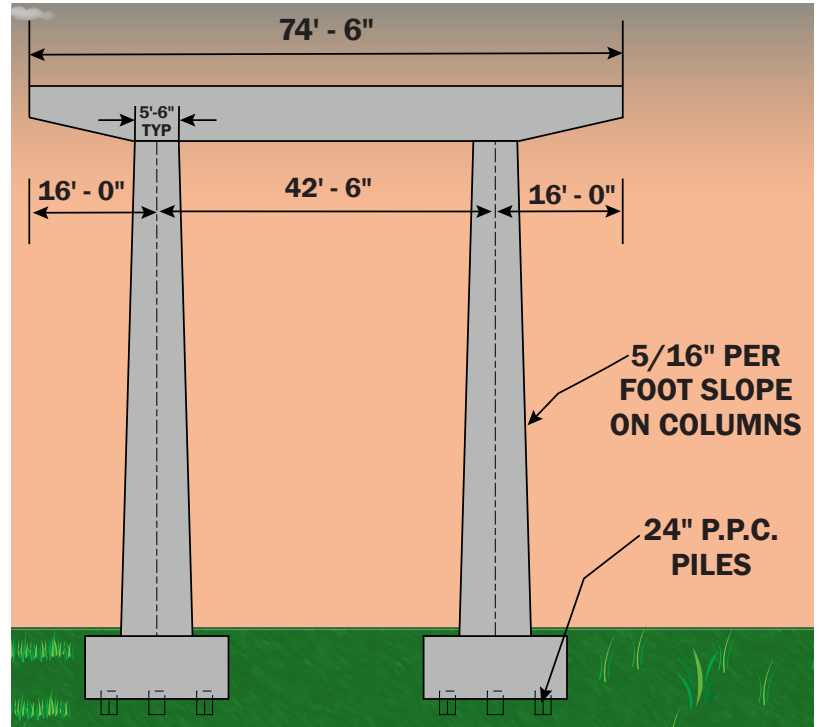
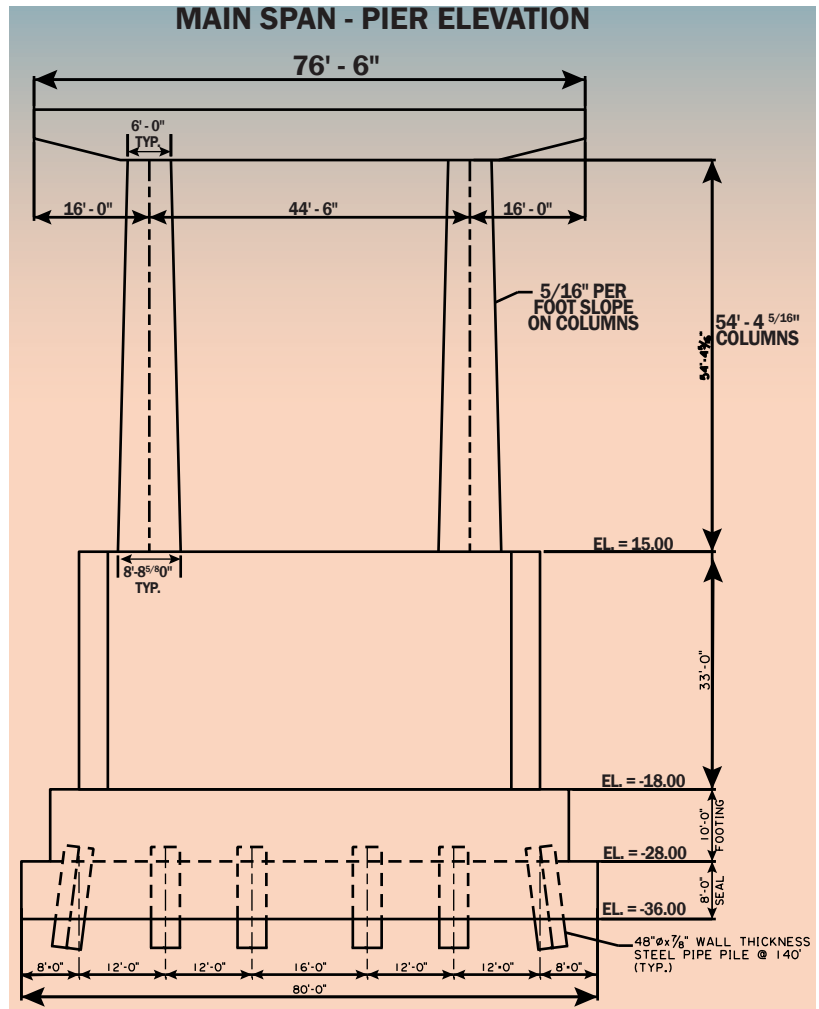


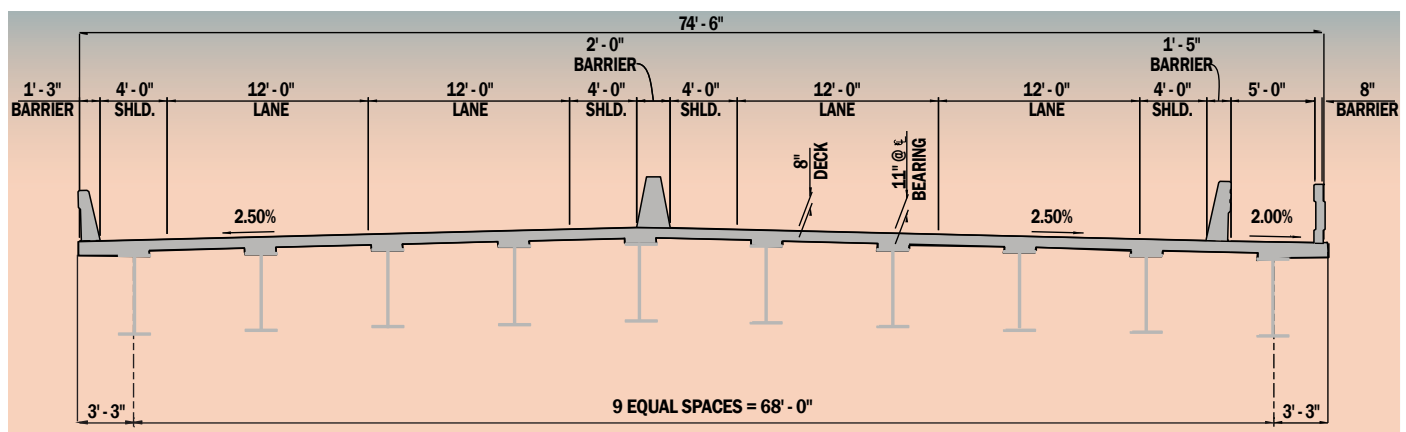
FIGURE 8: SECTION VIEW OF MAIN PIER SUBSTRUCTURE ELEMENTS



The use of partial depth precast deck panels can reduce construction schedule by reducing the time required to tie deck steel as well as reducing the quantity of concrete to be cast-in-place on top of the deck. TXDOT standards are being followed based upon the prolific and successful use of partial depth precast deck panels across the state of Texas.

The main span consists of a 3-span continuous steel plate girder superstructure supporting a concrete deck. At the steel spans, following typical TXDOT practice, galvanized metal stay-in-place forms will form the full depth cast-in-place concrete deck rather than the partial depth prestressed deck panels used on the approaches. The bridge is located in an area classified by LA DOTD as severely corrosive. The metal stay-in-place forms used for the steel spans will have a thicker galvanized coating as well as a polymer coating to prevent corrosion and provide additional durability. (See Figure 9).

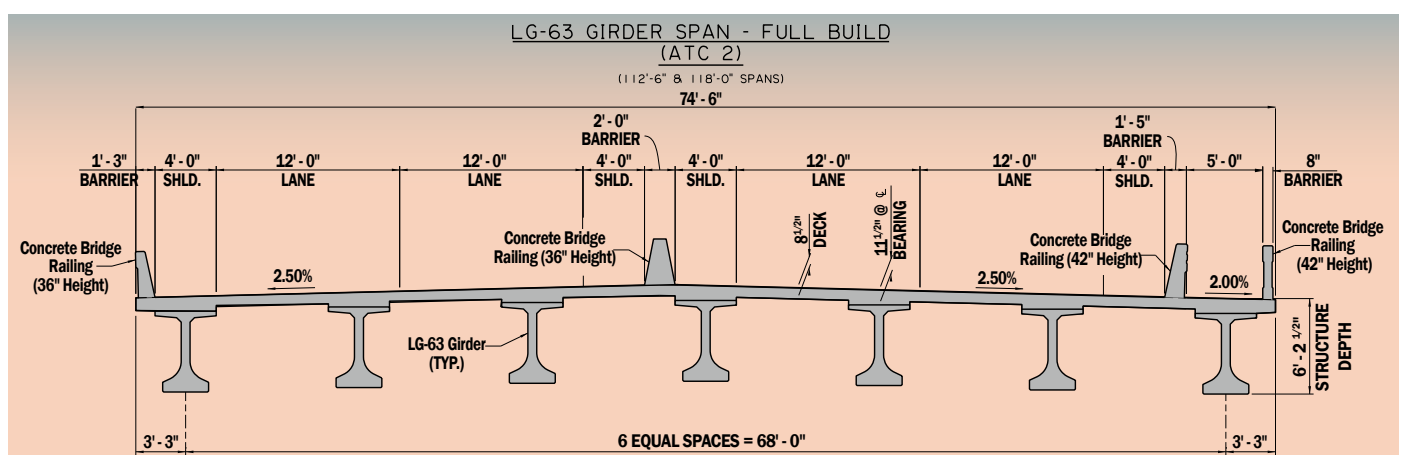
FIGURE 9: BRIDGE TYPICAL SECTION AT STEEL MAIN SPAN



Adhering to LA DOTD’s preferred Design Guidelines, the new bridge deck features 4-ft. inside and outside shoulders flanking two 12-ft. travel lanes. This section is maintained across the structure for both northbound and southbound LA 23, which are separated by a continuous double face concrete median barrier. A fully separated, and barrier protected pedestrian walkway is located along the southbound side of the bridge.

A 42 in. tall concrete bridge railing separates the southbound traffic from the pedestrian walkway. The exterior railing of the pedestrian walkway is a 42 in. tall, 8 in. thick concrete barrier. A concrete pedestrian railing was selected in lieu of a metal railing for the low maintenance requirements and long term durability. Bike traffic will utilize the shoulder in accordance with LA DOTD design guidelines. The exterior rail on the northbound side of the bridge is a 36 in. tall bridge railing. This results in an overall bridge cross-section width of 74-ft. 6-in. (See Figure 10).

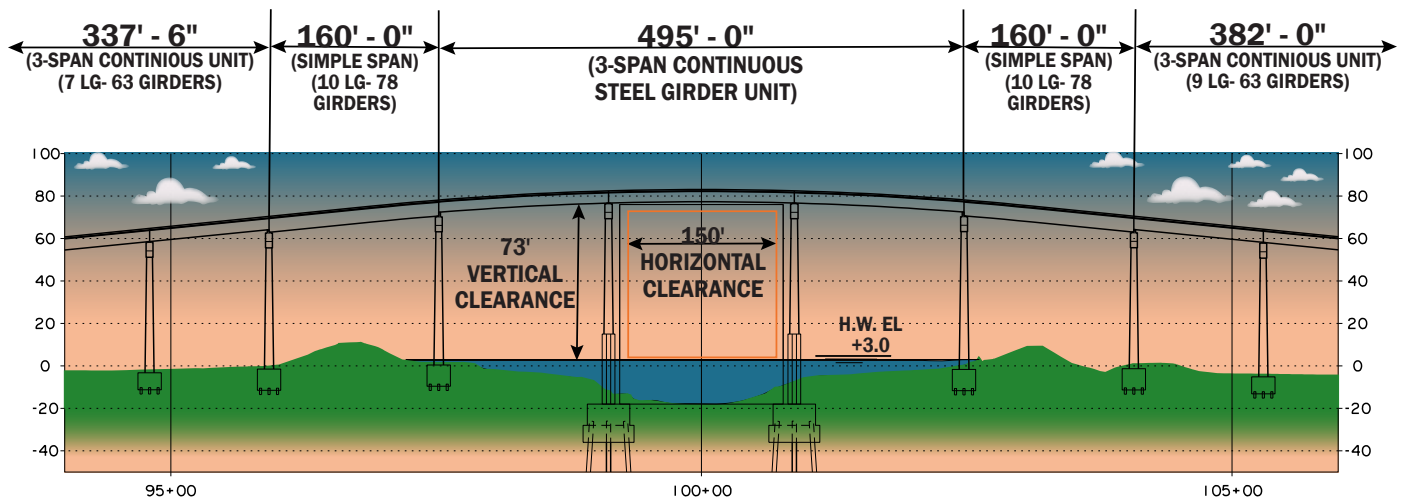
FIGURE 10: BRIDGE TYPICAL SECTION AT CONCRETE APPROACH SPANS



The bridge superstructure is drained by placement of deck drains at the outer edge of the travel lane as required for the length of the bridge. The deck drains are placed strategically such that the drainage pipe is concealed behind the exterior line of girders. The pipe placement results in a more attractive bridge structure, and utilizing deck drains rather than slotted barriers results in a structure which does not suffer from stains caused from water running off the sides of the bridge.

At the navigation channel, the vertical clearance of the bridge will be at least 73-ft. and the horizontal clearance will be at least 150-ft. as required by the RFP. (See Figure 11 profile view of main span).

FIGURE 11: PROFILE VIEW OF THE MAIN SPAN



2.1.5 AESTHETIC STRUCTURAL FEATURES

Viewed at ground level, the substructure elements are the first and most visible aspect to the bridge structure from the point of view of the local community immediately adjacent to the bridge. Blending both economy and aesthetics led to choosing pile bents using large, 30-in square prestressed piles at the shorter approach span bents. We also chose similarly shaped square, tapered columns as the bent height exceeded an efficient pile bent design. To further maintain consistency of substructure form, we chose to avoid switching back and forth between pile bents and column bents, where column bents were required, due to their proximity to rail or streets crossing beneath a span. ATC 17 incorporates the use of pile bents at cross streets where barriers or clear distance provide adequate protection to the structure. This ATC allowed the use of nine additional pile bents in the Project without sacrificing aesthetic appeal.

As the eye moves up to the superstructure one notices a consistent structure depth throughout the bridge approaches. The LG-63 girders were the deepest girder section that allowed a consistent girder depth to continue to the end bents while maintaining a manageable embankment height. Any larger girder cross-section would require a change in superstructure depth as it reaches the end of the bridge structure, as the corresponding embankment height exceeded the capacity of the existing subgrade. Embankment heights from existing grade up to 8-ft. will be contained by mechanically stabilized earth (MSE)/retaining wall structures. The fill height and MSE walls eliminate hard-to-maintain, under bridge areas created by other type of structures that transition to slab spans and continue down to existing grade.

MSE/retaining walls also provide the opportunity for additional embellishments and aesthetic features as the walls are available in a variety of textures, patterns, and colors, as seen in the example illustration in Figure 12.

Maximizing girder depth dictates the corresponding span lengths, resulting in 11 spans of LG 63 girders on both the north and south approaches. This combines to provide an open feel to the areas beneath the bridge. When the structure reaches the spans that cross over the levee, a single span of LG-78 prestressed concrete girders is incorporated to achieve the necessary span length before transitioning into the 3-span continuous steel plate girder main span.

FIGURE 12: MSE WALL AESTHETICS TREATMENT OPTIONS EXAMPLE



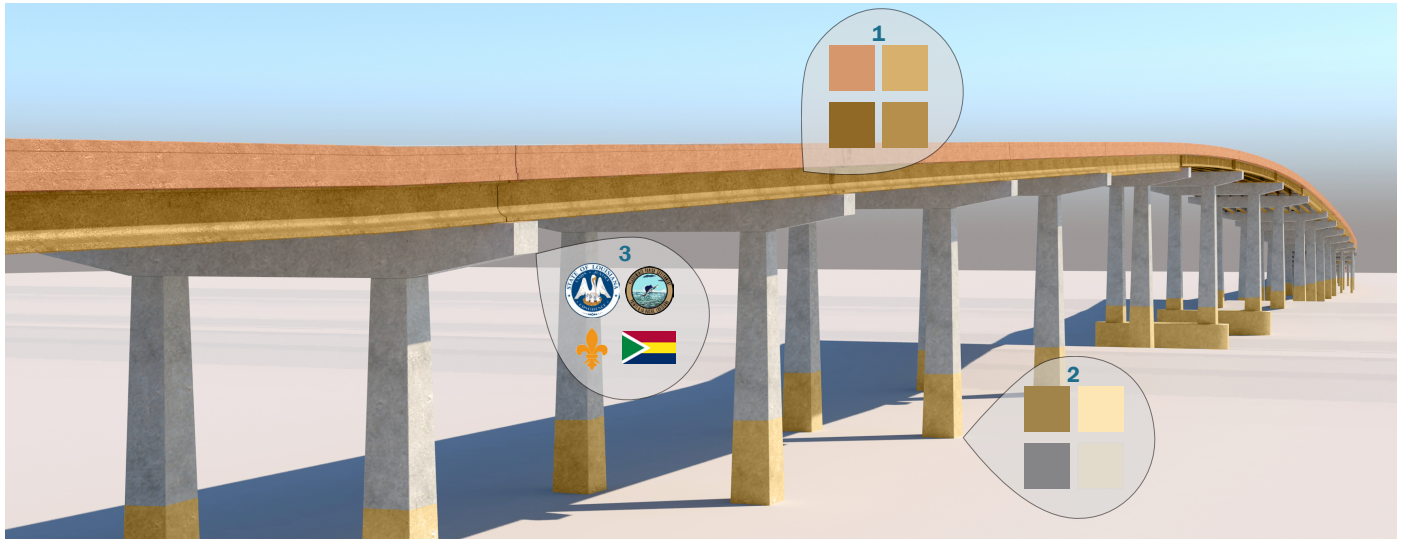
As this location is away from any traffic and, at an elevation of more than 65-ft. above ground, is well above the normal line of sight of the adjacent community, making a transition in section depth at this location was chosen as preferable to providing a transition near the end bents. The result is a smooth, arching structure that begins at the end bents and climbs quickly above the open green area spaces below the structure.

PIBC proposes a new bridge that will not only perform well over time but will also create a new, modern landmark for Belle Chasse. The simplified skyline and ground plane resulting from the removal of the existing bridge and tunnel ramps will create a new setting for the bridge. All aesthetic features set forth have aspects that can be modified upon engagement with the community, which proposed process is further described in Section 2.3.

Aesthetic features of the structure include the following (and Figure 13 as an example):

- 1. Color scheme on exterior bridge railing and exterior girder** utilizing LA DOTD's Class III Special Surface Finish. Bridge railing color and girder color differ to provide depth and interest to the structure. Options for color schemes are to be presented and decided upon with community engagement.
- 2. Paint all structural elements** as required by BDTM.72 utilizing LA DOTD's Class III Special Surface Finish. Color on the bottom 15-ft. of all columns and piles to coordinate with color scheme chosen for bridge rail and exterior girder. Painted substructure elements relate the community area underneath the bridge structure to the arching bridge structure above. Options for color schemes are to be presented and decided upon with community engagement.
- 3. Utilize ends of caps to feature art or graphics as guided by public input.** Cap ends to be painted a solid color, base on community engagement. Certain cap ends could also include artistic painting inspired by or created by local artists.
- 4. Coordinate texture, patterns and colors of bridge end MSE/retaining walls.** Options for color schemes are to be presented and decided upon with community engagement.

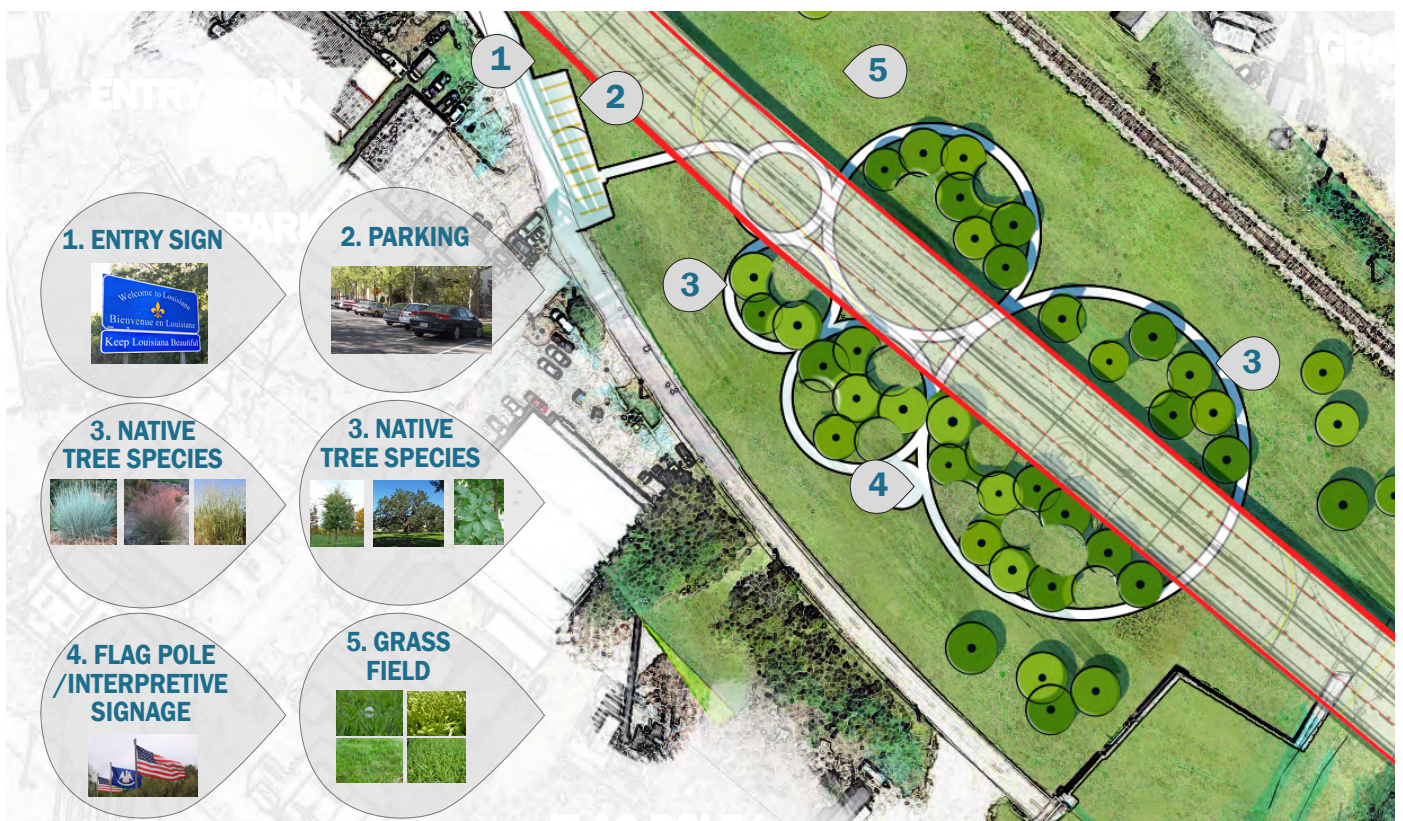
FIGURE 13: CONCEPT RENDERING OF THE BRIDGE STRUCTURE AND POSSIBLE AESTHETIC ENHANCEMENTS



In addition to aesthetic structural elements, a landscape/hardscape plan has been developed for the area underneath the proposed bridge structure. This proposed area aims to replace and improve upon the existing area between the existing vertical lift bridge and tunnel called Veterans Plaza.

The concept rendering in Figure 14 shows one of many concepts of how the site will be transformed into a multi-use space for the nearby communities. This concept idea uses a series of circular walkways around groves of native trees, creating paths that will be identified with distance markers to encourage walking and exercise. For a different experience, visitors can sit in the shade under the tree canopies or play in the large grass fields. The existing flagpole and flag will be relocated at the junction of two circles, and along with seating will create a small plaza for gathering.

FIGURE 14: CONCEPT RENDERING OF THE COMMUNITY AREA BENEATH THE BRIDGE STRUCTURE



In addition, interpretive signage will convey the story of Belle Chasse, the old vertical lift and railroad bridges, and the Naval Air Station and Joint Reserve Base. As identified in conditionally approved ATC 28, to honor the historical significance of the Judge Perez Bridge, gears from the mechanical lifting mechanism will be salvaged, refinished, and displayed as art sculpture atop the remaining portions of the existing LA 23 Bridge piers.

This concept design is only one idea and the final design of Veterans Plaza will be informed and guided by an immersive community engagement program. Additional discussion on solicitation and incorporation of community input into aesthetic design can be found in Section 2.2.D and Section 2.3.

DESIGN-BUILD ORGANIZATION AND APPROACH





2.2 DESIGN BUILD ORGANIZATION & APPROACH


2.2.A ORGANIZATION CHARTS AND TEAM STRUCTURE


Plenary has created PIBC to act as the Proposer, as displayed in the organizational charts in the Vol. II Technical Proposal Appendix, in order to successfully deliver the Project. PIBC has assembled a best-in-class team that possesses specific technical experience, local resources, self-perform capabilities, and DBFOM expertise to deliver the Project. **The integrated organization of our team allows for collaboration among all groups and all project phases, helping LA DOTD to meet their goals, specifically those that reduce the need for future maintenance, maximize safety and mobility, develop partnerships for O&M and tolling, and provide minimal disruption of vehicular and marine traffic.**


Plenary, as the team Lead and Equity Member, will bring oversight to ensure the quality of delivery meets the prescribed goals and is sufficiently robust to achieve long-term performance criteria that comes with such an important project to the community. Plenary has successfully closed 33 P3 projects across North America and looks to leverage this vast experience on your Project. Plenary has never divested a project thus keeping whole of life and long term relationships at the forefront during delivery. PIBC has formed a vertically integrated team to best deliver the Project and meet LA DOTD’s goals. The team includes:


 **Plenary** – long-term Equity Member, Lead Operations and Maintenance team member, and Tolling Operator team member;

 **Traylor Bros., Inc.** – Lead Contractor JV, specializes in the cutting-edge construction of complex bridges;

 **Massman Construction Co.** – Lead Contractor JV and founded in 1908, is a leader in heavy civil and marine construction, having successfully completed more than 1,700 projects;

 **Huval & Associates, Inc.** – Lead Designer and based in Louisiana, is an engineering design firm specializing in bridge and roadway engineering solutions for LA DOTD and clients throughout the US;

 **DBi Services, LLC** – Lead Operations and Maintenance team member, are an operations and maintenance leader with over 25,000 lane miles and 4,000 structures in its portfolio; and

 **Kapsch TrafficCom USA, Inc.** – Toll Systems Provider and Tolling Operator team member, is a leader in intelligent transportation systems in the fields of tolling and traffic management, and other transportation related technology systems and services.

OUR TEAM’S HISTORY IN NUMBERS

38+ COMBINED P3 PROJECTS (PIBC), INCLUDING EQUITY, CONSTRUCTION, DESIGN, TOLLING, & O&M

19+ YEARS AS JOINT-VENTURE PARTNERS (TRAYLOR/MASSMAN)

3+ BILLION IN DBJV CONSTRUCTION PROJECT VALUES TOGETHER (TRAYLOR/MASSMAN)

15+ PROJECTS TOGETHER (COMBINATION OF DBJV PROJECTS - TRAYLOR/MASSMAN/HUVAL)

7 LOUISIANA PROJECTS TOGETHER, INCLUDING 5 LA DOTD PROJECTS AND 1 LA DOTD TOLLED BRIDGE PROJECT

KEY PERSONNEL

Plenary’s model is to retain control of the Belle Chasse Bridge Project after construction for the full Project term. This sets PIBC apart in terms of integration into the community as an enhancement, a key goal of the LA DOTD.

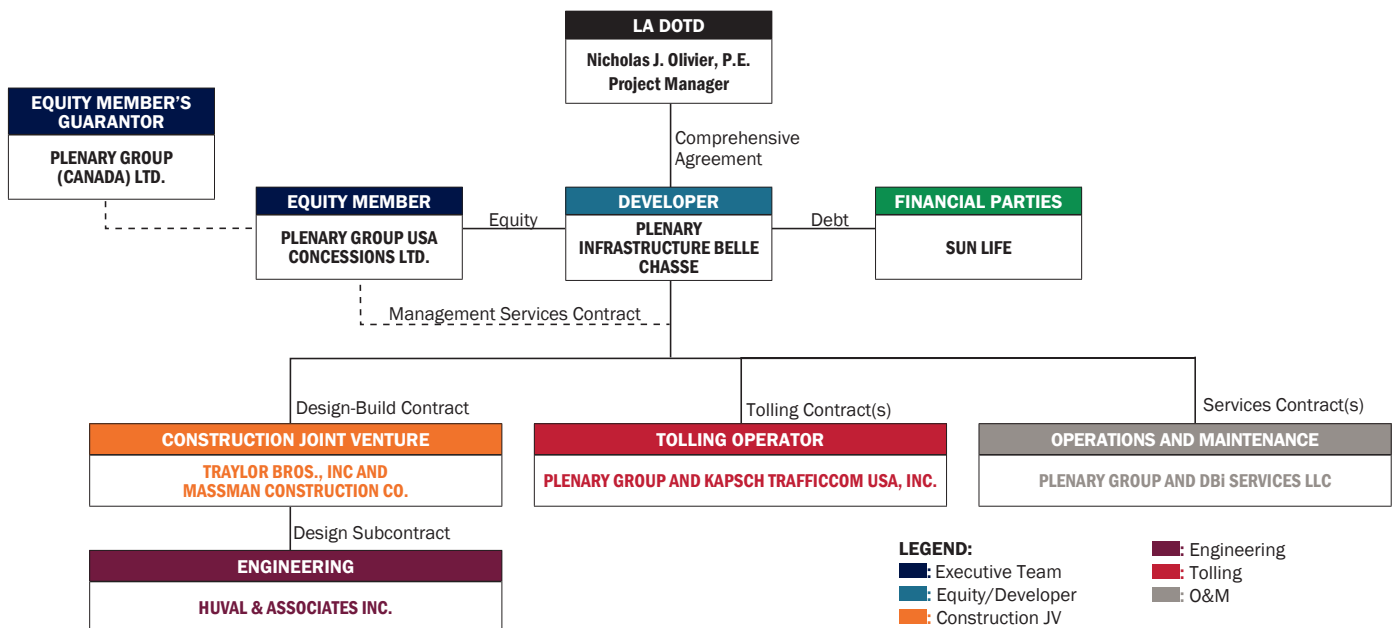
PIBC’s management team is structured through the three primary phases of the Project to ensure continuity of personnel, avoiding loss of project knowledge, or other issues associated with hand-over and changing Key Personnel. While the level of involvement and core responsibilities evolve over time, all Key Personnel have been integrally involved in the proposal development, Project plans, and commitments for delivery, which they will be tasked with following execution of the Comprehensive Agreement.

PIBC’S TEAMING AND KEY PERSONNEL COMMITMENT:

All team partners of the PIBC Team and Key Personnel listed in our SOQ Proposal have been involved through to the RFP Phase and providing continuity and institutional knowledge in the implementation and execution of the Project.

PIBC is a “purpose-built” team, which has been organized in a manner allowing for the effective collaboration and integration of each of our firms’ strengths and skill sets for the combined objective of efficiently and safely delivering the Project. The following Figure 15 gives a visual breakdown of the team structure by company:

FIGURE 15: PLENARY INFRASTRUCTURE BELLE CHASSE TEAM STRUCTURE



All Key Personnel and team partners have remained the same from the SOQ phase of this Project and will remain a constant and cohesive group throughout the term of the Project. More detail on our Key Personnel can be found in Section 5 – Key Personnel and Experience.

DESIGN AND CONSTRUCTION ORGANIZATION

Please see the Vol. II Technical Proposal Appendix for our team’s proposed Organization Charts.

PIBC TEAM PROPOSED ROLES AND RESPONSIBILITIES

On the following page, Table 16 describes our team’s roles and responsibilities in further detail.

TABLE 16: PROPOSED ROLES AND RESPONSIBILITIES OF THE PROPOSER

COMPANY	ROLE	RESPONSIBILITY	PROOF STATEMENTS
PLENARY	Equity/ Developer	100% long-term Equity Investor, Development partner, and part of Financial Advisory team: <ul style="list-style-type: none"> • Single point of accountability to LA DOTD for all Project components and phases. • Active manager for the Project with personnel involved across financing, design-construct, maintenance and tolling disciplines. 	<ul style="list-style-type: none"> • Successfully financed, closed, and delivering 32 P3 projects in North America, including 18 in the operations phase. • Holds project investments for the life of the Project and has never divested a project, which provides a long-term partner for LA DOTD.
TRAYLOR/ MASSMAN	DBJV	Design-build construction of the entire project: <ul style="list-style-type: none"> • Oversees safety and quality throughout construction. • Coordinates amongst all work areas during construction, ensuring input from all team members. • Manages craft and subcontractors. 	<ul style="list-style-type: none"> • Experienced P3 contractors with proven project successes throughout Louisiana and Gulf Coast. • Traylor: \$10 billion in DB delivery & \$1.3 billion in LA DOTD work. • Massman: 1.6 billion in DB delivery & \$1.5 billion in LA DOTD work.
HUVAL & ASSOCIATES	Lead Designer	Design team lead responsible for the design and engineering of the Project: <ul style="list-style-type: none"> • Coordinates with all subconsultant engineering firms and compiles all design work, calculation packages, and plan sheets into comprehensive submittals. • Ensures a coordinated, consistent, and quality design is produced by the team. 	<ul style="list-style-type: none"> • Designed hundreds of Louisiana bridges over the last 29 years, including PPC, steel, and movable bridges. • Extensive LA DOTD DB experience providing specific best practices to be applied on the Project. • \$140 million in DB delivery.
PLENARY/ KAPSCH USA	Tolling & Operator	<ul style="list-style-type: none"> • Kapsch will be responsible for the design and installation of the tolling equipment and Levels 2 and 3 tolling operations services including BOS/CSC activities. • Plenary will execute Level 1 maintenance of the RTCS with support from Kapsch in the ongoing O&M of the equipment. 	<ul style="list-style-type: none"> • Kapsch brings a successful track record from worldwide projects with 31 years of tolling experience. • Plenary is currently operating the tolling system on the US 36 project in Colorado.
PLENARY/ DBI SERVICES	O&M	<ul style="list-style-type: none"> • DBi will be performing the O&M Work prior to partial acceptance, which includes the operation of the existing bridge and performance based maintenance and monitoring of the facility. • After Partial Acceptance, the O&M team will be responsible to manage both infrastructure O&M and RTCS Tolling O&M to maintain compliance with the technical specifications. 	<ul style="list-style-type: none"> • DBi extensive experience with O&M of long-term performance contracts including seven P3s. • Plenary is self-performing O&M on four active P3 projects spread across North America, providing a depth of knowledge and a host technical experts.

2.2.B APPROACH FOR DEVELOPMENT AND COORDINATION OF DESIGN

Throughout the design development phase of the Project, Design-Build Coordinator, Josh Hanson, will lead the combined efforts of the entire design-build team. Working closely with Huval’s Design Manager, Bob Schmidt, and Traylor-Massman’s construction management personnel, he will be responsible for maintaining and expanding on the design development processes that were established during the proposal phase of the Project. During the design development, Plenary will also be engaged to ensure that considerations for the Project life are incorporated. Josh will lead the ongoing integration of design and construction to ensure the final design remains focused on the requirements of the RFP and PIBC’s proposal commitments while engaging 3rd party stakeholders to develop an efficient final design that mitigates impacts to the community.

The design team, with Lead Designer Huval, will be responsible for developing the design of the bridge, roadway, and other elements of the Project in accordance with LA DOTD’s standard policies and protocols, the RFP requirements, and any ATCs that have been incorporated into the proposal. As Design Manager, Bob Schmidt will lead the internal coordination of the design team including Huval and subconsultant engineers and/or other technical staff. Bob will also work closely with the Design-Build Coordinator as Josh leads ongoing external coordination with LA DOTD design staff, its Owner’s Verification Firm (OVF), and other agencies as necessary.

During the RFP phase of the Project, the design team has taken great care to develop proposal designs in a manner that can quickly be carried directly forward into the design phase of the Project. ATCs that have been approved by LA DOTD and integrated into the PIBC proposal will be further developed as appropriate. In reaching agreement on any potential design modifications advanced during the post-selection negotiation phase, PIBC will have developed designs and estimates of an equal level of effort as those prepared for the proposal. This will allow all areas of design development to advance quickly after Notice to Proceed.

ALTERNATIVE TECHNICAL CONCEPTS

The following Table 17: Alternative Technical Concepts (ATCs) have been accepted by the LA DOTD and included in our design. Full details of the concepts are included in Vol. II Technical Proposal Appendix.

TABLE 17: PIBC’S APPROVED AND INCLUDED ATCS

ATC #	ATC TITLE	FEATURES / BENEFITS
ATC 2	Partial Depth Precast Deck Forms	Innovative use of proven design features from neighboring state transportation departments enhances safety of the construction workforce and reduces the overall construction duration.
ATC 17	Pile Bents at Cross Streets	Provides continuity of aesthetic structural features while minimizing the toll rate for the community, as well as expediting construction durations.
ATC 24	Tunnel Demolition Debris	Reduces impacts to the community by minimizing the offsite waste disposal and reducing the presence of large debris hauling vehicles traveling into and out of the Project-site.
ATC 28	Existing Lift-Span Bridge Piers into Railroad Bridge Protection	Compared to the minimum requirements provides enhanced vessel collision protection for the existing NOGC Railway structure while providing a unique opportunity to honor the historical significance of the existing Judge Perez Bridge and also affords an opportunity to engage the public input into aesthetic features of the Project.

Once the design phase begins, Plenary’s Project Manager (Dennis Coventon), Construction Manager (Scott Armstrong), Design-Build Coordinator (Josh Hanson), Design Manager (Bob Schmidt), discipline design managers (Huval and subconsultants), and construction engineers will conduct a kick-off meeting to set the parameters of the design phase of the Project. These parameters will include design team organization, design phase process, required design and support tasks, quality assurance and quality control procedures, project design schedule, deliverables, coordination with the PIBC communications consultant and other internal/external communications guidelines, and other items. As a result of this meeting, a design plan document will be developed and issued to all team members. The design plan document will be a living document that is updated quarterly through the design phase of the Project.

During the design phase, internal design team meetings will be conducted at Huval’s office in Baton Rouge, which will be convenient to the majority of the design team. Internal design meetings will serve to keep the design lead up to date with all design work performed by subconsultants and allow for accurate reporting on design status at the required weekly meetings. Required weekly meetings can be held at either Huval’s Baton Rouge office, which would be convenient to the LA DOTD and its OVF consultant, HNTB, or at the Project Office near the job site, once available. Participants will include representatives from all members of PIBC along with LA DOTD staff based on the agenda of each meeting. Meeting summaries will be promptly developed each week to document decisions and action items from the weekly meetings.

Co-location fuels cooperation and fosters collaboration amongst all team members. **At the outset of the project, design and construction team members will be co-located in Baton Rouge.** In addition to the bridge and road design for which Huval is well known, based on its previous work on LA DOTD projects, there are three key areas of the Belle Chasse project that are important to its success:

1. RIGHT-OF-WAY

Right-of-Way (ROW) acquisition is a critical path item on the front end of the delivery schedule and is important to accomplish the overall project schedule.

ROW taking lines will be sufficiently defined upon completion of the definitive design milestone and approved by LA DOTD such that ROW maps can be prepared at that time. Simultaneously with definitive design development, GoTech will perform property surveys and begin assembling parcel maps. On a parallel track during the definitive design phase, expected ROW acquisition subconsultant GCR will perform title research and begin the appraisal process. This will enable completion of ROW maps at the earliest possible date. Upon LA DOTD acceptance of definitive design plans, ROW maps can be finalized by GoTech and GCR can finalize the appraisal process to issue offers quickly. During weekly design team meetings, Huval will coordinate the various ROW parties including GoTech, GCR, and the DBJV contractor to ensure timely initiation and completion of the ROW acquisition process.

2. UTILITY COORDINATION AND RELOCATIONS

Utility coordination and relocations are also critical path items on the front end of the Project delivery schedule. Utility Coordinator subconsultant, Billy Moore of Cardno, was engaged early on during the RFP phase of the Project due to the critical nature of utility relocations with respect to project schedule and phasing. During the RFP phase of the Project, a utility conflict matrix was developed, which will continue to be updated during the design phase upon award of the Project. Early development of a utility conflict matrix allows for immediate coordination with known utility representatives to mitigate conflicts and develop early relocation strategies.

Please refer to Vol. II Technical Proposal Appendix where the utility conflict matrix is presented in the plans. Below is our understanding and approach to three key areas of Utility Coordination and Relocations that will affect success of the Project, including the following:

A. SCHEDULE: Utility relocations are one of the key items in our project risk matrix due to their potential to impact project construction schedule if not managed properly. The items affecting the critical path for utilities are:

- Obtaining utility location information;
- Obtaining approved preliminary plans for construction;
- Obtaining prior rights information;
- Obtaining permits, relocation plans and agreements;
- Obtaining, staking and clearing and grubbing of ROW;
- Utility companies starting and staying on the Project until relocation is complete; and
- New bridge construction being made available for fiber relocation.

B. COORDINATION AND TEAM MEETINGS: Utilities will be a standard agenda item of the weekly, biweekly, and monthly meetings during utility relocation. In addition to our utility consultant, utility companies will be requested to attend any of these meetings as required by the team. To help ensure that the Project stays on schedule and budget, with no delays due to utility relocations, the following information will be prepared and discussed at each meeting until all relocations are complete:

- Current overall Project completion percentage vs. latest approved plan percentage;
- Delays or exposures to milestones and final completion dates with reasons for them;
- Significant contracts advertised, awarded, or completed;
- Significant scope of work changes;
- Significant quality items;
- Significant safety concerns; and
- Significant Federal concerns such as environmental compliance, Buy America, Disadvantaged Business Enterprises (DBE) affirmative action requirements, etc.

C. UTILITY ADJUSTMENTS: The approach for affecting relocation of utilities will be managed as follows:

- Submit a management plan for Utility Coordination as required by Section 2.1, Project Management;
- Develop and/or coordinate utility designs to avoid or minimize utility conflicts and make recommendations for changes to road/bridge design for team consideration;
- Where utility conflicts occur, we will have executed, or coordinated the execution of, necessary Utility Relocation Agreements (URA) and/or utility permits and applicable permit supplements; and
- We will assist and coordinate with utility companies so that their construction activities are completed in a manner that ensures minimal disruption to utility services.

We will make every effort to ensure that utility conflicts do not delay the project. Even though the work of relocating utilities is the responsibility of the respective utility companies we will leverage our relationships with them to the extent possible to effect timely relocations. Any utility conflict issues that may arise will be coordinated closely with LADOTD to ensure minimal disruptions to project schedule or budget.

3. COMMUNICATIONS AND COMMUNITY INPUT

Franklin Associates will lead the team’s communication and outreach program. Huval and Design Manager, Bob Schmidt, has worked with Franklin on numerous successful projects in the past. For Belle Chasse, Huval will provide technical inputs from various subconsultants (sketches, drawings, plans, write-ups, etc.) to Franklin to help communicate the proposed design scheme as well as the proposed community enhancements and aesthetic features that can be incorporated into the design. In addition, our Project Manager, Design-Build Coordinator, Design Manager, Construction Manager, and supporting engineers will participate in community outreach meetings and meetings with LA DOTD, as may be appropriate in execution of this the plan. For additional information on how community input will be incorporated into the design, see Section 2.2.D and Section 2.3.

COMMUNITY INPUT:

PIBC will engage the community in selecting aesthetic schemes for:

- Landscape and hardscape plans
- Redevelopment of Veterans Plaza
- Colors and thematic elements on the bridge structure

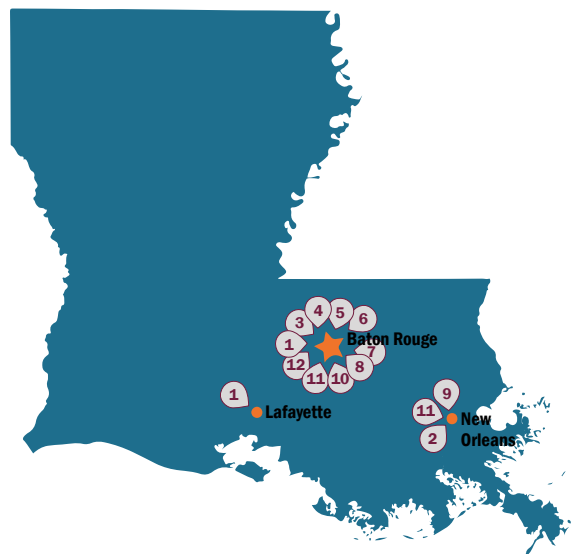
2.2.C APPROACH FOR DELIVERING THE DESIGN

Based on our experience successfully executing design-build projects across the U.S., we have developed a proven system to coordinate ideas, evaluate designs, develop plans, sequence construction activities, and integrate construction means and methods into the overall design to ensure a seamless transition from proposal development into final design development. Key elements of our approach for delivering the design include:

- **Design Team**

Location – For many projects, co-location of the design and construction teams is necessary to foster an efficient design process. PIBC’s design team includes 12 design/technical subconsultants based in Louisiana to support the diverse needs of the Project, please see Figure 18. Ten of these 12 subconsultants

FIGURE 18: PIBC’S LOCAL LOUISIANA CONSULTANTS



1. Huval & Associates
2. Modjeski and Masters
3. GeoEngineers
4. Vectura
5. GoTech
6. Cardno
7. Providence
8. Coastal Environments
9. Dana Brown & Associates
10. Sigma Consulting Group
11. GCR
12. Franklin Associates

Local to Louisiana
 SBE/DBE Company

are located in Baton Rouge, which will benefit LA DOTD, the LA DOTD’s OVF firm, and FHWA. DBJV team members maintain regional offices in Baton Rouge, as well. **To facilitate the collaboration of these team members and enhance design and coordination of the Project, Huval will lead its design program from the firm’s newly relocated and expanded Baton Rouge office.** Supported by firm members from Lafayette, the Baton Rouge central location will lead the design schedule, coordination, quality control, and cost efficiencies and will be convenient for participation by LA DOTD and OVF staff when appropriate. The geographic locations of the PIBC design and construction team members provides the benefits of co-location.

- **Task Force Groups (TFGs)** – During the RFP phase of the Project, Huval designers and subconsultants held weekly design meetings internally to facilitate a cohesive design.

Design meetings were held in person with an additional web-based screen-sharing component, which allowed attendees to participate remotely if necessary. Every other week, the design meeting included the DBJV contractor, Developer, Operation and Maintenance, and Tolling representatives. Referred to as Task Force Meetings, these workshops held during the RFP phase serve as a model for the weekly design meetings to be held during the design phase following award of the Project.

- **Over the Shoulder Reviews** – In addition to the use of Task Force meetings, we will conduct over-the-shoulder reviews with the Department and its representatives as part of our “No Surprises” approach. These reviews benefit LA DOTD by reducing the overall number of comments made on submittals and reducing the effort required by its staff to review/comment/reconcile each deliverable.
- **Construction/Design-Build Coordinator** – The construction DBJV’s Design-Build Coordinator, Josh Hanson will enable effective and timely coordination and communication between the design and construction teams. The DB Coordinator’s primary responsibility is to ensure that technical quality, consistency, and safety are accomplished in the deliverables produced by the design team. He is also responsible for ensuring that the design is completed within the Project’s established technical approach, schedule, and budget. The DB Coordinator’s role will transition to coordinating design support services during the construction phase as the design phase nears completion to ensure continuity. Key members of the construction team, including Construction Manager, Scott Armstrong, and Design Coordinator, Josh Hanson, will be co-located in Baton Rouge during the design phase.

Upon receipt of Notice to Proceed, using these key elements, the design team will immediately commence work on a Definitive Design set of plans. Huval has worked extensively with design subconsultants during the RFP process. This early coordination means that all subconsultant engineering firms are already familiar with the Project and have contributed to portions of the design.

As noted in the most recent changes to the Comprehensive Agreement (CA) to allow Limited Authority to Perform Work (LATPW) prior to notice to proceed for specific tasks. The specific tasks LA DOTD noted are identified as key to progress early schedule activities related to Utilities, ROW, and Governmental Approvals. PIBC plans to take advantage of the ability to develop these activities to mitigate risks and expedite the overall construction schedule. To ensure LA DOTD and the overall Project receives the most benefits, we intend to develop only the necessary Project Management Plans (PMP) to progress these allowed activities. We anticipate these activities will be concurrent with the submission of the relevant sections of the Design Quality Management Plan (DQMP), ROW Acquisition Plan, and Utility Relocation Coordination Plan. Our approach during this time is to have a small number of people and firms involved with high levels of coordination because all processes are not fully developed.

The same personnel involved in the proposal will work on the design team to create plans and perform calculations. Familiarity with the Project as well as familiarity with the design team’s coordination efforts allows for a seamless transition from the RFP phase to the design phase. Upon completion of definitive design, the design team will perform design tasks in a sequence which complements the order of construction tasks.

2.2.D APPROACH TO SOLICITATION & INCORPORATION OF COMMUNITY INPUT INTO AESTHETIC DESIGN

During the pre-proposal phase of the Project, PIBC has engaged Landscape Designer Dana Brown to assist with integration of an aesthetic landscape and hardscape plan into the overall project design. PIBC has independently developed this aesthetic design scheme as indicated in the renderings included in Section 2.1.

The corresponding costs for the overall aesthetic solutions have been incorporated into the submitted financial proposal along with the cost for developing two additional aesthetic schemes.

Following selection for negotiations, PIBC commits to work as partners with LA DOTD to develop for public consideration these two additional aesthetic schemes at similar cost. Members of the surrounding communities will be engaged in developing design ideas for the redevelopment of Veterans Plaza located below the existing bridge as well as to provide input on color schemes and thematic elements included on the bridge structure. Once developed and following award, PIBC will hold one public outreach meeting to present renderings incorporating each of the three options and receive public comments before allowing the community to cast votes to determine the final aesthetic scheme to be incorporated into the final design.

2.2.E CONSTRUCTION MANAGEMENT

An effective construction management plan requires implementation beginning even prior to notification of selection as a shortlisted proposer. Commencing with development of the preliminary design and response to the RFP, key construction personnel are integrated into the Task Force Group process. This ensures integration of construction techniques into the design development and enables construction planning to begin while the preliminary design is being developed. This early construction planning serves as the basis for early development of a reliable preliminary construction schedule and cost estimate provided in response to the RFP and ultimately carried directly into construction.

Upon selection, key team members and additional supporting construction personnel are assembled. Together the project team will work closely with LA DOTD to develop any concepts presented during the negotiation phase while also continuing advancement of the preliminary construction means and methods and project sequencing plans developed in support of the response to the RFP. Simultaneously, the team will begin development of the project specific plans that guide the overall management of the project. These include those specifically required by the RFP as well as those additional plans that ensure the project starts, progresses and finishes efficiently. A brief sample of these plans include:

- | | |
|--|--|
| 1. Project Administration Plan (RFP Required) | 8. Health & Safety Plan (RFP Required) |
| 2. Construction Quality Management Plan (RFP Required) | 9. ROW Acquisition Services Plan (RFP Required) |
| 3. Comprehensive Environmental Protection Plan (RFP Required) | 10. Utility Services Plan (RFP Required) |
| 4. Public Information and Communications Plan (RFP Required) | 11. Web Based Document Management System (RFP Required) |
| 5. Traffic Control Plan (RFP Required) | 12. Subcontracting and DBE Utilization Plan |
| 6. Traffic Management Plan (RFP Required) | 13. Materials Acquisition |
| 7. Demolition and Abandonment Plan (RFP Required) | 14. Workforce Hiring |
| | 15. Permit Management |
| | 16. Equipment Utilization |

Other key elements of our construction management approach include:

- **Utility Coordination** – Both design and construction management will work closely with Cardno, which will provide Subsurface Utility Engineering (SUE) services and utility coordination. Cardno will assist each utility owner in development of a utility work schedule to ensure that each owner understands the way that the team plans on building the Project.



Cardno will track and monitor the utilities' progress to ensure that they meet the desired schedule and prior commitments. Through regular inspections, Cardno will document and monitor the installations of utility owners.

- **ROW Acquisition and Relocation** – Both design and construction management will work closely with GCR Inc., which is the expected ROW acquisition and relocation subconsultant for the Project. Following NTP, GCR will engage subcontractors to begin title research/abstracts of title while preliminary acquisition notifications are sent to all landowners. After review of the abstracts, ownership data will be provided to team engineers for development of the Project ROW maps. GCR will coordinate business valuation and appraisal services with landowners, and work with DOTD for the required appraisal reviews. Landowner relocation benefits and services will be performed in compliance with the Uniform Relocation and Real Property Acquisition Act of 1970, 43 U.S.C. § 4601 et seq., as amended ('the Uniform Act') and the Louisiana State DOTD Local Public Agency Manual, revised January 2017. GCR will prepare and issue just compensation offers and negotiate to final closing with landowners, coordinating with DOTD for voucher review, approval and payment. Finally, in the unlikely event that GCR is unable to amicably negotiate with a landowner, GCR will assist in preparation of documentation required to expropriate the required ROW needed for the Project. 
- **Construction Work Plans** - Construction work plans will be developed by field engineers and superintendents in advance of field activities. Work plans will detail step-by-step actions necessary to complete an activity and will also include MOT, potential safety hazards, tool selection, equipment requirements, materials to be installed, picking plans, and a site plan layout of work areas. This detailed planning process allows engineers and field staff to thoroughly think through each step of construction before stepping foot in the field.
- **Safety** – Safety is integrated into everything we do. Led by Safety Manager, Danny Bishop, positive safety results require a proactive approach which starts with proper planning. Danny will be responsible for development of the Project-specific Safety Plan which will guide the integration of safety throughout the entire project. Danny will also manage the actual implementation of the safety plan on site through training, guidance, and oversight. Ultimately, safety is the responsibility of every employee on the Project, and it is crucial to provide the information and safety training to empower everyone to accept that responsibility. With this approach, we strive to ensure that everyone both on the Project and in the affected public goes home safely every day.
- **Quality** – Like safety, quality must also be integrated into everything we do. Under the overall leadership of Quality Manager, Dexter Dixon, the design and construction quality management team is responsible for development of the project-specific Quality Management Plan. This plan serves as the road map for quality assurance throughout the Project, guiding our coordination with the OVF and specifying quality activities, steps, hold points, and overall processes.
- **Environmental Compliance** – Providence Engineering and Environmental Group LLC (Providence), our team's environmental consultant, was engaged early to assist in creating PIBC's response to this RFP. During construction planning and continuing into execution on the Project-site, Environmental Compliance Manager, Roy Payne, will lead our team's development and implementation of the Comprehensive Environmental Protection Plan including its four main subcomponents: 
 - Environmental Management System;
 - Environmental Compliance and Mitigation Plan;
 - Environmental Protection Training Plan; and
 - Construction Monitoring Plan.

Guided by these plans, Roy will ensure that during construction we comply with all environmental commitments in the EA and FONSI as well as all provisions of the various permits. In addition to extensive monitoring of construction plans and activities, he will ensure that all personnel are properly educated and trained to achieve the Project’s environmental goals. Together, these elements of our construction management approach drive our engagement of additional subcontractors, including small and disadvantaged businesses, as they are integrated into our design and construction team.

SUBCONTRACTOR MANAGEMENT DURING CONSTRUCTION

Subcontractor management begins with well-defined scopes of work, including quality and schedule requirements. Coordination requires clear field communication and monitoring processes, as well as subcontractor involvement in design constructability and schedule reviews, when appropriate.

Construction Manager, Scott Armstrong, and PIBC’s engineers and superintendents will play active roles in coordinating subcontractors. Prior to starting work, the respective discipline superintendent and engineer will define and establish expectations by holding a preconstruction meeting with each subcontractor to discuss safety, quality, scope of work, manpower, cost control, schedule demands, and administration requirements. The preconstruction meeting will ensure that each subcontractor is prepared and organized to perform their work.

A dedicated superintendent and/or field engineer will oversee each subcontractors’ work and integrate it into the Project. To ensure coordination, especially for critical activities, we will hold a pre-shift coordination meeting that focuses on activities scheduled for the next 24 hours. This allows quality staff, superintendents, subcontractors, and LA DOTD to coordinate and review each other’s work and quality control hold points.

SMALL & DISADVANTAGED BUSINESS PARTICIPATION

PIBC will implement a competitive bidding process, using our standard contracting and procurement policies and practices, to award all contracts, including DBE contracts. These practices include formal scope definition, a controlled price solicitation and award process, and checks and balances to ensure fair treatment of firms. PIBC will continually identify opportunities for qualified DBEs to participate in the Project based on their level of expertise, experience, and qualifications.

PIBC will further pursue significant and meaningful DBE participation by holding one or more DBE outreach events to generate interest throughout the community. We will also host one or more local job fairs to gather on-the-spot applications from individuals in the area who may be interested and qualified to work on the project. PIBC team members have found these approaches to be successful in involving DBE firms and members of the local workforce that might not otherwise have been aware of the opportunity, as seen in Figure 19.

SBE/DBE COMMITMENT:

PIBC is fully committed to meeting or exceeding the 5% SBE/DBE target for this project.

FIGURE 19: CHAMP CLARK BRIDGE DBE PROJECT AWARD



Massman’s Champ Clark Bridge project received the “Above and Beyond Award” from the Illinois Department of Transportation in recognition of its accomplishment in exceeding the Project Disadvantaged Business Enterprise and Workforce Diversity goals in 2017.

PIBC has extensive experience with the DBE contracting community in South Louisiana and has developed ongoing relationships that have helped to achieve DBE goals on all projects. This experience has taught us that one of the keys to achieving a high level of DBE participation is structuring available work packages to fit the capabilities and work capacity of the available DBE contracting community.

Once DBE contracts are awarded, PIBC will meet with the selected subcontractor to review and update scope packages. PIBC will conduct periodic reviews of their work that will include an evaluation of the quality of their work safety record and schedule performance. Additionally, DBEs will attend coordination and safety meetings with design and construction supervisors to ensure their integration, amplify their knowledge of the tasks to be performed, understand and comply with the applicable safety and environmental requirements, and enhance their overall knowledge of the Project.

Due to design, ROW acquisition, utility relocation, and permit activity durations at the beginning of the Project, it is difficult for most of the subcontracting community to provide commitments so far in advance of the start of work. PIBC has already committed to the following local design DBE subconsultants; construction phase subcontractors will be integrated into the team as the start of work draws nearer.

VECTURA Vectura – Traffic Engineering & Signal Design



GoTech – Topographic Surveys & ROW Map



Dana Brown & Associates – Landscaping Enhancement

2.2.F OPERATION & MAINTENANCE OF THE EXISTING JUDGE PEREZ BRIDGE & BELLE CHASSE TUNNEL DURING CONSTRUCTION

The current facilities' maintenance has kept the Existing Judge Perez Bridge and Belle Chasse Tunnel at a level allowing for travelers to traverse them in a safe manner. PIBC will operate and maintain them in a similar fashion upon the start of operations for management of the current facilities during construction. We anticipate transitioning LA DOTD Bridge and Tunnel Operations over to PIBC concurrent with the commencement of construction (anticipated as the date of NTP). To assist in this transition, we will discuss with LA DOTD the possibility of interviewing current bridge-tending personnel for possible hiring to PIBC. We will initiate comprehensive planning, scheduling, and logistics meetings to ensure a smooth transition. This process will commence immediately upon selection and prior to closing.

We will perform an inventory and condition assessment and turn it into a Baseline Element Condition Rating (BECR) report. A workload was developed for the anticipated routine maintenance needs on these structural and tunnel assets throughout the construction period in order to maintain elements to the levels defined in the Operations & Maintenance Management Plan (MMP), technical specifications, and the BECR. The workload has been preliminarily coordinated with the construction schedule to identify, which sections of the approaches would be available for maintenance and the time in months of availability. Specific maintenance staff from DBi and Plenary will be responsible for performing the maintenance work necessary to meet the maintenance requirements during construction. Identified needs for major maintenance will be reported to the DOTD as required by the CA, and the PIBC team is prepared to perform any of this required work upon direction from the DOTD.

Accessibility and the safety of the traveling public throughout construction will be a key part of the operations of the existing structures. The tight integration of the PIBC team will be crucial to ensure that O&M workplans support the construction of the new structure while the old structures are consistently safe and open for travelers with minimal disruptions to their use.

To ensure travelers are safe and not negatively impacted, both the construction and maintenance teams will meet at least weekly and prior to major work activities. With major work activities, local law enforcement officers and first responders will be invited to attend meetings in order to coordinate efforts and ensure locals are aware of major construction activities and traffic phasing. In these comprehensive safety/coordination meetings our team will discuss safety in relation to planned activities and any safety incidents that may have occurred on other projects, daily scheduling, weather conditions, and any special events that may affect work performance. This ensures schedules and work plans are supported by maintenance efforts.

FIGURE 20: EXAMPLE OF CREW PERFORMING SLOPE REPAIR ALONGSIDE THE APPROACH TO A BRIDGE



Our focus will be on the overall safety of the traveling public and PIBC personnel, minimizing interruptions to the traveling public, planning well in advance for the delivery of materials, and for ongoing emergency response planning for the collaboration of equipment and personnel during incidents on the Project.

Our work crews will then travel the roadway to ensure ongoing accessibility for the traveling public and its safety. Our crews will be on-call 24/7 to fulfill this project requirement during construction. Through the construction period, for the existing Judge Perez Bridge, we will manage a crew of four-to-five that will be the bridge tenders. In addition, we also anticipate a two-to-three-man crew with full responsibility for daily maintenance operations of both the bridge and the tunnel, as seen in Figure 20 example. These crews will be overseen by O&M Manager Christian Guevara.

PUBLIC INFORMATION AND COMMUNICATIONS

2.3 PUBLIC INFORMATION & COMMUNICATIONS

2.3.A PUBLIC INFORMATION

The Belle Chasse Bridge & Tunnel Replacement Public-Private Partnership Project (Project) will be delivered using a procurement model that is new to the State of Louisiana, and one which will require tolling revenue in order to fund the majority of Project-related costs. Public support for the implementation of tolls to pay for the Project is mixed; this magnifies the importance of the Developer's Public Information and Communications Plan (PICP). PIBC has developed a robust plan that will ensure three key outcomes are achieved:

1. First and foremost, the safety of the traveling public will be maximized;
2. The Public is aware of the benefits of the New Bridge as a community enhancing asset; and
3. The Public is educated about tolling costs and the process through which tolls will be assessed and paid.

SAFETY

The primary goal for all parties is the safety of the traveling Project. PIBC's emergency communications plan will form the primary link between its risk management plan and the communications and engagement strategy. The plan will outline roles and responsibilities and actions to address any Project-related crises or incidents. Specifically, Jasmine Haralson, PIBC's Public Information Coordinator (PIC), will liaise with Project Manager Dennis Coventon throughout the construction and maintenance phases of the Project. The benefit of this interaction will be effective communication of critical realized Project risks from the delivery team to the communications team. This ensures that the context of such risks is provided to the communications team which will use this information when providing updates to the LA DOTD and other relevant stakeholders.

BENEFITS OF THE NEW BRIDGE

The new bridge will provide a more enjoyable experience for all users when travelling across the Gulf Intracoastal Waterway (GIWW). The removal of the existing vertical-lift movable bridge will provide a route across the GIWW that is always accessible. In addition, the new bridge will be aesthetically pleasing and provide local residents, through their contribution of tolls to the Project, with an asset over which they feel ownership. This sense of ownership should be a point of pride for local residents, and the Developer will endeavor to communicate this link through public outreach throughout the life of the Project.

TOLLING EDUCATION

PIBC will provide regular outreach to all stakeholders through the construction period to educate the public about the tolling process, from both an initial adoption and an ongoing payment administrative perspective. The adoption of transponders will be a focal point as this is an optimal method for collection and payment of tolls, and for residents of Plaquemines Parish results in a decreased toll rate. Once local residents are signed up to a transponder account, the administrative burden of making toll payments will be minimized through the use of direct account top-ups and automatic payment of monthly invoices for frequent users. The benefits of adoption will accrue to both PIBC and the traveling public, and will thus be a key aspect of the Project to be communicated prior to Partial Acceptance. A key part of this effort will be outreach events within Plaquemines Parish, at local businesses, and at the Naval facility to facilitate transponder and account sign-ups prior to tolling commencement.

Throughout the RFP period, we have sought to understand the environment in which the Project will be delivered through review of relevant reference documents and attendance at public information sessions. It is clear that some local residents are not supportive of the implementation of tolls on the Project. Therefore, it is imperative that the Developer provide rationale and clarification through various public mediums. This will be reflected in the PICP that PIBC develops within 30 days of NTP.

PRELIMINARY PUBLIC INFORMATION AND COMMUNICATIONS PLAN

PIBC’s Preliminary PICP outlines foundational communication strategies, identifies project milestones, and defines outreach methods for residents of Plaquemines Parish, including the city of Belle Chasse as it relates to the building of a New Bridge to replace the Judge Perez Bridge and Belle Chasse Tunnel. This plan is flexible and will be updated as necessary based on Project milestones, progress, and issues that may arise. It will serve as the guiding document for the PIC activities. As the Project evolves, appropriate communications with stakeholders will be necessary to provide consistent and comprehensive messaging and to assist in fulfilling the goals of the Project. This plan will outline the strategy to:

- Establish communication modes that are essential to informing the target population;
- Provide details on project milestones and specific communication strategies to be utilized;
- Identify targeted stakeholders; and
- Communicate with stakeholders about construction, tolling, transponders, and emergencies.

The lead agency for communications and stakeholder engagement on the PIBC team is Franklin Associates, LLC. Franklin is a Louisiana-based consulting firm with expertise in communications, public outreach, and stakeholder engagement. Franklin will work as a subcontractor to PIBC, and in conjunction with the LA DOTD, and key Plaquemines Parish stakeholders to develop and implement messaging about the Project. Franklin will implement a comprehensive communications and outreach strategy that will be multifaceted in its approach. It will engage residents, community leaders, businesses, tourists, elected and appointed officials.

As an added benefit for Project stakeholders, Plenary will also be involved in the development and implementation of the PICP. With a Project portfolio of 33 Projects across North America, on each of which Plenary plays an integral role in the communications plan, Plenary has extensive experience executing complex P3 projects to the satisfaction of relevant stakeholders. Working with Franklin, Plenary will help to ensure an effective delivery of the PICP, keeping stakeholders engaged and informed of key Project milestones throughout the entire Project Term.

The Project has been divided into five focus areas, which will guide the work of the communications plan, as shown in the below Table 21.

TABLE 21: PUBLIC INVOLVEMENT FOCUS AREAS AND TIMELINE

AREA	ITEM	TIMEFRAME (MONTHS)	TIMEFRAME (YEARS)
FOCUS AREA 1	Request for Proposals (RFP)	3	2018-2019
FOCUS AREA 2	Notice to Proceed (NTP)	6	2019
FOCUS AREA 3	Construction	50	2019-2023
FOCUS AREA 4	Launch	18	2023-2024
FOCUS AREA 5	Operation & Maintenance	360	2023-2053

COMMUNICATION MODES

Throughout the life of the Project, PIBC will provide stakeholders information on a consistent basis from a consistent source. While the most persuasive means of communicating a message is person-to-person, this can be a challenge when dealing with a large population.

All selected modes of communication will be monitored for discussion and issues that may arise and need to be addressed. The following communication modes will be used at a minimum:

- Television;
- Newspapers (i.e. Plaquemines Gazette, New Orleans Advocate, www.nola.com, etc.);
- Radio Stations;
- Websites (i.e. project website, local government, LADOTD, etc.);
- Printed Materials;
- Social Media;
- Email Newsletters (i.e. local and regional residents, businesses, trade associations, etc.);
- Talking Points;
- Media Releases; and
- In-Person Presentations.

TELEVISION

Plaquemines Parishes is in a television market with four major networks and two independent stations, as seen in Table 22. The PIC will schedule, coordinate and if desired, appear on morning news shows, participate in one-on-one interviews, and host onsite interviews to provide information and updates on the Project. Franklin recognizes that some, if not all, of these appearances may need to be delivered by LA DOTD personnel or other key project spokespersons. Additionally, press releases and event summaries will be provided to applicable news affiliates on a periodic basis.

TABLE 22: LOCAL TELEVISION INFORMATION

NETWORK	LOCAL AFFILIATE
FOX	WVUE
CBS	WWL-TV 4
NBC	WDSU – 6
ABC	WBNO-26 & WNOL 38
INDEPENDENT	WYES-12
INDEPENDENT	WLAE-32

NEWSPAPER

Plaquemines Parish is serviced by three newspapers: Plaquemines Gazette, The Times Picayune (nola.com) and The New Orleans Advocate. The Plaquemines Gazette serves as the official parish journal for Plaquemines Parish where all official public notices will be published to comply with federal and state regulations. It is published once a week, has over 30 rack locations throughout the area, and an electronic edition. The New Orleans Advocate is a daily printed publication along with an e-edition that is continuously updated. The Times Picayune (nola.com) is a regional electronic newspaper that is published daily and updated continually.

RADIO STATIONS

Broadcast radio is a mode of communication reaching more than 93% of the country, as listeners tune in on a weekly basis to obtain information. Public service announcements (PSAs) will be disseminated to area radio stations to increase public awareness of the Project. Many stations share single ownership, meaning that PSAs delivered to the parent company will be distributed to the individual stations.

Additionally, interviews will be scheduled, coordinated, and conducted with on-air radio personalities to further disseminate educational information. Depending on formats, interactive programs may be used, so listeners can call in and engage in discussions regarding the Project. Please see Table 23 for local radio stations that are connected to the traveling public for the Belle Chasse Project.

TABLE 23: LOCAL RADIO STATIONS

STATION	FREQUENCY
WRBH	88.3FM
WWNO	89.9FM
WWOZ	90.7FM
WQUE	93.3FM
WEZB	97.1FM
WYLD	98.5FM
WRNO	99.5FM
WNOE	101.1FM
KMEZ	102.9FM

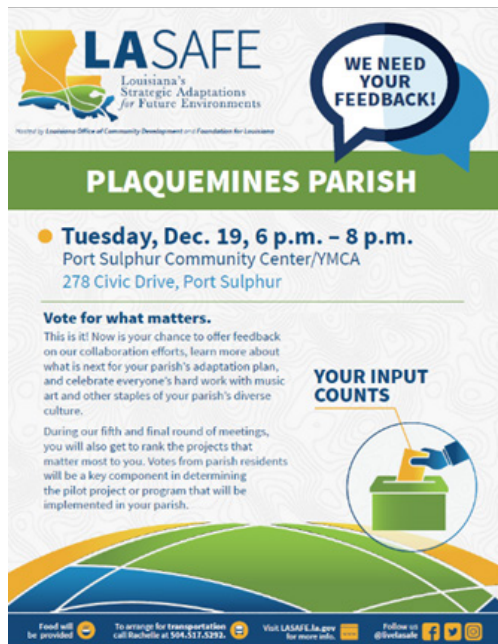
WEB PRESENCE

PIBC will develop a Project website to be used throughout the Project. The website will be linked to LA DOTD’s web portal and accessible through www.geauxpass.com; which is the website for all Louisiana toll roads. It will serve as a hub of information where residents can find Project updates, schedules, FAQs, photos, videos and downloadable information. Additionally, information will be placed on the Plaquemines Parish Government website, www.plaqueminesparish.com, and will accompany a link to the project website. The project website will feature a portal where stakeholders can provide their preferred method of contact in order to remain updated on the status of the Project.

PRINTED MATERIALS

Printed materials such as letters, post cards, flyers, etc. (Figure 24 example) will be created and disseminated as needed. These items will include advertisements about community meetings, project updates, and information on tolling and transponders.

FIGURE 24: EXAMPLE OF PRINTED PUBLIC INFORMATION AND COORDINATION MATERIALS



SOCIAL MEDIA

Social media provides an opportunity to hyper-target messaging to local audiences. PIBC will strategically place messaging on social media platforms to inform stakeholders. Additionally, the use of live streaming platforms such as Facebook Live, Periscope, UStream, etc. provide a platform for stakeholders to access information remotely and the information is archived for playback.

These modes can be used to conduct onsite video tours with Project personnel to give stakeholders an up-close and personal experience with the Project.

PIBC will leverage the current platforms to keep stakeholders engaged. Currently, there is a Twitter account with the handle @BelleChasseBrdg with approximately 700 followers. This account primarily notifies followers when the bridge is raised and lowered for marine traffic and is managed by LA DOTD. Additionally, there is a “Belle Chasse Community” Facebook account with 1,812 people following. These two modes have established followers seeking information. These modes will be reviewed to determine if they can be utilized for dissemination of information in addition to creating social media platforms specific to this Project.

- **Email** - PIBC will develop a Project database of stakeholder emails for information dissemination purposes. Stakeholders will have an ongoing opportunity to submit their emails via the Project website and other opportunities to receive Project updates. Information will be shared with stakeholders at a regular frequency via email to keep them informed of Project updates and will be reminded of the opportunity to submit any concerns via an online link from the website. Additional email addresses will be requested during the transponder registration period to be added to the database.
- **Talking Points** - Talking points will be drafted and distributed as needed to key Project leadership, local, parish, and state elected and appointed officials, as well as community leaders and representatives of non-profit partners. The talking points will include topics that can be included in any speeches or discussions regarding the Project and will be updated regularly. This ensures that consistent messaging is being shared with stakeholders.
- **Media Releases** - Media releases will be disseminated to local media outlets (newspapers, relevant parish publications, broadcast media) for Project milestones and other key events such as evacuations, traffic diversions, etc. Immediately following the event and when applicable, a more detailed press release and information packet will be distributed to the same outlets. The detailed release will announce how individuals can stay informed during the construction and operation phases. The releases will be tailored with pre-approved quotes from the Governor, LA DOTD Secretary, and Plaquemines Parish President, when applicable. Additionally, prior to any major construction event that will drastically impact stakeholders and/or impact the flow of traffic, a media release will be sent to all relevant media outlets so that the information can be shared with the public. These informational releases will be replicated throughout all communications channels available (social media, email, etc.).
- **In-Person Presentations** - In-person presentations will be given on a consistent basis to the following entities but not limited to:
 - Plaquemines Parish Council Meetings
 - Homeowner Association Meetings
 - Civic and Social Organizations
 - Trade Associations

These presentations will include information on the status of the Project, transponder education and usage, tolling information, and will include graphics such as photos and videos of the construction progress.

MILESTONES

Required organized communications with stakeholders will be guided by specific milestones. Public outreach and stakeholder engagement will be performed throughout each of these milestones and the life of the Project, as seen in Figure 25.

FIGURE 25: IMPORTANT MILESTONE TIMELINE



- Project Launch** – We envision an official Project launch as a media release and announcement made by the Governor and/or Secretary of the Department of Transportation & Development, along with the Parish President. This will include a kick-off press conference where Plenary Infrastructure Belle Chasse will be officially announced as the P3 partner, and information about the process and benefits of the Project will be provided. Also, citizens will be provided with information on how they can stay engaged and informed about the Project.

- Groundbreaking Ceremony**

– This event will consist of all Project partners from the federal, state, and local levels present at the construction site for an official groundbreaking ceremony. Remarks will be given by the appropriate officials with media present and mirrored on all outbound modes and channels. (Figure 26)

FIGURE 26: PLENARY GROUNDBREAKING CEREMONY



- Tolling & Transponder Education**

– A series of community meetings, messaging, and small group meetings will be held to educate stakeholders on tolling and how to obtain and use a transponder. Franklin has found that small group and one-on-one meetings are most effective when engaging stakeholders on a potentially sensitive issue.

- Ribbon Cutting & Operational Launch** – The final milestone of the construction phase will be the ribbon cutting, which will highlight the construction process and describe the traffic flow improvement as a result of the completed construction. We will also note it is no longer necessary to lift the bridge for marine traffic. Federal, state, and local officials will be invited to this event.

DATES TO AVOID

Within each parish or jurisdiction there are holidays, festivals, public school vacations, and similar dates that will be identified and overlaid on a master Project public engagement/meeting calendar. Efforts will be made to avoid these dates when scheduling community and parish-wide meetings or when launching media campaigns so that messages do not get lost in the busy day-to-day lives of residents. These dates include:

- Federal holidays;
- Public school holidays; and
- Local festivals, noting dates and locations.

EMERGENCY COMMUNICATION

The Belle Chasse Bridge is located on a key corridor used during evacuations for both vehicular and marine traffic. PIBC will coordinate with all necessary emergency management personnel and stakeholders to ensure that information is communicated in a timely manner and to coordinate the removal of tolls during such events to provide an expedited evacuation process. We will utilize all communication modes during emergencies to inform stakeholders.

BRANDING

Project branding allows for a clear focus on and multi-tiered, as well as multi-channeled, distribution of messaging for the target audience. All disseminated materials will be inclusive of logos from PIBC and LA DOTD. We will work in conjunction with LA DOTD to create a Project tagline and mission statement that is succinct in highlighting the goals of the Project. These branding efforts will utilize creative concepts in order to create an energy for the effort and convey the Project messages.

STAKEHOLDER ENGAGEMENT

The 2018 Census estimates the total population of Plaquemines Parish to be 23,348 and the population of Belle Chasse is 12,679, the largest of the cities in Plaquemines Parish. The LA 23 corridor has a current traffic volume of more than 33,000 vehicles per day and LA 23 is the only corridor available to navigate the parish from north to south and vice versa. While there are many benefits to this Project, one of the potentially most significant challenges is the stakeholder's response to tolling. According to a survey conducted by Franklin Associates in Spring 2018, 48% of respondents stated they are not willing at all to pay a toll to help cover a portion of the bridge construction/maintenance cost. However, 52% stated they are either very willing, somewhat willing, neutral or somewhat unwilling. Engaging stakeholders at every stage of this process will be the Project's key success.

The objective of the PICP is to inform stakeholders about the construction process and keep them informed throughout the life of the Project. Reaching an audience of this size requires a diverse approach, using multiple communication channels. This Project will impact various groups, several of which are outlined below:

- Plaquemines Parish Residents ;
- Businesses & Industry;
- Public Officials;
- Tourists; and
- Adjourning Parishes (Jefferson & Orleans) Residents & Businesses.

A significant amount of communication and engagement will be done through town hall style public meetings and small group meetings with stakeholders. Through previous engagement work, Franklin has found that communicating information about potentially sensitive issues is often best received in small group settings such as meetings with homeowner associations, religious organizations, civil and social groups such as but not limited to the monthly meetings of: the Belle Chasse Lions Club, The American Legion Post #285, Plaquemines Association of Business & Industry, and the Knights of Columbus. Small group settings can also provide an opportunity for individuals to ask questions in a private and comfortable setting to gain greater clarity on the Project, the P3 model, tolling, and transponder use.

Each meeting will be planned and executed within a definitive timeline (see Table 27).

TABLE 27: OUTREACH TASK OPTIMAL TIME FRAMES FOR PUBLIC MEETINGS

ITEM	ACTIONS
PROJECT OUTREACH PLANNING	<ul style="list-style-type: none"> • Finalize advertising content • Initiate information line (if provided) • Prepare project website • Prepare project social media presence • Design promotional items and engagement toolkit • Identify project stakeholders • Identify meeting venues • Go-live for website
4 WEEKS PRIOR TO PUBLIC MEETING	<ul style="list-style-type: none"> • Conduct elected official and stakeholder one-on-one interviews/initial meetings • Finalize meeting site details • Contact media to schedule interviews for public meeting • Place advertising in area newspaper for public meetings • Print promotional items • Conduct Stakeholder interviews • Conduct grassroots outreach to community organizations by phone, email, and/or in person
3 WEEKS PRIOR TO PUBLIC MEETING	<ul style="list-style-type: none"> • Send out e-blast 1 (save the date) • Outreach to community organizations by phone, email, or in person • Place banners, yard signs (as available) • Develop interactive exercises and materials for meeting • Print and distribute postcards
1 WEEK PRIOR TO PUBLIC MEETING	<ul style="list-style-type: none"> • Send Press Release/PSA 1 • Contact media to generate coverage • Send out e-blast 2 (reminder e-blast) • Make follow-up contacts to organizations
WEEK OF PUBLIC MEETING	<ul style="list-style-type: none"> • Send Press Release/ PSA 2 (reminder) • Send out e-blast 3 (reminder e-blast) • Confirm site details • Conduct public meeting

The business and industry community provide another unique opportunity for stakeholder engagement. The Plaquemines Parish area employs approximately 6,300 individuals specializing in mining, quarrying, oil, gas extraction, agriculture, forestry, fishing, hunting, construction and public administration. These individuals can be engaged through events and information shared through their employer.

Public officials, both elected and appointed, are key points of contact and information for stakeholders. Meetings will be coordinated with each elected official who represents the impacted area. They will be provided an outline of the Project schedule and information on how to direct their constituents to get more information. FAQs and information packets on the Project impact and benefits will be provided to all elected officials' offices representing the area. This packet will include "How to Guides" related to transponder procurement and operation.

COMMUNITY INPUT INTO AESTHETIC DESIGN

PIBC has independently developed an aesthetic landscape and hardscape plan into the overall project design. The corresponding costs for the overall aesthetic solutions have been incorporated into the submitted financial proposal along with the cost for developing two additional aesthetic schemes. Following selection as Preferred Proposer, PIBC will partner with the LA DOTD to develop these two additional aesthetic schemes at similar cost for public consideration. Once developed and following Project award, PIBC will hold one public outreach meeting to present renderings incorporating each of the three options and receive public comments before allowing the community to cast votes to determine the final aesthetic scheme to be incorporated into the final design.

Members of the surrounding communities will also be engaged in providing input on color schemes and thematic elements included on the bridge structure, as outlined below.

- 1. Color scheme on exterior bridge railing and exterior girder.** Options for color schemes are to be presented and decided upon with community engagement.
- 2. Paint all structural elements.** Options for color schemes are to be presented and decided upon with community engagement.
- 3. Utilize ends of caps to feature art or graphics as guided by public input.** Cap ends to be painted a solid color, base on community engagement. Certain cap ends could also include artistic painting inspired by or created by local artists.
- 4. Coordinate texture, patterns and colors of bridge end MSE/retaining walls.** Options for color schemes are to be presented and decided upon with community engagement.

COMMUNITY EVENTS

Established community events, such as: Annual Plaquemines Parish Jambalaya Cook-Off, Plaquemines Parish Seafood and Heritage Festival, and Annual Buras Volunteer Fire Department Crawfish Boil-Off are sites where information can be shared, and messaging can be performed on a large scale. Engaging residents at these events in addition to conducting presentations at existing meetings, specifically related to transponder distribution and education, helps to build relationships and can provide an opportunity for PIBC team members to immerse themselves in the community.

TOLLING TOOLKIT & TEMPLATES

A set of branded Microsoft Office document templates and toolkit items will be prepared for community partners to be used when engaging their constituents. Graphic publication designs will be optimized for cost efficiency. Typical printing costs will be requested from commercial printers. The inventory of items includes:

- Project FAQ Sheet with information about the Project;
- Outreach Push Card, 4x6 inches with tolling provider contact information; and
- Outreach Push Card with steps on how to obtain a tolling transponder.

PERFORMANCE METRICS

The purpose of tracking performance metrics is to identify quantifiable results, documenting the value of the Project investment, confirming the tactics used, and ensuring positive results from the messaging effort. Measurable results are summarized in the following Table 28.

TABLE 28: PERFORMANCE MATRIX

METRIC	UNIT OF MEASURE	TIMING
COMMUNITY RESIDENTS MEETING	• Headcount from sign-in sheets	• Tabulated at each meeting
BUSINESS COMMUNITY MEETINGS	• Headcount from sign-in sheets	• Tabulated at each meeting
WEBSITE VISITS	• Unique visits; re-visits; Google Analytics	• Weekly; and following large meetings
SOCIAL MEDIA ANALYTICS	• Facebook “likes”; Views of public meeting broadcasts; Twitter “re-tweets”; YouTube views, etc.	• Weekly; and following large meetings; following messaging campaigns
COMMUNITY LEADERS MEETING	• Leaders recruited; leaders actively engaging their followers	• Monthly
MEDIA STORIES	• Press releases issued; earned media stories published	• Weekly
ELECTED OFFICIALS BRIEFINGS	• Officials actively engaging their audiences; responses of constituents	• Quarterly
PARTICIPANT BULK EMAIL DATABASE	• Quantity of subscribers to e-newsletter, email open rates for each message	• Monthly
COMMUNITY EVENTS & ESTABLISHED COMMUNITY MEETINGS	• Headcount from sign-in sheets	• Tabulated at each event/meeting

COMMUNICATION & ENGAGEMENT TOOLS

The following is a representative list of items that will be furnished as addenda to the full PICP:

- Media/Press Releases;
- Outreach flyers;
- Public notices;
- Frequently Asked Questions (FAQs);
- Social media posts;
- E-blasts newsletters; and
- Talking points.

REVISIONS

The Preliminary PICP is provided as a “working guide” to which additions and revisions are expected throughout the course of the Project. The communication strategies and engagement techniques outlined in this plan will be evaluated for effectiveness and adjusted or discontinued as determined appropriate by PIBC.

DEMOLITION AND DECOMMISSIONING OF EXISTING INFRASTRUCTURE

2.4 DEMOLITION & DECOMMISSIONING OF EXISTING INFRASTRUCTURE

2.4. DEMOLITION & DECOMMISSIONING

OVERVIEW

PIBC will perform the demolition of the existing Judge Perez Bridge and the decommissioning of the existing Belle Chasse Tunnel safely and efficiently, using proven methods and procedures that protect the Project team’s employees, the public, the environment, and the new bridge structure, as shown in Figure 29. Coordination with all stakeholders will be the key to a successful demolition and decommissioning, ranging from managing vehicular and marine traffic, to ensuring compliance with all regulatory requirements.

FIGURE 29: DEMOLITION OF THE LA-1 STRUCTURE IN LEEVILLE, LOUISIANA, AFTER CONSTRUCTION OF THE NEW BRIDGE. THE PROJECT INCLUDED THE DEMOLITION AND REMOVAL OF THE EXISTING LIFT-SPAN BRIDGE OVER BAYOU LAFOURCHE



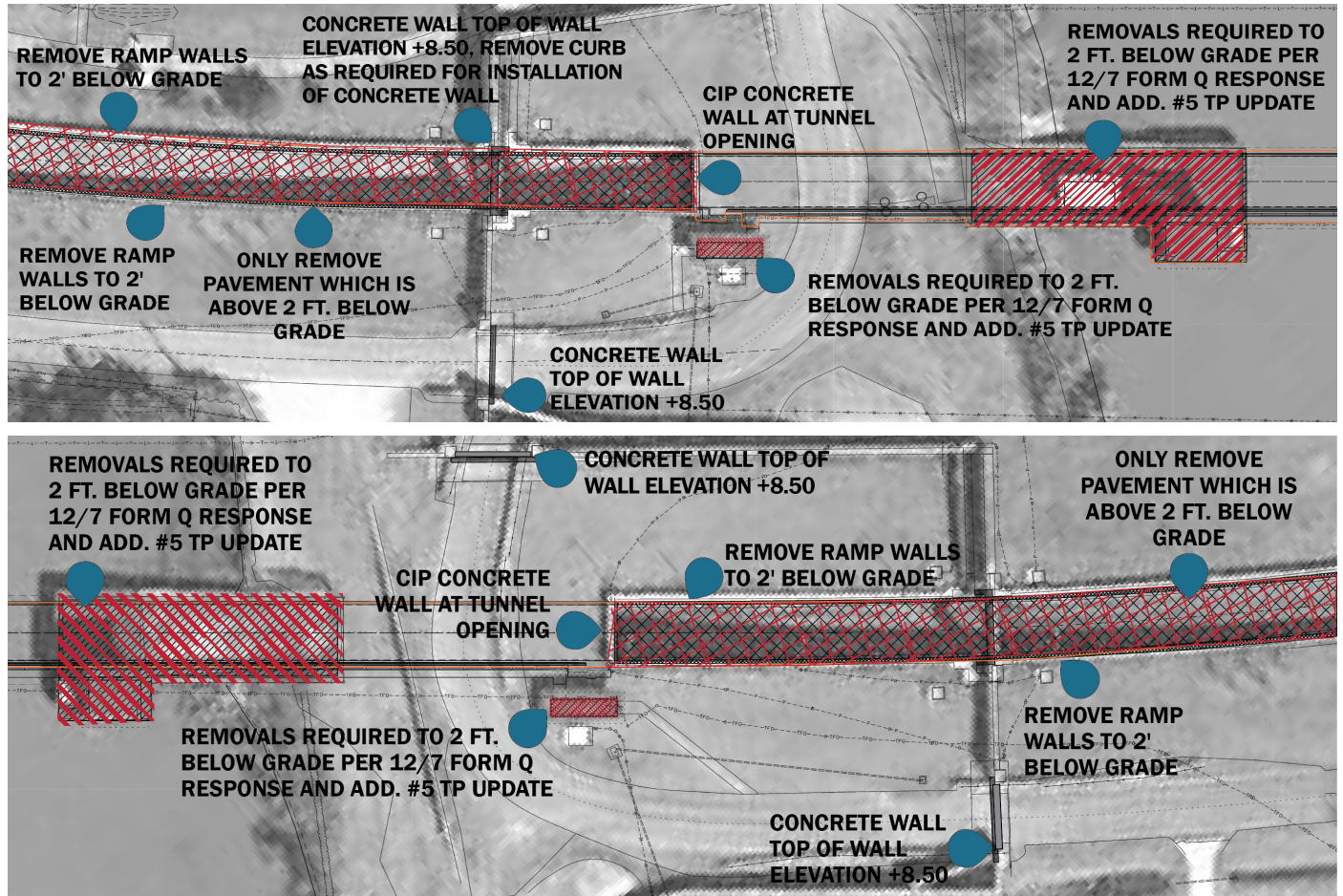
Team members of PIBC have a wealth of experience with the controlled demolition of major bridge structures adjacent to the replacement spans and understand the steps that must be taken to protect the surrounding infrastructure. Traylor and Massman worked together on the demolition and removal of the existing timber fender system and lift-span bridge over Bayou Lafourche at Leeville, Louisiana—an operation very similar to the Belle Chasse demolition. The total length of the bridge from south abutment to north abutment was approximately 2,570 linear feet. It included the removal of 28-each 20 ft. concrete slab spans, 16-each 65.0 ft. welded composite steel spans, 3-each 175.0 ft. welded composite steel spans, and 1-each 181 ft. vertical lift span. The Project was completed ahead of schedule with minimal disruption to marine traffic.

PIBC team member, Traylor, also worked to safely complete the demolition of the existing I-45 Galveston Causeway bridges within 25 feet of the bridges that the team had just built. The Project team removed the bridge in sections weighing up to 325 tons in order to minimize the required closures of the navigable waterway. On the Christopher S. Bond Bridge Project in Kansas City, Missouri, Massman self-performed the majority of the demolition of a bridge including critical lifts over a navigable waterway and the removal and disposal of steel coated with lead based paint, working within 15 feet of the bridge that they had recently constructed.

DEMOLITION EXPERIENCE:

PIBC team members, Traylor and Massman, have a combined 30+ demolition projects with a bridge component over the past 20 years.

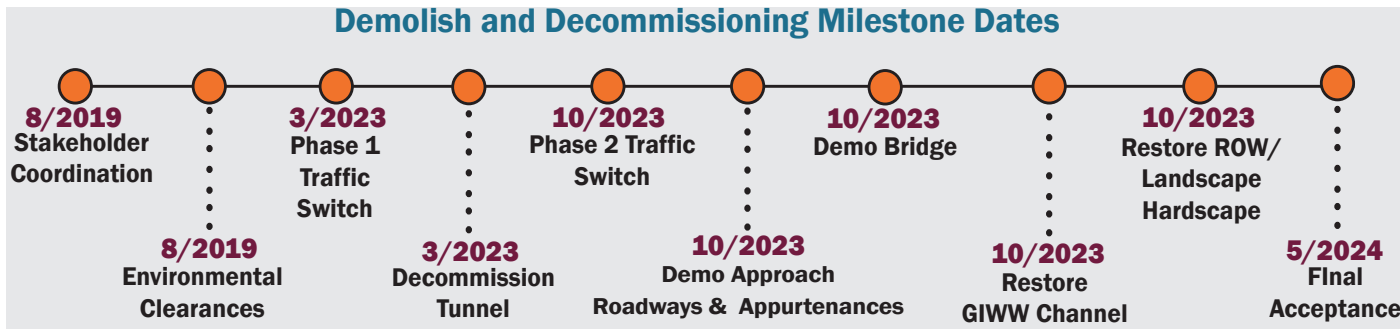
FIGURE 30: TUNNEL DEMOLITION PLAN VIEW



2.4.A MILESTONE TIMELINE

The demolition and decommissioning of the existing infrastructure will be some of the last work to occur as part of the Project. However, the planning and preparation for it will start much earlier to ensure success for the operation. The following Figure 31 provides important start milestones for the demolition and decommissioning activities.

FIGURE 31: MILESTONE DATES



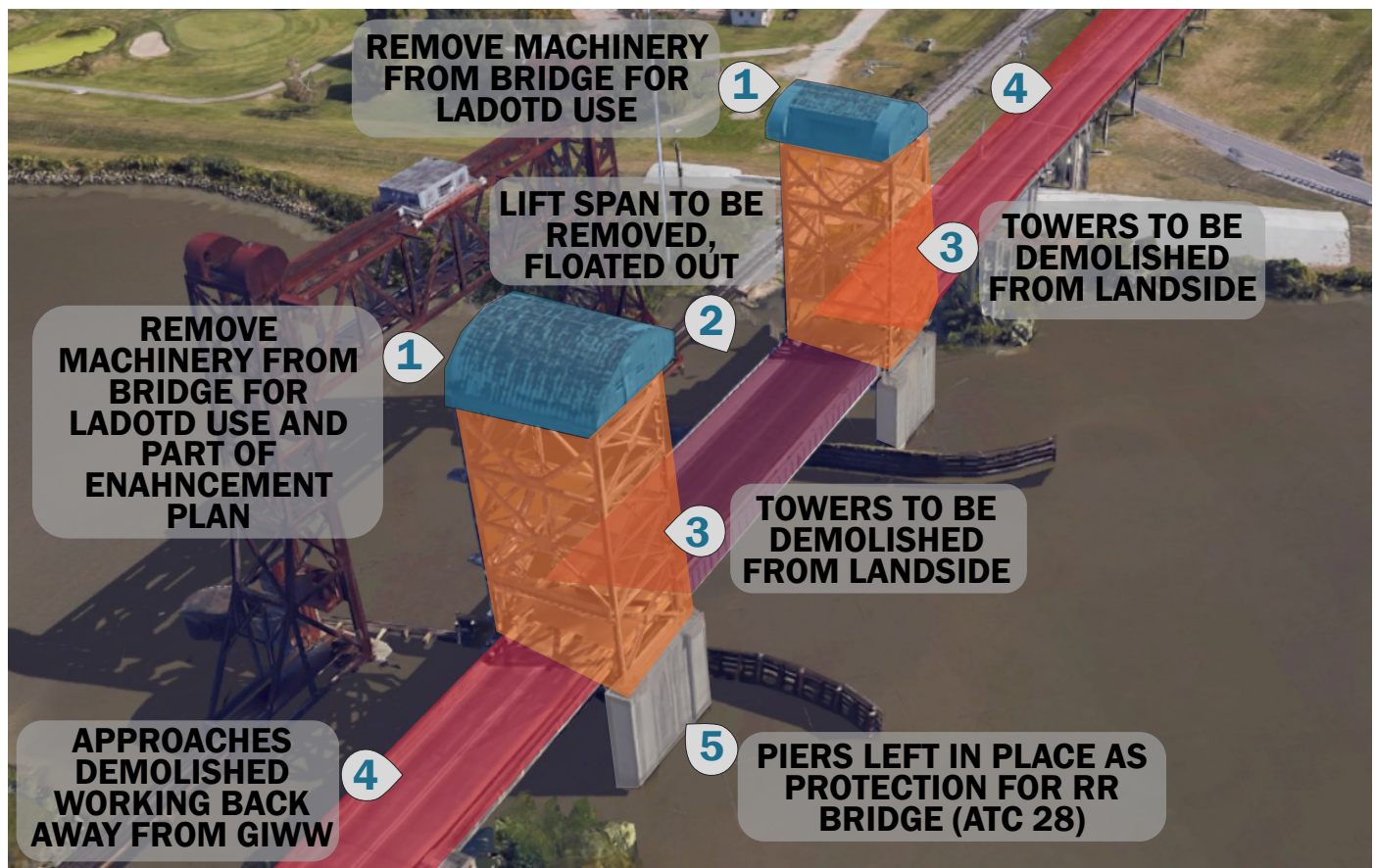
STEP-BY-STEP DEMOLITION PLAN OVERVIEW

PIBC will prepare and submit the Demolition and Abandonment Plan (D&AP) within 30 days of receiving NTP. Huval has already prepared a preliminary plan based upon their significant experience with similar operations for LA DOTD and other clients.

The preliminary draft contemplates beginning the demolition of the existing bridge by removing the lift span and then working down and out from that point. The lift span will be lifted to the Up position and tied off to the towers at all four corners, which will allow the concrete counterweight to be in the down position when it is ready to be removed. The lift span will then be removed in as large of pieces as are manageable, following an engineered plan to ensure stability during the operation.

Once the lift span is gone, the previously mentioned concrete counter weight will be broken into pieces and loaded out. Machinery required by LA DOTD will be carefully loaded out and stored at an approved location. The two steel towers will be cut into sections from the top down and loaded off by crane onto barges for further processing and recycling, while the concrete foundations for these towers will be refurbished to remain as pier protection for the NOGC Railroad Bridge, per ATC 28. The approach spans on both sides of the project will be demolished utilizing conventional methods, again seeking to promote efficiency by maximizing the size of the pieces removed. Please see Figure 32 for a step-by-step process of the current bridge demolition.

FIGURE 32: BRIDGE DEMOLITION



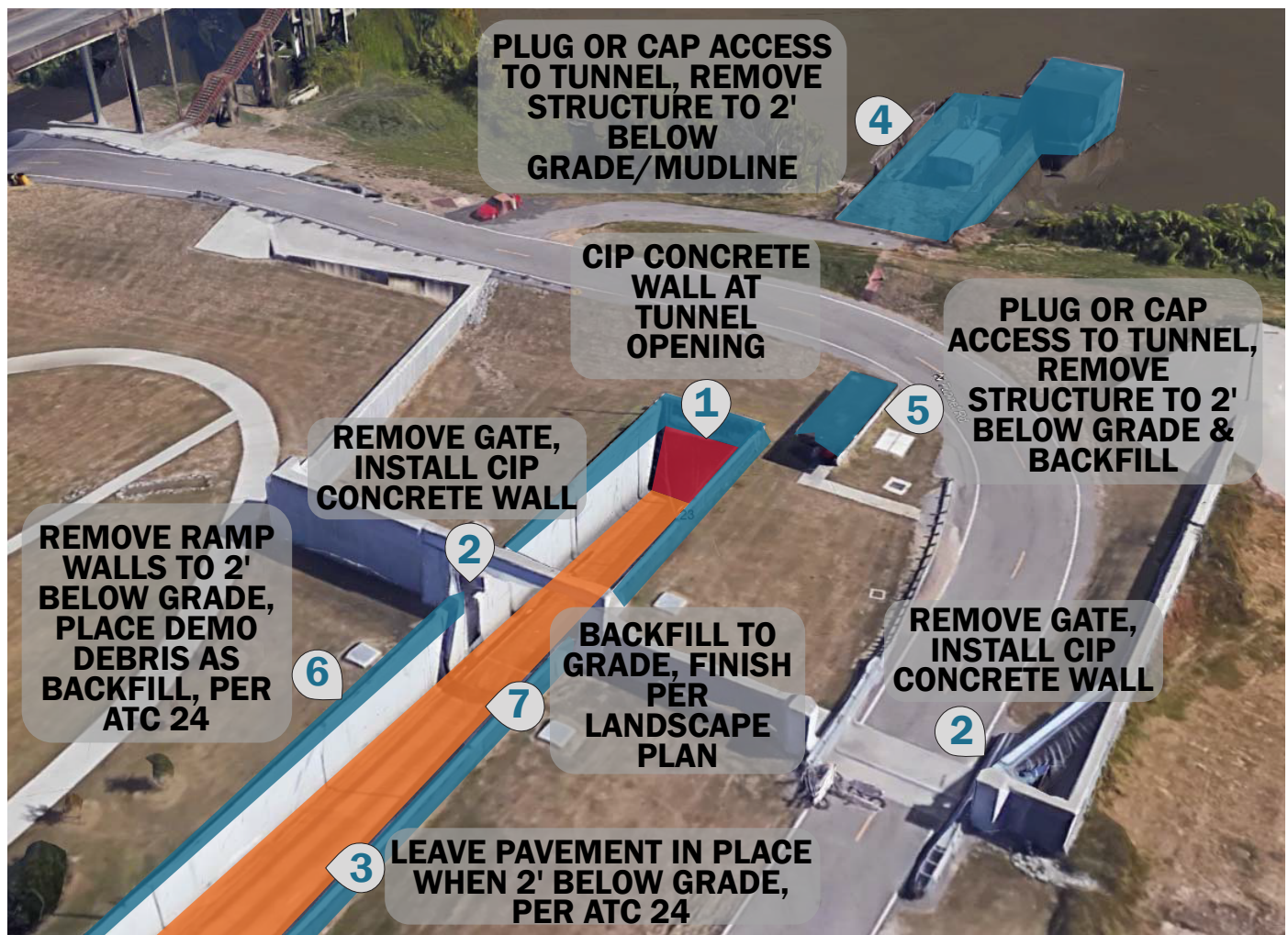
As it is underneath the GIWW, a significant portion of the existing tunnel will remain in place in a decommissioned state, rather than being demolished and removed entirely. However, there is still a significant amount of work that will go into this decommissioning, including the demolition of the surrounding tunnel ramps and ancillary infrastructure.

The tunnel itself will be capped with cast in place concrete walls at the openings at each end. These walls will be approximately three feet thick and will provide a stable backstop for the ramp backfill. As the CPRA requested through the LA DOTD, the floodgates will be removed and walls will be built in their place. The demolition of the tunnel ramp and the ramp walls will be optimized through the utilization of ATC 24.

The original demolition plan called for the demolition and removal from site of the pavement on the ramps. Instead, this pavement will be perforated for drainage and remain in place beneath the backfill installed to bring the ramp up to grade.

ATC 24 also allows for this backfill to be comprised partially of the material generated by demolishing the ramp walls to two feet below finished grade. The debris material that is used as backfill will be broken and placed in a manner that allows for adequate compaction of the fill section as a whole. The ventilation structures and access portals will be removed and capped two feet below the finished grade at their locations. After the completion of this removal, the area will be backfilled, graded for proper drainage, and prepared in accordance with PIBC's Landscape Plan. Please see the following Figure 33 for our team's step-by-step tunnel decommissioning plan.

FIGURE 33: TUNNEL DECOMMISSIONING



2.4.B MAINTENANCE OF TRAFFIC

As with the construction of the new bridge, PIBC is committed to minimizing the disruption and inconvenience to both vehicular and marine traffic during the demolition and decommissioning of the existing bridge and tunnel. **PIBC's construction sequencing and demolition means and methods will minimize impact to these parties.**

Because the new bridge will be open to traffic by the time demolition work commences, the primary impact to vehicular traffic will be ensuring their safety traveling near an active construction/demolition work zone. In addition to standard temporary work zone protection measures such as signage, barrier, and crash impact attenuators, PIBC will utilize shielding and netting as needed to protect the traveling public.

Traffic will be in its final configuration and so detours will not be needed on the main LA 23 route during demolition operations. Isolated short-term detours will be utilized as the approach demolition works its way over individual cross streets.

Removal of the lift span itself will require a short-term closure of the navigational channel to ensure that no marine traffic passes under a suspended load. The removal of the steel towers will be coordinated with the marine industry to ensure that no picks are suspending loads in the navigational channel in a manner that endangers traffic. Members of PIBC are experienced in similar operations and will draw upon this experience to ensure success for this phase of the Project, as seen in Figure 34 and Figure 35.

FIGURE 34: DEMOLITION OF THE EXISTING BRIDGE IN CLOSE PROXIMITY TO THE REPLACEMENT BRIDGE ON THE CHRISTOPHER S. BOND BRIDGE PROJECT (LEFT). GALVESTON DEMOLITION OF EXISTING BRIDGE (RIGHT)



Communication with both roadway and GIWW traffic will increase the safety of the demolition operations by making the affected parties aware of what is going on well in advance to help ensure that they are never surprised. In addition to temporary construction signage, PIBC will explore utilizing different methods of keeping the community informed of relevant information, including email or text notifications and the potential for a social media presence. PIBC's approach to stakeholder coordination is discussed later in this section.

FIGURE 35: REMOVAL OF STRUCTURAL STEEL AND CONCRETE DECK OVER A NAVIGABLE WATERWAY DURING THE DEMOLITION PHASE OF THE CHRISTOPHER S. BOND BRIDGE PROJECT



2.4.C PROTECTION OF SURROUNDING INFRASTRUCTURE

The demolition and decommissioning aspect of this project will take place adjacent to significant surrounding infrastructure assets, particularly the removal of the existing bridge. Sandwiched between the recently constructed replacement bridge and the New Orleans and Gulf Coast (NOGC) Railroad bridge, the existing bridge must be carefully removed in order to avoid damaging either.

Drawing on extensive past experience, PIBC will develop a thorough engineering analysis and construction work plan to ensure that the adjacent infrastructure is not harmed. The key variable that this analysis will focus on will be the stability of the bridge at the various stages of demolition. The Project team will then use this work plan as a road map for demolition operations, with quality control personnel performing audits to ensure that it is being followed.

Because explosive demolition is not currently envisioned as part of the demolition of the old bridge, the risk to either of the remaining bridges is relatively low. Nevertheless, the existing NOGC Railroad Bridge is indicated as a vibration sensitive feature in the RFP and will be included in PIBC's vibration monitoring plan, as will the levees within the work zone. Monitoring will continue through the completion of the demolition and decommissioning operations, and will be conducted as specified in the LSSRB, Section 804.12. An analysis of the impact of demolition on the new Belle Chasse Bridge will be conducted, and monitoring of this bridge will be included as well if deemed necessary.

2.4.D STAKEHOLDER COORDINATION

The demolition and decommissioning of the existing infrastructure is a portion of the Project that will require significant stakeholder coordination, as numerous different parties are involved. PIBC will work with the required combination of federal, state and local governmental representatives, in addition to private navigational interests in order to ensure that all parties are on the same page regarding the planning and execution of the demolition operations, as seen in Figure 36 from our team's proven experience. Additionally, as discussed previously in Section 2.3, PIBC has a robust Public Information Plan in place to communicate with and provide information to the general public.

The Public Information Plan discusses the methods of formulating and disseminating important messaging about the Project. In the context of the demolition and decommissioning, this messaging should primarily be informational to the traveling public, as operations will occur outside of the roadway. The more aware and informed the public is, the safer the operations will be for them.

Timely coordination with governmental stakeholders will be a key to the success of the demolition and decommissioning operations. LA DOTD, USCG, USACE, and Plaquemines Parish will be involved in the process.

FIGURE 36: TRAYLOR AND MASSMAN WORKED CLOSELY WITH THE U.S. COAST GUARD AND OTHER MARITIME STAKEHOLDERS DURING THE INNOVATIVE LIFT OF THE MAIN SPAN TRUSS STRUCTURES ON THE HUEY P. LONG BRIDGE



During the RFP stage, PIBC has worked with LA DOTD via the ATC process to optimize the demolition requirements. ATC 28 (existing bridge piers as dolphins) in particular will require additional approvals from the USCG and USACE representatives post award. The NOGC RR will also be involved in planning meetings as needed.

Any impact to the navigational channel due to the removal of the existing bridge will be implemented as discussed in more detail in Section 2.7. PIBC team members Massman and Traylor worked together with the USCG and maritime interests in a very similar fashion during the Huey P. Long Bridge Widening project on the Mississippi River, particularly during the Main Span Superstructure Phase. The original plan for this phase was determined to adversely impact maritime navigational traffic due to the extent of falsework in the river. Massman and Traylor, as part of the MTI joint venture, proactively met with the relevant stakeholders and developed an alternate approach that eliminated the need for any falsework in the river thus eliminating a major hazard to navigation.

2.4.E. ENVIRONMENTAL COMPLIANCE

Protecting the environment is a priority for PIBC. Identifying and mitigating potential environmental impacts is the key to successfully doing so, and the directly applicable experience of PIBC’s team members offers significant benefit to LA DOTD in this regard. Specific to the demolition and decommissioning, pre-existing hazardous materials, proper disposal of demolition debris, and the use of heavy demolition equipment will be areas of focus.

As part of the Project as a whole, PIBC will have developed and gained approval of the Hazardous Materials Management Plan (HM/WMP). This plan will include testing and disposal procedures on the coating system of the bridge, which is known to include lead and other heavy materials. Testing will be performed in advance of full scale demolition work, allowing the Project team to better understand the extent and location of hazardous materials. PIBC team members Traylor and Massman have recently demolished bridges with lead based paint systems, at Galveston and the Christopher S. Bond Bridge project, among others (Figure 37). This experience allows the team to implement a proven plan that incorporates lessons learned from directly applicable work. One particular example is the previously mentioned intent to maximize the size of the pieces to be removed. In addition to promoting efficiency, this approach minimizes the on-site burning of lead-coated steel, which in turn minimizes the release of hazardous materials into the surrounding environment.

FIGURE 37: WORKERS PROTECTED AGAINST THE HAZARDS ASSOCIATED WITH LEAD-BASED PAINT DEMOLITION WORK ON THE CHRISTOPHER S. BOND BRIDGE PROJECT (LEFT) AND GALVESTON CAUSEWAY (RIGHT)



Both the lead-coated steel and the remaining non-hazardous material will need to be disposed of in an environmentally compliant manner. Portions of the non-hazardous material will be reused on site per ATC 24, as discussed above. The remaining material will be disposed off site at approved disposal locations.

All construction operations that utilize heavy equipment have the potential for a release of oils or other fluids, with this risk being slightly increased for demolition operations due to the nature of the work. PIBC will focus on reducing the likelihood of a release through the use of regular equipment inspections to identify any worn hoses or couplings. In the event that a release does occur, the construction team will have containment booms and clean up kits in place.

2.4.F HURRICANE EVACUATION PLAN INTEGRATION

As mentioned in the maintenance of traffic section above, the major demolition and decommissioning operations will occur after traffic is placed on the new bridge. Because of this, the demolition and decommissioning should not have any impact on the ability of residents to efficiently evacuate in the event of a hurricane. PIBC will work with all involved stakeholders to ensure that this vital evacuation route is unobstructed, primarily by securing the demolition site to ensure that the new bridge remains clear of any obstructions in the event of a storm.

During the actual demolition operations, **work will be scheduled so that the bridge is always in a stable state and prepared for the impact of a potential hurricane.** In the event that a hurricane is forecast to hit the Project area during demolition, the construction joint venture will have Huval review the current state of the bridge an additional time in order to ensure that it is properly prepared for the expected weather.

In addition to the stability of the old bridge during demolition, it will be crucial to ensure that no equipment being used in the demolition operations damages the new bridge during a storm event. Both Traylor and Massman have extensive local experience in this regard, proving their ability to manage the hazards associated with a storm event. The eye of Hurricane Katrina passed over Massman's Rigolets Pass Bridge job; Massman secured their equipment so that it did not damage either the old or new bridge. Marine equipment on this project will be evacuated away from the Project-site to Massman's yard near the Huey P. Long Bridge, unless it has a mooring plan approved by the USCG in advance.

SCHEDULE, COST CONTROL, AND RISK MANAGEMENT

2.5 SCHEDULE, COST, & RISK MANAGEMENT

2.5.A APPROACH FOR PREPARING, CONTROLLING, UPDATING, & REVISING THE PROJECT SCHEDULE

Project Manager Dennis Coventon will work closely with Design Manager Robert Schmidt, Construction Manager Scott Armstrong, O&M Manager Christian Guevara, and PIBC’s schedule and cost engineers to manage the Project’s overall schedule and cost.

PIBC’s Project Management Plan controls the schedule and minimizes costs by establishing the critical path for design, right-of-way, utility relocations, and construction activities by forecasting and tracking lead times for field exploration, critical design studies, permitting, critical right-of-way parcels, critical utility relocations, LA DOTD reviews, critical fabricated construction materials, and early design packages to support critical path construction activities. Progress on the Project is managed by aligning the schedule and cost accounting systems, establishing realistic activity durations and budgets, and closely monitoring progress through an earned value system.

SCHEDULE AND COST ALIGNMENT

The Preliminary Project Baseline Schedule has been created according to the Work Breakdown Structure (WBS) requirements. Any additional work and further detail will be incorporated into the schedule to ensure we are providing LA DOTD with an accurate status of the Project prior to submission of the Project Baseline Schedule.

REALISTIC ACTIVITY DURATIONS AND BUDGETS

The first step in keeping a project on time and under budget is to create a detailed schedule using accurate activity durations. The Preliminary Project Baseline Schedule (PBS) provided users reliable activity durations based on accurate quantities and historical production rates. The quantities were derived by Huval & Associates, drawing from the firm’s 30 years of bridge design experience as well as David Huval Sr.’s personal experience as the founder of Huval & Associates & from his time at FHWA. These quantities are also verified by both Traylor and Massman for their correctness and agreement on a quantity to use within the estimate and schedule development.

SCHEDULE ASSURANCE:

PIBC’s high level of schedule accuracy comes from Huval’s 30 years of bridge design experience determining quantities—including those developed by David Huval, Sr., working with FHWA and LA DOTD—and Traylor and Massman’s historical production rates from a combined 180 years of bridge building.

To develop reliable activity durations, Traylor and Massman use their combined historical production rates from a combined 180 years of bridge building history to select the appropriate production that determines the durations for bridge construction activities. These two elements allow us to estimate the man-hours required to perform each operation. The information is then used to determine optimal crew size and activity duration, as well as the equipment resources required to support them. In addition to the bridge construction items, Traylor and Massman also engaged Huval, for the design schedule, as well as subconsultants with expertise in right-of-way, Steve Gourgues with GCR, and utility relocations, Billy Moore with Cardno. Huval, GCR, and Cardno provided us with accurate durations for their respective pieces of work and how they would integrate with design, construction, and each other. These were critical elements due to their complexity and inclusion on the Project’s critical path.

This approach is used on all field activities as well as design elements, ROW procurement, and utility relocations. By doing so, we limit guesswork, providing LA DOTD with a reliable schedule that can be closely monitored. See Figure 38 for our team’s proven schedule success.

SCHEDULE AND COST CONTROL BASED ON AN EARNED VALUE SYSTEM

The core principle for monitoring schedule and cost is earned value. Many developers will use a time-based methodology that progresses activities based on the number of days since an operation has begun. This method of tracking progress does not accurately identify when an operation is not progressing as planned. By using an earned value tracking system, PIBC is able to progress the schedule based on actual work delivered and not merely time spent. The earned value system is used in conjunction with weekly schedule meetings and continuously updated commodity curves.

2.5.B PRELIMINARY PROJECT BASELINE SCHEDULE & NARRATIVE

As mentioned previously, Traylor and Massman developed the Preliminary Project Baseline Schedule provided in this proposal by integrating the contract milestone dates provided by the LA DOTD, ROW activities and durations by parcel from GCR; utility relocation activities and durations for each conflict by Cardno; design activities and durations from Huval; permit activities and durations from Providence; and construction activities and durations based on the required means and methods by the management team and estimators from Traylor and Massman. Once these activities and durations were provided and entered into the P6 software, based on the input of their interactions with each other, the logic was built to form the critical path for the Project. The critical path for the Project is as follows:

- Immediately after NTP, it proceeds through the **production and approval of the roadway definitive design package**.
- The approval of this package allows the **ROW maps to be completed and submitted for approval**.
- Once ROW maps are reviewed and approved, the **ROW appraisal and acquisition process** to complete for the required parcels begins, with priority given to parcels from least to greatest float.
- Since utility relocation is critical to schedule, **advance utility coordination is completed** as soon as possible, so relocation activity starts immediately after ROW acquisition. Utilities that are in the LA DOTD owned ROW can immediately start relocation activity.
- After the required parcels are acquired for a specific utility to be relocated, that **utility is moved**, allowing for starting of roadwork on the mainline and local roads.

FIGURE 38: PIBC’S PROVEN SCHEDULE SUCCESS



The PIBC DBJV team members each have had significant schedule early completion successes on similar large-scale marine bridge projects in the southeast. Traylor/Massman led the design-build of the new 1.6-mile US 90 Bridge across Biloxi Bay, which was destroyed in Hurricane Katrina. The majority of the design was completed in just six months, which made it possible to open the roadway to one lane of traffic in each direction sixteen-and-a-half months after notice to proceed and two weeks ahead of schedule, and the entire project was completed in just 22 months.

- The **roadwork then proceeds through all required phases 1A through 1D**, while maintaining the required two lanes of traffic in each direction, culminating with the completion of the embankment and settlement period at both abutments.
- Once the required settlement has been achieved, the **piling for the abutment can be installed**, allowing for construction of abutments, installation of beams, placement of superstructure concrete, installing the approach slab, etc.
- After the **final span on each approach is constructed**, the new bridge can accept two lanes of traffic allowing for the removal of temporary detour roads on the west side of the bridge to continue construction of phase 2 bridge portions and roadwork.
- In phase 2, the critical path again goes through **completing the embankment and settlement on both approaches**, allowing the abutment piling, abutments, beams, and deck to be completed and the installation of the tolling equipment gantry, installation of the tolling equipment, and testing of that equipment.
- After the equipment is operational, **phase 2 is complete** and the Project has reached partial acceptance.
- Once the Project has reached partial acceptance, the **removal of the existing bridge will commence** and once completed, the Project will reach final acceptance.

In addition to the critical path, there are some items that control the start and pace of bridge construction. First is the review period to acquire the 408 Permit for the Project. Currently, it has been assumed the process will take up to one year to receive this permit after 60% plans have been approved. This does not allow for construction of the main span or approach piers on either side of the levee to begin.

The other item considered in the construction of the main span piers is the construction of and within only one cofferdam at time adjacent to the active waterway. This allows for the least impact and interruption to the marine traffic.

PIBC will assign a full-time scheduler whose role will be to continually update the project schedule as work is completed in the field. This individual will modify the schedule based on any constraints that emerge in real time, ensuring that adjustments can be made by management if needed to meet critical path milestones and deadlines.

Please see Table 39 for milestone dates.

TABLE 39: MILESTONE DATES

MILESTONE ACTIVITY	MILESTONE DATE
FINANCIAL CLOSE DATE	August 14, 2019
FINANCIAL CLOSE DEADLINE (SUBMISSION +210 DAYS)	October 14, 2019
NOTICE TO PROCEED	August 14, 2019
COMMENCE DESIGN & UTILITY/ROW ACTIVITIES	August 14, 2019
COMMENCE CONSTRUCTION – MAIN SPAN PIERS	October 15, 2020
COMMENCE CONSTRUCTION – APPROACHES	November 27, 2020
COMPLETE MAIN SPAN	November 09, 2022
COMPLETE APPROACHES – PHASE 1	February 28, 2023
SWITCH TRAFFIC TO PARTIALLY COMPLETE BRIDGE	March 02, 2023
COMPLETE APPROACHES – PHASE 2	October 12, 2023
PARTIAL ACCEPTANCE – OPEN TO TRAFFIC	October 13, 2023
ANTICIPATED TOLLING - START	October 13, 2023
FINAL ACCEPTANCE DATE	May 22, 2024

Table 40 breaks down our schedule’s milestone dates.

TABLE 40: HIGH LEVEL SCHEDULE BAR CHART

	2019				2020				2021				2022				2023				2024				
	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	1 ST	2 ND	3 RD	4 TH	
PROPOSAL DUE																									
SELECTION FOR NEGOTIATION																									
COMMERCIAL CLOSE																									
FINANCIAL CLOSE																									
FINANCIAL CLOSE DEADLINE																									
NOTICE TO PROCEED																									
DESIGN																									
PERMITS & SLOPE STABILITY REVIEW																									
RIGHT-OF-WAY																									
UTILITY ADJUSTMENTS																									
MAIN SPAN BRIDGE																									
APPROACH BRIDGES																									
TUNNEL DEMO																									
INSTALL & TEST TOLLING EQUIPMENT																									
O&M DURING CONSTRUCTION																									
PARTIAL ACCEPTANCE																									
O&M OF NEW BRIDGE																									
BRIDGE DEMOLITION																									
FINAL ACCEPTANCE																									

2.5.C APPROACH FOR IDENTIFICATION, ASSESSMENT, MANAGEMENT, MITIGATION, & ALLOCATION OF PROJECT-SPECIFIC RISK

Proactive risk assessment and development of mitigation strategies is essential to the successful progress of any project. By maintaining the discipline of ongoing proactive risk analysis, planning and active management, risk and the potential impact can be minimized. PIBC’s risk management philosophy is centered on a process that is most effective when:

- **Risks are identified early** – scenario planning and development of contingency plans to facilitate the proper response in the event of risk realization; and
- **Risk Management is an iterative process throughout the life of a project** – constant management, communication, and tracking of risks as they are identified through the life of the program; risk management is not a one-time event.

We will establish a risk management team whose job is to review work plans and operating procedures as they are developed to identify and catalog risks, and to audit mitigation strategies throughout the course of design, construction, and maintenance.

IDENTIFICATION OF SIGNIFICANT RISK CATEGORIES

At the start of the pursuit, our team identified several risks that could affect the Project. The most significant risks, along with our proposed mitigation approaches, are summarized in Table 41 on the next page. These items are considered our top issues because they will require the most attention throughout the Project.

As projects evolve, the risk profile also evolves, which results in changes to previously identified risks and plans and new risks being discovered. PIBC’s risk management plan recognizes this and includes scheduled events for risk identification throughout the entire life of the Project. After establishing both a time and cost threshold for risks to be considered significant, a variety of tools and techniques will then be utilized to identify risks that need to be managed.

Lessons learned from previous design-build and transportation projects will also be utilized to aid in the identification of project risks. The collective experience of PIBC’s team members on similar projects has provided an extensive database of both normal and unexpected risk items that might occur on the Project.

A key attribute of risk identification is the participation of the subject matter expert from all consortium members. An example of this is joint issue identification sessions. Project success is enhanced through the identification of risks at an early stage within the Project and in conjunction with key stakeholders from all organizations, with the output being a list of identified risks. This analysis involves:

- Grouping and prioritizing risks;
- Rationalizing the number of risks;
- Assigning an owner to monitor and control each risk;
- Reviewing the previously assigned impact and likelihood of each risk; and
- Identifying possible management actions that could be taken to mitigate the risks.

TABLE 41: PIBC HAS PROACTIVELY IDENTIFIED & BEGUN DEVELOPING MITIGATIONS FOR MAJOR RISKS ON THE PROJECT

RISK CATEGORY	POTENTIAL RISK	POTENTIAL MITIGATION
UTILITIES	<ul style="list-style-type: none"> • Long lead time for critical utility relocations (i.e., AT&T) can impact the schedule • Utility owner has insufficient resources and is unwilling or unable to complete timely relocation(s) 	<ul style="list-style-type: none"> • PIBC has engaged a utility relocation subconsultant experienced with local utilities • Early and continual engagement of each utility in the design process will identify problem areas and allow for mitigation and/or avoidance • Design around critical conflicts wherever possible. Sequence construction start at areas of conflict to allow the maximum available time for relocation • Attempt to negotiate agreement for DBJV relocation of critical utilities to maintain control
PERMITTING	<ul style="list-style-type: none"> • Obtaining Corps and Coast Guard permits could affect schedule • Stability analysis required by the Corps could be a prolonged effort 	<ul style="list-style-type: none"> • Perform close, early, and frequent coordination with involved agencies • Obtain boring information as soon as possible • Hold preliminary permitting meeting with the Corps prior to NTP to address their concerns

RISK CATEGORY	POTENTIAL RISK	POTENTIAL MITIGATION
RIGHT-OF-WAY	<ul style="list-style-type: none"> • Potential for additional unanticipated ROW relocations • Complex acquisitions and relocations could require extensive time 	<ul style="list-style-type: none"> • PIBC has engaged a local subconsultant familiar with Plaquemines Parish specifically to lead the ROW effort • Work closely with LA DOTD during final design to discuss and potentially implement design exceptions that minimize or eliminate acquisitions. PIBC has already identified and presented options during 1-on-1 meetings • Early engagement of property owners to understand acceptable impacts to property without requiring relocations. • Design around impacts requiring relocation wherever possible
NEW ORLEANS GULF COAST RAILWAY	<ul style="list-style-type: none"> • Design elements related to railroad are preliminary; PIBC must obtain approval prior to moving forward • Contractual arrangement for ROW rental from railroad could be prolonged 	<ul style="list-style-type: none"> • Early and frequent engagement with the railroad • Over the shoulder reviews of design will assure changes and approvals move forward in a timely fashion
UNKNOWN / UNFORESEEN GEOTECHNICAL CONDITIONS	<ul style="list-style-type: none"> • The need to adapt to unforeseen conditions could impact the schedule 	<ul style="list-style-type: none"> • Request early entry for testing and borings
HAZARDOUS MATERIALS	<ul style="list-style-type: none"> • Testing and mitigation could impact the schedule 	<ul style="list-style-type: none"> • Design and implement ATCs to avoid areas with high risk for hazardous materials • Early testing and assessment
IMPACTS TO MARINE TRAFFIC	<ul style="list-style-type: none"> • Obtaining channel closures during specific phases of the Project, (i.e. demolition) may impact schedule 	<ul style="list-style-type: none"> • Early, frequent, and clear coordination with mariners through the Coast Guard
REVENUE RISK	<ul style="list-style-type: none"> • Traffic demand and associated revenue does not achieve projections 	<ul style="list-style-type: none"> • Thorough traffic and revenue study pre-submission to fully understand traffic patterns and potential usage • Proactive management of the tolling facility • Execution of effective outreach through public involvement and education regarding tolling with the stakeholders and communities
O&M	<ul style="list-style-type: none"> • Infrastructure does not achieve designed service life 	<ul style="list-style-type: none"> • O&M involvement during all phases of the design build to optimize the infrastructure durability and provide a whole-of-life view on the performance and viability of the Project • Proactive routine maintenance which will serve to mitigate defects during the initial phases of deterioration versus waiting until the defect propagates to a larger problem

RISK CATEGORY	POTENTIAL RISK	POTENTIAL MITIGATION
TOLLING	<ul style="list-style-type: none"> • Toll system reliability 	<ul style="list-style-type: none"> • Proper sizing and design of the toll system with equipment and software capable of transmitting the requisite data reliability and consistently • Proactive operation and maintenance of the system and its' components to identify equipment that is in the early stages of failure through monitoring MTBF, residual life analysis, and reliability calculations, and replacing equipment in advance of reduced reliability

PROCEDURES AND TOOLS TO CONDUCT RISK ANALYSES AND CLOSEOUT

PIBC has developed a Risk Management Plan that assigns a group of experienced risk managers to identify and address the key risks for the Project, primarily through the tool of a Risk Register. An overarching tenet of PIBC’s risk management approach is to allocate substantially all of the performance obligations specified in the Comprehensive Agreement to the consortium member best placed to manage such obligations.

Proactive risk management is a key component of every successfully delivered project. In PIBC’s experience, risks that are identified early, openly discussed and communicated, and assigned to the party best able to manage that risk, are the ones that have the least negative impact in the long run. PIBC’s management systems will monitor individual risk elements, responsibility, budget and schedule impacts and planned mitigation efforts, keeping all team members informed via the Project’s senior leadership team. All members of PIBC will be tasked to focus on the early identification, assessment, reporting, and tracking of Project risks.

PIBC’s approach to risk management will also be dynamic, allowing the team to respond to changes in all phases of the Project, changes to the scope of work, or changes to the team’s approach to completing the scope of work. This approach will involve the DOTD and Project stakeholders as active participants in PIBC’s identification of risks and plans to proactively respond, while recognizing full ownership of contractual risks assigned under the Project Agreement.

PIBC’s risk management approach uses a continuous process that began during work on the technical and financial proposals and will continue throughout the design, construction, and operating periods. This process includes a consistent and continuous cycle of activities.

- 1. Risk Management Planning:** Develop a systematic process to approach, plan, and execute risk management activities throughout the life of a project.
- 2. Risk Identification:** Determine which risks might affect the Project.
- 3. Qualitative Risk Analysis:** Assess the impact and likelihood of the risk occurring.
- 4. Quantitative Risk Analysis:** Assess the cost and time impact of the risk.
- 5. Risk Response:** Identify an “owner” for each risk and actions to mitigate the risk.
- 6. Risk Close Out:** Mitigation tactics deployed to minimize the impact of or eliminate identified risks.
- 7. Risk Monitoring and Control:** An ongoing process to track risks and the effectiveness of steps taken to mitigate them.

Risk identification through use of PIBC’s Risk Register began during the RFP phase, as noted in the section above.

In addition to participation in identification of risks, it is expected that all parties will play an active role in risk management through participation in project steering committees, risk review sessions, risk issue management, and other risk related activities. This exposure to the process not only enhances the ability of the team to mitigate project risks, but also facilitates the communications process that is vital to a successful risk management process.

The Project team members, in conjunction with their extended teams, will gather potential risks prior to the Project progress reviews. The outcome of these sessions should be:

- Review risks individually and agree on or change the “Probability” and “Impact” fields to ensure they are categorized correctly;
- Develop Risk Mitigation Plans/Actions per risk;
- Develop any Contingency Plans per risk (use break-out sessions to further devise details of the plan if required); and
- Identify any new risks.

Before the sessions, Dennis Coventon, the Project Manager, will consolidate the inputs from Project team members and send out a detailed risk report and summary report. Dennis will ensure the Project team is managing risks and not issues in these sessions. If a risk has been realized, it is now an issue, and will be closed off in the Risk Register and managed as an issue (realized risk) as part of the Project actions.

Following identification and analysis of risks, PIBC will take action in response to those risks, focusing on risks of highest significance in order to ensure the Project is a success. If possible, the preferred response will be to avoid those risks that may negatively affect the Project. Risk monitoring and control will continue through Project Substantial Completion, Project Final Acceptance, and the maintenance phase.

The Risk Register tool is used to monitor risks throughout the Project. Information can be entered into the Risk Register under the following columns.

- Identification Number;
- Risk Title/Description;
- Effect on project;
- Likelihood;
- Impact;
- Date Identified;
- Risk Owner;
- Risk Mitigation;
- Mitigation Status; and
- Contingency Plans.

It is possible to have both a mitigation plan and a contingency plan for a risk. The mitigation plan will be established prior to the risk occurrence and the contingency can be executed if the risk materializes or before the risk materializes.

The establishment of the Risk Register is vital to tracking and managing risks over time. A centralized location that identifies key risks as identified by the Project team acts as a dynamic tool to keep all relevant individuals aware of risks to project delivery. Each risk owner is responsible for providing weekly updates or, at a project team agreed upon interval, the status of any mitigation or contingency plans associated with their respective risk. During these updates the probability and impact of the risks can be adjusted and responsibility to develop or enhance mitigation or contingency plans may be assigned as required.

PROCEDURES FOR INTERACTION WITH LA DOTD FOR REGULAR JOINT RISK MEETINGS

PIBC will work with LA DOTD to identify and assess potential risks and determine mitigation strategies. Risk management is a continuous practice of identifying, rating, tracking, and mitigating risk throughout the life of the Project. Our approach centers on eliminating every risk possible and mitigating those that cannot be eliminated.

When we evaluate risks, we qualitatively assess the impact, identify a risk owner, define when action is needed to control the risk, engage in proactive design effort to minimize risk and address options, and detail the action plan. PIBC has already performed a thorough analysis of the Project's risks and opportunities in terms of the technical, safety, community, political, regulatory, operational, maintenance, and third-party issues we expect to encounter.

We will compile all identified risks on a matrix, with an action plan developed for each risk. Each action plan will include interaction as needed with LA DOTD, stakeholders, and/or third-party representatives and a priority ranking based on its potential impact on schedule and cost. Risks are prioritized for immediate action until risk points (e.g., delivery, submittal, or approval dates) are passed.

Project Manager, Dennis Coventon, will oversee all risk management. The Project Engineer, Kyle Adkins, is responsible for proactively monitoring risk, identifying, and assigning an appropriate risk owner, and reporting all risks to Dennis. Dennis will provide quarterly updates on risk management activities to the Executive Committee, who will identify what resources can be applied from a corporate level to help mitigate them. Partnering workshops, held quarterly, will be used to communicate risks and to propose solutions that require the collaboration, support, notification, or participation of LA DOTD.

RISK MANAGEMENT:

As part of the risk management process, Project Manager, Dennis Coventon, will keep the Executive Committee and Project Principle informed of the status of project risks and mitigations, ensuring that risks are understood at the highest level of the organization and appropriate resources are available to assist.

The Executive Committee will be thoroughly informed of the status of all risks, including those that have been mitigated up front and those through a process that was developed as the risk was identified and/or realized.

DESIGN-BUILD QUALITY MANAGEMENT AND SAFETY



2.6 DESIGN BUILD QUALITY MANAGEMENT & SAFETY

2.6.A QUALITY MANAGEMENT PLAN

2.6.A.1 SUMMARY OF PROPOSED DRAFT QUALITY MANAGEMENT PLAN

The purpose of the Quality Management Plan (QMP) is to provide a quality system that details how Plenary Infrastructure Belle Chasse (PIBC) and its team will design and construct the Project in conformance with specified requirements of RFP. It is made up of three components:

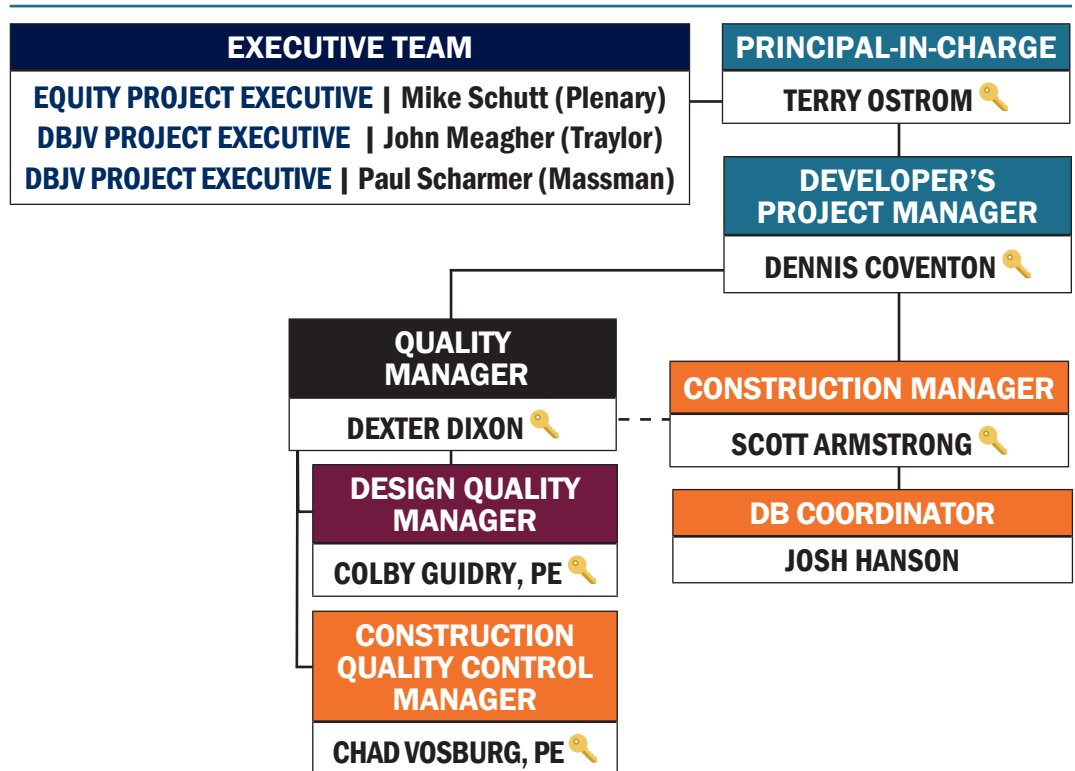
1. QMP Purpose and General Requirements;
2. Design Quality Management Plan (DQMP); and
3. Construction Quality Management Plan (CQMP).

QMP PURPOSE AND GENERAL REQUIREMENTS

PIBC’s Principal-in-Charge, Terry Ostrom, will sign off on a quality policy for the Belle Chasse Bridge and Tunnel Replacement Project that describes both PIBC’s organizational goals and LA DOTD’s quality expectations. In his role as a PIBC executive, Terry will affix his signature to this policy, implement it at all levels of project organization, and see to it that it is understood and maintained as standard practice.

Quality is an inescapable responsibility of every participant in the Project. It begins with Principal-in-Charge Mr. Ostrom establishing the policy for quality. He holds Project Manager, Dennis Coventon, accountable for instituting that policy. Dennis, in turn, requires everyone in the Project’s organization – every employee, every consultant, and every subcontractor—to verify that their day-to-day contribution

FIGURE 42: PIBC’S QUALITY ORGANIZATION



to the Project meets the standards set by the QMP and the plans and the specifications. Verifying that a quality product is put in place is not the sole responsibility of the design checkers and the CQC personnel. All designers and workers are required to understand and comply with quality requirements that govern their respective work. PIBC’s QMP will provide ongoing transparency for executive management review of PIBC’s quality performance to sustain the effectiveness of the QMP for meeting stated quality policy and objectives. Please see Figure 42 for a simplified version of our Quality Organization.

The QMP will be written with the intent of gaining employees' understanding of the quality system. To achieve that understanding, we will avoid complicated, overly restrictive, and inconsistent procedures that tend to reduce understanding, and ultimately the effectiveness of the plan. A summary of the QMP's purpose and general requirements is as follows:

- Policies, goals, and objectives of PIBC's quality system;
- Quality organization that details the roles of each Principal Participant, the Designer, the Project Manager, Design Build Quality Manager (DBQM), Construction Quality Control Firm (CQCF), Construction Quality Control Manager (CQCM), Design Quality Control Manager (DQCM), and other team members having a significant quality role;
- Procedure for preparation, control, and distribution of the Project QMP;
- Procedures consistent with the requirements of the RFP, LA DOTD and PIBC's stated quality policy;
- A detailed description of standard work methods within each procedure;
- Enforcement guidelines governing the implementation of best practices;
- Procedures for how to handle those inevitable situations that require a departure from the norm;
- Methodology to interface between the design and construction components of the QMP;
- Procedures for change order and amendment review and for the coordination of these activities, with the intent that all contract commitments are reviewed and agreed upon prior to issue or execution; and
- Procedure for how an amendment to the contract is made and correctly transferred to the functions concerned within PIBC's team of subconsultants and subcontractors.

Activities to effectively and efficiently provide quality assurances and controls across the organization include:

- Meetings (e.g., progress, scheduling, staff meetings, Readiness Review), see Figure 43;
- Quarterly Quality Management System Review;
- Quality audits and surveillances;
- Supervision and oversight by management; and
- Reviews, checks, and verification processes.

To monitor and measure the work being produced, and establish impartiality in review, personnel conducting oversight activities including quality audits, surveillances, and inspection activities will

be independent to those having direct responsibility for the subject work being built or installed. When necessary, corrective actions will be implemented when deficiencies from these audits, surveillances, or inspection activities are discovered. The QMP will function as a continually improving quality system to ensure suitable measures throughout the Project's lifecycle.

FIGURE 43: DESIGN REVIEW MEETINGS



A Design Review meeting on a recent project with the Greater New Orleans Expressway Commission for repairs/improvements to the Causeway Bridge. Bob Schmidt, our Team's Design Project Manager, is shown leading the meeting.

This will be done primarily through reviewing audit and surveillance reports, consistently analyzing inspection and test results, and semi-annual reviews of the quality management system by PIBC senior management.

The QMP is part of the QA/QC Program, which encompasses all quality activities including detailed procedures, Inspection and Test Plans (ITP), etc., implemented by PIBC to meet the contract requirements. This overall system includes:

- Quality Policy statement (incorporated into the QMP);
- The QMP;
- Documented plans, procedures, and instructions;
- Documents needed by PIBC to ensure effective planning, operation and control of its processes; and
- Records providing objective evidence of activity completion.

The QMP, as a part of the QA/QC Program, is prepared by Dexter Dixon, PIBC’s QM, to provide the uniting document between all QA/QC Program documents. The QMP is approved by Mr. Coventon and then subsequently approved by LA DOTD prior to distribution. Revisions to the QMP are approved, controlled, and distributed by PIBC under the same provisions as its original distribution.

The Quality Program defines the scope of quality management, procedures, responsibilities, and activities. The program includes the following Contract-required documented processes:

- Control of Documents;
- Control of Records;
- Design Planning;
- Design Criteria Review;
- Design Verification;
- Design Validation;
- Control of Design Changes;
- Construction Work Plans;
- Management Review;
- Training;
- Purchasing;
- Control of Measure Devices Monitoring/
Measuring of Product;
- Control of Nonconforming Items;
- Corrective & Preventative Action; and
- Quality System Audit.

2.6.A.2 QUALITY MANAGEMENT NARRATIVES

2.6.A.2.a ROLES, RESPONSIBILITIES, AND AUTHORITIES OF QUALITY MANAGEMENT PERSONNEL OVER DESIGN AND CONSTRUCTION ACTIVITIES

DESIGN QUALITY MANAGEMENT PLAN (DQMP)

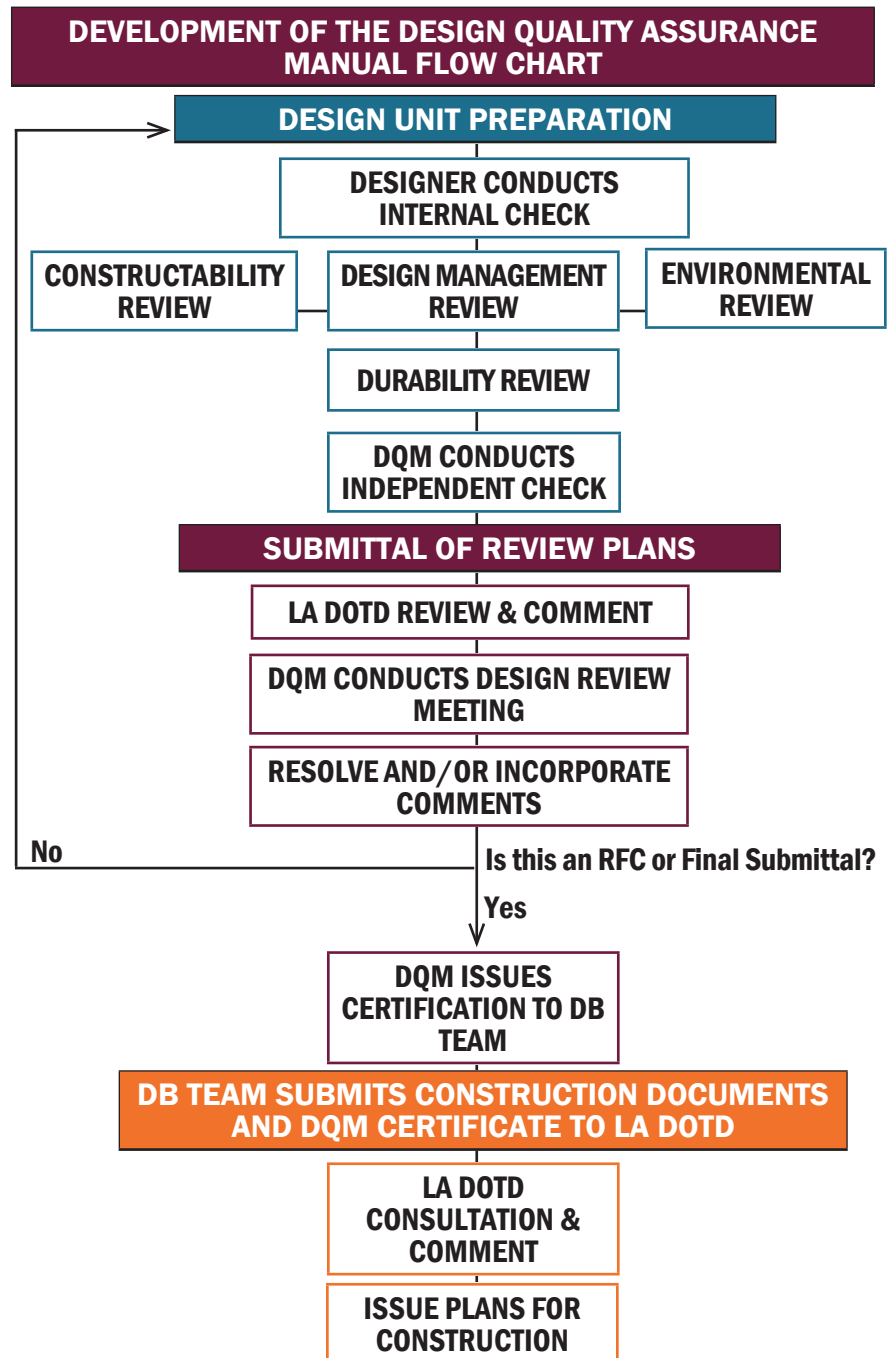
PIBC has assigned Mr. Colby Guidry, PE, as Design Quality Manager, and in this role he is one of the team’s Key Personnel. Mr. Guidry will remain completely independent of the production of the design, and will report to PIBC’s Quality Manager, Mr. Dexter Dixon. Colby has more than 18 years of experience working with LA DOTD in the design and construction of bridges and other structures, including numerous design-build projects, and is thoroughly familiar with the LA DOTD policies and processes. The flow chart on the following page will be used for the Belle Chasse Project, refined as appropriate during development of the DQMP.

As our DQM, Mr. Guidry’s primary responsibility will be to assess and evaluate PIBC’s DQC activities and to certify to PIBC and LA DOTD that the design QC activities comply with both the Contract requirements and PIBC’s Quality Plan. His first task will be to develop a Design Quality Management Plan (DQMP) that will guide Huval and its subconsultant team members in the design quality process.

This plan will establish a design quality program to govern quality control including components for quality team organization, QC processes and audits, design elements, QC procedures, QC milestones, and QC comment resolution. One of the key focus areas of the DQMP will be the detailed QC procedures for design of the Belle Chasse Bridge and other structures the same as would be required and found on any other LA DOTD bridge project provided by consultant contract.

Mr. Guidry will be responsible for implementation of the DQMP ensuring the QC of all design work conducted by Huval and its subconsultant team members. He will be in the Project vicinity throughout the design process to manage the QA program for such items as design QC, design changes, and completion of as-built plans. Consistent with those responsibilities, Mr. Guidry will perform the following duties:

- Assess and evaluate all design quality control activities related to the design of permanent and major temporary components;
- Conduct scheduled and over-the-shoulder Design Reviews;
- Schedule and conduct design audits, independent checks, and oversight, including specification compliance reviews, document control, and working plan reviews—all with participation by the LA DOTD and stakeholders as appropriate to meet design and or construction needs of the Baseline Progress Schedule;
- Invite LA DOTD (which in turn invites FHWA) to participate in Design Reviews;
- Conduct design quality comment resolution meetings;
- Submit a monthly report to LA DOTD that includes:
 - A summary of reviews conducted
 - Identification of nonconforming work and current status and/or disposition (based on design non-conformance log, DB Section 111-18.2)
 - A listing of submission(s) from the design-builder and status;
- Submit a final design quality report for each Design Unit;
- Submit specified certificates (permanent components and major temporary components);



- Conduct a documented check of all design change calculations (when they are required);
- Verify during construction that the conditions actually encountered are consistent with the design and related Design Plans; and
- Coordinate the Independent Design Review process by Modjeski and Masters (M&M) for bridges and Sigma for roadways.

CONSTRUCTION QUALITY MANAGEMENT PLAN (CQMP)

The purpose of the CQMP is to establish a guide document that PIBC will use to provide high quality workmanship and incorporation of materials into the Project, both on a consistently reliable basis and in reasonable conformance with approved plans, specifications, and contract requirements. Under the contract, PIBC will be required to use a separate and independent CQCF and a CQCM (ECM Consultants, Inc.) for performing CQC. CQA will be performed by OVF. The summarized content of the CQMP is as follows:

- PIBC's obligations for the CQC requirements of the contract;
- CQCF's organization and Key Personnel that details the roles of our Construction Quality Control Manager (CQCM) and his staff, and how they interrelate to Design Builder Quality Manager (DBQM), Design Quality Control Managers (DQCM), and other team members having a significant quality role;
- Description of CQCF's established policy and procedure to provide training, as needed, to all personnel performing CQC activities;
- Procedure to control, verify, and validate that construction is performed in accordance with the contract requirements;
- Procedures to address specified requirements for purchased services and products;
- Procedure for the evaluation and selection of subcontractors on the basis of their ability to meet contract requirements, including the quality system and any specific QC requirements;
- Procedure to verify conformance with quality requirements and to approve purchased products and services at the manufacturer's and subcontractor's premises, including requirements for the organization performing verification;
- A procedure for verification, storage, and maintenance of LA DOTD-supplied materials or equipment, if applicable;
- Procedures for identifying and tracing a product from receipt and during all stages of production, delivery, and installation;
- Procedures for handling, storing, packaging, and delivering incoming products and materials;
- Procedures for the process control of work that defines how work is to be carried out and how it is to be inspected, tested, and documented;
- Procedures for and the methodologies of inspection and testing activities in order to verify that the specified requirements for the Project are met;
- Establishment of clearly identified checkpoints and hold points;
- Procedures for joint inspection and testing with LA DOTD for final acceptance of the work;
- Procedures for handling non-conformances and for corrective/preventive actions;
- Procedures to control, calibrate, and maintain inspection, measuring, and testing equipment;
- Identification of needs for statistical techniques required for establishing, controlling, and verifying process capability and product characteristics consistent with LA DOTD's revised CQAP; and
- Procedures for internal CQC audits.

CQCM ORGANIZATIONAL STRUCTURE

PIBC has established an organization for the Construction Quality Management for the Belle Chasse Bridge and Tunnel Replacement Project. This CQMP fully complies with the requirements of the RFP, please see our construction quality organization chart in section 2.6.A.3. At the top of PIBC's QC organization is Quality Manager (QM) Dexter Dixon, who will be responsible for overseeing PIBC's overall quality program, which includes the preparation, implementation, and update of the Quality Plan for project management, design, and construction.

As QM he will not report to Construction Manager Scott Armstrong; instead, he will have dual reporting responsibility to PIBC's senior management and to LA DOTD's project manager. As part of his responsibilities to oversee all things relating to the quality of the Project, Mr. Dixon will:

- Serve as LA DOTD's primary point of contact for all issues relating to PIBC's Quality Plan, including its preparation, review, implementation, and updating;
- Be present and available to meet with LA DOTD's Project Manager and other LA DOTD staff on an on-call basis throughout the design, construction and finalization process of the Project; and
- Attend PIBC's project meetings related to job progress and all issues of quality.

Further to the requirements of the RFP, PIBC's Design Builder Quality Manager (DBQM) and the team's CQCF, ECM Consultants, Inc.'s Construction Quality Control Manager (CQCM), Mr. Chad Vosburg, P.E. will report to DBQM Dexter Dixon and LA DOTD.

The independent CQC testing lab will be a subconsultant to ECM Consultants, Inc., the CQCF and will coordinate with the CQCM for all sampling and testing activities. The two Independent Construction Quality Control (CQC) Engineering Testing Laboratories are The Beta Group (DBE) and Terracon. Both labs are in the New Orleans metro area, only a few miles from the Project site. Additionally, The Beta Group has a mobile testing lab that can be stationed at the site, which will eliminate travel with the samples and eliminate possibility of damages to the samples. This will also expedite getting test results early and thus add efficiency to the construction progress. Both labs have the following qualifications:

- Accredited under the AASHTO Accreditation Program (AAP);
- Participation in the AASHTO Material Reference Laboratory (AMRL);
- Participation in the Concrete Cement Reference Laboratory (CCRL); and
- US Army Corps of Engineers Validation.

Construction Quality Assurance Program (CQAP) activities will be performed by Owner Verification Firm (OVF) who will perform Quality Assurance inspections and verification sampling and testing.

2.6.A.2.b ACCOMPLISHING INDEPENDENCE OF QUALITY MANAGEMENT ACTIVITIES FROM PRODUCTION STAFF INFLUENCE

DESIGN QUALITY CONTROL

Serving as Design Quality Control Manager ultimately responsible for the QC of the design work, one of Mr. Guidry's first tasks will be to develop a Design Quality Management Plan that includes the detailed processes for maintaining separation of individual design activities and independent review of these designs. To ensure independence, Mr. Guidry will report to Mr. Dixon, PIBC's Quality Manager, as opposed to reporting within Huval's internal organization, providing separation from the Design Manager and Responsible Engineers. He will provide documentation to PIBC's Quality Manager, Mr. Dixon, that the interim checking procedures have been followed.

Mr. Guidry has selected Miles Williams, PE of Sigma to provide an independent check of the roadway design. In addition, Zolan Pruszcz, PE of M&M has been selected to provide an independent check of the bridge design performed by the structural designer, Huval and Associates. Utilizing independent consultants to perform design checks provides for the separation of DQC from design production staff. In accordance with the requirements of the RFP, LA DOTD retains responsibility for Design Quality Acceptance, thereby assuring DQA independence from the Design Builder's design staff.

CONSTRUCTION QUALITY CONTROL

The Construction Quality Control Manager (CQCM) is not a direct employee of PIBC. This position and employee are independent consultants. Provisions in their subconsultant agreements will:

- Require their independence from PIBC's production staff; and
- Require them to perform their duties and to make decisions in accordance with the RFP and PIBC's QMP, as well as LA DOTD's Construction Quality Assurance Program.

PIBC's QMP requires these individuals to report both to PIBC management and LA DOTD outside the influence of jobsite personnel engaged in the production of work.

2.6.A.2.c RELATIONSHIP AND RELATIVE AUTHORITY WITHIN PIBC'S QUALITY MANAGEMENT STAFF AND DESIGN AND CONSTRUCTION PRODUCTION STAFF

DESIGN QUALITY CONTROL

Mr. Dixon, PIBC's Quality Manager, will maintain overall authority over the PIBC quality program. Mr. Guidry, as the Design Quality Manager, will be directly responsible to Mr. Dixon. Mr. Guidry will have contractual authority to direct Design Manager Robert Schmidt and his team regarding conformance with the Design Quality Management Plan. This includes responsibility for scheduling and conducting design reviews of the various design units.

Each stage of the design review will be scheduled with the Huval Design Manager and the LA DOTD Project Manager to allow timely review by LA DOTD. Until the design review is complete, including independent review by the outside bridge and roadway subconsultants, M&M and Sigma respectively, and then accepted by LA DOTD, Mr. Guidry has the authority to deny approval of the design unit until documentation is complete and verifiable.

CONSTRUCTION QUALITY CONTROL

PIBC's Principal-in-Charge Mr. Ostrom will have the responsibility and authority to determine the overall direction of the Project's organization and its relationship to the quality efforts. He is responsible for establishing a Quality System that is understood and implemented by both the design and construction personnel on the Project.

- The Design Builder Quality Manager (DBQM) will not report to the Project Manager, but will have dual reporting responsibilities to both PIBC's senior management and LA DOTD.
- The DQM, CQCM, CQAM, and their respective staffs will report to, and be under the direct supervision of the Quality Manager.
- Through their purchase contracts and subcontracts, the Quality Control personnel of our material suppliers and manufacturers and subcontractors will have reporting responsibilities to CQCM.

2.6.A.2.d HANDLING QUALITY MANAGEMENT FOR SUBCONTRACTORS & MATERIAL SUPPLIERS

DESIGN QUALITY CONTROL

Huval's DQM Colby Guidry has already begun the review of the DQMPs from its team member subconsultants and will complete this task upon selection by LA DOTD. He will review these documents for compatibility with the Design Quality Management Plan developed for this project, PQMP and the LA DOTD CQAP requirements. He will work with each subconsultant to conform their document to the requirements of the RFP. During the Project, Mr. Guidry's support staff will conduct audits, both scheduled and unscheduled, with each subconsultant to document that internal reviews are properly conducted and non-conformance issues are resolved. The subconsultant review process will be provided to the PIBC Quality Manager, Mr. Dixon, to be included in the monthly reports submitted to LA DOTD.

PIBC's DQM will have a designated a point of contact for each subconsultant for the purposes of establishing and maintaining effective communication. The protocol has proven itself already, as it has functioned extremely well during development of this Technical Proposal. Each subconsultant is aware of the documentation requirements for software, calculations, check prints, independent reviews, and ultimately submittal of Design Reviews to LA DOTD.

Upon award, PIBC's Designer, Huval, will host a mandatory meeting with all subconsultants to establish the desired sequence of Design Units. Design Manager Bob Schmidt will review the status of the preliminary designs and identify critical path issues that could impact finalization of the design units. Design Quality Manager Colby Guidry will review the QC documentation that needs to be recorded and available for audit. The coordination and interaction responsibilities between subconsultants will be reviewed. Finally, Mr. Guidry will review the protocol on an on-going basis to verify that only the latest design drawings are posted and retrievable from the Project's design document repository.

CONSTRUCTION QUALITY CONTROL

In compliance with the CQMP, all activities performed by subcontractors will be subject to review and inspection, including inspection of material handling and construction, calibration and maintenance of sampling and testing equipment, working plan review, document control, and production process control by CQCF. Please see Figure 44 for an example of our team's construction quality excellence.

As part of their subcontract, PIBC subcontractors will be required to submit their own Quality Control Plan that conforms to the requirements of RFP, PIBC's Quality Plan, and LA DOTD's Revised Construction Quality Assurance Program. In addition to inspection and testing for process control, primary CQC responsibilities include:

- Designation of a Subcontractor Quality Control Manager (SQCM) that remains independent of the subcontractor's Project Superintendent and reports to CQCM;
- Material identification, storage, packaging, preservation, segregation, and special handling to prevent loss, damage, contamination, or deterioration of materials; and
- Documentation of all quality control efforts.

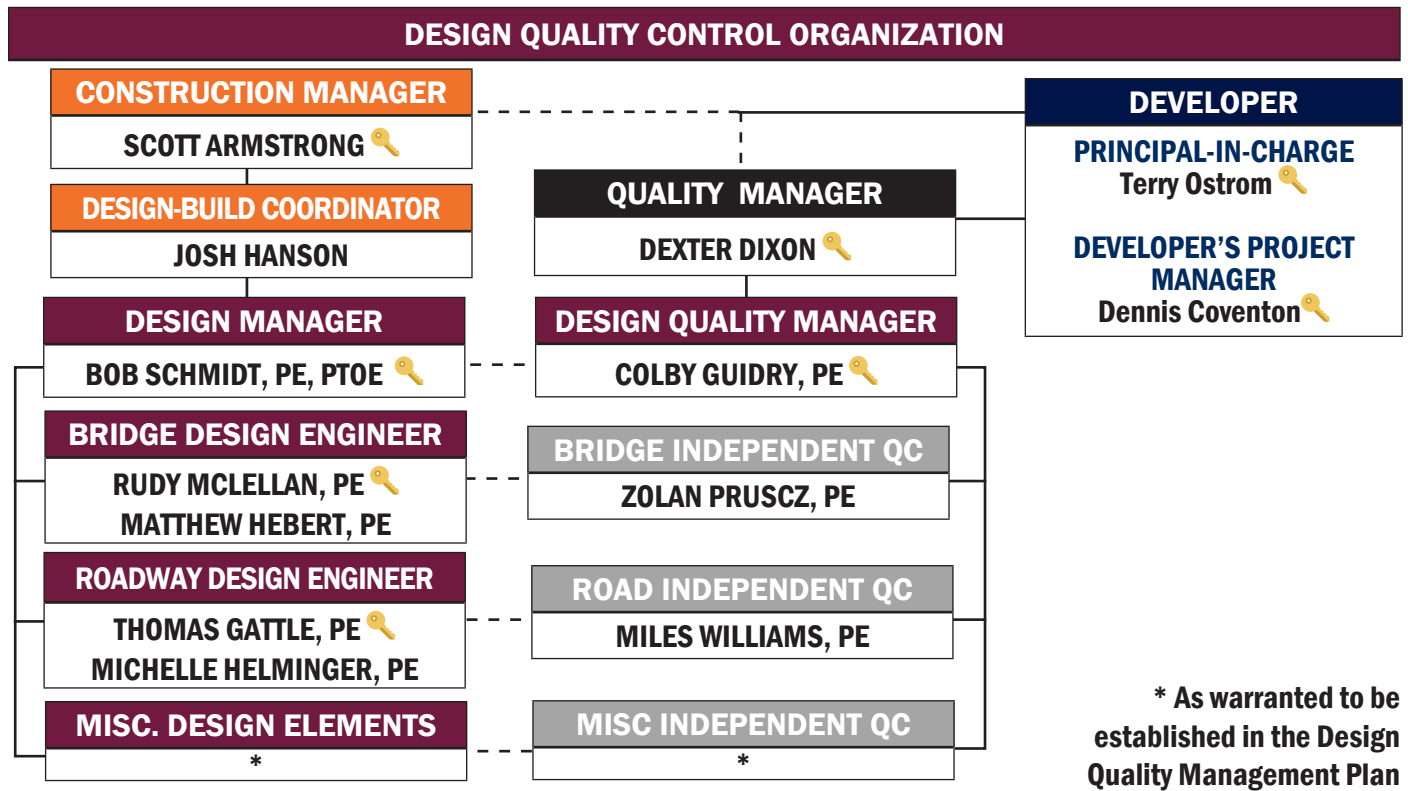
FIGURE 44: QUALITY IS INGRAINED IN ALL WE DO



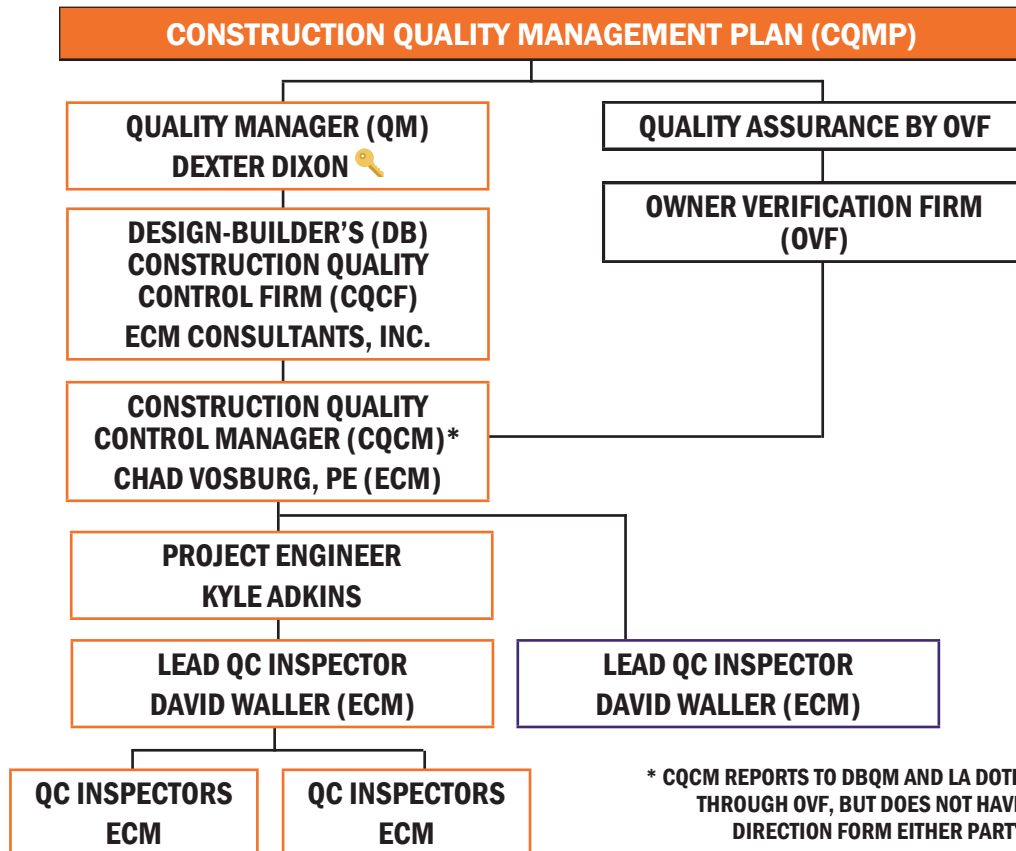
Tennessee Department of Transportation – Commissioner's Top Quality Award for Massman's work on the Caney Fork River Bridge in Smithville, Tenn.

2.6.A.3 ORGANIZATION CHARTS

DESIGN QUALITY CONTROL ORGANIZATION



CONSTRUCTION ORGANIZATION



2.6.A.4 RELATIONSHIP AND INTERACTION BETWEEN PIBC'S QUALITY MATERIAL LABS & LA DOTD'S MATERIAL VERIFICATION LABS

The independent engineering testing laboratory for quality control (QC) will be a subcontractor to the Construction Quality Control Firm (CQCF), ECM consultants, Inc., and perform QC sampling and testing for PIBC. This lab will perform all QC sampling conforming to LA DOTD's sampling and testing requirements as per the revised CQAP Manual. The QC testing procedure and its results will be used for both QC and QA. There will not be a separate sampling and testing for QA as was done previously. LA DOTD's lab will perform verification sampling and testing. The Owner's Verification Firm (OVF) will be responsible for verification sampling and testing.

PIBC's CQCF QC test results and OV test results will be used for mathematical validation and material quality acceptance. Test results that validate will be used for Quality Acceptance (QA). Both CQCF and OVF will be responsible to identify and document non-conforming work and materials.

2.6.B SAFETY PLAN

PIBC's number one goal is to ensure **"everyone goes home safe every day."** Each employee has the responsibility to plan, organize and perform work in the safest manner possible, consistent with sound construction practices. All employees are empowered with the ability to shut down operations for unsafe acts and will be on the alert for unsafe acts and conditions and correct them immediately. Management will ensure that all employees, including subcontractors, have an individual awareness of personal responsibility in maintaining an incident-free work environment.

We believe ALL incidents are preventable; result from unsafe and inefficient procedures or methods, unsafe physical conditions, unsafe equipment, unsafe personal acts, or a combination thereof; and can be planned for and eliminated. Our goal of no lost-time injuries, no OSHA recordable incidents, and no incidents during construction will be achieved on our projects by proactive implementation of our safety programs.

Safety is a full-time commitment on everyone's part, not just the safety management team. Too often the tendency is to treat safety as a subject that is only addressed in a weekly meeting. This type of outlook will not be allowed. Safety will be integrated into everything we do as we design, plan, and execute our work, see Figure 45.

FIGURE 45: CHAMP CLARK BRIDGE PROJECT



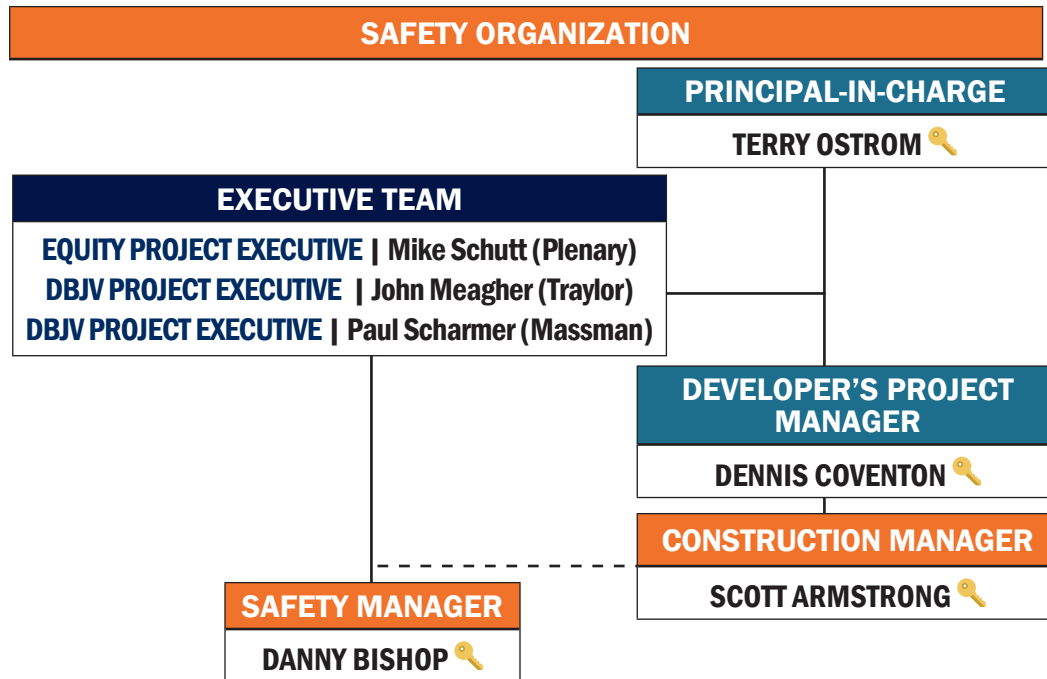
PIBC DBJV team member Traylor performing daily stretch and flex at the Airport Guideway and Stations project in Honolulu, HI.

SAFETY FOR PIBC TEAM:

Traylor and Massman are founding members of the Construction Industry Safety group and the Incident and Injury Free CEO Forum, whose goal is to inspire everyone in the industry to be leaders in safety. They are also founding members of Construction Safety Week, which is moving into its sixth year spreading a message of safety throughout the industry.

2.6.B.1 SAFETY ORGANIZATION

Safety Manager, Danny Bishop, will be responsible for safety for the entire construction project. His responsibilities will include training, orientation, site walks, JHAs, and safety reporting. He reports directly to the DBJV Executive Committee to ensure independence in performing this critical role.



2.6.B.2 INCORPORATING RESPONSIBILITY & ACCOUNTABILITY FOR SAFETY AT ALL LEVELS OF PIBC

Each individual member of PIBC holds safety as their predominant core value; it is the top priority on every project. To incorporate responsibility and accountability for safety at all levels, PIBC will develop a comprehensive, Project-wide safety plan that will outline all safety requirements governing each work activity. The safety plan will also be incorporated into every subcontract associated with the Project. The Safety Manager will work with the superintendents to address any safety issues. Senior management will be notified immediately of any incidents or near misses. Every member of the team is empowered to act on safety, including the obligation to stop any operation if an immediate hazard exists.

The site-specific safety plan will be presented to the entire project team. It will identify site-specific safety requirements and incorporate incident reporting, safety equipment requirements when on the job site (e.g., hard hats, foot protection, safety vests, etc.), and emergency response. Representatives from design, construction, and maintenance will incorporate safety features into the design through each of the discipline task force meetings, where potential hazards are identified and addressed on a weekly basis. To keep safety at the forefront, we will start every meeting with a safety moment to ensure all design personnel are aware of potential hazards and actions required to keep them safe on the job site.

CRAFT VOICE IN SAFETY (CVIS)

PIBC team members Traylor and Massman are involved in a group that will soon be promoting Craft Voice In Safety (CVIS) on heavy civil construction projects. PIBC proposes to implement this plan on the Belle Chasse project to encourage leadership and responsibility throughout the craft, which will be the 'boots on the ground' during the life of the project.

TRAYLOR 2018 SAFETY STATS

EMR: 0.79
 Lost Work Days: 0
 Restricted Work Days: 0
 Fatalities: 0

MASSMAN 2018 SAFETY STATS

EMR: 0.69
 Lost Work Days: 0
 Restricted Work Days: 0
 Fatalities: 0

2.6.B.3 APPROACH TO IDENTIFYING, DEVELOPING, & PROVIDING RELEVANT TRAINING FOR EMPLOYEES & SUPERVISORS (INCLUDING SUBCONTRACTORS)

Each employee, including subcontractors, will be provided a Safety Handbook that outlines the PIBC safety policy, general information, personal protection, crafts, use of tools, general procedures for equipment use, marine safety procedures, and the cell phone policy. The plan includes clear instruction for who receives what training and at what frequency. Every person involved with the Project, including subcontractors, receives at minimum a site safety orientation, and participates in additional periodic training. The extensive safety training provided throughout the life of the Project is described in Table 46 below.

TABLE 46: SAFETY TRAINING MATRIX

FREQUENCY	TRAINING	DETAILS	REQUIRED ATTENDEES
PRIOR TO ARRIVAL	Site Safety Orientation	Includes: Sub Safety Plan; Drug and Alcohol Requirements; Traffic, Safety, and Environmental Issues; Railroad Safety Training	Everyone
	OSHA 30-Hour Hazard Training	Includes: Introduction to OSHA; Managing Safety and Health; PPE; Cranes: Scaffolds; Tools; Fall Protection; Excavations, Stairways, and Ladders; Materials Handling; Fire Prevention	Supervisors
DAILY	Pre-Work Take 5 Meetings (Each Shift)	Includes: Daily Work Plan Review; JHAs; PPE; Task-Specific Discussion	All Shift Supervision, Staff, and Craft
WEEKLY	Weekly Project/ Toolbox Safety/ Environmental Meeting	Includes: Project-Specific and Safety/ Environmental Issues; Safety/Environmental Department Audit Items; Project Self Assessments; Project Safety/Environmental	Everyone
MONTHLY	Monthly Safety/ Environmental Training	Includes: Fire & Heat Injury Prevention; Hand Tool Safety; Safety Task Assignment Training; Excavation Safety; PPE Awareness; Hazard Communication; Lock-Out/Tag-Out; Slip, Trip and Fall; Walking Working Surface Safety; Environmental Awareness/Spill Response; SW3P; Protected Resources; Power Tool Safety; Welding and Torch Cutting; Soil Mechanics; Excavating and Trenching; Housekeeping; Ladder Safety; Ground Safety; Fire Prevention and Protection; Inspection of Rigging	Everyone
BI-MONTHLY	New Employee Safety/Environmental Orientation	Includes: Drug and Alcohol Program; Weekly Safety Meeting; Excavation and Trenching; Fall Protection; Ladder Safety; PPE Awareness; Hand and Power Tool Safety; New Employee HAZCOM; Environmental Awareness	New
AS NEEDED	Project-Specific Safety and Environmental Training	Includes: Horizontal Life Line Erecting/Dismantling; Hazardous Materials; Site-Specific Fall Protection Training; Site-Specific Environmental Compliance	Everyone
ANNUALLY	Annual Safety Assessment	Includes: Quarterly Site Visits; Safety Program Assessments; Site-Specific Safety and Health Plan Review; Score Assessments; Management Meetings	Select Committee

2.6.B.4 APPROACH TO SAFETY PROCEDURES

Safety is planned into all PIBC’s operations. Key safety elements of work will be addressed within the detailed work plans, whether for major features of work or minor day-to-day operations. The detailed planning will identify specific safety hazards and include control measures to minimize or eliminate their effect. The Activity Hazard Analysis (AHA) is the tool that will be used to identify and eliminate safety hazards on the Project. The AHA, developed by field engineers in consultation with staff, will:

1. Identify the environment within which the work will occur;
2. Break the work into tasks necessary to complete the operation;
3. Identify the probable hazards for each step;
4. Develop practical and specific controls for each hazard; and
5. List the minimal PPE required, as well as any supplemental PPE, see Figure 47.

AHAs are distributed at the beginning of every shift in safety startup meetings, where 100% crew attendance is required. Supervisors review the AHAs with the crew and discuss hazards, safety rules, and specific work practices required for the work of their shift.

PIBC recognizes the importance of establishing and maintaining an effective and timely Incident Reporting System. Every incident and near miss will be reported immediately to a supervisor and the follow-up investigation will be thoroughly documented using an Incident Investigation Form. All incident communications will flow through the Safety Manager up to the DBJV Executive Committee and to Construction Manager, Scott Armstrong. The Safety Manager will work closely with these two parties to determine how and when critical information will be disseminated to Project personnel. In the event of an incident, all determinations as to the classification of the incidents will be made by the Safety Manager in consultation with DBJV Executive Committee and LA DOT. A Root Cause Analysis will be conducted to determine the “root cause” of the incident and to help develop preventive measures to avoid future recurrences. Coordination with emergency management will occur as outlined in Section 2.6 below.

2.6.B.5 ACCOUNTING FOR THE UNIQUE ATTRIBUTES OF THE PROJECT

Every project’s site-specific Safety Plan identifies the unique attributes of a project that can present additional risk and provides additional safety recommendations to mitigate these risks. The Belle Chasse Bridge and Tunnel Replacement Project presents a few such unique challenges.

Construction in an Urban Environment – While construction in an urban environment isn’t particularly unique to Belle Chasse, the specifics of this project make it somewhat more challenging than that of the typical urban construction project.

FIGURE 47: SAFETY PPE STANDARDS



FIGURE 48: URBAN ENVIRONMENT - MID-POINT RETROFIT ACCESS FROM SPIDERS ON RAIL SIDE ON ROAD SIDE HUEY P. LONG PROJECT



Maintaining all existing lanes of traffic and a very narrow work zone where the new construction ties into the existing roadway at each end compress both public traffic and construction operations into close proximity throughout much of the project. Ensuring the safety of both the traveling public and the construction workforce will require careful traffic management planning and traffic control measures to maintain separation of both activities. Resources supporting the safety of both the crew and the surrounding public, both pedestrian and traffic, will include clear signage, additional flaggers, lighting, and multiple avenues of communication of detours and closures, as seen in Figure 48 (website, app, radio, TV).

Work over Water and Between Levees –

Working over water requires special safety considerations and measures specific to that type of work, but like working in an urban environment, construction over water (Figure 49) isn't particularly unique to Belle Chasse. However, in this case, the narrow navigation channel and shallow water depths outside of that channel present unique challenges. Limited access over the existing levees dictates that construction of the piers, bents and bridge superstructure between the levees be performed from the water. The shallow water depths outside of the channel limit barge access to the bents adjacent to the levees resulting in increased crane sizes to allow working from a greater distance. As equipment sizes increase the supporting barge sizes also increase. As a result, maintaining a clear navigation channel becomes increasingly difficult as crane and material supply barges quickly fill the available area outside of the navigation channel. Ensuring safety and uninterrupted travel of commercial marine and pleasure craft vessels along with the safety of the workforce and construction equipment requires careful planning and logistics. Temporary cofferdam designs will consider these risks and barge placement will require a logistic plan not unlike a traffic control/traffic management plan. Further, close coordination with the US Coast Guard to provide timely and informative Notices to Mariners will be critical in ensuring and incident free project.

Demolition - Special precaution is taken during demolition, especially regarding potentially hazardous materials that may become exposed during the process. Training for silica dust and lead paint will be provided to all crew working on the demolition, Figure 50. Best practice measures will be employed to prevent fugitive emissions that might otherwise endanger the public health. However, even more unique to the demolition of the existing bridge structure is that it is very closely "sandwiched" between the existing New Orleans Gulf Coast Railway structure and the new Belle Chasse bridge that we will have just completed.

FIGURE 49: TAPPAN ZEE BRIDGE WATER WORK WITH WATER REQUIRED PPE

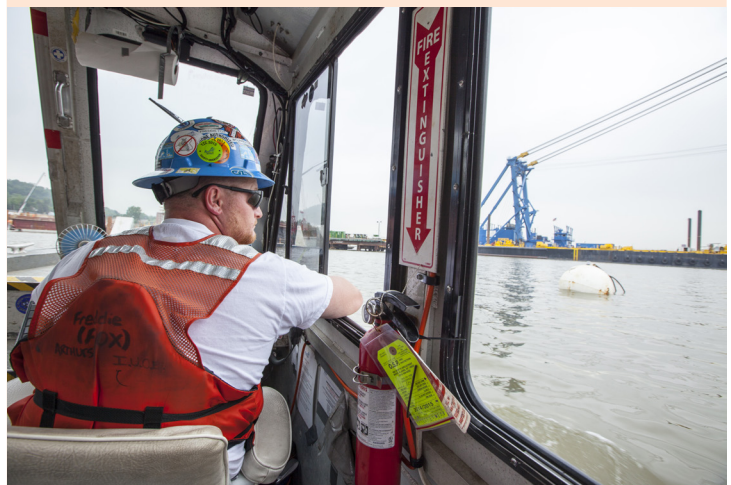


FIGURE 50: PROPER SAFETY PROCEDURES AT THE HUEY P. LONG PROJECT WHILE REMOVING CURB SECTION WITH DEMO CART



With the railway structure just 65-ft to the east and the new bridge just 55-ft to the west, great caution will be needed to demolish the old structure and maintain safety of the traveling public and commercial marine and pleasure craft traffic. The result is that extensive “Deconstruction” planning will be employed to manage the process and maintain a separation of hazards. Again, close coordination with the US Coast Guard to provide timely and informative Notices to Mariners will be critical in ensuring and incident free project.

2.6.B.6 INTERFACE WITH LOCAL FIRST RESPONDERS, STATE EMERGENCY EVACUATION REPRESENTATIVES, AND OTHER AGENCIES

To ensure coordination with local and state emergency staff, as well as other agencies, pre-emergency event planning activities will be initiated by the Safety Manager. Establishing contact with emergency service providers and developing emergency response plans and procedures are vital for safe construction of the Project. Below are the pre-emergency event planning activities that PIBC may undertake in coordination with emergency service providers, as applicable.

PRE-EMERGENCY EVENT PLANNING ACTIVITIES:

- Identify emergency service personnel;
- Set up method to contact primary and alternate emergency providers;
- Establish command and control protocol;
- Prepare severe weather preparedness and response plan;
- Develop typical response strategies;
- Establish traffic control and detour plans; and
- Disseminate emergency planning guide.

PIBC will participate in emergency response planning sessions to clarify roles and responsibilities during an emergency or natural disaster. We will also be an active participant in disaster drills planned within the Project area. We will continue to gather information and refine our plans as we move through the phases of construction to ensure we include relevant documents in our emergency planning guide. Plans will be periodically reviewed to ensure roles and responsibilities are clearly understood. We will hold post-event reviews to assess response and make further improvements. We will develop a roster for appropriate personnel from of emergency service providers and government agencies. These include, but are not limited to:

- Belle Chasse Volunteer Fire Department;
- Plaquemines Parish Sheriff’s Office;
- Plaquemines Parish Emergency Medical Services;
- Plaquemines Parish Office of Homeland Security & Emergency Preparedness;
- LA DOTD Emergency Management;
- LA State Police;
- US Coast Guard;
- Emergency Evacuation Representatives; and
- Port Authorities.

VEHICULAR AND MARINE MAINTENANCE OF TRAFFIC



2.7 VEHICULAR & MARINE MAINTENANCE OF TRAFFIC

This section includes our team’s summary of our proposed Transportation Management Plan, which directly assists in meeting LA DOTD’s goal of maximizing safety and mobility and minimizing impacts to vehicular and marine traffic.

2.7.A TRAFFIC SEQUENCING PLAN

VEHICULAR MAINTENANCE OF TRAFFIC

The overall construction phasing plan consists of three phases of construction, as seen in the following:

- **Phase 1** – Construction of LA 23 Bridge over GIWW; entire length of LA 23 northbound lanes can be constructed, but a portion of the southbound lanes on the bridge approaches will be phased constructed.
- **Phase 2** – Construction of remainder of LA 23 Bridge approaches; LA 23 southbound lanes of traffic are shifted onto new complete LA 23 northbound lanes in order to construct remainder of southbound lanes on the bridge approaches. Decommissioning of the existing tunnel begins.
- **Phase 3** – Demolition and abandonment of existing vertical lift bridge.

The main goal of the traffic sequencing plan is to minimize disruption to the traveling public. Two lanes of traffic in each direction will be maintained throughout construction with the exception of short-term (less than 24 hours, as defined by the RFP) lane closures to complete mill and overlay of existing LA 23 adjacent to the existing bridges on both the north and south ends of the Project.

Roadway construction will be performed concurrently with bridge construction. Since the new LA 23 Bridge will be on an offset alignment from both the existing vertical lift bridge and tunnel, the LA 23 roadway alignment will be modified to tie the existing roadway on either end of the Project with the new bridge alignment. Though the LA 23 roadway alignment will be modified, there is a significant portion of new roadway, which must be built in the same location as the existing LA 23 roadway. To accomplish roadway construction while maintaining two lanes of traffic in each direction, the following measures will be taken:

- Temporarily widen existing LA 23 pavement to facilitate traffic shifts to the outside of the existing roadway.
- Remove existing curbs and pave within the existing LA 23 median to facilitate traffic shifts to the median of the existing roadway.
- Construct new roadway without placing concrete curb and gutter and temporarily paving new medians to facilitate traffic shifts, which utilize the new roadway median.
- Utilize 11-ft. lane widths to maximize available construction space.

An important aspect of the traffic sequencing plan will be maintaining access to Engineers Road and Burmaster Street during construction. Minimal interruptions are anticipated for Engineers Road during Phases 1a and 1b. The realigned Engineers Road intersection will become operational in Phase 1c and throughout the remainder of the Project. Short-term lane closures will be required during Phase 1c at the Burmaster Street intersection to mill and overlay the existing pavement. Traffic Sequencing plan sheets are provided in Vol. II Technical Proposal Appendix along with proposed roadway design plans for reference.

To construct new pavement for LA 23 roadway as well as for phased bridge construction while minimizing disruption to the traveling public, several intermediate steps are required. These have been developed as sub-phases of the overall construction phasing plan. The sub-phases developed for the traffic sequencing plan and a brief description are as follows:

PHASE 1A:

NORTH SIDE OF PROJECT:

- Construct detour pavement on the east side of LA 23. Remove portions of curbed median that conflict with proposed shifted traffic and provide detour pavement in unpaved median. Shift LA 23 northbound and southbound traffic to the east, utilizing the existing median and new detour pavement.
- Construct westernmost portion of roadway from existing drainage canal bridge to just north of existing Engineers Road intersection.
- Construct Railroad Street extension in order to provide access to Mildred Street and Planters Canal Road. Remove existing railroad crossings at Mildred Street and Planters Canal Road.
- Construct realigned Engineers Road from new intersection with LA 23 to existing shoulder of Engineers Road.
- Short-term lane closures will be required to mill and overlay western lanes of existing LA 23 roadway between the existing canal bridge and the existing railroad spur.

SOUTH SIDE OF PROJECT

- Close outside lanes of traffic (short-term) on LA 23 northbound and southbound to perform mill and overlay on existing LA 23 roadway.

BRIDGE:

- Construct the full width portion of LA 23 Bridge over GIWW and approaches that do not affect traffic.

PHASE 1B:

NORTH SIDE OF PROJECT:

- Construct additional detour pavement on the east side of LA 23. Remove portions of curbed median that conflict with proposed shifted traffic and provide detour pavement in unpaved median. Shift LA 23 northbound and southbound traffic away from the center of LA 23 utilizing newly constructed roadway from Phase 1a as well as newly constructed detour pavement.
- Construct middle portion of new roadway (excluding curbed medians) from existing drainage canal bridge to just north of existing Engineers Road intersection.
- Short-term lane closures will be required to mill and overlay inside lanes of existing LA 23 between the existing canal bridge and the existing railroad spur.
- Construct remaining portion of Engineers Road at intersection with X Street.

SOUTH SIDE OF PROJECT:

- Close the inside lanes of traffic (short term) on LA 23 northbound and southbound to perform mill and overlay on existing LA 23 roadway.

BRIDGE:

- Continue constructing the full width portion of LA 23 Bridge over GIWW and approaches that do not affect traffic.

PHASE 1C:

NORTH SIDE OF PROJECT:

- Construct detour pavement on the west side of LA 23. Remove portions of curbed median that conflict with proposed shifted traffic and provide detour pavement in unpaved median. Shift LA 23 northbound and southbound traffic to the west utilizing the existing median and new detour pavement.

- Construct easternmost portion of roadway from existing drainage canal bridge to just north of existing Engineers Road intersection.
- Short-term lane closures will be required to mill and overlay existing LA 23 roadway between the existing canal bridge and the existing railroad spur.

SOUTH SIDE OF PROJECT:

- No construction required during this phase.

BRIDGE:

- Continue constructing the full width portion of LA 23 Bridge over GIWW and approaches that do not affect traffic.

NORTH SIDE OF PROJECT:

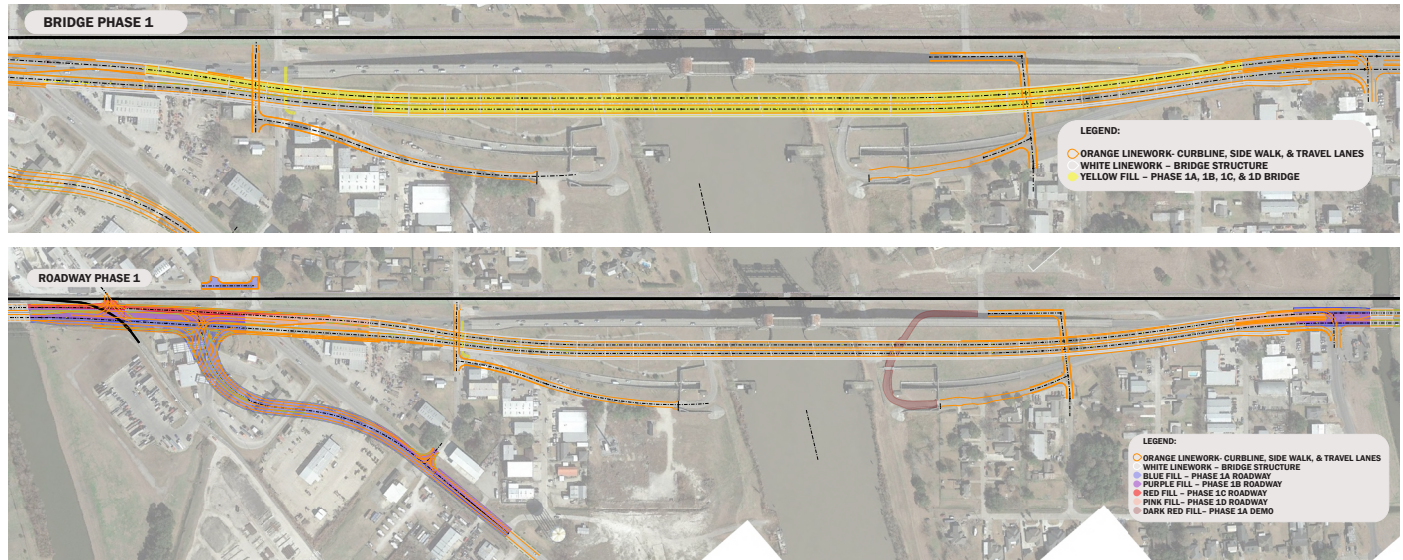
- Construct additional detour pavement on the east side of LA 23. Shift LA 23 northbound traffic to the east and LA 23 southbound traffic to the west, utilizing new and existing detour pavement.
- Move traffic from existing Engineers Road to realigned Engineers Road.
- Construct LA 23 from realigned Engineers Road intersection to the new northbound bridge end between the two directions of shifted traffic (excluding curbed medians).

SOUTH SIDE OF PROJECT:

- Construct detour pavement on the east and west sides of LA 23. Shift LA 23 northbound traffic to the east and LA 23 southbound traffic to the west, utilizing new detour pavement.
- Construct LA 23 from end of new northbound bridge to just north of Barriere Road intersection (excluding curbed medians).

BRIDGE:

- Complete construction of northbound lanes of new LA 23 Bridge.



PHASE 2:

NORTH SIDE OF PROJECT:

- Shift LA 23 southbound traffic onto complete LA 23 northbound lanes of bridge. LA 23 northbound lanes of traffic remain on the existing vertical lift bridge. Decommission existing tunnel.
- Construct the remaining portion of LA 23 southbound lanes from Engineers Road intersection to the new bridge end.

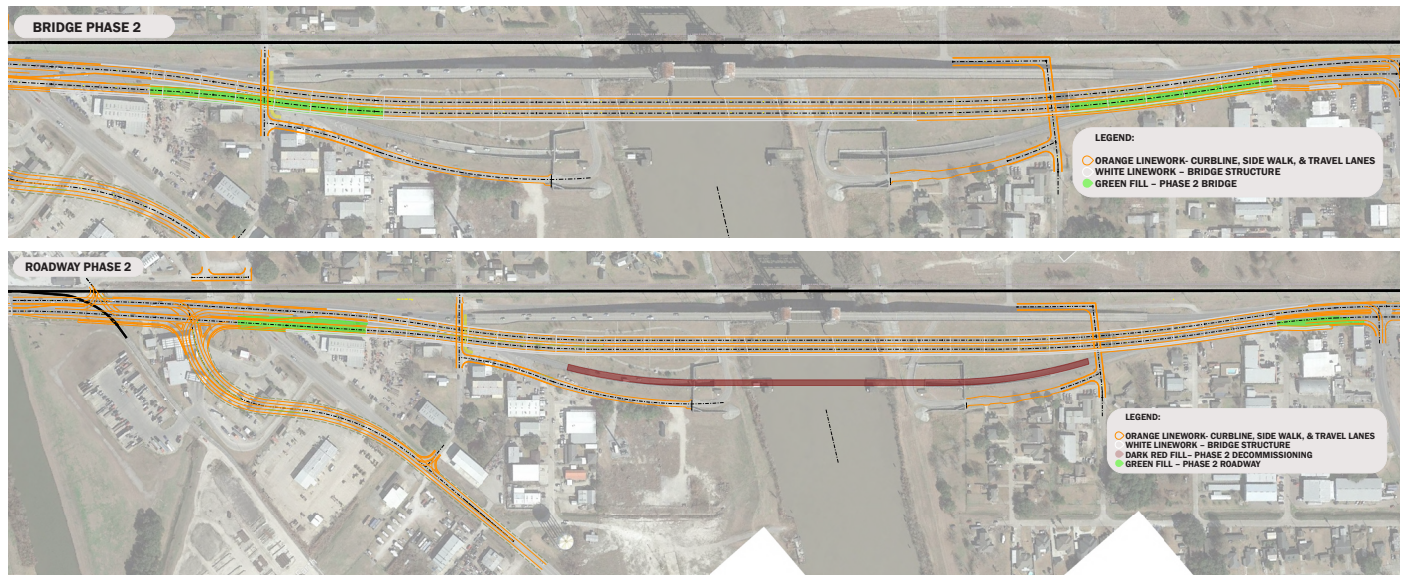
SOUTH SIDE OF PROJECT:

- Shift LA 23 southbound traffic onto complete LA 23 northbound lanes of bridge. LA 23 northbound lanes of traffic remain on the existing vertical lift bridge.

- Construct the remaining portion of LA 23 southbound lanes from the end of the new bridge to Barriere Road intersection.
- Decommission existing tunnel.

BRIDGE:

- Complete construction of southbound lanes of new LA 23 Bridge.



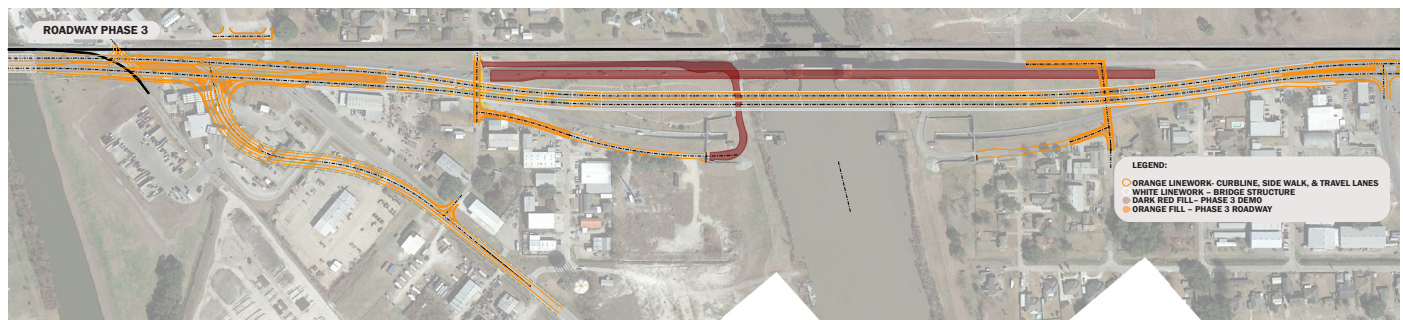
PHASE 3:

NORTH SIDE OF PROJECT:

- Shift traffic to final condition on new LA 23 Bridge.
- Complete construction of all roadway curbs and medians that were not constructed in previous phases. Remove all detour pavement.
- Demolish existing vertical lift bridge.
- Construct X Street extension. Construct North Tunnel Road realignment.

SOUTH SIDE OF PROJECT:

- Shift traffic to final condition on new LA 23 Bridge.
- Complete construction of all roadway curbs and medians that were not constructed in previous phases. Remove all detour pavement.
- Demolish existing vertical lift bridge.
- Construct Q Street extension. Construct South Tunnel Road (north of LA 23 & south of LA 23).



MARINE MAINTENANCE OF TRAFFIC

PIBC team members Traylor and Massman have extensive experience with marine construction in, and immediately adjacent to, active navigational waterways. They understand what it takes to ensure that the impact to maritime interests are minimized or even eliminated.

The major elements of this project that will require coordination with the USCG and private parties are envisioned to be the construction of the main pier cofferdams, the superstructure steel erection, and portions of the demolition of the existing bridge.

On this project, PIBC will take advantage of the established marine curfew periods where the lift span cannot be raised due to rush hour traffic on the road. When practical, portions of marine operations will be scheduled with these windows in mind, where marine traffic will not be using the waterway. Outside of these periods, and for major marine operations, below are general guidelines that we have found are effective in providing for the maintenance of marine traffic on our past projects in the vicinity of New Orleans.

1. All work will be so conducted that the free navigation of the waterway will not be unreasonably interfered with and the present navigable depths are not impaired.
2. U.S. Coast Guard approval is required for any and all temporary structures that will be placed in the waterway to facilitate construction of the bridge.
3. PIBC will obtain the approval of the U.S. Coast Guard prior to performing operations that require navigation restrictions. Navigation restrictions include reductions in vertical clearance, blockage of the waterway below a particular span of the bridge due to construction equipment temporarily moored in the waterway, and closing the entire navigational channel to through traffic for a specific operation.
4. All temporary structures shall be marked with lights, reflective material, and buoys as prescribed by the U.S. Coast Guard.
5. PIBC will keep the Commander, Eighth Coast Guard District informed of the schedule of construction and give advance notice of any restrictions or event that may affect navigation.
6. Precautions shall be taken to prevent the dropping of spark-producing, flame-producing, lighted and other damaging objects onto barges or vessels passing beneath the bridge. Any debris from flame-cutting, welding, and similar spark-producing operations performed over the channel that cannot be contained shall cease when vessels are passing beneath the bridge.
7. The Commander, Eighth Coast Guard District, shall be notified in advance of commencement of work in or over the navigation span and whenever there is any change or action that will impede navigation. Notification should be updated by telephone if necessary to assure navigation interests are aware of the work and its effect on the movement of marine traffic.

HUEY P. LONG MARINE MOT CASE STUDY:

A relevant, successful implementation of a marine MOT plan can be seen in the Huey P. Long Main Span Superstructure Widening. A joint venture that included both Traylor and Massman was awarded a contract to widen the structural steel trusses of the bridge. Conventional methods would have required significant falsework in the Mississippi River, which would have posed a significant hazard to marine traffic. The joint venture worked with the USCG and private industry to implement a new method of truss erection that eliminated the need for almost all of the falsework in the water. For the work where interference with the navigational channel could not be avoided, close coordination between all parties ensured success.



2.7.B TRAFFIC INCIDENT MANAGEMENT PLAN

The below represents a summary of PIBC's project-specific Traffic Incident Management Plan (TIMP) for O&M during construction. This document will provide a consistent level of service to the traveling public while ensuring public safety and enjoyable travel through the Project area. This shall be consistent with the maintenance approach and the final MMP.

The primary function of traffic control at an incident area is to move traffic safely and expeditiously through or around the incident. Emergencies and disasters may pose severe and unpredictable problems. The ability to install standard (proper) traffic control MOT may be greatly reduced in an emergency. PIBC understands that for traffic incidents, particularly those of an emergency nature, MOT devices on hand may be used for the initial response as long as they do not create unnecessary additional hazards.

Our TIMP will be drafted for the specifics of this project based on TIMPs created, refined, and proven successes on similar projects. The time-and-event-proven, comprehensive TIMP will be developed by PIBC will indicate the procedures our staff will follow when they are the initial responder to an incident. It will include specific, clearly-designed diagrams for the initial response at an incident and variations based on HazMat involvement, fatalities, and incidents that will last more than 24 hours. PIBC also understands that if the traffic incident is anticipated to last more than 24 hours, applicable procedures and devices will need to be used. For the TIMP, which will be drafted, PIBC will formulate an effective incident management plan during construction that includes:

- Approach;
- Training;
- Staffing; and
- Procedures.

It shall be prepared with and including input from LA DOTD, Emergency Services, and applicable Governmental Entities who will be affected by its components and subcomponents. The TIMP will include, but not be limited to, the following:

- Incident Identification and Traffic Control;
- Procedures for Removal of Incapacitated Vehicles;
- Incident Response and Management;
- Incident Cleanup;
- Public Notification of Traffic Issues;
- Off-Hours Contacts and Coordination; and
- Incident Management Process Improvement.

The TIMP created by PIBC will address procedures and protocol followed during an incident. PIBC has fully equipped vehicles capable of responding to any incident including spill kits, traffic control equipment and access to external subcontractors capable of addressing larger issues such as hazardous materials. PIBC will also have staff available 24/7 to respond to any incident per the performance measures as established in the Technical Provisions. The TIMP will recognize three levels of response:

- **Level 1** is an operational response requiring no sustained lane closures or engineering services. Examples are, but not limited to, debris removal, stalled vehicles, minor vehicular fires, minor barrier wall spalls, scrapes or scuffing, damaged navigational lights and lightening protection system and other electrical repairs.

- **Level 2** requires a limited response with temporary lane closures, possible permit or weight restrictions, engineering services, and construction services to design and implement timely repairs. Examples are, but not limited to, damaged barrier wall section, fender repairs, and overhead sign impact or wind damage.
- **Level 3** requires longer-term response with lane restrictions or full-structure closure with permit and weight restrictions which are above and beyond Level 2. PIBC will also support any LA DOTD-declared emergency and proceed accordingly.

Furthermore, for Level 3 PIBC will identify a specialized emergency response group to handle all response activities so routine operations can continue unaffected. The TIMP will identify and maintain a contact list of suppliers and LA DOTD-qualified contractors capable of quickly responding.

An example of our proven TIMP that combines motorist assistance along with Emergency Vehicle Access and Response Plan is our team partner, DBi's P3 Harbor Bridge Project incident. The incident involved two tractor-trailers colliding on an elevated freeway with one being filled with crude oil that combusted into a large-scale vehicle fire. DBi's crew responded and assisted in emergency response, overnight clean up, and road closure during the entire accident. Additional staff was mobilized to assist in bridge inspection and execution of work to repair and open the bridge to full operation as soon as possible. The P3 team was recognized for their superior response, repair, and remediation work. Please see Figure 51 below.

FIGURE 51: HARBOR BRIDGE P3 PROJECT TRAFFIC INCIDENT MANAGEMENT



2.7.C MOTORIST ASSISTANCE PLANS

PIBC will establish Motorist Assistance Plans that will focus on removing any non-functioning vehicles and assist the motorist in other ways as needed. We recognize that this is public-driven work where the customer comes first. Upon arrival at scene where there is one or more disabled vehicle in the travel lanes, “How can we help?” will always be our first words at the start of each interaction. Following that, a PIBC crew member will provide bottles of water and then will ask permission to push, pull, or tow the disabled vehicle to a safe location out of the traveled way. If the driver provides permission and depending on the condition, vehicle make, model, and specific tow hooks or other attachments, our crew member will move the vehicle to a safer location on the side of the roadway where our crew member will be able to assess the disabled vehicle. Please see Figure 52 for examples of our team’s motorist assistance that are operating in other states.

FIGURE 52: FDOT'S I-4 ULTIMATE P3 PROJECT ROAD ASSISTANCE IN ACTION (LEFT AND MIDDLE) AND GDOT ROADSIDE ASSISTANCE PROGRAM (RIGHT)



Once a disabled vehicle is out of the traveled way, our crew member will offer to provide free assistance to the motorist. If the motorist allows, our crew member will attempt to re-mobilize the disabled vehicle by conducting a quick assessment of the vehicle:

- If the vehicle's battery is dead, we will provide a jump start; or
- If the vehicle has a flat or damaged tire, we will offer to change the tire with a spare tire provided by the motorist.

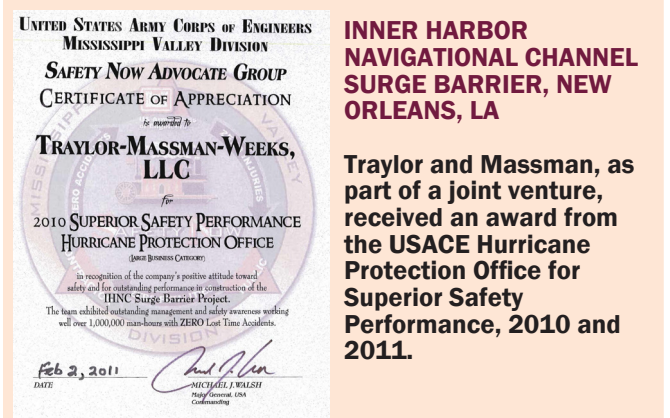
As part of our emergency response plan, PBIC personnel will establish appropriate MOT for the incident, provide emergency equipment as necessary, and establish a route for the arrival of required emergency vehicle(s). We will then ensure the safety of the area for first responders, PIBC personnel, and the traveling public.

2.7.E HURRICANE EVACUATION ROUTING PLAN

The people living within the area served by this section of LA 23 have come to understand the existing flow of traffic during an evacuation event. With respect to the traveling public our focus will be on maintaining all currently existing evacuation routes and all currently available lanes of traffic. This means that in preparation for an imminent storm event we will cease all work activities and concentrate on clearing the work area of materials and equipment to provide safe, unencumbered passage through the work site.

With our previous experience working in hurricane corridors and directly with LA DOTD (Figure 53), we bring extensive experience working directly with local authorities planning for safe and timely project preparation and the safe and unrestricted evacuation of the public. One of the first responsibilities of our project team prior to the start of the first hurricane season is to meet with the USCG Captain of the Port.

FIGURE 53: HURRICANE PREPAREDNESS EXPERIENCES



**INNER HARBOR
NAVIGATIONAL CHANNEL
SURGE BARRIER, NEW
ORLEANS, LA**

Traylor and Massman, as part of a joint venture, received an award from the USACE Hurricane Protection Office for Superior Safety Performance, 2010 and 2011.



In concert with the Coast Guard and other local authorities, we will develop a written site-specific preparation and evacuation plan that seamlessly integrates with the authorities' existing plans. This plan will include specific protocols, actions, restraining materials, schedules, contact persons, and internal command structure to minimize potential incidents. Over just the past 10 years, PIBC team members have performed emergency preparedness for 27 tropical storms and hurricanes.

PIBC field personnel, having successfully managed storm events dozens of times, have developed a Hurricane Preparation and Evacuation Plan (HPEP) for work in coastal areas. The HPEP will be tailored to this project with the following basic components:

- Training and coordination with local agency emergency management resources, project staff, and craft workers;
- Terms and conditions of the latest USCG Plan incorporated and all directives issued by the Captain of the Port followed;
- An action plan with specific individuals assigned to implement safety measures;
- Dry run events to evaluate the preparedness of the team and make improvements as necessary;
- Steps for securing loose materials and small equipment, and relocating marine equipment to safe harbor areas; and
- Temporary structure designs for protection against severe weather (e.g., temporary trestle hurricane bracing).

Through our coastal project experience, our team has developed proprietary trestle systems and specific expertise in top-down construction, which will significantly increase safety in this coastal environment. Our field and engineering staff will lead the training and implementation of work plans to address tight work areas, assembly and disassembly of trestle, and management of space along with emergencies.

HURRICANE PREPARATION AND EVACUATION PLAN

PIBC field personnel, having successfully managed storm events dozens of times as highlighted in the case study in Figure 54, will develop a HPEP based on similar those from our team member's projects based in coastal areas.

FIGURE 54: PIBC'S PROVEN HURRICANE PREPAREDNESS EXPERIENCE



I-45 GALVESTON CAUSEWAY

During the course of the Project there were four hurricanes with imminent potential to make landfall at or near Galveston Island (Rita 2005, Humberto 2007, Gustav 2008, and Ike 2008). For all, our forces ceased construction activities and began implementation of the Project's HPEP, which included coordination with the USCG, the Port of Galveston, TXDOT, and Galveston County. Two hurricanes (Rita 2005 and Ike 2008) caused Galveston County government authorities to mandate complete evacuation of the island and nearly the entire county. In both cases, our team continued to work with the county and TxDOT to allow unencumbered availability of the sole hurricane evacuation route for Galveston Island. In 2008, Hurricane Ike made landfall as a Category 2 hurricane, devastating Galveston Island and nearby coastal areas. Nevertheless, having implemented an elective project-specific HPEP, we provided a clear evacuation route and rode out the storm with no losses of project permanent works or construction equipment, and avoided the environmental impacts that would have resulted from such losses.

The HPEP will be tailored to this project with the following basic components:

- Training and coordination with local agency emergency management resources, project staff, and craft workers;
- Terms and conditions of the latest annual USGC'S Hurricane Plan incorporated and all directives issued by the NPS Incident Command;
- An action plan with individuals assigned to implement safety measures;
- Dry run events to evaluate the preparedness of the team and make improvements as necessary;
- Steps for securing loose materials and small equipment, and relocating marine equipment to safe harbor areas; and
- Temporary structure designs for protection against severe weather (e.g., temporary trestle hurricane bracing).

OPERATIONS AND MAINTENANCE OF THE CURRENT FACILITY

2.8 OPERATIONS & MAINTENANCE OF THE CURRENT FACILITY

GENERAL OPERATIONS AND MAINTENANCE

PIBC includes a team of established maintenance managers who have experience maintaining existing structures similar to the Belle Chasse Bridge and Tunnel. PIBC will perform an inventory and condition assessment of the existing infrastructure that will be maintained during the construction. A workload was developed for the anticipated routine maintenance needs on these structural and tunnel assets throughout the construction period. The workload was coordinated with the construction schedule to identify which sections of the approaches would be available for maintenance and the time in months of availability. Specific maintenance staff from DBi and Plenary will be responsible for performing the maintenance work necessary to meet maintenance performance requirements during construction.

Although a General Maintenance Management Plan and Operations Plan will be submitted 90 days prior to construction, outlining our approach, strategies, and quality processes, the Baseline Element Condition Report (BECR), which will be completed 60 days before construction, is the starting snapshot for the completion of our final operations and maintenance plan which will be conducted by PIBC.

Reviews of the preceding 2017 inspection reports disclose a vertical lift bridge in fair condition with some worrisome fractures in the non-redundant (fracture critical) main span support beams with poor electrical backup systems and a tunnel in a questionable structural condition with very poor operational and safety systems. We have to assume some of these deficiencies are presently being addressed to maintain operability, so the in-depth BECR will be critical in identifying and separating those activities that may be considered generally routine from deficiencies that may be systemic (on-going) from those that might require one-time repairs.

Two examples of systemic deficiencies are the leaking joints in the tunnel and the fractures in the steel beams in the vertical lift. Over 70% of the tunnel joints were leaking during the 2017 report and half of those in condition state 4. This suggests a condition that is not only an advanced state of deterioration, but one that is rapidly converging on the end its expected life. Joint sealing is a repair that may become a continuous activity to maintain viability if drain/pump repair/replacement isn't adequate.

PIBC team member DBi Services (DBi) has witnessed success in controlling steel fractures utilizing FTI's StopCrack EX aviation cold expansion technology and will attempt to control the existing cracking in the vertical lift bridge in that manner, but will have to regularly monitor them, as they tend to worsen suddenly. Lessening vibration through repair of the locks and a close examination of the load carrying capacity of the main span, that might limit overload permits, can all contribute but on-going oversight, and possible action, will still be necessary.

PIBC will work with LA DOTD to interview staff that has presently been engaged in maintaining and operating the movable bridge and the tunnel, to gain their understanding and institutional knowledge of conditions and operational idiosyncrasies. The incumbent staff have significant knowledge regarding the maintenance and operation of these structures. Their long-term familiarity with the structures' operational characteristics can provide insight if they notice unusual sounds, movement, delayed responses, or any behavioral changes over time during the operation of the structure. We have learned that seemingly minor behavioral anomalies are often precursors to growing maintenance issues that can become serious.

Our extensive knowledge and experience in assessing the condition of movable bridges throughout the US, combined with the knowledge of the incumbent bridge tenders and maintenance personnel and the information provided by the BECR, will quickly provide a condition baseline to construct a thorough Operations and Maintenance management plan. The plan will outline and schedule all routine maintenance activities, incorporating additional preventative measures, and an efficient outline to address outstanding repairs as well as those that may be systemic in nature due to advanced deterioration.

The completed and compiled BECR will contain justifications for action and recommendations to LA DOTD for review and consideration which will be incorporated into the final Operations and Maintenance Management Plan.

The goal of the maintenance plan is to preserve the structure’s condition and operational characteristics to provide safe use to the public in a cost-efficient manner. This plan is more than simply ensuring moving parts are lubricated on a regular basis; it will also include an outline of the best means of transitioning the existing structures over to PIBC, but also how maintenance activities will be created going forward, scheduled and monitored to completion through PIBC team member PIBC’s MMS system.

The MMS system is a web-enabled Maintenance Management System (MMS), developed by DBI, that will be accessible to the Department, interface with the Department’s MMS, and provide document management, compatible with SharePoint (Please see Figure 55). It is also capable of being modified to meet specific client reference system requirements such as LA DOTD’s control sections and log mile system. Data input can be made from our crews in the field using tablets utilizing a host of interactive forms, reducing paperwork and processing time. Access and client training will be provided to the LA DOTD prior to construction.

FIGURE 55: MMS SYSTEM WORK ORDER AND INSPECTION REPORT DASHBOARDS

The screenshot displays the MMS system interface for a work order. The top section shows the work order details for 'WORK ORDER # GRNB-193509' at 'LOCATION - GRNB'. It includes fields for ROADWAY (INTERSTATE 95), MILE MARKER (NB 1.00), COUNTY (GRIFFINVILLE), DISTRICT (RICHMOND), and coordinates. The 'DETAILS' section lists the work order type as 'GENERATOR QUARTERLY', reported by 'DBI', assigned to 'JIMMIE ALSTON', and includes dates for opening and closing. A map shows the location near Gaston, Louisiana. Below this is a 'DESCRIPTION' section with the text 'QUARTERLY PM INSPECTION FOR GENERATOR'. The 'WORK ORDER HISTORY' table shows two entries: 'CORRECTION PM WAS DONE ON 5/3/18' and 'JEFF CASI CAME OUT AND DID TIC QUARTERLY PM ON TIC GENERATOR 5/4/18'. The 'CLOSE INFORMATION' section shows the work was inspected and closed by 'JIMMIE ALSTON' on '6/5/2018 10:48:00 AM'. An 'Upload Police Report' button is visible. The bottom section is an 'INSPECTION REPORT' table with columns for ASSET, PASS, COMMENTS, DATE, and NAME. The table lists 12 items, all of which were inspected and passed on 8/25/2018 by Trina Boyd.

ASSET	PASS	COMMENTS	DATE	NAME
1. RESTROOMS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
1. COUNTER TOPS, SINKS, AND RELATED COMPONENTS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
2. TOILET PARTITIONS AND RELATED COMPONENTS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
3. TOILET PARTITIONS AND RELATED COMPONENTS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
4. TOILET BOWL DISPENSERS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
5. FLOORS	<input checked="" type="checkbox"/>	PAYNT ON R00#1 FLOOR	AUG 28 2018	TRINA BOYD
6. WALLS AND CEILINGS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
7. HAND DRYERS AND TOWEL DISPENSERS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
8. SOAP DISPENSERS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
9. BABY CHANGING TABLE AND OTHER AMENITIES	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
10. MIRRORS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
11. LIGHTS	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD
12. OODOR CONTROL	<input checked="" type="checkbox"/>		AUG 28 2018	TRINA BOYD

At the start of construction, we will be prepared to take on full maintenance responsibility with a clear understanding of our obligations, as required by the contract.

COORDINATION WITH OTHERS

Prior to construction, we will develop a contact roster for the appropriate personnel, including but not limited to:

- LA DOTD emergency management contacts;
- State Police;
- City Police;
- Fire Department;
- EMT;
- Parish Sheriff;
- Major local businesses;
- US Coast Guard;
- Port Authorities;
- Levee Boards;
- Various marine carriers;
- Fish and Wildlife services;
- Hazardous material specialists;
- Local traffic control companies; and
- Local contractors.

This will be created for our project team’s use. It will be continuously updated and added to based on need.

MINIMIZE INCONVENIENCE TO USERS

Prior introductions and coordination with these various individuals and organization will be conducted to not only foster relationships and familiarization but also accumulate an understanding of local traffic patterns (peaks and lows), specific times of critical commerce, local events and such, so as to construct a calendar of landside events to assist in minimizing interference or disruption during construction.

Similarly, prior coordination and contact with the US Coast Guard, Port Authorities, Levee Boards, various marine carriers, as well as Fish and Wildlife services and Hazardous materials specialists, will contribute to plans meant to maximize the flow of both vehicular and marine traffic.

TRAFFIC CONTROL

Prior to construction, Maintenance of Traffic (MOT) plans reflecting various what-if scenarios, following LA DOTD, AASHTO and MUTCD guidelines will be constructed and submitted to LA DOTD for approval. The plans will include contact information mentioned above for our incident response team’s use. As construction progresses, we will coordinate with our DBJV to modify these plans, as needed, to reflect conditions related to construction and local activities.

PIBC’s on-site team will utilize trucks outfitted to solicit the drivers attention with devices such as mounted arrow boards, reflectors and LED flashers. They will also carry jumper cables, portable hydraulic lifts and power drills to assist motorists stranded due to minor breakdowns. If assistance is needed beyond our teams capabilities they will have direct contact with local wrecker companies to assist. Our vehicle will also be outfitted with push bumpers to move disabled vehicles to safe areas out of travel lanes, particularly in the tunnel, granted permission and when necessary.

DAILY PATROLS AND DEBRIS REMOVAL

The Field team will conduct routine daily runs through the Project limits for debris, which will be collected and deposited in designated containers for removal by a local waste management services vendor.

INCIDENT RESPONSE

During these patrols our team is most likely be the first to identify any motorist needing assistance, but may also be assisted by the bridge operator who has a birds-eye view of the entire project area. Special attention will be given to the tunnel area where little to no warning systems exist and sight-distance is limited. We propose to replace or repair the existing CCTV cameras to full functionality to monitor the tunnel from the bridge operator housing.

Incident response comprises of two simultaneous safety goals, as seen in Figure 56 Incident Response Case Study. The first is to make the scene safe for responders to react appropriately to the incident and the second is to prevent secondary incidents by providing a safe means for continued traffic flow while the incident is being resolved. Even minor incidents can result in tragic secondary events which most often occur at the start or the end of the MOT set up.

Also, incidents often occur in a manner that does not collaborate with any pre-planning, therefore our PIBC Field team will always contain an ATSSA Certified Advanced Work Zone Field Supervisor with the knowledge and experience to implement MOT plans and make modifications as necessary to meet these goals, utilizing an ATSSA trained crew and full complement of on-site MOT equipment.

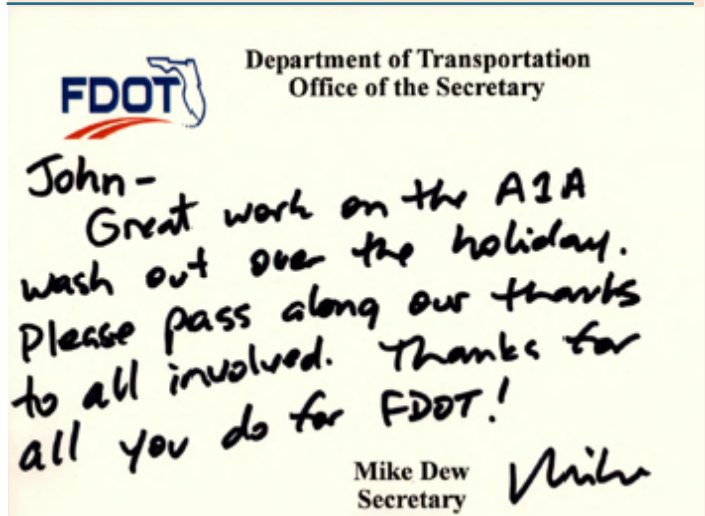
If MOT is required for an extended period of time, we will have made prior arrangements with local traffic control companies to fill in. Similarly, we will have made arrangements with law enforcement to provide off-duty officers, if needed.

The PIBC Emergency Management Plan (EMP) is an essential element of our incident response program. The EMP has been established to provide a framework for our emergency services and demonstrates our commitment to performing at the highest possible level in pre-event preparation, post-event initial response, and post-event recovery. The EMP includes a comprehensive plan for emergency management and incident response, and will contain a list of key personnel and their incident management training. PIBC will update the Emergency Management Plan each year in coordination with the LA DOTD, incorporating lessons learned from past experiences. We will implement the EMP consistent with the contract requirements for the Project.

PIBC's EMP includes details and technical plans for weather and non-weather emergency related incidents including rain, flooding, fog, tornadoes/winds, hurricanes, wildfires, marine and roadway traffic, minor and major vehicle crashes, structure collisions or failure, hazardous materials releases or abandonment, and terrorist attacks, including:

- Notification to the Department and general public;

FIGURE 56: PIBC's PROVEN INCIDENT RESPONSE CASE STUDY



FDOT INCIDENT MANAGEMENT AND RESPONSE

An example of effective incident response was during Thanksgiving weekend of 2017. PIBC Team member DBi crews responded to a washout of the northbound roadway on the beach-adjacent and heavily tourist-traveled A1A highway on their Okaloosa project. The response was so quick and effective, it drew the notice of the Secretary of the Florida Department of Transportation, who sent the above card to the District Five Maintenance Engineer for distribution to the DBi team.

- Coordination with the USCG and emergency responders ;
- Handling of marine accidents including immediate notification to LA DOTD & USCG, bridge operation details;
- Plans to ensure open roads ;
- Incident Management plans for specific event types;
- Motorist safety;
- Spill mitigation and cleanup;
- Disposal of hazardous and non-hazardous waste;
- Submission of reports;
- Establishment and maintenance of detours;
- Emergency Repair;
- Debris removal; and
- Evacuation.

IDENTIFY AND CORRECT INCIDENT DEFECTS AND DAMAGE

Damages related to incidents will be fully documented using photos and measurements, including accident report information, and recorded in PIBC team member PIBC's MMS system, along with estimated costs for repairs or replacement of defective elements. This information will be compiled for later recovery.

MINIMIZE RISK TO THIRD PARTIES

In the case where emergency vehicles require access, a direct and open-line of contact between the bridge operator, EMS, fire, and police is critical. **To achieve this in the past, DBi has utilized unpublished phone numbers backed up by radio. When the operator receives a call he will immediately radio any on-coming marine traffic to inform them of the need to keep the channel closed till the emergency vehicles pass.** If the bridge is in mid-operation or experiencing a closure failure and cannot close within a reasonable period of time, prior emergency MOT plans, with police assistance, may be required to stop traffic in both directions long enough to allow northbound emergency access through the tunnel.

MONITOR WEATHER

Hurricanes, tropical storms, and other weather events, such as snow and ice, are not uncommon in the area of the Project requiring PIBC to be ever vigilant in monitoring the weather daily to anticipate roadway, project construction area, and channel conditions that might warrant pre-emptive measures, such as advance motorist warnings or staging of special response equipment. This information will be reported to LA DOTD every morning by 8:15 AM, including the Project website, with description of mitigation activities being implemented.

Due to very recent experiences in North Carolina, Texas, Georgia, Virginia, and Florida, as well as many others in the past, the members of PIBC have extensive experience responding to hurricane preparedness, evacuation and recovery, as seen in the following page Case Study and Figure 57. Our plans will include maintaining the existing four lanes of traffic for evacuation purposes throughout construction, but also provisions to safe-up and lock-down the area and structures prior to the storm; as well as the acquisition and safe storage of equipment, material, and manpower needed to return and restore the roadway and structures to a capacity capable of accommodating emergency vehicles.

HURRICANE IRMA CASE STUDY - In summer of 2018, Hurricane Irma's track ran through the middle of the state of Florida. This meant widespread challenges across nearly all of PIBC team member DBi's projects. This did not deter project management, who knew exactly what to do to prepare. As highlighted above, DBi's projects have an emergency preparedness plan that establishes protocols before, during, and after a hurricane. As see in Figure 57.

Pre-Hurricane Irma - Prior to the hurricane, DBi's management and crews:

- Scraped build-up from the Eastbound inside shoulder in the event of Emergency Shoulder Use (ESU) activation;
- Lowered 325 High Mast Lights;
- Performed a pre-event sweeping cycle;
- Performed special debris patrols pre-event and during ESU activation;
- Successfully implemented the ESU for I-4; and
- ESU Hard Shoulder Running.

Prior to ESU activation, crews performed monthly sweeping cycles and scraped overgrowth from the shoulders to ensure no debris buildup. Upon notification of institution of ESU in our project area (as pictured above), DBi's crews set out two message boards and flipped 54 stationary signs to allow for it.

Post-Hurricane Irma - While the damage was not extensive, the team performed post-hurricane assessment to establish damages and report them back to FDOT. This damage assessment resulted in the following:

- Signs Less than 30 SF.: 45; and
- Signs Greater than 30 SF: 14.

FIGURE 57: EXAMPLE OF HURRICANE EMERGENCY SHOULDER USE (ESU) GOING INTO EFFECT DURING FLORIDA'S HURRICANE IRMA



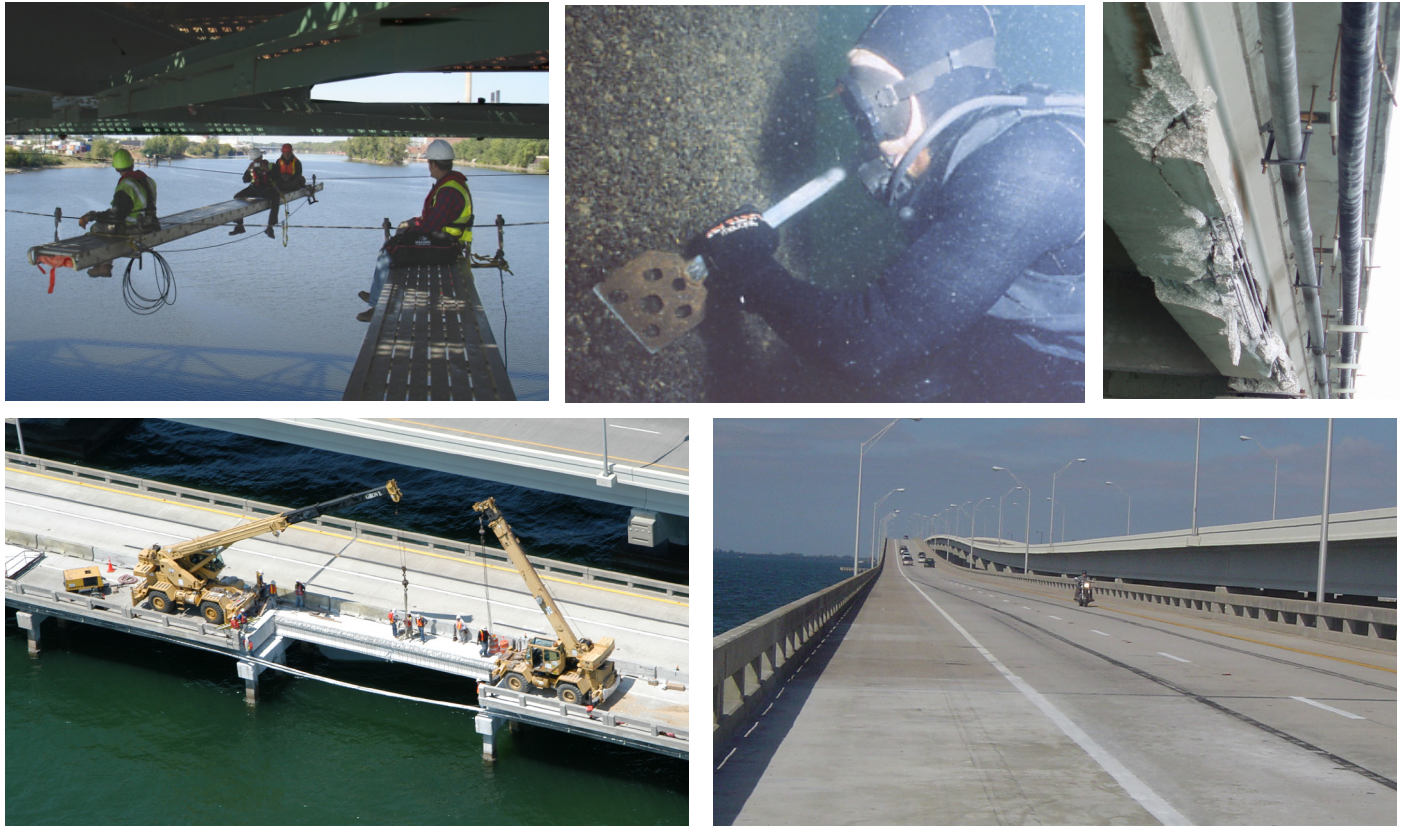
O&M INSPECTIONS

PIBC will perform general inspections throughout the construction period with emphasis on those areas of concern highlighted within the Maintenance and Operations plan. Findings will be recorded and categorized within the MMS system within 24 hours of discovery, as well as any subsequent repairs. Defects from Specialist and NBIS routine inspections, conducted by LA DOTD, will be reviewed and incorporated, as needed, into our O&M work plan through the MMS. Please see Figure 58 on the following page as examples of our team's bridge inspection and repair services expertise.

As prescribed in the RFP, we will closely inspect the structure and establish a set level of priorities for routine through general maintenance needs up to major and emergency maintenance requirements.

Performance Sections: To provide organization maintenance activity reporting the Project will be divided into Performance Sections which will be drawn into plans identifying their boundaries. These performance sections will be cross referenced with inventory elements and modified over the course of the construction period to reflect the progression from the existing to the final constructed facilities. Use of LA DOTD's control section and log mile system to establish the new Performance Sections, as well maintaining existing MMP records, will be closely coordinated with LA DOTD.

FIGURE 58: EXAMPLES OF OUR TEAM’S BRIDGE INSPECTION AND REPAIR SERVICES



COMPLAINT INVESTIGATION/CUSTOMER SERVICE RESOLUTION

All incoming complaints will be investigated and resolved by the Operation and Maintenance Manager and documented within PIBC’s MMS system within a specific allotted amount of time. PIBC’s Customer Service Resolution Plan is built on many years of customer service experience and respectfully delivers the high level of customer service and positive public image needed to make this project a success. The goal of PIBC’s Customer Service Resolution Plan is to maintain and improve ongoing favorable relationships with highway travelers, while supporting the same with LA DOTD and other stakeholders. The Customer Service Resolution Plan will meet the following communication objectives:

- Provide a convenient mechanism to obtain information about project transportation systems and assets;
- Provide project contact information for customer inquiries;
- Maintain close contact with the community and its officials; and
- Provide a single point of contact for customer service requests and questions.

We recognize the sensitivity of movable bridge operations to both marine and highway traffic. In order to most appropriately deal with these issues, we will place particular emphasis on the importance of proper bridge tending operations, compliance with the USCG drawbridge operation regulations, and the need to report all drawbridge openings and other events. PIBC will ensure that bridge tenders, the bridge tender supervisor, and customer service personnel receive training on bridge tending operations and requirements commensurate with their project responsibilities to ensure that movable bridge operations are handled in full conformance with contract requirements, and that contacts from citizens, marine vessel operators, and the USCG are handled with the utmost professionalism, factual information, and consistency.

PIBC will record, manage, and report customer service requests using our MMS system customized specifically for use in managing performance-based maintenance and service operations. This Customer Service Log will contain a complete record of service requests including customer name, time and date of contact, nature of request, our response, and response completion time and date.

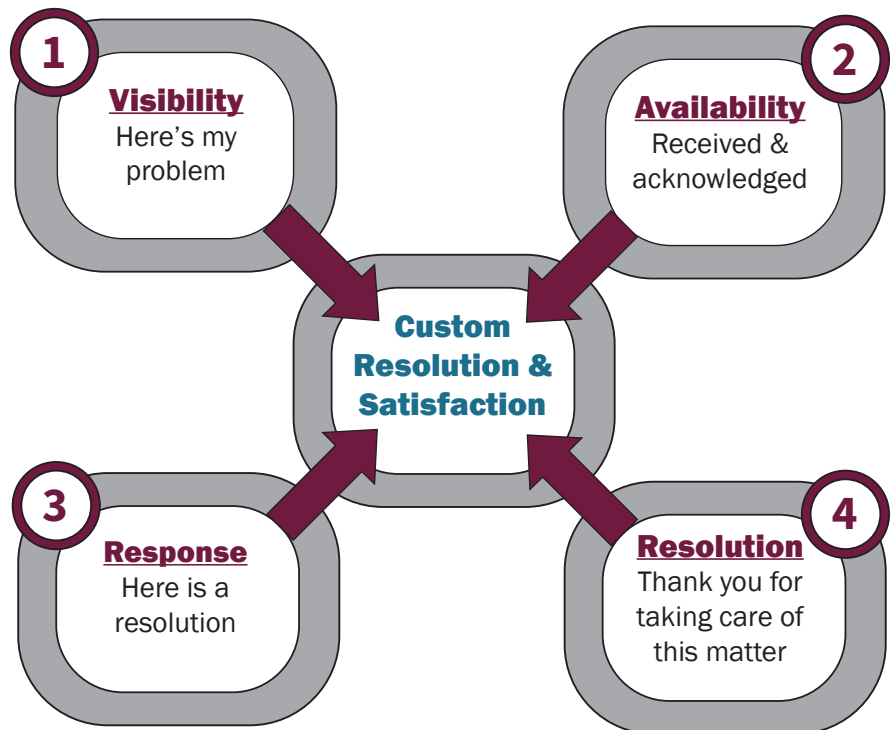
We will contact customers within 48 hours of the initial customer inquiry, and resolve each customer service request to the Department’s satisfaction. We understand that in some urgent and sensitive cases, the LA DOTD may request an immediate response, requiring us to respond immediately in these instances.

PIBC’s four-point complaint resolution cycle provides instant and direct access for customer contact; immediate acknowledgment of issue requests; effective issue diagnosis and resolution; and direct communication to the customer on how and when the matter has been resolved.

It provides the following and also seen on Figure 59:

- **Visibility** - “Here’s my problem”;
- **Availability** - “Received and acknowledged”;
- **Response** - “Here is a resolution”;
- **Resolution** - “Thank you for taking care of this matter.”

FIGURE 59: FOUR-POINT COMPLAINT RESOLUTION CYCLE



The moment a customer makes contact, we log the issue and consult our knowledge base for the individual with the highest level of expertise required to address the customer’s issue. The resolution may be instant—such as dispatching an appropriate crew. If the issue requires a higher level of knowledge or different expertise, our contact person will reassure the customer that the matter is receiving immediate attention and that the appropriate response is forthcoming. We will use trained staff to handle customer contacts in order to reduce the time required to resolve problems, and most importantly to create exceptional customer satisfaction. This strategy for handling customer complaints and requests will help to fast track issue resolution, provide a timely response to customers, and resolve important or dangerous issues right away.

In order to ensure the consistent and accurate handling of customer service requests and reporting of customer service issues, we will implement a rigorous quality control and quality assurance program for this area. Quality control will occur at the job level and will involve the verification of data reported for customer service requests.

ROUTINE OR REGULARLY SCHEDULED MAINTENANCE

Routine maintenance consists of preventative measures and minor maintenance and/or repairs meant to maintain the asset at a present level of service. PIBC will be responsible for all preventive maintenance. Preventive Maintenance is defined as the preservation and upkeep of a structure, including all its appurtenances, in its original condition (or as subsequently improved) insofar as practical. Preventive Maintenance includes any activity intended to maintain an existing condition or to prevent deterioration and is typically performed on a recurring basis, i.e., daily, weekly, monthly, etc. Specific examples include but are not limited to: cleaning, lubrication, spot painting, dirt and debris removal and application of protective systems. Preventive Maintenance is anticipated (planned) routine maintenance.

Minor Maintenance includes the restoration of a structure, including all its appurtenances to its original condition insofar as practical, and includes any activity intended to correct the effects of minor material deterioration by restoring the damaged member. The initial Maintenance and Operations Plan, based on the BECR, will identify routine or planned maintenance activities and their recurring schedules. These activities will be scheduled, tracked, recorded and monitored within the MMS system which will be accessible to LA DOTD.

MAJOR MAINTENANCE IDENTIFICATION AND RESPONSE

PIBC will actively monitor the condition of the Existing Facilities through the Construction Period to identify deficiencies and schedule both Routine and Major Maintenance. Major Maintenance, which includes items previously identified by the LA DOTD, identified in the BECR inspection, and also items that are not typically included as an annually-recurring cost in highway maintenance will be of high priority when identified or observed in the field. In the event that a Major Maintenance activity is necessary, PIBC will notify the LA DOTD of the condition as soon as reasonably possible and, at the direction of LA DOTD, will plan to respond in order to maintain the safety and reliability of the critical infrastructure.

OPERATION OF THE MOVABLE BRIDGE

The maintenance of any asset consists of routine activities, preventative measures, and repairs with the goal of minimizing deterioration or system malfunctions to extend the life of the structure. If funding were endless, this would be an easier task but would not be an efficient use of that resource. Therefore, the challenge of managing any asset maintenance project is efficiently balancing resources with reasonable or prescribed expectations of performance. It requires skill and knowledge.

PIBC will develop a thorough Movable Bridge Management Plan for this project based on our extensive experiences with dozens of movable bridges in Canada, Florida, South Carolina, and Virginia, including the Woodrow Wilson bridge, the largest movable bridge in the world, between Virginia and Maryland. These experiences are not just managerial, but also hands-on familiarity with the electronics, mechanics, hydraulics and all operational aspects from many diverse types of movable bridges and the environment in which they operate.

To be sure that our bridge tenders are aware of the operational characteristics of their structures, the preceding information combined with comprehensive, ongoing training is required. Our training plans include weekly topics that focus on safety and operations to keep all of our staff up-to-date on the latest policies and procedures. All maintenance staff will be trained and certified to operate the movable bridge, according to USCG Regulations and LA DOTD standards as well review of safe operating procedures. A customized operations manual will be created and supplied to the tenders for reference, as well.

Bridge tenders will have the required knowledge, skills, and abilities. Bridge tenders will receive at least 32 hours of training, and will be knowledgeable on LA DOTD and USCG regulations and policies concerning bridge operations, notifications, emergency response, and high wind conditions. Bridge tenders will maintain accurate and complete records concerning daily bridge inspection, bridge openings, and movable bridge incidents, and will be courteous and professional when dealing with motor vehicle and marine traffic, USCG, and others. Bridge tenders will be responsible for monitoring landside and marine conditions and properly reporting their findings. Bridge tenders will receive training regarding customer service issues, the sensitivity of bridge tending operations, and the importance of the proper handling and reporting of movable bridge events. The Bridge Tending Supervisor will provide active supervision and support to bridge tenders and will ensure that bridge houses are in good condition, and that movable bridge operations and documentation meet requirements.

Our Bridge Tending Supervisor tests, evaluates, and documents the training of each tender before they are allowed to individually operate the movable bridge. Lock-out and tag-out procedures are always adhered to. Each location will be equipped with a backup hand-held VHF radio, an unpublished fixed-base cellular phone, class II safety vests, hand-held spotlights, hand-held megaphone, and a multitude of flags and signs.

The movable operations team will have contingency personnel in place to guarantee 100% coverage of the bridge. A three-hour minimum call-off procedure will be instituted, along with a policy that prevents a bridge tender from leaving their bridge assignment until a replacement has arrived. LA DOTD will have continual access to our web-based reporting system to confirm any training results or certification of any of our tenders, as well as all daily reports they generate.

FIGURE 60: DBI'S OPERATIONS AND MAINTENANCE OF THE WOODROW WILSON BRIDGE



PIBC will develop a Movable Plan for this project. PIBC, through our team members' experience in the operation of multiple movable bridges in Florida, South Carolina, Virginia, and Canada (See Figure 60) has extensive knowledge in the electronics and mechanics of different types of movable bridges, understands the environment in which these particular bridges operate, and the variables associated with performing electrical and mechanical maintenance for movable bridges – difficult control room layouts, heavy pedestrian and marine traffic, sensitivity to the surrounding community, etc. Our Movable Bridge Plan will emphasize the main technical elements of the vertical lift bridge including: electrical systems, mechanical systems, and the integrated bridge control systems.

Electrical systems serve as critical links in the operation of movable bridges, and proper maintenance is crucial. Our comprehensive maintenance program will follow the AASHTO’s Movable Bridge Operations and Maintenance Manual, the Bridge Specific Maintenance Manuals, and manufacturer’s component recommendations. The maintenance program will be comprehensive and will include bridge special troubleshooting and repair techniques. The electrical preventive maintenance program will be conducted on a regular basis. Bridge tenders will conduct daily lighting system checks including navigation lights, fender lights, gate lights, traffic lights, and bridge house lights. This information will be recorded daily on the bridge lighting checklist. The electrician will also check the lighting on a weekly basis and will record the findings on the lighting checklist. Correction items and dates will be logged. We recognize the importance of the lighting system and its critical relationship to motor vehicle, pedestrian, and marine traffic safety.

The maintenance of the mechanical systems of the movable bridges is critical due to the extreme operating conditions. The members of PIBC are highly knowledgeable and have the experience to effectively maintain this vertical lift bridge, as seen in Figure 61. Mechanics will lubricate the bridges weekly on the open face gears or as required for optimum bridge operation. In addition, the bearings, couplings, gear reducers, center pins and wedges, locks, gear motors, gates, buffers, and the generator engine will be checked weekly for lubricant integrity and any deficiencies will be corrected immediately. Mechanics will check live load shoes for full contact.

FIGURE 61: THE EXAMPLES OF OUR TEAM’S MOVABLE BRIDGE MAINTENANCE EXPERIENCE



The following Table 62 on the next page represents the maintenance tasks that our team will perform.

TABLE 62: MAINTENANCE TASKS

FREQUENCY	MAINTENANCE TASKS
WEEKLY PREVENTIVE MAINTENANCE:	<ul style="list-style-type: none"> • Check lighting (gate, warning, navigation, bridge house, console, machinery deck, traffic lights, street, and clearance gauge) • Check emergency power operation (include Automatic Transfer Switch) • Check operation of gearboxes (electrically) • Check horn (air or electric) • Check marine radio • Check uninterruptible power supplies (UPS's) • Functionally operate the bridges
MONTHLY PREVENTIVE MAINTENANCE:	<ul style="list-style-type: none"> • Switch from normal power “mode” to generator power “mode” to verify functionality • Check all motors for proper operation (span, lock, and gate) • Clean and check console • Clean and check all switchboards and breakers • Check and adjust brakes • Check all gates (actuator or gear driven) • Check main power disconnect and service entrance • Check and tighten all cables and connections • Check and clean all contractors (includes solid state and disassembly and re-assembly of electromechanical) • Check and clean and adjust all limit switches (span motor, gate, lock, etc.) • Check all receptacles • Check transmitter and receivers for span position indicators • Check PA system • Verify the functionality of the bridge meters • Check all conduit runs and fittings • Visually check ground conductors
QUARTERLY PREVENTIVE MAINTENANCE:	<ul style="list-style-type: none"> • All weekly and monthly inspections • Insulation test on all motors (locks and gates) • Measure all motor currents and voltages (span, lockpin, barrier, gate)
ANNUAL PREVENTIVE MAINTENANCE:	<ul style="list-style-type: none"> • All weekly, monthly, quarterly inspections • Clean and check circuit breakers

Monthly inspections will be conducted on the bridge to include all bearings, locking devices, gears, generator engines, pins and wedges, pillow blocks, couplings, machinery supports, belts, frames, brakes and shafts. The inspection will be documented on the mechanical inspection form and any deficiencies will be recorded along with the corrective action taken. Quarterly generator oil will be changed along with fuel and oil filters and bridges will be shimmed on the live load shoes and lock receivers to prevent system wear and excessive vibration. The oil will be changed in all gear boxes annually.

We will ensure that the air conditioning and plumbing systems are in good working order for the tender houses. Air outlet temperatures will be checked on a monthly basis along with air flow and filters replaced as necessary. If any items are found out of manufacturer's specifications, they will be immediately repaired. The plumbing systems will be inspected and minor repairs will be performed. If major repairs are required, professional pipe-fitting and plumbing services will be subcontracted. We will also place additional emphasis on housekeeping issues to ensure that bridge tender houses are safe, well maintained, and well organized to ensure optimum bridge tending services.

Our maintenance personnel are skilled and available to address any situation or deficiency that may arise quickly. PIBC will also have stand-by personnel on-call support to assist as needed. By having stand-by personnel on call, we mitigate any delay in addressing situations that may occur during an opening. Movable Bridge Operator training is conducted to ensure that all of the details related to each structure are communicated. This training will ensure that staff is fully briefed and capable of addressing any issue that may arise.

PIBC will maintain a cache of supplies and establish supply agreements that can be modified and updated as needed, to ensure our team has access to the spare parts required to quickly service the bridges and reduce possible downtime. Project staff will have equipment staged to respond quickly to any additional needs such as emergency inspections or repairs resulting from an impact or a severe weather event, such as a hurricane.

OPERATION OF THE TUNNEL

Tunnel Inspections, Operations, and Maintenance has been a localized set of activities unique to each structure, state and local until the recent publication of the 2015 USDOT Tunnel Operations, Maintenance, Inspection and Evaluation Manual (TOMIE) in response to the FHWA 23 CFR Part 650 National Tunnel Inspection Standards (NTIS), modeled after National Bridge Inspection Standards (NBIS). Although it is a first edition, it is fairly comprehensive in its guidelines defining levels of service for certain elements intent on providing for public safety that must be taken into account for the construction period. Many of these elements have been previously identified as having completely failed or are in very poor condition. These and any other conditions will be identified in the BECR with recommendations to repair or replace elements to meet at least the minimum level of service necessary to ensure public safety.

NORMAL TUNNEL OPERATIONS CONSIST OF:

- Monitoring of traffic flows (often using surveillance equipment);
- Monitoring weather conditions;
- Clearing roadway hazards;
- Inspecting critical areas to confirm safe conditions exist;
- Checking functional systems (ventilation, air quality monitors, pumping, lighting, CCTV);
- Servicing equipment and periodic exercising of all movable components (fans, pumps, emergency generators);
- Cleaning of tunnel facility (See examples on the next page, Figure 63);
- Completing daily logs and checklists;
- Processing work orders (initiating, scheduling, completing and closing);
- Checking informational elements (signs, signals, etc); and
- Evaluating sensors and meters (carbon monoxide, oxygen, explosive gases, luminance).

FIGURE 63: TUNNEL CLEANING CREWS IN ROSSLYN TUNNELS IN TEXAS



In this case, a good deal of repairs and replacement of many components will be necessary to achieve a level of service where this list of operations can be applied including the addition of regular monitoring and measurement of joint leaks. The narrow unidirectional lanes and lack of any breakdown shoulders makes maintenance of traffic a critical item to monitor particularly for incidents that could involve fire which often produce blinding smoke. We will produce a Tunnel Emergency Response plan specific to the Belle Chasse tunnel outlining the following:

- Assessing the location and severity of the emergency;
- Closing the tunnel roadway to nonessential vehicles;
- Re-routing plan for implementing two way traffic to vertical lift;
- Adjusting ventilation output as necessary for fire and smoke control;
- Notification of first responders: fire, police, emergency medical personnel, management and others;
- Means of encouraging motorists to perform self-rescue;
- Initial warnings and other communications devices;
- Assist in safely clearing vehicles from tunnel;
- Performing post-event inspection; and
- Clearing tunnel of debris.

Maintenance of the tunnel is going to be prioritized with the heavy leakage that is present, once critical operational and safety components are repaired or replaced and protected. Groundwater moisture in the tunnel accelerates the rate of deterioration causing:

- Corrosion, section loss and reduced element strength;
- Removal of material particles and cements, particularly if the groundwater is acidic;
- Concrete spalling due to corrosion of reinforcing steel;
- Failure of electrical and electronic components due to corrosion and short circuiting;
- Deterioration of protective finishes and coatings;
- Removal of soil particles with voids created around tunnel liner; and
- Redeposit and clogging of drainage systems.

Our Maintenance and Operations plan will address the need for regular monitoring and repairs necessary to maintain or improve the leakage conditions, to prevent further deterioration of other elements and components. As our goal is to maintain the tunnel for at least three-year construction period, a balance of available resources and the need to provide safe operations is going to require a deft hand and a clear understanding of existing condition and rate of deterioration. These are circumstances that PIBC has a great deal of experience managing and will apply to find the most cost-effective means of providing a safe facility for public use.

OTHER SCHEDULED MAINTENANCE ITEMS OUTLINED WITHIN THE O&M PLAN INCLUDES:

- Removal of debris;
- Tunnel washing;
- Flushing of drainage inlets and pipes;
- Luminaire cleaning and replacement; and
- Pavement markings and signs.

MAINTENANCE OF FUNCTIONAL SYSTEMS INCLUDES:

- Mechanical (fans, pumps);
- Electrical (cables & conduit, conduit banks, controls);
- Lighting;
- Fire and life safety systems;
- Security;
- Signs;
- Protective system;
- Equipment rooms;
- Ventilation equipment; and
- Generators.

TESTING DEVICES USED IN MAINTENANCE CHECKS FOR FUNCTIONAL SYSTEMS INCLUDES:

- **Handheld Infrared Thermometers** – to check temperatures of bearings, drive components, electrical transformers and motors;
- **Infrared Thermography** – used to identify bearing or drive belt friction/wear, lubrication contamination or lubrication breakdown, motor/drive misalignment or coupling failure, electrical faults;
- **Ultrasonic testing** – to identify leakage;
- **Vibrational analysis or rotating equipment** – provides continuous monitoring of rotating parts providing better predictions of failures; and
- **Lubrication testing** – to detect machine conditions, lubrication breakdown, iron wear particles, contamination and moisture contamination.

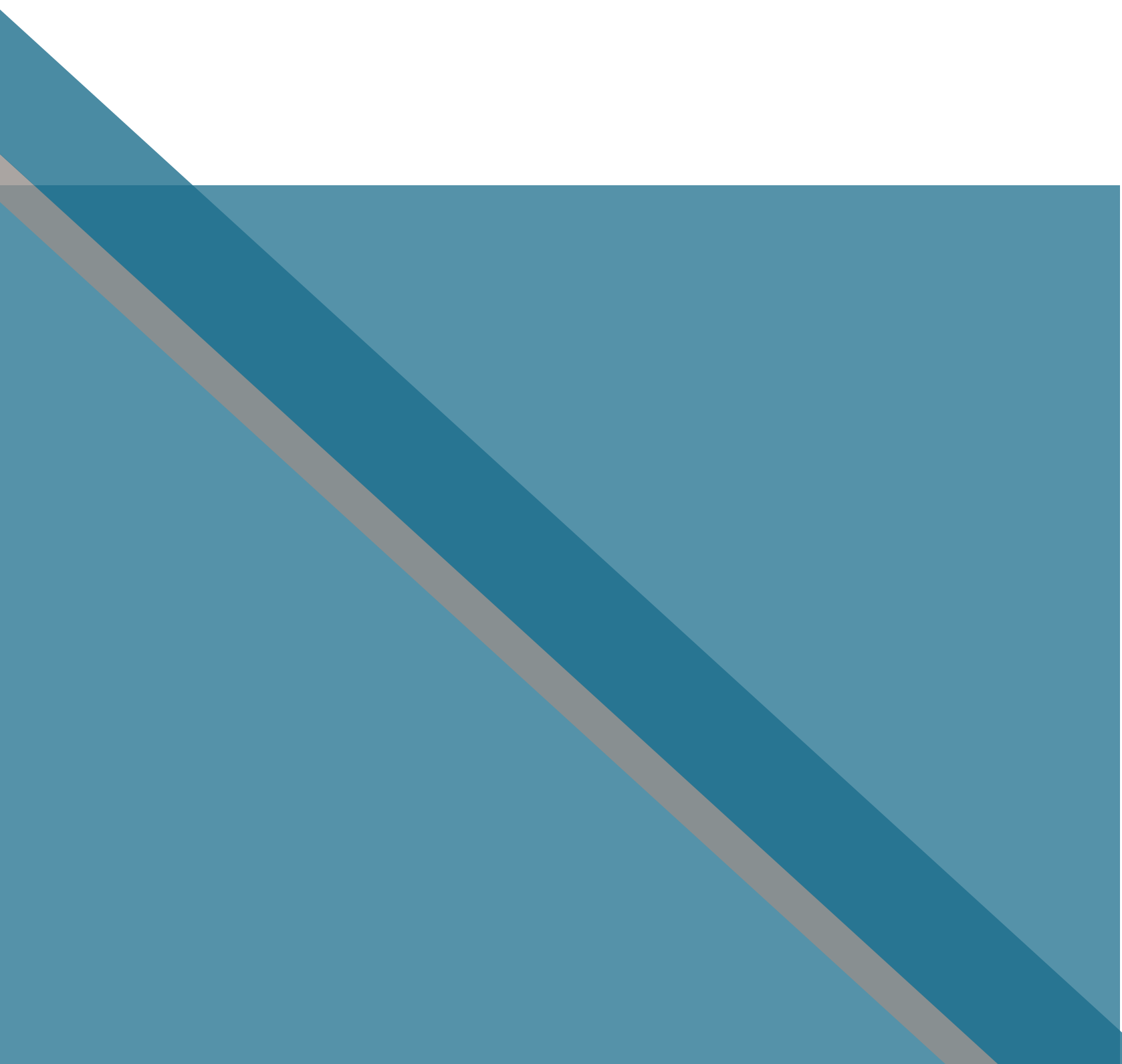
During construction piling driving operations vibrational monitoring within the tunnel will also be provided. Some specific equipment requiring outside inspection certification consists of:

- Carbon monoxide monitoring;
- Fire suppression systems;
- Hydrocarbon detectors; and
- Portable fire extinguishers.



OPERATIONS AND MAINTENANCE

ROUTINE MAINTENANCE, REHABILITATION, AND HANDBACK



4. OPERATIONS & MAINTENANCE

4.1 ROUTINE MAINTENANCE, REHABILITATION, & HANDBACK

Plenary Infrastructure Belle Chasse (PIBC) has developed a preliminary workload for the anticipated routine maintenance needs of the structure that our design team has developed. Below are the outlines of our processes, approach to programming rehabilitation work, and our approach to ensuring that handback requirements will be met. The following is our team’s approach to operating and maintaining the Project, including the summary of our Operations & Maintenance Management Plan (MMP).

4.1.A PROCESSES

Near the end of construction, in advance of Partial Acceptance, we will devise, seek approval from the state, and implement a MMP that will allow for a level transition from the operations of the existing structures to the new bridge until the end of the contract period. The following Table 1 shows what this plan will include:

TABLE 1: MMP PLAN

SERVICE DESCRIPTION IN MMP	BENEFIT
SCHEDULE OF REGULAR PATROLS	<ul style="list-style-type: none"> • A consistent set of eyes reviewing the Project
SCHEDULE FOR INSPECTIONS, ROUTINE MAINTENANCE, AND REPAIRS	<ul style="list-style-type: none"> • Ensure minor issues do not lead to major repairs • Focus on lifecycle • Consistent experience and minimizing delays for travelers
INCIDENT RESPONSE PROTOCOLS	<ul style="list-style-type: none"> • Establish readiness for a wide array of incidents • Confirm appropriate training • Guarantee needed equipment in place and available • Minimize risk from third parties
INFORMATION FOR COORDINATION OF ACTIVITIES WITH OUTSIDE OVERSIGHT AGENCIES	<ul style="list-style-type: none"> • Comprehensive list of agencies for easy use when establishing work and inspection plans • Constantly updated schedule of required inspections to avoid scheduling conflicts • Resource to allow for communication of items necessary during routine maintenance and in emergency situations
PROCEDURES FOR ONGOING MONITORING OF WEATHER CONDITIONS	<ul style="list-style-type: none"> • Team is vigilant for potential emergency situations • Set of steps to follow as weather conditions warrant revision of activities and establishment of weather-related emergency activities
CUSTOMER SERVICE PLANS	<ul style="list-style-type: none"> • Establishes timeliness requirements, procedures, and logs to ensure: <ul style="list-style-type: none"> – Customer contacts are answered immediately; – The issue is reviewed; – Schedules are established to respond to these issues; – QC follow-up to ensure the issue has been correctly dealt with; and – Consistent reminder of procedure for following-up with the customer.
CENTRALIZED SCHEDULE AND CONTACT LIST FOR COORDINATION WITH LA DOTD	<ul style="list-style-type: none"> • Single source for important contact information • Issue Elevation Matrix to ensure the correct procedure for addressing and upward movement of issues and topics of discussion • Ensure cooperation and partnership matches the needs of both LA DOTD and the PIBC Team

We will also develop punch list items with a plan to follow through to completion. During construction, the PIBC Team will be implementing certain actions that will become part of this Transition Plan, including the gathering of:

- Warranty information with a routine monitoring strategy;
- Various material and operational test results;
- Organizing As-Built Plans;
- O&M records;
- Services contracts; and
- Spare parts.

The PIBC Team will provide a maintenance facility, within the Project ROW by using and improving an existing structure that is required to be taken for construction of the new bridge, necessary to accommodate activities during normal business hours and accessible 24 hours a day. The location will include an office for O&M staff, file storage, and a yard for storage of equipment, materials, and spare parts. Drawings of the Project limits will be created and included in the MMP.

FIGURE 2 - ELEMENT LIFECYCLE



The MMP provides specific details of our programs for Routine Maintenance, Major Repair and Replacement Work (as needed), and Rehabilitation activities. One benefit of the involvement of the design and construction teams in the creation of the MMP is the ability to optimize the performance of the infrastructure. This subsequently allows for the optimization of the rehabilitation schedule. Through the full PIBC team’s involvement and coordination, we are able to receive input and advice to proactively plan for rehabilitation requirements. Done correctly, this will mean that the elements will avoid being part of major non-emergency repairs and stay at the level of routine maintenance and monitoring. Please see Figure 2.

PROGRAM OF ROUTINE MAINTENANCE

PIBC will establish a plan of routine maintenance with the intention of maintaining the facilities and structure at a consistent operational level and a condition acceptably on-track to meet the residual life expectations at handback. The plan will identify various routine actions done on a cyclical basis and those instigated by condition. For example, deck sweeping would primarily be conducted on a cycle, that may require seasonal adjustments, but is done by and large regularly. Whereas, joint sealing would be done based on advanced deterioration detected by regular observation. Therefore, a maintenance plan must consist of both types of regular actions and one that is efficient will combine the two, such as having maintenance crews observe and report joint conditions while conducting sweeping operations.

By establishing these routines, we will be extending the lifecycle of the elements and avoiding costlier repairs later in the contract. With the goal of creating a new structure and supporting infrastructure to last for tens of years, it is our intention to meet the LA DOTD's handback requirements with a minimum need for major maintenance work later in the contract. All activities will be recorded and governed by PIBC's Maintenance Management System (MMS) which will be adjusted to communicate with LA DOTD's MMS.

Roadway maintenance will include general, routine maintenance and repairs for items including:

- Pavements and curbing;
- Drainage and drainage treatment facilities;
- Pavement markings, object markers, barrier markers and delineators;
- Guardrails, safety barriers, and impact attenuators (Example: Figure 3)
- Traffic signs;

FIGURE 3 – BEFORE, DURING, AND AFTER GUARDRAIL REPAIR-FL



- Traffic signals;
- Lighting;
- Fences, soundwalls, and abatement;
- Roadside management;
- Earthworks, embankments and cuttings;
- ITS equipment;
- Tolling facilities and buildings;
- Snow and ice control;
- Incident response;
- Customer response;
- Sweeping and cleaning; and
- All metered electrical supply costs associated with the Project limits.

Additional structure maintenance will include maintenance and repairs for:

- Navigational lighting;
- Deck and sidewalk sweeping;
- Joint cleaning and repair;
- Striping;
- Fence repair;
- Paint touch-up or replacement as necessary;
- Cleaning and monitoring of bearing areas;
- MSE walls; and
- Graffiti removal.

MAJOR REPAIR

In the event that an accident has caused damage to the roadway or bridge superstructure, we would make the area safe, in coordination with local emergency response teams, then coordinate permanent repairs with specialty subcontractors appropriate to the repair activity.

REPLACEMENT WORK

As this will be a fixed, permanent structure, we anticipate minimal replacement activities, mostly focused on consumables such as lighting and electrical elements, except for expansion joints, road signs, and striping which will most likely require full replacement, within the Project term. Bridge deck surfacing, pedestrian railing and approach slabs, in order of decreased possibilities, are possible candidates but should not be necessary with proper maintenance in place. This is primarily based on many studies that have been conducted over the years, such as LA DOTD's own Zhongjie Zhang of its Transportation Research Center or Paul Thompson's recent (2017) New Deterioration models, (see Handback Section). Utilizing this information, the full team is working closely with our designers with the intent of bettering the research averages.

4.1.B REHABILITATION WORK

Expected rehabilitation work has been determined by continuously working closely with the designers during the development phase of the Project to understand the service life of each asset and relevant asset component. Based on this understanding, we have developed the following draft renewal work schedule depicted below identifying both the timing of the work and the expected quantities. This will be supplemented by the construction team as the structure is built to confirm these projected rehabilitation schedules and to make any revisions necessary as conditions discovered during construction are incorporated into them.

- **Roadway Pavement** – 15 to 20 years;
- **Roadway Signs** – 10 to 12 years (south facing); 15 to 18 (north facing);
- **Roadway Striping** – 7 to 9 years (Figure 4 example);
- **Compression Joint Seals** – 15 to 18 years (Figure 5 example); and
- **Steel Girder Paint System** – 18 to 22 years.

After updating the Performance and Measurement Tables according to Good Industry Practice and the Technical Provisions, we will monitor and categorize defects, within the MMS system, making appropriate repairs or rehabilitation to maintain reliability, particularly for safety-critical elements, and useful life. This and our regularly scheduled O&M activities will be outlined in the PIBC Team’s comprehensive MMP, which will summarize:

- Our means and methods;
- Deliverables;
- Document Management Plan;
- Communications Plan;
- Safety Plan;
- Hazardous Material Plan;
- Environmental Compliance and Mitigation Plan;
- The items found on and available in the MMS; and
- Quality Work Plans.

FIGURE 4 – ROADWAY STRIPING-FL



FIGURE 5 – EXAMPLES OF BEFORE AND AFTER FINGER JOINT REPAIR PICS-FL



Throughout the Project, we will oversee or conduct regular inspections to verify safety, identify defects, and assure remedies are properly made. This will consist of inspection related to:

- Work crew reviews and addressing of customer complaints and subsequent documentation, then follow up with customer;

- Response to an incident to ensure safety, expedient recovery, and follow-up to bring the area back to a travel-worthy condition; and
- Developer Performance Inspections related to quality control to record routine maintenance and repairs.

The PIBC Team will conduct all operations for the Project in accordance with the Good Industry practice and technical provisions including:

- Costs for all metered utilities, including navigational and roadway lighting, toll facilities, and the maintenance facilities;
- Incident detection and response, according to an Incident Management Plan;
- Patrolling;
- Response to adverse weather;
- Traffic control;
- Public information and communications; and
- All reporting required for maintenance and operations.

We will ensure that we meet these by using the MMS to track activities and proactively designing infrastructure which allows for efficient tracking and completion of various maintenance tasks. We will develop a Maintenance Transition Plan prior to the end of the contract term covering:

- A transition punch list;
- Listing and status of warranties;
- All test reports;
- As-built drawings;
- All O&M records;
- Warranty and service contracts; and
- Listing of all spare parts.

4.1.C HANDBACK

PIBC's Handback Plan will contain our means and methods to assure that all elements of the roadway and bridge meet the residual life requirements outlined in Tables 19-7 and 19-8 of the Technical Provisions.

Our suggested approach would be to initially meet and define the condition terminus of residual life with LA DOTD for each bridge element. This is different than a defined condition state, depending on the element, but instead a level-of-service criteria. Once established, each element can be measured against expected-life information gathered from many reputable sources that are mentioned above. Armed with this information and the Department's expect residual life at Handback, we can monitor the condition of each element throughout the Project term and detect when a given element is deviating from what is expected soon enough to take remedial action, assuring that the element will conform to the LA DOTD's Handback requirements. This will be verified by conducting:

- An initial inspection five years prior to termination;
- An intermediate inspection 18 months prior to termination; and
- A final inspection 30 days prior to termination by independent engineers and specialists to determine overall condition and element residual life.

Following each of these inspections, based on their results, we will readjust our work plans and maintenance schedules to address any items identified as being below expectations to ensure they will meet the handback plan's requirements.

OPERATIONS AND MAINTENANCE MANAGEMENT PLAN

4.2 OPERATIONS & MAINTENANCE MANAGEMENT PLAN

Following is a summary of PIBC’s preliminary Operations and Maintenance Management Plan (MMP). This plan will be developed to meet the requirements of the contract both for routine maintenance and operations as well as major repairs, replacement, and handback through methods defined in Section 4.1. The MMP outlines the work needs necessary to meet the performance measures and response times as well as the resources necessary to perform the work. Through our MMP, PIBC will fulfill its obligations to the LA DOTD for maintaining the new facility.

Our regularly scheduled O&M activities will be outlined in the PIBC Team’s comprehensive MMP. This document will include:

- Our Team’s established policies and processes to meet Performance Requirements;
- Procedures and cycle times for:
 - Safety Patrols;
 - Sweeping;
 - Litter Pickup; and
 - Debris Pickup and Removal from Travel Lanes.

These are typically shown in a draft schedule identifying which items are planned daily, weekly, and monthly. This draft schedule is updated as often as needed when conditions require it and includes the following:

- Approved Performance and Measurement Tables (Attachment 19-1) as updated at least annually;
- Inspection Records Management Procedures;
- Schematic Drawings of the Project Limits and Performance Sections;
- Maintenance and Service Manuals;
- Standard Service Manuals for Unmodified Commercial Products;
- Up-to-Date Lists of:
 - Spare Parts;
 - Special Tools; and
 - Equipment.
- Up-to-Date Versions, Procedures, and Maintenance Requirements for the Maintenance Management System (MMS).

MAINTENANCE MANAGEMENT SYSTEM

PIBC will implement a comprehensive MMS, which provides in-depth information for management personnel and authorized users, ensuring they have the tools necessary to track and monitor all activities. Some of the details tracked, maintained, or made available include, but are not limited to:

- Timeliness Requirements;
- Timeliness Outcomes;
- Work Accomplishments;
- GPS Location;
- Inspection Details;
- PM Check Lists;
- 3rd Party Damage Details;
- Incident Response Details;

- Customer Service Logs;
- Contract Documents;
- Required Manuals;
- Reporting;
- Graphical Web-Based FTP; and
- Additional Contract Details, as needed.




As both managers and crews in the field input data into the MMS, specific items like customer service details, timeliness requirements and outcomes, or work accomplishments/check lists are automatically populated as needed, tracked, and made available in real time.


The MMS provides an unparalleled look into all details of project planning and tracking to enable all authorized project management personnel to view customer service, timeliness requirements, and work accomplishments, to ensure the ongoing success of the Project. Our team will use the MMS on a daily basis to provide in-depth tracking for this project, and all authorized users receive training from staff that are experts in the use and implementation of the software.

CUSTOMER SERVICE

An example of MMS Customer Service Log (See Figure 6) provides details on all customer contacts including timeliness outcomes and work order results (if needed) in one easy to use format.

FIGURE 6: MMS CUSTOMER SERVICE LOG



CALL LOG NUMBER 7746

LINKED WORK ORDER: [174109](#)

<p>SUBJECT DROP OFF</p> <p>CALLER NAME SHEILA JOHNSON</p> <p>CALLER EMAIL NONE</p> <p>CALLER PHONE NUMBER 386-283-7427</p> <p>STATUS RESOLVED</p> <p>NOTIFICATION DATE 4/25/2017 10:19:00 AM</p> <p>INITIAL CUSTOMER CONTACT DATE 4/25/2017 10:19:00 AM</p> <p>WORK SCHEDULE DATE 4/27/2017 6:30:00 AM</p> <p>WORK COMPLETE DATE 4/27/2017 5:00:00 PM</p> <p>FINAL CUSTOMER CONTACT DATE 4/27/2017 5:00:00 PM</p>	<p>CALLER SOURCE PUBLIC</p> <p>RECEIVED BY VERA SMITH</p> <p>FDOT TRACKER</p> <p>ASSET NON-PAVED SHOULDERS</p> <p>WO ID</p> <p>TIMELINESS: PASSED 0M</p> <p>TIMELINESS: PASSED 1D 20H 11M</p> <p>TIMELINESS: PASSED 10H 30M</p> <p>TIMELINESS: PASSED 0M</p>
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RESOLUTION AND ADDITIONAL INFORMATION

MS. JOHNSON CALLED TO INFORM US THAT SHE WOULD LIKE HER DRIVEWAY FIXED. SHE LIVES AT 2135 W SR 100. SHE SAYS THAT THE GARBAGE TRUCKS AND THE MAIL TRUCKS HAVE CAUSED A DROP OFF FROM THE ROAD TO HER DRIVEWAY CAUSING HER TO HAVE TO KEEP GETTING HER VEHICLE ALIGNED.

HISTORY

As soon as any customer contact occurs, the details are added to the Customer Service Log and the process begins to track timeliness and response to any customer. Details in the Customer Service Log include:

- Contact Name;
- Customer Name (if provided);
- Customer Phone (if provided);
- Customer Email (if provided);
- Reason for contact;
- Current Status;
- Timeliness of response;
- Initial Contact Date and Time;
- Callback Dates Date and Time;
- Work Dates (if needed); and

- Final Contact Date and Time.
- Ongoing History (if needed);
- Final Outcome; and
- Work Order Details (if needed).

Timeliness outcomes for the Customer Service Log cannot be manipulated by Project personnel and are calculated automatically as the customer contacts occur. PIBC users simply input data into the MMS and all details are made available to Project personnel and any authorized user in real time. Any individual Customer Service entry can be emailed to authorized personnel or automatic email configurations can be configured.

The Customer Service Log is searchable and reports for Customer Service can be generated based on any date range, and as a monthly report. Reports are generated in Excel for ease of sharing data or reporting to authorized personnel. Customer service details remain available to all authorized personnel throughout the life of the Project.

TIMELINESS REQUIREMENTS

All Project timeliness requirements are pre-configured in the MMS to ensure that only the timeliness for this Project will be available to our personnel. This configuration minimizes error in tracking timeliness details for any required timeliness activity that takes place. As work orders are entered into the MMS, timeliness unique to each asset is displayed based on contract requirements. Once a work order has been entered into the system, it cannot be deleted by the user, nor can any component of timeliness be manipulated by any user on the Project.

The MMS is configured to send automatic timeliness emails to the personnel that initiates the work. Additional timeliness emails are configured as needed to copy Project and management personnel as timeliness approaches on a given work order, in order to ensure that requirements are met. In the instance that timeliness is not met, emails are automatically sent to upper management so that corrective actions and planning can take place within the Project.

Timeliness results are always searchable and the MMS provides a search tool specific to timeliness assets to ensure requirements are met. Authorized users are able to search all work efforts or individual assets to get results for any item that will expire in a given time period.

Should the LA DOTD approve timeliness extensions for any given reason, all details are tracked within each individual work order. Timeliness extensions do not occur without Project management approval, and Project users of the MMS are not granted permission to extend timeliness on any work activity.

No timeliness outcome can be manipulated by Project personnel under any circumstance. All details are tracked, stored, and reported automatically. In the same manner as customer service, all timeliness details and timeliness requirements for all work activities remain available to all authorized personnel throughout the life of the Project.

WORK ACCOMPLISHMENTS

While customer service and timeliness requirements are critical components, the MMS tracks all details of the daily activities on an ongoing basis in order to report work accomplishments. Work orders are the mechanism to track work accomplishments, and are created as a result of discovery, notification, or request by agency, or even the traveling public. Work can also be as a result of responding to an incident resulting in damage to LA DOTD assets.

Work orders without specific timeliness are tracked in the same manner as timeliness work orders and are available for viewing in real time. While work orders are open, activities completed daily will

be added to work accomplishments for the day, and can be viewed in searches and reports, however, work orders need to be inspected and closed for the entire work accomplishment to display in standard reporting (unless otherwise required).

Search tools for work accomplishments include the ability to review all work accomplished or work accomplished for specific asset types, PM activities, or inspections. Figure 7 shows examples of our team conducting field reviews and timeliness of our response unit.

All work orders and work accomplishments are mapped and include, but are not limited to:

- GPS Location;
- Facility Location;
- Mile Marker (if applicable);
- Timeliness (if applicable);
- Photos & Embedded Map;
- LA DOTD Activity Codes;
- UOM;
- Detailed Description;
- Equipment Used;
- Date Open & Date Complete;
- Timeliness Requirements; and
- Sub-contractor Details.

Search tools in the MMS allow for ongoing tracking by management personnel and authorized users. Results are returned in a data grid providing locations plotted on a map for a graphical representation of all work in progress, or accomplished, based on the search parameters.

Once work is complete within any work order, timeliness or not, the work details are added to the work accomplishments for the given month. The end result of the Tracking Plan is to leverage the MMS, providing the tools necessary for all aspects of superior project management.

The MMS allows management from both LA DOTD and PIBC to monitor all aspects of the Project, so that Project personnel can focus on delivering the best quality product, while focusing on safety and the satisfaction of all of our customers from LA DOTD to the traveling public.

FIGURE 7: EXAMPLES OF PIBC O&M TEAM MEMBER'S FIELD REVIEW AND SERVICE VEHICLE RESPONSE UNIT



Our MMP will allow us to focus on the following:

- PIBC’s means and methods for conducting the following routine maintenance activities:
 - Debris removal;
 - Joint condition/cleaning;
 - Drainage (bridge scuppers/roadway drains);
 - Sidewalk/Bike area condition/cleaning;
 - Barrier wall condition;
 - Guardrail condition;
 - Roadway markings;
 - Roadway signage;
 - Roadway lighting;
 - Navigational lighting;
 - Navigational fender maintenance;
 - Office maintenance;
 - Toll facility maintenance;
 - Security checks;
 - Graffiti control;
 - Vegetation control;
 - MSE or slope wall condition; and
 - Monitoring expectations of safety devices or controls.

- PIBC’s means and methods for conducting repairs or remediation for deficiencies discovered during detailed inspections (Figure 8), such as:
 - Concrete cracking, delamination or spalling;
 - Paint fading, chalking, flaking or corrosion damage;
 - Adverse bearing movement;
 - Barrier wall damage;
 - Fender system damage;
 - Roadway settlement, raveling, cracking, etc.;
 - Signage fading or damage;
 - Safety device operability.

- Our means and methods for determining the application of preventative measures to extend and/or assure maximum life expectancy of the bridge.
- The means of documenting all activities within a Document Management Plan that is transparent to LA DOTD and project stakeholders through the MMS;
- A Communications Plan that establishes hierarchical lines of communication for a variety of routine and emergency scenarios and regular means of maintaining and distributing that information

FIGURE 8: PIBC O&M TEAM MEMBER’S INSPECTION WORK



throughout the team and LA DOTD;

- A Safety Plan that addresses both preventative and reactive activities meant to ensure the safety of personnel and the public;
- An Environmental Compliance and Hazardous Materials handling and Mitigation Plan that will include means to meet Federal, State compliance.
- An Incident Response Plan that combines with procedures outlined within the preceding plans to create clear means of response to a variety of anticipated incidents ranging for minor roadway accidents or utility outages to a fuel fire within the tunnel. It will outline procedures for conducting regular table-top exercises with the team through construction and into the final maintenance phase.
- A Quality Work Plan that assures timeliness and completeness of all activities and the documentation of the same.
- An outline of all daily, weekly and monthly Deliverables to the LA DOTD or project record.

In conjunction with LA DOTD, we will refine the Project Limits.

DOCUMENT STORAGE

Throughout the construction period, the PIBC team will work together to develop service manuals, which will be stored and readily available on the MMS.

INVENTORY AND SPARE PARTS MANAGEMENT

We will maintain an up to date inventory of key parts throughout the duration of the Project to be used for minor and/or major repairs. These parts may include everything from simple items like light bulbs all the way up to guardrail attenuators and guardrail.

Should the part need replacement, we will first research the warranty before purchasing new parts. We will immediately document in the MMS warranty information for assets under our care upon their installation. We will track warranty information for all items to determine if a warranty may be in place for areas requiring attention, and we will train our staff to be aware of proper maintenance techniques so that warranties are not voided as a result of our work.

Our field crews complete daily checks of their vehicle inventory and this information is stored in the MMS. Our work crews will complete quarterly inventory of all field deployed items and devices (ensuring that the technicians are updating the field location inventories accurately). The office manager will perform a weekly inventory of on-site parts. The reorder frequency for spare parts is based on this review and on historical trends.

As the Project progresses, items will be reviewed for their usage to decide if they will be restocked once they meet an approximately 10% or 15% remaining level. When items fall to this level or below, the office manager will place the order, if required. A particular focus will be placed on safety critical elements. For specialty items, PIBC will procure the supplies necessary to complete work in a cost-effective, timely manner.

O&M WORK DELIVERABLE SCHEDULE

Before the end of the construction period, we will develop a tracking schedule that will fulfill the requirements of the agreement. These schedules will be programmed into the MMS and alerts will be given to management to ensure the timely delivery of reports associated with the schedule, such as monthly and quarterly reports due to LA DOTD.

COMMUNICATIONS PLAN

Please see Section 2.3 for PIBC’s integrated Public Information and Communications Plan.

MAINTENANCE DOCUMENT MANAGEMENT PLAN

The MMS will be the central repository of project documents. While paper copies of specific documents will be retained onsite as appropriate, the MMS will store all necessary reporting and documentation and remains accessible to all authorized personnel in real-time. All uploaded documents are linked via HTTP file browsing (as shown on Figure 9, on the following page), or directly in the work processes.

From warranties to invoices and quotes, all details are available to authorized personnel at all times.

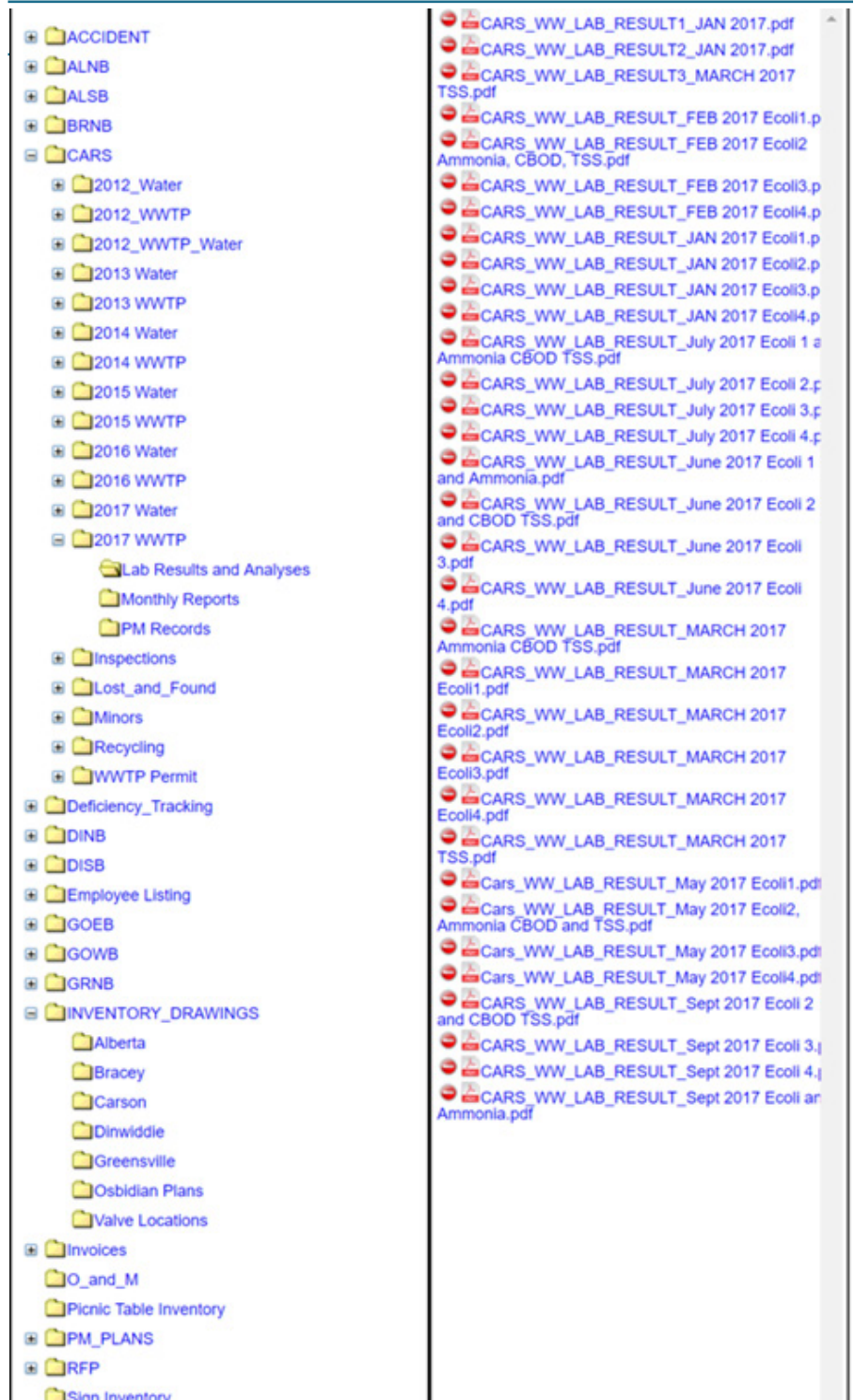
MAINTENANCE SAFETY PLAN

The safety of the traveling public, LA DOTD personnel, and our employees is of the utmost importance to PIBC and guides the work activities performed on the system during the Project.

“Safety...You Can Live With It” will be the driving philosophy behind PIBC’s safety maintenance program.

This program is a top down management commitment to preventing accidents, employee injuries and illnesses, and property damage from needlessly occurring. There is a total commitment to safety from the most senior executive to the most junior employee. It challenges every employee at every level to develop a safety mindset. We have excellent corporate resources and best practices from all of our team members which will be utilized in creating our Safety Plan.

FIGURE 9: MAINTENANCE DOCUMENT MANAGEMENT PLAN



PIBC O&M Work Safety Manager will create and oversee our comprehensive safety training program and ensure compliance of Project operations with OSHA and LA DOTD safety policies. He will work closely with management and staff to conduct site visits, unannounced operational safety audits, and field safety training seminars.



Their role is to oversee and promote an agenda that supports an effective safety and health program specifically designed to fit the needs of our team’s workforce. All new employees attend a mandatory safety orientation and training program, which includes the client’s requirements and site-specific safety processes, responsibilities, and hazards.

Our staff will receive initial training in working on and around high-speed traffic, including PPE, traffic awareness, proper and improper actions while working around traffic, driving skills, use of trucks and equipment, daytime and nighttime operations, and how to safely enter and leave work zones. No untrained employee is allowed on LA DOTD ROWs. Refresher courses will be taught at least yearly to ensure that crew members are working with the latest safety equipment and aware of new protocols and procedures. All of our O&M crews will be certified as Traffic Control Supervisors.

Our management will facilitate a mandatory weekly safety review meeting to review the past week’s Safety Observation Cards (SOC) and Field Level Hazard Assessments (FLHA) as seen right in Figure 10. A debrief occurs for every incident that week, to include lessons learned and next steps taken to ensure no re-occurrence. This is followed by a discussion on the upcoming week’s activities and how they can be safely performed.

The Project management team then conducts a weekly 30-minute safety meeting with work crew members which includes items from this meeting and identifies potential safety issues and practices specific to the upcoming week’s scheduled work plan.

FIGURE 10: SAFETY DOCUMENTATION

Check off the hazards that apply to this job. List the items in the hazard column, indicate the priority ranking and identify the plans to eliminate or control on the other side of this form.

Environmental Hazards	Ergonomic Hazards	Access-Egress/ Operational Hazards
<input type="checkbox"/> 1 Work area/ path not clean or clear	<input type="checkbox"/> 13 Awkward Body position	<input type="checkbox"/> 24 Aerial (lifter) basket (inspected/tagged)
<input type="checkbox"/> 2 Material storage identified	<input type="checkbox"/> 14 Over extension	<input type="checkbox"/> 25 Ladders (laid off, 4-to-1 rule)
<input type="checkbox"/> 3 Distractions	<input type="checkbox"/> 15 Prolonged bending/ repetitive/ bending motion	<input type="checkbox"/> 26 Steps/steps
<input type="checkbox"/> 4 Noise in area	<input type="checkbox"/> 16 Working in tight areas	<input type="checkbox"/> 27 Pouch points
<input type="checkbox"/> 5 Extreme temperatures	<input type="checkbox"/> 17 Lift too heavy/awkward to lift	<input type="checkbox"/> 28 Hoisting (tools, equipment)
<input type="checkbox"/> 6 Spill potential	<input type="checkbox"/> 18 Hands not in line of sight	<input type="checkbox"/> 29 Rigging (chains, slings, straps)
<input type="checkbox"/> 7 Waste handled improperly	<input type="checkbox"/> 19 Working above your head	<input type="checkbox"/> 30 Evacuation (alarm, route, ph#)
<input type="checkbox"/> 8 Excavation permit required	<input type="checkbox"/> 20 Procedure not available for task	<input type="checkbox"/> 31 Confined/restricted space entry permit required
<input type="checkbox"/> 9 Other workers in area	<input type="checkbox"/> 21 Confusing instructions	<input type="checkbox"/> 32 Overhead hazards
<input type="checkbox"/> 10 Weather conditions	<input type="checkbox"/> 22 No training for task or tools to be used	<input type="checkbox"/> 33 Electrical hazards
<input type="checkbox"/> 11 SDS reviewed	<input type="checkbox"/> 23 First time performing the task	<input type="checkbox"/> 34 Excavation proper shoring
<input type="checkbox"/> 12 Snakes, insects, reptiles, etc.		<input type="checkbox"/> 35 Traffic (identify escape route if x)
		<input type="checkbox"/> 36 Hazards detected during truck/equipment inspections

Severity:

- 1 **Imminent Danger** – causing death, widespread occupational illness, loss of facility
- 2 **Severe** – severe injury/illness, property and/or equipment damage
- 3 **Minor** – non-serious injury, illness or damage
- 4 **Not applicable** – N/A

Probability:

- 1 **Probable** – likely to occur immediately or soon
- 2 **Reasonably Probable** – likely to occur eventually
- 3 **Remote** – could occur at some point
- 4 **Extremely Remote** – unlikely to occur

Work to be done: _____ Date: _____

Task location: _____ Major point/Escape Route: _____ Permit Job #: _____

PPE inspected: _____

Identify and prioritize the tasks and hazards below, then identify the plans to eliminate/control the hazards. The priority will be a number between 1 and 16 when the severity and probability are multiplied. The lower the number, the sooner the issue needs to be addressed.

Severity # x Probability # = Priority Ranking of Hazard

HAZARD	SEVERITY	PROBABILITY	PRIORITY	PLANS TO ELIMINATE/CONTROL

Has a pre-use inspection of tools/equipment been completed? Yes No Warning ribbon needed? Yes No

Is the worker working alone? Yes No If Yes, explain: _____

Please print and sign below (All members of the crew) prior to commencing work, and initial when task is completed or at the end of the shift.

Workers Name (print)	Signature	Initials	Workers Name (print)	Signature	Initials

HAZARDOUS MATERIALS MANAGEMENT PLAN

PIBC will draft a Hazardous Materials Plan based on their combined successful plans currently being utilized by our team members on similar projects across North America, as seen in Figure 11.

Our staff will be trained to assume the presence of hazardous materials at the scene of an accident and at illegal dump sites on the ROW. If a site is suspected of containing hazardous materials, crews are required to follow these steps:

- Notify LA DOTD;
- Notify the State Watch, Fire Department, and Highway Patrol officials;
- Communicate with the Fire Department and emergency officials to determine the area perimeter at risk; and
- Contact the O&M Manager to advise all personnel of the potential presence of hazardous materials at the scene.

In a Hazardous Materials incident, all spills are documented and reported. A supply of absorbent materials (oil dry, pig mat oil absorbent pads, 10-gallon overpack spill kits) will be available to crews to facilitate immediate mitigation.

FIGURE 11: HAZMAT MANAGEMENT



DBiS HazMat Response Example: A tanker truck rolled over on I-75 SB on our I-75 Ultra project at 0600 on 5/3/12, leaking approximately 5,428 gallons of fuel into the ground next to Alligator Creek. A full SB closure and detour were established between 0730 and 0820. It was determined a majority of the fuel had leaked and a full excavation would be needed. After the truck was righted, DBiS started asphalt repairs at 1510 that were completed at 1526. We worked with the RP to begin excavations by 1730 that evening. A total of 2,632 tons of dirt was removed and restored and the area was re-sodded by 5/9/12.

ENVIRONMENTAL COMPLIANCE MANAGEMENT PLAN

PIBC is keenly aware of the importance of environmental stewardship and the potential impacts on the environment by maintenance operations activities. For this reason and for the sake of future generations, PIBC advocates environmental protection and management and continued sustainable practices. We will strictly follow all environmental requirements established by the LA DOTD. Oversight of environmental compliance falls to the Environmental Compliance Management Plan during the Operations Phase. In this authority, they will review maintenance plans and practices to ensure they meet our contractual obligations to LA DOTD and follow federal guidelines.

In line with current environmental best practices, PIBC will determine the environmental aspects of its activities, products and services that it can control and influence. Further we will identify any impacts from a life-cycle perspective, including any outsourced processes. The life-cycle perspective will consider our products and services across raw material procurement, design and development, production, transportation, use, end of life treatment through to final disposal.

Also, emergency and abnormal conditions are considered when identifying environmental aspects. Any opportunity to mitigate these issues and leave a positive environmental impact as part of our activities are considered.

We will comply and submit all environmental reports as per the terms of the contract and fully leverage our experience of environmental monitoring. Please see our Team’s Environmental Compliance Management Case Study in Figure 12 for our Team’s recent experience.

FIGURE 12: ENVIRONMENTAL COMPLIANCE MANAGEMENT



In February 2017, DBi performed their first low complexity prescribed burn of approximately five hectares along the project ROW of the Rt. Honorable Herb Gray Parkway in Windsor, Ontario.

As part of the P3 contract, low complexity prescribed burns are an important part of maintaining Canada’s endangered Tallgrass Prairie and Oak Savannah ecosystems. Coordinating and planning for low complexity burns takes a lot of time and requires specific weather conditions. These conditions can change overnight. The highly-trained staff from subcontractor Wildfire Specialists was equipped with hand-held weather stations that they carried during the burn and were constantly the wind direction and humidity.

What is left after a burn is an open ground which has been warmed to allow for seed germination and the removal of less fire-tolerant invasive species.

Please see our team’s integrated organization charts in Section 2 for more details on O&M management structure.

OPERATIONS AND MAINTENANCE QUALITY MANAGEMENT

4.3 OPERATIONS AND MAINTENANCE QUALITY MANAGEMENT

4.3.A OPERATIONS QUALITY MANAGEMENT APPROACH

In order to meet LA DOTD’s self-monitoring, tracking and reporting project O&M requirements, the PIBC Team will use a combination of our in-house staff and documentation through proven proprietary processes and systems created and supported by PIBC team member. Our staff will report on asset condition each time an activity is performed or a routine asset inspection is performed. Work performed by subcontractors will be required to be inspected and approved by our staff in order for final payment to occur. Condition and acceptable work performed is captured in the Maintenance Management System (MMS) via inputs by our work crews as they are performed. This system has been developed and improved by DBi over the past 10 years, and has been used to deliver quality O&M results on projects nationwide, as seen in Figure 13.

FIGURE 13: DBI’S TAMPA BAY I-4/275 ASSET MAINTENANCE PROJECT WAS HONORED FOR HAVING RECEIVED A SCORE OF 95 ON FDOT’S ASSET MAINTENANCE RATING PROGRAM (AMPER)



OPERATIONS AND MAINTENANCE WORK QUALITY MANAGEMENT PLAN

The proactive practice of quality management is the backbone of any successful endeavor. PIBC will establish a practical and economic Quality Management Plan (QMP) that provides independent components addressing quality control (QC) and quality assurance (QA) of our work performed and the items utilized on the Project. The program will be fully compliant with all Technical Provisions, and flexible enough to incorporate unique elements as needed. Through this QMP, we will endeavor to match and exceed the TP’s QC and QA targets.

PIBC’s O&M Quality Management Program for the Belle Chasse Bridge and Tunnel Replacement Project will provide all of the tools necessary to determine compliance with internal policies and procedures, and to ensure that we meet all required conditions in our contracts.

PIBC’s comprehensive QMP will provide a continuous feedback loop for process improvement, thus allowing project management to accurately plan and execute daily activities leading to the critical success of the Project. This self-rated platform is designed specifically as a compliance indicator for all performance measures in the Technical Provisions. This feedback loop’s validation will reflect that operations (i.e. personnel, operations plans, equipment, training, etc.) are producing the desired outcomes as identified in the scope of services.

QUALITY REPORTING RELATIONSHIPS AND RESPONSIBILITIES

While quality is everyone's responsibility, spearheading our QC/QA operations will be our O&M Manager, Christian Guevara. Christian will provide specific QC/QA evaluations and identify improvement opportunities to the Project staff. He will assist adjusting work procedures to ensure the Project is consistently compliant, which may include changes to the O&M QMP. Other adjustments to increase work quality are expected to include additional training of in-house staff and sub-contractors and increased monitoring of field crews and subcontractors, including auditing every subcontract agreement. A critical review of any non-conforming items will be conducted with the O&M Manager and other appropriate Managers. The ultimate goal of our efforts is to meet and exceed LA DOTD requirements.

Periodically Christian will review internal quality records as well as spot check these records against field conditions for both in-house work performed and subcontractor work. This assessment will also extend to the response time performance, and PIBC overall financial records for reviewing supplier and subcontractor invoices and services.

Please see Section 2 for our team's integrated Organization Chart, which breaks down PIBC's quality reporting and responsibilities.

PREPARING & REVIEWING INCIDENT REPORTS, NON-CONFORMANCE REPORTS, & TRAFFIC REPORTS

Incident, Non-Conformance, and Traffic Reports are prepared by work crews prior to, during, and following work activities. The MMS is programmed to prompt the inclusion of quality management information within work orders to ensure that there is oversight by the O&M Manager of these activities. Alerts on the status and completion of these reports are sent automatically to the O&M Manager for his review, request for further information, and eventual acceptance. This information is then pulled from the work orders and other documents related to activities and the information is used to populate these reports.

MAINTENANCE WORK REPORTS & NON-COMPLIANCE DOCUMENTATION & CORRECTION

The O&M Manager will conduct a monthly review of all non-conforming issues with the PIBC team to determine whether there is a pattern of non-compliance or whether they are isolated occurrences. As opportunities for improvement are identified, Christian and his team determine the type of corrective action needed to increase quality performance.

4.3.B MAINTENANCE QUALITY MANAGEMENT APPROACH

PIBC will use a four-tiered approach to ensure the quality of our maintenance programs, and service will be at the heart of our plan for consistently achieving project timeliness. Our four main building blocks for performance are:

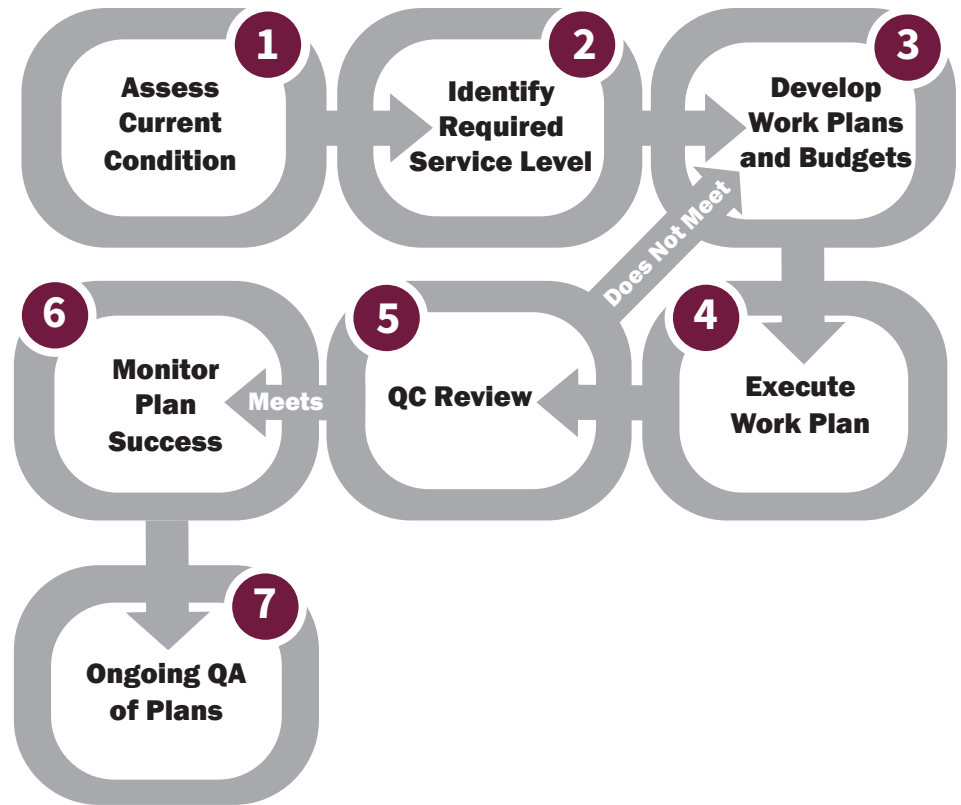
- Assessment of performance through routine execution of maintenance operations plans;
- Result-oriented contract compliance provided by accurate performance measurements;
- Statistically significant sampling; and
- Verification of quality control through quality assurance.

PIBC will emphasize proactive and timely performance through our QM program to maximize O&M operations. It also maximizes the level of service provided to the traveling public and the LA DOTD.

As part of our normal field assessments, PIBC project personnel will actively monitor system conditions and the timeliness of responses for all work activities having performance measures through the routine execution of our operations plan. Our O&M team will combine field observations and records review with our MMS to ensure that we do the following and in Figure 14:

- Perform proactive scheduling of work and inspection activities;
- Track and meet timeliness requirements;
- Record, monitor, and assess performance-driven activities on an ongoing basis;
- Identify and self-report deficiencies associated with operational compliance and performance measures; and
- Analyze data for opportunities to correct previous deficiencies and improve overall project effectiveness.

FIGURE 14: MMP FLOW CHART



In addition, PIBC personnel will inspect subcontractor equipment and PPE before a work order is issued and perform periodic inspections of all subcontractor workers and activities.

QUALITY ASSURANCE AND QUALITY CONTROL FUNCTIONS

Our QMP will be the backbone to our success. It focuses on all aspects of O&M and assures that the LA DOTD’s requirements are met. We will:

- Conduct QC reviews periodically during the active reporting month;
- Ensure data integrity, correctness, and completeness;
- Detect and correct deficiencies or failure as early as possible;
- Review operations plan work items and deficiency reporting;
- Ensure conformance with contract performance requirements
- Inform the O&M Manager of quality issues and make adjustments to the quality control plan as necessary to assure compliance;
- Review representative sample sizes on an annual basis through the monitoring of work categories; and
- Train staff and subcontractors on contract performance requirements.

Our staff records data from field reviews, QC reviews, and QA reviews for tracking and analysis using the quality management functionality of our MMS system. The MMS readily meets the requirements for quality management as defined in Section 18.5 of the Technical Specifications.

These include, but are not limited to:

- The ability of work crews to use their smart phones to upload specific information, descriptions, and even pictures into the system before, during, and after work is performed. This information is automatically timestamped to note timeliness requirements.
- Automatic email notification that can be specifically tailored for each task to be forwarded to PIBC Team management and to pertinent members of the LA DOTD team. This information can be set for the amount of information that is sent, the format of this information, and the timing.
- The ability of LA DOTD employees to access this information either on-site or, more importantly, via the web using a password-protected entry portal. This portal can be set up as LA DOTD requires to include pertinent information related to O&M QM activities.

Quality audits are performed to comprehensively review all processes and procedures on a project. PIBC’s quality control team will review all functions of the Project office. This will ensure that the Project is consistently and effectively implementing team policies and performing all procedures and record keeping properly. While the process is not punitive, it is used to identify where process improvements can be implemented on the Project.

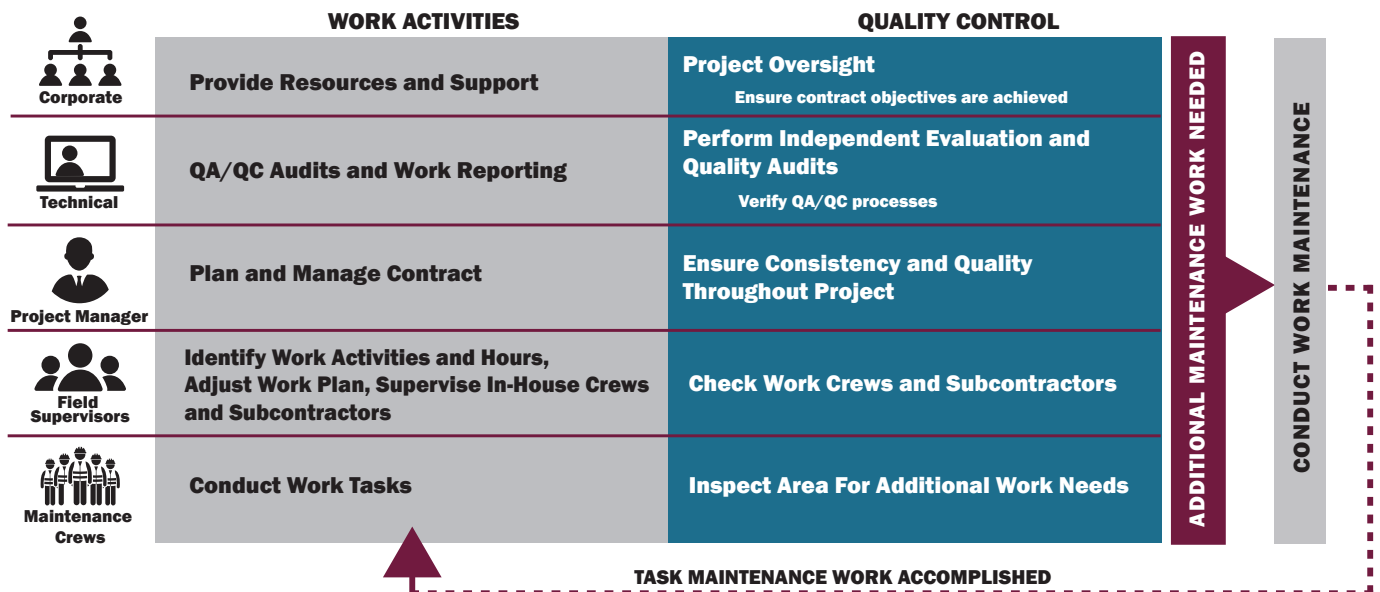
QUALITY CONTROL

PIBC’s QC process provides continuous feedback on a daily basis. When maintenance and repairs are performed by work crews or subcontractors, project staff will inspect the work sites and document quality, production, and safety until the work is complete.

The crew supervisor will be the initial force in producing quality work in accordance with the Technical Provisions, as well as making sure the worksite is safe and properly signed in accordance with the MUTCD and standard specifications.

When the work is complete to the satisfaction of the crew supervisor, the O&M Manager will be responsible for the final inspection, approval, and closing out of work orders. Please see Figure 15 for a flow chart of our Team’s QC activities.

FIGURE 15: QC FLOW CHART



QUALITY ASSURANCE

Even with the best tools and personnel, checks and balances are required. This is achieved through our QA Plan, which will ensure that we are compliant with contract guidelines while minimizing the need for LA DOTD involvement. QA audits of the work program are performed cooperatively with the O&M Manager and Project personnel. These audits evaluate performance, compliance, and quality to guarantee that contract requirements are continuously met.

Through the MMS, our team will track the number of times a particular work activity is performed. QA audits will occur when the specified number of occurrences is met, which will be 100% of all work orders at the start of the contract term. Because QA is a dynamic process, the sample sizes may be adjusted during the contract to ensure the number of reviews is adequate to ensure quality work.

If a failure is noted, an automatic email is generated to the Project management team, which will include all documentation of why it failed, to be used in training to ensure that type of failure is not repeated.

QM TRAINING

Thorough training is the first key to QC and QA. It is imperative to have ongoing programs of both formal and informal training to ensure staff has the knowledge needed to perform their functions accurately and effectively.

To ensure that all areas consistently achieve and exceed their targets, the O&M Manager and his team will review the contractual requirements and importance of these items with all in-house staff during training sessions, and with subcontractors during pre-work and progress meetings.

Additional training is provided should the O&M Manager find a repeating pattern of non-conformance. Training focuses on the learning process to understand the root causes of deficiencies and improve the process for future avoidance.

On this Project, training on appropriate sections of the Performance Specifications is emphasized before a new item of work is undertaken to ensure staff is aware of appropriate specifications, means and methods, and approved materials, as seen in Figure 16.

FIGURE 16 – ONSITE QC AND SAFETY TRAINING EVENTS



QUALITY REPORTING RELATIONSHIPS AND RESPONSIBILITIES

Please see Section 2 for our team’s integrated Organization Chart, which breaks down PIBC’s quality reporting and responsibilities.

QUALITY PROCESS INTEGRATION INTO MAINTENANCE INSPECTIONS TO EFFECT CHANGE

PIBC will design an approach to quality monitoring which accurately plans, executes, monitors, and reports each activity. This comprehensive program follows three basic principles:

- Established, consistent checks to ensure dependable data;
- Early detection of quality issues throughout the Project; and
- A learning process to understand the root causes of failures and improve the process for future avoidance.

A number of processes act together to ensure their work is identified, scheduled, completed, and tracked promptly to confirm data accuracy.

Copies of all QA records will be kept in the Project office. QA records will include logs such as Crew Daily Activity Reports, Supervisor Daily Inspection Reports, Work Orders for Subcontractors, Subcontractor Inspection Reviews, and Safety Audits.

PIBC will stipulate that all staff are responsible for quality. QC/QA feedback is provided on a daily basis to encompass all phases of project operations. Project management staff inspecting maintenance crews and subcontractors provide immediate feedback and direction on work in progress to ensure satisfactory completion. Our safety team will assess the safety aspects of the Project.

Project management staff randomly performs quality reviews of maintenance activities and reports on their findings. To meet LA DOTD’s requirements of quality reporting, our management team will develop a matrix of quality documentation. This matrix identifies each required document and dated or scheduled actions to be taken.

As opportunities for improvement are identified throughout the Project, all levels of staff will communicate this information to the Project management staff. PIBC’s entire team will assist in adjusting work procedures to ensure the Project is consistently compliant and best practices are captured and implemented. These adjustments may include changes to the QM program, such as increased training of in-house staff and subcontractors and increased monitoring.

This information is logged in our internal MMS. We use this feedback to improve quality and disseminate it via the MMS so that it can be incorporated throughout the Project. Project management staff also identify additional maintenance needs noticed during the course of these quality inspections. These inspections are then utilized to identify areas that need improvement or ensure that the work performed has met applicable standards. This method verifies that day-to-day QC methods are functioning as designed.

DATA MANAGEMENT

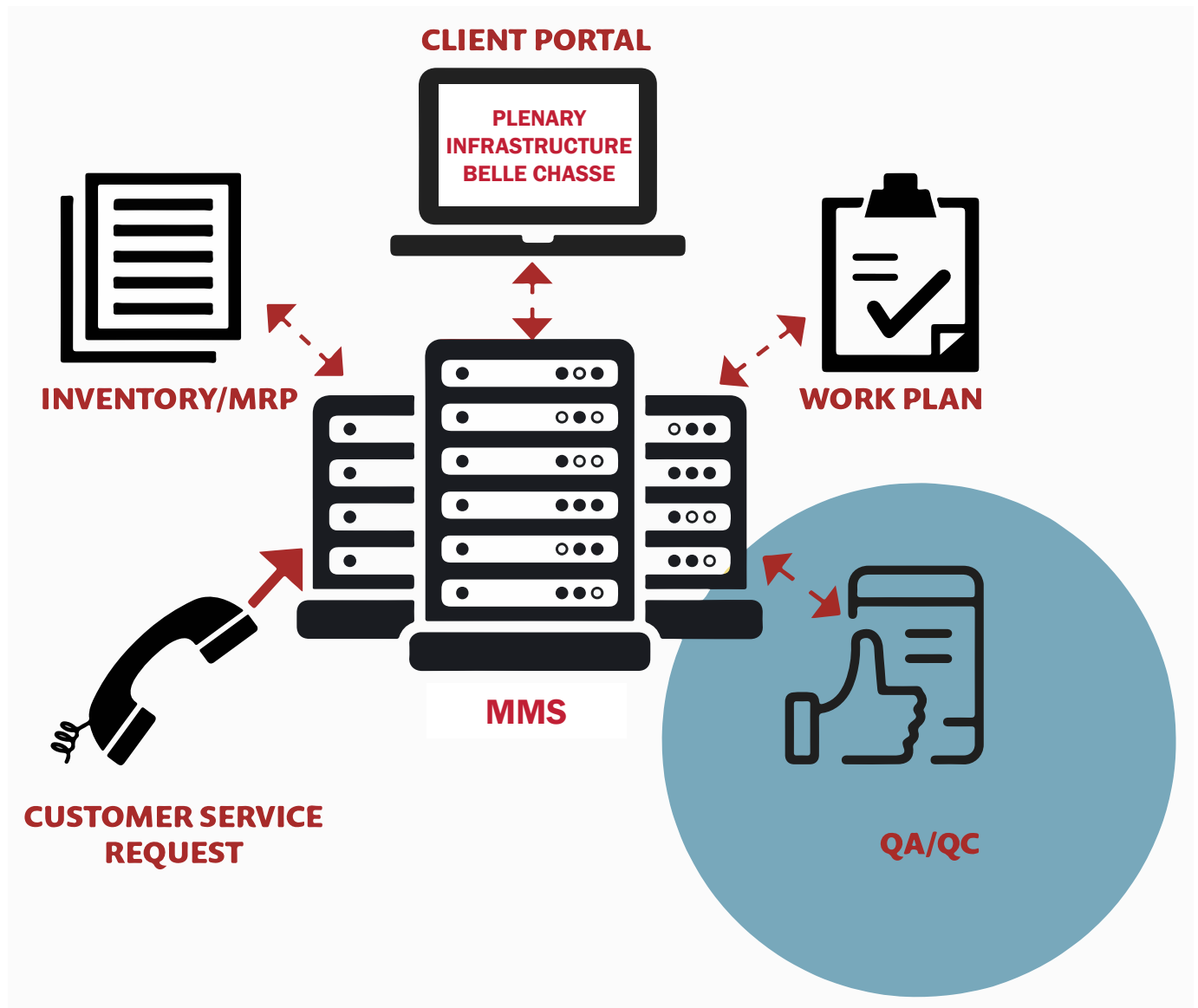
Our self-monitoring process centers around our proprietary software and processes. PIBC will record data from field, QC, and QA reviews for tracking and analysis using the QM functionality in the MMS. From inspection results, The MMS produces standardized reports to document monthly quality management review findings.

The MMS also provides an automated system for addressing a statistically significant sampling representative of the entire quantity to within an accuracy rate of +/-3%. It is PIBC's intention that the LA DOTD management team will be given access to the MMS for review of QM results.

SELF-MONITORING QUALITY AUDITS

The MMS will assist with the efficient management of all assets within the Project, as seen below in Figure 17. Any issues identified are stored in the system and can then be queried to establish efficient maintenance programs. Different scenarios can be evaluated to determine which option will best serve the Project. These work plan comparisons can be completed at any interval – weekly, monthly, annually, or for the term of the contract – to ensure optimal lifecycle performance of the infrastructure.

FIGURE 17: MAINTENANCE MANAGEMENT SYSTEM

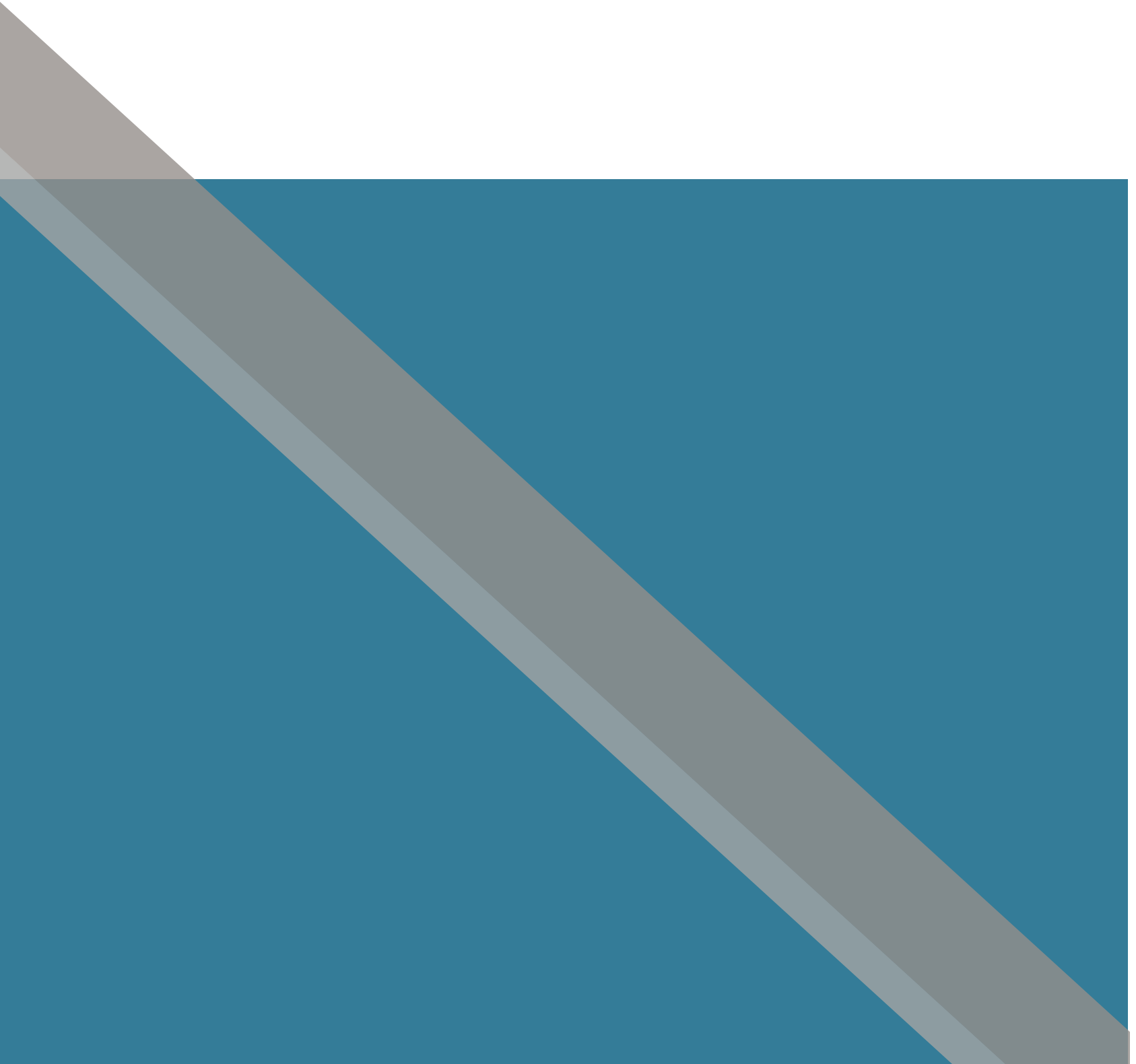


The various adjustments set forth in the Performance Specifications, which includes the classification adjustments and faults, classification factors, segment data, respective weighting factors, time weighting factors, and non-compliance failures, will be programmed mathematically to provide the payment due. The capturing, tracking and documentation of timeliness will be essential to developing and providing LA DOTD accurate reports.



KEY PERSONNEL AND EXPERIENCE

FORM H



Louisiana Department of Transportation and Development

FORM H

KEY PERSONNEL INFORMATION

Name of Proposer: Plenary Infrastructure Belle Chasse LLC ("PIBC")

Position	Name	Years of Applicable Experience	Education/ Registration	Parent Firm Name	Percent of Time Dedicated to Project
Principal-in-Charge	Terry Ostrom	31 years	BS, Industrial Construction Management, Colorado State University, 1987 MBA, National University – San Diego CA, 1994	Plenary	20%
Developer's Project Manager	Dennis Coventon	19 years	BS, Construction Management Southern Illinois University 1996–2000	Plenary	100%
Design Manager	Robert Schmidt, PE	36 years	BS, Civil Engineering, LSU, 1982 PE (LA License #22837), PTOE (#3189)	Huval	61%
Construction Manager	Scott Armstrong	39 years	BS, Civil Engineering Technology, University System of Georgia; Southern Technical Institute, 1984; BA, Psychology, University of Michigan, 1975	Traylor Bros.	100%
Operations and Maintenance Manager	Christian Guevara, PE	10 years	BS, Civil Engineering, University of Colorado at Boulder, 2007 Colorado PE (#47121)	Plenary	50%
Quality Manager	Dexter Dixon	40 years	General Studies, Skyline College, San Bruno, CA 1985	Massman	100%
Design Quality Manager	Colby Guidry, PE	18 years	BS, Civil Engineering University of Louisiana, 2000 LA License # 31338	Huval	26%

Louisiana Department of Transportation and Development

Position	Name	Years of Applicable Experience	Education/ Registration	Parent Firm Name	Percent of Time Dedicated to Project
Safety Manager	Danny Bishop	28 years	BS, Construction Engineering/ Construction Management Program, Columbia Southern University	Massman	100%
Lead Geotechnical Engineer	Larry Sant, PE	17 years	MS, Civil Engineering, Brigham Young University, 2001; BS, Civil Engineering Brigham Young University, 2001 (LA #35625)	GeoEngineers	35%
Traffic Engineer	Robert Schmidt, PE	36 years	BS, Civil Engineering, LSU, 1982 PE (LA #22837), PTOE (#3189)	Huval	18%
Roadway Design Engineer	Thomas Gatlif, PE	20 years	BS, Civil Engineering, Louisiana State University 1998 PE (LA #30779)	Huval	25%
Construction Quality Control Manager	Chad Vosburg, PE	25 years	BS, Civil Engineering, 1993	ECM Consultants	100%
Bridge Design Engineer	Rudy McLellan, PE	42 years	Master of Engineering in Structures, University of Florida, 1977; BS, Civil Engineering, University of Florida, 1976; PE (LA #19994)	Huval	42%
Tolling System Manager	Steven Corbin	25 years	Finance Diploma – U.S. Army Institute of Personnel/Resource Management, 1984	Kapsch	40%
Tolling Operations Manager	Scott Sorensen	11 years	BS, Computer Science, University of Texas, Austin, 2003	Kapsch	30%

Louisiana Department of Transportation and Development

Position	Name	Years of Applicable Experience	Education/Registration	Parent Firm Name	Percent of Time Dedicated to Project
Public Information Coordinator	Jasmine Haralson	15 years	BS, Accounting, Brigham Young University	Franklin Associates	100%

Use additional sheets when needed.

KEY PERSONNEL RESUMES



TERRY OSTROM

PRINCIPAL-IN-CHARGE

QUALIFICATIONS

- **Company:** Plenary
- **Years of Experience:** 31+
- **Education/Memberships/Licenses:**
 - BS, Industrial Construction Management, Colorado State University, 1987
 - MBA, National University – San Diego CA, 1994
 - Transportation Committee – Denver Chamber of Commerce
 - OSHA – 30 Hour
 - Safety Trained Supervisor

INTRODUCTION

Terry has over 31 years of experience in the construction industry all of which have been in the heavy civil sector, including roads and bridges, treatment plants, and structural concrete. His leadership and expertise have been directly responsible for the success of the projects, divisions, and companies that he has managed. Terry began his career at Flatiron, while attending Colorado State University, working during summer breaks as a laborer on bridge projects. Upon his graduation from CSU, Terry became a field engineer on Flatirons Glenwood Canyon Project. Over the next 10 years, Terry held progressive positions from field engineer to area manager. In 1997, Terry and a Flatiron colleague started their own construction company, BTE Concrete, based in Glenwood Springs, Colorado. Terry served as operations manager until 2002 then general manager until 2009. In 2007, Terry acquired 100% ownership from his partner and eventually sold BTE to Flatiron in 2009 where he was employed until joining Plenary Group in early 2013.

RELEVANT EXPERIENCE

STATE STREET REDEVELOPMENT PROJECT | WEST LAFAYETTE, IN | \$72.5 MILLION

This DBFOM project consists of rebuilding and adding new infrastructure to transform State Street from a main thoroughfare bisecting campus, to a pedestrian-friendly environment with dedicated cycle tracks, widened sidewalks, and restricted-vehicle access. Improvements to surrounding streets and infrastructure will support new traffic patterns throughout campus and the City and encourage growth. The 34-month construction project is scheduled to complete in December 2018. The Operations and Maintenance of the project starts for the remainder of the 25-year term upon substantial completion. As the Design and Construction Delivery Lead, Terry is chiefly responsible for managing the Plenary Roads State Street (“PRSS”) team through the design and construction of the project and represents PRSS on the four-person Executive Board, similar to role that Terry will perform on the Belle Chasse Project on behalf of PIBC. Terry will bring the skills and leadership strategies from this project to Belle Chasse in order to ensure a competitive proposal and efficient project delivery.

Time of Involvement: July 2016 - Present

Client: Joint Board of the City of West Lafayette, Indiana and the Trustees of Purdue University

Client Reference Details: Don Petersen, Managing Director, (765) 496-8335, drpeter@purdue.edu

WINNIPEG SOUTHWEST RAPID TRANSITWAY (STAGE 2) AND PEMBINA HIGHWAY UNDERPASS | WINNIPEG, MB, CANADA | \$266 MILLION

The project involves a 7.6 km continuation of the dedicated Transitway in Winnipeg from Pembina

TERRY OSTROM

PRINCIPAL-IN-CHARGE - CONTINUED

Highway and Jubilee Avenue to the University of Manitoba as well as the widening and reconstruction of Pembina Highway beneath the Jubilee Overpass. Salient features include 8 stations, 8 bridges, new and relocated utilities, and heavy rail. Plenary Roads Winnipeg (“PRW”) is responsible for self-performing the Stage 2 operations, maintenance and rehabilitation services both during construction and throughout the 30 year concession term, and the Stage 1 infrastructure for the 30 year concession term. Terry was the Design and Construction pursuit lead ensuring whole of life consideration is given to all design solutions, negotiating technical commercial terms with the client and contractor, developing Alternative Technical Concepts and budgeting for the SPV. After being named Preferred Proponent, Terry managed the team responsible for developing the various Project Management Plans and recruited and hired local project staff. Terry continued to manage the day-to-day project activities for 3 months following financial close while training PRW’s local Project Manager. Terry continues to have executive oversight on the Project and represents Plenary on the Project Executive Board.

Time of Involvement: August 2015 - Present

Client: City of Winnipeg

Client Reference Details: Scott Payne, Procurement Lead for City of Winnipeg on the Winnipeg SRTPHU project (currently Manager, Asset Management Office, Transit (City of Winnipeg), (204) 986-5518, spayne@winnipeg.ca

WINNIPEG SOUTHWEST RAPID TRANSITWAY



US 36 MANAGED LANES PROJECT | DENVER, CO | \$200 MILLION

As the Delivery Lead, Terry was responsible for managing the design, construction (“D&C”), operations, and maintenance (“O&M”) teams from commercial close through financial close, including a three month transition period. During this 11 month period; the 12 mile, 6-lane, 7 bridge Phase 1 design was advanced to 100% complete and construction to 50% complete. The 6 mile, 6-lane, 3 bridge Phase 2 design was advanced to 50% complete and construction to 20% complete. After financial close, Plenary hired a local project manager to manage the day-to-day activities on the Project and Terry remains as the Project Executive ultimately responsible for D&C delivery, O&M performance during construction and P&L from tolling operations.

Time of Involvement: August 2013 - Present

Client: Colorado Department of Transportation

Client Reference Details: David Spector, HPT Director, (303) 757-9607, david.spector@state.co.us

US 36 MANAGED LANES | DENVER, CO





DENNIS COVENTON

PROJECT MANAGER

QUALIFICATIONS

- **Company:** Plenary
- **Years of Experience:** 19+
- **Education/Memberships/Licenses:**
 - BS, Construction Management Southern Illinois University 1996–2000
 - Industry Leader Development Program, American Road and Transportation Builders Association’s ARTBA
 - 2012 recipient of Top 20 under 40, ENR Engineering News Record
 - Certified Safety Trained Supervisor, Board of Certified Safety Professionals
 - 30 Hour Certified, CPR & First Aid Certified, OSHA

INTRODUCTION

Dennis is a Vice President of the Project Delivery team and assumes various roles in the design, construction, and operations phases of select projects. He also participates in Plenary’s pursuit and project delivery endeavor’s on projects across North America. During the pursuit phase, Dennis works with Plenary’s construction partners, designers, and O&M team members to assist in developing the most comprehensive and competitive technical and life-cycle solution strategies for each project.

Dennis’ 19 years of experience in the construction industry has included responsibilities in a wide range of roles including on-site construction project management, risk management, and corporate development/M&A. During his time in the industry, he has been primarily focused on civil infrastructure including roads, bridges, and rail infrastructure and has been involved in Public-Private Partnership projects over the last 12 years.

RELEVANT EXPERIENCE

PENNSYLVANIA RAPID BRIDGE REPLACEMENT PROJECT | PA, USA | \$1.12 BILLION

The first multi-asset public-private partnership (“PPP”) project to be undertaken in the U.S. while involving the largest issuance of Private Activity Bonds for a PPP transaction at \$721.5 million as of financial close. This 28 year DBFOM project consists of designing, permitting, demolishing and replacing 558 structurally deficient bridges located throughout the State over a period of 48 months with construction concluding in December 2018. The project also has requirements for 25 years of maintenance with defined structural ratings during the term and at handback. The project has been awarded PPP Awards Best Transport Project (2015), The Bond Buyer Northeast Region’s Deal of the Year (2015), IJ Global Best North American PPP (2015), and Infrastructure Investor PPP Deal of the Year North America (2014). Dennis provided senior oversight for all design and construction-related aspects of the bid and construction phase as well as transitioning into the 25 year O&M term upon completion of individual bridges. Dennis had responsibility for all innovation and Alternative Technical Concept efforts, driving the integration of the design with constructability and O&M considerations while ensuring that all project risks are efficiently mitigated or allocated. Dennis continues to maintain regular governance communications and meetings to facilitate expeditious issue resolution as necessary. Dennis is currently involved in the project to manage the Dispute Review Board and oversees relevant commercial discussions.

Time of Involvement: April 2014 - Present

DENNIS COVENTON

PROJECT MANAGER - CONTINUED

Client: Pennsylvania Department of Transportation (“PennDOT”)

Client Reference Details: Gary Kleist, RBRP Project Manager, PennDOT
(717) 783-6410, GKleist@pa.gov

STATE STREET REDEVELOPMENT PROJECT | WEST LAFAYETTE, IN | \$72.5 MILLION

This DBFOM project consists of rebuilding and adding new infrastructure in order to transform State Street from a main thoroughfare bisecting campus to a pedestrian-friendly environment with dedicated cycle tracks, widened sidewalks, and restricted-vehicle access. The 34-month construction Project is scheduled to be completed in December 2018. The Operations period of the project starts for the remainder of the 25-year term upon substantial completion. As the Design and Construction pursuit lead for the project, Dennis was responsible for Alternative Technical Concept efforts to ensure lifecycle considerations were included in design and construction discussions. Following project award in February 2016, Dennis and other Plenary representatives collaborated with the Joint Board to further optimize the project structure adding additional scope desired by the Joint Board highlighting Plenary’s innovative and flexible approach.

Time of Involvement: July 2015 - July 2016

Client: Joint Board of City of West Lafayette Indiana and the Trustees of Purdue University

Client Reference Details: Don Petersen, Managing Director,
(765) 496-8335, drpeter@purdue.edu

STATE STREET REDEVELOPMENT PROJECT, WEST LAFAYETTE, IN



US 36 MANAGED LANES PROJECT | DENVER, CO | \$200 MILLION

As a Plenary executive with responsibility of evaluating changes from conceptual design, Dennis was involved in evaluating the means and methods of the design and construction activities on the project with specific emphasis on lifecycle considerations. Input and evaluation of Alternative Technical Concepts were independently evaluated for developer acceptability to be incorporated by the Design-Builder into the project. The feedback and evaluation provided an independent evaluation focused on lifecycle and whole of life considerations from the owner’s perspective.

Time of Involvement: March 2014 - August 2014

Client: Colorado Department of Transportation

Client Reference Details: Mark Gosselin, (303) 656-5635,
Gosselin@Rocksol.com

PENNSYLVANIA RAPID BRIDGE REPLACEMENT, PA





ROBERT SCHMIDT, PE, PTOE

DESIGN MANAGER

QUALIFICATIONS

- **Company:** Huval & Associates, Inc.
- **Years of Experience:** 35+
- **Education/Memberships/Licenses:**
 - BS Civil Engineering, LSU, 1982
 - ACEC Louisiana – State Board of Directors (National Director; Executive Committee); Louisiana Good Roads and Transportation Association – Board of Directors; Institute of Transportation Engineers; ASCE/Louisiana Transportation and Development Institute – Executive Committee (ex-officio)
 - PE (LA #22837) | PTOE (#3189)

INTRODUCTION

Robert “Bob” Schmidt is a Senior Manager at Huval and Associates. Prior to this at AECOM and HNTB he was Practice Leader for Louisiana and the Gulf Coast Area. He has 36 years of broad transportation experience in Baton Rouge, New Orleans and across the nation, with a focus on the most challenging projects in the industry. In his roles over time as Project Engineer, Project Manager, and Project Principal, Mr. Schmidt has led all aspects of transportation including program management/administration, communications and marketing, planning, design, specifications, funding, construction, and operations. Bob has been a leader in the toll and alternative delivery industry in Louisiana, helping to introduce P3 and gap funding enabling legislation in the 2006 session. This has now evolved to enable the Belle Chasse project as Louisiana’s first solicited P3. In 2015/2016 he led development of the proposed BUMP urban tollway project in Baton Rouge, the state’s first unsolicited P3. He has been a visionary in development and management of projects such as the Baton Rouge Toll Loop and the Lafayette Toll Bypass projects. He has devoted his career to providing credible, quality, innovative solutions to Louisiana’s transportation system and other systems across the country.

RELEVANT EXPERIENCE

CCCD MISSISSIPPI RIVER BRIDGE, PONTCHARTRAIN EXPRESSWAY, & WESTBANK EXPRESSWAY URBAN TOLL BRIDGE AND FREEWAY | NEW ORLEANS, LA | \$125 MILLION

Mr. Schmidt served as the Project Manager and Project Principal for long running services in a general engineering consultant role (GEC) assisting the Owner (DOTD) in trust indenture, planning, operations, maintenance, and capital improvements for the Mississippi River toll bridge and urban freeway approaches in downtown New Orleans. In these roles he had ultimate responsibility for all aspects of this comprehensive project including administration, toll studies and operations, planning, road and bridge design, enhancements, specifications, bid proposals, traffic control, CEI, schedule compliance, and QA/QC. This project was for the Crescent City Connection Division of DOTD, including the twin span Mississippi River Bridges in downtown New Orleans, 20 miles of elevated freeway and other major arterial approaches, six ferry crossing operations, toll operations, architectural needs and other miscellaneous requirements of the toll authority. Special considerations were given during the planning and design phases to maintain traffic volumes of 140,000 ADT through the corridor during construction activities.

Time of Involvement: 1988 - 2005

Client: Louisiana Department of Transportation and Development

Client Reference Details: Rick Skoien, District 02 Area Engineer, (504) 465-3210, richard.skoien@la.gov

ROBERT SCHMIDT, PE, PTOE

DESIGN MANAGER - CONTINUED

CAUSEWAY SAFETY BAY CMAR | JEFFERSON AND ST. TAMMANY PARISHES, LA | \$55 MILLION

Mr. Schmidt serves as Program Manager on behalf of the Owner for the \$55 million Safety Bay project on the 25-mile Causeway Bridge over Lake Pontchartrain. The Safety Bay project, providing 12 bays 16' wide by 1008' long, is the first CMAR highway project in Louisiana. In his role, Mr. Schmidt leads the Project Team, including Owner, Designer, Contractor, and ICE through all steps of scoping, procurement, pre-construction design, scheduling, specifications, and construction contracting. This includes development of a Guaranteed Maximum Price, an accelerated project schedule (design 6 months and construction 15 months), and a unique maintenance of traffic plan to maintain safety such that the existing bridges will be widened under traffic without reducing the number of lanes or narrowing and shifting the lanes. A Segmented CMAR approach was utilized so that advance construction packages including an Advance Test Pile Program, Advance Pile Order, and Advance Girder Order are being implemented as well as the final CMAR package and GMP.

Time of Involvement: 2017 - 2018

Client: Greater New Orleans Expressway Commission ("GNOEC"); **Client Reference Details:** Carlton Dufrechou, General Manager, (504) 835-3118, cdufrechou@gnoec.org

I-10 DESIGN-BUILD | EAST BATON ROUGE TO ASCENSION PARISHES, LA | \$72 MILLION

Mr. Schmidt was Huval project manager and principal in responsible charge of engineering/design of the various bridges included as part of this \$72 million design-build project. The project includes steel plate girder and PPC girder bridges. Bob managed Huval's design of these bridges in interaction with the Owner (DOTD) and Contractor. The existing I-10 mainline bridge at the Highland Road interchange needs to be reconstructed under the project to provide longer spans in addition to more lanes. An innovative sequence of construction scheme and bridge design enables construction of this bridge while maintain-ing approximately 90,000 ADT traffic. Huval's cost-effective designs and construction sequencing enabled its design-build team to be the only competitor to fit within the Owner's budget of \$72 million. Con-struction began January 2018.

Time of Involvement: 2017 - 2018

Client: Louisiana Department of Transportation and Development; **Client Reference Details:** Peggy Jo Paine, DOTD Innovative Procurements Manager, (225) 379-1065, peggy.paine@la.gov

SOUTH LOUISIANA SUBMERGED ROADS PROGRAM | NEW ORLEANS, LA | \$100 MILLION

Mr. Schmidt served as Project Manager, Principal-In-Charge and client liaison for this \$100 million post-Katrina street repair program in the Parishes of Orleans, Jefferson, St. Tammany, St. Bernard and Plaquemines. Funded through the FHWA's Emergency Repair Program, it was administered by DOTD with the local sponsor and key stakeholder being the New Orleans Regional Planning Commission. Mr. Schmidt led a fast-track ramp up (100 day Quick Start Plan) including project/team organization, subconsultant and design engineer contracting, scheduling, program standards manuals, public involvement plan, design standards, and project initiation. His subsequent oversight roles included: administration/project controls, scheduling, design reviews and other pre-construction management, public involvement and outreach, and full construction management and CEI. Mr. Schmidt played a key role in stakeholder facilitation including the FHWA, DOTD, Regional Planning Commission, and City of New Orleans to launch and deliver Phase A of this one-of-a-kind project. Phase A of the program included 55 individual streets, each requiring independent Damage Inspection Reports and FHWA review/approval.

Time of Involvement: 2007 - 2010

Client: Louisiana Department of Transportation and Development, Administrator; New Orleans Regional Planning Commission (NO RPC), Local Sponsor and Stakeholder; **Client Reference Details:** Walter Brooks, NO RPC Executive Director, (504) 483-8545, wbrooks@norpc.org

ROBERT SCHMIDT, PE, PTOE


DESIGN MANAGER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 5/14/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Robert W. Schmidt
1330 Stanford Avenue
Baton Rouge, LA 70808



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD
(LAPELS)**
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Robert W. Schmidt

License/Certificate Type - Number	Expiration Date
PE.0022837	09/30/2019

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

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ROBERT SCHMIDT, PE, PTOE

DESIGN MANAGER - CONTINUED

Transportation Professional Certification Board Inc.

certifies that

Robert William Schmidt

*has met all of the requirements established by the Certification Board
to use the title of*

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

unless withdrawn by the Certification Board and subject to the provisions for renewal.

Certificate number 3189 issued in Washington, D.C., U.S.A.

May 2, 2012

Steven D. Hofener
Chair



Thomas W. Johnson
Executive Director



SCOTT ARMSTRONG

CONSTRUCTION MANAGER

QUALIFICATIONS

- **Company:** Traylor Bros., Inc.
- **Years of Experience:** 35+
- **Education/Memberships/Licenses:**
 - BS, Civil Engineering Technology, University System of Georgia Southern Technical Institute, 1984
 - BA, Psychology, University of Michigan, 1975
 - Member, Deep Foundation Institute

INTRODUCTION

Scott Armstrong has more than 35 years of experience in heavy civil construction, the last 25 of which have been with Traylor Bros. His specialty is the management of major infrastructure projects. The types of structures he has built or rehabilitated include cable-stayed, segmental and movable bridges of steel and concrete construction. Most recently, Scott played a key role on the Tappan Zee Bridge project across the Hudson River in Tarrytown, New York. He was Construction Manager for this complex \$3 billion design-build project.

Scott worked for several years in the New Orleans area. First, he was Project Manager on the new I-10 Main Span Bridges over Lake Pontchartrain, which were severely damaged during Hurricane Katrina. Next, he took on the role of Project Manager on the Gulf Intracoastal Waterway West Closure Complex, a one-of-a-kind marine closure structure that was fast-tracked to provide hurricane flooding protection to New Orleans. Scott was also Project Manager on the highly successful IH-45 Pierce Elevated Bridge in Harris County, Texas where the team received a bonus for completing the fast track project early.

RELEVANT EXPERIENCE

TAPPAN ZEE BRIDGE | TARRYTOWN, NY | \$3.1 BILLION

As the Construction Manager, Scott was responsible for all marine bridge construction activities, schedule, costs and design constructability. Managed all water work, pile driving, and foundation installation. The 3.1-mile-long bridge crosses the Hudson River, connecting Rockland County to Westchester County. The design combines the use of a composite deck cable-stayed structural system for the main span and long-span steel girders for the approach structures. The design-build project involves driving more than 1,100 piles and installation of 110,000 tons of plate girders. Demolition of the existing bridge is included in the contract.

Time of Involvement: November 2012 - April 2015

Client: New York State Thruway Authority

Client Reference Details: David Capobianco, (845) 918-2502,
david.capobianco@thruway.ny.gov

GULF INTRACOASTAL WATERWAY WEST CLOSURE COMPLEX | JEFFERSON AND PLAQUEMINES PARISH, LA | \$1 BILLION

As the Project Manager, Scott was responsible for daily operations, including the staff. Planned, directed, and coordinated activities to ensure that the project remained on schedule and within budget. Responsible for all marine construction, including the cofferdam (a unique design), a piling foundation,

SCOTT ARMSTRONG

CONSTRUCTION MANAGER - CONTINUED

concrete structure, a closure wall, and a new 225-foot sector gate, the largest in the United States. The project was designed to reduce risk for residences and businesses in Jefferson and Plaquemines Parishes from a storm surge resulting from a tropical event with an intensity that has a one percent chance of occurring annually. Located on the west bank of the Mississippi River, the complex consists of a navigable floodgate, a pumping station, floodwalls, sluice gates, foreshore protection, and an earthen levee.

Time of Involvement: June 2009 - November 2012

Client: U.S. Army Corp of Engineers, New Orleans District

Client Reference Details: Jules Boudreaux, (504) 628-2280,
jules.d.boudreaux@usace.army.mil

I-10, MAIN SPAN BRIDGES OVER LAKE PONTCHARTRAIN | SLIDELL, LA \$171 MILLION

As the Project Manager, Scott was responsible for daily operations, including the staff. Planned, directed, and coordinated activities to ensure that the project remained on schedule and within budget. Managed all water work, pile driving, and foundation installation. Played a key role in partnering throughout the project. The I-10 twin spans suffered severe damage during Hurricane Katrina and had to be temporarily repaired under emergency contracts while a completely new twin span crossing was designed, permitted, and advertised for construction. The project entailed 1.1 miles of new twin bridges composed of 1,056 36-inch square piles, bent caps, waterline footings, columns and pier caps, 456 BT-78 precast concrete girders (61,348 lf), structural steel main spans (1,886 tons), and a poured-in-place deck.

Time of Involvement: January 2007 - May 2009

Client: Louisiana Department of Transportation and Development

Client Reference Details: Artur Wagner D'Andrea, (225) 379-1319
arthur.dandrea@la.gov



CHRISTIAN GUEVARA, PE

O&M MANAGER

QUALIFICATIONS

- **Company:** Plenary
- **Years of Experience:** 10+
- **Education/Memberships/Licenses:**
 - BS, Civil Engineering, University of Colorado at Boulder, 2007
 - Professional Engineer – Civil, Registered in Colorado (2012)
 - Certified Bridge Inspection Team Leader, FHWA
 - Colorado Professional Engineer, License #47121

INTRODUCTION

With over 10 years of previous experience, Christian is currently serving as the Vice President of Operations for Plenary Group, and Plenary Roads Denver (“PRD”) Director of Operations for the US 36 Managed Lanes project for the Colorado Department of Transportation (“CDOT”), the first P3 project delivery for CDOT. He is responsible for the mobilization and delivery of a long-term, performance based, Concession Agreement as the Concessionaire and Lead Operator for the Plenary Roads Denver consortium. Christian’s background also includes lifecycle review and analysis as well as structures management and inspection. He has assisted local agencies throughout Colorado in managing and executing maintenance plans to prolong the serviceability of their structures and effectively maintain lifecycle aspects and planning. Christian is a FHWA certified Bridge Inspection Team Leader.

RELEVANT EXPERIENCE

STATE STREET REDEVELOPMENT PROJECT | WEST LAFAYETTE, IN | \$72.5 MILLION

As the Operations and Maintenance Manager, Christian is responsible to provide maintenance and lifecycle considerations during the design and construction phase of the project, and to oversee the final construction to ensure that the final product is compliant with the obligations of Plenary Roads State Street (“PRSS”) during the Operating Period. Christian is also responsible for the development of the Operations and Maintenance Plans and Lifecycle Maintenance Plans which will be executed to maintain compliance with the Project Agreement throughout the term into the handback period. Finally, Christian directly manages the self-perform O&M team to maintain compliance with the plans and agreements.

Time of Involvement: July 2016 - Present

Client: Joint Board of City of West Lafayette Indiana and the Trustees of Purdue University

Client Reference Details: Don Petersen, Managing Director, (765) 496-8335, drpeter@purdue.edu

US 36 MANAGED LANES PROJECT | DENVER, CO | \$200 MILLION

As the Director of Operations, Christian is responsible for mobilizing and implementing an operations and maintenance program to execute a 50-year Concession Agreement with CDOT and HPTE as the

STATE STREET REDEVELOPMENT PROJECT, WEST LAFAYETTE, IN



CHRISTIAN GUEVARA, PE

O&M MANAGER - CONTINUED

Lead Operator and Developer on this 50 year DBFOM P3 project. Through this project, Christian has worked together with the DBJV, Lead Designer, O&M Contractor, Tolling Contractor HPTE and CDOT to optimize operations and lifecycle performance of the maintained elements. Additionally, within US 36, Christian is responsible for the execution of various scope items including:

- Lifecycle bridge and pavement management
- Tolling and back office operations, Toll rate setting and enforcement
- Managed lanes operations
- Reversible gate operations, Infrastructure rehabilitation
- Colorado Transportation Management Center, Incident Response
- Working with adjacent roadway operators to ensure efficient operations at boundary areas
- Roadside appurtenance maintenance including, mowing, signs, barriers, attenuators
- Direct customer service responsibilities

US 36 MANAGED LANES | DENVER, CO



Christian has also completed the mobilization and transfer of maintenance responsibilities for portions of the I-25 and US36 corridor and has effectively assimilated the Private sector with CDOT to perform the Lead Developer and Operator role for the US 36 Managed Lanes Project. The US 36 Managed Lanes Project is a demand-risk project, which relies heavily on revenue management for project viability. Christian is responsible for the tolling operations on US 36 and the management of toll implementation, toll rate setting, toll enforcement, traffic and revenue analysis, and tolling back office operations.

Time of Involvement: August 2013 - Present

Client: Colorado Department of Transportation

Client Reference Details: David Spector, HPTE Director, (303) 757-9607, david.spector@state.co.us

CDOT OFF-SYSTEM BRIDGE INSPECTION PROGRAM | DENVER, CO | \$1.5 MILLION ANNUAL

As the Project Manager, Christian was responsible for providing consulting services to multiple local agencies and municipalities on the subject of lifecycle maintenance and asset management. Christian's work with these local agencies was directed toward maximizing the service life of bridge infrastructure through inspection and maintenance planning. Christian also managed the CDOT Off-system Bridge Inspection contract and has planned, scheduled, and executed more than 1,500 bridge inspections per year throughout the State of Colorado. Christian's responsibilities also included load rating of bridges for timber, steel, pre-stressed concrete and truss configurations; specialized access in the inspection of movable and high profile structures, meeting with local agency directors to discuss their infrastructure and how to prolong the service life; presenting findings of inspections to city and county commissioners and public works directors; structural rehabilitation design; and assisting agencies in developing and implementing their own lifecycle planning and maintenance programs.

Time of Involvement: August 2007 – July 2013

Client: Colorado Department of Transportation

Client Reference Details: Lynn Croswell, (303)-757-9188, lynn.croswell@state.co.us

CHRISTIAN GUEVARA, PE

O&M MANAGER - CONTINUED

5/16/2018

Print Lookup Details



Lookup Detail View

Licensee Information

This serves as primary source verification of the license.*

**Primary source verification: License information provided by the Colorado Division of Professions and Occupations, established by 24-34-102 C.R.S.*

Name	Public Address
Christian Bernard Guevara	Castle Rock, CO 80109

Credential Information

License Number	License Method	License Type	License Status	Original Issue Date	Effective Date	Expiration Date
PE.0047121	Examination	Professional Engineer	Active	12/31/2012	11/01/2017	10/31/2019

Board/Program Actions

Discipline
There is no Discipline or Board Actions on file for this credential.

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ROBERT SCHMIDT, PE, PTOE

TRAFFIC ENGINEER

QUALIFICATIONS

- **Company:** Huval & Associates, Inc.
- **Years of Experience:** 35+
- **Education/Memberships/Licenses:**
 - BS Civil Engineering, LSU, 1982
 - ACEC Louisiana – State Board of Directors (National Director; Executive Committee)
 - Louisiana Good Roads and Transportation Association – Board of Directors
 - Institute of Transportation Engineers
 - ASCE/Louisiana Transportation and Development Institute – Executive Committee (ex-officio)
 - PE (LA #22837) | PTOE (#3189)

INTRODUCTION

Robert “Bob” Schmidt is a Senior Manager at Huval and Associates. Prior to this at AECOM and HNTB he was Practice Leader for Louisiana and the Gulf Coast Area. He has 36 years of broad transportation experience in Baton Rouge, New Orleans and across the nation, with a focus on the most challenging projects in the industry. His first project in 1982 was performing the detailed traffic engineering studies/reports and associated geometric design of the I-49 Shreveport urban freeway, including numerous diamond, single-point, and directional interchanges with approximately 15 signalized intersections. Since that time he has performed and/or managed numerous traffic engineering studies and traffic management plans for major projects such as the I-49 Connector urban freeway (Lafayette), I-10 Calcasieu urban freeway (Lake Charles), Crescent City Connection urban freeway and toll bridge (New Orleans), and Causeway Safety Bays (New Orleans) along with numerous other smaller projects. Each of these projects had components including maintenance of existing traffic during construction, traffic signal planning and design, and other elements of traffic engineering, safety, and management as needed. With this background, when the importance of traffic engineering became recognized more formally within the transportation profession, Mr. Schmidt obtained his Professional Traffic Operations Engineer certification in 2012. He has practiced since then utilizing the latest software such as Synchro, Vistro, Vissim, and HCS in performing and managing traffic engineering and signal projects for DOTD, NORPC, Baton Rouge and other agencies. Beyond this Mr. Schmidt has led all aspects of transportation including program management/administration, communications and marketing, planning, traffic engineering, design, specifications, funding, construction, and operations. He has devoted his career to providing credible, quality, innovative solutions to Louisiana’s transportation system and other systems across the country.

RELEVANT EXPERIENCE

CCCD MISSISSIPPI RIVER BRIDGE, PONTCHARTRAIN EXPRESSWAY, AND WESTBANK EXPRESSWAY URBAN TOLL BRIDGE AND FREEWAY | NEW ORLEANS, LA | \$125 MILLION (EST. SERVICE DURATION)

Mr. Schmidt served as the Project Manager and Project Principal for long running services in a general engineering consultant role (GEC) assisting the Owner (DOTD) in trust indenture, planning, operations, maintenance, and capital improvements for the Mississippi River toll bridge and urban freeway approaches in downtown New Orleans. Two of his key projects were:

- **Corridor-wide Geometric and Signal Program:** Mr. Schmidt was project engineer and project manager for traffic studies, geometric improvements, traffic signal design, and CEI for 33 intersections on the ground level parallel frontage roads on the east side of the river (New Orleans CBD) and Westbank Expressway. This project included maintenance of traffic planning/design through the signalized intersections during construction of the geometric improvements and new signals, with traffic volumes of approximately 140,000 ADT on the elevated freeway and 40,000 on the ground level frontage roads.

ROBERT SCHMIDT, PE, PTOE

TRAFFIC ENGINEER - CONTINUED

- General de Gaulle Drive Widening: Mr. Schmidt was project engineer and project manager for this project which added one lane each direction to existing General de Gaulle Drive, an arterial feeder road the to CCCD toll bridge. The project included corridor wide traffic studies and signal design 7 new or reconstructed signalized intersections.
- In addition to the above Mr. Schmidt had responsibility for all aspects of this comprehensive project including administration, toll studies and operations, planning, traffic engineering, road and bridge design, enhancements, specifications, bid proposals, traffic control, CEI, schedule compliance, and QA/QC. This project was for the Crescent City Connection Division of DOTD, including the twin span Mississippi River Bridges in downtown New Orleans, 20 miles of elevated freeway and other major arterial approaches, six ferry crossing operations, toll operations, architectural needs and other miscellaneous requirements of the toll authority.

Time of Involvement: 1988 to 2005

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: Rick Skoien, District 02 Area Engineer, 504-465-3210, richard.skoien@la.gov

CAUSEWAY SAFETY BAY CMAR | JEFFERSON AND ST. TAMMANY PARISHES, LA | \$55 MILLION

Mr. Schmidt serves as Program Manager on behalf of the Owner for the \$55 million Safety Bay project on the 25-mile Causeway Bridge over Lake Pontchartrain. The Safety Bay project, providing 12 bays 16' wide by 1008' long, is the first CMAR highway project in Louisiana. In his role, Mr. Schmidt leads the Project Team, including Owner, Designer, Contractor, and ICE through all steps of scoping, procurement, pre-construction design, scheduling, specifications, and construction contracting. This includes development of a Guaranteed Maximum Price and an accelerated project schedule (design 6 months and construction 15 months). From a traffic engineering perspective, a major goal of the owner was to construct the improvements while maintaining full service to customers and not interrupting the collection of toll revenue. Schmidt led the Project Team in development of a unique maintenance of traffic and safety plan such that the existing bridges will be widened under traffic without reducing the number of lanes or narrowing and shifting the lanes. Mr. Schmidt also led the Project Team in development of ITS components such as radar detection, advance sign activation, and video feeds to the GNOEC video control room to help ensure effective and safe operations of the system.

Time of Involvement: 2017 to 2018

Client: Greater New Orleans Expressway Commission (GNOEC)

Client Reference Details: Carlton Dufrechou, General Manager, 504-835-3118, cdufrechou@gnoec.org

I-10 WIDENING, LA 415 TO ESSEN LANE (BATON ROUGE) | WEST BATON ROUGE AND EAST BATON ROUGE PARISHES, LA | \$1.1 BILLION

HUVAL was retained to perform constructability assessments including construction sequencing and traffic management plans during construction of widening of I-10 through Baton Rouge. The corridor, with an ADT of approximately 120,000 ADT across the Mississippi River Bridge, is extremely constrained with regard to available ROW but requires reconstruction of existing bridges in the corridor while maintaining the existing 3 lanes of traffic in each direction during the construction process. Mr. Schmidt is Huval's project manager and traffic engineer in developing complex MOT schemes, including multiple and coordinated mainline lane shifts during numerous construction phases, in order to prove that the project is constructible within the ROW footprint that is available in accordance with the NEPA process. The traffic management and engineering, engineering, and other services performed by Mr. Schmidt on the I-10 Baton Rouge project are very similar to the traffic engineering and traffic management services that will be needed on the Belle Chasse project, as it too must maintain the existing number of traffic lanes during construction, has very constrained ROW, and a requirement to minimize ROW acquisition to be in conformance with the NEPA document.

Time of Involvement: 2018

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: Nick Olivier, DOTD co-Project Manager, 225-379-1133, nicholas.olivier@la.gov

ROBERT SCHMIDT, PE, PTOE


TRAFFIC ENGINEER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 5/14/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Robert W. Schmidt
1330 Stanford Avenue
Baton Rouge, LA 70808



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(LAPELS)**
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Robert W. Schmidt

License/Certificate Type - Number	Expiration Date
PE.0022837	09/30/2019

Status: Active

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

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ROBERT SCHMIDT, PE, PTOE

TRAFFIC ENGINEER - CONTINUED

Transportation Professional Certification Board Inc.

certifies that

Robert William Schmidt

*has met all of the requirements established by the Certification Board
to use the title of*

PROFESSIONAL TRAFFIC OPERATIONS ENGINEER

unless withdrawn by the Certification Board and subject to the provisions for renewal.

Certificate number 3189 issued in Washington, D.C., U.S.A.

May 2, 2012

Steven D. Hofener
Chair



Donna M. Johnson
Executive Director



RUDOLPH MCLELLAN, PE

BRIDGE DESIGN ENGINEER

QUALIFICATIONS

- **Company:** Huval & Associates, Inc.
- **Years of Experience:** 40+
- **Education/Memberships/Licenses:**
 - B.S., Civil Engineering with Honors, University of Florida, 1976
 - Master of Engineering in Structures, University of Florida, 1977
 - Post Graduate Studies in Structures, Louisiana State University, 1997
 - American Railway Engineering and Maintenance of Way Association (AREMA)
 - Heavy Movable Structures (HMS)
 - American Institute Steel Construction (AISC).
 - P.E., 1982, Louisiana No. 19994; 1981, Florida No. 31148; 1984, Mississippi No. 9107; and 1986, Alabama No. 15507

INTRODUCTION

Rudolph “Rudy” McLellan has 40 years of experience in every facet of bridge and structural design. He has experience in complex bridge design, movable bridges and rating and has been responsible for studies, preliminary and final design, preparation of plans and specifications, cost estimate for highway and railroad fixed and movable bridge projects, flood control structure and special or complex structures, including field inspections and investigative studies. Mr. McLellan is progressively responsible, experienced and has expertise in creating innovative and cost-effective simple to complex bridges and structures. Mr. McLellan has been the Project Manager and chief structural engineer for the design, inspection or evaluation of four movable bridge projects, including the Award Winning Double Leaf Fixed Trunnion Bascule Bridge in Louisiana, Louisiana.

RELEVANT EXPERIENCE

US 71 & US 165 FORT BUHLOW BRIDGE & APPROACHES OVER THE RED RIVER | RAPIDES PARISH, LOUISIANA | \$90 MILLION

Mr. McLellan performed final structural design calculations for all superstructure and substructure members of the constructed twin fixed high level three span continuous steel plate girders having spans 300’ - 400’ - 300’ and some of the prestressed concrete bulb tee girder approach structures supported by river piers with pile and drilled shaft footings constructed in cofferdams. The Main River Piers are subject to marine vessel (Barge) collision. Rudy was the Structural Engineer and this project is relevant to the Belle Chasse project with River Pier Design.

Time of Involvement: April 2009 to January 2014

Client: Louisiana Department of Transportation

US 71 & US 165 FORT BUHLOW BRIDGE & APPROACHES OVER THE RED RIVER, RAPIDES PARISH, LA



RUDOLPH MCLELLAN, PE

BRIDGE DESIGN ENGINEER - CONTINUED

and Development (DOTD)

Client Reference Details: Li Yang, (225) 379-1456, li.yang@la.gov

US 90 ACROSS ST. LOUIS BAY | HANCOCK AND HARRISON COUNTIES, LOUISIANA | \$267 MILLION

Mr. McLellan performed final structural design calculations for all bridge design build documents and design build services for the superstructure and substructure members of the constructed precast post-tensioned concrete segmental variable depth modified bulb tee channel spans 200' - 250' - 200' and piers supported with deep pile waterline footings. Mr. McLellan also performed the vessel (barge) collision design for the supporting piers. Rudy was the Structural Engineer and this project is relevant to the Belle Chasse project with Construction methods/Collision Design.

Time of Involvement: January 2006 to March 2006

Client: Mississippi Department of Transportation (MDOT)

Client Reference Details: Mitchell K. Carr (Retired), (601) 359-7200, mcarr@mdot.state.us

US 90 ACROSS ST. LOUIS BAY, HANCOCK & HARRISON COUNTIES, MS



LA HIGHWAY 319 INTRACOASTAL WATERWAY BRIDGE | ST. MARY PARISH, LOUISIANA | \$35 MILLION

Mr. McLellan performed preliminary and final structural design calculations for all superstructure and substructure members of the constructed 276 foot double leaf fixed trunnion bascule movable bridge. A major aesthetic consideration for the project was to design the movable bridge to contain the counterweight and machinery without introducing any noticeable visual obstacles. The final bridge turned out to be visually appealing, slender, elegant, and complements its surroundings, which is uncharacteristic of typical bascule bridges of this size.

The Louisa Bridge is the state's longest steel girder double leaf bascule bridge, is one of the longest span of its type constructed in the nation and is the recipient of the National Steel Bridge Alliance's 2007 Prize Bridge Award Winner in the movable span category. Rudy was the Project Engineer and Design Engineer and this project is relevant to the Belle Chasse project with Design Roles and Complexity.

Time of Involvement: April 1996 to July 1999

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: David Miller, (225) 379-1552, david.miller@la.gov

RUDOLPH MCLELLAN, PE


BRIDGE DESIGN ENGINEER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Rudolph McLellan
6510 Rollins Road
Zachary, LA 70791



**LOUISIANA PROFESSIONAL
ENGINEERING & LAND SURVEYING BOARD**
(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Rudolph McLellan

License/Certificate Type - Number	Expiration Date
PE.0019994	03/31/2020

Status: Active

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COLBY GUIDRY, PE, CBI

DESIGN QUALITY MANAGER

QUALIFICATIONS

- **Company:** Huval & Associates, Inc.
- **Years of Experience:** 11+
- **Education/Memberships/Licenses:**
 - B.S., Civil Engineering University of Louisiana, 2000
 - ACEC Vice President of Acadiana Chapter, ASCE Member, LES
 - P.E.: LA License No. 31338

INTRODUCTION

In the last 11 years with HUVAL, Mr. Guidry has led bridge and structural design, plan preparation, bridge ratings and inspections, and construction engineering support services. Prior to joining Huval, Mr. Guidry gained 7 years experience with the Federal Highway Administration (FHWA). His FHWA experience included all aspects of transportation related projects. At FHWA, he was actively involved with environmental review, design, construction, and maintenance of bridges and roadways throughout Louisiana.

Mr. Guidry has been the lead designer for numerous complex and multifaceted bridge projects throughout Louisiana. Mr. Guidry has also led various complex construction engineering/means and methods type projects in Louisiana as well as other states. He is an expert in both steel and PPC bridges. Mr. Guidry is very familiar with the LADOTD Bridge Design Manual, LADOTD LRFD Bridge Design Manual, 2002 AASHTO Bridge Specifications, and the current AASHTO LRFD Bridge Specifications.

RELEVANT EXPERIENCE

US 80 OVER KCS RAILROAD | BIENVILLE PARISH | US \$12 MILLION

Mr. Guidry served as the Lead Bridge Engineer to prepare design calculations, final plans, construction services, and bridge load ratings for the 1,129' prestressed girder & curved steel girder bridge with complex geometry along US 80 over KCS Railroad near Ada. The steel bridge span design was very complex due to the severe skew, horizontal curvature, and long span length. The ends of the steel spans were bobtail skew spans, which increased the complexity of the design. The steel design also incorporated temporary lateral bracing for stability during construction. In addition to the steel spans, concrete prestressed girder spans and slab spans were incorporated into the bridge to provide cost savings into the project. During the design of the bridge, HUVAL performed an in-house Value Engineering study and modified several of the substructure elements in order to save additional cost on the project.

Time of Involvement: Sept 2011 to Jan 2014

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: Name: Xuyong Wang, PE, O: (225) 379-1341, xuyong.wang@la.gov

US 90 (I-49SOUTH), ALBERTSON'S PARKWAY TO AMBASSADOR CAFFERY, DESIGN-BUILD PROJECT | BROUSSARD, LOUISIANA | US \$57 MILLION

As the Lead Bridge Designer for HUVAL, Mr. Guidry provided overall oversight and guidance to a team of bridge designers for the mainline bridge over the UPRR, for the mainline bridge over Albertsons Parkway, for the frontage road bridges, as well as for the rehabilitation of a large box culvert under US

COLBY GUIDRY, PE, CBI

DESIGN QUALITY MANAGER - CONTINUED

90. Mr. Guidry also provided quality control of the plans, design calculations, and bridge ratings for the project. In addition to the traditional design services, Mr. Guidry led the HUVAL team in various means and methods engineering activities on the project including project phasing, girder erection, temporary earth retaining system design, formwork, and other miscellaneous construction related designs. Project scope includes replacement of two BNSF RR overpass bridges within the same footprint while maintaining 4-lanes of US 90 traffic during construction. This required a complex, three-phase, traffic control plan to move traffic safely through the tight work zone. The developed design concept saved millions of dollars and allowed the Contractor Team to be 15% below the construction estimate of the nearest competitor.

Time of Involvement: Jan 2014 to Present

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: Peggy Jo Paine, PE, O: (225) 379-1065, peggy.paine@la.gov

I-10 DESIGN BUILD LA 73 TO HIGHLAND | EAST BATON ROUGE TO ASCENSION | US \$72 MILLION

Mr. Guidry was the Lead Bridge Design Engineer for design of the three bridges included as part of this \$72 million design-build project. The project included steel plate girder and PPC girder bridges. The existing I-10 mainline bridge at the Highland Road interchange needed to be reconstructed under the project to provide longer spans in addition to more lanes. An innovative sequence of construction scheme and bridge design enabled construction of this bridge while maintaining traffic and fitting within the Owner's budget of \$72 million. The design also included analysis and rehabilitation of bridge and culvert structures.

Time of Involvement: Aug 2017 to Present

Client: Louisiana Department of Transportation and Development (DOTD)

Client Reference Details: Peggy Jo Paine, PE, O: (225) 379-1065, peggy.paine@la.gov

US 90 (I-49 SOUTH), ALBERTSON'S PARKWAY TO AMBASSADOR CAFFERY, DESIGN-BUILD, BROUSSARD, LA



I-10 DESIGN BUILD LA 73 TO HIGHLAND, EAST BATON ROUGE TO ASCENSION, LA



COLBY GUIDRY, PE, CBI


DESIGN QUALITY MANAGER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Colby John Guidry
1833 Sawmill Road
Breaux Bridge, LA 70517



**LOUISIANA PROFESSIONAL
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(LAPELS)
9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
www.lapels.com

Mr. Colby John Guidry

License/Certificate Type - Number	Expiration Date
PE.0031338	09/30/2020

Status: Active

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ROY PAYNE, PE

ENVIRONMENTAL COMPLIANCE OFFICER

QUALIFICATIONS

- **Company:** Providence Engineering and Design, LLC
- **Years of Experience:** 16+
- **Education/Memberships/Licenses:**
 - B.S. in Civil Engineering, 2002, Louisiana State University
 - License No. 32540

INTRODUCTION

Mr. Roy Payne has over 16 years of experience in the construction of transportation and related civil projects. During his career, he has actively participated in all phases of project development on a wide variety of transportation and wastewater projects. The projects have ranged from interstate reconstruction, interstate interchange construction, and large-scale urban projects. His involvement has been as an Assistant Project Engineer and Project Engineer for transportation projects and as Design Engineer on wastewater projects. Through his oversight and Project Engineer work, he has experienced many different projects, each with differing scopes, some of which were re-striping interstates, large- and small-scale bridge replacements, sewer construction of sewer force main, gravity sewer and pump stations, large-scale traffic signal intersection upgrades, and large drainage improvement projects through urban areas.

Mr. Payne has been responsible for constructability reviews, temporary traffic control plans, sequence of construction reviews, overall project plan review, utility coordination and relocation oversight, and outlining contract time and road closure requirements for projects bid in his area. Mr. Payne has worked as a Project Engineer for LA DOTD in Districts 61 and 62, worked as a Project Engineer on CE&I projects in Districts 61, 62, and 02, and worked as a Project Engineer for East Baton Rouge Parish Department of Public Works. Mr. Payne has experience in monitoring, documenting, and reporting environmental compliance for work on transportation related projects. His vast construction oversight and environmental compliance experience will be utilized to immediately report any violations or non-compliance and will administer the appropriate recommendations for Corrective Action including stoppage of any and all work. Mr. Payne has extensive experience both working for and with Governmental Entities and will use this experience to timely submit all necessary environmental documentation and monitoring reports when applicable to the extent necessary to maintain compliance with Environmental approvals. Mr. Payne has over ten years of experience successfully managing environmental compliance of urban roadway and bridge construction projects. Mr. Payne has successfully completed the course: NHI Course No. 142005 – NEPA and the Transportation Decision Making Process. He also has current ATSSA Traffic Control Supervisor and Flagger certifications.

RELEVANT EXPERIENCE

HOLLYWOOD ROAD WIDENING, STATE PROJECT NO. (SPN) H.007350 | HOUMA, LA

Work involved serving as the project engineer in a CE&I capacity in the management of widening the existing Hollywood Road on behalf of the owner Terrebonne Parish Consolidated Government. The project consisted of replacing the existing two-lane asphalt roadway with a four-lane concrete pavement roadway. The project replaced the existing open ditches with subsurface drainage and

ROY PAYNE, PE

ENVIRONMENTAL COMPLIANCE OFFICER - CONTINUED

installed new gas, water, and sewer lines performed by the prime contractor. The traffic signals were also upgraded to mast arms at two intersections on the project and the project was re-stripped once completed. All utility relocations and new utility lines were inspected, and installation coordinated by the project engineer.

Time of Involvement: 06/16 – 11/17

Client: Louisiana Department of Transportation and Development

LA DOTD ESSEN LANE BRIDGE WIDENING, SPN H.011668 | BATON ROUGE, LA

The existing bridge on Essen Lane was widened on both sides of the bridge to allow for an additional northbound lane to be added in a follow-up road construction project. Also included in this project was utility relocation and oversight by the project engineer on behalf of LA DOTD in conjunction with a relocation sub-consultant overseeing the daily activities of each utility company on Essen Lane in preparation of the follow-up road project. Clearing and grubbing was also included as part of this project. Served as LA DOTD Project Engineer in the management of widening the existing Essen Lane bridge over Ward's Creek.

Time of Involvement: 02/15 – 05/16

Client: Louisiana Department of Transportation and Development

BATON ROUGE RIVERFRONT REDEVELOPMENT TRANSPORTATION IMPROVEMENTS, SPN H.006500, | BATON ROUGE, LA

Work involved serving as project engineer to oversee the construction of the removal of the existing southbound lane on River Road that was replaced with a shared walk and bike sidewalk/pathway. The project also installed pedestrian lighting for the shared pathway, provided a landing and steps to access the Mississippi River Levee, installed brick paved crosswalks for pedestrian access across River Road, and provided landscaping improvements for the entire corridor.

Description of your Role and Responsibilities:

Time of Involvement: 10/13 – 12/14

Client: East Baton Rouge Parish DPW

I-10 CORRIDOR STUDY: LA 415 TO ESSEN ON I-10 AND I-12, STAGE 0 AND STAGE 1 FEASIBILITY STUDY AND ENVIRONMENTAL ASSESSMENT, STATE PROJECT NO. H.004100.2, FEDERAL AID PROJECT NO. H004100 | EAST AND WEST BATON ROUGE PARISHES, LA

Served as Project Manager for the management of NEPA process, NEPA document development, coordination with agencies, oversight of all technical studies, and contract administration.

Time of Involvement: 11/17 – Ongoing

Client: Louisiana Department of Transportation and Development

ROY PAYNE, PE

ENVIRONMENTAL COMPLIANCE OFFICER - CONTINUED

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS) 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	Mr. Roy Henry Payne Jr.	
License/Certificate Type - Number	Expiration Date	
PE.0032540	09/30/2020	
Status:	Active	



LARRY SANT, PE

LEAD GEOTECHNICAL ENGINEER

QUALIFICATIONS

- **Company:** GeoEngineers
- **Years of Experience:** 20+
- **Education/Memberships/Licenses:**
 - M.S., Civil Engineering/2001/Brigham Young University
 - B.S., Civil Engineering/2001/Brigham Young University
 - American Society of Civil Engineers (ASCE), American Council of Engineering Companies (ACEC), Louisiana Engineering Society
 - Civil Engineer, Louisiana, 2010; Idaho, 2006; Washington, 2004
 - Traffic Control Certification, 2018

INTRODUCTION

Larry Sant is a senior geotechnical engineer with almost 20 years of experience managing geotechnical engineering projects. His experience includes project planning and technical direction during exploration, laboratory testing, engineering analyses, report preparation and construction monitoring. Larry has been involved in hundreds of projects involving roadways ranging from highways to private access drives, airports, bridges, dams, university and K-12 schools, wastewater treatment plants, drainage facilities, utility projects, and other structures ranging from private residences to large public and private facilities.

RELEVANT EXPERIENCE

I-210 AT COVE LANE INTERCHANGE | LAKE CHARLES, LOUISIANA

Lake Charles, Louisiana is the host city for many industrial companies who rely on the city’s roadways. This major project, also known as “Cove Lane”, created the required interchange at I-210 and Cove Lane with a roundabout as well as extending Cove Lane to connect with a new public roadway running parallel to I-210 and leading to the new Golden Nugget Casino. In addition, the I-210 mainline was elevated to pass over the new surface street and Cove Lane, connecting existing roadways to the development. The project was funded by an intergovernmental cooperative

I-210 AT COVE LANE INTERCHANGE, LAKE CHARLES, LA



agreement between LADOTD, the Port of Lake Charles, Pinnacle Entertainment and others. Larry was the project manager for this fast-tracked design and construction project in support of the proposed Interchange on I-210 at Cove Lane. GeoEngineers completed engineering analyses and provided recommendations for design and construction of about 8,000 driven pile foundations, MSE walls, and wick-drain/surcharge design to reduce post-construction embankment settlement in accordance with AASHTO LRFD specifications for highway bridges. In addition, the GeoEngineers’ team monitored MSE wall construction, provided PDA evaluation of the piles during installation, and installed liquid settlement sensors to monitor embankment settlement. The Cove Lane interchange had a complicated and varying geology including very soft soil, a compressed construction schedule, wick drain/surcharge embankment settlement, driven piles, and MSE Walls.

LARRY SANT, PE

LEAD GEOTECHNICAL ENGINEER - CONTINUED

Time of Involvement: 2013 to 2015

Client: Louisiana Department of Transportation and Development (LADOTD)

Client Reference Details: Timothy Nickel, PE, O: (225) 379 – 1110, timothy.nickel@la.gov

DESIGN-BUILD US90 @ LA318 INTERCHANGE | ST. MARY PARISH, LOUISIANA

The US90/LA318 Interchange project was in preparation for the conversion of US90 to future I-49 in St. Mary Parish and included construction of access ramps between US90 and LA318, realignment of the frontage road for local access parallel to US90, and elevating US90 over LA318. As part of a design-build team, GeoEngineers provided geotechnical engineering design services and construction recommendations. Larry served as the lead geotechnical engineer and geotechnical project manager. Our work included completing preliminary designs for compliance with AASHTO LRFD and LADOTD standards. GeoEngineers also provided geotechnical design as needed throughout the duration of the design-build construction process. Areas of geotechnical design include the following:

- Review of project geology and explorations previously completed.
- Providing explorations and laboratory testing for foundation, embankment settlement and pavement design.
- Engineering analysis and recommendations for driven pile foundations for highway overpass bridges and drainage culvert design.
- Engineering analysis and recommendations for wick drains and surcharge to reduce post-construction embankment settlement, including field monitoring.

Field monitoring of pile dynamic testing including WEAP and PDA analysis. This design-build project will pave the way for the major conversion of US90 to I-49. This project is a good example of how GeoEngineers has been able to handle projects of this magnitude on major roadways with wick drain/surcharge embankment settlement, driven piles and a compressed construction schedule.

Time of Involvement: 2015 to 2018

Client: Louisiana Department of Transportation and Development (LADOTD)

Client Reference Details: Timothy Nickel, PE, O: (225) 379 – 1110, timothy.nickel@la.gov

DESIGN-BUILD I-12 WIDENING FROM AMITE RIVER TO JUBAN ROAD | LIVINGSTON PARISH, LOUISIANA

This design-build project consisted of widening I-12 eastbound and westbound from two lanes to three lanes each way from the Amite River to Juban Road. Larry was the geotechnical project manager and geotechnical engineer for this project. GeoEngineers provided site exploration, laboratory testing and engineering analyses and recommendations for design and construction of driven pile foundations for widening four bridge structures in accordance with AASHTO LRFD specifications for highway bridges, which included PDA/CAPWAP monitoring and PDA testing during pile driving. For this design-build project, conflicts arose when two contractors were working in the same area. In dealing with conflicts in the overlapping area, both design-builders collaborated to coordinate their activities and improve communications by holding regular meetings. This particular project experience shows that GeoEngineers is capable of handling the conflicts and issues associated with large projects and team dynamics as well as driven pile design and testing for large projects.

Time of Involvement: 2010 to 2011

Client: Louisiana Department of Transportation and Development (LADOTD)

Client Reference Details: Jeffrey Burst, PE, O: (225) 389-3170, Jeffrey.Burst@la.gov

LARRY SANT, PE


LEAD GEOTECHNICAL ENGINEER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

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Mr. Larry Dean Sant
11955 Lakeland Park Boulevard, Suite 100
Baton Rouge, LA 70809



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9643 Brookline Avenue, Suite 121
Baton Rouge, LA 70809
Phone (225) 925-6291
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Mr. Larry Dean Sant

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PE.0035625	09/30/2020

Status: Active

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JASMINE HARALSON

PUBLIC INFORMATION COORDINATOR

QUALIFICATIONS

- **Company:** Franklin Associates
- **Years of Experience:** 15+
- **Education/Memberships/Licenses:**
 - M.P.A. – University of New Orleans, 2004
 - B.S. Public Relations/Public Policy – University of New Orleans, 2002
 - Public Relations Society of America
 - Tres Doux Foundation
 - Tales of the Cocktail – Diversity Council
 - Greater New Orleans Sports Foundation
 - Legacy Donor Foundation
 - New Orleans Regional Leadership Institute

INTRODUCTION

An astute leader with a background of 15+ years in public relations, external affairs, community engagement, and diversity who has demonstrated the ability to build loyalty and ensure integrity, efficiency, and cohesiveness.

RELEVANT EXPERIENCE

PORT OF NEW ORLEANS | NEW ORLEANS, LA

Jasmine served as the Community Engagement Manager. The Port of New Orleans is a modern multimodal gateway for global commerce. The port's mission is to drive regional economic prosperity by maximizing the flow of international trade and commerce as a modern gateway. Their competitive edge comes from the ability to deliver seamless, integrated logistics solutions between river, rail, and road. Builds, strengthens, and manages relationships to ensure the ongoing delivery of the Port's messages, announcements and initiatives; Serves as the liaison to the city's administrative/legislative bodies; Interfaces with representatives from various communities, organizations, and neighborhoods to address and accommodate diversity among populations and cultures; Reviews and analyzes issues, policies, and programs; Manages sponsorship efforts. This project is relevant for its community engagement and governmental liaison services supporting a water transport entity.

Time of Involvement: 2017 - Present

Client: Port of New Orleans

Client Reference Details: Michelle Ganon – Chief of Staff & Vice President of Public Affairs, O: (504) 528-3467 M: (504) 376-3649, michelle.ganon@portnola.com

NEW ORLEANS REDEVELOPMENT AUTHORITY (NORA) | NEW ORLEANS, LA

Jasmine served as the Director of External Affairs & Intergovernmental and Community Relations Manager. The New Orleans Redevelopment Authority is a catalyst for the revitalization of the city, partnering in affordable and equitable strategic developments that celebrate the city's neighborhoods and honor its traditions. Jasmine's role and responsibilities included builds, strengthens, and manages relationships with print and electronic media representatives to ensure the ongoing delivery of NORA's

JASMINE HARALSON

PUBLIC INFORMATION COORDINATOR - CONTINUED

messages, announcements, and initiatives; Coordinates in-house website maintenance and oversees contracted public relations consultants and related budget; Serves as the liaison to the federal, state, and local legislative bodies; Crafts and implements media strategies and action plans to ensure public message is consistent with the Board of Commissioners' intergovernmental affairs goals and other regional policies and initiatives; Headed the agency's community engagement efforts by planning, coordinating, and implementing quality community support and outreach services. This project is relevant for its community, legislative and media engagement for city agency.

Time of Involvement: 2008-2017

Client: New Orleans Redevelopment Authority

Client Reference Details: Anita L. Briant – Director of Human Resources, (504) 319-7483, albriant@nola.gov

CITY OF NEW ORLEANS | DEPARTMENT OF PARKS AND PARKWAYS | NEW ORLEANS, LA

Jasmine served as the Deputy Director. The Department of Parks and Parkways manages, maintains, develops, beautifies and preserves over 2,000 acres of New Orleans' public green space which include 2 major parks and 200 smaller parks. The mission of the department is to provide a clean and safe environment, to meet the leisure needs of citizens and visitors, to enhance the quality of life, and to contribute to the City's economic development. Jasmine co-managed the department accountable for the ongoing maintenance of the city's 2,000+ acres of greenspace and 500,000 trees; Managed a budget of \$7.1M; Oversaw the department's customer service function; Served as the department's representative for the City's Emergency Operations Center and community liaison to neighborhood organizations; Responded to correspondence from citizens, business owners, elected officials, and other city agencies. This project is relevant for its community engagement with regard to city planning.

Time of Involvement: 2003-2005

Client: City of New Orleans

Client Reference Details: Ann E Macdonald, O: (504) 658-3205 M: (504) 909-0771



DEXTER DIXON

QUALITY MANAGER

QUALIFICATIONS

- **Company:** Massman Construction Co.
- **Years of Experience:** 40+
- **Education/Memberships/Licenses:**
 - USACE Construction Quality Management for Contractors course
 - Skyline College, San Bruno, CA – 1985, General Studies

INTRODUCTION

Dexter Dixon has more than 40 years of experience in quality management roles on heavy civil and marine projects. His supervision of quality processes includes the coordination of QC plans; daily reporting of testing, inspections, and construction activities; reviewing materials, plans, and drawings for contract compliance; managing submittals and deficiency tracking; and conducting and documenting preparatory, initial, and final meetings for features of work.

RELEVANT EXPERIENCE

CHAMP CLARK BRIDGE REPLACEMENT | LOUISIANA, MISSOURI | US \$60 MILLION

This in-progress design-build bridge project will replace the existing bridge on US 54 that was built in 1928. It spans the Mississippi River and connects Louisiana, Missouri, with the state of Illinois. The five river spans will utilize steel plate girders with full depth precast deck panels while the approach will include precast concrete girders with cast-in-place deck. It will include four river piers, each founded on 11-foot 6-inch diameter drilled shafts, with three land piers that incorporate 48-inch diameter pipe pile foundations and columns. As quality manager, Dexter oversees all quality inspections and testing including documentation records for precast concrete and steel fabrications and all on-site construction activities. He also reviews material and shop drawing submittals. This project is relevant because of its Design-build bridge contract; marine-based construction; removal of existing bridge; bridge approach work; precast elements; cast-in-place concrete structures; structural steel work; 100-year bridge design.

Time of Involvement: July 2017 - Present

Client: Missouri DOT/Illinois DOT

Client Reference Details: Brandi Baldwin, Deputy Project Director – Missouri DOT, O: (573) 560-1085
M: (660) 676-8934, brandi.baldwin@modot.mo.gov

GOETHALS BRIDGE REPLACEMENT | ELIZABETH, NEW JERSEY | US \$943 MILLION

The new Goethals Bridge replaced the existing structure that was built in 1928. It consists of twin 1.4 mile long cable-stayed bridge structures, with 900 foot main spans and associated precast concrete girder approach spans. It provides pedestrian and bicycle access and carries three lanes of traffic each way between Staten Island, New York, and Elizabeth, New Jersey. As quality control manager, Dexter was responsible for quality control of all construction activities for the New Jersey approach spans, as well as the documentation of these activities. He assisted with supervising the shop drawings, RFI, NCR, and submittal processes.

DEXTER DIXON

QUALITY MANAGER - CONTINUED

Part of a 40-year design-build finance-operate-maintain contract; precast elements; structural concrete and structural steel erection; 150-year bridge design.

Time of Involvement: Dec 2013 – July 2017

Client: Port Authority of New York and New Jersey

Client Reference Details: Chris Jenkins, Construction Quality Director – NYNJ Link, O: (914) 467-0765, chris.jennkins@nynjlink.com

CHALMETTE LEVEE LOOP – BAYOU BIENVENUE TO BAYOU DUPRE – LPV 145 | CHALMETTE, LOUISIANA | US \$350 MILLION

This project was part of an initiative by the USACE to bring the hurricane protection levee system around St. Bernard Parish up to current standards. It consisted of constructing 31,000 feet of a reinforced concrete T-wall that is supported by 115-foot H-piling, and a sheet pile cut off wall. It was completed in less than 16 months. As quality control manager, Dexter was responsible for the administration of the document control process for quality, scheduling, engineering, correspondence, and construction work plans. This project included pile driving – 1,200,000 LF of H-pile; reinforced concrete construction – 84,000 CY; Experience in Louisiana, specifically in the New Orleans area; alternative project delivery (Early Contractor Involvement).

Time of Involvement: July 2009 – Sept 2011

Client: US Army Corps of Engineers – New Orleans District

Client Reference Details: Carrie Wakumoto, Contracting Officer, O: (504) 862-1975, carrie.k.wakumoto@usace.army.mil

OLMSTED LOCK & DAM APPROACH WALLS | OLMSTED, ILLINOIS | US \$106 MILLION

This project included the construction of four, fixed-nose pier structures, four floating approach walls, one fixed approach wall with related excavation, grading, and stone protection. It included 37 large diameter drilled shafts with lifts between 150 and 340 tons, with a floating concrete plant that provided the cast-in-place concrete. As quality assurance manager, Dexter coordinated all QAQC activities with Corps representatives. He was responsible for reviewing the project schedule, contract requirements, and drawing submittals, as well as maintaining the RMS submittal register, submittal files, and assisting with concrete pre-placement. This project included fabrication and erection of large precast elements; post-tensioning of concrete structures; reinforced, mass, and tremie concrete; reinforcing steel installation.

Time of Involvement: 2002 – 2005

Client: US Army Corps of Engineers – Louisville District

Client Reference Details: William Gilmour, Constructability Engineer, O: (502) 315-7216, William.j.gilmour@usace.army.mil



THOMAS GATTLE, III, PE

ROADWAY DESIGN ENGINEER

QUALIFICATIONS

- **Company:** Huval & Associates, Inc.
- **Years of Experience:** 20+
- **Education/Memberships/Licenses:**
 - B.S., Civil Engineering, Louisiana State University
 - ACEC, LES, ASCE
 - PE (LA #30779)

INTRODUCTION

Mr. Gattle has over 20 years experience in the design and management of roadway and bridge projects. Mr. Gattle has been instrumental in the design, production and overall management of projects for the LA DOTD. These projects include performing Lead Design and Project Management of numerous Bridge Rehabilitation Retainer Contracts, LA DOTD Bridge Inspection projects, LA DOTD Roadway Design Project. In addition, Mr. Gattle was the Lead Designer for numerous road and bridge design projects for the Lafayette Consolidated Government Projects. These include rural and urban design projects both large and small. Prior to joining HUVAL, Mr. Gattle was in responsible charge of the I-49 Connector EIS and I-10 Calcasieu River Bridge Environmental Assessment. He has experience and in roadway design, drainage design, feasibility studies, bridge design, and bridge inspection. Most recently, Mr. Gattle was Project Manager and Lead Design for the redesign of the MacArthur Drive Interchange Improvements - Phase 1. Mr. Gattle is presently is Project Manager and Lead Design for I-49 at Verot School Road.

RELEVANT EXPERIENCE

MACARTHUR DRIVE INTERCHANGE COMPLETION – PHASE 1B | JEFFERSON PARISH, LOUISIANA | US \$35 MILLION

The Project included Geometric/Span Layout Modifications and Structure Design to replace the existing US 90 elevated on ramp with braided entrance and exit ramps connecting the elevated Westbank Expressway to the parallel frontage roads. This \$35M reconstruction project provided additional ramps from the US 90B elevated roadway to the adjacent realigned parallel frontage roads under tight timeframes. This complex project included post tension inverted T-caps and custom trapezoidal girders, all being constructed in a tight urban environment. As Project Manager and Lead Engineer, Mr. Gattle was responsible for coordinating the design efforts of multiple. Specific design responsibilities included the geometric design of the braided ramp system, traffic phasing during construction, at-grade roadway improvements and overall QC of the project. This project was a complex bridge and roadway project in a tight urban area in Jefferson Parish, Louisiana, that was assigned to HUVAL to be redesigned in a heavily constricted area under a short timeframe.

Time of Involvement: 10/2011 to 9/2013

Client: Louisiana Department of Transportation and Development (LA DOTD)

Client Reference Details: Chris Guidry, O: (225) 379-1328, Chris.Guidry@la.gov

US 90 (I-49SOUTH), ALBERTSON'S PARKWAY TO AMBASSADOR CAFFERY, DESIGN-BUILD PROJECT | LAFAYETTE, LA | US \$57 MILLION

LA DOTD Design-Build project to provide corridor improvement to US 90, LA 182 and frontage roads in Broussard, Louisiana. This project required the complete reconstruction of the existing four-lane urban highway into a six-lane controlled access interstate. The project scope included the replacement of two BNSF RR overpass bridges within the same footprint while maintaining 4-lanes of US 90 traffic during construction. This required a complex, three-phase, traffic control plan to move traffic

THOMAS GATTLE, III, PE

ROADWAY DESIGN ENGINEER - CONTINUED

safely through the tight work zone. As the Project Manager and Lead Designer for HUVAL, Mr. Gattle provided geometric layout, bridge concept and layout, and led the bridge design for the design team. Mr. Gattle's geometric design concept saved millions of dollars and allowed the Design Build Team to be 15% below the construction estimate of the nearest competitor. This is a recent LA DOTD Complex Design Build project designed under tight timeframes that included bridge overpass design, railroad coordination, redesigned parallel frontage roads and intersection improvements.

Time of Involvement: 2014 to Present

Client: Louisiana Department of Transportation and Development (LA DOTD)

Client Reference Details: Peggy Joe Paine, O: (225) 379-1065, peggy.paine@la.gov

I-49 SOUTH AT VEROT SCHOOL ROAD | LAFAYETTE, LA | US \$100 MILLION (EST.)

The purpose of the project is to construct 2.4 miles of mainline freeway and an interchange at the intersection of I-49 South/US 90 and Verot School Road. The project consists of an above grade bridge structure on Verot School Road that traverses over the I-49 South/US 90 mainline roadway and the parallel railroad. The project also includes one-way frontage roads on both sides of the mainline roadway, a two-way collector service road east of the mainline roadway, and a new alignment of Verot School Road from the interchange to an existing bridge structure approximately 600' west of its intersection with LA 182 (Pinhook Road). A roundabout will be utilized as the intersection between the reconstructed and realigned Verot School Road and South College Drive. The project is currently under the Preliminary Plan design phase. Phase 1 consisted of a topographic survey, SUE services, traffic engineering analysis, conceptual roadway design and bridge design, preliminary geotechnical study and public meeting and outreach. The goal of Phase 1 was to analyze and update the Record of Decision (ROD) Conceptual Layout and assess the limits of the updated concept compared to that of the ROD Concept. Mr. Gattle is the Team Project Manager and Lead Roadway Designer to provide preliminary roadway and bridge engineering and related services for this project. This design project consists of freeway design, rural roadway design, urban roadway design and bridge design under tight right-of-way. The Future I-49 Mainline and Southbound Frontage Road are adjacent to railroad right-of-way. The Future Verot School Road was designed to minimize right-of-way impacts and to avoid railroad impacts via the custom Bridge Overpass design.

Time of Involvement: 7/2016 to Present

Client: Louisiana Department of Transportation and Development (LA DOTD)

Client Reference Details: Corey Landry, P.E.,
O: (225) 379-1889, corey.landry@la.gov

CAUSEWAY SAFETY BAY CMAR | JEFFERSON & ST. TAMMANY PARISHES, LA | \$55 MILLION

The Safety Bay project, providing 12 bays 16' wide by 1,008' long, is the first CMAR highway project in Louisiana. This includes development of a Guaranteed Maximum Price, an accelerated project schedule (design 6 months and construction 15 months), and a unique maintenance of traffic plan to maintain safety such that the existing bridges will be widened under traffic without reducing the number of lanes or narrowing and shifting the lanes. A Segmented CMAR approach was utilized so that advance construction packages including an Advance Test Pile Program, Advance Pile Order, and Advance Girder Order are being implemented as well as the final CMAR package and GMP. Mr. Gattle assisted in program manager duties and design analysis and this project is relevant by its phased construction with focus on maintenance of traffic.

Time of Involvement: 2017-2018

Client: Greater New Orleans Expressway Commission (GNOEC)

Client Reference Details: Carlton Dufrechou, General Manager, 504-835-3118, cdufrechou@gnoec.org

THOMAS GATTLE, III, PE


ROADWAY DESIGN ENGINEER - CONTINUED



LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD

As of 11/1/2018, the Louisiana Professional Engineering and Land Surveying Board (LAPELS) has the following information on file:

Mr. Thomas Millard Gattle III
207 Worth Avenue
Lafayette, LA 70508

	LOUISIANA PROFESSIONAL ENGINEERING & LAND SURVEYING BOARD (LAPELS) 9643 Brookline Avenue, Suite 121 Baton Rouge, LA 70809 Phone (225) 925-6291 www.lapels.com	
	Mr. Thomas Millard Gattle III	
License/Certificate Type - Number	Expiration Date	
PE.0030779	09/30/2019	
Status:	Active	

Please be advised that your license must be in "Active" status in order for you to (a) provide or offer to provide engineering or land surveying services in Louisiana or (b) use the words "engineer", "engineering", "land surveyor", "land surveying" or any modification or derivative thereof in your name or in connection with your business or activities in Louisiana. Licensees whose licenses are in "Retired", "Inactive", or "Expired" status are prohibited from engaging in the activities described above in items (a) and (b).

LA R. S. 37:689 requires firms practicing or offering to practice engineering or land surveying in the state of Louisiana to be licensed by the Board prior to offering such services.

Print and keep the following information for your record or verification. The pocket card may also be printed on card stock or laminated to keep with you as license/certificate verification.

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DANNY BISHOP

SAFETY MANAGER

QUALIFICATIONS

- **Company:** Massman Construction Co.
- **Years of Experience:** 28+
- **Education/Memberships/Licenses:**
 - Columbia Southern University, BS Construction Engineering/Construction Management Program
 - American Society of Safety Professionals
 - 132 Hours OSHA Professional; OSHA Outreach Trainer; Certified Rigger and Signalman Trainer; Former EMT; American Red Cross CPR & First Aid Trainer

INTRODUCTION

Danny Bishop has more than 28 years of experience working in marine construction safety and the emergency medical field. Danny has been instrumental to the successful development and implementation of our safety management program. He ensures site safety is proactively managed, and that all site safety programs are structured to promote a safe workplace for every employee on every project, with all work procedures following a defined safe work process. Under Danny’s leadership, our construction teams understand that an active commitment to safety is a critical component to the success of our project management and execution strategies – it is a necessity, not an option.

RELEVANT EXPERIENCE

CHAMP CLARK BRIDGE REPLACEMENT | LOUISIANA, MISSOURI | US \$60 MILLION

This in-progress design-build bridge project will replace the existing bridge on US 54 that was built in 1928. It spans the Mississippi River and connects Louisiana, Missouri, with the state of Illinois. The five river spans will utilize steel plate girders with full depth precast deck panels while the approach will include precast concrete girders with cast-in-place deck. It will include four river piers, each founded on 11-foot 6-inch diameter drilled shafts, with three land piers that incorporate 48-inch diameter pipe pile foundations and columns. As safety manager, Danny developed and implemented the project-specific safety plan; coordinated new hire orientations, safety programs, medical response plans, and activity hazard accident prevention programs. He ensures mitigation measures are identified and implemented in accordance with all safety plan requirements. This project included a design-build bridge contract; marine-based construction; removal of existing bridge; bridge approach work; precast elements; cast-in-place concrete structures; structural steel work; 100-year bridge design.

Time of Involvement: 2017 to TBD 2019

Client: Missouri DOT/Illinois DOT

Client Reference Details: Brandi Baldwin, Deputy Project Director – Missouri DOT, O: (573) 560-1085
M: (660) 676-8934, brandi.baldwin@modot.mo.gov

HUEY P. LONG BRIDGE WIDENING – MAIN SPAN SUPERSTRUCTURE | NEW ORLEANS, LA | US \$454 MILLION

This project for the Louisiana Department of Transportation & Development widened the superstructure of this major Mississippi River crossing in New Orleans. It consisted of strengthening certain critical members of the existing steel truss and adding an additional truss on each side to

DANNY BISHOP

SAFETY MANAGER - CONTINUED

support the widened bridge deck. The project included the removal of more than 60,000 rivets, erection of more than 17,000 tons of structural steel, and installation of more than 360,000 high-strength structural bolts. As safety manager, Danny was responsible for the development and implementation of the project-specific safety plan for training, management, safety education, compliance, and requirements of the project. He was also responsible for the workman's comp program, medical care, security, and accident audits. He also coordinated public relations regarding safety with the owner and subcontractors. This project included experience in New Orleans/Louisiana working with the Department of Transportation and Development; major bridge project; innovative construction methods; marine traffic coordination; rail coordination; traffic coordination.

Time of Involvement: 2008 to 2012

Client: Louisiana Department of Transportation & Development/TIMED Managers

Client Reference Details: Steve Spohrer, Former Deputy Director of Construction, M: (225) 573-1033, sspohrer@gecinc.com

BROADWAY BRIDGE REPLACEMENT | LITTLE ROCK, AR | US \$102 MILLION

Project Bio: This project consisted of construction of a new double-basket network tied arch bridge over the same existing alignment as the old bridge. It is supported by three piers that were built on 9-foot-diameter drilled shafts. The approach spans are conventional substructure elements supported by steel H-pile. Our innovative construction methods allowed for the closure of the existing bridge, demolition, and construction of the bridge span in only 180 days. As safety manager, Danny was responsible for developing the project specific safety plan, coordinating the safety planning and Activity Hazard Analysis for the work plans needed for each definable feature of work. He was also responsible for new employee orientation, all safety education and training, safety management and any compliance requirements of the project. This project included cast-in-place road deck; approach work; pile driving; plate girder segments; innovative construction methods; traffic maintenance and minimal impacts to the traveling public.

Time of Involvement: 2015 to 2017

Client: Arkansas Department of Transportation

Client Reference Details: Mark Trickey, PE, Senior Engineer, M: (501) 258-1278, mark.trickey@ardot.gov

STAN MUSIAL VETERANS MEMORIAL BRIDGE | ST. LOUIS, MO | US \$230 MILLION

This project was part of a program that realigned the Interstate 70 corridor through downtown St. Louis and across the Mississippi River. The new cable-stayed bridge features a 1,500-foot main span, with two, 636-foot end spans. The main river piers consist of delta-shaped pylons rising 380 feet above the water and founded on 11.5-foot-diameter drilled shafts that are anchored into the bedrock with 22-foot-deep rock sockets. As safety manager, Danny was responsible for the development and implementation of the project-specific safety plan for training, management, safety education, compliance, and requirements of the project. He was also responsible for the workman's comp program, medical care, security, and accident audits. This project included major bridge structure; precast concrete elements; cast-in-place structural concrete; structural steel; cofferdams.

Time of Involvement: 2012 to 2014

Client: Missouri Department of Transportation

Client Reference Details: Greg Horn, PE, Former District Engineer, O: (314) 335-4000, greg.horn@modot.mo.gov



SCOTT SORENSEN

TOLLING OPERATIONS MANAGER

QUALIFICATIONS

- **Company:** Kapsch TrafficCom
- **Years of Experience:** 21+
- **Education/Memberships/Licenses:**
 - Accounting, Brigham Young University
 - Management and Accounting, California Polytechnic State University

INTRODUCTION

Mr. Sorensen is a veteran customer care professional with 21 years of experience opening and operating CSCs, with 7 years in tolling CSCs. He combines trained staffing with advanced technology to deliver exemplary service to government and commercial customers. He is highly proficient in managing people and projects in a multi-channel contact center environment. He is currently responsible for leadership of electronic tolling operations, including customer service, workforce management, training, recruiting, quality, and budgeting; integrally involved in assuring compliance with all client-driven goals, customer service objectives, and contractual requirements; develops company-wide strategies to design and implement continuous improvements to customer service delivery. Extensive experience in opening new tolling CSC operations.

VICE PRESIDENT CSC OPERATIONS, KAPSCH TRAFFICCOM (2018 – 2019)

Responsible for oversight of Kapsch CSC operations in North America. Participated in business development to grow Kapsch service center operations to meet current and future traffic management needs.

RELEVANT EXPERIENCE

PROGRAM MANAGER; SENIOR PROGRAM MANAGER; DIRECTOR OF TOLLING; VICE PRESIDENT OF ELECTRONIC TOLLING | FANEUIL, INC. (2011 – 2018)

Responsible for E-ZPass (Virginia), SunPass (Florida), Transurban (495 Express Lanes), and Elizabeth River Crossing (ERC) electronic toll collection systems and management of a \$60 million-plus budget. Scope of services encompasses telephone, fax, email, mail, and web chat support, as well as face-to-face customer interactions in retail settings. Expertise also includes management of back office operations, such as invoicing and payments, mailroom and document processing.

VIRGINIA DEPARTMENT OF TRANSPORTATION E-ZPASS | 2014

Ran operations for transportation, tolling and transit projects and activity, as well as major account client relationships including tolling operations, customer service, workforce management, training, recruiting, quality and budgeting.

TRANSURBAN, I-495/95 CAPITAL BELTWAY EXPRESS LANES | ALEXANDRIA, VA | 2014

Mr. Sorensen opened and operated the customer service center, including facility and staffing, and was accountable for the on-time and on-budget delivery. Participated in development of company-wide strategies to design and implement continuous improvements to customer service delivery.

SCOTT SORENSEN

TOLLING OPERATIONS MANAGER - CONTINUED

ELIZABETH RIVER CROSSING | PORTSMOUTH, VA | 2013

Opened and operated customer service center and ensured full compliance with all aspects of multiple client contracts in Virginia. Developed key program documentation, including operations manuals, safety and security plans, and disaster recovery/business continuity plans for multiple clients, as well as a comprehensive ergonomics and safety program.



STEVEN CORBIN

TOLLING SYSTEM MANAGER

QUALIFICATIONS

- **Company:** Kapsch TrafficCom
- **Years of Experience:** 25+
- **Education/Memberships/Licenses:**
 - Finance Diploma – U.S. Army Institute of Personnel/Resource Management, 1984
 - Member of ITS America, TRB AHB20, IBTTA

INTRODUCTION

Mr. Corbin has more than 25 years’ experience in the tolling and traffic operations industry in a variety of technical and managerial roles, including 10+ years tolling project management. As the Southeastern General Manager for Kapsch TrafficCom USA, Inc., Mr. Corbin is responsible for the overall operations of KTC - USA’s regional offices throughout the Southeast to include Louisiana, Georgia, Tennessee, and Florida. Mr. Corbin is responsible for planning and staffing, coordinating with marketing in support of proposals and presentations, and the overall execution of projects performed by the Southeast regional offices. As a senior project manager for Kapsch, Mr. Corbin has profit/loss responsibility for delivery of the assigned projects on time, on budget, and in conformance with the contract requirements. He determines resource allocation requirements, manages subcontractor activities and is responsible for administering all associated scheduling, budgeting and cost control activities. Mr. Corbin is also responsible for the direct supervision of personnel performing design and integration project work. Mr. Corbin is has managed various transportation projects and programs including for agencies such as the State Road and Tollway Authority (SRTA), Tampa Hillsborough Expressway Authority (THEA), Florida DOT, the Metropolitan Transportation Commission, and the City of Toronto. His breadth of experience includes program management, project management, software development and deployment, Toll operations, TMC operations, traffic incident management and change management.

RELEVANT EXPERIENCE

CUSTOMER SERVICE SYSTEM IMPLEMENTATION AND MAINTENANCE CONTRACT | STATE ROAD AND TOLLWAY AUTHORITY (SRTA) | ATLANTA, GA | PRINCIPAL IN CHARGE, 12/2017–PRESENT

Mr. Corbin serves as the principal in charge (PIC) and lead government adviser for the delivery of the Customer Service System (CSS) including customer account management (e.g., design, installation, integration, implementation and maintenance) that performs all functions typical of a tolling commercial CSS. Mr. Corbin is responsible for the overall contract delivery, client relations, change order management and overall management of a 40 person team. The project includes transition and data migration from the current CSS vendor ETCC, 18 data interfaces, interoperability and roadside data and interface management. Total duration of project to include operations and maintenance is for 12 years.

MAINTENANCE OF ITS INFRASTRUCTURE CONTRACT | CENTRAL EXPRESSWAY AUTHORITY (CFX), ORLANDO, FL | PRINCIPAL IN CHARGE | 9/2015–PRESENT

Mr. Corbin serves as the principal in charge (PIC) in providing staffing and services to ensure complete maintenance services for the CFX’s ITS infrastructure and toll systems communication infrastructure, including fiber optic plant. This project manages 6 toll roads with over 100 miles of infrastructure which maintains over 1,000 critical safety devices to include wrong-way driving detection, highway advisory

STEVEN CORBIN

TOLLING SYSTEM MANAGER - CONTINUED

radio (HAR) systems and incident dynamic message signs (DMS). Services include dedicated 24/365 coverage to respond to all critical failures within the required response times. Our dedicated staff of 12 also includes a project secured facility and the necessary equipment and vehicles necessary to deliver and maintain the systems.

IOWA DEPARTMENT OF TRANSPORTATION OPERATIONS | IOWA STATEWIDE | PRINCIPAL IN CHARGE | 02/2014–PRESENT

Mr. Corbin is the Vice President of TMC Services in which he is leading the development of statewide and regional operations for the Iowa Department of Transportation. He is responsible for the contract deliverables and duties including: freeway to arterial operational planning, coordinated signal operations, managing Incident management and motorist assist operations; researching and implementing new technologies; maintaining consistent and pro-active 24/7 TMC operation; developing and maintaining strategic plans, developing performance measurement program; maintaining integrated corridor management plans and implementing active traffic management strategies. Mr. Corbin has also led statewide dynamic messaging workshops and also performance measure initiatives.

DECISION SUPPORT SYSTEM AND ATMS SOFTWARE CONCEPT STUDY | FDOT, DISTRICT 5; PRINCIPAL IN CHARGE | 02/2014–PRESENT

Mr. Corbin serves as the principal in charge (PIC) and lead government procurement adviser for this concept study project to evaluate the development of a decision support system and ATMS system, which interfaces with the stakeholder traffic signal systems and coordinates responses to incidents in the Orlando region. The project includes development of a Concept of Operations document, State of the Practice, System Requirements and an evaluation of alternatives and costs. The project also supports the procurement of the system using an invitation to negotiate (ITN) process, where FDOT D5 has specifically asked for Mr. Corbin's expertise due to his experiences while employed with FDOT D4.

TOLL SYSTEM INTEGRATION (TSI), STATE ROAD AND TOLLWAY AUTHORITY (SRTA) | ATLANTA, GA; DIRECTOR OF OPERATIONS | 05/2012–09/2014

Mr. Corbin was the operations lead in a \$27.7 million contract to 3M Toll Services for toll systems integration on the I-75 south express lanes and the I-75/I-575 northwest corridor express lanes projects. Project provides tolling solutions for the state's first reversible tolled lanes to include designing and deploying the toll system at the roadside, as well as back office management and integration with the toll system. The I-75 South express lanes project represents 12 miles of reversible barrier-separated electronic toll lanes along I-75 and I-675 in Henry and Clayton Counties. The Northwest corridor project is 29.7 miles of reversible, barrier-separated electronic toll lanes along I-75 and I-575 in Cobb and Cherokee Counties.

ALL ELECTRONIC TOLL (AET) CONVERSION | TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY (THEA) | TAMPA, FL | TOLLS OPERATIONS MANAGER | 07/2010–05/2012

Mr. Corbin's responsibilities included the procurement of the AET system provider, project management, testing and implementation for AET operations. THEA's approach was to procure the toll system off of existing contracts in Florida, reducing procurement time and cost. The toll system at all 14 tolling sites was designed, tested, and put into operations in a span of 10 months. In addition, Mr. Corbin was also responsible for the integration and coordination activities of the new back office provider.



CHAD VOSBURG, PE

QUALITY CONTROL MANAGER

QUALIFICATIONS

- **Company:** ECM Consultants
- **Years of Experience:** 25
- **Education/Memberships/Licenses:**
 - B.S. Civil Engineering, 1993, Louisiana State University

INTRODUCTION

Mr. Vosburg is a professional engineer with experience in construction and contract administration including a 25-year career with LADOTD. His projects have included highway and bridge construction, pump station design and rehabilitation, debris removal operations and emergency reconstruction. Mr. Vosburg previously served as District 61 Administrator for LADOTD where he provided leadership to a multidisciplinary staff of more than 300 personnel and directed all Baton Rouge operations including construction, maintenance, engineering, public works, traffic services, business, ports, pumping stations and drainage, toll facilities, roads, bridges and other DOTD facilities throughout the nine parishes under District 61, centered in Baton Rouge, LA. He was responsible for staffing construction projects, maintenance, operations including movable bridges, and miscellaneous incidents 24/7 for the entire nine parish area.

RELEVANT EXPERIENCE

S.P. NO. 450-10-0099: I-10 | WIDENING ACADIAN THRUWAY TO I-12, LADOTD, EAST BATON ROUGE PARISH, LA | \$31 MILLION

Mr. Vosburg served as DOTD Project Engineer for this construction inspection project to add an additional lane to I-10 from Acadian Thruway to I-12. The project included widening the bridges at Acadian, College Drive, and over Ward’s Creek. Work included concrete and steel girders, concrete median barrier, jointed concrete pavement, stabilized embankment, temporary sheet piling, lime treatment, class 2 base course, drainage and sign truss installation, and other incidental items. In addition to being responsible for Construction Engineering and Inspection work, Mr. Vosburg was also involved in Public Outreach necessary throughout project phasing. Work included several phases where traffic lanes were adjusted to allow for the completion of the project section by section.

S.P. NO. 454-01-0054 | I-12: WIDENING JCT. I-10 TO US 61, LADOTD, EAST BATON ROUGE PARISH, LA | \$44 MILLION

Mr. Vosburg served as LADOTD Project Engineer for this construction inspection project to add an additional lane to I-12 from I-10 to US 61. The project included reconstruction of the Jefferson/Drusilla overpass. Work included drilled shafts, steel girders, concrete median barrier, concrete patching jointed concrete pavement, stabilized embankment, temporary sheet piling, lime treatment, class 2 base course, drainage and sign truss installation, along with other incidental items. In addition to being responsible for the Construction Engineering and Inspection work, Mr. Vosburg also was involved in Public Outreach for DOTD necessary throughout project phasing. Work included several phases where traffic lanes were adjusted to allow for the completion of the project section by section.

CHAD VOSBURG, PE

QUALITY CONTROL MANAGER - CONTINUED

S.P. NO. H.010680 | US 190: LA 415 TO LA 983, CONTINUOUSLY REINFORCED CONCRETE PAVEMENT, LADOTD, WEST BATON ROUGE PARISH, LA | \$17 MILLION

Mr. Vosburg served as DOTD Project Engineer for this construction inspection project involving installation of 11" CRCP pavement. The project included phased work that converted a section of US highway with a center rail to be upgraded to current standards and included widening the existing drainage structure to be able to include a depressed median that conformed to the upgraded roadway section. This project upgraded a 10-mile section of US 190 including embankment, CRCP and asphalt paving, guard railings, turn lanes, crossovers and related work. In addition to being responsible for Construction Engineering and Inspection work, Mr. Vosburg was also involved in Project Development to meet safety initiative goals for LADOTD.

S.P. NO. H.000343.6: US 190 MISSISSIPPI RIVER BRIDGE CLEANING, PAINTING AND REPAIR PHASE 1, LADOTD, EAST & WEST BATON ROUGE PARISHES, LA | \$74.9 MILLION

Mr. Vosburg served as DOTD District Administrator with broad supervision over Construction Engineering and Inspection for this project which involved cleaning, painting, major structural repairs, striping and signage, phased construction, electrical systems repairs, guardrail painting and marking enhancement and waterway and aerial navigational light improvements. Mr. Vosburg's involvement also included project development and working with local elected officials during construction to provide information and notice of on-going project operations throughout the duration of the project.

S.P. NO. H.001940: SUNSHINE BRIDGE REHABILITATION PHASE 2, LADOTD, ASCENSION PARISH, LA | \$25.1 MILLION

Mr. Vosburg served as District Administrator for this project involving rehabilitation of a major Mississippi River bridge crossing, with maintenance and preservation such as concrete barrier rail, guardrail, expansion joint rehabilitation, and painting the entire superstructure. Mr. Vosburg's involvement also included public outreach and working with industrial plants in the area to plan project work to be completed with the least inconvenience and traffic delays to motorists and workers in the area.

S.P. NO. 052-02-0024: AUDUBON BRIDGE AND APPROACHES, LADOTD, POINTE COUPEE & WEST FELICIANA PARISHES, LA | \$410 MILLION

Mr. Vosburg served as DOTD Area Engineer and coordinated with a design-build project team for this \$400 million project involving installation of a major Mississippi River bridge crossing that included a 3186-foot-long cable stayed bridge, four smaller bridges, concrete barrier rail, guardrail, and approach roadways that traversed West Feliciana and Pointe Coupee Parishes. Work included verification that specifications and standards were being met for all components of the cable stayed bridge and approach roadway on both sides of the new bridge. Work also included analyzing design modifications that were issued by the contractor, reviewing remedial work to correct work that did not meet requirements, coordination with local municipalities on closing existing ferry facilities prior to bridge opening, and other related duties that required coordination with DOTD, parish, city and contracting staff.

CHAD VOSBURG, PE

QUALITY CONTROL MANAGER - CONTINUED

The Louisiana State Board of Registration for Professional Engineers and Land Surveyors

Hereby Certifies that
Chad Christopher Vosburg

has qualified before this Board in accordance with law and his name
has been inscribed upon the list of registered Professional Engineers. He
is thereby entitled to practice in the State of Louisiana the profession of
Civil Engineering
contingent upon payment of the annual license fee provided by law.

Baton Rouge, La. January 27, 1998



Richard M. Cremonesi
Chairman

William J. P. Long
Secretary

Registration No. 27677



VOLUME IV | TECHNICAL PROPOSAL | STATE PROJECT NO. H.004791

**BELLE CHASSE BRIDGE AND TUNNEL REPLACEMENT
PUBLIC-PRIVATE PARTNERSHIP PROJECT**

ORIGINAL ELECTRONIC PUBLIC COPY | PLENARY INFRASTRUCTURE BELLE CHASSE

TABLE OF CONTENTS

VOLUME IV - PUBLIC COPY*

TECHNICAL PROPOSAL

COVER LETTER	PAGE 1-2
EXECUTIVE SUMMARY	PAGE 1-7
SECTION 1 – LEGAL	PAGE 1-135
Form of Proposal	
Form A	
Form B	
Form C	
Secretary of State Certification, or Commitment to Become Registered	
Licensing Information	
Non-Collusion Form	
Form D	
Form E	
Organizational Conflict of Interest Disclosure	
Form F	
Approvals for Changes in Key Personnel or Organization	
Form G	
Surety(ies) Commitment Letter	
Proposal Bond	
SECTION 2 – DESIGN-BUILD	PAGE 1-91
Structures	
Design-Build Organization and Approach	
Public Information and Communication	
Demolition and Decommissioning of Existing Infrastructure	
Schedule, Cost Control, and Risk Management	
Design-Build Quality Management and Safety	
Vehicular and Marine Maintenance of Traffic	
Operations and Maintenance of the Current Facility	
SECTION 4 – OPERATIONS AND MAINTENANCE	PAGE 1-23
Routine Maintenance, Rehabilitation, and Handback	
Operations and Maintenance Management Plan	
Operations and Maintenance Quality Management	
SECTION 5 – KEY PERSONNEL AND EXPERIENCE	PAGE 1-48
Form H	
Key Personnel Resumes	

*Technical Proposal - Section 3 and the entire Financial Proposal are omitted due to the documents containing confidential proprietary or trade secret information.

TABLE OF CONTENTS

VOLUME IV - PUBLIC COPY*

TECHNICAL PROPOSAL - APPENDIX

APPENDIXPAGE XX

Organization Charts

Plan Set

Roadway Design Reports

Utility Conflict Matrix and Utility Conflict Plans

Approved ATC List/Index

Schedule

CONFIDENTIAL CONTENTS

VOLUME I | TECHNICAL PROPOSAL

SECTION 3 – TOLLING **PAGE 1-50**

Belle Chasse Tolling Systems and Operations
Form I
LA 1 Tolling Systems and Operations

Justifying Statement: Louisiana Public Records Law, Title 44 Public Records and Recorders, Chapter 1 Public Records, §3.2. Proprietary and trade secret information expressly exempts Section 3 of the proposal, because this document contains proprietary and trade secret information pertaining to patterns, designs, devices, methods, and processes which are proprietary or trade secret.

VOLUME III | FINANCIAL PROPOSAL

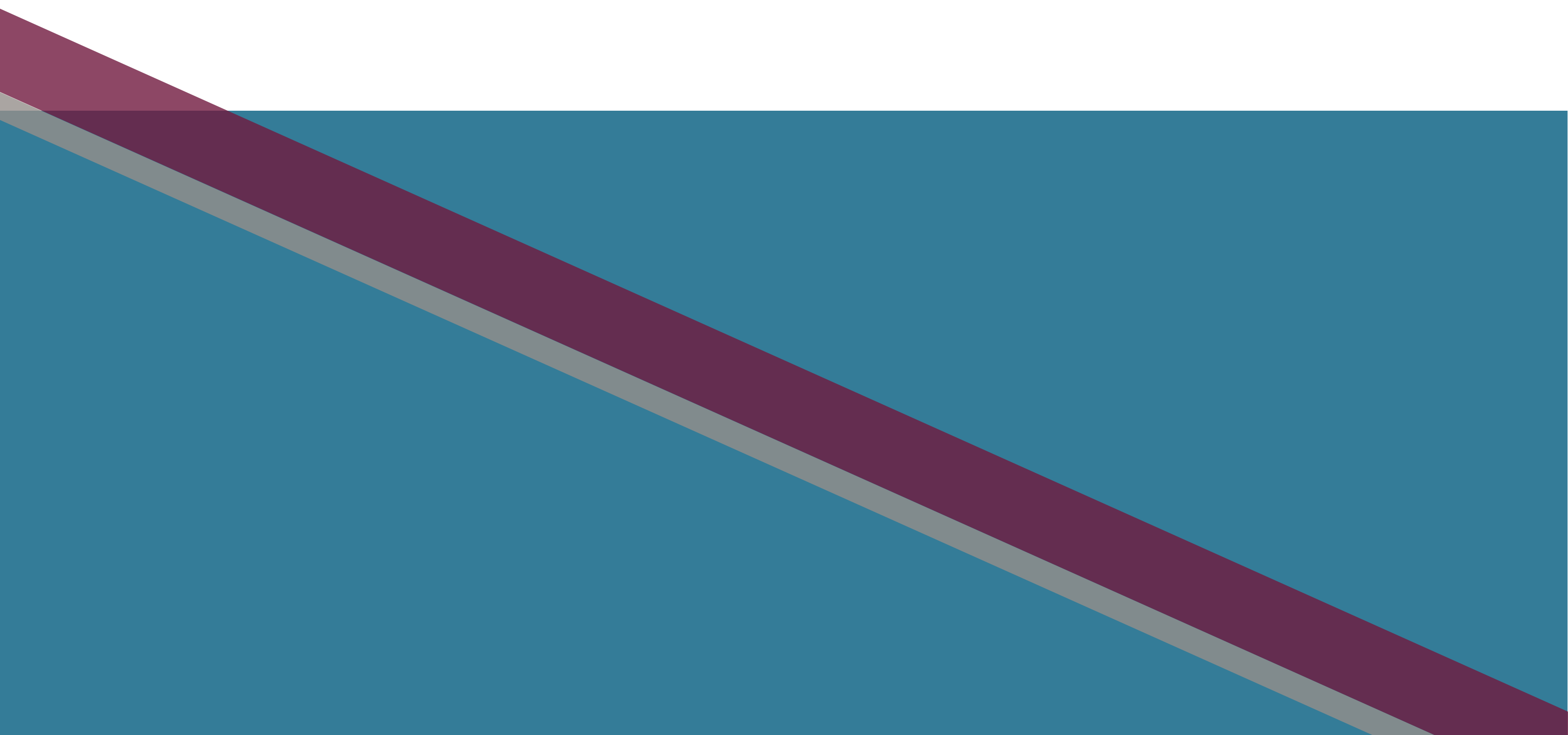
The entire Volume III, Financial Proposal is to be treated and considered confidential proprietary or trade secret information.

Justifying Statement: The entire Volume III, Financial Proposal is to be treated and considered confidential proprietary information as it contains financial and performance related information for private companies.



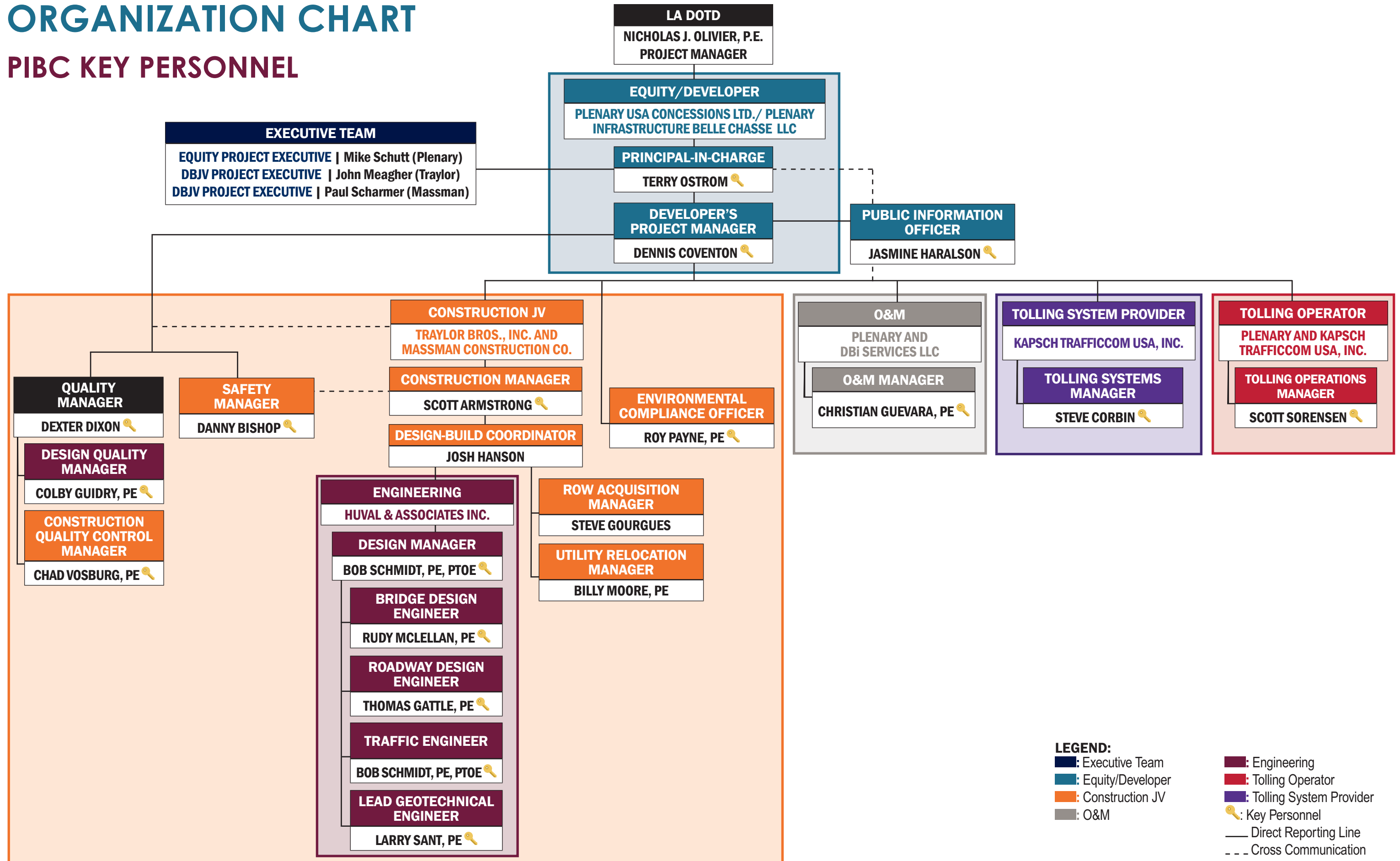
APPENDIX

ORGANIZATION CHARTS



ORGANIZATION CHART

PIBC KEY PERSONNEL

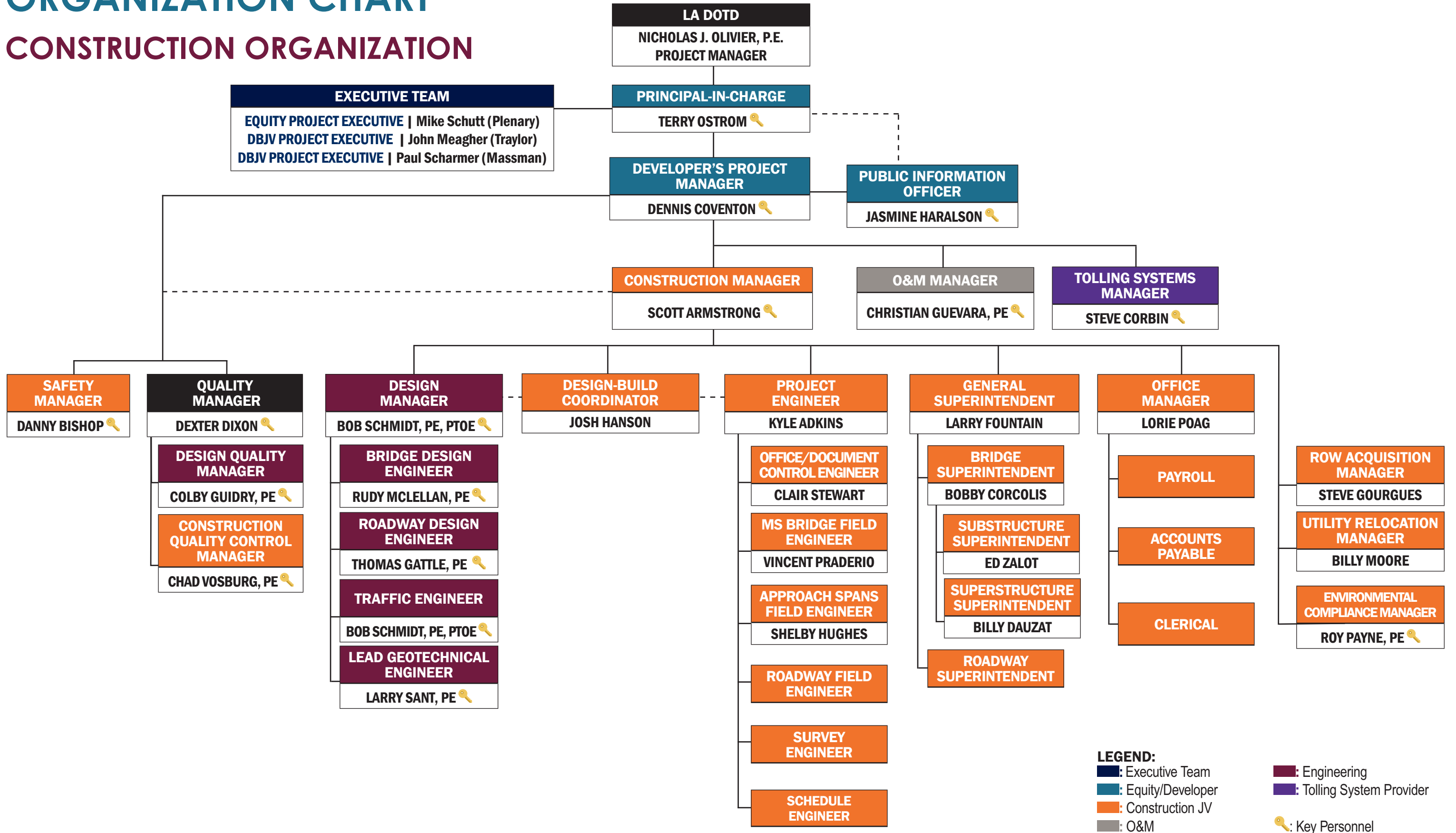


LEGEND:

- █: Executive Team
- █: Equity/Developer
- █: Construction JV
- █: O&M
- █: Engineering
- █: Tolling Operator
- █: Tolling System Provider
- 🔑: Key Personnel
- : Direct Reporting Line
- - -: Cross Communication

ORGANIZATION CHART

CONSTRUCTION ORGANIZATION

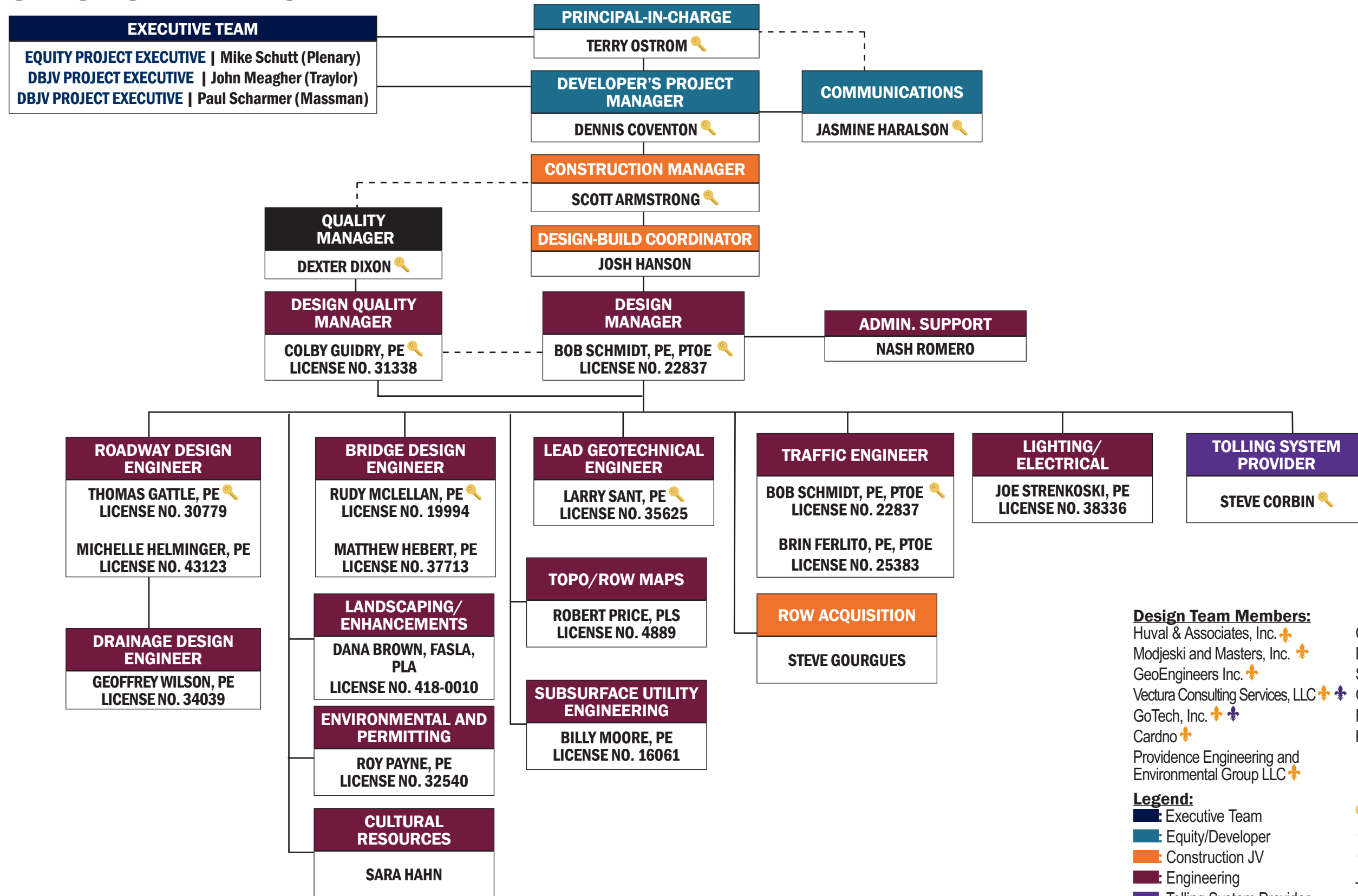


LEGEND:

- Executive Team
- Equity/Developer
- Construction JV
- O&M
- Engineering
- Tolling System Provider
- Key Personnel
- Direct Reporting Line
- - - Cross Communication

ORGANIZATION CHART

DESIGN ORGANIZATION



Design Team Members:

- Huval & Associates, Inc. ✦
- Modjeski and Masters, Inc. ✦
- GeoEngineers Inc. ✦
- Vectura Consulting Services, LLC ✦
- GoTech, Inc. ✦
- Cardno ✦
- Providence Engineering and Environmental Group LLC ✦
- Coastal Environments ✦
- Dana Brown & Associates, Inc. ✦
- Sigma Consulting Group, Inc. ✦
- GCR Incorporated ✦
- Franklin Associates, LLC ✦
- Kapsch TrafficCom USA, Inc.

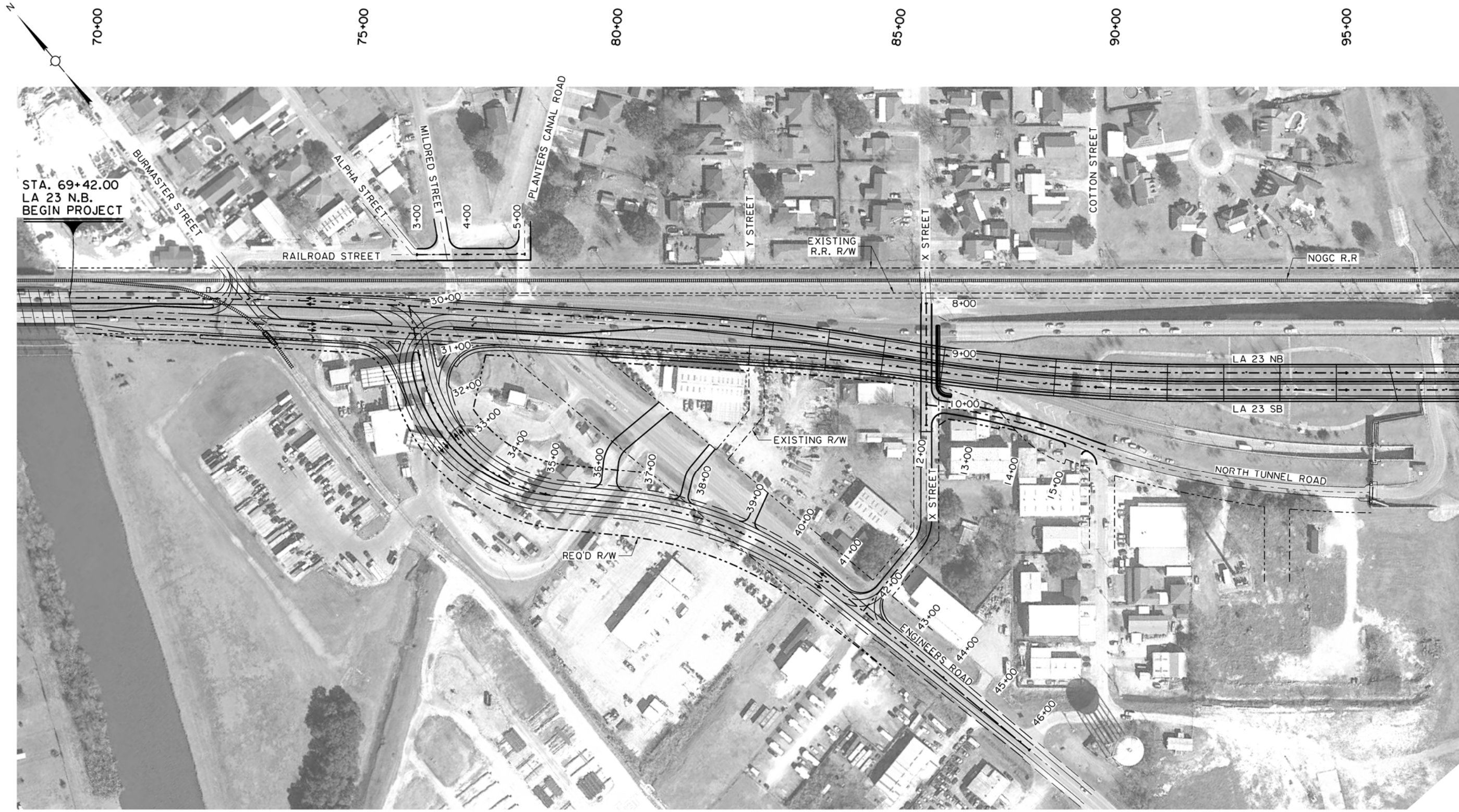
Legend:

- █: Executive Team
- █: Equity/Developer
- █: Construction JV
- █: Engineering
- █: Tolling System Provider
- █: O&M
- 🔑: Key Personnel
- ✦: Local to Louisiana
- ✦: DBE Company
- : Direct Reporting Line
- - -: Cross Communication

PLAN SET

TECHNICAL PROPOSAL

S:\xdr\vc\HUAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\3072211PR 1a-1b:4119@cm



PLAN - NORTH SIDE
SCALE: 1" = 100'

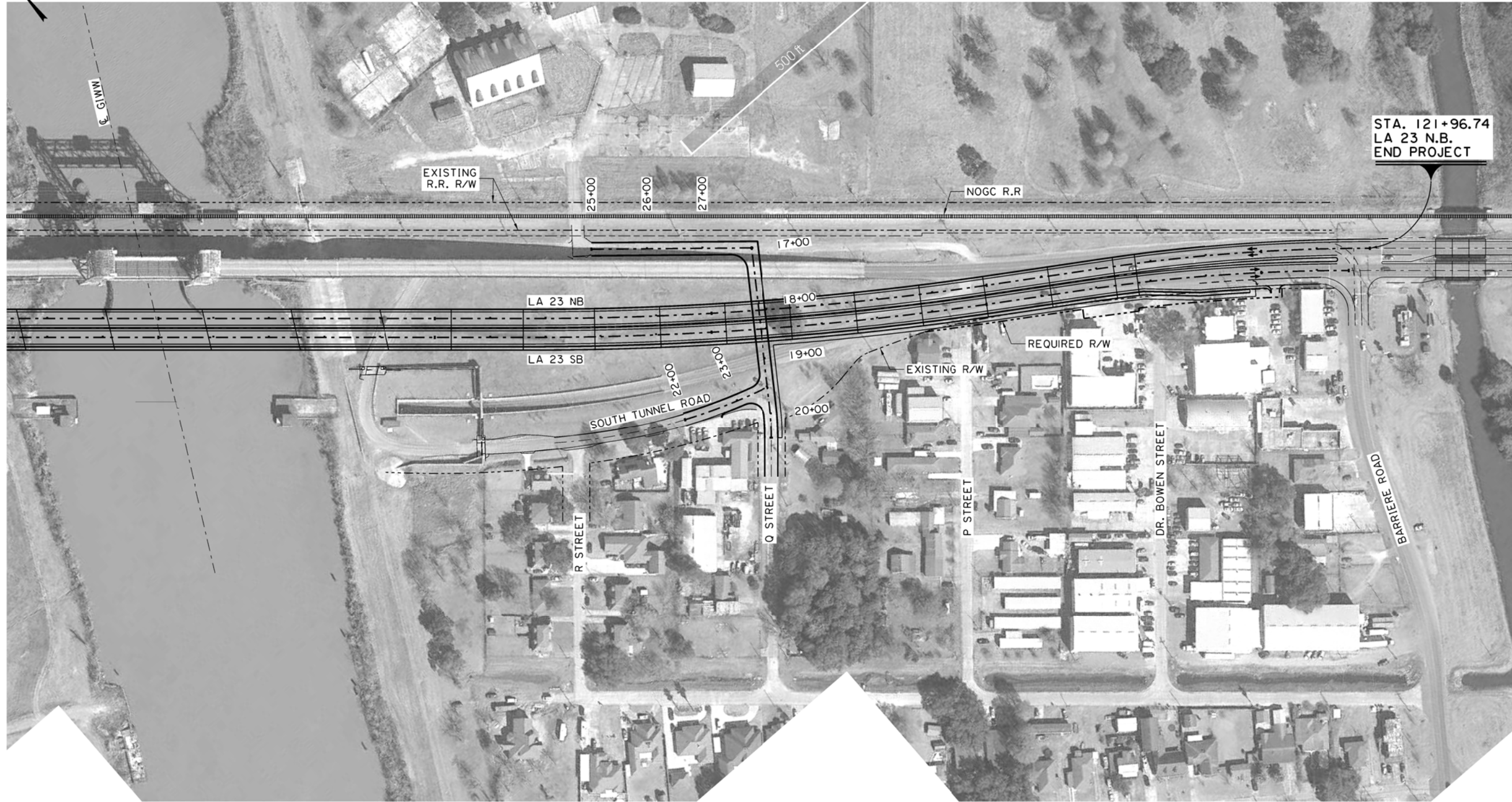
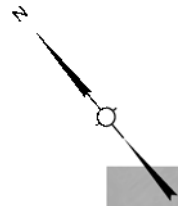
TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

PROJECT LAYOUT MAP NORTH SIDE		PLAQUEMINES	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		062-02, 838-01	
NO. DATE		STATE PROJECT	
REVISION OR CHANGE ORDER DESCRIPTION		H.004791	
BY		1 OF 2	
NO. DATE		DESIGNED MCH	
NO. DATE		CHECKED RWS	
NO. DATE		DETAILED KAC	
NO. DATE		CHECKED MCH	
NO. DATE		CONTROL SECTION	
NO. DATE		OGC-02, 838-01	
NO. DATE		SHEET NUMBER	
NO. DATE		1a	



TECHNICAL PROPOSAL

S:\xdr\va\HUAL Bid Projects\8994 (Belle Chasse P3)\4 - REP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border Lb\3072019\PK la-lb:46-c0\02.dwg

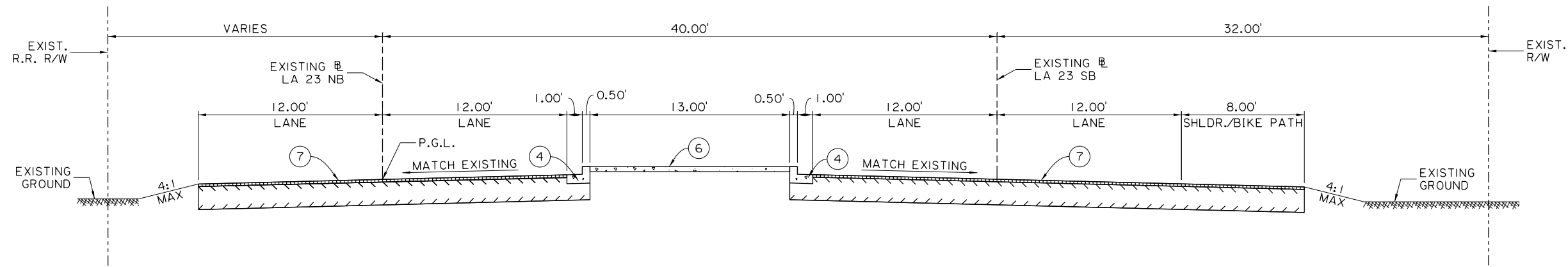


PLAN - SOUTH SIDE
SCALE: 1" = 100'

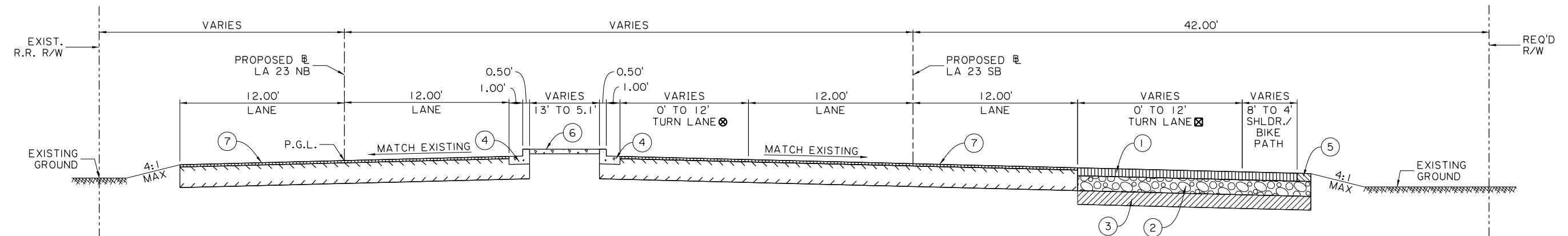
TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

PROJECT LAYOUT MAP SOUTH SIDE		PLAQUEMINES	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		062-02, 838-01	
NO DATE		H-004791	
BY		2 OF 2	
REVISION OR CHANGE NUMBER DESCRIPTION		MCH 2 OF 2	
DESIGNED		CHECKED	
JETAUER KAC		MCH	
PARISH		CONTROL SECTION	
LA 23 N.B.		062-02, 838-01	
STA. 121+96.74		END PROJECT	
SHEET NUMBER		1b	





LA 23 - TYPICAL SECTION
(STA. 69+42.00 TO STA. 69+54.49) \square
N.T.S.



LA 23 - TYPICAL SECTION
(STA. 69+54.49 TO STA. 72+12.99) \square
N.T.S.

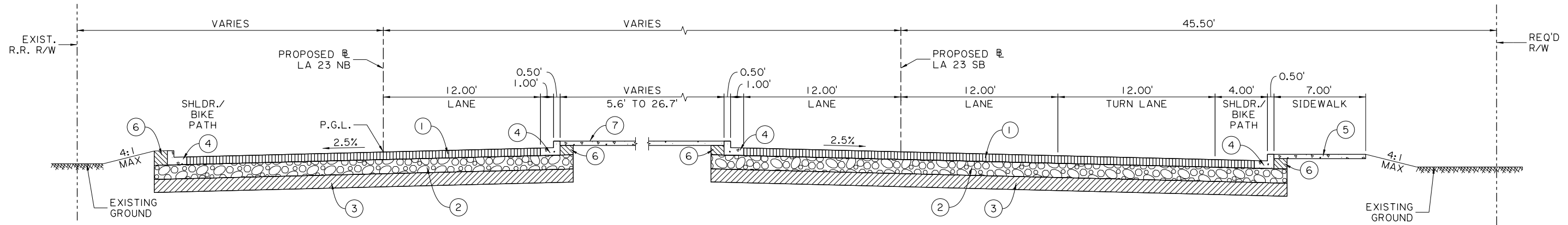
\square STATIONING GIVEN PER LA 23 NB BASELINE.
 \otimes LEFT TURN LANE BEGINS AT STA. 70+11.55.
 \boxtimes RIGHT TURN LANE BEGINS AT STA. 69+74.73.

LEGEND

- ① - 7" ASPHALT
- ② - 13" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - EMBANKMENT
- ⑥ - 4" INCIDENTAL CONCRETE PAVING
- ⑦ - 2" MILL AND OVERLAY

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019

SHEET NUMBER	2	PLAQUEMINES	OG2-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MCH	CONTROL SECTION	CONTROL SECTION	SERIES NUMBER	1 OF 8
CHECKED	RWS	Detailed	KAC	CHECKED	MCH
NO.	DATE	BY	REVISION OR CHANGE ORDER DESCRIPTION		
TYPICAL ROADWAY SECTIONS					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
DOTD					
HUVAL					



LA 23 - TYPICAL SECTION
 (STA. 73+38.77 TO STA. 75+43.15)
 N.T.S.

STATIONING GIVEN PER LA 23 NB BASELINE.

LEGEND

- ① - 7" ASPHALT
- ② - 13" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - 4" CONCRETE SIDEWALK
- ⑥ - EMBANKMENT
- ⑦ - 4" INCIDENTAL CONCRETE PAVING

SHEET NUMBER	2a
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
DESIGNED	MCH
CHECKED	RWS
DETAILED	KAC
CHECKED	MCH
SERIES NUMBER	2 OF 8
BY	
DATE	
NO.	
REVISION OR CHANGE ORDER DESCRIPTION	

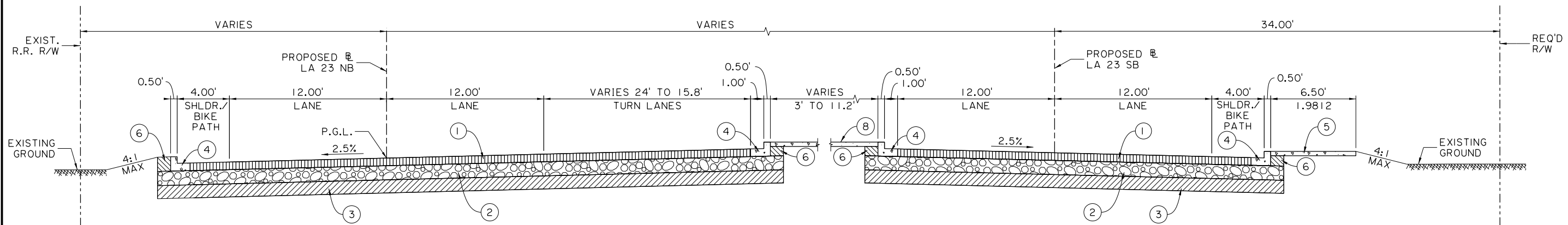


TYPICAL ROADWAY SECTIONS
 BELLE CHASSE BR. & TUNNEL REPLACEMENT

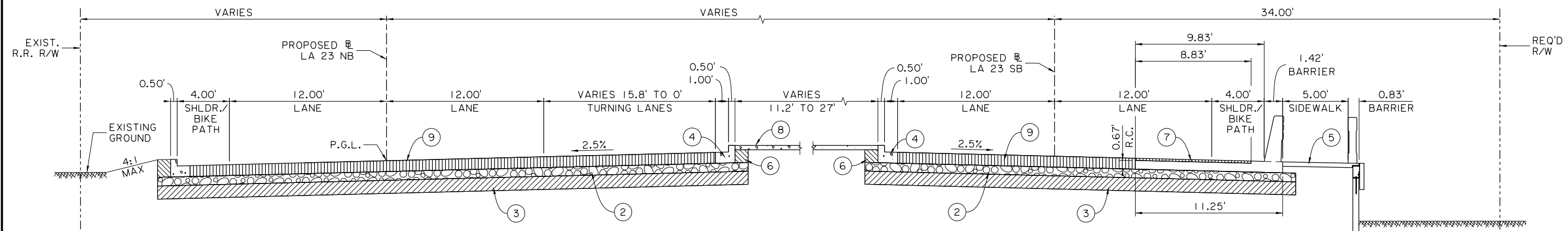
TECHNICAL PROPOSAL

PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019





LA 23 - TYPICAL SECTION
(STA. 78+26.84 TO STA. 80+00.00) N.T.S.



LA 23 - TYPICAL SECTION
(STA. 80+00.00 TO STA. 81+50.00) N.T.S.

LEGEND

- ① - 7" ASPHALT
- ② - 13" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - 4" CONCRETE SIDEWALK
- ⑥ - EMBANKMENT
- ⑦ - 2" ASPHALT
- ⑧ - 4" INCIDENTAL CONCRETE PAVING
- ⑨ - 10" ASPHALT

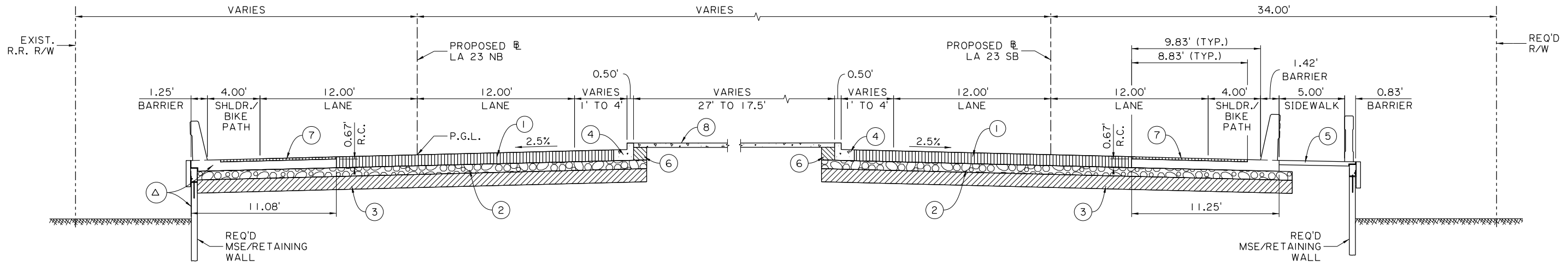
STATIONING GIVEN PER LA 23 NB BASELINE.

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019

SHEET NUMBER	2b	PLAQUEMINES	OG2-02, 838-01	STATE PROJECT	H-004791
DESIGNED	MCH	CHECKED	RWS	CONTROL	KAC
Detailed	KAC	Checked	MCH	Series	3 OF 8
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
TYPICAL ROADWAY SECTIONS					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\291211PR_2-26.dwg:IM



LA 23 - TYPICAL SECTION
 (STA. 81+50.00 TO STA. 83+08.70) \square
 N.T.S.

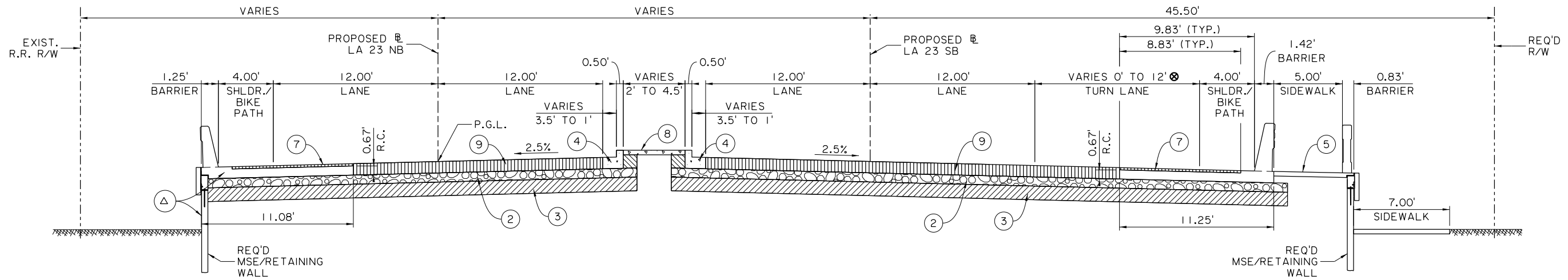
LEGEND

- ① - 10" ASPHALT
- ② - 13" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - 4" CONCRETE SIDEWALK
- ⑥ - EMBANKMENT
- ⑦ - 2" ASPHALT
- ⑧ - 4" INCIDENTAL CONCRETE PAVING

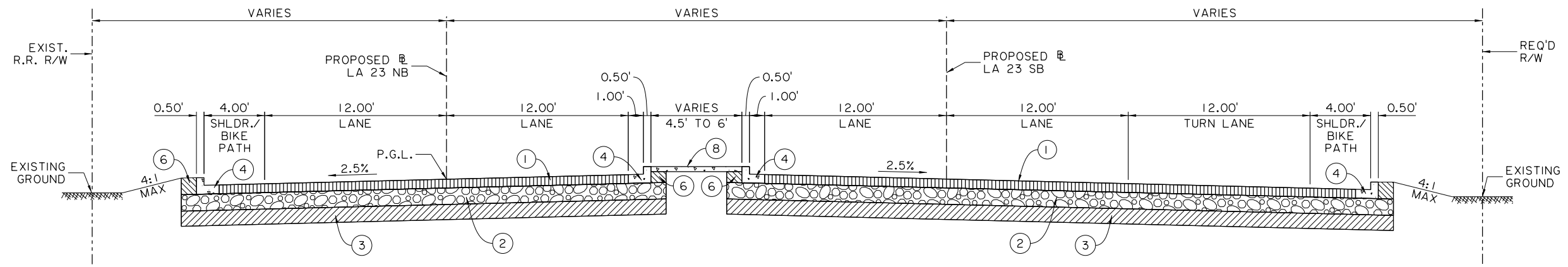
\square STATIONING GIVEN PER LA 23 NB BASELINE.
 Δ MSE WALL AND BARRIER WITH REINFORCED CONCRETE FOOTING BEGIN AT STA. 81+50.00.

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019

SHEET NUMBER	2c	PLAQUEMINES	OG2-02, 838-01	PARISH CONTROL SECTION	H.004791
DESIGNED MCH	CHECKED RWS	DETAILED KAC	CHECKED MCH	SERIES NUMBER	4 OF 8
REVISION OR CHANGE ORDER DESCRIPTION					
BY					
DATE					
NO.					
TYPICAL ROADWAY SECTIONS					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
HUVAL					



LA 23 - TYPICAL SECTION
(STA. 117+71.35 TO STA. 119+75.00) \square
N.T.S.



LA 23 - TYPICAL SECTION
(STA. 119+75.00 TO STA. 121+05.41) \square
N.T.S.

LEGEND

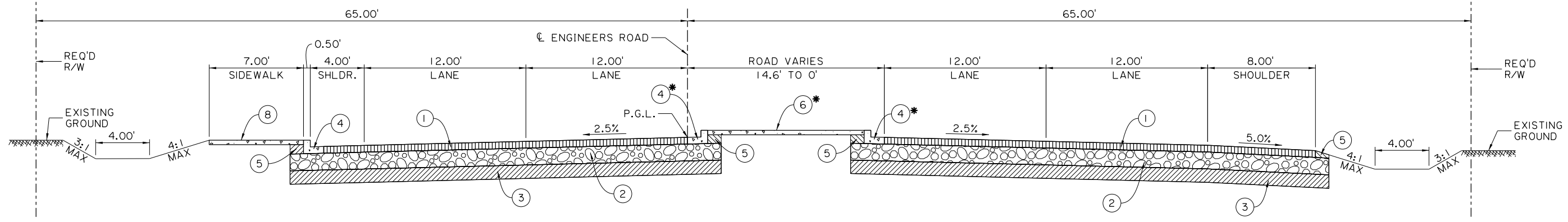
- ① - 7" ASPHALT
- ② - 13" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - 4" CONCRETE SIDEWALK
- ⑥ - EMBANKMENT
- ⑦ - 2" ASPHALT
- ⑧ - 4" INCIDENTAL CONCRETE PAVING
- ⑨ - 10" ASPHALT

- \square STATIONING GIVEN PER LA 23 NB BASELINE.
- \triangle MSE WALL AND BARRIER WITH REINFORCED CONCRETE FOOTING END AT STA. 119+00.00 AND ARE REPLACED WITH CONCRETE CURB.
- \otimes TURN LANE BEGINS AT STA. 117+81.35 AND IS FULL WIDTH AT STA. 118+83.57.

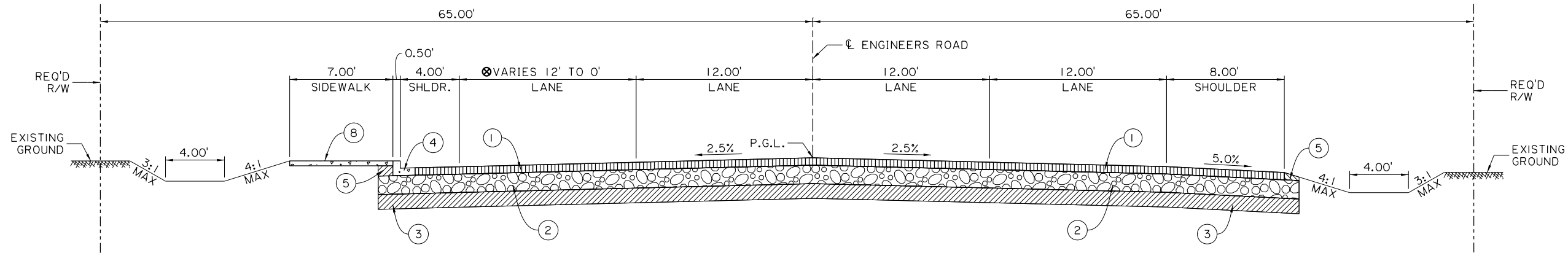
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL AND ASSOCIATES, INC.</p> <p>ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019</p>
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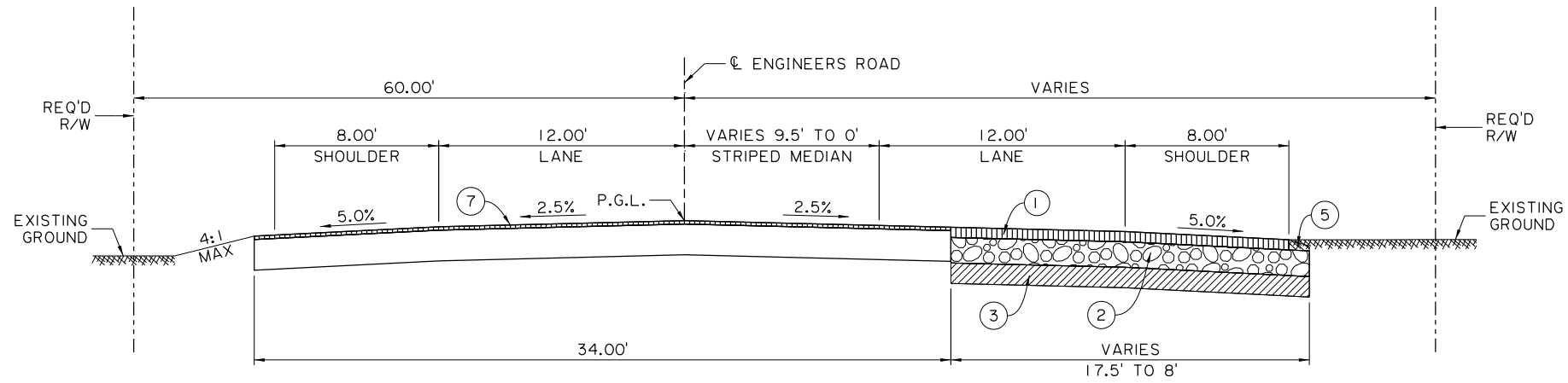
SHEET NUMBER	2d	PLAQUEMINES	OG2-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MCH	Detailed	KAC	Checked	MCH
CHECKED	RWS	CHECKED	MCH	SERIES NUMBER	5 OF 8
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
TYPICAL ROADWAY SECTIONS					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
HUVAL					



ENGINEERS ROAD - TYPICAL SECTION
(STA. 33+22.25 TO STA. 35+35.27)
N.T.S.



ENGINEERS ROAD - TYPICAL SECTION
(STA. 35+35.27 TO STA. 41+36.06)
N.T.S.



ENGINEERS ROAD - TYPICAL SECTION
(STA. 42+45.76 TO STA. 46+24.73)
N.T.S.

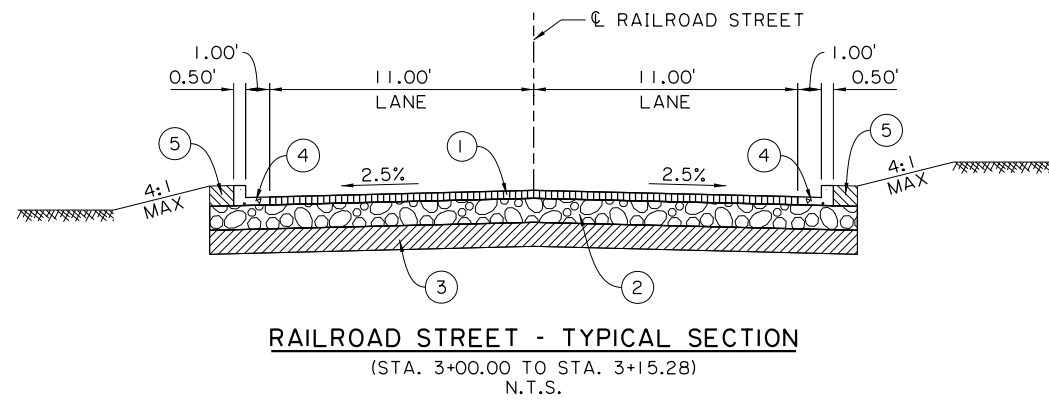
LEGEND

- ① - 6" ASPHALT
- ② - 15" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - EMBANKMENT
- ⑥ - 4" INCIDENTAL CONCRETE PAVING
- ⑦ - 2" MILL AND OVERLAY
- ⑧ - 4" CONCRETE SIDEWALK

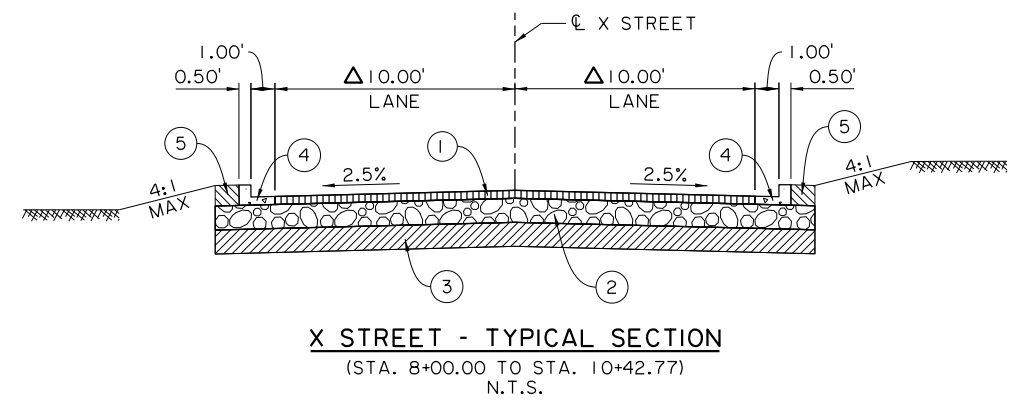
* CURBED MEDIAN ENDS AT STA. 34+25.97.
⊗ LANE WIDTH = 12' FROM STA. 35+35.27 TO STA. 36+58.57.

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

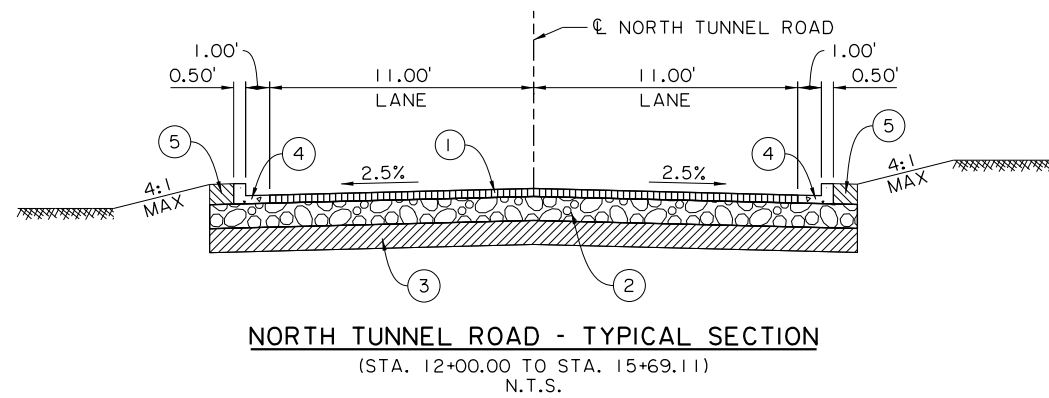
SHEET NUMBER	2e
PARISH	PLAQUEMINE
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H-004791
DESIGNED	MCH
CHECKED	RWS
DETAILED	KAC
CHECKED	MCH
SERIES NUMBER	6 OF 8
REVISION OR CHANGE ORDER DESCRIPTION	BY
NO.	DATE
TYPICAL ROADWAY SECTIONS	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
HUVAL	



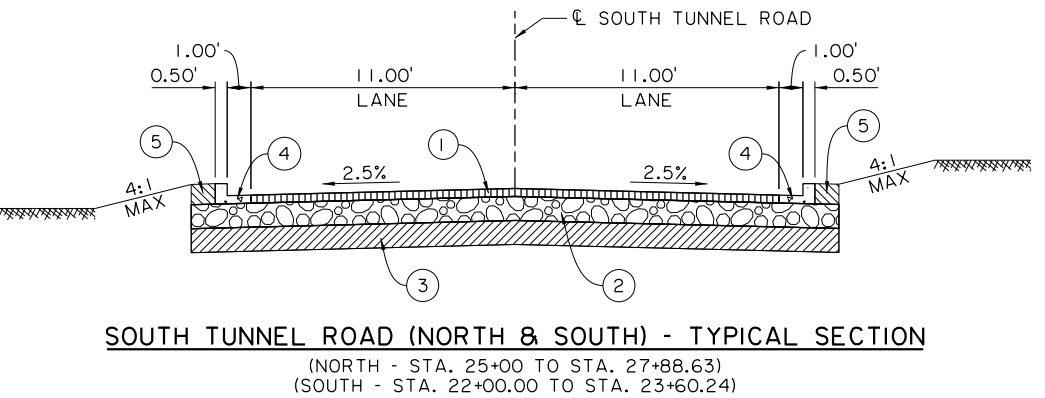
RAILROAD STREET - TYPICAL SECTION
(STA. 3+00.00 TO STA. 3+15.28)
N.T.S.



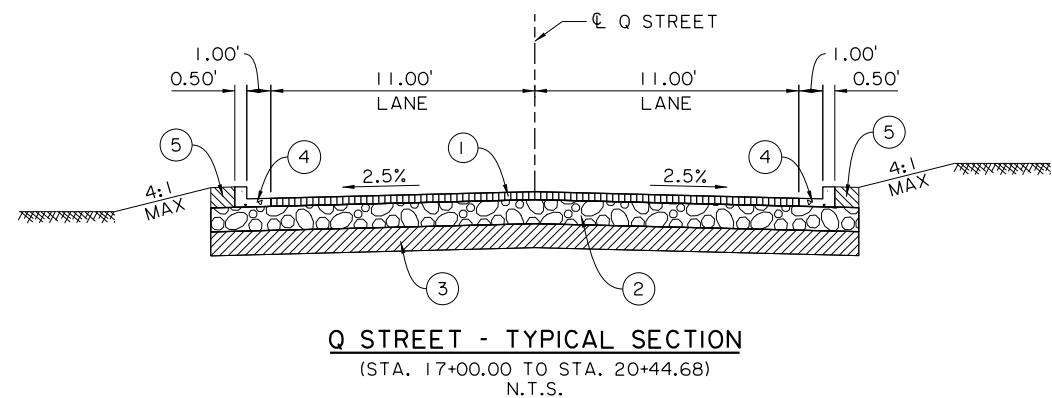
X STREET - TYPICAL SECTION
(STA. 8+00.00 TO STA. 10+42.77)
N.T.S.



NORTH TUNNEL ROAD - TYPICAL SECTION
(STA. 12+00.00 TO STA. 15+69.11)
N.T.S.



SOUTH TUNNEL ROAD (NORTH & SOUTH) - TYPICAL SECTION
(NORTH - STA. 25+00 TO STA. 27+88.63)
(SOUTH - STA. 22+00.00 TO STA. 23+60.24)
N.T.S.



Q STREET - TYPICAL SECTION
(STA. 17+00.00 TO STA. 20+44.68)
N.T.S.

LEGEND

- ① - 4" ASPHALT
- ② - 12" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - COMBINATION CONCRETE CURB AND GUTTER
- ⑤ - EMBANKMENT

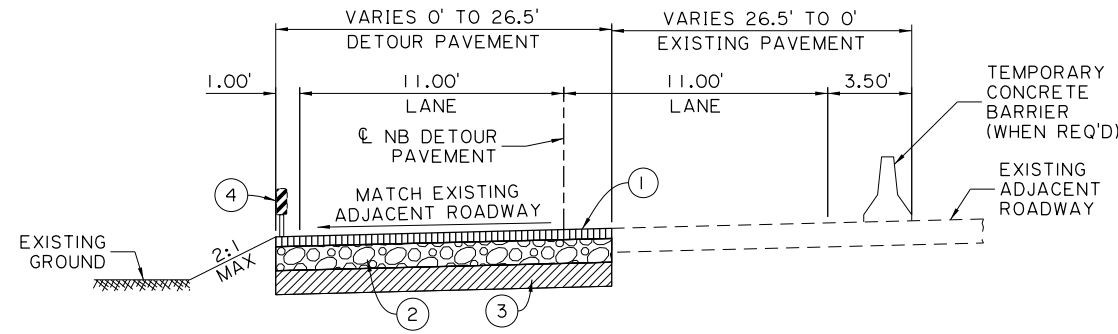
△ LANE WIDTH MATCHES EXISTING LANE WIDTH OF WEST X STREET.

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019

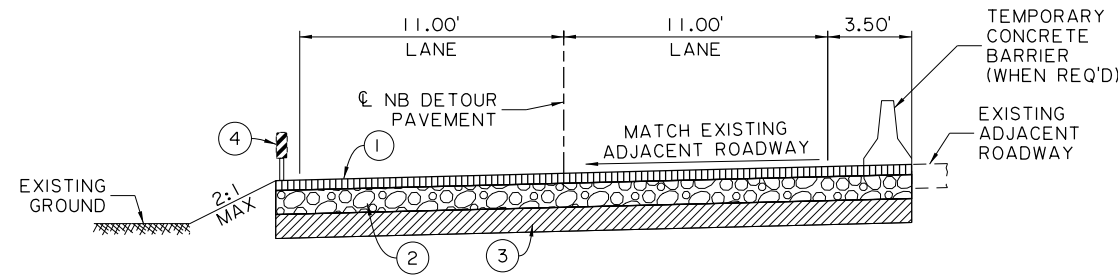
SHEET NUMBER	2f	PARISH	PLAQUEMINES	CONTROL SECTION	OG2-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
SERIES NUMBER							7 OF 8
REVISION OR CHANGE ORDER DESCRIPTION							BY
DATE							NO.
TYPICAL ROADWAY SECTIONS							
BELLE CHASSE BR. & TUNNEL REPLACEMENT							
HUVAL							

TECHNICAL PROPOSAL

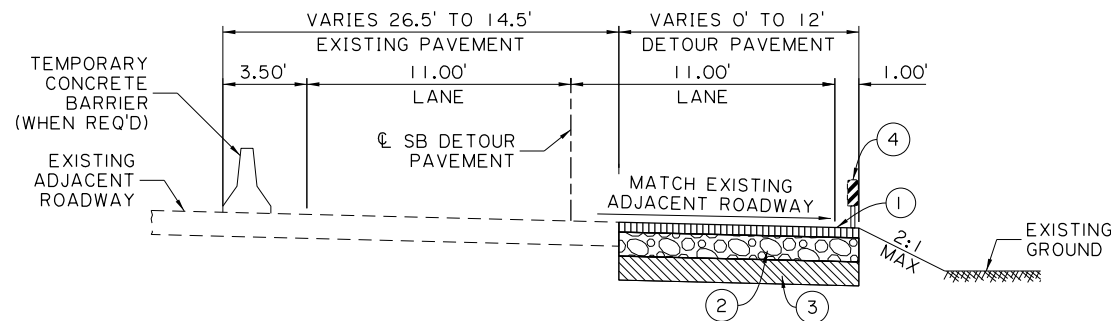
S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\2-26-19\1818.PMP



NB DETOUR - TYPICAL SECTION
N.T.S.



NB DETOUR - TYPICAL SECTION
N.T.S.



SB DETOUR - TYPICAL SECTION
N.T.S.

LEGEND

- ① - 5" ASPHALT
- ② - 12" CLASS II BASE COURSE
- ③ - 12" SUBGRADE LAYER
- ④ - VERTICAL PANEL

TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL AND ASSOCIATES, INC.</p> <p>ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/29/2019</p>
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SHEET NUMBER	2g	PARISH	PLAQUEMINES	CONTROL SECTION	OG2-02, 838-01	STATE PROJECT	H-004791
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
SERIES NUMBER	8 OF 8		BY				
REVISION OR CHANGE ORDER DESCRIPTION							
NO. DATE							
TYPICAL ROADWAY SECTIONS							
BELLE CHASSE BR. & TUNNEL REPLACEMENT							

TECHNICAL PROPOSAL

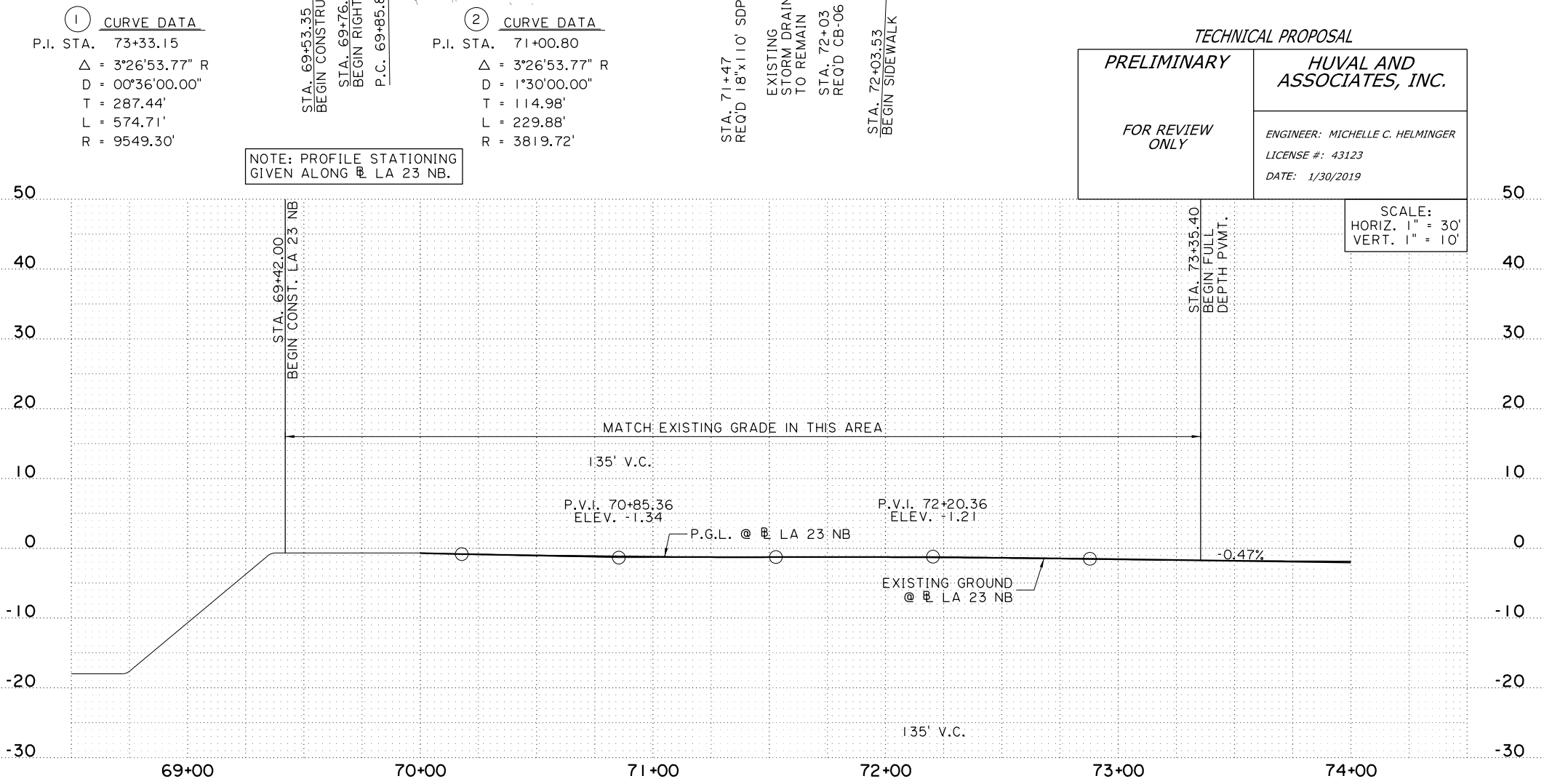
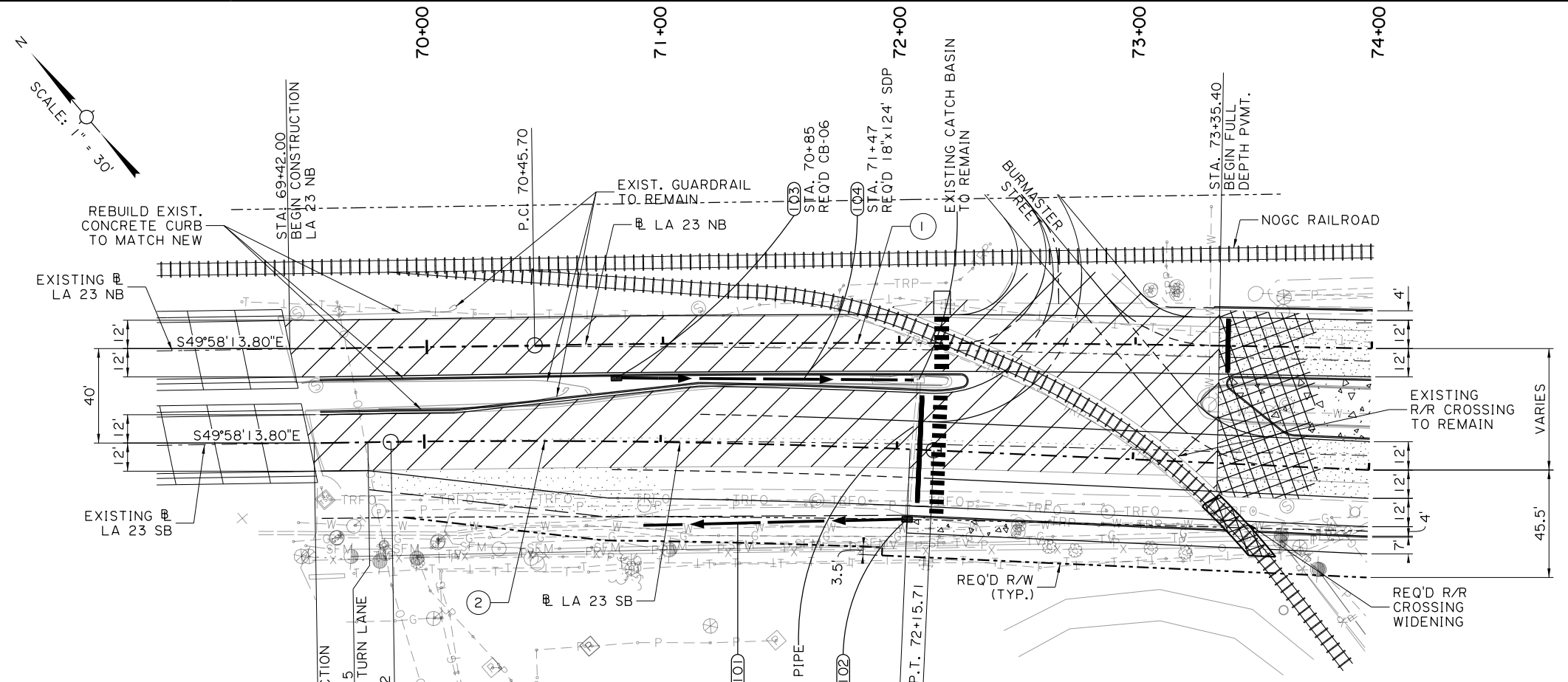
S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Bordas\02 Print\PR23 20120 8MPProfile

LEGEND - EXISTING TOPOGRAPHY

CONTROL POINT	▲	GAS LINE	—G—G—
TEMPORARY BENCH MARK	⊠	GAS METER	⊗
PHOTO TARGET	⊗	GAS SERVICE (NO METER)	⊗
PAVEMENT EDGE	—	GAS REGULATOR	⊗
SHOULDER EDGE	—	GAS RISER	⊗
SLOPE TOE	—	GAS TEST BOX	⊗
GUARDRAIL TOP	—	GAS VALVE	⊗
HIGH BANK	—	GAS LINE/CASING	—G—G—
WATER'S EDGE	—	GAS VENT	⊗
HIGH WATER MARK	+	RAILROAD MILEPOST	—
BOX CULVERT	—	RAILROAD SIGNAL	—
PIPE CULVERT	—	RAILROAD SWITCH	—
CATCH BASIN TOP (ROUND)	⊗	RAILROAD TRACK	—
DROP INLET TOP (ROUND)	⊗	RR TRAFFIC SIGNAL BOX	—
DRAINAGE MANHOLE TOP	⊗	SEWER LINE	—S—S—
LEVEE TOP	—	SEWER MANHOLE TOP	⊗
DITCH CENTERLINE	—	SEWER BLOWOUT VALVE	⊗
TREE	—	SEWER CLEANOUT	⊗
WOODS EDGE	—	SEPTIC TANK	⊗
MARSH LINE	—	SEWER PUMP (PRIVATE)	⊗
SWAMP LINE	—	SEWER TREATMENT (INDIVIDUAL)	⊗
TREE CLUSTER	—	FEDERAL AID MARKER	⊗
HEDGE	—	TRAFFIC CONTROLLER BOX	⊗
BUSH	—	TRAFFIC COUNTER	⊗
TREE LINE	—	TRAFFIC SIGNAL	⊗
FENCE LINE	—	TRAFFIC SIGNAL SUPPORT POLE	⊗
GATE	—	LIGHT POLE	⊗
CATTLE GUARD	—	LIGHT PEDESTAL	⊗
PROPERTY CORNER	⊗	LIGHT POWER VAULT	⊗
RIGHT OF WAY MONUMENT	⊗	TRAFFIC SIGN	⊗
SECTION CORNER	⊗	PARKING METER	⊗
FENCE CORNER	⊗	TELEPHONE POLE	⊗
TELEVISION CABLE	—TV—	TELEPHONE LINE	—T—T—
TELEVISION PEDESTAL	⊗	TELEPHONE BOOTH	⊗
POWER POLE	⊗	TELE CROSS CONNECT BOX	⊗
DEADMAN	⊗	TELEPHONE PEDESTAL	⊗
POWER LINE	—P—P—	TELEPHONE PRESSURE BOX	⊗
POWER JUNCTION BOX	⊗	WATER LINE	—W—W—
POWER VAULT	⊗	WATER LINE/CASING	—W—W—
TRANSFORMER	⊗	WATER CLEANOUT	⊗
COMBINATION POLE	⊗	WATER METER	⊗
POWER DROP	⊗	WATER VALVE	⊗
PIPELINE	—O—O—	WATER VALVE VAULT	⊗
PIPELINE VENT	⊗	WATER WELL	⊗
PIPELINE REGULATOR	⊗	FIRE HYDRANT	⊗
GAS WELL	⊗	BILLBOARD	⊗
HAY BALES	—SF—	FUEL PUMP	⊗
SILT FENCE	—SF—	POST	⊗
INLET SILT TRAP	⊗	SIGN POST	⊗
		STORAGE TANK (ROUND)	⊗
		GRAVE	⊗
		MAILBOX	⊗
		ORNAMENTAL LIGHT	⊗
		FLAG POLE	⊗
		GRAVE	⊗

LEGEND

	MILL AND OVERLAY
	REMOVE EXISTING PAVEMENT AND BASE
	REQUIRED ASPHALT PAVEMENT
	REQUIRED CONCRETE SIDEWALK OR INCIDENTAL PAVING



TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

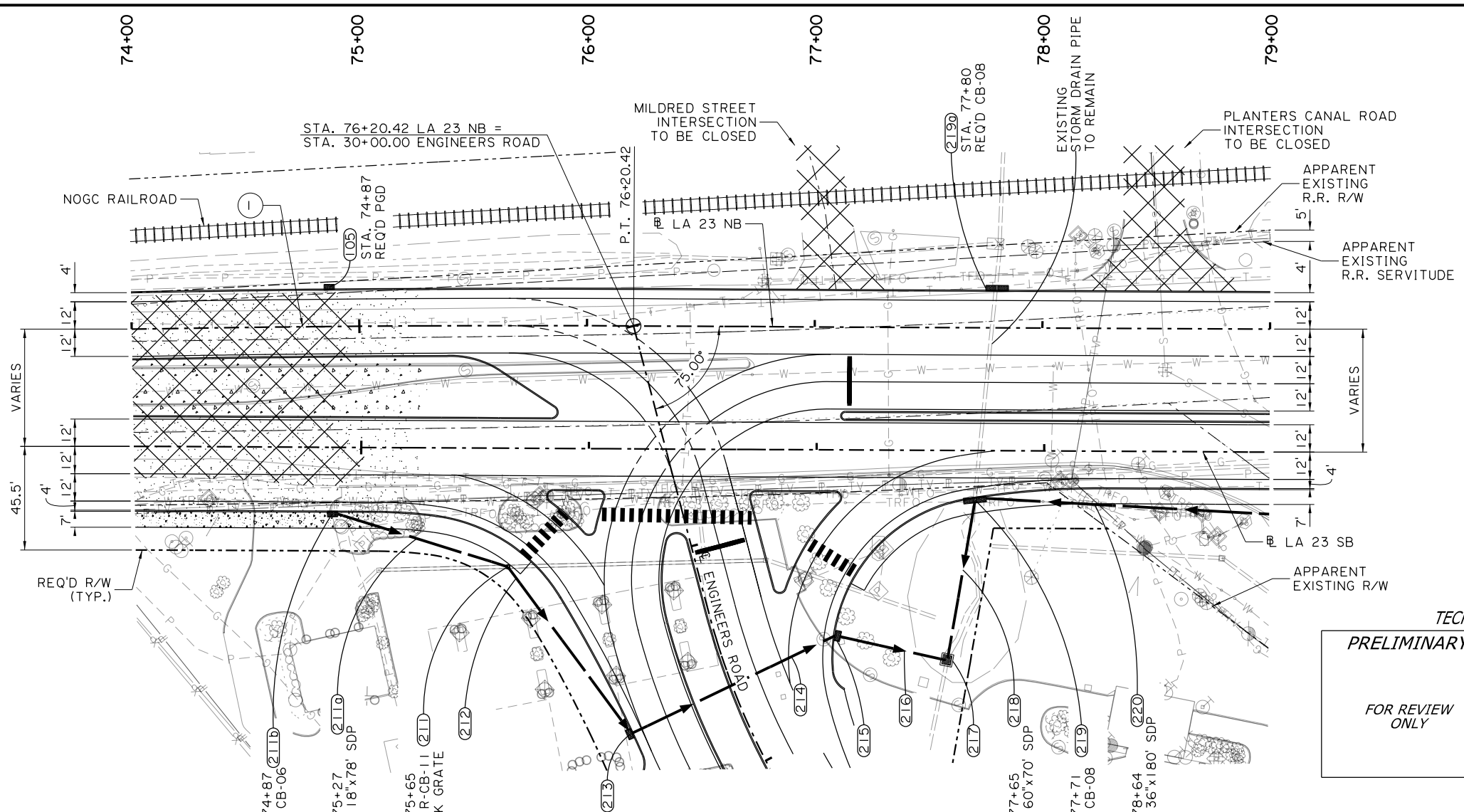
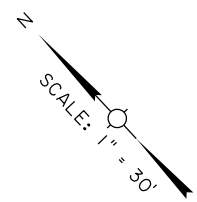
HUVAL AND ASSOCIATES, INC.

ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/30/2019

SHEET NUMBER	3
PARISH	PLAQUEMINES
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H-004791
DESIGNED MCH	
CHECKED RWS	
DETAILED KAC	
CHECKED MCH	
SERIES NUMBER	1 OF 9
REVISION OR CHANGE ORDER DESCRIPTION	
DATE	
NO.	
BY	
PLAN AND PROFILE	LA 23
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
HUVAL	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/3/21/19\PR_4_Plan2.k: PLOT



① CURVE DATA

P.I. STA. 73+33.15

$\Delta = 3^{\circ}26'53.77''$ R

$D = 00^{\circ}36'00.00''$

$T = 287.44$

$L = 574.71$

$R = 9549.30$

NOTE: PROFILE STATIONING GIVEN ALONG LA 23 NB.

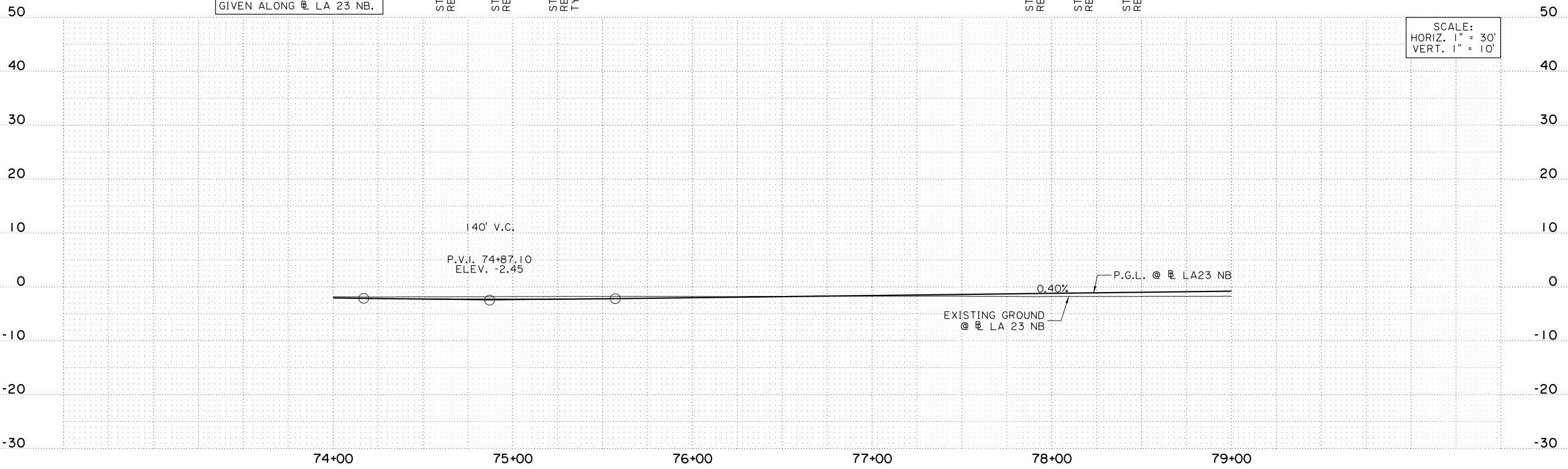
TECHNICAL PROPOSAL

PRELIMINARY

HUVAL AND ASSOCIATES, INC.

FOR REVIEW ONLY

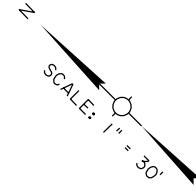
ENGINEER: MICHELLE C. HELMINGER
LICENSE #: 43123
DATE: 1/30/2019



SHEET NUMBER	4	PLAQUEMINES	PARISH	CONTROL SECTION
DESIGNED	MCH	RESIGNED	MCH	2 OF 9
CHECKED	RWS	DETAILED	KAC	NUMBER
DATE		CHECKED	MCH	BY
				REVISION OR CHANGE ORDER DESCRIPTION
				NO.
				DATE
PLAN AND PROFILE LA 23				
BELLE CHASSE BR. & TUNNEL REPLACEMENT				
HUVAL				

TECHNICAL PROPOSAL

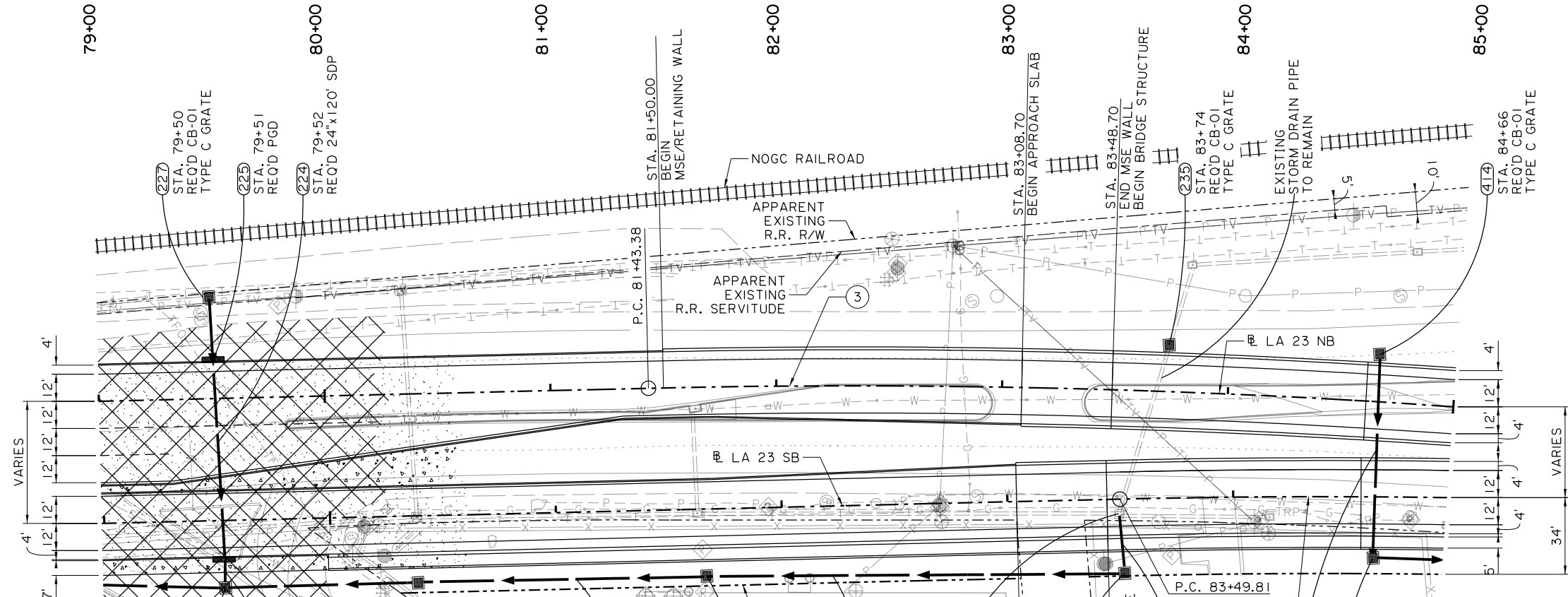
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③ CURVE DATA
 P.I. STA. 83+23.35
 $\Delta = 5^{\circ}23'41.95''$ R
 $D = 1^{\circ}30'00.00''$
 $T = 179.97'$
 $L = 359.67'$
 $R = 3819.72'$

④ CURVE DATA
 P.I. STA. 84+77.54
 $\Delta = 3^{\circ}49'49.90''$ R
 $D = 1^{\circ}30'00.00''$
 $T = 127.73'$
 $L = 255.37'$
 $R = 3819.72'$

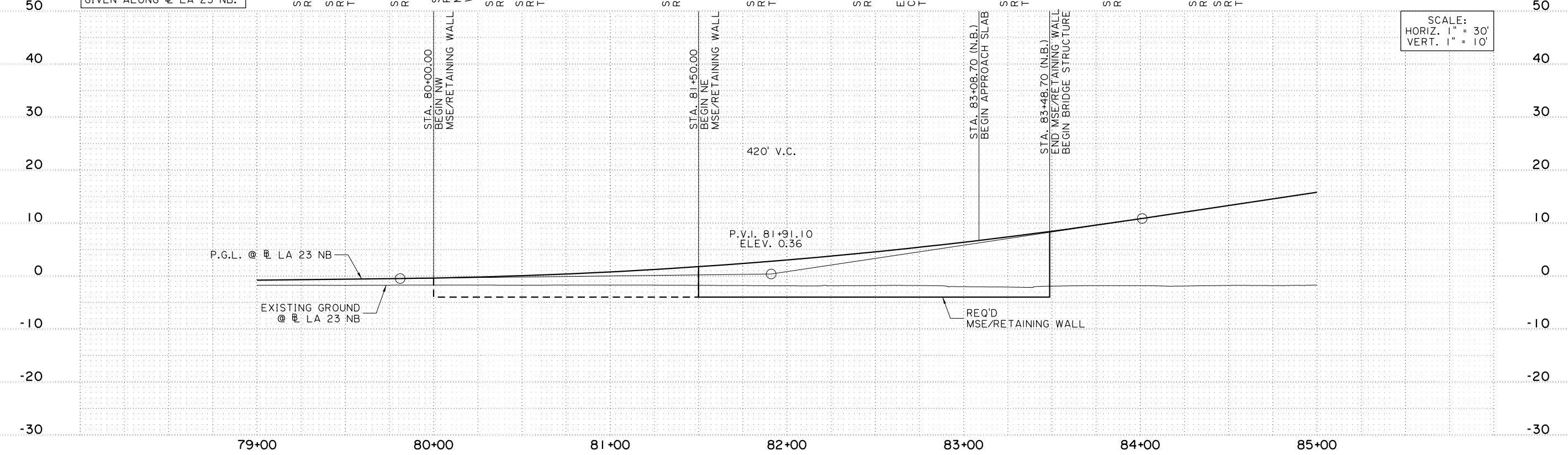
NOTE: PROFILE STATIONING GIVEN ALONG LA 23 NB.




TECHNICAL PROPOSAL
PRELIMINARY
 FOR REVIEW ONLY

HUVAL AND ASSOCIATES, INC.
 ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/30/2019

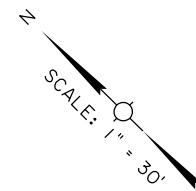
SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'



SHEET NUMBER	51
PLAQUEMINES	062-02, 838-01
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H-004791
DESIGNED	MCH
CHECKED	RWS
DETAILED	KAC
CHECKED	MCH
SERIES NUMBER	3 OF 9
REVISION OR CHANGE ORDER DESCRIPTION	BY
NO.	DATE
 PLAN AND PROFILE LA 23 BELLE CHASSE BR. & TUNNEL REPLACEMENT HUVAL	

TECHNICAL PROPOSAL

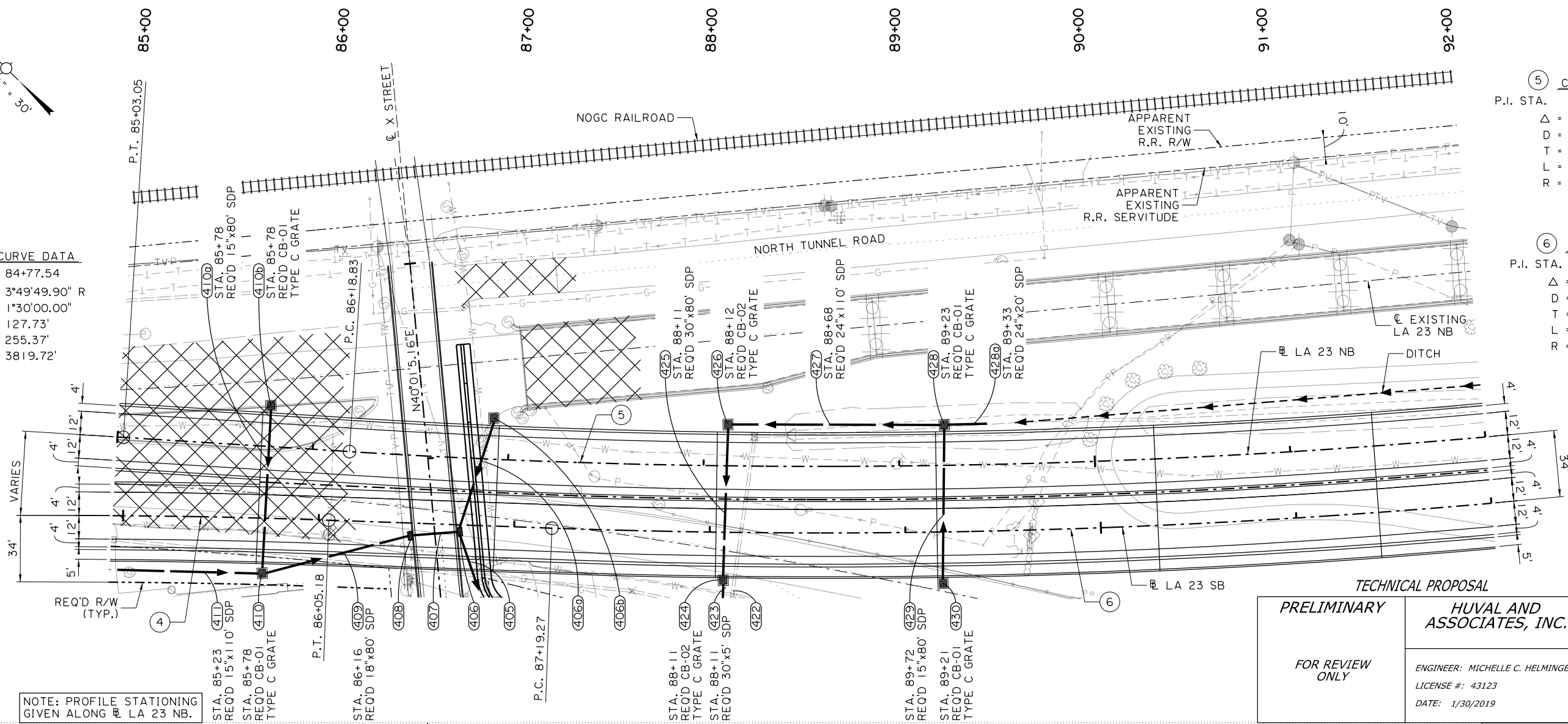
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④ CURVE DATA
 P.I. STA. 84+77.54
 $\Delta = 3^{\circ}49'49.90''$ R
 $D = 1^{\circ}30'00.00''$
 $L = 127.73'$
 $T = 255.37'$
 $R = 3819.72'$

⑤ CURVE DATA
 P.I. STA. 89+15.51
 $\Delta = 8^{\circ}50'35.72''$ L
 $D = 1^{\circ}29'36.07''$
 $T = 296.68'$
 $L = 592.17'$
 $R = 3836.72'$

⑥ CURVE DATA
 P.I. STA. 89+65.47
 $\Delta = 7^{\circ}16'43.68''$ L
 $D = 1^{\circ}28'48.85''$
 $T = 246.20'$
 $L = 491.73'$
 $R = 3870.72'$

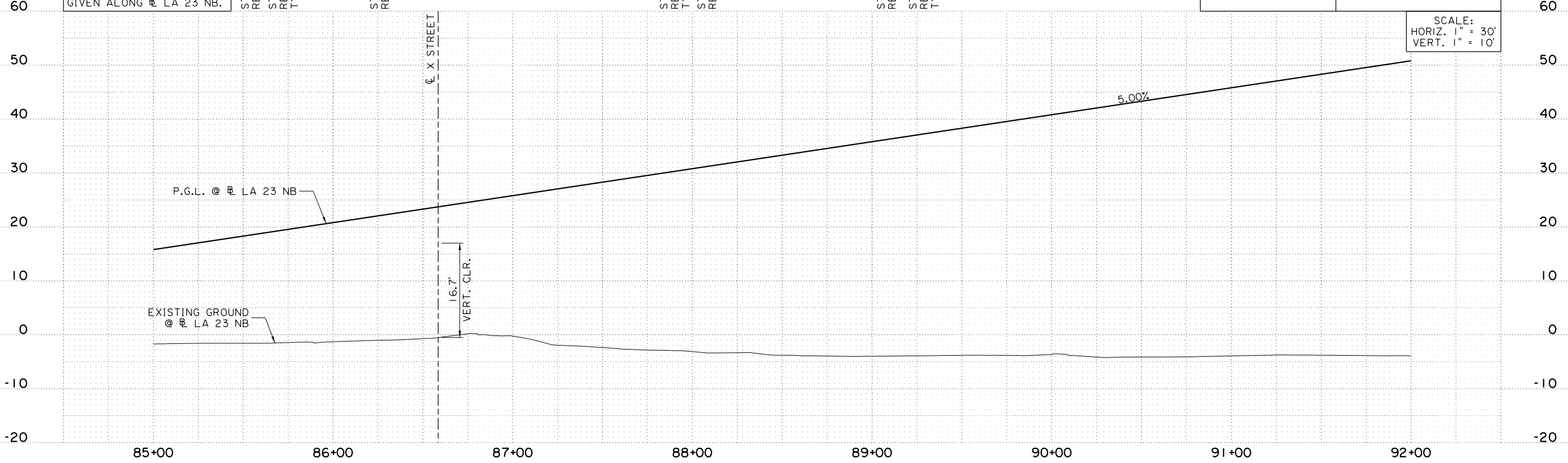


NOTE: PROFILE STATIONING GIVEN ALONG LA 23 NB.

TECHNICAL PROPOSAL

PRELIMINARY FOR REVIEW ONLY	HUVAL AND ASSOCIATES, INC. ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019
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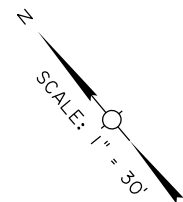
SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'



SHEET NUMBER	6	PARISH	PLAQUEMINES	CONTROL SECTION	OG2-02, 838-01
DESIGNED MCH	CHECKED R/W	DETAILED KAC	CHECKED MCH	SERIES NUMBER	4 OF 9
REVISION OR CHANGE ORDER DESCRIPTION					
BY					
DATE					
NO.					
PLAN AND PROFILE LA 23					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
HUVAL					

TECHNICAL PROPOSAL

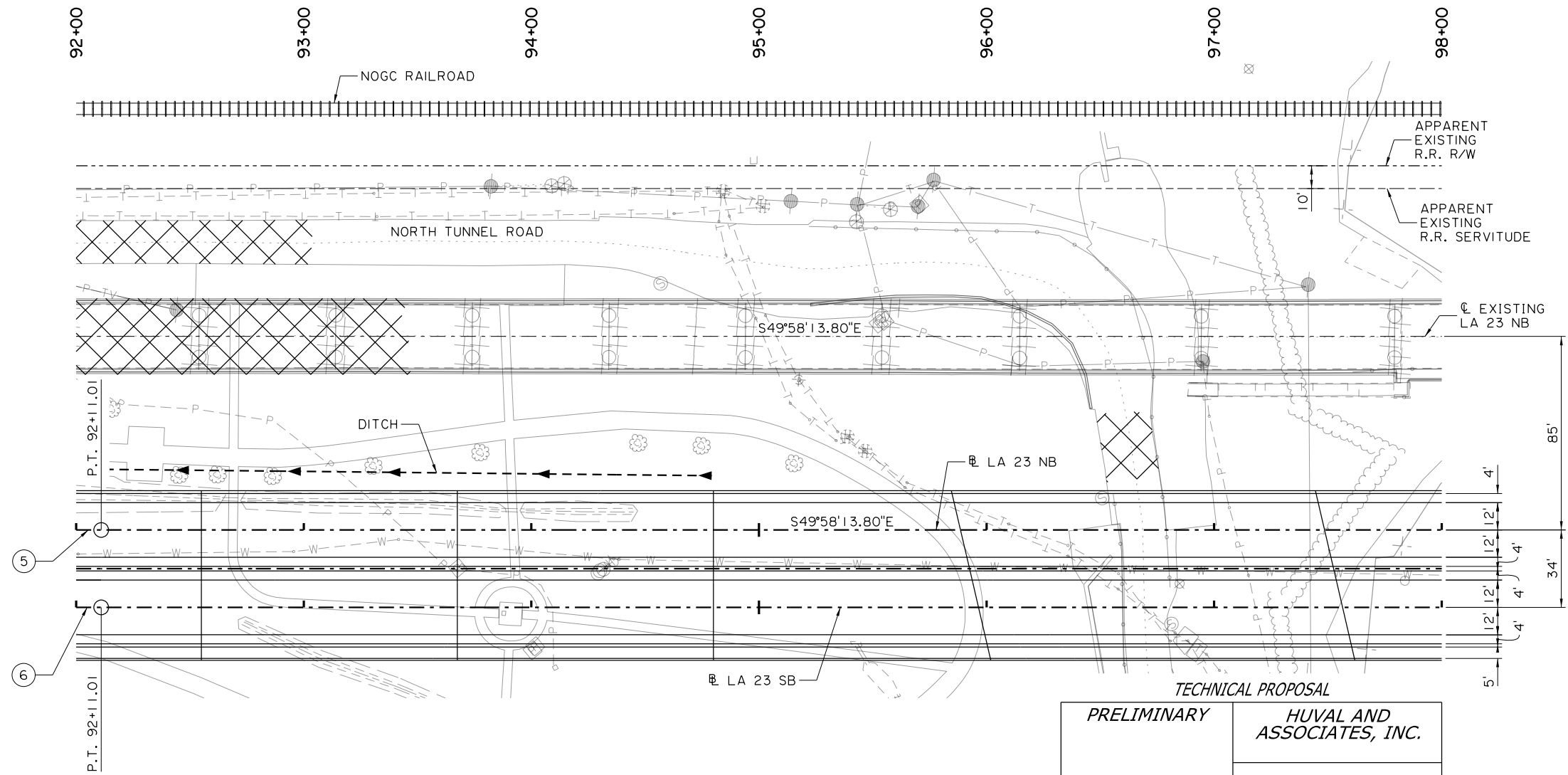
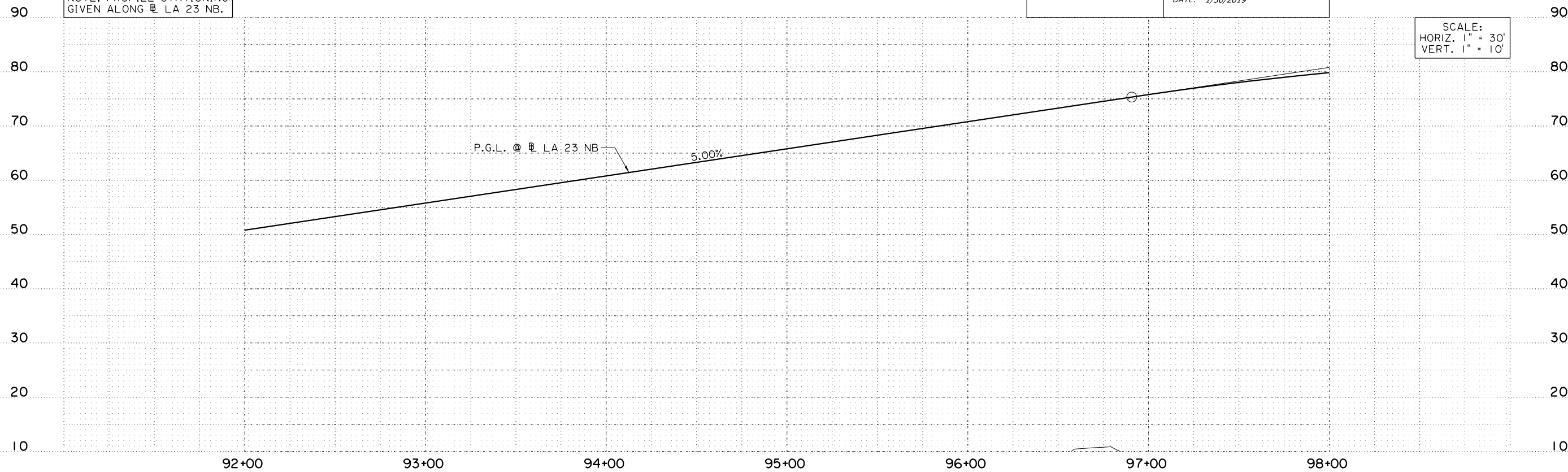
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⑤ CURVE DATA
 P.I. STA. 89+15.51
 $\Delta = 8^{\circ}50'35.72''$ L
 $D = 1^{\circ}29'36.07''$
 $T = 296.68'$
 $L = 592.17'$
 $R = 3836.72'$



⑥ CURVE DATA
 P.I. STA. 89+65.47
 $\Delta = 7^{\circ}16'43.68''$ L
 $D = 1^{\circ}28'48.85''$
 $T = 246.20'$
 $L = 491.73'$
 $R = 3870.72'$

NOTE: PROFILE STATIONING GIVEN ALONG LA 23 NB.



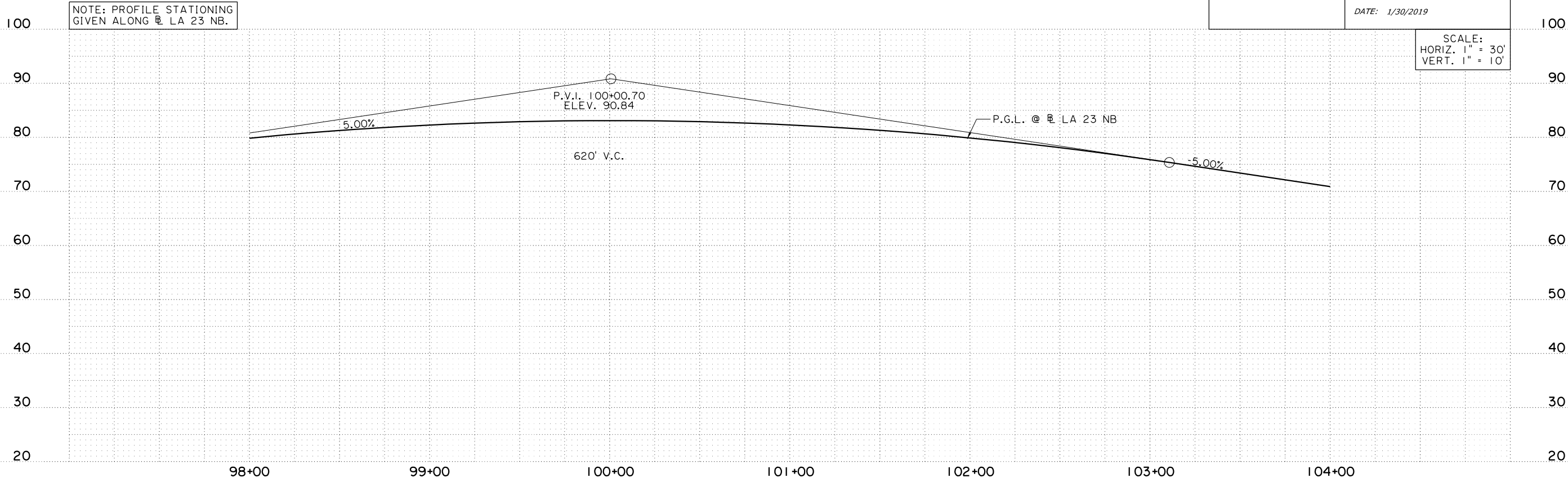
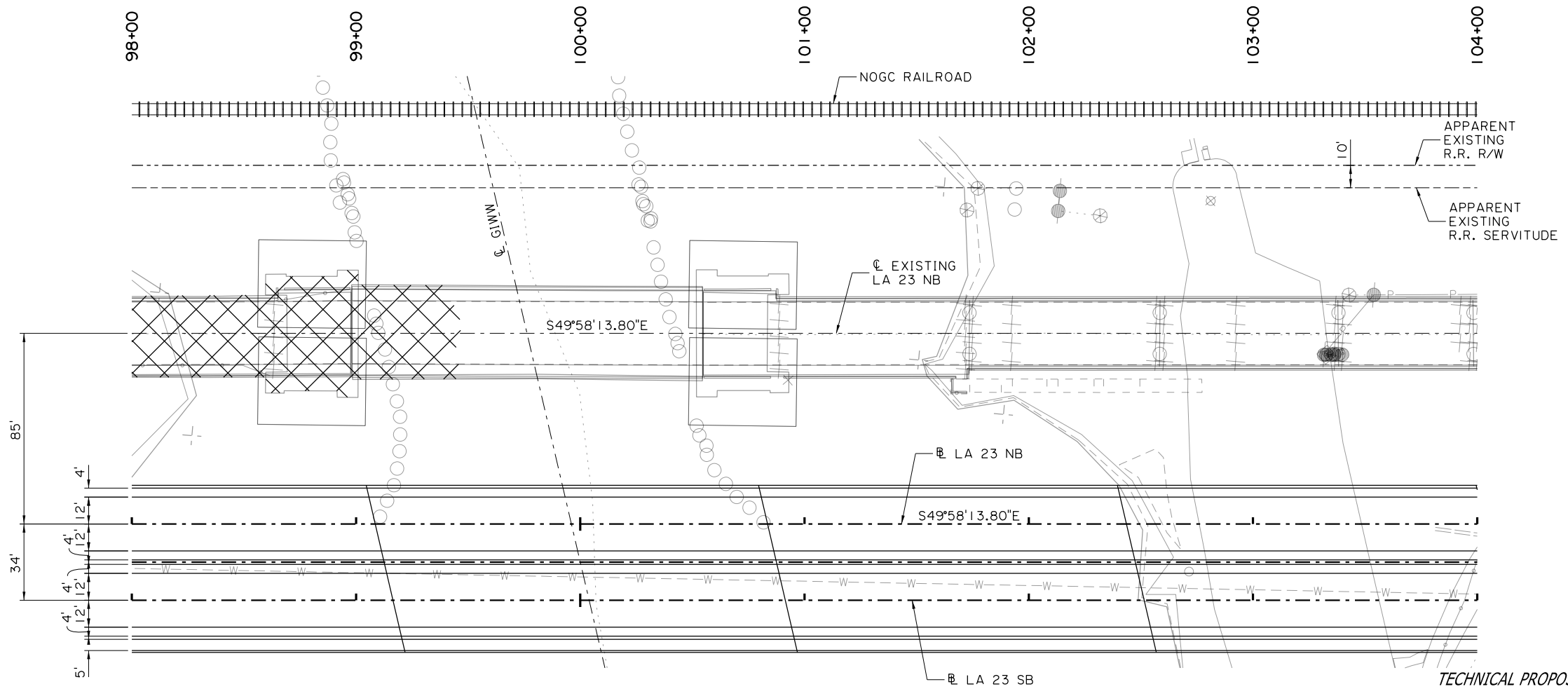
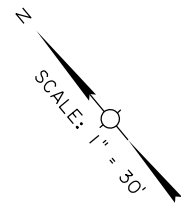
TECHNICAL PROPOSAL
PRELIMINARY
 FOR REVIEW ONLY
HUVAL AND ASSOCIATES, INC.
 ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/30/2019

SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

SHEET NUMBER	7
PLAQUEMINES	OG2-02, 838-01
PARISH	STATE PROJECT
CONTROL SECTION	H.004791
DESIGNED MCH	5 OF 9
CHECKED RWS	
DETAILED KAC	
CHECKED MCH	
SERIES NUMBER	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
BY	
	
PLAN AND PROFILE LA 23	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\04\11\PR 8 Plan3.dwg FROM



TECHNICAL PROPOSAL

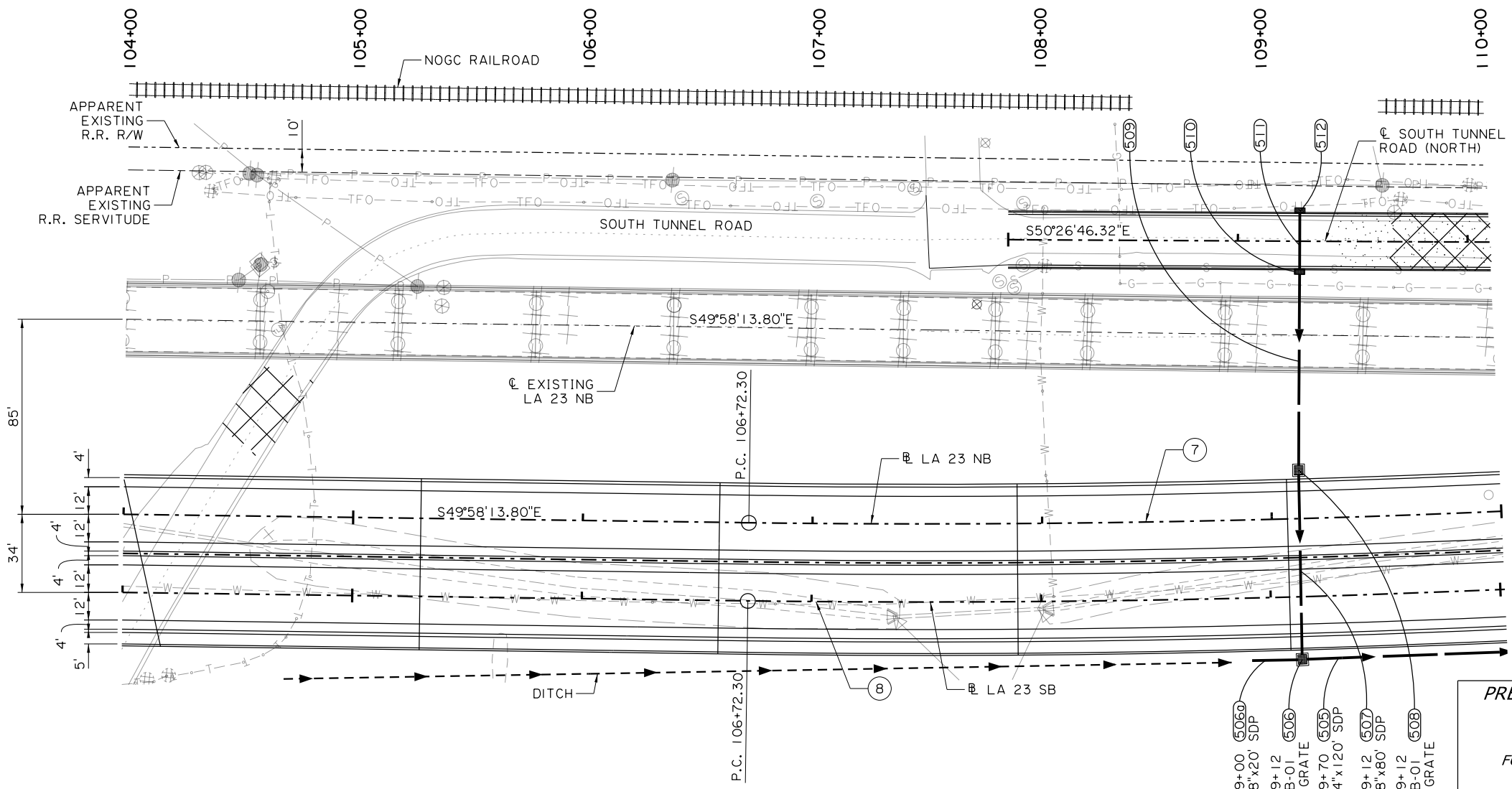
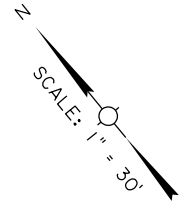
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

SCALE:
HORIZ. 1" = 30'
VERT. 1" = 10'

SHEET NUMBER	0	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MCH	6 OF 9			
CHECKED	RWS				
DETAILED	KAC				
CHECKED	MCH				
SERIES NUMBER					
REVISION OR CHANGE ORDER DESCRIPTION					
DATE					
NO.					
PLAN AND PROFILE LA 23					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
HUVAL					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\02\11\PR 9 Plan\3.5\01



⑦ CURVE DATA
 P.I. STA. 110+91.31
 $\Delta = 8^{\circ}23'24.76''$ L
 $D = 1^{\circ}00'10.71''$
 $T = 419.02'$
 $L = 836.53'$
 $R = 5712.58'$

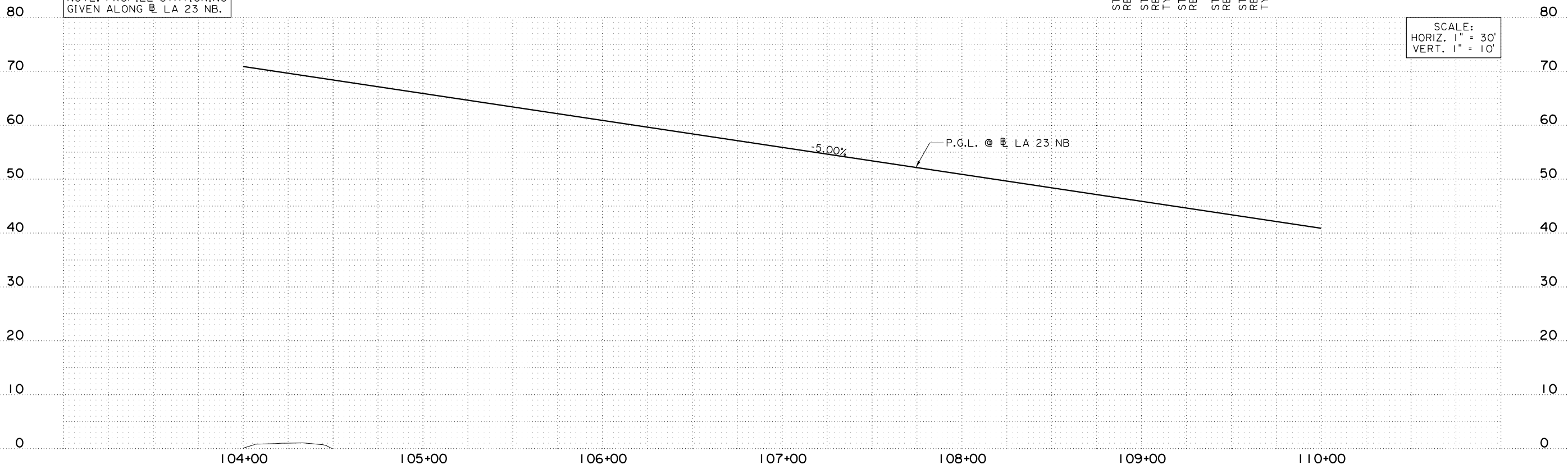
⑧ CURVE DATA
 P.I. STA. 110+93.81
 $\Delta = 8^{\circ}23'24.76''$ L
 $D = 0^{\circ}59'49.35''$
 $T = 421.51'$
 $L = 841.51'$
 $R = 5746.58'$

TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL AND ASSOCIATES, INC.</p> <p>ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019</p>
--	--

- STA. 109+00 (5060) REC'D 18"x20' SDP
- STA. 109+12 (506) REC'D CB-01 TYPE C GRATE
- STA. 109+70 (505) REC'D 24"x120' SDP
- STA. 109+12 (507) REC'D 18"x80' SDP
- STA. 109+12 (508) REC'D CB-01 TYPE C GRATE

NOTE: PROFILE STATIONING GIVEN ALONG LA 23 NB.

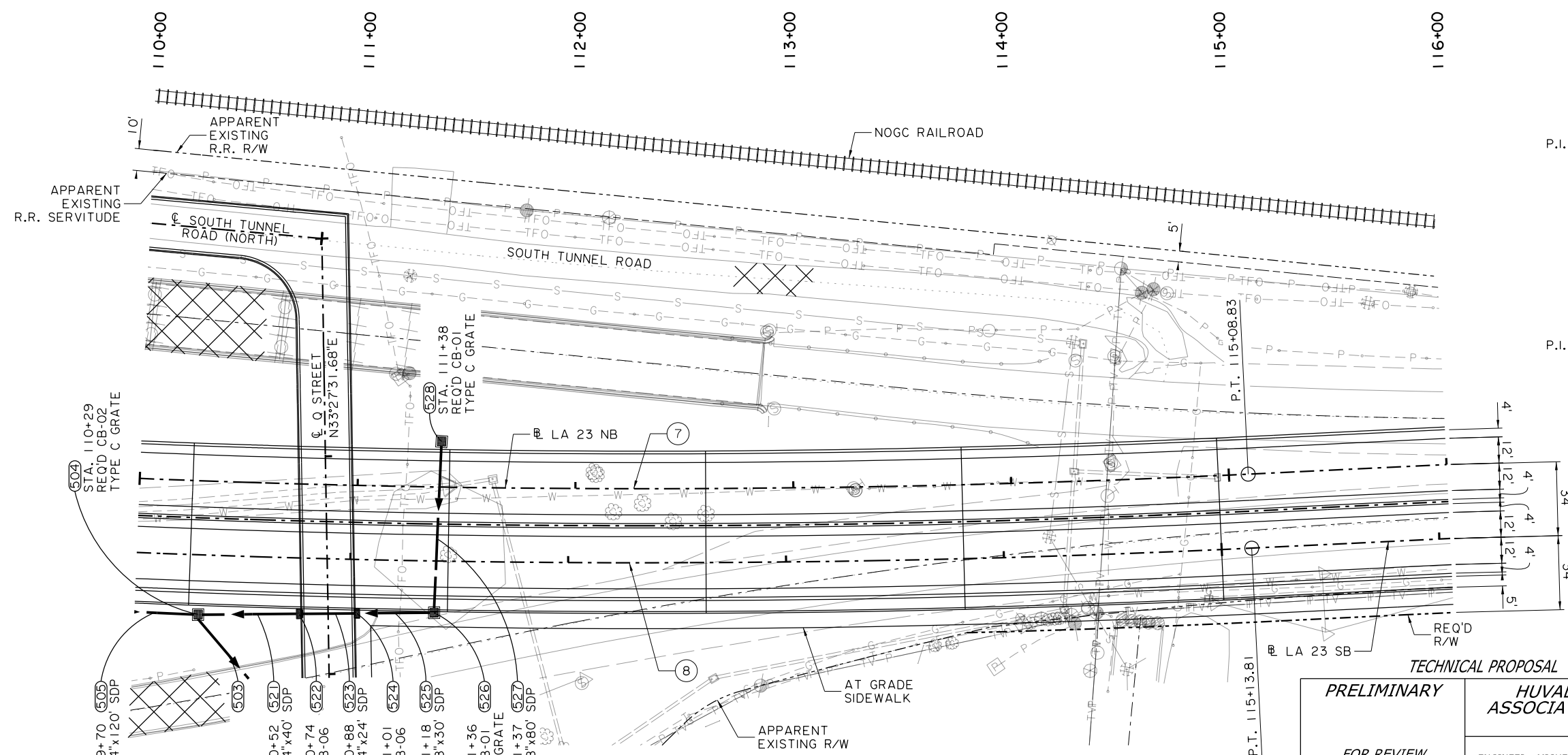
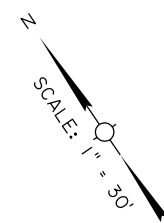


SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

SHEET NUMBER	9	PARISH	PLAQUEMINES	STATE PROJECT	H.004791
DESIGNED	MCH	CONTROL	SECTION	SERIES	NUMBER
CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
				7	OF 9
REVISION OR CHANGE ORDER DESCRIPTION					
BY					
DATE					
NO.					
<p>PLAN AND PROFILE</p> <p>LA 23</p> <p>BELLE CHASSE BR. 8 TUNNEL REPLACEMENT</p>					

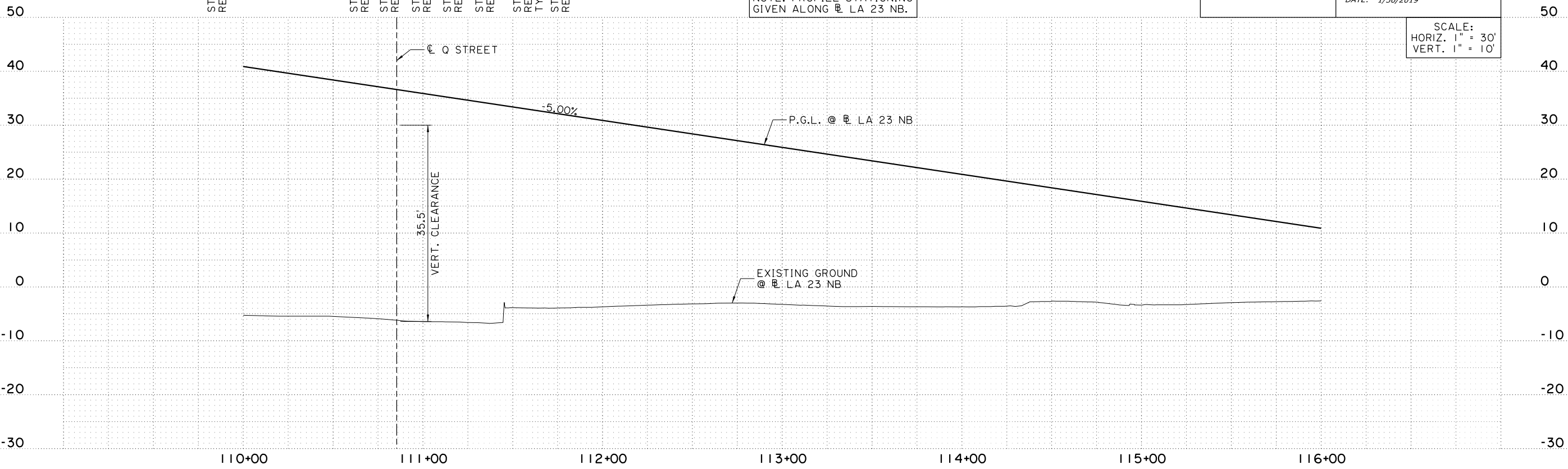
TECHNICAL PROPOSAL

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⑦ CURVE DATA
 P.I. STA. 110+91.31
 $\Delta = 8^{\circ}23'24.76''$ L
 $D = 1^{\circ}00'10.71''$
 $T = 419.02'$
 $L = 836.53'$
 $R = 5712.58'$

⑧ CURVE DATA
 P.I. STA. 110+93.81
 $\Delta = 8^{\circ}23'24.76''$ L
 $D = 0^{\circ}59'49.35''$
 $T = 421.51'$
 $L = 841.51'$
 $R = 5746.58'$



TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

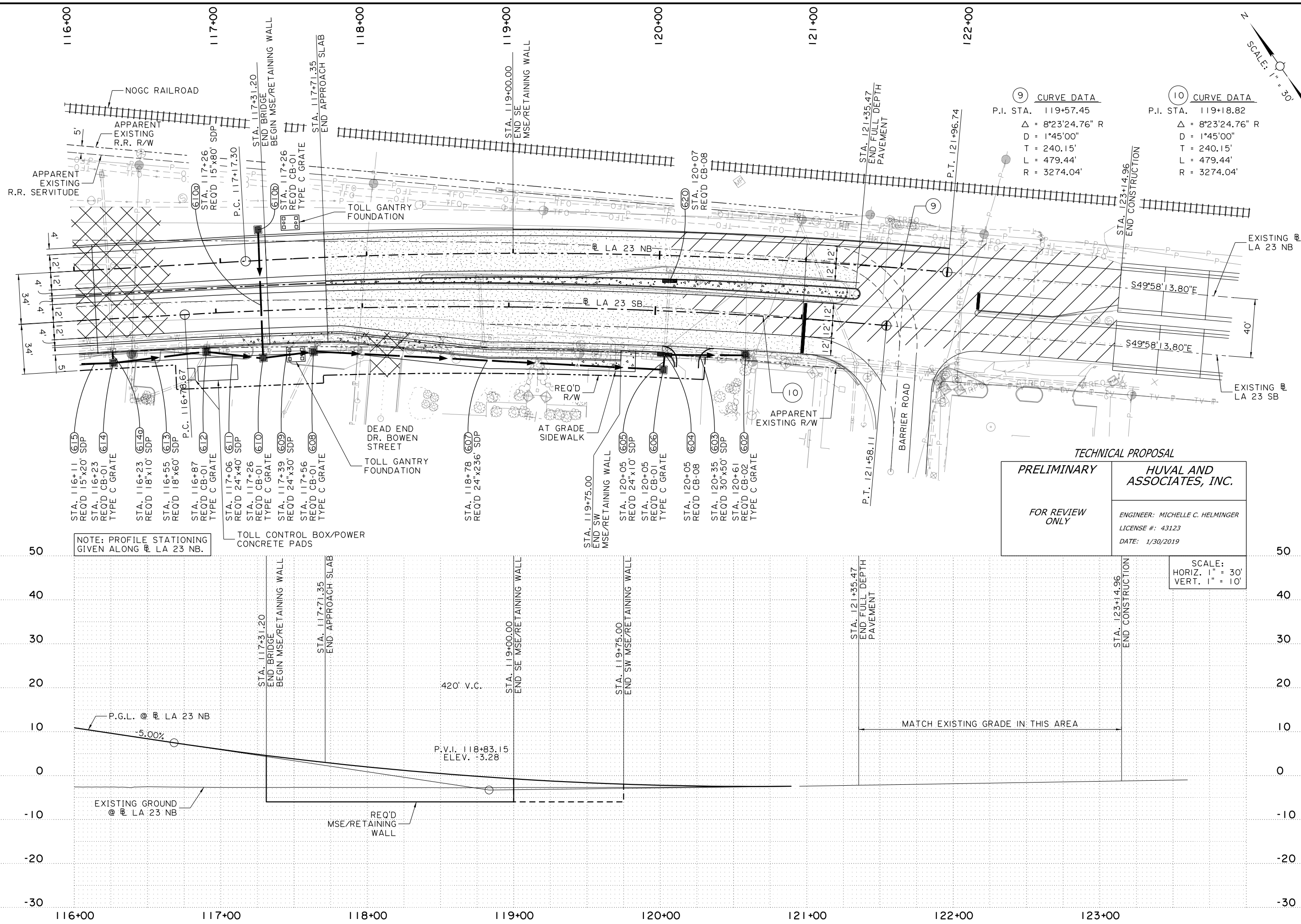
HUVAL AND ASSOCIATES, INC.

ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/30/2019

SHEET NUMBER	10
PARISH	PLAQUEMINES
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H.004791
DESIGNED / CHECKED / R/S	MCH / KAC
DETAILED / CHECKED	MCH / MCH
SERIES NUMBER	B OF 9
REVISION OR CHANGE ORDER DESCRIPTION	BY
NO.	DATE
PLAN AND PROFILE LA 23	
BELLE CHASSE BR. 8 TUNNEL REPLACEMENT	
HUVAL	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\01\11PR_11_Plan and Profile



Curve No.	P.I. STA.	Δ	D	T	L	R
9	119+57.45	8°23'24.76"	1°45'00"	240.15'	479.44'	3274.04'
10	119+18.82	8°23'24.76"	1°45'00"	240.15'	479.44'	3274.04'

TECHNICAL PROPOSAL

PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

SCALE:
HORIZ. 1" = 30'
VERT. 1" = 10'

SHEET NUMBER	11	PARISH	PLAQUEMINES	CONTROL SECTION	062-02, 838-01
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC
REVISION OR CHANGE	ORDER DESCRIPTION	NO.	DATE	BY	
PLAN AND PROFILE			LA 23		
BELLE CHASSE BR. & TUNNEL REPLACEMENT			HUVAL		
SERIES NUMBER			9 OF 9		
STATE PROJECT			H-004791		

TECHNICAL PROPOSAL

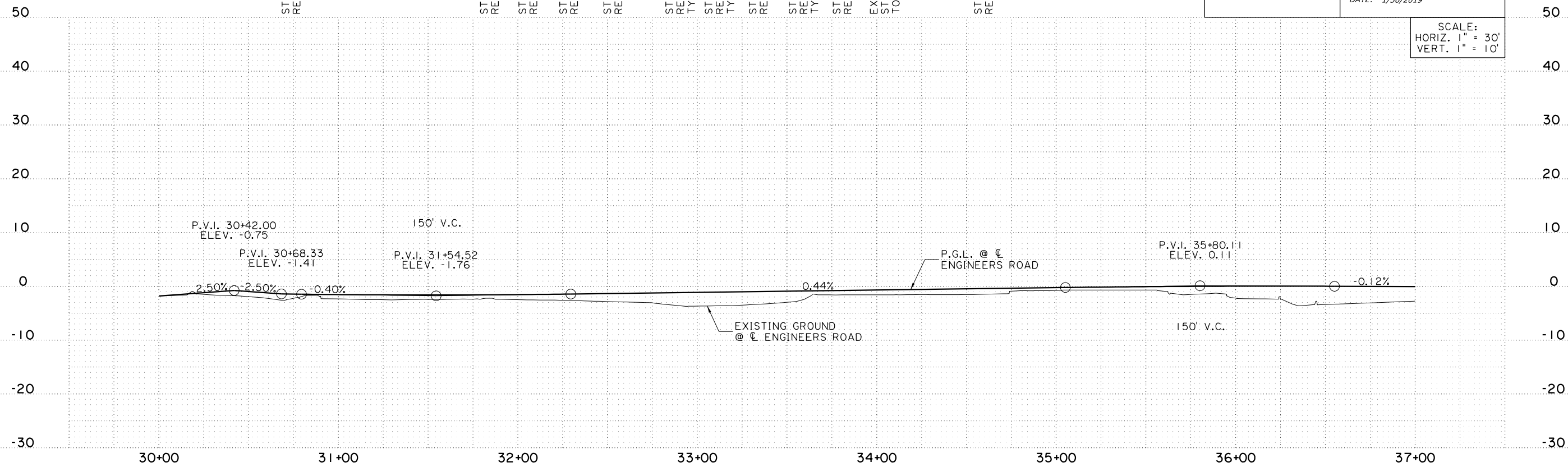
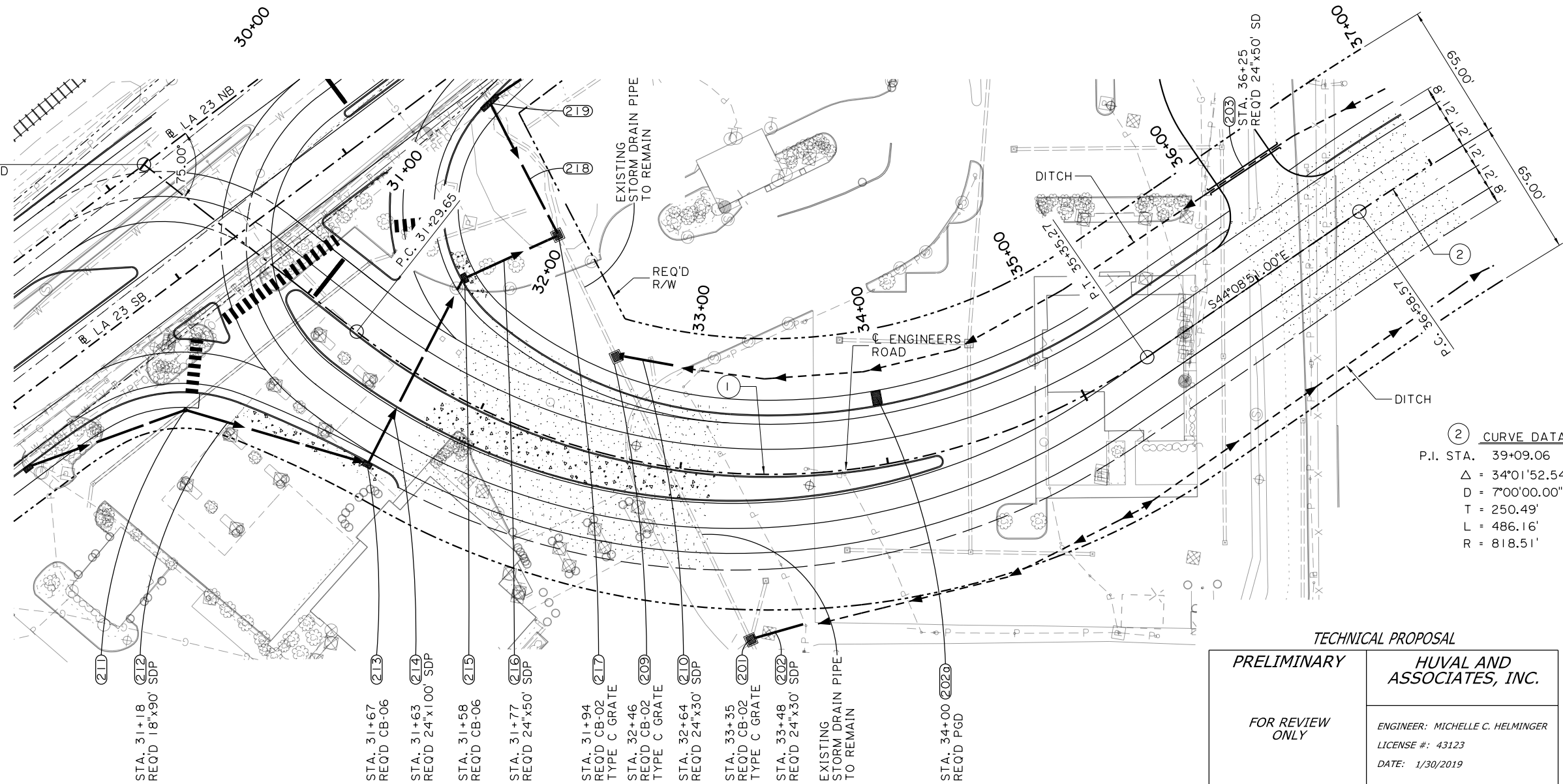
S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\01\11\PR 12 PL 28 28 28 28 28 28

STA. 76+20.42 LA 23 N.B. =
STA. 30+00.00 ENGINEERS ROAD

SCALE: 1" = 30'

① CURVE DATA
P.I. STA. 33+64.82
 $\Delta = 72^{\circ}37'31.05''$ L
D = 17'54"17.75"
T = 235.17'
L = 405.62'
R = 320'

② CURVE DATA
P.I. STA. 39+09.06
 $\Delta = 34^{\circ}01'52.54''$ R
D = 7'00"00.00"
T = 250.49'
L = 486.16'
R = 818.51'



TECHNICAL PROPOSAL

PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

SCALE:
HORIZ. 1" = 30'
VERT. 1" = 10'

SHEET NUMBER	12
PARISH	PLAQUEMINES
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H.004791
DESIGNED MCH	
CHECKED RWS	
DETAILED KAC	
CHECKED MCH	
SERIES NUMBER	1 OF 3
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	

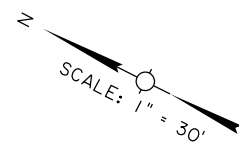
PLAN AND PROFILE
ENGINEERS ROAD

BELLE CHASSE BR. & TUNNEL REPLACEMENT

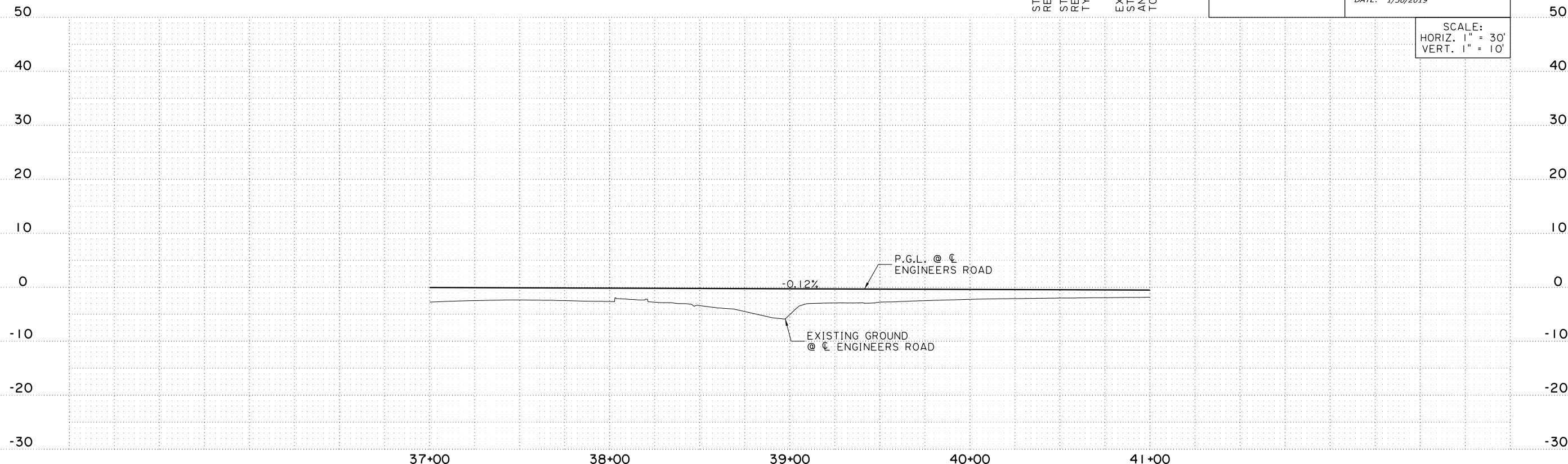
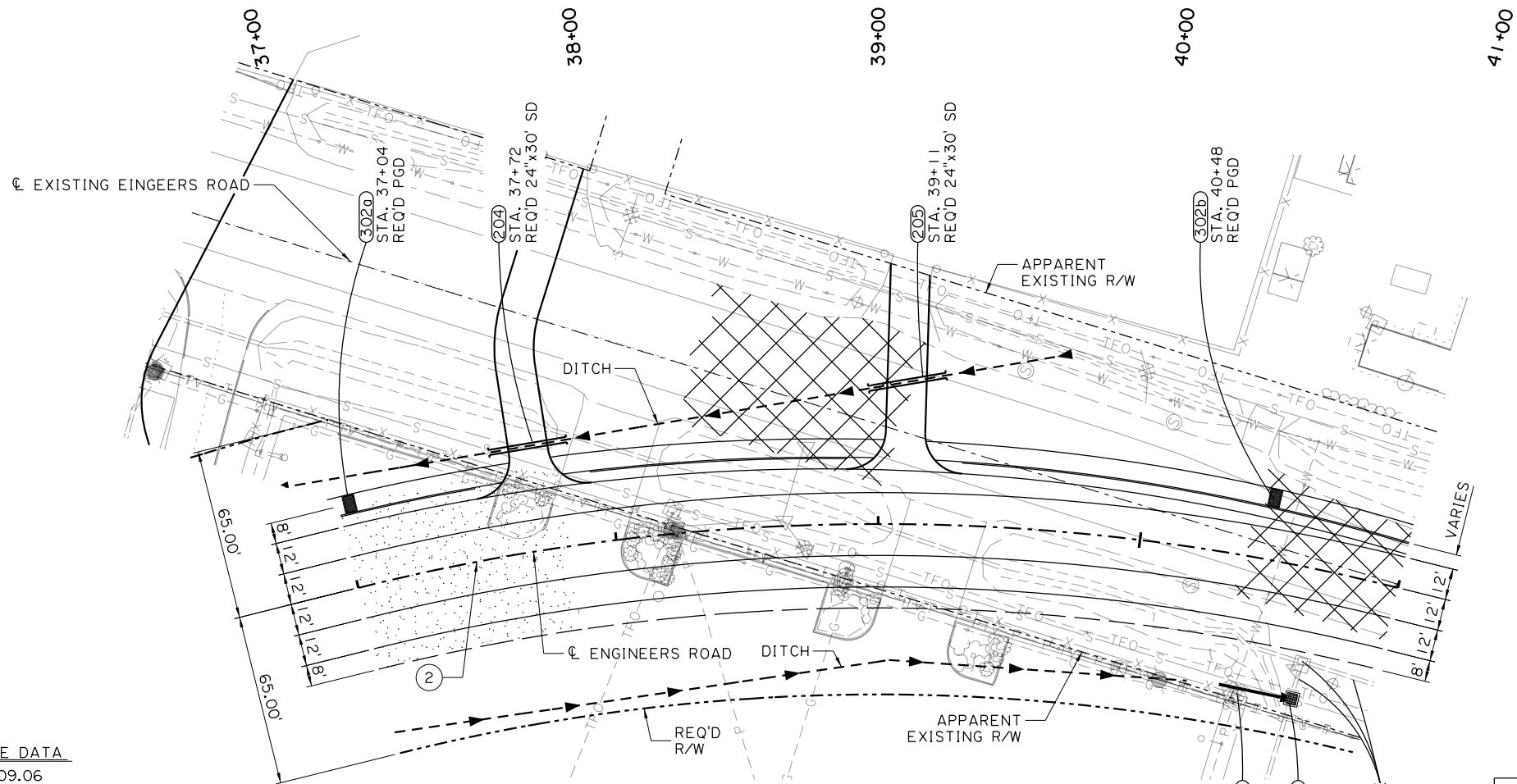
HUVAL

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\04\11\PR_13_PLAQUEMINES.dwg



② CURVE DATA
 P.I. STA. 39+09.06
 $\Delta = 34^{\circ}01'52.54''$ R
 $D = 7^{\circ}00'00.00''$
 $T = 250.49'$
 $L = 486.16'$
 $R = 818.51'$



TECHNICAL PROPOSAL

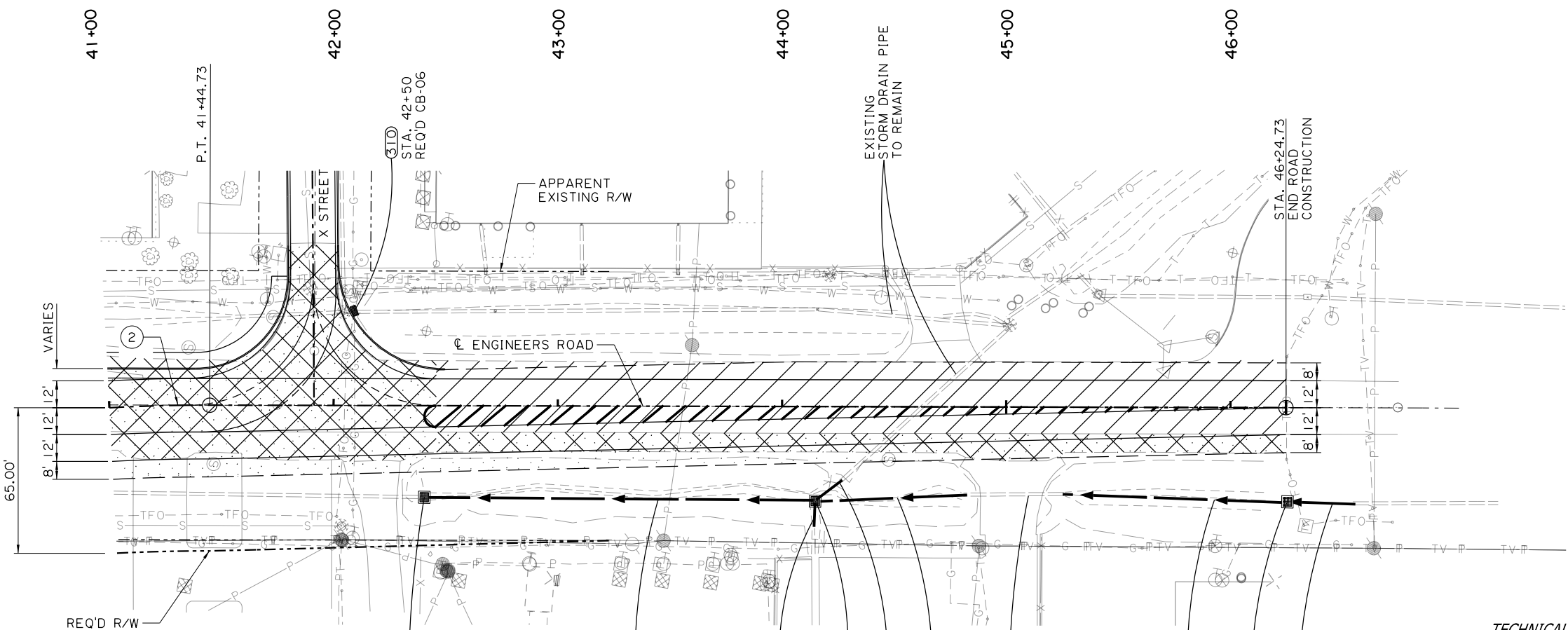
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

SHEET NUMBER	13	PARISH	PLAQUEMINES	CONTROL SECTION	062-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
SERIES NUMBER	2	OF	3	REVISION OR CHANGE ORDER DESCRIPTION	BY	DATE	NO.
PLAN AND PROFILE ENGINEERS ROAD							
BELLE CHASSE BR. 8 TUNNEL REPLACEMENT							

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\02\11\PR 14 PL 04 03 2019



② CURVE DATA
 P.I. STA. 39+09.06
 $\Delta = 34^{\circ}01'52.54''$ R
 $D = 7^{\circ}00'00.00''$
 $T = 250.49'$
 $L = 486.16'$
 $R = 818.51'$

- STA. 42+44
REQD CB-02
TYPE C GRATE
- STA. 43+28
REQD 48"x170' SDP
- STA. 44+15
REQD 48"x10' SDP
- STA. 44+15
REQD CB-02
TYPE C GRATE
- STA. 44+24
REQD 48"x20' SDP
- STA. 44+47
REQD 36"x60' SDP
- EXISTING
STORM DRAIN PIPE
TO REMAIN
CONNECT NEW PIPE
WITH COLLARS IF
NECESSARY
- STA. 45+73
REQD 36"x100' SDP
- STA. 45+25
REQD CB-02
TYPE C GRATE
- STA. 46+40
REQD 30"x30' SDP

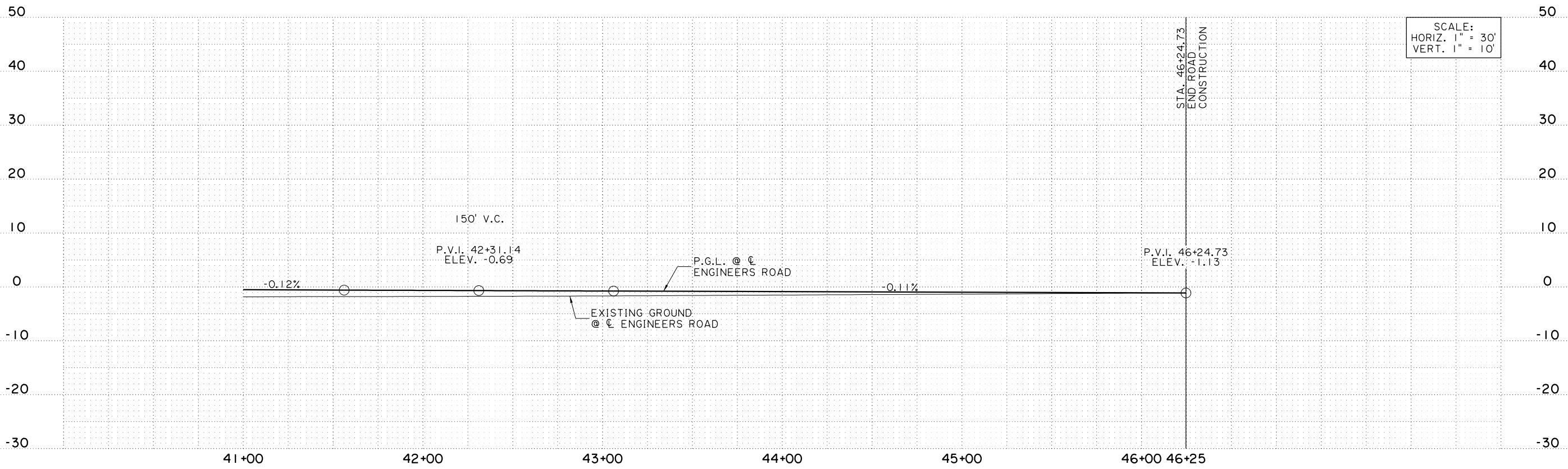
TECHNICAL PROPOSAL

PRELIMINARY

HUVAL AND ASSOCIATES, INC.

FOR REVIEW ONLY

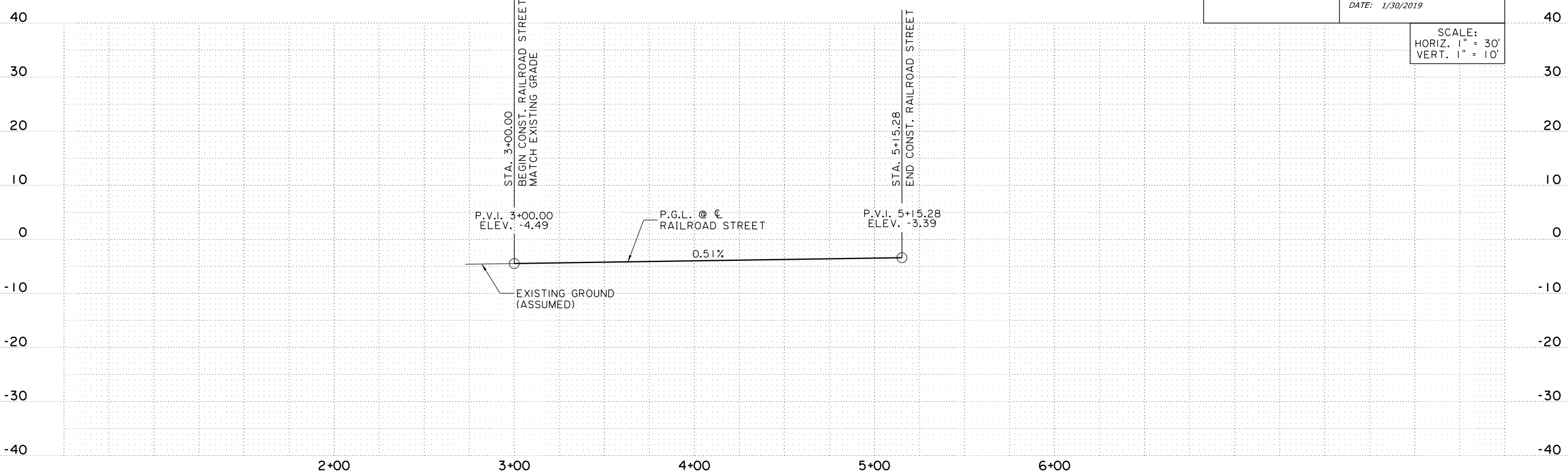
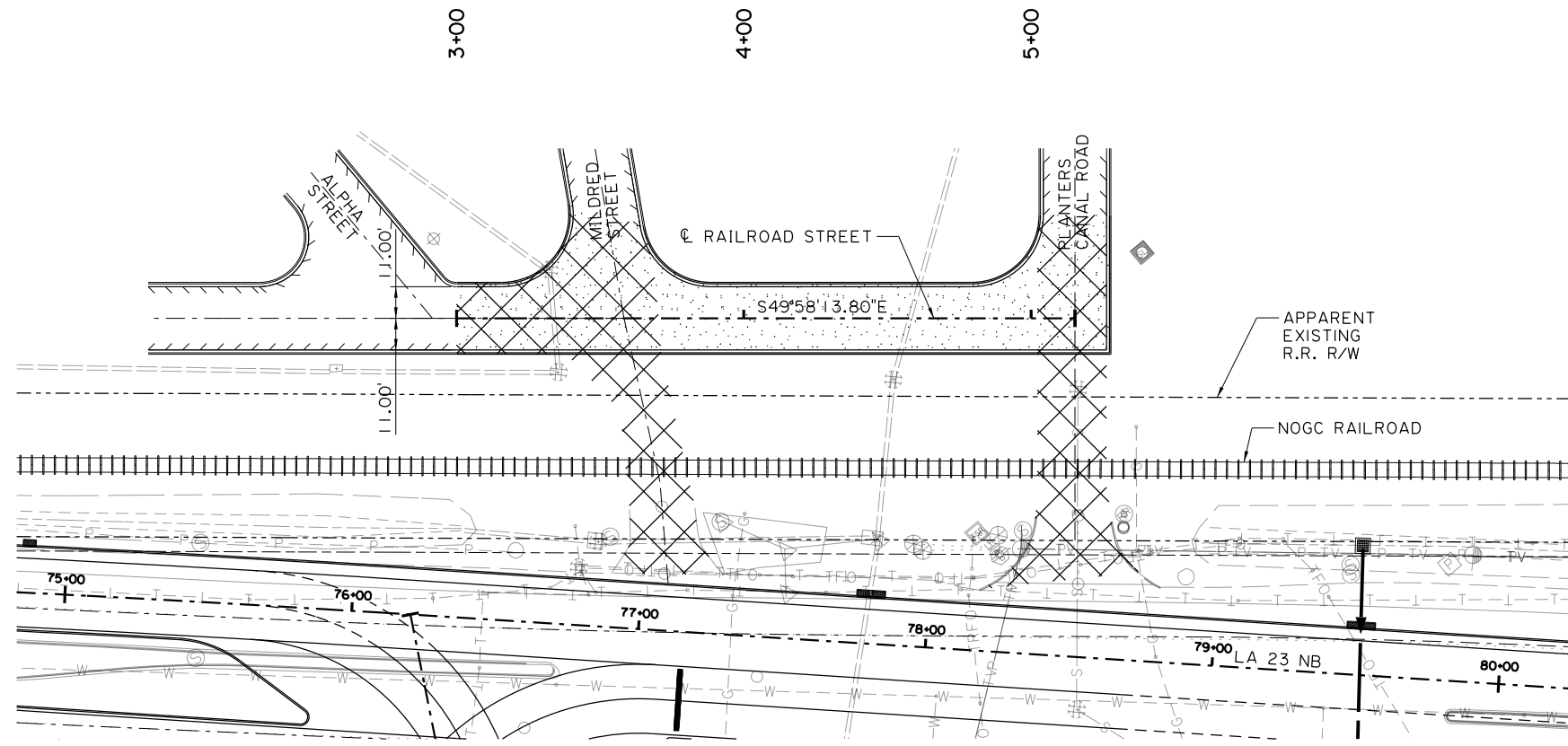
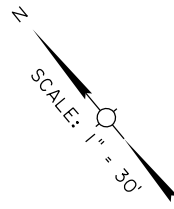
ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/30/2019



SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

SHEET NUMBER	14	PARISH	PLAQUEMINES	CONTROL SECTION	OG2-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
SERIES NUMBER	3 OF 3		BY		DATE		
REVISION OR CHANGE ORDER DESCRIPTION							
PLAN AND PROFILE ENGINEERS ROAD BELLE CHASSE BR. 8 TUNNEL REPLACEMENT 							

TECHNICAL PROPOSAL



TECHNICAL PROPOSAL

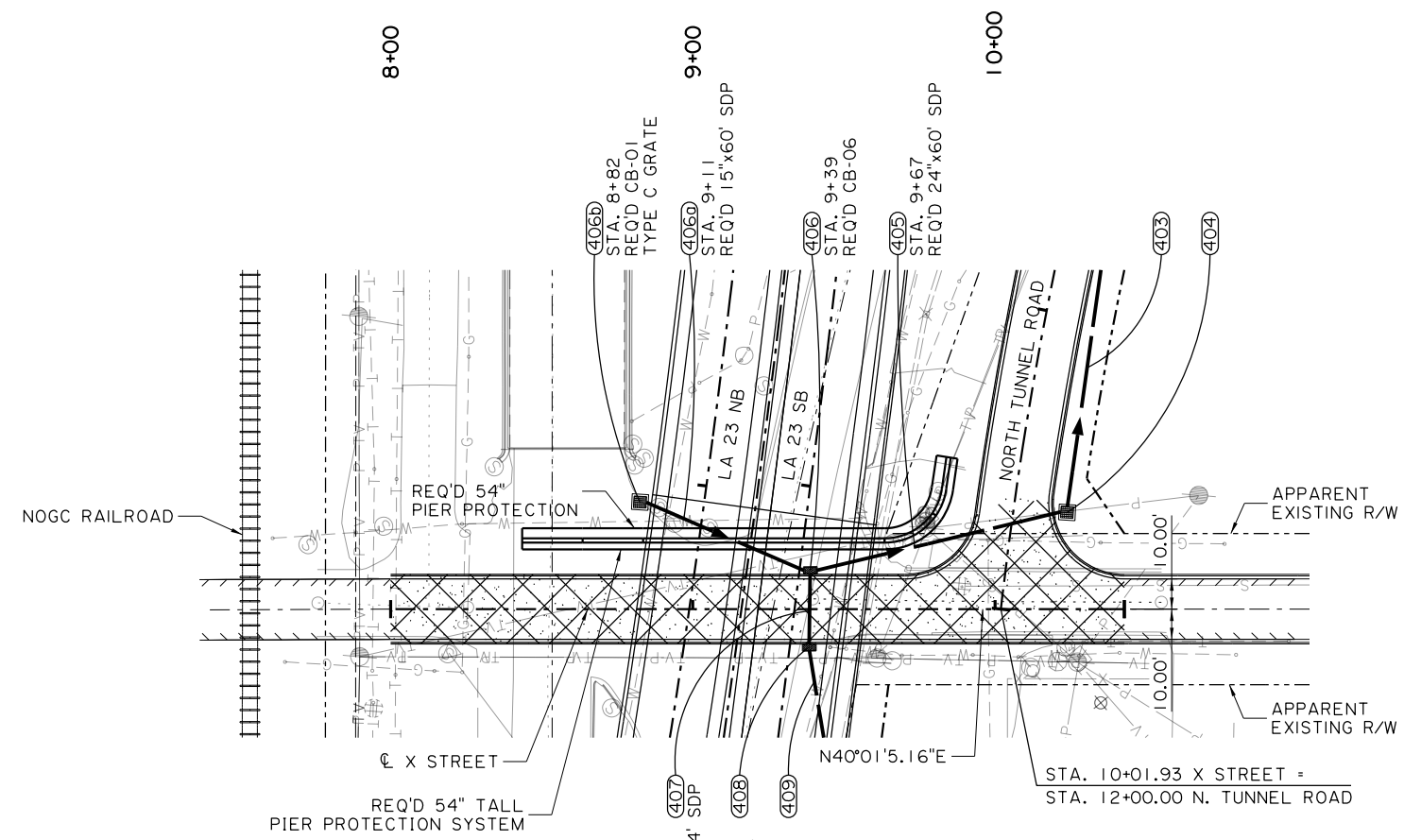
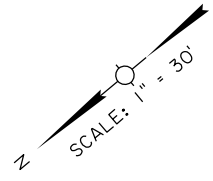
PRELIMINARY FOR REVIEW ONLY	HUVAL AND ASSOCIATES, INC. ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019
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SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

SHEET NUMBER	15
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
DESIGNED / CHECKED / RWS	
RETAILED / CHECKED / MCH	
SERIES NUMBER	
BY	
NO.	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
PLAN AND PROFILE RAILROAD STREET	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	

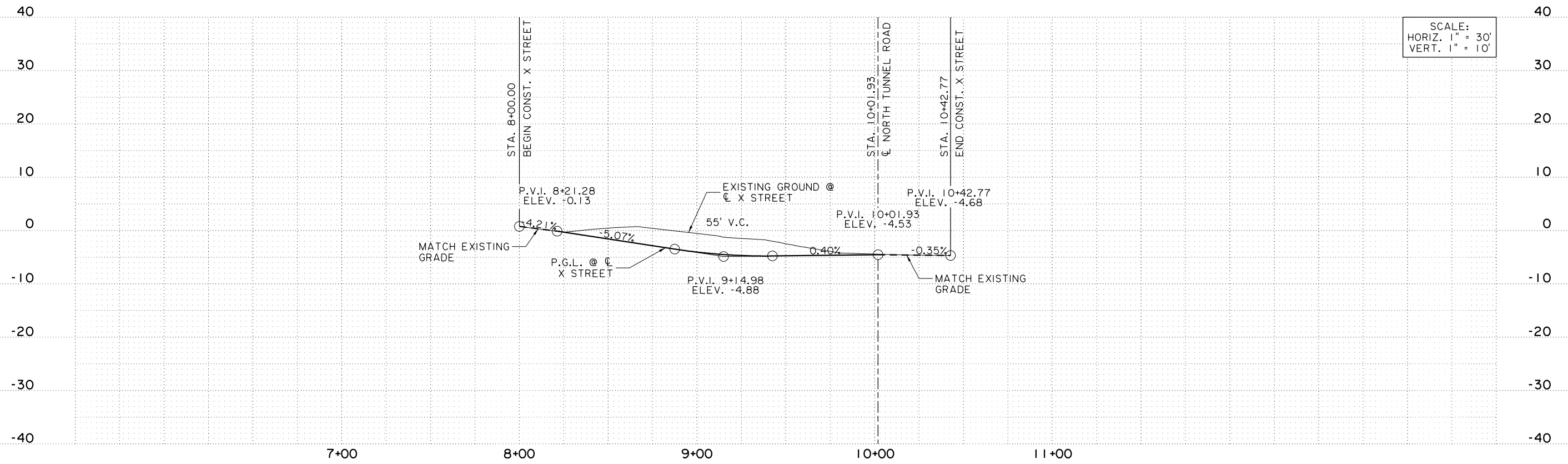
TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\001\01\PR_16_01.dwg 1/30/19



TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL AND ASSOCIATES, INC.</p> <p>ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019</p>
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SHEET NUMBER	16	PLAQUEMINES	062-02, 838-01	H.004791
DESIGNED	MCH	PARISH	CONTROL SECTION	STATE PROJECT
CHECKED	RWS	CONTROL SECTION	CONTROL SECTION	PROJECT
REVISION OR CHANGE ORDER DESCRIPTION	BY	NO.	DATE	BY

PLAN AND PROFILE

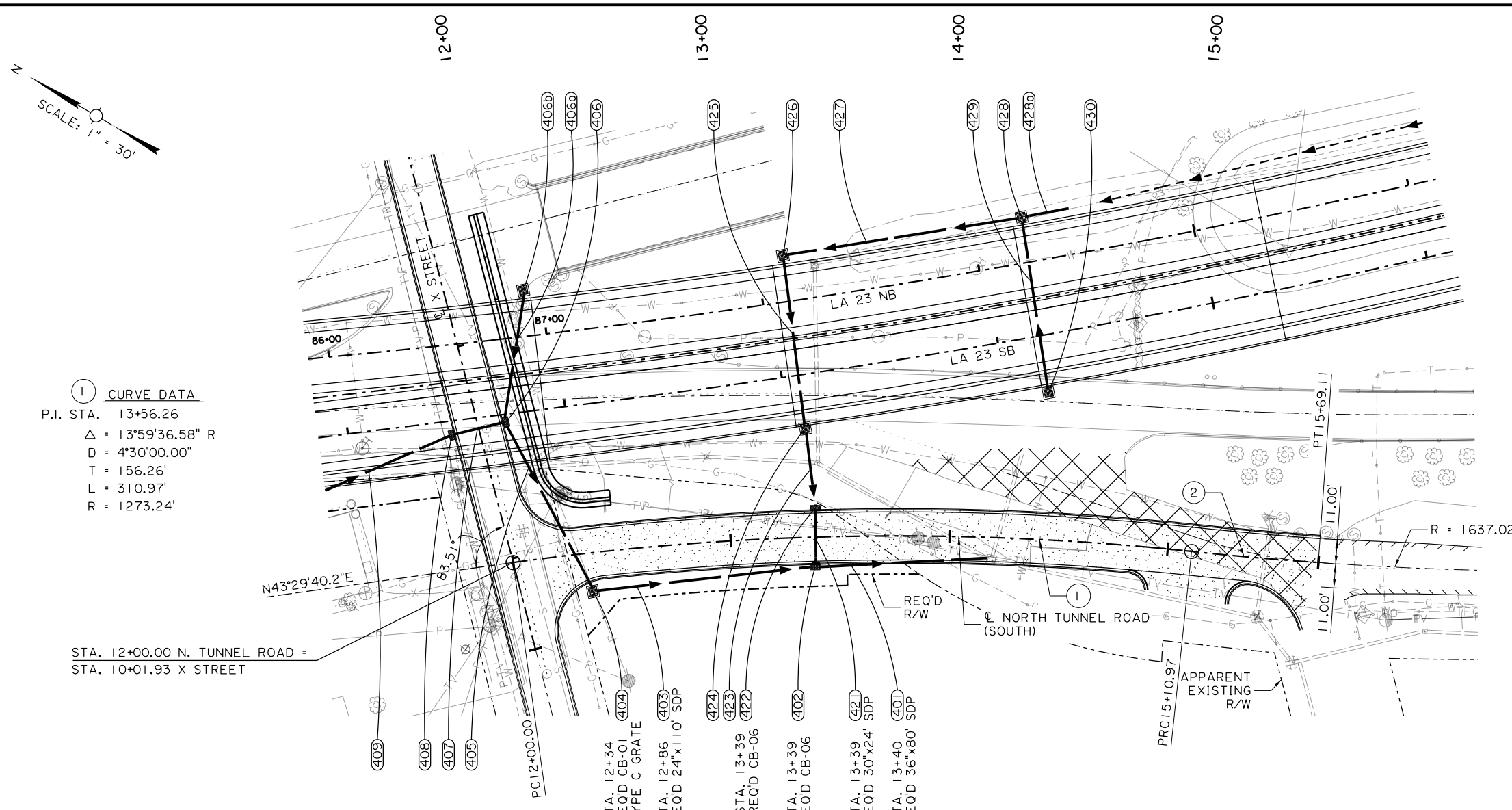
X STREET

BELLE CHASSE BR. & TUNNEL REPLACEMENT

HUVAL

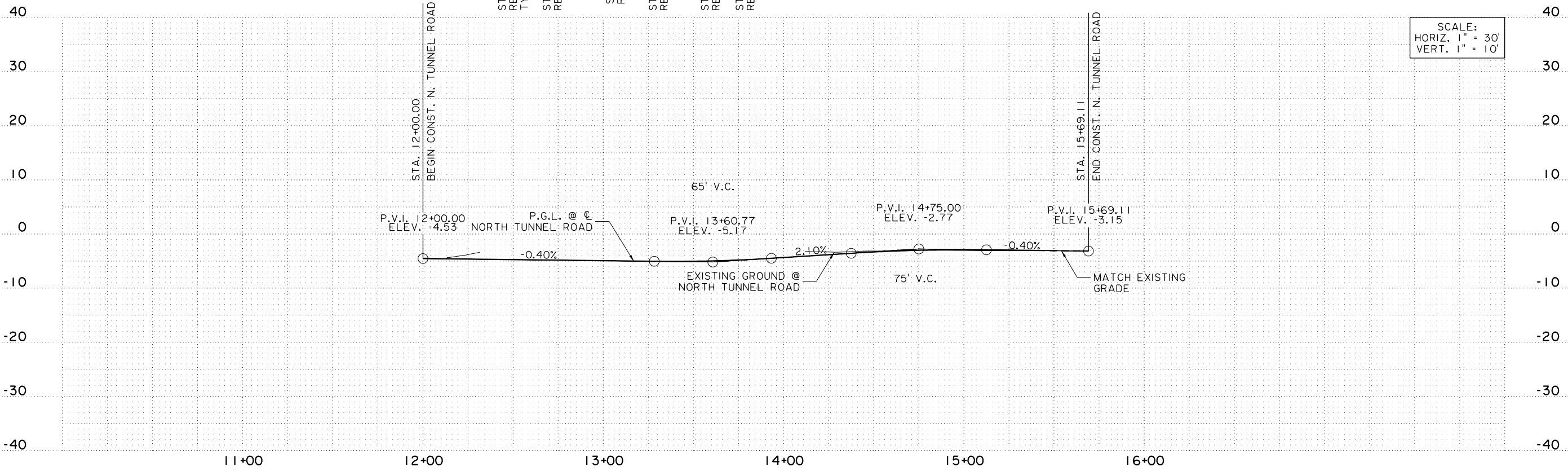
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TECHNICAL PROPOSAL



TECHNICAL PROPOSAL

PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019



SHEET NUMBER	17	PLAQUEMINES	PARISH	CONTROL SECTION	062-02, 838-01
DESIGNED	MCH	REVIEWED	KAC	SERIES	NUMBER
CHECKED	RWS	CHECKED	MCH	BY	
REVISION OR CHANGE	ORDER DESCRIPTION	NO.	DATE		

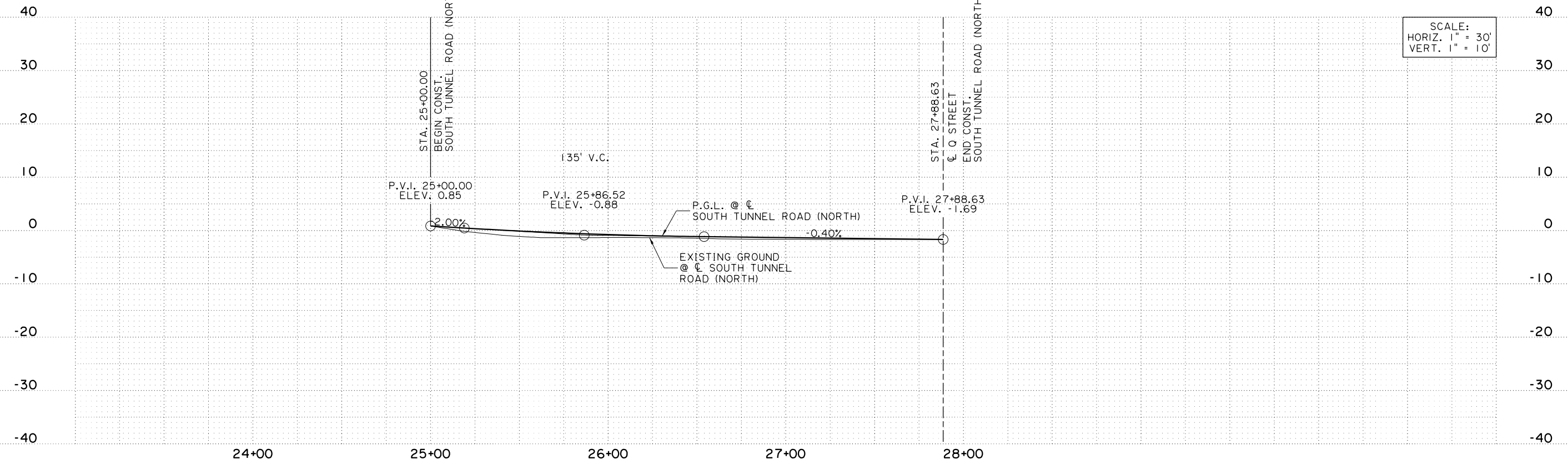
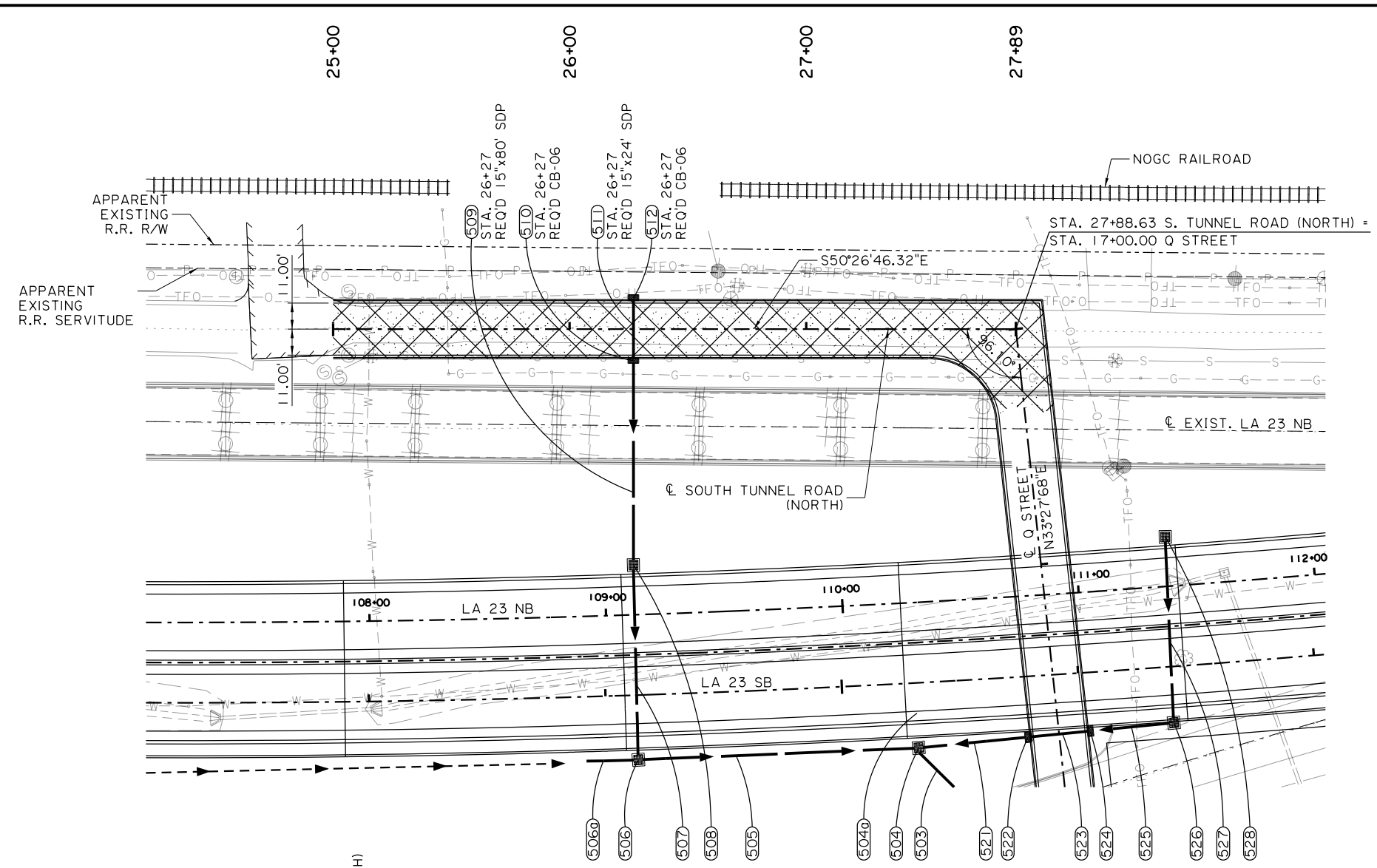
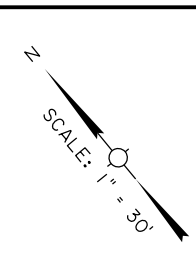
PLAN AND PROFILE
NORTH TUNNEL ROAD

BELLE CHASSE BR. & TUNNEL REPLACEMENT

HUVAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/30/2019\PR_18_PlanProfile.dwg

TECHNICAL PROPOSAL

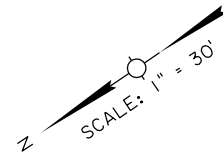


TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

SHEET NUMBER	18
PLAQUEMINES	062-02, 838-01
PARISH	STATE PROJECT
DESIGNED MCH	SERIES NUMBER
CHECKED RWS	BY
REVISION OR CHANGE ORDER DESCRIPTION	DATE
PLAN AND PROFILE SOUTH TUNNEL ROAD (NORTH)	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	

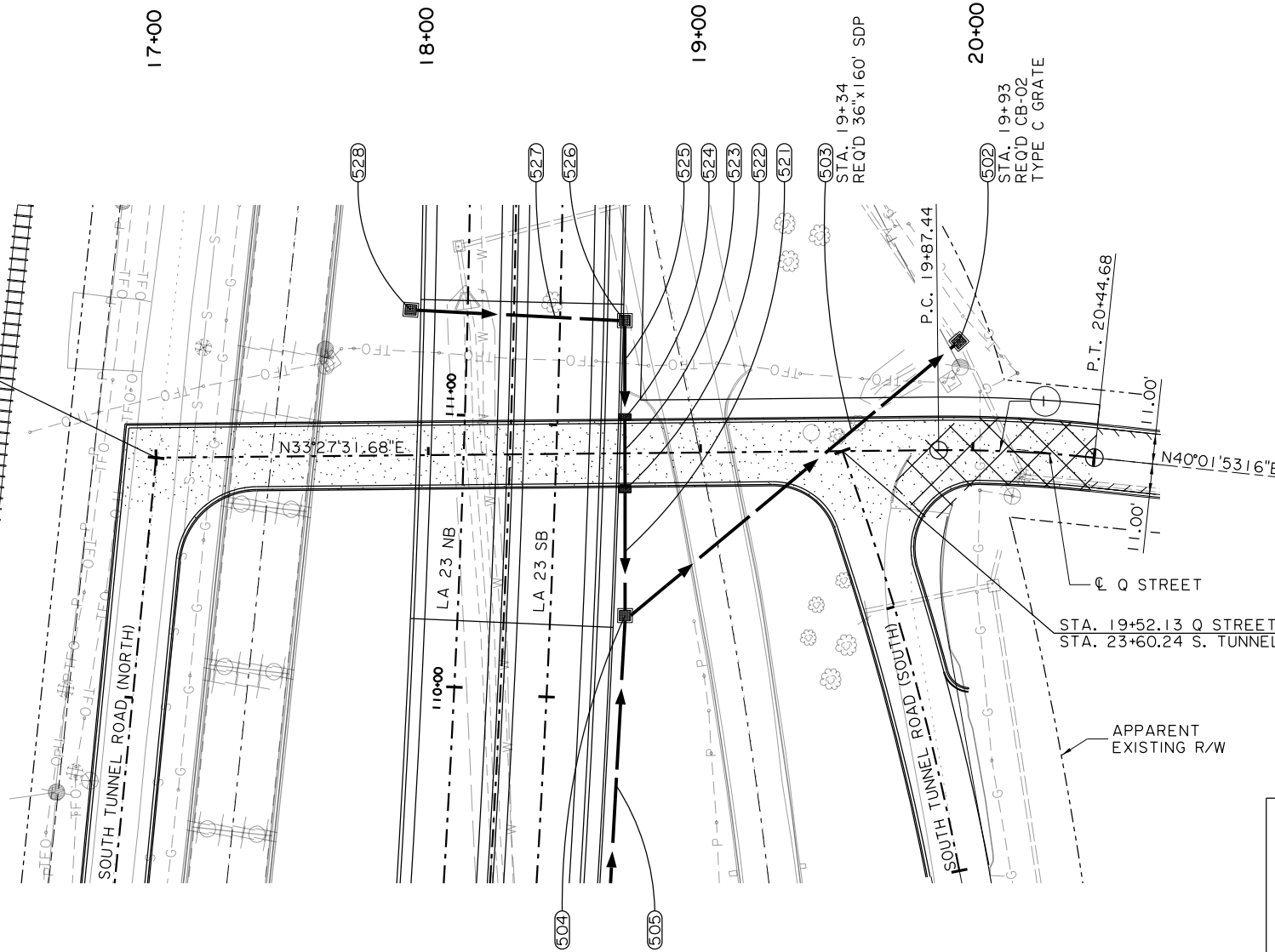
TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/ 19 01 2019 11 36



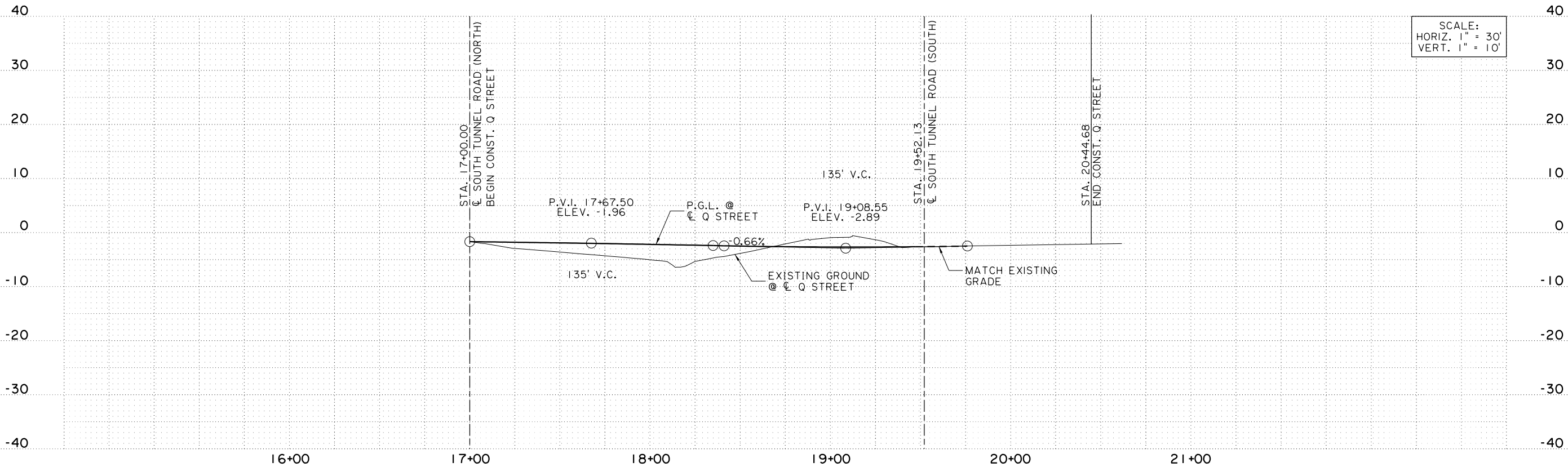
STA. 17+00.00 Q STREET =
STA. 27+88.63 S. TUNNEL ROAD (NORTH)

NOGC RAILROAD



① CURVE DATA
 P.I. STA. 20+16.09
 $\Delta = 6^{\circ}33'33.36''$ R
 $D = 11^{\circ}27'32.96''$
 $T = 28.65'$
 $L = 57.24'$
 $R = 500'$

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

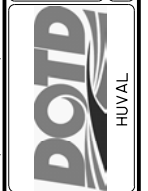


SCALE:
 HORIZ. 1" = 30'
 VERT. 1" = 10'

DESIGNED	MCH	PARISH	SHEET NUMBER
CHECKED	RWS	PLAQUEMINES	10
RETAILED	KAC	CONTROL SECTION	062-02, 838-01
CHECKED	MCH	STATE PROJECT	H.004791
SERIES NUMBER	BY	REVISION OR CHANGE ORDER DESCRIPTION	
NO.	DATE		



PLAN AND PROFILE
 Q STREET
 BELLE CHASSE BR. & TUNNEL REPLACEMENT

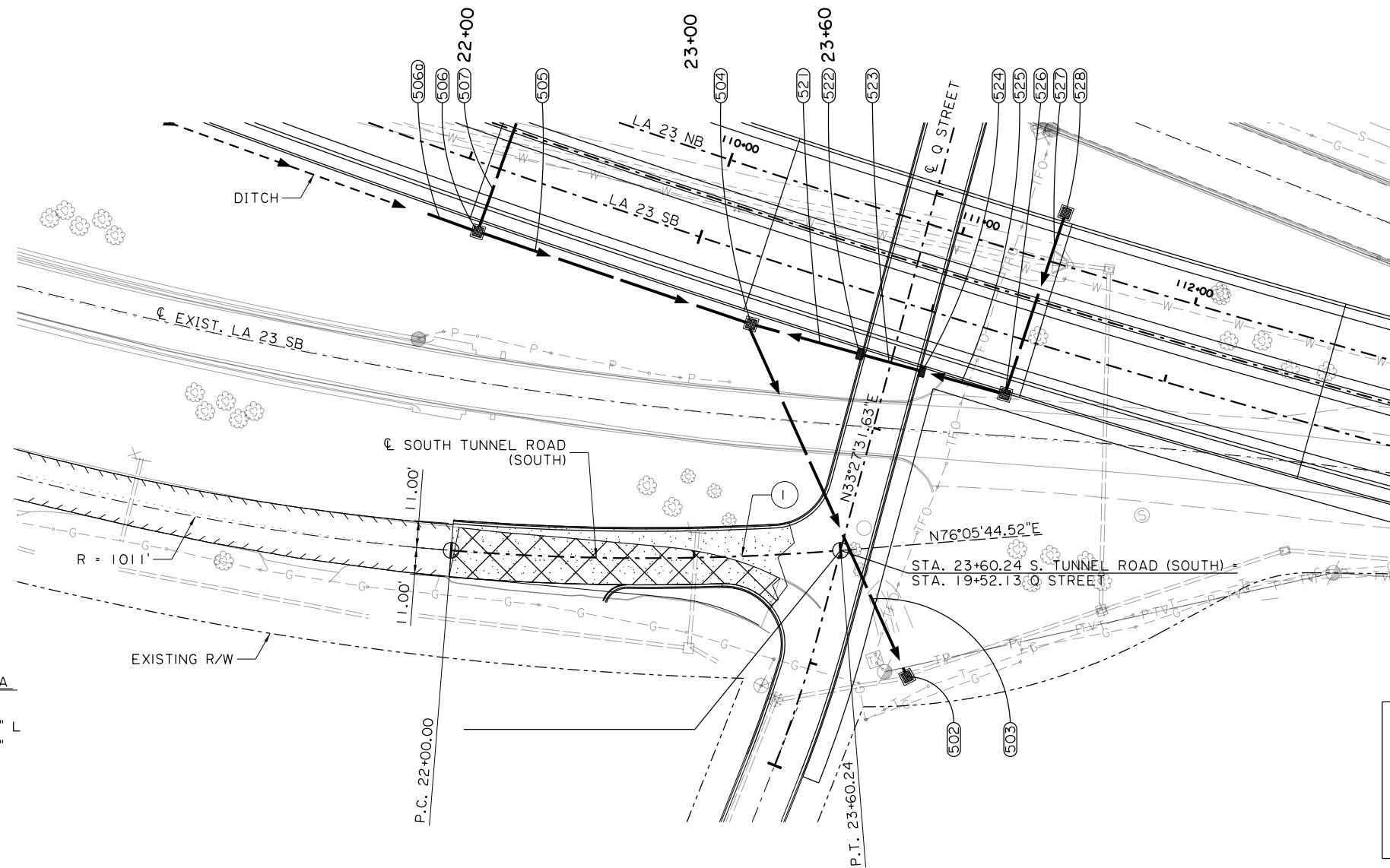


TECHNICAL PROPOSAL

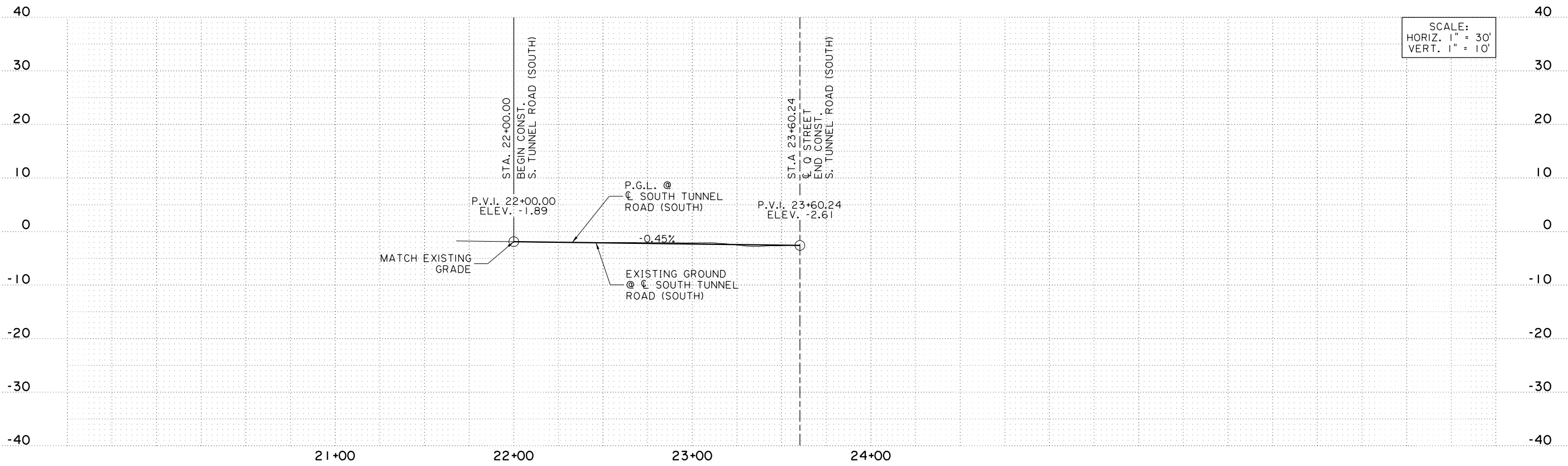
S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/000001PR_20_000001.dwg



① CURVE DATA
 P.I. STA. 22+80.29
 $\Delta = 9^{\circ}04'52.26''$ L
 $D = 5^{\circ}40'02.06''$
 $T = 80.30'$
 $L = 160.24'$
 $R = 1011'$



TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019



SHEET NUMBER	20
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
DESIGNED	MCH
CHECKED	RWS
DETAILED	KAC
CHECKED	MCH
SERIES NUMBER	BY
REVISION OR CHANGE ORDER DESCRIPTION	DATE
NO.	DATE
PLAN AND PROFILE SOUTH TUNNEL ROAD (SOUTH)	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
HUVAL	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Bordet\10\Print\PR_21521@3Summary

SUMMARY OF DRAINAGE STRUCTURES																																										
STRUCTURE NO.	STATION	SIDE OF P	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.)						SIDE DRAIN PIPE (TYPE 1 JTS.)				SIDE DRAIN PIPE ARCH (TYPE 1 JTS.)				CATCH BASINS					MANHOLES			BEDDING MATERIAL (6" THICK)	TRENCH EXCAVATION SAFETY PROTECTION (DEPTH>5 FT.)	PAVED GUTTER DRAIN	SAFETY END TREATMENT (SETS-D-1)	SAFETY END TREATMENT (SETS-D-2)	CONCRETE COLLAR									
						15"	18"	24"	30"	36"	42"	48"	60"	72"	18"	24"	30"	36"	18" EQ.	24" EQ.	30" EQ.	36" EQ.	CB-01	CB-02	CB-06	CB-08	CB-09							MH-20x9	R-CB-11	R-CB-38	CU. YDS.	LIN. FT.	EACH	EACH	EACH	EACH
						LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH							EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
CONTROL SECTION 062-02, 838-01																																										
101	71+47	RT.	18" X 110' STORM DRAIN PIPE		SDP	110																																				
102	72+03	RT.	CATCH BASIN	CB-06	CB																1																					
103	70+85	LT.	CATCH BASIN	CB-06	CB																1																					
104	71+47	LT.	18" X 124' STORM DRAIN PIPE		SDP	124																																				
105	74+87	LT.	PAVED GUTTER DRAIN	PG-DRAIN 01	PGD																																					
211	75+65	RT.	MANHOLE	R-CB-11	CB																			1																		
211a	75+27	RT.	18" X 78' STORM DRAIN PIPE		SDP	78																																				
211b	74+87	RT.	CATCH BASIN	CB-06	CB																	1																				
218	77+65	RT.	60" X 70' STORM DRAIN PIPE		SDP							70																														
219	77+71	RT.	CATCH BASIN	CB-08	CB																																					
219a	77+80	LT.	CATCH BASIN	CB-08	CB																																					
220	78+64	RT.	36" X 180' STORM DRAIN PIPE		SDP								180																													
221	79+54	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																																					
222	79+54	RT.	24" X 10' STORM DRAIN PIPE		SDP																																					
223	79+54	RT.	CATCH BASIN	CB-08	CB																																					
224	79+52	LT.	24" X 120' STORM DRAIN PIPE		SDP																																					
225	79+51	LT.	PAVED GUTTER DRAIN	PG-DRAIN 01	PGD																																					
227	79+50	LT.	CATCH BASIN (TYPE C GRATE)	CB-01	CB																																					
228	79+97	RT.	36" X 80' STORM DRAIN PIPE		SDP									80																												
229	80+39	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																																					

SHEET NUMBER	21
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H-004791
DESIGNED	MCH
CHECKED	RWS
DETAILED	KAC
CHECKED	MCH
SERIES NUMBER	I OF 6
NO.	DATE
BY	REVISION OR CHANGE ORDER DESCRIPTION



SUMMARY OF DRAINAGE STRUCTURES

BELLE CHASSE BR. & TUNNEL REPLACEMENT



TECHNICAL PROPOSAL

PRELIMINARY

SIGMA CONSULTING GROUP

FOR REVIEW ONLY

ENGINEER: GEOFFREY L. WILSON
LICENSE #: 34039
DATE: 1/30/2019

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Bordet\10\Print\PR_21521@Summary

SUMMARY OF DRAINAGE STRUCTURES																																				
STRUCTURE NO.	STATION	SIDE OF P.	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.)							SIDE DRAIN PIPE (TYPE 1 JTS.)				SIDE DRAIN PIPE ARCH (TYPE 1 JTS.)				CATCH BASINS					MANHOLES			BEDDING MATERIAL (6" THICK)	TRENCH EXCAVATION SAFETY PROTECTION (DEPTH>5 FT.)	PAVED GUTTER DRAIN	SAFETY END TREATMENT (SETS-D-1)	SAFETY END TREATMENT (SETS-D-2)	CONCRETE COLLAR		
						15"	18"	24"	30"	36"	42"	48"	60"	72"	18"	24"	30"	36"	18" EQ.	24" EQ.	30" EQ.	36" EQ.	CB-01	CB-02	CB-06	CB-08	CB-09	MH-20x9							R-CB-11	R-CB-38
						LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH							EACH	EACH
CONTROL SECTION 062-02, 838-01																																				
506	109+00	RT.	18" X 20' STORM DRAIN PIPE		SDP	20																						1.8	20							
507	109+12	RT.	18" X 80' STORM DRAIN PIPE		SDP	80																						7.2	80							
508	109+12	RT.	CATCH BASIN (TYPE C GRATE)	CB-01	CB															1								0.4	3							
509	26+27	LT.	15" X 80' STORM DRAIN PIPE		SDP	80																						6.4	80							
510	26+27	LT.	CATCH BASIN	CB-06	CB																	1						0.5	6							
511	26+27	LT.	15" X 24' STORM DRAIN PIPE		SDP	24																						1.9	24							
512	26+27	LT.	CATCH BASIN	CB-06	CB																		1					0.5	6							
521	110+52	RT.	24" X 40' STORM DRAIN PIPE		SDP		40																					4.0	40							
522	110+74	RT.	CATCH BASIN	CB-06	CB																			1				0.5	6							
523	110+88	RT.	24" X 24' STORM DRAIN PIPE		SDP		24																					2.4	24							
524	111+01	RT.	CATCH BASIN	CB-06	CB																			1				0.5	6							
525	111+18	RT.	18" X 30' STORM DRAIN PIPE		SDP	30																						2.7	30							
526	111+36	RT.	CATCH BASIN (TYPE C GRATE)	CB-01	CB																1							0.4	3							
527	111+37	RT.	18" X 80' STORM DRAIN PIPE		SDP	80																						7.2	80							
528	111+38	LT.	CATCH BASIN (TYPE C GRATE)	CB-01	CB																1							0.4	3							
602	120+61	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																			2				0.5	6							
603	120+35	RT.	30" X 50' STORM DRAIN PIPE		SDP		50																					5.5	50							
620	120+07	LT.	CATCH BASIN	CB-08	CB																				1			0.7	6							
604	120+05	RT.	CATCH BASIN	CB-08	CB																				1			0.7	6							
605	120+05	RT.	24" X 10' STORM DRAIN PIPE		SDP		10																					1.0	10							



TECHNICAL PROPOSAL

PRELIMINARY

SIGMA CONSULTING GROUP

FOR REVIEW ONLY


ENGINEER: GEOFFREY L. WILSON
LICENSE #: 34039
DATE: 1/30/2019

SHEET NUMBER	2 c	PARISH	PLAQUEMINES	CONTROL SECTION	062-02, 838-01	STATE PROJECT	H-004791
DESIGNED	MCH	CHECKED	RWS	DETAILED	KAC	CHECKED	MCH
				SERIES NUMBER	4 OF 6		
REVISION OR CHANGE ORDER DESCRIPTION							
BY							
DATE							
NO.							
							
SUMMARY OF DRAINAGE STRUCTURES							
BELLE CHASSE BR. & TUNNEL REPLACEMENT							
							
HUVAL							

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border\10\Print\PR_21521045.dwg

SUMMARY OF DRAINAGE STRUCTURES																																							
STRUCTURE NO.	STATION	SIDE OF P	REMARKS	PLAN	TYPE	STORM DRAIN PIPE (TYPE 3 JTS.)						SIDE DRAIN PIPE (TYPE 1 JTS.)				SIDE DRAIN PIPE ARCH (TYPE 1 JTS.)				CATCH BASINS					MANHOLES			BEDDING MATERIAL (6" THICK)	TRENCH EXCAVATION SAFETY PROTECTION (DEPTH>5 FT.)	PAVED GUTTER DRAIN	SAFETY END TREATMENT (SETS-D-1)	SAFETY END TREATMENT (SETS-D-2)	CONCRETE COLLAR						
						15"	18"	24"	30"	36"	42"	48"	60"	72"	18"	24"	30"	36"	18" EQ.	24" EQ.	30" EQ.	36" EQ.	CB-01	CB-02	CB-06	CB-08	CB-09							MH-20x9	R-CB-11	R-CB-38			
						LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH							EACH	EACH	EACH	EACH	CU. YDS.	LIN. FT.
CONTROL SECTION 062-02, 838-01																																							
212	31+18	RT.	18" X 90' STORM DRAIN PIPE		SDP	90																					8.1	90											
213	31+67	RT.	CATCH BASIN	CB-06	CB																						0.5	6											
214	31+63	RT.	24" X 100' STORM DRAIN PIPE		SDP		100																				10.0	100											
215	31+58	LT.	CATCH BASIN	CB-06	CB																						0.5	6											
216	31+77	LT.	24" X 50' STORM DRAIN PIPE		SDP		50																				5.0	50											
217	31+94	LT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																						0.5	6											
301	40+68	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																						0.5	6											
302	40+50	RT.	REINFORCED CONCRETE PIPE 24" X 30'		SDP		30																				3.0	30											
302a	37+04	LT.	PAVED GUTTER DRAIN	PG-DRAIN 01	PGD																																		
302b	40+48	LT.	PAVED GUTTER DRAIN	PG-DRAIN 01	PGD																																		
303	42+44	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																						0.5	6											
304	43+28	RT.	REINFORCED CONCRETE PIPE 48" X 170'		SDP						170																23.8	170											
305	44+15	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																						0.5	6											
305a	44+15	RT.	REINFORCED CONCRETE PIPE 48" X 10'		SDP						10																1.4	10											
305b	44+24	RT.	REINFORCED CONCRETE PIPE 48" X 20'		SDP						20																2.8	20											
306	44+47	RT.	REINFORCED CONCRETE PIPE 36" X 60'		SDP						60																7.2	60											
307	45+73	RT.	REINFORCED CONCRETE PIPE 36" X 100'		SDP						100																12.0	100											
308	45+25	RT.	CATCH BASIN (TYPE C GRATE)	CB-02	CB																						0.5	6											
309	46+40	RT.	REINFORCED CONCRETE PIPE 30" X 30'		SDP						30																3.3	30											
310	42+50	LT.	CATCH BASIN	CB-06	CB																						0.5	6											
TOTAL						614	786	1190	189	970	200	70			110												20	17	14	5		1	458	4295	5				

SHEET NUMBER	2 e
PLAQUEMINES	OG2-02, 838-01
PARISH CONTROL SECTION	PLAQUEMINES
STATE PROJECT	H-004791
DESIGNED MCH CHECKED RWS	6 OF 6
DETAILED KAC CHECKED MCH	
SERIES NUMBER	6 OF 6
REVISION OR CHANGE ORDER DESCRIPTION	BY
NO.	DATE
 SUMMARY OF DRAINAGE STRUCTURES BELLE CHASSE BR. & TUNNEL REPLACEMENT HUVAL	

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

SIGMA CONSULTING GROUP

ENGINEER: GEOFFREY L. WILSON
 LICENSE #: 34039
 DATE: 1/30/2019

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\241111PR 22-2B; 2301.PAN



PHASE 1a - NORTH SIDE - DESCRIPTION

1. REMOVE PORTIONS OF EXISTING CURB IN THE MEDIAN OF LA 23 IN CONFLICT WITH PROPOSED TRAFFIC SHIFT AND CONSTRUCT REQUIRED DETOUR PAVEMENT IN UNPAVED MEDIANS AND TO THE EAST OF LA 23.
2. CONSTRUCT RAILROAD STREET EXTENSION. LEFT TURN LANES FROM LA 23 SB TO MILDRED STREET AND PLANTERS CANAL ROAD WILL BE ELIMINATED.
3. SHIFT LA 23 NORTHBOUND AND SOUTHBOUND TRAFFIC TO THE EAST UTILIZING NEW DETOUR PAVEMENT AND EXISTING MEDIAN AREA. CONSTRUCT NEW PAVEMENT AS HATCHED.
4. CLOSE OUTSIDE LANE OF TRAFFIC ON LA 23 SOUTHBOUND TO PERFORM MILL AND OVERLAY WORK IN HATCHED AREAS.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. DETOUR PAVEMENT WILL BE ADJACENT TO EXISTING PAVEMENT. WIDENING FOR DETOUR PAVEMENT WILL REQUIRE A SAWCUT ALONG THE EXISTING OUTSIDE LANE LINE AND NEW FULL DEPTH DETOUR PAVEMENT PLACED IN AREAS OF REQUIRED WIDENING. NO EXISTING SHOULDER PAVEMENT WILL BE UTILIZED.
3. DO NOT CONSTRUCT CURBS FOR CURBED MEDIAN AT ENGINEERS ROAD INTERSECTION. TEMPORARY ASPHALT PAVEMENT REQUIRED IN THESE AREAS.
4. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.
5. SHORT TERM LANE CLOSURES REQUIRED FOR MILL AND OVERLAY WORK.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- REQUIRED DETOUR PAVEMENT
- MILL AND OVERLAY EXISTING ROADWAY
- NEW BRIDGE CONSTRUCTION
- REQUIRED REMOVAL
- REQUIRED REMOVAL

TECHNICAL PROPOSAL

PRELIMINARY

HUVAL AND ASSOCIATES, INC.

FOR REVIEW ONLY

ENGINEER: MICHELLE C. HELMINGER
 LICENSE #: 43123
 DATE: 1/25/2019

PHASE 1a - NORTH SIDE

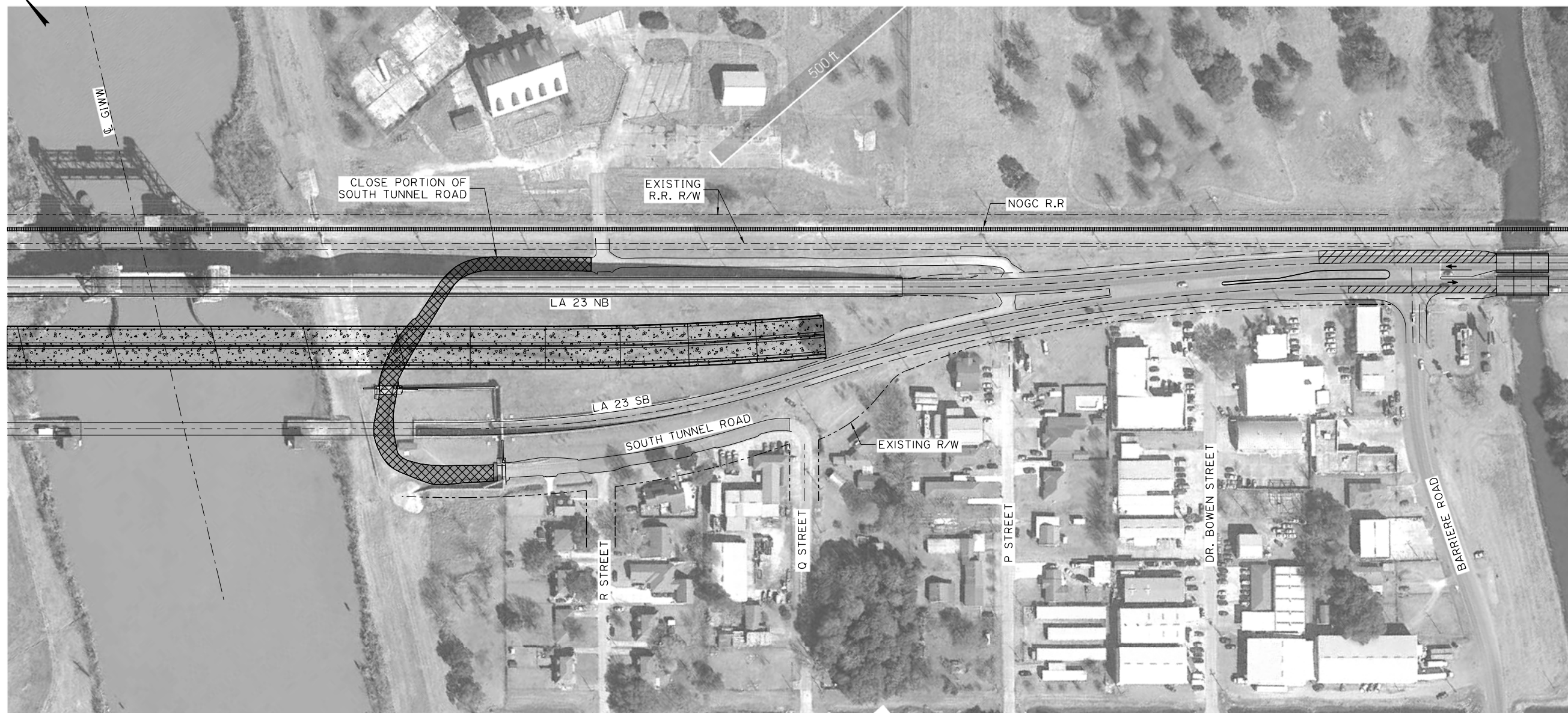
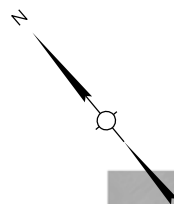
SHEET NUMBER	22
PLAQUEMINES	
PARISH	
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H.004791
DESIGNED MCH	
CHECKED RWS	
DETAILED KAC	
CHECKED MCH	
SERIES NUMBER	1 OF 11
NO.	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
BY	

SUGGESTED SEQUENCE OF CONSTRUCTION
 PHASE 1a - NORTH SIDE

BELLE CHASSE BR. & TUNNEL REPLACEMENT

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/24/21/19R_22-2B; 23065.PDW



PHASE 1a - SOUTH SIDE - DESCRIPTION

1. CLOSE OUTSIDE LANES OF TRAFFIC ON LA 23 NORTHBOUND AND SOUTHBOUND TO PERFORM MILL AND OVERLAY ON EXISTING ROADWAY IN HATCHED AREAS.
2. CLOSE PORTION OF SOUTH TUNNEL ROAD.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. SHORT TERM LANE CLOSURES REQUIRED FOR MILL AND OVERLAY WORK.

LEGEND

- MILL AND OVERLAY EXISTING ROADWAY
- NEW BRIDGE CONSTRUCTION
- REQUIRED REMOVAL

PHASE 1a - SOUTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

DESIGNED	MCH	PARISH	PLAQUEMINES	SHEET NUMBER	23
CHECKED	RWS	CONTROL SECTION	OG2-02, 838-01		
DETAILED	KAC	STATE PROJECT	H-004791		
CHECKED	MCH				
SERIES NUMBER	2 OF 11				
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY		
SUGGESTED SEQUENCE OF CONSTRUCTION PHASE 1a - SOUTH SIDE					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/P3/1111PR_24-25; 25022.PAN



PHASE 1b - NORTH SIDE - DESCRIPTION

1. REMOVE PORTIONS OF EXISTING CURB IN THE MEDIAN OF LA 23 IN CONFLICT WITH PROPOSED TRAFFIC SHIFT AND CONSTRUCT REQUIRED DETOUR PAVEMENT EAST OF LA 23.
2. SHIFT TRAFFIC AWAY FROM THE CENTER OF LA 23 UTILIZING NEW DETOUR PAVEMENT AND EXISTING MEDIAN AREA. CONSTRUCT NEW PAVEMENT AS HATCHED.
3. CLOSE INSIDE LANES OF TRAFFIC ON LA 23 NORTHBOUND AND SOUTHBOUND TO PERFORM MILL AND OVERLAY ON EXISTING ROADWAY IN HATCHED AREAS.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. DETOUR PAVEMENT WILL BE ADJACENT TO EXISTING PAVEMENT. WIDENING FOR DETOUR PAVEMENT WILL REQUIRE A SAWCUT ALONG THE EXISTING OUTSIDE LANE LINE AND NEW FULL DEPTH DETOUR PAVEMENT PLACED IN AREAS OF REQUIRED WIDENING. NO EXISTING SHOULDER PAVEMENT WILL BE UTILIZED.
3. DO NOT CONSTRUCT CURBS FOR CURBED MEDIAN IN CENTER OF LA 23. TEMPORARY ASPHALT REQUIRED IN THESE AREAS.
4. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.
5. SHORT TERM LANE CLOSURES REQUIRED FOR MILL AND OVERLAY WORK.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- REQUIRED DETOUR PAVEMENT
- MILL AND OVERLAY EXISTING ROADWAY
- NEW BRIDGE CONSTRUCTION

TECHNICAL PROPOSAL

PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

PHASE 1b - NORTH SIDE

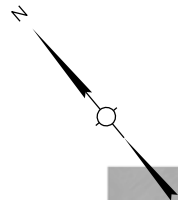
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PARISH	PLAQUEMINES
CONTROL SECTION	OG2-02, 838-01
STATE PROJECT	H.004791
DESIGNED MCH	KAC
CHECKED RWS	KAC
SERIES NUMBER	3 OF 11
NO.	DATE
BY	REVISION OR CHANGE ORDER DESCRIPTION

SUGGESTED SEQUENCE OF CONSTRUCTION
PHASE 1b - NORTH SIDE

BELLE CHASSE BR. & TUNNEL REPLACEMENT

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/P3/1111PR_24-25; 2601.PAM



PHASE 1b - SOUTH SIDE - DESCRIPTION

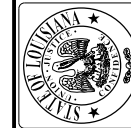
1. CLOSE INSIDE LANES OF TRAFFIC ON LA 23 NORTHBOUND AND SOUTHBOUND TO PERFORM MILL AND OVERLAY ON EXISTING ROADWAY IN HATCHED AREAS.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. SHORT TERM LANE CLOSURES REQUIRED FOR MILL AND OVERLAY WORK.

LEGEND

- MILL AND OVERLAY EXISTING ROADWAY
- NEW BRIDGE CONSTRUCTION



SUGGESTED SEQUENCE OF CONSTRUCTION
PHASE 1b - SOUTH SIDE

BELLE CHASSE BR. & TUNNEL REPLACEMENT



PHASE 1b - SOUTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

DESIGNED	MCH	PLAQUEMINES	SHEET NUMBER	25
CHECKED	RWS	PARISH	CONTROL SECTION	OG2-02, 838-01
DETAILED	KAC	CONTRACT	STATE PROJECT	H-004791
CHECKED	MCH			
SERIES NUMBER	4 OF 11			
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	

TECHNICAL PROPOSAL

s:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\PLATE\PR 26_BSC07_HUVAL



PHASE 1c - NORTH SIDE - DESCRIPTION

1. REMOVE PORTIONS OF EXISTING CURB IN THE MEDIAN OF LA 23 IN CONFLICT WITH PROPOSED TRAFFIC SHIFT AND CONSTRUCT REQUIRED DETOUR PAVEMENT IN UNPAVED MEDIANS AND WEST OF LA 23.
2. SHIFT LA 23 NORTHBOUND AND SOUTHBOUND TRAFFIC TO THE WEST UTILIZING EXISTING MEDIAN AREA AND NEW DETOUR PAVEMENT. CONSTRUCT NEW PAVEMENT AS HATCHED.
3. MOVE TRAFFIC FROM EXISTING ENGINEERS ROAD INTERSECTION TO REALIGNED ENGINEERS ROAD INTERSECTION.
4. CLOSE OUTSIDE LANE OF TRAFFIC ON LA 23 SOUTHBOUND TO PERFORM MILL AND OVERLAY WORK IN HATCHED AREAS.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.
3. DETOUR PAVEMENT WILL BE ADJACENT TO EXISTING PAVEMENT. WIDENING FOR DETOUR PAVEMENT WILL REQUIRE A SAWCUT ALONG THE EXISTING OUTSIDE LANE LINE AND NEW FULL DEPTH DETOUR PAVEMENT PLACED IN AREAS OF REQUIRED WIDENING. NO EXISTING SHOULDER PAVEMENT WILL BE UTILIZED.
4. DO NOT CONSTRUCT CURBS ALONG OUTSIDE OF LA 23 NORTHBOUND IN AREAS WHERE SHIFTED DETOUR TRAFFIC WILL CROSS IN PHASE 1d.
5. SHORT TERM LANE CLOSURES REQUIRED FOR MILL AND OVERLAY WORK.
6. THERE IS NO SOUTHSIDE PORTION OF ROADWORK FOR THIS PHASE OF CONSTRUCTION.

LEGEND

- [Hatched Box] - NEW FULL DEPTH ROADWAY CONSTRUCTION
- [Dotted Box] - REQUIRED DETOUR PAVEMENT
- [Diagonal Lines Box] - MILL AND OVERLAY EXISTING ROADWAY
- [Cross-hatched Box] - NEW BRIDGE CONSTRUCTION

PHASE 1c - NORTH SIDE

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

SHEET NUMBER		26
DESIGNED	MCH	PLAQUEMINES
CHECKED	RWS	PARISH
DETAILED	KAC	CONTROL SECTION
CHECKED	MCH	OG2-02, 838-01
SERIES NUMBER	5 OF 11	STATE PROJECT
		H.004791
REVISION OR CHANGE ORDER DESCRIPTION		BY
		NO.
		DATE
SUGGESTED SEQUENCE OF CONSTRUCTION PHASE 1c - NORTH SIDE		
BELLE CHASSE BR. & TUNNEL REPLACEMENT		
		HUVAL

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/P3/1111PR 27-28: 23012.PAN






PHASE 1d - NORTH SIDE - DESCRIPTION

1. CONSTRUCT REQUIRED DETOUR PAVEMENT EAST OF LA 23 AND SHIFT LA 23 NORTHBOUND TRAFFIC TO THE EAST. SHIFT LA 23 SOUTHBOUND TRAFFIC TO THE WEST ONTO PREVIOUSLY CONSTRUCTED DETOUR PAVEMENT.
2. CONSTRUCT REMAINING PORTION OF NORTHBOUND LANES OF NEW LA 23 BRIDGE AS WELL AS ADJACENT ROADWAY AREA SHOWN BY HATCH.

NOTES:



1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.
3. DETOUR PAVEMENT WILL BE ADJACENT TO EXISTING PAVEMENT. WIDENING FOR DETOUR PAVEMENT WILL REQUIRE A SAWCUT ALONG THE EXISTING OUTSIDE LANE LINE AND NEW FULL DEPTH DETOUR PAVEMENT PLACED IN AREAS OF REQUIRED WIDENING. NO EXISTING SHOULDER PAVEMENT WILL BE UTILIZED.
4. DO NOT CONSTRUCT CURBS IN MEDIANS OF LA 23.

LEGEND

-  - NEW FULL DEPTH ROADWAY CONSTRUCTION
-  - REQUIRED DETOUR PAVEMENT
-  - NEW BRIDGE CONSTRUCTION

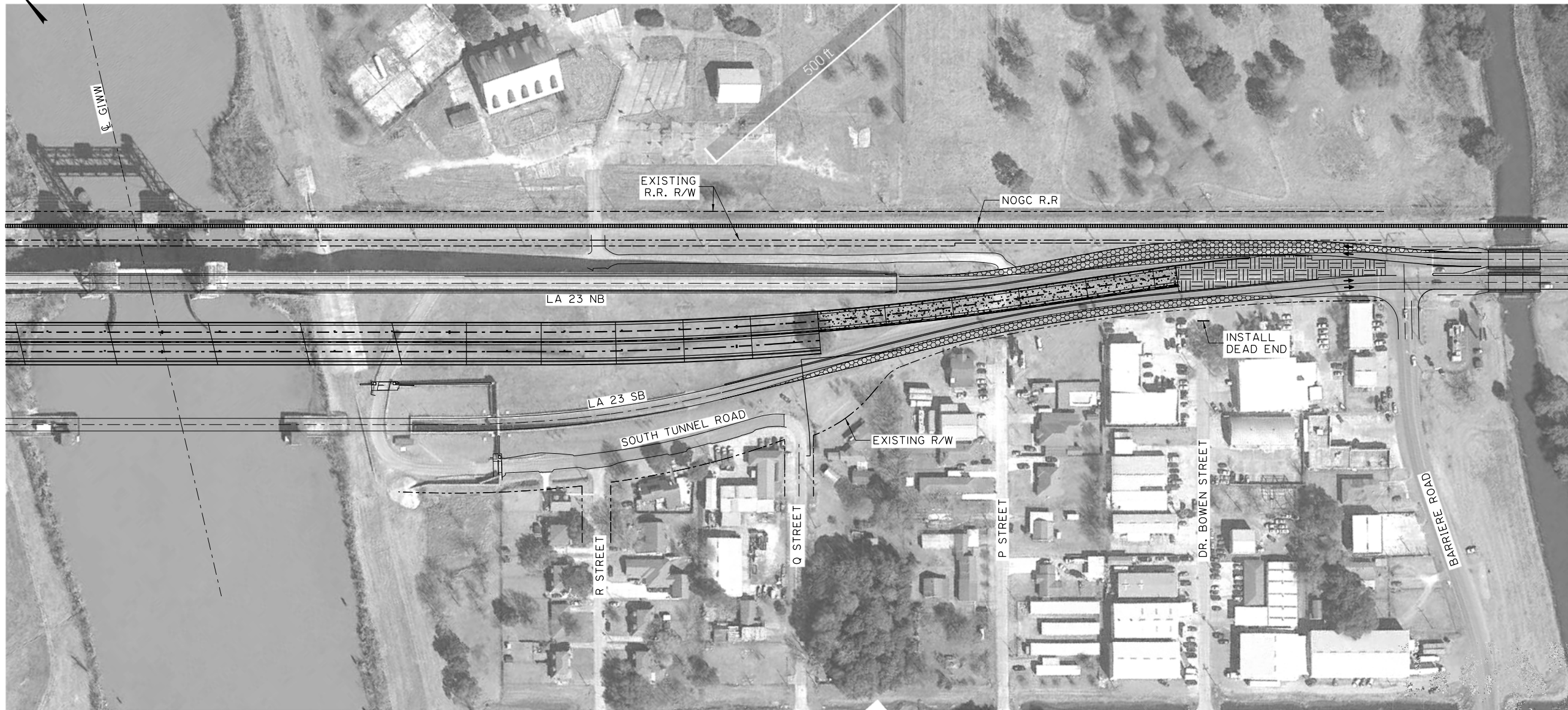
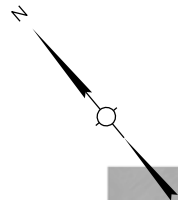
PHASE 1d - NORTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

SHEET NUMBER	27	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MCH	KAC	6	OF	11
CHECKED	RWS	MCH	NO.	DATE	BY
REVISION OR CHANGE ORDER DESCRIPTION					
					
<p>SUGGESTED SEQUENCE OF CONSTRUCTION PHASE 1d - NORTH SIDE</p>					
<p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					
					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\27-28: 8994.P3.DWG



PHASE 1d - SOUTH SIDE - DESCRIPTION

1. CONSTRUCT REQUIRED DETOUR PAVEMENT EAST OF LA 23 AND SHIFT LA 23 NORTHBOUND TRAFFIC TO THE EAST. CONSTRUCT REQUIRED DETOUR PAVEMENT WEST OF LA 23 AND SHIFT LA 23 SOUTHBOUND TRAFFIC TO THE WEST.
2. CONSTRUCT REMAINING PORTION OF NORTHBOUND LANES OF NEW LA 23 BRIDGE AS WELL AS ADJACENT ROADWAY AREA SHOWN BY HATCH.
3. INSTALL PERMANENT DEAD END AT DR. BOWEN STREET.

NOTES:

1. PERFORM UTILITY RELOCATIONS AS REQUIRED FOR ROADWAY & FUTURE BRIDGE CONSTRUCTION.
2. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.
3. DETOUR PAVEMENT WILL BE ADJACENT TO EXISTING PAVEMENT. WIDENING FOR DETOUR PAVEMENT WILL REQUIRE A SAWCUT ALONG THE EXISTING OUTSIDE LANE LINE AND NEW FULL DEPTH DETOUR PAVEMENT PLACED IN AREAS OF REQUIRED WIDENING. NO EXISTING SHOULDER PAVEMENT WILL BE UTILIZED.
4. DO NOT CONSTRUCT CURBS IN MEDIANS OF LA 23.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- REQUIRED DETOUR PAVEMENT
- NEW BRIDGE CONSTRUCTION

PHASE 1d - SOUTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019



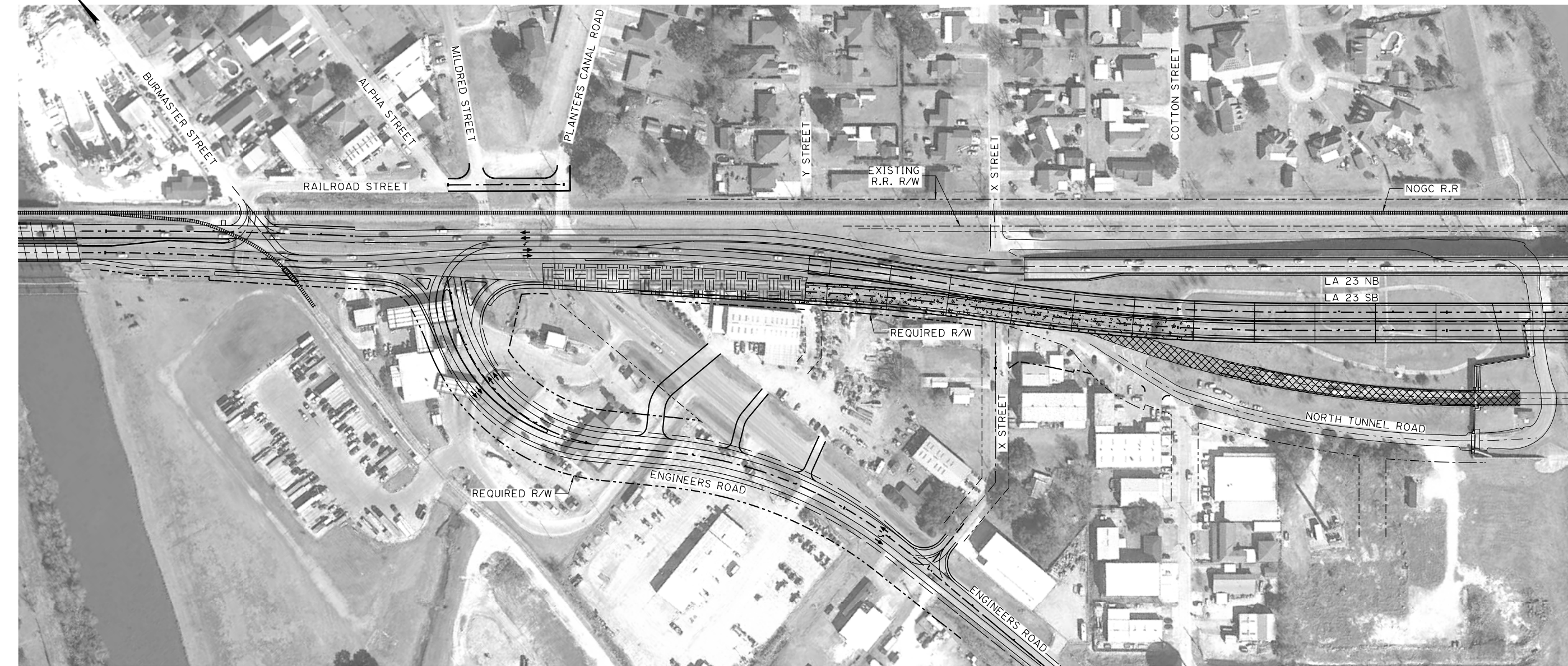
SUGGESTED SEQUENCE OF CONSTRUCTION
PHASE 1d - SOUTH SIDE



DESIGNED	MCH	PARISH	PLAQUEMINES	SHEET NUMBER	28
CHECKED	RWS	CONTROL SECTION	OG2-02, 838-01		
DETAILED	KAC	STATE PROJECT	H.004791		
CHECKED	MCH				
SERIES NUMBER	7 OF 11				
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY		

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\29\29-01\PR 29-01\33018.PLA



PHASE 2 - NORTH SIDE - DESCRIPTION

1. SHIFT LA 23 SOUTHBOUND TRAFFIC ONTO COMPLETED NORTHBOUND LANES OF NEW BRIDGE.
2. CONSTRUCT REMAINING PORTION OF SOUTHBOUND LANES OF LA 23 BRIDGE AS WELL AS ADJACENT ROADWAY AS SHOWN BY HATCH.
3. DECOMMISSION EXISTING TUNNEL.

NOTES:

1. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- NEW BRIDGE CONSTRUCTION
- REQUIRED REMOVAL

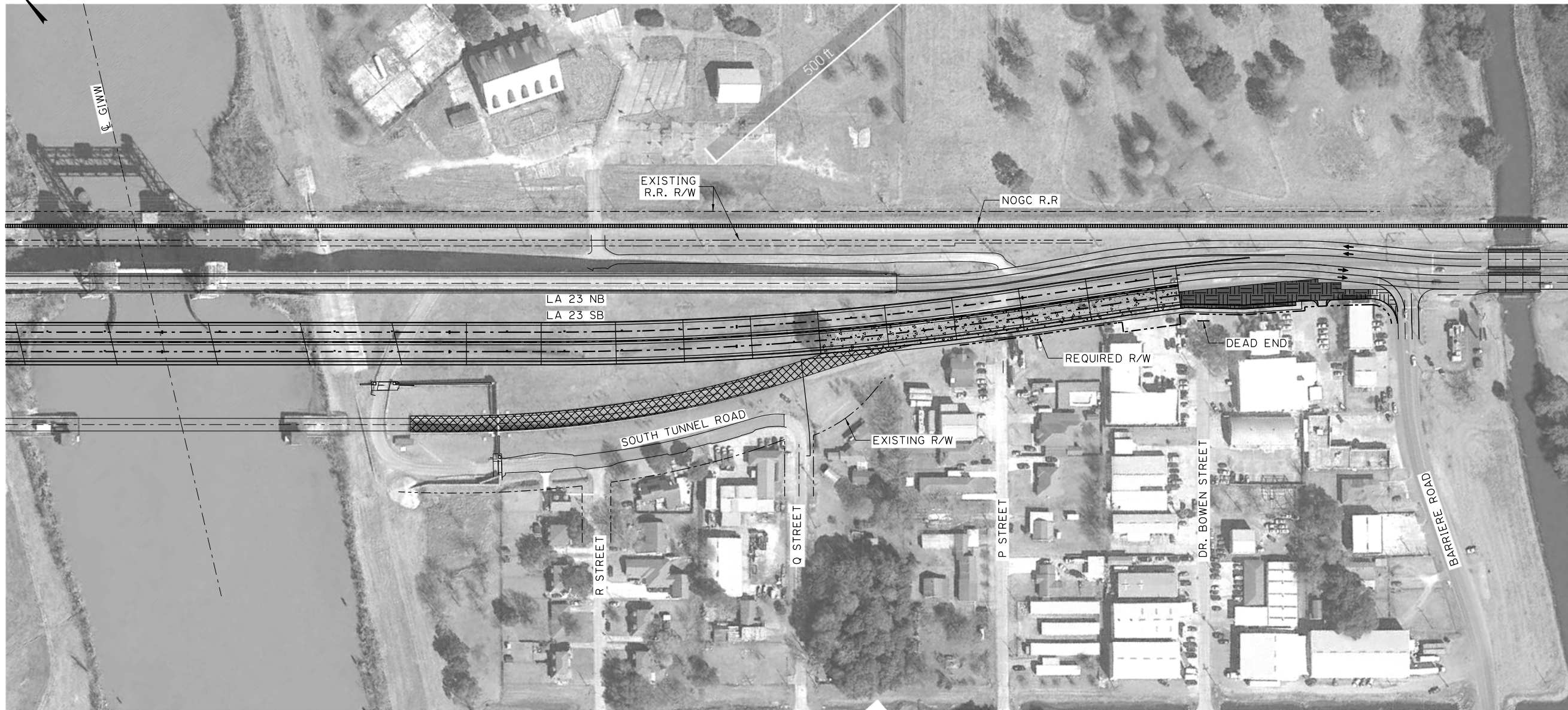
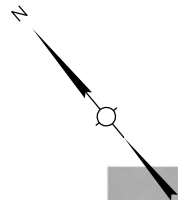
<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

PHASE 2 - NORTH SIDE

SHEET NUMBER	29	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MCH	KAC	KAC	KAC	KAC
CHECKED	RWS	MCH	MCH	MCH	MCH
SERIES NUMBER	B	OF	I	I	I
NO.	DATE	REVISION OR CHANGE	ORDER DESCRIPTION	BY	BY
SUGGESTED SEQUENCE OF CONSTRUCTION PHASE 2 - NORTH SIDE					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\241111PR_29-BD_36022.PAN



PHASE 2 - SOUTH SIDE - DESCRIPTION

1. SHIFT LA 23 SOUTHBOUND TRAFFIC ONTO COMPLETED NORTHBOUND LANES OF NEW BRIDGE.
2. CONSTRUCT REMAINING PORTION OF SOUTHBOUND LANES OF LA 23 BRIDGE AS WELL AS ADJACENT ROADWAY AS SHOWN BY HATCH.
3. DECOMMISSION EXISTING TUNNEL.

NOTES:

1. LANE WIDTHS TO BE REDUCED TO 11' WIDTH THROUGH AREAS OF SHIFTED TRAFFIC.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- NEW BRIDGE CONSTRUCTION
- REQUIRED REMOVAL

PHASE 2 - SOUTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019



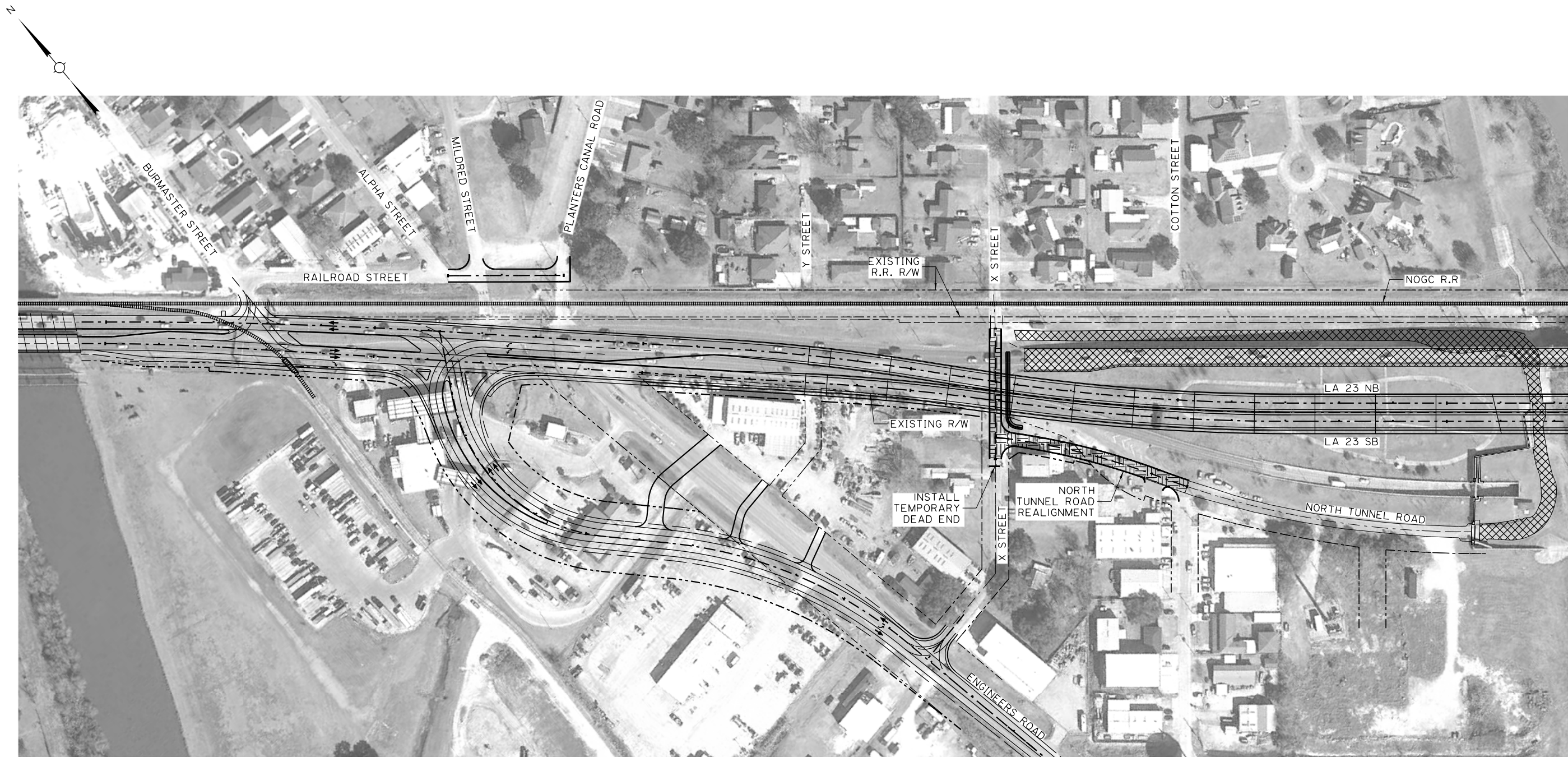
SUGGESTED SEQUENCE OF CONSTRUCTION
PHASE 2 - SOUTH SIDE



DESIGNED	MCH	PARISH	PLAQUEMINES	SHEET NUMBER	30
CHECKED	RWS	CONTROL SECTION	OG2-02, 838-01		
DETAILED	KAC	STATE PROJECT	H-004791		
CHECKED	MCH				
SERIES NUMBER	9 OF 11				
REVISION OR CHANGE ORDER DESCRIPTION					
NO.	DATE	BY			

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb/P3/1111PR_31-32: 33061.PAN



PHASE 3 - NORTH SIDE - DESCRIPTION

1. SHIFT LA 23 TRAFFIC TO FINAL CONDITION ON NEW LA 23 BRIDGE.
2. COMPLETE CONSTRUCTION OF ALL ROADWAY CURBS AND MEDIANS NOT PREVIOUSLY CONSTRUCTED ON LA 23 & ENGINEERS ROAD.
3. DEMOLISH EXISTING VERTICAL LIFT BRIDGE.
4. CONSTRUCT X STREET EXTENSION & CONSTRUCT NORTH TUNNEL ROAD REALIGNMENT.
5. REMOVE HATCHED PORTION OF NORTH TUNNEL ROAD.

NOTES:

1. CONSTRUCTION OF LOCAL ROADS WILL RESULT IN MINOR DISRUPTIONS TO TRAFFIC FLOW. ALL EXISTING ACCESS TO PROPERTIES TO BE MAINTAINED.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- REQUIRED REMOVAL

PHASE 3 - NORTH SIDE

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

DESIGNED	MCH	PLAQUEMINES	SHEET NUMBER	31
CHECKED	RWS	PARISH	CONTROL SECTION	OG2-02, 838-01
DETAILED	KAC	STATE PROJECT		H.004791
CHECKED	MCH			
SERIES NUMBER	10 OF 11			
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	

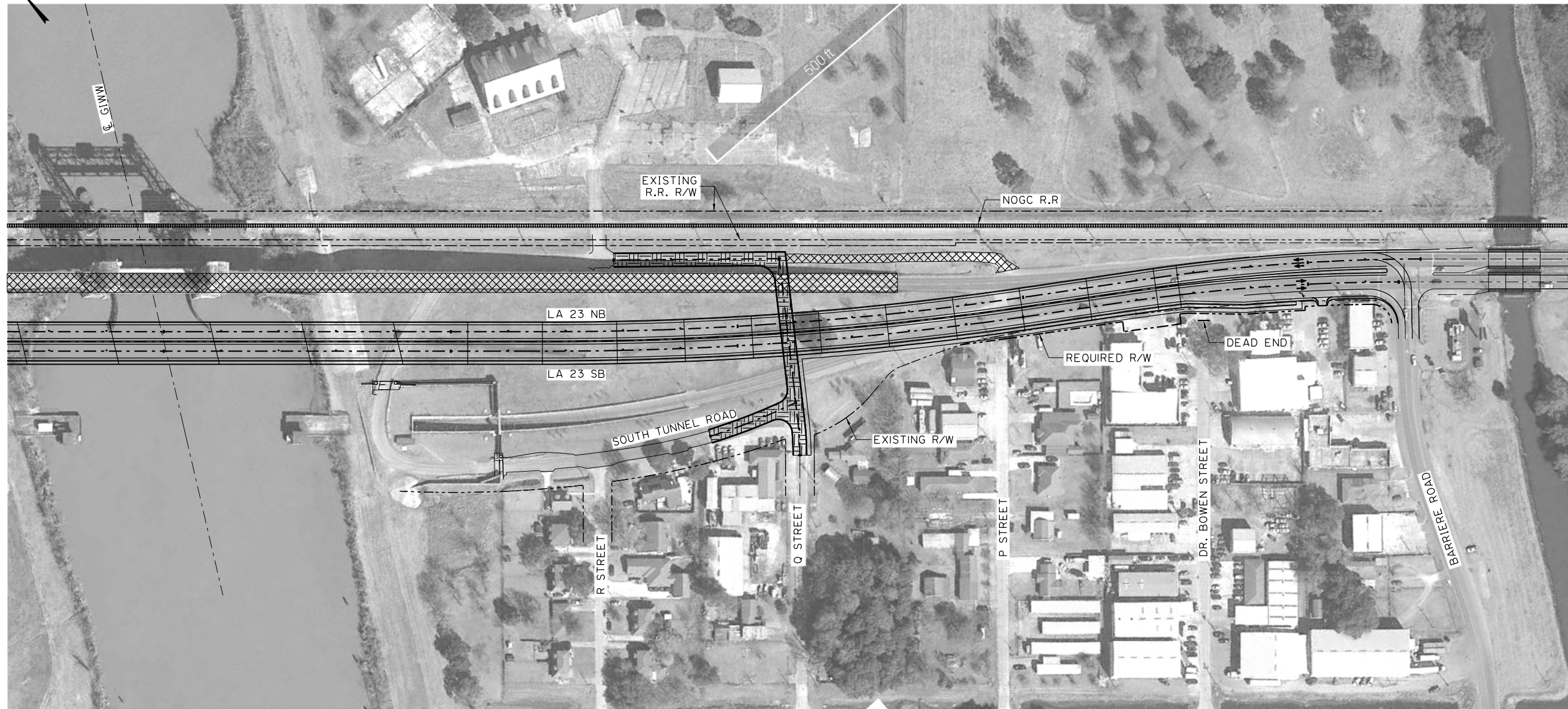
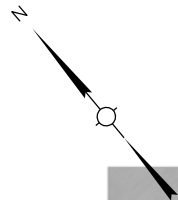


SUGGESTED SEQUENCE OF CONSTRUCTION
PHASE 3 - NORTH SIDE



TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\241111PR_31-32: 36506 PAM



PHASE 3 - SOUTH SIDE - DESCRIPTION

1. SHIFT LA 23 TRAFFIC TO FINAL CONDITION ON NEW LA 23 BRIDGE.
2. COMPLETE CONSTRUCTION OF ALL ROADWAY CURBS AND MEDIANS NOT PREVIOUSLY CONSTRUCTED ON LA 23.
3. DEMOLISH EXISTING VERTICAL LIFT BRIDGE.
4. CONSTRUCT Q STREET EXTENSION, CONSTRUCT SOUTH TUNNEL ROAD (NORTH OF LA 23 & SOUTH OF LA 23).
5. DEMOLISH PORTION OF SOUTH TUNNEL ROAD AS HATCHED.

NOTES:

1. CONSTRUCTION OF LOCAL ROADS WILL RESULT IN MINOR DISRUPTIONS TO TRAFFIC FLOW. ALL EXISTING ACCESS TO PROPERTIES TO BE MAINTAINED.

LEGEND

- NEW FULL DEPTH ROADWAY CONSTRUCTION
- REQUIRED REMOVAL

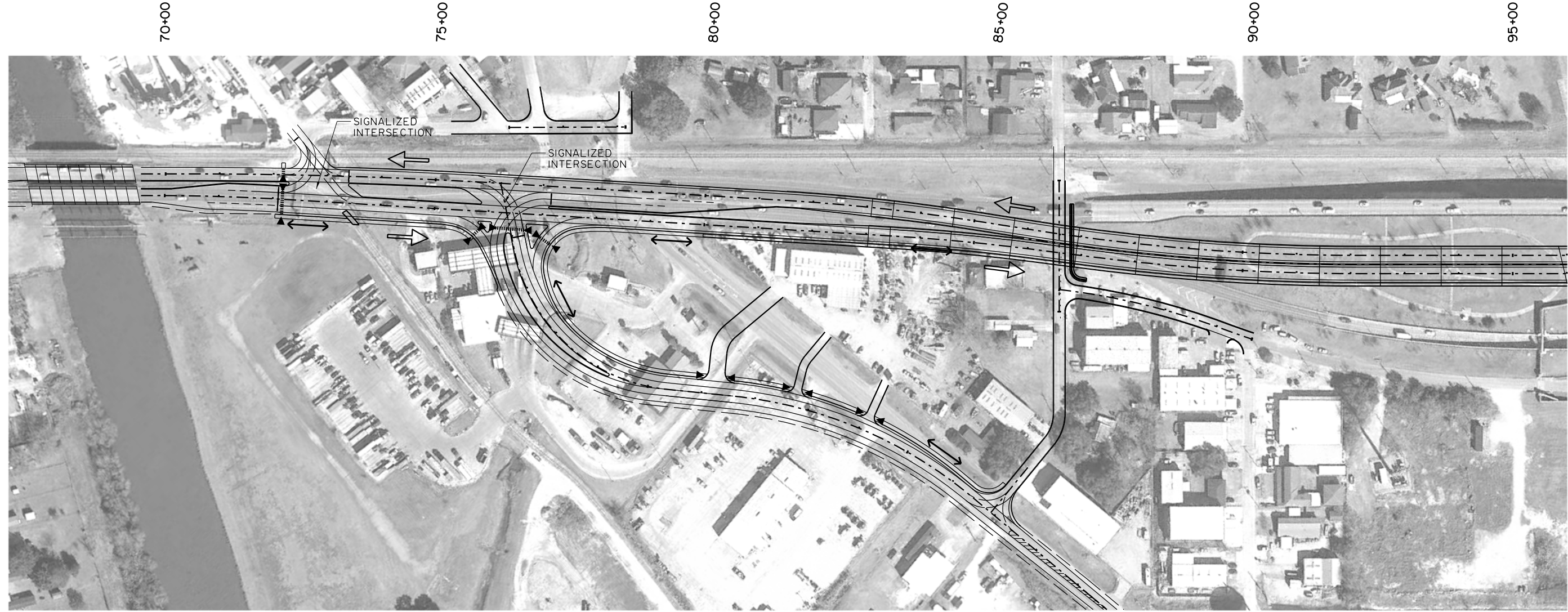
PHASE 3 - SOUTH SIDE

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL AND ASSOCIATES, INC.
FOR REVIEW ONLY	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/25/2019

SHEET NUMBER	32	PLAQUEMINES	OG2-02, 838-01	H.004791
DESIGNED	MCH	PARISH	CONTROL SECTION	STATE PROJECT
CHECKED	RWS	NOGC R.R.	KAC	II OF II
DETAILED	MCH	EXISTING R.R. R/W	CHECKED	NUMBER
REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY	
SUGGESTED SEQUENCE OF CONSTRUCTION PHASE 3 - SOUTH SIDE				
BELLE CHASSE BR. & TUNNEL REPLACEMENT				




TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\01 - Road Design\02 - Border tb\19042019\PR_33-34_1001.dwg




CONNECTIVITY PLAN - NORTH SIDE
SCALE: 1" = 100'

LEGEND

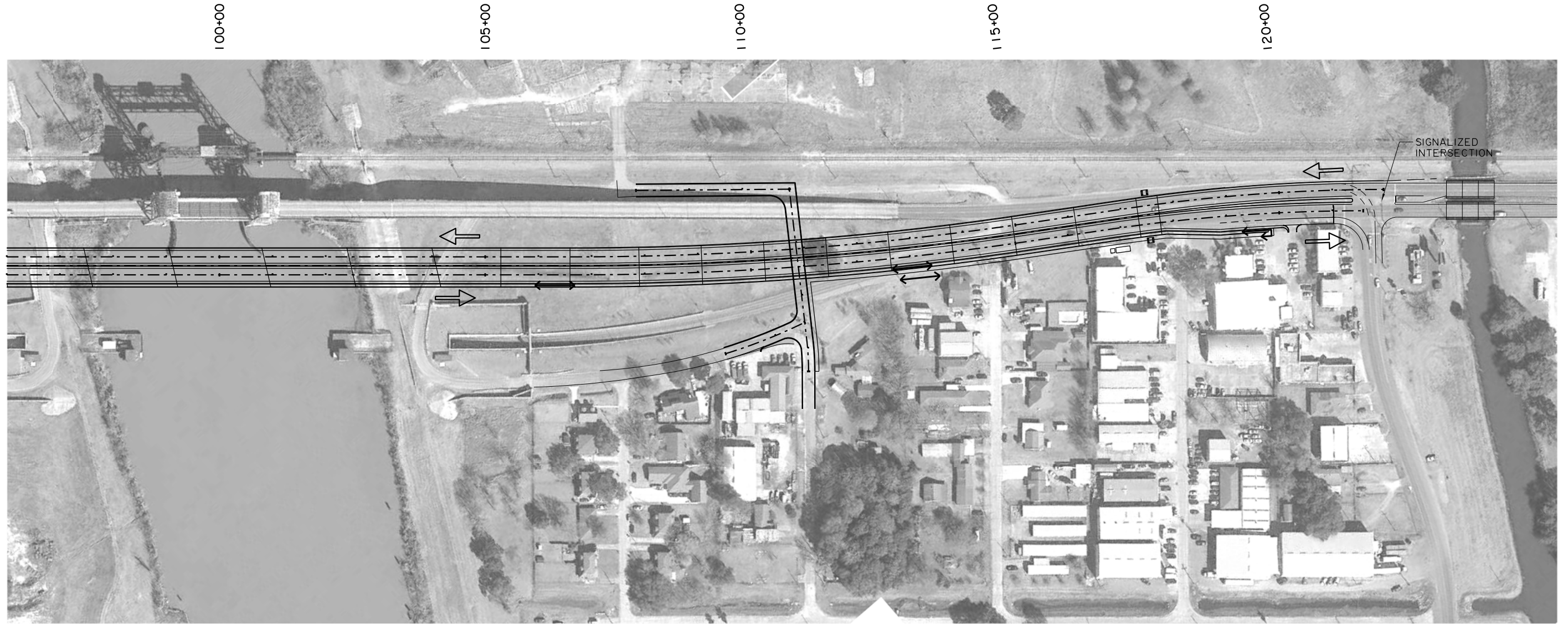
- BIKE ON SHOULDER 
- PEDESTRIAN SIDEWALK 
- HANDICAP RAMP ON SIDEWALK/ IN MEDIAN 

TECHNICAL PROPOSAL PRELIMINARY	
FOR REVIEW ONLY	HUVAL AND ASSOCIATES, INC. ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

	SHEET NUMBER 33
CONNECTIVITY PLAN	PARISH PLAQUEMINES
BELLE CHASSE BR. & TUNNEL REPLACEMENT	CONTROL SECTION 062-02, 838-01
NO. DATE _____	STATE PROJECT H.004791
REVISION OR CHANGE ORDER DESCRIPTION _____	DESIGNED MCH CHECKED RWS DETAILED KAC CHECKED MCH SERIES NUMBER _____
BY _____	_____



TECHNICAL PROPOSAL



CONNECTIVITY PLAN - SOUTH SIDE
SCALE: 1" = 100'

- LEGEND
- BIKE ON SHOULDER
 - PEDESTRIAN SIDEWALK

<i>TECHNICAL PROPOSAL</i>	
<i>PRELIMINARY</i>	HUVAL AND ASSOCIATES, INC.
<i>FOR REVIEW ONLY</i>	ENGINEER: MICHELLE C. HELMINGER LICENSE #: 43123 DATE: 1/30/2019

	DESIGNED MCH	CHECKED RWS	PARISH PLAQUEMINES	SHEET NUMBER	34
	REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	CONTROL SECTION	062-02, 838-01
	BY	SERIES NUMBER	STATE PROJECT	H.004791	
CONNECTIVITY PLAN			BELLE CHASSE BR. & TUNNEL REPLACEMENT		

TRAFFIC SIGNAL INVENTORY (v3.2)															TSI NO. 38-005			
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT															PAGE: OF			
INTERSECTION: LA 23 AT LA 3017 (ENGINEERS RD) / BURMASTER ST										CTRL SEC: 050-07			LOGMILE:					
CITY: BELLE CHASSE					PARISH: PLAQUEMINES					LAT: 29.8757		LONG: -90.0139						
SIGNAL TYPE: Volume Density					INTERCONNECT TYPE: Twisted Pair					REV. DATE:		INSTALL 9/27/82						
MAINTAINED BY: DOTD					COORDINATED WITH TSI #'S: 26100, 26044, 26127, 26098, 26118, 26184, 26042, 26202, 38005													
TRAFFIC SIGNAL COORDINATION PLANS (PHASING MAY VARY FROM FREE OPERATION)																		
Ring 1																		
Φ1	Turn														<G	<Y	R	5,6
Φ2	Thru	G	G	G	G	Y	R							G	G	G	G	12,13,15,16,17
Φ4	Thru													G	Y	R		18,19,20,21
Ring 2																		
Φ5	Turn																	11,14
Φ6	Thru	G	G	G	G	G	G	G	G	Y	R							7,8
Φ8	Thru													G	Y	R		22,23
OVERL AP																		
Φ6	OLA	G	Y	R										G	G	G	G	1,2,3,4
Φ2	OLB	G	G	G	G	G	G	G	G	Y	R							9,10
Int. Times																		
		21	4	2	19	4	2	12	4	2	24	4	2	24	4	2		Signal Heads
Phasing																		
		Φ2 + Φ6			Φ2 + Φ5			Φ8			Φ4			Φ1 + Φ6				
Split	sec	112 / 100			112 / 25			18			30			30 / 100				
Coord Φ:	Φ2																Offset =	
Max:																	7 sec	
PATTERN/SPLIT:	1																EndGRN	
Action:																	Cycle Length:	
Times of Operation: Mon. - Fri.: 05:00 - 09:00 Sat.: Sun.: 130																		
Notes: PARENT PHASE FOR OLA = Φ6 AND Φ4, OLB = Φ2 AND Φ8																		
STOP IN WALK WILL EXTEND Φ2, Φ4, Φ6 AND Φ8 TO ACCOMMODATE PED CLEARANCE TIME ONLY WHEN PED PUSH BUTTON ACTIVATED.																		
Ring 1																		
Φ1	Turn														<G	<Y	R	5,6
Φ2	Thru	G	G	G	G	Y	R							G	G	G	G	12,13,15,16,17
Φ4	Thru													G	Y	R		18,19,20,21
Ring 2																		
Φ5	Turn																	11,14
Φ6	Thru	G	G	G	G	G	G	G	G	Y	R							7,8
Φ8	Thru													G	Y	R		22,23
OVERL AP																		
Φ6	OLA	G	Y	R										G	G	G	G	1,2,3,4
Φ2	OLB	G	G	G	G	G	G	G	G	Y	R							9,10
Int. Times																		
		21	4	2	10	4	2	7	4	2	20	4	2	12	4	2		Signal Heads
Phasing																		
		Φ2 + Φ6			Φ2 + Φ5			Φ8			Φ4			Φ1 + Φ6				
Split	sec	87 / 74			87 / 16			13			26			18 / 74				
Coord Φ:	Φ2																Offset =	
Max:																	5 sec	
PATTERN/SPLIT:	2																EndGRN	
Action:																	Cycle Length:	
Times of Operation: Mon. - Fri.: 19:00 - 23:00 Sat.: 19:00 - 23:00 Sun.: 19:00 - 23:00																		
Notes: PARENT PHASE FOR OLA = Φ6 AND Φ4, OLB = Φ2 AND Φ8																		
STOP IN WALK WILL EXTEND Φ2, Φ4, Φ6 AND Φ8 TO ACCOMMODATE PED CLEARANCE TIME ONLY WHEN PED PUSH BUTTON ACTIVATED.																		

PRELIMINARY NOT FOR CONSTRUCTION
VECTURA
 ENGINEER: SHEELAGH BRIN FERLITO
 LICENSE: 25363
 DATE: 01/29/2019

TRAFFIC SIGNAL INVENTORY (v3.2)															TSI NO. 38-005			
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT															PAGE: OF			
INTERSECTION: LA 23 AT LA 3017 (ENGINEERS RD) / BURMASTER ST										CTRL SEC: 050-07			LOGMILE:					
CITY: BELLE CHASSE					PARISH: PLAQUEMINES					LAT: 29.8757		LONG: -90.0139						
SIGNAL TYPE: Volume Density					INTERCONNECT TYPE: Twisted Pair					REV. DATE:		INSTALL 9/27/82						
MAINTAINED BY: DOTD					COORDINATED WITH TSI #'S: 26100, 26044, 26127, 26098, 26118, 26184, 26042, 26202, 38005													
TRAFFIC SIGNAL COORDINATION PLANS (PHASING MAY VARY FROM FREE OPERATION)																		
Ring 1																		
Φ1	Turn														<G	<Y	R	5,6
Φ2	Thru	G	G	G	G	Y	R							G	G	G	G	12,13,15,16,17
Φ4	Thru													G	Y	R		18,19,20,21
Ring 2																		
Φ5	Turn																	11,14
Φ6	Thru	G	G	G	G	G	G	G	G	Y	R							7,8
Φ8	Thru													G	Y	R		22,23
OVERL AP																		
Φ6	OLA	G	Y	R										G	G	G	G	1,2,3,4
Φ2	OLB	G	G	G	G	G	G	G	G	Y	R							9,10
Int. Times																		
		16	4	2	19	4	2	12	4	2	24	4	2	29	4	2		Signal Heads
Phasing																		
		Φ2 + Φ6			Φ2 + Φ5			Φ8			Φ4			Φ1 + Φ6				
Split	sec	112 / 100			112 / 25			18			30			35 / 100				
Coord Φ:	Φ2																Offset =	
Max:																	19 sec	
PATTERN/SPLIT:	3																EndGRN	
Action:																	Cycle Length:	
Times of Operation: Mon. - Fri.: 09:00 - 15:00 Sat.: 07:00-19:00 Sun.: 07:00-19:00																		
Notes: PARENT PHASE FOR OLA = Φ6 AND Φ4, OLB = Φ2 AND Φ8																		
STOP IN WALK WILL EXTEND Φ2, Φ4, Φ6 AND Φ8 TO ACCOMMODATE PED CLEARANCE TIME ONLY WHEN PED PUSH BUTTON ACTIVATED.																		
Ring 1																		
Φ1	Turn														<G	<Y	R	5,6
Φ2	Thru	G	G	G	G	Y	R							G	G	G	G	12,13,15,16,17
Φ4	Thru													G	Y	R		18,19,20,21
Ring 2																		
Φ5	Turn																	11,14
Φ6	Thru	G	G	G	G	G	G	G	G	Y	R							7,8
Φ8	Thru													G	Y	R		22,23
OVERL AP																		
Φ6	OLA	G	Y	R										G	G	G	G	1,2,3,4
Φ2	OLB	G	G	G	G	G	G	G	G	Y	R							9,10
Int. Times																		
		44	4	2	12	4	2	14	4	2	24	4	2	26	4	2		Signal Heads
Phasing																		
		Φ2 + Φ6			Φ2 + Φ5			Φ8			Φ4			Φ1 + Φ6				
Split	sec	130 / 120			130 / 18			20			30			32 / 120				
Coord Φ:	Φ2																Offset =	
Max:																	35 sec	
PATTERN/SPLIT:	4																EndGRN	
Action:																	Cycle Length:	
Times of Operation: Mon. - Fri.: 15:00 - 19:00 Sat.: Sun.: 150																		
Notes: PARENT PHASE FOR OLA = Φ6 AND Φ4, OLB = Φ2 AND Φ8																		
STOP IN WALK WILL EXTEND Φ2, Φ4, Φ6 AND Φ8 TO ACCOMMODATE PED CLEARANCE TIME ONLY WHEN PED PUSH BUTTON ACTIVATED.																		

SHEET NUMBER	35
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
DESIGNED	DATE
CHECKED	DATE
REVISION	DESCRIPTION
TRAFFIC SIGNAL PLANS	
LA 23 AT LA 3017 ENGINEERS RD/BURMASTER ST	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
DOTD	
VECTURA	

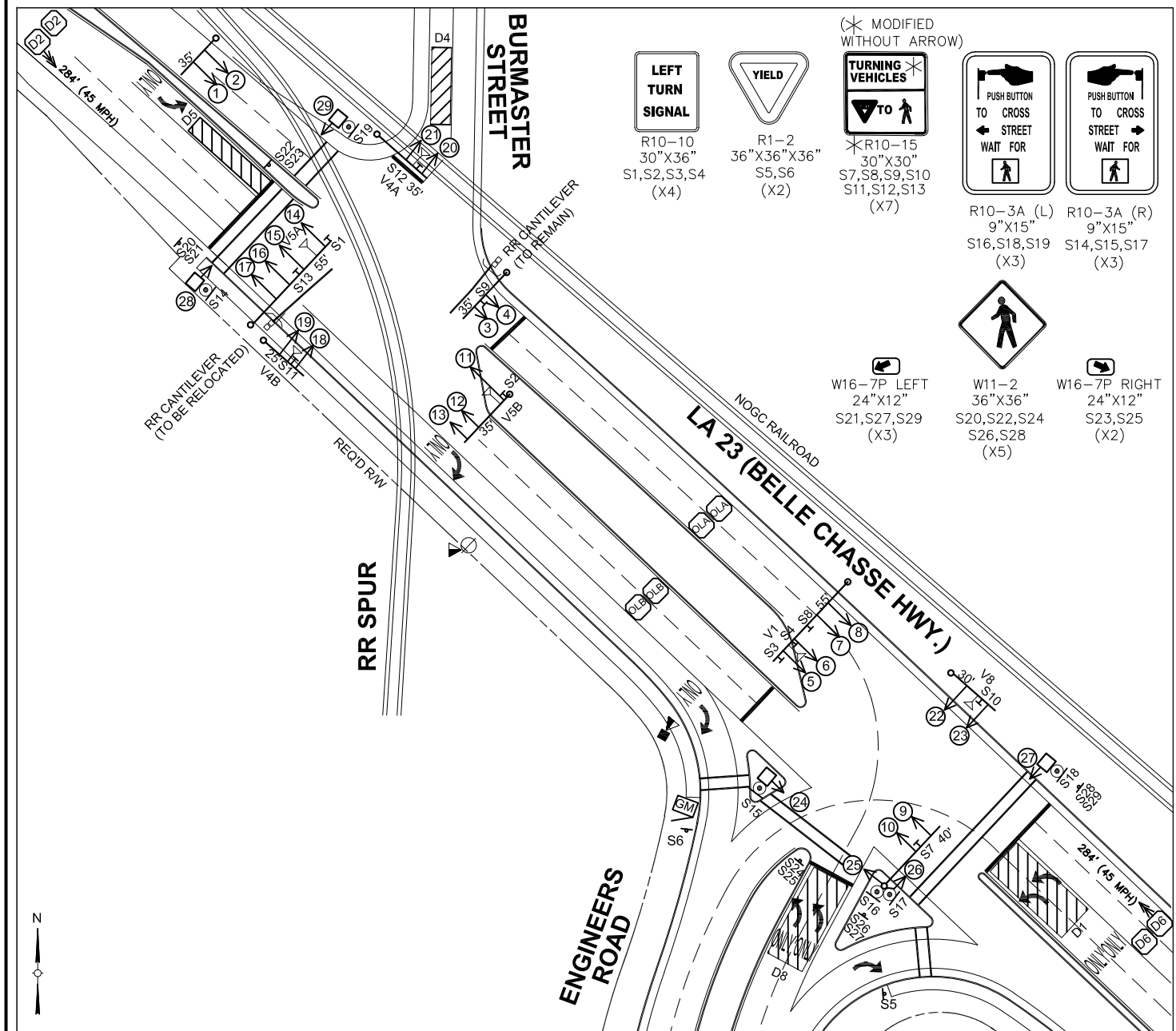
TRAFFIC SIGNAL INVENTORY (v3.2)										TSI NO. 38-005						
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT										PAGE: OF						
Intersection: LA 23 AT LA 3017 (ENGINEERS RD) / BURMASTER ST																
Phasing Parameters																
Phase Mode	Force Off:	Phase #:	1	2	3	4	5	6	7	8						
STD8	Float	Movement														
PARAMETER		RANGE(sec)														
MIN GREEN (MIN I)		0 - 99	5.0	15.0		5.0	4.0	15.0		7.0						
GAP, EXTENSION		0 - 10	2.5	5.0		2.0	2.0	5.0		3.0						
MAX GREEN I (MAX I)		0 - 255	20.0	55.0		20.0	20.0	55.0		30.0						
MAX GREEN II (MAX II)		0 - 255	20.0	60.0		15.0	15.0	60.0		30.0						
YELLOW CLEARANCE (YEL)		3 - 7	4.0	4.0		4.0	4.0	4.0		4.0						
RED CLEARANCE (RED)		1 - 4	2.0	2.0		2.0	2.0	2.0		2.0						
WALK (WALK)		0 - 100														
PED CLEARANCE (P CLR)		0 - 100														
ADDED INITIAL GREEN		0 - 10		2.0				2.0								
MAXIMUM INITIAL		0 - 255		25.0				25.0								
TIME BEFORE REDUCTION		0 - 255		25.0				25.0								
TIME TO REDUCE		0 - 255		10.0				10.0								
REDUCE BY		0 - 99														
MINIMUM GAP		0 - 10		1.7				1.7								
DYNAMIC MAX LIMIT		0 - 255														
DYNAMIC MAX STEP		0 - 25														
RECALL		MIN/MAX		MIN				MIN								
PEDESTRIAN CALL		ON/OFF														
LOCK CALLS		ON/OFF														
SOFT RECALLS		ON/OFF														
REST IN WALK		ON/OFF														
DUAL ENTRY		ON/OFF	OFF	ON		OFF	OFF	ON		OFF						
ADDITIONAL SIGNAL CONTROLLER SETTINGS																
STOP IN WALK			ON													
TRAFFIC SIGNAL FREE OPERATION PHASING WHEN ALL PHASES ARE CALLED																
Ring 1	Φ1	Turn										5,6				
	Φ2	Thru	G	G	G	G	Y	R			G	G	G	12,13,15,16,17		
	Φ4	Thru								G	Y	R		18,19,20,21		
Ring 2	Φ5	Turn				<G	Y	R						11,14		
	Φ6	Thru	G	G	G	G	G	G	G	Y	R		G	G	G	7,8
	Φ8	Thru											G	Y	R	22,23
OVERL AP	Φ6	OLA	G	Y	R								G	G	G	1,2,3,4
	Φ2	OLB	G	G	G	G	G	G	G	Y	R					9,10
Phasing		Φ2 + Φ6			Φ2 + Φ5			Φ8		Φ4		Φ1 + Φ6			Signal Heads	
Max														Pattern/Split:		
Sequence #:	1			1			1		1		1			254		
Action:	10			10			10		10		10					
Times of Operation:		Mon. - Fri.: 00:00-05:00, 23:00-24:00				Sat.: 00:00-07:00, 23:00-24:00				Sun.: 00:00-07:00, 23:00-24:00						
Notes:		PARENT PHASE FOR OLA = Φ6 AND Φ4, OLB = Φ2 AND Φ8														

PRELIMINARY NOT FOR CONSTRUCTION

VECTURA

ENGINEER: SHEELAGH BRIN FERLITO
 LICENSE: 25383
 DATE: 01/29/2019

SHEET NUMBER	36
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
DESIGNED	SRF
CHECKED	LL
DATE	01/29/2019
BY	2 of 5
NO.	DATE
TRAFFIC SIGNAL PLANS LA 23 AT LA 3017 ENGINEERS RD/BURMASTER ST BELLE CHASSE BR. & TUNNEL REPLACEMENT	
VECTURA	



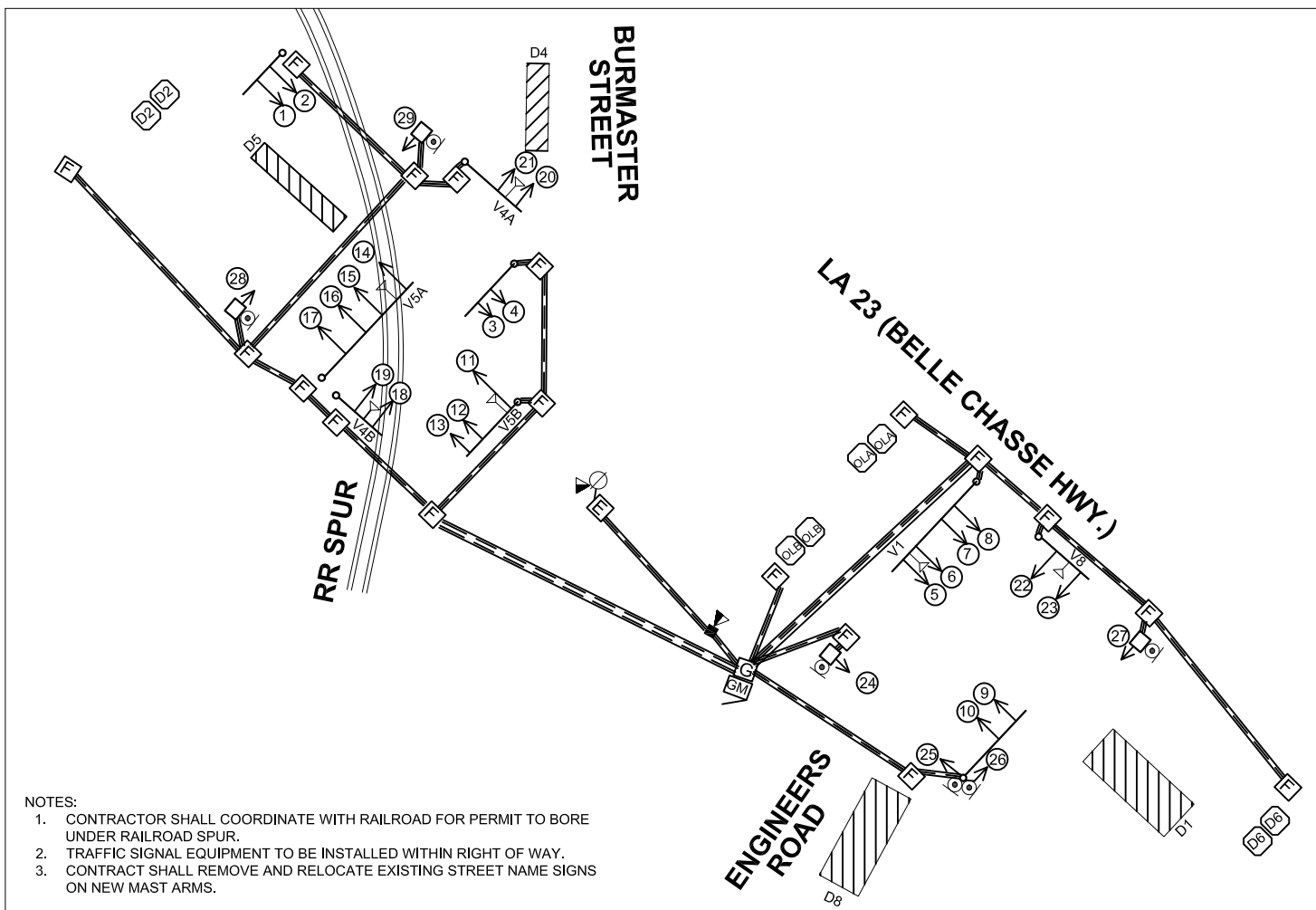
NOTE: SEE CONSTRUCTION NOTES BEFORE ORDERING POLES.

BACKPLATES: YES NO SIGNAL HEAD HEIGHT: 17 FT
 INTERSECTION: LA 23 AT ENGINEERS ROAD / BURMASTER STREET TSI #: 38-005 PAGE OF

EXISTING SPEED LIMITS
 LA 23 - 45 MPH
 ENGINEERS ROAD - 40 MPH
 BURMASTER ST - 15 MPH

GROUND MOUNTED CABINET & CONTROLLER	POWER SOURCE	PEDESTAL MOUNT SIGNAL & NO.	LOOP DETECTOR & NO.
POLE MOUNTED CABINET & CONTROLLER	WOOD POLE	SIGNAL FACE & NO.	VIDEO DETECTION ZONE & NO.
SIGNAL POWER PEDESTAL W/ DISCONNECT	METAL POLE	SIGNAL FACE WITH ARROWS & NO.	VIDEO DETECTION
OVERHEAD SIGN & NO.	UTILITY POLE	PEDESTRIAN SIGNAL & NO.	WIRELESS VDS RECEIVER
GROUND MOUNT SIGN & NO.	MAST ARM	PED BUTTON & SIGN	WIRELESS VDS
PARALLEL PARKING	SPAN WIRE	WIRELESS INTERCONNECT	
	STOP BAR	PED CROSS WALK	

SIGNAL FACES	1-4, 7-10	5,6,11	14							24-29
TOTALS	18	4								6
DK = DARK										
R = RED	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)	(R)
Y = YELLOW	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
G = GREEN	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)
G = GREEN ARROW	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)
Y = YELLOW ARROW	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
SY = STEADY YELLOW ARROW	(SY)	(SY)	(SY)	(SY)	(SY)	(SY)	(SY)	(SY)	(SY)	(SY)
FY = FLASHING YELLOW ARROW	(FY)	(FY)	(FY)	(FY)	(FY)	(FY)	(FY)	(FY)	(FY)	(FY)
8" = 8" DIA. LENS										
12" = 12" DIA. LENS										
OP = OPTICALLY PROGRAMED LENS										



NOTES:
 1. CONTRACTOR SHALL COORDINATE WITH RAILROAD FOR PERMIT TO BORE UNDER RAILROAD SPUR.
 2. TRAFFIC SIGNAL EQUIPMENT TO BE INSTALLED WITHIN RIGHT OF WAY.
 3. CONTRACT SHALL REMOVE AND RELOCATE EXISTING STREET NAME SIGNS ON NEW MAST ARMS.

INTERSECTION: LA 23 AT ENGINEERS ROAD / BURMASTER STREET TSI #: 38-005 PAGE OF

VECTURA
 PRELIMINARY NOT FOR CONSTRUCTION
 ENGINEER: SHEELAGH BRIN FERLITO
 LICENSE: 25383
 DATE: 01/29/2019

POWER SOURCE	SIGNAL FACE & NO.
WOOD POLE	SIGNAL FACE WITH ARROWS & NO.
METAL POLE	PEDESTAL MOUNT SIGNAL & NO.
UTILITY POLE	PEDESTRIAN SIGNAL & NO.
MAST ARM	PED BUTTON & SIGN
GROUND MOUNTED CABINET & CONTROLLER	OVERHEAD SIGN & NO.
SIGNAL POWER PEDESTAL W/ DISCONNECT	
VIDEO DETECTION ZONE & NO.	
VIDEO DETECTION	
LOOP DETECTOR & NO.	
CABLES IN JACKED OR BORED CONDUIT	
TRENCHED AND BACKFILLED CONDUIT	
SIGNAL JUNCTION BOX	

SIGNAL WIRING TABLE

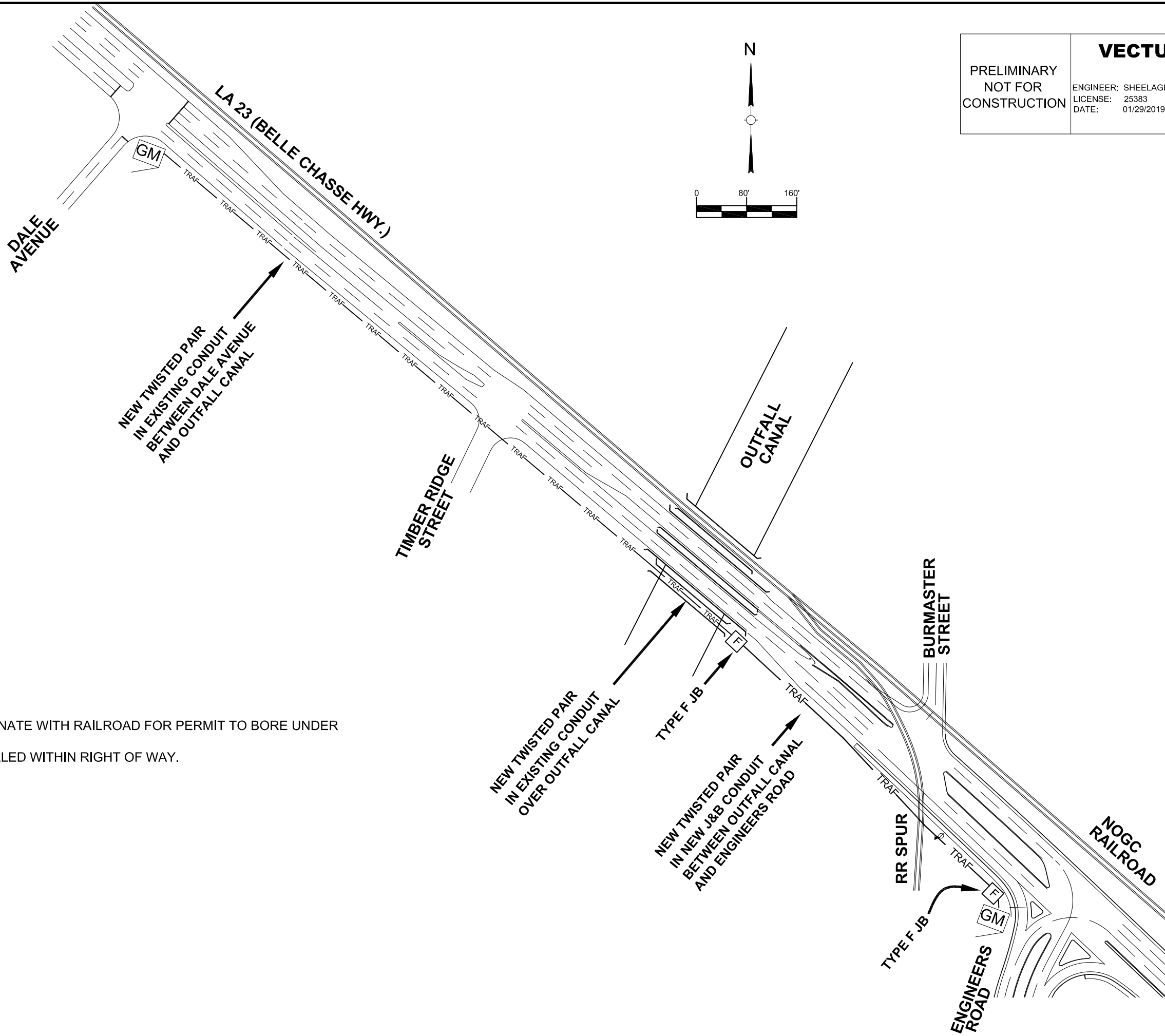
WIRING CODE	CONDUIT					TYPE
	LOOP WIRE	2C LOOP LEAD IN	3C POWER	6C	10C	
A						SC
B						JB
C						JB
D						OH
E						OH
F						OH
G						IP
H						TB
I						JB
J						JB
K						TB
L						TB

OH - OVERHEAD JB - JACK OR BORE
 TB - TRENCH AND BACKFILL SC - SAW CUT IP - INSIDE POLE
 * QUANTITY INCLUDES SPARE CONDUIT

PLAQUEMINES
 PARISH
 CONTROL SECTION 062-02, 838-01
 STATE PROJECT H.004791
 SBF LLL
 DESIGNED CHECKED
 DETAILED CHECKED
 DATE 01/29/2019
 SHEET 3 OF 5
 REVISION DESCRIPTION
 NO. DATE BY

TRAFFIC SIGNAL PLANS
 LA 23 AT
 LA 3017 ENGINEERS RD / BURMASTER ST
 BELLE CHASSE BR. & TUNNEL REPLACEMENT

DOTD
VECTURA



PRELIMINARY NOT FOR CONSTRUCTION	VECTURA
	ENGINEER: SHEELAGH BRIN FERLITO
	LICENSE: 25383 DATE: 01/29/2019

- NOTES:
1. CONTRACTOR SHALL COORDINATE WITH RAILROAD FOR PERMIT TO BORE UNDER RAILROAD SPUR.
 2. INTERCONNECT TO BE INSTALLED WITHIN RIGHT OF WAY.

SHEET NUMBER		38	
DESIGNED	SBF	PLAQUEMINES	
CHECKED	LLL	PARISH	
DATE		CONTROL SECTION	062-02, 838-01
BY		STATE PROJECT	H.004791
NO.	DATE	REVISION DESCRIPTION	
1			
2			
3			
4			
5			



TRAFFIC SIGNAL INTERCONNECT PLANS
BETWEEN
DALE AVENUE AND ENGINEERS ROAD
BELLE CHASSE BR. & TUNNEL REPLACEMENT



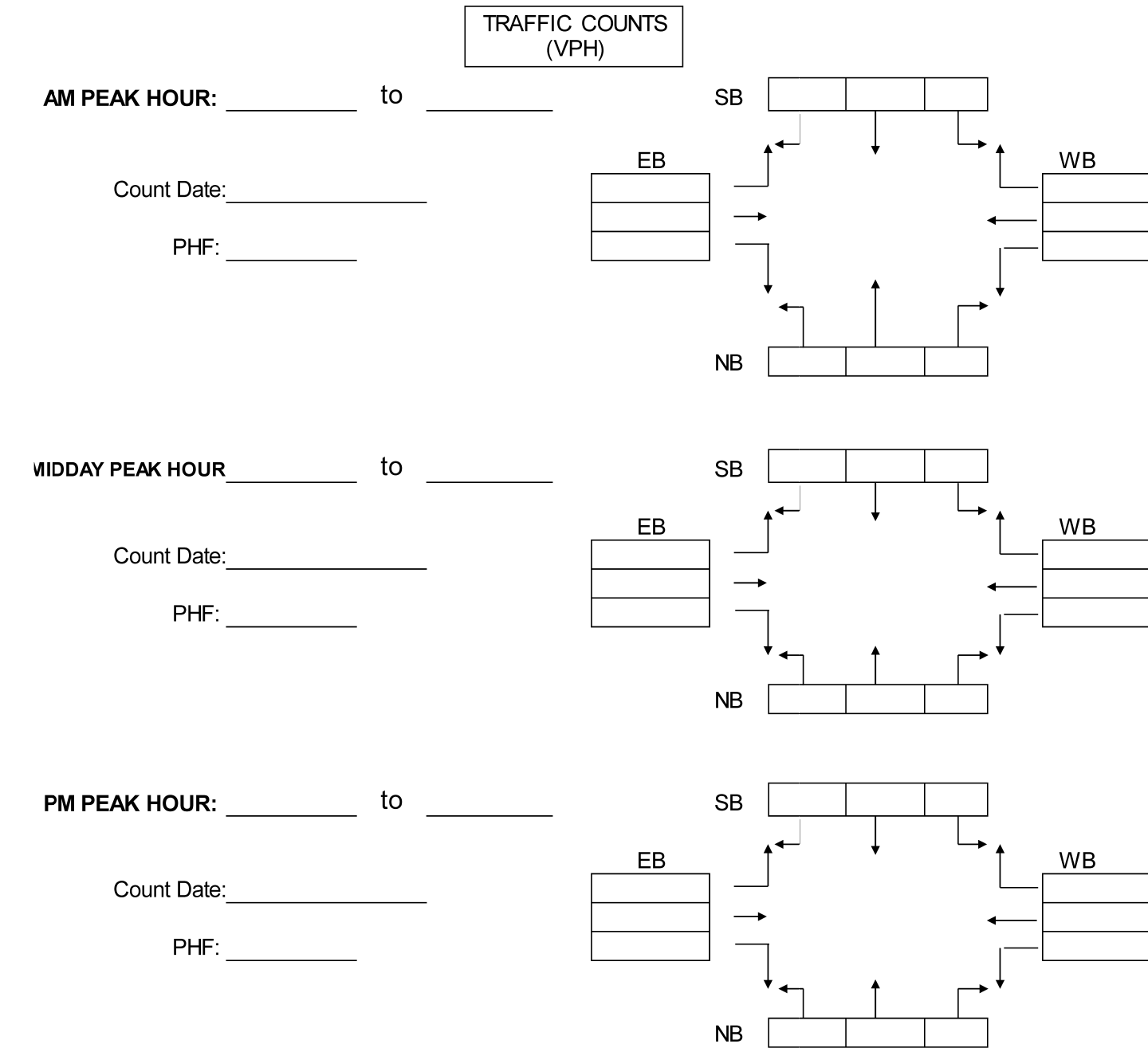
TRAFFIC SIGNAL INVENTORY (v3.2)

TSI NO. 38-005

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PAGE: OF

Intersection: LA 23 AT LA 3017 (ENGINEERS RD) / BURMASTER ST



Detector #	Delay(s)	Extends(s)	Phase	Equipment	Lane #	Size	Type
1			Φ1	Video	NB1	1-12x50	Stopbar
2			Φ2	Loop	SB2 SB3	2-6x6	Setback
4			Φ4	Video	WB1	1-12x50	Stopbar
5			Φ5	Video	SB1	1-12x50	Stopbar
6			Φ6	Loop	NB2 NB3	2-6x6	Setback
8			Φ8	Video	EB1	1-12x50	Stopbar

PRELIMINARY NOT FOR CONSTRUCTION
VECTURA
 ENGINEER: SHEELAGH BRIN FERLITO
 LICENSE: 25363
 DATE: 01/29/2019

SPEC	NUMBER	DESCRIPTION	UNITS	QUANTITY
202-02-	40100	Removal of Traffic Signal Equipment at Engineers Road	LS	LS
713-01-	00100	Temporary Signs and Barricades	LS	LS
727-01-	00100	Mobilization	LS	LS
729-01-	00102	Sign (Type A)(Furnish and Install)	SF	209.0
729-22-	00100	Square Tubing Post with 2-1/4" Anchor	EA	11
736-01-	00100	Trenching and Backfilling	LF	400
736-03	00100	Jacking or Boring	LF	3400
736-04-	00001	Signal Pole (Pedestal Pole)	EA	7
736-04-	10250	Signal Support (25' Single Mast Arm)	EA	1
736-04-	10300	Signal Support (30' Single Mast Arm)	EA	1
736-04-	10350	Signal Support (35' Single Mast Arm)	EA	4
736-04-	10400	Signal Support (40' Single Mast Arm)	EA	1
736-04-	10550	Signal Support (55' Single Mast Arm)	EA	2
736-04-	00450	Signal Pole (45 foot Creosote Wood Pole)	EA	4
736-05-	30000	Signal Hds (3 Sect, 12" Led Lens, R, Y, G)	EA	19
736-05-	31000	Signal Heads (3 Section, 12" Led Lens, R, LT. Y, LT. G)	EA	4
736-06-	00200	Signal Service (Existing Pole)	EA	1
736-06-	00500	Signal Service Pedestal Disconnect	EA	1
736-08-	00102	Signal Controller (980 ATC, Type 2)(Furnish & Install)	EA	1
736-09-	00100	Loop Detector	LF	340
736-10-	00200	Underground Junction Box (Type E)	EA	1
736-10-	00300	Underground Junction Box (Type F)	EA	23
736-10-	00400	Underground Junction Box (Type G)	EA	1
736-11-	00050	Conduit (1/2" HDPE, Schedule 80)	LF	80
736-11-	00200	Conduit (2" HDPE, Schedule 80)	LF	2620
736-11-	00300	Conduit (3" HDPE, Schedule 80)	LF	1100
736-12-	00000	Conductor (2c, Loop Lead in, imsa 50-2, #14 awg, Twisted Pair, 19 strand)	LF	4000
736-12-	00001	Conductor (6 pair, Twisted Pair, isma 20-6 / #19 awg)	LF	2500
736-12-	03006	Conductor (3c, 6 gauge / #6 awg)	LF	205
736-12-	06014	Conductor (6c, #14 awg)	LF	9950
736-12-	10014	Conductor (10c, #14 awg)	LF	1350
736-15-	02400	Signal Support (Foundation, 24 inch Minimum Diameter)	EA	7
736-15-	03600	Signal Support (Foundation, 36 inch Minimum Diameter)	EA	9
736-18-	00000	Video Detection Cabinet Components	EA	1
736-19-	00000	Video Detection Camera	EA	6
736-17-	00000	Video Camera Cable	LF	2410
736-21-	00000	LED Pedestrian Countdown Signal Head	EA	10
736-22-	00000	Pedestrian Push Button	EA	10
736-25-	00002	Support Cable (Span) (3/8 inch)	LF	630
736-26-	00002	Guy Cable (3/8 inch)	LF	180
NS-736-	00001	GPS	EA	1
NS-736-	00130	TS-2 Traffic Signal Cabinet (Ground Mounted)	EA	1
NS-P36-	00015	Pulling Cable Through Existing Conduit at an Intersection	LF	1700

NOTES:

1. SIGNAL CONTRACTOR TO CONFORM TO LA DOTD STANDARDS AND SPECIFICATIONS.
2. QUANTITIES SHOWN ARE APPROXIMATE. MEASUREMENT OF PAYMENT BASED ON LA DOTD SPECIFICATIONS. SEE OTHER PLAN SHEETS FOR QUANTITIES NOT SHOWN ABOVE.
3. SIGNAL CONTRACTOR TO COORDINATE WITH POWER COMPANY FOR POWER SOURCE.
4. SIGNAL CONTRACTOR SHALL ESTABLISH RIGHT OF WAY (ROW), ALL OVERHEAD/UNDERGROUND UTILITIES AND PROPOSED LAYOUT LOCATIONS SUCH AS PROPOSED UTILITIES, SIDEWALK AND DRIVEWAY BY COORDINATING WITH LA ONE CALL, DPW/DOTD UTILITIES, AND PRIME CONTRACTOR PRIOR TO ORDERING POLES AND INSTALLING POLE FOUNDATIONS.
5. SIGNAL CONTRACTOR SHALL SET UP FIELD VISIT WITH DOTD SIGNAL SHOP (225-936-0151) FOR FOUNDATION LOCATION APPROVAL BASED ON MARKED EXISTING AND PROPOSED UNDERGROUND AND OVERHEAD UTILITIES, PROPOSED LAYOUT LOCATIONS AND ROW PRIOR TO ORDERING POLES.
6. CONTRACTOR SHALL CONTACT SECTION 45 SIGNAL INSPECTORS AND SCHEDULE A BENCH TEST FOR THE FULLY FUNCTIONAL CABINET INCLUDING CONTROLLER AND MMU UNIT, AT THE SECTION 45 SIGNAL SHOP (7868 TOM DRIVE, BATON ROUGE 70806) A MINIMUM OF 7 DAYS BEFORE SIGNAL ACTIVATION. APPROVED TSI PLAN SHALL BE PROVIDED IN THE SIGNAL CABINET. AT LEAST ONE TECHNICAL CONTRACTOR REP MAY BE REQUIRED TO BE PRESENT FOR THE BENCH TESTING.
7. A MINIMUM OF ONE PERSON WITH A LEVEL I IMSA CERTIFICATION IS REQUIRED ON SITE AT ALL TIMES FOR ALL WORK OUTSIDE OF A TRAFFIC SIGNAL CABINET.
8. A LEVEL II IMSA CERTIFICATION IS REQUIRED FOR ALL WORK INSIDE A TRAFFIC SIGNAL CABINET.
9. CONTRACTOR TO PROVIDE CERTIFIED 980 ATC CONTROLLER. SEE CERTIFICATION: http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Traffic%20Control/Traffic%20Signal%20Controller%20Certification%202016.pdf
10. ALL JUNCTION BOXES TO BE LOCATED AS FAR AWAY FROM TURNING WHEEL PATH AS POSSIBLE.
11. QUANTITIES ABOVE INCLUDE PEDESTRIAN SIGNAL EQUIPMENT FOR THE INTERSECTION OF LA 23 AT BARRIERE ROAD.

SHEET NUMBER 39

PLAQUEMINES

PARISH LA 23

CONTROL SECTION 062-02, 838-01

STATE PROJECT H.004791

DATE 01/29/2019

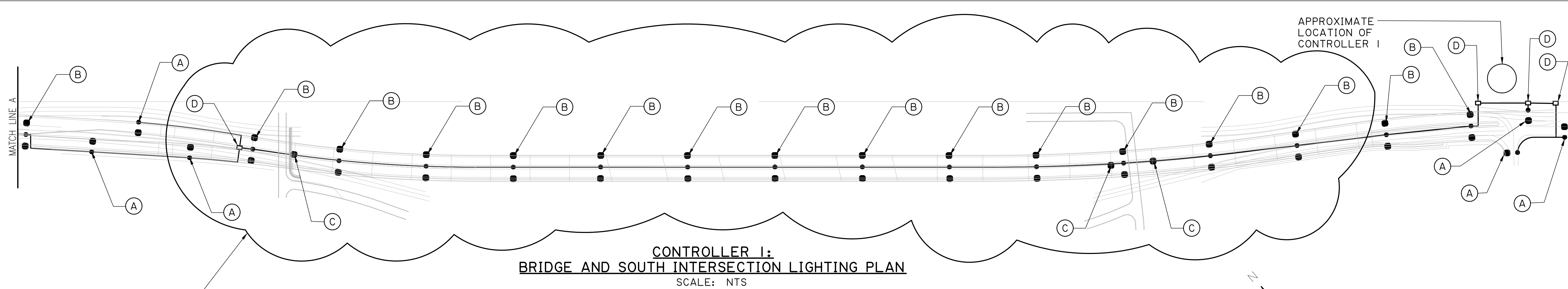
SHEET 5 of 5

REVISION DESCRIPTION

NO. DATE BY

TRAFFIC SIGNAL PLANS
LA 23
LA 3017 ENGINEERS RD/BURMASTER ST
BELLE CHASSE BR. & TUNNEL REPLACEMENT

DOTD
VECTURA



SEE NOTE 3.

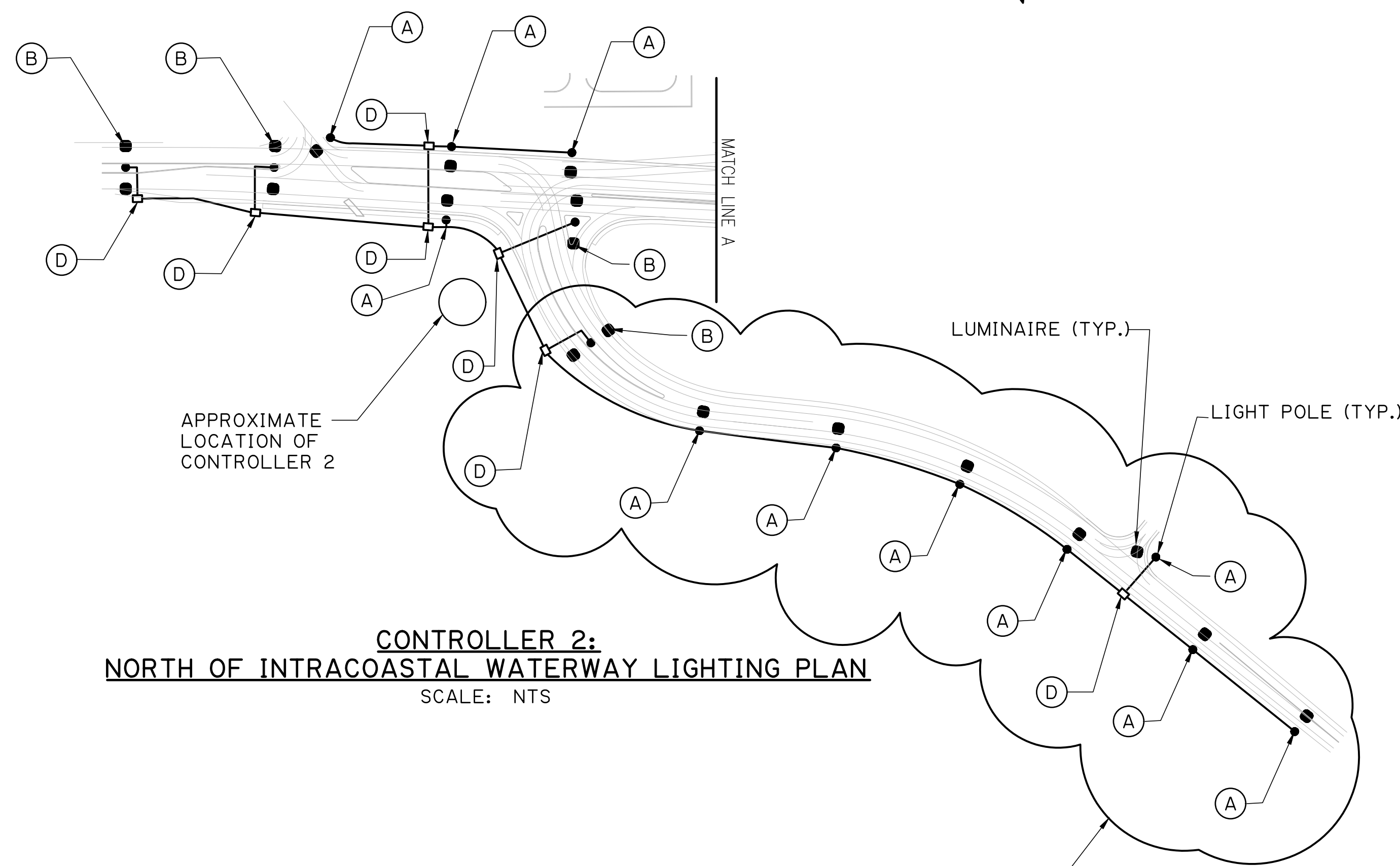
SUMMARY OF QUANTITIES				
LEGEND	ITEM	QUANTITY	DESCRIPTION	
	(A)	17	40 FT MOUNTING HEIGHT, SINGLE ARM LIGHT POLE LUMINAIRE: GE LIGHTING SOLUTIONS ERL2-21-C340	
	(B)	20	40 FT MOUNTING HEIGHT, TWIN ARM LIGHT POLE LUMINAIRE: GE LIGHTING SOLUTIONS ERL2-21-C340	
	(C)	3	UNDERPASS WALL MOUNT LUMINAIRE: GE LIGHTING SOLUTIONS EFM101-BBT3740	
	(D)	11	13" x 24" POLYMER CONCRETE OR HIGH DENSITY POLYETHYLENE UNDER GROUND JUNCTION BOX. BOX COVER SHALL INCLUDE "LIGHTING" LOGO	
	2" CONDUIT (SEE NOTE 1)	PVC-40 CONCRETE ENCASED	1200 FT.	2 INCH PVC CONDUIT (IN EARTH) UNDER ROADWAY
		PVC-40 DIRECT BURIED	3100 FT.	2 INCH PVC CONDUIT (IN EARTH)
		PVC-40	3200 FT.	2 INCH PVC CONDUIT EMBEDDED IN CONCRETE MEDIAN BARRIER
		FRE	1500 FT.	2" FRE CONDUIT MOUNTED TO BRIDGE AND STRUCTURE

NOTES:

1. PROVIDE CONDUIT EXPANSION JOINTS AT EACH ELEVATED STRUCTURE JOINT.
2. LUMINAIRES AND POLES ARE SHOWN AS BASIS FOR PHOTOMETRIC ANALYSIS.
3. LIGHT POLES, FIXTURES, AND WIRE IN CLOUDED AREA TO BE INSTALLED BY OTHERS AND ARE NOT INCLUDED IN THE PROPOSED SCOPE OF WORK. JUNCTION BOXES AND CONDUIT EMBEDDED IN CONCRETE ARE INCLUDED IN THE PROPOSED SCOPE OF WORK.
4. THIS AREA IS SHOWN FOR INFORMATION PURPOSES ONLY. ALL MATERIALS AND EQUIPMENT ARE TO BE PROVIDED AND INSTALLED BY OTHERS AND NOT INCLUDED IN THE PROPOSED SCOPE OF WORK

ASSUMPTIONS:

1. PHOTOMETRIC ANALYSIS COMPLETED WITH 0' ELEVATION FOR ROADWAY.
2. 20 FT. BRIDGE ELEVATION ABOVE NORTH UNDERPASS AND 35 FT. BRIDGE ELEVATION ABOVE SOUTH UNDERPASS.
3. LUMINAIRES AND POLES INDICATED ARE FOR DETERMINING LOCATIONS BASED ON PHOTOMETRIC REQUIREMENTS AND POLE BASE REQUIREMENTS.



SEE NOTE 4.

SHEET NUMBER	EO1
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H-004791
DESIGNED BY	J.C. RINEHART
CHECKED BY	J.C. RINEHART
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
BY	

ROADWAY LIGHTING PLAN

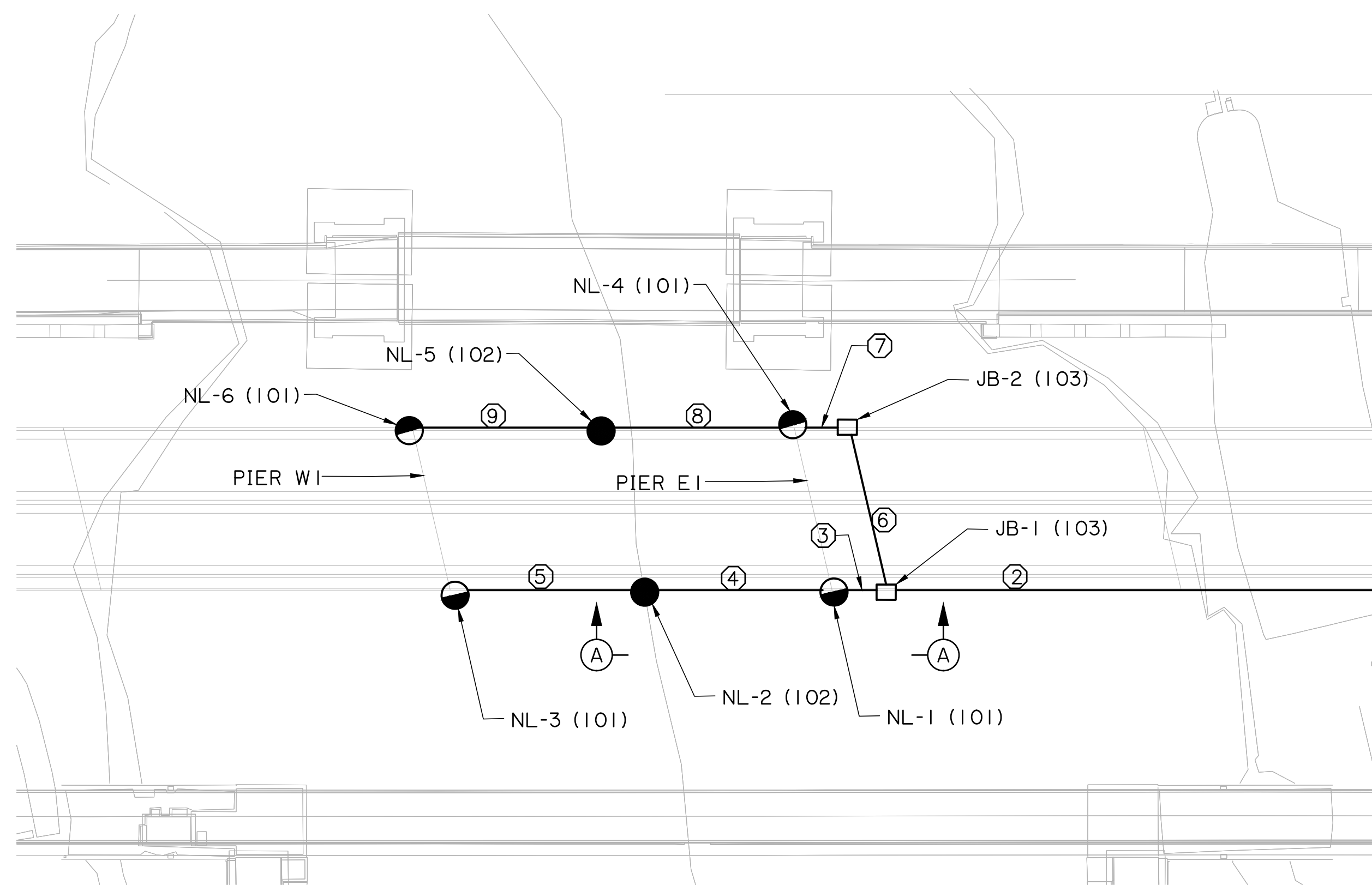
BELLE CHASSE BR. & TUNNEL REPLACEMENT

MODJESKI AND MASTERS

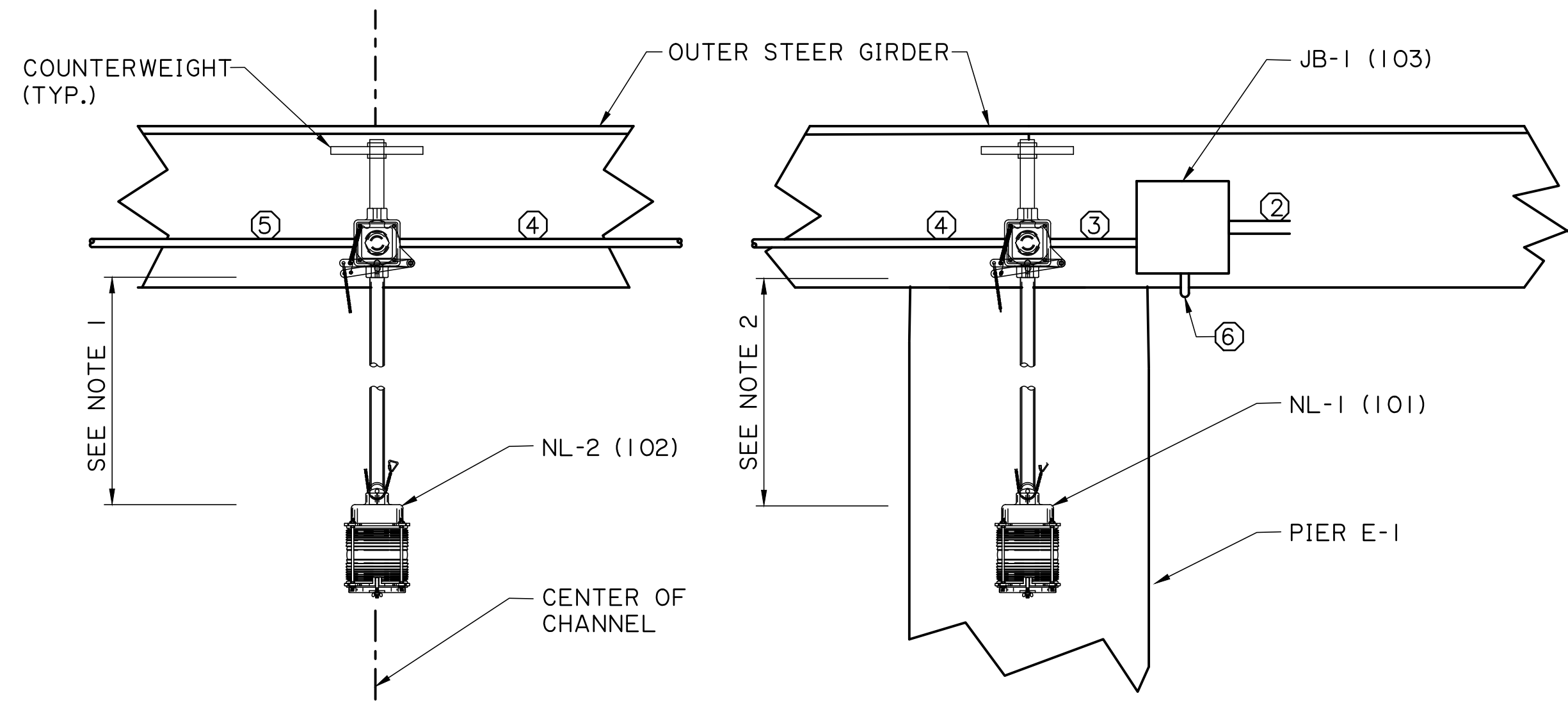
DOTD
Louisiana Department of Transportation and Development

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BIDDING,
RECORDATION,
CONVEYANCE, SALES
OR AS THE BASIS FOR
THE ISSUANCE OF A
PERMIT.

ENGINEER: JOSEPH G. STRENKOSKI
LICENSE #: 0038336
DATE: 1/25/2019



DETAIL A
SCALE: NTS



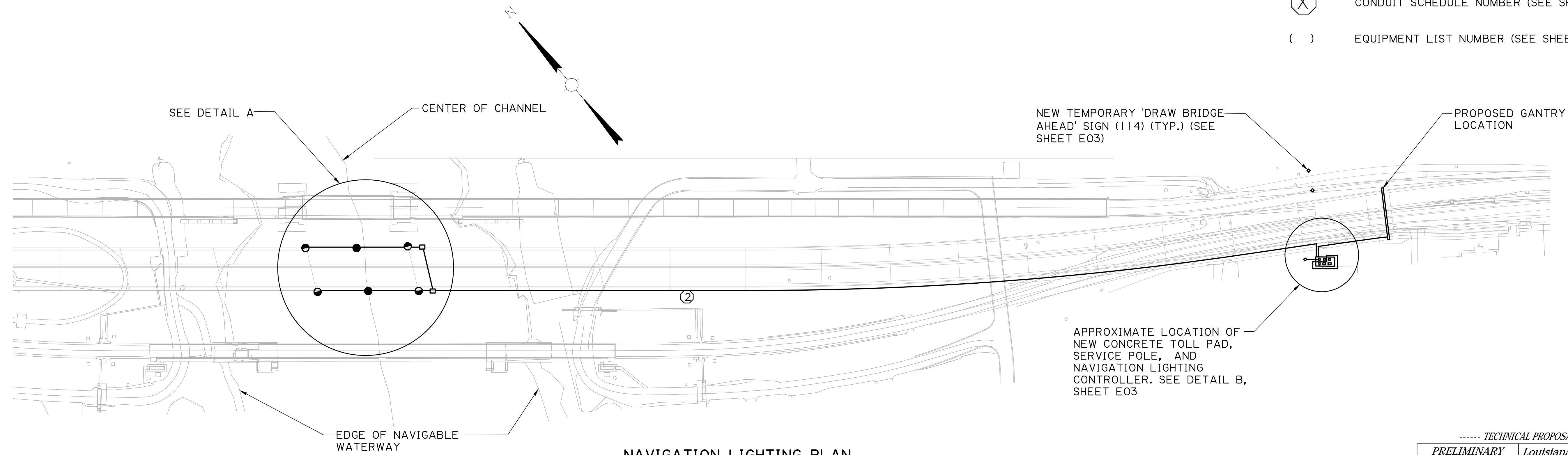
SECTION A-A
SCALE: NTS

NOTES:

1. GREEN CHANNEL NAVIGATION LIGHTS SHALL BE MOUNTED TO OUTER STEEL GIRDER, DIRECTLY ABOVE THE CENTER OF THE NAVIGABLE CHANNEL AND HANG BELOW LOW STEEL.
2. RED PIER NAVIGATION LIGHTS SHALL BE MOUNTED AS LOW AS PRACTICABLE ON OUTER STEEL GIRDER FOR ALLOWED MAINTENANCE.
3. FOR CONDUIT SCHEDULE AND EQUIPMENT LIST, SEE SHEET E03.

LEGEND:

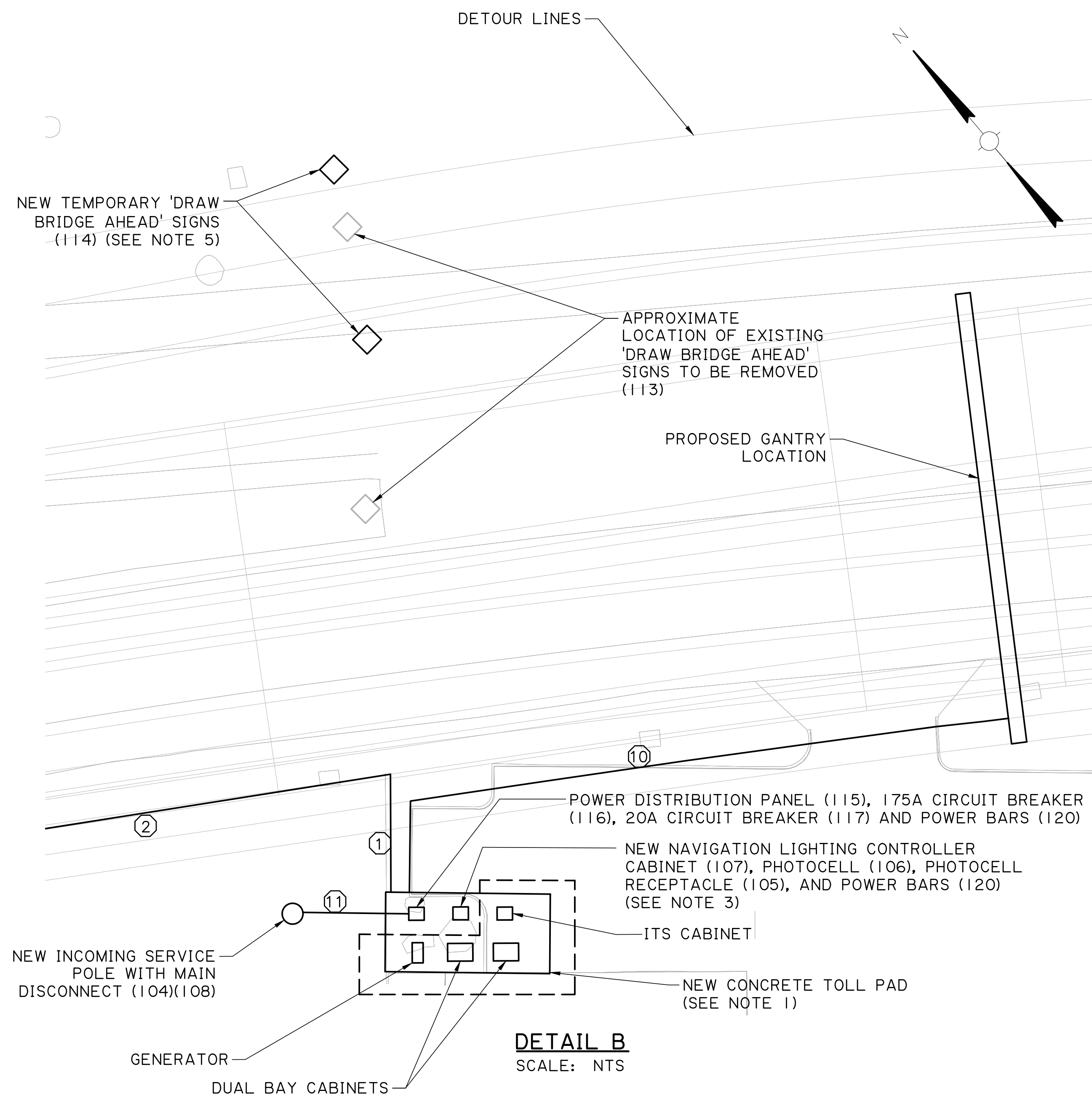
- 180° RED NAVIGATION LIGHT (NL) (101)
- 360° GREEN NAVIGATION LIGHT (102)
- JUNCTION BOX (JB) (103)
- CONDUIT AND WIRING
- ⊗ CONDUIT SCHEDULE NUMBER (SEE SHEET E03)
- () EQUIPMENT LIST NUMBER (SEE SHEET E03)



NAVIGATION LIGHTING PLAN
SCALE: NTS

----- TECHNICAL PROPOSAL -----
PRELIMINARY
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 Louisiana Department of Transportation and Development
 ENGINEER: JOSEPH G. STRENKOSKI
 LICENSE #: 0038336
 DATE: 1/25/2019

SHEET NUMBER	E02
DESIGNED	J.C. RINEHART
CHECKED	J.C. RINEHART
PARISH	PLAQUEMINES
CONTROL SECTION	062-02, 838-01
STATE PROJECT	H.004791
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
BY	
NAVIGATION LIGHTING PLAN	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
MODJESKI AND MASTERS	



DETAIL B
SCALE: NTS

NOTES:

- EQUIPMENT INSIDE DOTTED LINE IS TO SERVE NEW TOLL GANTRY (PROVIDED BY KAPSCHE TOLL COLLECTION SYSTEM). LOCATION AND SIZES OF EQUIPMENT AND CONCRETE PAD ARE APPROXIMATE AND NOT TO SCALE.
- FOR LOCATION OF ITEMS 101-103, SEE SHEET E02.
- NAVIGATION LIGHTING CONTROLLER SHALL BE POWERED FROM 20A BREAKER LOCATED INSIDE DISTRIBUTION PANEL ON NEW CONCRETE TOLL PAD. NEW INCOMING SERVICE FEEDERS SHALL CONNECT TO 175A MAIN CIRCUIT BREAKER INSIDE POWER CABINET LOCATED ON PAD. SECOND 175A CIRCUIT BREAKER SHALL BE USED FOR TOLL GANTRY EQUIPMENT.
- ALL CONDUIT ROUTING IS APPROXIMATE. 10% WAS ADDED TO CONDUIT AND CONDUCTOR LENGTH FOR BRIDGE ELEVATION AND CONNECTIONS TO NAVIGATION LIGHTS AND CONCRETE TOLL PAD.
- LOCATIONS OF NEW 'DRAW BRIDGE AHEAD' SIGNS ARE APPROXIMATE. CONTRACTOR SHALL FIELD ADJUST ORIENTATION OF SIGNS TO PROVIDE UNOBSTRUCTED VIEW TO ONCOMING TRAFFIC. 'DRAW BRIDGE AHEAD' SIGNS SHALL BE EQUIPPED WITH SOLAR POWERED YELLOW FLASHING LIGHT.
- LENGTH OF #2/0 AWG (118) AND #6 AWG (119) COPPER WIRE FEEDER FROM SERVICE POLE TO NEW POWER DISTRIBUTION PANEL (115) SHALL BE DETERMINED BY FINAL LOCATION OF SERVICE POLE AND TOLL GANTRY CONCRETE PAD.

EQUIPMENT LIST		
ITEM NO.	QUANTITY	DESCRIPTION
101	4	180° RED PIER NAVIGATION LIGHT (NL), 7" MINIMUM FRESNEL LENS, 8 WATT LED DUAL LAMP, 1 1/2" DIAMETER STAINLESS STEEL STEM, WITH STAINLESS STEEL PULL CHAIN AND COUNTERWEIGHT
102	2	360° GREEN CHANNEL CENTERED NAVIGATION LIGHT, 7" MINIMUM FRESNEL LENS, 8 WATT LED DUAL LAMP, 1 1/2" DIAMETER STAINLESS STEEL STEM, WITH STAINLESS STEEL PULL CHAIN AND COUNTERWEIGHT
103	2	12"x10"x6" NEMA 4X STAINLESS STEEL JUNCTION BOX (JB)
104	1	200 AMP, NON-FUSIBLE, 3 POLE 240 VAC RATED HEAVY DUTY MAIN SAFETY SWITCH IN NEMA 4X TYPE 316 STAINLESS STEEL ENCLOSURE.
105	1	PLUG AND TWIST, 3 PRONG NEMA LOCKING TYPE, 105-300VAC RECEPTACLE, COMPATIBLE WITH PHOTO-ELECTRIC CONTROL (106)
106	1	TWIST LOCK, MOUNTING BRACKET, SOLID STATE, HERMETICALLY SEALED PHOTO-ELECTRIC CONTROL, 105-285 VAC, 1800 VA, TIME DELAY SWITCHING, N.C. CONTACT, OPERATING SWITCH LEVELS 2.0 F.C. ON/OFF +20%, TEMPERATURE RANGE -40°F TO +140° F.
107	1	24"W x 24"H x 6"D TYPE 304 STAINLESS STEEL CONTROLLER CABINET, CONTINUOUS HINGE, NEMA 4X WITH PHOTOCELL (106) MOUNTED ON TOP
108	1	NEW INCOMING SERVICE POLE WITH 3-PHASE DELTA 120/240V TRANSFORMER FOR BRIDGE NAVIGATION LIGHTING AND NEW TOLL GANTRY
109	2500 FT.	STRUCTURE MOUNTED 2" FRE CONDUIT WITH CONDUCTORS
110	170 FT.	DIRECT BURIED SCHEDULE 40 CONDUIT WITH CONDUCTORS (PVC/HDPE)(2")
111	6200 FT.	#2 AWG CLASS B STRANDED COPPER WIRE, 600 VOLT TYPE XHHW-2 INSULATED CONDUCTORS
112	1600 FT.	#10 AWG CLASS B STRANDED COPPER WIRE, 600 VOLT TYPE XHHW-2 INSULATED CONDUCTORS
113	2	REMOVE EXISTING 'DRAW BRIDGE AHEAD' FLASH SIGNS
114	2	INSTALL NEW TEMPORARY, PORTABLE 'DRAW BRIDGE AHEAD' SIGN WITH SOLAR POWERED YELLOW FLASHING LIGHT
115	1	NEMA 4X CABINET ENCLOSURE, CAST ALUMINUM OR STAINLESS STEEL, 36"W x 48"H x 14"D, WALL MOUNTED, HINGED DOOR WITH NEOPRENE GASKET, UPPER & LOWER WALL MOUNT BRACKETS
116	2	175A, 120/240VAC RATED, BOLT-ON, 2 POLE, CIRCUIT BREAKER, 10kA INT AT 120/240 VAC, WIRE RANGE #4...300 KCMIL,
117	1	20A, 120/240AC RATED, BOLT-ON, 1 POLE, CIRCUIT BREAKER, 10kA INT AT 120/240VAC, WIRE RANGE #14-#8
118	AS REQ. (SEE NOTE 6)	#2/0 AWG CLASS B STRANDED COPPER WIRE, 600 VOLT TYPE XHHW-2 INSULATED CONDUCTORS
119		#6 AWG CLASS B STRANDED COPPER WIRE, 600 VOLT TYPE XHHW-2 INSULATED CONDUCTORS
120	AS REQ.	POWER BAR, 4 COND., PRE-INSULATED ALUM., WIRE RANGE: #2/0 - #14, DUAL SIDED ENTRY, RATED FOR AL/CU COND. @600V & 90°C, UL LISTED

CONDUIT SCHEDULE							
CONDUIT NO.	SIZE (IN.)	TYPE	LENGTH (FEET)	NO. & SIZE CONDUCTORS	FROM	TO	
1	2	PVC-40 DIRECT BURIED (110)	30	3#2 AWG (111)	NAVIGATION LIGHTING CONTROLLER (107)	JB-1 (103)	
2		FRE (109)	1800				
3		FRE (109)		5	3#10 AWG (112)	JB-1	NL-1
4				95	3#10 AWG (112)	NL-1	NL-2
5				95	3#10 AWG (112)	NL-2	NL-3
6				85	3#10 AWG (112)	JB-1	JB-2
7				5	3#10 AWG (112)	JB-2	NL-4
8				95	3#10 AWG (112)	NL-4	NL-5
9				95	3#10 AWG (112)	NL-5	NL-6
10					125	AS REQUIRED	CONCRETE TOLL PAD
11			PVC-40 DIRECT BURIED (110)		3#2/0 AWG (118)	NEW SERVICE POLE DISCONNECT	POWER DISTRIBUTION PANEL
				1#6 AWG AWG (119) GND			

----- TECHNICAL PROPOSAL -----
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 RECORDATION.
 CONVEYANCE, SALES OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT.
 Louisiana Department of Transportation and Development
 ENGINEER: JOSEPH G. STRENKOSKI
 LICENSE #: 0038336
 DATE: 1/25/2019

SHEET NUMBER	E03
DESIGNED BY	J.C. RINEHART
CHECKED BY	J.C. RINEHART
DATE	
PROJECT	PLAQUEMINES
SECTION	062-02, 838-01
STATE	LA
PROJECT NUMBER	H-004791
REVISION OR CHANGE ORDER DESCRIPTION	
BY	

NAVIGATION LIGHTING & GANTRY POWER DETAILS

BELLE CHASSE BR. & TUNNEL REPLACEMENT

MODJESKI AND MASTERS

TECHNICAL PROPOSAL



S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\26/2019\PR_16119116.dwg

INDEX TO BRIDGE PLANS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
101	INDEX TO BRIDGE PLANS
102	GENERAL PLAN AND ELEVATION
103-105	DETAILED PLAN AND ELEVATION SHEETS
106-114	FOUNDATION LAYOUT
115-121	TYPICAL BRIDGE SECTIONS
122	MAIN SPAN PIER DETAILS
123-124	COLUMN BENT DETAILS
125-127	PILE BENT DETAILS
128-129	END BENT DETAILS
130-131	TUNNEL DECOMMISSIONING PLAN

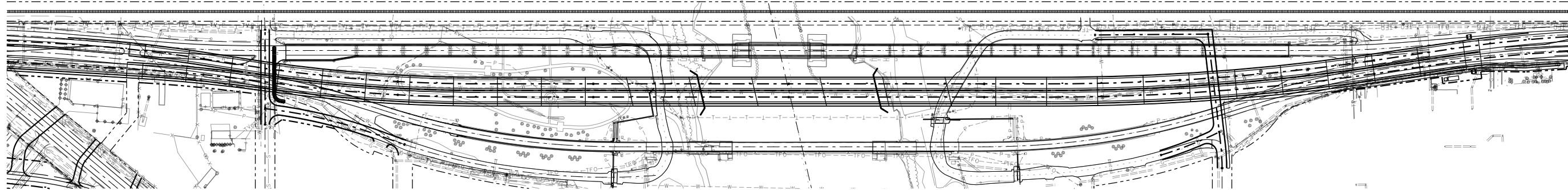
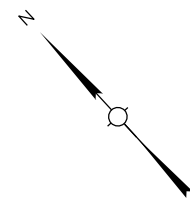
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p><i>FOR REVIEW ONLY</i></p>	<p>HUVAL & ASSOCIATES, INC. <i>Consulting Engineers</i></p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/29/2019</p>
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SHEET NUMBER	101	PARISH	PLAQUEMINES	CONTROL SECTION	STATE PROJECT	H.004791
DESIGNED	MLH	CHECKED	KAC	REVIEWED	SERIES #	BY
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION				
						
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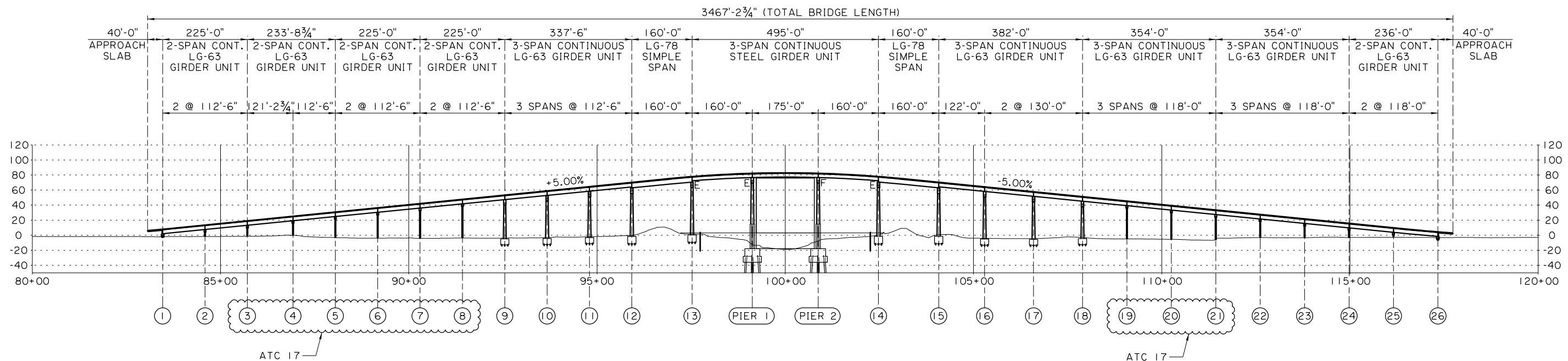
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620' VERTICAL CURVE
(ALONG BASELINE)
P.V.I. STA. = 100+00.00
P.V.I. ELEV. =
G₁ = +5.00%
G₂ = -5.00%
K =

PLAN
SCALE: 1" = 140'



ELEVATION
VERTICAL SCALE: 1" = 70'
HORIZONTAL SCALE: 1" = 140'

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

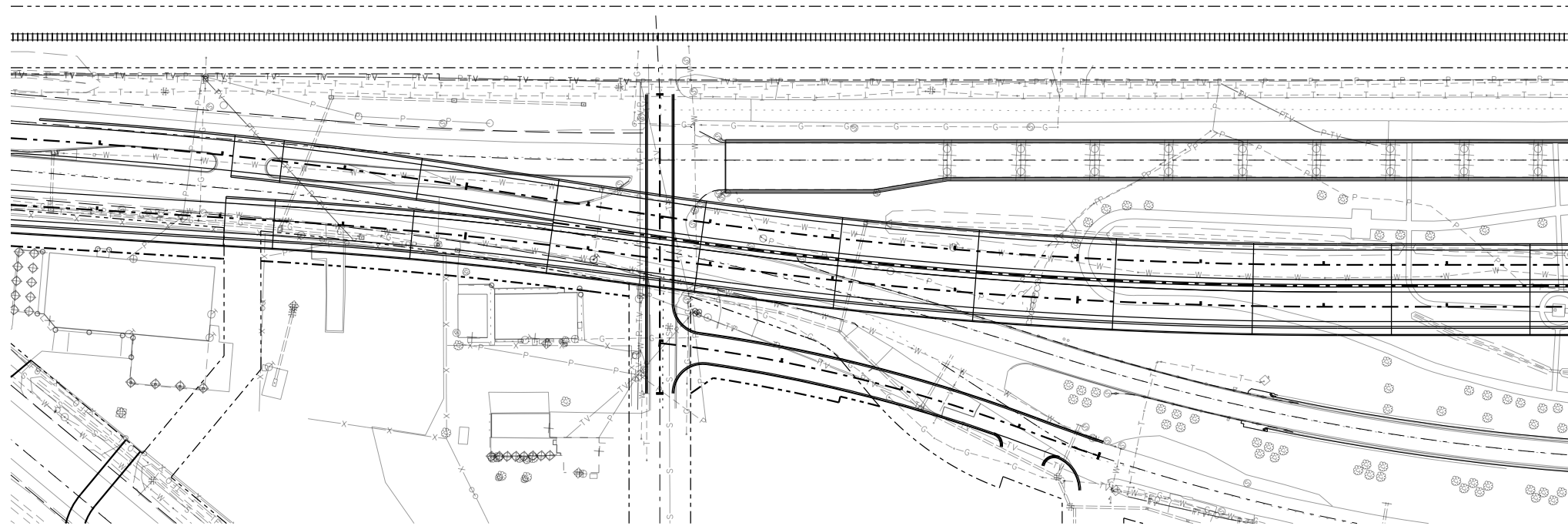
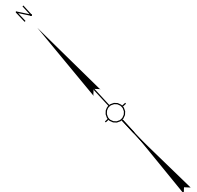
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PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	

BELLE CHASSE
GENERAL PLAN & ELEVATION
BELLE CHASSE BR. & TUNNEL REPLACEMENT

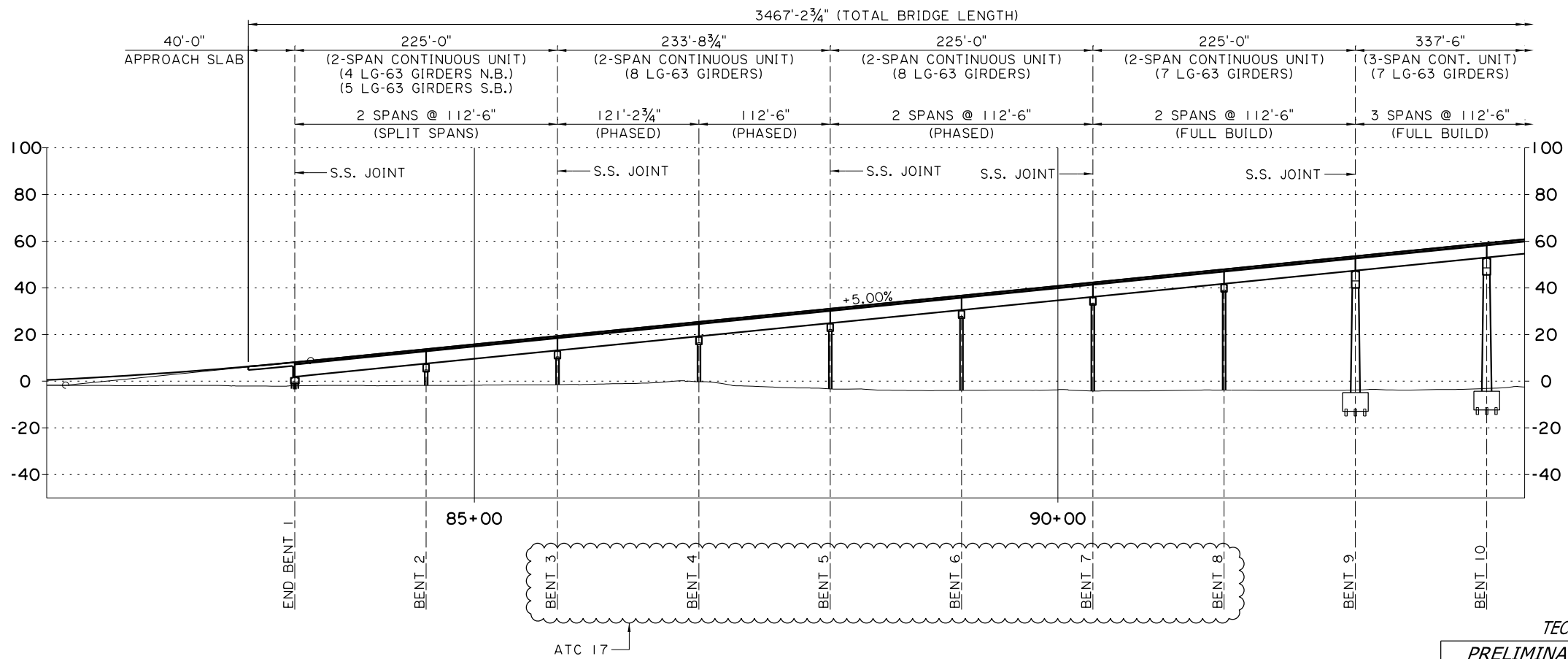
DOTD
HUVAL

TECHNICAL PROPOSAL

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PLAN
SCALE: 1" = 60'





ELEVATION
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 60'

TECHNICAL PROPOSAL
PRELIMINARY

FOR REVIEW ONLY

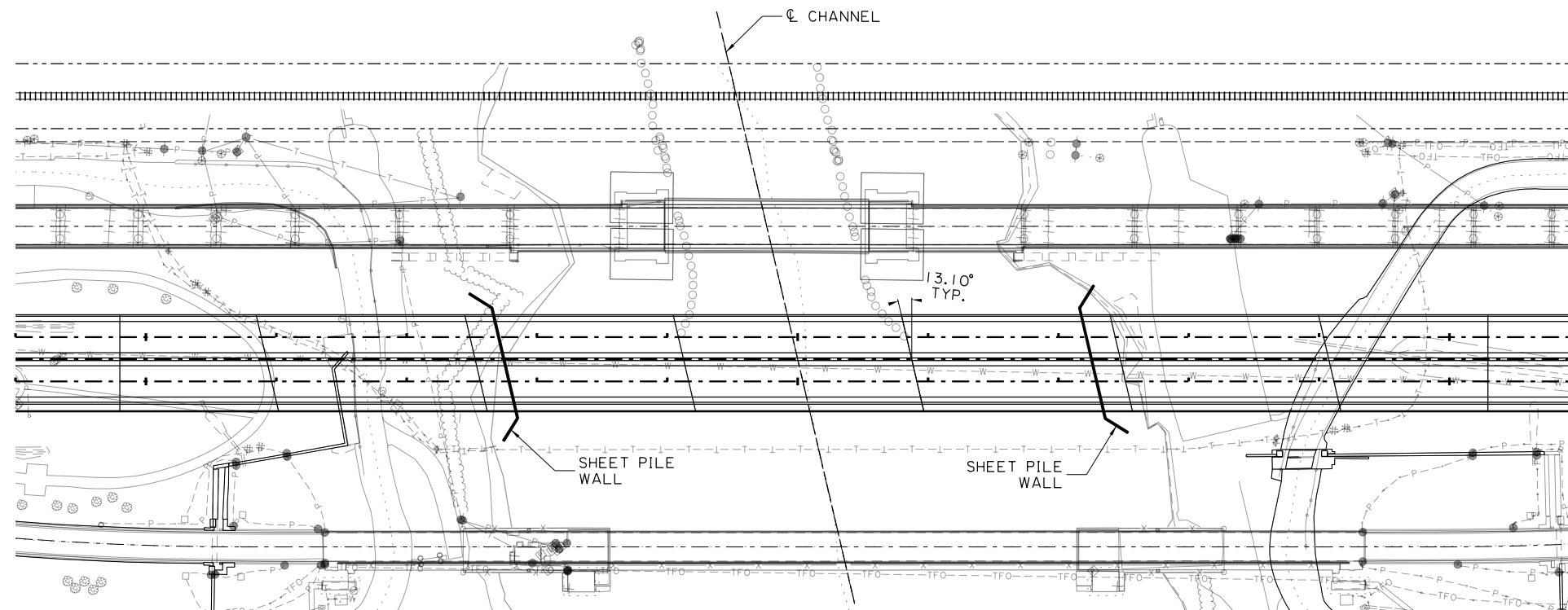
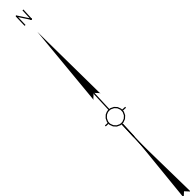
HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

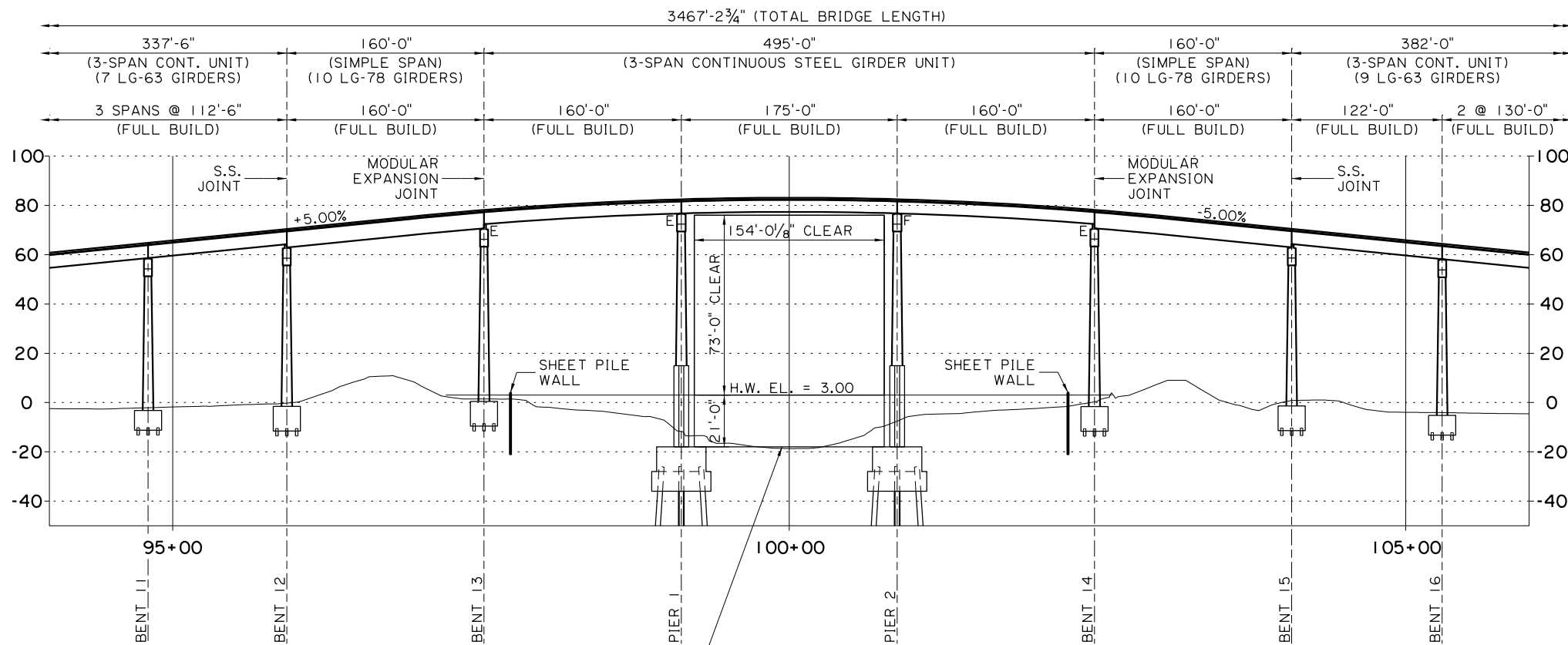
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DESIGNED	MLH	
CHECKED	KAC	
REVIEWED		
PARISH		PLAQUEMINES
CONTROL SECTION		
STATE PROJECT		H.004791
REVISION OR CHANGE ORDER DESCRIPTION		
NO.	DATE	BY
		
BELLE CHASSE DETAILED PLAN & ELEVATION BELLE CHASSE BR. & TUNNEL REPLACEMENT		
		

TECHNICAL PROPOSAL

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PLAN
SCALE: 1" = 60'



PROPOSED BTM.
OF CHANNEL
EL. = -18.00

ELEVATION
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 60'

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

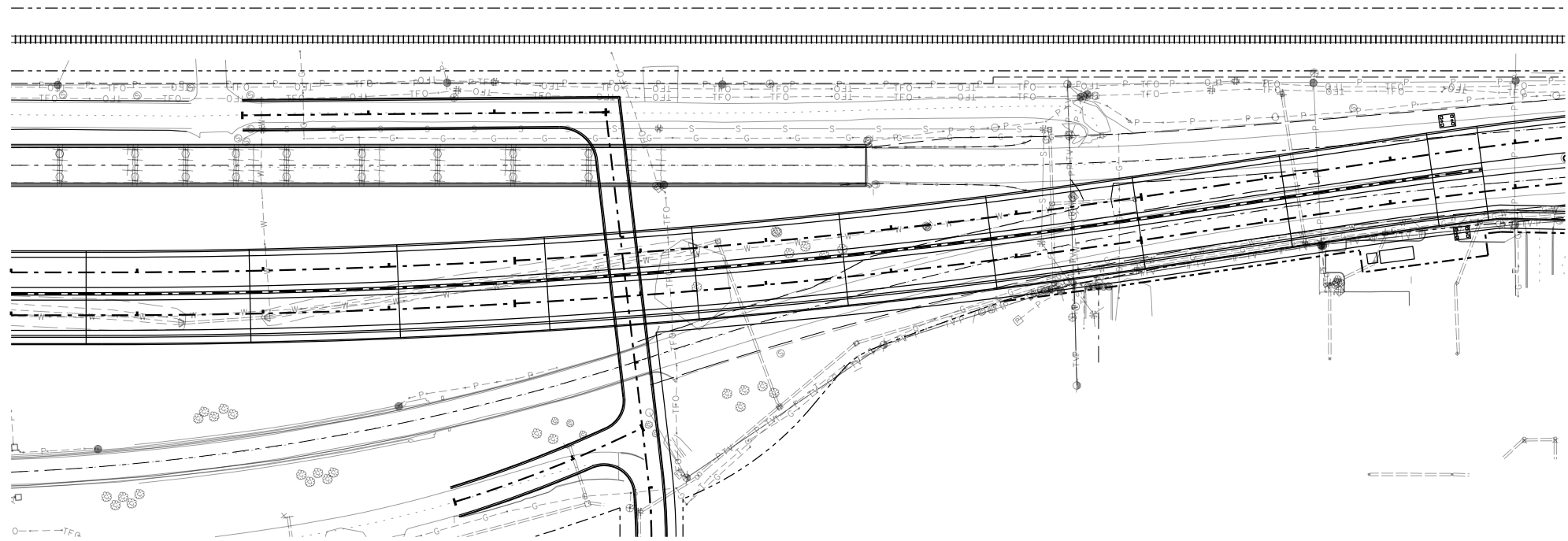
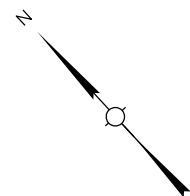
HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

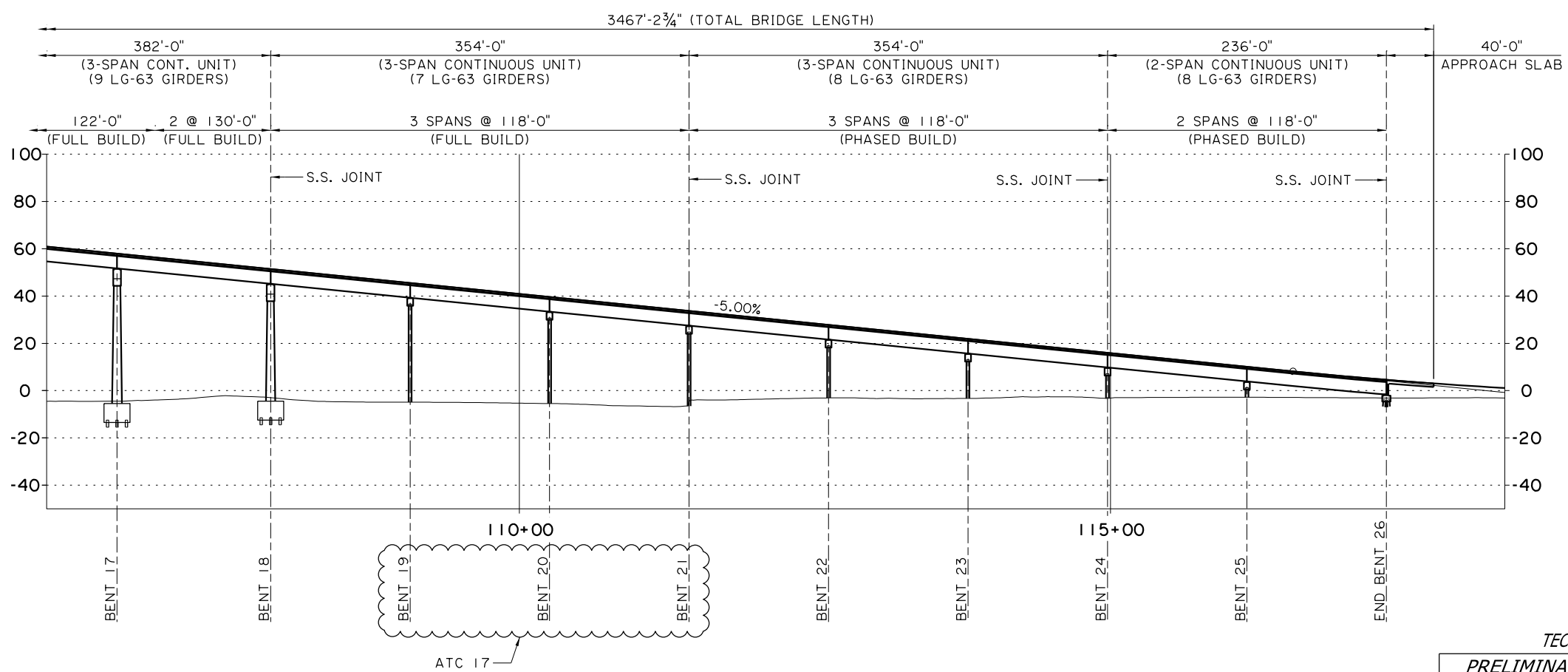
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PARISH		PLAQUEMINES	
DESIGNED	MLH	CONTROL SECTION	KAC
CHECKED		CHECKED	
REVIEWED		REVIEWED	
STATE PROJECT		H.004791	
REVISION OR CHANGE ORDER DESCRIPTION		BY	
NO.		DATE	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		HUVAL	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_1027\Plan 2M E



PLAN
SCALE: 1" = 60'



ELEVATION
VERTICAL SCALE: 1" = 30'
HORIZONTAL SCALE: 1" = 60'

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

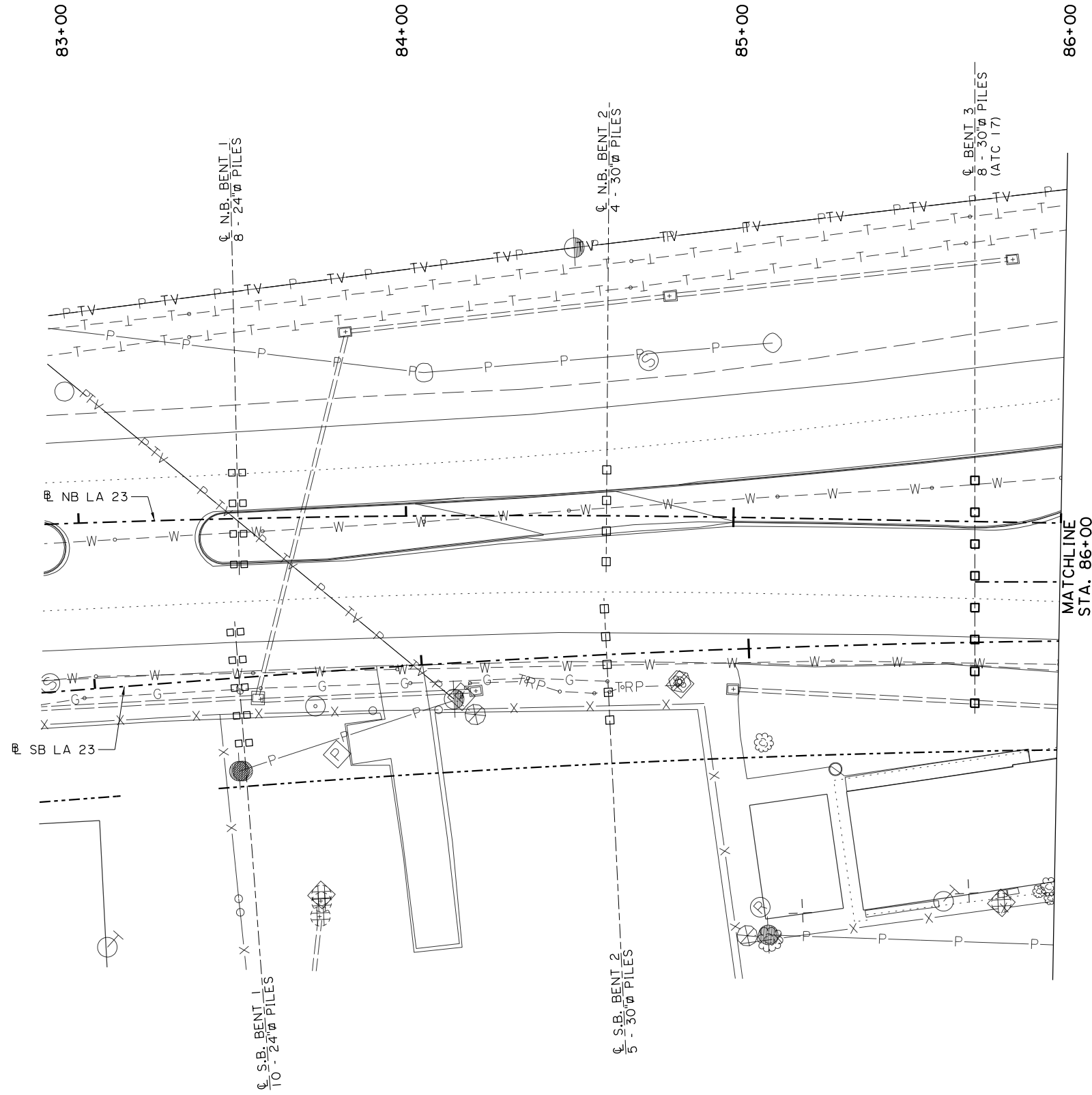
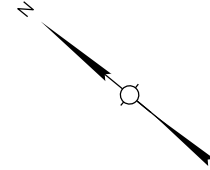
HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

SHEET NUMBER		105	
PARISH		PLAQUEMINES	
DESIGNED	MLH	CONTROL SECTION	KAC
CHECKED		REVIEWED	
REVISION OR CHANGE ORDER DESCRIPTION		BY	
DATE		NO.	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		H.004791	
BELLE CHASSE		DOTD	
DETAILED PLAN & ELEVATION		HUVAL	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_110295\Sheet 1



FOUNDATION LAYOUT
SCALE: 1" = 20'

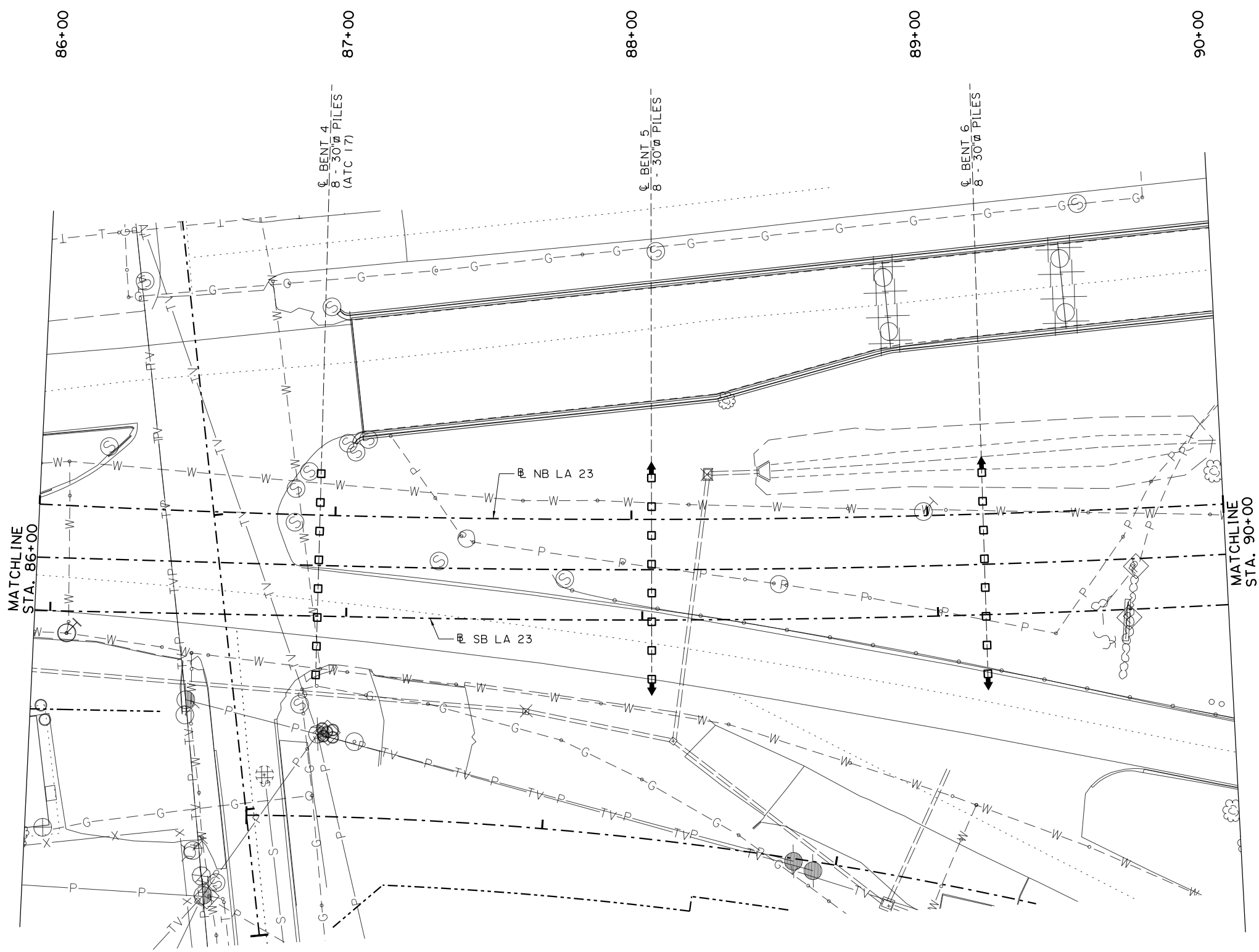
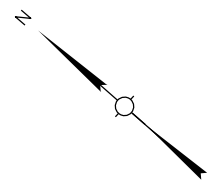
TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

SHEET NUMBER		106	
PARISH		PLAQUEMINES	
DESIGNED	MLH	CONTROL SECTION	
CHECKED		REVIEWED	
DETAILED	KAC	SERIES #	1 OF 9
CHECKED		NO.	
REVISION OR CHANGE ORDER DESCRIPTION	BY	DATE	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		FOUNDATION LAYOUT	
BELLE CHASSE		PLAQUEMINES	
STATE PROJECT		H.004791	



TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_110705\Sheet 1



FOUNDATION LAYOUT
SCALE: 1" = 20'

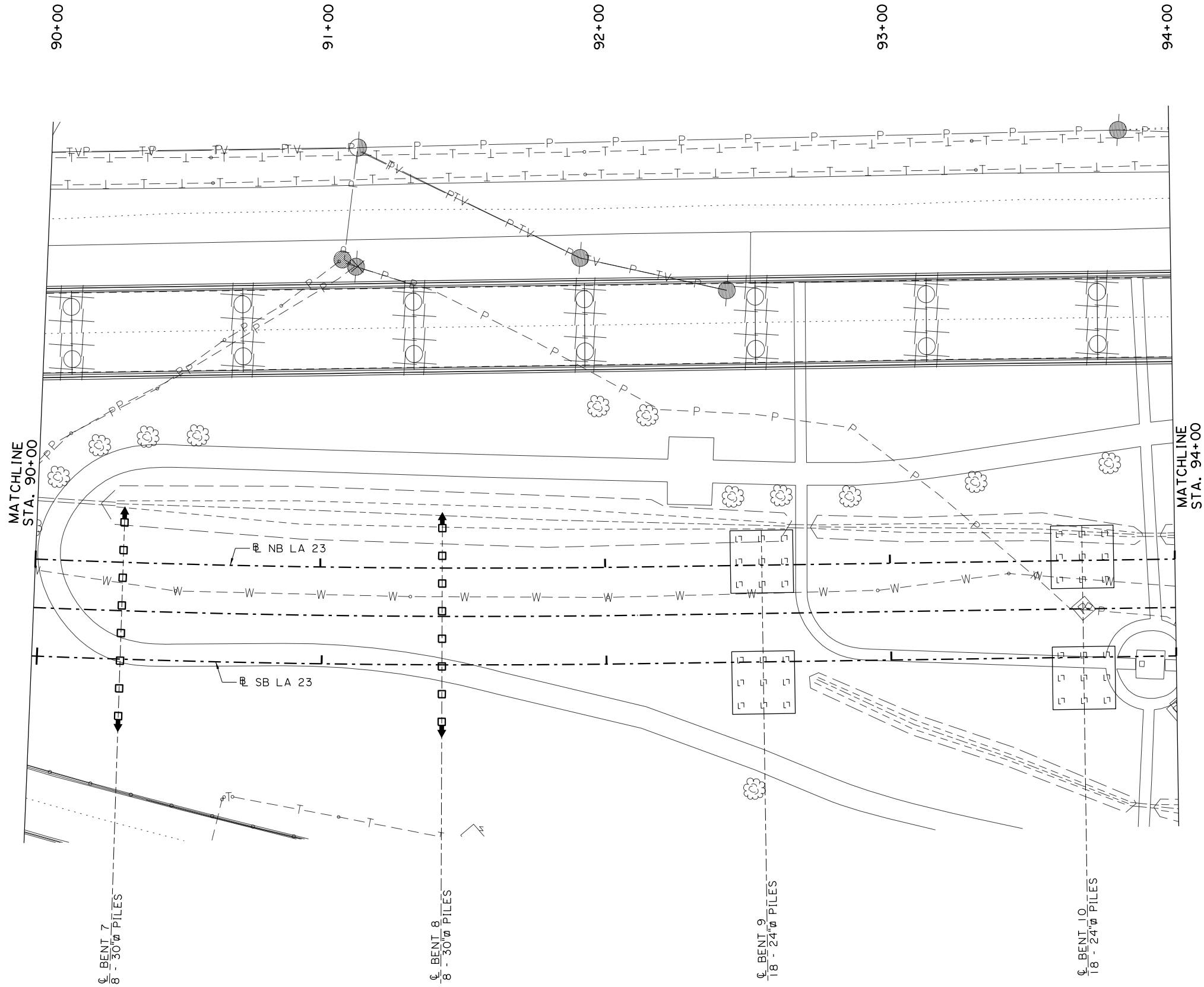
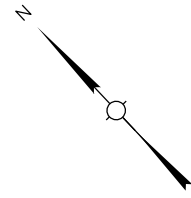
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
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SHEET NUMBER	107	PARISH	PLAQUEMINES	DESIGNED	MLH
		CONTROL SECTION		CHECKED	KAC
		STATE PROJECT	H.004791	REVIEWED	SERIES # 2 OF 9
		NO.	DATE	BY	REVISION OR CHANGE ORDER DESCRIPTION
		<p>BELLE CHASSE</p> <p>FOUNDATION LAYOUT</p> <p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>			
		<p>HUVAL</p>			



TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_I082F61n0001.dwg



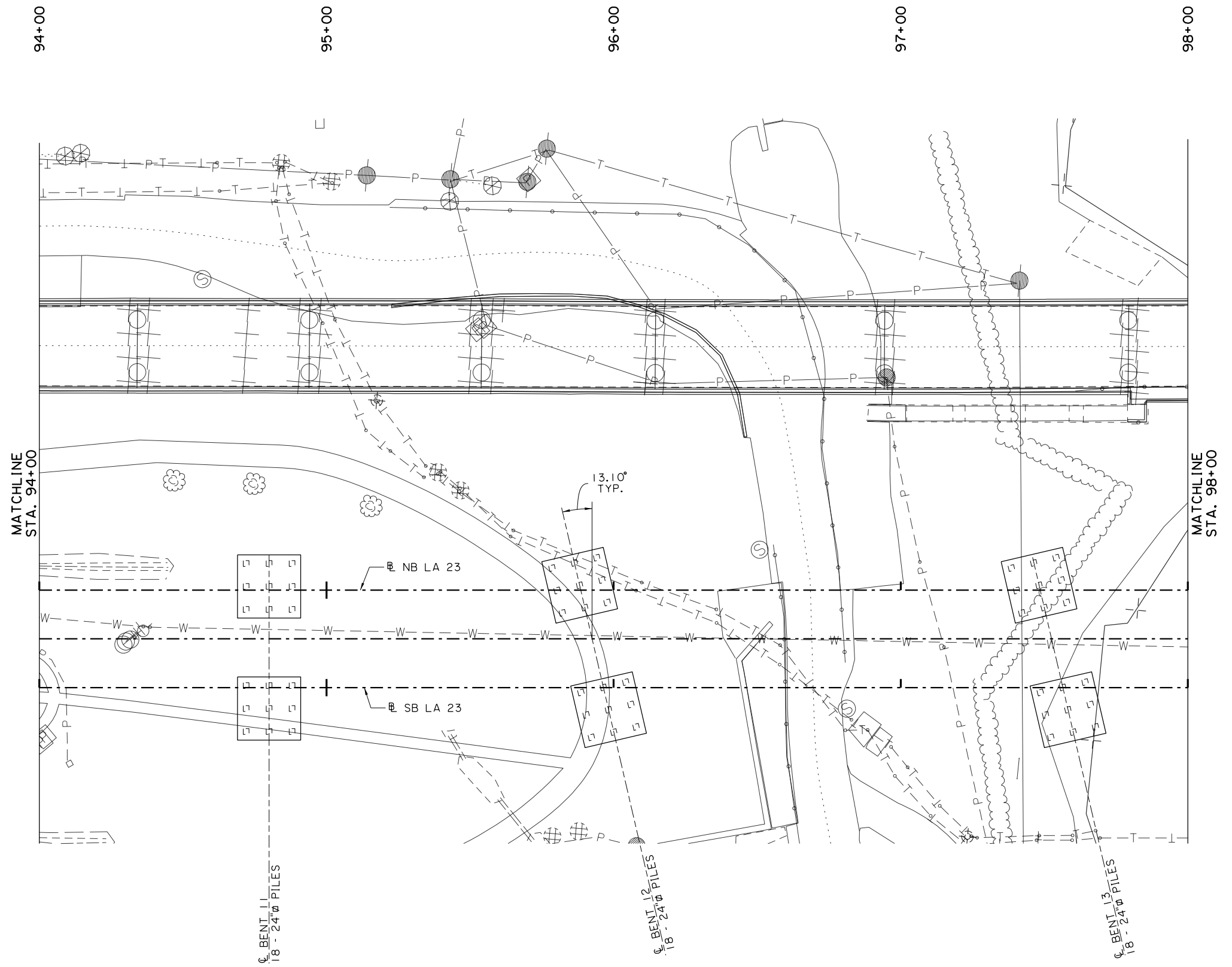
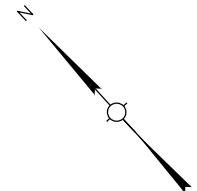
FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

SHEET NUMBER 108	
RESIGNED CHECKED	MLH
DETAILED CHECKED	KAC
REVIEWED	SERIES # 3 OF 9
NO.	DATE
BY	REVISION OR CHANGE ORDER DESCRIPTION
	
BELLE CHASSE FOUNDATION LAYOUT BELLE CHASSE BR. & TUNNEL REPLACEMENT	
	
PLAQUEMINES PARISH CONTROL SECTION STATE PROJECT H.004791	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordel\25/2019\PR_1103355.dwg



FOUNDATION LAYOUT
SCALE: 1" = 20'

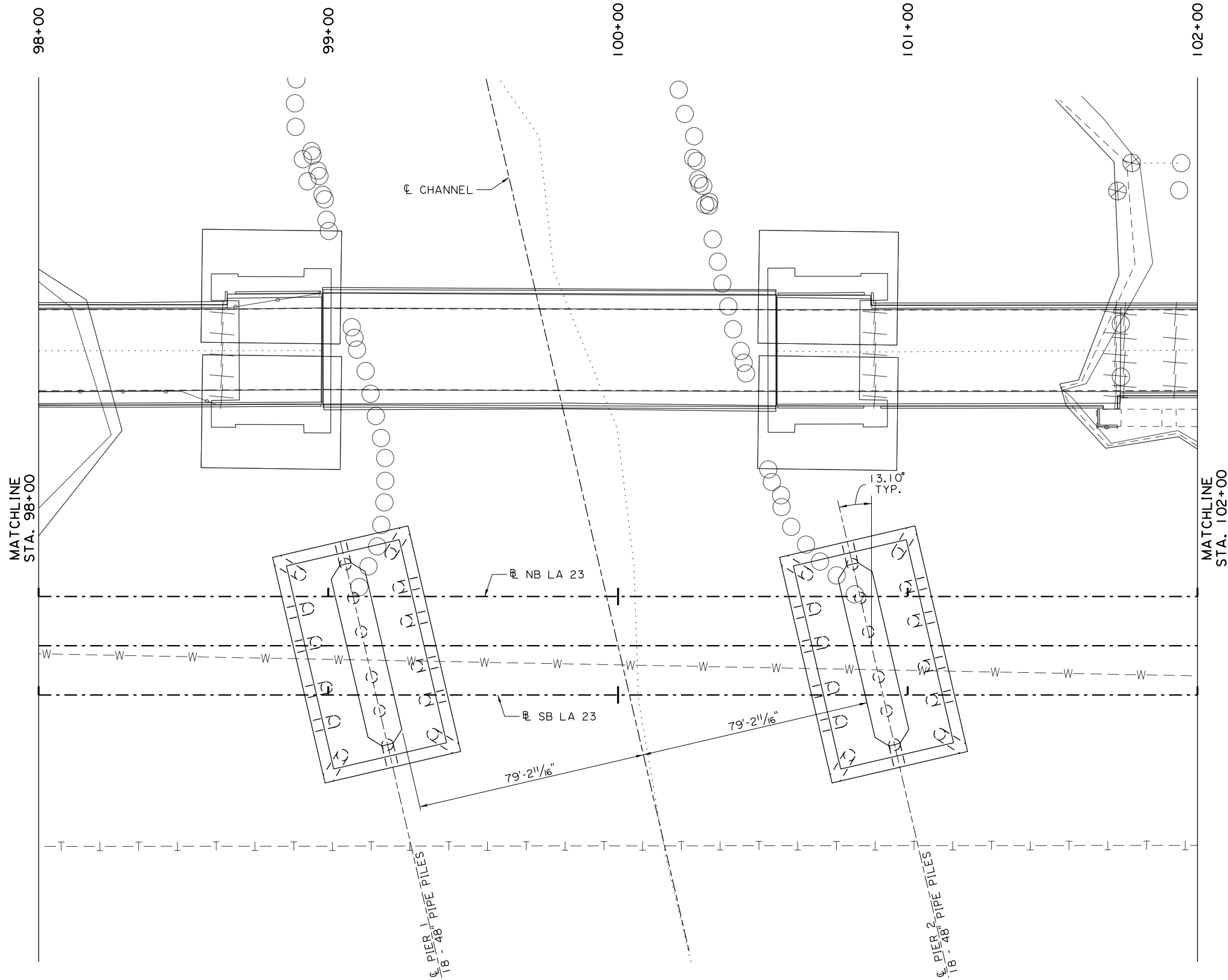
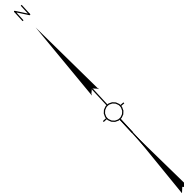
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PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

		PLAQUEMINES	SHEET NUMBER 109
BELLE CHASSE	BR. & TUNNEL REPLACEMENT	PARISH CONTROL SECTION	STATE PROJECT H.004791
FOUNDATION LAYOUT		DESIGNED MLH	REVIEWED SERIES # 4 OF 9
BY		CHECKED KAC	DATE
NO.		REVISION OR CHANGE ORDER DESCRIPTION	BY



TECHNICAL PROPOSAL

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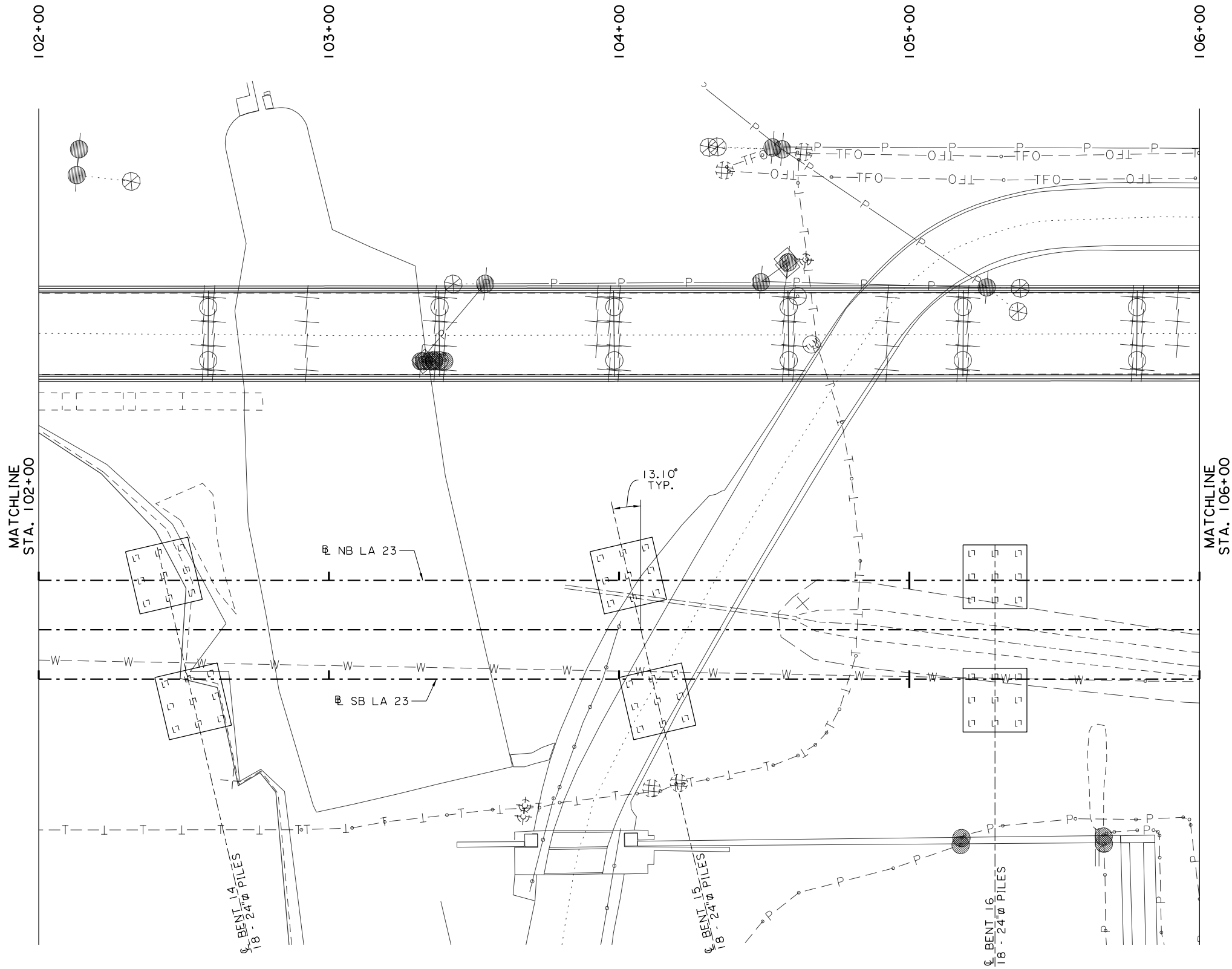
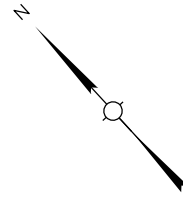
FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

DOTD HUVAL	BELLE CHASSE FOUNDATION LAYOUT	BELLE CHASSE BR. & TUNNEL REPLACEMENT	PLAQUEMINES	SHEET NUMBER 110
			PARISH CONTROL SECTION	STATE PROJECT H-004791
			DESIGNED CHECKED MLH KAC	REVISION OR CHANGE ORDER DESCRIPTION
			REVIEWED CHECKED SERIES # 15 OF 9	NO. DATE BY

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_1136\Sheet 11



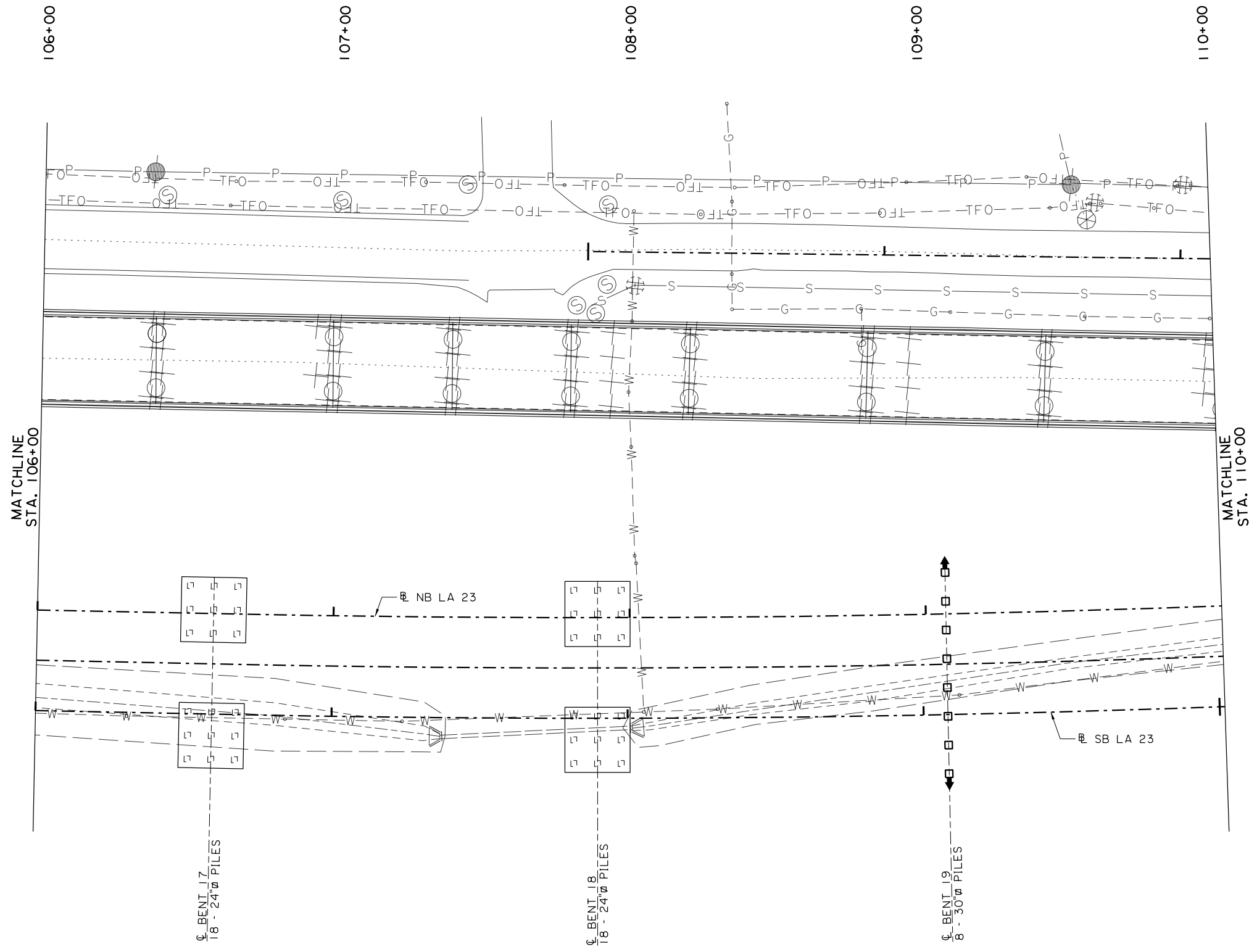
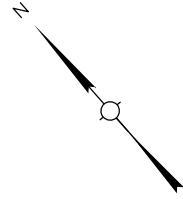
FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

DOTD HUVAL	BELLE CHASSE FOUNDATION LAYOUT	PLAQUEMINES	PARISH	SHEET NUMBER	111
BELLE CHASSE BR. & TUNNEL REPLACEMENT		RESIGNED CHECKED	MLH	CONTROL SECTION	STATE PROJECT
		DETAILED CHECKED	KAC	REVISION OR CHANGE ORDER DESCRIPTION	H.004791
		REVIEWED	SERIES # 16 OF 9	NO.	DATE
		BY		REVISION OR CHANGE ORDER DESCRIPTION	BY

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_1127\Foundat1



FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
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SHEET NUMBER	112	PARISH	PLAQUEMINES	DESIGNED	MLH
CONTROL SECTION	KAC	REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY
STATE PROJECT	H.004791	REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY
REVIEWED	SERIES # 7 OF 9				

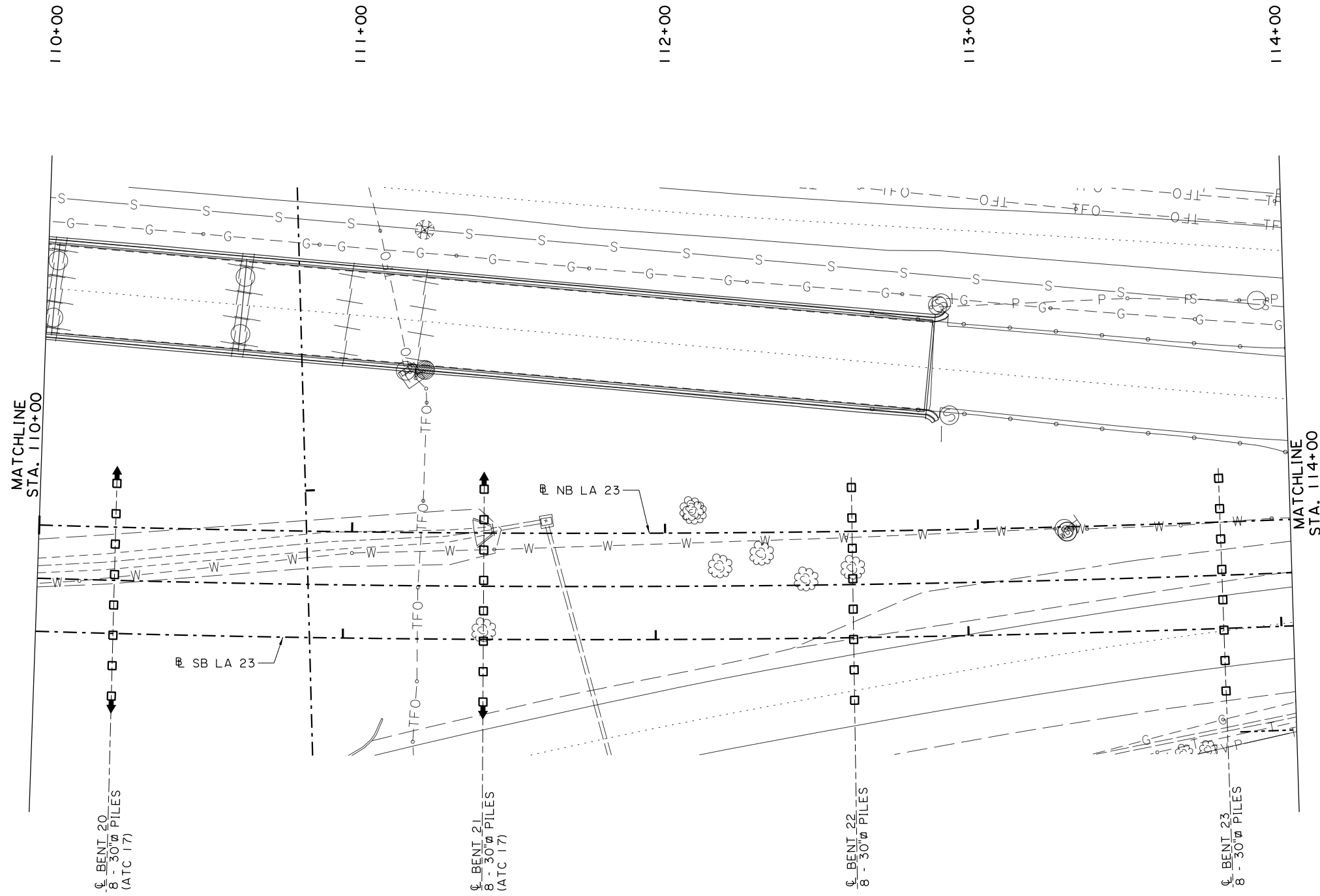
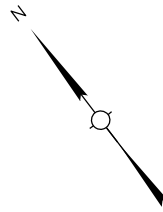


BELLE CHASSE
FOUNDATION LAYOUT
BELLE CHASSE BR. & TUNNEL REPLACEMENT



TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_1138550.dwg



FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

SHEET NUMBER 113	
DESIGNED	MLH
CHECKED	KAC
DETAILED	KAC
CHECKED	
REVIEWED	BY
SERIES # 18 OF 9	
PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H-004791

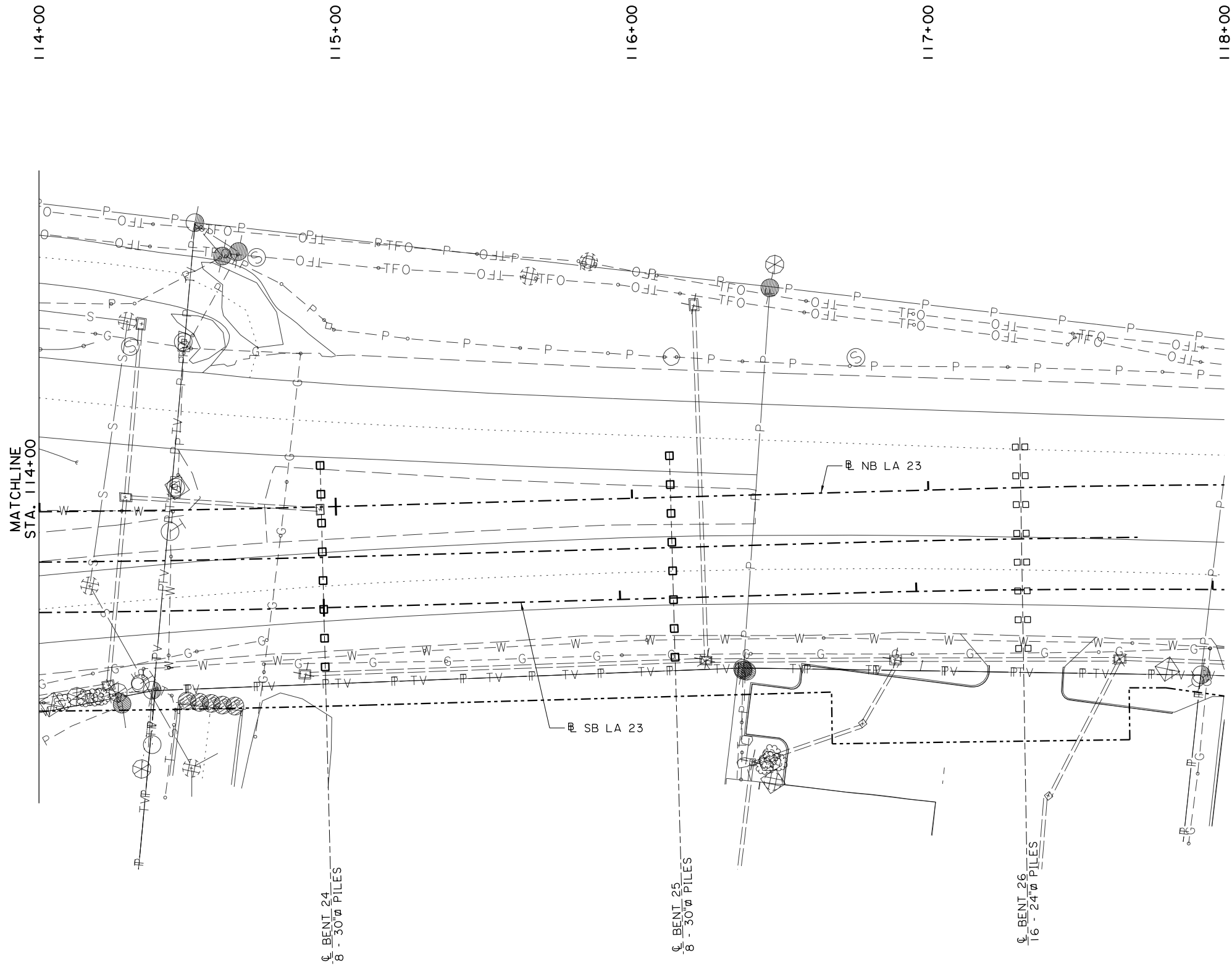
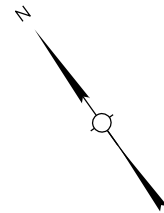


BELLE CHASSE
FOUNDATION LAYOUT
BELLE CHASSE BR. & TUNNEL REPLACEMENT



TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_11495\00.dwg



FOUNDATION LAYOUT
SCALE: 1" = 20'

TECHNICAL PROPOSAL	
PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019

SHEET NUMBER	114	PARISH	PLAQUEMINES	REVISION OR CHANGE ORDER DESCRIPTION	BY
		CONTROL SECTION			
		REVIEWED	SERIES # 9 OF 9		
		STATE PROJECT	H.004791		

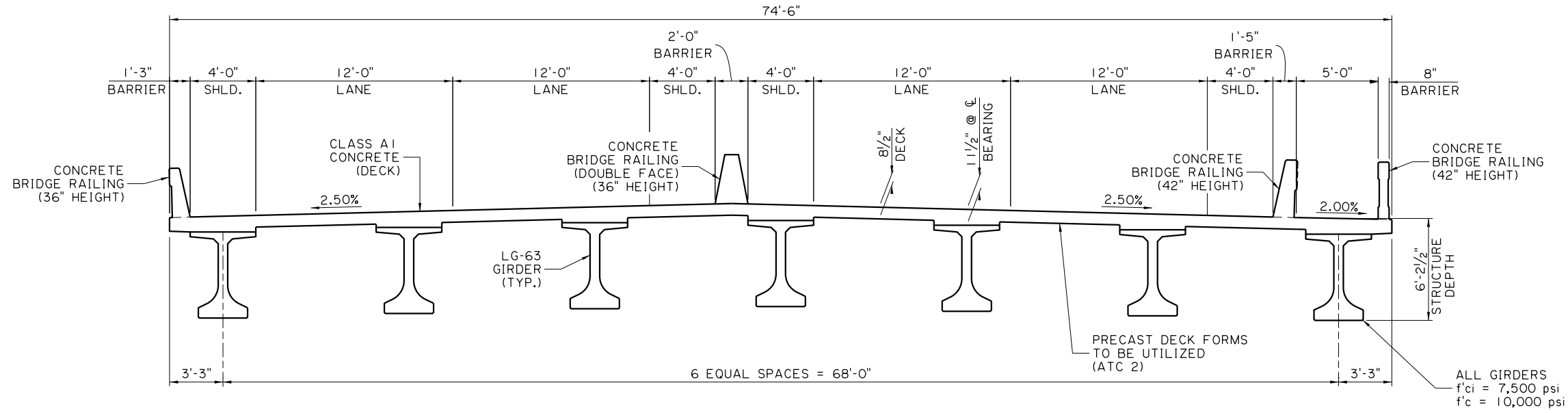


BELLE CHASSE
FOUNDATION LAYOUT
BELLE CHASSE BR. & TUNNEL REPLACEMENT

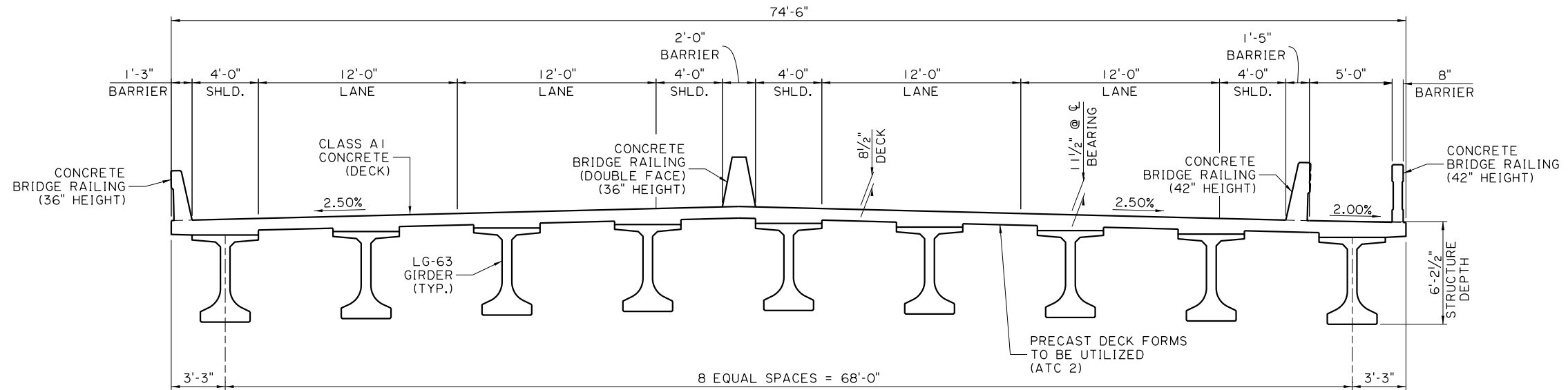


TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse F3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\26\2019\PR_1122191.dwg



LG-63 GIRDER SPAN - FULL BUILD
 (112'-6" & 118'-0" SPANS)
 SCALE: 1/4" = 1'-0"

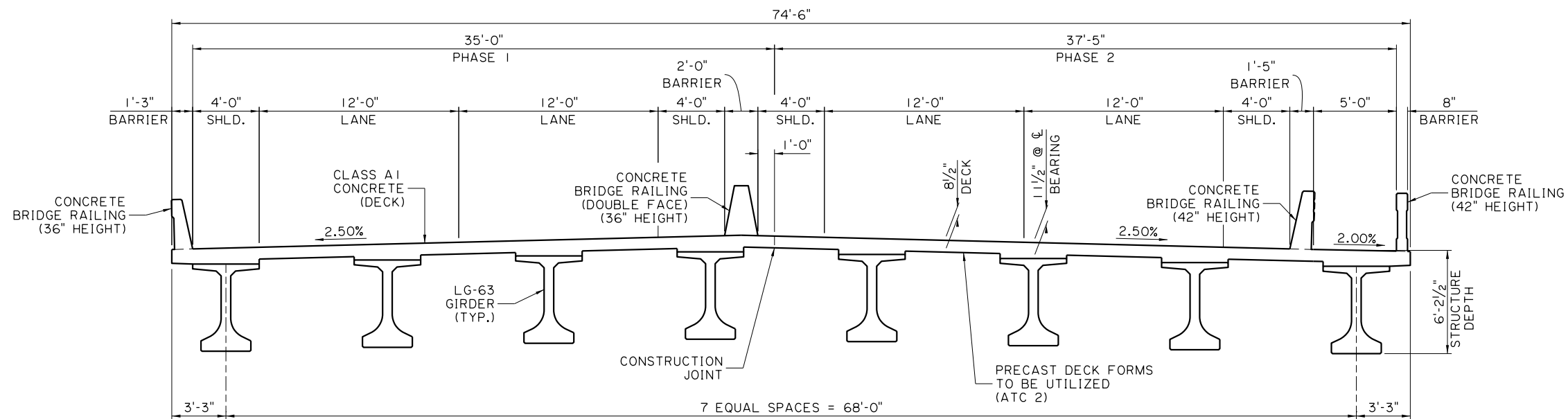


LG-63 GIRDER SPAN - FULL BUILD
 (122'-0" & 130'-0" SPANS)
 SCALE: 1/4" = 1'-0"

TECHNICAL PROPOSAL

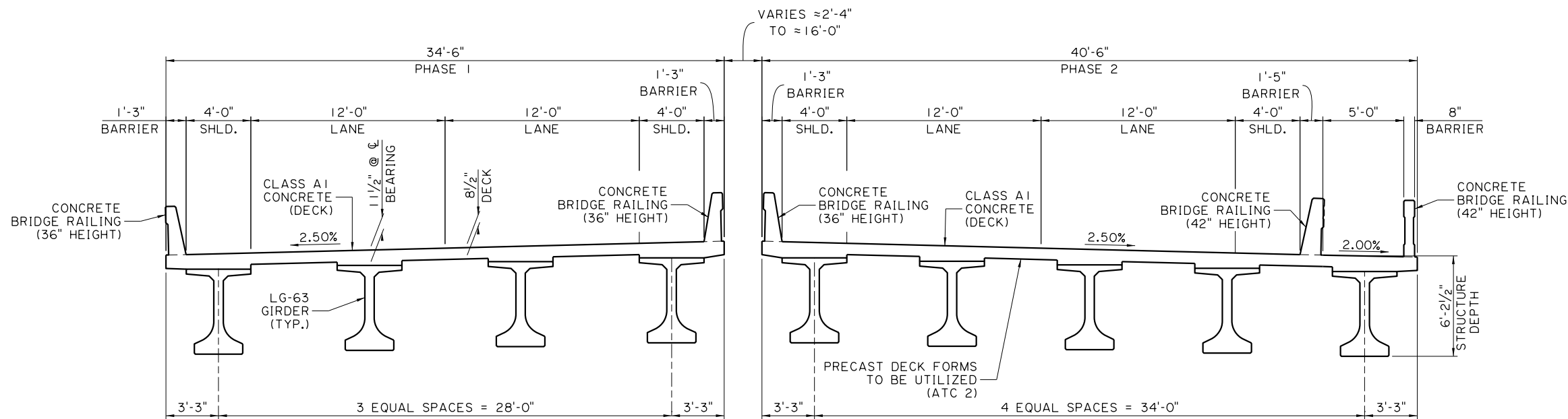
<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/29/2019</p>
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SHEET NUMBER	115	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MLH	CHECKED	KAC	REVIEWED	SERIES # 1 OF 7
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
<p>BELLE CHASSE</p> <p>TYPICAL BRIDGE SECTIONS</p> <p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					



LG-63 GIRDER SPAN - PHASED SECTION

(112'-6", 118'-0" & 121'-2³/₄" SPANS)
SCALE: 1/4" = 1'-0"



LG-63 GIRDER SPAN - SPLIT SECTION

(112'-6" SPANS)
SCALE: 1/4" = 1'-0"

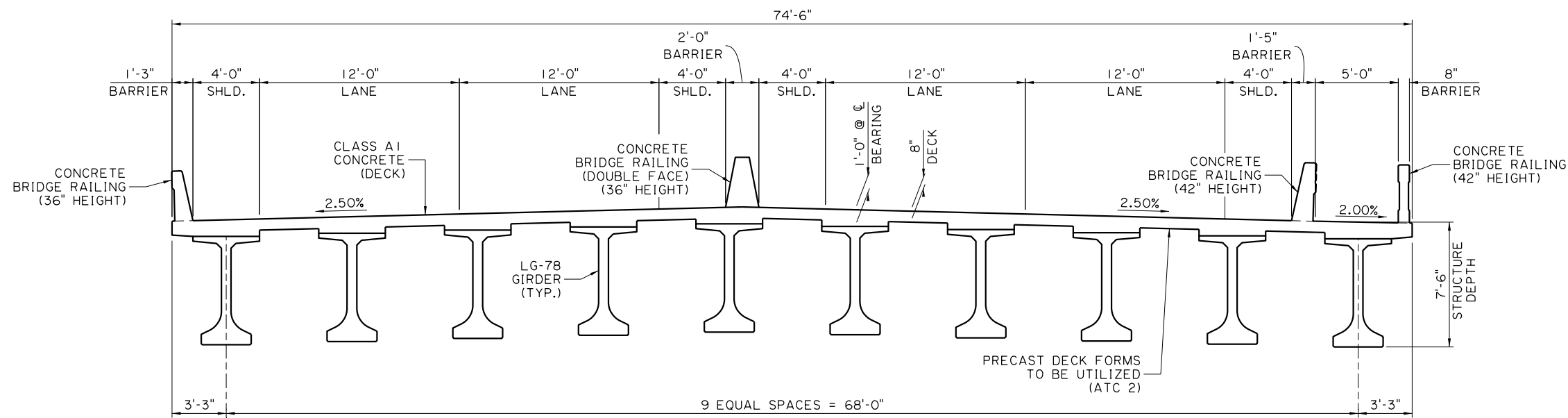
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/29/2019</p>
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SHEET NUMBER	116	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MLH	CHECKED	KAC	REVIEWED	SERIES # 2 OF 7
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
BELLE CHASSE BR. & TUNNEL REPLACEMENT					
HUVAL					

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\26/2019\PR_6127491.dwg



LG-78 GIRDER SPAN - FULL BUILD SECTION
 (160'-0" SPANS)
 SCALE: 1/4" = 1'-0"

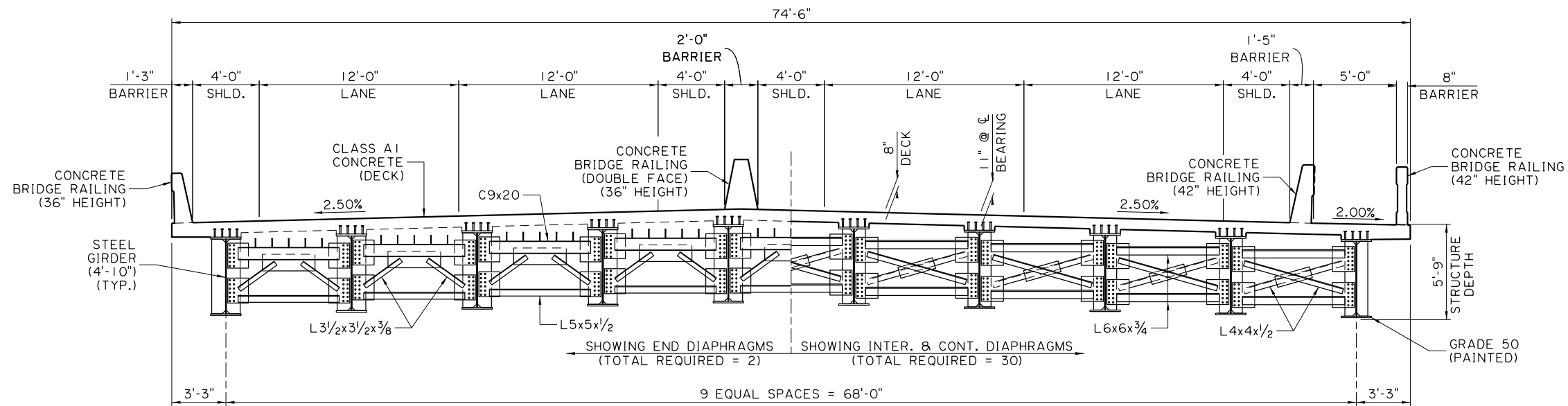
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/29/2019</p>
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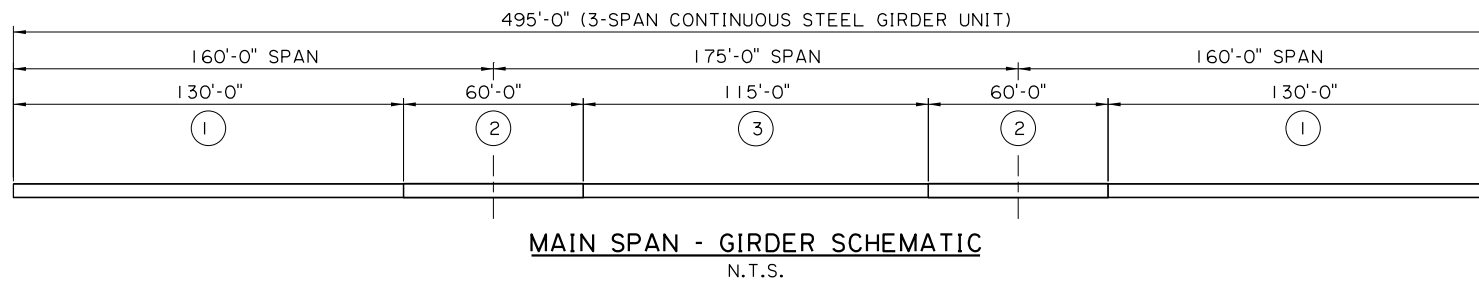
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DESIGNED	MLH	CHECKED	KAC	REVIEWED	SERIES #	3 OF 7
BELLE CHASSE BR. & TUNNEL REPLACEMENT TYPICAL BRIDGE SECTIONS HUVAL						

TECHNICAL PROPOSAL

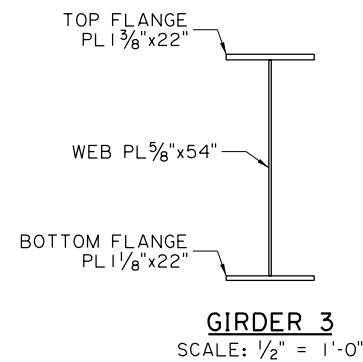
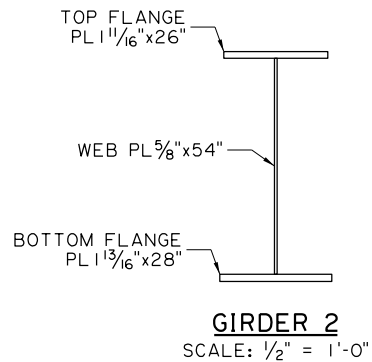
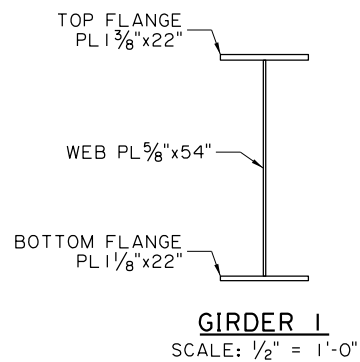
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MAIN SPAN
(160'-0" & 175'-0" SPANS)
SCALE: 1/4" = 1'-0"





MAIN SPAN - GIRDER SCHEMATIC
N.T.S.



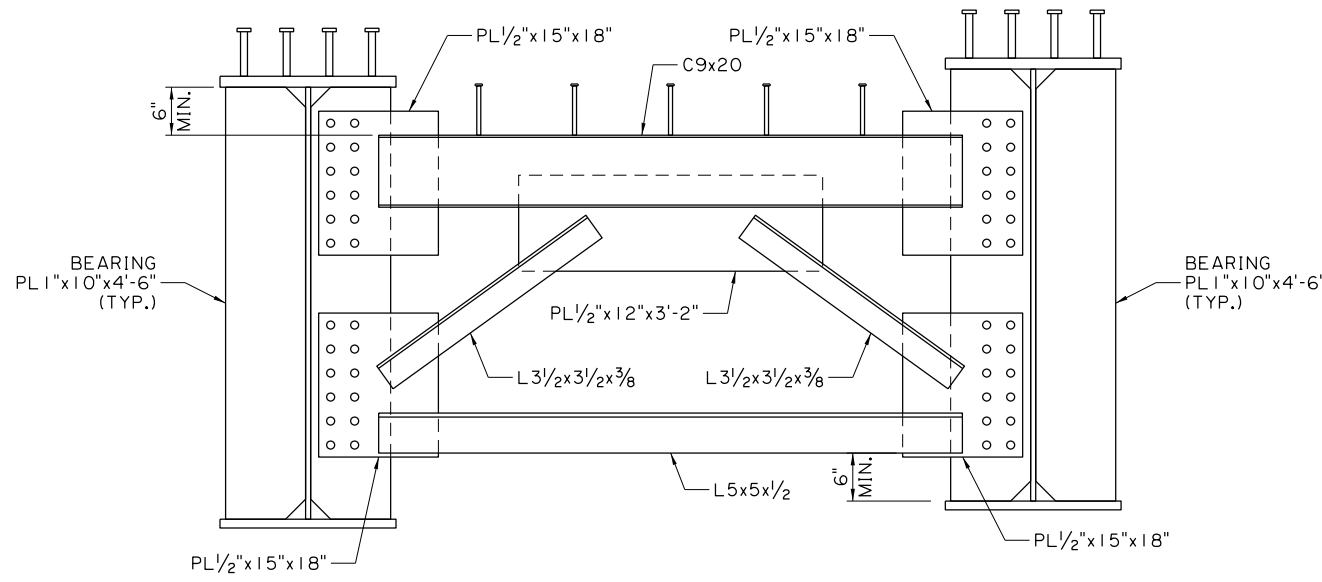
TECHNICAL PROPOSAL
PRELIMINARY
FOR REVIEW ONLY

HUVAL & ASSOCIATES, INC.
Consulting Engineers
ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

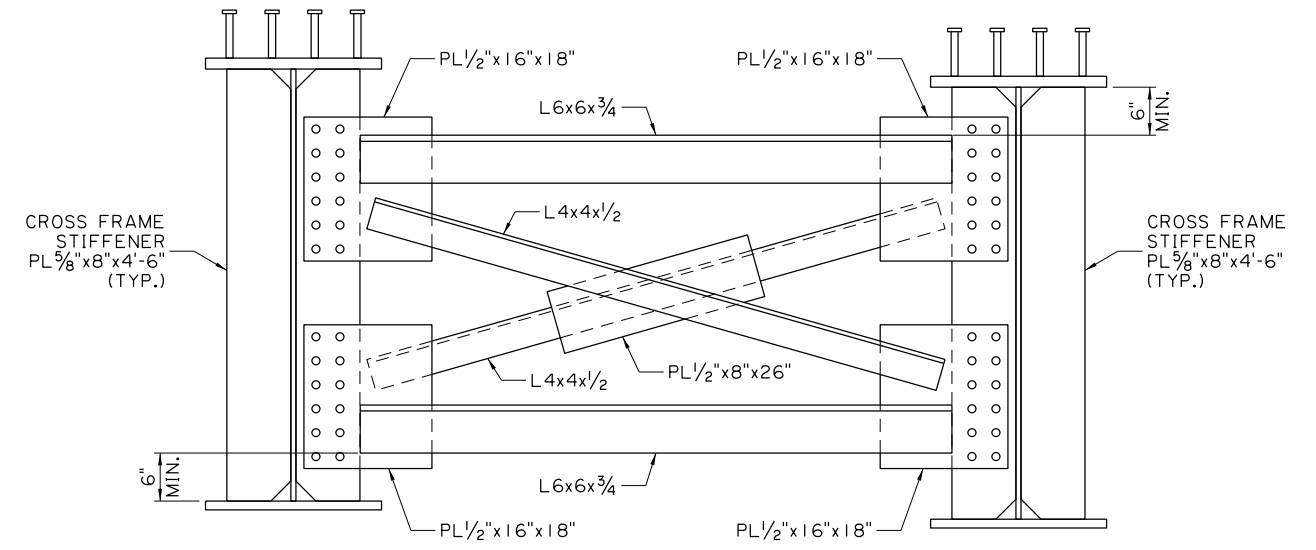
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CONTROL SECTION	
STATE PROJECT	H.004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	4 OF 7
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
	
BELLE CHASSE TYPICAL BRIDGE SECTIONS BELLE CHASSE BR. & TUNNEL REPLACEMENT	
	

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_1193121.dwg



END DIAPHRAGM
SCALE: 1" = 1'-0"

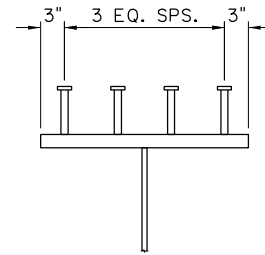
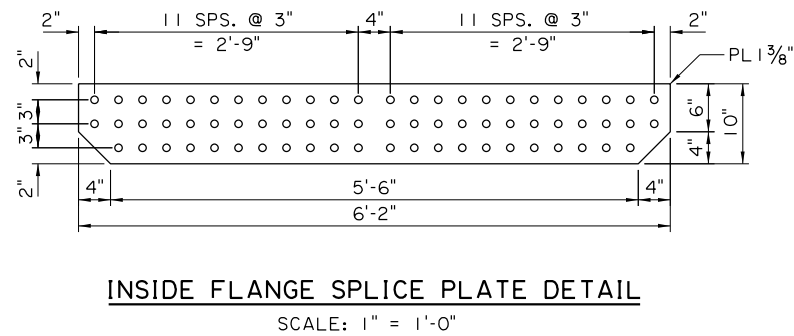
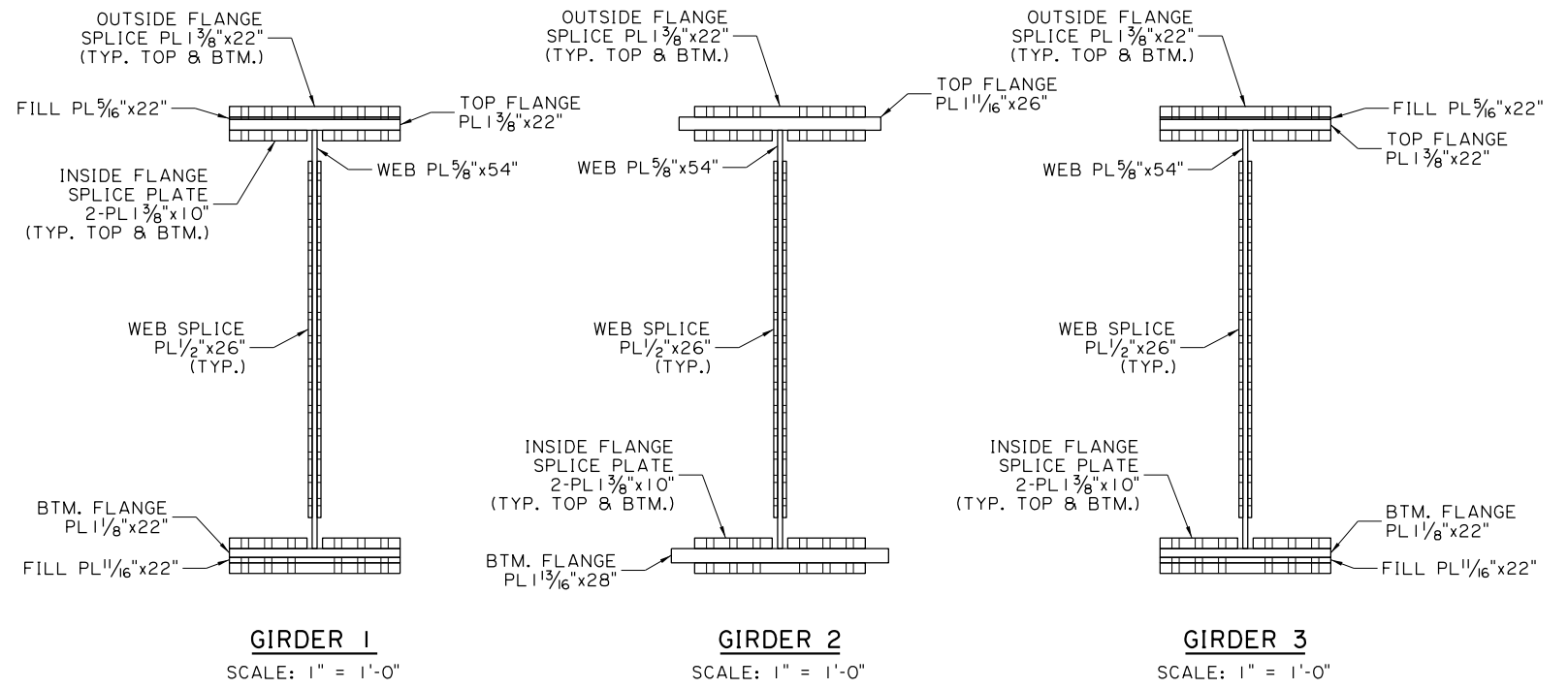
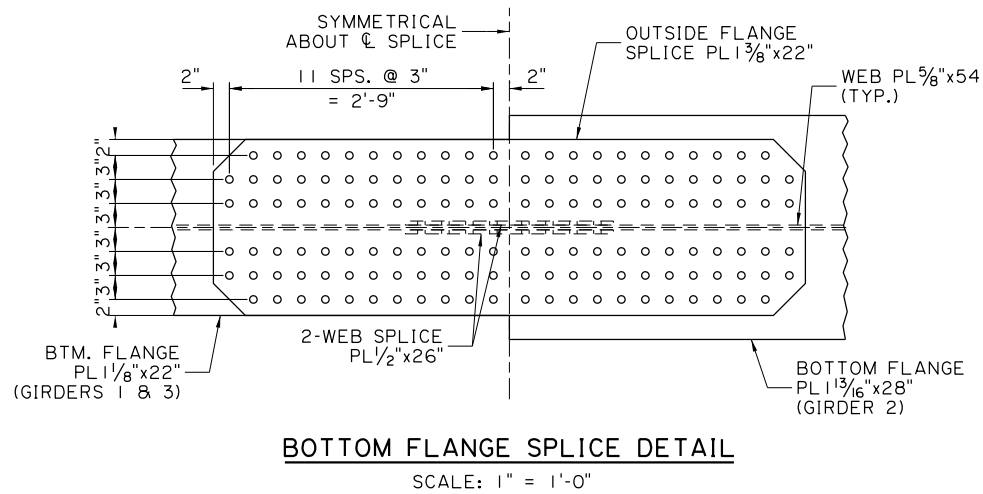
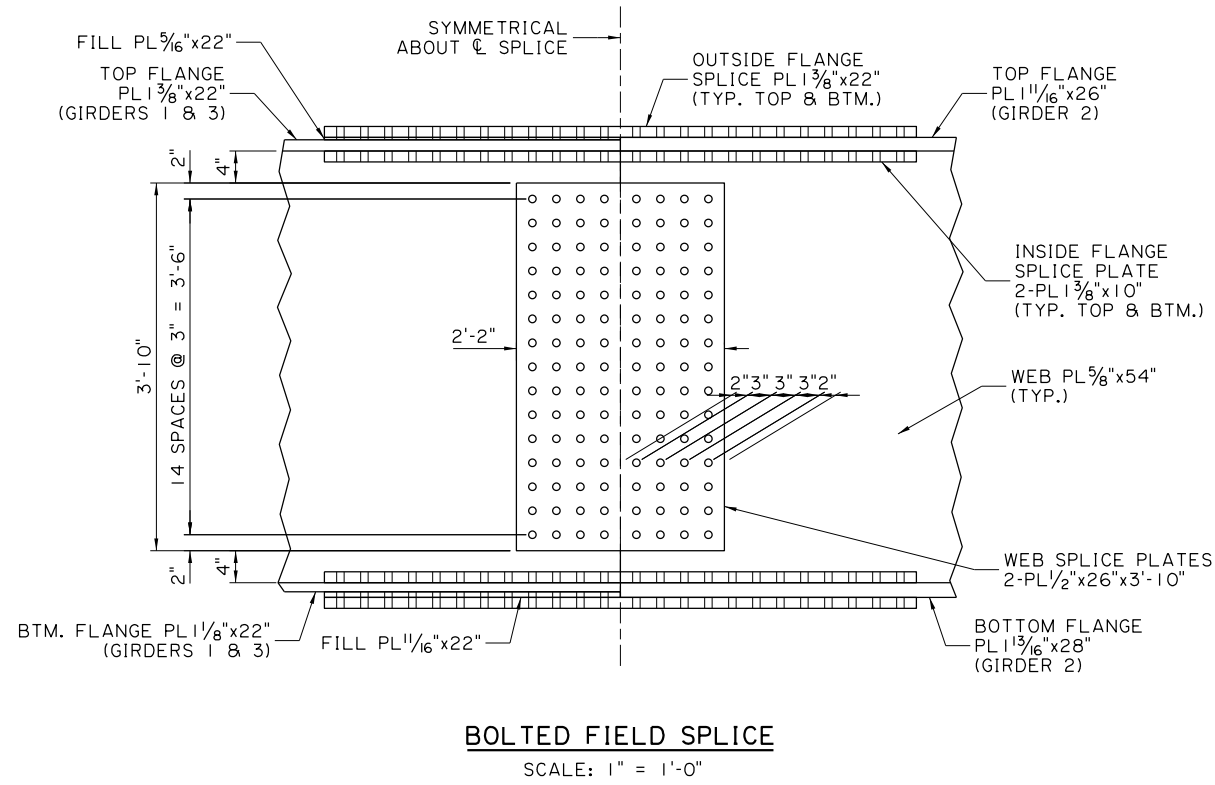
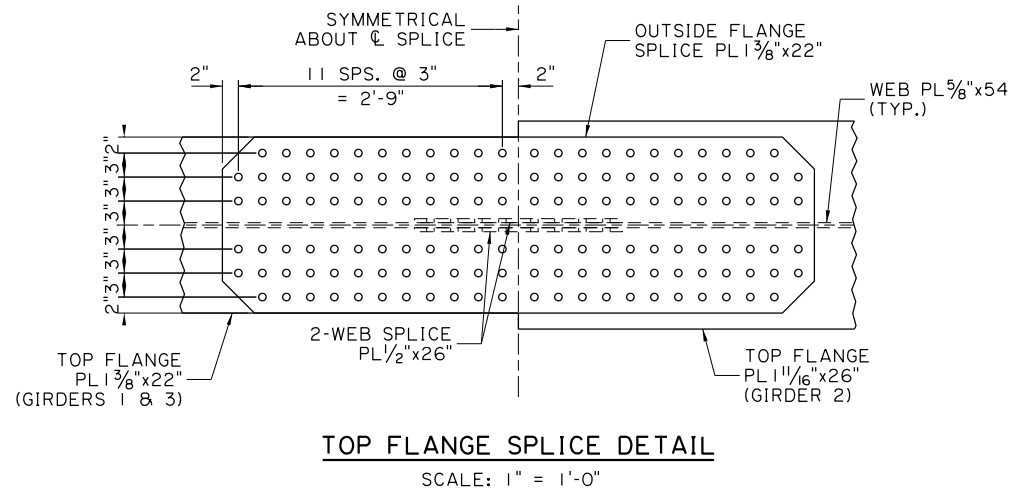


INTERMEDIATE DIAPHRAGM
SCALE: 1" = 1'-0"

TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
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SHEET NUMBER	119	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	CHECKED	DETAILED	CHECKED	REVIEWED	SERIES #
MLH	KAC	KAC	KAC	KAC	5 OF 7
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
<p>BELLE CHASSE</p> <p>TYPICAL BRIDGE SECTIONS</p> <p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					



NOTES:

ALL HOLES ARE 1 5/16" ϕ FOR 7/8" ϕ BOLTS.

SHEAR STUD CONNECTORS WILL BE 12" O.C. ALONG TOP FLANGE OF GIRDERS.



TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

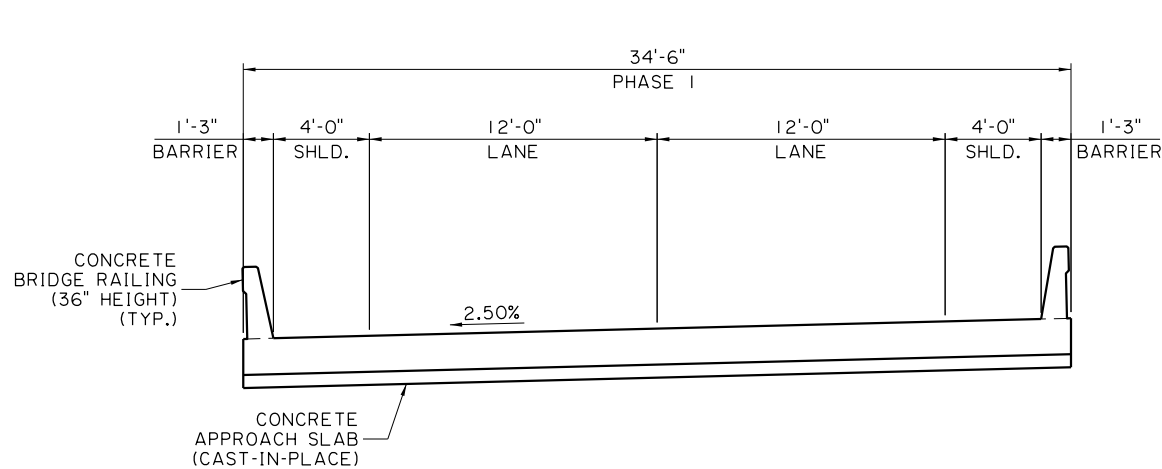
HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

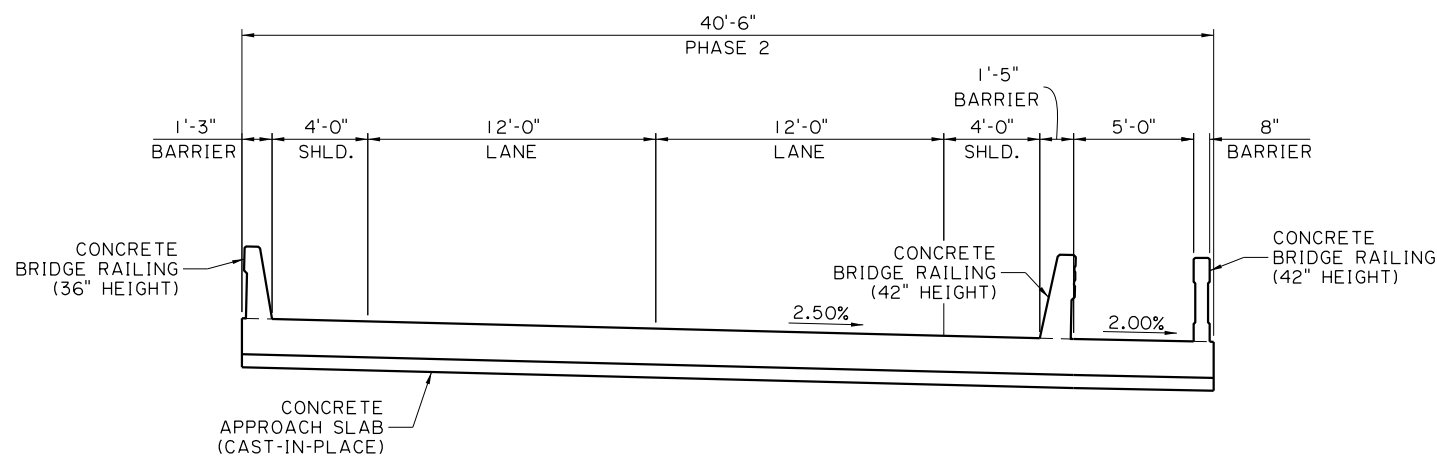
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PLAQUEMINES	
PARISH	
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	
CHECKED	
MLH	
DETAILED	
KAC	
REVIEWED	
SERIES #	16 OF 7
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
DATE	
NO.	
	
BELLE CHASSE TYPICAL BRIDGE SECTIONS STEEL PLATE GIRDER DETAILS	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
	

TECHNICAL PROPOSAL

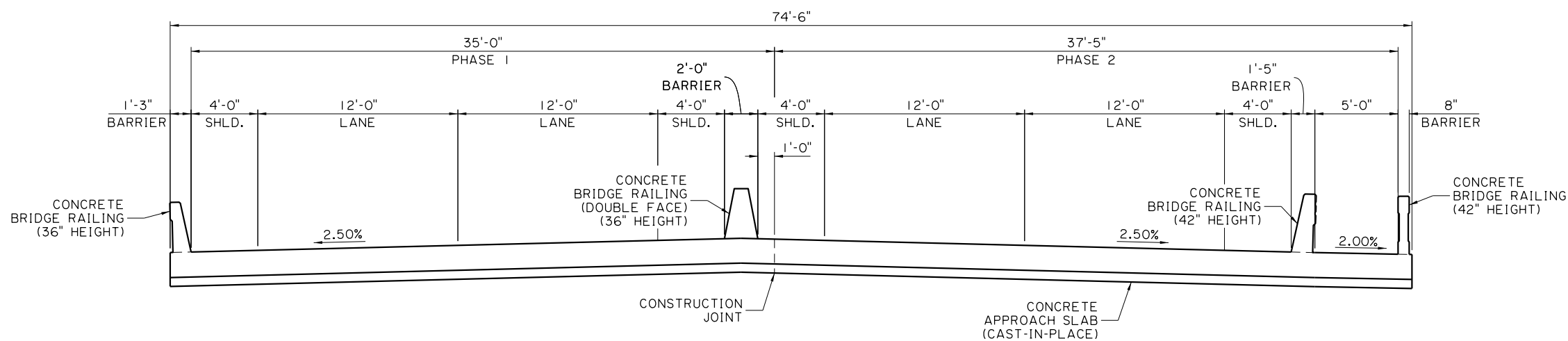
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NORTH APPROACH SLAB
(NORTHBOUND)
SCALE: 1/4" = 1'-0"



NORTH APPROACH SLAB
(SOUTHBOUND)
SCALE: 1/4" = 1'-0"



SOUTH APPROACH SLAB
SCALE: 1/4" = 1'-0"

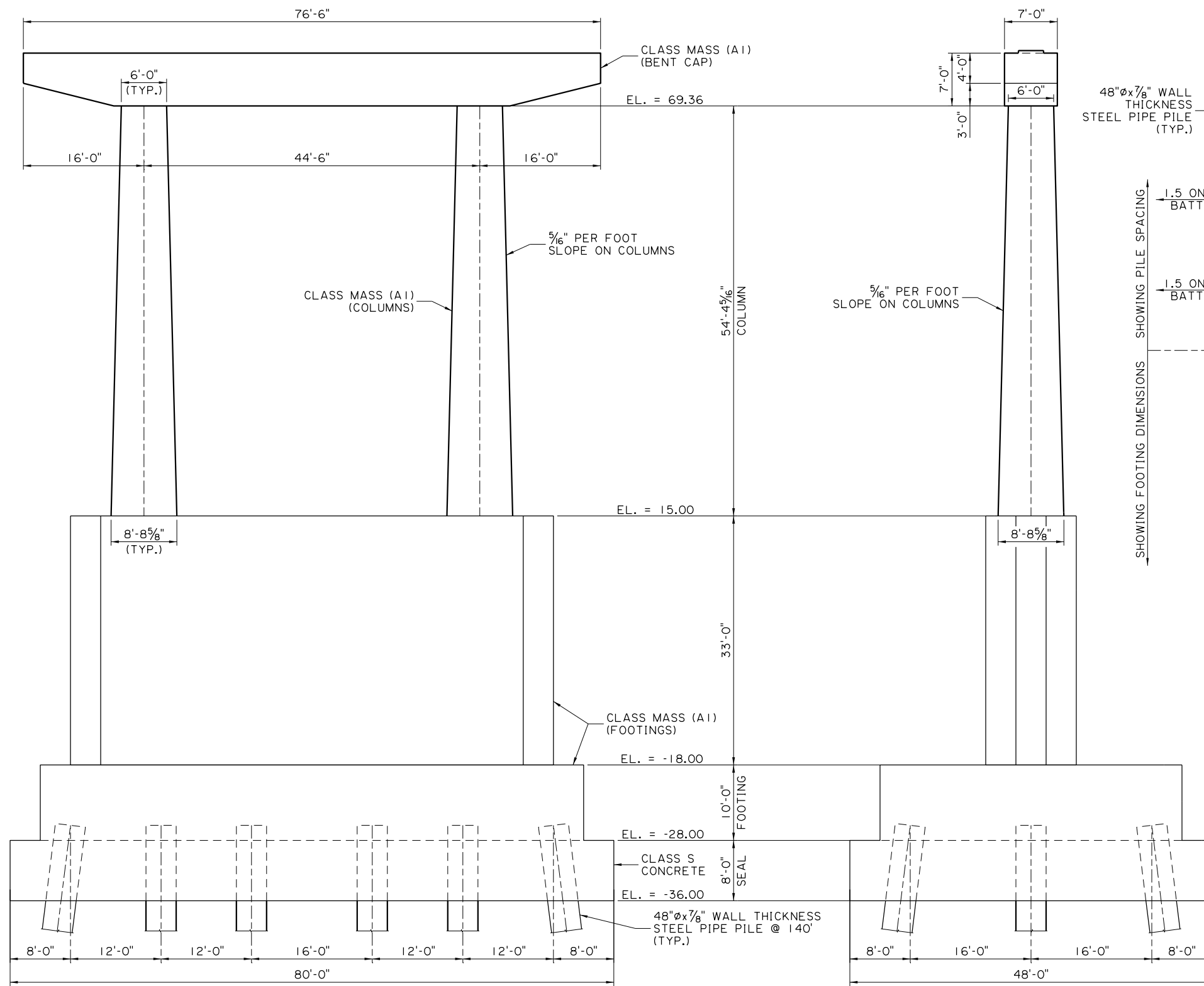
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
--	---

SHEET NUMBER	121	PLAQUEMINES	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED	MLH	CHECKED	KAC	REVIEWED	SERIES # 7 OF 7
REVISION OR CHANGE ORDER DESCRIPTION					
DATE					
BY					
NO.					
<p>BELLE CHASSE</p> <p>TYPICAL BRIDGE SECTIONS</p> <p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					

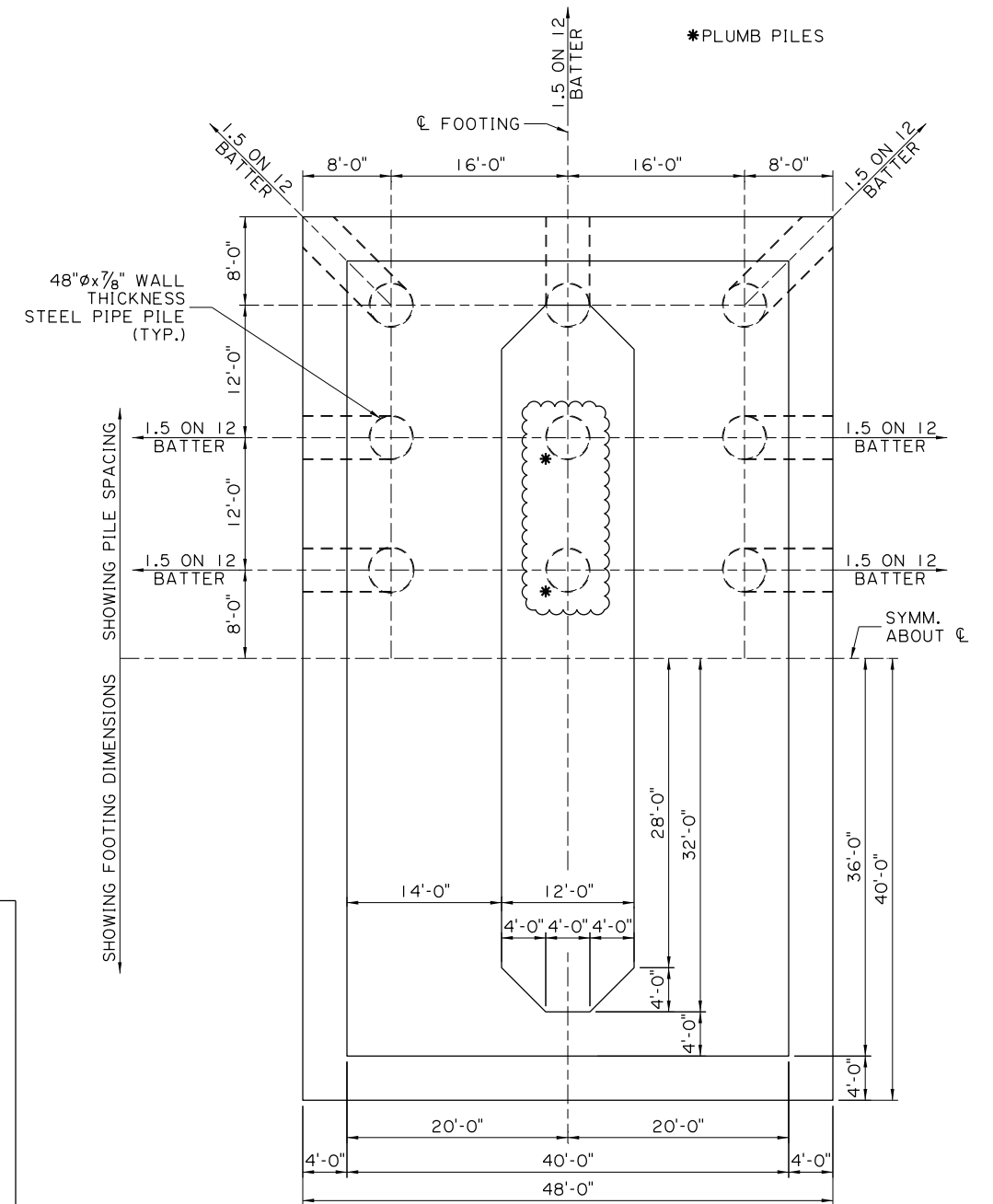
TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_12254481.dwg



ELEVATION

MAIN SPAN - PIER DETAILS
SCALE: 1/8" = 1'-0"



FOOTING PLAN
SCALE: 1/8" = 1'-0"

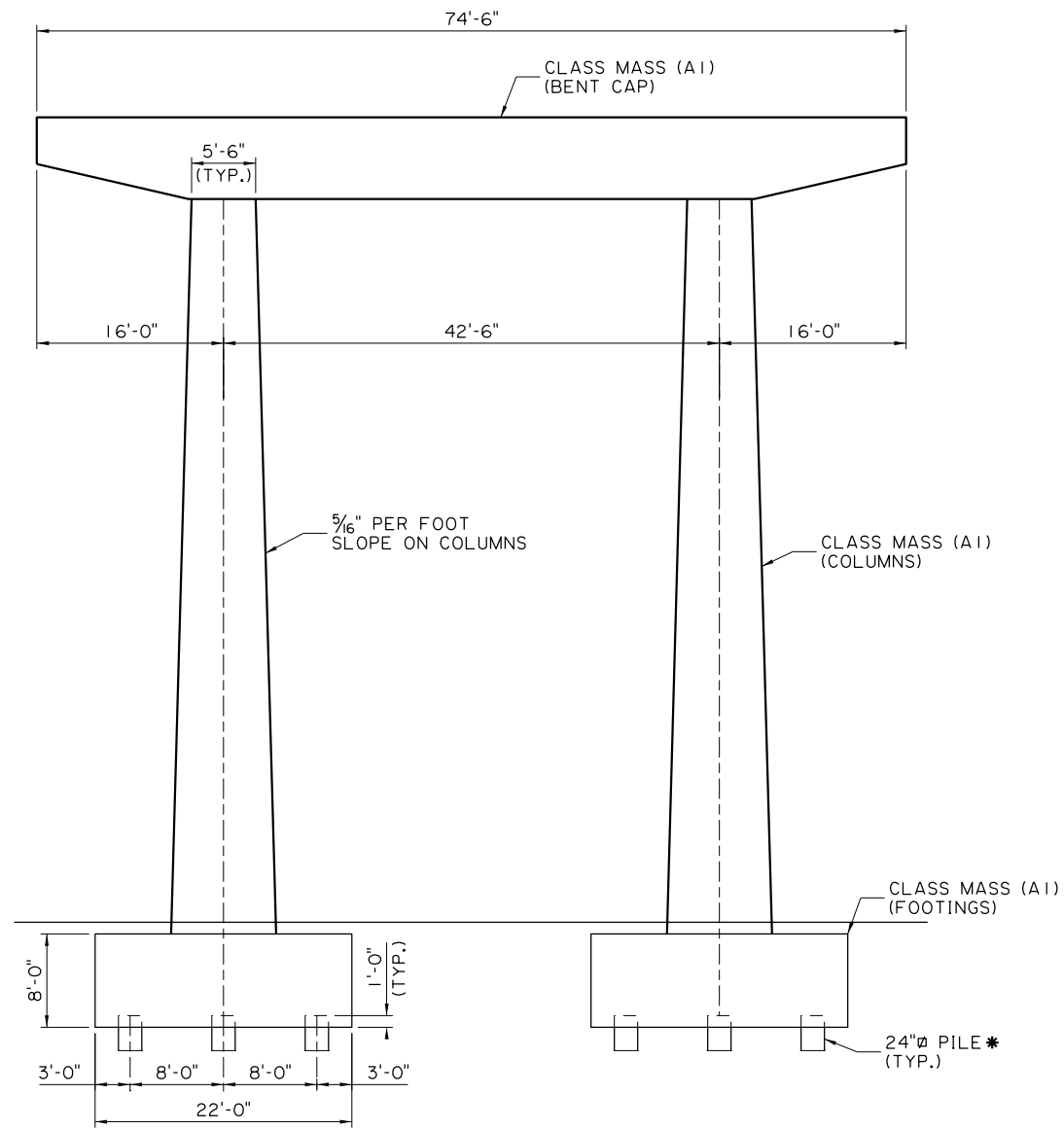
TECHNICAL PROPOSAL
PRELIMINARY
FOR REVIEW ONLY

HUVAL & ASSOCIATES, INC.
Consulting Engineers
ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

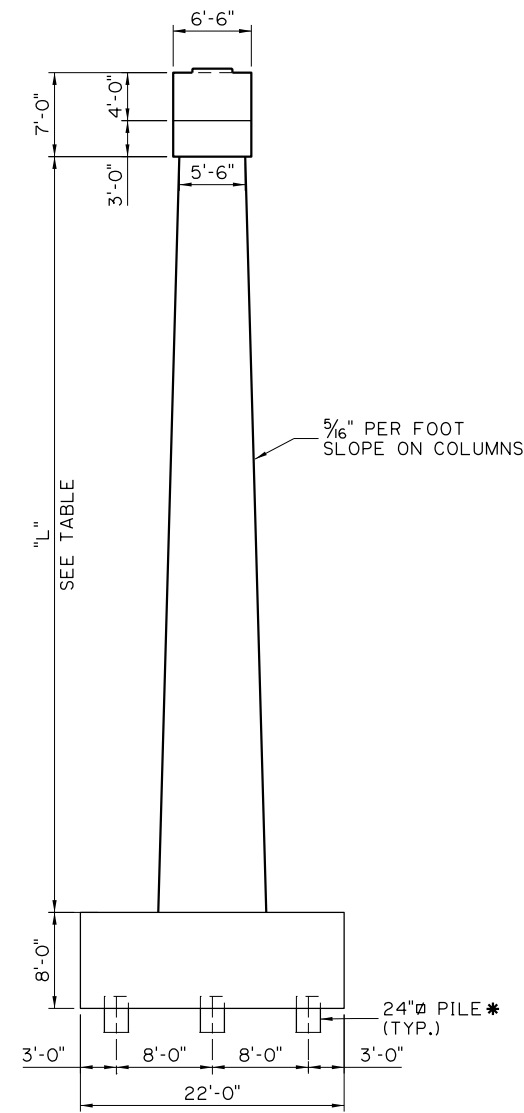
SHEET NUMBER		122	
PARISH	PLAQUEMINES	CONTROL SECTION	H-004791
DESIGNED	MLH	DRAWN	KAC
CHECKED		CHECKED	
REVIEWED		REVIEWED	
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY
BELLE CHASSE		MAIN SPAN - PIER DETAILS	
BELLE CHASSE BR. & TUNNEL REPLACEMENT		HUVAL	

TECHNICAL PROPOSAL

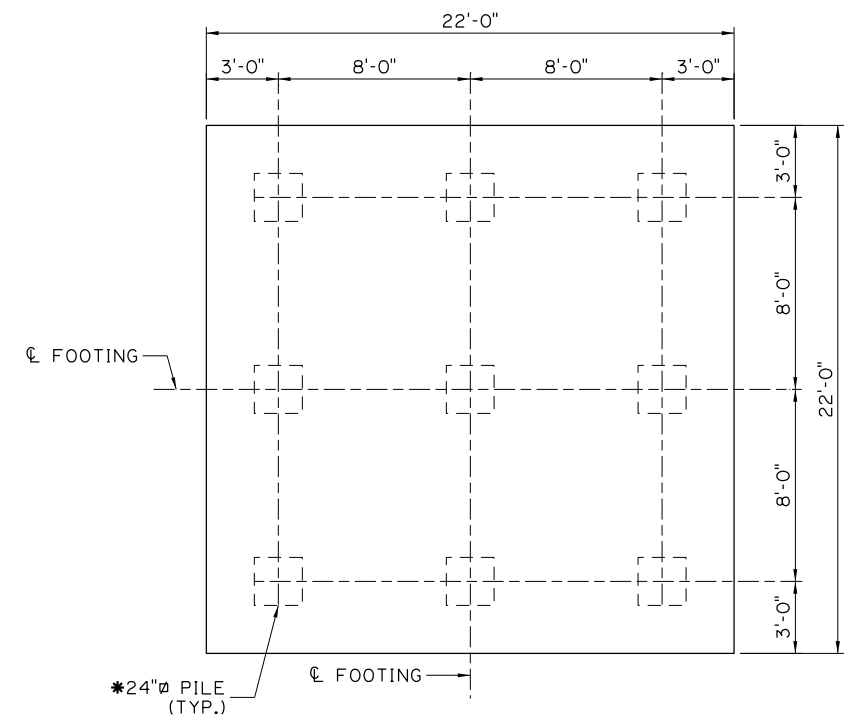
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ELEVATION



SIDE



FOOTING PLAN
SCALE: 1/4" = 1'-0"

ESTIMATED COLUMN LENGTHS		
BENT NO.	NO. OF COLUMNS	"L"
9	2	45'-0"
10	2	50'-0"
11	2	55'-0"
16	2	56'-0"
17	2	50'-0"
18	2	43'-0"

FULL BUILD COLUMN BENT DETAILS
SCALE: 1/8" = 1'-0"

* 24" PILES
230 TONS
NORTHSIDE - 110'-0" LONG
SOUTHSIDE - 100'-0" LONG

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

SHEET NUMBER	123
PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	1 OF 2
NO.	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
BY	

BELLE CHASSE

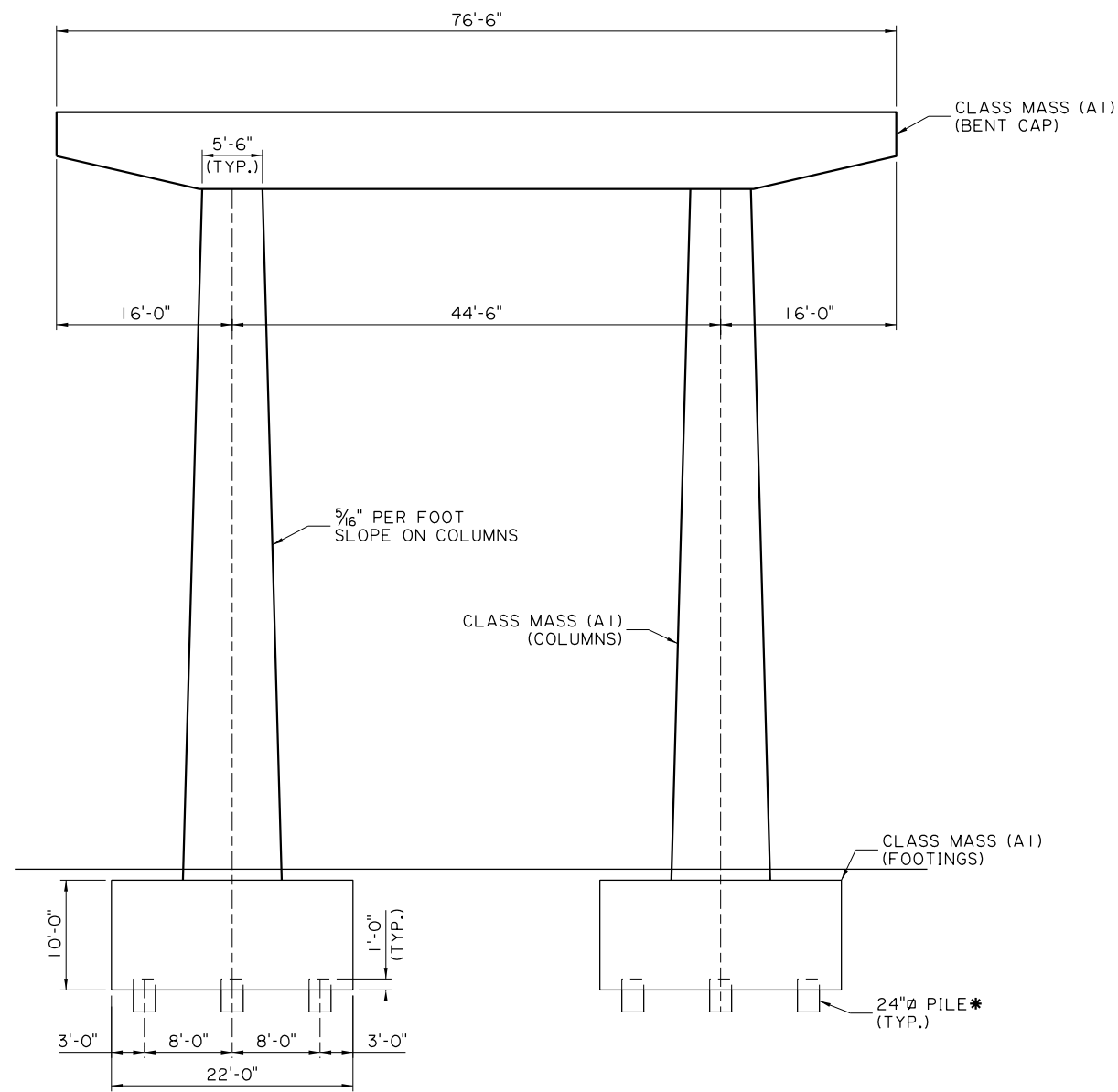
FULL BUILD COLUMN BENT DETAILS

BELLE CHASSE BR. & TUNNEL REPLACEMENT

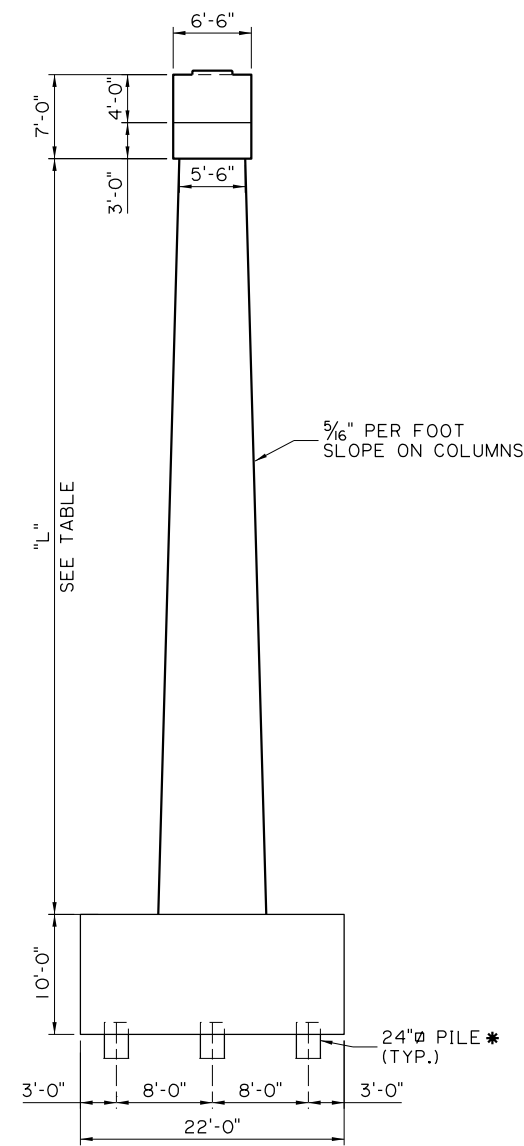
HUVAL

TECHNICAL PROPOSAL

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\25/2019\PR_124790.dwg

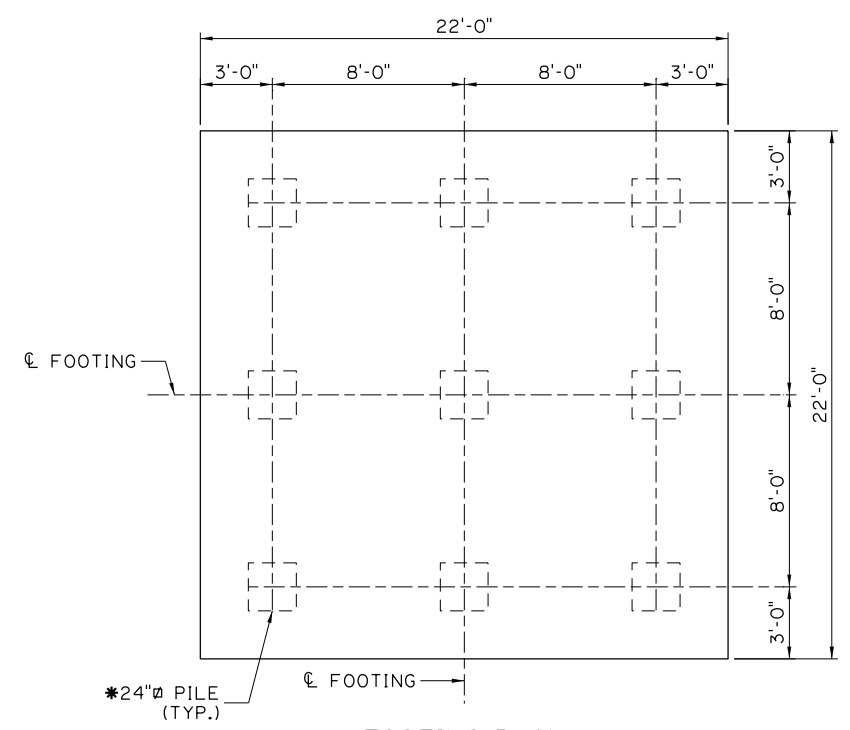


ELEVATION



SIDE

ESTIMATED COLUMN LENGTHS		
BENT NO.	NO. OF COLUMNS	"L"
12	2	58'-0"
13	2	63'-0"
14	2	65'-0"
15	2	58'-0"



FOOTING PLAN
SCALE: 1/4" = 1'-0"

SKEWED COLUMN BENT DETAILS
SCALE: 1/8" = 1'-0"

* 24"Ø PILES
285 TONS
NORTHSIDE - 125'-0" LONG
SOUTHSIDE - 115'-0" LONG



TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

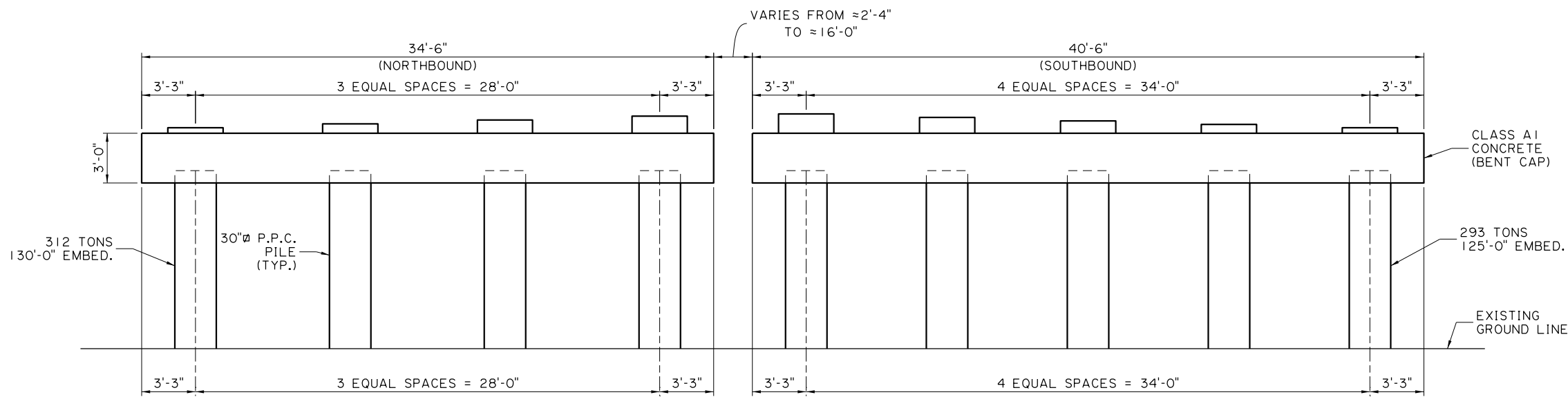
HUVAL & ASSOCIATES, INC.
Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

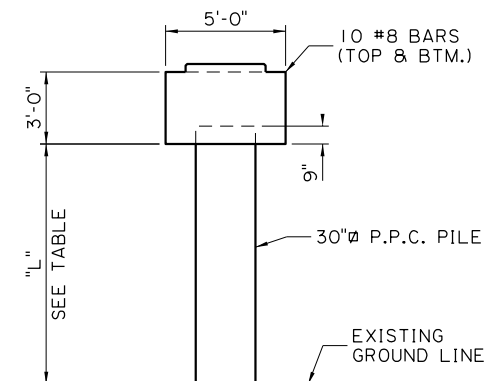
SHEET NUMBER	124
PLAQUEMINES	
PARISH	
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	2 OF 2
BY	
REVISION OR CHANGE ORDER DESCRIPTION	
NO.	
DATE	
	
BELLE CHASSE SKEWED COLUMN BENT DETAILS	
BELLE CHASSE BR. & TUNNEL REPLACEMENT	
	

ESTIMATED PILE LENGTHS		
BENT NO.	NO. OF PILES	"L"
2 NB	4	6'-0"
2 SB	5	6'-0"

SHEET NUMBER	125
PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	1 OF 3
BY	
NO.	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	



SPLIT PILE BENT - ELEVATION
(BENT 2)
SCALE: 1/4" = 1'-0"



SPLIT PILE BENT - SIDE
(1 12'-6" SPANS)
SCALE: 1/4" = 1'-0"

TECHNICAL PROPOSAL

PRELIMINARY

HUVAL & ASSOCIATES, INC.
Consulting Engineers

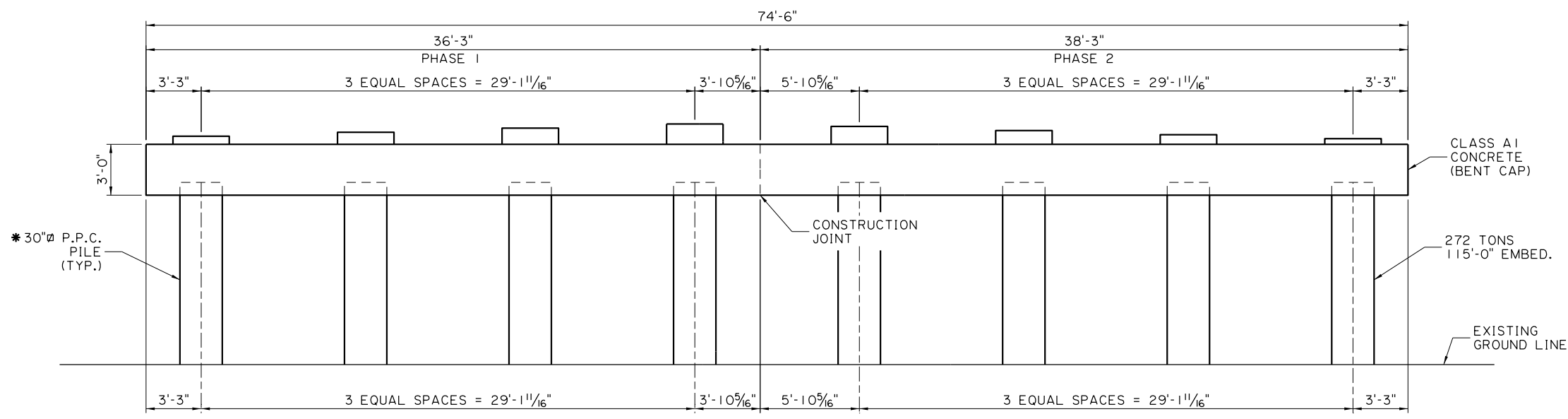
ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

FOR REVIEW ONLY

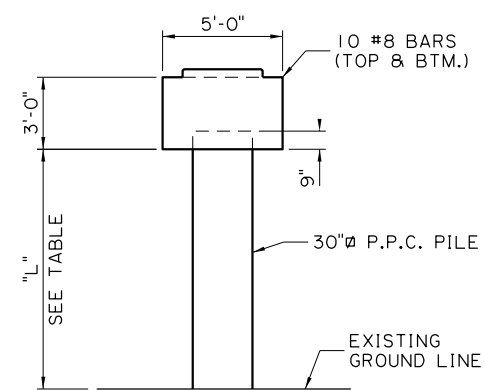


BELLE CHASSE
PILE BENT DETAILS
BELLE CHASSE BR. & TUNNEL REPLACEMENT





PHASED PILE BENT - ELEVATION
(118'-0" SPANS)
SCALE: 1/4" = 1'-0"



PHASED PILE BENT - SIDE
(118'-0" SPANS)
SCALE: 1/4" = 1'-0"

ESTIMATED PILE LENGTHS		
BENT NO.	NO. OF PILES	"L"
3	8	12'-0"
4	8	17'-0"
* 5	8	25'-0"
* 6	8	31'-0"
22	8	22'-0"
23	8	16'-0"
24	8	10'-0"
25	8	4'-0"

* EXTERIOR PILES ON BENTS 5 AND 6 ARE BATTERED 1.5 ON 12.

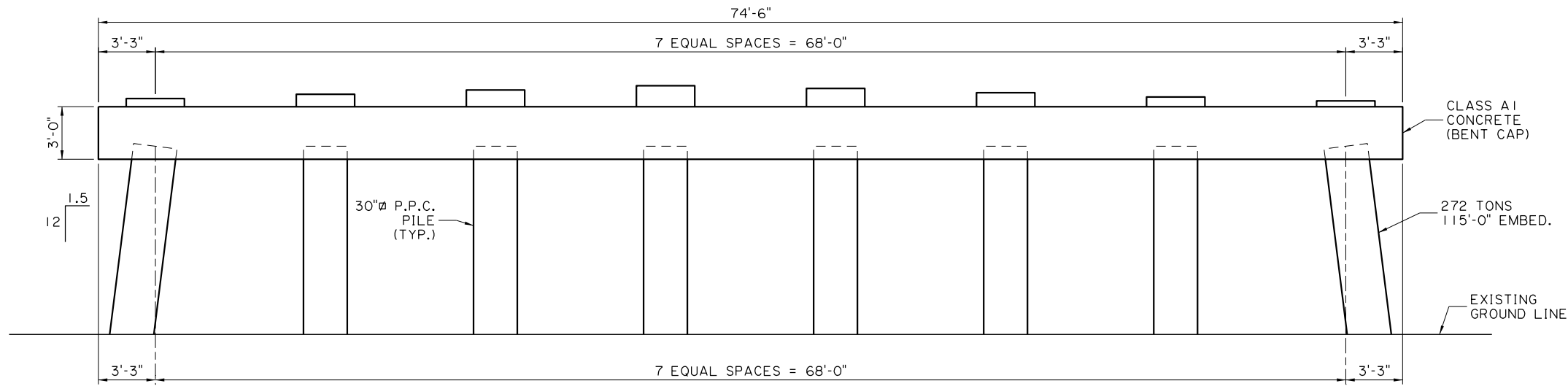
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
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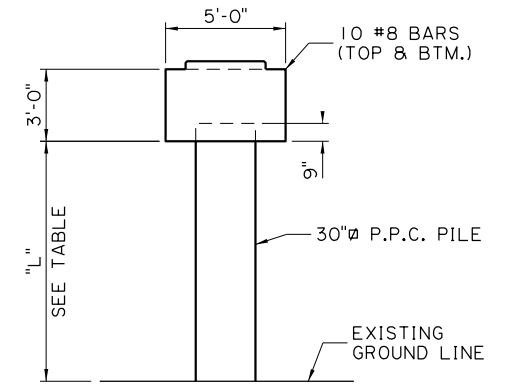
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DESIGNED	MLH	CONTROL SECTION	KAC	REVISION OR CHANGE ORDER DESCRIPTION	BY
CHECKED		CHECKED		NO.	DATE
REVIEWED		REVIEWED		SERIES #	2 OF 3
<p>BELLE CHASSE</p> <p>PHASED PILE BENT DETAILS</p> <p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					

TECHNICAL PROPOSAL

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FULL BUILD PILE BENT - ELEVATION
 (112'-6" & 118'-0" SPANS)
 SCALE: 1/4" = 1'-0"



FULL BUILD PILE BENT - SIDE
 (112'-6" & 118'-0" SPANS)
 SCALE: 1/4" = 1'-0"

ESTIMATED PILE LENGTHS		
BENT NO.	NO. OF PILES	"L"
7	8	37'-0"
8	8	43'-0"
19	8	41'-0"
20	8	36'-0"
21	8	31'-0"

TECHNICAL PROPOSAL

PRELIMINARY

FOR REVIEW ONLY

HUVAL & ASSOCIATES, INC.
 Consulting Engineers

ENGINEER: MATTHEW L. HEBERT
 LICENSE #: 37713
 DATE: 1/25/2019

SHEET NUMBER	127
PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H-004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	3 OF 3
NO.	
DATE	
REVISION OR CHANGE ORDER DESCRIPTION	
BY	

BELLE CHASSE

FULL BUILD PILE BENT DETAILS

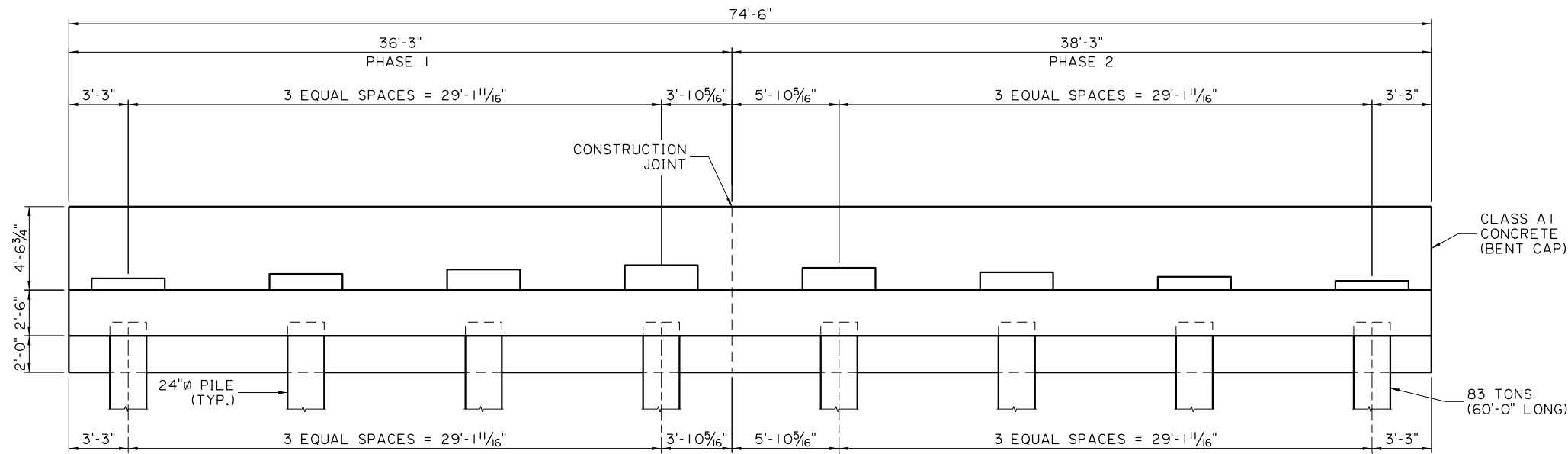
BELLE CHASSE BR. & TUNNEL REPLACEMENT

DOTD

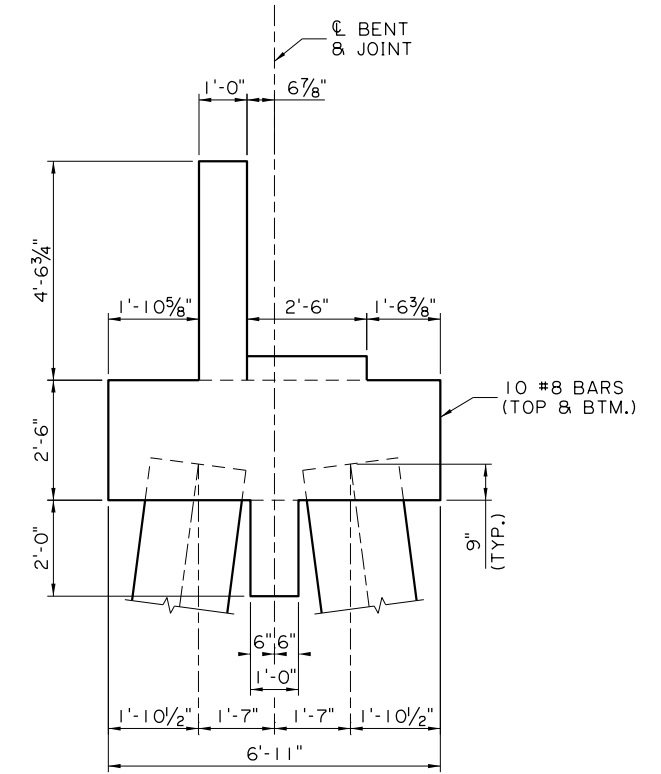
HUVAL

TECHNICAL PROPOSAL

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SOUTH END BENT - ELEVATION
SCALE: 1/4" = 1'-0"



SOUTH END BENT - SIDE
SCALE: 1/2" = 1'-0"

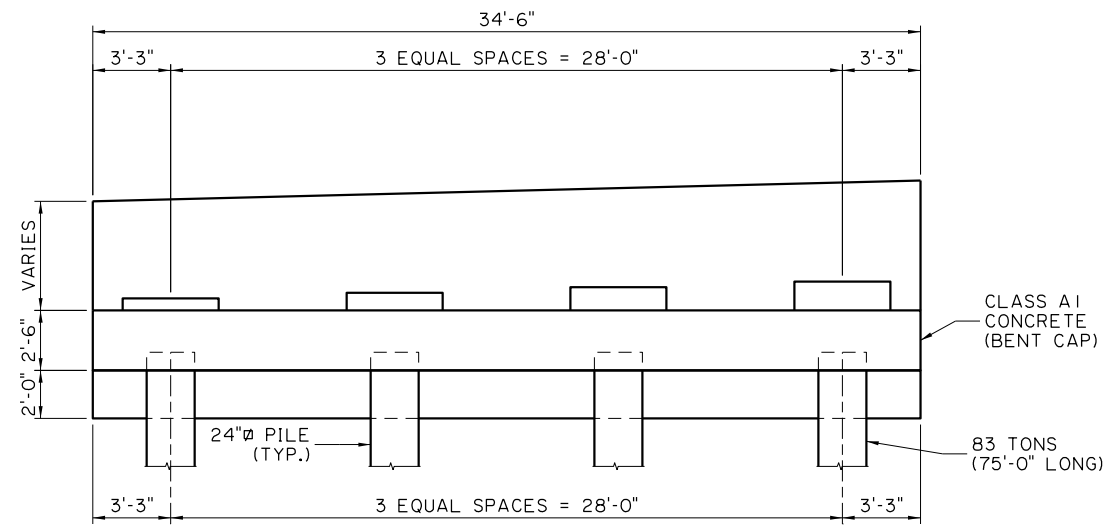
TECHNICAL PROPOSAL

<p>PRELIMINARY</p> <p>FOR REVIEW ONLY</p>	<p>HUVAL & ASSOCIATES, INC. Consulting Engineers</p> <p>ENGINEER: MATTHEW L. HEBERT LICENSE #: 37713 DATE: 1/25/2019</p>
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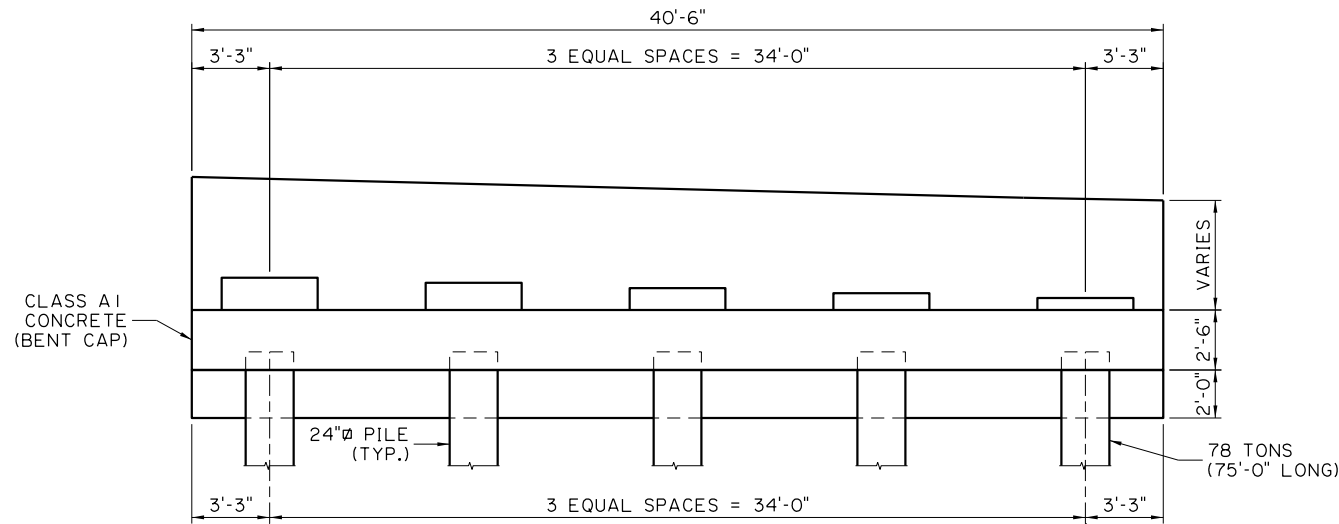
SHEET NUMBER	128	PARISH	PLAQUEMINES	STATE PROJECT	H-004791
DESIGNED	MLH	CONTROL SECTION	KAC	REVIEWED	SERIES # 1 OF 2
CHECKED		CHECKED		DATE	NO.
REVISION OR CHANGE ORDER DESCRIPTION					
BY					
DATE					
NO.					
<p>BELLE CHASSE END BENT DETAILS</p>					
<p>BELLE CHASSE BR. & TUNNEL REPLACEMENT</p>					

TECHNICAL PROPOSAL

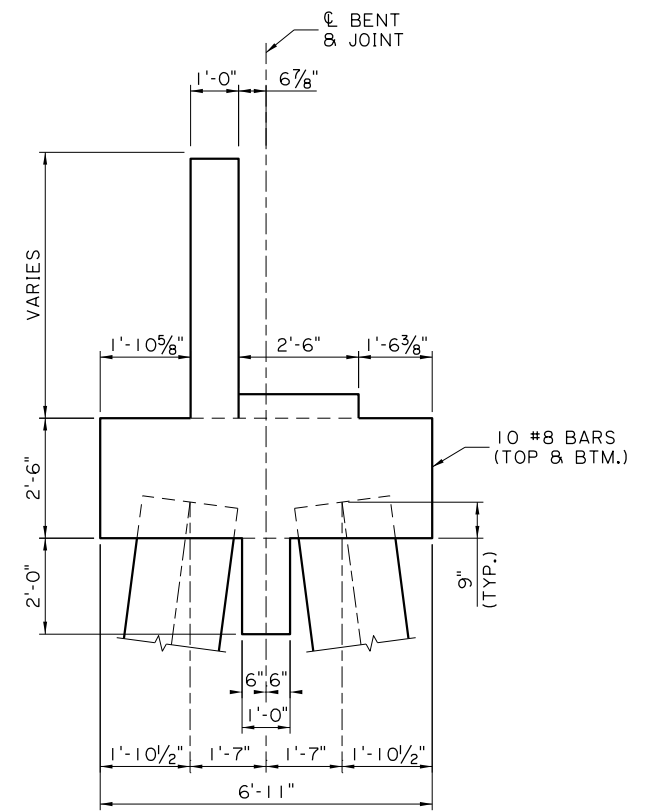
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NORTH END BENT - ELEVATION
(NORTHBOUND)
SCALE: 1/4" = 1'-0"



NORTH END BENT - ELEVATION
(SOUTHBOUND)
SCALE: 1/4" = 1'-0"



END BENT - SIDE
SCALE: 1/2" = 1'-0"

TECHNICAL PROPOSAL

PRELIMINARY

HUVAL & ASSOCIATES, INC.
Consulting Engineers

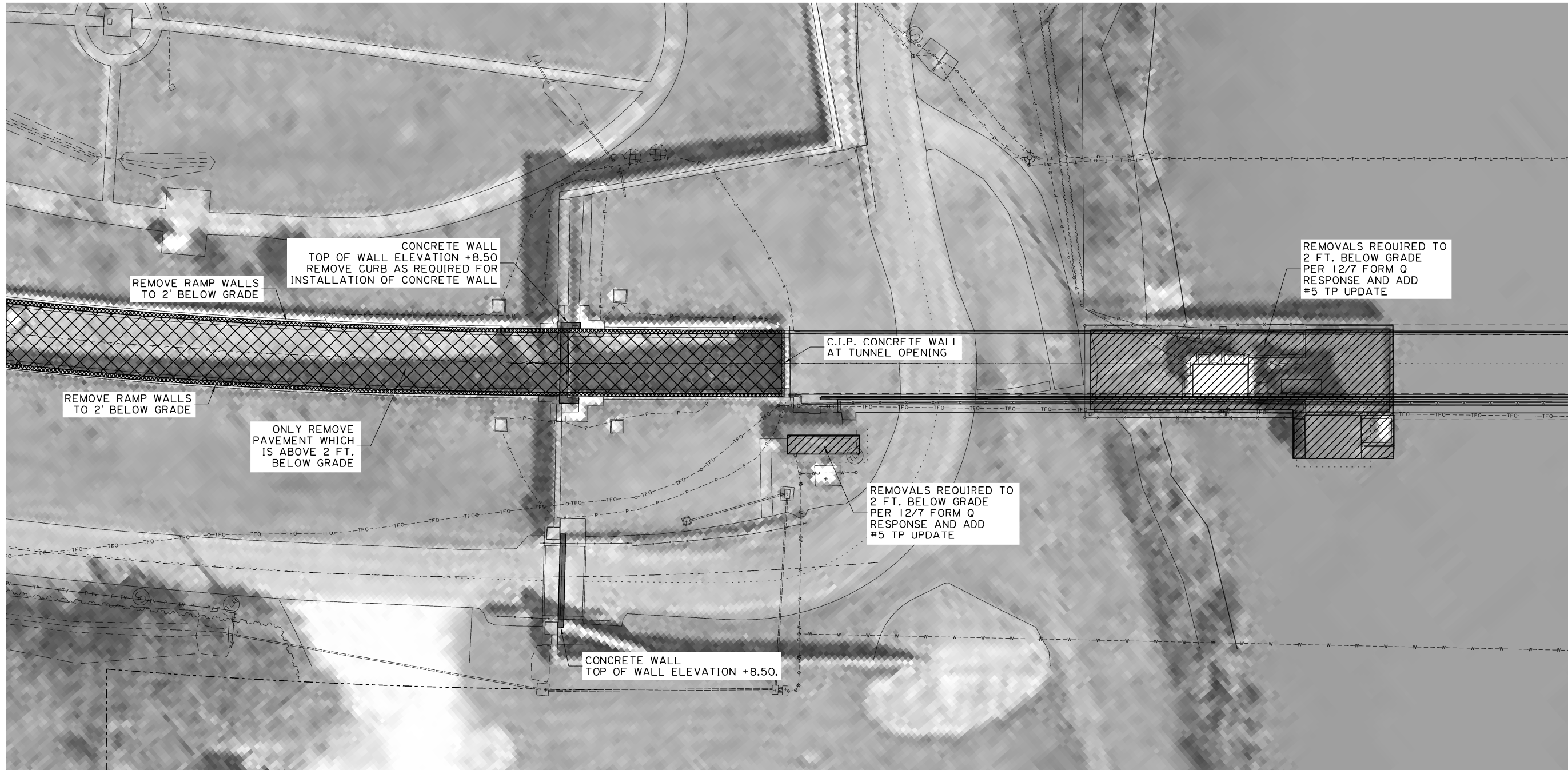
FOR REVIEW ONLY

ENGINEER: MATTHEW L. HEBERT
LICENSE #: 37713
DATE: 1/25/2019

SHEET NUMBER		129	
DESIGNED	MLH	PARISH	PLAQUEMINES
CHECKED	KAC	CONTROL SECTION	
REVIEWED		STATE PROJECT	H-004791
REVISION OR CHANGE ORDER DESCRIPTION		BY	
NO.		DATE	
		BELLE CHASSE BR. & TUNNEL REPLACEMENT END BENT DETAILS	
		HUVAL	

PRELIMINARY PLANS

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Border\16\F01191\PR1030515B.FAM



TUNNEL DECOMMISSIONING PLAN
(ATC 24)

PRELIMINARY PLANS

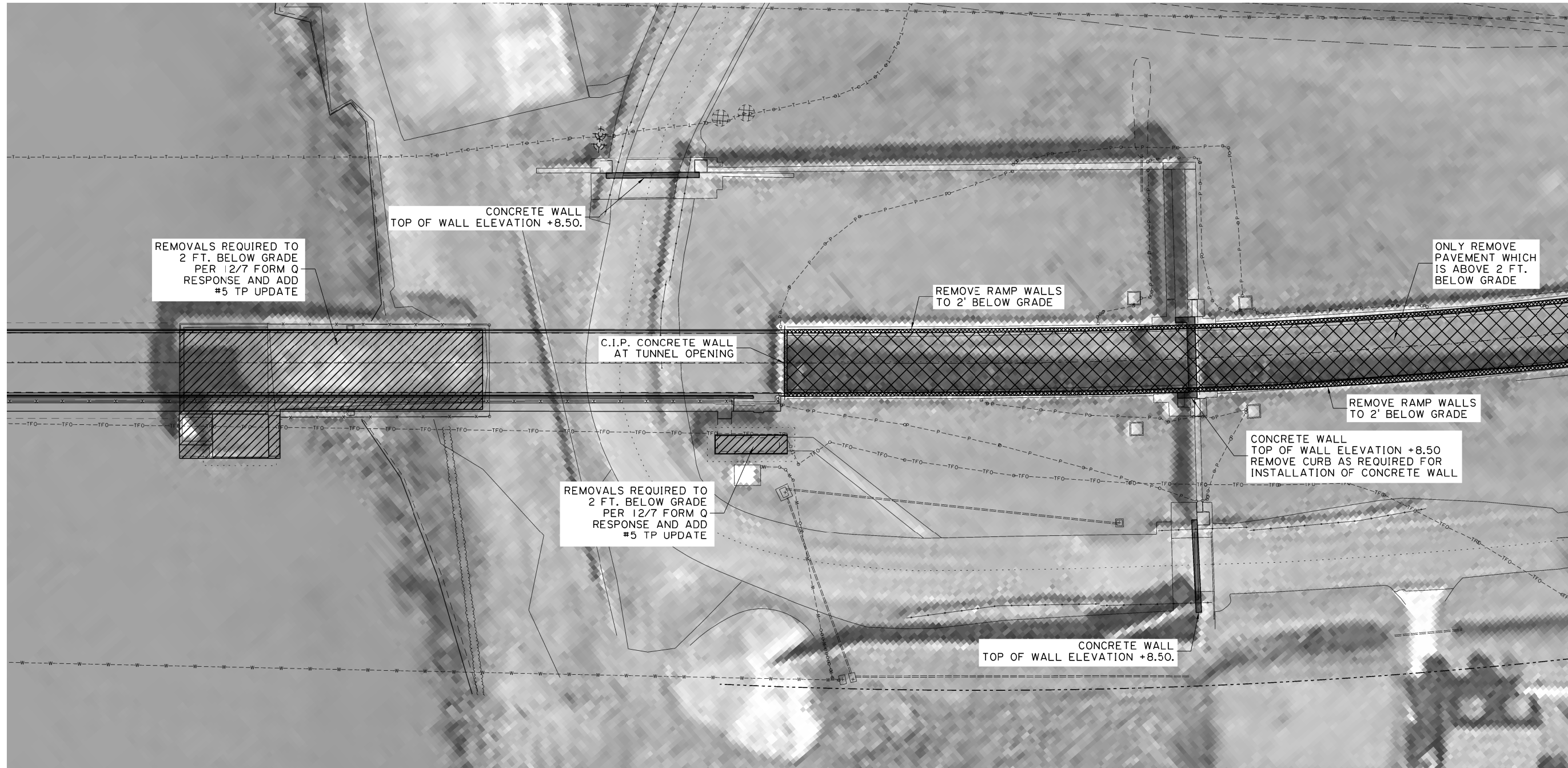
PRELIMINARY	HUVAL & ASSOCIATES, INC. <i>Consulting Engineers</i>
FOR REVIEW ONLY	
	ENGINEER: MATTHEW L. HERBERT LICENSE #: 37713 DATE: 2/18/2019

SHEET NUMBER	130	PARISH	PLAQUEMINES	DESIGNED	MLH
		CONTROL SECTION		CHECKED	KAC
		STATE PROJECT	H.004791	REVIEWED	SERIES # 1 OF 2
		REVISION OR CHANGE ORDER DESCRIPTION			
		NO.	DATE	BY	

BELLE CHASSE
 TUNNEL DECOMMISSIONING PLAN
 BELLE CHASSE BR. & TUNNEL REPLACEMENT

PRELIMINARY PLANS

S:\xdrive\HUVAL Bid Projects\8994 (Belle Chasse P3)\4 - RFP Phase\3 - Engineering\3 - Working Drawings\02 - Bridge Design\02 - Bordet\16/2019\PR10307137.dwg





TUNNEL DECOMMISSIONING PLAN
(ATC 24)

PRELIMINARY PLANS

PRELIMINARY	HUVAL & ASSOCIATES, INC. Consulting Engineers
FOR REVIEW ONLY	ENGINEER: MATTHEW L. HERBERT LICENSE #: 37713 DATE: 2/18/2019

SHEET NUMBER 131	
PARISH	PLAQUEMINES
CONTROL SECTION	
STATE PROJECT	H.004791
DESIGNED	MLH
CHECKED	
DETAILED	KAC
CHECKED	
REVIEWED	
SERIES #	2 OF 2
NO.	DATE
BY	REVISION OR CHANGE ORDER DESCRIPTION

BELLE CHASSE
TUNNEL DECOMMISSIONING PLAN
BELLE CHASSE BR. & TUNNEL REPLACEMENT

HUVAL

ROADWAY DESIGN REPORTS



Design Report
for
2017 Minimum Design Guidelines

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	062-02
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	LA 23
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	062-02		
Current ADT (2012)	39,480		
Design ADT (2044)	48,200		
D	49% NB	51% SB	
K	8%		
T	10%		
TDDHV	2%		

Design Waivers

--

Design Exceptions

--

Route and Design Classification

Urban Rural

 Freeway Arterial Collector Local Ramp

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: 2-4-19	
Signature:		Date:	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		45	45			
Lane Width (ft)	12	11	12			
Shoulder Width (ft)						
Inside	1	1	1			
Outside	4	1	4			
Shoulder Type						
Inside	PAVED	PAVED	PAVED			
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	8	1.5	8			
Clear Zone (ft)		N/A				Road is classified as an Urban Arterial
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	50	6	XX	✓		Proposed raised paved median to match existing roadway median.

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) e _{max}	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4%	45	1080	772	711	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:

<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	74.5	68.5	74.5	<input type="checkbox"/>	<input type="checkbox"/>	Bridge section from left to right: 1-1.25' exterior bridge barrier, 2-12' lanes with 4' inside & outside shoulders, 2' median barrier, 2-12' lanes with 4' inside & outside shoulders, 1-1.417' bridge barrier, 5' sidewalk, 10" pedestrian railing
Shoulder				<input type="checkbox"/>	<input type="checkbox"/>	

Structural Capacity:

Do all structures meet requirements for Structural Capacity?			<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="checkbox"/>	

Vertical Clearance:

Are minimum required roadway clearances met for all structure types?			<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="checkbox"/>	

Additional Comments:

--



Design Report
for
2017 Minimum Design Guidelines

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	838-01
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	LA 3017
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	838-01		
Current ADT (2012)	10,740		
Design ADT (2044)	14,700		
D	49% NB	51% SB	
K	9%		
T	6%		
TDDHV	7%		

Design Waivers

--

Design Exceptions

--

Route and Design Classification

Urban Rural

 Freeway Arterial Collector Local Ramp

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

Recommended By:

Engineer of Record: Michelle C. Helminger	Title: Engineer	
Signature:	Date: 2-4-19	
DOTD Technical Task Manager (Road):	Title:	
Signature:	Date:	
DOTD Technical Task Manager (Bridge):	Title:	
Signature:	Date:	
DOTD Project Manager:	Title:	
Signature:	Date:	

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		40	40			
Lane Width (ft)	12	11	12			
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			Undivided Highway
Outside	8 (4)	2 (1)	8 (4)			First value is for the right outside shoulder which is un-curbed, second value (in parenthesis) is for the left outside shoulder which is curbed
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided Highway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	12 (8)	4 (1.5)	12 (8)			First value is for the right side of the roadway which is un-curbed, second value (in parenthesis) is for the left side of the roadway which is curbed
Clear Zone (ft)		N/A				Road is classified as an Urban Arterial
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided Highway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) <i>e_{max}</i>	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	40	791	577	533	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:						
<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Additional Comments:						



*Design Report
for
2017 Minimum Design Guidelines*

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	N/A
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	Railroad Street
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	N/A		
Current ADT (2012)	N/A		
Design ADT (2044)	N/A		
D	N/A		
K	N/A		
T	N/A		
TDDHV	N/A		

Design Waivers

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Design Exceptions

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Route and Design Classification

Urban Rural

Freeway Arterial Collector Local Ramp

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: Engineer	
Signature:		Date: 2-4-19	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		20	20			Posted speed of existing roadway is 15mph. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Lane Width (ft)	11	9	11			
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			
Outside	4	1	1			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided roadway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	6	1.5	2			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Clear Zone (ft)		N/A	N/A			Road is classified as Urban Local.
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided roadway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/>	Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) <i>e_{max}</i>	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	20	109	91	86	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:						
<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Additional Comments:						



*Design Report
for
2017 Minimum Design Guidelines*

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	N/A
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	X Street
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	N/A		
Current ADT (2012)	N/A		
Design ADT (2044)	N/A		
D	N/A		
K	N/A		
T	N/A		
TDDHV	N/A		

Design Waivers

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Design Exceptions

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Route and Design Classification

Urban Rural

Freeway Arterial Collector Local Ramp

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: Engineer	
Signature:		Date: 2-4-19	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		20	20			Posted speed of existing roadway is 15mph. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Lane Width (ft)	11	9	10			Existing roadway lane widths are 10'. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			
Outside	4	1	1			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided roadway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	6	1.5	2			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Clear Zone (ft)		N/A	N/A			Road is classified as Urban Local.
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided roadway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/>	Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) <i>e_{max}</i>	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	20	109	91	86	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:

<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	

Structural Capacity:

Do all structures meet requirements for Structural Capacity?			<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="checkbox"/>	

Vertical Clearance:

Are minimum required roadway clearances met for all structure types?			<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="checkbox"/>	

Additional Comments:

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*Design Report
for
2017 Minimum Design Guidelines*

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	N/A
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	North Tunnel Road
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	N/A		
Current ADT (2012)	N/A		
Design ADT (2044)	N/A		
D	N/A		
K	N/A		
T	N/A		
TDDHV	N/A		

Design Waivers

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Design Exceptions

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Route and Design Classification

Urban Rural

Freeway Arterial Collector Local Ramp

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: Engineer	
Signature:		Date: 2-4-19	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		25	25			Posted speed of existing roadway is 25mph. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Lane Width (ft)	11	9	11			
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			
Outside	4	1	1			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided roadway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	6	1.5	2			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Clear Zone (ft)		N/A	N/A			Road is classified as Urban Local.
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided roadway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/>	Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) e _{max}	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	20	109	91	86	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:						
<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Additional Comments:						



Design Report
for
2017 Minimum Design Guidelines

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	N/A
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	Q Street
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	N/A		
Current ADT (2012)	N/A		
Design ADT (2044)	N/A		
D	N/A		
K	N/A		
T	N/A		
TDDHV	N/A		

Design Waivers

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Design Exceptions

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Route and Design Classification

Urban Rural

 Freeway Arterial Collector Local Ramp

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: Engineer	
Signature:		Date: 2-4-19	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		20	20			Posted speed of existing roadway is 15mph. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Lane Width (ft)	11	9	11			
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			
Outside	4	1	1			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided roadway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	6	1.5	2			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Clear Zone (ft)		N/A	N/A			Road is classified as Urban Local.
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided roadway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/>	Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) <i>e_{max}</i>	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	20	109	91	86	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:						
<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Additional Comments:						



Design Report
for
2017 Minimum Design Guidelines

Status:
 Preliminary
 Final
 Revised

Project Information:

State Project No.	H.004791
Federal Aid Project No.	
Control Section(s)	N/A
Project Name	Belle Chasse Bridge & Tunnel Replacement
Route(s)	South Tunnel Road (North & South)
Parish	PLAQUEMINES

Description of Work (or Revision Description)

Replacement of LA 23 Bridge & Tunnel with one new 4-lane fixed bridge at 73' above the high water of the Gulf Intracoastal Waterway. This project also includes realignment of Engineers Road as well as modifications to several local roadways.

Traffic

Control Section	N/A		
Current ADT (2012)	N/A		
Design ADT (2044)	N/A		
D	N/A		
K	N/A		
T	N/A		
TDDHV	N/A		

Design Waivers

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Design Exceptions

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Route and Design Classification

Urban Rural

 Freeway Arterial Collector Local Ramp

Work Classification

Work Type	System	Oversight
<input checked="" type="checkbox"/> New/Reconstruction	<input type="checkbox"/> NHS	<input checked="" type="checkbox"/> PoDI
<input type="checkbox"/> Major Rehabilitation	<input checked="" type="checkbox"/> Non NHS	<input type="checkbox"/> Assumed
<input type="checkbox"/> Structural Improvement		<input type="checkbox"/> None
<input type="checkbox"/> Spot Replacement		
<input type="checkbox"/> Minor Rehabilitation		
<input type="checkbox"/> Preventive Maintenance		

Recommended By:

Engineer of Record: Michelle C. Helminger		Title: Engineer	
Signature:		Date: 2-4-19	
DOTD Technical Task Manager (Road):		Title:	
Signature:		Date:	
DOTD Technical Task Manager (Bridge):		Title:	
Signature:		Date:	
DOTD Project Manager:		Title:	
Signature:		Date:	

PRELIMINARY

Roadway Features:

Design Feature	Preferred	Acceptable	Proposed Value	Design Waiver Required	Design Exception Required	Remarks or Explanation for Proposed Value
Design Speed (mph)		25	25			Posted speed of existing roadway is 15mph. Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Lane Width (ft)	11	9	11			
Shoulder Width (ft)						
Inside	N/A	N/A	N/A			
Outside	4	1	1			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Shoulder Type						
Inside	N/A	N/A	N/A			Undivided roadway
Outside	PAVED	PAVED	PAVED			
Lateral Offset (ft)	6	1.5	2			Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.
Clear Zone (ft)		N/A	N/A			Road is classified as Urban Local.
Cross Slope (%)		2.5%	2.5%			
Longitudinal Grade		5.0%	5.0%			
Slopes (ft/ft)						
Fore Slope		4:1	4:1			
Back Slope		3:1	3:1			
Median Width (ft)	N/A	N/A	N/A			Undivided roadway

Stopping Sight Distance: Vertical and horizontal distances must be met.

Do plans meet Stopping Sight Distance requirements?	Design Exception Required	Remarks or Explanation for Proposed Value
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Complete Streets: Accommodations for bikes and pedestrians must be considered. See Design Guidelines for accommodation requirements.

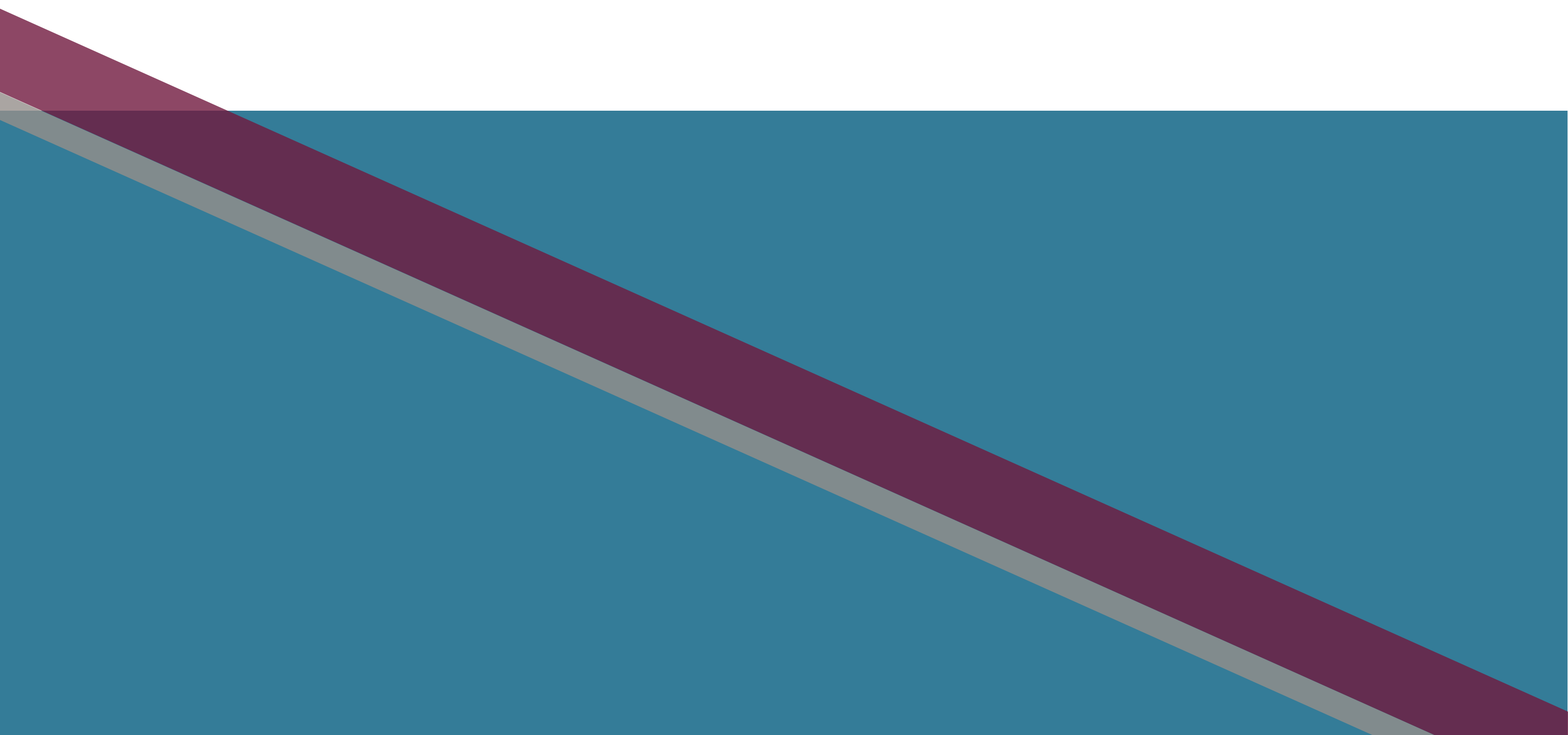
Do plans meet Complete Streets accommodations?	Design Exception Required	Remarks or Explanation for Proposed Value
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/>	Road not governed by LADOTD Standards. Will consult with local government to confirm value is acceptable.

Horizontal Curves Radius/Superelevation:

Max Super-elevation rate (%) <i>e_{max}</i>	Design Speed (mph)	Required Minimum Radius (ft)			Minimum radius and appropriate superelevation are being used for all curves?	Design Exception Required	Remarks or Explanation for Proposed Value
		Normal Crown	Reverse Crown	Full Super			
4	20	109	91	86	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	
					<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	

Bridge Features:						
<i>Design Feature</i>	<i>Preferred</i>	<i>Acceptable</i>	<i>Proposed Value</i>	<i>Design Waiver Required</i>	<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
Bridge Width (ft)						
Curb	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Shoulder	N/A	N/A	N/A	<input type="checkbox"/>	<input type="checkbox"/>	
Structural Capacity:						
Do all structures meet requirements for Structural Capacity?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Vertical Clearance:						
Are minimum required roadway clearances met for all structure types?					<i>Design Exception Required</i>	<i>Remarks or Explanation for Proposed Value</i>
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/>		
Additional Comments:						

UTILITY CONFLICT MATRIX & UTILITY CONFLICT PLANS



PRELIMINARY UTILITY CONFLICT MATRIX

PROJECT NAME:

Belle Chasse Bridge and Tunnel

CLIENT: PIBC

PROJECT NUMBER:

H.004791

OWNER: DOTD

* Indicates street lighting to be replaced as part of this project.

** Indicates traffic control TFO fiber lines which will be replace by the new traffic control for this project.

Conflict No.	UTILITY	ROAD	PLAN SHEET	APPROXIMATE STATION and OFFSET	FACILITY DESCRIPTION	RELOCATION REQUIRED	CAN RELOCATION BE AVOIDED	EXISTING TEST HOLE - NUMBER	UTILITY SIZE & MATERIAL	CONFLICT RESOLUTION - (RELOCATION, REDESIGN, ETC.)	DEPENDENT ON ANOTHER UTILITY	ADDITIONAL UTILITY LOCATING REQUIRED	CONFLICTS WITH PILE OR PILE CAP
1	TELEPHONE	LA 23	3	69+90 LT 16' TO 74+95 LT 1'	TELEPHONE LINE				4" CONDUIT/ 12 LINES	RELOCATE	NO	Y	
2	GAS PIPELINE	LA 23	3	69+66	PIPELINE CROSSING			3 & 4	22" STEEL	NOT IN CONFLICT	NO		
3	LADOTD	LA 23	3	71+25 RT 65' TO 74+95 RT 78'	TRFO	**				RELOCATE	NO		
4	UG ELECTRIC	LA 23	3	71+41 RT 68' TO 72+89 RT 40'	STREET LIGHTS	*				RELOCATE	NO		
5	UNKNOWN	LA 23	3	72+58 RT 35' TO 72+57' RT 72'					UNKNOWN		NO	Y	
6	WATER	LA 23	3	70+88 RT 78' TO 74+95 RT 77'	WATER MAIN				8" AC	RELOCATE	NO		
7	RAILROAD UG ELECTRIC	LA 23	3	71+74 LT 15' TO 72+53 RT 75'	UG ELECTRIC						NO	Y	
8	WATER	LA 23	3	73+32 LT 17' TO 74+95 RT 27'	WATER MAIN				12" AC	RELOCATE	NO	Y	
9	UNK	LA 23	3	73+63								Y	
10	GAS	LA 23	3	70+90 RT 80' TO 74+95 RT 70'	GAS MAIN				4" STEEL	RELOCATE	NO		
11	SFM	LA 23	3	71+20 87' RT 46' TO 73+40 LT 23'	SFM					RELOCATE	NO	Y	
12	POWER	LA 23	3	73+62 LT 47'	GUY POLE					RELOCATE	NO		
13	POWER	LA 23	3	73+64 RT 46'	POWER POLE					RELOCATE	NO		
14	POWER	LA 23	3	73+64 RT 48'	TV ON POWER POLE					RELOCATE	YES		
15	UNK	LA 23	3	73+16 20' LT TO 73+17 19'	UNKNOWN							Y	
16	TELEPHONE	LA 23	3	73+90 RT 78' TO 75+00 RT 46'	UG TELEPHONE				200 PR. - 2 LINES	RELOCATE	NO	Y	

Conflict No.	UTILITY	ROAD	PLAN SHEET	APPROXIMATE STATION and OFFSET	FACILITY DESCRIPTION	RELOCATION REQUIRED	CAN RELOCATION BE AVOIDED	EXISTING TEST HOLE - NUMBER	UTILITY SIZE & MATERIAL	CONFLICT RESOLUTION - (RELOCATION (REDESIGN ETC.))	DEPENDENT ON ANOTHER UTILITY	ADDITIONAL UTILITY LOCATING REQUIRED	CONFLICTS WITH FILE OR PILE CAP
18	LADOTD	LA 23	4	74+95 RT 80' TO 78+15 LT 40'	TRAFFIC SIGNAL	**			FO	RELOCATE	YES		
16A	TELEPHONE	LA 23	3	73+90 RT 77' TO 75+00 RT 45'	UG TELEPHONE				4" CONDUIT WITH 18 FO	RELOCATE	NO	Y	
17, 17A, 17B, 17C	POWER	LA 23	4	75+85 RT TO 80+18 RT	POWER POLE				POWER AND TV	RELOCATE	NO		
1A	TELEPHONE	LA 23	3	72+20 26' LT	TELEPHONE JUNCTION BOX				JUNCTION BOX				
19	TELEPHONE	LA 23	4	74+95 RT 67' TO 80+20 RT 86'	TELEPHONE LINE				4" CONDUIT W/ 18 TO 10 FO	RELOCATE	YES	Y	
20	WATER	LA 23	4	75+90 RT 27' TO 80+80 RT 10'	WATER MAIN				12" AC	RELOCATE	YES	Y	
21	TELEPHONE	LA 23	4	74+95 RT 66' TO 75+87 RT 75'	TELEPHONE				200PR.	RELOCATE	NO		
22	GAS	LA 23	4	74+95 RT 70' TO 80+80 RT 73'	GAS MAIN				4" STEEL GAS MAIN	RELOCATE	NO	Y	
23	WATER	LA 23	4	74+95 RT 78' TO 78+49 RT 83'	WATER MAIN				8" AC	RELOCATE	YES		
24	SEWER	LA 23	4	78+54 RT 20'	MANHOLE							Y	
25	TELEPHONE	LA 23	4	77+50 LT 20' TO 78+50 LT 40'	4" CONDUIT							Y	
26	POWER	LA 23	4	74+59 RT 86' TO 75+82 RT 75'	UG ELECTRIC					RELOCATE	YES	Y	
27	TELEPHONE	LA 23	4	75+85 RT 78+50 RT 82'	FIBER OPTIC & TRAFFIC SIGNAL VAULT					RELOCATE	YES		
28	UNKNOWN	LA 23	4	78+83 RT 85' TO 80+10 RT 44'	UNKNOWN						NO	Y	
29	TELEPHONE	LA 23	4	78+50 RT 70' TO 80+15 RT 60'	CABLE				50 PAIR CABLE				
30	TELEPHONE	LA 23	4	74+95 LT 1' TO 80+80 LT 35'	4 INCH CONDUIT				4 INCH CONDUIT W/ 12 FO			Y	
31	TELEPHONE	LA 23	4	79+40 LT 46'	4 INCH CONDUIT				4 INCH CONDUIT W/ 12 FO			Y	

Conflict No.	UTILITY	ROAD	PLAN SHEET	APPROXIMATE STATION and OFFSET	FACILITY DESCRIPTION	RELOCATION REQUIRED	CAN RELOCATION BE AVOIDED	EXISTING TEST HOLE - NUMBER	UTILITY SIZE & MATERIAL	CONFLICT RESOLUTION - (REDESIGN ETC.)	DEPENDENT ON ANOTHER UTILITY	ADDITIONAL UTILITY LOCATING REQUIRED	CONFLICTS WITH FILE OR PILE CAP
32	ELECTRICAL	LA 23	4	RT	ELECTRIC								
40	UNK	LA 23	4	78+20								Y	
41	POWER	LA 23	4	79+95 LT 35'	POWER POLE					YES			
42	TELEPHONE	LA 23	5	80+80 LT TO 83+00 LT	4" CONDUIT				12 FO			Y	
19A	TELEPHONE	LA 23	4	76+80 LT 20'	TELEPHONE MH				MH	YES			
19B	TELEPHONE	LA 23	4	80+20 RT 86'	TELEPHONE MH				MH	YES			
48	WATER	LA 23	5	81+12 RT 9.7' TO 86+50 RT 48'	WATER MAIN				12" AC	NO			Y
49	GAS	LA 23	5	81+14 RT 40+22 TO 84+56 RT 50.34'	GAS MAIN				4" STEEL	RELOCATE	NO		Y
50	UG ELECTRIC	LA 23	5	80+94RT 49.22' TO 82+67 RT 49'	UNDER ROAD WAY	*				RELOCATE	NO		Y
51	WATER	LA 23	5	82+67RT 48' TO 86+60 48' TO 86+11 RT	WATER MAIN				8 " AC AND CROSSING TO 12"	RELOCATE	NO		Y
52	POWER	LA 23	5	82+70 RT 54'	POWER POLE				POWER POLE	RELOCATE	YES		
53	GAS	LA 23	5	82+83 LT 1.6'	GAS CROSSING				2" STEEL	RELOCATE	YES	Y	
54	UNKNOWN	LA 23	5	84+62 RT 10'	UNKNOWN UG UTILITY				UNKNOWN			Y	
55	TELEPHONE	LA 23	5	80+72 LT TO 83+50 : LT	TELEPHONE				4" CONDUIT WITH 12 FO			Y	
56	LIGHTING	LA 23	5	82+90 TO 85+00 LT	LIGHTS	*							
57	POWER	LA 23	5	84+15 RT 56'	POWER POLE WITH TV					RELOCATE	NO		Y
58	POWER	LA 23	5	83+48 RT 79'	POWER POLE					RELOCATE	NO		Y
59	UG ELECTRIC	LA 23	5	84+84 RT 50' TO 84+70 RT 50'	UG ELECTRIC	*			UG ELECTRIC AND LIGHT POLE	RELOCATE	NO		Y
65	POWER	LA 23	5	86+40 RT IS POLE	OH POWER CROSSING				OH POWER AND TV	RELOCATE	YES		
48 A	WATER	LA 23	5	83+45	WATER MAIN				12" AC				Y
48 B	WATER	LA 23	5	84+50	WATER MAIN				12" AC				Y

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48 C	WATER	LA 23	5	85+70	WATER MAIN				12" AC				Y
49 A	GAS	LA 23	5	83+45 RT									Y
49 B	GAS	LA 23	5	84+50 RT									Y
51A	WATER	LA 23	5	83+45 RT	WATER MAIN								Y
51B	WATER	LA 23	5	84+50 RT	WATER MAIN								Y
51C	WATER	LA 23	5	85+70 RT	WATER MAIN								Y
63	TELEPHONE	LA 23	6	86+56 LT 97'	4" CONDUIT				4 INCH CONDUIT WITH 12 FO			Y	
64	TELEPHONE	LA 23	6	91+00 RT 87'	ATT				50 PAIR				
66	TELEPHONE	LA 23	6	86+55 LT 107'	4" CONDUIT							Y	
67	WATER	LA 23	6	86+55 LT 7' TO 92+43 RT 10'	WATER MAIN				12 AC	RELOCATE	NO		Y
68	WATER	LA 23	6	86+55 RT 48' TO 90+10 RT 145'	WATER MAIN				8" AC	RELOCATE	NO		Y
69	WATER	LA 23	6	86+87 LT 97' RT 46'	WATER MAIN CROSSING				8" AC	RELOCATE	NO		Y
70	POWER	LA 23	6	86+96 RT 74'	POWER POLE				POLE POWER, TV, POWER AND VAULT	RELOCATE	YES		
71	GAS	LA 23	6	86+96 RT 105' TO 90' RT 114'	GAS MAIN				2" GAS MAIN	RELOCATE	NO	Y	
72	SEWER	LA 23	6	86+79 RT 88'	SEWER MANHOLE & MAIN				MH AND GS		NO		
73	UG ELECTRIC	LA 23	6	87+30 LT 12' TO 89+55 LT 17'	UG ELECTRIC				PRIVATE UG ELECTRIC	RELOCATE	NO	Y	
67A	WATER	LA 23	6	86+95	WATER MAIN				12 AC	RELOCATE	NO		Y
67B	WATER	LA 23	6	88+00	WATER MAIN				12 AC	RELOCATE	NO		Y
67C	WATER	LA 23	6	89+20	WATER MAIN				12 AC	RELOCATE	NO		Y
67D	WATER	LA 23	6	90+15	WATER MAIN				12 AC	RELOCATE	NO		Y
67E	WATER	LA 23	6	91+40	WATER MAIN				12 AC	RELOCATE	NO		Y

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69A	WATER	LA 23	6	87+00 LT	WATER MAIN CROSSING				8" AC	RELOCATE	NO		Y
69B	WATER	LA 23	6	87+00 MIDDLE	WATER MAIN CROSSING				8" AC	RELOCATE	NO		Y
69C	WATER	LA 23	6	87+00 RT	WATER MAIN CROSSING				8" AC	RELOCATE	NO		Y
73A	UG ELECTRIC	LA 23	6	86+20									Y
41	TFO	LA 23	7	96+50 RT	144 CT FO SOUTHERN LIGHT								
42	UNKNOWN	LA 23	7	96+50 RT	UNK								
74	WATER	LA 23	7	92+30 LT 10' TO 98+18 RT 20'	WATER MAIN				12" AC	RELOCATE			Y
74A	WATER	LA 23	7	92+50	WATER MAIN				12" AC	RELOCATE			Y
74B	WATER	LA 23	7	93+80	WATER MAIN				12" AC	RELOCATE			Y
74C	WATER	LA 23	7	94+90	WATER MAIN				12" AC	RELOCATE			Y
74D	WATER	LA 23	7	95+95	WATER MAIN				12" AC	RELOCATE			Y
75	UG ELECTRIC	LA 23	7	93+23 RT 19' TO 94+10 30'	UNKNOWN SIZE	*			UG ELECTRIC CROSSING	RELOCATE	NO		Y
76	TELEPHONE	LA 23	7	95+47 LT 34' TO 96+94' RT 50'	4" CONDUIT 18 LINES			6	TELEPHONE DUCT BANK		NO		Y
77	TELEPHONE	LA 23	7	95+30 LT 41' TO 96+94 RT 59'	4" CONDUIT 18 LINES			6	TELEPHONE DUCT BANK		NO		Y
78	POWER	LA 23	7	97+93 LT 34' TO 97+26 RT 40'	UG ELECTRIC					NOT IN CONFLICTS	NO		
79	UNKNOWN	LA 23	7	97+41 LT 12' TO 97+43 RT 15'	UNKNOWN UTILITY CROSSING				UNKNOWN		NO	Y	
43	UNKNOWN	LA 23	8	98+10 RT	UNK								
62	TFO	LA 23	8	98+10 RT	144 CT FO SOUTHERN LIGHT								
80	WATER	LA 23	8	98+10 RT 20' TO 103+97 RT 31'	WATER MAIN ABANDONED				12"AC	REMOVE	NO		Y
44	UNKNOWN	LA 23	9	103+85 RT	UNK IN TUNNEL								
45	TFO	LA 23	9	103+85 RT	TFO IN TUNNEL				144 CT FIBER				
81	Water	LA 23	9	103+96 RT 31'TO 109+73 RT 21'	ABANDONED WATER				12 AC	REMOVE			Y

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82	WATER	LA 23	9	108+01 LT 120' TO 108+05 RT 30'	ABANDONED WATER				SIZE UNKNOWN	REMOVE			Y
83	SEWER	LA 23	9	108+08 LT 112' TO 109+73 RT 108'	SEWER MANHOLE & MAIN				8" CLAY			Y	
84	GAS	LA 23	9	108 +38 LT 106' TO 108+39 LT 139'	GAS MAIN				2" STEEL			Y	
85	TELEPHONE	LA 23	9	107+83 LT 138' TO 108+80 LT 138'	TELEPHONE TFO				4' CONDUIT	RELOCATE			
86	POWER	LA 23	9	109+58 LT 132'	DEADMAN POLE					RELOCATE			
81A	Water	LA 23	9	104+00	ABANDONED WATER				12 AC	REMOVE			Y
81B	Water	LA 23	9	105+20	ABANDONED WATER				12 AC	REMOVE			Y
81C	Water	LA 23	9	106+50	ABANDONED WATER				12 AC	REMOVE			Y
81D	Water	LA 23	9	107+90	ABANDONED WATER				12 AC	REMOVE			Y
81E	Water	LA 23	9	109+10	ABANDONED WATER				12 AC	REMOVE			Y
87	WATER	LA 23	10	109+64 RT 21' TO 114+46 RT 53' TO 114+47 RT 60'	12" WATER MAIN				12" AC	RELOCATE			Y
88	SEWER	LA 23	10	109+80 LT 108' TO 110+98 LT 90'	SEWER MAIN				CLAY 8"			Y	
89	TELEPHONE	LA 23	10	109+51 L 137' TO 110+96 LT 123'	TELEPHONE TFO				4" CONDUIT			Y	
90	GAS	LA 23	10	110+57 LT 93' TO 111+00 LT 90'	GAS MAIN				2" STEEL			Y	
91	UNKNOWN	LA 23	10	110+98 RT 131' TO 111+22 RT 178'	UNKNOWN				UNKNOWN			Y	
92	POWER	LA 23	10	111+23 LT 52'	STREET LIGHT POLE	*							
93	UNKNOWN	LA 23	10	111+34 LT 77' TO 111+08 RT 37' TO 111+68 RT TO 111+42 RT 65'	UNKNOWN							Y	Y
94	POWER	LA 23	10	1114+47 LT 7' TO 114+47 LT 45'	UG POWER VAULT & UG POWER				UG POWER			Y	
95	POWER	LA 23	10	114+12 RT 62' TO 114 +28 RT 61'	2 DEADMAN POLES						NO		
96	POWER	LA 23	10	114++27 RT 64' TO 113+80 RT 83'	POWER POLE & UG VAULT ELECTRIC LINE						NO		
97	POWER	LA 23	10	114+37 RT 60'	POWER POLE, WITH TV OH POWER LINE & TV								
98	GAS	LA 23	10	53' TO 114+75 RT 52' TO 114+80 LT 65'	GAS MAIN				2" STEEL GAS		NO		

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99	WATER	LA 23	10	114+75 RT 51' TO 115+40 RT 48'	WATER MAIN				12" AC				Y
100	POWER	LA 23	10	114+37 RT 160' TO 115+52 RT 62'	OH POWER LINES & TV					YES			Y
101	GAS	LA 23	10	114+73 RT 51' TO 114+80 RT 65'	GAS SERVICE LINE				2" STEEL				Y
102	GAS	LA 23	10	112+87 RT 88' TO 113+32 RT 73'	GAS MAIN				2"STEEL			Y	
103	TELEPHONE	LA 23	10	112+87 RT 91' TO 12 RT 22' TO 113+34 RT 75'	UG TELEPHONE LINE							Y	
104	TFO	LA 23	10	115+50 RT 40' TO 121+30 RT 28'	144 CT FO SOUTHERN LIGHT				144 CT FIBER			Y	
87A	WATER	LA 23	10	111+50	12" WATER MAIN				12" AC				Y
87B	WATER	LA 23	10	112+60	12" WATER MAIN				12" AC				Y
87C	WATER	LA 23	10	113+80	12" WATER MAIN				12" AC				Y
106	WATER	LA 23	11	115+30 RT 40' TO 121+33 RT 68'	WATER MAIN								Y
107	GAS MAIN	LA 23	11	115+30 RT 53' TO 121+33 RT 64'	2 " GAS MAIN								Y
108	POWER	LA 23	11	115+38 RT 59' TO 121+33	OH POWER & TV				OH POWER LINES & TV CROSSING				Y
109	POWER	LA 23	11	116+37 RT 59'	OH POWER POLE				OH POWER POLE				Y
110	POWER	LA 23	11	116+38 RT 55' TO 116+48 RT 66'	OH POWER								Y
111	TELEPHONE	LA 23	11	116+33 RT 53' to 116+38 RT 62'	UG TELEPHONE								
112	POWER	LA 23	11	116+33 RT 62' TO 116+38 RT 62'	POWER POLE								
113	POWER	LA 23	11	117+82 RT 64'	POWER POLE WITH TV								
114	GAS	LA 23	11	117+82 RT 81' TO 117+ 83 RT 61'	GAS SERVICE LINE				2" STEEL				
115	POWER	LA 23	11	118+00 RT 60' TO 117+82 TO 118+04 LT 62'	OH POWER								
116	POWER	LA 23	11	115+00 LT 65' TO 120+98 LT 32'	POWER POLE	*			STREET LIGHTING				
117	POWER	LA 23	11	119+46 RT 66' TO 119+56 RT 66'	POWER POLE & DEADMAN								
118	GAS	LA 23	11	119+71 RT 61'	GAS MAIN				2" STEEL GAS MAIN				

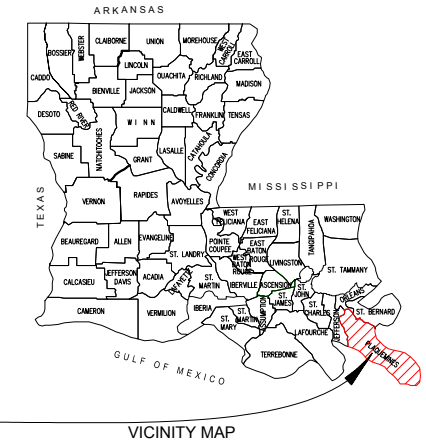
Conflict No.	UTILITY	ROAD	PLAN SHEET	APPROXIMATE STATION and OFFSET	FACILITY DESCRIPTION	RELOCATION REQUIRED	CAN RELOCATION BE AVOIDED	EXISTING TEST HOLE - NUMBER	UTILITY SIZE & MATERIAL	CONFLICT RESOLUTION - (REDESIGN ETC.)	DEPENDENT ON ANOTHER UTILITY	ADDITIONAL UTILITY LOCATING REQUIRED	CONFLICTS WITH FILE OR PILE CAP
119	POWER	LA 23	11	120+46 RT 70'	DEAD MAN POLE								
120	POWER	LA 23	11	120+67 RT 70'	POWER POLE &								
157	TELEPHONE	LA 23	11	116+50	4" CONDUIT							Y	
158	POWER	LA 23	11	121+31 LT	POWER POLE								
159	POWER	LA 23	11	118+05	POWER POLE	*							
160	TELEPHONE	LA 23	11	119+20	4" CONDUIT							Y	
161	POWER	LA 23	11	120+95 LT	POWER POLE								
121	WATER	LA 23	12	121+22 RT 64'	WATER MAIN							Y	
122	POWER	LA 23	12	121+22 RT 72	OH POWER				TV AND POWER				
123	TELEPHONE	LA 23	12	121+25 LT 19'	TELEPHONE				4" CONDUIT W/FO			Y	
123A	TELEPHONE	LA 23	12	121+25 LT	TELEPHONE				4" CONDUIT W/FO			Y	
125	UNKNOWN	LA 23	12	122+05 RT 30'	UNKNOWN UTILITY							Y	
127	UNKNOWN	LA 23	12	121+50 LT	UNKNOWN UTILITY							Y	
126	TELEPHONE	LA 23	12	122+62 LT 46' 25' 122+62 RT	TELEPHONE LINE CROSSING				4 CONDUIT 2 FO LINES			Y	
124	LA DOTD	LA 23	12	122+10 LT 42' 40' 122+10 RT	TRFO	**			FO				
128	GAS	LA 23	12	121+30 RT	GAS				2" STEEL				
128	UG ELECTRIC	ENGINEERS	13	33+22 LT 40' TO 33+00 33+22 RT 44' TO 33+25	UG ELECTRIC								
129	UG ELECTRIC	ENGINEERS	13	33+80 RT 20' TO 33+90	UG ELECTRIC								
131	POWER	ENGINEERS	13	35+21 RT 20'	POWER POLE				UG POWER VAULTS				
133	UG ELECTRIC	ENGINEERS	13		POWER JUNCTION VAULT								
156	POWER	ENGINEERS	13	37+20 RT	UG POWER	*							

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130	UG ELECTRIC	ENGINEERS	14	34+90 RT 38' AND 35+52 RT 14' TO 35+64 LT 16'	UG POWER VAULTS								
132	POWER	ENGINEERS	14	35+56 RT 1'	POWER POLE								
133	UG ELECTRIC	ENGINEERS	14	AND 35+90 LT 32' TO 35+52 RT	UG ELECTRIC LINES			(2) UG ELECTRIC SINGLE SERVICE LINES					
134	TELEPHONE	ENGINEERS	14	35+90 LT 32' TO 35+56 RT 10'	TELEPHONE LINE			PRIVATE TELEPHONE					
136	GAS	ENGINEERS	14	35+87 LT 32' TO 35+44 RT 20'	GAS SERVICE LINE			SINGLE GAS SERVICE					
137	GAS	ENGINEERS	14	37+25 LT 30' TO 39+10 RT 34'	GAS MAIN			4" STEEL					
138	TELEPHONE	ENGINEERS	14	37+ 30 LT 42' TO 39+30 RT 34'	UG TELEPHONE CROSSING			200 PR LINE					
139	SEWER	ENGINEERS	14	37+40 LT 32' TO 39+50 RT 30'	GRAVITY SEWER CROSSING			8" GRAVITY SEWER					
140	TELEPHONE	ENGINEERS	14	38+22 LT 6'	CROSS CONNECTION BOX			ATT CROSS CONNECTION BOX					
141	TELEPHONE	ENGINEERS	14	38+22 LT 6' TO 39+56 RT 32'	TFO								
142	POWER	ENGINEERS	14	38+22 LT 1' AND 38+21 LT 2'	POLE			2 POLES			YES		
143	UG ELECTRIC	ENGINEERS	14	38+30 RT 32' TO 38+23 LT 2'	UG ELECTRIC			UG SERVICE LINE					
144	TELEPHONE	ENGINEERS	14	38+22 LT 8' TO 37+90 RT 32'	UG FIBER OPTIC			F/O					
146	GAS	ENGINEERS	14	38+82 RT 32' TO 38+84 RT 26'									
147	UG ELECTRIC	ENGINEERS	14	36+50	LIGHTS	*							
148	UG ELECTRIC	ENGINEERS	14	36+60	LIGHTS	*							
153	POWER	ENGINEERS	14	40+00 RT	POWER POLE								
154	POWER	ENGINEERS	14	40+15 RT	POWER POLE								
155	POWER	ENGINEERS	14	40+50 RT	UG POWER	*							
162	WATER	ENGINEERS	14	39+50 LT AND 40+50 RT	WATER MAIN AND CROSSING			12" AC			Y		
163	SEWER	ENGINEERS	15	41+95 LT	SEWER			SEWER MH					

**PRELIMINARY USE ONLY
NOT FOR CONSTRUCTION**

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
UTILITY COORDINATION FOR PROPOSED HIGHWAY IMPROVEMENTS
SUBSURFACE UTILITY ENGINEERING
CARDNO, INC.
STATE PROJECT NUMBER H.004791
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT

S.P. NO. H.004791



TECHNICAL PROPOSAL

PLAQUEMINES PARISH



LAYOUT MAP

THIS SURVEY WAS BASED ON CONTROL POINT VALUES PROVIDED BY LA DOTD. THE SUBSURFACE UTILITIES DEPICTED IN THESE DRAWINGS MATCH THE SUBSURFACE UTILITIES IN THE TOPOGRAPHIC SURVEY FURNISHED TO LADOTD BY SJB GROUP

JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED

SCHEDULE OF REVISIONS

SHEET NUMBER	1	PARISH	PLAQUEMINES	CONTROL SECTION	062-02, 838-01	STATE PROJECT	H.004791
DESIGNED	MSB	CHECKED	MBH	DRAWN	MSR	DATE	JAN. 25, 2019
REVISION	NO.	DATE	DESCRIPTION	BY			

COVER SHEET
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS

DOTD
CARDNO, INC

PRELIMINARY USE ONLY NOT FOR CONSTRUCTION

LEGEND:

- ① CONFLICT ID
- MATCHLINE
- E--- UNDERGROUND ELECTRICAL
- F/O--- UNDERGROUND FIBER OPTIC
- FM--- UNDERGROUND FORCE MAIN
- GAS--- UNDERGROUND GAS
- O--- UNDERGROUND PIPELINE
- SS--- UNDERGROUND SANITARY SEWER
- T--- UNDERGROUND TELEPHONE
- TFO--- UNDERGROUND TRAFFIC FIBER
- TV--- UNDERGROUND TELEVISION
- UNK--- UNDERGROUND UNKNOWN UTILITY
- W--- UNDERGROUND WATER
- T---J--- TELEPHONE DUCT BANK

SYMBOLOLOGY:

CARDNO SUE SYMBOLS

- ◆ TEST HOLE
- ◆ CONTROL POINT
- ◆ SOIL BORING
- └ END OF SIGNAL (EOS)

GAS UTILITY SYMBOLS

- ⊕ GAS MARKER
- ⊗ GAS VALVE
- ⊙ GAS METER
- ⊕ GAS WELL
- ⊙ GAS VENT
- ⊗ GAS SERV. NO METER
- ⊙ GAS TEST BOX
- ⊗ GAS REGULATOR
- ⊙ GAS RISER
- ⊙ PIPELINE MARKER
- ⊙ PIPELINE VENT

WATER UTILITY SYMBOLS

- ⊕ WATER CLEAN OUT
- ⊗ WATER VALVE VAULT
- ⊙ WATER VALVE
- ⊙ WATER METER
- ⊙ FIRE HYDRANT
- ⊙ WATER UTILITY MARKER
- ⊙ WATER WELL

SEWER UTILITY SYMBOLS

- ⊕ SEWER LIFT STATION
- ⊙ SEWER BLOW OUT
- ⊗ SEWER CLEAN OUT
- ⊙ SEWER PUMP
- ⊙ SEWER MANHOLE
- ⊙ SEWER TREATMENT PLANT
- ⊙ SEWER TANK
- ⊙ SEWER UTILITY MARKER

TRAFFIC UTILITY SYMBOLS

- ⊕ TRAFFIC PULL BOX
- ⊙ CABLE SUSPENDED TRAFFIC POLE
- ⊗ TRAFFIC SIGNAL POWER BOX
- ⊙ CANTILEVERED TRAFFIC SIGNAL
- ⊙ TRAFFIC SIGNAL STANDARD
- ⊙ TRAFFIC SIGNAL CONTROL BOX
- ⊙ MISCELLANEOUS TRAFFIC POLE
- ⊙ DYNAMIC MESSAGE SIGN SUPPORT
- ⊙ TRAFFIC HIGH MAST LIGHT
- ⊙ TRAFFIC COUNTER
- ⊙ TRAFFIC SIGNAL DEADMAN
- ⊙ TRAFFIC SIGN
- ⊙ LIGHT STANDARD
- ⊙ LIGHT STANDARD POWER VAULT
- ⊙ TRAFFIC CAMERA POLE

ELECTRIC UTILITY SYMBOLS

- ⊕ ELECTRIC MARKER
- ⊙ COMBO POLE
- ⊙ GENERAL PRIVATE LIGHT
- ⊙ POWER DROP
- ⊙ POWER JUNCTION BOX
- ⊙ POWER POLE DEADMAN
- ⊙ POWER POLE
- ⊙ POWER POLE TRANSFORMER
- ⊙ POWER VAULT

TELEPHONE UTILITY SYMBOLS

- ⊕ TELEPHONE PRESSURE BOX
- ⊙ TELEPHONE POLE DEADMAN
- ⊙ TELEPHONE PEDESTAL
- ⊙ TELEPHONE MANHOLE
- ⊙ TELEPHONE BOOTH
- ⊙ TELEPHONE POLE
- ⊙ TELEPHONE MARKER
- ⊙ TELEPHONE CROSS CONNECT BOX

TELEVISION UTILITY SYMBOLS

- ⊕ TELEVISION PEDESTAL
- ⊙ TELEVISION MANHOLE
- ⊙ TELEVISION MARKER

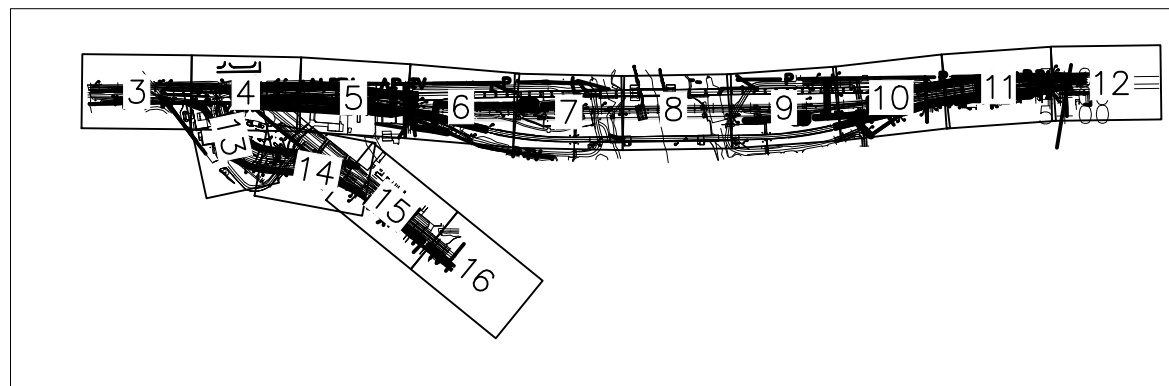
RAILROAD UTILITY SYMBOLS

- ⊙ RAILROAD SWITCH
- ⊙ RAILROAD MILE POST
- ⊙ RAILROAD SIGNAL CONTROL BOX
- ⊙ RAILROAD SIGNAL

MISCELLANEOUS SYMBOLS

- ⊙ CANOPY SUPPORT
- ⊙ APPARENT END OF LINE CAPPED
- ⊙ APPARENT END OF LINE OPEN
- ⊙ ABOVE GROUND PIPE

KEY MAP



JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

DESIGNED	MSB	PARISH	PLAQUEMINES	SHEET NUMBER	2
CHECKED	MBH	CONTROL SECTION	062-02, 838-01		
DETAILED	MSR	STATE PROJECT	H.004791		
CHECKED	MBH	JAN. 25, 2019			
SERIES NUMBER	2 OF 16				
REVISION OR CHANGE ORDER DESCRIPTION					
NO. DATE BY					
LEGEND AND GENERAL NOTES LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23 SUBSURFACE CONFLICT DRAWINGS					
CARDNO, INC					

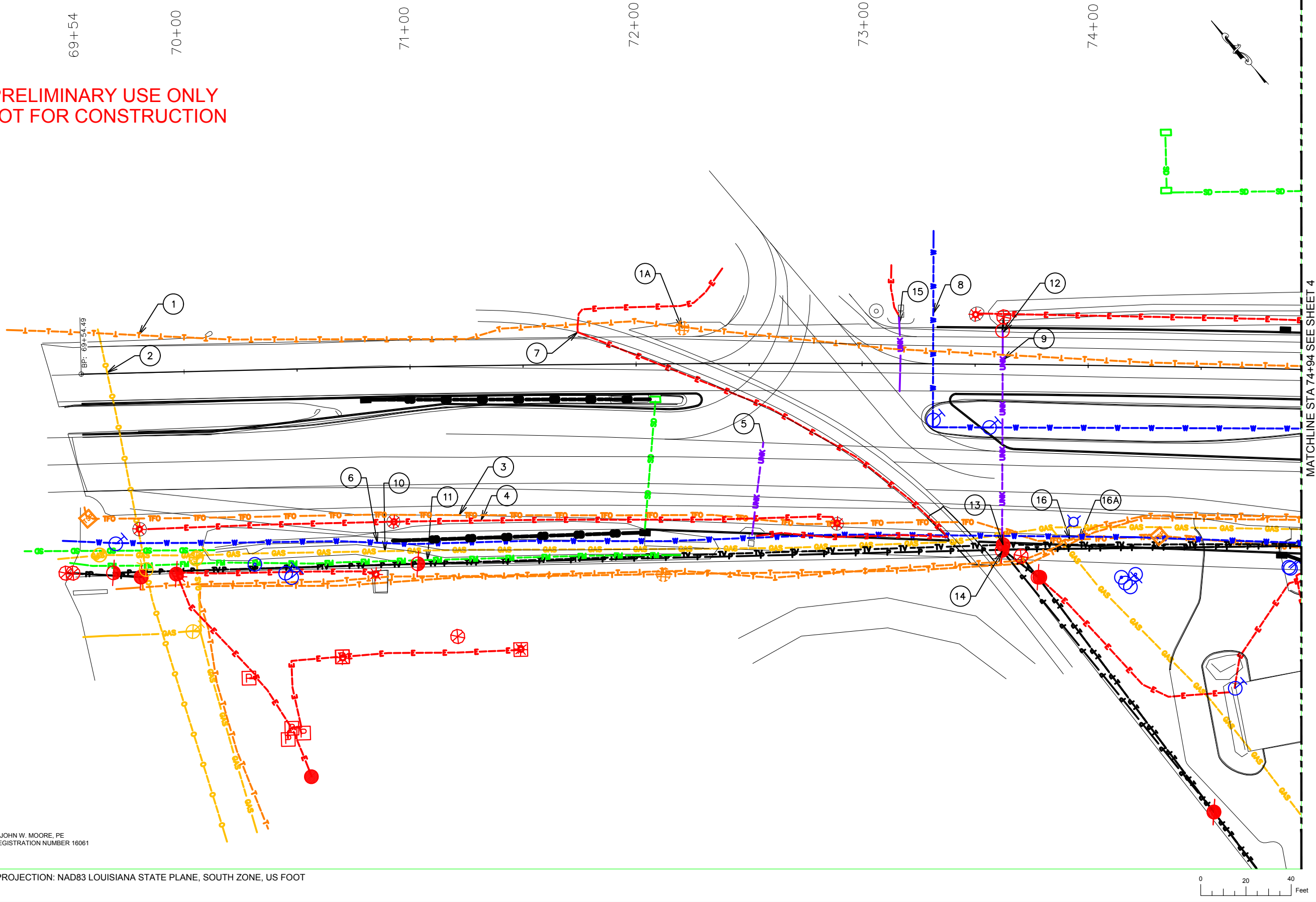
TECHNICAL PROPOSAL

TECHNICAL PROPOSAL

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JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



DESIGNED		MSB	PLAQUEMINES	SHEET NUMBER	3
CHECKED		MBH		PARISH	
REVISION OR CHANGE ORDER DESCRIPTION		NO.	DATE	CONTROL SECTION	062-02, 838-01
BY				STATE PROJECT	H.004791
SHEET 3				SERIES NUMBER	JAN. 25, 2019
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT				3	3 OF 16
ROUTE: LA-23					
SUBSURFACE CONFLICT DRAWINGS					
DOTD					
CARDNO, INC					

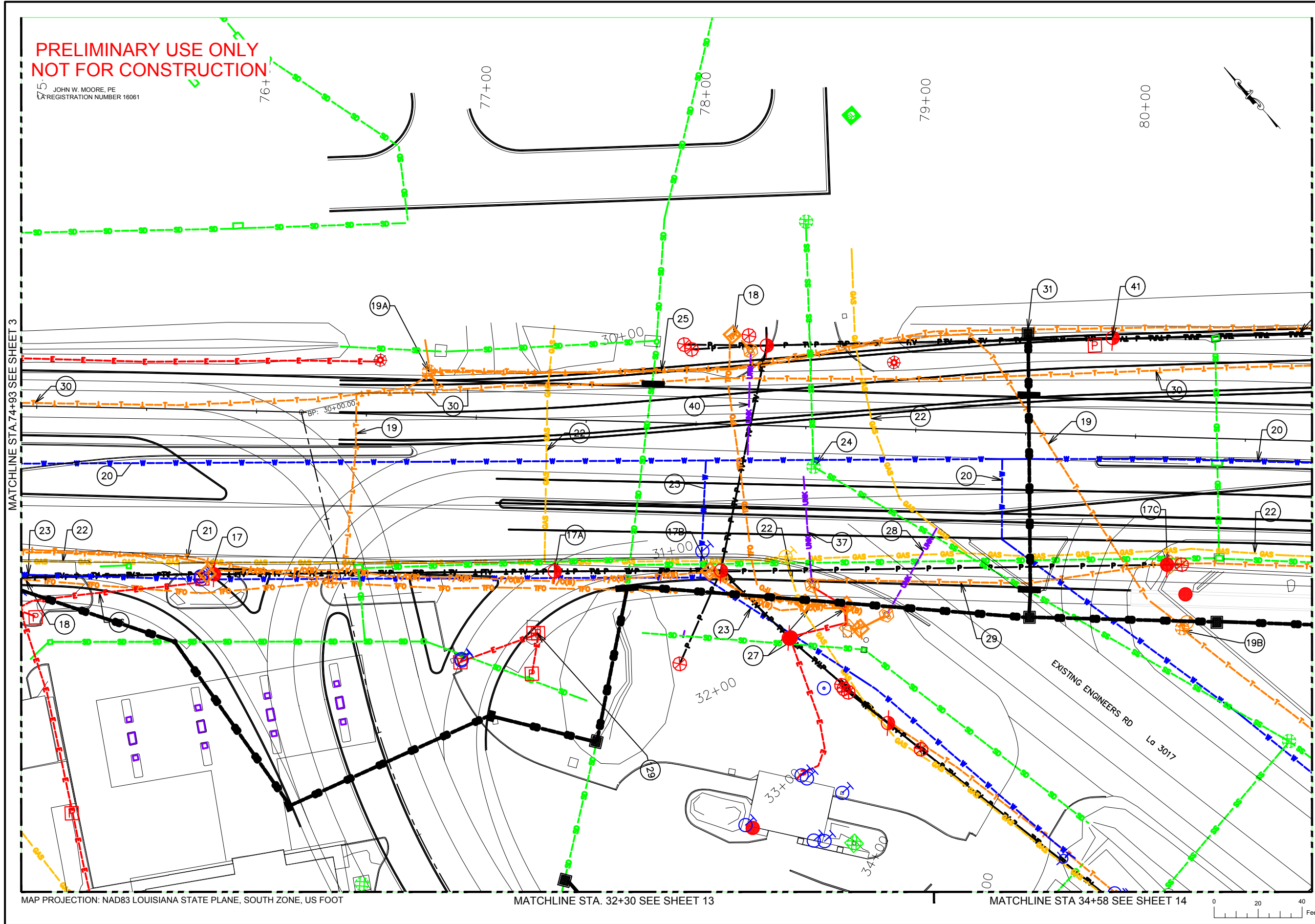
PRELIMINARY USE ONLY
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5. JOHN W. MOORE, PE
REGISTRATION NUMBER 16061

TECHNICAL PROPOSAL

MATCHLINE STA.74+93 SEE SHEET 3

MATCHLINE STA.80+80 SEE SHEET 5



MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT

MATCHLINE STA. 32+30 SEE SHEET 13

MATCHLINE STA 34+58 SEE SHEET 14

DESIGNED	MBH	PLAQUEMINES	PARISH	PLAQUEMINES	SHEET NUMBER	4
CHECKED	MBH	062-02, 838-01	CONTROL SECTION	062-02, 838-01		
REVISION	NO.	DATE	DESCRIPTION	BY		
SERIES NUMBER	JAN. '25, 2019	4	OF 16	STATE PROJECT	H.004791	
DOTD CARDNO, INC						
SHEET 4 LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23 SUBSURFACE CONFLICT DRAWINGS						
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23						
SUBSURFACE CONFLICT DRAWINGS						
DOTD CARDNO, INC						

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81+00 JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

82+00

83+00

84+00

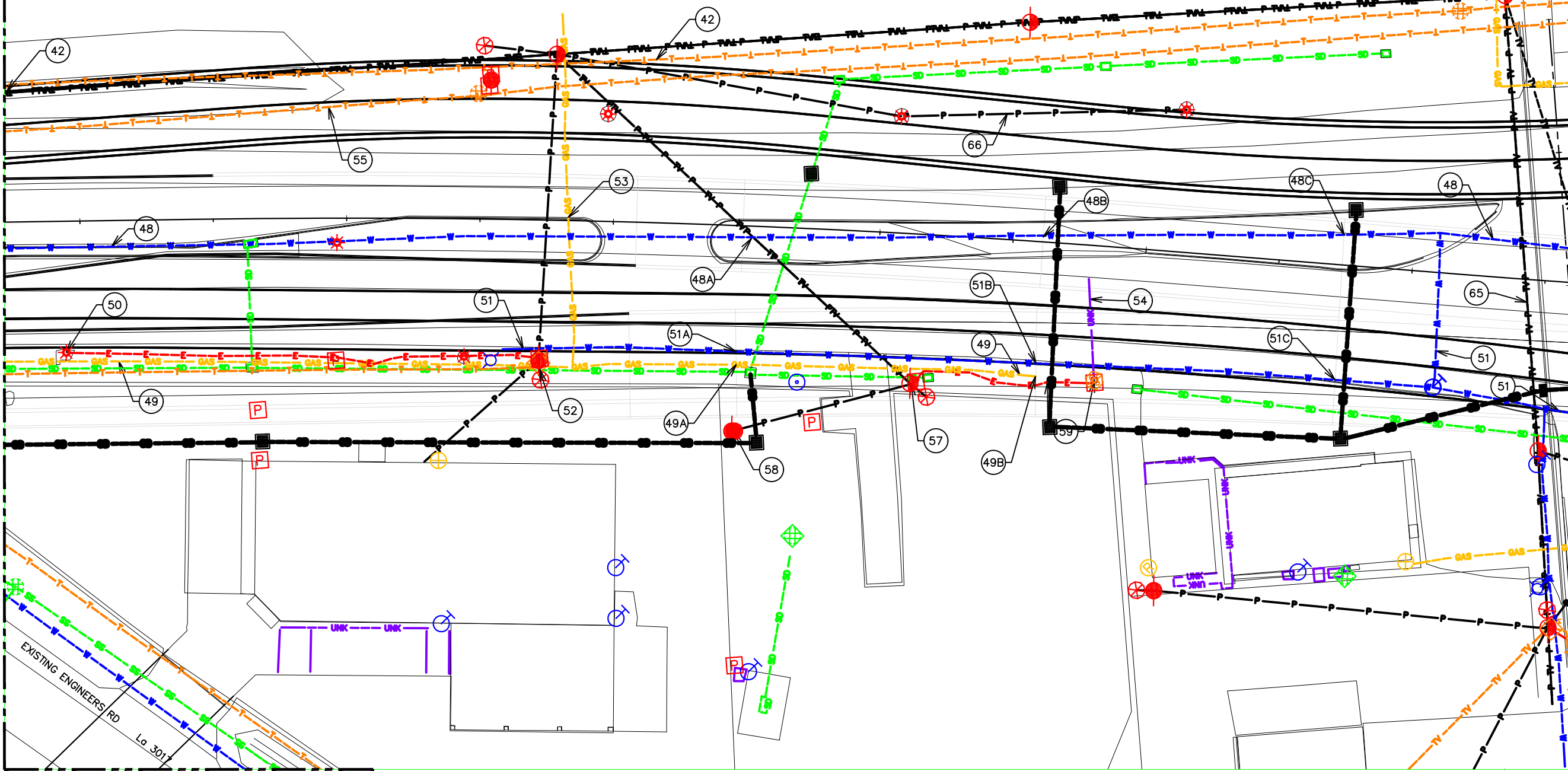
85+00

86+00

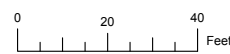
TECHNICAL PROPOSAL

MATCHLINE STA. 80+72 SEE SHEET 4

MATCHLINE STA. 86+60 SEE SHEET 6



MATCHLINE STA 34+58 SEE SHEET 14
MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



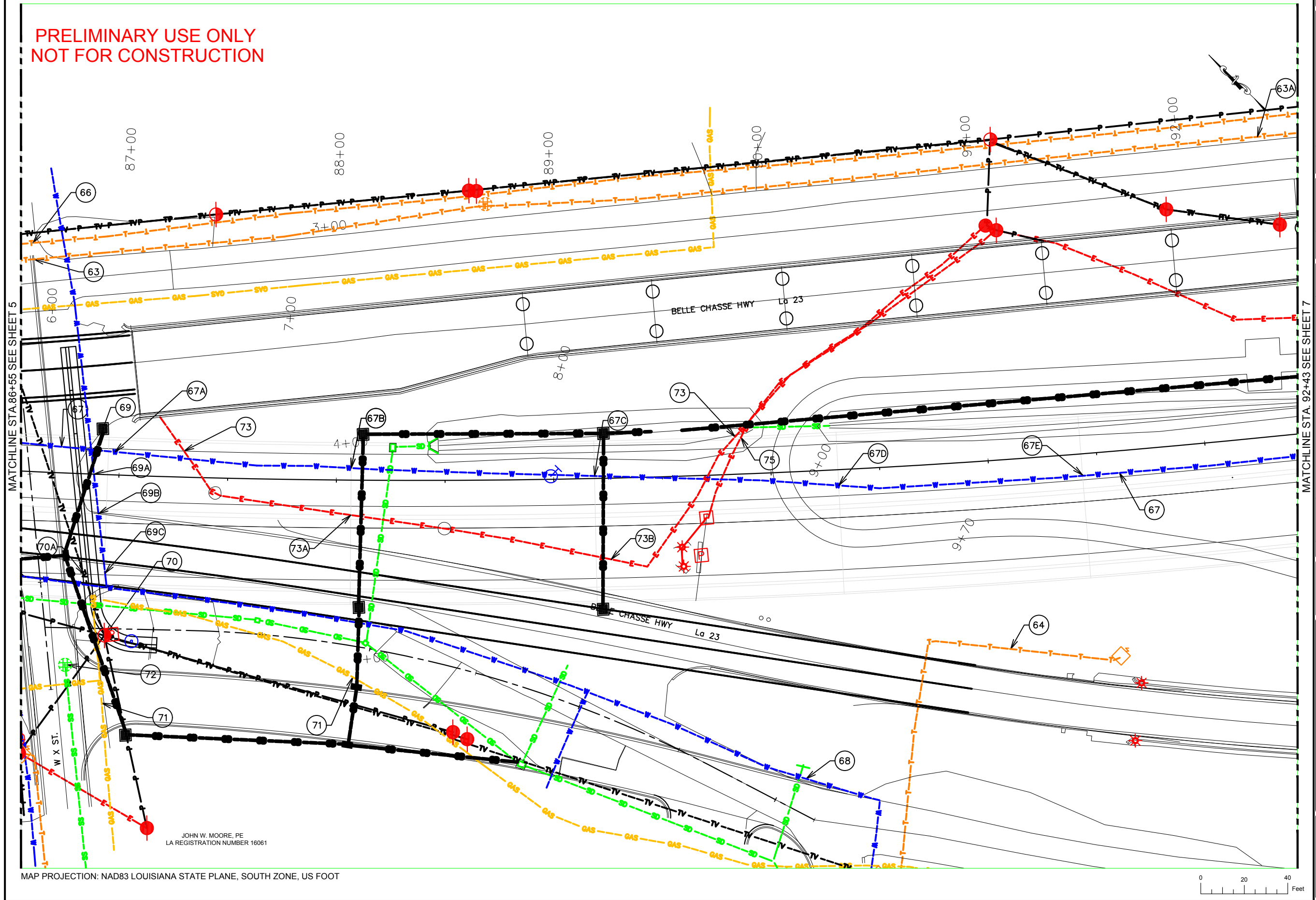
SHEET NUMBER 5		PLAQUEMINES	
DESIGNED MSB	CHECKED MBH	PARISH	CONTROL SECTION
REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE	BY
SHEET 5 LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23		PARISH	CONTROL SECTION
SUBSURFACE CONFLICT DRAWINGS		STATE	PROJECT
DOTD CARDNO, INC		NO.	DATE
SERIES NUMBER		STATE	PROJECT
JAN. 25, 2019		STATE	PROJECT
5 OF 16		STATE	PROJECT
H.004791		STATE	PROJECT

PRELIMINARY USE ONLY
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TECHNICAL PROPOSAL

MATCHLINE STA. 86+55 SEE SHEET 5

MATCHLINE STA. 92+43 SEE SHEET 7



JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



SHEET NUMBER		6	
PARISH		PLAQUEMINES	
CONTROL SECTION		062-02, 838-01	
STATE PROJECT		H.004791	
DESIGNED	MSB	DATE	JAN. 25, 2019
CHECKED	MBH	NO.	6
REVISION	MSR	DATE	
CHECKED	MBH	NO.	
REVISION OR CHANGE ORDER DESCRIPTION			
BY			
DATE			
NO.			
SHEET 6			
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT			
ROUTE: LA-23			
SUBSURFACE CONFLICT DRAWINGS			
DOTD			
CARDNO, INC			

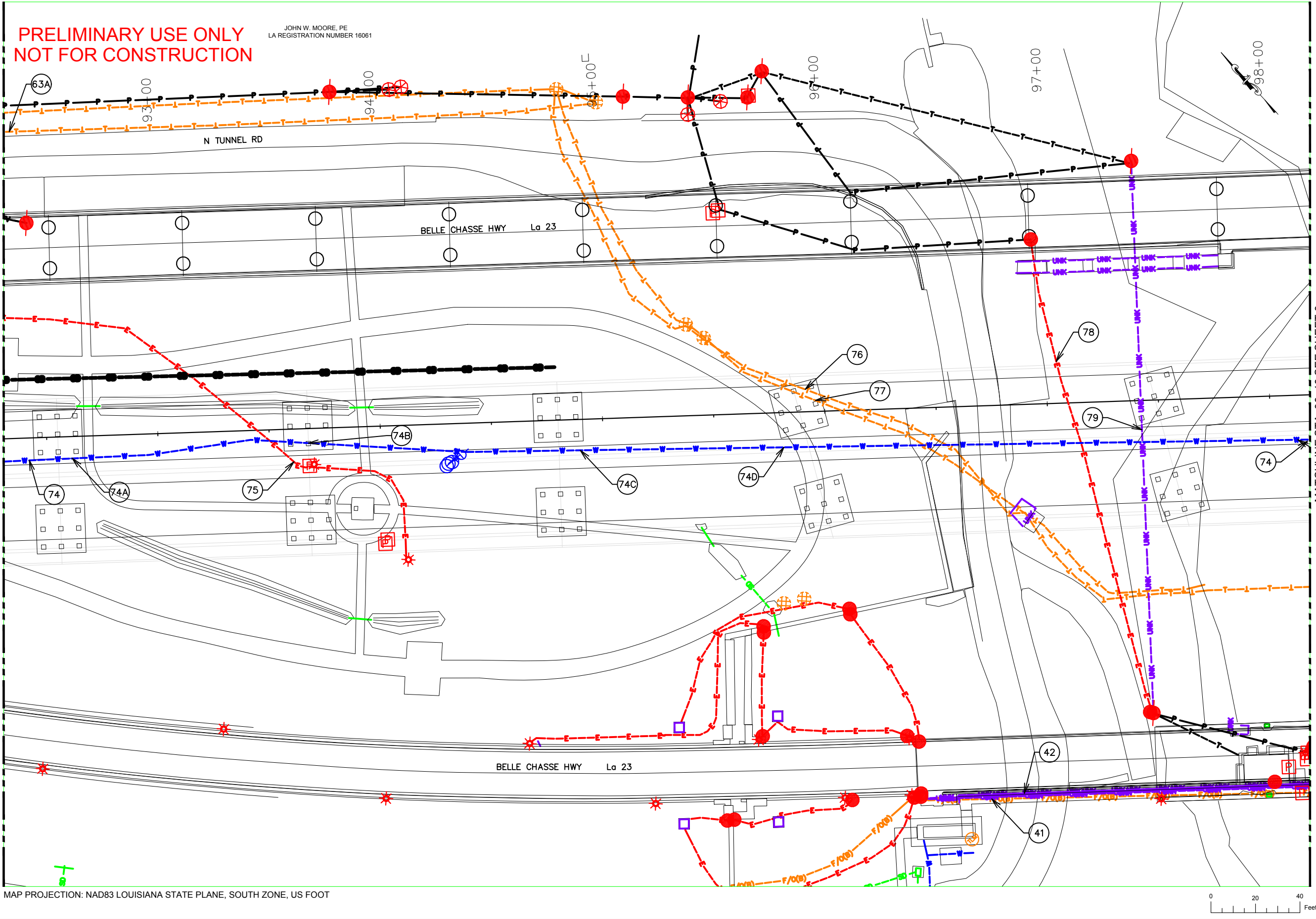
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JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

TECHNICAL PROPOSAL

MATCHLINE STA. 92+31 SEE SHEET 6

MATCHLINE STA. 98+18 SEE SHEET 8



MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT

DESIGNED	MSB	PLAQUEMINES	SHEET NUMBER	7
CHECKED	MBH	PARISH	CONTROL SECTION	062-02, 838-01
RETAILED	MSR	STATE	PROJECT	H.004791
CHECKED	MBH	DATE	REVISION OR CHANGE ORDER DESCRIPTION	
SERIES NUMBER	JAN. 25, 2019	NO.	DATE	
7	7 OF 16			

LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23

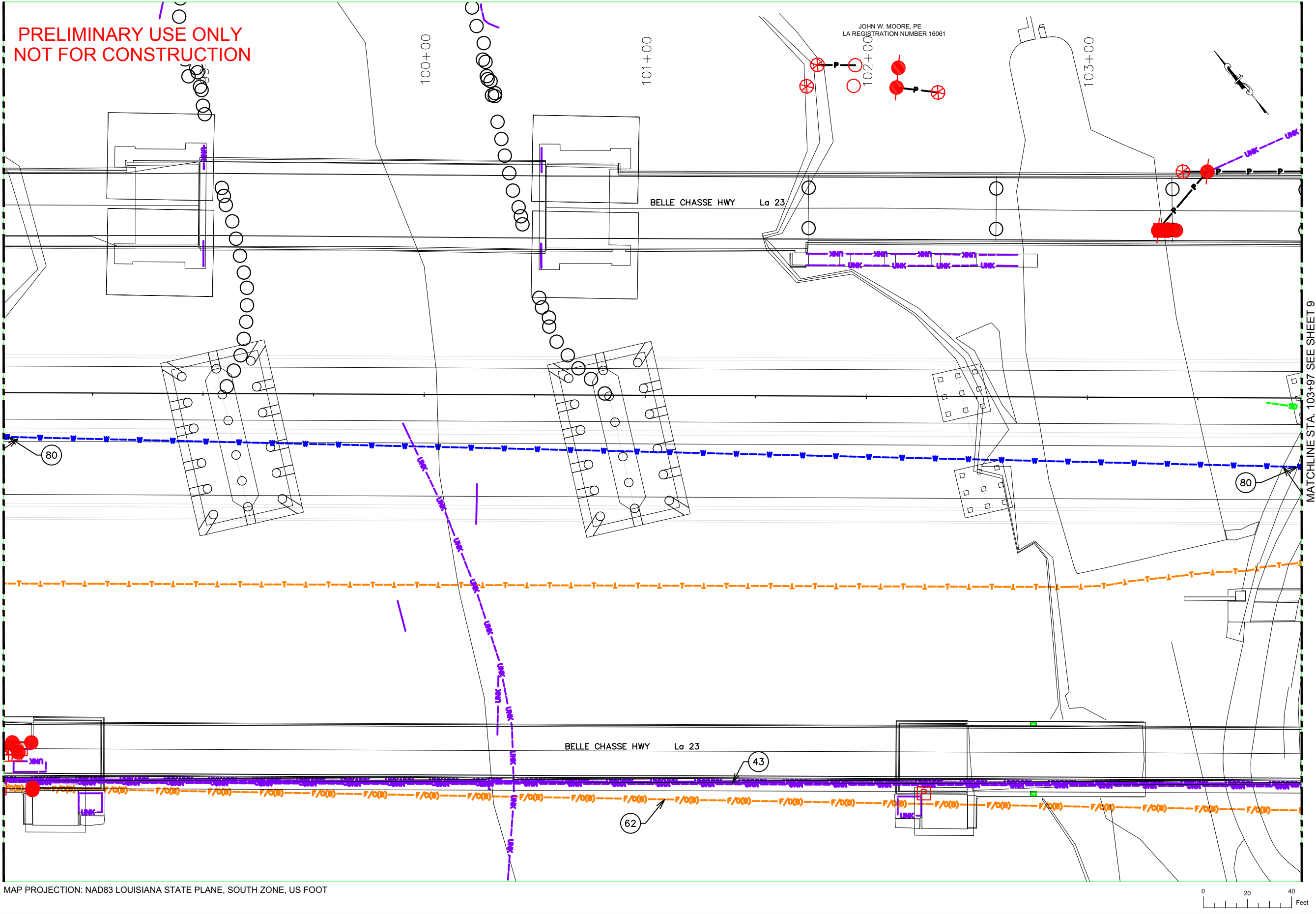
SUBSURFACE CONFLICT DRAWINGS

DOTD
CARDNO, INC

PRELIMINARY USE ONLY
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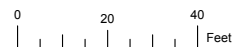
TECHNICAL PROPOSAL

MATCHLINE STA.98+10 SEE SHEET 7



MATCHLINE STA. 103+97 SEE SHEET 9

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

SHEET 8
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23

PLAQUEMINES
PARISH
CONTROL SECTION
062-02, 838-01

DESIGNED MSB
CHECKED MBH
RETAILED MSB
CHECKED MBH

SERIES NUMBER
JAN. 25, 2019
8 OF 16

NO. DATE
REVISION OR CHANGE ORDER DESCRIPTION

BY

DOTD
CARDNO, INC

STATE PROJECT
H.004791

SHEET NUMBER
8

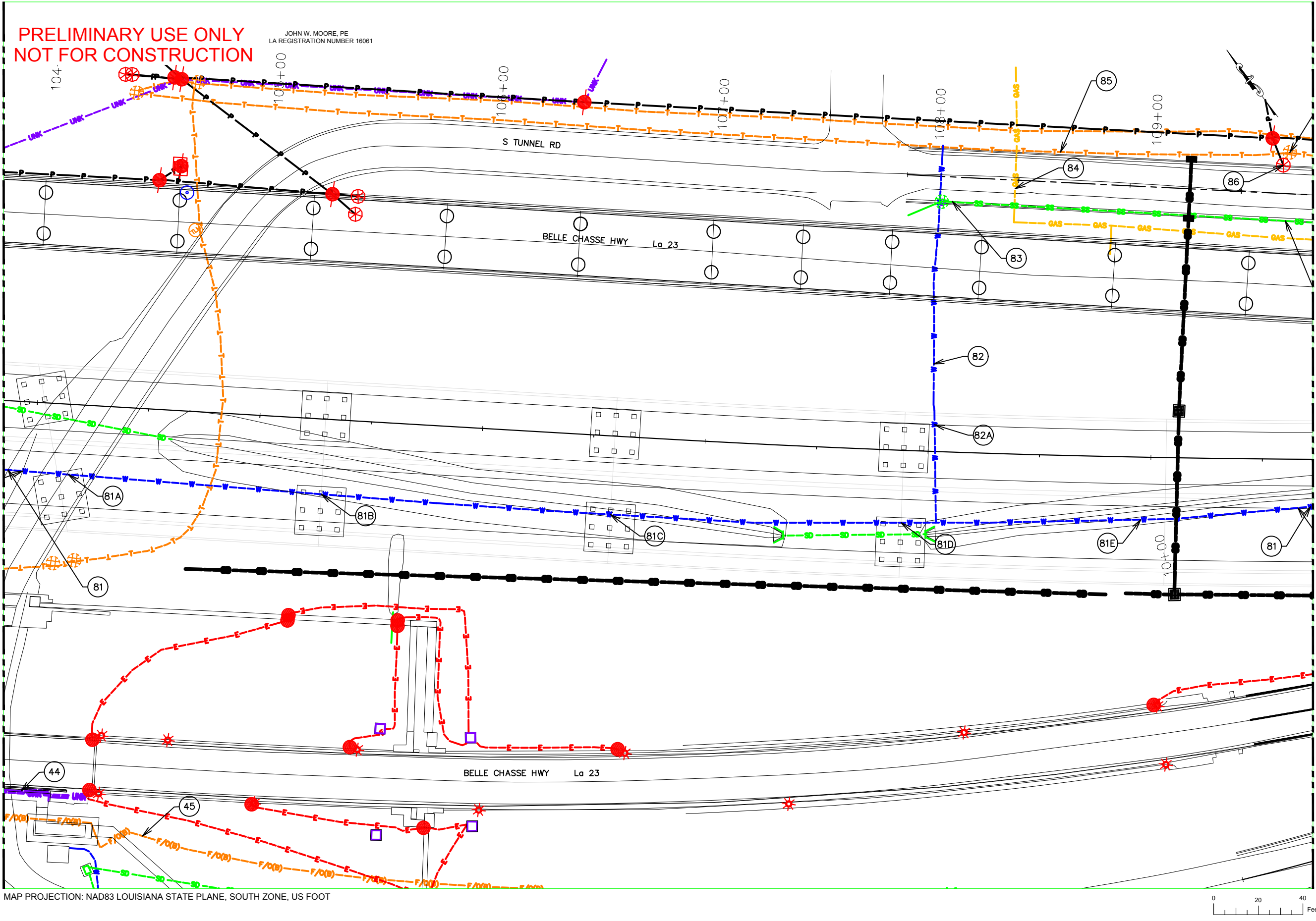
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JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

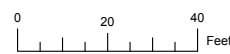
TECHNICAL PROPOSAL

MATCHLINE STA. 103+85 SEE SHEET 8

MATCHLINE STA. 109+73 SEE SHEET 10





MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



DESIGNED MSB	PLAQUEMINES	PARISH	PLAQUEMINES	STATE PROJECT	H.004791
CHECKED MSB		CONTROL SECTION	062-02, 838-01	DATE	JAN. 25, 2019
RETAILED MSB		CHECKED MSB		SERIES NUMBER	9 OF 16
CHECKED MSB				REVISION OR CHANGE ORDER DESCRIPTION	
				NO.	DATE
				BY	

SHEET 9
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS



CARDNO, INC

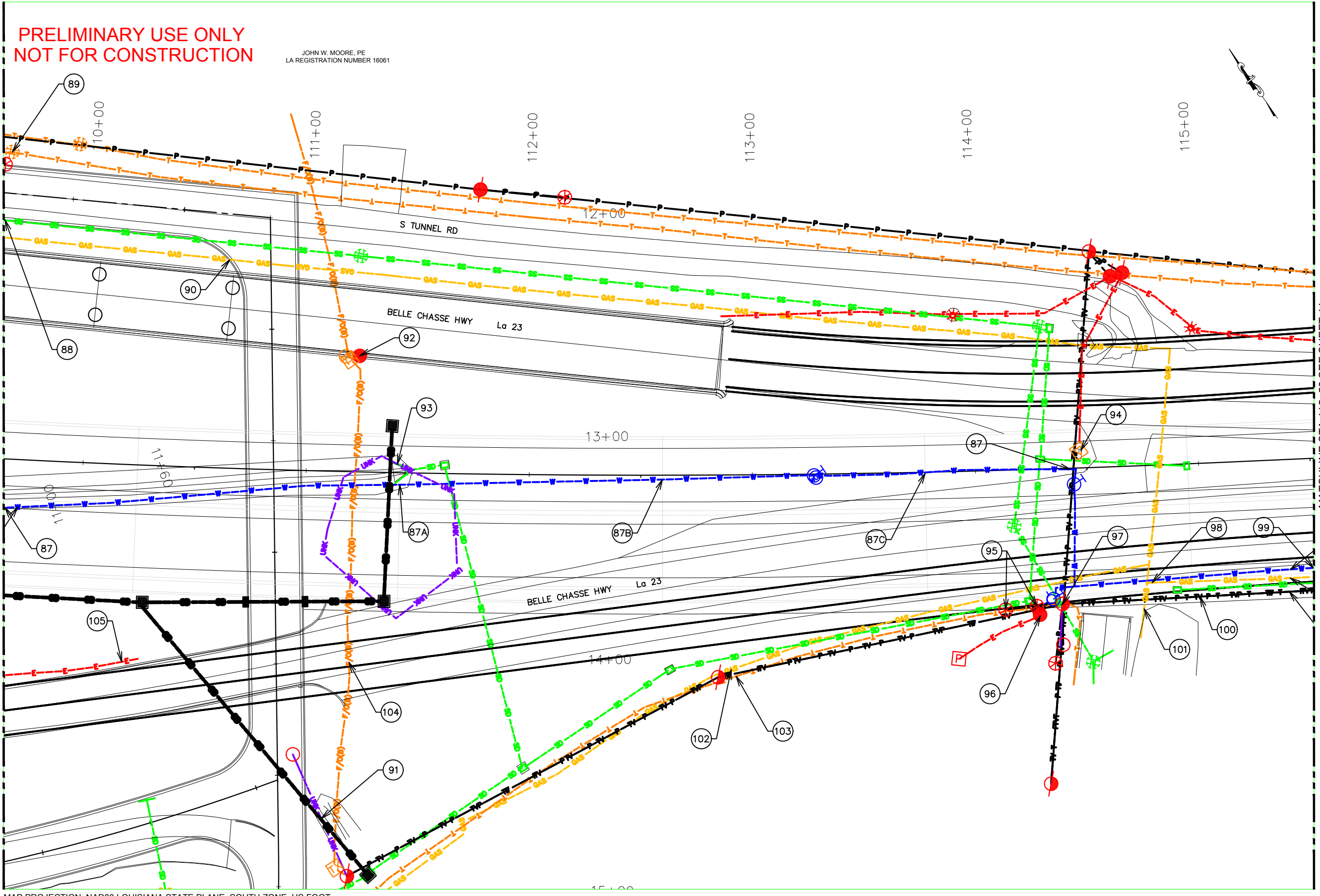
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LA REGISTRATION NUMBER 16061

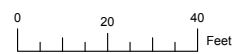
TECHNICAL PROPOSAL

MATCHLINE STA. 109+64 SEE SHEET 9

MATCHLINE STA. 115+52 SEE SHEET 11



MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



DESIGNED CHECKED REVIEWED	MSB MBH	PLAQUEMINES	SHEET NUMBER	10
	MSR MBH	PARISH CONTROL SECTION	PLAQUEMINES	062-02, 838-01
SERIES NUMBER	JAN. 25, 2019 TO OF 16	STATE PROJECT	H.004791	
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	

SHEET 10
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS

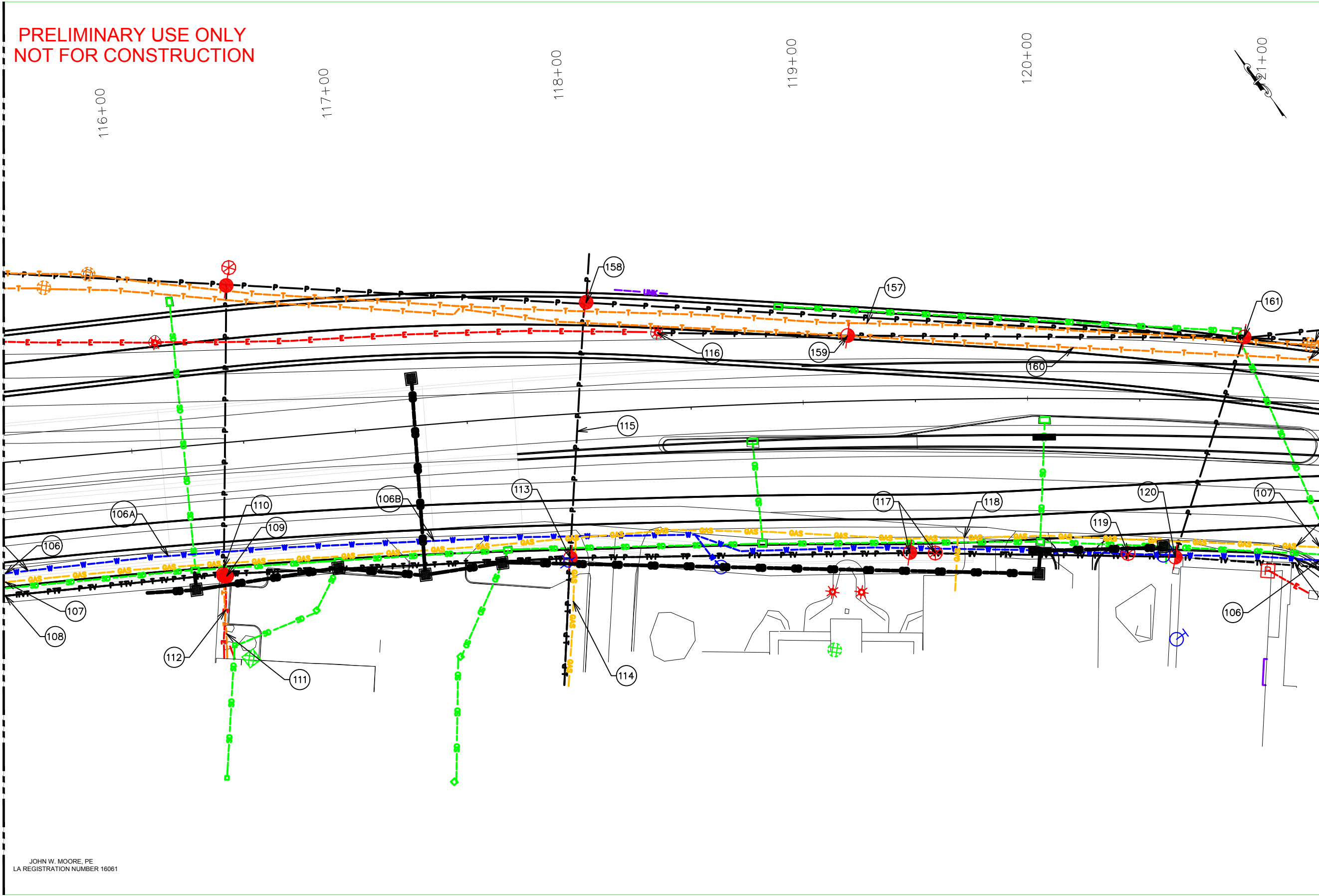
CARDNO, INC

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TECHNICAL PROPOSAL

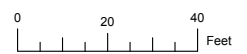
MATCHLINE STA. 115+43 SEE SHEET 10

MATCHLINE STA. 121+31 SEE SHEET 12



JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



SHEET 11
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS

PLAQUEMINES
PARISH
CONTROL SECTION
062-02, 838-01

DESIGNED MSB
CHECKED MBH
REVISION OR CHANGE ORDER DESCRIPTION

NO. DATE

BY

STATE PROJECT
JAN. 25, 2019
11 OF 16
H.004791

DOTD
CARDNO, INC

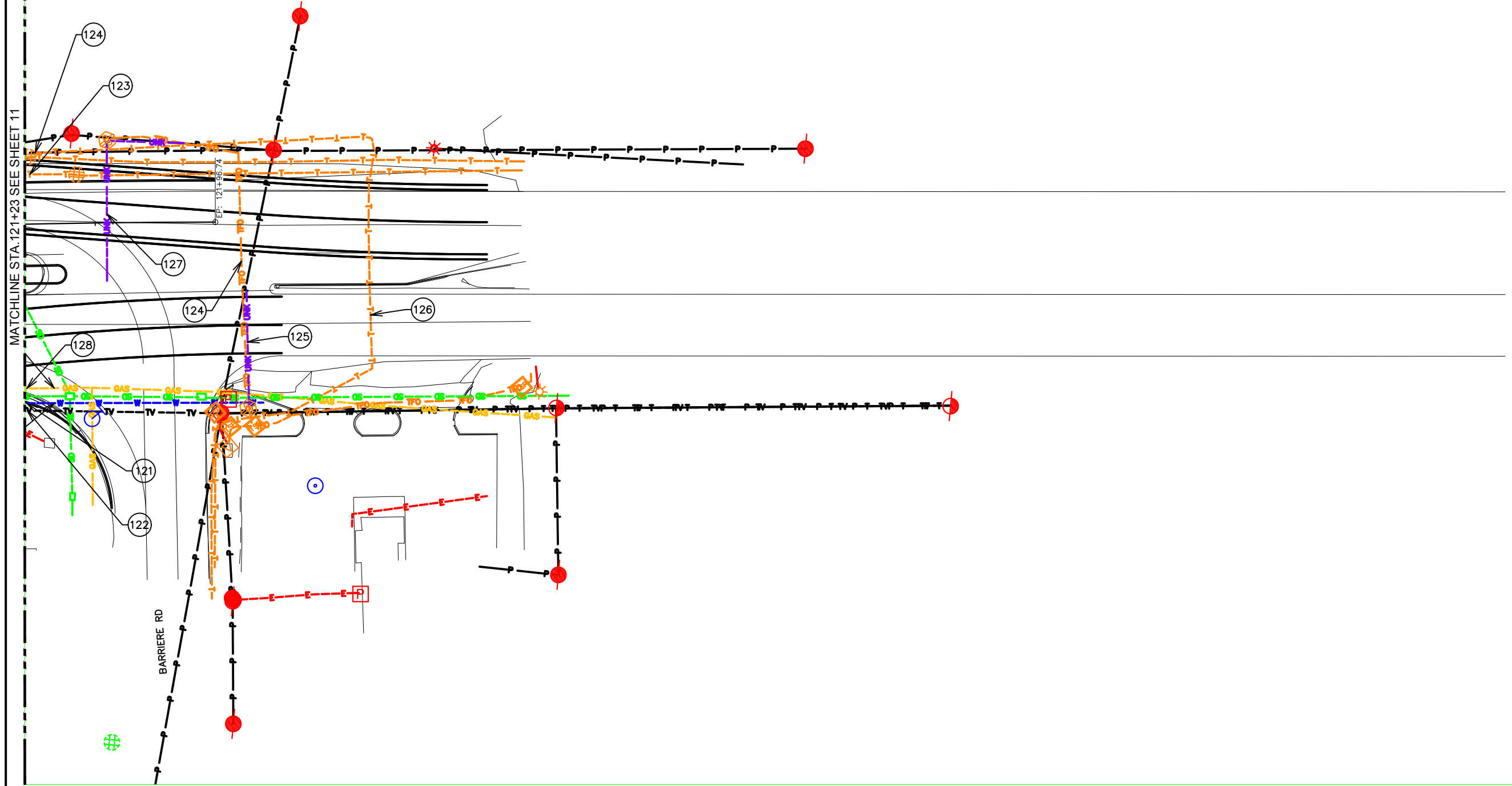
TECHNICAL PROPOSAL

MATCHLINE STA. 121+23 SEE SHEET 11

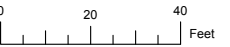
JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

121+97

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NOT FOR CONSTRUCTION

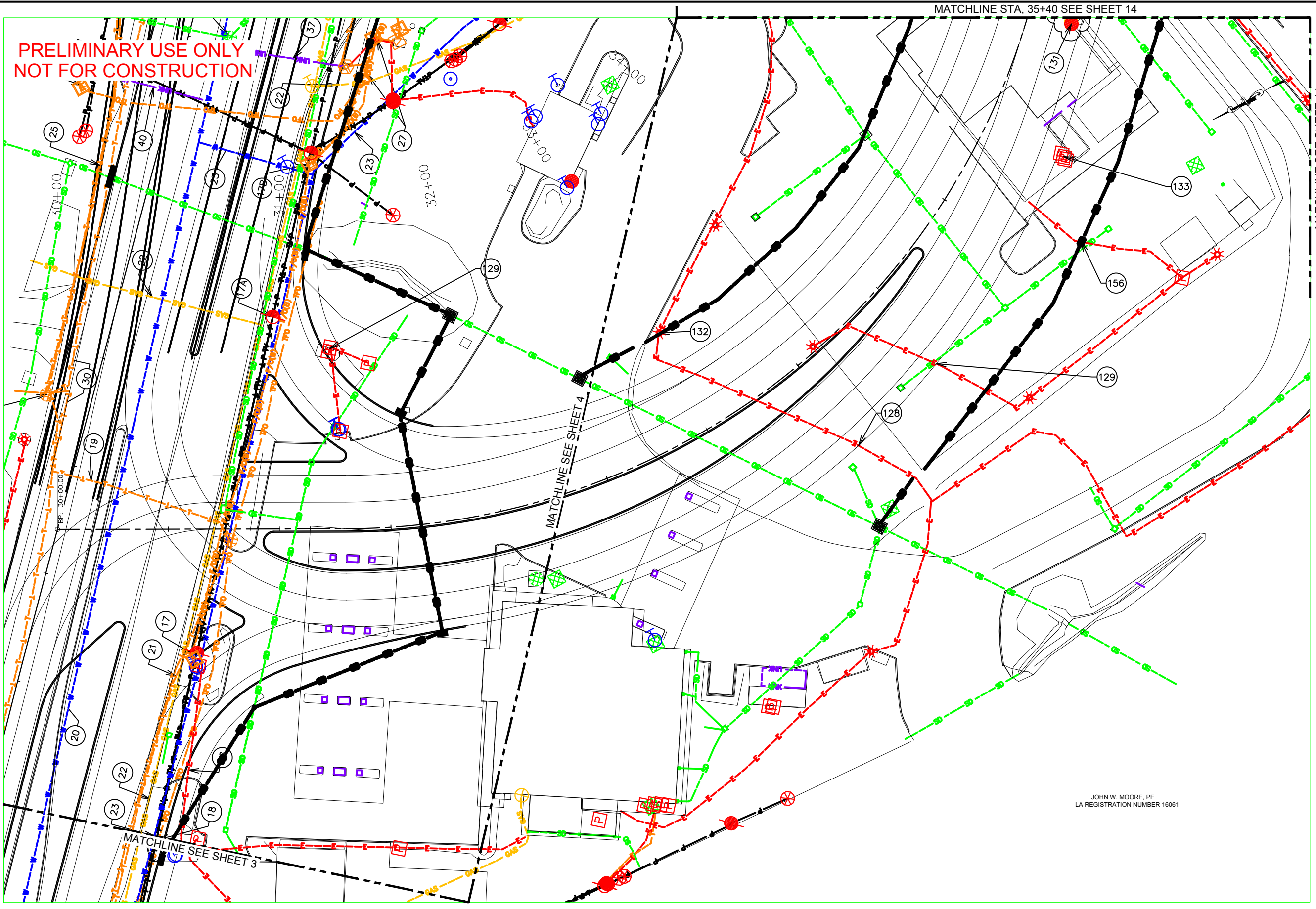


MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



		DOTD CARDNO, INC
SHEET 12 LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23 SUBSURFACE CONFLICT DRAWINGS		
DESIGNED CHECKED MBH	DETAILED CHECKED MSB	NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY
SERIES NUMBER JAN. 25, 2019 12 OF 16	PARISH CONTROL SECTION 062-02, 838-01	STATE PROJECT H.004791
PLaquEMINES		

TECHNICAL PROPOSAL



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MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT

JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061



MATCHLINE STA. 35+40 SEE SHEET 14

MATCHLINE SEE SHEET 14

MATCHLINE SEE SHEET 4

MATCHLINE SEE SHEET 3

SHEET 13
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23

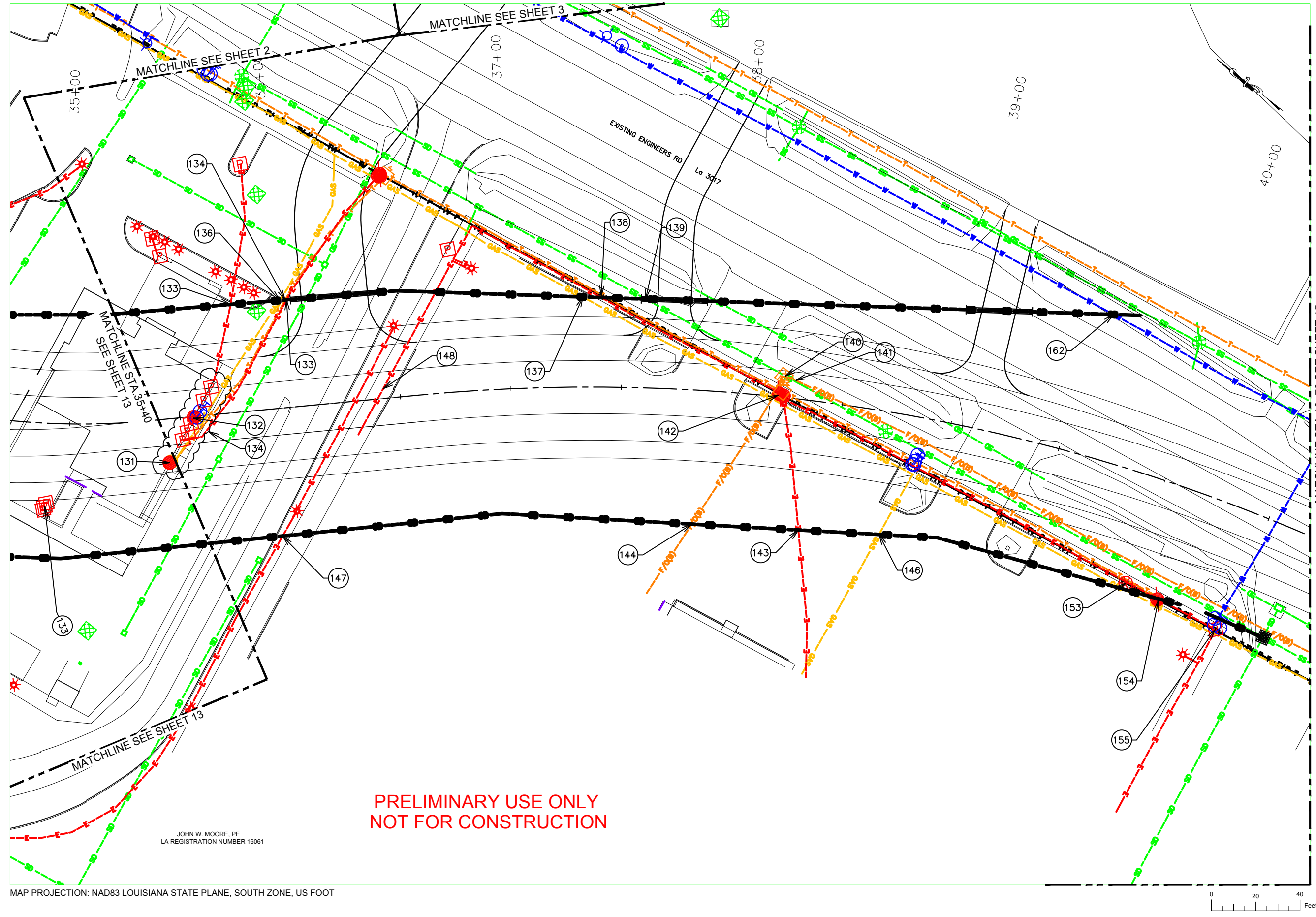
SUBSURFACE CONFLICT DRAWINGS

DOTD
CARDNO, INC

DESIGNED MSB	PLAQUEMINES
CHECKED MBH	PARISH
REVIEWED MSB	CONTROL SECTION
CHECKED MBH	062-02, 838-01
SERIES NUMBER	JAN. 25, 2019
NO.	1,3 OF 16
DATE	PROJECT
REVISION OR CHANGE ORDER DESCRIPTION	H.004791
BY	

SHEET NUMBER 13

TECHNICAL PROPOSAL



PRELIMINARY USE ONLY
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JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT

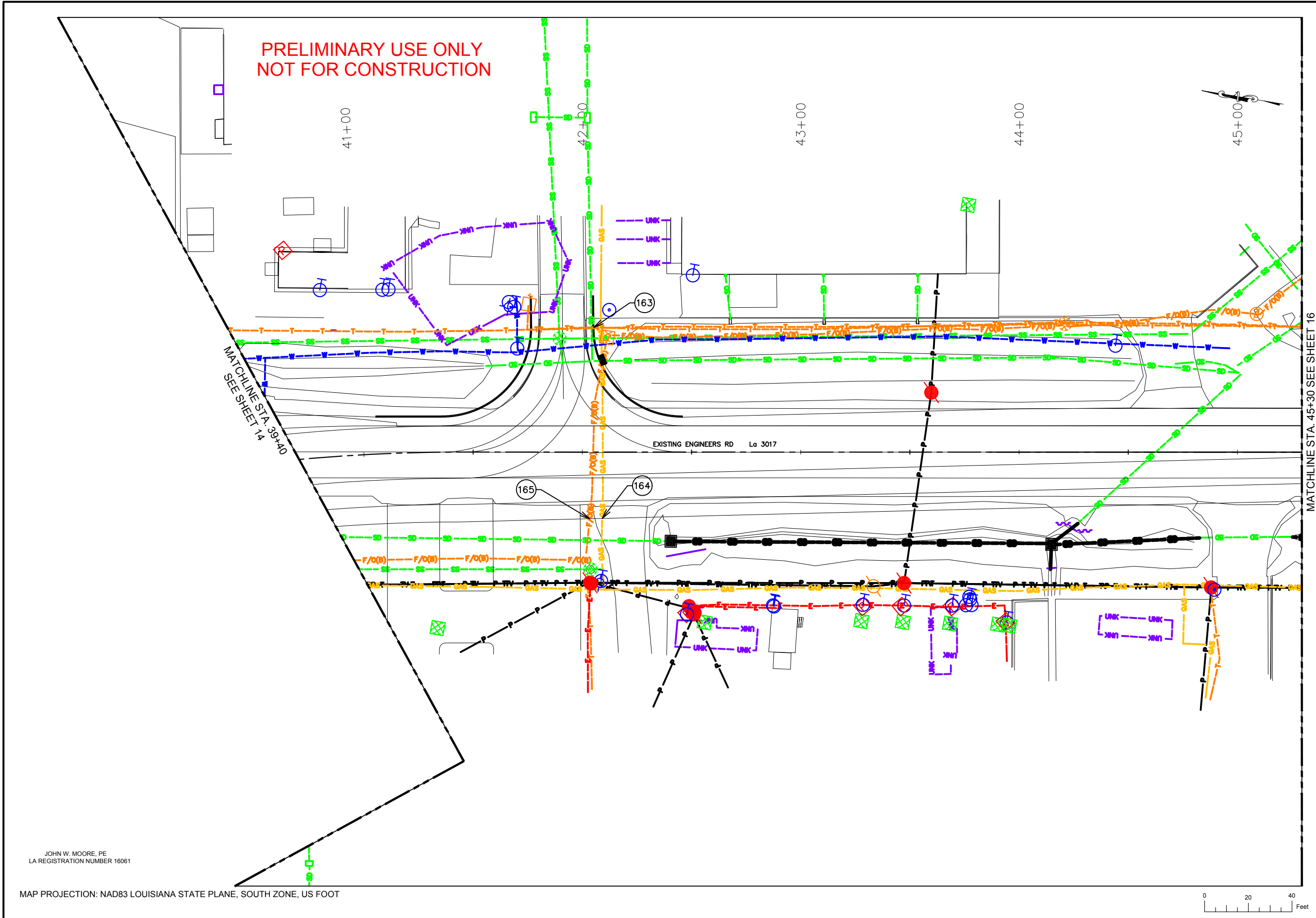
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PARISH		PLAQUEMINES	
CONTROL SECTION		062-02, 838-01	
STATE PROJECT		H.004791	
DESIGNED	MSB	DATE	JAN. 25, 2019
CHECKED	MBH	NO.	14 OF 16
DRAWN	MSR	REVISION OR CHANGE ORDER DESCRIPTION	
CHECKED	MBH	DATE	
SERIES NUMBER		BY	



SHEET 14
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS



TECHNICAL PROPOSAL



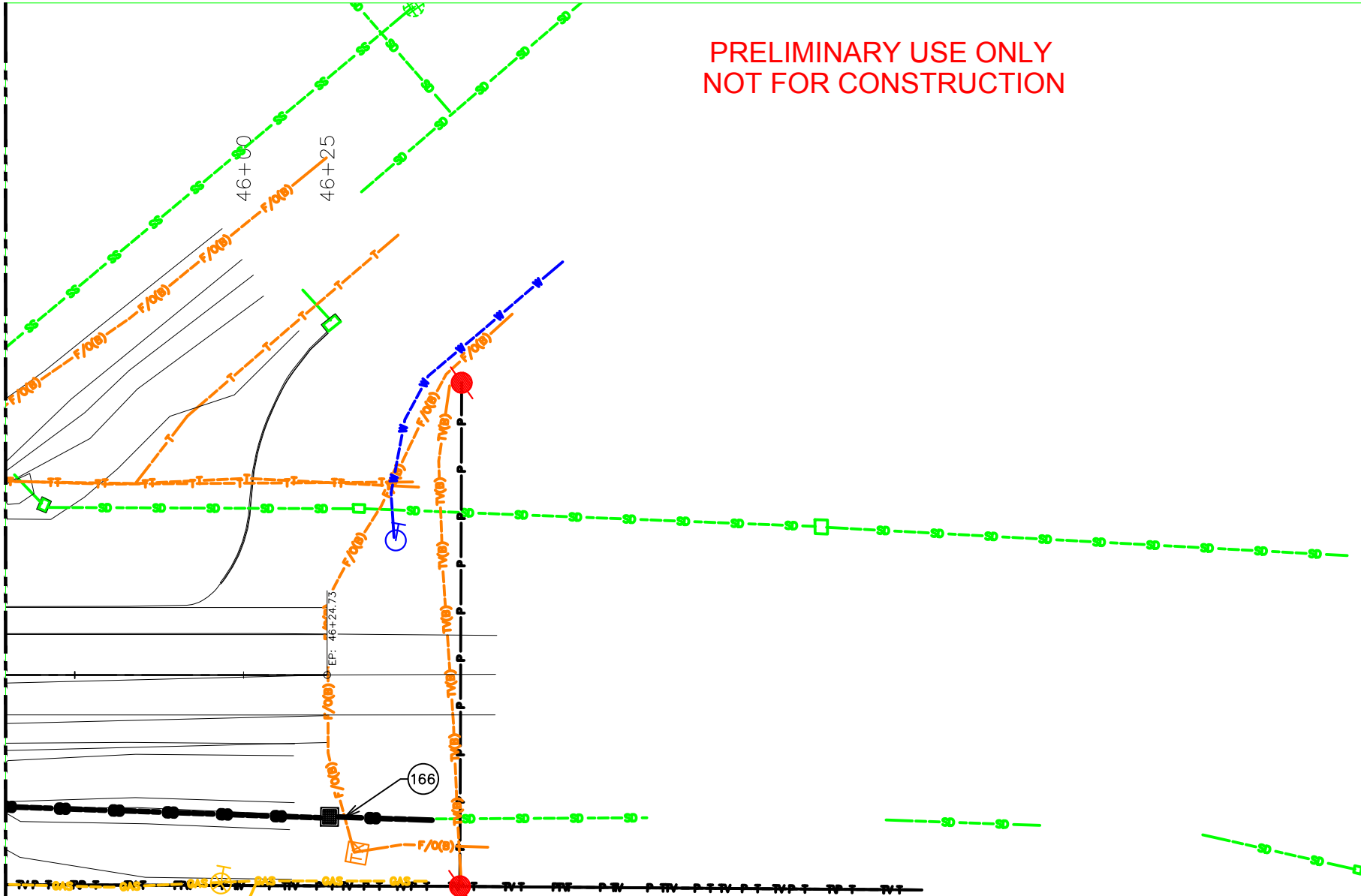
DESIGNED	MSB	PLAQUEMINES	SHEET NUMBER	15
CHECKED	MBH	PARISH	CONTROL SECTION	062-02, 838-01
DRAWN	MSR	STATE	PROJECT	H.004791
CHECKED	MBH	DATE	SERIES NUMBER	JAN. 25, 2019 15 OF 16
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	

SHEET 15
LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT
ROUTE: LA-23
SUBSURFACE CONFLICT DRAWINGS

DOTD
CARDNO, INC

TECHNICAL PROPOSAL

MATCHLINE STA. 45+30 SEE SHEET 15



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JOHN W. MOORE, PE
LA REGISTRATION NUMBER 16061

MAP PROJECTION: NAD83 LOUISIANA STATE PLANE, SOUTH ZONE, US FOOT



		SHEET 16 LA-23 BELLE CHASSE BR. & TUNNEL REPLACEMENT ROUTE: LA-23 SUBSURFACE CONFLICT DRAWINGS	
DESIGNED MBH	CHECKED MBH	PARISH PLAQUEMINES	SHEET NUMBER 16
DETAILED MSB	CHECKED MSB	CONTROL SECTION 062-02, 838-01	STATE PROJECT H.004791
SERIES NUMBER JAN. 25, 2019 16 OF 16	NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY		



APPROVED ALTERNATIVE TECHNICAL CONCEPT (ATC) LIST/INDEX



Office of Engineering
 PO Box 94245 | Baton Rouge, LA 70804-9245
 ph: 225-379-1384 | fx: 225-379-1861

John Bel Edwards, Governor
 Shawn D. Wilson, Ph.D., Secretary

November 3, 2018

Plenary Infrastructure Belle Chasse LLC
 Mike Schutt
 Plenary Group USA Concessions
 10100 Santa Monica Blvd., #410
 Los Angeles, CA 900067

RE: Alternative Technical Concepts 2, 3, 13, 17, and 18
 SP No. H.004791
 Belle Chasse Bridge & Tunnel Replacement
 Public-Private Partnership Project

VIA EMAIL

Dear Mr. Schutt:

Pursuant to the Instructions to Proposers (“ITP”) Section 4.3.3, the Department has received Plenary Infrastructure Belle Chasse LLC’s (“Plenary”) Alternative Technical Concepts (“ATC”) 2, 3, 17, and 18 submitted on October 19, 2018, and ATC 13, submitted on October 25, 2018. The Department’s specific determination for ATCs 2, 3, 13, 17, and 18 are as follows:

ATC Number	ATC Description	Determination
2	Utilize Partial Depth Precast Deck Form	This submittal is an ATC, however, the Department accepts this ATC based on the following condition: <ul style="list-style-type: none"> The Proposer shall use the Texas Pre-cast Partial Depth Standard Details (Attachment D to the ATC).
3	Reclassification of the Environmental Exposure Condition	The submittal is an ATC but is not acceptable for inclusion in the Proposal.
13	Payment Terms	The submittal is not an ATC under Section 4.3.1 of the ITP because it appears to request a change to commercial terms. This item may be submitted on Form Q.
17	Pile Bents at Cross Streets	The submittal is an ATC and is acceptable for inclusion in the Proposal.
18	Adjustment to Required Customer Service Call Efficiency	This submittal is not eligible as an ATC under Section 4.3.1 because it is a reduction in Project

ATC Number	ATC Description	Determination
		scope, performance, or reliability. This item may be submitted on Form Q.

The Proposer should note that the conditions identified herein will become part of the Contract Documents. During performance of the Comprehensive Agreement, if the Developer does not comply with one or more Department conditions of pre-approval for ATC 2 or the Developer fails to obtain a required third party approval for an ATC, the Developer will be required to comply with the original requirements of the Request for Proposals without additional cost or extension of time.

Sincerely,



Nicholas Olivier, P.E.
Project Manager

NJO:PJP:ldm

Confidential ATC

For Review by LA DOTD

Plenary Infrastructure Belle Chasse ATC No. 2:

Utilize Partial Depth Precast Deck Forms

10/16/2018

A. Proposer and ATC Identification:

Proposer: Plenary Infrastructure

ATC No. 2: Utilize Partial Depth Precast Deck Forms

B. Description and Conceptual Drawings:

Partial depth precast deck forms have historically been used in bridge construction across the United States. Partial depth precast deck forms can be used to reduce construction schedule by reducing time required to tie deck steel as well as reducing the quantity of concrete to be cast in place on top of the deck.

Though the panels have many benefits, in some cases, states such as Florida and Texas have experienced punching shear failures or reflective cracking with partial depth precast depth panels in the past. These failures and mitigation methods were investigated by Huval. From this investigation, it was determined that the use of flexible (compressible) fiberboard as a bearing material to set the panels on as well as the placement of the bearing material at the edge of the panel were the main causes for past issues with partial depth precast deck forms.

Attachment A provides information on the pros/cons on the use of precast deck panels. Attachment B shows the section that has been used by Florida DOT in the past that experienced some problems. Attachment C discusses an approach that has been used in Florida to mitigate issues.

With 85 percent of bridges in state system utilizing partial depth precast deck panels the State of Texas represents the most prolific use of precast deck panels in the country. The Texas Department of Transportation (TXDOT) has developed substantial research over the years and now employs the use of partial depth precast deck panels on more than 90 percent of new bridges in state while the use of this technology continues to grow.

Due to the State's leadership in the development and successful implementation of this technology TXDOT is looked to for education on the technology. On April 19th, 2018, through the Accelerated Bridge Construction Center, TXDOT's Director and Deputy Director of the Bridge Division conducted a webinar detailing their successful application of the technology. A description of that webinar is as follows:

The Texas Department of Transportation (TXDOT) has recently advanced its successful use of partial-depth precast deck panels in its bridges. Research beginning in the 1970s has resulted in details that provide a "stronger, stiffer, and more crack-resistant" bridge deck. The panel standards are available on TXDOT's website and are included as an option in bridge contract documents. Used successfully for half a century, partial-depth deck panels are currently chosen by contractors on 85 percent of bridge construction in Texas. In the last few years TXDOT has been investigating additional innovations in their use of the panels, developing details for panels over the supports and spanning the overhangs. In this presentation TXDOT will discuss the history of the use of partial-depth precast deck panels from both design and construction and the lessons learned in implementing the latest innovations. (Partial-Depth Precast Deck Panel Design and Construction in Texas)

ATC 2 has been developed with recognition of past experiences and issues.

ATC 2 proposes to utilize partial depth precast deck forms in lieu of stay-in-place formwork on precast prestressed concrete girder spans, with recognition to past issues and modified design standards to mitigate. Other state DOTs such as TXDOT are currently using partial depth precast girder deck forms. The Texas standard currently in practice,

utilized in approximately 85% of TXDOT bridges, is proposed for ATC 2 and has been modified from what was used in the past that had experienced issues. See Attachment D – Prestressed Concrete Partial Depth Panels Deck Details (TXDOT). Note differences from the older standard: a bedding strip is used in lieu of the fiberboard on the top flange and the panel is wider so that there is more bearing area on the top flange. This detail has been used successfully in Texas without experiencing any of the failures experienced in the past.

C. ATC Usage and Location:

This ATC would be utilized throughout the bridge structure within spans that incorporate the use of prestressed concrete girders only.

D. Deviation(s) from Operations Requirements:

N/A

E. Deviation(s) from Roadway Requirements:

N/A

F. Deviation(s) from Maintenance Requirements (Existing Judge Perez Bridge or Tunnel):

No Change.

G. Deviation(s) from Maintenance Requirements (New Toll Bridge Facility):

No Change.

H. Changes in Handback Requirements:

No Change.

I. Changes in Anticipated Life:

This ATC would not change the anticipated life or service life of the new bridge structure.

J. Changes in Design & Construction Schedule:

There would be no changes in design schedule, but it's estimated that use of ATC 2 would reduce construction time by approximately 2.5 months and cost by approximately \$1.5 million. Reduced time translates to more convenience for motorists while reduced capital cost translates to reduced toll rates.

K. References in RFP inconsistent with ATC:

Section 12.4.2 of the Technical Provisions specifically states, "Partial depth, pre-cast deck forms will not be permitted."

L. ATC Justification and why deviation, if any, should be allowed:

The benefits of the above captioned ATC are reduced construction schedule, improved worker safety and capital cost savings due to simplification of construction and the reduced construction schedule.

M. Preliminary analysis and impacts on traffic, permitting, safety, life-cycle, O&M:

Except for a shorter construction duration and corresponding reduction in temporary traffic alignments, there will be no impacts to traffic or permitting. Safety of the construction workforce is significantly improved as the erected partial-depth precast deck panels provides a safer, more stable working surface for completion of superstructure construction.

With respect to Lifecycle performance and O&M considerations, Partial Depth Precast deck forms are commonly used throughout the United States. There are no anticipated impacts to routine and rehabilitation maintenance.

N. Preliminary analysis and impacts on Project revenue:

No Change.

O. Analysis of additional ROW impacts:

N/A

P. Description of other Projects where ATC has been used:

The TXDOT standard proposed for use within this ATC has been employed on more than 1,650 bridges and continues to be employed on more than 85% of new bridges within the State. Further, with design the design support of Huval & Associates, the Traylor-Massman Joint Venture team successfully employed the TXDOT partial depth precast deck panel standard for the LADOTD in the construction of the LA 1 Relocated, Phase 1B project in 2006.

Q. Additional Risks to LA DOTD or Third Parties:

N/A

R. Estimate of LA DOTD, Developer and Third-Party Costs:

None

S. Estimate of Savings to Financial Proposal:

ATC 2 creates a toll revenue savings of 10.04m which leads to a lower toll rate for the project, the benefit of which accrues to the end user.

T. Analysis on how ATC is equal or better in quality and performance to requirements:

Based on the experiences in Texas, ATC 2 would provide equal or better performance to a cast-in-place deck. Precast typically provides a higher quality product because it was formed and poured in a controlled environment. Cast-in-place must be formed in the difficult field conditions, which typically results in a less superior product to precast.

Attachments:

- Attachment A – Pros and Cons
- Attachment B – Florida Mitigation Approach
- Attachment C – Florida Section for Precast Partial Depth
- Attachment D – TXDOT Precast Partial Depth Standard Details

Partial-Depth Precast Concrete Panels	
Pros	Cons
Speeds construction (Formwork, Rebar, and Cure Time) which also equals cost savings.	Texas has historically encountered longitudinal cracking on decks that use partial-depth precast panels. The longitudinal cracking was found to be caused by placement of the bedding strip too far from the edge of the girders, which led to insufficient bearing for the panels, or by placement of the bedding strips, which prevent the CIP concrete from flowing under the panel edges, to crush. Texas mitigated the longitudinal cracking by ensuring the bedding strips were placed as specified, so that the design panel bearing stresses were achieved. Besides the longitudinal cracking, Texas has had positive experiences with partial depth deck panels and has been happy with the performance they have produced (Merrill, 2002).
More durable and uniformly constructed due to controlled fabrication environment and stringent quality control.	Cracking in the CIP portion of the deck at the transverse & longitudinal joints between panels due to the concentration of shrinkage of CIP concrete (Sneed & Belarbi, 2012).
Reduce environmental impacts for bridges that span waterways.	
Simple to fabricate.	
Safer than conventional forming system due to not having to set/strip formwork underneath bridge.	
Notes	
TXDOT applies partial-depth panel method to 85% of bridges (Merrill, 2002)	
Full-depth panel deck slabs may be more expensive than similar cast-in-place concrete decks, but any additional cost may be offset by the reduction in construction time (Hieber, Wacker, Eberhand, Stanton 2005).	
A study on bridge durability found that a smaller percentage of prestressed concrete bridges were "structurally deficient" than cast-in-place bridges of similar age and span length (Hieber, Wacker, Eberhand, Stanton 2005)	
The increased stiffness of precast girders may reduce cracking and fatigue problems associated with steel girders (Hieber, Wacker, Eberhand, Stanton 2005)	
FLORIDA Fiberboard material was positioned at the ends of the precast panels allowing for no panel overhang. That arrangement did not leave space for the concrete to flow underneath the panel and provide rigid support when the CIP concrete was poured. This error changed the load path for shear with disastrous consequences, which led to seven, localized punching shear failures from 2000-2007 (Alvi, Gualtero, Sen, Mullins).	
FLORIDA Moreover, the steel strands from the panel terminated at the end of the panel and did not extend into the CIP concrete (Alvi, Gualtero, Sen, Mullins).	
FLORIDA Due to extensive cracking and spalling, FDOT decided to replace all 127 precast deck bridges in Districts 1 and 7 (Deshmukh, 2004).	
FLORIDA Despite successful performance in other states and satisfactory performance in other FDOT districts, precast deck panel bridges have a long history of premature deterioration in Districts 1 and 7 that has resulted in excessive maintenance for the FDOT and impacts to the traveling public. Previous research has attributed this to contractors using flexible fiberboard bearing material supports to simplify construction (Alvi, 2010).	
FLORIDA In 1983, The University of Florida study by Fagundo concluded that panel decks with positive bearing should have a service life comparable to conventional decks (Alvi, 2010).	

ATTACHMENT 'B'

Repair of Construction-Related Deterioration in Precast Deck-Panel Bridges

Atiq H. Alvi, Ivan Gualtero, Rajan Sen, and Gray Mullins

Precast, partial-depth deck panels have been used throughout the United States as stay-in-place forms and to provide a portion of deck strength. In Florida, fiberboard material was routinely placed along the edges of the panels to seal the overlay of concrete, rather than embed the panels in grout. This approach did not allow the concrete to flow fully underneath the panel ends and did not provide a reliable, rigid bearing. The seriousness of this seemingly minor change in practice was only fully recognized nearly two decades later, when seven punching shear failures occurred on major highways. This paper reviews eight repair methods employed by the Florida Department of Transportation to maintain 200 deck-panel structures until they could be replaced. The paper highlights the difficulties that were faced in devising repairs when the underlying cause of the damage was not understood fully. Full-depth bay replacement with cast-in-place concrete was the most effective approach but required extended lane closures. Full-depth precast panels could be installed during nighttime lane closures but cost more. The most important lesson learned was that flexible materials, such as asphalt, were best avoided to repair the bridge decks.

Bridge deck deterioration most commonly results from corrosion (1). Although corrosion damage is expensive to repair, its cause is well understood, and proven methods, such as cathodic protection, are available to mitigate it (2). By contrast, construction-induced problems in which identical bridges in identical environments are exposed to similar loading (e.g., northbound and southbound Interstate bridges over the same crossing) may not necessarily deteriorate in the same manner. Such unpredictable deterioration poses special problems to highway agencies responsible for bridge maintenance and service.

Precast deck-panel bridges have an excellent track record, except in Florida, where they have a long history of premature deterioration. The state was an early adopter of this type of bridge, and once had an inventory of nearly 200 of them, although the number has dwindled as they gradually have been replaced. Research has indicated that poor performance was the result of an unintentional construction error (3–6). Fiberboard bearings used to support pre-

cast panels were positioned at their ends with no overhang. That arrangement did not leave space for the concrete to flow underneath the panel and provide rigid support when the cast-in-place (CIP) concrete was poured (Figure 1). This error changed the load path for shear with disastrous consequences, which led to seven, localized punching shear failures from 2000 to 2007. Several of the bridges had been in service for more than two decades (Table 1). These failures highlight the enormous difficulties that are faced in repairing and maintaining bridges when the underlying cause of deterioration is unclear or cannot be predicted without destructive bedding evaluation at the panel ends.

This paper assesses eight repair methods used by the Florida Department of Transportation (DOT) to maintain such bridges in service. Background information on precast deck-panel bridges, including their expected structural response, is presented first. Information on the type of cracking that developed under service was retrieved from inspection reports. Particular reference was made to a bridge over an Interstate highway that experienced localized failure in 2000 after 20 years of service. This information provided a platform for a critical review of the repair methods. Additional information may be found in a comprehensive report (7) that was updated recently (8).

BACKGROUND

Precast deck-panel highway bridges were first constructed in Illinois in the early 1950s. Unlike today's full-depth precast decks, a precast deck panel served as a stay-in-place form for a CIP slab placed on top and in between the panels. As a result, field forming was needed only for the exterior girder overhangs, which resulted in considerable savings in construction time and costs. Bridges of this type were constructed successfully in several other states, most notably in Texas, where more than 1,650 of them exist in the state and county systems (9). Most of the bridges have performed well: 833 of them were rated Condition 8, and 20 were rated Condition 9 in the National Bridge Inventory, in which Condition 0 = failure and Condition 9 = excellent (7). These ratings are in contrast to Florida's dismal experience with this construction technique.

Deck-panel bridges were first constructed in Florida in the 1970s and by the early 2000s there were approximately 200 such bridges in the state. Of these, 127 are located in Districts 1 and 7. These districts consist of 17 counties, which range from the central to the southern regions of the state. Originally, full-depth CIP decks were planned but, during construction, a change was proposed to use the deck-panel option. In general, the precast panels were 8 × 10 ft in plan and 3.5 to 4 in. thick. They provided

A. H. Alvi, T. Y. Lin International Group, 12802 Tampa Oaks Boulevard, Suite 245, Tampa, FL 33637; I. Gualtero, Ayers Associates, 6875 Hidden River Parkway, Suite 200, Tampa, FL 33637-1035; R. Sen and G. Mullins, Department of Civil and Environmental Engineering, University of South Florida, 4202 East Fowler Avenue, Tampa, FL 33620-5350. Corresponding author: R. Sen, sen@usf.edu.

Transportation Research Record: Journal of the Transportation Research Board, No. 2292, Transportation Research Board of the National Academies, Washington, D.C., 2012, pp. 104–112.
DOI: 10.3141/2292-13

Grout Packing

Most deck-panel bridges in Florida were built with fiberboard bearing material to support the precast deck panels on the girders. With this method of construction, no positive (rigid) bearing is provided at the ends of the precast panel. As a result of the effects of creep and shrinkage, initial separation and longitudinal cracks are inherent in precast deck-panel construction. However, the few bridges in Florida that used positive bearing have performed much better and consequently have had longer service lives. The most important conclusion drawn from the forensic study (7) was that the lack of positive panel bearing was clearly the main factor responsible for the occurrence of major deck deterioration, such as cracking, delamination, spalling, failing repairs, and, in the worst case, localized punch-through deck failures.

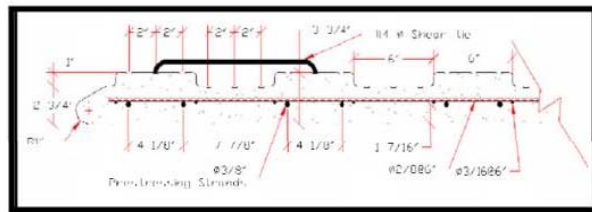


Figure 1.4 Precast Deck Panel Reinforcement Details

Despite successful performance in other states and satisfactory performance in other FDOT districts, precast deck panel bridges have a long history of premature deterioration in Districts 1 and 7 that has resulted in excessive maintenance for the FDOT and impacts to the traveling public. Previous research has attributed this to contractors using flexible fiberboard bearing material supports to simplify construction [2].

ATTACHMENT 'C'

Chapter 1

Introduction and Background

1.1 Precast Prestressed Panel Deck Bridges

Precast Prestressed Panel Deck Bridges are composite deck bridges consisting of prestressed panels overlaid by a cast-in-place concrete (CIP) slab. The panels are usually precast at a manufacturing plant, trucked to the bridge construction site and lifted by cranes onto concrete or steel girders. There, they span the opening between girders and serve as permanent forms for the CIP concrete topping that completes the bridge deck. Thus the panels eliminate the need for formwork. The panels are supported on the bridge girders (prestressed concrete or steel) by a permanent bearing material that provides continuous and solid support, consisting of mortar, grout, concrete, steel and sometimes soft fibrous material. However deck panels in Florida are supported mostly on fiberboards (shown in Figure 1.1).

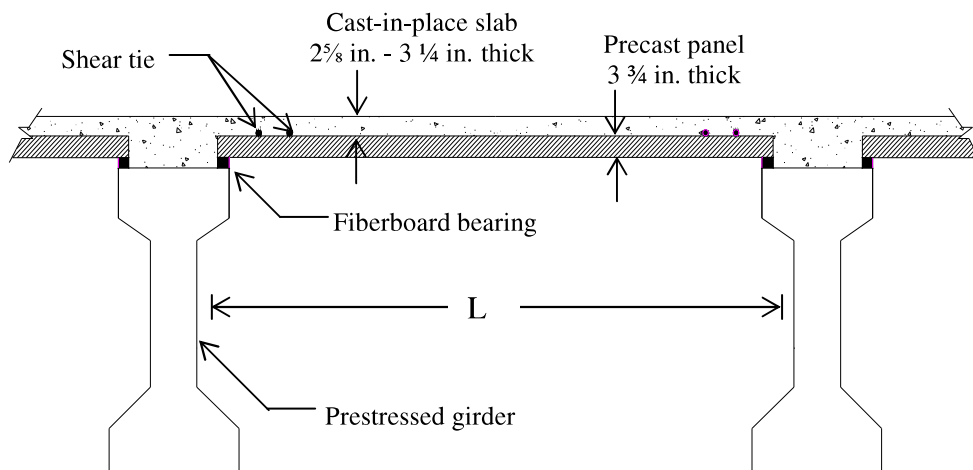
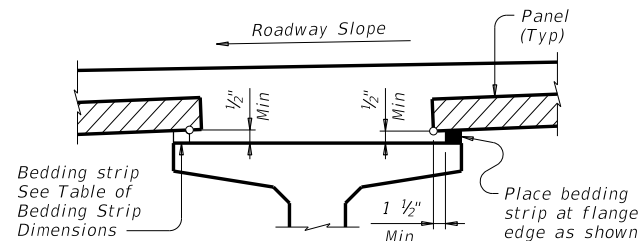


Figure 1.1: Cross Section of Precast Prestressed Panel Deck

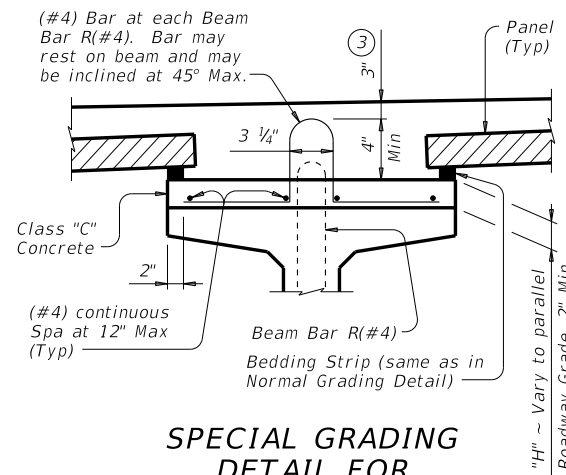
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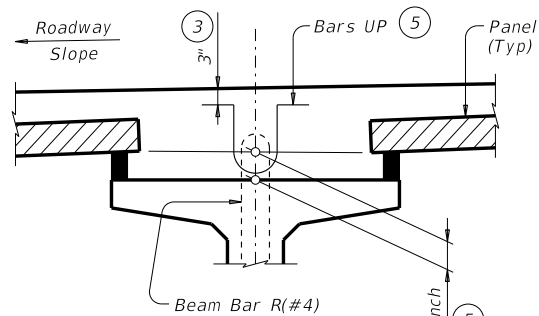
NORMAL GRADING DETAIL ①

Showing Prestressed Concrete I-Girders.
(Other Beam Types Similar)



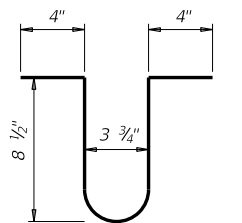
SPECIAL GRADING DETAIL FOR CONCRETE BEAMS

Showing Prestressed Concrete I-Girders.
(Other Beam Types Similar)

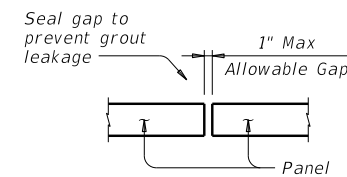


HAUNCH REINFORCING DETAIL

Showing Prestressed Concrete I-Girders.
(Other Beam Types Similar)

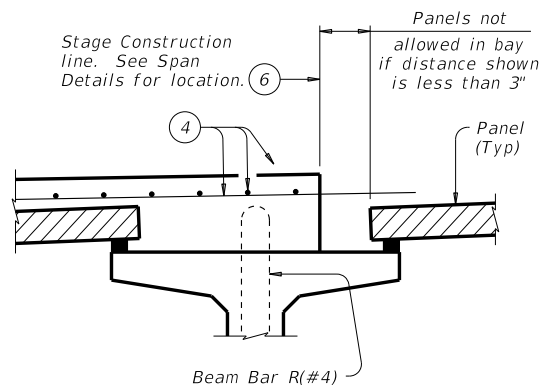


BARS UP (#4) ⑤

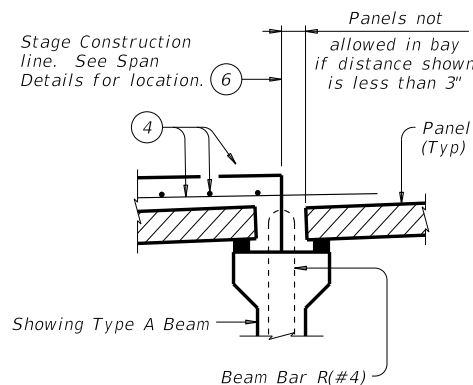


TYPICAL SECTION AT PANEL JOINT

(Panel reinforcing not shown for clarity.)
The gap cannot be considered as a panel fabrication tolerance.



PRESTR CONC I-GIRDERS



PRESTR CONC I-BEAMS

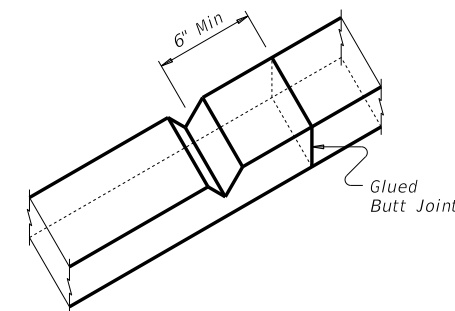
STAGE CONSTRUCTION LIMITATIONS

(Other Beam Types Similar)

TABLE OF BEDDING STRIP DIMENSIONS

WIDTH	HEIGHT ②	
	Min	Max
1" (Min)	1/2"	2"
1 1/4"	1/2"	2 1/2"
1 1/2"	1/2"	3"
1 3/4"	1/2"	3 1/2"
2" (Max)	1/2"	4"

- ① To reduce the quantity of cast-in-place concrete, bedding strip thickness may be increased in 1/4" increments. Bedding strips must be comprised of one layer. Bond bedding strips to the beams with an adhesive compatible with bedding strips. Bedding strips over 2.5" high may need to be bonded to panels. The same thickness strip must be used under any one panel edge and the maximum change in thickness between adjacent panels is 1/4". Alternatively, bedding strips may be cut to grade. Panels may be supported by an alternate method, using a commercial product, if approved by the Engineer of Bridge Design, Bridge Division. If bedding strips exceed 4" high, use Special Grading Detail for Concrete Beams or submit an alternate method to the Bridge Division for approval.
- ② Height must not exceed twice the width.
- ③ Provide clear cover as indicated unless otherwise shown on Span Details.
- ④ See Span Details and Thickened Slab End Details for top slab reinforcement and clear cover. Transverse top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- ⑤ Space Bars UP(#4) with Beam Bars R(#4) in all areas where measured haunch exceeds 3" or 3 1/2" with Prestressed Concrete I-Girders. Epoxy coating for Bars UP is not required.
- ⑥ Do not locate construction Joints on top of a panel.
- ⑦ Butt adjacent bedding strips together with adhesive. Cut v-notches, approx 1/4" deep, in the top of the bedding strips at 8' o.c..



BEDDING STRIP DETAIL ⑦

CONSTRUCTION NOTES:

Erected panels must bear uniformly on bedding strips of extruded polystyrene placed along top flange edges. If additional blocking is needed, special grading details for supporting the panels and extra reinforcing between beam and slab will be considered subsidiary to deck construction.

Bars U, shown on PCP-FAB, may be bent over or cut off if necessary.

Care must be taken to ensure proper cleaning of construction debris and consolidation of concrete mortar under the edges of the panels. Bedding strips must be placed at beam flange edges so that adequate space is provided for the mortar to flow a minimum of 1 1/2" under the panels as the slab concrete is placed.

To allow the proper amount of mortar to flow between beam and panel, the minimum vertical opening must be at least 1/2". Roadway cross-slope reduces the opening available for entry of the mortar. Bedding strips varying in thickness across the beam are therefore required.

For clear span between U-beams less than or equal to 18", see Permissible Slab Forming Detail on Miscellaneous Slab Detail sheets, UBMS.

MATERIAL NOTES:

Provide Grade 60 reinforcing steel in the cast-in-place slab. See Table of Reinforcing Steel for size and spacing of reinforcement.

If the top and bottom layer of reinforcing steel is shown on the Span Details to be epoxy coated, then the D, E, P, & Z bars must be epoxy coated.

Provide bar Laps, where required, as follows:
Uncoated ~ #4 = 1'-5"
Epoxy Coated ~ #4 = 2'-1"

GENERAL NOTES:

Designed according to AASHTO LRFD Specifications.

Panel placement may follow either Option 1 or Option 2 except Option 1 must be used if the skew exceeds 45 degrees.

Use of Prestressed Concrete Panels is not permitted for horizontally curved steel plate or tub girders. See Span Details for other possible restrictions on their use.

These details are to be used in conjunction with the Span Details, PCP-FAB and other applicable Standard drawings.

Any additional reinforcement or concrete required on this standard is considered subsidiary to the bid item "Reinforced Concrete Slab".

Cover dimensions are clear dimensions, unless noted otherwise.
Reinforcing bar dimensions shown are out-to-out of bar.

HL93 LOADING

SHEET 1 OF 4



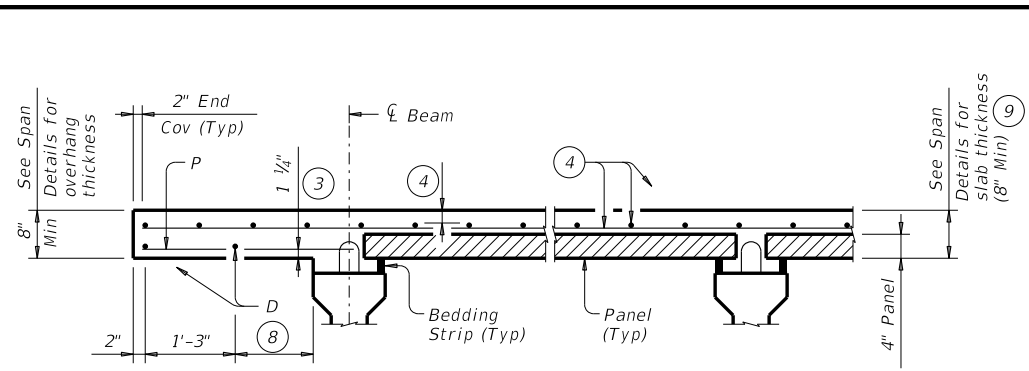
PRESTRESSED CONCRETE PANELS DECK DETAILS

PCP

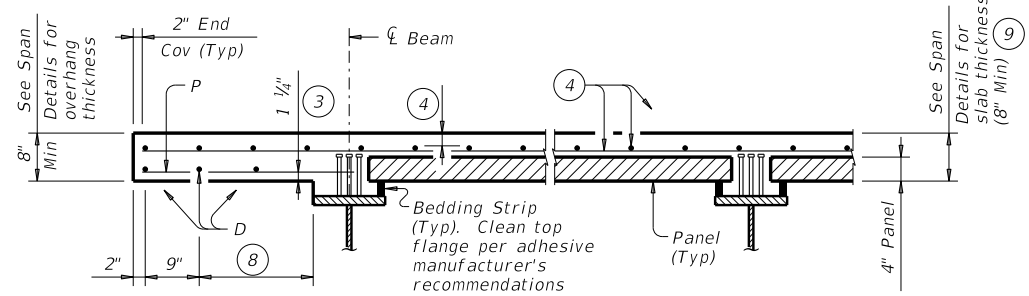
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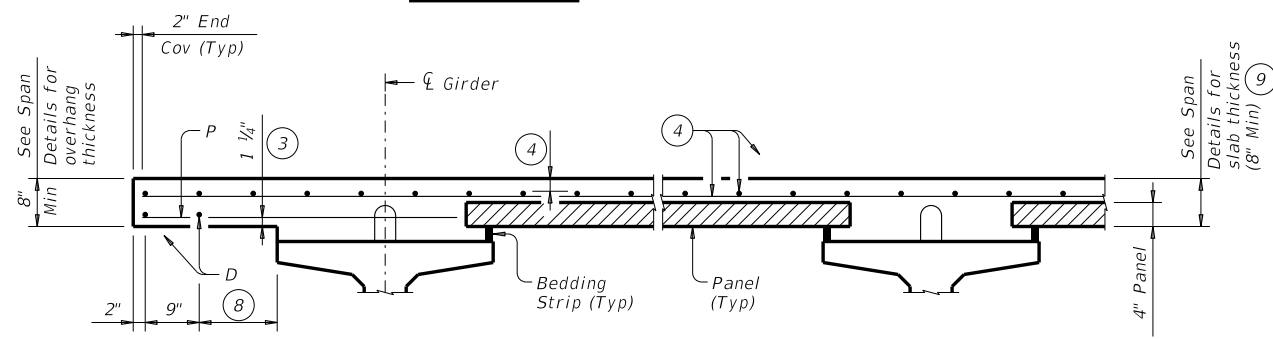
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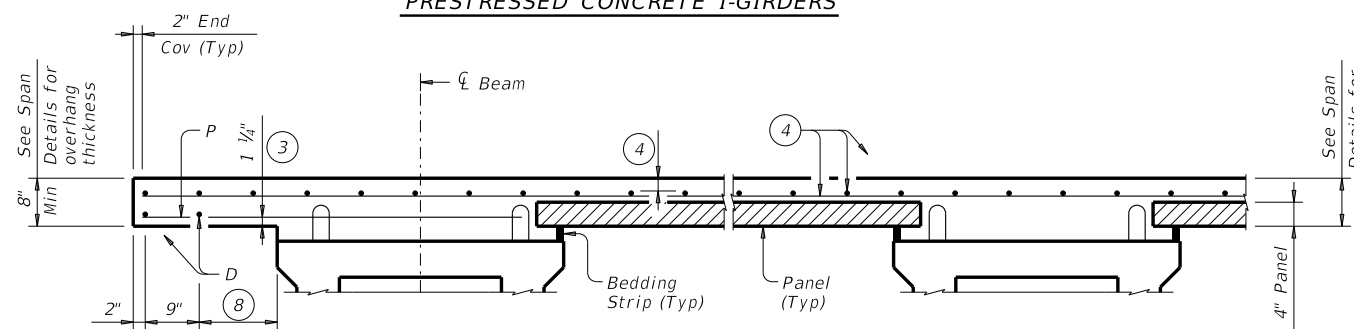
PRESTRESSED CONCRETE I-BEAMS



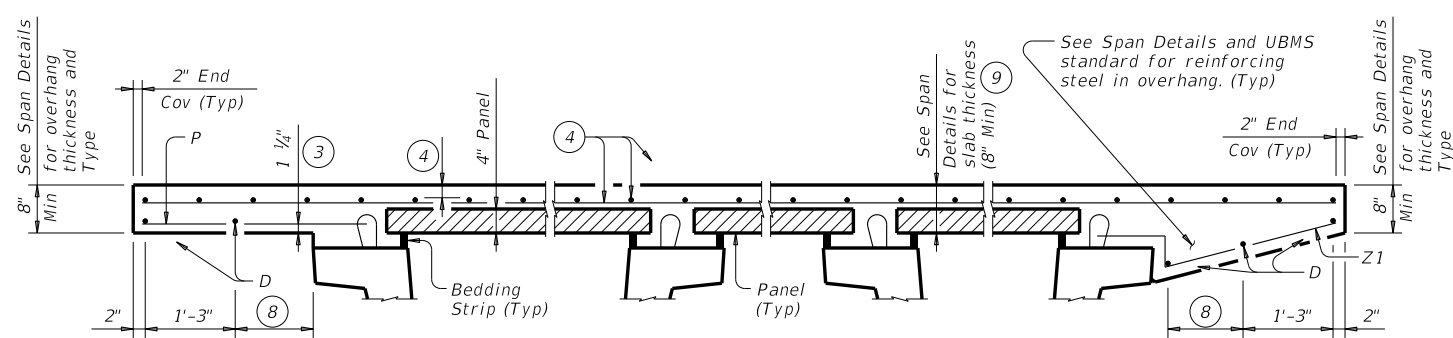
STEEL BEAMS



PRESTRESSED CONCRETE I-GIRDERS



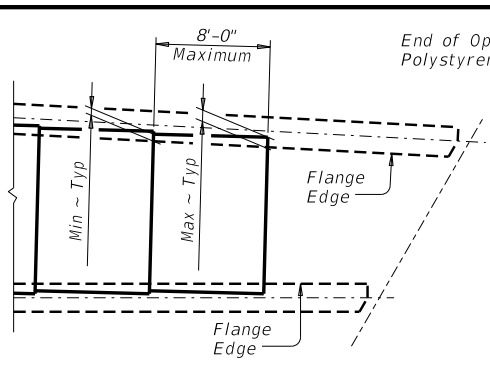
PRESTRESSED CONCRETE X-BEAMS



NORMAL OVERHANG WITH PRESTR CONC U-BEAMS

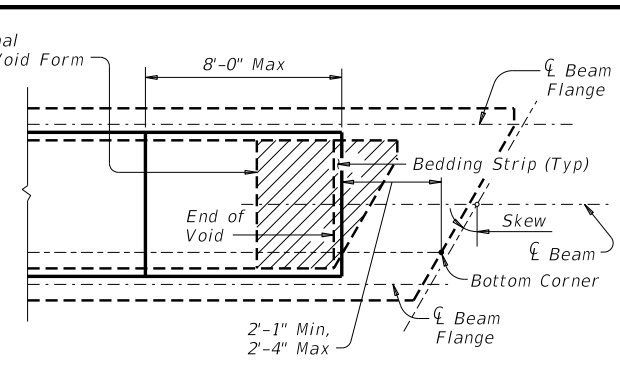
TYPICAL PART TRANSVERSE SECTIONS

SLOPED OVERHANG WITH PRESTR CONC U-BEAMS



AT FLARED BEAMS OR GIRDERS

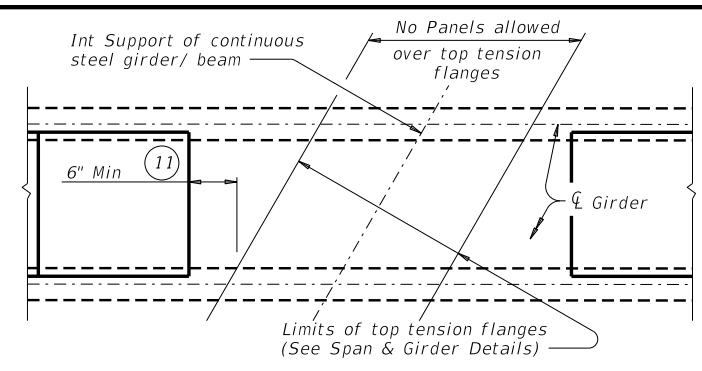
See PCP-FAB standard for Min and Max dimensions based on Bm/Girder type.



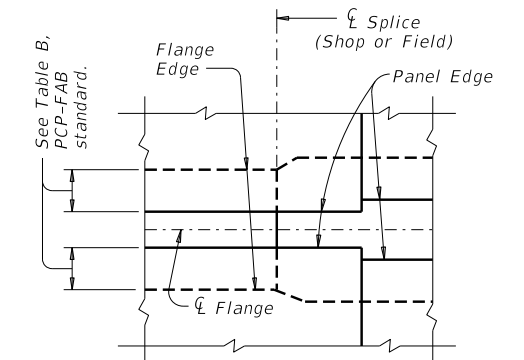
OVER CONC U-BEAMS

PART PLANS OF PANEL PLACEMENT

- 3 Provide clear cover as indicated unless otherwise shown on Span Details.
- 4 See Span Details and Thickened Slab End Details for top slab reinforcement and clear cover. Transverse top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- 7 Butt adjacent bedding strips together with adhesive. Cut v-notches, approx 1/4" deep, in the top of the bedding strips at 8' o.c..
- 8 Equally space additional bar if more than 1'-3" Max.
- 9 The actual thickness constructed may exceed the slab thickness shown on the Span Details but the extra thickness may be no more than 2" (1" for Prestressed Concrete U-Beams and Steel Beams). Bearing Seat Elevations or Finished grade may be adjusted.
- 10 Field adjust Bars Z1(#4) to match actual slope of slab overhangs. Width of slab overhang will vary along span with curved slab edges. Adjust Bar Z1(#4) dimensions to maintain proper cover. Bars Z2(#4) are located at Inv-T stems only.
- 11 Location of concrete placement sequence boundaries and bolted field splices should be considered by the contractor in determining panel limits.



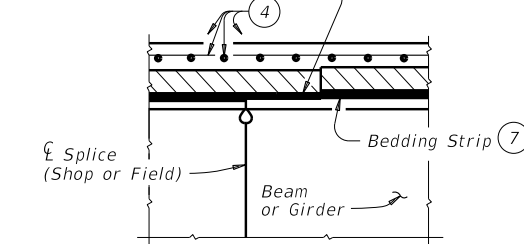
AT INT SUPPORTS OF CONTINUOUS STEEL GIRDERS



PLAN AT SPLICE

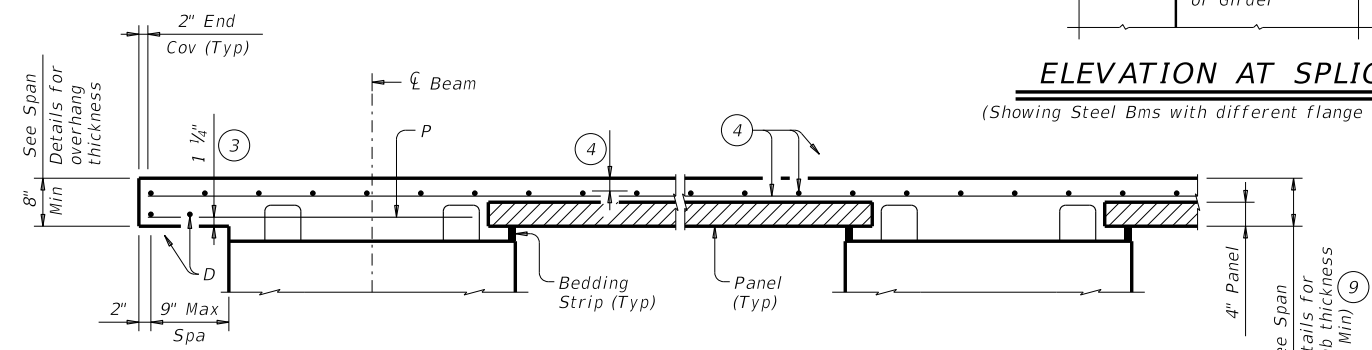
(Showing Steel Bms with flange width transition)

Cut bedding strip to adjust for difference in flange thickness.



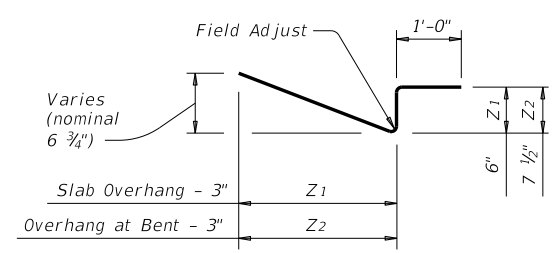
ELEVATION AT SPLICE

(Showing Steel Bms with different flange thickness)



PRESTRESSED CONCRETE SPREAD SLAB BEAMS

Bars P over exterior beams are still required when no overhang is used. In this case, only one Bar D, 2" from slab edge, is required.



BARS Z (#4) 10

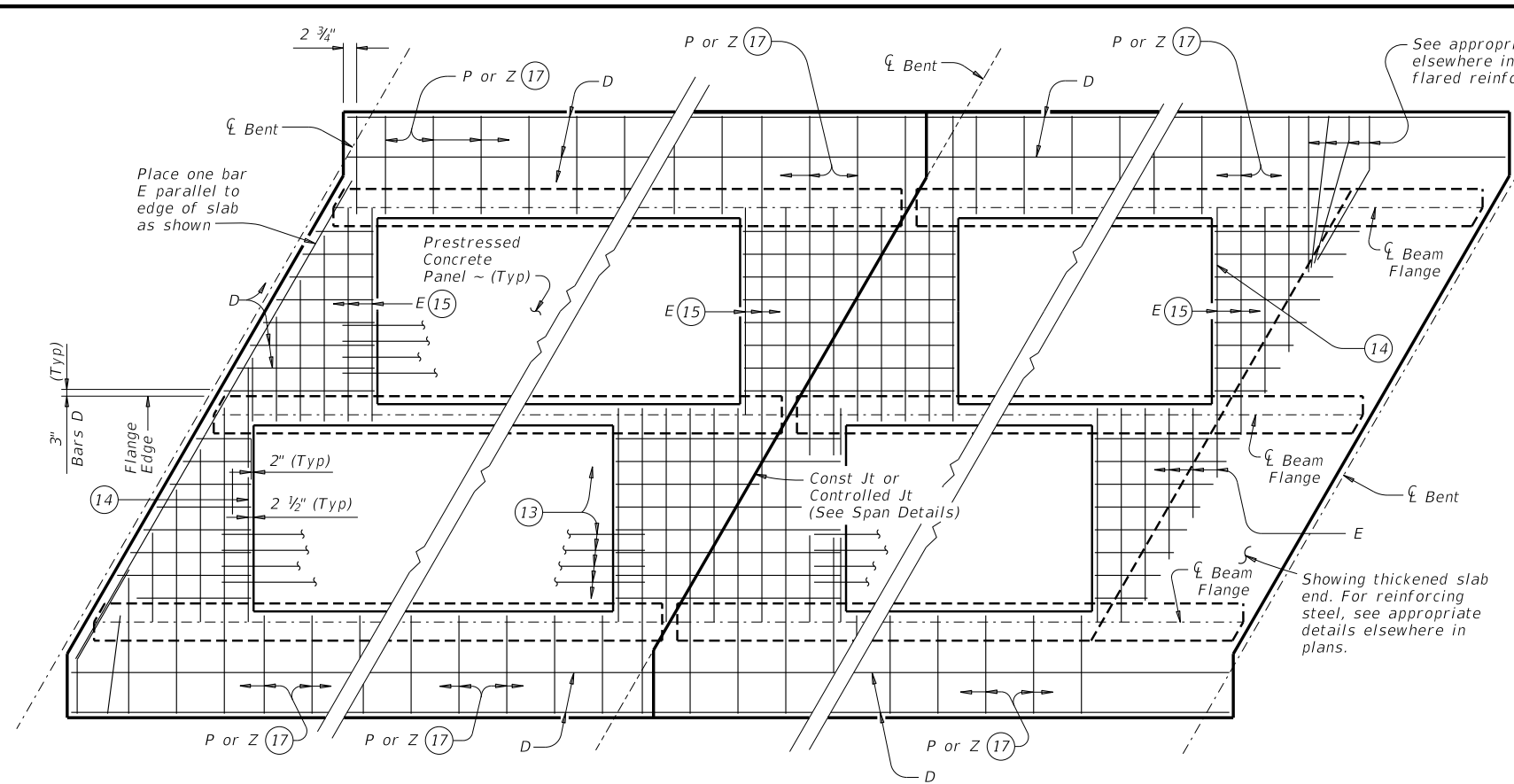
PRESTRESSED CONCRETE PANELS DECK DETAILS

PCP

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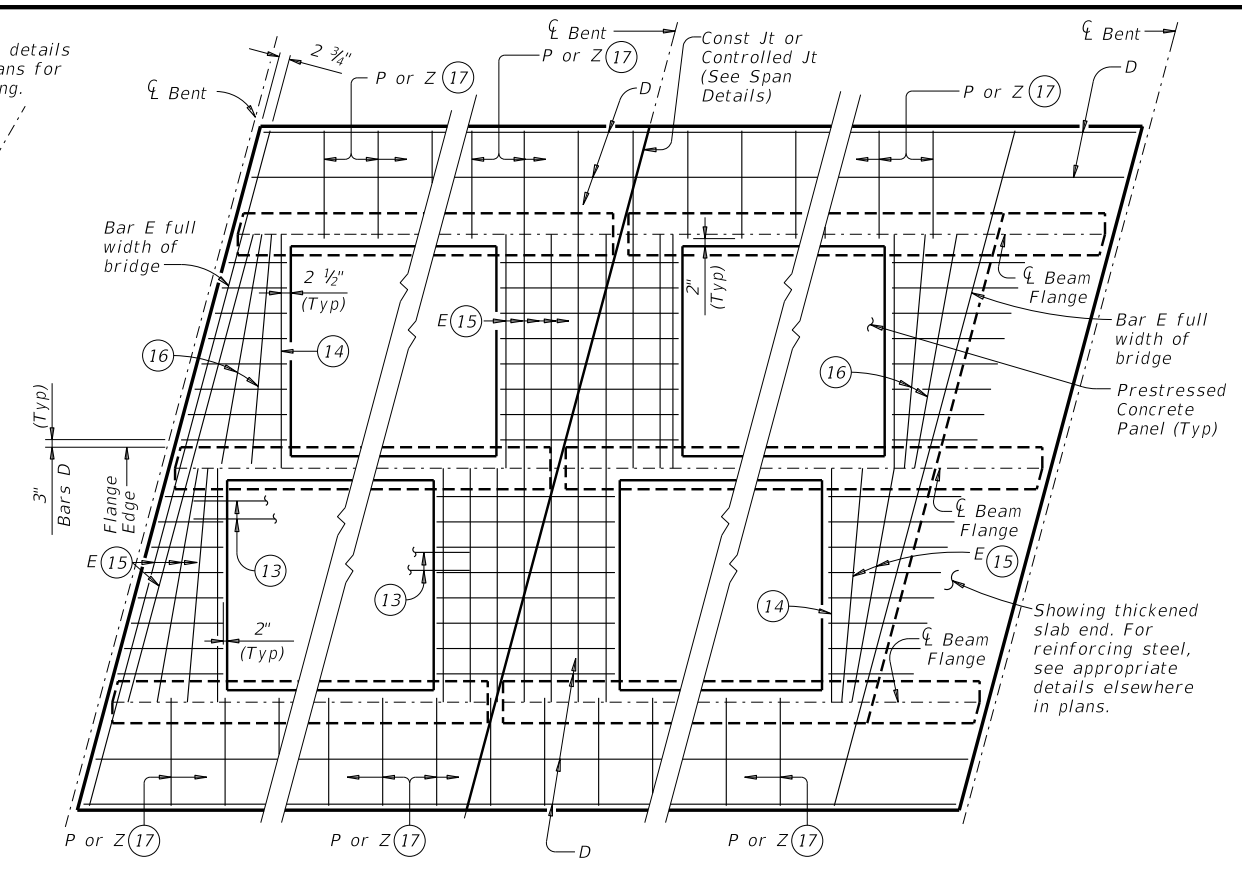
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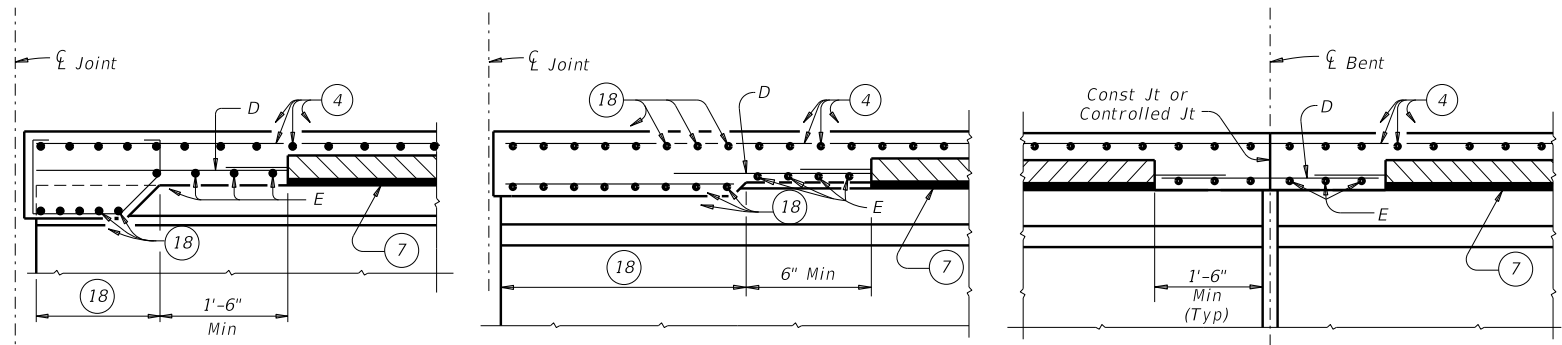
AT ALL SPAN ENDS UNLESS NOTED OTHERWISE
 AT INTERIOR BENTS
 AT THICKENED END SLABS

OPTION 1 ~ PLAN OF SLABS WITH NORMAL REINFORCEMENT

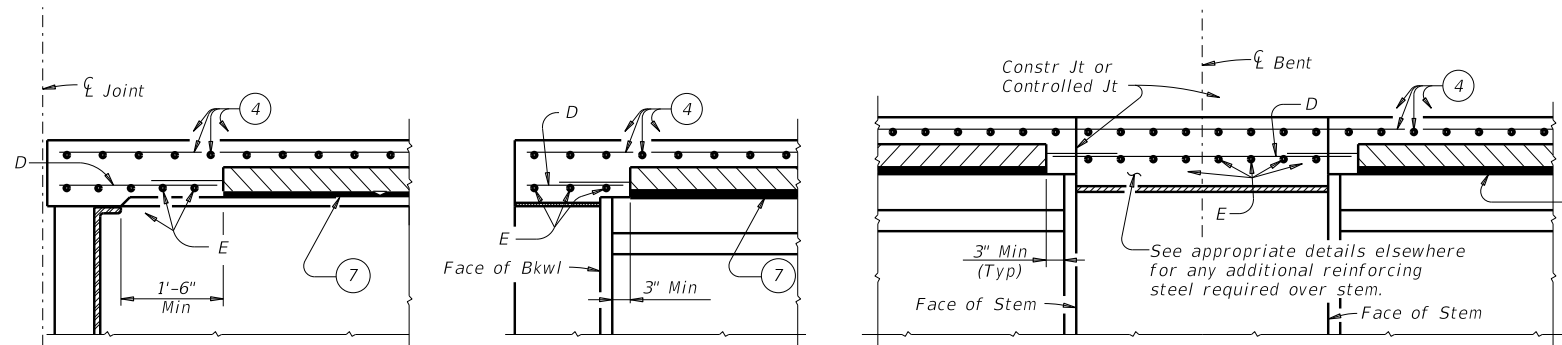


AT ALL SPAN ENDS UNLESS NOTED OTHERWISE
 AT INTERIOR BENTS
 AT THICKENED END SLABS

OPTION 1 ~ PLAN OF SLABS WITH SKEWED REINFORCEMENT



AT THICKENED SLAB ENDS FOR PRESTR CONC U-BMS
 AT THICKENED SLAB ENDS FOR PRESTR CONC I-BMS AND STEEL BMS
 AT SLAB CONTINUOUS OVER CONVENTIONAL INTERIOR BENTS FOR ALL SIMPLE SPAN BMS



AT CONVENTIONAL END DIAPHRAGMS FOR STEEL BMS
 AT SLAB OVER ABUTMENT BACKWALL FOR ALL BMS
 AT SLAB CONTINUOUS OVER INVERTED-T BENTS FOR ALL BMS

OPTION 1 ~ ELEVATIONS AT BEAM ENDS

- ④ See Span Details and Thickened Slab End Details for top slab reinforcement and clear cover. Transverse top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- ⑦ Butt adjacent bedding strips together with adhesive. Cut v-notches, approx 1/4" deep, in the top of the bedding strips at 8' o.c.
- ⑫ Max Spacing as listed unless otherwise shown.
- ⑬ At connection with cast-in-place slab, extend longitudinal panel reinforcement. See PCP-FAB for details.
- ⑭ Maintain one Bar E(#4) parallel to panel ends (Typ).
- ⑮ Bars E(#4) not continuous over beam flanges must overlap beam flange 6" Min.
- ⑯ Add flared Bars E(#4) (Min Spa = 6", Max Spa = 12") as required at panel ends.
- ⑰ Where possible, Bars E(#4) may be extended into overhangs to replace Bars P(#4). Bars Z(#4) are required for sloped overhangs with U-Beams.
- ⑱ See appropriate thickened slab end details for reinforcing and limits of thickened slab end.

TABLE OF REINFORCING STEEL ⑫		
BAR	SIZE	Max Spa (in.)
D	#4	9
E	#4	9
P	#4	18
UP	#4	~
Z	#4	18



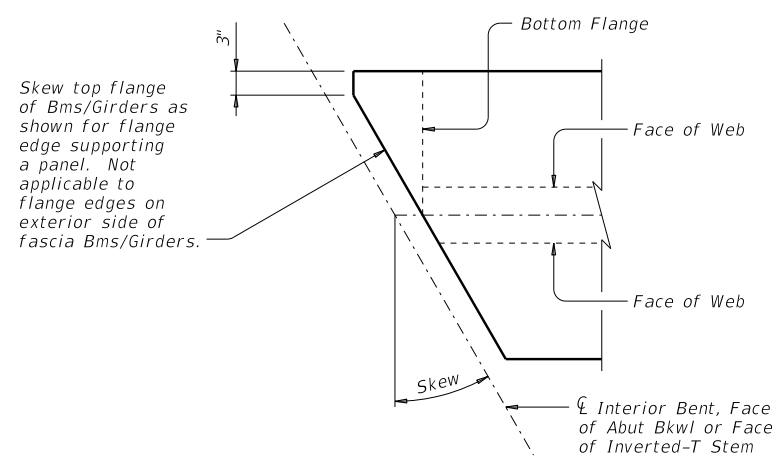
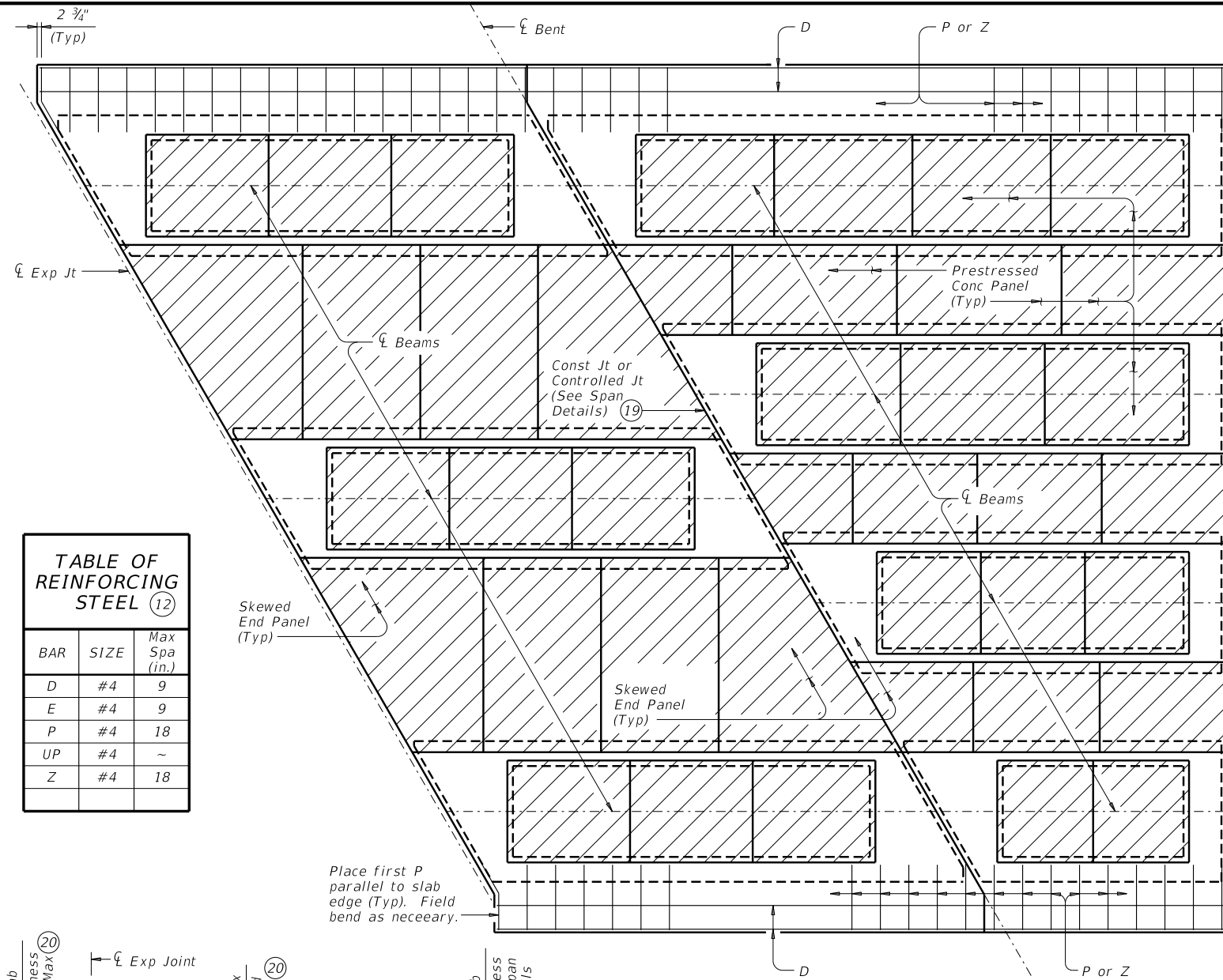
PRESTRESSED CONCRETE PANELS DECK DETAILS

PCP

FILE: pcpstde1.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: JMH
©TxDOT January 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DIST	COUNTY			SHEET NO.

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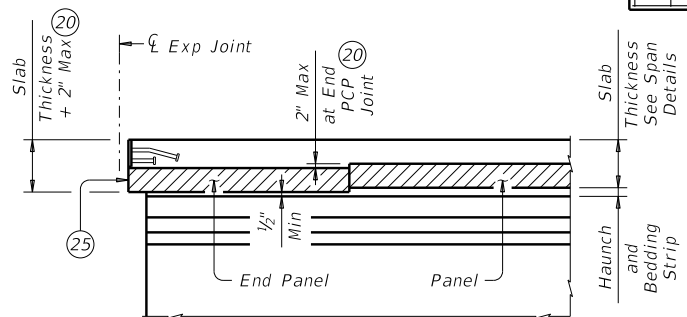
OPTION 2 ~ SHOWING MODIFICATION TO BEAM/GIRDER TOP FLANGE FOR SKEWS OVER 5°
Showing I-Bm/I-Girder, U-Bms and Steel Bms similar.

TABLE OF REINFORCING STEEL 12		
BAR	SIZE	Max Spa (in.)
D	#4	9
E	#4	9
P	#4	18
UP	#4	~
Z	#4	18

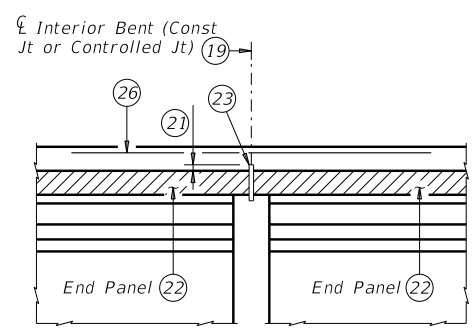
- 4 See Span Details and Thickened Slab End Details for top slab reinforcement and clear cover. Transverse top slab reinforcement may rest on top of prestressed concrete panels if necessary to maintain clear cover.
- 12 Max Spacing as listed unless otherwise shown.
- 19 Top Plastic Joint Former at Controlled Joints (Stress Cap, Zip Strip, Stress Lock, etc.) is not required with these Details.
- 20 End panel may be set up to 2" lower to accommodate expansion joint hardware, provided bedding strip is not less than 1/2" thick.
- 21 1" Min, 1 1/2" Max, support as necessary.
- 22 Place panel within 1/2" of 3/4" thick board.
- 23 3/4" thick timber board, leave in place. Place straight, within 1/4" of Centerline of Bent or face of Invt-T, across bridge width and end board at exterior flange edge of fascia beams/girders. Do not extend into overhang.
- 24 Permanent galvanized steel sheet form. Removable formwork is acceptable.
- 25 Place end panel within 1/2" of expansion joint opening. End panel cannot encroach on required expansion joint opening.
- 26 Place additional (#4) bar 5'-0" in length between every slab bars T. Center (#4) bar on Joint.
- 27 Place additional (#4) bar continuous 2'-6" beyond each side of Inverted-T Stem between every slab bars T.

SPECIAL OPTION 2 CONSTRUCTION NOTES:
Placing panels adjacent to expansion joints and bent centerlines prior to completing interior panel placement is recommended. Saw cutting panels to fit is acceptable when approved by the Engineer. Minimum distance from a saw cut edge to a panel strand is 1 1/2". Do not extend the longitudinal panel reinforcement into the cast-in-place slab.
Top flanges of beams and girders on skewed bridges must be modified as shown on this drawing. The Contractor is responsible for coordinating this modification with the beam fabricator prior to submitting shop drawings for approval.
Fabricator may optionally skew the whole end. When electing to skew whole end, girder end details and bearing type at conventional interior bent must be changed to use condition at abutment. Fabricator must coordinate change in bearing type, bearing centerline location, and dowel location with Engineer and Contractor. Show appropriate changes on girder and bearing shop drawings.
Bending of anchor studs of expansion joints shown on standards AJ, SEJ-A and SEJ-S(0) is permissible if necessary to clear top of end panels. The Contractor is responsible for coordinating modifications with the joint fabricator. Submit shop drawings for approval when modifications to expansion joint hardware are made.
Bedding strips under skewed end panels must conform to the requirements of Item 425 except their minimum compressive strength must be 60 psi.
Provide Bars AA, G, K and OA from standard IGTS(MOD) in the slab.

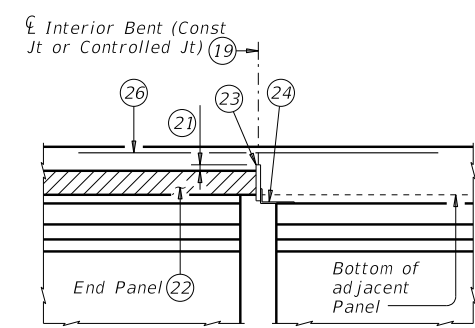
OPTION 2 ~ PLAN OF SLAB
(Showing U-Beams; other beams similar)



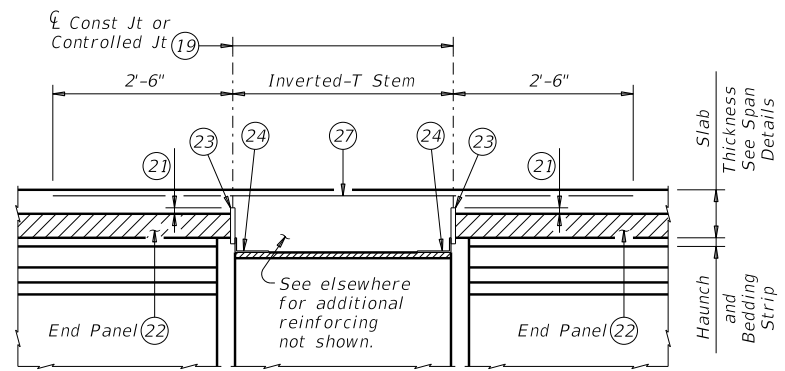
JOINTS (BETWEEN BEAMS/GIRDERS OR AT INV-T STEM)
For SEJ-A, SEJ-S(0), AJ and Type A Expansion Joints only.



CONVENTIONAL INTERIOR BENT
Panel against Panel between Bms/Girders.



CONVENTIONAL INTERIOR BENT
Panel against Bm/Girder End in Adjacent Span.



INVERTED-T BENT
Panels against Inverted-T Stem

OPTION 2 ~ ELEVATIONS AT BEAM ENDS 4

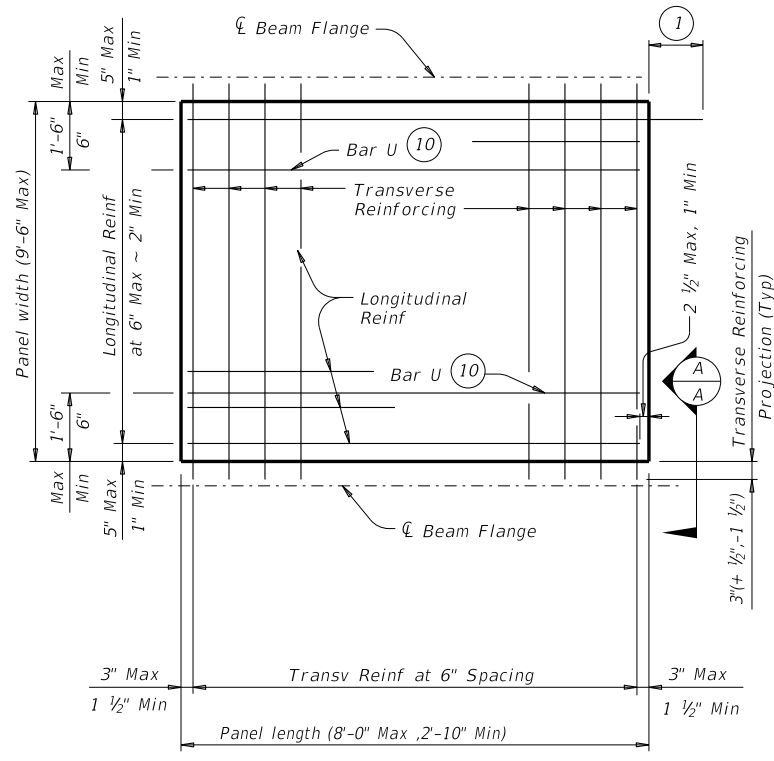
PRESTRESSED CONCRETE PANELS DECK DETAILS

PCP

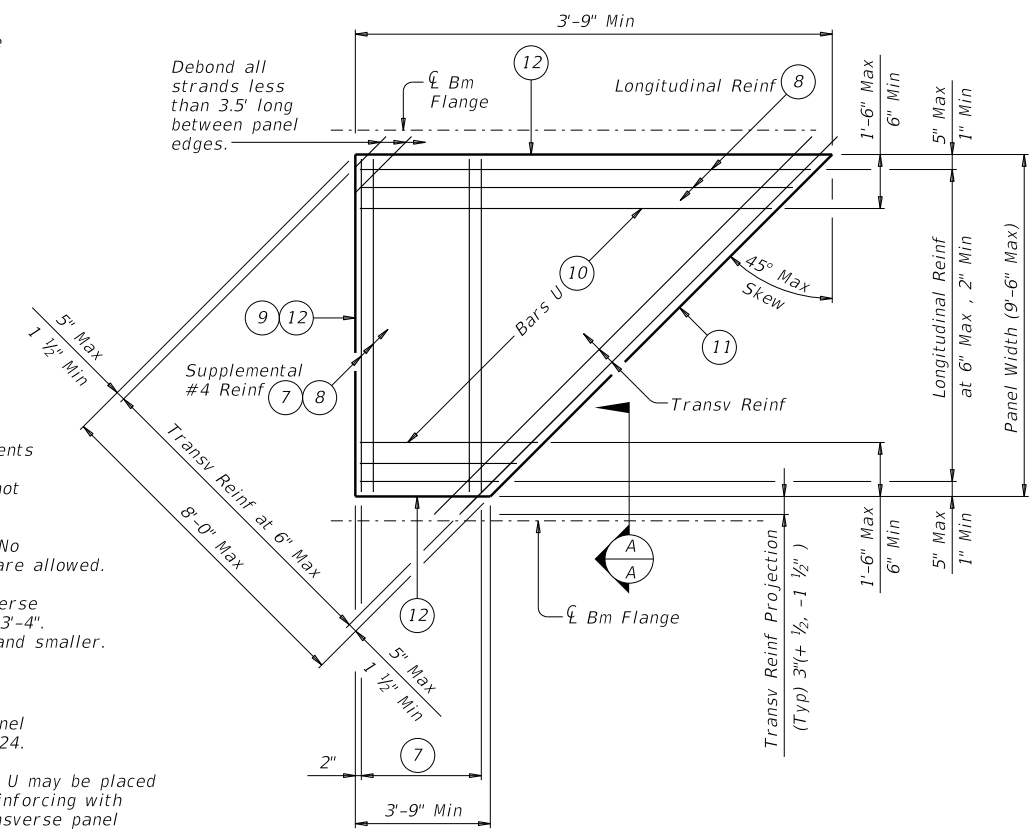
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©TxDOT January 2015	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DIST	COUNTY	SHEET NO.		

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TYPICAL NON-SKEWED PANEL PLAN



TYPICAL SKEWED END PANEL PLAN

(Only to be used with details shown elsewhere in the plans.)

- 1 At connection with cast-in-place slab, extend longitudinal panel reinforcement 1'-0" (+2", -0") past panel end. Alternatively, provide (#3) x 2'-0" dowels at 6" Max Spacing and extend dowels 1'-0" past panel end.
- 2 Four loops required per panel.
- 3 Four loops required per panel. 3/8" or 1/2" strands may be used.
- 4 Normal dimensions must be used on spans with parallel beams. Maximum and Minimum dimensions apply only to spans with flared beams.
- 5 See Normal Grading Detail on PCP standard for lap requirements and bedding strip dimensions. Some laps shown in tables cannot utilize all bedding strip widths.
- 6 One Splice allowed per panel. No more than two sheets of WWR are allowed.
- 7 Provide (#4) bars under transverse reinforcing, 10 Spaces at 4" = 3'-4". Omit for 5 degree (1:12) skew and smaller.
- 8 End Cover 2 1/2" Max, 1" Min.
- 9 Recess strands on indicated panel edge in accordance with Item 424.
- 10 At the fabricator's option, Bars U may be placed parallel to transverse panel reinforcing with horizontal legs in plane of transverse panel reinforcing.
- 11 Use length of indicated panel edge as panel width for purpose of determining type of transverse reinforcing.
- 12 Timber form work permissible this edge.

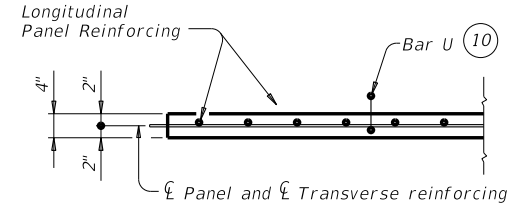
TABLE A (4) (5)				TABLE B (4) (5)			
Beam Type	Normal (In.)	Min (In.)	Max (In.)	Top Flange Width	Normal (In.)	Min (In.)	Max (In.)
A	3	2 1/2	3 1/2	11" to 12"	2 3/4	2 1/2	2 3/4
B	3	2 1/2	3 1/2	Over 12" to 15"	3 1/4	3	3 1/4
C	4	3	4 1/2	Over 15" to 18"	4	3	4 3/4
IV	6	4	7 1/2	Over 18"	5	3 1/2	6 1/4
VI	6 1/2	4 1/2	8 1/2				
U40 - 54	5 1/2	5 1/2	7				
Tx28-70	6	4	7 1/2				
XB20 - 40	4	3	4 1/2				
XSB12 - 15	4	3	4 1/2				

GENERAL NOTES:

Provide Class H concrete for panels. Release strength $f'c=3500$ psi. Minimum 28 day strength $f'c=5000$ psi. Do not use epoxy-coated reinforcing steel bar or strand in panels. Remove laitance from top panel surface. Finish top of panel to a roughness between a No.6 and No.9 concrete surface profile, inclusive, as specified by the International Concrete Repair Institute (ICRI). Shop drawings for the fabrication of panels will not require the Engineer's approval if fabrication is in accordance with the details shown on this standard. A panel layout which identifies location of each panel must be developed by the Fabricator. Permanently mark each panel in accordance with the panel layout. A copy of the layout is to be provided to the Engineer.

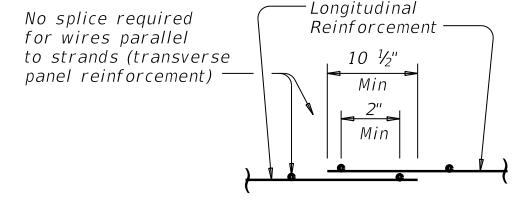
TRANSVERSE PANEL REINFORCEMENT:
 For panel widths over 5', use 3/8" or 1/2" Dia (270k) prestressing strands with a tension of 14.4 kips per strand.
 For panel widths over 3'-6" up to and including 5', use 3/8" or 1/2" Dia (270k) prestressing strands with a tension of 14.4 kip per strand. Optionally, #4 Grade 60 reinforcing bars may be used in lieu of prestressed strands.
 For panel widths up to 3'-6", use #4 Grade 60 reinforcing bars (prestressed strands alone are not allowed).
 Place transverse panel reinforcement at panel centroid and space at 6" Max.

LONGITUDINAL PANEL REINFORCEMENT:
 Any of the following options may be used for longitudinal panel reinforcement:
 1. (#3) Grade 60 reinforcing steel at 6" Max Spacing. No splices allowed.
 2. 3/8" Dia prestressing strands at 4 1/2" Max Spacing (unstressed). No splices allowed.
 3. 1/2" Dia prestressing strands at 6" Max Spacing (unstressed). No splices allowed.
 4. Deformed Welded Wire Reinforcement (WWR) (ASTM A1064) providing 0.22 sq in per foot of panel width. Wires larger than D11 not permitted. Provide transverse wires to ensure proper handling of reinforcing. One splice per panel is allowed. See WWR Splice Detail.
 No combination of longitudinal reinforcement options in a panel is allowed. Place longitudinal panel reinforcement above or below transverse panel reinforcement. Must be placed above transverse panel reinforcement for skewed end panels with supplemental #4 reinforcement.

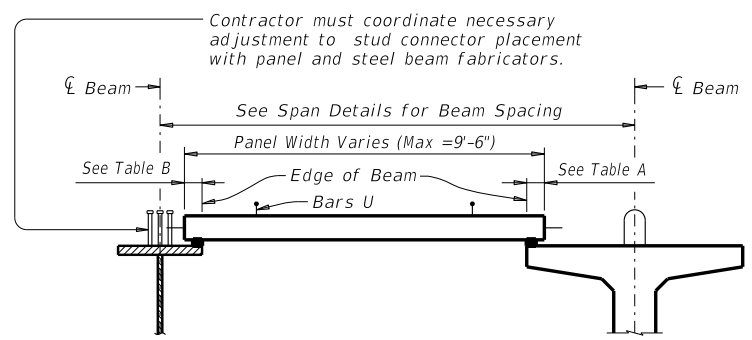


SECTION A-A

(Not Showing supplemental #4 bars for Skewed End Panels.)

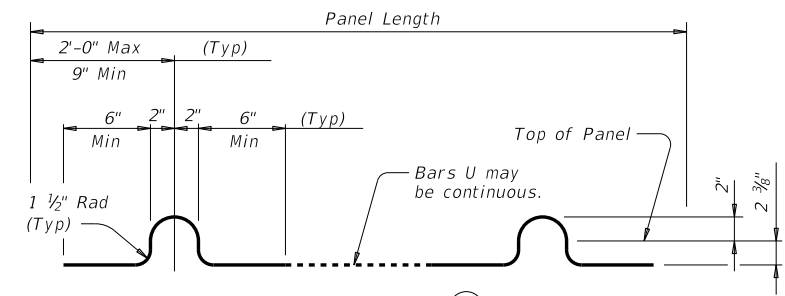


WELDED WIRE REINFORCEMENT (WWR) SPLICE DETAIL

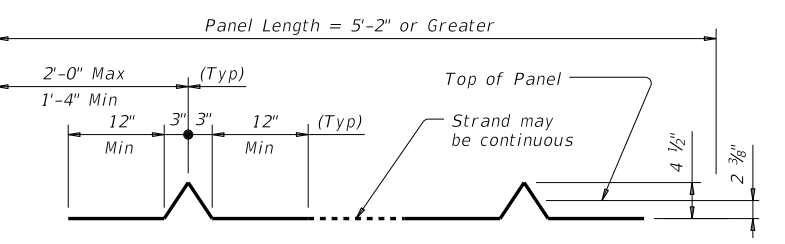


STEEL BEAMS

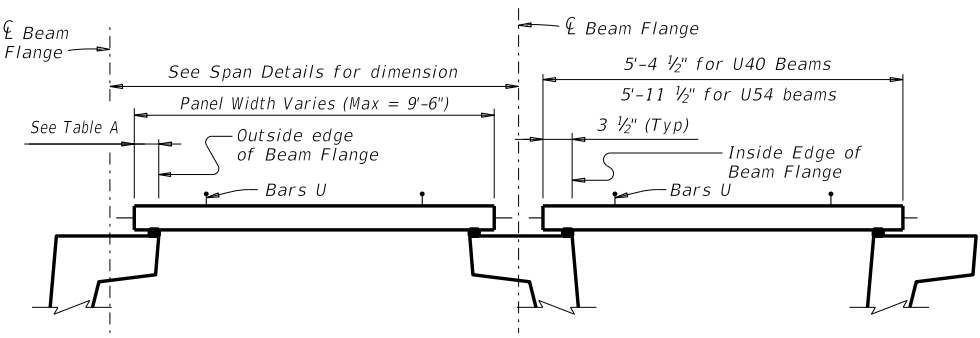
PRESTRESSED CONCRETE BEAMS OR GIRDERS



BARS U (#3)



OPTIONAL STRAND FOR BARS U



PRESTRESSED CONCRETE U-BEAMS

TYPICAL SECTIONS FOR DETERMINING PANEL WIDTH

HL93 LOADING

		Bridge Division Standard	
PRESTRESSED CONCRETE PANEL FABRICATION DETAILS			
PCP-FAB			
FILE: pcpstde2.dgn	DN: TxDOT	CK: TxDOT	DW: JTR
©TxDOT January 2015	CONT	SECT	JOB
REVISIONS			HIGHWAY
	DIST	COUNTY	SHEET NO.



Office of Engineering
 PO Box 94245 | Baton Rouge, LA 70804-9245
 ph: 225-379-1384 | fx: 225-379-1861

John Bel Edwards, Governor
 Shawn D. Wilson, Ph.D., Secretary

November 3, 2018

Plenary Infrastructure Belle Chasse LLC
 Mike Schutt
 Plenary Group USA Concessions
 10100 Santa Monica Blvd., #410
 Los Angeles, CA 900067

RE: Alternative Technical Concepts 2, 3, 13, 17, and 18
 SP No. H.004791
 Belle Chasse Bridge & Tunnel Replacement
 Public-Private Partnership Project

VIA EMAIL

Dear Mr. Schutt:

Pursuant to the Instructions to Proposers (“ITP”) Section 4.3.3, the Department has received Plenary Infrastructure Belle Chasse LLC’s (“Plenary”) Alternative Technical Concepts (“ATC”) 2, 3, 17, and 18 submitted on October 19, 2018, and ATC 13, submitted on October 25, 2018. The Department’s specific determination for ATCs 2, 3, 13, 17, and 18 are as follows:

ATC Number	ATC Description	Determination
2	Utilize Partial Depth Precast Deck Form	This submittal is an ATC, however, the Department accepts this ATC based on the following condition: <ul style="list-style-type: none"> The Proposer shall use the Texas Pre-cast Partial Depth Standard Details (Attachment D to the ATC).
3	Reclassification of the Environmental Exposure Condition	The submittal is an ATC but is not acceptable for inclusion in the Proposal.
13	Payment Terms	The submittal is not an ATC under Section 4.3.1 of the ITP because it appears to request a change to commercial terms. This item may be submitted on Form Q.
17	Pile Bents at Cross Streets	The submittal is an ATC and is acceptable for inclusion in the Proposal.
18	Adjustment to Required Customer Service Call Efficiency	This submittal is not eligible as an ATC under Section 4.3.1 because it is a reduction in Project

ATC Number	ATC Description	Determination
		scope, performance, or reliability. This item may be submitted on Form Q.

The Proposer should note that the conditions identified herein will become part of the Contract Documents. During performance of the Comprehensive Agreement, if the Developer does not comply with one or more Department conditions of pre-approval for ATC 2 or the Developer fails to obtain a required third party approval for an ATC, the Developer will be required to comply with the original requirements of the Request for Proposals without additional cost or extension of time.

Sincerely,



Nicholas Olivier, P.E.
Project Manager

NJO:PJP:ldm

Confidential ATC

For Review by LA DOTD

Plenary Infrastructure Belle Chasse ATC No. 17:

Pile Bents at Cross Streets

10/16/2018

A. Proposer and ATC Identification:

Proposer: Plenary Infrastructure

ATC No. 17: Pile Bents at Cross Streets

B. Description and Conceptual Drawings:

Pile bents have been commonly utilized for overpass substructures in Louisiana. While column bents are aesthetically preferable since they generally give a less cluttered appearance to the overall structure, they are typically double the cost of pile bents. This ATC proposes the use of pile bents, instead of column bents, at cross streets.

ATC 17 proposes to utilize pile bents at cross streets. Pile bents would include square prestressed concrete piles to support the full width of the structure. The pile bents would be set a minimum of 30ft. off the edge of the cross street or, if set closer, a concrete barrier would be provided alongside the cross street to protect the piles. At some point along the length of the approaches Column bents would be required. The column bents would include two square columns that are tapered from bottom to top.

The use of square piles and square columns would provide a more uniform look across the structure. If column bents are required at cross streets, the bridge elevation looking from left to right could contain several spans with pile bents, one span with column bents, followed by several spans with pile bents, then back to column bents for the main spans crossing the channel. Since pile bents are more economical until large heights are reached, it is desirable to utilize pile bents for as much of the bridge length as possible. Utilizing pile bents rather than column bents at the cross streets would result in a bridge elevation which appears more uniform and meets the intent of sections 12.2 and 12.3.

Attachment A shows bridge sections for ATC 17. Attachment B presents an elevation view of ATC 17.

C. ATC Usage and Location:

ATC 17 has been developed to propose the use of pile bents at cross streets (X & Q Street) for this project rather than the required column bents.

D. Deviation(s) from Operations Requirements:

None.

E. Deviation(s) from Roadway Requirements:

None.

F. Deviation(s) from Maintenance Requirements (Existing Judge Perez Bridge or Tunnel):

None.

G. Deviation(s) from Maintenance Requirements (New Toll Bridge Facility):

None.

H. Changes in Handback Requirements:

None.

I. Changes in Anticipated Life:

None.

J. Changes in Design & Construction Schedule:

There would be no changes to the design schedule, but the construction schedule would likely see a time savings due to a reduction in the number of piles needed to be driven as well as the elimination of footing and column construction in these areas.

K. References in RFP inconsistent with ATC:

Section 12 of the Draft RFP covers Bridges. 12.2 (Bridge Type) states that “Spans over existing or future roadways, existing or future railroad tracks, or navigable waterways shall be supported by column bents or piers”. This indicates that pile bents are not allowed at these locations.

12.3 also says “All bridge substructure columns shall be consistent in form and texture, with similar shapes and details used for all bridges.” This implies that column bents and pile bents can be mixed throughout the corridor but must have similar shapes and details. (See Attachment A)

L. ATC Justification and why deviation, if any, should be allowed:

The benefits to the project would be reduced construction time and capital cost (cost savings estimated to be \$1.5 million for ATC 17 compared to if column bents are used at the cross streets). Lower capital cost translates to lower toll rates. The reduced construction time would be a result of ultimately driving fewer piles as the number of piles in a typical pile bent would be about half the number required for a typical column bent. In addition to what is stated above, ATC 17 would provide a more uniform look to the bridge as it wouldn't require a change from pile bent to column bent and then back to pile bents. Pile bents would be consistent up until column bents would be required by design.

M. Preliminary analysis and impacts on traffic, permitting, safety, life-cycle, O&M:

None.

N. Preliminary analysis and impacts on Project revenue:

None.

O. Analysis of additional ROW impacts:

None.

P. Description of other Projects where ATC has been used:

The use of pile bents along with appropriate set back or protection at cross streets is common throughout LA and many other states.

Q. Additional Risks to LA DOTD or Third Parties:

None.

R. Estimate of LA DOTD, Developer and Third-Party Costs:

None.

S. Estimate of Savings to Financial Proposal:

ATC 17 creates a toll revenue savings of 5.23m which leads to a lower toll rate for the project, the benefit of which accrues to the end user.

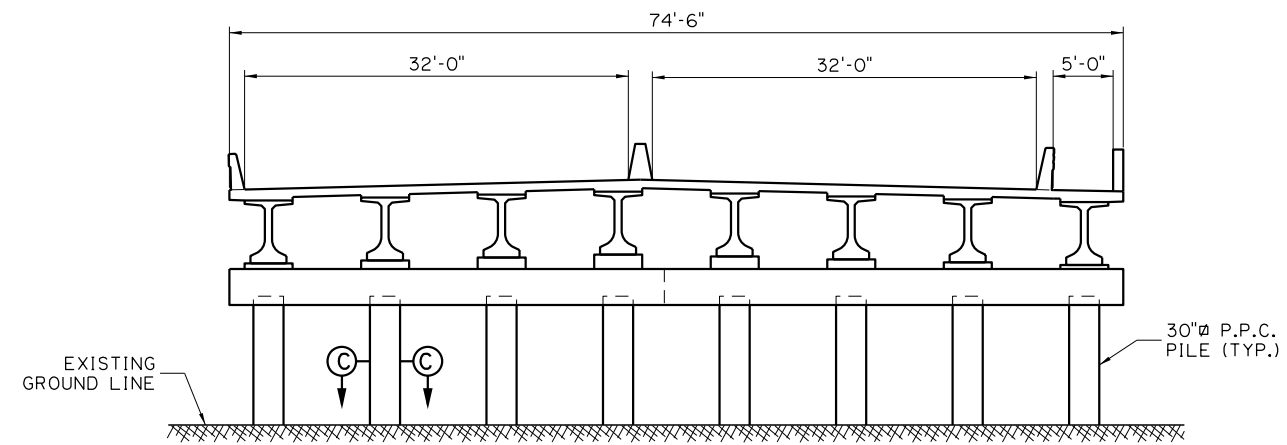
T. Analysis on how ATC is equal or better in quality and performance to requirements:

ATC 17 is equal in quality and performance to the required column bents.

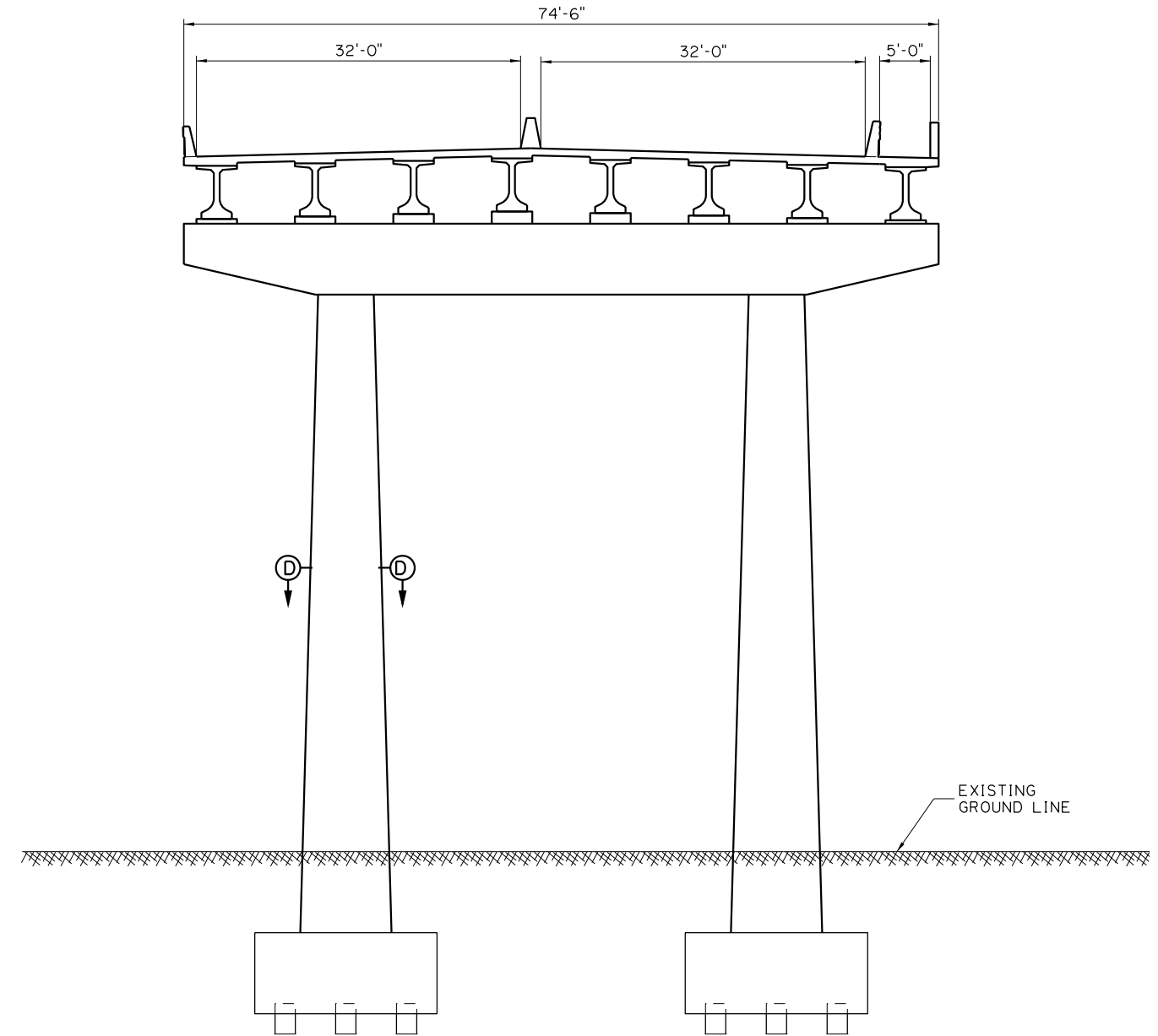
Attachments:

- Attachment A – ATC_17 Sections
- Attachment B – ATC_17 pile bent elevation

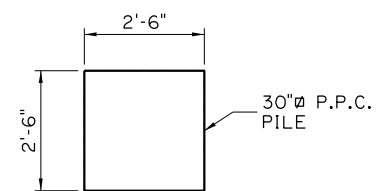
ATTACHMENT 'A'



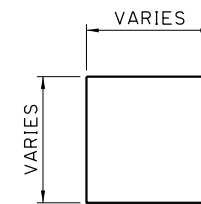
SECTION A-A



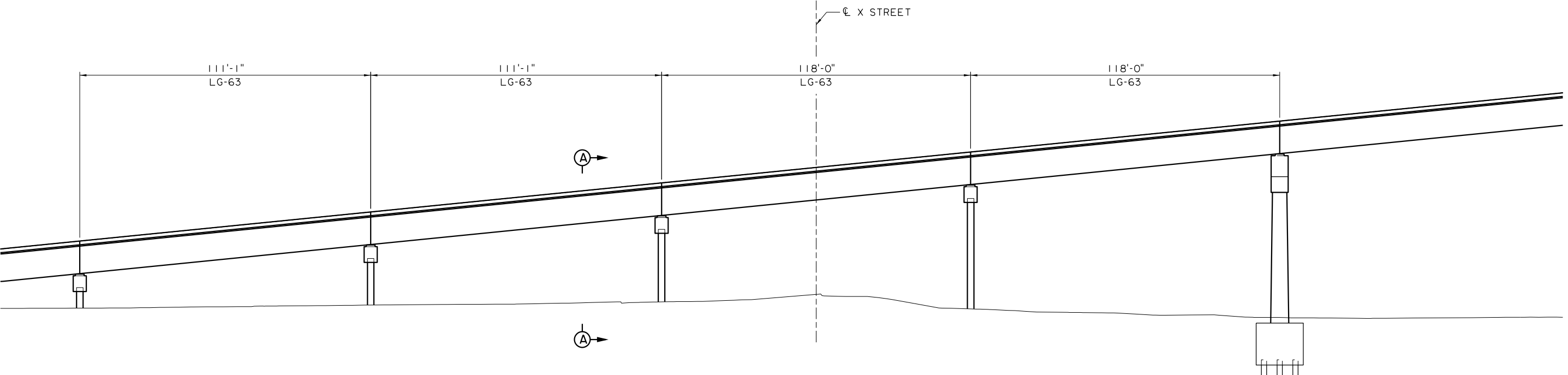
SECTION B-B



SECTION C-C



SECTION D-D



PILE BENT ELEVATION VIEW



Office of Engineering
PO Box 94245 | Baton Rouge, LA 70804-9245
phone: 225-379-1133 | fax: 225-379-1851

John Bel Edwards, Governor
Shawn D. Wilson, Ph.D., Secretary

November 15, 2018

Plenary Infrastructure Belle Chasse LLC
Mike Schutt
Plenary Group USA Concessions
10100 Santa Monica Blvd., #410
Los Angeles, CA 900067

**RE: Alternative Technical Concepts 21 through 24
State Project No. H.004791
Belle Chasse Bridge & Tunnel Replacement
Public-Private Partnership Project
Plaquemines Parish**

VIA E-MAIL

Dear Mr. Schutt:

Pursuant to the Instructions to Proposers (“ITP”) Section 4.3.3, the Department has received Plenary Infrastructure Belle Chasse LLC’s (“Plenary”) Alternative Technical Concepts (“ATC”) 21 through 24 submitted on November 13, 2018. The Department’s specific determination for ATCs 21 through 24 are as follows:

ATC Number	ATC Description	Determination
21	Roadway and Bridge Travel Lane Widths per Minimum Design Guidelines Acceptable Criteria	This submittal is ineligible as an ATC because it is a change in performance standards.
22	Roadway and Bridge Shoulder Widths per Minimum Design Guidelines Acceptable Criteria	This submittal is ineligible as an ATC because it is a change in performance standards.
23	Utilize Shoulders for Bicycle and Pedestrian Accommodations per Minimum Design Guidelines Complete Streets Design Guide	The submittal is not an ATC because it is not a deviation from the requirements stated in the Technical Provisions. However, the LA DOTD will issue an addendum to clarify the requirement to comply with mitigation set forth in the Environmental Assessment.

ATC Number	ATC Description	Determination
24	Tunnel Demolition Debris	The submittal is an ATC and is acceptable for inclusion in the Proposal.

Sincerely,



Nicholas Olivier, P.E.
Project Manager

NO:pjp

Confidential ATC

For Review by LA DOTD

Plenary Infrastructure Belle Chasse ATC No. 24: Tunnel Demolition Debris

November 9, 2018

A. Proposer and ATC Identification:

Proposer: Plenary Infrastructure

ATC No. 24: Tunnel Demolition Debris

B. Description and Conceptual Drawings:

Section 12.7 of the Technical Provisions details the requirements with respect to the decommissioning of the existing tunnel. The tunnel approach pavement is to be removed, the ramp walls are to be removed to two feet below groundline and the tunnel ramps are to be backfilled, graded to drain and seeded.

ATC 24 proposes to remove only the approach pavement that is above an elevation of 2-ft below final finished grade. The remaining pavement within the approach ramps that exists below an elevation 2-ft below final finished grade will be perforated to allow drainage and left in place. Further, the ramp wall materials that are removed above the elevation of 2-ft below groundline will be placed in a single layer on top of the perforated tunnel approach pavement within the ramp prior to placing the backfill material within the ramp area ensuring that all buried ramp wall demolition debris is placed in a single layer and located so as to ensure that the top of all debris materials remains below the elevation of 2-ft below final finished grade. Ramp wall debris materials will also be sufficiently broken and placed to facilitate placement and compaction of subsequent backfill materials.

C. ATC Usage and Location:

ATC 24 will be applied to all concrete, asphalt and aggregate debris materials generated in conjunction with the demolition and decommissioning of the existing LA 23 tunnel, tunnel ramp walls and other tunnel related structures.

D. Deviation(s) from Operations Requirements:

None

E. Deviation(s) from Roadway Requirements:

None

F. Deviation(s) from Maintenance Requirements (Existing Judge Perez Bridge or Tunnel):

None

G. Deviation(s) from Maintenance Requirements (New Toll Bridge Facility):

None

H. Changes in Handback Requirements:

None

I. Changes in Anticipated Life:

None

J. Changes in Design & Construction Schedule:

None

K. References in RFP inconsistent with ATC:

The 3rd paragraph of Technical Provisions Section 9.1 states:

There is no suitable place to bury existing debris within the ROW. Developer shall provide an environmentally and legally approved site to dispose of the existing bridge debris at no additional cost to LA DOTD.

While the 2nd sentence of this paragraph is specific to bridge debris, the 1st sentence does not distinguish between debris of the bridge and that of the tunnel. Implementation of ATC 24 is restricted by this language in the 1st sentence.

The 2nd paragraph of Technical Provisions Section 9.2 states:

The material from structures designated for demolition shall be Developer's property. All material removed shall be properly disposed of by Developer outside the limits of the Project as described above.

Incorporation of ATC 24 is restricted by this provision.

Finally, Technical Provisions Section 12.7 item D states:

Remove tunnel approach pavement and ramp walls, backfill, grade to drain and see affected areas.

Implementation of ATC 24 is restricted by this provision.

L. ATC Justification and why deviation, if any, should be allowed:

Backfilling the cavity created by the approach ramp requires a significant quantity of material to fill it to the elevation of the surrounding groundline. The dense pavement materials in their existing condition and the concrete debris generated during removal of the ramps walls provides a high-quality material ideally suited for the purpose of filling in this cavity.

M. Preliminary analysis and impacts on traffic, permitting, safety, life-cycle, O&M:

No change.

N. Preliminary analysis and impacts on Project revenue:

No change.

O. Analysis of additional ROW impacts:

No change.

P. Description of other Projects where ATC has been used:

Use of this type of demolition debris for filling voids within the project limits is commonly implemented when space and logistics permit.

Q. Additional Risks to LA DOTD or Third Parties:

No change.

R. Estimate of LA DOTD, Developer and Third-Party Costs:

No change.

S. Estimate of Savings to Financial Proposal:

Incorporation of ATC 24 will result in a net capital cost savings of approximately \$1 million.

T. Analysis on how ATC is equal or better in quality and performance to requirements:

The final project will include ramp areas that are backfilled, graded to drain, and seeded resulting in an end product identical to the current Technical Provisions.



Office of Engineering
PO Box 94245 | Baton Rouge, LA 70804-9245
phone: 225-379-1234 | fax: 225-379-1851

John Bel Edwards, Governor
Shawn D. Wilson, Ph.D., Secretary
Christopher P. Knotts, P.E., Chief Engineer

January 23, 2019

Plenary Infrastructure Belle Chasse LLC
Mike Schutt
Plenary Group USA Concessions
10100 Santa Monica Blvd., #410
Los Angeles, CA 900067

**RE: Response to January 16, 2019, Letter
State Project No. H.004791
Belle Chasse Bridge & Tunnel Replacement
Public-Private Partnership Project
Plaquemines Parish**

VIA E-MAIL

Dear Mr. Schutt:

This letter is in response to the correspondence received from Plenary Infrastructure Belle Chasse LLC (“Plenary”) on January 16, 2019, seeking clarification of the LA DOTD’s conditional approval of Alternative Technical Concept (“ATC”) 28.

In response to Plenary’s questions related to condition 1, given the sensitive nature of the ATC process, it is not the LA DOTD’s standard practice to involve third-parties in ATC reviews. As such, Plenary’s ATC 28 was not sent to the United States Army Corps of Engineers (“USACE”), United States Coast Guard (“USCG”), or New Orleans & Gulf Coast Railway (“NOGC”) for direct review and input, nor did the LA DOTD receive an initial indication of the position of the USACE, USCG, or NOGC outside of any initial reactions during the December 11, 2018, one-on-one meeting between Plenary and those entities.

Typically, in the case of an ATC that affects a third-party and requires a third-party approval, the LA DOTD will reach out to that third-party to discuss generalities of the proposed solution to get a sense of the third-party’s position related to the proposed solution prior to responding to the proposer that submitted the ATC. In the case of Plenary’s ATC 28, the LA DOTD was unable to open a dialogue with the USACE or USCG due to the federal government shutdown. As a reminder, Plenary submitted ATC 28 on December 18, 2018, and the federal government shutdown began on December 22, 2018. As such, the LA DOTD’s ability to interact with the USACE and USCG has been limited at best.

As a reminder, the Plenary team did present the concept included in ATC 28 to the USACE, USCG, and NOGC at the December 11 one-on-one meeting with those three entities.

In response to Plenary’s question related to condition 2, the existing piers, if left in place and used as dolphins, shall not be left at full height, but modified to a height consistent with the

vessel collision design criteria included in the American Association of State Highway and Transportation Officials (“AASHTO”) Guide Specifications and Commentary for Vessel Collision Design of Highway Bridges.

The Proposer is advised that this letter does not re-open the LA DOTD’s determination regarding ATC 28, nor should this letter be interpreted as an opportunity for Plenary to re-submit information regarding ATC 28. However, the LA DOTD further clarifies its determination related to ATC 28 as follows:

ATC Number	ATC Description	Determination
28	Incorporate Existing Lift-Span Bridge Piers into RR Bridge Protection	<p>This submittal is an ATC, however, the LA DOTD accepts this ATC based on the following conditions:</p> <ul style="list-style-type: none"> • Approval from permitting parties, as necessary, which may include, but is not limited to, updates to permits from the United States Army Corps of Engineers or United States Coast Guard. • The existing piers shall be removed to a minimum height to satisfy current vessel collision requirements, if left in place and used as dolphins, shall not be left at full height, but modified to a height consistent with the vessel collision design criteria included in the AASHTO Guide Specifications and Commentary for Vessel Collision Design of Highway Bridges.

The Proposer should note that the conditions identified herein will become part of the Contract Documents. During performance of the Comprehensive Agreement, if the Developer does not comply with one or more Department conditions of pre-approval for ATC 28 or the Developer fails to obtain a required third party approval for an ATC, the Developer will be required to comply with the original requirements of the Request for Proposals without additional cost or extension of time.

Sincerely,



Nicholas Olivier, P.E.
Project Manager



Office of Engineering
 PO Box 94245 | Baton Rouge, LA 70804-9245
 phone: 225-379-1234 | fax: 225-379-1851

John Bel Edwards, Governor
Shawn D. Wilson, Ph.D., Secretary
Christopher P. Knotts, P.E., Chief Engineer

January 15, 2019

Plenary Infrastructure Belle Chasse LLC
 Mike Schutt
 Plenary Group USA Concessions
 10100 Santa Monica Blvd., #410
 Los Angeles, CA 900067

**RE: Alternative Technical Concepts 15 and 28
 State Project No. H.004791
 Belle Chasse Bridge & Tunnel Replacement
 Public-Private Partnership Project
 Plaquemines Parish**

VIA E-MAIL

Dear Mr. Schutt:

Pursuant to the Instructions to Proposers (“ITP”) Section 4.3.3, the Department has received Plenary Infrastructure Belle Chasse LLC’s (“Plenary”) Alternative Technical Concepts (“ATC”) 15, submitted on October 19, 2018, and 28, submitted on December 18, 2018. The Department’s specific determination for ATCs 15 and 28 are as follows:

ATC Number	ATC Description	Determination
15	Uncoated Weathering Steel	Having not received a response to the LA DOTD’s request for clarification dated November 3, 2018, the submittal is an ATC but is not acceptable for inclusion in the Proposal.
28	Incorporate Existing Lift-Span Bridge Piers into RR Bridge Protection	This submittal is an ATC, however, the LA DOTD accepts this ATC based on the following conditions: <ul style="list-style-type: none"> • Approval from permitting parties, as necessary, which may include, but is not limited to, updates to permits from the United States Army Corps of Engineers or United States Coast Guard. • The existing piers shall be removed to a minimum height to satisfy current vessel collision requirements.

The Proposer should note that the conditions identified herein will become part of the Contract Documents. During performance of the Comprehensive Agreement, if the Developer does not comply with one or more Department conditions of pre-approval for ATC 28 or the Developer fails to obtain a required third party approval for an ATC, the Developer will be required to comply with the original requirements of the Request for Proposals without additional cost or extension of time.

Sincerely,

A handwritten signature in blue ink, appearing to read "N. Olivier", is centered below the "Sincerely," text.

Nicholas Olivier, P.E.
Project Manager

NO:pjp

Confidential ATC

For Review by LA DOTD

Plenary Infrastructure Belle Chasse ATC No. 28:

**Incorporate Existing Lift-Span Bridge Piers into RR Bridge
Protection**

December 17, 2018

A. Proposer and ATC Identification:

Proposer: Plenary Infrastructure

ATC No. 28: Incorporate the existing LA23 lift-span concrete bridge substructure elements into the design of the collision protection system for the remaining New Orleans & Gulf Coast Railway lift-span bridge.

B. Description and Conceptual Drawings:

Section 12.6 of the Technical Provisions requires the developer remove all portions of the existing Vertical Lift Span bridge and fender system to at least -18.0 NAVD within the 150-ft wide navigation channel and to a minimum of 2-ft below grade or mudline outside of the channel. This removal and the construction of the new bridge substructure providing a minimum clear channel width of 150-ft results in an exposure to vessel collision from vessels traveling northeast through the GIWW channel as they approach the existing lift-span NOGC railway bridge with a horizontal opening width of only 125-ft. Numerous discussions and subsequent Form Q responses regarding this issue have provided proposers with additional direction including the requirement to coordinate with the NOGC and USCG as well as to follow the design requirements of the Department's BDEM and the American Railway Engineering and Maintenance-of-Way requirements.

Coordination discussions with the NOGC have helped clarify that a significant structural element with the capacity to withstand and deflect a vessel during collision will be required to provide protection to the remaining railroad bridge. At a minimum, it is expected that fender cells are similar to those protecting the RR bridge from marine traffic approaching from the northeast. Unable to occupy the same location as the remnants of the existing LA23 bridge piers, these new protection cells would be placed in the very limited space between the existing LA23 piers and the existing railway bridge piers providing a clear width of 125-ft to match the existing opening of the railway bridge.

During PIBC's 1-on-1 that took place on December 11th, 2018 with NOGC, USCG and the USACE, these requirements were discussed along with a concept of utilizing the existing LA23 bridge piers as the protection cells that will provide this vessel collision protection and anchor the ends of the timber fender system that guides vessels through the railway bridge's 125-ft opening. While an official review and consideration of the concept would still be required by each, the attending representatives of all three of these entities expressed a generally positive position. **PLEASE NOTE: PIBC specifically requests that prior to providing the ATC response the Department seek a review from each of these three entities indicating their preliminary acceptance of this concept and include those preliminary indications in the official ATC response. Without this preliminary indication, PIBC will be unable to accept the risk associated with incorporating this ATC.**

Therefore, PIBC proposes to remove all existing bridge superstructure, substructure and fender system components as prescribed by the RFP with the exception of the concrete piers located immediately adjacent to the navigation channel. All portions of the existing structure above the top of the concrete piers will be removed entirely. Any remaining embedded anchors or steel members will be cut a minimum of 2-in below the concrete surface and patched with an epoxy patch material. Following removal, the remaining concrete piers will be thoroughly cleaned by high-pressure water, allowed to dry and then

coated with a Type III concrete coating. The color selection and potential graphic schemes will be incorporated into the final Landscape and Hardscape design. The remaining timber fender system will be positively attached to the existing pier substructure elements at locations as represented in Attachment "A" to prevent passing vessels from catching a blunt end of the remaining timber fender wall.

Finally, PIBC proposes to erect on top of the remaining substructure element on each side of the navigation channel a monument to represent the historical significance of the Judge Perez Bridge. At the Department's discretion, options for the choice of monument will be presented to the community for final selection. As one possible monument option, PIBC proposes to salvage, clean, refinish and mount one of the existing bridge head sheaves on each side of the channel on top of the existing piers.

See Attachment A for proposed configuration and preliminary sketch representing the monument.

C. ATC Usage and Location:

ATC 28 will be applied only to the existing LA 23 lift-span bridge piers immediately adjacent to the navigation channel.

D. Deviation(s) from Operations Requirements:

N/A

E. Deviation(s) from Roadway Requirements:

N/A

F. Deviation(s) from Maintenance Requirements (Existing Judge Perez Bridge or Tunnel):

N/A

G. Deviation(s) from Maintenance Requirements (New Toll Bridge Facility):

N/A

H. Changes in Handback Requirements:

No Change

I. Changes in Anticipated Life:

No Change

J. Changes in Design & Construction Schedule:

As removal of these concrete piers will be among the final items of work on the project prior to "Final Completion", incorporation of ATC 28 is expected to reduce the overall construction schedule by up to 3 months.

K. References in RFP inconsistent with ATC:

Technical Provisions Section 12.6, Removal of Vertical Lift Span Bridge and Fender System, states:

After Partial Acceptance, Developer shall remove existing vertical lift span bridge including existing fender system. Bridge superstructure, substructure, approach roadways, and fender elements above the waterline shall be completely removed. Existing bridge and fender foundations shall be cut off a minimum of two feet (2') below the ground line except for foundations within the navigation channel which shall be removed to provide a channel bottom of -18 .0 NAVD

L. ATC Justification and why deviation, if any, should be allowed:

Removal of these substantial substructure elements of a historically significant structural element only to then replace it with a fender cell providing exactly the same channel obstruction width seems an inefficient application of resources. Preserving these piers is justified by utilizing the aesthetic, historical and functional attributes of these elements while reducing the project cost and realizing an opportunity to engage the community in the project.

M. Preliminary analysis and impacts on traffic, permitting, safety, life-cycle, O&M:

PIBC anticipates that the betterments involved with this ATC will not require operations and maintenance activities or performance-based metrics as the betterments do not serve the LA 23 corridor specifically; they are purposefully in place to commemorate the historical significance of the area.

N. Preliminary analysis and impacts on Project revenue:

No Change.

O. Analysis of additional ROW impacts:

ATC 28 will have no effect on the project ROW needs.

P. Description of other Projects where ATC has been used:

Various Locations.

Q. Additional Risks to LA DOTD or Third Parties:

None.

R. Estimate of LA DOTD, Developer and Third-Party Costs:

None.

S. Estimate of Savings to Financial Proposal:

Incorporation of ATC 28 will result in a net capital cost savings of approximately \$2 million. **PLEASE NOTE: PIBC specifically requests that prior to providing the ATC response the Department seek**

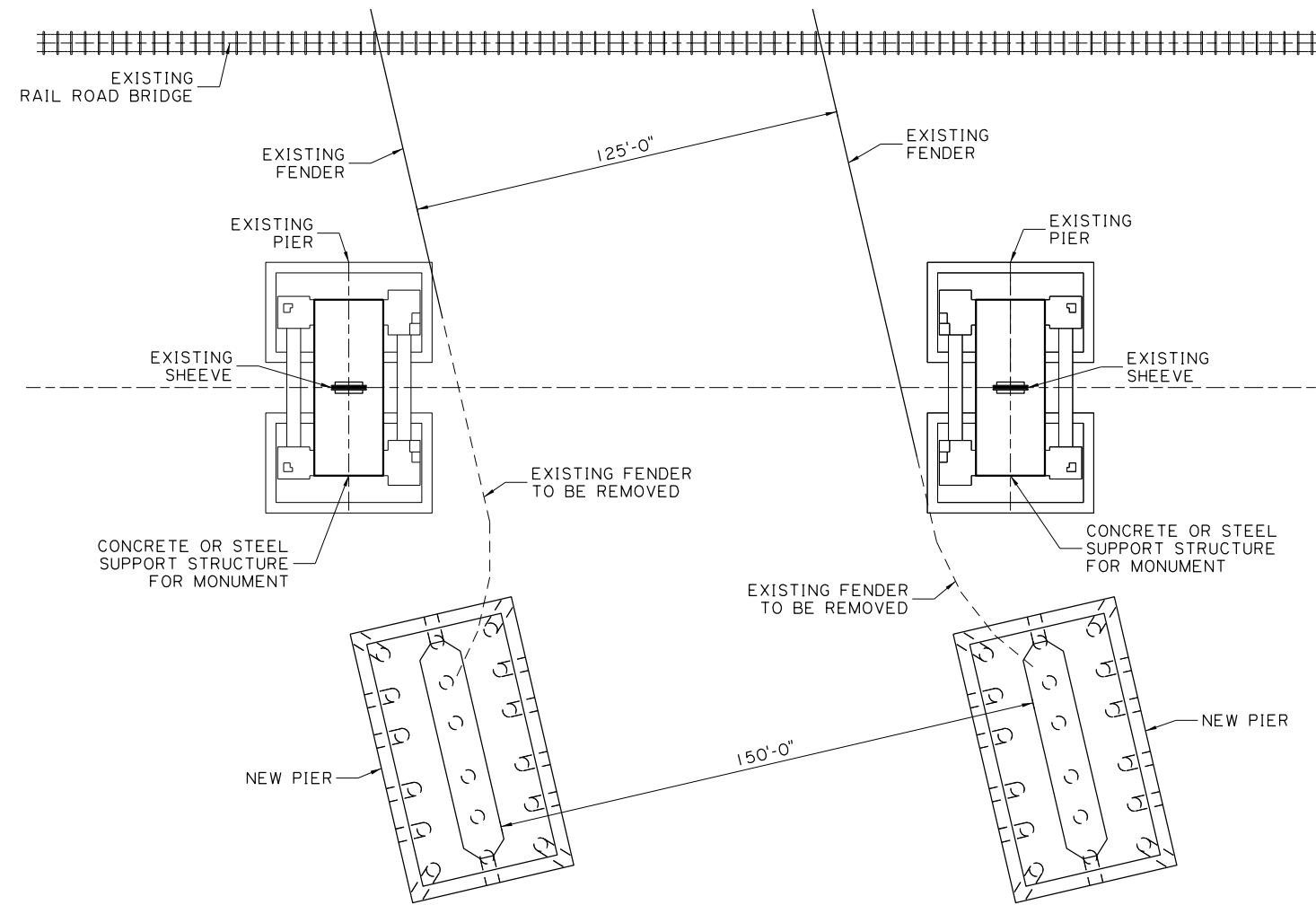
a review from each of these three entities indicating their preliminary acceptance of this concept and include those preliminary indications in the official ATC response. Without this preliminary indication, PIBC will be unable to accept the risk associated with incorporating this ATC.

T. Analysis on how ATC is equal or better in quality and performance to requirements:

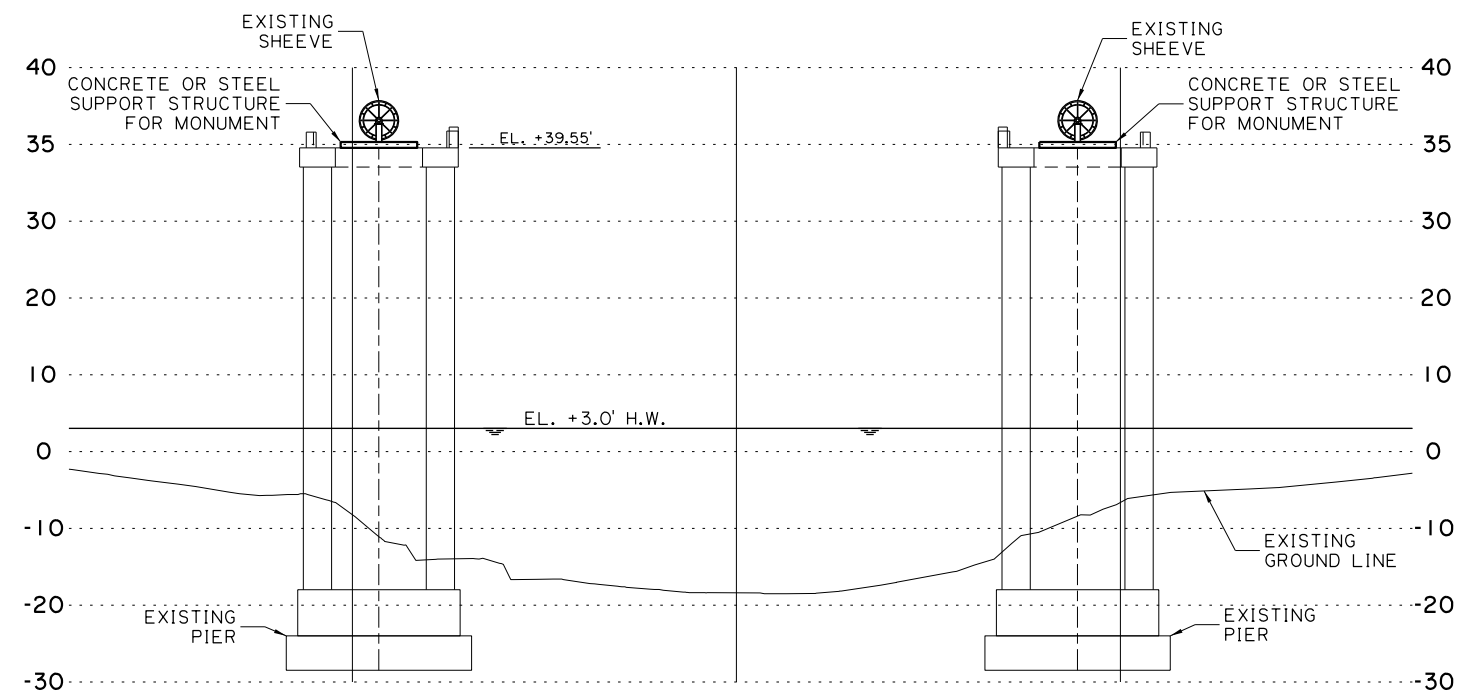
Incorporation of ATC 28 provides vessel collision protection for the railroad bridge that is exactly equal to the protection provided in the existing condition and a much greater capacity than will be provided by a replacement fender cell.

Attachments:

- Attachment "A" – Proposed Configuration

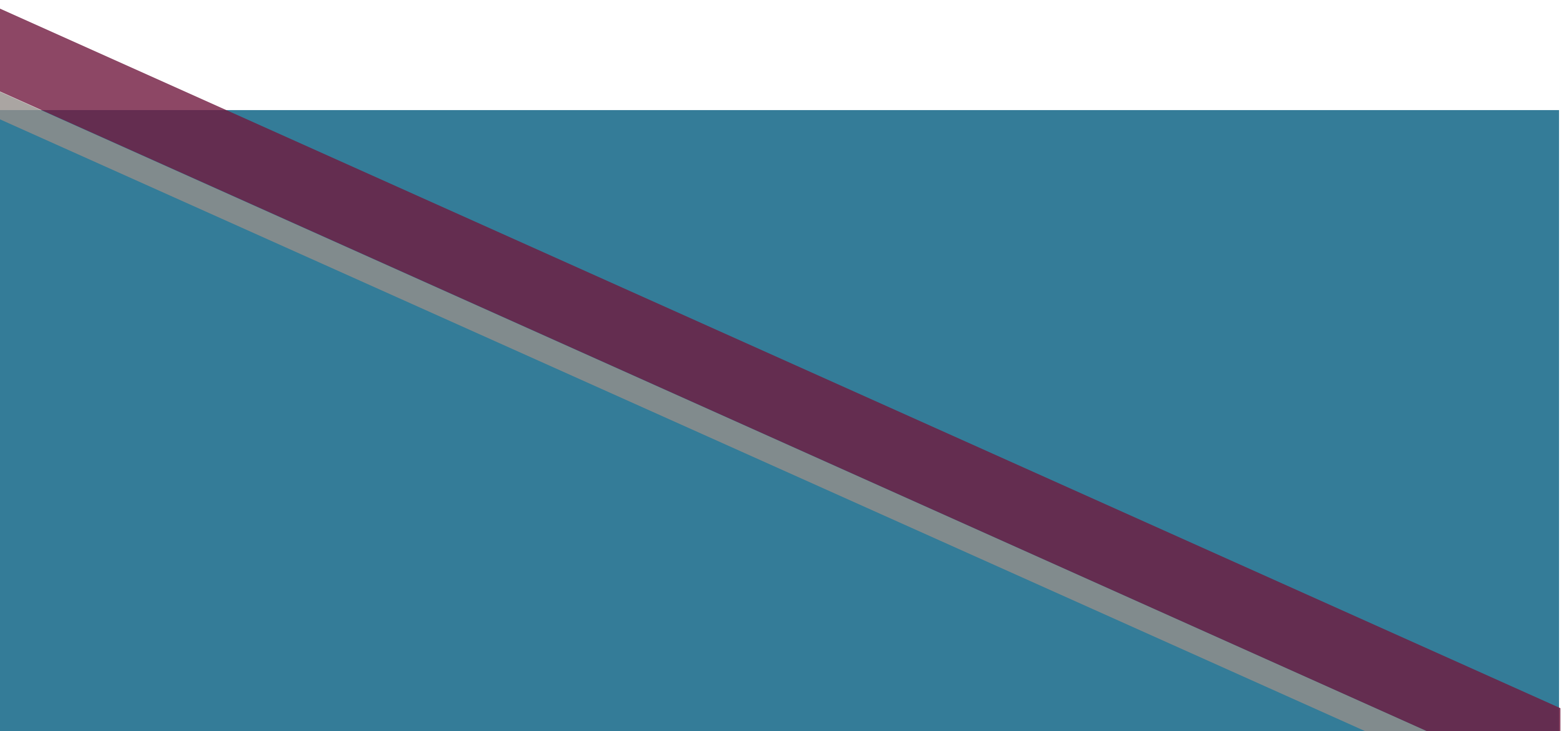


PLAN



PROFILE

SCHEDULE



Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
Belle Chasse P3		1334	18-Mar-19	22-May-24	16-Aug-19	22-May-24	0		22-May-24, Belle Chasse P3											
Project Management		1893	18-Mar-19	22-May-24	16-Aug-19	22-May-24	0	Cal. Days	22-May-24, Project Management											
Contract Milestone Deadlines		1893	18-Mar-19	22-May-24	16-Aug-19	22-May-24	0	Cal. Days	22-May-24, Contract Milestone											
PM1000	Proposal Due Date	0	18-Mar-19		25-Oct-23		1683	Cal. Days	◆ Proposal Due Date											
PM1010	Selection for Negotiation	0	01-May-19		22-May-24		1849	Cal. Days	◆ Selection for Negotiation											
PM1020	Commercial Close	0	10-Jul-19		22-May-24		1779	Cal. Days	◆ Commercial Close											
PM1250	Construction Period	1779	10-Jul-19	22-May-24	22-May-24	22-May-24	0	Cal. Days	Construction Period											
PM1030	Financial Close	0	14-Aug-19		16-Aug-19		2	Cal. Days	◆ Financial Close											
PM1050	NTP (@ Financial Close or Later)	0	14-Aug-19		16-Aug-19		2	Cal. Days	◆ NTP (@ Financial Close or Later)											
PM1040	Financial Close Deadline (Proposal +210)	0	14-Oct-19		22-May-24		1683	Cal. Days	◆ Financial Close Deadline (Proposal +210)											
PM1100	Start Phase 1 Construction	0	15-Oct-20		07-Sep-21		327	Cal. Days	◆ Start Phase 1 Construction											
PM1110	Phase 1 Duration	866	15-Oct-20	28-Feb-23	07-Sep-21	01-Mar-23	1	Cal. Days	Phase 1 Duration											
PM1120	Finish Phase 1 Construction	0		28-Feb-23		01-Mar-23	1	Cal. Days	◆ Finish Phase 1 Construction											
PM1190	Start Phase 2 Construction	0	28-Feb-23		01-Mar-23		1	Cal. Days	◆ Start Phase 2 Construction											
PM1200	Phase 2 Duration	226	28-Feb-23	12-Oct-23	01-Mar-23	13-Oct-23	1	Cal. Days	Phase 2 Duration											
PM1070	Partial Acceptance	0	12-Oct-23		13-Oct-23		1	Cal. Days	◆ Partial Acceptance											
PM1080	Punch List	30	12-Oct-23	11-Nov-23	22-Apr-24	22-May-24	193	Cal. Days	■ Punch List											
PM1210	Finish Phase 2 Construction	0		12-Oct-23		13-Oct-23	1	Cal. Days	◆ Finish Phase 2 Construction											
PM1220	Start Phase 3 Demolition	0	12-Oct-23		13-Oct-23		1	Cal. Days	◆ Start Phase 3 Demolition											
PM1230	Phase 3 Duration	223	12-Oct-23	22-May-24	13-Oct-23	22-May-24	0	Cal. Days	Phase 3 Duration											
PM1280	Long Stop Date (Partail Accept +180)	0		09-Apr-24		22-May-24	43	Cal. Days	◆ Long Stop Date (Partail Accept)											
PM1090	Final Acceptance	0		22-May-24		22-May-24	0	Cal. Days	◆ Final Acceptance											
PM1240	Finish Phase 3 Demolition	0		22-May-24		22-May-24	0	Cal. Days	◆ Finish Phase 3 Demolition											
Design		449	14-Aug-19	12-May-21	16-Aug-19	22-May-24	780		12-May-21, Design											
Environmental		365	16-Oct-19	15-Oct-20	18-Nov-19	17-Nov-20	33	Cal. Days	15-Oct-20, Environmental											
DEN001000	Permits & SSA Review	365	16-Oct-19	15-Oct-20	18-Nov-19	17-Nov-20	33	Cal. Days	■ Permits & SSA Review											
Roadway		234	14-Aug-19	12-Jul-20	16-Aug-19	08-Dec-21	357		12-Jul-20, Roadway											
Roadway Design Reports		123	14-Aug-19	07-Feb-20	16-Aug-19	26-Mar-21	291		07-Feb-20, Roadway Design Reports											
Definitive Design		123	14-Aug-19	07-Feb-20	16-Aug-19	10-Feb-20	1		07-Feb-20, Definitive Design											
DRWRD1000	Submittal Prep	21	14-Aug-19	04-Sep-19	16-Sep-19	07-Oct-19	33	Cal. Days	■ Submittal Prep											
DRWRD1049	ROW Maps Property Survey	63	15-Aug-19	15-Nov-19	16-Aug-19	16-Nov-19	1	6x10=5x10	■ ROW Maps Property Survey											
DRWRD1010	Internal Review	7	04-Sep-19	11-Sep-19	07-Oct-19	14-Oct-19	33	Cal. Days	■ Internal Review											
DRWRD1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	14-Oct-19	21-Oct-19	33	Cal. Days	■ Address Internal Review Comments											
DRWRD1030	DOTD Review	14	18-Sep-19	02-Oct-19	21-Oct-19	04-Nov-19	33	Cal. Days	■ DOTD Review											
DRWRD1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	04-Nov-19	18-Nov-19	33	Cal. Days	■ Address DOTD Comments											
DRWRD1050	ROW Maps 60% Review	50	15-Nov-19	04-Jan-20	18-Nov-19	07-Jan-20	3	Cal. Days	■ ROW Maps 60% Review											
DRWRD1051	ROW Maps 100% Final	15	06-Jan-20	25-Jan-20	07-Jan-20	27-Jan-20	1	6x10=5x10	■ ROW Maps 100% Final											
DRWRD1052	ROW Maps Final Deliverables	10	27-Jan-20	07-Feb-20	28-Jan-20	10-Feb-20	1	6x10=5x10	■ ROW Maps Final Deliverables											
Interim Design		84	18-Sep-19	11-Dec-19	20-Nov-20	26-Feb-21	443	Cal. Days	11-Dec-19, Interim Design											
DRWRI1000	Submittal Prep	42	18-Sep-19	30-Oct-19	20-Nov-20	01-Jan-21	429	Cal. Days	■ Submittal Prep											
DRWRI1010	Internal Review	7	30-Oct-19	06-Nov-19	01-Jan-21	08-Jan-21	429	Cal. Days	■ Internal Review											
DRWRI1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	08-Jan-21	15-Jan-21	429	Cal. Days	■ Address Internal Review Comments											
DRWRI1030	DOTD Review	14	13-Nov-19	27-Nov-19	29-Jan-21	12-Feb-21	443	Cal. Days	■ DOTD Review											
DRWRI1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	12-Feb-21	26-Feb-21	443	Cal. Days	■ Address DOTD Comments											
RFC Submittal		70	13-Nov-19	22-Jan-20	15-Jan-21	26-Mar-21	429	Cal. Days	22-Jan-20, RFC Submittal											
DRWRC1000	Submittal Prep	28	13-Nov-19	11-Dec-19	15-Jan-21	12-Feb-21	429	Cal. Days	■ Submittal Prep											

■ Actual Work
 ■ Critical Remaining Work
 Summary
■ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019 2020 2021 2022 2023 2024 2025											
									[Gantt Chart Area]											
DRWRC1010	Internal Review	7	11-Dec-19	18-Dec-19	12-Feb-21	19-Feb-21	429	Cal. Days	Internal Review											
DRWRC1020	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	19-Feb-21	26-Feb-21	429	Cal. Days	Address Internal Review Comments											
DRWRC1030	DOTD Review	14	25-Dec-19	08-Jan-20	26-Feb-21	12-Mar-21	429	Cal. Days	DOTD Review											
DRWRC1040	Address DOTD Comments	14	08-Jan-20	22-Jan-20	12-Mar-21	26-Mar-21	429	Cal. Days	Address DOTD Comments											
Pavement Design Report - LA 23 & Engineer Road		126	18-Sep-19	22-Jan-20	11-May-21	14-Sep-21	601	Cal. Days	22-Jan-20, Pavement Design Report - LA 23 & Engineer Road											
Interim Submittal		84	18-Sep-19	11-Dec-19	11-May-21	17-Aug-21	615	Cal. Days	11-Dec-19, Interim Submittal											
DRWP111000	Submittal Prep	42	18-Sep-19	30-Oct-19	11-May-21	22-Jun-21	601	Cal. Days	Submittal Prep											
DRWP111010	Internal Review	7	30-Oct-19	06-Nov-19	22-Jun-21	29-Jun-21	601	Cal. Days	Internal Review											
DRWP111020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	29-Jun-21	06-Jul-21	601	Cal. Days	Address Internal Review Comments											
DRWP111030	DOTD Review	14	13-Nov-19	27-Nov-19	20-Jul-21	03-Aug-21	615	Cal. Days	DOTD Review											
DRWP111040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	03-Aug-21	17-Aug-21	615	Cal. Days	Address DOTD Comments											
Final Submittal		70	13-Nov-19	22-Jan-20	06-Jul-21	14-Sep-21	601	Cal. Days	22-Jan-20, Final Submittal											
DRWP1F1000	Submittal Prep	28	13-Nov-19	11-Dec-19	06-Jul-21	03-Aug-21	601	Cal. Days	Submittal Prep											
DRWP1F1010	Internal Review	7	11-Dec-19	18-Dec-19	03-Aug-21	10-Aug-21	601	Cal. Days	Internal Review											
DRWP1F1020	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	10-Aug-21	17-Aug-21	601	Cal. Days	Address Internal Review Comments											
DRWP1F1030	DOTD Review	14	25-Dec-19	08-Jan-20	17-Aug-21	31-Aug-21	601	Cal. Days	DOTD Review											
DRWP1F1040	Address DOTD Comments	14	08-Jan-20	22-Jan-20	31-Aug-21	14-Sep-21	601	Cal. Days	Address DOTD Comments											
Pavement Design Report - Local Roads		172	22-Jan-20	12-Jul-20	26-Mar-21	14-Sep-21	429	Cal. Days	12-Jul-20, Pavement Design Report - Local Roads											
Interim Submittal		137	22-Jan-20	07-Jun-20	26-Mar-21	10-Aug-21	429	Cal. Days	07-Jun-20, Interim Submittal											
DRWP211000	Coordinate with Local Government	60	22-Jan-20	22-Mar-20	26-Mar-21	25-May-21	429	Cal. Days	Coordinate with Local Government											
DRWP211010	Submittal Prep	28	22-Mar-20	19-Apr-20	25-May-21	22-Jun-21	429	Cal. Days	Submittal Prep											
DRWP211020	Internal Review	7	19-Apr-20	26-Apr-20	22-Jun-21	29-Jun-21	429	Cal. Days	Internal Review											
DRWP211030	Address Internal Review Comments	7	26-Apr-20	03-May-20	29-Jun-21	06-Jul-21	429	Cal. Days	Address Internal Review Comments											
DRWP211040	DOTD/ Local Government Review	21	03-May-20	24-May-20	06-Jul-21	27-Jul-21	429	Cal. Days	DOTD/ Local Government Review											
DRWP211050	Address DOTD/ Local Government Comments	14	24-May-20	07-Jun-20	27-Jul-21	10-Aug-21	429	Cal. Days	Address DOTD/ Local Government Comments											
Final Submittal		70	03-May-20	12-Jul-20	06-Jul-21	14-Sep-21	429	Cal. Days	12-Jul-20, Final Submittal											
DRWP2F1000	Submittal Prep	21	03-May-20	24-May-20	06-Jul-21	27-Jul-21	429	Cal. Days	Submittal Prep											
DRWP2F1010	Internal Review	7	24-May-20	31-May-20	27-Jul-21	03-Aug-21	429	Cal. Days	Internal Review											
DRWP2F1020	Address Internal Review Comments	7	31-May-20	07-Jun-20	03-Aug-21	10-Aug-21	429	Cal. Days	Address Internal Review Comments											
DRWP2F1030	DOTD/ Local Government Review	21	07-Jun-20	28-Jun-20	10-Aug-21	31-Aug-21	429	Cal. Days	DOTD/ Local Government Review											
DRWP2F1040	Address DOTD/ Local Government Comments	14	28-Jun-20	12-Jul-20	31-Aug-21	14-Sep-21	429	Cal. Days	Address DOTD/ Local Government Comments											
LA 23 & Engineers Road - Roadway Plans		161	14-Aug-19	22-Jan-20	22-Jun-21	30-Nov-21	678	Cal. Days	22-Jan-20, LA 23 & Engineers Road - Roadway Plans											
Definitive Design		63	14-Aug-19	16-Oct-19	22-Jun-21	05-Oct-21	720	Cal. Days	16-Oct-19, Definitive Design											
DRWB1D1000	Submittal Prep	21	14-Aug-19	04-Sep-19	22-Jun-21	13-Jul-21	678	Cal. Days	Submittal Prep											
DRWB1D1010	Internal Review	7	04-Sep-19	11-Sep-19	13-Jul-21	20-Jul-21	678	Cal. Days	Internal Review											
DRWB1D1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	20-Jul-21	27-Jul-21	678	Cal. Days	Address Internal Review Comments											
DRWB1D1030	DOTD Review	14	18-Sep-19	02-Oct-19	07-Sep-21	21-Sep-21	720	Cal. Days	DOTD Review											
DRWB1D1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	21-Sep-21	05-Oct-21	720	Cal. Days	Address DOTD Comments											
Interim Submittal		84	18-Sep-19	11-Dec-19	27-Jul-21	02-Nov-21	692	Cal. Days	11-Dec-19, Interim Submittal											
DRWB111000	Submittal Prep	42	18-Sep-19	30-Oct-19	27-Jul-21	07-Sep-21	678	Cal. Days	Submittal Prep											
DRWB111010	Internal Review	7	30-Oct-19	06-Nov-19	07-Sep-21	14-Sep-21	678	Cal. Days	Internal Review											
DRWB111020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	14-Sep-21	21-Sep-21	678	Cal. Days	Address Internal Review Comments											
DRWB111030	DOTD Review	14	13-Nov-19	27-Nov-19	05-Oct-21	19-Oct-21	692	Cal. Days	DOTD Review											
DRWB111040	Address DOTD Review	14	27-Nov-19	11-Dec-19	19-Oct-21	02-Nov-21	692	Cal. Days	Address DOTD Review											
RFC Submittal		70	13-Nov-19	22-Jan-20	21-Sep-21	30-Nov-21	678	Cal. Days	22-Jan-20, RFC Submittal											
DRWB1C1000	Submittal Prep	28	13-Nov-19	11-Dec-19	21-Sep-21	19-Oct-21	678	Cal. Days	Submittal Prep											
DRWB1C1010	Internal Review	7	11-Dec-19	18-Dec-19	19-Oct-21	26-Oct-21	678	Cal. Days	Internal Review											
DRWB1C1020	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	26-Oct-21	02-Nov-21	678	Cal. Days	Address Internal Review Comments											

Actual Work
 Critical Remaining Work
 Summary
 Remaining Work
 Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DRWB1C1030	DOTD Review	14	25-Dec-19	08-Jan-20	02-Nov-21	16-Nov-21	678	Cal. Days												
DRWB1C1040	Address DOTD Comments	14	08-Jan-20	22-Jan-20	16-Nov-21	30-Nov-21	678	Cal. Days												
Local Roads - Roadway Plans		172	14-Aug-19	02-Feb-20	19-Jun-21	08-Dec-21	675	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	28-Jul-21	29-Sep-21	714	Cal. Days												
DRWB2D1000	Submittal Prep	21	14-Aug-19	04-Sep-19	28-Jul-21	18-Aug-21	714	Cal. Days												
DRWB2D1010	Internal Review	7	04-Sep-19	11-Sep-19	18-Aug-21	25-Aug-21	714	Cal. Days												
DRWB2D1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	25-Aug-21	01-Sep-21	714	Cal. Days												
DRWB2D1030	DOTD Review	14	18-Sep-19	02-Oct-19	01-Sep-21	15-Sep-21	714	Cal. Days												
DRWB2D1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	15-Sep-21	29-Sep-21	714	Cal. Days												
Interim Submittal		137	14-Aug-19	29-Dec-19	19-Jun-21	03-Nov-21	675	Cal. Days												
DRWB2I1000	Coordinate with Local Government	60	14-Aug-19	13-Oct-19	19-Jun-21	18-Aug-21	675	Cal. Days												
DRWB2I1010	Submittal Prep	28	13-Oct-19	10-Nov-19	18-Aug-21	15-Sep-21	675	Cal. Days												
DRWB2I1020	Internal Review	7	10-Nov-19	17-Nov-19	15-Sep-21	22-Sep-21	675	Cal. Days												
DRWB2I1030	Address Internal Review Comments	7	17-Nov-19	24-Nov-19	22-Sep-21	29-Sep-21	675	Cal. Days												
DRWB2I1040	DOTD/ Local Government Review	21	24-Nov-19	15-Dec-19	29-Sep-21	20-Oct-21	675	Cal. Days												
DRWB2I1050	Address DOTD/ Local Government Comments	14	15-Dec-19	29-Dec-19	20-Oct-21	03-Nov-21	675	Cal. Days												
RFC Submittal		77	17-Nov-19	02-Feb-20	29-Sep-21	08-Dec-21	675	Cal. Days												
DRWB2C1000	Submittal Prep	21	17-Nov-19	08-Dec-19	29-Sep-21	20-Oct-21	682	Cal. Days												
DRWB2C1010	Internal Review	7	08-Dec-19	15-Dec-19	20-Oct-21	27-Oct-21	682	Cal. Days												
DRWB2C1020	Address Internal Review Comments	7	15-Dec-19	22-Dec-19	27-Oct-21	03-Nov-21	682	Cal. Days												
DRWB2C1030	DOTD/ Local Government Review	21	29-Dec-19	19-Jan-20	03-Nov-21	24-Nov-21	675	Cal. Days												
DRWB2C1040	Address DOTD/ Local Government Comments	14	19-Jan-20	02-Feb-20	24-Nov-21	08-Dec-21	675	Cal. Days												
Drainage		172	14-Aug-19	02-Feb-20	29-May-21	17-Nov-21	654	Cal. Days												
LA 23 & Engineers Rd Drainage Plans		161	14-Aug-19	22-Jan-20	09-Jun-21	17-Nov-21	665	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	09-Jun-21	22-Sep-21	707	Cal. Days												
DDRB1D1000	Submittal Prep	21	14-Aug-19	04-Sep-19	09-Jun-21	30-Jun-21	665	Cal. Days												
DDRB1D1010	Internal Review	7	04-Sep-19	11-Sep-19	30-Jun-21	07-Jul-21	665	Cal. Days												
DDRB1D1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	07-Jul-21	14-Jul-21	665	Cal. Days												
DDRB1D1030	DOTD Review	14	18-Sep-19	02-Oct-19	25-Aug-21	08-Sep-21	707	Cal. Days												
DDRB1D1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	08-Sep-21	22-Sep-21	707	Cal. Days												
Interim Submittal		84	18-Sep-19	11-Dec-19	14-Jul-21	20-Oct-21	679	Cal. Days												
DDRB1I1000	Submittal Prep	42	18-Sep-19	30-Oct-19	14-Jul-21	25-Aug-21	665	Cal. Days												
DDRB1I1010	Internal Review	7	30-Oct-19	06-Nov-19	25-Aug-21	01-Sep-21	665	Cal. Days												
DDRB1I1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	01-Sep-21	08-Sep-21	665	Cal. Days												
DDRB1I1030	DOTD Review	14	13-Nov-19	27-Nov-19	22-Sep-21	06-Oct-21	679	Cal. Days												
DDRB1I1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	06-Oct-21	20-Oct-21	679	Cal. Days												
RFC Submittal		70	13-Nov-19	22-Jan-20	08-Sep-21	17-Nov-21	665	Cal. Days												
DDRB1C1000	Submittal Review	28	13-Nov-19	11-Dec-19	08-Sep-21	06-Oct-21	665	Cal. Days												
DDRB1C1010	Internal Review	7	11-Dec-19	18-Dec-19	06-Oct-21	13-Oct-21	665	Cal. Days												
DDRB1C1020	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	13-Oct-21	20-Oct-21	665	Cal. Days												
DDRB1C1030	DOTD Review	14	25-Dec-19	08-Jan-20	20-Oct-21	03-Nov-21	665	Cal. Days												
DDRB1C1040	Address DOTD Comments	14	08-Jan-20	22-Jan-20	03-Nov-21	17-Nov-21	665	Cal. Days												
Drainage Report (All Roads)		126	18-Sep-19	22-Jan-20	14-Jul-21	17-Nov-21	665	Cal. Days												
Interim Submittal		84	18-Sep-19	11-Dec-19	14-Jul-21	20-Oct-21	679	Cal. Days												
DDRR1000	Submittal Prep	42	18-Sep-19	30-Oct-19	14-Jul-21	25-Aug-21	665	Cal. Days												
DDRR1010	Internal Review	7	30-Oct-19	06-Nov-19	25-Aug-21	01-Sep-21	665	Cal. Days												
DDRR1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	01-Sep-21	08-Sep-21	665	Cal. Days												
DDRR1030	DOTD Review	14	13-Nov-19	27-Nov-19	22-Sep-21	06-Oct-21	679	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DDRR1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	06-Oct-21	20-Oct-21	679	Cal. Days												
Final Submittal		70	13-Nov-19	22-Jan-20	08-Sep-21	17-Nov-21	665	Cal. Days												
DDRRF1000	Submittal Prep	28	13-Nov-19	11-Dec-19	08-Sep-21	06-Oct-21	665	Cal. Days												
DDRRF1010	Internal Review	7	11-Dec-19	18-Dec-19	06-Oct-21	13-Oct-21	665	Cal. Days												
DDRRF1020	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	13-Oct-21	20-Oct-21	665	Cal. Days												
DDRRF1030	DOTD Review	14	25-Dec-19	08-Jan-20	20-Oct-21	03-Nov-21	665	Cal. Days												
DDRRF1040	Address DOTD Comments	14	08-Jan-20	22-Jan-20	03-Nov-21	17-Nov-21	665	Cal. Days												
Local Road Drainage Plans		172	14-Aug-19	02-Feb-20	29-May-21	17-Nov-21	654	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	07-Jul-21	08-Sep-21	693	Cal. Days												
DDRB2D1000	Submittal Prep	21	14-Aug-19	04-Sep-19	07-Jul-21	28-Jul-21	693	Cal. Days												
DDRB2D1010	Internal Review	7	04-Sep-19	11-Sep-19	28-Jul-21	04-Aug-21	693	Cal. Days												
DDRB2D1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	04-Aug-21	11-Aug-21	693	Cal. Days												
DDRB2D1030	DOTD Review	14	18-Sep-19	02-Oct-19	11-Aug-21	25-Aug-21	693	Cal. Days												
DDRB2D1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	25-Aug-21	08-Sep-21	693	Cal. Days												
Interim Submittal		137	14-Aug-19	29-Dec-19	29-May-21	13-Oct-21	654	Cal. Days												
DDRB2I1000	Coordinate with Local Government	60	14-Aug-19	13-Oct-19	29-May-21	28-Jul-21	654	Cal. Days												
DDRB2I1010	Submittal Prep	28	13-Oct-19	10-Nov-19	28-Jul-21	25-Aug-21	654	Cal. Days												
DDRB2I1020	Internal Review	7	10-Nov-19	17-Nov-19	25-Aug-21	01-Sep-21	654	Cal. Days												
DDRB2I1030	Address Internal Review Comments	7	17-Nov-19	24-Nov-19	01-Sep-21	08-Sep-21	654	Cal. Days												
DDRB2I1040	DOTD/ Local Government Review	21	24-Nov-19	15-Dec-19	08-Sep-21	29-Sep-21	654	Cal. Days												
DDRB2I1050	Address DOTD/ Local Government Comments	14	15-Dec-19	29-Dec-19	29-Sep-21	13-Oct-21	654	Cal. Days												
RFC Submittal		77	17-Nov-19	02-Feb-20	08-Sep-21	17-Nov-21	654	Cal. Days												
DDRB2C1000	Submittal Prep	21	17-Nov-19	08-Dec-19	08-Sep-21	29-Sep-21	661	Cal. Days												
DDRB2C1010	Internal Review	7	08-Dec-19	15-Dec-19	29-Sep-21	06-Oct-21	661	Cal. Days												
DDRB2C1020	Address Internal Review Comments	7	15-Dec-19	22-Dec-19	06-Oct-21	13-Oct-21	661	Cal. Days												
DDRB2C1030	DOTD/ Local Government Review	21	29-Dec-19	19-Jan-20	13-Oct-21	03-Nov-21	654	Cal. Days												
DDRB2C1040	Address DOTD/ Local Government Comments	14	19-Jan-20	02-Feb-20	03-Nov-21	17-Nov-21	654	Cal. Days												
Structures		637	14-Aug-19	12-May-21	16-Sep-19	22-May-24	1107	Cal. Days												
LA 23 Bridge Over GIWW		637	14-Aug-19	12-May-21	16-Sep-19	22-May-24	1107	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	16-Sep-19	18-Nov-19	33	Cal. Days												
DSTGD1000	Submittal Prep	21	14-Aug-19	04-Sep-19	16-Sep-19	07-Oct-19	33	Cal. Days												
DSTGD1010	Internal Review	7	04-Sep-19	11-Sep-19	07-Oct-19	14-Oct-19	33	Cal. Days												
DSTGD1020	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	14-Oct-19	21-Oct-19	33	Cal. Days												
DSTGD1030	DOTD Review	14	18-Sep-19	02-Oct-19	21-Oct-19	04-Nov-19	33	Cal. Days												
DSTGD1040	Address DOTD Comments	14	02-Oct-19	16-Oct-19	04-Nov-19	18-Nov-19	33	Cal. Days												
60% Overall Bridge Plans Submittal		91	18-Sep-19	18-Dec-19	05-Jan-20	05-Jul-20	200	Cal. Days												
DSTGI1000	Submittal Prep	49	18-Sep-19	06-Nov-19	05-Jan-20	23-Feb-20	109	Cal. Days												
DSTGI1010	Internal Review	7	06-Nov-19	13-Nov-19	23-Feb-20	01-Mar-20	109	Cal. Days												
DSTGI1020	Address Internal Review Comments	7	13-Nov-19	20-Nov-19	01-Mar-20	08-Mar-20	109	Cal. Days												
DSTGI1030	DOTD Review	14	20-Nov-19	04-Dec-19	07-Jun-20	21-Jun-20	200	Cal. Days												
DSTGI1040	Address DOTD Comments	14	04-Dec-19	18-Dec-19	21-Jun-20	05-Jul-20	200	Cal. Days												
Main Piers RFC Submittal		70	20-Nov-19	29-Jan-20	08-Mar-20	15-Nov-20	291	Cal. Days												
DSTGC11000	Submittal Prep	28	20-Nov-19	18-Dec-19	08-Mar-20	05-Apr-20	109	Cal. Days												
DSTGC11010	Internal Review	7	18-Dec-19	25-Dec-19	05-Apr-20	12-Apr-20	109	Cal. Days												
DSTGC11020	Address Internal Review Comments	7	25-Dec-19	01-Jan-20	12-Apr-20	19-Apr-20	109	Cal. Days												
DSTGC11030	DOTD Review	14	01-Jan-20	15-Jan-20	18-Oct-20	01-Nov-20	291	Cal. Days												
DSTGC11040	Address DOTD Comments	14	15-Jan-20	29-Jan-20	01-Nov-20	15-Nov-20	291	Cal. Days												
Remaining Substructure RFC Submittal		105	01-Jan-20	15-Apr-20	19-Apr-20	02-Aug-20	109	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DSTGC21000	Submittal Prep	63	01-Jan-20	04-Mar-20	19-Apr-20	21-Jun-20	109	Cal. Days												
DSTGC21010	Internal Review	7	04-Mar-20	11-Mar-20	21-Jun-20	28-Jun-20	109	Cal. Days												
DSTGC21020	Address Internal Review Comments	7	11-Mar-20	18-Mar-20	28-Jun-20	05-Jul-20	109	Cal. Days												
DSTGC21030	DOTD Review	14	18-Mar-20	01-Apr-20	05-Jul-20	19-Jul-20	109	Cal. Days												
DSTGC21040	Address DOTD Comments	14	01-Apr-20	15-Apr-20	19-Jul-20	02-Aug-20	109	Cal. Days												
Steel Superstructure RFC Submittal		112	18-Mar-20	08-Jul-20	11-Feb-21	15-Dec-21	525	Cal. Days												
DSTGC331000	Submittal Prep	70	18-Mar-20	27-May-20	11-Feb-21	22-Apr-21	330	Cal. Days												
DSTGC331010	Internal Review	7	27-May-20	03-Jun-20	22-Apr-21	29-Apr-21	330	Cal. Days												
DSTGC331020	Address Internal Review Comments	7	03-Jun-20	10-Jun-20	29-Apr-21	06-May-21	330	Cal. Days												
DSTGC331030	DOTD Review	14	10-Jun-20	24-Jun-20	17-Nov-21	01-Dec-21	525	Cal. Days												
DSTGC331040	Address DOTD Comments	14	24-Jun-20	08-Jul-20	01-Dec-21	15-Dec-21	525	Cal. Days												
PPC Spans Superstructure RFC Submittal		140	10-Jun-20	28-Oct-20	06-May-21	23-Sep-21	330	Cal. Days												
DSTGC441000	Submittal Prep	98	10-Jun-20	16-Sep-20	06-May-21	12-Aug-21	330	Cal. Days												
DSTGC441010	Internal Review	7	16-Sep-20	23-Sep-20	12-Aug-21	19-Aug-21	330	Cal. Days												
DSTGC441020	Address Internal Review Comments	7	23-Sep-20	30-Sep-20	19-Aug-21	26-Aug-21	330	Cal. Days												
DSTGC441030	DOTD Review	14	30-Sep-20	14-Oct-20	26-Aug-21	09-Sep-21	330	Cal. Days												
DSTGC441040	Address DOTD Comments	14	14-Oct-20	28-Oct-20	09-Sep-21	23-Sep-21	330	Cal. Days												
Final Calculation Package		112	30-Sep-20	20-Jan-21	11-Oct-23	24-Apr-24	1191	Cal. Days												
DSTGP1000	Submittal Prep	70	30-Sep-20	09-Dec-20	11-Oct-23	20-Dec-23	1107	Cal. Days												
DSTGP1010	Internal Review	7	09-Dec-20	16-Dec-20	20-Dec-23	27-Dec-23	1107	Cal. Days												
DSTGP1020	Address Internal Review Comments	7	16-Dec-20	23-Dec-20	27-Dec-23	03-Jan-24	1107	Cal. Days												
DSTGP1030	DOTD Review	14	23-Dec-20	06-Jan-21	27-Mar-24	10-Apr-24	1191	Cal. Days												
DSTGP1040	Address DOTD Comments	14	06-Jan-21	20-Jan-21	10-Apr-24	24-Apr-24	1191	Cal. Days												
As-Designed Load Rating Report		140	23-Dec-20	12-May-21	03-Jan-24	22-May-24	1107	Cal. Days												
DSTGL1000	Submittal Prep	98	23-Dec-20	31-Mar-21	03-Jan-24	10-Apr-24	1107	Cal. Days												
DSTGL1010	Internal Review	7	31-Mar-21	07-Apr-21	10-Apr-24	17-Apr-24	1107	Cal. Days												
DSTGL1020	Address Internal Review Comments	7	07-Apr-21	14-Apr-21	17-Apr-24	24-Apr-24	1107	Cal. Days												
DSTGL1030	DOTD Review	14	14-Apr-21	28-Apr-21	24-Apr-24	08-May-24	1107	Cal. Days												
DSTGL1040	Address DOTD Comments	14	28-Apr-21	12-May-21	08-May-24	22-May-24	1107	Cal. Days												
Geotechnical Report		126	14-Aug-19	18-Dec-19	14-Jul-21	17-Nov-21	700	Cal. Days												
Interim Submittal		84	14-Aug-19	06-Nov-19	14-Jul-21	20-Oct-21	714	Cal. Days												
DSTGGI1000	Submittal Prep	42	14-Aug-19	25-Sep-19	14-Jul-21	25-Aug-21	700	Cal. Days												
DSTGGI1010	Internal Review	7	25-Sep-19	02-Oct-19	25-Aug-21	01-Sep-21	700	Cal. Days												
DSTGGI1020	Address Internal Review Comments	7	02-Oct-19	09-Oct-19	01-Sep-21	08-Sep-21	700	Cal. Days												
DSTGGI1030	DOTD Review	14	09-Oct-19	23-Oct-19	22-Sep-21	06-Oct-21	714	Cal. Days												
DSTGGI1040	Address DOTD Comments	14	23-Oct-19	06-Nov-19	06-Oct-21	20-Oct-21	714	Cal. Days												
Final Submittal		70	09-Oct-19	18-Dec-19	08-Sep-21	17-Nov-21	700	Cal. Days												
DSTGGF1000	Submittal Prep	28	09-Oct-19	06-Nov-19	08-Sep-21	06-Oct-21	700	Cal. Days												
DSTGGF1010	Internal Review	7	06-Nov-19	13-Nov-19	06-Oct-21	13-Oct-21	700	Cal. Days												
DSTGGF1020	Address Internal Review Comments	7	13-Nov-19	20-Nov-19	13-Oct-21	20-Oct-21	700	Cal. Days												
DSTGGF1030	DOTD Review	14	20-Nov-19	04-Dec-19	20-Oct-21	03-Nov-21	700	Cal. Days												
DSTGGF1040	Address DOTD Comments	14	04-Dec-19	18-Dec-19	03-Nov-21	17-Nov-21	700	Cal. Days												
Tunnel Decommissioning		140	28-Oct-20	17-Mar-21	08-Sep-23	26-Jan-24	1045	Cal. Days												
Interim Submittal		70	28-Oct-20	06-Jan-21	08-Sep-23	17-Nov-23	1045	Cal. Days												
DSTTI1000	Submittal Prep	28	28-Oct-20	25-Nov-20	08-Sep-23	06-Oct-23	1045	Cal. Days												
DSTTI1010	Internal Review	7	25-Nov-20	02-Dec-20	06-Oct-23	13-Oct-23	1045	Cal. Days												
DSTTI1020	Address Internal Review Comments	7	02-Dec-20	09-Dec-20	13-Oct-23	20-Oct-23	1045	Cal. Days												
DSTTI1030	DOTD Review	14	09-Dec-20	23-Dec-20	20-Oct-23	03-Nov-23	1045	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 ▾ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DSTTI1040	Address DOTD Comments	14	23-Dec-20	06-Jan-21	03-Nov-23	17-Nov-23	1045	Cal. Days												
RFC Submittal		70	06-Jan-21	17-Mar-21	17-Nov-23	26-Jan-24	1045	Cal. Days												
DSTTF1000	Submittal Prep	28	06-Jan-21	03-Feb-21	17-Nov-23	15-Dec-23	1045	Cal. Days												
DSTTF1010	Internal Review	7	03-Feb-21	10-Feb-21	15-Dec-23	22-Dec-23	1045	Cal. Days												
DSTTF1020	Address Internal Review Comments	7	10-Feb-21	17-Feb-21	22-Dec-23	29-Dec-23	1045	Cal. Days												
DSTTF1030	DOTD Review	14	17-Feb-21	03-Mar-21	29-Dec-23	12-Jan-24	1045	Cal. Days												
DSTTF1040	Address DOTD Comments	14	03-Mar-21	17-Mar-21	12-Jan-24	26-Jan-24	1045	Cal. Days												
Retaining Wall (MSE Wall)		250	18-Dec-19	24-Aug-20	17-Nov-21	25-Jul-22	700	Cal. Days												
MSE Wall Geotechnical Report Addendum		72	18-Dec-19	28-Feb-20	17-Nov-21	28-Jan-22	700	Cal. Days												
DSTWMR1000	Submittal Prep	30	18-Dec-19	17-Jan-20	17-Nov-21	17-Dec-21	700	Cal. Days												
DSTWMR1010	Internal Review	7	17-Jan-20	24-Jan-20	17-Dec-21	24-Dec-21	700	Cal. Days												
DSTWMR1020	Address Internal Review Comments	7	24-Jan-20	31-Jan-20	24-Dec-21	31-Dec-21	700	Cal. Days												
DSTWMR1030	DOTD Review	14	31-Jan-20	14-Feb-20	31-Dec-21	14-Jan-22	700	Cal. Days												
DSTWMR1040	Address DOTD Comments	14	14-Feb-20	28-Feb-20	14-Jan-22	28-Jan-22	700	Cal. Days												
MSE Wall Calculation Package (From MSE Wall Manufacturer)		72	13-Jun-20	24-Aug-20	14-May-22	25-Jul-22	700	Cal. Days												
DSTWMC1000	Submittal Prep	30	13-Jun-20	13-Jul-20	14-May-22	13-Jun-22	700	Cal. Days												
DSTWMC1010	Internal Review	7	13-Jul-20	20-Jul-20	13-Jun-22	20-Jun-22	700	Cal. Days												
DSTWMC1020	Address Internal Review Comments	7	20-Jul-20	27-Jul-20	20-Jun-22	27-Jun-22	700	Cal. Days												
DSTWMC1030	DOTD Review	14	27-Jul-20	10-Aug-20	27-Jun-22	11-Jul-22	700	Cal. Days												
DSTWMC1040	Address DOTD Comments	14	10-Aug-20	24-Aug-20	11-Jul-22	25-Jul-22	700	Cal. Days												
MSE Wall Plans		106	28-Feb-20	13-Jun-20	28-Jan-22	14-May-22	700	Cal. Days												
Interim Submittal		72	28-Feb-20	10-May-20	28-Jan-22	16-Apr-22	706	Cal. Days												
DSTWMP1100	Submittal Prep	30	28-Feb-20	29-Mar-20	28-Jan-22	27-Feb-22	700	Cal. Days												
DSTWMP1101	Internal Review	7	29-Mar-20	05-Apr-20	27-Feb-22	06-Mar-22	700	Cal. Days												
DSTWMP1102	Address Internal Review Comments	7	05-Apr-20	12-Apr-20	06-Mar-22	13-Mar-22	700	Cal. Days												
DSTWMP1103	DOTD Review	14	12-Apr-20	26-Apr-20	19-Mar-22	02-Apr-22	706	Cal. Days												
DSTWMP1104	Address DOTD Comments	14	26-Apr-20	10-May-20	02-Apr-22	16-Apr-22	706	Cal. Days												
RFC Submittal		62	12-Apr-20	13-Jun-20	13-Mar-22	14-May-22	700	Cal. Days												
DSTWMP1105	Submittal Prep	20	12-Apr-20	02-May-20	13-Mar-22	02-Apr-22	700	Cal. Days												
DSTWMP1106	Internal Review	7	02-May-20	09-May-20	02-Apr-22	09-Apr-22	700	Cal. Days												
DSTWMP1107	Address Internal Review Comments	7	09-May-20	16-May-20	09-Apr-22	16-Apr-22	700	Cal. Days												
DSTWMP1108	DOTD Review	14	16-May-20	30-May-20	16-Apr-22	30-Apr-22	700	Cal. Days												
DSTWMP1109	Address DOTD Comments	14	30-May-20	13-Jun-20	30-Apr-22	14-May-22	700	Cal. Days												
Traffic		326	14-Aug-19	05-Jul-20	12-Jul-21	15-Mar-24	1349	Cal. Days												
Final Condition Signing, Signal & Lighting		305	14-Aug-19	14-Jun-20	12-Jul-21	15-Mar-24	1370	Cal. Days												
Signing		305	14-Aug-19	14-Jun-20	15-May-23	15-Mar-24	1370	Cal. Days												
LA 23 & Engineers Road Signing Plan		126	14-Aug-19	18-Dec-19	15-May-23	18-Sep-23	1370	Cal. Days												
Interim Submittal		84	14-Aug-19	06-Nov-19	15-May-23	21-Aug-23	1384	Cal. Days												
DTRF1SAI	Submittal Prep	42	14-Aug-19	25-Sep-19	15-May-23	26-Jun-23	1370	Cal. Days												
DTRF1SAI	Internal Review	7	25-Sep-19	02-Oct-19	26-Jun-23	03-Jul-23	1370	Cal. Days												
DTRF1SAI	Address Internal Review Comments	7	02-Oct-19	09-Oct-19	03-Jul-23	10-Jul-23	1370	Cal. Days												
DTRF1SAI	DOTD Review	14	09-Oct-19	23-Oct-19	24-Jul-23	07-Aug-23	1384	Cal. Days												
DTRF1SAI	Address DOTD Comments	14	23-Oct-19	06-Nov-19	07-Aug-23	21-Aug-23	1384	Cal. Days												
RFC Submittal		70	09-Oct-19	18-Dec-19	10-Jul-23	18-Sep-23	1370	Cal. Days												
DTRF1SAC	Submittal Prep	28	09-Oct-19	06-Nov-19	10-Jul-23	07-Aug-23	1370	Cal. Days												
DTRF1SAC	Internal Review	7	06-Nov-19	13-Nov-19	07-Aug-23	14-Aug-23	1370	Cal. Days												
DTRF1SAC	Address Internal Review Comments	7	13-Nov-19	20-Nov-19	14-Aug-23	21-Aug-23	1370	Cal. Days												
DTRF1SAC	DOTD Review	14	20-Nov-19	04-Dec-19	21-Aug-23	04-Sep-23	1370	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 ▾ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DTRF1SAC	Address DOTD Comments	14	04-Dec-19	18-Dec-19	04-Sep-23	18-Sep-23	1370	Cal. Days												
Local Roads - Signing Plans		179	18-Dec-19	14-Jun-20	18-Sep-23	15-Mar-24	1370	Cal. Days												
Interim Submittal		137	18-Dec-19	03-May-20	18-Sep-23	09-Feb-24	1377	Cal. Days												
DTRF1SBI	Coordinate with Local Government	60	18-Dec-19	16-Feb-20	18-Sep-23	17-Nov-23	1370	Cal. Days												
DTRF1SBI	Submittal Prep	28	16-Feb-20	15-Mar-20	17-Nov-23	15-Dec-23	1370	Cal. Days												
DTRF1SBI	Internal Review	7	15-Mar-20	22-Mar-20	15-Dec-23	22-Dec-23	1370	Cal. Days												
DTRF1SBI	Address Internal Review Comments	7	22-Mar-20	29-Mar-20	22-Dec-23	29-Dec-23	1370	Cal. Days												
DTRF1SBI	DOTD/ Local Government Review	21	29-Mar-20	19-Apr-20	05-Jan-24	26-Jan-24	1377	Cal. Days												
DTRF1SBI	Address DOTD/ Local Government Comments	14	19-Apr-20	03-May-20	26-Jan-24	09-Feb-24	1377	Cal. Days												
RFC Submittal		77	29-Mar-20	14-Jun-20	29-Dec-23	15-Mar-24	1370	Cal. Days												
DTRF1SBC	Submittal Prep	28	29-Mar-20	26-Apr-20	29-Dec-23	26-Jan-24	1370	Cal. Days												
DTRF1SBC	Internal Review	7	26-Apr-20	03-May-20	26-Jan-24	02-Feb-24	1370	Cal. Days												
DTRF1SBC	Address Internal Review Comments	7	03-May-20	10-May-20	02-Feb-24	09-Feb-24	1370	Cal. Days												
DTRF1SBC	DOTD/ Local Government Review	21	10-May-20	31-May-20	09-Feb-24	01-Mar-24	1370	Cal. Days												
DTRF1SBC	Address DOTD/ Local Government Comments	14	31-May-20	14-Jun-20	01-Mar-24	15-Mar-24	1370	Cal. Days												
Traffic Signal Systems		161	14-Aug-19	22-Jan-20	24-Dec-21	03-Jun-22	863	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	24-Dec-21	08-Apr-22	905	Cal. Days												
DTRF1TD100I	Submittal Prep	21	14-Aug-19	04-Sep-19	24-Dec-21	14-Jan-22	863	Cal. Days												
DTRF1TD101I	Internal Review	7	04-Sep-19	11-Sep-19	14-Jan-22	21-Jan-22	863	Cal. Days												
DTRF1TD102I	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	21-Jan-22	28-Jan-22	863	Cal. Days												
DTRF1TD103I	DOTD Review	14	18-Sep-19	02-Oct-19	11-Mar-22	25-Mar-22	905	Cal. Days												
DTRF1TD104I	Address DOTD Comments	14	02-Oct-19	16-Oct-19	25-Mar-22	08-Apr-22	905	Cal. Days												
Interim Submittal		84	18-Sep-19	11-Dec-19	28-Jan-22	06-May-22	877	Cal. Days												
DTRF1TI1000	Submittal Prep	42	18-Sep-19	30-Oct-19	28-Jan-22	11-Mar-22	863	Cal. Days												
DTRF1TI1010	Internal Review	7	30-Oct-19	06-Nov-19	11-Mar-22	18-Mar-22	863	Cal. Days												
DTRF1TI1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	18-Mar-22	25-Mar-22	863	Cal. Days												
DTRF1TI1030	DOTD Review	14	13-Nov-19	27-Nov-19	08-Apr-22	22-Apr-22	877	Cal. Days												
DTRF1TI1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	22-Apr-22	06-May-22	877	Cal. Days												
RFC Submittal		70	13-Nov-19	22-Jan-20	25-Mar-22	03-Jun-22	863	Cal. Days												
DTRF1TC100I	Submittal Prep	28	13-Nov-19	11-Dec-19	25-Mar-22	22-Apr-22	863	Cal. Days												
DTRF1TC101I	Internal Review	7	11-Dec-19	18-Dec-19	22-Apr-22	29-Apr-22	863	Cal. Days												
DTRF1TC102I	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	29-Apr-22	06-May-22	863	Cal. Days												
DTRF1TC103I	DOTD Review	14	25-Dec-19	08-Jan-20	06-May-22	20-May-22	863	Cal. Days												
DTRF1TC104I	Address DOTD Comments	14	08-Jan-20	22-Jan-20	20-May-22	03-Jun-22	863	Cal. Days												
Roadway Illumination Infrastructure		161	14-Aug-19	22-Jan-20	21-Sep-22	01-Mar-23	1134	Cal. Days												
Definitive Design		63	14-Aug-19	16-Oct-19	21-Sep-22	04-Jan-23	1176	Cal. Days												
DTRF1RD100	Submittal Prep	21	14-Aug-19	04-Sep-19	21-Sep-22	12-Oct-22	1134	Cal. Days												
DTRF1RD101	Internal Review	7	04-Sep-19	11-Sep-19	12-Oct-22	19-Oct-22	1134	Cal. Days												
DTRF1RD102	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	19-Oct-22	26-Oct-22	1134	Cal. Days												
DTRF1RD103	DOTD Review	14	18-Sep-19	02-Oct-19	07-Dec-22	21-Dec-22	1176	Cal. Days												
DTRF1RD104	Address DOTD Comments	14	02-Oct-19	16-Oct-19	21-Dec-22	04-Jan-23	1176	Cal. Days												
Interim Submittal		84	18-Sep-19	11-Dec-19	26-Oct-22	01-Feb-23	1148	Cal. Days												
DTRF1RI1000	Submittal Prep	42	18-Sep-19	30-Oct-19	26-Oct-22	07-Dec-22	1134	Cal. Days												
DTRF1RI1010	Internal Review	7	30-Oct-19	06-Nov-19	07-Dec-22	14-Dec-22	1134	Cal. Days												
DTRF1RI1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	14-Dec-22	21-Dec-22	1134	Cal. Days												
DTRF1RI1030	DOTD Review	14	13-Nov-19	27-Nov-19	04-Jan-23	18-Jan-23	1148	Cal. Days												
DTRF1RI1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	18-Jan-23	01-Feb-23	1148	Cal. Days												
RFC Submittal		70	13-Nov-19	22-Jan-20	21-Dec-22	01-Mar-23	1134	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 ▾ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout								07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025						
DTRF1RC100	Submittal Prep	28	13-Nov-19	11-Dec-19	21-Dec-22	18-Jan-23	1134	Cal. Days													
DTRF1RC101	Internal Review	7	11-Dec-19	18-Dec-19	18-Jan-23	25-Jan-23	1134	Cal. Days													
DTRF1RC102	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	25-Jan-23	01-Feb-23	1134	Cal. Days													
DTRF1RC103	DOTD Review	14	25-Dec-19	08-Jan-20	01-Feb-23	15-Feb-23	1134	Cal. Days													
DTRF1RC104	Address DOTD Comments	14	08-Jan-20	22-Jan-20	15-Feb-23	01-Mar-23	1134	Cal. Days													
Marine Illumination		161	14-Aug-19	22-Jan-20	12-Jul-21	13-Oct-23	1360	Cal. Days													
Definitive Design		63	14-Aug-19	16-Oct-19	12-Jul-21	18-Aug-23	1402	Cal. Days													
DTRF1MD100	Submittal Prep	21	14-Aug-19	04-Sep-19	12-Jul-21	02-Aug-21	698	Cal. Days													
DTRF1MD101	Internal Review	7	04-Sep-19	11-Sep-19	02-Aug-21	09-Aug-21	698	Cal. Days													
DTRF1MD102	Address Internal Review Comments	7	11-Sep-19	18-Sep-19	09-Aug-21	16-Aug-21	698	Cal. Days													
DTRF1MD103	DOTD Review	14	18-Sep-19	02-Oct-19	21-Jul-23	04-Aug-23	1402	Cal. Days													
DTRF1MD104	Address DOTD Comments	14	02-Oct-19	16-Oct-19	04-Aug-23	18-Aug-23	1402	Cal. Days													
Interim Submittal		84	18-Sep-19	11-Dec-19	09-Jun-23	15-Sep-23	1374	Cal. Days													
DTRF1MI1000	Submittal Prep	42	18-Sep-19	30-Oct-19	09-Jun-23	21-Jul-23	1360	Cal. Days													
DTRF1MI1010	Internal Review	7	30-Oct-19	06-Nov-19	21-Jul-23	28-Jul-23	1360	Cal. Days													
DTRF1MI1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	28-Jul-23	04-Aug-23	1360	Cal. Days													
DTRF1MI1030	DOTD Review	14	13-Nov-19	27-Nov-19	18-Aug-23	01-Sep-23	1374	Cal. Days													
DTRF1MI1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	01-Sep-23	15-Sep-23	1374	Cal. Days													
RFC Submittal		70	13-Nov-19	22-Jan-20	04-Aug-23	13-Oct-23	1360	Cal. Days													
DTRF1MC100	Submittal Prep	28	13-Nov-19	11-Dec-19	04-Aug-23	01-Sep-23	1360	Cal. Days													
DTRF1MC101	Internal Review	7	11-Dec-19	18-Dec-19	01-Sep-23	08-Sep-23	1360	Cal. Days													
DTRF1MC102	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	08-Sep-23	15-Sep-23	1360	Cal. Days													
DTRF1MC103	DOTD Review	14	25-Dec-19	08-Jan-20	15-Sep-23	29-Sep-23	1360	Cal. Days													
DTRF1MC104	Address DOTD Comments	14	08-Jan-20	22-Jan-20	29-Sep-23	13-Oct-23	1360	Cal. Days													
Final Condition Striping Plans		291	18-Sep-19	05-Jul-20	16-Aug-21	03-Jun-22	698	Cal. Days													
LA 23 & Engineers Road - Striping Plans		126	18-Sep-19	22-Jan-20	16-Aug-21	20-Dec-21	698	Cal. Days													
Interim Submittal		84	18-Sep-19	11-Dec-19	16-Aug-21	22-Nov-21	712	Cal. Days													
DTRF2AI1000	Submittal Prep	42	18-Sep-19	30-Oct-19	16-Aug-21	27-Sep-21	698	Cal. Days													
DTRF2AI1010	Internal Review	7	30-Oct-19	06-Nov-19	27-Sep-21	04-Oct-21	698	Cal. Days													
DTRF2AI1020	Address Internal Review Comments	7	06-Nov-19	13-Nov-19	04-Oct-21	11-Oct-21	698	Cal. Days													
DTRF2AI1030	DOTD Review	14	13-Nov-19	27-Nov-19	25-Oct-21	08-Nov-21	712	Cal. Days													
DTRF2AI1040	Address DOTD Comments	14	27-Nov-19	11-Dec-19	08-Nov-21	22-Nov-21	712	Cal. Days													
RFC Submittal		70	13-Nov-19	22-Jan-20	11-Oct-21	20-Dec-21	698	Cal. Days													
DTRF2AC100	Submittal Prep	28	13-Nov-19	11-Dec-19	11-Oct-21	08-Nov-21	698	Cal. Days													
DTRF2AC101	Internal Review	7	11-Dec-19	18-Dec-19	08-Nov-21	15-Nov-21	698	Cal. Days													
DTRF2AC102	Address Internal Review Comments	7	18-Dec-19	25-Dec-19	15-Nov-21	22-Nov-21	698	Cal. Days													
DTRF2AC103	DOTD Review	14	25-Dec-19	08-Jan-20	22-Nov-21	06-Dec-21	698	Cal. Days													
DTRF2AC104	Address DOTD Comments	14	08-Jan-20	22-Jan-20	06-Dec-21	20-Dec-21	698	Cal. Days													
Local Roads - Striping Plans		165	22-Jan-20	05-Jul-20	20-Dec-21	03-Jun-22	698	Cal. Days													
Interim Submittal		137	22-Jan-20	07-Jun-20	20-Dec-21	06-May-22	698	Cal. Days													
DTRF2BI1000	Coordinate with Local Government	60	22-Jan-20	22-Mar-20	20-Dec-21	18-Feb-22	698	Cal. Days													
DTRF2BI1010	Submittal Prep	28	22-Mar-20	19-Apr-20	18-Feb-22	18-Mar-22	698	Cal. Days													
DTRF2BI1020	Internal Review	7	19-Apr-20	26-Apr-20	18-Mar-22	25-Mar-22	698	Cal. Days													
DTRF2BI1030	Address Internal Review Comments	7	26-Apr-20	03-May-20	25-Mar-22	01-Apr-22	698	Cal. Days													
DTRF2BI1040	DOTD/ Local Government Review	21	03-May-20	24-May-20	01-Apr-22	22-Apr-22	698	Cal. Days													
DTRF2BI1050	Address DOTD/ Local Government Comments	14	24-May-20	07-Jun-20	22-Apr-22	06-May-22	698	Cal. Days													
RFC Submittal		63	03-May-20	05-Jul-20	01-Apr-22	03-Jun-22	698	Cal. Days													
DTRF2BC100	Submittal Prep	21	03-May-20	24-May-20	01-Apr-22	22-Apr-22	698	Cal. Days													

█ Actual Work
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Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
DTRF2BC101	Internal Review	7	24-May-20	31-May-20	22-Apr-22	29-Apr-22	698	Cal. Days												
DTRF2BC102	Address Internal Review Comments	7	31-May-20	07-Jun-20	29-Apr-22	06-May-22	698	Cal. Days												
DTRF2BC103	DOTD/ Local Government Review	14	07-Jun-20	21-Jun-20	06-May-22	20-May-22	698	Cal. Days												
DTRF2BC104	Address DOTD/ Local Government Comments	14	21-Jun-20	05-Jul-20	20-May-22	03-Jun-22	698	Cal. Days												
Transportation Management & Controls During Construction		241	14-Aug-19	11-Apr-20	09-Jan-21	07-Sep-21	514	Cal. Days												
Transportation Management Plan		101	14-Aug-19	23-Nov-19	09-Jan-21	20-Apr-21	514	Cal. Days												
Interim Submittal		68	14-Aug-19	21-Oct-19	09-Jan-21	27-Mar-21	523	Cal. Days												
DMTP111000	Submittal Prep	35	14-Aug-19	18-Sep-19	09-Jan-21	13-Feb-21	514	Cal. Days												
DMTP111010	Internal Review	7	18-Sep-19	25-Sep-19	13-Feb-21	20-Feb-21	514	Cal. Days												
DMTP111020	Address Internal Review Comments	7	25-Sep-19	02-Oct-19	20-Feb-21	27-Feb-21	514	Cal. Days												
DMTP111030	DOTD Review	14	02-Oct-19	16-Oct-19	08-Mar-21	22-Mar-21	523	Cal. Days												
DMTP111040	Address DOTD Comments	5	16-Oct-19	21-Oct-19	22-Mar-21	27-Mar-21	523	Cal. Days												
Final Submittal		52	02-Oct-19	23-Nov-19	27-Feb-21	20-Apr-21	514	Cal. Days												
DMTP1F1000	Submittal Prep	14	02-Oct-19	16-Oct-19	27-Feb-21	13-Mar-21	514	Cal. Days												
DMTP1F1010	Internal Review	7	16-Oct-19	23-Oct-19	13-Mar-21	20-Mar-21	514	Cal. Days												
DMTP1F1020	Address Internal Review Comments	7	23-Oct-19	30-Oct-19	20-Mar-21	27-Mar-21	514	Cal. Days												
DMTP1F1030	DOTD Review	14	30-Oct-19	13-Nov-19	27-Mar-21	10-Apr-21	514	Cal. Days												
DMTP1F1040	Address DOTD Comments	10	13-Nov-19	23-Nov-19	10-Apr-21	20-Apr-21	514	Cal. Days												
Traffic Phasing Plans (Includes Temp Lighting and Drainage)		140	23-Nov-19	11-Apr-20	20-Apr-21	07-Sep-21	514	Cal. Days												
Interim Submittal		91	23-Nov-19	22-Feb-20	20-Apr-21	10-Aug-21	535	Cal. Days												
DMTP211000	Submittal Prep	49	23-Nov-19	11-Jan-20	20-Apr-21	08-Jun-21	514	Cal. Days												
DMTP211010	Internal Review	7	11-Jan-20	18-Jan-20	08-Jun-21	15-Jun-21	514	Cal. Days												
DMTP211020	Address Internal Review Comments	7	18-Jan-20	25-Jan-20	15-Jun-21	22-Jun-21	514	Cal. Days												
DMTP211030	DOTD Review	14	25-Jan-20	08-Feb-20	13-Jul-21	27-Jul-21	535	Cal. Days												
DMTP211040	Address DOTD Comments	14	08-Feb-20	22-Feb-20	27-Jul-21	10-Aug-21	535	Cal. Days												
RFC Submittal		77	25-Jan-20	11-Apr-20	22-Jun-21	07-Sep-21	514	Cal. Days												
DMTP2C1000	Submittal Prep	35	25-Jan-20	29-Feb-20	22-Jun-21	27-Jul-21	514	Cal. Days												
DMTP2C1010	Internal Review	7	29-Feb-20	07-Mar-20	27-Jul-21	03-Aug-21	514	Cal. Days												
DMTP2C1020	Address Internal Review Comments	7	07-Mar-20	14-Mar-20	03-Aug-21	10-Aug-21	514	Cal. Days												
DMTP2C1030	DOTD Review	14	14-Mar-20	28-Mar-20	10-Aug-21	24-Aug-21	514	Cal. Days												
DMTP2C1040	Address DOTD Comments	14	28-Mar-20	11-Apr-20	24-Aug-21	07-Sep-21	514	Cal. Days												
Right of Way		437	14-Aug-19	23-Oct-20	24-Sep-19	22-May-24	1307	Cal. Days												
North		437	14-Aug-19	23-Oct-20	24-Sep-19	22-May-24	1307	Cal. Days												
Parcel #1		407	14-Aug-19	23-Sep-20	04-Oct-19	27-Oct-20	34	Cal. Days												
RNPA11000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days												
RNPA11010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days												
RNPA11020	Title Review	10	28-Sep-19	08-Oct-19	02-Mar-20	12-Mar-20	156	Cal. Days												
RNPA11030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days												
RNPA11035	ROW Map Review	14	07-Feb-20	21-Feb-20	12-Mar-20	26-Mar-20	34	Cal. Days												
RNPA11040	Appraisal Consultant	75	21-Feb-20	06-May-20	26-Mar-20	09-Jun-20	34	Cal. Days												
RNPA11050	Appraisal Review	14	06-May-20	20-May-20	09-Jun-20	23-Jun-20	34	Cal. Days												
RNPA11055	JCO Review	14	20-May-20	03-Jun-20	23-Jun-20	07-Jul-20	34	Cal. Days												
RNPA11060	Negotiation	90	03-Jun-20	01-Sep-20	07-Jul-20	05-Oct-20	34	Cal. Days												
RNPA11070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	05-Oct-20	05-Oct-20	124	Cal. Days												
RNPA11080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	05-Oct-20	20-Oct-20	34	Cal. Days												
RNPA11090	Acquisition	7	16-Sep-20	23-Sep-20	20-Oct-20	27-Oct-20	34	Cal. Days												
Parcel #2		437	14-Aug-19	23-Oct-20	04-Oct-19	27-Oct-20	4	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 ▾ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3			Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025						
RNPA21000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													
RNPA21010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													
RNPA21020	Title Review	10	28-Sep-19	08-Oct-19	01-Feb-20	11-Feb-20	126	Cal. Days													
RNPA21030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													
RNPA21035	ROW Map Review	14	07-Feb-20	21-Feb-20	11-Feb-20	25-Feb-20	4	Cal. Days													
RNPA21040	Appraisal Consultant	75	21-Feb-20	06-May-20	25-Feb-20	10-May-20	4	Cal. Days													
RNPA21050	Appraisal Review	14	06-May-20	20-May-20	10-May-20	24-May-20	4	Cal. Days													
RNPA21055	JCO Review	14	20-May-20	03-Jun-20	24-May-20	07-Jun-20	4	Cal. Days													
RNPA21060	Negotiation	90	03-Jun-20	01-Sep-20	07-Jul-20	05-Oct-20	34	Cal. Days													
RNPA21070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	07-Jun-20	05-Oct-20	4	Cal. Days													
RNPA21080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	05-Oct-20	20-Oct-20	4	Cal. Days													
RNPA21090	Acquisition	7	16-Oct-20	23-Oct-20	20-Oct-20	27-Oct-20	4	Cal. Days													
Parcel #3		437	14-Aug-19	23-Oct-20	04-Oct-19	27-Oct-20	4	Cal. Days	▼ 23-Oct-20, Parcel #3												
RNPA31000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													
RNPA31010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													
RNPA31020	Title Review	10	28-Sep-19	08-Oct-19	01-Feb-20	11-Feb-20	126	Cal. Days													
RNPA31030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													
RNPA31035	ROW Map Review	14	07-Feb-20	21-Feb-20	11-Feb-20	25-Feb-20	4	Cal. Days													
RNPA31040	Appraisal Consultant	75	21-Feb-20	06-May-20	25-Feb-20	10-May-20	4	Cal. Days													
RNPA31050	Appraisal Review	14	06-May-20	20-May-20	10-May-20	24-May-20	4	Cal. Days													
RNPA31055	JCO Review	14	20-May-20	03-Jun-20	24-May-20	07-Jun-20	4	Cal. Days													
RNPA31060	Negotiation	90	03-Jun-20	01-Sep-20	07-Jul-20	05-Oct-20	34	Cal. Days													
RNPA31070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	07-Jun-20	05-Oct-20	4	Cal. Days													
RNPA31080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	05-Oct-20	20-Oct-20	4	Cal. Days													
RNPA31090	Acquisition	7	16-Oct-20	23-Oct-20	20-Oct-20	27-Oct-20	4	Cal. Days													
Parcel #4		437	14-Aug-19	23-Oct-20	04-Oct-19	27-Oct-20	4	Cal. Days	▼ 23-Oct-20, Parcel #4												
RNPA41000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													
RNPA41010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													
RNPA41020	Title Review	10	28-Sep-19	08-Oct-19	01-Feb-20	11-Feb-20	126	Cal. Days													
RNPA41030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													
RNPA41035	ROW Map Review	14	07-Feb-20	21-Feb-20	11-Feb-20	25-Feb-20	4	Cal. Days													
RNPA41040	Appraisal Consultant	75	21-Feb-20	06-May-20	25-Feb-20	10-May-20	4	Cal. Days													
RNPA41050	Appraisal Review	14	06-May-20	20-May-20	10-May-20	24-May-20	4	Cal. Days													
RNPA41055	JCO Review	14	20-May-20	03-Jun-20	24-May-20	07-Jun-20	4	Cal. Days													
RNPA41060	Negotiation	90	03-Jun-20	01-Sep-20	07-Jul-20	05-Oct-20	34	Cal. Days													
RNPA41070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	07-Jun-20	05-Oct-20	4	Cal. Days													
RNPA41080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	05-Oct-20	20-Oct-20	4	Cal. Days													
RNPA41090	Acquisition	7	16-Oct-20	23-Oct-20	20-Oct-20	27-Oct-20	4	Cal. Days													
Parcel #5		407	14-Aug-19	23-Sep-20	04-Oct-19	07-Sep-21	349	Cal. Days	▼ 23-Sep-20, Parcel #5												
RNPA51000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													
RNPA51010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													
RNPA51020	Title Review	10	28-Sep-19	08-Oct-19	11-Jan-21	21-Jan-21	471	Cal. Days													
RNPA51030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													
RNPA51035	ROW Map Review	14	07-Feb-20	21-Feb-20	21-Jan-21	04-Feb-21	349	Cal. Days													
RNPA51040	Appraisal Consultant	75	21-Feb-20	06-May-20	04-Feb-21	20-Apr-21	349	Cal. Days													
RNPA51050	Appraisal Review	14	06-May-20	20-May-20	20-Apr-21	04-May-21	349	Cal. Days													
RNPA51055	JCO Review	14	20-May-20	03-Jun-20	04-May-21	18-May-21	349	Cal. Days													

■ Actual Work
 ■ Critical Remaining Work
 ▼ Summary
■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019												2020												2021												2022												2023												2024												2025											
RNPA51060	Negotiation	90	03-Jun-20	01-Sep-20	18-May-21	16-Aug-21	349	Cal. Days													Negotiation																																																																							
RNPA51070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	16-Aug-21	16-Aug-21	439	Cal. Days													Relocation & Advisory																																																																							
RNPA51080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	16-Aug-21	31-Aug-21	349	Cal. Days													Review & Approve Payment																																																																							
RNPA51090	Acquisition	7	16-Sep-20	23-Sep-20	31-Aug-21	07-Sep-21	349	Cal. Days													Acquisition																																																																							
Parcel #6		437	14-Aug-19	23-Oct-20	04-Oct-19	27-Oct-20	4	Cal. Days													23-Oct-20, Parcel #6																																																																							
RNPA61000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													Notify owner																																																																							
RNPA61010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													Title Research																																																																							
RNPA61020	Title Review	10	28-Sep-19	08-Oct-19	01-Feb-20	11-Feb-20	126	Cal. Days													Title Review																																																																							
RNPA61030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													ROW Maps & Description																																																																							
RNPA61035	ROW Map Review	14	07-Feb-20	21-Feb-20	11-Feb-20	25-Feb-20	4	Cal. Days													ROW Map Review																																																																							
RNPA61040	Appraisal Consultant	75	21-Feb-20	06-May-20	25-Feb-20	10-May-20	4	Cal. Days													Appraisal Consultant																																																																							
RNPA61050	Appraisal Review	14	06-May-20	20-May-20	10-May-20	24-May-20	4	Cal. Days													Appraisal Review																																																																							
RNPA61055	JCO Review	14	20-May-20	03-Jun-20	24-May-20	07-Jun-20	4	Cal. Days													JCO Review																																																																							
RNPA61060	Negotiation	90	03-Jun-20	01-Sep-20	07-Jul-20	05-Oct-20	34	Cal. Days													Negotiation																																																																							
RNPA61070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	07-Jun-20	05-Oct-20	4	Cal. Days													Relocation & Advisory																																																																							
RNPA61080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	05-Oct-20	20-Oct-20	4	Cal. Days													Review & Approve Payment																																																																							
RNPA61090	Acquisition	7	16-Oct-20	23-Oct-20	20-Oct-20	27-Oct-20	4	Cal. Days													Acquisition																																																																							
Parcel #7		437	14-Aug-19	23-Oct-20	04-Oct-19	31-Mar-21	159	Cal. Days													23-Oct-20, Parcel #7																																																																							
RNPA71000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													Notify owner																																																																							
RNPA71010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													Title Research																																																																							
RNPA71020	Title Review	10	28-Sep-19	08-Oct-19	05-Jul-20	15-Jul-20	281	Cal. Days													Title Review																																																																							
RNPA71030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days													ROW Maps & Description																																																																							
RNPA71035	ROW Map Review	14	07-Feb-20	21-Feb-20	15-Jul-20	29-Jul-20	159	Cal. Days													ROW Map Review																																																																							
RNPA71040	Appraisal Consultant	75	21-Feb-20	06-May-20	29-Jul-20	12-Oct-20	159	Cal. Days													Appraisal Consultant																																																																							
RNPA71050	Appraisal Review	14	06-May-20	20-May-20	12-Oct-20	26-Oct-20	159	Cal. Days													Appraisal Review																																																																							
RNPA71055	JCO Review	14	20-May-20	03-Jun-20	26-Oct-20	09-Nov-20	159	Cal. Days													JCO Review																																																																							
RNPA71060	Negotiation	90	03-Jun-20	01-Sep-20	09-Dec-20	09-Mar-21	189	Cal. Days													Negotiation																																																																							
RNPA71070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	09-Nov-20	09-Mar-21	159	Cal. Days													Relocation & Advisory																																																																							
RNPA71080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	09-Mar-21	24-Mar-21	159	Cal. Days													Review & Approve Payment																																																																							
RNPA71090	Acquisition	7	16-Oct-20	23-Oct-20	24-Mar-21	31-Mar-21	159	Cal. Days													Acquisition																																																																							
Parcel #8		437	14-Aug-19	23-Oct-20	24-Sep-19	31-Mar-21	159	Cal. Days													23-Oct-20, Parcel #8																																																																							
RNPA81000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													Notify owner																																																																							
RNPA81010	Title Research	45	14-Aug-19	28-Sep-19	24-Sep-19	08-Nov-19	41	Cal. Days													Title Research																																																																							
RNPA81020	Title Review	10	28-Sep-19	08-Oct-19	08-Nov-19	18-Nov-19	41	Cal. Days													Title Review																																																																							
RNPA81030	ROW Maps & Description	0	08-Oct-19	08-Oct-19	18-Nov-19	18-Nov-19	41	Cal. Days													ROW Maps & Description																																																																							
RNPA81035	ROW Map Review	14	07-Feb-20	21-Feb-20	15-Jul-20	29-Jul-20	159	Cal. Days													ROW Map Review																																																																							
RNPA81040	Appraisal Consultant	75	21-Feb-20	06-May-20	29-Jul-20	12-Oct-20	159	Cal. Days													Appraisal Consultant																																																																							
RNPA81050	Appraisal Review	14	06-May-20	20-May-20	12-Oct-20	26-Oct-20	159	Cal. Days													Appraisal Review																																																																							
RNPA81055	JCO Review	14	20-May-20	03-Jun-20	26-Oct-20	09-Nov-20	159	Cal. Days													JCO Review																																																																							
RNPA81060	Negotiation	90	03-Jun-20	01-Sep-20	09-Dec-20	09-Mar-21	189	Cal. Days													Negotiation																																																																							
RNPA81070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	09-Nov-20	09-Mar-21	159	Cal. Days													Relocation & Advisory																																																																							
RNPA81080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	09-Mar-21	24-Mar-21	159	Cal. Days													Review & Approve Payment																																																																							
RNPA81090	Acquisition	7	16-Oct-20	23-Oct-20	24-Mar-21	31-Mar-21	159	Cal. Days													Acquisition																																																																							
Parcel #9		407	14-Aug-19	23-Sep-20	04-Oct-19	31-Mar-21	189	Cal. Days													23-Sep-20, Parcel #9																																																																							
RNPA91000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days													Notify owner																																																																							
RNPA91010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days													Title Research																																																																							
RNPA91020	Title Review	10	28-Sep-19	08-Oct-19	04-Aug-20	14-Aug-20	311	Cal. Days													Title Review																																																																							

Actual Work Remaining Work Critical Remaining Work Milestone Summary

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019												2020												2021												2022												2023												2024												2025												
RNPA91030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA91035	ROW Map Review	14	07-Feb-20	21-Feb-20	14-Aug-20	28-Aug-20	189	Cal. Days																																																																																					
RNPA91040	Appraisal Consultant	75	21-Feb-20	06-May-20	28-Aug-20	11-Nov-20	189	Cal. Days																																																																																					
RNPA91050	Appraisal Review	14	06-May-20	20-May-20	11-Nov-20	25-Nov-20	189	Cal. Days																																																																																					
RNPA91055	JCO Review	14	20-May-20	03-Jun-20	25-Nov-20	09-Dec-20	189	Cal. Days																																																																																					
RNPA91060	Negotiation	90	03-Jun-20	01-Sep-20	09-Dec-20	09-Mar-21	189	Cal. Days																																																																																					
RNPA91070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	09-Mar-21	09-Mar-21	279	Cal. Days																																																																																					
RNPA91080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	09-Mar-21	24-Mar-21	189	Cal. Days																																																																																					
RNPA91090	Acquisition	7	16-Sep-20	23-Sep-20	24-Mar-21	31-Mar-21	189	Cal. Days																																																																																					
Parcel #10			407	14-Aug-19	23-Sep-20	04-Oct-19	22-May-24	1337	Cal. Days																																																																																				
RNPA101000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																					
RNPA101010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA101020	Title Review	10	28-Sep-19	08-Oct-19	26-Sep-23	06-Oct-23	1460	Cal. Days																																																																																					
RNPA101030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA101035	ROW Map Review	14	07-Feb-20	21-Feb-20	06-Oct-23	20-Oct-23	1337	Cal. Days																																																																																					
RNPA101040	Appraisal Consultant	75	21-Feb-20	06-May-20	20-Oct-23	03-Jan-24	1337	Cal. Days																																																																																					
RNPA101050	Appraisal Review	14	06-May-20	20-May-20	03-Jan-24	17-Jan-24	1337	Cal. Days																																																																																					
RNPA101055	JCO Review	14	20-May-20	03-Jun-20	17-Jan-24	31-Jan-24	1337	Cal. Days																																																																																					
RNPA101060	Negotiation	90	03-Jun-20	01-Sep-20	31-Jan-24	30-Apr-24	1337	Cal. Days																																																																																					
RNPA101070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	30-Apr-24	30-Apr-24	1427	Cal. Days																																																																																					
RNPA101080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	30-Apr-24	15-May-24	1337	Cal. Days																																																																																					
RNPA101090	Acquisition	7	16-Sep-20	23-Sep-20	15-May-24	22-May-24	1337	Cal. Days																																																																																					
Parcel #11			407	14-Aug-19	23-Sep-20	04-Oct-19	22-May-24	1337	Cal. Days																																																																																				
RNPA111000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																					
RNPA111010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA111020	Title Review	10	28-Sep-19	08-Oct-19	26-Sep-23	06-Oct-23	1460	Cal. Days																																																																																					
RNPA111030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA111035	ROW Map Review	14	07-Feb-20	21-Feb-20	06-Oct-23	20-Oct-23	1337	Cal. Days																																																																																					
RNPA111040	Appraisal Consultant	75	21-Feb-20	06-May-20	20-Oct-23	03-Jan-24	1337	Cal. Days																																																																																					
RNPA111050	Appraisal Review	14	06-May-20	20-May-20	03-Jan-24	17-Jan-24	1337	Cal. Days																																																																																					
RNPA111055	JCO Review	14	20-May-20	03-Jun-20	17-Jan-24	31-Jan-24	1337	Cal. Days																																																																																					
RNPA111060	Negotiation	90	03-Jun-20	01-Sep-20	31-Jan-24	30-Apr-24	1337	Cal. Days																																																																																					
RNPA111070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	30-Apr-24	30-Apr-24	1427	Cal. Days																																																																																					
RNPA111080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	30-Apr-24	15-May-24	1337	Cal. Days																																																																																					
RNPA111090	Acquisition	7	16-Sep-20	23-Sep-20	15-May-24	22-May-24	1337	Cal. Days																																																																																					
Parcel #12			407	14-Aug-19	23-Sep-20	04-Oct-19	22-May-24	1337	Cal. Days																																																																																				
RNPA121000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																					
RNPA121010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA121020	Title Review	10	28-Sep-19	08-Oct-19	26-Sep-23	06-Oct-23	1460	Cal. Days																																																																																					
RNPA121030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																					
RNPA121035	ROW Map Review	14	07-Feb-20	21-Feb-20	06-Oct-23	20-Oct-23	1337	Cal. Days																																																																																					
RNPA121040	Appraisal Consultant	75	21-Feb-20	06-May-20	20-Oct-23	03-Jan-24	1337	Cal. Days																																																																																					
RNPA121050	Appraisal Review	14	06-May-20	20-May-20	03-Jan-24	17-Jan-24	1337	Cal. Days																																																																																					
RNPA121055	JCO Review	14	20-May-20	03-Jun-20	17-Jan-24	31-Jan-24	1337	Cal. Days																																																																																					
RNPA121060	Negotiation	90	03-Jun-20	01-Sep-20	31-Jan-24	30-Apr-24	1337	Cal. Days																																																																																					
RNPA121070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	30-Apr-24	30-Apr-24	1427	Cal. Days																																																																																					
RNPA121080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	30-Apr-24	15-May-24	1337	Cal. Days																																																																																					

■ Actual Work
 ■ Critical Remaining Work
 Summary
■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025
RNPA121090	Acquisition	7	16-Sep-20	23-Sep-20	15-May-24	22-May-24	1337	Cal. Days							
Parcel #13		407	14-Aug-19	23-Sep-20	04-Oct-19	22-May-24	1337	Cal. Days							
RNPA131000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days							
RNPA131010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days							
RNPA131020	Title Review	10	28-Sep-19	08-Oct-19	26-Sep-23	06-Oct-23	1460	Cal. Days							
RNPA131030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days							
RNPA131035	ROW Map Review	14	07-Feb-20	21-Feb-20	06-Oct-23	20-Oct-23	1337	Cal. Days							
RNPA131040	Appraisal Consultant	75	21-Feb-20	06-May-20	20-Oct-23	03-Jan-24	1337	Cal. Days							
RNPA131050	Appraisal Review	14	06-May-20	20-May-20	03-Jan-24	17-Jan-24	1337	Cal. Days							
RNPA131055	JCO Review	14	20-May-20	03-Jun-20	17-Jan-24	31-Jan-24	1337	Cal. Days							
RNPA131060	Negotiation	90	03-Jun-20	01-Sep-20	31-Jan-24	30-Apr-24	1337	Cal. Days							
RNPA131070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	30-Apr-24	30-Apr-24	1427	Cal. Days							
RNPA131080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	30-Apr-24	15-May-24	1337	Cal. Days							
RNPA131090	Acquisition	7	16-Sep-20	23-Sep-20	15-May-24	22-May-24	1337	Cal. Days							
Parcel #14		407	14-Aug-19	23-Sep-20	04-Oct-19	22-May-24	1337	Cal. Days							
RNPA141000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days							
RNPA141010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days							
RNPA141020	Title Review	10	28-Sep-19	08-Oct-19	26-Sep-23	06-Oct-23	1460	Cal. Days							
RNPA141030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days							
RNPA141035	ROW Map Review	14	07-Feb-20	21-Feb-20	06-Oct-23	20-Oct-23	1337	Cal. Days							
RNPA141040	Appraisal Consultant	75	21-Feb-20	06-May-20	20-Oct-23	03-Jan-24	1337	Cal. Days							
RNPA141050	Appraisal Review	14	06-May-20	20-May-20	03-Jan-24	17-Jan-24	1337	Cal. Days							
RNPA141055	JCO Review	14	20-May-20	03-Jun-20	17-Jan-24	31-Jan-24	1337	Cal. Days							
RNPA141060	Negotiation	90	03-Jun-20	01-Sep-20	31-Jan-24	30-Apr-24	1337	Cal. Days							
RNPA141070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	30-Apr-24	30-Apr-24	1427	Cal. Days							
RNPA141080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	30-Apr-24	15-May-24	1337	Cal. Days							
RNPA141090	Acquisition	7	16-Sep-20	23-Sep-20	15-May-24	22-May-24	1337	Cal. Days							
Parcel #15		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days							
RNPA151000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days							
RNPA151010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days							
RNPA151020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days							
RNPA151030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days							
RNPA151035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days							
RNPA151040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days							
RNPA151050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days							
RNPA151055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days							
RNPA151060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days							
RNPA151070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days							
RNPA151080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days							
RNPA151090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days							
Parcel #16		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days							
RNPA161010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days							
RNPA161000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days							
RNPA161020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days							
RNPA161030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days							
RNPA161035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days							
RNPA161040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days							

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019					2020					2021					2022					2023					2024					2025				
RNPA161050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days																																			
RNPA161055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days																																			
RNPA161060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days																																			
RNPA161070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days																																			
RNPA161080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days																																			
RNPA161090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days																																			
Parcel #17		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days																																			
RNPA171010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																			
RNPA171000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																			
RNPA171020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days																																			
RNPA171030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																			
RNPA171035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days																																			
RNPA171040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days																																			
RNPA171050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days																																			
RNPA171055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days																																			
RNPA171060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days																																			
RNPA171070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days																																			
RNPA171080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days																																			
RNPA171090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days																																			
Parcel #18		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days																																			
RNPA181010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																			
RNPA181000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																			
RNPA181020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days																																			
RNPA181030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																			
RNPA181035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days																																			
RNPA181040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days																																			
RNPA181050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days																																			
RNPA181055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days																																			
RNPA181060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days																																			
RNPA181070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days																																			
RNPA181080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days																																			
RNPA181090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days																																			
Parcel #19		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days																																			
RNPA191010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																			
RNPA191000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																			
RNPA191020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days																																			
RNPA191030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																			
RNPA191035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days																																			
RNPA191040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days																																			
RNPA191050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days																																			
RNPA191055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days																																			
RNPA191060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days																																			
RNPA191070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days																																			
RNPA191080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days																																			
RNPA191090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days																																			
Parcel #20		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days																																			
RNPA201010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																			

■ Actual Work
 ■ Critical Remaining Work
 Summary
■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019												2020												2021												2022												2023												2024												2025											
RNPA201000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA201090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #21		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA211090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #22		407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221000	Notify Owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA221090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #29		407	14-Aug-19	23-Sep-20	04-Oct-19	08-Mar-22	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291020	Title Review	10	28-Sep-19	08-Oct-19	12-Jul-21	22-Jul-21	653	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291035	ROW Map Review	14	07-Feb-20	21-Feb-20	22-Jul-21	05-Aug-21	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291040	Appraisal Consultant	75	21-Feb-20	06-May-20	05-Aug-21	19-Oct-21	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291050	Appraisal Review	14	06-May-20	20-May-20	19-Oct-21	02-Nov-21	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291055	JCO Review	14	20-May-20	03-Jun-20	02-Nov-21	16-Nov-21	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RNPA291060	Negotiation	90	03-Jun-20	01-Sep-20	16-Nov-21	14-Feb-22	531	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							

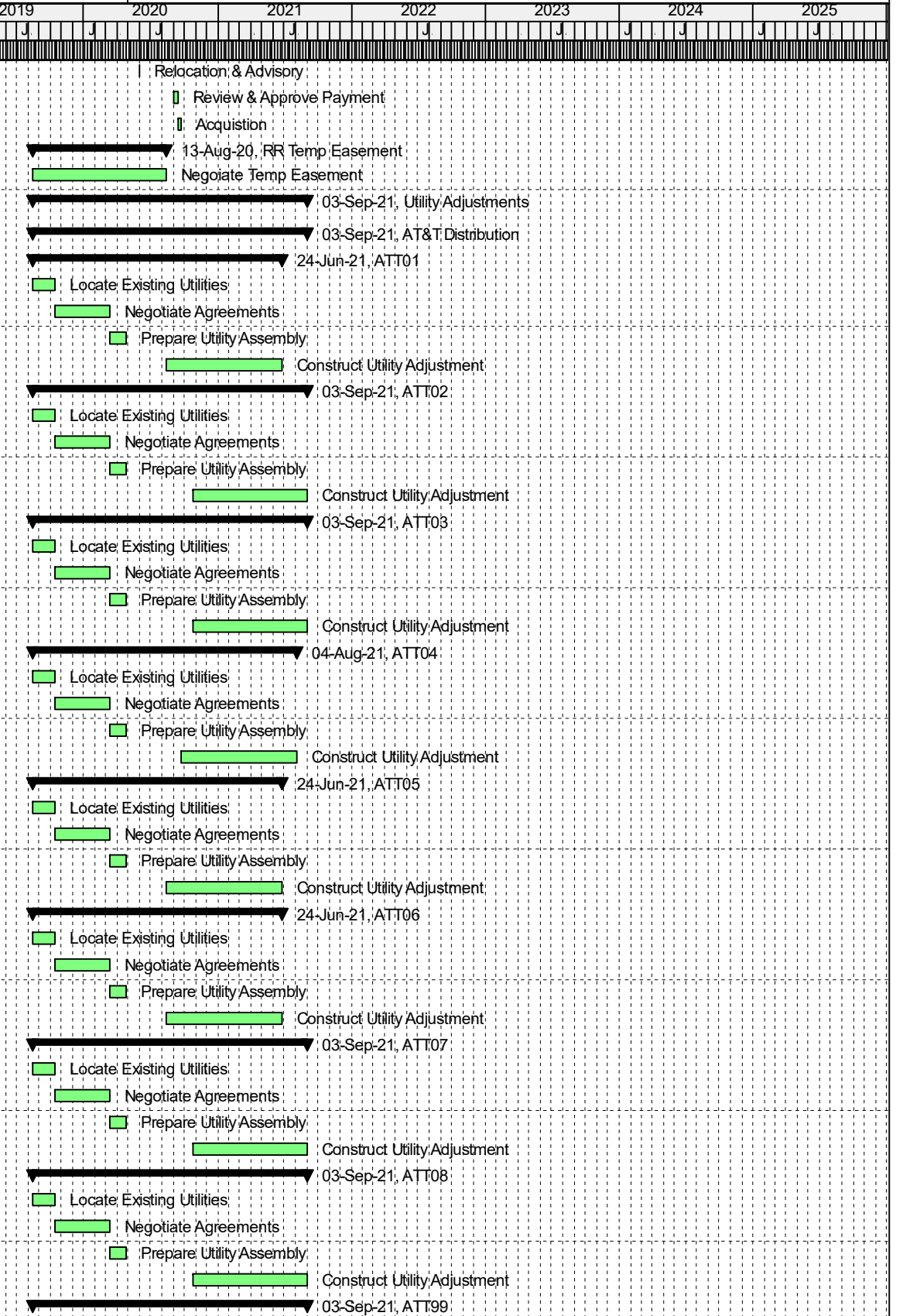
■ Actual Work
 ■ Critical Remaining Work
 Summary
■ Remaining Work
 ◆ Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019												2020												2021												2022												2023												2024												2025											
RNPA291070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	14-Feb-22	14-Feb-22	621	Cal. Days																																																																																				
RNPA291080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	14-Feb-22	01-Mar-22	531	Cal. Days																																																																																				
RNPA291090	Acquisition	7	16-Sep-20	23-Sep-20	01-Mar-22	08-Mar-22	531	Cal. Days																																																																																				
Parcel #30			407	14-Aug-19	23-Sep-20	04-Oct-19	17-Nov-20	55	Cal. Days																																																																																			
RNPA301000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																				
RNPA301010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																				
RNPA301020	Title Review	10	28-Sep-19	08-Oct-19	23-Mar-20	02-Apr-20	177	Cal. Days																																																																																				
RNPA301030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																				
RNPA301035	ROW Map Review	14	07-Feb-20	21-Feb-20	02-Apr-20	16-Apr-20	55	Cal. Days																																																																																				
RNPA301040	Appraisal Consultant	75	21-Feb-20	06-May-20	16-Apr-20	30-Jun-20	55	Cal. Days																																																																																				
RNPA301050	Appraisal Review	14	06-May-20	20-May-20	30-Jun-20	14-Jul-20	55	Cal. Days																																																																																				
RNPA301055	JCO Review	14	20-May-20	03-Jun-20	14-Jul-20	28-Jul-20	55	Cal. Days																																																																																				
RNPA301060	Negotiation	90	03-Jun-20	01-Sep-20	28-Jul-20	26-Oct-20	55	Cal. Days																																																																																				
RNPA301070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	26-Oct-20	26-Oct-20	145	Cal. Days																																																																																				
RNPA301080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	26-Oct-20	10-Nov-20	55	Cal. Days																																																																																				
RNPA301090	Acquisition	7	16-Sep-20	23-Sep-20	10-Nov-20	17-Nov-20	55	Cal. Days																																																																																				
RR Temp Easement			365	14-Aug-19	13-Aug-20	28-Oct-19	27-Oct-20	75	Cal. Days																																																																																			
RNPARR1000	Negotiate Temp Easement	365	14-Aug-19	13-Aug-20	28-Oct-19	27-Oct-20	75	Cal. Days																																																																																				
South			437	14-Aug-19	23-Oct-20	04-Oct-19	17-Aug-21	298	Cal. Days																																																																																			
Parcel #23			407	14-Aug-19	23-Sep-20	04-Oct-19	09-Dec-20	77	Cal. Days																																																																																			
RSPA231000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																				
RSPA231010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																				
RSPA231020	Title Review	10	28-Sep-19	08-Oct-19	14-Apr-20	24-Apr-20	199	Cal. Days																																																																																				
RSPA231030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																				
RSPA231035	ROW Map Review	14	07-Feb-20	21-Feb-20	24-Apr-20	08-May-20	77	Cal. Days																																																																																				
RSPA231040	Appraisal Consultant	75	21-Feb-20	06-May-20	08-May-20	22-Jul-20	77	Cal. Days																																																																																				
RSPA231050	Appraisal Review	14	06-May-20	20-May-20	22-Jul-20	05-Aug-20	77	Cal. Days																																																																																				
RSPA231055	JCO Review	14	20-May-20	03-Jun-20	05-Aug-20	19-Aug-20	77	Cal. Days																																																																																				
RSPA231060	Negotiation	90	03-Jun-20	01-Sep-20	19-Aug-20	17-Nov-20	77	Cal. Days																																																																																				
RSPA231070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	17-Nov-20	17-Nov-20	167	Cal. Days																																																																																				
RSPA231080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	17-Nov-20	02-Dec-20	77	Cal. Days																																																																																				
RSPA231090	Acquisition	7	16-Sep-20	23-Sep-20	02-Dec-20	09-Dec-20	77	Cal. Days																																																																																				
Parcel #24			407	14-Aug-19	23-Sep-20	04-Oct-19	09-Dec-20	77	Cal. Days																																																																																			
RSPA241000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																				
RSPA241010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days																																																																																				
RSPA241020	Title Review	10	28-Sep-19	08-Oct-19	14-Apr-20	24-Apr-20	199	Cal. Days																																																																																				
RSPA241030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days																																																																																				
RSPA241035	ROW Map Review	14	07-Feb-20	21-Feb-20	24-Apr-20	08-May-20	77	Cal. Days																																																																																				
RSPA241040	Appraisal Consultant	75	21-Feb-20	06-May-20	08-May-20	22-Jul-20	77	Cal. Days																																																																																				
RSPA241050	Appraisal Review	14	06-May-20	20-May-20	22-Jul-20	05-Aug-20	77	Cal. Days																																																																																				
RSPA241055	JCO Review	14	20-May-20	03-Jun-20	05-Aug-20	19-Aug-20	77	Cal. Days																																																																																				
RSPA241060	Negotiation	90	03-Jun-20	01-Sep-20	19-Aug-20	17-Nov-20	77	Cal. Days																																																																																				
RSPA241070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	17-Nov-20	17-Nov-20	167	Cal. Days																																																																																				
RSPA241080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	17-Nov-20	02-Dec-20	77	Cal. Days																																																																																				
RSPA241090	Acquisition	7	16-Sep-20	23-Sep-20	02-Dec-20	09-Dec-20	77	Cal. Days																																																																																				
Parcel #25			407	14-Aug-19	23-Sep-20	04-Oct-19	31-Mar-21	189	Cal. Days																																																																																			
RSPA251000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days																																																																																				

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019												2020												2021												2022												2023												2024												2025											
RSPA251010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251020	Title Review	10	28-Sep-19	08-Oct-19	04-Aug-20	14-Aug-20	311	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251035	ROW Map Review	14	07-Feb-20	21-Feb-20	14-Aug-20	28-Aug-20	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251040	Appraisal Consultant	75	21-Feb-20	06-May-20	28-Aug-20	11-Nov-20	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251050	Appraisal Review	14	06-May-20	20-May-20	11-Nov-20	25-Nov-20	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251055	JCO Review	14	20-May-20	03-Jun-20	25-Nov-20	09-Dec-20	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251060	Negotiation	90	03-Jun-20	01-Sep-20	09-Dec-20	09-Mar-21	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	09-Mar-21	09-Mar-21	279	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	09-Mar-21	24-Mar-21	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA251090	Acquisition	7	16-Sep-20	23-Sep-20	24-Mar-21	31-Mar-21	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #26		437	14-Aug-19	23-Oct-20	04-Oct-19	31-Mar-21	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261020	Title Review	10	28-Sep-19	08-Oct-19	05-Jul-20	15-Jul-20	281	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261035	ROW Map Review	14	07-Feb-20	21-Feb-20	15-Jul-20	29-Jul-20	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261040	Appraisal Consultant	75	21-Feb-20	06-May-20	29-Jul-20	12-Oct-20	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261050	Appraisal Review	14	06-May-20	20-May-20	12-Oct-20	26-Oct-20	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261055	JCO Review	14	20-May-20	03-Jun-20	26-Oct-20	09-Nov-20	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261060	Negotiation	90	03-Jun-20	01-Sep-20	09-Dec-20	09-Mar-21	189	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261070	Relocation & Advisory	120	03-Jun-20	01-Oct-20	09-Nov-20	09-Mar-21	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261080	Review & Approve Payment	15	01-Oct-20	16-Oct-20	09-Mar-21	24-Mar-21	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA261090	Acquisition	7	16-Oct-20	23-Oct-20	24-Mar-21	31-Mar-21	159	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #27		407	14-Aug-19	23-Sep-20	04-Oct-19	09-Aug-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271020	Title Review	10	28-Sep-19	08-Oct-19	13-Dec-20	23-Dec-20	442	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271035	ROW Map Review	14	07-Feb-20	21-Feb-20	23-Dec-20	06-Jan-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271040	Appraisal Consultant	75	21-Feb-20	06-May-20	06-Jan-21	22-Mar-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271050	Appraisal Review	14	06-May-20	20-May-20	22-Mar-21	05-Apr-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271055	JCO Review	14	20-May-20	03-Jun-20	05-Apr-21	19-Apr-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271060	Negotiation	90	03-Jun-20	01-Sep-20	19-Apr-21	18-Jul-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	18-Jul-21	18-Jul-21	410	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	18-Jul-21	02-Aug-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA271090	Acquisition	7	16-Sep-20	23-Sep-20	02-Aug-21	09-Aug-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
Parcel #28		407	14-Aug-19	23-Sep-20	04-Oct-19	09-Aug-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281000	Notify owner	15	14-Aug-19	29-Aug-19	03-Nov-19	18-Nov-19	81	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281010	Title Research	45	14-Aug-19	28-Sep-19	04-Oct-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281020	Title Review	10	28-Sep-19	08-Oct-19	13-Dec-20	23-Dec-20	442	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281030	ROW Maps & Description	0	28-Sep-19	28-Sep-19	18-Nov-19	18-Nov-19	51	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281035	ROW Map Review	14	07-Feb-20	21-Feb-20	23-Dec-20	06-Jan-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281040	Appraisal Consultant	75	21-Feb-20	06-May-20	06-Jan-21	22-Mar-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281050	Appraisal Review	14	06-May-20	20-May-20	22-Mar-21	05-Apr-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281055	JCO Review	14	20-May-20	03-Jun-20	05-Apr-21	19-Apr-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							
RSPA281060	Negotiation	90	03-Jun-20	01-Sep-20	19-Apr-21	18-Jul-21	320	Cal. Days	[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]												[Gantt bar]																							

Actual Work Critical Remaining Work Summary
 Remaining Work Milestone

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025
RSPA281070	Relocation & Advisory	0	03-Jun-20	03-Jun-20	18-Jul-21	18-Jul-21	410	Cal. Days							
RSPA281080	Review & Approve Payment	15	01-Sep-20	16-Sep-20	18-Jul-21	02-Aug-21	320	Cal. Days							
RSPA281090	Acquisition	7	16-Sep-20	23-Sep-20	02-Aug-21	09-Aug-21	320	Cal. Days							
RR Temp Easement		365	14-Aug-19	13-Aug-20	17-Aug-20	17-Aug-21	369	Cal. Days							
RSPARR1000	Negotiate Temp Easement	365	14-Aug-19	13-Aug-20	17-Aug-20	17-Aug-21	369	Cal. Days							
Utility Adjustments		752	14-Aug-19	03-Sep-21	15-Feb-20	22-May-24	992	Cal. Days							
AT&T Distribution		752	14-Aug-19	03-Sep-21	15-Feb-20	22-May-24	992	Cal. Days							
ATT01		680	14-Aug-19	24-Jun-21	24-Feb-20	16-Sep-21	84	Cal. Days							
U01A11000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	24-Feb-20	24-Apr-20	194	Cal. Days							
U01A11010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	24-Apr-20	21-Sep-20	191	Cal. Days							
U01A11020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	21-Sep-20	05-Nov-20	191	Cal. Days							
U01A11030	Construct Utility Adjustment	315	13-Aug-20	24-Jun-21	05-Nov-20	16-Sep-21	84	Cal. Days							
ATT02		752	14-Aug-19	03-Sep-21	15-Feb-20	07-Sep-21	4	Cal. Days							
U01A21000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	15-Feb-20	15-Apr-20	185	Cal. Days							
U01A21010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	15-Apr-20	12-Sep-20	182	Cal. Days							
U01A21020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	12-Sep-20	27-Oct-20	182	Cal. Days							
U01A21030	Construct Utility Adjustment	315	23-Oct-20	03-Sep-21	27-Oct-20	07-Sep-21	4	Cal. Days							
ATT03		752	14-Aug-19	03-Sep-21	15-Feb-20	07-Sep-21	4	Cal. Days							
U01A31000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	15-Feb-20	15-Apr-20	185	Cal. Days							
U01A31010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	15-Apr-20	12-Sep-20	182	Cal. Days							
U01A31020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	12-Sep-20	27-Oct-20	182	Cal. Days							
U01A31030	Construct Utility Adjustment	315	23-Oct-20	03-Sep-21	27-Oct-20	07-Sep-21	4	Cal. Days							
ATT04		722	14-Aug-19	04-Aug-21	30-Oct-22	22-May-24	1022	Cal. Days							
U01A41000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	30-Oct-22	29-Dec-22	1174	Cal. Days							
U01A41010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	29-Dec-22	28-May-23	1171	Cal. Days							
U01A41020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	28-May-23	12-Jul-23	1171	Cal. Days							
U01A41030	Construct Utility Adjustment	315	23-Sep-20	04-Aug-21	12-Jul-23	22-May-24	1022	Cal. Days							
ATT05		680	14-Aug-19	24-Jun-21	05-Dec-20	28-Jun-22	369	Cal. Days							
U01A51000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	05-Dec-20	03-Feb-21	479	Cal. Days							
U01A51010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	03-Feb-21	03-Jul-21	476	Cal. Days							
U01A51020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	03-Jul-21	17-Aug-21	476	Cal. Days							
U01A51030	Construct Utility Adjustment	315	13-Aug-20	24-Jun-21	17-Aug-21	28-Jun-22	369	Cal. Days							
ATT06		680	14-Aug-19	24-Jun-21	05-Dec-20	28-Jun-22	369	Cal. Days							
U01A61000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	05-Dec-20	03-Feb-21	479	Cal. Days							
U01A61010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	03-Feb-21	03-Jul-21	476	Cal. Days							
U01A61020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	03-Jul-21	17-Aug-21	476	Cal. Days							
U01A61030	Construct Utility Adjustment	315	13-Aug-20	24-Jun-21	17-Aug-21	28-Jun-22	369	Cal. Days							
ATT07		752	14-Aug-19	03-Sep-21	15-Feb-20	07-Sep-21	4	Cal. Days							
U01A71000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	15-Feb-20	15-Apr-20	185	Cal. Days							
U01A71010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	15-Apr-20	12-Sep-20	182	Cal. Days							
U01A71020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	12-Sep-20	27-Oct-20	182	Cal. Days							
U01A71030	Construct Utility Adjustment	315	23-Oct-20	03-Sep-21	27-Oct-20	07-Sep-21	4	Cal. Days							
ATT08		752	14-Aug-19	03-Sep-21	15-Feb-20	07-Sep-21	4	Cal. Days							
U01A81000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	15-Feb-20	15-Apr-20	185	Cal. Days							
U01A81010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	15-Apr-20	12-Sep-20	182	Cal. Days							
U01A81020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	12-Sep-20	27-Oct-20	182	Cal. Days							
U01A81030	Construct Utility Adjustment	315	23-Oct-20	03-Sep-21	27-Oct-20	07-Sep-21	4	Cal. Days							
ATT99		752	14-Aug-19	03-Sep-21	05-Dec-20	28-Jun-22	298	Cal. Days							



Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
U01991000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	05-Dec-20	03-Feb-21	479	Cal. Days	█ Locate Existing Utilities											
U01991010	Negotiate Agreements	150	16-Oct-19	14-Mar-20	03-Feb-21	03-Jul-21	476	Cal. Days	█ Negotiate Agreements											
U01991020	Prepare Utility Assembly	45	14-Mar-20	28-Apr-20	03-Jul-21	17-Aug-21	476	Cal. Days	█ Prepare Utility Assembly											
U01991030	Construct Utility Adjustment	315	23-Oct-20	03-Sep-21	17-Aug-21	28-Jun-22	298	Cal. Days	█ Construct Utility Adjustment											
LADOTD		467	14-Aug-19	22-Nov-20	10-May-21	28-Jun-22	583	Cal. Days	█ 22-Nov-20, LADOTD											
LAD01		467	14-Aug-19	22-Nov-20	10-May-21	07-Sep-21	289	Cal. Days	█ 22-Nov-20, LAD01											
U02L11000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	10-May-21	09-Jun-21	635	Cal. Days	█ Locate Existing Utilities											
U02L11010	Negotiate Agreements	30	16-Oct-19	15-Nov-19	09-Jun-21	09-Jul-21	602	Cal. Days	█ Negotiate Agreements											
U02L11020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	09-Jul-21	08-Aug-21	518	Cal. Days	█ Prepare Utility Assembly											
U02L11030	Construct Utility Adjustment	30	23-Oct-20	22-Nov-20	08-Aug-21	07-Sep-21	289	Cal. Days	█ Construct Utility Adjustment											
LAD99		395	14-Aug-19	12-Sep-20	28-Feb-22	28-Jun-22	654	Cal. Days	█ 12-Sep-20, LAD99											
U02991000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	28-Feb-22	30-Mar-22	929	Cal. Days	█ Locate Existing Utilities											
U02991010	Negotiate Agreements	30	16-Oct-19	15-Nov-19	30-Mar-22	29-Apr-22	896	Cal. Days	█ Negotiate Agreements											
U02991020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	29-Apr-22	29-May-22	812	Cal. Days	█ Prepare Utility Assembly											
U02991030	Construct Utility Adjustment	30	13-Aug-20	12-Sep-20	29-May-22	28-Jun-22	654	Cal. Days	█ Construct Utility Adjustment											
Entergy Electric		597	14-Aug-19	01-Apr-21	17-Sep-20	28-Jun-22	453	Cal. Days	█ 01-Apr-21, Entergy Electric											
POW01		597	14-Aug-19	01-Apr-21	17-Sep-20	07-Sep-21	159	Cal. Days	█ 01-Apr-21, POW01											
U03P11000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Sep-20	17-Oct-20	400	Cal. Days	█ Locate Existing Utilities											
U03P11010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	17-Oct-20	14-Feb-21	367	Cal. Days	█ Negotiate Agreements											
U03P11020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	14-Feb-21	31-Mar-21	367	Cal. Days	█ Prepare Utility Assembly											
U03P11030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	31-Mar-21	07-Sep-21	159	Cal. Days	█ Construct Utility Adjustment											
POW02		597	14-Aug-19	01-Apr-21	08-Jul-21	28-Jun-22	453	Cal. Days	█ 01-Apr-21, POW02											
U03P21000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	08-Jul-21	07-Aug-21	694	Cal. Days	█ Locate Existing Utilities											
U03P21010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	07-Aug-21	05-Dec-21	661	Cal. Days	█ Negotiate Agreements											
U03P21020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	05-Dec-21	19-Jan-22	661	Cal. Days	█ Prepare Utility Assembly											
U03P21030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	19-Jan-22	28-Jun-22	453	Cal. Days	█ Construct Utility Adjustment											
POW03		597	14-Aug-19	01-Apr-21	08-Jul-21	28-Jun-22	453	Cal. Days	█ 01-Apr-21, POW03											
U03P31000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	08-Jul-21	07-Aug-21	694	Cal. Days	█ Locate Existing Utilities											
U03P31010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	07-Aug-21	05-Dec-21	661	Cal. Days	█ Negotiate Agreements											
U03P31020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	05-Dec-21	19-Jan-22	661	Cal. Days	█ Prepare Utility Assembly											
U03P31030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	19-Jan-22	28-Jun-22	453	Cal. Days	█ Construct Utility Adjustment											
POW04		597	14-Aug-19	01-Apr-21	17-Sep-20	07-Sep-21	159	Cal. Days	█ 01-Apr-21, POW04											
U03P41000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Sep-20	17-Oct-20	400	Cal. Days	█ Locate Existing Utilities											
U03P41010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	17-Oct-20	14-Feb-21	367	Cal. Days	█ Negotiate Agreements											
U03P41020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	14-Feb-21	31-Mar-21	367	Cal. Days	█ Prepare Utility Assembly											
U03P41030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	31-Mar-21	07-Sep-21	159	Cal. Days	█ Construct Utility Adjustment											
POW05		597	14-Aug-19	01-Apr-21	17-Sep-20	07-Sep-21	159	Cal. Days	█ 01-Apr-21, POW05											
U03P51000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Sep-20	17-Oct-20	400	Cal. Days	█ Locate Existing Utilities											
U03P51010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	17-Oct-20	14-Feb-21	367	Cal. Days	█ Negotiate Agreements											
U03P51020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	14-Feb-21	31-Mar-21	367	Cal. Days	█ Prepare Utility Assembly											
U03P51030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	31-Mar-21	07-Sep-21	159	Cal. Days	█ Construct Utility Adjustment											
POW99		597	14-Aug-19	01-Apr-21	17-Sep-20	07-Sep-21	159	Cal. Days	█ 01-Apr-21, POW99											
U03991000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Sep-20	17-Oct-20	400	Cal. Days	█ Locate Existing Utilities											
U03991010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	17-Oct-20	14-Feb-21	367	Cal. Days	█ Negotiate Agreements											
U03991020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	14-Feb-21	31-Mar-21	367	Cal. Days	█ Prepare Utility Assembly											
U03991030	Construct Utility Adjustment	160	23-Oct-20	01-Apr-21	31-Mar-21	07-Sep-21	159	Cal. Days	█ Construct Utility Adjustment											
UGE01		178	14-Aug-19	07-Feb-20	06-Nov-21	06-Dec-21	668	Cal. Days	█ 07-Feb-20, UGE01											
U03E11000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	06-Nov-21	06-Dec-21	815	Cal. Days	█ Locate Existing Utilities											

█ Actual Work
 █ Critical Remaining Work
 █ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
U03E11010	Negotiate Agreements	0	16-Oct-19	16-Oct-19	06-Dec-21	06-Dec-21	782	Cal. Days												
U03E11020	Prepare Utility Assembly	0	07-Feb-20	07-Feb-20	06-Dec-21	06-Dec-21	668	Cal. Days												
U03E11030	Construct Utility Adjustment	0	07-Feb-20	07-Feb-20	06-Dec-21	06-Dec-21	668	Cal. Days												
UGE02		437	14-Aug-19	23-Oct-20	08-Aug-21	07-Sep-21	319	Cal. Days	▼ 23-Oct-20, UGE02											
U03E21000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	08-Aug-21	07-Sep-21	725	Cal. Days												
U03E21010	Negotiate Agreements	0	16-Oct-19	16-Oct-19	07-Sep-21	07-Sep-21	692	Cal. Days												
U03E21020	Prepare Utility Assembly	0	07-Feb-20	07-Feb-20	07-Sep-21	07-Sep-21	578	Cal. Days												
U03E21030	Construct Utility Adjustment	0	23-Oct-20	23-Oct-20	07-Sep-21	07-Sep-21	319	Cal. Days												
UGE03		437	14-Aug-19	23-Oct-20	08-Aug-21	07-Sep-21	319	Cal. Days	▼ 23-Oct-20, UGE03											
U03E31000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	08-Aug-21	07-Sep-21	725	Cal. Days												
U03E31010	Negotiate Agreements	0	16-Oct-19	16-Oct-19	07-Sep-21	07-Sep-21	692	Cal. Days												
U03E31020	Prepare Utility Assembly	0	07-Feb-20	07-Feb-20	07-Sep-21	07-Sep-21	578	Cal. Days												
U03E31030	Construct Utility Adjustment	0	23-Oct-20	23-Oct-20	07-Sep-21	07-Sep-21	319	Cal. Days												
UGE99		437	14-Aug-19	23-Oct-20	17-Aug-21	16-Sep-21	328	Cal. Days	▼ 23-Oct-20, UGE99											
U03992000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Aug-21	16-Sep-21	734	Cal. Days												
U03992010	Negotiate Agreements	0	16-Oct-19	16-Oct-19	16-Sep-21	16-Sep-21	701	Cal. Days												
U03992020	Prepare Utility Assembly	0	07-Feb-20	07-Feb-20	16-Sep-21	16-Sep-21	587	Cal. Days												
U03992030	Construct Utility Adjustment	0	23-Oct-20	23-Oct-20	16-Sep-21	16-Sep-21	328	Cal. Days												
Water		587	14-Aug-19	22-Mar-21	28-Aug-20	08-Mar-22	351	Cal. Days	▼ 22-Mar-21, Water											
WAT01		587	14-Aug-19	22-Mar-21	28-Aug-20	07-Sep-21	169	Cal. Days	▼ 22-Mar-21, WAT01											
U04W11000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	28-Aug-20	27-Oct-20	380	Cal. Days												
U04W11010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	27-Oct-20	24-Feb-21	377	Cal. Days												
U04W11020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	24-Feb-21	10-Apr-21	377	Cal. Days												
U04W11030	Construct Utility Adjustment	150	23-Oct-20	22-Mar-21	10-Apr-21	07-Sep-21	169	Cal. Days												
WAT02		587	14-Aug-19	22-Mar-21	27-Dec-20	06-Jan-22	290	Cal. Days	▼ 22-Mar-21, WAT02											
U04W21000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	27-Dec-20	25-Feb-21	501	Cal. Days												
U04W21010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	25-Feb-21	25-Jun-21	498	Cal. Days												
U04W21020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	25-Jun-21	09-Aug-21	498	Cal. Days												
U04W21030	Construct Utility Adjustment	150	23-Oct-20	22-Mar-21	09-Aug-21	06-Jan-22	290	Cal. Days												
WAT03		587	14-Aug-19	22-Mar-21	26-Feb-21	08-Mar-22	351	Cal. Days	▼ 22-Mar-21, WAT03											
U04W31000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	26-Feb-21	27-Apr-21	562	Cal. Days												
U04W31010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	27-Apr-21	25-Aug-21	559	Cal. Days												
U04W31020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	25-Aug-21	09-Oct-21	559	Cal. Days												
U04W31030	Construct Utility Adjustment	150	23-Oct-20	22-Mar-21	09-Oct-21	08-Mar-22	351	Cal. Days												
WAT99		515	14-Aug-19	10-Jan-21	06-Sep-20	16-Sep-21	249	Cal. Days	▼ 10-Jan-21, WAT99											
U04991000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	06-Sep-20	05-Nov-20	389	Cal. Days												
U04991010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	05-Nov-20	05-Mar-21	386	Cal. Days												
U04991020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	05-Mar-21	19-Apr-21	386	Cal. Days												
U04991030	Construct Utility Adjustment	150	13-Aug-20	10-Jan-21	19-Apr-21	16-Sep-21	249	Cal. Days												
Gas		587	14-Aug-19	22-Mar-21	28-Aug-20	28-Jun-22	463	Cal. Days	▼ 22-Mar-21, Gas											
GAS01		587	14-Aug-19	22-Mar-21	28-Aug-20	07-Sep-21	169	Cal. Days	▼ 22-Mar-21, GAS01											
U05G11000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	28-Aug-20	27-Oct-20	380	Cal. Days												
U05G11010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	27-Oct-20	24-Feb-21	377	Cal. Days												
U05G11020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	24-Feb-21	10-Apr-21	377	Cal. Days												
U05G11030	Construct Utility Adjustment	150	23-Oct-20	22-Mar-21	10-Apr-21	07-Sep-21	169	Cal. Days												
GAS02		587	14-Aug-19	22-Mar-21	18-Jun-21	28-Jun-22	463	Cal. Days	▼ 22-Mar-21, GAS02											
U05G21000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	18-Jun-21	17-Aug-21	674	Cal. Days												
U05G21010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	17-Aug-21	15-Dec-21	671	Cal. Days												

Actual Work
Critical Remaining Work
▼ Summary
 Remaining Work
◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
U05G21020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	15-Dec-21	29-Jan-22	671	Cal. Days												
U05G21030	Construct Utility Adjustment	150	23-Oct-20	22-Mar-21	29-Jan-22	28-Jun-22	463	Cal. Days												
GAS99		407	14-Aug-19	23-Sep-20	26-Feb-21	08-Mar-22	531	Cal. Days												
U05991000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	26-Feb-21	27-Apr-21	562	Cal. Days												
U05991010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	27-Apr-21	25-Aug-21	559	Cal. Days												
U05991020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	25-Aug-21	09-Oct-21	559	Cal. Days												
U05991030	Construct Utility Adjustment	150	26-Apr-20	23-Sep-20	09-Oct-21	08-Mar-22	531	Cal. Days												
Sewer		467	14-Aug-19	22-Nov-20	05-Dec-20	28-Jun-22	583	Cal. Days												
SEW01		238	14-Aug-19	07-Apr-20	28-Feb-22	28-Jun-22	812	Cal. Days												
U06S11000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	28-Feb-22	30-Mar-22	929	Cal. Days												
U06S11010	Negotiate Agreements	30	16-Oct-19	15-Nov-19	30-Mar-22	29-Apr-22	896	Cal. Days												
U06S11020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	29-Apr-22	29-May-22	812	Cal. Days												
U06S11030	Construct Utility Adjustment	30	08-Mar-20	07-Apr-20	29-May-22	28-Jun-22	812	Cal. Days												
SEW99		467	14-Aug-19	22-Nov-20	10-May-21	07-Sep-21	289	Cal. Days												
U06991000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	10-May-21	09-Jun-21	635	Cal. Days												
U06991010	Negotiate Agreements	30	16-Oct-19	15-Nov-19	09-Jun-21	09-Jul-21	602	Cal. Days												
U06991020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	09-Jul-21	08-Aug-21	518	Cal. Days												
U06991030	Construct Utility Adjustment	30	23-Oct-20	22-Nov-20	08-Aug-21	07-Sep-21	289	Cal. Days												
SFM99		467	14-Aug-19	22-Nov-20	05-Dec-20	16-Sep-21	298	Cal. Days												
U06992000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	05-Dec-20	03-Feb-21	479	Cal. Days												
U06992010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	03-Feb-21	03-Jun-21	476	Cal. Days												
U06992020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	03-Jun-21	18-Jul-21	476	Cal. Days												
U06992030	Construct Utility Adjustment	60	23-Sep-20	22-Nov-20	18-Jul-21	16-Sep-21	298	Cal. Days												
TFO		348	14-Aug-19	27-Jul-20	17-Aug-21	18-Jan-23	906	Cal. Days												
TFO01		348	14-Aug-19	27-Jul-20	09-Mar-22	18-Jan-23	906	Cal. Days												
U07T11000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	09-Mar-22	08-Apr-22	939	Cal. Days												
U07T11010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	08-Apr-22	06-Aug-22	906	Cal. Days												
U07T11020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	06-Aug-22	20-Sep-22	906	Cal. Days												
U07T11030	Construct Utility Adjustment	120	29-Mar-20	27-Jul-20	20-Sep-22	18-Jan-23	906	Cal. Days												
TFO99		348	14-Aug-19	27-Jul-20	17-Aug-21	28-Jun-22	701	Cal. Days												
U07991000	Locate Existing Utilities	30	14-Aug-19	13-Sep-19	17-Aug-21	16-Sep-21	734	Cal. Days												
U07991010	Negotiate Agreements	120	16-Oct-19	13-Feb-20	16-Sep-21	14-Jan-22	701	Cal. Days												
U07991020	Prepare Utility Assembly	45	13-Feb-20	29-Mar-20	14-Jan-22	28-Feb-22	701	Cal. Days												
U07991030	Construct Utility Adjustment	120	29-Mar-20	27-Jul-20	28-Feb-22	28-Jun-22	701	Cal. Days												
Unknown		527	14-Aug-19	21-Jan-21	19-Jan-21	18-Jan-23	727	Cal. Days												
UNK01		298	14-Aug-19	06-Jun-20	23-May-22	18-Jan-23	956	Cal. Days												
U08M11000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	23-May-22	22-Jul-22	1014	Cal. Days												
U08M11010	Negotiate Agreements	60	16-Oct-19	15-Dec-19	22-Jul-22	20-Sep-22	1011	Cal. Days												
U08M11020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	20-Sep-22	20-Oct-22	956	Cal. Days												
U08M11030	Construct Utility Adjustment	90	08-Mar-20	06-Jun-20	20-Oct-22	18-Jan-23	956	Cal. Days												
UNK99		527	14-Aug-19	21-Jan-21	19-Jan-21	16-Sep-21	238	Cal. Days												
U08991000	Locate Existing Utilities	60	14-Aug-19	13-Oct-19	19-Jan-21	20-Mar-21	524	Cal. Days												
U08991010	Negotiate Agreements	60	16-Oct-19	15-Dec-19	20-Mar-21	19-May-21	521	Cal. Days												
U08991020	Prepare Utility Assembly	30	07-Feb-20	08-Mar-20	19-May-21	18-Jun-21	467	Cal. Days												
U08991030	Construct Utility Adjustment	90	23-Oct-20	21-Jan-21	18-Jun-21	16-Sep-21	238	Cal. Days												
Construction		1229	14-Aug-19	22-May-24	02-Aug-20	22-May-24	0													
Mobilization		1226	14-Aug-19	17-May-24	19-Aug-20	22-May-24	3													

 Actual Work
 Critical Remaining Work
 Summary
 Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019 2020 2021 2022 2023 2024 2025											
CMB1000	Project Mobilization	90	14-Aug-19	12-Nov-19	19-Aug-20	17-Nov-20	371	Cal. Days	Project Mobilization											
CMB1010	Install Access Roads - North	15	15-Oct-20	04-Nov-20	17-Nov-20	08-Dec-20	23	6x10=5x10	Install Access Roads - North											
CMB1020	Install Access Roads - South	15	05-Nov-20	25-Nov-20	09-Dec-20	29-Dec-20	23	6x10=5x10	Install Access Roads - South											
CMB1040	Install Access Trestle - Bent #14	10	09-Jan-21	21-Jan-21	16-Apr-21	29-Apr-21	73	6x10=5x10	Install Access Trestle - Bent #14											
CMB1030	Install Access Trestle - Bent #13	10	12-Aug-21	26-Aug-21	25-Jan-22	04-Feb-22	113	6x10=5x10	Install Access Trestle - Bent #13											
CMB1050	Remove Access Trestle - Bent #13	10	05-Aug-22	22-Aug-22	28-Sep-23	12-Oct-23	295	6x10=5x10	Remove Access Trestle - Bent #13											
CMB1060	Remove Access Trestle - Bent #14	10	14-Oct-22	26-Oct-22	28-Sep-23	12-Oct-23	250	6x10=5x10	Remove Access Trestle - Bent #14											
CMB1070	Remove Access Road - North	15	05-Feb-24	26-Feb-24	30-Mar-24	17-Apr-24	41	6x10=5x10	Remove Access Road - North											
CMB1080	Remove Access Road - South	15	29-Apr-24	17-May-24	02-May-24	22-May-24	3	6x10=5x10	Remove Access Road - South											
Roads		861	15-Oct-20	16-Feb-24	07-Sep-21	22-May-24	71		16-Feb-24, Roads											
PH1AF	Phase 1A Finish	0		05-Jan-22		06-Jan-22	1	Cal. Days	Phase 1A Finish											
PH1BS	Phase 1B Start	0	05-Jan-22		06-Jan-22		1	Cal. Days	Phase 1B Start											
PH1BF	Phase 1B Finish	0		07-Mar-22		08-Mar-22	1	Cal. Days	Phase 1B Finish											
PH1CS	Phase 1C Start	0	07-Mar-22		08-Mar-22		1	Cal. Days	Phase 1C Start											
PH1CF	Phase 1C Finish	0		27-Jun-22		28-Jun-22	1	Cal. Days	Phase 1C Finish											
PH1DS	Phase 1D Start	0	27-Jun-22		28-Jun-22		1	Cal. Days	Phase 1D Start											
North		851	15-Oct-20	02-Feb-24	07-Sep-21	22-May-24	81	6x10=5x10	02-Feb-24, North											
Local Roads		814	15-Oct-20	13-Dec-23	07-Sep-21	22-May-24	118	6x10=5x10	13-Dec-23, Local Roads											
Erosion Control		774	19-Oct-20	19-Oct-23	09-Sep-21	01-Apr-24	118	6x10=5x10	19-Oct-23, Erosion Control											
CRWNLX1000	Phase 1A Railroad St Erosion Control Installation	3	19-Oct-20	21-Oct-20	08-Dec-21	10-Dec-21	292	6x10=5x10	Phase 1A Railroad St Erosion Control Installation											
CRWNLX1010	Phase 1A Engineers Rd Erosion Control Installation	3	09-Sep-21	13-Sep-21	09-Sep-21	13-Sep-21	0	6x10=5x10	Phase 1A Engineers Rd Erosion Control Installation											
CRWNLX1020	Phase 1B Engineers Rd Erosion Control Installation	3	10-Jan-22	12-Jan-22	07-Feb-22	09-Feb-22	22	6x10=5x10	Phase 1B Engineers Rd Erosion Control Installation											
CRWNLX1030	Phase 1C Engineers Rd Erosion Control Installation	3	10-Mar-22	12-Mar-22	07-Jun-22	10-Jun-22	66	6x10=5x10	Phase 1C Engineers Rd Erosion Control Installation											
CRWNLX1040	Phase 3 XSt & North Tunnel Rd Erosion Control Installation	3	17-Oct-23	19-Oct-23	29-Mar-24	01-Apr-24	118	6x10=5x10	Phase 3 XSt & North Tunnel Rd Erosion Control Installation											
Earthwork		809	22-Oct-20	13-Dec-23	14-Sep-21	22-May-24	118	6x10=5x10	13-Dec-23, Earthwork											
CRWNLE1000	Phase 1A Railroad St Extension Construction	10	22-Oct-20	04-Nov-20	13-Dec-21	27-Dec-21	292	6x10=5x10	Phase 1A Railroad St Extension Construction											
CRWNLE1010	Phase 1A Remove Mildred St & Planters Rd RR Crossing	3	10-Nov-20	13-Nov-20	31-Dec-21	05-Jan-22	292	6x10=5x10	Phase 1A Remove Mildred St & Planters Rd RR Crossing											
CRWNLE1020	Phase 1A Engineers Rd New Construction	40	14-Sep-21	09-Nov-21	14-Sep-21	09-Nov-21	0	6x10=5x10	Phase 1A Engineers Rd New Construction											
CRWNLE1030	Phase 1B Engineers Rd New Construction at X St	15	13-Jan-22	31-Jan-22	10-Feb-22	02-Mar-22	22	6x10=5x10	Phase 1B Engineers Rd New Construction at X St											
CRWNLE1040	Phase 1C Demolish Existing Engineers Rd	10	14-Mar-22	25-Mar-22	13-Jun-22	27-Jun-22	66	6x10=5x10	Phase 1C Demolish Existing Engineers Rd											
CRWNLE1050	Phase 3 X St Reconstruction & North Tunnel Rd Re-Alignment	15	20-Oct-23	09-Nov-23	02-Apr-24	19-Apr-24	118	6x10=5x10	Phase 3 X St Reconstruction & North Tunnel Rd Re-Alignment											
CRWNLE1060	Phase 3 Demolish Existing North Tunnel Rd Around Levee	8	04-Dec-23	13-Dec-23	13-May-24	22-May-24	118	6x10=5x10	Phase 3 Demolish Existing North Tunnel Rd Around Levee											
Pavement & Markings		791	05-Nov-20	02-Dec-23	28-Dec-21	10-May-24	118	6x10=5x10	02-Dec-23, Pavement & Markings											
CRWNLP1000	Phase 1A Railroad St Extension Paving and Markings	3	05-Nov-20	09-Nov-20	28-Dec-21	30-Dec-21	292	6x10=5x10	Phase 1A Railroad St Extension Paving and Markings											
CRWNLP1010	Phase 1A Engineers Rd New Paving & Markings	5	29-Dec-21	05-Jan-22	29-Dec-21	05-Jan-22	0	6x10=5x10	Phase 1A Engineers Rd New Paving & Markings											
CRWNLP1020	Phase 1B Engineers Rd New Paving & Markings	3	01-Feb-22	03-Feb-22	03-Mar-22	07-Mar-22	22	6x10=5x10	Phase 1B Engineers Rd New Paving & Markings											
CRWNLP1030	Phase 3 X St & North Tunnel Rd New Paving & Markings	3	30-Nov-23	02-Dec-23	08-May-24	10-May-24	118	6x10=5x10	Phase 3 X St & North Tunnel Rd New Paving & Markings											
TCP/MOT		773	15-Oct-20	16-Oct-23	07-Sep-21	28-Mar-24	118	6x10=5x10	16-Oct-23, TCP/MOT											
CRWNLM100	Phase 1A Railroad St MOT Setup	2	15-Oct-20	16-Oct-20	06-Dec-21	07-Dec-21	292	6x10=5x10	Phase 1A Railroad St MOT Setup											
CRWNLM101	Phase 1A Engineers Rd MOT Setup	2	07-Sep-21	08-Sep-21	07-Sep-21	08-Sep-21	0	6x10=5x10	Phase 1A Engineers Rd MOT Setup											
CRWNLM102	Phase 1B Engineers Rd MOT Setup	2	06-Jan-22	07-Jan-22	03-Feb-22	04-Feb-22	22	6x10=5x10	Phase 1B Engineers Rd MOT Setup											
CRWNLM103	Phase 1C Open New Engineers Rd to Traffic	2	08-Mar-22	09-Mar-22	03-Jun-22	06-Jun-22	66	6x10=5x10	Phase 1C Open New Engineers Rd to Traffic											
CRWNLM104	Phase 3 X St & North Tunnel Rd MOT Setup	2	13-Oct-23	16-Oct-23	27-Mar-24	28-Mar-24	118	6x10=5x10	Phase 3 X St & North Tunnel Rd MOT Setup											
Managed Toll Lanes		621	07-Sep-21	02-Feb-24	16-Sep-21	22-May-24	81	6x10=5x10	02-Feb-24, Managed Toll Lanes											
Erosion Control		544	09-Sep-21	19-Oct-23	20-Sep-21	12-Feb-24	81	6x10=5x10	19-Oct-23, Erosion Control											
CRWNTX1000	Phase 1A LA-23 Erosion Control Installation	3	09-Sep-21	13-Sep-21	20-Sep-21	22-Sep-21	7	6x10=5x10	Phase 1A LA-23 Erosion Control Installation											
CRWNTX1010	Phase 1B LA-23 Erosion Control Installation	3	10-Jan-22	12-Jan-22	10-Jan-22	12-Jan-22	0	6x10=5x10	Phase 1B LA-23 Erosion Control Installation											
CRWNTX1020	Phase 1C LA-23 Erosion Control Installation	3	10-Mar-22	12-Mar-22	10-Mar-22	12-Mar-22	0	6x10=5x10	Phase 1C LA-23 Erosion Control Installation											

█ Actual Work
 █ Critical Remaining Work
 Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CRWNTX1030	Phase 1D LA-23 Erosion Control Installation	3	30-Jun-22	05-Jul-22	15-Jul-22	19-Jul-22	10	6x10=5x10												
CRWNTX1040	Phase 2 LA-23 Erosion Control Installation	3	03-Mar-23	07-Mar-23	15-Mar-23	17-Mar-23	8	6x10=5x10												
CRWNTX1050	Phase 3 LA-23 Erosion Control Installation	3	17-Oct-23	19-Oct-23	08-Feb-24	12-Feb-24	81	6x10=5x10												
Earthwork		616	14-Sep-21	02-Feb-24	24-Sep-21	22-May-24	81	6x10=5x10												
CRWNT1000	Phase 1A LA-23 Detour Road Construction for West Lanes	10	14-Sep-21	28-Sep-21	24-Sep-21	07-Oct-21	7	6x10=5x10												
CRWNT1010	Phase 1A LA-23 Reconstruction, West Lanes, North of Existing En	20	04-Oct-21	29-Oct-21	14-Oct-21	09-Nov-21	7	6x10=5x10												
CRWNT1020	Phase 1B LA-23 Detour Road Construction for Inside Lanes	10	13-Jan-22	25-Jan-22	13-Jan-22	25-Jan-22	0	6x10=5x10												
CRWNT1030	Phase 1B LA-23 Reconstruction, Inside Lanes, North of Existing Er	20	29-Jan-22	25-Feb-22	29-Jan-22	25-Feb-22	0	6x10=5x10												
CRWNT1040	Phase 1C LA-23 Detour Road Construction for East Lanes	10	14-Mar-22	25-Mar-22	14-Mar-22	25-Mar-22	0	6x10=5x10												
CRWNT1050	Phase 1C LA-23 Reconstruction, East Lanes	20	31-Mar-22	25-Apr-22	31-Mar-22	25-Apr-22	0	6x10=5x10												
CRWNT1060	Phase 1D LA-23 Detour Road Construction for NB MSE Constructi	10	06-Jul-22	19-Jul-22	20-Jul-22	02-Aug-22	10	6x10=5x10												
CRWNT1070	Phase 1D LA-23 NB MSE Construction	90	25-Jul-22	03-Dec-22	08-Aug-22	16-Dec-22	10	6x10=5x10												
CRWNT1080	Phase 2 LA-23 SB MSE Construction	90	08-Mar-23	05-Jul-23	18-Mar-23	17-Jul-23	8	6x10=5x10												
CRWNT1090	Phase 3 LA-23 Demolish Remaining Detour Pavement	15	20-Oct-23	09-Nov-23	13-Feb-24	04-Mar-24	81	6x10=5x10												
CRWNT1110	Phase 3 Demolish Existing Lift Bridge North Approach	40	13-Nov-23	05-Jan-24	05-Mar-24	24-Apr-24	81	6x10=5x10												
CRWNT1100	Phase 3 Demolish Existing Tunnel North Approach	20	08-Jan-24	02-Feb-24	25-Apr-24	22-May-24	81	6x10=5x10												
Pavement & Markings		566	29-Sep-21	08-Dec-23	08-Oct-21	22-May-24	121	6x10=5x10												
CRWNTP1000	Phase 1A LA-23 Detour Paving & Markings for West Lanes	3	29-Sep-21	01-Oct-21	08-Oct-21	13-Oct-21	7	6x10=5x10												
CRWNTP1010	Phase 1A LA-23 Mill & Pave Existing West Lanes, North End	2	01-Nov-21	02-Nov-21	27-Dec-21	28-Dec-21	38	6x10=5x10												
CRWNTP1020	Phase 1A LA-23 New Paving & Markings, West Lanes, North of Exi	5	17-Nov-21	23-Nov-21	29-Dec-21	05-Jan-22	29	6x10=5x10												
CRWNTP1030	Phase 1B LA-23 Detour Paving & Markings for Inside Lanes	3	26-Jan-22	28-Jan-22	26-Jan-22	28-Jan-22	0	6x10=5x10												
CRWNTP1040	Phase 1B LA-23 Mill & Pave Existing Inside Lanes, North End	2	26-Feb-22	28-Feb-22	26-Feb-22	28-Feb-22	0	6x10=5x10												
CRWNTP1050	Phase 1B LA-23 New Paving & Markings, Inside Lanes, North of E	5	01-Mar-22	07-Mar-22	01-Mar-22	07-Mar-22	0	6x10=5x10												
CRWNTP1060	Phase 1C LA-23 Detour Paving & Markings for East Lanes	3	28-Mar-22	30-Mar-22	28-Mar-22	30-Mar-22	0	6x10=5x10												
CRWNTP1070	Phase 1C LA-23 Mill & Pave Existing East Lanes, North End	2	26-Apr-22	27-Apr-22	04-May-22	05-May-22	6	6x10=5x10												
CRWNTP1080	Phase 1C LA-23 New Paving & Markings, East Lanes	5	06-May-22	12-May-22	06-May-22	12-May-22	0	6x10=5x10												
CRWNTP1090	Phase 1D LA-23 Detour Paving & Markings for NB MSE Constructi	3	20-Jul-22	22-Jul-22	03-Aug-22	05-Aug-22	10	6x10=5x10												
CRWNTP1100	Phase 1D LA-23 New Paving & Markings for NB MSE Construction	10	20-Dec-22	04-Jan-23	15-Feb-23	28-Feb-23	40	6x10=5x10												
CRWNTP1110	Phase 2 LA-23 New Paving & Markings for SB MSE Construction	10	18-Sep-23	29-Sep-23	28-Sep-23	12-Oct-23	8	6x10=5x10												
CRWNTP1120	Phase 3 LA-23 Median Barriers, Curb & Final Markings	20	13-Nov-23	08-Dec-23	25-Apr-24	22-May-24	121	6x10=5x10												
TCP/MOT		543	07-Sep-21	16-Oct-23	16-Sep-21	07-Feb-24	81	6x10=5x10												
CRWNTM100	Phase 1A LA-23 MOT Setup	2	07-Sep-21	08-Sep-21	16-Sep-21	17-Sep-21	7	6x10=5x10												
CRWNTM101	Phase 1B LA-23 MOT Setup	2	06-Jan-22	07-Jan-22	06-Jan-22	07-Jan-22	0	6x10=5x10												
CRWNTM102	Phase 1C LA-23 MOT Setup - Traffic on New Engineers Rd	2	08-Mar-22	09-Mar-22	08-Mar-22	09-Mar-22	0	6x10=5x10												
CRWNTM103	Phase 1D LA-23 MOT Setup	2	28-Jun-22	29-Jun-22	13-Jul-22	14-Jul-22	10	6x10=5x10												
CRWNTM104	Phase 2 LA-23 MOT Setup - Traffic on New NB Bridge	2	01-Mar-23	02-Mar-23	13-Mar-23	14-Mar-23	8	6x10=5x10												
CRWNTM105	Phase 3 LA-23 MOT Setup - Traffic on New NB & SB Bridges	2	13-Oct-23	16-Oct-23	06-Feb-24	07-Feb-24	81	6x10=5x10												
Other Roadway Appurtenances		30	13-May-22	27-Jun-22	13-May-22	27-Jun-22	0	6x10=5x10												
CRWNTA1000	Phase 1C LA-23 & Burmaster St Railroad Flashers Installation	15	13-May-22	02-Jun-22	13-May-22	02-Jun-22	0	6x10=5x10												
CRWNTA1010	Phase 1C LA-23 & Engineers Rd Traffic Signal Installation	15	03-Jun-22	27-Jun-22	03-Jun-22	27-Jun-22	0	6x10=5x10												
South		861	15-Oct-20	16-Feb-24	26-Nov-21	22-May-24	71	6x10=5x10												
Local Roads		823	15-Oct-20	26-Dec-23	21-Dec-21	22-May-24	109	6x10=5x10												
Erosion Control		774	19-Oct-20	19-Oct-23	23-Dec-21	20-Mar-24	109	6x10=5x10												
CRWSLX1000	Phase 1A South Tunnel Rd Erosion Control Installation	3	19-Oct-20	21-Oct-20	23-Dec-21	28-Dec-21	303	6x10=5x10												
CRWSLX1010	Phase 3 Q st & South Tunnel Rd Erosion Control Installation	3	17-Oct-23	19-Oct-23	18-Mar-24	20-Mar-24	109	6x10=5x10												
Earthwork		818	22-Oct-20	26-Dec-23	29-Dec-21	22-May-24	109	6x10=5x10												
CRWSLE1000	Phase 1A South Tunnel Rd Demolition Along Levee	5	22-Oct-20	28-Oct-20	29-Dec-21	05-Jan-22	303	6x10=5x10												
CRWSLE1010	Phase 3 Q St & South Tunnel Rd Re-Construction	12	20-Oct-23	06-Nov-23	21-Mar-24	04-Apr-24	109	6x10=5x10												

█ Actual Work
 █ Critical Remaining Work
 Summary
█ Remaining Work
 ◆ Milestone

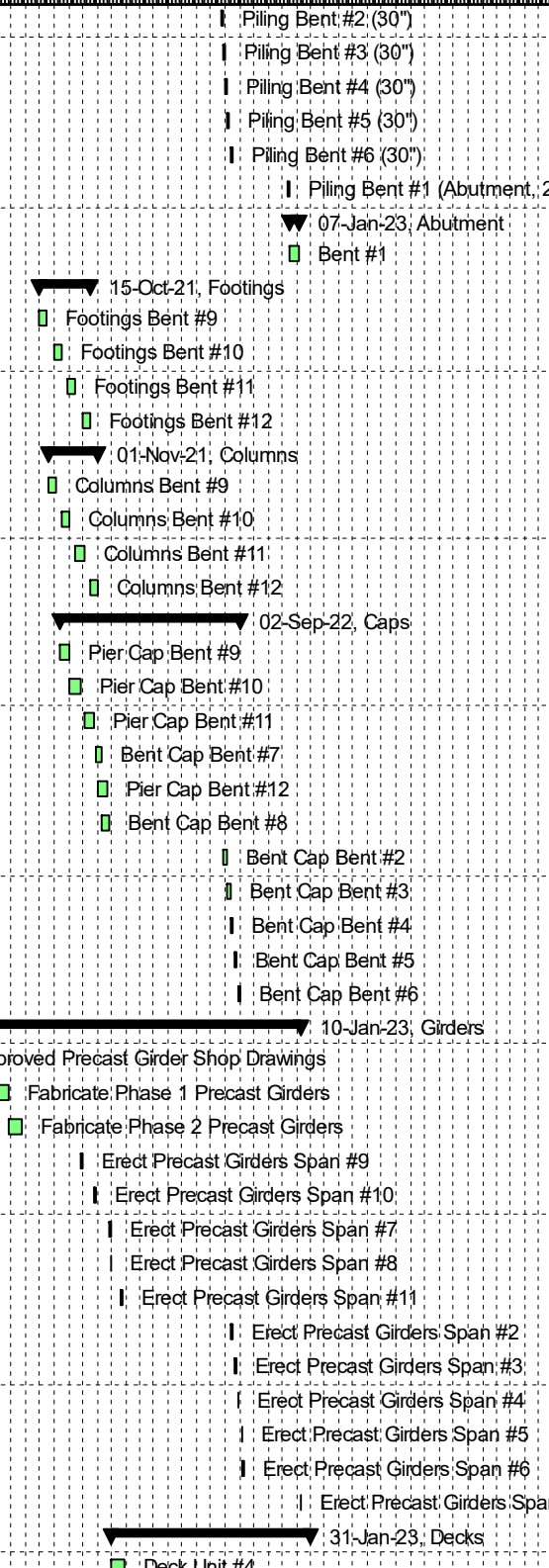
Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CRWSLE1020	Phase 3 Demolish East Portion of South Tunnel Rd	5	19-Dec-23	26-Dec-23	16-May-24	22-May-24	109	6x10=5x10												
Pavement & Markings		3	15-Dec-23	18-Dec-23	13-May-24	15-May-24	109	6x10=5x10												
CRWSLP1000	Phase 3 Q St & South Tunnel Rd New Paving & Markings	3	15-Dec-23	18-Dec-23	13-May-24	15-May-24	109	6x10=5x10												
TCP/MOT		773	15-Oct-20	16-Oct-23	21-Dec-21	16-Mar-24	109	6x10=5x10												
CRWSLM100	Phase 1A South Tunnel Rd MOT Setup	2	15-Oct-20	16-Oct-20	21-Dec-21	22-Dec-21	303	6x10=5x10												
CRWSLM101	Phase 3 Q St & South Tunnel Rd MOT Setup	2	13-Oct-23	16-Oct-23	15-Mar-24	16-Mar-24	109	6x10=5x10												
Managed Toll Lanes		861	15-Oct-20	16-Feb-24	26-Nov-21	22-May-24	71	6x10=5x10												
Erosion Control		774	19-Oct-20	19-Oct-23	30-Nov-21	29-Jan-24	71	6x10=5x10												
CRWSTX1000	Phase 1A LA-23 Erosion Control Installation	3	19-Oct-20	21-Oct-20	30-Nov-21	02-Dec-21	285	6x10=5x10												
CRWSTX1010	Phase 1B LA-23 Erosion Control Installation	3	10-Jan-22	12-Jan-22	24-Feb-22	26-Feb-22	34	6x10=5x10												
CRWSTX1020	Phase 1D LA-23 Erosion Control Installation	3	30-Jun-22	05-Jul-22	30-Jun-22	05-Jul-22	0	6x10=5x10												
CRWSTX1030	Phase 2 LA-23 Erosion Control Installation	3	03-Mar-23	07-Mar-23	03-Mar-23	07-Mar-23	0	6x10=5x10												
CRWSTX1040	Phase 3 LA-23 Erosion Control Installation	3	17-Oct-23	19-Oct-23	25-Jan-24	29-Jan-24	71	6x10=5x10												
Earthwork		417	06-Jul-22	16-Feb-24	06-Jul-22	22-May-24	71	6x10=5x10												
CRWSTE1000	Phase 1D LA-23 Detour Road Construction for NB MSE Constructic	10	06-Jul-22	19-Jul-22	06-Jul-22	19-Jul-22	0	6x10=5x10												
CRWSTE1010	Phase 1D LA-23 NB MSE Construction	90	25-Jul-22	03-Dec-22	25-Jul-22	03-Dec-22	0	6x10=5x10												
CRWSTE1020	Phase 2 LA-23 SB MSE Construction	90	08-Mar-23	05-Jul-23	08-Mar-23	05-Jul-23	0	6x10=5x10												
CRWSTE1030	Phase 3 LA-23 Demolish Remaining Detour Pavement	10	20-Oct-23	02-Nov-23	30-Jan-24	12-Feb-24	71	6x10=5x10												
CRWSTE1050	Phase 3 Demolish Existing Lift Bridge South Approach	40	28-Nov-23	19-Jan-24	05-Mar-24	24-Apr-24	71	6x10=5x10												
CRWSTE1040	Phase 3 Demolish Existing Tunnel South Approach	20	22-Jan-24	16-Feb-24	25-Apr-24	22-May-24	71	6x10=5x10												
Pavement & Markings		776	19-Nov-20	27-Nov-23	31-Dec-21	04-Mar-24	71	6x10=5x10												
CRWSTP1000	Phase 1A LA-23 Mill & pave Existing Outside Lanes, South End	3	19-Nov-20	23-Nov-20	31-Dec-21	05-Jan-22	285	6x10=5x10												
CRWSTP1010	Phase 1B LA-23 Mill & pave Existing Inside Lanes, South End	3	18-Jan-22	20-Jan-22	03-Mar-22	07-Mar-22	34	6x10=5x10												
CRWSTP1020	Phase 1D LA-23 Detour Paving & Markings for NB MSE Constructic	3	20-Jul-22	22-Jul-22	20-Jul-22	22-Jul-22	0	6x10=5x10												
CRWSTP1030	Phase 1D LA-23 New Paving & Markings for NB MSE Construction	10	05-Dec-22	16-Dec-22	15-Feb-23	28-Feb-23	52	6x10=5x10												
CRWSTP1040	Phase 2 LA-23 New Paving & Markings for SB MSE Construction	10	06-Jul-23	19-Jul-23	28-Sep-23	12-Oct-23	57	6x10=5x10												
CRWSTP1050	Phase 3 LA-23 Median Barriers, Curb & Final Markings	15	03-Nov-23	27-Nov-23	13-Feb-24	04-Mar-24	71	6x10=5x10												
TCP/MOT		773	15-Oct-20	16-Oct-23	26-Nov-21	24-Jan-24	71	6x10=5x10												
CRWSTM100	Phase 1A LA-23 MOT Setup	2	15-Oct-20	16-Oct-20	26-Nov-21	29-Nov-21	285	6x10=5x10												
CRWSTM101	Phase 1B LA-23 MOT Setup	2	06-Jan-22	07-Jan-22	22-Feb-22	23-Feb-22	34	6x10=5x10												
CRWSTM102	Phase 1D LA-23 MOT Setup	2	28-Jun-22	29-Jun-22	28-Jun-22	29-Jun-22	0	6x10=5x10												
CRWSTM103	Phase 2 LA-23 MOT Setup - Traffic on New NB Bridge	2	01-Mar-23	02-Mar-23	01-Mar-23	02-Mar-23	0	6x10=5x10												
CRWSTM104	Phase 3 LA-23 MOT Setup - Traffic on New NB & SB Bridge	2	13-Oct-23	16-Oct-23	23-Jan-24	24-Jan-24	71	6x10=5x10												
Drainage		810	22-Oct-20	14-Dec-23	10-Nov-21	10-May-24	109													
North		528	10-Nov-21	29-Nov-23	10-Nov-21	07-May-24	118													
Cross Culverts		441	10-Nov-21	21-Jul-23	10-Nov-21	02-Aug-23	8	6x10=5x10												
CDRNC1000	Phase 1A Engineers Road Cross Culvert	4	10-Nov-21	16-Nov-21	10-Nov-21	16-Nov-21	0	6x10=5x10												
CDRNC1010	Phase 1D LA-23 Cross Culvert (North Half)	12	05-Dec-22	19-Dec-22	30-Jan-23	14-Feb-23	40	6x10=5x10												
CDRNC1020	Phase 2 LA-23 Cross Culvert (South Half)	12	06-Jul-23	21-Jul-23	18-Jul-23	02-Aug-23	8	6x10=5x10												
Local Roads		524	17-Nov-21	29-Nov-23	17-Nov-21	07-May-24	118	6x10=5x10												
Trunk-line		517	17-Nov-21	17-Nov-23	17-Nov-21	26-Apr-24	118	6x10=5x10												
CDRNL1000	Phase 1A Engineers Road Ditches	6	17-Nov-21	24-Nov-21	17-Nov-21	24-Nov-21	0	6x10=5x10												
CDRNL1010	Phase 1A Engineers Road Trunk Lines	10	26-Nov-21	08-Dec-21	26-Nov-21	08-Dec-21	0	6x10=5x10												
CDRNL1020	Phase 3 North Tunnel Road Trunk Lines	5	13-Nov-23	17-Nov-23	22-Apr-24	26-Apr-24	118	6x10=5x10												
Inlets & Laterals		508	09-Dec-21	29-Nov-23	09-Dec-21	07-May-24	118	6x10=5x10												
CDRNL11010	Phase 1A Engineers Road Inlets	10	09-Dec-21	22-Dec-21	09-Dec-21	22-Dec-21	0	6x10=5x10												
CDRNL11000	Phase 1A Engineers Road Laterals	3	23-Dec-21	28-Dec-21	23-Dec-21	28-Dec-21	0	6x10=5x10												
CDRNL11020	Phase 3 North Tunnel Road Laterals	2	20-Nov-23	21-Nov-23	29-Apr-24	30-Apr-24	118	6x10=5x10												

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 Summary
█ Remaining Work
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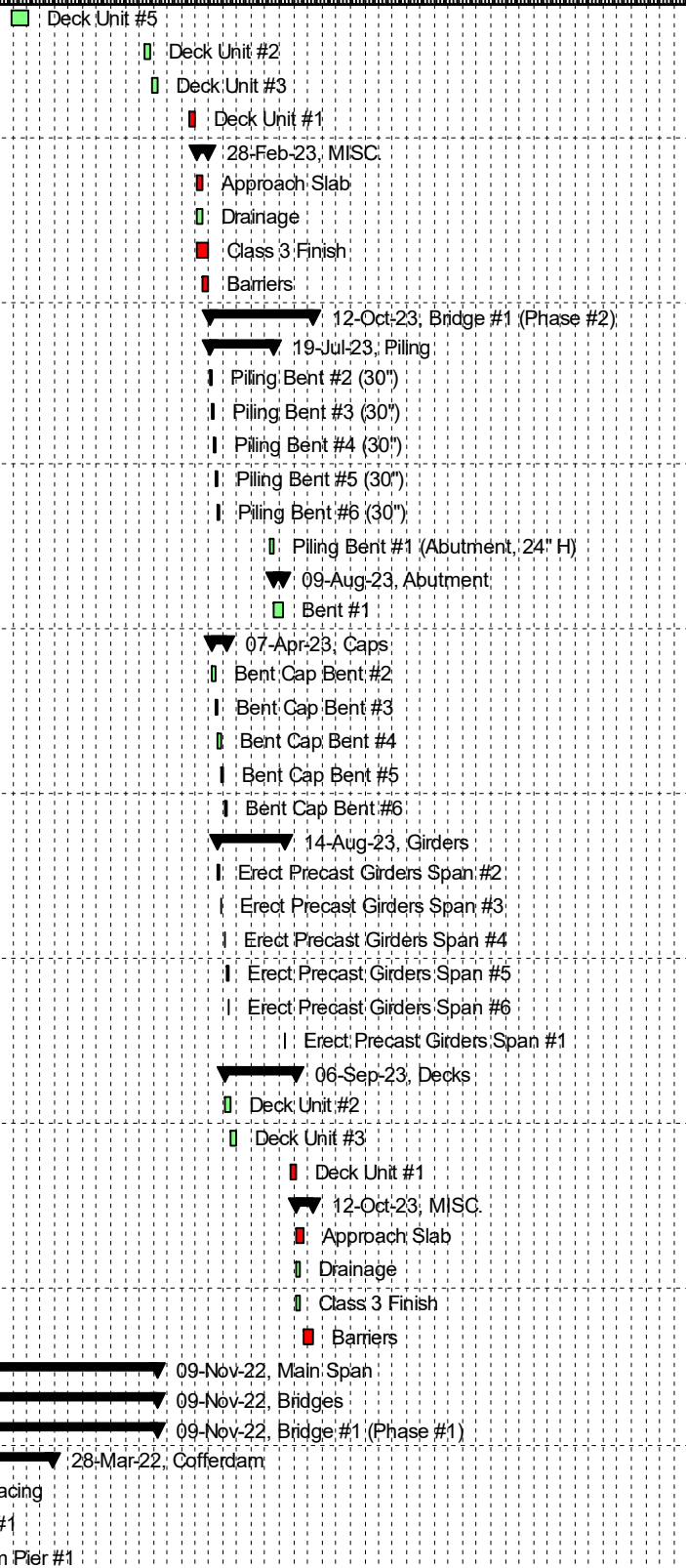
Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CDRNLI1030	Phase 3 North Tunnel Road Inlets	5	22-Nov-23	29-Nov-23	01-May-24	07-May-24	118	6x10=5x10												
Main-lanes, Managed Toll Lanes, & Ramps		357	26-Apr-22	15-Sep-23	26-Apr-22	27-Sep-23	8	6x10=5x10												
Truck-line		20	24-Jul-23	22-Aug-23	03-Aug-23	01-Sep-23	8	6x10=5x10												
CDRNTT1000	Phase 2 LA-23 Trunk Line	20	24-Jul-23	22-Aug-23	03-Aug-23	01-Sep-23	8	6x10=5x10												
Inlets & Laterals		357	26-Apr-22	15-Sep-23	26-Apr-22	27-Sep-23	8	6x10=5x10												
CDRNTI1000	Phase 1C LA-23 Paved Gutter Drains into Existing Piping	8	26-Apr-22	05-May-22	26-Apr-22	05-May-22	0	6x10=5x10												
CDRNTI1010	Phase 2 LA-23 Laterals	10	23-Aug-23	06-Sep-23	05-Sep-23	18-Sep-23	8	6x10=5x10												
CDRNTI1020	Phase 2 LA-23 Inlets	7	07-Sep-23	15-Sep-23	19-Sep-23	27-Sep-23	8	6x10=5x10												
Crossing Streets		0					0													
Street #1		0					0													
South		810	22-Oct-20	14-Dec-23	03-Dec-21	10-May-24	109													
Cross Culverts		796	22-Oct-20	27-Nov-23	28-Dec-21	22-Apr-24	109	6x10=5x10												
CDRSC1000	Phase 1A LA-23 Cross Culvert (Outside Ends of Pipe)	3	22-Oct-20	26-Oct-20	28-Dec-21	30-Dec-21	302	6x10=5x10												
CDRSC1010	Phase 1B LA-23 Cross Culvert (Inside Portion of Pipe)	3	13-Jan-22	15-Jan-22	28-Feb-22	02-Mar-22	34	6x10=5x10												
CDRSC1020	Phase 3 South Tunnel Road Cross Culverts	5	20-Nov-23	27-Nov-23	16-Apr-24	22-Apr-24	109	6x10=5x10												
Local Roads		4	28-Nov-23	01-Dec-23	23-Apr-24	26-Apr-24	109													
Trunk-line		0					0													
Inlets & Laterals		4	28-Nov-23	01-Dec-23	23-Apr-24	26-Apr-24	109	6x10=5x10												
CDRSLI1000	Phase 3 South Tunnel Road Inlets	4	28-Nov-23	01-Dec-23	23-Apr-24	26-Apr-24	109	6x10=5x10												
Main-lanes, Managed Toll Lanes, & Ramps		810	22-Oct-20	14-Dec-23	03-Dec-21	10-May-24	109	6x10=5x10												
Truck-line		791	22-Oct-20	17-Nov-23	03-Dec-21	15-Apr-24	109	6x10=5x10												
CDRSTT1000	Phase 1A LA-23 Trunk Lines Near Barriere Road	15	22-Oct-20	12-Nov-20	03-Dec-21	22-Dec-21	285	6x10=5x10												
CDRSTT1010	Phase 3 LA-23 Ditch Near Q Street	3	07-Nov-23	09-Nov-23	05-Apr-24	09-Apr-24	109	6x10=5x10												
CDRSTT1020	Phase 3 LA-23 Trunk Lines Near Q Street	5	13-Nov-23	17-Nov-23	10-Apr-24	15-Apr-24	109	6x10=5x10												
Inlets & Laterals		795	13-Nov-20	14-Dec-23	23-Dec-21	10-May-24	109	6x10=5x10												
CDRSTI1000	Phase 1A LA-23 Laterals & Inlets Near Barriere Road	5	13-Nov-20	18-Nov-20	23-Dec-21	30-Dec-21	285	6x10=5x10												
CDRSTI1010	Phase 3 LA-23 Laterals & Inlets Near Q Street	10	02-Dec-23	14-Dec-23	29-Apr-24	10-May-24	109	6x10=5x10												
Crossing Streets		0					0													
Street #1		0					0													
Structures		1114	29-Jan-20	22-May-24	02-Aug-20	22-May-24	0													
North		896	15-Apr-20	12-Oct-23	02-Aug-20	12-Oct-23	0													
Bridges		896	15-Apr-20	12-Oct-23	02-Aug-20	12-Oct-23	0													
Bridge #1 (Phase 1)		734	15-Apr-20	28-Feb-23	02-Aug-20	10-Jun-23	76													
Structural Excavation		70	28-May-21	13-Sep-21	05-Nov-21	11-Feb-22	107	6x10=5x10												
CSTNB1S1	Str Exc Bent #9	10	28-May-21	14-Jun-21	05-Nov-21	19-Nov-21	107	6x10=5x10												
CSTNB1S1	Str Exc Bent #10	10	30-Jun-21	14-Jul-21	06-Dec-21	17-Dec-21	107	6x10=5x10												
CSTNB1S1	Str Exc Bent #11	10	30-Jul-21	12-Aug-21	05-Jan-22	18-Jan-22	107	6x10=5x10												
CSTNB1S1	Str Exc Bent #12	10	30-Aug-21	13-Sep-21	31-Jan-22	11-Feb-22	107	6x10=5x10												
Piling		682	15-Apr-20	16-Dec-22	02-Aug-20	28-Apr-23	97													
CSTNB1PC	Approved Precast Pile Shop Drawings	60	15-Apr-20	14-Jun-20	02-Aug-20	01-Oct-20	109	Cal. Days												
CSTNB1PC	Fabricate Phase 1 Precast Pile	90	14-Jun-20	12-Sep-20	01-Oct-20	30-Dec-20	109	Cal. Days												
CSTNB1PC	Fabricate Phase 2 Precast Pile	30	12-Sep-20	12-Oct-20	29-Mar-23	28-Apr-23	928	Cal. Days												
CSTNB1P1	North Side Test Pile Program	15	10-May-21	27-May-21	16-Oct-21	04-Nov-21	107	6x10=5x10												
CSTNB1P1	Piling Bent #9 (24" H)	10	15-Jun-21	29-Jun-21	22-Nov-21	04-Dec-21	107	6x10=5x10												
CSTNB1P1	Piling Bent #10 (24" H)	10	15-Jul-21	29-Jul-21	20-Dec-21	04-Jan-22	107	6x10=5x10												
CSTNB1P1	Piling Bent #11 (24" H)	10	13-Aug-21	27-Aug-21	19-Jan-22	29-Jan-22	107	6x10=5x10												
CSTNB1P1	Piling Bent #12 (24" H)	10	14-Sep-21	28-Sep-21	17-Feb-22	02-Mar-22	110	6x10=5x10												
CSTNB1P1	Piling Bent #7 (30")	5	20-Oct-21	26-Oct-21	09-May-22	13-May-22	145	6x10=5x10												
CSTNB1P1	Piling Bent #8 (30")	5	27-Oct-21	02-Nov-21	20-May-22	26-May-22	150	6x10=5x10												

█ Actual Work
 █ Critical Remaining Work
 ▬ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46													
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019		2020		2021		2022		2023		2024		2025	
CSTNB1P1	Piling Bent #2 (30")	3	25-Jul-22	27-Jul-22	21-Sep-22	23-Sep-22	38	6x10=5x10														
CSTNB1P1	Piling Bent #3 (30")	3	28-Jul-22	01-Aug-22	28-Sep-22	30-Sep-22	40	6x10=5x10														
CSTNB1P1	Piling Bent #4 (30")	3	02-Aug-22	04-Aug-22	05-Oct-22	07-Oct-22	42	6x10=5x10														
CSTNB1P1	Piling Bent #5 (30")	3	05-Aug-22	09-Aug-22	13-Oct-22	15-Oct-22	44	6x10=5x10														
CSTNB1P1	Piling Bent #6 (30")	3	11-Aug-22	15-Aug-22	19-Oct-22	21-Oct-22	46	6x10=5x10														
CSTNB1P1	Piling Bent #1 (Abutment, 24" H)	5	12-Dec-22	16-Dec-22	17-Dec-22	22-Dec-22	5	6x10=5x10														
Abutment		15	17-Dec-22	07-Jan-23	23-Dec-22	13-Jan-23	5	6x10=5x10														
CSTNB1A1	Bent #1	15	17-Dec-22	07-Jan-23	23-Dec-22	13-Jan-23	5	6x10=5x10														
Footings		72	30-Jun-21	15-Oct-21	31-Dec-21	17-Mar-22	110	6x10=5x10														
CSTNB1F1	Footings Bent #9	12	30-Jun-21	16-Jul-21	31-Dec-21	18-Jan-22	125	6x10=5x10														
CSTNB1F1	Footings Bent #10	12	30-Jul-21	16-Aug-21	22-Jan-22	04-Feb-22	120	6x10=5x10														
CSTNB1F1	Footings Bent #11	12	30-Aug-21	15-Sep-21	10-Feb-22	26-Feb-22	115	6x10=5x10														
CSTNB1F1	Footings Bent #12	12	29-Sep-21	15-Oct-21	03-Mar-22	17-Mar-22	110	6x10=5x10														
Columns		72	19-Jul-21	01-Nov-21	19-Jan-22	04-Apr-22	110	6x10=5x10														
CSTNB1C1	Columns Bent #9	12	19-Jul-21	04-Aug-21	19-Jan-22	01-Feb-22	125	6x10=5x10														
CSTNB1C1	Columns Bent #10	12	17-Aug-21	02-Sep-21	07-Feb-22	23-Feb-22	120	6x10=5x10														
CSTNB1C1	Columns Bent #11	12	16-Sep-21	04-Oct-21	28-Feb-22	14-Mar-22	115	6x10=5x10														
CSTNB1C1	Columns Bent #12	12	16-Oct-21	01-Nov-21	18-Mar-22	04-Apr-22	110	6x10=5x10														
Caps		271	12-Aug-21	02-Sep-22	02-Feb-22	28-Oct-22	38	6x10=5x10														
CSTNB1E1	Pier Cap Bent #9	15	12-Aug-21	02-Sep-21	02-Feb-22	23-Feb-22	120	6x10=5x10														
CSTNB1E1	Pier Cap Bent #10	15	03-Sep-21	27-Sep-21	24-Feb-22	14-Mar-22	120	6x10=5x10														
CSTNB1E1	Pier Cap Bent #11	15	05-Oct-21	25-Oct-21	15-Mar-22	04-Apr-22	115	6x10=5x10														
CSTNB1E1	Bent Cap Bent #7	10	27-Oct-21	09-Nov-21	14-May-22	26-May-22	145	6x10=5x10														
CSTNB1E1	Pier Cap Bent #12	15	02-Nov-21	23-Nov-21	05-Apr-22	22-Apr-22	110	6x10=5x10														
CSTNB1E1	Bent Cap Bent #8	10	10-Nov-21	24-Nov-21	27-May-22	13-Jun-22	145	6x10=5x10														
CSTNB1E1	Bent Cap Bent #2	5	28-Jul-22	03-Aug-22	26-Sep-22	30-Sep-22	38	6x10=5x10														
CSTNB1E1	Bent Cap Bent #3	5	04-Aug-22	11-Aug-22	03-Oct-22	07-Oct-22	38	6x10=5x10														
CSTNB1E1	Bent Cap Bent #4	5	12-Aug-22	18-Aug-22	11-Oct-22	15-Oct-22	38	6x10=5x10														
CSTNB1E1	Bent Cap Bent #5	5	22-Aug-22	26-Aug-22	17-Oct-22	21-Oct-22	38	6x10=5x10														
CSTNB1E1	Bent Cap Bent #6	5	29-Aug-22	02-Sep-22	24-Oct-22	28-Oct-22	38	6x10=5x10														
Girders		565	28-Oct-20	10-Jan-23	23-Sep-21	10-Jun-23	111															
CSTNB1G1	Approved Precast Girder Shop Drawings	60	28-Oct-20	27-Dec-20	23-Sep-21	22-Nov-21	330	Cal. Days														
CSTNB1G1	Fabricate Phase 1 Precast Girders	120	27-Dec-20	26-Apr-21	22-Nov-21	22-Mar-22	330	Cal. Days														
CSTNB1G1	Fabricate Phase 2 Precast Girders	30	26-Apr-21	26-May-21	11-May-23	10-Jun-23	745	Cal. Days														
CSTNB1G1	Erect Precast Girders Span #9	2	28-Sep-21	29-Sep-21	07-Jun-22	09-Jun-22	182	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #10	2	26-Oct-21	27-Oct-21	10-Jun-22	13-Jun-22	164	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #7	2	26-Nov-21	29-Nov-21	14-Jun-22	15-Jun-22	145	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #8	2	30-Nov-21	01-Dec-21	16-Jun-22	17-Jun-22	145	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #11	2	22-Dec-21	23-Dec-21	18-Jul-22	19-Jul-22	148	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #2	2	12-Aug-22	15-Aug-22	07-Nov-22	08-Nov-22	58	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #3	2	22-Aug-22	23-Aug-22	09-Nov-22	10-Nov-22	55	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #4	2	29-Aug-22	30-Aug-22	14-Nov-22	15-Nov-22	52	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #5	2	06-Sep-22	07-Sep-22	25-Nov-22	28-Nov-22	55	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #6	2	08-Sep-22	09-Sep-22	29-Nov-22	30-Nov-22	55	6x10=5x10														
CSTNB1G1	Erect Precast Girders Span #1	2	09-Jan-23	10-Jan-23	17-Jan-23	18-Jan-23	5	6x10=5x10														
Decks		300	02-Dec-21	31-Jan-23	20-Jun-22	31-Jan-23	0	6x10=5x10														
CSTNB1D1	Deck Unit #4	20	02-Dec-21	29-Dec-21	20-Jun-22	19-Jul-22	145	6x10=5x10														



Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CSTNB1D'	Deck Unit #5	25	30-Dec-21	01-Feb-22	20-Jul-22	25-Aug-22	145	6x10=5x10												
CSTNB1D'	Deck Unit #2	10	14-Oct-22	26-Oct-22	16-Nov-22	30-Nov-22	23	6x10=5x10												
CSTNB1D'	Deck Unit #3	10	27-Oct-22	09-Nov-22	01-Dec-22	13-Dec-22	23	6x10=5x10												
CSTNB1D'	Deck Unit #1	10	19-Jan-23	31-Jan-23	19-Jan-23	31-Jan-23	0	6x10=5x10												
MISC.		20	01-Feb-23	28-Feb-23	01-Feb-23	28-Feb-23	0	6x10=5x10												
CSTNB1M	Approach Slab	10	01-Feb-23	14-Feb-23	01-Feb-23	14-Feb-23	0	6x10=5x10												
CSTNB1M	Drainage	10	01-Feb-23	14-Feb-23	15-Feb-23	28-Feb-23	10	6x10=5x10												
CSTNB1M	Class 3 Finish	20	01-Feb-23	28-Feb-23	01-Feb-23	28-Feb-23	0	6x10=5x10												
CSTNB1M	Barriers	10	15-Feb-23	28-Feb-23	15-Feb-23	28-Feb-23	0	6x10=5x10												
Bridge #1 (Phase #2)		160	03-Mar-23	12-Oct-23	28-Apr-23	12-Oct-23	0	6x10=5x10												
Piling		103	03-Mar-23	19-Jul-23	28-Apr-23	26-Jul-23	5	6x10=5x10												
CSTNB2P'	Piling Bent #2 (30")	3	03-Mar-23	07-Mar-23	28-Apr-23	01-May-23	43	6x10=5x10												
CSTNB2P'	Piling Bent #3 (30")	3	08-Mar-23	10-Mar-23	04-May-23	08-May-23	45	6x10=5x10												
CSTNB2P'	Piling Bent #4 (30")	3	13-Mar-23	15-Mar-23	11-May-23	15-May-23	47	6x10=5x10												
CSTNB2P'	Piling Bent #5 (30")	3	16-Mar-23	18-Mar-23	18-May-23	22-May-23	49	6x10=5x10												
CSTNB2P'	Piling Bent #6 (30")	3	20-Mar-23	22-Mar-23	25-May-23	30-May-23	51	6x10=5x10												
CSTNB2P'	Piling Bent #1 (Abutment, 24" H)	5	13-Jul-23	19-Jul-23	20-Jul-23	26-Jul-23	5	6x10=5x10												
Abutment		15	20-Jul-23	09-Aug-23	27-Jul-23	17-Aug-23	5	6x10=5x10												
CSTNB2A'	Bent #1	15	20-Jul-23	09-Aug-23	27-Jul-23	17-Aug-23	5	6x10=5x10												
Caps		25	08-Mar-23	07-Apr-23	02-May-23	06-Jun-23	43	6x10=5x10												
CSTNB2E'	Bent Cap Bent #2	5	08-Mar-23	14-Mar-23	02-May-23	08-May-23	43	6x10=5x10												
CSTNB2E'	Bent Cap Bent #3	5	15-Mar-23	20-Mar-23	09-May-23	15-May-23	43	6x10=5x10												
CSTNB2E'	Bent Cap Bent #4	5	21-Mar-23	27-Mar-23	16-May-23	22-May-23	43	6x10=5x10												
CSTNB2E'	Bent Cap Bent #5	5	28-Mar-23	01-Apr-23	23-May-23	30-May-23	43	6x10=5x10												
CSTNB2E'	Bent Cap Bent #6	5	03-Apr-23	07-Apr-23	31-May-23	06-Jun-23	43	6x10=5x10												
Girders		107	21-Mar-23	14-Aug-23	10-Jun-23	22-Aug-23	5	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #2	2	21-Mar-23	22-Mar-23	10-Jun-23	12-Jun-23	61	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #3	2	28-Mar-23	29-Mar-23	13-Jun-23	14-Jun-23	58	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #4	2	03-Apr-23	04-Apr-23	15-Jun-23	16-Jun-23	55	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #5	2	10-Apr-23	11-Apr-23	26-Jun-23	27-Jun-23	58	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #6	2	12-Apr-23	13-Apr-23	28-Jun-23	29-Jun-23	58	6x10=5x10												
CSTNB2G'	Erect Precast Girders Span #1	2	11-Aug-23	14-Aug-23	18-Aug-23	22-Aug-23	5	6x10=5x10												
Decks		110	05-Apr-23	06-Sep-23	19-Jun-23	06-Sep-23	0	6x10=5x10												
CSTNB2D'	Deck Unit #2	10	05-Apr-23	17-Apr-23	19-Jun-23	29-Jun-23	55	6x10=5x10												
CSTNB2D'	Deck Unit #3	10	18-Apr-23	29-Apr-23	30-Jun-23	14-Jul-23	55	6x10=5x10												
CSTNB2D'	Deck Unit #1	10	23-Aug-23	06-Sep-23	23-Aug-23	06-Sep-23	0	6x10=5x10												
MISC.		25	07-Sep-23	12-Oct-23	07-Sep-23	12-Oct-23	0	6x10=5x10												
CSTNB2M	Approach Slab	10	07-Sep-23	20-Sep-23	07-Sep-23	20-Sep-23	0	6x10=5x10												
CSTNB2M	Drainage	5	07-Sep-23	13-Sep-23	05-Oct-23	12-Oct-23	20	6x10=5x10												
CSTNB2M	Class 3 Finish	5	07-Sep-23	13-Sep-23	05-Oct-23	12-Oct-23	20	6x10=5x10												
CSTNB2M	Barriers	15	21-Sep-23	12-Oct-23	21-Sep-23	12-Oct-23	0	6x10=5x10												
Main Span		713	29-Jan-20	09-Nov-22	15-Nov-20	28-Feb-23	78													
Bridges		713	29-Jan-20	09-Nov-22	15-Nov-20	28-Feb-23	78													
Bridge #1 (Phase #1)		713	29-Jan-20	09-Nov-22	15-Nov-20	28-Feb-23	78													
Cofferdam		556	29-Jan-20	28-Mar-22	15-Nov-20	26-Apr-22	23													
CSTMB1H	Procure Cofferdam Sheets & Bracing	30	29-Jan-20	28-Feb-20	15-Nov-20	15-Dec-20	291	Cal. Days												
CSTMB1H	Pre-Excavate Pier #1	10	15-Oct-20	28-Oct-20	02-Dec-20	14-Dec-20	33	6x10=5x10												
CSTMB1H	Install Cofferdam Pier #1	40	29-Oct-20	23-Dec-20	15-Dec-20	08-Feb-21	33	6x10=5x10												

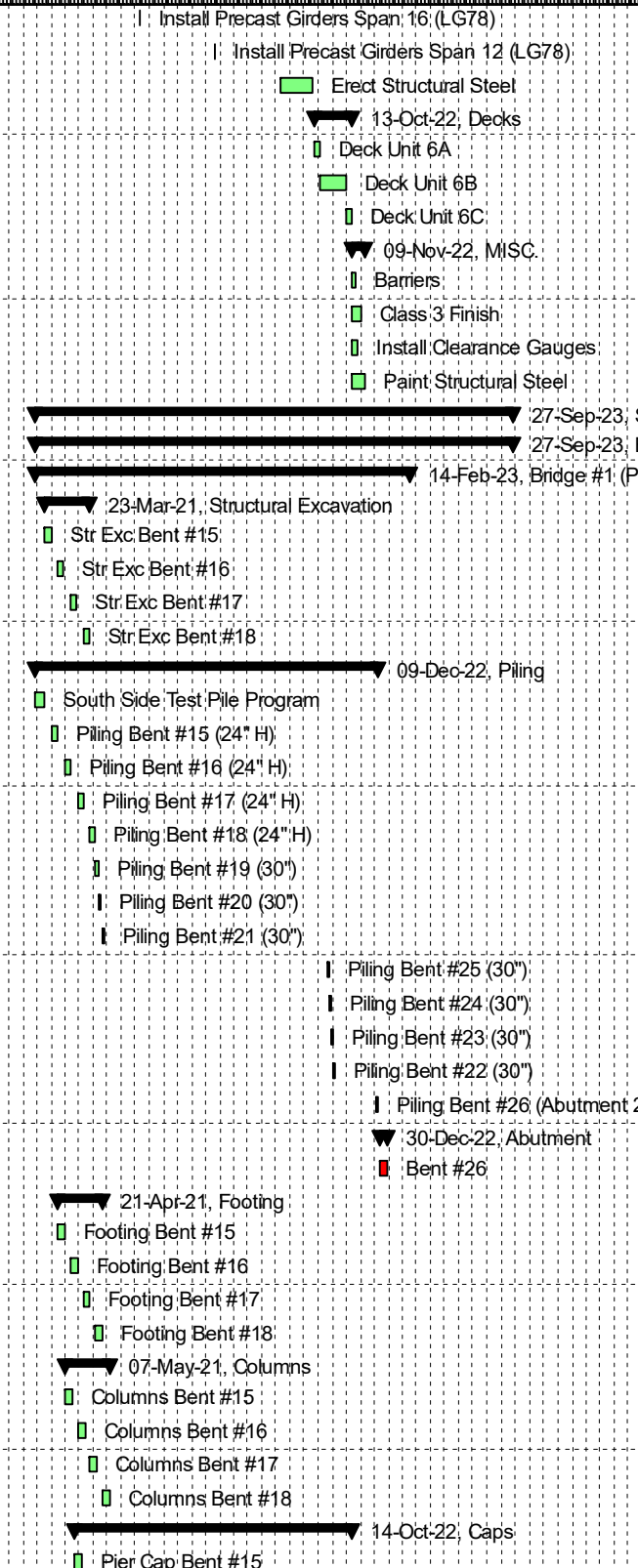


█ Actual Work
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 ▬ Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CSTMB1H	Excavate Pier #1	10	24-Dec-20	08-Jan-21	09-Feb-21	23-Feb-21	33	6x10=5x10												
CSTMB1H	Seal Pier #1	10	29-Jan-21	10-Feb-21	16-Mar-21	26-Mar-21	33	6x10=5x10												
CSTMB1H	Dewater Pier #1	2	11-Feb-21	12-Feb-21	29-Mar-21	30-Mar-21	33	6x10=5x10												
CSTMB1H	Dewatered State Pier #1	102	11-Feb-21	24-May-21	29-Mar-21	14-Jul-21	51	Cal. Days												
CSTMB1H	Remove Cofferdam Pier #1	20	25-May-21	24-Jun-21	15-Jul-21	12-Aug-21	33	6x10=5x10												
CSTMB1H	Pre-Excavate Pier #2	10	12-Jul-21	26-Jul-21	13-Aug-21	27-Aug-21	23	6x10=5x10												
CSTMB1H	Install Cofferdam Pier #2	40	27-Jul-21	22-Sep-21	30-Aug-21	26-Oct-21	23	6x10=5x10												
CSTMB1H	Excavate Pier #2	10	24-Sep-21	07-Oct-21	27-Oct-21	09-Nov-21	23	6x10=5x10												
CSTMB1H	Seal Pier #2	10	29-Oct-21	12-Nov-21	03-Dec-21	15-Dec-21	23	6x10=5x10												
CSTMB1H	Dewater Pier #2	2	15-Nov-21	16-Nov-21	16-Dec-21	17-Dec-21	23	6x10=5x10												
CSTMB1H	Dewatered State Pier #2	106	15-Nov-21	01-Mar-22	16-Dec-21	31-Mar-22	30	Cal. Days												
CSTMB1H	Remove Cofferdam Pier #2	20	02-Mar-22	28-Mar-22	01-Apr-22	26-Apr-22	23	6x10=5x10												
Structural Excavation		234	22-Jan-21	21-Dec-21	30-Apr-21	10-Jun-22	125	6x10=5x10												
CSTMB1S	Perm Sheets Bent #14	5	22-Jan-21	28-Jan-21	30-Apr-21	06-May-21	73	6x10=5x10												
CSTMB1S	Str Exc Bent #14	15	24-Mar-21	12-Apr-21	07-May-21	25-May-21	33	6x10=5x10												
CSTMB1S	RipRip Bent #14	2	12-Jul-21	13-Jul-21	09-Jun-22	10-Jun-22	235	6x10=5x10												
CSTMB1S	Perm Sheets Bent #13	5	27-Aug-21	02-Sep-21	07-Feb-22	11-Feb-22	113	6x10=5x10												
CSTMB1S	Str Exc Bent #13	15	14-Sep-21	05-Oct-21	14-Feb-22	04-Mar-22	107	6x10=5x10												
CSTMB1S	RipRap Bent #13	2	20-Dec-21	21-Dec-21	09-Jun-22	10-Jun-22	125	6x10=5x10												
Piling		449	29-Jan-20	28-Oct-21	14-Feb-21	17-Mar-22	100													
CSTMB1P	Fabricate Steel Pipe Pile	10	29-Jan-20	08-Feb-20	14-Feb-21	24-Feb-21	382	Cal. Days												
CSTMB1P	Steel Pipe Pile Pier #1	15	09-Jan-21	28-Jan-21	24-Feb-21	15-Mar-21	33	6x10=5x10												
CSTMB1P	Precast Piling Bent #14 (24" H)	10	27-Apr-21	08-May-21	26-May-21	09-Jun-21	23	6x10=5x10												
CSTMB1P	Precast Piling Bent #13 (24" H)	10	06-Oct-21	19-Oct-21	07-Mar-22	17-Mar-22	107	6x10=5x10												
CSTMB1P	Steel Pipe Pile Pier #2	15	08-Oct-21	28-Oct-21	10-Nov-21	02-Dec-21	23	6x10=5x10												
Footing		267	16-Feb-21	01-Mar-22	31-Mar-21	07-Apr-22	28	6x10=5x10												
CSTMB1F	Footing Pier #1	25	16-Feb-21	19-Mar-21	31-Mar-21	03-May-21	33	6x10=5x10												
CSTMB1F	Stem Pier #1	40	20-Mar-21	11-May-21	04-May-21	29-Jun-21	33	6x10=5x10												
CSTMB1F	Footing Bent #14	15	10-May-21	27-May-21	11-Jun-21	02-Jul-21	23	6x10=5x10												
CSTMB1F	Rub Rails Pier #1	10	12-May-21	24-May-21	30-Jun-21	14-Jul-21	33	6x10=5x10												
CSTMB1F	Footing Bent #13	15	20-Oct-21	09-Nov-21	18-Mar-22	07-Apr-22	107	6x10=5x10												
CSTMB1F	Footing Pier #2	25	17-Nov-21	21-Dec-21	20-Dec-21	24-Jan-22	23	6x10=5x10												
CSTMB1F	Stem Pier #2	40	22-Dec-21	15-Feb-22	25-Jan-22	17-Mar-22	23	6x10=5x10												
CSTMB1F	Rub Rails Pier #2	10	16-Feb-22	01-Mar-22	18-Mar-22	31-Mar-22	23	6x10=5x10												
Columns		221	28-May-21	12-Apr-22	06-Jul-21	12-May-22	23	6x10=5x10												
CSTMB1C	Columns Bent #14	12	28-May-21	16-Jun-21	06-Jul-21	21-Jul-21	23	6x10=5x10												
CSTMB1C	Columns Pier #1	12	25-Jun-21	13-Jul-21	09-Dec-21	27-Dec-21	113	6x10=5x10												
CSTMB1C	Columns Bent #13	12	10-Nov-21	29-Nov-21	08-Apr-22	22-Apr-22	107	6x10=5x10												
CSTMB1C	Columns Pier #2	12	29-Mar-22	12-Apr-22	27-Apr-22	12-May-22	23	6x10=5x10												
Caps		229	17-Jun-21	09-May-22	23-Jul-21	10-Jun-22	23	6x10=5x10												
CSTMB1E	Pier Cap Bent #14	15	17-Jun-21	09-Jul-21	23-Jul-21	12-Aug-21	23	6x10=5x10												
CSTMB1E	Pier Cap Pier #1	20	14-Jul-21	11-Aug-21	28-Dec-21	24-Jan-22	113	6x10=5x10												
CSTMB1E	Pier Cap Bent #13	15	30-Nov-21	17-Dec-21	23-Apr-22	12-May-22	107	6x10=5x10												
CSTMB1E	Pier Cap Pier #2	20	13-Apr-22	09-May-22	13-May-22	10-Jun-22	23	6x10=5x10												
Girders		522	08-Jul-20	21-Jul-22	15-Dec-21	25-Aug-22	23													
CSTMB1G	Approved Structural Steel Shop Drawings	60	08-Jul-20	06-Sep-20	15-Dec-21	13-Feb-22	525	Cal. Days												
CSTMB1G	Structural Steel Fabrication	120	06-Sep-20	04-Jan-21	13-Feb-22	13-Jun-22	525	Cal. Days												

█ Actual Work
 █ Critical Remaining Work
 Summary
█ Remaining Work
 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46													
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019		2020		2021		2022		2023		2024		2025	
CSTMB1G	Install Precast Girders Span 16 (LG78)	2	12-Jul-21	13-Jul-21	02-May-22	03-May-22	208	6x10=5x10														
CSTMB1G	Install Precast Girders Span 12 (LG78)	2	20-Dec-21	21-Dec-21	09-Jun-22	10-Jun-22	125	6x10=5x10														
CSTMB1G	Erect Structural Steel	50	10-May-22	21-Jul-22	13-Jun-22	25-Aug-22	23	6x10=5x10														
Decks		55	22-Jul-22	13-Oct-22	26-Aug-22	15-Nov-22	23	6x10=5x10														
CSTMB1D	Deck Unit 6A	10	22-Jul-22	04-Aug-22	26-Aug-22	09-Sep-22	23	6x10=5x10														
CSTMB1D	Deck Unit 6B	35	05-Aug-22	28-Sep-22	12-Sep-22	31-Oct-22	23	6x10=5x10														
CSTMB1D	Deck Unit 6C	10	29-Sep-22	13-Oct-22	01-Nov-22	15-Nov-22	23	6x10=5x10														
MISC.		20	14-Oct-22	09-Nov-22	01-Feb-23	28-Feb-23	78	6x10=5x10														
CSTMB1M	Barriers	5	14-Oct-22	19-Oct-22	23-Feb-23	28-Feb-23	93	6x10=5x10														
CSTMB1M	Class 3 Finish	15	14-Oct-22	02-Nov-22	08-Feb-23	28-Feb-23	83	6x10=5x10														
CSTMB1M	Install Clearance Gauges	10	14-Oct-22	26-Oct-22	15-Feb-23	28-Feb-23	88	6x10=5x10														
CSTMB1M	Paint Structural Steel	20	14-Oct-22	09-Nov-22	01-Feb-23	28-Feb-23	78	6x10=5x10														
South		731	27-Nov-20	27-Sep-23	30-Dec-20	12-Oct-23	10	6x10=5x10														
Bridges		731	27-Nov-20	27-Sep-23	30-Dec-20	12-Oct-23	10	6x10=5x10														
Bridge #1 (Phase #1)		569	27-Nov-20	14-Feb-23	30-Dec-20	28-Feb-23	10	6x10=5x10														
Structural Excavation		70	17-Dec-20	23-Mar-21	20-Jan-21	22-Apr-21	23	6x10=5x10														
CSTSB1S	Str Exc Bent #15	10	17-Dec-20	31-Dec-20	20-Jan-21	01-Feb-21	23	6x10=5x10														
CSTSB1S	Str Exc Bent #16	10	15-Jan-21	28-Jan-21	17-Feb-21	01-Mar-21	23	6x10=5x10														
CSTSB1S	Str Exc Bent #17	10	11-Feb-21	25-Feb-21	16-Mar-21	26-Mar-21	23	6x10=5x10														
CSTSB1S	Str Exc Bent #18	10	11-Mar-21	23-Mar-21	10-Apr-21	22-Apr-21	23	6x10=5x10														
Piling		522	27-Nov-20	09-Dec-22	30-Dec-20	09-Dec-22	0	6x10=5x10														
CSTSB1P	South Side Test Pile Program	15	27-Nov-20	16-Dec-20	30-Dec-20	19-Jan-21	23	6x10=5x10														
CSTSB1P	Piling Bent #15 (24" H)	10	04-Jan-21	14-Jan-21	02-Feb-21	16-Feb-21	23	6x10=5x10														
CSTSB1P	Piling Bent #16 (24" H)	10	29-Jan-21	10-Feb-21	02-Mar-21	15-Mar-21	23	6x10=5x10														
CSTSB1P	Piling Bent #17 (24" H)	10	26-Feb-21	10-Mar-21	29-Mar-21	09-Apr-21	23	6x10=5x10														
CSTSB1P	Piling Bent #18 (24" H)	10	24-Mar-21	06-Apr-21	23-Apr-21	06-May-21	23	6x10=5x10														
CSTSB1P	Piling Bent #19 (30")	5	07-Apr-21	12-Apr-21	07-May-21	12-May-21	23	6x10=5x10														
CSTSB1P	Piling Bent #20 (30")	5	13-Apr-21	19-Apr-21	13-May-21	19-May-21	23	6x10=5x10														
CSTSB1P	Piling Bent #21 (30")	5	20-Apr-21	26-Apr-21	20-May-21	25-May-21	23	6x10=5x10														
CSTSB1P	Piling Bent #25 (30")	3	22-Aug-22	24-Aug-22	04-Nov-22	08-Nov-22	52	6x10=5x10														
CSTSB1P	Piling Bent #24 (30")	3	25-Aug-22	29-Aug-22	14-Nov-22	16-Nov-22	54	6x10=5x10														
CSTSB1P	Piling Bent #23 (30")	3	30-Aug-22	01-Sep-22	21-Nov-22	23-Nov-22	56	6x10=5x10														
CSTSB1P	Piling Bent #22 (30")	3	02-Sep-22	07-Sep-22	29-Nov-22	01-Dec-22	58	6x10=5x10														
CSTSB1P	Piling Bent #26 (Abutment 24" H)	5	05-Dec-22	09-Dec-22	05-Dec-22	09-Dec-22	0	6x10=5x10														
Abutment		15	12-Dec-22	30-Dec-22	12-Dec-22	30-Dec-22	0	6x10=5x10														
CSTSB1A	Bent #26	15	12-Dec-22	30-Dec-22	12-Dec-22	30-Dec-22	0	6x10=5x10														
Footing		72	15-Jan-21	21-Apr-21	25-Mar-21	09-Jun-21	36	6x10=5x10														
CSTSB1F	Footing Bent #15	12	15-Jan-21	30-Jan-21	25-Mar-21	09-Apr-21	51	6x10=5x10														
CSTSB1F	Footing Bent #16	12	11-Feb-21	27-Feb-21	14-Apr-21	29-Apr-21	46	6x10=5x10														
CSTSB1F	Footing Bent #17	12	11-Mar-21	25-Mar-21	05-May-21	19-May-21	41	6x10=5x10														
CSTSB1F	Footing Bent #18	12	07-Apr-21	21-Apr-21	24-May-21	09-Jun-21	36	6x10=5x10														
Columns		72	01-Feb-21	07-May-21	10-Apr-21	29-Jun-21	36	6x10=5x10														
CSTSB1C	Columns Bent #15	12	01-Feb-21	17-Feb-21	10-Apr-21	26-Apr-21	51	6x10=5x10														
CSTSB1C	Columns Bent #16	12	01-Mar-21	16-Mar-21	30-Apr-21	14-May-21	46	6x10=5x10														
CSTSB1C	Columns Bent #17	12	26-Mar-21	10-Apr-21	20-May-21	04-Jun-21	41	6x10=5x10														
CSTSB1C	Columns Bent #18	12	22-Apr-21	07-May-21	11-Jun-21	29-Jun-21	36	6x10=5x10														
Caps		423	18-Feb-21	14-Oct-22	27-Apr-21	07-Dec-22	38	6x10=5x10														
CSTSB1E	Pier Cap Bent #15	15	18-Feb-21	09-Mar-21	27-Apr-21	14-May-21	51	6x10=5x10														



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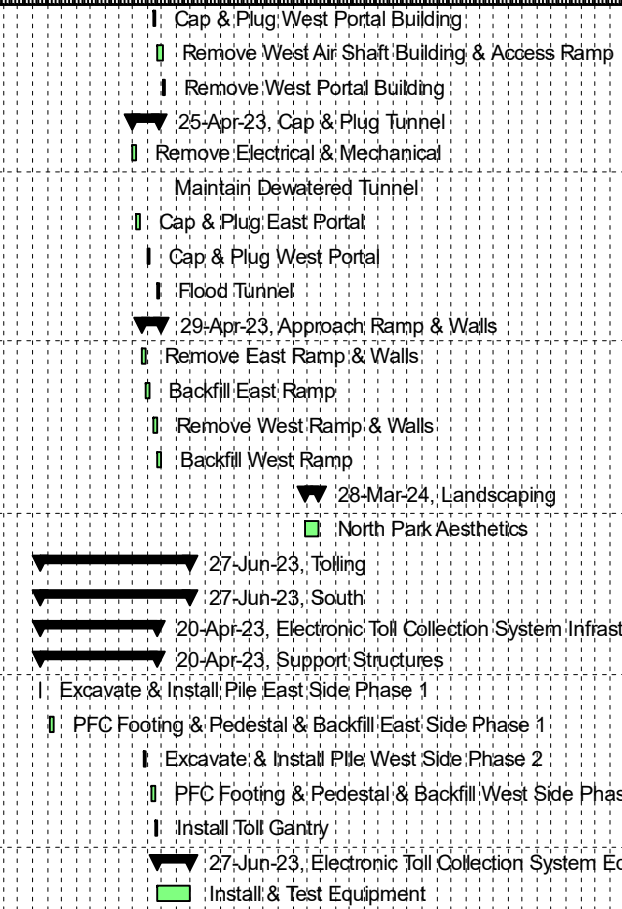
Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CSTSB1E1	Pier Cap Bent #16	15	17-Mar-21	05-Apr-21	17-May-21	04-Jun-21	46	6x10=5x10												
CSTSB1E1	Pier Cap Bent #17	15	12-Apr-21	30-Apr-21	07-Jun-21	29-Jun-21	41	6x10=5x10												
CSTSB1E1	Bent Cap Bent #19	10	22-Apr-21	05-May-21	22-Feb-22	04-Mar-22	210	6x10=5x10												
CSTSB1E1	Bent Cap Bent #20	10	06-May-21	18-May-21	07-Mar-22	17-Mar-22	210	6x10=5x10												
CSTSB1E1	Pier Cap Bent #18	15	08-May-21	26-May-21	30-Jun-21	21-Jul-21	36	6x10=5x10												
CSTSB1E1	Bent Cap Bent #21	10	19-May-21	01-Jun-21	18-Mar-22	31-Mar-22	210	6x10=5x10												
CSTSB1E1	Bent Cap Bent #25	5	16-Sep-22	22-Sep-22	09-Nov-22	16-Nov-22	38	6x10=5x10												
CSTSB1E1	Bent Cap Bent #24	5	23-Sep-22	29-Sep-22	17-Nov-22	23-Nov-22	38	6x10=5x10												
CSTSB1E1	Bent Cap Bent #23	5	30-Sep-22	06-Oct-22	25-Nov-22	01-Dec-22	38	6x10=5x10												
CSTSB1E1	Bent Cap Bent #22	5	07-Oct-22	14-Oct-22	02-Dec-22	07-Dec-22	38	6x10=5x10												
Girders		425	03-May-21	04-Jan-23	22-Mar-22	04-Jan-23	0	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #18	2	03-May-21	04-May-21	22-Mar-22	23-Mar-22	225	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #19	2	27-May-21	28-May-21	24-Mar-22	25-Mar-22	207	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #20	2	01-Jun-21	02-Jun-21	28-Mar-22	29-Mar-22	207	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #21	2	03-Jun-21	04-Jun-21	30-Mar-22	31-Mar-22	207	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #22	2	07-Jun-21	08-Jun-21	01-Apr-22	04-Apr-22	207	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #17	2	14-Jul-21	15-Jul-21	04-May-22	05-May-22	208	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #26	2	30-Sep-22	03-Oct-22	03-Dec-22	05-Dec-22	44	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #25	2	07-Oct-22	11-Oct-22	06-Dec-22	07-Dec-22	41	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #24	2	15-Oct-22	17-Oct-22	08-Dec-22	09-Dec-22	38	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #23	2	18-Oct-22	19-Oct-22	12-Dec-22	13-Dec-22	38	6x10=5x10												
CSTSB1G	Erect Precast Girders Span #27	2	03-Jan-23	04-Jan-23	03-Jan-23	04-Jan-23	0	6x10=5x10												
Decks		407	09-Jun-21	18-Jan-23	05-Apr-22	18-Jan-23	0	6x10=5x10												
CSTSB1D1	Deck Unit #8	25	09-Jun-21	16-Jul-21	05-Apr-22	05-May-22	207	6x10=5x10												
CSTSB1D1	Deck Unit #7	30	19-Jul-21	31-Aug-21	06-May-22	17-Jun-22	207	6x10=5x10												
CSTSB1D1	Deck Unit #9	15	10-Nov-22	02-Dec-22	14-Dec-22	04-Jan-23	23	6x10=5x10												
CSTSB1D1	Deck Unit #10	10	05-Jan-23	18-Jan-23	05-Jan-23	18-Jan-23	0	6x10=5x10												
MISC.		20	19-Jan-23	14-Feb-23	01-Feb-23	28-Feb-23	10	6x10=5x10												
CSTSB1M	Approach Slab	10	19-Jan-23	31-Jan-23	01-Feb-23	14-Feb-23	10	6x10=5x10												
CSTSB1M	Drainage	10	19-Jan-23	31-Jan-23	15-Feb-23	28-Feb-23	20	6x10=5x10												
CSTSB1M	Class 3 Finish	20	19-Jan-23	14-Feb-23	01-Feb-23	28-Feb-23	10	6x10=5x10												
CSTSB1M	Barriers	10	01-Feb-23	14-Feb-23	15-Feb-23	28-Feb-23	10	6x10=5x10												
Bridge #1 (Phase #2)		132	28-Mar-23	27-Sep-23	12-Jun-23	12-Oct-23	10	6x10=5x10												
Piling		80	28-Mar-23	12-Jul-23	12-Jun-23	12-Jul-23	0	6x10=5x10												
CSTSB2P1	Piling Bent #25 (30")	3	28-Mar-23	30-Mar-23	12-Jun-23	14-Jun-23	57	6x10=5x10												
CSTSB2P1	Piling Bent #24 (30")	3	31-Mar-23	03-Apr-23	19-Jun-23	21-Jun-23	59	6x10=5x10												
CSTSB2P1	Piling Bent #23 (30")	3	04-Apr-23	06-Apr-23	24-Jun-23	27-Jun-23	61	6x10=5x10												
CSTSB2P1	Piling Bent #22 (30")	3	07-Apr-23	11-Apr-23	30-Jun-23	05-Jul-23	63	6x10=5x10												
CSTSB2P1	Piling Bent #26 (Abutment 24" H)	5	06-Jul-23	12-Jul-23	06-Jul-23	12-Jul-23	0	6x10=5x10												
Abutment		15	13-Jul-23	02-Aug-23	13-Jul-23	02-Aug-23	0	6x10=5x10												
CSTSB2A1	Bent #26	15	13-Jul-23	02-Aug-23	13-Jul-23	02-Aug-23	0	6x10=5x10												
Caps		20	18-Apr-23	12-May-23	15-Jun-23	12-Jul-23	43	6x10=5x10												
CSTSB2E1	Bent Cap Bent #25	5	18-Apr-23	24-Apr-23	15-Jun-23	21-Jun-23	43	6x10=5x10												
CSTSB2E1	Bent Cap Bent #24	5	25-Apr-23	29-Apr-23	22-Jun-23	27-Jun-23	43	6x10=5x10												
CSTSB2E1	Bent Cap Bent #23	5	01-May-23	05-May-23	28-Jun-23	05-Jul-23	43	6x10=5x10												
CSTSB2E1	Bent Cap Bent #22	5	08-May-23	12-May-23	06-Jul-23	12-Jul-23	43	6x10=5x10												
Girders		70	01-May-23	04-Aug-23	05-Jul-23	04-Aug-23	0	6x10=5x10												
CSTSB2G	Erect Precast Girders Span #26	2	01-May-23	02-May-23	05-Jul-23	06-Jul-23	47	6x10=5x10												

█ Actual Work
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Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46													
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019		2020		2021		2022		2023		2024		2025	
CSTSB2G	Erect Precast Girders Span #25	2	08-May-23	09-May-23	07-Jul-23	10-Jul-23	44	6x10=5x10														
CSTSB2G	Erect Precast Girders Span #24	2	10-May-23	11-May-23	11-Jul-23	12-Jul-23	44	6x10=5x10														
CSTSB2G	Erect Precast Girders Span #23	2	15-May-23	16-May-23	13-Jul-23	14-Jul-23	43	6x10=5x10														
CSTSB2G	Erect Precast Girders Span #27	2	03-Aug-23	04-Aug-23	03-Aug-23	04-Aug-23	0	6x10=5x10														
Decks		68	17-May-23	22-Aug-23	17-Jul-23	22-Aug-23	0	6x10=5x10														
CSTSB2D	Deck Unit #9	15	17-May-23	07-Jun-23	17-Jul-23	04-Aug-23	43	6x10=5x10														
CSTSB2D	Deck Unit #10	10	07-Aug-23	22-Aug-23	07-Aug-23	22-Aug-23	0	6x10=5x10														
MISC.		25	23-Aug-23	27-Sep-23	07-Sep-23	12-Oct-23	10	6x10=5x10														
CSTSB2M	Approach Slab	10	23-Aug-23	06-Sep-23	07-Sep-23	20-Sep-23	10	6x10=5x10														
CSTSB2M	Drainage	5	23-Aug-23	29-Aug-23	05-Oct-23	12-Oct-23	30	6x10=5x10														
CSTSB2M	Class 3 Finish	5	23-Aug-23	29-Aug-23	05-Oct-23	12-Oct-23	30	6x10=5x10														
CSTSB2M	Barriers	15	07-Sep-23	27-Sep-23	21-Sep-23	12-Oct-23	10	6x10=5x10														
Demolition		323	01-Mar-23	22-May-24	13-Oct-23	22-May-24	0	6x10=5x10														
Existing Lift Bridge		161	13-Oct-23	22-May-24	13-Oct-23	22-May-24	0	6x10=5x10														
Main Span		141	13-Oct-23	25-Apr-24	13-Oct-23	24-Apr-24	0	6x10=5x10														
CSTDRM1000	Remove Lift Span, Span #24	15	13-Oct-23	02-Nov-23	13-Oct-23	02-Nov-23	0	6x10=5x10														
CSTDRM1020	Remove West Pier Machinery & Tower	20	03-Nov-23	02-Dec-23	03-Nov-23	02-Dec-23	0	6x10=5x10														
CSTDRM1040	Remove Composite Span #23	6	04-Dec-23	11-Dec-23	04-Dec-23	11-Dec-23	0	6x10=5x10														
CSTDRM1030	Remove Composite Span #22	6	12-Dec-23	18-Dec-23	12-Dec-23	18-Dec-23	0	6x10=5x10														
CSTDRM1080	Remove West Fender System	6	19-Dec-23	27-Dec-23	19-Dec-23	27-Dec-23	0	6x10=5x10														
CSTDRM1100	Install West Pier Cofferdam	0	28-Dec-23	28-Dec-23	27-Dec-23	27-Dec-23	0	6x10=5x10														
CSTDRM1120	Remove West Pier Substructure	25	28-Dec-23	31-Jan-24	28-Dec-23	31-Jan-24	0	6x10=5x10														
CSTDRM1010	Remove East Pier Machinery & Tower	20	01-Feb-24	29-Feb-24	01-Feb-24	29-Feb-24	0	6x10=5x10														
CSTDRM1140	Remove West Pier Cofferdam	0	01-Feb-24	01-Feb-24	31-Jan-24	31-Jan-24	0	6x10=5x10														
CSTDRM1050	Remove Composite Span #25	6	01-Mar-24	07-Mar-24	01-Mar-24	07-Mar-24	0	6x10=5x10														
CSTDRM1060	Remove Composite Span #26	6	08-Mar-24	15-Mar-24	08-Mar-24	15-Mar-24	0	6x10=5x10														
CSTDRM1070	Remove East Fender System	6	16-Mar-24	22-Mar-24	16-Mar-24	22-Mar-24	0	6x10=5x10														
CSTDRM1090	Install East Pier Cofferdam	0	25-Mar-24	25-Mar-24	22-Mar-24	22-Mar-24	0	6x10=5x10														
CSTDRM1110	Remove East Pier Substructure	25	25-Mar-24	24-Apr-24	25-Mar-24	24-Apr-24	0	6x10=5x10														
CSTDRM1130	Remove East Pier Cofferdam	0	25-Apr-24	25-Apr-24	24-Apr-24	24-Apr-24	0	6x10=5x10														
North Approach		33	19-Dec-23	02-Feb-24	15-Feb-24	29-Mar-24	41	6x10=5x10														
CSTDRN1000	Demo Superstructure Span #21 - #7	15	19-Dec-23	09-Jan-24	15-Feb-24	06-Mar-24	41	6x10=5x10														
CSTDRN1010	Demo Substructure Piers #22 - #8	12	10-Jan-24	25-Jan-24	07-Mar-24	21-Mar-24	41	6x10=5x10														
CSTDRN1020	Demo Slab Spans, Walls, & Fill #7 - #1	6	26-Jan-24	02-Feb-24	22-Mar-24	29-Mar-24	41	6x10=5x10														
South Approach		33	16-Mar-24	26-Apr-24	20-Mar-24	01-May-24	3	6x10=5x10														
CSTDRS1000	Demo Superstructure Span #27 - #42	15	16-Mar-24	03-Apr-24	20-Mar-24	08-Apr-24	3	6x10=5x10														
CSTDRS1010	Demo Substructure Piers #23 - #38	12	04-Apr-24	18-Apr-24	09-Apr-24	23-Apr-24	3	6x10=5x10														
CSTDRS1020	Demo Slab Spans, Walls, & Fill #39 - #47	6	19-Apr-24	26-Apr-24	24-Apr-24	01-May-24	3	6x10=5x10														
Fender Replacement		20	25-Apr-24	22-May-24	25-Apr-24	22-May-24	0	6x10=5x10														
CSTDRE1000	Install East Fender	10	25-Apr-24	08-May-24	25-Apr-24	08-May-24	0	6x10=5x10														
CSTDRE1010	Install West Fender	10	09-May-24	22-May-24	09-May-24	22-May-24	0	6x10=5x10														
Tunnel		53	01-Mar-23	08-May-23	26-Jan-24	22-May-24	270	6x10=5x10														
Tunnel Buildings		40	18-Mar-23	08-May-23	20-Feb-24	22-May-24	270	6x10=5x10														
CSTDTT1040	Cap & Plug East Air Shaft	4	18-Mar-23	22-Mar-23	20-Feb-24	23-Feb-24	239	6x10=5x10														
CSTDTT1060	Cap & Plug East Portal Building	5	23-Mar-23	29-Mar-23	27-Feb-24	02-Mar-24	240	6x10=5x10														
CSTDTT1000	Remove East Air Shaft Building & Access Ramp	9	28-Mar-23	06-Apr-23	26-Feb-24	06-Mar-24	236	6x10=5x10														
CSTDTT1020	Remove East Portal Building	4	07-Apr-23	12-Apr-23	07-Mar-24	12-Mar-24	236	6x10=5x10														
CSTDTT1050	Cap & Plug West Air Shaft	4	07-Apr-23	12-Apr-23	30-Apr-24	03-May-24	277	6x10=5x10														

█ Actual Work
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 ◆ Milestone

Belle Chasse P3		Classic Schedule Layout							07-Mar-19 06:46											
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Calendar	2019	2020	2021	2022	2023	2024	2025					
CSTDTT1070	Cap & Plug West Portal Building	5	13-Apr-23	18-Apr-23	09-May-24	15-May-24	280	6x10=5x10												
CSTDTT1010	Remove West Air Shaft Building & Access Ramp	9	21-Apr-23	02-May-23	06-May-24	16-May-24	270	6x10=5x10												
CSTDTT1030	Remove West Portal Building	4	03-May-23	08-May-23	17-May-24	22-May-24	270	6x10=5x10												
Cap & Plug Tunnel		43	01-Mar-23	25-Apr-23	26-Jan-24	22-May-24	280	6x10=5x10												
CSTDTP1000	Remove Electrical & Mechanical	6	01-Mar-23	08-Mar-23	26-Jan-24	02-Feb-24	236	6x10=5x10												
CSTDTP1040	Maintain Dewatered Tunnel	38	01-Mar-23	18-Apr-23	26-Jan-24	15-May-24	280	6x10=5x10												
CSTDTP1010	Cap & Plug East Portal	7	09-Mar-23	17-Mar-23	05-Feb-24	13-Feb-24	236	6x10=5x10												
CSTDTP1020	Cap & Plug West Portal	7	30-Mar-23	06-Apr-23	04-Mar-24	12-Mar-24	240	6x10=5x10												
CSTDTP1030	Flood Tunnel	5	19-Apr-23	25-Apr-23	16-May-24	22-May-24	280	6x10=5x10												
Approach Ramp & Walls		34	18-Mar-23	29-Apr-23	14-Feb-24	01-May-24	261	6x10=5x10												
CSTDTA1000	Remove East Ramp & Walls	7	18-Mar-23	27-Mar-23	14-Feb-24	23-Feb-24	236	6x10=5x10												
CSTDTA1020	Backfill East Ramp	7	28-Mar-23	04-Apr-23	23-Apr-24	01-May-24	281	6x10=5x10												
CSTDTA1010	Remove West Ramp & Walls	7	13-Apr-23	20-Apr-23	13-Mar-24	20-Mar-24	236	6x10=5x10												
CSTDTA1030	Backfill West Ramp	7	21-Apr-23	29-Apr-23	21-Mar-24	29-Mar-24	236	6x10=5x10												
Landscaping		25	27-Feb-24	28-Mar-24	18-Apr-24	22-May-24	41	6x10=5x10												
CLD0001000	North Park Aesthetics	25	27-Feb-24	28-Mar-24	18-Apr-24	22-May-24	41	6x10=5x10												
Tolling		227	16-Aug-22	27-Jun-23	26-Oct-22	12-Oct-23	72	6x10=5x10												
South		227	16-Aug-22	27-Jun-23	26-Oct-22	12-Oct-23	72	6x10=5x10												
Electronic Toll Collection System Infrastructure		177	16-Aug-22	20-Apr-23	26-Oct-22	28-Jul-23	72	6x10=5x10												
Support Structures		177	16-Aug-22	20-Apr-23	26-Oct-22	28-Jul-23	72	6x10=5x10												
CTOSIS1000	Excavate & Install Pile East Side Phase 1	3	16-Aug-22	18-Aug-22	26-Oct-22	28-Oct-22	48	6x10=5x10												
CTOSIS1010	PFC Footing & Pedestal & Backfill East Side Phase 1	7	06-Sep-22	14-Sep-22	31-Oct-22	08-Nov-22	38	6x10=5x10												
CTOSIS1020	Excavate & Install Pile West Side Phase 2	3	23-Mar-23	27-Mar-23	02-Jun-23	06-Jun-23	53	6x10=5x10												
CTOSIS1030	PFC Footing & Pedestal & Backfill West Side Phase 2	7	10-Apr-23	17-Apr-23	07-Jun-23	14-Jun-23	43	6x10=5x10												
CTOSIS1040	Install Toll Gantry	3	18-Apr-23	20-Apr-23	26-Jul-23	28-Jul-23	72	6x10=5x10												
Electronic Toll Collection System Equipment		50	21-Apr-23	27-Jun-23	31-Jul-23	12-Oct-23	72	6x10=5x10												
CTOSE1000	Install & Test Equipment	50	21-Apr-23	27-Jun-23	31-Jul-23	12-Oct-23	72	6x10=5x10												



ID	ID	Status	Critical	Task Name	Duration	% Complete	Start	Finish	Predecessors	Successors	SPI
1	1	Future Task	Yes	Belle Chase Bridge & Tunnel Replacement	862 days	0%	Tue 9/3/19	Thu 12/22/22			0
2	2	Future Task	Yes	Belle Chase Bridge & Tunnel Replacement	782 days	0%	Tue 9/3/19	Wed 8/31/22			0
3	3	Future Task	Yes	NTP	0 days	0%	Tue 9/3/19	Tue 9/3/19		9,5FS+4 days,6FS+25.8	0
4	4	Future Task	No	PMO	156.4 wks	0%	Tue 9/3/19	Wed 8/31/22	3		0
5	5	Future Task	No	RSS - Design	153.6 wks	0%	Mon 9/9/19	Wed 8/17/22	3FS+4 days,120FF		0
6	6	Future Task	No	BOS - Build	128.6 wks	0%	Mon 3/2/20	Wed 8/17/22	3FS+25.8 wks	7SS+87 wks,15SS	0
7	7	Future Task	No	CSC - Integrate & Test	41.6 wks	0%	Mon 11/1/21	Wed 8/17/22	6SS+87 wks		0
8	8	Future Task	No	PMO Major Milestones	781 days	0%	Tue 9/3/19	Wed 8/31/22			0
39	39	Future Task	No	PMO Payment Milestone	738 days	0%	Tue 9/3/19	Fri 7/1/22			0
58	58	Future Task	No	Project Mobilization	10 days	0%	Tue 9/3/19	Mon 9/16/19			0
62	62	Future Task	No	Belle Chase Bridge & Tunnel Replacement Phase 1 (RSS)	767 days	0%	Mon 9/9/19	Wed 8/17/22			0
63	63	Future Task	Yes	RSS Phase 1 - Stage 1 System Design, Documents	189 days	0%	Mon 9/9/19	Fri 5/29/20			0
121	121	Future Task	Yes	HALT WORK UNTIL BRIDGE IS READY FOR EQUIPMENT INSTALLATION	74 wks	0%	Mon 6/1/20	Fri 10/29/21	120	123,459FS+1 day	0
122	122	Future Task	Yes	RSS Phase 1 - Stage 2A Road Side System Installation	208 days	0%	Mon 11/1/21	Wed 8/17/22			0
138	138	Future Task	Yes	RSS Phase 1 - Stage 2B Development and Testing	208 days	0%	Mon 11/1/21	Wed 8/17/22	119		0
161	161	Future Task	Yes	RSS Phase 1 - Stage 3 Data Migration, Transition, and Go Live	208 days	0%	Mon 11/1/21	Wed 8/17/22			0
177	177	Future Task	Yes	RSS Phase 1 - Stage 4 Operations	90 days	0%	Thu 8/18/22	Wed 12/21/22			0
179	179	Future Task	Yes	Belle Chase Bridge & Tunnel Replacement Phase 2 (BOS)	643 days	0%	Mon 3/2/20	Wed 8/17/22			0
180	180	Future Task	No	BOS Phase 2 - Stage 1 System Design Documents	196 days	0%	Mon 3/2/20	Mon 11/30/20			0
233	233	Future Task	Yes	BOS Design Related Plan / Document Deliverables	196 days	0%	Mon 3/2/20	Mon 11/30/20			0
384	384	Future Task	Yes	BOS Phase 2 - Stage 2 Development and Configuration	196 days	0%	Tue 12/1/20	Tue 8/31/21			0
397	397	Future Task	Yes	BOS Phase 2 - Stage 3 Testing and Validation	173 days	0%	Wed 9/1/21	Fri 4/29/22			0
437	437	Future Task	Yes	BOS Phase 2 - Stage 4 Data Migration, Transition and Go Live	78 days	0%	Mon 5/2/22	Wed 8/17/22			0
454	454	Future Task	Yes	BOS Phase 2 - Stage 5 Operations	90 days	0%	Thu 8/18/22	Wed 12/21/22			0
456	456	Future Task	Yes	Belle Chase Bridge & Tunnel Replacement Phase 3 (CSC)	207 days	0%	Mon 11/1/21	Wed 8/17/22			0
457	457	Future Task	Yes	CSC Phase 3 - Stage 1 Plans and Document Deliverables	85 days	0%	Mon 11/1/21	Mon 2/28/22			0
548	548	Future Task	Yes	CSC Phase 3 - Stage 2 (Hiring and Training) Final Installation	87 days	0%	Tue 3/1/22	Thu 6/30/22			0
616	616	Future Task	Yes	CSC Phase 3 - Stage 3 Operations Go-Live	33 days	0%	Fri 7/1/22	Wed 8/17/22			0
620	620	Future Task	Yes	Project D&B Closeout	90 days	0%	Wed 8/17/22	Thu 12/22/22			0
621	621	Future Task	Yes	Closeout Plans /Documents Deliverables	90 days	0%	Wed 8/17/22	Thu 12/22/22			0

ID	Task Name	Start	Finish	Duration	Q3 19	Q4 19				Q1 20				Q2 20				Q3 20				Q4 20				Q1 21				Q2 21				Q3 21				Q4 21				Q1 22				Q2 22				Q3 22				Q4 22				Q1 23				Q2 23				Q3 23				Q4 23	
					Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov																
1	Belle Chasse Project	9/2/2019	10/13/2023	215w	[Task 1: Belle Chasse Project - Active from Sep 2019 to Oct 2023]																																																																		
2	PMO	9/2/2019	10/13/2023	215w	[Task 2: PMO - Active from Sep 2019 to Oct 2023]																																																																		
3	RSS	9/9/2019	10/13/2023	214w	[Task 3: RSS - Active from Sep 2019 to Oct 2023]																																																																		
4	RSS – Design/Document	9/9/2019	5/29/2020	38w	[Task 4: RSS – Design/Document - Active from Sep 2019 to May 2020]																																																																		
5	RSS – Work halt until bridge is ready	6/1/2020	12/23/2022	134w	[Task 5: RSS – Work halt until bridge is ready - Active from Jun 2020 to Dec 2022]																																																																		
6	RSS – Development and Testing	12/26/2022	9/8/2023	37w	[Task 6: RSS – Development and Testing - Active from Dec 2022 to Sep 2023]																																																																		
7	RSS – Installation and Tuning	9/11/2023	9/29/2023	3w	[Task 7: RSS – Installation and Tuning - Active from Sep 2023]																																																																		
8	RSS – Test, Go-Live	10/2/2023	10/13/2023	2w	[Task 8: RSS – Test, Go-Live - Active from Oct 2023]																																																																		
9	BOS	5/3/2021	10/13/2023	128w	[Task 9: BOS - Active from May 2021 to Oct 2023]																																																																		
10	BOS – Requirements/Design/Document	5/3/2021	2/4/2022	40w	[Task 10: BOS – Requirements/Design/Document - Active from May 2021 to Feb 2022]																																																																		
11	BOS – Software Dev and Configuration	2/7/2022	11/11/2022	40w	[Task 11: BOS – Software Dev and Configuration - Active from Feb 2022 to Nov 2022]																																																																		
12	BOS – Testing and Validation	11/14/2022	7/7/2023	34w	[Task 12: BOS – Testing and Validation - Active from Nov 2022 to Jul 2023]																																																																		
13	BOS – Install, E-2-E Testing, Go-Live	7/10/2023	10/13/2023	14w	[Task 13: BOS – Install, E-2-E Testing, Go-Live - Active from Jul 2023]																																																																		
14	CSC	12/26/2022	10/13/2023	42w	[Task 14: CSC - Active from Dec 2022 to Oct 2023]																																																																		
15	CSC – Documentation	12/26/2022	4/24/2023	17.2w	[Task 15: CSC – Documentation - Active from Dec 2022 to Apr 2023]																																																																		
16	CSC – Hiring and Training	4/25/2023	8/24/2023	17.6w	[Task 16: CSC – Hiring and Training - Active from Apr 2023 to Aug 2023]																																																																		
17	CSC – Go-Live	8/25/2023	10/13/2023	7.2w	[Task 17: CSC – Go-Live - Active from Aug 2023]																																																																		