




Office of Engineering  
Project Development Division  
Bridge Design Section  
PO Box 94245 | Baton Rouge, LA 70804-9245

John Bel Edwards, Governor  
Shawn D. Wilson, Ph.D., Secretary

MEMORANDUM

TO: ALL BRIDGE DESIGNERS - IN-HOUSE AND CONSULTANTS

FROM: ZHENGZHENG "JENNY" FU, P.E.   
BRIDGE DESIGN ENGINEER ADMINISTRATOR

SUBJECT: BRIDGE DESIGN TECHNICAL MEMORANDUM NO. 98 (BDTM.98) -  
NS TIME LAPSE VIDEO RECORDING OF CONSTRUCTION PROGRESS

DATE: November 30, 2020

This BDTM notifies designers of the publication of non-standard specification NS Time Lapse Video Recording of Construction Progress. This pay item specification is intended for discretionary use by the designer or Project Manager for bridge construction projects having a special need to capture time lapse video, such as projects with a unique construction process.

Using the above pay item specification requires placing notes, details, and/or diagrams in the plans to show camera locations and quantity. The designer must read the specification in order to determine the required plan notes and diagram. The specification and example plan notes and diagram are attached to this memo.

The attached NS item specification has been published on the Construction Contract Services website at the following address:

[http://ladotnet/contractsspecs/home.asp?txtPath=/contractsspecs/2016\\_Specs\\_and\\_Forms\\_for\\_Construction\\_Proposals/05\\_NS\\_Items/NS800s](http://ladotnet/contractsspecs/home.asp?txtPath=/contractsspecs/2016_Specs_and_Forms_for_Construction_Proposals/05_NS_Items/NS800s)

This technical memorandum is posted on the LA DOTD Website under [Inside La DOTD > Divisions - Engineering > Bridge Design > Technical Memoranda – BDTMs.](#)

Please contact Kelly Kemp (225-379-1809, [kelly.kemp@la.gov](mailto:kelly.kemp@la.gov)) if you have questions or comments.

ZZF/kmk

Attachments

c: Christopher P. Knotts (Chief Engineer)  
Edward Wedge (Deputy Engineer Administrator)  
Chad Winchester (Chief, Project Development Division)  
Michael Vosburg (Chief Construction Division Engineer)

Brian Owens (Construction Engineer Administrator)  
Brian Kendrick (Project Management Director)  
Chris Nickel (Pavement and Geotechnical Engineer Administrator)  
David Smith (Road Design Engineer Administrator)  
Jacques Deville (Contracts and Specifications)  
Art Aguirre (FHWA)  
District Administrators  
District ADAs of Engineering and Operations  
District Bridge Engineers and Area Engineers

# **NS TIME LAPSE VIDEO RECORDING OF CONSTRUCTION PROGRESS (04/20)**

## **1.0 DESCRIPTION.**

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This item consists of providing time lapse video recording(s) of bridge construction, and other activities as specified in plans, in accordance with these specifications.

## **2.0 EQUIPMENT.**

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All equipment shall be constructed using current industry standards and techniques to provide high reliability and minimum maintenance.

The cameras shall be weatherproof High Definition (HD) 4K megapixel Web-enabled Cameras. The video systems shall be capable of live video burst and shall capture and upload images every 30 minutes for 24 hours per day. Follow the video system manufacturer's recommendations.

Provide the required number of time lapse video cameras as specified in the plans, and all equipment and materials required to mount the cameras at the required location and elevation, in accordance with this specification. The manufacturer or manufacturer's technically certified supplier shall provide direct technical support to supervise and provide onsite assistance for the mounting, installation, testing, and maintenance of the video systems as required in Section 4.1.

## **3.0 SUBMITTALS.**

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Prior to video camera installation, submit for review to the Engineer a site layout diagram indicating, at minimum, the following:

1. Site location of each camera.
2. Mounted camera elevation in relation to construction activity to be captured.
3. Camera site access routes.
4. Locations of other structures within range of each camera coverage area.

Scaled diagrams are not required.

No later than three weeks prior to start of work, submit for review to the Engineer one 2-hour (120 minute) long sample video from each camera, edited for clarity but with no duration removed.

## **4.0 CONSTRUCTION REQUIREMENTS.**

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### **4.1 CAMERA POSITIONING AND ACCESS:**

Position each video camera at specified locations. Installation shall be to the satisfaction of the Engineer, and adjusted as required at no additional cost to the department.

The contractor shall supply all equipment required for safe and secure access to the camera locations, including building access, bucket truck and/or lift, for technicians performing installation and maintenance services.

#### **4.2 RECORDING DURATION:**

The time lapse video recording duration shall be as specified in the plans.

#### **5.0 DELIVERABLES.**

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Provide edited HD 4K megapixel time-lapse movies and the original unedited movies from each camera at project completion.

The edited time-lapse videos shall be professionally edited by a video editor using image stabilization software. The edited video shall start with a graphic, incorporating project number, project name, date of construction completion, and DOTD logo. Periods of bad weather and/or construction inactivity shall be removed. A machine edited movie will not be acceptable.

#### **6.0 MEASUREMENT.**

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Time Lapse Video Recording of Construction Progress will be measured per each and will include all equipment, labor, installation and mounting of cameras, testing, supervision, maintenance, required adjustments, editing of recordings, and disassembly of cameras.

#### **7.0 PAYMENT.**

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Payment for Time Lapse Video Recording of Construction Progress will be at the contract unit price under the following pay item:

<b>Item No.</b>	<b>Pay Item</b>	<b>Pay Unit</b>
NS-801-00100	Time Lapse Video Recording of Construction Progress	Each

Example of Plan Note and Diagram for

**NS TIME LAPSE VIDEO RECORDING OF CONSTRUCTION PROGRESS**

TIME LAPSE VIDEO RECORDING OF BRIDGE CONSTRUCTION: PROVIDE TWO (2) VIDEOS IN ACCORDANCE WITH THE DESIGNATED NS ITEM SPECIFICATION. POSITION ONE VIDEO CAMERA NEAR EACH END OF THE BRIDGE. CAMERAS MAY BE ON THE SAME SIDE OF THE BRIDGE, OR ON OPPOSITE SIDES. EACH VIDEO RECORDING SHALL PROVIDE A VIEW INCLUDING AT LEAST ONE HUNDRED FEET OF ROADWAY BEFORE THE BEGIN BRIDGE STATION, THE BRIDGE, AND AT LEAST ONE HUNDRED FEET OF ROADWAY LENGTH AFTER THE END BRIDGE STATION, AND AT LEAST 75 FEET ON EACH SIDE OF THE BRIDGE CENTERLINE. EACH VIEW SHALL SHOW A PARTIAL ELEVATION OF THE BRIDGE, AS DIRECTED BY THE ENGINEER. VIDEO DURATION SHALL BE FROM THE BEGINNING OF CONSTRUCTION ACTIVITIES UNTIL ONE WEEK AFTER THE COMPLETED BRIDGE IS OPEN TO TRAFFIC. WORK WILL BE PAID FOR UNDER THE DESIGNATED PAY ITEM AND QUANTITY.

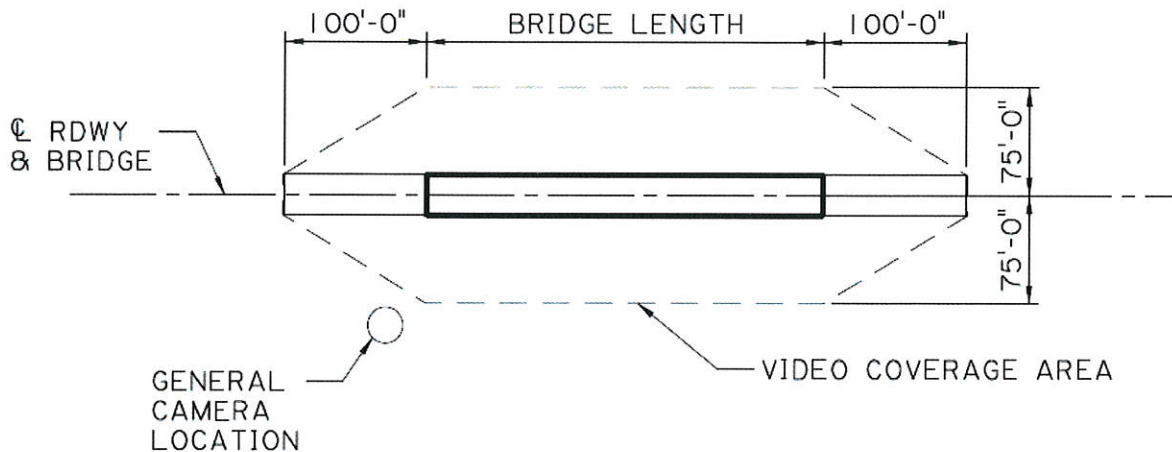


DIAGRAM SHOWING GENERAL LOCATION AND VIEW OF ONE (1) CAMERA  
A SECOND CAMERA IS REQUIRED AT OTHER END OF BRIDGE ON  
EITHER SIDE OF BRIDGE.