

SECTION 802 STRUCTURAL EXCAVATION, AND-BACKFILL, and EARTH RETAINING SYSTEMS

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|---|--------------------------------|--|-----------------------------|--------------------------------|---|----------------|-----------------------|--|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| BACKFILL | Reinforced Box Culverts | Accept. | SEE SECTION 7042 OF THIS MANUAL. | | | | | | | |
| | Structures other than Reinforced Box Culverts and MSEWs | Accept. | ---- | Proj. Engr. | ---- | ---- | ---- | ---- | ---- | Material shall be of acceptable quality and uniformly compacted by approved methods to the satisfaction of the Proj. Engr. |
| CONCRETE | Compressive Strength | * | Proj. Engr. S 301 | Dist. Lab | 3 cyl/ location | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ---- | ---- | 10 days | *Used to determine earliest date for placement of backfill next to structures. |
| Sheet Piles | Concrete | SEE SECTION 805 OF THIS MANUAL | | | | | | | | |
| | Steel | SEE SECTION 807 OF THIS MANUAL | | | | | | | | |
| | Timber | SEE SECTION 812 OF THIS MANUAL | | | | | | | | |
| Mechanically Stabilized Earth Walls (MSEWs) | Facing Elements | Prelim. Source Approval | Inspected and stamped by Const. Fab. Insp. prior to use. | Contractor | ---- | ---- | ---- | ---- | ---- | |
| | | Quality Control | Contractor | Contractor | * | ---- | ---- | ---- | ---- | * Provide compressive strength results to Proj. Engr. to indicate conformance to specifications. |
| | | Accept. | Proj. Engr. S 601 or S 301 | Const. Fab. Insp. | 1 / 10,000 blocks or 1 / 50 cy | 1 block or 6 cylinders | CD 1 | ---- | ---- | |
| | Admixtures | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/type/mfr. batch | 1 pt friction top can | CC 6 | ---- | 10 days | (AML) Visual inspection by Construction Fabrication Inspection. If sample is taken, leave 2" air space in can. |
| | Surface Finish | SEE SECTION 805 OF THIS MANUAL | | | | | | | | |
| | Epoxy Resin Systems Adhesive | Accept. | Proj. Engr. | Mat. Lab | 1/lot-of-shipment | 1 qt. each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade |
| | Concrete (For Coping or Half Connectors) | SEE SECTION 901 OF THIS MANUAL | | | | | | | | |
| | Reinforcing Strips | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/size/grade/source | ---- | CA 6 | ---- | 10 days | |
| | Reinforcing Welded Wire Mesh | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/shipment | 48" x 48" | CA 6 | ---- | 11 days | |
| | Extensible Soil Reinforcement (Woven Geosynthetic or Geogrid) | Accept. | Proj. Engr. S 601 | * | ---- | ---- | CA 6 | ---- | ---- | * Department may submit samples to an approved independent laboratory for verification. |
| Backfill (granular reinforced or stone) | Quality Control | Contractor | Contractor | 1 / 1000 cy 1 / 5000 cy* | ---- | CA 6 | ---- | ---- | (AML) * Sampled and tested during initial source approval or with change in source. gradation & pH - 1 / 1000 cy internal friction angle, organic content, resistivity, chloride content, sulfate content - 1 / 5000 cy | |
| Reinforcement Attachment Devices | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/type/shipment | ---- | CA 6 | ---- | 11 days | | |

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|-------------------|---------|-------------------|----------|--------------------------|----------------------------------|----|---|---------------------|---------|--|
| Geotextile Fabric | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type/ source/ shipment | 3 lin ft/roll width of fabric* | CC | 1 | 150 yd ² | 10 days | (AML) *Sample a minimum of 18 ft ² . Visual inspection, sample only if questionable. |
| Geomembrane | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type/ source/ shipment | 3 lin ft/roll width of membrane* | CC | 1 | ----- | 10 days | *Sample a minimum of 18 ft ² . Visual inspection, sample only if questionable. |

SECTION 803 DRILLED SHAFTS (moved from 814, drilled shaft foundations)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|---|---------------------------------|---------------------------------|-------------------|---|-----------------------------|--------|-------|-------|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| COAL-TAR-EPOXY-POLYAMIDE-PAINT AND PROTECTIVE COATING | Coal Tar Epoxy Polyamide Paint or Galvanizing | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | Mix Designs, Materials & Test | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| GRANULAR MATERIAL | Pea Gravel or Granular Material | Accept. | ----- | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | Visual inspection by Proj. Engr. |
| GROUT | | Accept. | Proj. Engr. S 601 | Plans Mat. Lab | 1/shipment/ lot | 1 full sack, 45-lb-min.* | ----- | ----- | ----- | ----- | 16 days | (AML) *Sample shall be submitted in an unbroken moisture proof sack. <i>(Added per spec)</i> |
| HARDWARE | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type/ shipment-heat | 2 of each item* | ----- | ----- | ----- | ----- | 10 days | *Two (2) pieces of each size and type of hardware used are to be submitted. |
| REINFORCEMENT | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/ 150,000 lbs. /source* | 48 in. length | CA | 1 | ----- | ----- | 10 days | (AML) *material with a CA need not be sampled for acceptance. Sample if questionable. |
| SLURRY | | Quality Control | Contractor API 13B | Contractor | * | ----- | ----- | ----- | ----- | ----- | ----- | *Contractor tests to be observed by the Proj. Engr. & documented. |
| | | Accept. | Proj. Engr.* | Proj. Engr. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | *Contractor tests to be observed by the Proj. Engr. & documented. |
| STEEL CASING | | Accept. | SEE SECTION 807 OF THIS MANUAL. | | | | | | | | | <i>Do we need to "accept" permanent steel casings, or will this be part of the pre-con / design package acceptance? Accepted per 807, Structural Metals</i> |
| WELDING | | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | | | |

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SECTION 804 3-SHEET PILES (803 and 804 now combined into new 804)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--------------------------------|---|---------------------------------|-------------------|-------------|--|--------------------|--------|-------|-------|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| BACKFILL | Granular Type Material | Accept. | Proj. Engr. S 101 | Dist. Lab | 1/1,000 yd ³ | 1 full sample sack | ----- | ----- | ----- | ----- | ----- | Visual inspection by Proj. Engr. Sample only if questionable |
| CONCRETE PILES (Cast-in-Place) | Concrete (Mix Designs, Materials & Tests) | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| | Reinforcing Steel | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/ 150,000 lb/ source | 48 in. length | CA | 1 | ----- | ----- | 10 days | (AML) *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| | Steel Pipe Pile | Accept. | ----- | Proj. Engr. | ----- | ----- | CA | 4 | ----- | ----- | ----- | Visual inspection by Proj. Engr. |
| | Steel Shell | Accept. | ----- | Proj. Engr. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | Visual inspection by Proj. Engr. |

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| CONCRETE PILES (Precast) | Pile | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. See Section 805 of this Manual. | Const. Fab. Insp. Proj. Engr. | | | GD-CC 1 & 6 | ---- | ---- | Visual inspection by Proj. Engr. For specific details see EDSM III.2.6.7. See Section 805 of this manual. |
| Epoxy Resin Systems | | Accept. | Proj. Engr. | Mat. Lab | 1/lot | 1 qt. each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade |
| HYDRAULIC JACKS | | Accept. | * Calibrated by an approved, independent calibration service and a certified lab report furnished to the Mat. Lab for approval and distribution to the Proj. Engr. | Mat. Lab | | | CA 5 | ---- | 12 days | * Calibrated by an approved, independent calibration service and a certified lab report furnished to the Mat. Lab for approval and distribution to the Proj. Engr. (" sampled by " note moved to comments) The system must be calibrated at the beginning of each project and as required. |
| HARDWARE | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type/ shipment-heat | 2 of each item* | ---- | ---- | 10 days | *Two (2) pieces of each size and type of hardware used are to be submitted. |
| PAINT AND PROTECTIVE COATINGS | Coal Tar Epoxy | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | |
| PERMANENT SHEET PILES | Aluminum or Steel | Accept. | ---- | Const. Fab. Insp. | ---- | ---- | CD OR CC* 2 | ---- | ---- | *CC if inspected by DOTD |
| | Aluminum or Steel | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. See Section 805 of this manual. | Const. Fab. Insp. | | | CD 1 | ---- | ---- | Visual inspection by Proj. Engr. |
| | Timber Treated & Untreated | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. See Section 812 of this manual. | Const. Fab. Insp. | | | CD & 6 1 | ---- | ---- | Visual inspection by Proj. Engr. |
| STEEL PILES, STEEL PIPE PILES | | Accept. | ---- | Const. Fab. Insp. | ---- | ---- | CA 4 | ---- | ---- | Visual inspection by Proj. Engr. |
| TIMBER PILES | Treated and Untreated | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. See Section 812 of this manual. | Const. Fab. Insp. | | | CD 1 & 6 | ---- | ---- | Visual inspection by Proj. Engr. |
| TREATMENT OF PILE HEADS | | SEE SECTION 812 OF THIS MANUAL. | | | | | | | | |
| WELDING | | SEE SECTION 815-809 OF THIS MANUAL. | | | | | | | | |

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| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--------------------------------|---|--|--|-------------------|---------------------------------|--------------------|----------|-------|-----|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| BACKFILL | Granular-Type Material | Accept. | Proj. Engr. S-101 | -Dist. Lab | 1/1,000-yd ³ | 1 full sample-sack | --- | --- | --- | --- | --- | Visual inspection by Proj. Engr. Sample only if questionable |
| CONCRETE PILES (Cast-in-Place) | Concrete (Mix Designs, Materials & Tests) | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| | Reinforcing Steel | Accept. | Proj. Engr. S-501 | -Mat. Lab | 1/size/grade/150,000 lb./source | 48 in. length | CA-4 | --- | --- | 10 days | --- | (AML) *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| | Steel Pipe Pile | Accept. | --- | -Proj. Engr. | --- | --- | CA-4 | --- | --- | --- | --- | Visual inspection by Proj. Engr. |
| | Steel Shell | Accept. | --- | -Proj. Engr. | --- | --- | --- | --- | --- | --- | --- | Visual inspection by Proj. Engr. |
| CONCRETE PILES (Precast) | Pile | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. See Section 805 of this Manual. | Const. Fab. Insp. | --- | --- | CD-1 & 6 | --- | --- | --- | --- | Visual inspection by Proj. Engr. For specific details see EDSM III.2.5.7. |
| HYDRAULIC JACKS | | Accept. | Calibrated by an approved, independent calibration service and a certified lab report furnished to the Mat. Lab for approval and distribution to the Proj. Engr. | -Mat. Lab | --- | --- | CA-5 | --- | --- | 12 days | --- | The system must be calibrated at the beginning of each project and as required. |
| PAINT AND PROTECTIVE COATINGS | Coal-Tar Epoxy | SEE SECTION 814 OF THIS MANUAL. | | | | | | | | | | |

SECTION 804 DRIVEN PILES

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--|--|------------|--|-------------------|-------------|-----------------------|----------|-------|-----|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| STEEL PILES-STEEL PIPE PILES | | Accept. | --- | Const. Fab. Insp. | --- | --- | CA-4 | --- | --- | --- | --- | Visual inspection by Proj. Engr. |
| TIMBER PILES | Treated and Untreated | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. See Section 812 of this manual. | Const. Fab. Insp. | --- | --- | CD-1 & 6 | --- | --- | --- | --- | Visual inspection by Proj. Engr. |
| SEE SECTION 812 OF THIS MANUAL. | | | | | | | | | | | | |
| TREATMENT OF TIMBER PILE HEADS | Canvas | Accept. | Proj. Engr. S-601 | Mat. Lab | 1/shipment* | 18 in. x 18 in. | --- | --- | --- | 40 days | --- | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Coal-Tar Pitch, Creosote Oil, Asphalt & Copper Naphenate | Accept. | Proj. Engr. S-201 | Mat. Lab | 1/shipment* | 1-qt friction top-can | --- | --- | --- | 40 days | --- | *Visual inspection by Proj. Engr. Sample only if questionable. |

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|---------|----------------------------------|---------|-------------------|----------|-----------------------|------------------------------------|-----|-----|---------|--|-------------------------------------|
| | Fabric Covering | Accept. | Proj. Engr. S-604 | Mat. Lab | 1/shipment* | 18 in. x 18 in. | --- | --- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. | |
| | Galvanized Metal Covering | Accept. | Proj. Engr. S-604 | Mat. Lab | 1/shipment* | 6 in. x 6 in. | --- | --- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. | |
| | Galvanized Nails, Staples & Wire | Accept. | Proj. Engr. S-604 | Mat. Lab | 1/size/type/shipment* | 12 of each item** wire - 24 in. | --- | --- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. **Twelve nails and twelve staples are to be submitted. | |
| WELDING | | | | | | | | | | | SEE SECTION 845 809 OF THIS MANUAL. |

SECTION 805 STRUCTURAL CONCRETE

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|-----------------------|-------------------------|--|-----------------------|--|--|---------------|-------|------|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| FOR DETAILS ON CONCRETE TESTS, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | | | |
| BACKFILL | | Accept. | SEE SECTION 802 OF THIS MANUAL. | | | | | | | | | |
| BEARING PADS | Elastomeric | Accept. | Const. Fab. Insp.* S 601 | Mat. Lab | 1/100 pads/type** /lot | 1 pad | CA | 5 | ---- | ---- | 14 days | (AML) *Proj. Engr. sample at destination only if not sampled at site of source supplier. **Plain or Laminated. |
| | Masonry | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type | 1 pad | CA | 5 | ---- | ---- | 10 days | ---- |
| BOX CULVERT UNITS (Precast) | Gasket Material | Accept. | SEE SECTION 701 OF THIS MANUAL. | Mat. Lab | | | CC | 1 | ---- | ---- | ---- | (AML) Gasket test report lab no. listed on precast unit CC. |
| | Precast Concrete Unit | Prelim. Source Approval | Inspected and stamped by MFR prior to use. | MFR | | | GD CC 1 | ---- | ---- | ---- | ---- | (AML) *Shall not exceed 300 joints. Each joint shall be stamped when approved. |
| | | | MFR S 301 S 601 | | 1/300 joints/size or 3 consecutive days production/size* | 4 cyl/set 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ---- | ---- | ---- | ---- | ---- | |
| | | Verif | Const. Fab. Insp. S 601 | Const. Fab. Insp. MFR | 1/180 day production/ plant | 4 cyl/set 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ---- | ---- | ---- | ---- | ---- | |
| | | Accept. | Inspected and stamped by MFR prior to use. | Proj. Engr. | | | CD 1 | ---- | ---- | ---- | ---- | (AML) Visual Inspection by Proj. Engr. CD to include lot number for Gasket Materials. |
| BRIDGE MEMBERS | Concrete Precast | Accept. | Inspected and stamped by CONST. FAB. INSP. prior to use. | Const. Fab. Insp. | | | CD 1 | ---- | ---- | ---- | ---- | Visual inspection by Proj. Engr. For specific details see ED SM III.2.5.7. |
| CONCRETE ANCHOR SYSTEMS | Anchor Bolts | Accept. | Proj. Engr. S 601 | Plans Mat. Lab | 1/size/type/ heat shipment | 2 bolts* | ---- | ---- | ---- | ---- | 11 days | *Two bolts of each size used are to be submitted. |
| | Cartridge Systems | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/size/type/ lot or shipment** | 2 of each item* | ---- | ---- | ---- | ---- | 14 days | (AML) Includes bolts & nuts intended to be used with the system. **Two pieces of each size and type of item used are to be submitted. ***Visual inspection by Proj. Engr. Sample only if questionable. |

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|----------|-------|------------|--|-----------|------------|-------------|--------|-------|--|----------------|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |

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| CONCRETE ANCHOR SYSTEMS (Cont'd) | Grout Systems (Resin or Cementitious) | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot-or-shipment | 1 qt friction top can of each component | ----- | ----- | 14 days | (AML) Includes bolts & nuts intended to be used with the system. Visual inspection by Proj. Engr. Sample only if questionable. |
| | Injection System | Accept. | Proj. Engr S 601 | Mat. Lab | 1 / type / lot | 1 of each component | ----- | ----- | 14 days | (AML) Includes bolts & nuts intended to be used with the system. Visual inspection by Proj. Engr. Sample only if questionable. |
| | Mechanical Systems | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/size/type/ lot or shipment** | 2 of each item* | ----- | ----- | 10 days | (AML) *Two of each size and type of item used are to be submitted. Includes bolts & nuts intended to be used with the system. **Visual inspection by Proj. Engr. Sample only if questionable. |
| CONCRETE (In-Place) | Compressive Strength | * | Proj. Engr. S 301 TR226 | Dist. Lab | 3 cyl/ structural member | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | | | 10 days | *To determine strength for form removal or exposure to construction traffic. |
| | | Accept. | SEE SECTION 901 OF THIS MANUAL (ADDED TO CLARIFY THE DIFFERENCE BETWEEN THE TEST FOR STRENGTH FOR REMOVING FORMS) | | | | | | | |
| | Deck Surface Finish | Quality Control | Contractor* | Contractor | each deck | ----- | ----- | ----- | ----- | Plastic Concrete *Surface must be checked on bridge decks using an approved 10 ft metal static straightedge supplied by the contractor. |
| | | Verif. | Proj. Engr. | Proj. Engr. | each deck | ----- | ----- | ----- | ----- | Proj. Engr. to observe contractor check bridge deck surface. |
| | Tine Texturing | Quality Control | Contractor TR 229 | Contractor | * | ----- | ----- | ----- | ----- | Plastic Concrete *Sufficient number of random checks to assure the required texture depth is achieved. |
| Accept. | | Proj. Engr. TR 229 | Proj. Engr. | 2/lot | ----- | ----- | ----- | ----- | Performed on hardened concrete. | |
| CONCRETE PATCHING MATERIAL | SEE SECTION 830 OF THIS MANUAL. | | | | | | | | | |
| | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment* | 1-sack | CC 4 | | 16 days | (AML) *Visual inspection by Proj. Engr. Sample if questionable. (added for Class 1 Ordinary Finish - is this the same as non-shrink grout?) |
| CURING MATERIALS | Burlap Cloth | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by the Proj. Engr. Sample only if questionable. |
| | Burlap & White Polyethylene Sheeting | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Liquid Membrane-Forming Compounds | Prelim-Source-Approval | Mfr. S 601 | Mat. Lab | 1/6 months | 1-qt-friction-top-can | ----- | ----- | 21 days | (AML) |
| | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 1 qt friction top can | CC 1 | 1 | ----- | 10 days |
| | Waterproof Paper | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by the Proj. Engr. Sample only if questionable. |
| White Polyethylene Sheeting | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by the Proj. Engr. Sample only if questionable. | |
| EPOXY RESIN SYSTEMS | Epoxy | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot-or-shipment | ----- | CC 1 | 1 gal | ----- | (AML) Specify type and grade |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot-or-shipment | 1 qt each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade Copy of CC shall be submitted with sample. |
| FORM RELEASE AGENTS | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot | 1 qt friction top can | CC 1 | ----- | 10 days | (AML) Visual inspection by the Proj. Engr. Sample only if questionable. |
| GEOTEXTILE FABRIC | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type/ source/ shipment | 3 lin ft/roll width of fabric* | CC 1 | 150 yd ² | 10 days | (AML) *Sample a minimum of 18ft2. Visual inspection, sample only if questionable. |

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Structural Concrete Patching now addressed by Section 830. The patch material specs are in Section 830, but will soon be revised to agree with the Qualification Procedures for upcoming DRAFT AML titled Patch Materials for Concrete. Class 1 Ordinary Finish is nothing more than operations performed after form removal to achieve the specified finish - may involve the above mentioned patch materials. Usually will not be non-shrink grout.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|-----------------------------------|---------------------------------|---|-------------------|--------------------------------|---|--------------------------|-----------------------|---|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| SEE SECTION 815 OF THIS MANUAL. (MOVED ALL JOINT MATERIALS TO 815 WITH JOINTS) | | | | | | | | | | |
| JOINT MATERIALS | Adhesive-Lubricant | Accept. | Proj. Engr. S-604 | Mat. Lab | 1/lot ¹ or shipment | 1-qt friction top can | ---- | ---- | 10 days | (AML) For use with preformed elastomeric compression joint seal. -- *Visual inspection, sample only if questionable. Mix well before sampling. Seal can tightly. |
| | Polyurethane-Polymer | Prelim. Source Approval | Dist. Lab S-611 | Mat. Lab | 1/batch or shipment | one unit of each component ² | CA ---- 7 | ---- | 14 days | (AML) ² One unit of each component selected at random and submitted as sample. |
| | | Accept. | Proj. Engr. S-611 | Mat. Lab | 1/shipment ² | ---- | CD 1 & 7 | ---- | 14 days | (AML) ² When material is accompanied by a CD, sample only if questionable. |
| | | Accept. ² | Proj. Engr. S-611 | Mat. Lab | 1/batch or shipment | ** | CA ---- 7 | 2,000-yd ³ | 14 days | (AML) ² When material is not accompanied by a CD. ^{**} One unit of each component selected at random and submitted as sample. |
| | Reinforced-Elastomeric Joint Seal | Accept. | ---- | Mat. Lab | ---- | ---- | CC & / CA 3 [±] | ---- | ---- | [±] Elastomer - CA; Steel - CC. Visual inspection by Proj. Engr. |
| | Steel Joint | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. See Section 807 of this Manual. | Const. Fab. Insp. | ---- | ---- | CA 6 | ---- | ---- | Proj. Engr. to receive inspection report from Const. Fab. Insp. |
| | Strip Seal Joint | Accept. | See Section 807 of this Manual. | MFR | ---- | ---- | CA 6 | ---- | ---- | Visual inspection by Proj. Engr. Contact CONST. FAB. INSP. if questionable. |
| NON-SHRINK GROUT | Accept. | Proj. Engr. S 601 | Plans Mat. Lab | 1/shipment/ lot | 1 full sack, 15-lb min.* | ---- | ---- | 16 days | (AML) *Sample shall be submitted in an unbroken moisture proof sack. | |
| PRECAST CONCRETE (Non-Prestressed other than Bridge Members) | Precast Unit | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. | Proj. Engr. | ---- | ---- | CD 1 & 6 | ---- | CD must include Lot No. for gasket material if applicable. | |
| | Admixtures | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/type/mfr. batch | 1 pt friction top can | CC 6 | ---- | 10 days | (AML) Visual inspection by Construction Fabrication Inspection. Sample only if questionable. If sample is taken, leave 2" air space in can. |
| | Aggregate (Coarse & Fine) | Accept. | Const. Fab. Insp. S 101 | Dist. Lab | * | 1 full sample sack | ---- | ---- | 4 days | (AML) *Visual inspection by Const. Fab. Insp. Sample only if questionable. |
| | Cement | SEE SECTION 901 OF THIS MANUAL. | | | | CC & 6 | 1 | ---- | 11 days | ---- |
| | Compressive Strength | Prelim. Source Approval | Const. Fab. Insp. or MFR S 301 | Mfr. | 1/pour* | Three cylinder molds | ---- | ---- | 30 days | *A pour is an identifiable pour not to exceed 50 yd ³ . |

I would use the phrase "Steel Extrusion End Dam for Preformed Neoprene Joint Seal. See LSSRB Section 815.

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|------------------------------------|---------|--------------------------------|-----------|------------|----------------------|--------|----------------|-----------------------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | |
| PRECAST CONCRETE (Non-Prestressed) | Accept. | Const. Fab. Insp or Proj. Engr | Dist. Lab | 1/pour* | Three cylinder molds | ---- | ---- | 30 days | *A pour is an identifiable pour not to exceed 50 yd ³ . |

| | | | | | | | | | | |
|--|--|---------------------------------|--|--|---|----------------------------------|------------------|---------|--|---|
| Prestressed Other than Bridge Members) (Cont'd) | Gasket Material | SEE SECTION 701 OF THIS MANUAL. | | | | | CD 1 & 6 | ----- | ----- | ----- |
| | Mix Design | Design | ----- | Const. Fab. Insp. | 1/class/ material source/plant | ----- | ----- | ----- | Contractor shall submit to Const. Fab. Insp. the standard mix design form indicating the intended source of all materials and mix design. Approval by Const. Fab. Unit. Engineer required prior to work. | |
| | Reinforcing Steel Bars | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/size/ grade/ 150,000 lb/ source | 48 in. length | CA 6 | ----- | 10 days | (AML) Sample if questionable. |
| | Welded Wire Fabric | Accept. | Const. Fab. Insp. S 501 | Const. Fab. Insp. | 1/shipment | 48 in. x 48 in. | CA 6 | ----- | 11 days | Sample only if questionable. |
| PRECAST CONCRETE (Prestressed & Non-Prestressed Bridge Members | Precast Unit | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. | Const. Fab. Insp. | | | CD 1 & 6 | ----- | ----- | CD must include lot no. for elastomeric bearing pads if applicable. |
| | Admixtures | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/type/mfr. batch | 1 pt friction top can | ----- CC 6 | ----- | 10 days | (AML) - Visual inspection - sample only if questionable. If sample is taken, leave 2" air space in can. |
| | Aggregate (Coarse & Fine) | Quality Control | Mfr. S 101 | Mfr. | 1/lot* | 1 full sample sack | ----- | ----- | ----- | (AML) Gradation and Moisture. *Lot to be identifiable pour up to 200 yd3 of concrete. |
| | | Accept. | Const. Fab. Insp. S 101 | Dist. Lab or Const. Fab. Insp. | 2/month* | 1 full sample sack | ----- | ----- | 3 days | (AML) *Const. Fab. Insp. to witness manufacturer's QC testing. |
| | Cement | SEE SECTION 901 OF THIS MANUAL. | | | | | CC & 7 | ----- | ----- | ----- |
| | Compressive Strength & Surface Resistivity | Accept. | Const. Fab. Insp. S 301 TR-266 & TR-233 | Const. Fab. Insp. | 7 cyl/pour* | Cylinder mold | ----- | ----- | 30 days | *Cylinder cured under same conditions as members. Two cylinders are tested for 28 day strength. For precast box culverts, cylinders shall be in accordance with ASTM C789. |
| | Elastomeric Bearing Pads | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/100 pads/type/lot | 1 pad | CA 5 | ----- | 14 days | (AML) |
| | Epoxy Resin Systems | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/lot-or-shipment | 1 qt/ component friction top can | ----- | ----- | 10 days | (AML) Specify type and grade |
| | Mix Design | Design | ----- | Const. Fab. Insp. | 1/class/ material source/plant | ----- | ----- | ----- | ----- | Contractor shall submit to Const. Fab. Insp. the standard mix design form indicating the intended source of all materials and the mix design. Approval by Const. Fab. Insp. required prior to work. |
| Steel Bars & Spiral Reinforcement | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/size/grade/ 150,000 lb/ source | 48 in. length | CA 6 | ----- | 10 days | (AML) Sample if questionable. | |
| Tie Bars or Transverse Rods | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/lot | 48 in. length | CA / CC * 6 | ----- | 10 days | (AML) *CA - Mill report, CC to indicate specification for steel and coating Sample if questionable. | |

SECTION 805 STRUCTURAL CONCRETE (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|-----------------------------|------------|-------------------------|------------|--|-----------------------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| PRECAST CONCRETE (Prestressed & Non-Prestressed Bridge Members (Cont'd) | Strands for Prestressing | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/size/ grade/ source/proj.* per heat no. | 3 strands 5 ft length | ----- | ----- | 11 days | *Not to exceed 200 tons. Manufacturer's Load/Elongation curve to-shall accompany sample. |
| | Welded Wire Fabric | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/shipment | 48 in. x 48 in. | CA 6 | ----- | 11 days | Visual inspection by Const. Fab. Sample if questionable. |
| PRECAST PRE-STRESSED FORMS | Bearing Strips and Adhesive | Accept. | ----- | ----- | ----- | ----- | ----- | ----- | ----- | Visual inspection by Proj. Engr. |

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| | | | | | | | | | | | |
|------------------------|--|---------------------------------|---|-------------------|--------------------|----------------------------------|----|---|------|---------|---|
| | Concrete Deck Forms (Stay In Place Panels) | Accept. | Inspected and stamped by Const. Fab. Insp. Prior to use. See precast concrete (Prestressed & Non-Prestressed Bridge Members) in this section. | Const. Fab. Insp. | | | CD | 1 | ---- | ---- | Visual inspection by Proj. Engr. For specific details see EDSM III.2.5.7. |
| REINFORCEMENT | Bars | SEE SECTION 806 OF THIS MANUAL. | | | | | | | | | |
| SPECIAL SURFACE FINISH | Concrete | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment* | 1 qt. component friction top can | CC | 1 | ---- | 10 days | (AML) *Visual inspection by Proj. Engr. Sample if questionable. |
| WATER STOPS | Copper | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment* | 24 in. length | CA | 3 | ---- | ---- | *Visual inspection by Proj. Engr. Sample if questionable. |
| | Polyvinyl Chloride | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. length | CC | 3 | ---- | ---- | *Visual inspection by Proj. Engr. Sample if questionable. |
| | Rubber | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment* | 36 in. length | CA | 3 | ---- | ---- | *Visual inspection by Proj. Engr. Sample if questionable. |

SECTION 806 REINFORCEMENT

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---------------|---------------------------------------|---------------------------------|------------------------------|-----------|----------------------------------|---|---------------|--------------|---------|--|---|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| REINFORCEMENT | Bars (Epoxy Coated) | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb /source | 2 bars approx. 48 in. in length | CC | 3 | ---- | 10 days | (AML) Cert. of Compliance provided by the applicator. | |
| | Bars & Spirals | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb /source* | 48 in. length | CA | 1 | ---- | 10 days | (AML) *Material with a CA need not be sampled for acceptance. Sample if questionable. | |
| | | Verif.- | Proj. Engr. S 501 | Mat. Lab | 1/project | 48 in. length | CA | 4 | ---- | 10 days | Sample most prevalent size & grade. | |
| | Chairs or Metal Bar Supports | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type* | 1 chair | ---- | ---- | ---- | ---- | *Visual inspection by the Proj. Engr. Sample only if questionable. | |
| | Patching Material (Epoxy Coated Bars) | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/source | 1 qt friction top can of each component * | CC | 3 | ---- | 10 days | (AML) * If listed on AML, material with a CC need not be sampled. Sample only if questionable. | |
| | Stirrups, Tie Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade 150,000 lb /source* | 2 of each item | CA | 1 | ---- | 10 days | (AML) *If listed on AML, material with a CA need not be sampled. Sample if questionable. | |
| SPLICING | Mechanical Butt Splicing Devices | Con-tractor Qualification | Proj. Engr. S 501 | Mat. Lab | 1/size* | 2 assembled splices/each size (rebar ribs aligned) | ---- | ---- | 10 days | (AML) *Separate field spliced samples per horizontal and vertical positions. Test prior to use. | | |
| | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/25 splices* | 1 assembled splice 3 ft length (rebar ribs aligned) | ---- | ---- | 10 days | * Frequency may be reduced to 1 per size / 100 splices after the first 100 splices. | | |
| | Welded Butt Splice | SEE SECTION 815 OF THIS MANUAL. | | | | | | | | | | |



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SECTION 807 STRUCTURAL METALS

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| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|-----------------------|------------|-----|-------------|------------|-------------|--------|-------|-----|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| SEE SECTION 814 OF THIS MANUAL. | | | | | | | | | | | | |
| BEARINGS & EXPANSION (BEARINGS NOW COVERED IN 814) | Bronze | Accept. | --- | Proj.-Engr. | --- | --- | CA 6 | --- | --- | --- | --- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |
| | Copper Alloy (Rolled) | Accept. | --- | Proj.-Engr. | --- | --- | CA 6 | --- | --- | --- | --- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |
| | PTFE Bearing Assembly | Accept. | --- | Proj.-Engr. | --- | --- | CA 6 | --- | --- | --- | --- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |

Yes - 814 for "Bearings." No need for word "expansion" - bearings are fixed or expansion.

SECTION 807 STRUCTURAL METALS (Cont'd)

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| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|---|------------|-------------------------|-------------------|------------------------|-------------------------|--------|-------|-----|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| SEE SECTION 814 OF THIS MANUAL. | | | | | | | | | | | | |
| BEARING PADS (BEARINGS NOW COVERED IN 814) | Elastomeric | Accept. | Const. Fab. Insp. S-601 | Mat. Lab | 1/400-pads/type** /lot | 1-pad | CA 6 | --- | --- | --- | 14 days | (AML) *Proj. Engr. samples at destination only if not sampled at site of source or supplier. **Plain or Laminated. |
| | Masonry | Accept. | Proj. Engr. S-601 | Mat. Lab | 1/type/size | 1-pad | CA 5 | --- | --- | --- | 10 days | --- |
| CASTINGS | Metal for Castings | Accept. | Const. Fab. Insp. S 601 | Const. Fab. Insp. | 1/heat | 1 test bar* | CA 6 | --- | --- | --- | --- | *Const. Fab. Insp. may submit samples to Mat. Lab for testing if questionable. |
| | Unit | Accept. | --- | Const. Fab. Insp. | --- | --- | CA 6 | --- | --- | --- | --- | Proj. Engr. to receive form 4148 (Certificate of Cast Iron Covers, Grates, etc.) from Contractor. |
| CONCRETE ANCHOR STUDS-BOLTS | | Accept. | Proj. Engr. S 501 | Const. Fab. Insp. | 1/diameter/shipment | 2 of each item* | CA 4 | --- | --- | --- | --- | Sample if not accompanied by report from Construction Fab. * For sizes over 1-1/8", sample only 1 of each item. |
| FASTENERS (Field Installation) | Bolts, Nuts & Washers | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/shipment | 2 of each item* | CC 1 | --- | --- | --- | 10 days | *Two bolts, two nuts and two washers are to be submitted. Copy of CC to accompany sample and ID. |
| | High Strength Bolts, Nuts & Washers and Direct Tension Indicators | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/size/ heat | 2 of each item* | CA 1 | --- | --- | --- | 10 days | * For sizes over 1-1/8", sample only 1 of each item. Copy of CA to accompany sample and ID. Similar size, type and heat of nut and washer need not be submitted. |
| | Steel Lockpins and Collars | Accept. | Proj. Engr. S-601 | Mat. Lab | 1/lot or shipment | 1-pin and collar | CC 4 | --- | --- | --- | 10 days | Copy of CC to accompany sample ID. |
| FASTENERS (Shop Installation) | Bolts, Nuts & Washers | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/diameter/shipment | 3-of each item* | CC 6 | --- | --- | --- | 10 days | Proj. Engr. to receive inspection report from Const. Fab. Insp. * Three bolts, 3 nuts and 3 washers are to be submitted. Copy of CC to accompany sample ID. |
| | High Strength Bolts, Nuts & Washers and Direct Tension Indicators | Accept. | Const. Fab. Insp. S 501 | Mat. Lab | 1/type/ diameter/ heat | 3 of each item* | CA 6 | --- | --- | --- | 10 days | Proj. Engr. to receive inspection report from Const. Fab. Insp. * Three bolts, 3 nuts, 3 washers, 3 DTI are to be submitted. For sizes over 1-1/8", sample only 1 of each item. Copy of CA to accompany sample of ID. |
| | Steel Lockpins and Collars | Accept. | Const. Fab. Insp. S-601 | Mat. Lab | 1/lot | 1-pin and collar | CA 6 | --- | --- | --- | 10 days | (REMOVED PER K. KEMP - NO LONGER USED IN 807) |
| GROUT (Non-Shrink) | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment | 1 full sack, 45-lb min. | --- | --- | --- | --- | 16 days | (AML) Sample shall be submitted in a unbroken, moisture proof sack. |

changed to anchor "bolts" not "studs"

We need to add sampling of Anchor Bolts, unless it's in here and I missed it.

Large diameter bolts = \$\$ and heavy - no need for r

| | | | | | | | | | | |
|-------------------------------|--|---------------------------------|------|-------------------|------|------|---------|------|------|---|
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | Mat. Lab | | | | | | |
| SHEAR CONNECTORS | | Accept. | ---- | Const. Fab. Insp. | ---- | ---- | CA 4 | ---- | ---- | Shop and field inspection requirements per Specification SubSection 807.42- 807.04.24 (DO WE NEED TO INCLUDE THIS REFERENCE HERE?) |

You could say "Section 807" - this way, when we make revisions to Section 807 (which we will soon), the Sampling Manual will still be correct. *Done*

SECTION 807 STRUCTURAL METALS (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-----------------------------|------------------------------|-------------------------------------|---|-------------------|---------------|--|---------|-------|------|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| STEEL FORGINGS & SHAFTING | Steel for Forging & Shafts | Prelim. Source Approval | ---- | Const. Fab. Insp. | ---- | ---- | CA 6 | ---- | ---- | | | |
| | | Accept. | Inspected and stamped by the Const. Fab. Insp. Unit prior to use. | Const. Fab. Insp. | | | | ---- | ---- | | | Proj. Engr. to receive inspection report from Const. Fab. Insp. |
| STRUCTURAL STEEL & ALUMINUM | Metal for Fabrication | Prelim. Source Approval | Const. Fab. Insp. S 501 | Const. Fab. Insp. | 1/heat/grade* | Plates- 6 in. x 24 in. Shapes, bars, pipe and tubing - 24 in. length | CA 6 | ---- | ---- | | | Test report to Const. Fab. Insp. only. *Sample only if questionable. |
| | | Accept. | Inspected and stamped by the Const. Fab. Insp. Unit prior to use. | Const. Fab. Insp. | | | | ---- | ---- | | | Proj. Engr. to receive inspection report from Const. Fab. Insp. |
| WELDING | | SEE SECTION 816-809 OF THIS MANUAL. | | | | | | | | | | |
| WRENCH | Calibrated Wrench | Accept. | ---- | Proj. Engr. | * | 3 assemblies/size | ---- | ---- | ---- | | | Contractor's calibration procedure to be witnessed by Proj. Engr. *See Specification Subsection 807.24(h)-(k) 807.05.2 for frequency of calibration. |
| | Job Inspection Torque Wrench | Accept. | ---- | Proj. Engr. | * | 5 assemblies/size | ---- | ---- | ---- | | | *See Specification Subsection 807.24(h)-(k) 807.05.2 for frequency of calibration. |

SECTION 808 STEEL GRID FLOORING

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-------------------------------|--------------------------------|---------------------------------|---|-------------------|------------|-------------|---------|-------|------|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| CONCRETE (Structural) | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | Mat. Lab | | | | | | | | |
| STRUCTURAL STEEL | Flooring | Accept | Inspected and stamped by the Const. Fab. Insp. Unit prior to use. See Section 807 of this manual. | Const. Fab. Insp. | | | CA 6 | ---- | ---- | | | Proj. Engr. to receive inspection report from Const. Fab. Insp. |

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|---------|--|-------------------------------------|
| WELDING | | SEE SECTION 815-809 OF THIS MANUAL. |
|---------|--|-------------------------------------|

SECTION 809815 WELDING

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|-------|------------|---|------------------|-------------|--------|----------------|-----------------------|---------|------|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 815. THERE ARE NO PAY ITEMS UNDER SECTION 815. | | | | | | | | | | |
| WELDING QUALIFICATION AND TESTING | Field | Accept. | Welders and procedure qualified by licensed, bonded testing laboratory. Procedure and welder qualification are received and reviewed by construction fabrication. | Proj. Engr. | | | | ---- | ---- | ---- |
| | Shop | Accept. | | Const. Fab. Ins. | | | | ---- | ---- | ---- |

SECTION 809 MOVABLE BRIDGES

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|------------------------|---|------------|---|---------------|------------------------|------------------------------|----------------|-----------------------|---|
| | | METHOD | | | CONTAINER | DISTR. | | | |
| CONCRETE- (Structural) | Mix Designs,- Materials & Tests | | | | | | | | SEE SECTION 901 OF THIS MANUAL. |
| ELECTRICAL-EQUIPMENT | Brochures,- Certified-Dimension-Sheets & Descriptive Data | | Bridge-Design | | | --- | --- | --- | Proj.-Engr. to witness test for unit weight as per Specification Subsection 809.38 for counterweights.- Bridge Design must approve calculations for determining unit weight. |
| HARDWARE | Bolts,- Fasteners,- Fittings,- Nuts,- Washers & Misc.- Hardware | Accept. | Proj. Engr.- ² S-501 | Mat. Lab | 1/size/type/- shipment | 2 of each item ¹¹ | --- | 10 days | No component shall be incorporated into the work without approval from Bridge Design. ¹¹ When sampled by Const. Fab. Insp. and listed on report to Proj. Engr., project samples are not required. ¹² Two pieces of each size and type of hardware used are to be submitted. |
| MECHANICAL-EQUIPMENT | Brochures,- Certified-Dimension-Sheets & Descriptive Data | Accept. | Bridge-Design approves and distributes to Proj.-Engr. | Bridge-Design | | | --- | - | Proj.-Engr. inspects materials and components to ensure conformance. |
| | Parts List (Gears & Bearing in Gear Box) | Accept. | | Bridge-Design | | | | --- | --- |

SECTION 809 MOVABLE BRIDGES (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-----------------------------------|-----------|------------|---|---------------|-------------|--------|----------------|-----------------------|---------|
| | | METHOD | | | CONTAINER | DISTR. | | | |
| OPERATING-HOUSE (All Furnishings) | Brochures | Accept. | Bridge-Design approves and distributes to Proj.-Engr. | Bridge-Design | | | --- | --- | --- |

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| | | | | | | | | | | |
|-------------------------------|---------------------------------|-------------------------|---|--------------------------|--------------------------|-------------|------|-----|---------|--|
| PAINT-AND-PROTECTIVE-COATINGS | | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | |
| POWER PLANT | | | SEE SECTION 730 OF THIS MANUAL. | | | | | | | |
| STRUCTURAL-METALS | | | SEE SECTION 807 OF THIS MANUAL. | | | | | | | |
| TRAFFIC-BARRIERS | Drawings & Brochures | Accept. | Bridge Design approves and distributes to Proj. Engr. | Bridge—Design | | | | --- | --- | Structural Fabrication inspect in accordance with Sections 729 & 807 of this manual. |
| WELDING | | | SEE SECTION 815 OF THIS MANUAL. | | | | | | | |
| WIRE ROPE & ATTACHMENTS | Counterweight Rope Assemblies | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. | Const. Fab. Insp. | | | | --- | --- | Proj. Engr. to receive inspection report on counterweight ropes and sockets from Const. Fab. Insp. |
| | Counterweight Ropes | Prelim. Source Approval | Mfr. S-50+ | Mfr. & Const. Fab. Insp. | 1/reel | 2 ropes* | CA 6 | --- | --- | *Two ropes per reel are to be submitted. Each rope length shall not be less than 25 times the rope diameter nor more than 12 ft. |
| | Sockets for Counterweight Ropes | Prelim. Source Approval | Mfr. S-50+ | Mfr. & Const. Fab. Insp. | 1/lot | 4 sockets* | CA 6 | --- | --- | *Four sockets for each lot are to be submitted. Tested with the counterweight rope sample. |
| | Wire Rope | Accept. | Proj. Engr. S-50+ | Mat. Lab | 1/type or class/shipment | 6 ft length | CA 6 | --- | 11 days | Does not include counterweight ropes. Visual inspection by PE contact construction Fab. If questionable |

SECTION 810 BRIDGE RAILINGS AND BARRIERS BRIDGE RAILINGS, HAND RAILINGS, PERMANENT ROADWAY BARRIERS, AND PIER PROTECTION SYSTEMS (COMBINED OLD 810 AND 733)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--|--------------------------------|------------|---|-------------------|----------------------|-----------------|--|--|------|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | | DISTR. | | | | |
| FOR DETAILS ON CONCRETE AND ASSOCIATED MATERIALS, SEE SECTIONS 805 AND 901 OF THIS MANUAL AND SECTION 1012 OF THE STANDARD SPECIFICATIONS. | | | | | | | | | | | | |
| BARRIER (Precast) | Permanent Barriers | Accept. | Inspected and stamped by Const. Fab. Insp. prior to use. | Proj. Engr. | | | | CC 1 & 6 | ---- | ---- | 10 days | Visual inspection by Proj. Engr. |
| FOR BARRIERS FABRICATION INSPECTION BY PROJECT ENGINEER, SEE BELOW | | | | | | | | | | | | |
| CONCRETE | Mix Designs, Materials & Tests | | | | | | | SEE SECTION 901 OF THIS MANUAL. | | | | Air entrainment is required for slip forming. |
| SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | | | |
| HARDWARE | Galvanized Steel | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type/shipment | 2 of each item* | | ---- | ---- | | 10 days | *Two pieces of each size and type of hardware used are to be submitted. |
| METAL CASTINGS, FITTINGS, POSTS & RAILINGS | Steel | ---- | Inspected and stamped by the Const. Fab. Unit prior to use. See Section 807 of this manual. | Const. Fab. Insp. | | | | CA 6 | ---- | ---- | | Proj. Engr. to receive inspection report from Const. Fab. Insp. |
| | Pipe (Galvanized) | Accept. | Inspected and stamped by the Const. Fab. Unit prior to use. See Section 807 of this manual. | Const. Fab. Insp. | | | | CA 6 | ---- | ---- | | Proj. Engr. to receive inspection report from Const. Fab. Insp. |

| | | | | | | | | | | |
|-------------------------------|---------------------------------|---------|-------------------|---------------------------------|--------------------|-------------------------|------|---------|---------|--|
| JOINT MATERIALS | | Accept. | | SEE SECTION 815 OF THIS MANUAL. | | | | 17 days | ---- | |
| PAINT AND PROTECTIVE COATINGS | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | | |
| REINFORCING STEEL | Deformed Steel Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/ source* | 48 in. length | CA 1 | ---- | 10 days | *If listed on AML, materials with a CA (Dist. 1) need not be sampled. Sample for verification if questionable. |
| WELDING | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | | |
| SPECIAL SURFACE FINISH | Concrete | Accept. | Proj. Engr. S 601 | Mat. Lab | 1 lot or shipment* | 1 each friction top can | CC 1 | ---- | 10 days | (AML) *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Masonry Finish | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 1 qt friction top can | CC 1 | ---- | 11 days | (AML) Sample if not accompanied by CC or if questionable. |

SECTION 811 PAINTING AND PROTECTIVE COATINGS

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|-----------------------------|-------------------------|------------------------|-----------|------------|--------------------------------------|------------|-----------------------------|---------|--|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 811. THERE ARE NO PAY ITEMS UNDER SECTION 811. | | | | | | | | | | | | |
| PAINT AND PROTECTIVE COATINGS | Paint for Field Painting | Prelim. Source Approval | Const. Fab Insp. S 604 | Mat. Lab | 1/batch | 1 pt each component* | ---- | ---- | 14 days | (AML) *Multiple component paints must be submitted in separate containers with the mixing proportions indicated on the sample identification and cans. | | |
| | | Accept. | Proj. Engr. S 604 | | 1/batch | 1 pt each component friction top can | CD* 1 | 10 Gal. Total Quantity/coat | 14 days | *Sample when not accompanied by CD. Multiple component paints must be submitted in separate containers with the mixing proportions indicated on the sample identification and cans. Sampling technique is sensitive, contact Dist. Lab prior to sampling. | | |
| | Galvanizing Repair Compound | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type* | 1 bar, can or rod | ---- | ---- | ---- | (AML) *Visual inspection by Proj. Engr. Sample only if questionable. | | |
| | Paint for Shop Painting | Prelim. Source Approval | Const. Fab Insp. S 604 | Mat. Lab | 1/batch | 1 pt each component | ---- | ---- | 14 days | (AML) Multiple component paints must be submitted in separate containers with the mixing proportions indicated on the sample identification and cans. | | |
| | | Accept. | Const. Fab Insp. S 604 | | 1/batch | 1 pt each component friction top can | CD*/CC** 6 | ---- | 14 days | (AML) *Sample when not accompanied by CD. Multiple component paints must be submitted in separate containers with the mixing proportions indicated on the sample identification and cans. Contractor to notify Bridge Design Engineer and Consultant Engineer of the paint system to be used prior to submitting shop drawings. **For inorganic zinc primers, stating Class B slip coefficient is met. | | |

SECTION 812 TREATED TIMBER

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|------------------------------|-------|------------|-------------------|-----------|-------------------|------------------|--------|-------|---------|--|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| CONNECTORS | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/ shipment* | 1 of each item** | ---- | ---- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. **One of each type of connector used is to be submitted. | | |
| CASTINGS | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/ shipment | 1 of each item* | ---- | ---- | 10 days | *One of each type of casting used is to be submitted. | | |
| HARDWARE & STRUCTURAL SHAPES | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/ shipment | 1 of each item* | CA 3 | ---- | 10 days | *One piece of each type and size of item used is to be submitted. | | |

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|-------------------------------|--|---------------------------------|
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. |
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SECTION 812 TREATED TIMBER (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-------------------------------------|-------------------------|--|-------------------------------|-----------------------|--|--------|----------------|-----------------------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | |
| ROOFING PITCH | Accept. | ----- | Proj. Engr. | ----- | ----- | ----- | ----- | ----- | Visual inspection by Proj. Engr. |
| TIMBER & LUMBER (Treated) | Accept. | Inspected and stamped (Hammered) by Const. Fab. Insp. Unit prior to use. | Const. Fab. Ins./ Mat. Lab | | | CD & 6 | 1 | ----- | Visual inspection by Proj. Engr. |
| | Prelim. Source Approval | Const. Fab. Insp. AWWA | Const. Fab. Insp./MFG | 1/charge | 20 borings plastic bottle | CC 6 | | 14 days | (One) 1 sample consist of 20 borings. |
| | Accept. | Const. Fab. Insp. S 601 | Mat. Lab | 1/tank* | 1 qt friction top can | CA 6 | | 14 days | *Visual inspection by Const. Fab. Insp. Sample only if questionable. |
| Timber & Lumber (Treated) (Cont'd.) | Prelim. Source Approval | Const. Fab. Insp. S 601 | Const. Fab. Insp. | ----- | ----- | ----- | ----- | ----- | Visual inspection by Const. Fab. Insp. for soundness, dimensions and infestation. |
| TREATMENT OF PILE HEADS | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 18 in x 18 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Accept. | Proj. Engr. S 201 | Mat. Lab | 1/shipment* | 1 qt friction top can | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 18 in. x 18 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/shipment* | 6 in. x 6 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type/shipment* | 12 of each item** Wire - 24 in. length | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. **Twelve nails and 12 staples are to be submitted. |

SECTION 813 CONCRETE APPROACH SLABS

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|----------------------|------------|---|------------|-------------------------|---------------------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| FOR DETAILS ON CONCRETE TESTS, MIX DESIGNS AND MATERIALS (ADMIXTURES, AGGREGATES, CEMENT AND WATER) SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| AGGREGATES | Bedding Material | Accept. | Proj. Engr. S 101 | Dist. Lab | 1/1,000 yd ³ | 1 full sample sack | ----- | ----- | 4 days | ----- |
| BEARING PILES | Timber | Accept. | Inspected and stamped by the const. fab. Insp. Unit prior to use. See section 812 of this manual. | | | CD 1 & 6 | ----- | ----- | ----- | Visual inspection by Proj. Engr. |
| CONCRETE (In-Place) | Compressive Strength | * | Proj. Engr. S 301 | Dist. Lab | 1/pour | Three cylinder mold | ----- | ----- | ----- | *To determine strength for form removal or exposure to construction traffic. |

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|------------------------------|---|---------------------------------|-------------------|-----------|-----------------------|--------------------------------|--------|----------------------------|---------|--|
| CURING MATERIALS | | SEE SECTION 601 OF THIS MANUAL. | | Mat. Lab | | | | | | |
| GEOCOMPOSITE DRAINAGE SYSTEM | Wall Drain | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 4ft ² | CA 5 | ----- | 10 days | (AML) |
| GEOTEXTILE FABRIC | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type | 3 lin ft/roll width of fabric* | CC 1 | 150 yd ² | 10 days | (AML) *Sample a minimum of 18 ft2. |
| HARDWARE CLOTH | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 18 in x 18 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| JOINT MATERIAL | Preformed Closed Cell Polyethylene | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/5,000 lin ft/ Width | 36 in. length | ----- | ----- | | (AML) |
| | Silicone Polymer (single or two-component rapid cure) | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | ----- | 30 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 1 gal friction top can | CD & 7 | 2,000 yd ² PCCP | 30 days | (AML) *Sample only if questionable. |
| | | Accept.* | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | 2,000 yd ² PCCP | 30 days | (AML) *When material is not accompanied by a CD. |
| JOINT SEAL (Preformed) | Elastomeric Compression | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 8 ft length* | CA** 1 | ----- | 14 days | (AML) *When width is over 2 in., 4 ft length is sufficient. **Proj. Engr. forwards CA with sample to Mat. Lab. |
| ADHESIVE LUBRICANT- | For Preformed Closed Cell polyethylene Joint Filler | Accept. | ----- | | ----- | ----- | ----- | ----- | 10 days | (AML) Visual inspection by Proj. Engr. |
| | For Preformed Elastomeric Compression Joint Seal | Accept. | Proj. Engr. S 601 | Mat. Lab | 1 Project/lot | 1qt friction top can | ----- | ----- | 10 days | (AML) Mix well before sampling. Seal can tightly. |
| POLY-ETHYLENE FILM | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment* | 36 in. length | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| REINFORCING STEEL | | Accept. | Proj. Engr. S 501 | Mat. Lab* | 1/size/ source* | 48 in. length | CA 1 | ----- | 10 days | (AML) *material with a CA need not be sampled for acceptance. Sample if questionable. |
| UNDERDRAIN PIPE | | SEE SECTION 703 OF THIS MANUAL. | | | | | | | | |

SECTION 814-DRILLED-SHAFT FOUNDATIONS

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|------------------------|---------------------------------|---------------------------------|--------------------|-------------|-----------------|---------------|----------------|-----------------------|--|
| | | METHOD | CONTAINER | | DISTR. | | | | |
| CONCRETE- (Structural) | Mix Design- Materials & Test | SEE SECTION 901 OF THIS MANUAL. | | | | | | | |
| GRANULAR MATERIAL | Pea Gravel or Granular Material | Accept. | --- | | --- | --- | --- | --- | Visual inspection by Proj. Engr. |
| REINFORCEMENT | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/ source* | 48 in. length | CA 1 | 10 days | (AML) *material with a CA need not be sampled for acceptance. Sample if questionable. |
| SLURRY | | Quality Control | Contractor API-13B | Contractor | as-needed | --- | --- | --- | --- |
| | | Accept. | Proj. Engr.* | Proj. Engr. | --- | --- | --- | --- | *Contractor tests to be observed by the Proj. Engr. & documented. |

SECTION 815-WELDING

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--|-------|------------|---|---------------------|-------------|--------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| THIS SECTION IS TO BE USED AS A GUIDE FOR OTHER ITEM NUMBERS WHEN REFERENCE IS MADE TO SECTION 815. THERE ARE NO PAY ITEMS UNDER SECTION 815. | | | | | | | | | | |
| WELDING-QUALIFICATION AND TESTING | Field | Accept. | Welders and procedure qualified by licensed, bonded testing laboratory. Procedure and welder qualification are received and reviewed by construction fabrication. | Proj. Engr. | | | | | | |
| | Shop | Accept. | | 80 Const. Fab. Ins. | | | | | | |

SECTION 814 BEARINGS

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--------------------------------|--|------------|--------------------------|--------------------|------------------------|------------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| BEARING ASSEMBLY & EXPANSION | CONTRACTOR DESIGNED | Design | Const. Fab. Insp.* | Const. Fab. Insp.* | ---- | ---- | CA 6 4 | ---- | ---- | * Disc, pot, or other bearing types as shown on plans. Provide designs to Construction Fabrication in accordance to the contract requirements. |
| | | Accept. | Proj. Engr. S 601 | | 1 / lot | 1 assembly | CA 6 4 | | | Tested by AASHTO LFRD Bridge Construction Specifications. |
| | Bronze | Accept. | ---- | Proj. Engr. | ---- | ---- | CA 6 4 | ---- | ---- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |
| | Copper-Alloy (Rolled) | Accept. | ---- | Proj. Engr. | ---- | ---- | CA 6 4 | ---- | ---- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |
| | PTFE Bearing Assembly | Accept. | ---- | Proj. Engr. | ---- | ---- | CA 6 4 | ---- | ---- | Visual inspection by Proj. Engr. Contact Const. Fab. If questionable. |
| BEARING PADS | Elastomeric | Accept. | Const. Fab. Insp.* S 601 | Mat. Lab | 1/100 pads/type** /lot | 1 pad | CA 5 | ---- | 14 days | (AML) *Proj. Engr. samples at destination only if not sampled at site of source or supplier. **Plain or Laminated. |
| | Masonry | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type/size | 1 pad | CA 5 | ---- | 10 days | ---- |
| CAST IRON, STEEL, ROLLED STEEL | SEE SECTION 807 OF THIS MANUAL. | | | | | | | | | |
| WELDING | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | | |

SECTION 815 JOINTS

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--------------------|-------|------------|-------------------|------------|---------------|----------------------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| ADHESIVE LUBRICANT | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1 Project/lot | 1qt friction top can | ---- | ---- | 10 days | (AML) Mix well before sampling. Seal can tightly. |

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|--|---|--|-------------------|------------------|-----------------------|-------------------------------|------------|-------|---|--|
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | |
| HARDWARE | High Strength Bolts, Nuts & Washers and Direct Tension Indicators | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/size/ heat | 2 of each item* | CA 1 | ----- | 10 days | * For sizes over 1-1/8", sample only 1 of each item. Copy of CA to accompany sample and ID. Similar size, type and heat of nut and washer need not be submitted. |
| JOINT DESIGN | | Design | Bridge Engineer | Bridge Engineer* | ----- | ----- | ----- | ----- | ----- | * Provide Joint Design, Fabrication Plan, and Installation Plan to Bridge Engineer for review. |
| JOINT FILLER | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/5000 lin ft/ type * | 36 in. length | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| JOINT MATERIALS | Adhesive-Lubricant | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot * | 1 qt friction top can | ----- | ----- | 10 days | (AML) For use with preformed elastomeric compression joint seal. * Visual inspection, sample only if questionable. Mix well before sampling. Seal can tightly. |
| | Backer Rod | Accept. | ----- | Mat. Lab | ----- | ----- | ----- | ----- | ----- | (AML) Visual inspection by Proj. Engr. |
| | Rubberized Asphaltic Type | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | one container | CA 7 | ----- | 11 days | (AML) (IS THIS SECTION ONLY FOR BRIDGE JOINTS? IF SO, THIS MATERIAL ISN'T ALLOWED) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment | one container | CD * 1 & 7 | ----- | 11 days | (AML) * Sample if not accompanied by CD |
| | Silicone Polymer (single or two-component rapid cure) | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | ----- | 30 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 1 gal friction top can | CD 1 & 7 | ----- | 30 days | (AML) *Sample only if questionable. |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment * | 1 gal friction top can | CA 7 | ----- | 30 days | (AML) *When material is not accompanied by a CD. |
| | Polyurethane Polymer | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | one unit of each component* | CA 7 | ----- | 14 days | (AML) *One unit of each component selected at random and submitted as sample. |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1 / shipment* | one unit of each component | CD 1 & 7 | ----- | 14 days | (AML) *When material is accompanied by a CD, sample only if questionable. |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1 / batch * | one unit of each component ** | CA 7 | ----- | 14 days | (AML) *When material is not accompanied by a CD. **One unit of each component selected at random and submitted as sample. |
| | Reinforced Elastomeric Joint Seal | Accept. | ----- | Mat. Lab | ----- | ----- | CC & CA 3 | ----- | ----- | Elastomer - CA; Steel - CC. Visual inspection by Proj. Engr. |
| | Preformed Neoprene | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 48 in. length | CC 6 | ----- | ----- | *Visual inspection by Proj. Engr. Sample only if questionable. |
| | Preformed Silicone | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 48 in. length | CC ** 6 | ----- | ----- | *Visual inspection by Proj. Engr. Sample only if questionable. ** CC to include both silicone seal and adhesive. |
| Fabricated Trough / Membrane | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | ----- | CC 6 | ----- | ----- | *Visual inspection by Proj. Engr. Sample only if questionable. | |
| Metal End Dams for Preformed Neoprene and Silicone Joint Seals | Accept. | See Section 807 of this Manual. | MFR | | | CA 6 | ----- | ----- | Visual inspection by Proj. Engr. Contact CONST. FAB. INSP. If questionable. | |

added to cover structural concrete (submitted to Bridge Engineer for review)

Large diameter bolts = \$\$ and heavy - no need for n

I would use the phrase "Steel Extrusion End Dam for Preformed Neoprene Joint Seal. See LSSRB Section 815.

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|------------------------|---|---------------------------------|---|-------------------|--|--|------|-------|-------|---|
| METAL JOINT COMPONENTS | Finger plates, sliding plates, armor assemblies, shapes, studs, anchors, and other required components. | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. See Section 807 of this Manual. | Const. Fab. Insp. | | | CA 6 | ----- | ----- | Proj. Engr. to receive inspection report from Const. Fab. Insp. |
| WELDING | | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | |

SECTION 816 BRIDGE DRAINAGE SYSTEMS

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--|--------------------------------|---------------------------------|-------------------|-----------|--------------------------------|-----------------|---------|-------|------|----------------|-----------------------|---|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| JOINT DESIGN | Design | Bridge Engineer | Bridge Engineer* | | ---- | ---- | ---- | ---- | ---- | | | * Provide fabrication details to Bridge Engineer for review. |
| BEDDING MATERIAL | | SEE SECTION 726 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | |
| CULVERTS & STORM DRAINS | | SEE SECTION 701 OF THIS MANUAL. | | | | | | | | | | |
| HARDWARE | Bolts, Nuts & Washers | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/shipment | 2 of each item* | CA ** 1 | ----- | | 10 days | | *Two bolts, two nuts and two washers are to be submitted. ** Copy of CA or report from Const. Fab. Insp. / Bridge Engineer to accompany sample and ID. |
| MANHOLES, JUNCTION BOXES, CATCH BASINS, & END TREATMENTS | | SEE SECTION 702 OF THIS MANUAL. | | | | | | | | | | |
| METAL PIPE | | SEE SECTION 701 OF THIS MANUAL. | | | | | | | | | | |
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | | | |
| REINFORCING STEEL | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb/source | 48 in. length | CA 1 | ----- | | 10 days | | (AML) *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| STRUCTURAL METALS | | SEE SECTION 807 OF THIS MANUAL. | | | | | | | | | | |

added to cover structural concrete (submitted to Bridge Engineer for review)

SECTION 817 TEMPORARY WORKS

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-----------------------|--------------------------------|---------------------------------|--|-----------|------------|-------------|--------|-------|--|----------------|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | |
| DRILLED SHAFTS | | SEE SECTION 803 OF THIS MANUAL. | | | | | | | | | | |
| FENCE | | SEE SECTION 705 OF THIS MANUAL. | | | | | | | | | | |

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|-------------------------------|--|---------|-------------------|----------|---------------------------------|---------------|------|-------|---------|--|
| GRANULAR MATERIAL | | | | | | | | | | SEE SECTION 203 OF THIS MANUAL. |
| GUARD RAIL | | | | | | | | | | SEE SECTION 704 OF THIS MANUAL. |
| PAINT AND PROTECTIVE COATINGS | | | | | | | | | | SEE SECTION 811 OF THIS MANUAL. |
| PILES | | | | | | | | | | SEE SECTION 804 OF THIS MANUAL. |
| REINFORCING STEEL | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb/ source | 48 in. length | CA 1 | ----- | 10 days | (AML) *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| SHEETING | | | | | | | | | | SEE SECTION 802 OF THIS MANUAL. |
| STRUCTURAL METALS | | | | | | | | | | SEE SECTION 807 OF THIS MANUAL. |
| TEMPORARY DETOUR ROAD | | | | | | | | | | SEE SECTION 725 OF THIS MANUAL. |
| TIMBER | | | | | | | | | | SEE SECTION 812 OF THIS MANUAL. |

SECTION 818 MARINE PIER PROTECTION

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|-------------------------------|--|------------|-------------------|------------|-----------------------------------|---------------|----------------|-----------------------|---------------------------------|--|
| | | METHOD | | | CONTAINER | | | | | DISTR. |
| CONCRETE | Mix Designs, Materials & Tests | | | | | | | | SEE SECTION 901 OF THIS MANUAL. | |
| CONCRETE (Structural) | | | | | | | | | SEE SECTION 805 OF THIS MANUAL. | |
| PIER PROTECTION SYSTEMS | Ultra-High Molecular Weight Polyethylene (UHMW-PE) | Accept. | Proj. Engr. | Mfg. | ----- | ----- | CA * 1 | ----- | ----- | * Visual inspection by Proj. Engr. |
| | Plastic Composite Marine Timber (PCMT) | Accept. | Proj. Engr. | Mfg. | ----- | ----- | CA * 1 | ----- | ----- | * Visual inspection by Proj. Engr. |
| | Rubber Fender Elements (Extruded & Molded) | Accept. | Proj. Engr. | Mfg. | ----- | ----- | CA * 1 | ----- | ----- | * Visual inspection by Proj. Engr. |
| REINFORCING STEEL | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb/ source * | 48 in. length | CA 1 | ----- | 10 days | (AML) *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| STRUCTURAL CONCRETE | | | | | | | | | | SEE SECTION 805 OF THIS MANUAL. |
| STRUCTURAL METALS & FASTENERS | | | | | | | | | | SEE SECTION 807 OF THIS MANUAL. |
| TIMBER | | | | | | | | | | SEE SECTION 812 OF THIS MANUAL. |
| WELDING | | | | | | | | | | SEE SECTION 809 OF THIS MANUAL. |

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SECTION 809820 MOVABLE BRIDGES

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|----------|-------|------------|-----------|------------|-------------|-------|----------------|-----------------------|---------------------------------|
| | | METHOD | | | CONTAINER | | | | |
| BEARINGS | | | | | | | | | SEE SECTION 814 OF THIS MANUAL. |

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|---|--|-------------------------------------|---|---------------|----------------------|---------------------------------------|------|-------|---------|--|---|
| BRIDGE RAILINGS, HAND RAILINGS, AND PERMANENT ROADWAY | | SEE SECTION 810 OF THIS MANUAL. | | | | | | | | | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 901-905 OF THIS MANUAL. | | | | | | | | Proj. Engr. to witness test for unit weight as per Specification Subsection 809.38 for counterweights . Bridge Design must approve calculations for determining unit weight. | |
| CONCRETE APPROACH SLABS | | SEE SECTION 813 OF THIS MANUAL. | | | | | | | | | |
| DRAINAGE SYSTEMS | | SEE SECTION 816 OF THIS MANUAL. | | | | | | | | | |
| ELECTRICAL-EQUIPMENT (JUST REFER TO 822) | Brochures- Certified- Dimension- Sheets & Descriptive Data | | Bridge design approves and distributes to Proj. Engr. for all items listed in Bridge Electrical Equipment List. | Bridge Design | | | | | | | No component shall be incorporated into the work without approval from Bridge Design. |
| ELECTRICAL SYSTEMS | | SEE SECTION 822 OF THIS MANUAL. | | | | | | | | | |
| EPOXY RESIN SYSTEMS | | Accept. | Proj. Engr. | Mat. Lab | 1/lot | 1 qt. each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade | |
| HARDWARE | Bolts, Fasteners, Fittings, Nuts, Washers & Misc. Hardware | Accept. | Proj. Engr.* S 501 | Mat. Lab | 1/size/type/shipment | 2 of each item** | ---- | ---- | 10 days | *When sampled by Const. Fab. Insp. and listed on report to Proj. Engr., project samples are not required. **Two pieces of each size and type of hardware used are to be submitted. For bolt sizes over 1-1/8", only one of each item for the assembly required. | |
| JOINTS | | SEE SECTION 815 OF THIS MANUAL. | | | | | | | | | |
| MECHANICAL-EQUIPMENT (JUST REFER TO 821) | Brochures- Certified- Dimension- Sheets & Descriptive Data | Accept: | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | | | | Proj. Engr. inspects materials and components to ensure conformance. | |
| | Parts List (Gears & Bearing in Gear Box) | Accept: | | Bridge Design | | | | | | | |
| MECHANICAL SYSTEMS | | SEE SECTION 821 OF THIS MANUAL. | | | | | | | | | |

Yes (822 though). It would seem all Electrical Equipment would be Section 822 "Electrical Syste.ms."

Large diameter bolts = \$\$ and heavy - no need for r

Yes.

SECTION 809820 MOVABLE BRIDGES (Cont'd)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--|-----------|---------------------------------|---|---------------|-------------|---------------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| OPERATING HOUSE (All Furnishings) (JUST REFER TO FACILITIES) | Brochures | Accept: | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | | | | |
| FACILITIES | | SEE SECTION 823 OF THIS MANUAL. | | | | | | | | |
| NON-SHRINK GROUT | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1 / lot | 1 full sack * | CC 1 & 7 | ---- | 16 days | *Sample shall be submitted in an unbroken moisture proof sack. |

Yes.

| | | | | | | | | | | |
|--|---------------------------------|-------------------------|---|--------------------------|--------------------------|-------------|------|------|---------|--|
| PAIN AND PROTECTIVE COATINGS | | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | |
| POWER PLANT | | | SEE SECTION 822 OF THIS MANUAL. | | | | | | | |
| STEEL GRID FLOORING | | | SEE SECTION 808 OF THIS MANUAL. | | | | | | | |
| STRUCTURAL METALS | | | SEE SECTION 807 OF THIS MANUAL. | | | | | | | |
| TIMBER | | | SEE SECTION 812 OF THIS MANUAL. | | | | | | | |
| TRAFFIC BARRIERS | Drawings & Brochures | Accept. | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | | ---- | ---- | Structural Fabrication Inspect in accordance with Sections 729 & 807 of this manual. |
| WELDING | | | SEE SECTION 815 OF THIS MANUAL. | | | | | | | |
| WIRE ROPE & ATTACHMENTS (MOVED TO SECTION 821) | | | SEE SECTION 821 OF THIS MANUAL. | | | | | | | |
| | Counterweight-Rope Assemblies | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. | Const. Fab. Insp. | | | | --- | --- | Proj. Engr. to receive inspection report on counterweight ropes and sockets from Const. Fab. Insp. |
| | Counterweight Ropes | Prelim. Source Approval | Mfr. S-501 | Mfr. & Const. Fab. Insp. | 1/reel | 2-ropes* | CA 6 | --- | --- | *Two ropes per reel are to be submitted. Each rope length shall not be less than 25 times the rope diameter nor more than 12 ft. |
| | Sockets for Counterweight Ropes | Prelim. Source Approval | Mfr. S-501 | Mfr. & Const. Fab. Insp. | 1/lot | 4-sockets* | CA 6 | --- | --- | *Four sockets for each lot are to be submitted. Tested with the counterweight rope sample. |
| | Wire Rope | Accept. | Proj. Engr. S-501 | Mat. Lab | 1/type or class/shipment | 6-ft length | CA 6 | --- | 11 days | Does not include counterweight ropes. Visual inspection by PE contact construction Fab. If questionable |

SECTION 821 MECHANICAL SYSTEMS

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|-----------------------|--------------------------------|---------------------------------|-------------------|-----------|------------|--------------------------------------|--------|-------|---------|---|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | |
| ELECTRICAL SYSTEMS | | SEE SECTION 822 OF THIS MANUAL. | | | | | | | | | | |
| EPOXY RESIN SYSTEMS | Epoxy | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot | ---- | CC 1 | 1 gal | ---- | (AML) Specify type and grade | | |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot | 1 qt each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade Copy of CC shall be submitted with sample. | | |

Comments - Kemp

Stewart Hingle will need to verify what materials sampling needs are in Section 822. I would think 805 and 901 be would adequate, and would be referenced in 821.

Joseph Douglas will need to verify what materials sampling needs are in Section 822.

| | | | | | | | | | | |
|----------------------------------|--|---|--|--------------------------|--------------------------|-----------------|----------|------|---------|---|
| FACILITIES | | SEE SECTION 823 OF THIS MANUAL. | | | | | | | | |
| FENCES | | SEE SECTION 705 OF THIS MANUAL. | | | | | | | | |
| JACKED OR BORED PIPE | | SEE SECTION 728 OF THIS MANUAL. | | | | | | | | |
| MECHANICAL SYSTEMS (each system) | Brochures, Drawings, Cut Sheets, Field Measurements, Calculations & other required documentation | Accept. | Bridge design approves and distributes to Proj. Engr. for all items listed in Mechanical System Submittals requirements. | Bridge Design | ---- | ---- | ---- | ---- | ---- | Proj. Engr. inspects materials and components to ensure conformance. |
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | |
| STRUCTURAL METALS & FASTENERS | Bolts, Nuts & Washers (Non-High Strength) | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/shipment | 2 of each item* | CC 1 | ---- | 10 days | *Sample only if questionable. If sampled, two bolts, two nuts and two washers are to be submitted. Copy of CC to accompany sample and ID. |
| | High Strength Bolts, Nuts & Washers, Direct Tension Indicators, Miscellaneous Hardware, and Structural Parts | SEE SECTION 807 OF THIS MANUAL. (DO WE NEED SOMETHING DIFFERENT FOR BOLTS, NUTS, ETC., OR WILL 807 COVER IT ALL??) BREAK THIS UP INTO STANDARD (NON-HIGH STRENGTH), HIGH-STRENGTH, HIGH-STRENGTH STAINLESS STEEL - ALSO ADD MISC. HARDWARE AND REFER TO 807 No need to break up - MatLab can handle / test, and 807 covers same sampling frequency | | | | | | | | |
| WELDING | | SEE SECTION 815 OF THIS MANUAL. | | | | | | | | |
| WIRE ROPE & ATTACHMENTS | Counterweight Rope Assemblies | Accept. | Inspected and stamped by Const. Fab. Insp. Unit prior to use. | Const. Fab. Insp. | | | CA 4 | ---- | ---- | Proj. Engr. to receive inspection report on counterweight ropes and sockets from Const. Fab. Insp. |
| | Counterweight Ropes | Prelim. Source Approval | Mfr. S 501 | Mfr. & Const. Fab. Insp. | 1/reel | 2 ropes* | CA 4 | ---- | ---- | *Two ropes per reel are to be submitted. Each rope length shall not be less than 25 times the rope diameter nor more than 12 ft. |
| | Sockets for Counterweight Ropes | Prelim. Source Approval | Mfr. S 501 | Mfr. & Const. Fab. Insp. | 1/lot | 4 sockets* | CA 4 | ---- | ---- | *Four sockets for each lot are to be submitted. Tested with the counterweight rope sample. |
| | Wire Rope | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type or class/shipment | 6 ft length | CA 1 & 7 | ---- | 11 days | Does not include counterweight ropes. Visual inspection by PE contact construction Fab. If questionable |

Will need to get Stewart to verify. They have some special fasteners, turned bolts, etc. and I'm not sure 807 covers it all.

SECTION 822 ELECTRICAL SYSTEMS (MOVED FROM SECTION 730)

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|--------------------------------|---------------------------------|---|---------------|-------------|-----------------|--------|-------|---------|--|-----------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| ALL ELECTRICAL COMPONENTS & MATERIALS NOT SPECIFICALLY MENTIONED IN THIS SECTION SHALL BE HANDLED IN ACCORDANCE WITH THE REQUIREMENTS FOR ELECTRICAL EQUIPMENT BELOW. | | | | | | | | | | | | |
| ANCHOR BOLTS, NUTS AND WASHERS | | Accept. | Proj. Engr. S-501 | Mat. Lab | 1/size/type | 1 of each item* | CA 7 | ---- | 11 days | *One of each size and type of bolt, nut and washer is to be submitted. | | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | |
| CONDUIT | | Accept. | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | | | | | | |

Combined with other Fasteners

| | | | | | | | | | | |
|-----------------------|---|---------------------------------|--|-------------------|---------------------|--------------------------------------|---------|-------|---------|---|
| DRILLED SHAFTS | | SEE SECTION 803 OF THIS MANUAL. | | | | | | | | |
| ELECTRICAL CONDUCTORS | | Accept. | ----- | Proj. Engr. | ----- | ----- | CA 1 | ----- | | Visual Inspection by Proj. Engr. |
| ELECTRICAL EQUIPMENT | Brochures, Certified Dimension Sheets & Description Data | Accept. | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | | | | |
| EMBANKMENT | | SEE SECTION 203 OF THIS MANUAL. | | | | | | | | |
| EPOXY RESIN SYSTEMS | Epoxy | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot | ----- | CC 1 | 1 gal | ----- | (AML) Specify type and grade |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot | 1 qt each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade Copy of CC shall be submitted with sample. |
| FASTENERS | Anchor Bolts, Nuts, and Washers | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type | 1 of each item* | CA 7 | ----- | 11 days | *One of each size and type of bolt, nut and washer is to be submitted. |
| | Bolts, Nuts & Washers (Except for Anchor Bolt Assemblies) | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/shipment | 2 of each item* | CC 1 | ----- | 10 days | *Sample only if questionable. If sampled, two bolts, two nuts and two washers are to be submitted. Copy of CC to accompany sample and ID. |
| GROUND ROD ASSEMBLY | Ground Rod, Wire & Clamp | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/item | 1 of each item Wire - 18 in. length | ----- | ----- | 9 days | Visual inspection by Proj. Engr. Sample only if questionable. Coated steel hardware is not permitted. |
| GUARANTY | Contractor's Guaranty | Accept. | Proj. Engr. and Bridge Design approves and files. | Proj. Engr. | | | | | | |
| | Manufacturers Standard Warranty | Accept. | Proj. Engr. and Bridge Design approves and files. | Proj. Engr. | | | | | | |
| HIGH MAST POLES | | Accept. | Inspected and stamped by Const. Fab. Insp. Prior to use. See section 807 of this Manual. | Const. Fab. Insp. | | | CA 6 | ----- | ----- | Inspection report from Const. Fab. Insp. shall be sent to the Proj. Engr. |

SECTION 822 ELECTRICAL SYSTEMS (MOVED FROM SECTION 730) (Cont.)

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|-------------------------------|--|---------------------------------|---|---------------|-------------|------------------------|----------------|-----------------------|---------|---|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| LIGHT POLES | Brochures, Certified Dimension Sheets & Description Data | Accept. | Bridge Design approves and distributes to Proj. Engr. | Bridge Design | | | ----- | ----- | ----- | |
| MECHANICAL SYSTEMS | | SEE SECTION 821 OF THIS MANUAL. | | | | | | | | |
| MORTAR | | Accept. | Proj. Engr. | Mat. Lab | 1/shipment | 1 gal friction top can | CC 1 | 50 yd ³ | 19 days | Visual inspection by PE. Sample only if questionable. |
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | |

| | | | | | | | | | | |
|---------------------|------|---------------------------------|--|-----------------------------|-----------------|---------------|----------|------|---------|--|
| PILES | | SEE SECTION 804 OF THIS MANUAL. | | | | | | | | |
| REINFORCING STEEL | Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/ source* | 48 in. length | CA 1 | ---- | 11 days | *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample for verification if questionable. |
| STEEL GRID FLOORING | | SEE SECTION 808 OF THIS MANUAL. | | | | | | | | |
| SYSTEM TESTS | | Accept. | ---- | Contractor | ---- | ---- | ---- | ---- | ---- | Proj. Engr. to observe tests and receive report of test results |
| TIMBER | | Accept. | Inspected stamped by Const. Fab. Insp. Prior to use. See section 812 of this Manual. | Mat. Lab/ Const. Fab. Insp. | | | CD 1 & 6 | ---- | 11 days | Visual inspection by Proj. Engr. |
| WELDING | | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | |

SECTION 823 FACILITIES

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--------------------------------|---|---------------------------------|-------------------|-----------|---------------------|--------------------------------------|--------|--------------------|---------|---|-------------------------------|---------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| ANCHOR BOLTS, NUTS AND WASHERS | | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type | 1 of each item* | CA 7 | ---- | 11 days | *One of each size and type of bolt, nut and washer is to be submitted. | Combined with other Fasteners | |
| CONCRETE | Mix Designs, Materials & Tests | SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| CONCRETE (Structural) | | SEE SECTION 805 OF THIS MANUAL. | | | | | | | | | | |
| DECK DRAINAGE SYSTEMS | | SEE SECTION 816 OF THIS MANUAL. | | | | | | | | | | |
| DRILLED SHAFTS | | SEE SECTION 803 OF THIS MANUAL. | | | | | | | | | | |
| ELECTRICAL SYSTEMS | | SEE SECTION 822 OF THIS MANUAL. | | | | | | | | | | |
| EMBANKMENT | | SEE SECTION 203 OF THIS MANUAL. | | | | | | | | | | |
| EPOXY RESIN SYSTEMS | Epoxy | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot | ---- | CC 1 | 1 gal | ---- | (AML) Specify type and grade | | |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot | 1 qt each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade Copy of CC shall be submitted with sample. | | |
| FASTENERS | Anchor Bolts, Nuts, and Washers | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/type | 1 of each item* | CA 7 | ---- | 11 days | *One of each size and type of bolt, nut and washer is to be submitted. | | |
| | Bolts, Nuts & Washers (Except for Anchor Bolt Assemblies) | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/shipment | 2 of each item* | CC 1 | ---- | 10 days | *Sample only if questionable. If sampled, two bolts, two nuts and two washers are to be submitted. Copy of CC to accompany sample and ID. | | |
| FENCES | | SEE SECTION 705 OF THIS MANUAL. | | | | | | | | | | |
| JACKED OR BORED PIPE | | SEE SECTION 728 OF THIS MANUAL. | | | | | | | | | | |
| MECHANICAL SYSTEMS | | SEE SECTION 821 OF THIS MANUAL. | | | | | | | | | | |
| MORTAR | | Accept. | Proj. Engr. | Mat. Lab | 1/shipment | 1 gal friction top can | CC 1 | 50 yd ³ | 19 days | Visual inspection by PE. Sample only if questionable. | | |

| | | | | | | | | | | | |
|-------------------------------|------------------------------|---------|--|-----------------------------|-----------------|---------------|----------|------|---------|--|--|
| PAINT AND PROTECTIVE COATINGS | | | | | | | | | | | SEE SECTION 811 OF THIS MANUAL. |
| PILES | | | | | | | | | | | SEE SECTION 804 OF THIS MANUAL. |
| REINFORCEMENT | | | | | | | | | | | SEE SECTION 806 OF THIS MANUAL. |
| REINFORCING STEEL | Steel, Strand, and Wire Rope | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/ source* | 48 in. length | CA 1 | ---- | 11 days | | *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample for verification if questionable. |
| STEEL GRID FLOORING | | | | | | | | | | | SEE SECTION 808 OF THIS MANUAL. |
| STRUCTURAL METALS | | | | | | | | | | | SEE SECTION 807 OF THIS MANUAL. |
| TIMBER | | Accept. | Inspected stamped by Const. Fab. Insp. Prior to use. See section 812 of this Manual. | Mat. Lab/ Const. Fab. Insp. | | | CD 1 & 6 | ---- | 11 days | | Visual inspection by Proj. Engr. |
| WELDING | | | | | | | | | | | SEE SECTION 809 OF THIS MANUAL. |

SECTION 829 INSTRUMENTATION AND EVALUATION

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|--------------------|--|------------|-------------------|-----------|----------------------|------------------|--------|-------|---------|----------------|-----------------------|--|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| ELECTRICAL SYSTEMS | | | | | | | | | | | | SEE SECTION 822 OF THIS MANUAL. |
| FASTENERS | Bolts, Nuts & Washers (Non-High Strength) | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/diameter/ shipment | 2 of each item* | CC 1 | ---- | 10 days | | | *Sample only if questionable. If sampled, two bolts, two nuts and two washers are to be submitted. Copy of CC to accompany sample and ID. |
| | High Strength Bolts, Nuts & Washers and Tension Indicators | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type/size/ heat | 2 of each item* | CA 1 | ---- | 10 days | | | * For sizes over 1-1/8"; sample only 1 of each item. Copy of CA to accompany sample and ID. Similar size, type and heat of nut and washer need not be submitted. |
| | Steel Lockpins and Collars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/lot or shipment | 1 pin and collar | CC -1 | ---- | 10 days | | | Copy of CC to accompany sample ID. |

Large diameter bolts = \$\$ and heavy - no need for n

SECTION 830 REPAIR AND REHABILITATION

| MATERIAL | PURP. | SAMPLED BY | | TESTED BY | MIN. FREQ. | MIN. QUANT. | | CERT. | | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|---|--------------------------------|------------|--|-----------|------------|-------------|--------|-------|--|----------------|-----------------------|---------------------------------|
| | | METHOD | | | | CONTAINER | DISTR. | | | | | |
| BEARINGS | | | | | | | | | | | | SEE SECTION 814 OF THIS MANUAL. |
| BRIDGE RAILINGS, HAND RAILINGS, AND PERMANENT ROADWAY | | | | | | | | | | | | SEE SECTION 810 OF THIS MANUAL. |
| CONCRETE | Mix Designs, Materials & Tests | | | | | | | | | | | SEE SECTION 901 OF THIS MANUAL. |
| CONCRETE (Structural) | | | | | | | | | | | | SEE SECTION 805 OF THIS MANUAL. |
| CONCRETE APPROACH SLABS | | | | | | | | | | | | SEE SECTION 813 OF THIS MANUAL. |

| | | | | | | | | | | |
|-------------------------------|--|---------------------------------|-------------------|----------|--------|--------------------------------------|---------|-------|---------|--|
| DRAINAGE SYSTEMS | | SEE SECTION 816 OF THIS MANUAL. | | | | | | | | |
| EPOXY RESIN SYSTEMS | Epoxy | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot | ----- | CC 1 | 1 gal | ----- | (AML) Specify type and grade |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot | 1 qt each component friction top can | CC 1 | 1 gal | 11 days | (AML) Specify type and grade Copy of CC shall be submitted with sample. |
| ELECTRICAL SYSTEMS | | SEE SECTION 822 OF THIS MANUAL. | | | | | | | | |
| FACILITIES | | SEE SECTION 823 OF THIS MANUAL. | | | | | | | | |
| JOINTS | | SEE SECTION 815 OF THIS MANUAL. | | | | | | | | |
| MECHANICAL SYSTEMS | | SEE SECTION 821 OF THIS MANUAL. | | | | | | | | |
| MOVABLE BRIDGES | | SEE SECTION 820 OF THIS MANUAL. | | | | | | | | |
| PAINT AND PROTECTIVE COATINGS | | SEE SECTION 811 OF THIS MANUAL. | | | | | | | | |
| REINFORCEMENT | | SEE SECTION 806 OF THIS MANUAL. | | | | | | | | |
| STEEL GRID FLOORING | | SEE SECTION 808 OF THIS MANUAL. | | | | | | | | |
| STRUCTURAL CONCRETE PATCHING | Structural Concrete Patching Material (Site-mixed-cementitious-mortar) | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot* | 1 container of each component | CA ** 1 | ---- | 16 days | * Provide components and appropriate mixing information ** Provide CA if required by Proj. Engr. |
| | Rapid-Setting Concrete Patching | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot* | 1 sack | CC 1 | | 16 days | (AML) - for patching tops of decks only *Visual inspection by Proj. Engr. Sample if questionable. |
| STRUCTURAL METALS | | SEE SECTION 807 OF THIS MANUAL. | | | | | | | | |
| TIMBER | | SEE SECTION 812 OF THIS MANUAL. | | | | | | | | |
| WELDING | | SEE SECTION 809 OF THIS MANUAL. | | | | | | | | |