

GS-01001

General Supplemental Specifications for Highway and Bridge Construction

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New



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Division 11. General Requirements and Covenants.

Section 1101

1101.03, Definition of Terms

Add definitions:

Completion Date.

The date on which all work specified in the contract is completed.

Optionally Combined Proposal.

The projects from two or more proposals combined by the Contracting Authority to allow the Contractor to bid all the projects as one contract.

Responsible Bid.

A bid submitted by a Contractor which is determined not to be an irregular proposal as defined by Article 1102.10 and fulfills the good faith effort recruitment requirements in Article 1102.17.

Section 1102

1102.12, Filing of Proposal

Add second paragraph:

The Contracting Authority may take bids on the same project as an individual proposal or part of an Optionally Combined Proposal. When an Optionally Combined Proposal is designated, the consideration for award of contracts will be based on which of the following gives the lowest total cost:

1. The sum of the lowest responsible bid on each of the individual proposals.
2. The lowest responsible bid on the Optionally Combined Proposal.

1102.13, Withdrawal of Proposal

Add after the first paragraph:

The bidder will be permitted to withdraw their proposal under the following three conditions:

- A. The bidder may withdraw a proposal unopened if such a request is made in writing and received at the Department prior to the time specified in the advertisement for receiving bids. A proposal so withdrawn may be resubmitted as long as it is resubmitted prior to the deadline for receipt of bids.
- B. If, after bids are open, the low bidder should claim a serious error in the preparation of the bid, and can support such a claim with evidence satisfactory to the Department, the bidder may be permitted to withdraw the bid and the bid guarantee may be returned. In such an event, action on the remaining bids will be considered as if the withdrawn bid had not been received. Under no circumstances will the bidder be permitted to alter the bid after the bids have been opened.

The Department will keep the bidder's proposal guarantee unless the bidder satisfies all four of the following conditions:

1. The mistake must be a clerical mistake as opposed to a mistake involving poor judgment concerning a construction process. The bidder must be able to produce bid preparation documentation to show how the clerical error occurred.
2. The bidder must immediately notify the Department as soon as the error is observed.
3. The scope of the mistake must be significant. The size of the mistake when compared to the overall project must be significant enough to cause major financial difficulties if the bidder is forced to complete the project at the price quoted.

4. The Department should not be placed in a worse position than if the bid had never been submitted.

C. The bidder may withdraw their bid from consideration if a contract has not been offered them within 30 calendar days after the letting and the bidder has not requested approval for award be deferred.

Section 1104

1104.09, Right-of-Way

Add as last sentence of Article:

Permission of the property owner may be necessary to access some parcels prior to the letting.

Section 1105

1105.06, Construction Survey

Add as first sentence of first paragraph:

Minimum standards for Construction Survey provided by the Engineer will meet the requirements of Section 2526.

Section 1108

1108.02, D, Charging of Working Days.

Replace the first paragraph:

The Contractor will be charged a full working day for a working days as defined in Article 1101.03 and this article. For multiple site contracts, working day charges for each site will be charged independently based on the controlling operation for the site. The Contractor will be charged 1/2 a working day when weather or other conditions beyond the control of the Contractor permit work for at least 1/2 but less than 3/4 of a working day. The Contractor will not be charged a working day when weather or other conditions beyond the control of the Contractor prevent work less than 1/2 a working day.

Add this indented paragraph after the numbered list in the second paragraph:

However, working days will not be charged prior to 15 calendar days after the contract has been signed by the Contracting Authority, as long as the Contractor furnished the signed contract, performance bond, and proof of insurance within the time allowed by Article 1103.07; and has not begun work on the contract.

Delete the third paragraph:

For multiple site contracts, working day charges for each site will be charged independently based on the controlling operation for the site.

Add as first two sentences of fourth paragraph:

The Contractor will be charged 1/2 working day when weather or other conditions beyond the control of the Contractor permit work for at least 1/2 but less than 3/4 of a working day. The Contractor will not be charged a working day when weather or other conditions beyond the control of the Contractor prevent work less than 1/2 of a working day.

Section 1109

1109.05, A, Progress Payments.

Replace the first two sentences of the first paragraph:

On contracts receiving payment from the Department, For work extending over a period of more than one month, the Contractor will receive monthly progress estimate payments based on the amount of work completed in an acceptable manner. For primary and secondary projects in which the Contracting Authority is the Department or a county Board of Supervisors, these progress payments will be bi-weekly if requested by the Contractor.

Division 20. Equipment Requirements.

Division 21. Earthwork, Subgrades, and Subbases.

Division 22. Base Courses.

Section 2213

2213.14, D, Hot Mix Asphalt Base Widening.

Replace entire article:

HMA base used for base widening will be measured in accordance with Article 2303.05, A, shall apply.

2213.14, G, Samples.

Replace entire article:

Article 2303.05, H, shall apply for HMA base widening. Article 2301.34, I, shall apply for PCC base widening.

2213.14, H, Portland Cement Concrete Base Widening

Add new article:

PCC used for base widening will be measured in accordance with Article 2301.34, A.

2213.15, D, Hot Mix Asphalt Base Widening

Replace entire article:

HMA base used for base widening will be paid in accordance with Article 2303.06, A, shall apply.

2213.15, G, Samples

Replace entire article:

HMA base widening samples will be paid for in accordance with Article 2303.06, F, H, shall apply. PCC base widening samples will be paid for in accordance with Article 2301.35, I.

2213.15, H, Portland Cement Concrete Base Widening

Add new article:

PCC used for base widening will be paid for in accordance with Article 2301.35, A.

Division 23. Surface Courses.

Section 2301

2301.04, C, Entrained Air Content

Replace the entire article:

Air entrainment shall be accomplished by addition of an approved air entraining agent. Air content as determined by Materials I.M. 318, shall be determined on each day of production as early and as frequently as necessary until the air content is acceptable and continuous production is established consistently acceptable. The intended air content of finished concrete is 6.0% and the target air content shall be determined to account for air loss resulting from during consolidation of concrete during slip form paving. The difference between before and after the paver air contents for a given location shall be considered the air loss.

Air content shall be determined at the beginning of each day by the following method:

On the first day of paving, the first load shall be tested at the plant. The air content shall be between 7% and 10% 8.0% and 12.0%. The next ten loads will be accepted on the basis of this complying air test. Starting with the twelfth load all samples shall be taken at the point of acceptance and required to meet the target air

content ~~the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%. On the first day of paving, the target air content before consolidation shall be 7.5% plus 1.5% or minus 1.0%. The air content before and after consolidation~~ **The air loss** shall be determined at two locations. The air loss ~~due to consolidation from both locations~~ shall be averaged and added to 6.0% to establish the target air content, rounded to the next higher 0.5%. ~~After the air loss has been established, the air content before the paver shall be the target air content plus 1.5% or minus 1.0%.~~

~~The air content, as determined by Materials I.M. 318, of fresh and unvibrated concrete when placed on the subbase or subgrade shall be maintained at the target air content, with a maximum variation of plus 1.5% and 1.0%. The air content before and after consolidation shall be checked daily. A new target air content shall be established if the loss changes by more than 0.5%, based on the average of two consecutive daily checks. After the first day of paving, the air content before the paver shall be the target air content plus 1.5% or minus 1.0%. A new target air content shall be established if the average air loss from two consecutive days deviates by more than 0.5% from the air loss.~~ The air loss shall be determined at one location per half day. At the option of the Engineer, air loss determination may be reduced if the air loss is consistent.

~~For projects less than 5000 square yards (4000 m²) the air content before the paver shall be 7.5% plus 1.5% or minus 1.0%. At the option of the Contractor, the target air content may be established using the air loss.~~

The air content for non slip form paving shall be 7.0% plus 1.5% or minus 1.0%.

2301.12, Placing Reinforcement

Add as the seventh paragraph:

Cutting the tie wires of the load transfer assemblies shall be the option of the Contractor.

2301.18, End of Run

Replace entire article:

Whenever 30 minutes or more have elapsed since the last concrete has been deposited on the subgrade or if such a delay is anticipated, an approved header shall be installed. ~~It shall be shaped to fit the cross section of the pavement and placed so that the upper edge will conform to the crown of the pavement. It shall be installed on the subgrade, base, or subbase perpendicular to the surface and at a right angle to the center line of the pavement.~~

~~The header board shall be provided with holes through which the required dowels or reinforcement shall be passed and a device, as shown in the contract documents or alternate approved by the Engineer, which will hold the dowels and reinforcement normal to the header joint. Dowels shall be smooth, round bars, as shown in the contract documents. Additional supports may be necessary to ensure that reinforcement and dowels remain true to line and grade during placement and finishing of concrete, and bridges or platforms used for header joint construction shall not be supported on this steel.~~

~~Concrete collected by a finishing machine during its first passage shall not be used adjacent to the header board. Concrete screeded over the header during finishing shall not be permitted to fall on the steel, subgrade, or subbase.~~

~~Header joints shall not be constructed within 5 feet (1.5 m) of an intended or previously placed contraction joint. Header joints shall not be constructed opposite a contraction joint in multiple lane construction.~~

~~Concrete shall be well vibrated against the header and finished with an edging tool.~~

~~When a header joint is installed, resumption of paving shall be delayed at least 6 hours~~ **which abuts the header shall not commence for a minimum of 6 hours.**

~~The header board and all supports shall be removed before paving is resumed.~~

~~When paving operations resume, concrete shall be placed against adjacent to the exposed face of the previously placed pavement header, thoroughly vibrated consolidated, and finished with an edging tool at the joint. Sawing and sealing of this joint is not required.~~

When the end of the day's run occurs in curb section, sufficient curb shall be omitted to accommodate equipment that must be backed out of the way. Construction of the portion of curb omitted shall be as shown in the contract documents and in accordance with Article 2301.17.

A. Headers Constructed in Plastic Concrete.

The header shall be constructed true to line and grade with the face perpendicular to the surface and at right angles to the centerline of the pavement. The tie bar reinforcement shall be level, true to line and grade, and normal to the header joint.

Concrete collected by a finishing machine during its first passage shall not be used adjacent to the header board. Concrete screeded over the header during finishing shall be promptly removed.

Concrete shall be well consolidated against the header and finished with an edging tool.

The header board and all supports shall be removed before paving is resumed.

B. Headers Constructed in Hardened Concrete.

The Contractor may pave past the location of the header. After the concrete has hardened, the pavement shall be sawed perpendicular to the centerline of the pavement, creating a vertical face. Holes for the tie bar reinforcement shall be drilled and reinforcement grouted into the holes, in accordance with Article 2301.12. The paving operations may begin adjacent to the header after a minimum of 1 hour after the placement of the reinforcement bars.

Section 2310

2310.02, A, 3, Concrete

Delete the last paragraph:

At the Contractor's option, Mix No. F-4WR, F-4WR-C, FF-4WR and FF-4WR-C may also be used.

Division 24. Structures.

Section 2405

2405.09, Setting Anchor Bolts for Bridge Bearings

Replace the title and first paragraph:

Setting Anchor Bolts for Bridge Bearing

Unless otherwise specified in the contract documents ~~state otherwise~~, anchor bolts to be embedded in the concrete substructures shall be set in drilled holes. Anchor bolts shall be set prior to the time the concrete is placed, when specified in the contract documents. Anchor bolts shall meet the requirements of ASTM A 307, Grade C, be full-length galvanized, and have a full-body diameter. Anchor bolts shall be the Unified Coarse Thread Series and have Class 2A tolerance. The end of each anchor bolt intended to project from the concrete shall be color coded in green to identify the grade. Washers shall be galvanized and shall meet the requirements of ASTM F 436. Nuts shall meet the requirements of ASTM A 563, DH, be heavy hex, and be galvanized. Nuts may be over-tapped in accordance with the allowance requirements of ASTM A 563. Galvanizing shall meet the requirements of ASTM A 153, Class C; or ASTM B 695, Class 50.

Section 2407

2407.12, B, Precast Prestressed Units

Replace the 7th item:

Horizontal alignment Sweep (deviations from straight line parallel to center line of member): 1/8" per 10' (1 mm per 1 m) L/80 (L in feet, sweep is in inches (L (L in meters, sweep is in millimeters)))

Section 2409**2409.11, Bracing****Replace the first sentence:**

The ends of bracing shall be bolted through the pile, post, or cap with bolts not less than 5/8 inch (6-16 mm) in diameter.

Section 2414**2414.07, A, Concrete Railings****Add as the last paragraph:**

When the contract documents include an item for Electrical Circuits, measurement will be in accordance with Article 2523.22, B. When electrical conduit and junction boxes are installed as part of Article 2525, measurement will be in accordance with Article 2525.10. Otherwise, electrical conduit and junction boxes will not be measured.

2414.08, A, Concrete Railings**Add as the third paragraph:**

When the contract documents include an item for Electrical Circuits, payment will be in accordance with Article 2523.23, B. When electrical conduit and junction boxes are installed as part of Article 2525, payment will be in accordance with Article 2525.10. Otherwise, electrical conduit and junction boxes will be incidental to the concrete railing.

Division 25. Miscellaneous Construction.**Section 2508****2508.04, A, Bridge Cleaning****Replace the title and first sentence:**

A. Bridge Cleaning for Painting.

The Contractor will be paid the lump sum contract price for Bridge Cleaning for Painting.

Section 2513**2513.01, Description****Add as the second sentence of the last paragraph:**

F-shape TBR, Type A, as defined in the Standard Road Plans, shall be used in all situations requiring the railing to be in place during the winter work period as defined in Article 1108.02, paragraph E.

Section 2522**2522.04, D****Replace the entire article:**

Each anchor bolt shall be furnished with one leveling nut and two anchoring nuts. ~~The anchor bolts shall be made from AASHTO M 314 Grade 55 or ASTM A 615 Grade 75 bars. The deformation on the bars within a distance of 6 inches (150 mm) beyond the threaded portion shall be removed. The Contractor may submit alternate types of anchor bolts for consideration and possible approval by the Engineer.~~ Anchor bolts shall meet the requirements of ASTM F 1554, Grade 105 (724 MPa), be full-length galvanized, and be high-strength low alloy steel. Unless otherwise specified, anchor bolts shall be the Unified Coarse Thread Series and have Class 2A tolerance. The end of each anchor bolt intended to project from the concrete shall be color coded in red to identify the grade. Washers shall be galvanized and shall meet the requirements of ASTM F 436. Nuts shall meet the requirements of ASTM A 563, DH, be heavy hex, and be galvanized. Nuts may be over-tapped in accordance with the allowance requirements of ASTM A 563. Galvanizing shall meet the requirements of ASTM A 153, Class C; or ASTM B 695, Class 50.

Section 2525**2525.06, B, 2****Replace the entire article:**

~~The anchor bolts shall meet requirements of ASTM A 36/A 36M.~~ The anchor bolts shall meet the requirements of ASTM F 1554, Grade 105 (724 MPa), be full-length galvanized, and have a full-body diameter. Anchor bolts shall be the Unified Coarse Thread Series and have Class 2A tolerance. The end of each anchor bolt intended to project from the concrete shall be color coded in red to identify the grade. Washers shall be galvanized and shall meet the requirements of ASTM F 436. Nuts shall meet the requirements of ASTM A 563, DH, be heavy hex, and be galvanized. Nuts may be over-tapped in accordance with the allowance requirements of ASTM A 563. Galvanizing shall meet the requirements of ASTM A 153, Class C; or ASTM B 695, Class 50.

Section 2526**2526.01, A, 3****Replace the entire article:**

Grade checks 1 every 100 feet ~~(1 per station)~~ (25 **20** m) for bottoms of subgrade treatments.

2526.01, A, 4**Replace the entire article:**

Finish grade stakes (blue tops) at 100 foot (25 **20** m) intervals or less at each shoulder line. In superelevated curves, also place a line of finish grade stakes at 100 foot (25 **20** m) intervals on the upper side of the curve at the edge of the proposed pavement.

2526.01, D, 7**Add a 7th numbered paragraph:**

7. Elevations of beams as erected. Provide the elevations to the Engineer for computation of finish elevations. Locations for determining beam elevations shall be in accordance with the contract documents.

2526.01, E, 1**Replace the entire article:**

Elevations on both sides at 25 **50** foot (10 m) intervals on straight and level sections and **at 25 foot (10 m) intervals** on horizontal and vertical curves.

2526.01, Description**Replace the third to the last paragraph:**

~~The Engineer will be responsible for the following: determine the elevation of beams as erected and compute finish elevations to be furnished~~ **compute finish elevations (using Contractor provided beam elevations) and furnish them** to the Contractor for deck construction, locate and take elevations of settlement plates, **and** re-establish land corners and permanent reference marker.

2526.02, Method of Measurement and Basis of Payment**Replace the second sentence:**

This payment shall be full compensation for the survey work required for the project as let, including any interpolations that may be necessary **between cross-section and** field staking.

Section 2535**2535.06, B, Backfill****Replace the first paragraph:**

Granular backfill furnished will be measured in cubic yards (cubic meters) or in tons (megagrams), as indicated in the contract documents and as provided in ~~Section 2342~~ **Article 2402.12, D.**

Division 26. Roadside Development.**Division 41. Construction Materials.****Section 4185****4185.02, A, Anchor Bolt and Slip-Base Plate Fasteners for Lighting Poles****Replace the second paragraph:**

~~Anchor bolts shall be of dimensions shown in the contract documents and shall have either a full or reduced body diameter. Anchor bolts, nuts, and washers shall meet the requirements of ASTM F 1554, Grade 105; ASTM A 563, Grade DH; and ASTM F 436. Slip-base plate bolts shall be of the dimensions shown in the contract documents and shall have a full body diameter, and shall meet the requirements of ASTM A 325; ASTM A 536, Grade DH; and ASTM F 436; except the proof load requirement of galvanized nuts shall meet the requirement of ungalvanized nuts. Threads shall meet requirements of ASTM A 325 Unified Coarse Thread Series, Class 2A tolerance. Threads shall be brushed, wiped, or cleaned by other approved methods immediately after galvanizing, and while the zinc is molten.~~ **The anchor bolts shall meet the requirements of ASTM F 1554, Grade 105 (724 MPa), be full-length galvanized, and have a full-body diameter. Anchor bolts shall be the Unified Coarse Thread Series and have Class 2A tolerance. The end of each anchor bolt intended to project from the concrete shall be color coded in red to identify the grade. Slip base plate 1 inch by 4 1/2 inch (25 mm by 112 mm) bolts shall meet the requirements of ASTM A 325, be high-strength bolts, and be fully galvanized. Washers shall be galvanized and shall meet the requirements of ASTM F 436. Nuts shall meet the requirements of ASTM A 563, DH, be heavy hex, and be galvanized. Nuts may be over-tapped in accordance with the allowance requirements of ASTM A 563. Galvanizing shall meet the requirements of ASTM A 153, Class C; or ASTM B 695, Class 50.**

Section 4187**4187.01, C, 2, Anchor Bolts, Nuts, and Washers****Replace the entire article:**

~~Anchor bolts shall be of the dimensions shown in the contract documents and shall meet requirements of ASTM A 307, Grade A. Threads shall conform to ASTM A 325/A 325M, Unified Coarse Thread Series, Class 2A fit.~~

~~Anchor bolt nuts shall meet requirements of ASTM A 307, Grade A, shall be heavy, hexagonal, with Unified Coarse Thread Series, Class 2B fit, and shall conform to ASTM F 594.~~

~~Washers shall be of the size shown in the contract documents.~~

~~Galvanizing of bolts, nuts, and washers shall meet requirements of ASTM A 153, Class D.~~

The anchor bolts shall meet the requirements of ASTM F 1554, Grade 105 (724 MPa), and be full-length galvanized. Anchor bolts shall be the Unified Coarse Thread Series and have Class 2A tolerance. The end of each anchor bolt intended to project from the concrete shall be color coded in red to identify the grade. Washers shall be galvanized and shall meet the requirements of ASTM F 436. Nuts shall meet the requirements of ASTM A 563, DH, be heavy hex, and be galvanized. Nuts may be over-tapped in accordance with the allowance requirements of ASTM A 563. Galvanizing shall meet the requirements of ASTM A 153, Class C; or ASTM B 695, Class 50.