SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by digital signature and electronic submission via Bid Express of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO.	1	DATED	8/7/2026	ADDENDUM NO.		DATED	
ADDENDUM NO	2	DATED	8/20/2026	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revised Table of Contents; Revised NTB 8125; Added NTB Nos. 8307, 8308, 8309 & 8310; Revised Wage Rates; SP 907-405-2 replaces SP 907-405-1; Added SP 907-618-1; Revised Bid Items; Revised or Added Plan Sheet Nos. 1, 8, 32-47; Delete Progress Schedule; Amendment EBSx Download Required.
2	Revised Table of Contents; Added NTB No. 22; Deleted NTB No. 24; Revised NTB Nos. 8126 & 8308; Added NTB No. 8311; Revised Wage Rates; Revised FHWA-1273, w/ Supplement; Added SP 907-655-2; Added SP 906-9; Revised Bid Items; Revised or Added Plan Sheet Nos. 8, 15, 28, 30-47, 54-55, 64, 189-191, 4030, 8002-8005, 8046, 8102, 8108 & 8118; Amendment EBSx Download Required.

TOTAL ADDENDA: 2
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____
President Address

_____
Secretary Address

_____
Treasurer Address

The following is my (our) itemized proposal.

STP-0055-02(271)/ 108168301000 & STP-0055-02(275)/ 108168302000

Madison County(ies)

Revised 01/26/2016

For Informational Purposes Only

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
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(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET
OF SECTION 905 AS ADDENDA)

08/20/2026 11:08 AM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 22 **CODE: (IS)**

DATE: 03/01/2017

SUBJECT: Exposure to Severe Sulfate Areas Below Ground Level

Bidders are hereby advised that this project, or portions of this project, is located in areas considered as areas of severe sulfate exposure and will require certain restrictions on the cementitious materials. A geotechnical investigation has indicated the presence of severe sulfate soils below the ground surface. Therefore, the cementitious materials used in concrete mixtures for the construction items of work listed below shall conform to the requirements listed in Subsection 701.02 for severe sulfate exposure.

Items of work requiring restrictions on the cementitious materials are as follows:

1) Drilled Shafts
2) Precast/prestressed Piling
3) Spread Footings
4) Box Culverts & Box Bridges

Unless otherwise specified, no other restrictions on the cementitious materials shall apply to other concrete items or structures.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 8126

DATE: 08/20/2026

SUBJECT: Specialty Items

PROJECT: STP-0055-02(271)/108168301 & STP-0055-02(275)/108168302 - MADISON

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

CATEGORY: CURBING, SIDEWALKS, GUTTERS

Line No	Pay Item	Description
1070	609-C001	Concrete Integral Curb, Type 1
1080	609-D004	Combination Concrete Curb and Gutter Type 2 Modified
1090	609-D007	Combination Concrete Curb and Gutter Type 3 Modified

CATEGORY: DISPOSAL OF BUILDINGS, RIGHT OF WAY CLEARING & GRUBBING

Line No	Pay Item	Description
0250	202-B240	Removal of Traffic Stripe

CATEGORY: EROSION CONTROL

Line No	Pay Item	Description
0350	213-C001	Superphosphate
0360	216-A001	Solid Sodding
0370	217-A001	Ditch Liner
0380	219-A001	Watering
0390	220-A001	Insect Pest Control
0400	221-A001	Concrete Paved Ditch
0410	223-A001	Mowing
0420	224-A001	Soil Reinforcing Mat
0430	225-A001	Grassing
0440	225-B001	Agricultural Limestone
0450	225-C001	Mulch, Vegetative Mulch
0460	226-A001	Temporary Grassing
0470	236-A008	Silt Basin, Type D
0480	237-A002	Wattles, 20"
0490	239-A001	Temporary Slope Drains
0500	245-A001	Silt Dike
0510	246-B002	Rockbags
0520	249-A001	Riprap for Erosion Control
2180	907-234-A001	Temporary Silt Fence
2190	907-234-C001	Super Silt Fence

2200	907-234-D001	Inlet Siltation Guard
2210	907-234-E001	Reset Inlet Siltation Guard
2220	907-248-A001	Temporary Site Drainage
2230	907-253-A001	Coir Fiber Baffle

CATEGORY: FENCE, GATES

Line No	Pay Item	Description
0980	607-B018	60" Type I Chain Link Fence, Class II
0990	607-E001	Barbed Wire Fence, Single Strand
1000	607-G127	Gate, 3' x 60" Chain Link
1010	607-P1003	Line Post, 14' x 2 1/2" Galvanized Steel
1020	607-P1008	Line Post, 7' x 1 1/2" Galvanized Steel
1030	607-P2004	Brace Post, 7 1/2' x 2" Galvanized Steel
1040	607-P2022	Brace Post, 5' x 2 1/2" Galvanized Steel
1050	607-P3004	Gate Post, 8' x 2 1/2" Galvanized Steel

CATEGORY: GUARDRAIL, GUIDERAIL

Line No	Pay Item	Description
0930	606-B001	Guard Rail, Class A, Type 1
0940	606-B006	Guard Rail, Class A, Type 1, Double Faced
0950	606-C003	Guard Rail, Cable Anchor, Type 1
0960	606-D022	Guard Rail, Bridge End Section, Type I
0970	606-E001	Guard Rail, Terminal End Section

CATEGORY: INTELLIGENT TRANSPORTATION SYSTEMS

Line No	Pay Item	Description
3080	907-659-A001	Traffic Management Center Modifications

CATEGORY: LIGHTING, ALUMINUM TRUSSED ARM

Line No	Pay Item	Description
1820	682-A005	Underground Branch Circuit, AWG 1/0, 3 Conductor
1830	682-A007	Underground Branch Circuit, AWG 1/0, 5 Conductor
1840	682-A018	Underground Branch Circuit, AWG 2, 3 Conductor
1850	682-A034	Underground Branch Circuit, AWG 6, 3 Conductor
1860	682-A039	Underground Branch Circuit, AWG 8, 3 Conductor
1870	682-B005	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 3 Conductor
1880	682-B007	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 5 Conductor
1890	682-B016	Underground Branch Circuit, Jacked or Bored, AWG 2, 3 Conductor
1900	682-B025	Underground Branch Circuit, Jacked or Bored, AWG 4, 3 Conductor
1910	682-B032	Underground Branch Circuit, Jacked or Bored, AWG 6, 3 Conductor
1920	682-B037	Underground Branch Circuit, Jacked or Bored, AWG 8, 3 Conductor
1930	682-C006	Structure Mounted Branch Circuit, AWG 1/0, 5 Conductor

1940	682-C009	Structure Mounted Branch Circuit, AWG 10, 3 Conductor
1950	682-C015	Structure Mounted Branch Circuit, AWG 2, 3 Conductor
1960	682-D002	Structure Mounted Pull Box
1970	682-D003	Underground Pull Box
1980	682-E001	Structure Mounted Junction Box
1990	682-E003	Underground Junction Box With Concrete Pad
2000	682-F002	Secondary Power Controllers
2010	683-A002	Lighting Assembly, High Mast, LED, Type 120-4-A
2020	683-A124	Lighting Assembly, High Mast, LED, Type 120-8-S
2030	683-A137	Lighting Assembly, High Mast, LED, Type 120-8-A
2040	683-A138	Lighting Assembly, High Mast, LED, Type 120-6-A
2050	683-B212	Lighting Assembly, Low Mast, LED, Type 40-1-8-110
2060	683-B213	Lighting Assembly, Low Mast, LED, Type 40-2-8-110
2070	683-C010	Lighting Assembly, Underpass, Type UP
2080	683-D001	Portable Electric Power Units
2090	684-A003	Pole Foundation, 24" Diameter
2100	684-A006	Pole Foundation, 42" Diameter
2110	684-B003	Slip Casing, 24" Diameter
2120	684-B006	Slip Casing, 42" Diameter
3180	907-682-A1011	Branch Circuit Wire, AWG #2, 3 Conductor
3190	907-682-A1019	Branch Circuit Wire, AWG #4, 3 Conductor

CATEGORY: MISCELLANEOUS/ SPECIALTY WORK ITEMS

Line No	Pay Item	Description
0610	423-A001	Rumble Strips, Ground In

CATEGORY: PAVEMENT STRIPING AND MARKING

Line No	Pay Item	Description
2550	907-626-A010	6" Thermoplastic Traffic Stripe, Skip White
2560	907-626-B006	6" Thermoplastic Traffic Stripe, Continuous White
2570	907-626-E005	6" Thermoplastic Traffic Stripe, Continuous Yellow
2580	907-626-G004	Thermoplastic Detail Stripe, White
2590	907-626-G005	Thermoplastic Detail Stripe, Yellow
2600	907-626-H009	Thermoplastic Legend, White
2610	907-626-H010	Thermoplastic Legend, White
2620	907-627-K001	Red-Clear Reflective High Performance Raised Markers

CATEGORY: SURVEY AND STAKING

Line No	Pay Item	Description
2130	699-A001	Roadway Construction Stakes

CATEGORY: TRAFFIC CONTROL - PERMANENT

Line No	Pay Item	Description
1390	629-A005	Vehicular Impact Attenuator, 70 MPH
1400	630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
1410	630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
1420	630-A005	Standard Roadside Signs, Sheet Aluminum, 0.1" Thickness
1430	630-B002	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted
1440	630-B003	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Overhead Mounted
1450	630-C001	Square Tube Posts, 4.0 lb/ft
1460	630-C004	Square Tube Posts, 9.0 lb/ft
1470	630-C005	Square Tube Posts, 2.0 lb/ft
1480	630-C1001	Square Post Inner Sleeve
1490	630-D006	Structural Steel Beams, W6 x 12
1500	630-D008	Structural Steel Beams, W6 x 9
1510	630-E001	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles
1520	630-E002	Structural Steel Angles & Bars, 3" x 3" x 1/4" Angles
1530	630-F006	Delineators, Guard Rail, White
1540	630-F007	Delineators, Guard Rail, Yellow
1550	630-F010	Delineators, Post Mounted, Double White
1560	630-F011	Delineators, Post Mounted, Double Yellow
1570	630-F012	Delineators, Post Mounted, Single White
1580	630-F013	Delineators, Post Mounted, Single Yellow
1590	630-G004	Type 3 Object Markers, OM-3R or OM-3L
1600	630-I003	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designed
1610	630-I004	Metal Overhead Sign Supports, Assembly No. 10, Contractor Designed
1620	630-I005	Metal Overhead Sign Supports, Assembly No. 11, Contractor Designed
1630	630-I006	Metal Overhead Sign Supports, Assembly No. 12, Contractor Designed
1640	630-I007	Metal Overhead Sign Supports, Assembly No. 13, Contractor Designed
1650	630-I008	Metal Overhead Sign Supports, Assembly No. 14, Contractor Designed
1660	630-I009	Metal Overhead Sign Supports, Assembly No. 15, Contractor Designed
1670	630-I010	Metal Overhead Sign Supports, Assembly No. 16, Contractor Designed
1680	630-I015	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designed
1690	630-I020	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designed
1700	630-I022	Metal Overhead Sign Supports, Assembly No. 4, Contractor Designed
1710	630-I024	Metal Overhead Sign Supports, Assembly No. 5, Contractor Designed
1720	630-I025	Metal Overhead Sign Supports, Assembly No. 6, Contractor Designed
1730	630-I026	Metal Overhead Sign Supports, Assembly No. 7, Contractor Designed
1740	630-I027	Metal Overhead Sign Supports, Assembly No. 8, Contractor Designed
1750	630-I028	Metal Overhead Sign Supports, Assembly No. 9, Contractor Designed

1760	635-A059	Traffic Signal Head, Type 1
1770	635-A065	Traffic Signal Head, Type 2 FYA
1780	635-A070	Traffic Signal Head, Type 3
1790	635-A073	Traffic Signal Head, Type 4
1800	635-A076	Traffic Signal Head, Type 6
1810	647-A001	Removal of Existing Traffic Signal Equipment
2630	907-632-A007	Solid State Traffic Cabinet Assembly, Type III Cabinet, Type 1 Controller
2640	907-632-D001	Solid State Traffic Actuated Controller, Type 1
2650	907-632-G001	Malfunction Management Unit
2660	907-632-J001	Power Service Pedestal
2670	907-634-A047	Traffic Signal Equipment Pole, Type II(L), 30' Shaft, 55' Arm
2680	907-634-A083	Traffic Signal Equipment Pole, Type II, 17' Shaft, 45' Arm
2690	907-634-A374	Traffic Signal Equipment Pole, Type III, 17' Shaft, 35' & 40' Arms
2700	907-634-A397	Traffic Signal Equipment Pole, Type III, 17' Shaft, 50' & 50' Arms
2710	907-634-A545	Traffic Signal Equipment Pole, Type VI, 8' Shaft
2720	907-634-C001	Pole Foundations, Class "B" Concrete
2730	907-634-E001	Camera Pole with Foundation, 50' Pole
2740	907-636-B003	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 10, 2 Conductor
2750	907-636-B014	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 5 Conductor
2760	907-636-B016	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 8 Conductor
2770	907-636-B025	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 6, 3 Conductor
2780	907-636-B043	Electric Cable, Underground in Conduit, THHN, AWG #2, 4 Conductor
2790	907-636-B053	Electric Cable, Underground in Conduit, THHN, AWG #6, 3 Conductor
2800	907-636-D001	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 10, 2 Conductor
2810	907-636-D006	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 5 Conductor
2820	907-636-D008	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 8 Conductor
2830	907-636-D022	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 6, 3 Conductor
2840	907-637-A002	Pullbox Enclosure, Type 2
2850	907-637-A003	Pullbox Enclosure, Type 3
2860	907-637-A004	Pullbox Enclosure, Type 4
2870	907-637-A005	Pullbox Enclosure, Type 5
2880	907-637-C028	Traffic Signal Conduit, Underground, Type 4, 2"
2890	907-637-C030	Traffic Signal Conduit, Underground, Type 4, 3"
2900	907-637-D003	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"
2910	907-637-H001	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
2920	907-637-H002	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2"
2930	907-637-I001	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2 @ 2"
2940	907-637-I002	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2"
2950	907-640-B001	Shielded Cable, AWG #14, 2 Conductor
2960	907-641-A002	Signal Stop Bar Radar Vehicle Detection Sensor, Type 2

2970	907-641-B002	Signal Advanced Radar Vehicle Detection Sensor, Type 2
2980	907-641-C002	ITS Radar Vehicle Detection Sensor
2990	907-641-D001	Radar Vehicle Detection Cable
3000	907-641-F002	Signal Radar Vehicle Detection Processor, Type 2
3010	907-641-G002	ITS Radar Vehicle Detection Processor, Type 2
3020	907-645-B001	Accessible Pedestrian Detection Assembly
3030	907-650-A002	On Street Video Equipment, Fixed Type
3040	907-650-A003	On Street Video Equipment, PTZ Type
3050	907-650-A004	On Street Video Equipment, PTZ Type, Signal Monitoring
3060	907-653-A001	Traffic Sign
3070	907-656-A001	Dynamic Message Sign, Type 1
3090	907-660-A002	Equipment Cabinet, Type B
3100	907-660-A003	Equipment Cabinet, Type C
3110	907-661-A004	Fiber Optic Cable, 72 SM
3120	907-661-B002	Fiber Optic Drop Cable, 12 SM
3130	907-663-A001	Network Switch, Type A
3140	907-663-A002	Network Switch, Type B
3150	907-663-A003	Network Switch, Type C
3160	907-663-A005	Network Switch, Type E
3170	907-666-A001	Bluetooth Detection System, Type A

CATEGORY: TRAFFIC CONTROL - TEMPORARY

Line No	Pay Item	Description
1180	619-A1001	Temporary Traffic Stripe, Continuous White
1190	619-A2001	Temporary Traffic Stripe, Continuous Yellow
1200	619-A3001	Temporary Traffic Stripe, Skip White
1210	619-A5001	Temporary Traffic Stripe, Detail
1220	619-A6001	Temporary Traffic Stripe, Legend
1230	619-A6002	Temporary Traffic Stripe, Legend
1240	619-C6001	Red-Clear Reflective High Performance Raised Marker
1250	619-C8001	One-Way Clear Reflective High Performance Raised Marker
1260	619-C9001	One-Way Yellow Reflective High Performance Raised Marker
1270	619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet
1280	619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More
1290	619-F1001	Concrete Median Barrier, Precast
1300	619-F2001	Remove and Reset Concrete Median Barrier, Precast
1310	619-G4005	Barricades, Type III, Single Faced
1320	619-G5001	Free Standing Plastic Drums
1330	619-G7001	Warning Lights, Type "B"
1340	619-J1004	Impact Attenuator, 60 MPH

1350	619-J2004	Impact Attenuator, 60 MPH, Replacement Package
1360	619-J3001	Remove and Reset Impact Attenuator
2460	907-619-E3001	Changeable Message Sign
2470	907-619-M1002	Smart Work Zone, Portable Queue Trailer
2480	907-619-M1003	Smart Work Zone, Portable Camera Trailer
2490	907-619-M1004	Smart Work Zone, Portable Message Board Trailer
2500	907-619-M2001	Smart Work Zone, Portable Queue Trailer, Operational Month
2510	907-619-M2002	Smart Work Zone, Portable Camera Trailer, Operational Month
2520	907-619-M2003	Smart Work Zone, Portable Message Board Trailer, Operational Month
2530	907-619-M2004	Smart Work Zone, Portable Bluetooth Detection System, Additional Device, Operational Month
2540	907-619-M3002	Smart Work Zone, System Monitoring, Operational Month

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 8308 **CODE: (SP)**

DATE: **08/20/2026**

SUBJECT: **Pay Item Corrections**

PROJECT: **STP-0055-02(271) / 108168301 & STP-0055-02(275) / 108168302**
Madison County

Bidders are hereby advised of the following pay item corrections in the Contract Plans. The Bid Sheets are correct.

- Any reference to Pay Item No. 618-A001 is understood to mean Pay Item No. 907-618-A001.
- Any reference to Pay Item No. 619-F001 is understood to mean Pay Item No. 619-F1001.
- Any reference to Pay Item No. 907-270-A001 is understood to mean Pay Item No. 907-248-A001.
- Any reference to Axis Q18806-LE is understood to mean Axis Q1806-LE.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904- NOTICE TO BIDDERS NO. 8311 **CODE: (SP)**

DATE: **08/20/2026**

SUBJECT: **Slurry Application**

PROJECT: **STP-0055-02(271) / 108168301 & STP-0055-02(275) / 108168302**
Madison County

The Contractor is hereby advised that due to traffic immediately adjacent to the proposed work, the Contractor is restricted from using “Dry Application” methods as a means of lime treatment and lime-fly ash. Only the use of “Slurry Application” methods will be allowed.

General Decision Number: MS20260137 05/18/2026

State: Mississippi

Construction Types: Highway

Counties: Mississippi Counties of
Madison

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

ELEC0480-010 01/01/2025

	Rates	Fringes
TRAFFIC SIGNALIZATION (ELECTRICIAN)	$ 30.35	11.39

SUMS2010-060 08/04/2014

	Rates	Fringes
TRUCK DRIVER: SEMI/TRAILER TRUCK	$ 12.50	0.00
TRUCK DRIVER: DUMP TRUCK (ALL TYPES)	$ 11.02	0.00
TRUCK DRIVER: WATER TRUCK	$ 10.00	0.00
TRUCK DRIVER: MECHANIC	$ 13.00	0.00
TRUCK DRIVER: LOWBOY TRUCK	$ 12.08	0.00
TRUCK DRIVER: FLATBED TRUCK	$ 14.06	0.00
OPERATOR: TRACTOR	$ 10.56	0.00
OPERATOR: SCRAPER	$ 12.25	0.00
OPERATOR: ROLLER (ALL TYPES)	$ 10.85	0.00
OPERATOR: PAVER (ASPHALT, AGGREGATE, AND CONCRETE)	$ 11.74	0.00
OPERATOR: OILER	$ 12.35	0.00
OPERATOR: MIXER	$ 14.25	0.00
OPERATOR: MILLING MACHINE	$ 14.68	0.00
OPERATOR: MECHANIC	$ 13.00	0.00
OPERATOR: LOADER	$ 13.28	0.00
OPERATOR: GRINDING/GROOVING MACHINE	$ 15.90	0.00
OPERATOR: GRADER/BLADE	$ 14.28	0.00
OPERATOR: DISTRIBUTOR	$ 10.95	0.00
OPERATOR: CRANE	$ 15.00	0.00
OPERATOR: CONCRETE SAW	$ 15.50	0.00
OPERATOR: BULLDOZER	$ 13.88	0.00
OPERATOR: BROOM/SWEEPER	$ 10.48	0.00
OPERATOR: BOBCAT/SKID STEER/SKID LOADER	$ 11.64	0.00
OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE	$ 14.37	0.00
OPERATOR: ASPHALT SPREADER	$ 14.71	0.00
LABORER: LABORER-CONES/ BARRICADES/BARRELS - SETTER/MOVER/SWEEPER	$ 10.26	0.00
LABORER: PIPELAYER	$ 13.44	0.00
LABORER: MASON TENDER - CEMENT/CONCRETE	$ 11.27	0.00
LABORER: LUTEMAN	$ 12.88	0.00

LABORER: FLAGGER.....$ 9.91 0.00
LABORER: COMMON OR GENERAL, INCLUDING ASPHALT
RAKING, SHOVELING, SPREADING; AND GRADE CHECKING....$ 10.38 0.00
IRONWORKER, REINFORCING.....$ 15.52 0.00
INSTALLER - SIGN.....$ 11.54 0.00
INSTALLER - GUARDRAIL.....$ 12.07 0.00
HIGHWAY/PARKING LOT STRIPING: TRUCK DRIVER (LINE
STRIPING TRUCK).....$ 10.86 0.00
ELECTRICIAN.....$ 24.04 5.87
CEMENT MASON/CONCRETE FINISHER.....$ 12.85 0.39
CARPENTER (FORM WORK ONLY).....$ 12.32 0.00

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WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking. Additional information
on contractor requirements and worker protections under the EO
is available at
https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject
to the Davis-Bacon Act that were awarded on or between January 1,
2015 and January 29, 2022, and that have not been renewed or
extended on or after January 30, 2022. Executive Order 13658 does
not apply to contracts subject only to the Davis-Bacon Related Acts
regardless of when they were awarded. If a contract is subject to
Executive Order 13658, the contractor must pay all covered workers
at least $13.65 per hour (or the applicable wage rate listed on this
wage determination, if it is higher) for all hours spent performing on
the contract from May 11, 2026, through December 31, 2026. The
applicable Executive Order minimum wage rate will be adjusted annually.
Additional information on contractor requirements and worker
protections under Executive Order 13658 is available at
www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications
and wage rates that have been found to be prevailing for the
type(s) of construction and geographic area covered by the wage

determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ◆SU◆, ◆UAVG◆, ◆SA◆, or ◆SC◆ denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ◆SU◆ identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

◆SU◆ wage rates typically remain in effect until a new survey

is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ◆SA◆ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ◆SA◆ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

SUPPLEMENT TO FORM FHWA-1273

DATE: 07/25/2026

SUBJECT: Federal Contract Provisions for Subcontracts

Federal Contract Provisions for Subcontracts

All subcontracts shall be in writing and contain all pertinent provisions and requirements of the prime contract.

Each "Request for Permission to Subcontract" (Mississippi Department of Transportation Form CAD-720) shall include a copy of the subcontract. The federal contract provisions (FHWA-1273, SUPPLEMENT TO FORM FHWA-1273, NOTICE OF NON-DISCRIMINATION AND DAVIS-BACON AND RELATED ACT PROVISIONS (WAGE RATES)) must be physically incorporated as part of the subcontract. A completed Mississippi Department of Transportation Form CAD-725 must be attached to the CAD-720.

CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Davis-Bacon and Related Act Provisions
IV. Contract Work Hours and Safety Standards Act Provisions
V. Subletting or Assigning the Contract
VI. Safety: Accident Prevention
VII. False Statements Concerning Highway Projects
VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
X. Certification Regarding Use of Contract Funds for Lobbying
XI. Use of United States-Flag Vessels

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only).

I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

1. Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with 29 CFR part 30, including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

V. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VI. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

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4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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

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

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XI. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (40 U.S.C. sections 14501(d) and 14701 and the Appalachian Regional Commission Code as authorized under 40 U.S.C. section 14302)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 40 U.S.C. 14501 allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-655-2 **CODE: (IS)**

DATE: **05/25/2021**

SUBJECT: **Highway Advisory Radio**

Section 907-655, Highway Advisory Radio, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-655 - HIGHWAY ADVISORY RADIO

907-655.01--Description. This Special provision describes furnishing, installing and integrating a Highway Advisory Radio (HAR) System. The work consists of providing all labor, materials, equipment, and incidentals necessary to furnish, install, test, and make functional the HAR System. The work includes complete Federal Communications Commission (FCC) licensing services and all documentation necessary to operate and maintain the equipment.

The HAR System will provide broadcast up-to-the-minute AM radio traffic advisories and be equipped to allow messages to be changed or transmitted via the communications system.

907-655.02--Materials.

907-655.02.1—General. A HAR system shall consist of but is not limited to the following components and materials.

1. AM radio transmitter,
2. Digital recorder/player,
3. Global Positioning System (GPS) synchronizer,
4. National Oceanic and Atmospheric Administration (NOAA) weather receiver,
5. HAR cabinet,
6. Antenna mounting pole,
7. Antenna and grounding,
8. Power distribution / supply,
9. Battery backup system with recharging subsystem,
10. Surge protection,
11. HAR flashing beacons and remote control, and
12. Communications and control center (hardware and software) equipment.

907-655.02.2--System Capabilities and Performance Requirements. Overall system capabilities and performance requirements include the following.

1. Each HAR subsystem shall have a minimum coverage radius of four (4) miles for broadcasting messages to motorists.
2. The network of HAR subsystems shall be synchronized to provide seamless message receptions from one transmission area (zone) to another.

3. System shall provide digital message recording and storage capabilities.
4. Provide National Weather Service (NWS) transmission/broadcast capabilities.
5. Each HAR transmitter shall be capable of being controlled through an Ethernet port unless otherwise stated in the plans.
6. Messages to each HAR transmitter shall be through an Ethernet port unless otherwise stated in the plans.
7. Provide battery back-up power for a minimum of 72 hours without primary power source.
8. Provide HAR advisory static signs, flashing beacon lights, solar power subsystem, and remote control subsystem for flashing.
9. All HAR structures, including the antenna, shall be able to withstand a steady-state 90-mile per hour (mph) wind and ½-inch ice buildup at a minimum. For projects that are in areas with higher wind standards, the higher standard is required.
10. All HAR systems shall use the same frequency throughout the state unless otherwise approved by the Department.

907-655.02.3--General Requirements. General HAR system requirements include the following.

1. The Contractor is responsible for determining and providing any other equipment that is needed for safe and reliable operation of the HAR system.
2. Prototype equipment will not be acceptable.
3. HAR electronics shall be of solid-state design and modular construction.
4. The HAR system consisting of transmitters, digital recorder players, digital communications controllers, GPS synchronizers, power supplies, and NOAA receiver shall be provided, integrated, and warranted by a single HAR vendor.

907-655.02.4--Frequency Selection and FCC Licensing Services. The Contractor shall determine optimal HAR operational frequency and provide complete and comprehensive FCC licensing services which includes the following.

1. The Contractor is responsible for obtaining all required licenses on behalf of the Department, for the Department to operate the HAR stations.
2. The Contractor shall also perform all necessary testing to select the clearest and most appropriate operating frequency for all HAR transmitters at the proposed locations.
3. All transmitters shall operate at the same frequency throughout the state unless otherwise approved by the ITS Engineer. Frequency selection shall be submitted to the Department for approval prior to application for FCC licenses.
4. The Contractor shall provide all location maps, field strength contour maps, engineering drawings (identifying adjacent commercial stations and other possible HAR system using FCC data bases), and paperwork necessary as part of the FCC licensing process.
5. All FCC licensing effort shall be coordinated with MDOT.

907-655.02.5—Standards. All materials, equipment, supplies, installations and testing shall comply with the project requirements, the latest editions of the following standards and industry practices, as applicable, and all other standards and requirements, industry practices, and any state and local codes or ordinances that may apply.

1. Standards and industry practices shall include, but not be limited to, the following:

a. Federal Communications Commission (FCC) regulations
b. National Electric Code (NEC)
c. Underwriters' Laboratories Inc. (UL)
d. National Electrical Manufacturer Association (NEMA)
e. Institute of Electrical and Electronic Engineers (IEEE)
f. American Society of Testing and Materials (ASTM)
g. American National Standards Institute (ANSI)
h. Lightning Protection Institute (LPI)
i. National Electrical Safety Code (NESC)
j. Occupational, Safety, and Health Act (OSHA)

2. All materials, equipment, accessories and components that are not in accordance with the specific standards and requirements shall require approval by the Department. The Contractor shall bring any conflicts between referenced industry specifications and this Special Provision to the attention of the Department.
3. The Contractor shall use the latest version of referenced industry specifications, standards, and practices in force and in existence as of this project's advertisement date unless otherwise noted.
4. The Contractor shall acquire and use all applicable manuals, guidelines, and standards and practices that apply to the design, construction, and testing activities required to complete this project.

907-655.02.6--AM Transmitter. The transmitter subsystem shall meet the following minimum specifications.

1. The transmitter shall be FCC certified under CFR Title 47, Section 90.242 and conform to the Traveler Information Service (TIS) requirements in the United States.
2. Capability for adjustment of RF output power and audio input levels through easily accessible controls.
3. A provision for automatic station identification (Automatic ID) shall be included.
4. The HAR AM transmitter unit shall meet the following minimum requirements:
    a. Operational Frequency Range: 530 kHz to 1700 kHz inclusive
    b. Modulation Type: Amplitude Modulation (6A3)
    c. Transmitter Amplifier Type: High Efficiency Class D (80% or Better)
    d. Radio Frequency Output Power: Adjustable up to 10 Watts
    e. RF Output Impedance: 50 Ohms (Ω)
    f. Frequency Stability: ±0.002 % (20 PPM) from 32° to 95°F or provided by phase locking to GPS.
    g. AF Input Impedance: Both, 600Ω and Hi "Z" (Match Digital Recorder)
    h. Audio Frequency Response: 20 Hz to 15 kHz ±1.0 dB maximum
    i. Audio Distortion: Less than 1.5% from 200 Hz to 3.5 kHz
    j. Modulation Limiter: Built-in 100% peak modulation limiter
    k. Audio Filter: Built-in FCC compliance audio filter (-3dB at 3kHz, 18dB/octave roll-off)
    l. Audio Noise Level: At least 70 dB below 80 percent modulation level
    m. Operational Temperature Range: -22°F to +165°F
    n. Operational Humidity: 0% to 95% non-condensing

907-655.02.7--Digital Recorder / Player. A Digital Recording Unit shall be provided with the following minimum features/functions and specifications.

1. Digitally record and store messages, or audio files.
2. Provide direct, local and remote control of all functions.
3. Provide security access codes for local and remote operations.
4. Interface: Provide capability for interfacing with a 10/100 Base-T Ethernet network supporting TCP/IP unless otherwise specified in the plans.
5. Provide capability for scheduling of automated broadcasts by day, week, month, year, and time.
6. Store a minimum of 250 distinct digital messages or audio files, with variable length messages, which can be recorded, stored, or deleted independently.
7. Provide a minimum of 80 minutes of total recording time.
8. Sequences of up to 100 messages shall be possible
9. Up to 20 message sequences that can be stored and selected.
10. Allow the recording of a message while another message is being recorded. (Simultaneous record/playback).
11. Allow for multiple modes of operation including:
    a. Transmitter on or off
    b. Record a message and monitor the recorded message
    c. Play pre-recorded message(s) by inputting codes
    d. Emergency broadcast mode (Live messages)
    e. NOAA Weather Radio broadcast when emergency alert system event code is activated
12. Provide capability for message retention (indefinitely) without the use of a battery, in the event main site power is lost.
13. Provide the capability for automatic call-sign announcement.
14. The Digital Recorder/Player shall be capable of providing Standard DTMF tones as applicable
15. AF Input Impedance: both, 600Ω and Hi "Z" (Contractor shall provide a compatible microphone)
16. Audio Frequency Response: 20 Hz to 15 kHz ±1.0 dB maximum
17. Audio Distortion: Less than 5% @ from 200 Hz to 3.5 kHz
18. Modulation Limiter: Built-in 100% peak modulation limiter
19. Temperature: -22°F to +165°F; Humidity: 95% non-condensing

907-655.02.8--Simulcast Synchronization. The HAR synchronization subsystem shall meet the following minimum requirements.

1. The system shall be prepared to be part of a wide area broadcasting system with other HAR transmitters as shown in the Plans of the same type for simultaneous broadcast of messages in a synchronized system.
2. This feature shall avoid interference or audio distortion within possible overlapped areas.
3. Each synchronized HAR system shall be equipped with a GPS synchronizer, which shall provide the capability to phase-lock the transmitters to a common reference carrier to minimize heterodyne.

4. The GPS Synchronizer subsystem shall have been successfully tested in conjunction with the transmitter and certified by the FCC in accordance with the provisions of FCC Section No. 90.242.

907-655.02.9--NOAA Weather Receiver. The Contractor shall provide a weather receiver unit meeting the following requirements.

1. The unit shall receive up-to-the-minute information directly from the National Weather Service (NWS).
2. The unit shall work in conjunction with the HAR digital recorder/player to automatically interrupt the current message being broadcast upon receipt of the Emergency Alert System (EAS) event codes from NOAA.
    a. The system shall have fully programmable EAS entry capability allowing the Department to select only the alerts they specifically need for this specific area and application.
3. The Alert feature (on/off) as well as the feature to set the duration for broadcasting the alert, shall be selectable from within the digital recorder/player's voice prompts
4. The NOAA Weather Receiver module shall comply with the following functionality and requirements:
    a. Component shall provide selectable frequencies that are selectable through a series of dip switches or push-buttons
    b. The weather receiver shall provide internal speaker and headphone jack
    c. Weather alert shall detect 1050 Hz alert tones
    d. Component shall provide antenna and required cabling
5. The system shall also automatically activate all flashing beacons whenever a NOAA weather message has been broadcast.

907-655.02.10 HAR Transmitter Cabinet. All HAR shall be designed to operate inside the cabinet described herein. The Contractor shall provide a ground-mounted cabinet for each HAR station. The HAR cabinet shall be included in the cost of the HAR system and shall meet the following minimum specifications.

1. The HAR cabinet shall be approximately the same size as a Type C cabinet as indicated in the Plans.
2. The HAR electronic components shall be housed in a locking, weather resistant, aluminum cabinet that shall completely protect the equipment.
3. The HAR cabinet shall be a NEMA 3R rated aluminum enclosure. It shall provide protection from falling dirt, rain, sleet, snow, windblown dust, splashing water, vandalism and will be undamaged by the external formation of ice on the enclosure.
4. The complete cabinet / enclosure shall be constructed from 0.125-inch thick aluminum alloy type 5052-H32 to provide strong and rigid construction. All exterior seams shall be ground smooth or sealed weather-tight.
5. The door frame/opening shall be designed to help prevent dust and liquids from dropping in the cabinet when the door is opened.
6. The cabinet shall be equipped with adjustable mounting channels to provide versatile positioning of shelves or optional panels or rack mounting angles.

7. The cabinet / enclosure door shall be lockable and provisions for cabinet door handle padlocks shall be included.
8. Provide with an AC power service panel and ground bus.
9. The cabinet shall include a thermostatically controlled ventilation fan to adequately remove heat within the cabinet to prevent performance degradation and reduced reliability. Ventilation fan and filter louver shall be screened against the entrance of dust and foreign matter. A replaceable filter for incoming air shall be provided. The fan shall include a resistor-capacitor network noise suppressor installed across the fan motor power terminals.
10. The cabinet shall include a fluorescent lighting fixture, minimum 15 watt, mounted on the inside top front portion of the cabinet, with a cool white lamp with shatter-proof cover and operated by a normal power factor UL listed ballast. The light shall be door switch controlled. The light shall include a resistor-capacitor network noise suppressor installed across the light fixture power terminals.
11. Provide sunshields and mounting fasteners on all HAR transmitter cabinets. Sunshields and fasteners shall meet the following minimum requirements:
    a. Sunshields shall be 0.125-inch aluminum with smoothed, deburred edges and rounded corners. Provide cutouts for door handles and/or locks as required.
    b. Cabinets shall be equipped with press-in threaded inserts on the cabinet interior. Sunshields shall be mounted by fasteners and aluminum or stainless steel standoffs tightened into the threaded inserts. Provide a minimum of four inserts/fasteners for top face sunshields.
    c. Provide a minimum of six inserts/fasteners for any door or side sunshield.
    d. For doors or sides greater than 54 inches tall, provide inserts and fasteners sufficient for a maximum vertical or horizontal distance of 27 inches between any fasteners.
    e. Furnish and install a top face sunshield on all cabinets.
    f. Furnish and install door or side sunshields on any cabinet face that is within 60 degrees in either direction of due south. A minimum of two door or side faces shall have sunshields on any cabinet. A cabinet with a face exactly perpendicular to the south shall have three shields.
12. Provide agency name, device name and ID labels on all cabinets. Labels shall meet the following minimum requirements:
    a. Labels shall be flat black lettering on a reflective white background. Lettering shall be a minimum of 1 inch (1") in height.
    b. Labels shall be manufactured from pre-coated adhesive backed reflective sheeting material meeting the minimum requirements of AASHTO M268 Type 1.
    c. The agency name labels shall be "MDOT ITS" in one continuous adhesive sheet.
    d. The device ID labels shall include the device name as an acronym and a hyphen, and shall be one continuous adhesive sheet.
    e. The device ID shall be numerals corresponding to the location and shall be installed adjacent to the acronym sheet.
    f. The device ID labels shall also include large 3-inch letters on the side of the cabinet that the ground plane is located that states "WARNING: GROUND PLANE LOCATED XXX' FROM CABINET. NO DIGGING"
    g. Labels shall be installed along the top of the cabinet door , with MDOT ITS label at the top and the device ID labels immediately underneath.
13. Provide a voltage label on all HAR transmitter cabinets in accordance with the NEC labeling requirements. Voltage labels shall meet the following minimum requirements:

a. Labels shall be flat black lettering on a reflective yellow background. Lettering shall be a minimum of 1 inch in height.
b. Labels shall be manufactured from pre-coated adhesive backed reflective sheeting material meeting the minimum requirements of AASHTO M268 Type 1.
c. Labels shall include the voltages entering the cabinet and shall be one continuous adhesive sheet. Examples are "120VAC" or "120/240VAC".
d. Labels shall be installed on all cabinet doors.

14. Provide door locks for all HAR transmitter, controller and solar power/battery cabinet doors all keyed to the same master. Provide one key with each cabinet.

907-655.02.11--Mounting Pole. The mounting pole shall meet the following minimum requirements.

1. The antenna shall be mounted on a freestanding, vertical pole support utilizing adequate antenna mounting hardware.
2. All mounting hardware used shall be stainless steel except for the anchor bolts, which shall comply with the Plans.
3. The combined height between the pole support and the tip of the antenna element shall not exceed 49.2 feet in height from ground level in order to comply with FCC regulations.
4. The antenna pole support shall have the following physical characteristics:
   a. Structurally constructed in one continuous piece
   b. Standard 30 to 35 foot wooden utility pole that meets the requirements of the plan details and Subsection 722.02.7.
   c. Withstand severe weather and heavy winds of 90 mph at a minimum. For projects that are in areas with higher wind standards, the higher standard is required.
5. Foundation of the antenna pole shall conform to the detail requirements in the Plans.

907-655.02.12--Antenna Subsystem. The antenna subsystem consists of an antenna and its grounding components and shall meet the following minimum requirements and features.

1. Omni-directional, vertically polarized antenna providing high efficiency with low radiation angle performance.
2. Manufactured for and tuned to the same frequency as the transmitter.
3. Provide an Effective Isotropic Radiated Pattern (EIRP) of 2.0 mV/m @ 1.5Km (0.93 miles) per FCC regulations.
4. Provide an overall Voltage Standing Wave Ratio (VSWR) 1:4 or better with direct feed (without antenna tuner).
5. Provide direct base feed, Center coil loaded.
6. Antenna height will depend on final selected frequency – approximately 15 feet will be required for 1700 kHz and 25 feet for 530 kHz. The total antenna height (tip) above ground including the mounting pole shall not exceed 49.2 feet as per FCC regulations.
7. Antenna shall be constructed from anodized aluminum with adjustable tip to minimize the standing waves.
8. Antenna subsystem shall be self-supporting and capable of withstanding severe weather conditions with winds of up to 90 miles per hour (steady state) with ½-inch of ice build-up.

9. Antenna subsystem shall include all hardware, mounts, surge protectors, and ground terminals in cabinet/enclosure for a complete subsystem.

907-655.02.13--Grounding. The Contractor shall document and submit to the Department for review and approval, an antenna/grounding subsystem design for this project that meets the grounding requirements defined in the Notice to Bidders entitiled "ITS General Requirements" and the following minimum grounding requirements.

1. The antenna/grounding design shall be provided for each proposed HAR site taking into account local site conditions, soil conditions, antenna type and exact location, along with the ground plane designed.
2. The HAR antenna/grounding design and design submittal shall be either conducted by or signed off by the HAR equipment manufacturer. The submittal shall include antenna and grounding details showing design configuration and proposed equipment and materials, supporting design calculations, recommended installation methods/procedures to be utilized, and equipment and proposed material specifications / cut-sheets.
3. The HAR antenna subsystem shall be provided with an efficient ground plane properly tuned to the operational frequency and ground/soil type and conditions.
4. The Contractor shall be responsible to provide a grounding system that provides the overall HAR system performance as described herein.
5. The grounding subsystem shall consist of a set of horizontal radials of heavy gauge wire or radial loops extending outward from the base of the antenna to ensure proper grounding and performance requirements.
6. An alternate ground system method and configuration may be designed and submitted as part the HAR grounding subsystem design submittal depending on site conditions to the Department for review and approval prior to construction.
7. Regardless of the grounding type; the Contractor shall be responsible for providing a complete grounding subsystem that supports the minimum 4-mile transmission radius system performance as described herein.
8. Care shall be taken to minimize disruption to the existing landscape and to avoid possible underground utilities or conduits. After installation the landscape of the site shall be restored to the state that it was in prior to installation of the ground system.

907-655.02.14--Power Supply / Regulation. The power supply subsystem shall meet the following minimum specifications.

1. The equipment proposed shall be capable of operating from a primary power (115-volt, 60 Hz.) source.
2. The equipment shall have fuse protection against internal short circuit and power surges.
3. The electrical power distribution and regulation/conditioning shall be supplied with a power subsystem equipped with an automatic power transfer switch to the battery back-up system for power failure management or equivalent method. The subsystem shall have no interruptions of power or spikes.
4. Provide low voltage battery protection capability.
5. Provide power regulation/conditioning: ±3% output voltage regulation with input voltage variations ±15%. Provide noise attenuation and harmonic filtering

6. The subsystem is responsible for distribution of the power required to all components of the HAR system. It shall have built-in visual indicators to show power and alarm status at a minimum.

907-655.02.15--HAR Back-up Battery System. The battery backup system shall meet the following minimum specifications.

1. The Contractor shall provide a battery backup system that will provide sufficient battery power to operate all components of the HAR subsystem, including the AM transmitter operating at 10 watts full power output, for minimum of 72 hours (3 days) without normal 115-volt primary power or other external service.
2. The current draw of each component of the HAR subsystem including the AM transmitter, digital recorder/player, communications equipment and any other electrical loads present during operation shall be measured and provided by the Contractor to the Department for verification of proper sizing of the back-up battery system.
3. The back-up system shall have an automatic charging unit and power changeover with no interruption to HAR transmissions. The system shall also include automatic charging circuitry to prevent overcharging and thermal (overheat) protection.
4. The battery back-up system chargers shall meet all specified requirements while operating between -40 °F to +60 °F, and 95% relative humidity.
5. Batteries shall be maintenance free, industrial, deep-cycle gel cell or absorbed glass mat (AGM) type.
6. The battery charger shall trickle charge the batteries from the normal 115-volt primary power.
7. The back-up system shall not overcharge the batteries and shall include a load controller and a charge regulator in addition to automatic battery temperature compensation. Provide a method (voltmeters, ammeters) to indicate the current state and rate of charge of the batteries.
8. One set of rechargeable batteries shall be furnished for each local transmitter included in this project.

907-655.02.16--Antenna Cabling. The antenna cabling shall meet the following minimum specifications.

1. The Contractor shall use high quality, low-loss transmission cable to connect the antenna, inline lightning suppressor, and transmitter. Belden 9913 or Times LMR-400 low-loss coaxial cable or equivalent.
2. The coax cable shall be recently manufactured and certified for having factory testing performed to verify the cable design characteristics.
3. The Contractor shall provide weatherproofing for the transmission cable/connector ends, suitable for direct environmental exposure.

907-655.02.17--Surge Protection. The HAR system shall be provided with surge protection on all input and output audio lines, antenna lines and power feeds, in order to protect the equipment during inclement weather conditions and common transients (transient voltage surges and induced current) along the primary power source.

The surge protection equipment shall meet the following minimum requirements.

1. The surge protectors shall include but are not limited to the following types and requirements:
   a. Power Line Surge Protector Response: Surge suppression in cabinet shall meet all equipment manufacturers' recommendations.
   b. Antenna Surge Projector Response: < 4.0 ns @ 18,000 Amp
2. All surge protection devices shall be UL listed.
3. Radio surge protectors shall introduce low insertion losses (≤ 0.1 dB)

907-655.02.18--HAR System Software Application. If called for in the plans, the Contractor shall provide a network-ready, client-server HAR control and monitoring application software package that operates over the existing TMC Network. In areas were HAR systems exist the Contractor shall integrate new HAR stations with existing HAR server software and hardware.

907-655.02.18.1--HAR Client Software Requirements. The HAR software application shall provide centralized operator control and monitoring of dispersed HAR and flashing beacon subsystems with the following minimum features and capabilities.

1. Shall be responsible for serving as the user interface to view and control the HARs.
2. Shall be installed on each of the existing TMC workstations.
3. Shall allow the TMC Operator to select, display, schedule, and modify messages, transmit messages, list diagnostic information, and control of HAR field stations via the network.
4. Shall support message recording through external audio sources and by a microphone via audio line inputs in the workstations.
5. Shall support review, selection, scheduling and playback of recorded messages from a HAR message library.
6. Shall support control of flashing beacons over an Ethernet-based subsystem and any other communication subsystem stated in the plans.
7. Shall provide for multiple modes of operation as follows:
   a. Transmitter control
   b. Record and monitoring of messages
   c. Playing of pre-recorded messages
   d. Emergency broadcast mode (live)
   e. NOAA weather radio broadcast when alert is activated.
8. Shall provide the capability for user-definable HAR groups and HAR Sign groups that will allow the user to execute commands on the entire Group with a single command.
9. Shall provide status information based on control commands sent to indicate which HAR Signs with Flashing Beacons are currently activated.
10. Shall be capable of importing audio files created externally and shall log updates
11. Shall be able to convert typed text into voice that can be used for a clear understandable message.
12. Provide the capability to group signs and then click an icon to issue an on or off command to the group.
13. The HAR system operators shall be able to toggle the beacon state within the client software, turning the devices off or on.

907-655.02.18.2--HAR Server Software Requirements. The HAR Server is responsible for management of all HAR device configuration and communications. The HAR Server Software shall meet the following minimum requirements.

1. Shall support control of flashing beacon controllers over a Ethernet-based subsystem and any other communication subsystem stated in the plans.
2. Shall support and be licensed for a minimum of fifteen (15) HAR clients.
3. Shall support up to 40 HAR stations on a single server without additional software or upgrades. The Contractor shall provide a current HAR Server software license for a minimum of 10 HARs.
4. Shall allow devices to be added, removed or modified any time after the initial software installation and configuration.
5. Shall generate a dynamic geographic map viewable from the HAR Clients. The map shall include the following features:
    a. Displays icons for HARs and HAR Signs with Flashing Beacon locations.
    b. Capability to zoom in or out.
    c. When a HAR location is selected, associated HAR Sign with Flashing Beacons shall be highlighted.
    d. Shall allow the capability for placing dynamic icons representing installed HARs and Flashing Beacons in their appropriate locations.
    e. Other ITS device icons shall be statically placed on the same site map for TMC Operator reference.
6. All software configurations shall be through a graphical user interface.
7. Shall prevent more than one user to simultaneously control the same HAR or HAR groups.
8. Shall support communication to HAR transmitters through cellular, dial-up lines and through the IP/ Ethernet network.

907-655.02.18.3--HAR Software System Configuration. The Contractor shall fully configure the HAR Control System for operation. At a minimum, this shall include the following.

1. Install and configure map of the project area with HAR locations and HAR Sign locations. The map image must be approved by the Engineer prior to installation and configuration.
2. Configure the HAR Server communications and establish and test service to all HAR and HAR signs.
3. Install and configure all HAR stations and flashing beacon controllers.
4. Configure a minimum of fifteen (15) users (provide capability to support local and remote users).
5. Duplicate configurations shall be made at both the Regional TMC location and the Statewide TMC location in Jackson, MS.

907-655.02.18.4--Hardware Requirements. When called for in the plans or a Notice to Bidder, the Contractor shall provide and configure one server at the Regional TMC and another server at the Statewide TMC in Jackson, MS. The server shall meet or exceed the minimum server requirements specified by the HAR software vendor.

907-655.02.19--HAR Flashing Beacons and Control Subsystems. The flashing beacon shall meet

the following minimum requirements.

1. Static signs will be used with stationary HAR systems as shown in the Plans. The bottom of the sign will notify motorists that information is on a specific AM RF. The top of the sign will have a yellow background and the words "URGENT MESSAGE WHEN FLASHING" in black letters. This message refers to the two flashing beacons that will be located on top of the sign.
2. The two beacons shall require their own power, control and cabinet components. All beacons shall be DC-powered. The DC-powered beacons shall have PV solar arrays and a battery subsystem as described in Subsection 907-655.02.20.
3. The beacons shall be turned on or off remotely with controller components as shown in the plans. A control cabinet shall house the beacon control and power components.
4. HAR flashing beacons shall be constructed in accordance with the Plans for HAR static signs and flashing beacons.
5. The beacon component shall include two (2) beacon housings of polycarbonate construction.
6. The LED beacon lens/heads located on highways/freeways shall be one (1) foot in diameter.
7. The beacons shall have a flash rate as specified in the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD).
8. The flashing beacon shall be activated via TCP/ IP over cellular network or fiber optic cable, as shown in the plans. The controller shall be used to remotely control the flashing beacons.
9. The flashing beacon system shall include an adjustable automatic shutoff timer that will automatically turn off the flashers in a predetermined amount of time if when done through the paging system.
10. All beacon control and power components (except batteries) shall be housed in a minimum NEMA 3R type aluminum cabinet/enclosure. The cabinet/enclosure shall be constructed from 0.125-inch thick aluminum alloy type 5052-H32. The cabinet/enclosure door shall be lockable and provisions for cabinet door handle padlocks shall be included.

907-655.02.19.1--Pager Control Subsystem. The pager-based control subsystem, if required per the plans, shall meet the following minimum requirements.

1. The Contractor shall be responsible for establishing and setting up an account with a local Service Provider providing paging services as required for the HAR subsystem operations. All activation and operational / monthly billing costs shall be paid by the Contractor during the test phases. Upon Final Acceptance the account will be transferred to the MDOT.
2. The Contractor shall verify pager service is available and FCC license is approved for that particular site prior to construction.
3. HAR system operators shall be able to simply call a designated pager number and enter touch-tone control functions, turning the device off or on.
4. The flashing beacon, pager-based controller shall provide the following capabilities:
    a. Pager based controller shall operate at the 900 MHz frequency range.
    b. Support minimum baud rate of 1200.
    c. Support Post Office Code Standardization Advisory Group (POCSAG) line (numeric service).

d. Single pager number shall control multiple devices, if supported by local paging service.
e. Operate with a solar power subsystem described herein.
f. Internal relay shall provide contact closure for control of flashing beacons.
g. The pager controller shall be housed in the beacon control and power cabinet.
h. The flashing beacon controller shall be compatible with and controlled by the HAR central control software through the pager control subsystem.

5. The Contractor may propose an alternative pager based control system for review and approval by the Department.

907-655.02.19.2--Cellular Control Subsystem. The cellular-based control subsystem shall meet the following minimum requirements.

1. The Cellular Control Subsystem shall include cellular modem, TCP/ IP controlled relay, and all associated parts and equipment for fully functional installation.
2. The Contractor shall be responsible for establishing and setting up an account with the DOT Service Provider facilitating cellular services as required for the HAR control subsystem operations. All activation and operational / monthly billing costs shall be paid by the Contractor during the test phases. Upon Final Acceptance the account will be transferred to the MDOT.
3. The Contractor shall verify cellular service is available and approved for that particular site prior to construction.
4. The cellular-based controller, cellular modem shall adhere to the following:
    a. The cellular modem shall utilize wireless TCP/ IP
    b. The cellular modem shall support networking protocols: TCP, UDP, DNS, DHCP, HTTP, SNMP, and Modbus.
    c. It shall be provided with a built-in web user interface providing remote configuration and control.
    d. The cellular modem shall provide the following interfaces:
        i. 10/100 Base-T Ethernet port connection
        ii. RJ-45/ DB9 Serial port connection.
        iii. RS-232 Serial port connections. Baud rates up to 230 Kbps.
    e. The cellular modem shall be capable of supporting connection, remote communication, programming, and diagnostics via the Internet.
    f. The controller subsystem shall have all necessary hardware such as communications cables, and controller interface.
5. The cellular-based controller, TCP/ IP controlled relay shall adhere to the following:
    a. It shall be IP addressable and configurable via built-in web user interface.
    b. Shall provide 12 Amp/ 120VAC relay to be connected to the contact closure of the flashing beacons.
    c. Network Interface: RJ45 10/100 Base-T Ethernet port connection.
    d. Shall be controllable by simple text commands or XML.
6. The cellular-based control subsystem components shall be compatible with and controlled by the HAR beacon client and server software.
7. The cellular modem and IP controlled relay shall be housed in the beacon control and power cabinet.

907-655.02.20--Solar Power System for Flashing Beacons. The Contractor shall provide required solar power equipment to provide power to the flashing beacons if shown in the plans as per the following guidelines. The photovoltaic power supply shall include but is limited to the battery, photovoltaic modules and all required peripherals. The solar power generated should be able to optimally operate the Flashing Beacons as intended. The solar power system shall meet the requirements of the Notice to Bidders entitled "ITS General Requirements."

907-655.02.21—HAR Sign Materials and Sign Supports. The HAR Sign layout (size, font, lettering, etc.) shall be as shown in the plans. All sign materials and sign supports shall conform to the requirements of Subsection 630.02 and Section 721. Sign locations shown on the plans are approximate and may need to be adjusted at the direction of the Engineer. The Contractor will be required to stake out proposed HAR sign locations and gain approval from the Project Engineer prior to proceeding with installation. Beam lengths shown on the plans are estimated only and shall be field verified by the Contractor. The Contractor shall submit shop drawings with the proposed sign layout and final beam lengths to the Engineer for approval.

907-655.03--Construction Requirements. All equipment shall be installed according to the manufacturer's recommendations, the Plans, and as follows.

1. Materials and associated accessories/adapters shall not be applied contrary to the manufacturer's recommendations and standard practices.
2. The equipment shall be designed to prevent reversed assembly or improper installation of connectors, fasteners, etc. Each item of equipment shall be designed and installed to protect personnel from exposure to high voltage during equipment operation, adjustments, and maintenance.
3. The Contractor shall furnish and install all supports, clamps, cables, connections and other materials to secure the HAR transmitter and antenna at the selected locations. The type of mounting poles to be supplied and the location of their installation shall be as specified herein and depicted in the Plans.
4. The Contractor shall be responsible for locating possible utility conflicts prior to excavating and installing the ground-plane system. In case of space limitations or structural modification constraints, the Department shall be informed prior to site construction.
5. The Contractor shall perform detailed pre-installation site surveys and frequency tests to determine the adequacy of each HAR transmitter site (e.g., power, grounding, communications, etc.) for the intended purpose and performance criteria and shall submit recommendations to the Department for alternative site(s) if a selected site is unsuitable. The Contractor shall locate and configure the HAR System to maximize the broadcast and overall performance for each HAR location.
6. Do not install electrical service or electronic devices in the HAR transmitter cabinet or connect to the cabinet until cabinet and antenna grounding systems have been successfully completed and accepted, and the cabinet ground connection has been installed.
7. Do not install electronic devices in the cabinet until electrical service has been installed and activated, and the cabinet ventilation fan is operational.
8. Installation of HAR signs shall conform to construction requirements set forth in Subsection 630.03.

9. The solar power panels for the flashing beacons shall be properly oriented to maximize exposure to the sun during the shortest days of the year at the latitude and longitude of the site.
10. The HAR Signs shall be covered at all times until the HAR system begins full operation from the TMC. The covering shall be a rugged, non-transparent material that is attached to the sign in a secure manner. The material and attachment methods shall be submitted to MDOT for approval prior to purchase and use.
11. The Contractor shall provide the MDOT with a written inventory of items received and the condition in which they were received. Inventory shall be inclusive of make, model, and serial numbers, MAC address, and installation GPS coordinates. All equipment shall be installed according to the manufacturer's recommendations or as directed by the MDOT.
12. Any new, additional or updated drivers required for the existing ATMS software to communicate and control new HAR installed by contractor shall be the responsibility of the contractor.

907-655.03.1--Testing. All equipment associated with the HAR sites shall undergo testing to verify conformance to requirements of the plans and these special provisions. The Contractor shall conduct a Project Testing Program as required in the Notice to Bidders entitled "ITS General Requirements.". All costs associated with the Project Testing Program shall be included in the overall contract price; no separate payment will be made for any testing.

907-655.03.1.1--HAR Stand Alone Test (SAT). In addition to the requirements set forth in the Notice to Bidders entitled "ITS General Requirements", the Contractor shall, at a minimum, demonstrate compliance with all requirements specified herein and include the following minimum test requirements.

1. The test equipment should include a power/VSWR meter suitable for AM broadcast band (530 ~ 1,700 kHz), a fifty ohms (50Ω) dummy load and a Hi-Z hand held frequency counter with telescopic antenna.
2. The Contractor must demonstrate full coverage clear reception throughout the project limits as shown on the Plans. The testing process shall include, but not be limited to, the following types of tests:
    a. Remote HAR field tests,
    b. Remote flashing beacon field tests,
    c. Central HAR control tests including GPS synchronization tests for frequency and audio,
    d. Central flashing beacon remote control tests,
    e. Remote HAR to central communications tests, and
    f. Signal strength at the HAR beacon signs
3. The Contractor shall verify that the transmitter operates at 10 watts or less and that the field strength does not exceed the 2mV/m at 0.93 miles.
4. Verify that the HAR transmitter RF power output, as well as VSWR; are within acceptable specified limits as specified herein.
5. Verify proper non-modulated Carrier frequency alignment.
6. Verify modulated carrier does not exceed 6k Hz. Bandwidth (with Side Bands) as per FCC Part 97.
7. Verify proper audio level adjustment as per manufacturer recommendations when

performing local recordings with provided microphone via XLR, ¼-inch Phono jack or mini-plug as well as remote recordings dial-upbased network.

907-655.03.2--Submittals. The submittal requirements defined in the Notice to Bidders entitled "ITS General Requirements" shall be met. All costs associated with submittals shall be included in the overall contract price; no separate payment will be made for any documenting and submitting.

907-655.03.3--Quality Assurance. The quality assurance requirements defined in the Notice to Bidders entitled "ITS General Requirements" shall be met. All costs associated with the quality assurance requirements shall be included in the overall contract price.

907-655.03.4--Warranty. At a minimum, the warranty requirements defined in the Notice to Bidders entitled "ITS General Requirements" shall be met. All costs associated with the warranty requirements shall be included in the overall contract price.

907-655.03.5--Training. The minimum training requirements shall be as defined in the Notice to Bidders entitled "ITS General Requirements."

907-655.04--Method of Measurement. The Highway Advisory Radio System will be measured in units of each.

The HAR Sign with Flashing Beacons of the type specified will be measured per each installation.

The HAR System Servers will be measured as a lump sum unit.

The HAR System Software will be measured as a lump sum unit.

The HAR Training will be measured as a lump sum unit.

907-655.05--Basis of Payment. Highway Advisory Radio System, measured as prescribed above, will be paid for at the contract unit price bid per each, which price shall be full compensation for furnishing, installing, FCC licensing application, coordination and acquisition, pager and cellular service activation and monthly billing costs (only during testing and where required), HAR antenna/grounding design submittal, system integration, all documentation and submittals, warranties, and testing of a complete HAR Subsystem and software including the HAR equipment/components as specified herein including the AM radio transmitter, digital recorder/player, global positioning system synchronizer, NOAA weather receiver, antenna mounting pole, antenna and grounding, power distribution/supply, battery backup system with recharging subsystem, surge protection, the cabinet, all cabling, connections to support structures (includes all incidental components, attachment hardware, mounting brackets, bolts, straps, or any other items to mount the HAR equipment / components as intended), all required software, and satisfactory completion of testing requirements and all work, equipment and appurtenances as required to effect the full operation including remote and local control of HAR sites complete in place and ready to use. It shall also include all labor, tools, materials, equipment and incidentals necessary to complete the work and quality assurance.

Progress payments for Highway Advisory Radio System shall be paid as follows:

1) 30% of the contract unit price upon approval of Pre-Installation test results;
2) An additional 40% of the contract unit price upon approval of Stand Alone Site Test results;
3) An additional 20% of the contract unit price upon approval of Conditional System Acceptance test results; and
4) Final 10% of the contract unit price upon Final System Acceptance.

HAR Sign with Flashing Beacons, measured as prescribed above, will be paid for at the contract unit price bid per each,.which price shall be full compensation for designing, furnishing, installing, system integration, and testing of a complete HAR Sign with Flashing Beacons including the sign materials, sign supports, support foundations, flashing beacons, solar power system, controller,pager controller, cellular controller, and battery cabinets, cabling, connections and satisfactory completion of testing and training requirements and all work, equipment and appurtenances as required to effect the full operation including remote and local control of HAR Sign with Flashing Beacons sites complete in place and ready to use. The price bid shall also include system documentation including: shop drawings, operations and maintenance manuals, wiring diagrams, block diagrams and other materials necessary to document the operation of the HAR with Flashing Beacons. This also includes all labor, all documentation and submittals, warranties, testing, tools, materials, equipment, and incidentals necessary to complete the work and quality assurance.

Progress payments for the HAR Sign with Flashing Beacons shall be paid as follows:

1) 30% of the contract unit price upon approval of the Pre-Installation test results;
2) An additional 40% of the contract unit price upon approval of Stand Alone Site Test results;
3) An additional 20% of the contract unit price upon approval of Conditional System Acceptance test results; and
4) Final 10% of the contract unit price upon Final System Acceptance.

The HAR System Servers, measured as prescribed above, will be paid at the contract lump sum price, which price shall be fullcompensation for furnishing, installing, system integration and testing of the servers. The price bid shall include all necessary servers at both the Regional TMC and Statewide TMC. This also includes all labor, all documentation and submittals, warranties, testing, tools, materials, equipment and incidentals necessary to complete the work and quality assurance.

Progress payments for the HAR Servers shall be paid as follows:

1) 30% of the contract unit price upon approval of Stand Alone Test;
2) An additional 60% of the contract unit price upon approval of Conditional System Acceptance test results; and
3) Final 10% of the contract unit price upon Final System Acceptance.

The HAR System Software, measured as prescribed above, will be paid at the contract unit price as a lump sum item. This price shall be full compensation for all labor, all

documentation and submittals, warranties, testing, tools, materials, equipment, quality assurance, and all incidentals necessary to complete the work.

Progress payments for the HAR Software shall be paid as follows:

1) 30% of the contract unit price upon approval of Stand Alone Test;
2) An additional 60% of the contract unit price upon approval of Conditional System Acceptance test results; and
3) Final 10% of the contract unit price upon Final System Acceptance.

Highway Advisory Radio System Training, measured as prescribed above, will be paid for at the contract unit lump sum price, which price shall be full compensation for all training costs including coordination, materials, labor, training location costs, and all incidentals required to complete the training as described in the Notice to Bidders entitled "ITS General Requirements."

Payment will be made under:

907-655-A:	Highway Advisory Radio System	- per each
907-655-B:	HAR Sign with Flashing Beacons *	- per each
907-655-C:	HAR System Servers	- lump sum
907-655-D:	HAR System Software	-lump sum
907-655-E:	HAR System Training	- lump sum

* Additional description may be added

SPECIAL PROVISION NO. 906-9

Training Special Provision

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," (Attachment 1), and is in implementation of 23 U.S.C. 140(a). Additional information regarding On the Job Training (OJT), Forms, and *Exhibits* are available at the following website.

http://www.gomdot.com/Divisions/CivilRights/Resources.aspx

As part of the Contractor's equal employment opportunity affirmative action program training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainee hours to be trained under this special provision will be as indicated in the bid schedule of the contract.

In the event that a Contractor subcontracts a portion of the contract work, the Contractor shall determine how many, if any, of the trainee hours are to be trained by the Subcontractor, provided, however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also ensure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the State transportation agency for approval an OJT Trainee Schedule Form indicating the number of trainees to be trained in each selected classification, training program to be used and start date of training for each classification. Furthermore, the Contractor shall provide a Trainee Enrollment Form for each trainee enrolled. The Contractor will be credited for each trainee employed on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities, women, and disadvantaged individuals toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority, women, and disadvantaged individuals (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps that they take in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he/she has successfully completed a training course leading to journeyman status or in which he/she has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the State highway agency and the

Federal Highway Administration. The State transportation agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions.

Except as otherwise noted below, the Contractor will be reimbursed $5.00 per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if failure to provide the required training is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in the work classification or until the trainee has completed the training program. It is not required that all trainees be on board for the entire length of the contract. A Contractor's responsibility will have been fulfilled under this Training Special Provision if the Contractor has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program being followed in providing the training. The Contractor shall provide each trainee with a certificate showing the type and length of training satisfactorily completed.

The Contractor will provide for the maintenance of records and furnish periodic reports to include an OJT Trainee Monthly Report form and an OJT Trainee Termination Report form when appropriately documenting performance under this Training Special Provision.

Contractor Responsibilities:

1. Provide On-the-Job Training aimed at developing full journey level in the type of trade or job classification involved. Although training under this contract is not limited to minorities, females, and disadvantaged individuals, contractors should be aware that one of the primary objectives of the training program is to increase the participation and skills of minorities, females, and disadvantaged individuals in highway construction.

   A disadvantaged individual would be considered individuals that fall at or below the Federal Poverty Line; a one-person household income of $15,060, two-person household income of $20,440, three-person household income of $25,820 and a four-person household income of $31,200. Individuals who qualify for TANF or SNAP benefits would also be considered disadvantaged.

2. Contractors must exert good faith efforts to comply with the Equal Employment Opportunity contract requirements governing recruitment and upgrading when seeking to fill vacancies in the work force and select candidates for the training program. Accordingly, the contractor shall make every effort to enroll minority trainees, women, and disadvantaged individuals (e.g., conducting systematic and direct recruitment through public and private sources likely to yield minority, women, and disadvantaged trainees) to the extent that such persons are available within a reasonable area of recruitment. Adequate documentation of good faith efforts should be maintained and submitted to the Civil Rights Division, Contract Compliance/OJT Coordinator when requested.

3. No employee shall be employed/assigned as a trainee in any classification in which he/she has successfully completed a training course leading to journey level status or in which he/she has been employed as a journey person. The contractor shall satisfy this requirement by completing the OJT Trainee Enrollment Form for each potential trainee. The completed form shall be submitted to the Office of Civil Rights for review and approval.

4. Contractors are expected to fulfill their obligations under the Training Special Provisions. Those obligations will be considered fulfilled if contractors have provided acceptable training to the number of trainees specified in the OJT Plan.

5. Upon deciding to sub-contract out a portion of the contract work, determine how many, if any, of the trainees are to be trained by the sub-contractor. The contractor, however, shall retain the primary responsibility for meeting the training requirements imposed by the special provision. Additionally, the contractor will ensure that the Training Special Provision is made applicable to such sub-contract. Training and upgrading of minorities, women and disadvantaged individuals toward journey level status is a primary objective of the Training Special Provision.

6. Prior to commencing construction (no more than 60 days from the date of notice to proceed), the contractor shall submit to the State Transportation Agency (MDOT) for approval the Trainee Schedule Form indicating the number of trainees to be trained in each selected classification and any appropriate attachments representing their training program

or OJT Plan (See Exhibit 1) to be used. The contractor shall also submit Trainee Enrollment Forms for each trainee to be trained (See Exhibit 2). Contractors should submit the above-mentioned forms as their OJT Plan to the Project Engineer who will in turn forward on to the Office of Civil Rights for Approval.

7. Designate and make known at the preconstruction conference to the Office of Civil Rights and the Project Engineer the name of the company Equal Employment Officer (EEO Officer)/Designated Representative who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of equal employment opportunity and who must be assigned adequate authority and responsibility to do so. These individuals should have the authority to sign monthly trainee enrollment/time reports.

8. Implement the EEO policy and contractual responsibilities to provide equal employment opportunity in each grade and classification of employment. To assure that the preceding policy is adhered to, the following actions will be taken as a minimum:

   a) Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six (6) months.

   b) Ensure that supervisors brief all employees, which includes trainees, on company EEO Policies.

9. Utilize the following procedures to request additional training classifications not presently approved by the STA or Department of Labor Office of Apprenticeship for assignment to the OJT for training.

   a) Initially, for a "trainee" to be trained, there must be a "journeyman" on the project site to train the employee. The "trainer" can be a supervisor, foreman or another employee in the "trainee classification" who already is a "journeyman".

   b) If a classification is not on the "Wage Determination" included in the contract, a written request for an additional classification should be submitted by the contractor to the Project Engineer.

   c) Preferably, the request (written) should originate in the Project Office so that they will know that the contractor has applied for the needed classification and that payrolls will not be delayed. The Project Office will ensure that they have been given the project number, contractor, subcontractor, craft, and rate and will submit it to the Office of Civil Rights.

      For documentation purposes it is recommended to the contractor that the request for additional classifications should be written and addressed to the Office of Civil Rights that states in concise manner the need for the new classification in lieu of using an existing classification within the OJT Manual. In addition, the training program with required hours and job description similar to the OJT Manual.

d) After receipt of the Request for Additional Classification, the OJT Coordinator will:

1. Review for preliminary approval and submit a new Trainee Schedule Form to the contractor for signature.

2. Upon receipt of the signed form from the Project Office/Contractor, a cover letter is attached to the appropriate documentation. The cover letter and documentation are transmitted to the Department of Labor (DOL) in Washington D.C. requesting concurrence of the new classification.

e) If an individual is hired for the requested classification during the time frame when the STA (OJT Coordinator) is awaiting approval, the individual will be paid at the proposed wage rate.

f) If the DOL does not agree with the proposed classification and wage rate, the DOL will decide on the appropriate wage rate for the classification. The OJT Coordinator will make a copy of the letter and attach a cover letter which cites the recommendation and rationale for the disapproval.

g) If the DOL approves the request, a letter will be sent to the STA (OJT Coordinator) citing approval and the accompanying wage rate. The OJT Coordinator will make a copy of the approval letter and attach a cover letter which cites the approval of the classification and wage rate. This letter is sent to the Contractor and all "paper copies" listed at the end of the cover letter.

10. Begin training as soon as possible after the start date indicated on the Trainee Schedule Form for work utilizing the skill involved. In addition, if training does not begin at the preceding time, a written explanation will be given to the Project Engineer citing the rationale and time frame when training will commence on the project. The trainee should be briefed (furnished a copy) at this juncture on the training program for which he/she has started to ensure understanding of the phases of work and wage rates within each section of the program.

11. After commencement of work at the project site, the Contractor shall implement the following Trainee Wage Rates according to the Davis Bacon rules:

a) Normally, trainees are paid a percentage of journeyman's wages (Davis Bacon rates). The following payment plan is required in the FHWA Training Special Provision:

b) Sixty percent (60%) of the journeyman's wages for the first half of the training period;

c) Seventy-five percent (75%) of the journeyman's wages for the third quarter of the training period; and

d) Ninety percent (90%) of the journeyman's wages for the last quarter of the training period.

The wage rates above apply unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Department of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by these supplemental specifications.

12. Indicate on the payroll records the trainee i.e., roller operator trainer for a given classification.

13. Recruit a replacement for the trainee when training obligations have not been met on a project provided that there are enough work hours remaining on the project as well as time within the work phase to complete training. Contractors will document in writing all Good Faith Efforts (GFE) in accordance with FHWA Form 1273 Section II 4a- 4e Recruitment and 6a-6d Training and Promotions) (See Exhibit 9). The contractor must submit to Project Engineer documentation of his GFE efforts made to hire replacements for trainees who terminated their training program. The GFE will be compiled into a letter which is attached to the MDOT Monthly Training Report and submitted to them along with an MDOT Termination Report (See Exhibit 4) that includes the names/reasons of individuals who separated from the company during the respective reporting period. The GFE will be evaluated to determine if it is sufficient or insufficient. If the GFE is deemed insufficient a contract compliance review will be scheduled to determine the contractor's compliance with the Training Special Provision. The Project Engineer will forward documentation to the Office of Civil Rights with five (5) days of receipt.

14. Transferring trainees from one federal-aid project to another:

a) Contractors are to make written requests for transferring trainees from one federal-aid project to another federal aid project and submit them to the Project Engineer to be forwarded to the Office of Civil Rights for review and approval.

b) In addition, if trainees are approved for transfer, the gaining project must have the same training classification approved for that project. The contractor must provide documentation, i.e., written letter that the gaining project will have sufficient work time to complete training requirements.

c) All hours trained by employees on a project other than their originally assigned project without the proper transfer approval will not be counted towards the OJT obligation for that project. If the OJT obligation is not met, the prime contractor will have to show good faith efforts in fulfilling this portion of the contract requirement.

15. Utilize and submit monthly trainee reports (See Exhibit 3) to document training activities to the respective project engineer. Monthly training reports should be accurate, concise and include the following items:

a) Report Period (month) – the date at the top of the training report reflects the month and year the trainee received the training (not the date the report was completed by the contractor)

b) Project Number – project number on the certified payroll and training report should match.

c) Contractor Name

d) County – self explanatory

e) Trainee Name

f) Job Classification/Hours Required – obtained from OJT Manual- certified payrolls and training reports should match.

g) Hours required – obtained from OJT Manual should match the Job Classification

h) Date Training Started/Terminated – inserted by the contractor.

i) Hours trained for the month – training performed this month on federal aid projects and inserted by a respective week ending date i.e., Sunday.

j) Hours to date – all training annotated on report for previous and current month.

k) Hours of training remaining – subtraction of total training hours to date from training hours required.

l) Trainee wage rate – contractor cites the appropriate wage rate for phase of training.

m) Original signatures and dates for respective training period citing trainee, trainer, and Company EEO Officer/Designated Representative

n) Every applicable field on the training report is completed.

16. Monthly training reports intended for submission to the MDOT Central Office should cite activities illustrated in the individual training forms received from project personnel. Monthly Training Reports should be submitted to the Project Engineer within fifteen (15) days of the current month with data covering the previous month's activities. However, if monthly training reports are not submitted within this time frame, the Contractor will provide a written explanation to the project engineer citing the reason for the delay. In addition, a copy of this documentation will be provided to the MDOT Office of Civil Rights within ten (10) days of receipt by the Project Engineer.

17. Retain all EEO records i.e., employment breakdown by race and craft on a project,

recruitment and hiring of minority and females for a period of three (3) years following the completion of contract work and shall be available at reasonable times and places for inspection by authorized representatives of the STA and the FHWA.

18. Submit an annual report to the STA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391 (See Exhibit 8). Contractors are provided with an annual notice for this reporting requirement.

19. Periodically evaluate the effectiveness of their OJT Programs and trainees' progress within the training program. Based on these evaluations, forward comments/ recommendations through the Project Engineer to Office of Civil Rights for improving or correcting deficiencies in the training program.

Add 2 Lanes to I-55 from SR 463 to Gluckstadt Road, & Mill & Overlay approximately 0.77 miles on I-55 from Gluckstadt Road north, known as Federal Aid Project Nos. STP-0055-02(271) / 108168301 & STP-0055-02(275) / 108168302 in Madison County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
			Roadway Items		
0010	201-B001		30	Acre	Clearing and Grubbing
0020	201-D001		16	Station	Random Clearing
0030	202-B007		2,580	Square Yard	Removal of Asphalt Pavement, All Depths
0040	202-B017		4	Each	Removal of Box Bridge
0050	202-B019		39	Linear Feet	Removal of Box Culvert
0060	202-B059		471	Square Yard	Removal of Concrete Median & Island Pavement, All Depths
0070	202-B060		40	Linear Feet	Removal of Concrete Median Barrier
0080	202-B061		11,500	Linear Feet	Removal of Concrete Median Barrier, Precast
0090	202-B063		121	Square Yard	Removal of Concrete Paved Ditch
0100	202-B069		34,294	Square Yard	Removal of Concrete Pavement w/ Variable Depth Overlay
0110	202-B089		721	Linear Feet	Removal of Curb &/or Curb and Gutter, All Types
0120	202-B096		802	Linear Feet	Removal of Debris and Sand From Box Culvert, 10-foot and Greater Width
0130	202-B114		100	Linear Feet	Removal of Debris and Sand From Pipe, All Sizes
0140	202-B126		40,623	Linear Feet	Removal of Fence, All Types
0150	202-B150		4,679	Linear Feet	Removal of Guard Rail Including Post, Blockouts & Hardware
0160	202-B160		2	Each	Removal of High Mast Lighting Assembly
0170	202-B162		3	Each	Removal of Impact Attenuator
0180	202-B165		8	Each	Removal of Inlets, All Sizes
0190	202-B177		13	Each	Removal of Low Mast Lighting Assembly
0200	202-B191		538	Linear Feet	Removal of Pipe, 8" And Above
0210	202-B220		1	Each	Removal of Sign, Overhead Mounted Including Panels, Trust, and Footings
0220	202-B225		55,594	Square Yard	Removal of Soil Cement Shoulders with Asphalt Overlay
0230	202-B226		34,294	Square Yard	Removal of Soil Cement Treated Base, All Depths
0240	202-B226		14,175	Square Yard	Removal of Soil Cement Treated Base, All Depths - Milling
0250	202-B240		6,000	Linear Feet	Removal of Traffic Stripe
0260	202-B273		145	Linear Feet	Removal of Debris and Sand From Box Culvert, 6-foot to Less than 10-foot Width
0270	202-B276		690	Linear Feet	Removal of Debris from Drainage Channel
0280	203-EX021	(E)	583,811	Cubic Yard	Borrow Excavation, AH, FME, Class B9-6
0290	203-F001	(E)	15,151	Cubic Yard	Channel Excavation, FM
0300	203-G001	(E)	498,248	Cubic Yard	Excess Excavation, FM, AH
0310	206-A001	(S)	2,935	Cubic Yard	Structure Excavation

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0320	206-B001	(E)	96	Cubic Yard	Select Material for Undercuts, Contractor Furnished, FM
0330	209-A005		279,624	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0340	211-B001	(E)	29,750	Cubic Yard	Topsoil for Slope Treatment, Contractor Furnished
0350	213-C001		56	Ton	Superphosphate
0360	216-A001		2,873	Square Yard	Solid Sodding
0370	217-A001		2,209	Square Yard	Ditch Liner
0380	219-A001		59	Thousand Gallon	Watering [$20.00]
0390	220-A001		56	Acre	Insect Pest Control [$30.00]
0400	221-A001	(S)	3,548	Cubic Yard	Concrete Paved Ditch
0410	223-A001		851	Acre	Mowing [$70.00]
0420	224-A001		7,370	Square Yard	Soil Reinforcing Mat
0430	225-A001		111	Acre	Grassing
0440	225-B001		56	Ton	Agricultural Limestone
0450	225-C001		222	Ton	Mulch, Vegetative Mulch
0460	226-A001		111	Acre	Temporary Grassing
0470	236-A008		8	Each	Silt Basin, Type D
0480	237-A002		4,500	Linear Feet	Wattles, 20"
0490	239-A001		2,000	Linear Feet	Temporary Slope Drains
0500	245-A001		2,000	Linear Feet	Silt Dike
0510	246-B002		4,000	Linear Feet	Rockbags
0520	249-A001		8,000	Ton	Riprap for Erosion Control
0530	304-D002	(GT)	18,150	Ton	Granular Material, Crushed Stone
0540	307-B003	(M)	118,950	Square Yard	6" Soil-Lime-Water Mixing, Class B
0550	307-D001		1,606	Ton	Lime
0560	307-S001	(A3)	29,738	Gallon	Bituminous Curing Seal
0570	308-A001		1,071	Ton	Cement
0580	308-B003	(M)	118,950	Square Yard	Soil-Cement-Water Mixing, Optional Mixers, Design Soil
0590	308-S001	(A3)	29,738	Gallon	Bituminous Curing Seal
0600	406-D001		302,705	Square Yard	Fine Milling of Bituminous Pavement, All Depths
0610	423-A001		17	Mile	Rumble Strips, Ground In
0620	501-K001		222	Square Yard	Transverse Grooving
0630	503-C010		40,670	Linear Feet	Saw Cut, Full Depth
0640	602-A001	(S)	48,821	Pounds	Reinforcing Steel

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0650	603-ALT003	(S)	72	Linear Feet	18" Type A Alternate Pipe
0660	603-CA011	(S)	1,032	Linear Feet	18" Reinforced Concrete Pipe, Class III
0670	603-CA022	(S)	2,024	Linear Feet	18" Reinforced Concrete Pipe, Class V, Jacked or Bored
0680	603-CA026	(S)	824	Linear Feet	24" Reinforced Concrete Pipe, Class III
0690	603-CA038	(S)	632	Linear Feet	24" Reinforced Concrete Pipe, Class V, Jacked or Bored
0700	603-CA040	(S)	8	Linear Feet	30" Reinforced Concrete Pipe, Class III
0710	603-CA055	(S)	96	Linear Feet	36" Reinforced Concrete Pipe, Class III
0720	603-CA065	(S)	224	Linear Feet	36" Reinforced Concrete Pipe, Class V, Jacked or Bored
0730	603-CA066	(S)	16	Linear Feet	42" Reinforced Concrete Pipe, Class III
0740	603-CB003	(S)	28	Each	18" Reinforced Concrete End Section
0750	603-CB004	(S)	20	Each	24" Reinforced Concrete End Section
0760	603-CB005	(S)	1	Each	30" Reinforced Concrete End Section
0770	603-CB006	(S)	4	Each	36" Reinforced Concrete End Section
0780	603-CB007	(S)	2	Each	42" Reinforced Concrete End Section
0790	603-CE008	(S)	104	Linear Feet	29" x 18" Concrete Arch Pipe, Class A III
0800	603-CE018	(S)	88	Linear Feet	44" x 27" Concrete Arch Pipe, Class A III
0810	603-CE034	(S)	40	Linear Feet	65" x 40" Concrete Arch Pipe, Class A III
0820	603-CF003	(S)	2	Each	29" x 18" Concrete Arch Pipe End Section
0830	603-CF005	(S)	2	Each	44" x 27" Concrete Arch Pipe End Section
0840	603-CF008	(S)	2	Each	65" x 40" Concrete Arch Pipe End Section
0850	603-SB012	(S)	4	Each	18" Branch Connections, Stub into Box Culvert
0860	603-SB028	(S)	2	Each	24" Branch Connections, Stub into Box Culvert
0870	604-A001		79	Pounds	Castings
0880	604-B001		10,897	Pounds	Gratings
0890	605-AA001	(S)	424	Square Yard	Geotextile for Subsurface Drainage, Type III
0900	605-O002	(S)	762	Linear Feet	4" Perforated Sewer Pipe for Underdrains, SDR 23.5
0910	605-P002	(S)	190	Linear Feet	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5
0920	605-W001	(GY)	29	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM
0930	606-B001		550	Linear Feet	Guard Rail, Class A, Type 1
0940	606-B006		313	Linear Feet	Guard Rail, Class A, Type 1, Double Faced
0950	606-C003		1	Each	Guard Rail, Cable Anchor, Type 1
0960	606-D022		4	Each	Guard Rail, Bridge End Section, Type I
0970	606-E001		5	Each	Guard Rail, Terminal End Section

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0980	607-B018		40,947	Linear Feet	60" Type I Chain Link Fence, Class II
0990	607-E001		600	Linear Feet	Barbed Wire Fence, Single Strand
1000	607-G127		12	Each	Gate, 3' x 60" Chain Link
1010	607-P1003		8	Each	Line Post, 14' x 2 1/2" Galvanized Steel
1020	607-P1008		3,834	Each	Line Post, 7' x 1 1/2" Galvanized Steel
1030	607-P2004		247	Each	Brace Post, 7 1/2' x 2" Galvanized Steel
1040	607-P2022		8	Each	Brace Post, 5' x 2 1/2" Galvanized Steel
1050	607-P3004		24	Each	Gate Post, 8' x 2 1/2" Galvanized Steel
1060	608-A001	(S)	870	Square Yard	Concrete Sidewalk, Without Reinforcement
1070	609-C001	(S)	173	Linear Feet	Concrete Integral Curb, Type 1
1080	609-D004	(S)	1,785	Linear Feet	Combination Concrete Curb and Gutter Type 2 Modified
1090	609-D007	(S)	3,101	Linear Feet	Combination Concrete Curb and Gutter Type 3 Modified
1100	612-B001		22	Cubic Yard	Flowable Fill, Non-Excavatable
1110	615-A004	(S)	287	Linear Feet	Concrete Bridge End Barrier, 43.5"
1120	615-A007	(S)	256	Linear Feet	Concrete Pier Protection Barrier, 54"
1130	615-A023	(S)	34,372	Linear Feet	Concrete Type IV Modified, 42" Height, Cast-in-Place Median Barrier
1140	616-A001	(S)	155	Square Yard	Concrete Median and/or Island Pavement, 10-inch
1150	616-A004	(S)	1,127	Square Yard	Concrete Median and/or Island Pavement, 4-inch
1160	616-B001	(S)	776	Square Yard	Bituminous Median and/or Island Pavement
1170	617-A001		3	Each	Right-of-Way Marker
1180	619-A1001		84	Mile	Temporary Traffic Stripe, Continuous White
1190	619-A2001		81	Mile	Temporary Traffic Stripe, Continuous Yellow
1200	619-A3001		96	Mile	Temporary Traffic Stripe, Skip White
1210	619-A5001		142,991	Linear Feet	Temporary Traffic Stripe, Detail
1220	619-A6001		3,431	Square Feet	Temporary Traffic Stripe, Legend
1230	619-A6002		2,568	Linear Feet	Temporary Traffic Stripe, Legend
1240	619-C6001		20,347	Each	Red-Clear Reflective High Performance Raised Marker
1250	619-C8001		2,075	Each	One-Way Clear Reflective High Performance Raised Marker
1260	619-C9001		2,099	Each	One-Way Yellow Reflective High Performance Raised Marker
1270	619-D1001		95	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
1280	619-D2001		2,060	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
1290	619-F1001		1,000	Linear Feet	Concrete Median Barrier, Precast
1300	619-F2001		84,948	Linear Feet	Remove and Reset Concrete Median Barrier, Precast

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1310	619-G4005		228	Linear Feet	Barricades, Type III, Single Faced
1320	619-G5001		847	Each	Free Standing Plastic Drums
1330	619-G7001		22	Each	Warning Lights, Type "B"
1340	619-J1004		4	Each	Impact Attenuator, 60 MPH
1350	619-J2004		4	Each	Impact Attenuator, 60 MPH, Replacement Package
1360	619-J3001		20	Each	Remove and Reset Impact Attenuator
1370	620-A001		1	Lump Sum	Mobilization
1380	622-A004		1	Each	Engineer's Field Office Building, Type 3
1390	629-A005		1	Each	Vehicular Impact Attenuator, 70 MPH
1400	630-A001		178	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
1410	630-A003		469	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
1420	630-A005		349	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.1" Thickness
1430	630-B002		378	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted
1440	630-B003		7,776	Square Feet	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Overhead Mounted
1450	630-C001		559	Linear Feet	Square Tube Posts, 4.0 lb/ft
1460	630-C004		136	Linear Feet	Square Tube Posts, 9.0 lb/ft
1470	630-C005		944	Linear Feet	Square Tube Posts, 2.0 lb/ft
1480	630-C1001		64	Linear Feet	Square Post Inner Sleeve
1490	630-D006		51	Linear Feet	Structural Steel Beams, W6 x 12
1500	630-D008		136	Linear Feet	Structural Steel Beams, W6 x 9
1510	630-E001		63	Pounds	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles
1520	630-E002		132	Pounds	Structural Steel Angles & Bars, 3" x 3" x 1/4" Angles
1530	630-F006		28	Each	Delineators, Guard Rail, White
1540	630-F007		10	Each	Delineators, Guard Rail, Yellow
1550	630-F010		152	Each	Delineators, Post Mounted, Double White
1560	630-F011		54	Each	Delineators, Post Mounted, Double Yellow
1570	630-F012		61	Each	Delineators, Post Mounted, Single White
1580	630-F013		14	Each	Delineators, Post Mounted, Single Yellow
1590	630-G004		4	Each	Type 3 Object Markers, OM-3R or OM-3L
1600	630-I003		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designed
1610	630-I004		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 10, Contractor Designed
1620	630-I005		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 11, Contractor Designed

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
1630	630-I006		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 12, Contractor Designed
1640	630-I007		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 13, Contractor Designed
1650	630-I008		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 14, Contractor Designed
1660	630-I009		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 15, Contractor Designed
1670	630-I010		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 16, Contractor Designed
1680	630-I015		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designed
1690	630-I020		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designed
1700	630-I022		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 4, Contractor Designed
1710	630-I024		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 5, Contractor Designed
1720	630-I025		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 6, Contractor Designed
1730	630-I026		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 7, Contractor Designed
1740	630-I027		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 8, Contractor Designed
1750	630-I028		1	Lump Sum	Metal Overhead Sign Supports, Assembly No. 9, Contractor Designed
1760	635-A059		12	Each	Traffic Signal Head, Type 1
1770	635-A065		2	Each	Traffic Signal Head, Type 2 FYA
1780	635-A070		2	Each	Traffic Signal Head, Type 3
1790	635-A073		1	Each	Traffic Signal Head, Type 4
1800	635-A076		2	Each	Traffic Signal Head, Type 6
1810	647-A001		1	Lump Sum	Removal of Existing Traffic Signal Equipment
1820	682-A005		4,378	Linear Feet	Underground Branch Circuit, AWG 1/0, 3 Conductor
1830	682-A007		2,642	Linear Feet	Underground Branch Circuit, AWG 1/0, 5 Conductor
1840	682-A018		8,904	Linear Feet	Underground Branch Circuit, AWG 2, 3 Conductor
1850	682-A034		3,180	Linear Feet	Underground Branch Circuit, AWG 6, 3 Conductor
1860	682-A039		1,680	Linear Feet	Underground Branch Circuit, AWG 8, 3 Conductor
1870	682-B005		90	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 3 Conductor
1880	682-B007		90	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 5 Conductor
1890	682-B016		620	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 2, 3 Conductor
1900	682-B025		870	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 4, 3 Conductor
1910	682-B032		490	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 6, 3

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
					Conductor
1920	682-B037		340	Linear Feet	Underground Branch Circuit, Jacked or Bored, AWG 8, 3 Conductor
1930	682-C006		200	Linear Feet	Structure Mounted Branch Circuit, AWG 1/0, 5 Conductor
1940	682-C009		480	Linear Feet	Structure Mounted Branch Circuit, AWG 10, 3 Conductor
1950	682-C015		150	Linear Feet	Structure Mounted Branch Circuit, AWG 2, 3 Conductor
1960	682-D002		10	Each	Structure Mounted Pull Box
1970	682-D003		38	Each	Underground Pull Box
1980	682-E001		3	Each	Structure Mounted Junction Box
1990	682-E003		21	Each	Underground Junction Box With Concrete Pad
2000	682-F002		3	Each	Secondary Power Controllers
2010	683-A002		32	Each	Lighting Assembly, High Mast, LED, Type 120-4-A
2020	683-A124		4	Each	Lighting Assembly, High Mast, LED, Type 120-8-S
2030	683-A137		1	Each	Lighting Assembly, High Mast, LED, Type 120-8-A
2040	683-A138		1	Each	Lighting Assembly, High Mast, LED, Type 120-6-A
2050	683-B212		11	Each	Lighting Assembly, Low Mast, LED, Type 40-1-8-110
2060	683-B213		1	Each	Lighting Assembly, Low Mast, LED, Type 40-2-8-110
2070	683-C010		8	Each	Lighting Assembly, Underpass, Type UP
2080	683-D001		1	Each	Portable Electric Power Units
2090	684-A003		12	Cubic Yard	Pole Foundation, 24" Diameter
2100	684-A006		271	Cubic Yard	Pole Foundation, 42" Diameter
2110	684-B003		8	Linear Feet	Slip Casing, 24" Diameter
2120	684-B006		20	Linear Feet	Slip Casing, 42" Diameter
2130	699-A001		1	Lump Sum	Roadway Construction Stakes
2140	815-A002	(S)	1,250	Ton	Loose Riprap, Size 100
2150	815-A007	(S)	7,050	Ton	Loose Riprap, Size 300
2160	815-E001	(S)	8,681	Square Yard	Geotextile under Riprap
2170	815-F002	(S)	3,000	Ton	Sediment Control Stone
2180	907-234-A001		17,000	Linear Feet	Temporary Silt Fence
2190	907-234-C001		2,575	Linear Feet	Super Silt Fence
2200	907-234-D001		15	Each	Inlet Siltation Guard
2210	907-234-E001		15	Each	Reset Inlet Siltation Guard
2220	907-248-A001		1	Lump Sum	Temporary Site Drainage
2230	907-253-A001		1,021	Linear Feet	Coir Fiber Baffle

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
2240	907-402-A002	(BA1)	11,193	Ton	Open Graded Friction Course, 9.5-mm Mixture
2250	907-402-B001	(A3)	39,202	Gallon	Bituminous Tack Coat
2260	907-403-A001	(BA1)	29,040	Ton	12.5-mm, HT, Asphalt Pavement
2270	907-403-A004	(BA1)	35,680	Ton	19-mm, HT, Asphalt Pavement
2280	907-403-A006	(BA1)	35,456	Ton	19-mm, ST, Asphalt Pavement
2290	907-403-A013	(BA1)	4,667	Ton	9.5-mm, HT, Asphalt Pavement
2300	907-403-A015	(BA1)	608	Ton	9.5-mm, ST, Asphalt Pavement
2310	907-403-B001	(BA1)	42,798	Ton	12.5-mm, HT, Asphalt Pavement, Leveling
2320	907-403-B010	(BA1)	5,921	Ton	9.5-mm, HT, Asphalt Pavement, Leveling
2330	907-403-S001		34	Mile	Joint Sealant
2340	907-405-A001	(BA1)	44,502	Ton	Stone Matrix Asphalt, 9.5 mm Mixture
2350	907-405-A002	(BA1)	20,101	Ton	Stone Matrix Asphalt, 12.5 mm Mixture
2360	907-407-A001	(A2)	116,816	Gallon	Asphalt for Tack Coat
2370	907-413-E001		576	Linear Feet	Sawing and Sealing Transverse Joints in Asphalt Pavement
2380	907-501-F001		640	Linear Feet	Concrete Lug Anchors
2390	907-502-A001	(C)	1,693	Square Yard	Reinforced Cement Concrete Bridge End Pavement
2400	907-601-A001	(S)	302	Cubic Yard	Class "B" Structural Concrete
2410	907-601-B001	(S)	88	Cubic Yard	Class "B" Structural Concrete, Minor Structures
2420	907-608-C001		120	Square Feet	Detectable Warning Panels
2430	907-618-A001		1	Lump Sum	Maintenance of Traffic
2440	907-618-M1001		1	Lump Sum	Service Patrol
2450	907-618-M2001		4,640	Hours	Work Zone Law Enforcement [$60.00]
2460	907-619-E3001		2	Each	Changeable Message Sign
2470	907-619-M1002		24	Each	Smart Work Zone, Portable Queue Trailer
2480	907-619-M1003		10	Each	Smart Work Zone, Portable Camera Trailer
2490	907-619-M1004		12	Each	Smart Work Zone, Portable Message Board Trailer
2500	907-619-M2001		58	Each	Smart Work Zone, Portable Queue Trailer, Operational Month
2510	907-619-M2002		58	Each	Smart Work Zone, Portable Camera Trailer, Operational Month
2520	907-619-M2003		58	Each	Smart Work Zone, Portable Message Board Trailer, Operational Month
2530	907-619-M2004		58	Each	Smart Work Zone, Portable Bluetooth Detection System, Additional Device, Operational Month
2540	907-619-M3002		58	Each	Smart Work Zone, System Monitoring, Operational Month
2550	907-626-A010		21	Mile	6" Thermoplastic Traffic Stripe, Skip White
2560	907-626-B006		14	Mile	6" Thermoplastic Traffic Stripe, Continuous White

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
2570	907-626-E005		13	Mile	6" Thermoplastic Traffic Stripe, Continuous Yellow
2580	907-626-G004		37,665	Linear Feet	Thermoplastic Detail Stripe, White
2590	907-626-G005		1,966	Linear Feet	Thermoplastic Detail Stripe, Yellow
2600	907-626-H009		1,096	Square Feet	Thermoplastic Legend, White
2610	907-626-H010		1,284	Linear Feet	Thermoplastic Legend, White
2620	907-627-K001		4,973	Each	Red-Clear Reflective High Performance Raised Markers
2630	907-632-A007		2	Each	Solid State Traffic Cabinet Assembly, Type III Cabinet, Type 1 Controller
2640	907-632-D001		2	Each	Solid State Traffic Actuated Controller, Type 1
2650	907-632-G001		2	Each	Malfunction Management Unit
2660	907-632-J001		6	Each	Power Service Pedestal
2670	907-634-A047		1	Each	Traffic Signal Equipment Pole, Type II(L), 30' Shaft, 55' Arm
2680	907-634-A083		1	Each	Traffic Signal Equipment Pole, Type II, 17' Shaft, 45' Arm
2690	907-634-A374		1	Each	Traffic Signal Equipment Pole, Type III, 17' Shaft, 35' & 40' Arms
2700	907-634-A397		1	Each	Traffic Signal Equipment Pole, Type III, 17' Shaft, 50' & 50' Arms
2710	907-634-A545		1	Each	Traffic Signal Equipment Pole, Type VI, 8' Shaft
2720	907-634-C001		16	Cubic Yard	Pole Foundations, Class "B" Concrete
2730	907-634-E001		4	Each	Camera Pole with Foundation, 50' Pole
2740	907-636-B003		190	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 10, 2 Conductor
2750	907-636-B014		425	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 5 Conductor
2760	907-636-B016		915	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 8 Conductor
2770	907-636-B025		225	Linear Feet	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 6, 3 Conductor
2780	907-636-B043		40	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #2, 4 Conductor
2790	907-636-B053		1,120	Linear Feet	Electric Cable, Underground in Conduit, THHN, AWG #6, 3 Conductor
2800	907-636-D001		40	Linear Feet	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 10, 2 Conductor
2810	907-636-D006		20	Linear Feet	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 5 Conductor
2820	907-636-D008		380	Linear Feet	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 8 Conductor
2830	907-636-D022		40	Linear Feet	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 6, 3 Conductor
2840	907-637-A002		17	Each	Pullbox Enclosure, Type 2
2850	907-637-A003		2	Each	Pullbox Enclosure, Type 3
2860	907-637-A004		16	Each	Pullbox Enclosure, Type 4

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
2870	907-637-A005		11	Each	Pullbox Enclosure, Type 5
2880	907-637-C028		160	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 2"
2890	907-637-C030		105	Linear Feet	Traffic Signal Conduit, Underground, Type 4, 3"
2900	907-637-D003		670	Linear Feet	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"
2910	907-637-H001		160	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
2920	907-637-H002		445	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2"
2930	907-637-I001		23,495	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2 @ 2"
2940	907-637-I002		760	Linear Feet	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2"
2950	907-640-B001		440	Linear Feet	Shielded Cable, AWG #14, 2 Conductor
2960	907-641-A002		6	Each	Signal Stop Bar Radar Vehicle Detection Sensor, Type 2
2970	907-641-B002		8	Each	Signal Advanced Radar Vehicle Detection Sensor, Type 2
2980	907-641-C002		2	Each	ITS Radar Vehicle Detection Sensor
2990	907-641-D001		2,505	Linear Feet	Radar Vehicle Detection Cable
3000	907-641-F002		4	Each	Signal Radar Vehicle Detection Processor, Type 2
3010	907-641-G002		2	Each	ITS Radar Vehicle Detection Processor, Type 2
3020	907-645-B001		2	Each	Accessible Pedestrian Detection Assembly
3030	907-650-A002		12	Each	On Street Video Equipment, Fixed Type
3040	907-650-A003		6	Each	On Street Video Equipment, PTZ Type
3050	907-650-A004		5	Each	On Street Video Equipment, PTZ Type, Signal Monitoring
3060	907-653-A001		27	Square Feet	Traffic Sign
3070	907-656-A001		1	Each	Dynamic Message Sign, Type 1
3080	907-659-A001		1	Lump Sum	Traffic Management Center Modifications
3090	907-660-A002		5	Each	Equipment Cabinet, Type B
3100	907-660-A003		1	Each	Equipment Cabinet, Type C
3110	907-661-A004		20,470	Linear Feet	Fiber Optic Cable, 72 SM
3120	907-661-B002		3,805	Linear Feet	Fiber Optic Drop Cable, 12 SM
3130	907-663-A001		10	Each	Network Switch, Type A
3140	907-663-A002		1	Each	Network Switch, Type B
3150	907-663-A003		1	Each	Network Switch, Type C
3160	907-663-A005		2	Each	Network Switch, Type E
3170	907-666-A001		3	Each	Bluetooth Detection System, Type A
3180	907-682-A1011		440	Linear Feet	Branch Circuit Wire, AWG #2, 3 Conductor

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
3190	907-682-A1019		830	Linear Feet	Branch Circuit Wire, AWG #4, 3 Conductor
3192	907-906001		1,040	Hours	Trainees [$5.00]
			ALTERNATE GROUP AA NUMBER 1		
3200	304-F001	(GT)	117,600	Ton	3/4" and Down Crushed Stone Base
			ALTERNATE GROUP AA NUMBER 2		
3210	304-F002	(GT)	117,600	Ton	Size 610 Crushed Stone Base
			ALTERNATE GROUP AA NUMBER 3		
3220	304-F003	(GT)	117,600	Ton	Size 825B Crushed Stone Base
			ALTERNATE GROUP BB NUMBER 1		
3230	605-W002	(GY)	800	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type B, FM
			ALTERNATE GROUP BB NUMBER 2		
3240	605-W003	(GY)	800	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type C, FM
			Bridge Items		
3250	501-K001		5,588	Square Yard	Transverse Grooving
3260	605-AA001	(S)	2,476	Square Yard	Geotextile for Subsurface Drainage, Type III
3270	605-T002	(S)	3,262	Linear Feet	6" Perforated Pipe for Underdrains
3280	605-X002	(GY)	258	Cubic Yard	Filter Material for Filter Beds, Type A
3290	605-X003	(GY)	613	Cubic Yard	Filter Material for Filter Beds, Type B
3300	605-Y002	(GY)	1,059	Cubic Yard	Impervious Material, Type D
3310	803-C002	(S)	8,295	Linear Feet	14" x 14" Prestressed Concrete Piling
3320	803-D002	(S)	4,816	Linear Feet	HP 12 x 53 Steel Piling
3330	803-D006	(S)	7,608	Linear Feet	HP 14 x 73 Steel Piling
3340	803-D007	(S)	17,688	Linear Feet	HP 14 x 89 Steel Piling
3350	803-P015	(S)	5,425	Linear Feet	24" Steel Pipe Piling, Wall Thickness 0.625"
3360	804-C188	(S)	1,272	Linear Feet	80' Prestressed Concrete Beam, Type FIB-36
3370	804-C195	(S)	1,352	Linear Feet	85' Prestressed Concrete Beam, Type FIB-36
3380	804-C208	(S)	1,904	Linear Feet	60' Prestressed Concrete Beam, Type FIB-36
3390	804-C274	(S)	1,264	Linear Feet	40' Prestressed Concrete Beam, Type FIB-36
3400	805-A001	(S)	1,081,334	Pounds	Reinforcement
3410	805-C001	(S)	22,208	Pounds	Reinforcement, Corrosion Resistant
3420	813-A003	(S)	1,480	Linear Feet	Concrete Railing, 42"
3430	815-A007	(S)	6,937	Ton	Loose Riprap, Size 300
3440	815-E001	(S)	6,383	Square Yard	Geotextile under Riprap

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
3460	907-803-I002	(S)	2	Each	PDA Test Pile, Concrete Pile
3470	907-803-I003	(S)	23	Each	PDA Test Pile, HP Steel Pile
3480	907-803-I004	(S)	2	Each	PDA Test Pile, Steel Pipe Pile
3490	907-803-J001	(S)	27	Each	Pile Restrike
3500	907-804-A001	(S)	1,668	Cubic Yard	Bridge Concrete, Class BDX
3510	907-804-A002	(S)	882	Cubic Yard	Bridge Concrete, Class AA
3520	907-804-A003	(S)	4,726	Cubic Yard	Bridge Concrete, Class B
3530	907-823-A001		642	Linear Feet	Preformed Joint Seal, Type I

SUMMARY OF REVISIONS

REV. NO.	DATE	1ST ORDER	ADDENDUM	2ND ORDER	INITIALS	SHEET ID.	DESCRIPTION
1	7/6/2026		X		DMM	TITLE, RVP-1, SQ-1 THRU SQ-18,	TITLE - REVISED PERMIT BLOCK, SUMMARY OF QUANTITIES - REVISED QUANTITY FOR WORK ZONE LAW ENFORCEMENT
2	8/14/2026		X		DMM	RVP-1, TS-5, TS-18 SQ-1 THRU SQ-18, EQ-7, EQ-8, EQ-17, SWZ-GN, SWZ-1, SWZ-2, LD-4	TYPICAL SECTION - REVISED TYPICAL SECTION - TS-5 - SHOW EXISTING MEDIAN BARRIER AND REVISED DIEMENSIONS, TS-18 - REVISED NOTES, SUMMARY OF QUANTITIES - REVISED CLEARING AND GRUBBING, BORROW EXCAVATION, WORK ZONE LAW ENFORCEMENT, SMART WORK ZONE OPERATIONAL MONTH QUANTITIES, ON STREET VIDEO EQUIPMENT FIXED TYPE AND DELETED PAY ITEM 907-650-A002 ON STREET VIDEO EQUIPMENT FIXED TYPE (108168/302000), REVISED PTZ CAMERA NOTE, ESTIMATED QUANTITIES - EQ-7 & EQ-8 - REVISED BORROW QUANTITY, EQ-15 - REVISED SMART WORK ZONE OPERATIONAL MONTH, SMART WORK ZONE GENERAL NOTES - REMOVED PORTABLE FIX CCTV CAMERA, SMART WORK ZONE PLAN - REMOVED CCTV AND REVISED ONE PTZ TO TWO PTZ, LD-4 - REVISED LUMENS
3	8/19/2026		X		DMM	SQ-1 THRU SQ-18	REVISED PAY ITEM FOOT NOTE SYMBOLS AND ITS NOTES

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

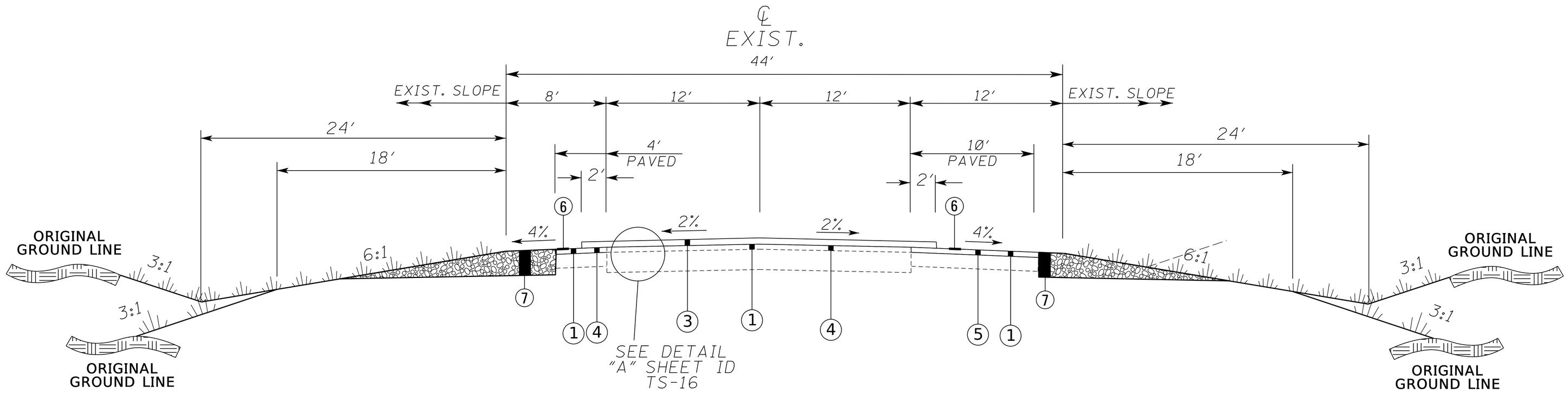
FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF REVISIONS

SHEET ID
RVP-1

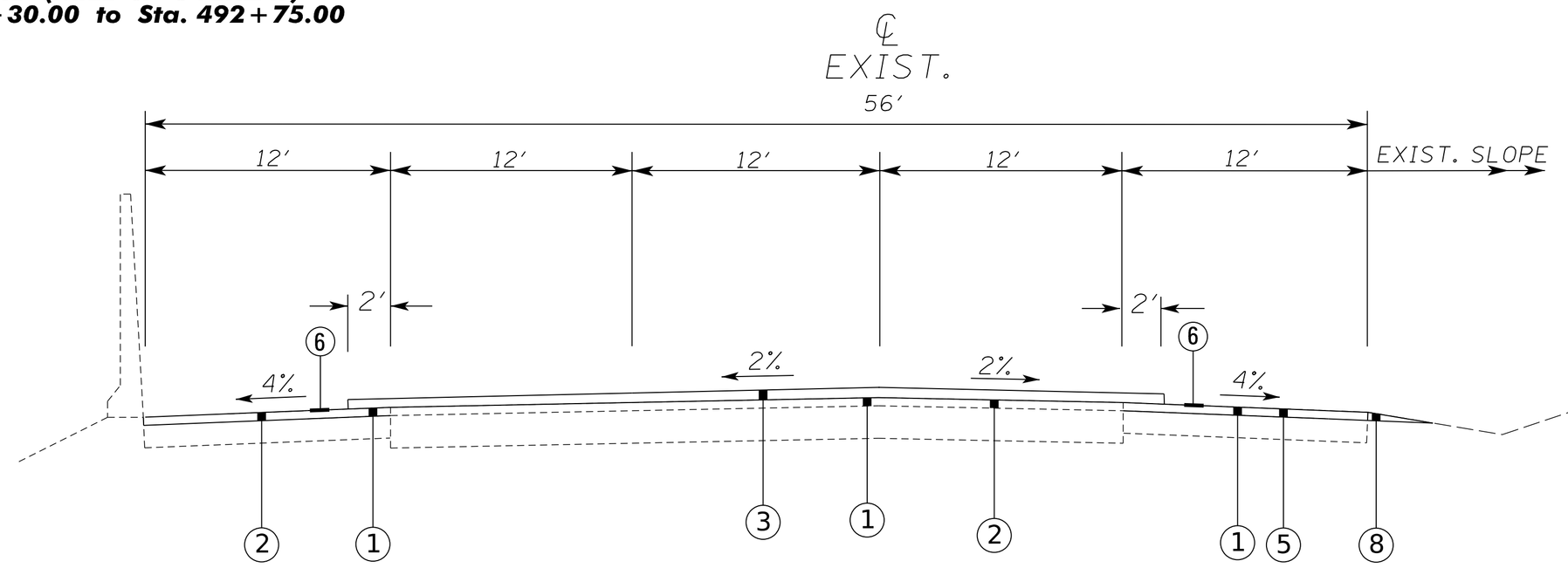
SHEET NO.
8

8/19/2026 1:57:05 PM REVISION-SH.dgn PLAN SHEET



TYPICAL SECTION

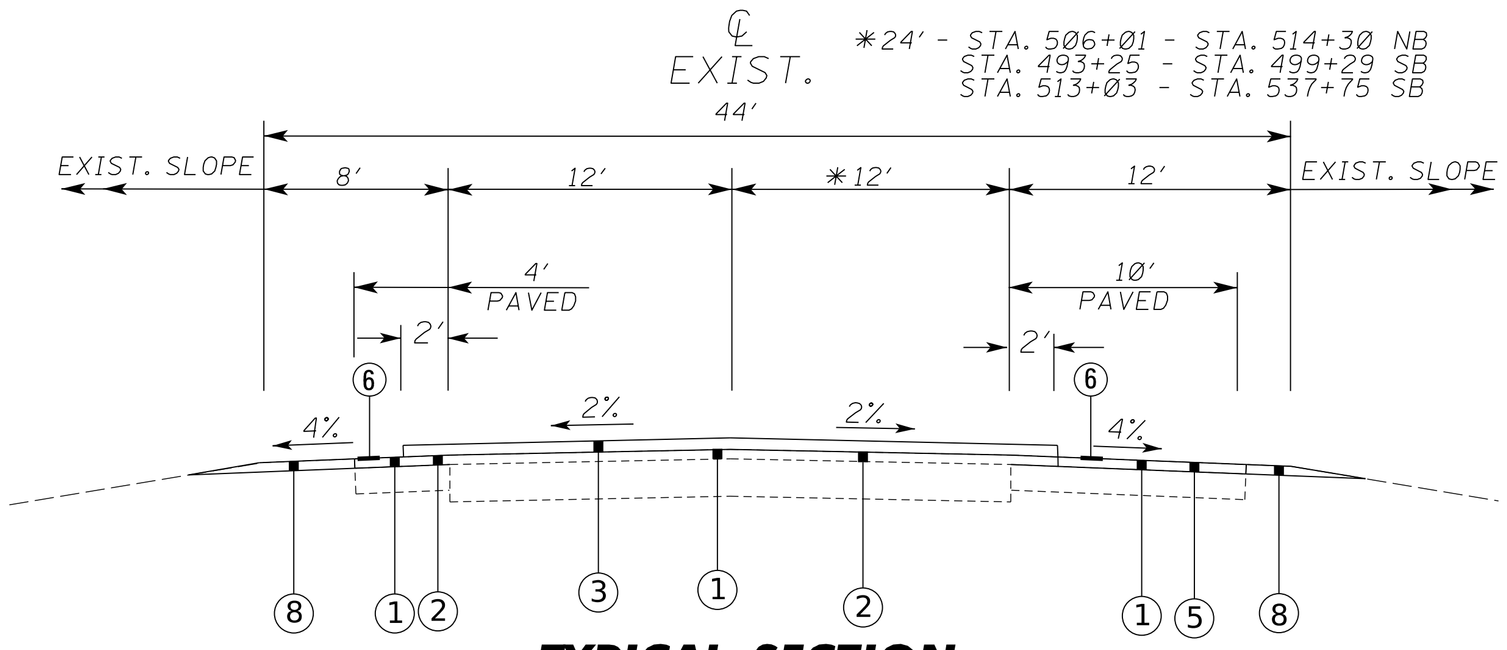
I–55 NB (MILL & OVERLAY)
Sta. 485+30.00 to Sta. 492+75.00



TYPICAL SECTION

I–55 NB/SB (MILL & OVERLAY)
Sta. 283+25.00 to Sta. 299+79.33 NB & SB
(SHOWN IN DIRECTION OF TRAVEL)

NOTE:
(302000)
1.5" MILL AND OVERLAY REQ'D.:
GLUCKSTADT INTERCHANGE RAMPS FROM END OF CONSTRUCTION TO GLUCKSTADT ROAD. MILL AND OVERLAY GLUCKSTADT ROAD FROM STATE MAINTENANCE WEST OF I–55 TO STATE MAINTENANCE EAST OF I–55. PAVEMENT MARKINGS TO BE REPLACED IN KIND.
1.5" ASPHALT PAVEMENT, HT MIXTURE (9.5 mm MIXTURE) (1 @ 1.5")



TYPICAL SECTION

I–55 NB/SB (MILL & OVERLAY)
Sta. 492+75.00 to Sta. 538+40.00 NB (108168–302000)
Sta. 493+25.00 to Sta. 537+75.00 SB (108168–302000)
(SHOWN IN DIRECTION OF TRAVEL)

PAVEMENT DESIGN

1. 1.50" Milling
2. 1.50" SMA MIXTURE (9.5 mm Mixture) (1 @1.50")
3. 1.00" OGFC MIXTURE (1 @1.00")
4. 1.50" AND VAR. SMA MIXTURE (9.5 mm Mixture) (1 @ 1.50" AND VAR.)
5. 1.50" ASPHALT PAVEMENT, ST MIXTURE (9.5 mm Mixture) (1 @ 1.50")
6. RUMBLE STRIP
7. 8.00" AND VAR. Granular Material, Crushed Stone w/Geotextile Type V (Non–Woven)
8. 2.00" AND VAR. Granular Material, Crushed Stone

INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE SHEET ID VS–1.

NOTES:

1. SEE PAVEMENT REMOVAL IN THE PLANS FOR IRREGULAR AREAS.
2. SEE TRAFFIC CONTROL PLANS & TYPICALS FOR OTHER DETAILS.
3. EXISTING I–55 PAVEMENT IS 6" CEMENT TREATED BASE, 8" CRC OVERLAID WITH ASPHALT.
4. SEE SHEET ID OGFC–1&2 FOR OPEN GRADED FRICTION COURSE DETAILS.

NOT TO SCALE

REVISIONS	
DATE	BY
8/14/2026	DM

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-21-25

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
108168/302000

PROJECT NO.: STP-0055-02(271)
STP-0055-02(275)

COUNTY: MADISON

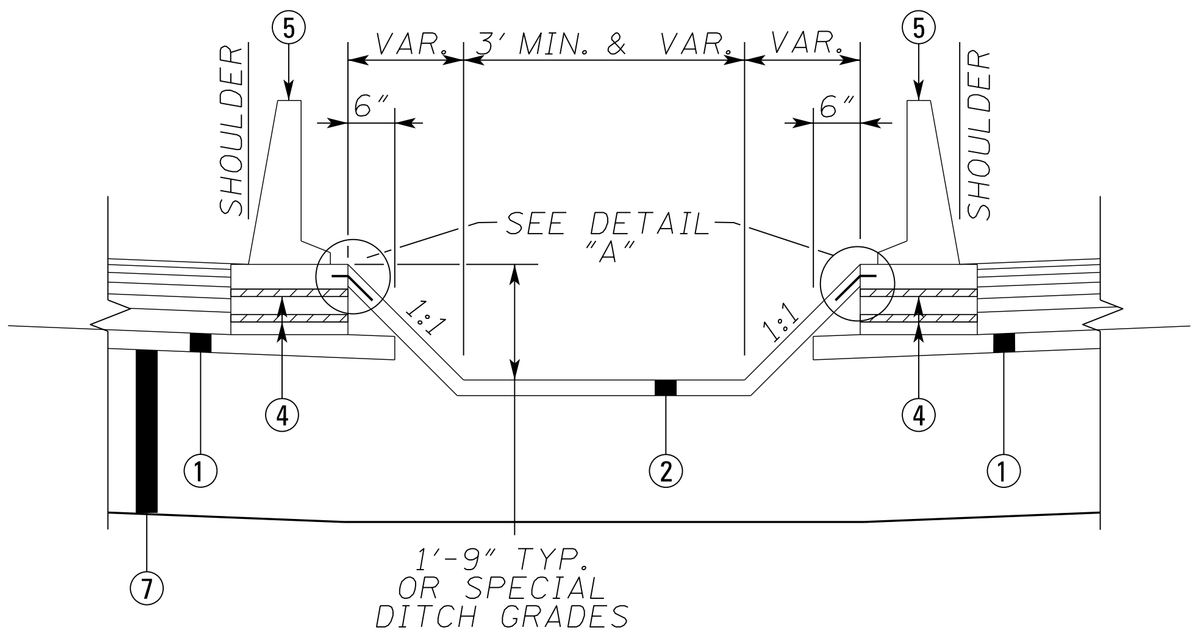
TYPICAL SECTION
I-55 NB & SB

SHEET ID
TS-5

SHEET NO.
15

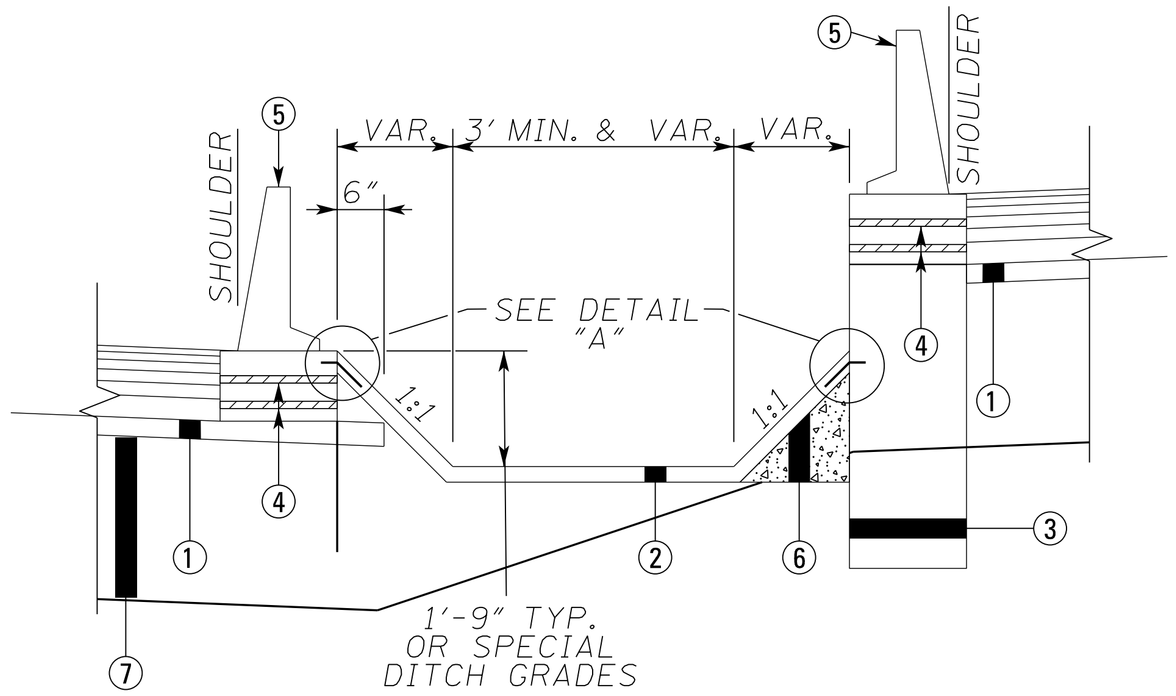
PLAN SHEET

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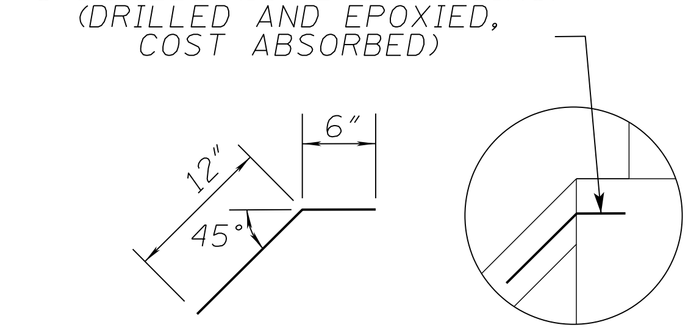


42" TYPE 4 MEDIAN BARRIER MOD. AND MEDIAN PAVED DITCH
STA. 299+79.33 TO STA. 473+00.00 55NB

NOTE:
1. SEE SHEET ID "MCD–4" REGARDING MEDIAN INLET LOCATION & SDPA–1.

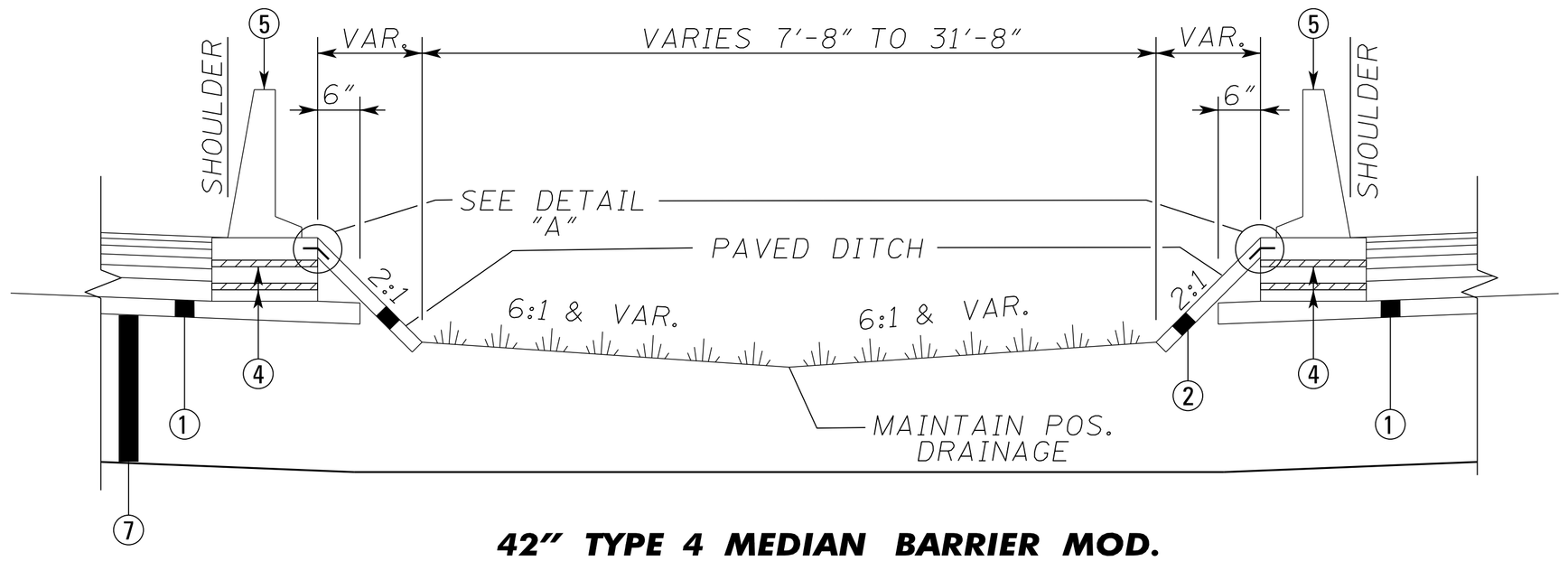


42" TYPE 4 MEDIAN BARRIER MOD. AND MEDIAN PAVED DITCH WITH WALL
SEE PLANS FOR LOCATIONS

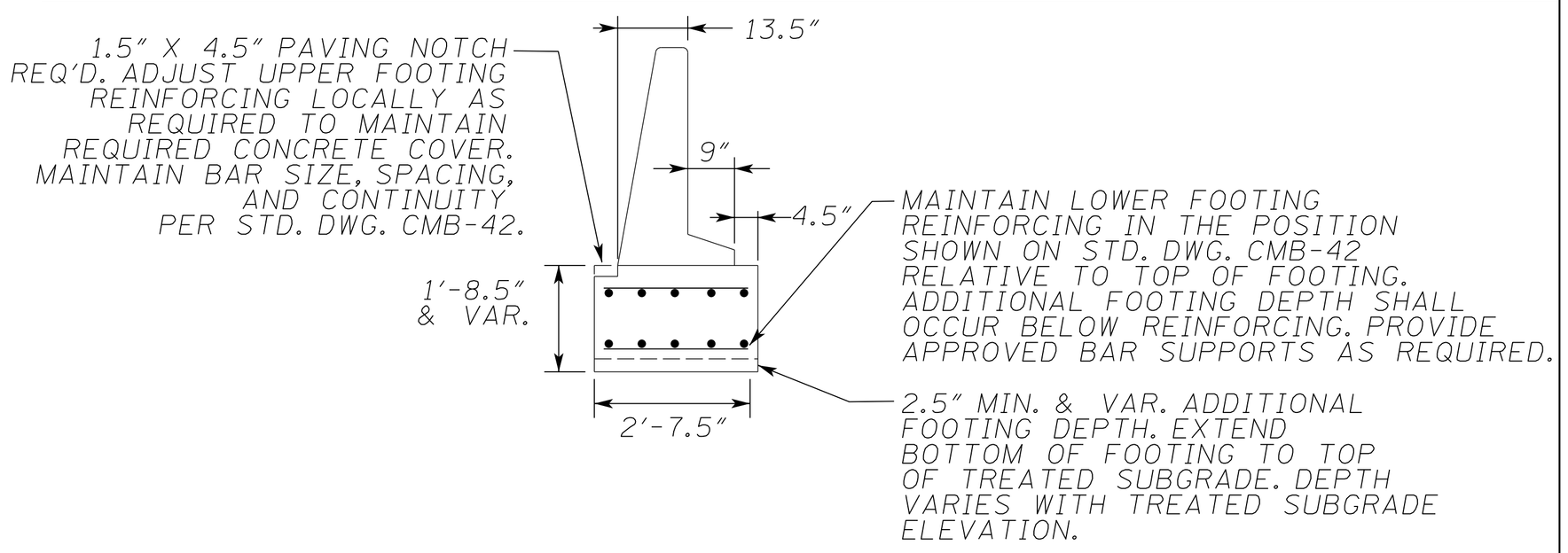


1. 6.00" CHEMICALLY TREATED SUBGRADE
2. 4" PAVED DITCH MAINTAIN POS. DRAINAGE
3. SPECIAL DESIGN WALL (SEE BRIDGE PLANS)
4. TEMPORARY DRAIN PIPES REQ'D. AT SAG LOCATIONS TO MAINTAIN POSITIVE DRAINAGE. SIZE, NUMBER, SPACING, AND LOCATIONS SHALL BE CONTRACTOR DESIGNED. AVOID CONFLICTS WITH BARRIER REINFORCING. COST ABSORBED IN OTHER BID ITEMS.
5. 42" TYPE 4 MEDIAN BARRIER MOD.
6. VAR. DEPTH PAVED DITCH. ADDITIONAL CONCRETE REQUIRED FOR VARIABLE DEPTH SHALL NOT BE MEASURED SEPARATELY; COST SHALL BE ABSORBED IN THE UNIT PRICE BID PER SQUARE YARD FOR PAVED DITCH.
7. 3' (5' MAXIMUM) UNDERCUT (REPLACE WITH CLASS B9–6 MATERIAL) REQUIRED

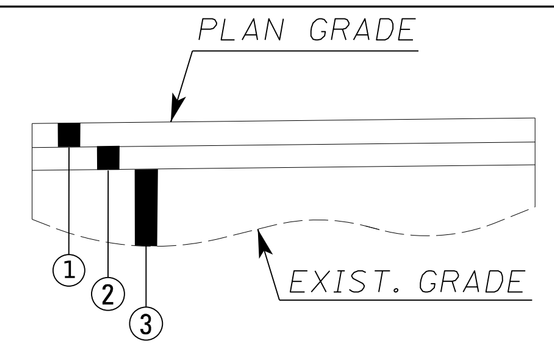
INDICATES AREA TO BE TREATED IN ACCORDANCE WITH THE VEGETATION SCHEDULE. SEE SHEET ID VS–1.



42" TYPE 4 MEDIAN BARRIER MOD. AND MEDIAN DITCH
STA. 473+00.00 TO STA. 485+30.00 55 NB
STA. 473+00.00 TO STA. 483+54.72 55 SB



42" TYPE 4 MEDIAN BARRIER MOD.
SEE STANDARD PLANS FOR ADDITIONAL DETAILS



VAR. OVERLAY RANGES

I-55 NORTHBOUND		①	②	③	③
Phase	Sheet ID	NO. OF 1.5" SMA (9.5 mm	NO. OF 1.5" HT (9.5 mm	NO. OF 1.5" HT (12.5 mm	NO. OF 2.25" HT (12.5 mm
1B					
	TC-3	1	1	1	6
	TC-4	1	1	1	4
1C					
	TC-7	1	1	1	2
1F					
	TC-19	1	1	1	2
	TC-20	1	1	1	2
	TC-21	1	1	1	1
2B					
	TC-34	1	1	1	2
	TC-35	1	1	1	3
	TC-36	1	1	1	0
	TC-37	1	1	1	2
2F					
	TC-53	1	1	1	3
	TC-54	1	1	1	2
	TC-55	1	1	1	3
	TC-56	1	1	1	1

I-55 SOUTHBOUND		①	②	③	③
Phase	Sheet ID	NO. OF 1.5" SMA (9.5 mm	NO. OF 1.5" HT (9.5 mm	NO. OF 1.5" HT (12.5 mm	NO. OF 2.25" HT (12.5 mm
1B					
	TC-3	1	1	1	3
	TC-4	1	1	1	6
1C					
	TC-7	1	1	1	2
1F					
	TC-19	1	1	1	2
	TC-20	1	1	1	3
	TC-21	1	1	1	2
2B					
	TC-34	1	1	1	1
	TC-35	1	1	1	2
	TC-36	1	1	1	0
	TC-37	1	1	1	1
	TC-38	1	1	1	1
2F					
	TC-53	1	1	1	3
	TC-54	1	1	1	2
	TC-55	1	1	1	3
	TC-56	1	1	1	1

*NOTES

1. FOR INFORMATION ONLY. CHART REPRESENTS THE AVERAGE NUMBER OF LIFTS FALLING IN EACH STATION RANGE AND THE ACTUAL NUMBER OF LIFTS WITHIN THE RANGES MAY VARY.
2. MAXIMUM ALLOWABLE DROPOFF IS 2.25" WHEN LEVELING. INDIVIDUAL LIFTS NOT TO EXCEED 2.25".
3. 1.5" SMA SHALL NOT BE PLACED UNTIL COMPLETION OF THE FINAL PHASE

PAVEMENT DESIGN

① 1.50" SMA (9.5 mm Mixture) (1 @ 1.50")
② 9.5–mm, HT, ASPHALT PAVEMENT, LEVELING (1 @ VAR.)
③ 12.5 mm, HT, ASPHALT PAVEMENT, LEVELING (VAR. @ 1.50" TO 2.25")

NOT TO SCALE

REVISIONS	
DATE	BY
8/14/2026	DM

RAYMOND KYLE EDSON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI 8-14-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

TYPICAL SECTION DETAILS

SHEET ID TS-18
SHEET NO. 28

PLAN SHEET
8/14/2026 3:06:16 PM TS.dgn

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000 Prelim	Final	
201-B001	Clearing and Grubbing	ACRE	30		2
202-B007	Removal of Asphalt Pavement, All Depths	SY	2,580		15
202-B017	Removal of Box Bridge	EA	4		13
202-B019	Removal of Box Culvert	LF	39		
202-B059	Removal of Concrete Median & Island Pavement, All Depths	SY	471		
202-B060	Removal of Concrete Median Barrier	LF	40		
202-B061	Removal of Concrete Median Barrier, Precast	LF	11,500		12 17 2
202-B063	Removal of Concrete Paved Ditch	SY	121		11
202-B069	Removal of Concrete Pavement w/ Variable Depth Overlay	SY	34,294		
202-B089	Removal of Curb &/or Curb and Gutter, All Types	LF	721		
202-B096	Removal of Debris and Sand From Box Culvert, 10-foot and Greater Width	LF	660		
202-B114	Removal of Debris and Sand From Pipe, All Sizes	LF	100		1
202-B126	Removal of Fence, All Types	LF	40,623		
202-B150	Removal of Guard Rail Including Post, Blockouts & Hardware	LF	4,679		8
202-B160	Removal of High Mast Lighting Assembly	EA	2		
202-B162	Removal of Impact Attenuator	EA	3		10
202-B165	Removal of Inlets, All Sizes	EA	8		
202-B177	Removal of Low Mast Lighting Assembly	EA	13		
202-B191	Removal of Pipe, 8" And Above	LF	538		
202-B220	Removal of Sign, Overhead Mounted Including Panels, Trust, and Footings	EA	1		
202-B225	Removal of Soil Cement Shoulders with Asphalt Overlay	SY	55,594		14
202-B226	Removal of Soil Cement Treated Base, All Depths - Milling	SY	14,175		16
202-B226	Removal of Soil Cement Treated Base, All Depths	SY	34,294		
202-B240	Removal of Traffic Stripe	LF	6,000		6
202-B273	Removal of Debris and Sand From Box Culvert, 6-foot to Less than 10-foot Width	LF	145		
202-B276	Removal of Debris from Drainage Channel	LF	365		
203-EX021	Borrow Excavation, AH, FME, Class B9-6	CY	583,811		2
203-F001	Channel Excavation, FM	CY	15,151		
203-G001	Excess Excavation, FM, AH	CY	498,248		
206-A001	Structure Excavation	CY	2,935		9
206-B001	Select Material for Undercuts, Contractor Furnished, FM	CY	96		
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	279,624		
211-B001	Topsoil for Slope Treatment, Contractor Furnished	CY	29,750		7
213-C001	Superphosphate	TON	56		
216-A001	Solid Sodding	SY	2,873		3
217-A001	Ditch Liner	SY	2,209		
219-A001	Watering	KGAL	59		2
220-A001	Insect Pest Control	ACRE	56		
221-A001	Concrete Paved Ditch	CY	3,548		4
223-A001	Mowing	ACRE	675		5
224-A001	Soil Reinforcing Mat	SY	7,370		

1. ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
2. FOR SOLID SOD.
3. INCLUDES 2467 SQ. YDS. FOR PAVED DITCH, 381 SQ. YDS. FOR PAVED FLUMES AND 25 SQ. YDS. FOR PAVED APRONS.
4. INCLUDES 44 CU. YDS. FOR PAVED FLUMES, 3 CU. YDS. FOR EDGE DRAINS, 2 CU. YD. FOR PAVED APRONS, AND 929 CU. YDS. FOR AREA BETWEEN PAVED DITCH AND WALL (SEE SHEET ID TS-18 FOR DETAILS).
5. ESTIMATED AS 6 MOWINGS FOR THE LIFE OF THE PROJECT.
6. ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER. HIGH PRESSURE WATER BLASTING REQUIRED. SEE GENERAL NOTE NO. 50.
7. ESTIMATED 50% ACREAGE SEEDED.
8. INCLUDES REMOVAL OF TERMINAL END SECTIONS, BRIDGE END SECTIONS AND CABLE ANCHORAGE.
9. 2523 CU. YDS. FOR PIPES AND 412 CU. YDS. FOR BOX CULVERTS.
10. INCLUDES 1 PERMANENT ATTENUATOR (AND CONCRETE PAD) AND 2 TEMPORARY ATTENUATORS.
11. INCLUDES PAVED FLUMES AND PAVED APRONS.
12. ESTIMATED STATE FURNISHED CONCRETE MEDIAN BARRIER IN PLACE (I-55 SOUTHBOUND). TO BE UTILIZED DURING CONSTRUCTION PHASING.
13. STA. 374+90 NB - 60', STA. 374+40 SB - 56', STA. 422+16 NB - 65', STA. 421+91 SB - 54'
14. ESTIMATED ASPHALT THICKNESS 6" - 8.25"
15. INCLUDES 917 S.Y. FOR REMOVAL OF MULTI-USE PATH.
16. REMOVAL REQUIRED BY MILLING ONLY. SEE DETAIL SHEET ID MCD-4
17. TO BE DELIVERED TO DISTRICT MAINTENANCE SHOP.

RAYMOND KYLE EDISON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI 8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID **SQ-1**

SHEET NO. **30**

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

8/19/2026 2:04:15 PM SQS_SH-SUMMARY OF QUANTITIES.dgn PLAN SHEET

SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000		
			Prelim	Final	
225-A001	Grassing	ACRE	111		
225-B001	Agricultural Limestone	TON	56		
225-C001	Mulch, Vegetative Mulch	TON	222		
226-A001	Temporary Grassing	ACRE	111		
907-234-A001	Temporary Silt Fence	LF	17,000		(1)
907-234-C001	Super Silt Fence	LF	2,575		
907-234-D001	Inlet Siltation Guard	EA	15		(1)
907-234-E001	Reset Inlet Siltation Guard	EA	15		(1)
236-A008	Silt Basin, Type D	EA	8		
237-A002	Wattles, 20"	LF	4,500		(1)
239-A001	Temporary Slope Drains	LF	2,000		(1)
245-A001	Silt Dike	LF	2,000		(1)
246-B002	Rockbags	LF	4,000		(1)
907-248-A001	Temporary Site Drainage	LS	1		
249-A001	Riprap for Erosion Control	TON	8,000		(1)
907-253-A001	Coir Fiber Baffle	LF	1,021		
304-D002	Granular Material, Crushed Stone	TON	16,850		(2)
304-F001	3/4" and Down Crushed Stone Base	TON	117,600		(2)
	OR				
304-F002	Size 610 Crushed Stone Base	TON	117,600		(2)
	OR				
304-F003	Size 825B Crushed Stone Base	TON	117,600		(2)
307-B003	6" Soil-Lime-Water Mixing, Class B	SY	118,950		(3)
307-D001	Lime	TON	1,606		(3)
307-S001	Bituminous Curing Seal	GAL	29,738		(3)
308-A001	Cement	TON	1,071		(3)
308-B003	Soil-Cement-Water Mixing, Optional Mixers, Design Soil	SY	118,950		(3)
308-S001	Bituminous Curing Seal	GAL	29,738		(3)
907-402-A002	Open Graded Friction Course, 9.5-mm Mixture	TON	9,577		
907-402-B001	Bituminous Tack Coat	GAL	35,361		
907-403-A001	12.5-mm, HT, Asphalt Pavement	TON	29,040		
907-403-A004	19-mm, HT, Asphalt Pavement	TON	35,680		
907-403-A006	19-mm, ST, Asphalt Pavement	TON	35,456		
907-403-A013	9.5-mm, HT, Asphalt Pavement	TON	2,942		
907-403-B001	12.5-mm, HT, Asphalt Pavement, Leveling	TON	42,798		
907-403-B010	9.5-mm, HT, Asphalt Pavement, Leveling	TON	5,921		
907-403-S001	Joint Sealant	MI	32		
907-405-A001	Stone Matrix Asphalt, 9.5 mm Mixture	TON	41,501		
907-405-A002	Stone Matrix Asphalt, 12.5 mm Mixture	TON	20,101		

(1) ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
(2) INCLUDES 20% INCREASE FROM CALCULATED QUANTITY.
(3) FOR TREATMENT OF SUBGRADE

RAYMOND KYLE EDGSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-2

SHEET NO.
31

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 3)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000		
			Prelim	Final	
406-D001	Fine Milling of Bituminous Pavement, All Depths	SY	231,701		
907-407-A001	Asphalt for Tack Coat	GAL	112,434		
907-413-E001	Sawing and Sealing Transverse Joints in Asphalt Pavement	LF	576		
423-A001	Rumble Strips, Ground In	MI	14		
907-501-F001	Concrete Lug Anchors	LF	640		
501-K001	Transverse Grooving	SY	222		
907-502-A001	Reinforced Cement Concrete Bridge End Pavement	SY	1,693		
503-C010	Saw Cut, Full Depth	LF	40,670		(1)
907-601-A001	Class "B" Structural Concrete	CY	302		
907-601-B001	Class "B" Structural Concrete, Minor Structures	CY	88		(2)
602-A001	Reinforcing Steel	LBS	48,821		(3)
603-ALT003	18" Type A Alternate Pipe	LF	72		
603-CA011	18" Reinforced Concrete Pipe, Class III	LF	1,032		
603-CA022	18" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	2,024		
603-CA026	24" Reinforced Concrete Pipe, Class III	LF	824		
603-CA038	24" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	632		
603-CA040	30" Reinforced Concrete Pipe, Class III	LF	8		
603-CA055	36" Reinforced Concrete Pipe, Class III	LF	96		
603-CA065	36" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	224		
603-CA066	42" Reinforced Concrete Pipe, Class III	LF	16		
603-CB003	18" Reinforced Concrete End Section	EA	28		
603-CB004	24" Reinforced Concrete End Section	EA	20		
603-CB005	30" Reinforced Concrete End Section	EA	1		
603-CB006	36" Reinforced Concrete End Section	EA	4		
603-CB007	42" Reinforced Concrete End Section	EA	2		
603-CE008	29" x 18" Concrete Arch Pipe, Class A III	LF	104		
603-CE018	44" x 27" Concrete Arch Pipe, Class A III	LF	88		
603-CE034	65" x 40" Concrete Arch Pipe, Class A III	LF	40		
603-CF003	29" x 18" Concrete Arch Pipe End Section	EA	2		
603-CF005	44" x 27" Concrete Arch Pipe End Section	EA	2		
603-CF008	65" x 40" Concrete Arch Pipe End Section	EA	2		
603-SB012	18" Branch Connections, Stub into Box Culvert	EA	4		
603-SB028	24" Branch Connections, Stub into Box Culvert	EA	2		
604-A001	Castings	LBS	79		
604-B001	Gratings	LBS	10,897		
605-AA001	Geotextile for Subsurface Drainage, Type III	SY	424		(4)
605-O002	4" Perforated Sewer Pipe for Underdrains, SDR 23.5	LF	762		(4)
605-P002	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5	LF	190		(4)
605-W001	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM	CY	29		(4)
605-W002	Filter Material for Combination Storm Drain and/or Underdrains,Type B, FM	CY	800		(4)

(1) ESTIMATED QUANTITY TO BE USED FOR PAVEMENT REMOVAL AS DIRECTED BY THE ENGINEER.

(2) INCLUDES 66 CU. YDS. FOR INLETS AND TOE WALLS, 8 CU. YDS. FOR JUNCTION BOXES AND 14 CU. YDS. FOR PERMANENT SIGNS.

(3) INCLUDES 3428 LBS. FOR INLETS, 525 LBS FOR JUNCTION BOXES, 44529 LBS. FOR BOX CULVERTS AND 339 LBS. FOR PERMANENT SIGNS.

(4) INCLUDES 10% INCREASE FROM CALCULATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR REPAIR AND/OR EXTENDING EXISTING EDGE DRAINS

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
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CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

SHEET ID
SQ-3

SHEET NO.
32

SUMMARY OF QUANTITIES (SHEET 4)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000 Prelim	Final	
	OR				
605-W003	Filter Material for Combination Storm Drain and/or Underdrains,Type C, FM	CY	800		(3)
606-B001	Guard Rail, Class A, Type 1	LF	550		(2)
606-B006	Guard Rail, Class A, Type 1, Double Faced	LF	313		
606-C003	Guard Rail, Cable Anchor, Type 1	EA	1		
606-D022	Guard Rail, Bridge End Section, Type I	EA	4		
606-E001	Guard Rail, Terminal End Section	EA	5		
607-B018	60" Type I Chain Link Fence, Class II	LF	40,947		
607-E001	Barbed Wire Fence, Single Strand	LF	600		
607-G127	Gate, 3' x 60" Chain Link	EA	12		
607-P1003	Line Post, 14' x 2 1/2" Galvanized Steel	EA	8		
607-P1008	Line Post, 7' x 1 1/2" Galvanized Steel	EA	3,834		
607-P2004	Brace Post, 7 1/2' x 2" Galvanized Steel	EA	247		
607-P2022	Brace Post, 5' x 2 1/2" Galvanized Steel	EA	8		
607-P3004	Gate Post, 8' x 2 1/2" Galvanized Steel	EA	24		
608-A001	Concrete Sidewalk, Without Reinforcement	SY	870		
907-608-C001	Detectable Warning Panels	SF	120		(4)
609-C001	Concrete Integral Curb, Type 1	LF	173		
609-D004	Combination Concrete Curb and Gutter Type 2 Modified	LF	1,785		
609-D007	Combination Concrete Curb and Gutter Type 3 Modified	LF	3,101		
612-B001	Flowable Fill, Non-Excavatable	CY	22		
615-A004	Concrete Bridge End Barrier, 43.5"	LF	287		
615-A007	Concrete Pier Protection Barrier, 54"	LF	256		
615-A023	Concrete Type IV Modified, 42" Height, Cast-in-Place Median Barrier	LF	34,372		(1)
616-A001	Concrete Median and/or Island Pavement, 10-inch	SY	155		
616-A004	Concrete Median and/or Island Pavement, 4-inch	SY	1,127		
616-B001	Bituminous Median and/or Island Pavement	SY	776		
617-A001	Right-of-Way Marker	EA	3		
907-618-A001	Maintenance of Traffic	LS	1		
907-618-M1001	Service Patrol	LS	1		
907-618-M2001	Work Zone Law Enforcement	HRS	4,640		(1)
619-A1001	Temporary Traffic Stripe, Continuous White	MI	75		
619-A2001	Temporary Traffic Stripe, Continuous Yellow	MI	73		
619-A3001	Temporary Traffic Stripe, Skip White	MI	88		
619-A5001	Temporary Traffic Stripe, Detail	LF	121,341		
619-A6001	Temporary Traffic Stripe, Legend	SF	2,454		
619-A6002	Temporary Traffic Stripe, Legend	LF	1,192		
619-C6001	Red-Clear Reflective High Performance Raised Marker	EA	18,826		
619-C8001	One-Way Clear Reflective High Performance Raised Marker	EA	2,075		
619-C9001	One-Way Yellow Reflective High Performance Raised Marker	EA	2,099		
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	79		

(1) INCLUDES 4892 LIN. FT. INSTALLED ON SPECIAL DESIGN WALL.. SEE BRIDGE SHEET NUMBERS 8101-8127.

(2) LENGTH OF GUARDRAIL REQUIRED IS BASED ON A TERMINAL SECTION OF 37.5 FEET BEING USED. FOR ANY OTHER LENGTH TERMINAL SECTION, THE LENGTH OF NORMAL GUARDRAIL WILL BE ADJUSTED.

(3) INCLUDES 10% INCREASE FROM CALCULATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR REPAIR AND/OR EXTENDING EXISTING EDGE DRAINS

(4) DARK GREY COLOR TO BE USED.

RAYMOND KYLE EIDSON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI 8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
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DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID **SQ-4**

SHEET NO. **33**

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 5)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000		
			Prelim	Final	
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	1,744		
907-619-E3001	Changeable Message Sign	EA	1		
619-F1001	Concrete Median Barrier, Precast	LF	1,000		(1)
619-F2001	Remove and Reset Concrete Median Barrier, Precast	LF	84,948		
619-G4005	Barricades, Type III, Single Faced	LF	204		
619-G5001	Free Standing Plastic Drums	EA	847		
619-G7001	Warning Lights, Type "B"	EA	20		
619-J1004	Impact Attenuator, 60 MPH	EA	4		
619-J2004	Impact Attenuator, 60 MPH, Replacement Package	EA	4		
619-J3001	Remove and Reset Impact Attenuator	EA	20		
907-619-M1002	Smart Work Zone, Portable Queue Trailer	EA	17		
907-619-M1003	Smart Work Zone, Portable Camera Trailer	EA	7		
907-619-M1004	Smart Work Zone, Portable Message Board Trailer	EA	8		
907-619-M2001	Smart Work Zone, Portable Queue Trailer, Operational Month	EA	29		2
907-619-M2002	Smart Work Zone, Portable Camera Trailer, Operational Month	EA	29		2
907-619-M2003	Smart Work Zone, Portable Message Board Trailer, Operational Month	EA	29		2
907-619-M2004	Smart Work Zone, Portable Bluetooth Detection System, Additional Device, Operational Month	EA	29		2
907-619-M3002	Smart Work Zone, System Monitoring, Operational Month	EA	29		2
620-A001	Mobilization	LS	1		
622-A004	Engineer's Field Office Building, Type 3	EA	1		
907-626-A010	6" Thermoplastic Traffic Stripe, Skip White	MI	18		
907-626-B006	6" Thermoplastic Traffic Stripe, Continuous White	MI	10		
907-626-E005	6" Thermoplastic Traffic Stripe, Continuous Yellow	MI	10		
907-626-G004	Thermoplastic Detail Stripe, White	LF	28,978		
907-626-G005	Thermoplastic Detail Stripe, Yellow	LF	1,537		
907-626-H009	Thermoplastic Legend, White	SF	607		
907-626-H010	Thermoplastic Legend, White	LF	596		
907-627-K001	Red-Clear Reflective High Performance Raised Markers	EA	4,439		
629-A005	Vehicular Impact Attenuator, 70 MPH	EA	1		
630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness	SF	178		
630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness	SF	469		
630-A005	Standard Roadside Signs, Sheet Aluminum, 0.1" Thickness	SF	349		
630-B002	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted	SF	378		
630-B003	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Overhead Mounted	SF	7,776		
630-C001	Square Tube Posts, 4.0 lb/ft	LF	559		
630-C004	Square Tube Posts, 9.0 lb/ft	LF	136		
630-C005	Square Tube Posts, 2.0 lb/ft	LF	944		(2)
630-C1001	Square Post Inner Sleeve	LF	64		
630-D006	Structural Steel Beams, W6 x 12	LF	51		
630-D008	Structural Steel Beams, W6 x 9	LF	136		
630-E001	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles	LBS	63		
630-E002	Structural Steel Angles & Bars, 3" x 3" x 1/4" Angles	LBS	132		

(1) ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
(2) INCLUDES OMNI SLEEVE.

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-5

SHEET NO.
34

REVISIONS

	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 6)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000		
			Prelim	Final	
630-F006	Delineators, Guard Rail, White	EA	28		
630-F007	Delineators, Guard Rail, Yellow	EA	10		
630-F010	Delineators, Post Mounted, Double White	EA	152		
630-F011	Delineators, Post Mounted, Double Yellow	EA	54		
630-F012	Delineators, Post Mounted, Single White	EA	61		
630-F013	Delineators, Post Mounted, Single Yellow	EA	14		
630-G004	Type 3 Object Markers, OM-3R or OM-3L	EA	4		
630-I003	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designed	LS	1		
630-I004	Metal Overhead Sign Supports, Assembly No. 10, Contractor Designed	LS	1		
630-I005	Metal Overhead Sign Supports, Assembly No. 11, Contractor Designed	LS	1		
630-I006	Metal Overhead Sign Supports, Assembly No. 12, Contractor Designed	LS	1		
630-I007	Metal Overhead Sign Supports, Assembly No. 13, Contractor Designed	LS	1		
630-I008	Metal Overhead Sign Supports, Assembly No. 14, Contractor Designed	LS	1		
630-I009	Metal Overhead Sign Supports, Assembly No. 15, Contractor Designed	LS	1		
630-I010	Metal Overhead Sign Supports, Assembly No. 16, Contractor Designed	LS	1		(7)
630-I015	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designed	LS	1		
630-I020	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designed	LS	1		
630-I022	Metal Overhead Sign Supports, Assembly No. 4, Contractor Designed	LS	1		
630-I024	Metal Overhead Sign Supports, Assembly No. 5, Contractor Designed	LS	1		
630-I025	Metal Overhead Sign Supports, Assembly No. 6, Contractor Designed	LS	1		
630-I026	Metal Overhead Sign Supports, Assembly No. 7, Contractor Designed	LS	1		
630-I027	Metal Overhead Sign Supports, Assembly No. 8, Contractor Designed	LS	1		
630-I028	Metal Overhead Sign Supports, Assembly No. 9, Contractor Designed	LS	1		
907-632-A007	Solid State Traffic Cabinet Assembly, Type III Cabinet, Type 1 Controller	EA	2		(1)
907-632-D001	Solid State Traffic Actuated Controller, Type 1	EA	2		(1)
907-632-G001	Malfunction Management Unit	EA	2		(1)
907-632-J001	Power Service Pedestal	EA	6		(2) (3)
907-634-A047	Traffic Signal Equipment Pole, Type II(L), 30' Shaft, 55' Arm	EA	1		(4)
907-634-A083	Traffic Signal Equipment Pole, Type II, 17' Shaft, 45' Arm	EA	1		(4)
907-634-A374	Traffic Signal Equipment Pole, Type III, 17' Shaft, 35' & 40' Arms	EA	1		(4)
907-634-A397	Traffic Signal Equipment Pole, Type III, 17' Shaft, 50' & 50' Arms	EA	1		(4)
907-634-A545	Traffic Signal Equipment Pole, Type VI, 8' Shaft	EA	1		(5)
907-634-C001	Pole Foundations, Class "B" Concrete	CY	16		
907-634-E001	Camera Pole with Foundation, 50' Pole	EA	4		
635-A059	Traffic Signal Head, Type 1	EA	12		(6)
635-A065	Traffic Signal Head, Type 2 FYA	EA	2		(6)
635-A070	Traffic Signal Head, Type 3	EA	2		(6)
635-A073	Traffic Signal Head, Type 4	EA	1		(6)
635-A076	Traffic Signal Head, Type 6	EA	2		(6)
907-636-B003	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 10, 2 Conductor	LF	190		(8)
907-636-B014	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 5 Conductor	LF	425		(8)
907-636-B016	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 8 Conductor	LF	915		(8)

(1) NEW TRAFFIC SIGNAL CONTROLLERS / MMU'S / AND/OR CONTROLLER CABINETS SHALL BE THE LATEST MODEL AND EQUIPPED WITH 5.2.2 FIRMWARE. CONTRACTOR SHALL SUPPLY THUMB DRIVE WITH LATEST TIMINGS IN EACH CABINET. CABINETS WILL NO LONGER REQUIRE CARD RACK.

(2) THIS PAY ITEM INCLUDES QUANTITIES SHOWN ON BOTH THE TRAFFIC SIGNAL EQ SHEET AND THE ITS EQ SHEET.

(3) POWER SERVICE SHALL REQUIRE NEW POWER PEDESTAL AND SERVICE. THE SIGNAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ANY NECESSARY ARRANGEMENTS WITH POWER COMPANY PROVIDER FOR THE NEW POWER SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY MAKE-READY COST INCURRED TO PROVIDE POWER SERVICE TO THE EQUIPMENT, NOT A SEPARATE PAY ITEM (COST ABSORBED UNDER OTHER SIGNAL ITEMS).

(4) POLES SHALL BE BLACK IN COLOR. THEY SHALL BE ROUND. POLYHEDRAL (MULTI-SIDED) POLES SHALL NOT BE ALLOWED.

(5) PEDESTAL POLES SHALL BE BLACK IN COLOR. THEY SHALL USE SQUARE BASES.

(6) TRAFFIC SIGNAL HEADS SHALL BE BLACK IN COLOR WITH BLACK BACK PLATES.

(7) TO BE USED TO SUPPORT DYNAMIC MESSAGE SIGN, TYPE 1.

(8) TO BE USED TO INSTALL TRAFFIC SIGNAL EQUIPMENT ITEMS.

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-6

SHEET NO.
35

REVISIONS	
DATE	BY
1 7/6/2026	DM
2 8/14/2026	DM
3 8/19/2026	DM

SUMMARY OF QUANTITIES (SHEET 7)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000 Prelim	Final	
907-636-B025	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 6, 3 Conductor	LF	225		(2)
907-636-B043	Electric Cable, Underground in Conduit, THHN, AWG #2, 4 Conductor	LF	40		(3)
907-636-B053	Electric Cable, Underground in Conduit, THHN, AWG #6, 3 Conductor	LF	1,120		(3)
907-636-D001	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 10, 2 Conductor	LF	40		(2) (4)
907-636-D006	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 5 Conductor	LF	20		(2) (4)
907-636-D008	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 8 Conductor	LF	380		(2) (4)
907-636-D022	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 6, 3 Conductor	LF	40		(2) (4)
907-637-A002	Pullbox Enclosure, Type 2	EA	17		(1)
907-637-A003	Pullbox Enclosure, Type 3	EA	2		(2)
907-637-A004	Pullbox Enclosure, Type 4	EA	16		(3)
907-637-A005	Pullbox Enclosure, Type 5	EA	11		(3)
907-637-C028	Traffic Signal Conduit, Underground, Type 4, 2"	LF	160		(2)
907-637-C030	Traffic Signal Conduit, Underground, Type 4, 3"	LF	105		(2)
907-637-D003	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"	LF	670		(2)
907-637-H001	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"	LF	160		(3)
907-637-H002	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2"	LF	445		(3)
907-637-I001	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2 @ 2"	LF	23,495		(3)
907-637-I002	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2"	LF	760		(3)
907-640-B001	Shielded Cable, AWG #14, 2 Conductor	LF	440		(5)
907-641-A002	Signal Stop Bar Radar Vehicle Detection Sensor, Type 2	EA	6		(2)
907-641-B002	Signal Advanced Radar Vehicle Detection Sensor, Type 2	EA	8		(2)
907-641-C002	ITS Radar Vehicle Detection Sensor	EA	2		(3)
907-641-D001	Radar Vehicle Detection Cable	LF	2,505		(2) (6)
907-641-F002	Signal Radar Vehicle Detection Processor, Type 2	EA	4		(2)
907-641-G002	ITS Radar Vehicle Detection Processor, Type 2	EA	2		(3)
907-645-B001	Accessible Pedestrian Detection Assembly	EA	2		(7)
647-A001	Removal of Existing Traffic Signal Equipment	LS	1		(12)
907-650-A002	On Street Video Equipment, Fixed Type	EA	12		(3) (8) △2
907-650-A003	On Street Video Equipment, PTZ Type	EA	6		(3) (8)
907-650-A004	On Street Video Equipment, PTZ Type, Signal Monitoring	EA	5		(2) △3
907-653-A001	Traffic Sign	SF	27		
907-656-A001	Dynamic Message Sign, Type 1	EA	1		(9)
907-659-A001	Traffic Management Center Modifications	LS	1		△3
907-660-A002	Equipment Cabinet, Type B	EA	5		(3)
907-660-A003	Equipment Cabinet, Type C	EA	1		(3)
907-661-A004	Fiber Optic Cable, 72 SM	LF	20,470		(10)
907-661-B002	Fiber Optic Drop Cable, 12 SM	LF	3,805		(10)
907-663-A001	Network Switch, Type A	EA	10		(2) (3)
907-663-A002	Network Switch, Type B	EA	1		(2) (3)
907-663-A003	Network Switch, Type C	EA	1		(11)
907-663-A005	Network Switch, Type E	EA	2		(11)
907-666-A001	Bluetooth Detection System, Type A	EA	2		(13)

(1) THIS PAY ITEM INCLUDES QUANTITIES SHOWN ON BOTH THE TRAFFIC SIGNAL EQ SHEET AND THE ITS EQ SHEET.

(2) TO BE USED TO INSTALL TRAFFIC SIGNAL EQUIPMENT ITEMS.

(3) TO BE USED TO INSTALL ITS EQUIPMENT ITEMS.

(4) SIGNAL CABLE IN POLES AND ARMS. AWG 10, 2c-MEASUREMENT WILL BE COMPUTED HORIZONTALLY ALONG THE LUMINAIRE ARM AND VERTICALLY ALONG THE POLE. AWG 14, 5c-MEASUREMENT WILL BE COMPUTED VERTICALLY ALONG THE MAST ARM OR PEDESTAL POLE. AWG 14, 8c-MEASUREMENT WILL BE COMPUTED HORIZONTALLY ALONG THE MAST ARM AND VERTICALLY ALONG THE POLE. AWG 6, 3c-MEASUREMENT WILL BE COMPUTED VERTICALLY ALONG THE RISER GOING UP THE POWER SERVICE POLE.

(5) SHALL BE USED TO POWER ACCESSIBLE PEDESTRIAN DETECTION ASSEMBLY (APS PUSHBUTTONS). MEASUREMENT WILL BE COMPUTED HORIZONTALLY AND VERTICALLY ALONG THE POLE.

(6) POWER TO BE SUPPLIED OVER VEHICLE DETECTION CABLE.

(7) INCLUDES PUSHBUTTON AND SIGN. PEDESTRIAN PUSH BUTTONS SHALL BE TOUCHLESS ACCESSIBLE PEDESTRIAN DETECTION ASSEMBLY (APS). THEY SHALL BE BLACK IN COLOR. SIGN SHALL BE 9" x 15" TOUCHLESS SIGN STATING: PUSH OR WAVE AT BUTTON AND SHOWING WALKING MAN SYMBOL.

△3 (8) ITS PTZ UNITS SHALL BE AXIS Q6325-LE OR APPROVED EQUAL. ITS FIXED UNITS SHALL BE AXIS Q18806-LE OR APPROVED EQUAL. CAMERAS SHALL INTEGRATE WELL INTO THE MDOT ATMS SYSTEM. THEY SHALL BE DIGITAL (IP) TYPE CAMERAS PER THE PROJECT SPECIFICATIONS. INCLUDES ALL EQUIPMENT NECESSARY FOR A COMPLETE AND OPERABLE UNIT. CABLES REQUIRED TO SUPPLY POWER, VIDEO, AND/OR CONTROL WILL NOT BE MEASURED FOR SEPARATE PAYMENT AND SHALL BE COST ABSORBED.

(9) TO BE FULL COLOR (RGB), INCLUDES ALL EQUIPMENT NECESSARY FOR A COMPLETE AND OPERABLE UNIT. INCLUDING, BUT NOT LIMITED TO POWER CABLES, COMMUNICATION CABLES, AND DMS EQUIPMENT CABINETS (TYPE C). REFER TO DMS DETAIL SHEETS SHOWN IN THE PLANS.

(10) SHOWN ON THE PLANS AS F.O. CABLE OR F.O. DROP. INCLUDES F.O. DROP PANELS, TERMINATION PANELS, AND TERMINATION OF ALL FIBERS AS SHOWN ON THE PLANS. ALL SPLICES AND CONNECTIONS TO BE COST ABSORBED. CONDUIT THAT CARRIES FIBER OPTIC CABLE OR DROP CABLE SHALL CONTAIN AN AWG #10 ORANGE DETECTOR CABLE (TRACER WIRE), COST SHALL BE ABSORBED UNDER PAY ITEM NO. 907-661-A004 OR 907-661-B002. PAY ITEMS INCLUDE CONTRACTOR TO SUBMIT AS-BUILTS FOR THE NEWLY INSTALLED FIBER OPTIC CABLES (INCLUDING FIBER TRUNK AND FIBER DROPS), ITS PULLBOXES, AND ITS/SIGNAL CABINETS WITH AN ACCURACY WITHIN THREE FEET. ALL SURVEY MUST BE PROVIDED TO MDOT IS DIVISION IN BOTH A KMZ FILE AND SHAPEFILE FORMATS. THIS WORK SHALL BE COST ABSORBED UNDER PAY ITEMS 907-661-A004 AND 907-661-B002.

(11) TYPE C NETWORK SWITCH SHALL BE CISCO CATALYST 9404 TYPE C SWITCH. IT SHALL BE SUPPLIED WITH TWO 10Gb TRANSCEIVERS. TYPE E NETWORK SWITCH SHALL BE CISCO MODEL IE-9320-22S2C4X-A, AN E2 SWITCH WITH 10 Gb TRANSCEIVERS FOR THE BLUE TUBE FIBER. TYPE C AND TYPE E SWITCHES SHALL BE DELIVERED TO MDOT IS DIVISION FOR CONFIGURATION.

(12) INCLUDES TRAFFIC SIGNAL AND ITS ITEMS. CONTRACTOR SHALL REMOVE ALL UNUSED EQUIPMENT/SIGNAL ITEMS/ITS ITEMS. SALVAGABLE EQUIPMENT SUCH AS CONTROLLERS, MMUS, NETWORK SWITCHES, DETECTION PLATFORMS, ETC. SHALL BE RETURNED TO MDOT (CONTRACTOR SHALL CONTACT MDOT TO DETERMINE WHAT EQUIPMENT THEY WISH TO RECEIVE). PAY ITEM INCLUDES DELIVERY TO MDOT. DISPOSAL OF UNWANTED ITEMS SHALL BE INCLUDED IN THIS PAY ITEM WITH NO ADDITION COST TO THE PROJECT.

(13) USED FOR SMART WORK ZONE SYSTEM.

RAYMOND KYLE EDISON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITIES

REVISIONS		
	DATE	BY
△1	7/6/2026	DM
△2	8/14/2026	DM
△3	8/19/2026	DM

SHEET ID **SQ-7**

SHEET NO. **36**

PLAN SHEET
SQS_SH-SUMMARY OF QUANTITIES.dgn
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SUMMARY OF QUANTITIES (SHEET 8)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-301000		
			Prelim	Final	
682-A005	Underground Branch Circuit, AWG 1/0, 3 Conductor	LF	4,378		
682-A007	Underground Branch Circuit, AWG 1/0, 5 Conductor	LF	2,642		
682-A018	Underground Branch Circuit, AWG 2, 3 Conductor	LF	8,904		
682-A034	Underground Branch Circuit, AWG 6, 3 Conductor	LF	3,180		
682-A039	Underground Branch Circuit, AWG 8, 3 Conductor	LF	1,680		
907-682-A1011	Branch Circuit Wire, AWG #2, 3 Conductor	LF	440		
907-682-A1019	Branch Circuit Wire, AWG #4, 3 Conductor	LF	830		
682-B005	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 3 Conductor	LF	90		
682-B007	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 5 Conductor	LF	90		
682-B016	Underground Branch Circuit, Jacked or Bored, AWG 2, 3 Conductor	LF	620		
682-B025	Underground Branch Circuit, Jacked or Bored, AWG 4, 3 Conductor	LF	870		
682-B032	Underground Branch Circuit, Jacked or Bored, AWG 6, 3 Conductor	LF	490		
682-B037	Underground Branch Circuit, Jacked or Bored, AWG 8, 3 Conductor	LF	340		
682-C006	Structure Mounted Branch Circuit, AWG 1/0, 5 Conductor	LF	200		
682-C009	Structure Mounted Branch Circuit, AWG 10, 3 Conductor	LF	480		
682-C015	Structure Mounted Branch Circuit, AWG 2, 3 Conductor	LF	150		
682-D002	Structure Mounted Pull Box	EA	10		
682-D003	Underground Pull Box	EA	38		
682-E001	Structure Mounted Junction Box	EA	3		
682-E003	Underground Junction Box With Concrete Pad	EA	21		(2)
682-F002	Secondary Power Controllers	EA	3		(5)
683-A002	Lighting Assembly, High Mast, LED, Type 120-4-A	EA	32		
683-A124	Lighting Assembly, High Mast, LED, Type 120-8-S	EA	4		
683-A137	Lighting Assembly, High Mast, LED, Type 120-8-A	EA	1		
683-A138	Lighting Assembly, High Mast, LED, Type 120-6-A	EA	1		
683-B212	Lighting Assembly, Low Mast, LED, Type 40-1-8-110	EA	11		
683-B213	Lighting Assembly, Low Mast, LED, Type 40-2-8-110	EA	1		
683-C010	Lighting Assembly, Underpass, Type UP	EA	8		
683-D001	Portable Electric Power Units	EA	1		
684-A003	Pole Foundation, 24" Diameter	CY	12		
684-A006	Pole Foundation, 42" Diameter	CY	271		
684-B003	Slip Casing, 24" Diameter	LF	8		(1)
684-B006	Slip Casing, 42" Diameter	LF	20		(1)
699-A001	Roadway Construction Stakes	LS	1		
815-A002	Loose Riprap, Size 100	TON	1,250		(3)
815-A007	Loose Riprap, Size 300	TON	7,050		(3)
815-E001	Geotextile under Riprap	SY	8,681		
815-F002	Sediment Control Stone	TON	3,000		(4)

(1) SLIP CASINGS FOR BID PURPOSE ONLY. THE SLIP CASINGS SHALL BE USED ONLY AS DIRECTED BY THE ENGINEER.

(2) INCLUDES 12 JUNCTION BOXES AT LOW MAST LIGHTING ASSEMBLIES AND 9 JUNCTION BOXES LOCATED AT HIGH MAST LIGHTING ASSEMBLIES

(3) ESTIMATED QUANTITY ROUNDED TO NEAREST 50 TONS

(4) INCLUDES 2777 TONS TO BE USED AS DIRECTED BY THE ENGINEER

(5) INCLUDES ANY REQUIRED MODIFICATIONS AT 2 EXISTING SECONDARY POWER CONTROLLERS. COST ABSORBED.

RAYMOND KYLE EDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-8

SHEET NO.
37

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

PLAN SHEET
SQS_SH-SUMMARY OF QUANTITIES.dgn
8/19/2026 2:04:48 PM

SUMMARY OF QUANTITIES (SHEET 9)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-302000		
			Prelim	Final	
201-D001	Random Clearing	STA	16		(2)
202-B096	Removal of Debris and Sand From Box Culvert, 10-foot and Greater Width	LF	142		
202-B276	Removal of Debris from Drainage Channel	LF	325		
223-A001	Mowing	ACRE	176		(1)
304-D002	Granular Material, Crushed Stone	TON	1,300		
907-402-A002	Open Graded Friction Course, 9.5-mm Mixture	TON	1,616		
907-402-B001	Bituminous Tack Coat	GAL	3,841		
907-403-A013	9.5-mm, HT, Asphalt Pavement	TON	1,725		
907-403-A015	9.5-mm, ST, Asphalt Pavement	TON	608		
907-403-S001	Joint Sealant	MI	2		
907-405-A001	Stone Matrix Asphalt, 9.5 mm Mixture	TON	3,001		
406-D001	Fine Milling of Bituminous Pavement, All Depths	SY	71,004		
907-407-A001	Asphalt for Tack Coat	GAL	4,382		
423-A001	Rumble Strips, Ground In	MI	3		
907-618-A001	Maintenance of Traffic	LS	1		
619-A1001	Temporary Traffic Stripe, Continuous White	MI	9		
619-A2001	Temporary Traffic Stripe, Continuous Yellow	MI	8		
619-A3001	Temporary Traffic Stripe, Skip White	MI	8		
619-A5001	Temporary Traffic Stripe, Detail	LF	21,650		
619-A6001	Temporary Traffic Stripe, Legend	SF	977		
619-A6002	Temporary Traffic Stripe, Legend	LF	1,376		
619-C6001	Red-Clear Reflective High Performance Raised Marker	EA	1,521		
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	16		
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	316		
907-619-E3001	Changeable Message Sign	EA	1		
619-G4005	Barricades, Type III, Single Faced	LF	24		
619-G7001	Warning Lights, Type "B"	EA	2		
907-619-M1002	Smart Work Zone, Portable Queue Trailer	EA	7		
907-619-M1003	Smart Work Zone, Portable Camera Trailer	EA	3		
907-619-M1004	Smart Work Zone, Portable Message Board Trailer	EA	4		
907-619-M2001	Smart Work Zone, Portable Queue Trailer, Operational Month	EA	29		(1)
907-619-M2002	Smart Work Zone, Portable Camera Trailer, Operational Month	EA	29		(1)
907-619-M2003	Smart Work Zone, Portable Message Board Trailer, Operational Month	EA	29		(1)
907-619-M2004	Smart Work Zone, Portable Bluetooth Detection System, Additional Device, Operational Month	EA	29		(1)
907-619-M3002	Smart Work Zone, System Monitoring, Operational Month	EA	29		(1)
620-A001	Mobilization	LS	1		

(1) ESTIMATED AS 6 MOWINGS FOR THE LIFE OF THE PROJECT.
(2) STA. 512+50 - STA. 521+50 NB, STA. 517+50 - STA. 524+50 SB

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/302000
PROJECT NO.: STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-9

SHEET NO.
38

REVISIONS	
DATE	BY
1 7/6/2026	DM
2 8/14/2026	DM
3 8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 10)

PAY ITEM NO.	PAY ITEM	UNIT	MADISON : 108168-302000	
			Prelim	Final
907-626-A010	6" Thermoplastic Traffic Stripe, Skip White	MI	3	
907-626-B006	6" Thermoplastic Traffic Stripe, Continuous White	MI	4	
907-626-E005	6" Thermoplastic Traffic Stripe, Continuous Yellow	MI	3	
907-626-G004	Thermoplastic Detail Stripe, White	LF	8,687	
907-626-G005	Thermoplastic Detail Stripe, Yellow	LF	429	
907-626-H009	Thermoplastic Legend, White	SF	489	
907-626-H010	Thermoplastic Legend, White	LF	688	
907-627-K001	Red-Clear Reflective High Performance Raised Markers	EA	534	
907-666-A001	Bluetooth Detection System, Type A	EA	1	

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/302000
PROJECT NO.: STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-10

SHEET NO.
39

REVISIONS	
DATE	BY
1 7/6/2026	DM
2 8/14/2026	DM
3 8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 11)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount Prelim	Total Amount Final	
201-B001	Clearing and Grubbing	ACRE	30		2
201-D001	Random Clearing	STA	16		17
202-B007	Removal of Asphalt Pavement, All Depths	SY	2,580		15
202-B017	Removal of Box Bridge	EA	4		13
202-B019	Removal of Box Culvert	LF	39		
202-B059	Removal of Concrete Median & Island Pavement, All Depths	SY	471		
202-B060	Removal of Concrete Median Barrier	LF	40		
202-B061	Removal of Concrete Median Barrier, Precast	LF	11,500		12 18 2
202-B063	Removal of Concrete Paved Ditch	SY	121		11
202-B069	Removal of Concrete Pavement w/ Variable Depth Overlay	SY	34,294		
202-B089	Removal of Curb &/or Curb and Gutter, All Types	LF	721		
202-B096	Removal of Debris and Sand From Box Culvert, 10-foot and Greater Width	LF	802		
202-B114	Removal of Debris and Sand From Pipe, All Sizes	LF	100		1
202-B126	Removal of Fence, All Types	LF	40,623		
202-B150	Removal of Guard Rail Including Post, Blockouts & Hardware	LF	4,679		8
202-B160	Removal of High Mast Lighting Assembly	EA	2		
202-B162	Removal of Impact Attenuator	EA	3		10
202-B165	Removal of Inlets, All Sizes	EA	8		
202-B177	Removal of Low Mast Lighting Assembly	EA	13		
202-B191	Removal of Pipe, 8" And Above	LF	538		
202-B220	Removal of Sign, Overhead Mounted Including Panels, Trust, and Footings	EA	1		
202-B225	Removal of Soil Cement Shoulders with Asphalt Overlay	SY	55,594		14
202-B226	Removal of Soil Cement Treated Base, All Depths	SY	34,294		
202-B226	Removal of Soil Cement Treated Base, All Depths - Milling	SY	14,175		16
202-B240	Removal of Traffic Stripe	LF	6,000		6
202-B273	Removal of Debris and Sand From Box Culvert, 6-foot to Less than 10-foot Width	LF	145		
202-B276	Removal of Debris from Drainage Channel	LF	690		
203-EX021	Borrow Excavation, AH, FME, Class B9-6	CY	583,811		2
203-F001	Channel Excavation, FM	CY	15,151		
203-G001	Excess Excavation, FM, AH	CY	498,248		
206-A001	Structure Excavation	CY	2,935		9
206-B001	Select Material for Undercuts, Contractor Furnished, FM	CY	96		
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	279,624		
211-B001	Topsoil for Slope Treatment, Contractor Furnished	CY	29,750		7
213-C001	Superphosphate	TON	56		
216-A001	Solid Sodding	SY	2,873		3
217-A001	Ditch Liner	SY	2,209		
219-A001	Watering	KGAL	59		2
220-A001	Insect Pest Control	ACRE	56		
221-A001	Concrete Paved Ditch	CY	3,548		4
223-A001	Mowing	ACRE	851		5

1. ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
2. FOR SOLID SOD.
3. INCLUDES 2467 SQ. YDS. FOR PAVED DITCH, 381 SQ. YDS. FOR PAVED FLUMES AND 25 SQ. YDS. FOR PAVED APRONS.
4. INCLUDES 44 CU. YDS. FOR PAVED FLUMES, 3 CU. YDS. FOR EDGE DRAINS, 2 CU. YD. FOR PAVED APRONS, AND 929 CU. YDS. FOR AREA BETWEEN PAVED DITCH AND WALL (SEE SHEET ID TS-18 FOR DETAILS).
5. ESTIMATED AS 6 MOWINGS FOR THE LIFE OF THE PROJECT.
6. ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER. HIGH PRESSURE WATER BLASTING REQUIRED. SEE GENERAL NOTE NO. 50.
7. ESTIMATED 50% ACREAGE SEEDED.
8. INCLUDES REMOVAL OF TERMINAL END SECTIONS, BRIDGE END SECTIONS AND CABLE ANCHORAGE.
9. 2523 CU. YDS. FOR PIPES AND 412 CU. YDS. FOR BOX CULVERTS.
10. INCLUDES 1 PERMANENT ATTENUATOR (AND CONCRETE PAD) AND 2 TEMPORARY ATTENUATORS.
11. INCLUDES PAVED FLUMES AND PAVED APRONS.
12. ESTIMATED STATE FURNISHED CONCRETE MEDIAN BARRIER IN PLACE (I-55 SOUTHBOUND). TO BE UTILIZED DURING CONSTRUCTION PHASING.
13. STA. 374+90 NB - 60', STA. 374+40 SB - 56', STA. 422+16 NB - 65', STA. 421+91 SB - 54'
14. ESTIMATED ASPHALT THICKNESS 6" - 8.25"
15. INCLUDES 917 S.Y. FOR REMOVAL OF MULTI-USE PATH.
16. REMOVAL REQUIRED BY MILLING ONLY. SEE DETAIL SHEET ID MCD-4
17. STA. 512+50 - STA. 521+50 NB, STA. 517+50 - STA. 524+50 SB
18. TO BE DELIVERED TO DISTRICT MAINTENANCE SHOP.

REVISIONS

	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

RAYMOND KYLE EDSON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-11

SHEET NO.
40

PLAN SHEET
8/19/2026 2:04:58 PM SQS_SH-SUMMARY OF QUANTITIES.dgn

SUMMARY OF QUANTITIES (SHEET 12)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount Prelim	Total Amount Final	
224-A001	Soil Reinforcing Mat	SY	7,370		
225-A001	Grassing	ACRE	111		
225-B001	Agricultural Limestone	TON	56		
225-C001	Mulch, Vegetative Mulch	TON	222		
226-A001	Temporary Grassing	ACRE	111		
907-234-A001	Temporary Silt Fence	LF	17,000		(1)
907-234-C001	Super Silt Fence	LF	2,575		
907-234-D001	Inlet Siltation Guard	EA	15		(1)
907-234-E001	Reset Inlet Siltation Guard	EA	15		(1)
236-A008	Silt Basin, Type D	EA	8		
237-A002	Wattles, 20"	LF	4,500		(1)
239-A001	Temporary Slope Drains	LF	2,000		(1)
245-A001	Silt Dike	LF	2,000		(1)
246-B002	Rockbags	LF	4,000		(1)
907-248-A001	Temporary Site Drainage	LS	1		
249-A001	Riprap for Erosion Control	TON	8,000		(1)
907-253-A001	Coir Fiber Baffle	LF	1,021		
304-D002	Granular Material, Crushed Stone	TON	18,150		(2)
304-F001	3/4" and Down Crushed Stone Base	TON	117,600		(2)
	OR				
304-F002	Size 610 Crushed Stone Base	TON	117,600		(2)
	OR				
304-F003	Size 825B Crushed Stone Base	TON	117,600		(2)
307-B003	6" Soil-Lime-Water Mixing, Class B	SY	118,950		(3)
307-D001	Lime	TON	1,606		(3)
307-S001	Bituminous Curing Seal	GAL	29,738		(3)
308-A001	Cement	TON	1,071		(3)
308-B003	Soil-Cement-Water Mixing, Optional Mixers, Design Soil	SY	118,950		(3)
308-S001	Bituminous Curing Seal	GAL	29,738		(3)
907-402-A002	Open Graded Friction Course, 9.5-mm Mixture	TON	11,193		
907-402-B001	Bituminous Tack Coat	GAL	39,202		
907-403-A001	12.5-mm, HT, Asphalt Pavement	TON	29,040		
907-403-A004	19-mm, HT, Asphalt Pavement	TON	35,680		
907-403-A006	19-mm, ST, Asphalt Pavement	TON	35,456		
907-403-A013	9.5-mm, HT, Asphalt Pavement	TON	4,667		
907-403-A015	9.5-mm, ST, Asphalt Pavement	TON	608		
907-403-B001	12.5-mm, HT, Asphalt Pavement, Leveling	TON	42,798		
907-403-B010	9.5-mm, HT, Asphalt Pavement, Leveling	TON	5,921		
907-403-S001	Joint Sealant	MI	34		
907-405-A001	Stone Matrix Asphalt, 9.5 mm Mixture	TON	44,502		

(1) ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
(2) INCLUDES 20% INCREASE FROM CALCULATED QUANTITY.
(3) FOR TREATMENT OF SUBGRADE

RAYMOND KYLE EIDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
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CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-12

SHEET NO.
41

REVISIONS	
DATE	BY
1 7/6/2026	DM
2 8/14/2026	DM
3 8/19/2026	DM

PLAN SHEET

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SUMMARY OF QUANTITIES (SHEET 13)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount		
			Prelim	Final	
907-405-A002	Stone Matrix Asphalt, 12.5 mm Mixture	TON	20,101		
406-D001	Fine Milling of Bituminous Pavement, All Depths	SY	302,705		
907-407-A001	Asphalt for Tack Coat	GAL	116,816		
907-413-E001	Sawing and Sealing Transverse Joints in Asphalt Pavement	LF	576		
423-A001	Rumble Strips, Ground In	MI	17		
907-501-F001	Concrete Lug Anchors	LF	640		
501-K001	Transverse Grooving	SY	222		
907-502-A001	Reinforced Cement Concrete Bridge End Pavement	SY	1,693		
503-C010	Saw Cut, Full Depth	LF	40,670		(1)
907-601-A001	Class "B" Structural Concrete	CY	302		
907-601-B001	Class "B" Structural Concrete, Minor Structures	CY	88		(2)
602-A001	Reinforcing Steel	LBS	48,821		(3)
603-ALT003	18" Type A Alternate Pipe	LF	72		
603-CA011	18" Reinforced Concrete Pipe, Class III	LF	1,032		
603-CA022	18" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	2,024		
603-CA026	24" Reinforced Concrete Pipe, Class III	LF	824		
603-CA038	24" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	632		
603-CA040	30" Reinforced Concrete Pipe, Class III	LF	8		
603-CA055	36" Reinforced Concrete Pipe, Class III	LF	96		
603-CA065	36" Reinforced Concrete Pipe, Class V, Jacked or Bored	LF	224		
603-CA066	42" Reinforced Concrete Pipe, Class III	LF	16		
603-CB003	18" Reinforced Concrete End Section	EA	28		
603-CB004	24" Reinforced Concrete End Section	EA	20		
603-CB005	30" Reinforced Concrete End Section	EA	1		
603-CB006	36" Reinforced Concrete End Section	EA	4		
603-CB007	42" Reinforced Concrete End Section	EA	2		
603-CE008	29" x 18" Concrete Arch Pipe, Class A III	LF	104		
603-CE018	44" x 27" Concrete Arch Pipe, Class A III	LF	88		
603-CE034	65" x 40" Concrete Arch Pipe, Class A III	LF	40		
603-CF003	29" x 18" Concrete Arch Pipe End Section	EA	2		
603-CF005	44" x 27" Concrete Arch Pipe End Section	EA	2		
603-CF008	65" x 40" Concrete Arch Pipe End Section	EA	2		
603-SB012	18" Branch Connections, Stub into Box Culvert	EA	4		
603-SB028	24" Branch Connections, Stub into Box Culvert	EA	2		
604-A001	Castings	LBS	79		
604-B001	Gratings	LBS	10,897		
605-AA001	Geotextile for Subsurface Drainage, Type III	SY	424		(4)
605-O002	4" Perforated Sewer Pipe for Underdrains, SDR 23.5	LF	762		(4)
605-P002	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5	LF	190		(4)
605-W001	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM	CY	29		(4)

(1) ESTIMATED QUANTITY TO BE USED FOR PAVEMENT REMOVAL AS DIRECTED BY THE ENGINEER.

(2) INCLUDES 66 CU. YDS. FOR INLETS AND TOE WALLS, 8 CU. YDS. FOR JUNCTION BOXES AND 14 CU. YDS. FOR PERMANENT SIGNS.

(3) INCLUDES 3428 LBS. FOR INLETS, 525 LBS FOR JUNCTION BOXES, 44529 LBS. FOR BOX CULVERTS AND 339 LBS. FOR PERMANENT SIGNS.

(4) INCLUDES 10% INCREASE FROM CALCULATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR REPAIR AND/OR EXTENDING EXISTING EDGE DRAINS

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
108168/302000

PROJECT NO.: STP-0055-02(271)
STP-0055-02(275)

COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-13

SHEET NO.
42

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 14)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount Prelim	Total Amount Final	
605-W002	Filter Material for Combination Storm Drain and/or Underdrains,Type B, FM	CY	800		(3)
	OR				
605-W003	Filter Material for Combination Storm Drain and/or Underdrains,Type C, FM	CY	800		(3)
606-B001	Guard Rail, Class A, Type 1	LF	550		(2)
606-B006	Guard Rail, Class A, Type 1, Double Faced	LF	313		
606-C003	Guard Rail, Cable Anchor, Type 1	EA	1		
606-D022	Guard Rail, Bridge End Section, Type I	EA	4		
606-E001	Guard Rail, Terminal End Section	EA	5		
607-B018	60" Type I Chain Link Fence, Class II	LF	40,947		
607-E001	Barbed Wire Fence, Single Strand	LF	600		
607-G127	Gate, 3' x 60" Chain Link	EA	12		
607-P1003	Line Post, 14' x 2 1/2" Galvanized Steel	EA	8		
607-P1008	Line Post, 7' x 1 1/2" Galvanized Steel	EA	3,834		
607-P2004	Brace Post, 7 1/2' x 2" Galvanized Steel	EA	247		
607-P2022	Brace Post, 5' x 2 1/2" Galvanized Steel	EA	8		
607-P3004	Gate Post, 8' x 2 1/2" Galvanized Steel	EA	24		
608-A001	Concrete Sidewalk, Without Reinforcement	SY	870		
907-608-C001	Detectable Warning Panels	SF	120		(4)
609-C001	Concrete Integral Curb, Type 1	LF	173		
609-D004	Combination Concrete Curb and Gutter Type 2 Modified	LF	1,785		
609-D007	Combination Concrete Curb and Gutter Type 3 Modified	LF	3,101		
612-B001	Flowable Fill, Non-Excavatable	CY	22		
615-A004	Concrete Bridge End Barrier, 43.5"	LF	287		
615-A007	Concrete Pier Protection Barrier, 54"	LF	256		
615-A023	Concrete Type IV Modified, 42" Height, Cast-in-Place Median Barrier	LF	34,372		(1)
616-A001	Concrete Median and/or Island Pavement, 10-inch	SY	155		
616-A004	Concrete Median and/or Island Pavement, 4-inch	SY	1,127		
616-B001	Bituminous Median and/or Island Pavement	SY	776		
617-A001	Right-of-Way Marker	EA	3		
907-618-A001	Maintenance of Traffic	LS	1		
907-618-M1001	Service Patrol	LS	1		
907-618-M2001	Work Zone Law Enforcement	HRS	4,640		(1)
619-A1001	Temporary Traffic Stripe, Continuous White	MI	84		
619-A2001	Temporary Traffic Stripe, Continuous Yellow	MI	81		
619-A3001	Temporary Traffic Stripe, Skip White	MI	96		
619-A5001	Temporary Traffic Stripe, Detail	LF	142,991		
619-A6001	Temporary Traffic Stripe, Legend	SF	3,431		
619-A6002	Temporary Traffic Stripe, Legend	LF	2,568		
619-C6001	Red-Clear Reflective High Performance Raised Marker	EA	20,347		
619-C8001	One-Way Clear Reflective High Performance Raised Marker	EA	2,075		
619-C9001	One-Way Yellow Reflective High Performance Raised Marker	EA	2,099		

(1) INCLUDES 4892 LIN. FT. INSTALLED ON SPECIAL DESIGN WALL.. SEE BRIDGE SHEET NUMBERS 8101-8127.

(2) LENGTH OF GUARDRAIL REQUIRED IS BASED ON A TERMINAL SECTION OF 37.5 FEET BEING USED. FOR ANY OTHER LENGTH TERMINAL SECTION, THE LENGTH OF NORMAL GUARDRAIL WILL BE ADJUSTED.

(3) INCLUDES 10% INCREASE FROM CALCULATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER FOR REPAIR AND/OR EXTENDING EXISTING EDGE DRAINS

(4) DARK GREY COLOR TO BE USED.

RAYMOND KYLE EIDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-14

SHEET NO.
43

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

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SUMMARY OF QUANTITIES (SHEET 15)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount Prelim	Total Amount Final	
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	95		
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	2,060		
907-619-E3001	Changeable Message Sign	EA	2		
619-F1001	Concrete Median Barrier, Precast	LF	1,000		(1)
619-F2001	Remove and Reset Concrete Median Barrier, Precast	LF	84,948		
619-G4005	Barricades, Type III, Single Faced	LF	228		
619-G5001	Free Standing Plastic Drums	EA	847		
619-G7001	Warning Lights, Type "B"	EA	22		
619-J1004	Impact Attenuator, 60 MPH	EA	4		
619-J2004	Impact Attenuator, 60 MPH, Replacement Package	EA	4		
619-J3001	Remove and Reset Impact Attenuator	EA	20		
907-619-M1002	Smart Work Zone, Portable Queue Trailer	EA	24		
907-619-M1003	Smart Work Zone, Portable Camera Trailer	EA	10		
907-619-M1004	Smart Work Zone, Portable Message Board Trailer	EA	12		
907-619-M2001	Smart Work Zone, Portable Queue Trailer, Operational Month	EA	58		1 2
907-619-M2002	Smart Work Zone, Portable Camera Trailer, Operational Month	EA	58		1 2
907-619-M2003	Smart Work Zone, Portable Message Board Trailer, Operational Month	EA	58		1 2
907-619-M2004	Smart Work Zone, Portable Bluetooth Detection System, Additional Device, Operational Month	EA	58		1 2
907-619-M3002	Smart Work Zone, System Monitoring, Operational Month	EA	58		1 2
620-A001	Mobilization	LS	1		
622-A004	Engineer's Field Office Building, Type 3	EA	1		
907-626-A010	6" Thermoplastic Traffic Stripe, Skip White	MI	21		
907-626-B006	6" Thermoplastic Traffic Stripe, Continuous White	MI	14		
907-626-E005	6" Thermoplastic Traffic Stripe, Continuous Yellow	MI	13		
907-626-G004	Thermoplastic Detail Stripe, White	LF	37,665		
907-626-G005	Thermoplastic Detail Stripe, Yellow	LF	1,966		
907-626-H009	Thermoplastic Legend, White	SF	1,096		
907-626-H010	Thermoplastic Legend, White	LF	1,284		
907-627-K001	Red-Clear Reflective High Performance Raised Markers	EA	4,973		
629-A005	Vehicular Impact Attenuator, 70 MPH	EA	1		
630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness	SF	178		
630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness	SF	469		
630-A005	Standard Roadside Signs, Sheet Aluminum, 0.1" Thickness	SF	349		
630-B002	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Ground Mounted	SF	378		
630-B003	Interstate Directional Signs, Bolted Extruded Aluminum Panels, Overhead Mounted	SF	7,776		
630-C001	Square Tube Posts, 4.0 lb/ft	LF	559		
630-C004	Square Tube Posts, 9.0 lb/ft	LF	136		
630-C005	Square Tube Posts, 2.0 lb/ft	LF	944		(2)
630-C1001	Square Post Inner Sleeve	LF	64		
630-D006	Structural Steel Beams, W6 x 12	LF	51		
630-D008	Structural Steel Beams, W6 x 9	LF	136		

(1) ESTIMATED QUANTITY TO BE USED AS DIRECTED BY THE ENGINEER.
(2) INCLUDES OMNI SLEEVE.

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

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DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

SHEET ID
SQ-15

SHEET NO.
44

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SUMMARY OF QUANTITIES (SHEET 16)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount Prelim	Total Amount Final	
630-E001	Structural Steel Angles & Bars, 3 1/2" x 3 1/2" x 1/4" Angles	LBS	63		
630-E002	Structural Steel Angles & Bars, 3" x 3" x 1/4" Angles	LBS	132		
630-F006	Delineators, Guard Rail, White	EA	28		
630-F007	Delineators, Guard Rail, Yellow	EA	10		
630-F010	Delineators, Post Mounted, Double White	EA	152		
630-F011	Delineators, Post Mounted, Double Yellow	EA	54		
630-F012	Delineators, Post Mounted, Single White	EA	61		
630-F013	Delineators, Post Mounted, Single Yellow	EA	14		
630-G004	Type 3 Object Markers, OM-3R or OM-3L	EA	4		
630-I003	Metal Overhead Sign Supports, Assembly No. 1, Contractor Designed	LS	1		
630-I004	Metal Overhead Sign Supports, Assembly No. 10, Contractor Designed	LS	1		
630-I005	Metal Overhead Sign Supports, Assembly No. 11, Contractor Designed	LS	1		
630-I006	Metal Overhead Sign Supports, Assembly No. 12, Contractor Designed	LS	1		
630-I007	Metal Overhead Sign Supports, Assembly No. 13, Contractor Designed	LS	1		
630-I008	Metal Overhead Sign Supports, Assembly No. 14, Contractor Designed	LS	1		
630-I009	Metal Overhead Sign Supports, Assembly No. 15, Contractor Designed	LS	1		
630-I010	Metal Overhead Sign Supports, Assembly No. 16, Contractor Designed	LS	1		(7)
630-I015	Metal Overhead Sign Supports, Assembly No. 2, Contractor Designed	LS	1		
630-I020	Metal Overhead Sign Supports, Assembly No. 3, Contractor Designed	LS	1		
630-I022	Metal Overhead Sign Supports, Assembly No. 4, Contractor Designed	LS	1		
630-I024	Metal Overhead Sign Supports, Assembly No. 5, Contractor Designed	LS	1		
630-I025	Metal Overhead Sign Supports, Assembly No. 6, Contractor Designed	LS	1		
630-I026	Metal Overhead Sign Supports, Assembly No. 7, Contractor Designed	LS	1		
630-I027	Metal Overhead Sign Supports, Assembly No. 8, Contractor Designed	LS	1		
630-I028	Metal Overhead Sign Supports, Assembly No. 9, Contractor Designed	LS	1		
907-632-A007	Solid State Traffic Cabinet Assembly, Type III Cabinet, Type 1 Controller	EA	2		(1)
907-632-D001	Solid State Traffic Actuated Controller, Type 1	EA	2		(1)
907-632-G001	Malfunction Management Unit	EA	2		(1)
907-632-J001	Power Service Pedestal	EA	6		(2) (3)
907-634-A047	Traffic Signal Equipment Pole, Type II(L), 30' Shaft, 55' Arm	EA	1		(4)
907-634-A083	Traffic Signal Equipment Pole, Type II, 17' Shaft, 45' Arm	EA	1		(4)
907-634-A374	Traffic Signal Equipment Pole, Type III, 17' Shaft, 35' & 40' Arms	EA	1		(4)
907-634-A397	Traffic Signal Equipment Pole, Type III, 17' Shaft, 50' & 50' Arms	EA	1		(4)
907-634-A545	Traffic Signal Equipment Pole, Type VI, 8' Shaft	EA	1		(5)
907-634-C001	Pole Foundations, Class "B" Concrete	CY	16		
907-634-E001	Camera Pole with Foundation, 50' Pole	EA	4		
635-A059	Traffic Signal Head, Type 1	EA	12		(6)
635-A065	Traffic Signal Head, Type 2 FYA	EA	2		(6)
635-A070	Traffic Signal Head, Type 3	EA	2		(6)
635-A073	Traffic Signal Head, Type 4	EA	1		(6)
635-A076	Traffic Signal Head, Type 6	EA	2		(6)
907-636-B003	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 10, 2 Conductor	LF	190		(8)

(1) NEW TRAFFIC SIGNAL CONTROLLERS / MMU'S / AND/OR CONTROLLER CABINETS SHALL BE THE LATEST MODEL AND EQUIPPED WITH 5.2.2 FIRMWARE. CONTRACTOR SHALL SUPPLY THUMB DRIVE WITH LATEST TIMINGS IN EACH CABINET. CABINETS WILL NO LONGER REQUIRE CARD RACK.

(2) THIS PAY ITEM INCLUDES QUANTITIES SHOWN ON BOTH THE TRAFFIC SIGNAL EQ SHEET AND THE ITS EQ SHEET.

(3) POWER SERVICE SHALL REQUIRE NEW POWER PEDESTAL AND SERVICE. THE SIGNAL CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ANY NECESSARY ARRANGEMENTS WITH POWER COMPANY PROVIDER FOR THE NEW POWER SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY MAKE-READY COST INCURRED TO PROVIDE POWER SERVICE TO THE EQUIPMENT, NOT A SEPARATE PAY ITEM (COST ABSORBED UNDER OTHER SIGNAL ITEMS).

(4) POLES SHALL BE BLACK IN COLOR. THEY SHALL BE ROUND. POLYHEDRAL (MULTI-SIDED) POLES SHALL NOT BE ALLOWED.

(5) PEDESTAL POLES SHALL BE BLACK IN COLOR. THEY SHALL USE SQUARE BASES.

(6) TRAFFIC SIGNAL HEADS SHALL BE BLACK IN COLOR WITH BLACK BACK PLATES.

(7) TO BE USED TO SUPPORT DYNAMIC MESSAGE SIGN, TYPE 1.

(8) TO BE USED TO INSTALL TRAFFIC SIGNAL EQUIPMENT ITEMS.

RAYMOND KYLE EIDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-16

SHEET NO.
45

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

8/19/2026 2:05:21 PM SQS_SH-SUMMARY OF QUANTITIES.dgn PLAN SHEET

SUMMARY OF QUANTITIES (SHEET 17)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount		
			Prelim	Final	
907-636-B014	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 5 Conductor	LF	425		(2)
907-636-B016	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 14, 8 Conductor	LF	915		(2)
907-636-B025	Electric Cable, Underground in Conduit, IMSA 20-1, AWG 6, 3 Conductor	LF	225		(2)
907-636-B043	Electric Cable, Underground in Conduit, THHN, AWG #2, 4 Conductor	LF	40		(3)
907-636-B053	Electric Cable, Underground in Conduit, THHN, AWG #6, 3 Conductor	LF	1,120		(3)
907-636-D001	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 10, 2 Conductor	LF	40		(2) (4)
907-636-D006	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 5 Conductor	LF	20		(2) (4)
907-636-D008	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 14, 8 Conductor	LF	380		(2) (4)
907-636-D022	Electric Cable, Aerial Supported in Conduit, IMSA 20-1, AWG 6, 3 Conductor	LF	40		(2) (4)
907-637-A002	Pullbox Enclosure, Type 2	EA	17		(1)
907-637-A003	Pullbox Enclosure, Type 3	EA	2		(2)
907-637-A004	Pullbox Enclosure, Type 4	EA	16		(3)
907-637-A005	Pullbox Enclosure, Type 5	EA	11		(3)
907-637-C028	Traffic Signal Conduit, Underground, Type 4, 2"	LF	160		(2)
907-637-C030	Traffic Signal Conduit, Underground, Type 4, 3"	LF	105		(2)
907-637-D003	Traffic Signal Conduit, Underground Drilled or Jacked, Rolled Pipe, 3"	LF	670		(2)
907-637-H001	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"	LF	160		(3)
907-637-H002	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2"	LF	445		(3)
907-637-I001	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2 @ 2"	LF	23,495		(3)
907-637-I002	Traffic Signal Conduit Bank, Underground, Drilled or Jacked, Rolled Pipe, 2"	LF	760		(3)
907-640-B001	Shielded Cable, AWG #14, 2 Conductor	LF	440		(5)
907-641-A002	Signal Stop Bar Radar Vehicle Detection Sensor, Type 2	EA	6		(2)
907-641-B002	Signal Advanced Radar Vehicle Detection Sensor, Type 2	EA	8		(2)
907-641-C002	ITS Radar Vehicle Detection Sensor	EA	2		(3)
907-641-D001	Radar Vehicle Detection Cable	LF	2,505		(2) (6)
907-641-F002	Signal Radar Vehicle Detection Processor, Type 2	EA	4		(2)
907-641-G002	ITS Radar Vehicle Detection Processor, Type 2	EA	2		(3)
907-645-B001	Accessible Pedestrian Detection Assembly	EA	2		(7)
647-A001	Removal of Existing Traffic Signal Equipment	LS	1		(12)
907-650-A002	On Street Video Equipment, Fixed Type	EA	12		(3) (8) △2
907-650-A003	On Street Video Equipment, PTZ Type	EA	6		(3) (8)
907-650-A004	On Street Video Equipment, PTZ Type, Signal Monitoring	EA	5		(2) △3
907-653-A001	Traffic Sign	SF	27		
907-656-A001	Dynamic Message Sign, Type 1	EA	1		(9)
907-659-A001	Traffic Management Center Modifications	LS	1		△3
907-660-A002	Equipment Cabinet, Type B	EA	5		(3)
907-660-A003	Equipment Cabinet, Type C	EA	1		(3)
907-661-A004	Fiber Optic Cable, 72 SM	LF	20,470		(10)
907-661-B002	Fiber Optic Drop Cable, 12 SM	LF	3,805		(10)
907-663-A001	Network Switch, Type A	EA	10		(2) (3)
907-663-A002	Network Switch, Type B	EA	1		(2) (3)
907-663-A003	Network Switch, Type C	EA	1		(11)

(1) THIS PAY ITEM INCLUDES QUANTITIES SHOWN ON BOTH THE TRAFFIC SIGNAL EQ SHEET AND THE ITS EQ SHEET.

(2) TO BE USED TO INSTALL TRAFFIC SIGNAL EQUIPMENT ITEMS.

(3) TO BE USED TO INSTALL ITS EQUIPMENT ITEMS.

(4) SIGNAL CABLE IN POLES AND ARMS. AWG 10, 2c-MEASUREMENT WILL BE COMPUTED HORIZONTALLY ALONG THE LUMINAIRE ARM AND VERTICALLY ALONG THE POLE. AWG 14, 5c-MEASUREMENT WILL BE COMPUTED VERTICALLY ALONG THE MAST ARM OR PEDESTAL POLE. AWG 14, 8c-MEASUREMENT WILL BE COMPUTED HORIZONTALLY ALONG THE MAST ARM AND VERTICALLY ALONG THE POLE. AWG 6, 3c-MEASUREMENT WILL BE COMPUTED VERTICALLY ALONG THE RISER GOING UP THE POWER SERVICE POLE.

(5) SHALL BE USED TO POWER ACCESSIBLE PEDESTRIAN DETECTION ASSEMBLY (APS PUSHBUTTONS). MEASUREMENT WILL BE COMPUTED HORIZONTALLY AND VERTICALLY ALONG THE POLE.

(6) POWER TO BE SUPPLIED OVER VEHICLE DETECTION CABLE.

(7) INCLUDES PUSHBUTTON AND SIGN. PEDESTRIAN PUSH BUTTONS SHALL BE TOUCHLESS ACCESSIBLE PEDESTRIAN DETECTION ASSEMBLY (APS). THEY SHALL BE BLACK IN COLOR. SIGN SHALL BE 9" x 15" TOUCHLESS SIGN STATING: PUSH OR WAVE AT BUTTON AND SHOWING WALKING MAN SYMBOL.

△3 (8) ITS PTZ UNITS SHALL BE AXIS Q6325-LE OR APPROVED EQUAL. ITS FIXED UNITS SHALL BE AXIS Q18806-LE OR APPROVED EQUAL. CAMERAS SHALL INTEGRATE WELL INTO THE MDOT ATMS SYSTEM. THEY SHALL BE DIGITAL (IP) TYPE CAMERAS PER THE PROJECT SPECIFICATIONS. INCLUDES ALL EQUIPMENT NECESSARY FOR A COMPLETE AND OPERABLE UNIT. CABLES REQUIRED TO SUPPLY POWER, VIDEO, AND/OR CONTROL WILL NOT BE MEASURED FOR SEPARATE PAYMENT AND SHALL BE COST ABSORBED.

(9) TO BE FULL COLOR (RGB), INCLUDES ALL EQUIPMENT NECESSARY FOR A COMPLETE AND OPERABLE UNIT. INCLUDING, BUT NOT LIMITED TO POWER CABLES, COMMUNICATION CABLES, AND DMS EQUIPMENT CABINETS (TYPE C). REFER TO DMS DETAIL SHEETS SHOWN IN THE PLANS.

(10) SHOWN ON THE PLANS AS F.O. CABLE OR F.O. DROP. INCLUDES F.O. DROP PANELS, TERMINATION PANELS, AND TERMINATION OF ALL FIBERS AS SHOWN ON THE PLANS. ALL SPLICES AND CONNECTIONS TO BE COST ABSORBED. CONDUIT THAT CARRIES FIBER OPTIC CABLE OR DROP CABLE SHALL CONTAIN AN AWG #10 ORANGE DETECTOR CABLE (TRACER WIRE), COST SHALL BE ABSORBED UNDER PAY ITEM NO. 907-661-A004 OR 907-661-B002. PAY ITEMS INCLUDE CONTRACTOR TO SUBMIT AS-BUILTS FOR THE NEWLY INSTALLED FIBER OPTIC CABLES (INCLUDING FIBER TRUNK AND FIBER DROPS), ITS PULLBOXES, AND ITS/SIGNAL CABINETS WITH AN ACCURACY WITHIN THREE FEET. ALL SURVEY MUST BE PROVIDED TO MDOT IS DIVISION IN BOTH A KMZ FILE AND SHAPEFILE FORMATS. THIS WORK SHALL BE COST ABSORBED UNDER PAY ITEMS 907-661-A004 AND 907-661-B002.

(11) TYPE C NETWORK SWITCH SHALL BE CISCO CATALYST 9404 TYPE C SWITCH. IT SHALL BE SUPPLIED WITH TWO 10Gb TRANSCEIVERS. TYPE E NETWORK SWITCH SHALL BE CISCO MODEL IE-9320-22S2C4X-A, AN E2 SWITCH WITH 10 Gb TRANSCEIVERS FOR THE BLUE TUBE FIBER. TYPE C AND TYPE E SWITCHES SHALL BE DELIVERED TO MDOT IS DIVISION FOR CONFIGURATION.

(12) INCLUDES TRAFFIC SIGNAL AND ITS ITEMS. CONTRACTOR SHALL REMOVE ALL UNUSED EQUIPMENT/SIGNAL ITEMS/ITS ITEMS. SALVAGABLE EQUIPMENT SUCH AS CONTROLLERS, MMUS, NETWORK SWITCHES, DETECTION PLATFORMS, ETC. SHALL BE RETURNED TO MDOT (CONTRACTOR SHALL CONTACT MDOT TO DETERMINE WHAT EQUIPMENT THEY WISH TO RECEIVE). PAY ITEM INCLUDES DELIVERY TO MDOT. DISPOSAL OF UNWANTED ITEMS SHALL BE INCLUDED IN THIS PAY ITEM WITH NO ADDITION COST TO THE PROJECT.

REVISIONS		
	DATE	BY
△1	7/6/2026	DM
△2	8/14/2026	DM
△3	8/19/2026	DM

RAYMOND KYLE EDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
108168/302000

PROJECT NO.: STP-0055-02(271)
STP-0055-02(275)

COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-17

SHEET NO.
46

8/19/2026 2:05:25 PM SQS_SH-SUMMARY OF QUANTITIES.dgn PLAN SHEET

SUMMARY OF QUANTITIES (SHEET 18)

108168-301000
108168-302000

PAY ITEM NO.	PAY ITEM	UNIT	Total Amount		
			Prelim	Final	
907-663-A005	Network Switch, Type E	EA	2		(3)
907-666-A001	Bluetooth Detection System, Type A	EA	3		(4)
682-A005	Underground Branch Circuit, AWG 1/0, 3 Conductor	LF	4,378		
682-A007	Underground Branch Circuit, AWG 1/0, 5 Conductor	LF	2,642		
682-A018	Underground Branch Circuit, AWG 2, 3 Conductor	LF	8,904		
682-A034	Underground Branch Circuit, AWG 6, 3 Conductor	LF	3,180		
682-A039	Underground Branch Circuit, AWG 8, 3 Conductor	LF	1,680		
907-682-A1011	Branch Circuit Wire, AWG #2, 3 Conductor	LF	440		
907-682-A1019	Branch Circuit Wire, AWG #4, 3 Conductor	LF	830		
682-B005	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 3 Conductor	LF	90		
682-B007	Underground Branch Circuit, Jacked or Bored, AWG 1/0, 5 Conductor	LF	90		
682-B016	Underground Branch Circuit, Jacked or Bored, AWG 2, 3 Conductor	LF	620		
682-B025	Underground Branch Circuit, Jacked or Bored, AWG 4, 3 Conductor	LF	870		
682-B032	Underground Branch Circuit, Jacked or Bored, AWG 6, 3 Conductor	LF	490		
682-B037	Underground Branch Circuit, Jacked or Bored, AWG 8, 3 Conductor	LF	340		
682-C006	Structure Mounted Branch Circuit, AWG 1/0, 5 Conductor	LF	200		
682-C009	Structure Mounted Branch Circuit, AWG 10, 3 Conductor	LF	480		
682-C015	Structure Mounted Branch Circuit, AWG 2, 3 Conductor	LF	150		
682-D002	Structure Mounted Pull Box	EA	10		
682-D003	Underground Pull Box	EA	38		
682-E001	Structure Mounted Junction Box	EA	3		
682-E003	Underground Junction Box With Concrete Pad	EA	21		(2)
682-F002	Secondary Power Controllers	EA	3		(7)
683-A002	Lighting Assembly, High Mast, LED, Type 120-4-A	EA	32		
683-A124	Lighting Assembly, High Mast, LED, Type 120-8-S	EA	4		
683-A137	Lighting Assembly, High Mast, LED, Type 120-8-A	EA	1		
683-A138	Lighting Assembly, High Mast, LED, Type 120-6-A	EA	1		
683-B212	Lighting Assembly, Low Mast, LED, Type 40-1-8-110	EA	11		
683-B213	Lighting Assembly, Low Mast, LED, Type 40-2-8-110	EA	1		
683-C010	Lighting Assembly, Underpass, Type UP	EA	8		
683-D001	Portable Electric Power Units	EA	1		
684-A003	Pole Foundation, 24" Diameter	CY	12		
684-A006	Pole Foundation, 42" Diameter	CY	271		
684-B003	Slip Casing, 24" Diameter	LF	8		(1)
684-B006	Slip Casing, 42" Diameter	LF	20		(1)
699-A001	Roadway Construction Stakes	LS	1		
815-A002	Loose Riprap, Size 100	TON	1,250		(5)
815-A007	Loose Riprap, Size 300	TON	7,050		(5)
815-E001	Geotextile under Riprap	SY	8,681		
815-F002	Sediment Control Stone	TON	3,000		(6)

(1) SLIP CASINGS FOR BID PURPOSE ONLY. THE SLIP CASINGS SHALL BE USED ONLY AS DIRECTED BY THE ENGINEER.

(2) INCLUDES 12 JUNCTION BOXES AT LOW MAST LIGHTING ASSEMBLIES AND 9 JUNCTION BOXES LOCATED AT HIGH MAST LIGHTING ASSEMBLIES

(3) TYPE C NETWORK SWITCH SHALL BE CISCO CATALYST 9404 TYPE C SWITCH. IT SHALL BE SUPPLIED WITH TWO 10Gb TRANSCEIVERS. TYPE E NETWORK SWITCH SHALL BE CISCO MODEL IE-9320-22S2C4X-A, AN E2 SWITCH WITH 10 Gb TRANSCEIVERS FOR THE BLUE TUBE FIBER. TYPE C AND TYPE E SWITCHES SHALL BE DELIVERED TO MDOT IS DIVISION FOR CONFIGURATION.

(4) USED FOR SMART WORK ZONE SYSTEM.

(5) ESTIMATED QUANTITY ROUNDED TO NEAREST 50 TONS

(6) INCLUDES 2777 TONS TO BE USED AS DIRECTED BY THE ENGINEER

(7) INCLUDES ANY REQUIRED MODIFICATIONS AT 2 EXISTING SECONDARY POWER CONTROLLERS. COST ABSORBED.

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-19-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
108168/302000

PROJECT NO.: STP-0055-02(271)
STP-0055-02(275)

COUNTY: MADISON

SUMMARY OF QUANTITES

SHEET ID
SQ-18

SHEET NO.
47

REVISIONS		
	DATE	BY
1	7/6/2026	DM
2	8/14/2026	DM
3	8/19/2026	DM

8/19/2026 2:05:31 PM SQS_SH-SUMMARY OF QUANTITIES.dgn PLAN SHEET

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I, PHASE 1A)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-5	567	0					
WK-6	1360	6					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**1927**	**6**					
CUT = EXCESS					1927		
BORROW = (FILL)			6				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**6**	**0**	**1927**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I, PHASE 1B)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-5	0	357					
WK-6	0	2315					
WK-7	0	1779					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**0**	**4451**					
CUT = EXCESS					0		
BORROW = (FILL)			4451				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**4451**	**0**	**0**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I, PHASE 1C)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-9	0	182					
WK-10	0	114					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**0**	**296**					
CUT = EXCESS					0		
BORROW = (FILL)			296				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**296**	**0**	**0**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I, PHASE 1D)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-6	8122	8777					
WK-7	15339	24582					
WK-8	731	27732					
WK-8A	3489	280				3489	*CHANNEL EXCAVATION*
WK-9	15018	22802					
WK-10	3177	2602					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**42387**	**86775**					*CUT TOTAL DOES NOT INCLUDE CHANNEL EXCAVATION*
CUT = EXCESS					42387		
BORROW = (FILL)			86775				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**86775**	**0**	**42387**	**3489**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I, PHASE 1E)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-6	7222	6852					
WK-7	24294	18089					
WK-8	5493	12543					
WK-8A	3993	1766				3993	*CHANNEL EXCAVATION*
WK-9	38471	26014					
WK-9B1	684	3730					
WK-9B2	86	50732					
WK-9C1	5621	3113					
WK-9C2	3749	13018					
WK-9D1	10	1428					
WK9D2	0	4524					
WK-10	2405	1816					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**88035**	**143625**					*CUT TOTAL DOES NOT INCLUDE CHANNEL EXCAVATION*
CUT = EXCESS					88035		
BORROW = (FILL)			143625				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**143625**	**0**	**88035**	**3993**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT II, PHASE 1F)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-3	0	56					
WK-4	0	377					
WK-5	0	141					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**0**	**574**					
CUT = EXCESS					0		
BORROW = (FILL)			574				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**574**	**0**	**0**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT II, PHASE 1G)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-3	2280	189					
WK-4	15854	10825					
WK-5	19314	16342					
WK-6	10503	7502					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**47951**	**34858**					
CUT = EXCESS					47951		
BORROW = (FILL)			34858				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**34858**	**0**	**47951**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT II, PHASE 1H)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-3	6085	4779					
WK-4	11017	9651					
WK-5	11741	10225					
WK-6	4692	4534					
	33535	**29189**					
CUT = EXCESS					33535		
BORROW = (FILL)			29189				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**29189**	**0**	**33535**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT I & II, PHASE 1 TOTALS)

PHASE OF CONSTRUCTION	BORROW (B9-6)	EXCAVATION			REMARKS
		UNCLASSIFIED	EXCESS	CHANNEL	
PHASE 1A	6	0	1927	0	
PHASE 1B	4451	0	0	0	
PHASE 1C	296	0	0	0	
PHASE 1D	86775	0	42387	3489	
PHASE 1E	143625	0	88035	3993	
PHASE 1F	574	0	0	0	
PHASE 1G	34858	0	47951	0	
PHASE 1H	29189	0	33535	0	
	48132		48132		*ESTIMATED QUANTITY, SEE NOTE 2*
UNIT	**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL	**347906**	**0**	**261967**	**7482**	

NOTES:
1. ALL EXCAVATION (INCLUDING CHANNEL EXCAVATION) WILL BE EXCESS. CHANNEL EXCAVATION THAT WILL BE EXCESSED IS TO BE PAID FOR AS CHANNEL EXCAVATION.
2. SATURATED SOILS MAY BE ENCOUNTERED AT THE BELOW LOCATIONS. IF MATERIAL IS DEEMED TO BE UNSUITABLE AFTER PROCESSING, THE MATERIAL SHALL BE EXCESSED AND REPLACED WITH B9-6 BORROW, AS DIRECTED BY THE ENGINEER.
   STA. 340+20 - STA. 395+00 I-55
   STA. 92+30 - STA. 94+30 REUNION SE RAMP

REVISIONS	
DATE	BY
1 8/14/2026	DM

RAYMOND KYLE EDISON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI
8-14-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

ESTIMATED QUANTITIES
ESTIMATED EARTHWORK QUANTITIES
(SEGMENT I AND II, PHASE 1A - PHASE 1H)

SHEET ID **EQ-7**

SHEET NO. **54**

PLAN SHEET
8/14/2026 3:07:37 PM EQ-Estimated Quantities.dgn

ESTIMATED EARTHWORK QUANTITIES (SEGMENT III, PHASE 2A)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-12	1273	1675					
WK-13	3809	3746					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**5081**	**5421**					
CUT = EXCESS					5081		
BORROW = (FILL)			5421				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**5421**	**0**	**5081**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT III, PHASE 2B)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-10	0	160					
WK-11	0	1062					
WK-12	0	267					
WK-13	0	334					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**0**	**1823**					
CUT = EXCESS					0		
BORROW = (FILL)			1823				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**1823**	**0**	**0**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT III, PHASE 2C)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-10	6332	4912					
WK-11	7893	19487					
WK-12	1796	29648					
WK-12A	1174	526				1174	*CHANNEL EXCAVATION*
WK-13	5100	5232					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**21121**	**59805**					*CUT TOTAL DOES NOT INCLUDE CHANNEL EXCAVATION*
CUT = EXCESS					21121		
BORROW = (FILL)			59805				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**59805**	**0**	**21121**	**1174**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT III, PHASE 2D)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-9D1	0	3679					
WK-9D2	0	2436					
WK-9E1	3556	31302					
WK-9E2	3769	1499					
WK-9F1	18831	6623					
WK-9F2	7154	4341					
WK-9G1	20870	10406					
WK-9G2	12954	2137					
WK-10	9209	3730					
WK-11	33446	13622					
WK-12	23122	17534					
WK-12A	6495	1668				6495	*CHANNEL EXCAVATION*
WK-13	14363	9537					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**147274**	**108514**					*CUT TOTAL DOES NOT INCLUDE CHANNEL EXCAVATION*
CUT = EXCESS					147274		
BORROW = (FILL)			108514				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**108514**	**0**	**147274**	**6495**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT III, PHASE 2E)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-13	0	400					
WK-14	0	2168					
WK-15	0	942					
WK-16	0	642					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**0**	**4152**					
CUT = EXCESS					0		
BORROW = (FILL)			4152				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**4152**	**0**	**0**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT IV, PHASE 2F)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-15	5195	3408					
WK-16	2366	3161					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**7561**	**6569**					
CUT = EXCESS					7561		
BORROW = (FILL)			6569				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**6569**	**0**	**7561**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT IV, PHASE 2G)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-13	3829	3527					
WK-14	8774	7925					
WK-15	5823	6047					
WK-16	5199	2989					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**23625**	**20488**					
CUT = EXCESS					23625		
BORROW = (FILL)			20488				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**20488**	**0**	**23625**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENT IV, PHASE 2H)

SHEET ID	CUT	FILL	BORROW (B9-6)	EXCAVATION			REMARKS
				UNCLASSIFIED	EXCESS	CHANNEL	
WK-13	228	208					
WK-14	3507	2893					
WK-15	878	651					
WK-16	1776	151					
UNIT	**C.Y.**	**C.Y.**					
TOTAL	**6389**	**3903**					
CUT = EXCESS					6389		
BORROW = (FILL)			3903				
UNIT			**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL			**3903**	**0**	**6389**	**0**	

ESTIMATED EARTHWORK QUANTITIES (SEGMENTS III & IV, PHASE 2 TOTALS)

PHASE OF CONSTRUCTION	BORROW (B9-6)	EXCAVATION			REMARKS
		UNCLASSIFIED	EXCESS	CHANNEL	
PHASE 2A	5421	0	5081	0	
PHASE 2B	1823	0	0	0	
PHASE 2C	59805	0	21121	1174	
PHASE 2D	108514	0	147274	6495	
PHASE 2E	4152	0	0	0	
PHASE 2F	6569	0	7561	0	
PHASE 2G	20488	0	23625	0	
PHASE 2H	3903	0	6389	0	
	25229		25229		*ESTIMATED QUANTITY, SEE NOTE 2*
UNIT	**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL	**235904**	**0**	**236280**	**7669**	

JOB TOTALS

PHASE OF CONSTRUCTION	BORROW (B9-6)	EXCAVATION			REMARKS
		UNCLASSIFIED	EXCESS	CHANNEL	
PHASE 1	347906	0	261967	7482	
PHASE 2	235904	0	236280	7669	
UNIT	**C.Y.**	**C.Y.**	**C.Y.**	**C.Y.**	
TOTAL	**583811**	**0**	**498248**	**15151**	

NOTES:
1. **ALL EXCAVATION (INCLUDING CHANNEL EXCAVATION) WILL BE EXCESS. CHANNEL EXCAVATION THAT WILL BE EXCESSED IS TO BE PAID FOR AS CHANNEL EXCAVATION.**
2. **SATURATED SOILS MAY BE ENCOUNTERED AT THE BELOW LOCATIONS. IF MATERIAL IS DEEMED TO BE UNSUITABLE AFTER PROCESSING, THE MATERIAL SHALL BE EXCESSED AND REPLACED WITH B9-6 BORROW, AS DIRECTED BY THE ENGINEER.**
   STA. 415+00 - STA. 440+00 I-55

REVISIONS	
DATE	BY
1 8/14/2026	DM

RAYMOND KYLE EDISON — LICENSED PROFESSIONAL ENGINEER — 15139 — STATE OF MISSISSIPPI — 8-14-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

ESTIMATED QUANTITIES
ESTIMATED EARTHWORK QUANTITIES
(SEGMENT III AND IV, PHASE 2A - PHASE 2H)

SHEET ID **EQ-8**

SHEET NO. **55**

PLAN SHEET

8/14/2026 3:07:40 PM EQ-Estimated Quantities.dgn

SUMMARY OF TRAFFIC CONTROL ITEMS (108168-302000)

SH. ID.	PHASE OF CONST.	TEMPORARY TRAFFIC STRIPE								CHANGEABLE MESSEGE SIGN	IMPACT ATTENUATOR	REMOVE AND RESET IMPACT ATTENUATOR	IMPACT ATTENUATOR REPLACEMENT PACKAGE	REMOVE AND RESET CONCRETE MEDIAN BARRIER	CONCRETE BARRIER	BARRICADES TYPE III		REFLECTIVE RAISED MARKERS			WARNING LIGHTS	FREE STANDING PLASTIC DRUMS	TRAFFIC CONTROL SIGNS														REMARKS
		PAINT OR TAPE																																	
		CONTINUOUS		SKIP		DETAIL		LEGEND								SINGLE FACED	DOUBLE FACED	TWO-WAY CLEAR	ONE-WAY YELLOW	RED-CLEAR	TYPE "B"		G20-1 60"X24"	G20-2 48"X24"	R1-1 48"X48"	R2-1 48"X60"	R11-2 48"X30"	R16-3 48"X60"	W1-4aL 48"X48"	W1-4aR 48"X48"	W3-5 48"X48"	W16-9P 30"X18"	W20-1 36"X36"	W20-1 48"X48"	W21-5aL 48"X48"	W21-5aR 48"X48"	
		WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	LIN. FT.	SQ. FT.																										
DCS-2		42477	39639	38369		20792	858	1376	976.6	1						24				1521	2		2	2		4		2			2		9			
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
DCS-2 TOTALS		42477	39639	38369	0	20792	858	1376	976.6	1	0	0	0	0	0	24	0	0	0	1521	2	0	2	2	0	4	0	2	0	0	2		0	9	0	0	
UNITS		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
TOTAL		42477	39639	38369	0	20792	858	1376	976.6	1	0	0	0	0	0	24	0	0	0	1521	2	0	2	2	0	4	0	2	0	0	2	0	0	9	0	0	
UNITS		MILE	MILE	MILE		LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
TOTAL		8.04	7.51	7.27	0	20792	858	1376	976.6	1	0	0	0	0	0	24	0	0	0	1521	2	0	2	2	0	4	0	2	0	0	2	0	0	9	0	0	

NOTE: PERMANENT PAVEMENT MARKINGS ARE TO BE APPLIED NO SOONER THAN 10 DAYS AFTER PLACEMENT OF THE FINAL LIFT OF PAVEMENT (TEMPORARY PAVEMENT MARKINGS WILL BE USED UNTIL TIME HAS ELAPSED)

SUMMARY OF TRAFFIC CONTROL ITEMS (JOB TOTALS)

SH. ID.	PHASE OF CONST.	TEMPORARY TRAFFIC STRIPE								CHANGEABLE MESSEGE SIGN	IMPACT ATTENUATOR	REMOVE AND RESET IMPACT ATTENUATOR	IMPACT ATTENUATOR REPLACEMENT PACKAGE	REMOVE AND RESET CONCRETE MEDIAN BARRIER	CONCRETE BARRIER	BARRICADES TYPE III		REFLECTIVE RAISED MARKERS			WARNING LIGHTS	FREE STANDING PLASTIC DRUMS	TRAFFIC CONTROL SIGNS														REMARKS
		PAINT OR TAPE																																	
		CONTINUOUS		SKIP		DETAIL		LEGEND								SINGLE FACED	DOUBLE FACED	ONE-WAY CLEAR	ONE-WAY YELLOW	RED-CLEAR	TYPE "B"		G20-1 60"X24"	G20-2 48"X24"	R1-1 48"X48"	R2-1 48"X60"	R11-2 48"X30"	R16-3 48"X60"	W1-4aL 48"X48"	W1-4aR 48"X48"	W3-5 48"X48"	W16-9P 30"X18"	W20-1 36"X36"	W20-1 48"X48"	W21-5aL 48"X48"	W21-5aR 48"X48"	
		WHITE	YELLOW	WHITE	YELLOW	WHITE	YELLOW	LIN. FT.	SQ. FT.																										
UNITS		MILE	MILE	MILE	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
TOTALS		74.90	72.06	87.21	0	118267	3074	1192	2454	1	4	20	4	84948	0	204	0	2075	2099	18826	20	847	2	2	16	4	16	10	10	10	2	12	2	13	16	16	108168-301000
UNITS		MILE	MILE	MILE		LIN. FT.				EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	108168-302000
TOTALS		8.04	7.51	7.27	0	20792	858	1376	976.6	1	0	0	0	0	0	24	0	0	0	1521	2	0	2	2	0	4	0	2	0	0	2	0	0	9	0	0	
UNITS		MILE	MILE	MILE	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	SQ. FT.	EACH	EACH	EACH	EACH	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH	EACH	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	EA.	
JOB TOTALS		82.95	79.57	94.47	0	139059	3932	2568	3430.6	2	4	20	4	84948	0	228	0	2075	2099	20347	22	847	4	4	16	8	16	12	10	10	4	12	2	22	16	16	

NOTE: PERMANENT PAVEMENT MARKINGS ARE TO BE APPLIED NO SOONER THAN 10 DAYS AFTER PLACEMENT OF THE FINAL LIFT OF PAVEMENT (TEMPORARY PAVEMENT MARKINGS WILL BE USED UNTIL TIME HAS ELAPSED)

SMART WORK ZONE SYSTEM (108168-301000)

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET ID								OPERATIONAL MONTH	TOTAL	REMARKS
			SWZ-1	SWZ-2	SWZ-3	SWZ-4	SWX-5	SWX-6	SWX-7	SWX-8			
907-619-M1002	SMART WORK ZONE, PORTABLE QUEUE TRAILER	EACH	11	6								17	PORTABLE SENSOR, NOTE 1
907-619-M1003	SMART WORK ZONE, PORTABLE CAMERA TRAILER	EACH	5	2								7	PTZ, NOTE 1
907-619-M1004	SMART WORK ZONE, PORTABLE MESSAGE BOARD TRAILER	EACH	7	1								8	CMS, NOTE 1
907-650-A002	ON STREET VIDEO EQUIPMENT, FIXED TYPE	EACH	10	4								14	NOTE 1 & 2
907-666-A001	BLUETOOTH DETECTION SYSTEM, TYPE A	EACH	2									2	NOTE 1 & 2
907-619-M2001	SMART WORK ZONE, PORTABLE QUEUE TRAILER, OPERATIONAL MONTH	EACH									29	29	
907-619-M2002	SMART WORK ZONE, PORTABLE CAMERA TRAILER, OPERTIONAL MONTH	EACH									29	29	
907-619-M2003	SMART WORK ZONE, PORTABLE MESSAGE BOARD TRAILER, OPERATIONAL MONTH	EACH									29	29	
907-619-M2004	SMART WORK ZONE, PORTABLE BLUETOOTH DETECTION SYSTEM, ADDITIONAL DEVICE, OPERATIONAL MONTH	EACH									29	29	
907-619-M3002	PORTABLE SMART WORK ZONE, SYSTEM MONITORING, OPERATIONAL MONTH	EACH									29	29	

NOTE:
1. THE TOTAL ESTIMATED QUANTITY IS BASED ON REMOVING AND REUSING SOME DEVICES FOR VARIOUS PHASES OF CONSTRUCTION. IT IS EQUAL TO THE ANTICIPATED MAXIMUM NUMBER THAT WILL BE REQUIRED AT ANY ONE TIME.
2. PERMANENT PAY ITEMS ARE USED FOR TEMPORARY SMART WORK ZONE SYSTEMS.

SMART WORK ZONE SYSTEM (108168-302000)

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET ID								OPERATIONAL MONTH	TOTAL	REMARKS
			SWZ-1	SWZ-2	SWZ-3	SWZ-4	SWX-5	SWX-6	SWX-7	SWX-8			
907-619-M1002	SMART WORK ZONE, PORTABLE QUEUE TRAILER	EACH		7								7	PORTABLE SENSOR, NOTE 1
907-619-M1003	SMART WORK ZONE, PORTABLE CAMERA TRAILER	EACH		3								3	PTZ, NOTE 1
907-619-M1004	SMART WORK ZONE, PORTABLE MESSAGE BOARD TRAILER	EACH		4								4	CMS, NOTE 1
907-650-A002	ON STREET VIDEO EQUIPMENT, FIXED TYPE	EACH		6								6	NOTE 1 & 2
907-666-A001	BLUETOOTH DETECTION SYSTEM, TYPE A	EACH		1								1	NOTE 1 & 2
907-619-M2001	SMART WORK ZONE, PORTABLE QUEUE TRAILER, OPERATIONAL MONTH	EACH									29	29	
907-619-M2002	SMART WORK ZONE, PORTABLE CAMERA TRAILER, OPERTIONAL MONTH	EACH									29	29	
907-619-M2003	SMART WORK ZONE, PORTABLE MESSAGE BOARD TRAILER, OPERATIONAL MONTH	EACH									29	29	
907-619-M2004	SMART WORK ZONE, PORTABLE BLUETOOTH DETECTION SYSTEM, ADDITIONAL DEVICE, OPERATIONAL MONTH	EACH									29	29	
907-619-M3002	PORTABLE SMART WORK ZONE, SYSTEM MONITORING, OPERATIONAL MONTH	EACH									29	29	

NOTE:
1. THE TOTAL ESTIMATED QUANTITY IS BASED ON REMOVING AND REUSING SOME DEVICES FOR VARIOUS PHASES OF CONSTRUCTION. IT IS EQUAL TO THE ANTICIPATED MAXIMUM NUMBER THAT WILL BE REQUIRED AT ANY ONE TIME.
2. PERMANENT PAY ITEMS ARE USED FOR TEMPORARY SMART WORK ZONE SYSTEMS.

REVISIONS

	DATE	BY
1	8/14/2026	DM

RAYMOND KYLE EDISON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI 8-14-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000 108168/302000
PROJECT NO.: STP-0055-02(271) STP-0055-02(275)
COUNTY: MADISON

ESTIMATED QUANTITIES SUMMARY OF TRAFFIC CONTROL ITEMS, SMART WORK ZONE SYSTEM

SHEET ID **EQ-17**

SHEET NO. **64**

PLAN SHEET

8/14/2026 3:47:55 PM EQ-Estimated Quantities.dgn

GENERAL NOTES

1. ALL SIGNS AND TRAFFIC CONTROL DEVICES ARE TO CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CURRENT EDITION).

2. EQUIPMENT AND SIGNAGE SHOWN ON THESE PLANS ARE IN APPROXIMATE LOCATIONS. ALL EQUIPMENT AND BEACON SIGNS SHALL BE FIELD LOCATED BY THE CONTRACTOR WITH PROPOSED LOCATIONS APPROVED BY MDOT. TO VERIFY PROPER PLACEMENT AND BEST SIGHT DISTANCE FOR CHANGEABLE MESSAGE SIGNS, ADEQUATE ROADSIDE PROTECTION, ADEQUATE DETECTION AND DETECTOR SPACING, ETC., THE CONTRACTOR SHALL STAKE EACH PROPOSED LOCATION A MINIMUM OF FIVE (5) WORKING DAYTS PRIOR TO REVIEW BY MDOT. THE COST OF FIELD STAKING WILL NOT BE MEASURED FOR SEPERATE PAYMENT, BUT WILL BE ABSORBED UNDER OTHER ITEMS. THE CONTRACTOR SHALL PLACE ALL EQUIPMENT WITHIN PUBLIC RIGHT-OF WAY.

3. FLUORESCENT ORANCE SHEETING SHALL BE USED ON ALL CONSTRUCTION AND TRAFFIC CONTROL SIGNS EXCEPT FOR THOSE DESIGNATED IN THE PLANS TO BE BLACK LEGEND AND BORDER ON WHITE BACKGROUND.

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING STRUCTURES (E.G., PIPES, INLETS, APRONS, BRIDGES, ETC.) AND UNDERGROUND INFRASTRUCTURE (E.G., EXISTING PULL BOXES, CONDUITS, ETC.) FROM DAMAGE WHICH MIGHT OCCUR WHEN PLACING TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL REPLACE OR REPAIR (AS DIRECTED BY THE ENGINEER) ANY STRUCTURES DAMAGED DURING THE LIFE OF THE CONTRACT. NO PAYMENT SHALL BE MADE FOR REPAIR OR REPLACEMENT OF DAMAGED ITEMS.

5. SOME WORK IS REQUIRED OUTSIDE OF THE PROJECT LIMITS, NO ADDITIONAL COMPENSATION FOR SUCH WORK WILL BE MADE EXCEPT AS PROVIDED BY SPECIFIC PAY ITEMS INCLUDED IN THE PLANS.

SWZ LEGEND

	PROPOSED	EXISTING	CONSTRUCTED BY OTHERS
NON-INTRUSIVE DETECTION DEVICE (PORTABLE SENSOR)	E		
PORTABLE CHANGEABLE MESSAGE SIGN			
PORTABLE BLUETOOTH DETECTION SYSTEM	BT		
PORTABLE PTZ CCTV CAMERA SYSTEM	CCTV		
CCTV CAMERA		CCTV	CCTV
RADAR DECECTION SYSTEM		RDS	RDS
DYNAMIC MESSAGE SIGN PEDESTAL MOUNT		DMS	DMS
DYNAMIC MESSAGE SIGN OVERHEAD SIGN		DMS	DMS

REVISIONS	
DATE	BY
8/14/2026	DM

RAYMOND KYLE EDISON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
15139
STATE OF MISSISSIPPI
8-14-26

ADDENDUM

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SMART WORK ZONE
GENERAL NOTES

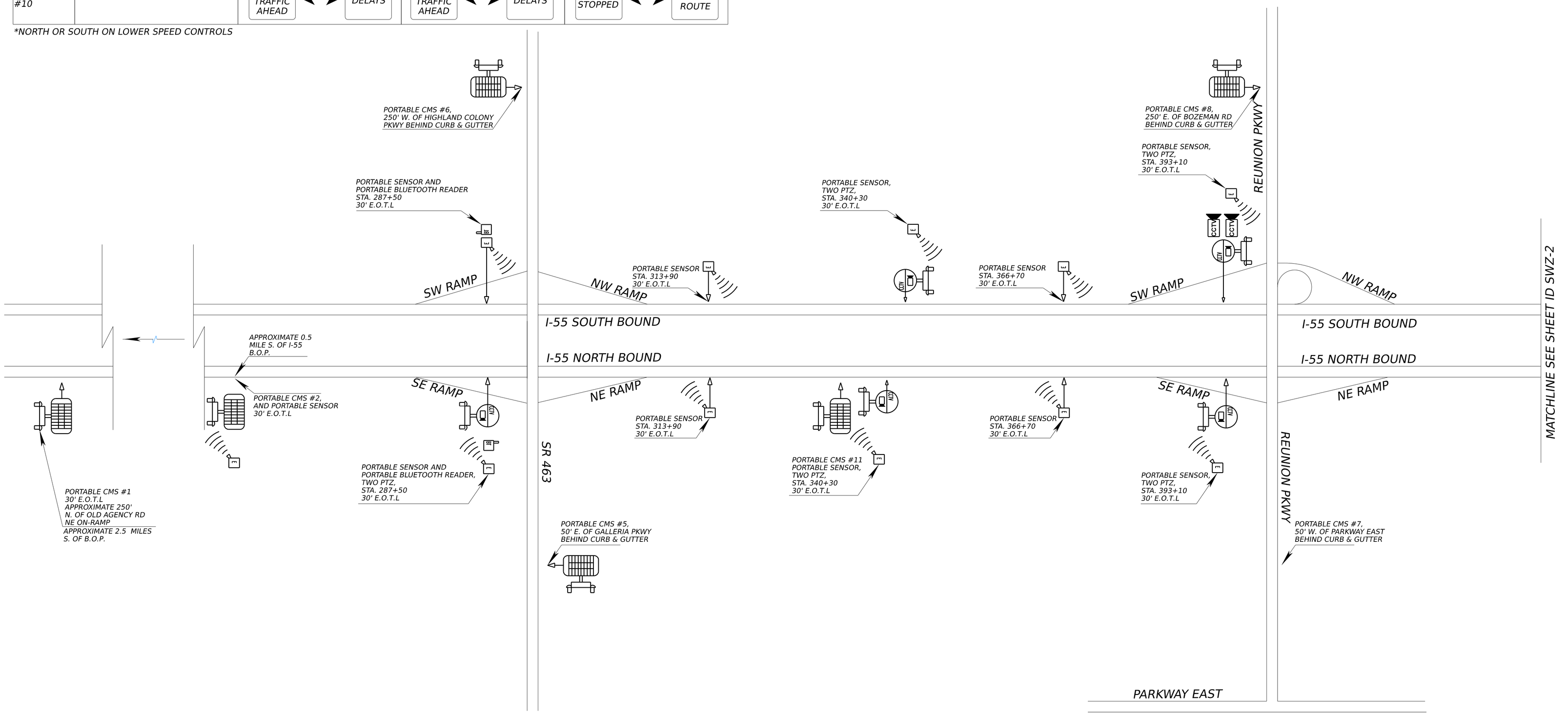
SHEET ID
SWZ-GN

SHEET NO.
189

8/14/2026 3:35:58 PM SWZ-SH.dgn PLAN SHEET

	SPEED >= 45 MPH	45 MPH > SPEED >= 25 MPH	25 MPH > SPEED >= 5 MPH	5 MPH > SPEED >= 0 MPH
PCMS #1, #4	ROAD WORK AHEAD ⟷ REDUCED SPEED AHEAD (OR TRAVEL TIMES)	SLOW TRAFFIC AHEAD ⟷ EXPECT DELAYS	SLOW TRAFFIC AHEAD ⟷ EXPECT DELAYS	STOPPED TRAFFIC AHEAD ⟷ CONSIDER ALT ROUTE
PCMS #2, #3, #11,#12	TRAVEL TIMES	SLOW TRAFFIC AHEAD ⟷ EXPECT DELAYS	SLOW TRAFFIC AHEAD ⟷ BE PREPARED TO STOP	STOPPED TRAFFIC AHEAD ⟷ BE PREPARED TO STOP
PCMS #5, #6, #7, #8, #9, #10	NO MESSAGE	55 NORTH* SLOW TRAFFIC AHEAD ⟷ EXPECT DELAYS	55 NORTH* SLOW TRAFFIC AHEAD ⟷ EXPECT DELAYS	55 NORTH* TRAFFIC STOPPED ⟷ CONSIDER ALT ROUTE

*NORTH OR SOUTH ON LOWER SPEED CONTROLS



1. THE CONTRACTOR SHALL COORDIANTE WITH THE PROJECT ENGINEER PRIOR TO MAKING CHANGES INSIDE THE WORK ZONE. PLACEMENT OF EQUIPMENT IS SHOWN AS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE EQUIPMENT AS SHOWN IN THE PLANS AND WITHIN DOT ROW. THE CONTRACTOR IS RESPONSIBLE TO ADJUST DEVICE PLACEMENT DURING THE PROJECT TO SUPPLEMENT THE TRAFFIC CONTROL PLAN AND ONGOING WORK OF THE CONCURRENT CONSTRUCTION PROJECT.
2. PLACEMENT OF PCMS, VEHICLE DETECTION, BLUETOOTH AND CAMERA TRAILERS SHALL COMPLY WITH THE CURRENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL TRAILERS SHALL BE PLACED OFF THE SHOULDER AND BEHIND A TRAFFIC BARRIER IF BARRIER EXISTS IN THE VICINITY OF THE PROPOSED LOCATIONS. WHERE BARRIER DOES NOT EXIST THE TRAILERS SHALL BE PLACED OFF THE SHOULDER AND OUTSIDE OF THE CLEAR ZONE. IF A PCMS IS PLACED WITHIN THE CLEAR ZONE, IT SHOULD BE DELINEATED WITH RETROREFLECTIVE TTC DEVICES.
3. IF IT IS OBSERVED THAT THE QUEUE LENGTH IS CONSISTENTLY BEYOND THE PCMS LOCATIONS, THE SWZ DEVICES SHOULD BE FIELD ADJUSTED FOR BETTER DETECTION AND MESSAGING.
4. THE SWZ SHOULD BE OBSERVED DURING OPERATION TO MAKE SURE IT IS PROVIDING OPTIMAL WARNING FOR WORKING CONDITIONS (PER TRAFFIC CONTROL PHASE) IN THE LIFE OF THE PROJECT.
5. THE CONTRACTOR SHALL CORRDINATE WITH MDOT TMC FOR THE OPERATION OF SWZ.

N

NOT TO SCALE

REVISIONS	
DATE	BY
1 8/14/2026	DM

RAYMOND KYLE EDISON LICENSED PROFESSIONAL ENGINEER 15139 STATE OF MISSISSIPPI
8-14-26

ADDENDUM

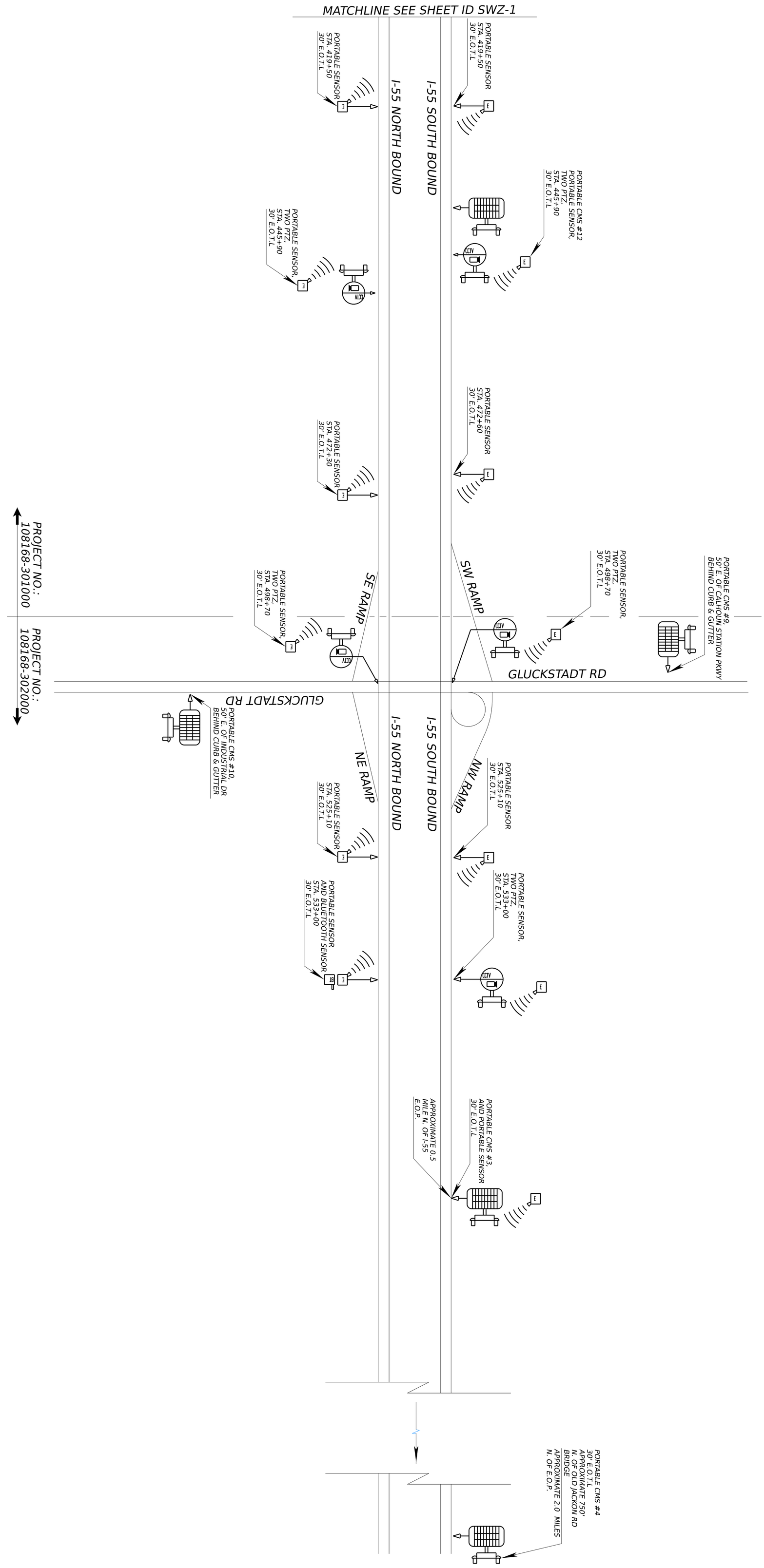
DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

SMART WORK ZONE PLAN
INTERSTATE 55
B.O.P. TO STA. 415+00

SHEET ID **SWZ-1**
SHEET NO. **190**

PLAN SHEET
8/14/2026 3:35:58 PM SWZ-SH.dgn



NOT TO SCALE

REVISIONS		
DATE	BY	
8/14/2026	DM	1

SMART WORK ZONE PLAN
INTERSTATE 55
STA. 415+00 TO E.O.P.

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

DESIGNED BY: NEEL-SCHAFFER INC.
DETAILED BY:
CHECKED BY:
DATE:

ADDENDUM

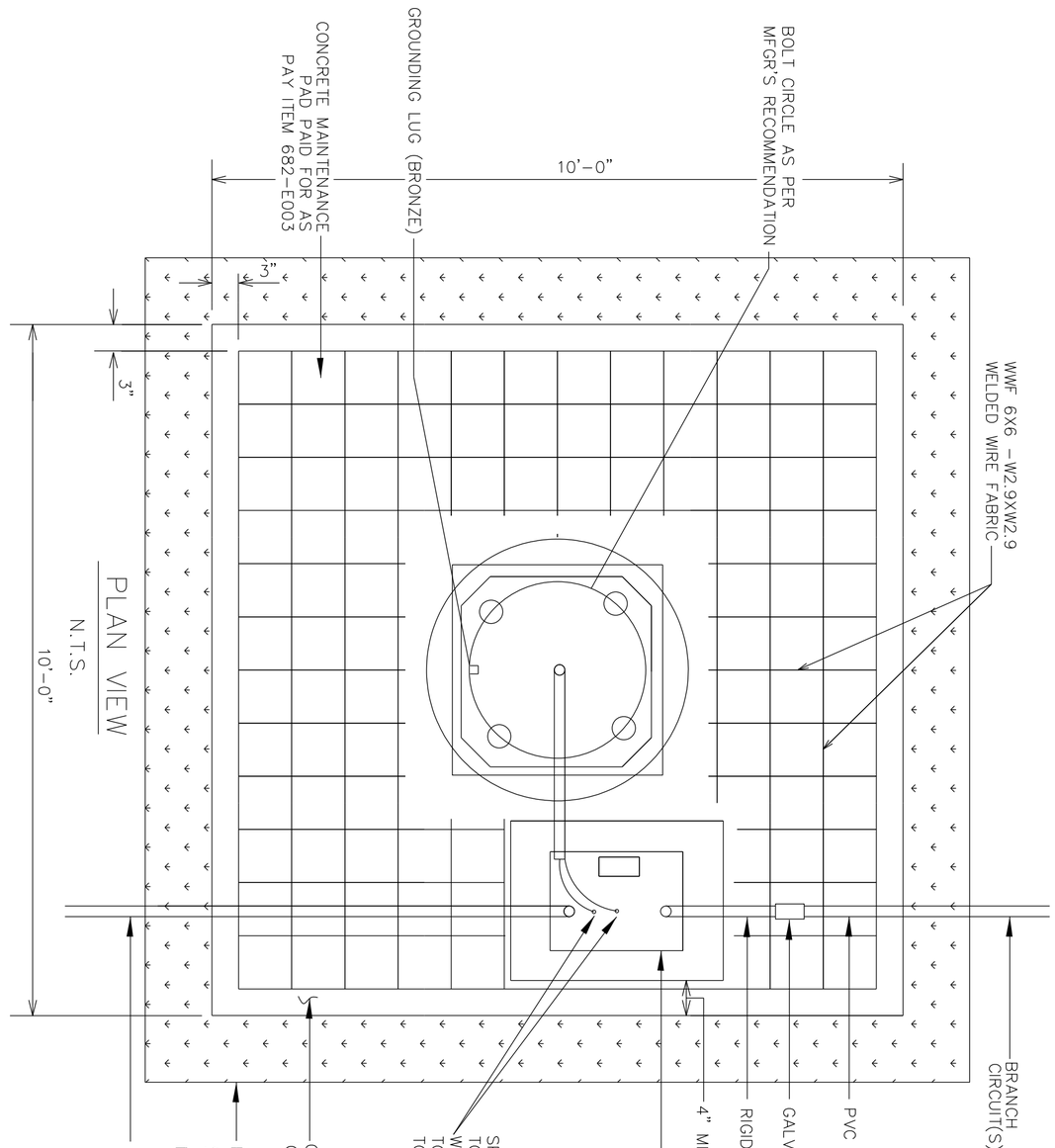
RAYMOND KYLE DIDSON
LICENSED PROFESSIONAL ENGINEER
15139
STATE OF MISSISSIPPI
8-14-26

SHEET ID **SWZ-2**
SHEET NO. **191**

PULLBOX PAD NOT REQ'D. WHEN LIGHT MOUNTED IN PAVED DITCH

1 LD-4 HIGH MAST MAINTANENCE PAD

N.T.S.

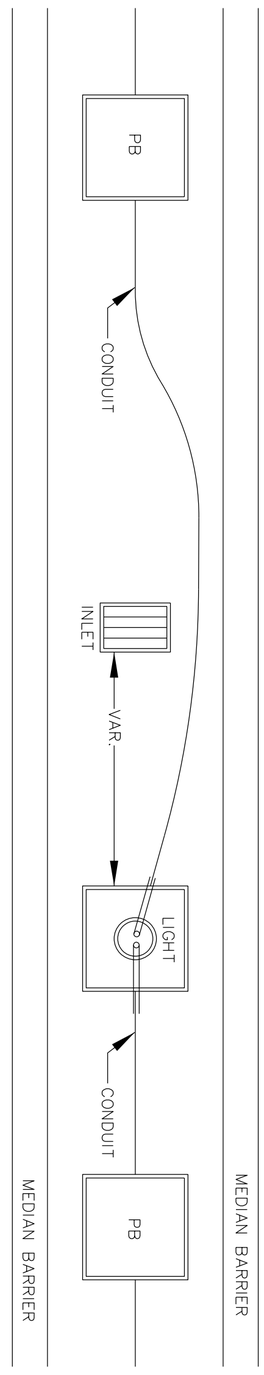


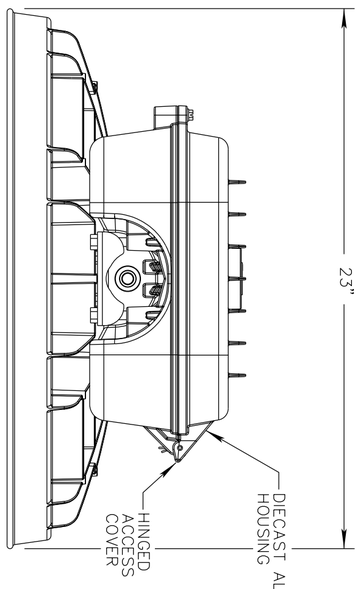
PLAN VIEW

N.T.S.

4 LD-4 CONDUIT IN MEDIAN WHEN INLET AT POLE

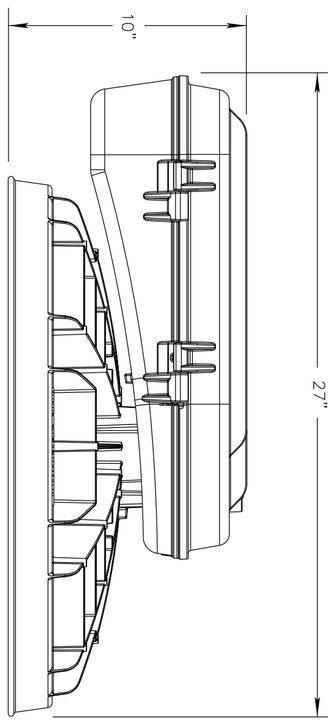
N.T.S.





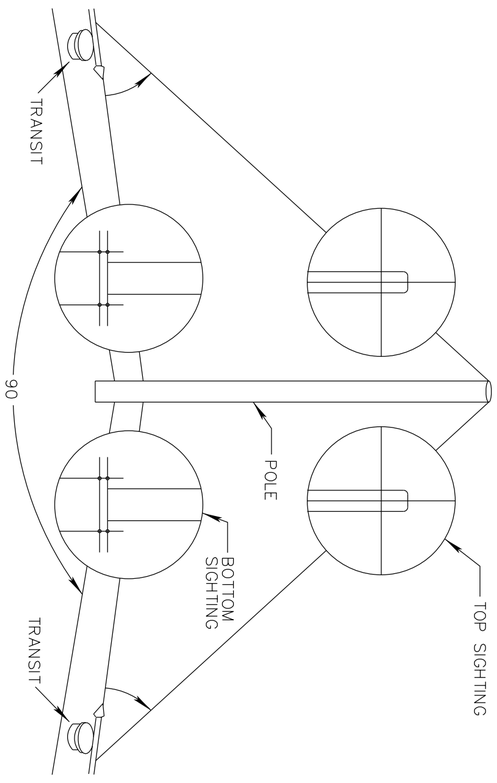
Weight = 52lbs
EPA = 1.30 sq. ft.

500 INPUT WATT LED, TYPE AN DISTRIBUTION
4000K COLOR TEMPERATURE 71,153 LUMENS, 12 LED MODULES DOUBLE FUSING.
LUMINAIRE SHALL BE DOUBLE FUSED.



2 LD-4 TYPICAL HIGH MAST LED LUMINAIRE DETAIL

N.T.S.



3 LD-4 VERTICAL ALIGNMENT OF HIGH MAST POLES DETAIL

N.T.S.

NOTE: SEE SPECIFICATIONS FOR CLARIFICATION ON POLE ALIGNMENT

REVISIONS		
DATE	BY	
8/14/2026	DM	

LIGHTING DETAILS

FMS CON: 108168/301000

PROJECT NO.: STP-0055-02(271)

COUNTY: MADISON

DESIGNED BY: NEEL-SCHAFFER INC.

DETAILED BY:

CHECKED BY:

DATE:

ADDENDUM

VIRGIL GLEN REED REGISTERED PROFESSIONAL ENGINEER 21036 STATE OF MISSISSIPPI 8-14-26

SHEET ID **LD-4**

SHEET NO. **4030**

FILE: S: Projects 18435.005 I-55 Widening Madison to Gluckstadt Phase B Plans Front Drawings SR-BR-1 Sum Rev.dgn
DATE: 8/12/2026TIME: 12:40:51 PM USER: RJB

DATE	BY	PAGES
8/12/2026	BKC	8003,8004,8005,8046,8102,8108 & 8118

BRIDGE DIVISION

SUMMARY OF REVISIONS

REVISION & SYMBOL	
Removed Conventional Static Pile Load Test Pay Item	1

NEEL-SCHAFFER
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SHEET NO. 8002

WK. NO. SR-BR-1

SUMMARY OF REVISIONS (BRIDGE & WALL)

DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

FMS CON: 108168/301000

PROJECT NO.: STP-0055-02(271)

COUNTY: MADISON

DESIGNED BY: B. Keith Carr, P.E.

DETAILED BY: M. Wesley Phillips, P.E.

CHECKED BY: Randy Boudreaux, P.E.

DATE: 08/15/25

ADDENDUM

08/15/25

BARRY KEITH CARR REGISTERED PROFESSIONAL ENGINEER 11705 STATE OF MISSISSIPPI

SUMMARY OF QUANTITIES

PAY ITEM NO.	PAY ITEM	UNIT	QUANTITIES	
	Bridge Summary		PRELIMINARY	FINAL
501-K001	Transverse Grooving	SY	5,588	
605-AA001	Geotextile for Subsurface Drainage, Type III	SY	2,476	
605-T002	6" Perforated Pipe for Underdrains	LF	3,262	
605-X002	Filter Material for Filter Beds, Type A	CY	258	
605-X003	Filter Material for Filter Beds, Type B	CY	613	
605-Y002	Impervious Material, Type D	CY	1,059	
803-C002	14" x 14" Prestressed Concrete Piling	LF	8,295	
803-D002	HP 12 x 53 Steel Piling	LF	4,816	
803-D006	HP 14 x 73 Steel Piling	LF	7,608	
803-D007	HP 14 x 89 Steel Piling	LF	17,688	
907-803-I002	PDA Test Pile, Concrete Pile	EA	2	
907-803-I003	PDA Test Pile, HP Steel Pile	EA	23	
907-803-I004	PDA Test Pile, Steel Pipe Pile	EA	2	
907-803-J001	Pile Restrike	EA	27	
803-P015	24" Steel Pipe Piling, Wall Thickness 0.625"	LF	5,425	
907-804-A001	Bridge Concrete, Class BDX	CY	1,668	
907-804-A002	Bridge Concrete, Class AA	CY	882	
907-804-A003	Bridge Concrete, Class B	CY	4,726	
804-C188	80' Prestressed Concrete Beam, Type FIB-36	LF	1,272	
804-C195	85' Prestressed Concrete Beam, Type FIB-36	LF	1,352	
804-C208	60' Prestressed Concrete Beam, Type FIB-36	LF	1,904	
804-C274	40' Prestressed Concrete Beam, Type FIB-36	LF	1,264	
805-A001	Reinforcement	LBS	1,081,334	
805-C001	Reinforcement, Corrosion Resistant	LBS	22,208	
813-A003	Concrete Railing, 42"	LF	1,480	
815-A007	Loose Riprap, Size 300	TON	6,937	
815-E001	Geotextile under Riprap	SY	6,383	
907-823-A001	Preformed Joint Seal, Type I	LF	642	

1

ADDENDUM

DESIGNED BY: *B. Keith Carr, PE*
DETAILED BY: *M. Wesley Phillips, PE*
CHECKED BY: *Randy Boudreaux, PE*
DATE: *08/15/2025*

FMS CON: *108168-301000*
PROJECT NO.: *STP-0055-02(271)*
COUNTY: *MADISON*

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
(BRIDGE ITEMS)

WK. NO. *SQ-BR-1*
SHEET NO. *8003*

ESTIMATED QUANTITIES

Bridge / Wall	Beginning Station	Spans-Size	Overall Length	Item / Location	Transverse Grooving S.Y.	Geotextile for Subsurface Drainage, Type III S.Y.	6" Perforated Pipe for Underdrains, SDR 23.5 L.F.	Filter Material for Filter Beds, Type A C.Y.	Filter Material for Filter Beds, Type B C.Y.	Impervious Material, Type D C.Y.	1	14" x 14" Prestressed Concrete Piling L.F.	HP12x53 Steel Piling L.F.	HP14x73 Steel Piling L.F.	HP14x89 Steel Piling L.F.	PDA Test Pile, Concrete Pile Each	PDA Test Pile, HP Steel Pile Each	PDA Test Pile, Steel Pipe Pile Each	Pile Restrike Each
Bridge "A" I-55 Bridge across Bear Creek (SB & NB)	373+34.320 (LL SB)	60'-85'-60'	207'-6"	Spans	1,568														
				End Bents								2,145				1			1
				Int. Bents														1	1
				Totals	1,568							2,145				1		1	2
	373+77.749 (RL NB)	60'-85'-60'	207'-6"	Spans	1,568														
				End Bents								2,200				0			0
				Int. Bents														0	0
				Totals	1,568							2,200				0		0	0
Bridge "B" I-55 Bridge across Bear Creek Trib. (SB & NB)	420+95.554 (LL SB)	40'-80'-40'	162'-2 7/8"	Spans	1,226														
				End Bents								1,950				1			1
				Int. Bents														1	1
				Totals	1,226							1,950				1		1	2
	421+12.878 (RL NB)	40'-80'-40'	162'-2 7/8"	Spans	1,226														
				End Bents								2,000				0			0
				Int. Bents														0	0
				Totals	1,226							2,000				0		0	0
Wall "A"	309+50.00	NA	1103'-1 9/16"	Wall									4,816				5		5
				Coping															
				Totals									4,816				5		5
Wall "B"	399+50.00	NA	2071'-11 5/8"	Wall		1,349	1,772.25	148.70	318.40	688.15					17,688		10		10
				Coping															
				Totals		1,349	1,772.25	148.70	318.40	688.15					17,688		10		10
Wall "C"	423+00.00	NA	1717'-5 1/16"	Wall		1,127	1,488.75	108.39	293.47	369.04				7,608			8		8
				Coping															
				Totals		1,127	1,488.75	108.39	293.47	369.04				7,608			8		8
			Project Totals		5,588	2,476	3,261.00	257.09	611.86	1,057.19		8,295	4,816	7,608	17,688	2	23	2	27

ESTIMATED QUANTITIES

Bridge / Wall	Beginning Station	Spans-Size	Overall Length	Item / Location	24" Steel Pipe Piling, Wall Thickness 0.625" L.F.	Bridge Concrete, Class BDX C.Y.	Bridge Concrete, Class AA C.Y.	Bridge Concrete, Class "B" C.Y.	80' Prestressed Concrete Beam, Type FIB-36 L.F.	85' Prestressed Concrete Beam, Type FIB-36 L.F.	60' Prestressed Concrete Beam, Type FIB-36 L.F.	40' Prestressed Concrete Beam, Type FIB-36 L.F.	Reinforcement Lbs.	Reinforcement, Corrosion Resistant Lbs.	Concrete Railing, 42" L.F.	Loose Riprap, Size 300 Ton	Geotextile Under Riprap S.Y.	Preformed Joint Seal, Type I L.F.
Bridge "A" I-55 Bridge across Bear Creek (SB & NB)	373+34.320 (LL SB)	60'-85'-60'	207'-6"	Spans		465.99				676.00	952.00		105,822	5,552	415.00			169
				End Bents			117.15						21,145			1,661	1,528	
				Int. Bents	1,350		118.03						15,562					
				Totals	1,350	465.99	235.18			676.00	952.00		142,529	5,552	415.00	1,661	1,528	169
	373+77.749 (RL NB)	60'-85'-60'	207'-6"	Spans		465.99				676.00	952.00		105,822	5,552	415.00			169
				End Bents			116.95						21,151			1,766	1,625	
				Int. Bents	1,440		118.14						15,562					
				Totals	1,440	465.99	235.09			676.00	952.00		142,535	5,552	415.00	1,766	1,625	169
Bridge "B" I-55 Bridge across Bear Creek Trib. (SB & NB)	420+95.554 (LL SB)	40'-80'-40'	162'-2 7/8"	Spans		367.85			636.00			632.00	84,181	5,552	324.48			152
				End Bents			100.27						18,546			1,691	1,556	
				Int. Bents	1,275		103.63						13,753					
				Totals	1,275	367.85	203.90		636.00			632.00	116,480	5,552	324.48	1,691	1,556	152
	421+12.878 (RL NB)	40'-80'-40'	162'-2 7/8"	Spans		367.85			636.00			632.00	84,181	5,552	324.48			152
				End Bents			101.07						19,027			1,819	1,674	
				Int. Bents	1,360		103.94						13,748					
				Totals	1,360	367.85	205.01		636.00			632.00	116,956	5,552	324.48	1,819	1,674	152
Wall "A"	309+50.00	NA	1103'-1 9/16"	Wall				406.16					29,570					
				Coping				456.41					87,335					
				Totals				862.56					116,905					
Wall "B"	399+50.00	NA	2071'-11 5/8"	Wall				1,340.32					84,492					
				Coping				857.25					164,163					
				Totals				2,197.57					248,655					
Wall "C"	423+00.00	NA	1717'-5 1/16"	Wall				954.24					61,285					
				Coping				710.56					135,988					
				Totals				1,664.80					197,273					
			Project Totals		5,425	1,667.69	879.18	4,724.93	1,272.00	1,352.00	1,904.00	1,264.00	1,081,334	22,208	1,478.96	6,937	6,383	642

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BARRY KEITH CARR
REGISTERED PROFESSIONAL ENGINEER
11705
STATE OF MISSISSIPPI
08/15/25

ADDENDUM

DESIGNED BY: B. Keith Carr, P.E.
DETAILED BY: M. Wesley Phillips, P.E.
CHECKED BY: Randy Boudreaux, P.E.
DATE: 08/15/25

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

ESTIMATED QUANTITIES (BRIDGE & WALL)

DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO. **EQ-BR-1**

SHEET NO. **8004**

FILE: S:\Projects\18435.005 I-55 Widening Madison to Gluckstadt Phase B\Plans Front Drawings\EQ-BR-1 Est Quan.dgn
DATE: 8/12/2026TIME: 12:43:03 PM USER: RJB

GENERAL NOTES:

Specifications; Mississippi Standard Specifications for Road and Bridge Construction, 2017.
No change of plans will be permitted except by written authority of the Director of Structures, State Bridge Engineer. Minor changes in details of design or construction may be authorized in writing by the Director of Structures, State Bridge Engineer provided such changes are not justifiable reasons for contract price adjustments.
The final surface texture of the bridge deck shall be mechanically transverse grooved in accordance with Section 501 and Section 804 of the specifications. See misc. span details for limits of transverse grooving on bridge deck.
Bridge concrete shall be Class "AA" or Class "BDX" as indicated in the plans.
Railing expansion joint material shall be bituminous fiber type unless otherwise noted.
No payment will be allowed for excavation incidental to the construction of end bents or intermediate bents.
Bar bending details shall be in accordance with "Guide to Presenting Reinforcing Steel Design Details" (ACI 315R-18).
Reinforcement order lists and required placing plans shall be furnished in accordance with Section 805 of the Mississippi Standard Specifications. Partial submittals are not acceptable.
Shop drawings of prestressed beams, including an erection plan, shall be submitted in triplicate to the Director of Structures, State Bridge Engineer for approval prior to manufacture of beams.
The Fabricator shall provide beam camber data at release and immediately prior to shipping.
The Contractor shall provide beam camber data after erection. The Contractor should be aware that the deflection diagram may be modified based on the provided camber data. Therefore, deck grades should be set only after notification of the Director of Structures, State Bridge Engineer.
Concrete surfaces shall receive a class 2 rubbed or spray finish in accordance with the specifications.
Reinforcing steel shall be A.S.T.M. A615 Grade 60, unless otherwise noted. Reinforcement bar splices are based on maximum lengths of 50'-0" for Size #4 bars and 60'-0" for Sizes #5 through #11 bars.
Work for which no pay items are provided in the proposal will not be paid for directly and compensation therefore will be considered included in the prices and payments for bid items.

NOTE:
PDA test pile results for all bents must be submitted to the Director of Structures, State Bridge Engineer before permanent pile lengths will be recommended.

PDA TEST PILE SCHEDULE

Bent No.	Min. Length feet	Tip Elevation
1L	65	219.7
2L	110	173.5

REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

Bent No.	Pile Size inches	Strength I Req'd. Bearing, Tons	500 Yr. Scour Skin Friction Loss, Tons	Req'd. Ult. Bearing, Tons	Est. Length feet	Min. Tip Elev.
1L	14" x 14" P/S Concrete	75	3	119	55	249.1
2L	24"∅ steel pipe, wall thk. 0.625"	216	32	365	90	** 213.7
3L	24"∅ steel pipe, wall thk. 0.625"	216	32	365	90	** 213.7
4L	14" x 14" P/S Concrete	75	3	119	55	251.3
1R	14" x 14" P/S Concrete	75	3	119	55	249.1
2R	24"∅ steel pipe, wall thk. 0.625"	216	32	365	90	** 213.7
3R	24"∅ steel pipe, wall thk. 0.625"	216	32	365	90	** 213.7
4R	14" x 14" P/S Concrete	75	3	119	55	251.3

NOTE:
The Strength I Required Bearing indicated in the table does not include the skin friction loss due to 500 yr. scour.
The Required Ultimate Bearing indicated in the table includes the skin friction loss due to 500 yr. scour.

** **NOTE:**
Controlled by minimum depth required for lateral stability.

NOTE:
The girder deflection diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness.
Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt.
After girder erection and prior to construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep.
Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer.
The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

NOTE:
After all beams in a span are erected, the concrete end diaphragms or temporary bracing located at the ends of each span shall be installed at a minimum and additionally as indicated in the Contractor's temporary girder bracing system plans.
Prior to deck formwork construction, the end concrete diaphragms shall be in place and temporary bracing between beams at each midspan location shall be installed at a minimum and additionally as indicated in the Contractor's temporary girder bracing system plans.
The Contractor's proposed temporary girder bracing system plans shall be included the BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN.

NOTE:
Concrete mix used for substructure elements shall be designed for Severe Soluble Sulfate Conditions per Section 704.04.2.1 of the Mississippi Standard Specifications.

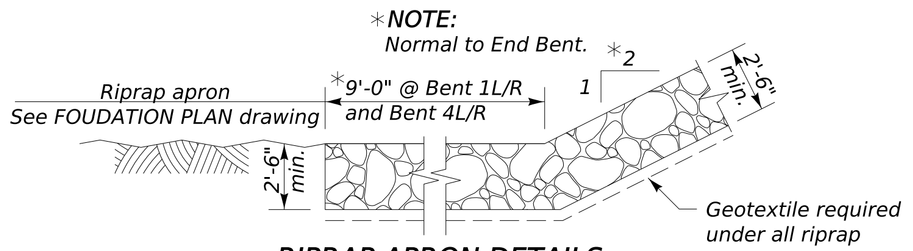
PRESTRESSED CONCRETE PILE NOTES:

Test piles shall be driven as permanent piles at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
Test piles shall be driven as a continuous operation, to the tip elevations shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The tip elevation of piling for hydraulic structures may be determined by scour line, but under no circumstances shall be higher than the minimum tip elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
When feasible, bearing piles shall be driven full length and may be spliced only as approved by the Director of Structures, State Bridge Engineer.
When loading tests are required, the maximum test load shall be one and one half ($1\frac{1}{2}$) times the required ultimate pile bearing capacity.
PDA test piles shall require a 1 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Prestressed Concrete piles shall be driven with a maximum rated energy no less than 42,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer.
Piles shall be prestressed concrete type per details on sheet no A39.
Prestressed concrete piling shall not be driven until the concrete has reached a minimum compressie strength of 5,000 psi and is at least 7 days old.

TEMPORARY PRECAST BARRIER NOTES:

Temporary precast barriers shall be anchored to the bridge deck. The Contractor shall submit proposed anchor details, including design calculations stamped by a Mississippi resistered Professional Engineer, prior to beginning the work to be approved by the Director of Structures, State Bridge Engineer. After removal of the temporary precast barriers, all anchor holes shall be cleaned and filled with non-shrink "Sure-Grip Grout" (The Dayton Sure-Grip and Shore Co.), "Supreme Grout" (Gifford-Hill & Co. Inc.), or an approved equal, applied according to the Manufacturer's directions.

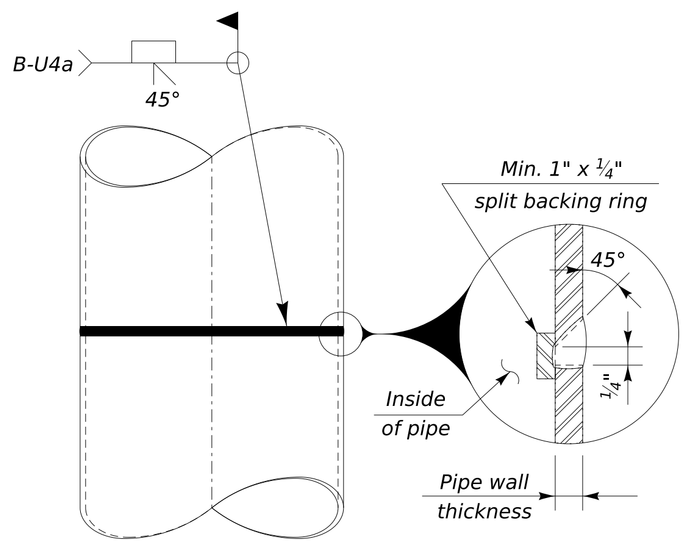
NOTE:
Permanent stay-in-place metal deck forms will be allowed for construction of bridge deck. Permanent stay-in-place metal deck forms are not allowed in deck bays with a slab closure pour for phased bridge construction.



RIPRAP APRON DETAILS

STEEL PIPE PILE NOTES:

PDA test piles shall be driven with an approved impact hammer as a production pile at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
Test piles shall be driven as a continuous operation, to the tip elevation shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
When feasible, bearing piles shall be driven full length and be spliced only as approved by the Director of Structures, State Bridge Engineer.
Welding shall be done by the ELECTRIC ARC process and comply with ANSI/AWS D1.5 Bridge Welding Code. Welders shall be certified and electrodes shall be approved.
When loading tests are required, the maximum test load shall be one and one half ($1\frac{1}{2}$) times the required ultimate pile bearing capacity.
PDA test piles shall require a 1 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Steel pipe piles shall be driven with a maximum rated energy no less than 76,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer. However, once the required nominal resistance of the deep foundation elements is established, another drivability analysis should be performed to estimate a minimum hammer energy sufficient for the final bridge plans.
All steel pipe piles shall be ASTM A252, Grade 3 (Fy = 50,000 psi).
Steel pipe piles are intended to be open-ended.
Welding shall comply with ANSI/AWS D1.5 Bridge Welding Code and be performed by a certified welder.
The tip elevation of piling for hydraulic structures may be determined by scour line, but under no circumstances shall be greater than the minimum tip elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
Pipe piles shall receive a protective coating beginning at the bottom of the cap and extending to the 100 yr. scour elevation as shown on the Elevation sheet. The coating shall be one of the following, applied according to the manufacturer's specifications in two coats of 16mil minimum dry film thickness:
A. Bitumastic 300-M Coal Tar Epoxy
manufactured by Carboline Company in St. Louis, MO
www.carboline.com
B. Corotech Coal Tar Epoxy
manufactured by INSL-X Company in Montvale, NJ
www.carotechcoatings.com
C. Series 46-143 TNEME-Tar
manufactured by TNEMEC Co Inc in Kansas City, MO
www.tnemec.com
Any areas of coating above the ground line that become damaged during shipping or driving shall be repaired per the Manufacturer's specifications. Any areas of coating affected by pipe pile splicing shall be repaired per the Manufacturer's specifications. Protective coating, including surface preparation and application, will be paid for as Steel Pipe Piling, (not a separate pay item).



PIPE PILE SPLICING DETAIL

24" dia. steel pipe piles

ESTIMATED QUANTITIES - LEFT LANE

Item / Location	Transverse Grooving S.Y.	1	14" x 14" Prestressed Concrete Piling L.F.	PDA Test Pile, Concrete Pile Each	PDA Test Pile, Steel Pipe Pile Each	Pile Restrike Each	24" Steel Pipe Piling, Wall Thickness 0.625" L.F.	Bridge Concrete, Class BDX (1) C.Y.	Bridge Concrete, Class AA C.Y.	85' Prestressed Concrete Beam, Type FIB-36 L.F.	60' Prestressed Concrete Beam, Type FIB-36 L.F.	Reinforcement (2) Lbs.	Reinforcement, Corrosion Resistant Lbs.	Concrete Railing, 42" L.F.	Loose Riprap, Size 300 (3) Ton	Geotextile Under Riprap (3) S.Y.	Preformed Joint Seal, Type I L.F.
Spans	1,568							465.99		676.00	952.00	105,822	5,552	415.00			169
End Bents			2,145	1		1			117.15			21,145			1,661	1,528	
Int. Bents					1	1	1,350		118.03			15,562					
Totals	1,568		2,145	1	1	2	1,350	465.99	235.18	676.00	952.00	142,529	5,552	415.00	1,661	1,528	169

ESTIMATED QUANTITIES - RIGHT LANE

Item / Location	Transverse Grooving S.Y.	1	14" x 14" Prestressed Concrete Piling L.F.	PDA Test Pile, Concrete Pile Each	PDA Test Pile, Steel Pipe Pile Each	Pile Restrike Each	24" Steel Pipe Piling, Wall Thickness 0.625" L.F.	Bridge Concrete, Class BDX (1) C.Y.	Bridge Concrete, Class AA C.Y.	85' Prestressed Concrete Beam, Type FIB-36 L.F.	60' Prestressed Concrete Beam, Type FIB-36 L.F.	Reinforcement (2) Lbs.	Reinforcement, Corrosion Resistant Lbs.	Concrete Railing, 42" L.F.	Loose Riprap, Size 300 (3) Ton	Geotextile Under Riprap (3) S.Y.	Preformed Joint Seal, Type I L.F.
Spans	1,568							465.99		676.00	952.00	105,822	5,552	415.00			169
End Bents			2,200	0		0			116.95			21,151			1,766	1,625	
Int. Bents					0	0	1,440		118.14			15,562					
Totals	1,568		2,200	0	0	0	1,440	465.99	235.09	676.00	952.00	142,535	5,552	415.00	1,766	1,625	169

NOTES: (1) Bridge rail concrete quantities are not included in the estimated quantities shown.
(2) Bridge rail Bars D are included in the estimated quantities shown.
(3) Quantities for riprap and geotextile fabric located at the endbents are included in the bridge quantities. Quantities for riprap and geotextile fabric located in the channel are included in the roadway quantities.

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BARRY KEITH CARR
11705
REGISTERED PROFESSIONAL ENGINEER
STATE OF MISSISSIPPI
08/15/25

ADDENDUM

DESIGNED BY: B. Keith Carr, P.E.
DETAILED BY: M. Wesley Phillips, P.E.
CHECKED BY: Randy Boudreaux, P.E.
DATE: 08/15/25

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

BRIDGE @ STA. 373+34.320 SB LANE
STA. 373+77.749 NB LANE
I-55 ACROSS BEAR CREEK
GENERAL NOTES & ESTIMATED QUANTITIES
DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO.
A1 OF 41

SHEET NO.
8005

FILE: S:\Projects\18435.005 I-55 Widening Madison to Gluckstadt Phase B Plans\Bridge A - I-55 across Bear Creek\A01 Notes.dgn
DATE: 8/12/2026 TIME: 12:54:03 PM USER: RJB

GENERAL NOTES:

Specifications; Mississippi Standard Specifications for Road and Bridge Construction, 2017.
No change of plans will be permitted except by written authority of the Director of Structures, State Bridge Engineer. Minor changes in details of design or construction may be authorized in writing by the Director of Structures, State Bridge Engineer provided such changes are not justifiable reasons for contract price adjustments.
The final surface texture of the bridge deck shall be mechanically transverse grooved in accordance with Section 501 and Section 804 of the specifications. See misc. span details for limits of transverse grooving on bridge deck.
Bridge concrete shall be Class "AA" or Class "BDX" as indicated in the plans.
Railing expansion joint material shall be bituminous fiber type unless otherwise noted.
No payment will be allowed for excavation incidental to the construction of end bents or intermediate bents.
Bar bending details shall be in accordance with "Guide to Presenting Reinforcing Steel Design Details" (ACI 315R-18).
Reinforcement order lists and required placing plans shall be furnished in accordance with Section 805 of the Mississippi Standard Specifications. Partial submittals are not acceptable.
Shop drawings of prestressed beams, including an erection plan, shall be submitted in triplicate to the Director of Structures, State Bridge Engineer for approval prior to manufacture of beams.
The Fabricator shall provide beam camber data at release and immediately prior to shipping.
The Contractor shall provide beam camber data after erection. The Contractor should be aware that the deflection diagram may be modified based on the provided camber data. Therefore, deck grades should be set only after notification of the Director of Structures, State Bridge Engineer.
Concrete surfaces shall receive a class 2 rubbed or spray finish in accordance with the specifications.
Reinforcing steel shall be A.S.T.M. A615 Grade 60, unless otherwise noted. Reinforcement bar splices are based on maximum lengths of 50'-0" for Size #4 bars and 60'-0" for Sizes #5 through #11 bars.
Work for which no pay items are provided in the proposal will not be paid for directly and compensation therefore will be considered included in the prices and payments for bid items.

NOTE:
PDA test pile results for all bents must be submitted to the Director of Structures, State Bridge Engineer before permanent pile lengths will be recommended.

PDA TEST PILE SCHEDULE

Bent No.	Min. Length feet	Tip Elevation
1L	60	211.4
2L	105	165.5

REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE

Bent No.	Pile Size inches	Strength I Req'd. Bearing, Tons	500 Yr. Scour Skin Friction Loss, Tons	Req'd. Ult. Bearing, Tons	Est. Length feet	Min. Tip Elev.
1L	14" x 14" P/S Concrete	64	2	101	50	241.5
2L	24"∅ steel pipe, wall thk. 0.625"	189	10	301	85	** 209.1
3L	24"∅ steel pipe, wall thk. 0.625"	189	10	301	85	** 209.1
4L	14" x 14" P/S Concrete	64	2	101	50	241.5
1R	14" x 14" P/S Concrete	64	2	101	50	241.5
2R	24"∅ steel pipe, wall thk. 0.625"	189	10	301	85	** 209.1
3R	24"∅ steel pipe, wall thk. 0.625"	189	10	301	85	** 209.1
4R	14" x 14" P/S Concrete	64	2	101	50	241.5

NOTE:
The Strength I Required Bearing indicated in the table does not include the skin friction loss due to 500 yr. scour.
The Required Ultimate Bearing indicated in the table includes the skin friction loss due to 500 yr. scour.

** **NOTE:**
Controlled by minimum depth required for lateral stability.

NOTE:
The girder deflection diagrams shown in these plans were prepared and intended for design and estimation purposes only. Actual bridge girder deflections may differ from the deflection diagrams shown in these plans. It is the Contractor's responsibility to construct the bridge to meet the requirements of the plans and specifications including, but not limited to, the requirements for bridge deck smoothness.
Prior to formwork construction, the Contractor shall submit three (3) copies of a proposed BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN to the Director of Structures, State Bridge Engineer for review, through the Project Engineer. This submittal shall include all calculations, assumptions and parameters used by the Contractor to determine bridge girder deflections and form grade elevations. This submittal shall also include an erection and construction procedure that addresses the construction means and methodologies used by the Contractor and shall consider effects including, but not limited to, construction phasing, pouring schedules, applied permanent and construction loading, and shall include calculations and details of temporary girder bracing systems used to ensure girder stability and to counter the effects of girder tilt.
After girder erection and prior to construction, the Contractor shall submit deck thickness verification calculations for each girder. These calculations shall include a comparison of the erected girder top flange profiles versus the plan deck grade elevations over each girder plus the anticipated girder deflection due to applied permanent dead load and creep.
Three (3) copies of the deck thickness verification calculations and any proposed remediation measures to correct for thin deck areas shall be submitted to the Director of Structures, State Bridge Engineer for review, through the Project Engineer.
The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN and the deck thickness verification calculations shall be prepared and stamped by a Mississippi Registered Professional Engineer.

NOTE:
After all beams in a span are erected, the concrete end diaphragms or temporary bracing located at the ends of each span shall be installed at a minimum and additionally as indicated in the Contractor's temporary girder bracing system plans.
Prior to deck formwork construction, the end concrete diaphragms shall be in place and temporary bracing between beams at each midspan location shall be installed at a minimum and additionally as indicated in the Contractor's temporary girder bracing system plans.
The Contractor's proposed temporary girder bracing system plans shall be included the BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN.

NOTE:
Concrete mix used for substructure elements shall be designed for Severe Soluble Sulfate Conditions per Section 704.04.2.1 of the Mississippi Standard Specifications.

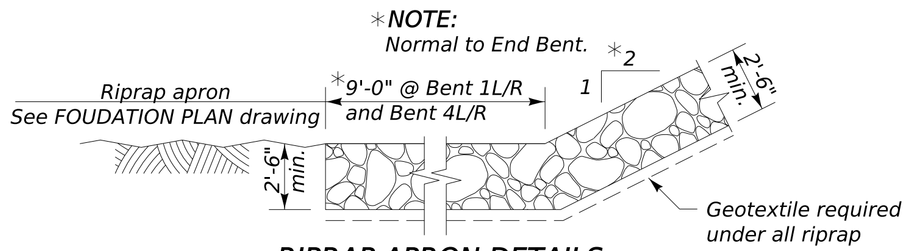
PRESTRESSED CONCRETE PILE NOTES:

Test piles shall be driven as permanent piles at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
Test piles shall be driven as a continuous operation, to the tip elevations shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The tip elevation of piling for hydraulic structures may be determined by scour line, but under no circumstances shall be higher than the minimum tip elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
When feasible, bearing piles shall be driven full length and may be spliced only as approved by the Director of Structures, State Bridge Engineer.
When loading tests are required, the maximum test load shall be one and one half ($1\frac{1}{2}$) times the required ultimate pile bearing capacity.
PDA test piles shall require a 1 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Prestressed Concrete piles shall be driven with a maximum rated energy no less than 42,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer.
Piles shall be prestressed concrete type per details on sheet no B37.
Prestressed concrete piling shall not be driven until the concrete has reached a minimum compressie strength of 5,000 psi and is at least 7 days old.

TEMPORARY PRECAST BARRIER NOTES:

Temporary precast barriers shall be anchored to the bridge deck. The Contractor shall submit proposed anchor details, including design calculations stamped by a Mississippi resistered Professional Engineer, prior to beginning the work to be approved by the Director of Structures, State Bridge Engineer. After removal of the temporary precast barriers, all anchor holes shall be cleaned and filled with non-shrink "Sure-Grip Grout" (The Dayton Sure-Grip and Shore Co.), "Supreme Grout" (Gifford-Hill & Co. Inc.), or an approved equal, applied according to the Manufacturer's directions.

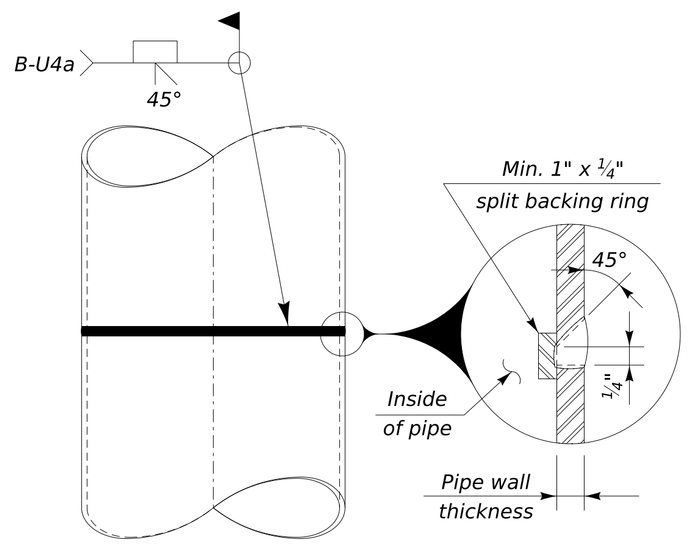
NOTE:
Permanent stay-in-place metal deck forms will be allowed for construction of bridge deck. Permanent stay-in-place metal deck forms are not allowed in deck bays with a slab closure pour for phased bridge construction.



RIPRAP APRON DETAILS

STEEL PIPE PILE NOTES:

PDA test piles shall be driven with an approved impact hammer as a production pile at the location shown in the PDA TEST PILE SCHEDULE and will be paid for as test piles only.
Test piles shall be driven as a continuous operation, to the tip elevation shown in the PDA TEST PILE SCHEDULE, unless otherwise directed by the Director of Structures, State Bridge Engineer.
Permanent piles shall be driven to an elevation no higher than the elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
The Director of Structures, State Bridge Engineer may authorize test piles driven outside the structural limits.
When feasible, bearing piles shall be driven full length and be spliced only as approved by the Director of Structures, State Bridge Engineer.
Welding shall be done by the ELECTRIC ARC process and comply with ANSI/AWS D1.5 Bridge Welding Code. Welders shall be certified and electrodes shall be approved.
When loading tests are required, the maximum test load shall be one and one half ($1\frac{1}{2}$) times the required ultimate pile bearing capacity.
PDA test piles shall require a 1 day restrike unless otherwise directed by the Engineer.
Pile lengths and driving criteria shall be provided based on the results of the PDA test piles.
The required ultimate pile bearing shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE includes the LRFD resistance factor for PDA of 0.65.
Pile hammer leads used for all PDA test piles and PDA restrikes shall be large enough to provide a minimum of 3" of clearance on each side of the pile in order to properly place and protect PDA gages.
Steel pipe piles shall be driven with a maximum rated energy no less than 76,000 ft-lbs to the tip elevations specified unless the Contractor's drivability analysis utilizing the Contractor's selected alternative hammer is approved by the Director of Structures, State Bridge Engineer. However, once the required nominal resistance of the deep foundation elements is established, another drivability analysis should be performed to estimate a minimum hammer energy sufficient for the final bridge plans.
All steel pipe piles shall be ASTM A252, Grade 3 (Fy = 50,000 psi).
Steel pipe piles are intended to be open-ended.
Welding shall comply with ANSI/AWS D1.5 Bridge Welding Code and be performed by a certified welder.
The tip elevation of piling for hydraulic structures may be determined by scour line, but under no circumstances shall be greater than the minimum tip elevation shown in the REQUIRED ULTIMATE PILE BEARING CAPACITY AND TIP ELEVATION SCHEDULE.
Pipe piles shall receive a protective coating beginning at the bottom of the cap and extending to the 100 yr. scour elevation as shown on the Elevation sheet. The coating shall be one of the following, applied according to the manufacturer's specifications in two coats of 16mil minimum dry film thickness:
A. Bitumastic 300-M Coal Tar Epoxy
manufactured by Carboline Company in St. Louis, MO
www.carboline.com
B. Corotech Coal Tar Epoxy
manufactured by INSL-X Company in Montvale, NJ
www.carotechcoatings.com
C. Series 46-143 TNEME-Tar
manufactured by TNEMEC Co Inc in Kansas City, MO
www.tnemec.com
Any areas of coating above the ground line that become damaged during shipping or driving shall be repaired per the Manufacturer's specifications. Any areas of coating affected by pipe pile splicing shall be repaired per the Manufacturer's specifications. Protective coating, including surface preparation and application, will be paid for as Steel Pipe Piling, (not a separate pay item).



PIPE PILE SPLICING DETAIL

24" dia. steel pipe piles

ESTIMATED QUANTITIES - LEFT LANE

Item / Location	Transverse Grooving S.Y.	1	14" x 14" Prestressed Concrete Piling L.F.	PDA Test Pile, Concrete Pile Each	PDA Test Pile, Steel Pipe Pile Each	Pile Restrike Each	24" Steel Pipe Piling, Wall Thickness 0.625" L.F.	Bridge Concrete, Class BDX (1) C.Y.	Bridge Concrete, Class AA C.Y.	80' Prestressed Concrete Beam, Type FIB-36 L.F.	40' Prestressed Concrete Beam, Type FIB-36 L.F.	Reinforcement (2) Lbs.	Reinforcement, Corrosion Resistant Lbs.	Concrete Railing, 42" L.F.	Loose Riprap, Size 300 (3) Ton	Geotextile Under Riprap (3) S.Y.	Preformed Joint Seal, Type I L.F.
Spans	1,226							367.85		636.00	632.00	84,181	5,552	324.48			152
End Bents			1,950	1		1			100.27			18,546			1,691	1,556	
Int. Bents					1	1	1,275		103.63			13,753					
Totals	1,226		1,950	1	1	2	1,275	367.85	203.90	636.00	632.00	116,480	5,552	324.48	1,691	1,556	152

ESTIMATED QUANTITIES - RIGHT LANE

Item / Location	Transverse Grooving S.Y.	1	14" x 14" Prestressed Concrete Piling L.F.	PDA Test Pile, Concrete Pile Each	PDA Test Pile, Steel Pipe Pile Each	Pile Restrike Each	24" Steel Pipe Piling, Wall Thickness 0.50" L.F.	Bridge Concrete, Class BDX (1) C.Y.	Bridge Concrete, Class AA C.Y.	80' Prestressed Concrete Beam, Type FIB-36 L.F.	40' Prestressed Concrete Beam, Type FIB-36 L.F.	Reinforcement (2) Lbs.	Reinforcement, Corrosion Resistant Lbs.	Concrete Railing, 42" L.F.	Loose Riprap, Size 300 (3) Ton	Geotextile Under Riprap (3) S.Y.	Preformed Joint Seal, Type I L.F.
Spans	1,226							367.85		636.00	632.00	84,181	5,552	324.48			152
End Bents			2,000	0		0			101.07			19,027			1,819	1,674	
Int. Bents					0	0	1,360		103.94			13,748					
Totals	1,226		2,000	0	0	0	1,360	367.85	205.01	636.00	632.00	116,956	5,552	324.48	1,819	1,674	152

NOTES: (1) Bridge rail concrete quantities are not included in the estimated quantities shown.
(2) Bridge rail Bars D are included in the estimated quantities shown.
(3) Quantities for riprap and geotextile fabric located at the endbents are included in the bridge quantities. Quantities for riprap and geotextile fabric located in the channel are included in the roadway quantities.

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BARRY KEITH CARR
REGISTERED PROFESSIONAL ENGINEER
11705
STATE OF MISSISSIPPI
08/15/25

ADDENDUM

DESIGNED BY: B. Keith Carr, P.E.
DETAILED BY: M. Wesley Phillips, P.E.
CHECKED BY: Randy Boudreaux, P.E.
DATE: 08/15/25

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

BRIDGE @ STA. 420+95.554 (SB LANE)
STA. 421+12.878 (NB LANE)
I-55 ACROSS BEAR CREEK TRIBUTARY
GENERAL NOTES & ESTIMATED QUANTITIES
DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO.
B1 OF 39

SHEET NO.
8046

FILE: S:\Projects\18435.005 I-55 Widening Madison to Gluckstadt Phase B Plans\Bridge B - I-55 across Bear Creek Trib\B01 Notes.dgn
DATE: 8/12/2026 TIME: 12:55:06 PM USER: RJB

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Solutions you can build upon

RANDY BOUDREAUX
REGISTERED PROFESSIONAL ENGINEER
Randy Boudreaux
#11203
STATE OF MISSISSIPPI

ADDENDUM

DESIGNED BY: Randy Boudreaux, P.E.
DETAILED BY: Alyssa Friess, E.I.
CHECKED BY: B. Keith Carr, P.E.
DATE: 06/06/25

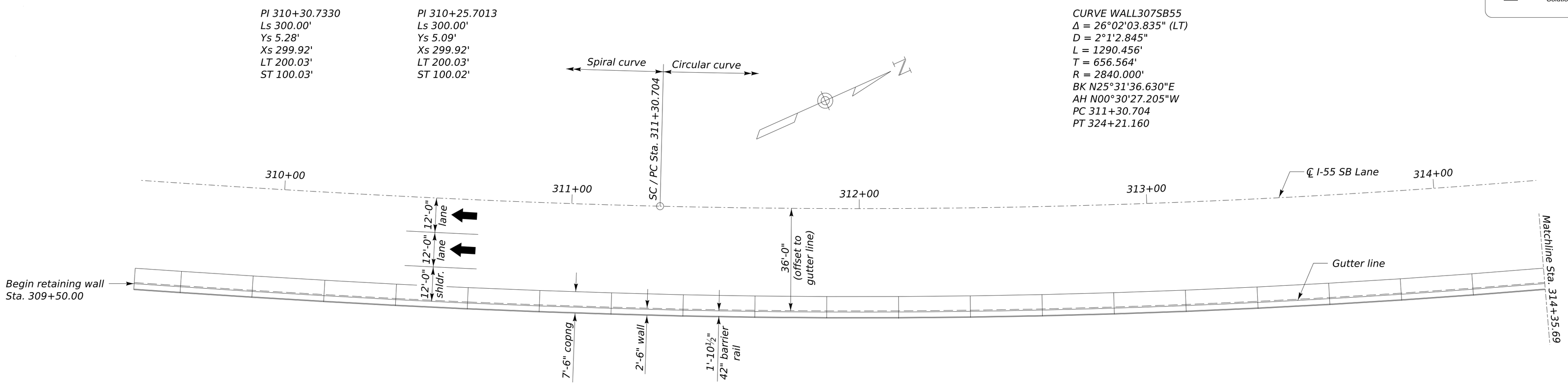
FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

WALL @ STA. 309+50.00
PARTIAL ELEVATION
(1 OF 3)

DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO.
WA1 OF 6

SHEET NO.
8102



PART PLAN~ RETAINING WALL "WA"

Scale: 1" = 20'-0"

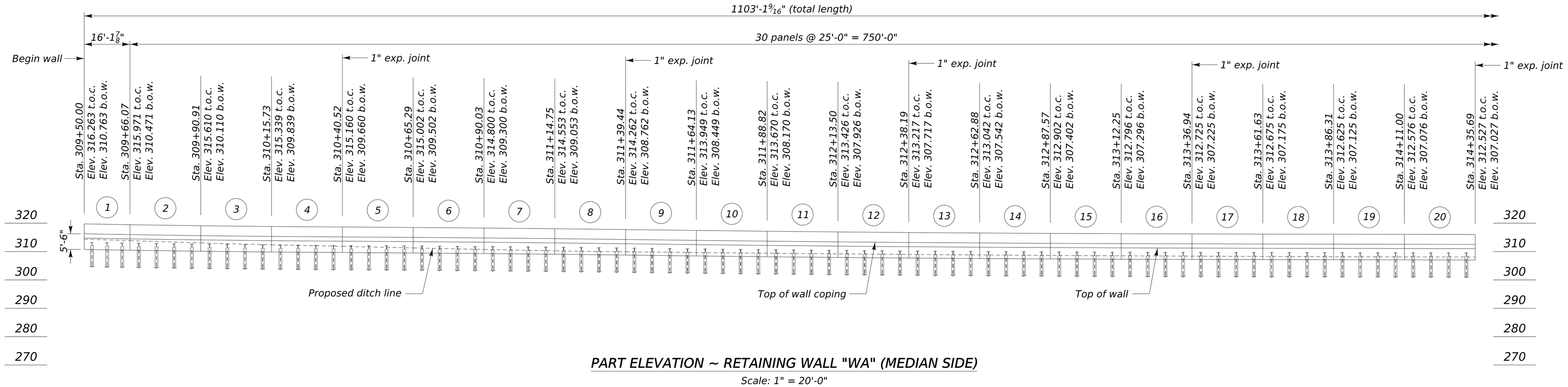
REQ'D ULTIMATE PILE BEARING CAPACITY AND TIP EMBEDMENT SCHEDULE					
Panel Nos.	Pile Size	Strength I Req'd. Bearing, tons	Req'd. Ult. Bearing, tons	Est. Length feet	Min. Tip Embed. (1) feet
All	HP12x53	23	35	28.0	19.0

NOTE (1): *Minimum embedment for lateral pile stability measured from bottom of wall.*

PDA TEST PILE SCHEDULE	
Panel Nos.	Min. Length feet
1, 12, 23, 34, 44	38.0

RECOMMENDED SEQUENCE OF CONSTRUCTION:

1. Drive piling to the minimum required embedment and bearing capacity.
2. Form and cast the concrete retaining wall over the piles.
3. Backfill the ditch side of wall to the required grade per as required in roadway plans.
4. Install the wall drainage system.
5. Backfill the roadway side of the wall to the top of wall as required in roadway plans.
6. Form and cast top of wall coping.
7. Complete the roadway construction as required in the roadway plans.
8. Construct shoulder barrier.



PART ELEVATION ~ RETAINING WALL "WA" (MEDIAN SIDE)

Scale: 1" = 20'-0"

ESTIMATED QUANTITIES											
Item / Location	Geotextile for Subsurface Drainage, Type III S.Y.	6" Perforated Pipe for Underdrains, SDR 23.5 L.F.	Filter Material for Filter Beds, Type A C.Y.	Filter Material for Filter Beds, Type B C.Y.	Impervious Material, Type D C.Y.	1	HP12x53 Steel Piling L.F.	PDA Test Pile, HP Steel Pile Each	Pile Restrike Each	Bridge Concrete, Class "B" C.Y.	Reinforcement Lbs.
Wall	--	--	--	--	--		4,816	5	5	406.16	29,570
Coping	--	--	--	--	--		--	--	--	456.41	87,335
Totals	--	--	--	--	--		4,816	5	5	862.56	116,905

LEGEND:

t.o.c. = Top of coping
b.o.w. = Bottom of wall

NOTES:

For GENERAL NOTES and PILE NOTES, see sheet no. WGN.
For typical expansion and contraction joint details and other typical details, see sheet no. WGN.
For wall details, see sheet nos. WA4 and WA5.
For the GENERALIZED SOIL PROFILE, see sheet no. WA6.
Stations are along I-55 SB lane and offsets are given to the gutter line.
All longitudinal dimensions are along the gutter line.

FILE: S:\Projects\8435.005 I-55 Widening Madison to Gluckstadt Phase B\Plans\Retaining Walls\8435-005 WA1.dgn
DATE: 8/12/2026 TIME: 1:00:05 PM USER: RJB

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RANDY BOUDREAUX REGISTERED PROFESSIONAL ENGINEER #11203 STATE OF MISSISSIPPI
Randy Boudreaux
08/15/25

ADDENDUM

DESIGNED BY: Randy Boudreaux, P.E.
DETAILED BY: Alyssa Friess, E.I.
CHECKED BY: B. Keith Carr, P.E.
DATE: 06/06/25

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

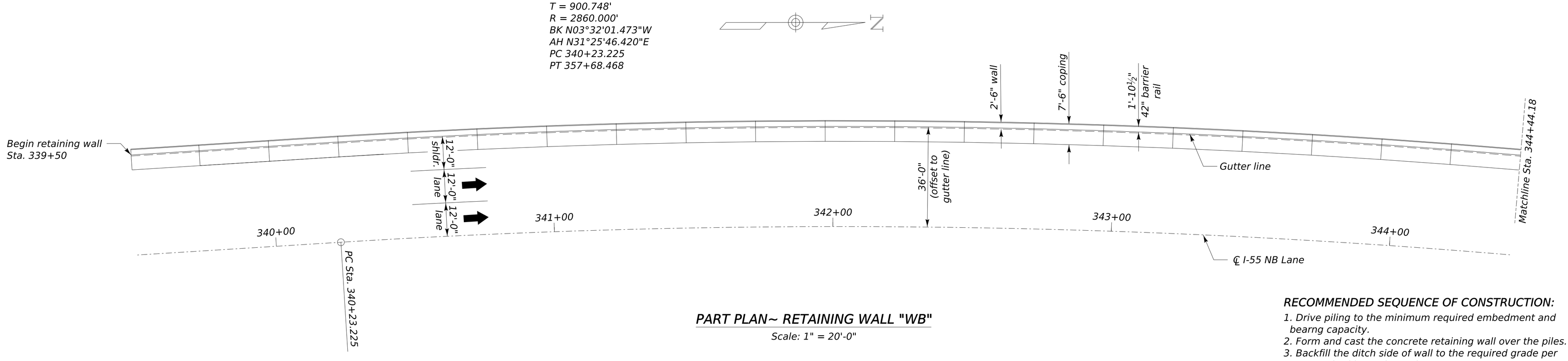
WALL @ STA. 339+50.00
PARTIAL ELEVATION
(1 OF 5)

DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO.
WB1 OF 10

SHEET NO.
8108

CURVE WALL339NB55
Δ = 34°57'47.893" (RT)
D = 2°0'12.056"
L = 1745.243'
T = 900.748'
R = 2860.000'
BK N03°32'01.473"W
AH N31°25'46.420"E
PC 340+23.225
PT 357+68.468



PART PLAN~ RETAINING WALL "WB"

Scale: 1" = 20'-0"

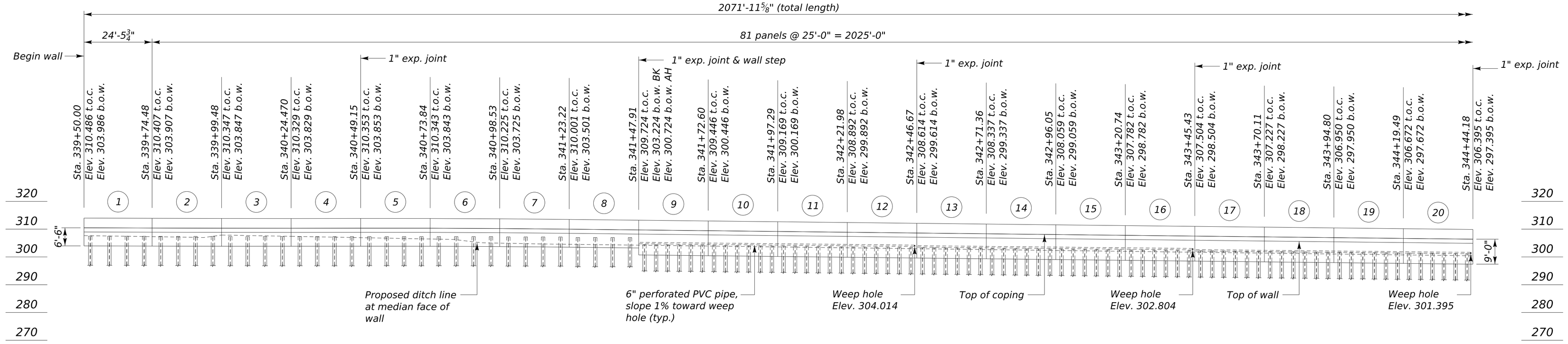
REQ'D ULTIMATE PILE BEARING CAPACITY AND TIP EMBEDMENT SCHEDULE					
Panel Nos.	*Pile Size*	*Strength I Req'd. Bearing, tons*	*Req'd. Ult. Bearing, tons*	*Est. Length feet*	*Min. Tip Embed. (1) feet*
1-8 & 77-83	*HP14x89*	*32*	*49*	*36.0*	*33.0*
9-76	*HP14x89*	*24*	*37*	*39.0*	*35.0*

NOTE (1): *Minimum embedment for lateral pile stability measured from bottom of wall.*

PDA TEST PILE SCHEDULE	
Panel Nos.	*Min. Length feet*
1 & 83	*46.0*
10, 19, 29, 38, 47, 56, 66, 75	*49.0*

RECOMMENDED SEQUENCE OF CONSTRUCTION:

1. *Drive piling to the minimum required embedment and bearng capacity.*
2. *Form and cast the concrete retaining wall over the piles.*
3. *Backfill the ditch side of wall to the required grade per as required in roadway plans.*
4. *Install the wall drainage system.*
5. *Backfill the roadway side of the wall to the top of wall as required in roadway plans.*
6. *Form and cast top of wall coping.*
7. *Complete the roadway construction as required in the roadway plans.*
8. *Construct shoulder barrier.*



PART ELEVATION ~ RETAINING WALL "WB" (ROADWAY SIDE)

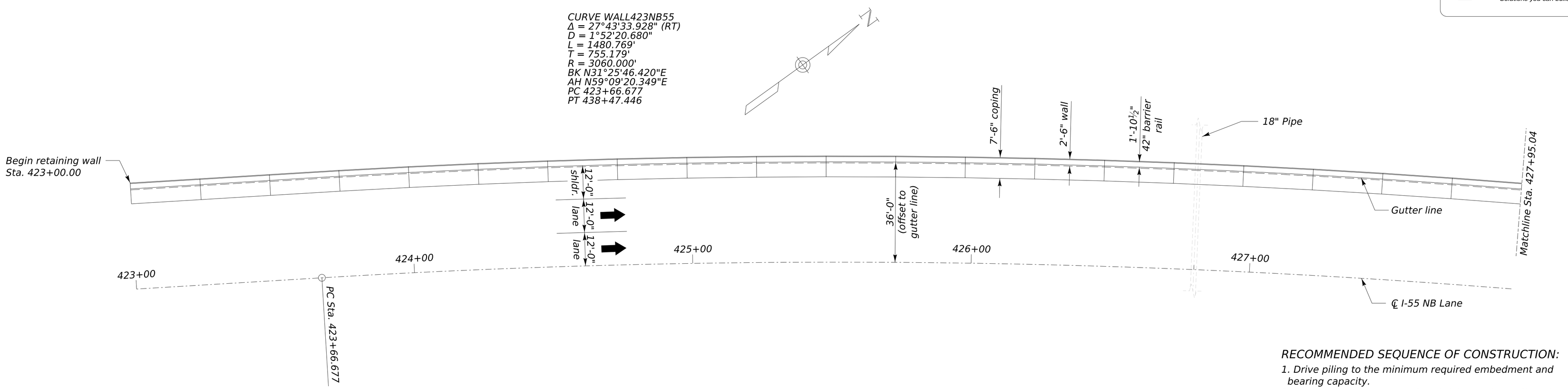
Scale: 1" = 20'-0"

ESTIMATED QUANTITIES										
Item / Location	*Geotextile for Subsurface Drainage, Type III S.Y.*	*6" Perforated Pipe for Underdrains, SDR 23.5 L.F.*	*Filter Material for Filter Beds, Type A C.Y.*	*Filter Material for Filter Beds, Type B C.Y.*	*Impervious Material, Type D C.Y.*	*1*	*HP14x89 Steel Piling L.F.*	*PDA Test Pile, HP Steel Pile Each*	*Pile Restrike Each*	*Bridge Concrete, Class "B" C.Y.*	*Reinforcement Lbs.*
Wall	*1,349*	*1,772.25*	*148.70*	*318.40*	*688.15*		*17,688*	*10*	*10*	*1,340.32*	*84,492*
Coping	*--*	*--*	*--*	*--*	*--*		*--*	*--*	*--*	*857.25*	*164,163*
Totals	*1,349*	*1,772.25*	*148.70*	*318.40*	*688.15*		*17,688*	*10*	*10*	*2,197.57*	*248,655*

LEGEND:
t.o.c. = Top of coping
b.o.w. = Bottom of wall

NOTES:
For GENERAL NOTES and PILE NOTES, see sheet no. WGN.
For typical expansion and contraction joint details and other typical details, see sheet no. WGN.
For wall details, see sheet nos. WB6 to WB9.
For the GENERALIZED SOIL PROFILE, see sheet no. WB10.
Stations are along I-55 and offsets are given to the gutter line.
All longitudinal dimensions are along the gutter line.

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DATE: 8/12/2026 TIME: 10:03:39 PM USER: RJB



PART PLAN~ RETAINING WALL "WC"

Scale: 1" = 20'-0"

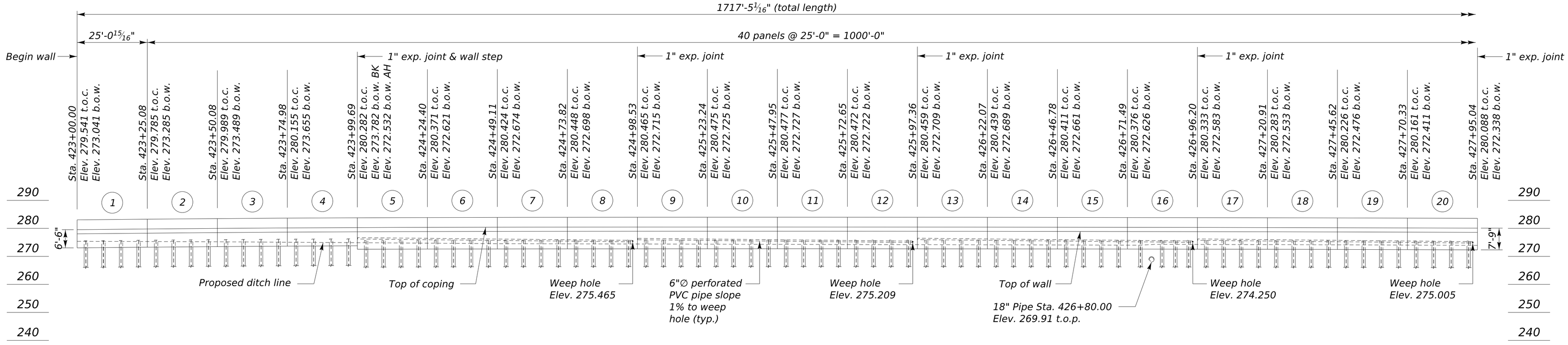
REQ'D ULTIMATE PILE BEARING CAPACITY AND TIP EMBEDMENT SCHEDULE					
Panel Nos.	Pile Size	Strength I Req'd. Bearing, tons	Req'd. Ult. Bearing, tons	Est. Length feet	Min. Tip Embed. (1) feet
1-4 & 61-68	HP14x73	26	40	26.0	20.0
5-60	HP14x73	29	44	29.0	24.0

NOTE (1): Minimum embedment for lateral pile stability measured from bottom of wall.

PDA TEST PILE SCHEDULE	
Panel Nos.	Min. Length feet
1 & 60	36.0
11, 21, 29, 30, 40 & 50	39.0

RECOMMENDED SEQUENCE OF CONSTRUCTION:

1. Drive piling to the minimum required embedment and bearing capacity.
2. Form and cast the concrete retaining wall over the piles.
3. Backfill the ditch side of wall to the required grade per as required in roadway plans.
4. Install the wall drainage system.
5. Backfill the roadway side of the wall to the top of wall as required in roadway plans.
6. Form and cast top of wall coping.
7. Complete the roadway construction as required in the roadway plans.
8. Construct shoulder barrier.



PART ELEVATION ~ RETAINING WALL "WC" (ROADWAY SIDE)

Scale: 1" = 20'-0"

ESTIMATED QUANTITIES										
Item / Location	Geotextile for Subsurface Drainage, Type III S.Y.	6" Perforated Pipe for Underdrains, SDR 23.5 L.F.	Filter Material for Filter Beds, Type A C.Y.	Filter Material for Filter Beds, Type B C.Y.	Impervious Material, Type D C.Y.	1	HP14x73 Steel Piling L.F.	PDA Test Pile, HP Steel Pile Each	Pile Restrike Each	Bridge Concrete, Class "B" C.Y.	Reinforcement Lbs.
Wall	1,127	1,488.75	108.39	293.47	369.04		7,608	8	8	954.24	61,285
Coping	--	--	--	--	--		--	--	--	710.56	135,988
Totals	1,127	1,488.75	108.39	293.47	369.04		7,608	8	8	1,664.80	197,273

LEGEND:

t.o.c. = Top of coping
b.o.w. = Bottom of wall
t.o.p. = top of pipe

NOTES:

For GENERAL NOTES and PILE NOTES, see sheet no. WGN.
For typical expansion and contraction joint details and other typical details, see sheet no. WGN.
For wall sections, see sheet no. WC8 and WC9.
For the GENERALIZED SOIL PROFILE, see sheet no. WC10.
Stations are along I-55 and offsets are given to the gutter line.
All longitudinal dimensions are along the gutter line.

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RANDY BOUDREAUX REGISTERED PROFESSIONAL ENGINEER Randy Boudreaux #11203 STATE OF MISSISSIPPI
08/15/25

ADDENDUM

DESIGNED BY: Randy Boudreaux, P.E.
DETAILED BY: Alyssa Friess, E.I.
CHECKED BY: B. Keith Carr, P.E.
DATE: 06/06/25

FMS CON: 108168/301000
PROJECT NO.: STP-0055-02(271)
COUNTY: MADISON

WALL @ STA. 423+00.00
PARTIAL ELEVATION
(1 OF 4)

DIR OF STRUCTURES, STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.
DEP. DIR OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - MICAH DEW, P.E.

WK. NO.
WC1 OF 10

SHEET NO.
8118

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DATE: 8/12/2026TIME: 1:05:38 PM USER: RJB