



# Wisconsin Department of Transportation

## Division of Transportation Systems Development

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

December 24, 2020

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### NOTICE TO ALL CONTRACTORS:

**Proposal #24: 4616-03-71, WISC 2021092**  
**T Wrightstown, CTH ZZ**  
**Clay Street – Mallard Road**  
**CTH ZZ**  
**Brown County**

### Letting of January 12, 2021

This is Addendum No. 02, which provides for the following:

#### Special Provisions:

Revised Special Provisions	
Article No.	Description
7	Work By Others
17	Steel Sheet Piling
29	Sheet Pile Wall Backfill, Item SPV.0195.01

#### Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
502.3200	Protected Surface Treatment	SY	370	1,490	1,860
512.0600	Piling Steel Sheet Permanent Driven	SF	38,550	29,306	67,856

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
505.3210	Pigmented Surface Sealer	SY	0	370	370

**Plan Sheets:**

<b>Revised Plan Sheets</b>	
<b>Plan Sheet</b>	<b>Plan Sheet Title (brief description of changes to sheet)</b>
81	Wall Details R-5-306 Sheet 3 of 12 – updated quantities, modified general notes
83	Anchor Slab Details R-5-306 Sheet 5 of 12 – updated detail/notes for backfill limits
85	Parapet and Aesthetics Sheet 7 of 12 – updated legend

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**ADDENDUM NO. 02**

**4616-03-71**

**December 24, 2020**

**Special Provisions**

**7. Work by Others**

*Replace paragraph two with the following:*

Brown County will do the fine grading of Base Aggregate dense 1 ¼-Inch for asphalt paving, shoulder gravel, pavement marking, and signing for this project starting September 20, 2021. Contractor will be responsible for supplying any additional Base Aggregate needed to fine grade and will be responsible for removal of any excess Base Aggregate.

**17. Steel Sheet Piling**

*Add the following:*

*Delete the first sentence in Section 512.3.3 Painting and replace with the following:*

Painting steel pile is not required.

**29. Sheet Pile Wall Backfill, Item SPV.0195.01**

*Replace entire section titled B.1 Backfill and B.1.1 Sampling and Testing with the following:*

**B.1 Backfill**

Furnish material meeting the requirements of Subsection 310.2 of the Standard Specifications.

In addition, backfill material shall meet the following requirements:

<b>Test</b>	<b>Method</b>	<b>Value</b>
Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	36 degrees min. (At 90% of maximum density)

[1] Test for internal friction angle according to AASHTO T236 Standard Method of Test for Direct Shear Test of Soils under Consolidated Drained Conditions using large shear box. Maximum density to be determined according to test method ASTM D4253 – “Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table”.

Provide QMP as specified in Section 730 of the Standard Specifications for open graded base and as follows:

**B.1.1 Sampling and Testing**

Prior to placing backfill material, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification:-

This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics change as determined by the engineer and/or sources change, provide a certified report of tests before placement for the new backfill material.

**31. Excavation for Structures.**

Add to subsection 206.3.13.1 of the Standard Specifications:

Compact backfill for anchor wall to 95% of the maximum dry density according to the Standard Proctor test as determined by AASHTO T-99.

Do not operate rollers or other heavy equipment within 5 ft of the anchor wall.

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform one 5-point Proctor test every 500 cubic yards of fill. Retain split samples for a minimum of seven days after sampling. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling.

**Schedule of Items**

Attached, dated December 24, 2020, are the revised Schedule of Items Pages 1, 2, and 6.

**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 81, 83, and 85

END OF ADDENDUM

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.  
EXCAVATION FOR STRUCTURES INCLUDES ORGANIC MATERIAL AND TOP SOIL ASSUMED TO BE 1' DEEP FROM THE SHEET PILE WALL TO THE LIMIT OF STRUCTURE BACKFILL AREA AS SHOWN ON SHEET 5. SEE ROADWAY CROSS SECTIONS FOR BACKFILL LIMITS.  
LENGTH OF RETAINING WALL IS MEASURED ALONG THE FRONT FACE AT THE REFERENCE LINE.  
ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH SHEET PILE WALL BACKFILL AS SHOWN IN THE PLANS.  
ALL RETAINING WALL STATIONS AND OFFSETS ARE MEASURED ALONG THE REFERENCE LINE FOR CTH ZZ.  
OFFSETS ARE MEASURED TO THE FRONT FACE OF RETAINING WALLS.  
APPLY PROTECTIVE SURFACE TREATMENT TO TOP OF ANCHOR SLAB PARAPET THAT ARE NOT STAINED (SEE SHEET 7).  
BEVEL EXPOSED EDGES OF CONCRETE UNLESS OTHERWISE NOTED.  
BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.  
ALL BAR STEEL IS TO BE EPOXY COATED.  
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.  
THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK INDICATE THE SIZE OF BAR.  
THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

SOIL PARAMETERS

Table 1: Soil Parameters - Sheet Pile Walls

Soil Description	Fiction Angle (Degrees)	Cohesion (Psi)	Unit Weight (PCF)
Soil Behind Wall in Short and Long Term Condition	40	0	150
Anchor Slab and Base Course - Within the Wall in the Reinforcing Zone.			
Granular Structural Backfill: Required along entire wall from Bottom of Anchor Slab Base Course to Finished Grade Line.	36	0	120
Neutral Existing Clay: Beneath Backfill at Finished Grade Line to Depth of Sheeting.	0	600	130
Soil in Front of Wall in Short and Long Term Condition			
River Muck: Toe of Wall to 2.0 ft depth.	0	200	120
Neutral Existing Clay: Beneath Backfill at Finished Grade Line to Depth of Sheeting.	0	600	130

SHEET PILE WALL ANALYSIS

Table 2: Results of Sheet Pile Wall External Stability Evaluation

Wall Type	Can/lever	Tieback
Soil Parameter Term Condition	Short & Long	Structural
Maximum Exposed Wall Height (feet)	6.0	15.0
Required Wall Embedment (feet)	5.4	12.0
Factored Wall Embedment (feet) <sup>1</sup>	6.5	15.0
Embedment (CDR > 1.0) <sup>2</sup>	1.00	1.00
Global Stability, South Wall (FS <sub>stab</sub> > 1.5) <sup>3</sup>	3.0	2.00
Global Stability, North Wall (FS <sub>stab</sub> > 1.5) <sup>3</sup>	3.0	2.81
Design Results		
Max Factored Bending Moment (Lb.-ft)	4,849	23,022
Section Modulus Required (in. <sup>3</sup> /ft)	1.32	6.13
Wall Deflection (in./ft) <sup>4</sup>	1/4	1/2
Tieback Force (Lb/ft)	N/A	7,303

1. Since the wall embedment depth uses the Simplified Method with continuous vertical elements, a 20% increase in embedment will be included.  
2. CDR (Capacity to Demand Ratio) given in Chapter 14 of the WisDOT Bridge Manual.  
3. FS<sub>stab</sub> (Safety Factor Required) determined from WinStabil program.  
4. Wall Deflection using moment of inertia of 184.20 in<sup>4</sup>/ft, property of E227 sheet pile.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

206-3000 EXCAVATION FOR STRUCTURES RETAINING WALLS R-5-306	1860 SF
502-3200 PROTECTIVE SURFACE TREATMENT	300 SF
502-3200 PROTECTIVE SURFACE TREATMENT	300 SF
506-0000 BAR STEEL REINFORCEMENT HS COATED STRUCTURES	100,990 LB
506-0005 STRUCTURAL STEEL CARBON	256,284 LB
506-0605 STRUCTURAL STEEL HS	23,370 LB
506-0605 STRUCTURAL STEEL HS	23,370 LB
512-0500 PILING STEEL SHEET PERMANENT DELIVERED	67,856 SF
512-0600 PILING STEEL SHEET PERMANENT DELIVERED	6,195 SF
517-1005 CONCRETE STAINING R-5-306	956 SF
517-1005 CONCRETE STAINING MULTI-COLOR R-5-306	3,276 SF
517-1050.5 ARCHITECTURAL SURFACE TREATMENT R-5-306	3,276 SF
645-0400 GEOTEXTILE TYPE SAS	5,219 SY
SPV.0095.01 SHEET PILE WALL BACKFILL	14,770 TON

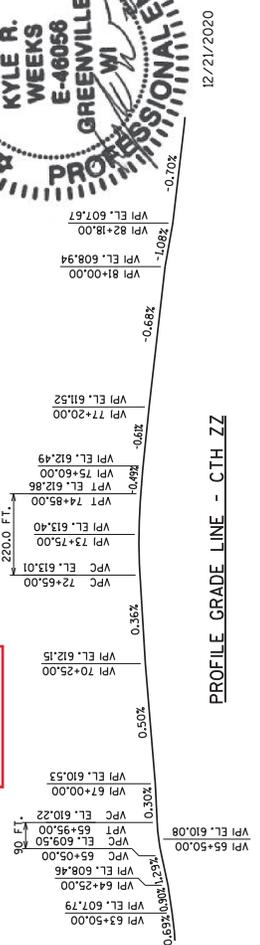
NON-BID ITEMS

FORMED JOINT FILLER, 1-INCH



12/22/20  
12/21/2020

Addendum No. 02  
ID 4616-03-71  
Revised Sheet 81  
December 24, 2020



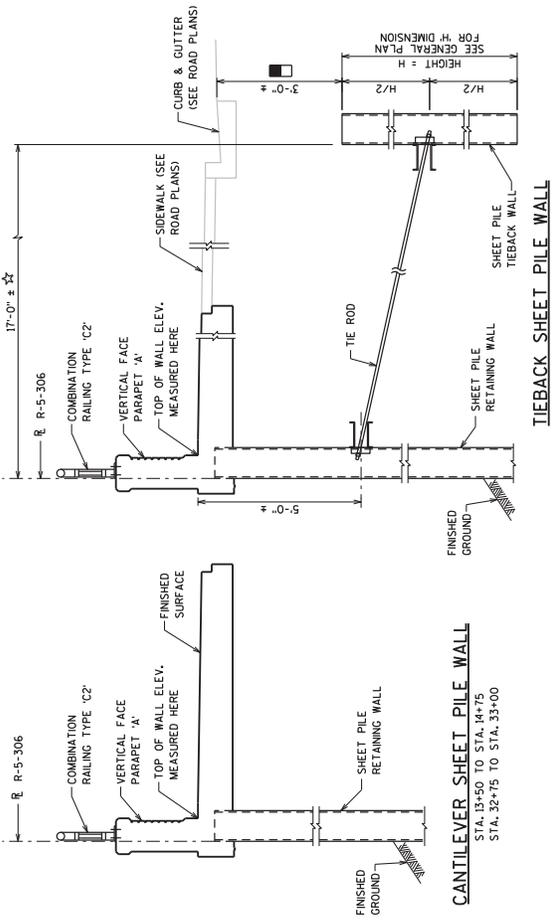
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
14	84+46.10 RT	HYDRANT TAG BOLT AT HOUSE #75	605.78
15	74+55.35 RT	HYD TAG BOLT SW COR WW TREATMENT	614.74
16	63+23.23 LT	HYDRANT TAG BOLT SW QUAD CLAY ST	609.39

☆ REDUCE OFFSET FROM STA. 14+75 TO STA. 15+00 TO AVOID CONFLICT WITH STORM SEWER.

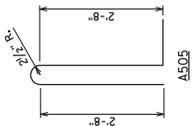
TO ACCOMMODATE PROPOSED STORM SEWER CATCH BASIN, INSTALL TIEBACK WALLS TO DEPTH OF 6'-0" BELOW PROPOSED ROADWAY SURFACE FOR MIN. LATERAL DISTANCE OF 3'-0" BOTH UP-STATION AND DOWN-STATION OF CATCH BASIN. TIEBACK WALL WATER PERMITTED TO REMAIN CONTINUOUS AND LEVEL.

REQUIRED AT ROADWAY STATIONS: STA 66+60 STA 66+75 STA 68+20 STA 70+00 STA 74+55.35 STA 75+94.40 STA 78+96.50 STA 81+20



**BILL OF BARS**  
(BILL OF BARS FOR ONE ANCHOR SLAB PANEL, 78 PANELS RECD.)

BAR MARK	NO. RECD.	LENGTH	LOCATION
A401	X 14	24'-7"	ANCHOR SLAB TOP & BOTTOM
A503	X 38	9'-7"	ANCHOR SLAB TOP
A505	X 31	6'-9"	PARAPET - VERTICAL
A506	X 8	24'-7"	PARAPET - HORIZONTAL
A407	X 21	6'-2"	ANCHOR SLAB BOTTOM
A408	X 15	3'-3"	ANCHOR SLAB AT SHEET PILE

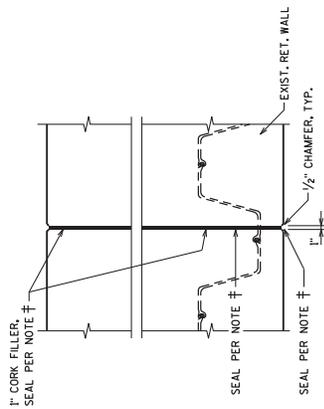


BAR BEND DIAGRAMS

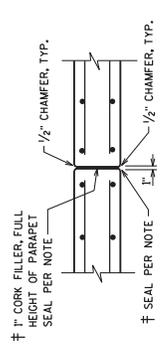
*[Signature]*  
12/22/20



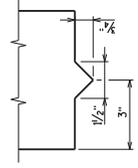
12/21/2020



ANCHOR SLAB EXPANSION JOINT DETAIL



PARAPET EXPANSION JOINT DETAIL

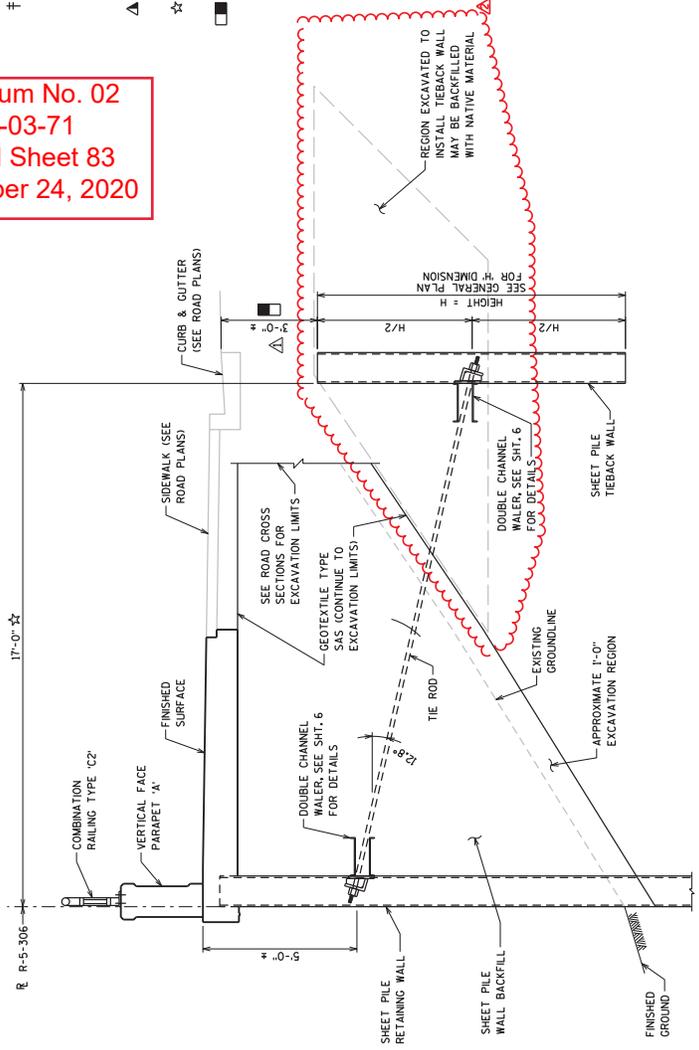


3/4" DRIP EDGE DETAIL

Addendum No. 02  
ID 4616-03-71  
Revised Sheet 83  
December 24, 2020

**NOTES**

- † SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING COLOR TO MATCH STAIN OF NON-BITUMINOUS FILLER. SEAL ALL EXPOSED SURFACES OF FILLER TO BE LOCATED WITHIN CONCRETE. EXPANSION JOINTS TO BE SPACED 30" MAXIMUM OF 25'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.
- △ DIMENSIONS GIVEN MAY NOT FIT. CHOOSE SHEET PILE SECTION. ADJUST DIMENSIONS AS NECESSARY TO ALLOW PROPER FIT.
- ☆ REDUCE OFFSET FROM STA 14+50 TO STA 15+00 TO AVOID CONFLICT WITH STORM SEWER.
- TO ACCOMMODATE PROPOSED STORM SEWER CATCH BASINS INSTALL ANCHOR WALL TO DEPTH OF 6'-0" BELOW PROPOSED SEWER MAIN. PROVIDE 12" MINIMUM CLEARANCE OF BOTH UP-STATION AND DOWN-STATION OF CATCH BASIN. TIEBACK WALL WALKER PERMITTED TO REMAIN CONTIGUOUS AND LEVEL. REQUIRED AT ROADWAY STATIONS: STA 66+75  
STA 68+20  
STA 70+00  
STA 71+63.50  
STA 75+94.40  
STA 78+96.50  
STA 81+20



TYPICAL SECTION THRU WALL WITH TIEBACK WALL

NO.	DATE	ADDED BACKFILL	NOTE	BY
2	12/21/20			BRE

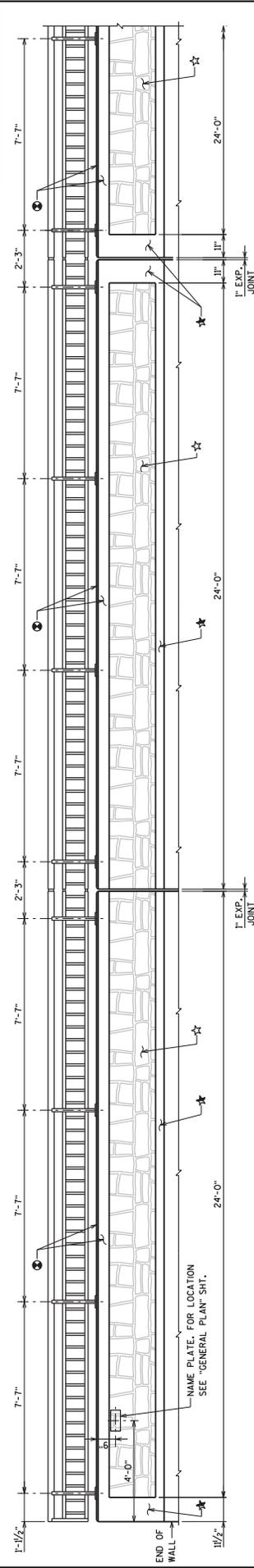
STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-5-306

ANCHOR SLAB DETAILS

SHEET 5 OF 12

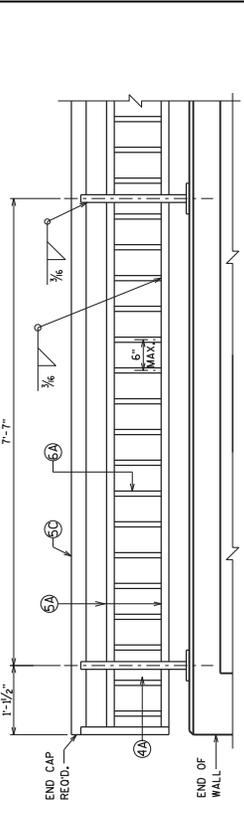
83



ELEVATION OF PARAPET

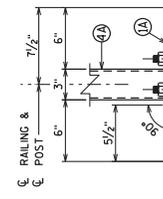


*[Signature]*  
12/22/20



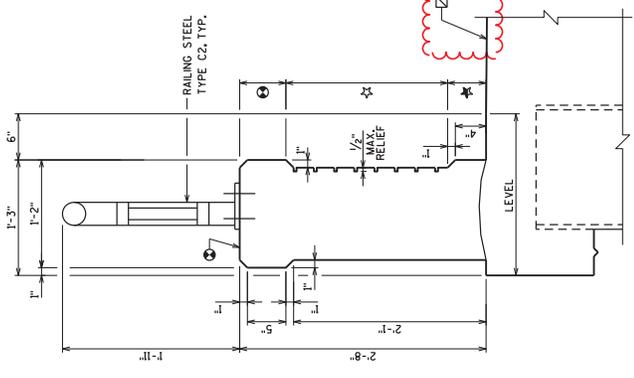
ELEVATION OF STEEL RAIL TYPE 'C2'

NOTE: SEE SHEET 8 FOR RAILING DETAILS



RAILING BASE PLATE DETAIL

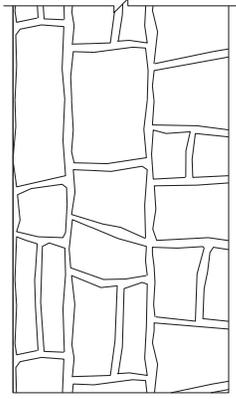
NOTE: SEE SHEET 13 FOR RAILING DETAILS.



SECTION THRU PARAPET

LEGEND

- ④ PIGMENTED SURFACE SEALER
- ⑤ PROTECTIVE SURFACE TREATMENT
- ☆ "ARCHITECTURAL SURFACE TREATMENT" AND "CONCRETE STAINING MULTI-COLOR" MATCH B-5-381 5TH 96 OVER THE FOX RIVER.
- ★ "CONCRETE STAINING" REDD FEDERAL COLOR NO. 33522



ARCHITECTURAL SURFACE TREATMENT

DRystack STONE FORMLINER  
FORMLINER THICKNESS = 3"  
SIZE = 3" TO 24"  
MAX. RELIEF = 1/2"

2	12/22/20	ADDED NOTE & SYMBOL	BRE
		REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE R-5-306			
	BY	DATE	
	BRN	12/22/20	KRO
SHEET 7 OF 12			
85			

Addendum No. 02  
ID 4616-03-71  
Revised Sheet 85  
December 24, 2020



Proposal Schedule of Items

Proposal ID: 20210112024 Project(s): 4616-03-71

Federal ID(s): WISC 2021092

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0205 Grubbing	21.000 STA	_____	_____
0004	204.0100 Removing Concrete Pavement	67.000 SY	_____	_____
0006	204.0150 Removing Curb & Gutter	1,005.000 LF	_____	_____
0008	204.0155 Removing Concrete Sidewalk	49.000 SY	_____	_____
0010	204.0180 Removing Delineators and Markers	17.000 EACH	_____	_____
0012	204.0220 Removing Inlets	3.000 EACH	_____	_____
0014	204.0245 Removing Storm Sewer (size) 01. 12 to 24-Inch	255.000 LF	_____	_____
0016	204.9060.S Removing (item description) 01. Dock	5.000 EACH	_____	_____
0018	205.0100 Excavation Common	5,148.000 CY	_____	_____
0020	206.3000 Excavation for Structures Retaining Walls (structure) 01. R-05-306	LS	LUMP SUM	_____
0022	213.0100 Finishing Roadway (project) 01. 4616-03-71	1.000 EACH	_____	_____
0024	305.0120 Base Aggregate Dense 1 1/4-Inch	3,773.000 TON	_____	_____
0026	310.0110 Base Aggregate Open-Graded	17.000 TON	_____	_____
0028	311.0110 Breaker Run	7,140.000 TON	_____	_____
0030	416.0160 Concrete Driveway 6-Inch	65.000 SY	_____	_____
0032	502.3200 Protective Surface Treatment	1,860.000 SY	_____	_____



Proposal Schedule of Items

Proposal ID: 20210112024 Project(s): 4616-03-71

Federal ID(s): WISC 2021092

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	504.0500 Concrete Masonry Retaining Walls	944.000 CY	_____.	_____.
0036	505.0600 Bar Steel Reinforcement HS Coated Structures	100,990.000 LB	_____.	_____.
0038	506.0105 Structural Steel Carbon	256,284.000 LB	_____.	_____.
0040	506.0605 Structural Steel HS	23,310.000 LB	_____.	_____.
0042	512.0500 Piling Steel Sheet Permanent Delivered	67,856.000 SF	_____.	_____.
0044	512.0600 Piling Steel Sheet Permanent Driven	67,856.000 SF	_____.	_____.
0046	513.7011 Railing Steel Type C2 01. R-05-306	1,950.000 LF	_____.	_____.
0048	517.1010.S Concrete Staining (structure) 01. R-05-306	956.000 SF	_____.	_____.
0050	517.1015.S Concrete Staining Multi-Color (structure) 01. R-05-306	3,276.000 SF	_____.	_____.
0052	517.1050.S Architectural Surface Treatment (structure) 01. R-05-306	3,276.000 SF	_____.	_____.
0054	520.8000 Concrete Collars for Pipe	1.000 EACH	_____.	_____.
0056	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0058	601.0411 Concrete Curb & Gutter 30-Inch Type D	2,850.000 LF	_____.	_____.
0060	602.0405 Concrete Sidewalk 4-Inch	15,650.000 SF	_____.	_____.
0062	606.0300 Riprap Heavy	20.000 CY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20210112024 Project(s): 4616-03-71

Federal ID(s): WISC 2021092

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0162	650.5500 Construction Staking Curb Gutter and Curb & Gutter	2,875.000 LF	_____.	_____.
0164	650.6500 Construction Staking Structure Layout (structure) 01. R-5-306	LS	LUMP SUM	_____.
0166	650.9910 Construction Staking Supplemental Control (project) 01. 4616-03-71	LS	LUMP SUM	_____.
0168	650.9920 Construction Staking Slope Stakes	2,075.000 LF	_____.	_____.
0170	690.0150 Sawing Asphalt	236.000 LF	_____.	_____.
0172	690.0250 Sawing Concrete	84.000 LF	_____.	_____.
0174	715.0502 Incentive Strength Concrete Structures	5,664.000 DOL	1.00000	5,664.00
0176	SPV.0060 Special 01. Adjusting Sanitary Manhole Covers	7.000 EACH	_____.	_____.
0178	SPV.0060 Special 03. Adjusting Water Valve Box	8.000 EACH	_____.	_____.
0180	SPV.0090 Special 02. Concrete Curb and Gutter Special 24-Inch	25.000 LF	_____.	_____.
0182	SPV.0165 Special 01. Insulation Board 4-Inch	100.000 SF	_____.	_____.
0184	SPV.0195 Special 01. Sheet Pile Wall Backfill	14,770.000 TON	_____.	_____.
0186	999.1500.S Crack and Damage Survey	LS	LUMP SUM	_____.
0188	502.3210 Pigmented Surface Sealer	370.000 SY	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.