



# Wisconsin Department of Transportation

## Division of Transportation Systems Development

Bureau of Project Development  
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Madison, WI 53705

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November 4, 2021

### NOTICE TO ALL CONTRACTORS:

**Proposal #10: 2365-07-70, WISC 2022008**  
**W Grange Avenue**  
**Bridge Over CP RR B-40-0500**  
**Local Street**  
**Milwaukee County**

### Letting of November 9, 2021

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

#### Special Provisions:

Added Special Provisions	
Article No.	Description
42	Preparation and Coating of Bottom Flanges B-40-500, Item SPV.0090.545

#### Schedule of Items:

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0090.545	Preparation and Coating of Bottom Flanges B-40-500	LF	0	840	840

#### Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
85	Structure B-40-500 Estimate of Quantities

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**

**2365-07-70**

**November 4, 2021**

### **Special Provisions**

#### **42. Preparation and Coating of Bottom Flanges B-40-500, Item SPV.0090.545.**

##### **A Description**

This special provision describes thoroughly cleaning and coating the bottom flanges of the girders in Span 2 prior to painting. This special provision incorporates the requirements for SSPC-SP 15, Commercial Grade Power Tool Cleaning to provide a cleaned steel surface.

##### **A.1 Areas to be Cleaned and Painted Structure B-40-500**

1. Bottom flanges of girders in the Span 2. Includes underside of bottom flange, vertical edges of bottom flange, lower moment plates, lower splice plates, nuts and bolts.
2. Total metal surface area of:  
Structure B-40-500, 1120 SF.

##### **B Materials**

##### **B.1 Coating System**

Furnish a complete coating system from the department's approved list for "Structure Repainting Recycle Abrasive Structure". The color of the finish coating material shall match the color number the plans show according to Federal Standard Number 595. Supply the engineer with the product data sheets for approval before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer and all coats to the engineer for approval before any application of paint.

##### **C Construction**

Before power tool cleaning, solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be power tool cleaned according to SSPC-SP15 and verified before painting.

A commercial grade power tool cleaned steel surface, when viewed without magnification, shall be free of all visible oil, grease, dirt, rust, coating, oxides, mill scale, corrosion products, and other foreign matter, except as noted.

Random staining shall be limited to no more than 33 percent of each unit area of surface as defined. Staining may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coating. Slight residues of rust and paint may also be left in the bottoms of pits if the original surface is pitted.

This standard requires a high degree of surface cleanliness and a minimum surface profile of 25 micrometers (1.0 mil) will be retained or produced.

##### **C.1 Surface Preparation**

Remove all abrasive or paint residue from steel surfaces with a High Efficiency Particulate Abatement (HEPA-VAC) vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, vacuum the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splices, plates, and hangers, after the double blowing operations are completed. The

air line used for blowing the steel clean shall have an inline water trap and the air shall be free of oil and water as it leaves the air line.

Take care to protect freshly coated surfaces from subsequent blast cleaning or power tool cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool or if visible rust occurs, re-tool clean to original surface condition. Clean and re-prime the brushed surfaces according to this specification.

## **C.2 Painting**

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper application technique and handling of equipment.

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint in accordance with SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

## **D Measurement**

The department will measure Preparation and Coating of Bottom Flanges B-40-500 per linear foot (LF).

## **E Payment**

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.545	Preparation and Coating of Bottom Flanges B-40-500	LF

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.

**Schedule of Items**

Attached, dated November 4, 2021, are the revised Schedule of Items Page 7.

**Plan Sheets**

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

Revised: 85

END OF ADDENDUM

**BRIDGE REMOVAL AND CONSTRUCTION NOTES**

EXISTING BRIDGE PLANS ARE ON FILE IN CITY OF MILWAUKEE INFRASTRUCTURE SERVICES DIVISION'S STRUCTURAL DESIGN DIVISION, 1000 N. MILWAUKEE AVENUE, SUITE 1000, MILWAUKEE, WI 53202. PHONE: 414-226-0463.

EXISTING BRIDGE DECK, SIDEWALK AND RAILINGS WILL BE REMOVED AND RECONSTRUCTED. THE EXISTING BRIDGE DECK IS TO BE REMOVED FIRST WHILE 2-WAY TRAFFIC IS TO BE CARRIED BY EXISTING SOUTH SIDE OF BRIDGE. THE PROPOSED NORTH SIDE OF BRIDGE IS TO BE CONSTRUCTED AND PROPOSED SOUTH SIDE ROADWAY WILL BE CONSTRUCTED.

REMOVE EXISTING BRIDGE DECK B-40-500 OVER CANADIAN PACIFIC RAILWAY IN LARGE SECTIONS AND CONFORMING TO CONTRACTOR'S APPROVED STRUCTURE REMOVAL AND CLEAN-UP PLAN.

**PROPOSED IMPROVEMENTS**

PROJECT AS PROPOSED CONSISTS OF: REMOVAL OF EXISTING BRIDGE DECK, SIDEWALK AND RAILINGS; CONCRETE SURFACE REPAIR; REINFORCEMENT OF EXISTING CONCRETE; EXPANSION BEARING REPLACEMENT AT ABUTMENTS; PREPARATION AND PAINTING STEEL SUPERSTRUCTURE; INSTALLATION OF ORDER SHEAR STUD CONNECTORS; REPLACEMENT OF NEW BRIDGE DECK; AND INSTALLATION OF NEW BRIDGE WALK, MEDIAN AND RAILING.

**DESIGN DATA**

- BEAD LOAD = 150 PCF
- CONCRETE = 20 MPa
- PARAPET & STEEL RAILING = 30T PLF
- LIVE LOAD
- DESIGN LOADS: HS-20
- OPERATING RATING HS-20
- WISCONSIN STANDARD PERMIT VEHICLE (MS-SPV) = 215 KIPS
- MATERIAL PROPERTIES
- FC = 4,000 PSI
- FS = 50,000 PSI
- FC = 3,500 PSI
- FS = 45,000 PSI
- CONCRETE SUBSTRUCTURE
- BAR STEEL REINFORCEMENT
- FY = 60,000 PSI

**TRAFFIC VOLUME**

ADT (2017) = 9,900  
ADT (2037) = 11,400  
P.D.S. = 35 MPH

**UTILITIES**

CITY UNDERGROUND COMMUNICATIONS (CUC) AND TRAFFIC ENGINEERING AND ELECTRICAL SERVICES (TEES) SHALL BE TEMPORARILY RELOCATED PRIOR TO CONSTRUCTION. CUC AND TEES CONDUITS SHALL BE REINSTALLED BY CONTRACTOR DURING CONSTRUCTION. SEE PROJECT SPECIFICATIONS.  
ALL AT&T CONDUITS SHALL BE PROTECTED DURING CONSTRUCTION. SEE PROJECT SPECIFICATIONS.

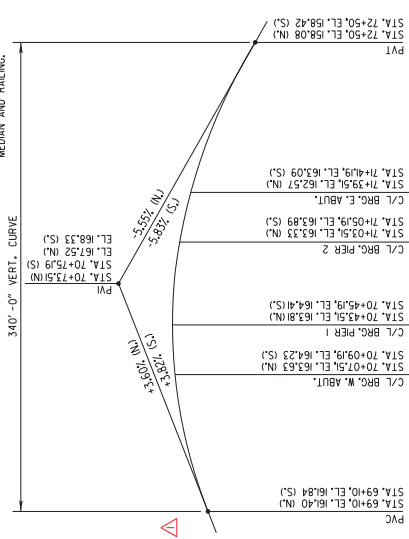
**ESTIMATE OF QUANTITIES**

ITEM NUMBER	BID ITEMS	UNIT	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	SUPER.	TOTAL
203-0220	REMOVING STRUCTURE B-40-500	EACH						1
203-0211.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-40-500	EACH						1
203-0350	DEBRIS CONTAMINATION B-40-500	EACH						1
206-1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-500	LS						595
210-1500	BACKFILL STRUCTURE TYPE A	TON	298			297		595
502-0100	CONCRETE MASONRY BRIDGES	CY					560	560
502-3200	PROTECTIVE SURFACE TREATMENT	SY					1545	1545
502-3210	PIGMENTED SURFACE SEALER	SY					161	161
502-4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	138			138		276
502-4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	180			180		360
505-0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB						124,420
506-2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	14			14		28
506-3015	WELDED STUD SHEAR CONNECTORS 7/8X6-INCH	EACH					1,221	1,221
506-3025	WELDED STUD SHEAR CONNECTORS 7/8X8-INCH	EACH					3,567	3,567
506-7050.S	REMOVING BEARINGS B-40-500	EACH						28
509-1500	CONCRETE SURFACE REPAIR	SF		19	90			109
509-9025.S	EPOXY INJECTION CRACK REPAIR	LF		53	36	07	75	271
509-9026.S	CORED HOLES 2-INCH DIAMETER	EACH		1	1	1	1	4
513-7011	RAILING STEEL TYPE C2	LF					395	395
516-0100	DAMP PROOFING	SY		23		22		45
516-0500	RUBBERIZED MEMBRANE WATERPROOFING	SY		8		8		16
517-0901.S	STRUCTURE REPAIRING RECYCLED ABRASIVE B-40-500	EACH						1
517-1801.S	STRUCTURE REPAIRING RECYCLED ABRASIVE B-40-500	EACH						1
517-4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-500	EACH						1
517-6001.S	PORTABLE DECONTAMINATION FACILITY	EACH						1
652-0235	SAWING CONCRETE	LF				163		163
690-0250	SAWING CONCRETE	LF						325
SPV-0060-400	BEARING MAINTENANCE	EACH						1
SPV-0060-500	UNDERRECK UTILITY STRUCTURE B-40-500	EACH						1
SPV-0060-550	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH CITY OF MILWAUKEE COMMUNICATIONS CONDUIT-DUCT	EACH						1
SPV-0090-545	PREPARATION AND COATING OF BOTTOM FLANGES B-40-500	LF						840
	NON-BID ITEMS							840
	FELT JOINT FILLER							
	NAME PLATE							
	NON-BID/ODD JOINT FILLER							
	PLASTIC OR ZINC SHEETS 1/8-INCH							
	POLYETHYLENE SHEETS							
	PREFORMED JOINT FILLER							

**GENERAL NOTES**

- ALL STATIONS AND ELEVATIONS ARE IN FEET.
- DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS. ELEVATIONS ARE REFERRED TO CITY OF MILWAUKEE DATUM: 560.6 MVD.
- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- BEVEL EXPOSED CONCRETE EDGES  $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
- THE FIRST DIGIT OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY 1 INCH DEEP SAW CUT.
- EXISTING GROUND LINE SHALL BE USED AS UPPER LIMITS OF EXCAVATION FOR STRUCTURE.
- SPACES EXCAVATED AND NOT OCCUPIED BY NEW CONSTRUCTION SHALL BE BAGGELLED WITH STRUCTURE BACKFILL.
- JOINT FILLER SHALL CONFORM TO AASHTO DESIGNATION M 153 TYPE 1, II, OR III, OR AASHTO DESIGNATION M21.3.
- PAINT FOR STEEL ORBERS TO MATCH AMS STANDARD NO.5954, COLOR NO. 8002.
- PAINT FOR STEEL RAILING TO MATCH AMS STANDARD NO. 5954, COLOR NO. 2703B.
- VARIATIONS TO NEW GRADE LINE OVER  $\frac{1}{4}$ " MUST BE SUBMITTED TO FIELD ENGINEER TO STRUCTURES DESIGN SECTION FOR REVIEW.
- THE CONTRACTOR SHALL SUPPLY NEW NAME PLATE IN ACCORDANCE WITH SECTION 310 OF STANDARD SPECIFICATIONS FOR ROAD AND BRIDGES, NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR (1976).
- ALL EXISTING STEEL SHALL BE SANDBLASTED AND PAINTED WITH A MINIMUM OF 2 MILS OF ZINC RICH PRIMER. STRUCTURE REPAIRING RECYCLED ABRASIVE B-40-500, AND 517-4501.S "NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-500".
- UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK UNLESS SPECIFIED OTHERWISE.
- TEMPORARY MINIMUM CLEARANCE OF 21'-0" SHALL BE MAINTAINED ABOVE RAILROAD TRACKS AT ALL TIMES UNLESS PRIOR CONSENT IS GIVEN BY ENGINEER FOR RAILROAD CONSTRUCTION. SEE PROJECT SPECIFICATIONS FOR ALL PARTS OF SPECIAL PROVISIONS.
- PORTIONS OF EXISTING W27X45 ORDER ENDS EMBEDDED IN CONCRETE SHALL BE REMOVED PRIOR TO PLACEMENT OF CONCRETE USING BID ITEMS 517-4501.S "STRUCTURE REPAIRING RECYCLED ABRASIVE B-40-500" AND 517-4505.S "NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-500".
- AN AVERAGE HAUNCH OF 3.92" WAS USED IN THE QUANTITY CALCULATION OF BID ITEM 502-0000, "CONCRETE MASONRY BRIDGES" AND SHOULD BE USED IN CALCULATING PAYMENT.

Addendum No. 02  
ID 2365-07-70  
Revised Sheet 85  
November 4, 2021



NORTH AND SOUTH PROFILE GRADE LINES  
(P.G.L.) ON WEST GRANGE AVENUE BRIDGE



11/04/21

J.P.H.  
BY

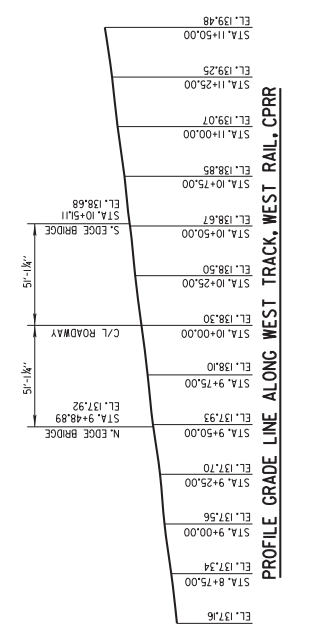
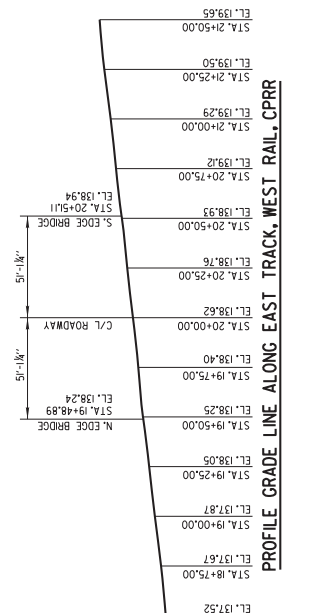
NO.	DATE	REVISION
1	11/03/21	ADDENDUM #2

STATE OF WISCONSIN  
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-500

DRAWN BY: PLANS K.M.F.  
G.A.R. C.K.B. J.P.H.

SHEET 3 OF 20  
ESTIMATE OF QUANTITIES





Proposal Schedule of Items

Proposal ID: 20211109010 Project(s): 2365-07-70

Federal ID(s): WISC 2022008

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	SPV.0060 Special 400. Underdeck Utility Structure B-40-500, City of Milwaukee Communications	1.000 EACH	_____.	_____.
0184	SPV.0060 Special 425. Installing Conduit into Existing Manhole	2.000 EACH	_____.	_____.
0186	SPV.0060 Special 501. Bearing Maintenance	1.000 EACH	_____.	_____.
0188	SPV.0060 Special 590. AT&T Communications Duct Protection B-40-500	1.000 EACH	_____.	_____.
0190	SPV.0090 Special 002. Construction Staking Concrete Sidewalk	1,513.000 LF	_____.	_____.
0192	SPV.0090 Special 306. Cable Type 3#6/1#8 XLPE Type USE-2 Electrical Cable	800.000 LF	_____.	_____.
0194	SPV.0090 Special 308. Cable Type 3#2/1#8 XLPE Type USE-2 Electrical Cable	500.000 LF	_____.	_____.
0196	SPV.0090 Special 311. 2#12UF W/Ground (Internal Riser Cable Per Luminaire)	310.000 LF	_____.	_____.
0198	SPV.0090 Special 413. 3-Duct Conduit Cement Encased 3 Inch DB-60	138.000 LF	_____.	_____.
0200	SPV.0180 Special 001. Joint Sealing	545.000 SY	_____.	_____.
0202	SPV.0090 Special 545. Preparation And Coating Of Bottom Flanges B-40-500	840.000 LF	_____.	_____.
<b>Section: 0001</b>			<b>Total:</b>	_____.
			<b>Total Bid:</b>	_____.