

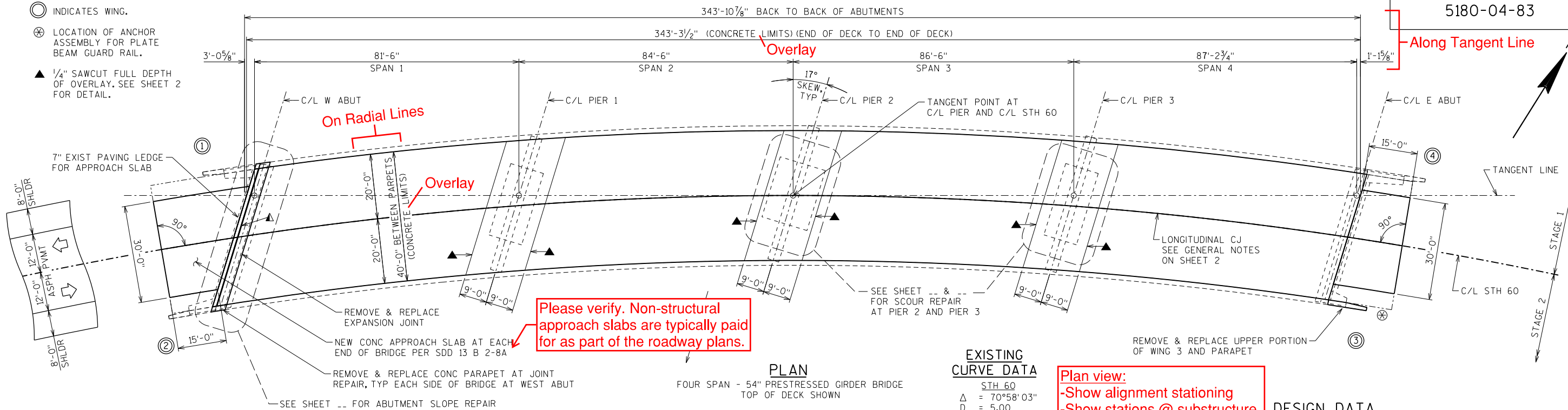
PLOT TIME: 7:39:00 AM

PLOT DATE: 3/13/2017

FILE NAME : S:\UZ\W\Wit\sw\40521\4-prelim-dsgn-rpts\43-prelim-dsgn\CAD\B-12-35.dgn\B2035.dgn

8

- ⊙ INDICATES WING.
⊗ LOCATION OF ANCHOR ASSEMBLY FOR PLATE BEAM GUARD RAIL.
▲ 1/4" SAWCUT FULL DEPTH OF OVERLAY. SEE SHEET 2 FOR DETAIL.

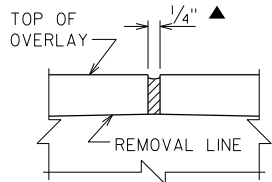


PLAN
FOUR SPAN - 54" PRESTRESSED GIRDER BRIDGE
TOP OF DECK SHOWN

EXISTING
CURVE DATA

STH 60
Δ = 70°58'03"
D = 5.00
T = 816.88'
L = 1419.35'
R = 1145.92'
SE = 5.9%

Plan view:
-Show alignment stationing
-Show stations @ substructure units (CL brg abut, CL Pier)



TRANSVERSE JOINT

▲ 1/4" SAW CUT FULL DEPTH OF OVERLAY.

PROVIDE EITHER:
A) INSTALL NEOPRENE COMPRESSION SEAL
ACME M044 OR APPROVED EQUAL.
B) COLD APPLIED ELASTIC TYPE JOINT SEALER.

HOLD ALL 1/8" BELOW SURFACE OF OVERLAY.
CONSIDERED INCIDENTAL TO 'CONCRETE MASONRY
OVERLAY'

General Comments
-Show how traffic will be handled on bridge during construction
-Provide elevation view per BM 6.2.2.3.2

DESIGN DATA

LIVE LOAD: Design Loading: HS-20
INVENTORY RATING FACTOR: RF = --- HS-XX
OPERATING RATING FACTOR: RF = --- HS-XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = --- KIPS
~~INVENTORY AND OPERATING RATINGS INCLUDE THE CONCRETE OVERLAY BUT DO NOT INCLUDE FUTURE WEARING SURFACES.~~
MATERIAL PROPERTIES:
CONCRETE MASONRY - SUPERSTRUCTURE f'c = 4,000 psi
- OVERLAY (GRADE E) f'c = 4,000 psi
- ALL OTHER (GRADE A) f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT
AASHTO GRADE 60 fy = 60,000 psi

LIST OF DRAWINGS

- 1 CONCRETE OVERLAY
- 2 NOTES AND QUANTITIES

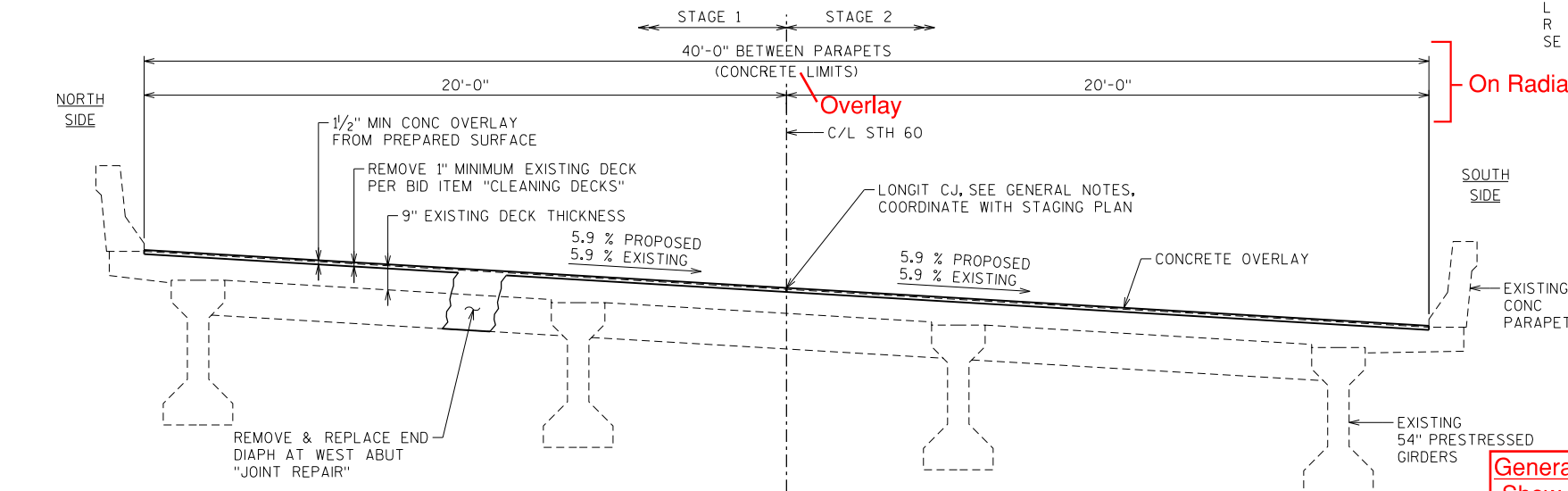
Roadway plans were not submitted. Could not verify roadway-related items. Please submit roadway plans for future projects.

Fill in for prelim plans whenever possible

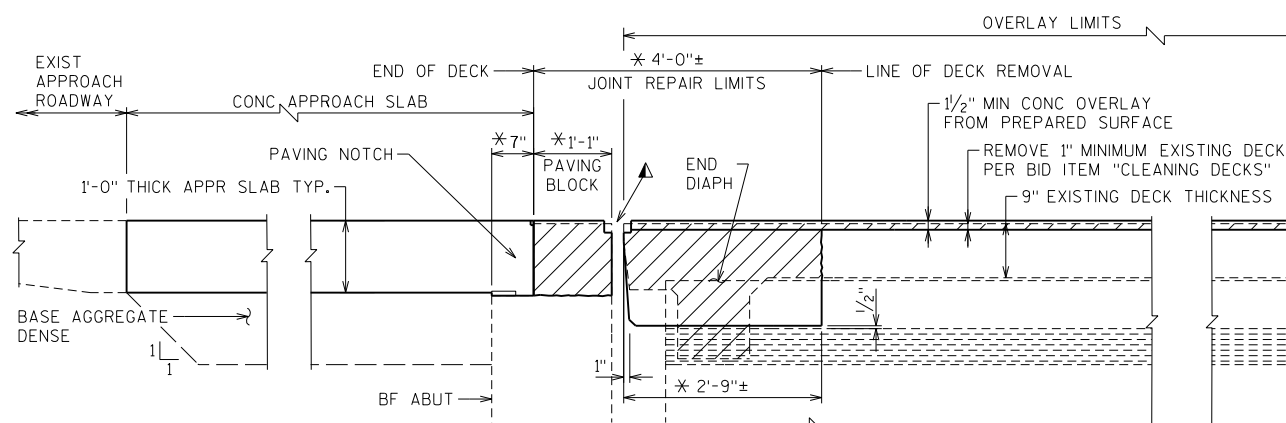
TRAFFIC DATA

ADT (2013) = 2300
ADT (20...) = ---
DHV (20...) = ---
DD = ---/---
T = --- %
DESIGN SPEED = --- MPH

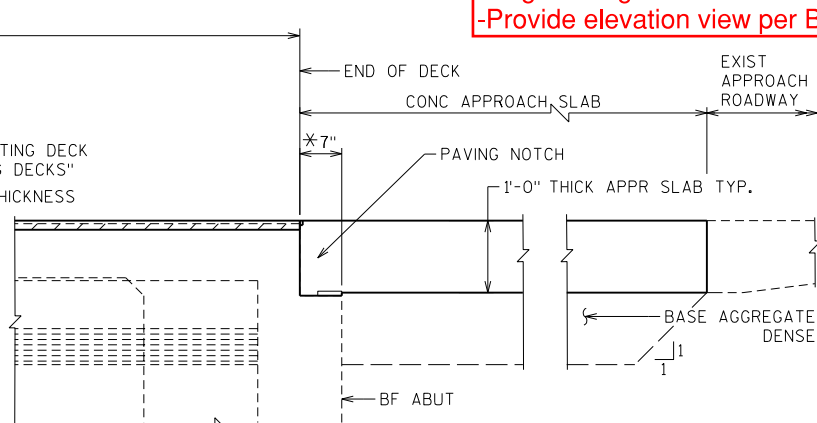
Reviewed By
LMK 04/19/2017



CROSS SECTION THRU ROADWAY
(LOOKING EAST)



SECTION - JOINT REPAIR AT WEST END OF DECK



SECTION - JOINT REPAIR AT EAST END OF DECK

*DIMENSIONS GIVEN ARE NORMAL TO C/L OF SUBSTRUCTURE UNIT.

▲ STRIP SEAL EXPANSION DEVICE, (DESIGN OPENING)

INDICATES REMOVAL

SEH CONTACT: CHRIS BLUM, PE, 608.620.6192
WISDOT BRIDGE OFFICE CONTACT: BILL DREHER, PE, 608.266.8489

STATE PROJECT NUMBER

5180-04-83

Along Tangent Line

NO.	DATE	REVISION	BY
SHORT ELLIOTT HENDRICKSON INC.			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED: _____ CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-12-35			
STH 60 OVER KICKAPOO RIVER			
COUNTY	CRAWFORD	TOWN/CITY/VILLAGE	WAUZEKA
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
		DLF	CJB
CONCRETE OVERLAY			SHEET 1 OF 2

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GENERAL NOTES

~~CONCRETE AND REINFORCEMENT SHALL BE IN ACCORDANCE WITH WISDOT "STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION" SECTION 501.~~

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS AND INSPECTION REPORTS. EXISTING BRIDGE PLANS AVAILABLE AT WISDOT.

~~MATCH EXISTING DIMENSIONS AND ELEVATIONS EXCEPT AS OTHERWISE SHOWN OR NOTED.~~

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

CONTRACTOR TO DETERMINE EXACT EXISTING UTILITY LOCATIONS. ALL UTILITIES TO REMAIN IN SERVICE. COORDINATE WITH THE UTILITY COMPANIES.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY OR PAVING NOTCH AT THE ABUTMENTS, TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS". EXCAVATION FOR THE SE WINGWALL REPAIRS & CONCRETE APPROACH SLAB IS CONSIDERED "EXCAVATION FOR STRUCTURES BRIDGES B-12-35".

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-12-35" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACKFACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE WINGWALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

~~THE QUANTITY FOR BACKFILL STRUCTURE TYPE A, BID ITEM 210.1500 IS CALCULATED BASED ON THE APPLICABLE FIGURES 12.6.1 AND 12.6.2 IN THE WISCONSIN DEPARTMENT OF TRANSPORTATION BRIDGE MANUAL.~~

~~BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.~~

A MINIMUM OF 1-INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS". CONTRACTOR TO VERIFY COMPLETENESS OF REMOVALS WITH THE FIELD ENGINEER.

LONGITUDINAL CONSTRUCTION JOINT IN OVERLAY MAY BE USED. 1/2" DEEP SAWCUT FILL WITH JOINT SEALER. LOCATION TO BE DETERMINED BY THE FIELD ENGINEER. COORDINATE WITH STAGING PLANS.

~~MULTIPLE POURS AND SEQUENCE OF POURS MUST BE APPROVED BY THE STRUCTURES DESIGN SECTION.~~

PREPARATION DECKS TYPE 1, PREPARAION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED, LOCATED, MARKED AND MEASURED BY THE FIELD ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK PREPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY OVERLAY DECKS".

GROUND PENETRATING RADAR FOR INFORMATION ONLY.

BOTTOM OF THE EXISTING DECK SHOULD BE INSPECTED FOR AREAS OF FULL-DEPTH DECK REPAIR PRIOR TO DECK PREPARATION OPERATIONS.

BOTTOM OF THE EXISTING DECK IS TO BE INSPECTED FOR AREAS OF DISTRESS AFTER COMPLETION OF THE DECK PREPARATION AND PRIOR TO OVERLAYING THE BRIDGE.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 1 1/2" PLACED ABOVE THE DECK SURFACE AFTER SURFACE PREPARATION. EXPECTED AVERAGE OVERLAY THICKNESS IS 2" ~~(OR AS GIVEN ON THE PLANS)~~. IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN 1/2", CONTACT THE STRUCTURES DESIGN SECTION.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-12-35"

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. COST IS INCIDENTAL TO BID ITEM " CONCRETE MASONRY OVERLAY DECKS".

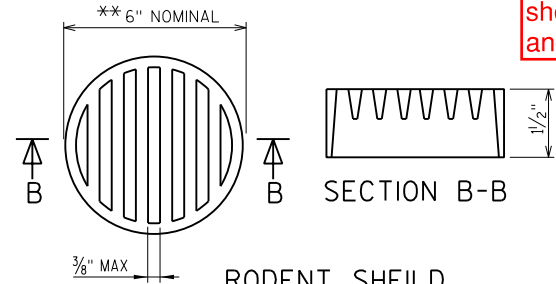
APPLY A PROTECTIVE SURFACE TREATMENT TO TOP OF BRIDGE DECK, TOP OF APPROACH SLABS AND TOP OF APPROACH SLAB NOTCH. APPLY PIGMENTED SURFACE SEALER TO TOP AND INSIDE FACES OF PARAPET PER THE STANDARD SPECIFICATIONS.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPE 1, 2, OR 3 OR AASHTO DESIGNATION M213.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING NON-ASPHALTIC JOINT SEALER (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE).

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

AT THE EAST END OF BRIDGE DECK, THE DECK JOINT IS COMPRISED OF A FILLER AND SEALANT, THERE IS NO STRIP SEAL OR COVER PLATED EXPANSION JOINT.



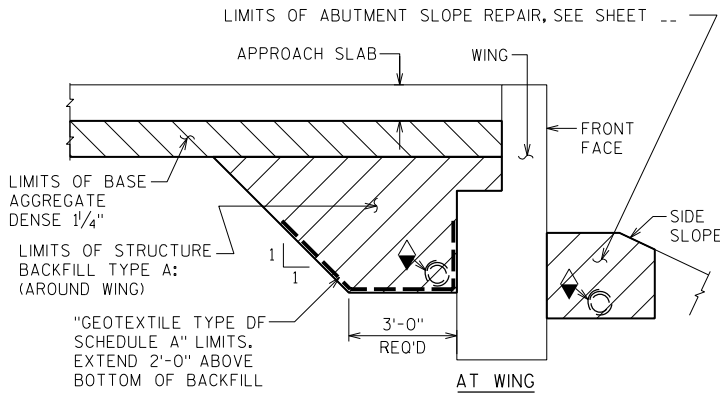
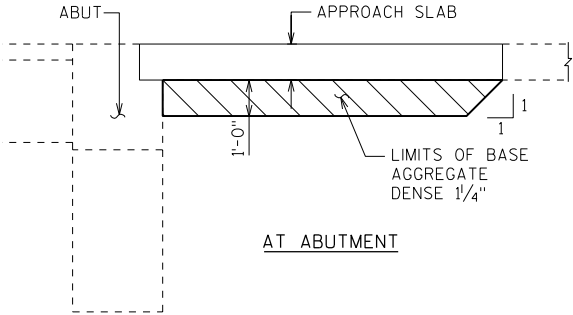
**NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

RODENT SHIELD, PIPE COUPLING, AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMLAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER, A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

Utilities should be shown on structure and roadway plans.

Is this going to be shown on final plans?



BACKFILL STRUCTURE AND BASE AGGREGATE DENSE LIMITS

A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS

PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE.

STATE PROJECT NUMBER

5180-04-83

TOTAL ESTIMATED QUANTITIES - B-12-35

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
1	203.0200 REMOVING OLD STRUCTURE (STATION) Fill in	LS	
	206.1000 EXCAVATION FOR STRUCTURES BRIDGES B-12-35	LS	
4	210.1500 BACKFILL STRUCTURE TYPE A	TON	
4	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	TON	
5	415.0410 CONCRETE PAVEMENT APPROACH SLAB	SY	
2	502.0100 CONCRETE MASONRY BRIDGES	CY	
	502.3100 EXPANSION DEVICE B-12-35	LS	
	502.3200 PROTECTIVE SURFACE TREATMENT	SY	
	502.3210 PIGMENTED SURFACE SEALER	SY	
	502.4206 ADHESIVE ANCHORS NO. 6 BAR	EA	
	505.0400 BAR STEEL REINFORCEMENT HS STRUCTURES	LB	
	505.0600 BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	
	509.0301 PREPARATION DECKS TYPE 1	SY	
	509.0302 PREPARATION DECKS TYPE 2	SY	
6	509.0500 CLEANING DECKS	SY	
	509.1000 JOINT REPAIR	SY	
	509.1500 CONCRETE SURFACE REPAIR	SF	
	509.2000 FULL-DEPTH DECK REPAIR	SY	
3	509.2500 CONCRETE MASONRY OVERLAY DECKS	CY	
	509.9050.S CLEANING PARAPETS	LF	
	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	SY	
11	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH	LF	
	614.0150 ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	
	645.0111 GEOTEXTILE TYPE DF SCHEDULE A	SY	
	690.0250 SAWING CONCRETE	LF	
7	SPV.0060.XXX CLEANING AND PAINTING BEARINGS	EA	
8	SPV.0035.XXX SCOUR REPAIR, GROUT	CY	
9	SPV.0035.XXX SCOUR REPAIR, GROUT BAGS	CY	
10	SPV.0035.XXX SCOUR REPAIR, GROUT MATS	CY	
	SPV.XXXX.XXX ABUTMENT SLOPE REPAIR	LS	
	NON-BID ITEMS		
	FILLER	SIZE	1/2" & 3/4"

QUANTITIES NOTES

- 1 PERTAINS TO WINGWALL 3 REPAIR UPPER PORTION ONLY AS SHOWN IN PLAN.
- 2 CONCRETE FOR WINGWALL REPAIR PORTION.
- 3 CONCRETE FOR PREPARATION DECKS TYPE 1 & 2, FULL-DEPTH DECK REPAIR, SURFACE REPAIR, JOINT REPAIR AND PARAPET.
- 4 A FACTOR OF 2.0 WAS USED TO CONVERT CU YDS TO TONS.
- 5 PER SDD 13 B 2-8A. INCLUDES THE CONCRETE AND REINORCEMENT.
- 6 BASED ON 1" DEEP BY LIMITS OF OVERLAY.
- 7 BID ITEM IS FOR WEST ABUTMENT EXPANSION BEARINGS. SEE SPECIFICATIONS.
- 8 GROUT TO FILL VOIDS UNDER FOOTING/SEAL.
- 9 GROUT THAT MAKES UP THE GROUT BAG. TYPICAL GROUT BAG IS 3' WIDE X 4' LONG X 1'-0" MAX THICKNESS.
- 10 GROUT THAT MAKES UP THE GROUT MAT. TYPICAL GROUT MAT IS 8-INCHES THICK.
- 11 INCLUDES RODENT SHIELD FOR PIPE UNDERDRAIN PER SDD 8F6-4.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-12-35			
		DRAWN BY DLF	PLANS CK'D. CJB
NOTES AND QUANTITIES		SHEET 2 OF 2	