FOR:	JOB NO:	SHEET NO:
MADE BY:	CHECKED BY:	BACKCHECKED BY:
DATE:	DATE:	DATE:

HNTB

SAME SECTION AS HOLLAND ROAD

Minimum Vertical Clearance for Existing Bridges which are not Being Replaced and for Existing Bridges on which the Superstructure is not Being Replaced [1, 2]

<table>
<tr><td>Overpass Facility →</td><td colspan="2">Freeway, Expressway, or STH</td><td>Railroad[5], CTH, Town Road, Local Road, or Street</td><td>Pedestrian or Shared-use Structures</td><td>Sign Structures[6]</td></tr>
<tr><td>Underpass Facility ↓</td><td>Interchange</td><td>Grade Separation</td><td colspan="3"></td></tr>
<tr><td rowspan="3">Non-arterial
either STH, CTH, Town Road, Local Road, or Street</td><td rowspan="3">15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">16'-3" min. or ES[3]</td><td rowspan="6">18'-0" min. or ES[3] for existing sign structures on new construction projects or reconstruction projects;

17'-0" or ES[3] for existing sign structures on 3R projects</td></tr>
<tr><td>If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial
either CTH, Town Road, Local Road, or Street (excludes freeway and expressway; also excludes arterial STH)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial STH (excludes freeway and expressway)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 16'-0" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td></tr>
<tr><td>Freeway[4] or Expressway</td><td colspan="3">16'-0" min. or ES[3]</td></tr>
<tr><td>Railroad[5]</td><td colspan="5">Maintain existing vertical clearance - if existing clearance is < 23'-0" then confer with BTLR Railroads and Harbors Section to determine the adequacy of the existing clearance.</td></tr>
</table>

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table. Provide greater than minimum clearance if evaluation shows that greater clearance is needed because bridge superstructure is susceptible to being hit by under-passing vehicles.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

2 Include a low clearance sign (W12-2), on structures if its use is in accordance with WisDOT MUTCD 2C.22.

3 ES = approved Exceptions To Standards Report required (see FDM 11-1-2 and FDM 11-1-4).

4 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

5 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

6 See LRFD Bridge Manual Chapter 39 for design considerations for vertical clearance on Sign Structures (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm).

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: CC		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-039
Feature Under: USH 41		Sect/Twn/Rng: S14 T21N R18E		
Location: 0.6M N JCT CTH OO		County: OUTAGAMI	Municipality: TOWN-VANDENBROEK(44040)	
Inv Rating: HS16	Rdwy Width (ft): 26.0	Deck Width (ft): 32.0	Existing Posting:	
Oper Rating: HS36	Total Length (ft): 210.0	Deck Area(ft2): 6720	ADT On: 760 Yr: 1980	ADT Under: 38950 Yr: 2003

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-21-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-15-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated:

Expansion Joints

Location	Type	Temp: File Insp. Date	35 File Insp. (in)	55 New Insp. (in)
SOUTH AB	SSE-400A		3.0	2.6
NORTH AB	SSE-400A		3.0	2.5

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers	Y	Y	
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	17.03		
Min. Veritcal Clearance Under (non-Cardinal)	16.34		
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		38.0
CONT PREST CO	DECK GIRDER		68.0
CONT PREST CO	DECK GIRDER		68.0
PREST CONCRET	DECK GIRDER		32.0

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P037	F046
1972	PAINTING		
1983	CONCRETE OVER	C226	C226
1985	BEARING - MIS	C275	
1993	NEW DECK	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-21-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected					Quantity in Condition States				
Ck	Elem./Env.	Description	Unit	Total QTY.	1	2	3	4	5
X	26 / 2	Conc Deck/Coatd Bars	SF	6720	6720				
X	109 / 3	P/S Conc Open Girder	LF	1079	1041	32	6		
	20 locations of old diaphram attachments; 12" of spalls on girders in span 2 & 3; Also the ends of the girders are spalls with reinforcement showing								
X	172 / 3	Painted Steel Diaphr	EA	16	16				
X	205 / 4	R/Conc Column	EA	9	9				
X	215 / 3	R/Conc Abutment	LF	65	60	5			
	CS-2 (E Abut 3" & W Abut 2")								
X	234 / 4	R/Conc Cap	LF	91	56	35			
	Shallow spalls at pier 3, cracking on piers 1 & 2; bottom of reinforcement chairs showing								
X	250 / 3	Concrete Diaphragm	EA	15	15				
X	300 / 3	Strip Seal Exp Joint	LF	65		65			
	Filled with hot rubber								
X	310 / 4	Elastomeric Bearing	EA	8	5	2	1		
	Top plate of brg not painted.NE bearing are tipped								
X	322 / 4	Bituminous Approach	EA	2	2				
X	331 / 3	Conc Bridge Railing	LF	419	359	60			
	Light scaling								
X	342 / 4	RipRap Slope Protect	EA	2	2				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the end of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-039
CC over USH 41

LOCATION

(3) Municipality:	TOWN-VANDENBROEK(44040)
(16) Latitiude(° ' "):	44°17'50.49"N
(17) Longitude(° ' "):	88°17'16.14"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	4
(102) Traffic Pattern On:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	11

GEOMETRY

(49) Structure Length(ft):	210.0	
(50) Sidewalk Width(ft):	Left:	Right:
(50) Curb Width(ft):	0.0	
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 0	Direction: -RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	26.0	26.0
(52) Deck(ft):	32.0	32.0
(32) Approach Roadway(ft):	32	32
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	48.0	58.0
(55) Minimum Right Lateral(ft):	10.0	10.0
(55) Minimum Left Lateral(ft):	14.0	24.0

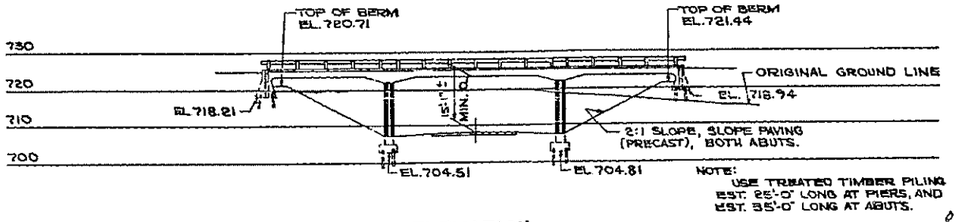
RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
Outer Rail:	Left / Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
		SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
X	X	OTHER(99) (Please specify) Left: NJ SLOPING PARAPET(61) Right: NJ SLOPING PARAPET(61)
Transition Type:		CONT GUARD RAIL
		NO APP GRDRL
		NO ATTACHMENT
5		22 MM(7/8") BOLT (Please enter quantity)
		25 MM(1") BOLT (Please enter quantity)
		OTHER (Please specify)
Guardrail Termination Type:	X	(01) ENERGY ABSORBING TERMINAL/EAT
		(02) TURN DOWN
		(99) OTHER (Please specify)

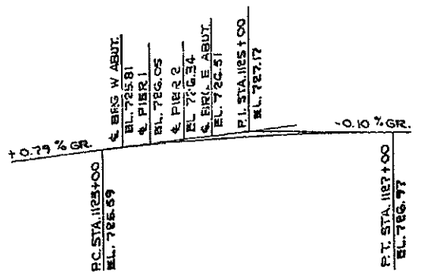
ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Verlical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

COUNTY # (ALPHA)	ROUTE & SECTION	CLASS & AGREEMENT STATE	CLASS & AGREEMENT FEDERAL	B. P. R. DIVISION	PROJECT	SHEET NO.	TOTAL SHEETS
44.1	3.2	21.28		4	F03-2(61)	41	158

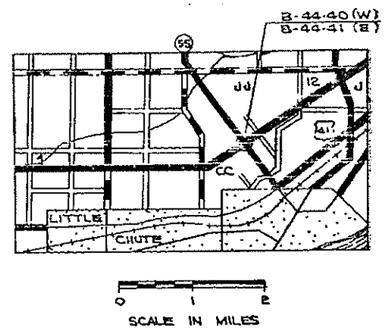


ELEVATION

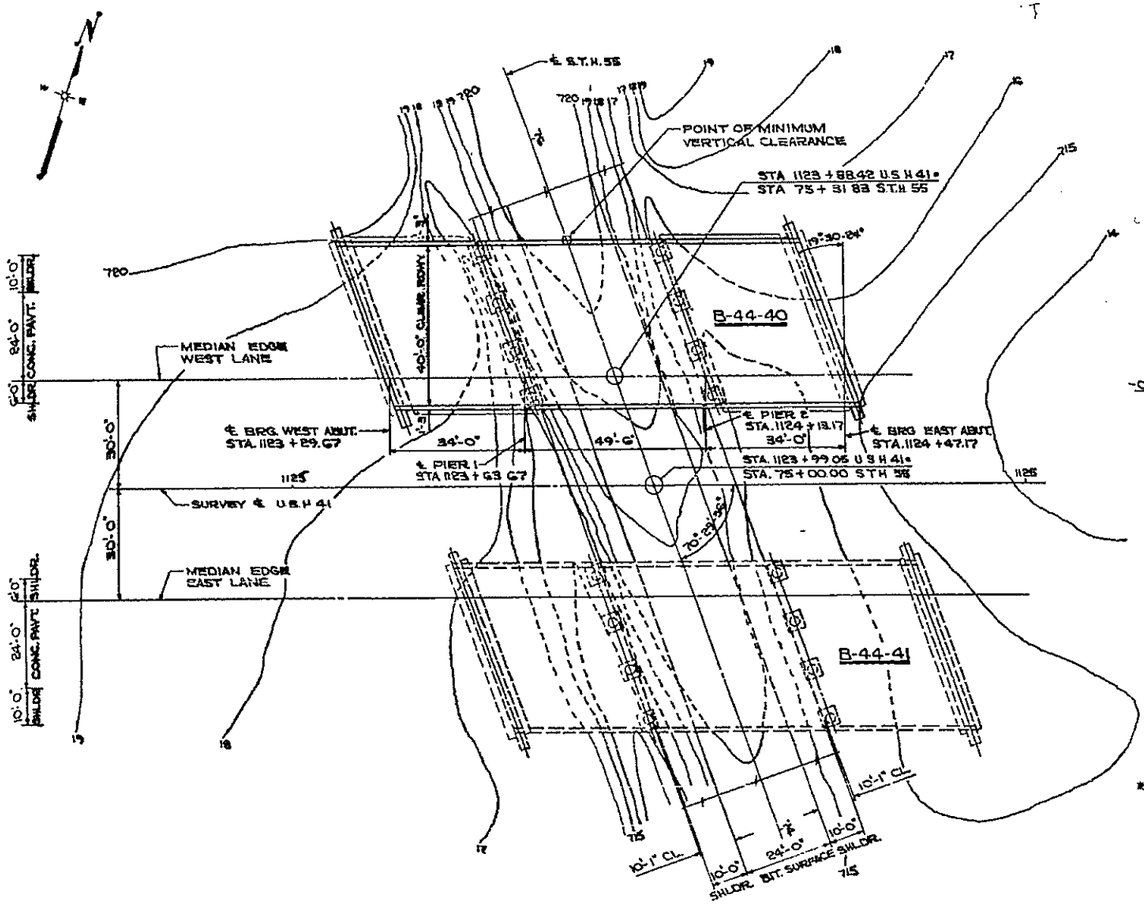


WEST LANE GRADE LINE ON MEDIAN EDGE

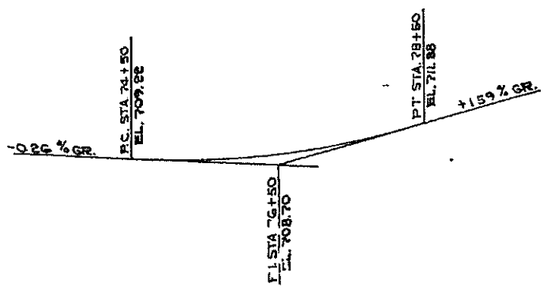
400'-0" VERTICAL CURVE



LOCALITY MAP



PLAN



GRADE LINE ON ℄ S.T.H. 55

400'-0" VERTICAL CURVE

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL CONCRETE MASONRY SHALL BE GRADE AA EXCEPT RAILING, POSTS AND WATER STOP WHICH SHALL BE GRADE X.

BEVEL ALL EXPOSED EDGES OF CONCRETE 1" UNLESS OTHERWISE SPECIFIED.

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

THE USE OF STRUCTURAL GRADE BAR STEEL REINFORCEMENT IS PROHIBITED.

PILING AT THE ABUTMENTS SHALL BE TREATED TIMBER PILING ESTIMATED 35'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 20 TONS PER PILE.

PILING AT THE PIERS SHALL BE TREATED TIMBER PILING ESTIMATED 65'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 20 TONS PER PILE.

THE TOP AND SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING AS SHOWN IN SECTION THRU "ABUTMENT" ON SHEET X20773 AND AS SHOWN ON THIS SHEET.

ALL EXCAVATED VOLUME NOT OCCUPIED BY THE ABUTMENTS SHALL BE FILLED WITH GRANULAR BACKFILL TO THE ORIGINAL GROUND LINE. PAYMENT WILL BE ONLY FOR MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR "EXCAVATION FOR STRUCTURES."

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNITS	SUPER.	W ABUT	PIER 1	PIER 2	E ABUT.	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	———	35	100	150	35	380
GRANULAR BACKFILL	C.Y.	———	20	45	45	20	130
CONCRETE MASONRY GRADE AA	C.Y.	300.6	358	277	277	355	427.1
CONCRETE MASONRY GRADE X	C.Y.	7.8	———	———	———	———	7.8
BAR STEEL REINFORCEMENT	LB.	75,040	995	3,015	3,015	995	83,060
SHEET ZINC	LB.	———	85	———	———	85	170
* UNTREATED TIMBER TEST PILING (2@60')	L.S.	———	———	———	———	———	1
TREATED TIMBER PILING - DEL.	L.F.	———	455	600	600	455	2,110
TREATED TIMBER PILING - DR.	L.F.	———	455	600	600	455	2,110
SLOPE PAVING, (CONC. BLOCK)	S.Y.	———	170	———	———	170	340
NON-BID ITEMS							
PREFORMED JOINT TYPE FILLER	SIZE		5/8" x 8"	1"	1"	1/2" x 8"	

* DRIVE ONE AT EAST ABUT. AND ONE AT PIER 1

LIST OF DRAWINGS

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

CO. OUTAGAMIE | CITY VILL. VANDENBROEK | STA 1123+88.42

SECTION P.C.'S 3+83 | TOWN 21N | RANGE 18E

DESIGN SPEC AASHO 1957 | LOADING H20-S16 | CONST SPEC 1957

DATE 9-21-59 | REVISION 0.0 | DRAWN J.G.K. | CKD J.F.F.

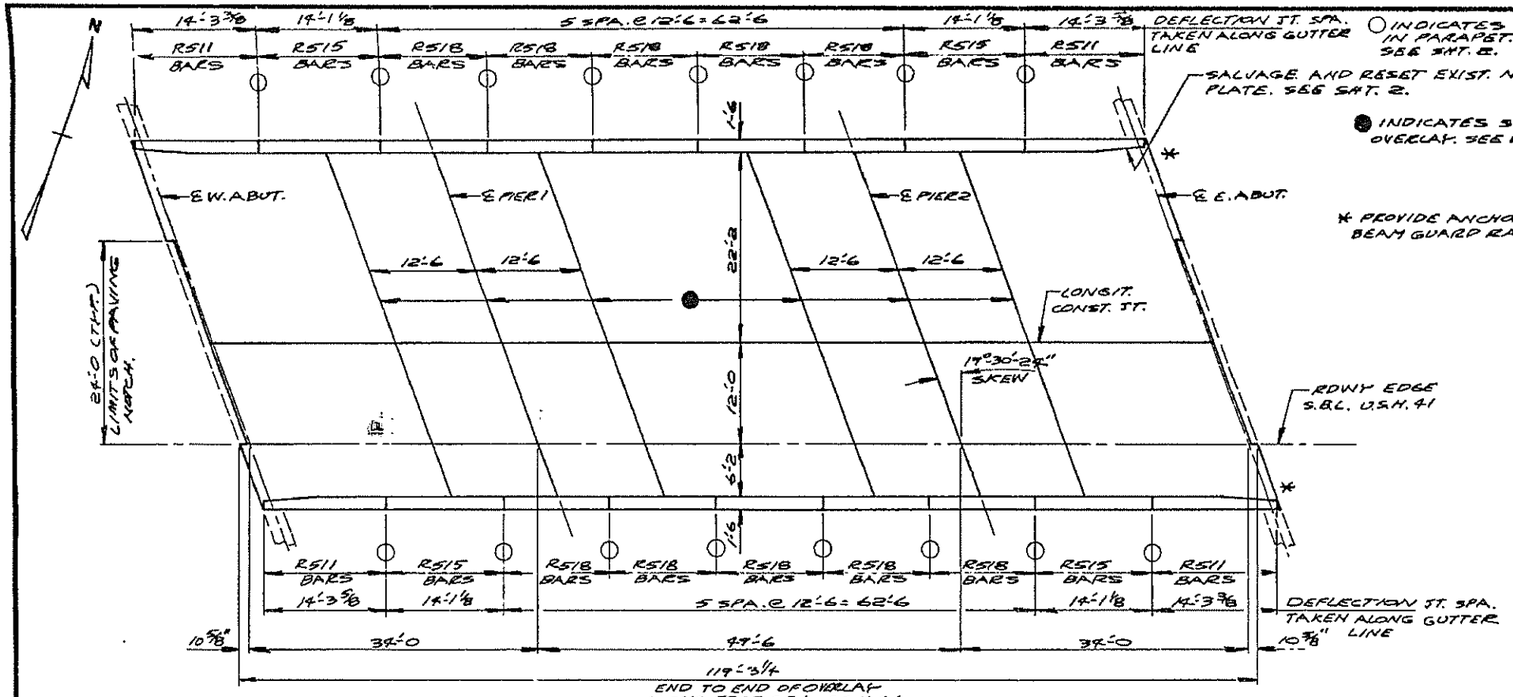
SUBMITTED N.B. Schultz ENGINEER OF BRIDGES

APPROVED E.L. Rountree STATE HIGHWAY ENGINEER

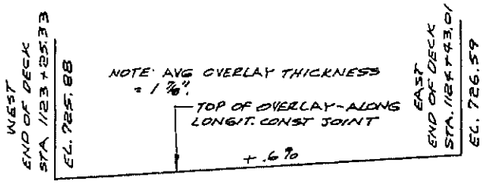
STRUCTURE B-44-40 | SHEET 1 OF 6

X20770

STATE PROJECT NUMBER	SHEET NO.
0044 - 64 - 10	8.2



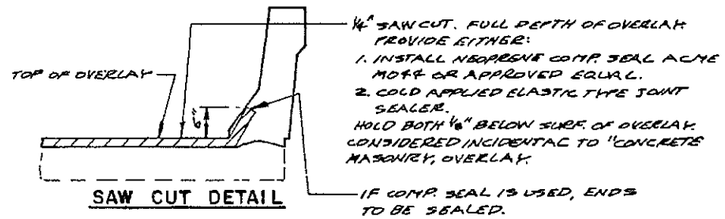
PLAN



PROPOSED GRADELINE

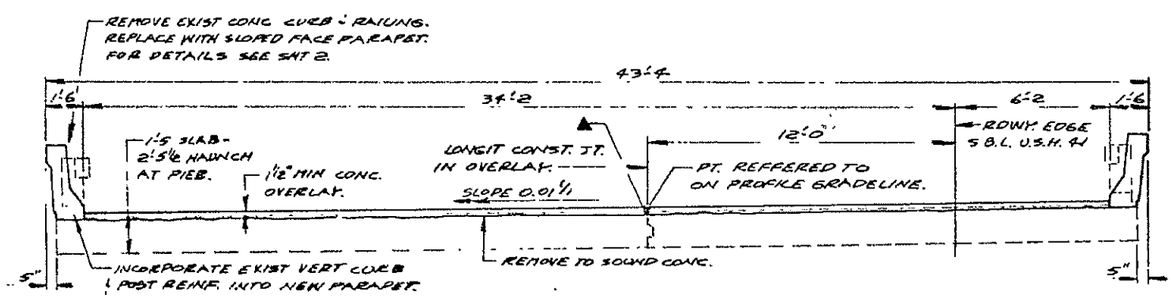
BENCH MARK: BRASS DISC ON TOP OF N. EAST WINGWALL. EL. 726.60

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED FOR REVIEW BY BRIDGE SECTION.



SAW CUT DETAIL

▲ CLEAN & SEAL EXIST. LONGIT. CONST. JT. WITH POURABLE EPOXY GROUT.



CROSS SECTION THRU ROADWAY

(LOOKING EAST)

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.

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

PLAN DIMENS. ARE BASED ON ORIGINAL PLAN. FIELD VERIFY BEFORE ACCEPTING.

DESIGN DATA

LIVELOAD:
- INVENTORY RATING ——— HS 22
- OPERATIONAL RATING ——— HS 37

ALLOWABLE DESIGN STRESSES:
- CONCRETE MASONRY ——— f'_c = 4,000 P.S.I.
- HIGH STRENGTH BAR STEEL REINFORCEMENT ——— f_y = 60,000 P.S.I.

AS BUILT PLAN
DATE 10-88 BY W.K.

LIST OF DRAWINGS

1. CONCRETE OVERLAY	X78641
2 SLOPED FACE PARAPET	X78642

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	TOTAL
REMOVING OLD BRIDGE, B-44-40	L.S.	1
CONCRETE MASONRY, BRIDGES	C.Y.	20
PROTECTIVE SURFACE TREATMENT	GAL.	22
EPOXY CRACK SEALING	L.F.	118
DECK PREPARATION	S.Y.	2
DECK CLEANING	S.Y.	535
CONCRETE MASONRY, OVERLAY	C.Y.	32
3/4" ϕ EXPANSION ANCHORS	EA.	506
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT	LB.	4,760
NON-BID ITEMS		
1/8" ALUMINUM OR ZINC PLATE	S.F.	33

INCLUDES CONC. REQ'D IN PARAPETS ONLY.

No.	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-40

U.S.H. 41 (S.B.) OVER S.T.H. 32

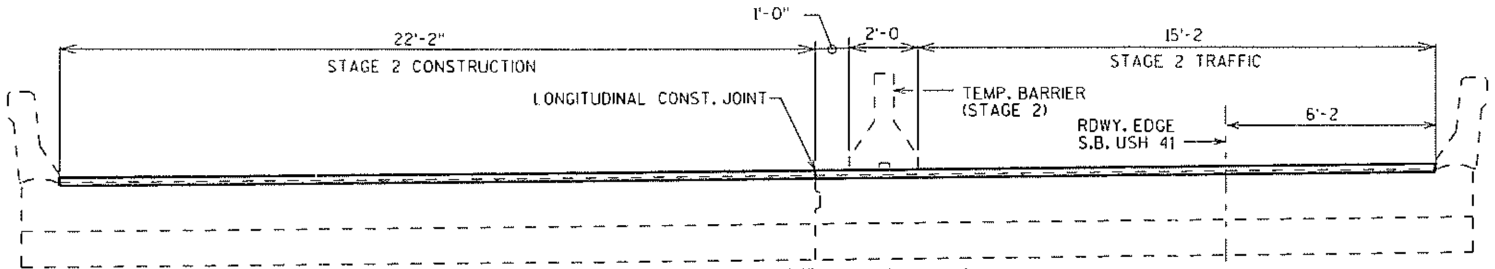
County OUTAGAMIE		Title VANDENBROEK	
Design Spec. AASHTO 83		Load Spec.	Last Revised 1981
Designed By K.A.B.	Detailed By	Drawn By B.W.	Checked By LOY
Approved Stanley W. Wade			3-7-86 Date

CONCRETE OVERLAY

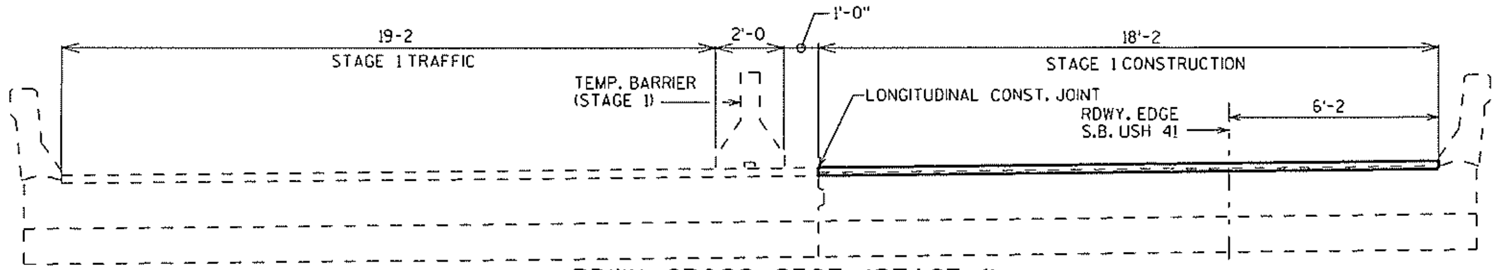
SHEET 1 OF 2

X78641

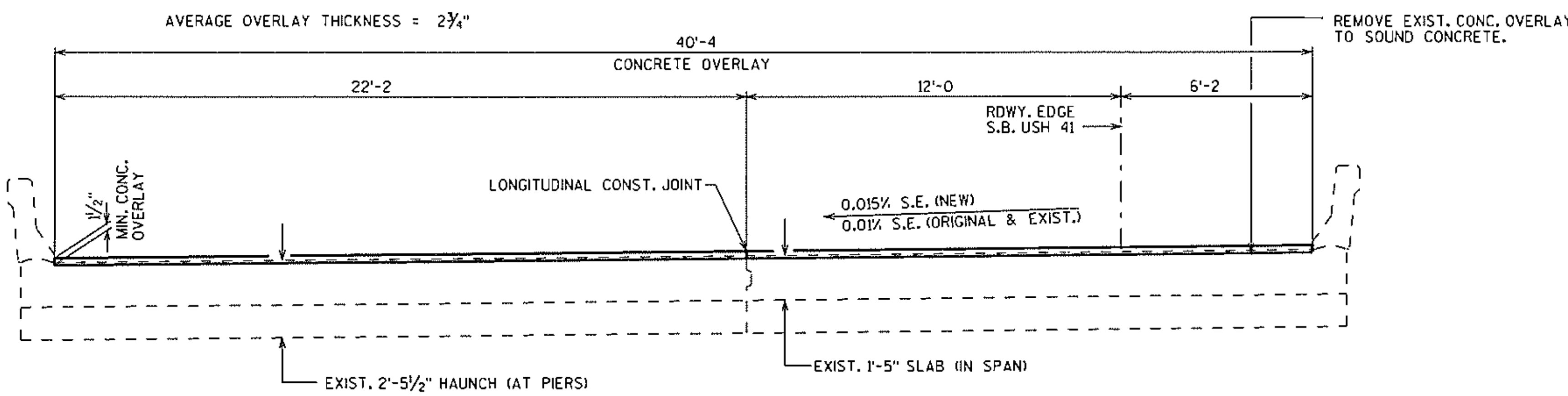
STATE PROJECT NUMBER
1130-20-71



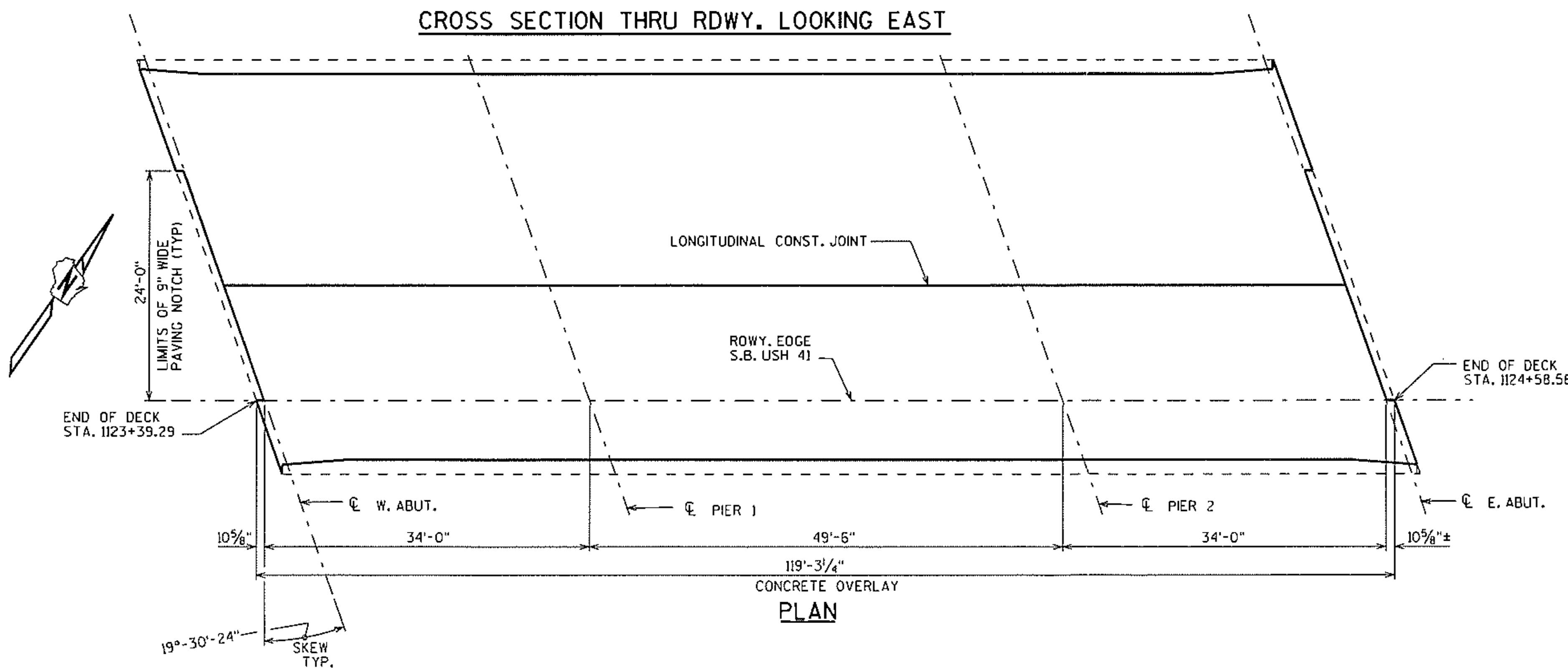
RDWY. CROSS SECT. (STAGE 2)
(LOOKING EAST)



RDWY. CROSS SECT. (STAGE 1)
(LOOKING EAST)



CROSS SECTION THRU RDWY. LOOKING EAST



PLAN

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-20
OPERATIONAL RATING: HS-33
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY OVERLAY DECKS ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT ——— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ANY EXCAVATON NECESSARY TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

DIMENSIONS SHOWN ARE BASED ON EXISTING ORIGINAL STRUCTURE PLANS.

CONTACT THE BUREAU OF STRUCTURES DESIGN SECTION BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED ½" MORE THAN THE AVERAGE THICKNESS SHOWN ON THE PLANS.

'PROTECTIVE SURFACE TREATMENT' SHALL BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE.

THERMOGRAPHY RESULT OF THE BRIDGE DECK ARE SHOWN ELSEWHERE IN THE PLANS.

TOTAL ESTIMATED QUANTITIES

REMOVING CONCRETE MASONRY OVERLAY DECKS	530	SY
CONCRETE MASONRY OVERLAY DECKS	54	CY
PROTECTIVE SURFACE TREATMENT	530	SY
PREPARATION DECKS TYPE 1	179	SY
PREPARATION DECKS TYPE 2	27	SY
FULL-DEPTH DECK REAIR	5	SY
* CONCRETE SURFACE REPAIR	12	SF

* REPAIRS SHALL BE DONE AT THE DIRECTION OF ENGINEER IN FIELD.

STRUCTURES DESIGN CONTACTS = DAVID R. GENSON (608) 266-8491
DEAN SMITH (608) 266-5091

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT** BUREAU OF STRUCTURES

APPROVED *William C Dreher* SDR 1-13-09
CHIEF STRUCTURAL DESIGN ENGINEER — DATE

STRUCTURE B-44-40

USH 41 S.B. OVER STH 55

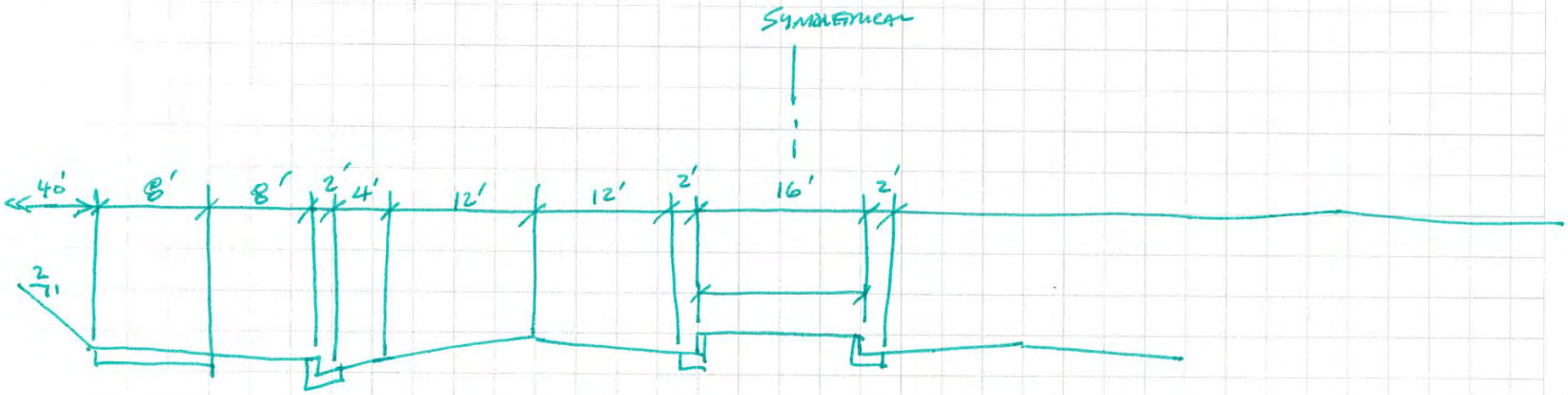
COUNTY OUTAGAMIE	~~TOWN~~/CITY/~~VILLAGE~~ KAUKAUNA		
DESIGN SPEC. AASHTO STD. SPEC. 2003	LOAD ——	CONST. SPEC. 2003	
DESIGNED BY DRG	DESIGN CK'D.	DRAWN BY JHG	PLANS CK'D. DDS

OVERLAY DETAILS — SHEET 1 OF 1 — 34

8

SCALE = 8

I.D. 1130-20-01A DATE: OCT. 2008



$16.75 \times 2 = 33.50 + 2.5 + 4' = 40$

SPAN 1 = SPAN 2

SPAN 1 = $40' + 16' + 32 + 8 = 96 / 0.942641 = 101.84'$

$\cos(\text{SKEW } 19°30') = 0.942641$

$101.84 \times 2 = 203.68'$

℄ less Abut to ℄ Brg.

$\frac{2'}{.942641} = 2.12'$

$101.84 - 2.12 = 99.72 < 100'$ use 36W

FOR:	JOB NO:	SHEET NO:
MADE BY:	CHECKED BY:	BACKCHECKED BY:
DATE:	DATE:	DATE:

HNTB

Minimum Vertical Clearance for Existing Bridges which are not Being Replaced and for Existing Bridges on which the Superstructure is not Being Replaced [1, 2]

<table>
<tr><td>Overpass Facility →</td><td colspan="2">Freeway, Expressway, or STH</td><td rowspan="2">Railroad[5], CTH, Town Road, Local Road, or Street</td><td rowspan="2">Pedestrian or Shared-use Structures</td><td rowspan="2">Sign Structures[6]</td></tr>
<tr><td>Underpass Facility ↓</td><td>Interchange</td><td>Grade Separation</td></tr>
<tr><td rowspan="3">Non-arterial
either STH, CTH, Town Road, Local Road, or Street</td><td rowspan="3">15'-3" min. or ES[3]</td><td colspan="2">If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">16'-3" min. or ES[3]</td><td rowspan="6">18'-0" min. or ES[3] for existing sign structures on new construction projects or reconstruction projects;

17'-0" or ES[3] for existing sign structures on 3R projects</td></tr>
<tr><td colspan="2">If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td colspan="2">If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial
either CTH, Town Road, Local Road, or Street (excludes freeway and expressway; also excludes arterial STH)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial STH (excludes freeway and expressway)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 16'-0" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td></tr>
<tr><td>Freeway[4] or Expressway</td><td colspan="3">16'-0" min. or ES[3]</td><td colspan="2"></td></tr>
<tr><td>Railroad[5]</td><td colspan="5">Maintain existing vertical clearance - if existing clearance is < 23'-0" then confer with BTLR Railroads and Harbors Section to determine the adequacy of the existing clearance.</td></tr>
</table>

General notes:

1. Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table. Provide greater than minimum clearance if evaluation shows that greater clearance is needed because bridge superstructure is susceptible to being hit by under-passing vehicles.

   Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

2. Include a low clearance sign (W12-2), on structures if its use is in accordance with WisDOT MUTCD 2C.22.

3. ES = approved Exceptions To Standards Report required (see FDM 11-1-2 and FDM 11-1-4).

4. See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

5. Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

6. See LRFD Bridge Manual Chapter 39 for design considerations for vertical clearance on Sign Structures (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm).

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41 SB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-040
Feature Under: STH 55		Sect/Twn/Rng: S13 T21N R18E		
Location: 2.6M S JCT CTH JJ		County: OUTAGAMI	Municipality: CITY-KAUKAUNA(44241)	
Inv Rating: HS20	Rdwy Width (ft): 40.3	Deck Width (ft): 43.3	Existing Posting:	
Oper Rating: HS33	Total Length (ft): 119.3	Deck Area(ft2): 5165	ADT On: 19310 Yr: 2003	ADT Under: 4000 Yr: 2003

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-18-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 2.0	Date: 11-06-01	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-15-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 01-13-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers	Y	Y	
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.05	10-17-11	
Min. Veritcal Clearance Under (non-Cardinal)	14.93		
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT CONCRETE	HAUNCHED SLAB		34.0
CONT CONCRETE	HAUNCHED SLAB		49.5
CONT CONCRETE	HAUNCHED SLAB		34.0

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P038	F046
1986	CONCRETE OVER	C275	C275
2009	CONCRETE OVER		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Weber, Dale (3007)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-18-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	48 / 4	Conc Slab/Conc Ov	SF	5096		5096			
	Areas of map cracking, const jt leaching								
X	205 / 4	R/Conc Column	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	94	91	3			
	Leaching between haunch & floor								
X	322 / 4	Bituminous Approach	EA	2	2				
X	331 / 4	Conc Bridge Railing	LF	235	220	15			
X	343 / 3	Crushed Aggregate Sp	EA	2		2			
	Both settling								
X	358 / 4	Deck Cracking SmFlag	EA	1		1			
X	359 / 4	Und Dk Surf Sm Flag	EA	1			1		
	Leaching @ C/L joint								
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: Date(YYYY-MM-DD):
Maintenance item comment: w/rubber

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	8	8	Waterway	N	N

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-040
USH 41 SB over STH 55

LOCATION

(3) Municipality:	CITY-KAUKAUNA(44241)
(16) Latitiude(° ' "):	44°17'58.58"N
(17) Longitude(° ' "):	88°16'19.94"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	1

GEOMETRY

(49) Structure Length(ft):	119.3	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 20	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	40.3	40.3
(52) Deck(ft):	43.3	43.3
(32) Approach Roadway(ft):	40	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	39.0	39.0
(55) Minimum Right Lateral(ft):	6.0	6.0
(55) Minimum Left Lateral(ft):	9.0	9.0

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
		SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
X	X	OTHER(99) (Please specify) Left: NJ SLOPING PARAPET(61) Right: NJ SLOPING PARAPET(61)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41 NB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-041
Feature Under: STH 55		Sect/Twn/Rng: S13 T21N R18E		
Location: 7.3M N JCT STH 47 TO		County: OUTAGAMI	Municipality: CITY-KAUKAUNA(44241)	
Inv Rating: HS21	Rdwy Width (ft): 40.0	Deck Width (ft): 43.0	Existing Posting:	
Oper Rating: HS35	Total Length (ft): 119.3	Deck Area(ft2): 5129	ADT On: 19475 Yr: 2003	ADT Under: 4000 Yr: 2003

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-18-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 1.0	Date: 11-06-01	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-15-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 01-13-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers	Y	Y	
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.56	10-17-11	
Min. Veritcal Clearance Under (non-Cardinal)	15.39		
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT CONCRETE	HAUNCHED SLAB		34.0
CONT CONCRETE	HAUNCHED SLAB		49.5
CONT CONCRETE	HAUNCHED SLAB		34.0

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P038	F046
1981	CONCRETE OVER	C226	C226
1994	REPAIR DECK		
2009	CONCRETE OVER		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Weber, Dale (3007)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-18-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	48 / 4	Conc Slab/Conc Ov	SF	5061		5061			
	Shiinkage map cacking								
X	205 / 4	R/Conc Column	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	94	91	3			
	CS-2 (N Abut 1" & S Abut 2"), Leaching between haunch & floor								
X	322 / 4	Bituminous Approach	EA	2	2				
X	331 / 4	Conc Bridge Railing	LF	236	200	36			
X	343 / 4	Crushed Aggregate Sp	EA	2		2			
	Both settling								
X	358 / 4	Deck Cracking SmFlag	EA	1		1			
X	359 / 4	Und Dk Surf Sm Flag	EA	1		1			
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: w/rubber

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	8	8	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-041
USH 41 NB over STH 55

LOCATION

(3) Municipality:	CITY-KAUKAUNA(44241)
(16) Latitiude(° ' "):	44°17'57.14"N
(17) Longitude(° ' "):	88°16'20.27"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	1

GEOMETRY

(49) Structure Length(ft):	119.3	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 20	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	40.0	40.0
(52) Deck(ft):	43.0	43.0
(32) Approach Roadway(ft):	40	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	39.0	39.0
(55) Minimum Right Lateral(ft):	6.0	6.0
(55) Minimum Left Lateral(ft):	9.0	9.0

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
			SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
	X	X	OTHER(99) (Please specify) Left: NJ SLOPING PARAPET(61) Right: NJ SLOPING PARAPET(61)
Transition Type:			CONT GUARD RAIL
			NO APP GRDRL
			NO ATTACHMENT
	5		22 MM(7/8") BOLT (Please enter quantity)
			25 MM(1") BOLT (Please enter quantity)
			OTHER (Please specify)
Guardrail Termination Type:	X		(01) ENERGY ABSORBING TERMINAL/EAT
			(02) TURN DOWN
			(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:		(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
		(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
	X	(8) GOOD- No speed reduction required

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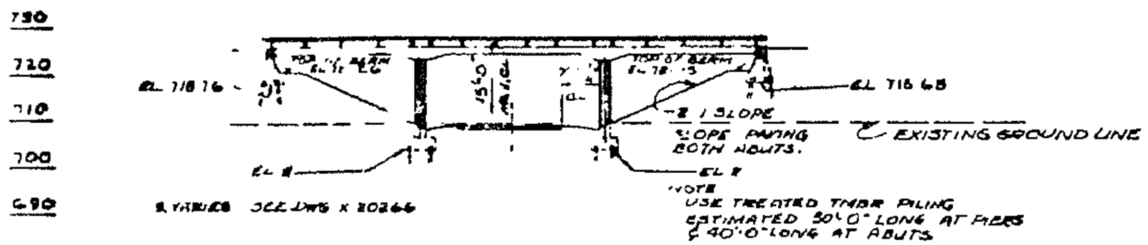
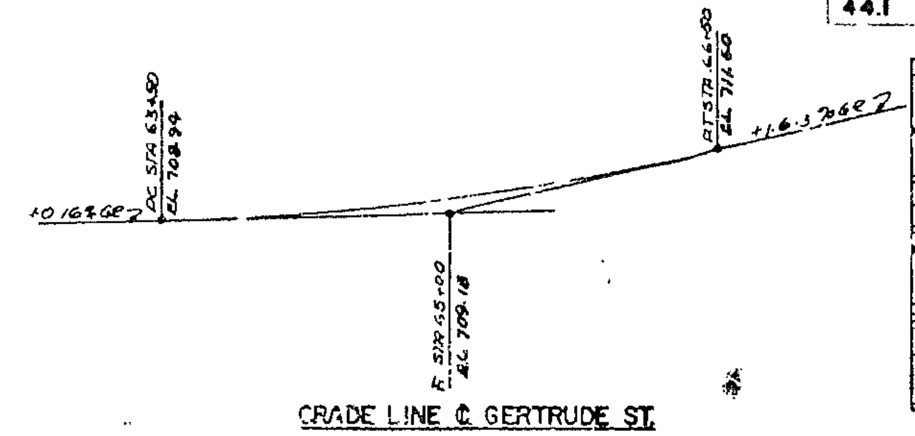
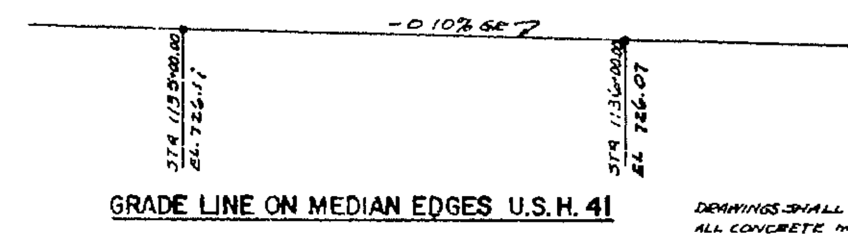
BENCH MARK

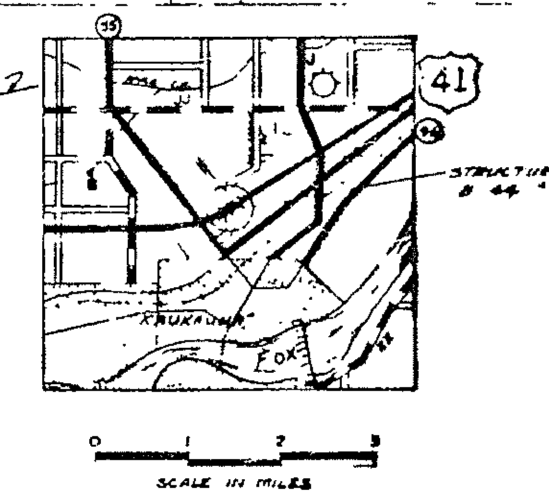
NO	STATION	DESCRIPTION	ELEV
BG	1136+20	SPIKE IN 8 MAPLE 130' LT	709.01



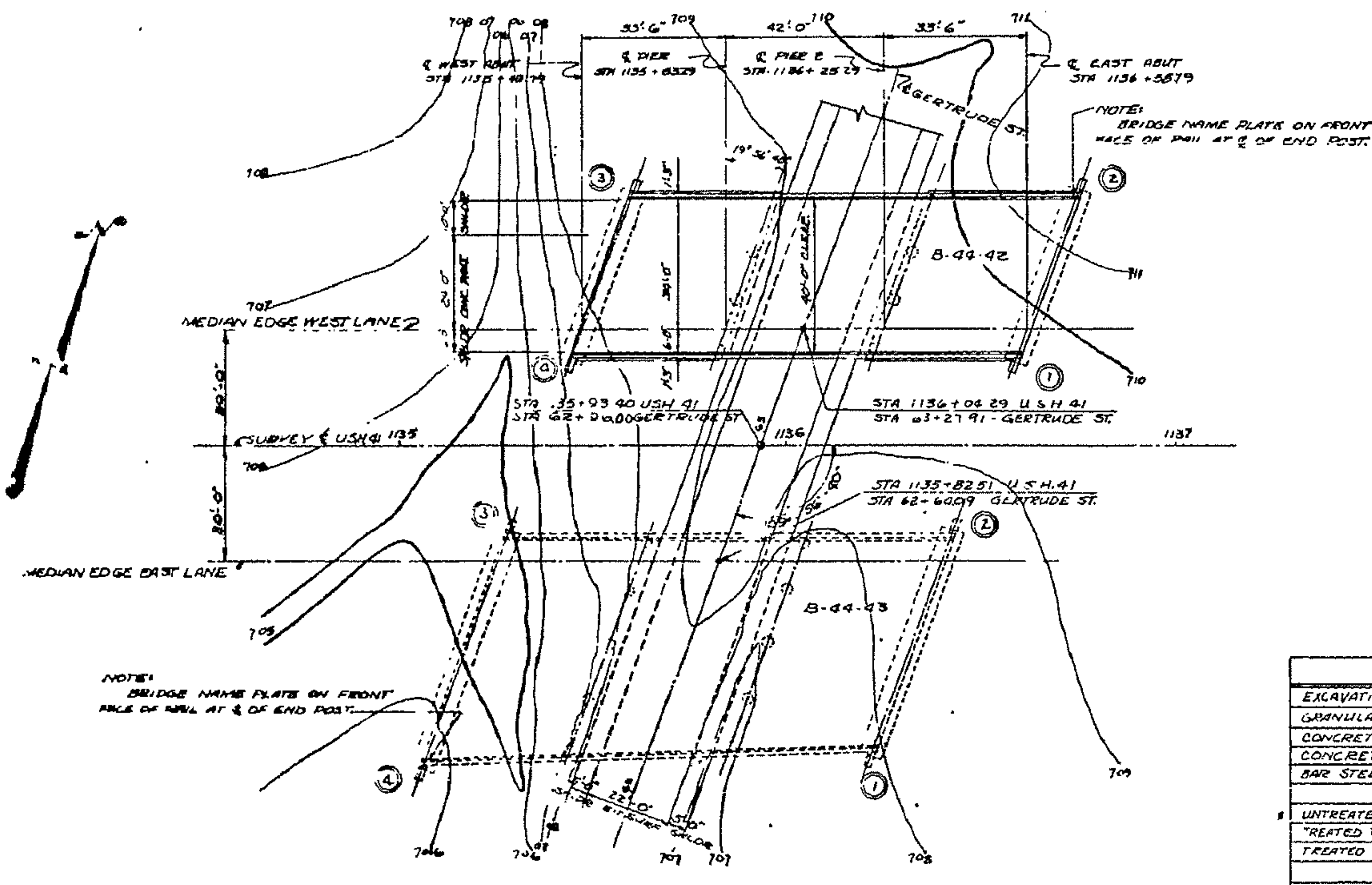
ELEVATION
(AT RT ANGLES TO GERTRUDE ST)







LOCALITY MAP



PLAN

3 SPAN (33.5'-42.0', 33.5') RC CONCRETE SLAB SPAN
ABUTMENTS RC SILL TYPE ON TR TIMBER PILING
PIERS RC COLUMN TYPE ON TR TIMBER PILING

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL CONCRETE MASONRY SHALL BE GRADE "A-A" EXCEPT FOR RAILING WHICH SHALL BE GRADE "X"

BAR SIZE. REINFORCEMENT SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE SPECIFIED.

THE USE OF STRUCTURAL GRADE BAR STEEL REINFORCEMENT IS PROHIBITED

THE TOP AND SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING AS SHOWN IN PLAN ON THIS SHEET AND IN SECTION "A1" ON SHEET X 20663

ALL EXCAVATED VOLUME NOT OCCUPIED BY THE ABUTMENTS SHALL BE FILLED WITH GRANULAR BACKFILL TO THE GROUND LINE WHICH EXISTED BEFORE EXCAVATION FOR ABUTMENTS BEGAN. PAYMENT WILL BE MADE ONLY FOR MATERIAL ACTUALLY PLACED WITHIN THE LIMITS SPECIFIED FOR "EXCAVATION FOR STRUCTURES"

PILING AT THE ABUTMENTS SHALL BE TREATED TIMBER PILING ESTIMATED 40'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 20 TONS PER PILE

PILING AT THE PIERS SHALL BE TREATED TIMBER PILING ESTIMATED 30'-0" LONG AND DRIVEN TO A MINIMUM BEARING VALUE OF 20 TONS PER PILE.

MAX DESIGN STRESSES
FC = 1400 P.S.I.

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER-STRUCTURE	WEST ABUT	PIER 1	PIER 2	EAST ABUT	TOTAL
EXCAVATION FOR STRUCTURES	C.Y.	—	40	60	70	40	210
GRANULAR BACKFILL	C.Y.	—	25	—	—	25	50
CONCRETE MASONRY GRADE "A-A"	C.Y.	245.3	35.5	30.2	30.2	35.5	376.7
CONCRETE MASONRY GRADE "X"	C.Y.	7.3	—	—	—	—	7.3
BAR STEEL REINFORCEMENT	LB	60,940	940	2,730	2,730	940	68,290
* UNTREATED TIMBER TEST PILE (2@55.0')	LUMP SUM	—	—	—	—	—	1
TREATED TIMBER PILING - DELIVERED	L.F.	—	600	780	780	600	2760
TREATED TIMBER PILING - DRIVEN	L.F.	—	600	780	780	600	2,760
SLOPE PAVING (CONC. BLOCK)	S.Y.	—	177	—	—	177	354
SHEET ZINC	LB.	174	—	—	—	—	174
NON-BID ITEMS							
PRE FORMED FILLER	SIZE	—	1" & ¼"	¼"	¼"	1" & ¼"	1" & ¼"

* DRIVE ONE AT LOCATION OF PIER 1 AND ONE AT EAST ABUTMENT

LIST OF DRAWINGS

STATE HIGHWAY COMMISSION OF WISCONSIN

GENERAL PLAN

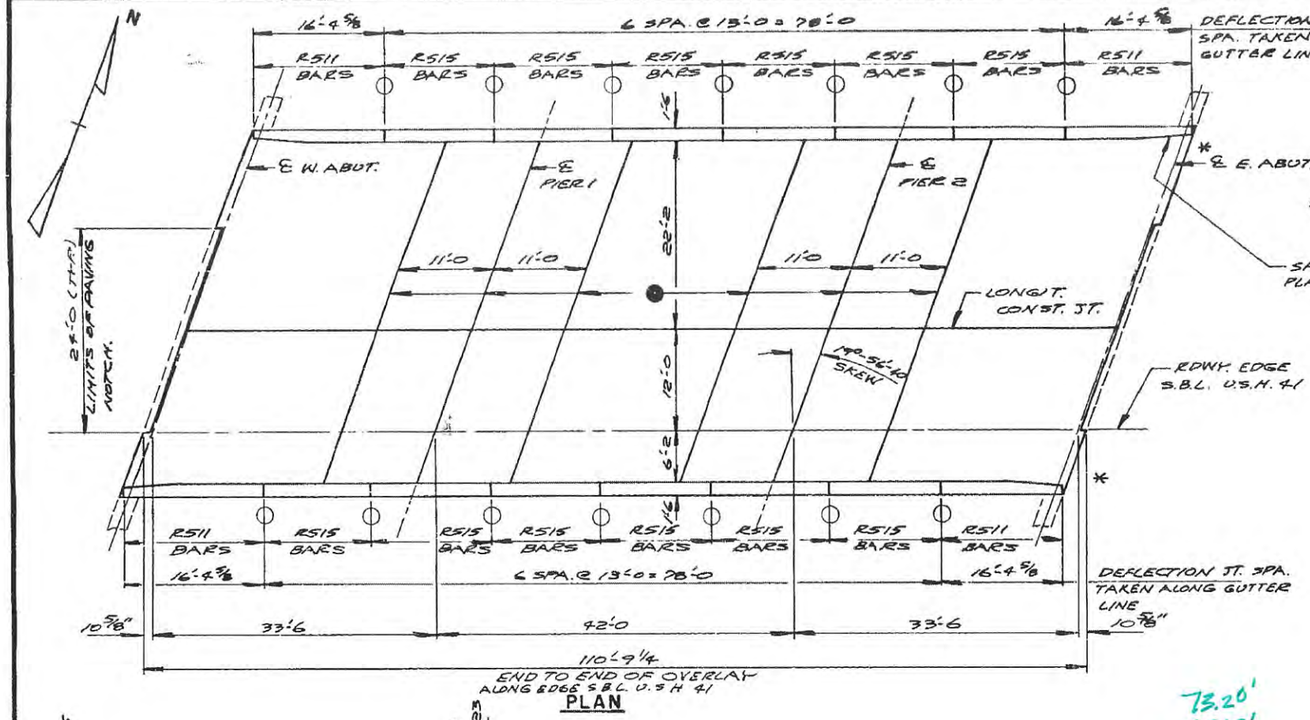
CO. OUTAGAMIE TN VANDENBROEK
SECTION PC 35 TOWN 21 N RANGE 46
DESIGN SPEC AASHO 1957 LOADING H20-S16
DATE 8-26-57 DESIGN J.B. CHECKED C.L.J. DRN BAZ

SUBMITTED H. B. Scholtz
APPROVED E. L. Roettiger STATE HIGHWAY ENGINEER

STRUCTURE B 44 42 SHEET 1 OF 6

X 20662

STATE PROJECT NUMBER	SHEET NO.
0044-64-10	8.4



PLAN

DEFLECTION JT. SPA. TAKEN ALONG GUTTER LINE

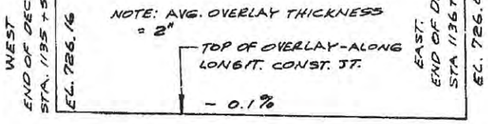
○ INDICATES DEFLECTION JOINT IN PARAPET. FOR DETAILS SEE SHT. 2.

● INDICATES SAW CUT IN OVERLAY. SEE DETAIL BELOW.

* PROVIDE ANCHOR ASSEMBLY FOR BEAM GUARD RAIL ATTACHMENT.

SALVAGE AND RESET EXIST. NAME PLATE. SEE SHT. 2.

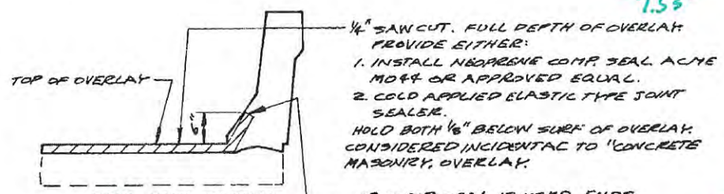
DEFLECTION JT. SPA. TAKEN ALONG GUTTER LINE 10 5/8"



PROPOSED GRADELINE

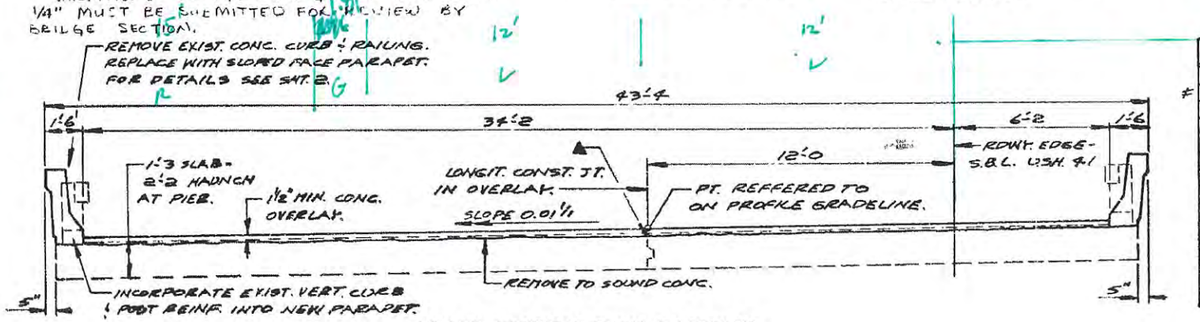
BENCH MARK: PAINT MARK ON TOP OF WING SOUTHWEST CORNER OF BRIDGE NORTH BOUND. EL. 725.14

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED FOR REVIEW BY BRIDGE SECTION.



SAW CUT DETAIL

▲ CLEAN & SEAL EXIST LONGIT. CONST. JT. WITH POURABLE EPOXY GROUT.



CROSS SECTION THRU ROADWAY
(LOOKING EAST)

GENERAL NOTES

DRAWING SHALL NOT BE SCALED.
BAR STEEL REINF. SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
PLAN DIMENS. ARE BASED ON ORIGINAL PLAN. FIELD VERIFY BEFORE ACCEPTING.

DESIGN DATA

LIVELOAD:
INVENTORY RATING ——— H 20
OPERATIONAL RATING ——— H 30

ALLOWABLE DESIGN STRESSES:
CONCRETE
MASONRY ——— f'c = 4,000 P.S.I.
HIGH STRENGTH BAR STEEL
REINFORCEMENT — fy = 60,000 P.S.I.

AADT = 1700 (2004)
1700 (1.03)^33 = 4500

AS BUILT PLAN
DATE 10-88 BY W.K.

LIST OF DRAWINGS

1. CONCRETE OVERLAY ——— X78643
2. SLOPED FACE PARAPET ——— X78644

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	TOTAL
REMOVING OLD BRIDGE	L.S.	1
# CONCRETE MASONRY, BRIDGES	C.Y.	18
PROTECTIVE SURFACE TREATMENT	GAL.	20
COATED HIGH STRENGTH BAR STEEL REINFORCEMENT	LB.	4,050
DECK CLEANING	S.Y.	497
CONCRETE MASONRY, OVERLAY	C.Y.	31
3/4"ø EXPANSION ANCHORS	EA.	468
EPOXY CRACK SEALING	L.F.	110
NON-BID ITEMS		
1/8" ALOMINUM OR TINC PLATE	S.F.	29

INCLUDES CONC. REQ'D IN PARAPETS ONLY.

No	Date	Revision	By

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-42

U.S.H. 41 (S.B.) OVER MALONEY RD.

County OUTAGAMIE		Twp. VANDENBROEK	
Design Spec. AASHTO 83	Load —	Const. Start 1981	
Designed By K.A.B.	Design Checked —	Drawn By B.W.	Plans Checked
Approved Stanley W. Woods (Bridge Engineer)		3-7-86 (Date)	

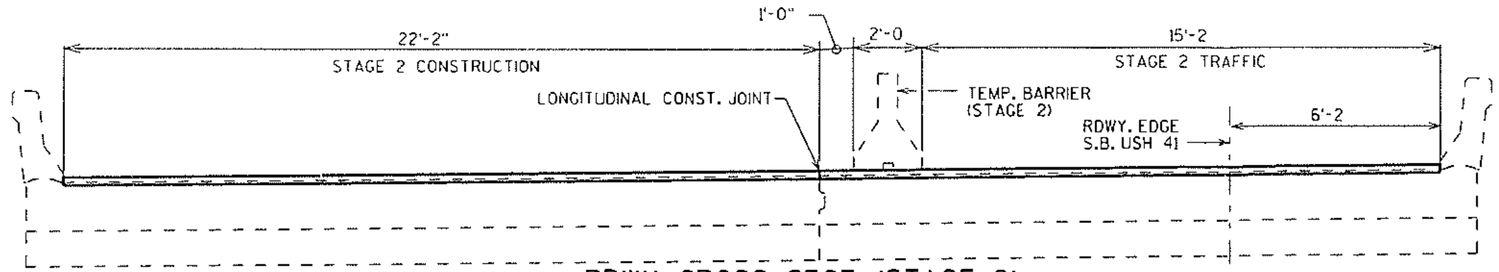
CONCRETE OVERLAY

SHEET 1 OF 2

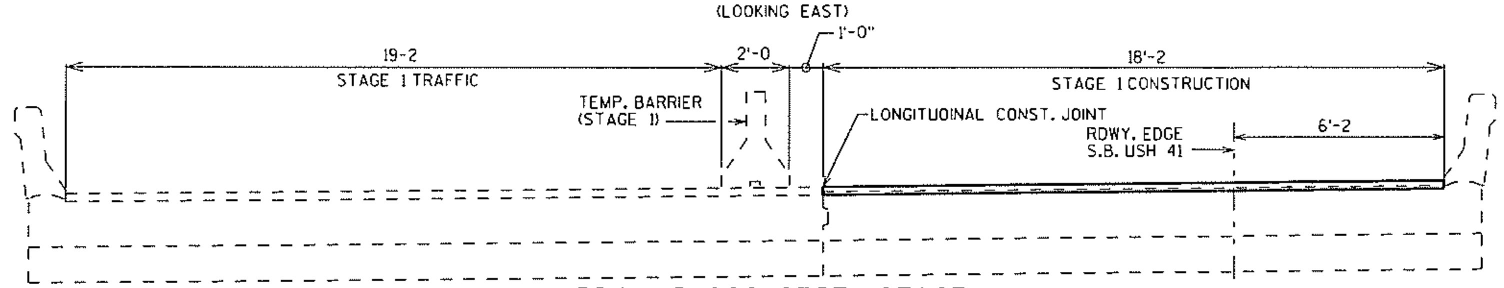
X78643

R-11

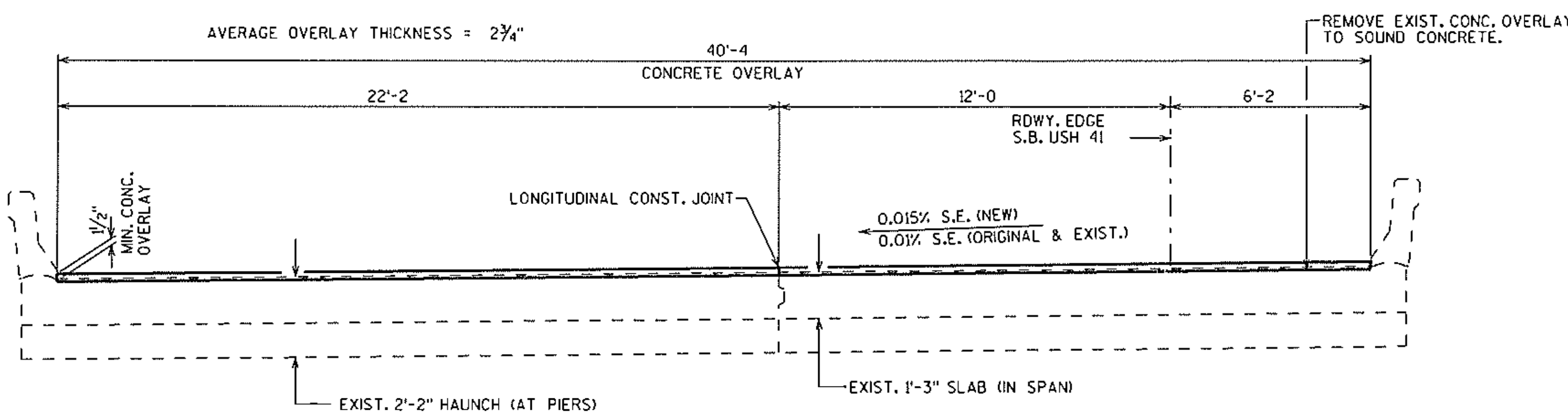
STATE PROJECT NUMBER
1130-20-71



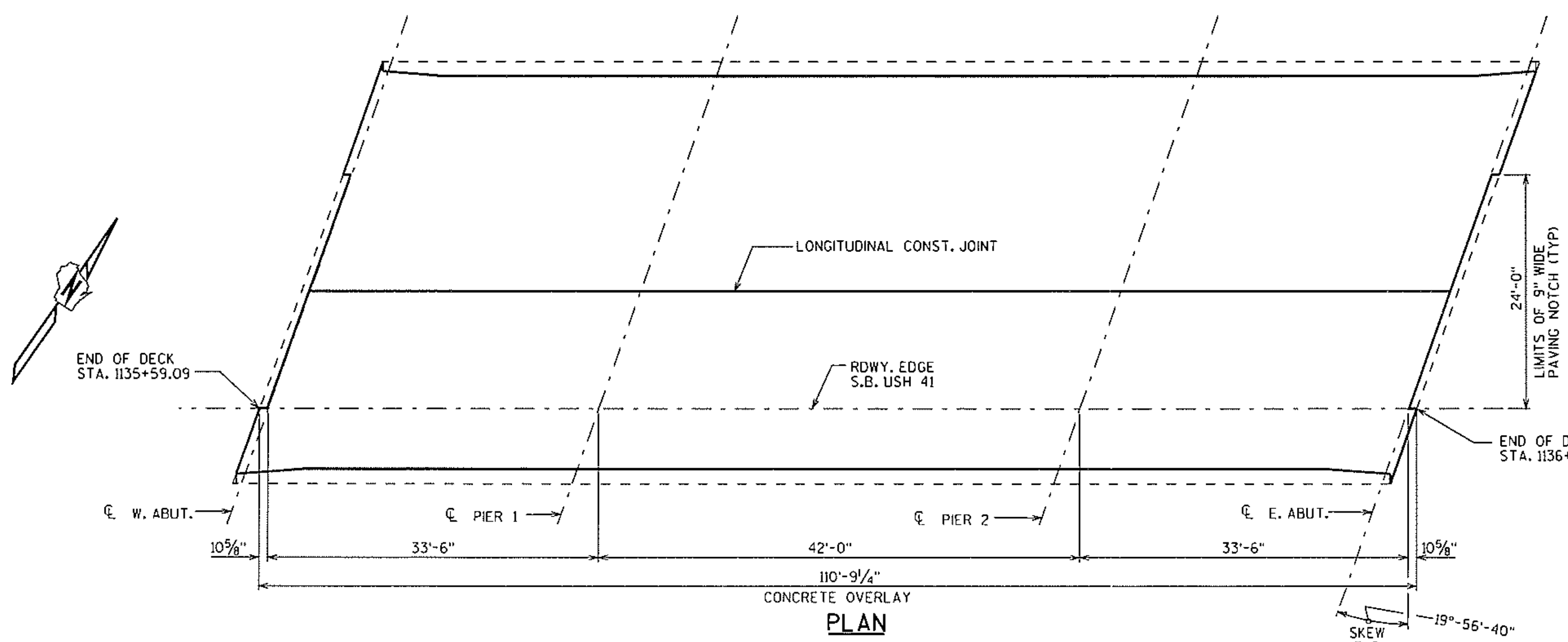
RDWY. CROSS SECT. (STAGE 2)
(LOOKING EAST)



RDWY. CROSS SECT. (STAGE 1)
(LOOKING EAST)



CROSS SECTION THRU RDWY. LOOKING EAST



PLAN

DESIGN DATA

LIVE LOAD:
INVENTORY RATING: HS-16
OPERATIONAL RATING: HS-25
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS.

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY OVERLAY DECKS ——— f'c = 4,000 P.S.I.
BAR STEEL REINFORCEMENT ——— fy = 60,000 P.S.I.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ANY EXCAVATON NECESSARY TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

DIMENSIONS SHOWN ARE BASED ON EXISTING ORIGINAL STRUCTURE PLANS.

CONTACT THE BUREAU OF STRUCTURES DESIGN SECTION BEFORE PLACEMENT OF OVERLAY IF THE AVERAGE THICKNESS OF THE NEW OVERLAY WILL EXCEED ½" MORE THAN THE AVERAGE THICKNESS SHOWN ON THE PLANS.

'PROTECTIVE SURFACE TREATMENT' SHALL BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE.

REMOVE EXISTING CONCRETE BLOCKS (USED FOR SLOPE PAVING) AS DIRECTED BY THE ENGINEER IN FIELD.

THERMOGRAPHY RESULT OF THE BRIDGE DECK ARE SHOWN ELSEWHERE IN THE PLAN.

TOTAL ESTIMATED QUANTITIES

REMOVING CONCRETE MASONRY OVERLAY DECKS	490	SY
REMOVING CONCRETE SLOPE PAVING	354	SY
CONCRETE MASONRY OVERLAY DECKS	42	CY
PROTECTIVE SURFACE TREATMENT	490	SY
PREPARATION DECKS TYPE 1	9	SY
PREPARATION DECKS TYPE 2	1	SY
SLOPE PAVING SELECT CRUSHED MATERIAL	354	SY
* CONCRETE SURFACE REPAIR	65	SF
* FULL DEPTH DECK REPAIR	9	SY

* REPAIRS SHALL BE DONE AT THE DIRECTION OF ENGINEER IN FIELD.

STRUCTURES DESIGN CONTACTS = DAVID R. GENSON (608) 266-8491
DEAN SMITH (608) 266-5091

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES
APPROVED William C. Dreher SDR 1-13-09
CHIEF STRUCTURAL DESIGN ENGINEER — DATE

STRUCTURE B-44-42
USH 41 S.B. OVER MALONEY RD.

COUNTY: OUTAGAMIE	~~TOWN~~/CITY/~~VILLAGE~~: KAUKAUNA
DESIGN SPEC. AASHTO STD. SPEC. 2003	LOAD — / CONST. SPEC. 2003
DESIGNED BY DRG / DESIGN CK'D.	DRAWN BY JHG / PLANS CK'D. DDS

OVERLAY DETAILS — SHEET 1 OF 1 — 36

8

8

SCALE = 8

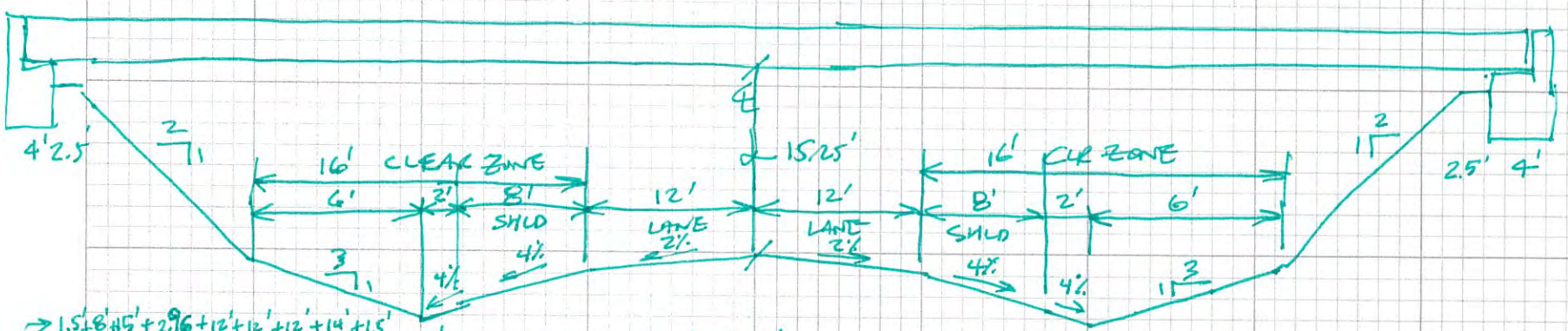
Calculations for | Job No. | Sheet No.

Made by | Date

Checked by | Date

(1/8" grid, 64 squares per inch)

ME134-1204



1.5 + 8 + 15 + 2.96 + 12 + 12 + 12 + 14 + 1.5
B S R G L L L S B

1.5 + 14 + 12 + 12 + 12 + 1.81 + 15 + 8 + 1.5
B S L L L G R S B

78.96'

77.81'

AVE. WIDTH 77.62'

AVE. WIDTH 73.20'

N

76.28' NB

68.58'

VAR. 3" → .28'

1.5' 8' 15' 12' 12' 12' 14' 1.5'
B S R G L L L S B

1.5' 14' 12' 12' 19.54' 8' 1.5'
B S L L L+R S B

$$15.25' + 12(0.02) + 10(0.04) - 2 - 0.5 = \frac{X}{2}$$

$$X = 27$$

SPAN1 $= 12' + 8' + 2' + 6' + 27' + 2.5' + 4' = 61.5 \times 2 = 123' = 130.89 \sim 131$

$\frac{123'}{.939693}$

SKEW = 20°

$\cos(20°) = .939693$

$123 - 2(2) = 119$

USE 54W SPAN IF 1SPAN

USE 36' IF 3 SPAN OUTSIDE CLEAR ZONE

$\frac{60'}{.939693} = 63.85$

$\frac{2}{.939693} = 2.13$

31.4 / 63.9 / 31.4

12
130.89
- 63.85
67.04
÷2
33.52
- 2.13

HNTB

Minimum Vertical Clearance for Existing Bridges which are not Being Replaced and for Existing Bridges on which the Superstructure is not Being Replaced [1, 2]

<table>
<tr><td>Overpass Facility →</td><td colspan="2">Freeway, Expressway, or STH</td><td>Railroad[5], CTH, Town Road, Local Road, or Street</td><td>Pedestrian or Shared-use Structures</td><td>Sign Structures[6]</td></tr>
<tr><td>Underpass Facility ↓</td><td>Interchange</td><td>Grade Separation</td><td></td><td></td><td></td></tr>
<tr><td rowspan="3">Non-arterial
either STH, CTH, Town Road, Local Road, or Street</td><td rowspan="3">15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3"></td><td rowspan="3">16'-3" min. or ES[3]</td><td rowspan="9">18'-0" min. or ES[3] for existing sign structures on new construction projects or reconstruction projects;

17'-0" or ES[3] for existing sign structures on 3R projects</td></tr>
<tr><td>If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial
either CTH, Town Road, Local Road, or Street
(excludes freeway and expressway; also excludes arterial STH)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3"></td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 14'-6" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 14'-6" then 14'-6" min. or ES[3]</td></tr>
<tr><td rowspan="3">Arterial STH
(excludes freeway and expressway)</td><td>If existing is < 15'-3" then increase to 15'-3" min. or ES[3]</td><td>If existing is < 14'-0" then increase to 14'-0" min. or ES[3]</td><td rowspan="3"></td><td rowspan="3">17'-0" min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 15'-3", but < 16'-0" then maintain existing min. or ES[3]</td><td>If existing is ≥ 14'-0", but < 16'-0" then maintain existing min. or ES[3]</td></tr>
<tr><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td><td>If existing is ≥ 16' 0" then 16' 0" min. or ES[3]</td></tr>
<tr><td>Freeway[4] or Expressway</td><td colspan="3">16'-0" min. or ES[3]</td><td colspan="2"></td></tr>
<tr><td>Railroad[5]</td><td colspan="5">Maintain existing vertical clearance - if existing clearance is < 23'-0" then confer with BTLR Railroads and Harbors Section to determine the adequacy of the existing clearance.</td></tr>
</table>

General notes:

1. Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table. Provide greater than minimum clearance if evaluation shows that greater clearance is needed because bridge superstructure is susceptible to being hit by under-passing vehicles.

   Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

2. Include a low clearance sign (W12-2), on structures if its use is in accordance with WisDOT MUTCD 2C.22.

3. ES = approved Exceptions To Standards Report required (see FDM 11-1-2 and FDM 11-1-4).

4. See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

5. Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

6. See LRFD Bridge Manual Chapter 39 for design considerations for vertical clearance on Sign Structures (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm).

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41 SB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-042
Feature Under: MALONEY RD		Sect/Twn/Rng: S12 T21N R18E		
Location: 2.4M S JCT CTH JJ		County: OUTAGAMI	Municipality: CITY-KAUKAUNA(44241)	
Inv Rating: HS16	Rdwy Width (ft): 40.3	Deck Width (ft): 43.3	Existing Posting:	
Oper Rating: HS25	Total Length (ft): 110.8	Deck Area(ft2): 4797	ADT On: 23525 Yr: 1991	ADT Under: 500 Yr: 1980

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 2.0	Date: 11-06-01	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-15-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 01-07-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers	Y	Y	
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.33		
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT CONCRETE	HAUNCHED SLAB		33.5
CONT CONCRETE	HAUNCHED SLAB		42.0
CONT CONCRETE	HAUNCHED SLAB		33.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P037	
1986	CONCRETE OVER	C275	
1994	REPAIR DECK		
2009	CONCRETE OVER		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	48 / 4	Conc Slab/Conc Ov	SF	4728		4728			
	Areas of map cracking from shrikage, const js leaching.								
X	205 / 3	R/Conc Column	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	94	79	15			
	Leaching between floor & haunch; areas of delamination marked but never repair during last rehab								
X	322 / 4	Bituminous Approach	EA	2		2			
X	331 / 4	Conc Bridge Railing	LF	219	179	30	10		
	Rust staining coming through the surface of parapet								
X	340 / 3	Concrete Slope Prote	EA	2		2			
	slope protection has settled slightly								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1		1			
	Construction joint has been repaired. Minor leaching occuring at the construction joint								
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item:
Amount: Date(YYYY-MM-DD):
Maintenance item comment:

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	8	7	Waterway	N	N

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-042
USH 41 SB over MALONEY RD

LOCATION

(3) Municipality:	CITY-KAUKAUNA(44241)
(16) Latitiude(° ' "):	44°18'06.00"N
(17) Longitude(° ' "):	88°16'06.00"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	110.8	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):	0.0	
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 20	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	40.3	40.3
(52) Deck(ft):	43.3	43.3
(32) Approach Roadway(ft):	40	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	37.5	
(55) Minimum Right Lateral(ft):	7.5	
(55) Minimum Left Lateral(ft):	8.0	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
		SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
X	X	OTHER(99) (Please specify) **Left:** NJ SLOPING PARAPET(61) **Right:** NJ SLOPING PARAPET(61)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
4	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41 NB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-043
Feature Under: MALONEY RD		Sect/Twn/Rng: S12 T12N R18E		
Location: 0.2M N JCT STH 55 TO		County: OUTAGAMI	Municipality: CITY-KAUKAUNA(44241)	
Inv Rating: HS16	Rdwy Width (ft): 53.8	Deck Width (ft): 60.1	Existing Posting:	
Oper Rating: HS25	Total Length (ft): 110.8	Deck Area(ft2): 6659	ADT On: 19475 Yr: 2003	ADT Under: 500 Yr: 1980

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 2.0	Date: 11-06-01	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-15-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 01-07-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers	Y	Y	
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)

	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.17		
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT CONCRETE	HAUNCHED SLAB		33.5
CONT CONCRETE	HAUNCHED SLAB		42.0
CONT CONCRETE	HAUNCHED SLAB		33.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P038	
1984	CONCRETE OVER	C226	C226
2009	CONCRETE OVER		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	48 / 4	Conc Slab/Conc Ov	SF	6671		6671			
	Map cracking from shrikage								
X	205 / 3	R/Conc Column	EA	10	10				
X	215 / 4	R/Conc Abutment	LF	130	111	19			
	CS-2 (N Abut 7" & S Abut 12"), Leaching between floor & haunch								
X	321 / 4	R/Conc Approach Slab	EA	2	2				
X	331 / 4	Conc Bridge Railing	LF	223	170	53			
X	340 / 4	Concrete Slope Prote	EA	2	1	1			
	Concrete block, Sliding down hill, some blocks missing on North abutment Missing concrete sections repaired with breaker run								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1			1		
	Severe leaching at const. joint								
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the end of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	6	Channel	N	N
Substructure	7	7	Waterway	N	N

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-043
USH 41 NB over MALONEY RD

LOCATION

(3) Municipality:	CITY-KAUKAUNA(44241)
(16) Latitiude(° ' "):	44°17'60.00"N
(17) Longitude(° ' "):	88°16'06.00"W

TRAFFIC SERVICE

(28A) Lanes On:	3
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	110.8	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 20	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	53.8	57.1
(52) Deck(ft):	60.1	60.1
(32) Approach Roadway(ft):	40	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	37.5	
(55) Minimum Right Lateral(ft):	8.0	
(55) Minimum Left Lateral(ft):	7.5	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE	
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
			SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
	X	X	OTHER(99) (Please specify) Left: NJ SLOPING PARAPET(61) Right: NJ SLOPING PARAPET(61)
Transition Type:			CONT GUARD RAIL
			NO APP GRDRL
			NO ATTACHMENT
	4		22 MM(7/8") BOLT (Please enter quantity)
			25 MM(1") BOLT (Please enter quantity)
			OTHER (Please specify)
Guardrail Termination Type:	X		(01) ENERGY ABSORBING TERMINAL/EAT
			(02) TURN DOWN
			(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:		(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
		(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
	X	(8) GOOD- No speed reduction required

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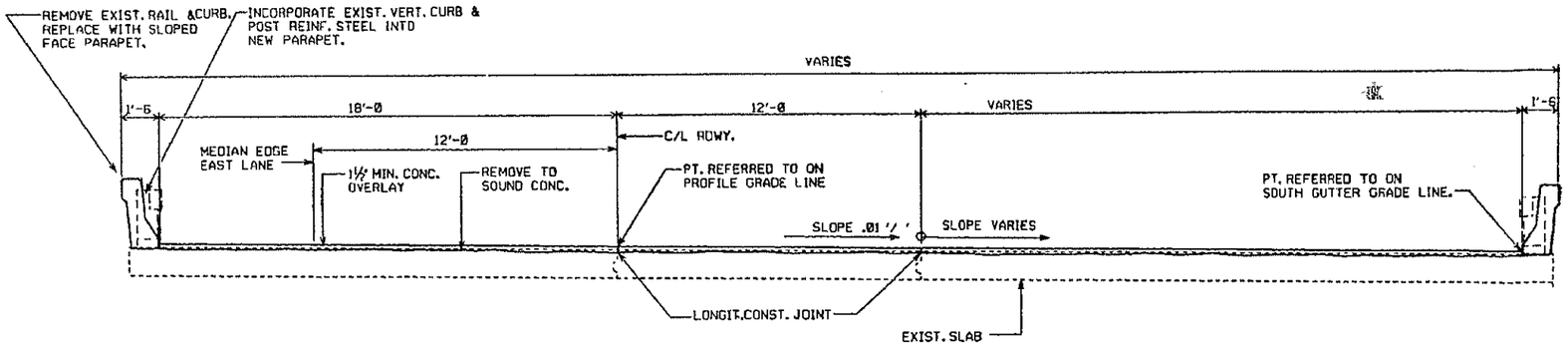
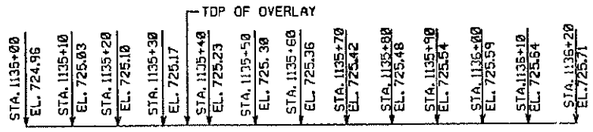
STATE PROJECT NUMBER	SHEET NO.
0044-34-11	8.9

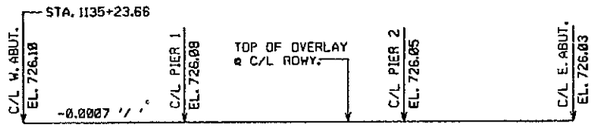


CROSS SECT. THRU RDWY.

(LOOKING EAST)

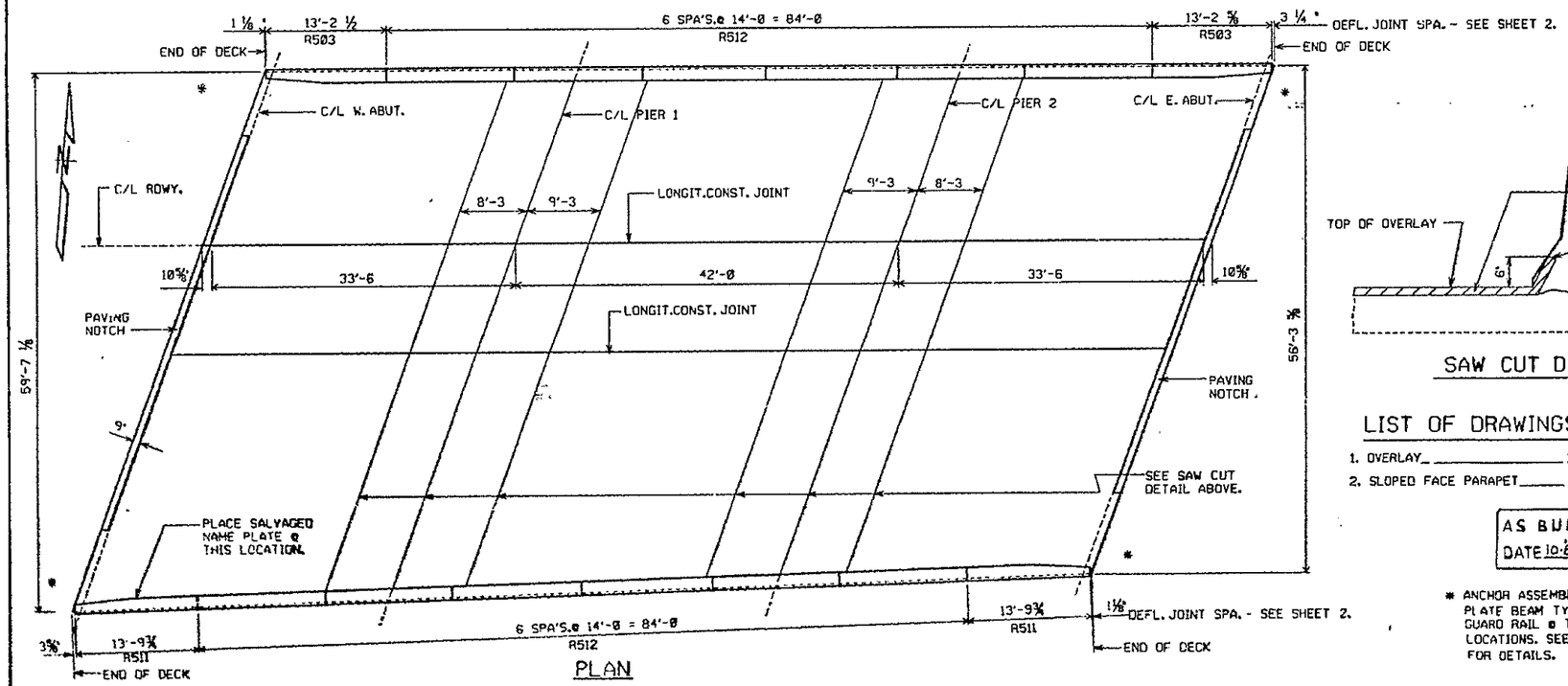


PROPOSED SOUTH GUTTER GRADE LINE



PROPOSED GRADE LINE

BENCH MARK - PAINT MK ON TOP OF WING S.W. COR. OF BRIDGE - EL. 725.14



PLAN

GENERAL NOTES

DRAWINGS ARE NOT TO BE SCALED. CONTRACTOR SHALL VERIFY DIMENSIONS IN THE FIELD.

BID ITEM "CONCRETE MASONRY" INCLUDES PARAPET CONCRETE ONLY.

BAR STEEL REINF. SHALL BE IMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

VARIATIONS TO THE NEW GRADE LINE OVER ½" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE BRIDGE SECTION FOR APPROVAL.

CLEAN & SEAL EXIST. LONGIT. CONST. JOINTS WITH PENETRATING EPOXY AS DIRECTED BY THE ENGINEER.

TOTAL ESTIMATED QUANTITIES

BID ITEMS

REMOVING OLD BRIDGE	1	L.S.
CONCRETE MASONRY, OVERLAY	40	C.Y.
DECK CLEANING	675	S.Y.
DECK PREPARATION	34	S.Y.
CONCRETE MASONRY	19	C.Y.
HIGH STRENGTH BAR STEEL REINFORCEMENT	3,420	LBS.
STRUCTURAL CARBON STEEL	50	LBS
EXPANSION ANCHORS, 3/4-INCH DIA.	416	EACH
EPOXY JOINT SEALING	220	L.F.

NON-BID ITEMS

½" ALUMINUM OR ZINC PLATE	33	S.F.

DESIGN DATA

LIVE LOAD:

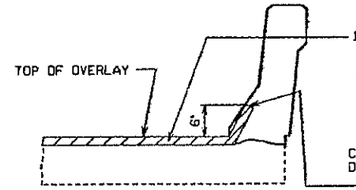
INVENTORY RATING ____ H 18

OPERATING RATING ____ HS 26

ALLOWABLE DESIGN STRESSES:

CONCRETE MASONRY ____ f'_c = 4,000 psi

HIGH STRENGTH BAR STEEL REINFORCEMENT ____ f_y = 60,000 psi



SAW CUT DETAIL

1/4" SAW CUT. FULL DEPTH OF OVERLAY. PROVIDE EITHER:

1. INSTALL NEOPRENE COMP. SEAL ACME M044 OR APPROVED EQUAL.
2. COLD APPLIED ELASTIC TYPE JOINT SEALER.

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

IF COMPRESSION SEAL IS USED, ENDS TO BE SEALED. SEAL TO BE PLACED IN ONE CONTINUOUS PIECE.

LIST OF DRAWINGS

1. OVERLAY ____ X72394
2. SLOPED FACE PARAPET ____ X72395

AS BUILT PLAN
DATE 10-85 BY W.K.

* ANCHOR ASSEMBLY FOR PLATE BEAM TYPE GUARD RAIL @ THESE LOCATIONS. SEE SHEET 2 FOR DETAILS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-43

USH 41 N.B. OVER N. MALONEY RD.

COUNTY OUTAGAMIE		TOWN/CITY/VILLAGE VANDENBROEK	
DESIGN SPEC. AASHTO 83		LOAD	CONST. SPEC. 1981
DESIGNED BY WV	DESIGN CK'D. BA	DRAWN BY JHG	PLANS CK'D. FWG

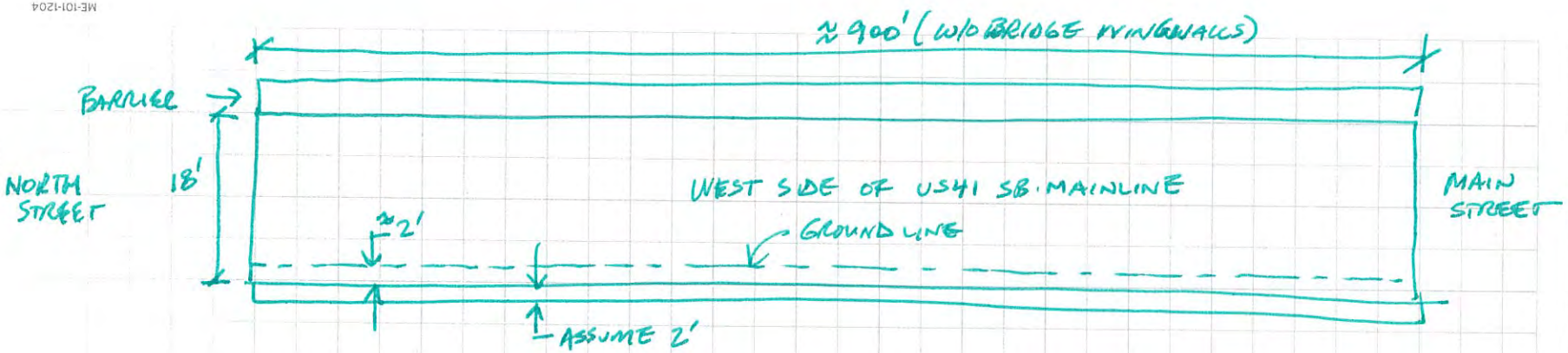
APPROVED Stanley W. Woods CHIEF BRIDGE ENGINEER 4-5-84 DATE

OVERLAY

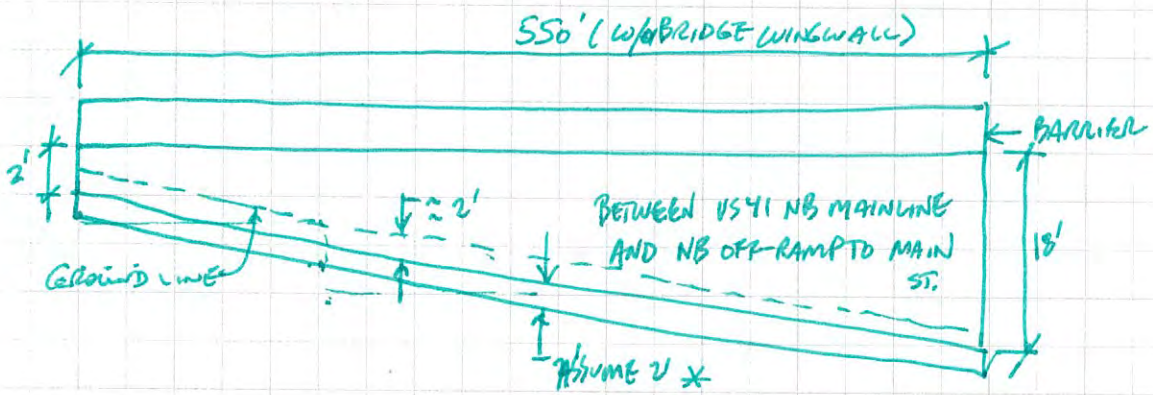
SHEET 1 OF 2

X72394

R-11-A



$900' \times 20' = 18{,}000\ SF$

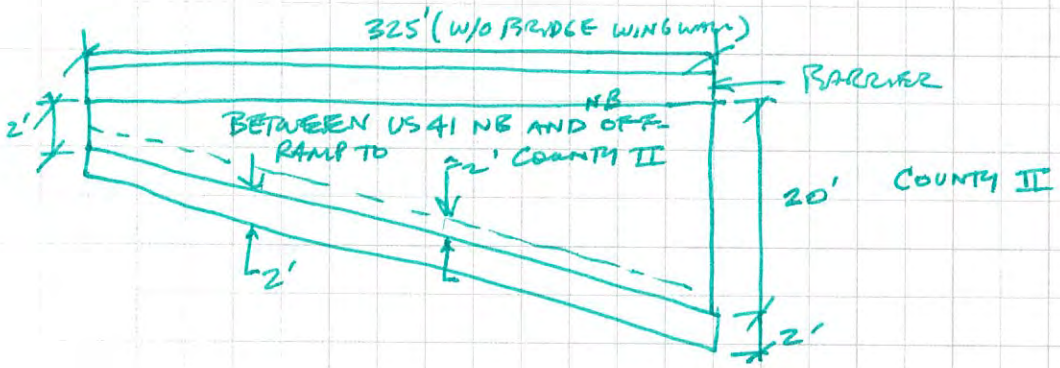


$550' \times \left(\frac{4' + 20'}{2}\right) = 6{,}600\ SF\ (1.2^{*}) = 7920\ SF$

* ADD 20% FOR FOOTING STAIR STEP ALONG SLOPE

FOR: SEGMENT 1 | JOB NO: | SHEET NO:
MADE BY: | CHECKED BY: | BACKCHECKED BY:
DATE: | DATE: | DATE:

HNTB



$$325' \times \left(\frac{4' + 22'}{2}\right) = 4225 (1.2) = 5070 \text{ SF}$$

RAMP BETWEEN US41 NB AND NB ON-RAMP FROM COUNTY II IS SIMILAR.

LENGTH = 335'

$$335' \times \left(\frac{4+22'}{2}\right) = 4355 \text{ SF} \times 1.2 = 5226 \text{ SF}$$

RETAINING WALLS (2) PLACED ~~ALONG~~ ALONG US 41 SB BETWEEN ON- AND OFF-RAMPS ARE PLACED WITH TRI-COUNTY RECONSTRUCTION PROJECT AND ARE ASSUMED PLACED IN POSITION TO COMPLEMENT US 41 RECONSTRUCTION PROJECT.

FOR: SEGMENT 1 JOB NO: SHEET NO:
MADE BY: CHECKED BY: BACKCHECKED BY:
DATE: DATE: DATE:

HNTB

15-44-44 CTH J over USH41

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____

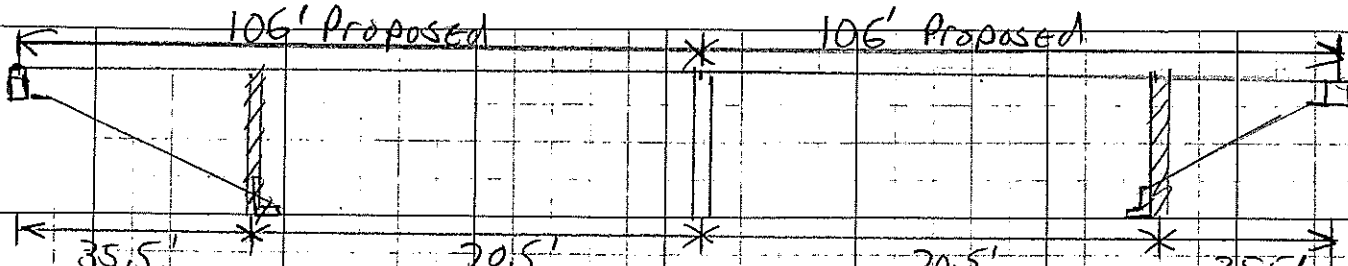
DESCRIPTION: CTH J Str over USH 41
B-44-44

DATE: _____

SHEET ____ OF ____

CALC. BY: _____

CHECKED BY: _____



Remove existing piers at shoulder & construct 2 span structure

Existing 36" Girders & 8" Deck Proposed 45" Girders & 9" Deck +0.83' diff.

Exstng Rdway = 12' (17') Lane & 5' shldr Proposed = 2-12' (30') lanes & 6' shldr

13' Widening x.02 = +0.26'

16' from edge of deck to ℄ = 16 x .02 = 0.32'

0.83
+0.26
+0.32
1.41'

USH 41 needs profile adjustment due to flad grades which are less than 0.4% –

Lower USH 41 by 0.6' at structure

Raise CTH J by 0.81' at ℄

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: CTH J		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-044
Feature Under: USH 41		Sect/Twn/Rng: S07 T21N R19E		
Location: 0.7M S JCT CTH JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS20	Rdwy Width (ft): 34.0	Deck Width (ft): 36.8	Existing Posting:	
Oper Rating: HS34	Total Length (ft): 216.2	Deck Area(ft2): 7956	ADT On: 930 Yr: 2010	ADT Under: 23100 Yr: 2003

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.		07-20-11	08-29-11				
Frequency	N/A	00	00				
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in):	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 08-29-11	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 12-17-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	16.32	11-15-10	
Min. Veritcal Clearance Under (non-Cardinal)	16.22	11-15-10	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		35.5
PREST CONCRET	DECK GIRDER		70.5
PREST CONCRET	DECK GIRDER		70.5
PREST CONCRET	DECK GIRDER		35.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P038	F046
1978	PAINTING		
1984	CONCRETE OVER	C226	C226
1985	BEARING - MIS	C275	
1995	REPAIR SUPERS		
2000	REPAIR SUPERS		
2010	NEW DECK		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	12 / 4	Conc Deck No Ovl	SF	7942	7942				
X	109 / 4	P/S Conc Open Girder	LF	1437	1432	5			
X	172 / 4	Painted Steel Diaphr	EA	36	36				
X	205 / 4	R/Conc Column	EA	9	8	1			
X	210 / 4	R/Conc Pier Wall	LF	78	69	9			
	At base of columns - including taper section. CS-2 (4" west 5" east) Large spall on east wall								
X	215 / 3	R/Conc Abutment	LF	74	64	10			
	CS-2 (6" east abut 4" west abut)								
X	234 / 3	R/Conc Cap	LF	111	105	6			
	Cracks on west cap								
X	250 / 4	Concrete Diaphragm	EA	21	21				
X	321 / 4	R/Conc Approach Slab	EA	2	2				
	North approach not installed for september 2010 interim inspection.								
X	333 / 4	Combin Bridge Railing	LF	435	354	81			
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1		1			
X	400 / 3	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item:
Amount: Date(YYYY-MM-DD):
Maintenance item comment:

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	8	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-044
CTH J over USH 41

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'18.93"N
(17) Longitude(° ' "):	88°14'57.65"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	4
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	1

GEOMETRY

(49) Structure Length(ft):	216.2
(50) Sidewalk Width(ft):	**Left:**
(50) Curb Width(ft):	0.0
(52) Culvert Barrel Length(ft):	
(34) Skew:	**Angle(°):** 16 **Direction:** X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width / **Non-Cardinal Width**
(51) Bridge Roadway(ft):	34.0 / 34.0
(52) Deck(ft):	36.8 / 36.8
(32) Approach Roadway(ft):	34 / 34
	Cardinal Under Clearance / **Non-Cardinal Under Clearance**
(47) Minimum Horizontal(ft):	64.8 / 64.8
(55) Minimum Right Lateral(ft):	12.2 / 12.2
(55) Minimum Left Lateral(ft):	28.6 / 28.6

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

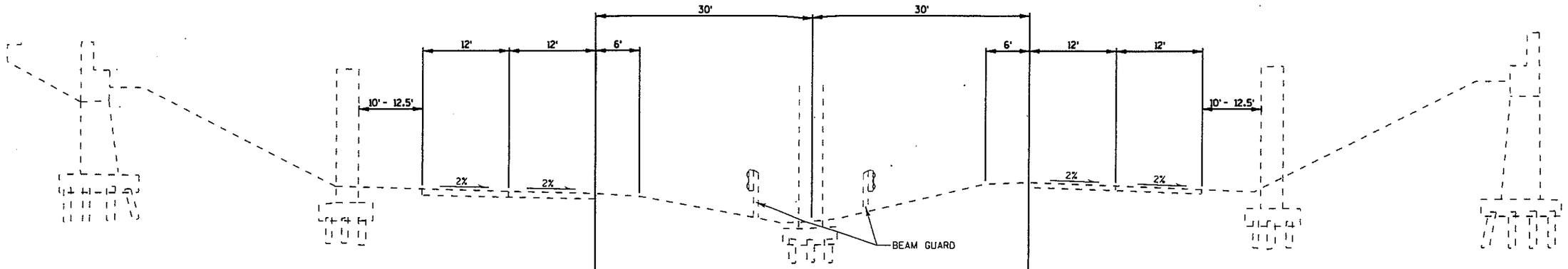
Guardrail Termination Type:

X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

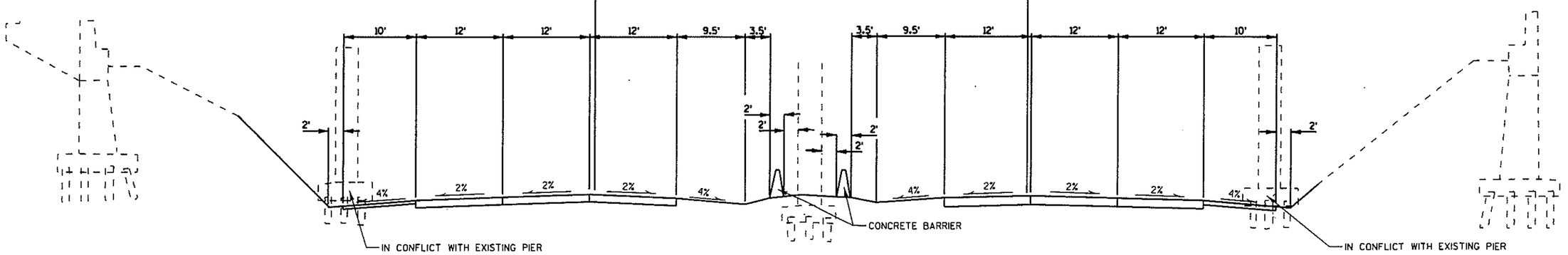
ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required



USH 41 TYPICAL EXISTING SECTION (UNDER)
CTH J (B-44-0044)



DESIRABLE PROPOSED SECTION. (UNDER)
CTH J (B-44-0044)
(NEW BRIDGES)

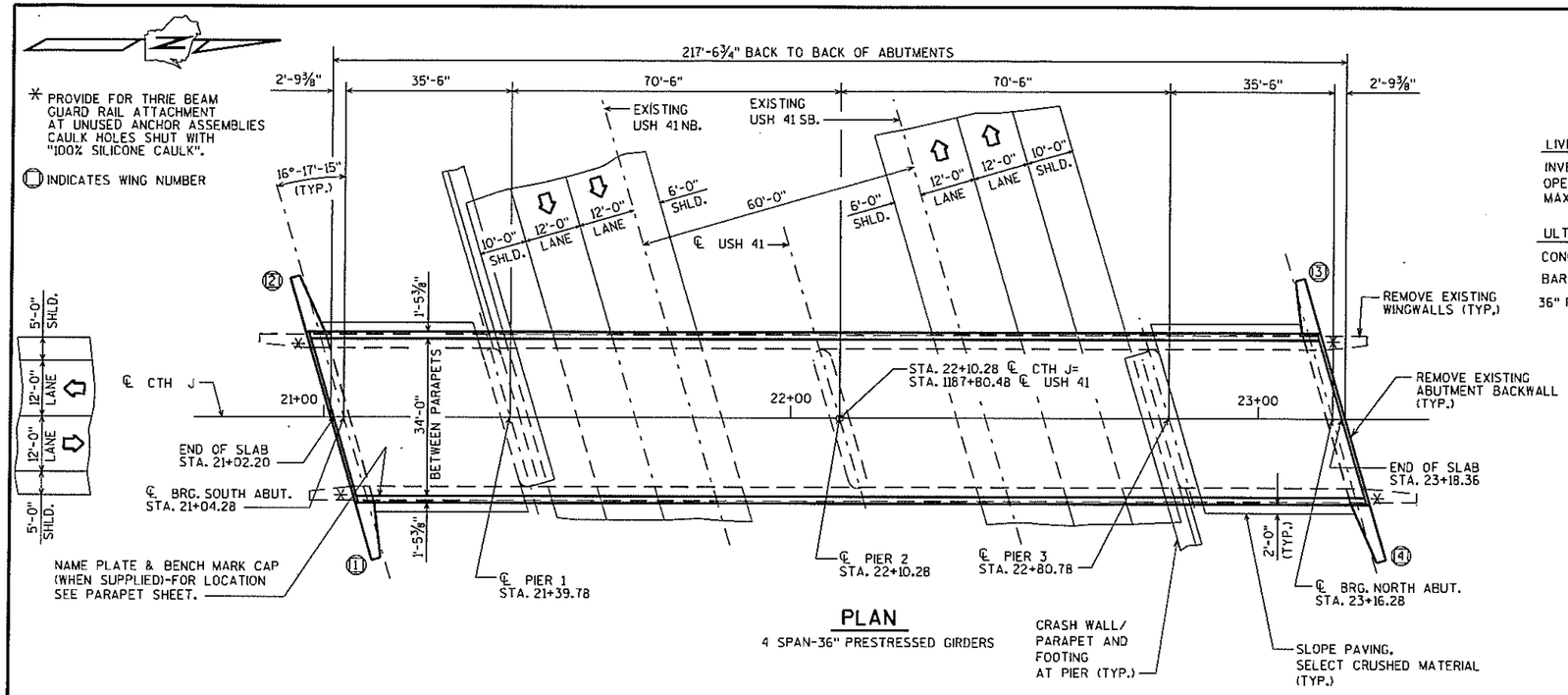
PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 13	E

FILE NAME : J:\44386\t1\Short Term Solutions\Amendment *5\DAAR\120726\TYICAL SECTIONS_bridges.dgn PLOT DATE : 7/26/2012 PLOT BY : maryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1

WISDOT/CADDS SHEET 42

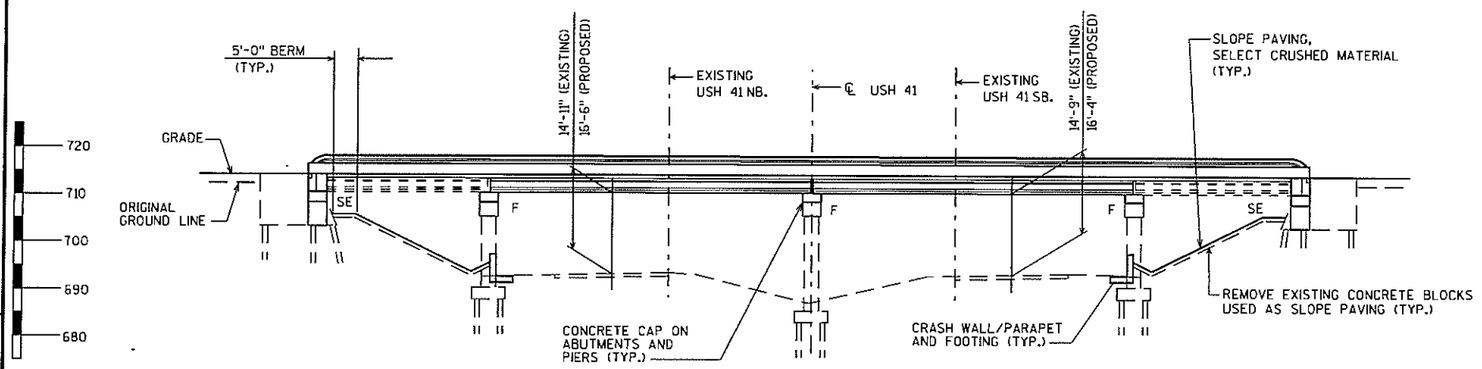
STATE PROJECT NUMBER

1123-11-71



PLAN

4 SPAN-36" PRESTRESSED GIRDERS



ELEVATION

NORMAL TO USH 41

DESIGN DATA

LIVE LOAD:

INVENTORY RATING; HS-20
OPERATIONAL RATING; HS-34
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 245 KIPS.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
36" PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 6,000 P.S.I.
STRANDS- 0.5" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACT:
DAVE GENSON (608) 266-8491
DEAN SMITH (608) 266-5091

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

APPROVED William C. Dreher MGW 12/17/09
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-44-44

USH 41 OVER CTH J

COUNTY OUTAGAMIE	~~TOWN~~/CITY ~~VILLAGE~~ KAUKAUNA
DESIGN SPEC. AASHTO STD. SPEC. 2003	LOAD
DESIGNED BY DRG / DESIGN CK'D.	DRAWN BY RIES / PLANS CK'D. DRG

DECK REPLACEMENT AND RAISING

SHEET 1 OF 21

170

I.D. 1123-11-00

DATE: AUGUST 2009

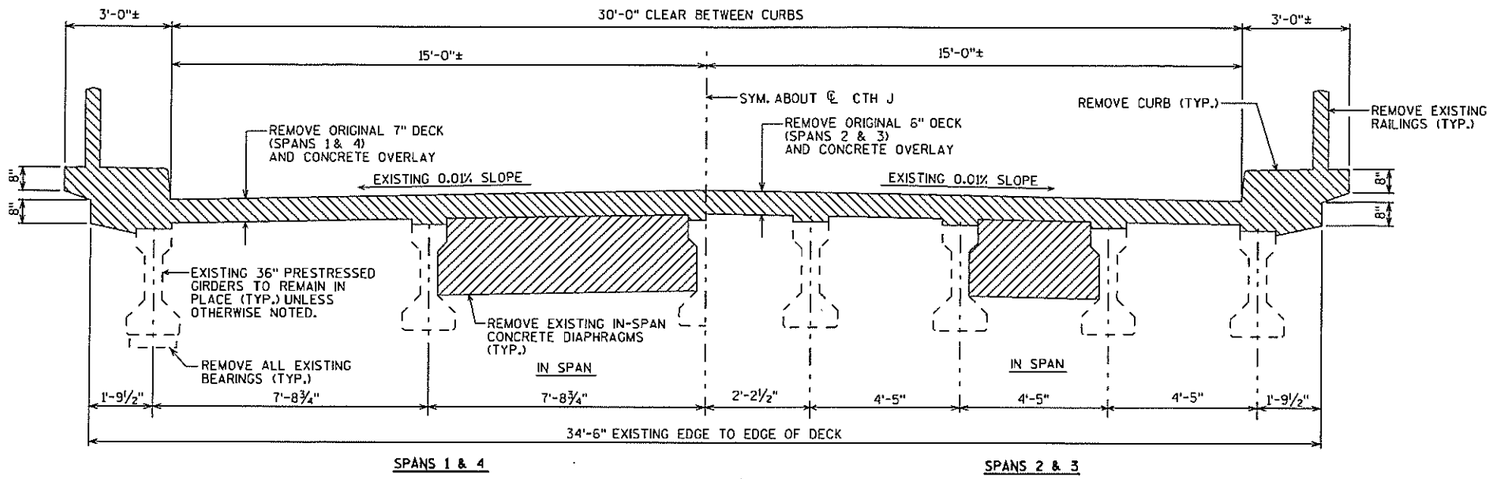
SCALE = 15

8

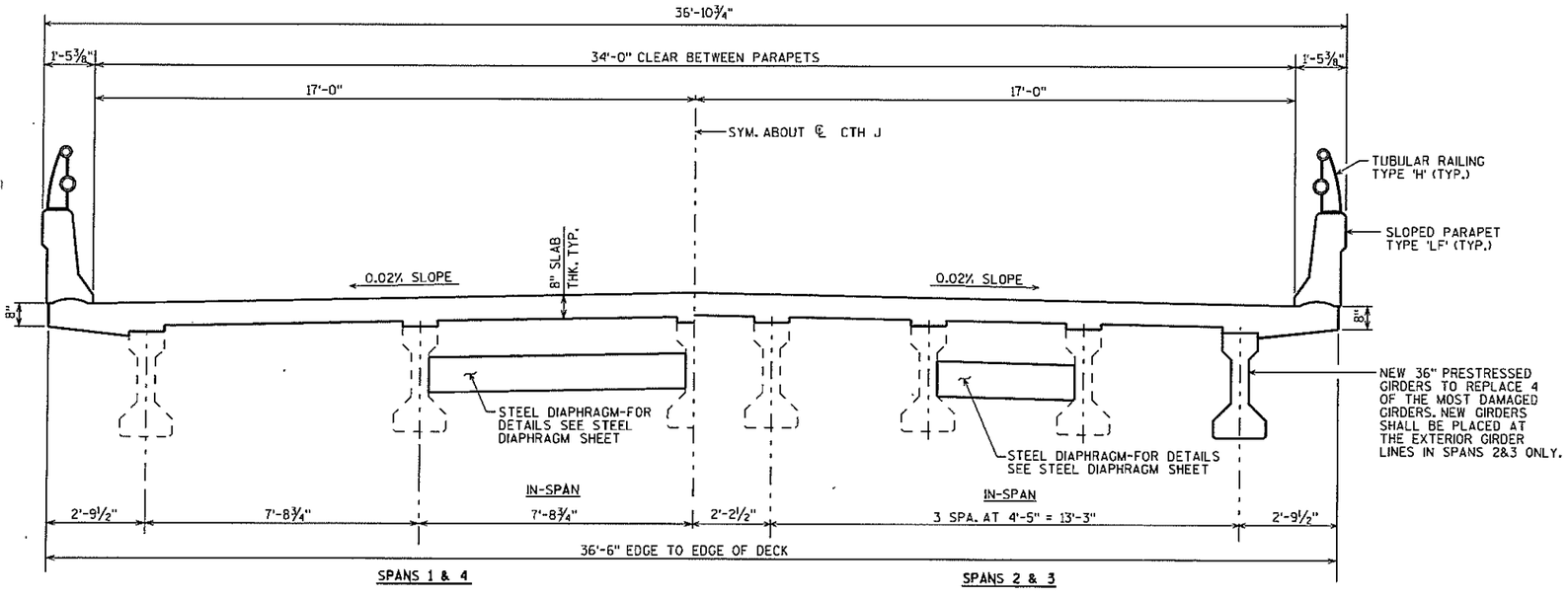
8

STATE PROJECT NUMBER

1123-11-71



EXISTING CROSS SECTION THRU ROADWAY - LOOKING NORTH



CROSS SECTION THRU ROADWAY - LOOKING NORTH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

CONCRETE FOR ABUTMENT AND PIER DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE. NO OPTIONAL CONSTRUCTION JOINT WILL BE PERMITTED.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE FRONT FACE AND THE TOP OF THE PARAPET. PROTECTIVE SURFACE TREATMENT SHALL ALSO BE APPLIED TO PIERS 1 AND 3 FROM THE EXISTING GROUND LINE TO THE BOTTOM OF THE PIER CAP AFTER WATER BLAST CLEANING THE PIER COLUMNS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION AND CONSTRUCTION.

INFORMATION ON THESE DRAWINGS RELATED TO THE EXISTING BRIDGE IS BASED UPON AVAILABLE DRAWING FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION. NO GUARANTEE OR WARRANTY IS MADE THAT THE INFORMATION IS ALL INCLUSIVE OR TOTALLY ACCURATE. THEREFORE, THE CONTRACTOR SHALL MAKE ITS OWN DETERMINATION OF THE ACTUAL CONDITIONS TO BE ENCOUNTERED.

CONCRETE SURFACE REPAIR AS DIRECTED BY ENGINEER.

SOUTH ABUTMENT	15 S.F.
GIRDERS	45 S.F.
COLUMN 3 PIER 3	15 S.F.
NORTH ABUTMENT	45 S.F.

IN ADDITION TO THE STANDARD SPECIFICATIONS FOR THE BID ITEM "CONCRETE SURFACE REPAIR", THE FOLLOWING SHALL BE FOLLOWED FOR THE REPAIR: PRIOR TO THE PLACING OF THE CONCRETE MIXTURE ON THE DAMAGED AREAS OF THE PRESTRESSED GIRDER, THE REAR AXLES OF A 15 TON TRUCK, FULLY LOADED, SHALL BE PARKED OVER THE GIRDER BEING REPAIRED. THE LOADED TRUCK SHALL REMAIN IN PLACE DURING THE CURING PERIOD OF THE SURFACE REPAIR, OR FOR A MINIMUM PERIOD OF FOUR DAYS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETER INTO NEW WORK.

THE CONTRACTOR SHALL SUBMIT A REMOVAL AND BRIDGE JACKING PLAN TO THE ENGINEER FOR APPROVAL.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAILED DRAWINGS. THE NEW NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1961.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-44-44

DRAWN BY RIES | PLANS CK'D. DRG

CROSS SECTIONS AND GENERAL NOTES

SHEET 2

171

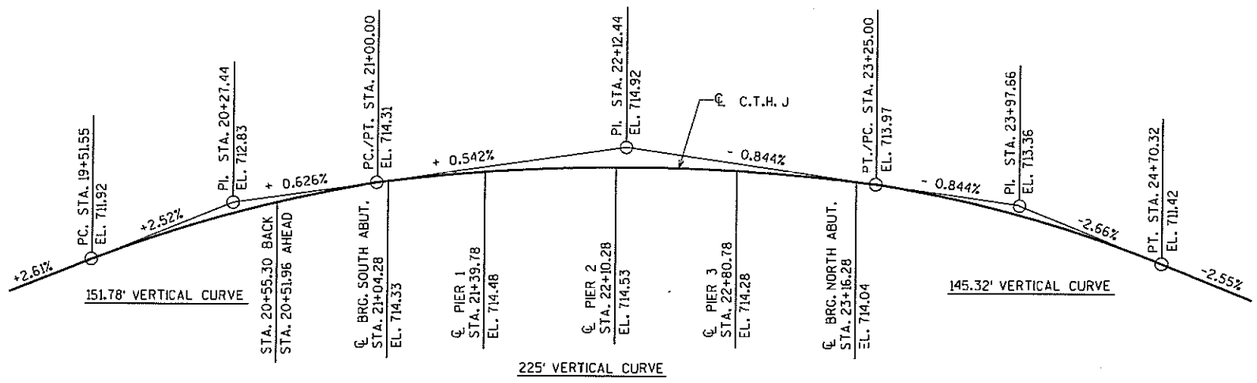
SCALE = 2

STATE PROJECT NUMBER

1123-11-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	PIER 2	PIER 3	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 22+10.28	LS	—	—	—	—	—	—	1
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	—	150	150	—	—	—	300
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-44-44	LS	—	—	—	—	—	—	1
210.0100	BACKFILL STRUCTURE	CY	—	170	170	—	—	—	340
502.0100	CONCRETE MASONRY BRIDGES	CY	308	35	35	41	10	41	470
502.3200	PROTECTIVE SURFACE TREATMENT	SY	985	—	—	41	—	41	1,067
502.5020	MASONRY ANCHORS TYPE L NO. 8 BARS	EACH	—	14	14	—	—	—	28
502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	EACH	—	90	90	76	76	76	408
502.6110	MASONRY ANCHORS TYPE S 3/4-INCH	EACH	—	—	—	30	—	30	60
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	351	—	—	—	—	—	351
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	—	—	—	—	—	—	—
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	60,520	3485	3485	5365	1430	5365	79,650
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	—	5	5	13	16	13	52
506.4000	STEEL DIAPHRAGMS B-44-44	EACH	36	—	—	—	—	—	36
506.7050.S	REMOVING BEARINGS B-44-44	EACH	—	5	5	13	16	13	52
506.7060.S	BRIDGE JACKING B-44-44	LS	—	—	—	—	—	—	1
509.1500	CONCRETE SURFACE REPAIR	SF	45	15	45	—	—	15	120
513.4055	RAILING TUBULAR TYPE H B-44-44	LS	—	—	—	—	—	—	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	18	18	—	—	—	36
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	—	175	175	—	—	—	350
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	—	70	70	—	—	—	140
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	—	—	1	—	1	6
	NON-BID ITEMS								
	FILLER	SIZE	—	—	—	—	—	—	1/2" & 3/4"



PROFILE GRADE LINE C.T.H. J

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-44-44

DRAWN BY RIES | PLANS CK'D. DRG

QUANTITIES & PROFILE

SHEET 3

172

SCALE = 1

B-44-44 CTH J over USH41

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____

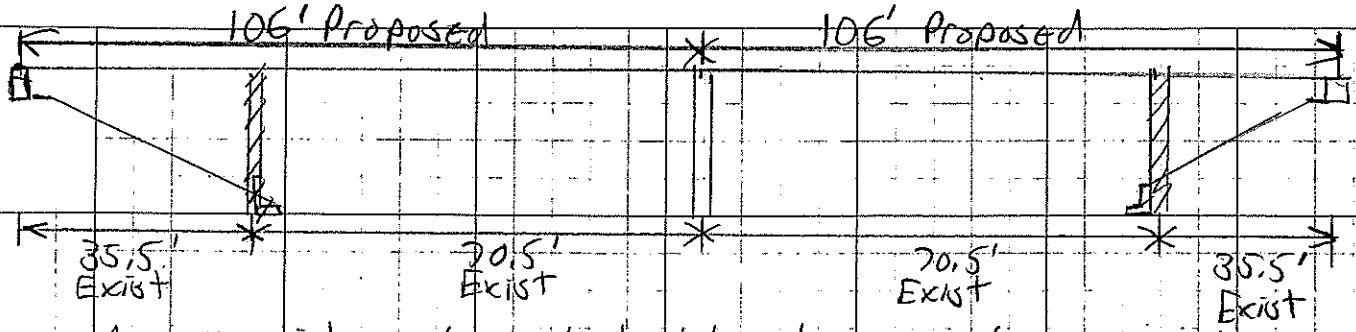
DESCRIPTION: CTH J Str over USH 41
B-44-44

DATE: _____

SHEET ____ OF ____

CALC. BY: _____

CHECKED BY: _____



Remove existing piers at shoulder & construct 2 span structure

Existing 36" Girders & 8" Deck Proposed 45" Girders & 9" Deck +0.83' diff.

Existing Rdway = 12' Lane & 5' shldr Proposed = 2-12' lanes & 6' shldr (30')

13' Widening x.02 = +0.26'

16' from edge of deck to ℄ = 16 x .02 = 0.32'

0.83
+0.26
+0.32
1.41'

USH 41 needs profile adjustment due to flad grades which are less than 0.4% –

Lower USH 41 by 0.6' at structure

Raise CTH J by 0.81' at ℄

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: CTH J		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-044
Feature Under: USH 41		Sect/Twn/Rng: S07 T21N R19E		
Location: 0.7M S JCT CTH JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS20	Rdwy Width (ft): 34.0	Deck Width (ft): 36.8	Existing Posting:	
Oper Rating: HS34	Total Length (ft): 216.2	Deck Area(ft2): 7956	ADT On: 930 Yr: 2010	ADT Under: 23100 Yr: 2003

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.		07-20-11	08-29-11				
Frequency	N/A	00	00				
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in):	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 08-29-11	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 12-17-09

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	16.32	11-15-10	
Min. Veritcal Clearance Under (non-Cardinal)	16.22	11-15-10	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		35.5
PREST CONCRET	DECK GIRDER		70.5
PREST CONCRET	DECK GIRDER		70.5
PREST CONCRET	DECK GIRDER		35.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1961	NEW STRUCTURE	P038	F046
1978	PAINTING		
1984	CONCRETE OVER	C226	C226
1985	BEARING - MIS	C275	
1995	REPAIR SUPERS		
2000	REPAIR SUPERS		
2010	NEW DECK		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

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X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1		1			
X	400 / 3	Concrete Wingwall	EA	4	4				

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Amount: Date(YYYY-MM-DD):
Maintenance item comment:

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

Maintenance Item:
Amount: Date(MM-DD-YY):
Maintenance item comment:

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NBI	File	New	NBI	File	New
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Superstructure	7	7	Channel	N	N
Substructure	8	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-044
CTH J over USH 41

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'18.93"N
(17) Longitude(° ' "):	88°14'57.65"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	4
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	1

GEOMETRY

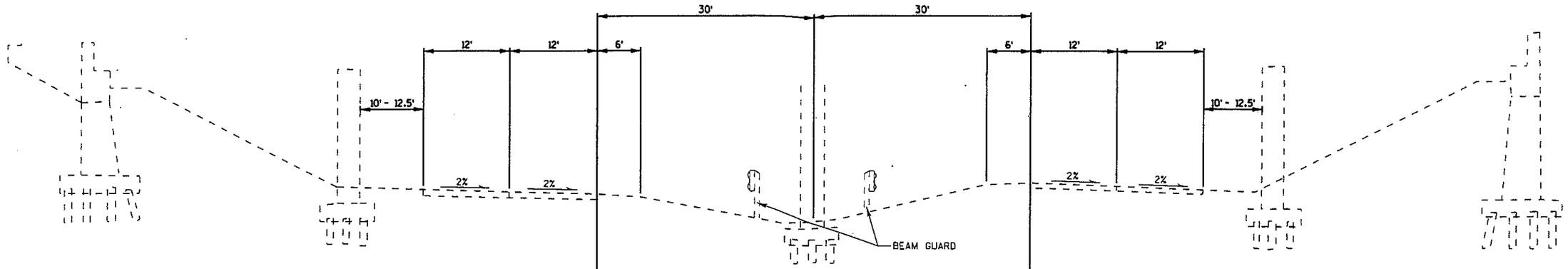
(49) Structure Length(ft):	216.2	
(50) Sidewalk Width(ft):	Left:	Right:
(50) Curb Width(ft):	0.0	
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 16	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	34.0	34.0
(52) Deck(ft):	36.8	36.8
(32) Approach Roadway(ft):	34	34
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	64.8	64.8
(55) Minimum Right Lateral(ft):	12.2	12.2
(55) Minimum Left Lateral(ft):	28.6	28.6

RAILING APPRAISAL

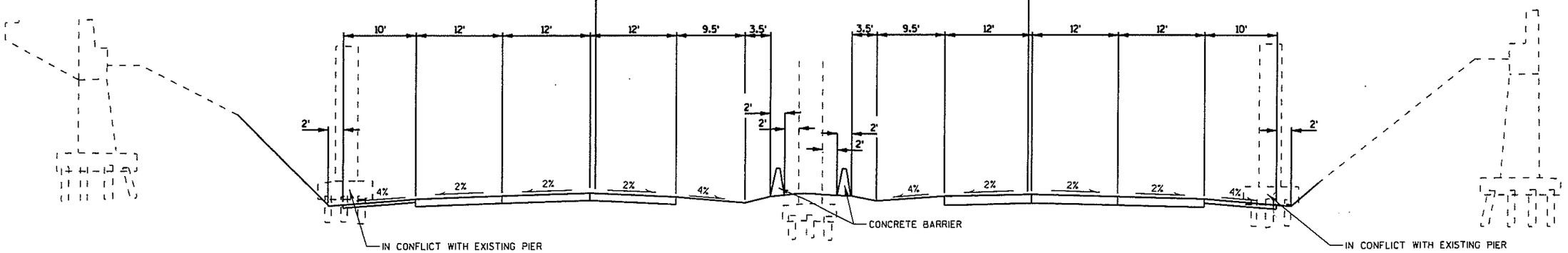
(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
	X	X	SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
			OTHER(99) (Please specify)
Transition Type:		CONT GUARD RAIL	
		NO APP GRDRL	
		NO ATTACHMENT	
	5	22 MM(7/8") BOLT (Please enter quantity)	
		25 MM(1") BOLT (Please enter quantity)	
		OTHER (Please specify)	
Guardrail Termination Type:	X	(01) ENERGY ABSORBING TERMINAL/EAT	
		(02) TURN DOWN	
		(99) OTHER (Please specify)	

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required



USH 41 TYPICAL EXISTING SECTION (UNDER)
CTH J (B-44-0044)



DESIRABLE PROPOSED SECTION (UNDER)
CTH J (B-44-0044)
(NEW BRIDGES)

PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 13	E

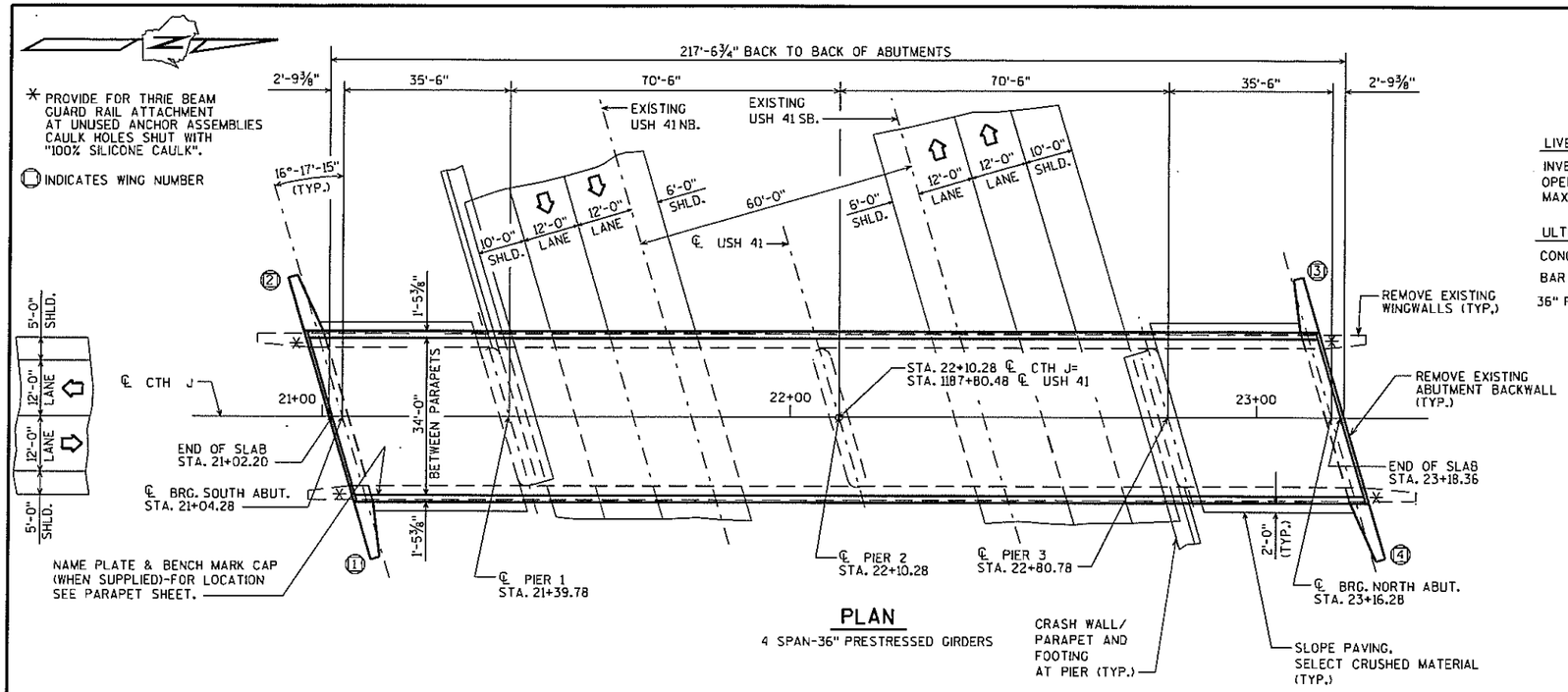
FILE NAME : J:\44386\t1\Short Term Solutions\Amendment #5\DAAR\120726\TYICAL SECTIONS_bridges.dgn PLOT DATE : 7/26/2012 PLOT BY : moryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1

WISDOT/CADDS SHEET 42

WISDOT/CADDS SHEET 42

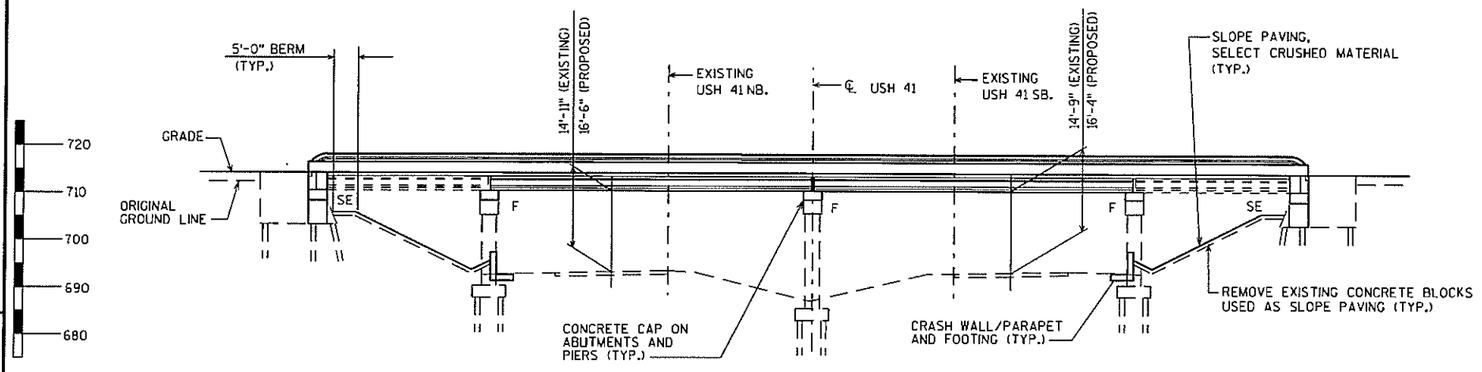
STATE PROJECT NUMBER

1123-11-71



PLAN

4 SPAN-36" PRESTRESSED GIRDERS



ELEVATION

NORMAL TO USH 41

DESIGN DATA

LIVE LOAD:

INVENTORY RATING; HS-20
OPERATIONAL RATING; HS-34
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 245 KIPS.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 4,000 P.S.I. ALL OTHER — f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.
36" PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 6,000 P.S.I.
STRANDS- 0.5" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACT:
DAVE GENSON (608) 266-8491
DEAN SMITH (608) 266-5091

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

APPROVED William C. Dreher MSM 12/17/09
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-44-44

USH 41 OVER CTH J

COUNTY OUTAGAMIE	~~TOWN~~ CITY ~~VILLAGE~~ KAUKAUNA
DESIGN SPEC. AASHTO STD. SPEC. 2003	LOAD
DESIGNED BY DRG / DESIGN CK'D.	DRAWN BY RIES / PLANS CK'D. DRG

DECK REPLACEMENT AND RAISING

SHEET 1 OF 21

170

I.D. 1123-11-00

DATE: AUGUST 2009

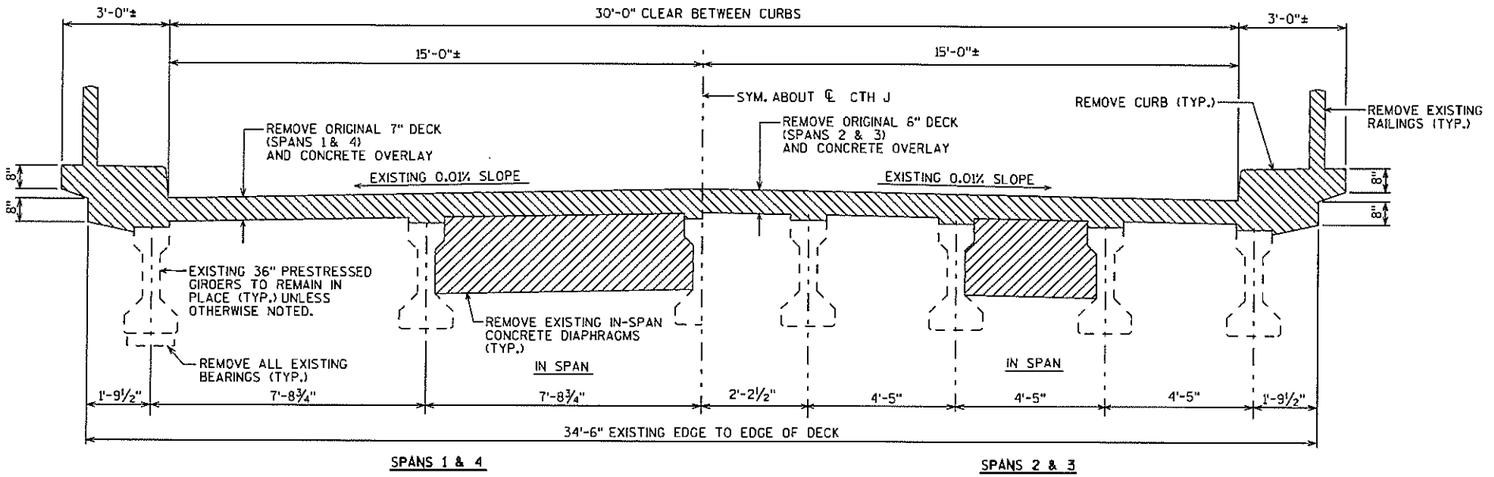
SCALE = 15

8

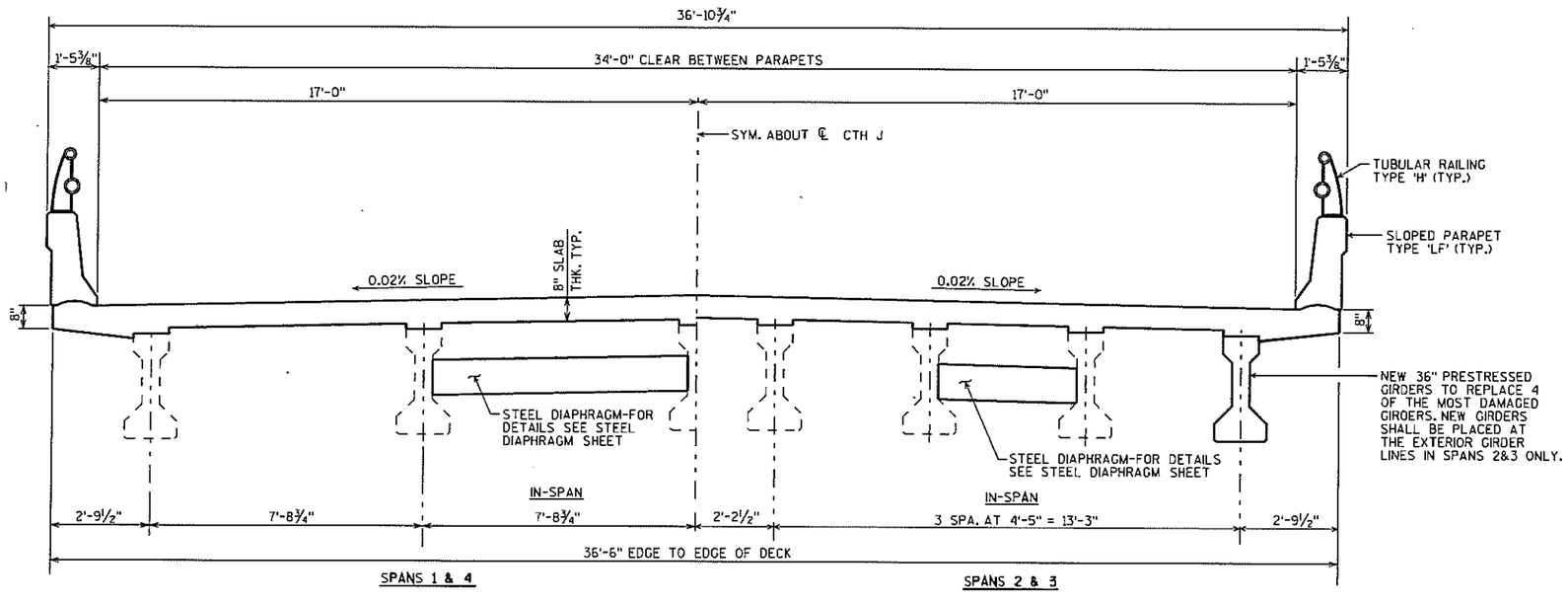
8

STATE PROJECT NUMBER

1123-11-71



EXISTING CROSS SECTION THRU ROADWAY - LOOKING NORTH



CROSS SECTION THRU ROADWAY - LOOKING NORTH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

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

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

CONCRETE FOR ABUTMENT AND PIER DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE. NO OPTIONAL CONSTRUCTION JOINT WILL BE PERMITTED.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE FRONT FACE AND THE TOP OF THE PARAPET. PROTECTIVE SURFACE TREATMENT SHALL ALSO BE APPLIED TO PIERS 1 AND 3 FROM THE EXISTING GROUND LINE TO THE BOTTOM OF THE PIER CAP AFTER WATER BLAST CLEANING THE PIER COLUMNS.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO ANY FABRICATION AND CONSTRUCTION.

INFORMATION ON THESE DRAWINGS RELATED TO THE EXISTING BRIDGE IS BASED UPON AVAILABLE DRAWING FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION, NO GUARANTEE OR WARRANTY IS MADE THAT THE INFORMATION IS ALL INCLUSIVE OR TOTALLY ACCURATE. THEREFORE, THE CONTRACTOR SHALL MAKE ITS OWN DETERMINATION OF THE ACTUAL CONDITIONS TO BE ENCOUNTERED.

CONCRETE SURFACE REPAIR AS DIRECTED BY ENGINEER.

SOUTH ABUTMENT	15 S.F.
GIRDERS	45 S.F.
COLUMN 3 PIER 3	15 S.F.
NORTH ABUTMENT	45 S.F.

IN ADDITION TO THE STANDARD SPECIFICATIONS FOR THE BID ITEM "CONCRETE SURFACE REPAIR", THE FOLLOWING SHALL BE FOLLOWED FOR THE REPAIR: PRIOR TO THE PLACING OF THE CONCRETE MIXTURE ON THE DAMAGED AREAS OF THE PRESTRESSED GIRDER, THE REAR AXLES OF A 15 TON TRUCK, FULLY LOADED, SHALL BE PARKED OVER THE GIRDER BEING REPAIRED. THE LOADED TRUCK SHALL REMAIN IN PLACE DURING THE CURING PERIOD OF THE SURFACE REPAIR, OR FOR A MINIMUM PERIOD OF FOUR DAYS.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" DEEP SAW CUT.

USE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETER INTO NEW WORK.

THE CONTRACTOR SHALL SUBMIT A REMOVAL AND BRIDGE JACKING PLAN TO THE ENGINEER FOR APPROVAL.

CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAILED DRAWINGS. THE NEW NAME PLATE SHALL SHOW THE ORIGINAL CONSTRUCTION YEAR OF 1961.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-44-44

DRAWN BY RIES | PLANS CK'D. DRG

CROSS SECTIONS AND GENERAL NOTES

SHEET 2

171

SCALE = 2

8

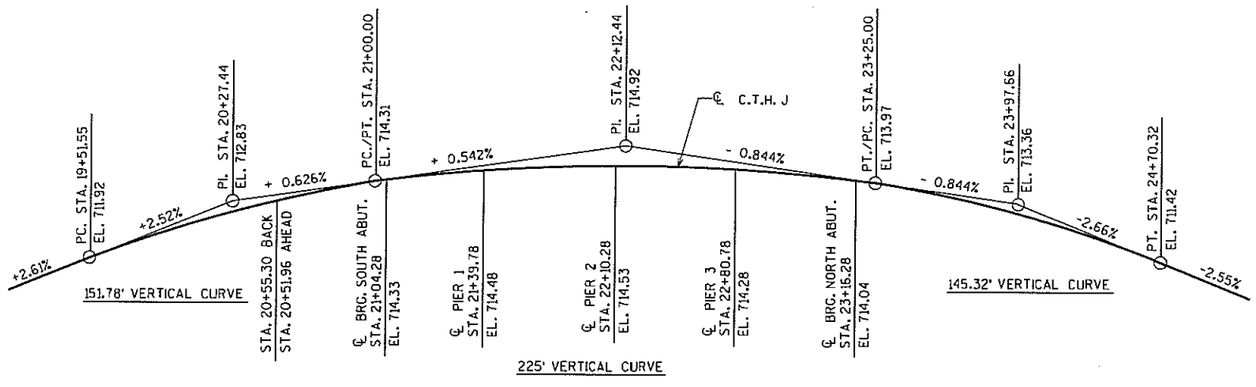
8

STATE PROJECT NUMBER

1123-11-71

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	PIER 2	PIER 3	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 22+10.28	LS	——	——	——	——	——	——	1
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	——	150	150	——	——	——	300
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-44-44	LS	——	——	——	——	——	——	1
210.0100	BACKFILL STRUCTURE	CY	——	170	170	——	——	——	340
502.0100	CONCRETE MASONRY BRIDGES	CY	308	35	35	41	10	41	470
502.3200	PROTECTIVE SURFACE TREATMENT	SY	985	——	——	41	——	41	1,067
502.5020	MASONRY ANCHORS TYPE L NO. 8 BARS	EACH	——	14	14	——	——	——	28
502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	EACH	——	90	90	76	76	76	408
502.6110	MASONRY ANCHORS TYPE S 3/4-INCH	EACH	——	——	——	30	——	30	60
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	351	——	——	——	——	——	351
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	——	——	——	——	——	——	——
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	60,520	3485	3485	5365	1430	5365	79,650
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	——	5	5	13	16	13	52
506.4000	STEEL DIAPHRAGMS B-44-44	EACH	36	——	——	——	——	——	36
506.7050.S	REMOVING BEARINGS B-44-44	EACH	——	5	5	13	16	13	52
506.7060.S	BRIDGE JACKING B-44-44	LS	——	——	——	——	——	——	1
509.1500	CONCRETE SURFACE REPAIR	SF	45	15	45	——	——	15	120
513.4055	RAILING TUBULAR TYPE H B-44-44	LS	——	——	——	——	——	——	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	——	18	18	——	——	——	36
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	——	175	175	——	——	——	350
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	——	70	70	——	——	——	140
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	——	——	1	——	1	6
	NON-BID ITEMS								
	FILLER	SIZE	——	——	——	——	——	——	½" & ¾"



PROFILE GRADE LINE C.T.H. J

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-44-44

DRAWN BY RIES | PLANS CK'D. DRG

QUANTITIES & PROFILE

SHEET 3

172

SCALE = 1

B-44-11 & 12 USH 41 over CTH JJ

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____ DATE: _____

DESCRIPTION: USH 41 over CTH JJ SHEET ____ OF ____

B-44-71(SB) & 72(NB) CALC. BY: _____

CHECKED BY: _____

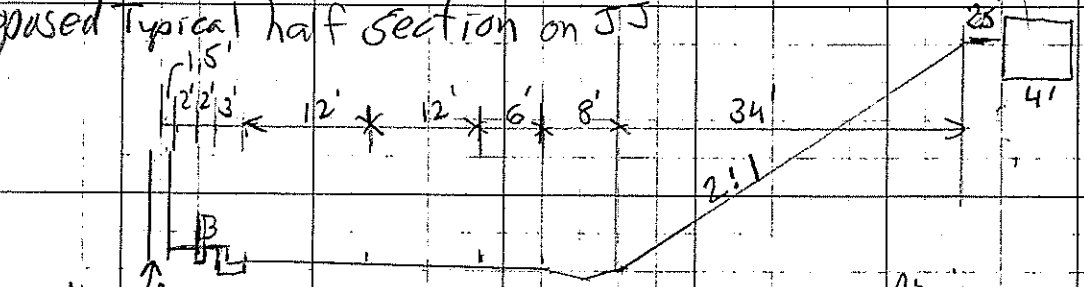
Existing structures are 40'x99', 1-95' span with 54" Girders
V.C. = 15.32' SB & 15.03' NB Need 16.75'

Existing CTH JJ is 2-12' lanes & 6' shldrs, Expand CTH JJ to 4-12' lanes & 6' shldrs →

4 - 12' lanes = 48'
2 - 14' clear zone = 28', (includes shldr)
2 x 34 = 68'
Slope Paving 12' @ 2:1 = 34'
Abutment (28' + 4') x 2 = 13'

157' span = 72" Girders
Raise US 41 by 18" - No

Proposed Typical half section on JJ



	Pier offset	1.5'
	Beam Guard	2.0'
	C & G	2.0'
		3.0'
20' widening in median = 20' x .02 = 0.4'	2 - 12' lanes	24.0'
	14' Clear Zone	14.0'
	Slope Paving	34.0"
	Abutment	2.5'
		4.0'
		87.0' Span = 36" Girders

1.5' difference in girders

B-71(SB) 15.32' - at ℄ JJ
+ 1.51'
16.82'
- 0.4'
16.42' → raise 41 0.33'

B-72(NB) 15.03' - at ℄ JJ
+ 1.51'
16.53'
- 0.4'
16.13' raise US 41 0.62'

Note: Profile raise on US 41 will be required to correct deficient grades,

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-071
Feature Under: JJ (SB)		Sect/Twn/Rng: S08 T21N R19E		
Location: 3.2M S JCT CTH U		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.0	Existing Posting:	
Oper Rating: HS43.3	Total Length (ft): 99.5	Deck Area(ft2): 4179	ADT On: 19000 Yr: 1998	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.32	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		95.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4179	4179				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	482	482				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	85	76	7	2		
	Spall at center of south abut; North abut has 5 cracks								
X	322 / 4	Bituminous Approach	EA	2		2			
	Both approaches are deteriorating at the egde of the deck and need sealing								
X	331 / 4	Conc Bridge Railing	LF	291	246	45			
	cracks and popouts								
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the end of deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	8	Channel	N	N
Substructure	7	7	Waterway	N	N

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-071
USH 41 over JJ (SB)

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'51.62"N
(17) Longitude(° ' "):	88°13'43.85"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	99.5	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 23	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.0	42.0
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	48.5	
(55) Minimum Right Lateral(ft):	16.0	
(55) Minimum Left Lateral(ft):	8.5	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-072
Feature Under: JJ		Sect/Twn/Rng: S08 T21N R19E		
Location: 1.2M N JCT CTH J		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS21.1	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS43.3	Total Length (ft): 99.4	Deck Area(ft2): 4204	ADT On: 23100 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 07-20-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.03	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		95.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4204	4204				
	Diagonal cracks at abut, longitudinal at center								
X	109 / 3	P/S Conc Open Girder	LF	482	482				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	72	63	9			
	CS-2 (S Abut 4" & N Abut 5")								
X	322 / 4	Bituminous Approach	EA	2	1	1			
	North approach slightly settled								
X	331 / 4	Conc Bridge Railing	LF	269	219	50			
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the ends of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	8	7	Waterway	N	N

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-072
USH 41 over JJ

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'50.08"N
(17) Longitude(° ' "):	88°13'43.58"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	99.4	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 13	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	48.0	
(55) Minimum Right Lateral(ft):	15.5	
(55) Minimum Left Lateral(ft):	8.5	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

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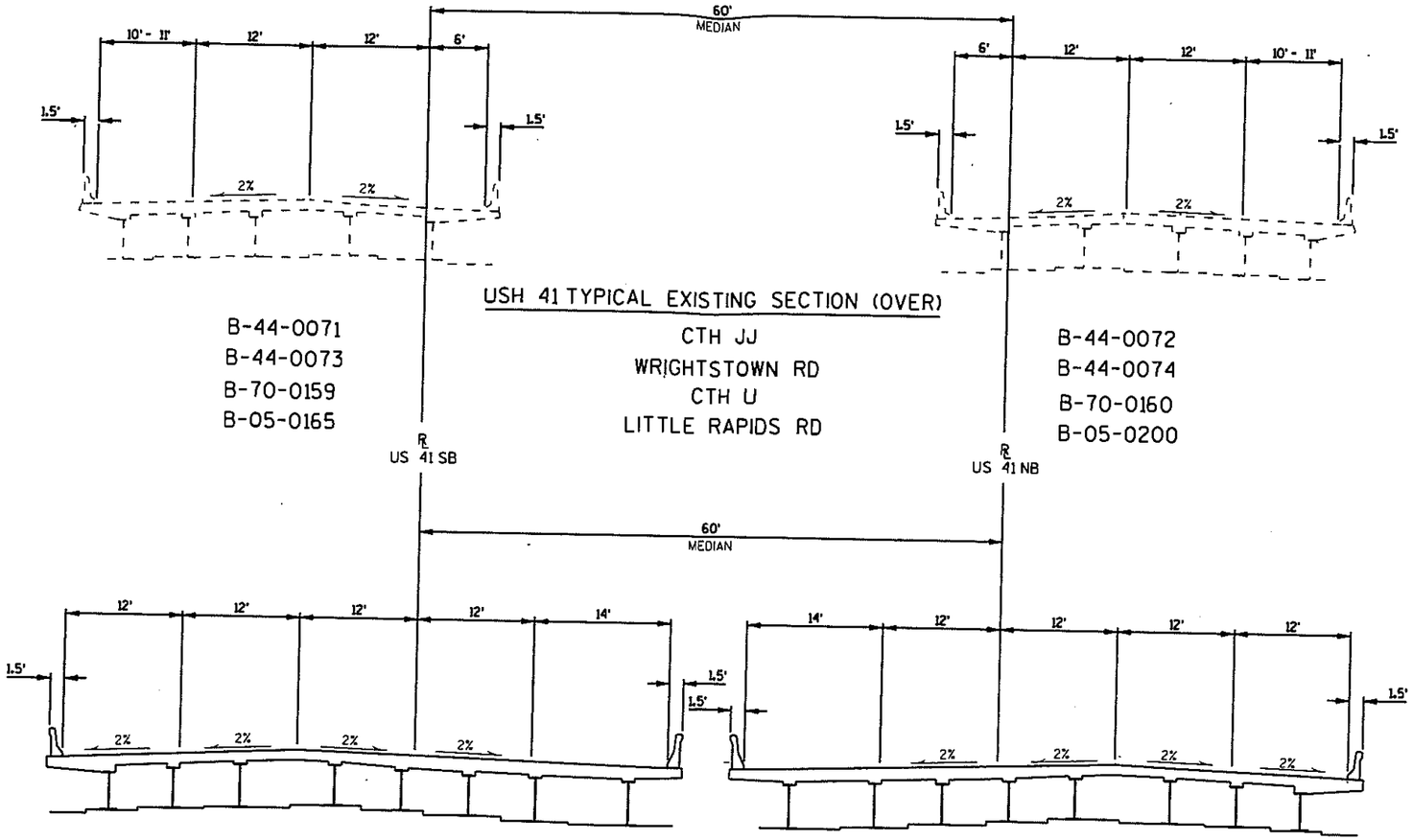
2



USH 41 TYPICAL EXISTING SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD

B-44-0072
B-44-0074
B-70-0160
B-05-0200

DESIRABLE PROPOSED SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD
(NEW BRIDGES)

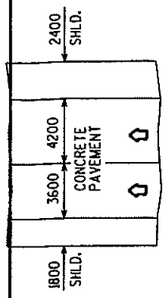
B-44-0072
B-44-0074
B-70-0160
B-05-0200

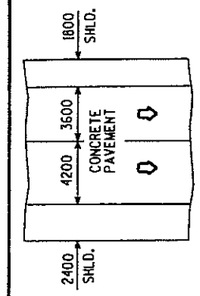
PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 19	E

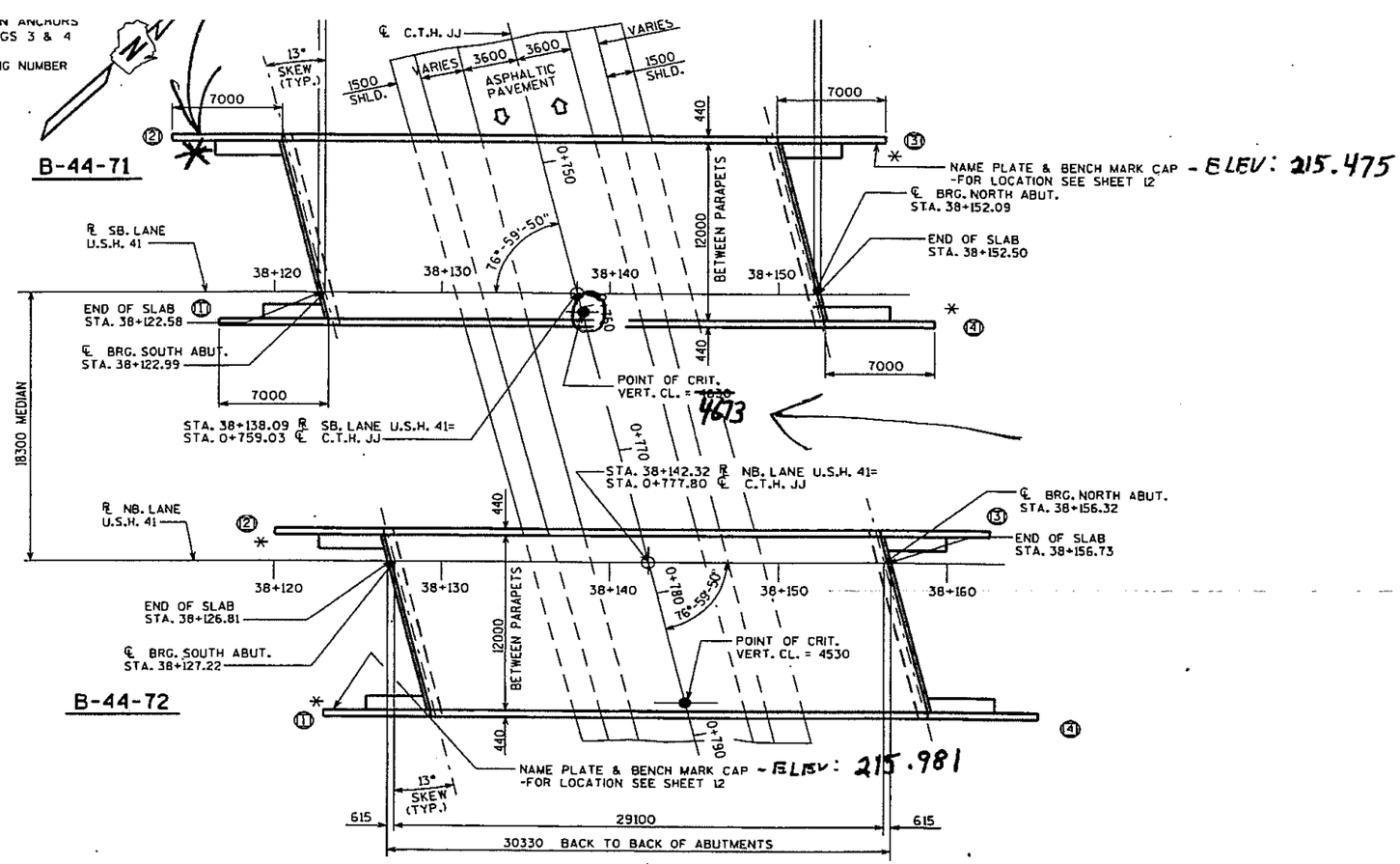
FILE NAME : J:\44386\t1\Short Term Solutions\Amendment *5\DAAR\120726\TYICAL SECTIONS_bridges.dgn
PLOT DATE : 7/26/2012 PLOT BY : maryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1

NOTE: SURFACE DRAIN ANCHORS REQ'D. ON WINGS 3 & 4

○ INDICATES WING NUMBER

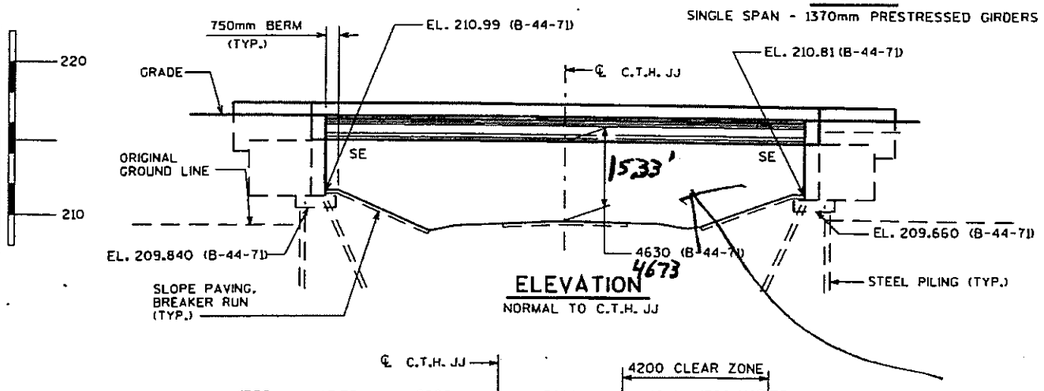






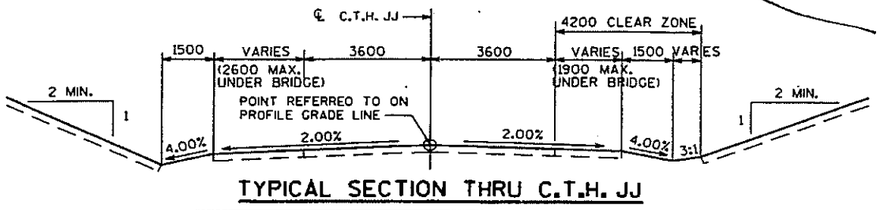
PLAN

SINGLE SPAN - 1370mm PRESTRESSED GIRDERS



ELEVATION

NORMAL TO C.T.H. JJ



TYPICAL SECTION THRU C.T.H. JJ

DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-39
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 42 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 29m LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. JJ
A.D.T.=37,000 (2018)	A.D.T.=1,620 (2018)
R.O.S.=110 km/h	R.O.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT:
FINN HUBBARD ---------(608) 266-8489
JERRY ZIRK----------(608) 266-5163

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-71

U.S.H. 41 OVER C.T.H. JJ

COUNTY: OUTAGAMIE		TOWN/~~CITY/VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: CIHA	DESIGN CK'D.: KTN	DRAWN BY: JHG	PLANS CK'D.: ZIRK

APPROVED: [signature] CHIEF BRIDGE DESIGN ENGINEER — DATE: 01-18-00

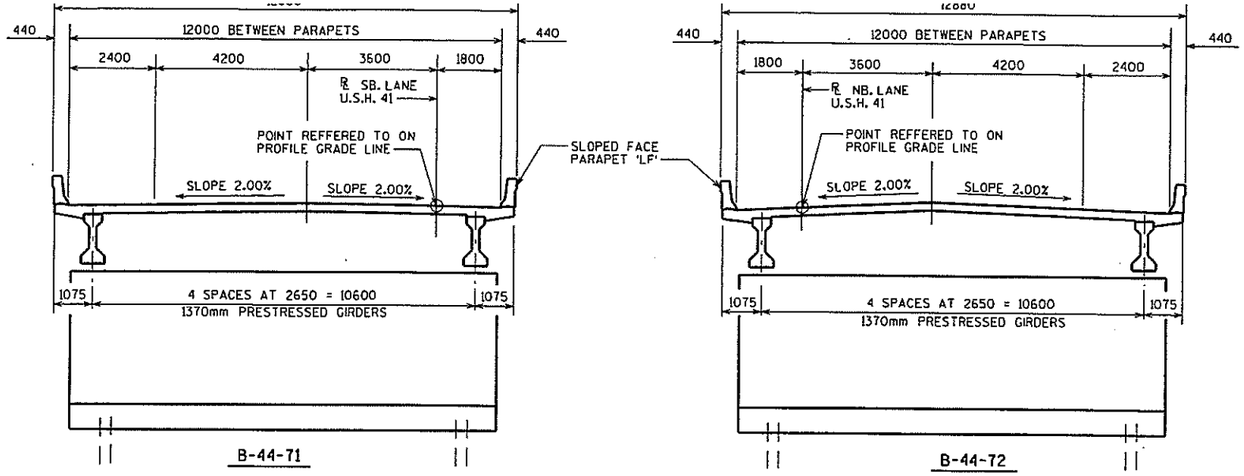
GENERAL PLAN

SHEET 1 OF 12

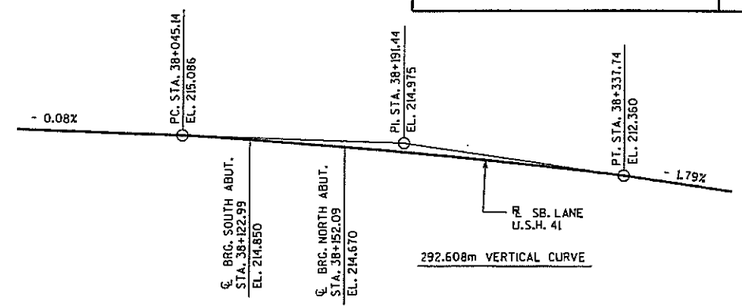
DATE: MAR'98

FILE= 71GP.DGN
SCALE= 175

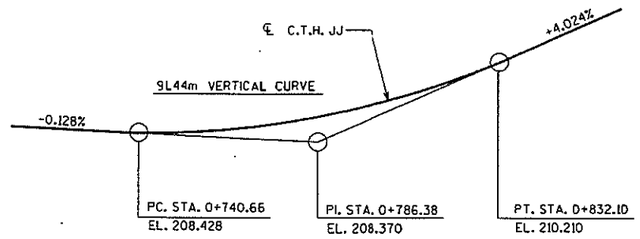
I.D. 1131-08-00F



CROSS SECTION THRU ROADWAY



PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE C.T.H. JJ

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-71	L.S.	——	——	——	1
STRUCTURE BACKFILL	m^3	——	570	570	1140
CONCRETE MASONRY, BRIDGES	m^3	126	108	108	342
PROTECTIVE SURFACE TREATMENT	m^2	430	——	——	430
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	147	——	——	147
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	3770	3800	7570
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14090	480	480	15050
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	——	——	10
STEEL PILING, DELIVERED AND DRIVEN, HP250mm X 62kg/m	m	——	493	493	986
RUBBERIZED MEMBRANE WATERPROOFING	m^2	——	7	7	14
SLOPE PAVING, BREAKER RUN	m^2	——	98	132	230
PIPE UNDERDRAIN, 150 mm	m	——	10	10	20
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	——	10	10	20
GEOTEXTILE FABRIC, TYPE DF	m^2	——	23	23	46
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	——	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-71	EACH	8	——	——	8
		——			
NON-BID ITEMS					
FILLER	SIZE	——	——	——	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

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AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-71

CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZIRK

CROSS SECTION & QUANTITIES

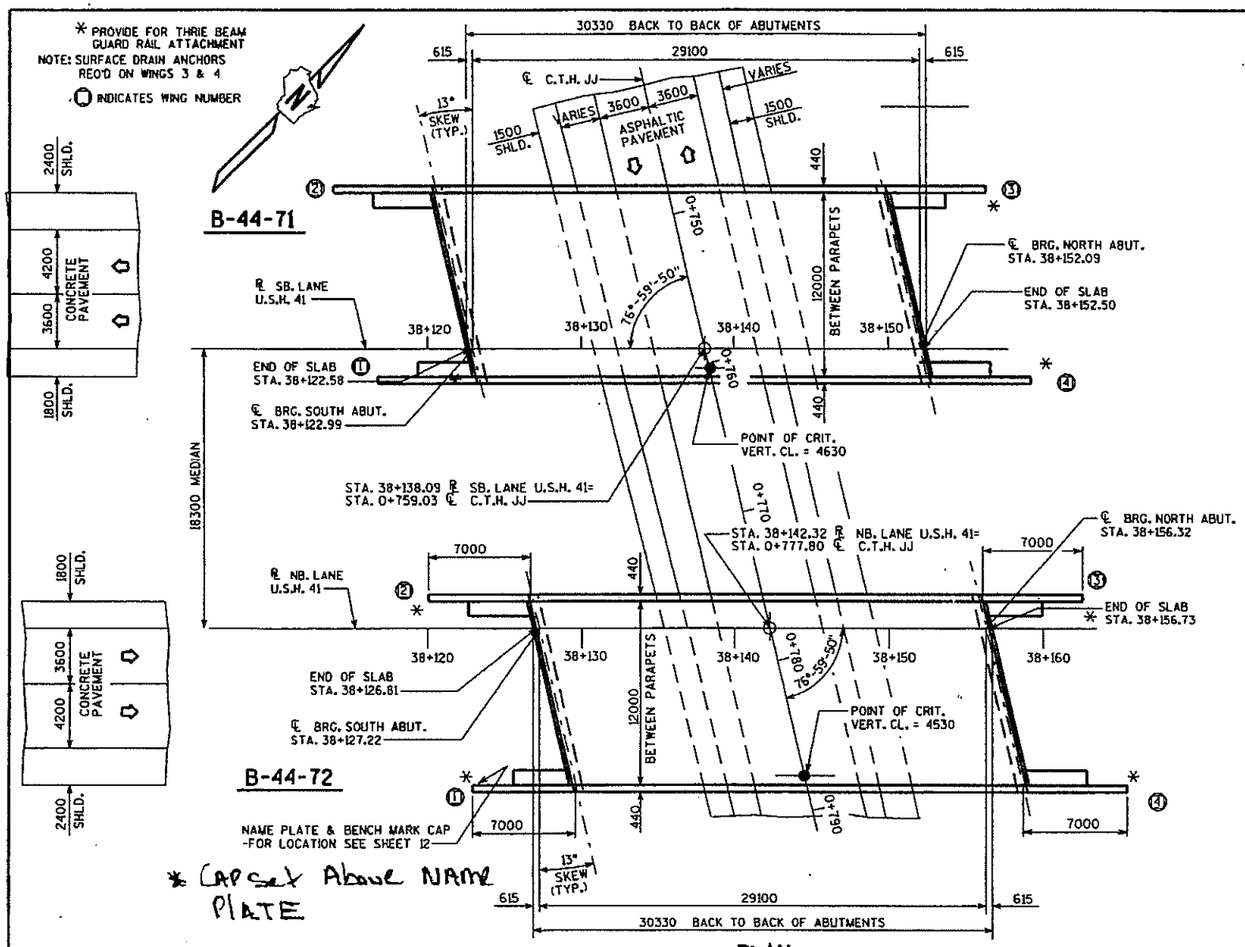
SHEET 2

FILE= 71GP.DGN
SCALE = 75

DISTRICT CONTACT: JAMIE BOADO

TYPE CODE = X281

STATE PROJECT NUMBER	SHEET NO.
1131-08-78	8.1



DESIGN DATA

LIVE LOAD:

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INVENTORY RATING; MS-20
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TRAFFIC VOLUME

U.S.H. 41	C.T.H. JJ
A.D.T.=37,000 (2018)	A.D.T.=1,620 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

South ABUT:
Ave. Pile Length = 29.3m
Longest = 30.0m
Shortest = 28.5m

North ABUT:
Ave. Pile Length = 29.22m
Longest = 29.7m
Shortest = 28.6m

BRIDGE OFFICE CONTACT:
FINN HUBBARD ---------(608) 266-8489
JERRY ZIRK----------(608) 266-5163

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-72

U.S.H. 41 OVER C.T.H. JJ

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DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: CIHA	DESIGN CK'D.: KTN	DRAWN BY: JHG	PLANS CK'D.: ZIRK

APPROVED: GH Anderson 04-23-99
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

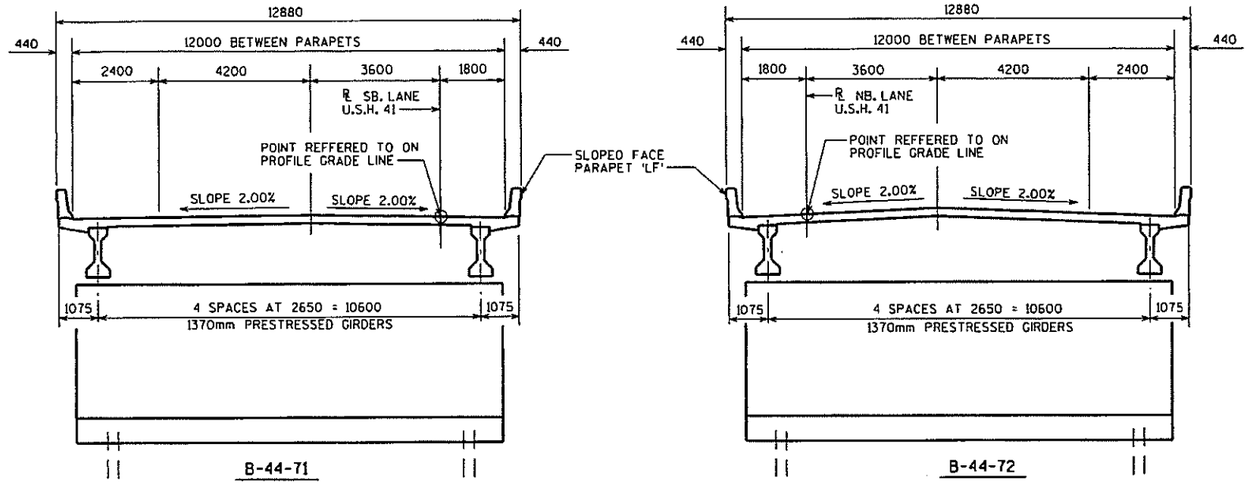
SHEET 1 OF 12

DATE: FEB'98

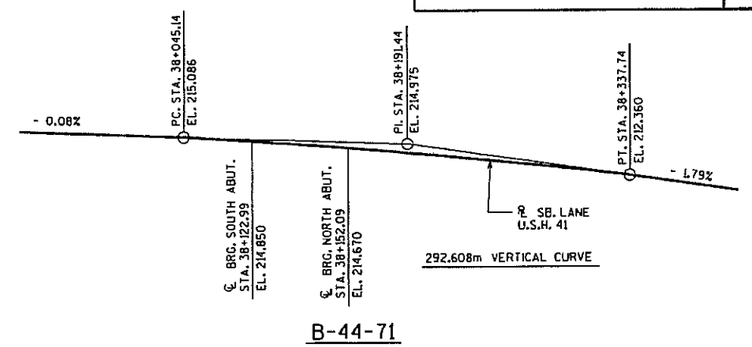
FILE= 72GP.DGN
SCALE= 1:75

I.D. 1131-08-00F

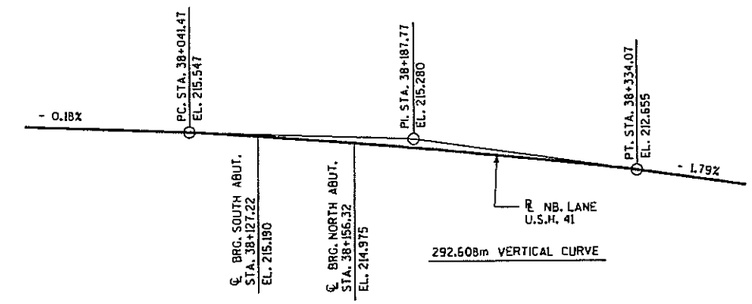
STATE PROJECT NUMBER	SHEET NO.
1131-08-78	8.2



CROSS SECTION THRU ROADWAY

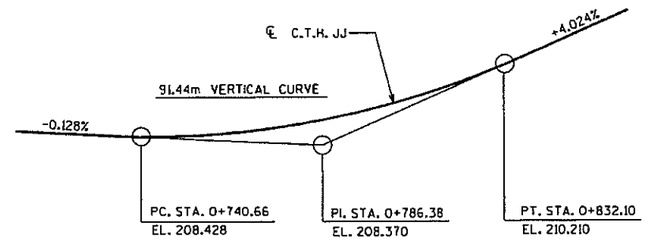


B-44-71



B-44-72

PROFILE GRADE LINE U.S.H. 41



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RUBBERIZED MEMBRANE WATERPROOFING	m²	—	7	7	14
SLOPE PAVING, BREAKER RUN	m²	—	88	92	180
PIPE UNDERDRAIN, 150 mm	m	—	10	10	20
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	—	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m²	—	23	23	46
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	—	—	4
STEEL DIAPHRAGMS, STRUCTURE B-44-72	EACH	8	—	—	8
NON-BID ITEMS					
FILLER	SIZE	—	—	—	13 & 19

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-72

CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 72GP.DGN
SCALE = 75

B-44-11 & 12 USH 41 over CTH JJ

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____ DATE: _____

DESCRIPTION: USH 41 over CTH JJ
B-44-71(SB) & 72(NB)

SHEET ____ OF ____

CALC. BY: _____

CHECKED BY: _____

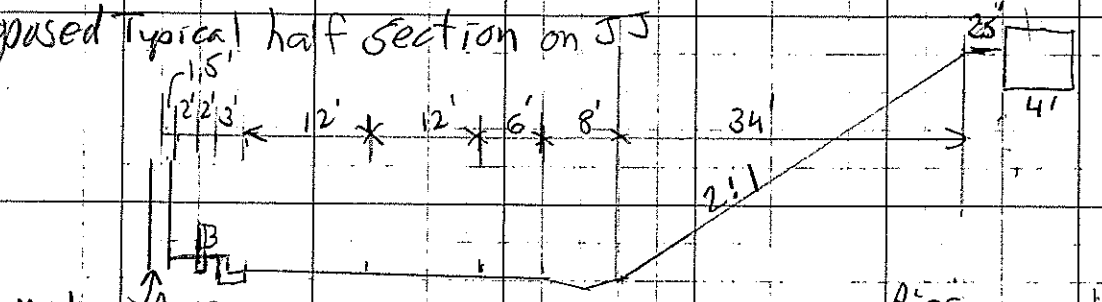
Existing structures are 40'x99', 1-96' span with 54" Girders
V.C. = 15.32' SB & 15.03' NB Need 16.75'

Existing CTH JJ is 2-12' lanes & 6' shldrs, Expand CTH JJ to 4-12' lanes & 6' shldrs →

4 - 12' lanes = 48'
2 - 14' clear zone = 28' (includes shldr)
Slope Paving 2x34 = 68'
12' @ 2:1 = 34'
Abutment (28'+4') x2 = 13'
157' span = 72" Girders

Raise US 41 by .18" - No

Proposed Typical half section on JJ



	Pier offset	Beam Guard	C & G	2-12' lanes	14' Clear Zone	Slope Paving	Abutment
	1.5'	2.0'	2.0'	24.0'	14.0'	34.0'	2.8'
	3.0'						4.0'

87.0' Span = 36" Girders

1.5' difference in girders

Note: Profile raise on US 41 will be required to correct deficient grades.

B-71(SB)	15.32' - at ℄ JJ	
	+1.51'	
	16.82'	
	-0.4'	
	16.42'	→ raise 41 0.33'
B-72(NB)	15.03' - at ℄ JJ	
	1.50'	
	16.53'	
	-0.4	
	16.13'	raise US 41 0.62'

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-071
Feature Under: JJ (SB)		Sect/Twn/Rng: S08 T21N R19E		
Location: 3.2M S JCT CTH U		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.0	Existing Posting:	
Oper Rating: HS43.3	Total Length (ft): 99.5	Deck Area(ft2): 4179	ADT On: 19000 Yr: 1998	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.32	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		95.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4179	4179				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	482	482				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	85	76	7	2		
	Spall at center of south abut; North abut has 5 cracks								
X	322 / 4	Bituminous Approach	EA	2		2			
	Both approaches are deteriorating at the egde of the deck and need sealing								
X	331 / 4	Conc Bridge Railing	LF	291	246	45			
	cracks and popouts								
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the end of deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	8	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-071
USH 41 over JJ (SB)

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'51.62"N
(17) Longitude(° ' "):	88°13'43.85"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	99.5	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 23	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.0	42.0
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	48.5	
(55) Minimum Right Lateral(ft):	16.0	
(55) Minimum Left Lateral(ft):	8.5	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-072
Feature Under: JJ		Sect/Twn/Rng: S08 T21N R19E		
Location: 1.2M N JCT CTH J		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS21.1	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS43.3	Total Length (ft): 99.4	Deck Area(ft2): 4204	ADT On: 23100 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 07-20-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.03	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		95.5

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4204	4204				
	Diagonal cracks at abut, longitudinal at center								
X	109 / 3	P/S Conc Open Girder	LF	482	482				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	72	63	9			
	CS-2 (S Abut 4" & N Abut 5")								
X	322 / 4	Bituminous Approach	EA	2	1	1			
	North approach slightly settled								
X	331 / 4	Conc Bridge Railing	LF	269	219	50			
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at the ends of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	8	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-072
USH 41 over JJ

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°18'50.08"N
(17) Longitude(° ' "):	88°13'43.58"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	99.4	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 13	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	48.0	
(55) Minimum Right Lateral(ft):	15.5	
(55) Minimum Left Lateral(ft):	8.5	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
	X	X	SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
			OTHER(99) (Please specify)
Transition Type:			CONT GUARD RAIL
			NO APP GRDRL
			NO ATTACHMENT
	5		22 MM(7/8") BOLT (Please enter quantity)
			25 MM(1") BOLT (Please enter quantity)
			OTHER (Please specify)
Guardrail Termination Type:	X		(01) ENERGY ABSORBING TERMINAL/EAT
			(02) TURN DOWN
			(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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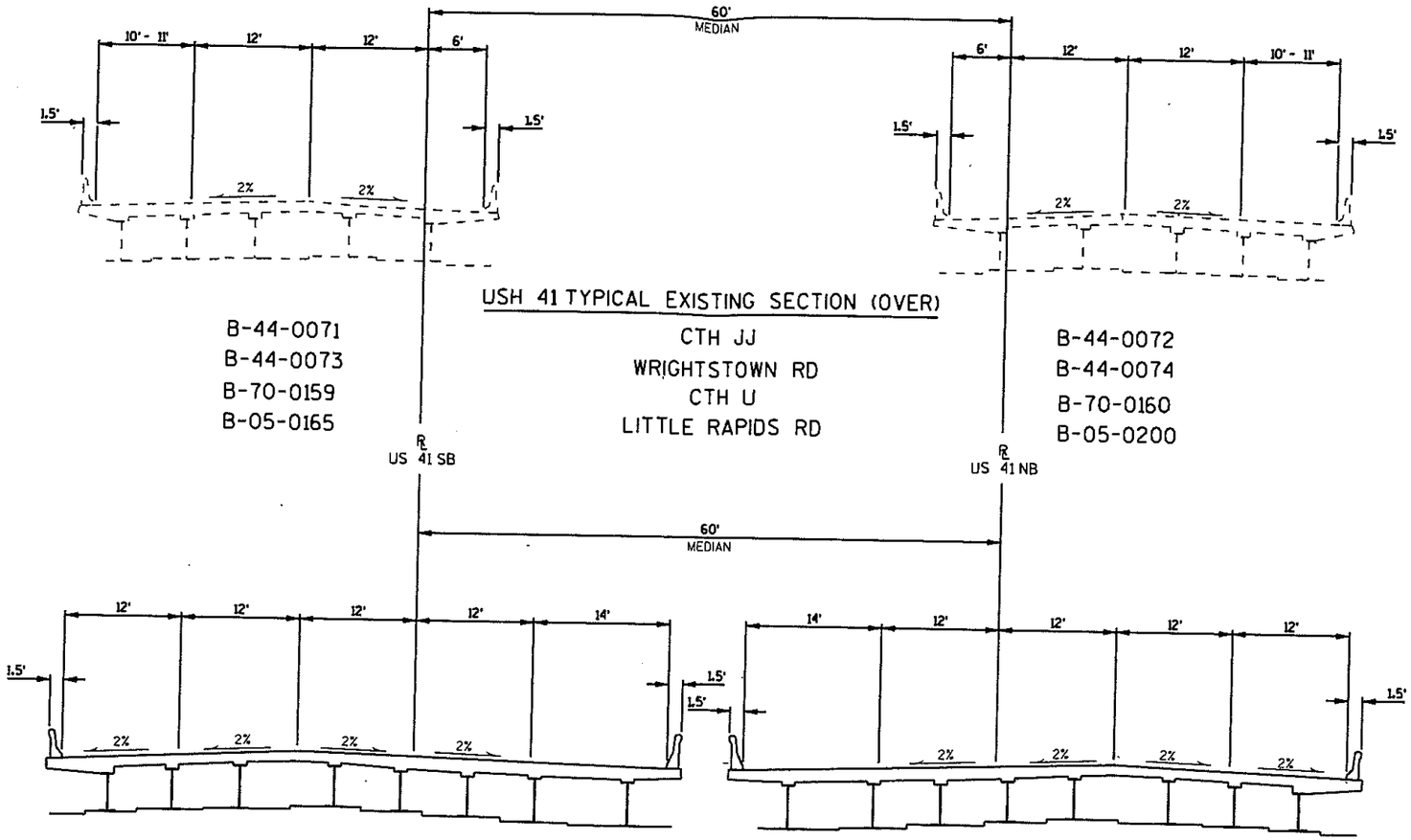
2



USH 41 TYPICAL EXISTING SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD

B-44-0072
B-44-0074
B-70-0160
B-05-0200

DESIRABLE PROPOSED SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD
(NEW BRIDGES)

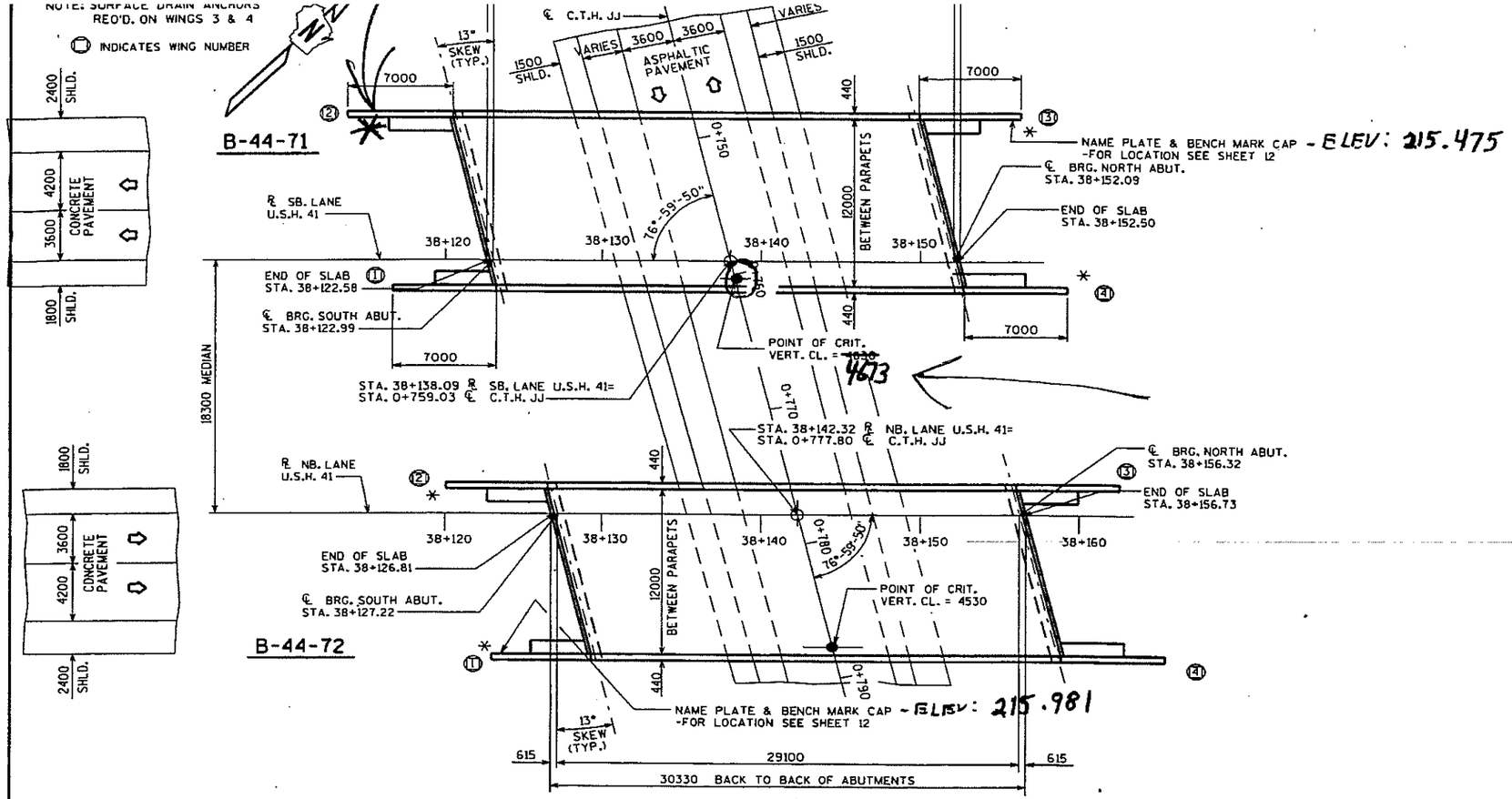
B-44-0072
B-44-0074
B-70-0160
B-05-0200

PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 19	E

FILE NAME : J:\44386\t1\Short Term Solutions\Amendment #5\DAAR\120726\TYICAL SECTIONS_bridges.dgn
PLOT DATE : 7/26/2012 PLOT BY : maryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1

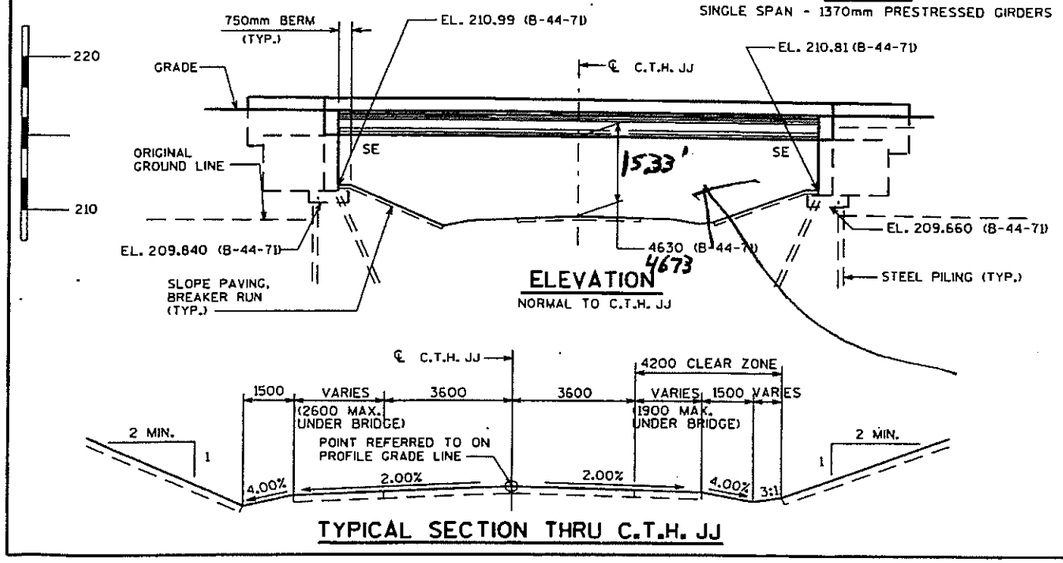
NOTE: SURFACE DRAIN ANCHORS REQ'D. ON WINGS 3 & 4

INDICATES WING NUMBER



PLAN

SINGLE SPAN - 1370mm PRESTRESSED GIRDERS



ELEVATION

NORMAL TO C.T.H. JJ

TYPICAL SECTION THRU C.T.H. JJ

DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-39
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 42 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 29m LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. JJ
A.D.T.=37,000 (2018)	A.D.T.=1,620 (2018)
R.O.S.=110 km/h	R.O.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT:
FINN HUBBARD ---------(608) 266-8489
JERRY ZIRK----------(608) 266-5163

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-71

U.S.H. 41 OVER C.T.H. JJ

COUNTY	TOWN/~~CITY/VILLAGE~~		
OUTAGAMIE	KAUKAUNA		
DESIGN SPEC. AASHTO 1996	LOAD MS-18	CONST. SPEC. 1996	
DESIGNED BY CIHA	DESIGN CK'D. KTN	DRAWN BY JHG	PLANS CK'D. ZIRK

APPROVED J.H. Anderson 01-18-00
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

SHEET 1 OF 12

DATE: MAR'98

I.D. 1131-08-00F

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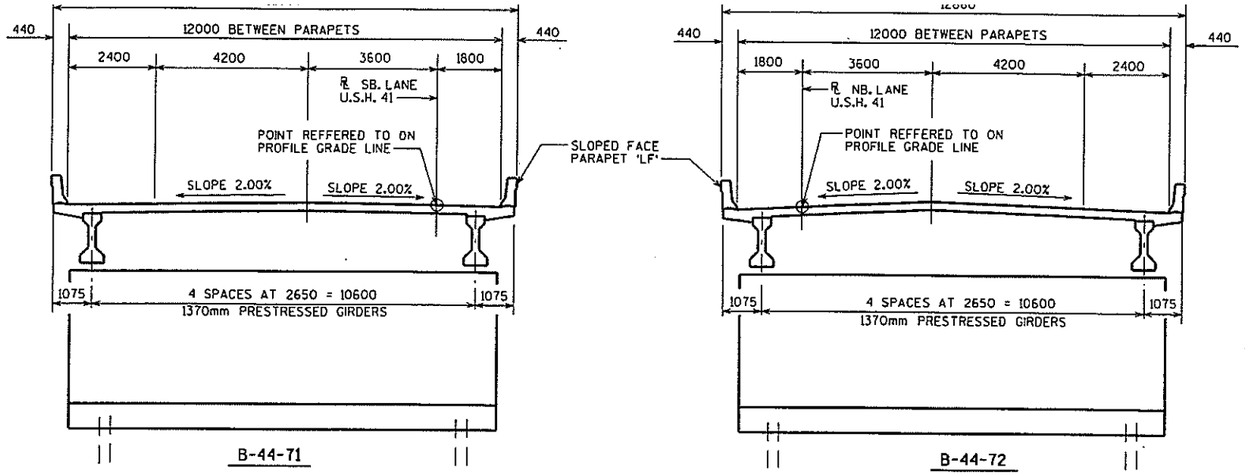
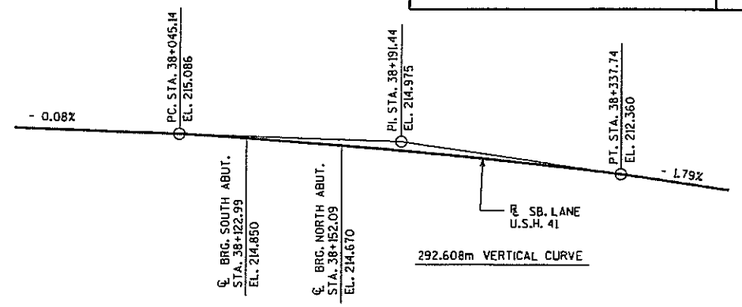
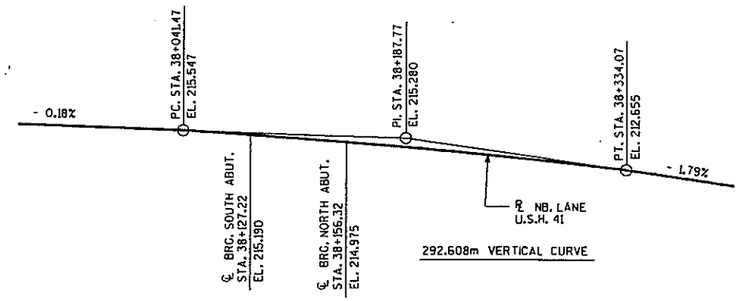
SCALE= 175



CROSS SECTION THRU ROADWAY

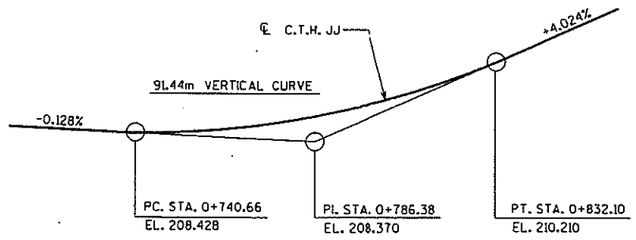


B-44-71



B-44-72

PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE C.T.H. JJ

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-71	L.S.	——	——	——	1
STRUCTURE BACKFILL	m³	——	570	570	1140
CONCRETE MASONRY, BRIDGES	m³	126	108	108	342
PROTECTIVE SURFACE TREATMENT	m²	430	——	——	430
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	147	——	——	147
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	3770	3800	7570
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14090	480	480	15050
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	——	——	10
STEEL PILING, DELIVERED AND DRIVEN, HP250mm X 62kg/m	m	——	493	493	986
RUBBERIZED MEMBRANE WATERPROOFING	m²	——	7	7	14
SLOPE PAVING, BREAKER RUN	m²	——	98	132	230
PIPE UNDERDRAIN, 150 mm	m	——	10	10	20
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	——	10	10	20
GEOTEXTILE FABRIC, TYPE DF	m²	——	23	23	46
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	——	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-71	EACH	8	——	——	8
		——			
NON-BID ITEMS					
FILLER	SIZE	——	——	——	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-71

CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZIRK

CROSS SECTION & QUANTITIES

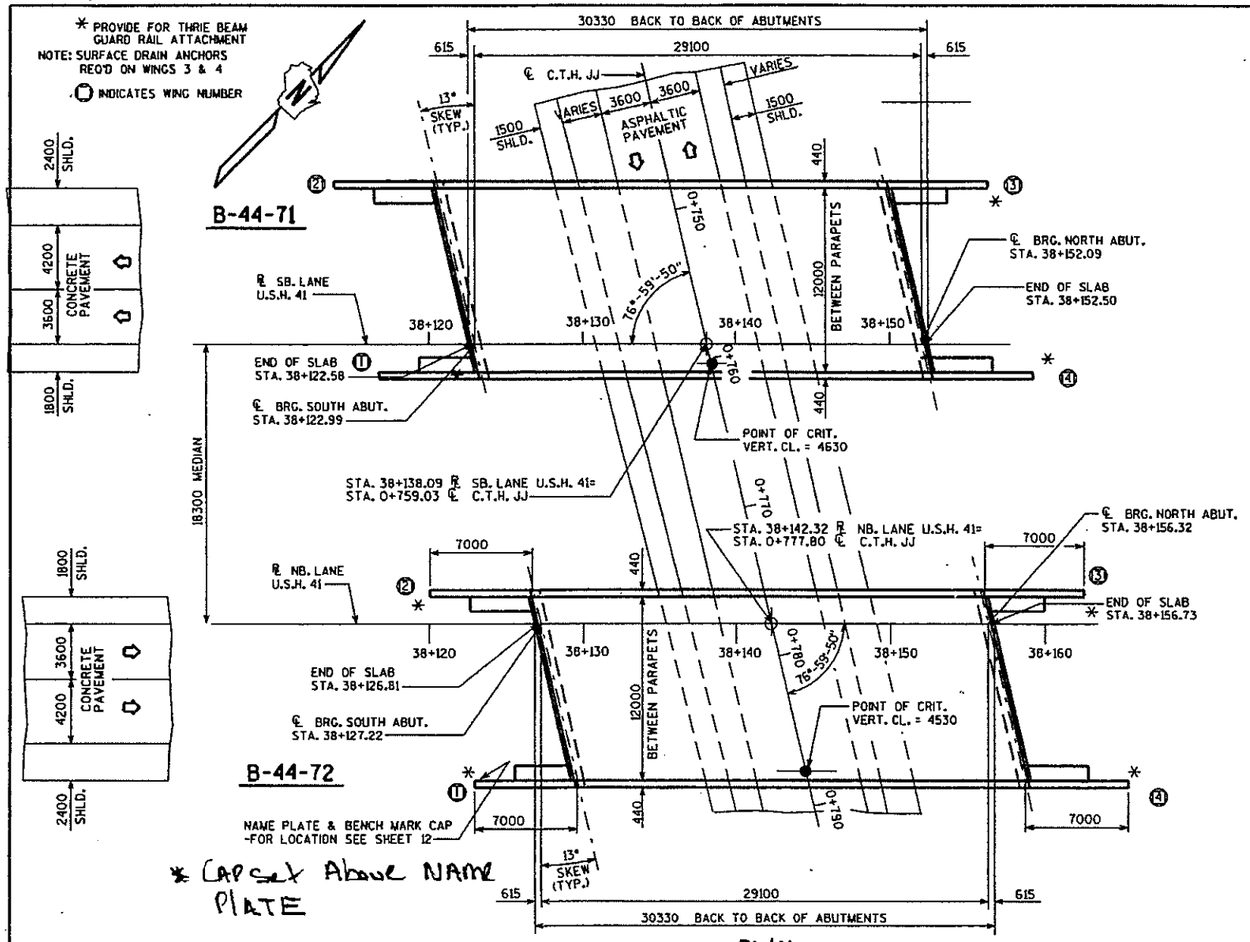
SHEET 2

FILE= 71GP.DGN
SCALE = 75

DISTRICT CONTACT: JAMIE BOADO

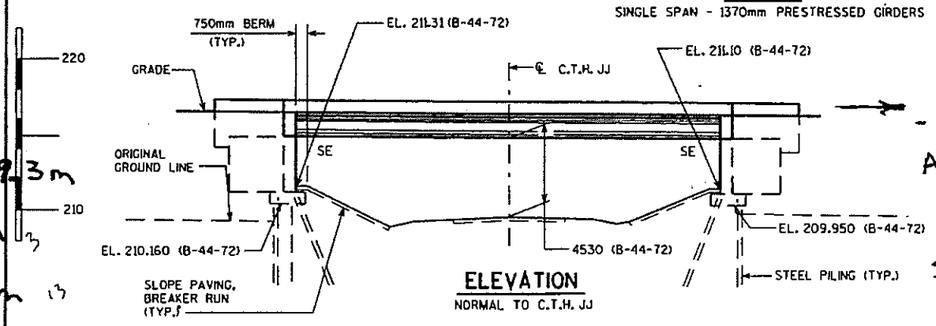
TYPE CODE = X281

STATE PROJECT NUMBER	SHEET NO.
1131-08-78	8.1



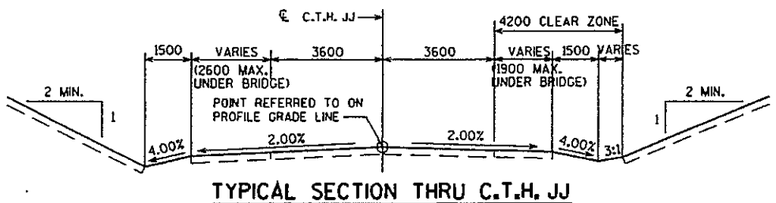
PLAN

SINGLE SPAN - 1370mm PRESTRESSED GIRDERS



ELEVATION

NORMAL TO C.T.H. JJ



TYPICAL SECTION THRU C.T.H. JJ

DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-39
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 42 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 29m LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. JJ
A.D.T.=37,000 (2018)	A.D.T.=1,620 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

South ABUT:
Pile Length = 29.3m
Lgst = 30.0m
Shrtest = 28.5m

North ABUT:
Ave. Pile Length = 29.22m
Longest = 29.7m
Shortest = 28.6m

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT:
FINN HUBBARD ---------(608) 266-8489
JERRY ZIRK----------(608) 266-5163

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-72

U.S.H. 41 OVER C.T.H. JJ

COUNTY: OUTAGAMIE		TOWN ~~CITY / VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: CIHA	DESIGN CK'D.: KTN	DRAWN BY: JHG	PLANS CK'D.: ZIRK

APPROVED: G.H. Anderson 04-23-99
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

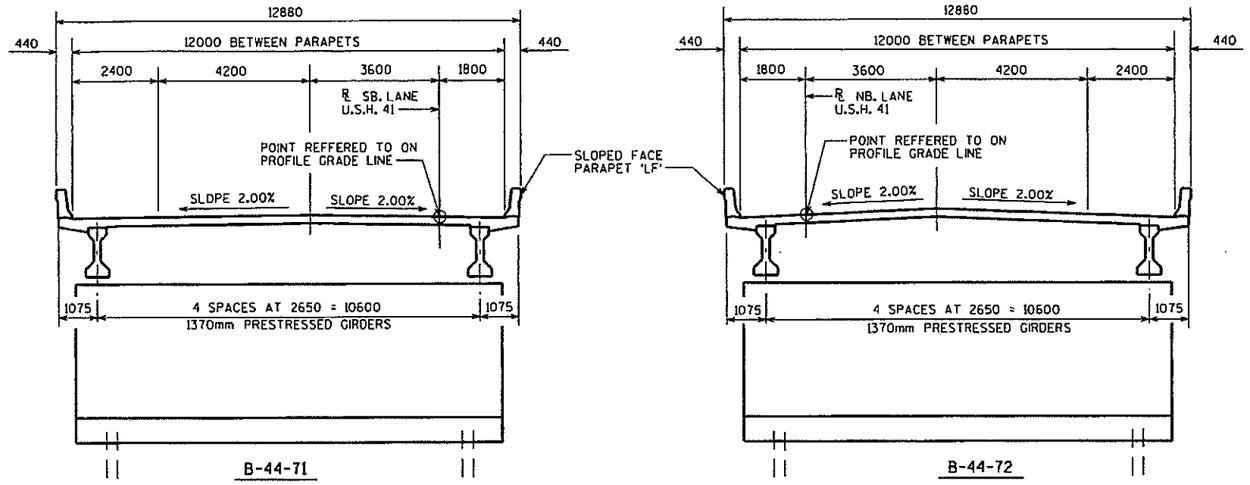
SHEET 1 OF 12

DATE: FEB'98

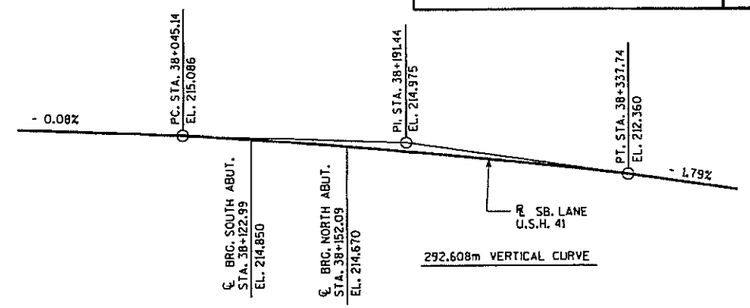
FILE= 72GP.DGN
SCALE= 1/5

I.D. 1131-08-00F

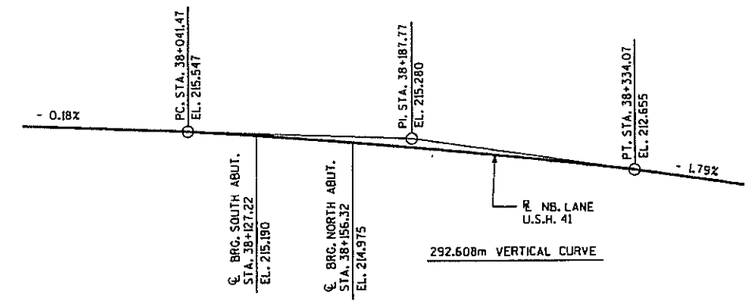
STATE PROJECT NUMBER	SHEET NO.
1131-08-78	8.2



CROSS SECTION THRU ROADWAY

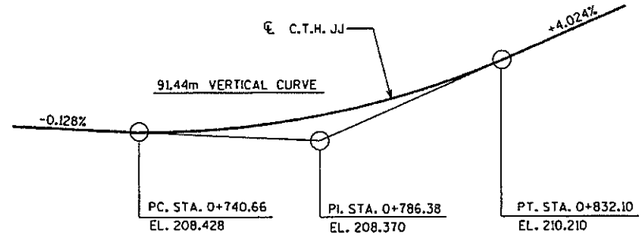


B-44-71



B-44-72

PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE C.T.H. JJ

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-72	L.S.	—	—	—	1
STRUCTURE BACKFILL	m³	—	570	570	1140
CONCRETE MASONRY, BRIDGES	m³	126	108	108	342
PROTECTIVE SURFACE TREATMENT	m²	430	—	—	430
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	147	—	—	147
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	3730	3750	7480
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14080	480	480	15040
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	—	—	10
STEEL PILING, DELIVERED AND DRIVEN, HP250mm x 62kg/m	m	—	493	493	986
RUBBERIZED MEMBRANE WATERPROOFING	m²	—	7	7	14
SLOPE PAVING, BREAKER RUN	m²	—	88	92	180
PIPE UNDERDRAIN, 150 mm	m	—	10	10	20
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	—	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m²	—	23	23	46
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	—	—	4
STEEL DIAPHRAGMS, STRUCTURE B-44-72	EACH	8	—	—	8
NON-BID ITEMS					
FILLER	SIZE	—	—	—	13 & 19

GENERAL NOTES

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-72

CONST. SPEC.	1996	DRAWN BY	JHG	PLANS CK'D.	ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 72GP.DGN
SCALE = 75

B-44-13 & 14 USH 41 over Wrightstown Road

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____

DESCRIPTION: USH 41 over Wrightstown Road B-44-73(SB) & 74 (NB)

DATE: _____

SHEET ____ OF ____

CALC. BY: _____

CHECKED BY: _____

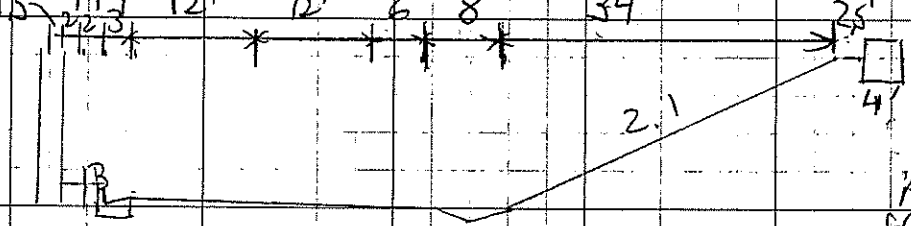
Existing Structures are 40'x102' 54" Girders 1 span

VC = 15.12' SB & 15.03' NB Need 16.75'

Existing Wrighttown is 2-12' lanes & 5' shldrs. Expand to 4-12' lanes & 6' shldr

4-12' lanes	=	48'
2-14' Clear Zones	=	28'
Slope Paving 17@2:1 x 2	=	68'
Abutments (2.5'+4') x 2	=	13
		157' span = 72" Girders → Raise US 41 18" - No

Proposed Typical Half Section (Wrighttown)



Pier offset	1.5'
Beam Guard	2.0'
C & G	2.0'
2-12' lanes	3.0'
14' clear zone	24.0'
Slope Paving	14.0'
Abutment	34.0'
	2.5'
	4.0'
	87' span

+1.5' difference in girders

36" Girders

20' Widening In Median 20' x .02 = 0.4'

B-73(SB) 15.12 at ℄

+1.50

16.62

-0.4

16.22 Raise SB 41 0.53'

B-74 (NB) 15.03 at ℄

+1.50

16.53

-0.4

16.13 Raise NB 41 0.62

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-073
Feature Under: WRIGHTSTOWN RD		Sect/Twn/Rng: S33 T22N R19E		
Location: 1.9M S JCT CTH U		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS50	Total Length (ft): 106.1	Deck Area(ft2): 4488	ADT On: 19000 Yr: 1998	ADT Under: Yr:

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.12	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		101.7

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4488	4488				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	515	515				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	95	79	16			
	South abut spalling under girders CS-2 (north 6" south 10")								
X	321 / 4	R/Conc Approach Slab	EA	2	1	1			
	South approach has settled slightly								
X	331 / 4	Conc Bridge Railing	LF	311	249	62			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
	South slope protection has settled								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at end of deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-073
USH 41 over WRIGHTSTOWN RD

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°19'43.66"N
(17) Longitude(° ' "):	88°12'38.79"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	106.1	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 27	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	49.0	
(55) Minimum Right Lateral(ft):	10.0	
(55) Minimum Left Lateral(ft):	15.0	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
	X	X	SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
			OTHER(99) (Please specify)
Transition Type:			CONT GUARD RAIL
			NO APP GRDRL
			NO ATTACHMENT
	5		22 MM(7/8") BOLT (Please enter quantity)
			25 MM(1") BOLT (Please enter quantity)
			OTHER (Please specify)
Guardrail Termination Type:	X		(01) ENERGY ABSORBING TERMINAL/EAT
			(02) TURN DOWN
			(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-074
Feature Under: WRIGHTSTOWN RD NB		Sect/Twn/Rng: S33 T22N R19E		
Location: 1.3M N JCT CTH JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 39.4, 42.3	Existing Posting:	
Oper Rating: HS50	Total Length (ft): 106.1	Deck Area(ft2): 4334	ADT On: 23100 Yr: 2003	ADT Under: Yr:

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.03	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		101.7

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4334	4334				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	515	515				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	95	84	9	2		
	CS-2 (S Abut 7" & N Abut 2") CS-3 N Abut 2"								
X	321 / 4	R/Conc Approach Slab	EA	2	1	1			
	North approach settled slightly								
X	331 / 4	Conc Bridge Railing	LF	311	246	65			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
	South slope protection is settling								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
	Diagonal cracking at ends of deck								
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal jts at the end of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	8	7	Waterway	N	N

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-074
USH 41 over WRIGHTSTOWN RD NB

LOCATION

(3) Municipality:	TOWN - KAUKAUNA (44026)
(16) Latitiude(° ' "):	44°19'42.61"N
(17) Longitude(° ' "):	88°12'37.69"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	106.1	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 27	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	39.4	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	46.3	
(55) Minimum Right Lateral(ft):	12.8	
(55) Minimum Left Lateral(ft):	9.8	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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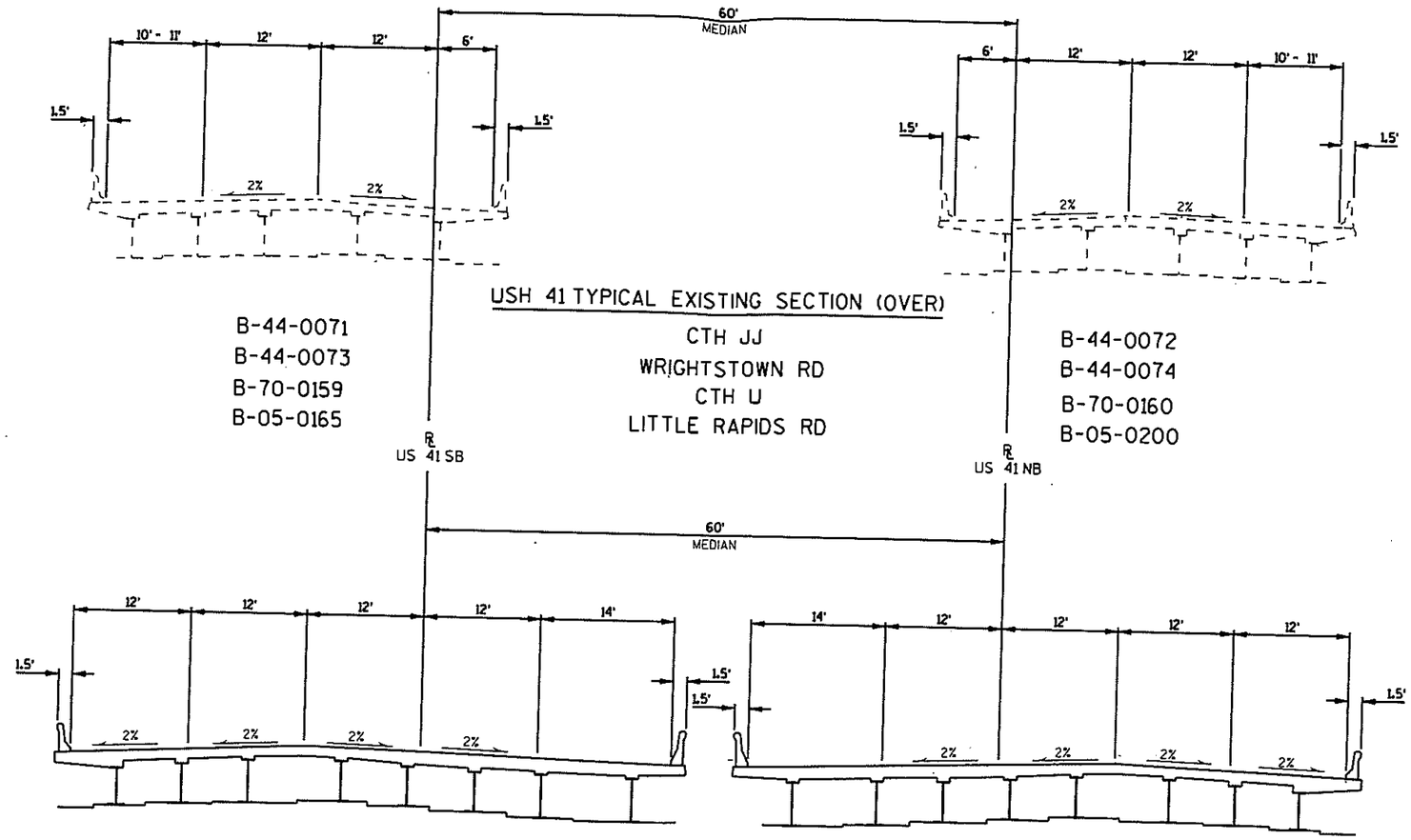
2



USH 41 TYPICAL EXISTING SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD

B-44-0072
B-44-0074
B-70-0160
B-05-0200

DESIRABLE PROPOSED SECTION (OVER)

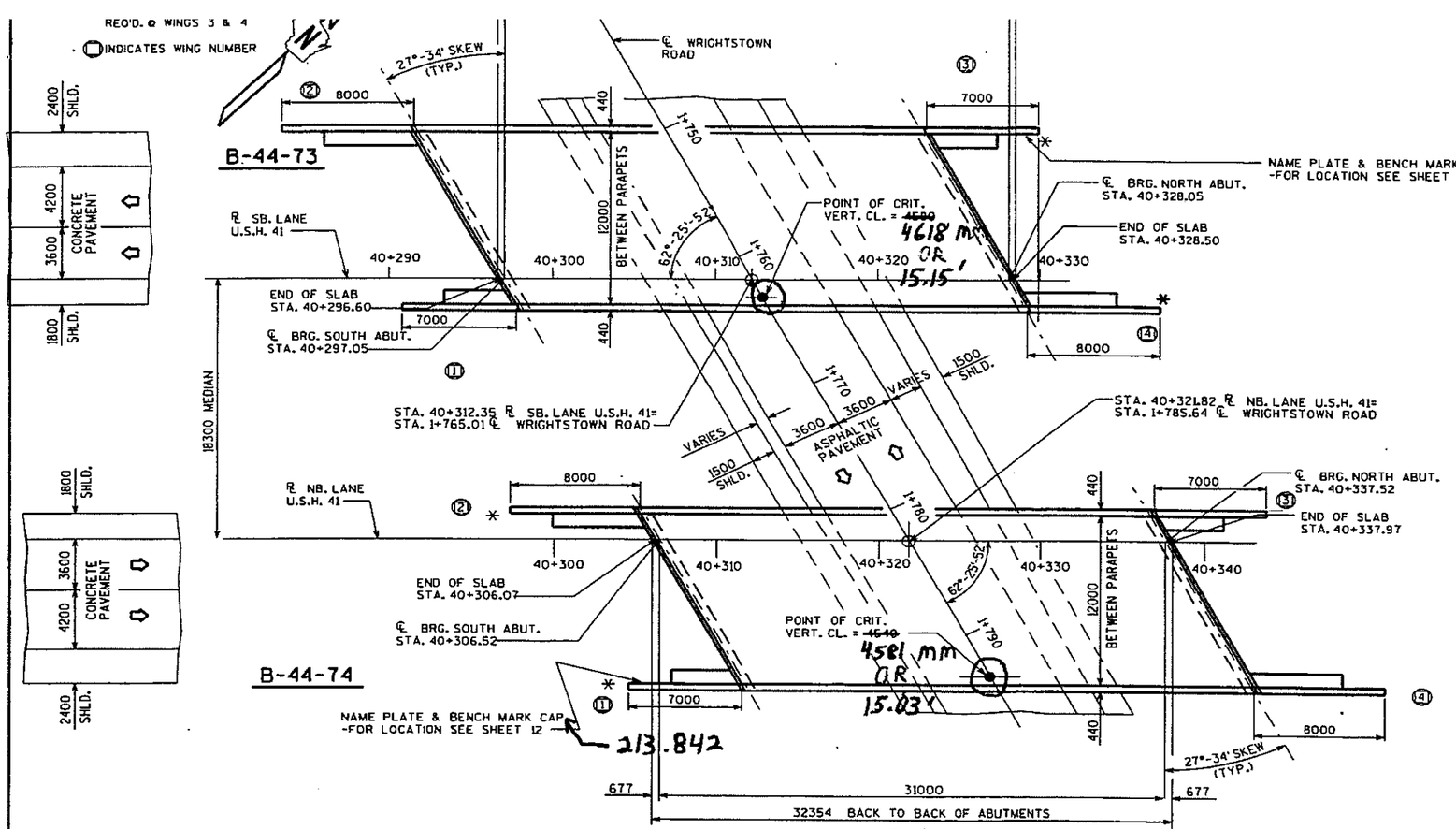
B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD
(NEW BRIDGES)

B-44-0072
B-44-0074
B-70-0160
B-05-0200

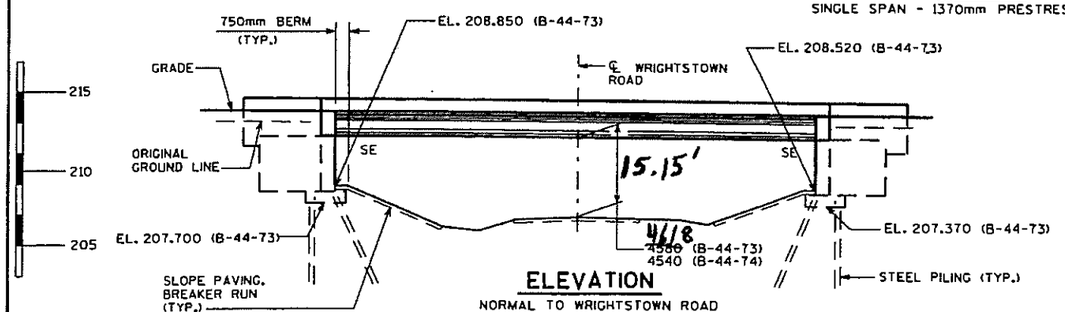
PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 19	E

FILE NAME : J:\44386\+1\Short Term Solutions\Amendment #5\DAAR\120726\TYICAL SECTIONS_bridges.dgn
PLOT DATE : 7/26/2012 PLOT BY : maryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1



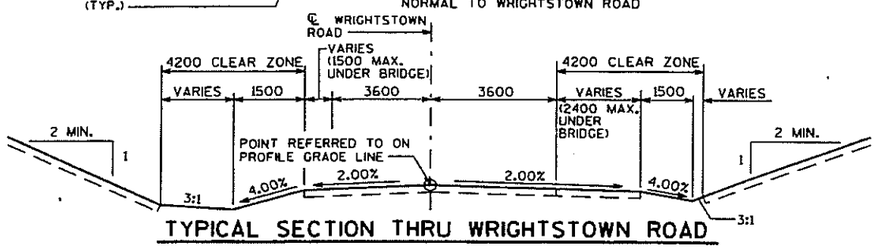
PLAN

SINGLE SPAN - 1370mm PRESTRESSED GIRDERS



ELEVATION

NORMAL TO WRIGHTSTOWN ROAD



TYPICAL SECTION THRU WRIGHTSTOWN ROAD

DESIGN DATA

LIVE LOAD:

DESIGN RATING; MS-18
INVENTORY RATING; MS-20
OPERATIONAL RATING; MS-45
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE.
ESTIMATED 26m LONG ℄ S. ABUT. & 25m LONG ℄ N. ABUT.

TRAFFIC VOLUME

U.S.H. 41	WRIGHTSTOWN ROAD
A.D.T.=37,000 (2018)	A.D.T.=600 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
JERRY ZIRK (608) 266-5153
FINN HUBBARD (608) 266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-73

U.S.H. 41 OVER WRIGHTSTOWN ROAD

COUNTY	OUTAGAMIE	TOWN/~~CITY/VILLAGE~~	KAUKAUNA	
DESIGN SPEC.	AASHTO 1996	LOAD	MS-18	CONST. SPEC. 1996
DESIGNED BY	CIHA	DESIGN CK'D.	KTN	DRAWN BY JHG / PLANS CK'D. ZIRK

APPROVED H.H. Anderson 01-18-00
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

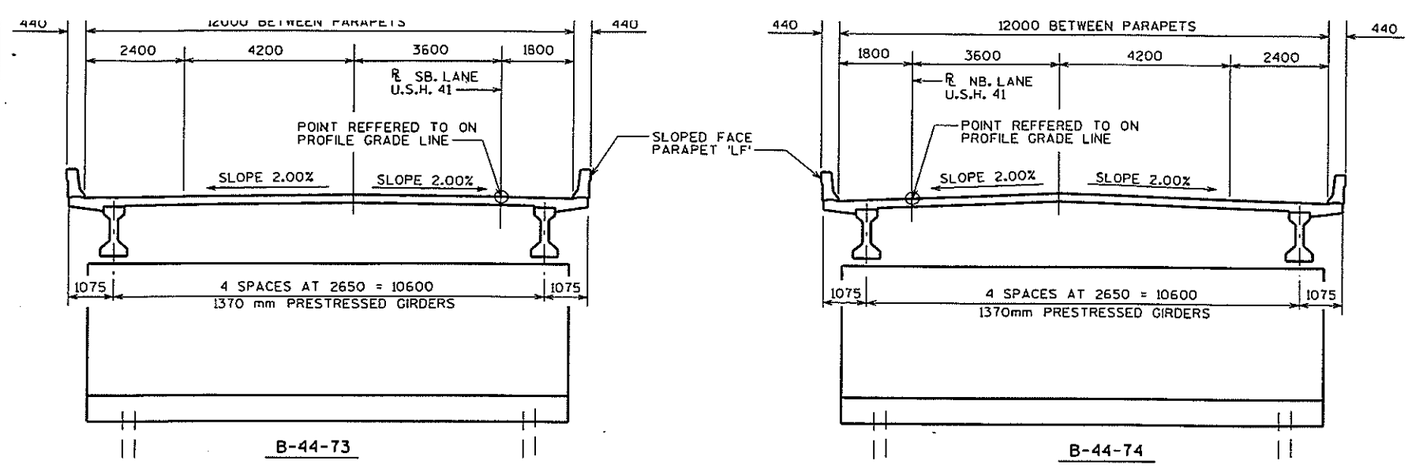
SHEET 1 OF 12

DATE: FEB'98

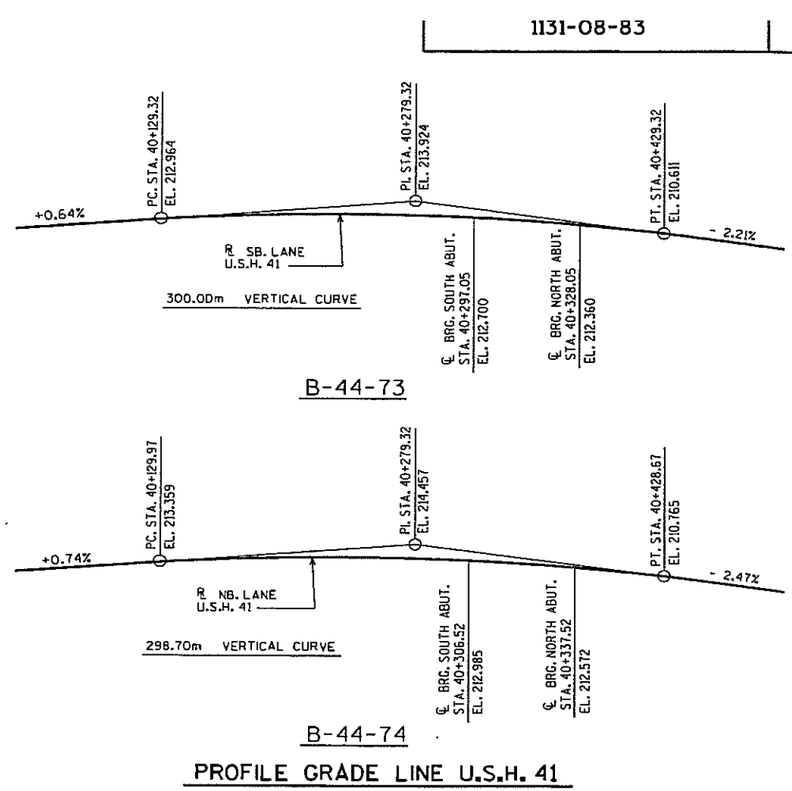
DISTRICT CONTACT

FILE= 73GP.DGN
SCALE= 175

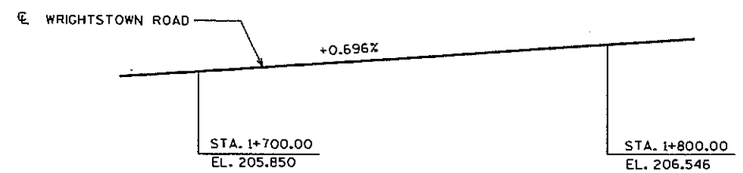
I.D. 1131-08-00G



CROSS SECTION THRU ROADWAY



PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE WRIGHTSTOWN ROAD

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-73	L.S.	——	——	——	1
STRUCTURE BACKFILL	m^3	——	650	650	1300
CONCRETE MASONRY, BRIDGES	m^3	141	118	118	377
PROTECTIVE SURFACE TREATMENT	m^2	460	——	——	460
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	157	——	——	157
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	4210	4150	8360
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14800	530	530	15860
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	——	——	10
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62 kg/m	m	——	442	425	867
RUBBERIZED MEMBRANE WATERPROOFING	m^2	——	7	7	14
SLOPE PAVING, BREAKER RUN	m^2	——	70	70	140
PIPE UNDERDRAIN, 150 mm	m	——	11	11	22
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	——	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m^2	——	20	20	40
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	——	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-73	EACH	8	——	——	8
NON-BID ITEMS					
FILLER	SIZE	——	——	——	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

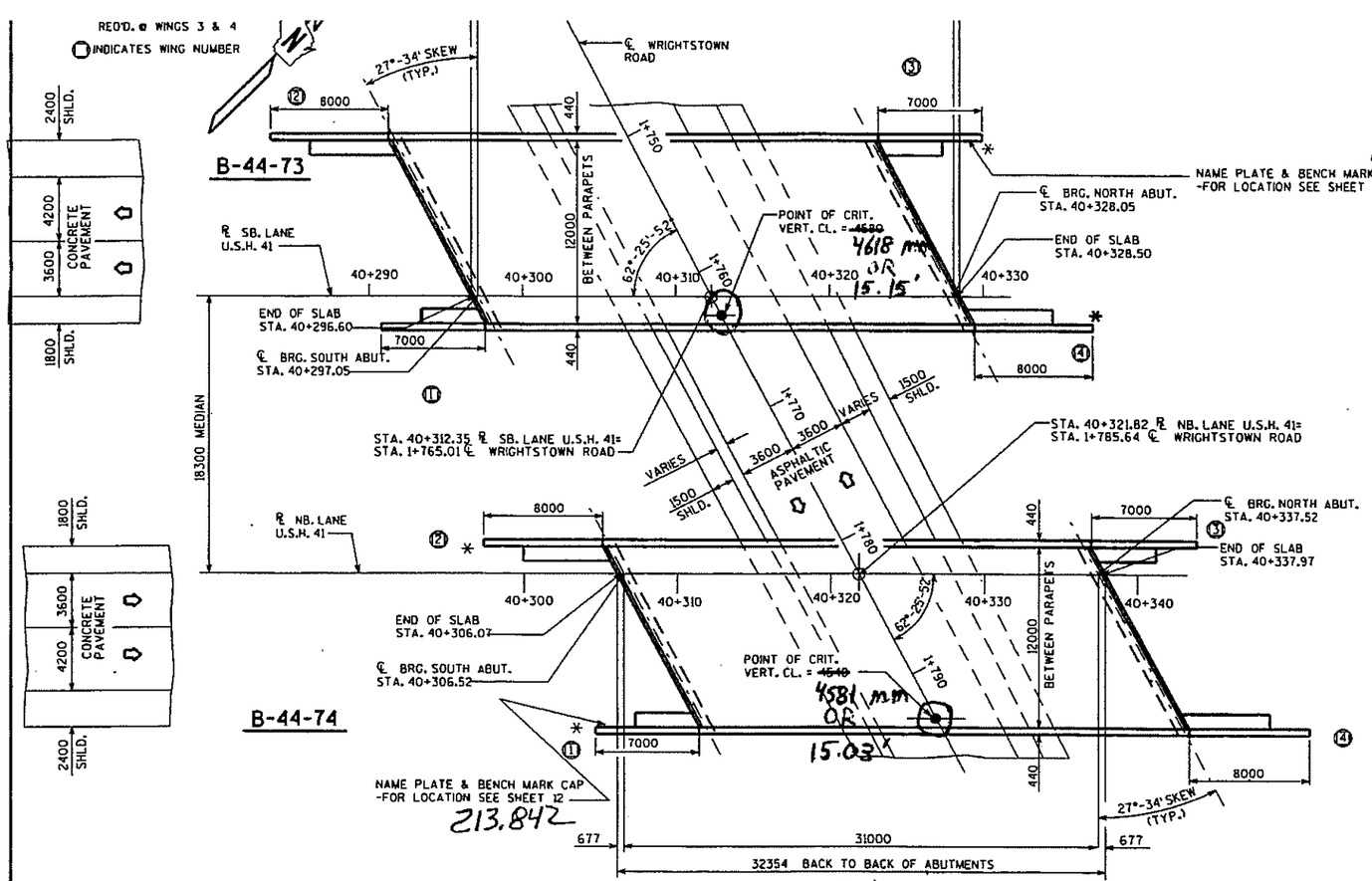
STRUCTURE B-44-73

CONST. SPEC. 1996	DRAWN BY JHG	PLANS CK'D. ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 73GP.DGN
SCALE = 75



DESIGN DATA

LIVE LOAD:

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INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-45
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
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BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

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TRAFFIC VOLUME

U.S.H. 41	WRIGHTSTOWN ROAD
A.D.T.=37,000 (2018)	A.D.T.=600 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
JERRY ZIRK (608) 266-5163
FINN HUBBARD (608) 266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-74

U.S.H. 41 OVER WRIGHTSTOWN ROAD

COUNTY: OUTAGAMIE	TOWN/~~CITY/VILLAGE~~: KAUKAUNA		
DESIGN SPEC.: AASHTO 1996	LOAD: MS-18	CONST. SPEC.: 1996	
DESIGNED BY: CIHA	DESIGN CK'D.: KTN	DRAWN BY: JHG	PLANS CK'D.: ZIRK

APPROVED: [signature] CHIEF BRIDGE DESIGN ENGINEER — 01-18-00 DATE

GENERAL PLAN

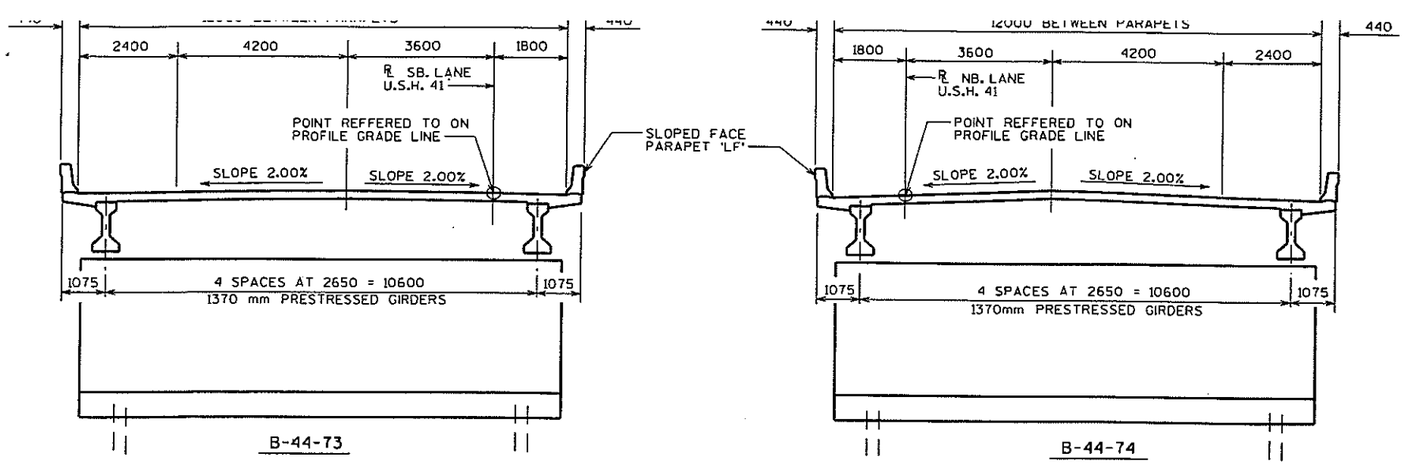
SHEET 1 OF 12

DATE: FEB'98

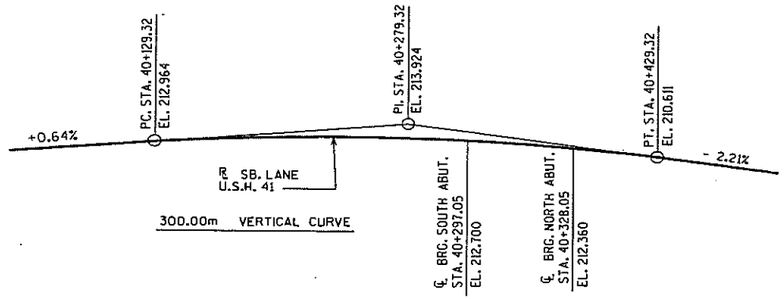
I.D. 1131-08-00G

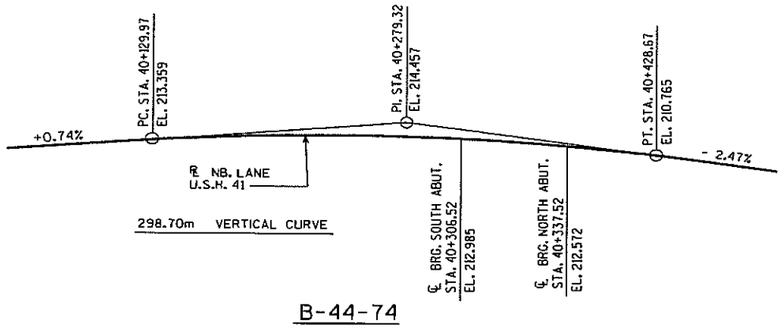
DISTRICT CONTACT

FILE= 74gp.dgn
SCALE= 175

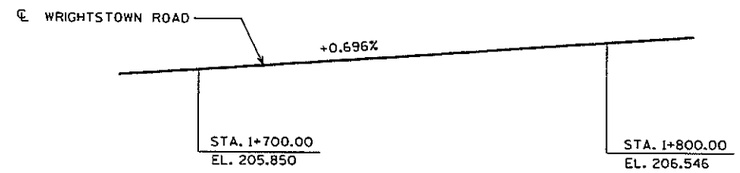


CROSS SECTION THRU ROADWAY





PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE WRIGHTSTOWN ROAD

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-74	L.S.	—	—	—	1
STRUCTURE BACKFILL	m³	—	650	650	1300
CONCRETE MASONRY, BRIDGES	m³	141	118	118	377
PROTECTIVE SURFACE TREATMENT	m²	460	—	—	460
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	157	—	—	157
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	4230	4220	8450
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14800	530	530	15860
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	—	—	10
STEEL PILING DELIVERED AND DRIVEN, HP250 x 62kg/m	m	—	442	425	867
RUBBERIZED MEMBRANE WATERPROOFING	m²	—	7	7	14
SLOPE PAVING, BREAKER RUN	m²	—	70	70	140
PIPE UNDERDRAIN, 150 mm	m	—	11	11	22
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	—	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m²	—	20	20	40
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	—	—	2
STEEL DIAPHRAGMS, STRUCTURE B-44-74	EACH	8	—	—	8
NON-BID ITEMS					
FILLER	SIZE	—	—	—	13 & 19

GENERAL NOTES

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THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-74

CONST. SPEC. 1996	DRAWN BY JHG	PLANS CK'D. ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 74gp.dgn
SCALE = 75

B-44-13 & 14 USH 41 over Wrightstown Road

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

PROJECT: _____ DATE: _____

DESCRIPTION: US41 over Wrightstown Road B-44-73(SB) & 74 (NB) SHEET ____ OF ____

CALC. BY: _____

CHECKED BY: _____

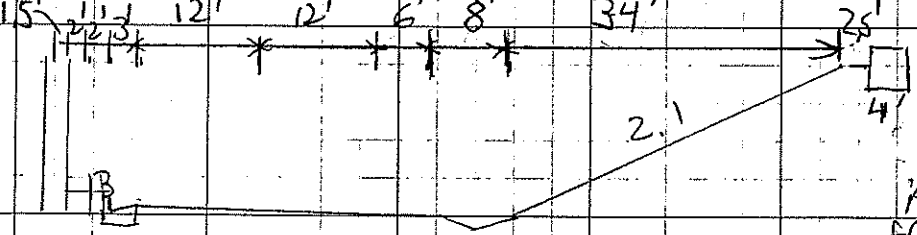
Existing Structures are 40'x102' 54" Girders 1 span

VC = 15.12' SB & 15.03' NB Need 16.75'

Existing Wrighttown is 2-12' lanes & 5' shlds. Expand to 4-12' lanes & 6' shldr

4-12' lanes	=	48'
2-14' Clear Zones	=	28'
Slope Paving 17@2:1 x2	=	68'
Abutments (2.5'+4') x2	=	13
		157' span = 72" Girders → Raise US 41 18" - No

Proposed Typical Half Section (Wrightstown)



Pier offset	1.5'
Begm Guard	2.0'
C & G	2.0'
2-12' lanes	3.0'
14' clear zone	24.0'
Slope Paving	14.0'
Abutment	34.0'
	2.5'
	4.0'
	87' span

20' Widening In Median 20' x .02 = 0.4'

+4.5' difference in girders

36" Girders

B-73(SB) 15.12 at ℄

+1.50

16.62

-0.4

16.22 Raise SB 41 0.53'

B-74 (NB) 15.03 at ℄

+1.50

16.53

-0.4

16.13 Raise NB 41 0.62

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-073
Feature Under: WRIGHTSTOWN RD		Sect/Twn/Rng: S33 T22N R19E		
Location: 1.9M S JCT CTH U		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS50	Total Length (ft): 106.1	Deck Area(ft2): 4488	ADT On: 19000 Yr: 1998	ADT Under: Yr:

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.12	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		101.7

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4488	4488				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	515	515				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	95	79	16			
	South abut spalling under girders CS-2 (north 6" south 10")								
X	321 / 4	R/Conc Approach Slab	EA	2	1	1			
	South approach has settled slightly								
X	331 / 4	Conc Bridge Railing	LF	311	249	62			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
	South slope protection has settled								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal joints at end of deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	7	7	Culvert	N	N
Superstructure	7	7	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-073
USH 41 over WRIGHTSTOWN RD

LOCATION

(3) Municipality:	TOWN - KAUKAUNA (44026)
(16) Latitiude(° ' "):	44°19'43.66"N
(17) Longitude(° ' "):	88°12'38.79"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	106.1	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 27	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	49.0	
(55) Minimum Right Lateral(ft):	10.0	
(55) Minimum Left Lateral(ft):	15.0	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE		
Outer Rail:	Left	Right	Type
			TYPE F (TWO SQUARE TUBES) - STEEL(8)
			TYPE F (3 SQUARE TUBES) - STEEL(65)
			TYPE F (4 SQUARE TUBES) - STEEL(72)
			TYPE M-STEEL 3 SQUARE TUBES(93)
	X	X	SLOPED FACE PARAPET LF(91)
			SLOPED FACE PARAPET HF(92)
			VERTICAL FACE PARAPET TYPE A(74)
			TYPE W-THRIE BEAM(79)
			TYPE H ON VERTICAL PARAPET(80)
			TIMBER(38)
			OTHER(99) (Please specify)
Transition Type:			CONT GUARD RAIL
			NO APP GRDRL
			NO ATTACHMENT
	5		22 MM(7/8") BOLT (Please enter quantity)
			25 MM(1") BOLT (Please enter quantity)
			OTHER (Please specify)
Guardrail Termination Type:	X		(01) ENERGY ABSORBING TERMINAL/EAT
			(02) TURN DOWN
			(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:		(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
		(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
	X	(8) GOOD- No speed reduction required

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BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-074
Feature Under: WRIGHTSTOWN RD NB		Sect/Twn/Rng: S33 T22N R19E		
Location: 1.3M N JCT CTH JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA (44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 39.4, 42.3	Existing Posting:	
Oper Rating: HS50	Total Length (ft): 106.1	Deck Area(ft2): 4334	ADT On: 23100 Yr: 2003	ADT Under: Yr:

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 03-14-00

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	15.03	11-28-00	
Min. Veritcal Clearance Under (non-Cardinal)			
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
PREST CONCRET	DECK GIRDER		101.7

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
2000	NEW STRUCTURE		

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	4334	4334				
	Dia. cracks.								
X	109 / 3	P/S Conc Open Girder	LF	515	515				
X	172 / 3	Painted Steel Diaphr	EA	8	8				
X	215 / 4	R/Conc Abutment	LF	95	84	9	2		
	CS-2 (S Abut 7" & N Abut 2") CS-3 N Abut 2"								
X	321 / 4	R/Conc Approach Slab	EA	2	1	1			
	North approach settled slightly								
X	331 / 4	Conc Bridge Railing	LF	311	246	65			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
	South slope protection is settling								
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
	Diagonal cracking at ends of deck								
X	400 / 4	Concrete Wingwall	EA	4	4				

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal jts at the end of the deck

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	8	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-074
USH 41 over WRIGHTSTOWN RD NB

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°19'42.61"N
(17) Longitude(° ' "):	88°12'37.69"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	3

GEOMETRY

(49) Structure Length(ft):	106.1	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 27	Direction: X-RIGHT FORWARD -LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	39.4	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	46.3	
(55) Minimum Right Lateral(ft):	12.8	
(55) Minimum Left Lateral(ft):	9.8	

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

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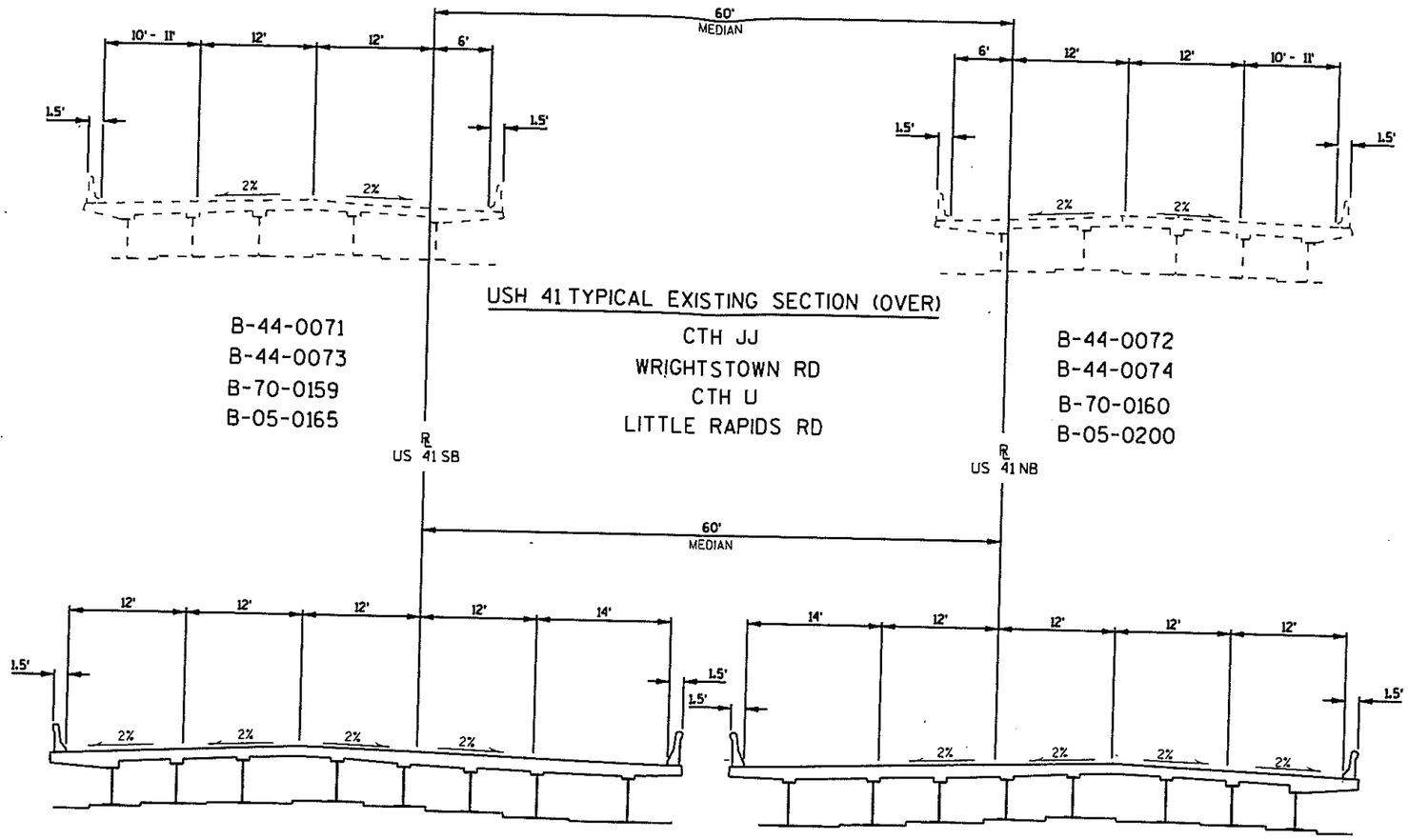
2



USH 41 TYPICAL EXISTING SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD

B-44-0072
B-44-0074
B-70-0160
B-05-0200

DESIRABLE PROPOSED SECTION (OVER)

B-44-0071
B-44-0073
B-70-0159
B-05-0165

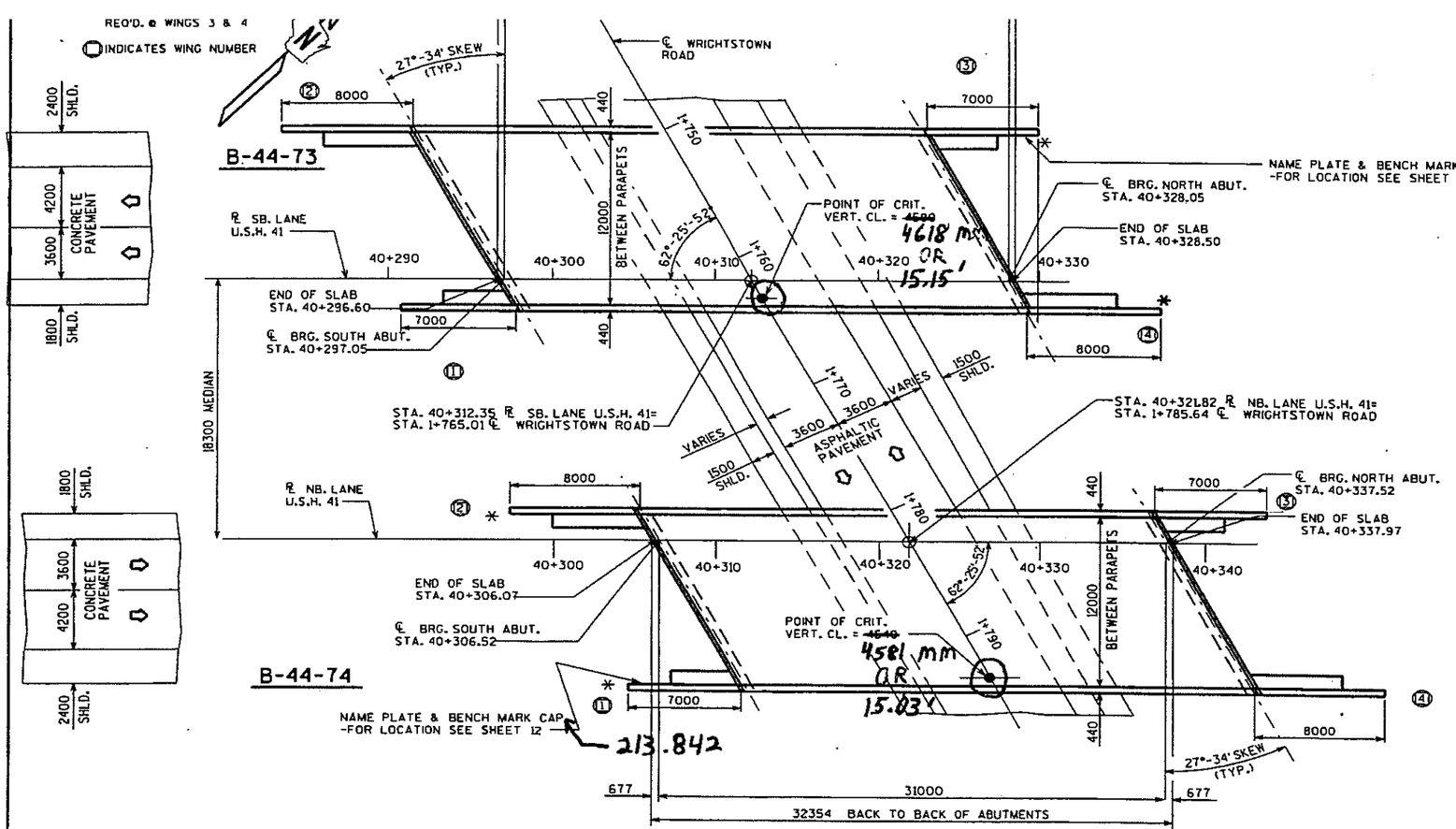
CTH JJ
WRIGHTSTOWN RD
CTH U
LITTLE RAPIDS RD
(NEW BRIDGES)

B-44-0072
B-44-0074
B-70-0160
B-05-0200

PROJECT NO: 1130-31-00	HWY: US 41	COUNTY: WINNEBAGO/ OUTAGAMIE	TYPICAL SECTIONS	SHEET 19	E

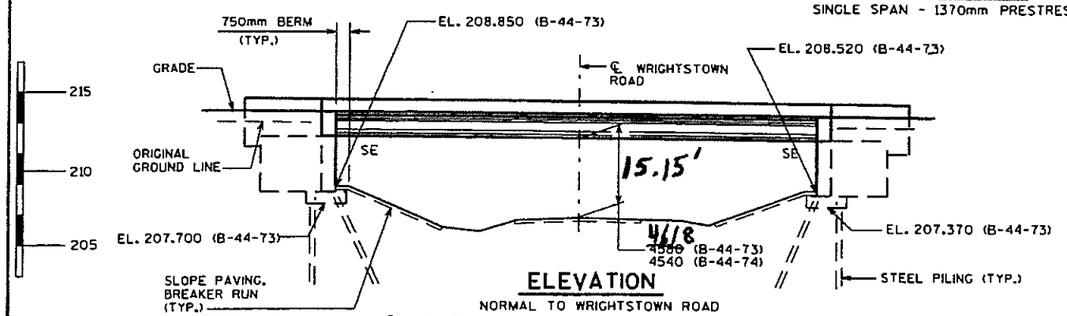
FILE NAME : J:\44386\t1\Short Term Solutions\Amendment #5\DAAR\120726\TYICAL SECTIONS_bridges.dgn
PLOT DATE : 7/26/2012 PLOT BY : maryoung PLOT NAME : $FILE$ PLOT SCALE : 15:1

REQ'D. @ WINGS 3 & 4
(1) INDICATES WING NUMBER



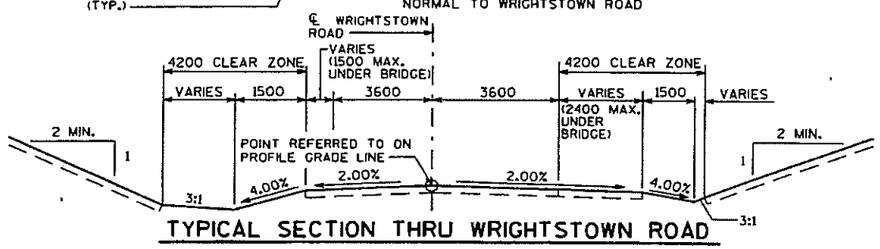
PLAN

SINGLE SPAN - 1370mm PRESTRESSED GIRDERS



ELEVATION

NORMAL TO WRIGHTSTOWN ROAD



TYPICAL SECTION THRU WRIGHTSTOWN ROAD

DESIGN DATA

LIVE LOAD:

DESIGN RATING; MS-18
INVENTORY RATING; MS-20
OPERATIONAL RATING; MS-45
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE.
ESTIMATED 26m LONG @ S. ABUT. & 25m LONG @ N. ABUT.

TRAFFIC VOLUME

U.S.H. 41	WRIGHTSTOWN ROAD
A.D.T.=37,000 (2018)	A.D.T.=600 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
JERRY ZIRK (608) 266-5163
FINN HUBBARD (608) 266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-73

U.S.H. 41 OVER WRIGHTSTOWN ROAD .

COUNTY	OUTAGAMIE	TOWN ~~CITY / VILLAGE~~	KAUKAUNA
DESIGN SPEC.	AASHTO 1996	LOAD	MS-18
CONST. SPEC.	1996		
DESIGNED BY	CIHA	DESIGN CK'D.	KTN
DRAWN BY	JHG	PLANS CK'D.	ZIRK

APPROVED J.H. Anderson 01-18-00
CHIEF BRIDGE DESIGN ENGINEER DATE

GENERAL PLAN

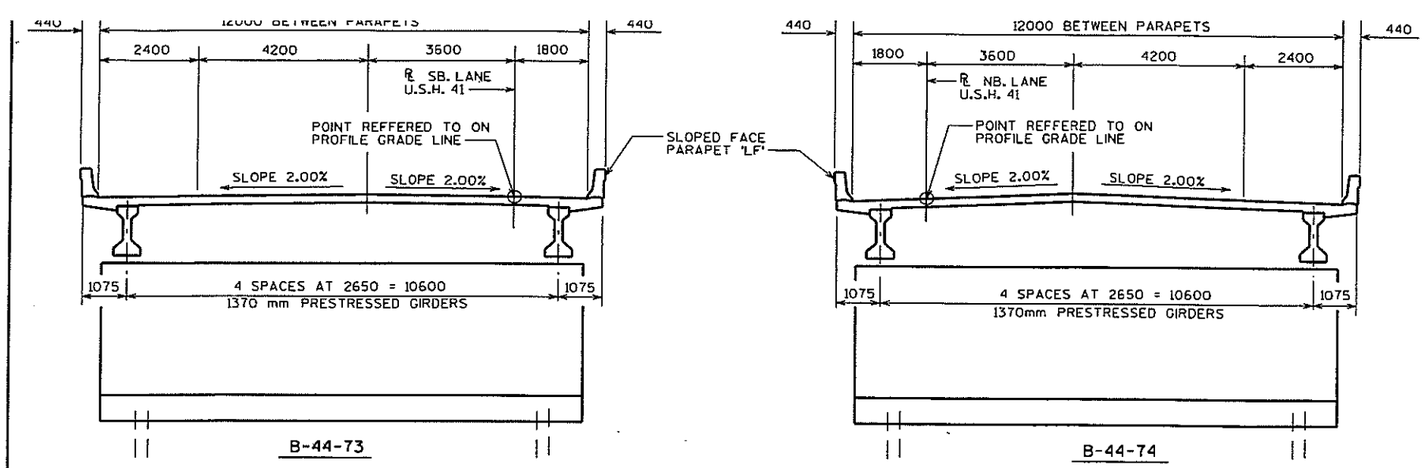
SHEET 1 OF 12

DATE: FEB'98

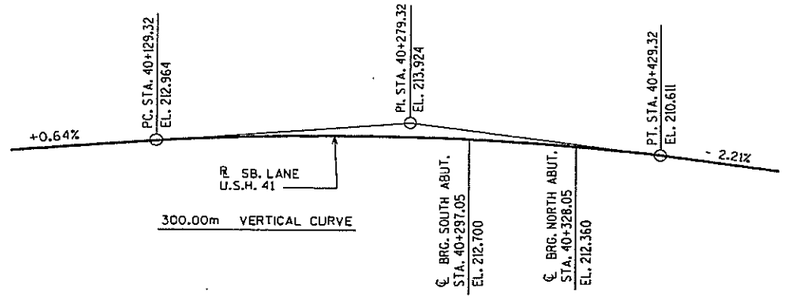
DISTRICT CONTACT

FILE= 736P.DGN
SCALE= 175

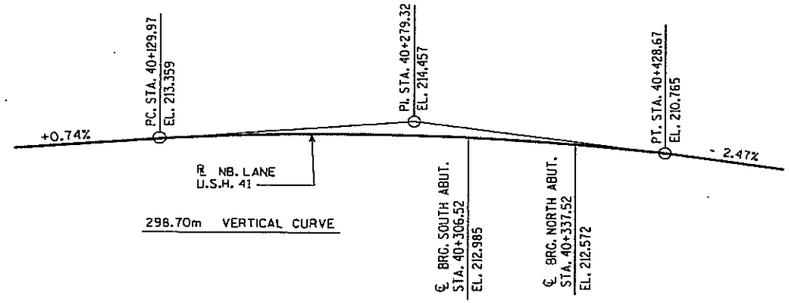
I.D. 1131-08-00G



CROSS SECTION THRU ROADWAY

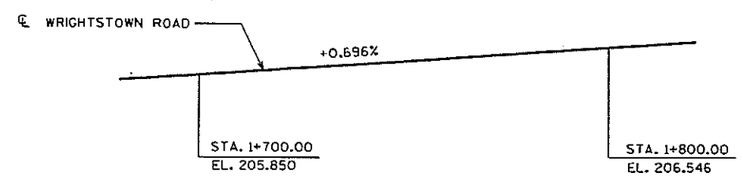


B-44-73



B-44-74

PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE WRIGHTSTOWN ROAD

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-73	L.S.	——	——	——	1
STRUCTURE BACKFILL	m³	——	650	650	1300
CONCRETE MASONRY, BRIDGES	m³	141	118	118	377
PROTECTIVE SURFACE TREATMENT	m²	460	——	——	460
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	157	——	——	157
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	4210	4150	8360
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14800	530	530	15860
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	——	——	10
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62 kg/m	m	——	442	425	867
RUBBERIZED MEMBRANE WATERPROOFING	m²	——	7	7	14
SLOPE PAVING, BREAKER RUN	m²	——	70	70	140
PIPE UNDERDRAIN, 150 mm	m	——	11	11	22
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	——	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m²	——	20	20	40
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	——	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-73	EACH	8	——	——	8
NON-BID ITEMS					
FILLER	SIZE	——	——	——	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

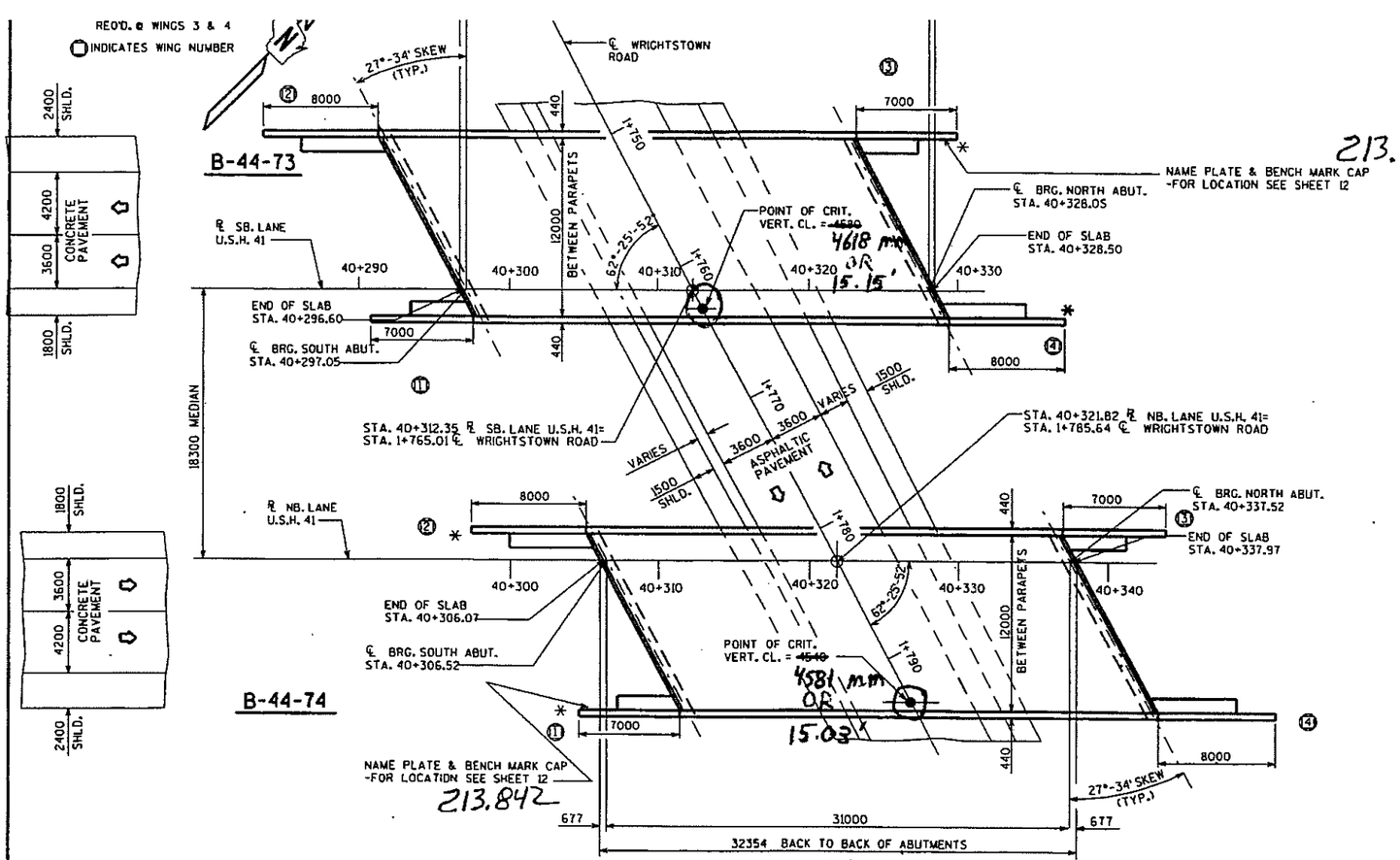
STRUCTURE B-44-73

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	JHG	ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 73GP.DGN
SCALE = 75



DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-45
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-31M, GRADE 420 — fy = 420 MPa
1370mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 26m LONG AT S. ABUT. AND 25m LONG AT N. ABUT.

TRAFFIC VOLUME

U.S.H. 41	WRIGHTSTOWN ROAD
A.D.T.=37,000 (2018)	A.D.T.=600 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
JERRY ZIRK (608) 266-5163
FINN HUBBARD (608) 266-8489

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-74

U.S.H. 41 OVER WRIGHTSTOWN ROAD

COUNTY: OUTAGAMIE		TOWN/~~CITY/VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: CIHA	DESIGN CK'D.: KTN	DRAWN BY: JHG	PLANS CK'D.: ZIRK

APPROVED: [signature] CHIEF BRIDGE DESIGN ENGINEER — 01-18-00 DATE

GENERAL PLAN

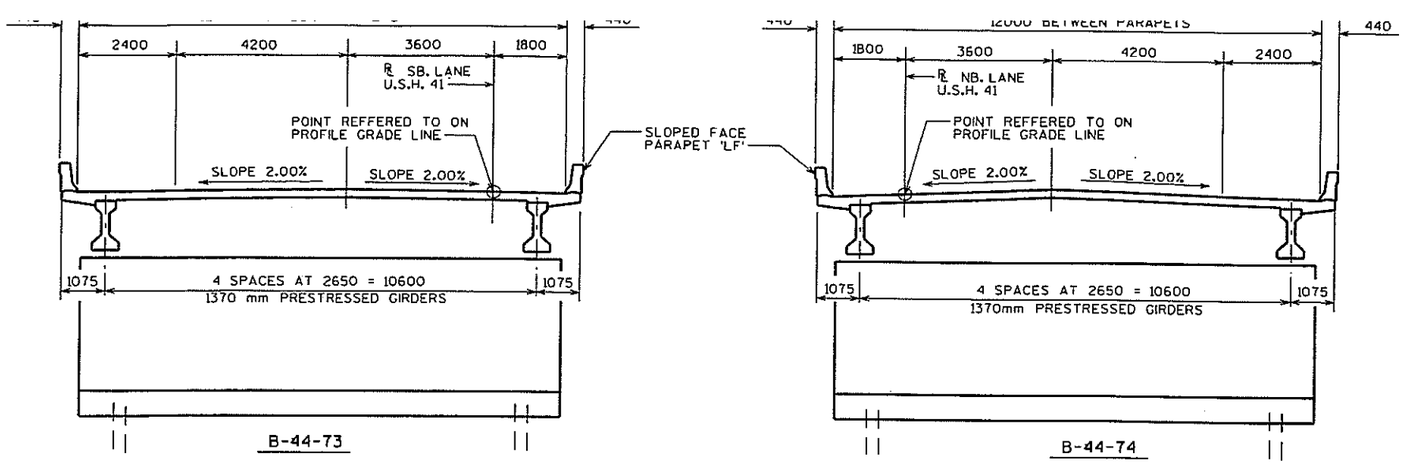
SHEET 1 OF 12

DATE: FEB'98

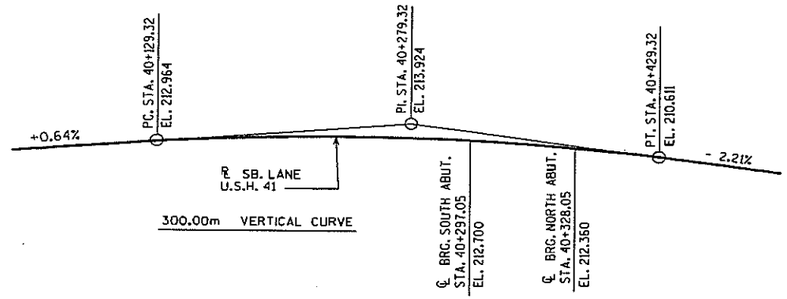
I.D. 1131-08-00G

DISTRICT CONTACT

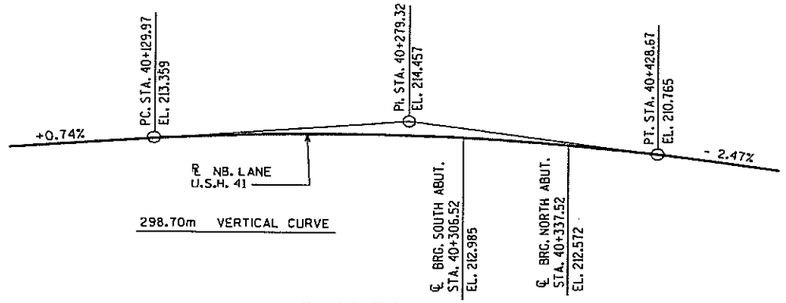
FILE= 74gp.dgn
SCALE= 175



CROSS SECTION THRU ROADWAY

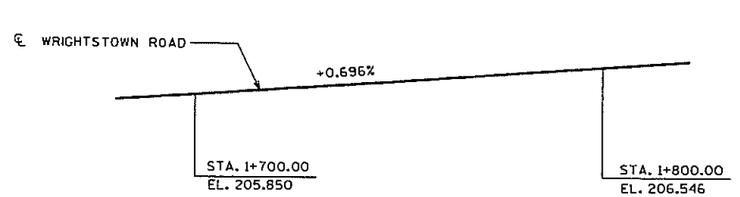


B-44-73



B-44-74

PROFILE GRADE LINE U.S.H. 41



PROFILE GRADE LINE WRIGHTSTOWN ROAD

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-74	L.S.	——	——	——	1
STRUCTURE BACKFILL	m^3	——	650	650	1300
CONCRETE MASONRY, BRIDGES	m^3	141	118	118	377
PROTECTIVE SURFACE TREATMENT	m^2	460	——	——	460
PRESTRESSED GIRDER, I TYPE, 1370 mm	m	157	——	——	157
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	4230	4220	8450
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	14800	530	530	15860
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	10	——	——	10
STEEL PILING DELIVERED AND DRIVEN, HP250 x 62kg/m	m	——	442	425	867
RUBBERIZED MEMBRANE WATERPROOFING	m^2	——	7	7	14
SLOPE PAVING, BREAKER RUN	m^2	——	70	70	140
PIPE UNDERDRAIN, 150 mm	m	——	11	11	22
PIPE UNDERDRAIN, UNPERFORATED, 150 mm	m	——	6	6	12
GEOTEXTILE FABRIC, TYPE DF	m^2	——	20	20	40
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	——	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-74	EACH	8	——	——	8
NON-BID ITEMS					
FILLER	SIZE	——	——	——	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE IN PLACE BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECT. 209.2.2 OF THE STD. SPEC'S. FOR GRADE 1 MATERIAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-74

CONST. SPEC. 1996	DRAWN BY JHG	PLANS CK'D. ZIRK

CROSS SECTION & QUANTITIES

SHEET 2

FILE= 74gp.dgn
SCALE = 75

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

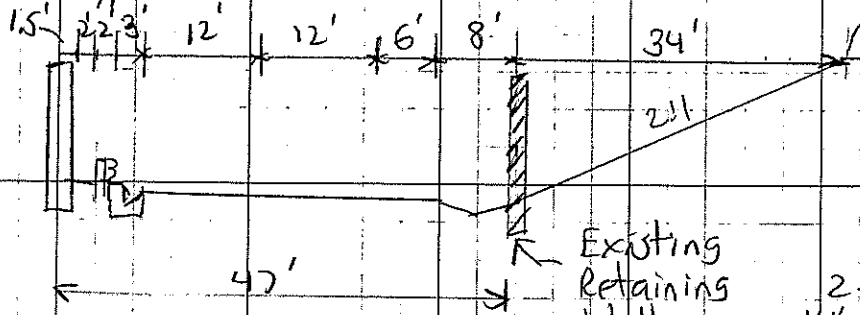
PROJECT: _____

DESCRIPTION: USH 41 over CTH U
B-44-159 (SB) & 160 (NB)

DATE: _____
SHEET ____ OF ____
CALC. BY: _____
CHECKED BY: _____

Existing Structures are 40'x141', 2-68' spans & 36" Girders
VC = 17.68' (SB) & 17.45' (NB) Retaining walls B-44-10 & 11
Existing Retaining walls are failing, so it is proposed to remove them & build a longer structure, Salvage existing Medium pier?

Proposed Typical Half Section on CTH U



Pier offset	1.5'
	2.0'
Beam Guard	2.0'
C&G	3.0'
2-12' lanes	24.0'
14' Clear Zone	14.0'
Slope Paving	34.0'
Abutment	2.5'
	4.0'
	87' Span
	36" Girders

Widening in Median = 20' x .02 = 0.4'

VC SB = 17.68' − 0.40' = 17.28'

VC NB = 17.45' − 0.40' = 17.05'

Meets Desireable with no change to profiles

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-159
Feature Under: U		Sect/Twn/Rng: S27 T22N R19E		
Location: 2.7M S JCT CTH S		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA (44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS48.9	Total Length (ft): 141.0	Deck Area(ft2): 5964	ADT On: 18090 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 02-16-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	17.68	02-17-00	
Min. Veritcal Clearance Under (non-Cardinal)	17.45	02-17-00	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT PREST CO	DECK GIRDER		67.9
CONT PREST CO	DECK GIRDER		67.9

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected					Quantity in Condition States				
Ck	Elem./Env.	Description	Unit	Total QTY.	1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	5964	5964				
X	109 / 3	P/S Conc Open Girder	LF	820	820				
X	172 / 3	Painted Steel Diaphr	EA	10	10				
X	205 / 3	R/Conc Column	EA	3	3				
X	215 / 4	R/Conc Abutment	LF	91	87	4			
	Cracks on south abutment								
X	234 / 4	R/Conc Cap	LF	42	42				
X	250 / 3	Concrete Diaphragm	EA	5	5				
X	321 / 4	R/Conc Approach Slab	EA	2		2			
	End of approaches at edge of deck are deteriorating and settling								
X	331 / 4	Conc Bridge Railing	LF	314	254	60			
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
	Diagonal cracking at the ends of the deck, some tranverse cracking								
X	400 / 4	Concrete Wingwall	EA	4	2		2		
	SW wingwall has moved approximately 2-3 inches; Also experiencing spalling at modular joints and differential settling of modular panels. NW wingwall has moved approximately 1 inch west on the bottom of the precast panel located at the back of abutment face.								

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Joint along Parapet/Wing
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal open joint at the junction between parapet and end of deck at the pavement surface.

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-159
USH 41 over U

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°20'59.57"N
(17) Longitude(° ' "):	88°11'35.53"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	141.0	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 40	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	32.2	32.2
(55) Minimum Right Lateral(ft):	11.8	11.8
(55) Minimum Left Lateral(ft):	8.5	8.5

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
X		OTHER(99) (Please specify) Left:

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH41 NB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-160
Feature Under: U		Sect/Twn/Rng: S27 T22N R19E		
Location: 3.2M N JCT JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS48.9	Total Length (ft): 141.0	Deck Area(ft2): 5964	ADT On: 18460 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 02-16-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	17.68	02-17-00	
Min. Veritcal Clearance Under (non-Cardinal)	17.68	02-17-00	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT PREST CO	DECK GIRDER		67.9
CONT PREST CO	DECK GIRDER		67.9

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	5964	5964				
	Diagonal cracking at abutments								
X	109 / 3	P/S Conc Open Girder	LF	820	820				
X	172 / 3	Painted Steel Diaphr	EA	10	10				
X	205 / 3	R/Conc Column	EA	3	3				
X	215 / 4	R/Conc Abutment	LF	91	85	6			
	CS-2 (N Abut 3" & S Abut 3"), Leaking at joint East support keyway (?) appears to have moved out								
X	234 / 4	R/Conc Cap	LF	42	42				
X	250 / 3	Concrete Diaphragm	EA	5	5				
X	321 / 4	R/Conc Approach Slab	EA	2		2			
	Spalled and cracked on South end								
X	331 / 4	Conc Bridge Railing	LF	314	254	60			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	2	2			
	NE & SE wing settled 1" Tipped out 1-1/2" at the top on NE corner.								

General Inspection/Maintenance Notes

MSE walls at NE & SE corners of abutments settling, cracking, spalling, and leaking.

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	7	7	Waterway	N	N

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal hole in pavement at the junction between the parapet and the wingwall

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-160
USH41 NB over U

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°20'56.86"N
(17) Longitude(° ' "):	88°11'35.91"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	141.0	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 40	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	34.0	34.5
(55) Minimum Right Lateral(ft):	14.0	14.0
(55) Minimum Left Lateral(ft):	8.0	8.5

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

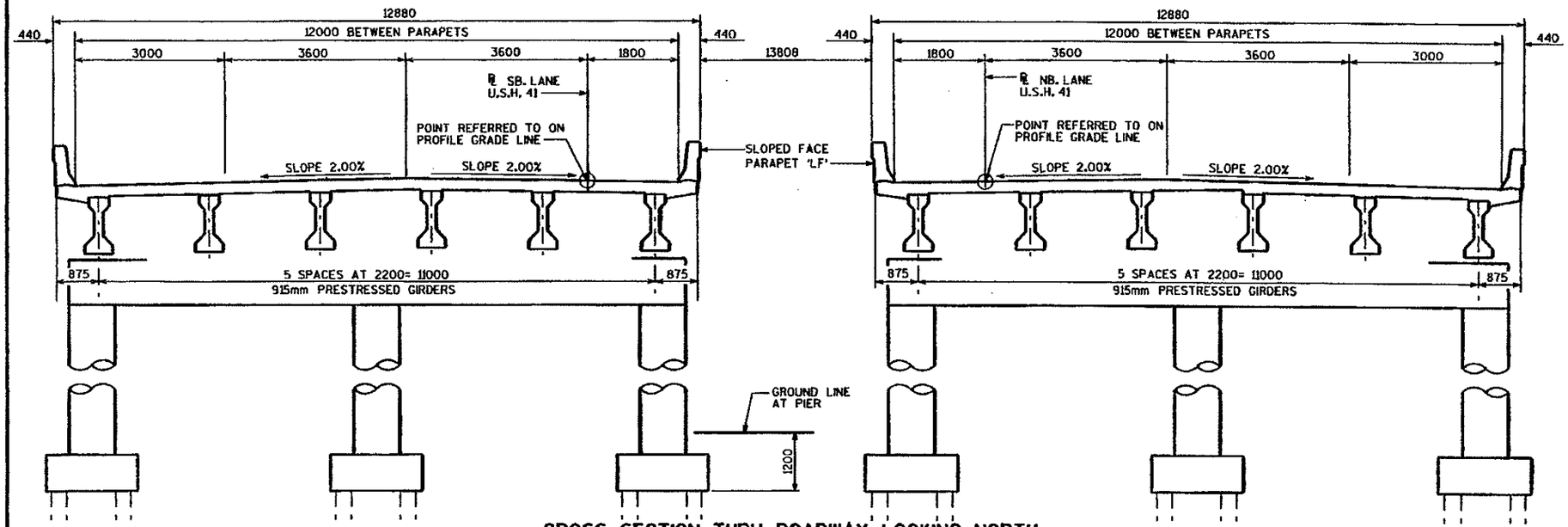
X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

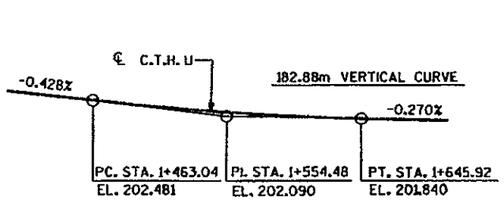
(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

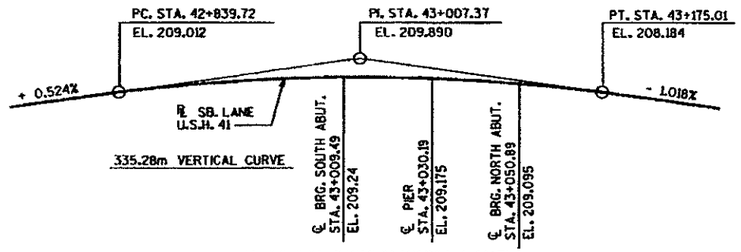
STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.15



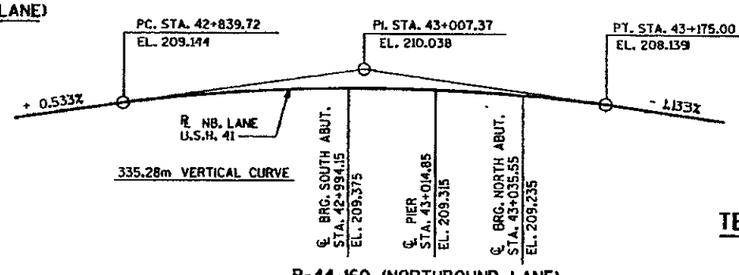
CROSS SECTION THRU ROADWAY LOOKING NORTH



PROFILE GRADE LINE C.T.H. U



B-44-159 (SOUTHBOUND LANE)

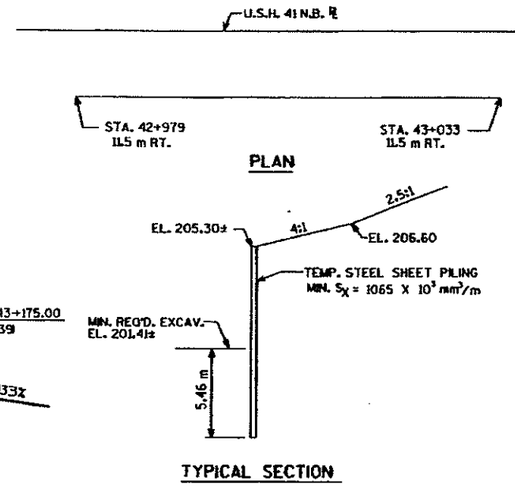


B-44-160 (NORTHBOUND LANE)

PROFILE GRADE LINE U.S.H. 41

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-160	L.S.	—	—	—	—	1
STRUCTURE BACKFILL	m³	—	91	91	—	182
CONCRETE MASONRY, BRIDGES	m³	179	34	32	33	278
PROTECTIVE SURFACE TREATMENT	m²	608	—	—	—	608
PRESTRESSED GIRDER, I TYPE, 915 mm	m	250	—	—	—	250
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	1710	1740	170	3620
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	20435	237	298	2560	23530
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	—	6	6	6	18
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62	m	—	216	216	264	696
RUBBERIZED MEMBRANE WATERPROOFING	m²	—	8	8	—	16
SLOPE PAVING, ~~CRUSHED AGGREGATE~~ BREAKER RUN	m²	—	84	84	—	168
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	1	1	—	2
STEEL DIAPHRAGMS, STRUCTURE B-44-160	EACH	10	—	—	—	10
TEMPORARY STEEL SHEET PILING	m²	—	—	—	—	505
NON-BID ITEMS						
FILLER	SIZE	—	—	—	—	13 & 19



TEMPORARY STEEL SHEET PILING DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

AT THE BACKFACE OF ABUTMENT ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

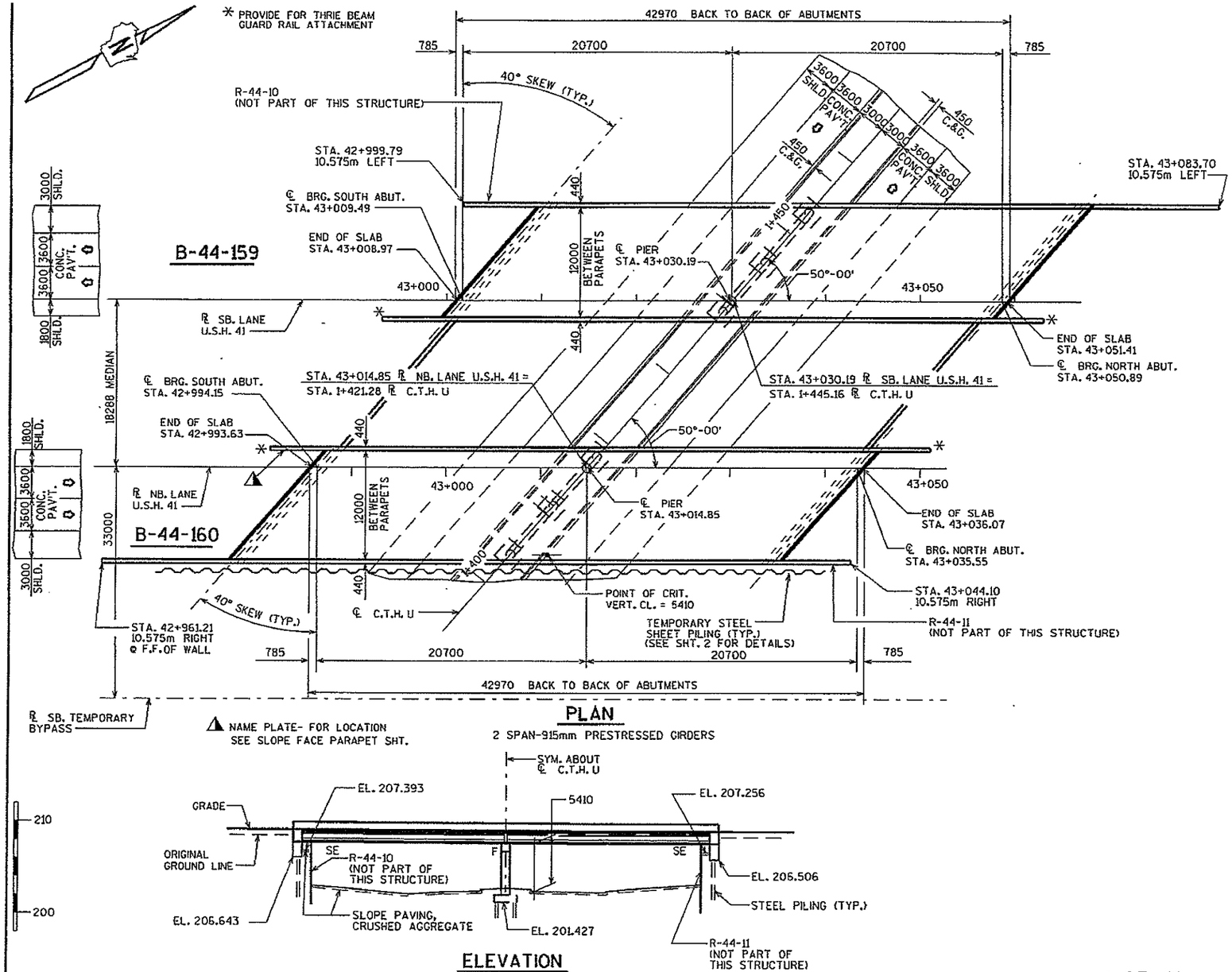
STRUCTURE B-44-160

CONST. SPEC.	1996	DRAWN BY	RIES	PLANS CK'D.	KTN

CROSS SECTION & QUANTITIES — SHEET 2

E:= BR_B44160:160GP.GPN
CALE = 50

STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.14

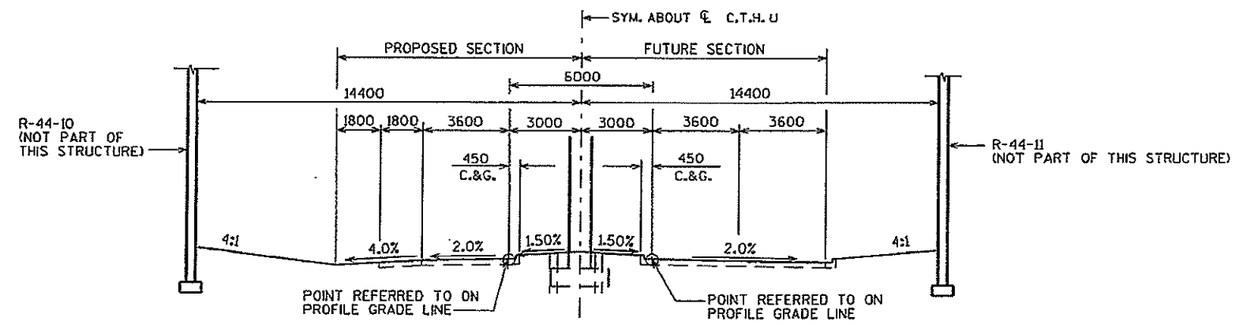


PLAN

2 SPAN-915mm PRESTRESSED GIRDERS

ELEVATION

NORMAL TO C.T.H. U



TYPICAL SECTION THRU C.T.H. U

DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-42M, GRADE 420 — fy = 420 MPa
915mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa
TEMP. STEEL SHEET PILING — MIN. S_X = 1065 X 10^3 mm /m

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 27 M LONG.

PIER TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 22 M LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. U
A.D.T.=36,505 (2018)	A.D.T.=1,650 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :

FINN HUBBARD (608) 266-8489
KEITH NELSON (608) 266-5083

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-160

U.S.H. 41 OVER C.T.H. U

COUNTY: OUTAGAMIE		TOWN/~~CITY/VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: KTN	DESIGN CK'D.: DJK	DRAWN BY: COMP/CMF	PLANS CK'D.: KTN

APPROVED: H.H. Anderson 11-17-98
CHIEF BRIDGE DESIGN ENGINEER — DATE

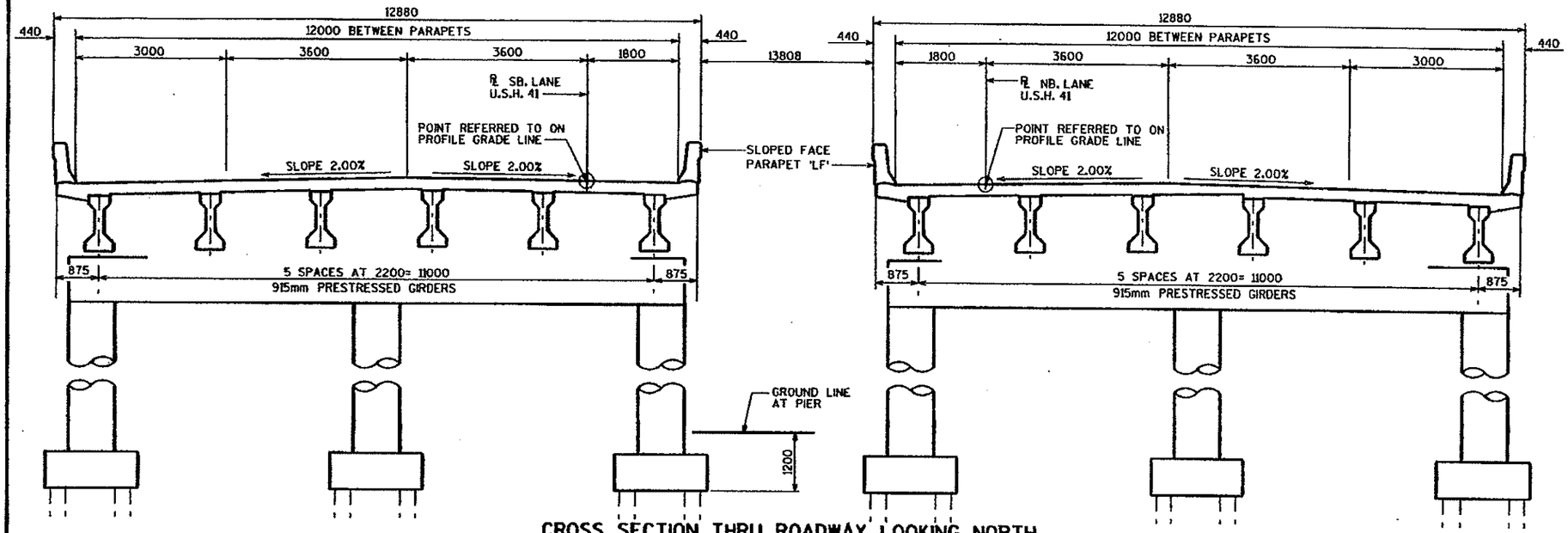
GENERAL PLAN

SHEET 1 OF 13

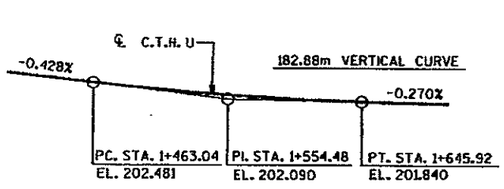
DATE: JULY '98

FILE= BR_B44160:160GP.GPN
CALE= 250

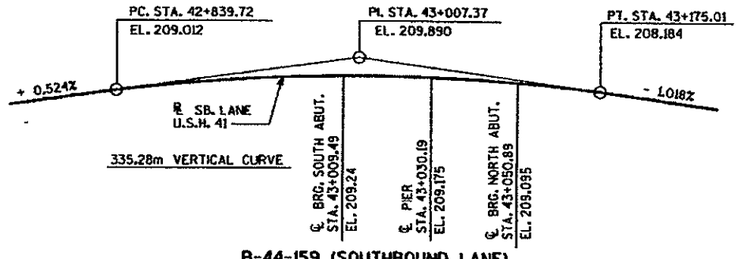
STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.2



CROSS SECTION THRU ROADWAY LOOKING NORTH



PROFILE GRADE LINE C.T.H. U



B-44-159 (SOUTHBOUND LANE)

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-159	L.S.	——	——	——	——	1
STRUCTURE BACKFILL	m³	——	91	91	——	182
CONCRETE MASONRY, BRIDGES	m³	179	34	32	33	278
PROTECTIVE SURFACE TREATMENT	m²	608	——	——	——	608
PRESTRESSED GIRDER, I TYPE, 915 mm	m	250	——	——	——	250
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	——	1740	1710	170	3620
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	20435	298	237	2583	23550
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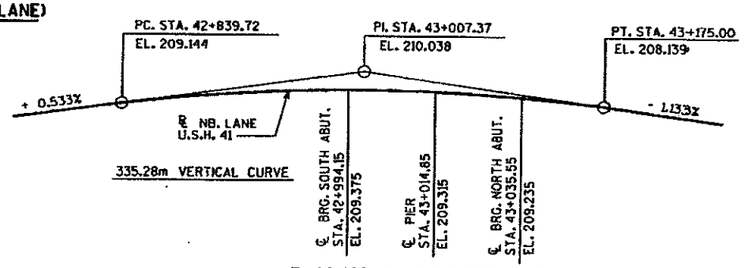
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62	m	——	216	216	264	696
RUBBERIZED MEMBRANE WATERPROOFING	m²	——	8	8	——	16
SLOPE PAVING, ~~CRUSHED AGGREGATE~~ BREAKER RUN	m²	——	84	84	——	168
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	——	1	1	——	2
STEEL DIAPHRAGMS, STRUCTURE B-44-159	EACH	10	——	——	——	10
NON-BID ITEMS						
FILLER	SIZE	——	——	——	——	13 & 19



B-44-160 (NORTHBOUND LANE)

PROFILE GRADE LINE U.S.H. 41

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-159

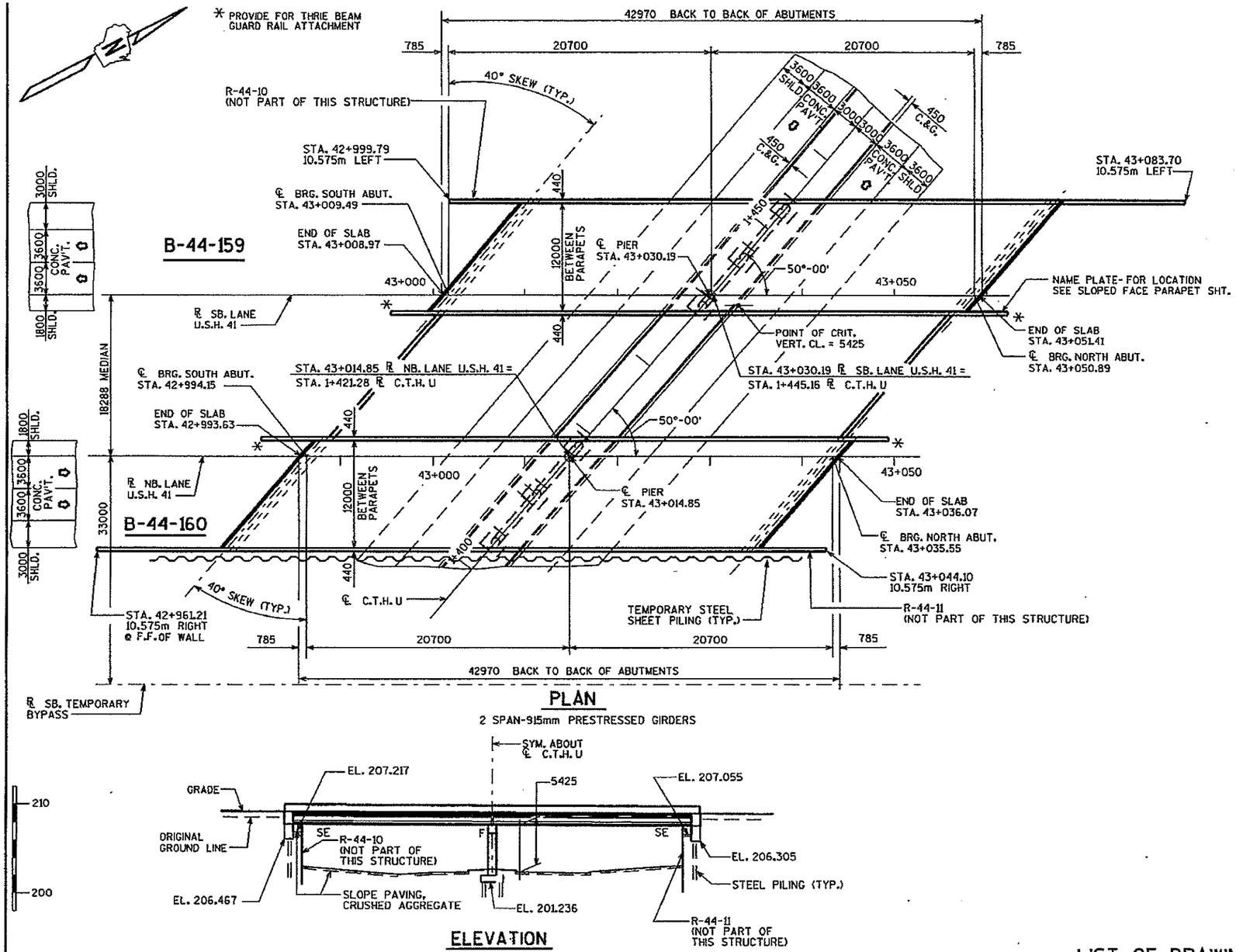
CONST. SPEC.	1996	DRAWN BY	RIES	PLANS CK'D.	KTN

CROSS SECTION & QUANTITIES

SHEET 2

: br44 b159:159gp.dgn

STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8. 1

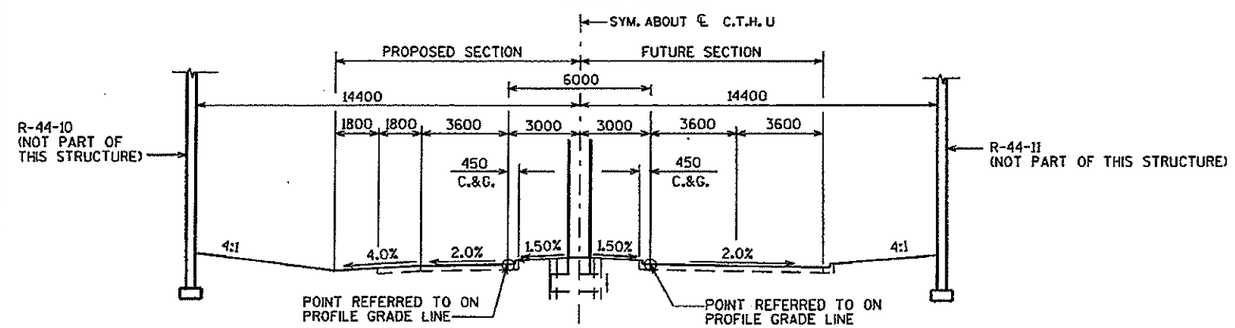


PLAN

2 SPAN-915mm PRESTRESSED GIRDERS

ELEVATION

NORMAL TO C.T.H. U



TYPICAL SECTION THRU C.T.H. U

DESIGN DATA

LIVE LOAD:

DESIGN RATING; MS-18
INVENTORY RATING; MS-20
OPERATIONAL RATING; MS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
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STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

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PIER TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 22 M LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. U
A.D.T.=36,505 (2018)	A.D.T.=1,650 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
FINN HUBBARD (608) 266-8489
KEITH NELSON (608) 266-5083

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-159

U.S.H. 41 OVER C.T.H. U

COUNTY: OUTAGAMIE		TOWN/~~CITY/VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996	LOAD: MS-18	CONST. SPEC.: 1996	
DESIGNED BY: KTN	DESIGN CK'D.: DJK	DRAWN BY: COMP/CMF	PLANS CK'D.: KTN

APPROVED: K H Anderson 11-17-98
CHIEF BRIDGE DESIGN ENGINEER — DATE

GENERAL PLAN

SHEET 1 OF 13

DATE: JULY '98

FILE= br_b44159159gp.dgn
SCALE= 250

Vertical Clearance for Construction of New Bridges, Replacement Bridges, and Bridges on which the Superstructure is being replaced [1]

Overpass Facility →	Freeway, Expressway, or STH		Railroad[4], CTH, Town Road, Local Road, or Street	Pedestrian or Shared-use Structures	Sign Structures[2]
Underpass Facility ↓	Interchange	Grade Separation			
Non-arterial either STH, CTH, Town Road, Local Road, or Street	15'-9" Desirable 15'-3" Minimum	15'-3" Desirable 14'-9" Minimum		16'- 9" Desirable 16'-3" Minimum	18'-3" Minimum
Arterial either CTH, Town Road, Local Road, or Street (**excludes** freeway and expressway; also excludes arterial STH)	16'-9" Desirable 16'-3" Minimum	15'-3" Desirable 14'-9" Minimum		17'- 9" Desirable 17'-3" Minimum	
Freeway[3] or Expressway or arterial STH	16'-9" Desirable 16'-4" Minimum			17'- 9" Desirable 17'-4" Minimum	
Railroad[4,5,6,7]	23'-0" Minimum to 23'-3½" Maximum				

General notes:

1 Vertical clearance is needed for the entire roadway width (critical point; to include traveled way, auxiliary lanes, turn lanes, and shoulders), according to the above table.

Vertical clearance for railroads is measured from the top of rail and is required over an area 8 feet 6 inches from the track centerline on each side of a railroad track.

Do not exceed the desirable vertical clearance shown unless justified. Depending on topography and other specific situations vertical clearance for any structure may be greater than that shown when justified. Some things to consider are: over height loads traveling on the roadway; the level of development in the area, the projected growth in traffic volume and importance of the roadway, and the possibility of reclassification.

2 See LRFD Bridge Manual Chapter 39 (http://on.dot.wi.gov/dtid_bos/extranet/structures/LRFD/LRFDManualIndex.htm) and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures.

3 See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways.

4 Consult with the Region Railroad Coordinator if the over-passing or under-passing facility is either a railroad or a "rails-to-trails" trail; or if a structure is owned by a railroad company.

5 A vertical clearance <23'-0" requires both an approved Exception to Standards (see FDM 11-1-2 and FDM 11-1-4) and early coordination with BTLR R&H, Railroads and Harbors Section (RHS) through the Region Railroad Coordinator. The Exception to Standards shall contain documentation that the Office of the Commissioner of Railroads (OCR) has been petitioned.

See Chapter 17 for additional information.

6 Provide justification for a vertical clearance >23'-3 ½" to the RHS.

7 Vertical clearance less than 23'-0" may be acceptable or desirable in certain situations, such as for spur tracks, lead tracks, some branch lines and even mainline tracks when other impediments to 23'-0" exist. Review such situations with the Railroad Project Coordination Engineer in RHS. Early coordination with RHS is required.

DAAR ENGINEERING, INC.

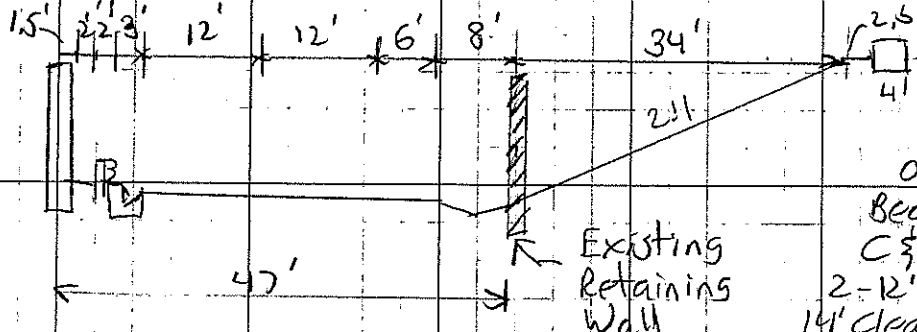
PROJECT: _____

DESCRIPTION: USH 41 over CTH U
B-44-159 (SB) & 160 (NB)

DATE: _____
SHEET ___ OF ___
CALC. BY: _____
CHECKED BY: _____

Existing Structures are 40'x141', 2-68' Spans & 36" Girders
VC = 17.68' (SB) & 17.45' (NB) Retaining walls R-44-10 & 11
Existing Retaining walls are failing, so it is proposed to remove them & build a longer structure, Salvage existing Median Pier?

Proposed Typical Half Section on CTH U



Pier	1.5'
Offset	2.0'
Beam Guard	2.0'
C&G	3.0'
2-12' lanes	24.0'
14' Clear Zone	14.0'
Slope Paving	34.0'
Abutment	2.5'
	4.0'
	87' Span
	36" Girders

Widening in Median = 20' x .02 = 0.4'

VC SB = 17.68' - 0.40' = 17.28'

VC NB = 17.45' - 0.40' = 17.05'

Meets Desireable with no change to profiles

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH 41		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-159
Feature Under: U		Sect/Twn/Rng: S27 T22N R19E		
Location: 2.7M S JCT CTH S		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS48.9	Total Length (ft): 141.0	Deck Area(ft2): 5964	ADT On: 18090 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 02-16-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	17.68	02-17-00	
Min. Veritcal Clearance Under (non-Cardinal)	17.45	02-17-00	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT PREST CO	DECK GIRDER		67.9
CONT PREST CO	DECK GIRDER		67.9

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected

Ck	Elem./Env.	Description	Unit	Total QTY.	Quantity in Condition States 1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	5964	5964				
X	109 / 3	P/S Conc Open Girder	LF	820	820				
X	172 / 3	Painted Steel Diaphr	EA	10	10				
X	205 / 3	R/Conc Column	EA	3	3				
X	215 / 4	R/Conc Abutment	LF	91	87	4			
	Cracks on south abutment								
X	234 / 4	R/Conc Cap	LF	42	42				
X	250 / 3	Concrete Diaphragm	EA	5	5				
X	321 / 4	R/Conc Approach Slab	EA	2		2			
	End of approaches at edge of deck are deteriorating and settling								
X	331 / 4	Conc Bridge Railing	LF	314	254	60			
X	342 / 2	RipRap Slope Protect	EA	2	2				
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
	Diagonal cracking at the ends of the deck, some tranverse cracking								
X	400 / 4	Concrete Wingwall	EA	4	2		2		
	SW wingwall has moved approximately 2-3 inches; Also experiencing spalling at modular joints and differential settling of modular panels. NW wingwall has moved approximately 1 inch west on the bottom of the precast panel located at the back of abutment face.								

General Inspection/Maintenance Notes

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Joint along Parapet/Wing
Amount: **Date(YYYY-MM-DD):**
Maintenance item comment: Seal open joint at the junction between parapet and end of deck at the pavement surface.

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

Maintenance Item:
Amount: **Date(MM-DD-YY):**
Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-159
USH 41 over U

LOCATION

(3) Municipality:	TOWN - KAUKAUNA (44026)
(16) Latitiude(° ' "):	44°20'59.57"N
(17) Longitude(° ' "):	88°11'35.53"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	141.0	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 40	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	32.2	32.2
(55) Minimum Right Lateral(ft):	11.8	11.8
(55) Minimum Left Lateral(ft):	8.5	8.5

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
X		OTHER(99) (Please specify) Left:

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

BRIDGE INSPECTION REPORT
Wisconsin Dept. of Transportion
DT2007 2003 s.84.17 Wis. Stats. Type = ROUTINE INSPECTION

Inventory Data

Feature On: USH41 NB		Maintainer: STATE HIGHWAY DEPT		Structure No: B-44-160
Feature Under: U		Sect/Twn/Rng: S27 T22N R19E		
Location: 3.2M N JCT JJ		County: OUTAGAMI	Municipality: TOWN-KAUKAUNA(44026)	
Inv Rating: HS22.2	Rdwy Width (ft): 39.4	Deck Width (ft): 42.3	Existing Posting:	
Oper Rating: HS48.9	Total Length (ft): 141.0	Deck Area(ft2): 5964	ADT On: 18460 Yr: 2003	ADT Under: 0 Yr: 2000

Inspection Type (* = Supplemental Form Required)

	Routine Visual	Fracture Critical*	In-Depth*	UW-Dive*	UW-Surv*	UW-Probe/Visual*	Movable*
Last Insp.	10-17-11						
Frequency	24						
Recom. Freq.							
	Initial*	Damage	Interim	Load Posted	SI & A Field Review*		
Last Insp.							
Frequency	N/A						
Recom. Freq.	N/A				Item No. Needing Change		

Load Rating Information

Overburden	Measurement (in): 0.0	Date:	Deck Surface Type: CONCRETE	
Section Loss	File Meas. (%):	File Insp. Date: 10-19-09	Insp. Measurement (%):	Describe:
Re-rate for load capacity?		Reason:		Date Last Rated: 02-16-99

Expansion Joints

Location	Type	Temp: File Insp. Date	File Insp. (in)	New Insp. (in)

Signing Condition

Type of Marker	File	Y/N	Comments
Bridge Markers			
Narrow Bridge			
One Lane Road			
Vertical Clearance			
Weight Limit Post			
Other(Addl. Sign)			

Clearances(Cardinal = N or E)	File Meas. (ft.)	File Date	New Meas. (ft.)
Min. Vertical Clearance Under (Cardinal)	17.68	02-17-00	
Min. Veritcal Clearance Under (non-Cardinal)	17.68	02-17-00	
Min. Vertical Clearance On			

Structure Type

Material	Configuration	# of Spans	Overall Length (ft)
CONT PREST CO	DECK GIRDER		67.9
CONT PREST CO	DECK GIRDER		67.9

Construction/Rehabilitation History

Year	Work Performed	Plan	Shop
1999	NEW STRUCTURE	PLAN	

Inspection Information

Special Requirements	Y/N	Comments
Traffic Control	Y	
Access Equipment	Y	
Other	Y	

Inspector Information

Team Leader Name and No. Printed: Michaelson, Neil (3010)	Team Member(s) Name(s) Printed:	
Team Leader Signature:	Inspection Date: 10-17-11	Inspection Agency: STATE HIGHWAY DEPARTMENT (1)
District/Local Manager and No. Printed:	District/Local Manager Signature:	Review Date:

Element Inspection (X) Check Elements Inspected					Quantity in Condition States				
Ck	Elem./Env.	Description	Unit	Total QTY.	1	2	3	4	5
X	26 / 4	Conc Deck/Coatd Bars	SF	5964	5964				
	Diagonal cracking at abutments								
X	109 / 3	P/S Conc Open Girder	LF	820	820				
X	172 / 3	Painted Steel Diaphr	EA	10	10				
X	205 / 3	R/Conc Column	EA	3	3				
X	215 / 4	R/Conc Abutment	LF	91	85	6			
	CS-2 (N Abut 3" & S Abut 3"), Leaking at joint East support keyway (?) appears to have moved out								
X	234 / 4	R/Conc Cap	LF	42	42				
X	250 / 3	Concrete Diaphragm	EA	5	5				
X	321 / 4	R/Conc Approach Slab	EA	2		2			
	Spalled and cracked on South end								
X	331 / 4	Conc Bridge Railing	LF	314	254	60			
X	342 / 2	RipRap Slope Protect	EA	2	1	1			
X	358 / 4	Deck Cracking SmFlag	EA	1	1				
X	359 / 4	Und Dk Surf Sm Flag	EA	1	1				
X	400 / 4	Concrete Wingwall	EA	4	2	2			
	NE & SE wing settled 1" Tipped out 1-1/2" at the top on NE corner.								

General Inspection/Maintenance Notes

MSE walls at NE & SE corners of abutments settling, cracking, spalling, and leaking.

Maintenance Recommendations (See standard code items & numbers)

Maintenance Item: Approach - Seal Approach to Paving Block

Amount: **Date(YYYY-MM-DD):**

Maintenance item comment: Seal hole in pavement at the junction between the parapet and the wingwall

Maintenance Item:

Amount: **Date(MM-DD-YY):**

Maintenance item comment:

Maintenance Item:

Amount: **Date(MM-DD-YY):**

Maintenance item comment:

NBI Ratings

NBI	File	New	NBI	File	New
Deck	8	8	Culvert	N	N
Superstructure	8	8	Channel	N	N
Substructure	7	7	Waterway	N	N

STRUCTURE INVENTORY AND APPRAISAL FIELD REVIEW FORM

B-44-160
USH41 NB over U

LOCATION

(3) Municipality:	TOWN-KAUKAUNA(44026)
(16) Latitiude(° ' "):	44°20'56.86"N
(17) Longitude(° ' "):	88°11'35.91"W

TRAFFIC SERVICE

(28A) Lanes On:	2
(28B) Lanes Under:	2
(102) Traffic Pattern On:	-NO TRAFFIC X-ONE WAY TRAFFIC -TWO WAY TRAFFIC
(102) Traffic Pattern Under:	-NO TRAFFIC -ONE WAY TRAFFIC X-TWO WAY TRAFFIC
(19) Detour Length(mi):	0

GEOMETRY

(49) Structure Length(ft):	141.0	
(50) Sidewalk Width(ft):	Left: 0.0	Right: 0.0
(50) Curb Width(ft):		
(52) Culvert Barrel Length(ft):		
(34) Skew:	Angle(°): 40	Direction: -RIGHT FORWARD X-LEFT FORWARD
	Cardinal Width	Non-Cardinal Width
(51) Bridge Roadway(ft):	39.4	39.4
(52) Deck(ft):	42.3	42.3
(32) Approach Roadway(ft):	39	0
	Cardinal Under Clearance	Non-Cardinal Under Clearance
(47) Minimum Horizontal(ft):	34.0	34.5
(55) Minimum Right Lateral(ft):	14.0	14.0
(55) Minimum Left Lateral(ft):	8.0	8.5

RAILING APPRAISAL

(36A) Bridge Rail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36B) Transition Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36C) Approach Guardrail Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE
(36D) Guardrail Termination Adequacy:	-SUB-STANDARD X-STANDARD -NOT APPLICABLE

Outer Rail:

Left	Right	Type
		TYPE F (TWO SQUARE TUBES) - STEEL(8)
		TYPE F (3 SQUARE TUBES) - STEEL(65)
		TYPE F (4 SQUARE TUBES) - STEEL(72)
		TYPE M-STEEL 3 SQUARE TUBES(93)
X	X	SLOPED FACE PARAPET LF(91)
		SLOPED FACE PARAPET HF(92)
		VERTICAL FACE PARAPET TYPE A(74)
		TYPE W-THRIE BEAM(79)
		TYPE H ON VERTICAL PARAPET(80)
		TIMBER(38)
		OTHER(99) (Please specify)

Transition Type:

	CONT GUARD RAIL
	NO APP GRDRL
	NO ATTACHMENT
5	22 MM(7/8") BOLT (Please enter quantity)
	25 MM(1") BOLT (Please enter quantity)
	OTHER (Please specify)

Guardrail Termination Type:

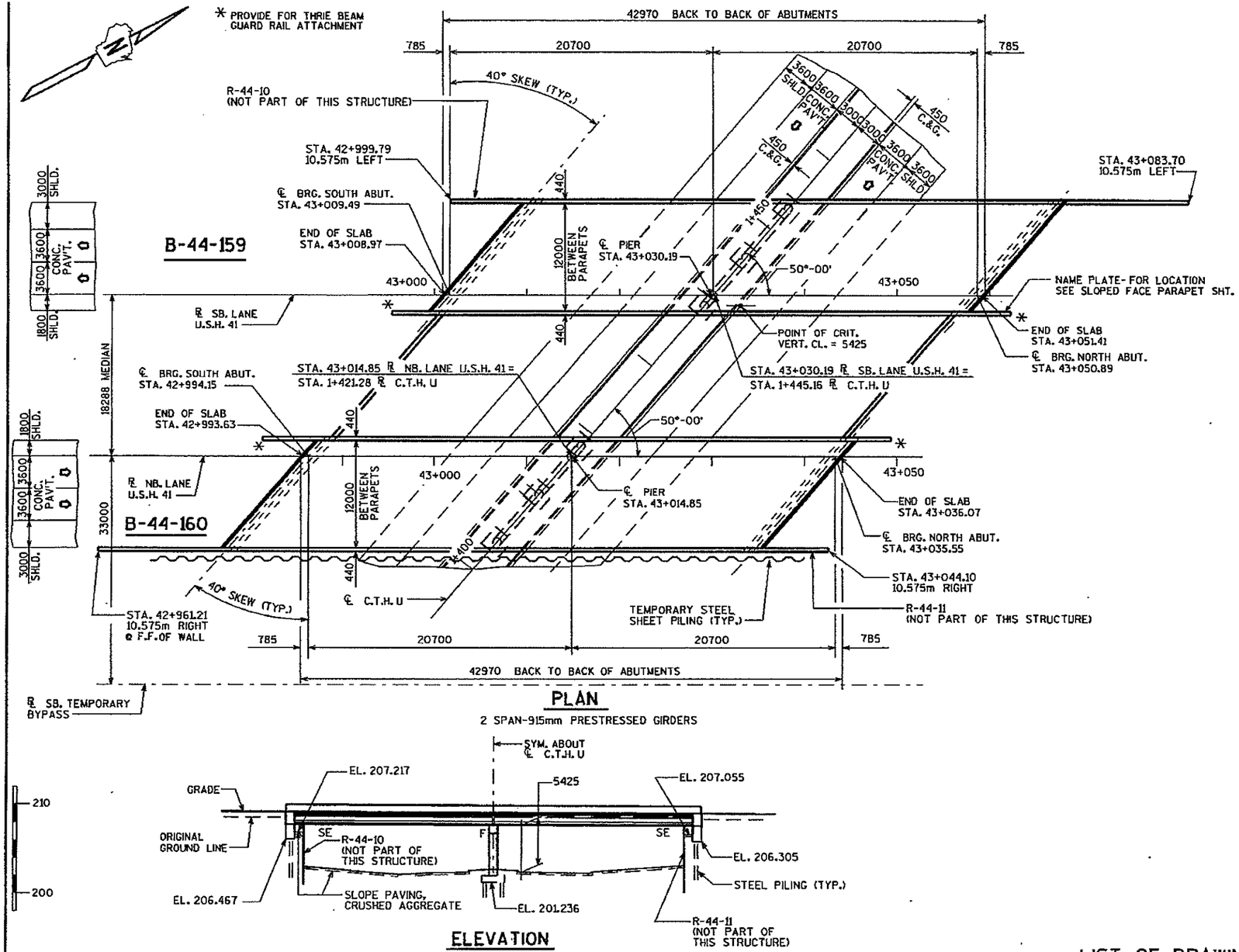
X	(01) ENERGY ABSORBING TERMINAL/EAT
	(02) TURN DOWN
	(99) OTHER (Please specify)

ROADWAY ALIGNMENT APPRAISAL

(72) Approach Alignment Appraisal:

	(3) INTOLERABLE- Horizontal or Vertical curvature requires a substantial reduction in vhicle operating speed
	(6) FAIR- Horizontal or Vertical curvature requires a very minor speed reduction
X	(8) GOOD- No speed reduction required

STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.1

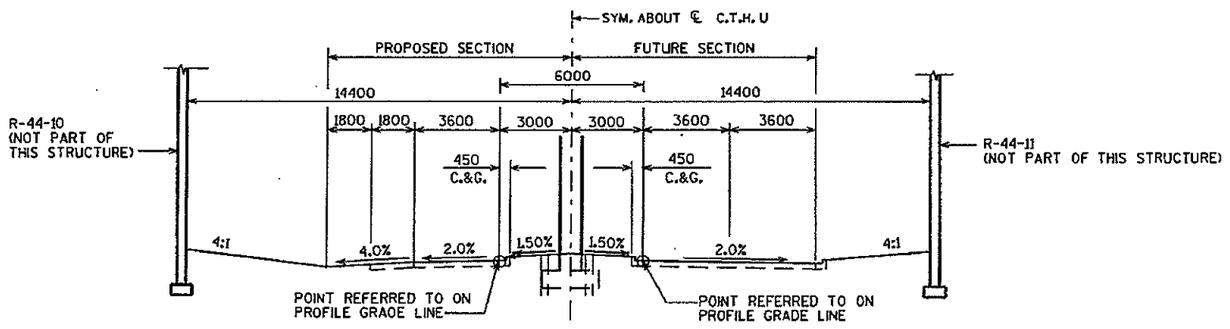


PLAN

2 SPAN-915mm PRESTRESSED GIRDERS

ELEVATION

NORMAL TO C.T.H. U



TYPICAL SECTION THRU C.T.H. U

DESIGN DATA

LIVE LOAD:

DESIGN RATING; MS-18
INVENTORY RATING; MS-20
OPERATIONAL RATING; MS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 kN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 kN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-42M, GRADE 420 — fy = 420 MPa
915mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 27 M LONG.

PIER TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 22 M LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. U
A.D.T.=36,505 (2018)	A.D.T.=1,650 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
FINN HUBBARD (608) 266-8489
KEITH NELSON (608) 266-5083

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-159

U.S.H. 41 OVER C.T.H. U

COUNTY: OUTAGAMIE		TOWN/~~CITY~~/~~VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: KTN	DESIGN CK'D.: DJK	DRAWN BY: COMP/CMF	PLANS CK'D.: KTN

APPROVED: K H Anderson — CHIEF BRIDGE DESIGN ENGINEER — 11-17-98 DATE

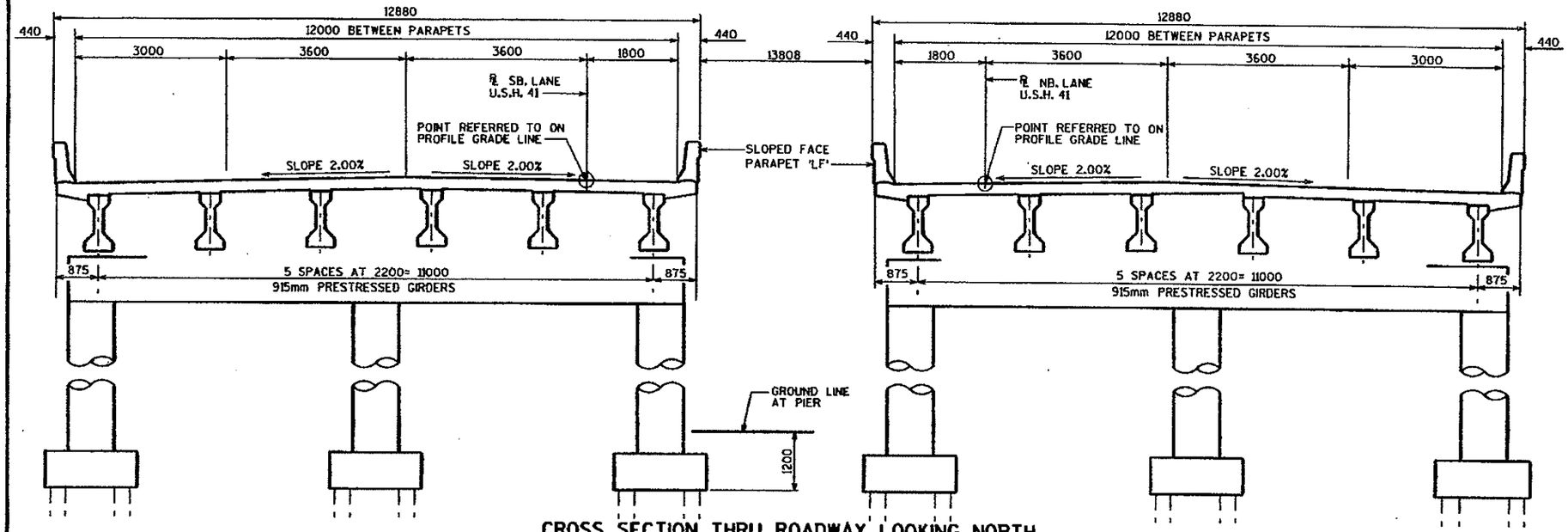
GENERAL PLAN

SHEET 1 OF 13

DATE: JULY '98

FILE= br b44159:159gp.dgn
SCALE= 250

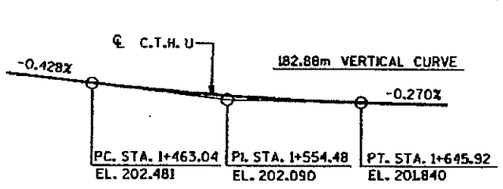
STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.2



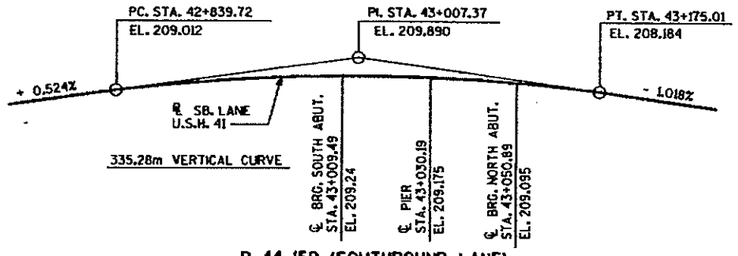
B-44-159

B-44-160

CROSS SECTION THRU ROADWAY LOOKING NORTH



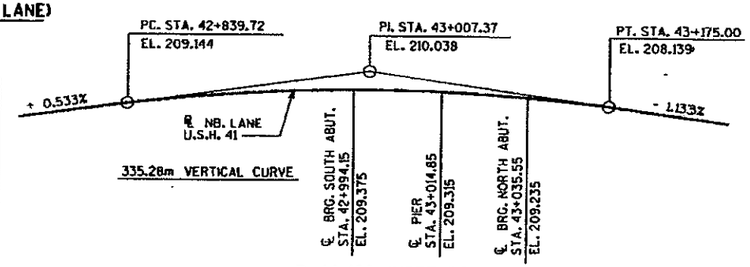
PROFILE GRADE LINE C.T.H. U



B-44-159 (SOUTHBOUND LANE)

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-159	L.S.	—	—	—	—	1
STRUCTURE BACKFILL	m³	—	91	91	—	182
CONCRETE MASONRY, BRIDGES	m³	179	34	32	33	278
PROTECTIVE SURFACE TREATMENT	m²	608	—	—	—	608
PRESTRESSED GIRDER, I TYPE, 915 mm	m	250	—	—	—	250
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	1740	1710	170	3620
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	20435	298	237	2583	23550
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	—	6	6	6	18
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62	m	—	216	216	264	696
RUBBERIZED MEMBRANE WATERPROOFING	m²	—	8	8	—	16
SLOPE PAVING, ~~CRUSHED AGGREGATE~~ BREAKER RUN	m²	—	84	84	—	168
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	1	1	—	2
STEEL DIAPHRAGMS, STRUCTURE B-44-159	EACH	10	—	—	—	10
NON-BID ITEMS						
FILLER	SIZE	—	—	—	—	13 & 19



B-44-160 (NORTHBOUND LANE)

PROFILE GRADE LINE U.S.H. 41

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE METRIC AND THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

ALL DIMENSIONS MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

ALL STATIONS AND ALL ELEVATIONS ARE METERS (m).

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

AT THE BACKFACE OF ABUTMENT ALL EXCAVATED VOLUME NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-159

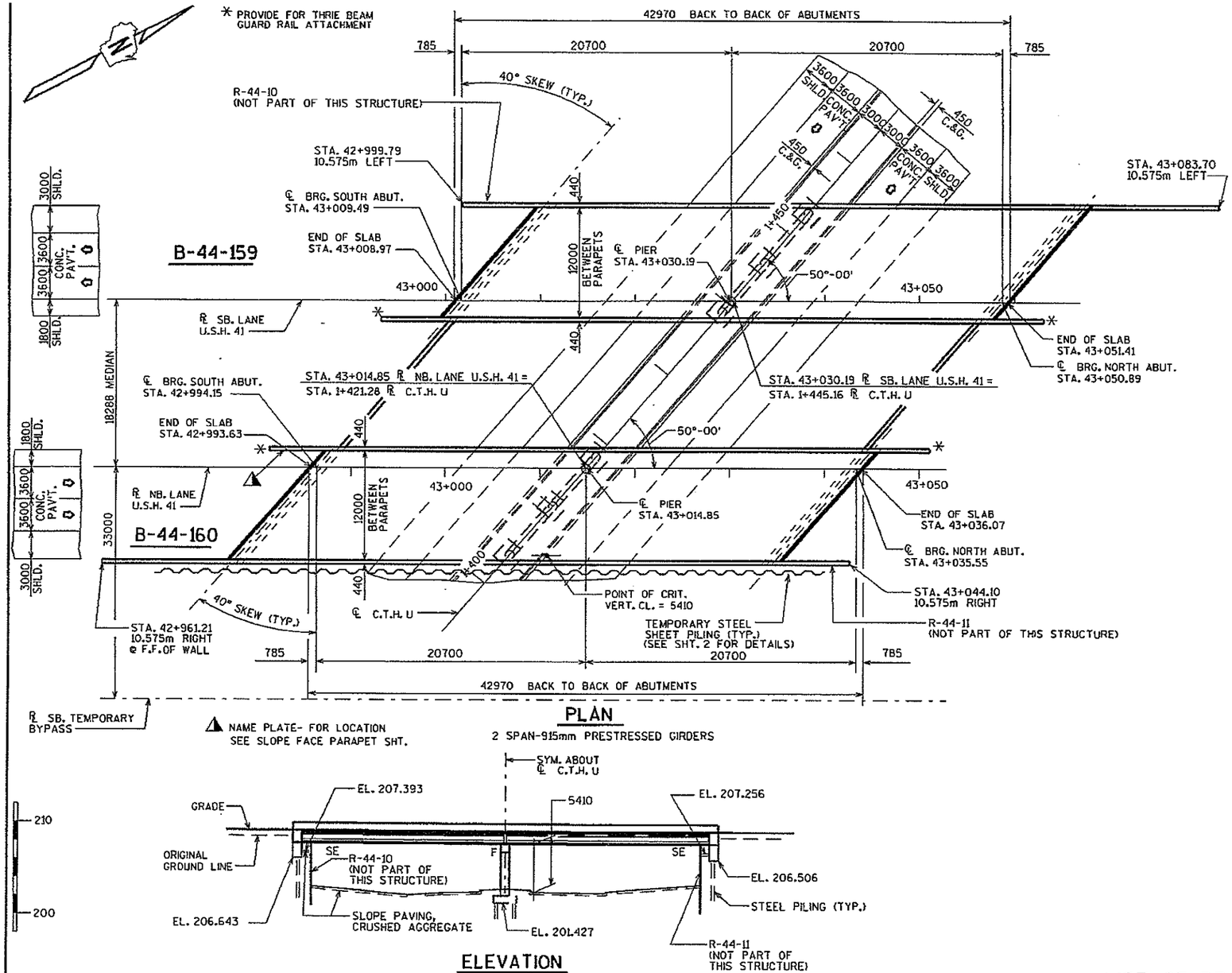
CONST. SPEC.	1996	DRAWN BY	RIES	PLANS CK'D.	KTN

CROSS SECTION & QUANTITIES

SHEET 2

: br44 b159:159gp.dgn

STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.14



DESIGN DATA

LIVE LOAD:

DESIGN RATING: MS-18
INVENTORY RATING: MS-20
OPERATIONAL RATING: MS-44
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 1110 KN.
STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 1.0 KN/m².

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY SLAB — f'c = 28 MPa ALL OTHER — f'c = 24 MPa
BAR STEEL REINFORCEMENT, AASHTO M-42M, GRADE 420 — fy = 420 MPa
915mm PRESTRESSED GIRDERS, CONCRETE MASONRY — f'c = 45 MPa
STRANDS - 13mm DIA. WITH ULTIMATE TENSILE STRENGTH OF 1860 MPa
TEMP. STEEL SHEET PILING — MIN. S_X = 1065 X 10^3 mm/m

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 27 M LONG.

PIER TO BE SUPPORTED ON HP 250 X 62 STEEL PILING DRIVEN TO A MINIMUM BEARING VALUE OF 490 kN PER PILE. ESTIMATED 22 M LONG.

TRAFFIC VOLUME

U.S.H. 41	C.T.H. U
A.D.T.=36,505 (2018)	A.D.T.=1,650 (2018)
R.D.S.=110 km/h	R.D.S.=70 km/h

LIST OF DRAWINGS

BRIDGE OFFICE CONTACT :
FINN HUBBARD (608) 266-8489
KEITH NELSON (608) 266-5083

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-160

U.S.H. 41 OVER C.T.H. U

COUNTY: OUTAGAMIE		TOWN/~~CITY/VILLAGE~~: KAUKAUNA	
DESIGN SPEC.: AASHTO 1996		LOAD: MS-18	CONST. SPEC.: 1996
DESIGNED BY: KTN	DESIGN CK'D.: DJK	DRAWN BY: COMP/CMF	PLANS CK'D.: KTN

APPROVED: H.H. Anderson CHIEF BRIDGE DESIGN ENGINEER — DATE: 11-17-98

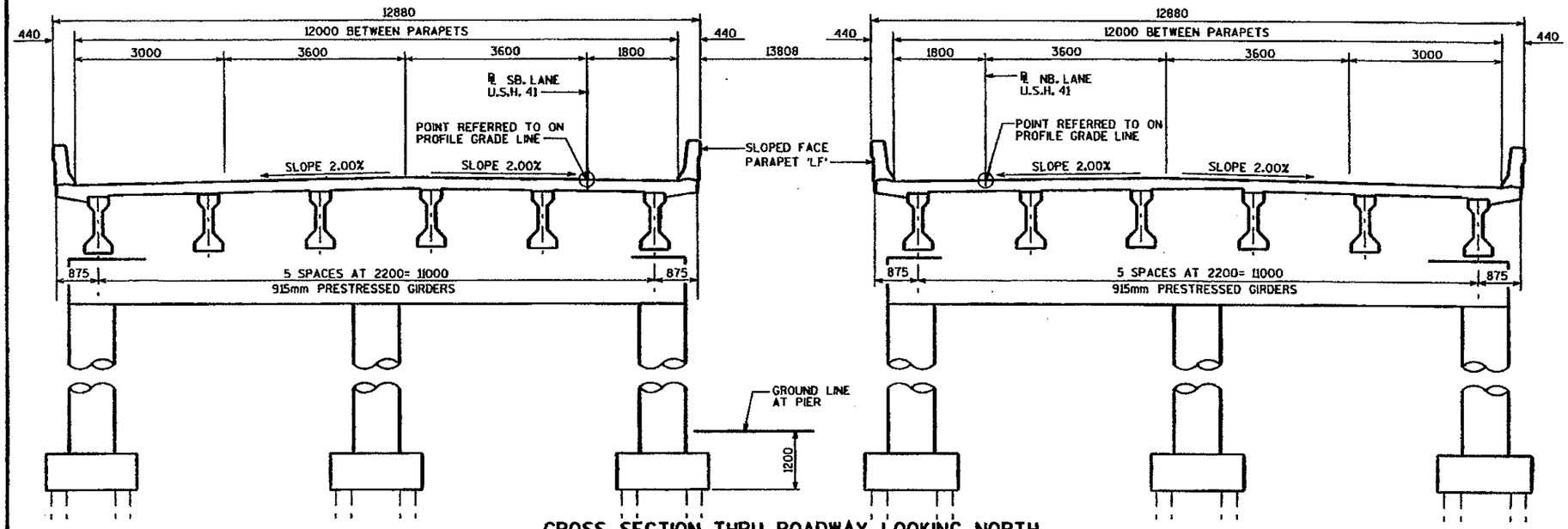
GENERAL PLAN

SHEET 1 OF 13

DATE: JULY '98

ILE= BR_B44160:16GP.GPN
CALE= 250

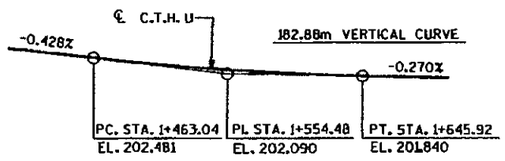
STATE PROJECT NUMBER	SHEET NO.
1131-08-72	8.15



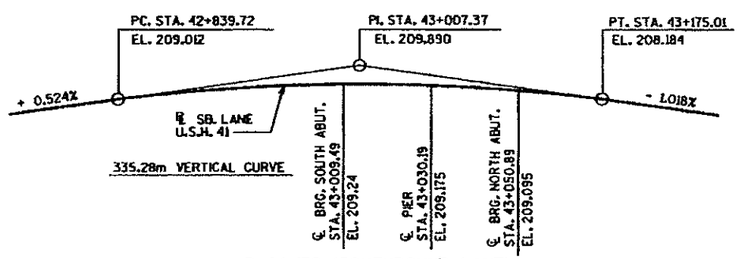
B-44-159

CROSS SECTION THRU ROADWAY LOOKING NORTH

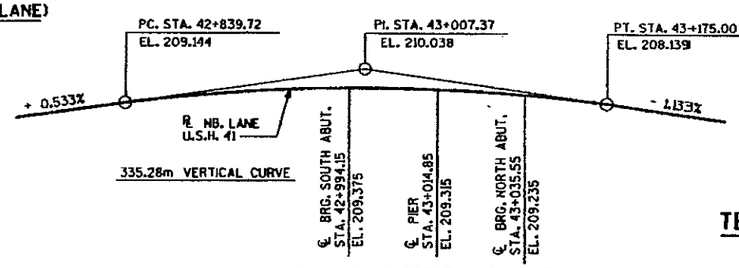
B-44-160



PROFILE GRADE LINE C.T.H. U



B-44-159 (SOUTHBOUND LANE)



B-44-160 (NORTHBOUND LANE)

PROFILE GRADE LINE U.S.H. 41

TOTAL ESTIMATED QUANTITIES

BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	PIER 1	TOTALS
EXCAVATION FOR STRUCTURES, BRIDGES, B-44-160	L.S.	—	—	—	—	1
STRUCTURE BACKFILL	m³	—	91	91	—	182
CONCRETE MASONRY, BRIDGES	m³	179	34	32	33	278
PROTECTIVE SURFACE TREATMENT	m²	608	—	—	—	608
PRESTRESSED GIRDER, I TYPE, 915 mm	m	250	—	—	—	250
HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	—	1710	1740	170	3620
COATED HIGH-STRENGTH BAR STEEL REINFORCEMENT, BRIDGES	kg	20435	237	298	2560	23530
NON-LAMINATED ELASTOMERIC BEARING PADS	EACH	—	6	6	6	18
STEEL PILING, DELIVERED AND DRIVEN, HP 250 X 62	m	—	216	216	264	696
RUBBERIZED MEMBRANE WATERPROOFING	m²	—	8	8	—	16
SLOPE PAVING, ~~CRUSHED AGGREGATE~~ BREAKER RUN	m²	—	84	84	—	168
ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	—	1	1	—	2
STEEL DIAPHRAGMS, STRUCTURE B-44-160	EACH	10	—	—	—	10
TEMPORARY STEEL SHEET PILING	m²	—	—	—	—	505
NON-BID ITEMS						
FILLER	SIZE	—	—	—	—	13 & 19

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 50 mm CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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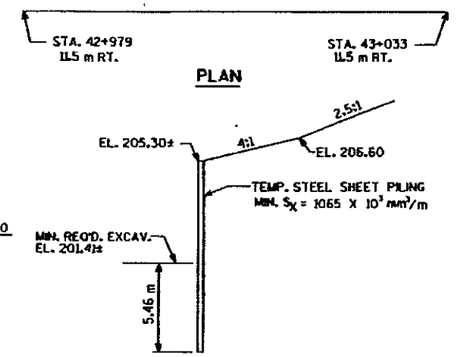
U.S.H. 41 N.B. ℄



TYPICAL SECTION

TEMPORARY STEEL SHEET PILING DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

STRUCTURE B-44-160

CONST. SPEC.	DRAWN BY	PLANS CK'D.
1996	RIES	KTN

CROSS SECTION & QUANTITIES

SHEET 2

FILE= BR_B44160160GP.GPN
SCALE = 50