

PLAN B-67-0332
(TWO-SPAN 45W-INCH PRESTRESSED
CONCRETE GIRDER STRUCTURE)

DESIGN DATA

LIVE LOAD:
DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF=X.XX
OPERATING RATING FACTOR _____ RF=X.XX
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF
20 P.S.F.

MATERIAL PROPERTIES:
CONCRETE MASONRY, SLAB Superstructure $f'_c = 4,000$ P.S.I.
ALL OTHER $f'_c = 3,500$ P.S.I.
HIGH-STRENGTH BAR STEEL
REINFORCEMENT, GRADE 60 $f_y = 60,000$ P.S.I.
45W-INCH PRESTRESSED GIRDER $f'_c = 8,000$ P.S.I.
CONCRETE MASONRY $f_y = 270,000$ P.S.I.
STRANDS 0.6 INCH DIA. WITH
ULTIMATE TENSILE STRENGTH

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH
X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS**
PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATE 30 FT PILE LENGTHS AT BOTH ABUTMENTS AND 15 FT PILE
LENGTHS AT PIER.

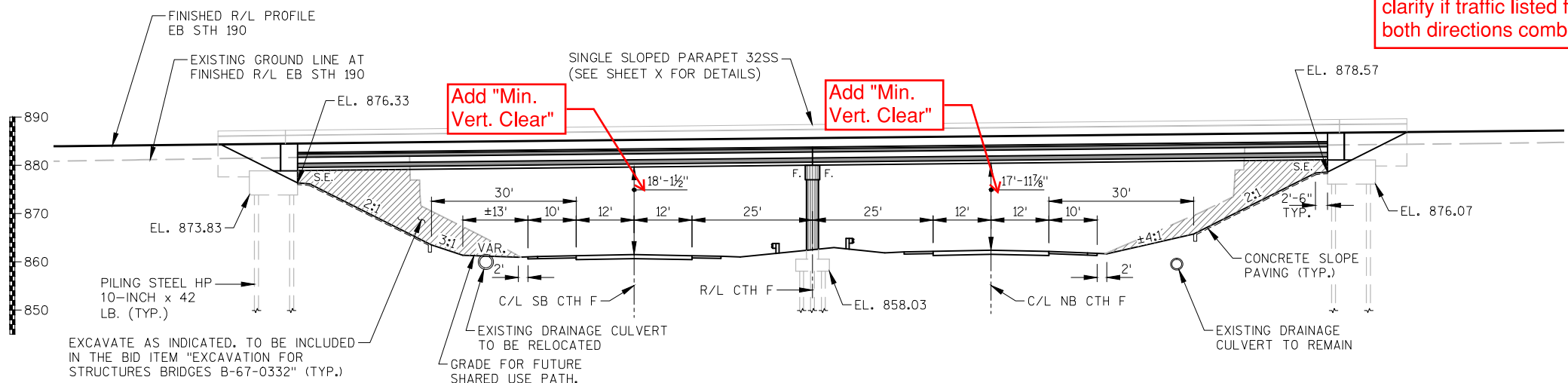
**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED
FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A
RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE
DRIVEN PILE CAPACITY.

TRAFFIC DATA

A.D.T. (2014) _____ 25,700
A.D.T. (2039) _____ 32,100
DESIGN SPEED _____ 60 M.P.H.

LIST OF DRAWINGS

GENERAL PLAN _____ 1.
CROSS SECTION AND QUANTITIES _____ 2.
SUBSURFACE EXPLORATION _____ 3.

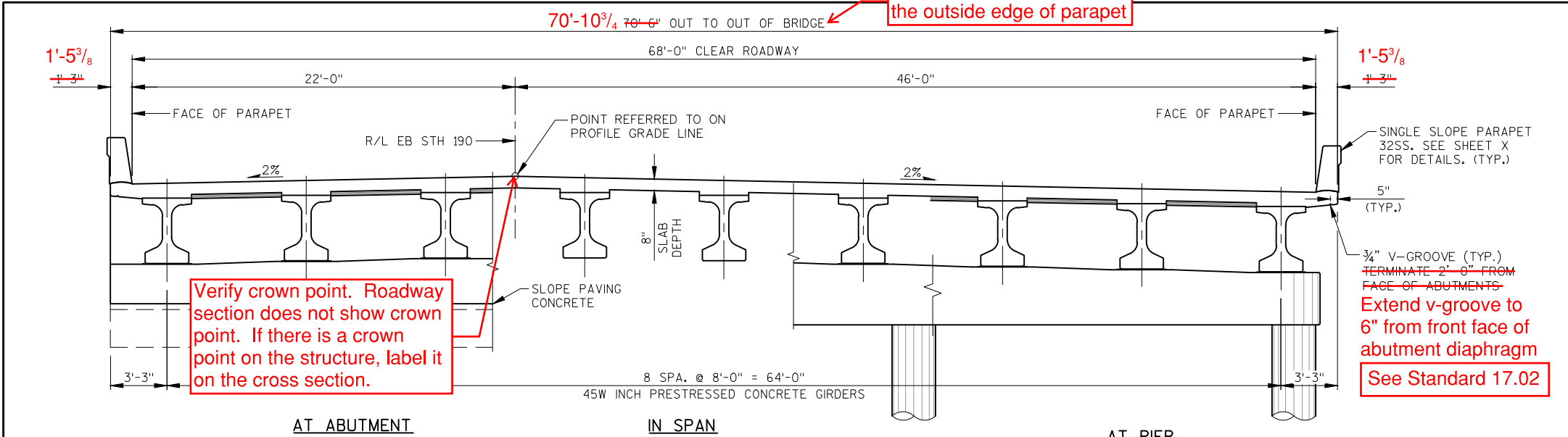


ELEVATION
(NORMAL TO CTH F)

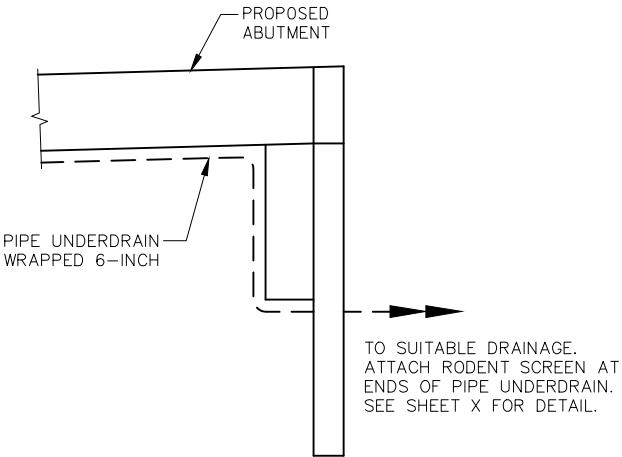
DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

BRIDGE OFFICE CONTACT
WILLIAM DREHER, PE
(608) 266-8489

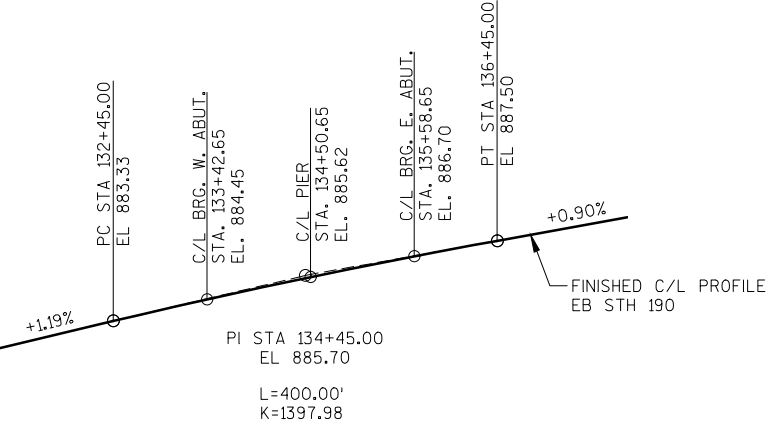
NO.	DATE	REVISION	BY
JEWELL associates engineers, inc. Engineers - Surveyors - Architects			
560 SUNRISE DRIVE SPRING GREEN, WI 53588 PHONE: (608) 588-7484 FAX: (608) 588-9322			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____			
STRUCTURE B-67-0332			
EB STH 190 (CAPITAL DRIVE) OVER CTH F			
COUNTY	WAUKESHA	TOWN/CITY/VILLAGE	PEWAUKEE
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS		
DESIGNED BY	DESIGN CK'D	DRAWN BY	PTB
GENERAL PLAN			PLANS RBH
SHEET 1 OF 3			



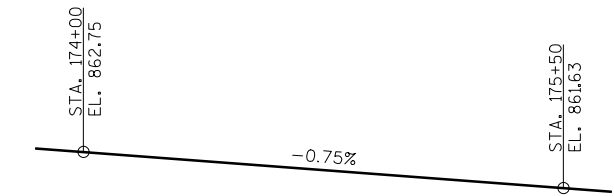
PROPOSED CROSS-SECTION THROUGH ROADWAY
(LOOKING EAST)



PIPE UNDERDRAIN DETAIL

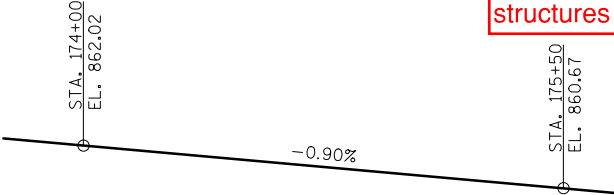


STH 190 - PROFILE GRADE LINE
(EB STH 190)

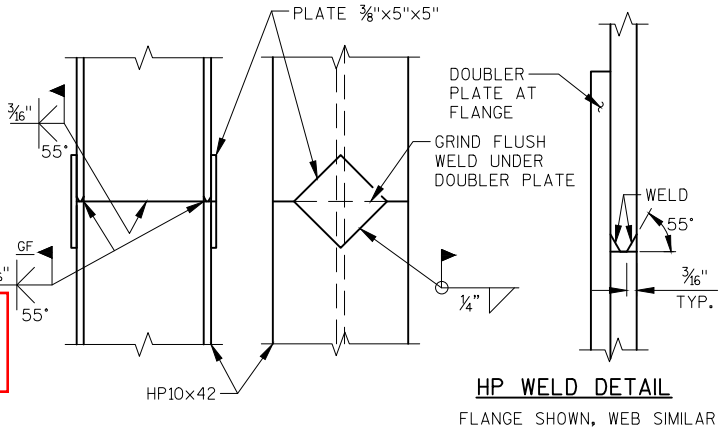


CTH F - PROFILE GRADE LINE
(C/L NB CTH F)

This note is only required for slab structures



CTH F - PROFILE GRADE LINE
(C/L SB CTH F)



PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-0332			
DRAWN BY		PTB	PLANS CK'D. RBH
CROSS SECTION AND QUANTITIES			SHEET 2 OF 3

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. APPR. SLAB	W. ABUT.	PIER	E. ABUT.	E. APPR. SLAB	*SUPER	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 134+50	LS	--	--	--	--	--	--	--
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-67-0332	LS	--	--	--	--	--	--	--
210.0100	BACKFILL STRUCTURE	CY	--	--	--	--	--	--	--
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	--	--	--	--	--	--	--
502.0100	CONCRETE MASONRY BRIDGES	CY	--	--	--	--	--	--	--
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--	--	--	--
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	--	--	--	--
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	--	--	--	--	--	--	--
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	--	--	--	--	--	--	--
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	--	--	--	--	--	--	--
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	--	--	--	--	--	--	--
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	--	--	--	--	--	--	--
506.4000	STEEL DIAPHRAGMS B-67-0332	EACH	--	--	--	--	--	--	--
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	--	--	--	--	--	--	--
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	--	--	--	--	--	--	--
604.0400	SLOPE PAVING CONCRETE	SY	--	--	--	--	--	--	--
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	--	--	--	--	--	--	--
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	--	--	--	--	--	--	--
NON-BID ITEMS									
	FILLER	SIZE	--	--	--	--	--	--	1/2", 3/4", 1 1/4"

*THE SUPERSTRUCTURE QUANTITIES INCLUDE THE CONCRETE AND BAR STEEL REINFORCEMENT OF THE PARAPETS ON THE DECK INCLUDING THOSE PORTIONS LOCATED ON THE STRUCTURAL APPROACH SLABS.

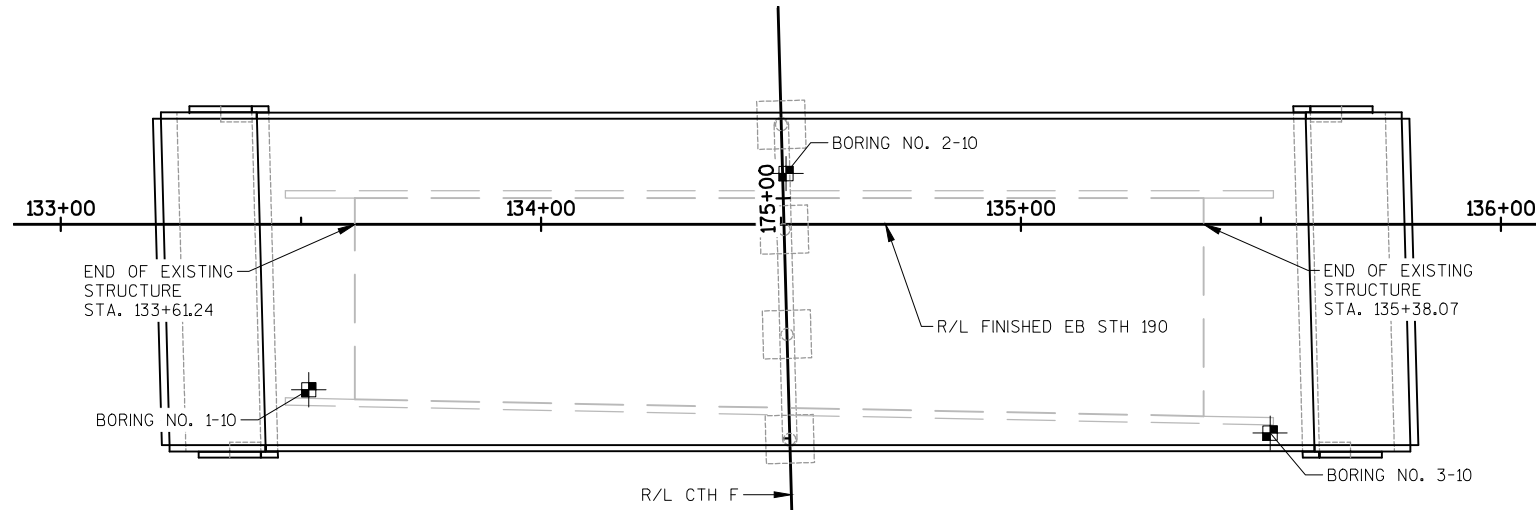
Add note for when double plate is placed first (Standard 11.01)

NORTH

SOIL BORINGS

BY: RVT. CORP.
1060 BREEZEWOOD LN.
NEENAH, WI 54956

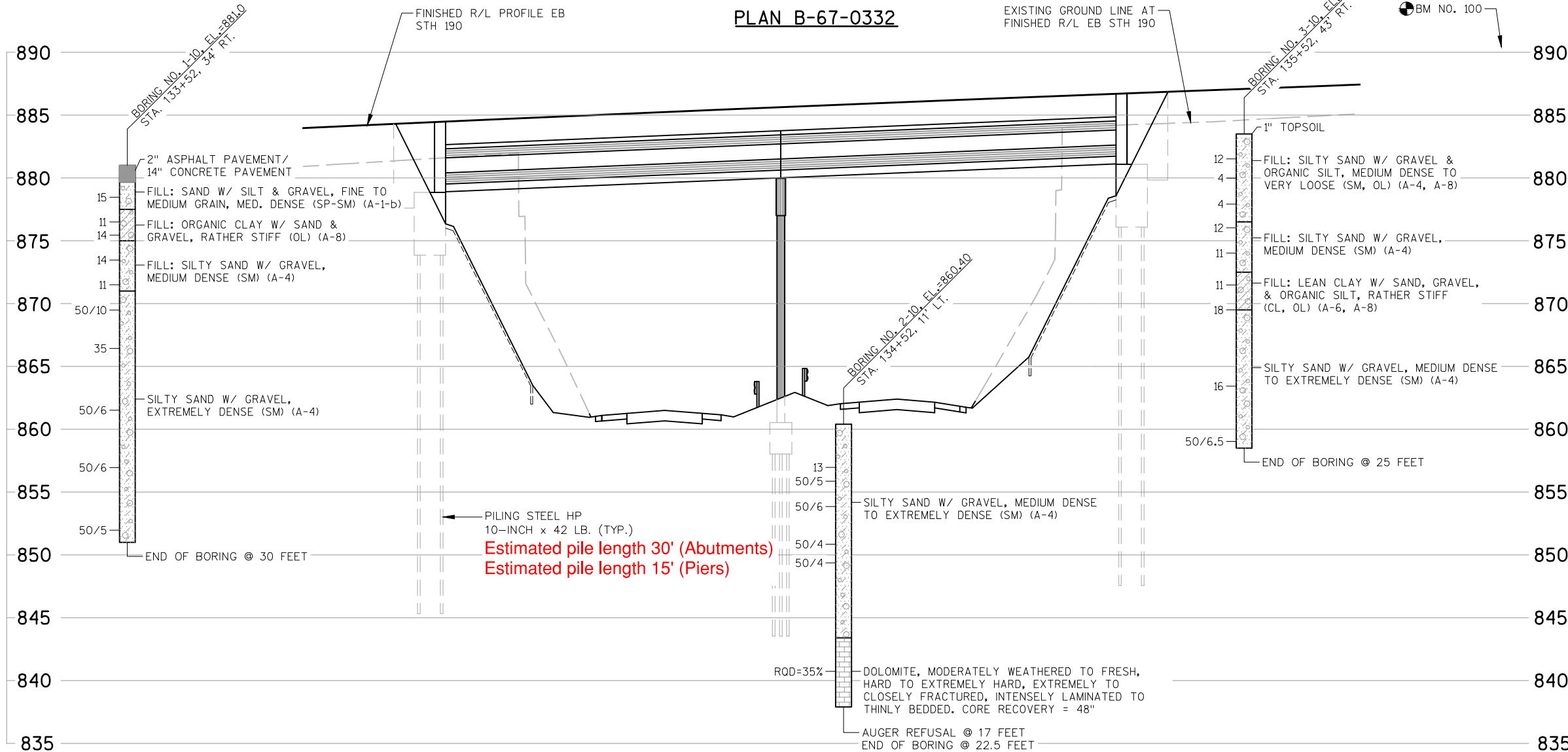
ON: MAY 24, 2010



Not required on geotech
sheet, info is on sheet 1

ABUTMENTS AND PIER TO BE SUPPORTED ON
PILING STEEL HP 10-INCH X 42 LB DRIVEN TO
A REQUIRED DRIVING RESISTANCE OF 180 TONS
PER PILE AS DETERMINED BY THE MODIFIED
GATES DYNAMIC FORMULA. ESTIMATE 30 FT
PILE LENGTHS AT BOTH ABUTMENTS AND 15
FT PILE LENGTHS AT PIER.

PLAN B-67-0332



Estimated pile length 30' (Abutments)
Estimated pile length 15' (Piers)

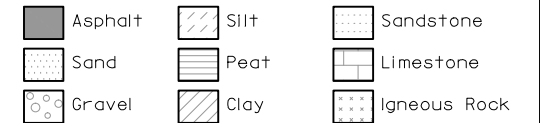
STATE PROJECT NUMBER

2025-13-71

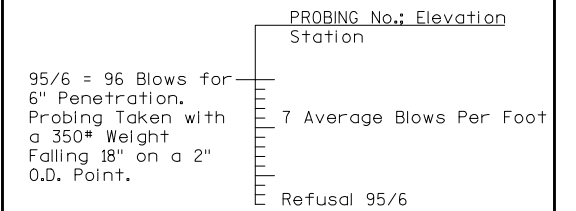
ABBREVIATIONS

F—Fine M—Medium C—Course
Ws—Weathered So—Sound

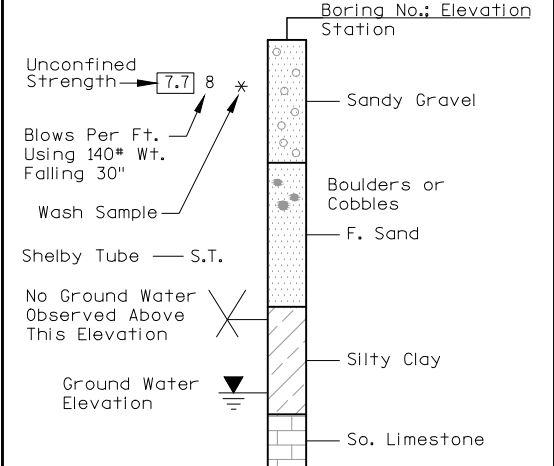
MATERIAL SYMBOLS



LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-0332			
DRAWN BY		PTB	PLANS CK'D. RBH
SUBSURFACE EXPLORATION		SHEET 3 OF 3	