Section No.

Section No. Section No. Section No.

TOTAL SHEETS =

DESIGN DESIGNATION STH 32

CONVENTIONAL SYMBOLS

WOODED OR SHRUB AREA

AADT A.A.D.T.

D.H.V.

DESIGN SPEED

D D

Miscellaneous Quantities

Standard Detail Drawings

Computer Earthwork Data

Right of Way Plat

STATE OF WISCONSIN ORDER OF SHEETS **DEPARTMENT OF TRANSPORTATION** Section No. Typical Sections and Details Section No. Estimate of Quantities

PLAN OF PROPOSED IMPROVEMENT

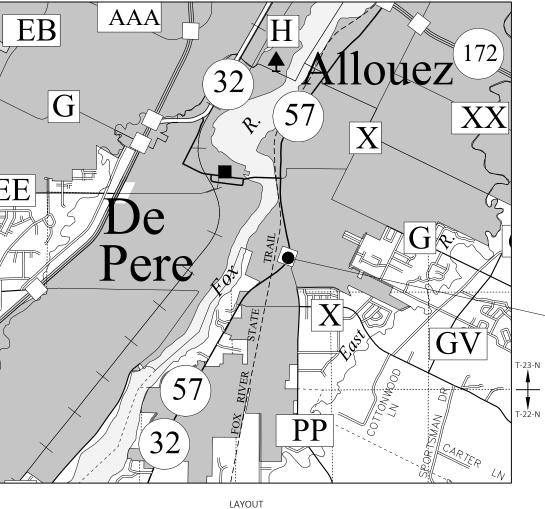
FEDERAL PROJECT STATE PROJECT CONTRACT 4085-62-71

CITY OF DE PERE, GREENLEAF ROAD

STH 32 NORTHBOUND OVER CTH PP

STH 32 BROWN COUNTY





TRANS 220 PROJECT PLAN FOR DESIGN OF UTILITY FACILITY ALTERATIONS OR RELOCATIONS

Date: 11/09/2020

STRUCTURE B-5-465 STH 32 NB OVER CTH PP

PROFILE CORPORATE LIMITS PROPERTY LINE LOTLINE LIMITED HIGHWAY EASEMENT EXISTING RIGHT OF WAY PROPOSED OR NEW R/W LINE SLOPE INTERCEPT REFERENCE LINE EXISTING CULVERT PROPOSED CULVERT COMBUSTIBLE FLUIDS MARSH AREA

GRADE LINE	
ORIGINAL GROUND	_ ^ _ \
MARSH OR ROCK PROFILE (To be noted as such)	ROCK
SPECIAL DITCH	LABEL
GRADE ELEVATION	95.36
CULVERT (Profile View)	0 🗆
UTILITIES	
ELECTRIC	— E ——
FIBER OPTIC	—— FO ——
GAS	—— G ——
SANITARY SEWER	SAN
STORM SEWER	—— ss ——
TELEPHONE	— т —
WATER	—— w ——
UTILITY PEDESTAL	Ħ
POWER POLE	6
TELEPHONE POLE	Ø

DESIGN DESIGNATION CTH PP

A.A.D.T.

A.A.D.T.

D.H.V. D.D.

ESALS

DESIGN SPEED

SCALE I TOTAL NET LENGTH OF CENTERLINE =

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BROWN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET, POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION PREPARED BY NE REGION Surveyor Designer PPROVED FOR THE DEPARTMENT E

FILE NAME: N:\PDS\C3D\40856200\SHEETSPLAN\010101-TI.DWG 11/4/2020 1:54 PM

BRADLEY, KIMBERLY L

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE EXACT CONSTRUCTION LIMITS AND LOCATIONS OF ALL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES TYPICAL SECTIONS CONSTRUCTION DETAILS PLAN DETAILS TRAFFIC CONTROL DETOUR PLAN

ALIGNMENT PLAN

DNR LIASION

JIM DOPERALSKI JR. NORTHEAST REGION 2984 SHAWANO AVE GREEN BAY, WI 54313 (920) 412-0165 james.doperalski@wisconsin.gov

BROWN COUNTY HIGHWAY COMMISSIONER

PAUL FONTECCHIO BROWN COUNTY HIGHWAY DEPT. 2198 GLENDALE AVE. GREEN BAY, WI 54303 (920) 492-4925 bc_highway@co.brown.wi.us

NE REGION SURVEY COORDINATOR

CORMAC MCINNIS, RLS 944 VANDERPERREN WAY GREEN BAY, WI 54304 (920)492-5638 cormac.mcinnis@dot.wi.gov

NE REGION DESIGN PROJECT MANAGER

ANDY FULCER, PE 944 VANDERPERREN WAY GREEN BAY, WI 54303 (920)362-6126 andy.fulcer@dot.wi.gov

RUNOFF COEFFICIENT TABLE

		HYDROLOGIC SOIL GROUP										
	А			В		С		D				
	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)					
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16 .30	.22	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP- TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE- TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:		1	•	•		l						•
ASPHALT	ASPHALT .7095											
CONCRETE .8095												
BRICK .7080												
DRIVES, WALKS	RIVES, WALKS .7585											
ROOFS	.7595											
GRAVEL ROADS, SH	GRAVEL ROADS, SHOULDERS .4060											

TOTAL PROJECT AREA = ACRES TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = ACRES

PROJECT NO: 4085-62-71 HWY: STH 32 C:\CIVIL 3D PROJECTS\40856200\SHEETSPLAN\020101-GN.DWG

GENERAL NOTES

10/26/2020 10:35 AM

PLOT BY: SMITH, JENNIFER B

1 IN:10 FT

SHEET

UTILITIES CONTACTS

COMMUNICATIONS

COMPANY NAME CONTACT NAME ADDRESS CITY, STATE, ZIP PHONE: EMAIL:

Dial (800)242-8511 www.DiggersHotline.com

EMERGENCY CONTACT NUMBERS FOR WISCONSIN POWER AND LIGHT COMPANY

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-862-6261 GAS 24 HOUR EMERGENCY SERVICE: 1-800-862-6263

EMERGENCY CONTACT NUMBERS FOR WISCONSIN PUBLIC SERVICE

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-450-7240 GAS 24 HOUR EMERGENCY SERVICE: 1-800-450-7280

EMERGENCY CONTACT NUMBERS FOR WE ENERGIES ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797 GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

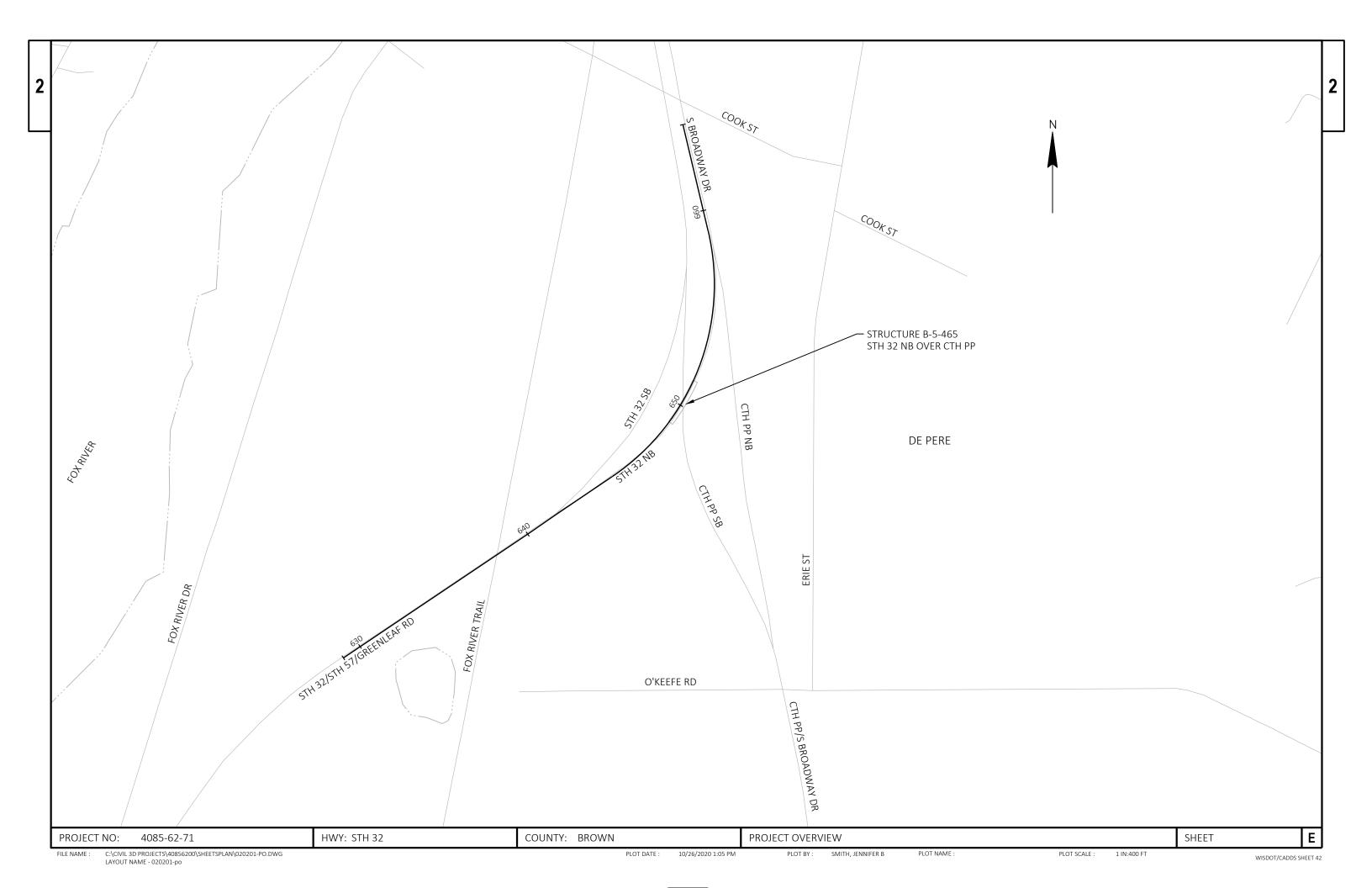
Ε

FILE NAME : LAYOUT NAME - 020101-gn PLOT DATE :

COUNTY: BROWN

PLOT NAME

PLOT SCALE :

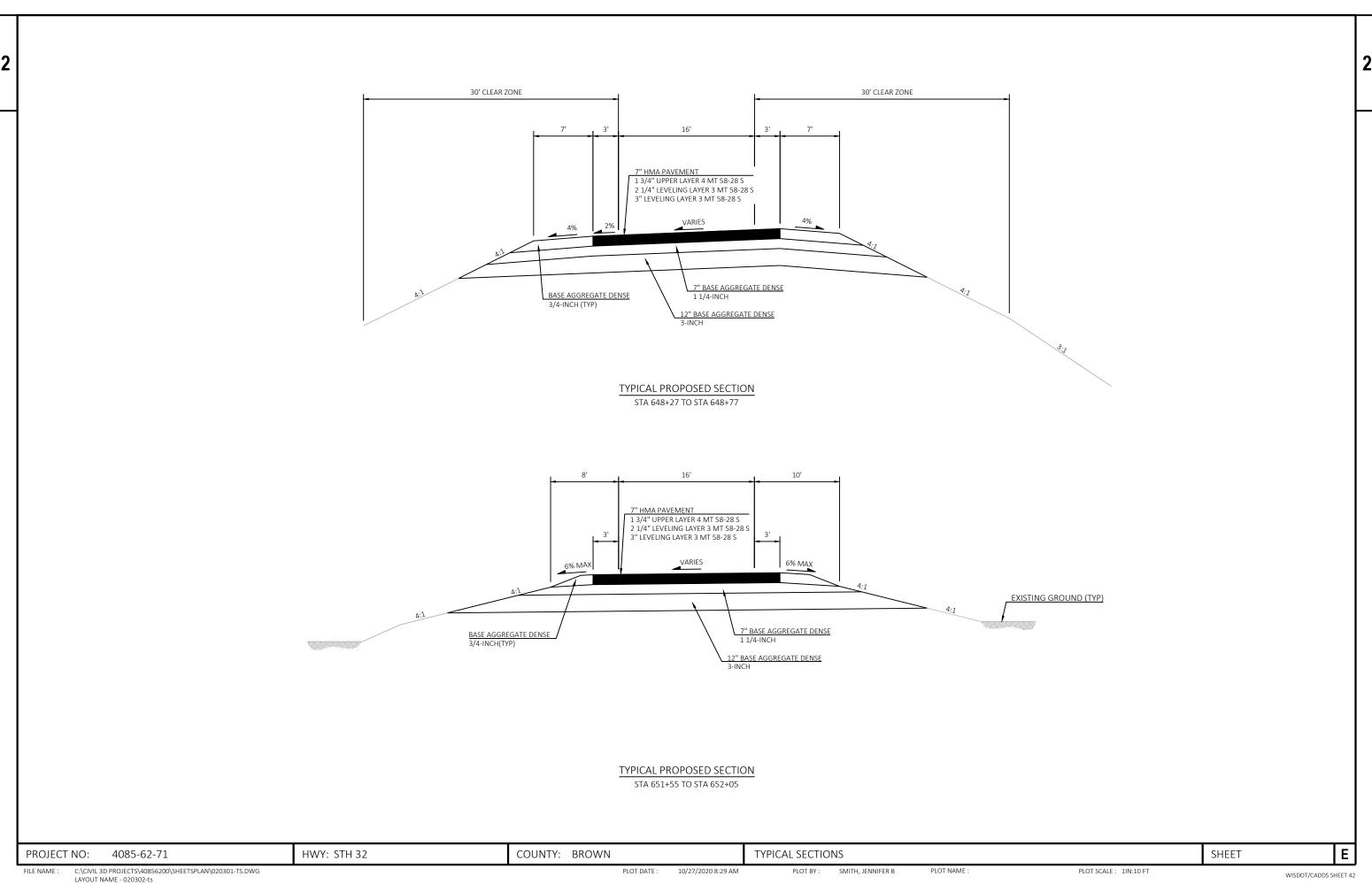


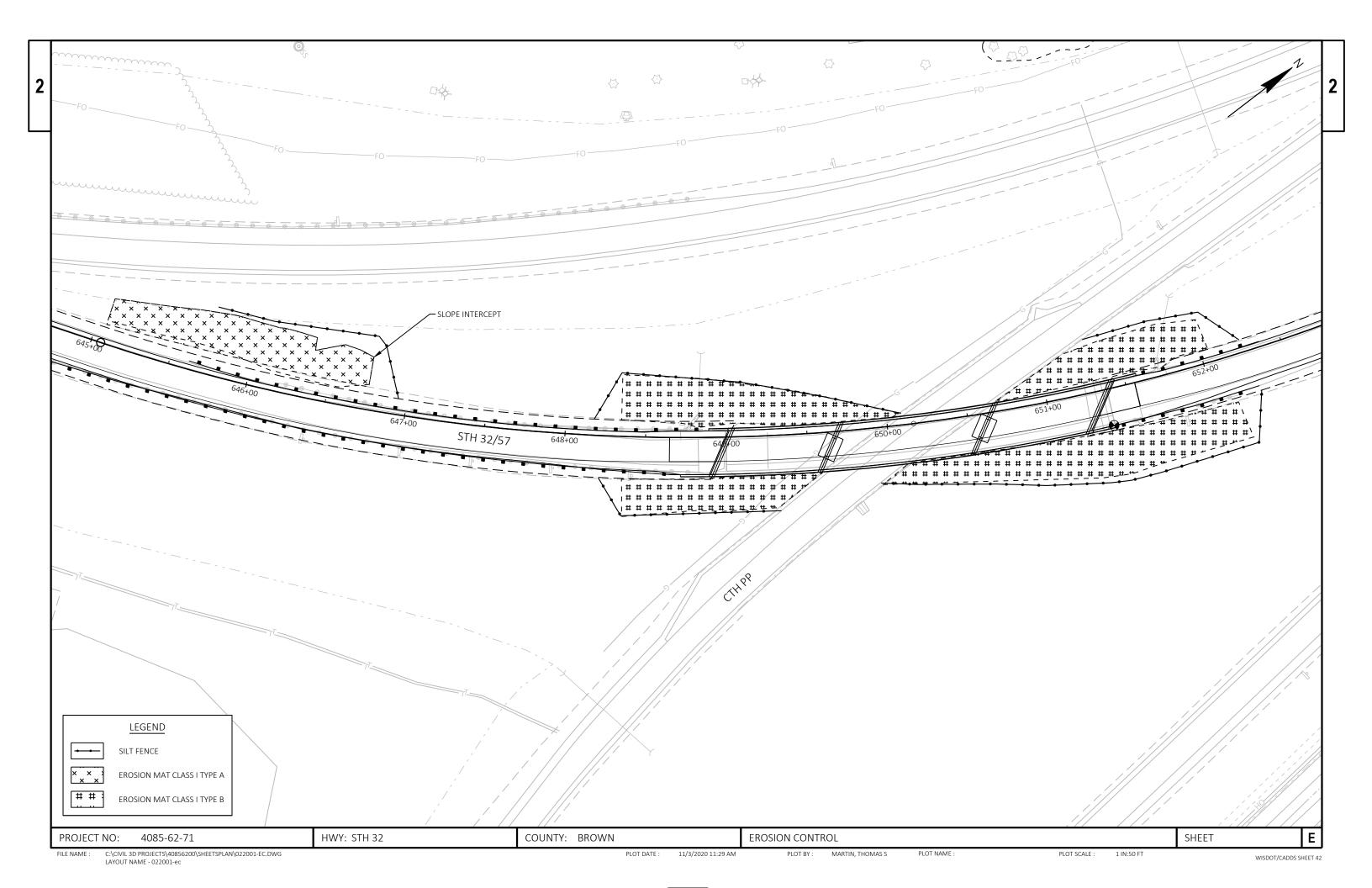
30' CLEAR ZONE 30' CLEAR ZONE 16' 11' VARIES 5 3/4" HMA PAVEMENT TYPE E-3 VARIES 4% 10" BASE AGGREGATE DENSE 3" BASE AGGREGATE DENSE 3/4-INCH 6" BASE AGGREGATE DENSE TYPICAL EXISTING SECTION STA 648+27 TO STA 649+00 4" HMA PAVEMENT TYPE E-3 VARIES 6% MAX 6% MAX EXISTING GROUND (TYP) 4" BASE AGGREGATE DENSE 3/4-INCH(TYP) 9" CONCRETE PAVEMENT CRUSHED AGGREGATE BASE COURSE (TYP) 6" BASE COURSE ASPHALT SHOULDER 9" GRANULAR SUB-BASE COURSE TYPICAL EXISTING SECTION STA 651+38 TO STA 652+05 Ε PROJECT NO: 4085-62-71 HWY: STH 32 COUNTY: BROWN TYPICAL SECTIONS SHEET C:\CIVIL 3D PROJECTS\40856200\SHEETSPLAN\020301-TS.DWG LAYOUT NAME - 020301-ts FILE NAME : PLOT DATE : PLOT BY: SMITH, JENNIFER B 10/27/2020 8:29 AM

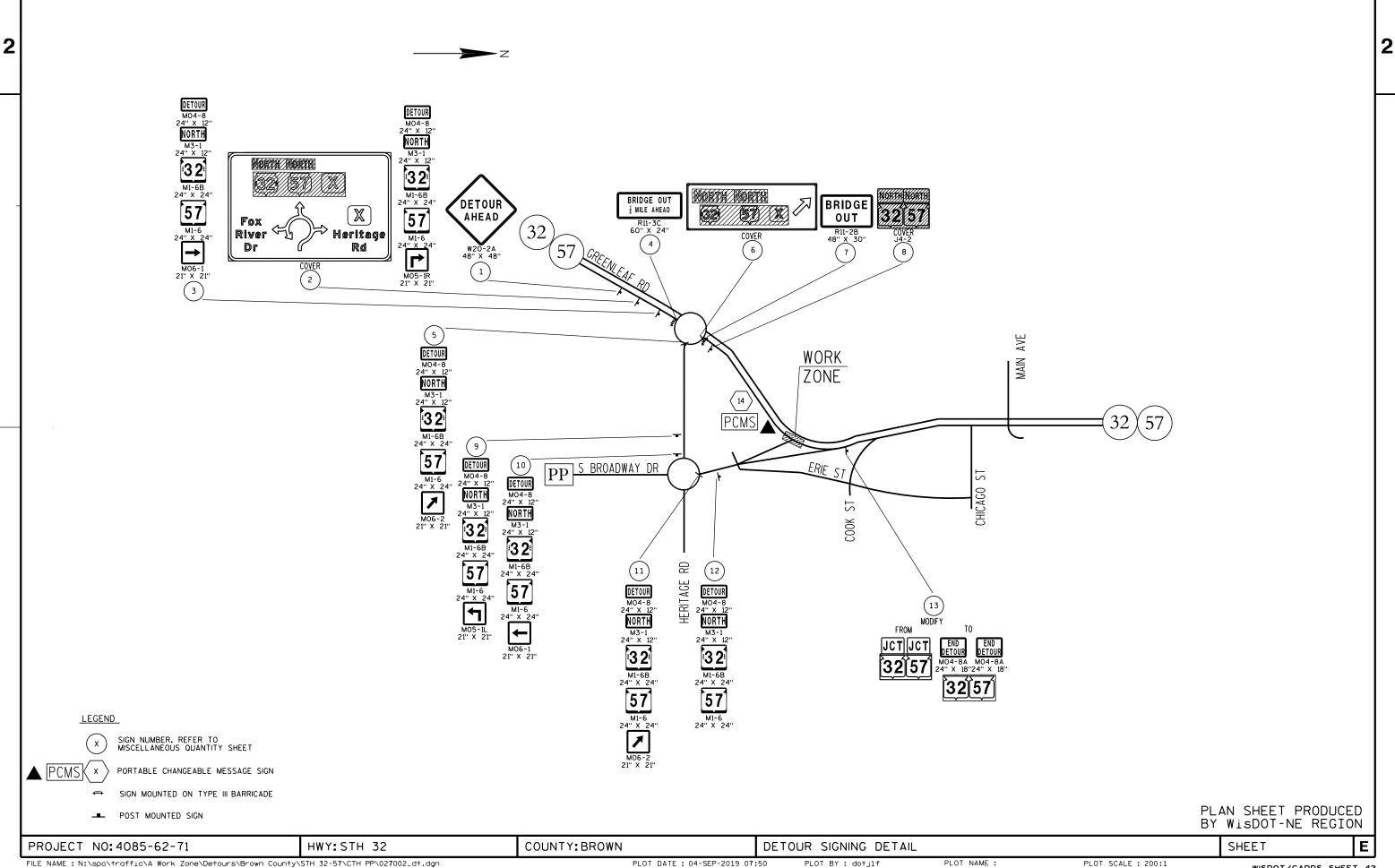
PLOT NAME :

PLOT SCALE: 1IN:10 FT

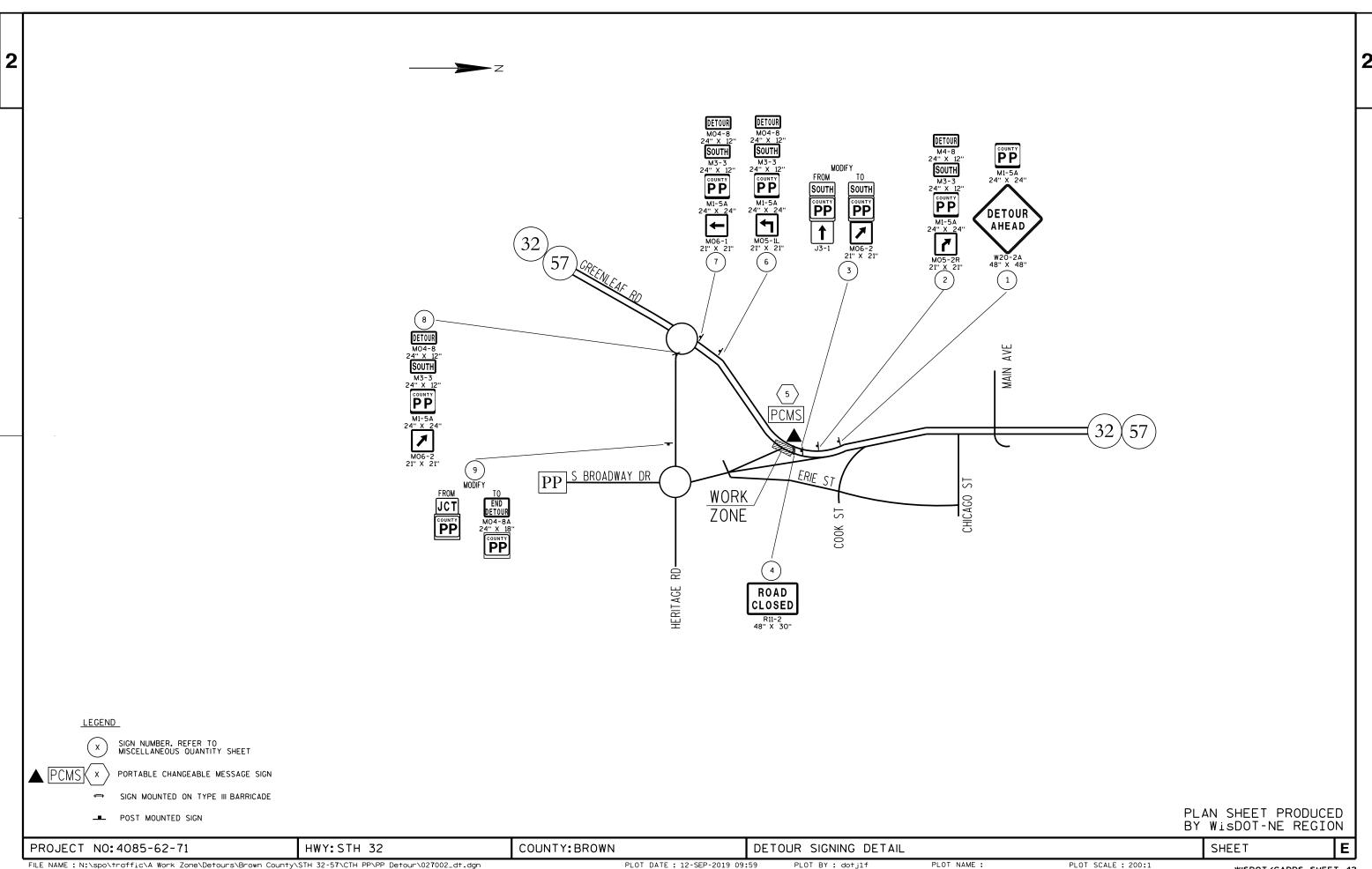
WISDOT/CADDS SHEET 42







WISDOT/CADDS SHEET 42



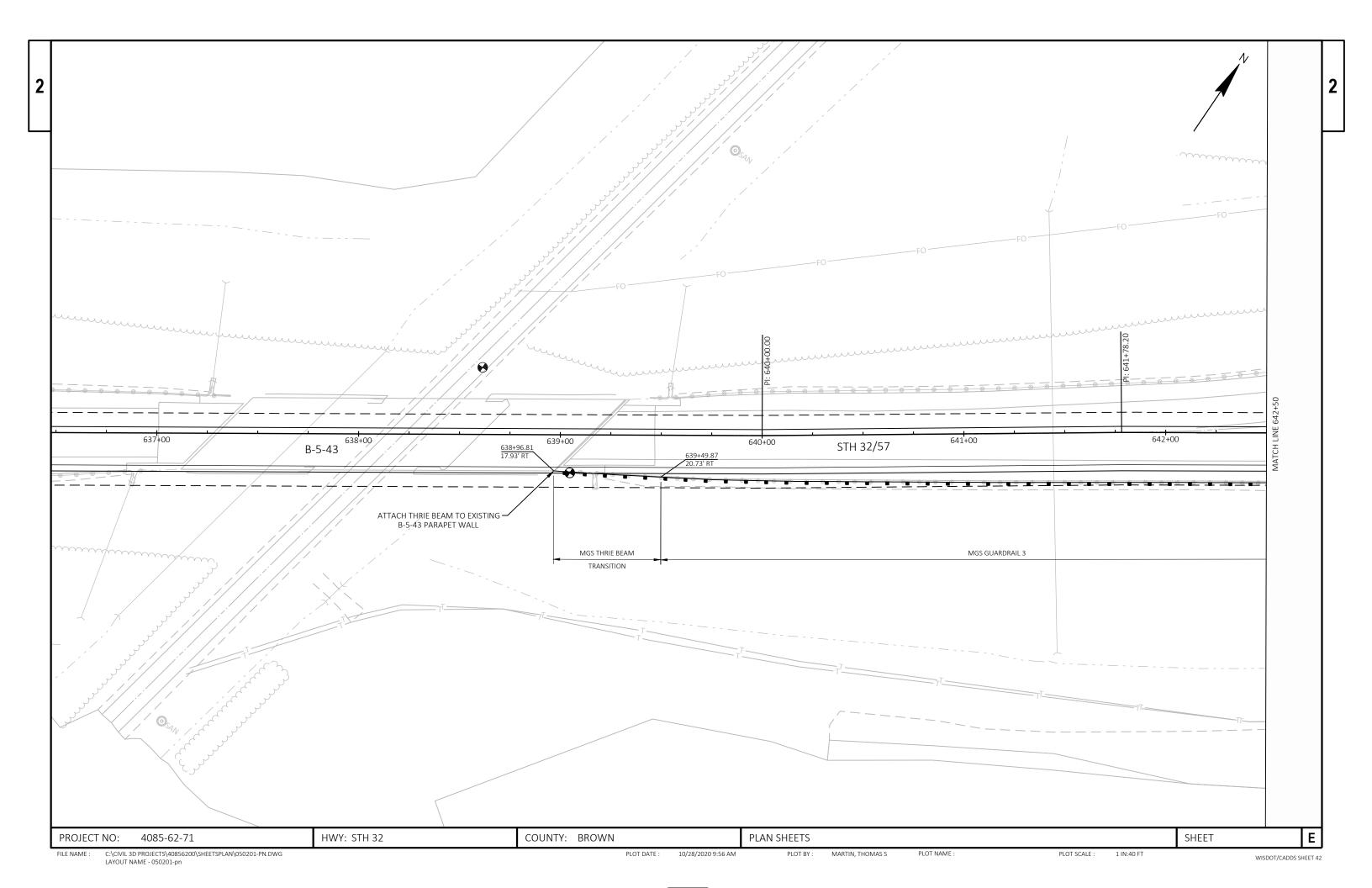
FILE NAME: N:\spo\traffic\A Work Zone\Detours\Brown County\STH 32-57\CTH PP\PP Detour\027002_dt.dgn

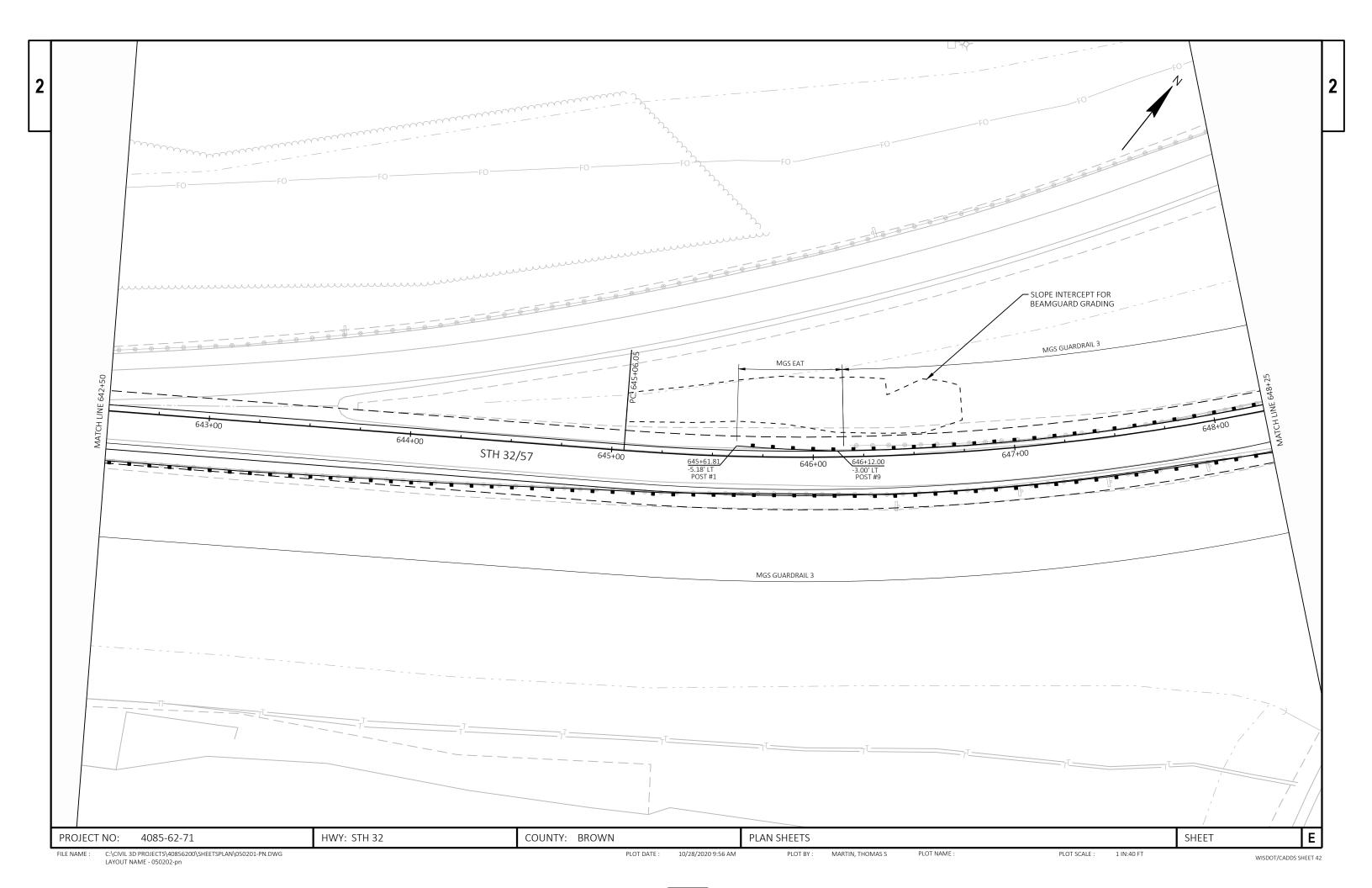
PLOT DATE: 12-SEP-2019 09:59

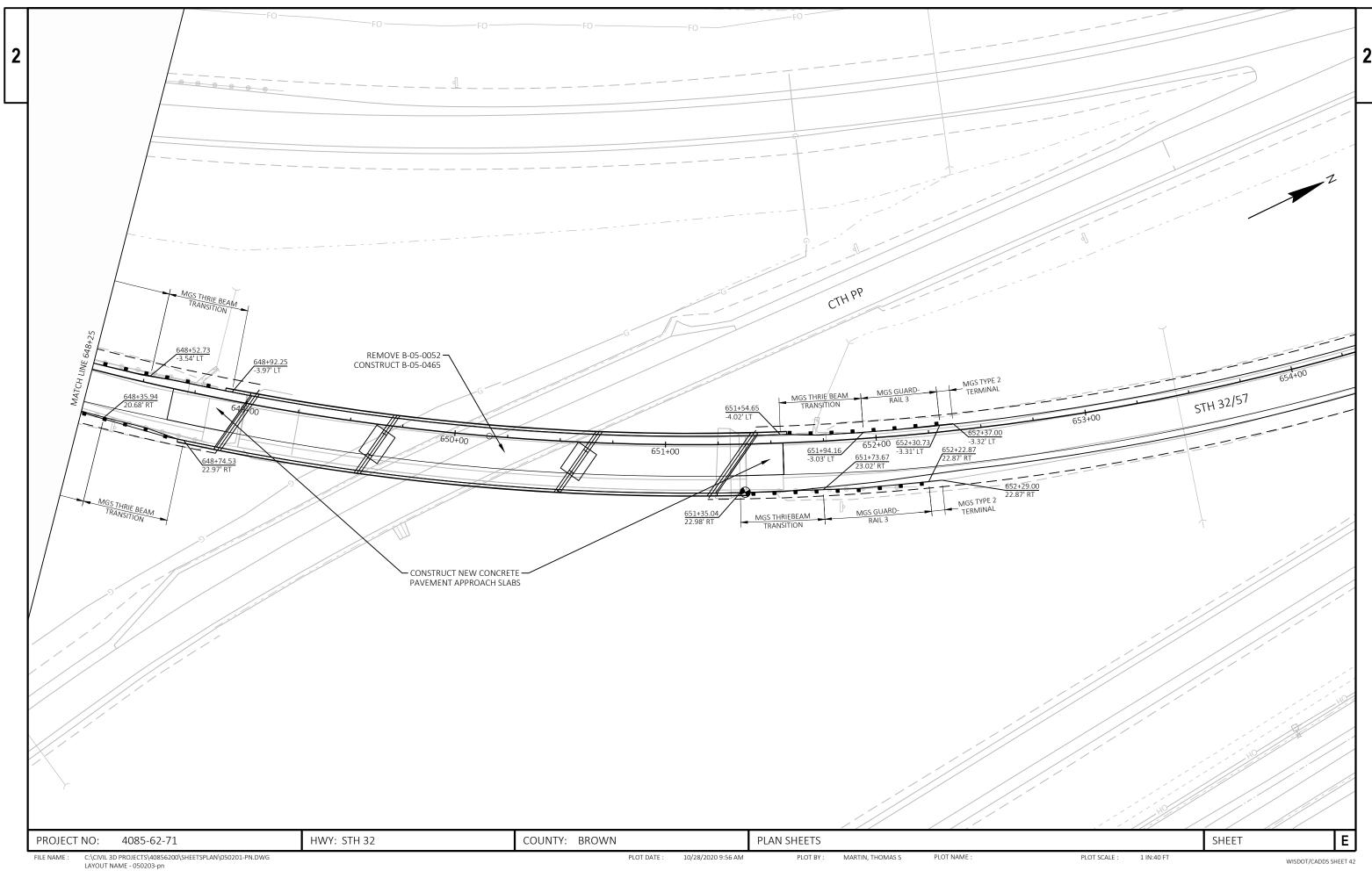
PLOT NAME :

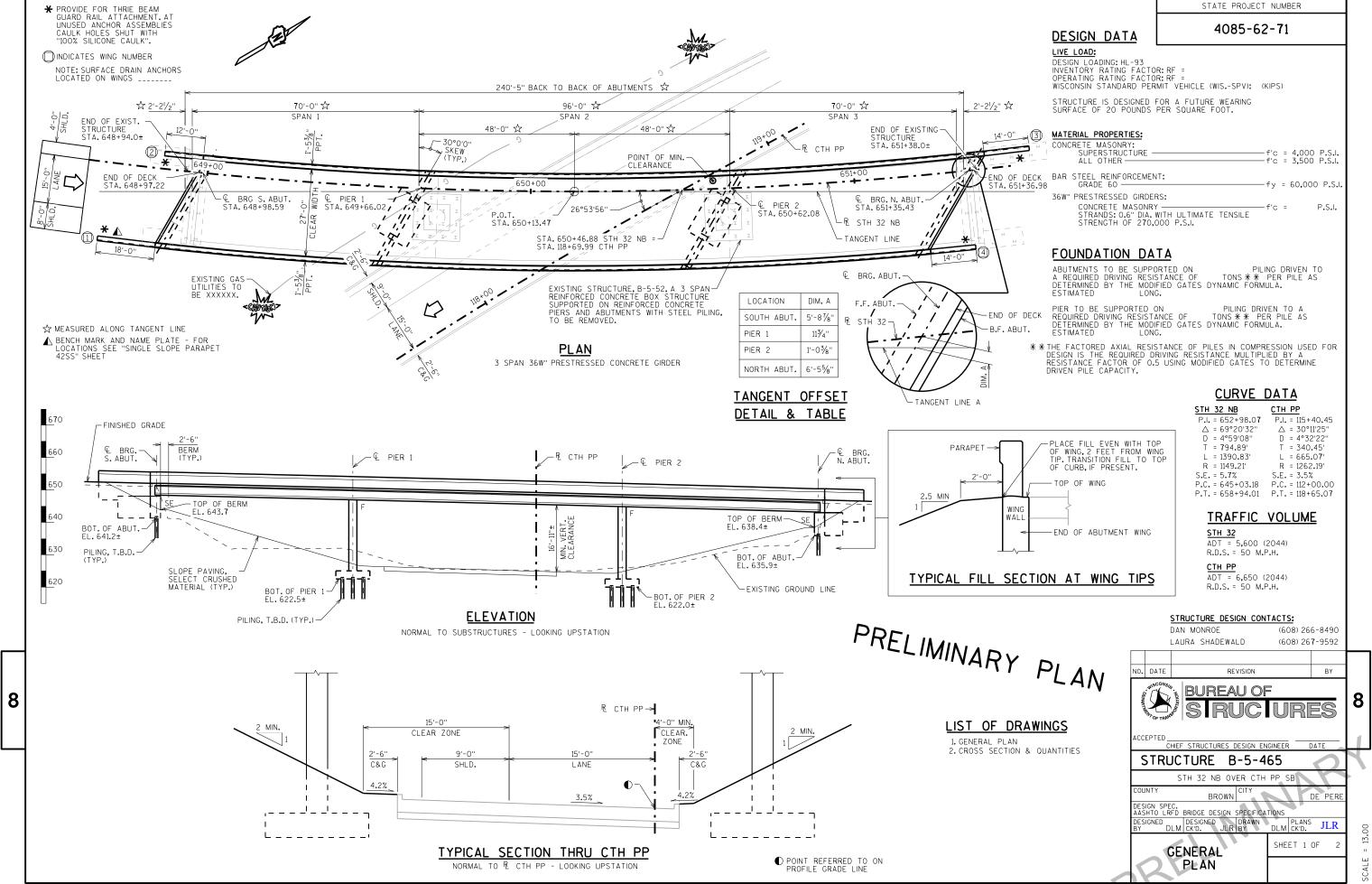
PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42









4085-62-71

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

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-5-465" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE 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 TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-O" ABOVE BOTTOM OF ABUTMENT.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

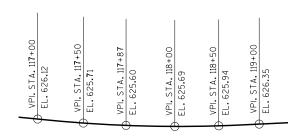
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACE AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT

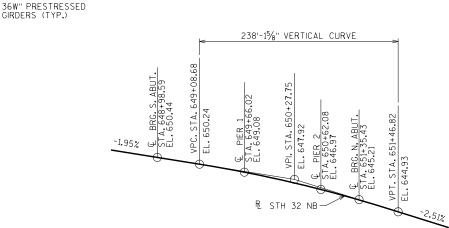
PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS.

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

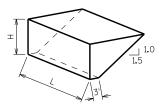
THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "36W PRESTRESSED GIRDER DETAILS 2"



PROFILE GRADE LINE - CTH PP



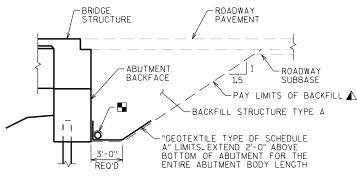
PROFILE GRADE LINE - STH 32 NB



ABUTMENT BACKFILL DIAGRAM FOR WINGS PARALLEL TO ROADWAY

= OUT TO OUT OF ABUTMENT, INCLUDING WINGS (FT) = AVERAGE ABUTMENT FILL HEIGHT (FT) = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)

V_{CF} = (L)(3.0)(H) + (L)(0.5)(1.5H)(H) V_{CY} = V_{CF} (EF)/27 V_{TON} = V_{CY} (2.0)



TYPICAL SECTION THRU ABUTMENT

- A BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES, LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

BID ITEM NUMBER

203.0200

206.1000

210,1500

502,0100

502,3200

502.3210

503.0137

505.0400

505,0600

506,2605

506.4000

516,0500

604.0600

612.0406

614.0150

645.0111

550.

R STH 32 NB ->

4'-0"

SHLD.

GROUND LINE -

TOTAL ESTIMATED QUANTITIES

REMOVING OLD STRUCTURE STA. 650+00

BACKFILL STRUCTURE TYPE A

PROTECTIVE SURFACE TREATMENT

PRESTRESSED GIRDER TYPE I 36W-INCH

RUBBERIZED MEMBRANE WATERPROOFING

PIPE UNDERDRAIN WRAPPED 6-INCH

GEOTEXTILE TYPE DF SCHEDULE A

BRIDGE SEAT PROTECTION

FILLER

SLOPE PAVING SELECT CRUSHED MATERIAL

BAR STEEL REINFORCEMENT HS STRUCTURES

BEARING PADS ELASTOMERIC NON-LAMINATED

BAR STEEL REINFORCEMENT HS COATED STRUCTURES

ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD

NON-BID ITEMS

CONCRETE MASONRY BRIDGES

PIGMENTED SURFACE SEALER

STEEL DIAPHRAGMS B-5-465

EXCAVATION FOR STRUCTURES BRIDGES B-5-465

BID ITEMS

1'-53/8''

29'-103/4" OUT TO OUT OF SUPERSTRUCTURE 27'-0" CLEAR ROADWAY WIDTH

5.7%

VARIES - GIRDER SPACING

29'-6" END TO END OF DECK

CROSS SECTION THRU ROADWAY LOOKING NORTH (UPSTATION)

UNIT

LS

LS

TON

CY

SY

SY

LF

LB

LB

EACH

EACH

SY

LF

SY

LF

EACH

SY

L.S.

SIZE

SUPER.

LANE

TANGENT LINE

GRADE LINE

POINT REFERRED

8'-0"

SHLD.

SOUTH

ABUT.

PIER 1

PPT.

-SINGLE SLOPE PARAPET 42SS (TYP.)

NORTH

ABUT.

TOTALS

1/2"

PIER 2

GIRDERS (TYP.)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION STRUCTURE B-5-465 SHEET 2

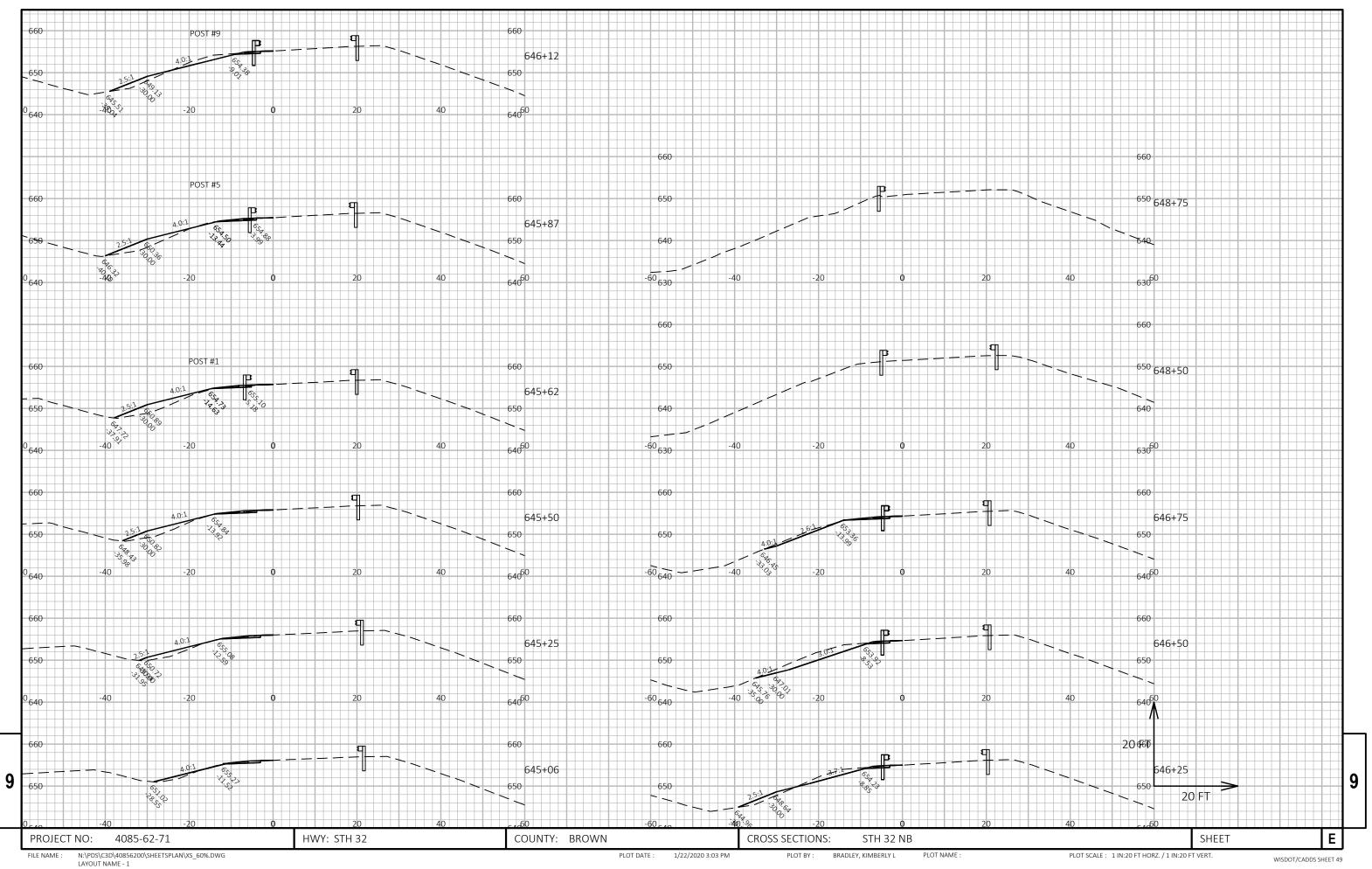
REVISION

CROSS SECTION & QUANTITIES

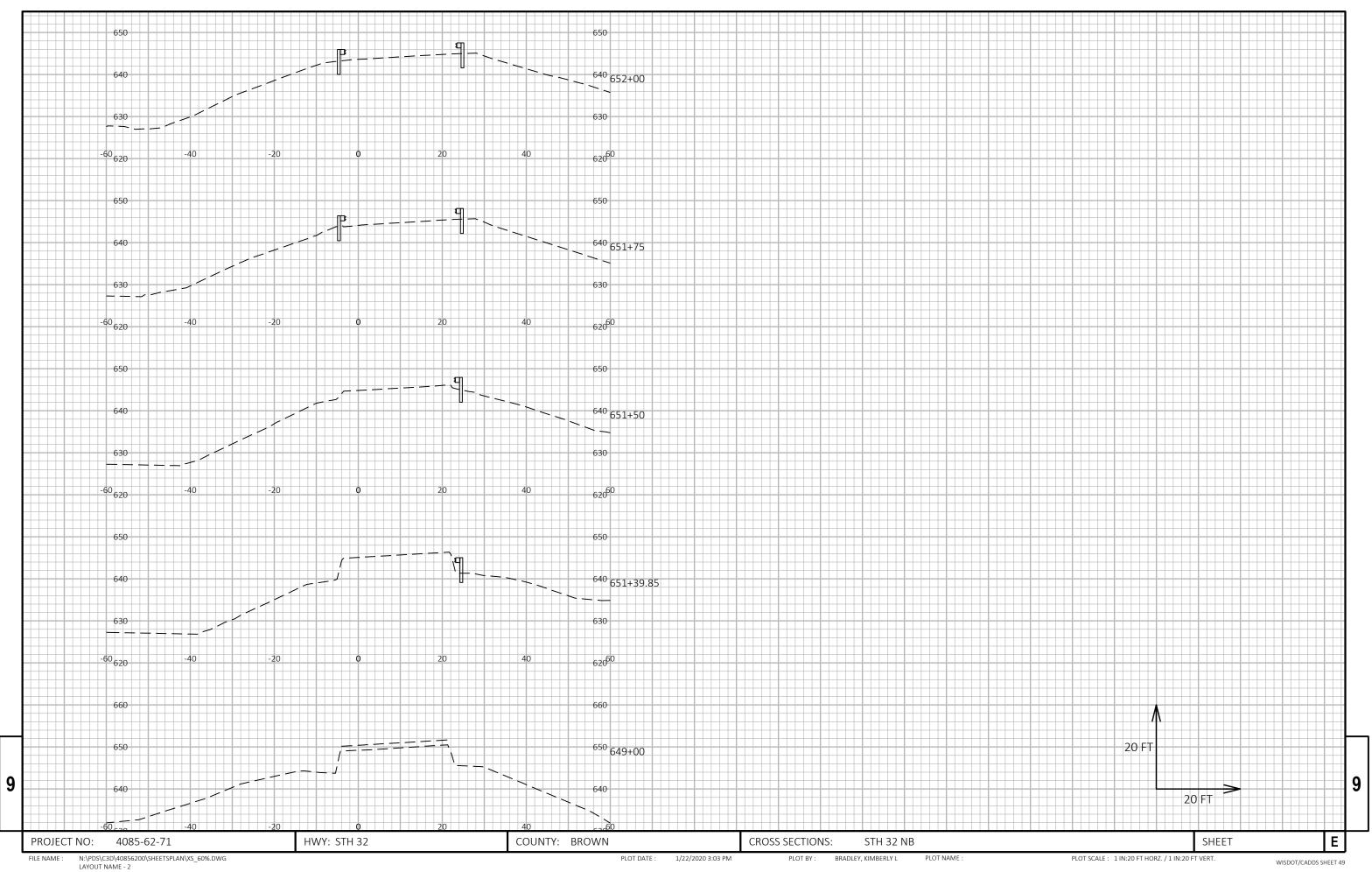
NO. DATE

8

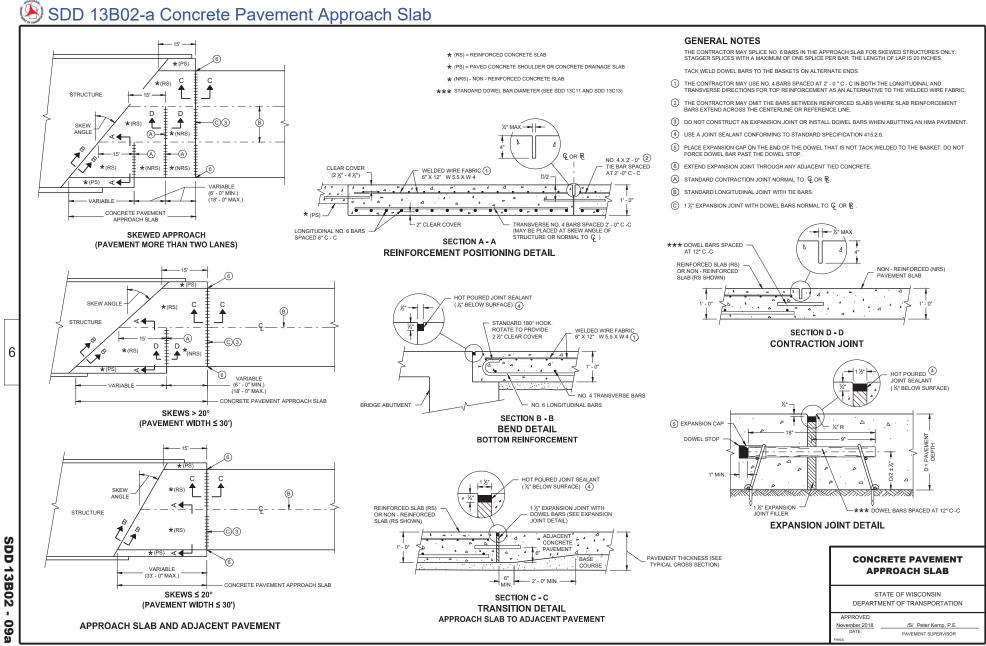
BY



LATOUT NAME



--2



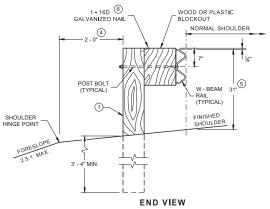
960

SDD 13B02

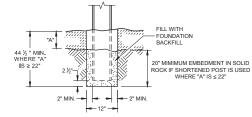
/S/ Peter Kemp P.E. PAVEMENT SUPERVISOR

SDD 14B42-a Midwest Guardrail System (MGS) Guardrail

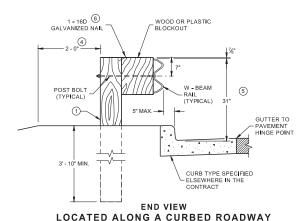
- WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND O STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS, SEE ALTERNATE WOOD BLOCKOUT DETAIL, DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- (3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK, PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE, CUT THE POSTS THE TO LENGTH AMD INSTALL, BACKFILL WITH EXCAVATED MATERIAL AND COMPACT, BACKFILL IS TO BE FREE
- 4 WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- FOR NEW MGS INSTALLATION TOP OF W-REAM RAIL TOLERANCE IS +1" FOR FOR NEW MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ½" TO 32".
- (6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 7) TOTAL POST LENGTH FOR TYPE K IS 7' 0".
 TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' 0".

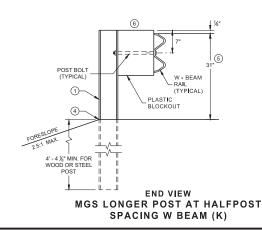


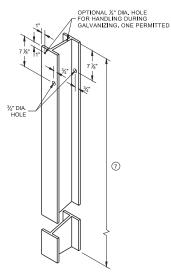
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



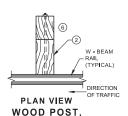
END VIEW SETTING STEEL OR WOOD POST IN ROCK



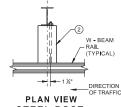




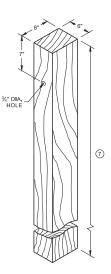
STEEL POST & HOLE **PUNCHING DETAIL** (W 6 X 9) ^①



BLOCKOUT & BEAM



STEEL POST. PLASTIC BLOCKOUT & BEAM



WOOD POST (6" X 8") NOMINAL



MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

06a

14B42

SDD

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

· DIRECTION OF TRAFFIC

ONE SIDED REFLECTOR DETAIL

AND TYPICAL INSTALLATION

SDD 14B42 -

06b

- FINISHED SHOULDER

FRONT VIEW

QUARTER POST SPACING (QS)

— DIRECTION OF TRAFFIC

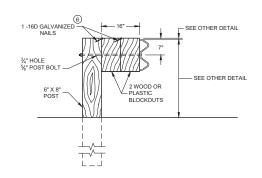
SDD 14B42 - 06b

MIDWEST GUARDRAIL SYSTEM

(MGS) GUARDRAIL

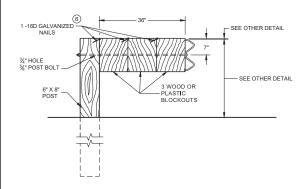
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

🖲 SDD 14B42-c Midwest Guardrail System (MGS) Guardrail



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

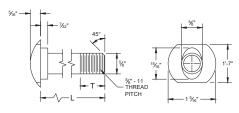


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN REYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

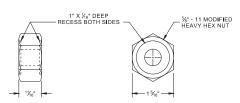
- 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\%_6$ ".
- IF THE BOLT EXTENDS MORE THAN X." FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.



POST BOLT TABLE

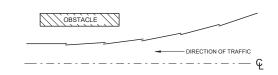
L	T (MIN.)
1 1/4"	1 1/4"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



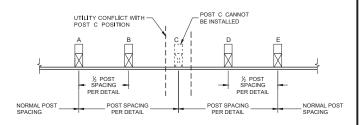


POST BOLT, SPLICE BOLT AND RECESS NUT

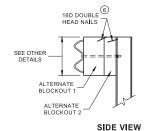
WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

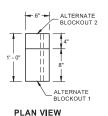


PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

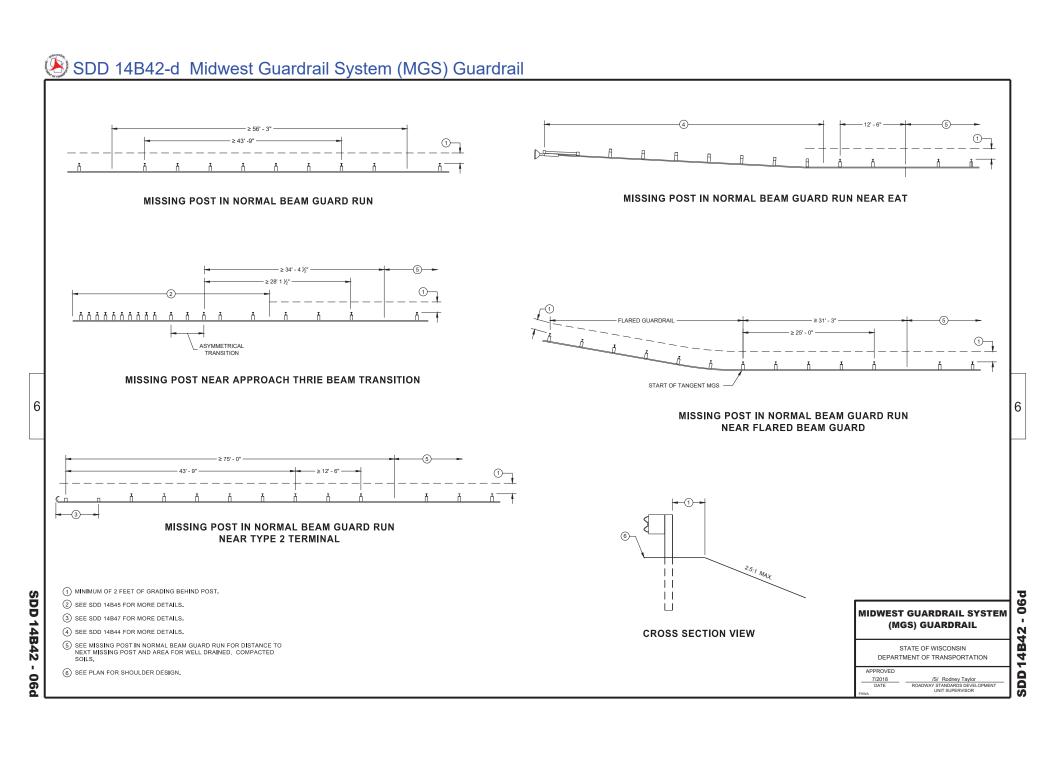


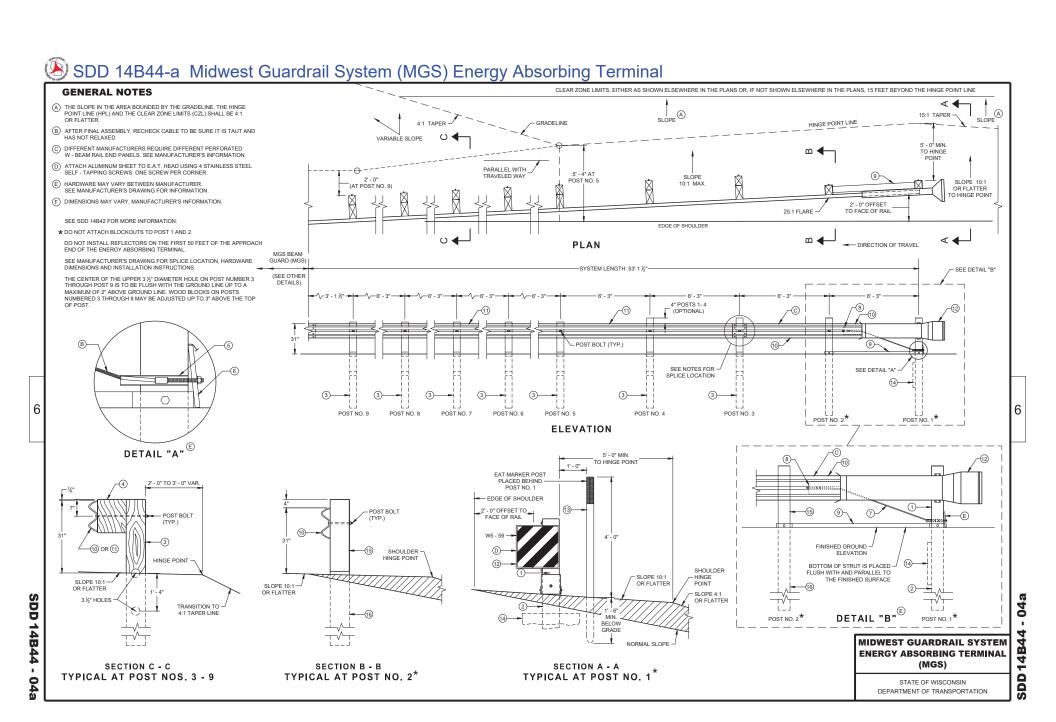


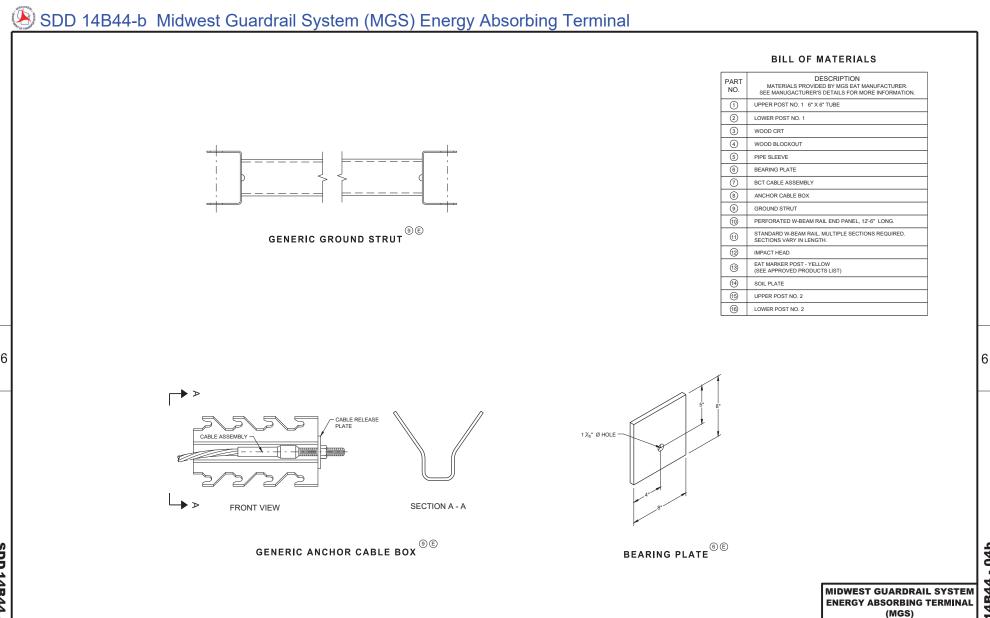
ALTERNATE WOOD BLOCKOUT DETAIL

> MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

> > STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION





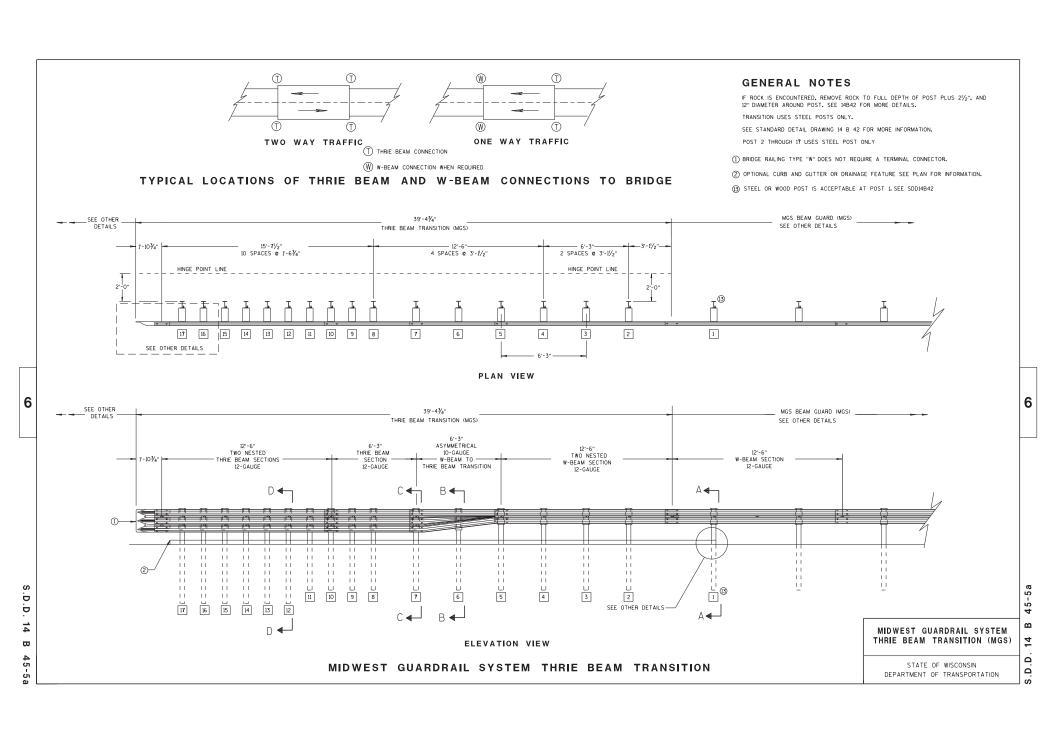


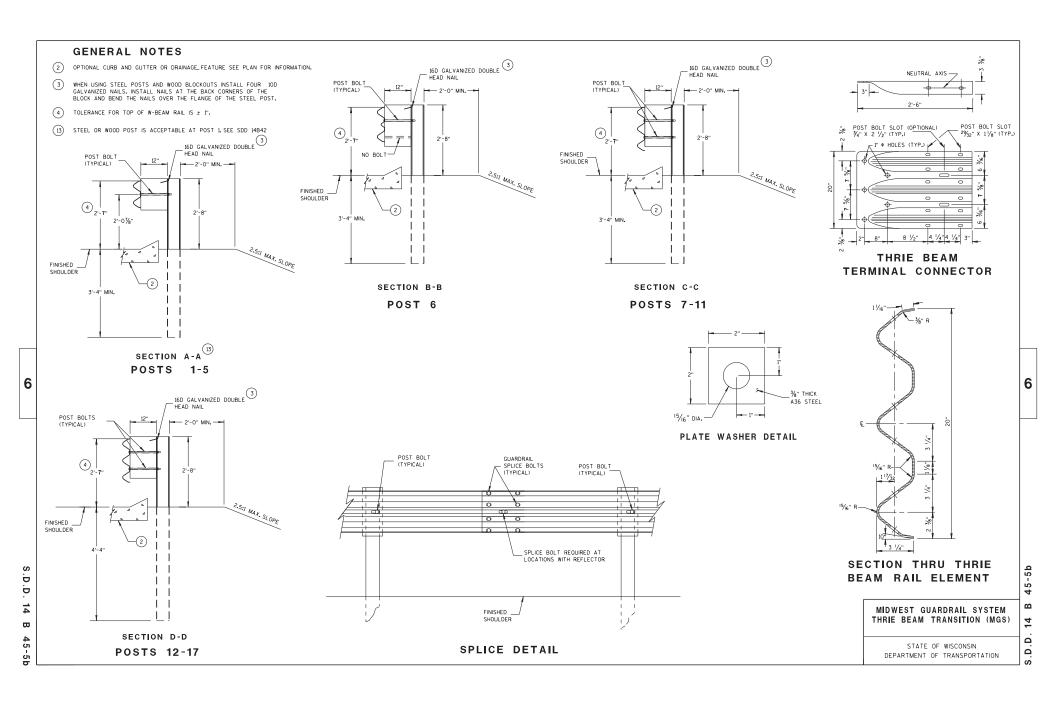
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

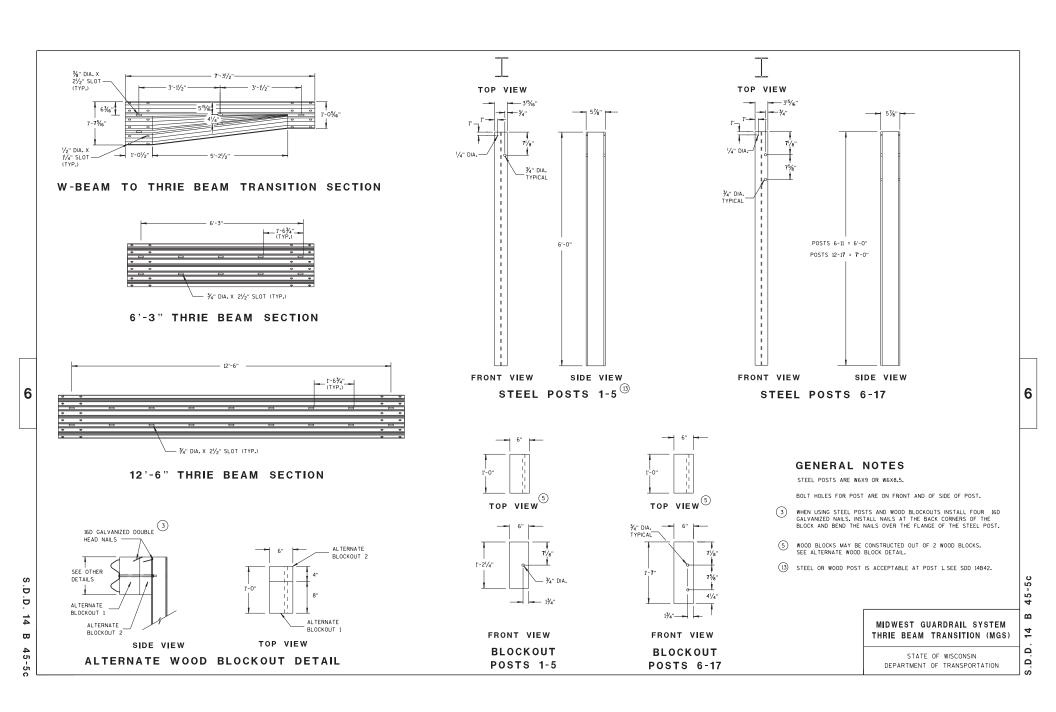
E.A.T. MARKER POST (3)

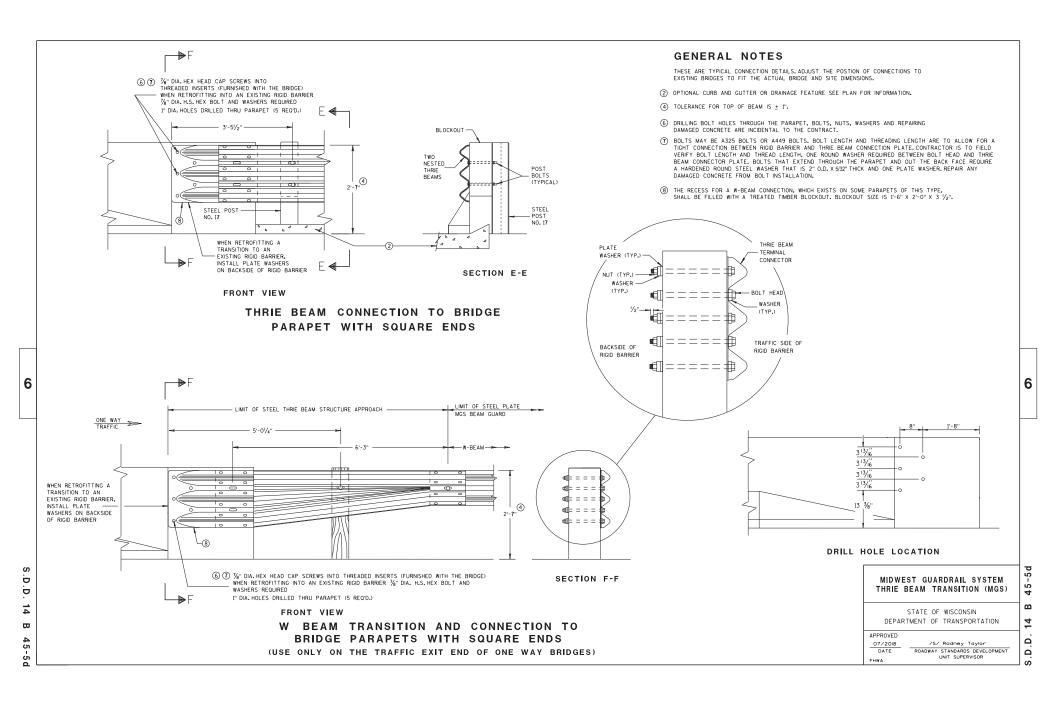
DEPARTMENT OF TRANSPORTATION

APPROVED



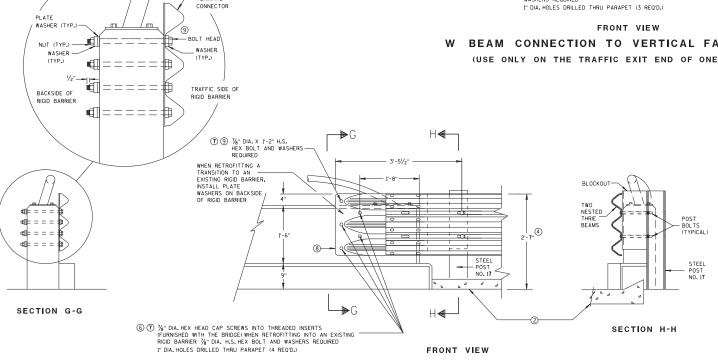






BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



THRIF REAM TERMINAL

APPROVED 07/2018 /S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR DATE FHWA

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

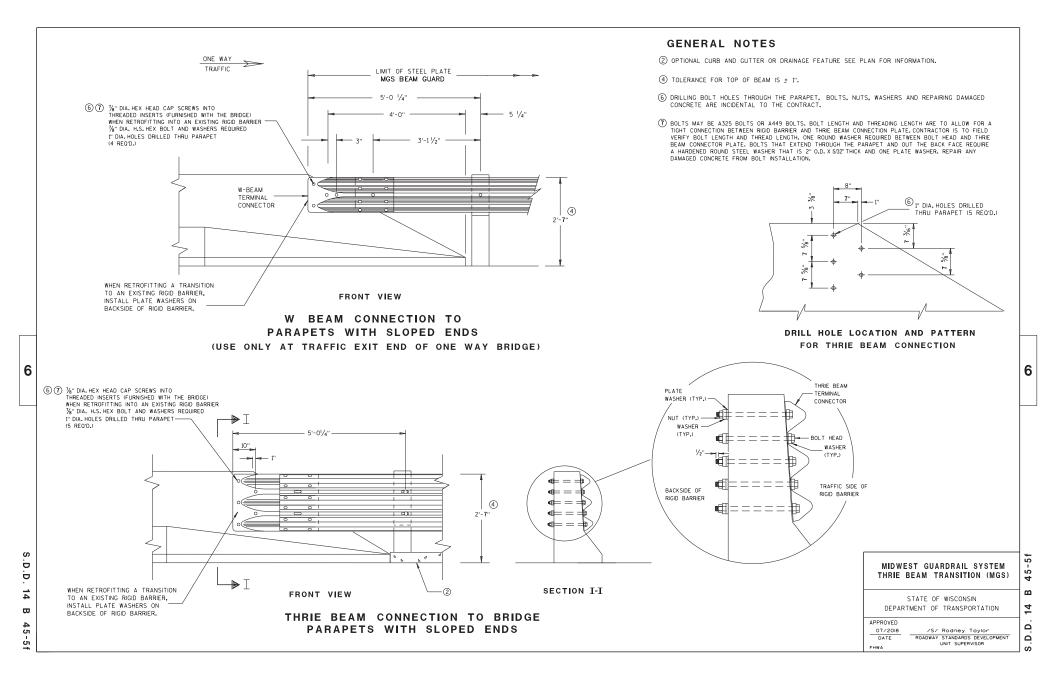
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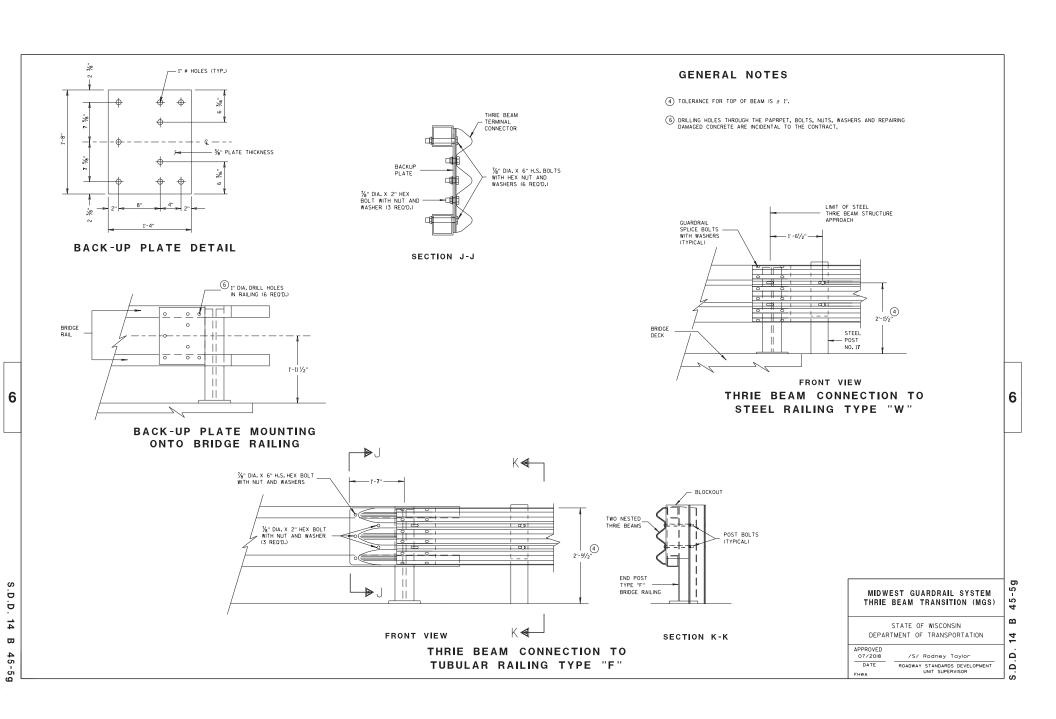
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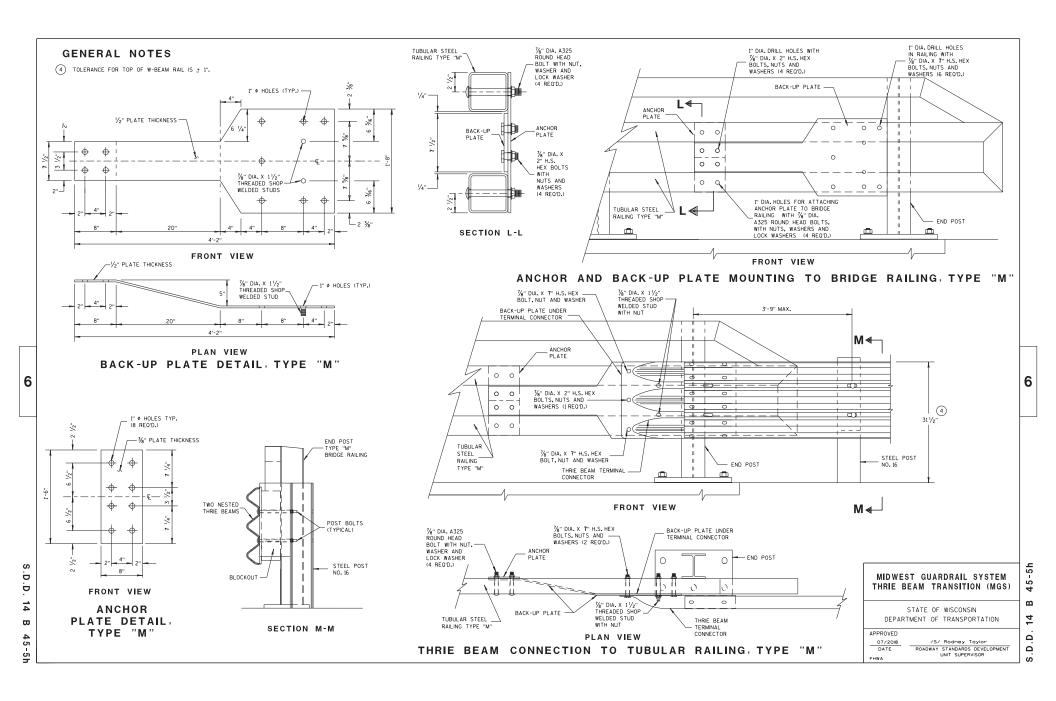
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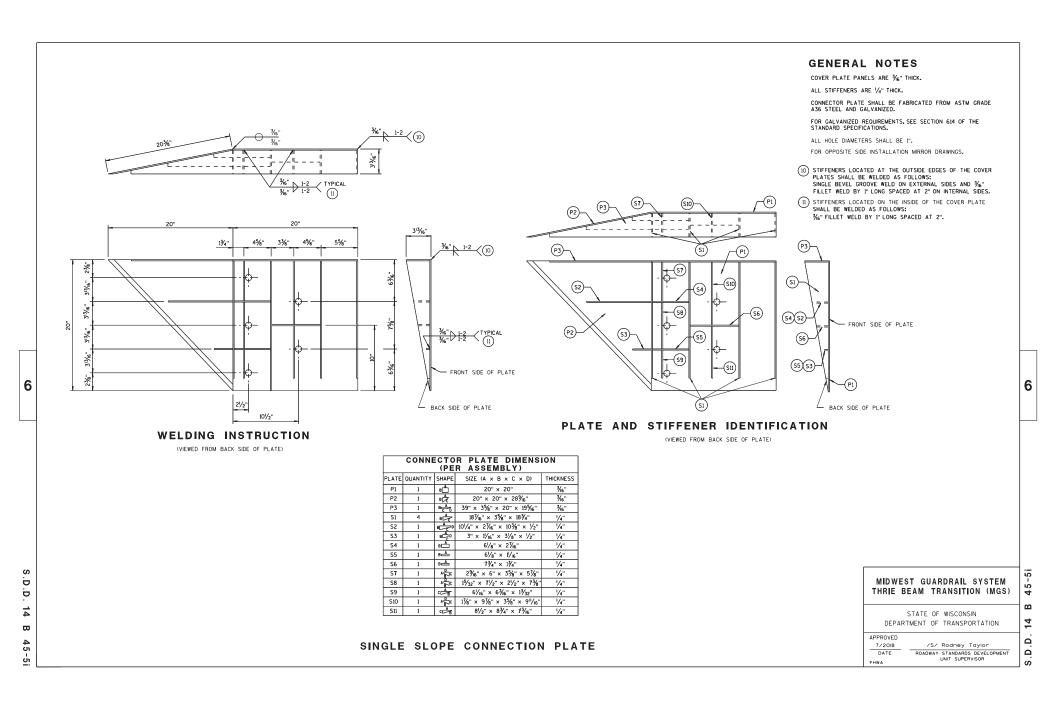
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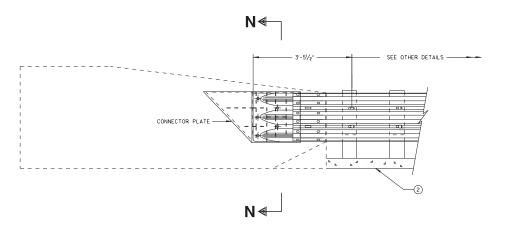
THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



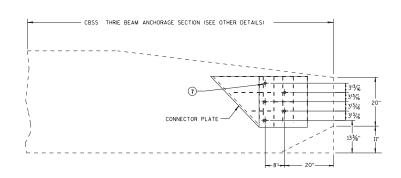








THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

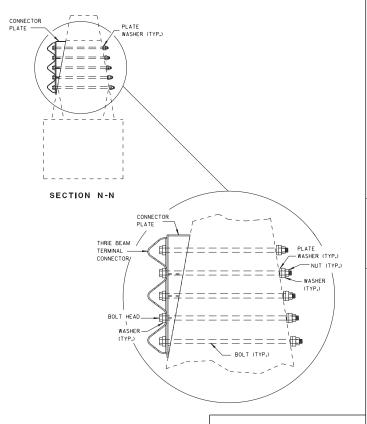


SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE BARRIER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD REAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH, ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE BARRIER AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X5/32"THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 /S/ R

DATE ROADWAY ST

FHWA

/S/ RODNEY Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

ELEVATION OF DETAIL AT NY3 END POST

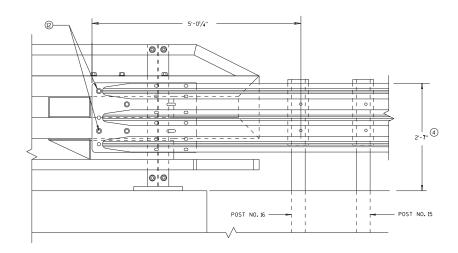
THRIE BEAM RAIL ATTACHMENT

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ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

- 4 TOLERANCE FOR TOP OF BEAM IS \pm 1".
- (2) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THREE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED

/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR FHWA

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