MAD JANUARY 2016

PROJECT ID: 1003-10-73

COUNTY: ROCK

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 244

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1003-10-73	———	—

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ILLINOIS STATE LINE - MADISON

HART ROAD BRIDGE B-53-0312
IH 39
ROCK COUNTY

STATE PROJECT NUMBER

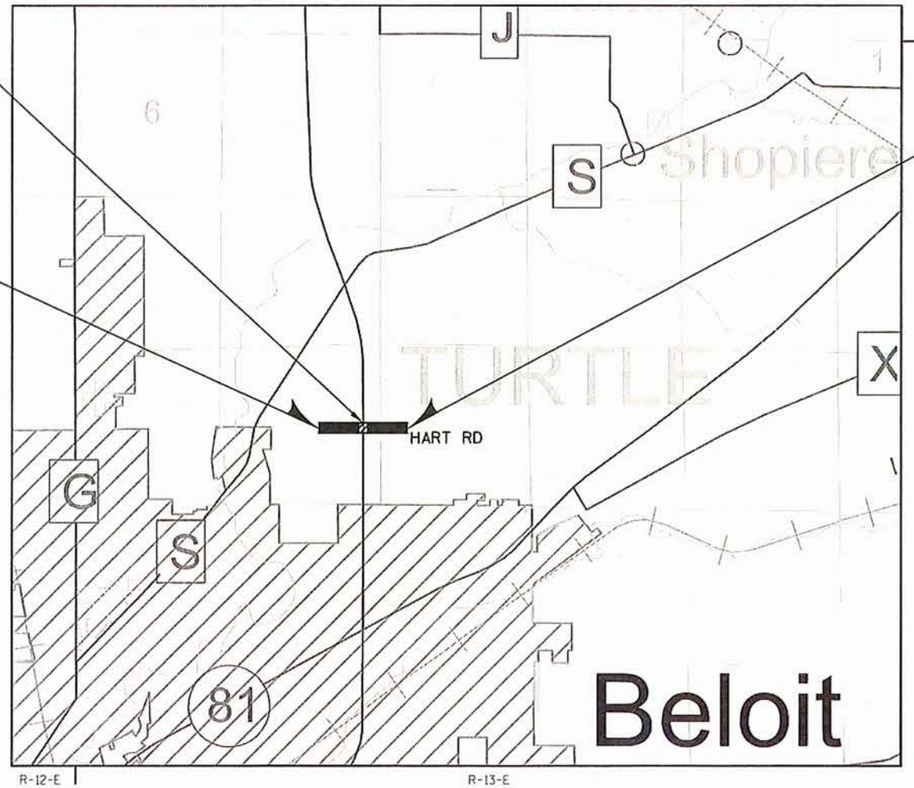
1003-10-73

N

STRUCTURE B-53-312
STA 120+06.65'HR'

BEGIN PROJECT
STA. 108+00'HR'
Y: 219527.404
X: 505016.622

END PROJECT
STA. 139+00'HR'



LAYOUT
SCALE 0 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ROCK COUNTY - NAD83

ELEVATIONS SHOWN ON THIS PLAN REFERENCED TO NAVD 88 (2007)

DESIGN DESIGNATION

A.A.D.T.	2016	=	2,150
A.A.D.T.	2036	=	2,600
D.H.V.	2036	=	345 VPH
D.D.		=	60/40
T. (%AADT)		=	3.5%
DESIGN SPEED		=	60 M.P.H.
ESALS		=	226,300

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) — ROCK — T-1-N
- SPECIAL DITCH — LABEL
- GRADE ELEVATION — 95.36
- CULVERT (Profile View)

UTILITIES
- ELECTRIC — E
- FIBER OPTIC — FO
- GAS — G
- SANITARY SEWER — SAN
- STORM SEWER — SS
- TELEPHONE — T
- WATER — W
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

ACCEPTED FOR
TOWN OF TURTLE

7-29-15 (DATE) (CHAIRMAN, TOWN BOARD)

ORIGINAL PLANS PREPARED BY

KSA K. SINGH & ASSOCIATES, INC.
Engineers, Scientists and Environmental Consultants

WISCONSIN
MOAZ A. KHAN
E-43764
WAUKESHA
WIS.
PROFESSIONAL ENGINEER

7/27/15 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	K. SINGH & ASSOCIATES, INC.
Project Manager	STEVE MARSHALL
Regional Examiner	JIM BUSCHKOHF
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 7/27/2015 (Signature)

E

2

GENERAL NOTES

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

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

4-INCH HMA PAVEMENT TYPE E-3 SHALL BE CONSTRUCTED IN TWO (2) LAYERS AS FOLLOWS:

LAYER	DEPTH (INCHES)	AGGREGATE SIZE (mm)	ASPHALTIC MATERIAL
UPPER	1.75-INCH	12.50 mm NOMINAL SIZE AGGREGATE	PG58-28 @ 5.5%
LOWER	2.25-INCH	19.00 mm NOMINAL SIZE AGGREGATE	PG58-28 @ 5.5%

5.75-INCH HMA PAVEMENT TYPE E-10 SHALL BE CONSTRUCTED IN TWO (2) LAYERS AS FOLLOWS:

LAYER	DEPTH (INCHES)	AGGREGATE SIZE (mm)	ASPHALTIC MATERIAL
UPPER	3.5-INCH	19.0 mm NOMINAL SIZE AGGREGATE	PG64-28 @ 5.5%
LOWER	2.25-INCH	19.0 mm NOMINAL SIZE AGGREGATE	PG64-28 @ 5.5%

2.0-INCH HMA PAVEMENT TYPE E-10 SHALL BE 12.5 mm NOMINAL AGGREGATE, PG64-28 @ 5.5% & CONSTRUCTED IN ONE (1) LAYER.

ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
AC.	ACRES
BAD	BASE AGGREGATE DENSE
ET.AL.	AND OTHERS
℄ OR C/L	CENTERLINE
CMCP	CORRUGATED METAL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
COR.	CORNER
D	DEGREE OF CURVE
D.D.	DIRECTION DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DOC.	DOCUMENT
E.	EAST
EASE.	EASEMENT
EL OR ELEV	ELEVATION
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EXIST.	EXISTING
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
LN	LANE
LT. OR LT	LEFT
MAX.	MAXIMUM

ABBREVIATIONS CONT.

MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
P.	PAGE
PLE	PERMANENT LIMITED EASEMENT
PL	PROPERTY LINE
CPRC	CULVERT PIPE REINFORCED CONCRETE
RD.	ROAD
(100')	RECORDED AS
R	RADIUS
℄ OR R/L	REFERENCE LINE
ROR	RELEASE OF RIGHTS
REM.	REMAINING
RT OR RT.	RIGHT
R/W	RIGHT-OF-WAY
S.	SOUTH
S.E.	SUPEREVELVATION
SEC.	SECTION
SF	SQUARE FEET
STA.	STATION
T	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T. %	TRUCK (PERCENT OF)
V.	VOLUME
W.	WEST

WISDOT

WisDOT IH-39/90 PROJECT MANAGER
STEVE MARSHALL
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608)884-7134
steve.marshall@dot.wi.gov

WisDOT IH-39/90
CONSTRUCTION PROJECT MANAGER
EMMANUEL YARTEY
111 INTERSTATE BLVD.
EDGERTON, WI 53534-9399
PHONE: (608)884-7131
emmanuel.yartey@dot.wi.gov

DESIGN CONTACT

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3636 NORTH 124TH STREET
WAUWATOSA, WI 53222
(262)821-1171
mkhan@ksaconsultants.com

OTHER CONTACTS

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ROCK COUNTY HIGHWAY COMMISSIONER
BENJAMIN J. COOPMAN
3715 NEWVILLE ROAD
JANESVILLE, WI 53545
coopman@co.rock.wi.us

CITY OF BELOIT
MICHAEL FLESCH
100 STATE ST
BELOIT, WI 53511
fleschm@ci.beloit.wi.us

TOWN OF TURTLE
ROGER ANCLAM - CHAIR
6916 S COUNTRY ROAD J
BELOIT, WI 53511
(608) 362-0655
townofturtle@charter.net

WISDNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY:
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
PHONE: (608)275-3485
laura.bub@wisconsin.gov

UTILITIES

WISCONSIN POWER & LIGHT - GAS/PETROLEUM
JASON HOGAN
SUITE 1000
4902 N BILTMORE LN
MADISON, WI 53718
jasonhogan@alliantenergy.com
(608)458-4871

WISCONSIN POWER & LIGHT - ELECTRICITY
JASON HOGAN
SUITE 1000
4902 N BILTMORE LN
MADISON, WI 53718
jasonhogan@alliantenergy.com
(608)458-4871

AT&T - TELEPHONE
CAROL ANASON
316 W WASHINGTON AVE
MADISON, WI 53703
CA2624@ATT.COM
(608)252-2385

UTILITIES CONT.

CHARTER COMMUNICATIONS - COMMUNICATION LINE
BRANDON STORM
2701 DANIELS ST
MADISON, WI 53718
(608)274-3822
brandon.storm@charter.com

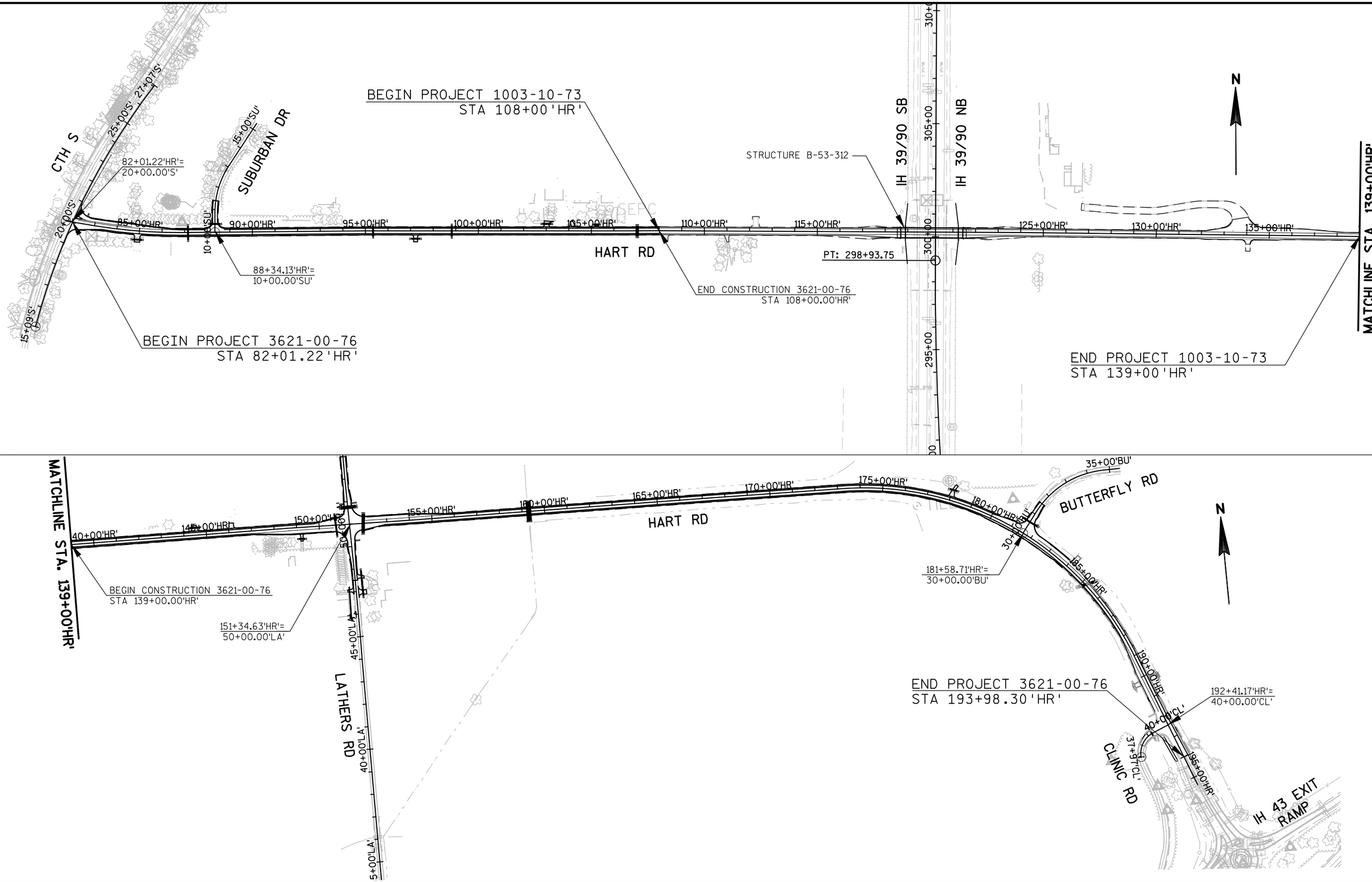
2

ORDER OF SHEETS SECTION 2

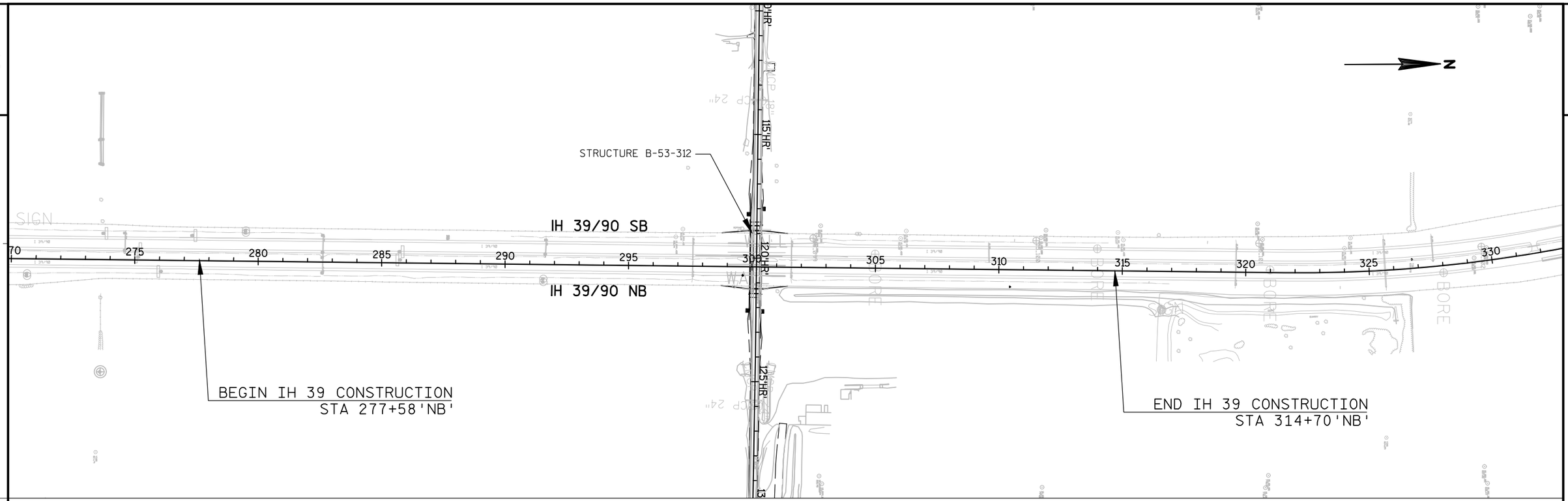
GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
EROSION CONTROL
PAVEMENT MARKING AND SIGNING
TRAFFIC CONTROL
ALIGNMENT DIAGRAM

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2



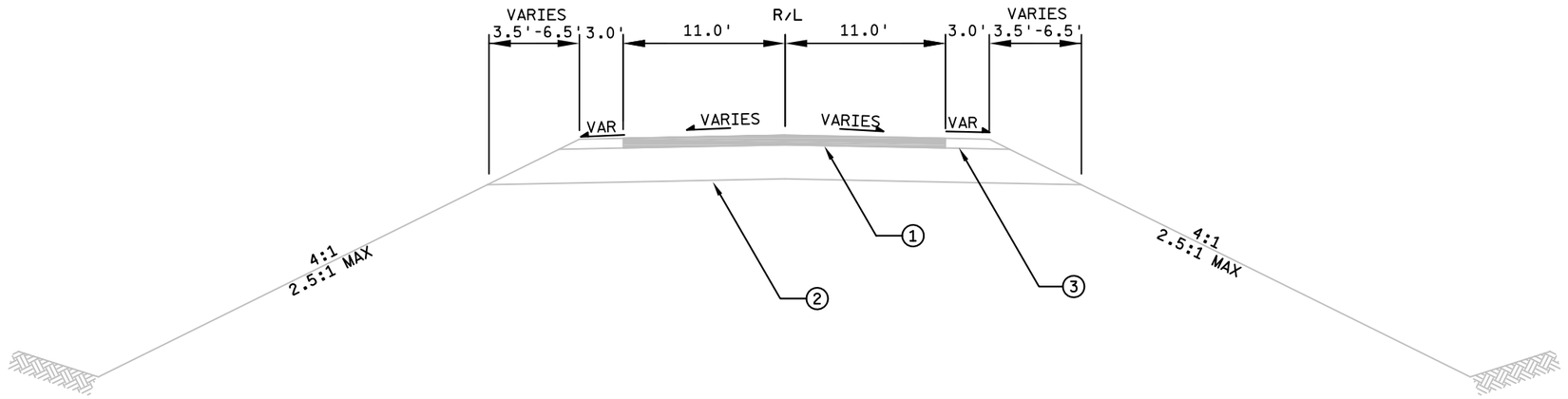
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 3	E



2

PROJECT NO: 1003-10-73	HWY: HART ROAD	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 4 E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\020201_PO.DWG PLOT DATE : 10/29/2015 2:25 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42



LEGEND

1. 3.5" - 5" ASPHALT PAVEMENT (SEE BORING LOG)
2. VARIES 7" - 16" CRUSHED STONE BASE COURSE (SEE BORING LOG)
3. AGGREGATE SHOULDER

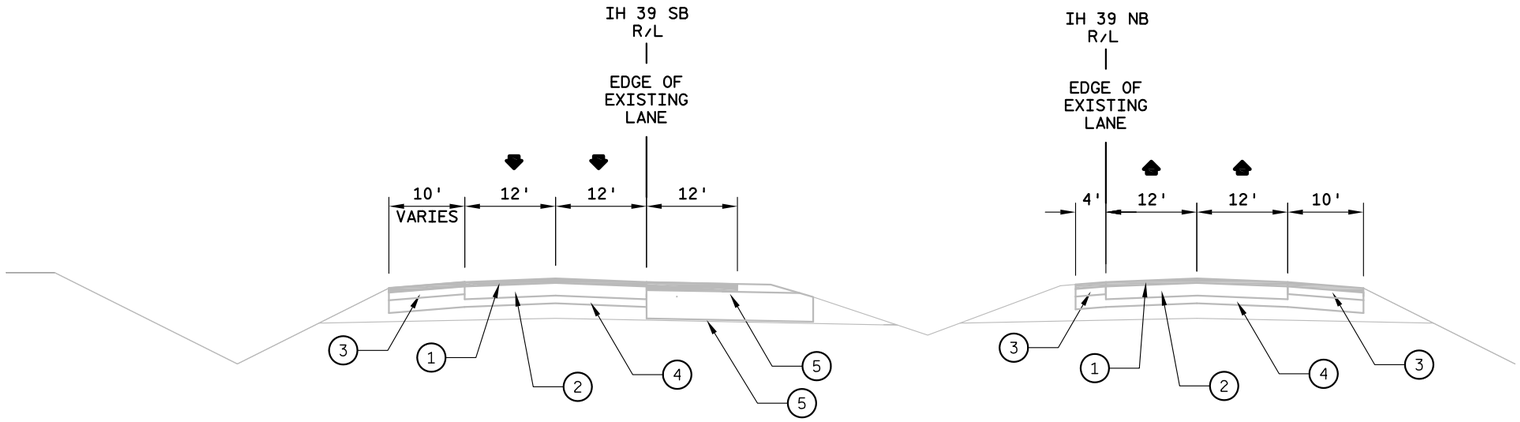
EXISTING TYPICAL SECTION

HART ROAD
STA 108+00'HR' - 139+00'HR'

BORING LOG TABLE

STATION	OFFSET FROM CENTERLINE	DIRECTION	BORING	ASPHALT THICKNESS (INCHES)	BASE COURSE THICKNESS (INCHES)	TOTAL THICKNESS (INCHES)
108+58	8.5'	LT	SR-7	5	7	12
114+57	4.2'	RT	SR-8	3.5	14	17.5
124+57	6.9'	LT	SR-9	4	16	20
129+57	8.6'	RT	SR-10	4.5	8	12.5

2

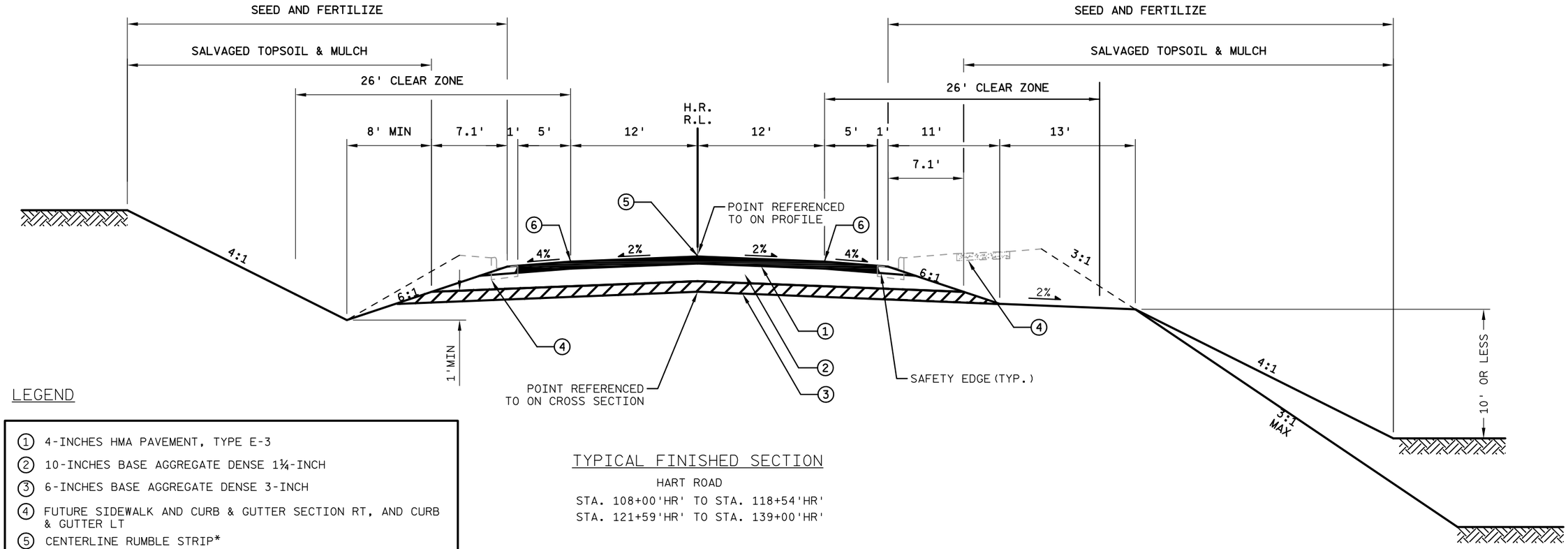


IH 39 EXISTING TYPICAL SECTION

STA. 277+60 NB - STA. 299+27 NB
STA. 301+10 NB - STA. 314+70 NB
STA. 285+70 SB - STA. 299+27 SB
STA. 301+10 SB - STA. 314+70 SB

LEGEND

1. 3.5" HMA PAVEMENT
2. 10" CONTINUOUSLY REINFORCED CONCRETE
3. 6" NON-REINFORCED CONCRETE
4. 6" BASE AGGREGATE
5. 6.5" HMA PAVEMENT
6. 17" BASE AGGREGATE



LEGEND

(1)	4-INCHES HMA PAVEMENT, TYPE E-3
(2)	10-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	6-INCHES BASE AGGREGATE DENSE 3-INCH
(4)	FUTURE SIDEWALK AND CURB & GUTTER SECTION RT, AND CURB & GUTTER LT
(5)	CENTERLINE RUMBLE STRIP*
(6)	SHOULDER RUMBLE STRIP**

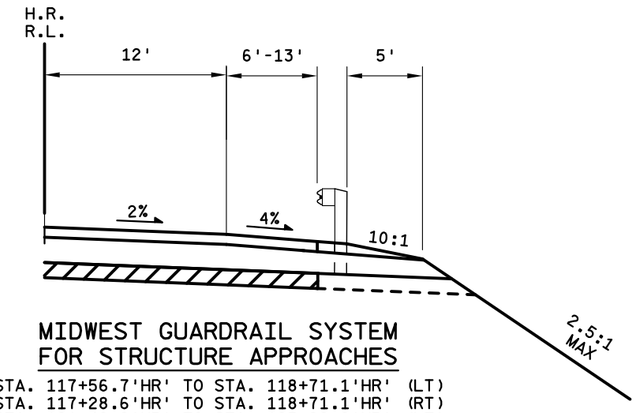
* SEE S.D.D. "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR LOCATIONS.

** SEE S.D.D. "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR LOCATIONS.

TYPICAL FINISHED SECTION

HART ROAD

STA. 108+00'HR' TO STA. 118+54'HR'
STA. 121+59'HR' TO STA. 139+00'HR'



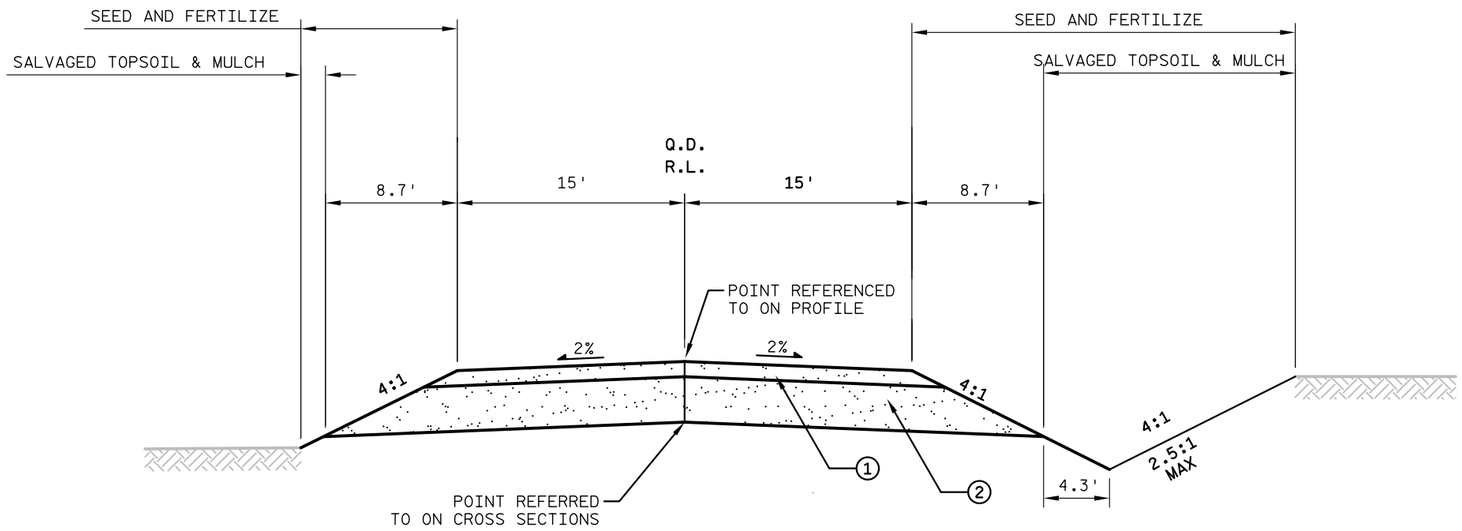
MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE APPROACHES

STA. 117+56.7'HR' TO STA. 118+71.1'HR' (LT)
STA. 117+28.6'HR' TO STA. 118+71.1'HR' (RT)
STA. 121+42.2'HR' TO STA. 123+22.2'HR' (LT)
STA. 121+42.2'HR' TO STA. 122+56.6'HR' (RT)

2

NOTE:

THE EXISTING BERM LOCATED AT THE SOUTHWEST CORNER OF THE PROPOSED QUARRY DRIVE AND HART ROAD INTERSECTION WILL BE RELOCATED NORTH OF QUARRY DRIVE PRIOR TO CONSTRUCTION.



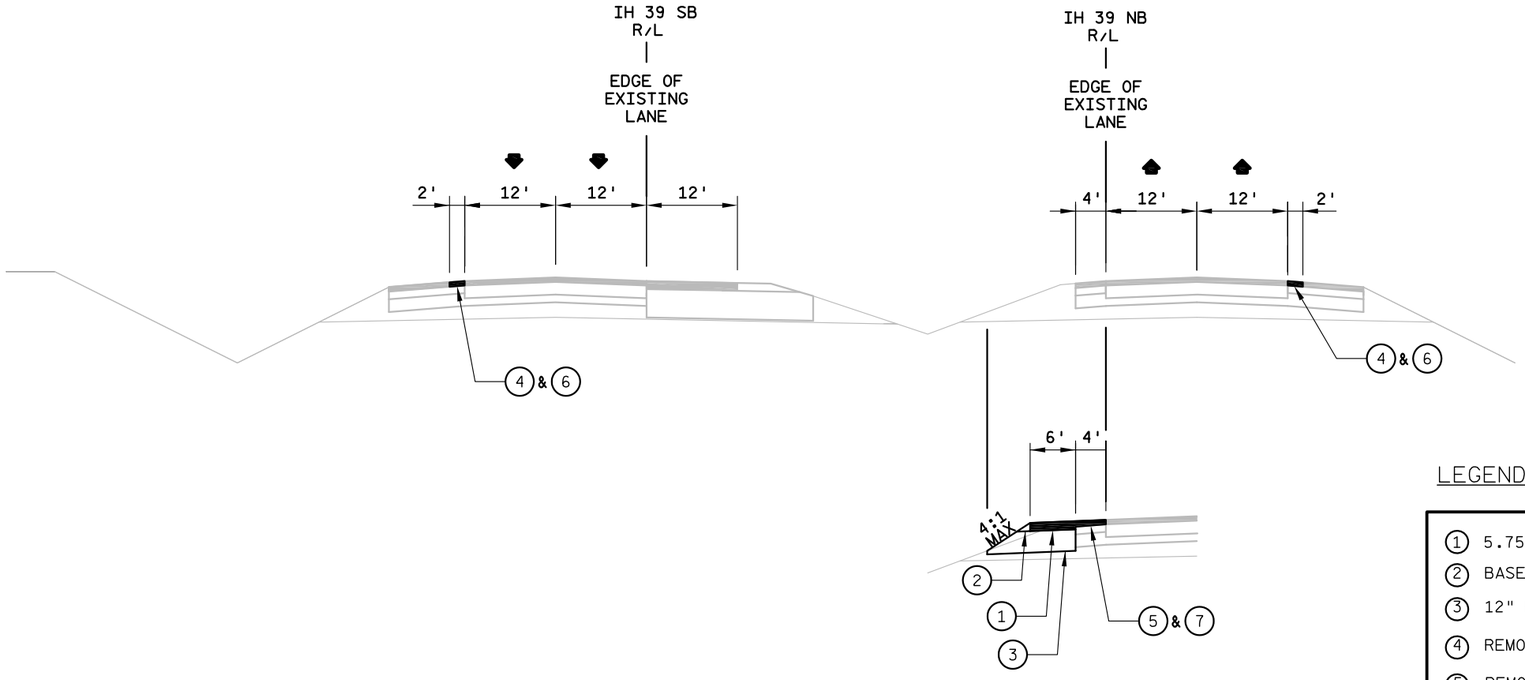
QUARRY DRIVEWAY

STA. 1026+64 TO STA. 1034+85

LEGEND

(1) 6" BASE AGGREGATE DENSE 1¼-INCH
(2) 18" BASE AGGREGATE DENSE 3-INCH

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 8	E



STA. 285+70 NB - STA. 299+27 NB

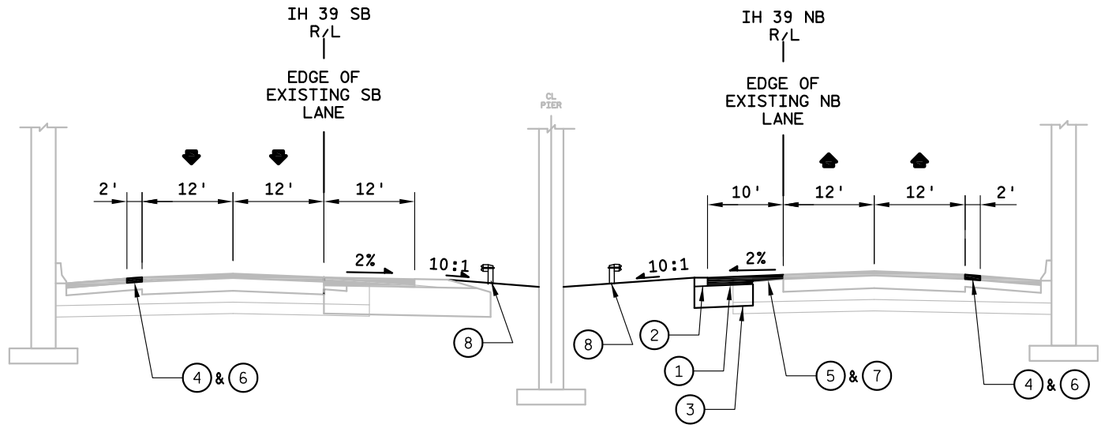
IH 39 WIDENING TYPICAL SECTION

STA. 277+60 NB - STA. 299+27 NB
STA. 301+10 NB - STA. 314+70 NB
STA. 285+70 SB - STA. 299+27 SB
STA. 301+10 SB - STA. 314+70 SB

LEGEND

1. 5.75" HMA PAVEMENT TYPE E-10 (STAGE 2)
2. BASE AGGREGATE DENSE 3/4-INCH (STAGE 2)
3. 12" BASE AGGREGATE DENSE 1-1/4-INCH (STAGE 2)
4. REMOVING 2.0" ASPHALTIC SURFACE MILLING (STAGE 1)
5. REMOVING 3.5" ASPHALTIC SURFACE MILLING (STAGE 2)
6. 2.0" HMA PAVEMENT TYPE E-10 (STAGE 1)
7. 3.5" HMA PAVEMENT TYPE E-10 (STAGE 2)

NOTE:
CONTRACTOR TO TAKE PROPER STEPS TO PREVENT SLOUGHING INTO THE EXCAVATION OF THE EXISTING BASE COURSE UNDER THE CONCRETE SHOULDER AND PAVEMENT.



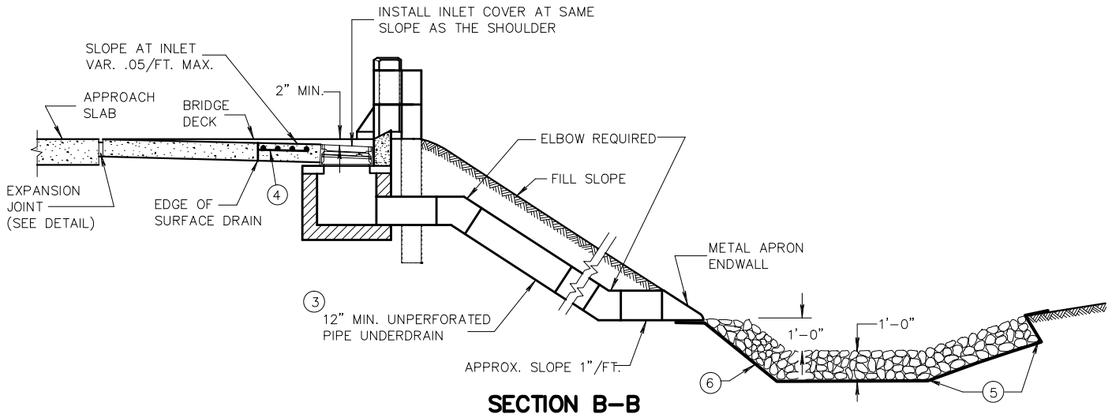
IH 39 WIDENING TYPICAL SECTION

STA. 299+27 NB - STA. 301+10 NB
STA. 299+27 SB - STA. 301+10 SB

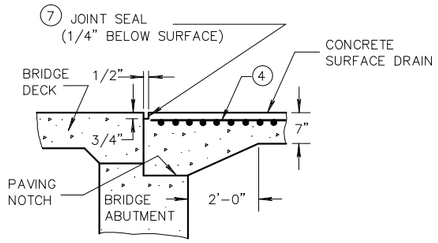
LEGEND

1. 5.75" HMA PAVEMENT TYPR E-10 (STAGE 2)
2. BASE AGGREGATE DENSE 3/4-INCH (STAGE 2)
3. 12" BASE AGGREGATE DENSE 1-1/4-INCH (STAGE 2)
4. REMOVING 2.0" ASPHALTIC SURFACE MILLING (STAGE 1)
5. REMOVING 3.5" ASPHALTIC SURFACE MILLING (STAGE 2)
6. 2.0" HMA PAVEMENT TYPE E-10 (STAGE 1)
7. 3.5" HMA PAVEMENT TYPE E-10 (STAGE 2)
8. STEEL THRIE BEAM AND STEEL THRIE BEAM BULLNOSE TERMINAL (STAGE 15 B)

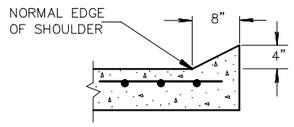
NOTE:
CONTRACTOR TO TAKE PROPER STEPS TO PREVENT SLOUGHING INTO THE EXCAVATION OF THE EXISTING BASE COURSE UNDER THE CONCRETE SHOULDER AND PAVEMENT.



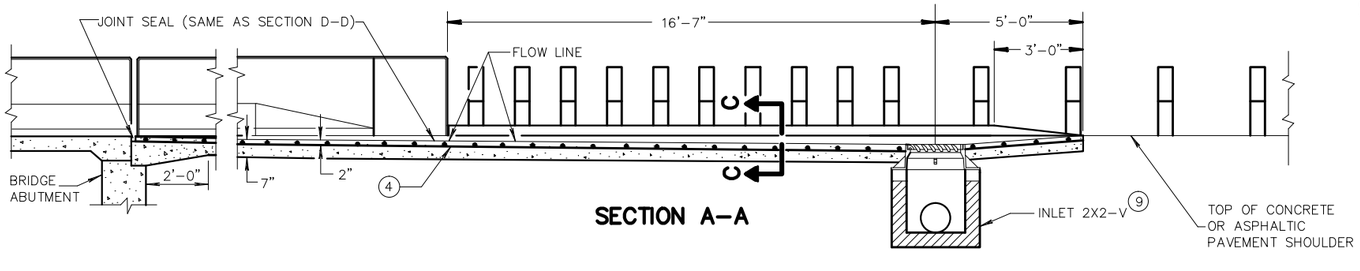
SECTION B–B



SECTION D–D



SECTION C–C



SECTION A–A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

(1) NO. 4 X 2'–0" TIE BARS SPACED AT 3'–0" CENTERS TO BE USED ONLY WHEN ADJACENT TO P.C. CONCRETE.

(2) NO. 4 X 2'–0" TIE BARS SPACED AT 12" CENTERS TO BE PLACED BY BRIDGE CONTRACTOR, OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.

(3) THE PIPE UNDERDRAIN MAY BE ANY ONE OF THE SIX MATERIALS LISTED IN THE STANDARD SPECIFICATIONS SECTION 612.2 EXCEPT DRAIN TILE.

(4) MINIMUM REINFORCEMENT SHALL BE 6" X 6" – W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C–C.

(5) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

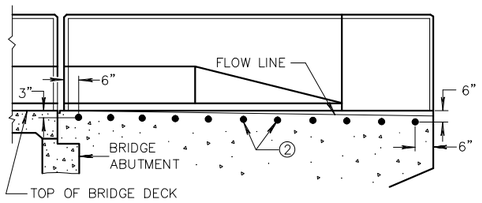
(6) GEOTEXTILE FABRIC, TYPE 'R' OR TYPE 'HR', DEPENDENT ON RIPRAP TYPE

(7) HOT POURED SEALANT UNLESS OTHERWISE SPECIFIED.

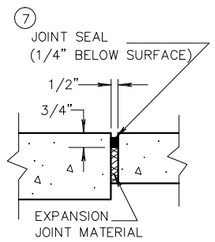
(8) THIS DIMENSION MAY VARY DEPENDING ON THE SPACING OF POSTS FOR THE STEEL PLATE BEAM GUARD. THE TYPICAL LOCATION FOR THE SURFACE DRAIN IS WHERE THE POST SPACING IS 3'–1 1/2".

(9) SEE CURRENT STANDARD DETAIL DRAWINGS 8A5 AND 8C7 FOR DETAILS.

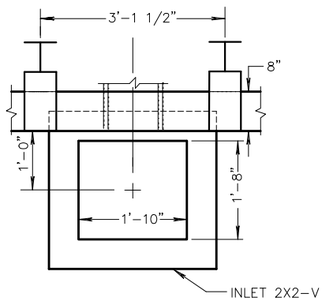
(10) SEE CURRENT STANDARD DETAIL DRAWING 14B45 FOR MGS POST SPACING DETAILS.



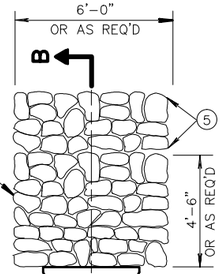
LOCATION OF TIE BARS IN WINGWALL

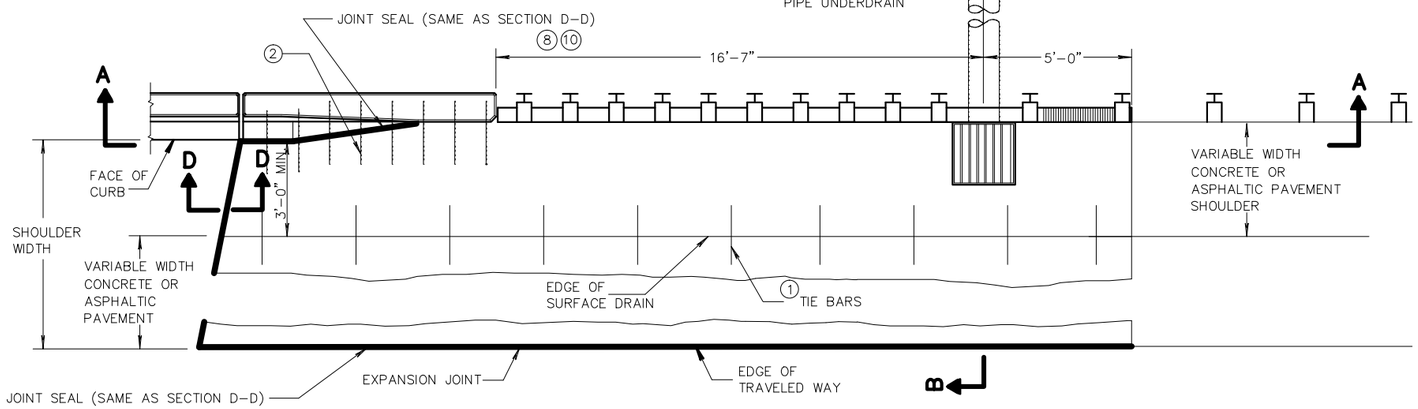


EXPANSION JOINT DETAIL



PLAN VIEW



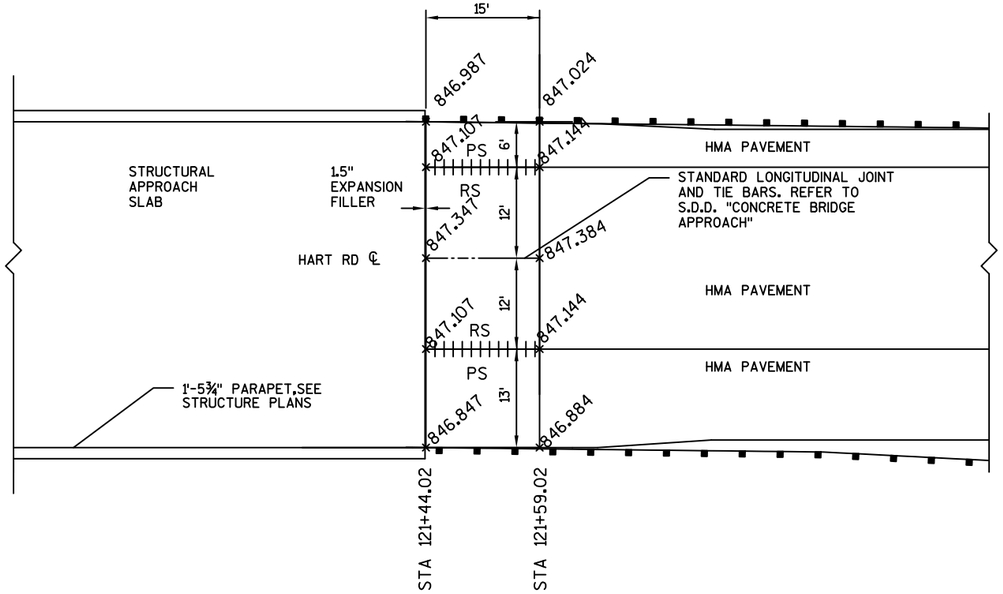


PLAN VIEW

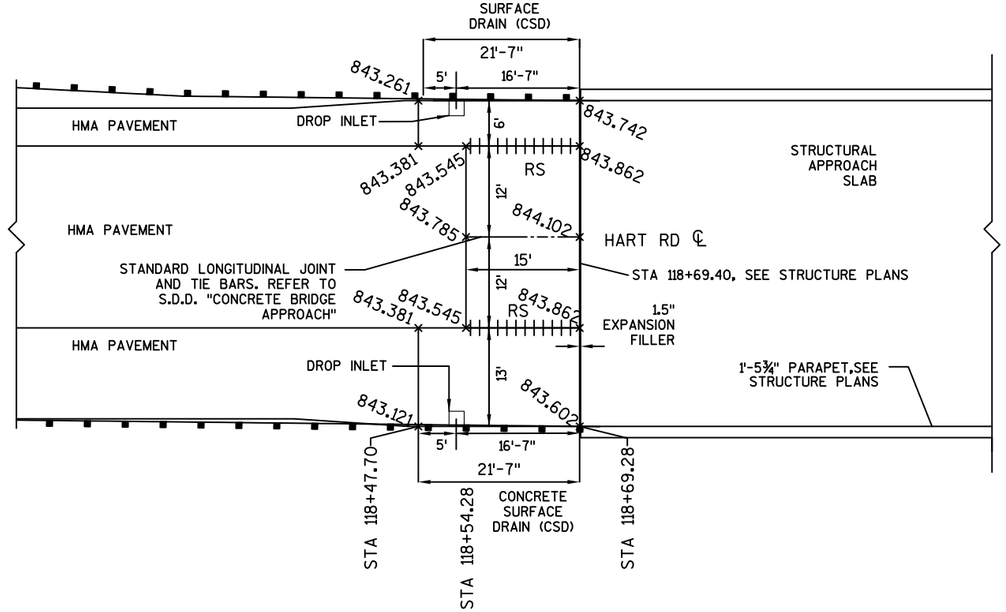
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: CONCRETE SURFACE DRAIN	SHEET 11	E

PS = PAVED CONCRETE SHOULDER
RS = REINFORCED CONCRETE SLAB
CSD= CONCRETE SURFACE DRAIN

SEE S.D.D. CONCRETE BRIDGE APPROACH FOR FURTHER DETAILS



EAST APPROACH



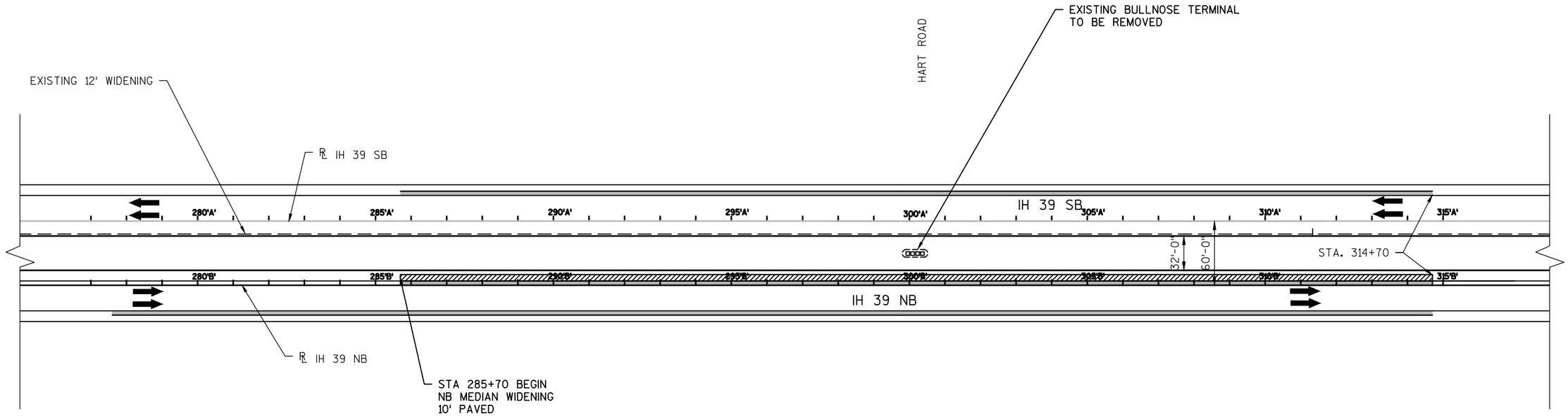
WEST APPROACH

HART ROAD:
CONCRETE BRIDGE APPROACH DETAILS

PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: CONCRETE BRIDGE APPROACH	SHEET 12	E

2

N



SHOULDER WIDENING AND RE-PAVING PLAN

PAVING LEGEND

PAVEMENT WIDENING

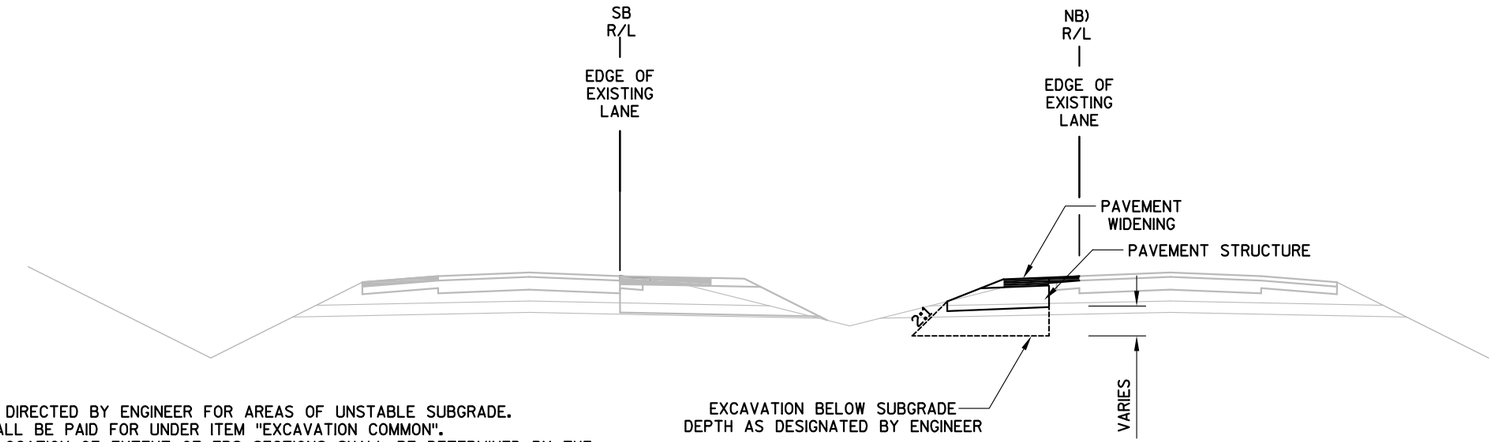
RE-PAVING SHOULDER

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: IH 39 SHOULDER WIDENING AND RE-PAVING	SHEET 13	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\021001_CD.DWG PLOT DATE : 10/27/2015 3:45 PM PLOT BY : MOAZ KHAN PLOT NAME :

WISDOT/CADDS SHEET 42

2



NOTES:
1. USE AS DIRECTED BY ENGINEER FOR AREAS OF UNSTABLE SUBGRADE.
2. EBS SHALL BE PAID FOR UNDER ITEM "EXCAVATION COMMON".
3. EXACT LOCATION OF EXTENT OF EBS SECTIONS SHALL BE DETERMINED BY THE ENGINEER.
4. QUANTITIES ESTIMATED FROM BORINGS AT APPROXIMATELY 1,000 FT SPACINGS. ADDITIONAL INFORMATION IS AVAILABLE FROM KHADER ABU EL EIS. (608)884-1174.
5. CONTRACTOR TO TAKE PROPER STEPS TO PREVENT SLOUGHING INTO THE EXCAVATION OF THE EXISTING BASE COURSE UNDER THE CONCRETE SHOULDER AND PAVEMENT.

EXCAVATION BELOW SUBGRADE (EBS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAIL: EXCAVATION BELOW SUBGRADE	SHEET 14	E

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			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 .22	.16 .30	.22 .38	.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 .28	.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:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 18.76 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 13.07 ACRES

2

2

N

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

ROCK ROAD
LATHERS LLC

SECTION LINE

ROCK ROAD LATHERS LLC

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 301+09.7 'NB', 16' LT

STEEL THRIE BEAM, TYP

FENCE CHAIN LINK 6-FT
STA 300+48.27 -
301+45.48 'SB', LT
98 LF

FENCE CHAIN LINK 6-FT
STA 300+49.00 -
301+48.67 'NB', RT
108 LF

ACCESS GATE 3.5-FT
STA 121+23.89 'HR', LT

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

ZANZINGER

PL

GUARDRAIL POST 9
STA 118+16.9 'HR', 18' LT

GUARDRAIL POST 5
STA 117+91.9 'HR', 19' LT

GUARDRAIL POST 1
STA 117+66.9 'HR', 20' LT

GUARDRAIL POST 9
122+71.4 'HR', 18' LT

GUARDRAIL POST 5
122+96.4 'HR', 19' LT

GUARDRAIL POST 1
123+21.4 'HR', 20' LT

QUARRY DRIVEWAY

TLE

EXISTING R/W

SLOPE
INTERCEPT

R/W

1026'QD'

1030'QD'

SLOPE
INTERCEPT

110'HR'

115'HR'

HART ROAD R/L

120'HR'

125'HR'

130'HR'

135'HR'

0+00 QD

1034'QD'

TREE TO REMAIN &
PROTECTED WITH
ORANGE SAFTEY
FENCE

SHIRLEY M
CARLSON TRUST

SLOPE
INTERCEPT

PROPOSED
R/W

R/W

TLE

ALDERMAN

KNUEPPEL

PL

GUARDRAIL POST 1
STA 117+41.9 'HR', 27' RT

GUARDRAIL POST 5
STA 117+66.9 'HR', 26' RT

GUARDRAIL POST 9
STA 117+91.9 'HR', 25' RT

SLOPE
INTERCEPT

GUARDRAIL POST 1
STA 122+46.4 'HR', 27' RT

GUARDRAIL POST 5
STA 122+21.4 'HR', 26' RT

GUARDRAIL POST 9
STA 121+96.4 'HR', 25' RT

PULL BOX STEEL
24X42 INCH
STA 118+67 'HR',
22.5' LT
29.5' RT

PULL BOX STEEL
24X42 INCH
STA 121+46.43 'HR',
22.5' LT
29.5' RT

TRUSTEES
DABSON TRUST ETAL

KNUEPPEL

ACCESS GATE 3.5-FT
STA 118+89.41 'HR', RT

FENCE CHAIN LINK 6-FT
STA 298+79.35 -
299+84.56 'SB', LT
114 LF

B-53-312
STA. 300+20.63
0°0'00" SKEW

STEEL THRIE BEAM
BULLNOSE TERMINAL
STA 299+26.8 'NB', 15.9' LT

FENCE CHAIN LINK 6-FT
STA 298+76.77 -
299+83.57 'NB', RT
108 LF

R/L IH 39 SB

R/L IH 39 NB

LESLIE & VIRGINIA HULLAH

305'SB'
305'NB'
300'SB'
300'NB'
295'SB'
295'NB'
290'SB'
290'NB'

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS: MISCELLANEOUS ROADWAY ITEMS	SHEET 16	E

2

2

N

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

ROCK ROAD
LATHERS LLC

ROCK ROAD LATHERS LLC

REMOVING GUARDRAIL
STA 299+16 - 303+89 'SB', RT

REMOVING GUARDRAIL
STA 299+41 -
301+06 'NB', LT

SECTION LINE

REMOVING GUARDRAIL
STA 301+41 - 303+01 'SB', LT

REMOVING CONCRETE BARRIER
STA 300+05 - 301+41 'SB', LT

REMOVE FENCE
STA 300+39 TO
301+48 'NB', RT

REMOVE 24" C.M.C.P.
STA 124+49 'HR', LT

REMOVE DRIVEWAY
STA 126+90 'HR', LT

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

ZANZINGER

PL

REMOVE FENCE
STA 300+40 TO
301+46 'SB', LT

REMOVE
24" C.M.C.P.
STA 113+60 'HR'

REMOVING PAVEMENT
STA 118+83 - 119+03 'HR'

REMOVING GUARDRAIL
STA 117+90 - 118+96 'HR', LT

REMOVING PAVEMENT
STA 121+09 -
121+29 'HR'

REMOVING GUARDRAIL
STA 121+15 -
122+21 'HR', LT

QUARRY DRIVEWAY

TLE

REMOVE DRIVEWAY AND
18" R.C.C.P.
STA 130+00 'HR' LT

CLEARING & GRUBBING, TYP.

PROPOSED R/W

SLOPE INTERCEPT

PROPOSED R/W

EXISTING R/W

REMOVE
18" C.M.C.P.
STA 112+27 'HR', LT

TLE

1026'QD'

1030'QD'

SLOPE INTERCEPT

HART ROAD R/L

110'HR'

115'HR'

120'HR'

125'HR'

130'HR'

135'HR'

0+00

C-10340D

305'SB'

305'NB'

300'SB'

300'NB'

SLOPE INTERCEPT

SHIRLEY M
CARLSON TRUST

TREE TO REMAIN
& BE PROTECTED
BY ORANGE
SAFETY
FENCE

SLOPE
INTERCEPT

REMOVING GUARDRAIL
STA 121+15 -
122+22 'HR', RT

REMOVE 24" C.M.C.P.
STA 125+75 'HR'

PROPOSED R/W

TLE

KNUEPPEL

REMOVING GUARDRAIL
STA 117+89 - 118+97 'HR', RT

PROPOSED R/W

REMOVE DRIVEWAY AND
15" C.M.C.P.
STA 124+50 'HR', RT

REMOVE 18" C.M.C.P.
STA 132+51 'HR'

REMOVE
18" C.M.C.P.
STA 108+28 'HR', RT

ALDERMAN

PL

REMOVE FENCE
STA 298+79 TO
299+91 'SB', LT

REMOVE FENCE
STA 298+77 TO
300+01 'NB', RT

TRUSTEES
DABSON TRUST ETAL

295'SB'

295'NB'

KNUEPPEL

REMOVING
CONCRETE BARRIER
STA 299+55 -
300+40 'NB', RT

REMOVING GUARDRAIL
STA 297+96 -
299+55 'NB', RT

REMOVE STRUCTURE
B-53-45
STA. 119+03.74 'HR'

R/L IH 39 NB

R/L IH 39 SB

LESLIE & VIRGINIA HULLAH

290'SB'

290'NB'

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CONSTRUCTION DETAILS: REMOVALS DETAIL	SHEET 17 E

2

2

N

BEGIN PROJECT
STA 108+00 'HR'

T.L.E.

R/W

110'HR'

HART ROAD

MATCH LINE STA 114+20

T.L.E.

T.L.E.

R/W

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION TYPE A/B

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: HART ROAD	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\022001_EC_2_.DWG PLOT DATE : 7/30/2015 6:46 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

2

N

R/W

IH 39/90 SB

IH 39/90 NB

MATCH LINE STA 114+20

115'HR'

HART ROAD

120'HR'

SLOPE PAVING

300'SB'

300'NB'

MATCH LINE STA 120+40

R/W

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION TYPE A/B

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: HART ROAD	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\022001_EC_2_.DWG PLOT DATE : 10/28/2015 11:53 AM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

2

LEGEND

EROSION MAT CLASS I, TYPE B
SILT FENCE
RIPRAP MEDIUM
SLOPE INTERCEPT
SURFACE WATER FLOW
DITCH CHECK
CULVERT PIPE CHECK
INLET PROTECTION TYPE A/B

N

R/W

1026'0D'

IH 39/90 NB

MATCH LINE STA 120+40

HART ROAD

125'HR'

SLOPE PAVING

MATCH LINE STA 126+60

R/W

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: HART ROAD	SHEET	E

2

2

N

QUARRY DRIVEWAY

1030'QD'

R/W

MATCH LINE STA 126+60

HART ROAD

130'HR'

MATCH LINE STA 132+80

R/W

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION TYPE A/B

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: HART ROAD	SHEET 21	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\022001_EC_2_.DWG PLOT DATE : 7/30/2015 6:47 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

T.L.E.

QUARRY DRIVEWAY

R/W

MATCH LINE STA 132+80

10340D'

135'HR'

HART ROAD

R/W

T.L.E.

END PROJECT
STA 139+00 'HR'

N

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION TYPE A/B

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: HART ROAD	SHEET 22	E

2

IH
39/90
SB

N

285

BEGIN CONSTRUCTION
STA 285+70

IH
39/90
NB

MATCH LINE STA 289+50

LEGEND

- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- RIPRAP MEDIUM
- SLOPE INTERCEPT
- SURFACE WATER FLOW
- DITCH CHECK
- CULVERT PIPE CHECK

N

IH
39/90
SB

MATCH LINE STA 289+50

290

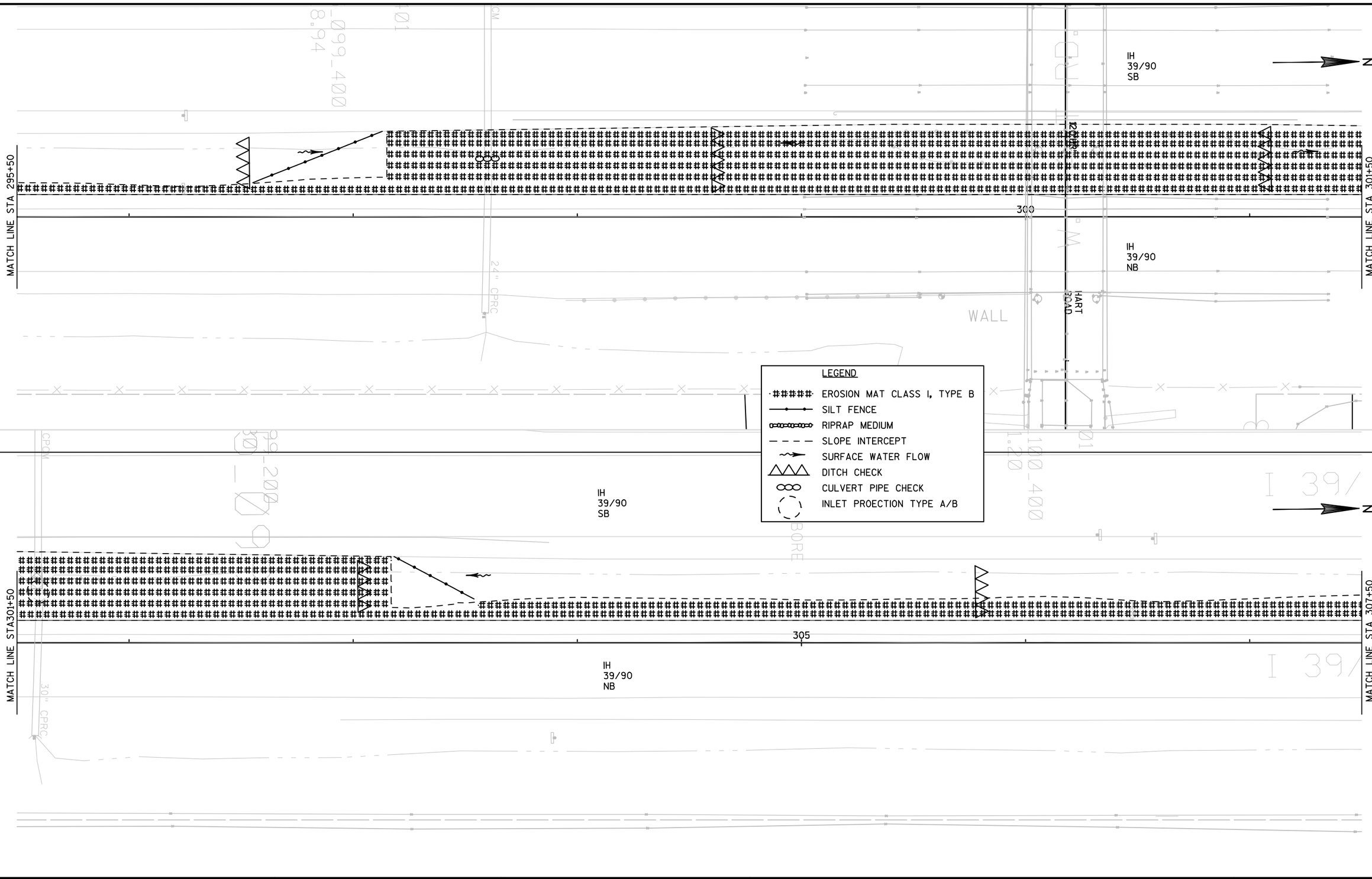
295

IH
39/90
NB

MATCH LINE STA 295+50

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL : IH 39	SHEET	E

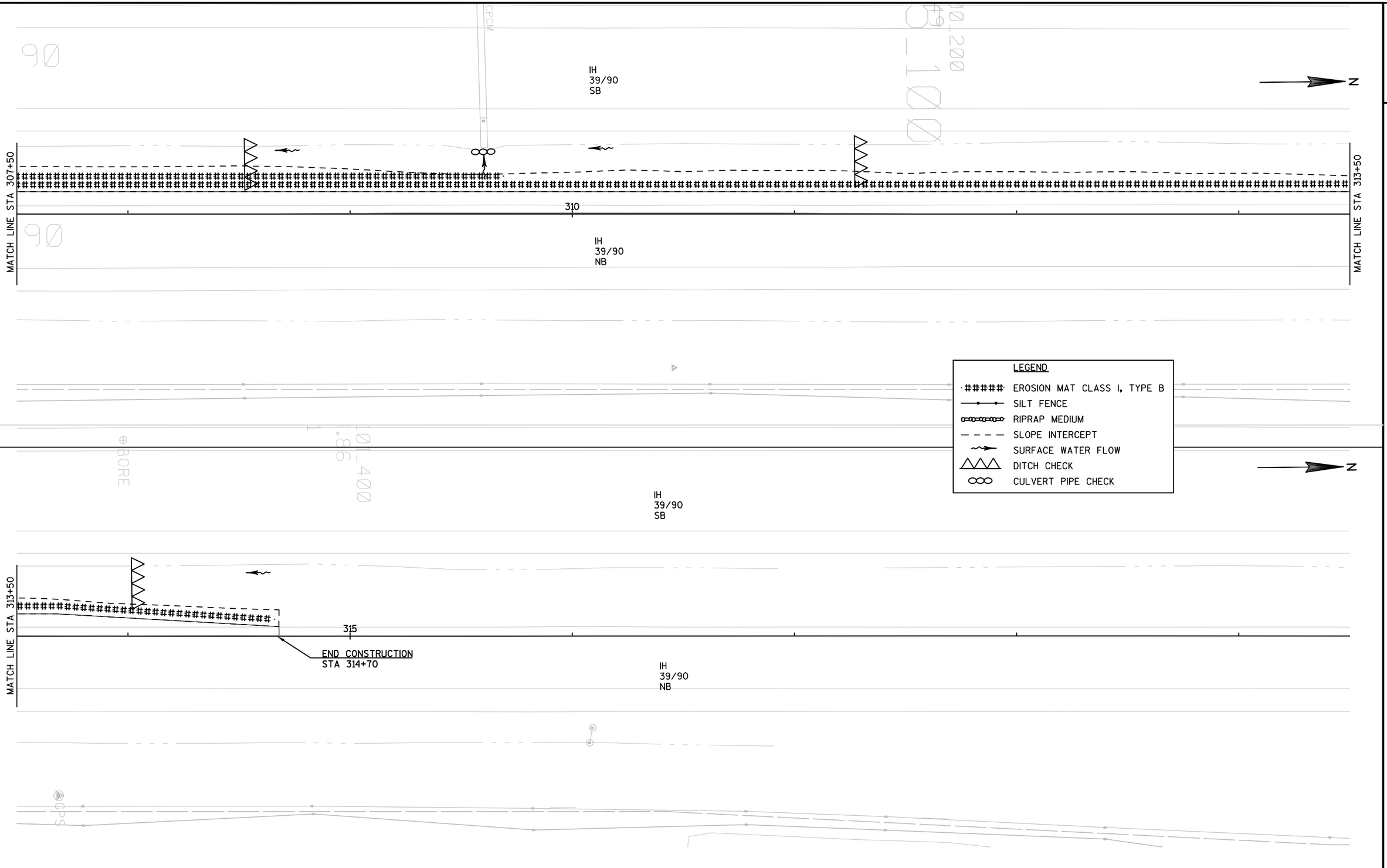
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\022001_EC_IH 9.DWG PLOT DATE : 7/30/2015 7:01 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 40'_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: IH 39	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\022001_EC_IH 9.DWG PLOT DATE : 7/30/2015 7:05 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : *********

2



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	EROSION CONTROL: IH 39	SHEET 25	E

2

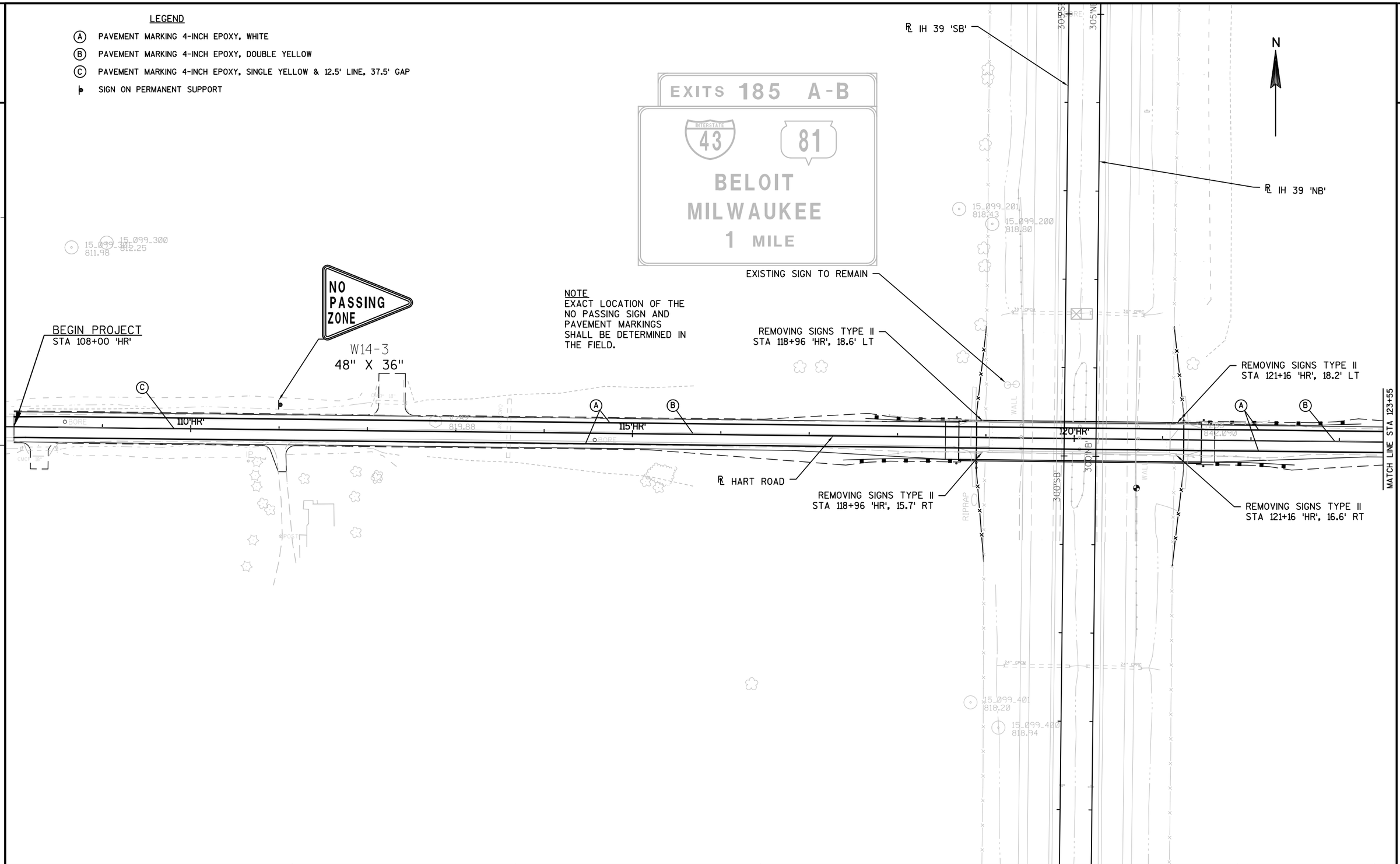
LEGEND

(A) PAVEMENT MARKING 4-INCH EPOXY, WHITE

(B) PAVEMENT MARKING 4-INCH EPOXY, DOUBLE YELLOW

(C) PAVEMENT MARKING 4-INCH EPOXY, SINGLE YELLOW & 12.5' LINE, 37.5' GAP

SIGN ON PERMANENT SUPPORT



2

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND SIGNING	SHEET 26	E

2

2

N

LEGEND

(A) PAVEMENT MARKING 4-INCH EPOXY, WHITE

(B) PAVEMENT MARKING 4-INCH EPOXY, DOUBLE YELLOW

(C) PAVEMENT MARKING 8-INCH EPOXY, WHITE

(D) PAVEMENT MARKING 8-INCH EPOXY, DASHED WHITE

15_099_100
818.54
15_099_101
818.95

℄ QUARRY DRIVE

1026'QD'

1030'QD'

END TAPER
STA 136+63'HR'
12' LT.

BEGIN TAPER
STA 138+18'HR'

MATCH LINE STA 123+55

125'HR'

130'HR'

135'HR'

155' TURNBAY TAPER

1034'QD'

℄ HART ROAD

END PROJECT
STA 139+00 'HR'

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PAVEMENT MARKING AND SIGNING	SHEET 27	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\024501_PM.DWG PLOT DATE : 10/28/2015 1:49 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

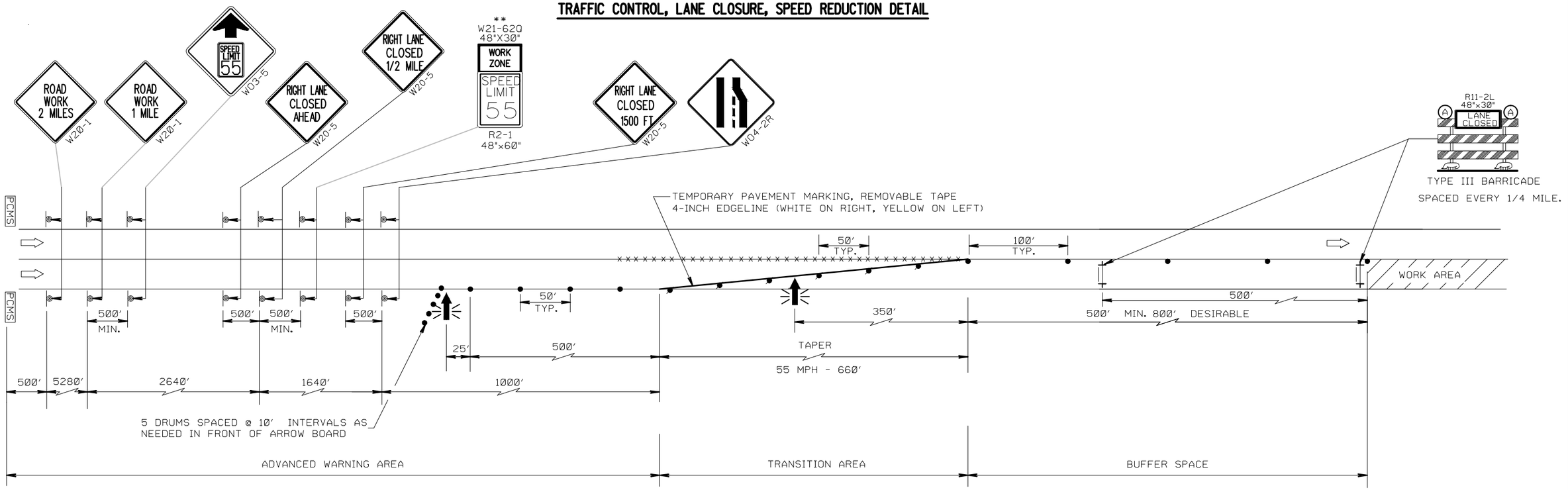
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

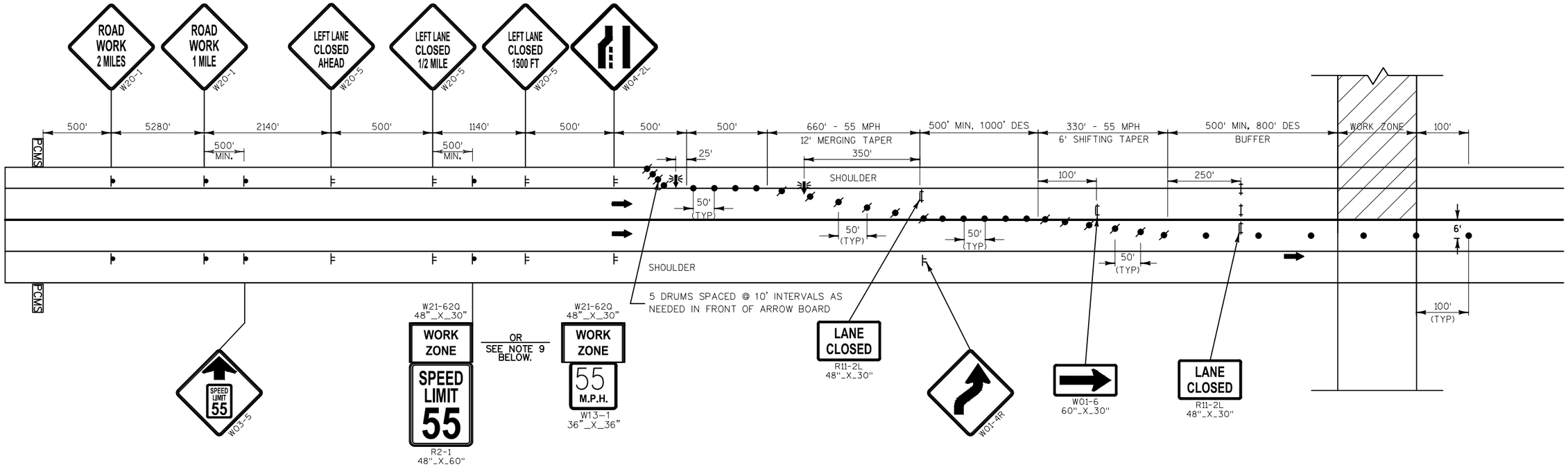
TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION DETAIL



PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION	SHEET 28	E

FILE NAME : C:\USERS\LARSONZ\DOWNLOADS\TC LANE CLOSURE WITH SPEED REDUCTION.DWG PLOT DATE : 8/3/2015 9:14 AM PLOT BY : LARSON, ZACHARY PLOT NAME : PLOT SCALE : 6 IN:1 FT

WISDOT/CADDS SHEET 42



NOTES:

1) THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

6) ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROWBOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

7) UTILIZE NIGHT TIME CLOSURE FOR ALL BRIDGE CONSTRUCTION ACTIVITIES. HOURS FOR NIGHT TIME CLOSURE SHALL ADHERE TO THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

8) DETAIL IS TYPICAL FOR NB AND SB DIRECTIONS. LEFT LANE CLOSURE IS SHOWN. REVERSE FOR CLOSING RIGHT LANE.

9) CONTACT RICH CANNON, I-39/90 TRAFFIC MANAGEMENT ENGINEER, AT (608) 884-1160 TO DETERMINE APPLICABLE SIGN ASSEMBLY.

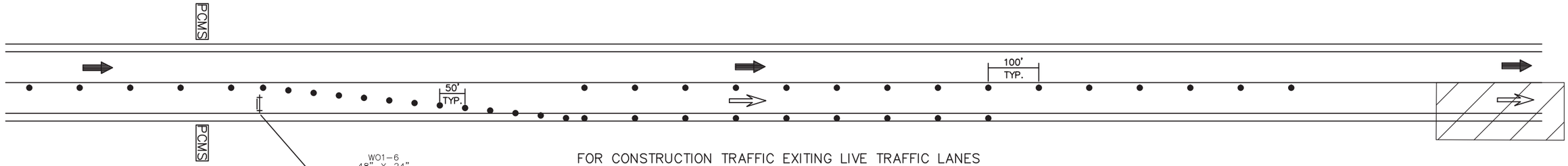
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- WORK ZONE
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHT TYPE A
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

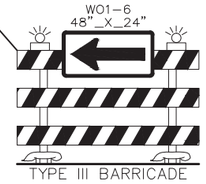
TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL LANE CLOSURE WITH SHIFT ONTO SHOULDER	SHEET 29	E

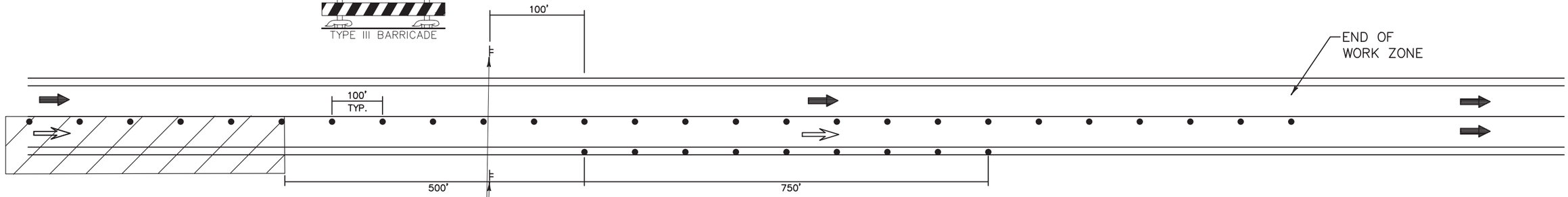
2



FOR CONSTRUCTION TRAFFIC EXITING LIVE TRAFFIC LANES



TYPE III BARRICADE



FOR CONSTRUCTION TRAFFIC RE-ENTERING LIVE TRAFFIC LANES

NOTE:
SPACING AND LOCATIONS OF DEVICES IN THE FIELD SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER

THIS ACCESS IS TYPICAL WHEN UTILIZING A RIGHT LANE CLOSURE – REVERSE FOR LEFT LANE CLOSURE

SEE OTHER TRAFFIC CONTROL DETAILS AND STANDARD DETAIL DRAWINGS FOR LANE CLOSURE DETAILS

PORTABLE MESSAGE SIGN MESSAGES SHOULD READ:

FRAME 1	FRAME 2
TRUCKS EXITING RIGHT	TRAFFIC STAY LEFT

LEGEND

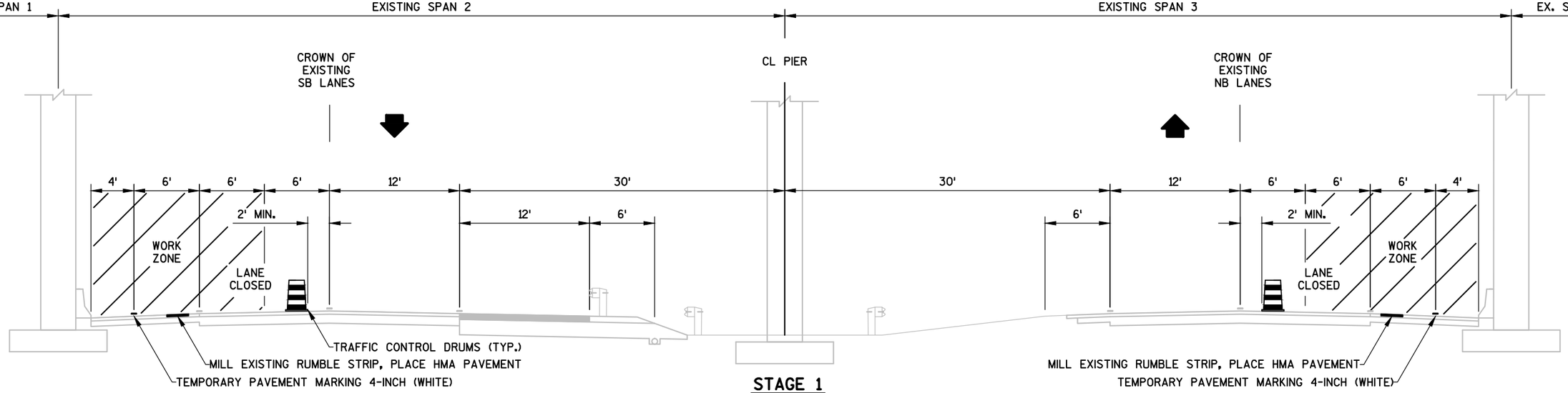
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- IH 39 TRAFFIC
- CONSTRUCTION TRAFFIC
- WORK ZONE
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

TRAFFIC CONTROL DETAIL FOR CONSTRUCTION ACCESS AT LANE CLOSURES

NIGHT USE ONLY

PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL CONSTRUCTION ACCESS AT LANE CLOSURES	SHEET 30	E

FILE NAME : L:\WORK\PROJECTS\60242867\000_CAD\001_DRAWINGS\TMP TRAFFIC CONTROL\HART RD OVERPASS\AE_0373_TC WORK ACCESS.DWG PLOT DATE : 6/24/2015 8:54 AM PLOT BY : WOLF, KELLY J. PLOT NAME : PLOT SCALE : 1 IN:200 FT

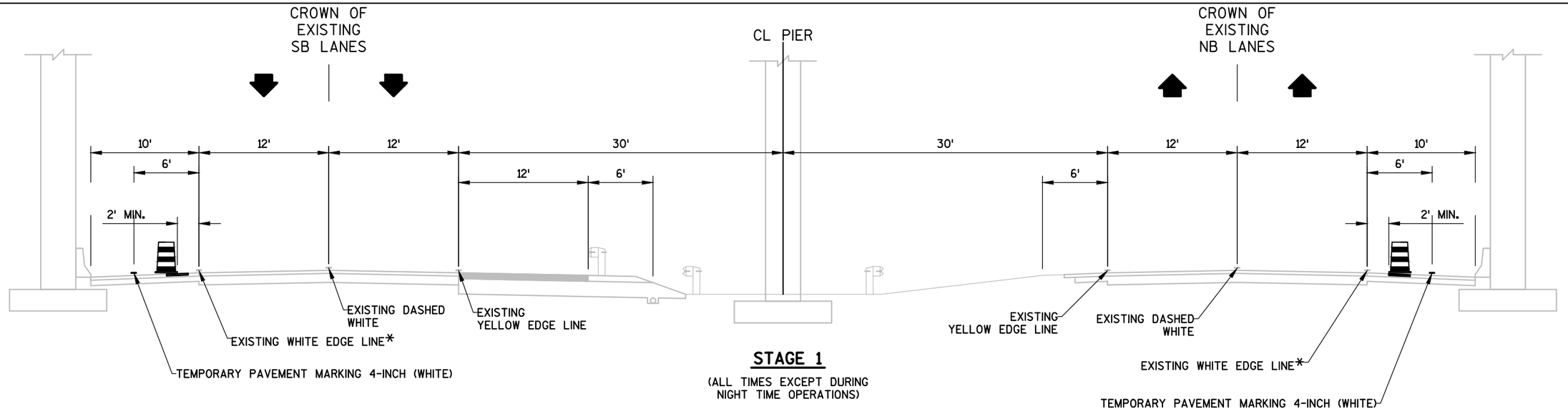


STAGE 1

(NIGHTTIME OPERATION)

CONSTRUCTION

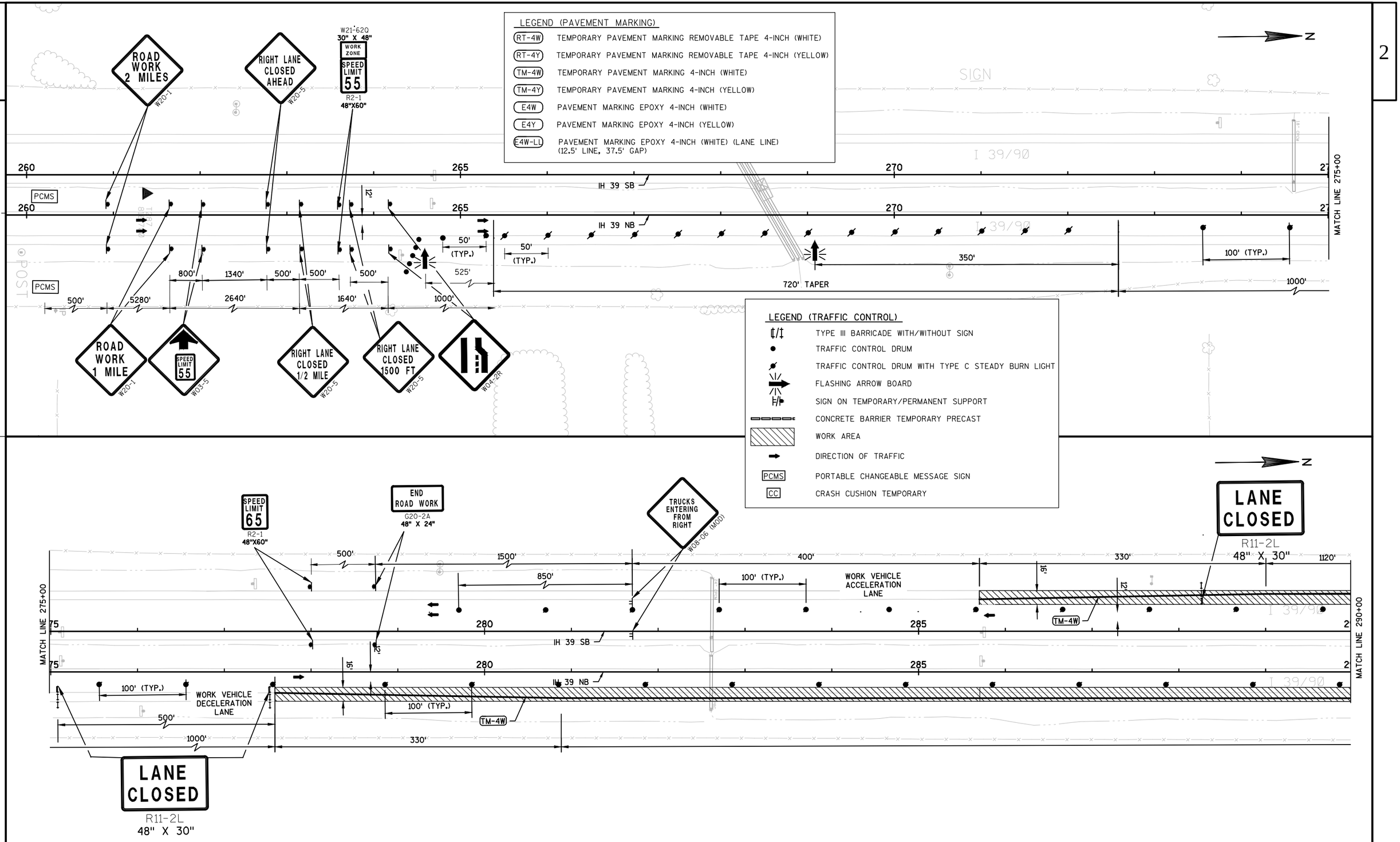
REMOVING ASPHALTIC SURFACE MILLING (RUMBLE STRIP)
PLACE HMA PAVEMENT
TEMPORARY PAVEMENT MARKING - OUTSIDE SHOULDERS (END OF STAGE 1)



STAGE 1

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

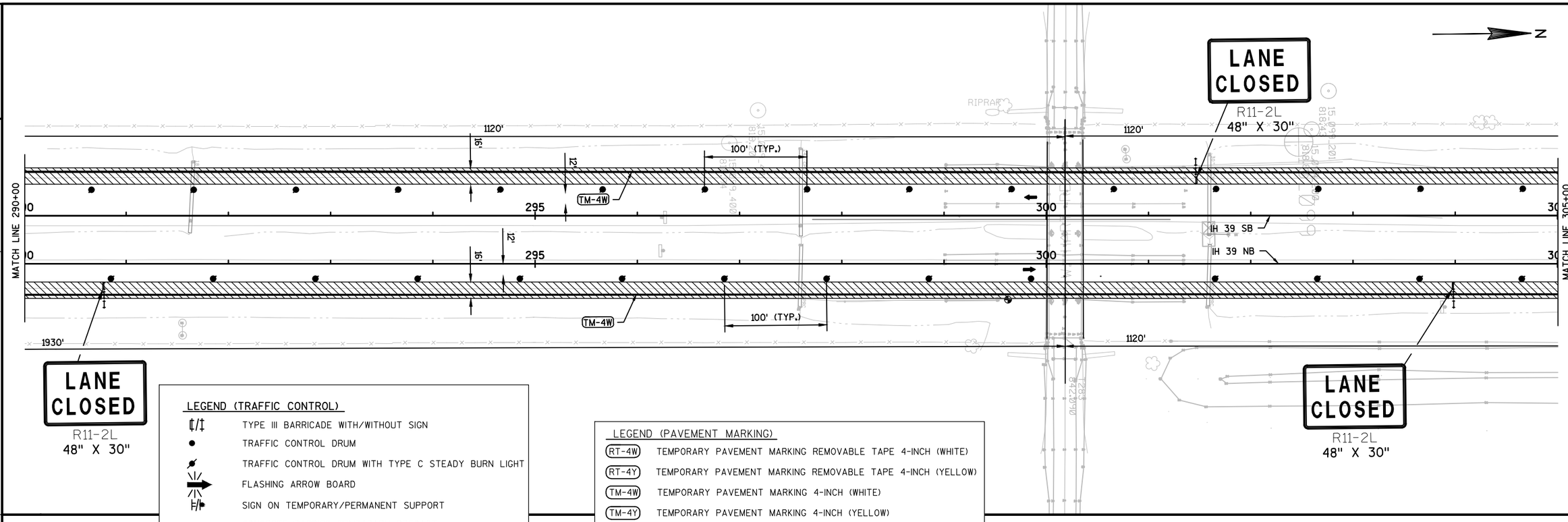
*ASSUMES EDGE LINES WILL NOT BE IMPACTED AS THE RESULT OF RUMBLE STRIP MILLING; RE-MARK IF NECESSARY



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 1	SHEET 32	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S1_.DWG PLOT DATE : 10/30/2015 12:10 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

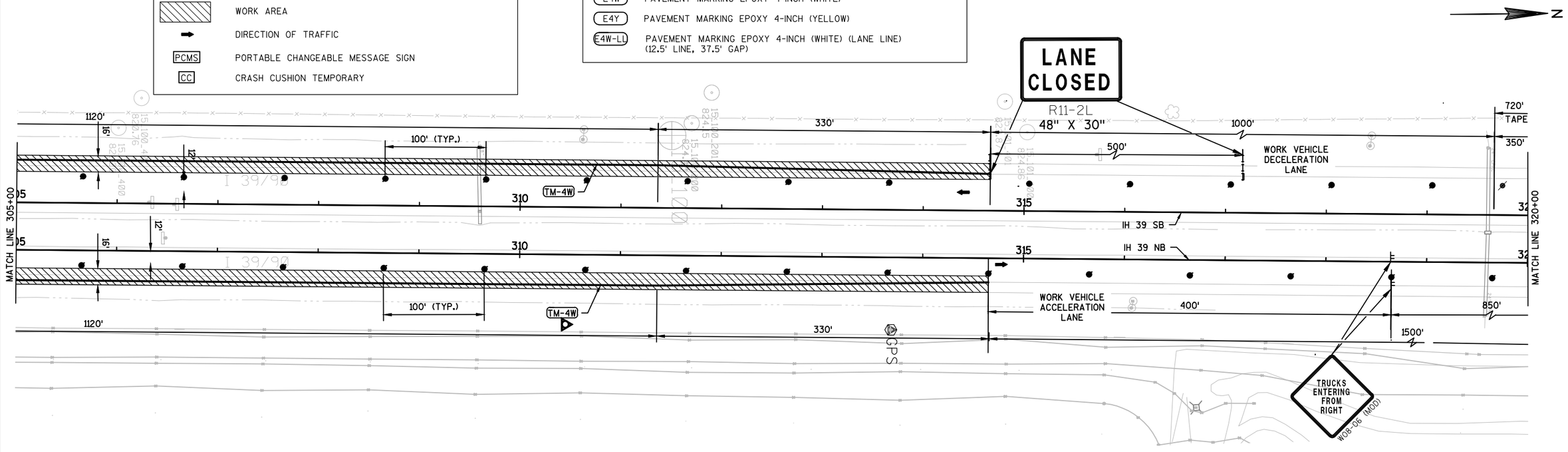


LEGEND (TRAFFIC CONTROL)

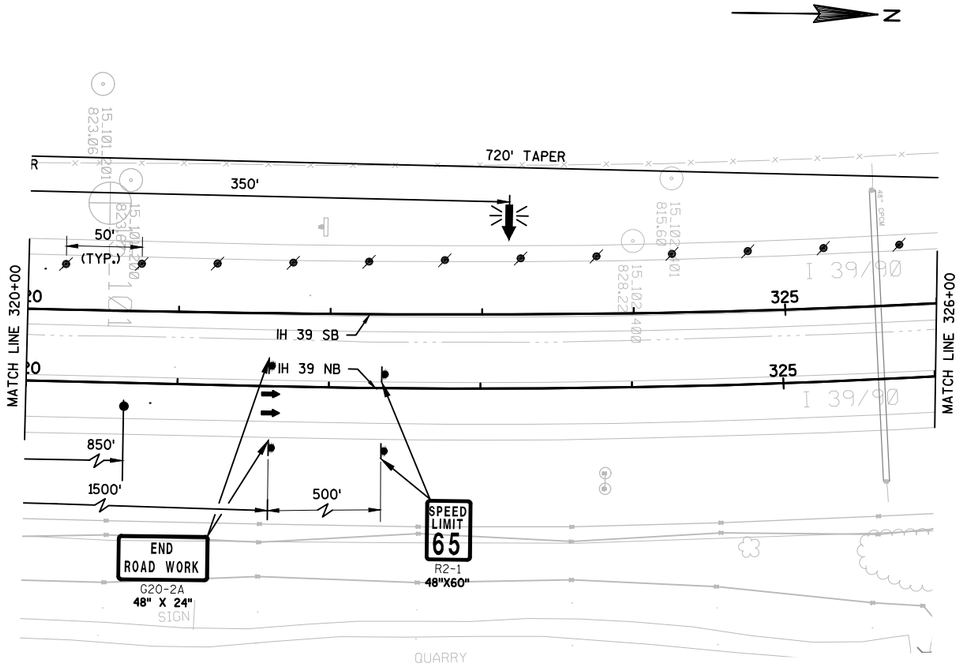
- TYPE III BARRICADE WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CC — CRASH CUSHION TEMPORARY

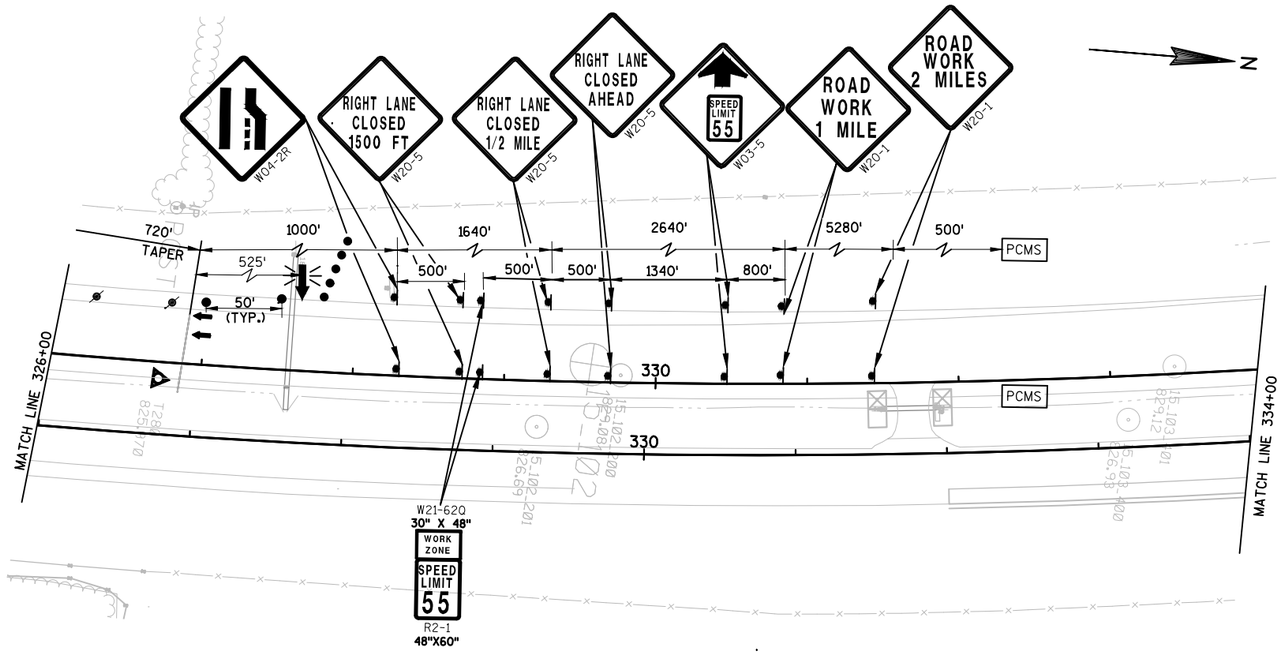
LEGEND (PAVEMENT MARKING)

- RT-4W — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- RT-4Y — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- TM-4W — TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- TM-4Y — TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- E4W — PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- E4Y — PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- E4W-LL — PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 1	SHEET 33	E



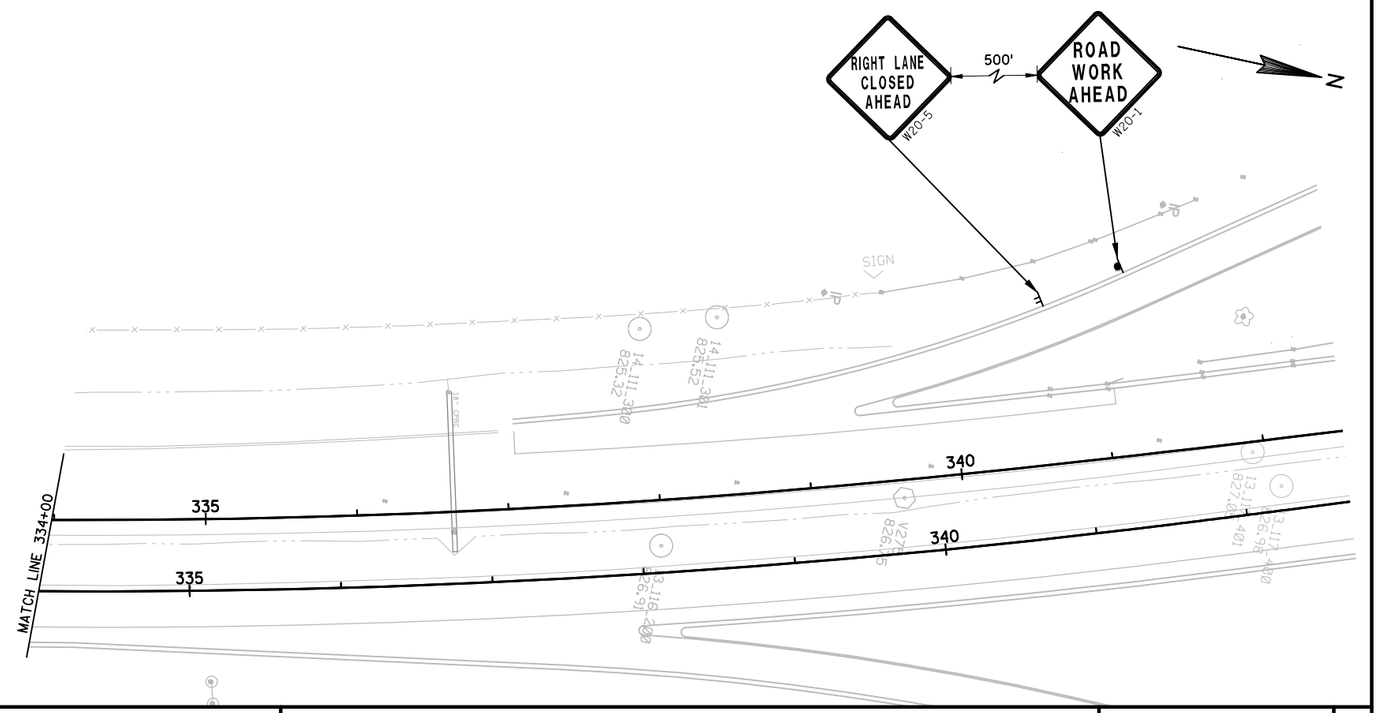


LEGEND (TRAFFIC CONTROL)

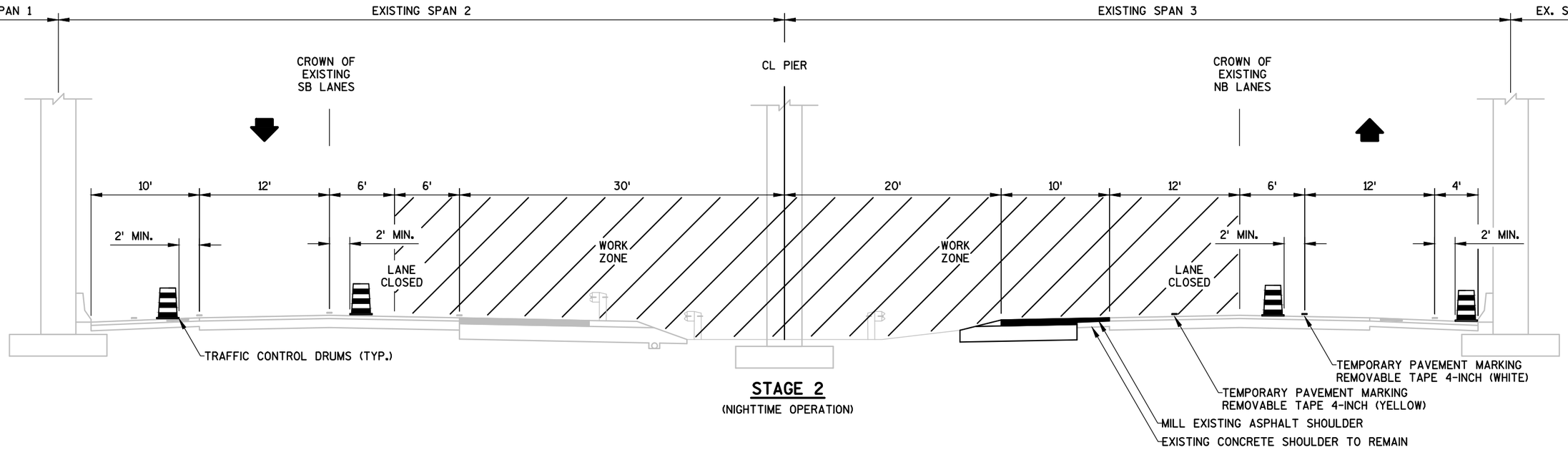
	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



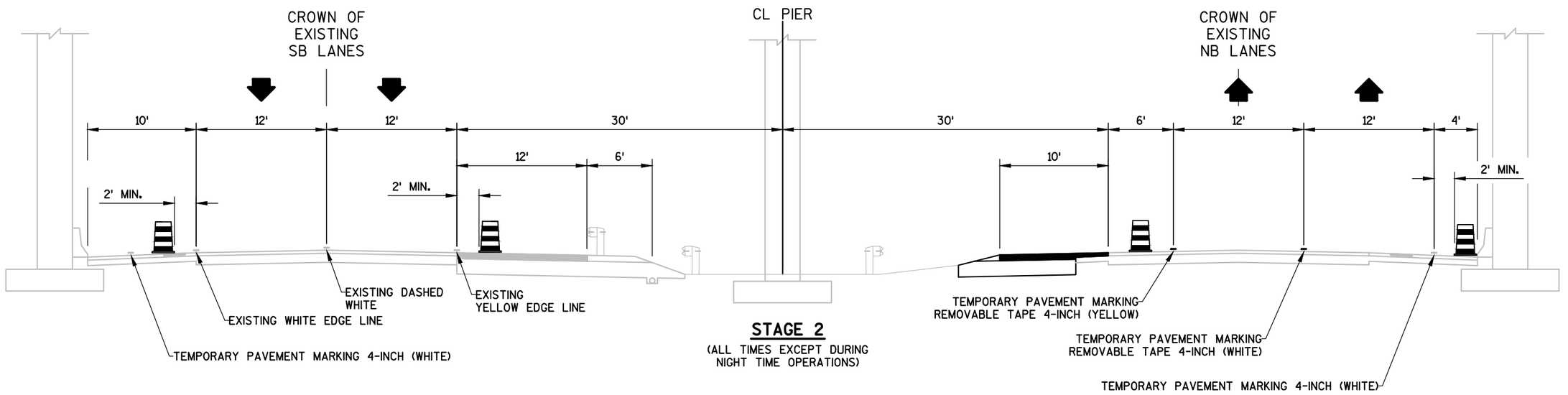
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 1	SHEET 34	E



STAGE 2
(NIGHTTIME OPERATION)

CONSTRUCTION

REMOVE PAVEMENT MARKINGS (NORTHBOUND SKIPS & WHITE EDGE LINE)
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH
COMMON EXCAVATION
PLACE BASE AGGREGATE DENSE
PLACE HMA PAVEMENT



STAGE 2
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 35	E

2

SIGN

ROAD WORK 2 MILES W20-1

LEFT LANE CLOSED AHEAD W20-5

W21-620 30" X 48" WORK ZONE SPEED LIMIT 55 R2-1 48"X60"

LANE CLOSED R11-2L 48" X 30"

N

255 260 265 270

IH 39 SB

IH 39 NB

PCMS

50' (TYP.)

12'

800' 1340' 500' 500' 500' 525'

500' 5280' 2640' 1640' 1000'

350'

720' TAPER

1000'

MATCH LINE 270+00

ROAD WORK 1 MILE W20-1

SPEED LIMIT 55 W03-5

LEFT LANE CLOSED 1/2 MILE W20-5

LEFT LANE CLOSED 1500 FT W20-5

W04-2L

W01-4R

LEGEND (TRAFFIC CONTROL)

- ⇕/↕ TYPE III BARRICADE WITH/WITHOUT SIGN
- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- CC CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

N

SPEED LIMIT 65 R2-1 48"X60"

END ROAD WORK G20-2A 48" X 24"

TRUCKS ENTERING FROM LEFT W08-06 (MOD)

270 275 280 285

MATCH LINE 270+00

MATCH LINE 285+00

WORK VEHICLE DECELERATION LANE

WORK VEHICLE ACCELERATION LANE

STA 277+58 IH39 NB, 12' RT

STA 280+88 IH39 NB, 18' RT

RT-4Y RT-4W

IH 39 SB

IH 39 NB

I 39790

50' (TYP.)

100' (TYP.)

500' 1500' 850' 400'

1000' 100' 330' TAPER 250' 500'

TM-4W

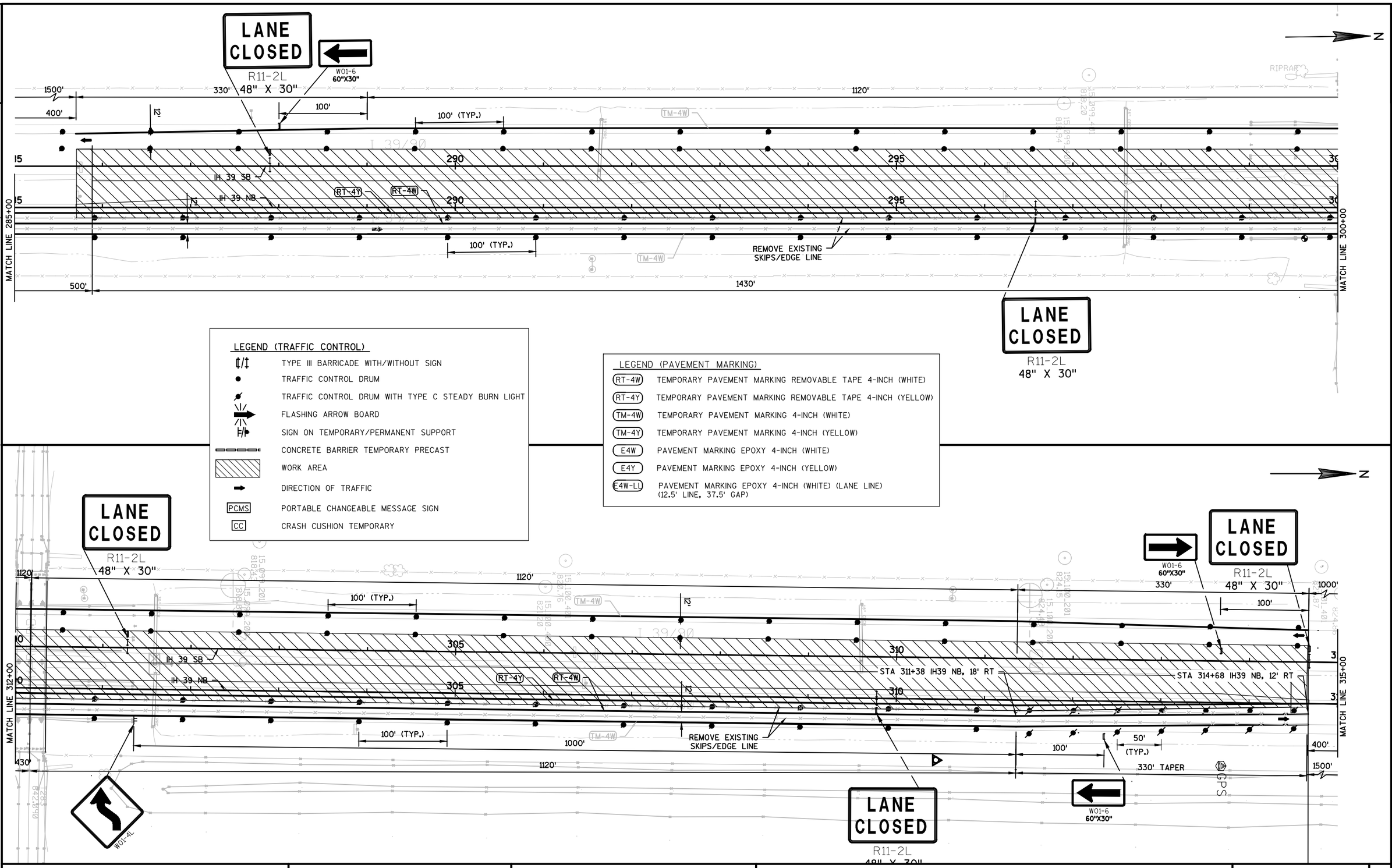
REMOVE EXISTING SKIPS/EDGE LINE

W01-6 60"X30"

LANE CLOSED R11-2L 48" X 30"

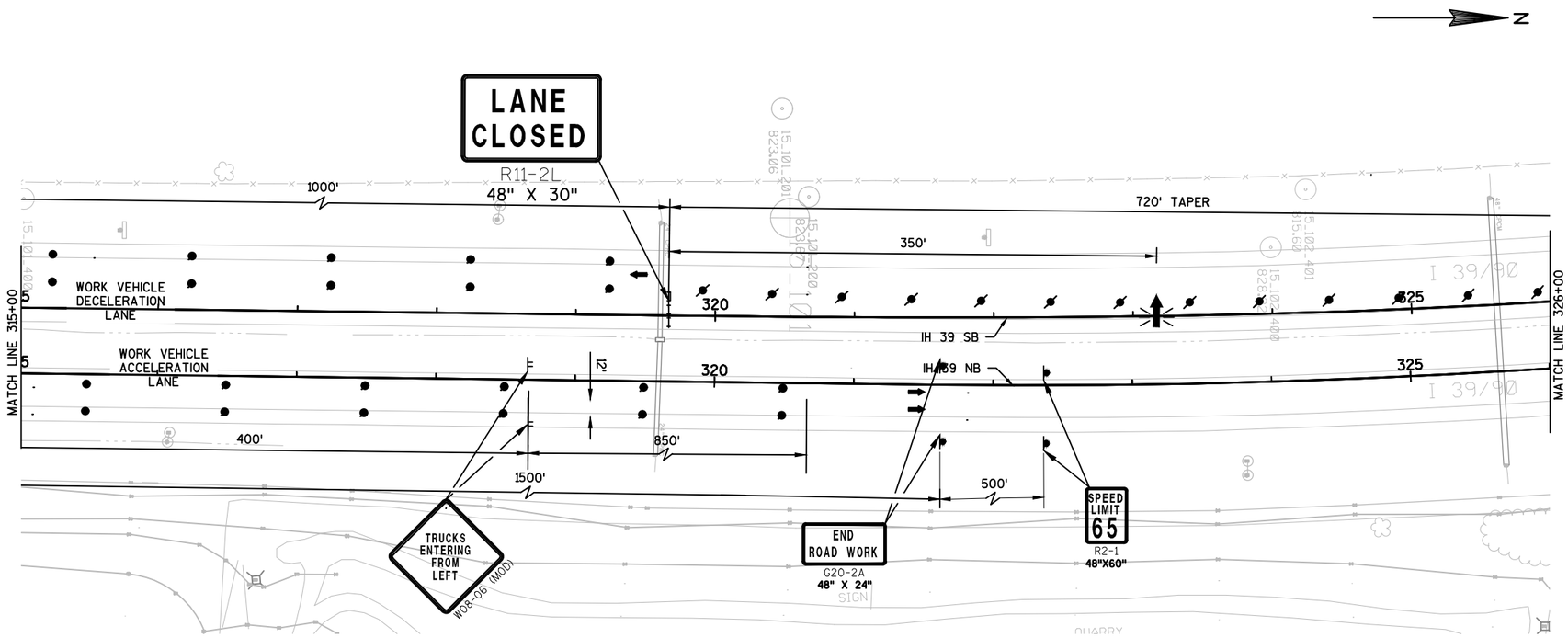
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET 36	E

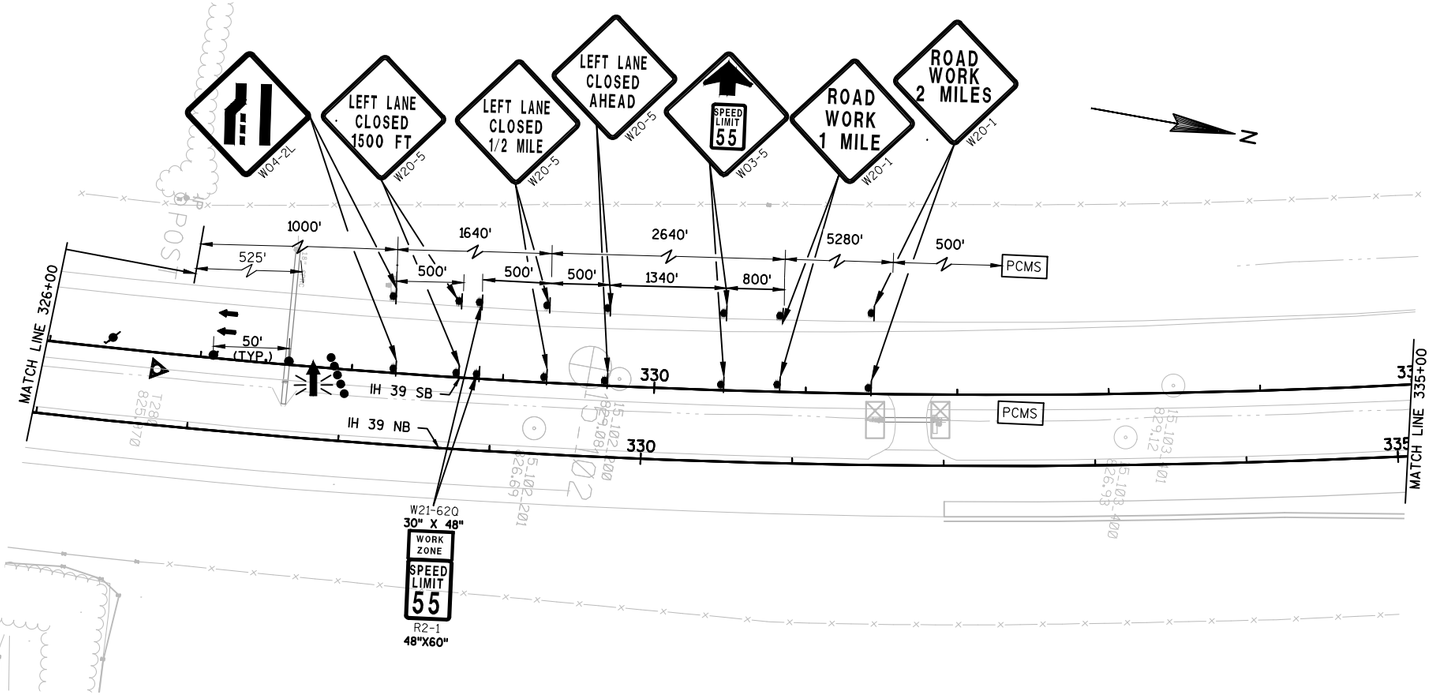
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S2_.DWG PLOT DATE : 10/30/2015 12:12 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

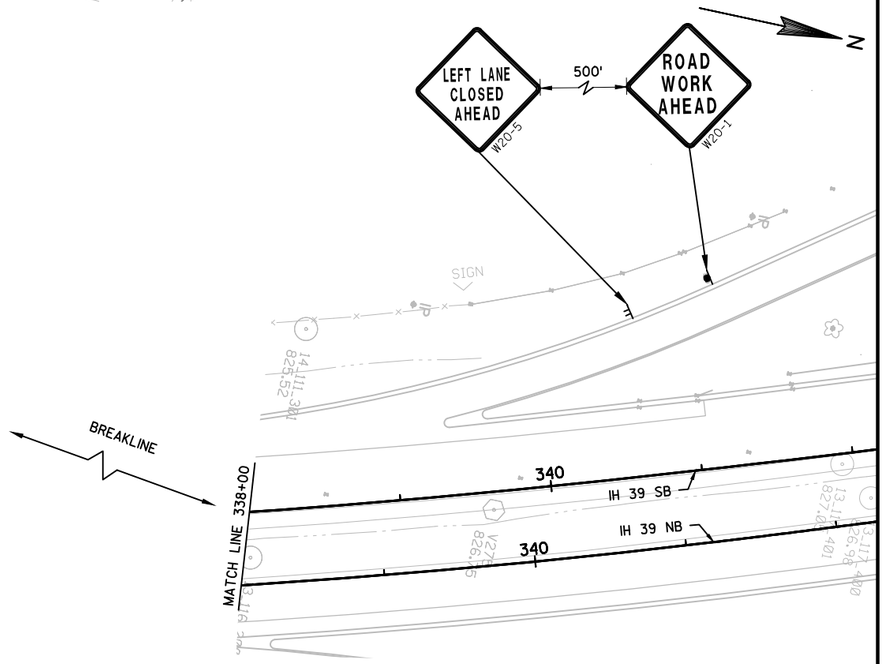


PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET 37	E

2







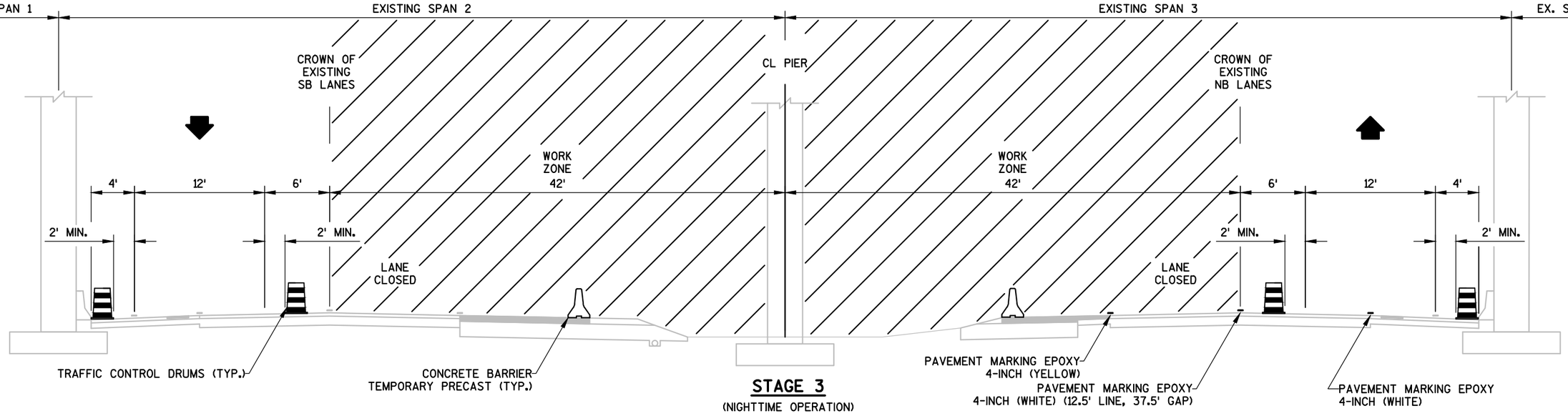
LEGEND (TRAFFIC CONTROL)

- TYPE III BARRICADE WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CC — CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 2	SHEET 38	E

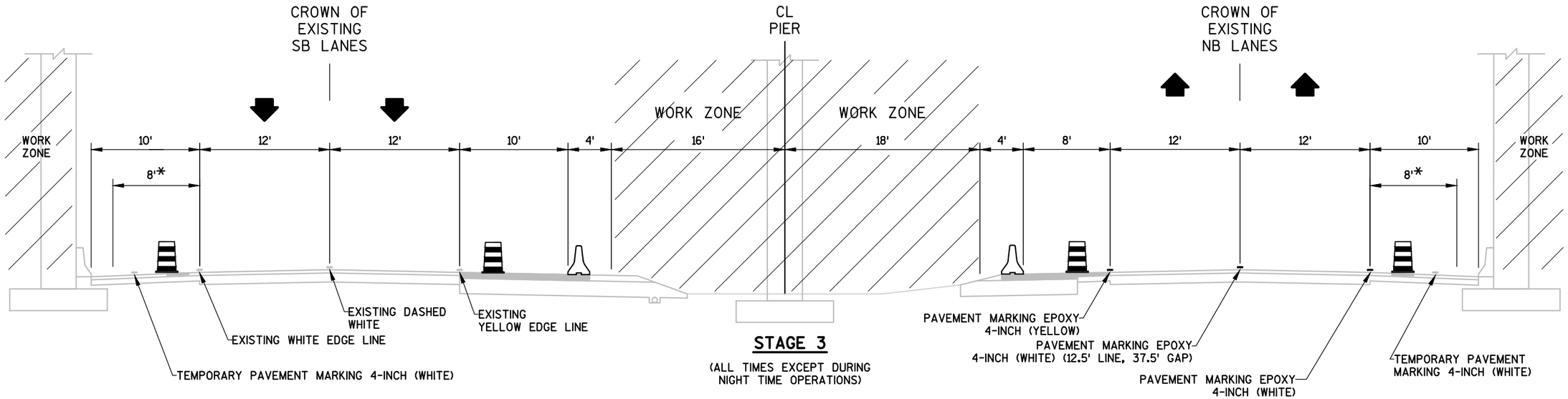


STAGE 3

(NIGHTTIME OPERATION)

CONSTRUCTION

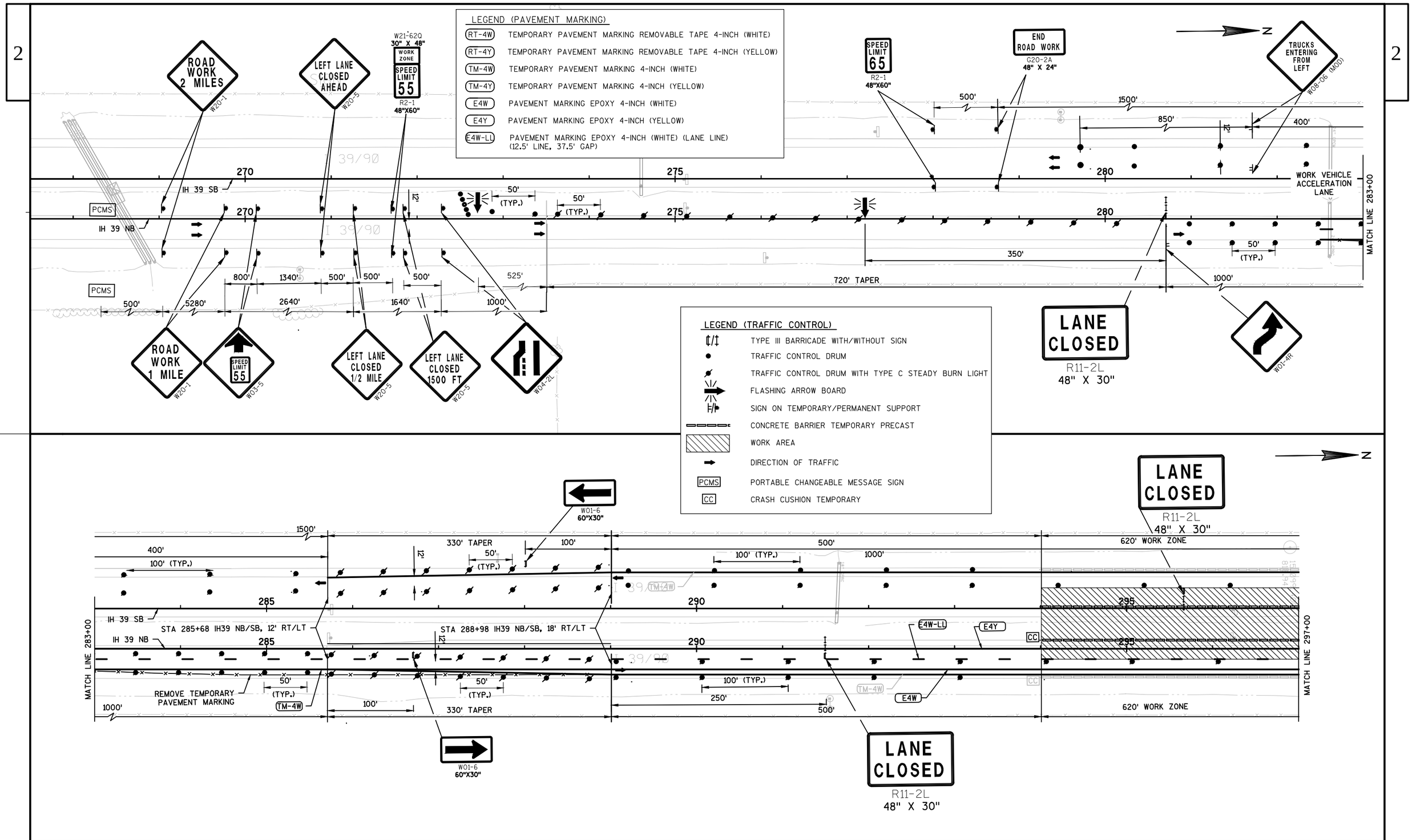
PAVEMENT MARKING EPOXY 4-INCH
PLACE CONCRETE BARRIER TEMPORARY PRECAST (MEDIAN)
REMOVE BULLNOSE AND GUARDRAIL SYSTEM
BRIDGE DECK/PARAPET REMOVAL



STAGE 3

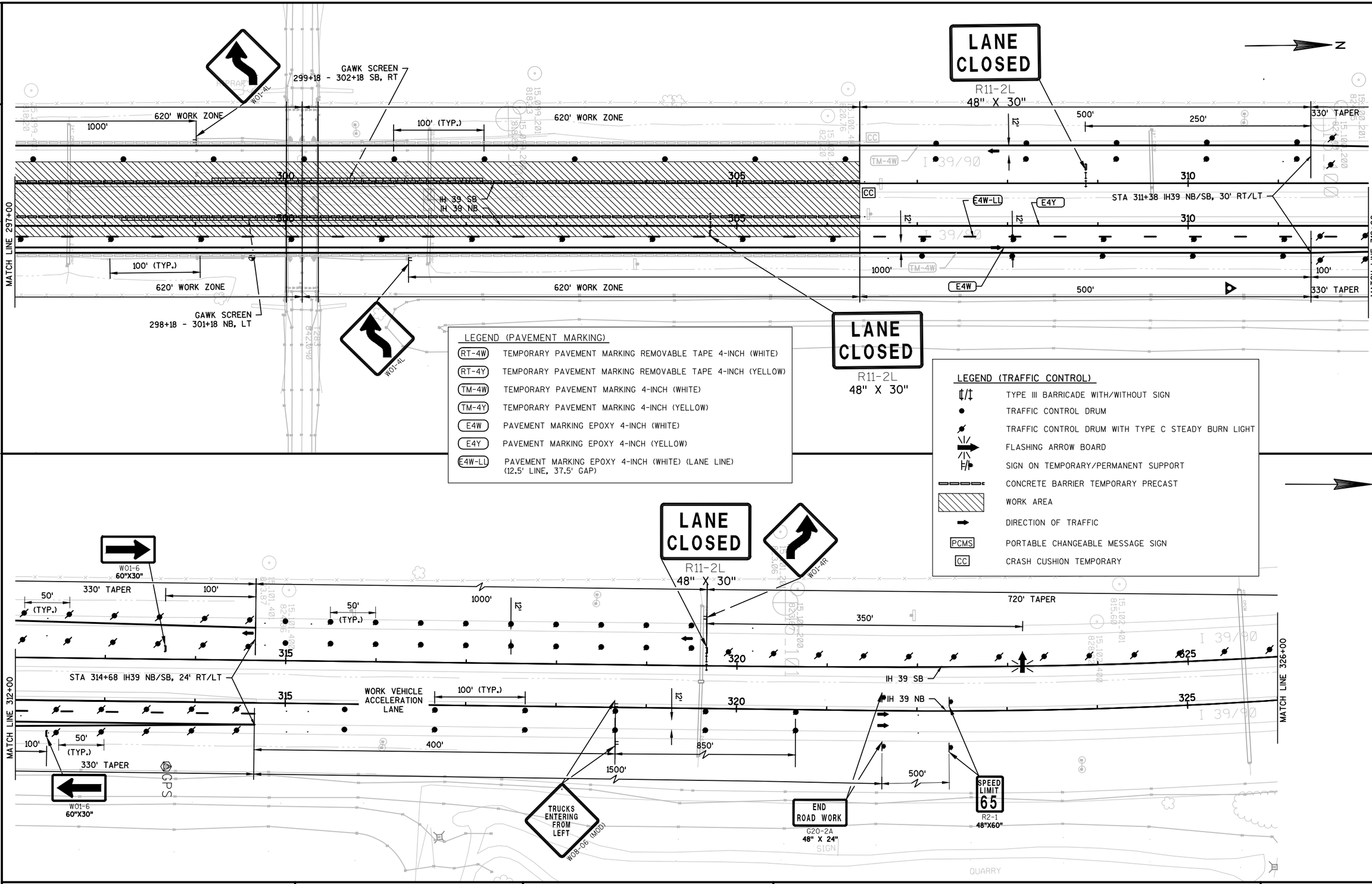
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 39	E



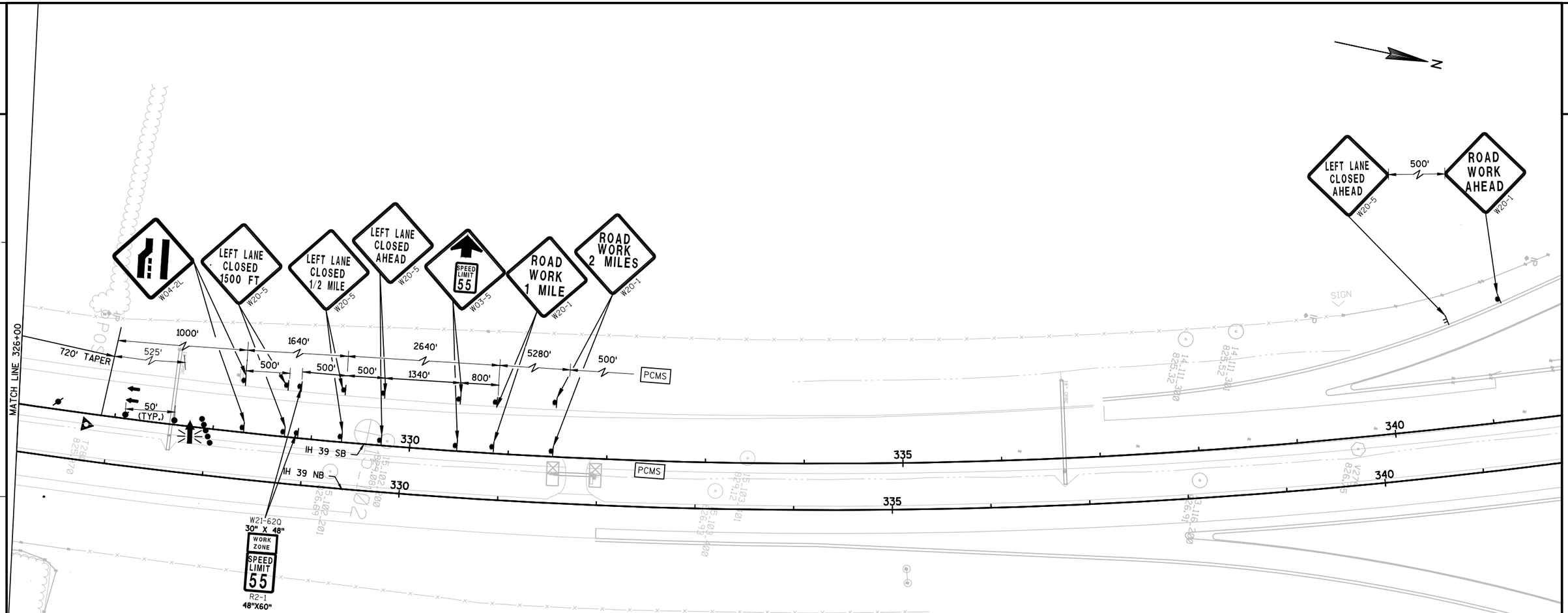
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 3	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S3_.DWG PLOT DATE : 10/30/2015 12:14 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 3	SHEET 41	E

2



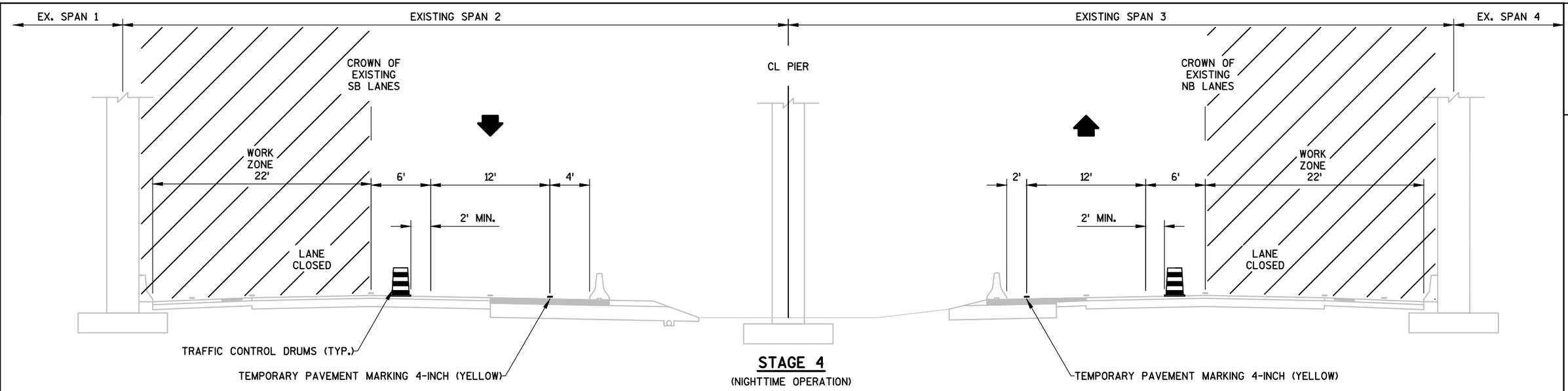
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

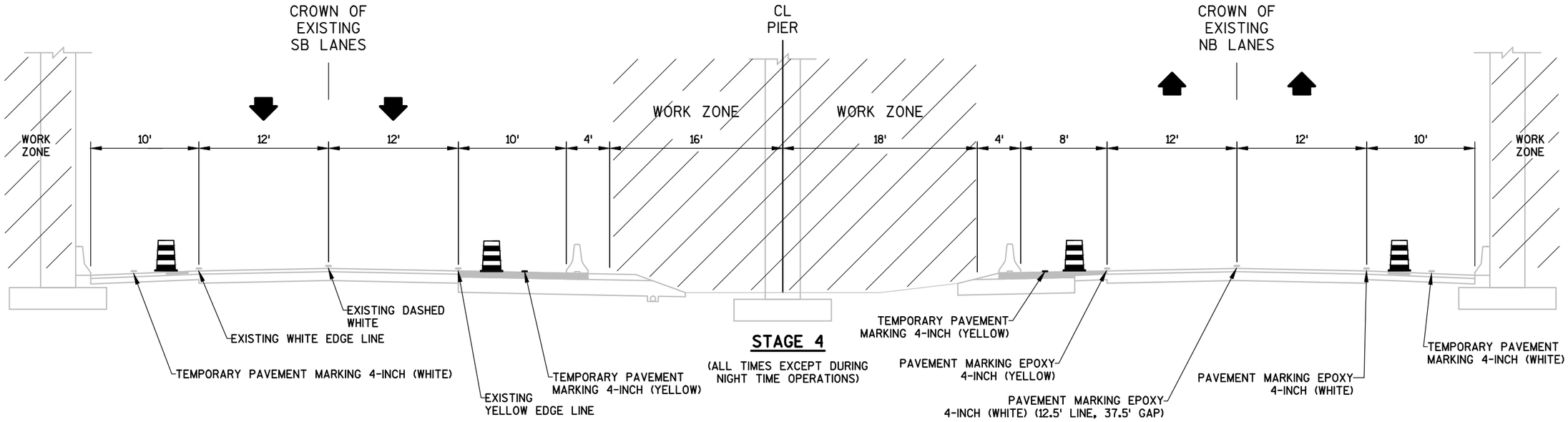
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 3	SHEET 42	E



STAGE 4
(NIGHTTIME OPERATION)

CONSTRUCTION
TEMPORARY PAVEMENT MARKING 4-INCH (MEDIAN SHOULDERS)
BRIDGE DECK/PARAPET REMOVAL

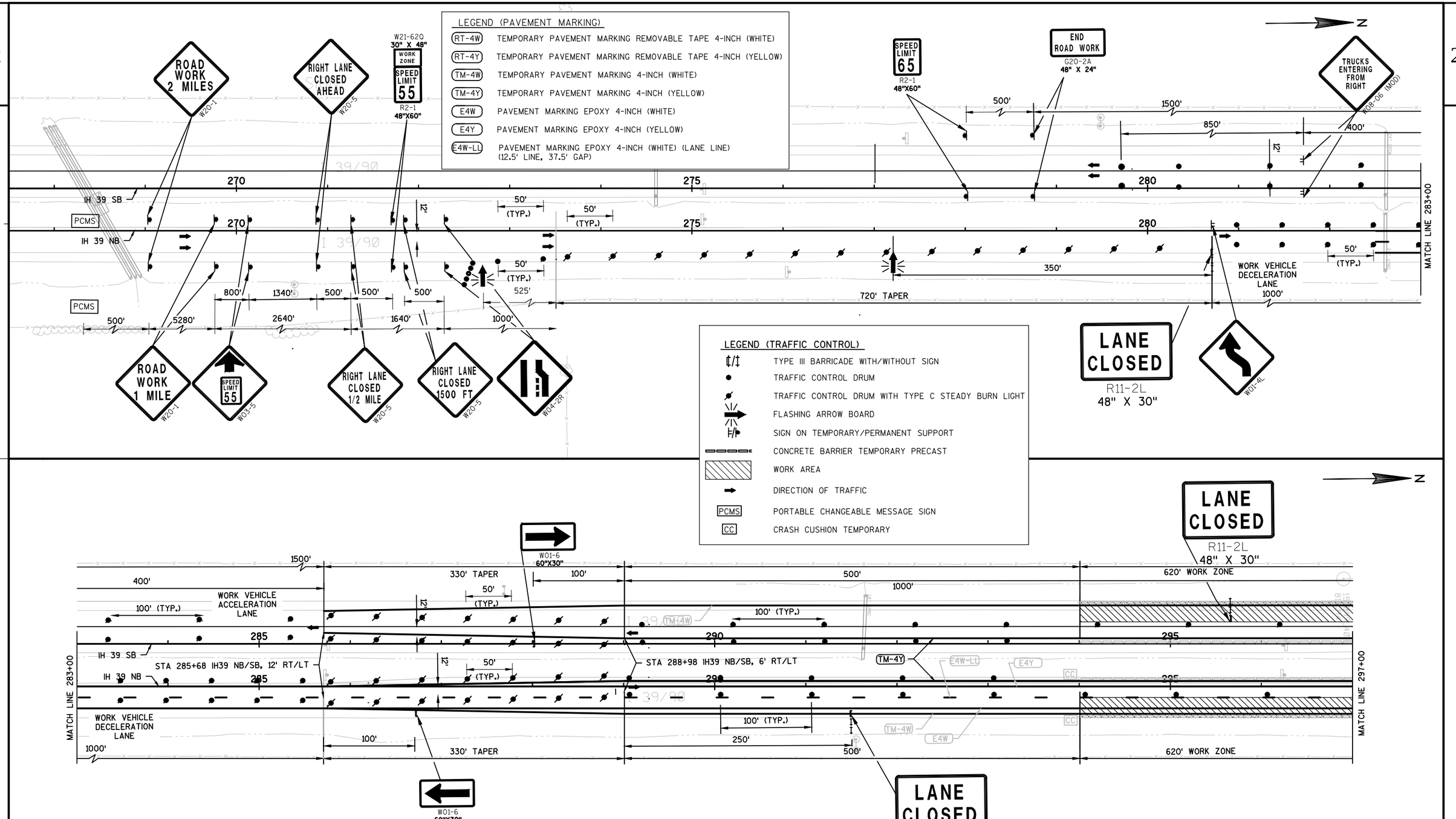


STAGE 4
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

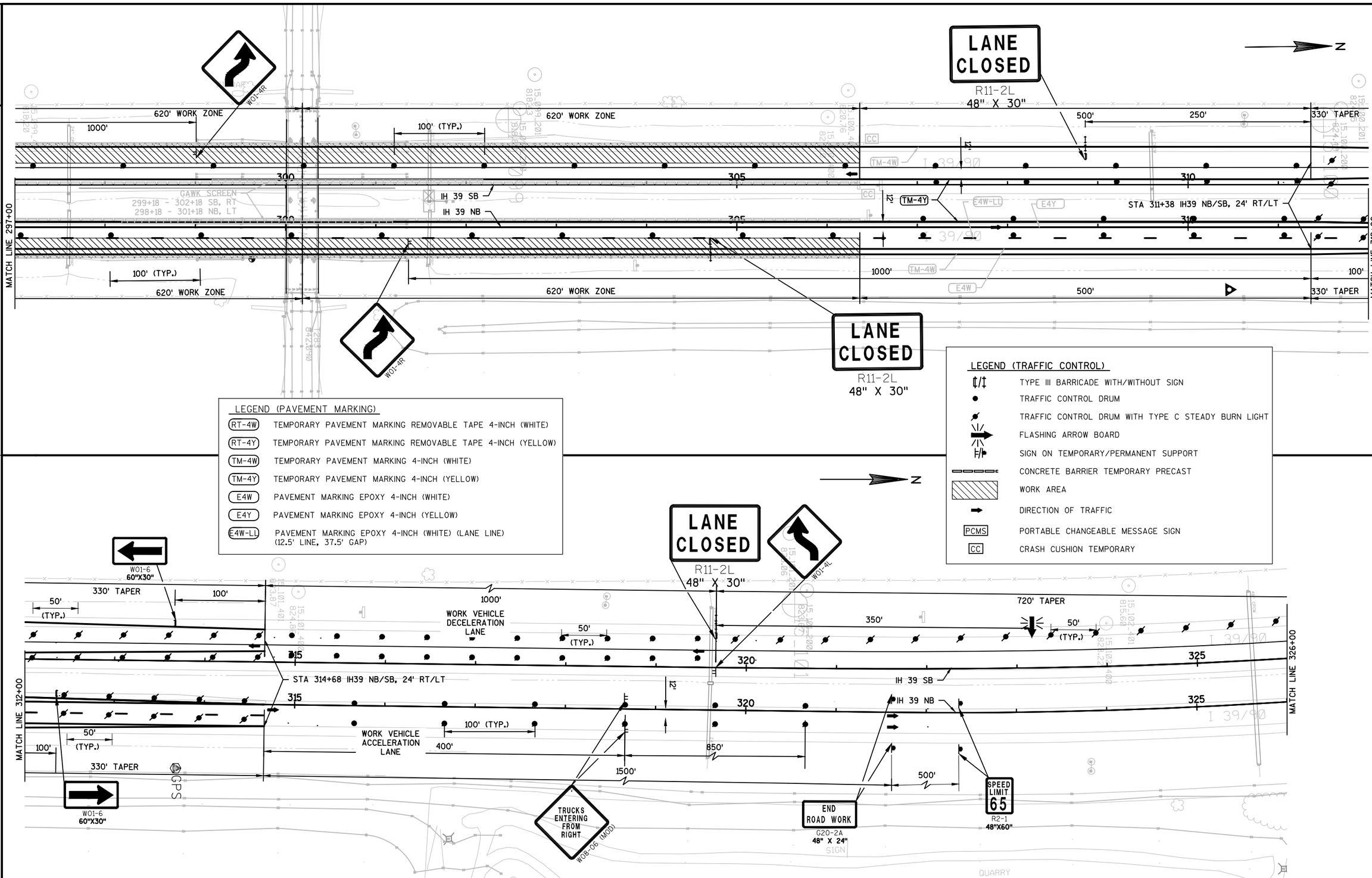
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET ___	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD ... SHEET 42

2

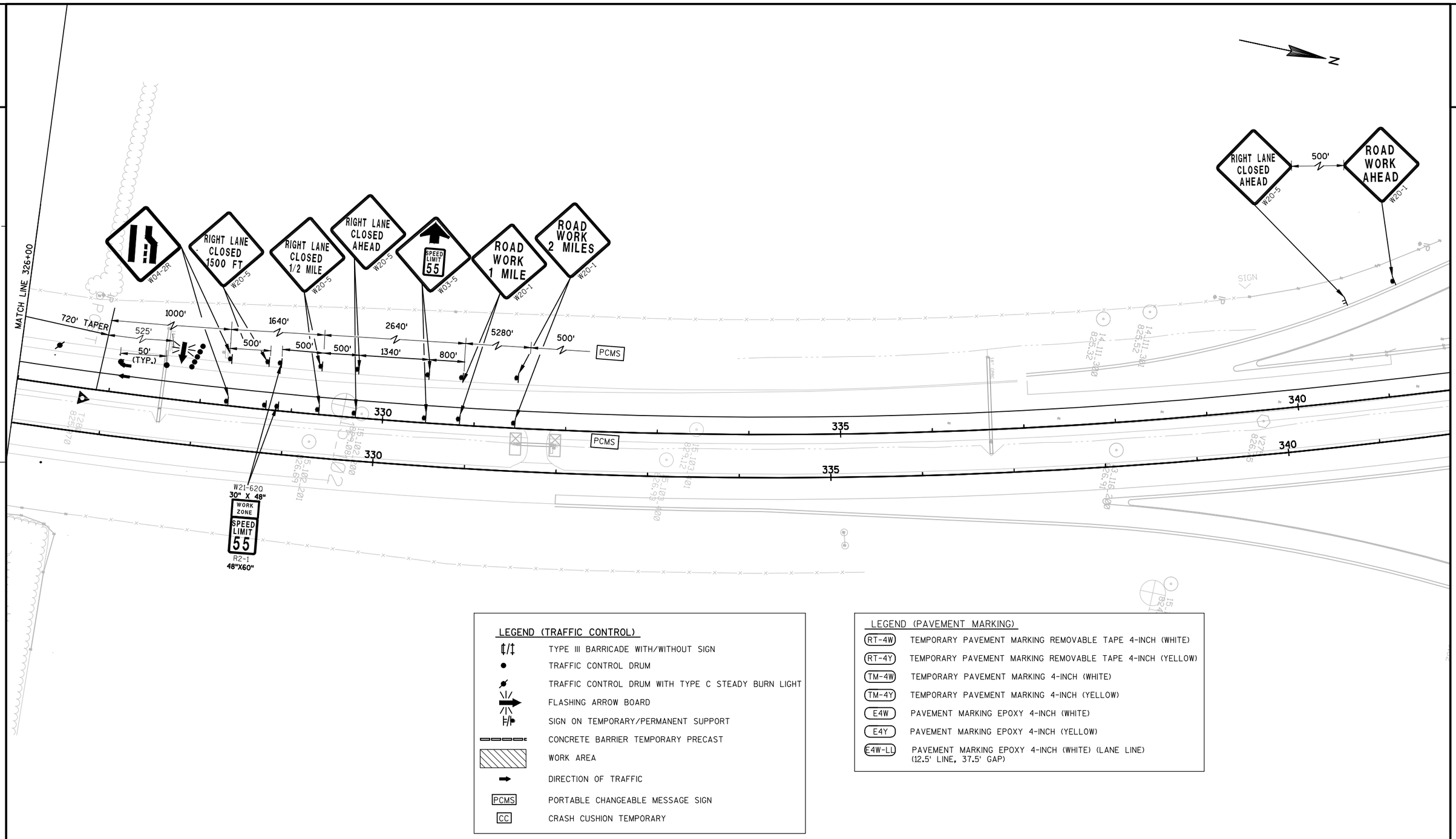


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 4	SHEET 44 E



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 4	SHEET 45	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S4_.DWG PLOT DATE : 10/30/2015 12:16 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF



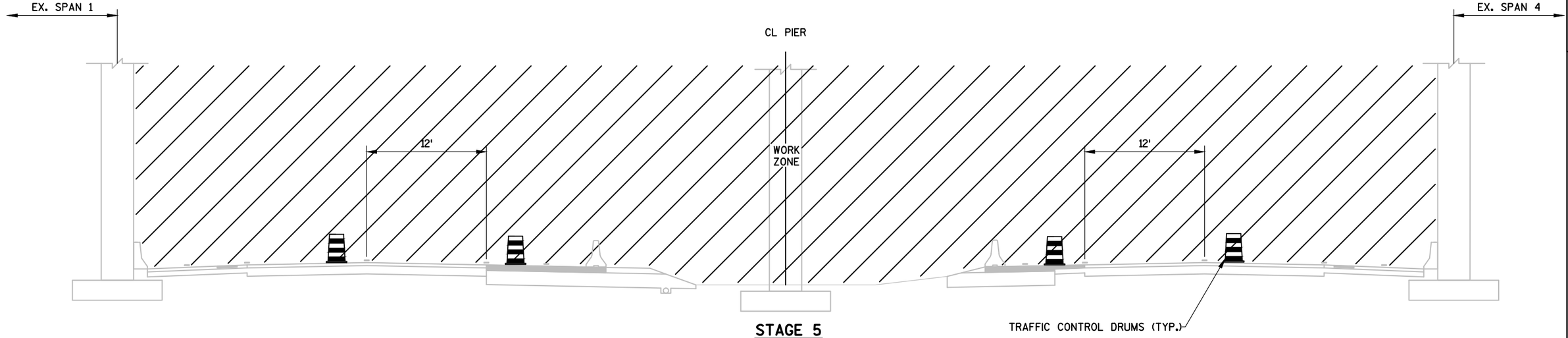
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

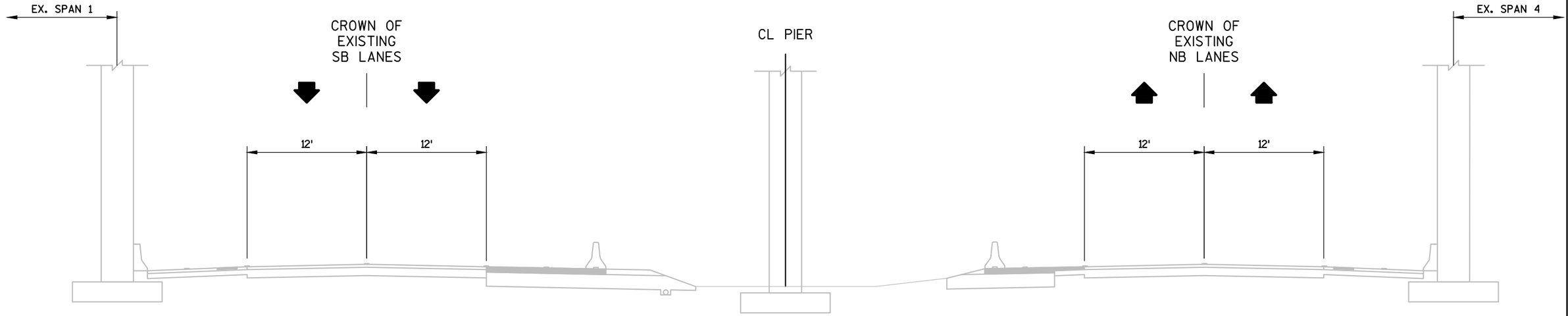
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 4	SHEET 46	E



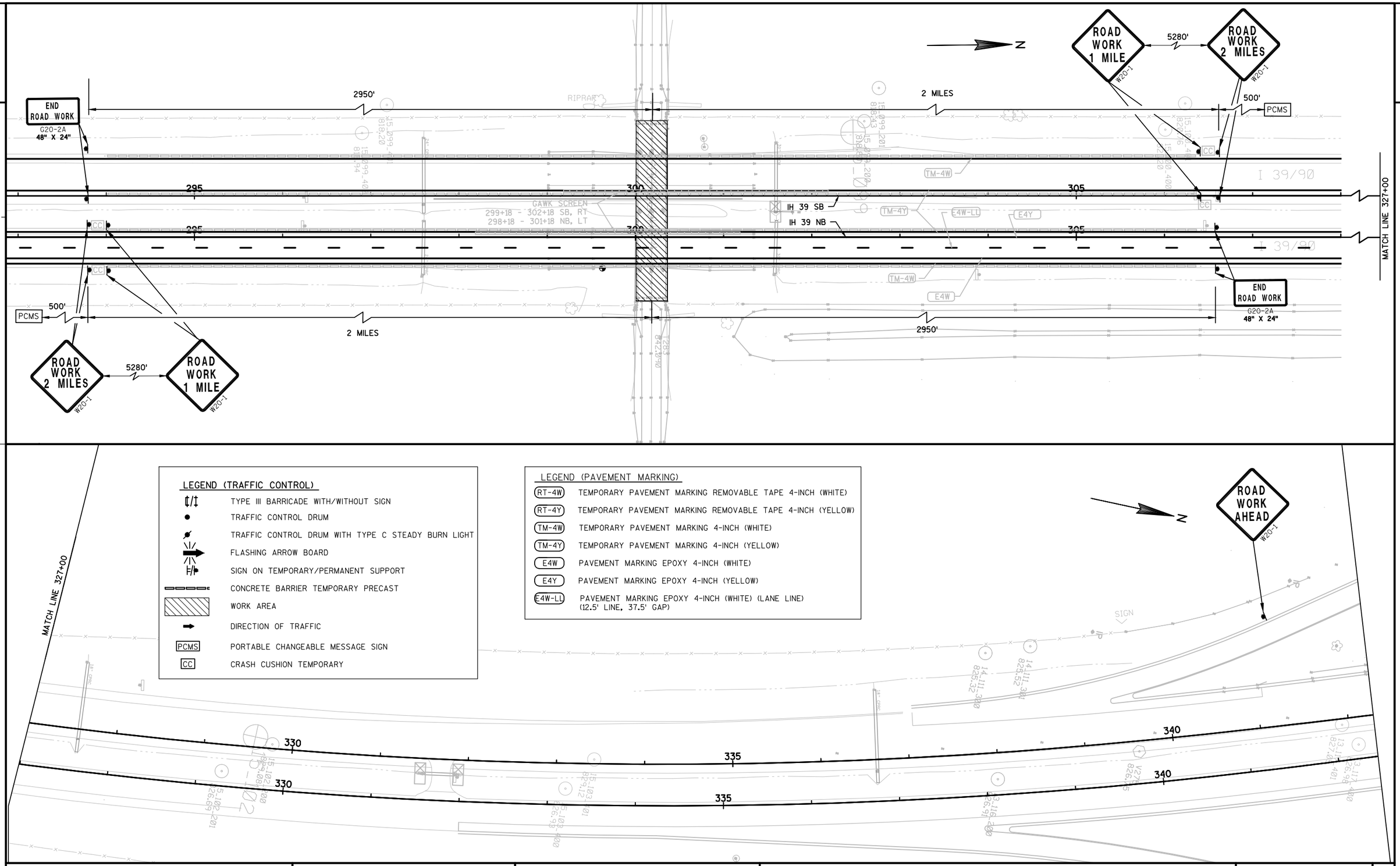
STAGE 5
(NIGHTTIME OPERATION)

CONSTRUCTION
CONCRETE GIRDER REMOVAL

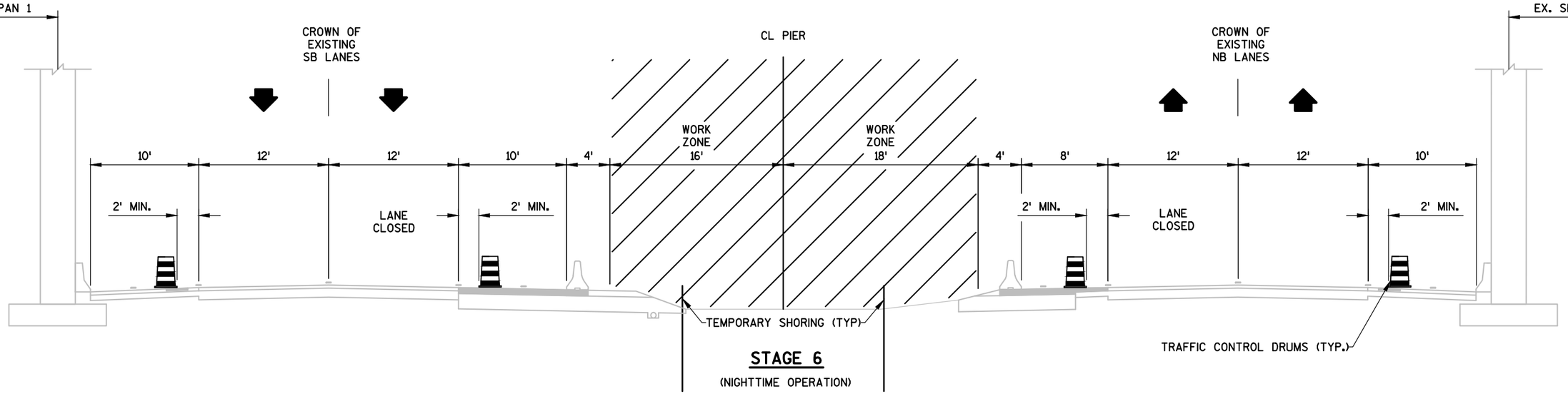


STAGE 5
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 47	E

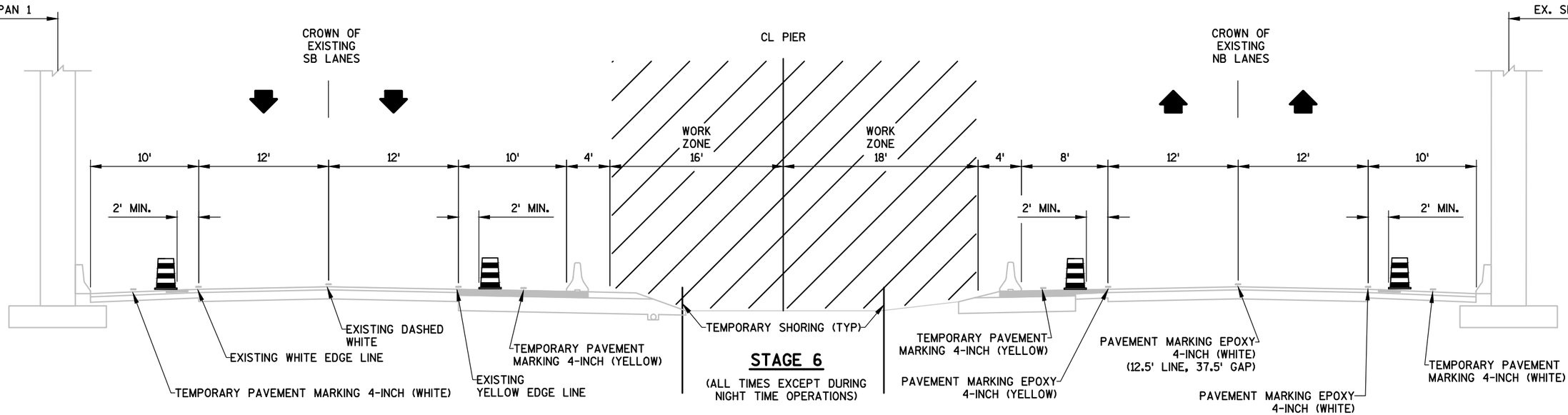


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 5	SHEET 48	E



CONSTRUCTION

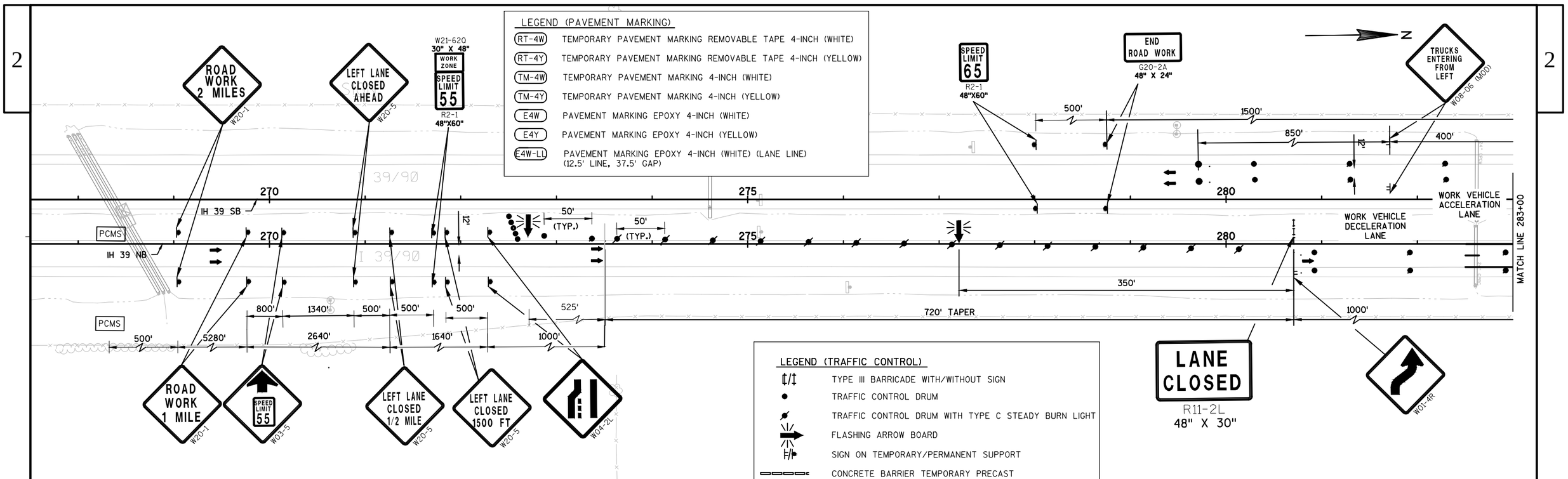
BRIDGE PIER REMOVAL (MIDDLE PIER)
BRIDGE FOOTING REMOVAL (MIDDLE FOOTING)
INSTALL TEMPORARY SHORING



CONSTRUCTION

BRIDGE PIER REMOVAL (MIDDLE PIER)
BRIDGE FOOTING REMOVAL (MIDDLE FOOTING)
INSTALL TEMPORARY SHORING

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 49	E



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 6	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S6_.DWG PLOT DATE : 10/30/2015 12:22 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2

GAWK SCREEN
299+18 - 302+18 SB, RT
298+18 - 301+18 NB, LT

620' WORK ZONE
100' (TYP.)
620' WORK ZONE
300
305
TEMPORARY SHORING
IH 39 SB
IH 39 NB
305
310
310
MATCH LINE 297+00
100' (TYP.)
620' WORK ZONE
620' WORK ZONE
500'
330'
MATCH LINE 312+00

LANE CLOSED
R11-2L
48" X 30"
500'
250'
330'
12'
CC
TM-4W
TM-4Y
E4W-LL
E4Y
12'
12'
TM-4W
E4W

LANE CLOSED
R11-2L
48" X 30"

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

N

LANE CLOSED
R11-2L
48" X 30"
1000'
12'
330'
720' TAPER
350'
315
320
325
WORK VEHICLE DECELERATION LANE
IH 39 SB
IH 39 NB
315
320
325
WORK VEHICLE ACCELERATION LANE
100' (TYP.)
12'
MATCH LINE 312+00
MATCH LINE 326+00
400'
850'
330'
1500'
500'
GPS
TRUCKS ENTERING FROM LEFT
W08-06 (MOD)
END ROAD WORK
G20-2A
48" X 24"
SIGN
SPEED LIMIT 65
R2-1
48"X60"
QUARRY

N

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 6	SHEET 51	E

2

N

MATCH LINE 326+00

W04-2L

LEFT LANE CLOSED 1500 FT W20-5

LEFT LANE CLOSED 1/2 MILE W20-5

LEFT LANE CLOSED AHEAD W20-5

SPEED LIMIT 55 W03-5

ROAD WORK 1 MILE W20-1

ROAD WORK 2 MILES W20-1

720' TAPER

525'

1000'

1640'

2640'

5280'

500'

500'

500'

500'

1340'

800'

500'

50' (TYP.)

PCMS

PCMS

IH 39 SB

IH 39 NB

330

330

335

335

340

340

W21-62Q
30" X 48"
WORK ZONE
SPEED LIMIT 55
R2-1
48"X60"

LEFT LANE CLOSED AHEAD W20-5

500'

ROAD WORK AHEAD W20-1

SIGN

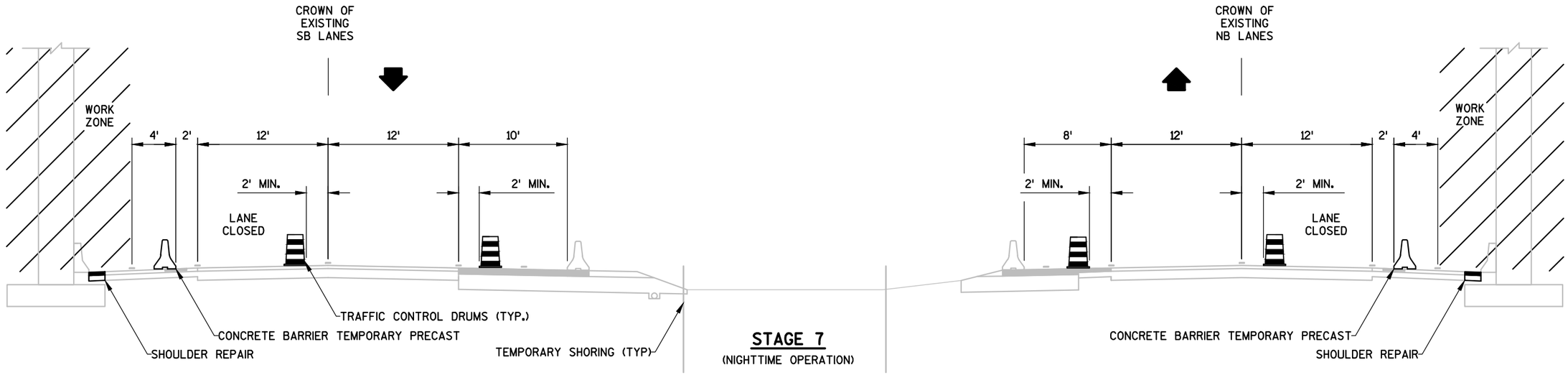
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

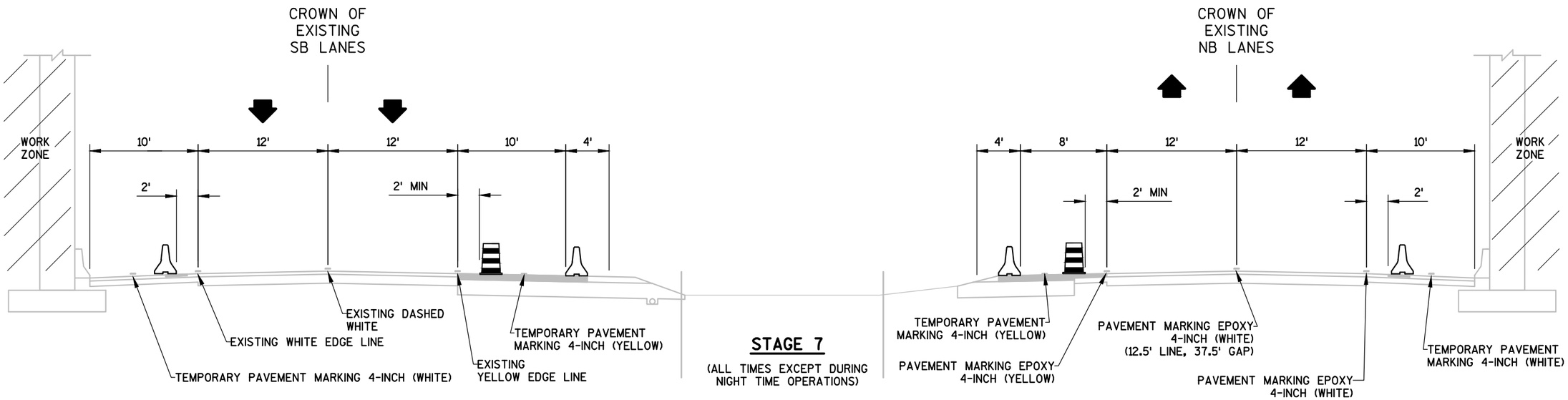
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 6	SHEET 52	E



STAGE 7
(NIGHTTIME OPERATION)

CONSTRUCTION

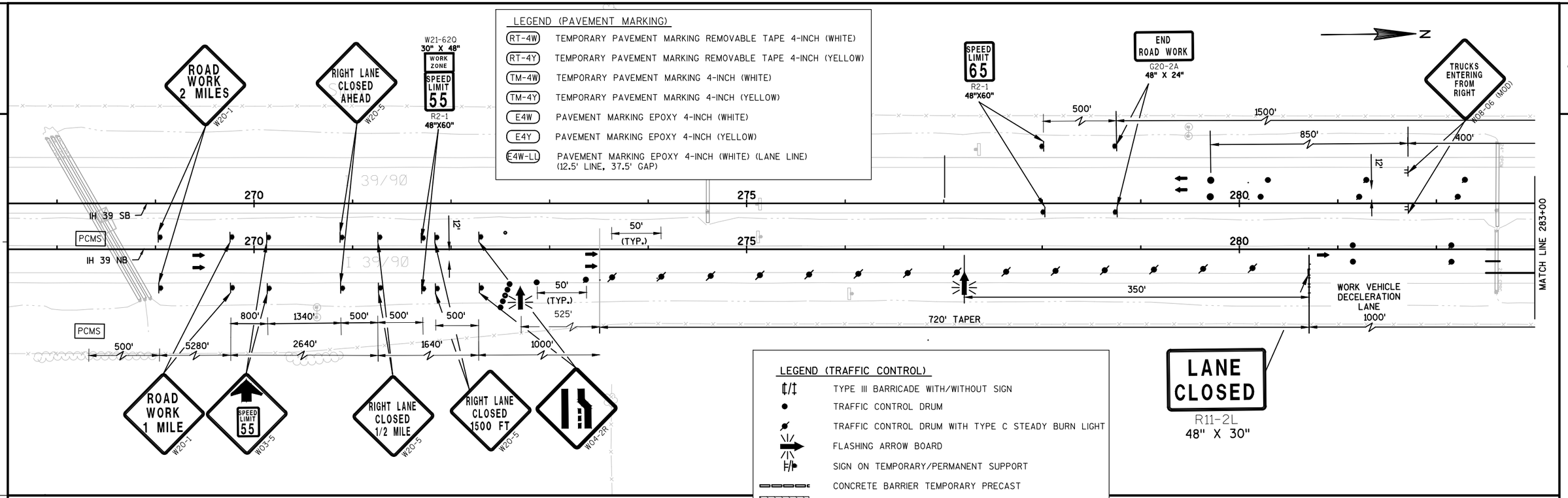
PLACE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)
REMOVE OUTSIDE DECK, GIRDERS, PIERS, BARRIER, FOOTINGS, AND ABUTMENTS
PLACE BASE AGGREGATE DENSE & HMA PAVEMENT FOR SHOULDER REPAIR (OUTSIDE)



STAGE 7
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET ---	E

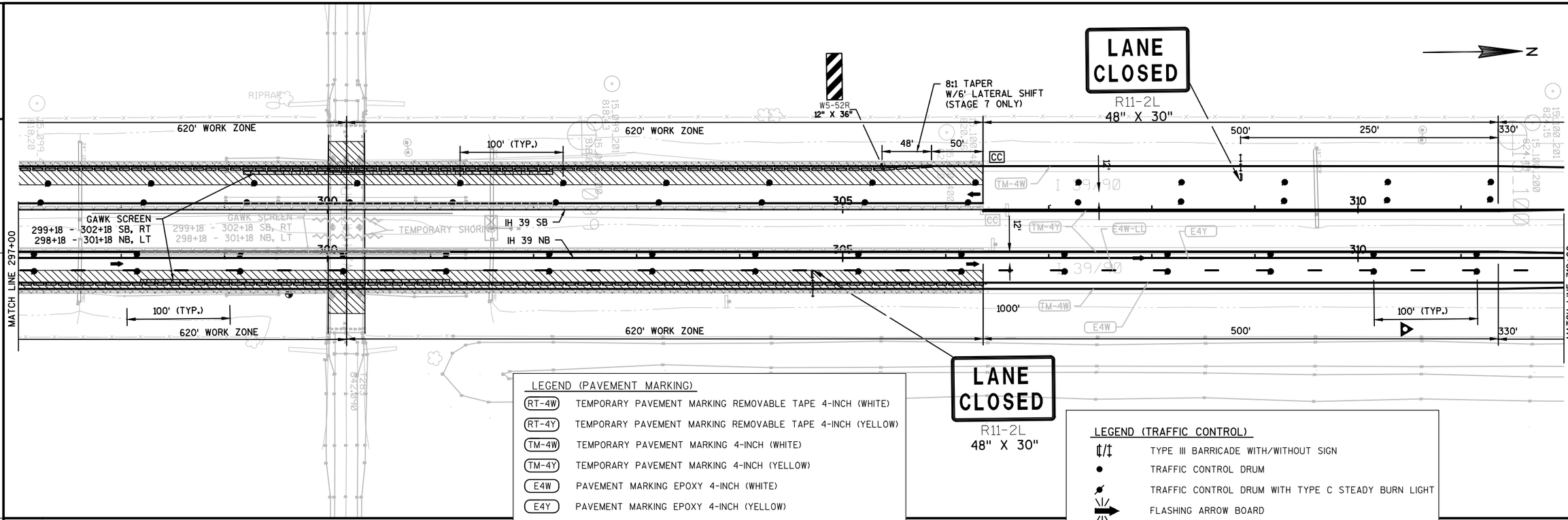
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD ... SHEET 42



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 7	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S7_.DWG PLOT DATE : 10/30/2015 12:23 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2

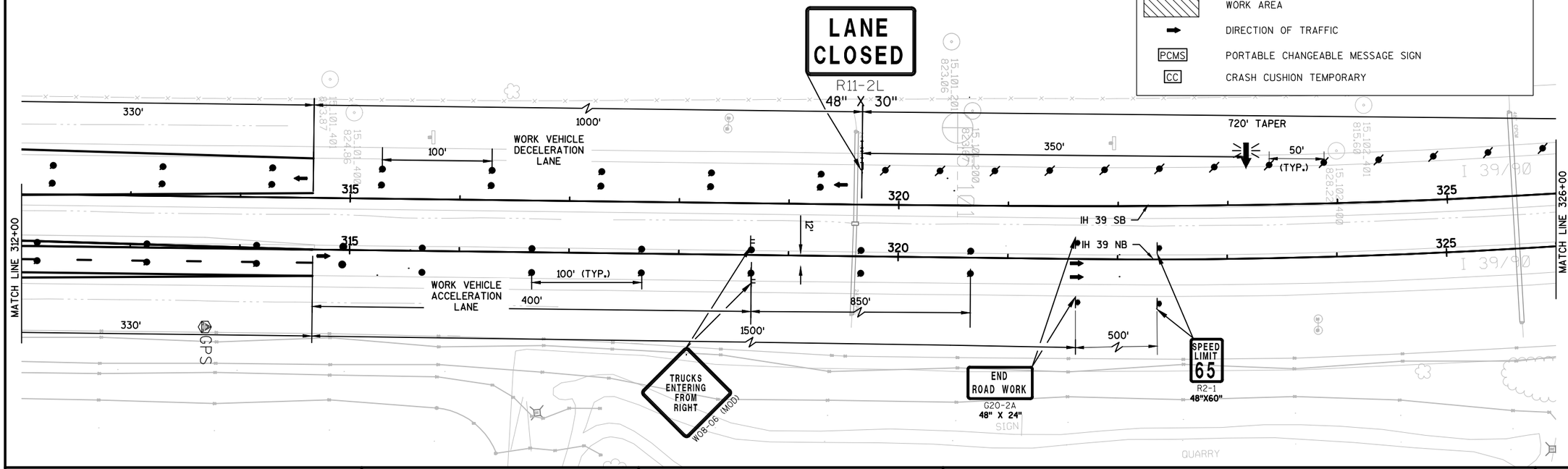


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

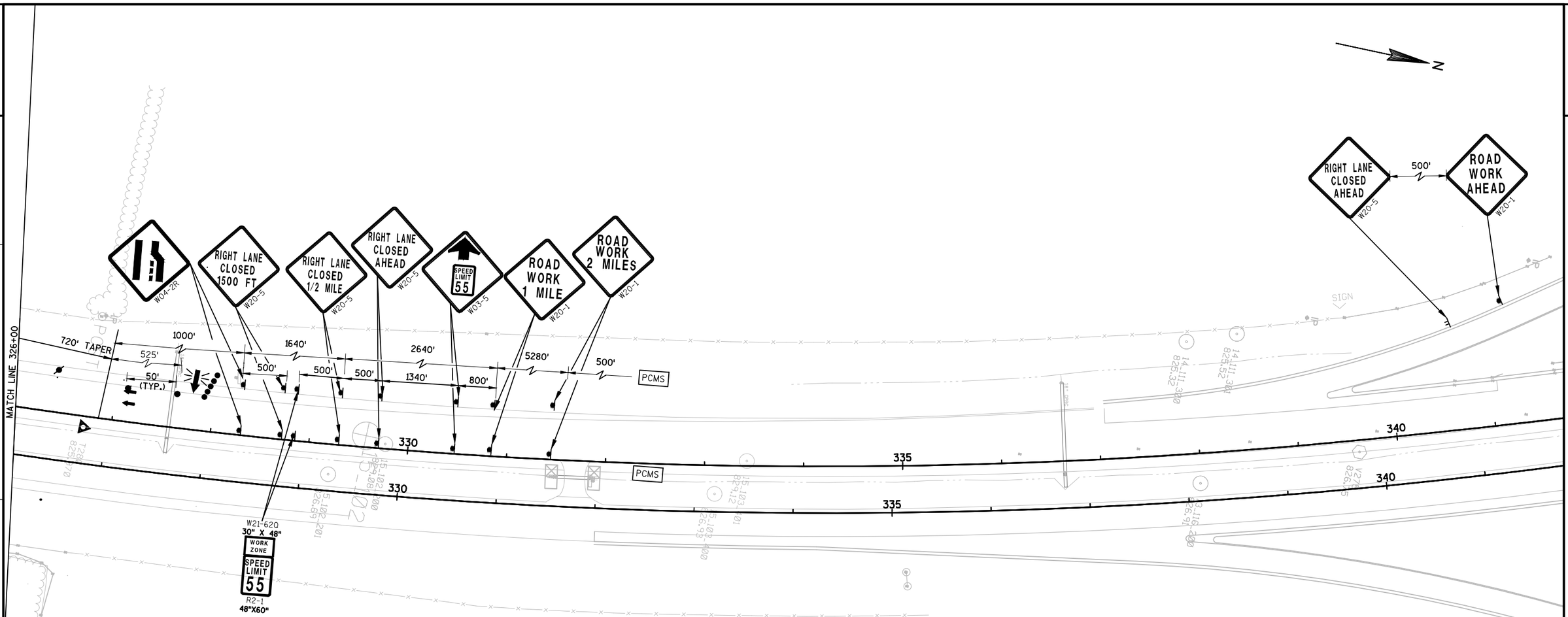
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 7	SHEET 55	E

2



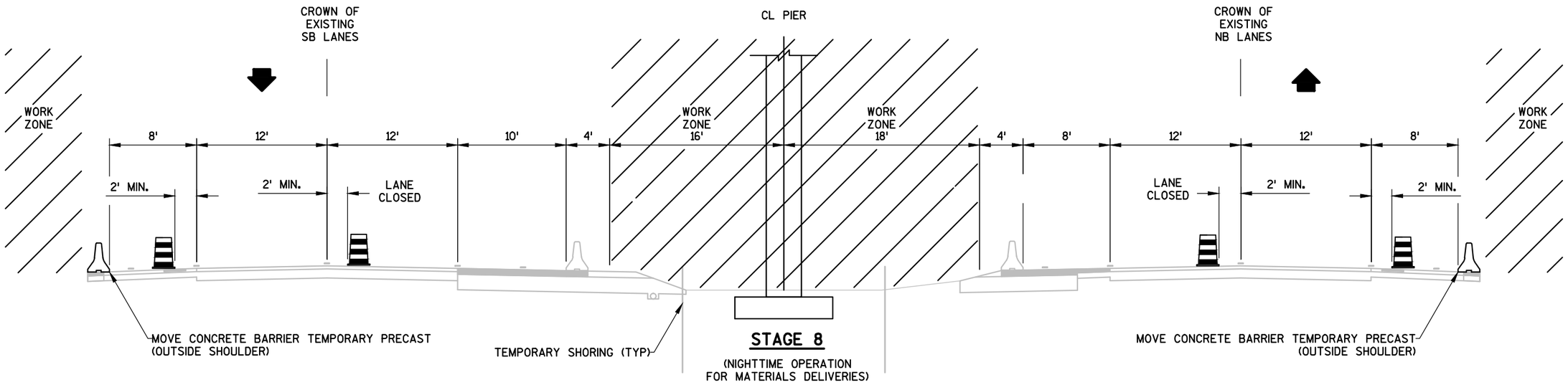
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 7	SHEET 56	E

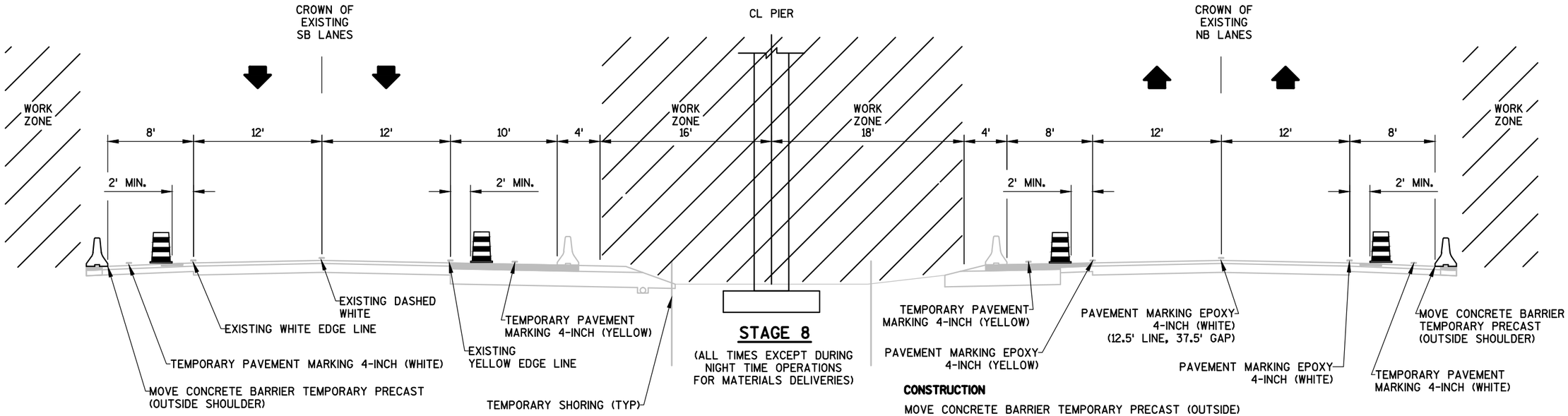


STAGE 8

(NIGHTTIME OPERATION FOR MATERIALS DELIVERIES)

CONSTRUCTION

MOVE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)
MEDIAN PIER CONSTRUCTION
ABUTMENT CONSTRUCTION
REMOVE TEMPORARY SHORING



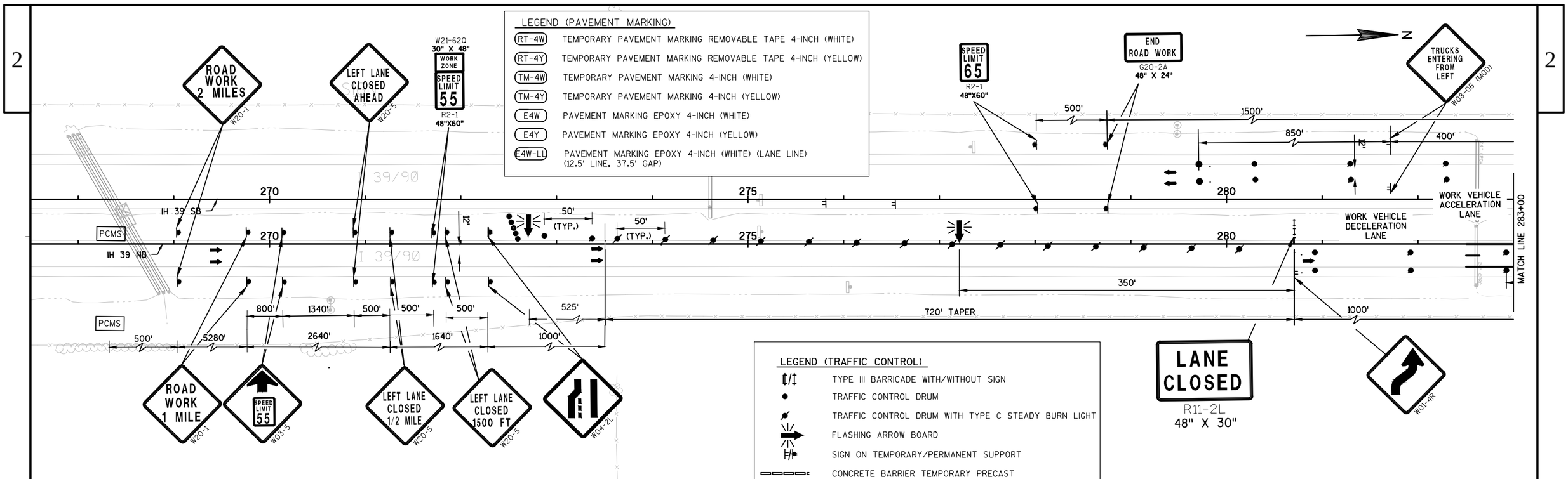
STAGE 8

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS FOR MATERIALS DELIVERIES)

CONSTRUCTION

MOVE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE)
MEDIAN PIER CONSTRUCTION
ABUTMENT CONSTRUCTION

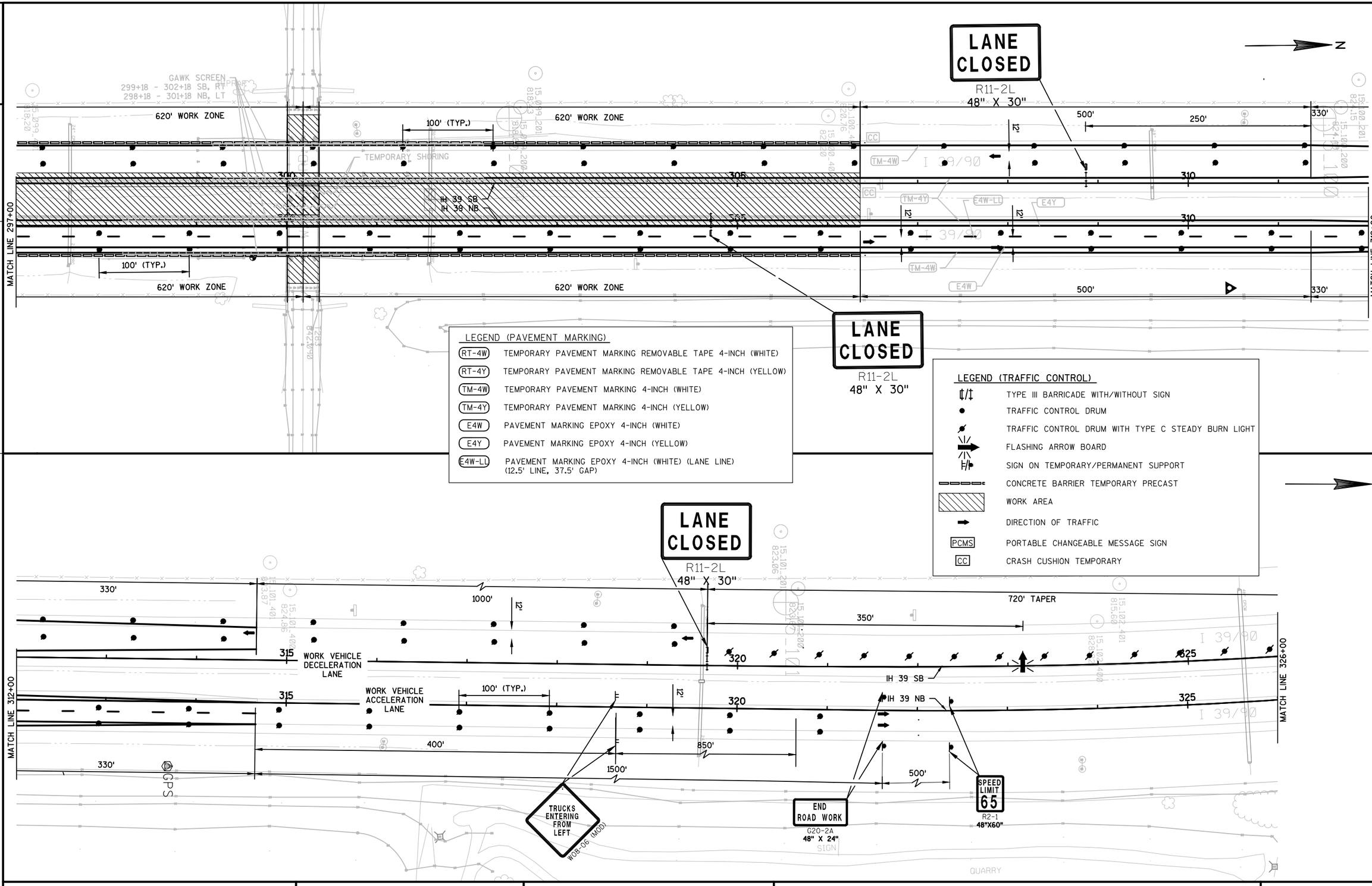
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 57	E



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 8	SHEET E

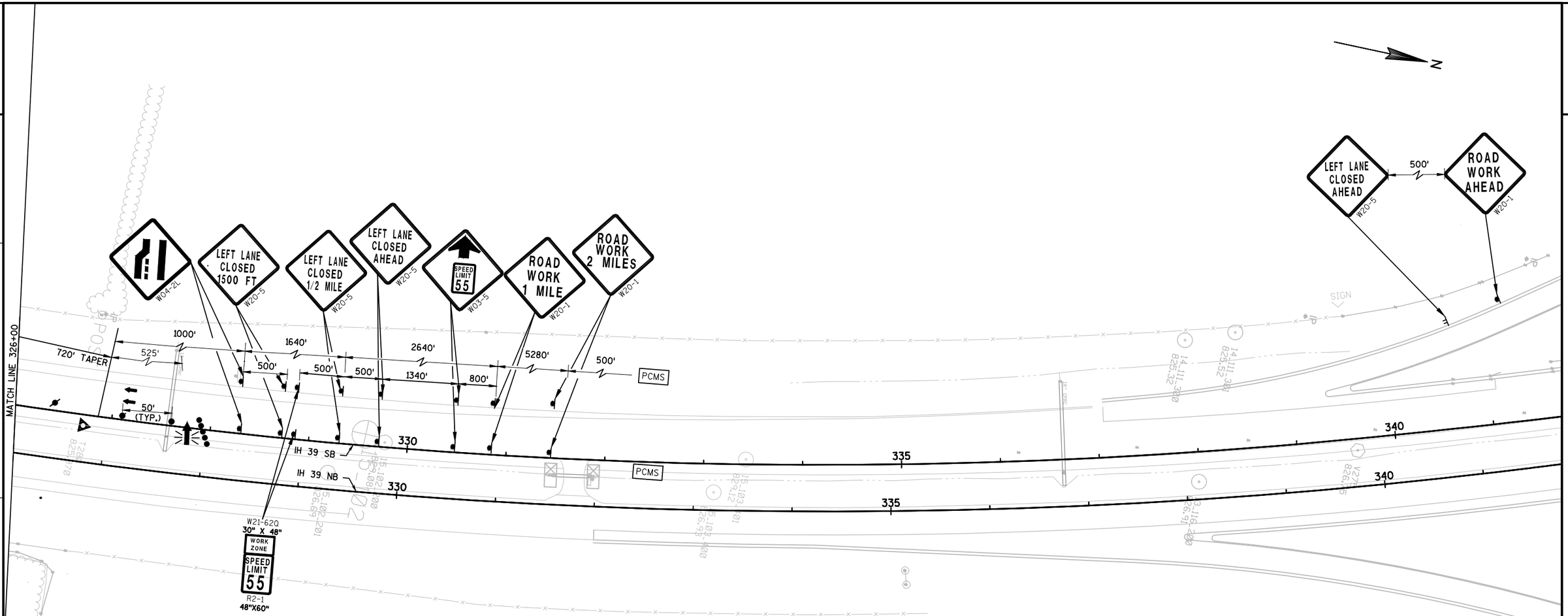
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S8_.DWG PLOT DATE : 10/30/2015 12:25 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 8	SHEET 59	E

2



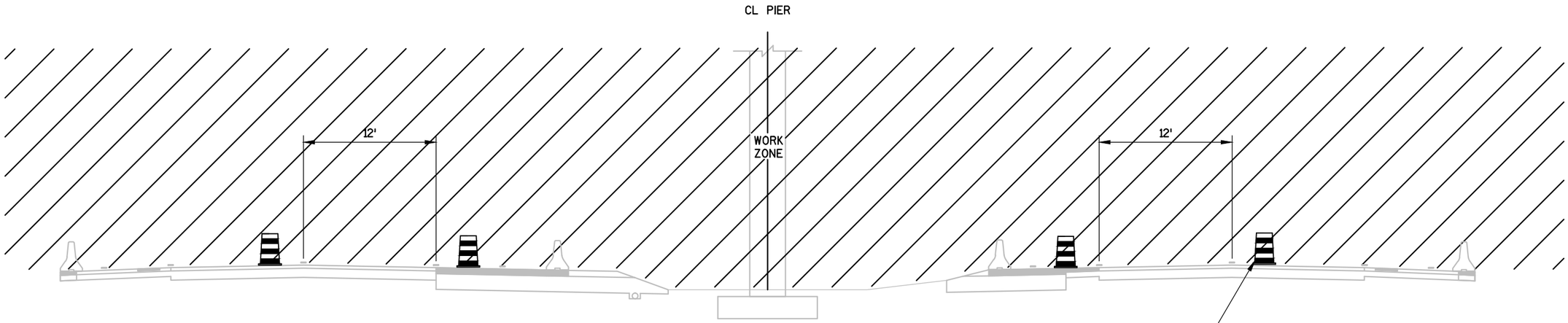
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 8	SHEET 60	E

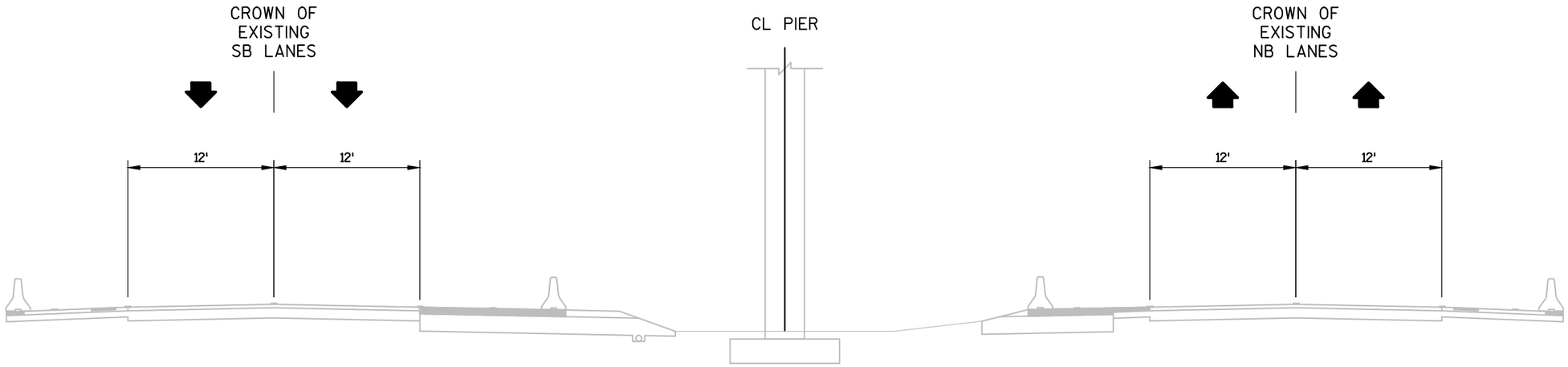


STAGE 9

(NIGHTTIME OPERATION)

CONSTRUCTION

INSTALL CONCRETE GIRDERS



STAGE 9

(ALL TIMES EXCEPT DURING
NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 61	E

2

END ROAD WORK
G20-2A
48" X 24"

2950'

2 MILES

RIPRAP

ROAD WORK 1 MILE
W20-1

5280'

ROAD WORK 2 MILES
W20-1

500'

PCMS

295 300 305

GAWK SCREEN
299+18 - 302+18 SB, RT
298+18 - 301+18 NB, LT

IH 39 SB

IH 39 NB

TM-4W TM-4Y E4W-LL E4Y E4W

I 39/90

CC

MATCH LINE 327+00

PCMS

500'

2 MILES

2950'

ROAD WORK 2 MILES
W20-1

5280'

ROAD WORK 1 MILE
W20-1

END ROAD WORK
G20-2A
48" X 24"

LEGEND (TRAFFIC CONTROL)

- TYPE III BARRICADE WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CC — CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

- RT-4W — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- RT-4Y — TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- TM-4W — TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
- TM-4Y — TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
- E4W — PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- E4Y — PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- E4W-LL — PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

ROAD WORK AHEAD
W20-1

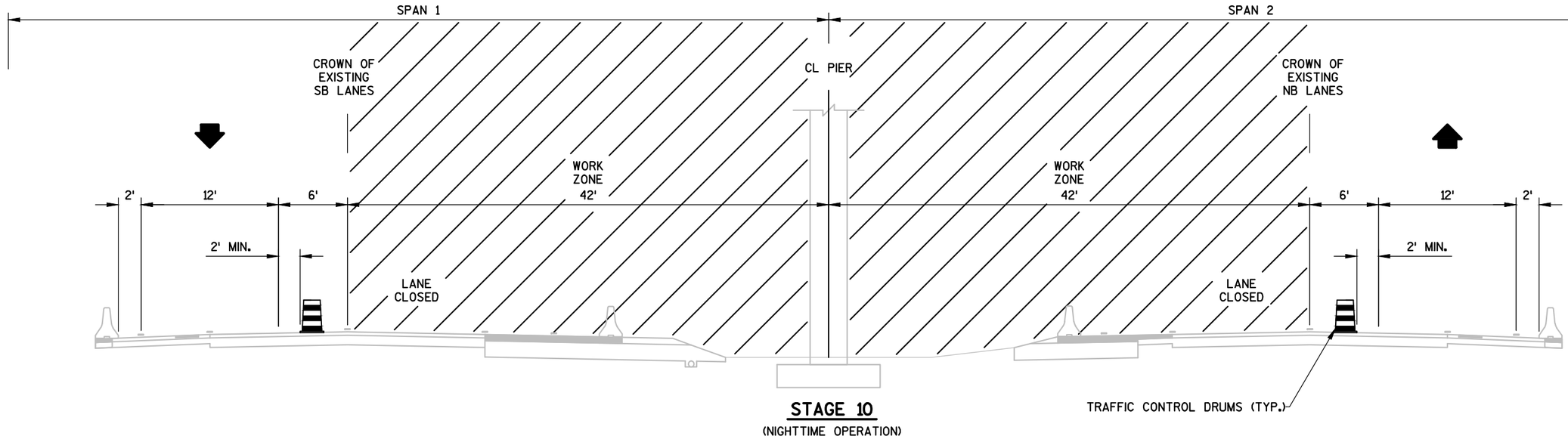
SIGN

MATCH LINE 327+00

330 335 340

330 335 340

PROJECT NO:1003-10-73	HWY:IH 39	COUNTY:ROCK	TRAFFIC CONTROL: STAGE 9	SHEET 62	E

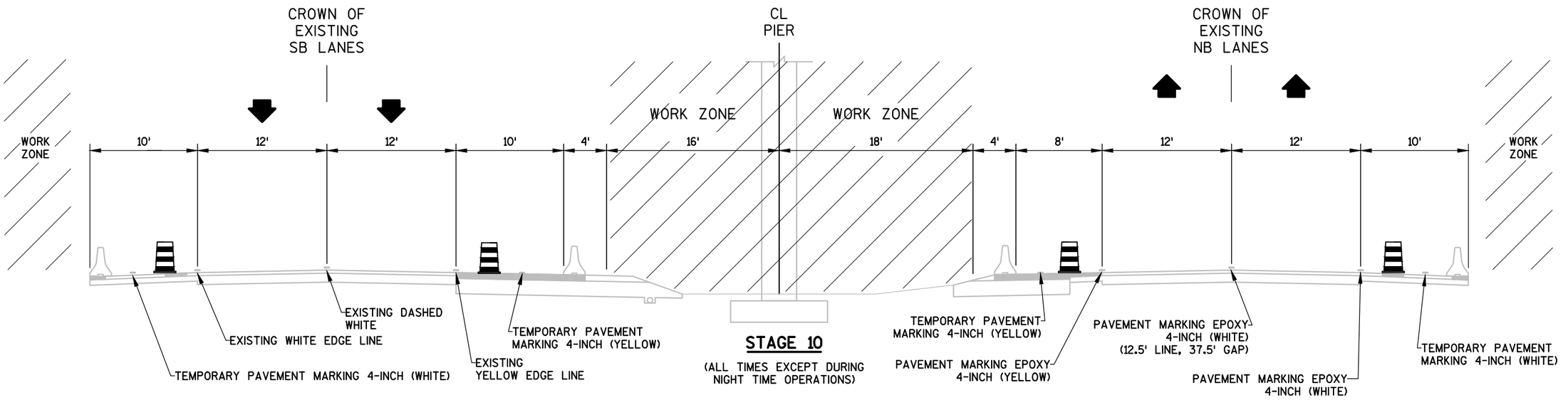


STAGE 10

(NIGHTTIME OPERATION)

CONSTRUCTION

FORM DECK (INSIDE LANES AND MEDIAN)



STAGE 10

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

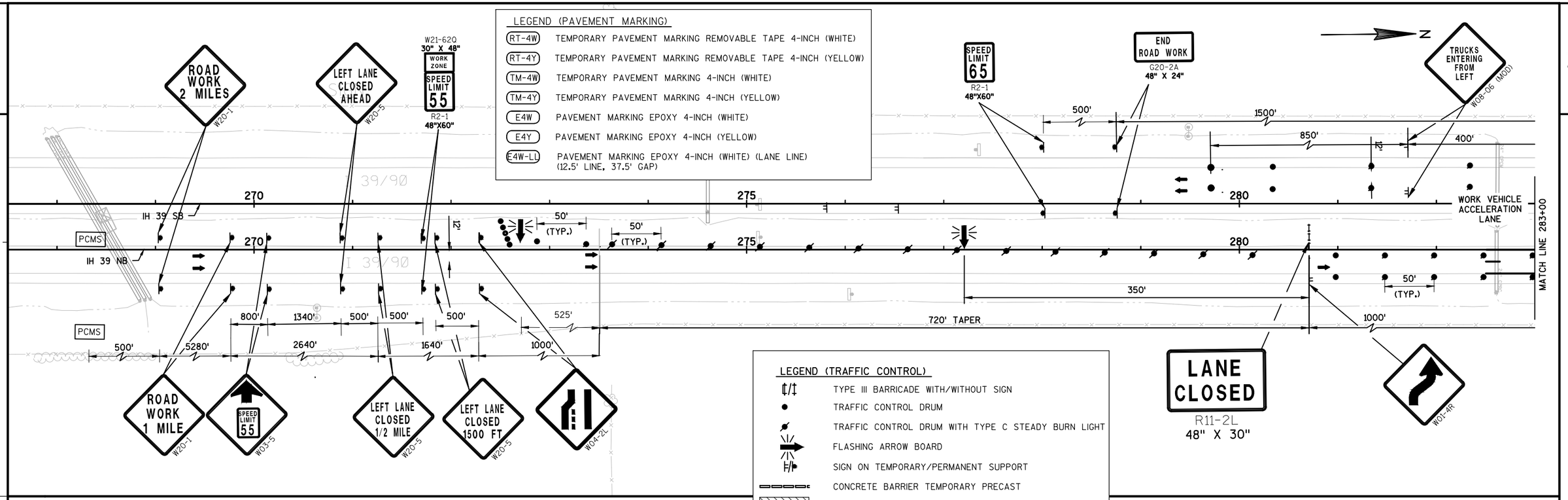
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET ---	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD ... SHEET 42

2

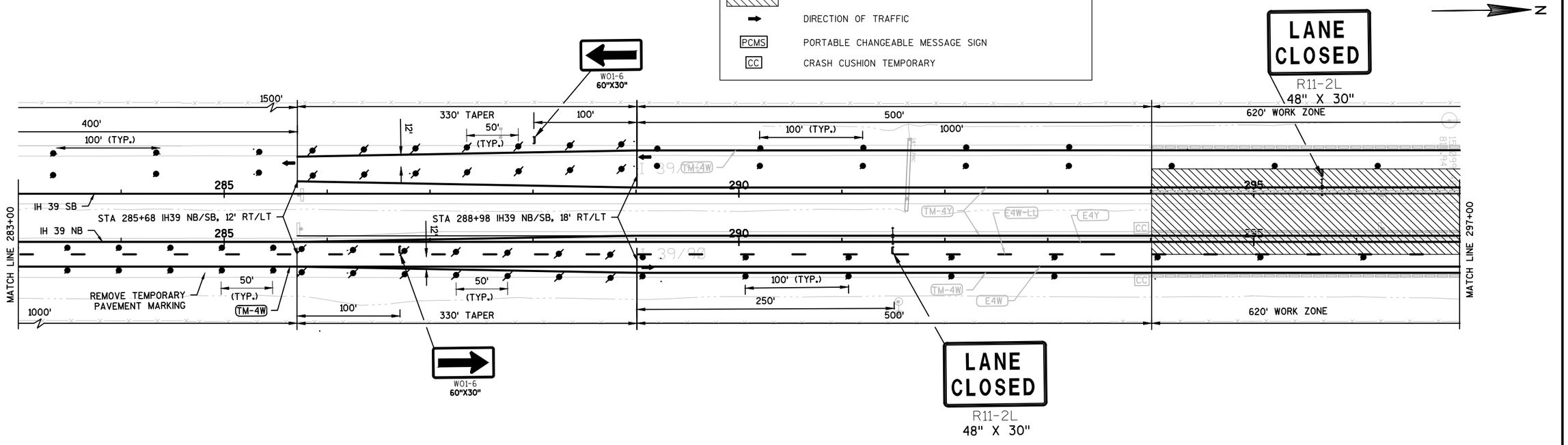
LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



LEGEND (TRAFFIC CONTROL)

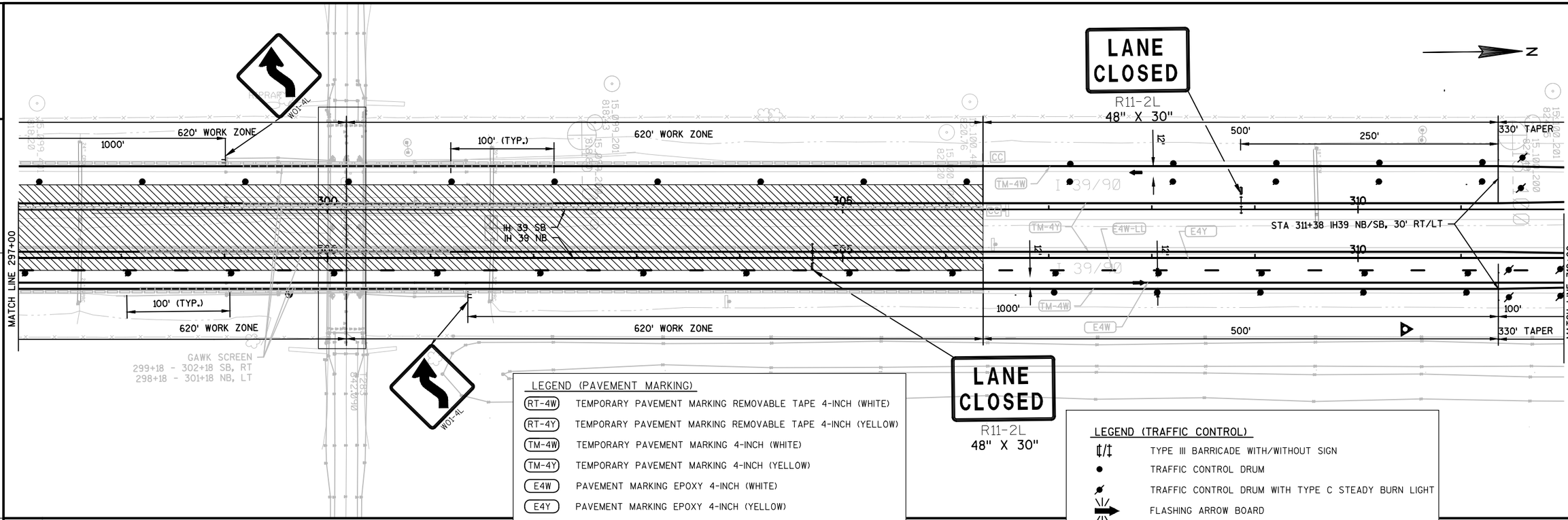
‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 10	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S10_.DWG PLOT DATE : 10/30/2015 12:27 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

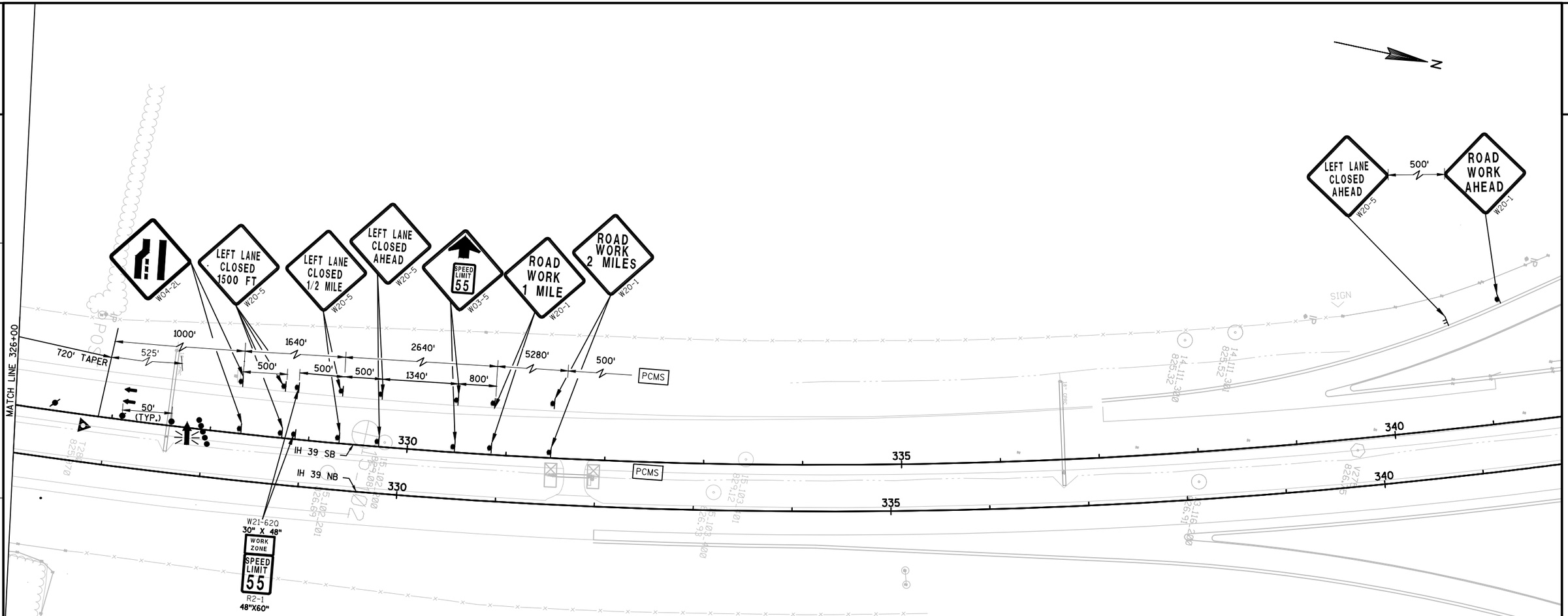
2



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 10	SHEET 65	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S10_.DWG PLOT DATE : 10/30/2015 12:28 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF

2



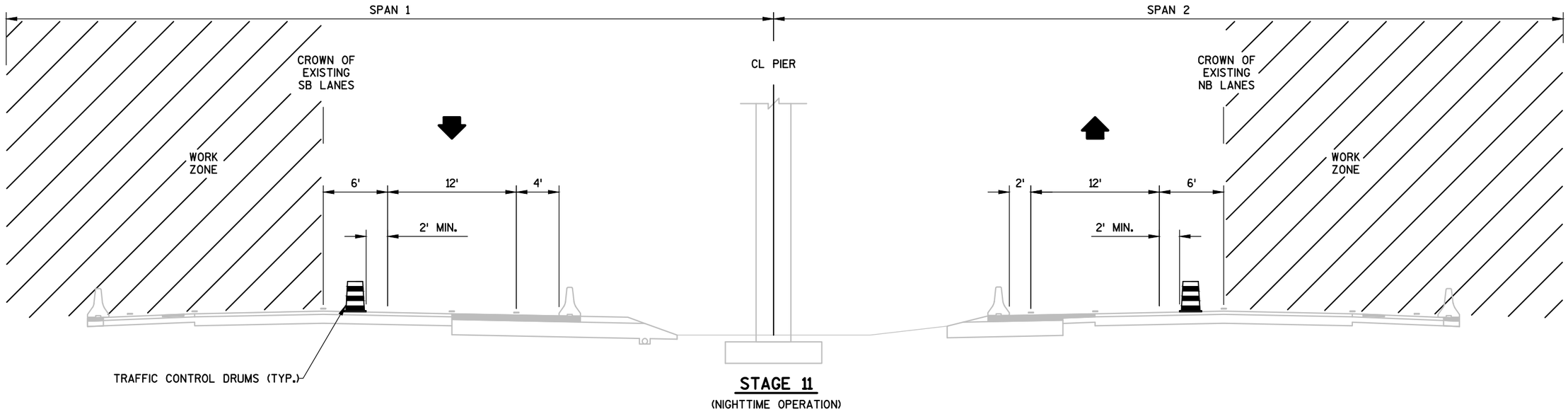
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 10	SHEET 66	E

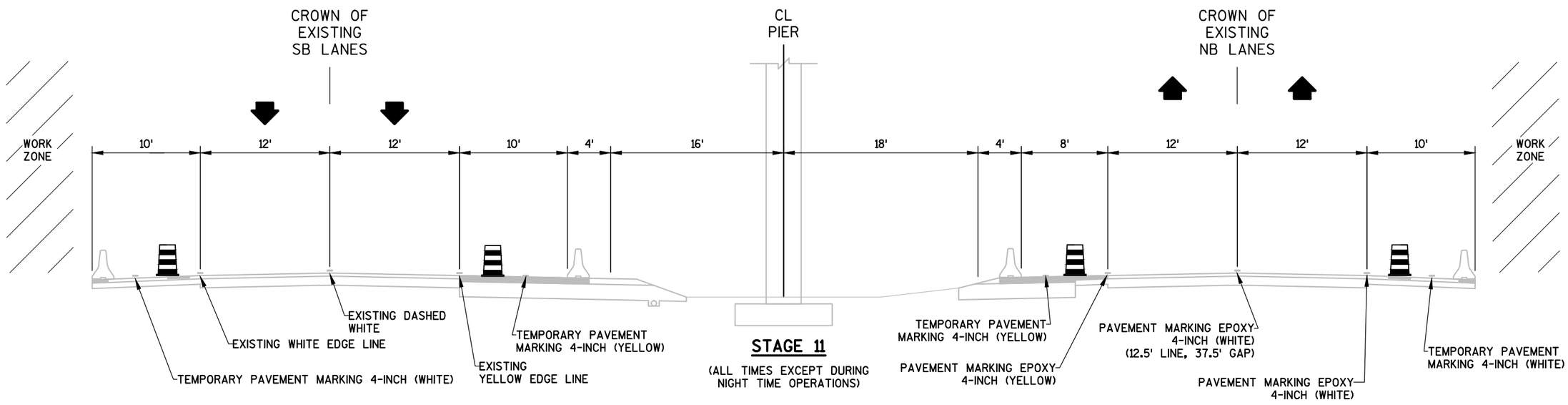


STAGE 11

(NIGHTTIME OPERATION)

CONSTRUCTION

FORM DECK (OUTSIDE LANES)



STAGE 11

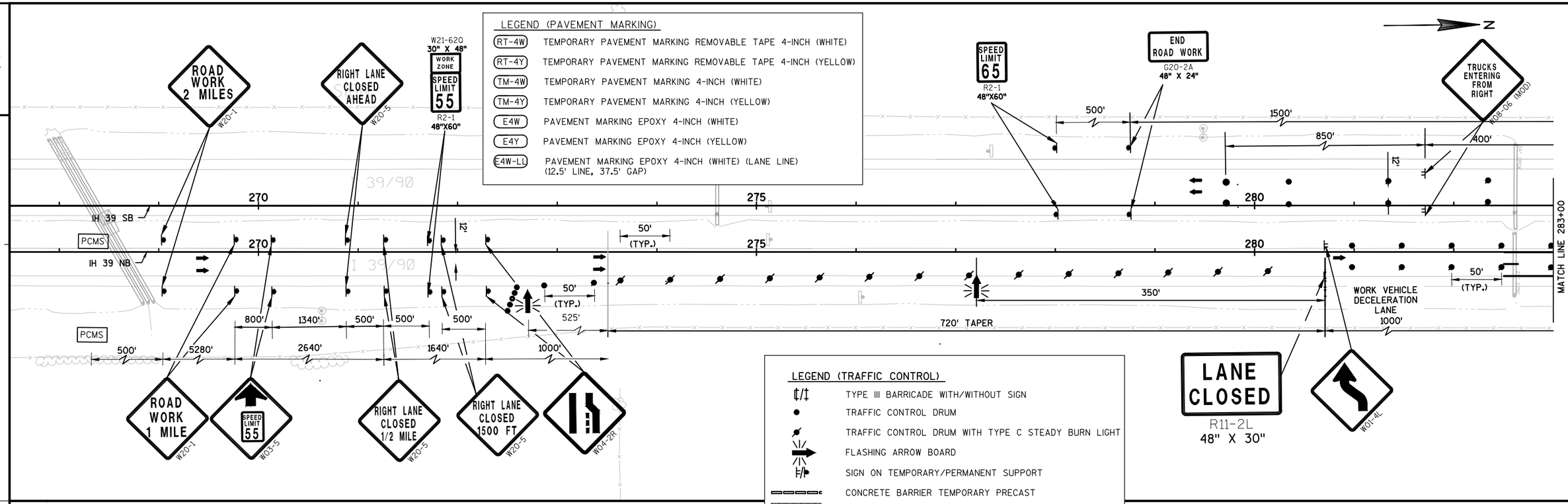
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 67	E

2

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

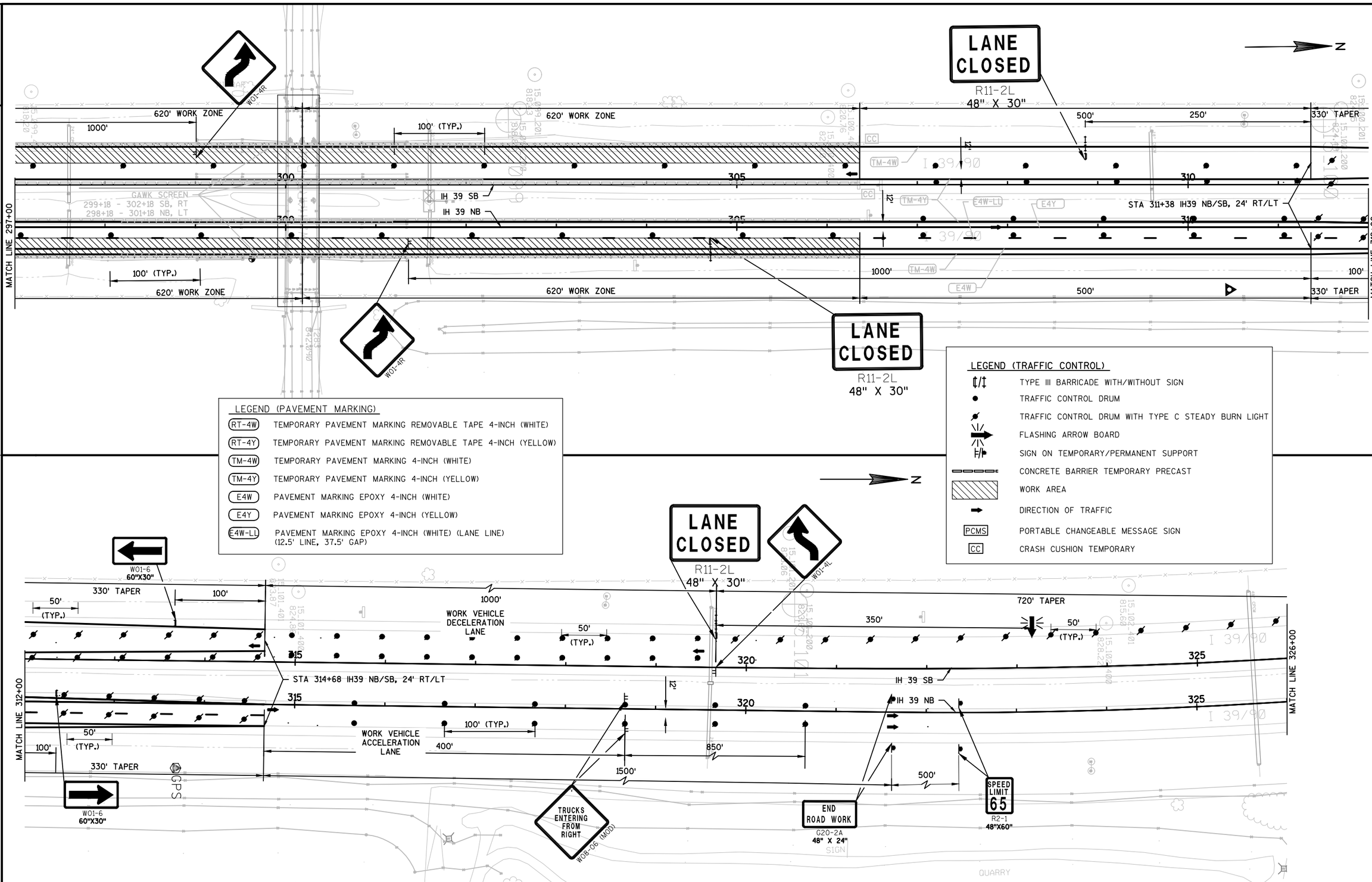


LEGEND (TRAFFIC CONTROL)

↕	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 11	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S11_.DWG PLOT DATE : 10/30/2015 12:29 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND (PAVEMENT MARKING)

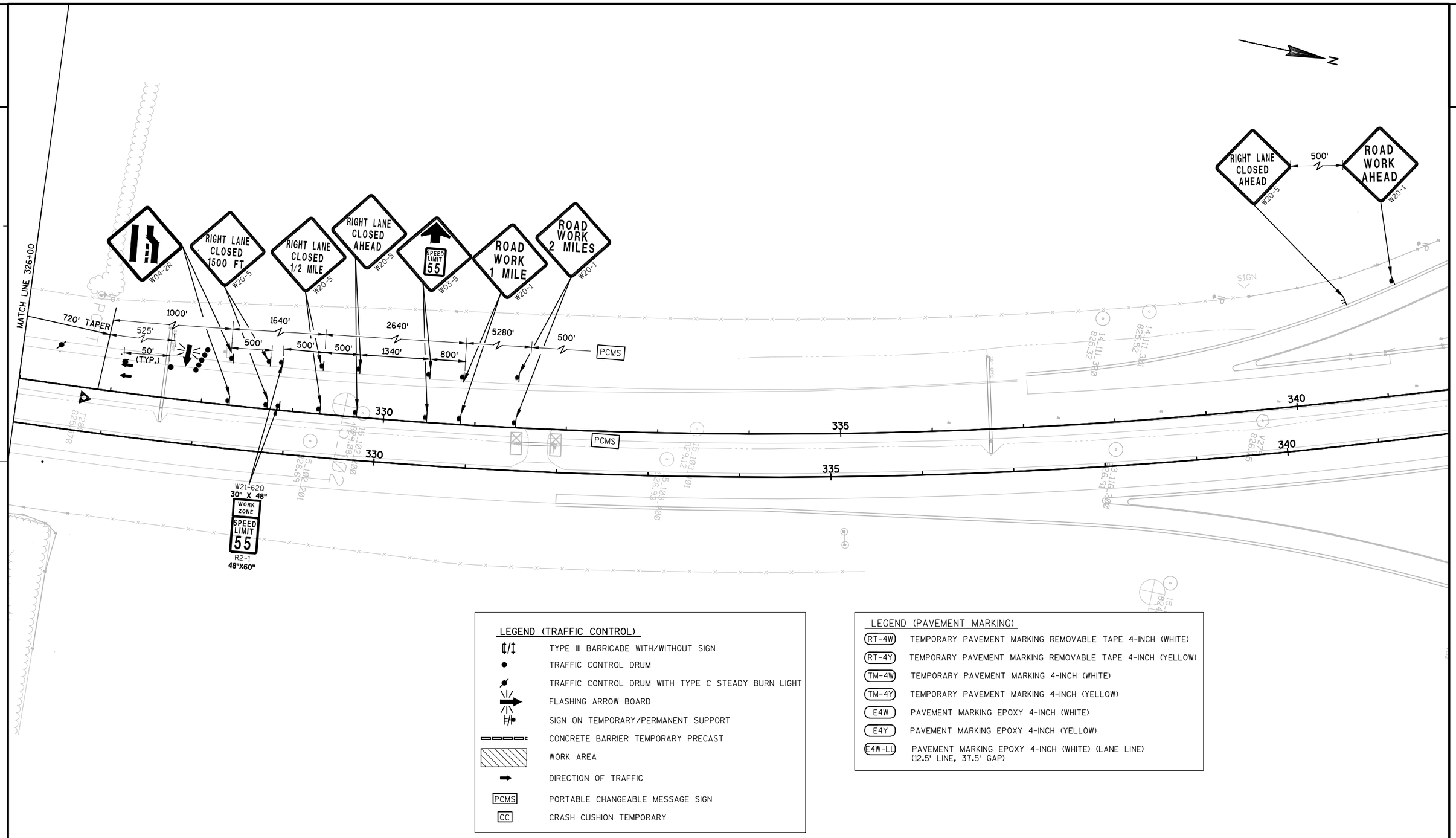
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 11	SHEET 69	E

2



LEGEND (TRAFFIC CONTROL)

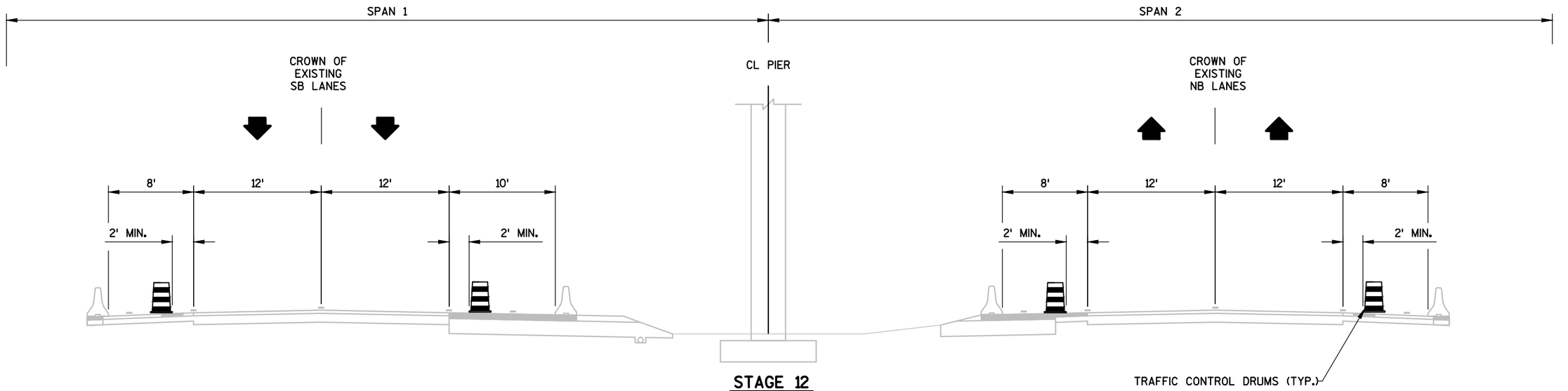
	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 11	SHEET 70	E

2

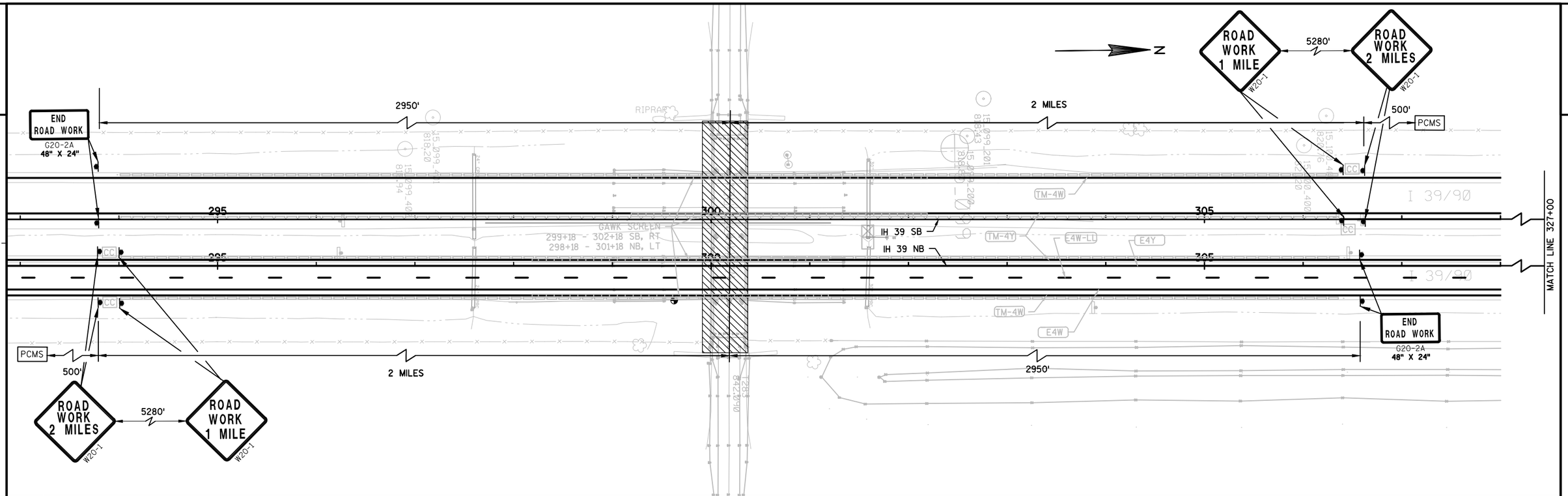


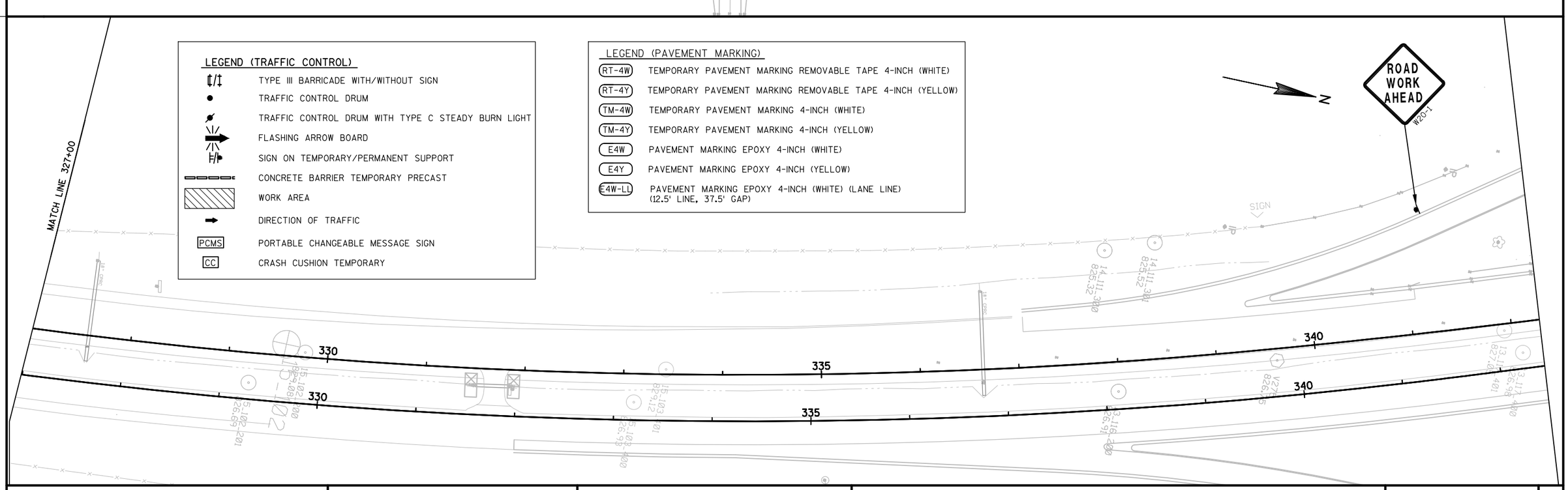
STAGE 12

CONSTRUCTION
PLACE BRIDGE DECK

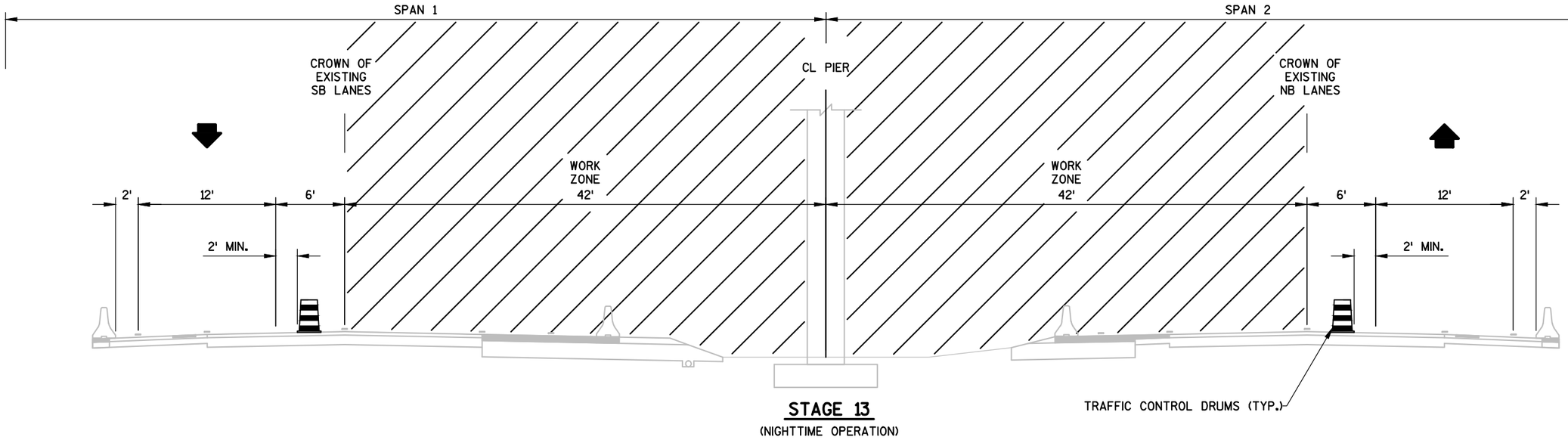
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET --- 71 ---	E

2





PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 12	SHEET 72	E

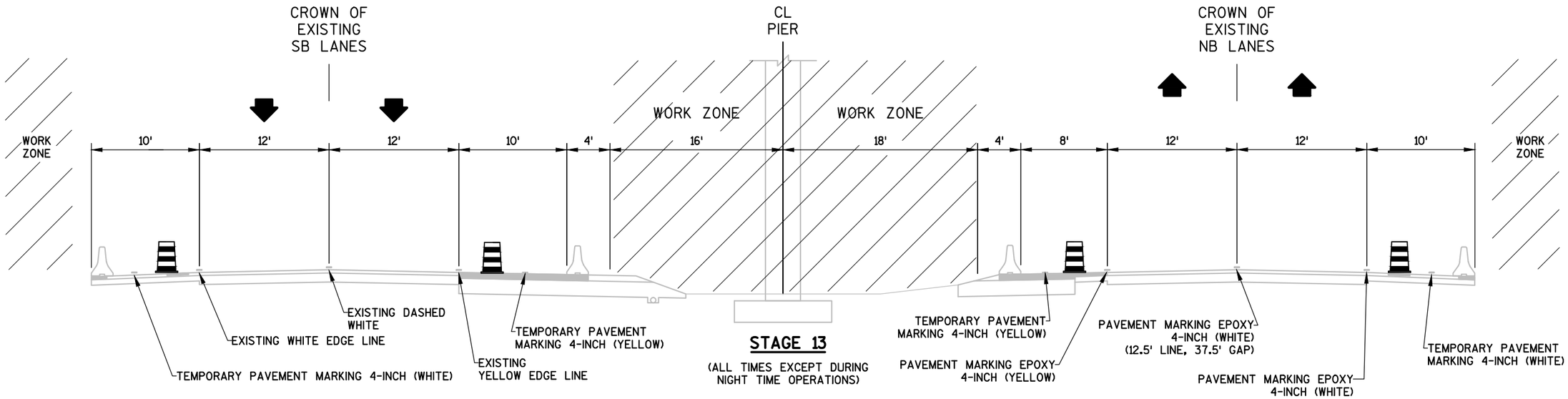


STAGE 13

(NIGHTTIME OPERATION)

CONSTRUCTION

FORM AND FALSEWORK STRIPPING (INSIDE LANES AND MEDIAN)



STAGE 13

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

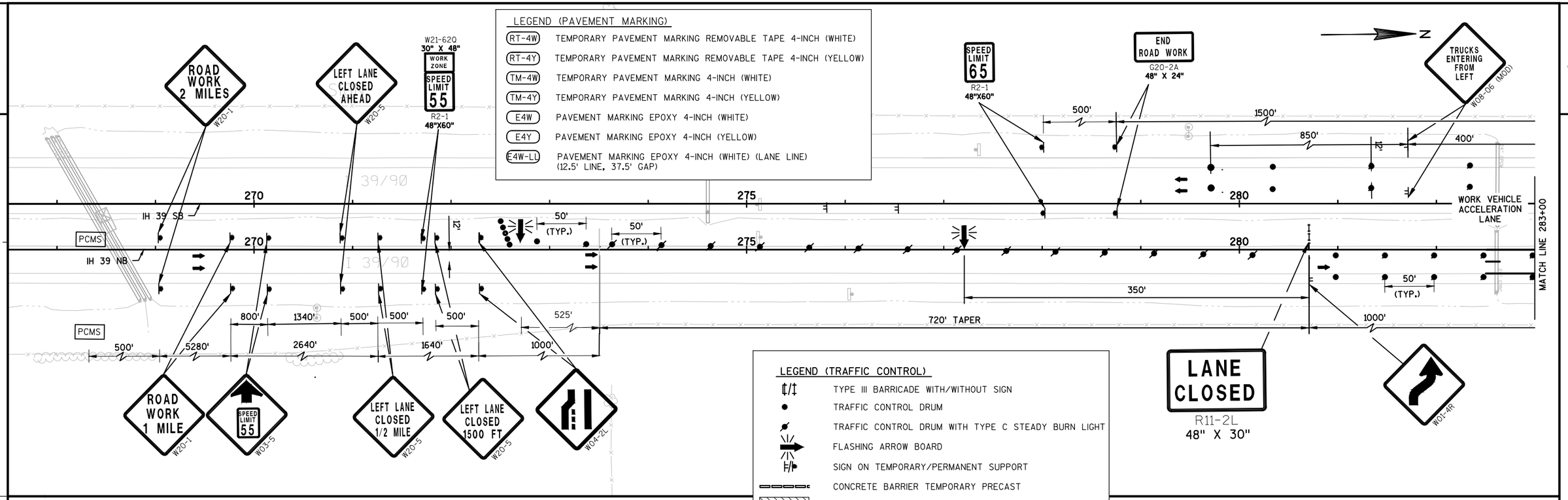
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD

2

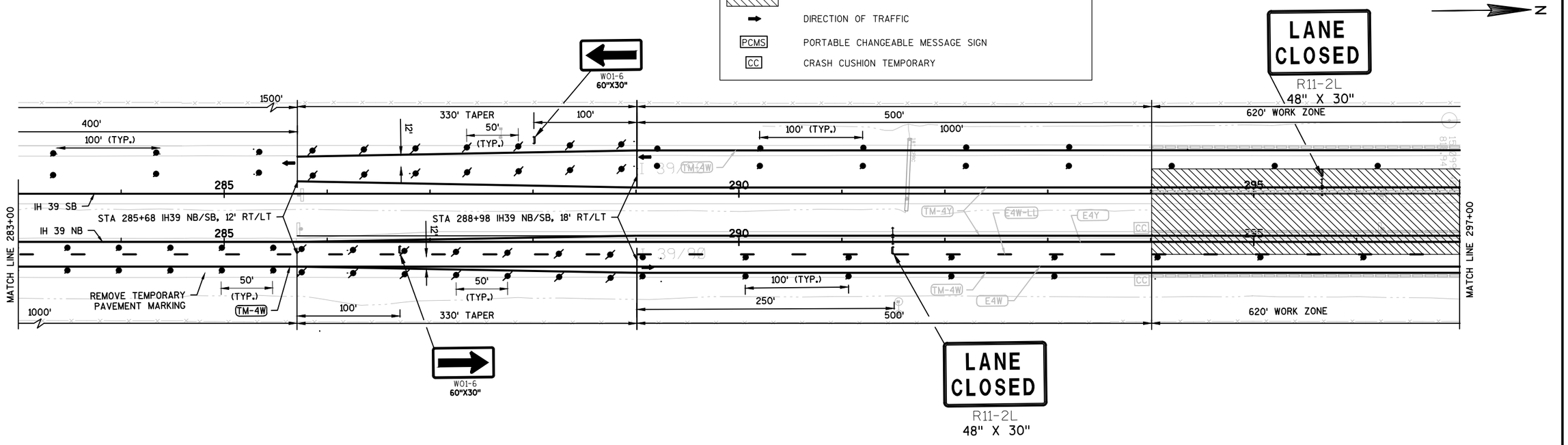
LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



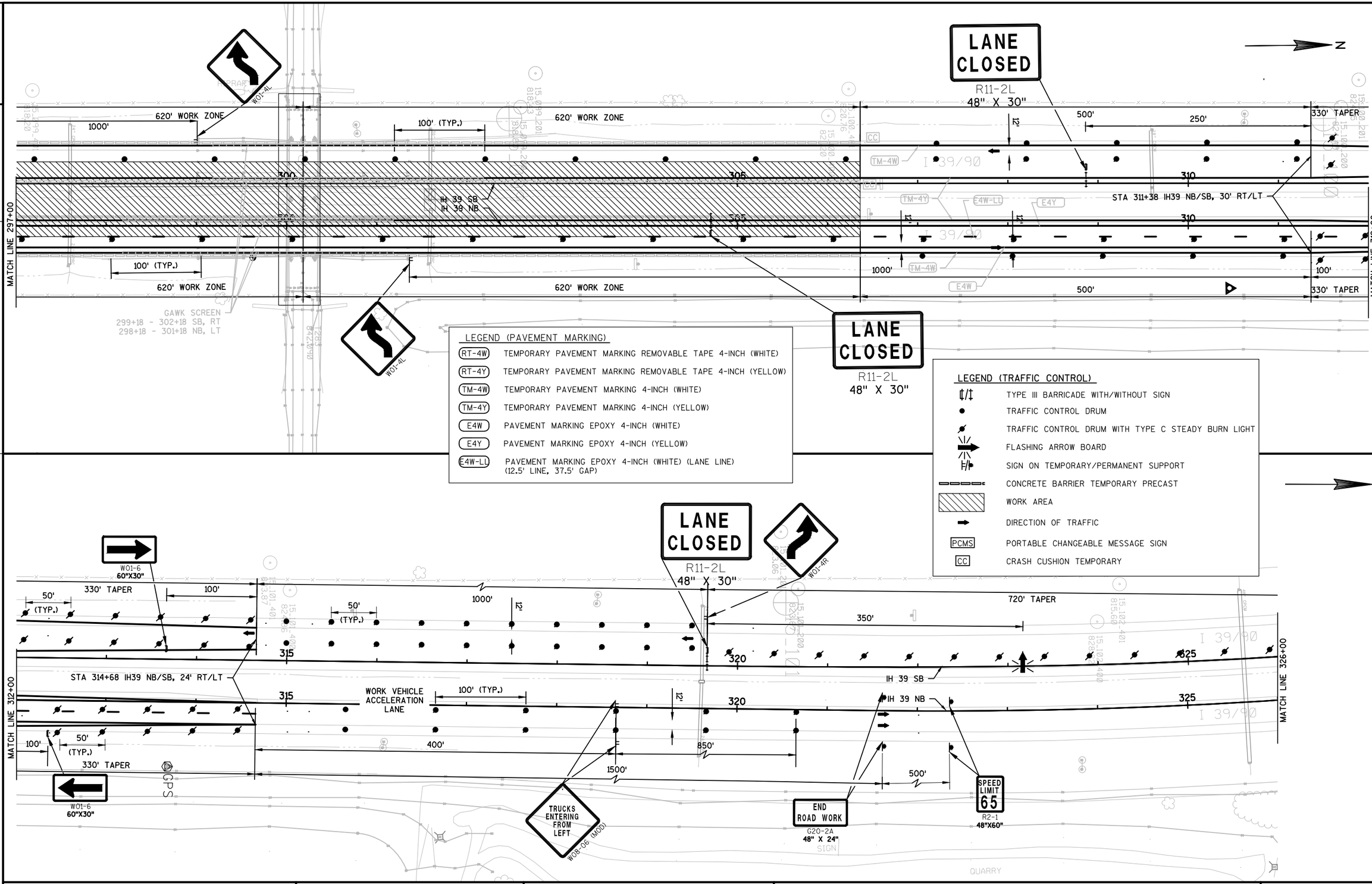
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 13	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S13_.DWG PLOT DATE : 10/30/2015 12:33 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:100_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 13	SHEET 75	E

2

N

MATCH LINE 326+00

W04-2L

LEFT LANE CLOSED 1500 FT W20-5

LEFT LANE CLOSED 1/2 MILE W20-5

LEFT LANE CLOSED AHEAD W20-5

SPEED LIMIT 55 W03-5

ROAD WORK 1 MILE W20-1

ROAD WORK 2 MILES W20-1

720' TAPER

525'

1000'

1640'

2640'

5280'

500'

500'

500'

500'

1340'

800'

500'

50' (TYP.)

PCMS

PCMS

IH 39 SB

IH 39 NB

330

330

335

335

340

340

W21-62Q
30" X 48"
WORK ZONE
SPEED LIMIT 55
R2-1
48"X60"

LEFT LANE CLOSED AHEAD W20-5

500'

ROAD WORK AHEAD W20-1

SIGN

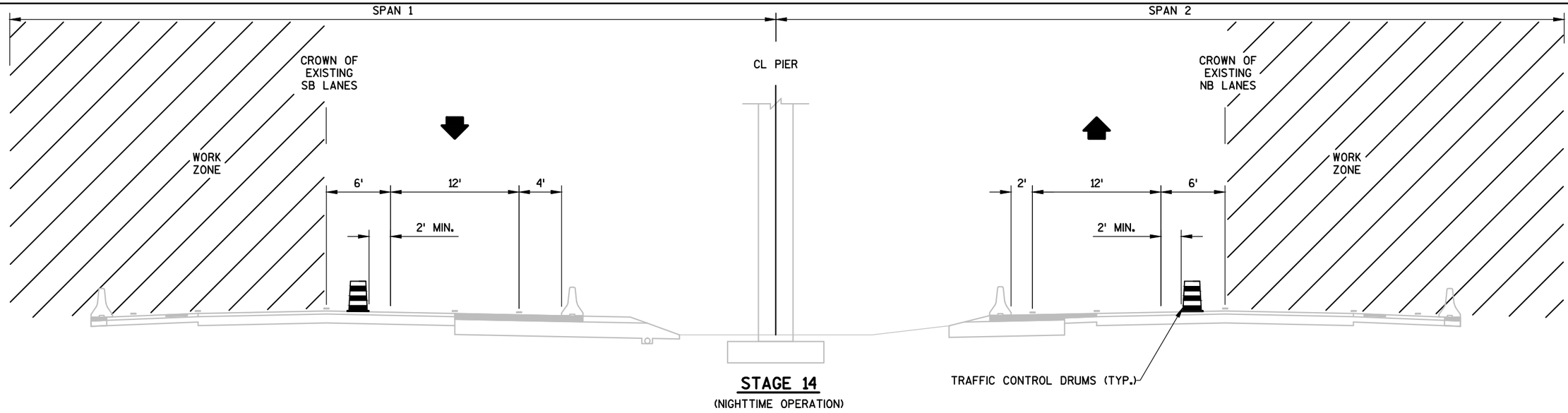
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 13	SHEET 76	E

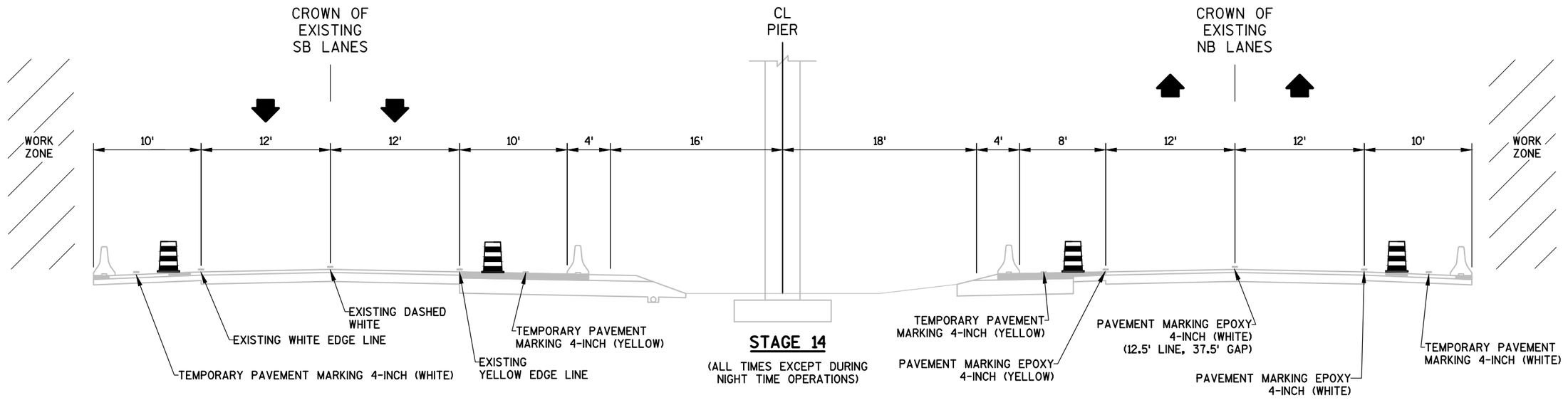


STAGE 14

(NIGHTTIME OPERATION)

CONSTRUCTION

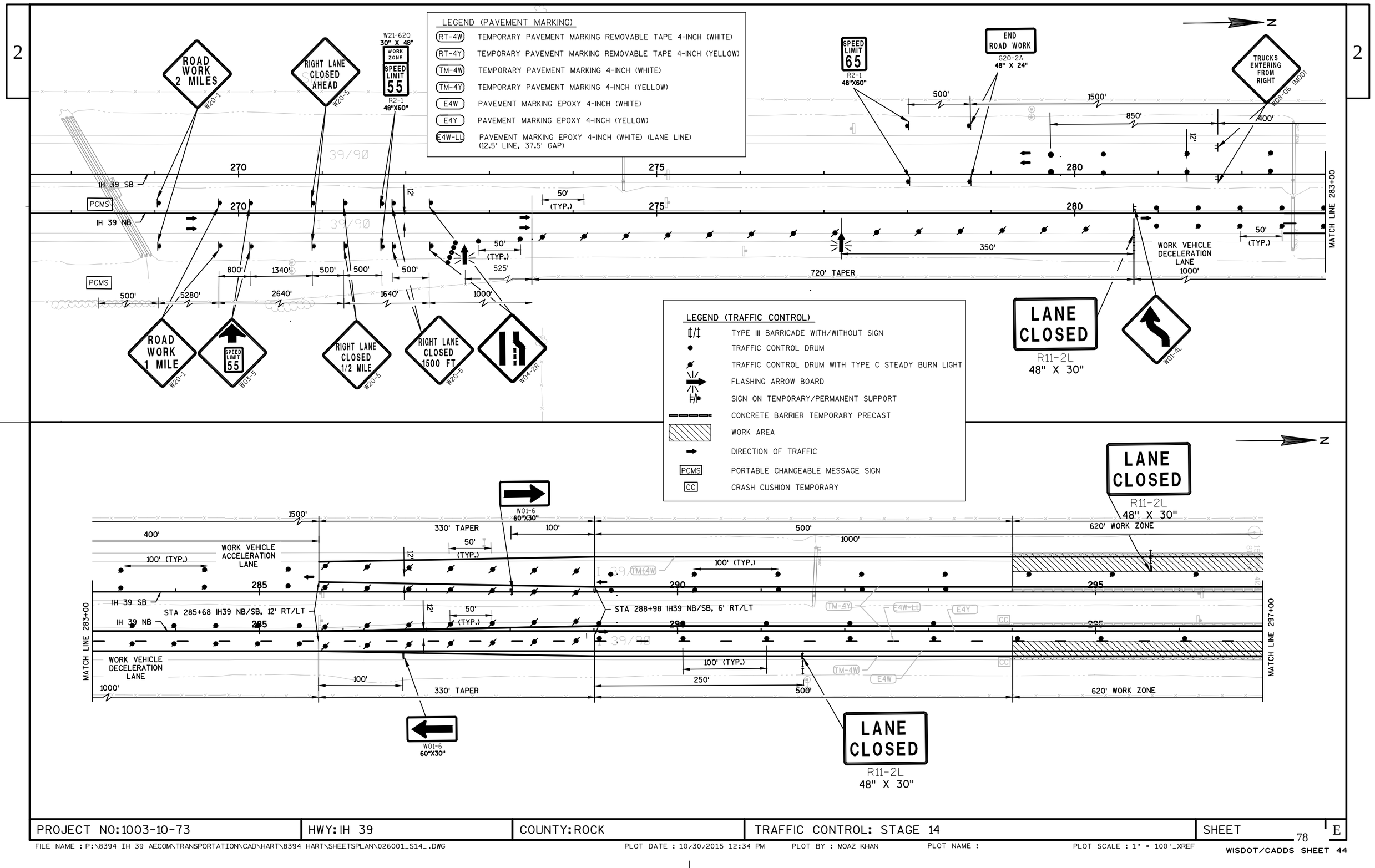
FORM AND FALSEWORK STRIPPING (OUTSIDE LANES)



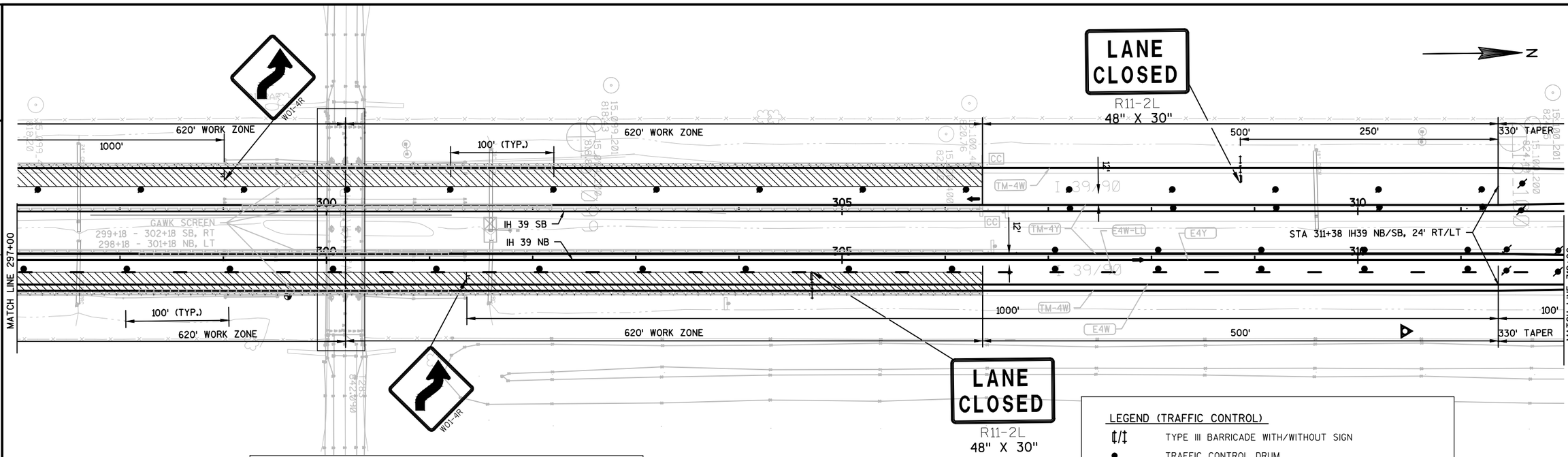
STAGE 14

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET 77	E


LEGEND (PAVEMENT MARKING)
RT-4W TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)
LEGEND (TRAFFIC CONTROL)
TYPE III BARRICADE WITH/WITHOUT SIGN
TRAFFIC CONTROL DRUM
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
FLASHING ARROW BOARD
SIGN ON TEMPORARY/PERMANENT SUPPORT
CONCRETE BARRIER TEMPORARY PRECAST
WORK AREA
DIRECTION OF TRAFFIC
PCMS PORTABLE CHANGEABLE MESSAGE SIGN
CC CRASH CUSHION TEMPORARY
ROAD WORK 2 MILES W20-1
RIGHT LANE CLOSED AHEAD W20-5
W21-62O 30" X 48" WORK ZONE SPEED LIMIT 55 R2-1 48"X60"
SPEED LIMIT 65 R2-1 48"X60"
END ROAD WORK G20-2A 48" X 24"
TRUCKS ENTERING FROM RIGHT W08-06 (MOD)
IH 39 SB
IH 39 NB
PCMS
270
275
280
MATCH LINE 283+00
12'
50' (TYP.)
525'
720' TAPER
350'
WORK VEHICLE DECELERATION LANE 1000'
500'
800'
1340'
500'
500'
500'
5280'
2640'
1640'
1000'
ROAD WORK 1 MILE W20-1
SPEED LIMIT 55 W03-5
RIGHT LANE CLOSED 1/2 MILE W20-5
RIGHT LANE CLOSED 1500 FT W20-5
W04-2R
LANE CLOSED R11-2L 48" X 30"
W01-4L
N
1500'
400'
WORK VEHICLE ACCELERATION LANE
100' (TYP.)
285
290
295
STA 285+68 IH39 NB/SB, 12' RT/LT
STA 288+98 IH39 NB/SB, 6' RT/LT
330' TAPER
100'
500'
1000'
620' WORK ZONE
W01-6 60"X30"
WORK VEHICLE DECELERATION LANE
1000'
100'
250'
MATCH LINE 297+00
TM-4W
TM-4Y
E4W-LL
E4Y
E4W
CC

2

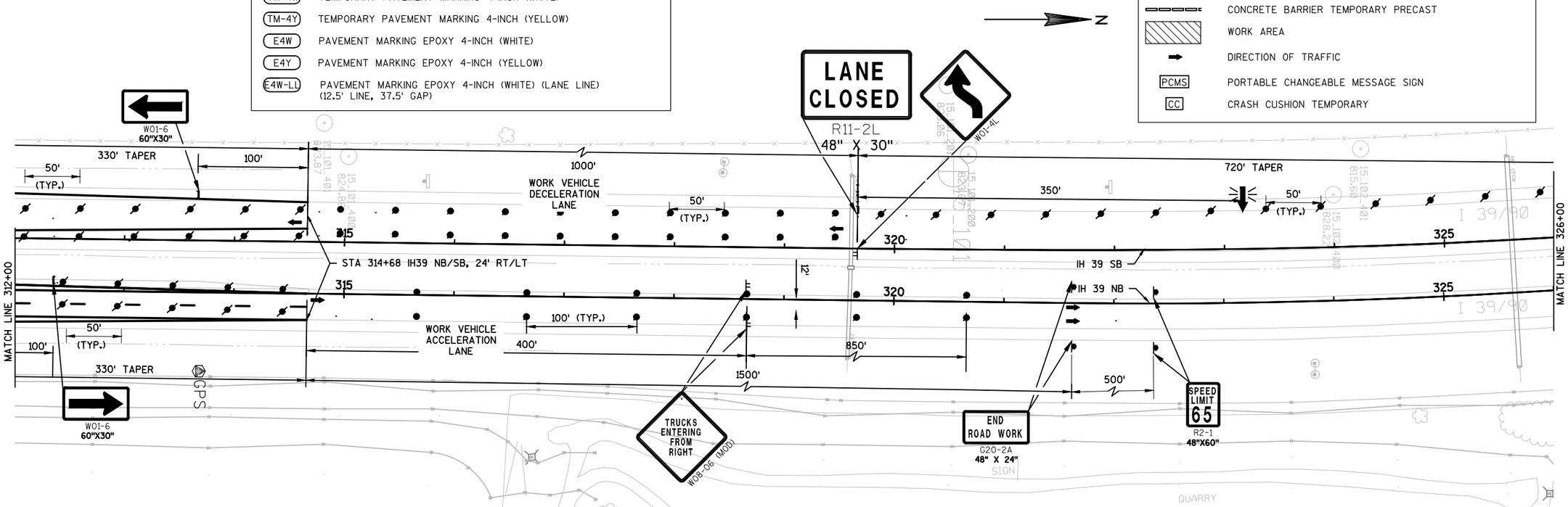


LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

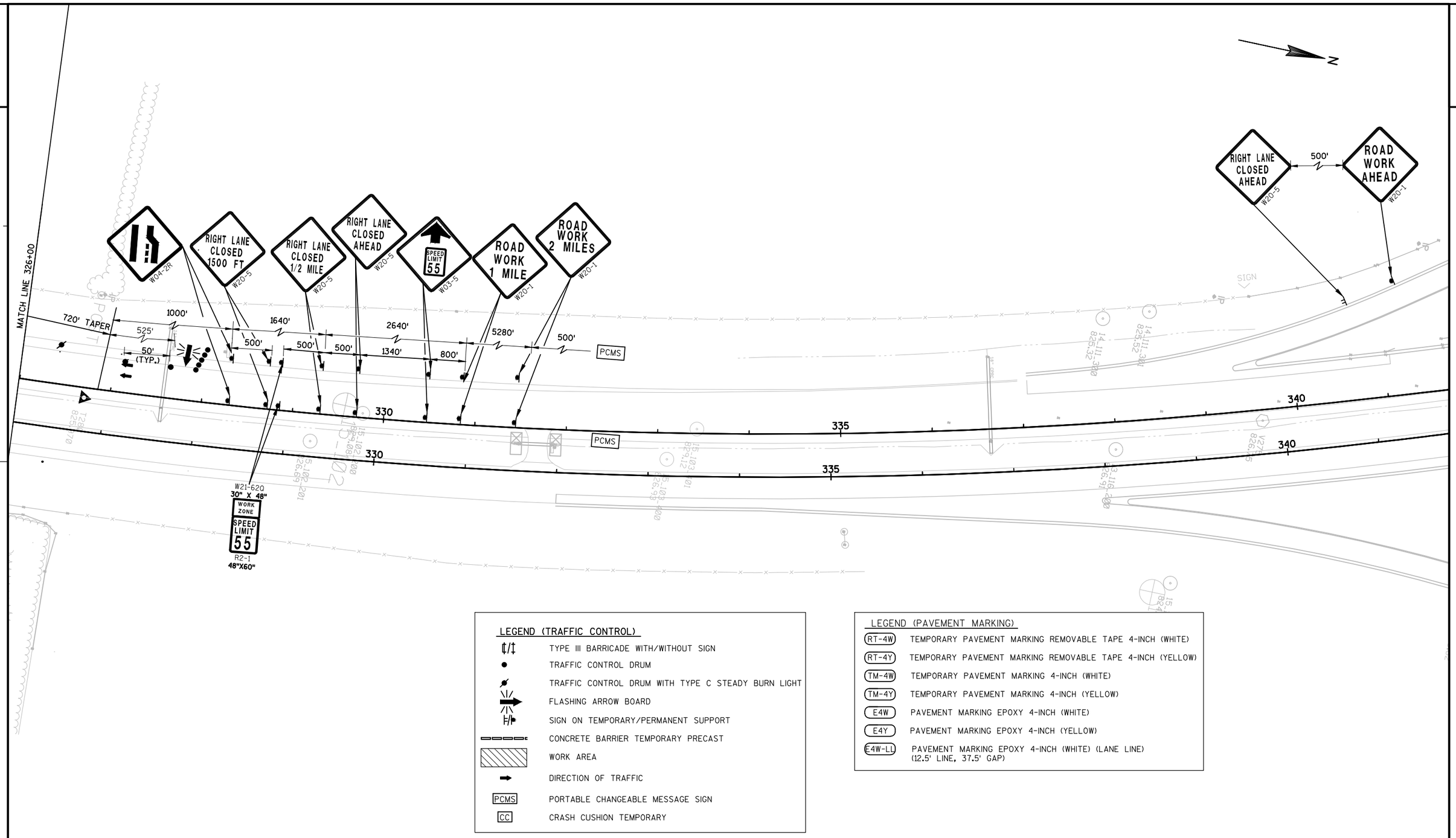
LEGEND (TRAFFIC CONTROL)

- TYPE III BARRICADE WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CC — CRASH CUSHION TEMPORARY



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 14	SHEET 79	E

2



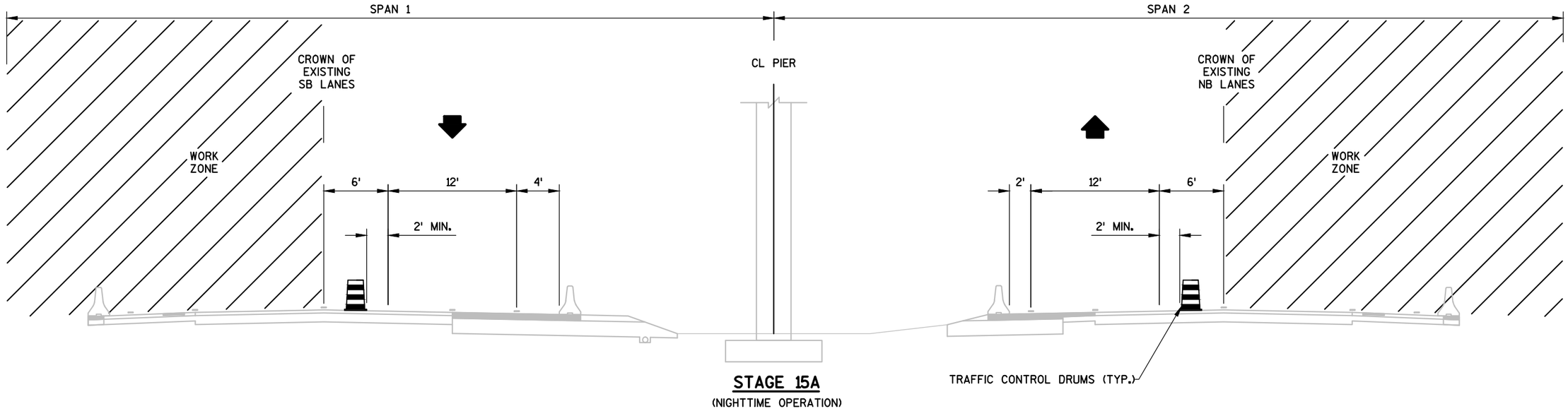
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

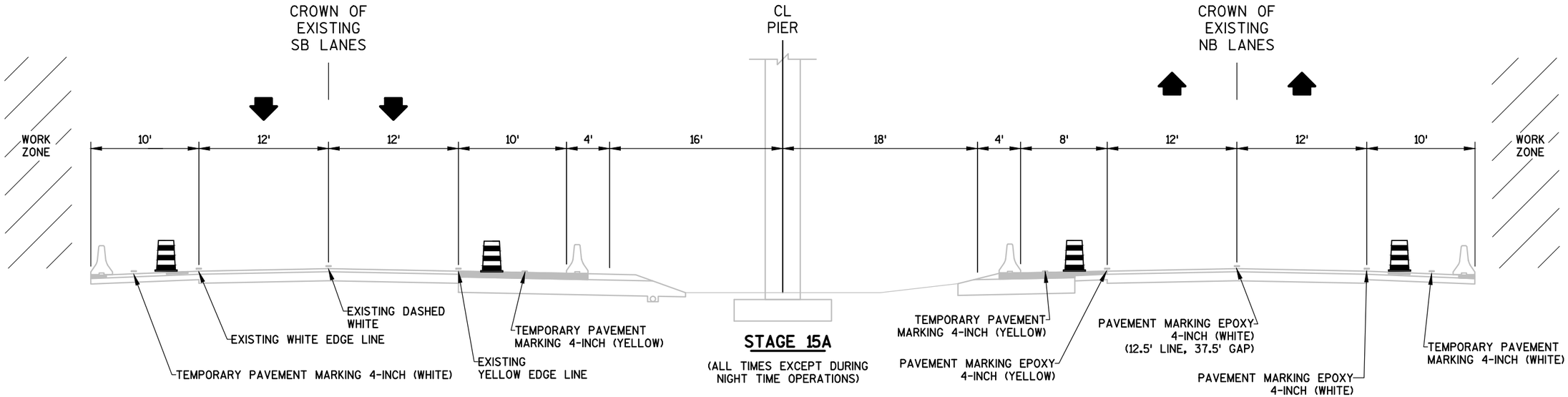
RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 14	SHEET 80	E



STAGE 15A
(NIGHTTIME OPERATION)

CONSTRUCTION
CONCRETE STAINING (OUTSIDE LANES & ABUTMENTS)
REMOVE CONCRETE BARRIER TEMPORARY PRECAST (OUTSIDE LANES)



STAGE 15A
(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

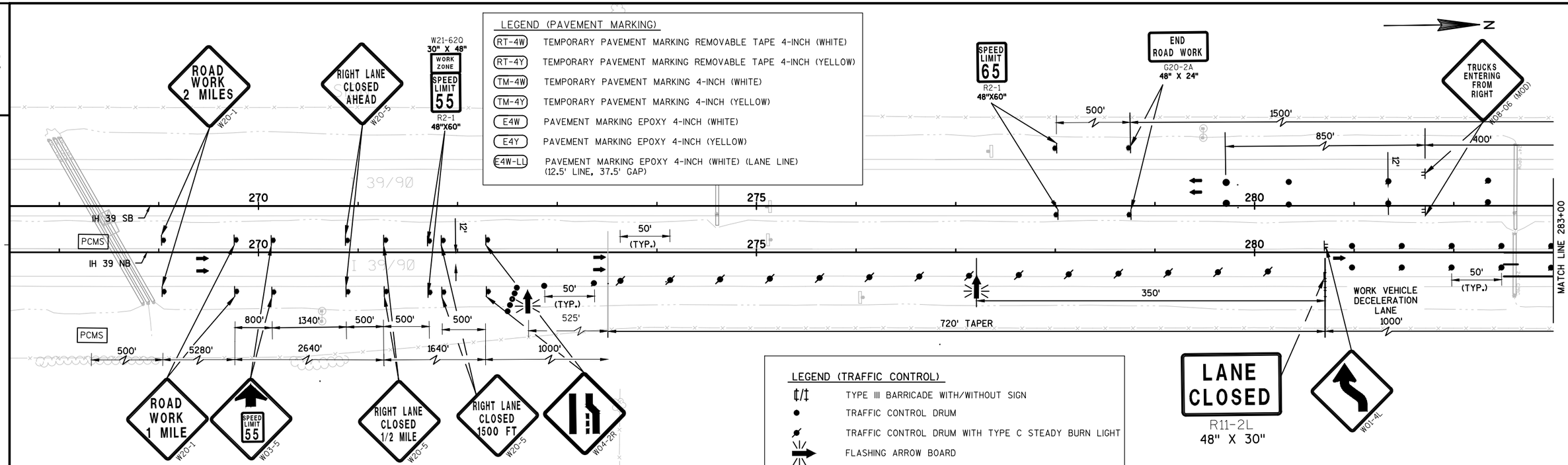
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD

2

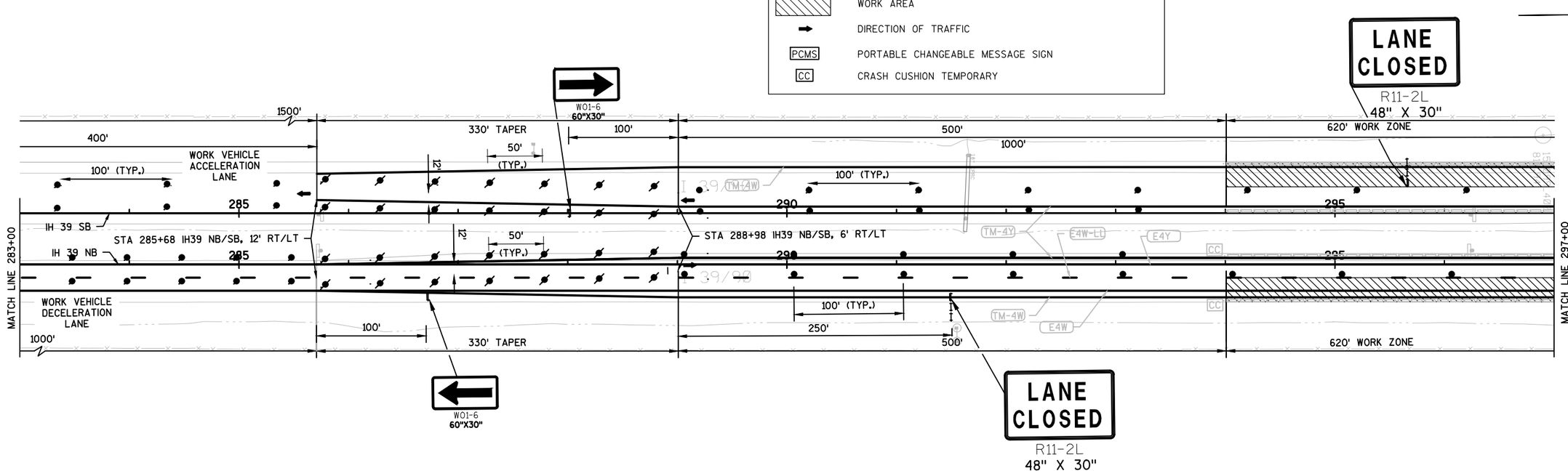
LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)



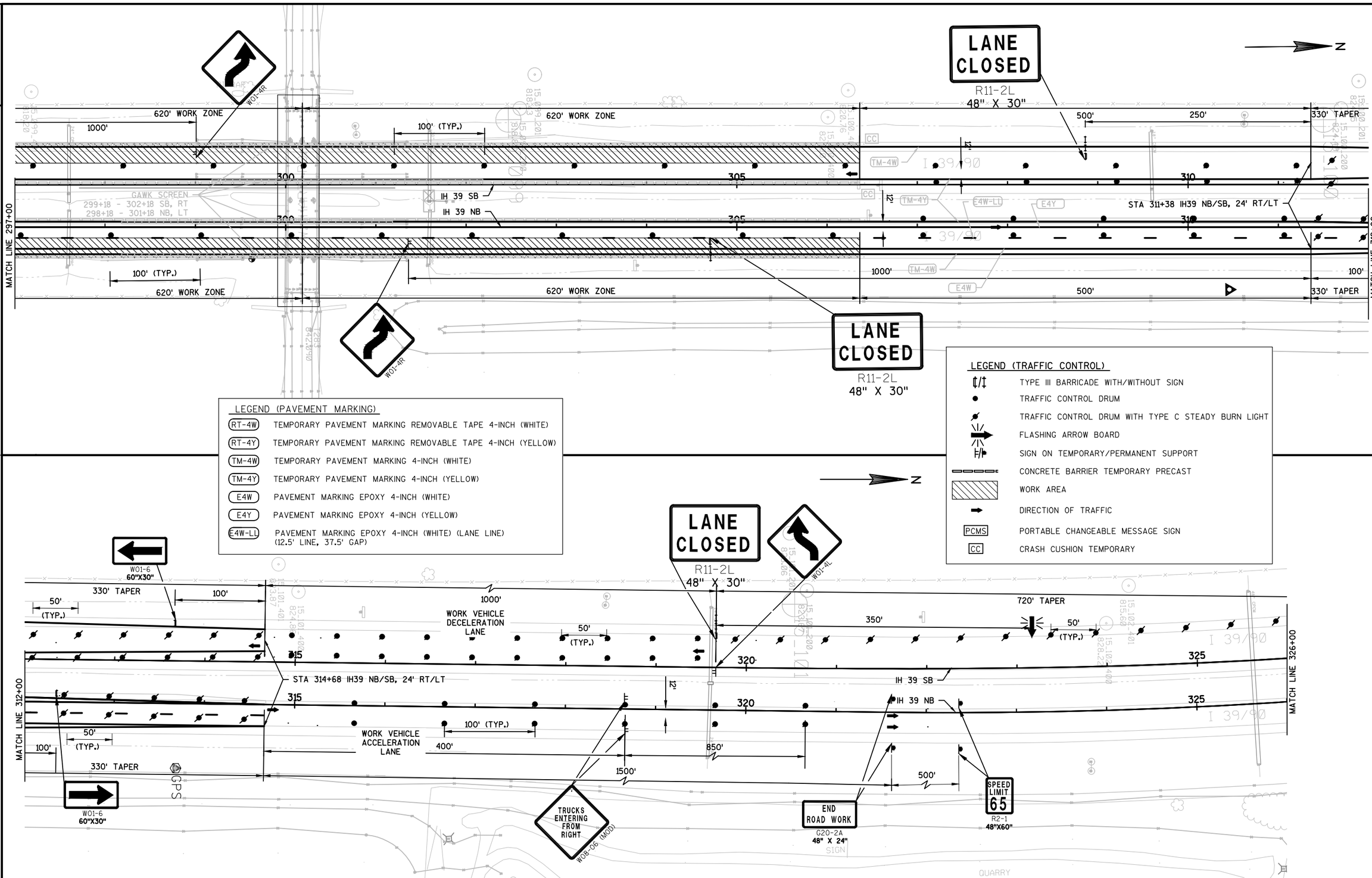
LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY



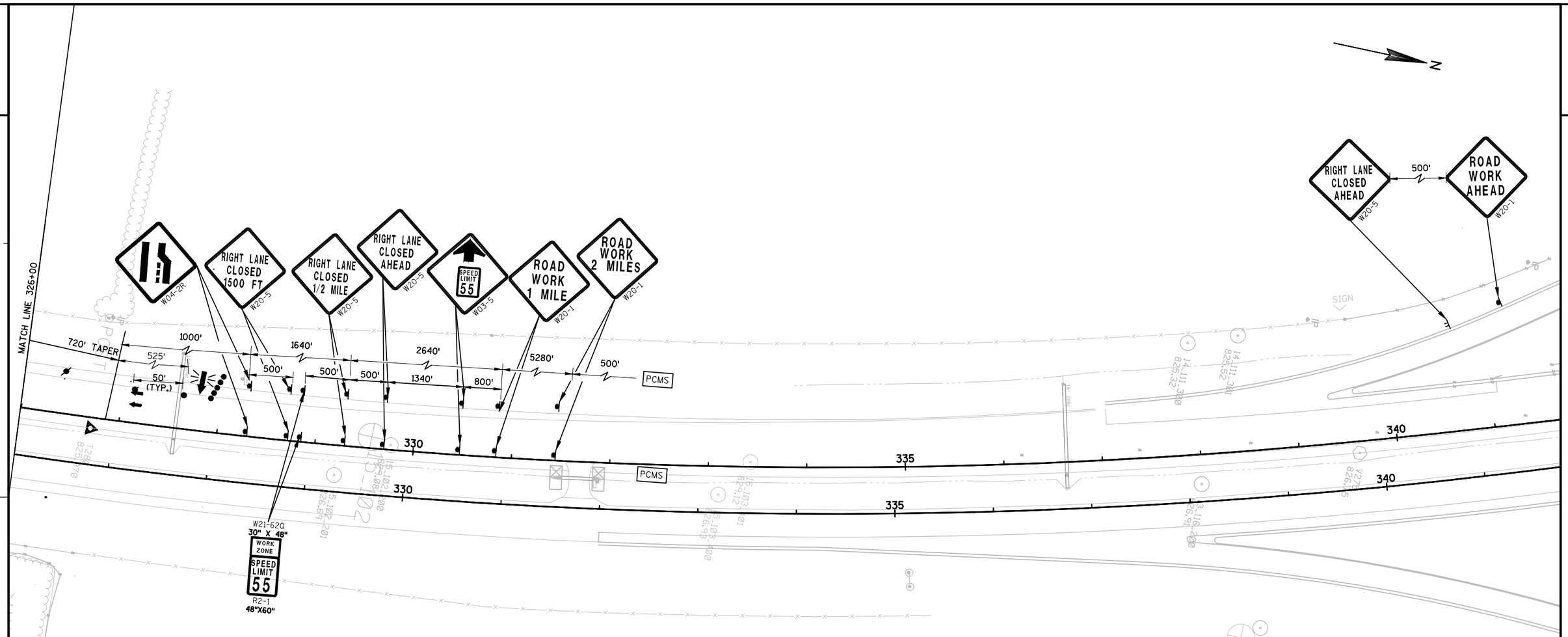
PROJECT NO:1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15A	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S15_A_.DWG PLOT DATE : 10/30/2015 12:36 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15A	SHEET 83	E

2



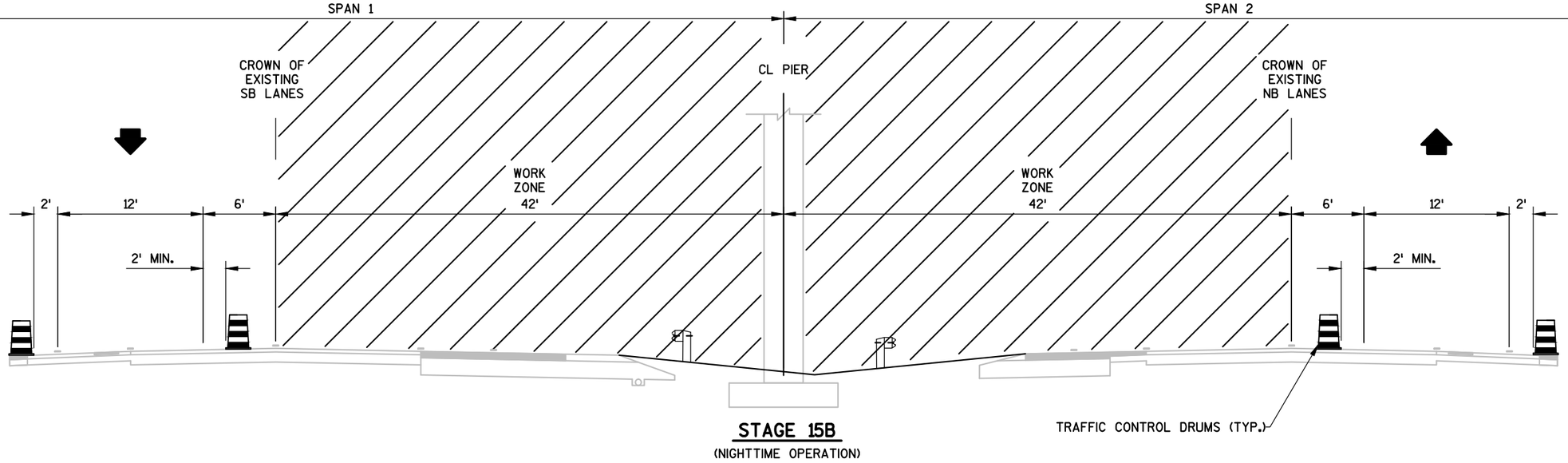
LEGEND (TRAFFIC CONTROL)

	TYPE III BARRICADE WITH/WITHOUT SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15A	SHEET 84	E

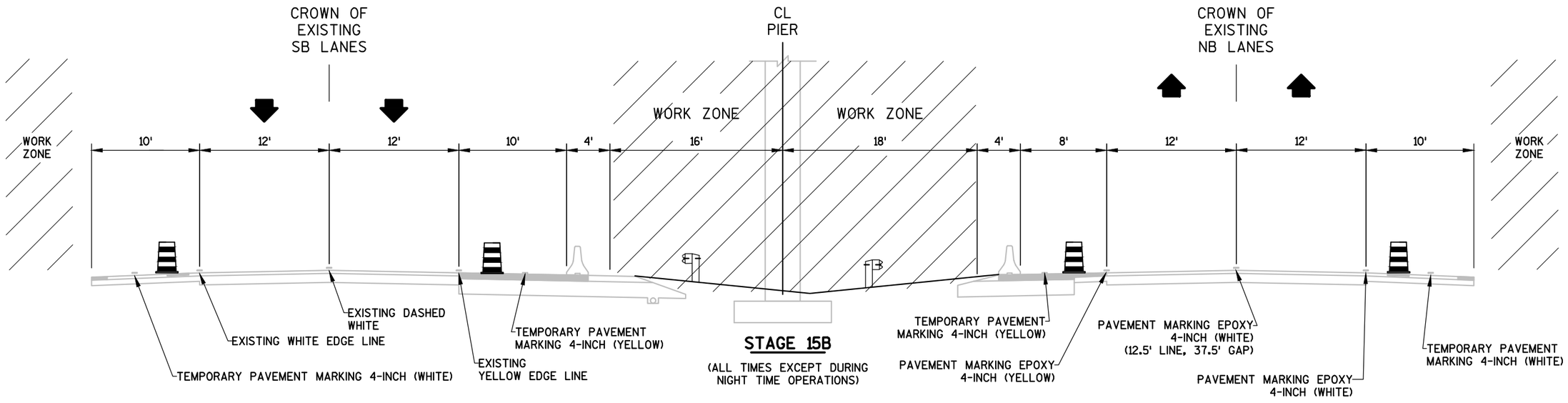


STAGE 15B

(NIGHTTIME OPERATION)

CONSTRUCTION

CONCRETE STAINING (INSIDE LANES & PIER)
INSTALL BULLNOSE TERMINAL & TERMINAL GRADING
REMOVE CONCRETE BARRIER TEMPORARY PRECAST (MEDIAN)
FINAL PAVEMENT MARKING



STAGE 15B

(ALL TIMES EXCEPT DURING NIGHT TIME OPERATIONS)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: TYPICAL SECTIONS	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S_TC_TS_.DWG PLOT DATE : 2/9/2015 10:33 AM PLOT BY : MOAZ KHAN PLOT NAME : ---------- PLOT SCALE : 1 IN:10 FT WISDOT/CADD

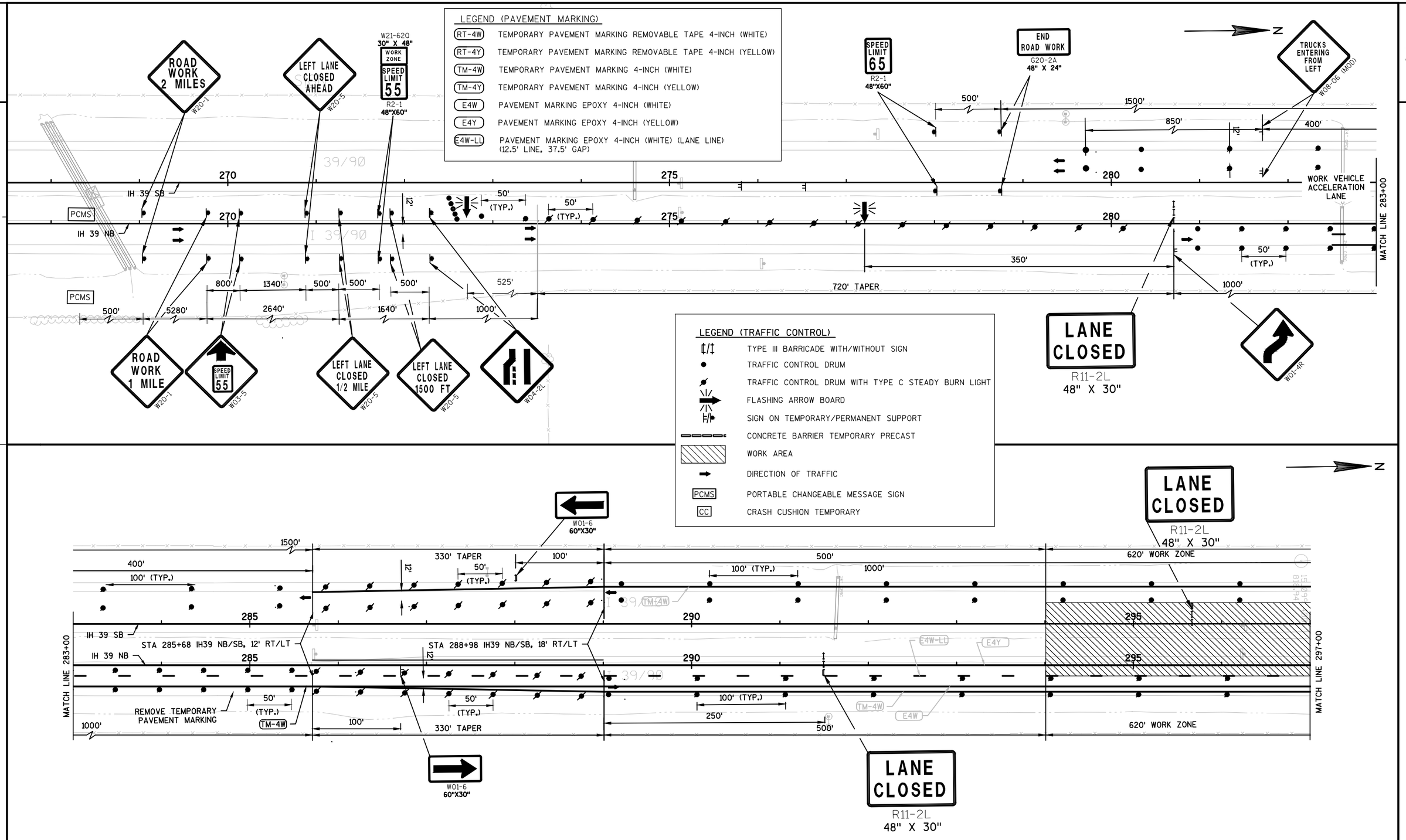
2

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

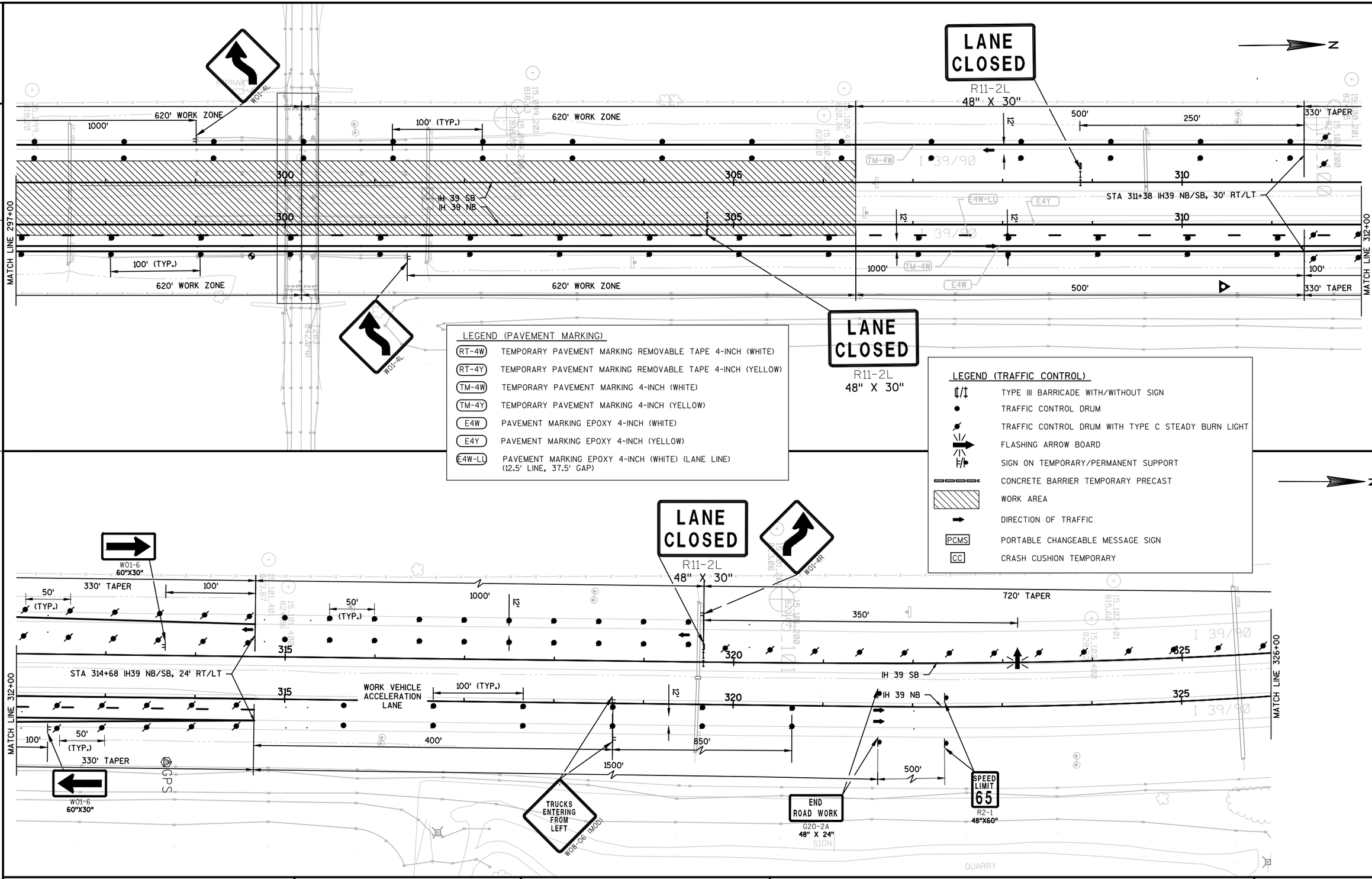
LEGEND (TRAFFIC CONTROL)

- TYPE III BARRICADE WITH/WITHOUT SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY/PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN
- CC — CRASH CUSHION TEMPORARY



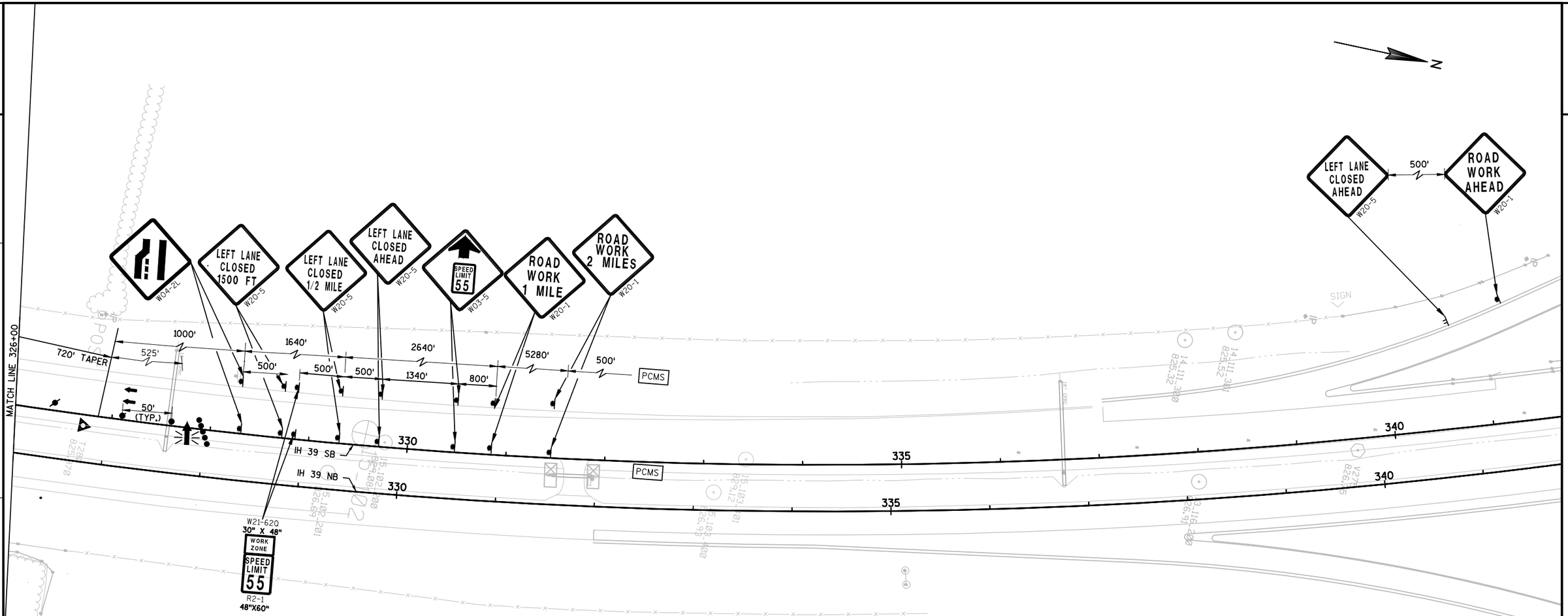
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15B	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\026001_S15B_.DWG PLOT DATE : 10/30/2015 12:37 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1" = 100'_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15B	SHEET 87	E

2



LEGEND (TRAFFIC CONTROL)

‡/‡	TYPE III BARRICADE WITH/WITHOUT SIGN
●	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON TEMPORARY/PERMANENT SUPPORT
	CONCRETE BARRIER TEMPORARY PRECAST
	WORK AREA
➡	DIRECTION OF TRAFFIC
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
CC	CRASH CUSHION TEMPORARY

LEGEND (PAVEMENT MARKING)

RT-4W	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
RT-4Y	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
TM-4W	TEMPORARY PAVEMENT MARKING 4-INCH (WHITE)
TM-4Y	TEMPORARY PAVEMENT MARKING 4-INCH (YELLOW)
E4W	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
E4Y	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
E4W-LL	PAVEMENT MARKING EPOXY 4-INCH (WHITE) (LANE LINE) (12.5' LINE, 37.5' GAP)

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	TRAFFIC CONTROL: STAGE 15B	SHEET 88	E

2

N

S0° 14' 05"W

℄ IH 39 'SB'

IH39 SB

IH39 NB

℄ IH 39 'NB'

SECTION LINE = S0° 16' 19"W

SIXTEENTH LINE

POLY MON (BROKEN)
Y = 219510.140
X = 506691.450

CURVE BP001
PI STA = 1028+20.97
N = 219606.943
E = 507042.587
DELTA = 3°27'24"
D = 19°05'55"
T = 9.05'
L = 18.10'
R = 300.00'
PC STA = 1028+11.92
N = 219607.799
E = 507033.575
PT STA = 1028+30.02
N = 219606.632
E = 507051.634
BK = S84°34'34.4"E
AH = S88°01'58.7"E

CURVE BP002
PI STA = 1029+96.50
N = 219600.918
E = 507218.016
DELTA = 10°55'16"
D = 19°05'55"
T = 28.68'
L = 57.18'
R = 300.00'
PC STA = 1029+67.82
N = 219601.902
E = 507189.355
PT STA = 1030+25.01
N = 219605.382
E = 507246.345
BK = S88°01'58.7"E
AH = N81°02'45.5"E

CURVE BP003
PI STA = 1031+84.49
N = 219630.203
E = 507403.882
DELTA = 10°06'38"
D = 19°05'55"
T = 26.54'
L = 52.94'
R = 300.00'
PC STA = 1031+57.95
N = 219626.073
E = 507377.667
PT STA = 1032+10.89
N = 219629.668
E = 507430.414
BK = N81°02'45.5"E
AH = S88°50'36.6"E

PI
STA 1032+71.04 'QD'
Y = 219628.456
X = 507490.427

CURVE BP004
PI STA = 1033+70.05
N = 219624.289
E = 507589.477
DELTA = 73°35'41"
D = 57°17'45"
T = 74.80'
L = 128.45'
R = 100.00'
PC STA = 1032+95.25
N = 219627.433
E = 507514.741
PT STA = 1034+23.69
N = 219551.708
E = 507607.569
BK = S87°35'27.9"E
AH = S13°59'46.6"E

S0° 18' 45"W

BEGIN 'QD'
STA 1026+00.00
Y = 219627.830
X = 506822.602

℄ 'QD' = S88° 50' 37"E

STA 134+06.10 'HR' =
STA 1034+85.48 'QD' =
STA 2034+60.34 'FR' =
Y = 219491.943
X = 507622.468

℄ 'HR' = S88° 48' 18"

PI
STA 124+00 'HR'
Y = 219509.567
X = 506616.523

1026'QD'

℄ 'QD' = S84° 34' 34"E

QUARRY DRIVE

1030'QD'

℄ 'QD' = S88° 01' 59"E

℄ 'QD' = N81° 02' 46"E

℄ 'QD' = S87° 35' 28"E

1034'QD'

BEGIN PROJECT 1003-10-73
STA 108+00 'HR'
Y = 219527.404
X = 505016.622

℄ 'HR' = S89° 21' 40"E

110'HR'

HART ROAD

115'HR'

120'HR'

HART ROAD

125'HR'

QUARTER LINE = S88° 42' 20"E

130'HR'

℄ 'HR' = S88° 59' 47"

135'HR'

QUARTER LINE = S89° 32' 41"E

STA 120+24.65 'HR' =
STA 300+19.80 'NB'

STA 119+88.65 'HR' =
STA 300+19.79 'SB'

PI
STA 108+00 'HR'
Y = 219527.404
X = 505016.622

SEC MON
Y = 219552.133
X = 501407.356

PI
STA 137+00 'HR'
Y = 219486.794
X = 507916.323

END PROJECT 1003-10-73
STA 139+00 'HR'
Y = 219482.623
X = 508116.280

NO° 38' 20"E

305'SB'

305'NB'

300'SB'

300'NB'

NO° 38' 20"E

295'SB'

295'NB'

NO° 38' 20"E

IH39 SB

IH39 NB

S0° 15' 22"W

SECTION LINE = S0° 18' 53"W

S0° 19' 53"W

SIXTEENTH LINE

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET 89	E

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-73 QUANTITY
0020	201.0120	Clearing	ID	289.000	289.000
0040	201.0220	Grubbing	ID	289.000	289.000
0050	203.0100	Removing Small Pipe Culverts	EACH	9.000	9.000
0060	203.0200	Removing Old Structure (station) 001. 119+03.74'HR'	LS	1.000	1.000
0070	203.0225.S	Debris Containment (structure) 001. B-53-45	LS	1.000	1.000
0080	204.0100	Removing Pavement	SY	98.000	98.000
0090	204.0120	Removing Asphaltic Surface Milling	SY	2,755.000	2,755.000
0120	204.0157	Removing Concrete Barrier	LF	221.000	221.000
0130	204.0165	Removing Guardrail	LF	1,909.000	1,909.000
0140	204.0170	Removing Fence	LF	451.000	451.000
0180	205.0100	Excavation Common	CY	14,410.000	14,410.000
0190	206.1000	Excavation for Structures Bridges (structure) 001. B-53-312	LS	1.000	1.000
0200	210.0100	Backfill Structure	CY	400.000	400.000
0210	213.0100	Finishing Roadway (project) 001. 1003-10-73	EACH	1.000	1.000
0230	305.0110	Base Aggregate Dense 3/4-Inch	TON	679.000	679.000
0240	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	12,467.000	12,467.000
0250	305.0125	Base Aggregate Dense 1 1/4-Inch	CY	170.000	170.000
0260	305.0130	Base Aggregate Dense 3-Inch	TON	10,275.000	10,275.000
0270	415.0070	Concrete Pavement 7-Inch	SY	32.000	32.000
0280	415.0410	Concrete Pavement Approach Slab	SY	80.000	80.000
0290	416.1010	Concrete Surface Drains	CY	9.000	9.000
0300	455.0105	Asphaltic Material PG58-28	TON	148.000	148.000
0310	455.0120	Asphaltic Material PG64-28	TON	57.000	57.000
0320	455.0605	Tack Coat	GAL	442.000	442.000
0330	460.1103	HMA Pavement Type E-3	TON	2,697.000	2,697.000
0340	460.1110	HMA Pavement Type E-10	TON	1,038.000	1,038.000
0350	460.2000	Incentive Density HMA Pavement	DOL	2,988.000	2,988.000
0360	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	5,590.000	5,590.000
0390	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	3,458.000	3,458.000
0400	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	2,287.000	2,287.000
0410	502.0100	Concrete Masonry Bridges	CY	836.000	836.000
0420	502.3200	Protective Surface Treatment	SY	1,313.000	1,313.000
0430	502.3210	Pigmented Surface Sealer	SY	275.000	275.000
0440	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,866.000	1,866.000
0460	505.0400	Bar Steel Reinforcement HS Structures	LB	12,750.000	12,750.000
0470	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	129,690.000	129,690.000
0480	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	1,330.000	1,330.000
0490	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	32.000	32.000
0500	506.4000	Steel Diaphragms (structure) 001. B-53-312	EACH	28.000	28.000
0510	511.1200	Temporary Shoring (structure) 001. B-53-312	SF	1,804.000	1,804.000
0520	516.0500	Rubberized Membrane Waterproofing	SY	28.000	28.000
0530	517.1010.S	Concrete Staining (structure) 001. B-53-312	SF	11,433.000	11,433.000
0610	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000

3

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-73 QUANTITY
0620	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	330.000	330.000
0630	522.0315	Culvert Pipe Reinforced Concrete Class IV 15-Inch	LF	34.000	34.000
0640	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	523.000	523.000
0680	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000
0690	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	8.000	8.000
0730	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	4.000	4.000
0770	550.0010	Pre-Boring Unconsolidated Materials	LF	600.000	600.000
0780	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	3,260.000	3,260.000
0840	603.8000	Concrete Barrier Temporary Precast Delivered	LF	4,960.000	4,960.000
0850	603.8125	Concrete Barrier Temporary Precast Installed	LF	7,340.000	7,340.000
0860	604.0500	Slope Paving Crushed Aggregate	SY	446.000	446.000
0870	606.0200	Riprap Medium	CY	15.000	15.000
0880	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0890	611.0654	Inlet Covers Type V	EACH	2.000	2.000
0900	611.3220	Inlets 2x2-FT	EACH	2.000	2.000
0910	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0920	612.0212	Pipe Underdrain Unperforated 12-Inch	LF	137.000	137.000
0930	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	282.000	282.000
0950	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0960	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
0970	614.0230	Steel Thrie Beam	LF	150.000	150.000
0980	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0990	614.2300	MGS Guardrail 3	LF	150.000	150.000
1000	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
1010	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
1020	616.0206	Fence Chain Link 6-FT	LF	429.000	429.000
1030	616.0329	Gates Chain Link (width) 001. 3.5-Ft	EACH	2.000	2.000
1050	616.0700.S	Fence Safety	LF	70.000	70.000
1060	618.0100	Maintenance And Repair of Haul Roads (project) 001.1003-10-73	EACH	1.000	1.000
1080	619.1000	Mobilization	EACH	0.600	0.600
1090	624.0100	Water	MGAL	350.000	350.000
1100	625.0500	Salvaged Topsoil	SY	52,500.000	52,500.000
1110	627.0200	Mulching	SY	500.000	500.000
1120	628.1504	Silt Fence	LF	8,353.000	8,353.000
1130	628.1520	Silt Fence Maintenance	LF	8,353.000	8,353.000
1140	628.1905	Mobilizations Erosion Control	EACH	11.000	11.000
1150	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
1160	628.2004	Erosion Mat Class I Type B	SY	52,500.000	52,500.000
1170	628.6510	Soil Stabilizer Type B	ACRE	10.850	10.850
1180	628.7005	Inlet Protection Type A	EACH	3.000	3.000
1190	628.7010	Inlet Protection Type B	EACH	3.000	3.000
1210	628.7504	Temporary Ditch Checks	LF	810.000	810.000
1220	628.7555	Culvert Pipe Checks	EACH	50.000	50.000
1240	629.0205	Fertilizer Type A	CWT	33.000	33.000
1250	630.0110	Seeding Mixture No. 10	LB	716.000	716.000

3

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1003-10-73 QUANTITY
1270	630.0200	Seeding Temporary	LB	1,417.000	1,417.000
1280	633.5200	Markers Culvert End	EACH	8.000	8.000
1300	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	1.000	1.000
1310	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	3.000	3.000
1370	637.2210	Signs Type II Reflective H	SF	6.000	6.000
1400	638.2102	Moving Signs Type II	EACH	3.000	3.000
1410	638.2602	Removing Signs Type II	EACH	4.000	4.000
1420	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
1440	642.5201	Field Office Type C	EACH	0.500	0.500
1450	643.0200	Traffic Control Surveillance and Maintenance (project) 001. 1003-10-73	DAY	180.000	180.000
1470	643.0300	Traffic Control Drums	DAY	39,943.000	39,943.000
1480	643.0420	Traffic Control Barricades Type III	DAY	3,290.000	3,290.000
1490	643.0705	Traffic Control Warning Lights Type A	DAY	2,372.000	2,372.000
1500	643.0715	Traffic Control Warning Lights Type C	DAY	6,996.000	6,996.000
1510	643.0800	Traffic Control Arrow Boards	DAY	604.000	604.000
1520	643.0900	Traffic Control Signs	DAY	9,354.000	9,354.000
1560	643.1050	Traffic Control Signs PCMS	DAY	1,080.000	1,080.000
1570	645.0120	Geotextile Fabric Type HR	SY	43.000	43.000
1580	646.0106	Pavement Marking Epoxy 4-Inch	LF	19,238.000	19,238.000
1590	646.0126	Pavement Marking Epoxy 8-Inch	LF	230.000	230.000
1600	646.0600	Removing Pavement Markings	LF	16,863.000	16,863.000
1640	649.0100	Temporary Pavement Marking 4-Inch	LF	12,723.000	12,723.000
1650	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	7,418.000	7,418.000
1660	652.0125	Conduit Rigid Metallic 2-Inch	LF	48.000	48.000
1670	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,116.000	1,116.000
1680	653.0140	Pull Boxes Steel 24x42-Inch	EACH	4.000	4.000
1690	653.0222	Junction Boxes 18x12x6-Inch	EACH	4.000	4.000
1720	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
1730	715.0502	Incentive Strength Concrete Structures	DOL	5,016.000	5,016.000
1740	SPV.0035	Special 001. Roadway Embankment	CY	99,113.000	99,113.000
1750	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.500	0.500
1760	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	3.000	3.000
1780	SPV.0090	Special 200. Traffic Control Gawk Screen Furnished	LF	1,200.000	1,200.000
1790	SPV.0090	Special 201. Traffic Control Gawk Screen Installed	LF	1,200.000	1,200.000
1800	SPV.0090	Special 700. Fence Chain Link Polymer-Coated 6-Ft	LF	547.000	547.000
1810	SPV.0105	Special 001. Survey Project 1003-10-73	LS	1.000	1.000

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CLEARING AND GRUBBING

CATEGORY		LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
1000	HART ROAD STA				
	110+76	36.58' RT	6	6	
	111+88	46.31' RT	31	31	
	112+11	53.53' RT	11	11	
	112+12	50.83' RT	10	10	
	115+16	53.79' RT	25	25	SPLIT TREE, 2 BRANCHES(10 ID,15 ID)
	115+30	60.70' RT	12	12	SPLIT TREE, 2 BRANCHES (5 ID, 7 ID)
	115+78	43.37' RT	13	13	
	116+26	77.12' LT	42	42	SPLIT TREE, 3 BRANCHES (20 ID, 10 ID, 12 ID)
	116+89	77.56' LT	4	4	
	118+81	58.97' RT	13	13	SPLIT TREE, 2 BRANCHES (5 ID, 8 ID)
	121+16	90.68' RT	10	10	
	121+33	86.19' LT	14	14	
	124+22	66.22' LT	26	26	SPLIT TREE, 3 BRANCHES (8 ID, 10 ID, 8 ID)
	124+55	49.01' LT	14	14	
	124+57	27.76' RT	17	17	SPLIT TREE, 3 BRANCHES (5 ID, 7 ID, 5 ID)
	124+82	79.68' LT	21	21	SPLIT TREE, 3 BRANCHES (7 ID, 6 ID, 8 ID)
	126+89	75.79' LT	20	20	SPLIT TREE, 2 BRANCHES (6 ID, 4 14 ID)
	TOTAL		289	289	

REMOVING GUARDRAIL

CATEGORY	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF	REMARKS
1000	HART ROAD			
	117+89 - 118+97	RT	108	
	117+90 - 118+96	LT	106	
	121+15 - 122+22	RT	107	
	121+15 - 122+21	LT	106	
	IH 39 MAINLINE			
	297+96 - 299+55 'NB'	RT	159	
	297+73 - 301+23 'SB'	RT	350	
	301+41 - 303+01 'SB'	LT	160	
	299+41 - 301+06 'NB'	LT	340	
	299+16 - 303+89 'SB'	RT	473	
	TOTAL		**1,909**	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	SIZE INCHES	LENGTH FEET	203.0100 REMOVING SMALL PIPE CULVERT EACH
1000	HART ROAD				
	108+28	RT	18	42	1
	111+00	RT	18	42	1
	112+27	LT	18	35	1
	113+60	-	24	66	1
	124+49	LT	24	52	1
	124+50	RT	15	51	1
	125+75	-	24	63	1
	130+00	LT	18	168	1
	132+51	-	18	37	1
	TOTAL				9

PAVEMENT REMOVAL

CATEGORY	STATION	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0100 REMOVING PAVEMENT SY
1000	IH 39 MAINLINE			
	277+58 - 314+66 'NB'	RT	824	
	285+70 - 314+66 'NB'	LT	1,287	
	285+70 - 314+66 'SB'	LT	644	
	HART ROAD			
	118+83 - 119+03 'HR'	RT & LT		49
	121+09 - 121+29 'HR'	RT & LT		49
	TOTAL		2,755	98

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Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Structure Excavation (CY) (6)	Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)	Select Borrow (CY)	Comment:
				Cut (CY) (2)	EBS (CY) (3)						
1000	1	108+00 'HR' - 118+50 'HR'	Hart Road	644	2,017	0	19,184	21,201	-18,540	0	
		122+00 'HR' - 139+00 'HR'	Hart Road	2,096	5,643	0	66,636	72,279	-64,540	0	
		Undisturbed	Hart Road	0	0	0	0	0	0	0	
	Project 1003-10-73 - Division 1 Hart Subtotal			2,740	7,660	0	85,820	93,480	-83,080	0	
	Project 1003-10-73 - Division 1 Hart Total			10,400		0		93,480		0	
1000	2	1026+77 'QD' - 1033+00 'QD'	Quarry Drive	711	0	0	3,291	3,291	-2,580	0	
	Project 1003-10-73 - Division 2 Quarry Drive Subtotal			711	0	0	3,291	3,291	-2,580	0	
	Project 1003-10-73 - Division 2 Quarry Drive Total			711		0		3,291		0	
1000	3	285+70 - 323+25 'NB'	IH 39	1,128	1,887	0	455	2,342	673	0	
	Project 1003-10-73 - Division 3 IH 39 Subtotal			1,128	1,887	0	455	2,342	673	0	
	Project 1003-10-73 - Division 3 IH 39 Total			3,015		0		2,342		0	
1000	4	118+54 'HR' - 121+59 'HR'	B-53-312	284	0	585	0	0	284	0	
	Project 1003-10-73 - Division 4 B-53-312 Subtotal			284	0	585	0	0	284	0	
	Project 1003-10-73 - Division 4 B-53-312 Total			284		585		0		0	
	Project 1003-10-73 Totals			14,410		585		99,113		0	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.

4) Roadway Embankment = (Fill + EBS Excavation - Select Borrow)

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculatio

Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All

6) Structure Excavation for Bridge construction is for informational purposes only, and will vary depending on shop drawing design. Material excavated that is not included in Excavation Common for structure B-53-312 is considered waste, but can be incorp

REMOVING CONCRETE BARRIER

CATEGORY	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER LF
1000	IH 39 MAINLINE		
	299+55 - 300+40 'NB'	RT	85
	300+05 - 301+41 'NB'	LT	136
	TOTAL		221

REMOVING FENCE

CATEGORY	STATION	LOCATION	204.0170 REMOVING FENCE LF
1000	IH 39 MAINLINE		
	298+77 - 300+01 'NB'	RT	124
	298+79 - 299+91 'SB'	LT	112
	300+39 - 301+48 'NB'	RT	109
	300+40 - 301+46 'SB'	LT	106
	TOTAL		451

FINISHING ROADWAY

CATEGORY	STATION	213.0100 FINISHING ROADWAY EACH
1000	HART ROAD	
	108+00 - 139+00	1
	TOTAL	1

BASE AGGREGATE ITEMS

CATEGORY	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	624.0100 WATER MGAL
1000	HART ROAD					
	108+00 - 118+54	-	162	3,156	2,305	84
	121+44 - 139+00	-	223	5,806	4,360	156
	DRIVEWAYS					
	108+29 'HR'	RT	17	-	-	-
	111+04 'HR'	RT	19	-	-	-
	112+27 'HR'	LT	60	-	-	-
	134+06 'HR'	RT	34	-	-	-
	QUARRY DRIVE					
	1026+77 - 1034+06 'QD'	-	-	1,360	3,610	75
	IH 39 MAINLINE					
	285+70 - 314+66 'NB'	LT	164	2,145	-	35
	TOTAL		679	12,467	10,275	350

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CONCRETE ITEMS

CATEGORY	STATION	LOCATION	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.1010 CONCRETE SURFACE DRAIN CY
1000	HART ROAD				
	118+48 - 118+69	LT & RT	-	-	9
	121+43 - 121+59	LT & RT	32	-	-
	118+54 - 118+69	-	-	40	-
	121+44 -121+59	-	-	40	-
	TOTAL		32	80	9

ASPHALTIC ITEMS

CATEGORY	STATION	LOCATION	Area (S.Y.)	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1103 HMA PAVEMENT TYPE E-3 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	465.0425 ASPHALTIC SHOULDER RUMBLE STRIP 2-LANE RURAL LF	465.0475 ASPHALTIC CENTER LINE RUMBLE STRIP 2-LANE RURAL LF	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	REMARKS
1000	HART ROAD											
	108+00 - 118+54	LT & RT	3,997	49	-	100	895	-	-	-	2108	-
	121+59 - 139+00	LT&RT	8,042	99	-	201	1,801	-	-	-	3482	-
	108+00 - 118+29	-		-	-	-	-	-	-	1029	-	-
	121+84 - 132+06	-		-	-	-	-	-	-	1022	-	-
	136+06 - 139+00	-		-	-	-	-	-	-	236	-	-
	108+00 - 111+92	LT		-	-	-	-	-	372	-	-	TYPE 1
	108+74 - 110+66	RT		-	-	-	-	-	156	-	-	TYPE 1
	111+33 - 118+29	RT		-	-	-	-	-	564	-	-	TYPE 1
	112+62 - 118+29	LT		-	-	-	-	-	459	-	-	TYPE 1
	121+84 - 131+85	RT		-	-	-	-	-	809	-	-	TYPE 1
	121+84 - 131+68	LT		-	-	-	-	-	792	-	-	TYPE 1
	136+16 - 139+00	RT		-	-	-	-	-	236	-	-	TYPE 1
	138+18 - 139+00	LT		-	-	-	-	-	70	-	-	TYPE 1
	IH 39 MAINLINE											
	277+58 - 314+66 'NB'	RT	824	-	5	21	-	92	-	-	-	OUTSIDE SHOULDER
	285+70 - 314+66 'NB'	LT	4,183	-	48	105	-	874	-	-	-	MEDIAN SHOULDER
	285+70 - 314+66 'SB'	LT	644	-	4	16	-	72	-	-	-	OUTSIDE SHOULDER
	TOTAL			148	57	442	2,697	1,038	3,458	2,287	5,590	

STORM SEWER AND CULVERT SUMMARY

CATEGORY	STATION	OFFSET	LOCATION	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	INLET ELEV. FT	DISCH ELEV	SLOPE %	STR. DEPTH FT	522.0142 CULVERT PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	522.0318 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.0315 CULVERT PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	611.0430 RECONSTRUCTING INLETS EACH	611.0654 INLET COVERS TYPE V EACH	611.3220 INLETS 2x2-FT EACH	611.9710 SALVAGED INLET COVERS	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	633.5200 MARKERS CULVERT END EACH	REMARKS
1000	HART ROAD																				
	108+07 - 108+53'HR'	38.96' RT - 38.40' RT	-	-	2	-	-	810.95	810.72	0.50%	-	-	-	46	-	-	-	-	-	-	
	110+73 - 111+36'HR'	36.25' RT - 33.91' RT	-	-	-	2	-	816.1	814.42	2.68%	-	-	63	-	-	-	-	-	-	-	
	113+60'HR'	65.22' RT - 63.58' LT	-	-	-	-	2	816.04	815.00	0.82%	-	127	-	-	-	-	-	-	-	2	
	125+75'HR'	104.35' RT - 99.02' LT	-	-	-	-	2	818.66	818.32	0.17%	-	203	-	-	-	-	-	-	-	2	
	133+77 - 134+61'HR'	33.85' RT - 33.05' RT	-	-	-	2	-	819.73	819.58	0.18%	-	-	84	-	-	-	-	-	-	-	
	132+94 - 134+88'HR'	54.91' LT - 55.51' LT	-	-	-	2	-	819.61	819.25	0.19%	-	-	188	-	-	-	-	-	-	2	
	132+94 - 134+88'HR'	58.39' LT - 58.85' LT	-	-	-	2	-	819.61	819.25	0.19%	-	-	188	-	-	-	-	-	-	-	
	118+53'HR'	23.93'	RT	-	-	-	-	843.05	840.05	-	3.00	-	-	-	-	1	1	-	-	-	
	118+53'HR'	23.93' - 91.40'	RT	1	-	-	-	840.05	817.84	33.14%	-	-	-	-	-	-	-	-	67	1	
	118+53'HR'	16.00'	LT	-	-	-	-	843.2	840.23	-	3.00	-	-	-	-	1	1	-	-	-	
	118+53 'HR'	16.00' - 85.59'	LT	1	-	-	-	840.2	817.75	32.11%	-	-	-	-	-	-	-	-	70	1	
	IH 39																				
	301+59 'NB'		LT	-	-	-	-	820.20	-	-	-	-	-	-	1	-	-	1	-	-	RECONSTRUCT MEDIAN INLET
TOTAL				2	2	8	4					330	523	34	1	2	2	1	137	8	

NOTES

1) STATIONS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS.
   OFFSETS ARE TO THE FLANGE LINE FOR STRUCTURES IN THE ROADWAY WITH INLET GRATES, AND TO THE CENTER OF STRUCTURE FOR FIELD INLETS AND MANHOLES WITH SOLID LIDS.
2) PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES AND THE END OF PIPE UPSTREAM FROM APRON ENDWALLS (LENGTH DOES NOT INCLUDE APRON ENDWALL).
3) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
4) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.83 FT FOR TYPE V
   ADJUSTMENT (RINGS) = 0.42 FT FOR TYPE V COVERS

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BEAM GUARD ITEMS

CATEGORY	STATION	LOCATION	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
1000	HART ROAD						
	117+66.9 - 118+20.0	LT	-	-	-	-	1
	117+41.9 - 117+95.0	RT	-	-	-	-	1
	117+95.0 - 118+32.5	RT	-	-	37.5	-	-
	118+32.5 - 118+71.9	RT	-	-	-	39.4	-
	118+20.0 - 118+32.5	LT	-	-	12.5	-	-
	118+32.5 - 118+71.9	LT	-	-	-	39.4	-
	121+41.4 - 121+80.8	RT	-	-	-	39.4	-
	121+80.8 - 121+93.3	RT	-	-	12.5	-	-
	121+41.4 - 121+80.8	LT	-	-	-	39.4	-
	121+80.8 - 122+68.3	LT	-	-	87.5	-	-
	122+68.3 - 123+21.4	LT	-	-	-	-	1
	121+93.3 - 122+46.4	RT	-	-	-	-	1
	IH 39 MAINLINE						
	299+26.8 'NB'		1	-	-	-	-
	299+80.1 - 300+56.4 'NB'		-	150	-	-	-
	301+09.7 'NB'		1	-	-	-	-
	TOTAL		2	150	150	157.6	4

FENCE ITEMS

CATEGORY	STATION	LOCATION	616.0206 FENCE CHAIN LINK (6-FT) LF	616.0329 GATES CHAIN LINK (3.5-FT)
1000	HART RD			
	118+89.40	RT	113	1
	118+89.32	LT	99	-
	121+23.99	RT	109	-
	121+23.89	LT	108	1
	TOTAL		429	2

SAFETY FENCE

CATEGORY	STATION	LOCATION	616.0700.S FENCE SAFETY LF
1000	111+20 HR	RT	70
	TOTAL		70

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
1000	HART RD	1.00
	TOTAL	1.00

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 10/29/2015 3:15:59 PM PLOT BY : JUSTIN FLICKINGER PLOT NAME : 030201_mq PLOT SCALE : 1:1

EROSION CONTROL MATERIALS

CATEGORY	STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	628.2004 EROSION MAT CLASS 1 TYPE B SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7504 TEMPORARY DITCH CHECK LF	628.7555 CULVERT PIPE CHECKS EACH	630.0200 SEEDING TEMPORARY LB	645.0120 GEOTEXTILE FABRIC TYPE HR SY
1000	HART ROAD												
	108+00 - 119+42	LT & RT	-	12,150	2,330	2,330	2.51	-	-	60	15	328	-
	113+60	LT	4	-	-	-	-	-	-	-	-	-	11
	118+53	LT & RT	2	-	-	-	-	2	2	-	-	-	6
	125+75	LT	4	-	-	-	-	-	-	-	-	-	11
	120+69 - 139+00	LT & RT	-	21,334	4,302	4,302	4.41	-	-	200	20	576	15
	132+94	LT	5										
	QUARRY DRIVE												
	1026+77 - 1034+06	LT & RT	-	3,576	-	-	0.74	-	-	40	-	97	-
1000	IH 39 MAINLINE												
	297+15 - 323+35 'NB'	LT	-	4,940	50	50	1.02	-	-	348	15	133	-
	301+60 'NB'	LT	-	-	-	-	-	1	1	-	-	-	-
	SUB-TOTAL			42,000	6,682	6,682	8.68	3	3	648	50	1,134	43
	25% UNDISTRIBUTED QUANTITY			10,500	1,671	1,671	2.17			162		283	
	TOTAL		15	52,500	8,353	8,353	10.85	3	3	810	50	1,417	43

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 10/29/2015 3:15:59 PM PLOT BY : JUSTIN FLICKINGER PLOT NAME : 030201_mq PLOT SCALE : 1:1

FINISHING ITEMS

CATEGORY	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0205 FERTILIZER TYPE A CWT	630.0110 SEEDING MIXTURE NO. 10 LB
1000	HART ROAD					
	108+00 - 119+42	RT & LT	12,150	100	8	165
	120+69 - 139+00	RT & LT	21,334	100	14	289
	QUARRY DRIVE					
	1026+77 - 1034+06	RT & LT	3,576	100	2	50
	IH 39 MAINLINE					
	285+70 - 323+35 'NB'	LT	4,940	100	3	68
	SUB-TOTAL		42,000	400	26	572
	25% UNDISTRIBUTED QUANTITIES		10,500	100	7	144
	TOTAL		52,500	500	33	716

MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH
1000	HART ROAD	8
	IH 39 MAINLINE	3
	TOTAL	11

EMERGENCY MOBILIZATION EROSION CONTROL

CATEGORY	LOCATION	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1000	HART ROAD	4
	IH 39 MAINLINE	2
	TOTAL	6

FILE NAME : P://8394 IH 39 AECOM/TRANSPORTATION/CADD/WOODMAN/SHEETSET/030201_mq.ppt PLOT DATE : 10/29/2015 3:15:59 PM PLOT BY : JUSTIN FLICKINGER PLOT NAME : 030201_mq PLOT SCALE : 1:1

3

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DURATION	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		614.0905 CRASH CUSHION TEMPORARY	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS		SPV.0090.200 TRAFFIC CONTROL GAWK SCREEN FURNISHED	SPV.0090.201 TRAFFIC CONTROL GAWK SCREEN INSTALLED
			DAYS	EACH	DAYS	EACH	DAYS	EACH	DAY	EACH	DAYS	EACH	DAYS	EACH	LF	LF	EACH	DAYS	EACH	DAYS	LF	LF
1000		IH 39 MAINLINE																				
	1	265+00 NB - 345+00 NB	3	160	479	24	72	--	--	29	86	4	12	--	--	--	54	162	6	18	-	-
	2	255+00 NB - 345+00 NB	14	315	4,413	28	392	28	392	42	588	4	56	--	--	--	60	840	6	84	-	-
	3	270+00 NB - 345+00 NB	8	342	2,738	22	176	22	176	55	442	4	32	2	2,480	2,480	62	496	6	48	600	600
	4	270+00 NB - 345+00 NB	6	342	2,053	22	132	22	132	55	331	4	24	--	--	--	62	372	6	36	-	-
	5	270+00 NB - 345+00 NB	2	--	--	--	--	--	--	--	--	--	--	--	--	--	9	18	6	12	-	-
2-DAY WEEKEND		270+00 NB - 345+00 NB	2	--	--	--	--	--	--	--	--	--	--	--	--	--	9	18	6	12	-	-
	6	270+00 NB - 345+00 NB	3	266	797	18	54	--	--	29	86	4	--	--	--	--	54	162	6	18	-	-
	7	270+00 NB - 345+00 NB	13	266	3,455	18	234	--	--	29	374	4	52	2	2,480	2,480	54	702	6	78	600	600
	8	270+00 NB - 345+00 NB	31	266	--	18	558	--	--	29	893	4	124	--	--	2,380	54	1,674	6	186	-	-
2-DAY WEEKEND		270+00 NB - 345+00 NB	2	--	--	--	--	--	--	--	--	--	--	--	--	--	9	18	6	12	-	-
	9	270+00 NB - 345+00 NB	2	--	--	--	--	--	--	--	--	--	--	--	--	--	9	18	6	12	-	-
	10	270+00 NB - 345+00 NB	8	342	2,738	22	176	22	176	55	442	4	32	--	--	--	62	496	6	48	-	-
	11	270+00 NB - 345+00 NB	7	342	2,395	22	154	22	154	55	386	4	28	--	--	--	62	434	6	42	-	-
	12	270+00 NB - 345+00 NB	15	--	--	--	--	--	--	--	--	--	--	--	--	--	9	135	6	90	-	-
	13	270+00 NB - 345+00 NB	6	342	2,053	22	132	22	132	55	331	4	24	--	--	--	62	372	6	36	-	-
	14	270+00 NB - 345+00 NB	12	342	4,106	22	264	22	264	55	662	4	48	--	--	--	62	744	6	72	-	-
3-DAY CUSHION		270+00 NB - 345+00 NB	3	--	--	--	--	--	--	--	--	--	--	--	--	--	9	27	6	18	-	-
	15A	270+00 NB - 345+00 NB	20	342	6,844	22	440	22	440	55	1,104	4	80	--	--	--	62	1,240	6	120	-	-
	15B	270+00 NB - 345+00 NB	23	342	7,871	22	506	22	506	55	1,270	4	92	--	--	--	62	1,426	6	138	-	-
		TOTAL			39,943		3,290		2,372		6,996		604	4	4,960	7,340		9,354		1,080	1,200	1,200

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TRAFFIC CONTROL

CATEGORY	LOCATION	634.0616 POSTS WOOD 4X6-INCH X 16-F EACH	638.2102 MOVING SIGNS TYPE II EACH
1000	285+73 NB	1	1
	296+24 NB	1	1
	306+45 NB	1	1
	TOTAL	3	3

TRAFFIC CONTROL

CATEGORY	LOCATION	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE DAYS
1000	PROJECT	180
	TOTAL	180

PAVEMENT/TEMPORARY PAVEMENT MARKING IH39

CATEGORY	STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH LF	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH LF	649.0400 TEMP PVT MARKING REMOVABLE TAPE 4-INCH LF	646.0600 REMOVE PAVEMENT MARKINGS LF
1000	STAGE 1					
	277+58 NB - 314+65 NB	RT	-	3,707	-	-
	285+70 NB - 314+66 NB	LT	-	2,896	-	-
	STAGE 2					
	277+58 NB - 314+67 NB	RT	-	-	7,418	4,636
	-	LT	-	-	-	-
	STAGE 3					
	282+51 NB - 314+66 NB	RT	7,234	-	-	-
	282+51 NB - 288+98 NB	RT	-	-	-	647
	285+68 NB - 288+98 NB	RT	-	330	-	-
	STAGE 4					
	282+51 NB - 314+66 NB	RT	-	2,895	-	-
	285+71 NB - 314+66 NB	LT	-	2,895	-	-
	AT PROJECT END					
	282+51 NB - 314+66 NB	RT	-	-	-	5,790
	285+71 NB - 314+66 NB	LT	-	-	-	5,790
	TOTAL		7,234 (1)	12,723	7,418	16,863

(1) Additional quantity shown under "PAVEMENT MARKING HART ROAD".

3

PAVEMENT MARKING HART ROAD

CATEGORY	STATION			LOCATION	646.0106 EPOXY 4-INCH WHITE LF	646.0106 EPOXY 4-INCH YELLOW LF	646.0126 EPOXY 8-INCH WHITE LF
1000	HART ROAD						
	108+00	-	133+00	LT	2,502	-	-
	108+00	-	139+00	RT	3,100	-	-
	134+73	-	139+00	LT	427	-	-
	134+73	-	136+64	LT	-	-	191
	136+64	-	138+19	LT	-	-	39
	108+00	-	139+00	-	-	5,900	-
	108+00	-	111+00	-	-	75	-
					6,029	5,975	
					12,004 (1)		230

(1) Additional quantity shown under "PAVEMENT/TEMPORARY PAVEMENT MARKING IH39".

PERMANENT SIGNING HART ROAD

CATEGORY	STATION	LOCATION	637.2210 SIGNS TYPE II REFLECTIVE H SF	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH
1000	HART ROAD			
	111+00	LT	6	1
			6	1

REMOVING SIGNS

CATEGORY	STATION	LOCATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
1000	HART ROAD			
	118+96	RT	1	1
	118+96	LT	1	1
	121+16	RT	1	1
	121+16	LT	1	1
			4	4

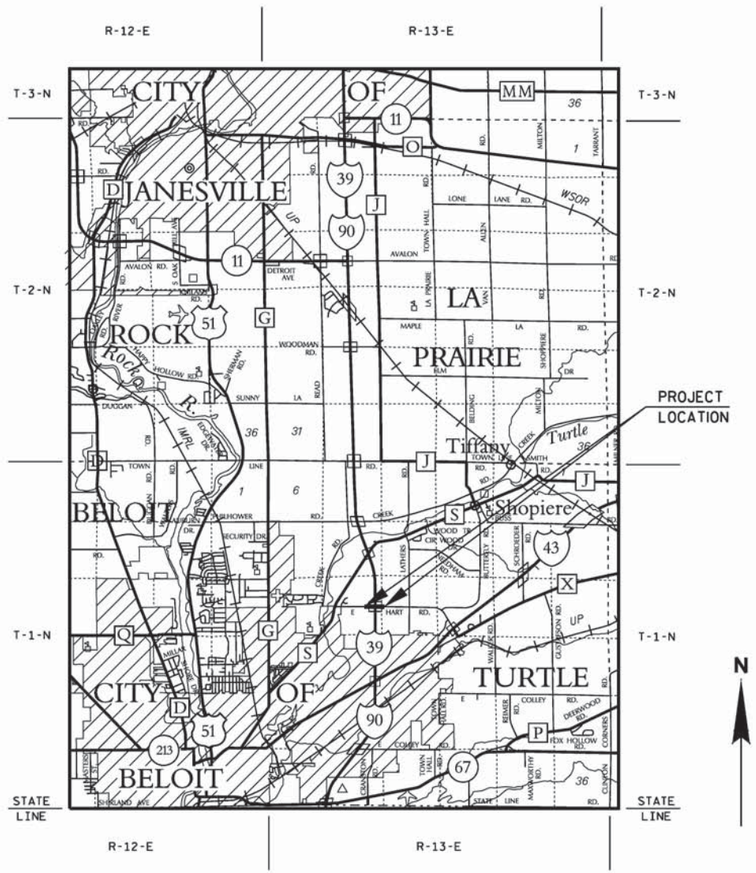
3

3

PULL BOXES

CATEGORY	STATION	LOCATION	653.0140 PULL BOXES STEEL 24x42-INCH EACH
1000	HART RD		
	118+66.93	29.5' RT	1
	118+66.87	22.5' LT	1
	121+46.43	29.5' RT	1
	121+46.37	22.5' LT	1
	TOTAL		4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 1003-10-21
ILLINOIS STATE LINE - MADISON
HART ROAD BRIDGE/APPRS B-53-0045
IH 39/90
ROCK COUNTY



THE NOTES, CONVENTIONAL SYMBOLS AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1003-10-21.

NOTES:

DISTANCES SHOWN FROM THE RIGHT OF WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT OF WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT OF WAY LINES DEPICTED IN NON-AQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT OF WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS OR FROM CENTERLINE OF EXISTING PAVEMENT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" x 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLE'S EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR IH 39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3 (2) 171. EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3 (2) 171, PREVIOUS PROJECT 1001-01-24, CSM 1096684, CSM 1118035, CSM 1972710, DEED RECORDED IN VOL. 210, PAGE 506, TOWN ROAD RECORD PAGE 107 DATED JUNE 21, 1847 AND GOVERNMENT LAND LINES. EXISTING ACCESS CONTROL ALONG IH 39/90 FROM PREVIOUS PROJECT I-90-3 (2) 171.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE.

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP (IF UNLESS NOTED)
R/W MONUMENT	● (SET)
R/W STANDARD	△ ▲ (SET)
NON-MONUMENT R/W POINT	○
SIGN	| SIGN
SECTION CORNER MONUMENT	
FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	
PERMANENT LIMITED EASEMENT	
R/W BOUNDARY POINT	100
TEMPORARY EASEMENT POINT	100
PARCEL NUMBER	102
UTILITY NUMBER	130
SIGN NUMBER (OFF PREMISE)	21-1

PROPOSED R/W LINE	
EXISTING H.E. LINE	
PROPERTY LINE	
LOT & TIE LINES	
SLOPE INTERCEPTS	
CORPORATE LIMITS	
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
ACCESS RESTRICTED (BY ACQUISTION)	
NO ACCESS (BY STATUTORY AUTHORITY)	
SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
EXISTING CENTERLINE	
PROPOSED REFERENCE LINE	
PARALLEL OFFSET	
BUILDING	
BUILDING TO BE RAZED	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT	AP	POINT OF REVERSE CURVATURE	PRC
ACCESS RIGHTS	AR	PRIVATE DRIVEWAY	P.D.
ACRES	AC.	POINT ON TANGENT	POT
AGRICULTURAL P.D.	AGRI. PD.	POINT OF TANGENCY	PT
AHEAD	AH	PROPERTY LINE	P.L.
ALUMINUM	ALUM.	RECORDED AS	(100')
AND OTHERS	ET.AL.	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM.
BLOCK	BLK	RIGHT	RT.
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CONCRETE	CONC.	SEPTIC VENT	SEPV.
CORNER	COR.	SQUARE FEET	S.F.
COUNTY	CO.	STATE TRUNK HIGHWAY	STH
COUNTY TRUNK HIGHWAY	CTH	STATION	STA.
DISTANCE	DIST.	SUBDIVISION	SUBD.
DOCUMENT NUMBER	DOC.	TANGENT	TAN.
EASEMENT	EASE.	TELEPHONE PEDESTAL	T.P.
EXISTING	EX.	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	G.V.	TRANSPORTATION PROJECT PLAT	TPP
GOVERNMENT	GOV'T	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	VOL.
HIGHWAY EASEMENT	H.E.		
INDENTIFICATION	ID.		
IRON PIPE	I.P.		
LAND CONTRACT	LC		
LEFT	LT.		
MONUMENT	MON.		
NUMBER	NO.		
OUTLOT	O.L.		
PAGE	PG.		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF COMPOUND CURVE	PCC		
POINT OF CURVATURE	PC		
POINT OF INTERSECTION	PI		

CURVE DATA

LONG CHORD	L.C.
LONG CHORD BEARING	L.C.B.
RADIUS	R.
DEGREE OF CURVE	D.
CENTRAL ANGLE OR DELTA	Δ.
LENGTH OF CURVE	L.
TANGENT	T.
DIRECTION AHEAD	DA.
DIRECTION BACK	DB.

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
SANITARY FORCE MAIN	FM	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
UTILITY PEDESTAL		
ELECTRIC TOWER		

PROJECT NUMBER 1003-10-21 - 4.01
SHEET 2 OF 2

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart RD_I39\040100_rw.dgn PLOT DATE : 3/12/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:100
1003-10-21 4.00

2022537
RANDAL LEYES
REGISTER OF DEEDS
ROCK COUNTY, WI
RECORDED ON
03/18/2015 08:45:15AM
REC FEE: 25.00
PAGES: 2
** The above recording information verifies that this document has been electronically recorded and returned to the submitter.**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1003-10-21-4.01
SHEET 1 OF 2
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 1003-10-21 - 4.01

THAT PART OF LOT 1 OF CSM 1118035 IN THE SE 1/4 OF THE NE 1/4 AND THE SW 1/4 OF THE NE 1/4, ALSO THAT PART OF LOT 1 OF CSM 1096684 IN THE NW 1/4 OF THE SE 1/4 AND THE NE 1/4 OF THE SE 1/4, ALSO THAT PART OF LOT 1 OF CSM 1972710 IN THE NE 1/4 OF THE SE 1/4, ALSO THAT PART OF THE SE 1/4 OF THE NE 1/4, THE NW 1/4 OF THE SE 1/4 AND THE NE 1/4 OF THE SE 1/4 OF SECTION 17, ALL IN T 1 N, R 13 E, TOWN OF TURTLE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER IH 39/90 ILLINOIS STATE LINE - MADISON (HART ROAD BRIDGE/APPRS B-53-0045).

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

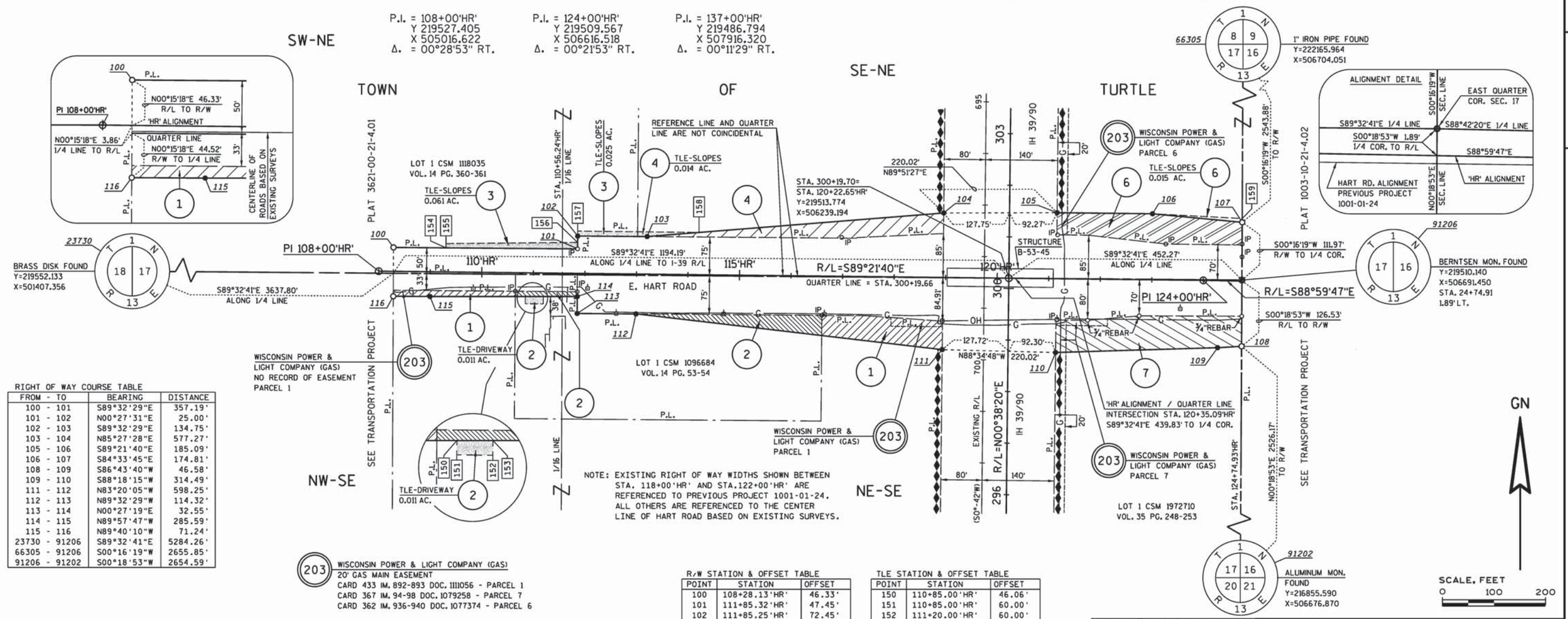
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED EXISTING	R/W ACRES REQUIRED TOTAL	TLE ACRES
1	JULIA A. GJERSETH, HENRY W. KNUEPPEL & MARY K. KNUEPPEL	FEE	0.324	0.178	0.502	-----
2	DEANNA JUNE ALDERMAN	FEE & TLE	0.189	-----	0.189	0.011
3	GARY W. HAHN & MICHELLE J. HAHN, TRUSTEES OF THE GARY W. HAHN & MICHELLE J. HAHN, REVOCABLE TRUST DATED MARCH 8, 2011	TLE	-----	-----	-----	0.086
4	GARY W. HAHN & MICHELLE J. HAHN, TRUSTEES OF THE HAHN FAMILY REVOCABLE TRUST U/A/D 2/23/94	FEE & TLE	0.309	-----	0.309	0.014
6	ROCK ROAD LATHERS LLC	FEE & TLE	0.405	-----	0.405	0.015
7	LESLIE HULLAH & VIRGINIA HULLAH	FEE	0.519	-----	0.519	-----

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
203	WISCONSIN POWER & LIGHT COMPANY (GAS)	RELEASE OF RIGHTS



RIGHT OF WAY COURSE TABLE

FROM - TO	BEARING	DISTANCE
100 - 101	S89°32'29"E	357.19'
101 - 102	N00°27'31"E	25.00'
102 - 103	S89°32'29"E	134.75'
103 - 104	N85°27'28"E	577.27'
105 - 106	S89°21'40"E	185.09'
106 - 107	S84°33'45"E	174.81'
108 - 109	S86°43'40"W	46.58'
109 - 110	S88°18'15"W	314.49'
111 - 112	N83°20'05"W	598.25'
112 - 113	N89°32'29"W	114.32'
113 - 114	N00°27'19"E	32.55'
114 - 115	N89°57'47"W	285.59'
115 - 116	N89°40'10"W	71.24'
23730 - 91206	S89°32'41"E	5284.26'
66305 - 91206	S00°16'19"W	2655.85'
91206 - 91202	S00°18'53"W	2654.59'

203 WISCONSIN POWER & LIGHT COMPANY (GAS)
20' GAS MAIN EASEMENT
CARD 433 IM, 892-893 DOC. 1111056 - PARCEL 1
CARD 367 IM, 94-98 DOC. 1079258 - PARCEL 7
CARD 362 IM, 936-940 DOC. 1077374 - PARCEL 6

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
100	108+28.13'HR'	46.33'
101	111+85.32'HR'	47.45'
102	111+85.25'HR'	72.45'
103	113+20.00'HR'	72.87'
104	118+94.91'HR'	125.00'
105	121+14.91'HR'	128.00'
106	123+00.00'HR'	128.00'
107	124+73.48'HR'	113.85'
108	124+76.45'HR'	126.53'
109	124+30.00'HR'	130.00'
110	121+14.94'HR'	143.00'
111	118+94.94'HR'	140.00'
112	113+00.00'HR'	77.19'
113	111+85.68'HR'	77.55'
114	111+85.57'HR'	45.00'
115	109+00.00'HR'	48.00'
116	108+28.77'HR'	48.38'

TLE STATION & OFFSET TABLE

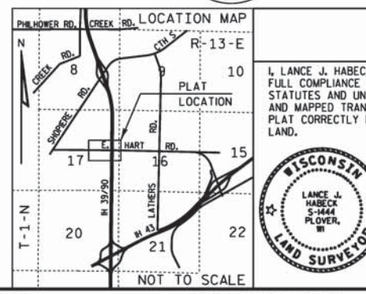
POINT	STATION	OFFSET
150	110+85.00'HR'	46.06'
151	110+85.00'HR'	60.00'
152	111+20.00'HR'	60.00'
153	111+20.00'HR'	45.69'
154	109+30.00'HR'	46.65'
155	109+30.00'HR'	55.00'
156	111+85.29'HR'	60.00'
157	111+85.22'HR'	82.00'
158	114+20.68'HR'	82.00'
159	124+73.38'HR'	121.22'

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR IH 39/90 IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171. EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(2)171, PREVIOUS PROJECT 1001-01-24, CSM 1096684, CSM 1118035, CSM 1972710, PLAT OF SURVEY DATED APRIL 29, 2011, DEED RECORDED IN VOL. 210, PAGE 506, TOWN ROAD RECORD PAGE 107, DATED JUNE 21, 1847 AND GOVERNMENT LAND LINES.

EXISTING ACCESS CONTROL ALONG IH 39/90 FROM PREVIOUS PROJECT I-90-3 (2) 171.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION OFFICE.



AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1003-10-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Lance J. Habeck 3/12/2015
LANCE J. HABECK DATE
REGISTRATION NUMBER: S-1444

WISCONSIN LANCE J. HABECK S-1444 PLOVER, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

DAVID R. MILLER David R. Miller 3/13/2015
PRINTED NAME SIGNATURE DATE

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart RD_I39\040101_rw.dgn
APPRAISAL PLAT DATE : 3-12-15
PLOT DATE : 3/13/2015
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 1:100
1003-10-21 4.01

2023120
RANDAL LEYES
REGISTER OF DEEDS
ROCK COUNTY, WI
RECORDED ON
03/26/2015 10:00:14AM
REC FEE: 25.00
PAGES: 1
** The above recording information verifies that this document has been electronically recorded and returned to the submitter.**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1003-10-21-4.02
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 1003-10-21 - 4.02

THAT PART OF THE SW 1/4 OF THE NW 1/4 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 16, T 1 N, R 13 E, TOWN OF TURTLE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER IH 39/90 ILLINOIS STATE LINE - MADISON (HART ROAD BRIDGE/APPRS B-53-0045).

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
6	ROCK ROAD LATHERS LLC	FEE & TLE	1.500	0.703	2.203	1.991
8	EUGENE G. LATHERS & JOAN K. LATHERS; JAMIE J. ZINGLER & SUSAN A. WISKERCHEN, TRUSTEES OF THE JAMIE JOAN ZINGER TRUST; SUSAN A. WISKERCHEN & JAMIE J. ZINGLER, TRUSTEES OF THE SUSAN ANN WISKERCHEN TRUST; JOHN W. DABSON & TARA J. TINDER, TRUSTEES OF THE JOHN WILLIAM DABSON TRUST; TARA J. TINDER & JOHN W. DABSON, TRUSTEES OF THE TARA JEAN TINDER TRUST; ALL TRUSTS CREATED UNDER THE JOHN & PATRICIA DABSON LIVING TRUST DATED DECEMBER 20, 2002	FEE & TLE	1.256	0.704	1.960	0.021

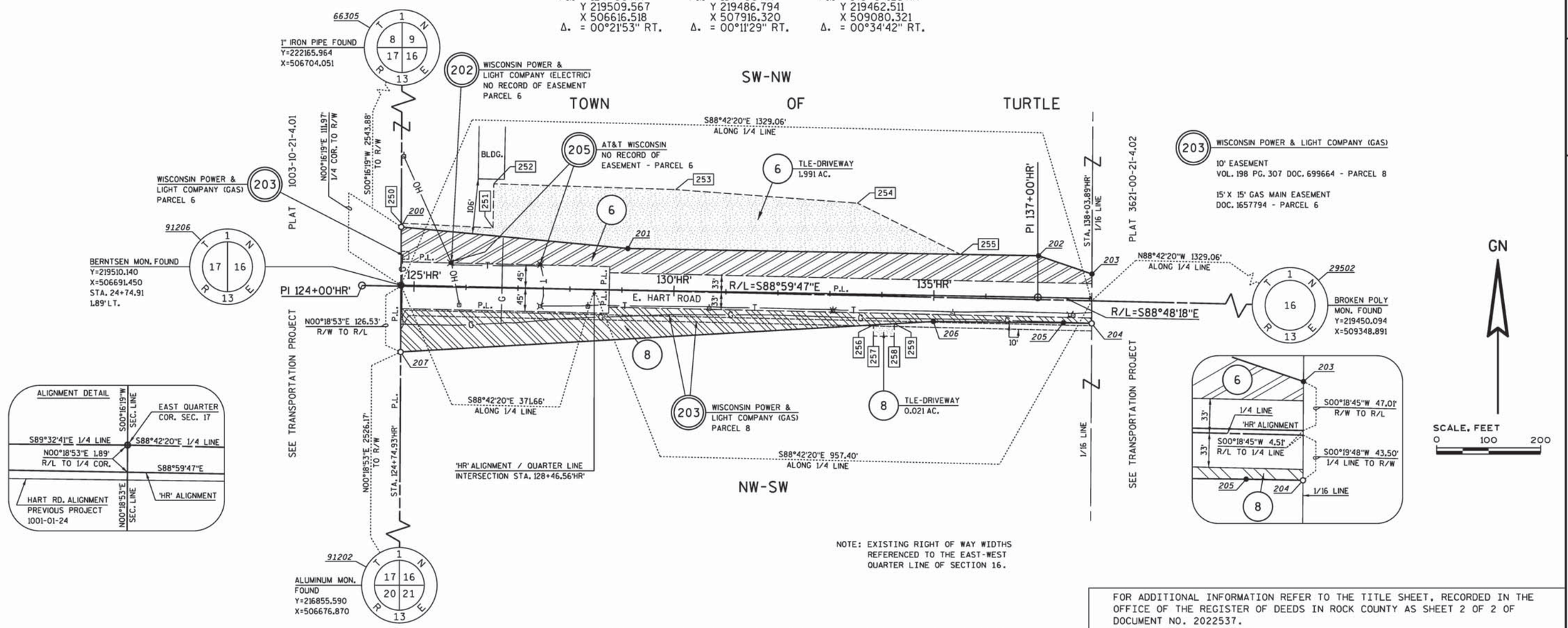
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WISCONSIN POWER & LIGHT COMPANY (ELECTRIC)	RELEASE OF RIGHTS
203	WISCONSIN POWER & LIGHT COMPANY (GAS)	RELEASE OF RIGHTS
205	AT&T WISCONSIN (TELEPHONE)	RELEASE OF RIGHTS

P.I. = 124+00'HR'
Y 219509.567
X 506616.518
Δ. = 00°21'53" RT.

P.I. = 137+00'HR'
Y 219486.794
X 507916.320
Δ. = 00°11'29" RT.

P.I. = 148+64.25'HR'
Y 219462.511
X 509080.321
Δ. = 00°34'42" RT.



NOTE: EXISTING RIGHT OF WAY WIDTHS REFERENCED TO THE EAST-WEST QUARTER LINE OF SECTION 16.

RIGHT OF WAY COURSE TABLE

FROM - TO	BEARING	DISTANCE
200 - 201	S84°33'45"E	437.83'
201 - 202	S88°59'47"E	790.00'
202 - 203	S71°06'38"E	108.57'
204 - 205	N88°48'18"W	54.62'
205 - 206	N89°25'00"W	249.85'
206 - 207	S86°43'40"W	1026.41'
91206 - 29502	S88°42'20"E	2658.12'
66305 - 91206	S00°16'19"W	2655.85'
91206 - 91202	S00°18'53"W	2654.59'

R/W STATION & OFFSET TABLE

POINT	STATION	OFFSET
200	124+73.48'HR'	113.85'
201	129+10.00'HR'	80.00'
202	137+00.00'HR'	80.00'
203	138+03.17'HR'	47.00'
204	138+04.62'HR'	48.00'
205	137+50.00'HR'	48.00'
206	135+00.00'HR'	50.00'
207	124+76.45'HR'	126.53'

TLE STATION & OFFSET TABLE

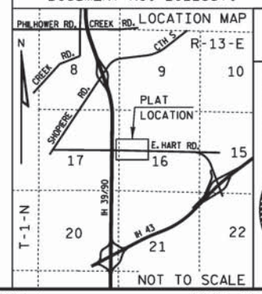
POINT	STATION	OFFSET
250	124+73.38'HR'	121.22'
251	126+50.00'HR'	115.00'
252	126+50.00'HR'	200.00'
253	130+00.00'HR'	195.00'
254	133+50.00'HR'	175.00'
255	135+50.00'HR'	80.00'
256	133+85.00'HR'	58.60'
257	133+85.00'HR'	80.00'
258	134+25.00'HR'	80.00'
259	134+25.00'HR'	55.61'

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED FROM PREVIOUS PROJECT I-90-3(21)171, PREVIOUS PROJECT 1001-01-24, TOWN ROAD RECORD, PAGE 100, DATED JUNE 21, 1847 AND GOVERNMENT LAND LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION OFFICE.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ROCK COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 2022537.



AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1003-10-21 - 4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Lance J. Habeck 3/12/2015
LANCE J. HABECK DATE
REGISTRATION NUMBER: S-1444

WISCONSIN LANCE J. HABECK S-1444 PLOVER, WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

DAVID R. WILLER David R. Willer 3/20/2015
PRINTED NAME SIGNATURE DATE

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

BENCHMARK TABLE

BM NO.	STA	OFFSET	ELEV	DESCRIPTION
BM 1	119+00.65'HR'	16.17' RT	844.84'	EXIST. BRIDGE DISK
BM107T	120+71.13'HR'	55.17' RT	824.14'	CHIS. □ IN 'NB' BARRIER

GARY W & MICHELLE J TRS
HAHN FAMILY TRUST

STA 120+06.65
℄ PIER B-53-312

N

CAUTION
WISCONSIN POWER
& LIGHT GAS

PROPOSED R/W

PL

SLOPE INTERCEPT
(TYP.)

EXISTING R/W

TLE

PI
STA 108+00 'HR'

STA 112+25'HR' LT.
CONSTRUCT 30' WIDE B.A.D. P.E.
MATCH 68' LT

PROPOSED R/W

REMOVE TREE
(TYP.)

APPROACH SLAB (TYP.)
SEE CONSTUCTION DETAIL

℄ HART ROAD

110'HR'

S89° 21' 40"E

115'HR'

120'HR'

NO° 38' 20"E

300'SB'

300'NB'

24'

MATCHLINE STA. 123+50 'HR'

STA. 108+29, RT
CONSTRUCT B.A.D. F.E.
MATCH 43.3' RT
1-15" CLASS IV
C.P.R.C. REQUIRED
2-APRON ENDWALLS
REQUIRED

PP #7504
RELOCATION
STA 109+84.01
32.51' RT
(BY OTHERS)

KNUEPPEL

DO NOT
DISTURB TREE

STA 113+60'HR'
1-42" CLASS III C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED

STA 111+00'HR' RT.
CONSTRUCT ASPHALT P.E.
1-18" CLASS IV C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED
SAWCUT & MATCH 47.5' RT

PP# 7780
RELOCATION
STA 114+70.23
75.60' RT
(BY OTHERS)

PROPOSED R/W

PP# 117580
RELOCATION
STA 116+65.64
73.85' RT
(BY OTHERS)

ALDERMAN

PL

WISCONSIN POWER
& LIGHT GAS

BM 1

WISCONSIN POWER
& LIGHT ELECTRIC

CAUTION

R/L IH 39 SB

BM
107T

MGS REQ'D (TYP.)
SEE CONSTRUCTION
DETAIL

R/L IH 39 NB

BEGIN PROJECT 1003-10-73
STA. 108+00'HR'
Y = 219527.404
X = 505016.622
MATCH PROJECT
ID 3621-00-76

5

5

VCL = 630.00
K = 137.53

VCL = 380.00
K = 217.14

VCL = 970.00
K = 154.66

VPI STA 122+85.00
VPI EL 854.71

VPT STA 117+80.00
VPT EL 841.98

VPI STA 115+90.00
VPI EL 837.20

VPT STA 113+55.00
VPT EL 827.16

VPI STA 110+40.00
VPI EL 813.71

VPC STA 118+00.00
VPC EL 842.49

VPC STA 114+00.00
VPC EL 829.08

VPC STA 107+25.00
VPC EL 814.69

FINISHED PROFILE

EXISTING GROUND

2.52%

4.27%

-0.31%

HP STA 121+94.15
EL 846.99

16'-10" MIN.
VERTICAL
CLEARANCE
(AFTER IH39
RECONSTRUCTION)

STA 113+60'HR'
1-42" C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED

STA 120+06.65 'HR'
STRUCTURE B-53-312 REQUIRED
2-SPAN PRESTRESSED CONCRETE DECK
GIRDER BRIDGE (45W GIRDERS)
236'-6"± OVERALL LENGTH
43'-0" CLEAR ROADWAY WIDTH
0°0'0" SKEW
(SEE STRUCTURE PLAN)

EXISTING
ELEV.
ON ℄

PROPOSED
ELEV.
ON ℄

850
840
830
820
810

08	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	123
814.66	813.44	814.87	814.02	815.26	814.83	815.83	815.69	816.58	816.52	817.52	817.21	818.64	818.21	819.94	818.93	821.42	819.73	823.08	820.79	824.92	822.21	826.95	824.01	829.08	826.09	831.16	828.36	833.13	830.81	834.97	833.26	836.70	835.43	838.32	837.38	839.82	839.08	841.21	840.51	842.49	841.80	843.67	842.48	844.69	840.51	845.55	841.34	846.24	841.82	846.77	842.26	847.15	841.91	847.35	840.68	847.40	839.42	847.29	837.69	847.01	835.82	846.58

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: HART ROAD	SHEET 108	E

SECTION LINE

SLOPE INTERCEPT (TYP.)

REMOVE TREE (TYP.)

PI STA 124+00 'HR'

PP# 8244 RELOCATION STA 125+71.35 46.53' LT (BY OTHERS)

1026'QD'

ROCK ROAD LATHERS LLC QUARRY DRIVEWAY (SEE PLAN & PROFILE)

TLE

STA 134+06.10 'HR'= STA 1034+85.42 'QD'

BENCHMARK TABLE

BM NO.	STA	OFFSET	ELEV	DESCRIPTION
91206	120+71.13'HR'	16.17' RT	-	POLY MON. (BROKEN)

STA 134+06'HR' LT.
CONSTRUCT B.A.D. CE
2-18" CLASS IV C.P.R.C. REQUIRED
4-APRON ENDWALLS REQUIRED
(SEE PLAN & PROFILE: QUARRY DRIVE)

PI STA 137+00 'HR'

N

MATCH LINE STA. 123+50 'HR'

BM 91206

S89° 21' 40"E

125'HR'

HART ROAD

821.26

130'HR'

S88° 59' 47"E

75°0'0"

1034'QD'

135'HR'

S88° 48' 18"E

R HART ROAD

PP# 117570 RELOCATION STA 123+55.85 55.78' RT (BY OTHERS)

STA 125+75 'HR' 1-42" CLASS III C.P.R.C. REQUIRED 2-APRON ENDWALLS REQUIRED

PP# 8228 RELOCATION STA 125+87.60 34.26' RT (BY OTHERS)

CAUTION

WISCONSIN POWER & LIGHT GAS & ELECTRIC

AT&T WISCONSIN

PP# 8439 RELOCATION STA 128+35.02 32.79' RT (BY OTHERS)

PROPOSED R/W (TYP.)

PP# 8501 RELOCATION STA 130+68.41 33.19' RT (BY OTHERS)

FIELD ENTRANCE

STA 134+06'HR' RT.
CONSTRUCT B.A.D. FE
1-18" IV C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED
MATCH 71' RT

PP# 8590 RELOCATION STA 133+06.53 33.29' RT (BY OTHERS)

TLE

END PROJECT 1003-10-73
STA. 139+00'HR'
MATCH EXISTING
PROJECT ID
3621-00-76

LESLIE & VIRGINIA HULLAH

TRUSTEES DABSON TRUST ETAL

5

5

VCL = 600.00
K = 153.57

VPI STA 122+85.00
VPI EL 854.71

VPT STA 127+70.00
VPT EL 836.53

VPC STA 128+25.00
VPC EL 834.46

VCL = 970.00
K = 154.66

-3.75%

FINISHED PROFILE

VPI STA 131+25.00
VPI EL 823.21

VPT STA 134+25.00
VPT EL 823.68

0.16%

PROPOSED GRADE
ELEV. 824.42'
EXISTING GRADE
ELEV. 822.55'

EXISTING GROUND

STA 125+75'HR'
1-42" C.P.R.C. REQUIRED
2-APRON ENDWALLS REQUIRED

EXISTING ELEV. ON R

PROPOSED ELEV. ON R

850
840
830
820
810

| | | |

SECTION LINE

BEGIN QUARRY DRIVEWAY
STA 1026+63.57

CURVE BP001

SLOPE INTERCEPT (TYP.)

TLE

ROCK ROAD LATHERS LLC

CURVE BP002

℄ QUARRY DRIVE

CURVE BP003

PI
STA 1032+71.11 'QD'
Y = 219628.456
X = 507490.427

CURVE BP004

STA 1034+27 'QD'
2-18" CLASS IV C.P.R.C. REQUIRED
4-APRON ENDWALLS REQUIRED

PROPOSED R/W

N

1026'QD'

QUARRY DRIVEWAY

1030'QD'

130'

125'HR'

130'HR'

135'HR'

1034'QD'

℄ HART ROAD

CAUTION

GAS

STA 134+06.10 'HR' =
STA 1034+85.42 'QD' =
Y = 219491.94
X = 507622.47

5

5

VCL = 300.00
K = 157.35

VCL = 58.72
K = 22.53

VPC STA 1028+49.87
VPC EL 823.50

VPI STA 1029+99.87
VPI EL 825.45

VPT STA 1031+49.87
VPT EL 824.55

VPC STA 1034+12.79
VPC EL 822.97

VPI STA 1034+42.15
VPI EL 822.79

VPT STA 1034+71.51
VPT EL 823.38

BEGIN QUARRY DRIVEWAY
STA 1026+63.57

1.31%

FINISHED PROFILE

-0.60%

2.00%

END QUARRY DRIVEWAY
STA 1034+85.42

HP
STA 1030+60.30 'QD'
EL 824.82'

EXISTING GROUND

STA 1034+27 'QD'
2-18" CLASS IV C.P.R.C. REQUIRED
4-APRON ENDWALLS REQUIRED

840.00
830.00
820.00
810.00

EXISTING ELEV. ON ℄
PROPOSED ELEV. ON ℄

1026	1027	1028	1029	1030	1031	1032	1033	1034	1035
820.88 / 821.03	820.91 / 821.06	820.45 / 821.54	819.75 / 822.19	819.16 / 822.85	819.14 / 823.50	819.06 / 824.07	819.55 / 824.48	819.31 / 824.74	825.08 / 824.84
817.46 / 824.77	817.73 / 824.55	818.11 / 824.25	818.29 / 823.95	818.56 / 823.65	818.78 / 823.35	824.78 / 823.05	818.70 / 823.05	820.74 / 822.56	

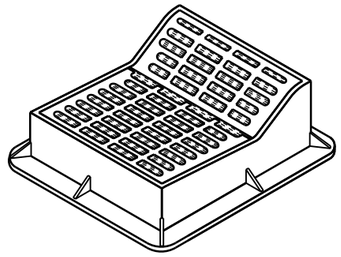
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	PLAN AND PROFILE: QUARRY DRIVE	SHEET 110	E

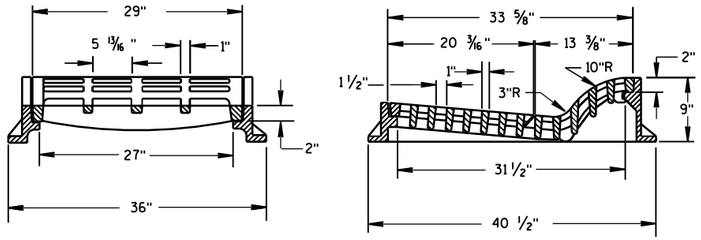
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\SHEETSPLAN\050105_PP2_QD_FE.DWG PLOT DATE : 7/29/2015 10:48 AM PLOT BY : JUSTIN FLICKINGER PLOT NAME : PLOT SCALE : 1:100_XREF

Standard Detail Drawing List

08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
12A03-10	NAME PLATE (STRUCTURES)
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13B02-08B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B29-01	SAFETY EDGE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C19-02C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

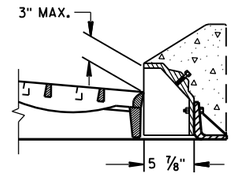
6





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

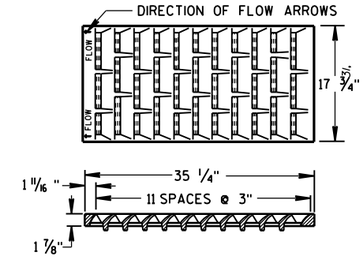
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

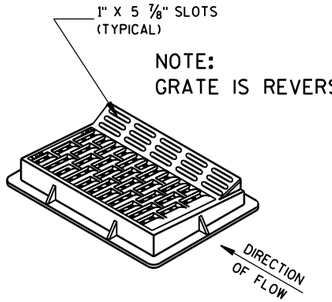
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

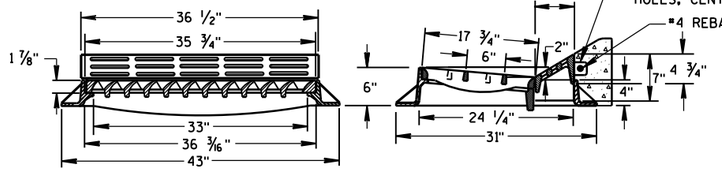
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.



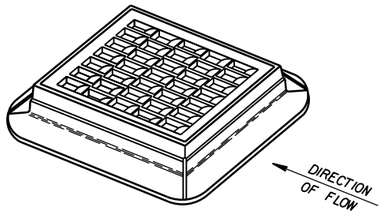


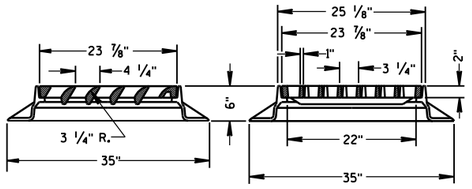


TYPE "HM"

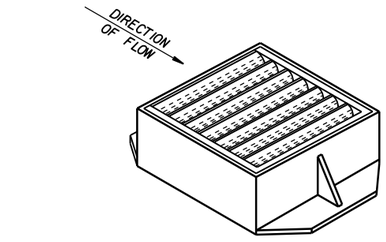
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

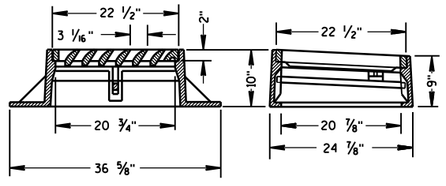
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



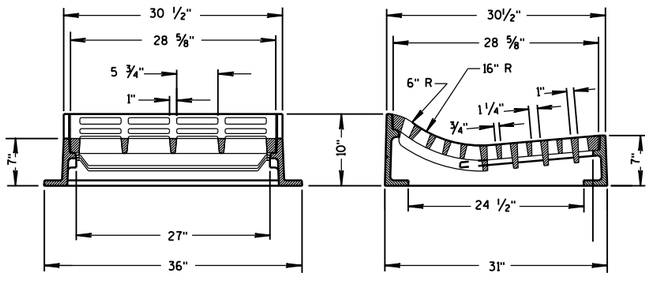


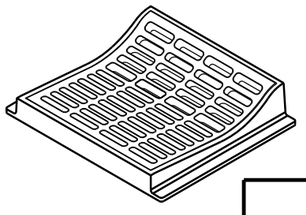
TYPE "S"





TYPE "V"





TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

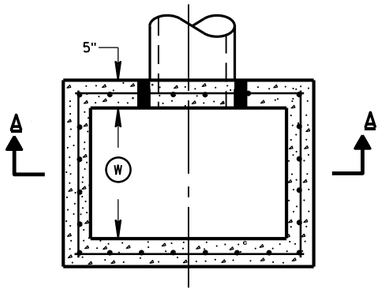
APPROVED
11/27/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

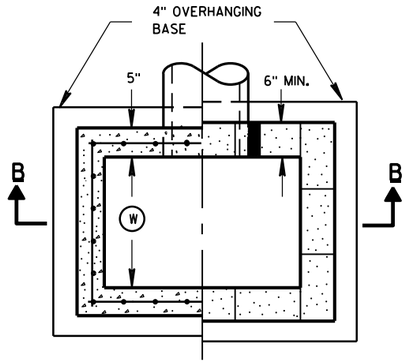
FHWA

6

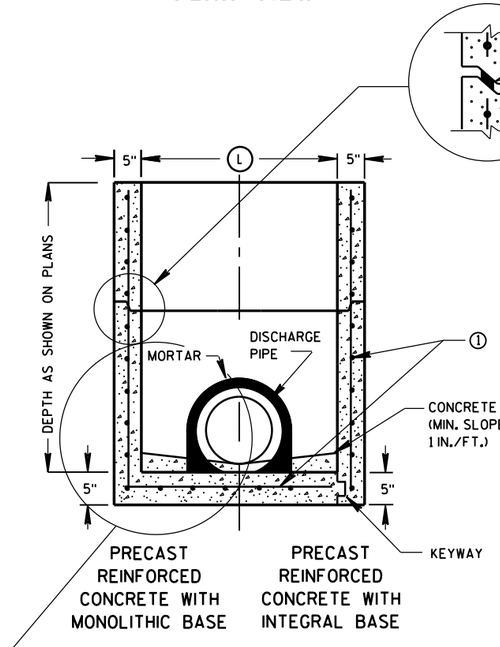
S.D.D. 8 A 5-19c



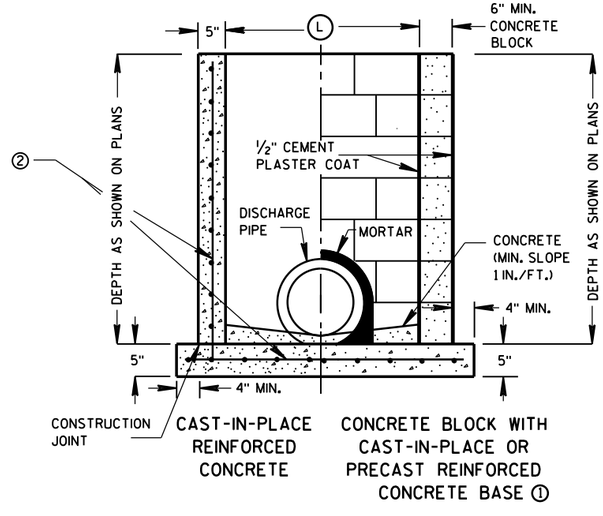
PLAN VIEW



PLAN VIEW



SECTION A-A



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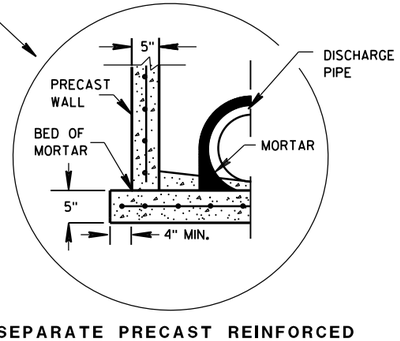


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

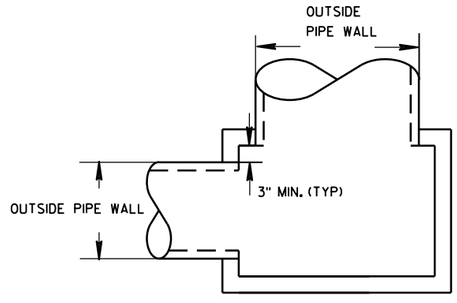
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

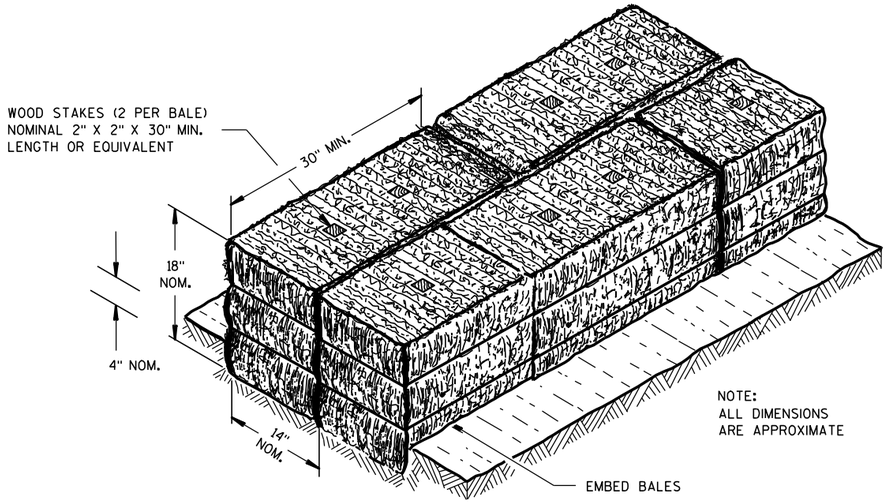
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

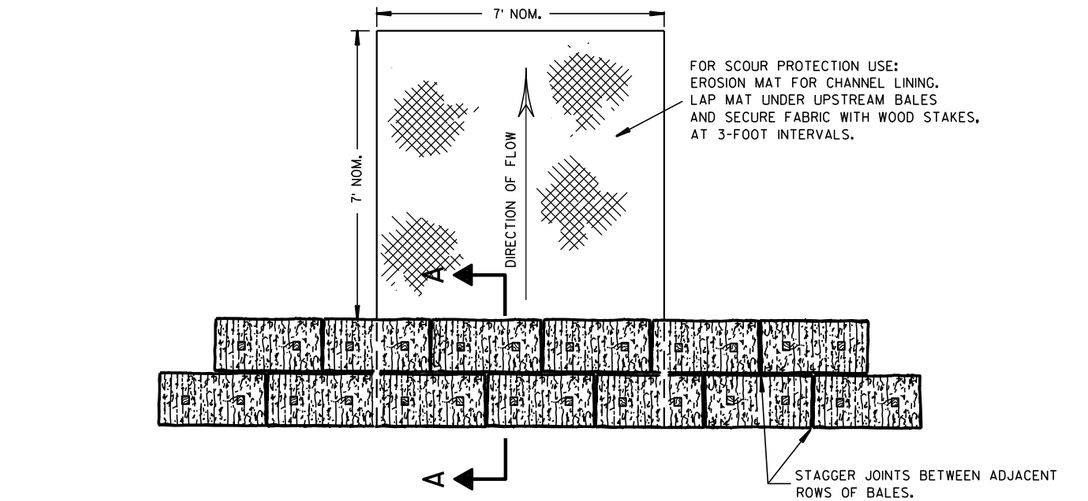
6

S.D.D. 8 C 7-1

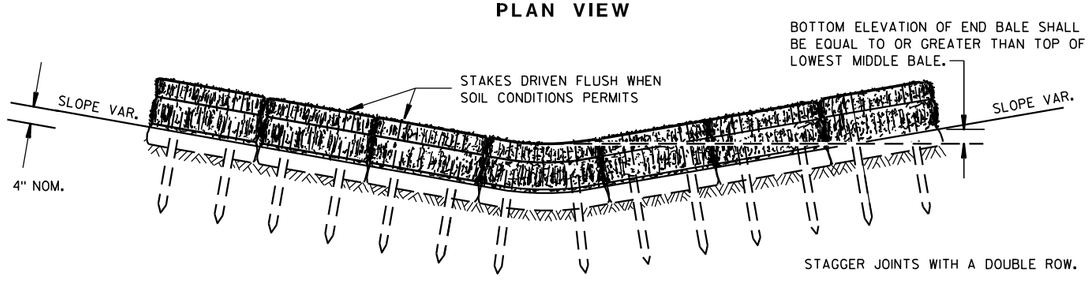
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



SECTION A-A



PLAN VIEW



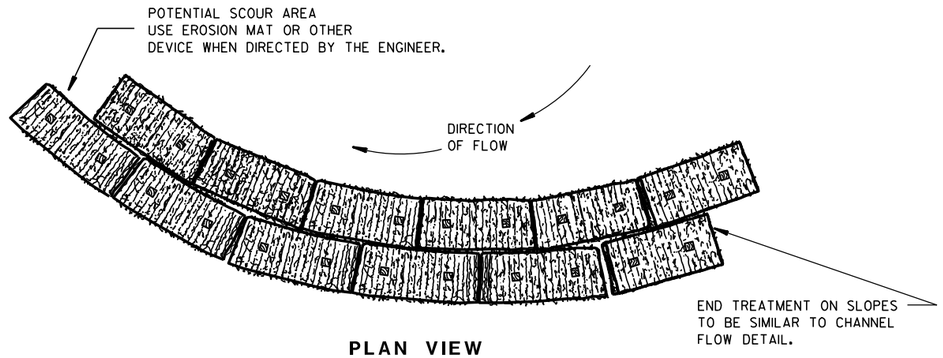
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

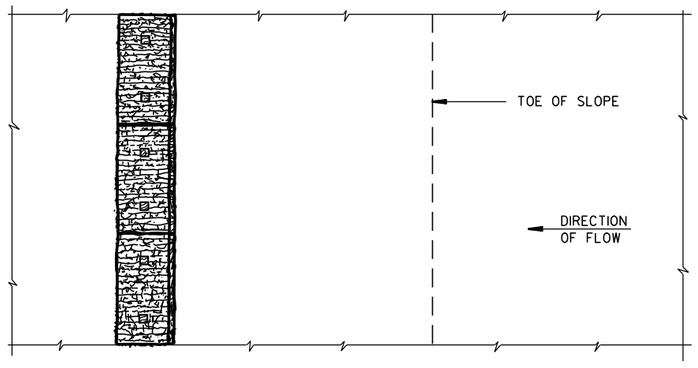
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

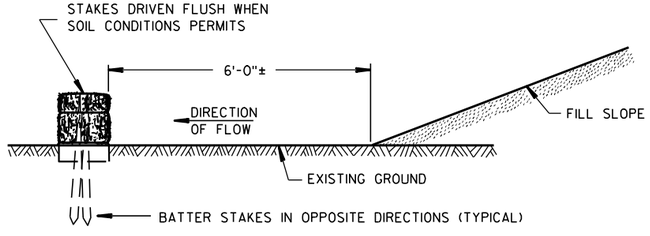


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

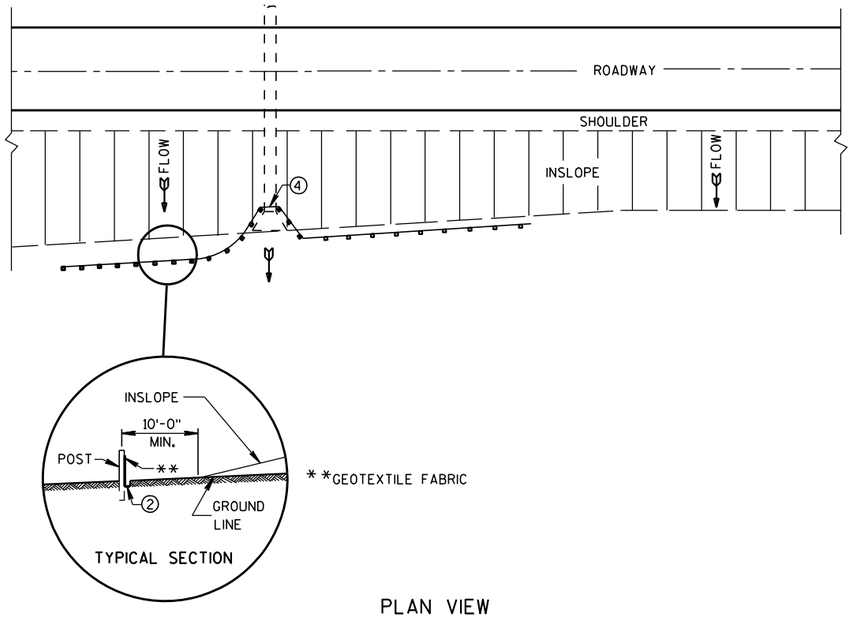
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

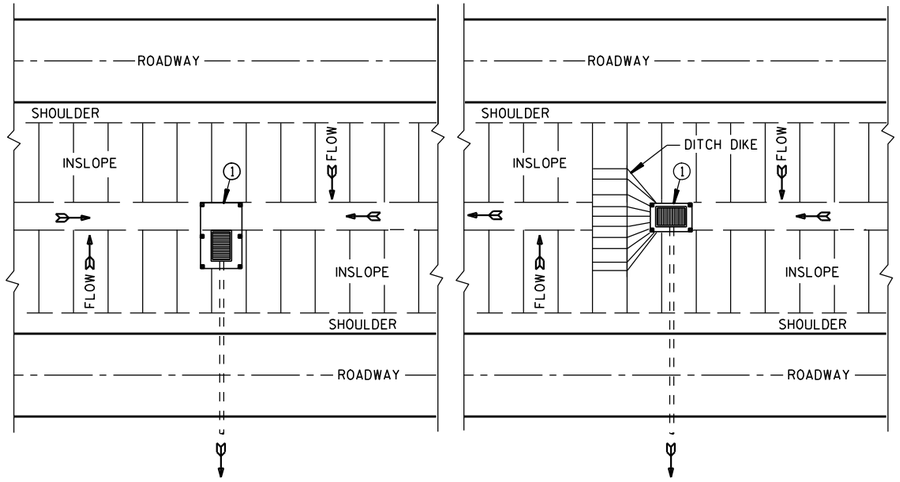
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



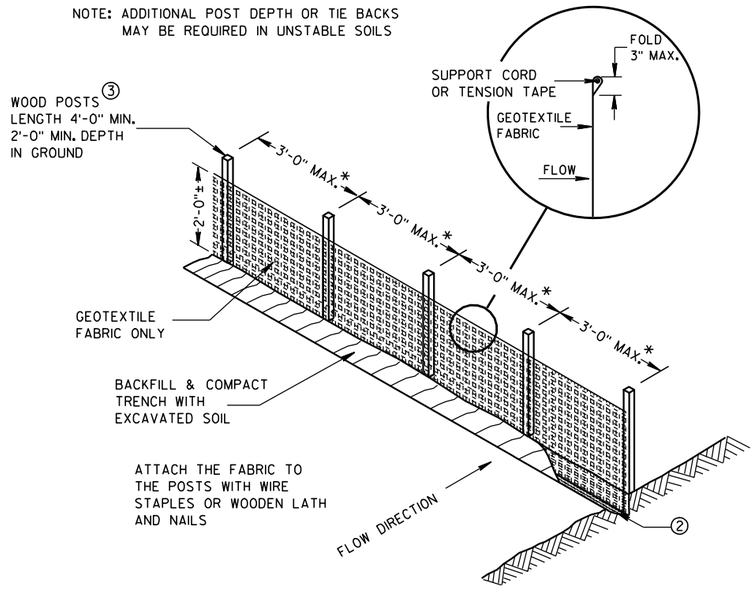
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



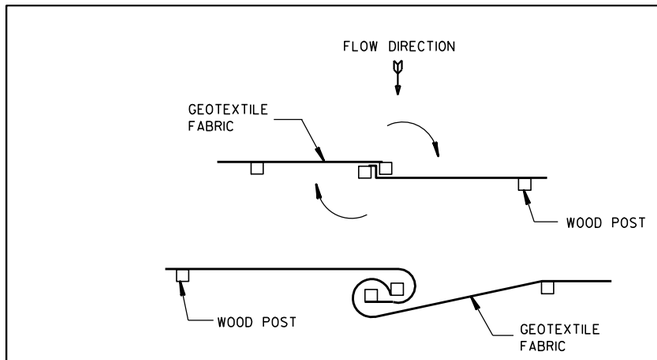
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

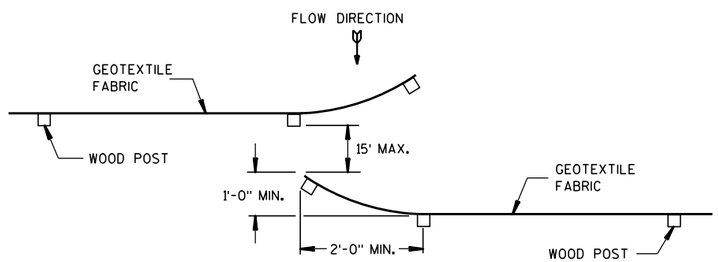


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



TWIST METHOD



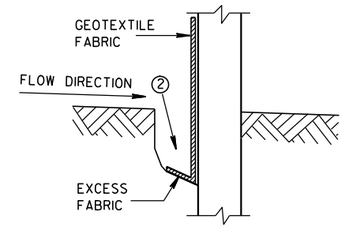
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

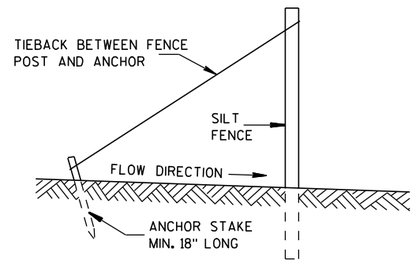
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

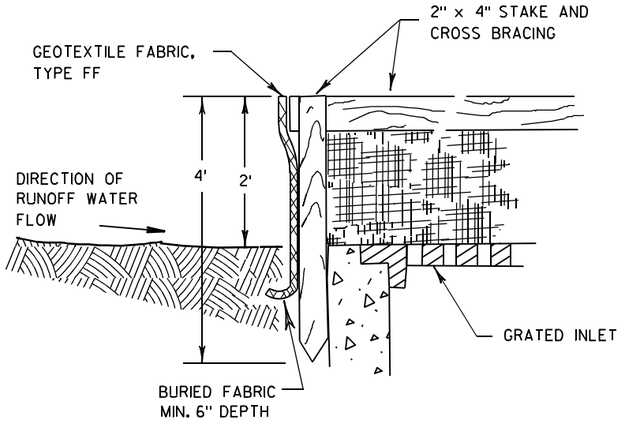
SILT FENCE

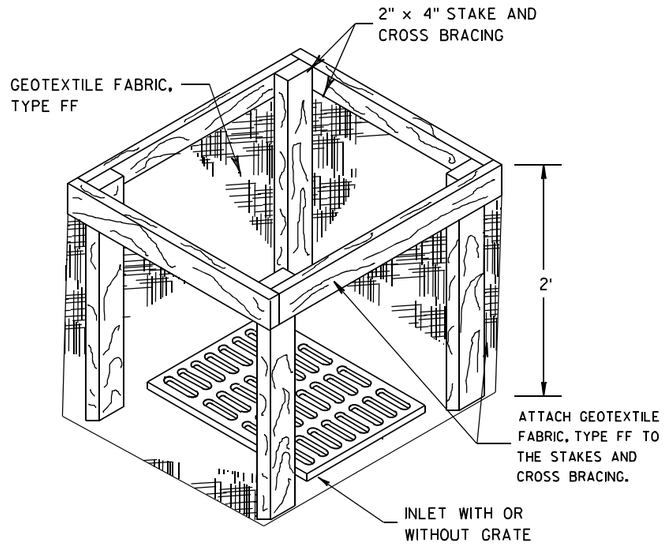
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

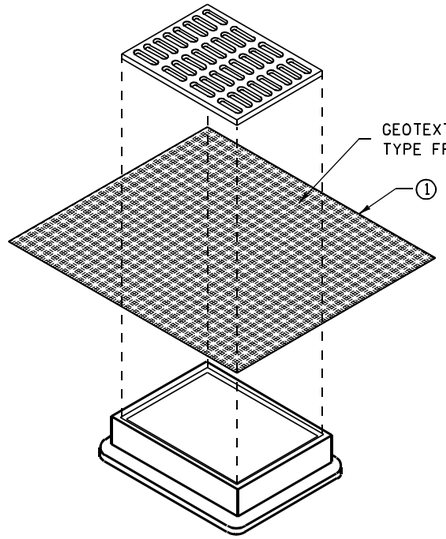
S.D.D. 8 E 9-6

6



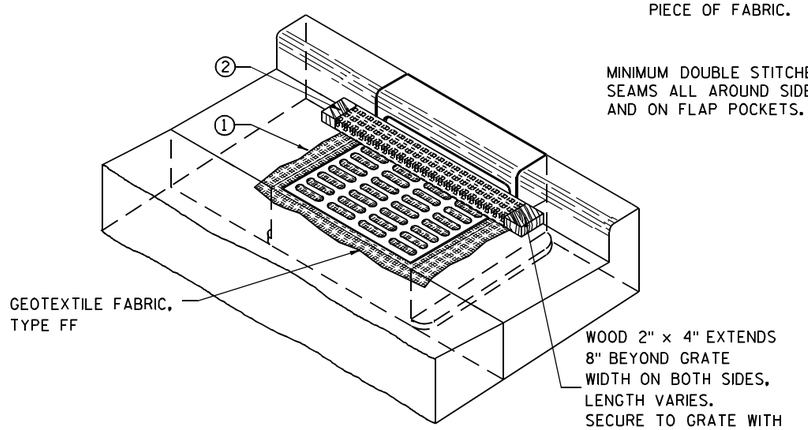


INLET PROTECTION, TYPE A

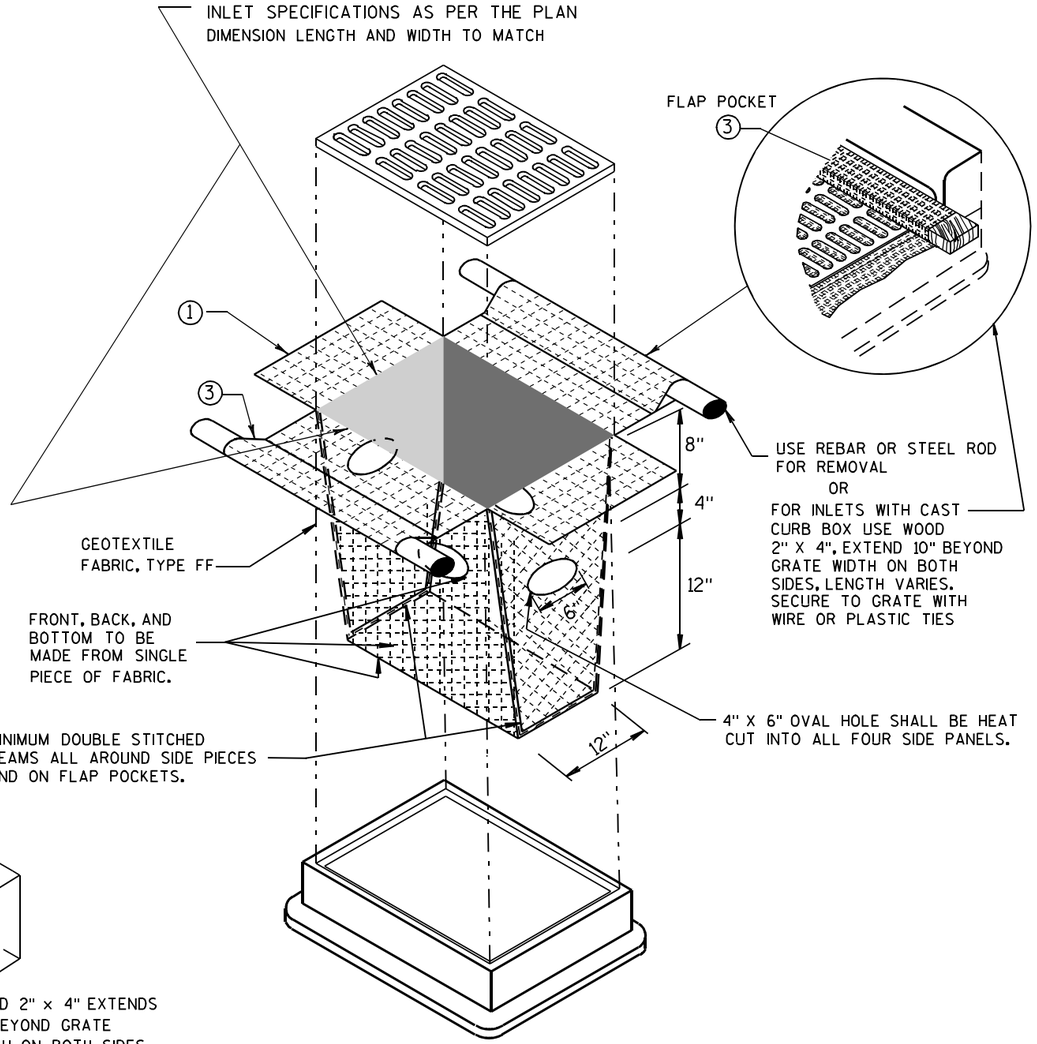


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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S.D.D. 8 E 10-2

METAL APRON ENDWALLS

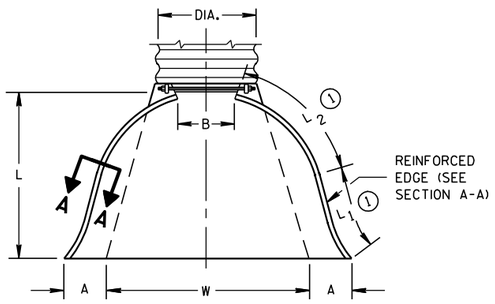
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

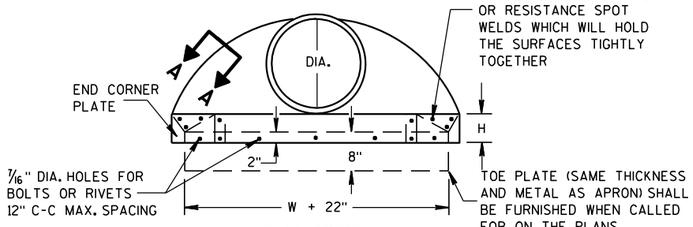
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

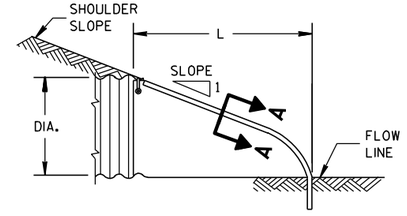
*MINIMUM
**MAXIMUM



PLAN VIEW

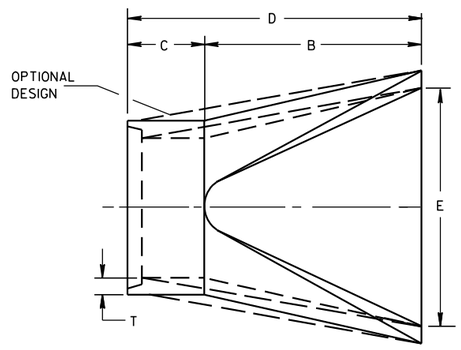


END VIEW

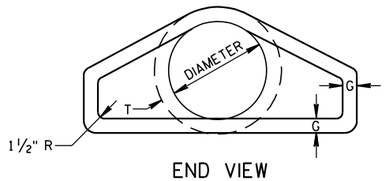


SIDE ELEVATION

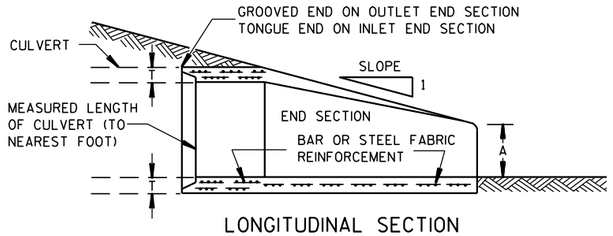
METAL ENDWALLS



PLAN

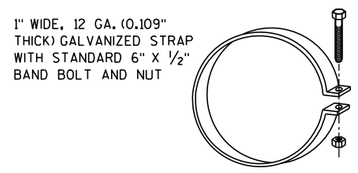


END VIEW



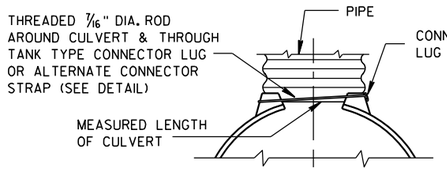
LONGITUDINAL SECTION

CONCRETE ENDWALLS

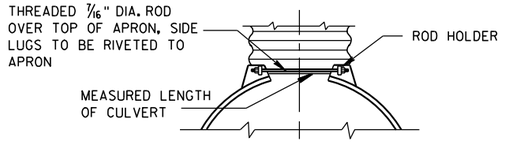


ALTERNATE FOR TYPE 1 CONNECTION

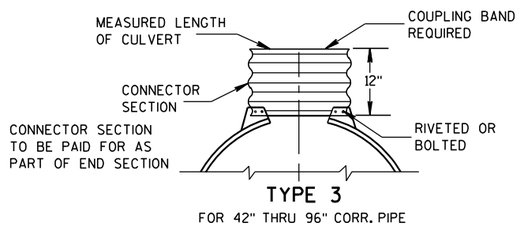
END SECTION CONNECTOR STRAP



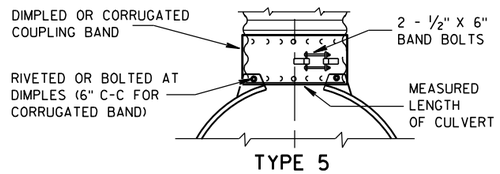
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

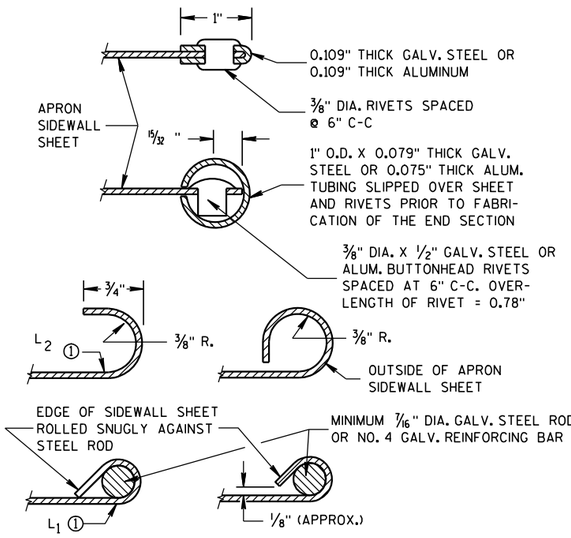
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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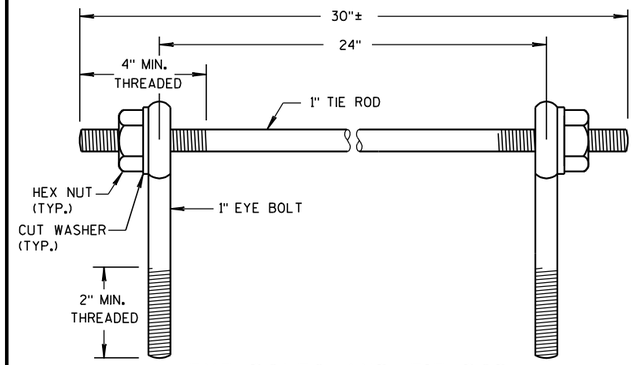
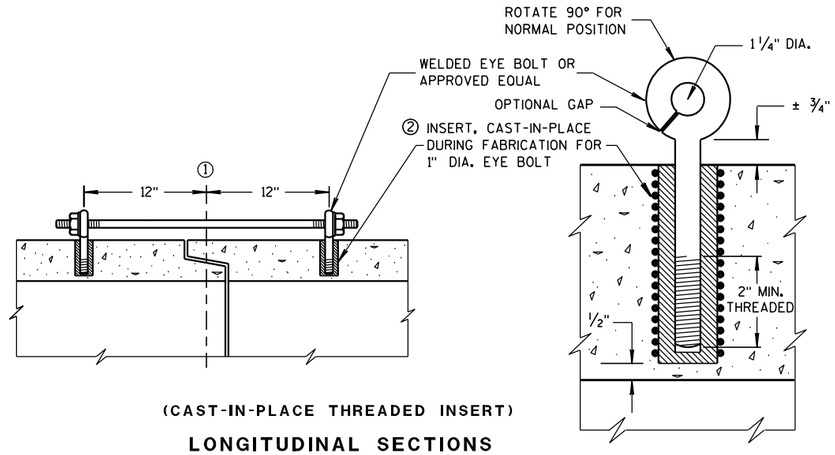
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

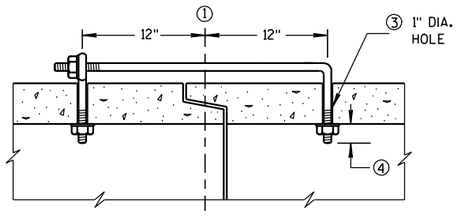
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

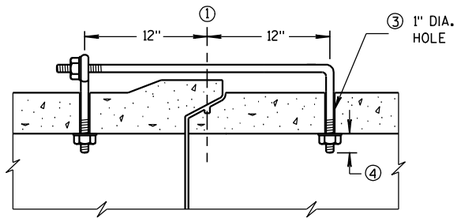
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

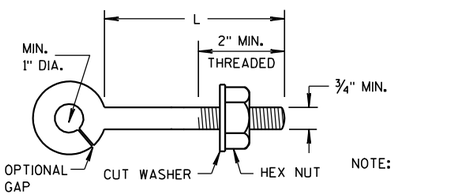


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

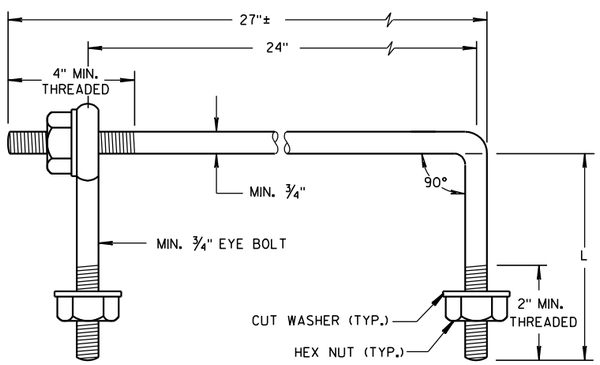
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

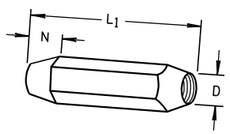
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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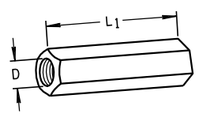
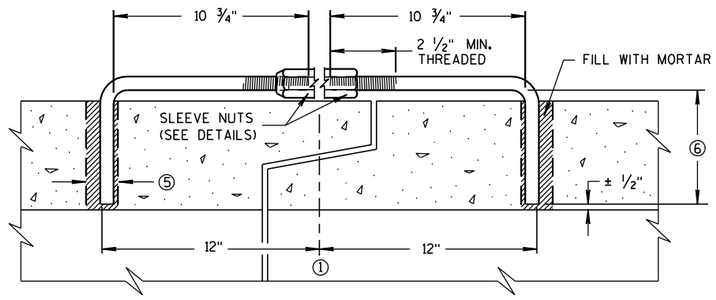


PLAIN

RIGHT AND LEFT THREADS

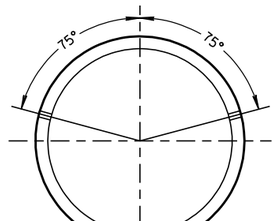
SLEEVE NUTS



LONGITUDINAL SECTION

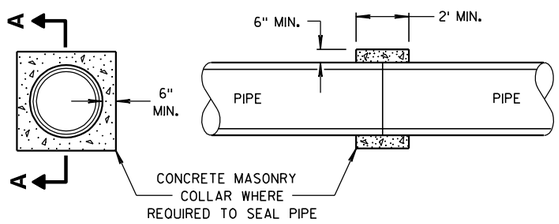
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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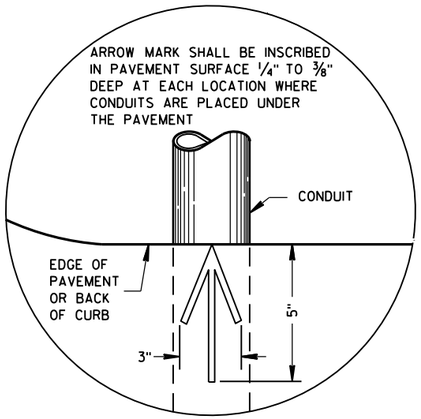
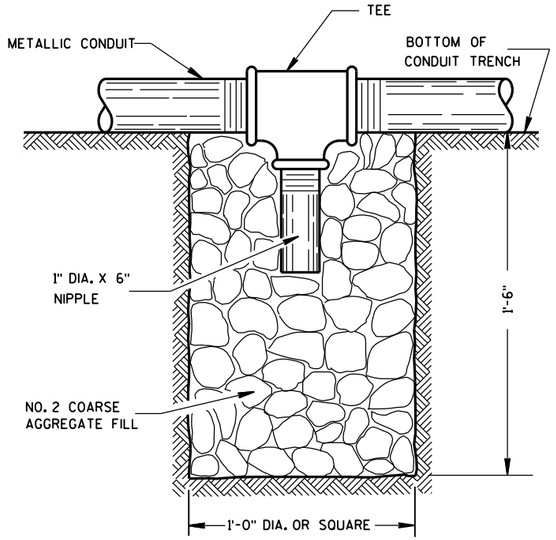
S.D.D. 8 F 4-7



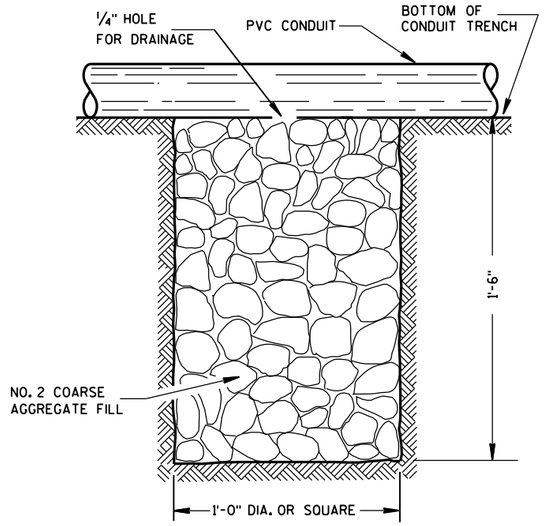
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

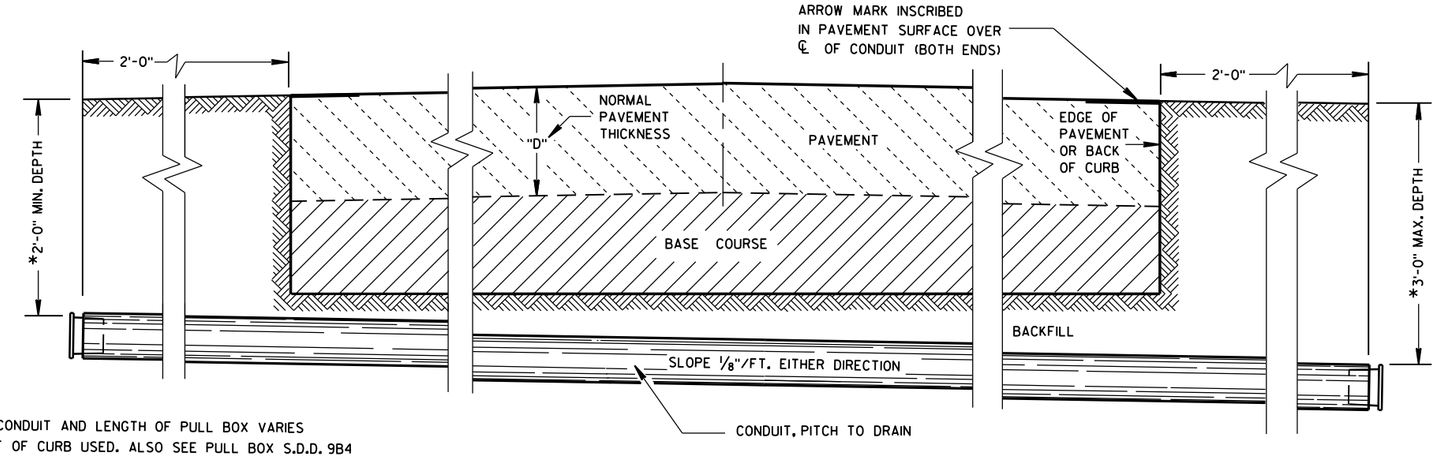
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 B 2-9

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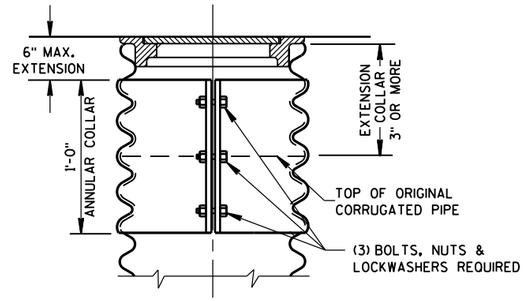
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

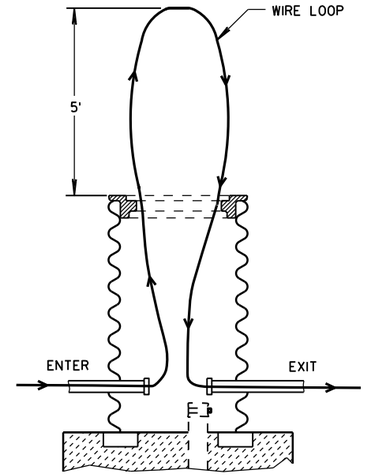
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

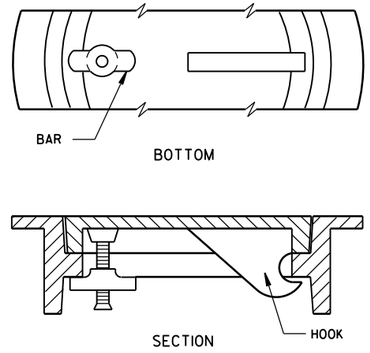
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

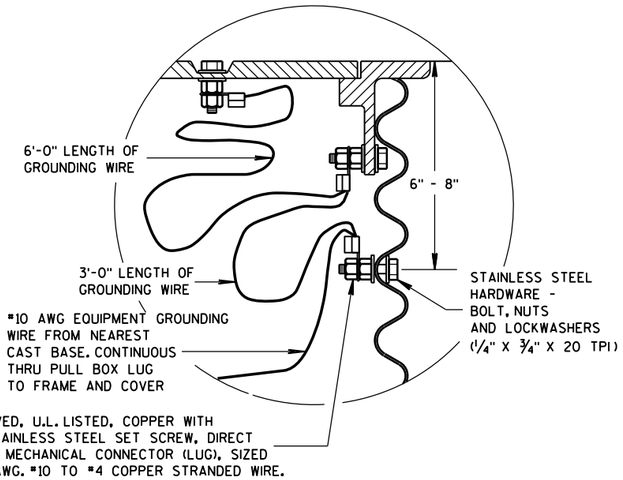


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

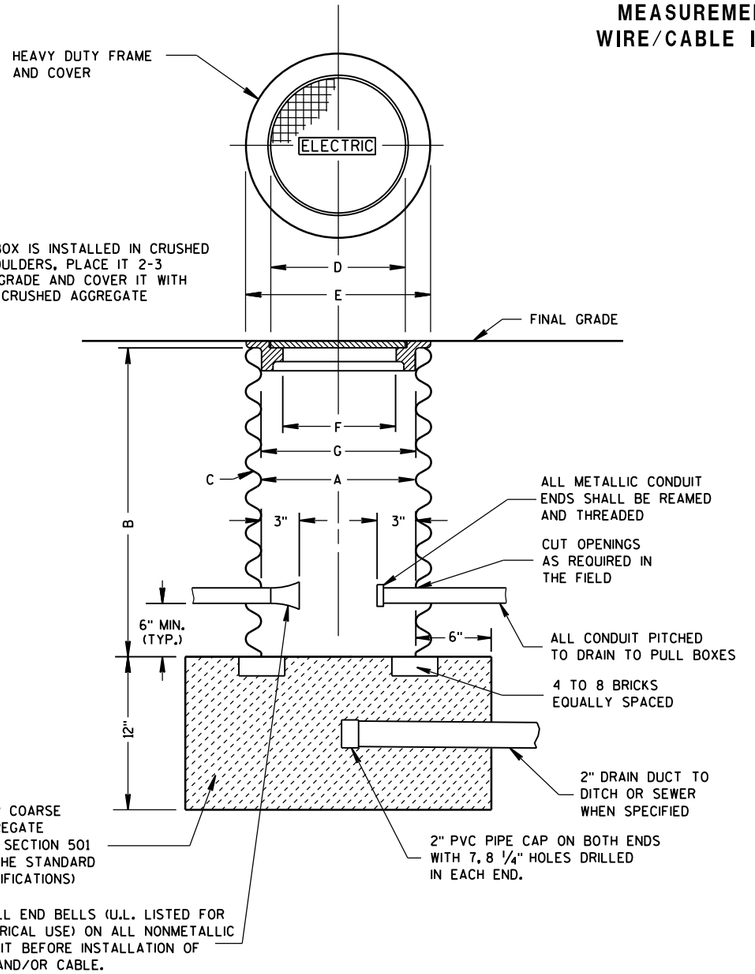


ALTERNATE COVER (LOCKING)

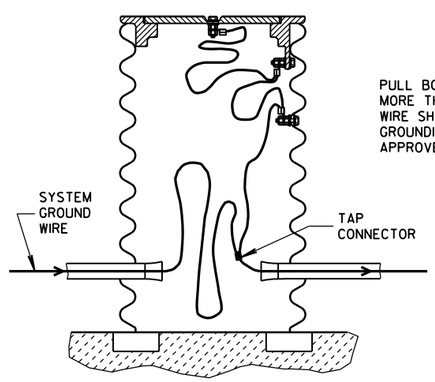
TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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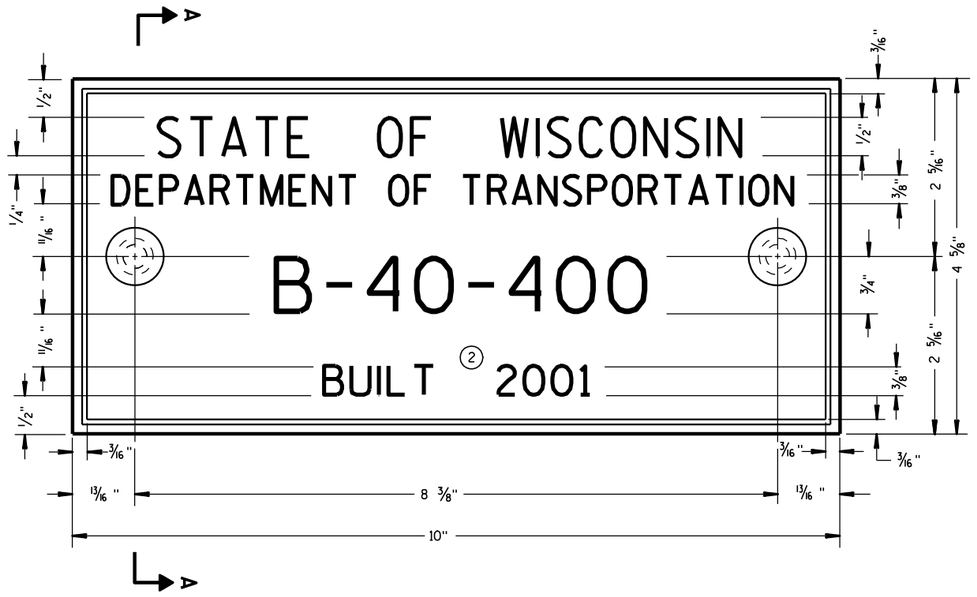
S.D.D. 9 B 4-11



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

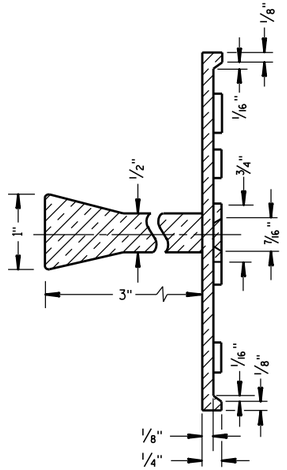
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

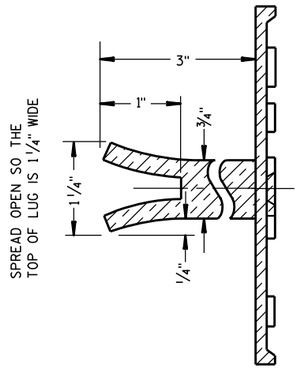
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

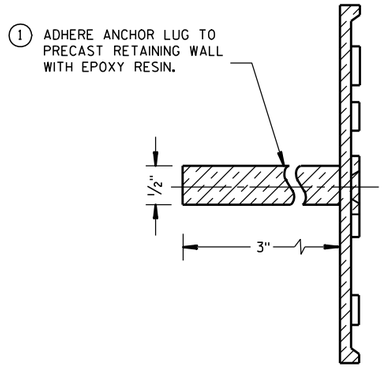
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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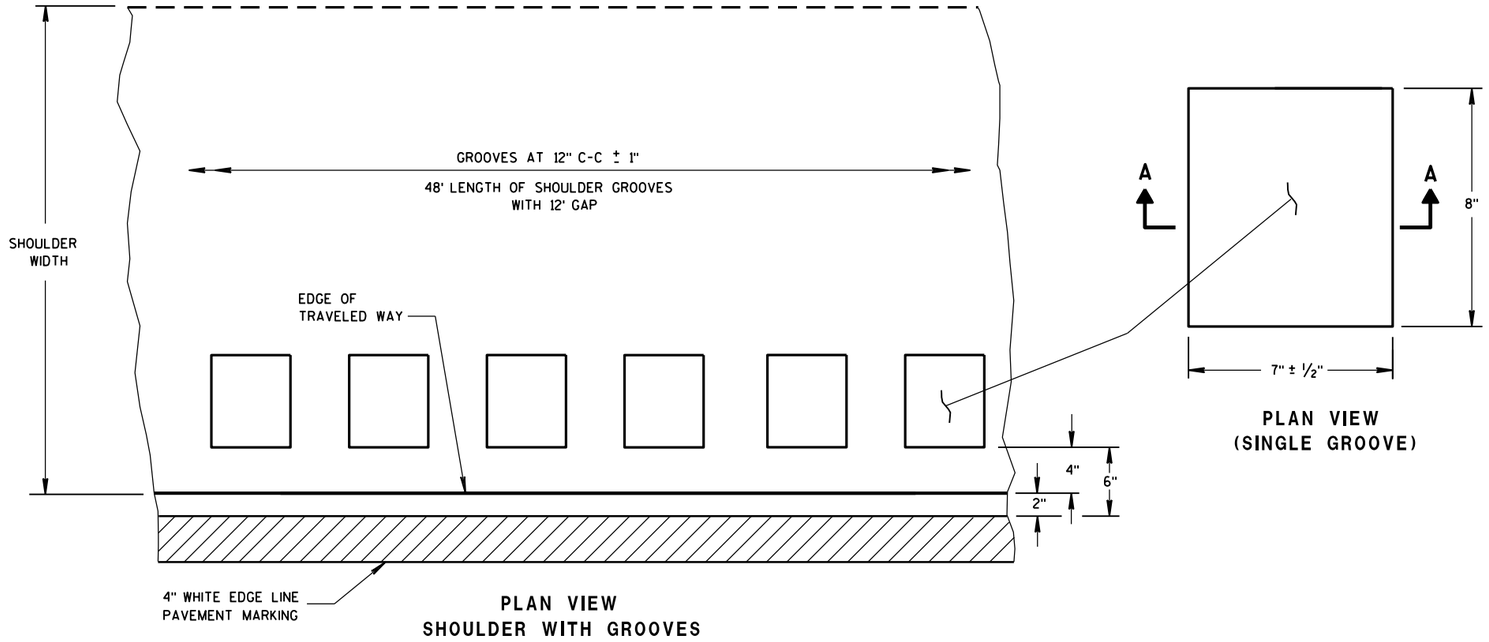
S.D.D. 12 A 3-10



PLAN VIEW
SHOULDER WITH GROOVES

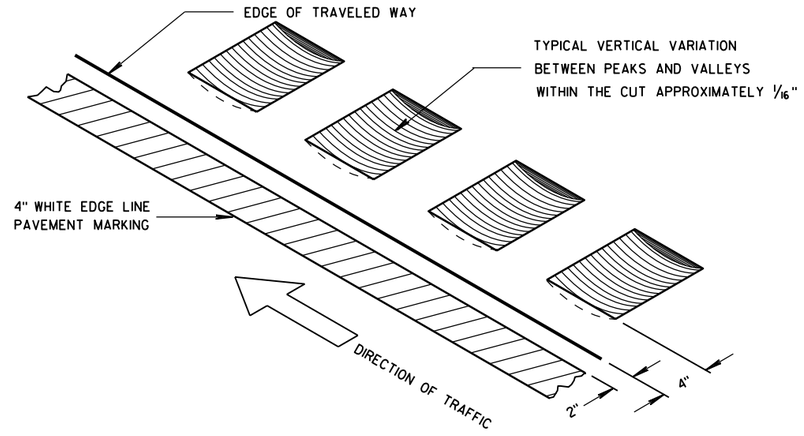
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

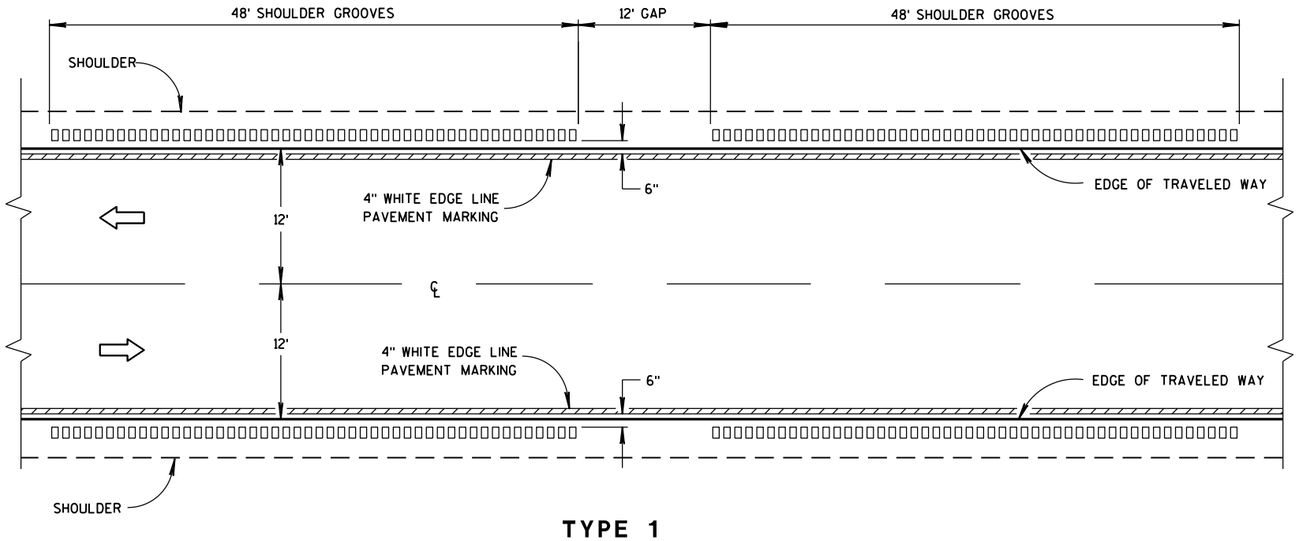
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

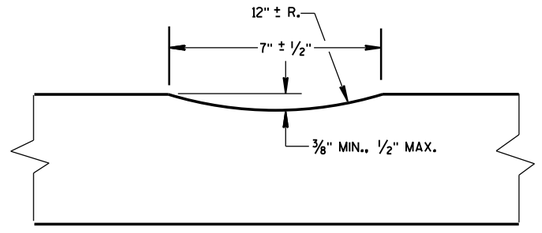


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 13 A 10-1a

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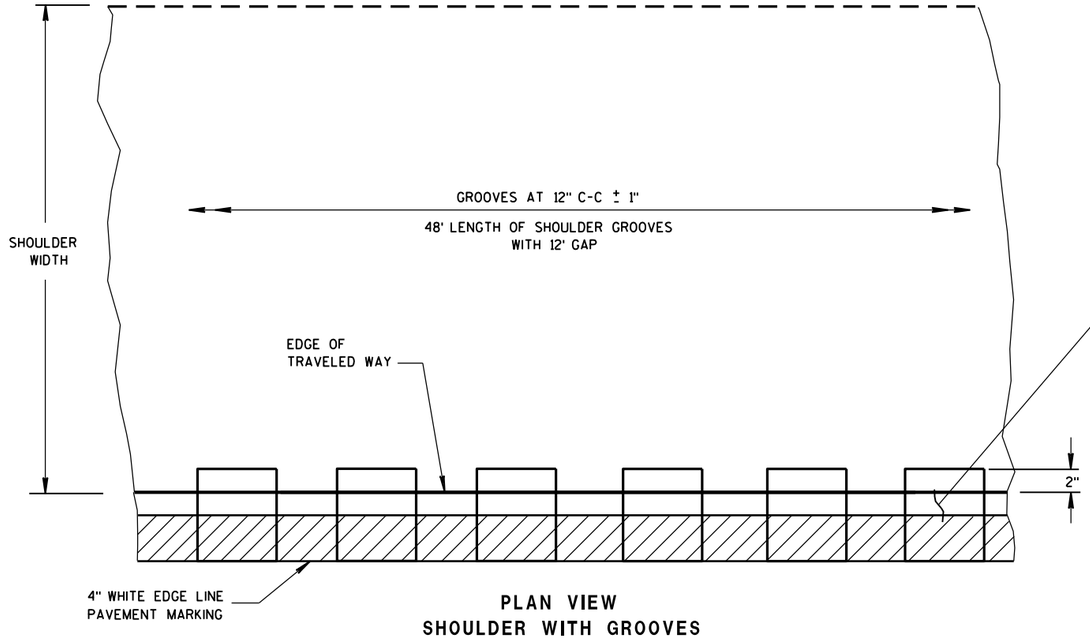
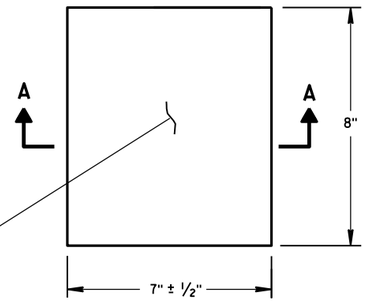
S.D.D. 13 A 10-1a



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

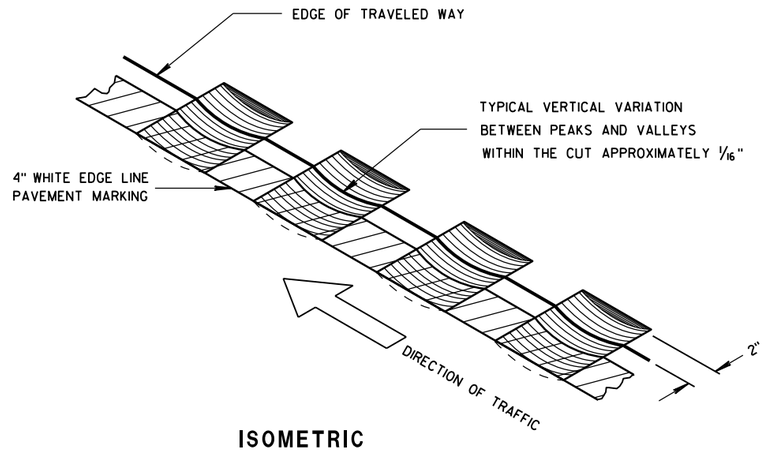
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

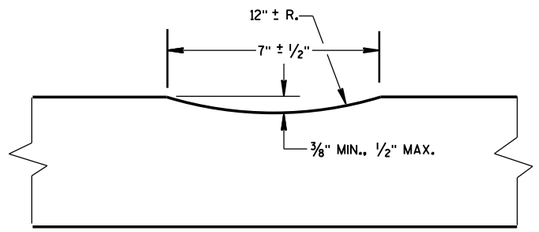
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

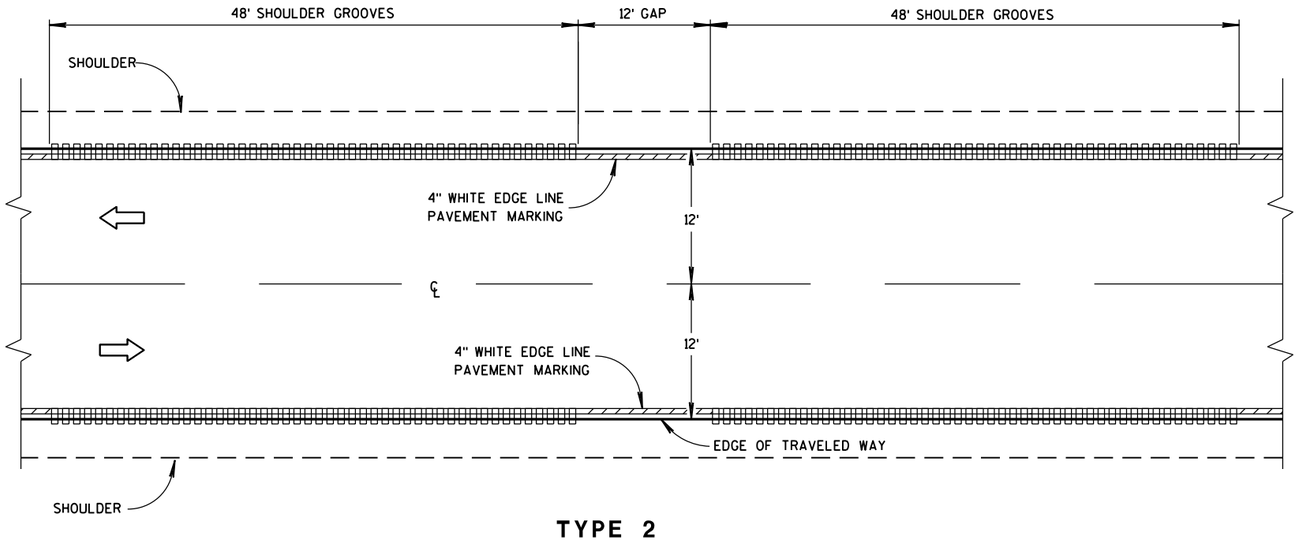
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



SECTION A-A



TYPE 2
2-LANE SHOULDER RUMBLE STRIP

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 13 A 10-1b

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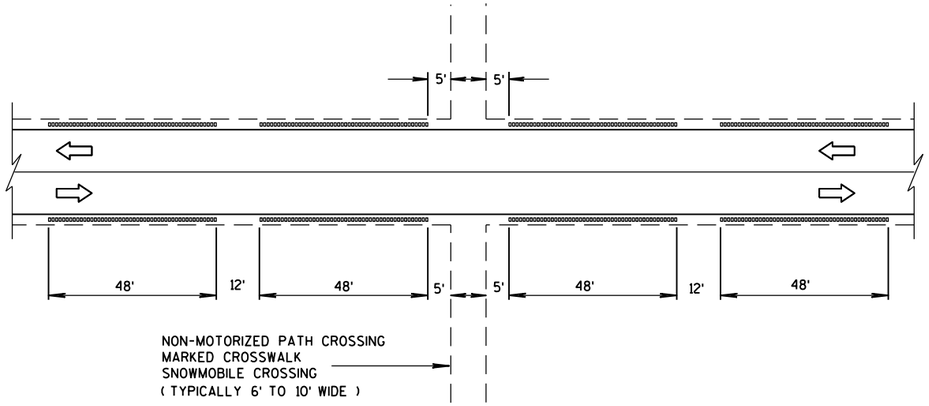
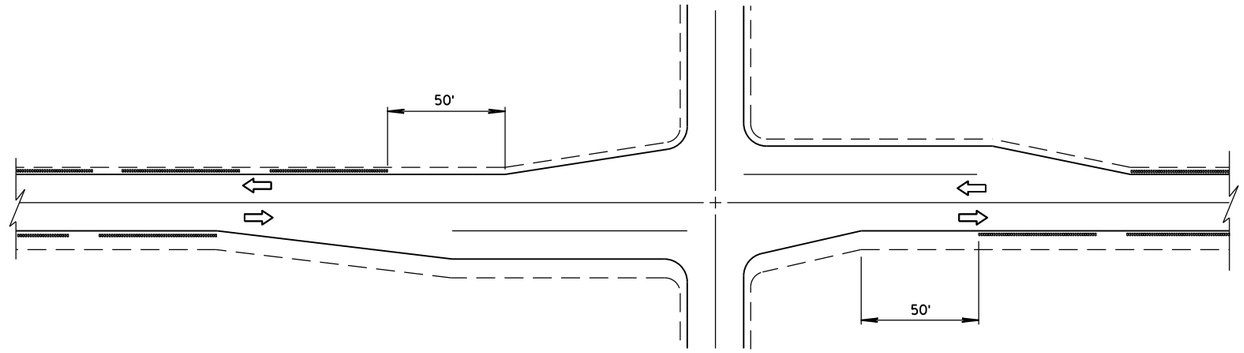
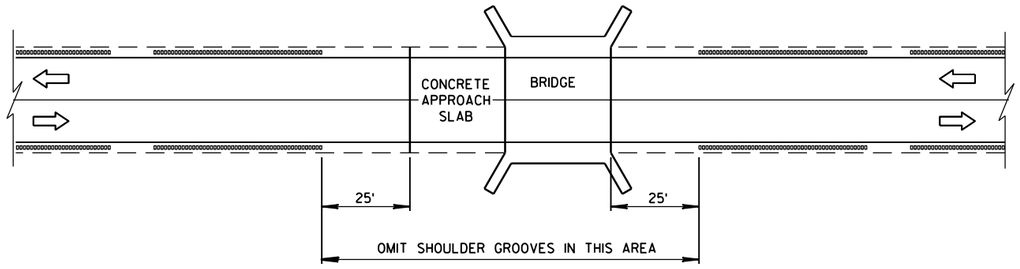
S.D.D. 13 A 10-1b



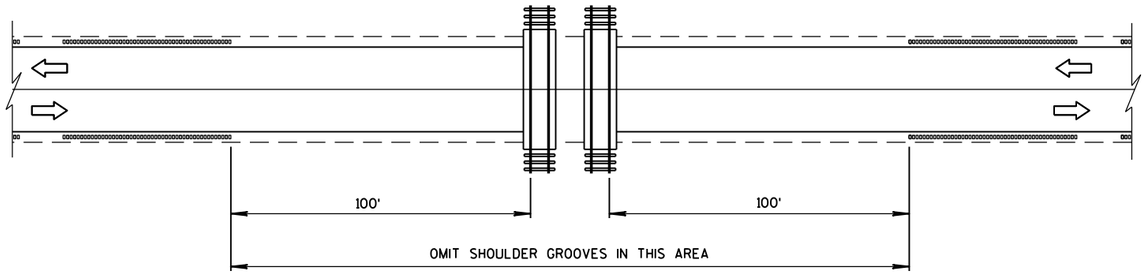
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



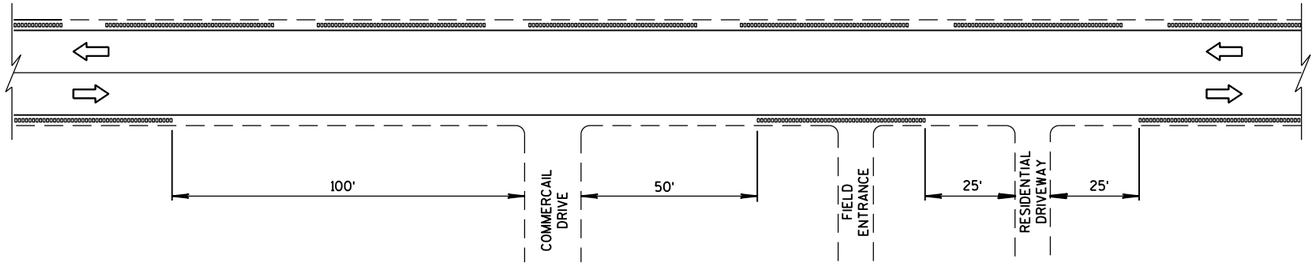
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS

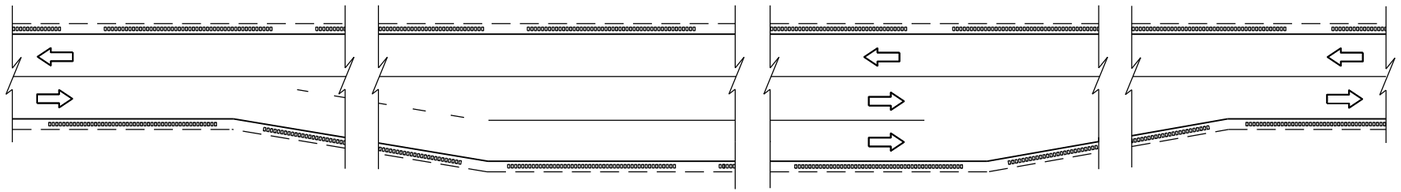


SHOULDER GROOVES AT DRIVEWAYS (1)

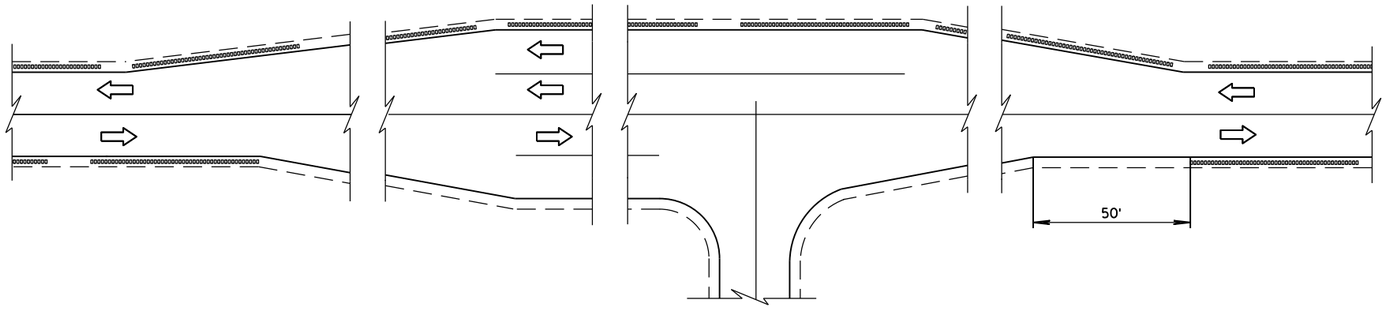
2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

GENERAL NOTES

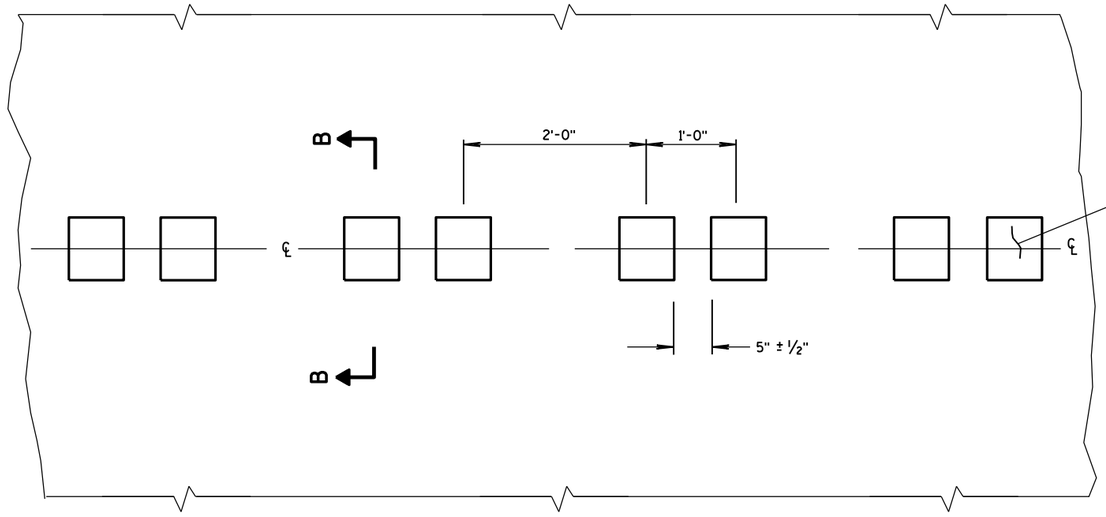
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

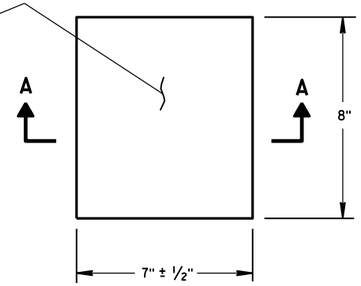
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

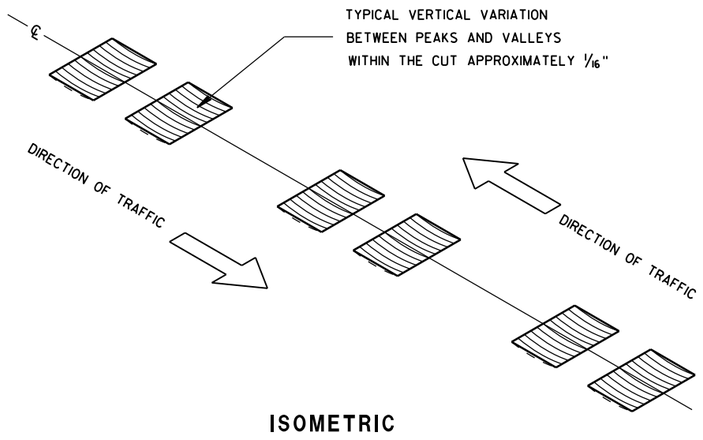


PLAN VIEW
CENTER LINE WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP



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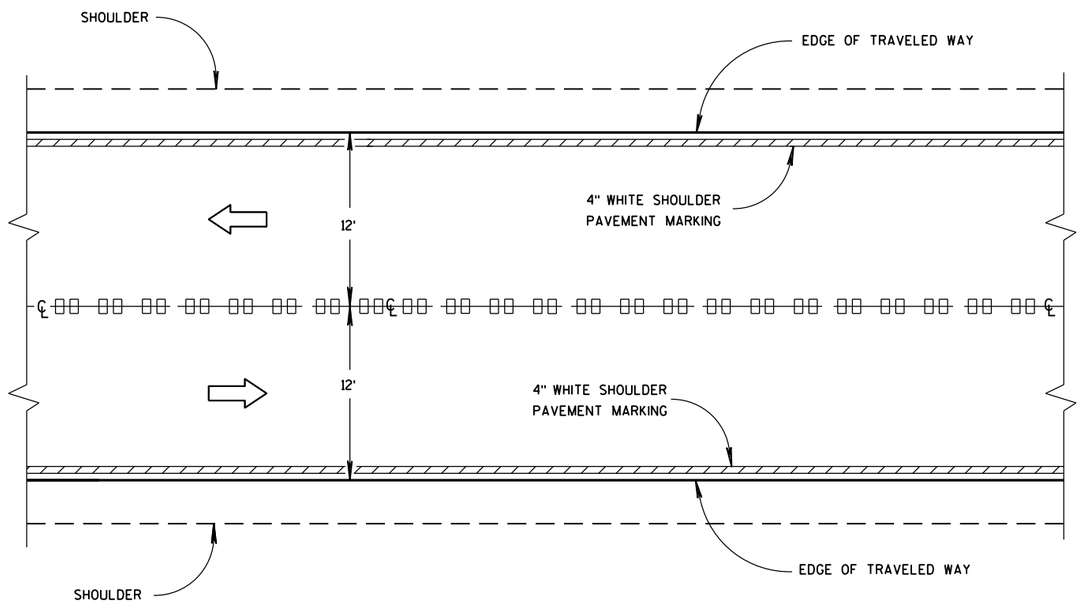
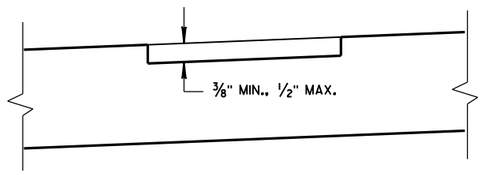
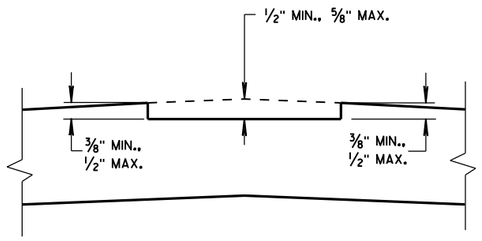


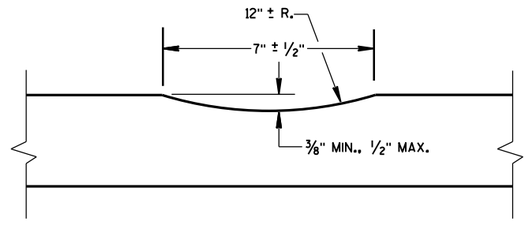
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



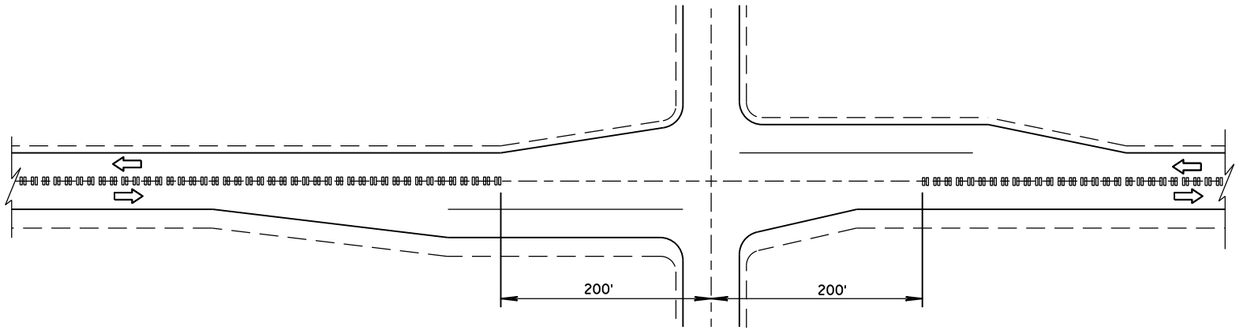
SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

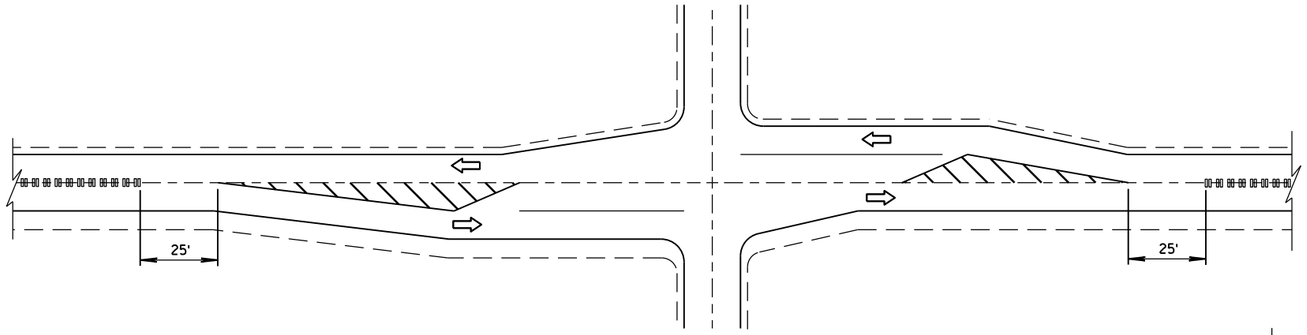
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

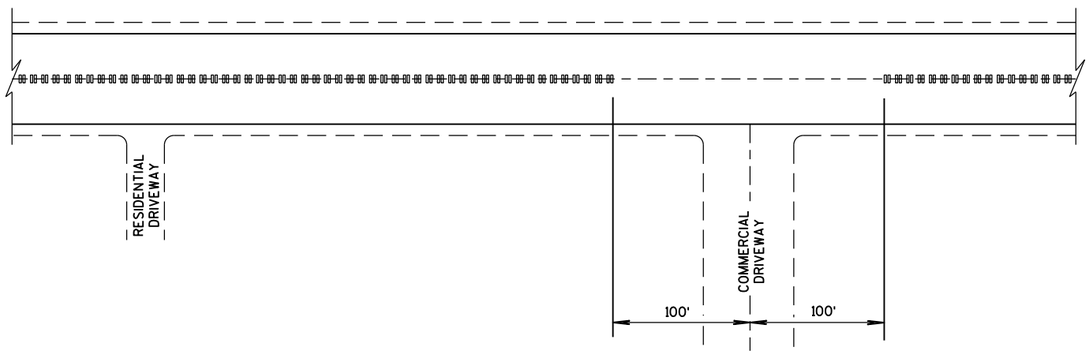
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

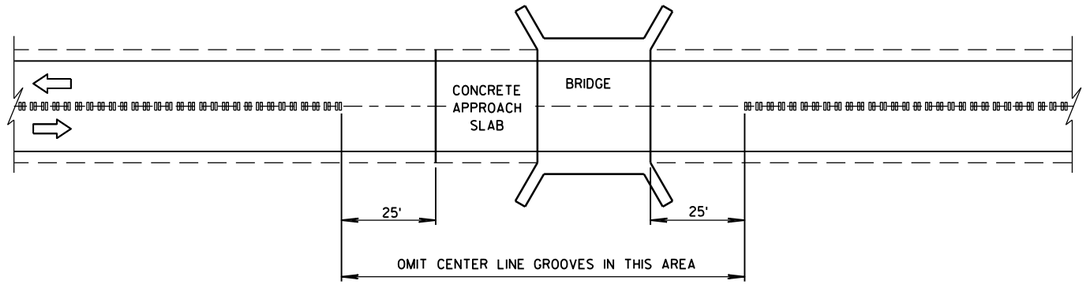


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

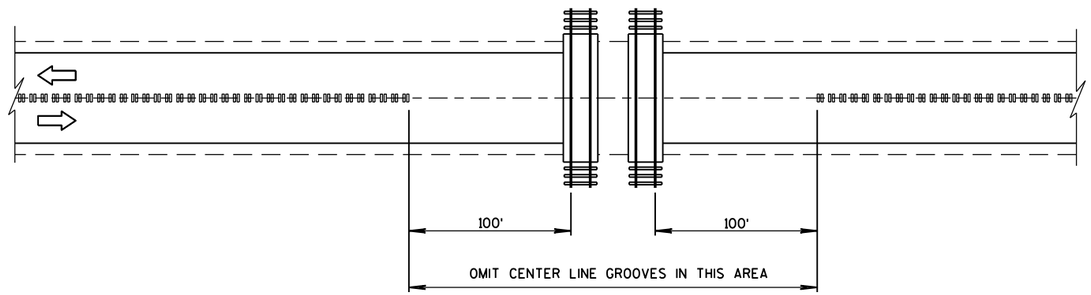


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

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S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

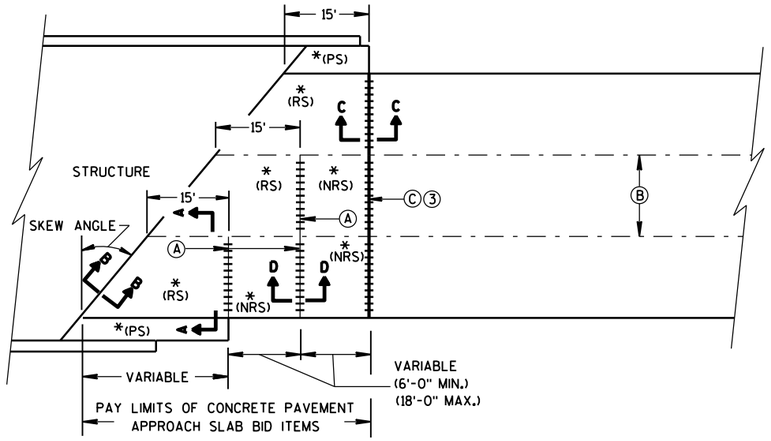
APPROVED

5/15/2013
DATE

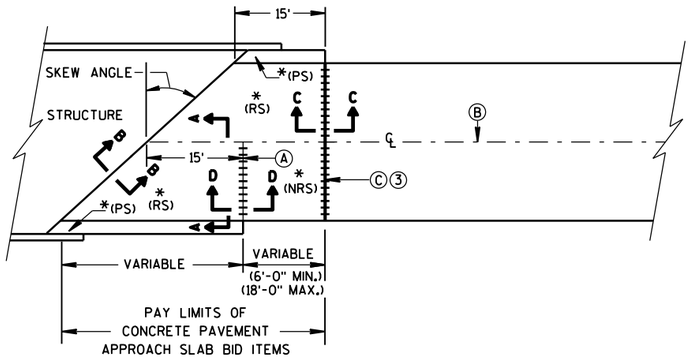
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

NT

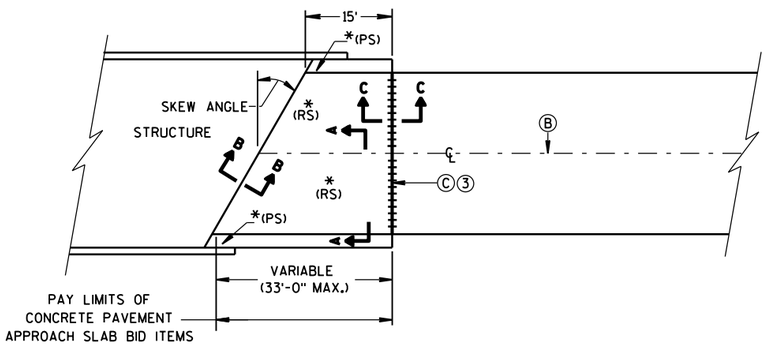
FHWA



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

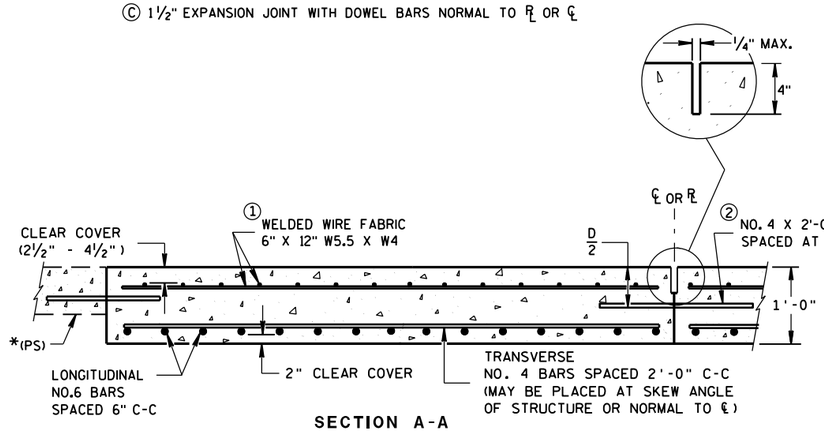
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

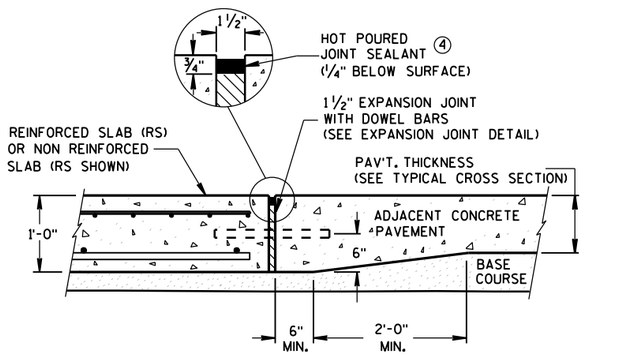
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

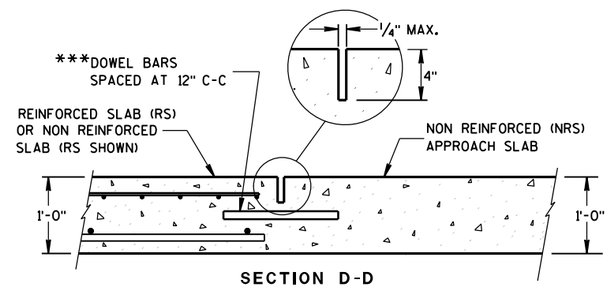
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

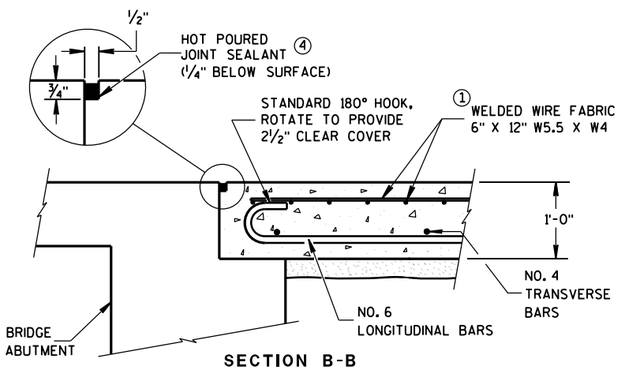
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

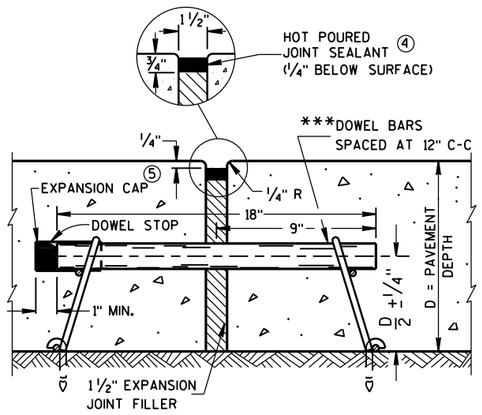
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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S.D.D. 13 B 2-8a

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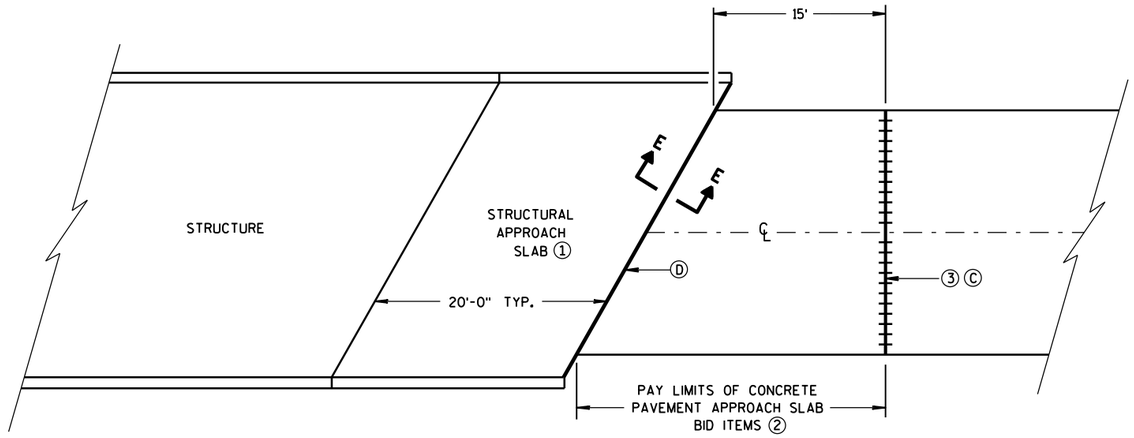
S.D.D. 13 B 2-8a



GENERAL NOTES

ALL PROJECTS THAT INVOLVE A STRUCTURAL APPROACH SLAB WILL ALSO HAVE A CONCRETE PAVEMENT APPROACH SLAB.

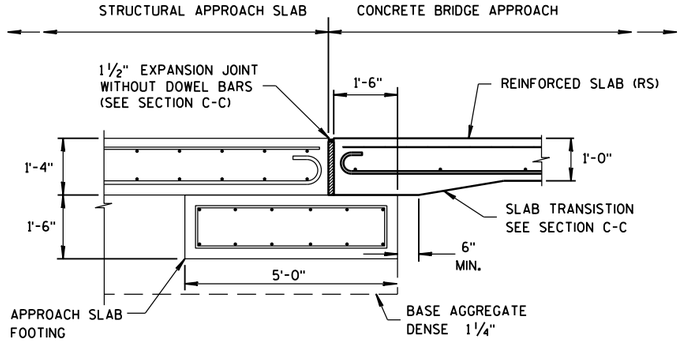
① SEE BRIDGE PLAN.

② CONFORM TO SHEET 13 B 2(A) FOR CONCRETE PAVEMENT APPROACH SLAB DETAILS.

③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄

Ⓓ 1½" EXPANSION JOINT (NO DOWELS)



SECTION E-E

FOOTING DETAIL

STRUCTURAL APPROACH SLAB TO CONCRETE BRIDGE APPROACH

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPEF

FHWA

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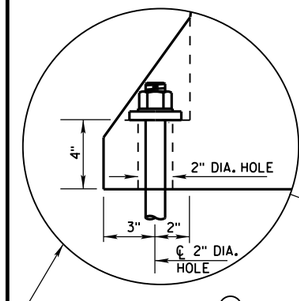
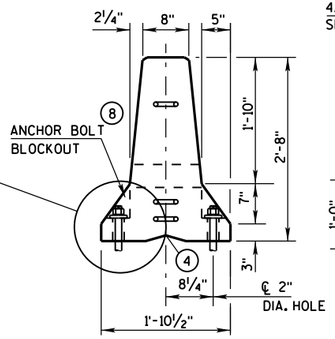
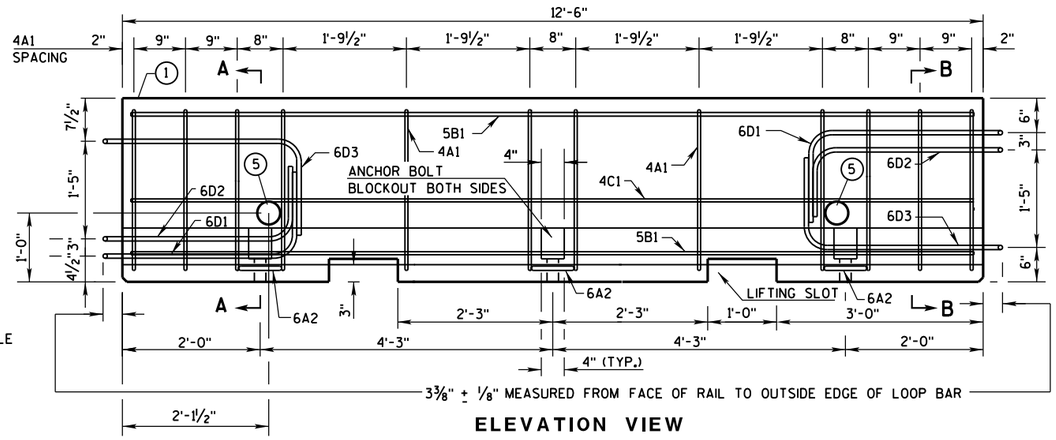
S.D.D. 13 B 2-8b

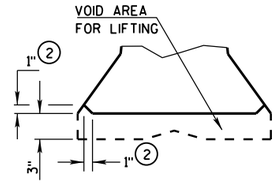




END VIEW



ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

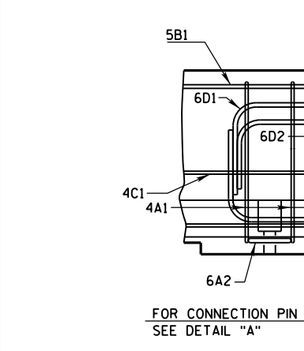
(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

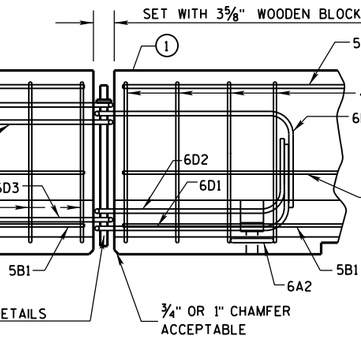
(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

DETAILS OF BARRIER CONNECTION

1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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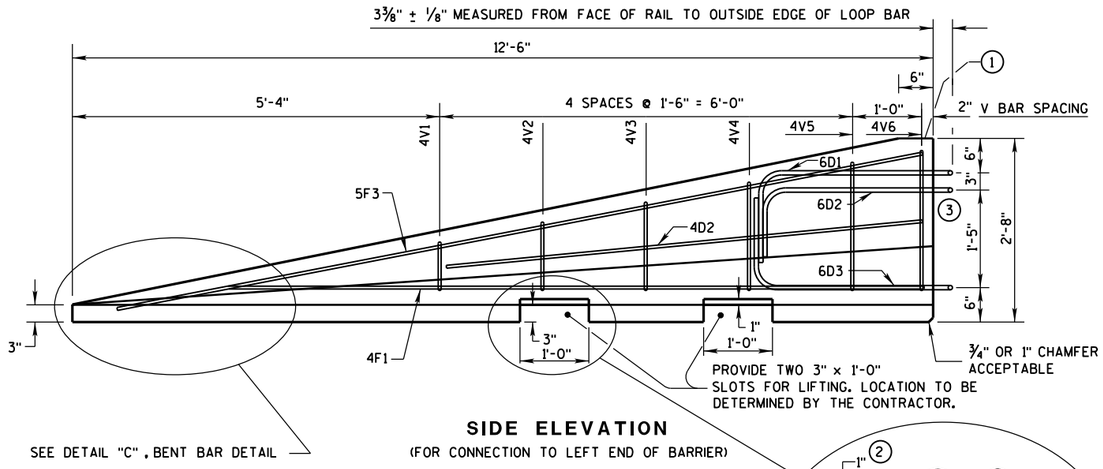
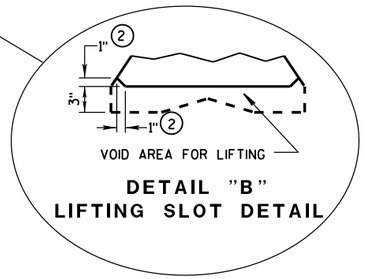
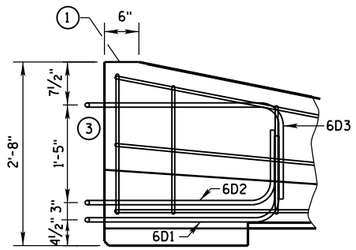
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



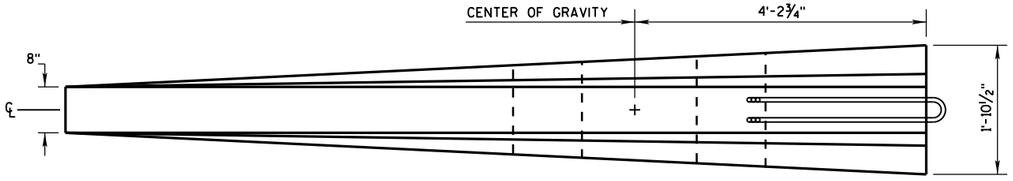
DETAIL "B"
LIFTING SLOT DETAIL



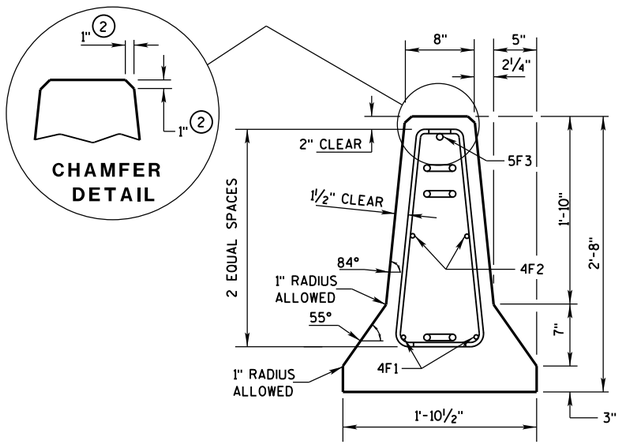
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

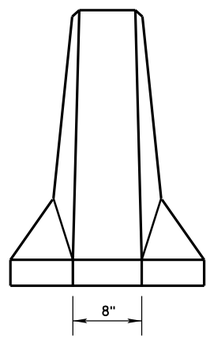
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



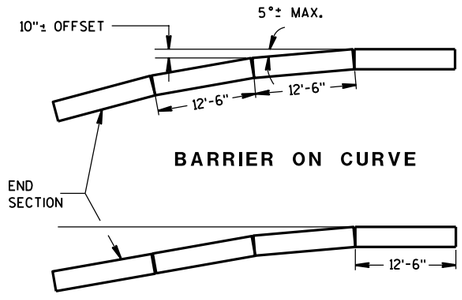
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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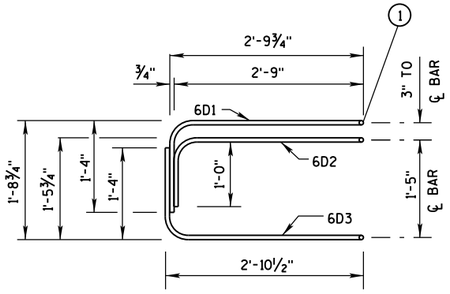
S.D.D. 14 B 7-14b

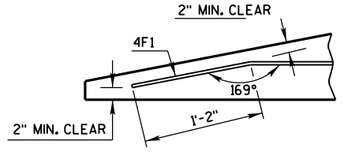
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

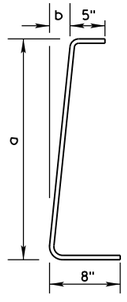
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

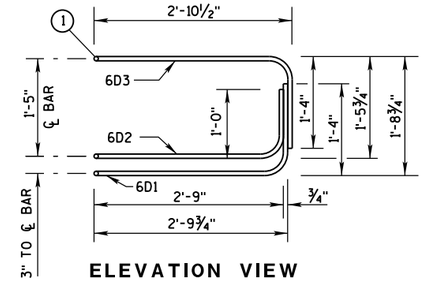
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

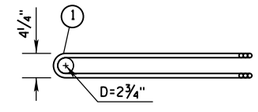
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

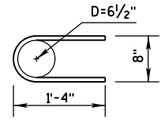
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



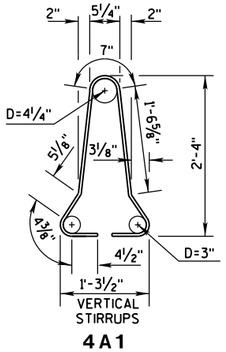
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

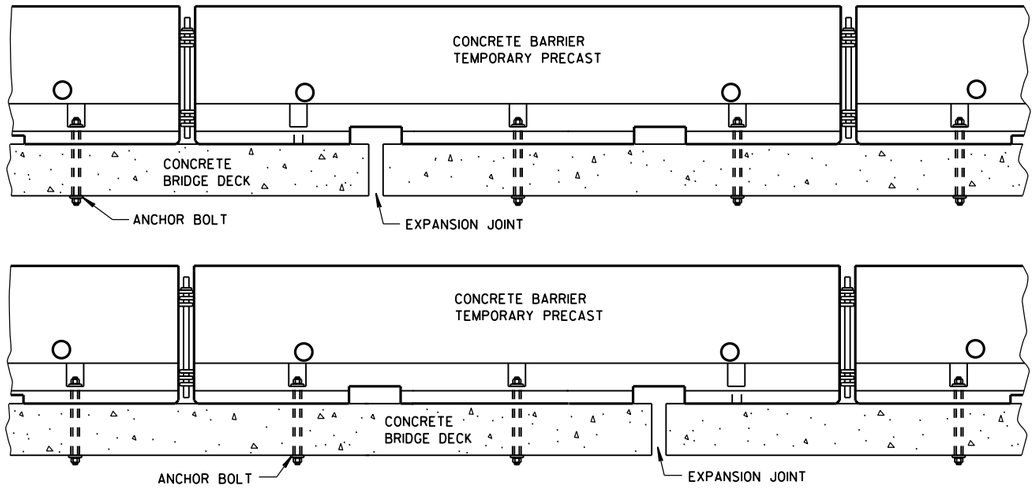
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

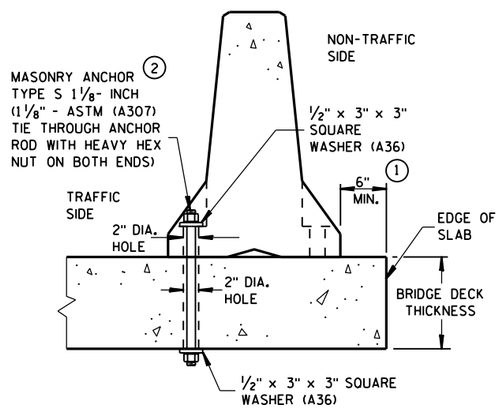
6

S.D.D. 14 B 7-14c



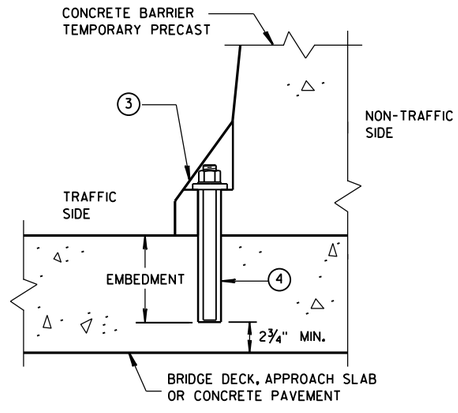
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT ②

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

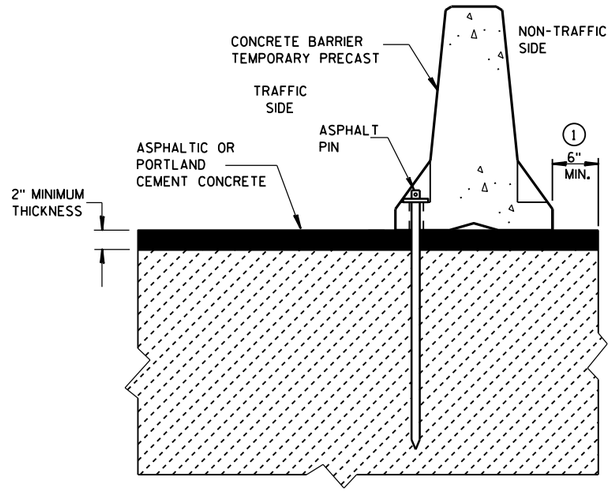
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

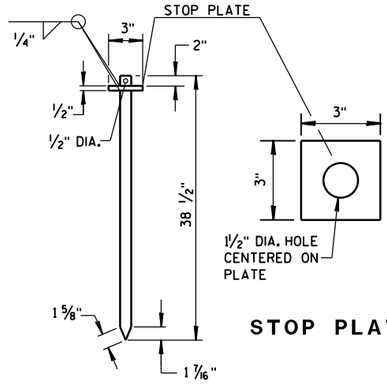
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

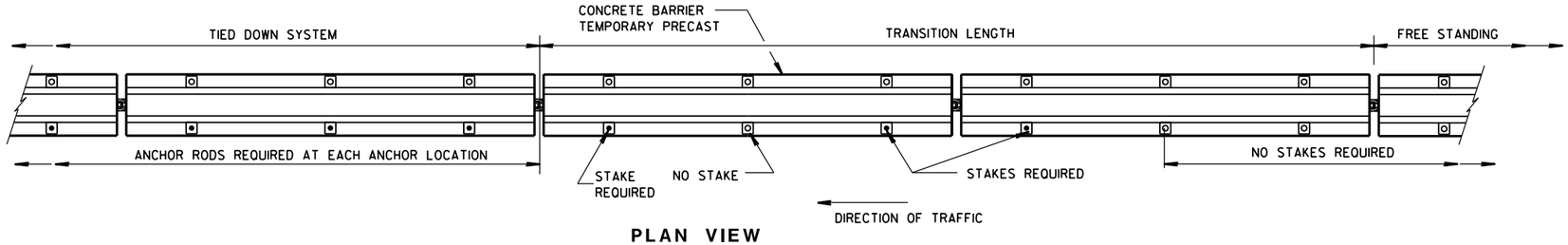
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

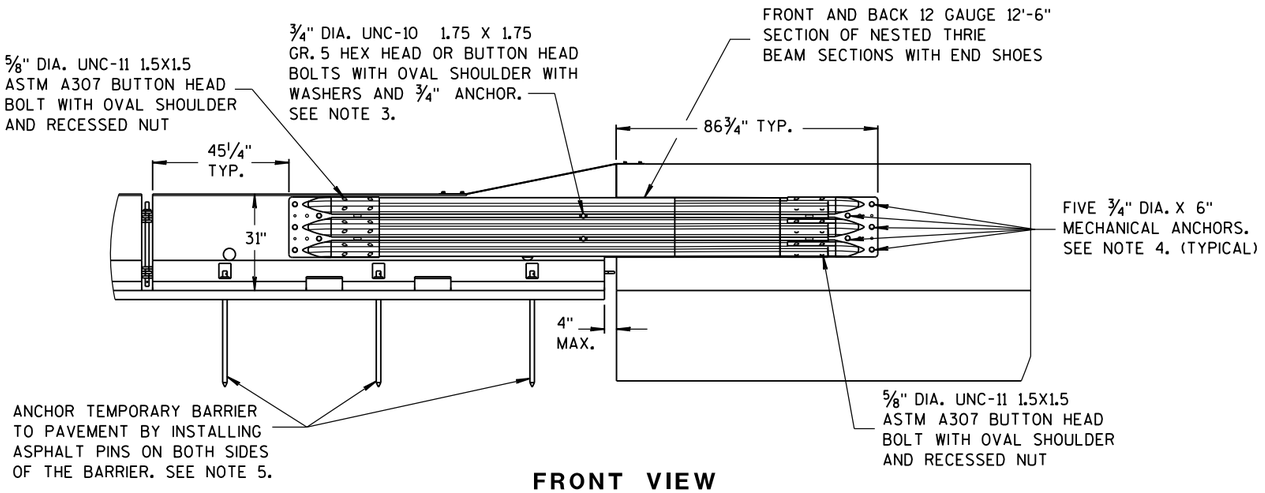
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

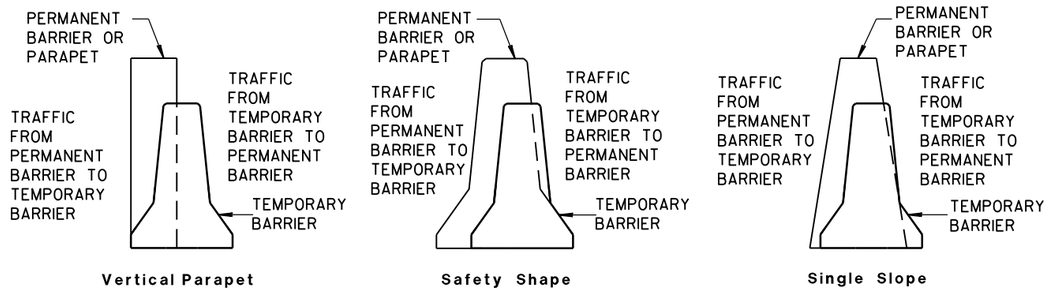
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14d



FRONT VIEW

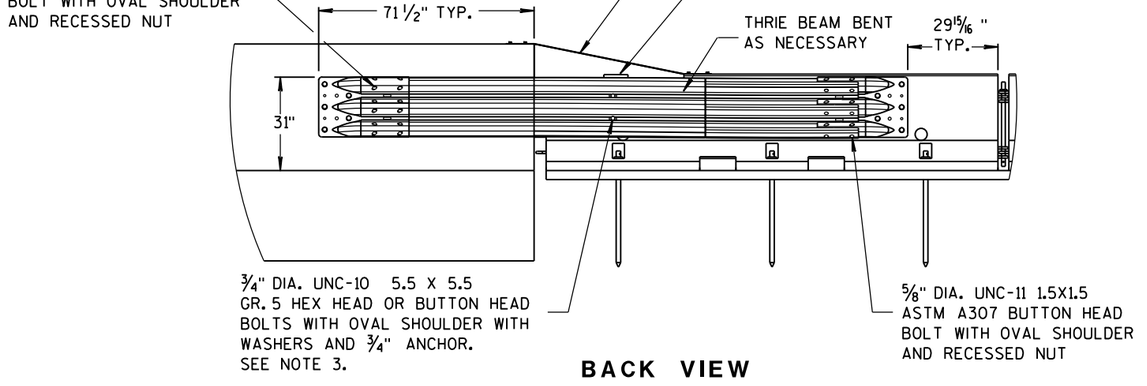


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

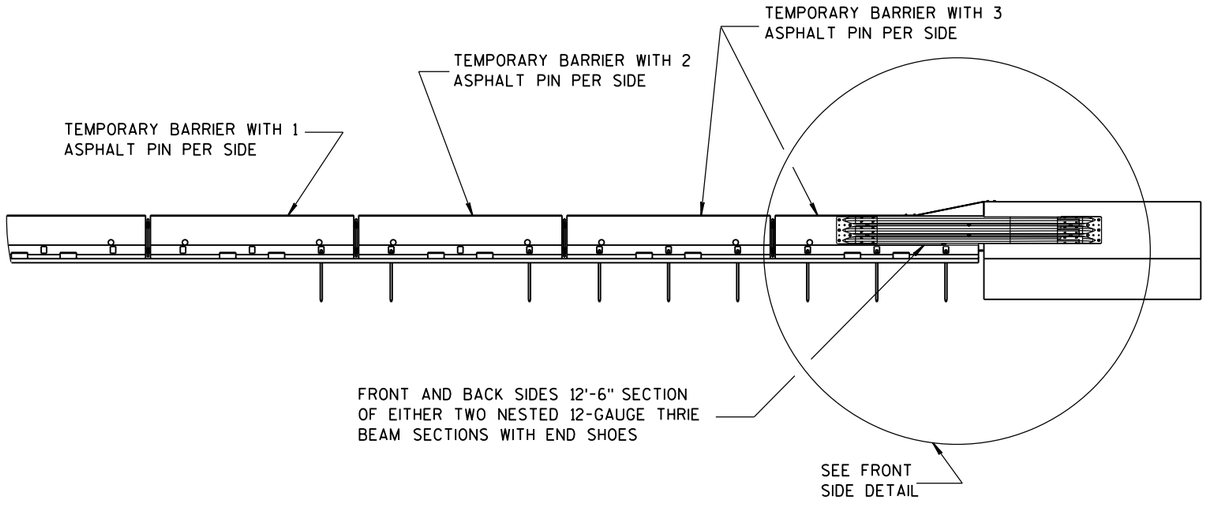
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

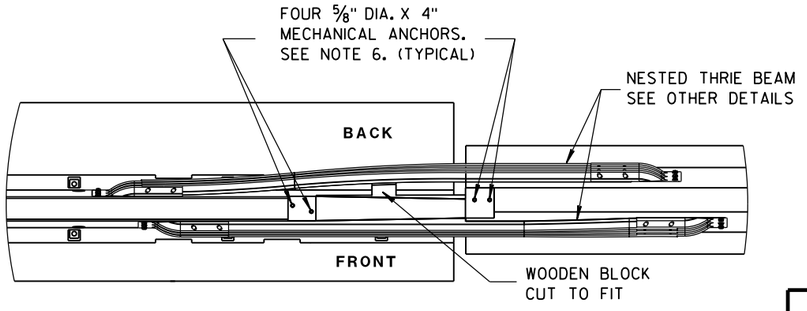
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



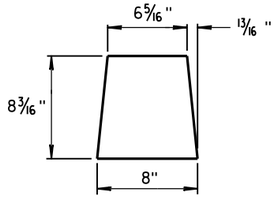
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

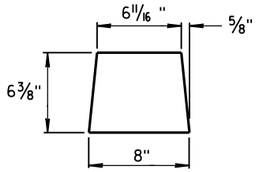
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

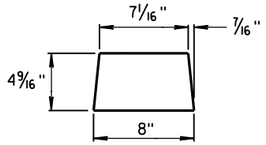
6
S.D.D. 14 B 7-14e



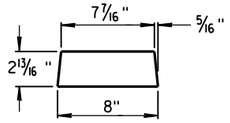
GUSSET 1



GUSSET 2

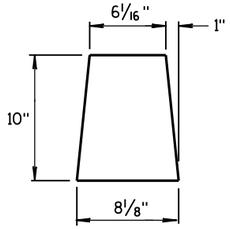


GUSSET 3

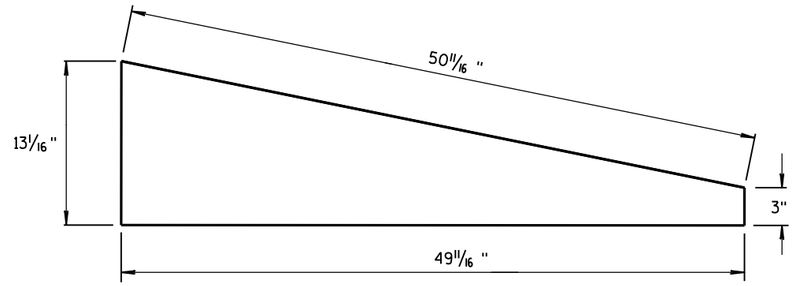


GUSSET 4

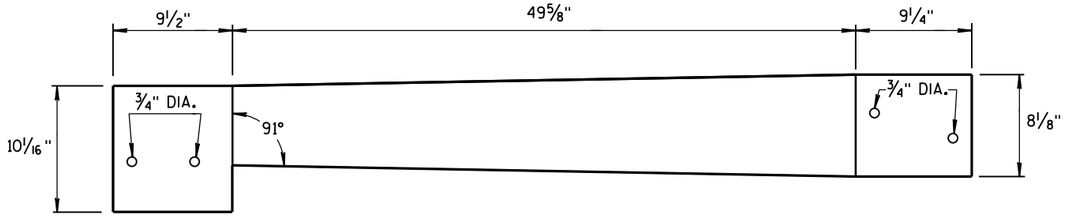
GUSSETS

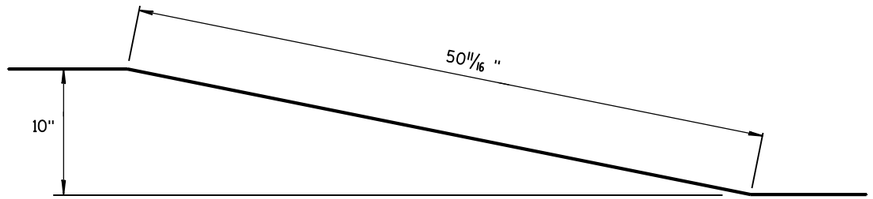


END PLATE



SIDE PLATE

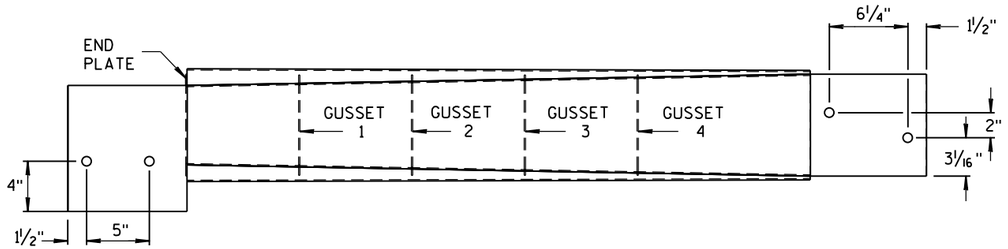


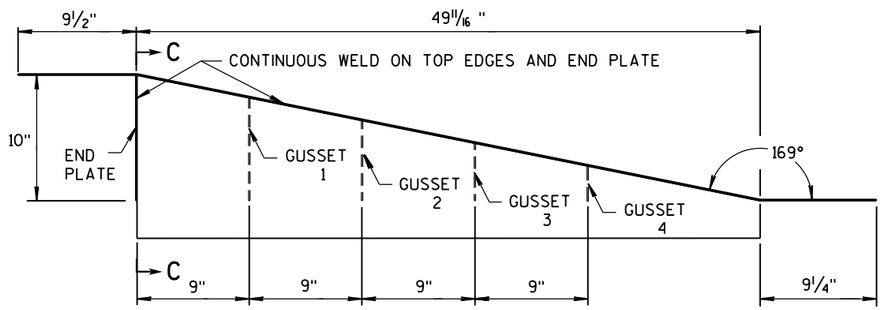


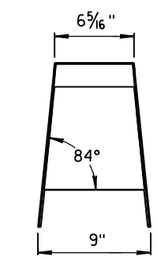
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

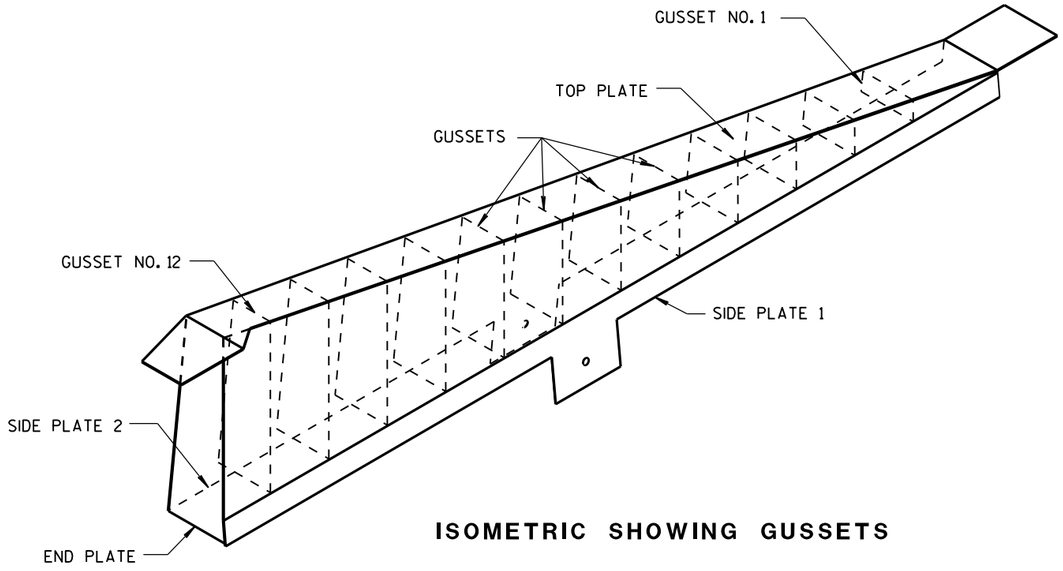
1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

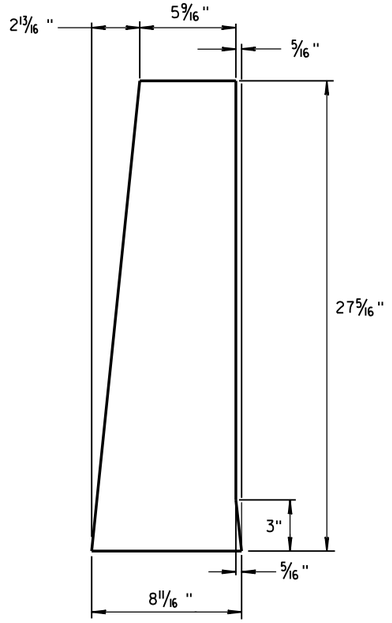
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-14f

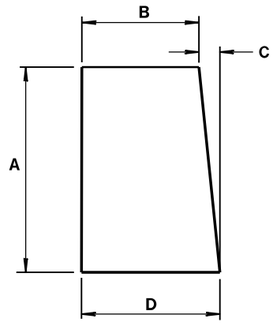


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



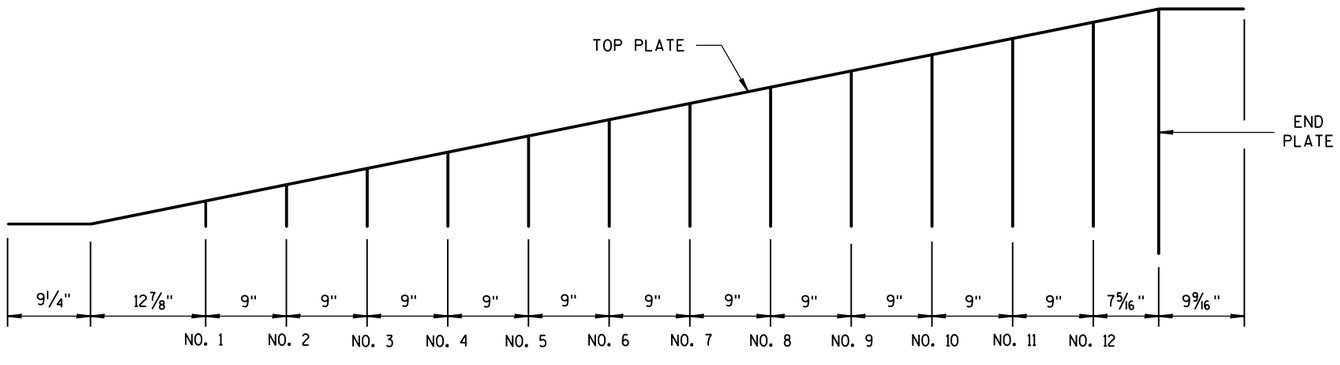
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

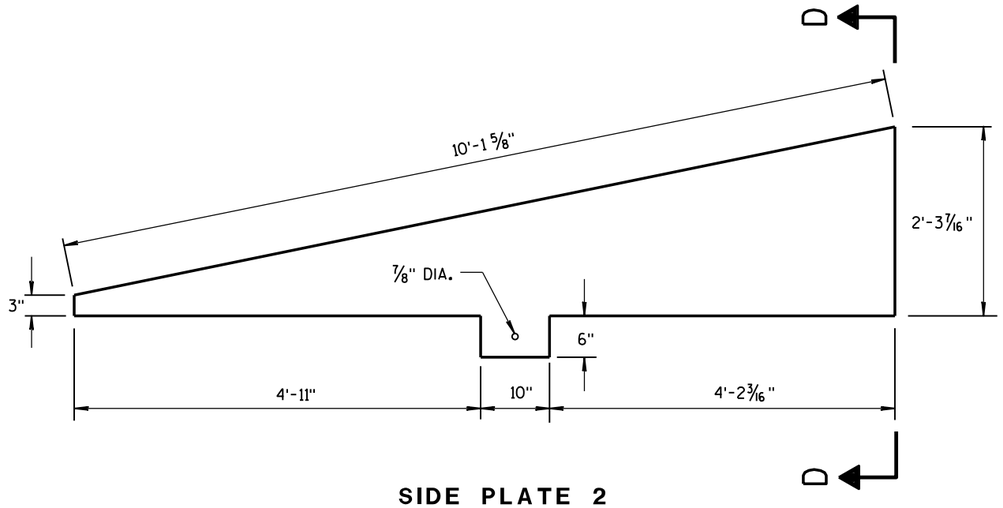
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

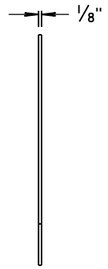
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

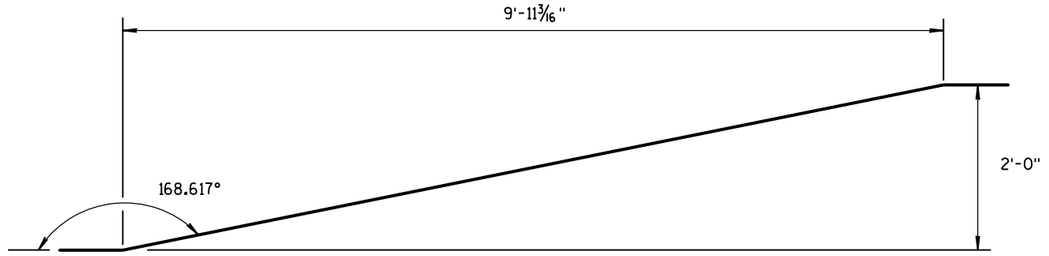
S.D.D. 14 B 7-14g



SIDE PLATE 2

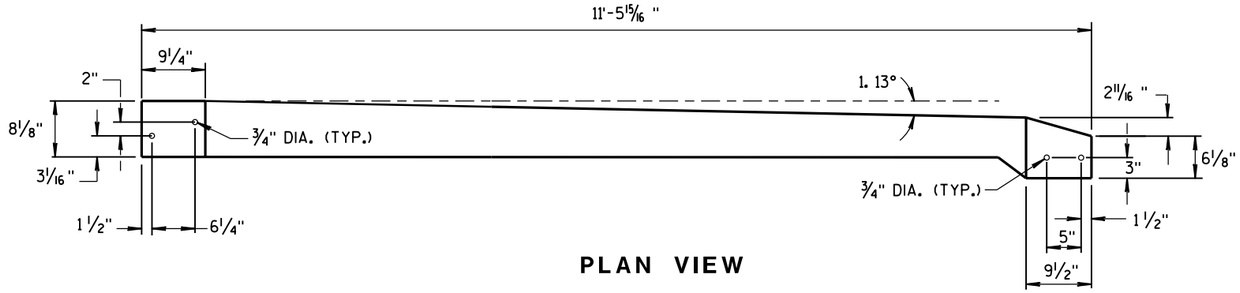


END VIEW



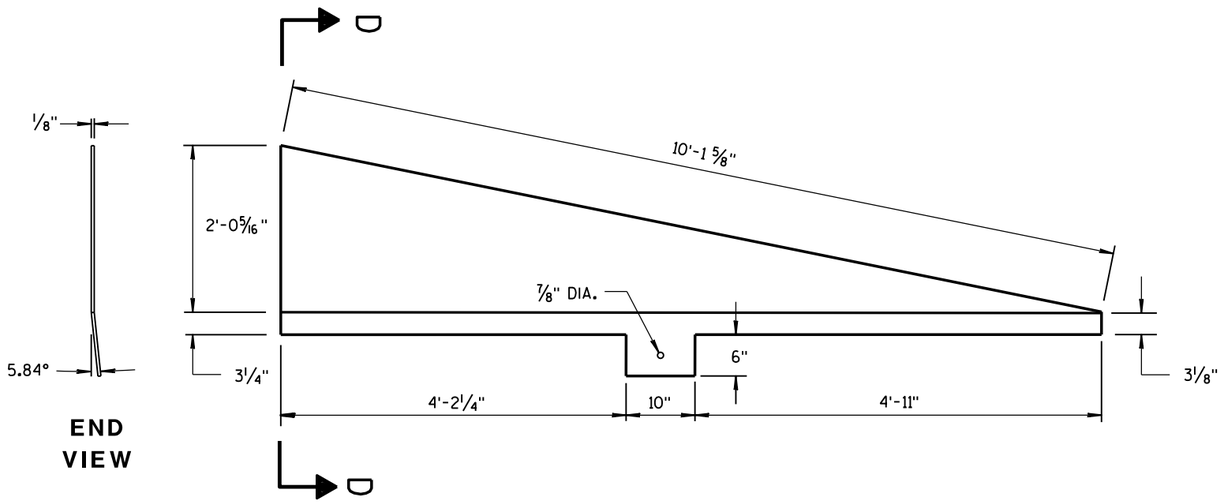
SIDE VIEW

TOP PLATE



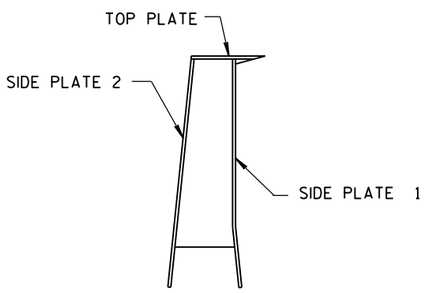
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

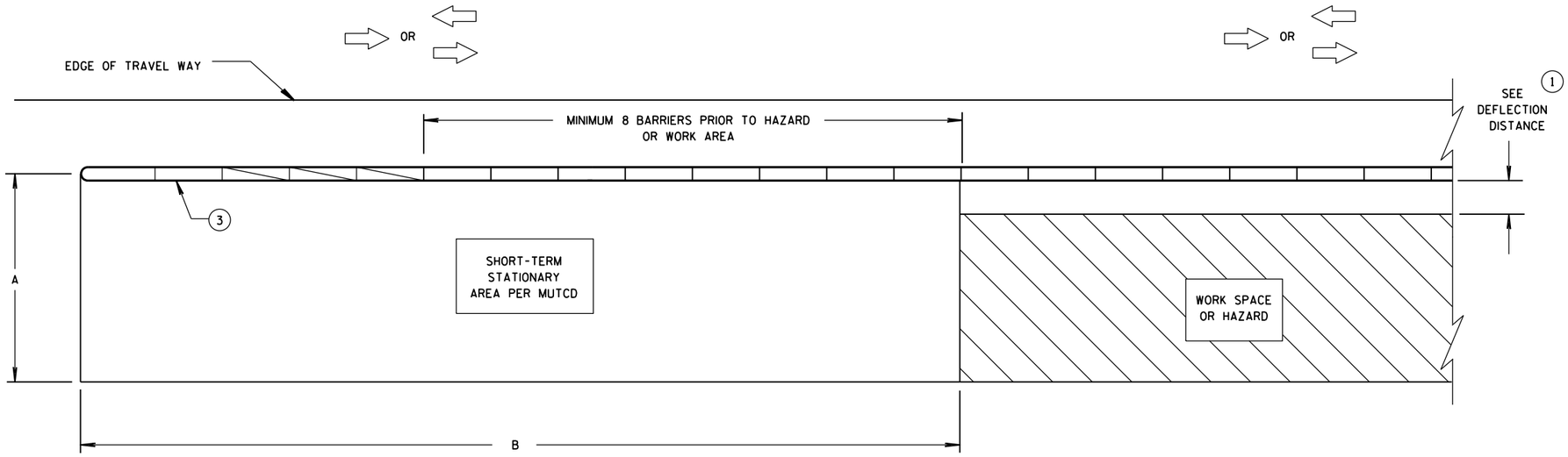
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoaa — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h



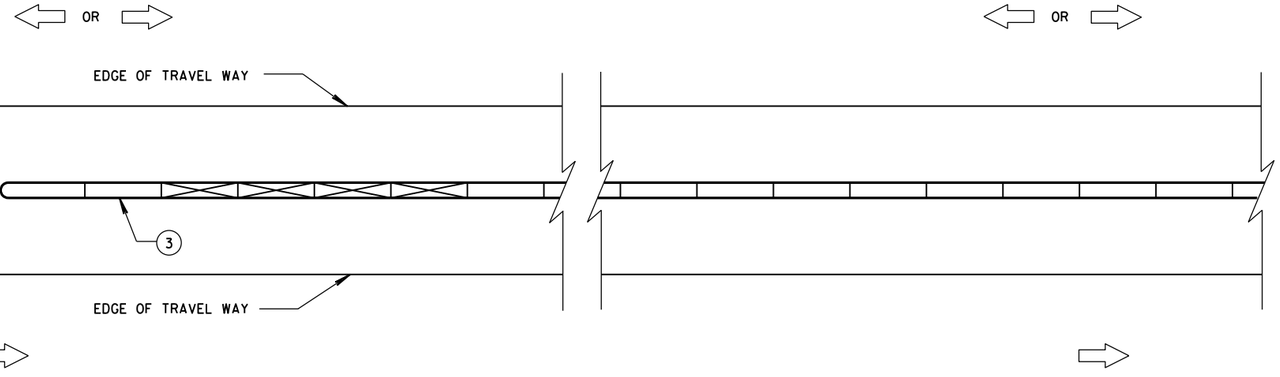
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

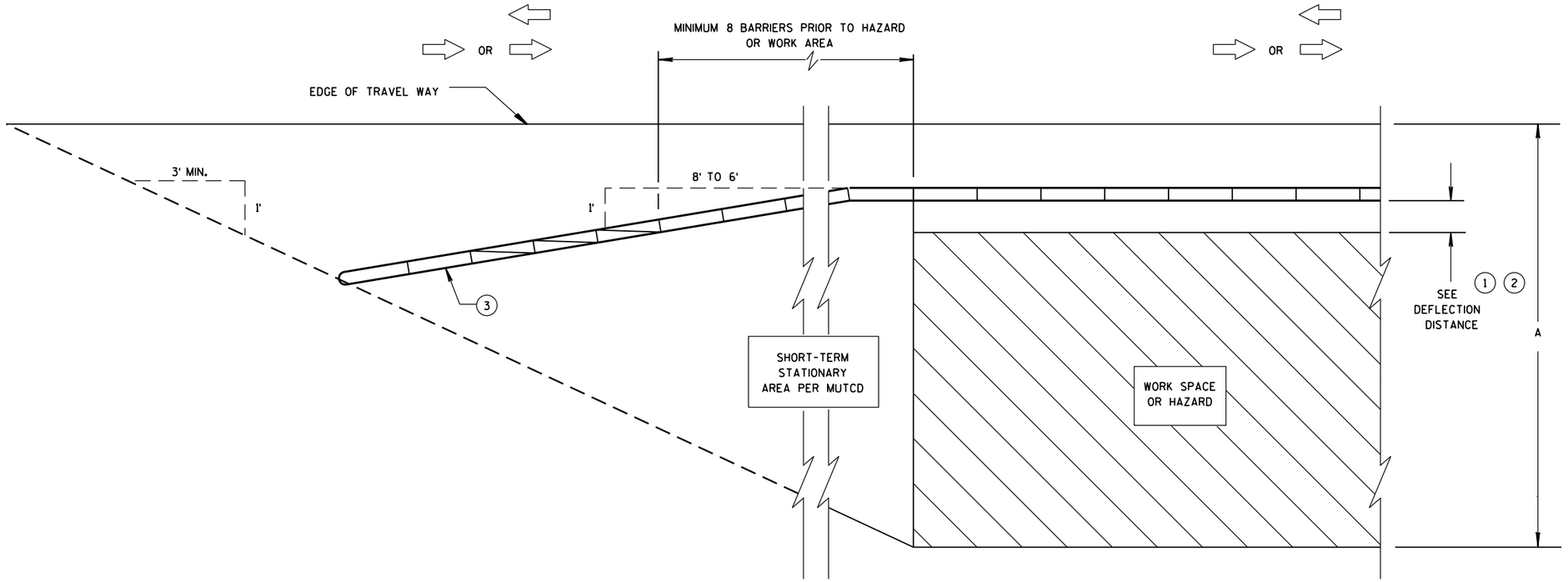
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

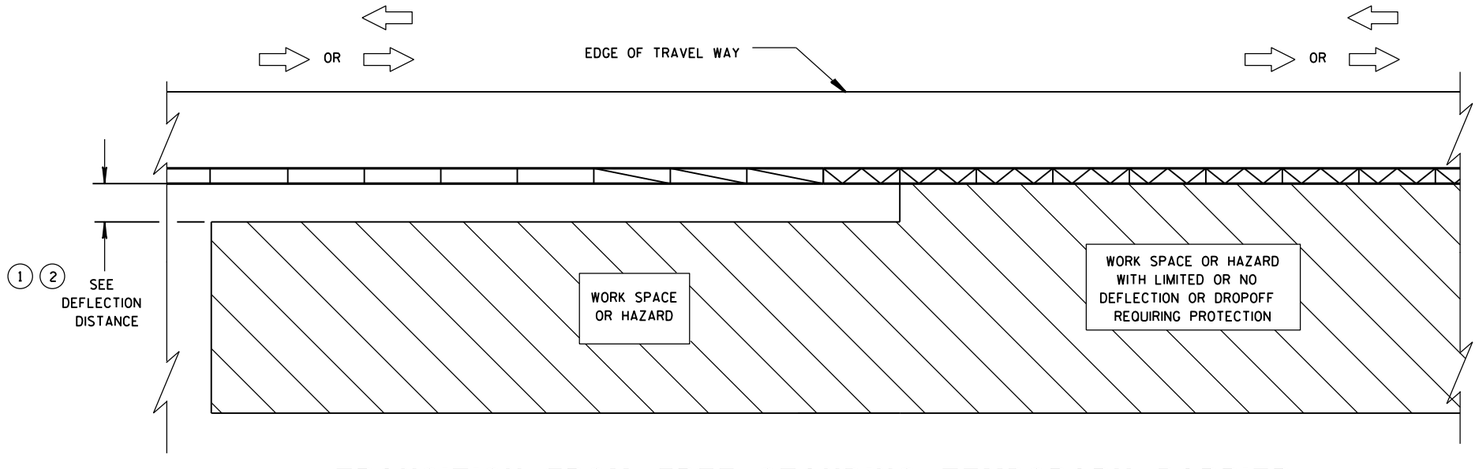
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

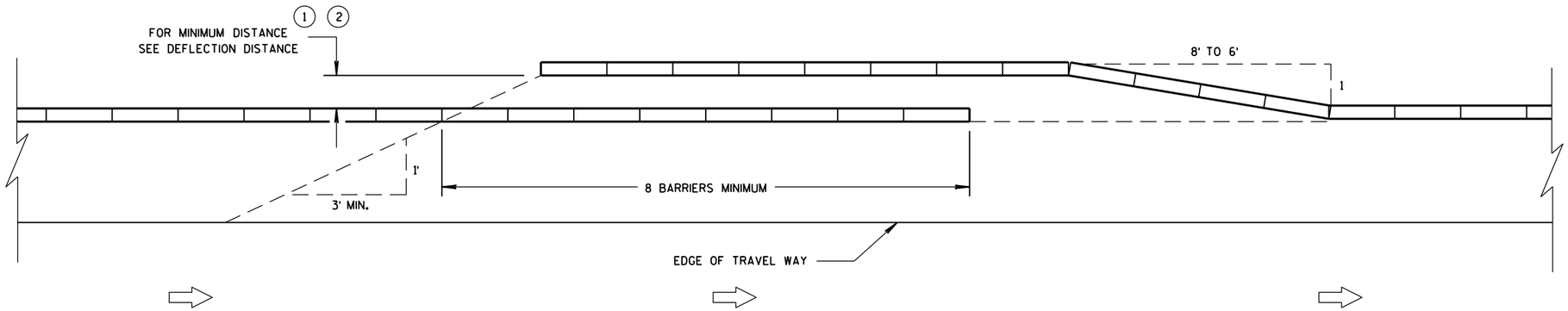
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

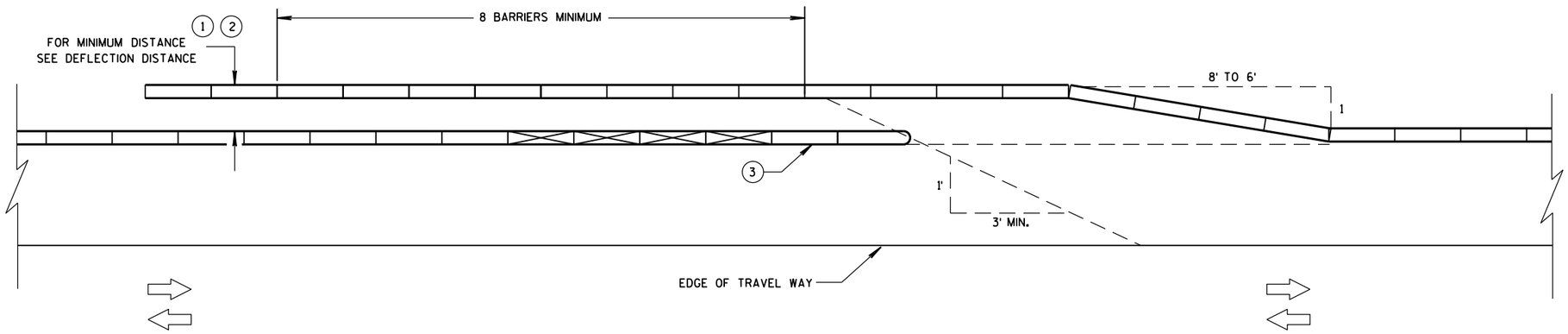
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

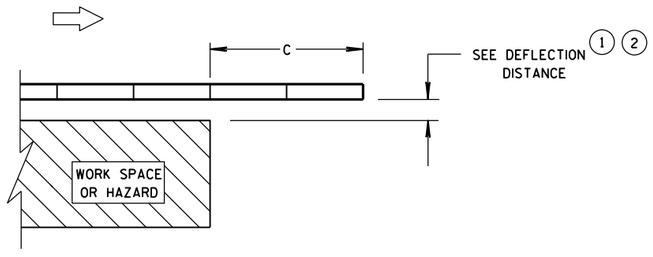
S.D.D. 14 B 8-2b



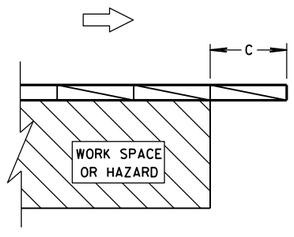
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

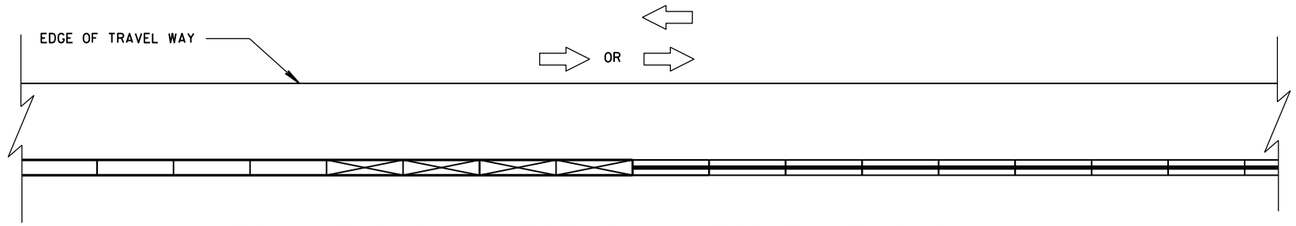
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

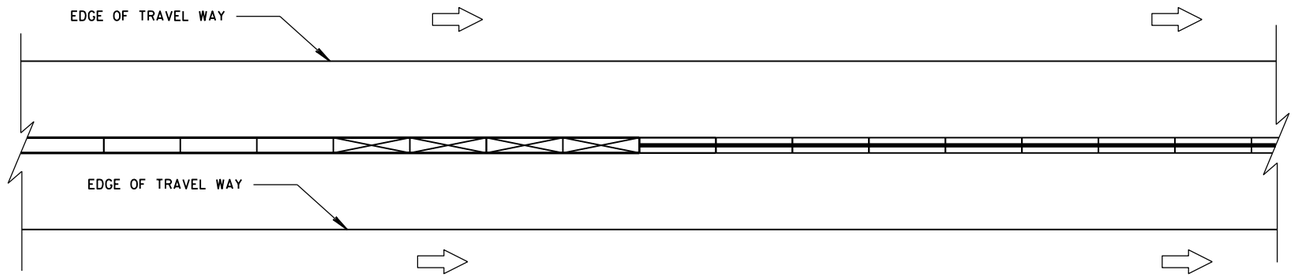
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

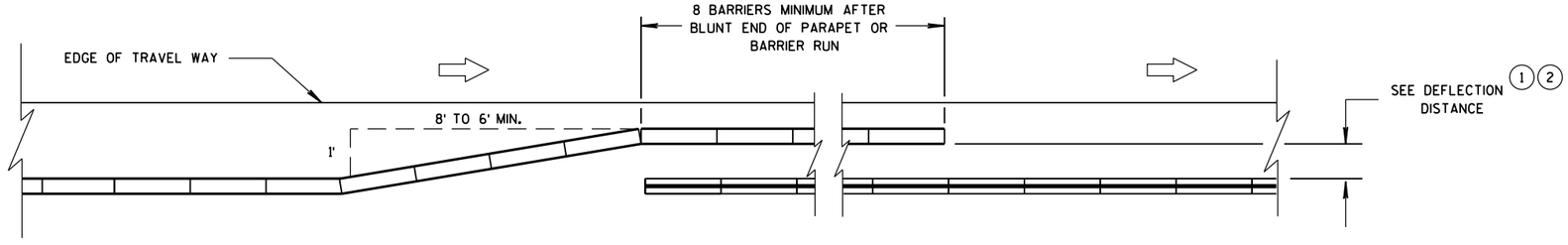
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

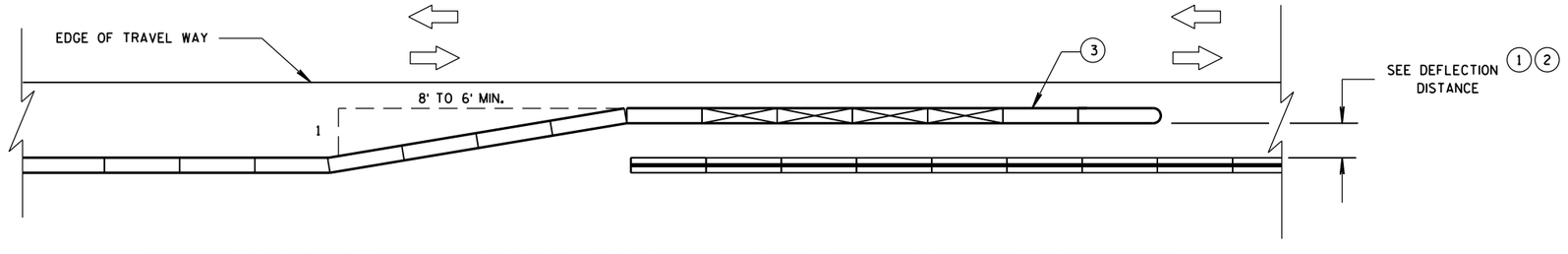
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

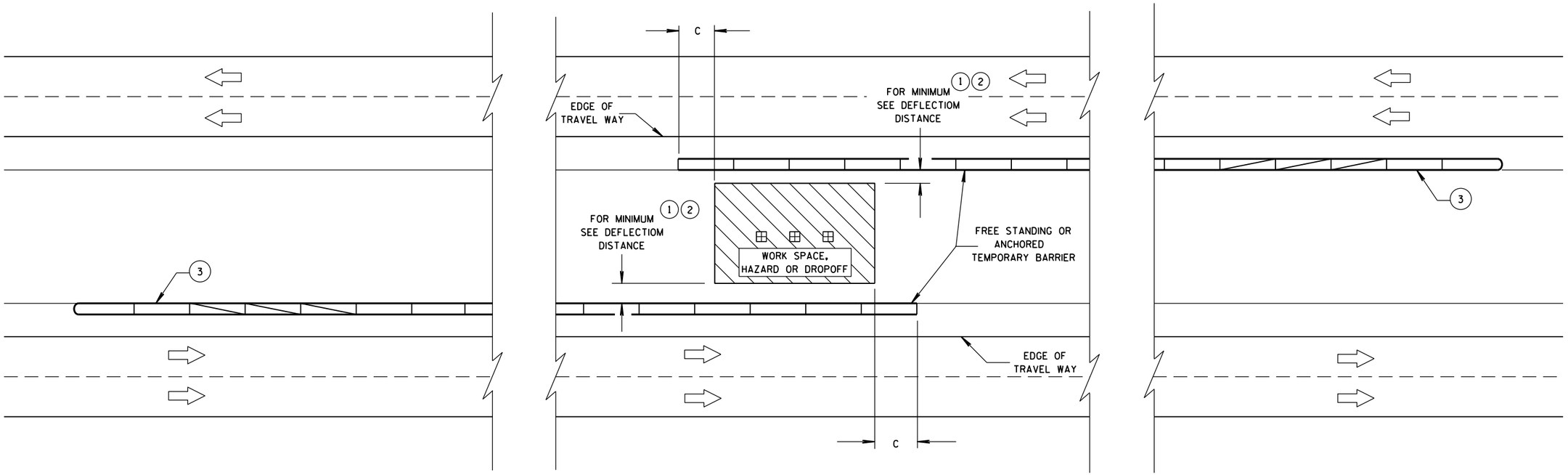
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



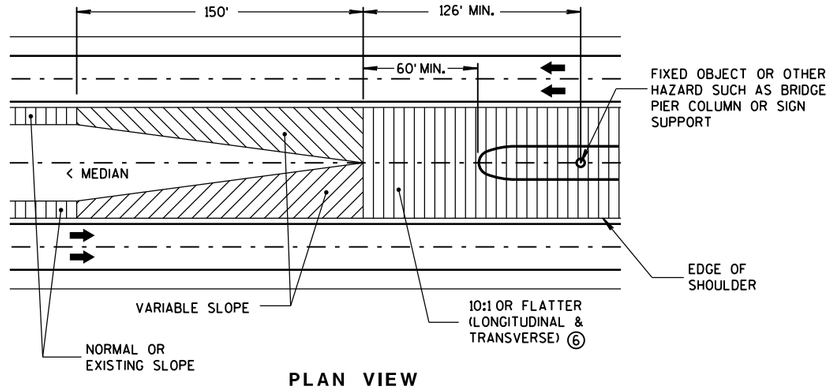
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

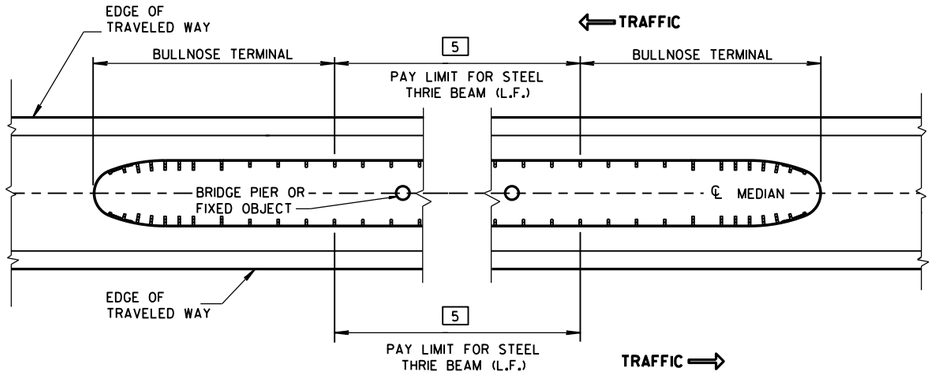
6

S.D.D. 14 B 8-2e

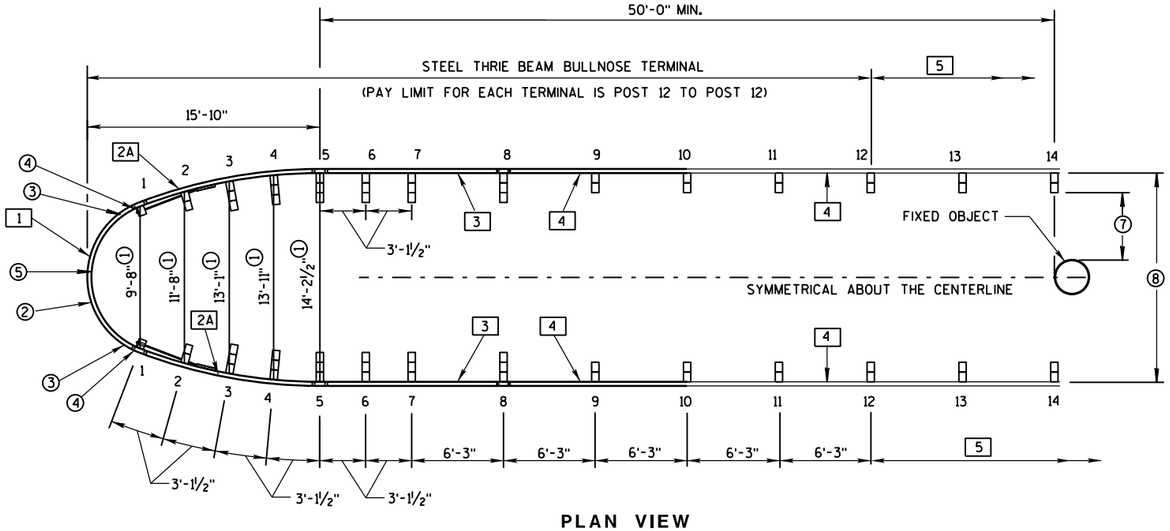


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

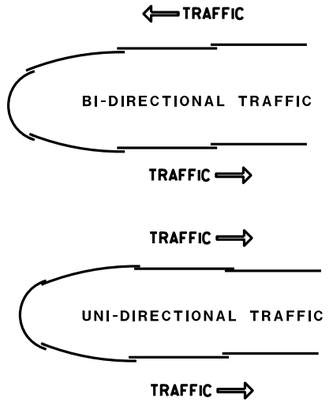


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

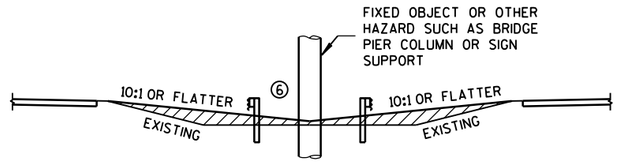
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

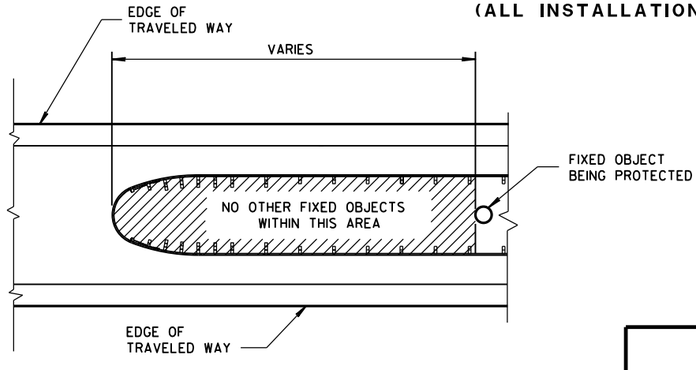
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

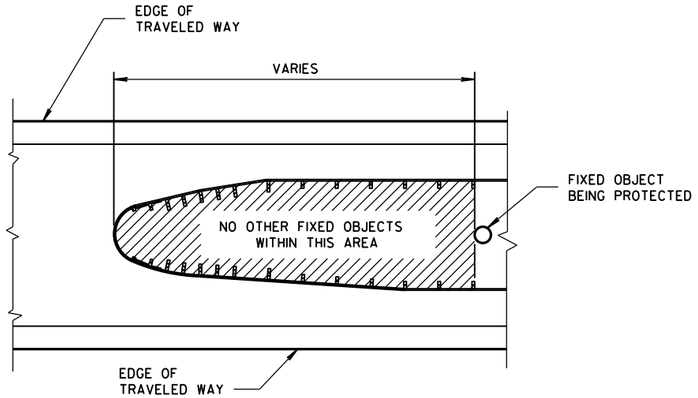


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

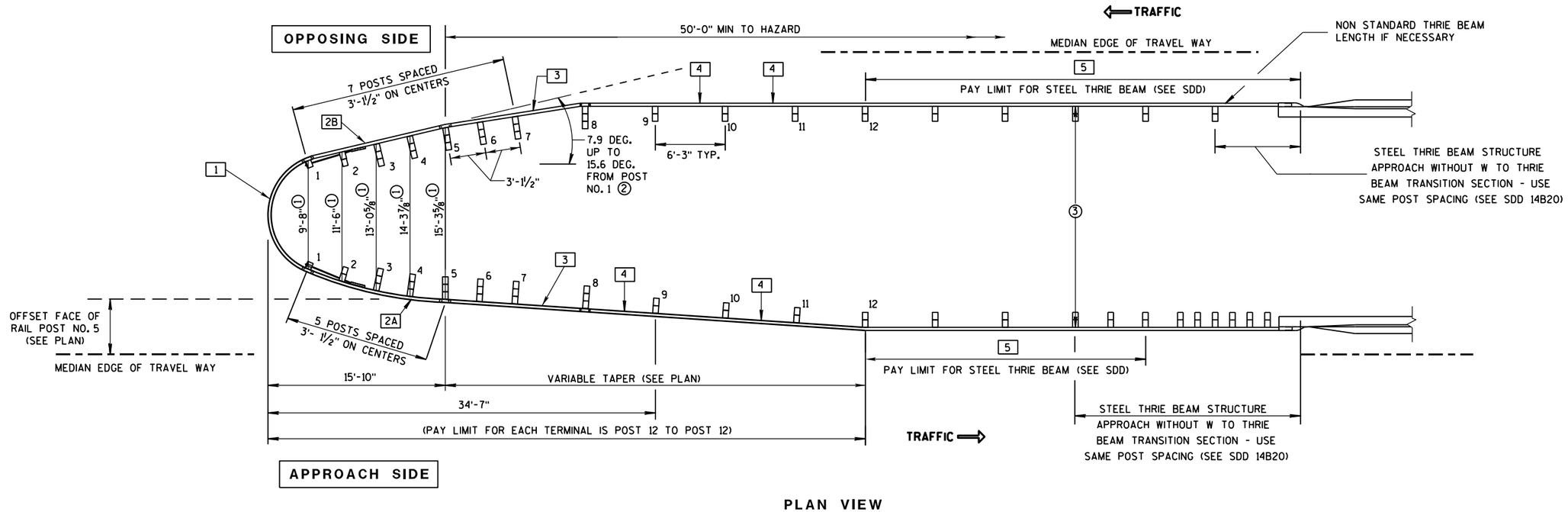
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

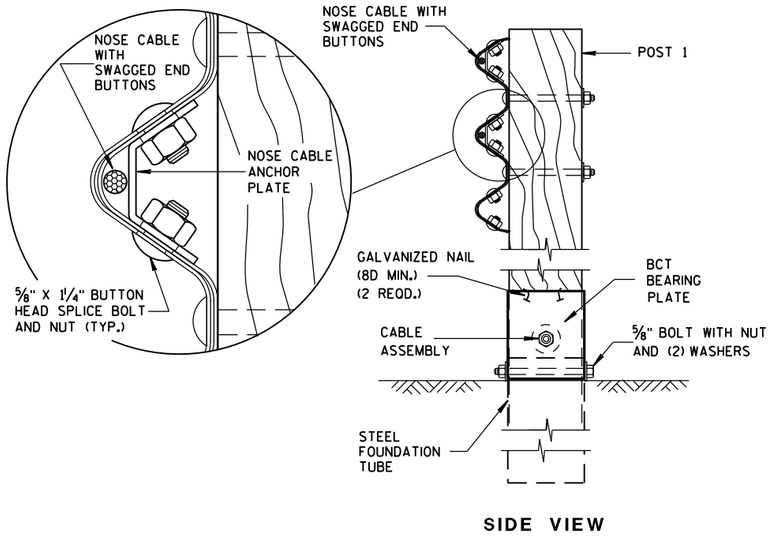
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

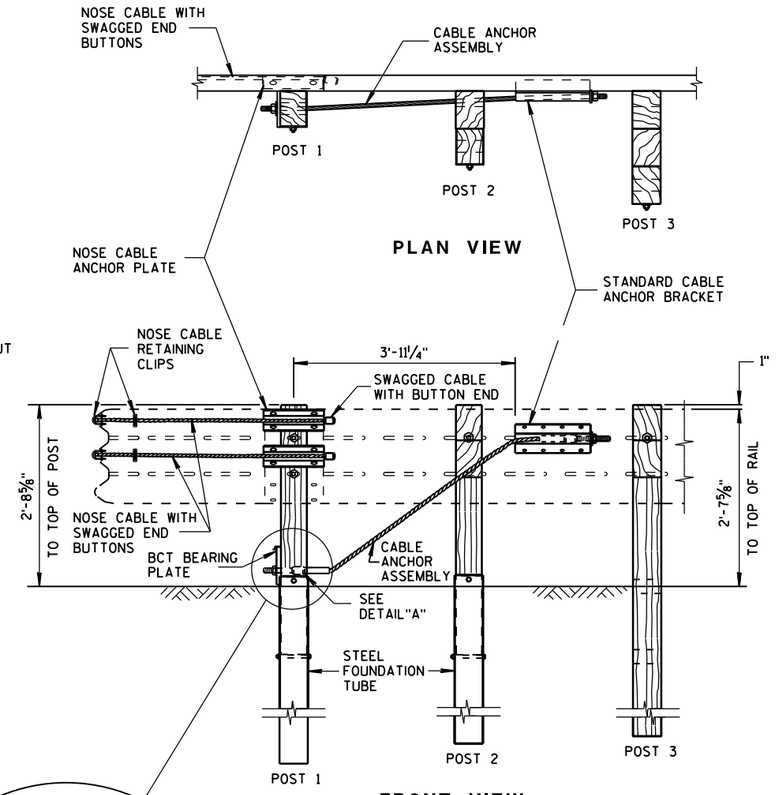
6

S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



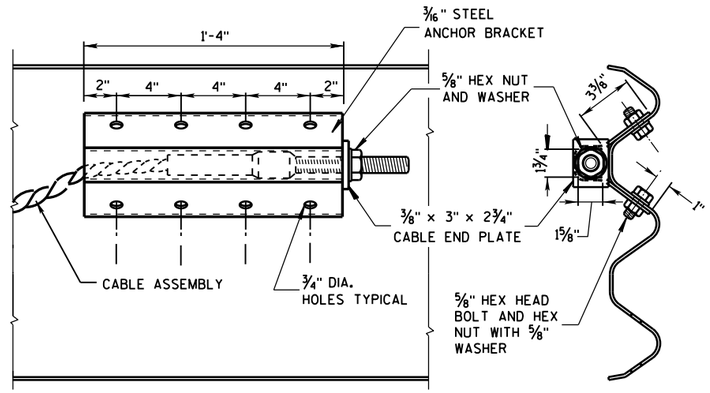
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

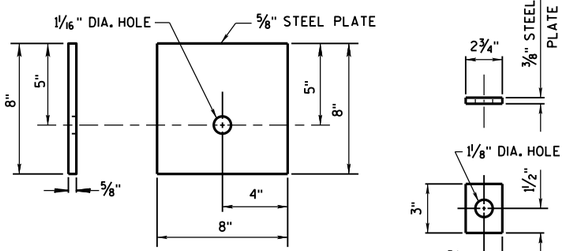
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



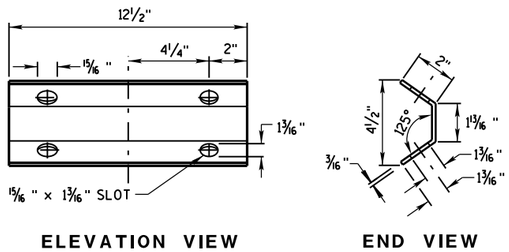
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET



BCT BEARING PLATE

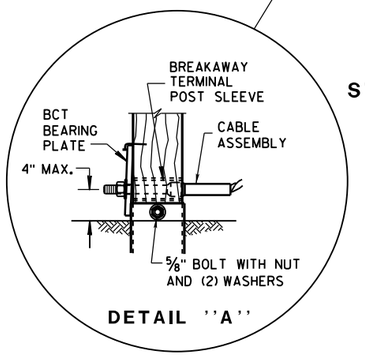
CABLE END PLATE



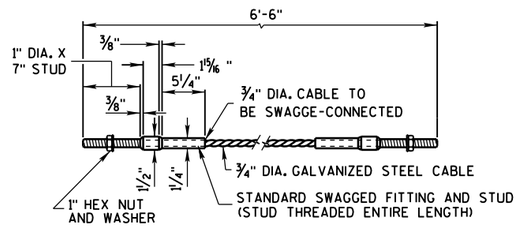
ELEVATION VIEW END VIEW

NOSE CABLE ANCHOR PLATE

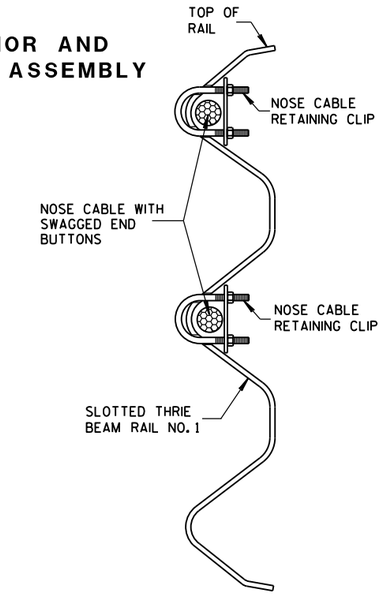
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



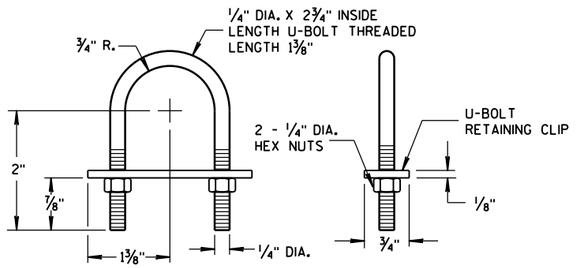
DETAIL ''A''



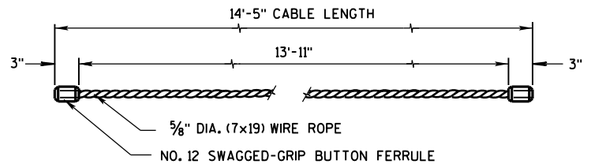
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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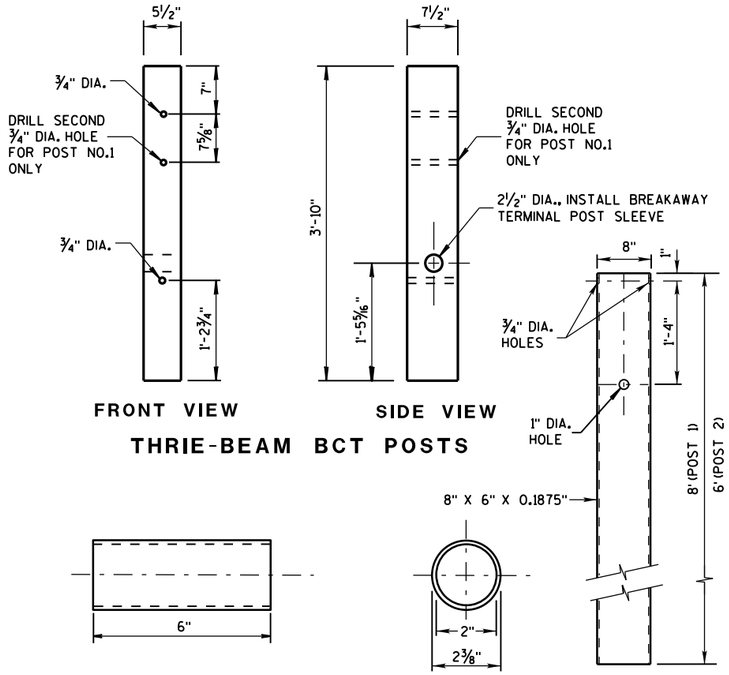
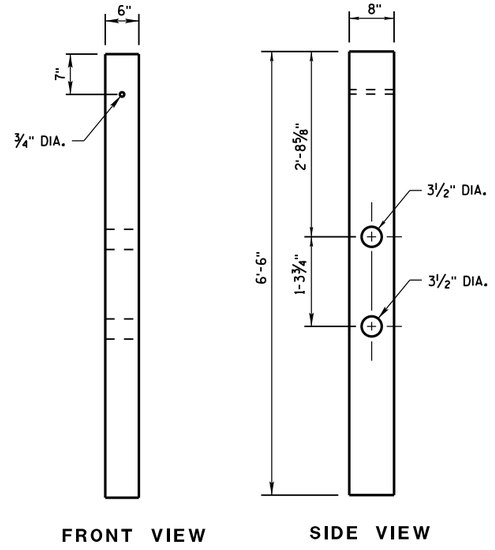


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

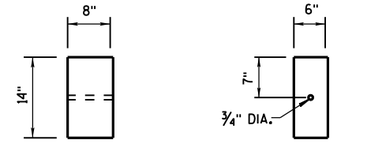
STEEL FOUNDATION TUBE



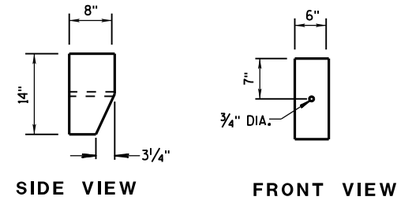
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

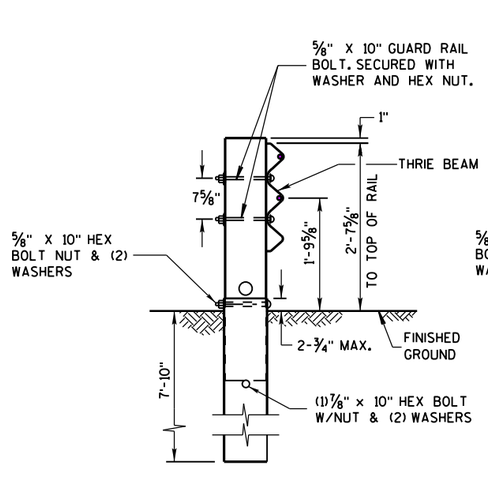
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

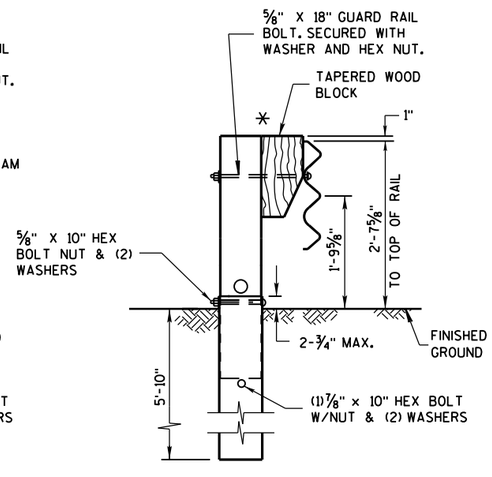


TAPERED WOOD BLOCK



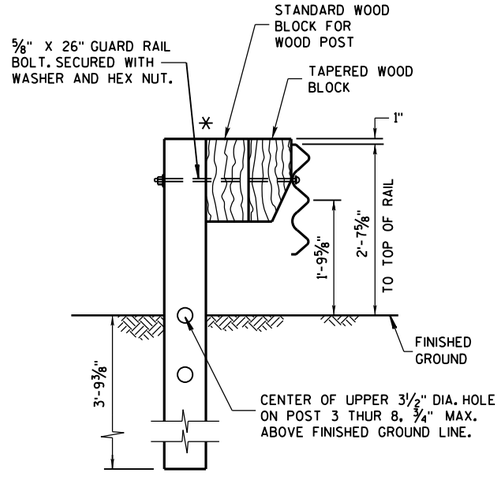
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



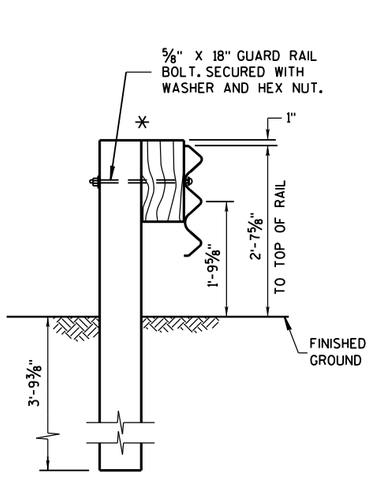
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
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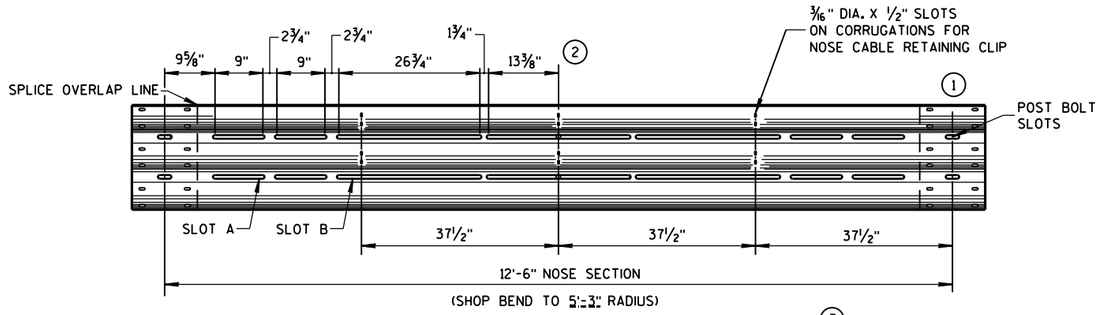
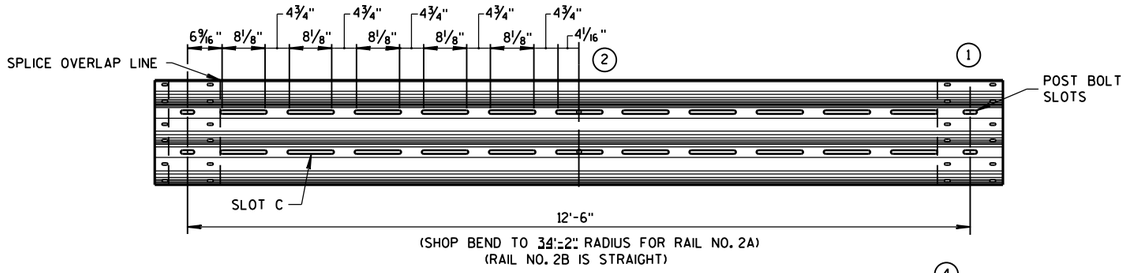
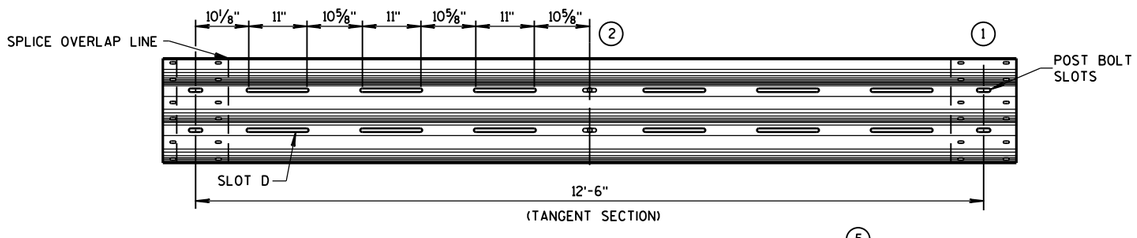
S.D.D. 14 B 26-3d



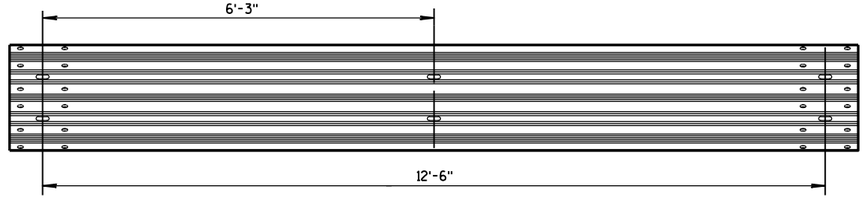
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

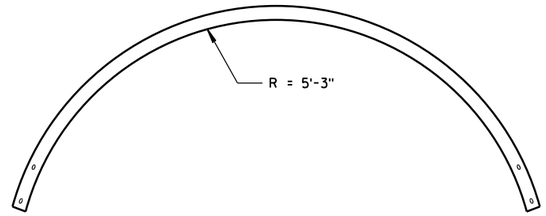
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

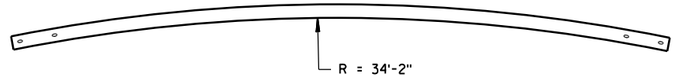
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



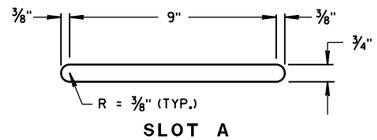
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

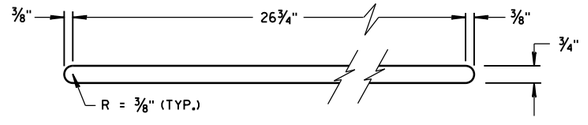


PLAN VIEW

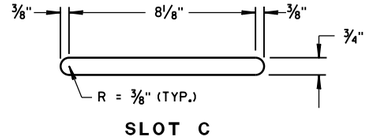
SLOTTED THRIE BEAM RAIL NO. 2A



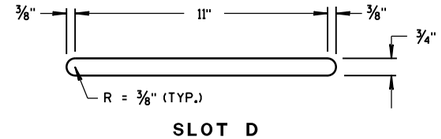
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 26-3e

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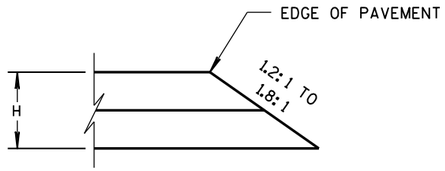
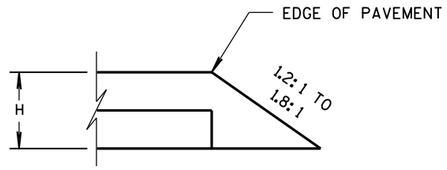
S.D.D. 14 B 26-3e



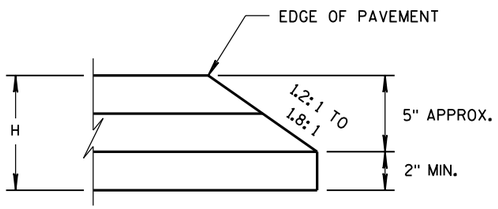
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



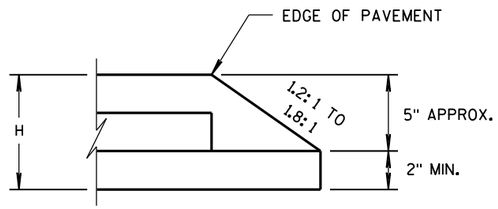
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

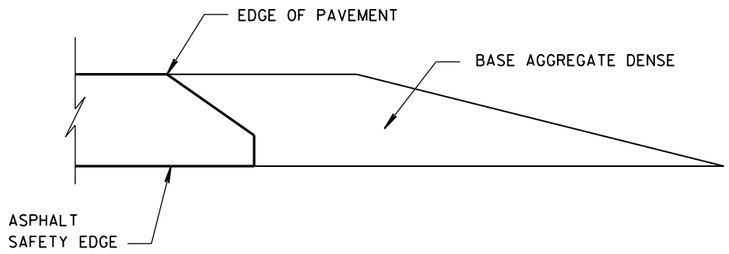
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

GENERAL NOTES

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

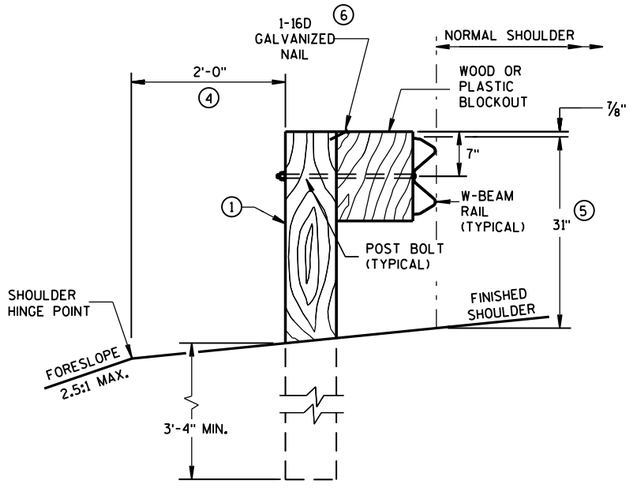
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ 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 OF LARGE ROCKS.

(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).

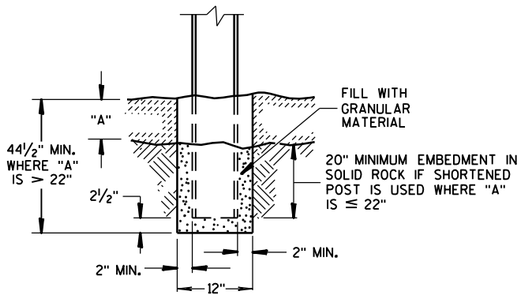
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(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.



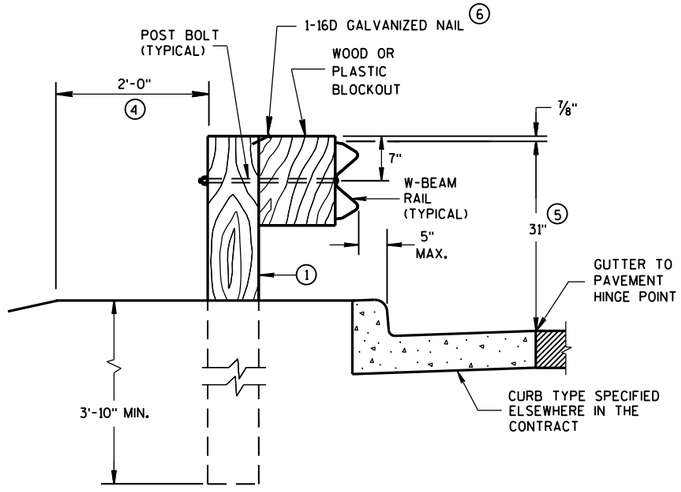
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



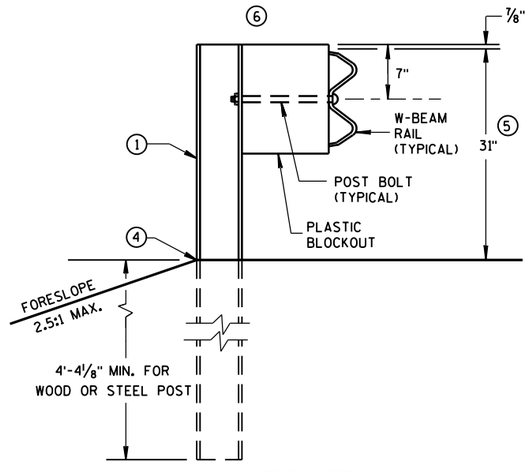
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



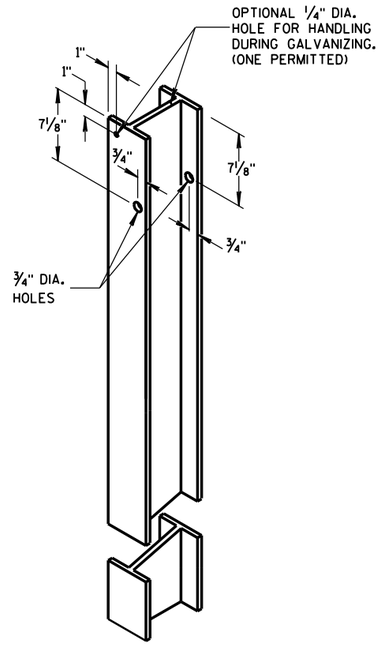
END VIEW

LOCATED ALONG A CURBED ROADWAY

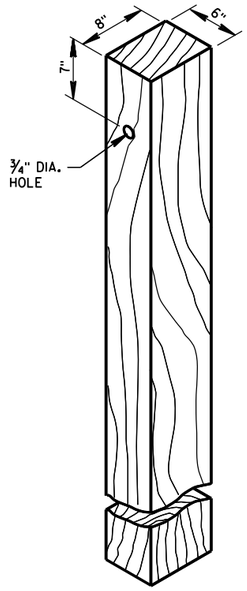


END VIEW

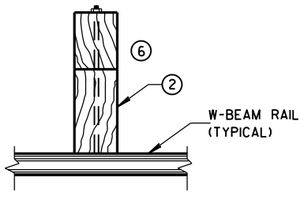
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



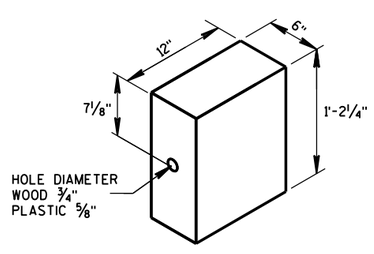
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



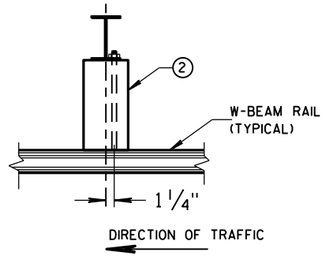
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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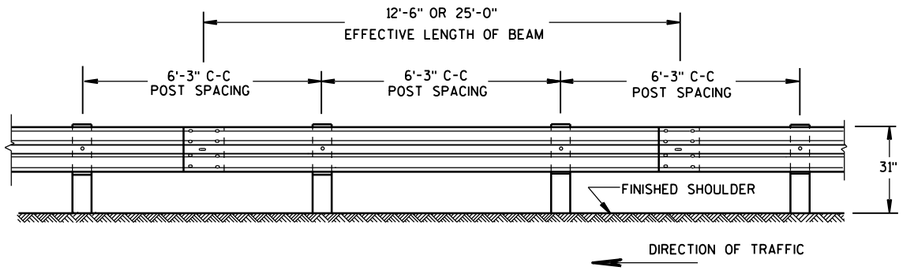
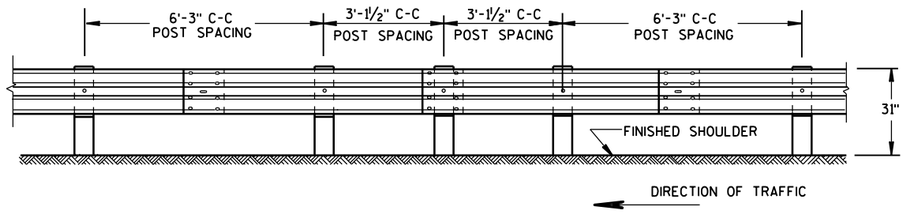
S.D.D. 14 B 42-3a



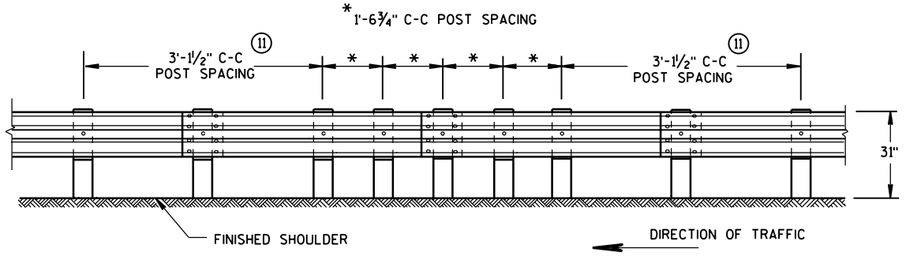
FRONT VIEW

POST SPACING STANDARD INSTALLATION



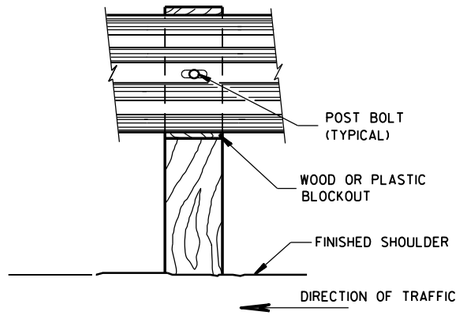
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

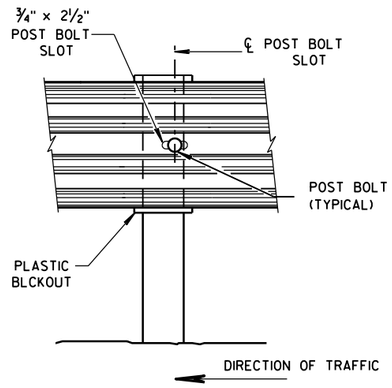


FRONT VIEW

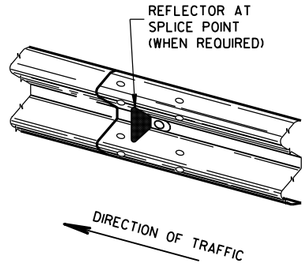
QUARTER POST SPACING (QS)

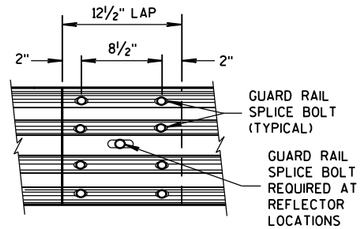


FRONT VIEW AT WOOD POST

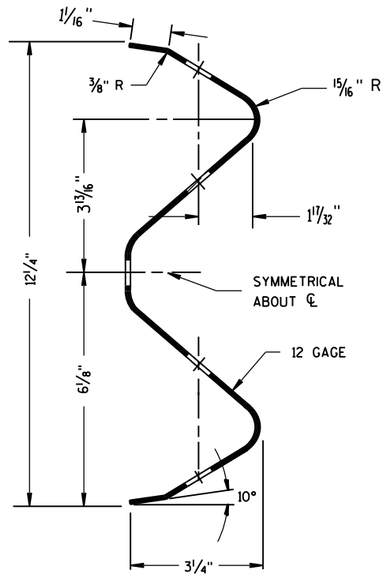


FRONT VIEW AT STEEL POST

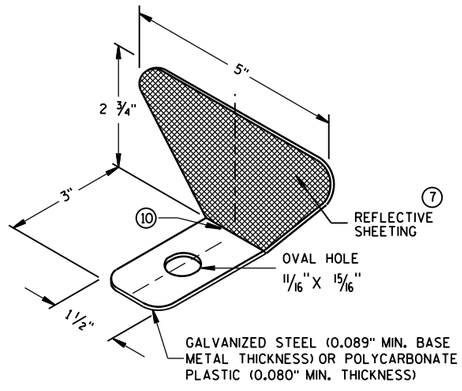




FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

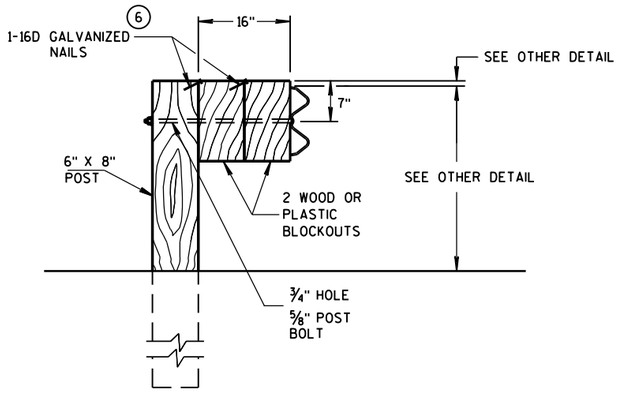
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ⑨ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 2 ⑩	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

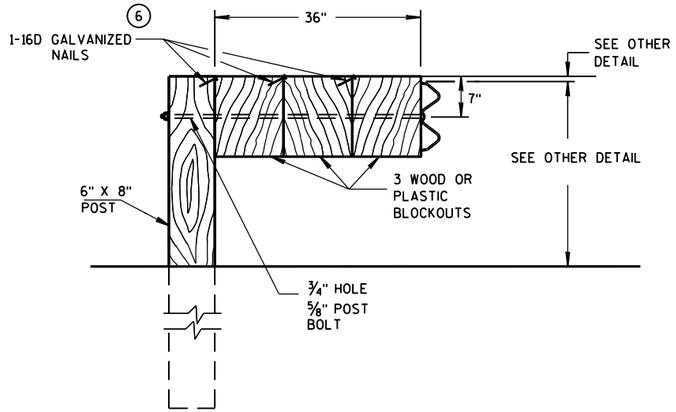
6

S.D.D. 14 B 42-3b



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.

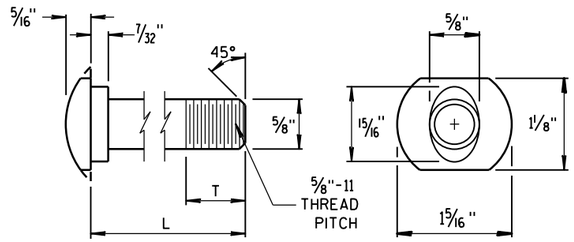


DETAIL FOR 36" BLOCKOUT DEPTH

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.

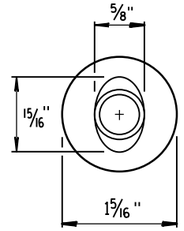
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

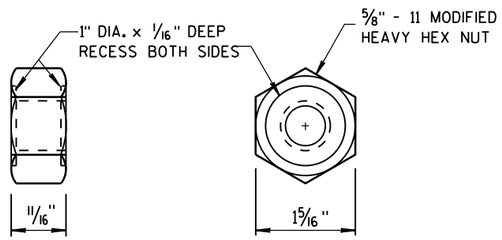


POST BOLT TABLE

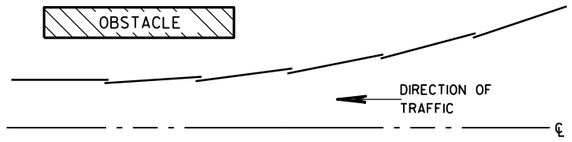
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

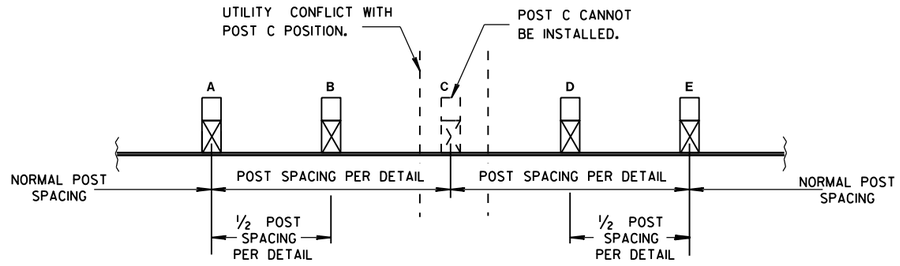


POST BOLT AND RECESS NUT

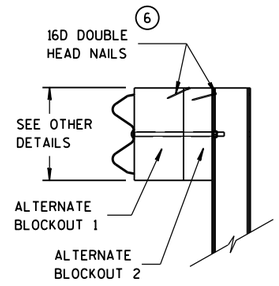


PLAN VIEW

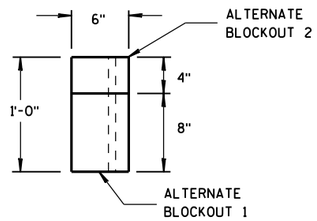
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

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S.D.D. 14 B 42-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

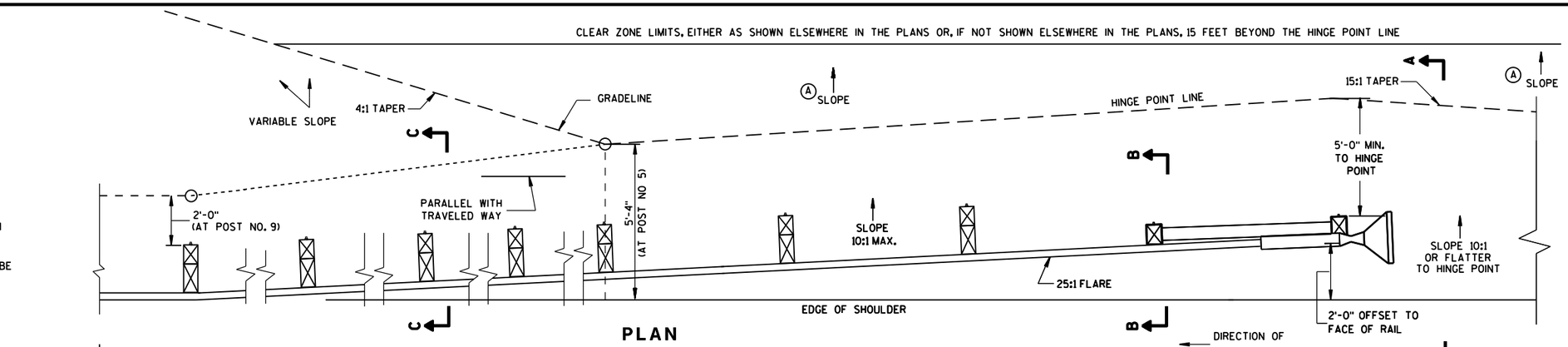
SEE SDD 14B42 FOR MORE INFORMATION.

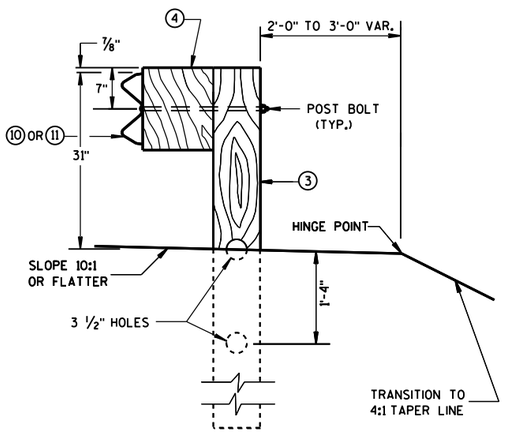
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

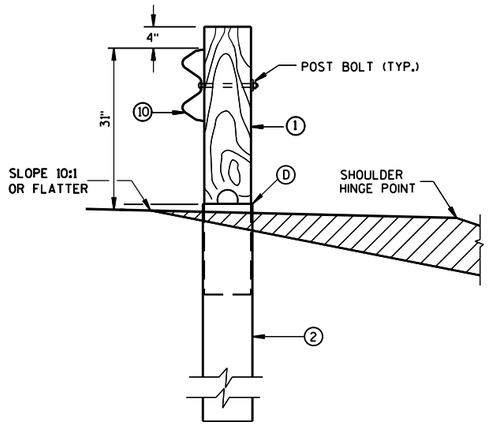
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

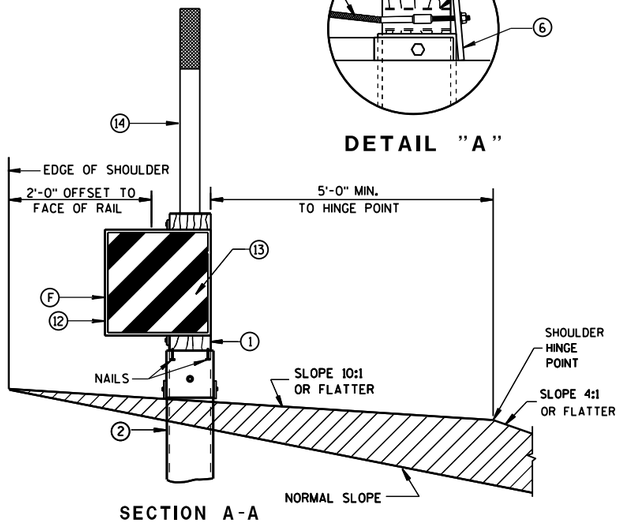




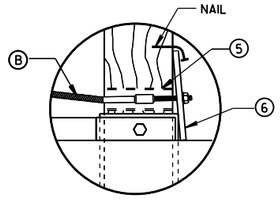
SECTION C-C
TYPICAL AT POST NOS. 3-9



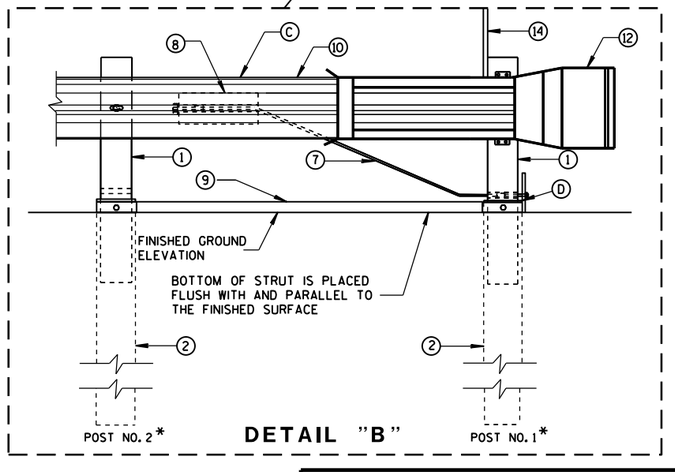
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

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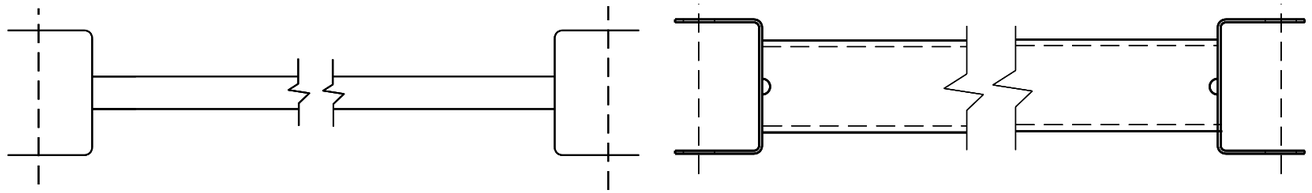
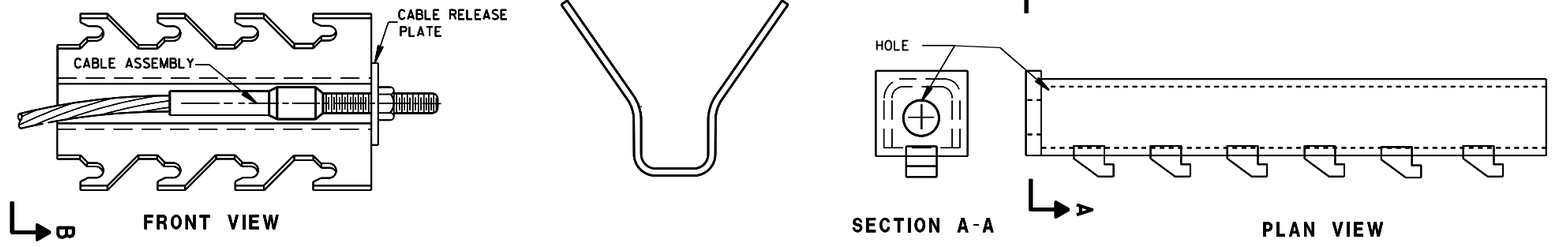


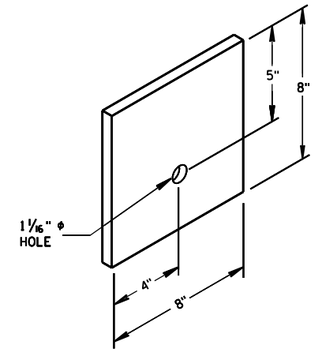
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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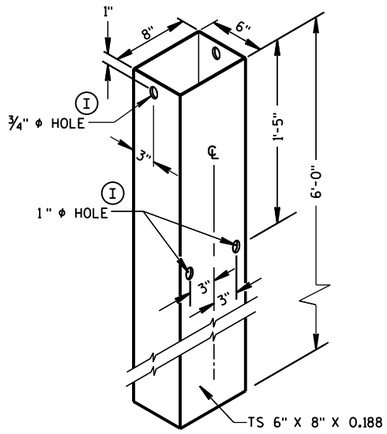
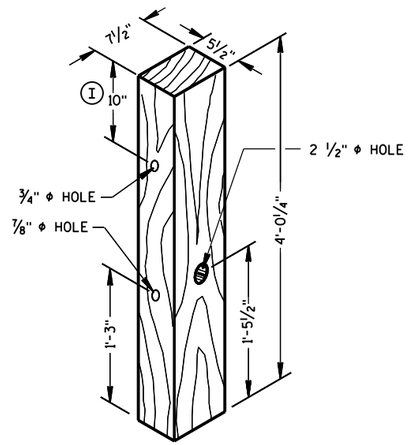
S.D.D. 14 B 44-2b

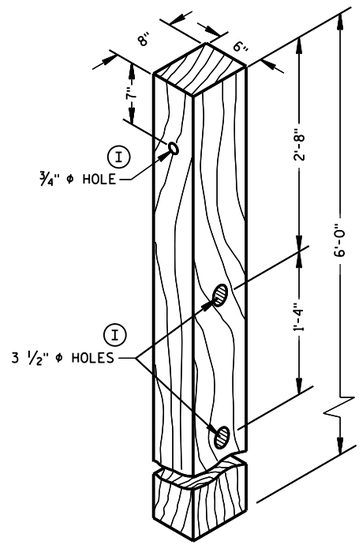


FOUNDATION TUBE (2)



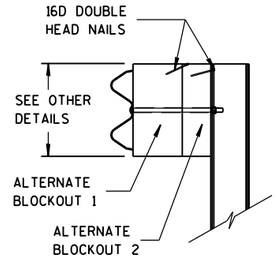
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

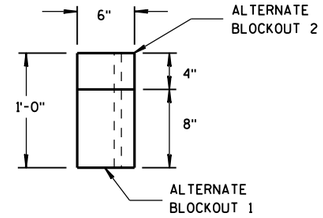


POSTS NUMBER 3-9

WOOD CRT POST (3)

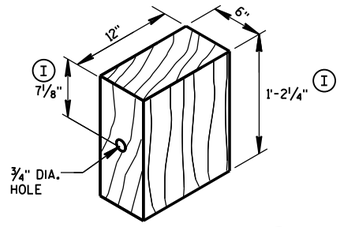


SIDE VIEW



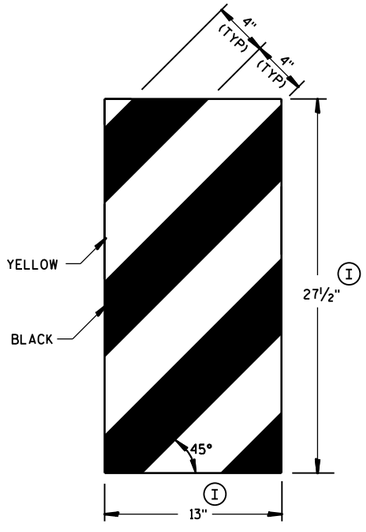
TOP VIEW

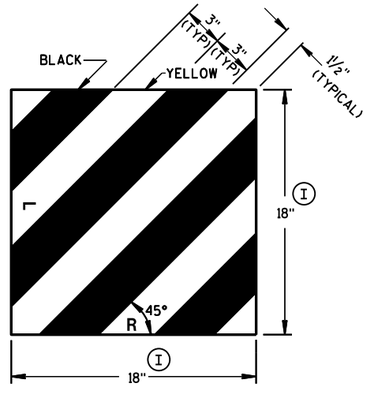
ALTERNATE WOOD BLOCKOUT DETAIL



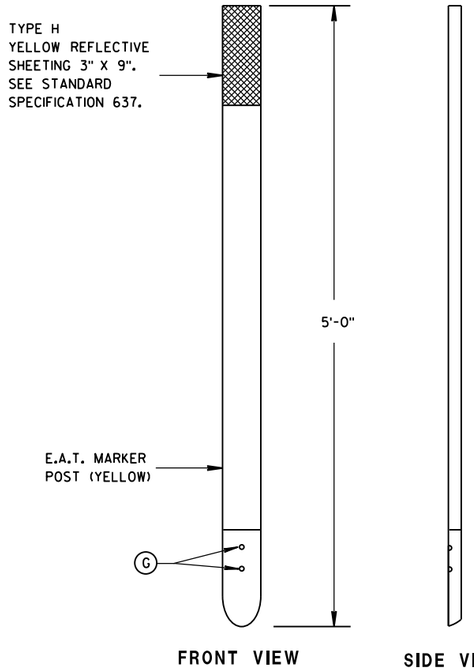
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





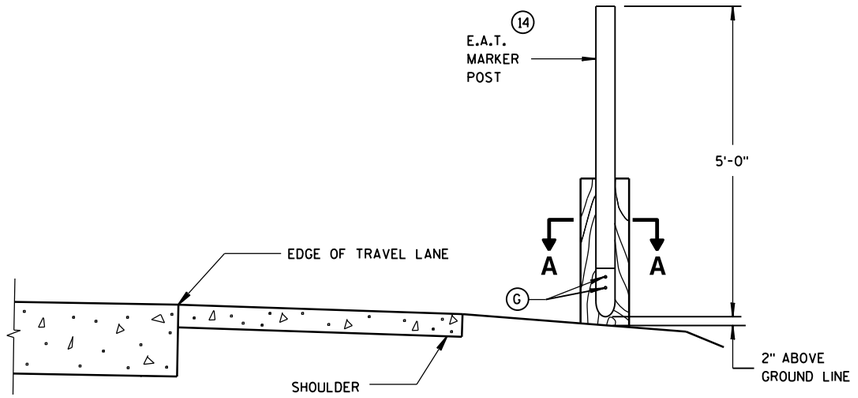
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

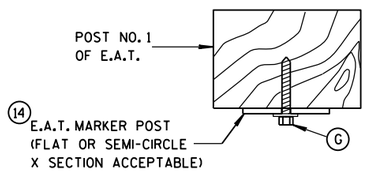
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

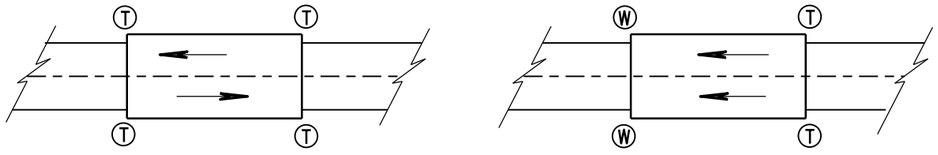
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-2c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

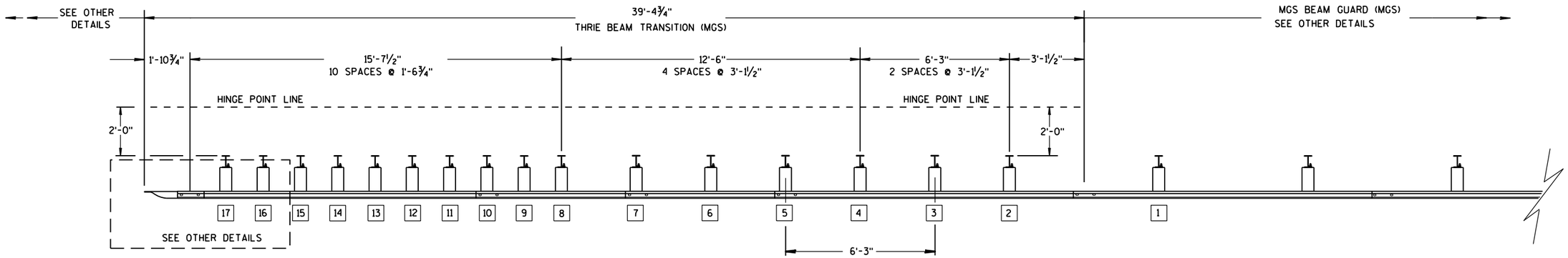
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

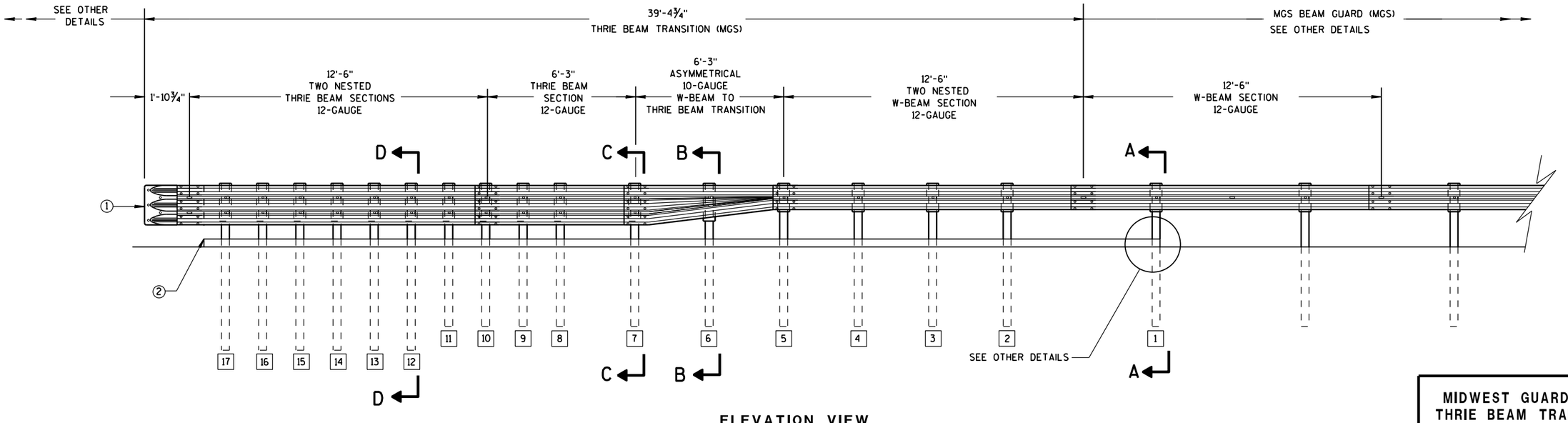
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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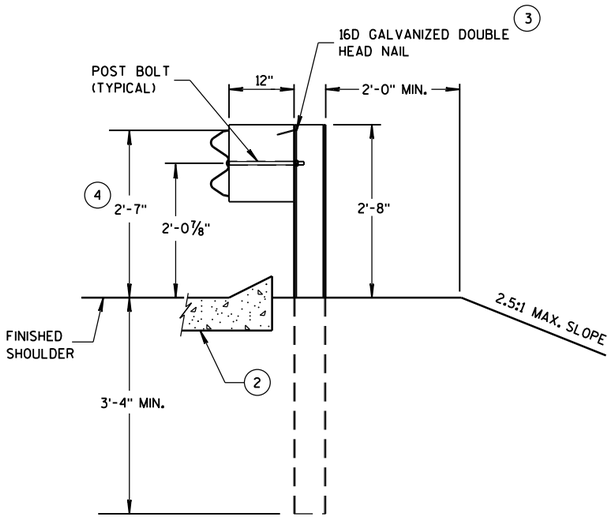
S.D.D. 14 B 45-4a

GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE_FEATURE SEE PLAN FOR INFORMATION.

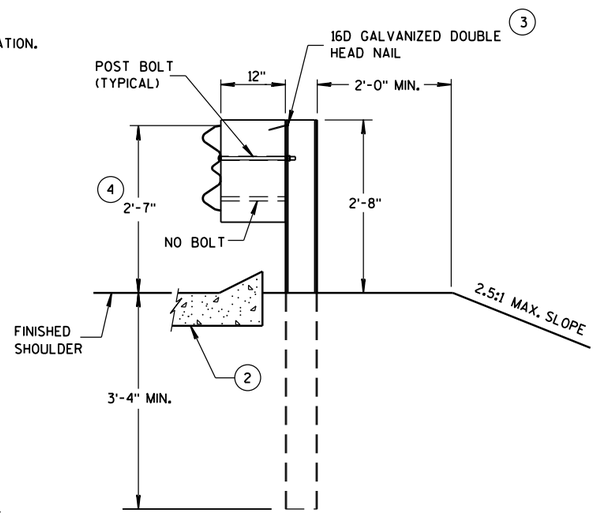
(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



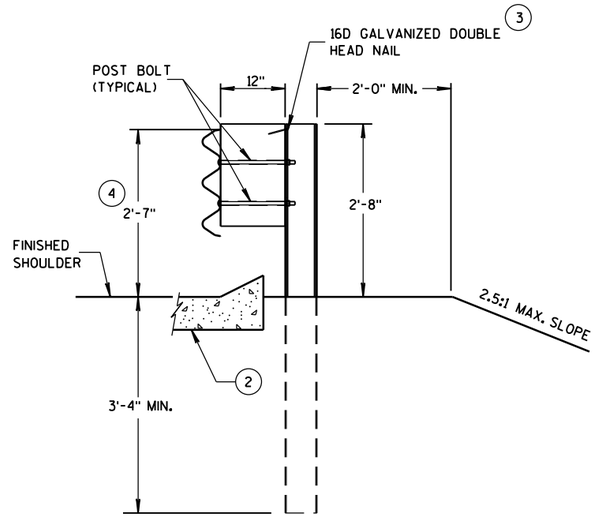
SECTION A-A

POSTS 1-5



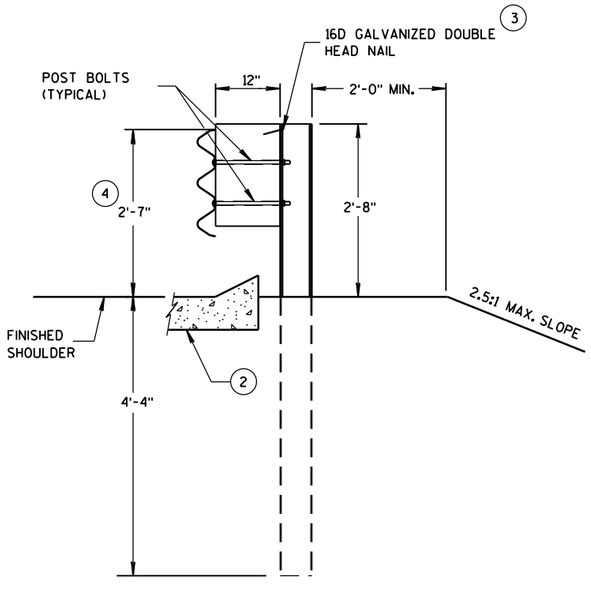
SECTION B-B

POST 6



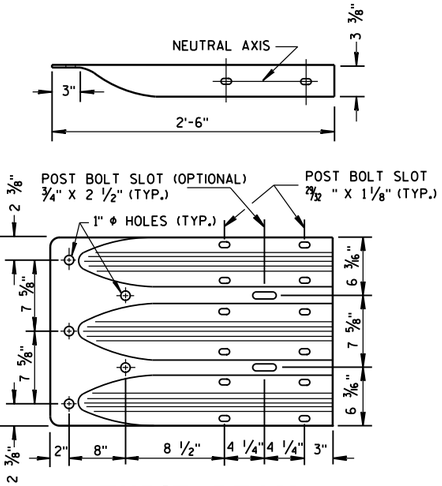
SECTION C-C

POSTS 7-11



SECTION D-D

POSTS 12-17



THRIE BEAM TERMINAL CONNECTOR

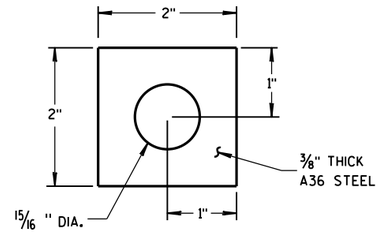
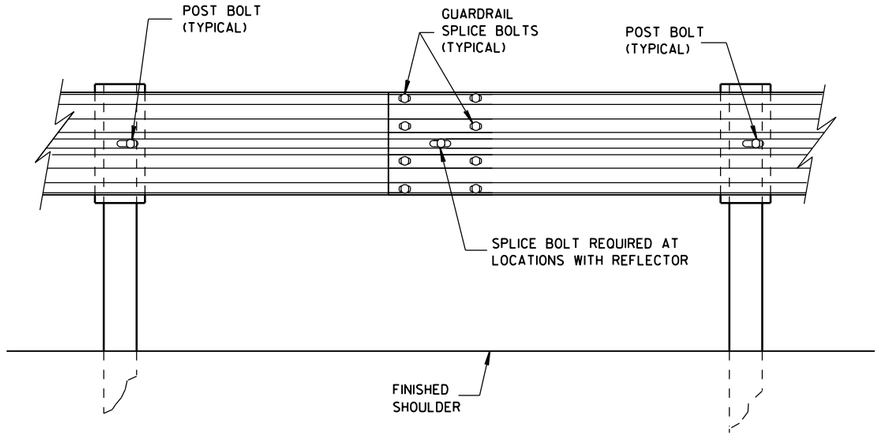
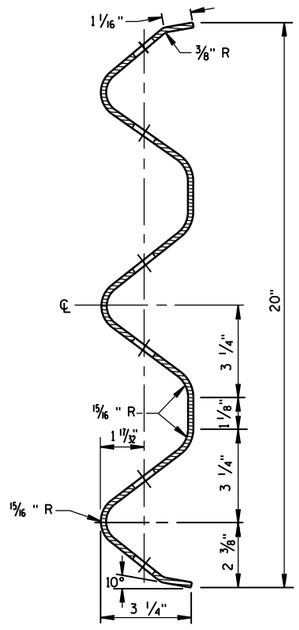


PLATE WASHER DETAIL



SPLICE DETAIL



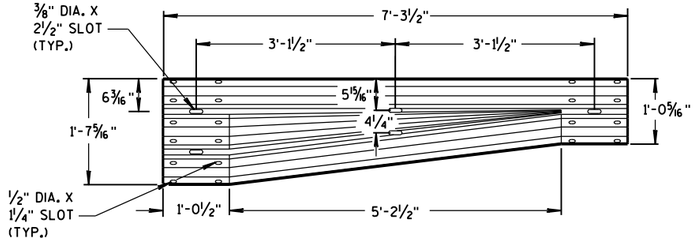
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

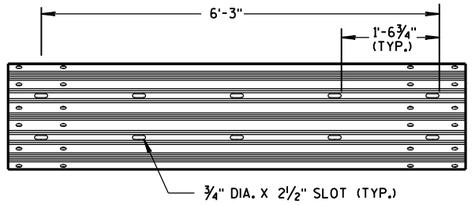
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

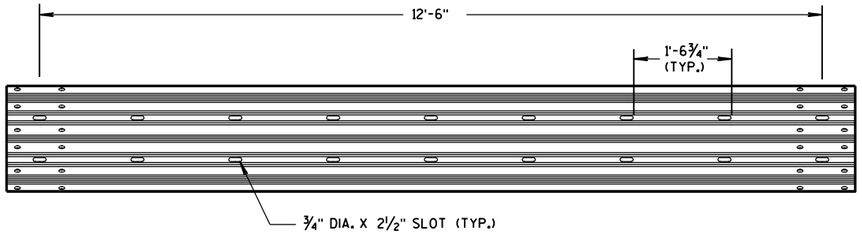
S.D.D. 14 B 45-4b



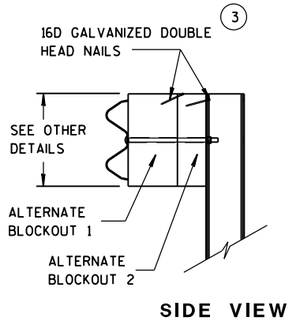
W-BEAM TO THRIE BEAM TRANSITION SECTION



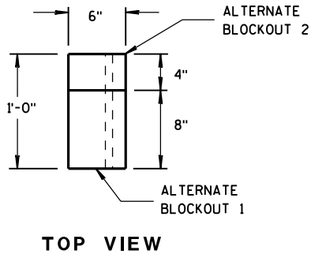
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

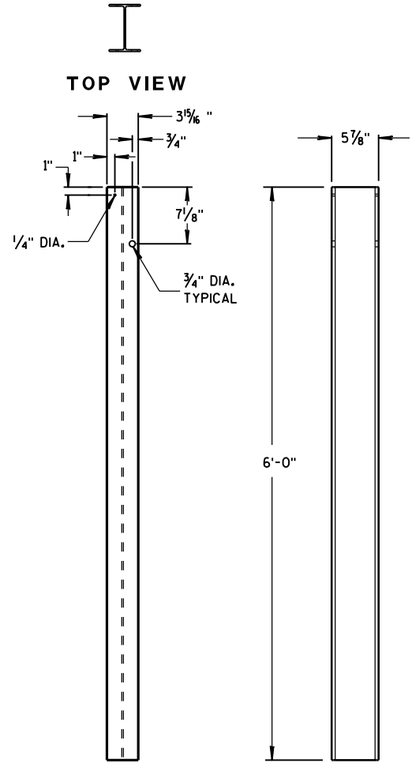


SIDE VIEW

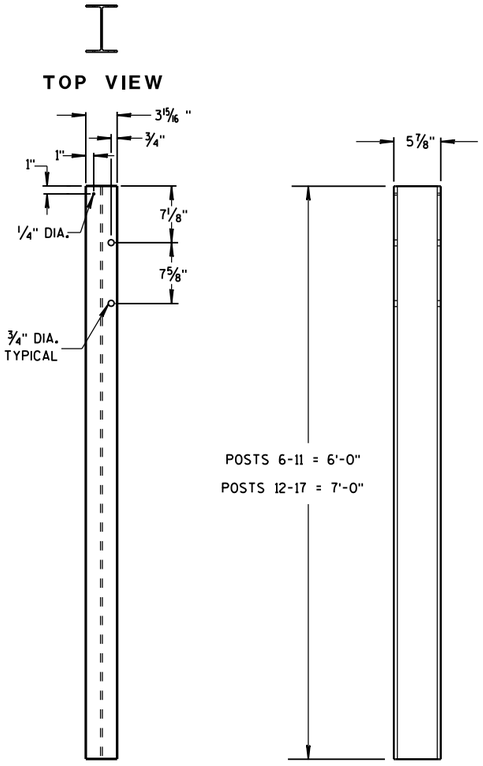


TOP VIEW

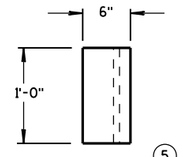
ALTERNATE WOOD BLOCKOUT DETAIL



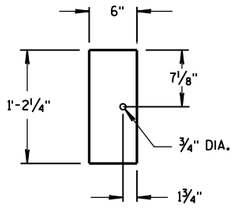
STEEL POSTS 1-5



STEEL POSTS 6-17

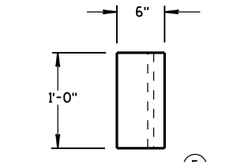


TOP VIEW

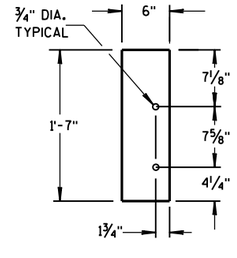


FRONT VIEW

BLOCKOUT POSTS 1-5



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS 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.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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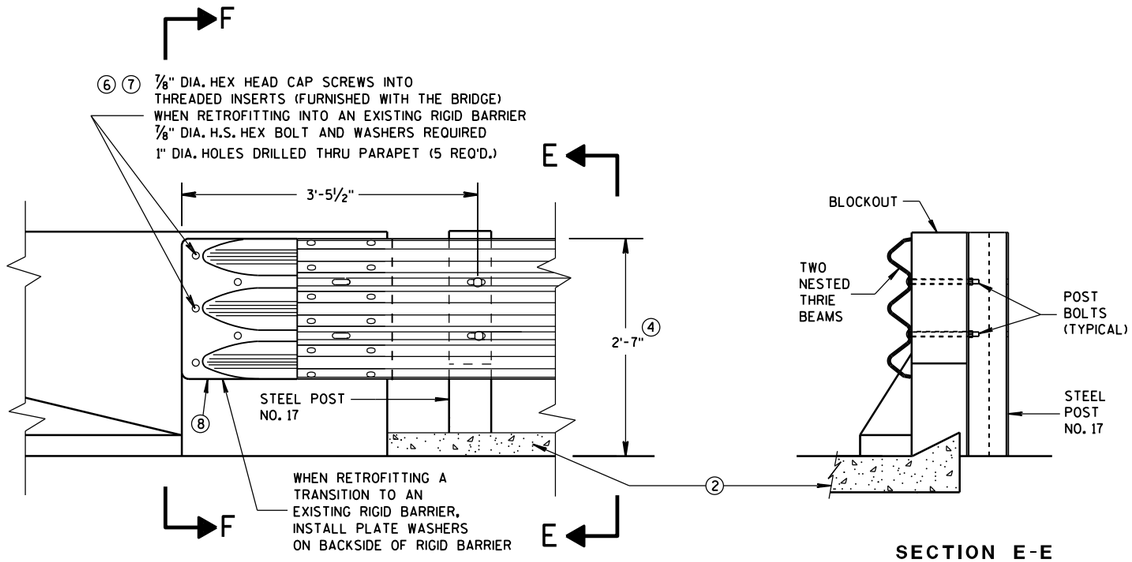
S.D.D. 14 B 45-4c
S.D.D. 14 B 45-4c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

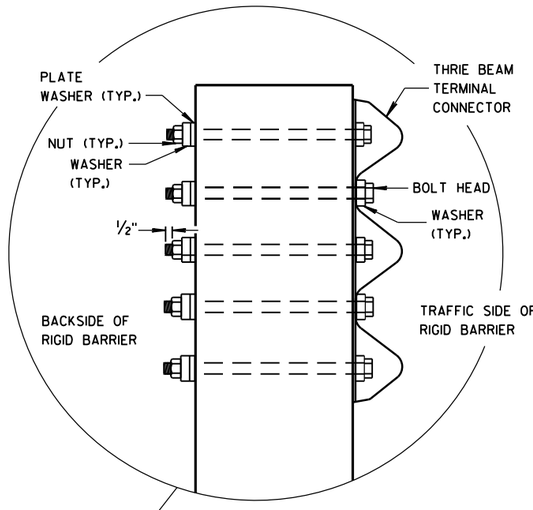
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

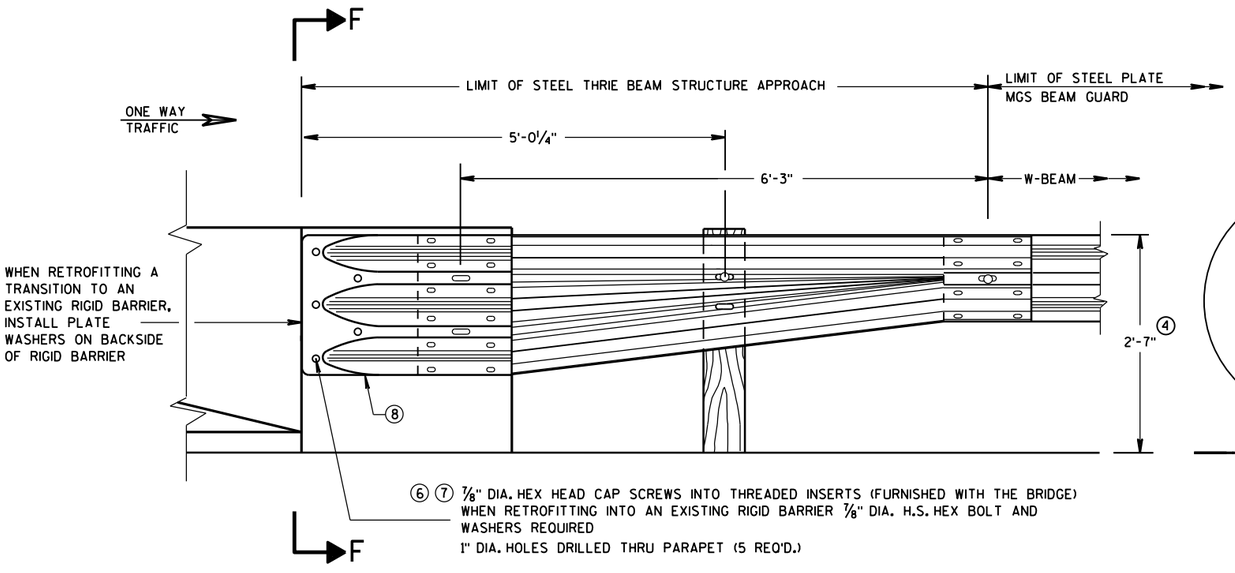
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

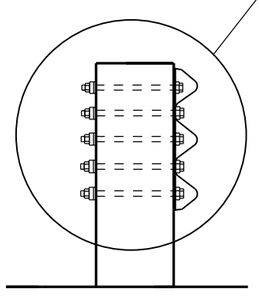
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

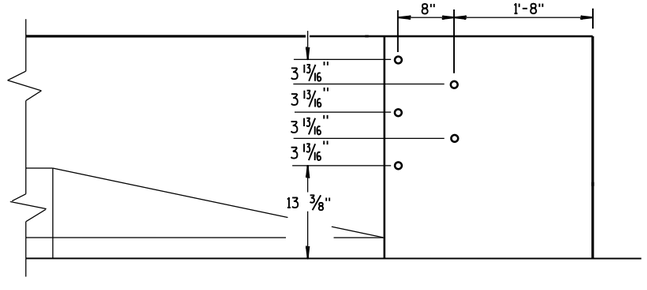




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 14 B 45-4d

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S.D.D. 14 B 45-4d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

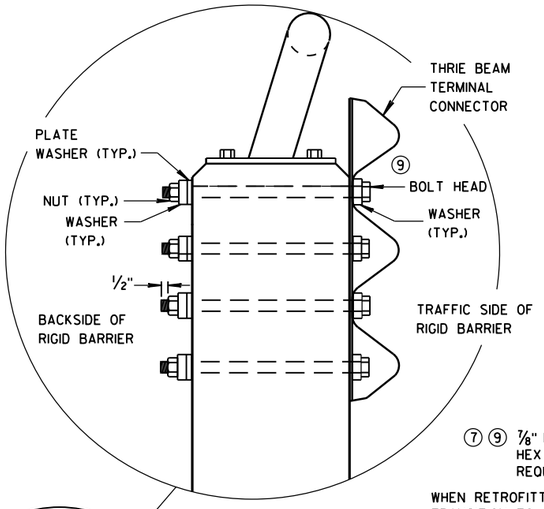
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

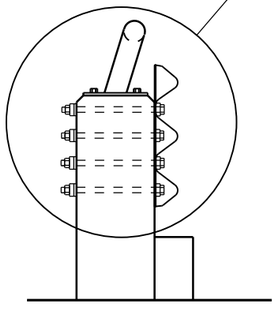
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) 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 THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

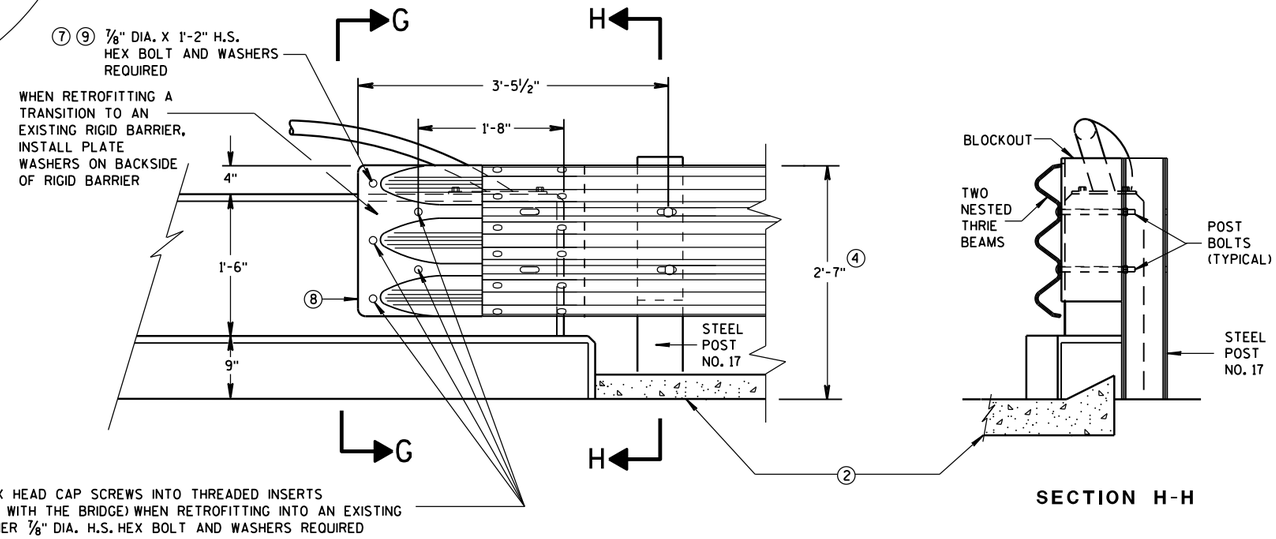
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





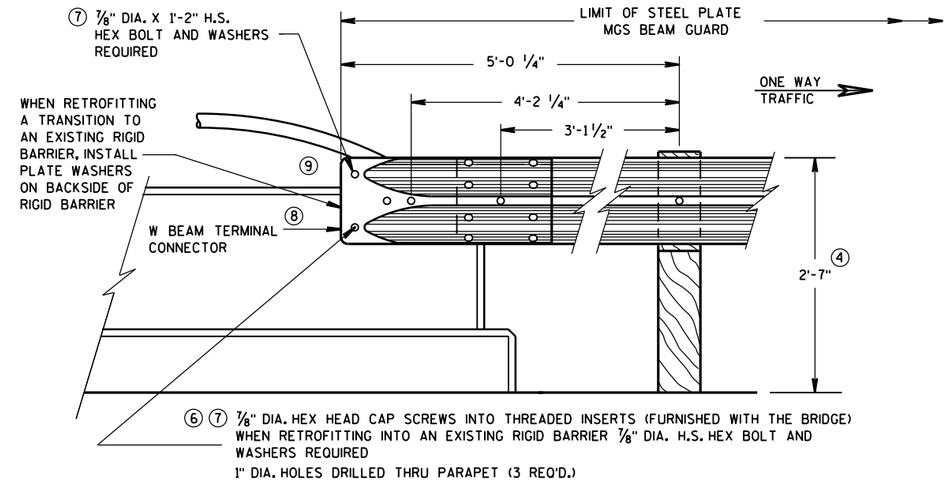
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 45-4e

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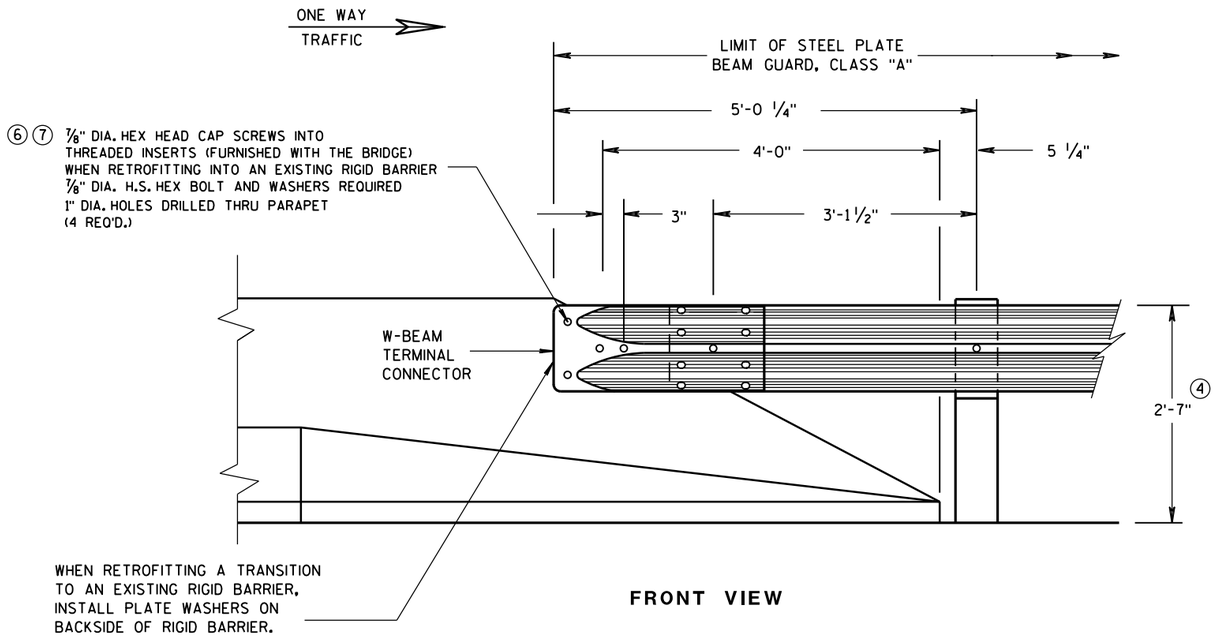
S.D.D. 14 B 45-4e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

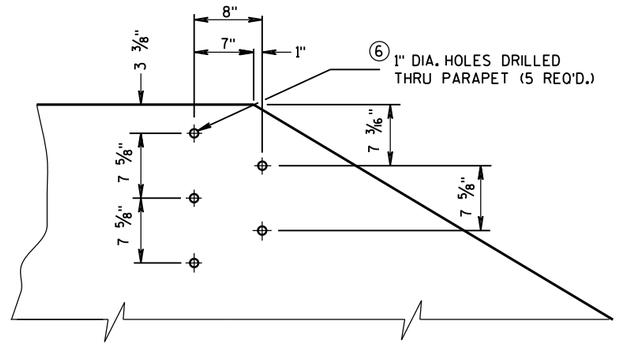
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

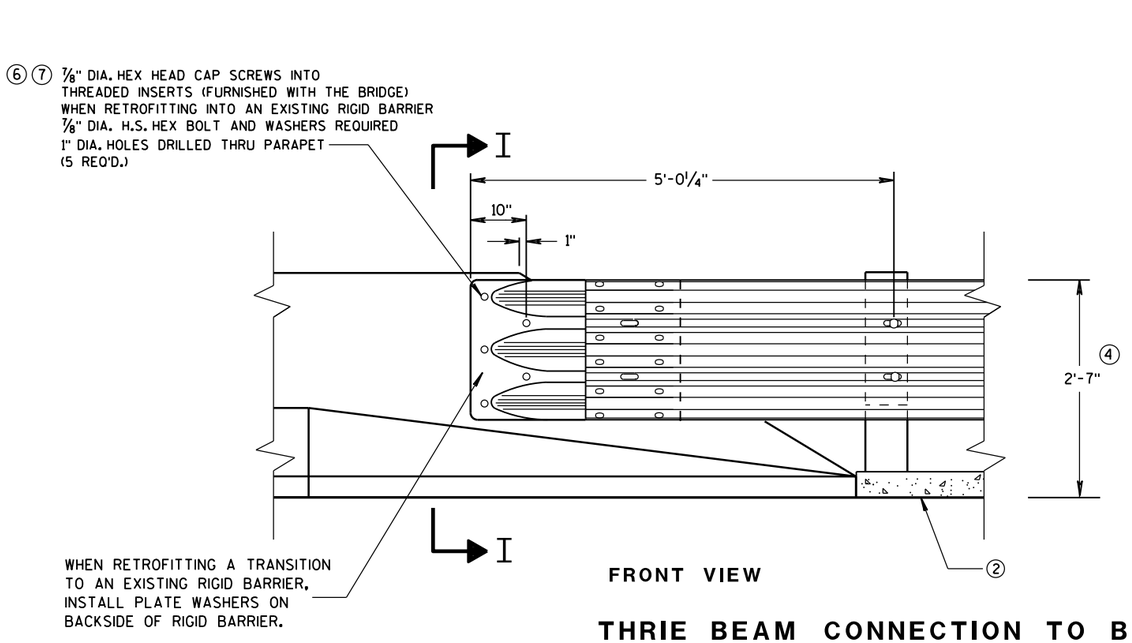
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

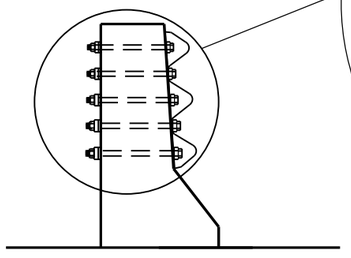
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



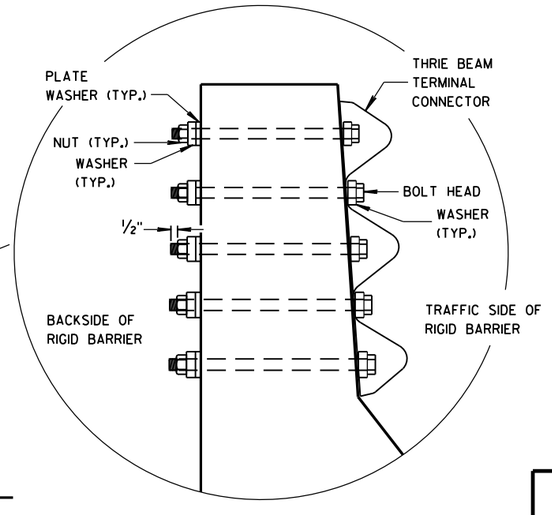
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 45-4f

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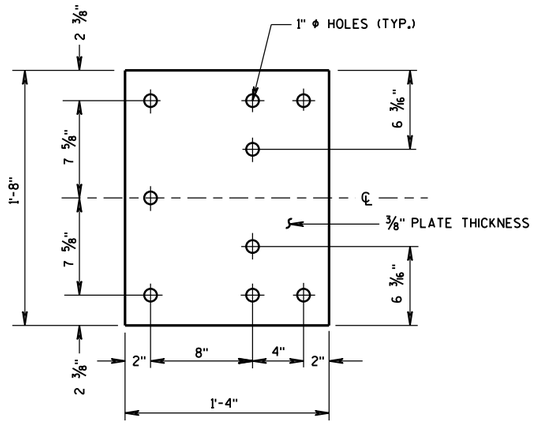
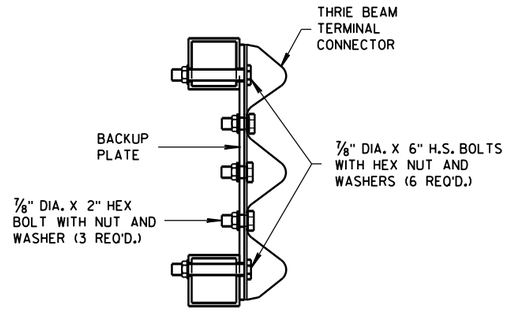
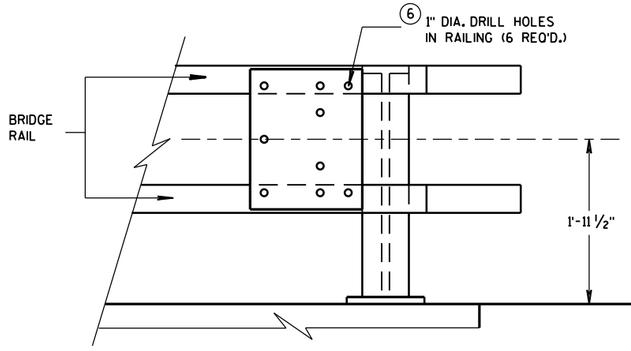
S.D.D. 14 B 45-4f



BACK-UP PLATE DETAIL



SECTION J-J

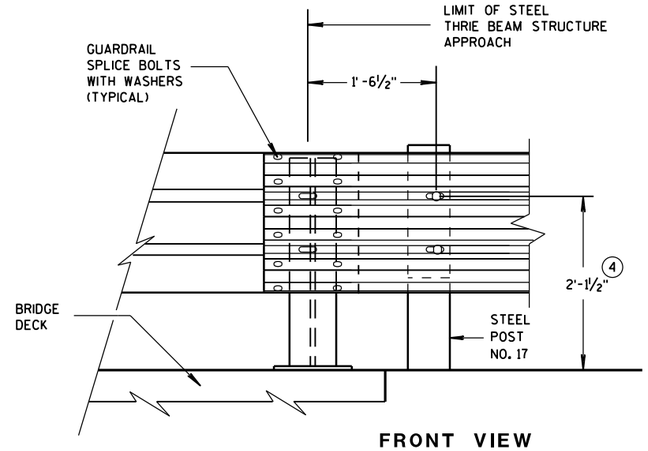


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

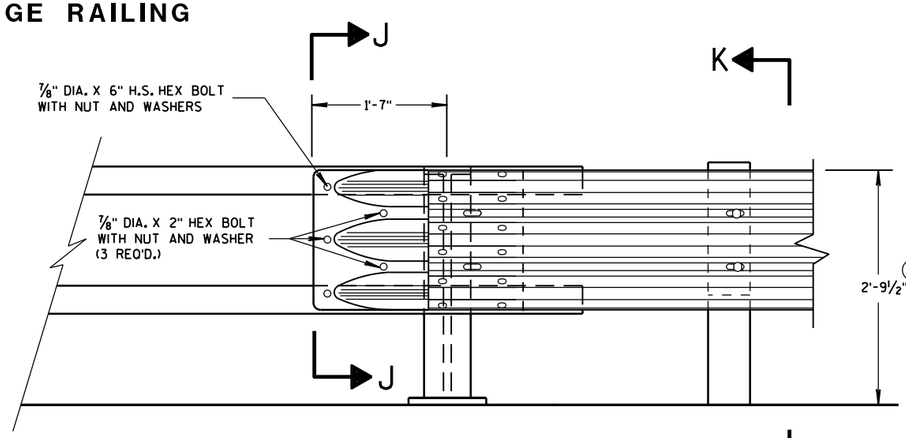
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

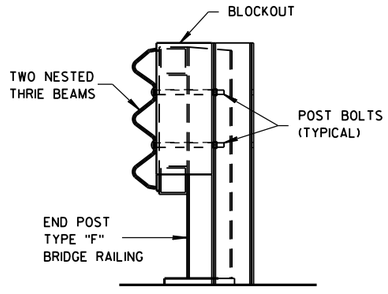


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 45-4g

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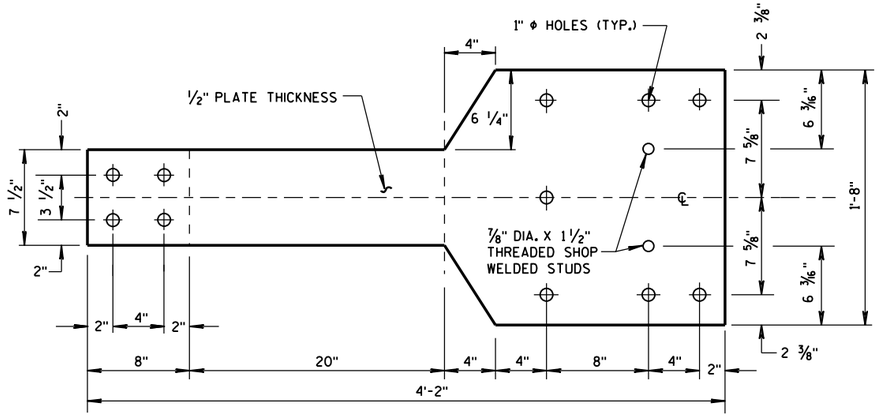
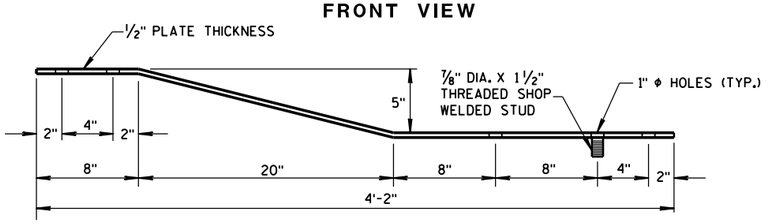
S.D.D. 14 B 45-4g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

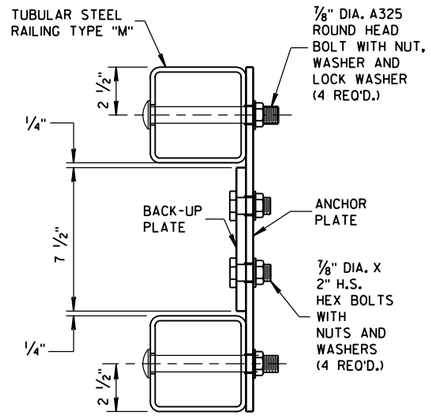


FRONT VIEW

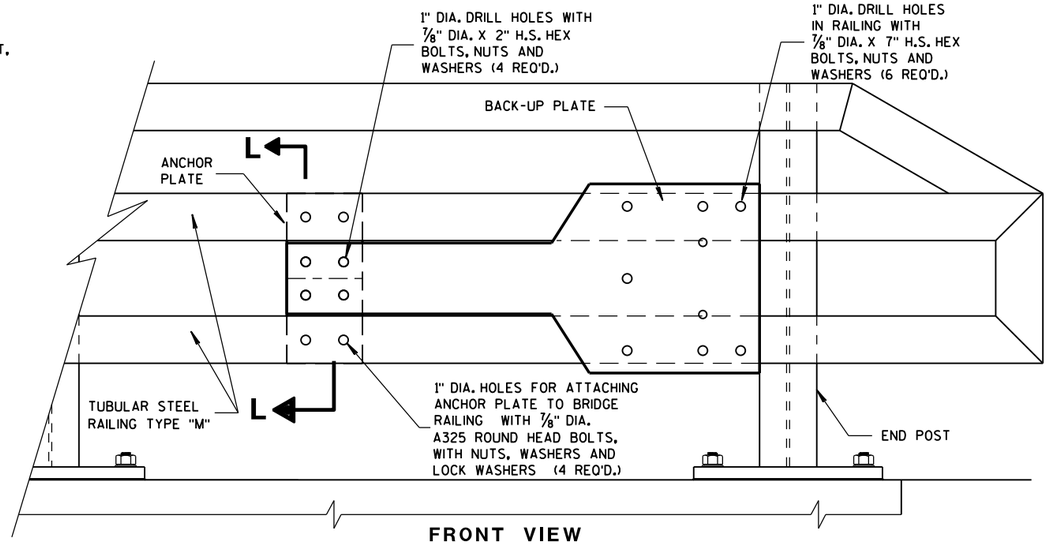


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

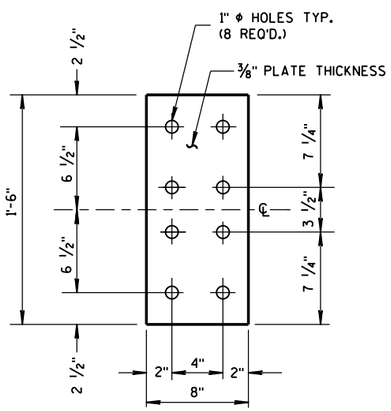


SECTION L-L



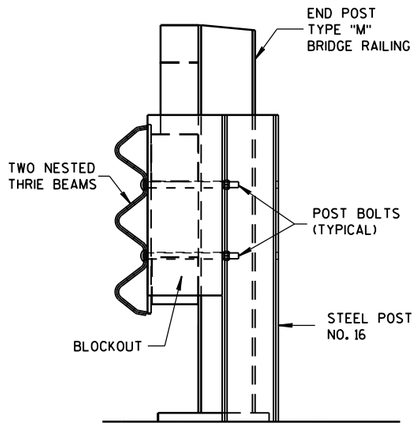
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

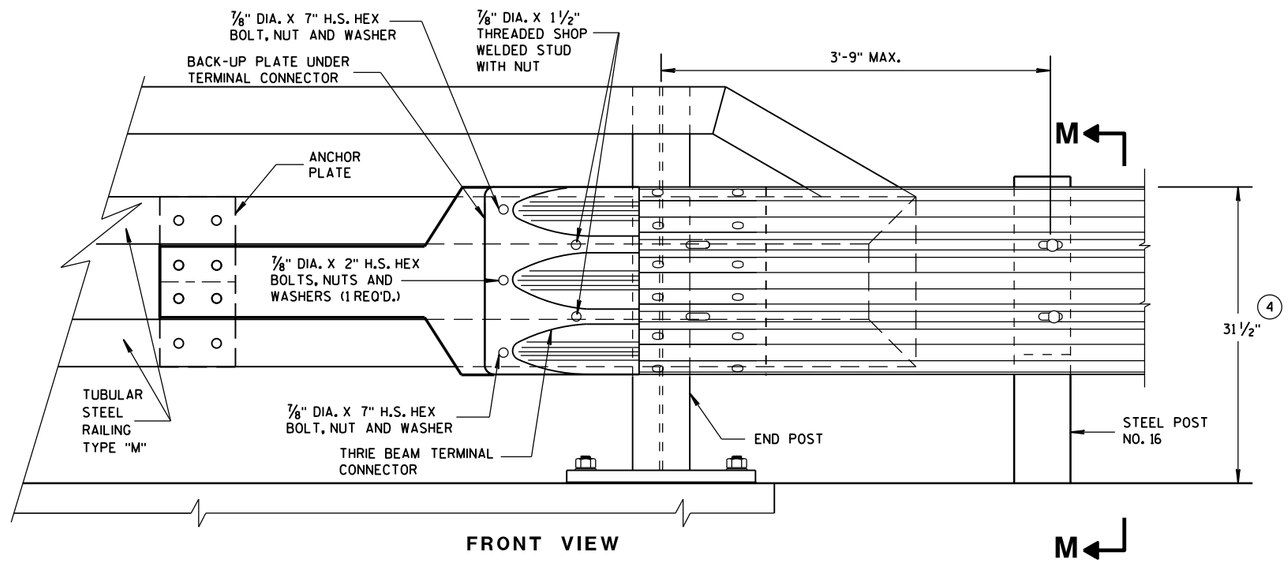


FRONT VIEW

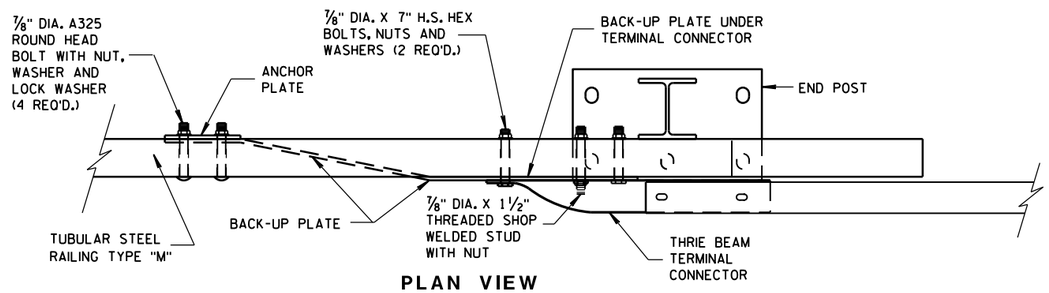
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



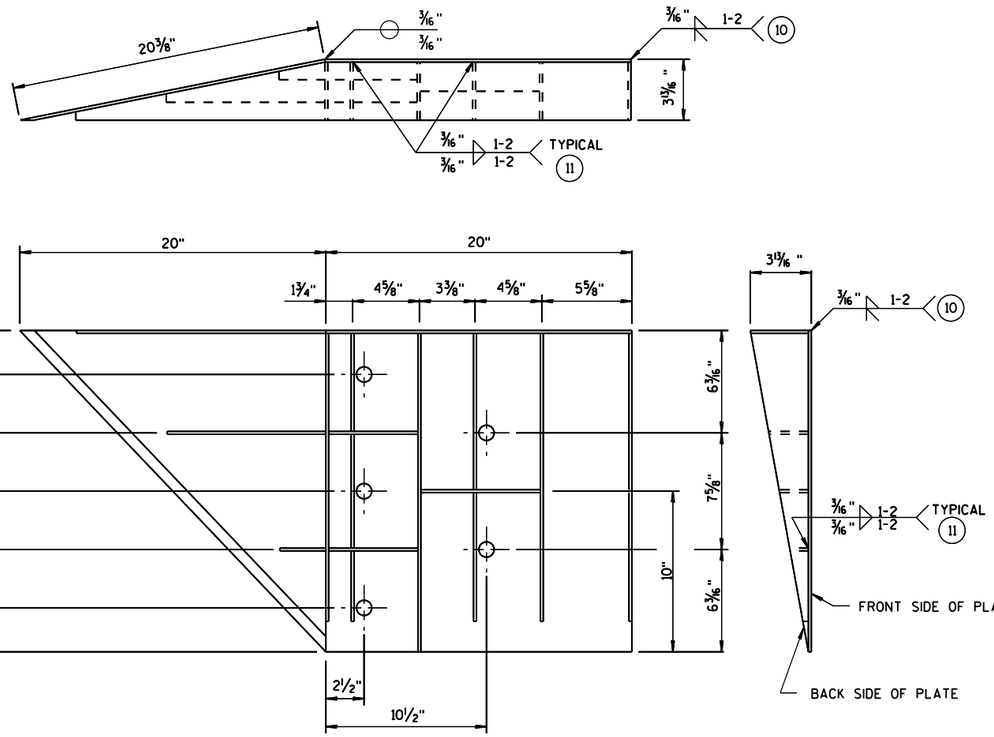
PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

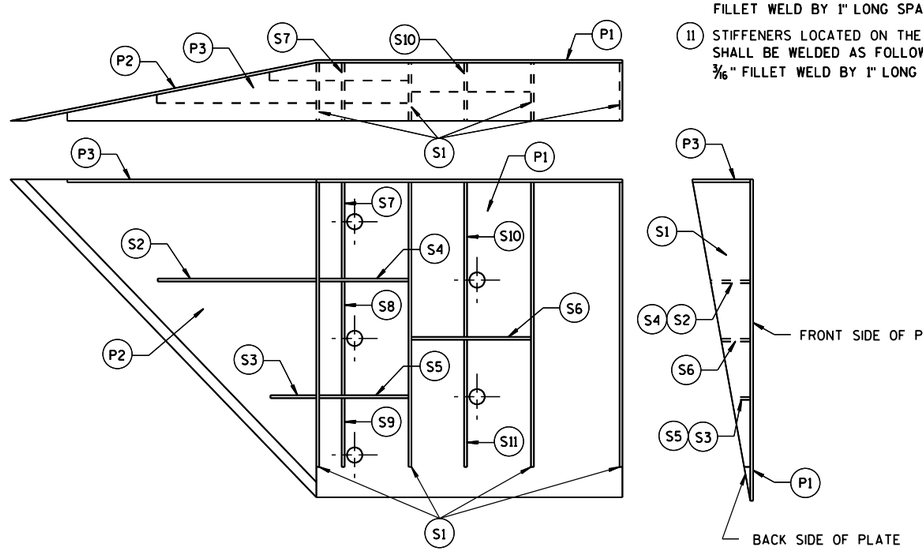


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 3/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 1/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
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S.D.D. 14 B 45-4i

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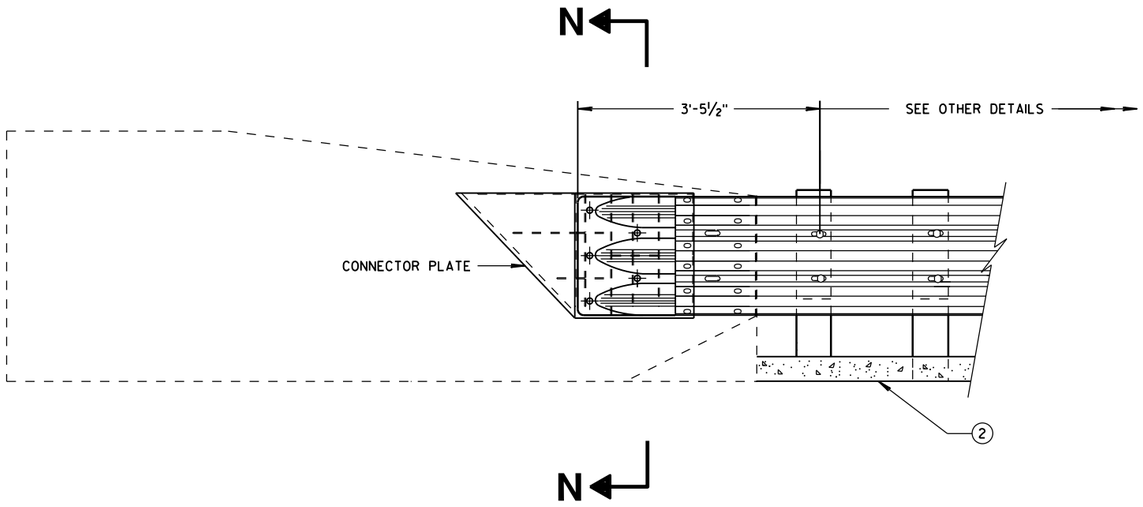
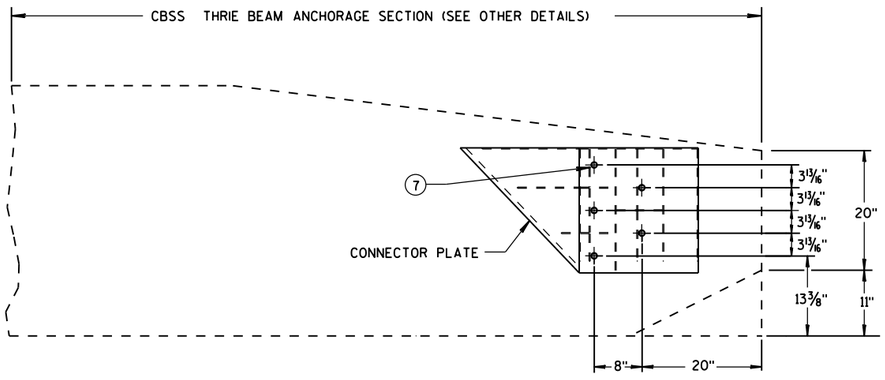
S.D.D. 14 B 45-4i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



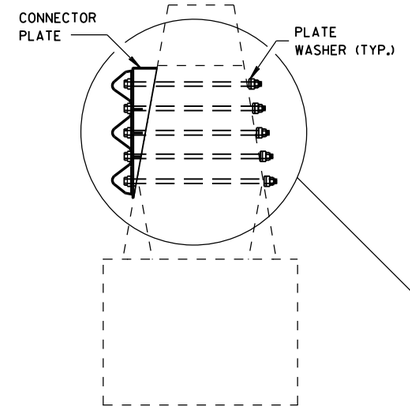
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

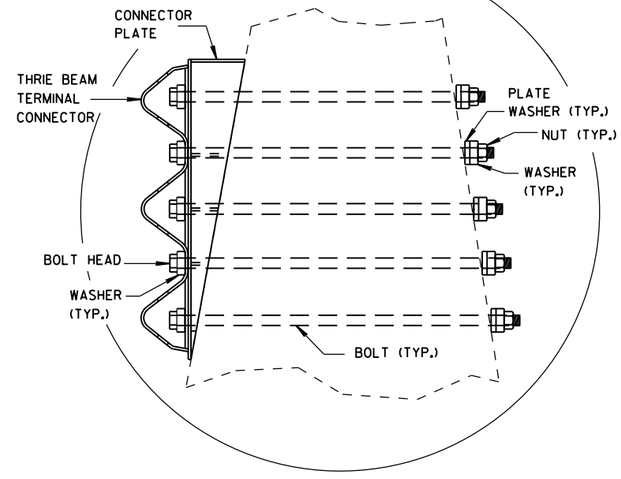
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) 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 THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zoga — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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S.D.D. 14 B 45-4j

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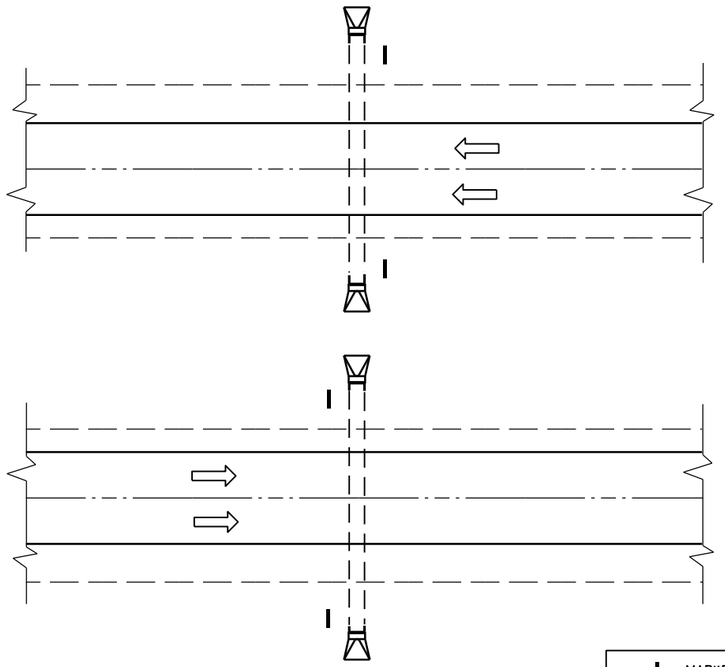
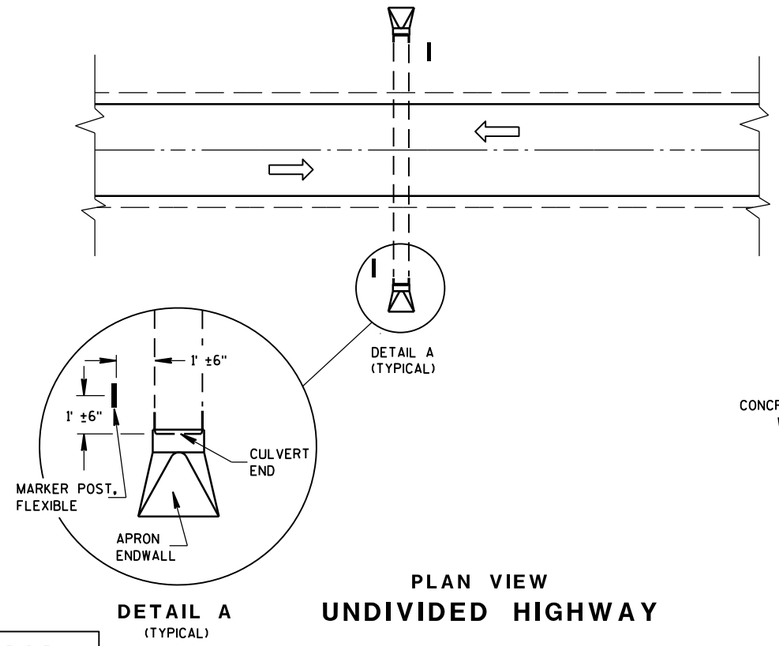
S.D.D. 14 B 45-4j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

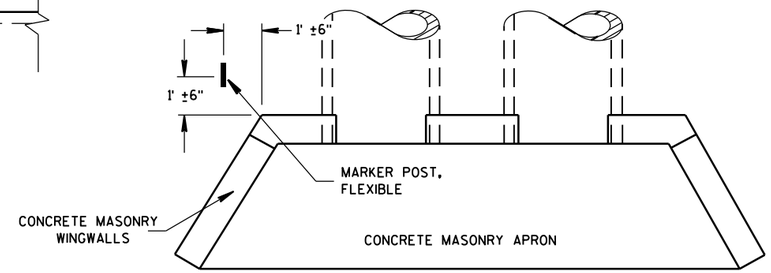
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

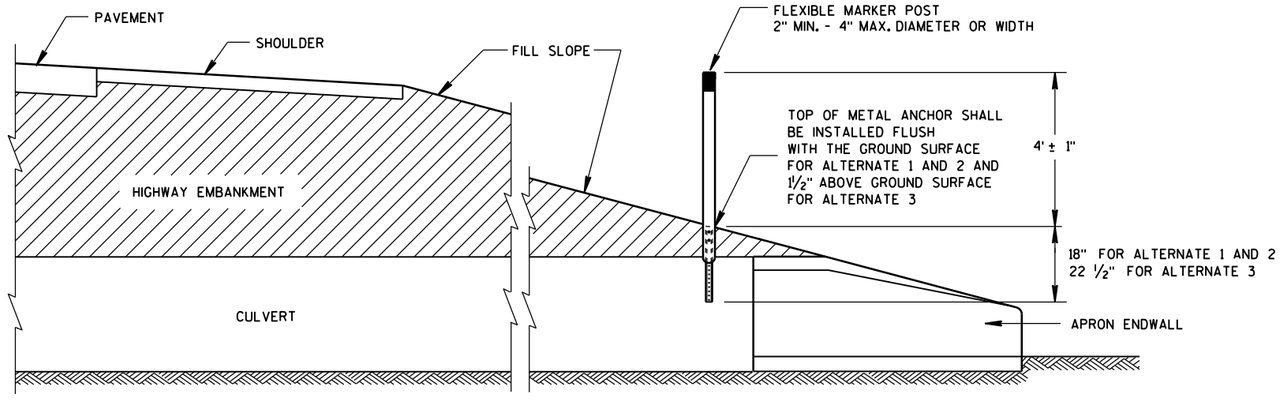
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 A 3-2a

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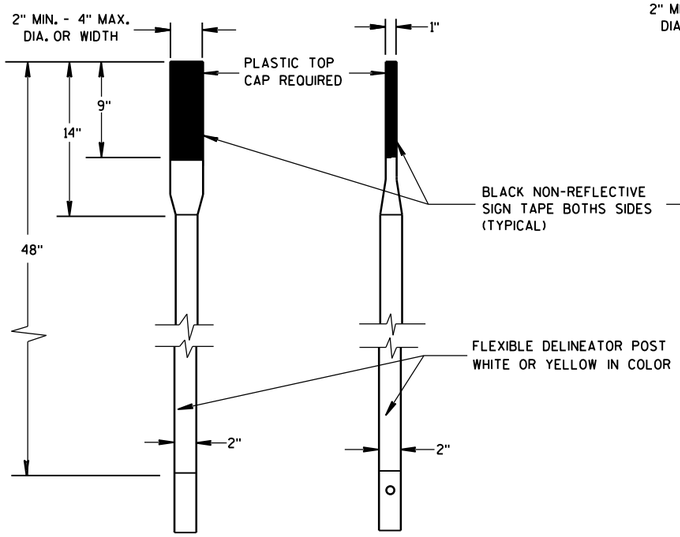
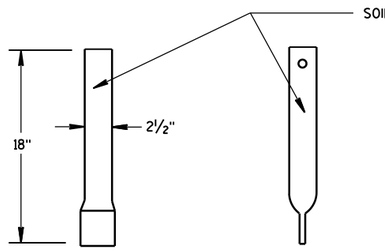
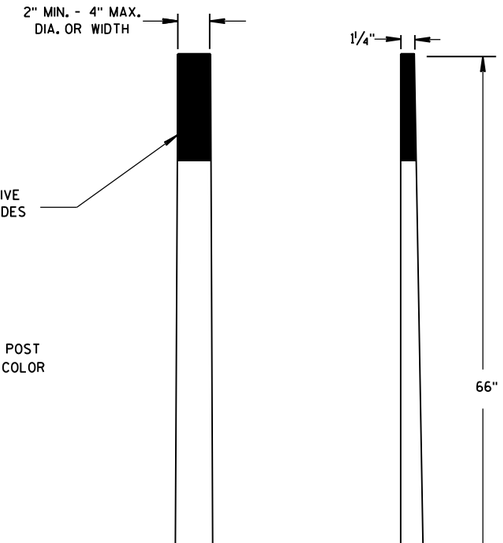
S.D.D. 15 A 3-2a





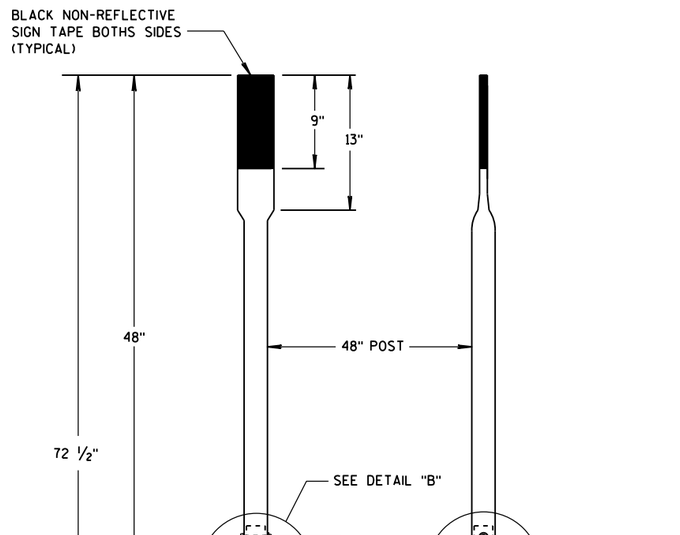
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

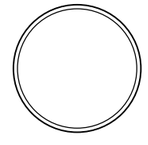
ALTERNATE 2



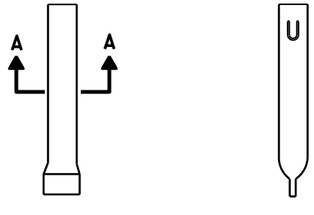
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

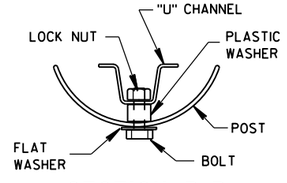


SECTION A-A

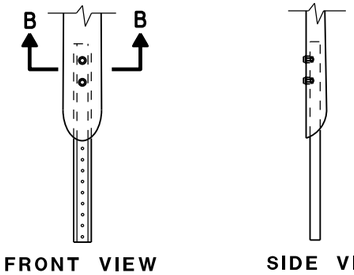


FRONT VIEW SIDE VIEW

ALTERNATE 1

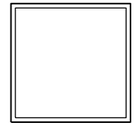


SECTION B-B

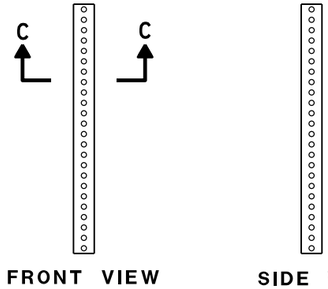


FRONT VIEW SIDE VIEW

ALTERNATE 2



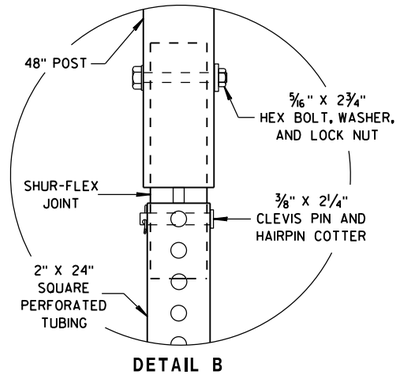
SECTION C-C



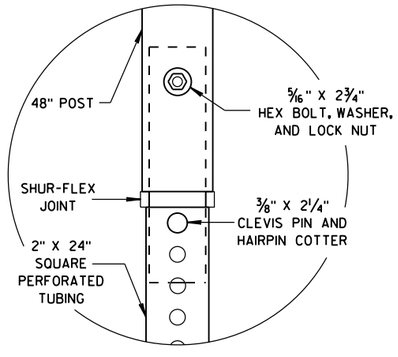
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



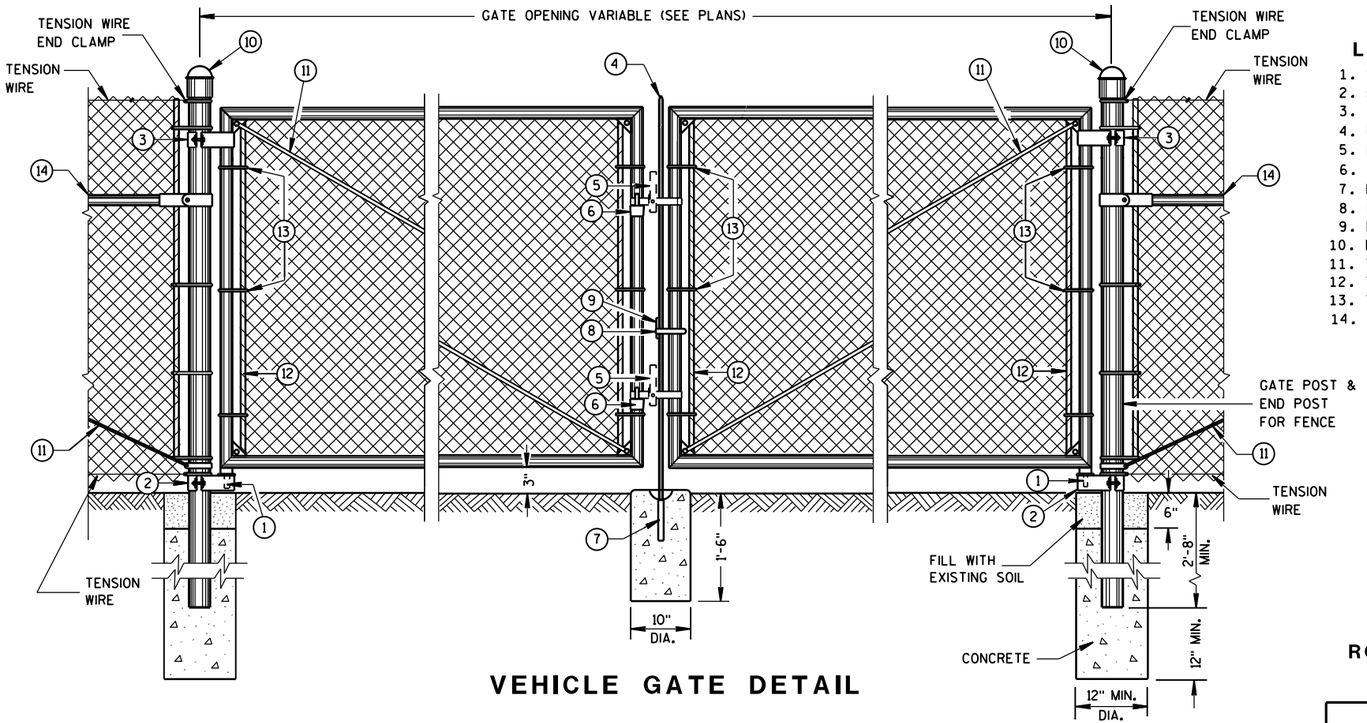
DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

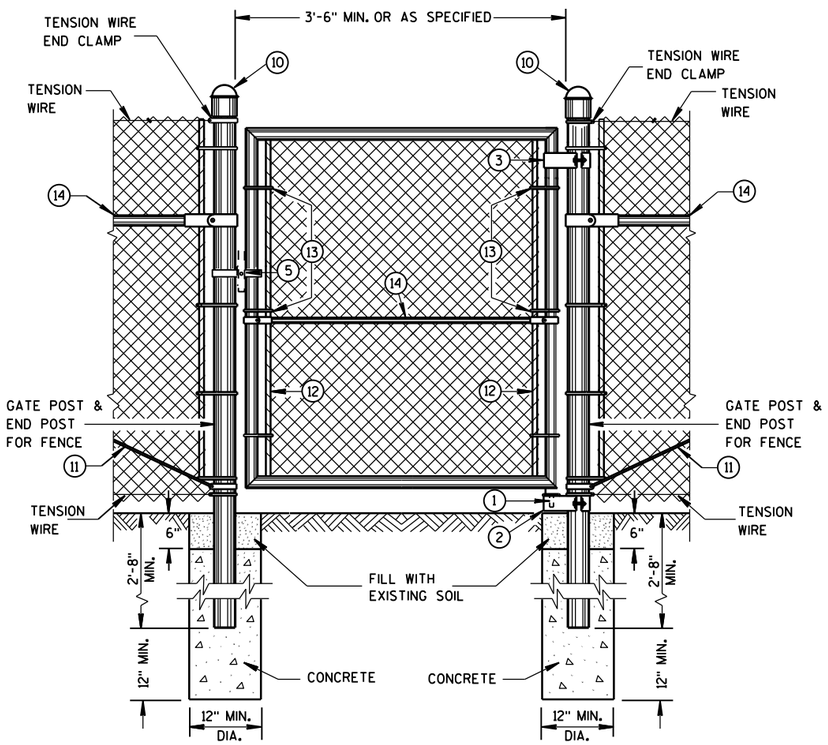
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6
S.D.D. 15 A 3-2b



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

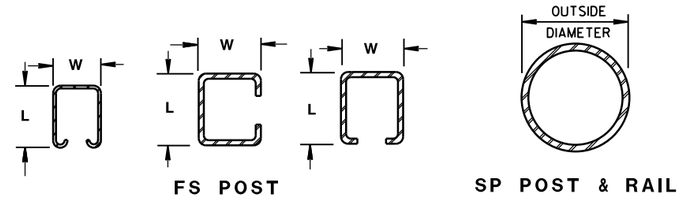
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

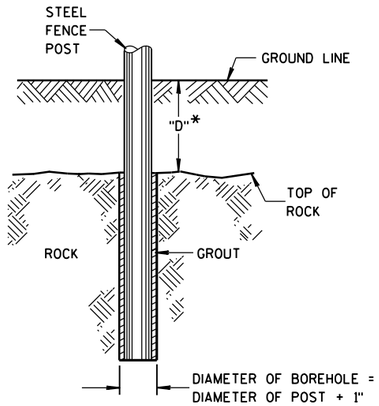
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 B 3-15a

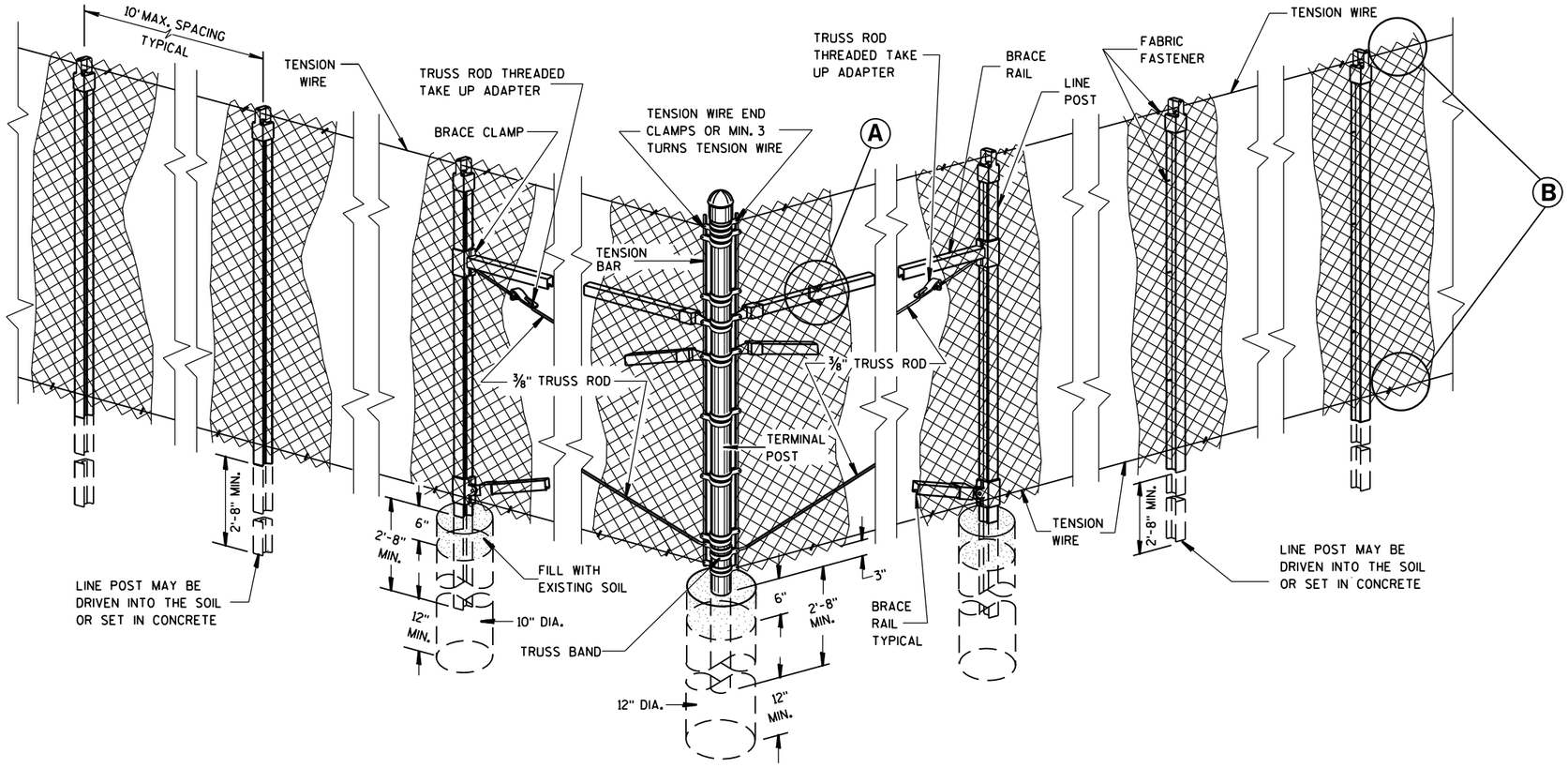
6

S.D.D. 15 B 3-15a

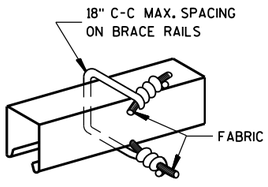


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



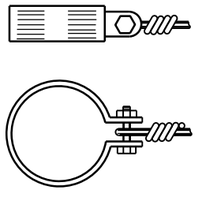
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



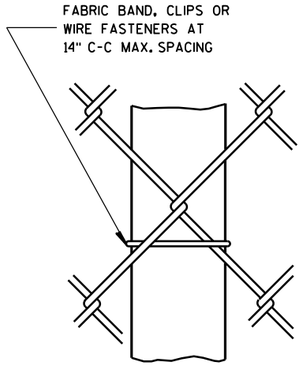
BRACE RAIL

FABRIC FASTENER

Ⓐ



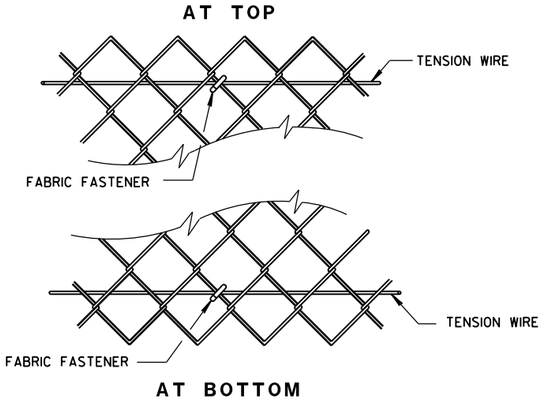
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

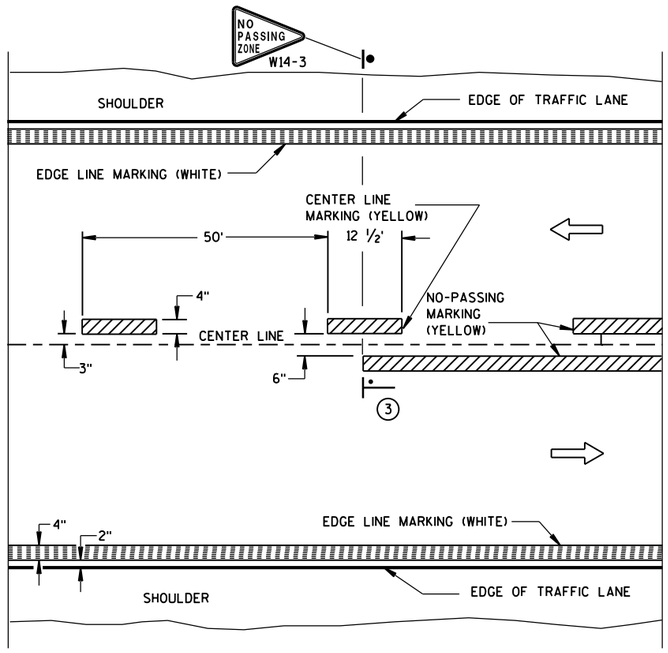
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

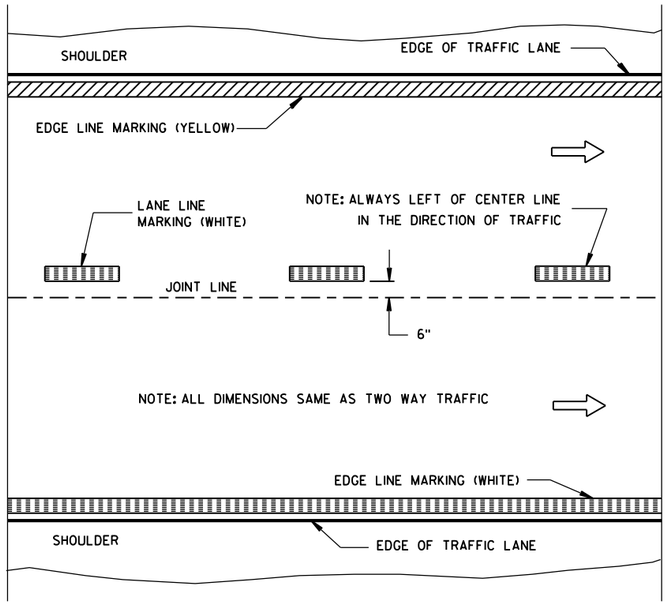
APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 15 B 3-15b

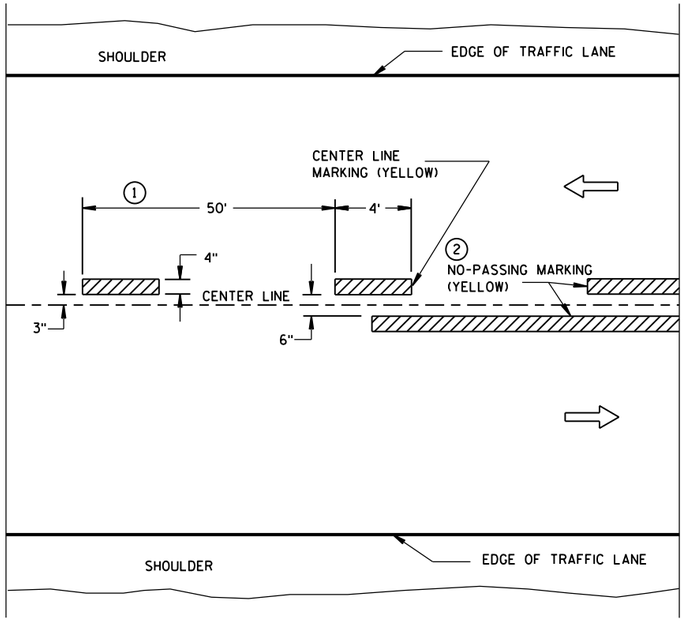


TWO WAY TRAFFIC

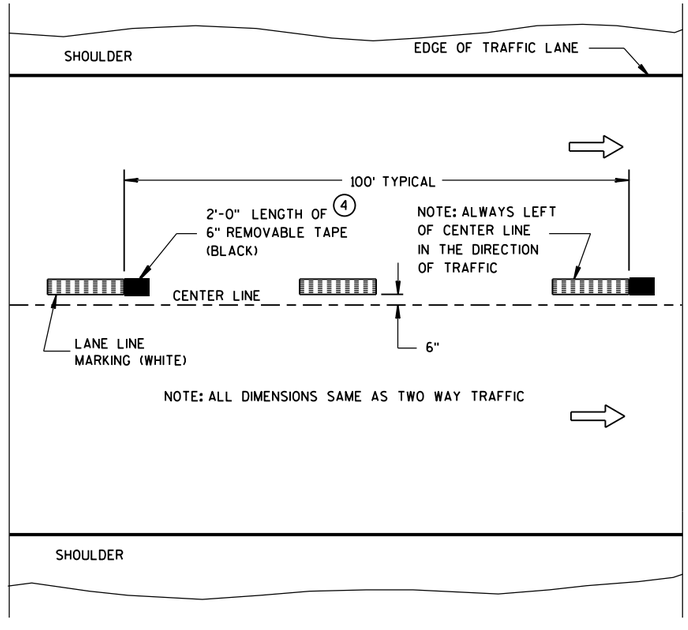


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

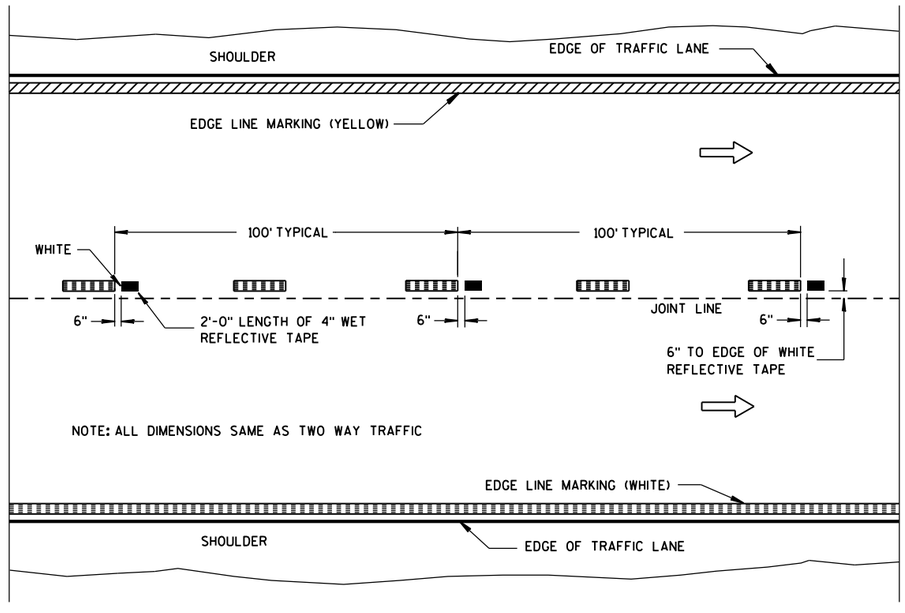
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 8-16a

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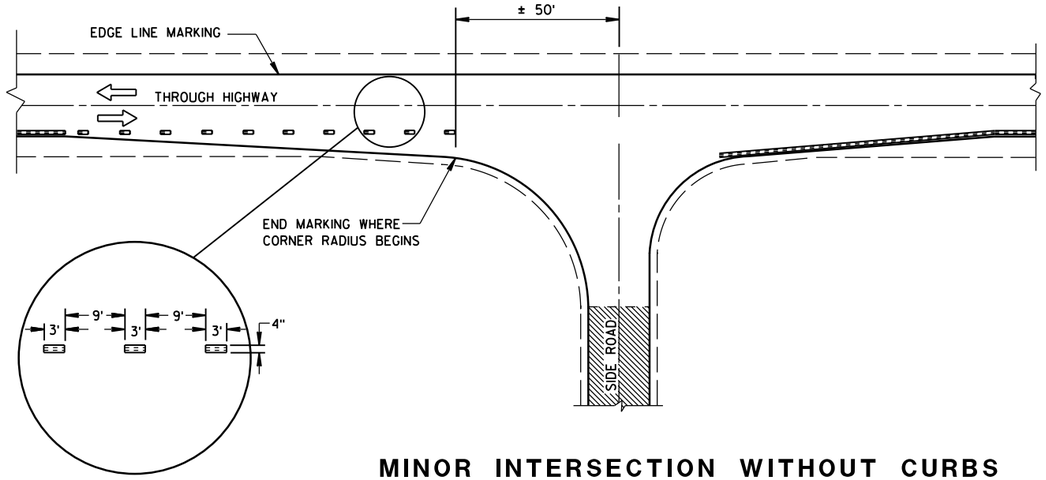
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

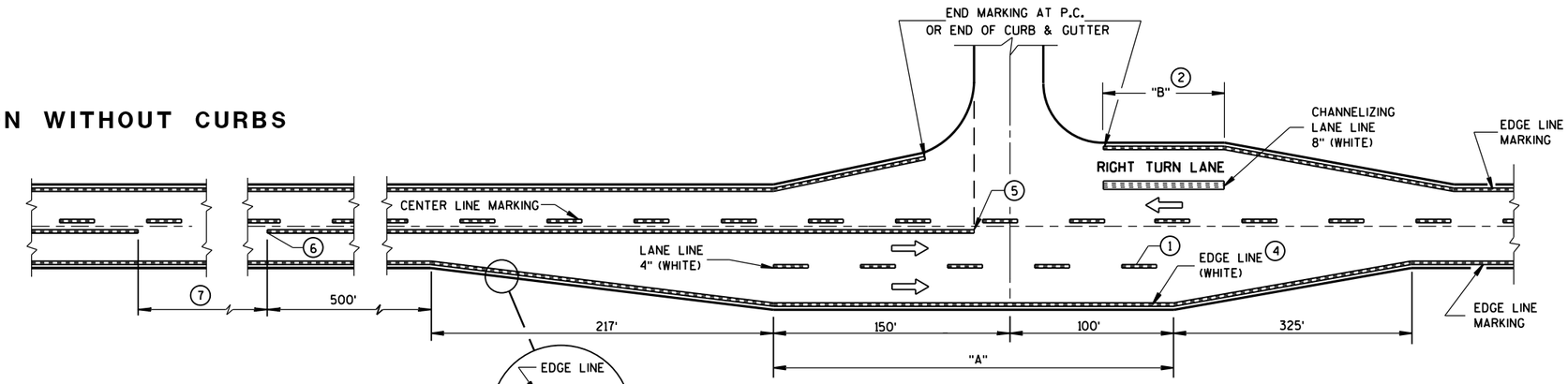
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

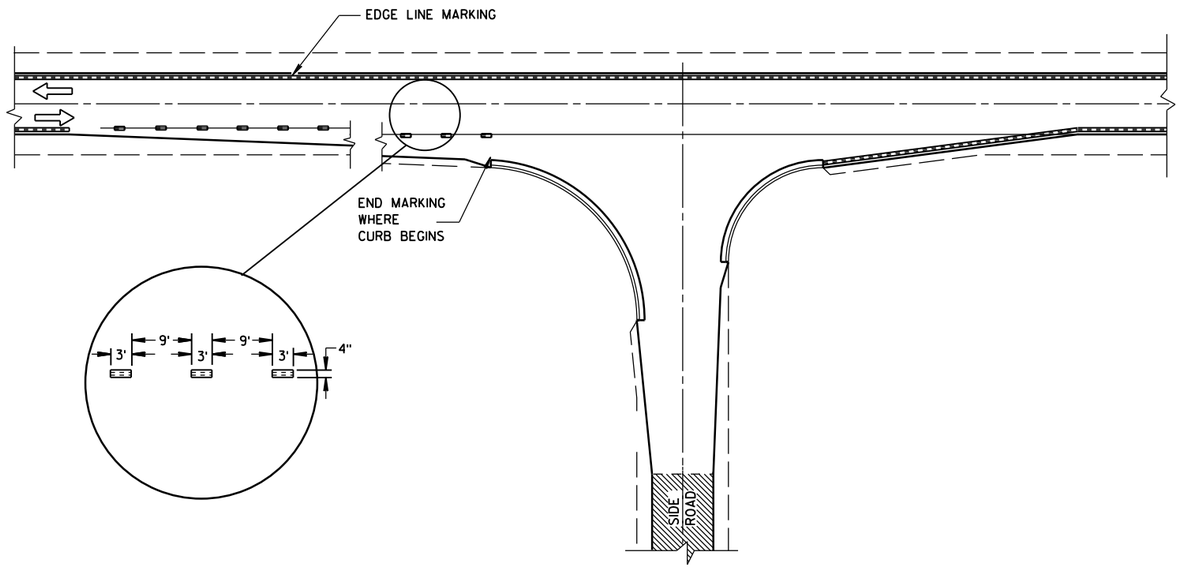
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



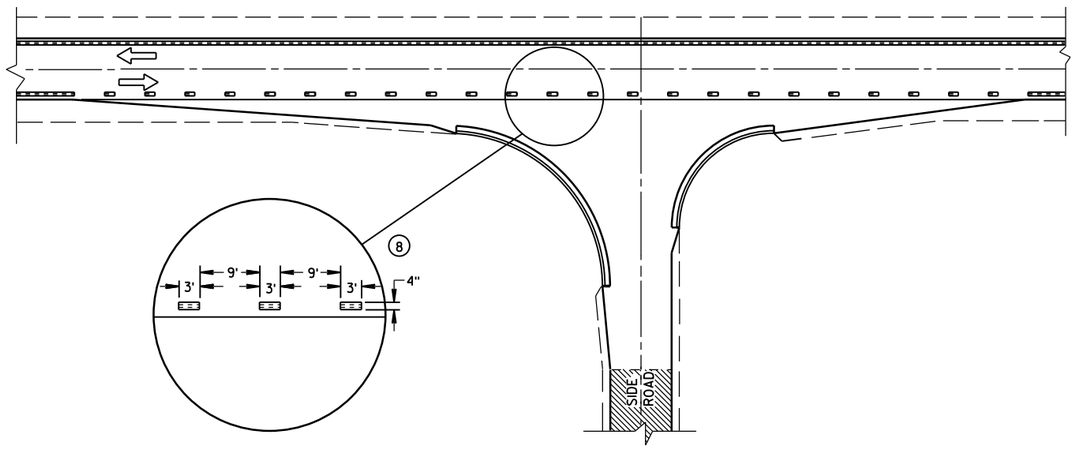
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 C 8-16b

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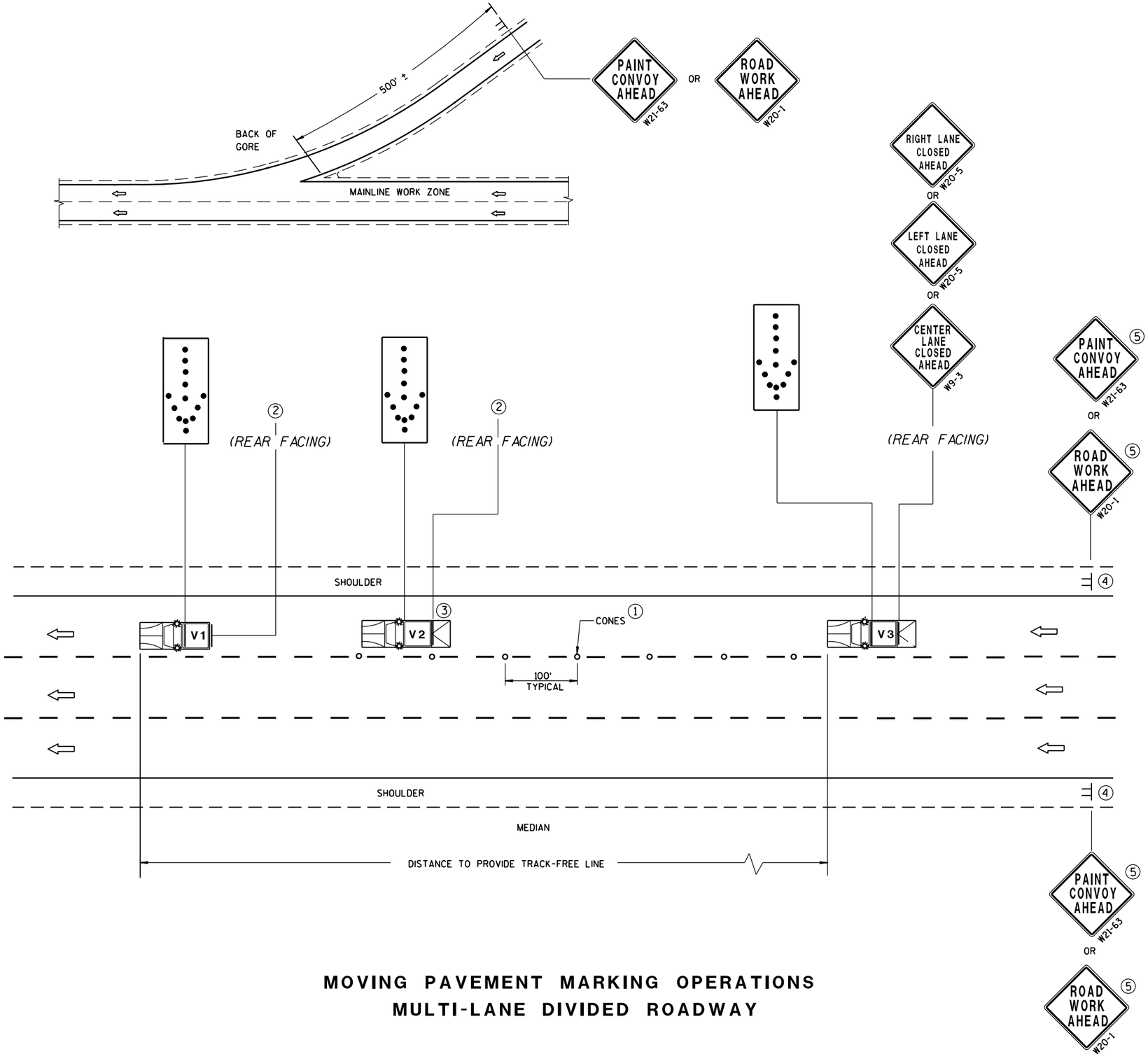
S.D.D. 15 C 8-16b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013 DATE

/S/ Travis Feltes STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 19-2c

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

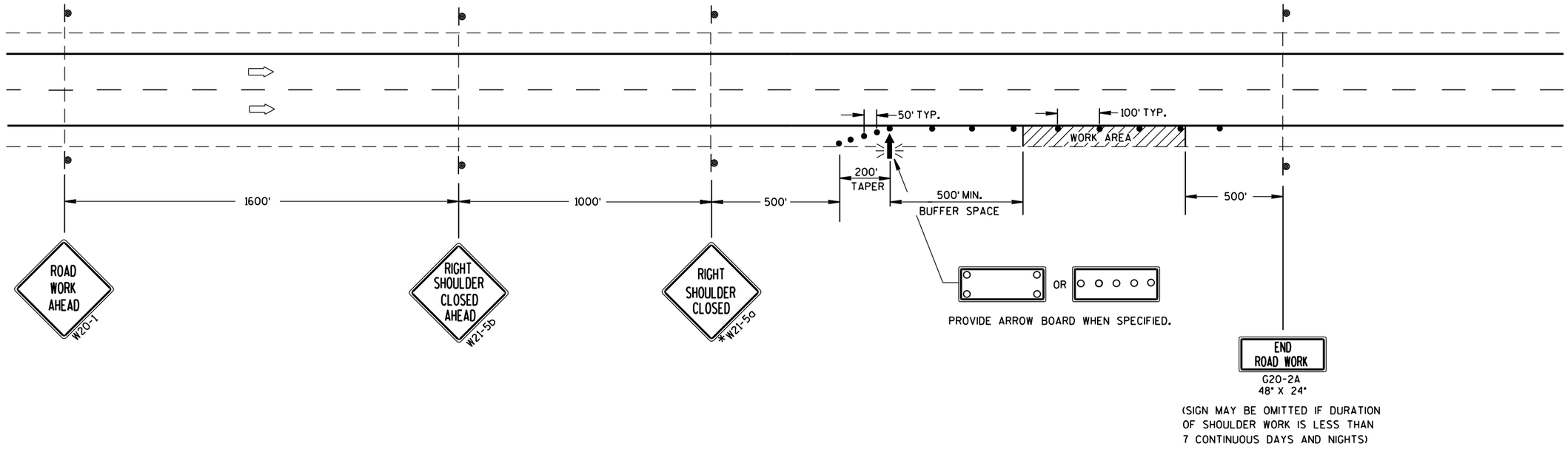
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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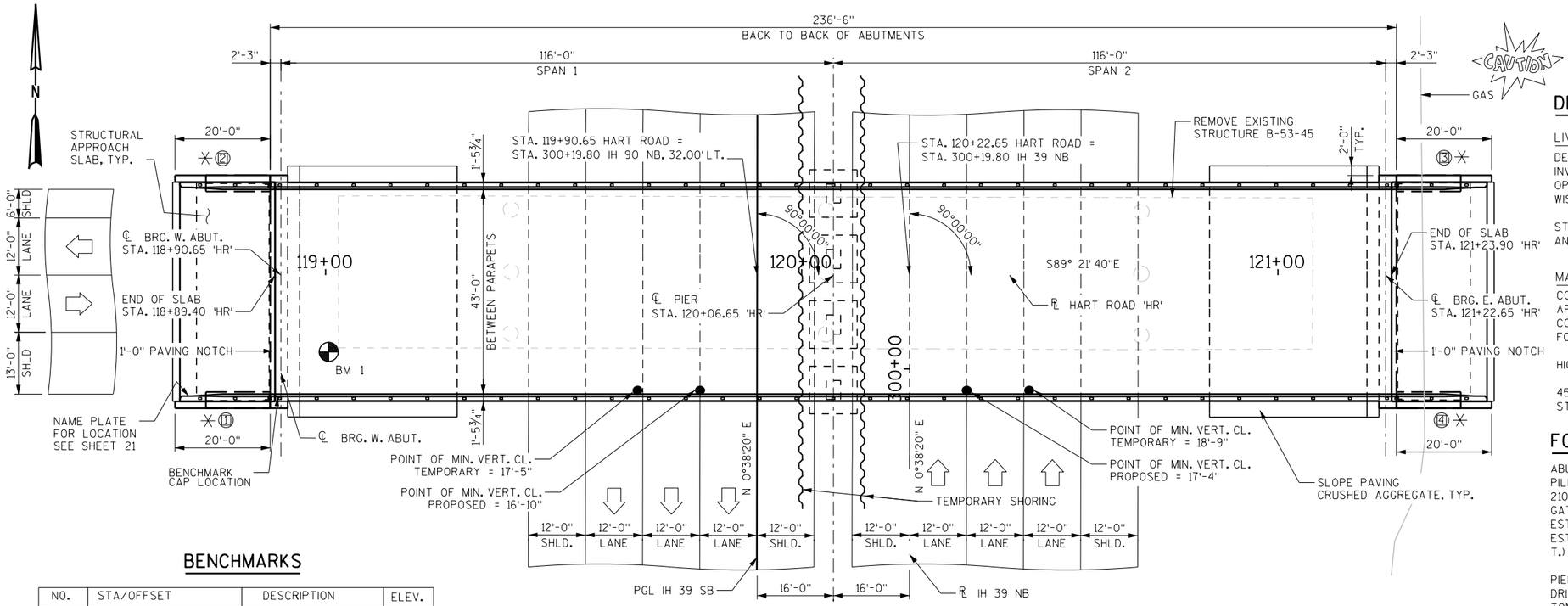
S.D.D. 15 D 27-2

STATE PROJECT NUMBER

1003-10-73



PLAN

2-SPAN - 45W" PRESTRESSED GIRDERS
(SHOWING IH 39 TO BE RECONSTRUCTED UNDER A FUTURE CONTRACT)

BENCHMARKS

NO.	STA/OFFSET	DESCRIPTION	ELEV.
BM107T	20+71.13'HR', 55'-2" RT	CHISELED "□" IN IH 39 NB BARRIER WALL	824.14
BM 1	19+00.65'HR', 16'-2" RT	EXIST. BRIDGE DISK	844.84

DESIGN DATA

LIVE LOAD:

DESIGN LOADING = HL-93
INVENTORY RATING FACTOR = 1.17
OPERATING RATING FACTOR = 1.51
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV) RATING = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF AND A FUTURE 7'-0" SIDEWALK.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SLAB, PARAPET, DIAPHRAGMS, AND APPROACH SLAB.....f'c = 4,000 P.S.I.
CONCRETE MASONRY, ALL OTHER (INCLUDING APPROACH SLAB FOOTING).....f'c = 3,500 P.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT GRADE 60..fy = 60,000 P.S.I.

45W" PRESTRESSED GIRDERS, CONCRETE MASONRY.....f'c = 8,000 P.S.I.
STRANDS - 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

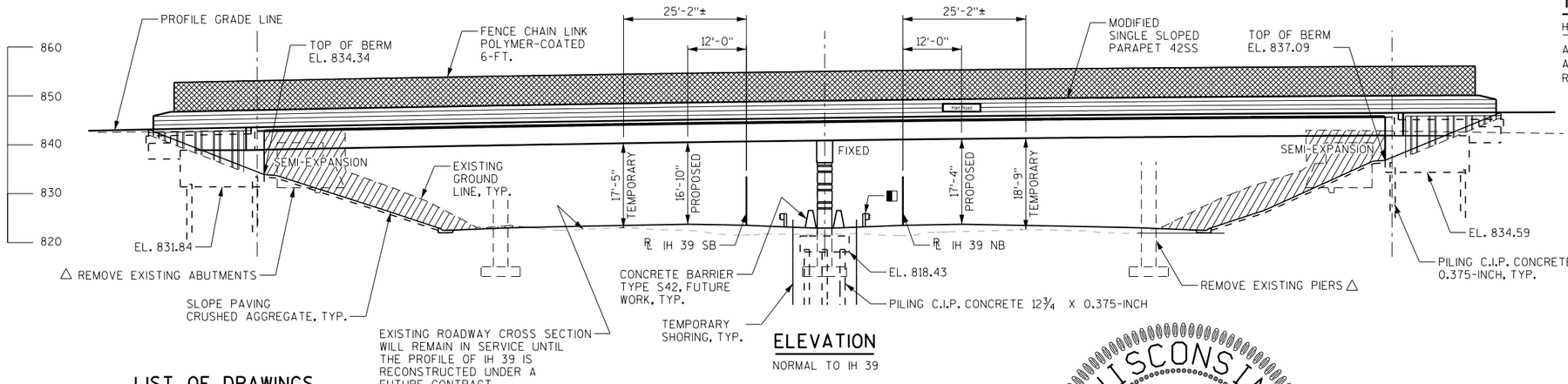
ABUTMENTS TO BE SUPPORTED ON 12¾" X 0.375" C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES FORMULA.
ESTIMATED 55'-0" LONG (W. ABUT.)
ESTIMATED 45'-0" LONG (E. ABU T.)

PIER TO BE SUPPORTED ON 12¾" X 0.375" C.I.P. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES FORMULA.
ESTIMATED 55'-0" LONG.

** 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 VOLUME

HART ROAD	IH 39
A.D.T. = 2,050 (2015)	A.D.T. = 47,400 (2016)
A.D.T. = 2,900 (2040)	A.D.T. = 73,700 (2040)
R.D.S. = 60 MPH	R.D.S. = 70 MPH



ELEVATION

NORMAL TO IH 39

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTIONS & PROFILES
3. QUANTITIES & GENERAL NOTES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT DETAILS
7. EAST ABUTMENT
8. EAST ABUTMENT DETAILS
9. PIER
10. PIER DETAILS 1
11. PIER DETAILS 2
12. PIER ALTERNATIVE
13. 45W" PRESTRESSED GIRDER DETAILS 1
14. 45W" PRESTRESSED GIRDER DETAILS 2
15. STEEL DIAPHRAGM
16. SUPERSTRUCTURE CROSS SECTION
17. SUPERSTRUCTURE PLAN
18. SUPERSTRUCTURE DETAILS 1
19. SUPERSTRUCTURE DETAILS 2
20. SUPERSTRUCTURE DETAILS 3
21. MODIFIED SINGLE SLOPE PARAPET 42SS
22. PARAPET "42SS" ELECTRICAL WORK
23. CHAIN LINK FENCE DETAILS
24. STRUCTURAL APPROACH SLAB
25. SLOPE PAVING CRUSHED AGGREGATE
26. AESTHETIC DETAILS 1
27. AESTHETIC DETAILS 2

LEGEND

▨ COST OF EXCAVATION IN THE HATCHED AREAS SHALL BE CONSIDERED "EXCAVATION COMMON". SEE ROADWAY PLANS.

△ THERE ARE NO EXISTING PILES ACCORDING TO B-53-45 PLANS.

(X) INDICATES WING NUMBER

✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT

◧ BULLNOSE REQUIRED. SEE ROADWAY PLANS.

WISCONSIN
SURENDRA K. GUPTA
E-41327
AMES, IA
PROFESSIONAL ENGINEER
11-9-2015

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER (608) 266-8489

CONSULTANT CONTACT:
SUREN GUPTA (262) 821-1171

NO.	DATE	REVISION	BY

KSA K. Singh & Associates, Inc.
Engineers, Scientists and Environmental Consultants

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 11/12/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-53-312

HART ROAD OVER IH 39

COUNTY	TOWN/~~CITY/VILLAGE~~
ROCK	TURTLE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
NLD	SG	NLD	SG

GENERAL PLAN

SHEET 1 OF 27
173

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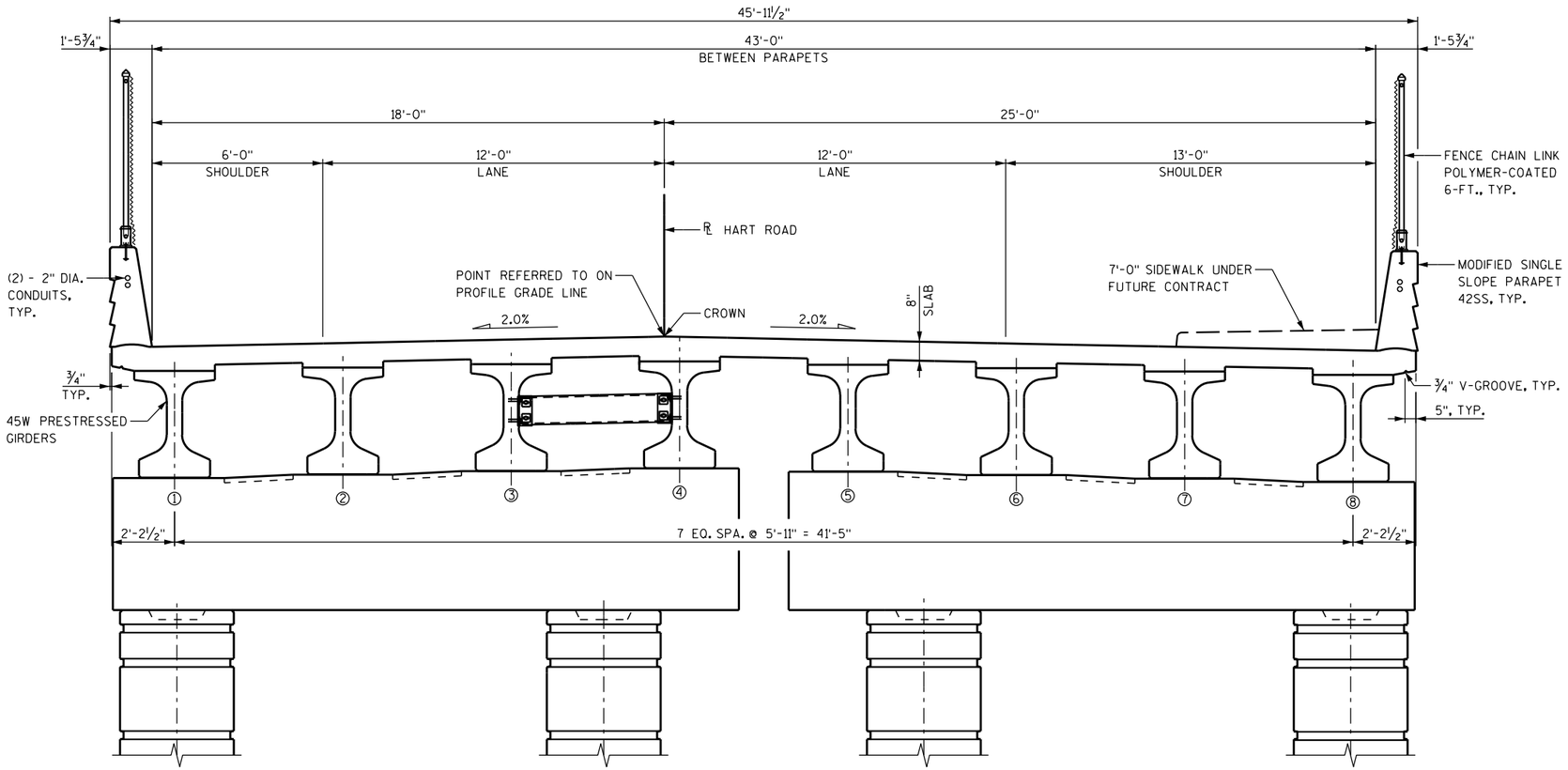
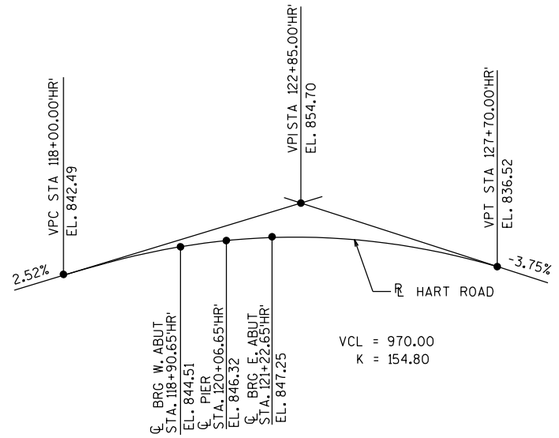
8

STATE PROJECT NUMBER
1003-10-73

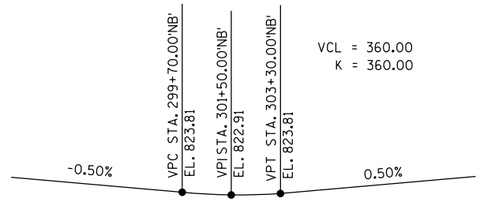


CROSS SECTION THRU ROADWAY

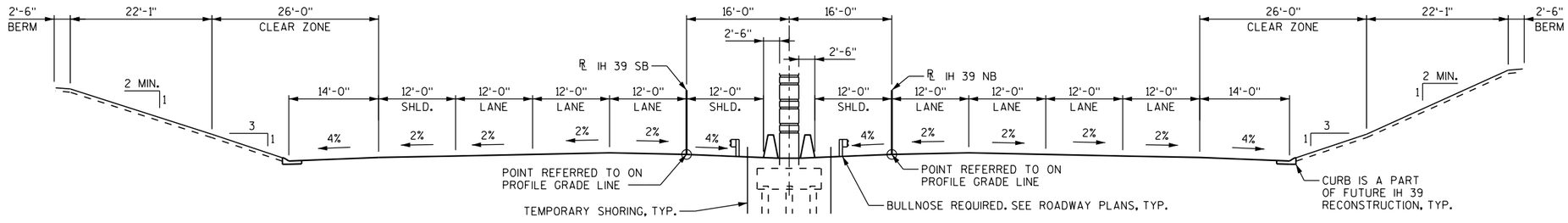
LOOKING EAST



PROFILE GRADE LINE HART RD.

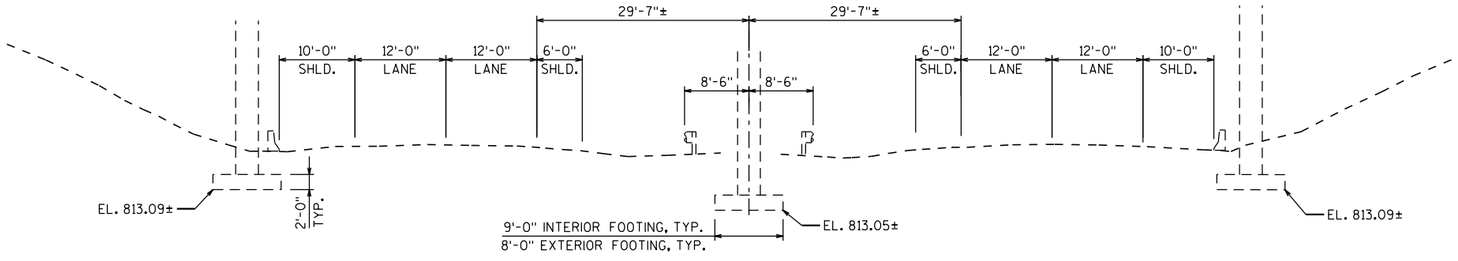


FUTURE PROFILE GRADE LINE IH 39 NB AND SB



TYPICAL FUTURE SECTION THRU IH 39

IH 39 TO BE RECONSTRUCTED UNDER A FUTURE CONTRACT



EXISTING SECTION THRU IH 39

THE ELEVATIONS AND DIMENSIONS OF THE EXISTING PIERS ARE BASED ON B-53-45 PLANS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY NLD | PLANS CK'D. JFR

CROSS SECTIONS & PROFILES

SHEET 2 OF 27
174

8

8

STATE PROJECT NUMBER

1003-10-73

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	W. STRUCTURAL APPROACH SLAB	WEST ABUTMENT	PIER	EAST ABUTMENT	E. STRUCTURAL APPROACH SLAB	SUPER-STRUCTURE	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 119+03.74 'HR'	LS	-	-	-	-	-	-	1
203.0225.S	DEBRIS CONTAINMENT B-53-45	LS	-	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-53-312	LS	-	-	-	-	-	-	1
210.0100	BACKFILL STRUCTURE	CY	-	200	-	200	-	-	400
305.0125	BASE AGGREGATE DENSE 1 1/4-INCH	CY	80	-	-	-	90	-	170
502.0100	CONCRETE MASONRY BRIDGES	CY	64	89	106	89	64	424	836
502.3200	PROTECTIVE SURFACE TREATMENT	SY	96	-	-	-	96	1,121	1,313
502.3210	PIGMENTED SURFACE SEALER	SY	20	-	-	-	20	235	275
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	-	-	-	-	-	1,866	1,866
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	-	4,350	2,720	4,350	-	1,330	12,750
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	10,470	3,190	14,500	3,170	10,470	87,890	129,690
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	-	-	-	-	-	1,330	1,330
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	8	16	8	-	-	32
506.4000	STEEL DIAPHRAGMS B-53-312	EACH	-	-	-	-	-	28	28
511.1200	TEMPORARY SHORING B-53-312	SF	-	-	1,804	-	-	-	1,804
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	-	14	-	14	-	-	28
517.1010.S	CONCRETE STAINING B-53-312	SF	336	620	1,411	620	336	8,110	11,433
550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	-	300	0	300	-	-	600
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	-	825	1,760	675	-	-	3,260
604.0500	SLOPE PAVING CRUSHED AGGREGATE	SY	-	223	-	223	-	-	446
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	141	-	141	-	-	282
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	-	2	-	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	12	-	-	-	12	24	48
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	101	-	-	-	101	914	1,116
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	-	-	-	-	-	4	4
SPV.0090.700	FENCE CHAIN LINK POLYMER-COATED 6-FT.	LF	39	-	-	-	39	469	547
	NON BID ITEMS								
	FILLER	SIZE		-	-	-		-	1/2" & 3/4"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

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

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

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH VALUE SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

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

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.

THE PROPOSED FINISHED PROFILE AROUND THE ABUTMENTS SHALL BE THE UPPER LIMITS OF EXCAVATION AT THE ABUTMENTS.

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

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

THE EXISTING STRUCTURE B-53-45, A 4-SPAN PRESTRESSED CONCRETE DECK GIRDER STRUCTURE WITH AN OVERALL WIDTH OF 28'-0" AND AN OVERALL LENGTH OF 205'-10" IS TO BE REMOVED.

VARIATIONS TO THE NEW GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE BUREAU OF STRUCTURES SECTION FOR REVIEW.

IF TOUCH UP STAINING/PAINTING IS REQUIRED AFTER INSTALLATION IS COMPLETE, ALL TOUCH UP STAINING/PAINTING IS TO BE DONE TO THE SATISFACTION OF THE FIELD ENGINEER AT NO ADDITIONAL COST.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND STRUCTURAL APPROACH SLAB.

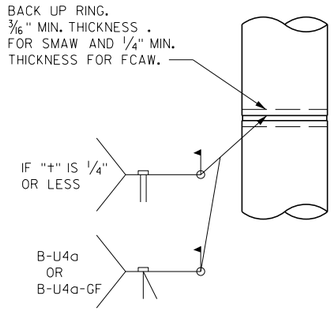
PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF THE PARAPET, INCLUDING PARAPETS ON APPROACH SLABS.

BACKFILL TO BOTTOM OF PROPOSED PIER FOOTING ELEVATION WITH SUITABLE MATERIAL. BACKFILL MATERIAL SHALL BE INCLUDED WITH THE BID ITEM "TEMPORARY SHORING B-53-312".

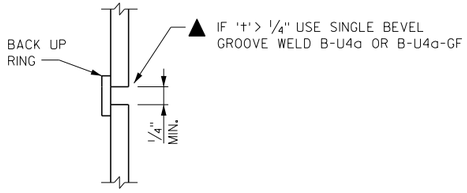
THE RUSTICATIONS IN THE ABUTMENTS AND PIER ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE RUSTICATIONS IN THE BACK FACES OF THE PARAPETS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

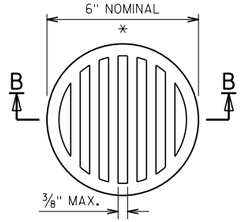
FORMING LETTERING INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".



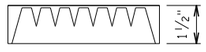
CAST-IN-PLACE
'PIPE PILE'



CIP PILE WELD DETAIL



RODENT SCREEN DETAIL



SECTION B-B

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

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCLUDED WITH THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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GENERAL NOTES & QUANTITIES

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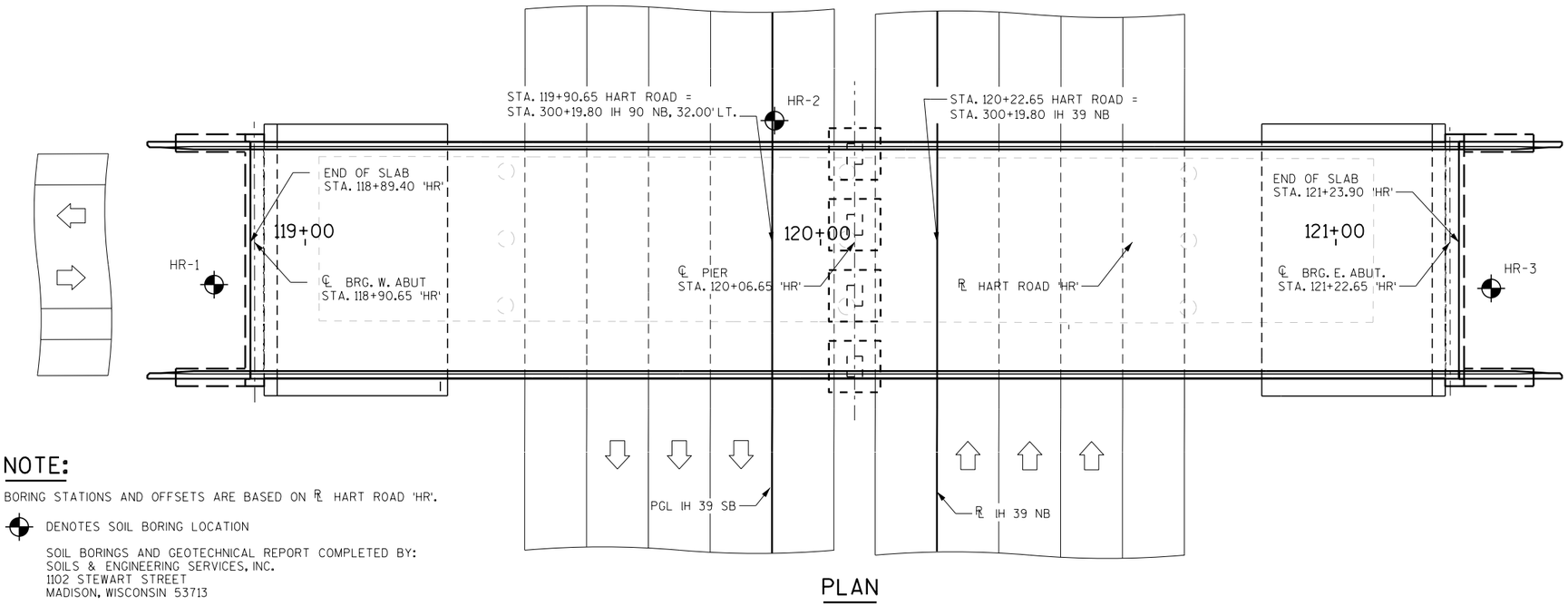
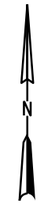


PLAN



NOTE:

BORING STATIONS AND OFFSETS ARE BASED ON ℞ HART ROAD 'HR'.

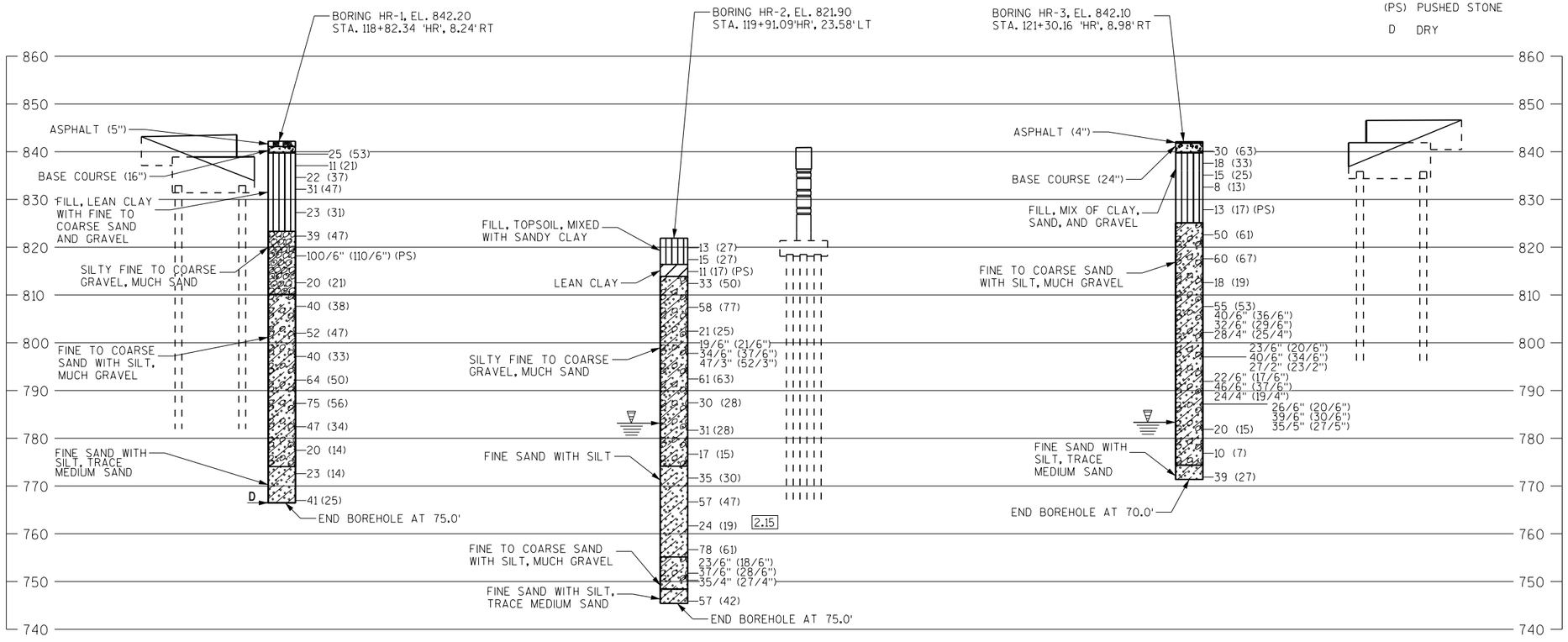
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS AND GEOTECHNICAL REPORT COMPLETED BY:
SOILS & ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WISCONSIN 53713

SOIL BORING TAKEN:
BORING HR-1 - AUGUST 28, 2012
BORING HR-2 - AUGUST 30, 2012
BORING HR-3 - AUGUST 27, 2012

LEGEND

(X) ADJUSTED BLOWS PER FOOT
(PS) PUSHED STONE
D DRY



STATE PROJECT NUMBER

1003-10-73

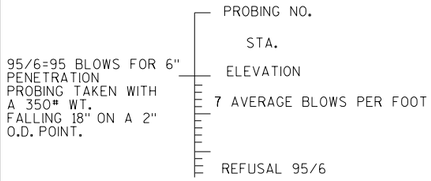
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

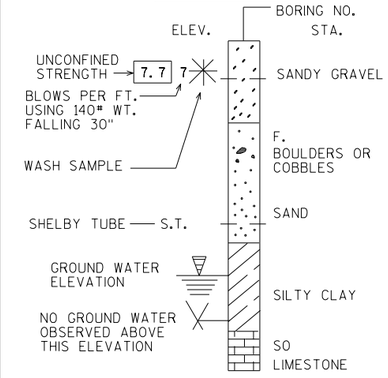
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

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-53-312

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SUBSURFACE EXPLORATION

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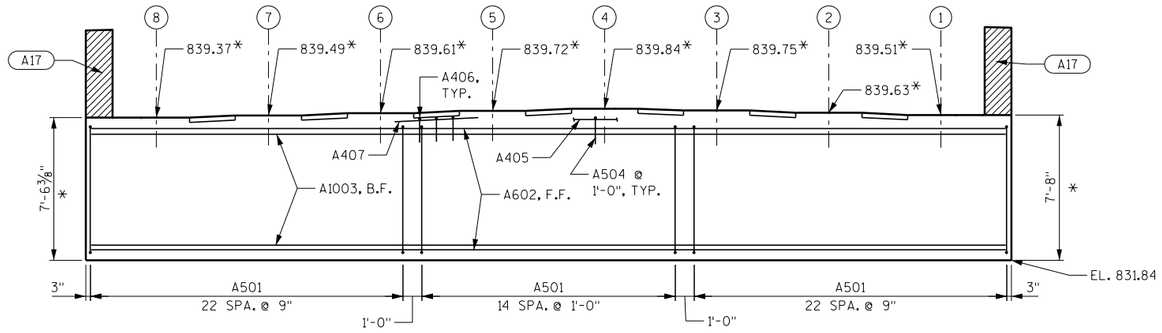
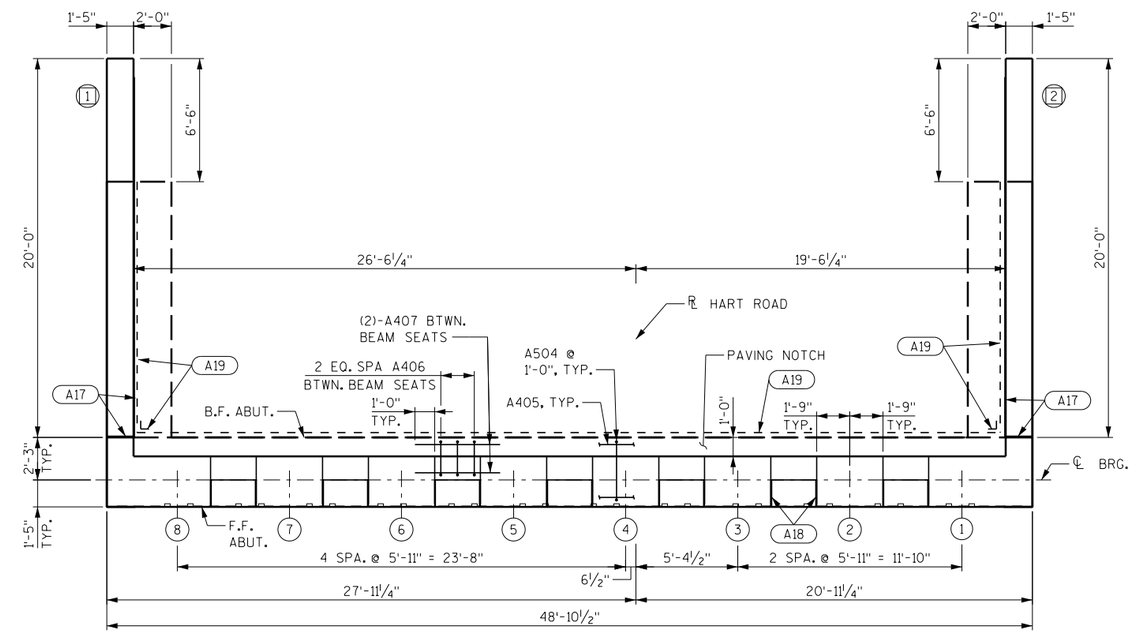
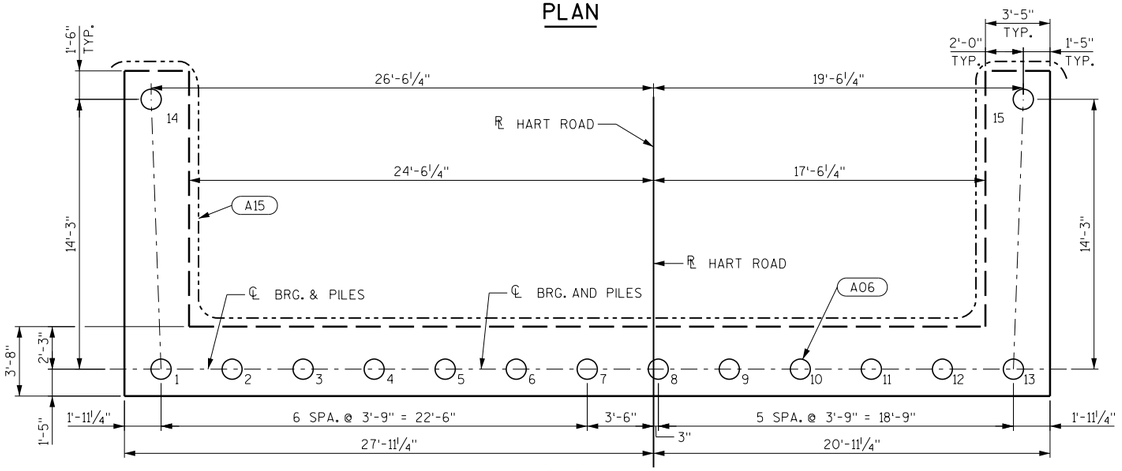


ELEVATION

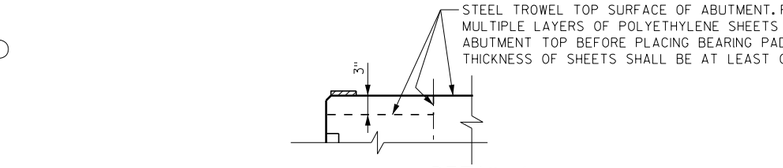
(LOOKING WEST AT F.F. OF ABUT.)



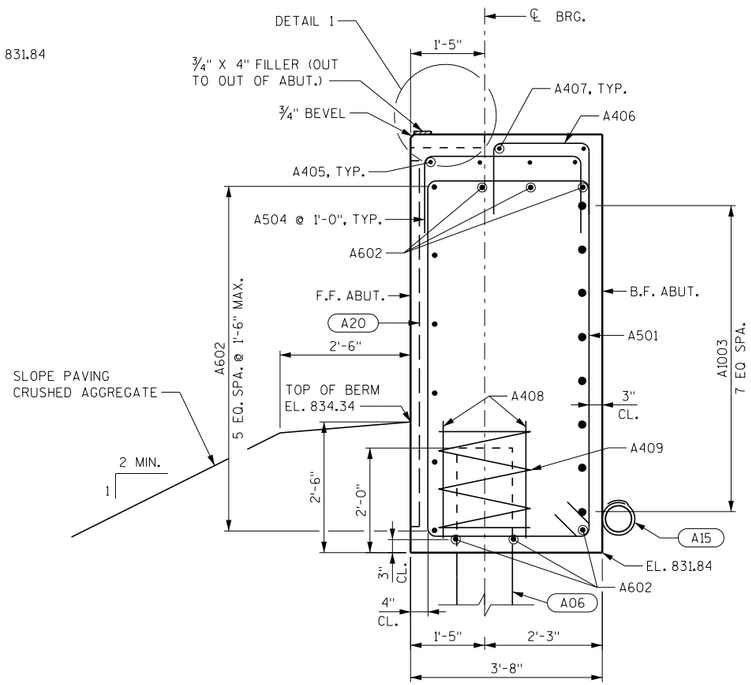
PLAN



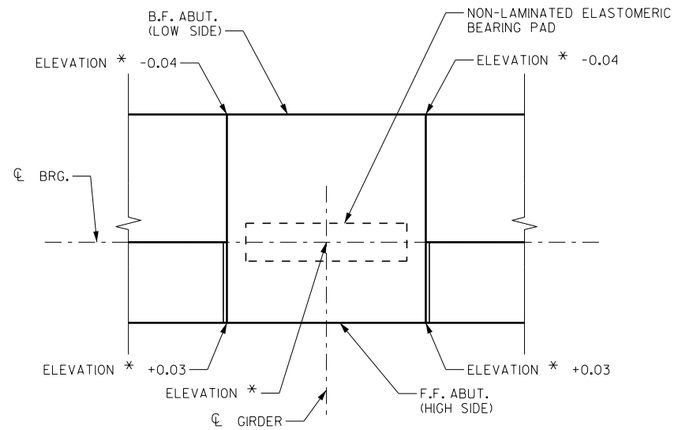
PILE PLAN



DETAIL 1



SECTION THRU ABUTMENT BODY



SLOPE BEAM SEAT DETAIL - WEST ABUTMENT

(SHOWN AT INTERIOR GIRDER, EXTERIOR GIRDER SIMILAR)

NOTES

NUMBERS NEXT TO THE PILES INDICATE PILE NUMBER.

SEE SHEET 19 FOR BEARING PAD SIZE.

LEGEND

- (A06) SUPPORT ABUTMENT AND WINGWALLS ON 12.75" X 0.375" C.I.P. CONCRETE PILES, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3. PREBORING SHALL BE PERFORMED THROUGH THE EMBANKMENT, TO A DEPTH OF APPROXIMATELY 20 FEET.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A18) 3/4" CORK FILLER UP VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.
- (A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.
- (X) WING NUMBER
- (X) GIRDER NUMBER
- * ELEVATIONS & DIMENSIONS ARE GIVEN AT ℄ OF BEARING.
- F.F. FRONT FACE
- B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-53-312

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WEST ABUTMENT

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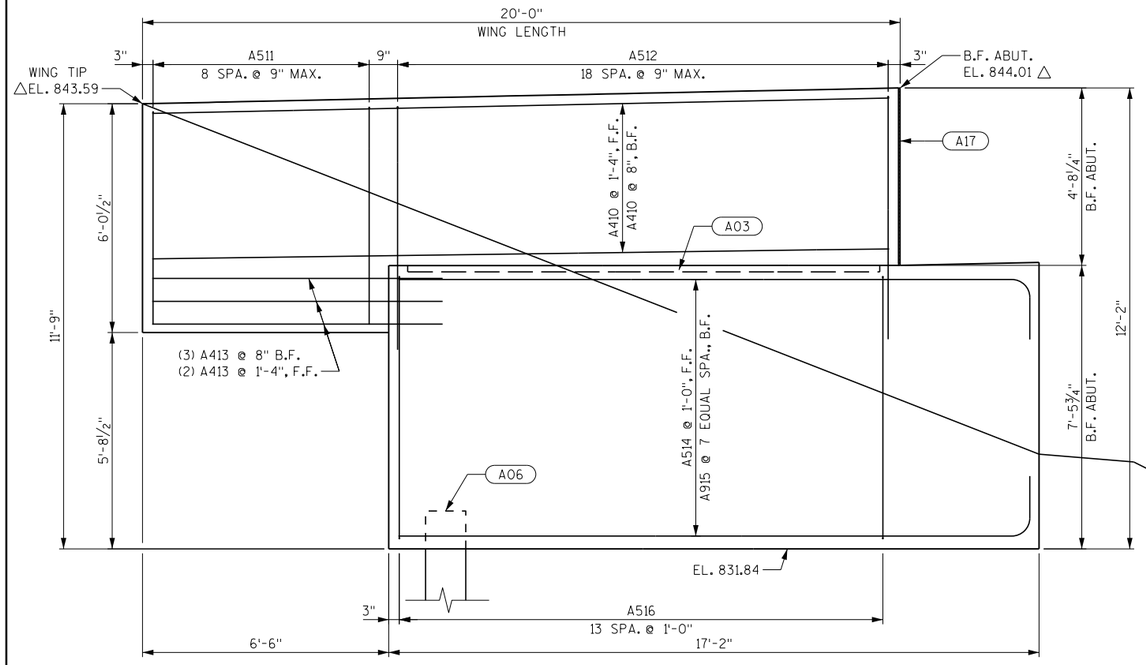
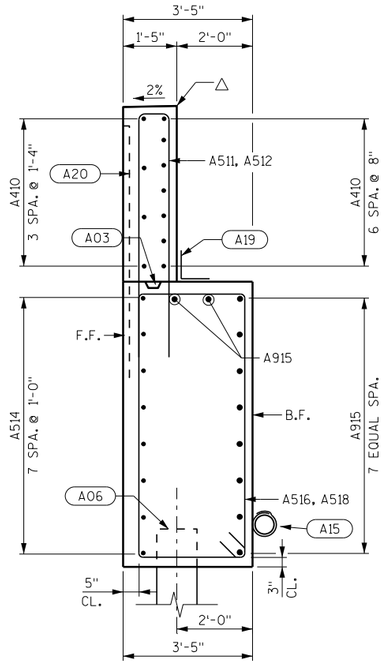


WING 1 ELEVATION

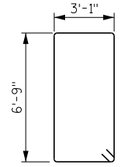


SECTION THRU WING WALL 1 BODY

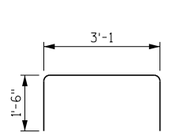
BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

W. ABUT. - BILL OF BARS						UNCOATED = 4350 LBS COATED = 3190 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
A501		61	20'-3"		X	ABUT. VERT.
A602		12	48'-3"			ABUT. HORIZ. FRONT FACE
A1003		8	48'-3"			ABUT. HORIZ. BACK FACE
A504		16	5'-10"		X	ABUT. VERT. UNDER GIRDERS 3, 4, AND 5
A405		4	15'-4"			ABUT. HORIZ. UNDER GIRDERS 3, 4, AND 5
A406		21	4'-9"		X	ABUT. VERT. BETWEEN BEAM SEATS
A407		14	4'-6"			ABUT. HORIZ. BETWEEN BEAM SEATS
A408		26	2'-3"			ABUT. VERT. AT PILES
A409		13	28'-0"		X	ABUT. AT PILES
A410	X	22	19'-7"			WING WALL STEM HORIZ. BACK FACE AND FRONT FACE
A511	X	9	11'-11"		X	WING WALL STEM VERT. WW1
A512	X	19	13'-7"		X	WING WALL STEM VERT. WW1
A413	X	10	7'-9"			WING WALL STEM HORIZ.
A514	X	16	16'-8"			WING WALL BODY HORIZ. FRONT FACE
A915	X	20	18'-0"		X	WING WALL BODY HORIZ. BACK FACE
A516	X	14	20'-0"		X	WING WALL BODY VERT. WW1
A517	X	9	11'-9"		X	WING WALL STEM VERT. WW2
A518	X	14	20'-4"		X	WING WALL BODY VERT. WW2
A519	X	19	13'-5"		X	WING WALL STEM VERT. WW2



A501



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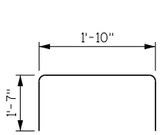

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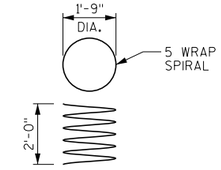

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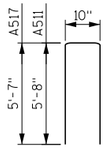
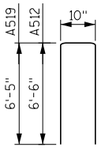
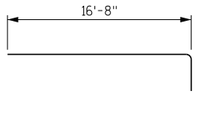


A511, A517



A512, A519



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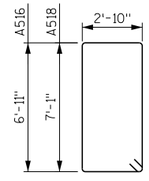


A516, A518

LEGEND

(A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. IF JOINT IS USED.) NO "V" GROOVE @ F.F.

(A06) SUPPORT ABUTMENT AND WINGWALLS ON 12.75" X 0.375" C.I.P. CONCRETE PILES, ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3. PREBORING SHALL BE PERFORMED THROUGH THE EMBANKMENT, TO A DEPTH OF APPROXIMATELY 20 FEET.

(A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.

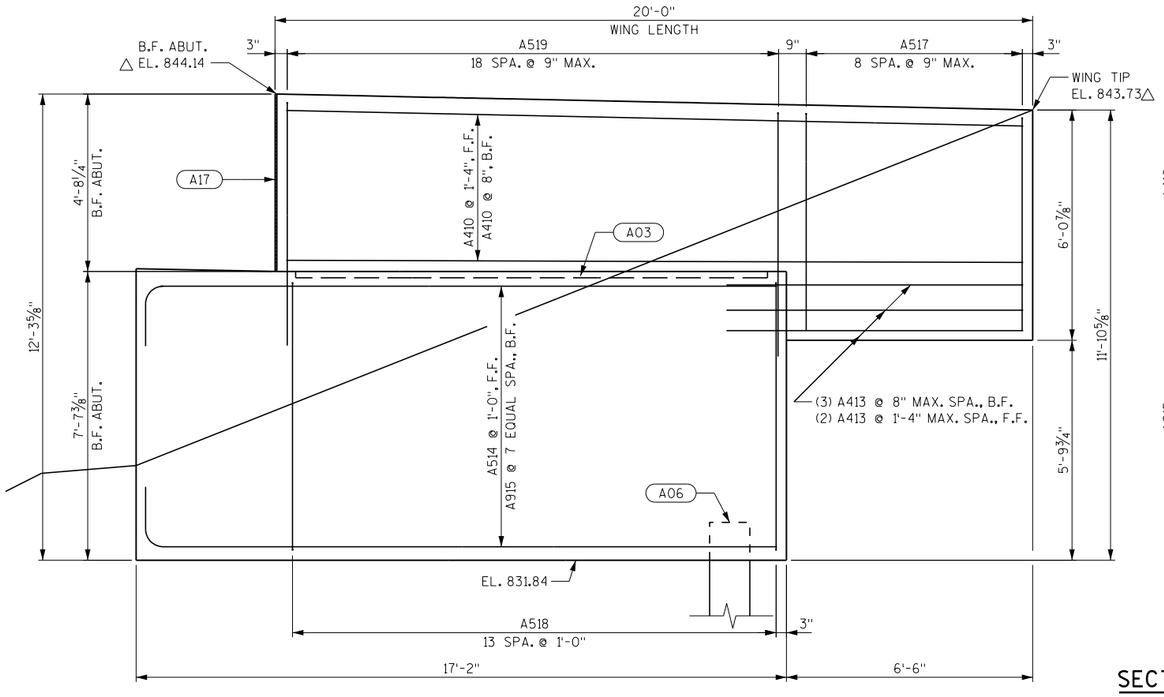
(A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.

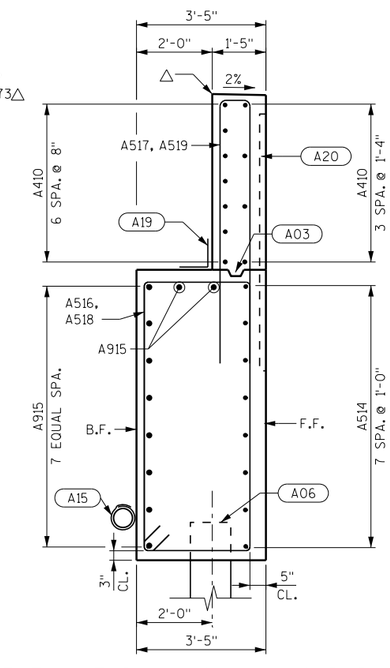
(A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.

F.F. FRONT FACE
B.F. BACK FACE

△ ELEVATION SHOWN IS LOCATED AT THE INSIDE FACE OF THE WINGWALL STEM. SLOPE TOP OF WINGWALL AS SHOWN FOR DRAINAGE.



WING 2 ELEVATION



SECTION THRU WING WALL 2 BODY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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WEST ABUTMENT DETAILS

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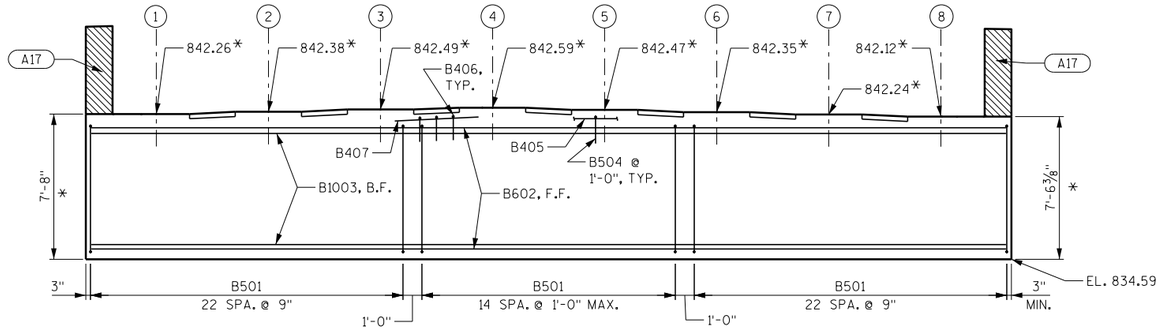
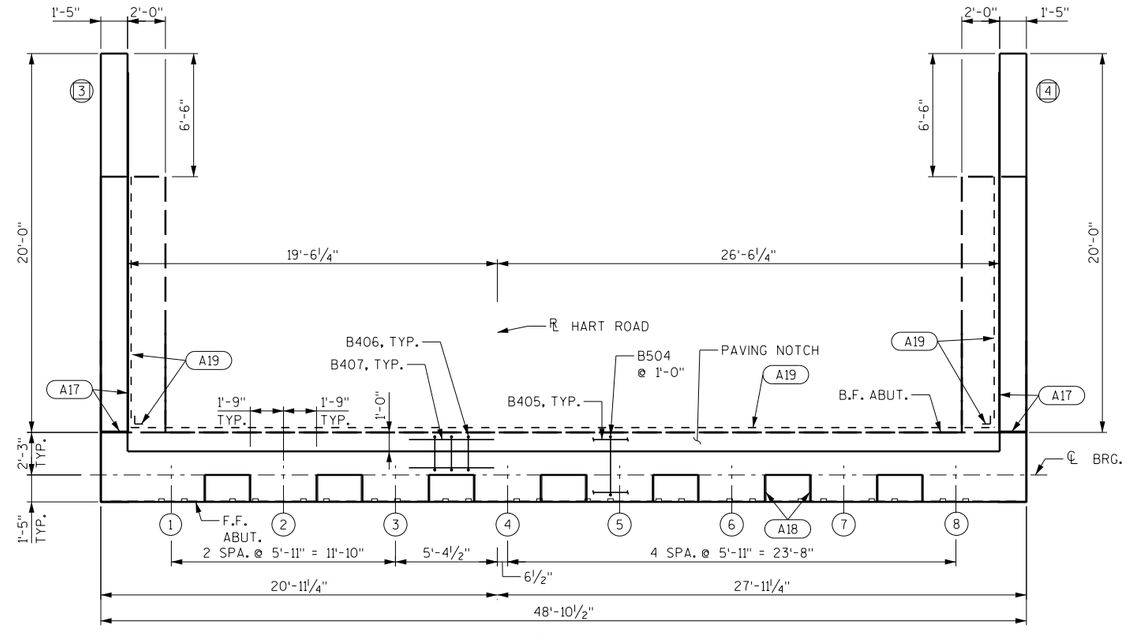
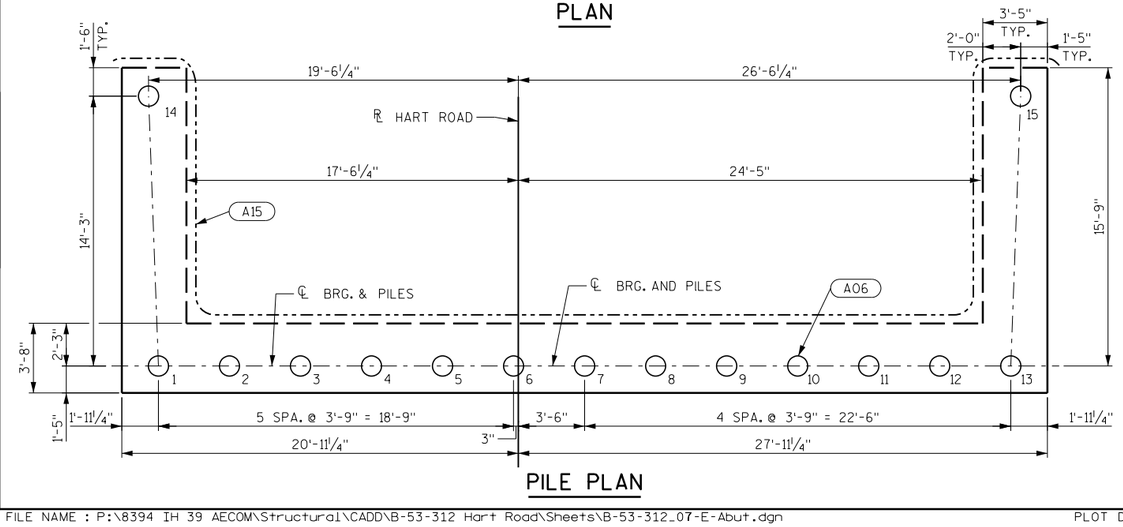


ELEVATION

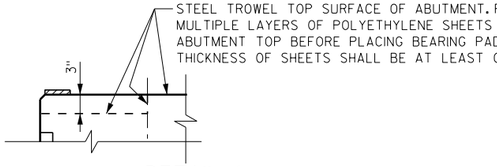
(LOOKING EAST AT F.F. OF ABUT.)



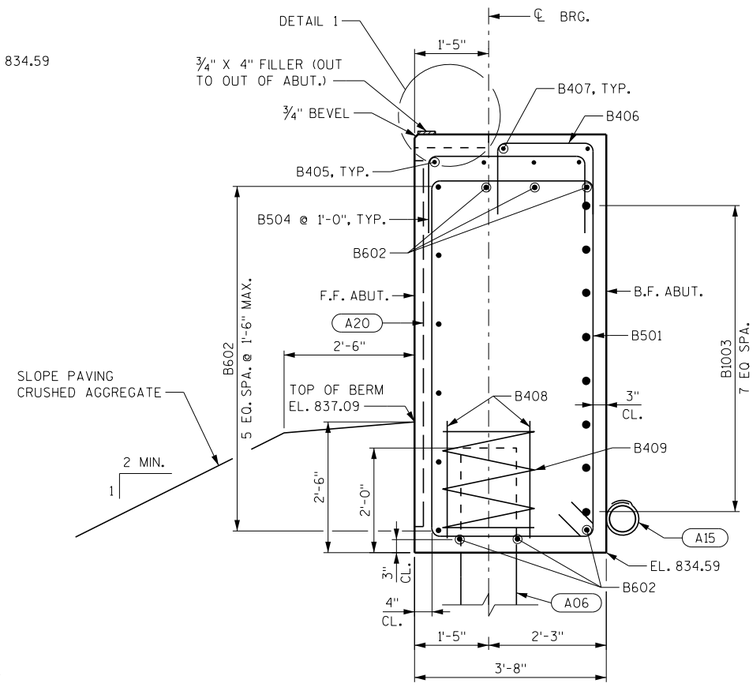
PLAN



PILE PLAN



DETAIL 1



SECTION THRU ABUTMENT BODY

NOTES

NUMBERS NEXT TO PILES INDICATE PILE NUMBER.

LEGEND

- (A06) SUPPORT ABUTMENT AND WINGWALLS ON 12.75" x 0.375" C.I.P. CONCRETE PILING, ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3. PREBORING SHALL BE PERFORMED THROUGH THE EMBANKMENT, TO A DEPTH OF APPROXIMATELY 20 FEET.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURF ACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A18) 3/4" CORK FILLER UP VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.
- (A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.
- (X) WING NUMBER
- (X) GIRDER NUMBER
- * ELEVATIONS & DIMENSIONS ARE GIVEN AT ℄ OF BEARING.
- F.F. FRONT FACE
- B.F. BACK FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY NLD | PLANS CK'D. JFR

EAST ABUTMENT

SHEET 7 OF 27
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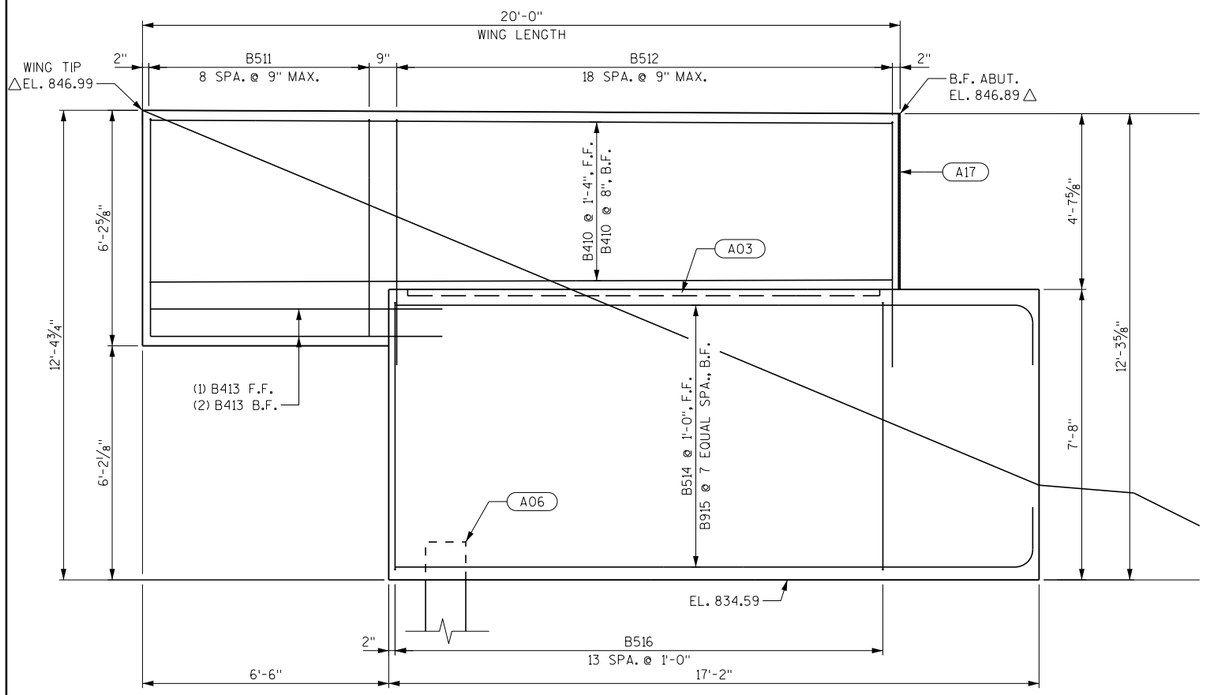
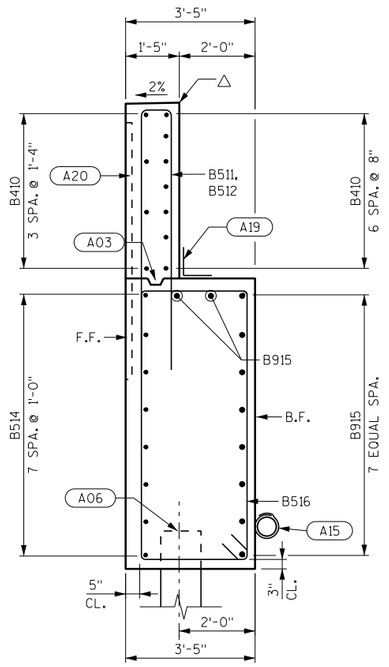
FILE NAME : P:\8394 IH 39 AECOM\Structural\CADD\B-53-312 Hart Road\Sheets\B-53-312_07-E-Abut.dgn PLOT DATE : 11/10/2015 12:18:41 PM PLOT BY : mkhan PLOT SCALE : 8.000000 ' / in.

STATE PROJECT NUMBER

1003-10-73



WING 3 ELEVATION



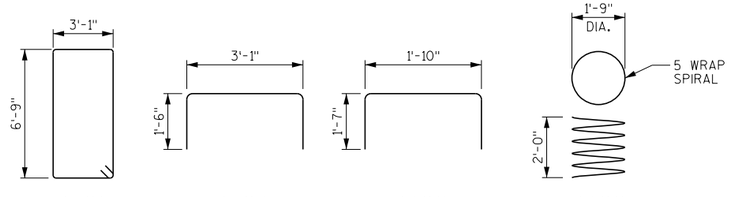
SECTION THRU WING WALL 3 BODY

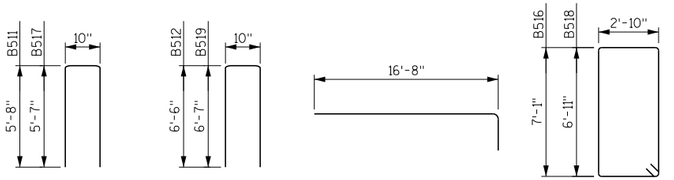
BILL OF BARS

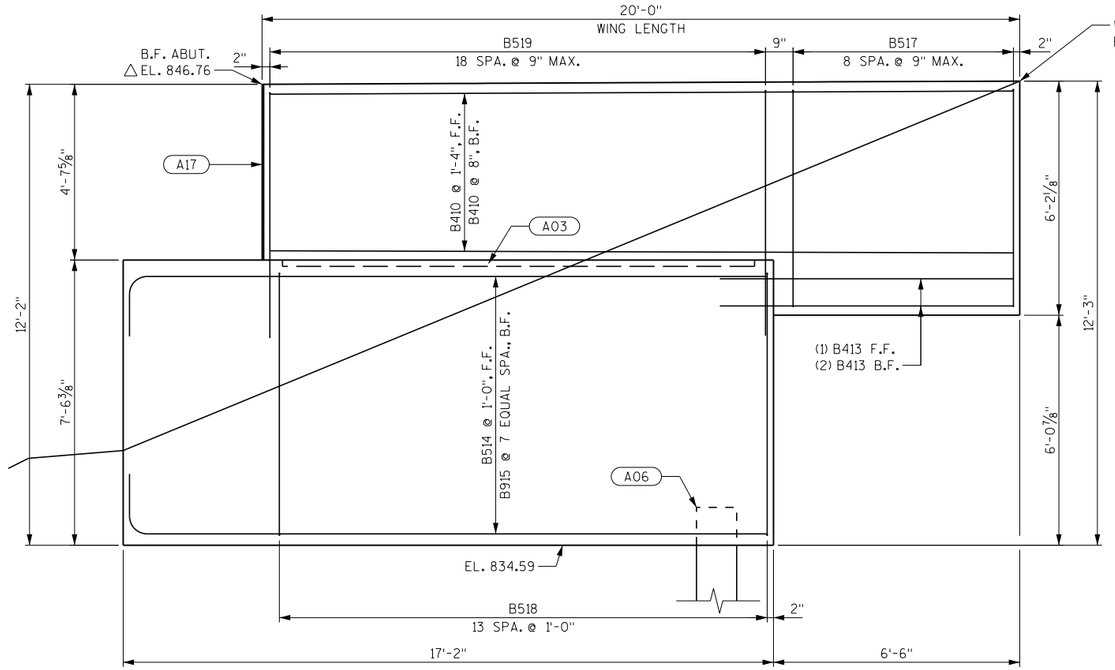
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

E. ABUT. - BILL OF BARS — UNCOATED = 4350 LBS, COATED = 3170 LBS

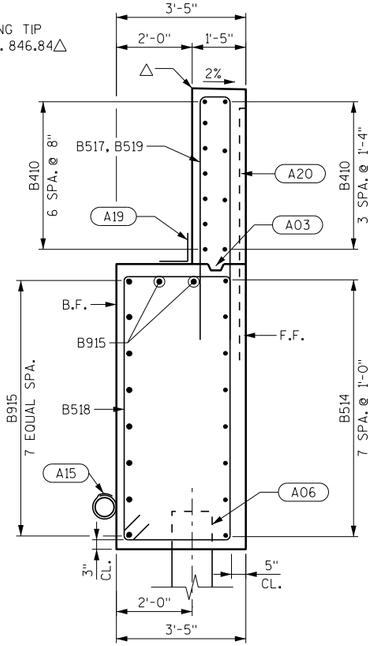
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
B501		61	20'-3"		X	ABUT. VERT,
B602		12	48'-3"			ABUT. HORIZ. FRONT FACE
B1003		8	48'-3"			ABUT. HORIZ. BACK FACE
B504		16	5'-10"		X	ABUT. VERT. UNDER GIRDERS 3, 4, AND 5
B405		4	15'-4"			ABUT. HORIZ. UNDER GIRDERS 3, 4, AND 5
B406		21	4'-9"		X	ABUT. VERT. BETWEEN BEAM SEATS
B407		14	4'-6"			ABUT. HORIZ. BETWEEN BEAM SEATS
B408		26	2'-3"			ABUT. VERT. AT PILES
B409		13	28'-0"		X	ABUT. AT PILES
B410	X	22	19'-7"			WING WALL STEM HORIZ. BACK FACE AND FRONT FACE
B511	X	9	11'-11"		X	WING WALL STEM VERT. WW3
B512	X	19	13'-7"		X	WING WALL STEM VERT. WW3
B413	X	6	7'-9"			WING WALL STEM HORIZ.
B514	X	16	16'-8"			WING WALL BODY HORIZ. FRONT FACE
B915	X	20	18'-0"		X	WING WALL BODY HORIZ. BACK FACE
B516	X	14	20'-4"		X	WING WALL BODY VERT. WW 3
B517	X	9	11'-9"		X	WING WALL STEM VERT. WW4
B518	X	14	20'-0"		X	WING WALL BODY VERT. WW4
B519	X	19	13'-9"		X	WING WALL STEM VERT. WW4







WING 4 ELEVATION



SECTION THRU WING WALL 4 BODY

LEGEND

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" R.M.W. @ B.F. IF JOINT IS USED.) NO "V" GROOVE @ F.F.
- (A06) SUPPORT ABUTMENT AND WINGWALLS ON 12.75" X 0.375" C.I.P. CONCRETE PILING, ESTIMATED 45'-0" WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3. PREBORING SHALL BE PERFORMED THROUGH THE EMBANKMENT, TO A DEPTH OF APPROXIMATELY 20 FEET.
- (A15) PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MINIMUM TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. SEE SHEET 3 FOR DETAILS.
- (A17) ½" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS AT BACK FACE.
- (A20) FOR RUSTICATION PATTERN LIMITS ON FRONT FACE, SEE "AESTHETIC DETAILS 1" SHEET.

F.F. FRONT FACE
B.F. BACK FACE

△ ELEVATION SHOWN IS LOCATED AT THE INSIDE FACE OF THE WINGWALL STEM. SLOPE TOP OF WINGWALL AS SHOWN FOR DRAINAGE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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EAST ABUTMENT DETAILS

SHEET 8 OF 27
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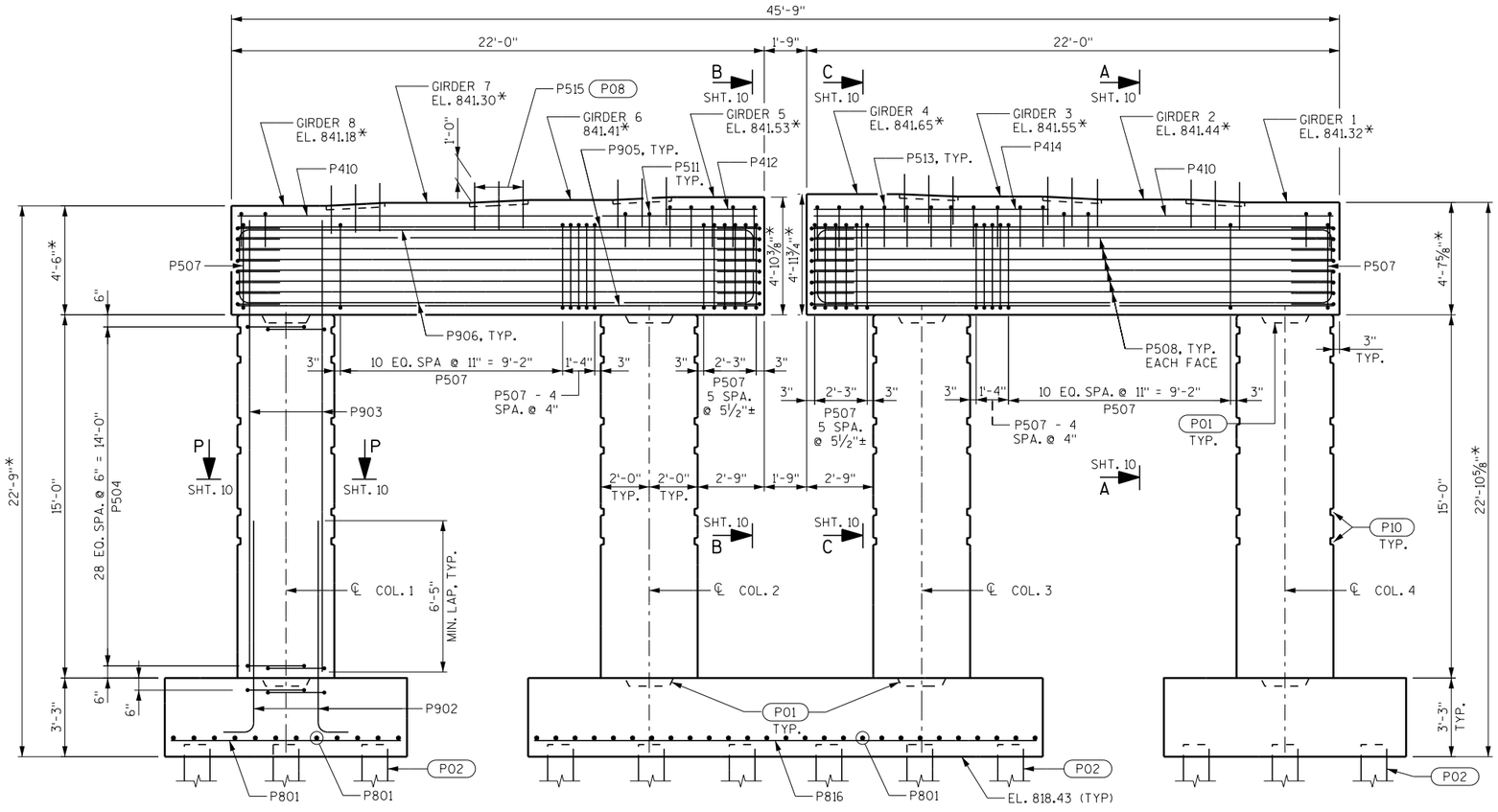
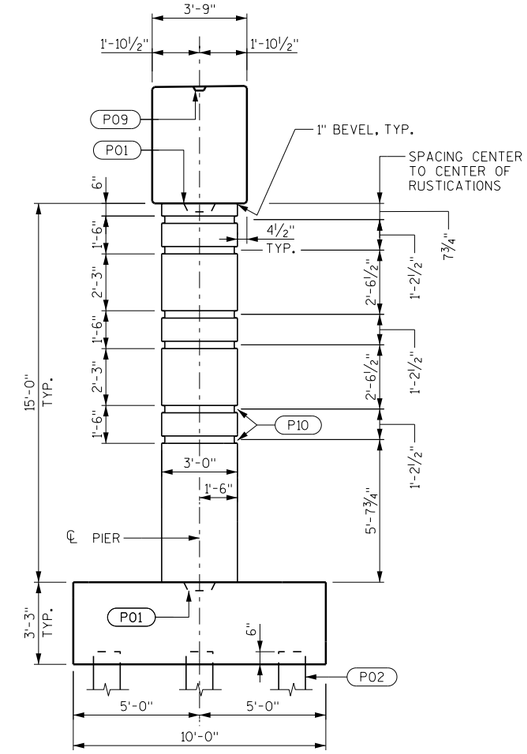


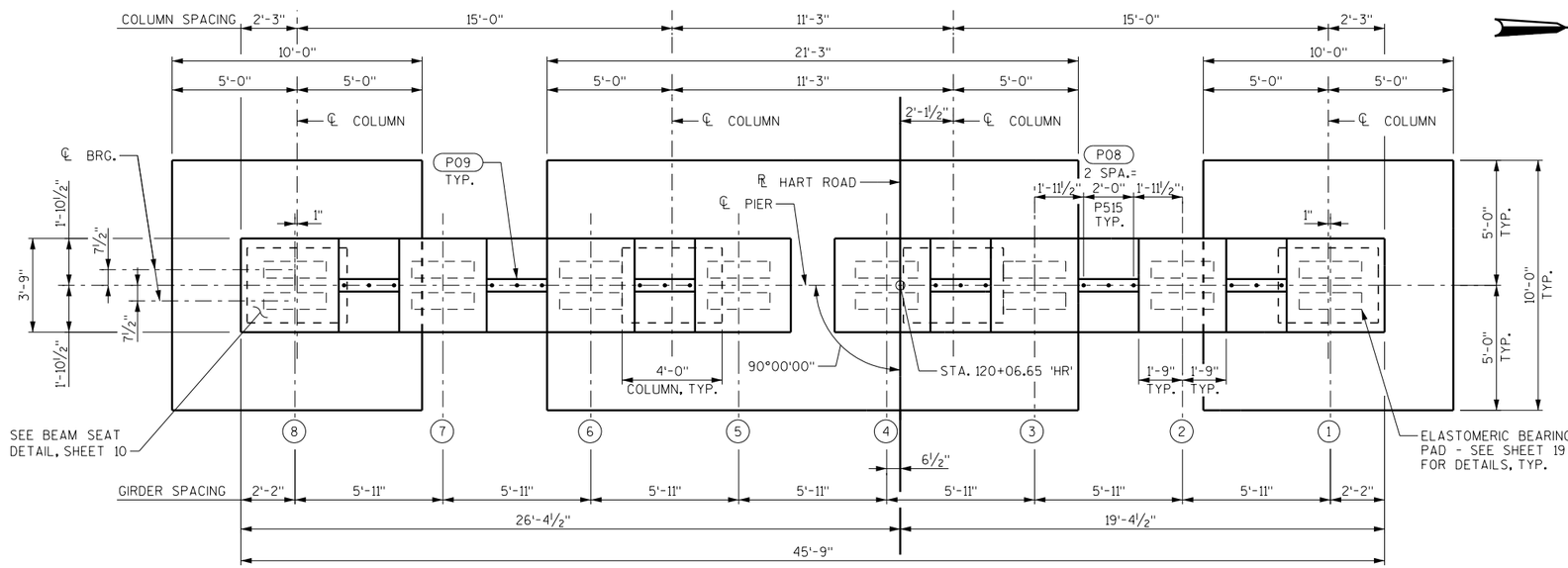
ELEVATION

LOOKING WEST



END VIEW

LOOKING NORTH



PLAN

LEGEND

*	ELEVATIONS & DIMENSIONS ARE GIVEN AT ℄ PIER.
P01	1'-3" X 2'-0" X 4" CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.
P02	SUPPORT PIER ON 12.75" X 0.375" C.I.P. CONCRETE PILING. ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.
P08	P515 BARS BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.
P09	KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" BETWEEN BEAM SEATS.
P10	FOR 1½" RUSTICATION PATTERN ON ALL FACES OF PIER COLUMN. SEE SHEET 26 "AESTHETIC DETAILS 1".
(X)	GIRDER NUMBER

GENERAL NOTES

THE CONTRACTOR MAY FURNISH A PRECAST PIER (CAP AND COLUMN ELEMENTS) IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST PIER SHALL CONFORM TO PRECAST DETAILS IN CHAPTER 7 STANDARDS OF THE CURRENT WISCONSIN DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST PIER SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES". CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY VJD | PLANS CK'D. SG

PIER

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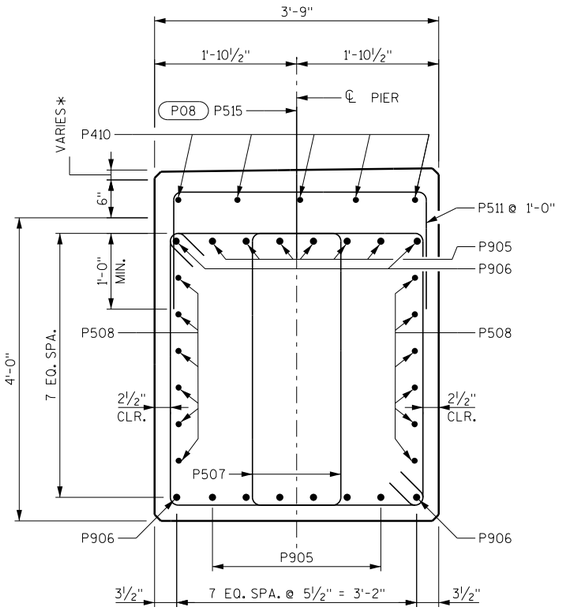
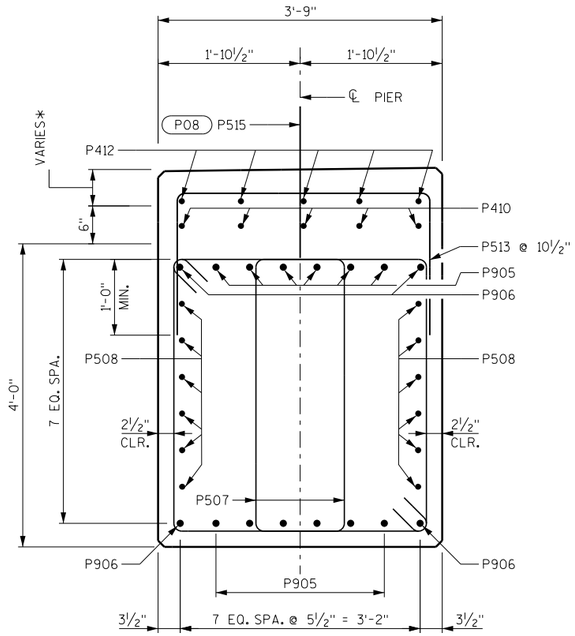


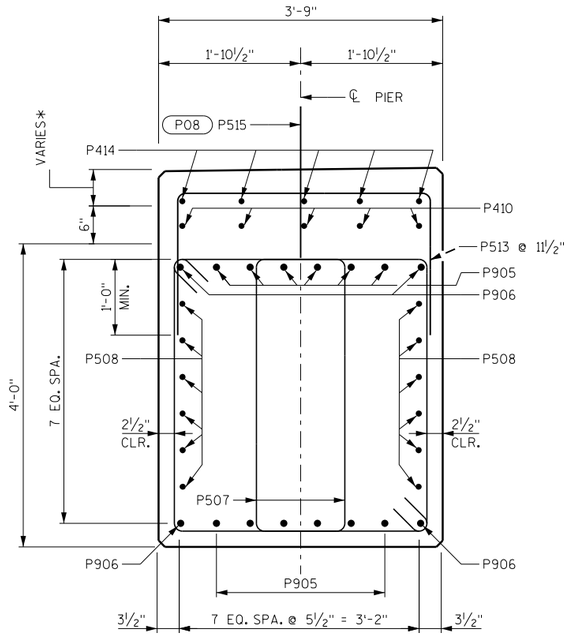
SECTION A-A

LOOKING NORTH
NORTH CAP SHOWN, SOUTH CAP SIMILAR



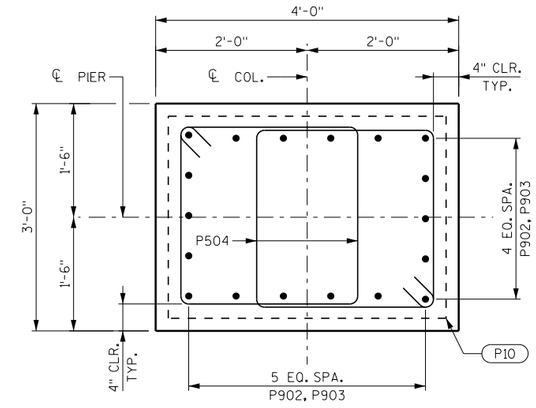
SECTION B-B

LOOKING NORTH
SOUTH CAP

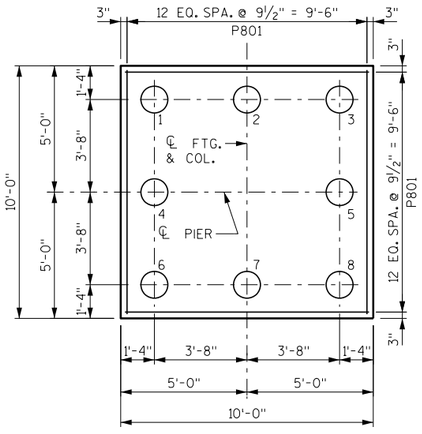


SECTION C-C

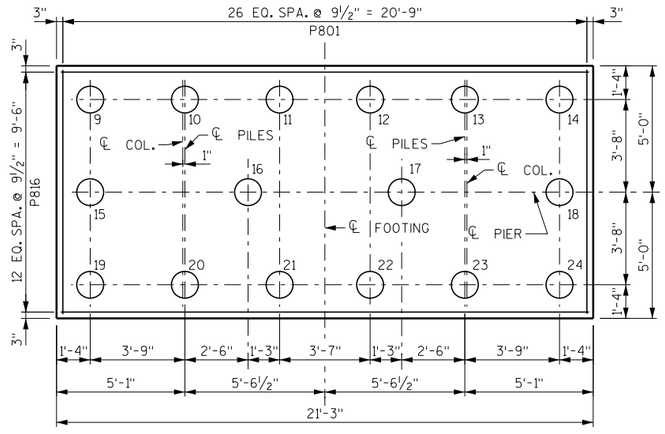
LOOKING NORTH
NORTH CAP



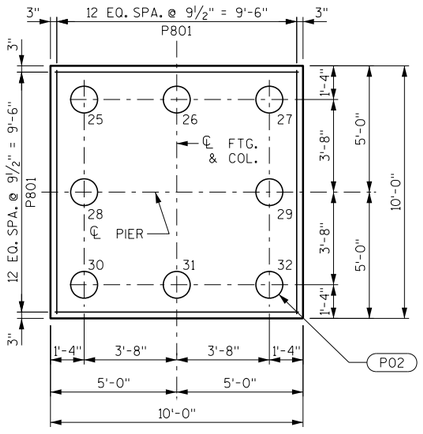
SECTION P-P



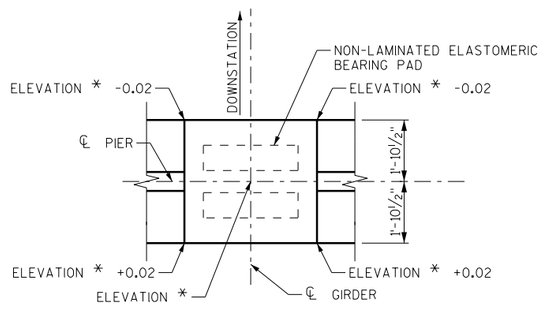
SOUTH EXTERIOR FOOTING PLAN



INTERIOR FOOTING PLAN



NORTH EXTERIOR FOOTING PLAN



SLOPED BEAM SEAT DETAIL - PIER

(SHOWN AT INTERIOR GIRDER, EXTERIOR GIRDER SIMILAR)

LEGEND

* DIMENSIONS ARE GIVEN AT ℄ PIER.

(P02) SUPPORT PIER ON 12.75" X 0.375" C.I.P. CONCRETE PILING. ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.

(P08) P515 BARS BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.

(P10) FOR 1½" RUSTICATION PATTERN ON ALL FACES OF PIER COLUMN. SEE SHEET 26, "AESTHETIC DETAILS 1".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY VJD | PLANS CK'D. SG

PIER DETAILS 1

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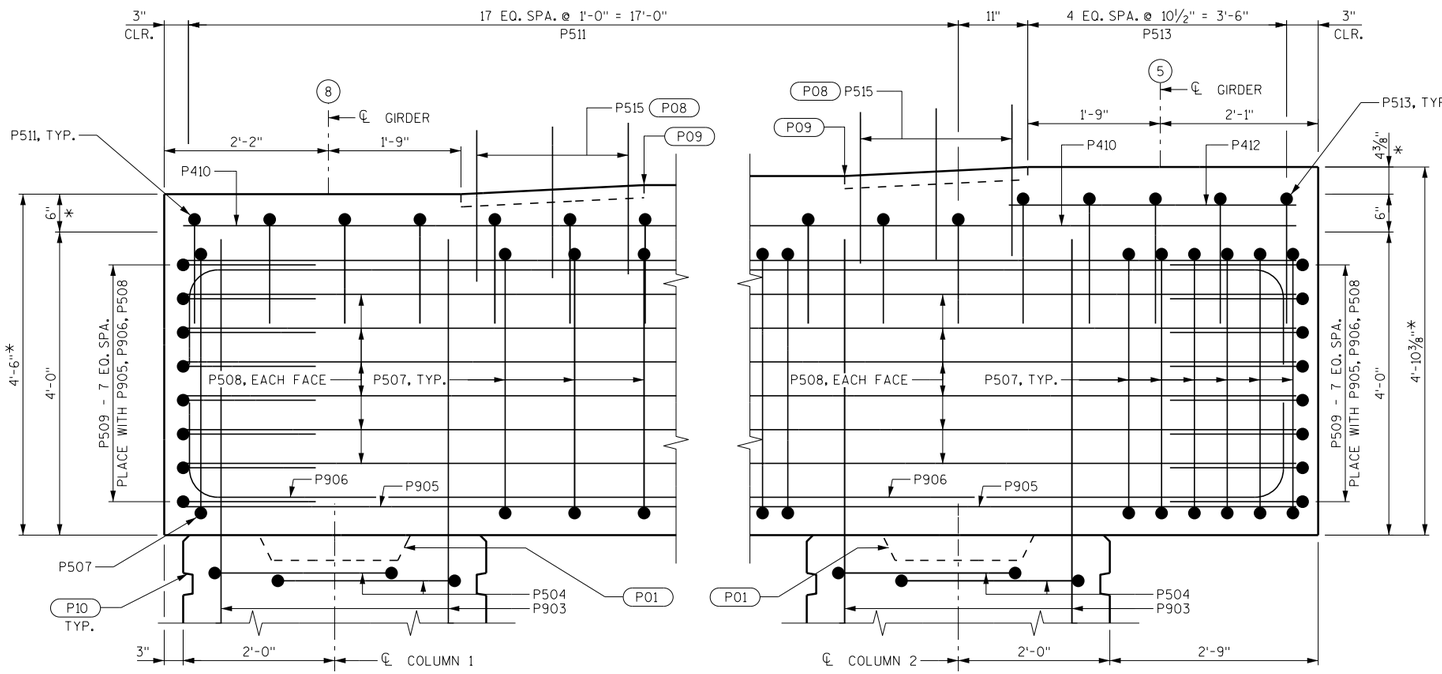
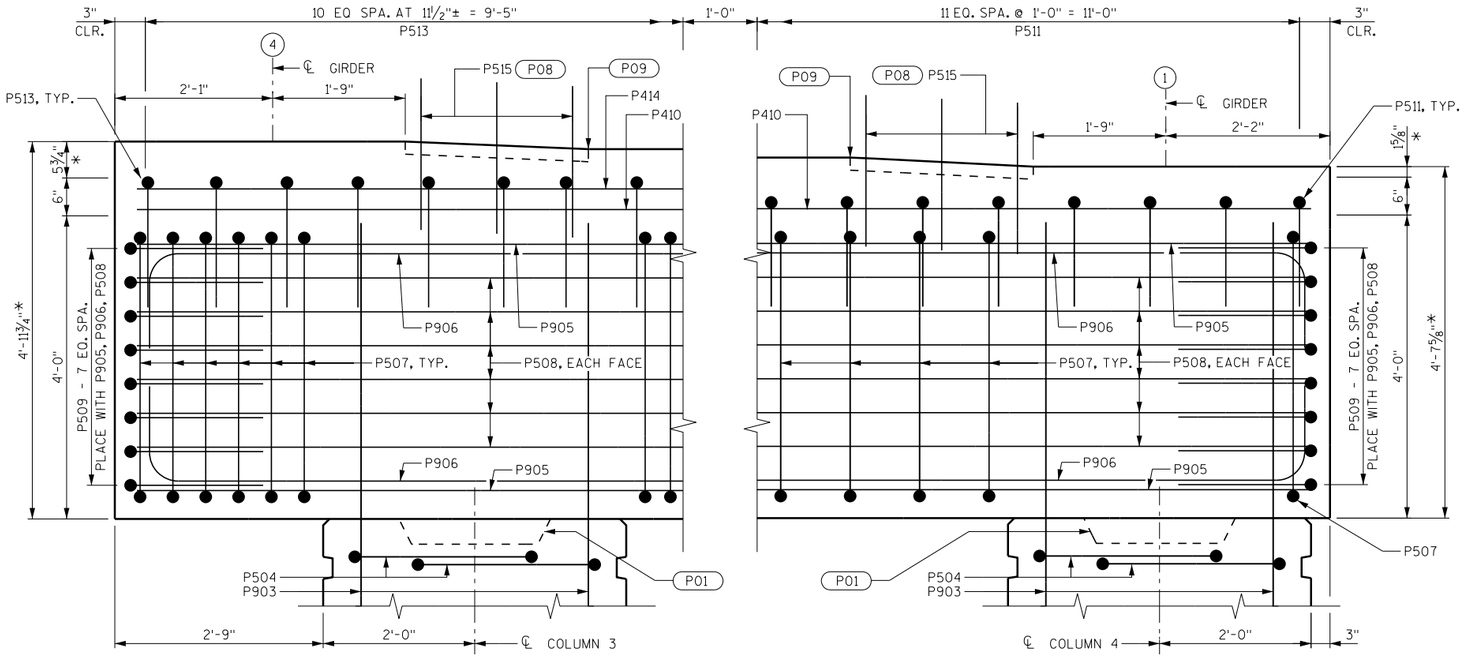


END CAP DETAILS - SOUTH CAP

LOOKING WEST



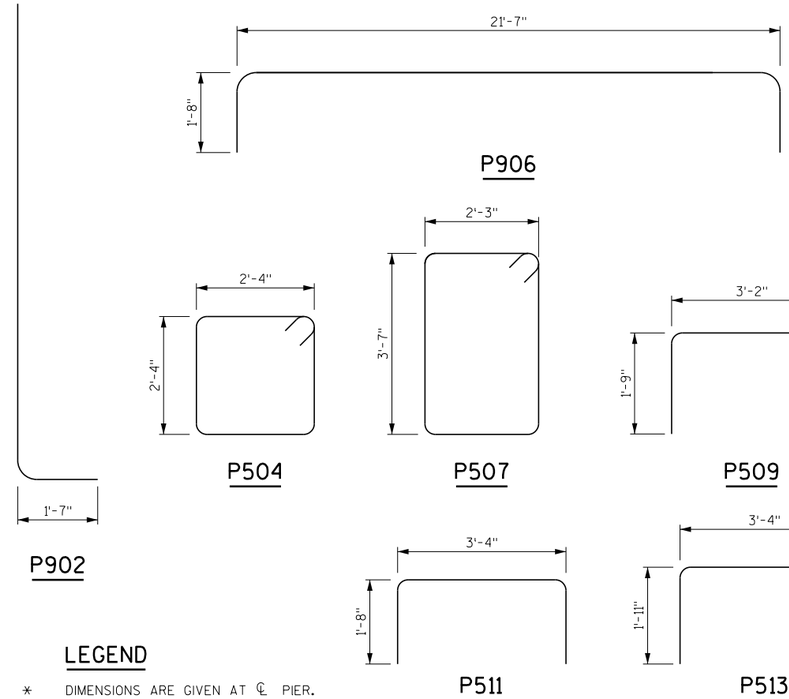
END CAP DETAILS - NORTH CAP

LOOKING WEST

BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

PIER - BILL OF BARS						UNCOATED = 2720 LBS COATED = 14500 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
P801		79	9'-6"			FOOTING - HORIZ.
P902	X	72	10'-8"		X	FOOTING/COLUMN - VERT.
P903	X	72	18'-6"			COLUMN - VERT.
P504	X	240	10'-0"		X	COLUMN - STIRRUPS
P905	X	24	21'-7"			CAP - HORIZ. - TOP & BOTTOM
P906	X	8	24'-5"		X	CAP - HORIZ. TOP & BOTTOM
P507	X	88	12'-4"		X	CAP - STIRRUPS
P508	X	24	21'-7"			CAP - HORIZ. - EDGES
P509	X	32	6'-5"		X	CAP - HORIZ. - ENDS
P410	X	10	21'-7"			CAP - HORIZ. TOP
P511	X	30	6'-5"		X	CAP - VERT. - EXCEPT GIRDERS 3, 4, 5
P412	X	5	3'-10"			CAP - HORIZ. - BEAM SEATS
P513	X	16	6'-11"		X	CAP - VERT. - BEAM SEATS
P414	X	5	9'-9"			CAP - HORIZ. - TOP
P515	X	18	2'-0"			CAP - VERT. - DOWELS
P816		13	20'-9"			FOOTING - HORIZ.



LEGEND

* DIMENSIONS ARE GIVEN AT ℄ PIER.

(P01) 1'-3" X 2'-0" X 4" CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.

(P02) SUPPORT PIER ON 12.75" X 0.375" C.I.P. CONCRETE PILING. ESTIMATED 55'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 210 TONS PER PILE. FOR PILE SPLICE DETAIL, SEE SHEET 3.

(P08) P515 BARS BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. EMBED 1'-0" INTO CONCRETE.

(P09) KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" BETWEEN BEAM SEATS.

(P10) FOR 1½" RUSTICATION PATTERN ON ALL FACES OF PIER COLUMN. SEE SHEET 26, "AESTHETIC DETAILS 1".

STATE PROJECT NUMBER

1003-10-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY VJD | PLANS CK'D. SG

PIER DETAILS 2

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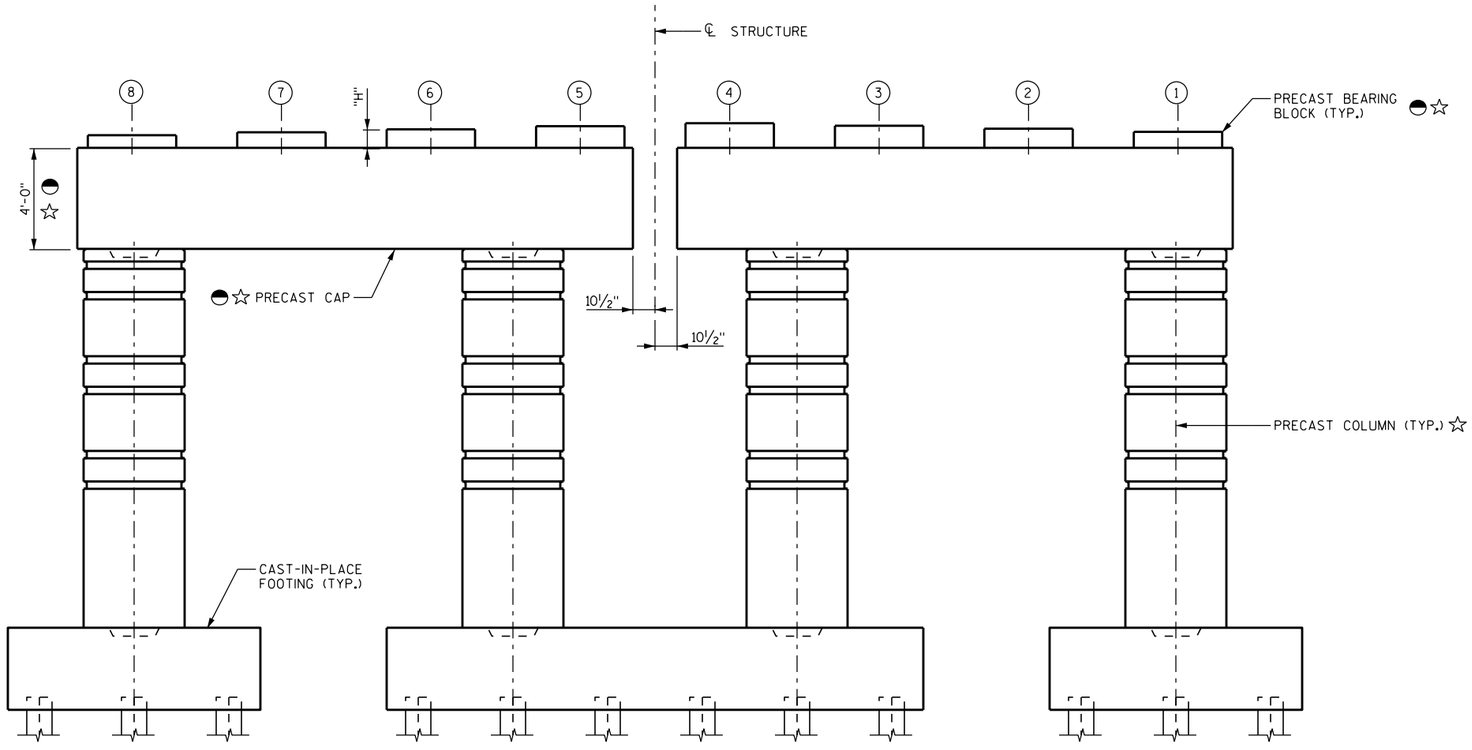
1003-10-73



ELEVATION OF OPTIONAL PRECAST PIER

FOR INFORMATION ONLY
CONTACT DAVE KIEKBUSCH (608) 266-5084 AND
JAMES LUEBKE (608) 266-5098 FOR PRECAST DETAILS

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LEGEND

☆ THE CONTRACTOR MAY FURNISH PRECAST PIER CAPS, BEARING BLOCKS, AND COLUMNS IN LIEU OF THE CAST-IN-PLACE PIER WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. CONTACT DAVE KIEKBUSCH (608-266-5084) OR JAMES LUEBKE (608-266-5098) FOR PRECAST PIER MEMBER STANDARDS. PAYMENT FOR THE PRECAST PIER MEMBERS SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

◓ IF THE CONTRACTOR CHOOSES TO FURNISH PRECAST PIER MEMBERS, THE CAP HEIGHT SHALL BE 4'-0". THE REMAINING DIFFERENCE BETWEEN THE BEAM SEAT ELEVATIONS AND THE TOP OF THE 4'-0" CAP WILL BE THE "H" DIMENSION OF THE PRECAST BEARING BLOCKS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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PIER ALTERNATE

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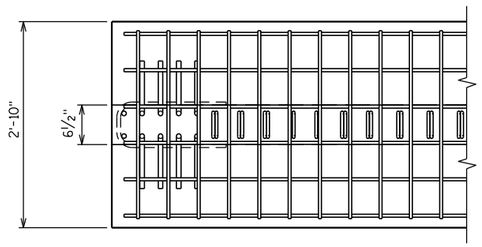
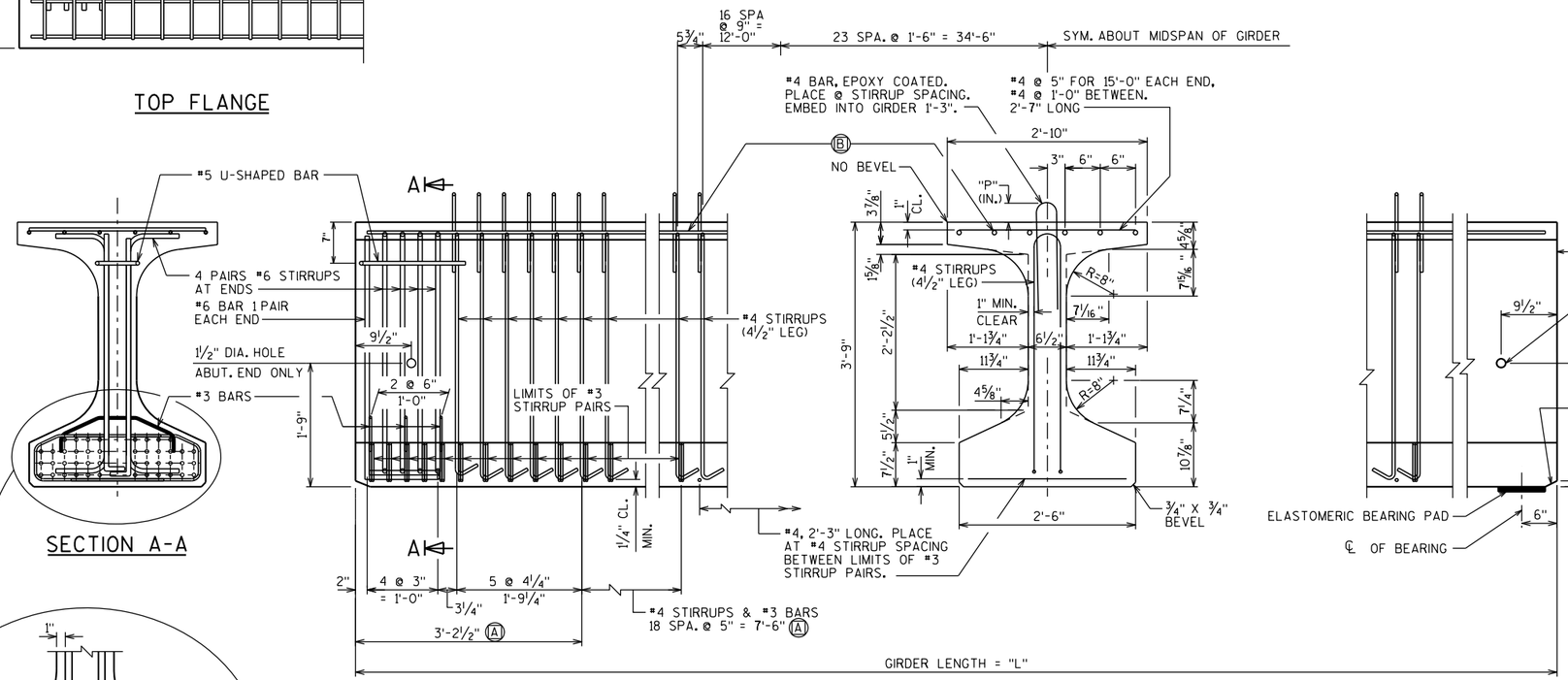


TOP FLANGE

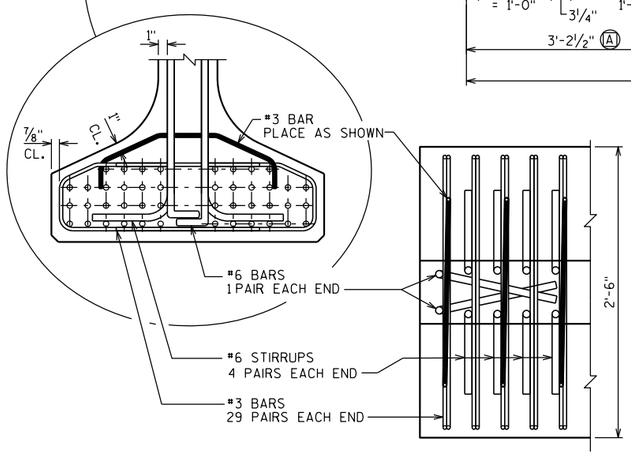


SECTION A-A

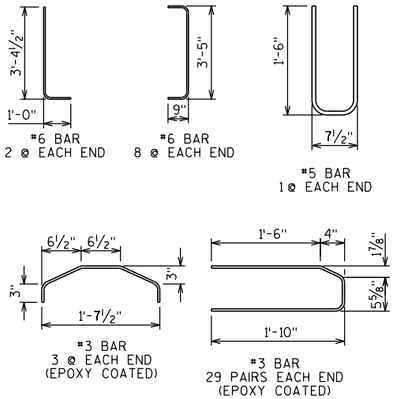
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



BOTTOM FLANGE



NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN						UNDRAPED PATTERN	
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	("A"	"B" MIN.	"B" MAX.	"C")	TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1, 2	1,8	115'-4½"	0.81	1.53	2.07	2.42	2.54	2.40	2.03	1.47	0.77	8000	7.0"	7.0"	7.0"	0.6	36	6800	40	13.75	16.75	5		
1, 2	2-7	115'-4½"	0.84	1.60	2.17	2.53	2.65	2.51	2.13	1.54	0.80	8000	7.0"	7.0"	7.0"	0.6	36	6800	40	13.75	16.75	5		

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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45W" PRESTRESSED GIRDER DETAILS 1

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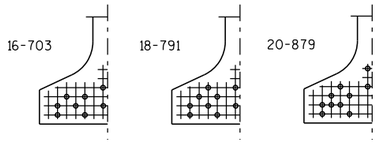
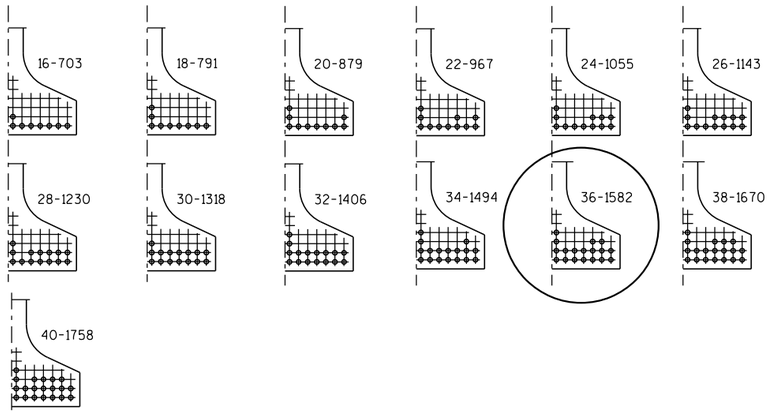


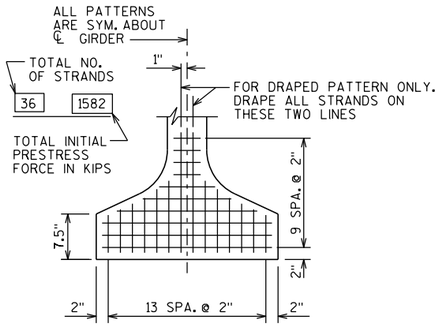
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS

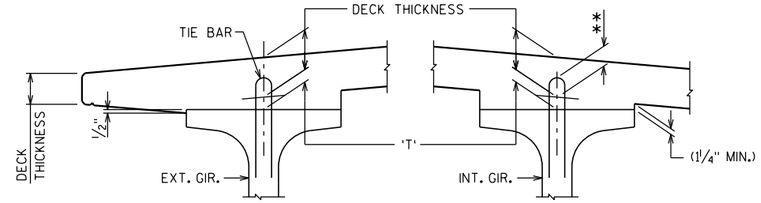


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"ϕ STRANDS



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

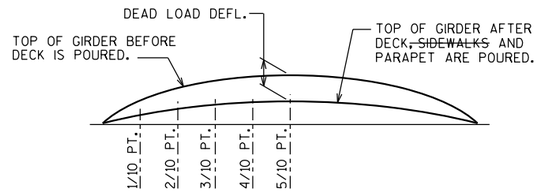
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

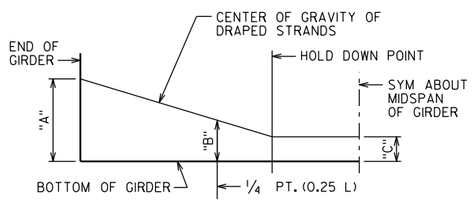
TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

NOTE: SEE SHEET 12 FOR DEAD LOAD DEFLECTIONS.



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	4.13
2	4.13

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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45W" PRESTRESSED GIRDER DETAILS 2

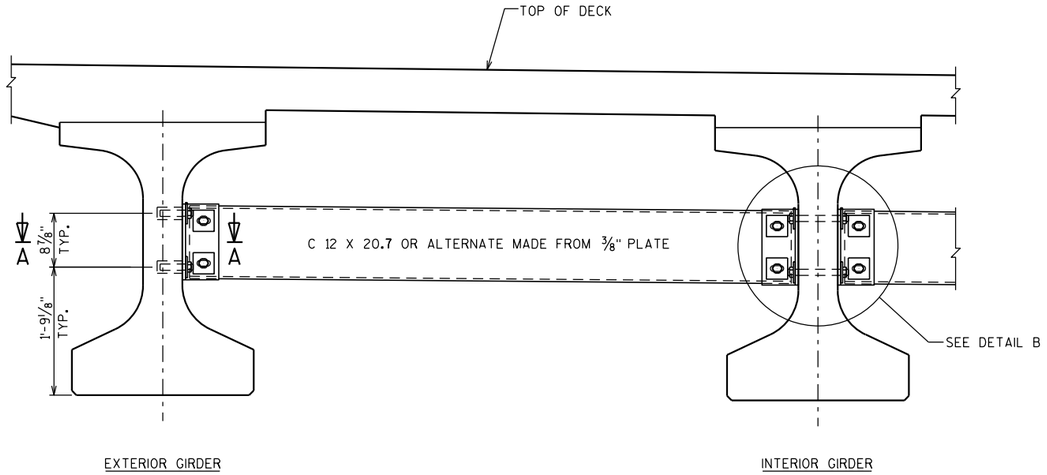
8

8

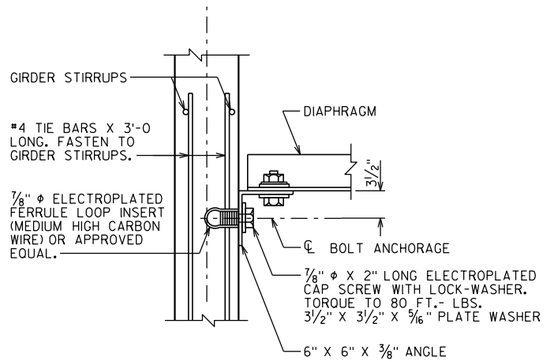
FILE NAME : P:\8394 IH 39 AECOM\Structural\CADD\B-53-312 Hart Road\Sheets\B-53-312_14-g45w-Strands.dgn
PLOT DATE : 7/29/2015 3:35:05 PM PLOT BY : ndecent
PLOT SCALE : 1:2.08333

STATE PROJECT NUMBER

1003-10-73



PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

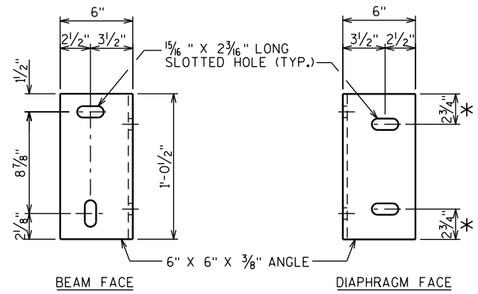
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-53-312", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

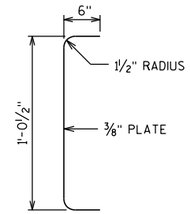
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

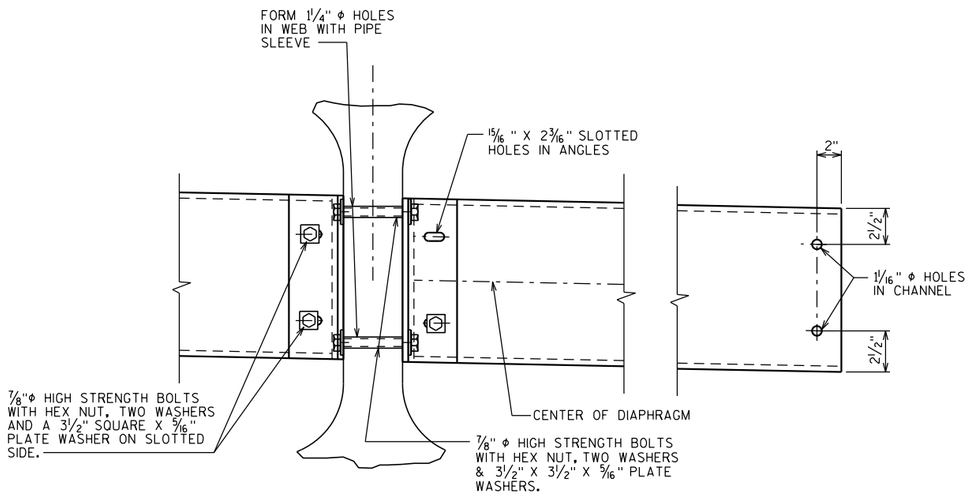


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU ALTERNATE DIAPHRAGM



DETAIL B

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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STEEL DIAPHRAGM

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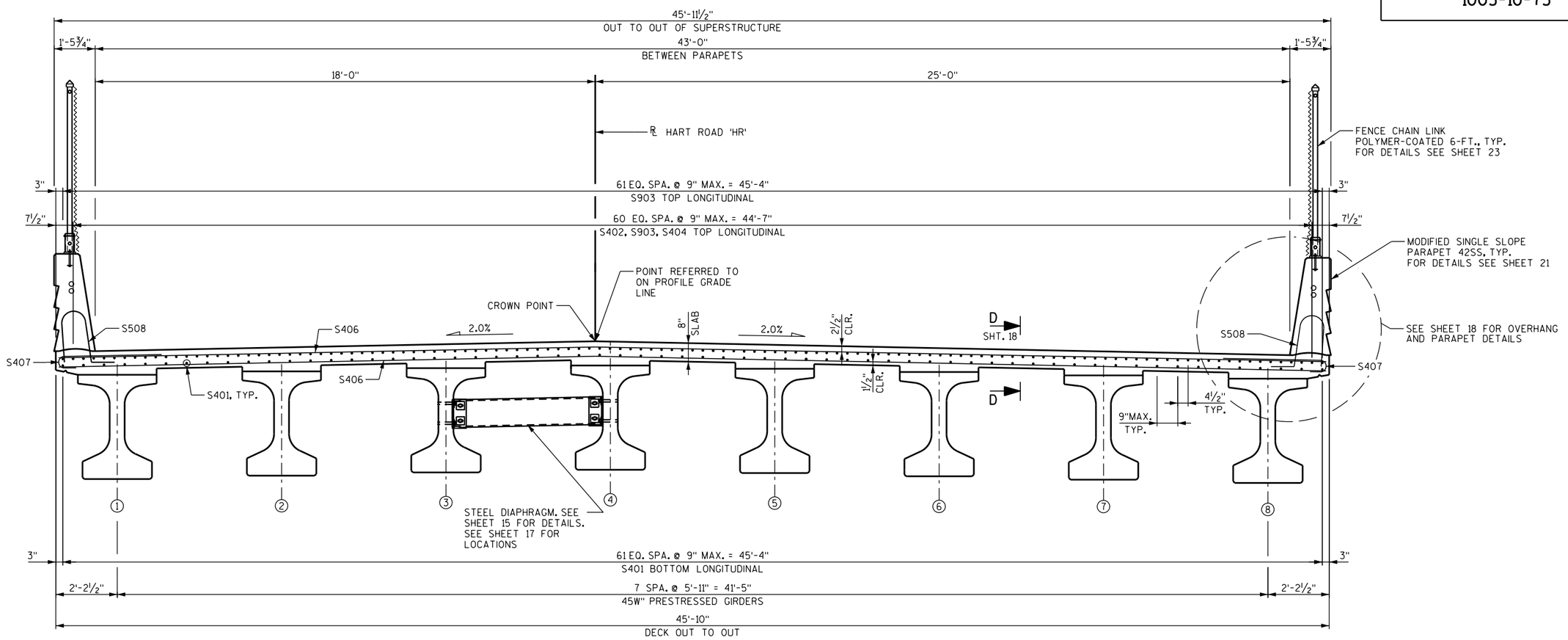

CROSS SECTION THRU ROADWAY

LOOKING EAST
(PARAPET AND SIDEWALK STEEL NOT SHOWN FOR CLARITY)

TOP OF DECK ELEVATIONS

LOCATION	C/L BRG. W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	C/L BRG. E. ABUT.
NORTH EDGE OF DECK	844.15	844.37	844.58	844.78	844.97	845.16	845.34	845.50	845.66	845.81	845.96	846.09	846.21	846.33	846.44	846.53	846.62	846.70	846.78	846.84	846.89
TOE OF NORTH PARAPET	844.15	844.37	844.58	844.78	844.97	845.16	845.34	845.50	845.66	845.81	845.96	846.09	846.21	846.33	846.44	846.53	846.62	846.70	846.78	846.84	846.89
GIRDER 1	844.16	844.38	844.59	844.80	844.99	845.18	845.35	845.52	845.68	845.83	845.97	846.10	846.23	846.34	846.45	846.55	846.64	846.72	846.79	846.86	846.91
GIRDER 2	844.28	844.50	844.71	844.91	845.11	845.29	845.47	845.64	845.80	845.95	846.09	846.22	846.35	846.46	846.57	846.67	846.76	846.84	846.91	846.97	847.03
GIRDER 3	844.40	844.62	844.83	845.03	845.23	845.41	845.59	845.76	845.92	846.07	846.21	846.34	846.47	846.58	846.69	846.79	846.88	846.96	847.03	847.09	847.15
CROWN (RL HART ROAD)	844.51	844.73	844.94	845.14	845.33	845.52	845.70	845.86	846.02	846.17	846.32	846.45	846.57	846.69	846.80	846.89	846.98	847.06	847.14	847.20	847.25
GIRDER 4	844.50	844.72	844.93	845.13	845.32	845.51	845.69	845.85	846.01	846.16	846.30	846.44	846.56	846.68	846.78	846.88	846.97	847.05	847.13	847.19	847.24
GIRDER 5	844.38	844.60	844.81	845.01	845.21	845.39	845.57	845.73	845.89	846.04	846.19	846.32	846.44	846.56	846.67	846.76	846.85	846.93	847.01	847.07	847.13
GIRDER 6	844.26	844.48	844.69	844.89	845.09	845.27	845.45	845.62	845.78	845.93	846.07	846.20	846.33	846.44	846.55	846.65	846.74	846.82	846.89	846.95	847.01
GIRDER 7	844.14	844.36	844.57	844.77	844.97	845.15	845.33	845.50	845.66	845.81	845.95	846.08	846.21	846.32	846.43	846.53	846.62	846.70	846.77	846.83	846.89
GIRDER 8	844.02	844.24	844.45	844.66	844.85	845.04	845.21	845.38	845.54	845.69	845.83	845.96	846.09	846.20	846.31	846.41	846.50	846.58	846.65	846.72	846.77
SOUTH EDGE OF DECK	843.98	844.20	844.41	844.61	844.81	844.99	845.17	845.34	845.49	845.65	845.79	845.92	846.04	846.16	846.27	846.37	846.45	846.54	846.61	846.67	846.73

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STRUCTURE B-53-312

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SUPERSTRUCTURE CROSS SECTION

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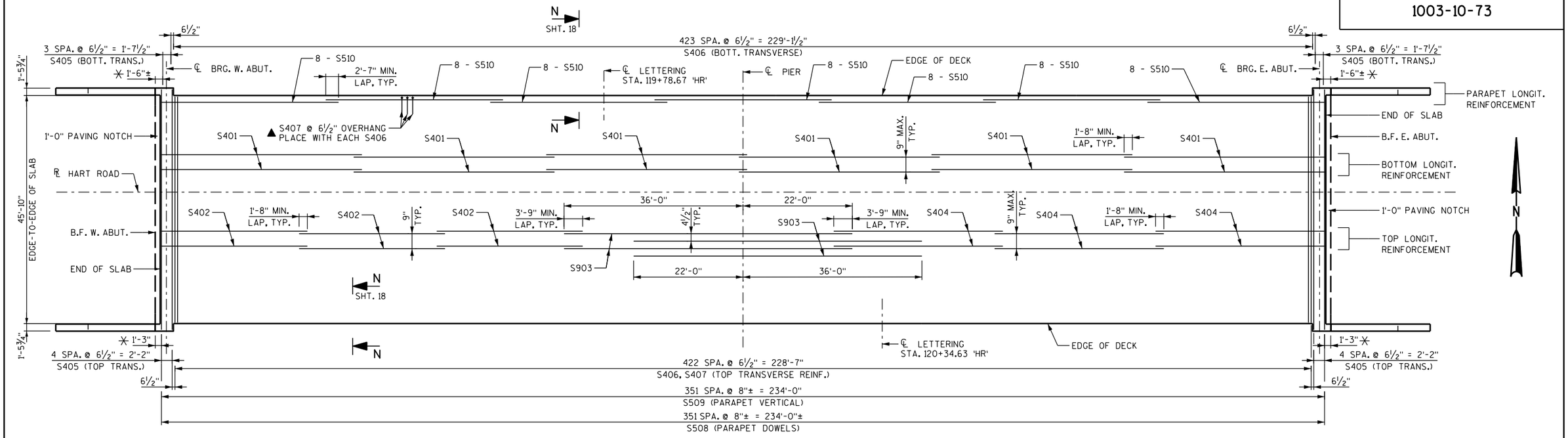
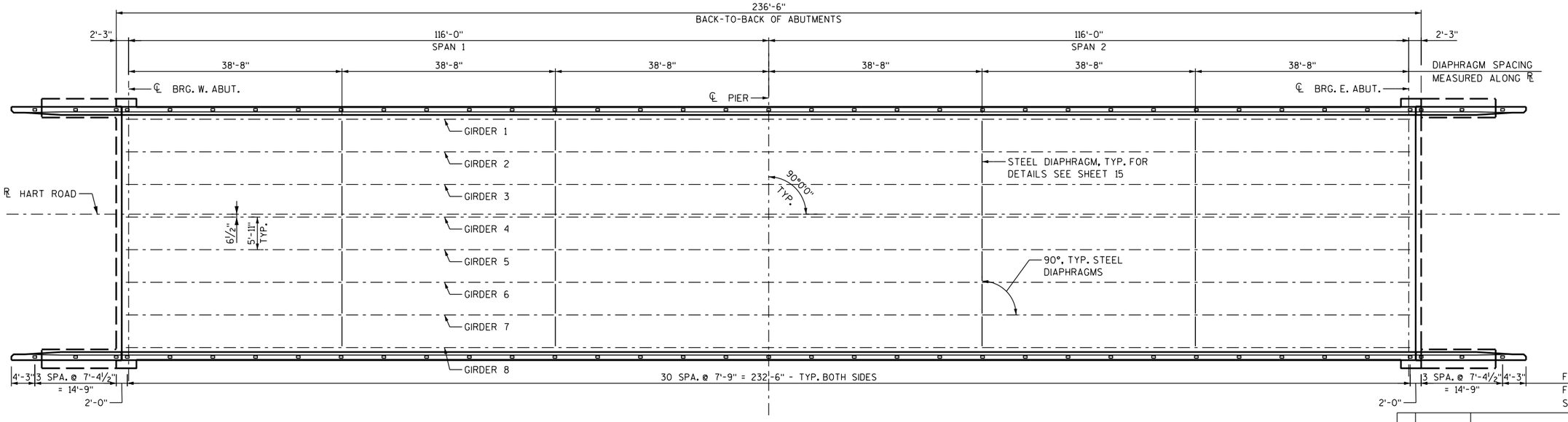


PLAN

SHOWING REINFORCEMENT



PLAN

SHOWING DIAPHRAGM SPACING & FENCE POST SPACING

LEGEND

✳ DIMENSION TAKEN OFF BACK FACE OF ABUTMENT

▲ PLACE S407 AT EACH EDGE OF DECK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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SUPERSTRUCTURE PLAN

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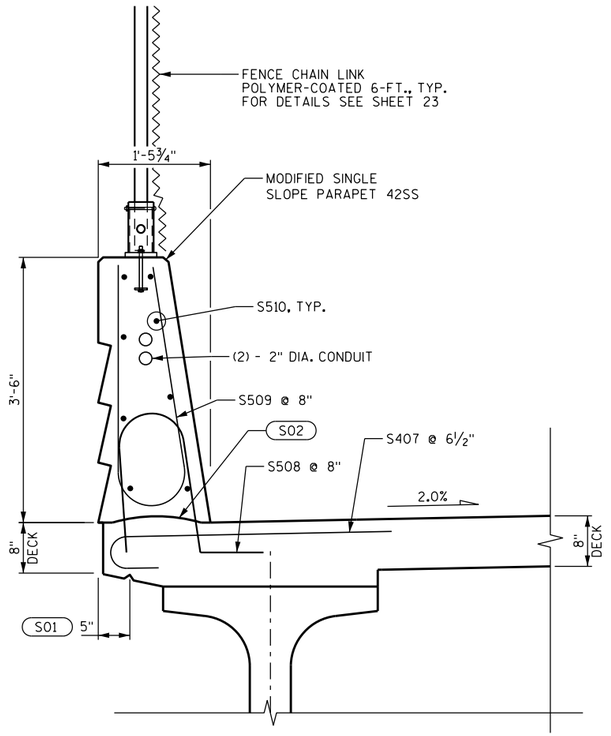
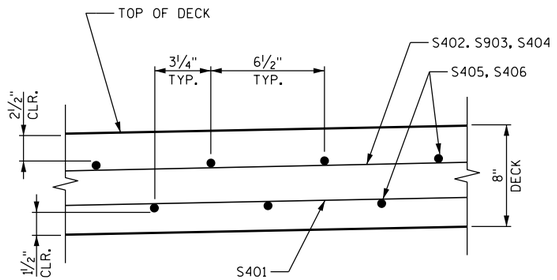
FILE NAME : P:\8394 IH 39 AECOM\Structural\CADD\B-53-312 Hart Road\Sheets\B-53-312_17-Super-Plan.dgn PLOT DATE : 7/29/2015 3:35:11 PM PLOT BY : ndecent PLOT NAME : B-53-312_17-Super-Plan.dgn PLOT SCALE : 1:20.0001

STATE PROJECT NUMBER
1003-10-73



SECTION N-N

(DECK STEEL NOT SHOWN FOR CLARITY)



SECTION D-D

LEGEND

S01 ¾" V-GROOVE. EXTEND V-GROOVE TO 3" FROM FRONT FACE OF ABUTMENT DIAPHRAGM. V-GROOVES ARE REQUIRED

S02 CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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SUPERSTRUCTURE DETAILS 1

SHEET 18 OF 27
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STATE PROJECT NUMBER
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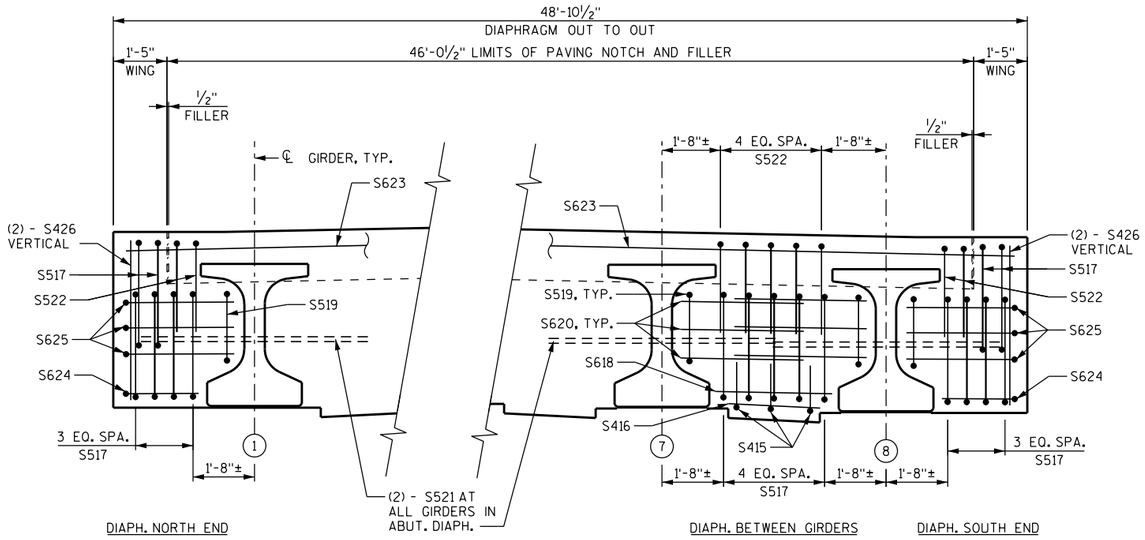
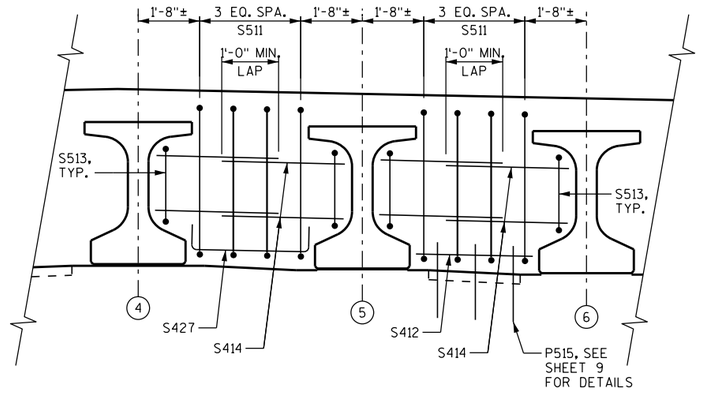


DIAPH. NORTH END DIAPH. BETWEEN GIRDERS DIAPH. SOUTH END

DIAPHRAGM REINFORCEMENT AT EAST ABUTMENT

LOOKING EAST. WEST ABUTMENT SIMILAR
(DECK STEEL AND PARAPETS NOT SHOWN FOR CLARITY)



BETWEEN GIRDERS 4, 5 TYPICAL, ALL OTHER LOCATIONS

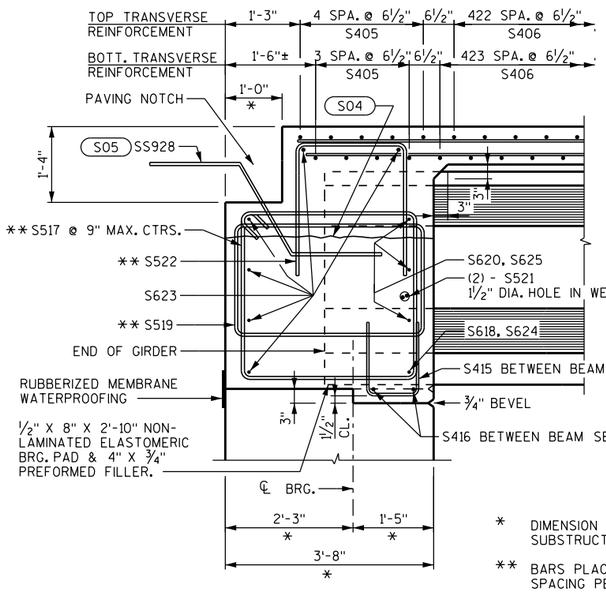
DIAPHRAGM REINFORCEMENT OVER PIER

CONC. DIAPH. TO EXTEND BETWEEN OUTSIDE FACES OF EXTERIOR GIRDERS
(DECK STEEL AND PARAPETS NOT SHOWN FOR CLARITY)

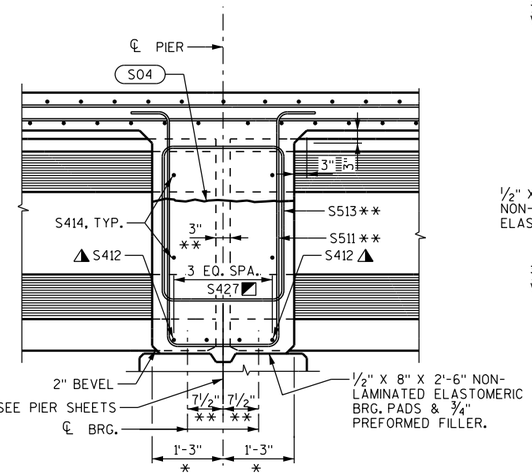
LEGEND

(S04) OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDERS. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

(S05) SS928 STAINLESS STEEL. ALIGN SS928 WITH S517 WITHIN LIMITS OF THE PAVING NOTCH. ENSURE EPOXY COATINGS OF ADJACENT BARS ARE UNDAMAGED. STAINLESS STEEL REINFORCEMENT TO BE PAYED FOR UNDER SPECIAL PROVISION "BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES".



AT ABUTMENTS



AT PIER DIAPHRAGM

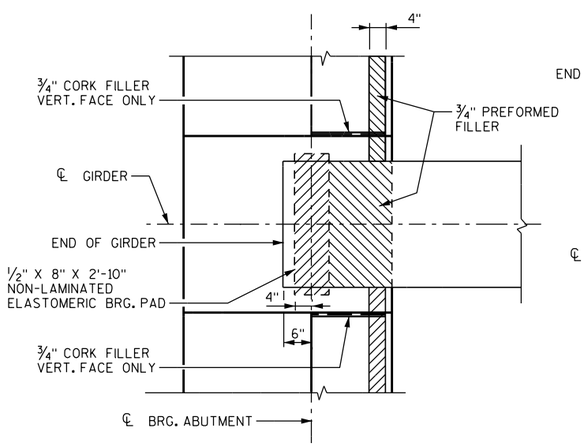
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO ℄ GIRDERS

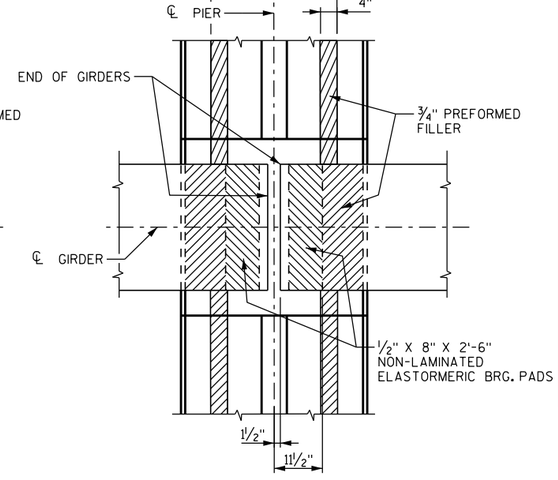
◩ PLACE 4-S427 AS SHOWN BETWEEN GIRDERS 4 AND 5 ONLY.

◭ PLACE 2-S412 AS SHOWN BETWEEN ALL OTHER GIRDERS EXCEPT AS INDICATED IN ◩.

PARTIAL LONGITUDINAL SECTION



AT ABUTMENTS



AT PIER

BEARING PAD DETAIL

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY VJD | PLANS CK'D. SG

SUPERSTRUCTURE DETAILS 2

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BILL OF BARS

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
BAR DIMENSIONS ARE OUT TO OUT OF BAR.

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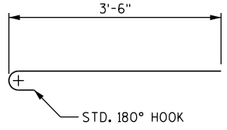
SUPERSTRUCTURE						✳ STAINLESS = 1330 LBS COATED = 87890 LBS
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S401	X	372	40'-8"			SLAB - LONGITUDINAL - BOTTOM
S402	X	183	29'-8"			SLAB - LONGITUDINAL - TOP
S903	X	123	58'-0"			SLAB - LONGITUDINAL - TOP OVER PIER
S404	X	183	34'-3"			SLAB - LONGITUDINAL - TOP
S405	X	18	48'-3"			SLAB -TRANS. - TOP & BOTTOM AT ABUT
S406	X	847	45'-4"			SLAB - TRANS. - TOP & BOTTOM
S407	X	846	4'-1"		X	SLAB - TRANS. - OVERHANG
S508	X	704	4'-5"		X	PARAPET - DOWEL
S509	X	704	6'-8"		X	PARAPET - VERTICAL
S510	X	112	35'-11"			PARAPET - LONGITUDINAL
S511	X	28	11'-11"		X	PIER DIAPHRAGM - VERTICAL
S412	X	12	3'-0"			PIER DIAPHRAGM - HORIZONTAL
S513	X	14	9'-0"		X	PIER DIAPHRAGM - VERTICAL
S414	X	56	6'-2"			PIER DIAPHRAGM - HORIZONTAL
S415	X	42	3'-8"		X	ABUTMENT DIAPHRAGM - VERTICAL
S416	X	28	2'-1"			ABUTMENT DIAPHRAGM - HORIZONTAL
S517	X	94	13'-0"		X	ABUTMENT DIAPHRAGM - VERTICAL
S618	X	14	3'-1"			ABUTMENT DIAPHRAGM - HORIZONTAL
S519	X	32	10'-8"		X	ABUTMENT DIAPHRAGM - VERTICAL
S620	X	84	3'-6"			ABUTMENT DIAPHRAGM - HORIZONTAL
S521	X	32	6'-0"			ABUTMENT DIAPHRAGM - HORIZONTAL - THRU GIRDER
S522	X	78	6'-6"		X	ABUTMENT DIAPHRAGM - VERTICAL
S623	X	12	48'-2"			ABUTMENT DIAPHRAGM - HORIZONTAL
S624	X	4	6'-9"		X	ABUTMENT DIAPHRAGM - HORIZONTAL - EDGES
S625	X	12	8'-9"		X	ABUTMENT DIAPHRAGM - HORIZONTAL - EDGES
S426	X	8	4'-2"			ABUTMENT DIAPHRAGM - VERTICAL - EDGES
S427	X	4	4'-3"		X	PIER DIAPHRAGM BETWEEN GIRDERS 4 & 5
✳ SS928	✳	78	5'-0"		X	ABUT. DIAPH TO APPROACH SLAB



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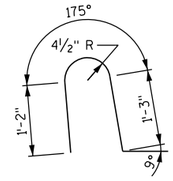

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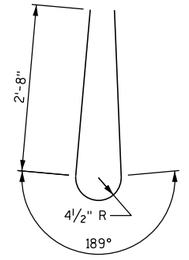

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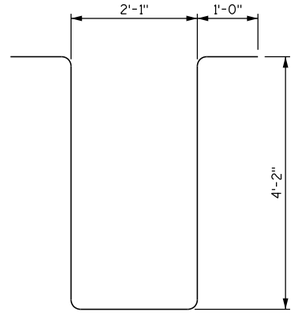

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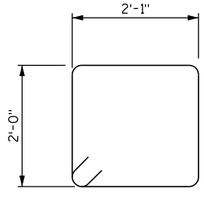

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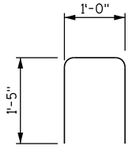

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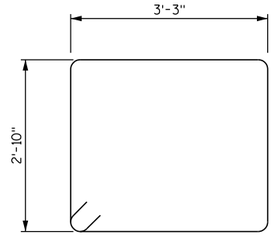

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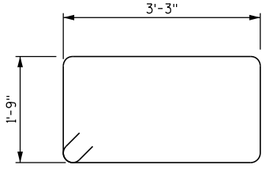

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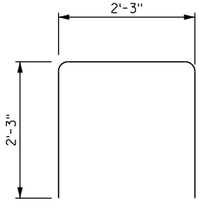

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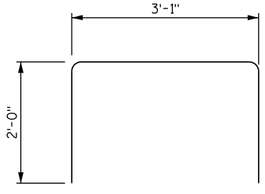

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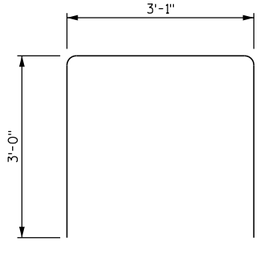

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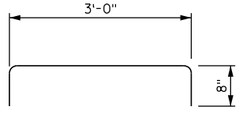

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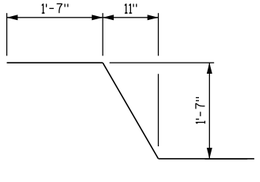

SS928*
(STAINLESS STEEL)

8

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY VJD | PLANS CK'D. JFR

SUPERSTRUCTURE DETAILS 3

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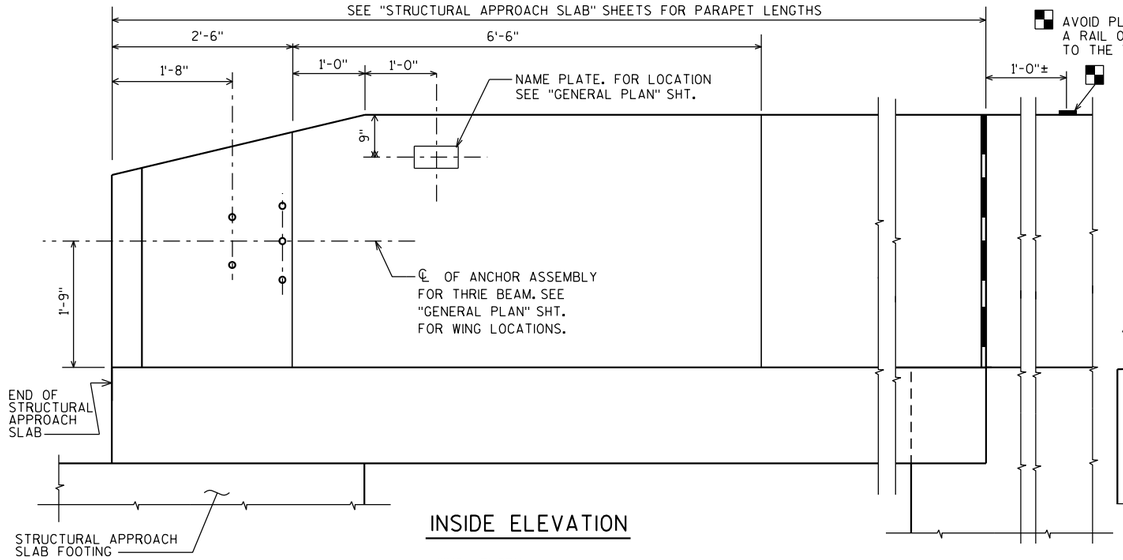
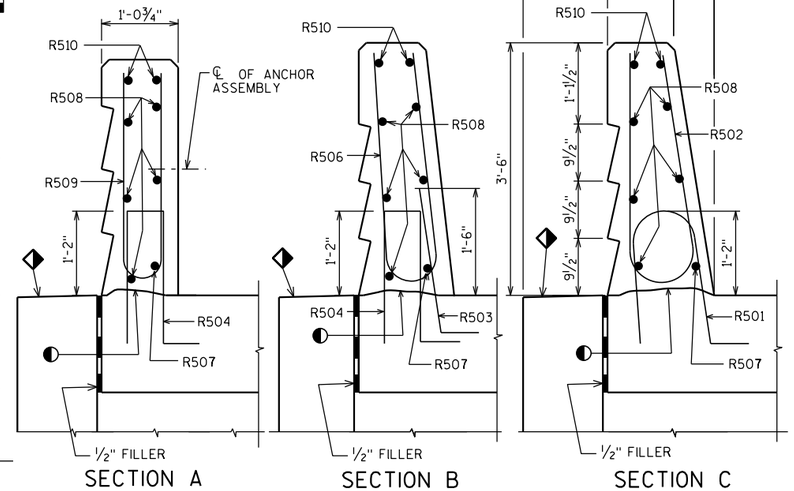
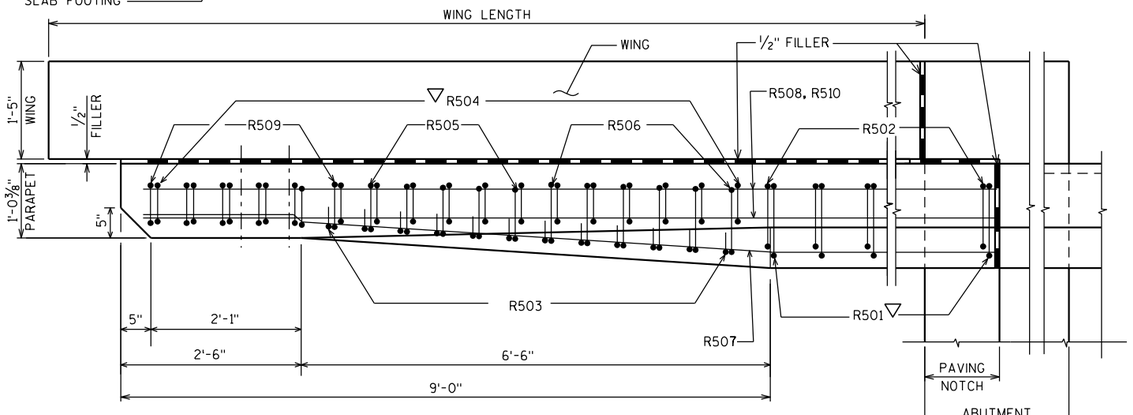
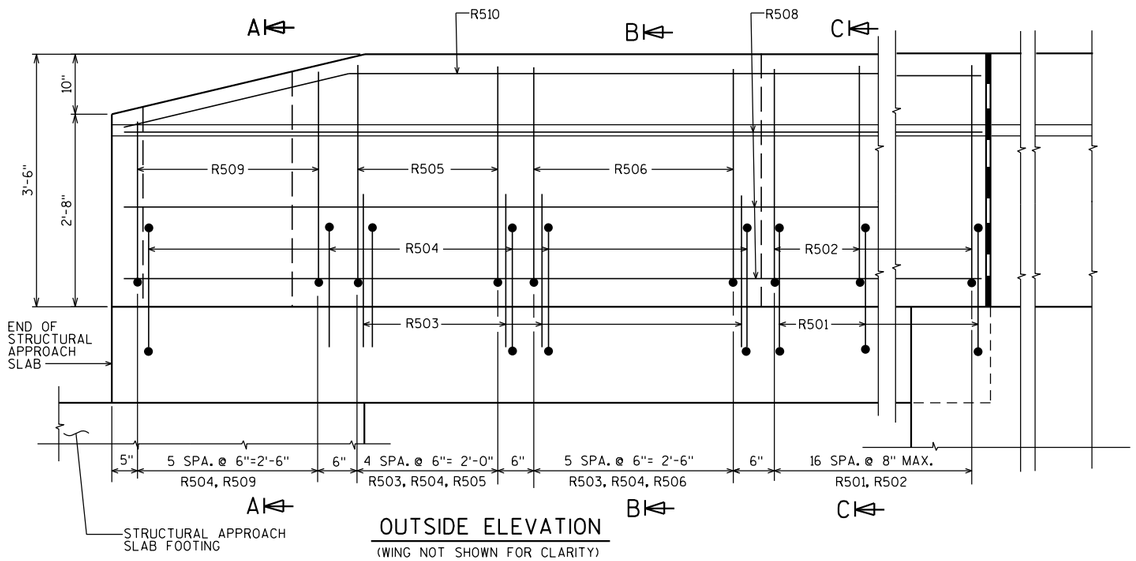


INSIDE ELEVATION



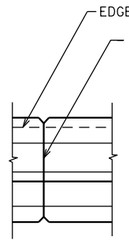


PLAN

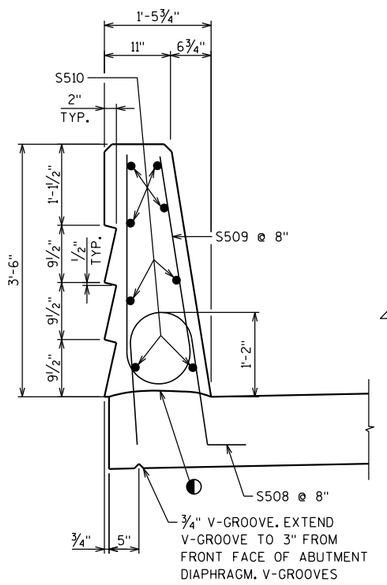


OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)



OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



SECTION THRU PARAPET ON BRIDGE

BILL OF BARS

FOR STRUCTURAL APPROACH SLAB PARAPETS

W. APPR. SLAB = 1,150 LB.
E. APPR. SLAB = 1,150 LB.

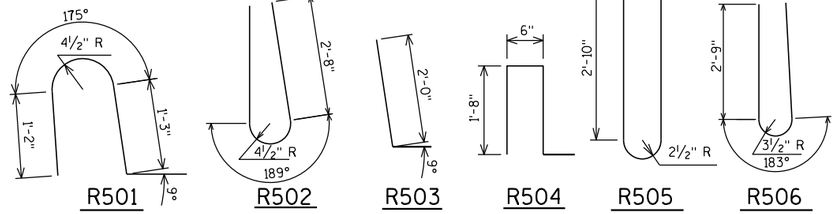
BAR MARK	COAT	W. APPR. SLAB	E. APPR. SLAB	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	34	34	4-5	X		PARAPET VERT.
R502	X	34	34	6-8	X		PARAPET VERT.
R503	X	22	22	2-9	X		PARAPET VERT.
R504	X	34	34	4-4	X		PARAPET VERT.
R505	X	10	10	6-5	X		PARAPET VERT.
R506	X	12	12	6-6	X		PARAPET VERT.
R507	X	2	2	19-6	X		PARAPET HORIZ.
R508	X	10	10	19-6			PARAPET HORIZ.
R509	X	12	12	5-5	X	⚠	PARAPET VERT.
R510	X	4	4	19-7	X		PARAPET HORIZ.

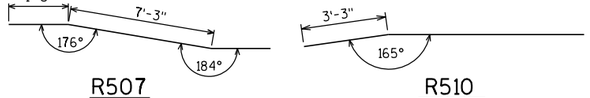
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

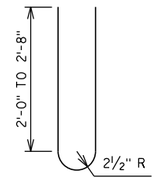
BAR SERIES TABLE

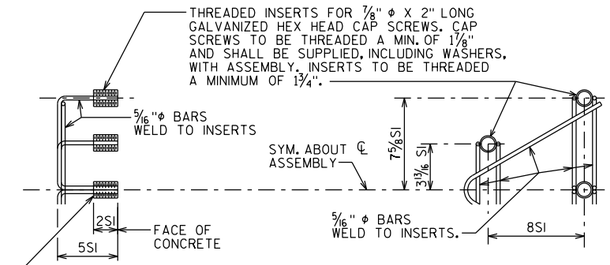
MARK	NO. REQD.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG BARS SEPARATELY.









DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◆ SLOPE FOR DRAINAGE

▽ R501 AND R504 BARS TO BE TIED TO STRUCTURAL APPROACH SLAB STEEL BEFORE STRUCTURAL APPROACH SLAB IS POURED.

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DRAWN BY NLD | PLANS CK'D. JFR

MODIFIED SINGLE SLOPE PARAPET TYPE 42SS

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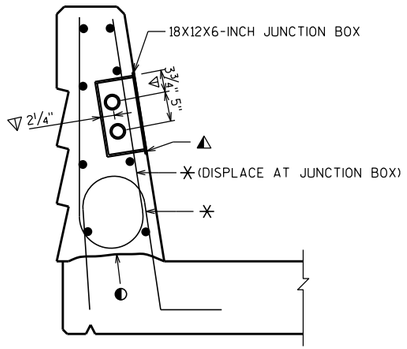
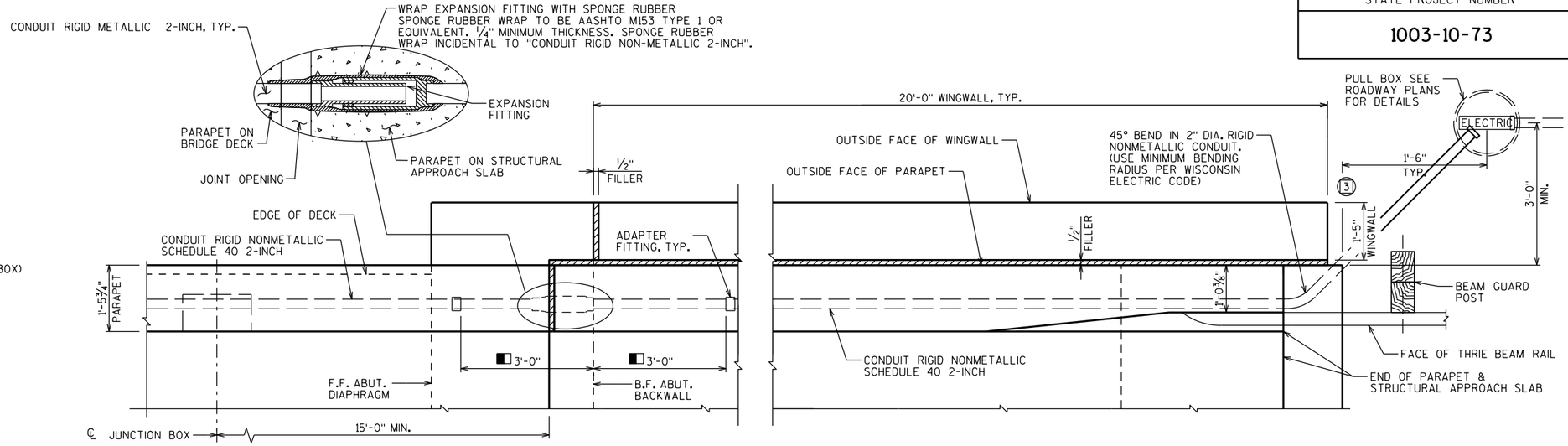
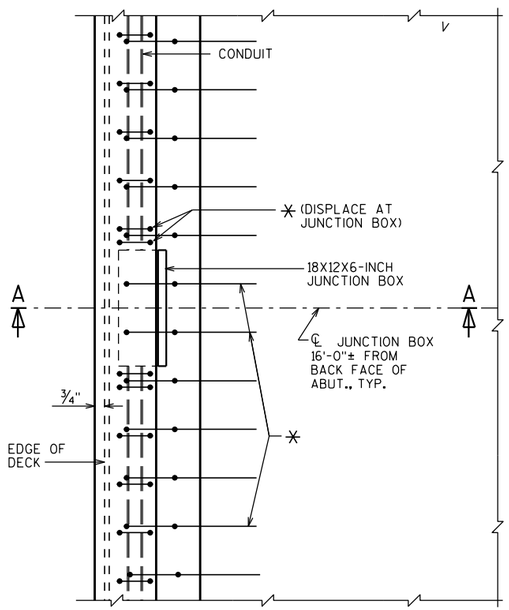


SECTION A-A

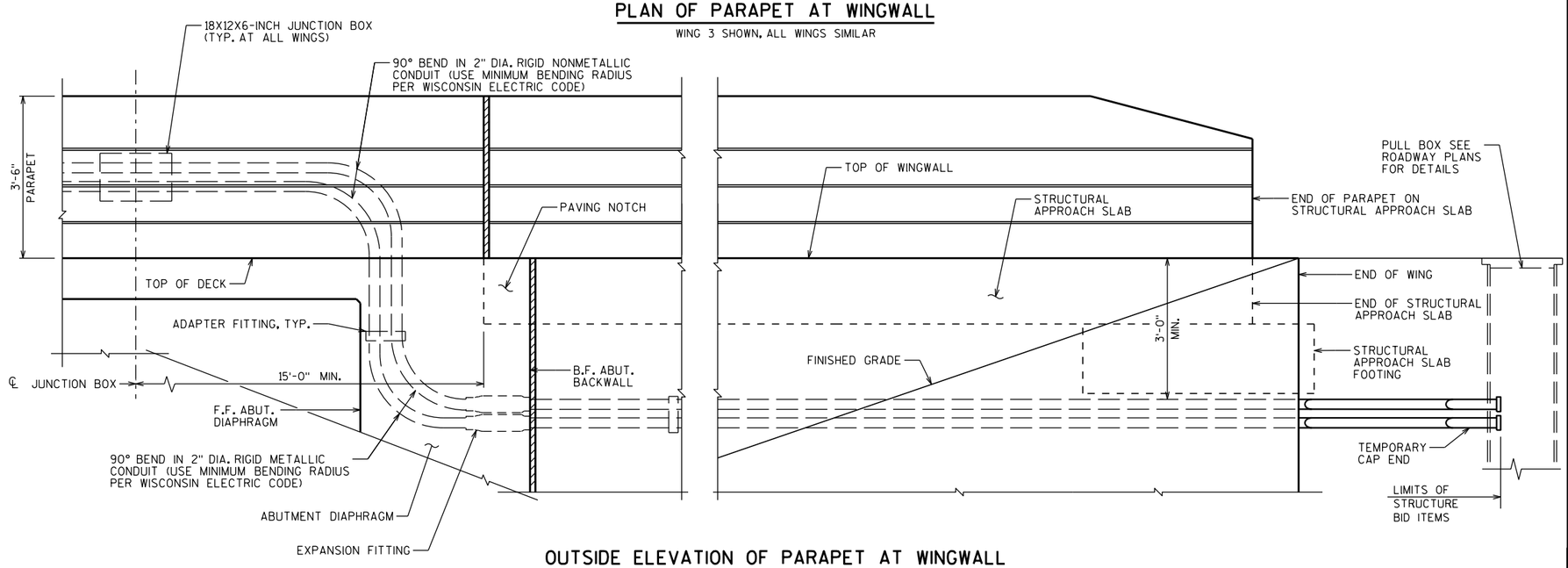


PLAN OF PARAPET AT WINGWALL

WING 3 SHOWN, ALL WINGS SIMILAR



PLAN AT JUNCTION BOX



OUTSIDE ELEVATION OF PARAPET AT WINGWALL

WINGS 1,4 SHOWN, WINGS 2,3 SIMILAR

LEGEND

- ■ USE RIGID METALLIC CONDUIT 3'-0" INTO PARAPET ON ABUTMENT AND STRUCTURE BACKFILL SIDES OF THE JOINT OPENING.
- ◐ CONST. JT. STRIKE OFF AS SHOWN
- ◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- ▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.
- ✳ SEE SINGLE SLOPE PARAPET SHEET FOR ADDITIONAL BAR STEEL DETAILS.

NOTES

1) BID ITEMS SHALL BE:

   "JUNCTION BOXES 18X12X6-INCH", EACH.
   "CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"
   "CONDUIT RIGID METALLIC 2-INCH"

2) APPROVED MANUFACTURERS - JUNCTION BOXES: SEE APPROVED MATERIAL LIST.

3) APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING: O-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

4) EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCLUDED WITH "CONDUIT RIGID METALLIC 2-INCH".

5) WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

6) TERMINATE CONDUIT AT 24"X42" PULL BOX. REFER TO ROADWAY PLAND FOR LOCATION AND DETAILS.

7) PULL BOX QUANTITIES ARE NOT INCORPORATED INTO THE STRUCTURE "TOTAL ESTIMATED QUANTITIES".

8) VERIFY PULL BOX LOCATION BEFORE DETERMINING FINAL LENGTH OF RIGID NONMETALLIC CONDUIT EXTENDING OUTSIDE OF THE STRUCTURE LIMIT.

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PARAPET "42SS" ELECTRICAL WORK

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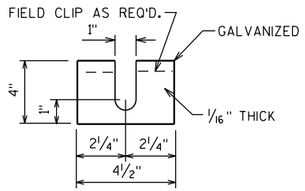
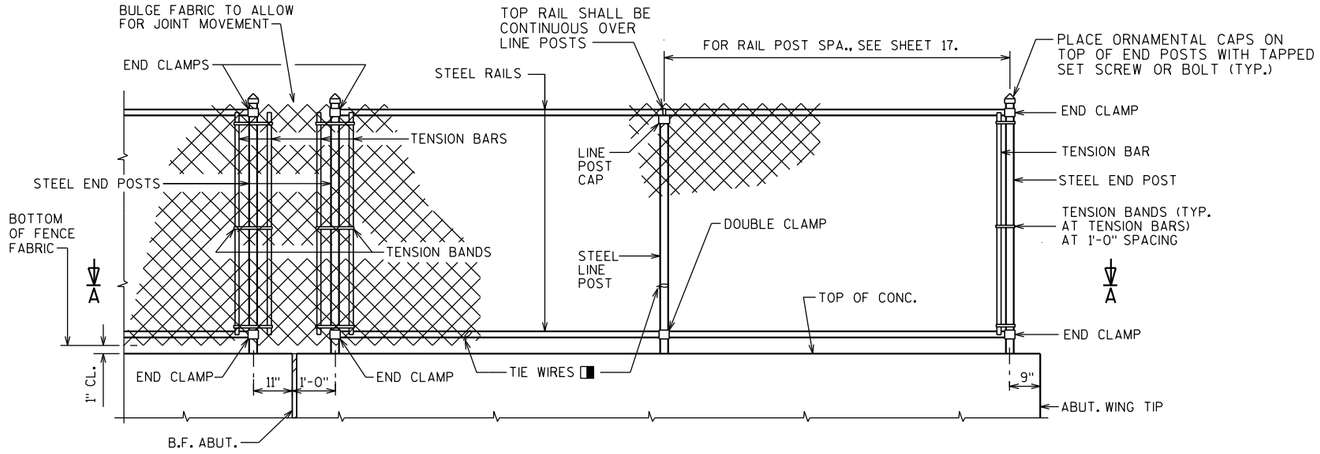
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



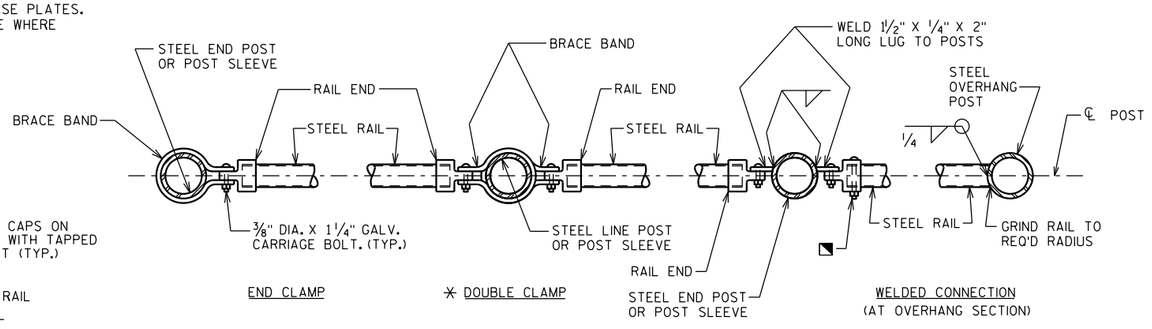
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



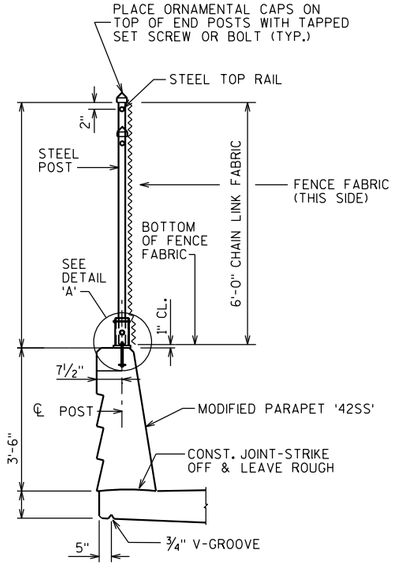
FENCE PART ELEVATION

VIEWING FABRIC SIDE

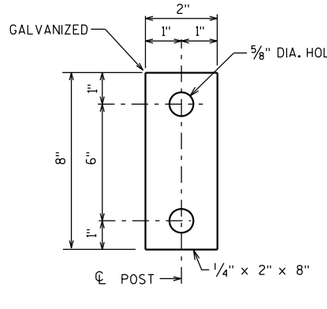


SECTION A-A

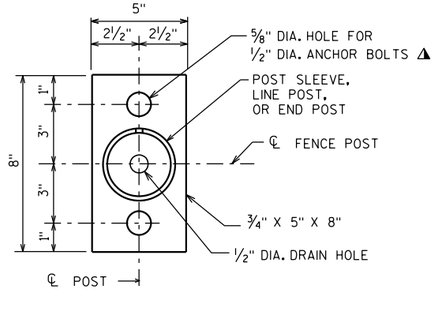
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



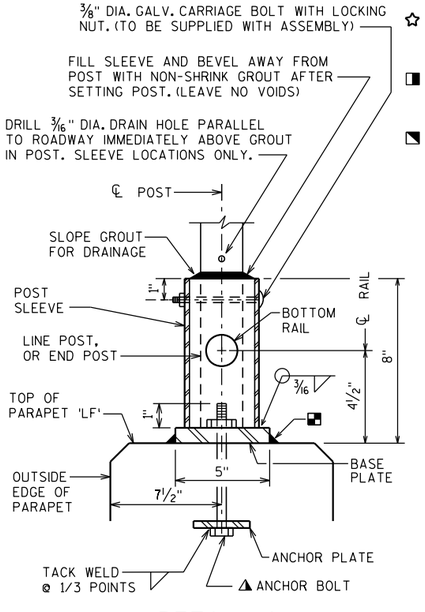
SECTION THRU FENCE



ANCHOR PLATE



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL MATCH FEDERAL COLOR NO. 30140. FABRIC, RAIL, AND TIE SAMPLES SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

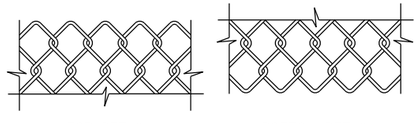
⚠ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S 1/2-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

◹ BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY NLD | PLANS CK'D. JFR

CHAIN LINK FENCE DETAILS

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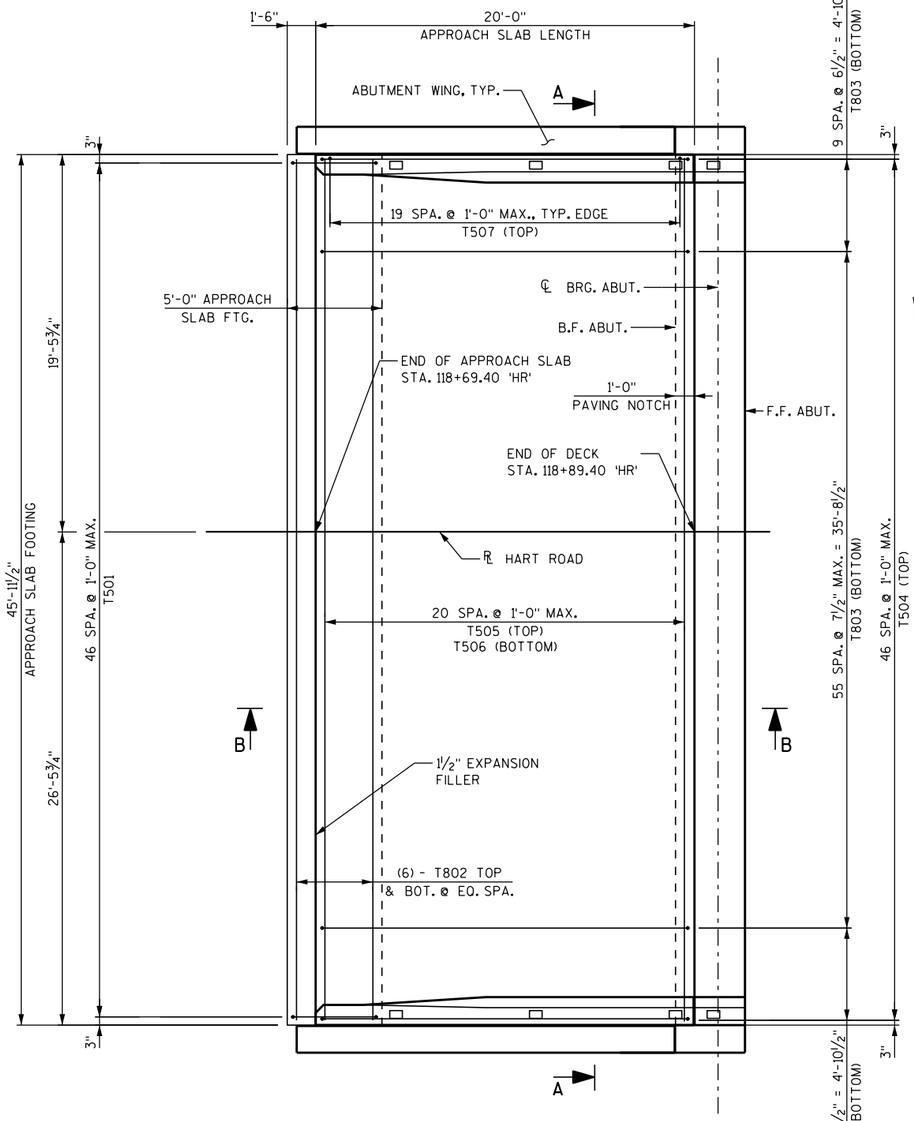
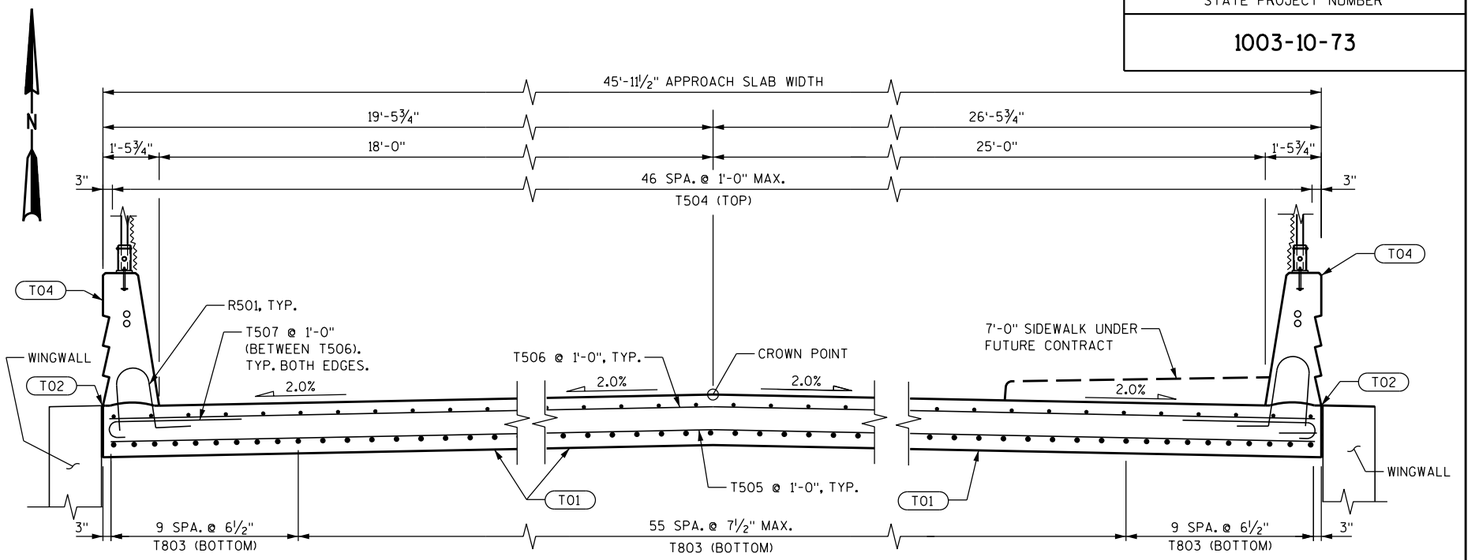


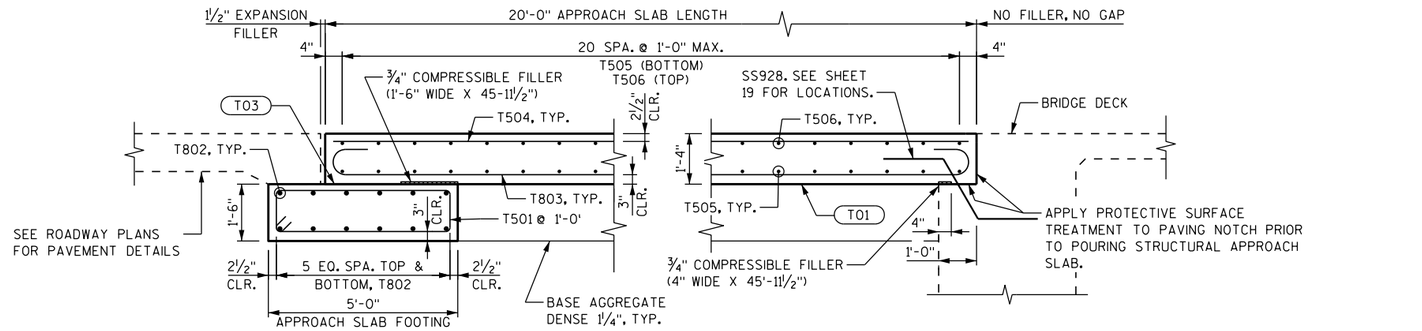
PLAN

(WEST STRUCTURAL APPROACH SLAB SHOWN, EAST STRUCTURAL APPROACH SLAB SIMILAR)



SECTION A-A

(LOOKING EAST)



SECTION B-B

(LOOKING NORTH)

LEGEND

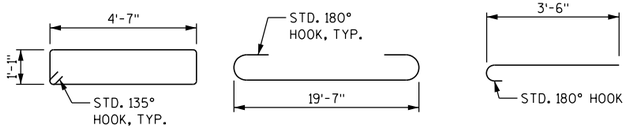
- (T01) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF SUBGRADE.
- (T02) SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF ½" FILLER WITH NON-STAINING, GRAY, BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (T03) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LATERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE LENGTH OF THE FOOTING.
- (T04) FOR PARAPET REINFORCEMENT, SEE SHEET 21.

BILL OF BARS
BOTH STRUCTURAL APPROACH SLABS

COATED = 18640 LBS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
T501	X	94	11'-11"		X	APPROACH SLAB FOOTING - STIRRUP
T802	X	24	45'-6"			APPROACH SLAB FOOTING - TRANSVERSE
T803	X	152	20'-6"		X	APPROACH SLAB LONGITUDINAL - BOTTOM
T504	X	94	19'-7"			APPROACH SLAB LONGITUDINAL - TOP
T505	X	42	45'-5"			APPROACH SLAB TRANSVERSE - BOTTOM
T506	X	42	45'-5"			APPROACH SLAB TRANSVERSE - TOP
T507	X	80	4'-1"		X	APPROACH SLAB TRANSVERSE EDGE

THE FIRST DIGIT OF A BARK MARK SIGNIFIES THE BAR SIZE
ALL BAR BEND DIMENSIONS ARE OUT-TO-OUT OF BAR.



T501 T803 T507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

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STRUCTURAL APPROACH SLAB

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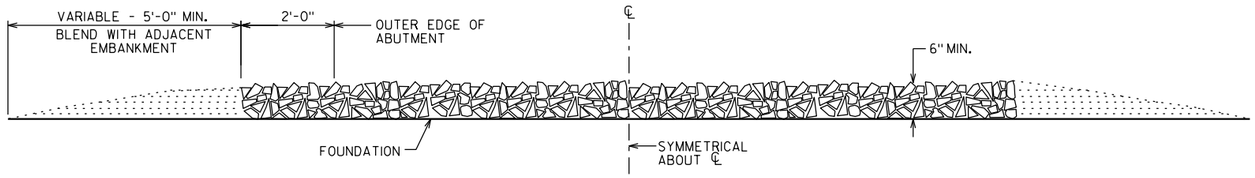
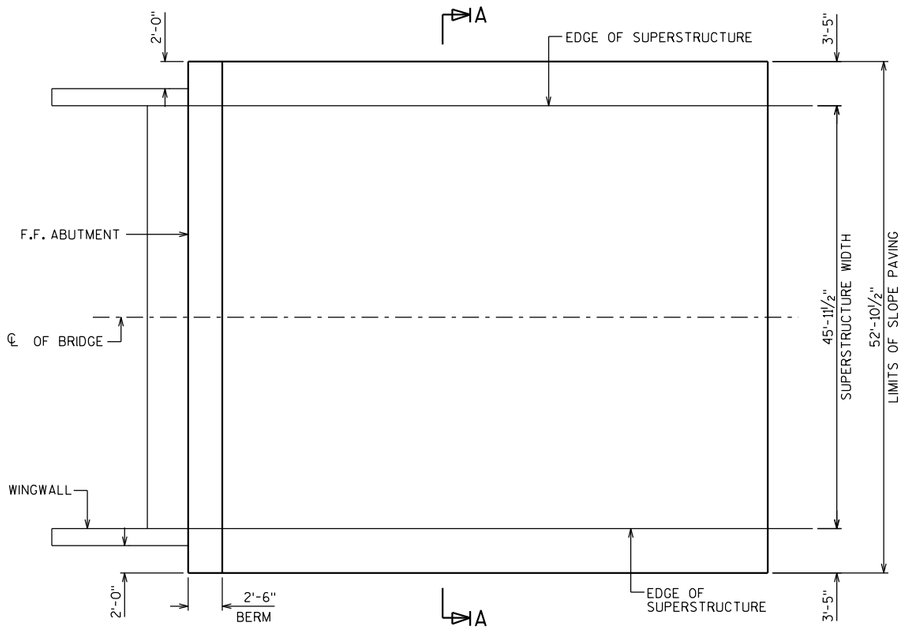
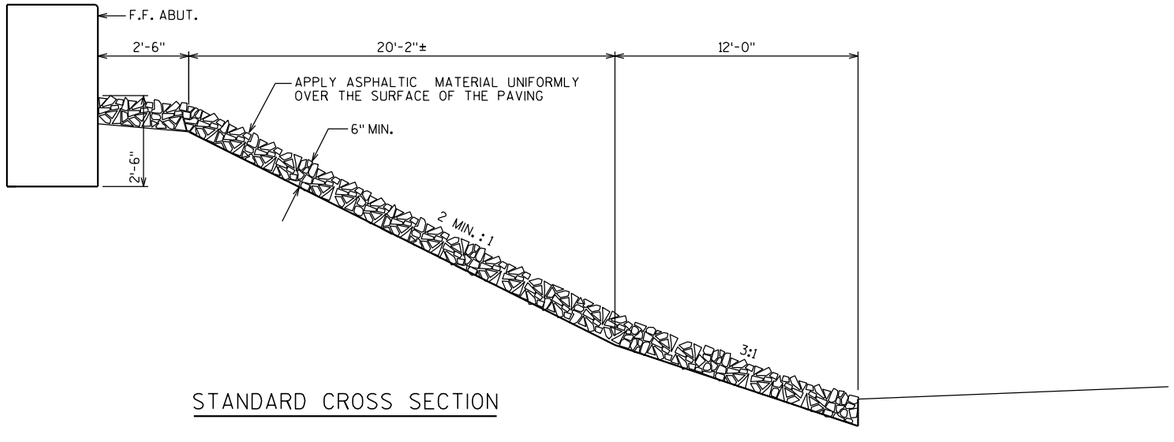


SECTION A-A



PLAN



STANDARD CROSS SECTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

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SLOPE PAVING CRUSHED AGGREGATE

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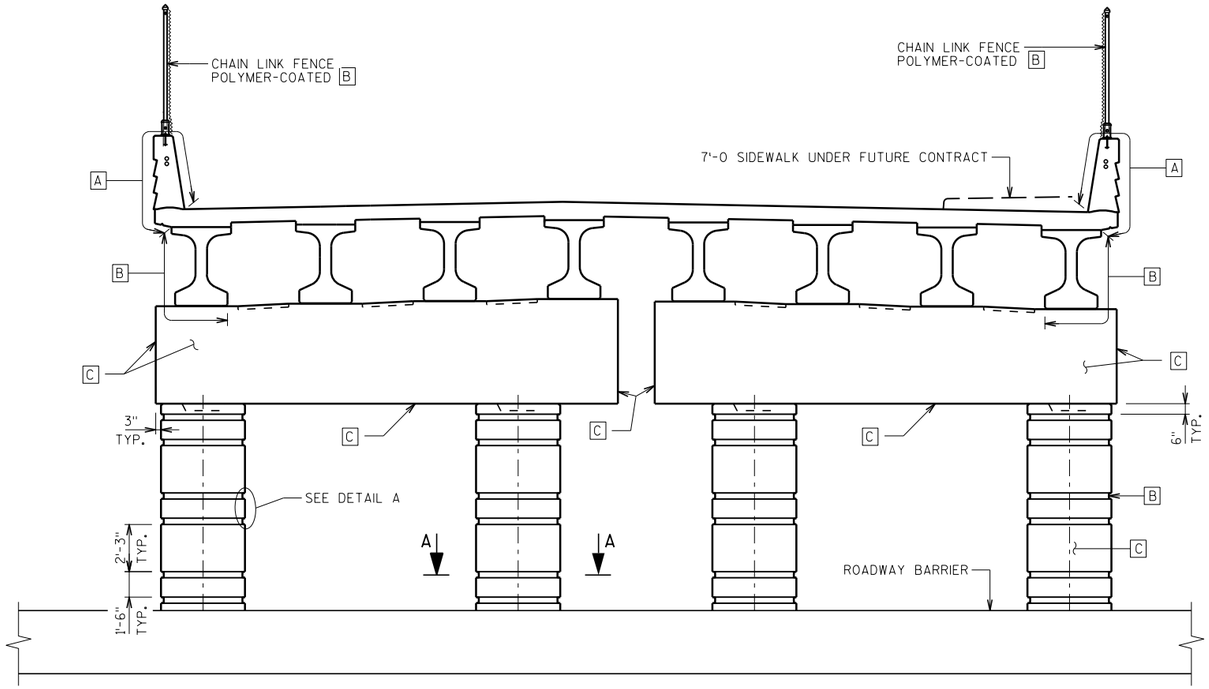
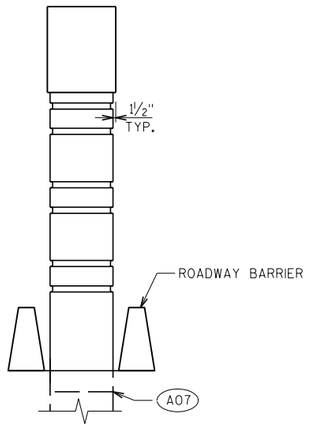


TYPICAL PIER ELEVATION



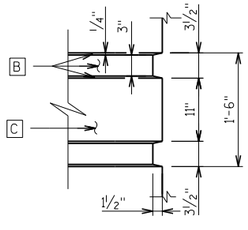
PIER END VIEW

NOTES & LEGEND

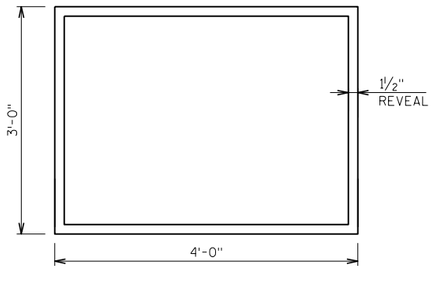
- (A02) HORIZONTAL CONSTRUCTION JOINT STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- (A03) 2-2" DIA. RIGID CONDUIT TYPICAL IN ALL PARAPETS. USE NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING AT WING WALL JOINT. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 5'-0" INTO PARAPET ON DECK SIDE.
- (A04) PARAPETS ARE TO BE STAINED FEDERAL COLOR NO. 36642. STAIN ALL SIDES OF PARAPET.
- (A05) PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE.
- (A06) PIGMENTED PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO TOP AND INSIDE FACE OF PARAPET.
- (A07) STAIN TO 1'-0" BELOW FINISHED GRADE.

CONCRETE STAINING SCHEDULE

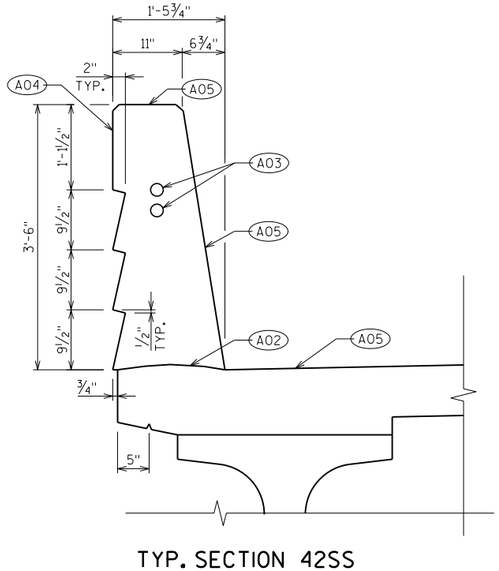
MARK	FEDERAL COLOR NO.	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT, AND WINGWALL
D	27038	ROADWAY NAME LETTERING



DETAIL A



SECTION A-A



TYP. SECTION 42SS
MODIFIED PARAPET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY NLD | PLANS CK'D. JFR

AESTHETIC DETAILS 1

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STATE PROJECT NUMBER

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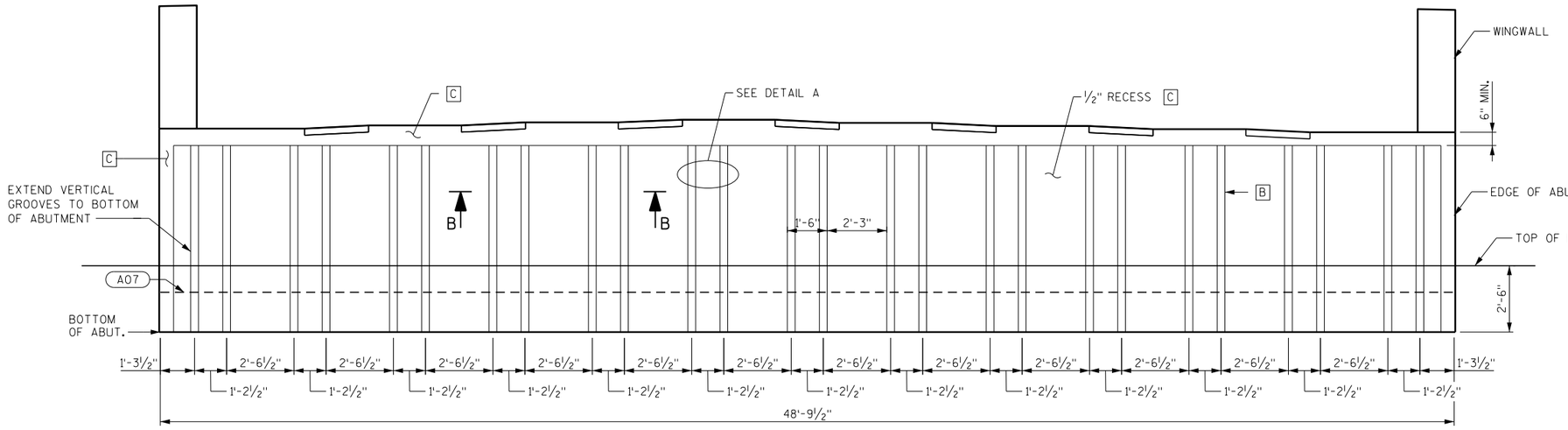


NOTES & LEGEND

LETTERING IS ONLY ON OUTSIDE FACE OF PARAPET.

ROAD NAME IN PARAPET SHOULD BE CENTERED OVER APPROACHING LANES.

FORMING LETTERING INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES".

(A01) LETTERING SHALL BE 1" WIDE X 1½" DEEP HELVETICA, 8" UPPER CASE AND 6" LOWER CASE. SPACE WORDS USING 1 LETTER SPACE.

(A02) HORIZONTAL CONSTRUCTION JOINT STRIKE OFF AS SHOWN AND LEAVE ROUGH.

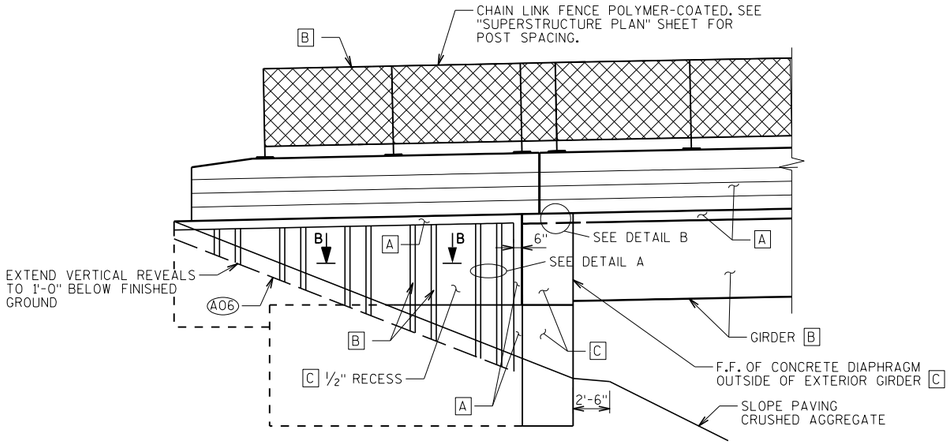
(A03) (2) - 2" DIA. RIGID CONDUIT TYPICAL IN ALL PARAPETS. USE NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING AT WING WALL JOINT. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 3'-0" INTO ABUTMENT AND STRUCTURE BACKFILL SIDES OF THE JOINT OPENING.

(A04) PARAPETS ARE TO BE STAINED FEDERAL COLOR NO. 36642. STAIN ALL SIDES OF PARAPET.

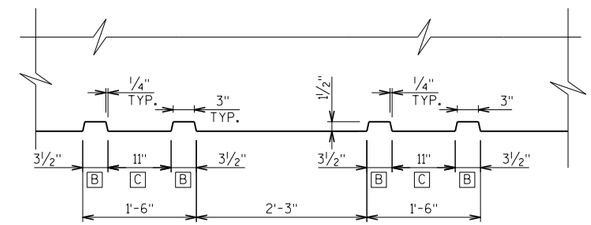
(A05) PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE.

(A06) PIGMENTED PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP AND INSIDE FACE PARAPET.

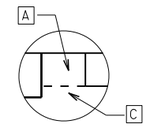
(A07) STAIN TO 1'-0" BELOW FINISHED GRADE.



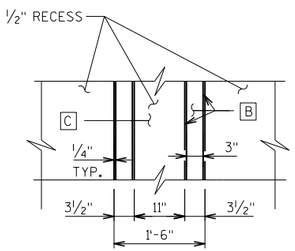
TYPICAL WINGWALL



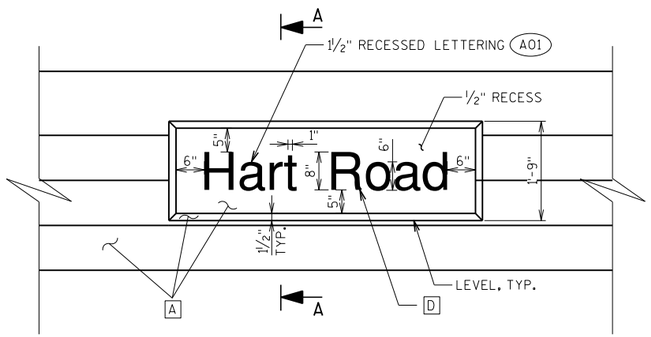
SECTION B-B



DETAIL B

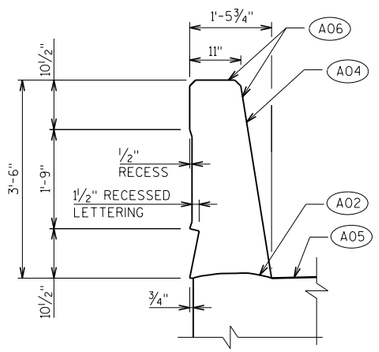


DETAIL A



INDENTED TEXT

EXTERIOR FACE OF PARAPET ONLY



SECTION A-A

CONCRETE STAINING SCHEDULE

MARK	FEDERAL COLOR NO.	LOCATION
A	36642	PARAPET, EDGE OF DECK, WINGWALLS
B	30140	EXTERIOR GIRDER, REVEALS, FENCING
C	30372	PIER, ABUTMENT, AND WINGWALL
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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-53-312

DRAWN BY NLD | PLANS CK'D. JFR

AESTHETIC DETAILS 2

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PROJECT ID: 1003-10-73
DIVISION 1 - HART ROAD

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
108+00 HR	10800.00	0.00	8.43	16.57	152.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108+29	10829.00	29.00	11.26	14.33	148.62	0.00	10.57	16.59	161.88	0.00	10.57	16.59	161.88	0.00	-6.02
108+50	10850.00	21.00	11.31	14.09	144.42	0.00	8.78	11.05	113.96	0.00	19.35	27.65	275.84	0.00	-8.30
109+00	10900.00	50.00	13.20	11.99	136.82	0.00	22.69	24.15	260.41	0.00	42.05	51.79	536.25	0.00	-9.75
109+50	10950.00	50.00	49.79	1.29	105.29	0.00	58.32	12.30	224.18	0.00	100.37	64.09	760.43	0.00	36.28
110+00	11000.00	50.00	86.91	0	74.57	0.00	126.57	1.19	166.54	0.00	226.94	65.29	926.97	0.00	161.66
110+50	11050.00	50.00	91.91	0	108.92	0.00	165.57	0.00	169.90	0.00	392.52	65.29	1096.87	0.00	327.23
111+00	11100.00	50.00	38.10	9.18	143.26	0.00	120.38	8.50	233.50	0.00	512.90	73.79	1330.37	0.00	439.11
111+50	11150.00	50.00	29.11	6.37	162.56	0.00	62.23	14.40	283.17	0.00	575.13	88.18	1613.54	0.00	486.95
112+00	11200.00	50.00	9.08	69.32	181.86	0.00	35.36	70.08	318.91	0.00	610.49	158.27	1932.45	0.00	452.22
112+25	11225.00	25.00	27.72	135.67	0.00	0.00	17.04	94.90	84.19	0.00	627.53	253.17	2016.64	0.00	374.36
112+50	11250.00	25.00	2.60	258.42	0.00	0.00	14.04	182.45	0.00	0.00	641.56	435.62	2016.64	0.00	205.95
113+00	11300.00	50.00	0.00	454.49	0.00	0.00	2.41	660.10	0.00	0.00	643.97	1095.72	2016.64	0.00	-451.75
113+50	11350.00	50.00	0.00	668.86	0.00	0.00	0.00	1040.14	0.00	0.00	643.97	2135.86	2016.64	0.00	-1491.89
113+60	11360.00	10.00	0.02	635.95	0.00	0.00	0.00	241.63	0.00	0.00	643.98	2377.49	2016.64	0.00	-1733.52
114+00	11400.00	40.00	0.00	710.59	0.00	0.00	0.01	997.44	0.00	0.00	643.99	3374.93	2016.64	0.00	-2730.94
114+50	11450.00	50.00	0.04	829.63	0.00	0.00	0.04	1426.13	0.00	0.00	644.03	4801.06	2016.64	0.00	-4157.03
115+00	11500.00	50.00	0.00	934.98	0.00	0.00	0.04	1633.90	0.00	0.00	644.06	6434.96	2016.64	0.00	-5790.89
115+50	11550.00	50.00	0.00	1011.16	0.00	0.00	0.00	1801.98	0.00	0.00	644.06	8236.94	2016.64	0.00	-7592.87
116+00	11600.00	50.00	0.00	1012.02	0.00	0.00	0.00	1873.31	0.00	0.00	644.06	10110.25	2016.64	0.00	-9466.19
116+50	11650.00	50.00	0.03	1016.73	0.00	0.00	0.03	1878.47	0.00	0.00	644.09	11988.72	2016.64	0.00	-11344.63
117+00	11700.00	50.00	0.01	1120.35	0.00	0.00	0.04	1978.78	0.00	0.00	644.13	13967.50	2016.64	0.00	-13323.37
117+32	11731.71	31.71	0.00	1078.38	0.00	0.00	0.01	1291.14	0.00	0.00	644.14	15258.65	2016.64	0.00	-14614.51
117+50	11750.00	18.29	0.00	1072.14	0.00	0.00	0.00	728.39	0.00	0.00	644.14	15987.03	2016.64	0.00	-15342.90
117+57	11756.71	6.71	0.00	988.53	0.00	0.00	0.00	256.06	0.00	0.00	644.14	16243.09	2016.64	0.00	-15598.96
117+60	11759.83	3.12	0.00	905.74	0.00	0.00	0.00	109.45	0.00	0.00	644.14	16352.54	2016.64	0.00	-15708.40
117+82	11781.71	21.88	0.21	868.27	0.00	0.00	0.09	718.80	0.00	0.00	644.22	17071.34	2016.64	0.00	-16427.12
117+85	11784.83	3.12	0.29	871.41	0.00	0.00	0.03	100.51	0.00	0.00	644.25	17171.86	2016.64	0.00	-16527.61
118+00	11800.00	15.17	0.00	891.98	0.00	0.00	0.08	495.38	0.00	0.00	644.33	17667.24	2016.64	0.00	-17022.91
118+10	11809.83	9.83	0.00	910.58	0.00	0.00	0.00	328.13	0.00	0.00	644.33	17995.37	2016.64	0.00	-17351.04
118+50	11850.00	40.17	0.09	687.43	0.00	0.00	0.07	1188.74	0.00	0.00	644.40	19184.11	2016.64	0.00	-18539.71
118+69	11869.40	19.40	0.09	640.56	0.00	0.00	0.06	477.09	0.00	0.00	644.46	19661.21	2016.64	0.00	-19016.74
121+44	12143.90	0.00	1.64	1133.32	0.00	0.00	0.00	0.00	0.00	0.00	644.46	19661.21	2016.64	0.00	-19016.74
122+00	12200.00	56.10	1.81	1704.95	0.00	0.00	3.58	2948.65	0.00	0.00	648.05	22609.85	2016.64	0.00	-21961.81
122+03	12203.47	3.47	1.75	1718.36	0.00	0.00	0.23	219.98	0.00	0.00	648.28	22829.83	2016.64	0.00	-22181.56
122+28	12228.47	25.00	0.73	1843.06	0.00	0.00	1.15	1648.81	0.00	0.00	649.42	24478.64	2016.64	0.00	-23829.21
122+50	12250.00	21.53	0.50	1956.44	0.00	0.00	0.49	1514.87	0.00	0.00	649.91	25993.51	2016.64	0.00	-25343.60
122+53	12253.47	3.47	0.74	2037.72	0.00	0.00	0.08	256.66	0.00	0.00	649.99	26250.17	2016.64	0.00	-25600.18
122+69	12269.09	15.62	0.32	2288.25	0.00	0.00	0.31	1251.33	0.00	0.00	650.30	27501.50	2016.64	0.00	-26851.20
122+94	12294.09	25.00	0.06	2345.84	0.00	0.00	0.18	2145.41	0.00	0.00	650.48	29646.91	2016.64	0.00	-28996.44
123+00	12300.00	5.91	0.04	2367.91	0.00	0.00	0.01	515.89	0.00	0.00	650.49	30162.81	2016.64	0.00	-29512.32
123+19	12319.09	19.09	0.22	2440.03	0.00	0.00	0.09	1699.70	0.00	0.00	650.58	31862.50	2016.64	0.00	-31211.92
123+50	12350.00	30.91	0.04	2621.71	0.00	0.00	0.15	2897.38	0.00	0.00	650.73	34759.88	2016.64	0.00	-34109.15
124+00	12400.00	50.00	0.88	2642.16	0.00	0.00	0.85	4873.95	0.00	0.00	651.58	39633.83	2016.64	0.00	-38982.25
124+00	12400.01	0.01	0.85	2642.48	0.00	0.00	0.00	0.98	0.00	0.00	651.58	39634.81	2016.64	0.00	-38983.23

124+50	12450.00	49.99	6.79	2355.93	0.00	0.00	7.07	4627.23	0.00	0.00	658.65	44262.04	2016.64	0.00	-43603.39
125+00	12500.00	50.00	21.04	2579.48	0.00	0.00	25.77	4569.82	0.00	0.00	684.42	48831.87	2016.64	0.00	-48147.45
125+50	12550.00	50.00	20.93	2478.47	0.00	0.00	38.86	4683.29	0.00	0.00	723.28	53515.15	2016.64	0.00	-52791.87
125+75	12575.00	25.00	21.83	2452.55	0.00	0.00	19.80	2282.88	0.00	0.00	743.08	55798.03	2016.64	0.00	-55054.96
126+00	12600.00	25.00	22.15	2349.69	0.00	0.00	20.36	2223.26	0.00	0.00	763.44	58021.29	2016.64	0.00	-57257.85
126+50	12650.00	50.00	24.15	2123.59	0.00	0.00	42.87	4141.93	0.00	0.00	806.31	62163.22	2016.64	0.00	-61356.91
127+00	12700.00	50.00	13.64	1874.81	0.00	0.00	34.99	3702.22	0.00	0.00	841.30	65865.44	2016.64	0.00	-65024.14
127+50	12750.00	50.00	11.35	1680.12	0.00	0.00	23.14	3291.60	0.00	0.00	864.44	69157.04	2016.64	0.00	-68292.60
128+00	12800.00	50.00	9.53	1411.05	0.00	0.00	19.33	2862.19	0.00	0.00	883.77	72019.24	2016.64	0.00	-71135.47
128+50	12850.00	50.00	8.22	1160.3	0.00	0.00	16.44	2380.88	0.00	0.00	900.21	74400.12	2016.64	0.00	-73499.91
129+00	12900.00	50.00	7.32	940.8	0.00	0.00	14.39	1945.46	0.00	0.00	914.60	76345.58	2016.64	0.00	-75430.98
129+50	12950.00	50.00	4.62	775.65	0.00	0.00	11.06	1589.31	0.00	0.00	925.65	77934.89	2016.64	0.00	-77009.23
130+00	13000.00	50.00	8.42	608.6	0.00	0.00	12.07	1281.71	0.00	0.00	937.73	79216.60	2016.64	0.00	-78278.87
130+50	13050.00	50.00	6.95	526.69	0.00	0.00	14.23	1051.19	0.00	0.00	951.96	80267.79	2016.64	0.00	-79315.84
131+00	13100.00	50.00	82.93	416.52	0.00	0.00	83.22	873.34	0.00	0.00	1035.18	81141.14	2016.64	0.00	-80105.96
131+50	13150.00	50.00	81.47	362.92	0.00	0.00	152.22	721.70	0.00	0.00	1187.40	81862.84	2016.64	0.00	-80675.44
132+00	13200.00	50.00	79.31	280.42	0.00	0.00	148.87	595.69	0.00	0.00	1336.27	82458.53	2016.64	0.00	-81122.25
132+50	13250.00	50.00	52.67	247.37	0.00	0.00	122.20	488.69	0.00	0.00	1458.48	82947.22	2016.64	0.00	-81488.74
133+00	13300.00	50.00	65.43	204.86	264.56	0.00	109.35	418.73	244.96	0.00	1567.83	83365.95	2261.60	0.00	-81798.12
133+50	13350.00	50.00	130.94	168.62	272.49	0.00	181.82	345.81	497.27	0.00	1749.65	83711.77	2758.87	0.00	-81962.11
134+00	13400.00	50.00	148.95	199.9	280.42	0.00	259.16	341.22	511.95	0.00	2008.81	84052.99	3270.82	0.00	-82044.18
134+50	13450.00	50.00	76.10	166.17	269.75	0.00	208.38	338.95	509.42	0.00	2217.19	84391.94	3780.24	0.00	-82174.75
135+00	13500.00	50.00	59.94	147.04	259.08	0.00	125.96	290.01	489.66	0.00	2343.15	84681.95	4269.90	0.00	-82338.80
135+50	13550.00	50.00	52.30	116.36	247.64	0.00	103.93	243.89	469.19	0.00	2447.08	84925.84	4739.09	0.00	-82478.76
136+00	13600.00	50.00	47.00	101.85	235.84	0.00	91.94	202.05	447.67	0.00	2539.02	85127.89	5186.76	0.00	-82588.86
136+50	13650.00	50.00	36.89	86.45	258.10	0.00	77.68	174.35	457.35	0.00	2616.70	85302.24	5644.11	0.00	-82685.54
137+00	13700.00	50.00	23.73	72.79	280.37	0.00	56.13	147.44	498.58	0.00	2672.83	85449.68	6142.69	0.00	-82776.85
137+00	13700.00	0.00	23.68	72.79	0.00	0.00	0.00	0.00	0.00	0.00	2672.83	85449.68	6142.69	0.00	-82776.85
137+50	13750.00	50.00	12.26	51.07	254.28	0.00	33.28	114.69	235.44	0.00	2706.11	85564.37	6378.13	0.00	-82858.26
138+00	13800.00	50.00	7.32	36.02	228.19	0.00	18.13	80.64	446.73	0.00	2724.24	85645.01	6824.86	0.00	-82920.77
138+50	13850.00	50.00	3.74	49.25	225.55	0.00	10.24	78.95	420.13	0.00	2734.48	85723.96	7244.99	0.00	-82989.48
139+00	13900.00	50.00	1.90	54.54	222.91	0.00	5.22	96.10	415.24	0.00	2739.70	85820.06	7660.23	0.00	-83080.36
						Column totals	2739.70	85820.06	7660.22	0.00		66636.06			

PROJECT ID: 1003-10-73
DIVISION 2 - QUARRY DRIVE

STATION	Real Station	Distance	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
			Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Cut	Fill	EBS	Structure Excavation	Cut	Fill	EBS	Structure Excavation	
1026+77 QD	102677.00	0.00	154.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1027+00	102700.00	23.00	138.96	0.00	0.00	0.00	124.88	0.00	0.00	0.00	124.88	0.00	0.00	0.00	124.88
1027+50	102750.00	50.00	51.03	2.04	0.00	0.00	175.92	1.89	0.00	0.00	300.79	1.89	0.00	0.00	298.91
1028+00	102800.00	50.00	0.04	58.11	0.00	0.00	47.29	55.69	0.00	0.00	348.08	57.58	0.00	0.00	290.50
1028+12	102812.06	12.06	0.00	81.56	0.00	0.00	0.01	31.19	0.00	0.00	348.09	88.78	0.00	0.00	259.31
1028+21	102821.11	9.05	0.00	90.18	0.00	0.00	0.00	28.78	0.00	0.00	348.09	117.56	0.00	0.00	230.53
1028+30	102830.16	9.05	0.00	97.10	0.00	0.00	0.00	31.39	0.00	0.00	348.09	148.95	0.00	0.00	199.14
1028+50	102850.00	19.84	0.00	112.89	0.00	0.00	0.00	77.15	0.00	0.00	348.09	226.10	0.00	0.00	121.99
1029+00	102900.00	50.00	0.00	135.16	0.00	0.00	0.00	229.68	0.00	0.00	348.09	455.77	0.00	0.00	-107.68
1029+50	102950.00	50.00	0.00	135.82	0.00	0.00	0.00	250.91	0.00	0.00	348.09	706.68	0.00	0.00	-358.59
1029+68	102967.96	17.96	0.00	129.10	0.00	0.00	0.00	88.11	0.00	0.00	348.09	794.79	0.00	0.00	-446.70
1029+97	102996.55	28.59	34.66	122.20	0.00	0.00	18.35	133.05	0.00	0.00	366.44	927.84	0.00	0.00	-561.40
1030+00	103000.00	3.45	39.63	119.30	0.00	0.00	4.75	15.43	0.00	0.00	371.19	943.27	0.00	0.00	-572.08
1030+25	103025.14	25.14	76.84	82.63	0.00	0.00	54.22	94.01	0.00	0.00	425.41	1037.28	0.00	0.00	-611.87
1030+50	103050.00	24.86	78.52	2.17	0.00	0.00	71.52	39.04	0.00	0.00	496.93	1076.32	0.00	0.00	-579.39
1031+00	103100.00	50.00	0.00	274.19	0.00	0.00	72.70	255.89	0.00	0.00	569.64	1332.21	0.00	0.00	-762.57
1031+50	103150.00	50.00	0.00	255.51	0.00	0.00	0.00	490.46	0.00	0.00	569.64	1822.67	0.00	0.00	-1253.03
1031+58	103158.09	8.09	0.00	248.85	0.00	0.00	0.00	75.56	0.00	0.00	569.64	1898.23	0.00	0.00	-1328.59
1031+85	103184.55	26.46	0.00	225.85	0.00	0.00	0.00	232.60	0.00	0.00	569.64	2130.83	0.00	0.00	-1561.20
1032+00	103200.00	15.45	0.00	213.17	0.00	0.00	0.00	125.61	0.00	0.00	569.64	2256.44	0.00	0.00	-1686.81
1032+11	103211.02	11.02	0.00	204.74	0.00	0.00	0.00	85.28	0.00	0.00	569.64	2341.73	0.00	0.00	-1772.09
1032+50	103250.00	38.98	0.00	179.75	0.00	0.00	0.00	277.54	0.00	0.00	569.64	2619.27	0.00	0.00	-2049.64
1032+71	103271.05	21.05	0.00	167.72	0.00	0.00	0.00	135.45	0.00	0.00	569.64	2754.72	0.00	0.00	-2185.08
1032+95	103295.38	24.33	0.00	153.22	0.00	0.00	0.00	144.60	0.00	0.00	569.64	2899.32	0.00	0.00	-2329.69
1033+00	103300.00	4.62	0.00	150.45	0.00	0.00	0.00	25.98	0.00	0.00	569.64	2925.30	0.00	0.00	-2355.67
1033+50	103350.00	50.00	0.00	118.59	0.00	0.00	0.00	249.11	0.00	0.00	569.64	3174.41	0.00	0.00	-2604.78
1033+60	103359.61	9.61	0.90	103.61	0.00	0.00	0.16	39.54	0.00	0.00	569.80	3213.96	0.00	0.00	-2644.16
1034+00	103400.00	40.39	188.05	0.00	0.00	0.00	141.33	77.50	0.00	0.00	711.12	3291.45	0.00	0.00	-2580.33
						Column totals	711.12	3291.45	0.00	0.00					

PROJECT ID: 1003-10-73
DIVISION 3 - IH 39 WIDENING

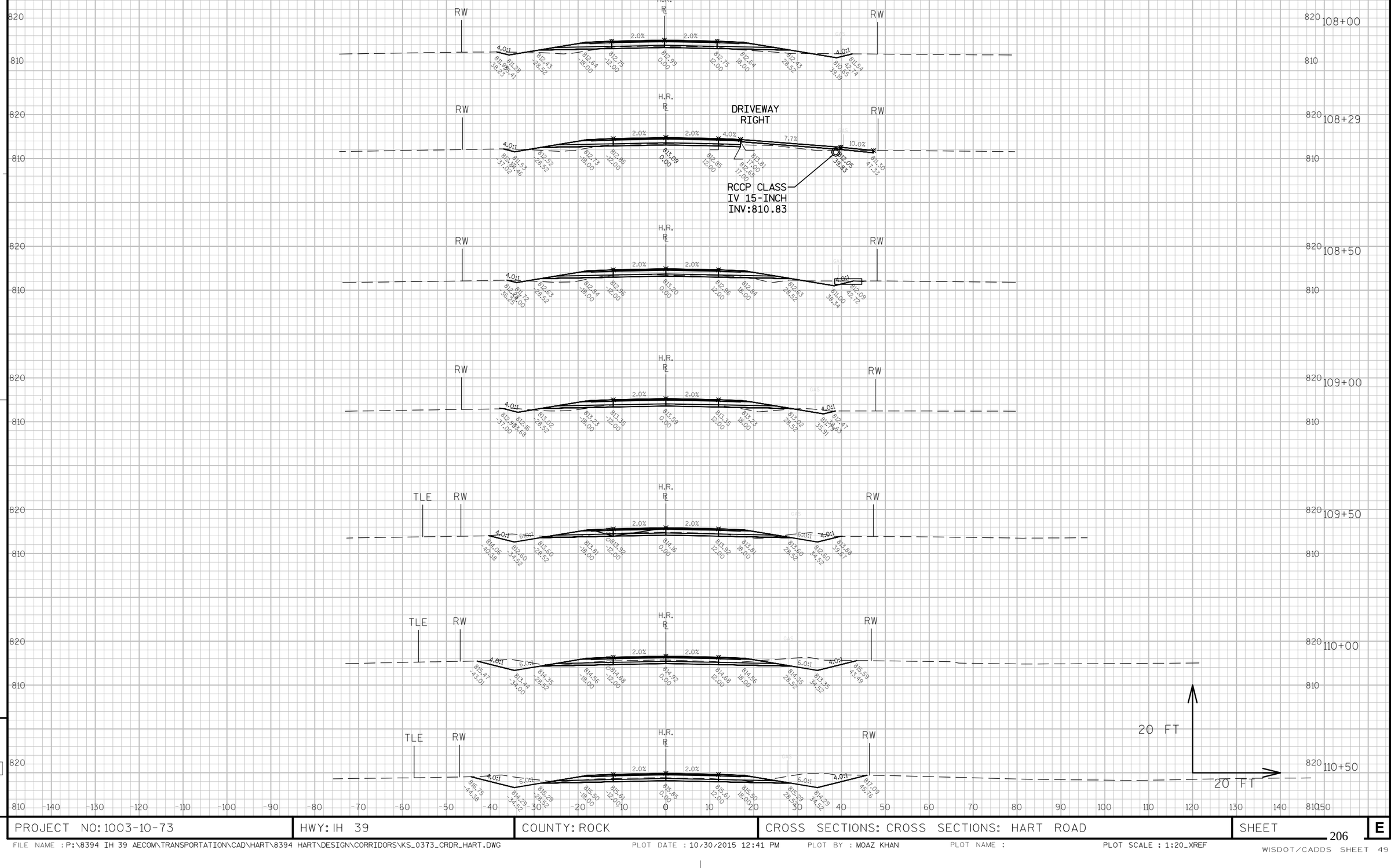
STATION	Real Station	Distance	AREA (SF) Cut	Fill	EBS (In Cross Sections)	Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Fill	EBS	Structure Excavation	Cumulative Vol (CY) Cut	Fill	EBS	Structure Excavation	Mass Ordinate
285+70 NB	28570.00	0.00	9.76	0.19	10.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
286+00	28600.00	30.00	10.50	0.09	10.5	0.00	11.26	0.16	11.49	0.00	11.26	0.16	11.49	0.00	11.10
286+50	28650.00	50.00	8.93	0.57	10.7	0.00	17.99	0.61	19.62	0.00	29.25	0.77	31.11	0.00	28.48
287+00	28700.00	50.00	8.75	0.91	11.0	0.00	16.37	1.37	20.10	0.00	45.62	2.14	51.21	0.00	43.48
287+50	28750.00	50.00	6.01	2.40	11.2	0.00	13.67	3.06	20.57	0.00	59.28	5.20	71.78	0.00	54.08
288+00	28800.00	50.00	7.17	1.84	11.5	0.00	12.20	3.93	21.04	0.00	71.49	9.13	92.82	0.00	62.36
288+50	28850.00	50.00	9.06	0.99	11.7	0.00	15.03	2.62	21.52	0.00	86.51	11.75	114.34	0.00	74.77
289+00	28900.00	50.00	6.90	1.22	12.0	0.00	14.78	2.05	21.99	0.00	101.29	13.79	136.33	0.00	87.50
289+50	28950.00	50.00	8.52	0.69	12.3	0.00	14.28	1.77	22.46	0.00	115.57	15.56	158.79	0.00	100.01
290+00	29000.00	50.00	8.04	0.64	12.5	0.00	15.33	1.23	22.91	0.00	130.90	16.79	181.70	0.00	114.11
290+50	29050.00	50.00	6.70	1.94	12.4	0.00	13.65	2.39	23.06	0.00	144.55	19.18	204.76	0.00	125.37
291+00	29100.00	50.00	6.91	2.59	12.4	0.00	12.60	4.19	22.94	0.00	157.15	23.38	227.70	0.00	133.78
291+50	29150.00	50.00	7.09	1.49	12.3	0.00	12.96	3.78	22.81	0.00	170.12	27.16	250.51	0.00	142.96
292+00	29200.00	50.00	6.51	1.20	12.2	0.00	12.59	2.49	22.68	0.00	182.71	29.65	273.19	0.00	153.06
292+50	29250.00	50.00	9.12	0.05	12.1	0.00	14.47	1.16	22.55	0.00	197.18	30.80	295.74	0.00	166.38
293+00	29300.00	50.00	8.58	0.20	12.1	0.00	16.39	0.23	22.42	0.00	213.57	31.04	318.16	0.00	182.54
293+50	29350.00	50.00	10.59	0.02	12.0	0.00	17.75	0.20	22.29	0.00	231.32	31.24	340.45	0.00	200.08
294+00	29400.00	50.00	10.51	0.02	11.9	0.00	19.54	0.04	22.16	0.00	250.86	31.28	362.61	0.00	219.58
294+50	29450.00	50.00	9.15	0.03	11.9	0.00	18.20	0.05	22.03	0.00	269.06	31.32	384.64	0.00	237.74
295+00	29500.00	50.00	7.44	0.24	11.8	0.00	15.36	0.25	21.88	0.00	284.42	31.57	406.52	0.00	252.85
295+50	29550.00	50.00	8.45	0.02	11.2	0.00	14.71	0.24	21.31	0.00	299.14	31.81	427.83	0.00	267.32
296+00	29600.00	50.00	9.50	0.03	10.7	0.00	16.62	0.05	20.33	0.00	315.76	31.86	448.16	0.00	283.90
296+50	29650.00	50.00	9.83	0.03	10.2	0.00	17.90	0.06	19.35	0.00	333.65	31.91	467.51	0.00	301.74
297+00	29700.00	50.00	7.61	0.80	9.7	0.00	16.15	0.77	18.38	0.00	349.80	32.68	485.89	0.00	317.12
297+50	29750.00	50.00	8.27	0.02	9.1	0.00	14.70	0.76	17.40	0.00	364.51	33.44	503.29	0.00	331.06
297+60	29760.14	10.14	8.22	0.03	8.6	0.00	3.10	0.01	3.23	0.00	367.60	33.45	506.52	0.00	334.15
298+00	29800.00	39.86	8.36	0.03	8.1	0.00	12.24	0.04	12.32	0.00	379.84	33.50	518.84	0.00	346.34
298+50	29850.00	50.00	9.06	0.03	7.6	0.00	16.13	0.06	14.47	0.00	395.97	33.55	533.31	0.00	362.42
299+00	29900.00	50.00	9.34	0.03	7.0	0.00	17.04	0.06	13.50	0.00	413.01	33.61	546.81	0.00	379.40
299+50	29950.00	50.00	9.55	0.02	6.5	0.00	17.49	0.05	12.52	0.00	430.50	33.66	559.33	0.00	396.84
300+00	30000.00	50.00	8.46	0.23	6.0	0.00	16.68	0.23	11.56	0.00	447.17	33.89	570.89	0.00	413.29
300+50	30050.00	50.00	8.86	0.05	7.0	0.00	16.04	0.26	12.03	0.00	463.21	34.15	582.92	0.00	429.06
301+00	30100.00	50.00	9.33	0.03	8.0	0.00	16.84	0.07	13.90	0.00	480.05	34.22	596.82	0.00	445.83
301+50	30150.00	50.00	9.09	0.03	9.0	0.00	17.06	0.06	15.76	0.00	497.11	34.28	612.58	0.00	462.83
301+59	30159.35	9.35	9.13	0.03	10.0	0.00	3.15	0.01	3.30	0.00	500.26	34.29	615.88	0.00	465.98
302+00	30200.00	40.65	8.03	0.87	11.0	0.00	12.92	0.68	15.85	0.00	513.18	34.96	631.73	0.00	478.22
302+50	30250.00	50.00	9.49	0.02	12.0	0.00	16.22	0.82	21.37	0.00	529.40	35.79	653.10	0.00	493.62
303+00	30300.00	50.00	8.18	0.19	13.1	0.00	16.36	0.19	23.24	0.00	545.76	35.98	676.34	0.00	509.78
303+50	30350.00	50.00	8.58	0.50	14.1	0.00	15.52	0.64	25.11	0.00	561.28	36.62	701.45	0.00	524.66
304+00	30400.00	50.00	5.83	3.06	15.1	0.00	13.34	3.30	26.98	0.00	574.63	39.92	728.43	0.00	534.71
304+50	30450.00	50.00	5.59	2.92	16.1	0.00	10.57	5.54	28.84	0.00	585.20	45.45	757.27	0.00	539.75
305+00	30500.00	50.00	6.05	2.87	17.1	0.00	10.78	5.36	30.69	0.00	595.98	50.82	787.96	0.00	545.16
305+50	30550.00	50.00	6.13	3.34	16.8	0.00	11.28	5.75	31.40	0.00	607.26	56.57	819.36	0.00	550.69
306+00	30600.00	50.00	4.66	5.23	16.6	0.00	9.99	7.94	30.97	0.00	617.25	64.50	850.33	0.00	552.75
306+50	30650.00	50.00	7.46	1.20	16.4	0.00	11.22	5.95	30.55	0.00	628.47	70.45	880.88	0.00	558.01
307+00	30700.00	50.00	6.40	2.15	16.1	0.00	12.83	3.10	30.12	0.00	641.30	73.56	911.00	0.00	567.75
307+50	30750.00	50.00	5.85	3.88	15.9	0.00	11.34	5.58	29.69	0.00	652.64	79.14	940.69	0.00	573.50
308+00	30800.00	50.00	5.73	3.14	15.7	0.00	10.72	6.50	29.27	0.00	663.37	85.64	969.96	0.00	577.73

308+00	30800.00	50.00	5.73	3.14	15.7	0.00	10.72	6.50	29.27	0.00	663.37	85.64	969.96	0.00	577.73
308+50	30850.00	50.00	6.17	4.10	15.5	0.00	11.02	6.70	28.84	0.00	674.39	92.34	998.80	0.00	582.04
309+00	30900.00	50.00	5.89	3.35	15.2	0.00	11.17	6.90	28.42	0.00	685.55	99.24	1027.22	0.00	586.31
309+50	30950.00	50.00	7.07	1.08	15.0	0.00	12.00	4.10	27.99	0.00	697.55	103.34	1055.21	0.00	594.21
310+00	31000.00	50.00	7.49	1.55	14.8	0.00	13.48	2.44	27.59	0.00	711.03	105.78	1082.80	0.00	605.25
310+50	31050.00	50.00	8.45	1.21	14.5	0.00	14.76	2.56	27.16	0.00	725.79	108.33	1109.96	0.00	617.46
311+00	31100.00	50.00	7.26	2.32	14.3	0.00	14.55	3.27	26.68	0.00	740.34	111.60	1136.64	0.00	628.74
311+50	31150.00	50.00	6.64	1.58	14.0	0.00	12.87	3.61	26.20	0.00	753.21	115.21	1162.84	0.00	638.00
312+00	31200.00	50.00	4.92	2.86	13.8	0.00	10.70	4.11	25.72	0.00	763.91	119.32	1188.56	0.00	644.59
312+50	31250.00	50.00	4.50	2.96	13.5	0.00	8.72	5.39	25.24	0.00	772.64	124.71	1213.80	0.00	647.92
313+00	31300.00	50.00	6.05	1.44	13.2	0.00	9.77	4.07	24.76	0.00	782.40	128.79	1238.56	0.00	653.62
313+50	31350.00	50.00	6.92	0.72	13.0	0.00	12.01	2.00	24.27	0.00	794.41	130.79	1262.83	0.00	663.63
314+00	31400.00	50.00	8.53	0.21	12.7	0.00	14.31	0.86	23.79	0.00	808.72	131.65	1286.62	0.00	677.07
314+50	31450.00	50.00	6.19	0.98	12.5	0.00	13.63	1.10	23.31	0.00	822.35	132.75	1309.93	0.00	689.60
315+00	31500.00	50.00	7.13	0.55	12.2	0.00	12.33	1.42	22.85	0.00	834.68	134.17	1332.78	0.00	700.51
315+50	31550.00	50.00	6.28	1.29	13.2	0.00	12.42	1.70	23.57	0.00	847.10	135.87	1356.35	0.00	711.23
316+00	31600.00	50.00	6.75	1.31	14.3	0.00	12.06	2.41	25.46	0.00	859.16	138.28	1381.81	0.00	720.88
316+50	31650.00	50.00	7.39	0.75	15.3	0.00	13.09	1.91	27.34	0.00	872.26	140.19	1409.15	0.00	732.07
317+00	31700.00	50.00	6.89	0.58	16.3	0.00	13.22	1.23	29.23	0.00	885.48	141.42	1438.38	0.00	744.06
317+50	31750.00	50.00	6.03	1.76	17.3	0.00	11.96	2.17	31.11	0.00	897.44	143.58	1469.49	0.00	753.86
318+00	31800.00	50.00	6.05	1.69	18.3	0.00	11.19	3.19	33.00	0.00	908.63	146.78	1502.49	0.00	761.85
318+50	31850.00	50.00	6.18	1.46	19.3	0.00	11.32	2.92	34.88	0.00	919.95	149.70	1537.37	0.00	770.25
319+00	31900.00	50.00	5.13	2.93	20.4	0.00	10.47	4.06	36.77	0.00	930.42	153.76	1574.14	0.00	776.66
319+50	31950.00	50.00	5.35	3.52	21.4	0.00	9.70	5.97	38.66	0.00	940.13	159.73	1612.80	0.00	780.39
319+60	31959.76	9.76	4.99	4.91	22.4	0.00	1.87	1.52	7.91	0.00	941.99	161.26	1620.71	0.00	780.74
320+00	32000.00	40.24	3.94	6.56	23.4	0.00	6.65	8.55	34.12	0.00	948.65	169.80	1654.83	0.00	778.85
320+50	32050.00	50.00	5.98	3.12	22.0	0.00	9.19	8.96	42.01	0.00	957.83	178.77	1696.84	0.00	779.07
321+00	32100.00	50.00	6.18	3.50	20.6	0.00	11.26	6.13	39.45	0.00	969.09	184.90	1736.29	0.00	784.20
321+50	32150.00	50.00	6.28	3.58	19.2	0.00	11.54	6.56	36.88	0.00	980.63	191.45	1773.17	0.00	789.18
322+00	32200.00	50.00	5.97	3.15	17.8	0.00	11.34	6.23	34.31	0.00	991.97	197.68	1807.48	0.00	794.29
322+50	32250.00	50.00	6.14	2.92	16.5	0.00	11.21	5.62	31.75	0.00	1003.19	203.30	1839.23	0.00	799.88
323+00	32300.00	50.00	6.35	3.03	15.1	0.00	11.56	5.51	29.18	0.00	1014.75	208.81	1868.41	0.00	805.94
323+35	32335.00	35.00	7.75	1.66	13.7	0.00	9.14	3.04	18.66	0.00	1023.89	211.85	1887.07	0.00	812.04
						Column totals	1023.89	211.85	1887.03	0.00					

PROJECT ID: 1003-10-73
DIVISION 4 - IH 39 BULLNOSE GRADING

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS (In Cross Sections)	AREA (SF) Structure Excavation (In Cross Sections)	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Incremental Vol (CY) (Unadjusted) Structure Excavation	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Fill	Cumulative Vol (CY) EBS	Cumulative Vol (CY) Structure Excavation	Mass Ordinate
297+15 NB	29715.00	0.00	0.00	4.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
297+50	29750.00	35.00	0.00	5.56	0.00	0.00	0.00	6.60	0.00	0.00	0.00	6.60	0.00	0.00	-6.60
297+59	29759.30	9.30	0.00	6.6	0.00	0.00	0.00	2.09	0.00	0.00	0.00	8.70	0.00	0.00	-8.70
298+00	29800.00	40.70	2.76	6.34	0.00	0.00	2.08	9.75	0.00	0.00	2.08	18.45	0.00	0.00	-16.37
298+50	29850.00	50.00	0.67	10.77	0.00	0.00	3.18	15.84	0.00	0.00	5.26	34.29	0.00	0.00	-29.04
299+00	29900.00	50.00	0.48	14.3	0.00	0.00	1.06	23.21	0.00	0.00	6.32	57.51	0.00	0.00	-51.19
299+50	29950.00	50.00	11.35	3.16	0.00	0.00	10.95	16.17	0.00	0.00	17.27	73.67	0.00	0.00	-56.40
300+00	30000.00	50.00	20.84	2.64	0.00	0.00	29.81	5.37	0.00	0.00	47.08	79.04	0.00	0.00	-31.96
300+50	30050.00	50.00	17.71	1.31	0.00	0.00	35.69	3.66	0.00	0.00	82.77	82.70	0.00	0.00	0.07
301+00	30100.00	50.00	0.96	7.46	0.00	0.00	17.29	8.12	0.00	0.00	100.06	90.82	0.00	0.00	9.24
301+50	30150.00	50.00	0.43	28.81	0.00	0.00	1.29	33.58	0.00	0.00	101.35	124.41	0.00	0.00	-23.06
301+59	30158.83	8.83	0.40	39.18	0.00	0.00	0.14	11.12	0.00	0.00	101.48	135.52	0.00	0.00	-34.04
302+00	30200.00	41.17	0.42	19.9	0.00	0.00	0.63	45.04	0.00	0.00	102.11	180.57	0.00	0.00	-78.46
302+50	30250.00	50.00	0.60	14.67	0.00	0.00	0.94	32.01	0.00	0.00	103.05	212.58	0.00	0.00	-109.52
303+00	30300.00	50.00	0.47	12.4	0.00	0.00	0.99	25.06	0.00	0.00	104.04	237.64	0.00	0.00	-133.60
303+17	30317.00	17.00	0.00	4.05	0.00	0.00	0.15	5.18	0.00	0.00	104.19	242.82	0.00	0.00	-138.63
						Column totals	104.19	242.82	0.00	0.00					

STA 108+00
BEGIN PROJECT
MATCH 3621-00-76



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	E

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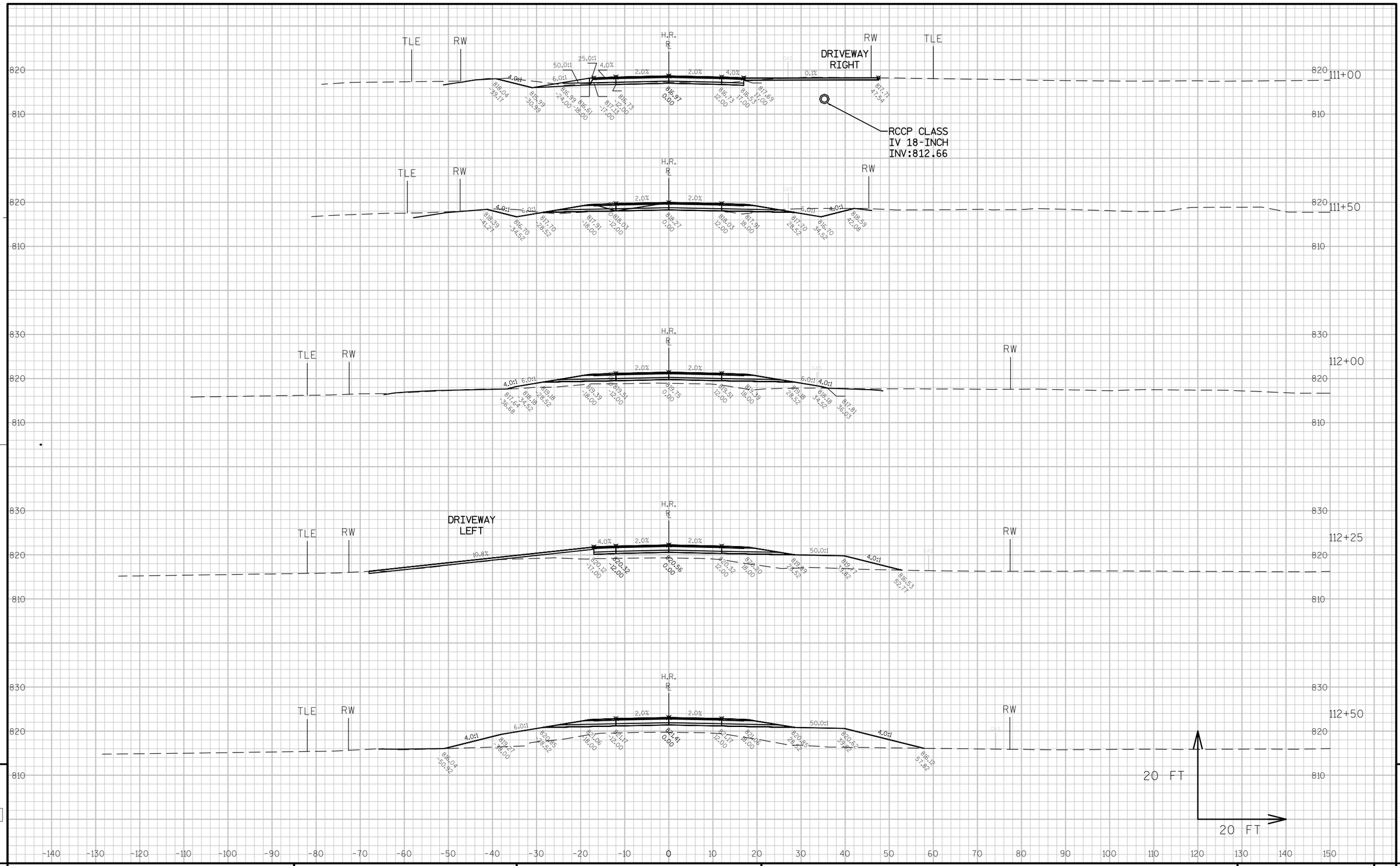
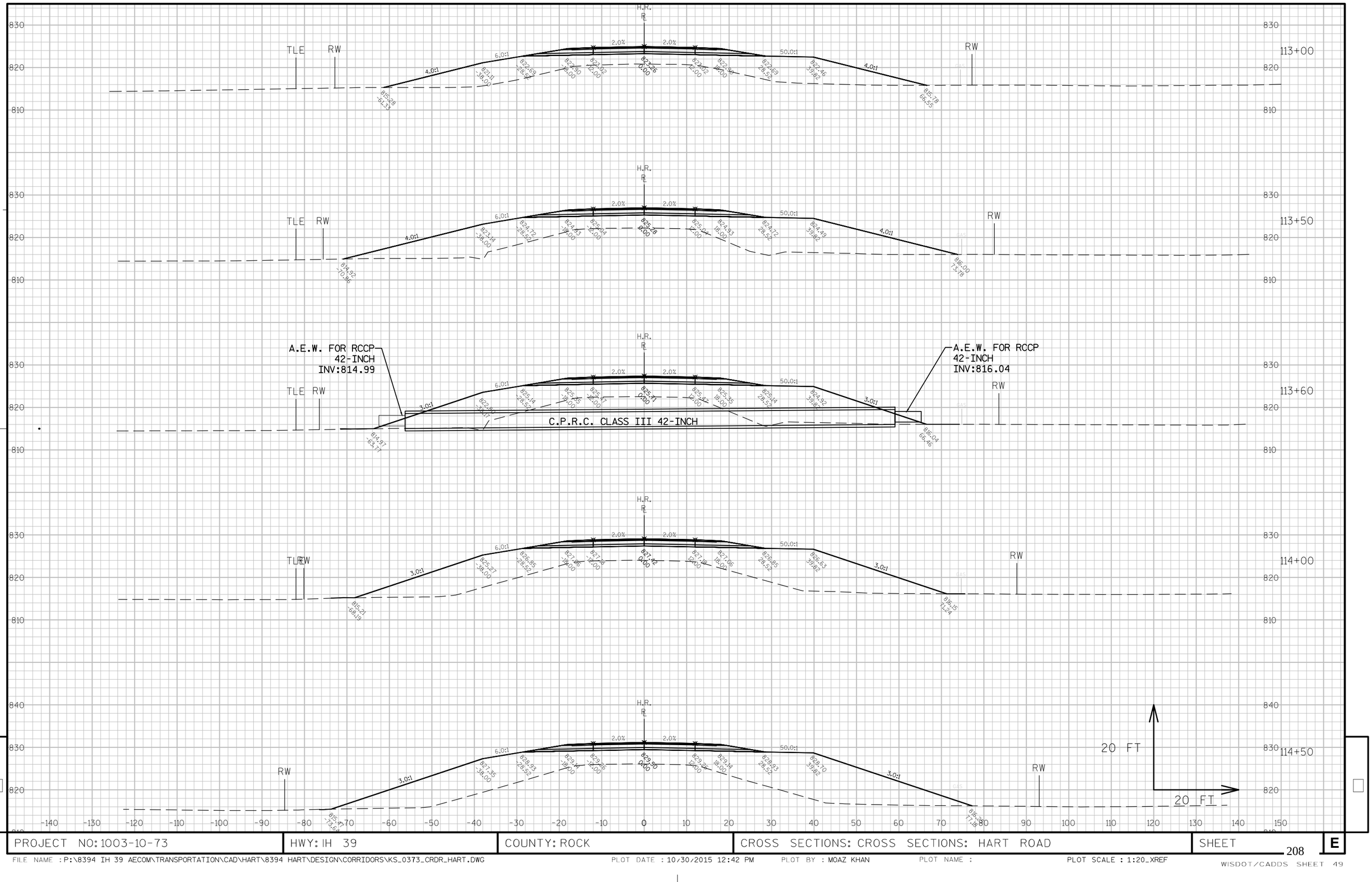


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 207	E

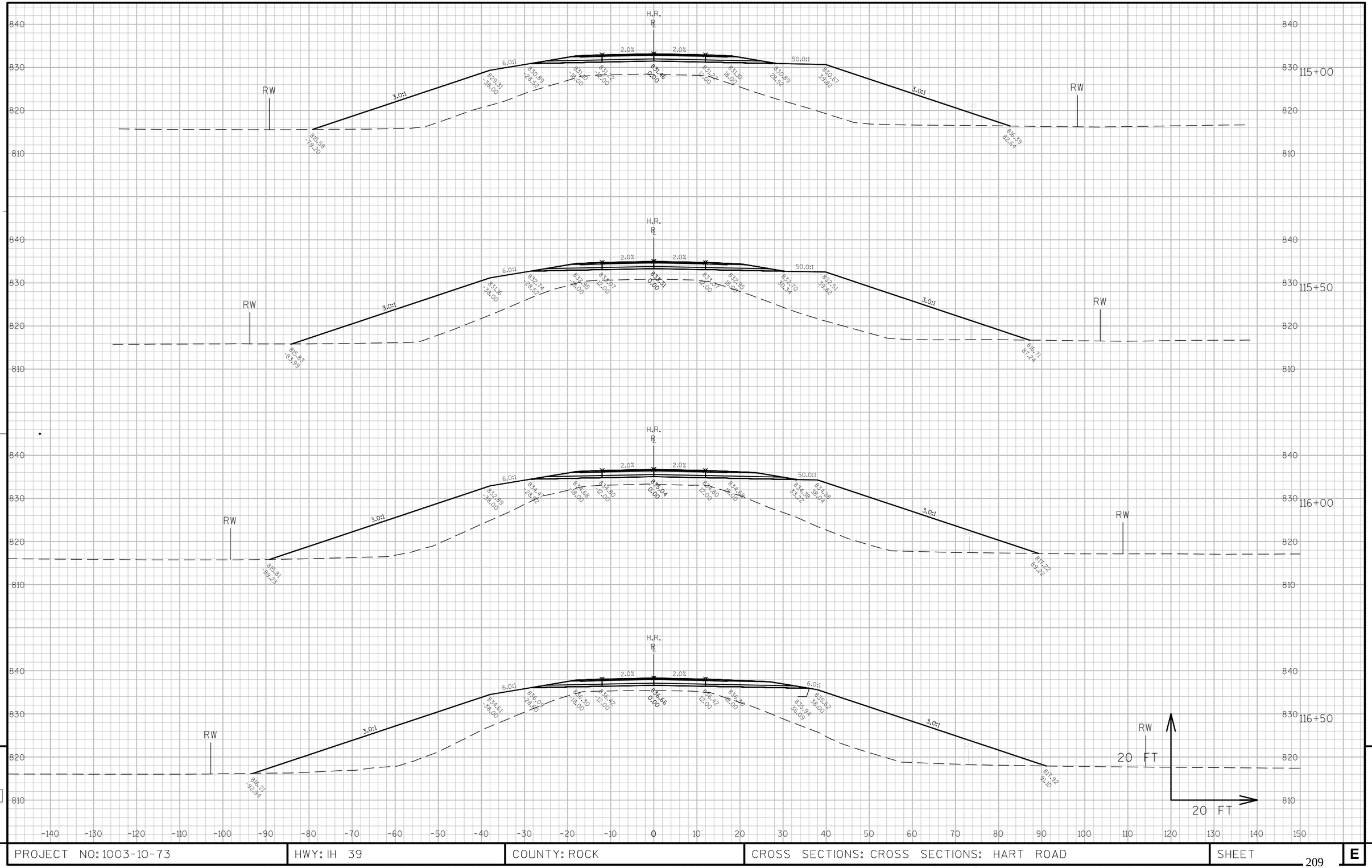
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:42 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	
				208	E

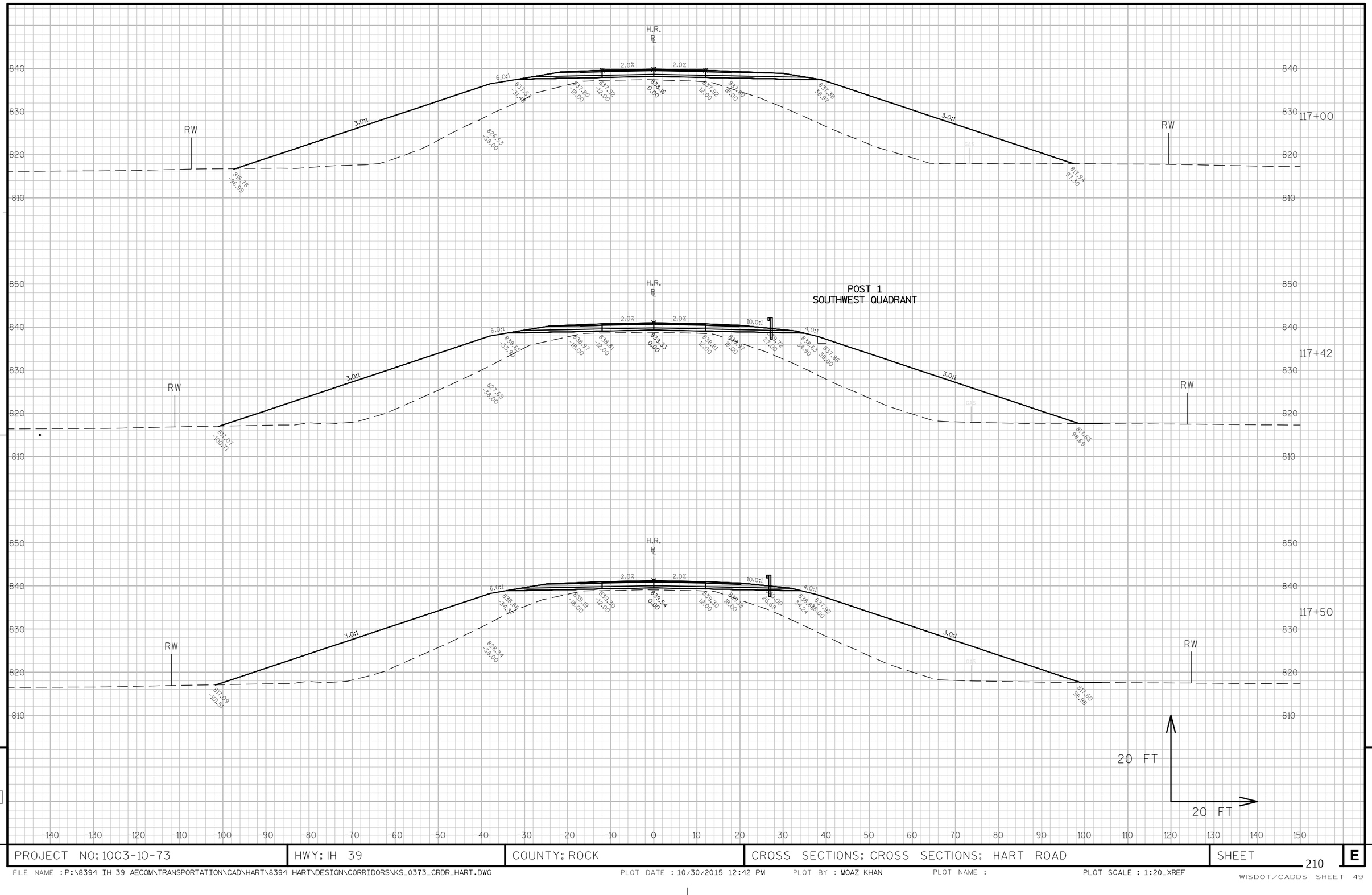
FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:42 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-73 | HWY: IH 39 | COUNTY: ROCK | CROSS SECTIONS: CROSS SECTIONS: HART ROAD | SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:42 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 210	E

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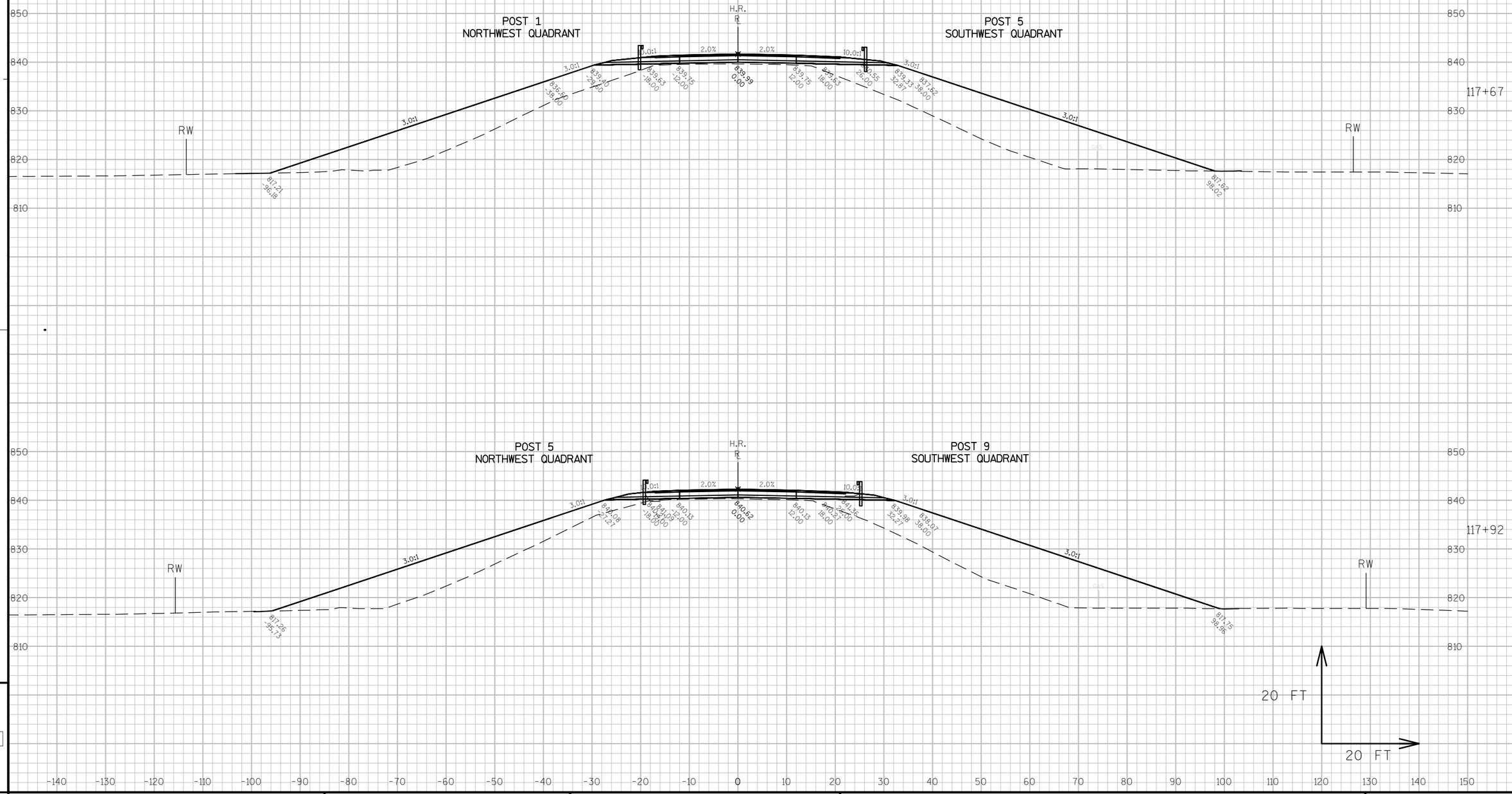
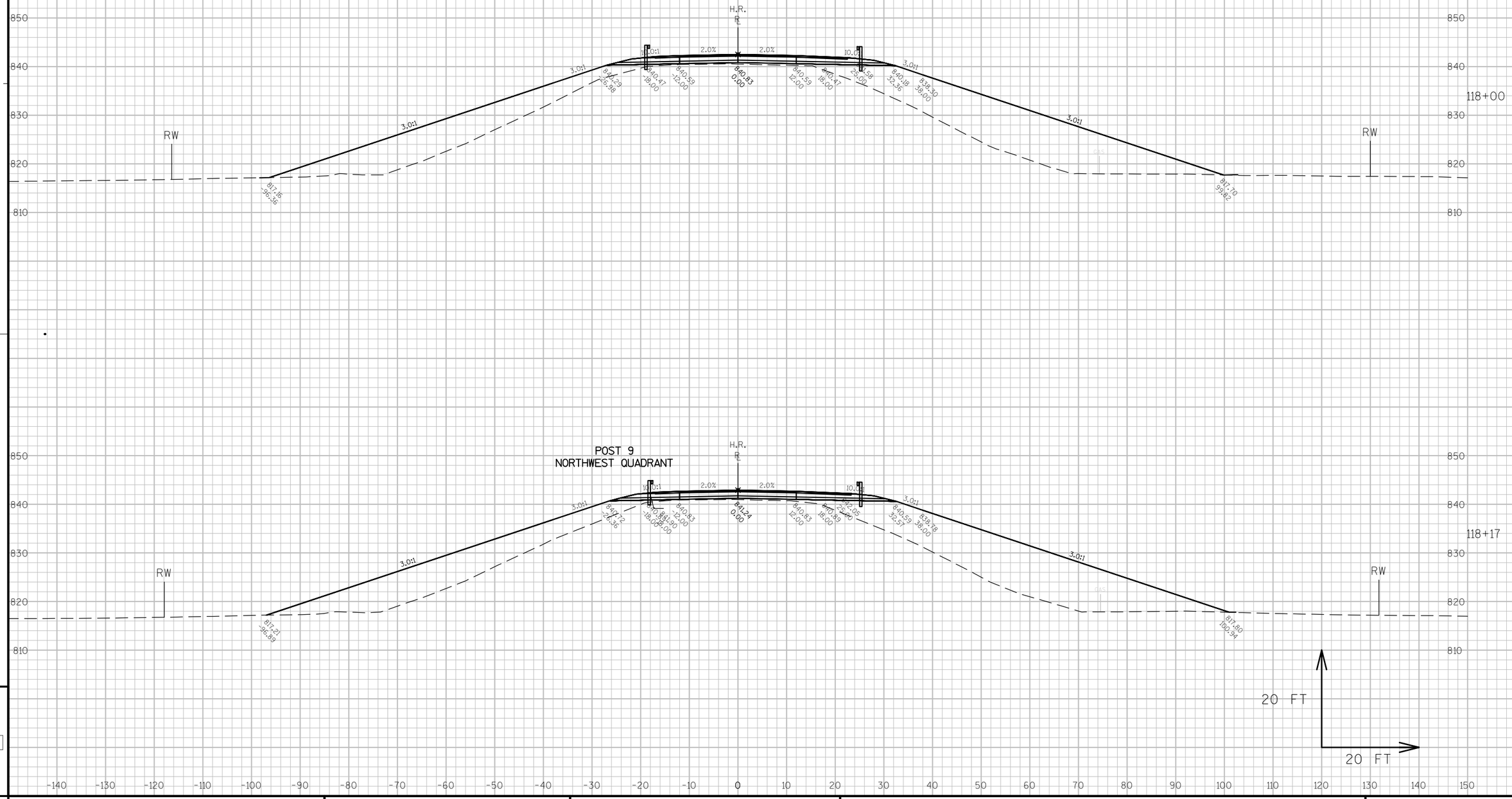
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 211 E



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 212	E

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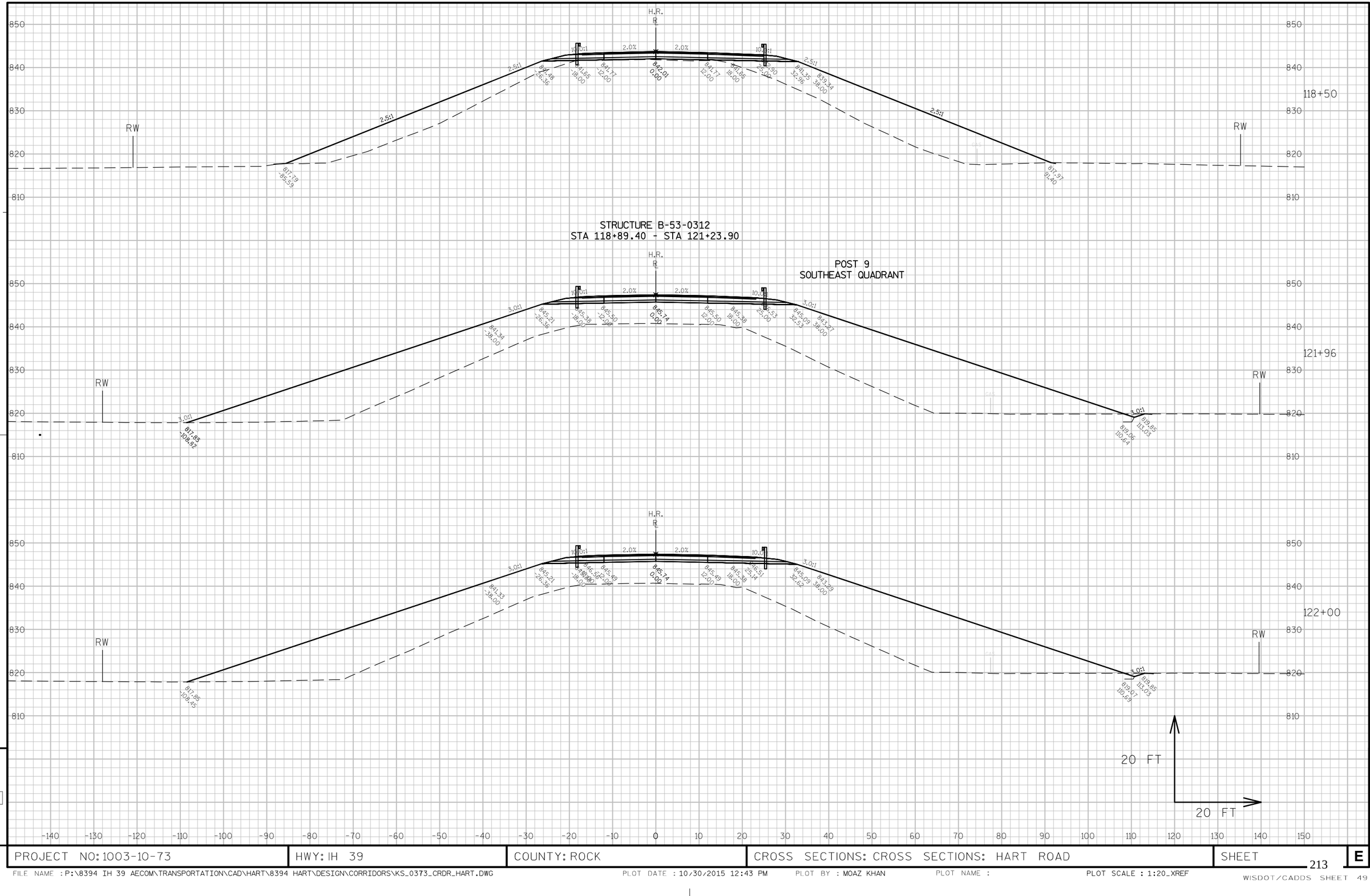
WISDOT/CADDS SHEET 49

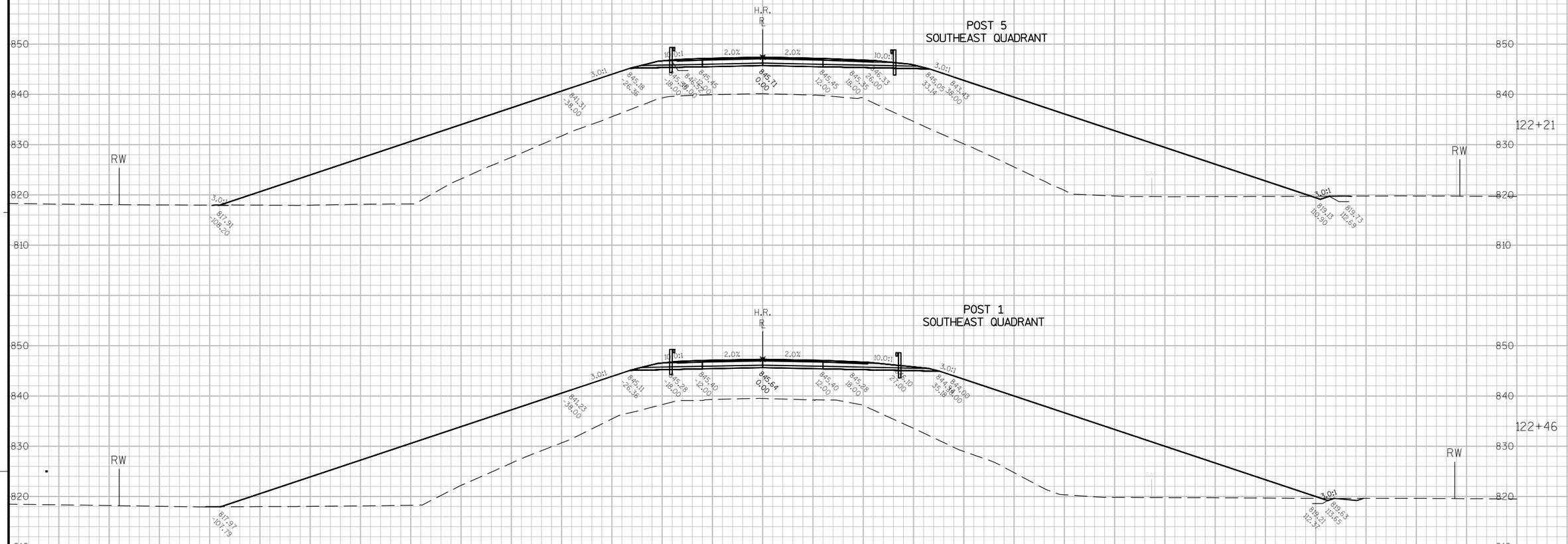
STRUCTURE B-53-0312
STA 118+89.40 - STA 121+23.90

POST 9
SOUTHEAST QUADRANT

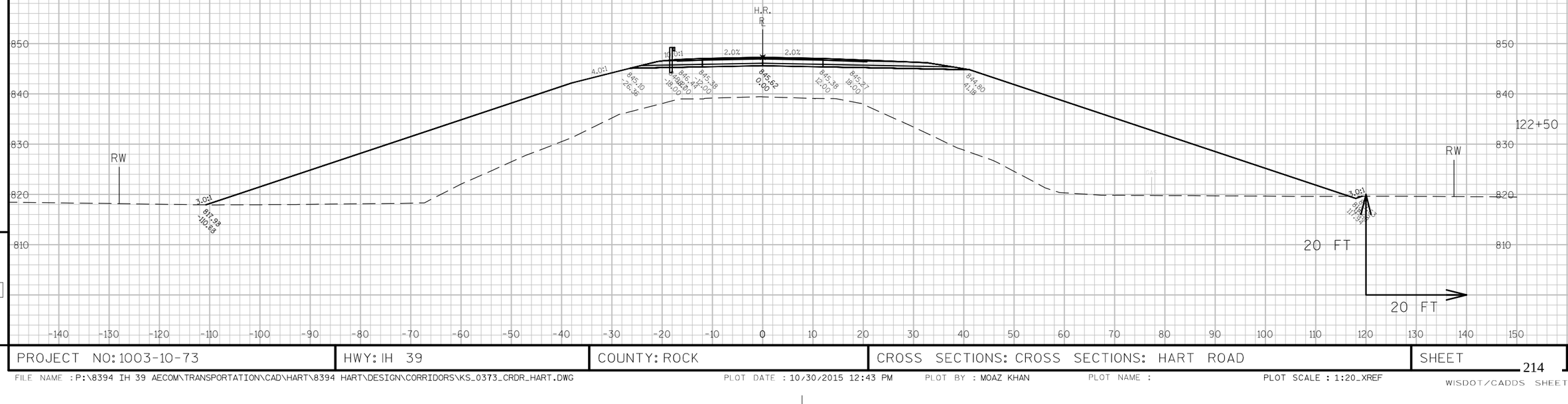


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 213	E

POST 5
SOUTHEAST QUADRANT

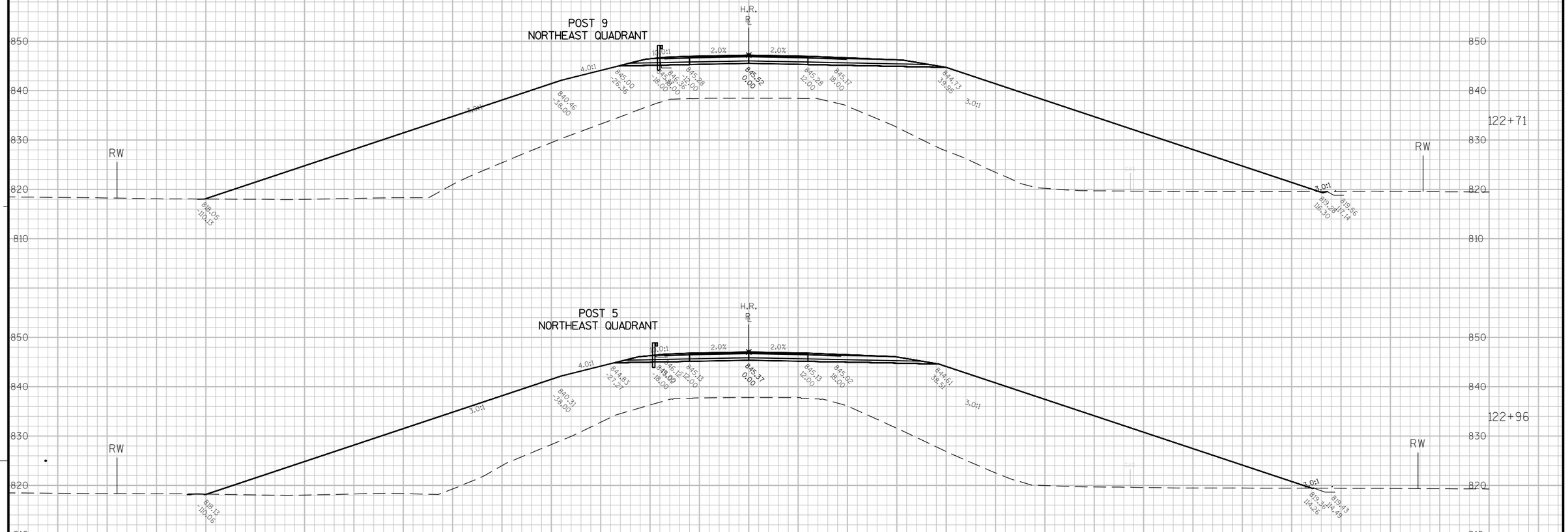


POST 1
SOUTHEAST QUADRANT

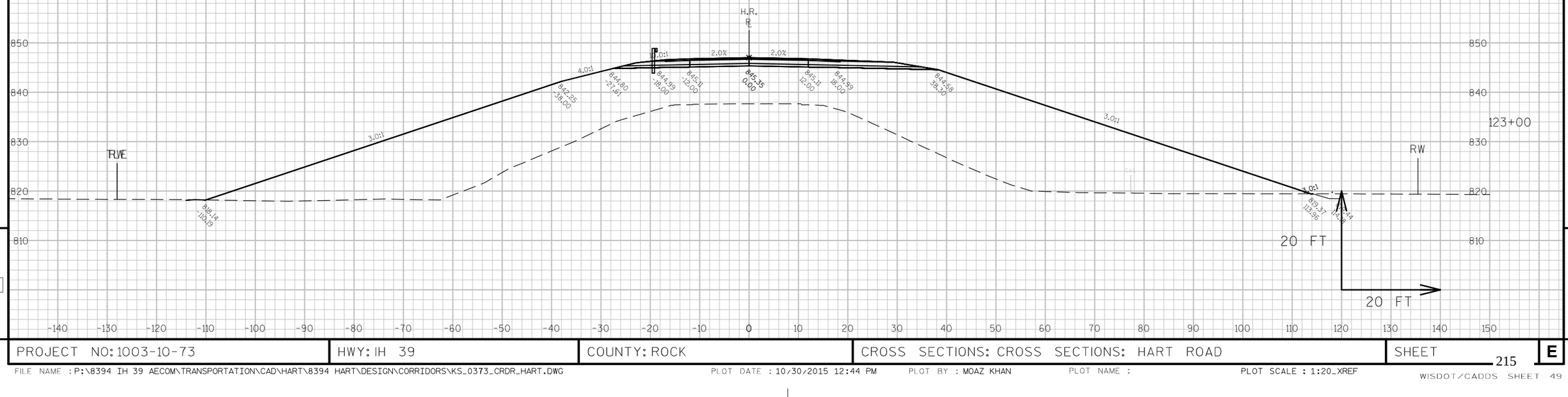


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 214	E

POST 9
NORTHEAST QUADRANT



POST 5
NORTHEAST QUADRANT



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	E

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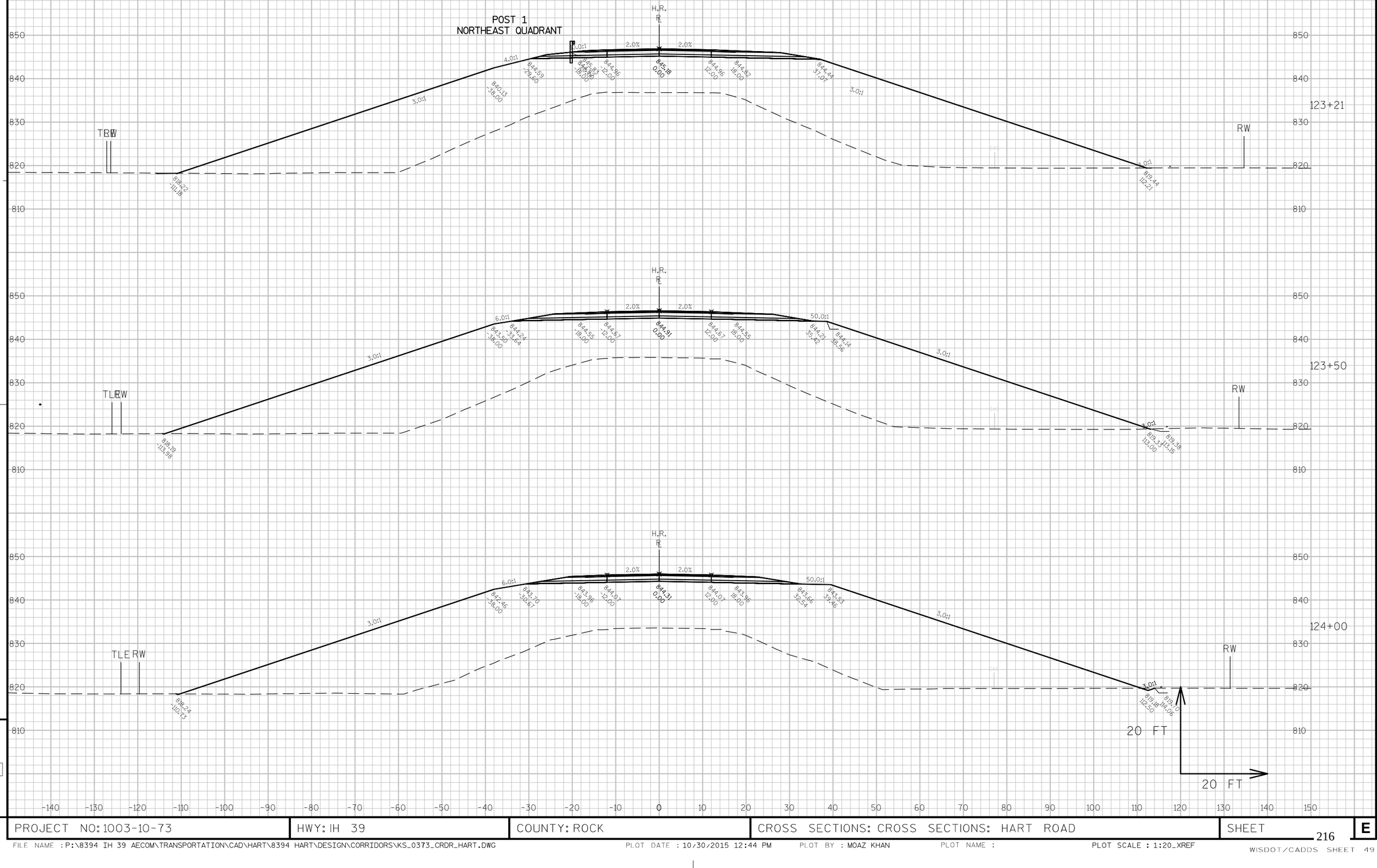
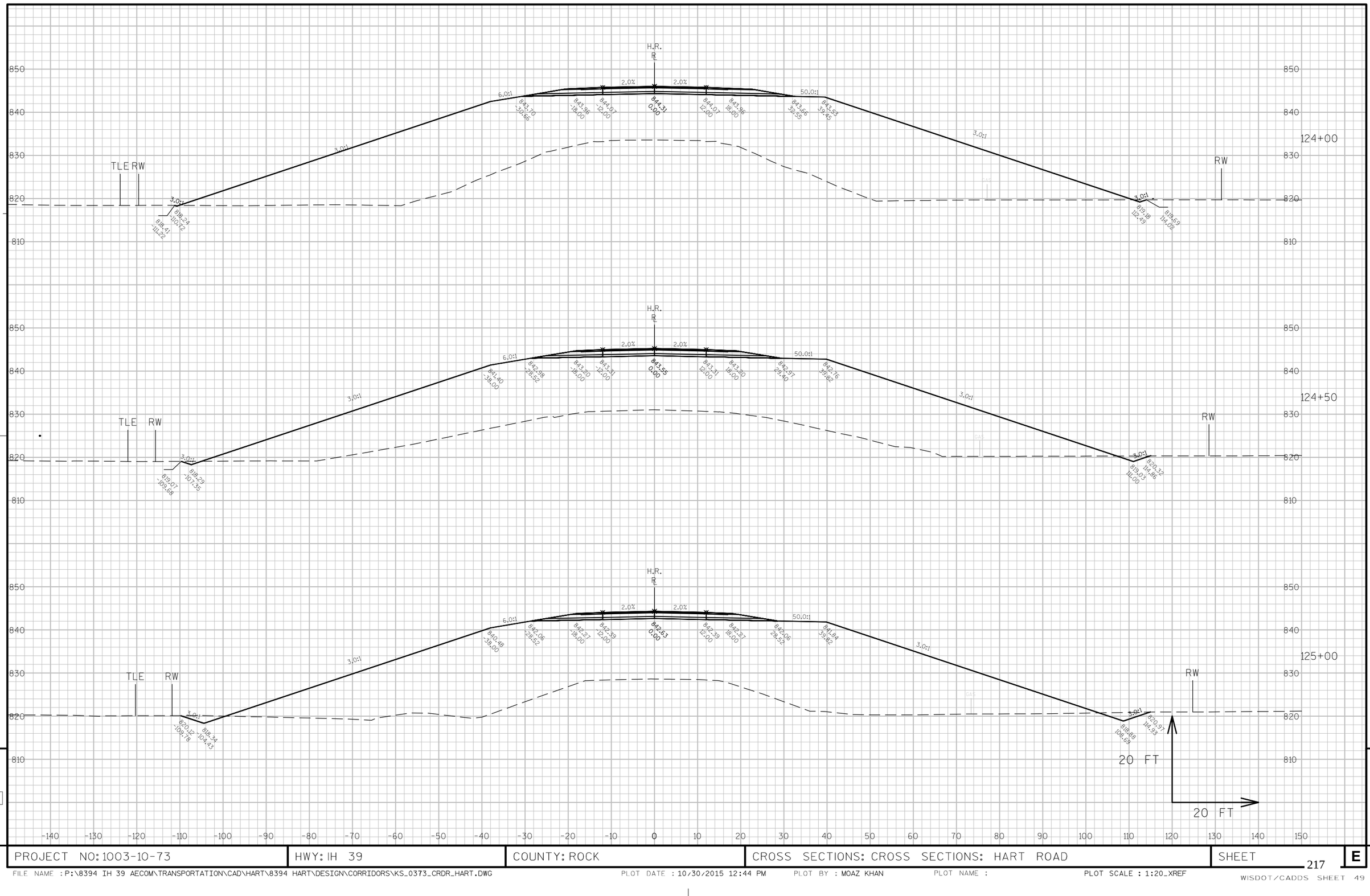
WISDOT/CADDS SHEET 49

POST 1
NORTHEAST QUADRANT

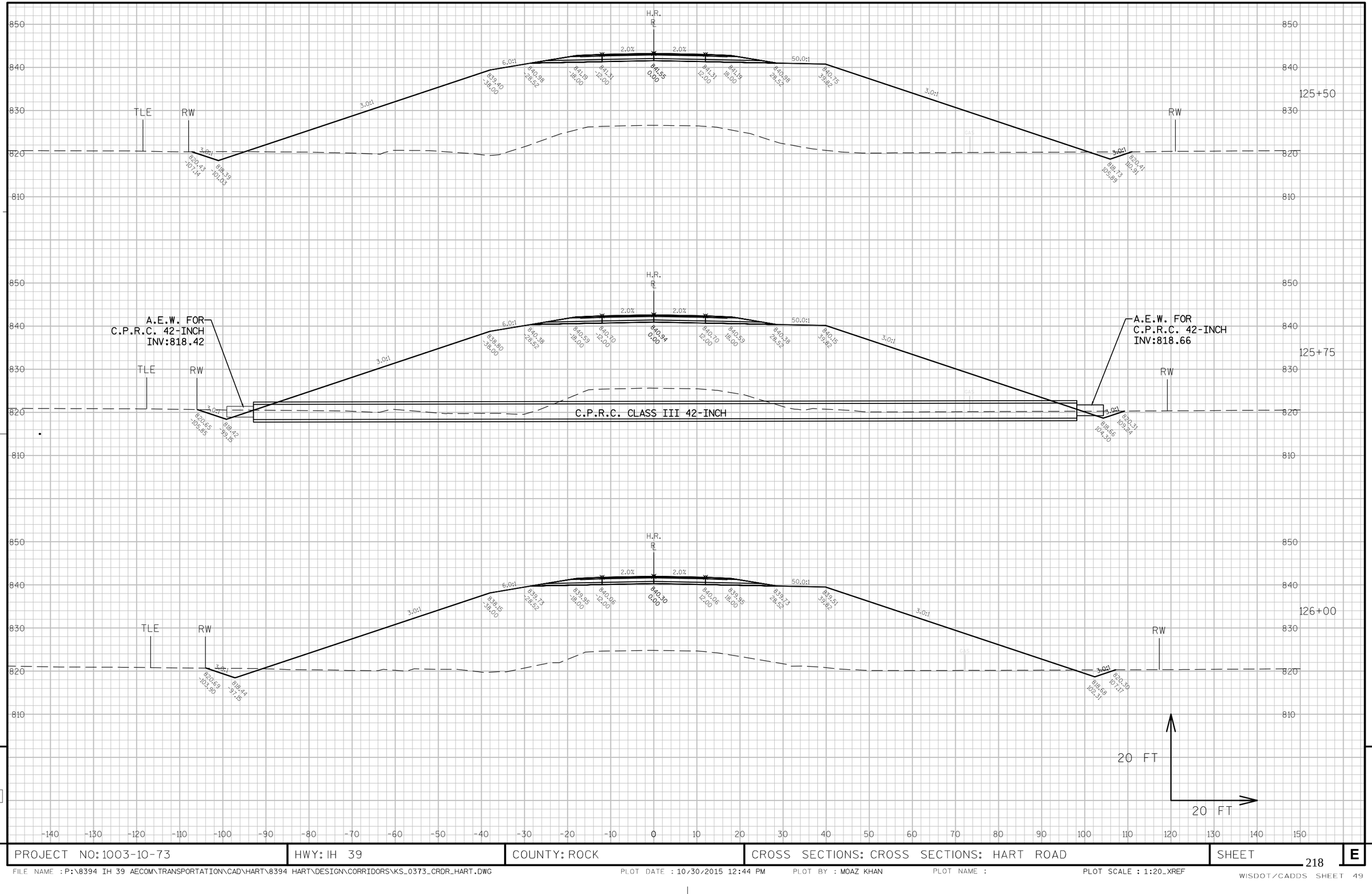


PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 216	E



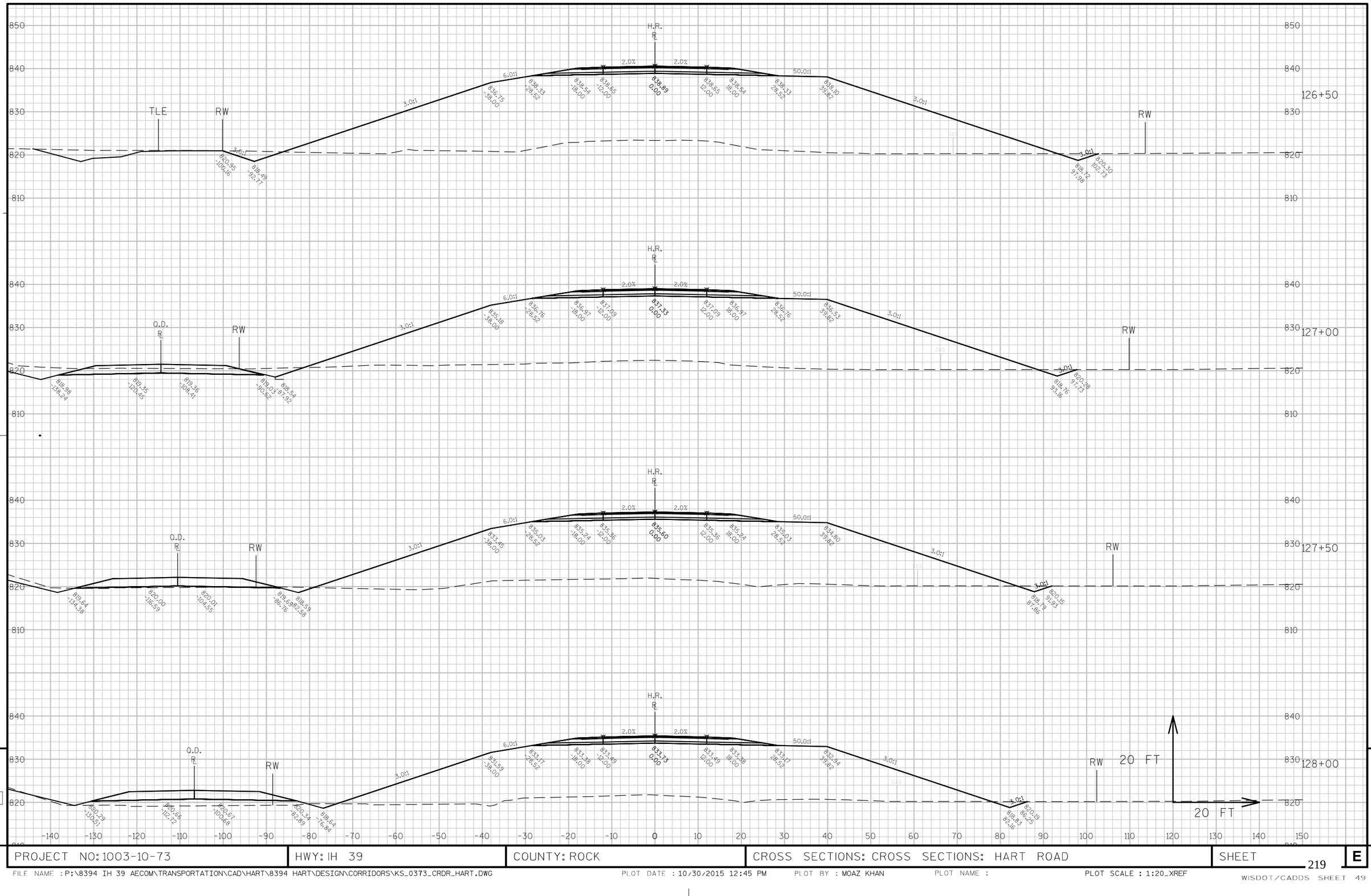
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 217	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:44 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



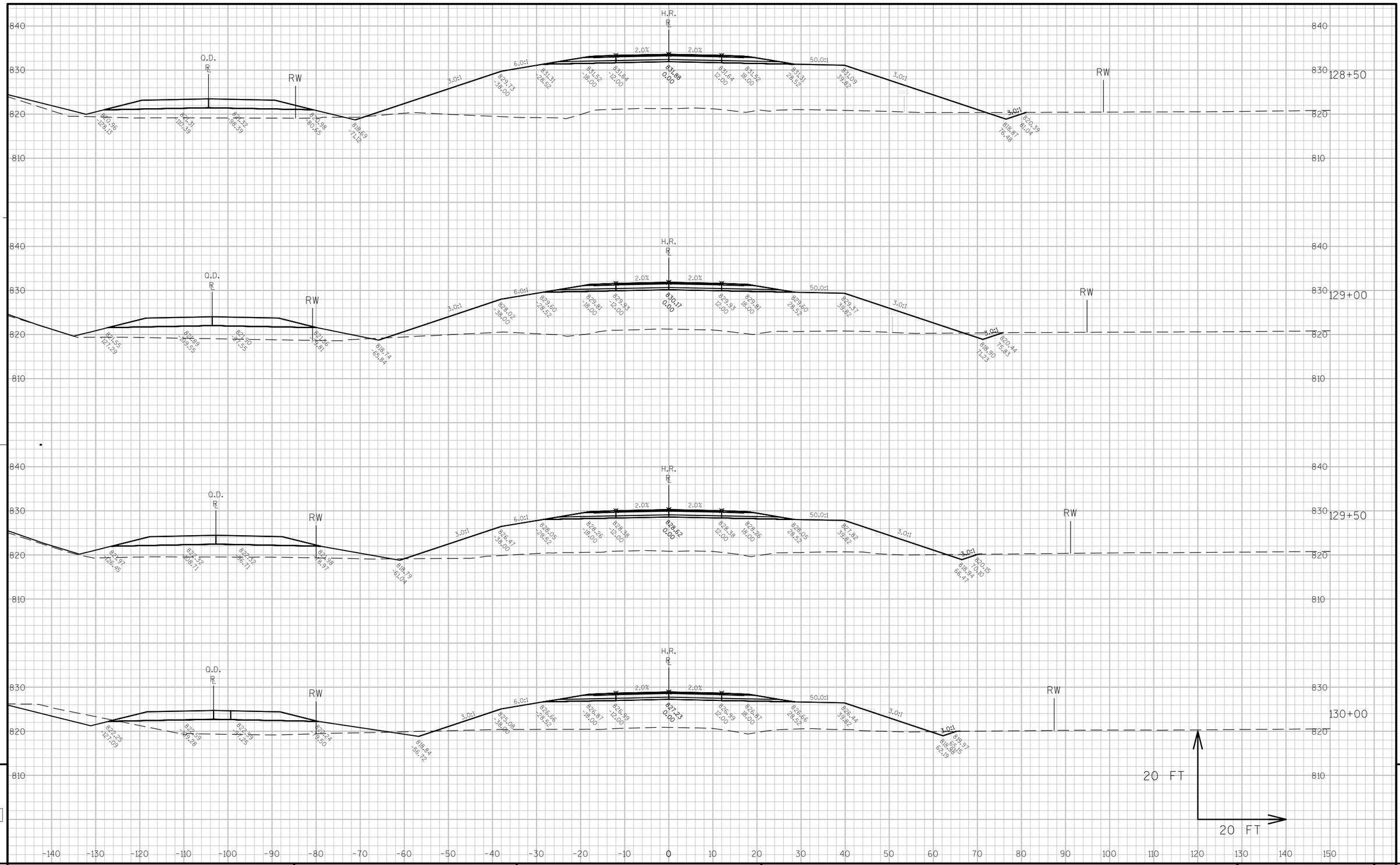
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET 218	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:44 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



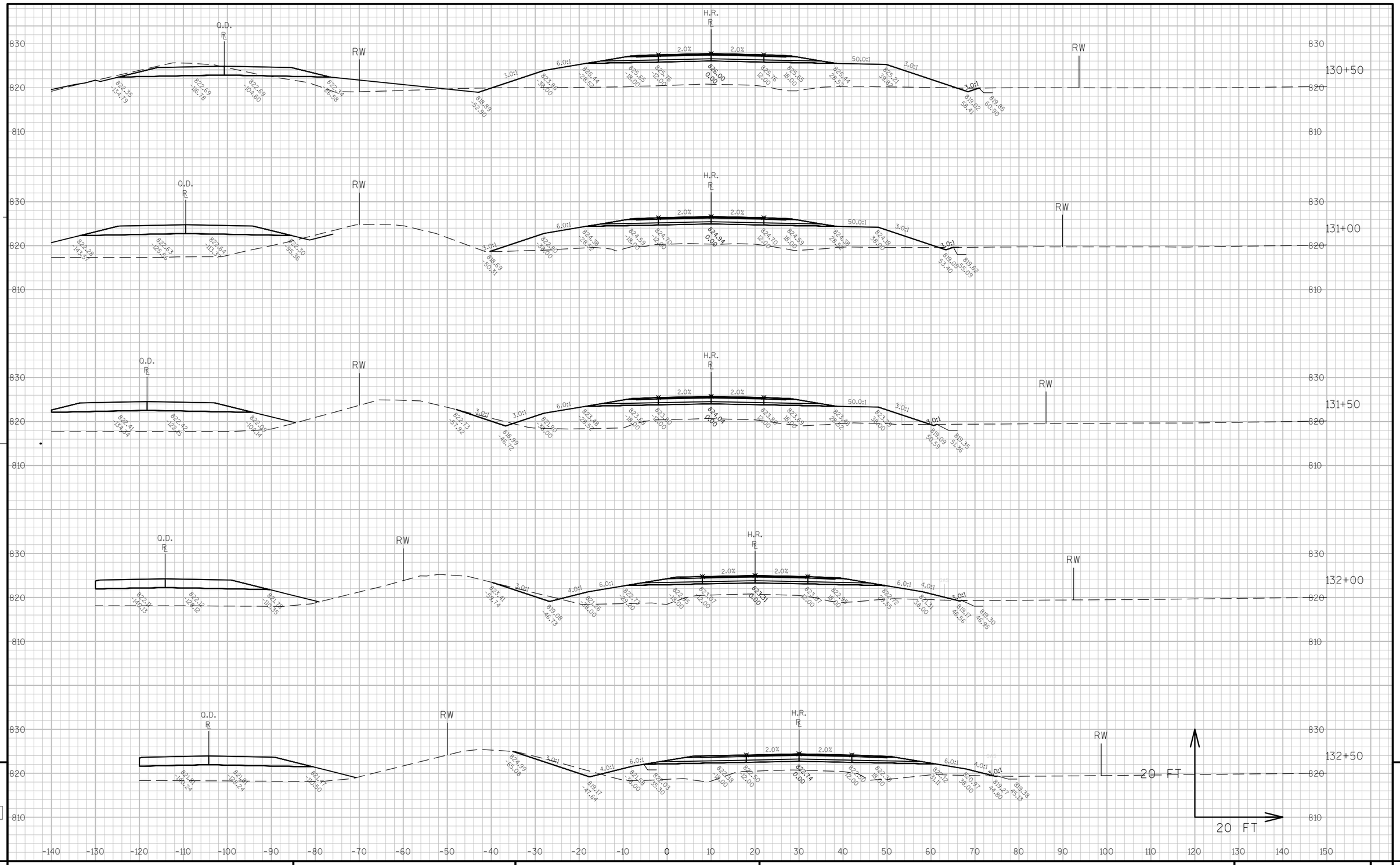
PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:45 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_HART.DWG PLOT DATE : 10/30/2015 12:45 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: HART ROAD	SHEET	E

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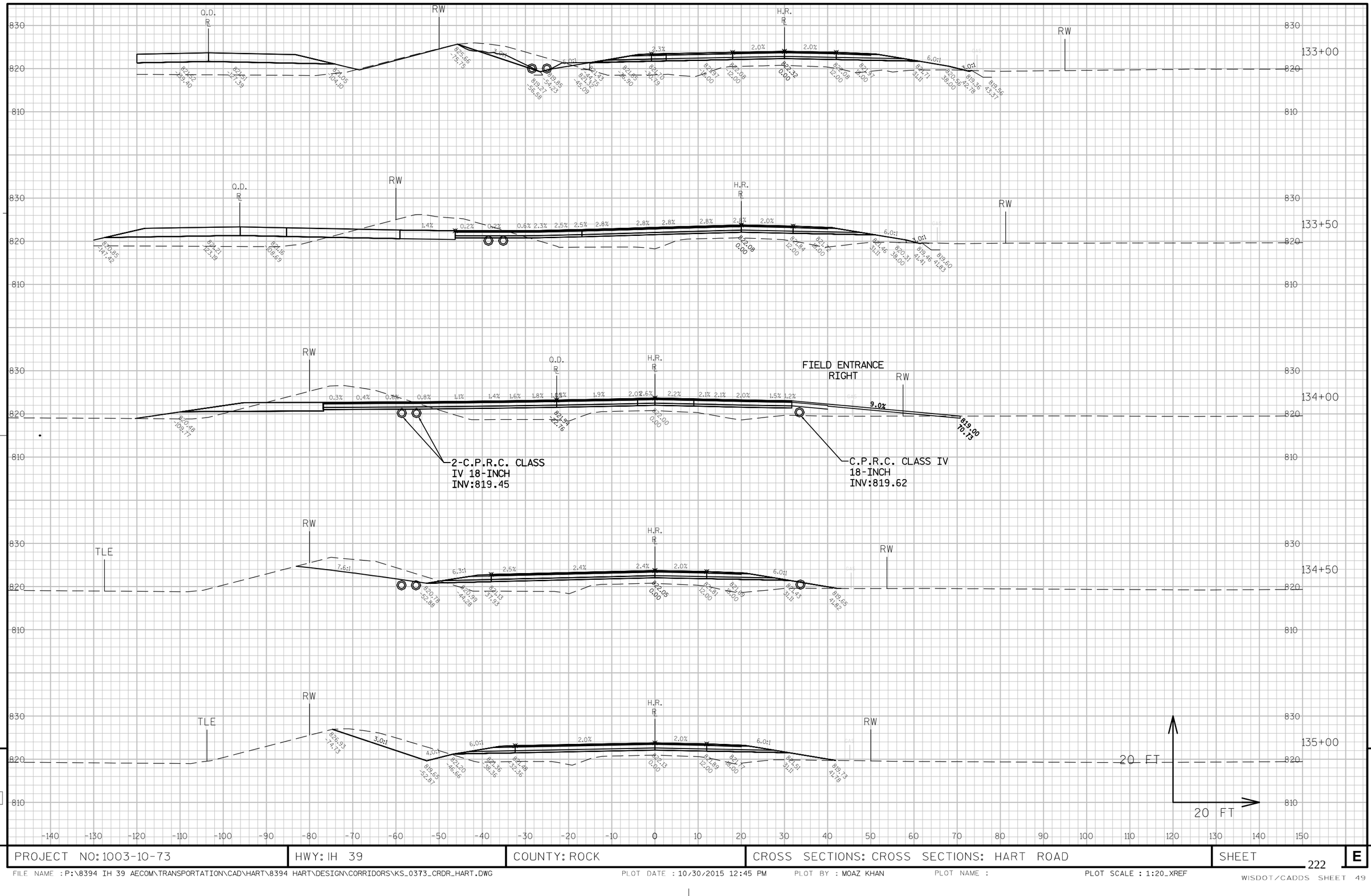
WISDOT/CADDS SHEET 49



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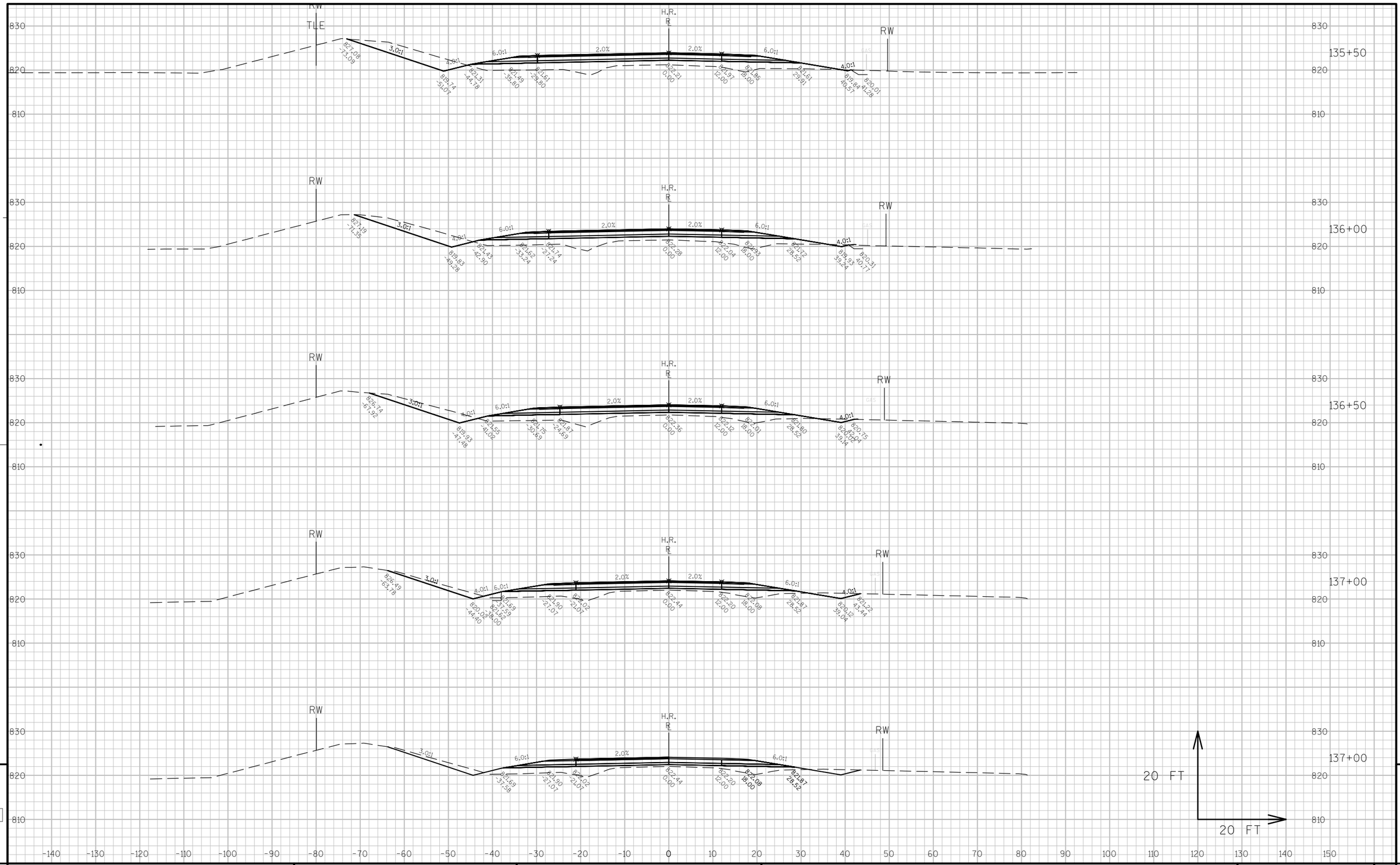

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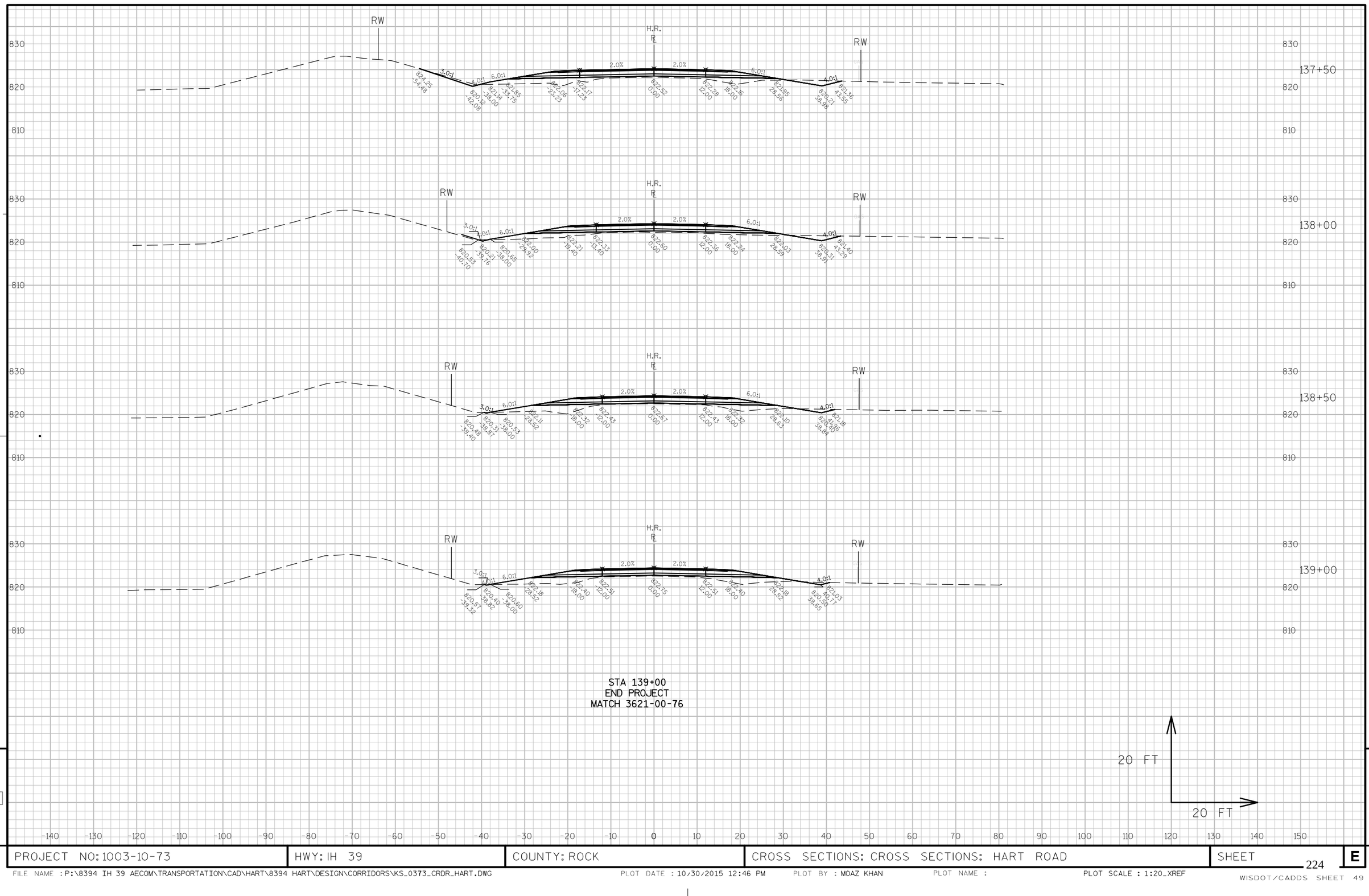
WISDOT/CADDS SHEET 49



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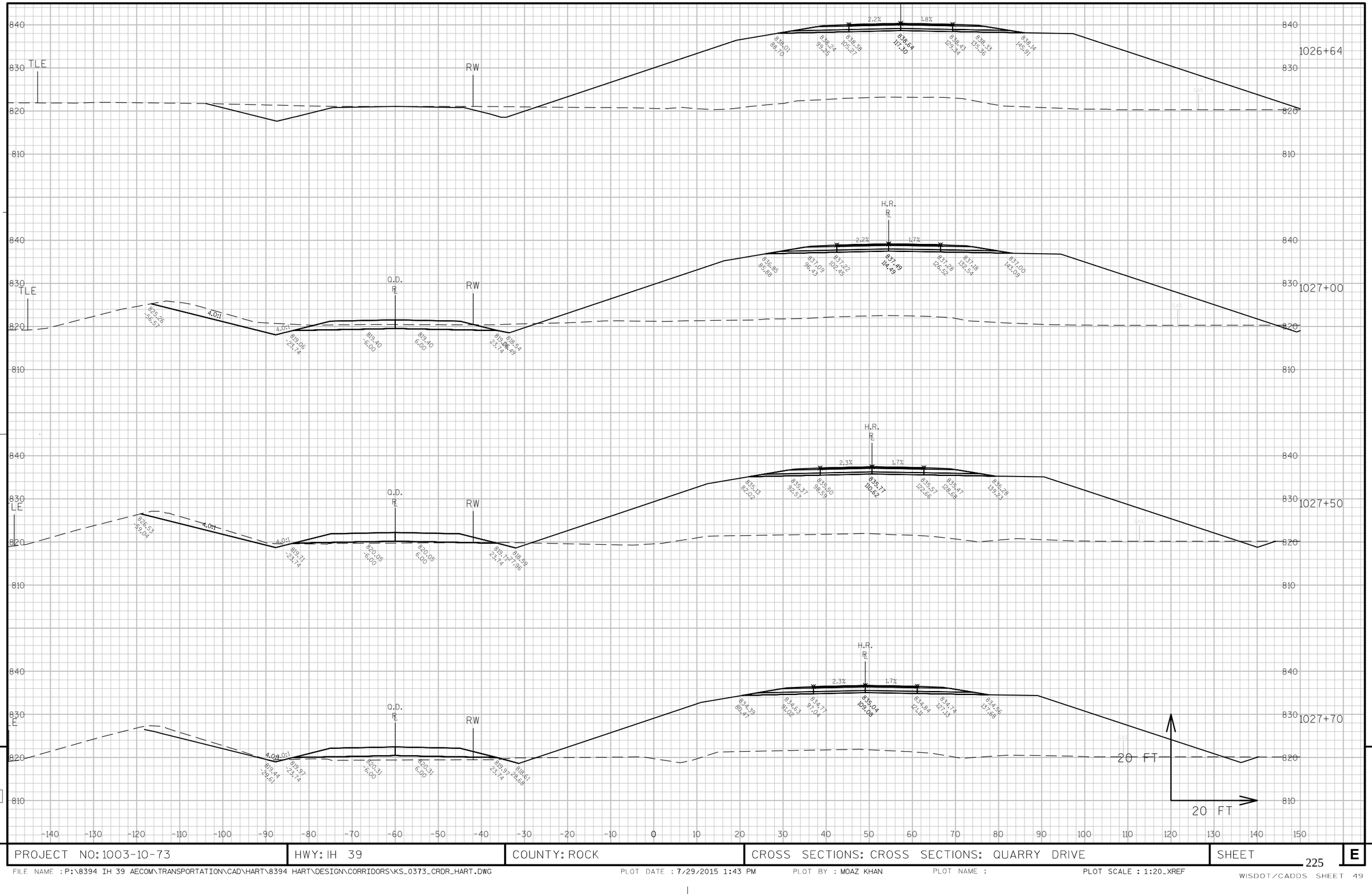

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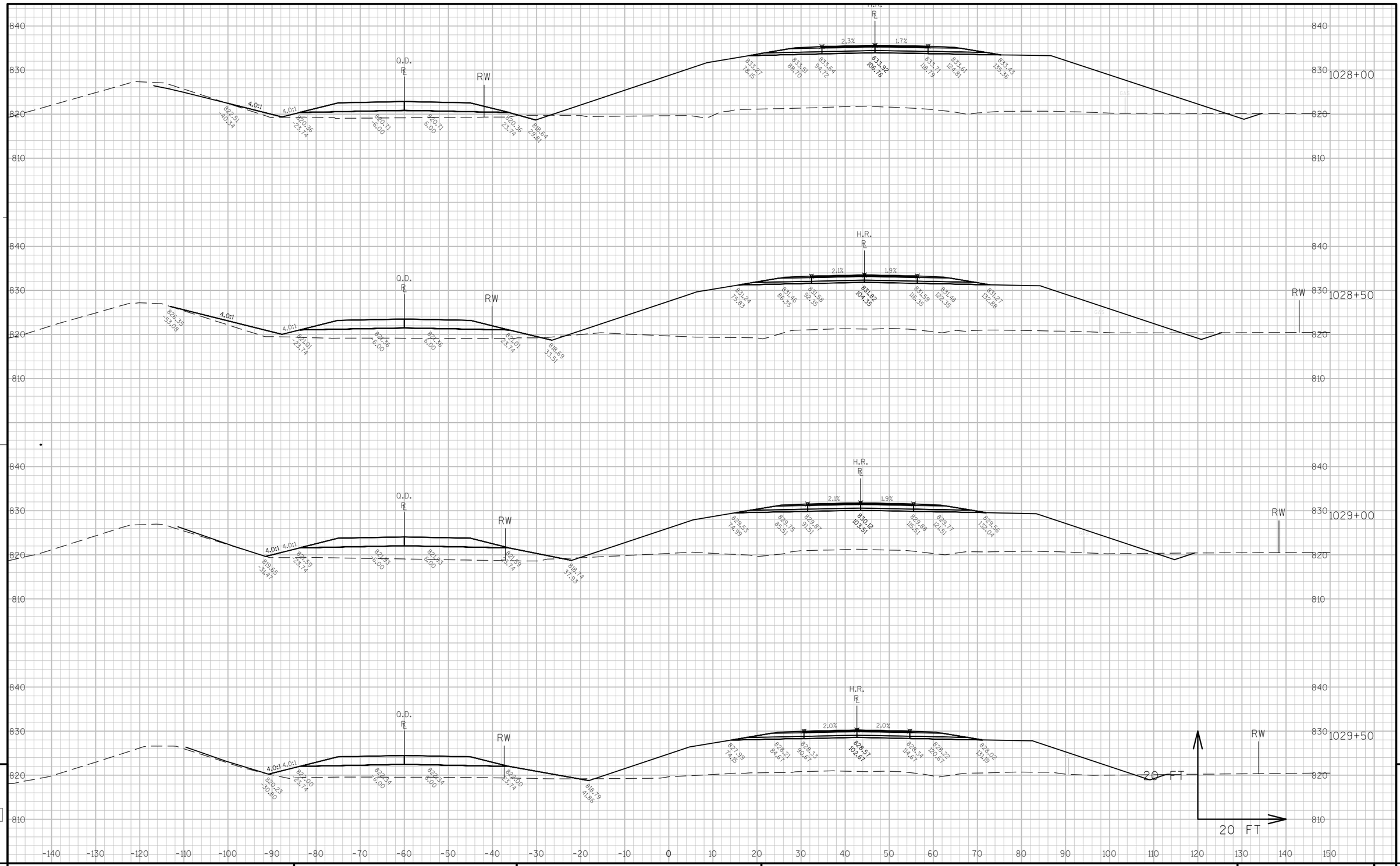

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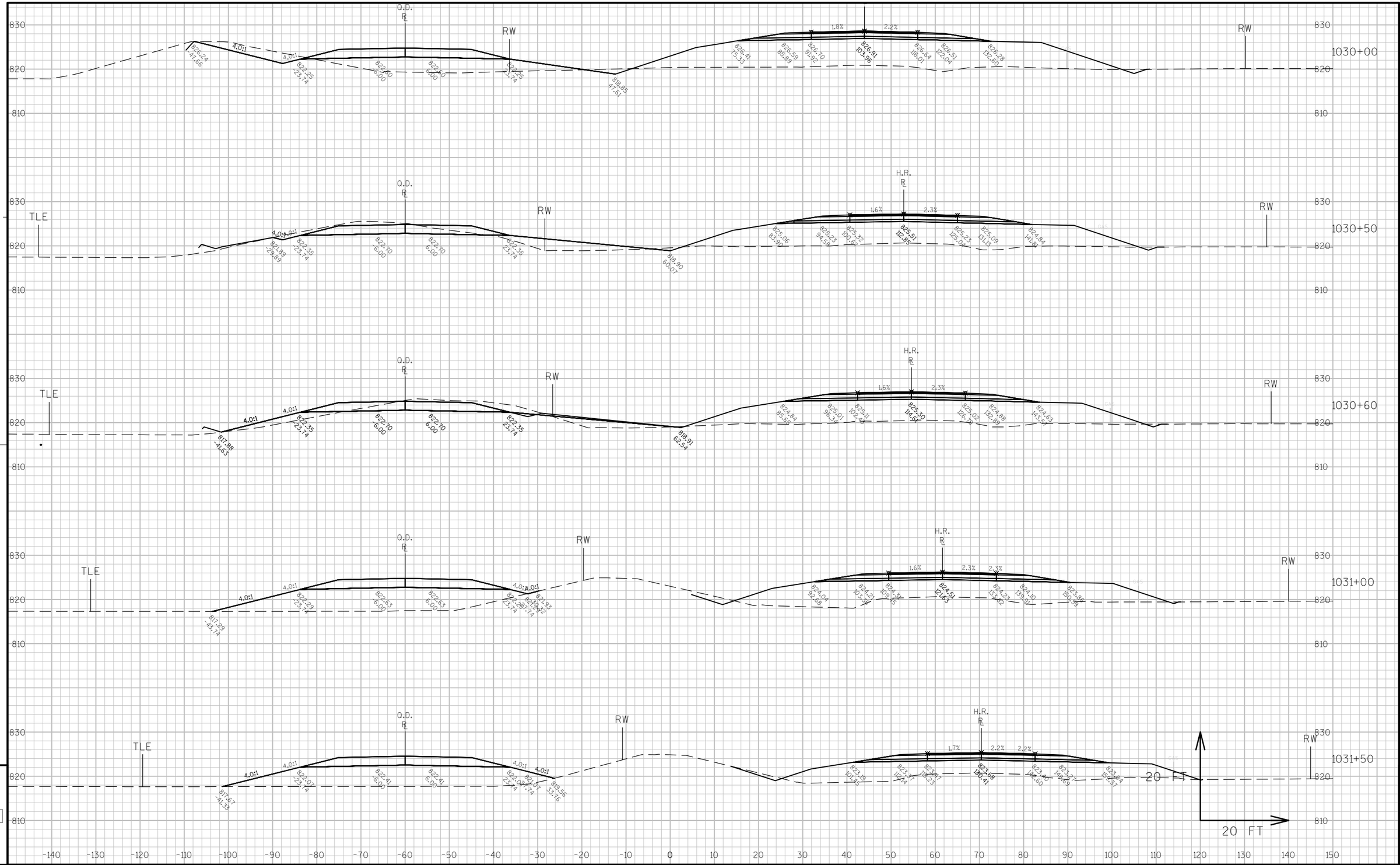

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: QUARRY DRIVE	SHEET 227	E

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: CROSS SECTIONS: QUARRY DRIVE	SHEET 228 E

BEGIN IH 39 NB WIDENING
STA 285+70

285+70
286+00
286+50
287+00
287+50
288+00
288+50

R/L

20 FT
20 FT

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 NB WIDENING	SHEET E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_IH39.DWG PLOT DATE : 10/28/2015 4:07 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF
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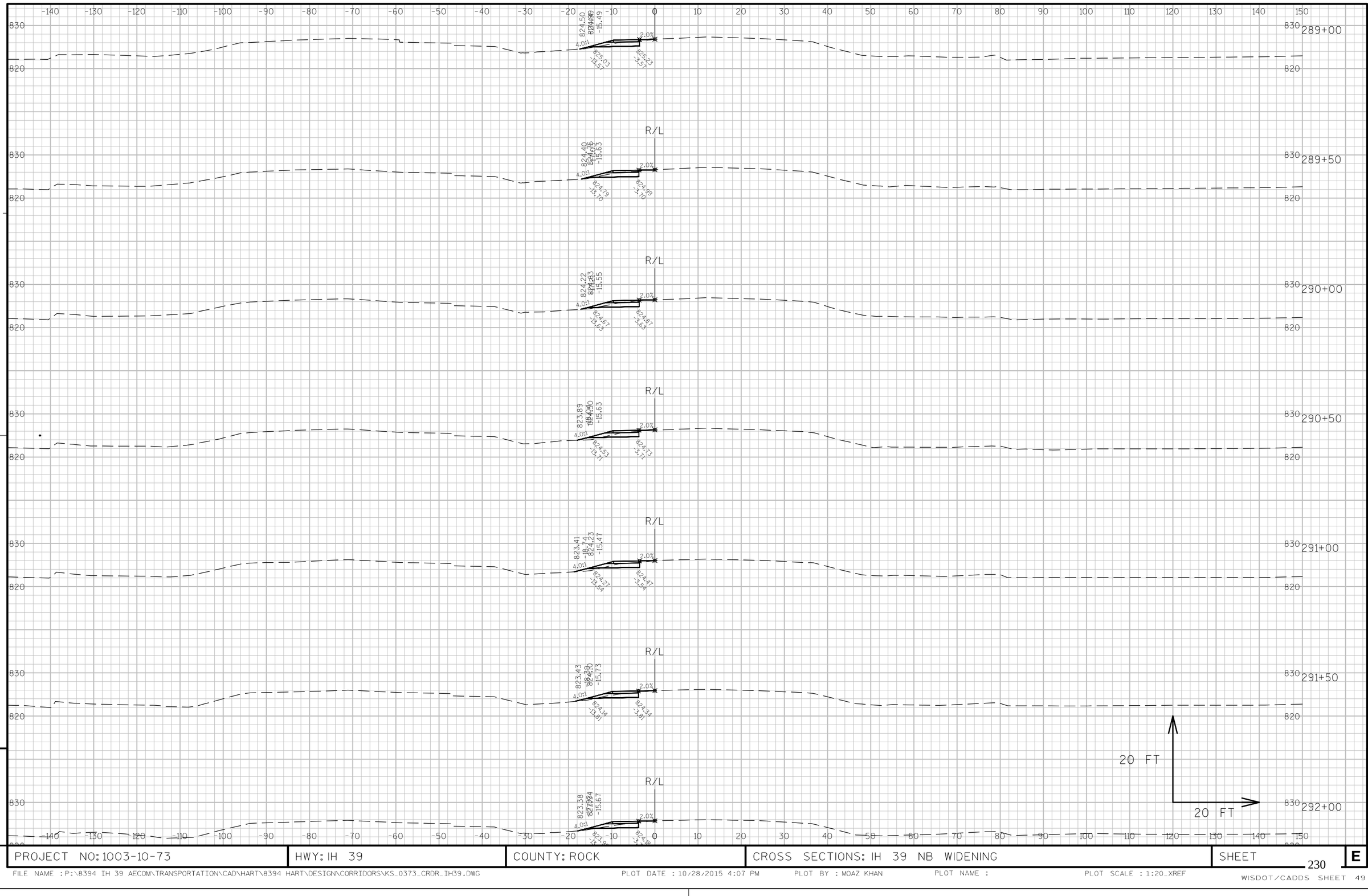

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PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 NB WIDENING	SHEET 230	E

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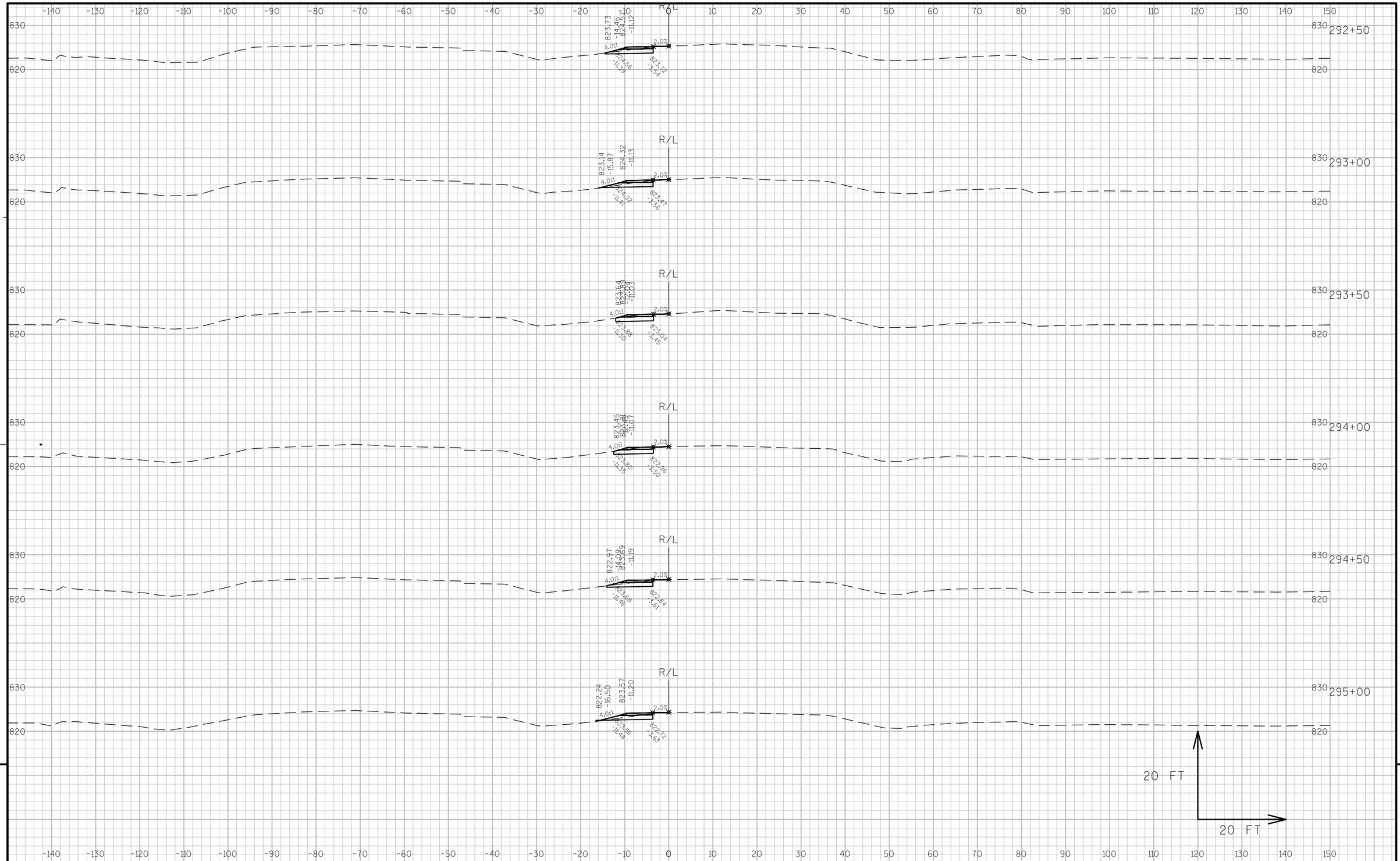

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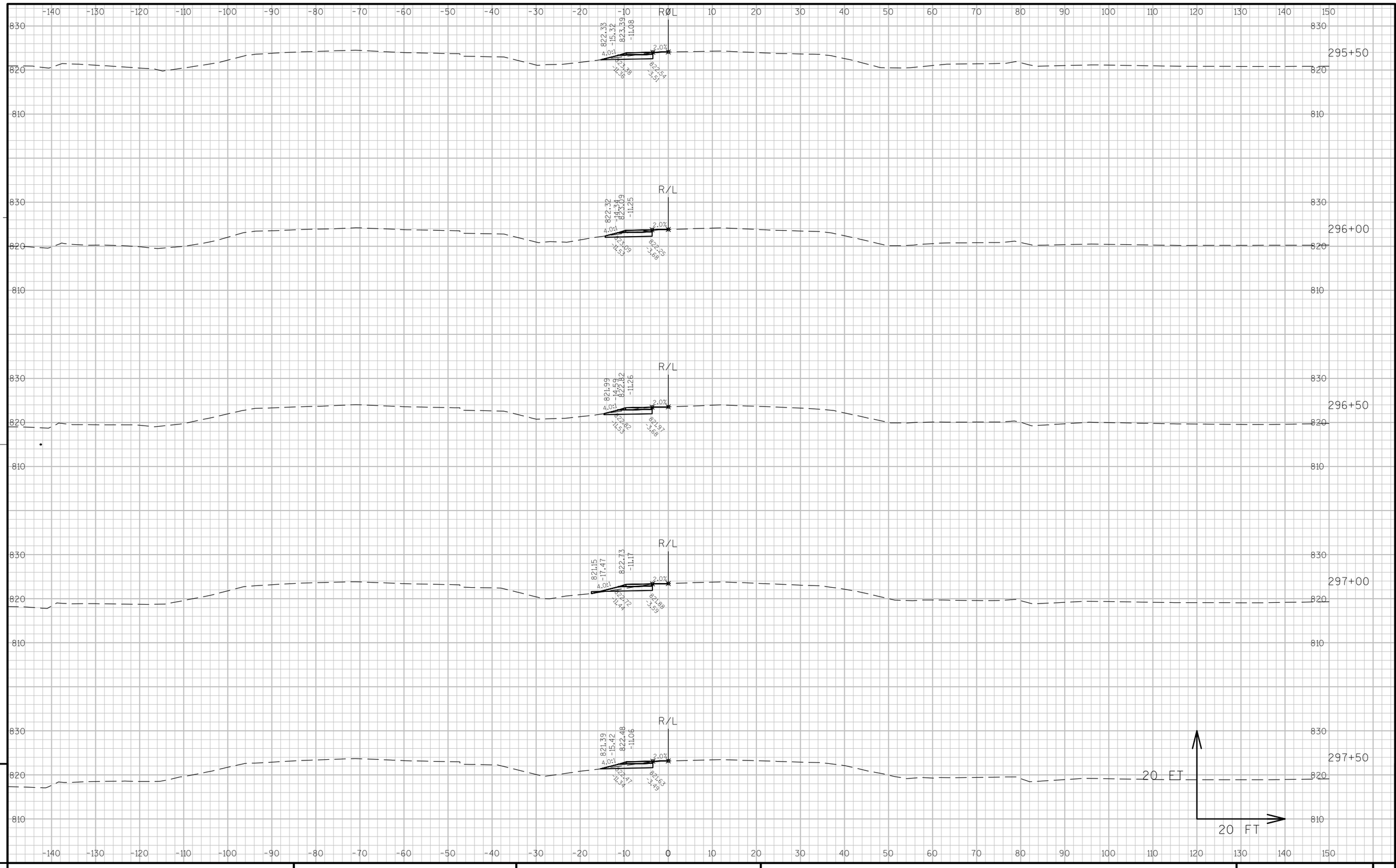

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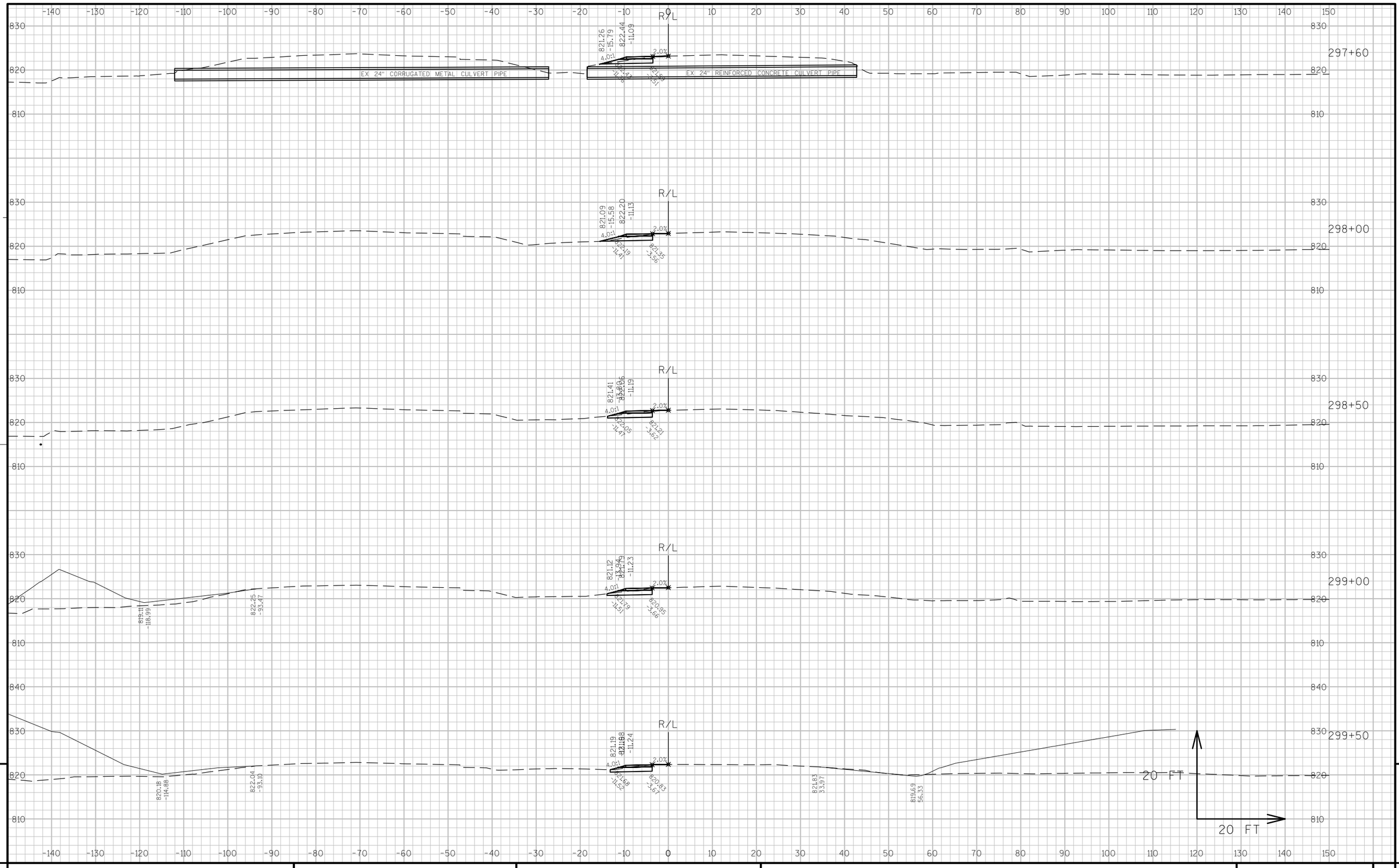

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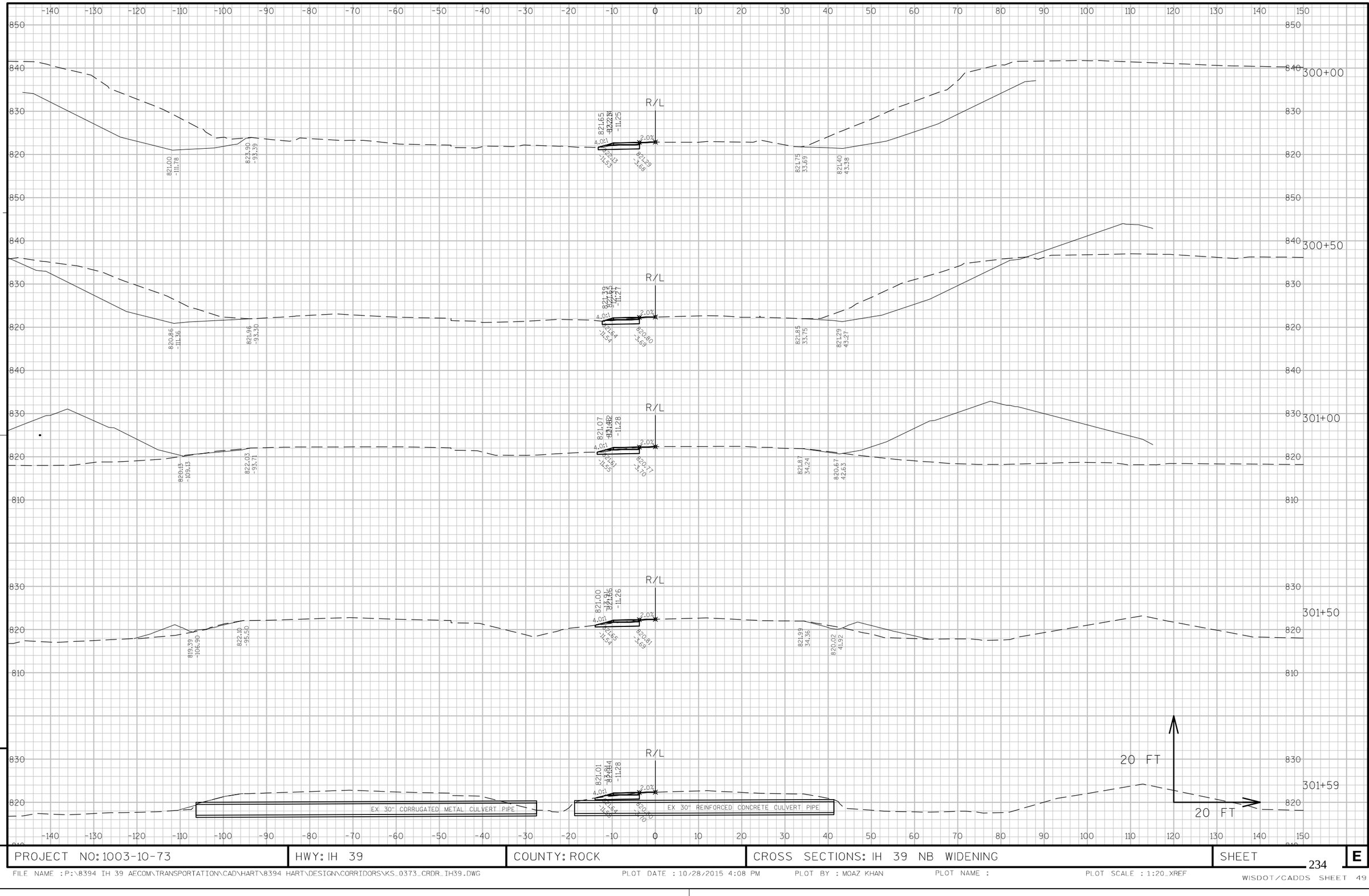
WISDOT/CADDS SHEET 49



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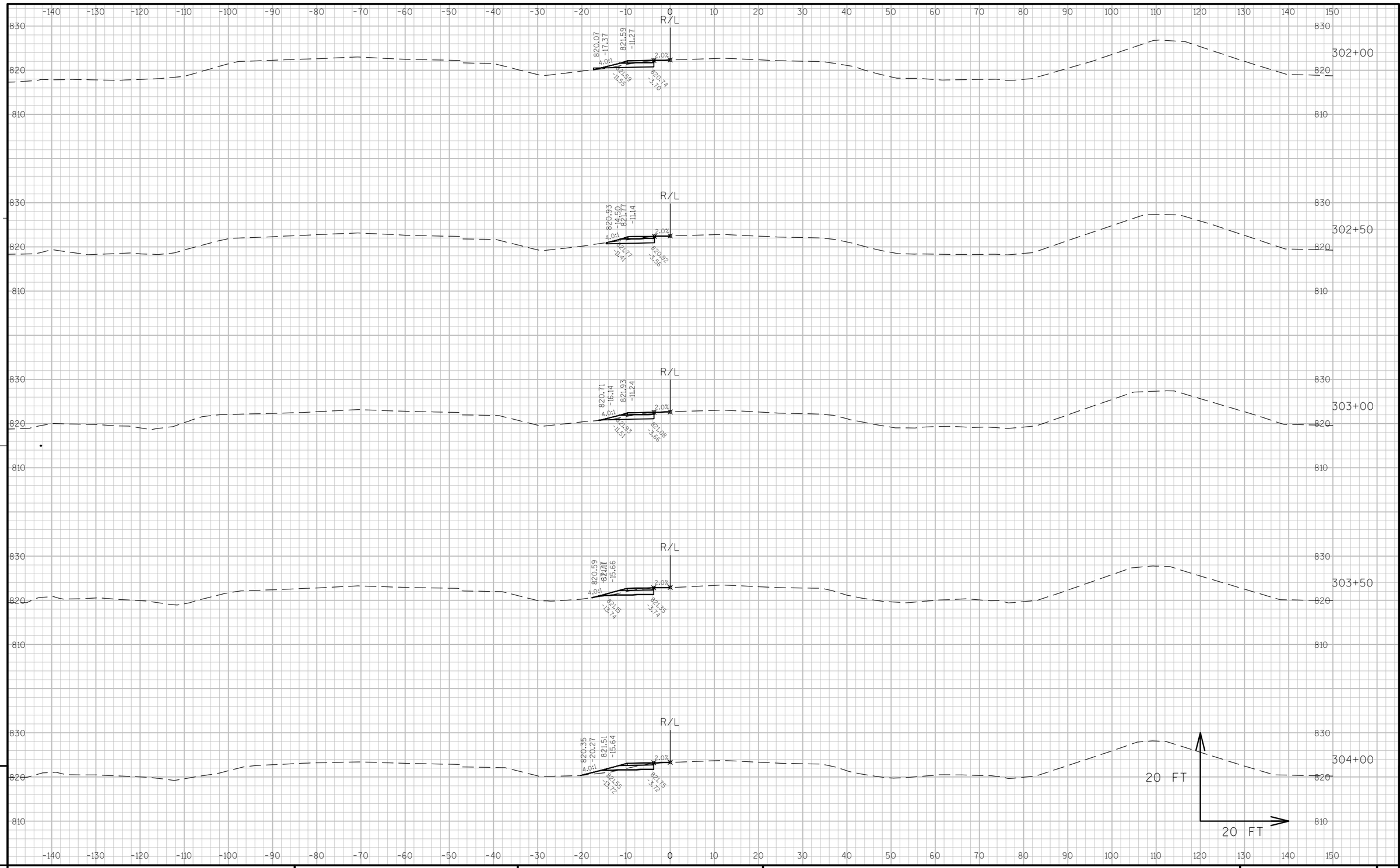

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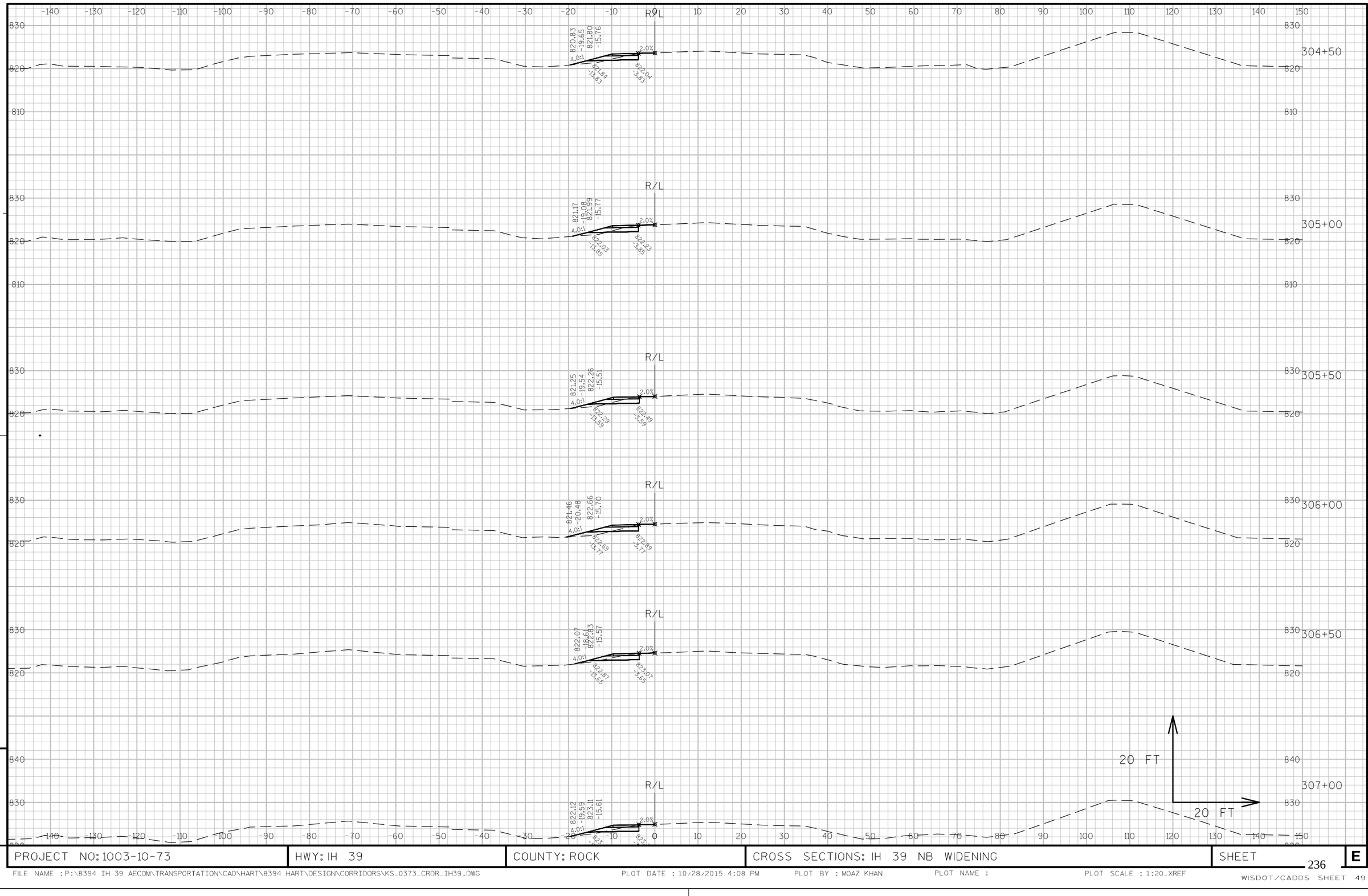

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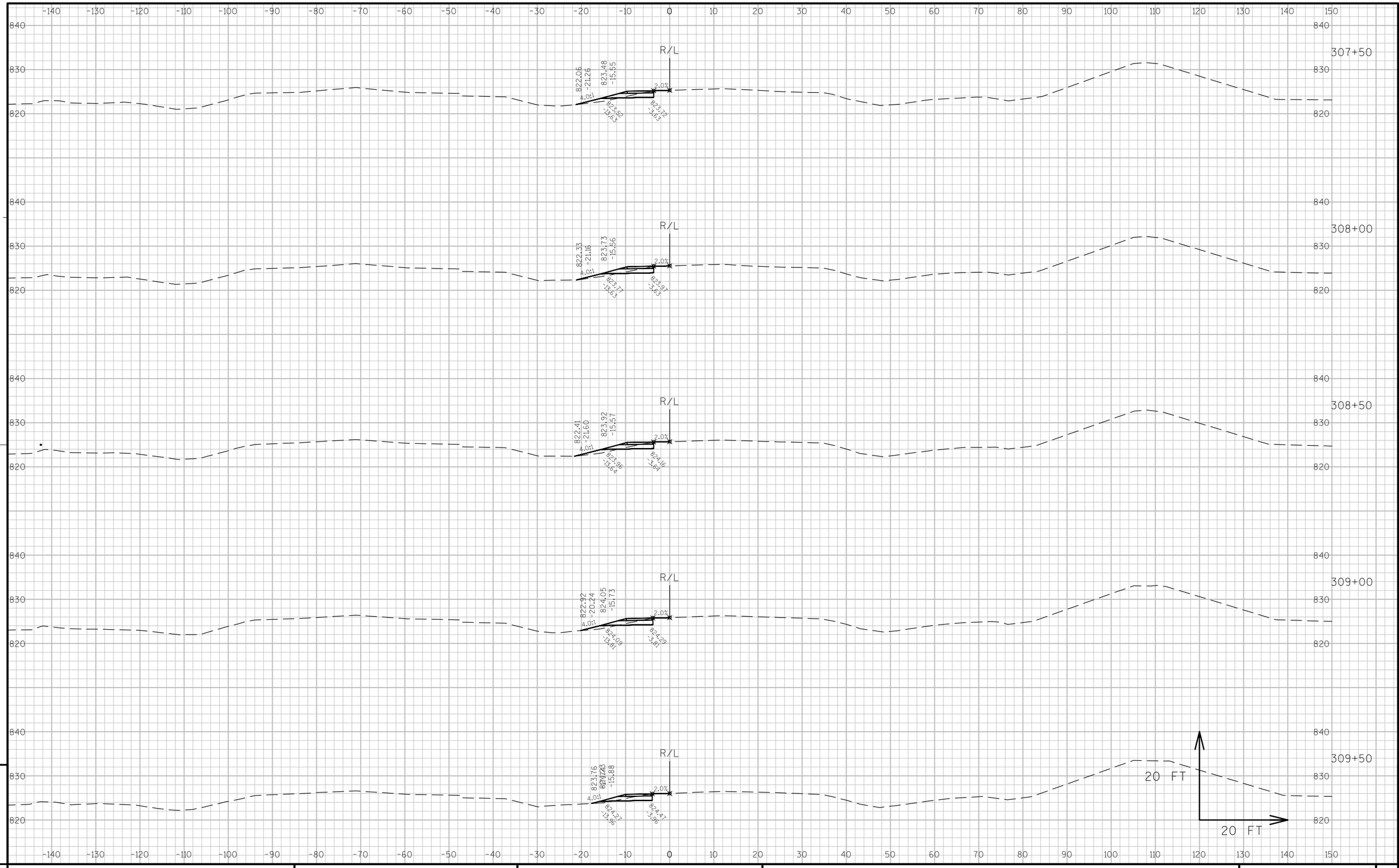

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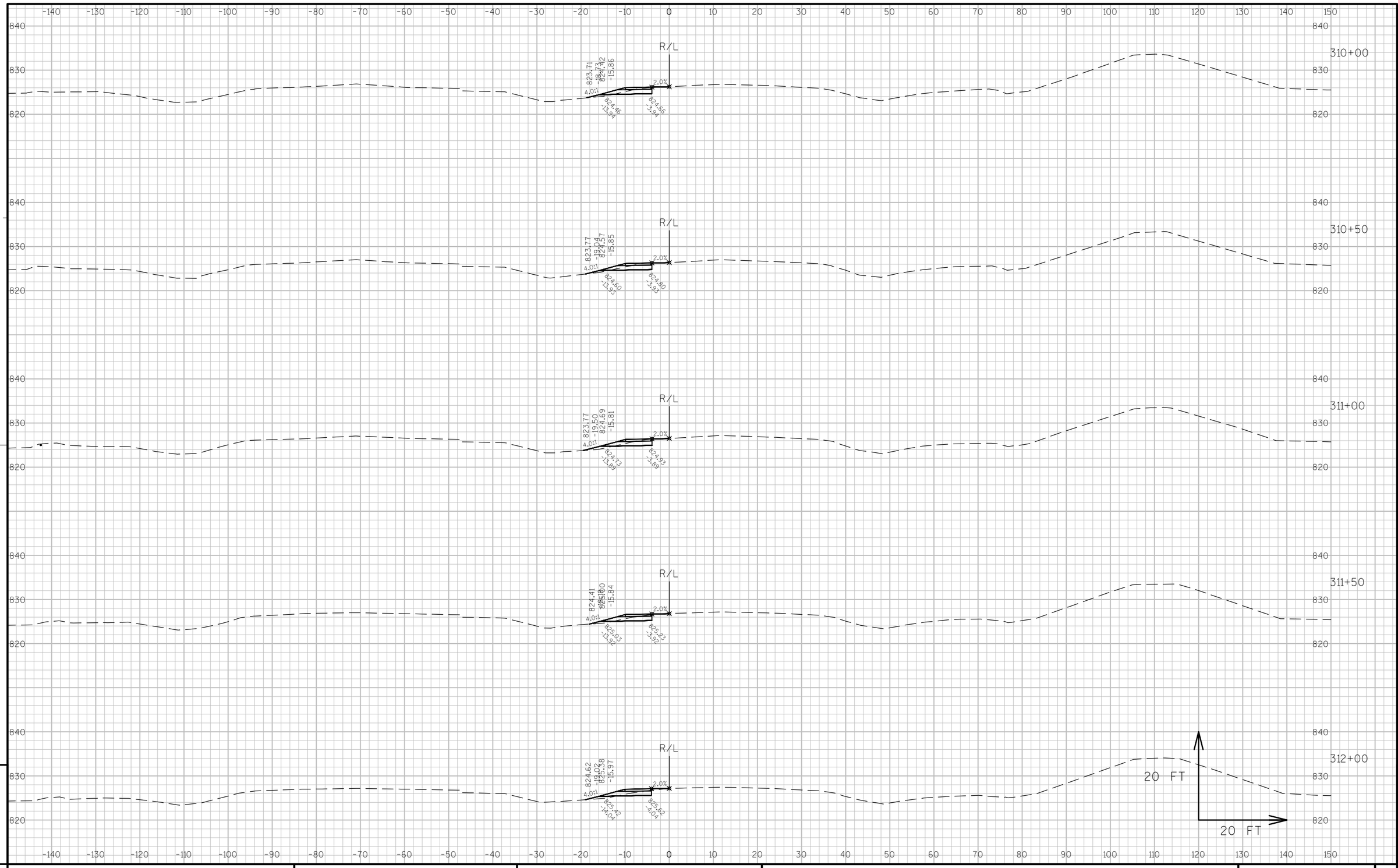

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 NB WIDENING	SHEET	E

FILE NAME : P:\8394 IH 39 AECOM\TRANSPORTATION\CAD\HART\8394 HART\DESIGN\CORRIDORS\KS_0373_CRDR_IH39.DWG PLOT DATE : 10/28/2015 4:08 PM PLOT BY : MOAZ KHAN PLOT NAME : PLOT SCALE : 1:20_XREF
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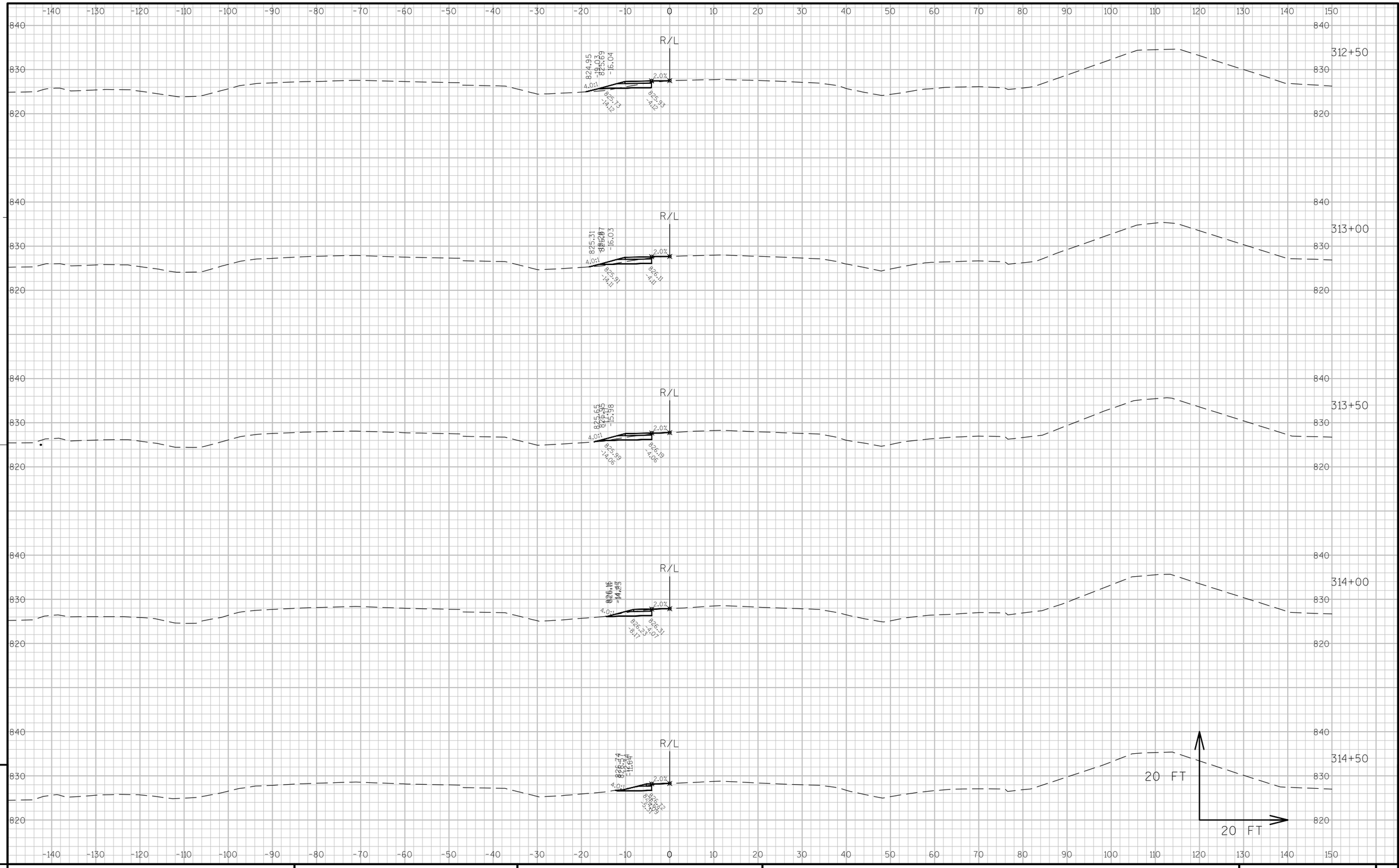

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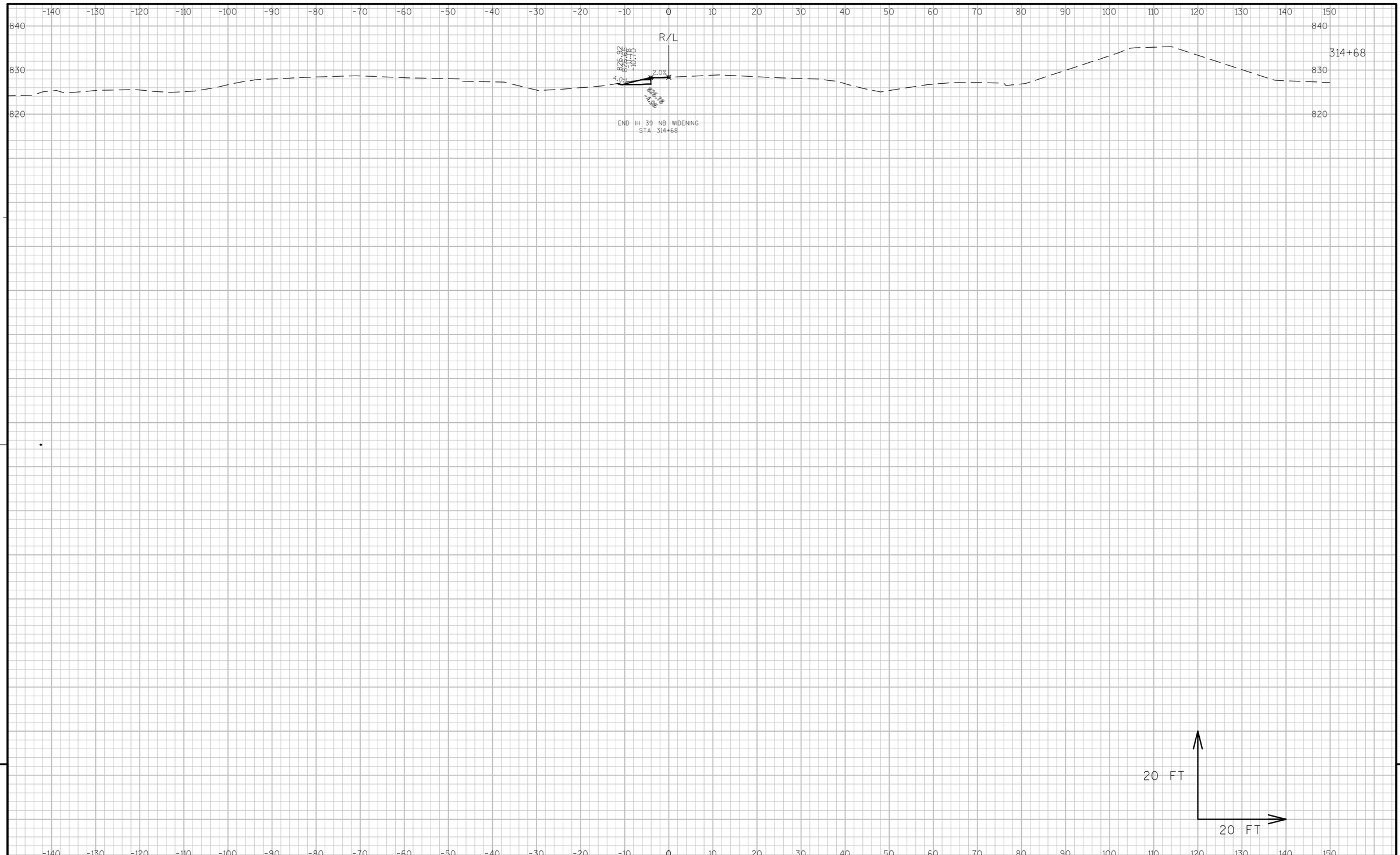

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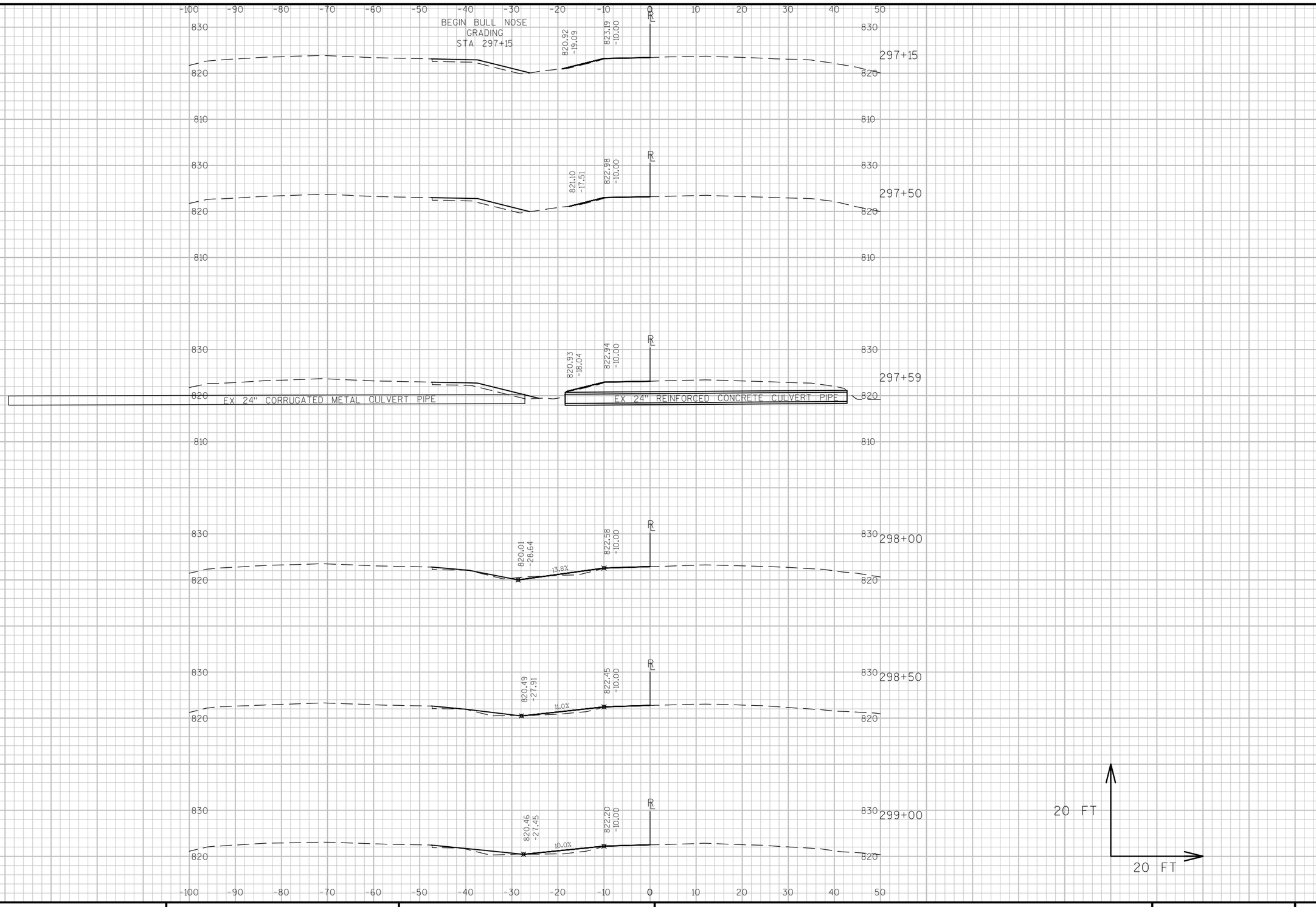

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 MEDIAN	SHEET E

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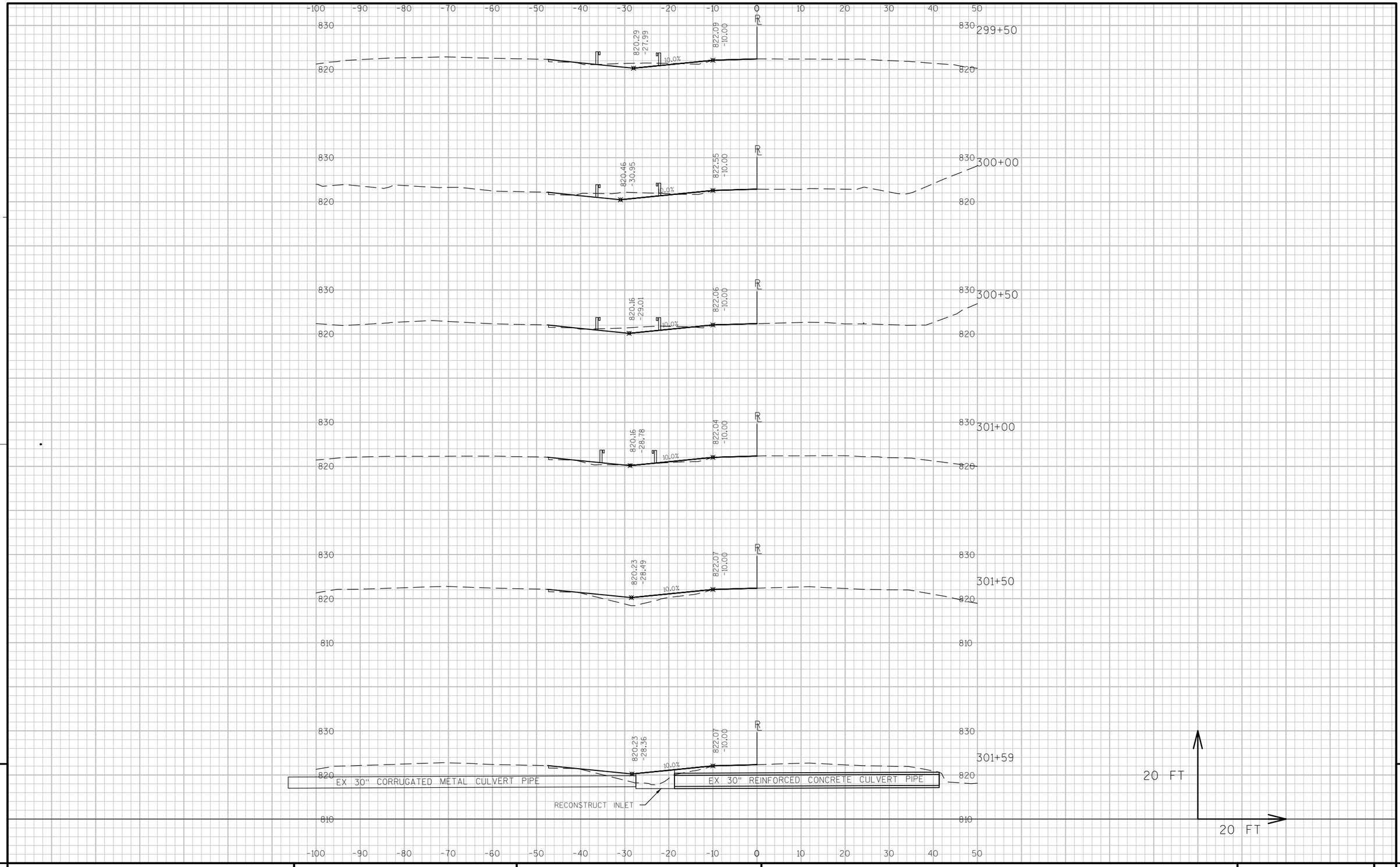

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 MEDIAN	SHEET	E

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WISDOT/CADDS SHEET 49

PROJECT NO: 1003-10-73	HWY: IH 39	COUNTY: ROCK	CROSS SECTIONS: IH 39 MEDIAN	SHEET E

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WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

MAD JANUARY 2016

PROJECT ID: 3621-00-76
WITH: 1003-10-73

COUNTY: ROCK

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
~~Section No.~~	~~8~~	~~Structure Plans~~
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 206

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HART ROAD, TOWN OF TURTLE

CTH S TO CTH X

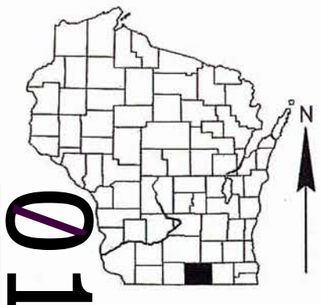
LOCAL STREET

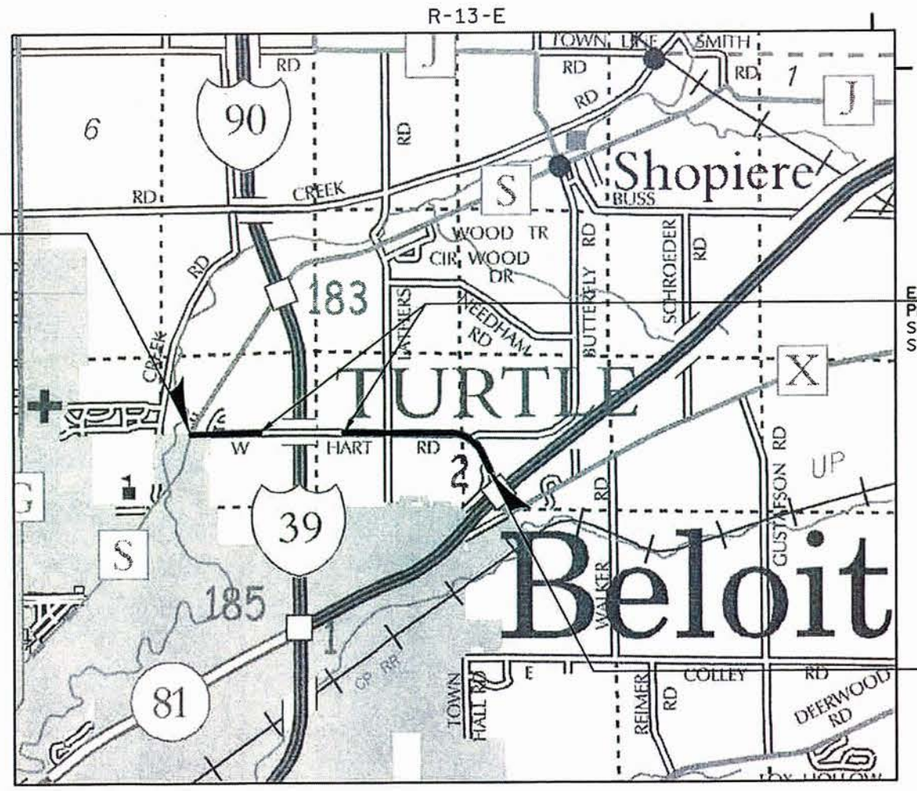
ROCK COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3621-00-76	———	—

STATE PROJECT NUMBER

3621-00-76





LAYOUT
SCALE 0 1.0 MI.

BEGIN PROJECT 3621-00-76
STA. 82+01.22'HR'
Y = 219582.12
X = 502421.14

EXCEPTION TO NET CENTERLINE LENGTH
PROJECT 1003-10-73
STA 108+00'HR' TO STA 139+00'HR'
STRUCTURE B-53-312 & APPROACHES

T-1-N

END PROJECT 3621-00-76
STA. 193+98.30'HR'

DESIGN DESIGNATION (3621-00-76)

A.A.D.T. (2016)	=	2,150
A.A.D.T. (2036)	=	2,600
D.H.V. (2036)	=	345 VPH
D.D.	=	60/40
T. (% ADT)	=	3.5%
DESIGN SPEED	=	60 MPH
ESALS	=	226,300

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- FLOW ARROW
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

TOTAL NET LENGTH OF CENTERLINE = 1.534 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS) ROCK COUNTY, NAD 83(91)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCE TO NAVD88 (2007)

ACCEPTED FOR

TOWN OF TURTLE

7.29.15 (Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

AECOM

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 www.aecom.com

WISCONSIN
KELLY J WOLF
E-39796-6
STEVENS PT. WI
PROFESSIONAL ENGINEER

7/27/15 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AECOM
Designer	AECOM
Project Manager	STEVE MARSHALL
Regional Examiner	JIM BUSCHKOPF
Regional Supervisor	KIMBERLY SCHAUDER
C.O. Examiner	

APPROVED FOR THE DEPARTMENT

DATE: 7/27/2015 (Signature)

E

GENERAL NOTES

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

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

CROSS DRAIN PIPES ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS), FOR REMOVAL OF UNSUITABLE MATERIAL, IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

SALVAGED TOPSOIL, SEEDING, MULCHING, AND FERTILIZER HAVE BEEN COMPUTED BY A DIRECT MEASUREMENT ON THE CROSS SECTIONS PLUS FIVE (5) FEET BEYOND THE TOE OF SLOPE.

RADII, ELEVATIONS, AND DIMENSIONS ARE GIVEN AT THE PAVEMENT EDGES, UNLESS OTHERWISE NOTED IN THE PLANS.

THE CONTRACTOR SHALL NOT OPERATE BEYOND THE SLOPE INTERCEPTS AS SHOWN IN THE PLANS WHEN ADJACENT TO WETLANDS OR ENVIRONMENTALLY SENSITIVE AREAS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

THE BASE AGGREGATE DENSE (BAD) CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 2.1 TONS/CY FOR 3/4-INCH BAD, 2.0 TONS/CY FOR 1 1/4-INCH BAD, AND 2.2 TONS/CY FOR 3-INCH BAD.

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 112 LBS/SY/IN OF DEPTH.

4-INCH HMA PAVEMENT, TYPE E-3

THICKNESS	LAYER	GRADATION	ASPHALTIC MATERIAL
1.75-INCHES	UPPER	12.5mm	PG 58-28
2.25-INCHES	LOWER	19.0mm	PG 58-28

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

THICKNESS	LAYER	GRADATION	ASPHALTIC MATERIAL
2.50-INCHES	1 LAYER	---	---
3.00-INCHES	1 LAYER	---	---

ABBREVIATIONS

(100')	RECORDED AS
A.A.D.T.	ANNUAL AVERAGE DAILY TRAFFIC
AC	ACRES
AP	ACCESS POINT/DRIVEWAY CONNECTION
AR	ACCESS RIGHTS
ASPH.	ASPHALTIC
ET. AL.	AND OTHERS
B.A.D.	BASE AGGREGATE DENSE
BM	BENCH MARK
C & G	CURB AND GUTTER
℄ OR CL	CENTERLINE
C.A.B.C.	CRUSHED AGGREGATE BASE COURSE
C.P.	CULVERT PIPE
C.P.C.S.	CULVERT PIPE CORRUGATED STEEL
C.P.R.C.	CULVERT PIPE REINFORCED CONCRETE
C.P.R.C.H.E.	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
C.T.H.	COUNTY TRUNK HIGHWAY
CE	COMMERCIAL ENTRANCE
C.M.C.P.	CORRUGATED METAL CULVERT PIPE
CONC.	CONCRETE
COR.	CORNER
CSM	CERTIFIED SURVEY MAP
CWT.	HUNDREDWEIGHT
D	DEGREE OF CURVE
D.D.	DIRECTIONAL DISTRIBUTION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
DOC.	DOCUMENT
E.	EASE
E.B.S.	EXCAVATION BELOW SUBGRADE
E.S.A.L.	EQUIVALENT SINGLE AXLE LOAD
EASE.	EASEMENT
EB	EASTBOUND
EL OR ELEV	ELEVATION
ELEC.	ELECTRIC (AL)
EXC.	EXCAVATION
EXIST.	EXISTING
F.E.	FIELD ENTRANCE
F.L. OR F/L	FLOW LINE
FT.	FOOT
H.E.	HIGHWAY EASEMENT
HMA	HOT MIX ASPHALT
INL.	INLET
INV.	INVERT
IP OR I.P.	IRON PIN
L	LENGTH OF CURVE
L.H.F.	LEFT-HAND FORWARD
L.S.	LUMP SUM
LB.	POUND
LN	LANE
LT. OR LT	LEFT
M.L. OR M/L	MATCH LINE
MATL.	MATERIAL
MAX.	MAXIMUM
MH.	MANHOLE
MIN.	MINIMUM
MON.	MONUMENT
MP	ROADWAY MILEAGE
N.	NORTH
N.C.	NORMAL CROWN
NB	NORTH BOUND
OBLIT	OBLITERATE
P.	PAGE
P.A.S.P.	PIPE ARCH STRUCTURAL PLATE
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVE
P.E.	PRIVATE ENTRANCE
P.I.	POINT OF INTERSECTION
P.L.	PROPERTY LINE
P.L.E.	PERMANENT LIMITED EASEMENT
P.T.	POINT OF TANGENCY
PAVT.	PAVEMENT
PROJ.	PROJECT

ABBREVIATIONS CONT.

PT.	POINT
R	RADIUS
R.H.F.	RIGHT-HAND FORWARD
℄ OR R/L	REFERENCE LINE
R/W	RIGHT-OF-WAY
R.C.C.P.	REINFORDCED CONCRETE CULVERT PIPE
RD.	ROAD
REBAR.	REINFORCEMENT BAR
REINF	REINFORCING OR REINFORCEMENT
REM.	REMAINING
REQD.	REQUIRED
ROR	RELEASE OF RIGHTS
RR.	RAILROAD
RRSP	RAILROAD SPIKE
RT OR RT.	RIGHT
S.	SOUTH
S.D.D.	STANDARD DETAIL DRAWINGS
S.E.	SUPERELEVATION
S.F. OR SQ.FT.	SQUARE FEET
S.S.	STORM SEWER
S.S.P.R.C.	STORM SEWER PIPE REINFORCED CONCRETE
S.T.H.	STATE TRUNK HIGHWAYS
S.Y. OR SQ.YD.	SQUARE YARD
SALV.	SALVAGED
SB	SOUTHBOUND
SEC.	SECTION
SHLDR.	SHOULDER
SPECS.	SPECIFICATIONS
STA.	STATION
STD.	STANDARD
T	TANGENT
T. %	TRUCKS (PERCENT OF)
T.L.E.	TEMPORARY LIMITED EASEMENT
T.P.M.	TEMPORARY PAVEMENT MARKING
T.P.M.R.T.	TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE
TEL.	TELEPHONE
TEMP.	TEMPORARY
TYP.	TYPICAL
U.S.H.	UNITED STATES HIGHWAY
UG.	UNDERGROUND
V	VOLUME
V.C.	VERTICAL CURVE
W.	WEST
WB	WESTBOUND
X	EAST GRID COORDINATE
Y	NORTH GRID COORDINATE

2

UTILITIES

WISCONSIN POWER & LIGHT -
ELECTRICITY, GAS/PETROLEUM
JASON HOGAN
SUITE 1000
4902 N BILTMORE LN
MADISON, WI 53718
(608) 458-4871
jasonhogan@alliantenergy.com

AT&T WISCONSIN - COMMUNICATION LINE
CAROL ANASON
316 W WASHINGTON AVE
MADISON, WI 53703
(608) 252-2385
ca2624@att.com

ANR PIPELINE COMPANY - GAS/PETROLEUM
LAWRENCE HUBER
W3925 PIPELINE LN
EDEN, WI 53019
(920)477-2235
lawrence_huber@transcanada.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE
BRANDON STORM
2701 DANIELS ST
MADISON, WI 53718
(608)274-3822
brandon.storm@charter.com

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PHONE: (608) 362-0655
townofturtle@charter.net

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FleschM@ci.beloit.wi.us

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1350 DEMING WAY, SUITE 100
MIDDLETON, WI 53562
PHONE: (608) 836-9800
kelly.wolf@aecom.com

WISDNR

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
(SOUTH CENTRAL REGION)
ROCK COUNTY
LAURA BUB
3911 FISH HATCHERY RD
FITCHBURG, WI 53711-5397
PHONE: (608) 275-3485
laura.bub@wisconsin.gov

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			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 .22	.16 .30	.22 .38	.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 .28	.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:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 27.484 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 18.607 ACRES

TYPICAL SECTION AND DETAIL SHEET INDEX

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS DETAIL
INTERSECTION DETAILS
EROSION CONTROL
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
ALIGNMENT DIAGRAM
CONTROL POINTS

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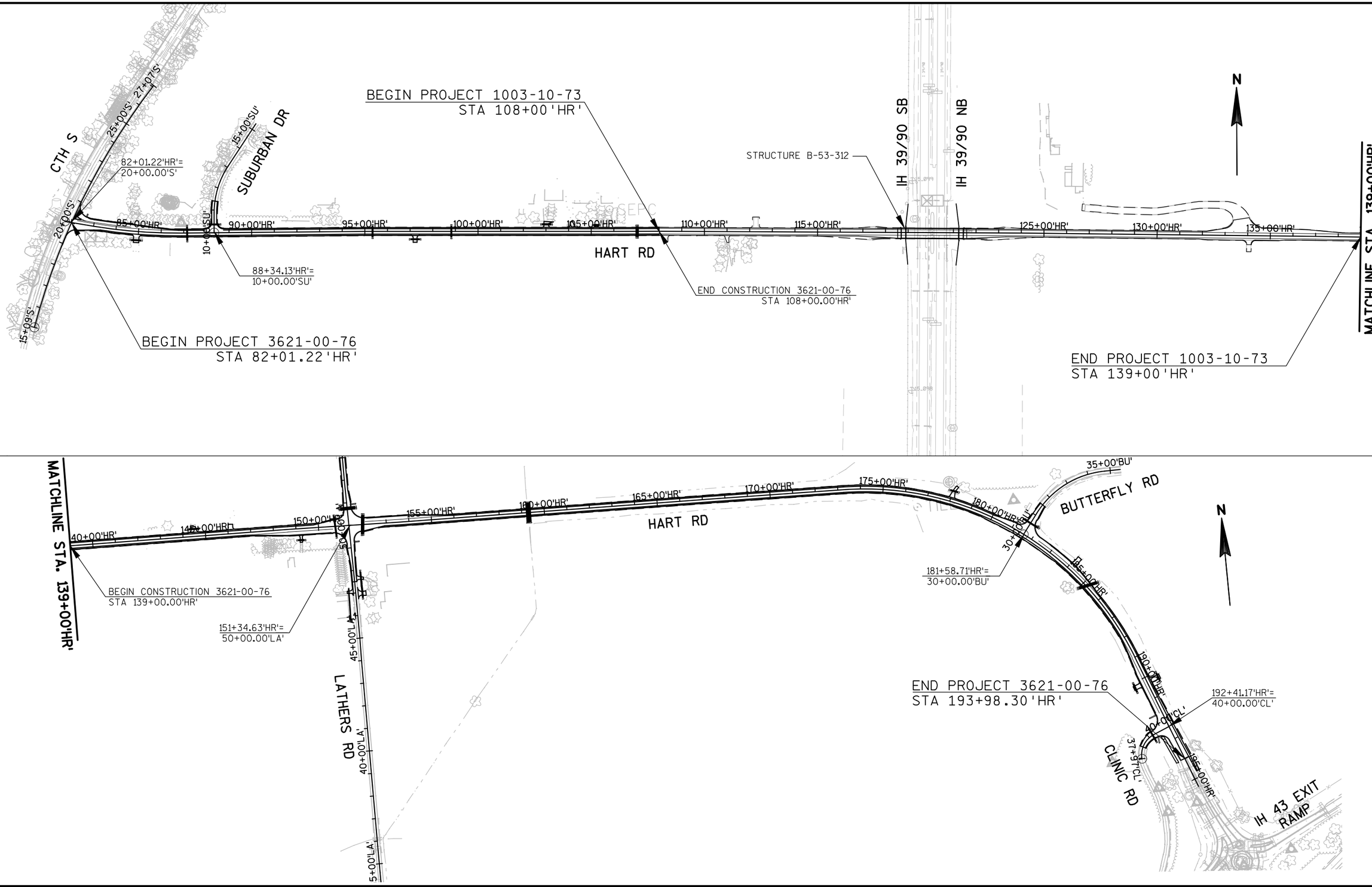
WISDOT/CADDS SHEET 42

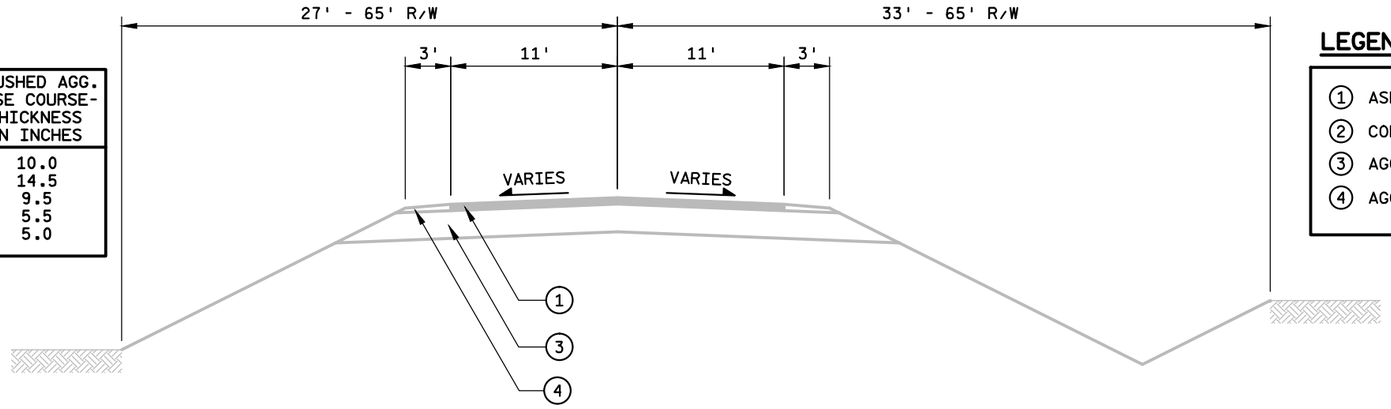


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\020201_PO.DWG PLOT DATE : 10/29/2015 12:50 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:400 FT

PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM CENTERLINE	ASPHALT THICKNESS IN INCHES	CRUSHED AGG. BASE COURSE-THICKNESS IN INCHES
HR-2	87+50'HR'	6' RT	4.0	10.0
HR-4	98+00'HR'	6' LT	3.5	14.5
HR-7	140+00'HR'	5' RT	6.5	9.5
HR-8	148+00'HR'	6' LT	6.5	5.5
HR-14	165+00'HR'	6' LT	11.0	5.0



LEGEND

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. AGGREGATE BASE COURSE
4. AGGREGATE SHOULDER

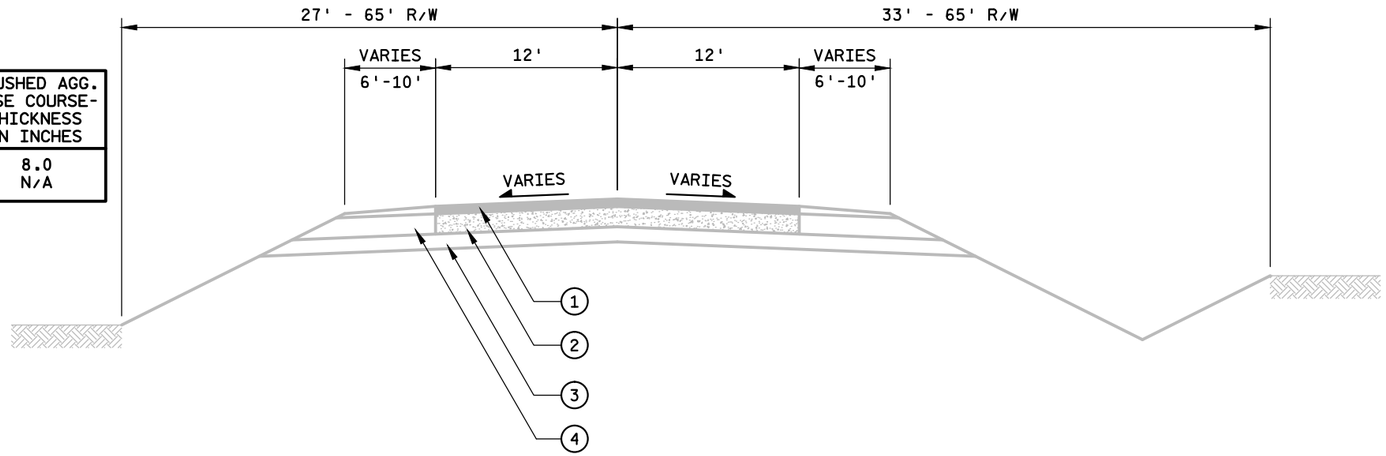
EXISTING TYPICAL SECTION - HART RD

STA. 82+01'HR' - STA. 108+00'HR'
STA. 139+00'HR' - STA. 172+54'HR'

PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM CENTERLINE	PAVEMENT THICKNESS IN INCHES	CRUSHED AGG. BASE COURSE-THICKNESS IN INCHES
HR-15	175+00'HR'	6' RT	9.0*	8.0
HR-17A	185+00'HR'	8' LT	9.0**	N/A

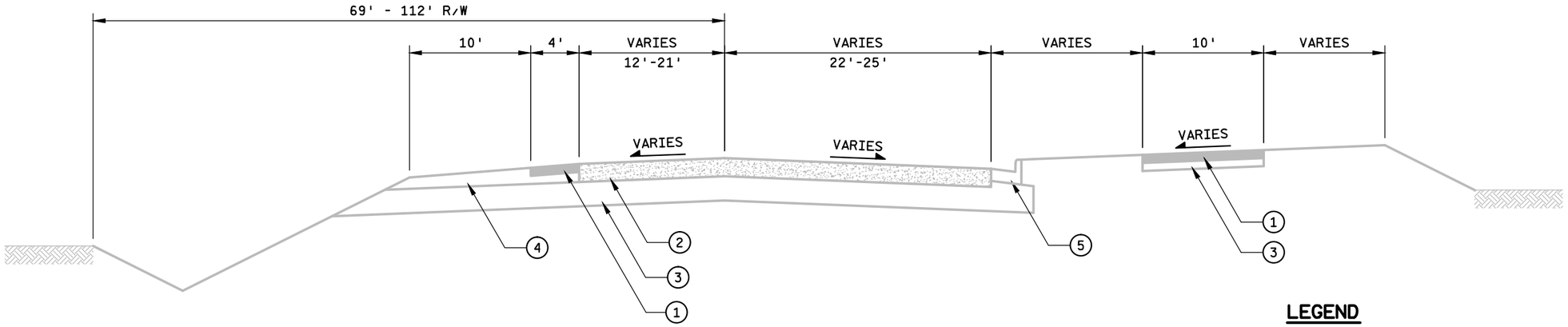
* 2 IN. OF ASPHALT OVER 7 IN. OF CONCRETE
** 3 IN. OF ASPHALT OVER 6 IN. OF CONCRETE



EXISTING TYPICAL SECTION - HART RD

STA. 172+54'HR' - STA. 193+03'HR'

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 5	E



EXISTING TYPICAL SECTION - HART RD

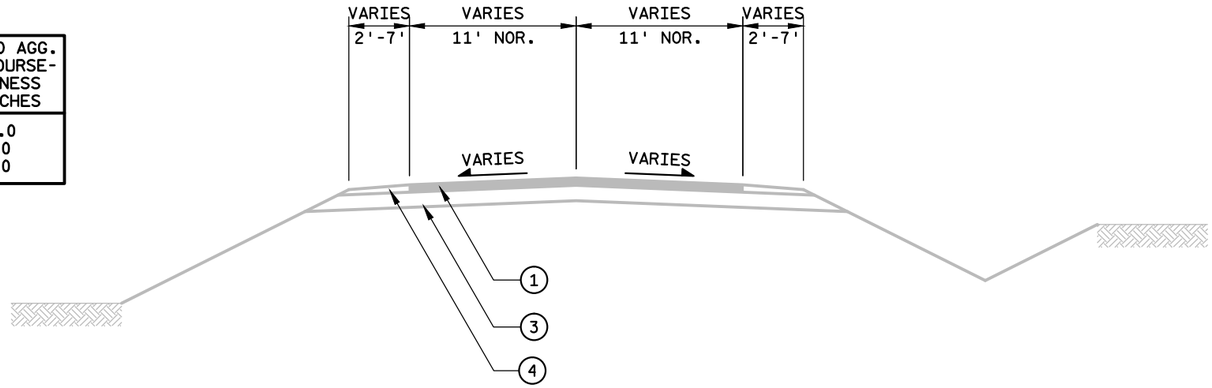
STA. 193+03'HR' - STA. 194+71'HR'

PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM CENTERLINE	CONCRETE THICKNESS IN INCHES	CRUSHED AGG. BASE COURSE-THICKNESS IN INCHES
HR-19	193+50'HR'	8' RT	9.0	12.0

LEGEND

1. ASPHALT PAVEMENT
2. CONCRETE PAVEMENT
3. AGGREGATE BASE COURSE
4. AGGREGATE SHOULDER
5. CONCRETE CURB & GUTTER



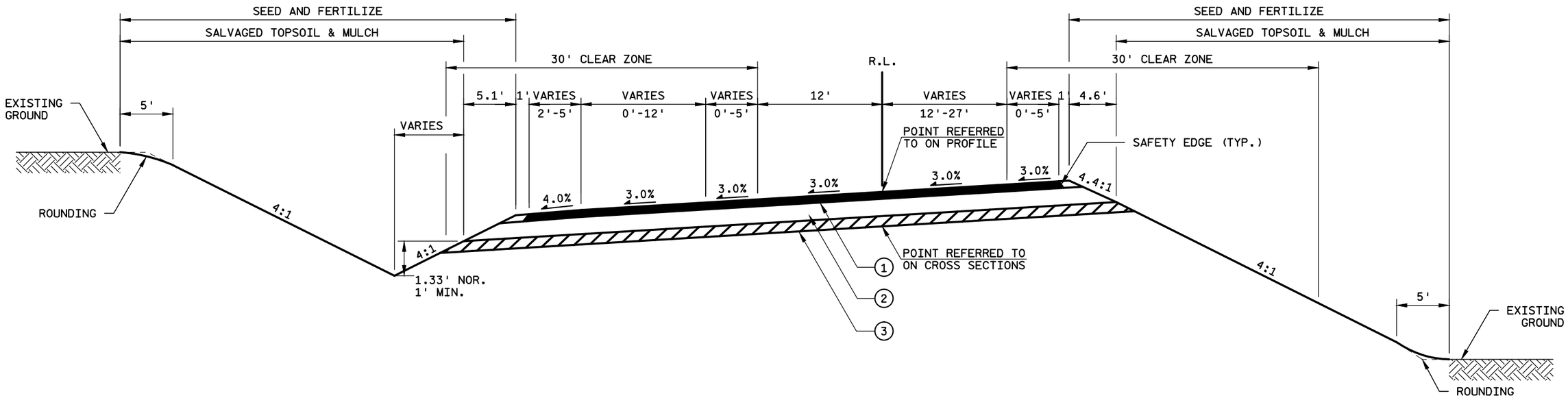
EXISTING TYPICAL SECTION - SIDE ROAD

SUBURBAN DRIVE: STA. 10+00'SU' - 11+40'SU'
LATHERS ROAD: STA. 47+50'LA'- 53+00'LA'
BUTTERFLY ROAD: STA. 30+00'BU' - 31+55'BU'
CLINIC ROAD: STA. 38+50'CL' - 40+00'CL'

PAVEMENT CORE LOG

CORE NO	STATION	OFFSET FROM CENTERLINE	ASPHALT THICKNESS IN INCHES	CRUSHED AGG. BASE COURSE-THICKNESS IN INCHES
HR-3	11+23'SU'	5' LT	2.0	12.0
HR-9	52+50'LA'	5' LT	3.0	6.0
HR-10	48+00'LA'	5' RT	6.0	5.0

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 6	E



TYPICAL FINISHED SECTION - HART RD

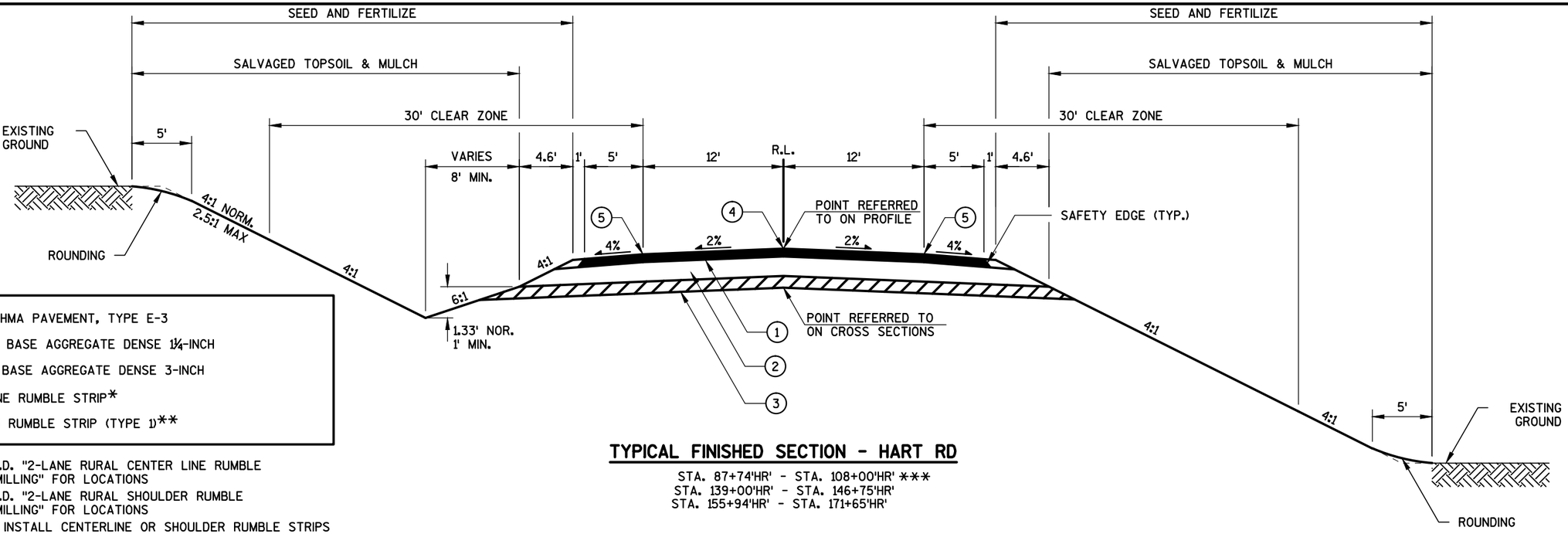
STA. 82+01'HR' - STA. 87+74'HR'

LEGEND

(1)	4-INCHES HMA PAVEMENT, TYPE E-3
(2)	10-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	6-INCHES BASE AGGREGATE DENSE 3-INCH

CURVE S.E. DATA
P.I. STA. 84+96.31'HR'

82+17.49'HR'	-2.00%	Normal Crown
82+58.82'HR'	0.00%	Zero Cross Slope
83+00.15'HR'	2.00%	Remove Crown
83+20.82'HR'	3.00%	Full Super
86+70.82'HR'	3.00%	Full Super
86+91.49'HR'	2.00%	Remove Crown
87+32.82'HR'	0.00%	Zero Cross Slope
87+74.15'HR'	-2.00%	Normal Crown



LEGEND

1. 4-INCHES HMA PAVEMENT, TYPE E-3
2. 10-INCHES BASE AGGREGATE DENSE 1¼-INCH
3. 6-INCHES BASE AGGREGATE DENSE 3-INCH
4. CENTERLINE RUMBLE STRIP*
5. SHOULDER RUMBLE STRIP (TYPE 1)**

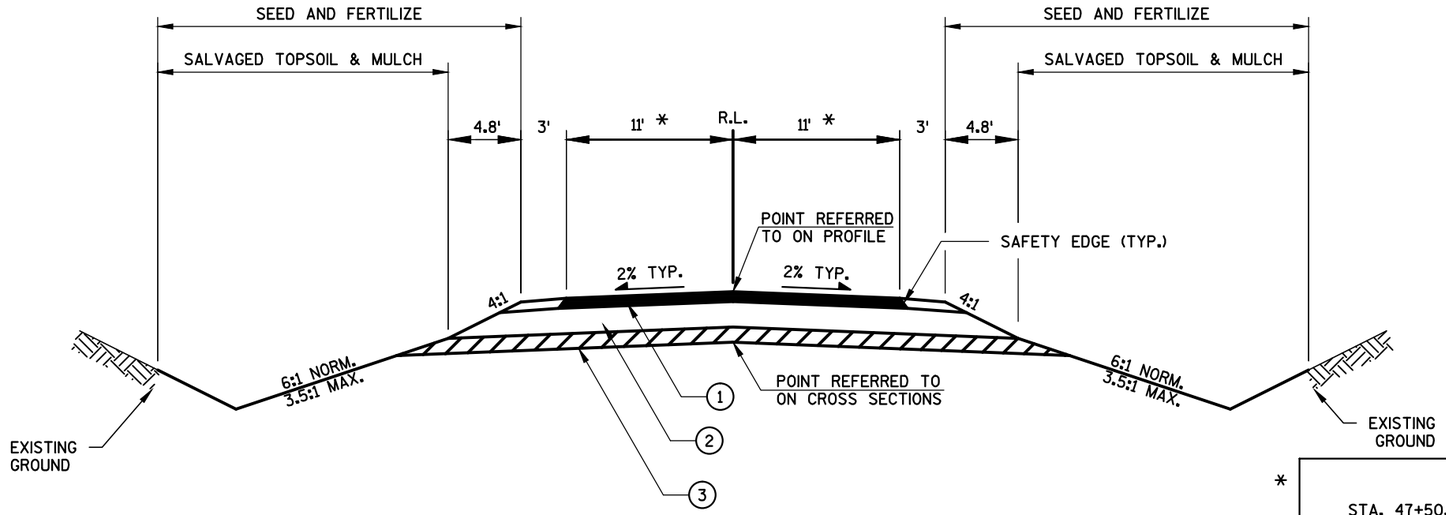
* SEE S.D.D. "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR LOCATIONS

** SEE S.D.D. "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR LOCATIONS

*** DO NOT INSTALL CENTERLINE OR SHOULDER RUMBLE STRIPS FROM STA. 87+74'HR' - STA. 95+00'HR'

TYPICAL FINISHED SECTION - HART RD

STA. 87+74'HR' - STA. 108+00'HR' ***
STA. 139+00'HR' - STA. 146+75'HR'
STA. 155+94'HR' - STA. 171+65'HR'



LEGEND

1. 4-INCHES HMA PAVEMENT, TYPE E-3
2. 10-INCHES BASE AGGREGATE DENSE 1¼-INCH
3. 6-INCHES BASE AGGREGATE DENSE 3-INCH

TYPICAL FINISHED SECTION - SIDE ROAD

SUBURBAN DRIVE: STA. 10+00'SU' - 11+40'SU'
LATHERS ROAD: STA. 47+50'LA'- 53+00'LA'
BUTTERFLY ROAD: STA. 30+00'BU' - 31+55'BU'
CLINIC ROAD: STA. 38+50'CL' - 40+00'CL'

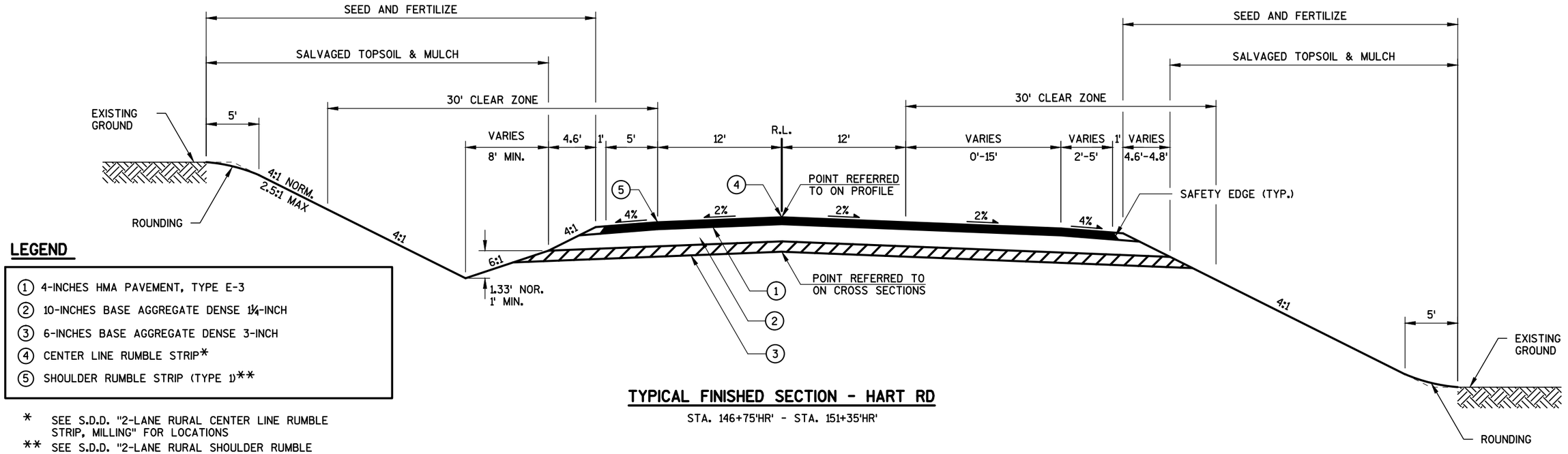
*

LATHERS RD
STA. 47+50.0'LA' - STA. 49+19.0'LA': VARIES 9.25'-15'
STA. 50+81.0'LA' - STA. 51+56.3'LA': VARIES 11'-15'

BUTTERFLY RD
STA. 30+72.9'BU' - STA. 31+47.1'BU': VARIES 12'-15'
STA. 31+47.1'BU' - STA. 31+55.0'BU': 12'

CLINIC RD
STA. 38+50.00'CL' - STA. 38+58.0'CL': 12'
STA. 38+58.0'CL' - STA. 39+24.2'CL': VARIES 12'-15'

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 8	E



LEGEND

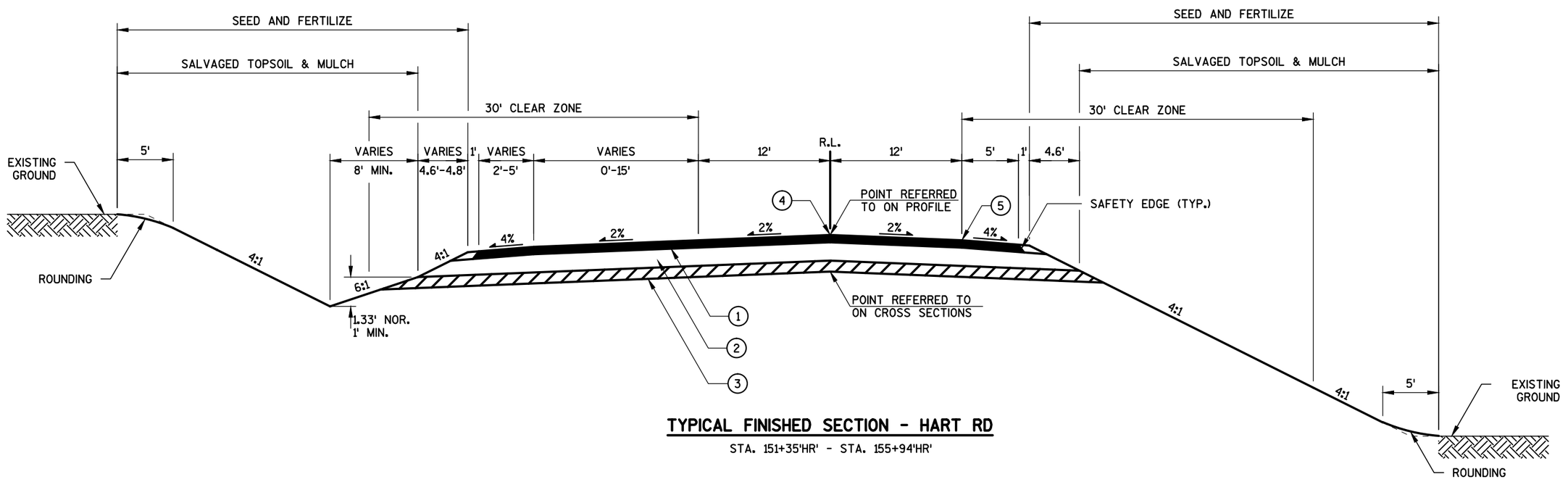
(1)	4-INCHES HMA PAVEMENT, TYPE E-3
(2)	10-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	6-INCHES BASE AGGREGATE DENSE 3-INCH
(4)	CENTER LINE RUMBLE STRIP*
(5)	SHOULDER RUMBLE STRIP (TYPE 1)**

* SEE S.D.D. "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR LOCATIONS

** SEE S.D.D. "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR LOCATIONS

TYPICAL FINISHED SECTION - HART RD

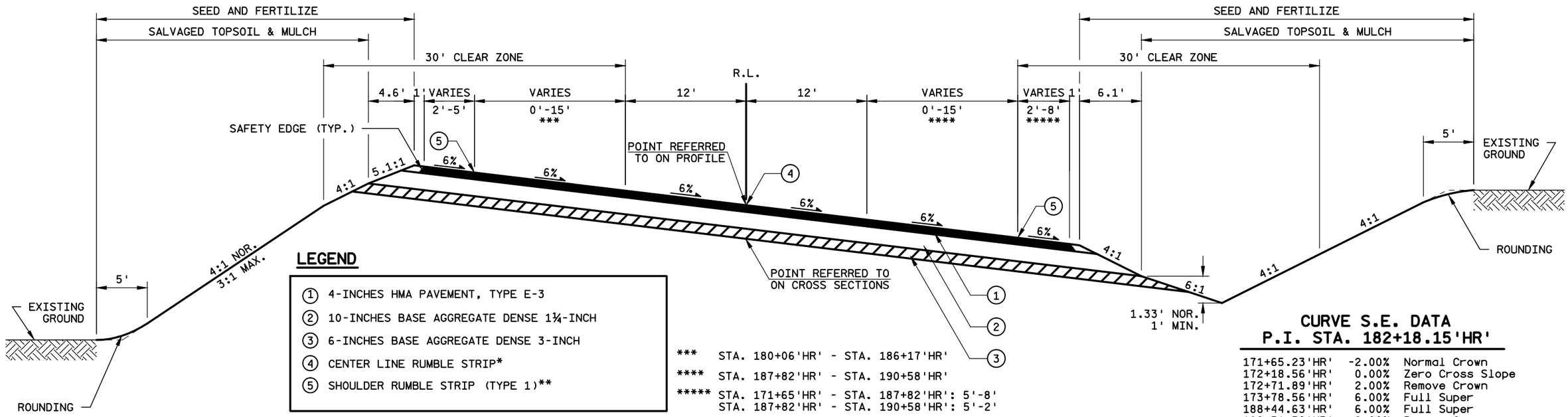
STA. 146+75'HR' - STA. 151+35'HR'



TYPICAL FINISHED SECTION - HART RD

STA. 151+35'HR' - STA. 155+94'HR'

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 9	E



LEGEND

(1)	4-INCHES HMA PAVEMENT, TYPE E-3
(2)	10-INCHES BASE AGGREGATE DENSE 1¼-INCH
(3)	6-INCHES BASE AGGREGATE DENSE 3-INCH
(4)	CENTER LINE RUMBLE STRIP*
(5)	SHOULDER RUMBLE STRIP (TYPE 1)**

* SEE S.D.D. "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR LOCATIONS

** SEE S.D.D. "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR LOCATIONS

*** STA. 180+06'HR' - STA. 186+17'HR'

**** STA. 187+82'HR' - STA. 190+58'HR'

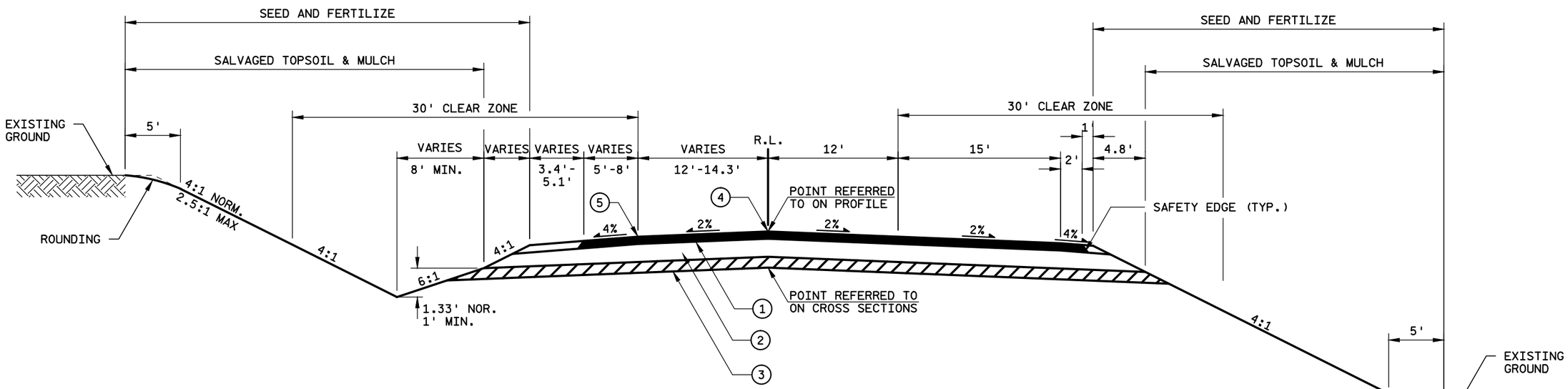
***** STA. 171+65'HR' - STA. 187+82'HR': 5'-8'
STA. 187+82'HR' - STA. 190+58'HR': 5'-2'

TYPICAL FINISHED SECTION - HART RD

STA. 171+65'HR' - STA. 190+58'HR'

CURVE S.E. DATA
P.I. STA. 182+18.15'HR'

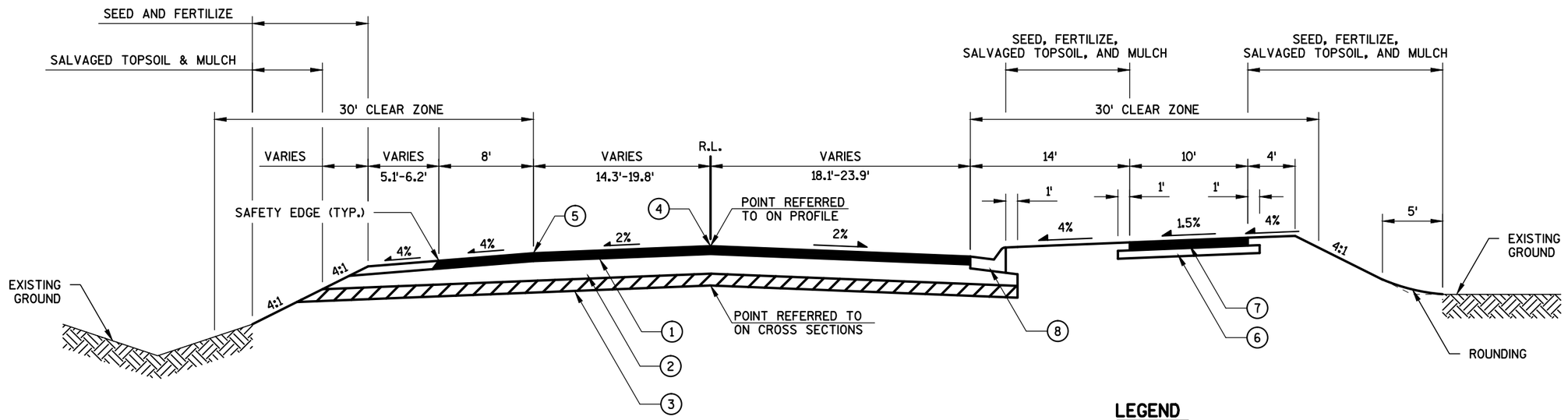
171+65.23'HR'	-2.00%	Normal Crown
172+18.56'HR'	0.00%	Zero Cross Slope
172+71.89'HR'	2.00%	Remove Crown
173+78.56'HR'	6.00%	Full Super
188+44.63'HR'	6.00%	Full Super
189+51.30'HR'	2.00%	Remove Crown
190+04.63'HR'	0.00%	Zero Cross Slope
190+57.96'HR'	-2.00%	Normal Crown



TYPICAL FINISHED SECTION - HART RD

STA. 190+58'HR' - STA. 192+41'HR'

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 10 E



TYPICAL FINISHED SECTION - HART RD

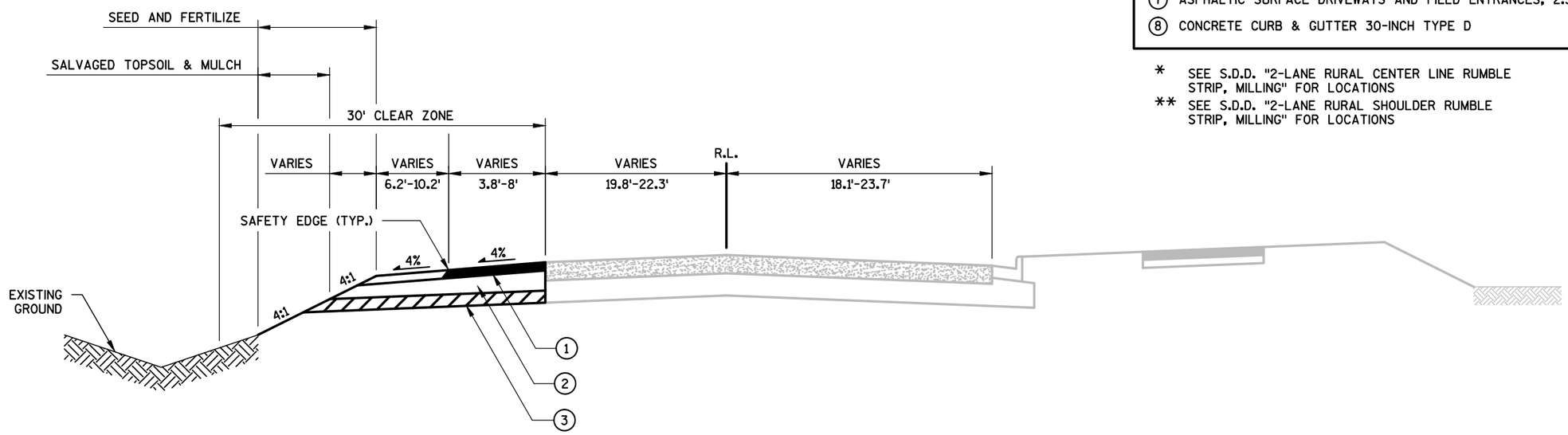
STA. 192+41'HR' - STA. 193+98'HR'

LEGEND

1. 4-INCHES HMA PAVEMENT, TYPE E-3
2. 10-INCHES BASE AGGREGATE DENSE 1¼-INCH
3. 6-INCHES BASE AGGREGATE DENSE 3-INCH
4. CENTER LINE RUMBLE STRIP*
5. SHOULDER RUMBLE STRIP (TYPE 1)**
6. 6-INCHES BASE AGGREGATE DENSE 1¼-INCH
7. ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 2.5"
8. CONCRETE CURB & GUTTER 30-INCH TYPE D

* SEE S.D.D. "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR LOCATIONS

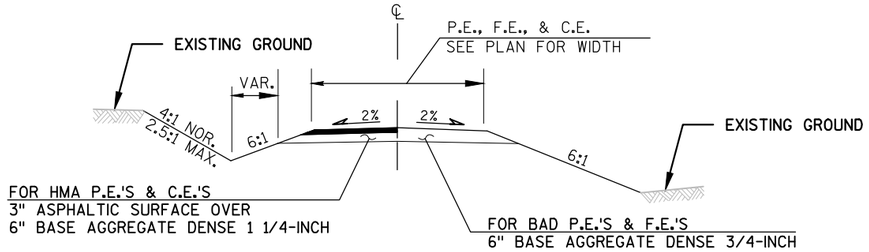
** SEE S.D.D. "2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING" FOR LOCATIONS



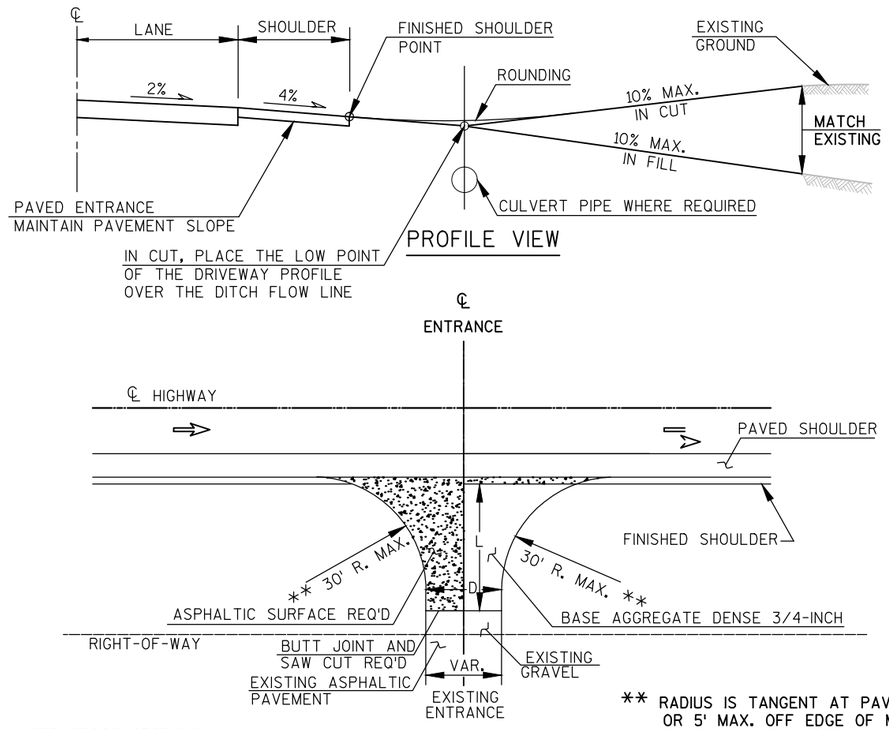
TYPICAL FINISHED SECTION - HART RD

STA. 193+98'HR' - STA. 194+71'HR'

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TYPICAL SECTIONS	SHEET 11	E



TYPICAL CROSS SECTION



** RADIUS IS TANGENT AT PAVED SHOULDER EDGE OR 5' MAX. OFF EDGE OF MAIN LINE PAVEMENT WHICH EVER IS LESS.

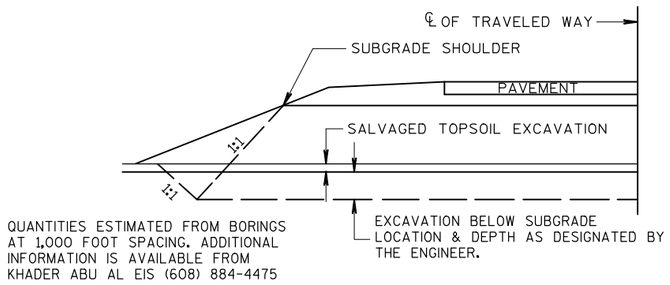
L=SEE CROSS SECTIONS

D=DRIVEWAY WIDTH (SEE PLAN)

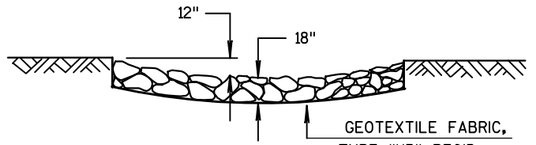
PLAN VIEW

RURAL DRIVEWAY INTERSECTION DETAIL
(PE's, FE's & CE'S)

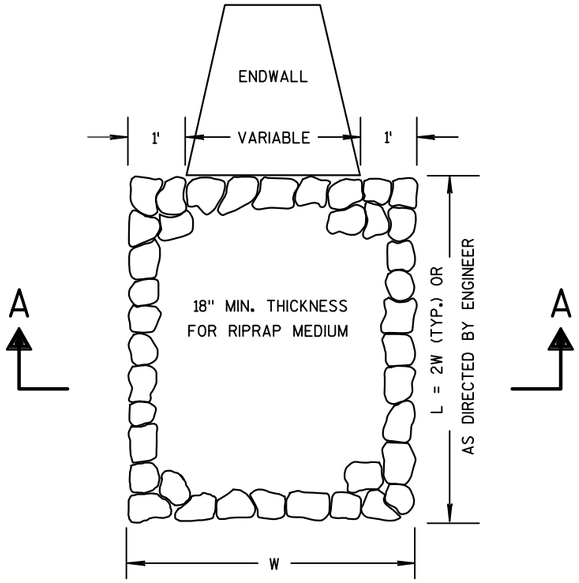
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 12	E



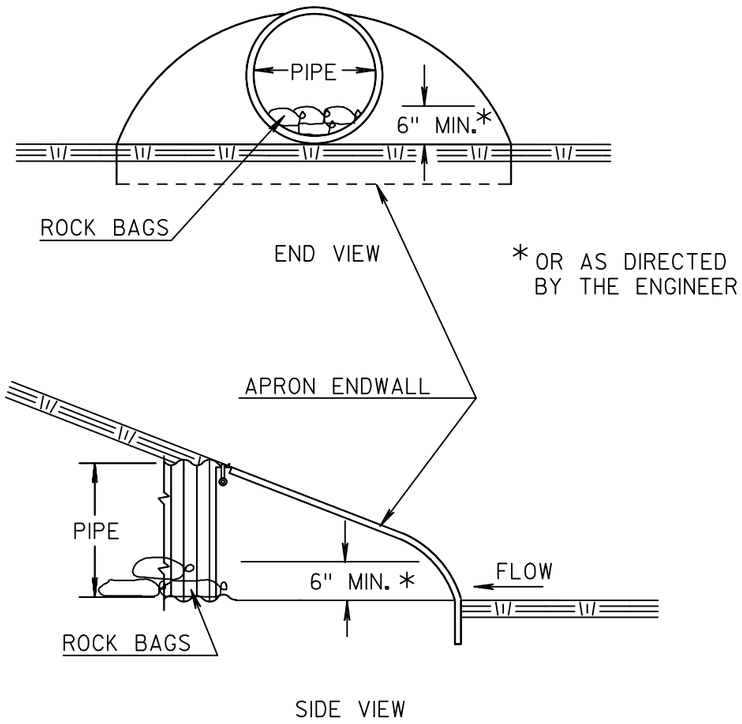
DETAIL FOR EXCAVATION BELOW SUBGRADE



SECTION A-A



RIPRAP TREATMENT AT CULVERTS



SIDE VIEW

CULVERT PIPE CHECK

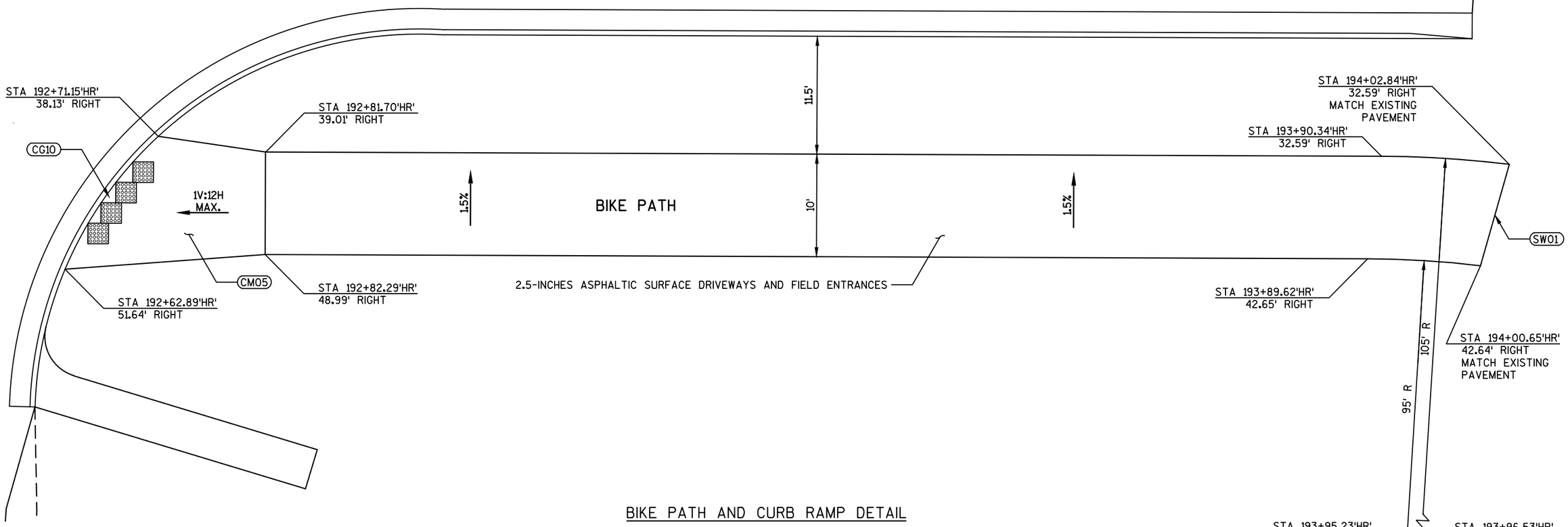
STATION	L (FT)	W (FT)	DEPTH (FT)
87+15'HR', RT	15.2	7.6	1.5'
95+34'HR', RT	13.0	6.5	1.5'
98+82'HR', RT	13.0	6.5	1.5'
107+06'HR', RT	13.0	11.5	1.5'
150+78'HR', RT	15.2	7.6	1.5'
151+93'HR', RT	17.3	15.8	1.5'
159+30'HR', RT	17.0	34.0	1.5'
185+41'HR', RT	17.3	15.8	1.5'
10+37'SU', LT	10.8	5.4	1.5'
50+75'LA', RT	17.5	14.0	1.5'
30+58'BU', LT	13.0	6.5	1.5'
39+18'CL', LT	13.0	6.5	1.5'

CROSS CULVERT RIPRAP CONFIGURATION

HART RD

LEGEND

CG10	CURB RAMP TYPE 2 (WITH 2' X 8' DETECTABLE WARNING FIELD YELLOW)
CM05	CONCRETE SIDEWALK 5-INCH
SW01	SAWING ASPHALT



BIKE PATH AND CURB RAMP DETAIL

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CONSTRUCTION DETAILS	SHEET 14	E

2

STA. 82+00'HR' - STA. 85+00'HR'
CLEARING & GRUBBING

STA. 11+40'SU'
SAWCUT

SUBURBAN DR.

REMOVE BUSH

CLEARING & GRUBBING
(TYP.)

STA. 83+10'HR', LT
REMOVE INLET

SLOPE INTERCEPT (TYP.)

CTH S

HART RD.

STA. 81+99'HR'
SAWCUT

STA. 84+93'HR'
SAWCUT

STA. 83+10'HR', RT
REMOVE STORM SEWER

STA. 84+93'HR', RT
REMOVE 12" CULVERT

STA. 10+32'SU'
REMOVE 15" CULVERT

STA. 87+15'HR'
REMOVE 18" CULVERT

STA. 95+34'HR'
REMOVE 18" CULVERT

STA. 82+00'HR' - 83+10'HR', LT/RT
REMOVE CURB & GUTTER

STA. 81+75'HR' - 83+10'HR', RT
REMOVE CURB & GUTTER

WISCONSIN POWER & LIGHT (GAS)

CAUTION

MATCHLINE STA. 96+00'HR'

N

2

103+40'HR' - 103+82'HR', LT.
REMOVE FENCE
(BY OTHERS - PROPERTY OWNER)

STA. 107+06'HR'
REMOVE 18" CULVERT

96+25'HR' - 101+75'HR', LT.
REMOVE FENCE, WOOD POSTS TO REMAIN
(BY OTHERS - PROPERTY OWNER)

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 96+00'HR'

MATCHLINE STA. 111+00'HR'

HART RD.

STA. 98+82'HR'
REMOVE 18" CULVERT

STA. 103+02'HR', LT
REMOVE 15" CULVERT

STA. 105+22'HR', LT
REMOVE 15" CULVERT

WISCONSIN POWER & LIGHT (GAS)

CAUTION

PROJECT 3621-00-76

PROJECT 1003-10-73

STA. 108+00'HR' - STA. 139+00'HR',
EXCEPTION TO NET CENTERLINE LENGTH
SEE PROJECT 1003-10-73 FOR ADDITIONAL
INFORMATION

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	REMOVALS DETAIL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021002_CD.DWG
PLOT DATE : 7/23/2015 9:14 AM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCHLINE STA. 111+00'HR'

P.L.

R/W

SLOPE INTERCEPT (TYP.)

112'HR' 114'HR' HART, RD. 116'HR' 118'HR' 120'HR' 122'HR' 124'HR' 126

TLE

10' UTILITY EASEMENT

WISCONSIN POWER & LIGHT (GAS)

CAUTION

MATCHLINE STA. 126+00'HR'

MATCHLINE STA. 126+00'HR'

TLE

R/W

128'HR' 130'HR' 132'HR' 134'HR' 136'HR' HART RD. 138'HR' 140'HR'

SLOPE INTERCEPT (TYP.)

10' UTILITY EASEMENT

MATCHLINE STA. 141+00'HR'

WISCONSIN POWER & LIGHT (GAS)

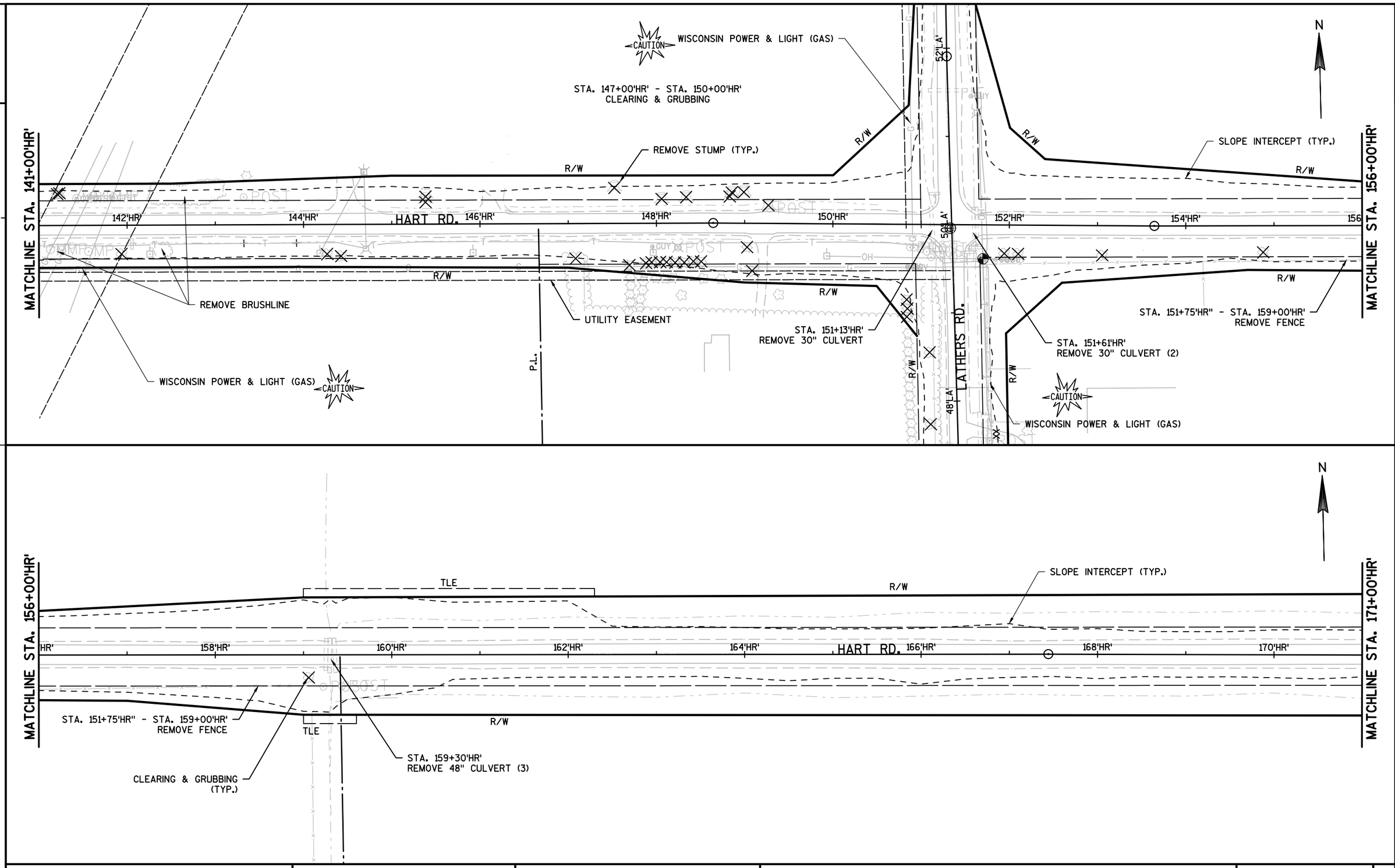
CAUTION

PROJECT 1003-10-73 | PROJECT 3621-00-76

STA. 108+00'HR' - STA. 139+00'HR',
EXCEPTION TO NET CENTERLINE LENGTH
SEE PROJECT 1003-10-73 FOR ADDITIONAL
INFORMATION

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	REMOVALS DETAIL	SHEET	E

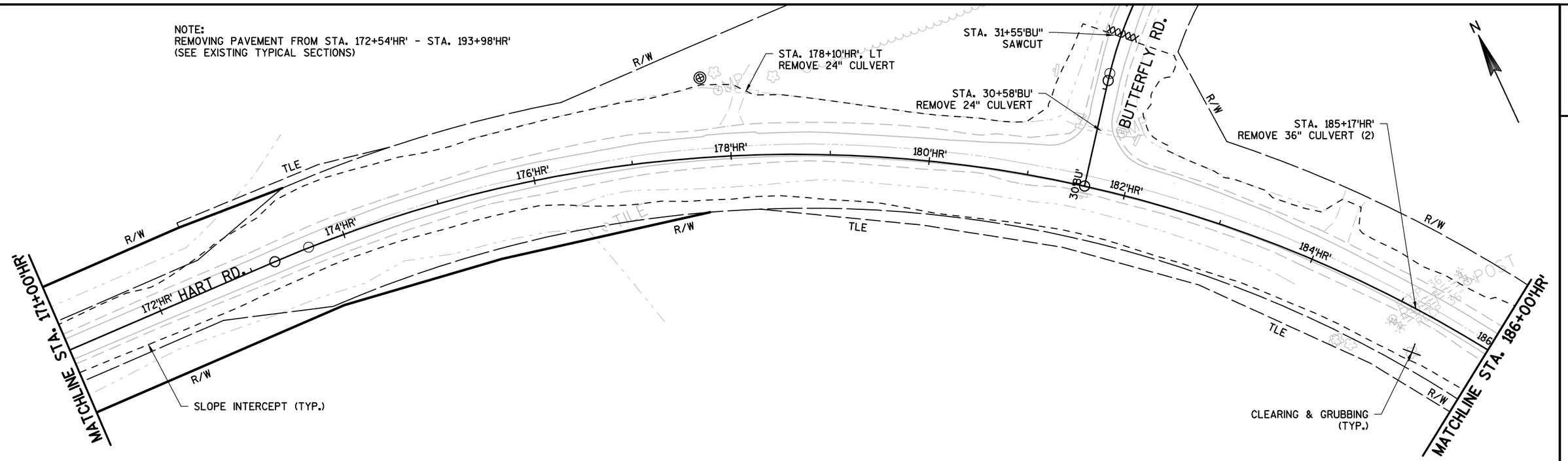
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021002_CD.DWG PLOT DATE : 7/23/2015 9:16 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT WISDOT/CADDS SHEET 44



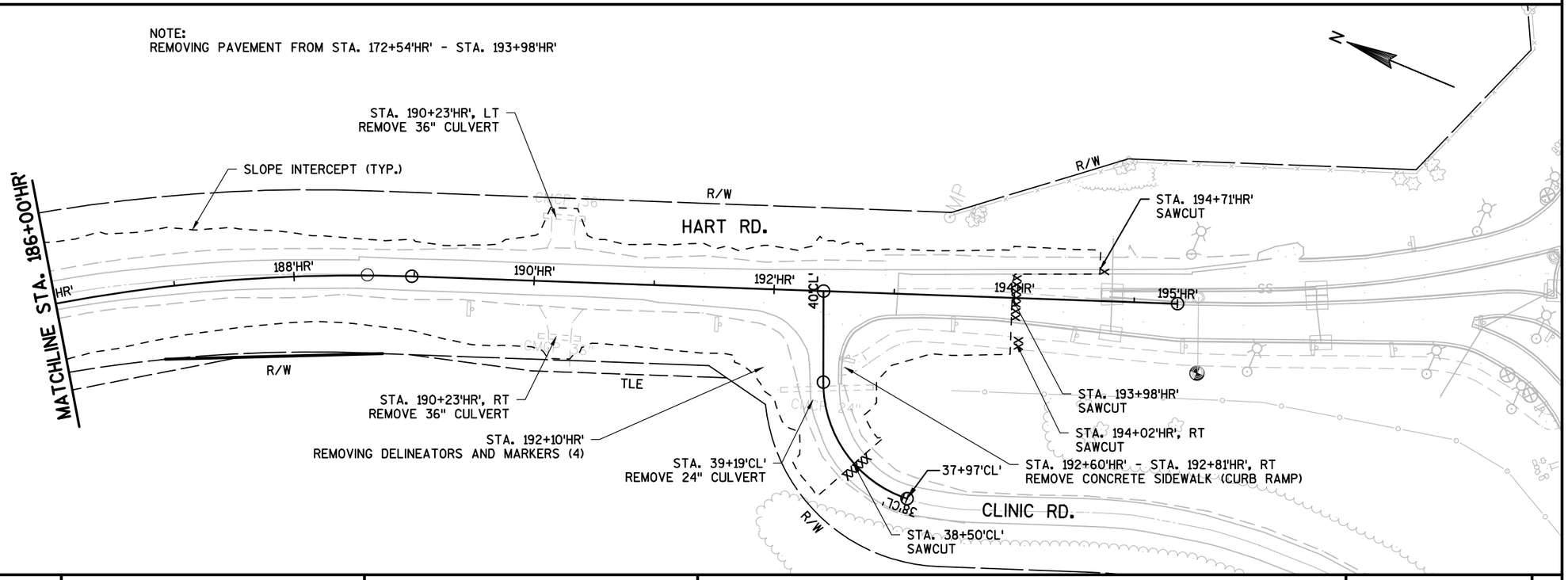
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	REMOVALS DETAIL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021002_CD.DWG PLOT DATE : 7/23/2015 9:18 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

NOTE:
REMOVING PAVEMENT FROM STA. 172+54'HR' - STA. 193+98'HR'
(SEE EXISTING TYPICAL SECTIONS)



NOTE:
REMOVING PAVEMENT FROM STA. 172+54'HR' - STA. 193+98'HR'



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	REMOVALS DETAIL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021002_CD.DWG
PLOT DATE : 7/23/2015 9:20 AM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

N

29'LA' 30'LA' 32'LA' 34'LA' 36'LA' 38'LA' 40'LA' 42'LA'

R/W

T.L.E.

R/W

R/W

LATHERS RD.

R/W

MATCHLINE STA. 43+00'LA'

CAUTION

WISCONSIN POWER & LIGHT (GAS)

SLOPE INTERCEPT (TYP.)

STA 41+90'LA' - STA. 45+70'LA', RT
REMOVE FENCE

P.L.

N

STA. 47+30'LA' - STA. 49+40'LA', LT
REMOVE FENCE

STA. 47+00'LA' - STA. 50+00'LA'
CLEARING & GRUBBING

10' UTILITY
EASEMENT

HART RD.

STA. 47+50'LA'
SAWCUT

STA. 47+20'LA', LT
REMOVE PLANTER
(BY OTHERS - PROPERTY OWNER)

STA. 45+95'LA', LT
REMOVE 24" CULVERT
T.L.E.

STA. 47+06'LA', LT
REMOVE 24" CULVERT

P.L.

MATCHLINE STA. 43+00'LA'

R/W

R/W

R/W

44'LA' 46'LA' 48'LA' 50'LA' 52'LA' 54'LA' 55'LA'

LATHERS RD.

R/W

CAUTION

WISCONSIN POWER & LIGHT (GAS)

STA. 46+65'LA', RT
SAWCUT

STA. 47+35'LA', RT
REMOVE 36" CULVERT

REMOVE BUSHES

STA. 41+90'LA' - STA. 45+70'LA', RT
REMOVE FENCE

STA 47+80'LA' - STA. 49+60'LA', RT
REMOVE FENCE

STA. 47+65'LA', RT
SAWCUT

R/W

15HR

15HR

R/W

R/W

CAUTION

WISCONSIN POWER & LIGHT (GAS)

17' UTILITY EASEMENT

R/W

R/W

STA. 53+00'LA'
SAWCUT

STA. 51+52'LA'
REMOVE 36X54 CULVERT

R/W

R/W

SLOPE INTERCEPT (TYP.)

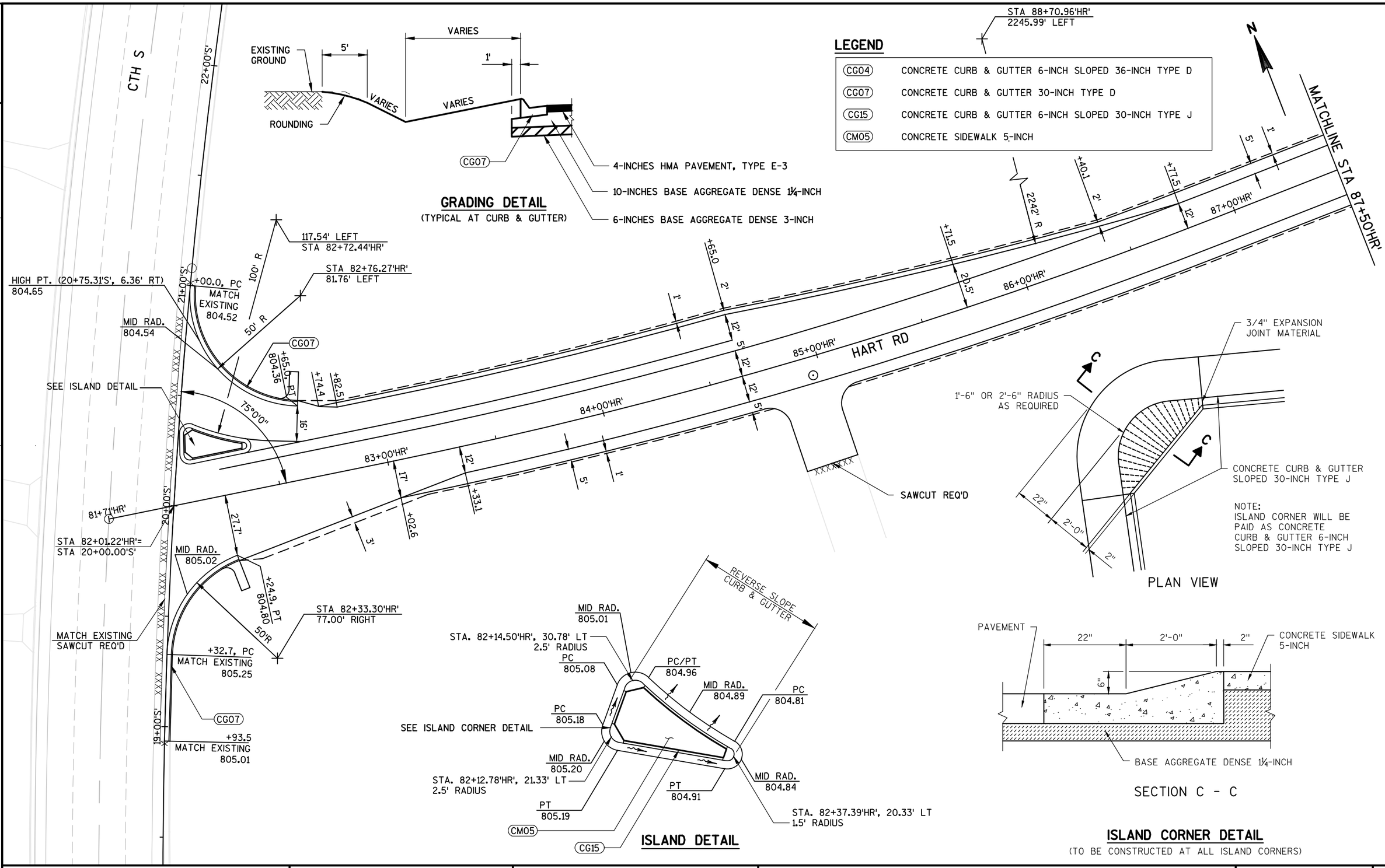
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	REMOVALS DETAIL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021002_CD.DWG PLOT DATE : 7/23/2015 9:22 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

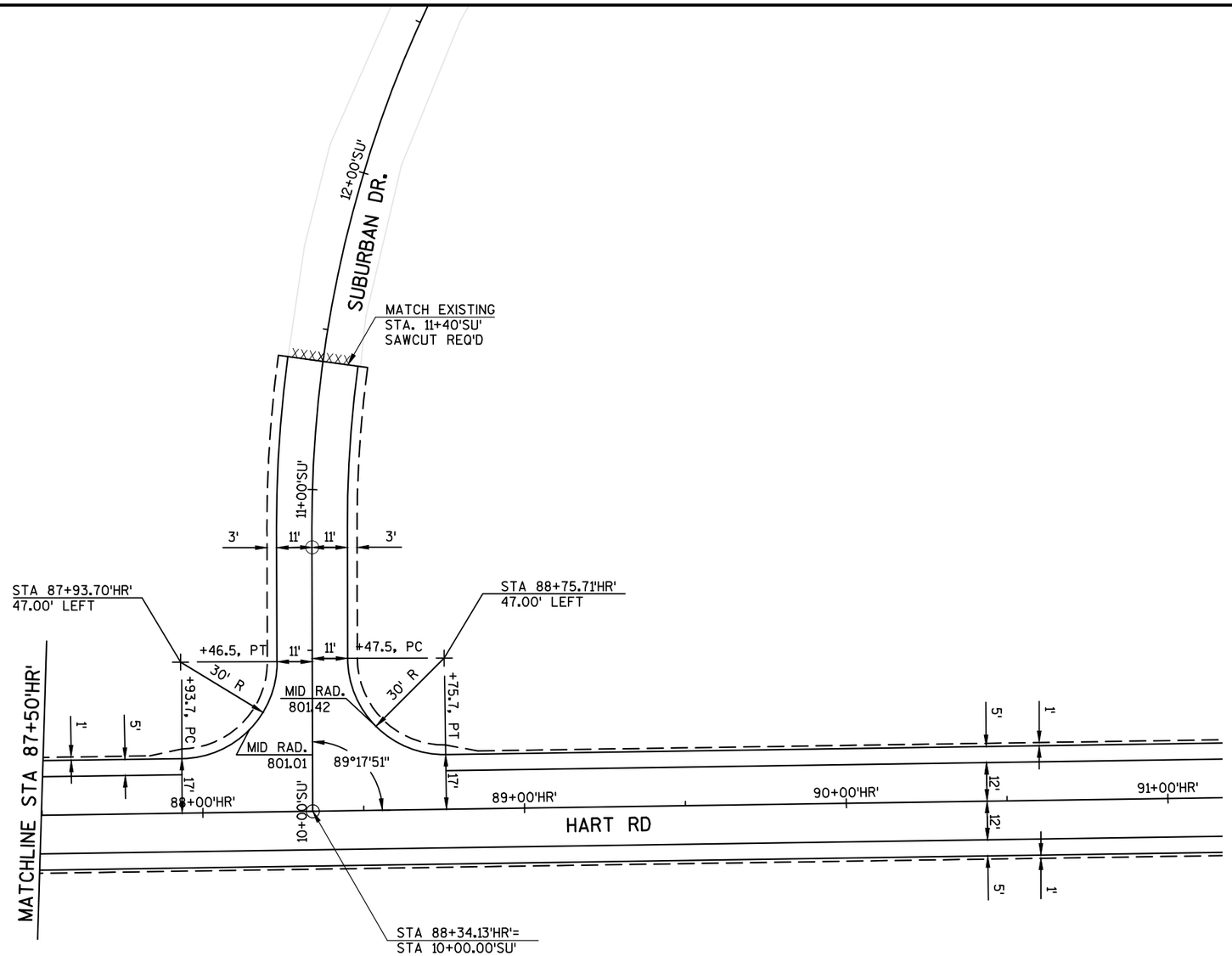
CG04	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG07	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG15	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J
CM05	CONCRETE SIDEWALK 5-INCH



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	INTERSECTION DETAILS: CTH S	SHEET 20	E

2

N



LEGEND

CG04	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG07	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG15	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	INTERSECTION DETAILS: SUBURBAN DRIVE	SHEET 21 E

2

N

LATHERS RD

HART RD

+54.3 11' 11' +54.3

+03.4

+93.4
823.97

+93.3
823.96

+81.0, PT
824.11

STA 150+77.17'HR'
67.00' LEFT

STA 152+06.53'HR'
87.00' LEFT

+67.2, PC
824.33

15'

CG04

40' R

60' R

+77.2, PT
825.37

MID RAD.
824.89

MID RAD.
824.79

+06.5, PC
825.36

10' TYPICAL

STA 151+34.63'HR'=
STA 50+00.00'LA'

147+00'HR'

150+00'HR'

151+00'HR'

152+00'HR'

153+00

154+00'HR'

50+00'LA'

87°55'39"

+75.2

+12.7

148+62.7

+77.2

+05.0

+64.3

+92.1

+06.5

+56.6

+94.0

MID RAD.
824.84

MID RAD.
824.89

+62.7, PC
825.37

+92.1, PT
825.37

+31.0, PC
824.33

+23.0
824.19

+15.7, PT
824.12

+13.0

+07.7
823.99

STA 150+62.73'HR'
87.00' RIGHT

STA 151+92.09'HR'
67.00' RIGHT

49+00'LA'

48+00'LA'

+28.2 9.25 10.25 +28.2

3' 3'

TYPE B2 INTERSECTION MODIFIED

EXISTING GROUND

ROUNDING

4-INCHES HMA PAVEMENT, TYPE E-3

10-INCHES BASE AGGREGATE DENSE 1¼-INCH

6-INCHES BASE AGGREGATE DENSE 3-INCH

GRADING DETAIL
(TYPICAL AT CURB & GUTTER)

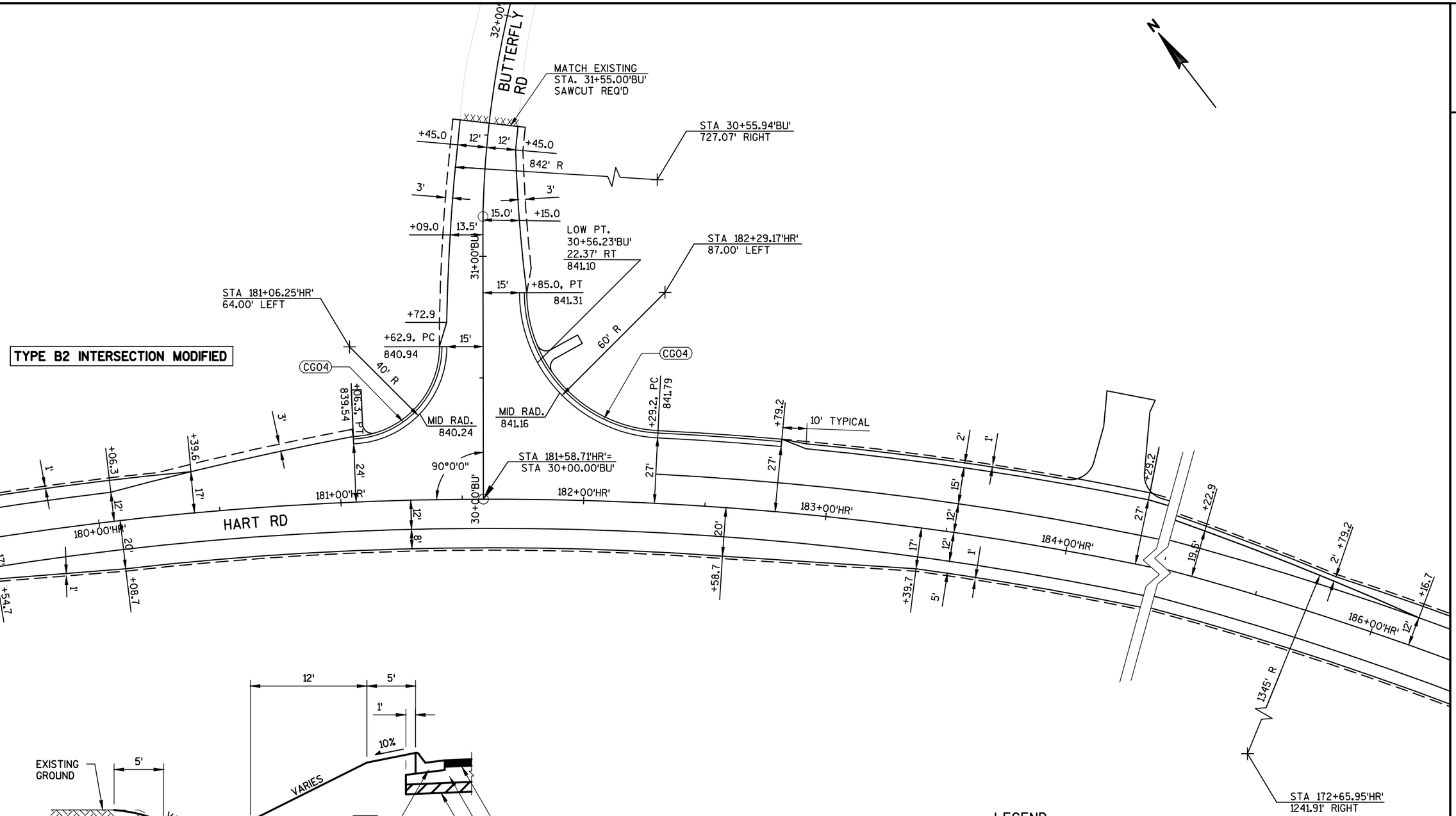
LEGEND

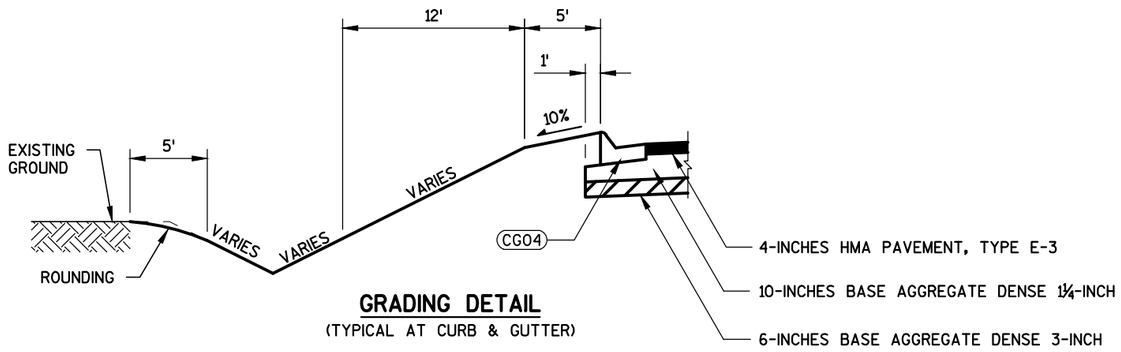
CG04	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG07	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG15	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	INTERSECTION DETAILS: LATHERS ROAD	SHEET 22	E

2

TYPE B2 INTERSECTION MODIFIED





GRADING DETAIL
(TYPICAL AT CURB & GUTTER)

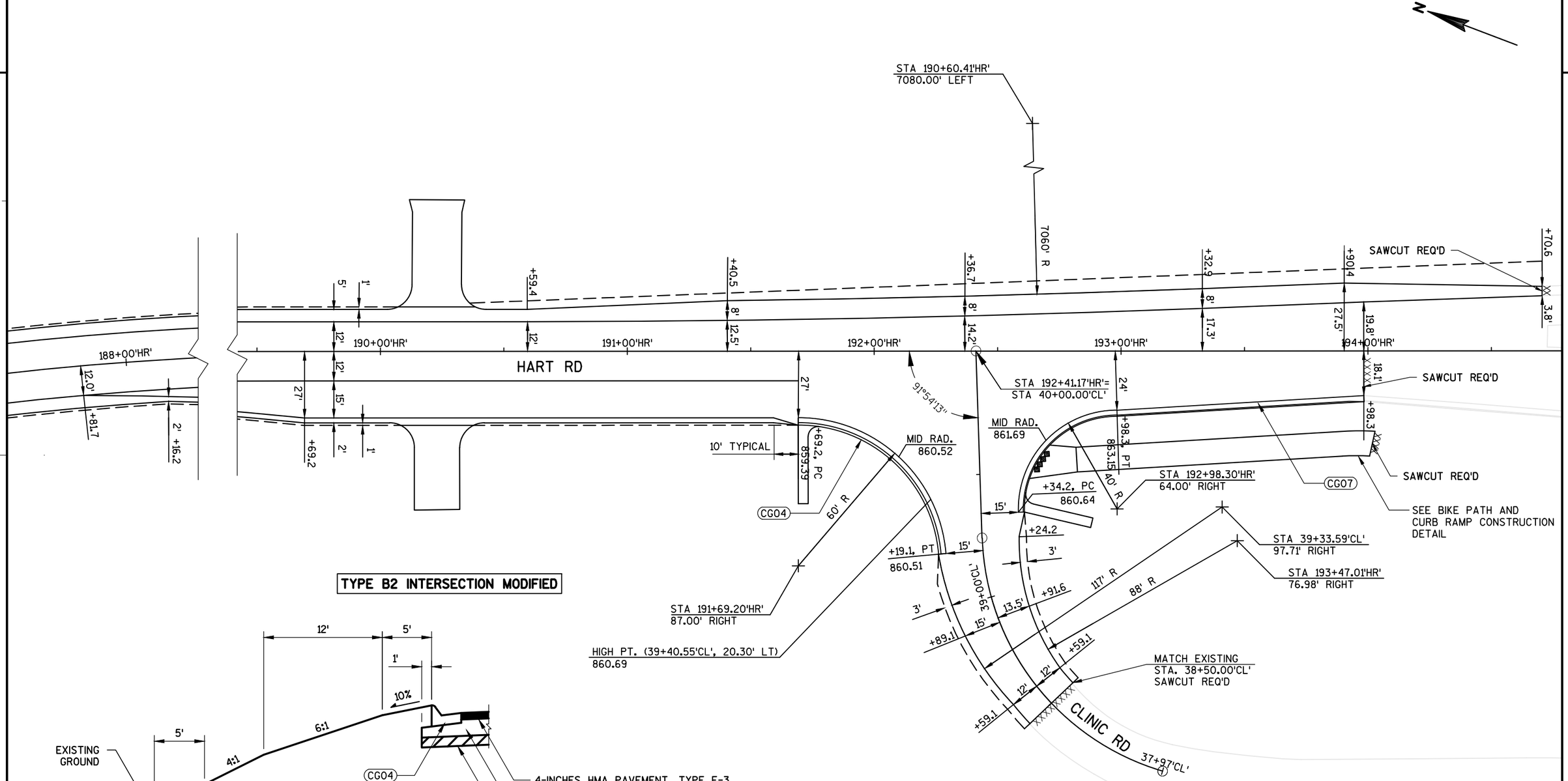
LEGEND

CG04	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG07	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG15	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

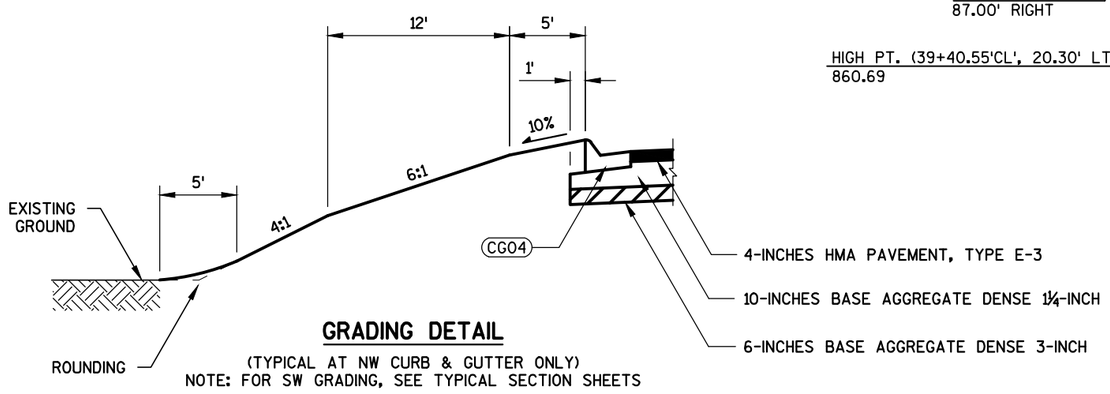
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	INTERSECTION DETAILS: BUTTERFLY ROAD	SHEET 23	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\021101_ID.DWG PLOT DATE : 10/26/2015 4:10 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



TYPE B2 INTERSECTION MODIFIED



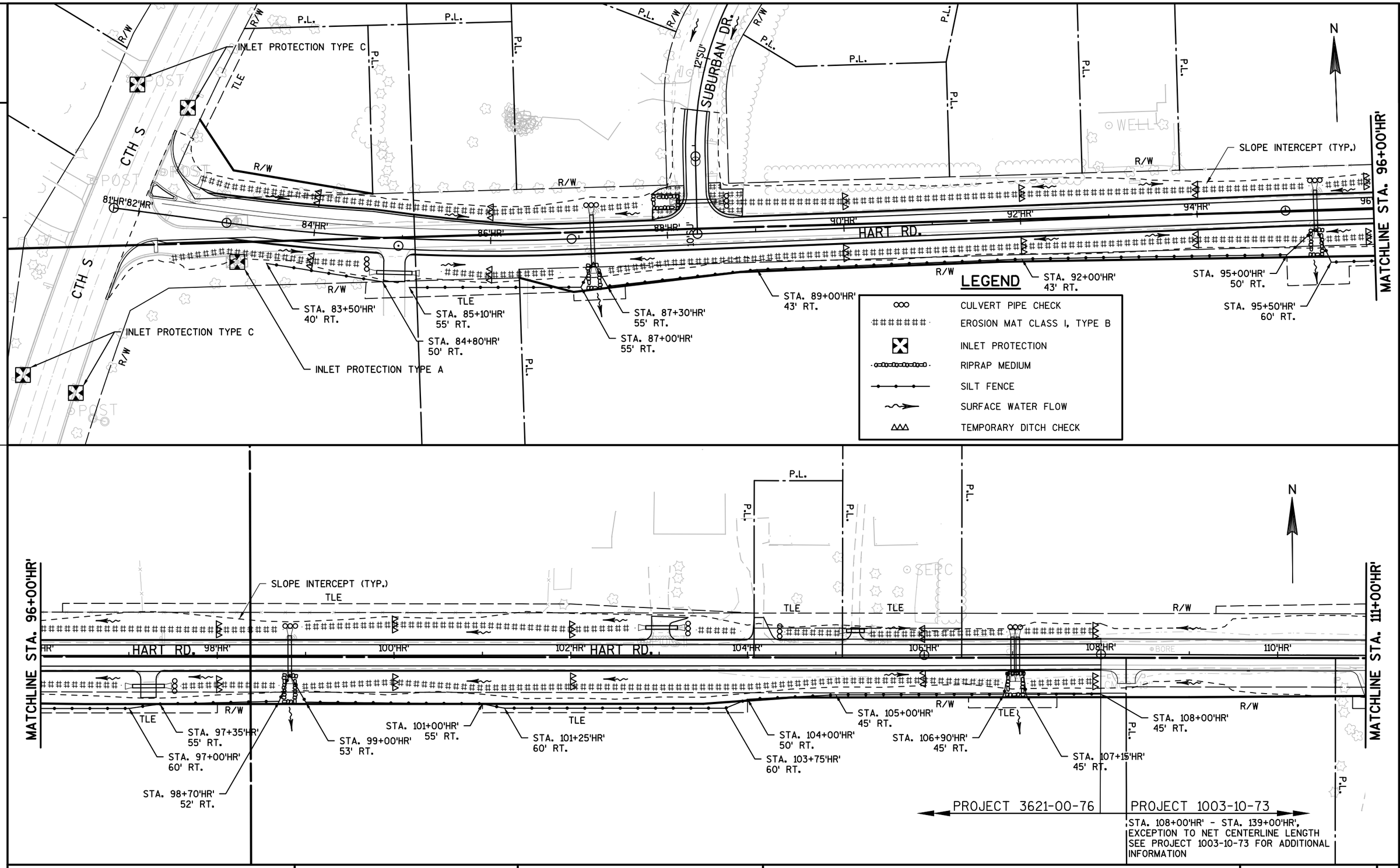
GRADING DETAIL

(TYPICAL AT NW CURB & GUTTER ONLY)
NOTE: FOR SW GRADING, SEE TYPICAL SECTION SHEETS

LEGEND

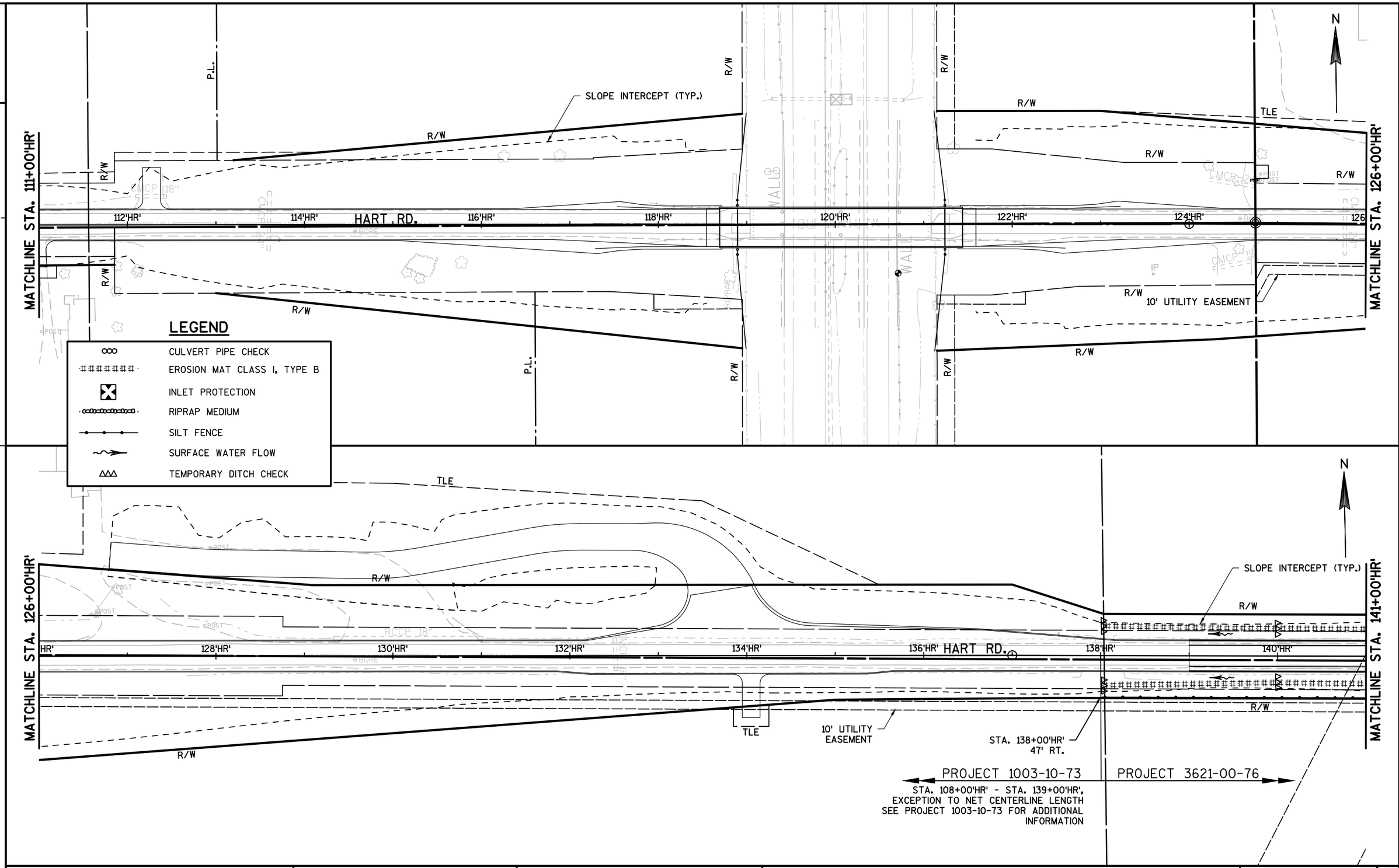
CG04	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG07	CONCRETE CURB & GUTTER 30-INCH TYPE D
CG15	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	INTERSECTION DETAILS: CLINIC ROAD	SHEET 24	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EROSION CONTROL	SHEET	E

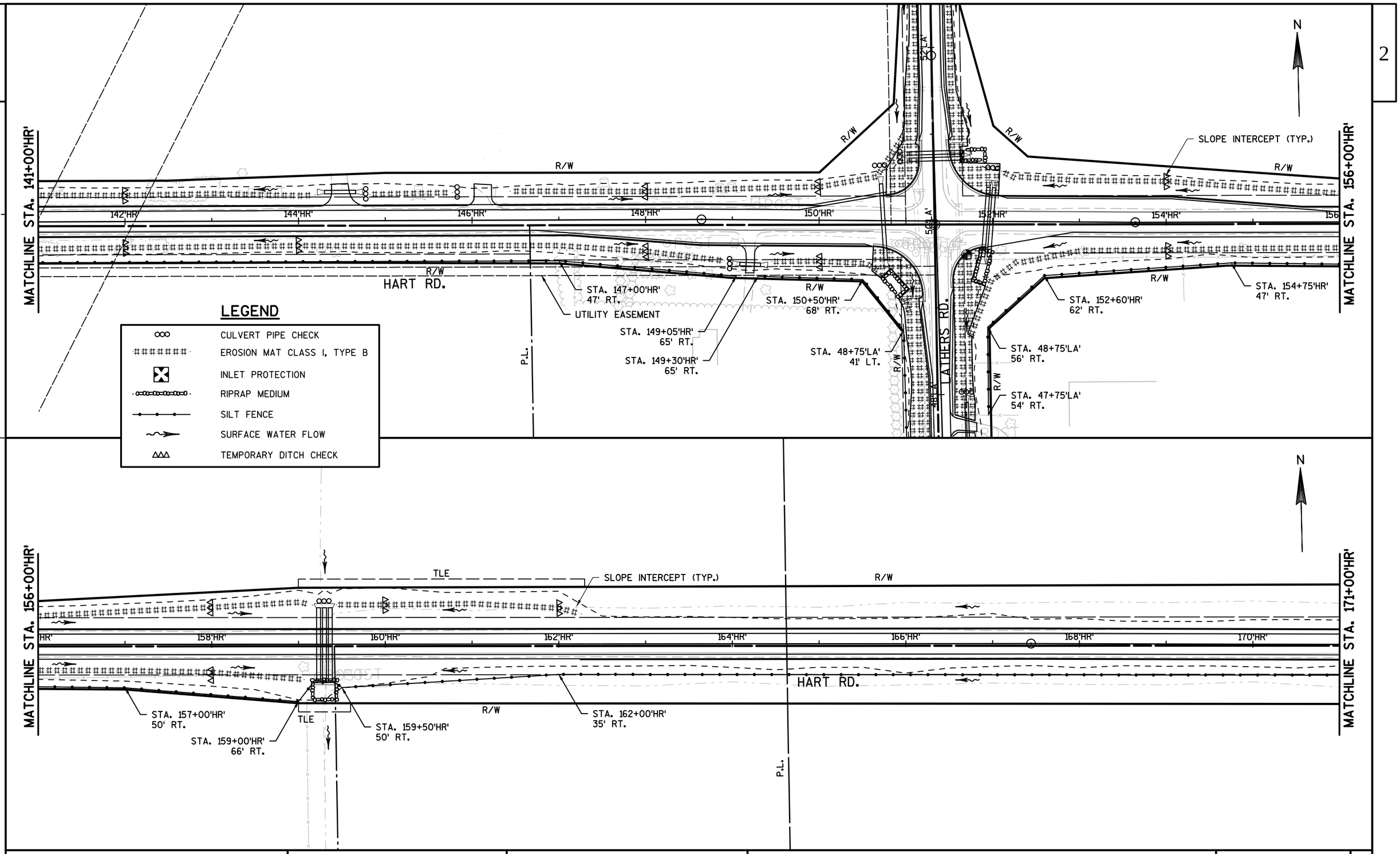
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\022001_EC.DWG PLOT DATE : 7/21/2015 1:57 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\022001_EC.DWG PLOT DATE : 7/21/2015 1:59 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

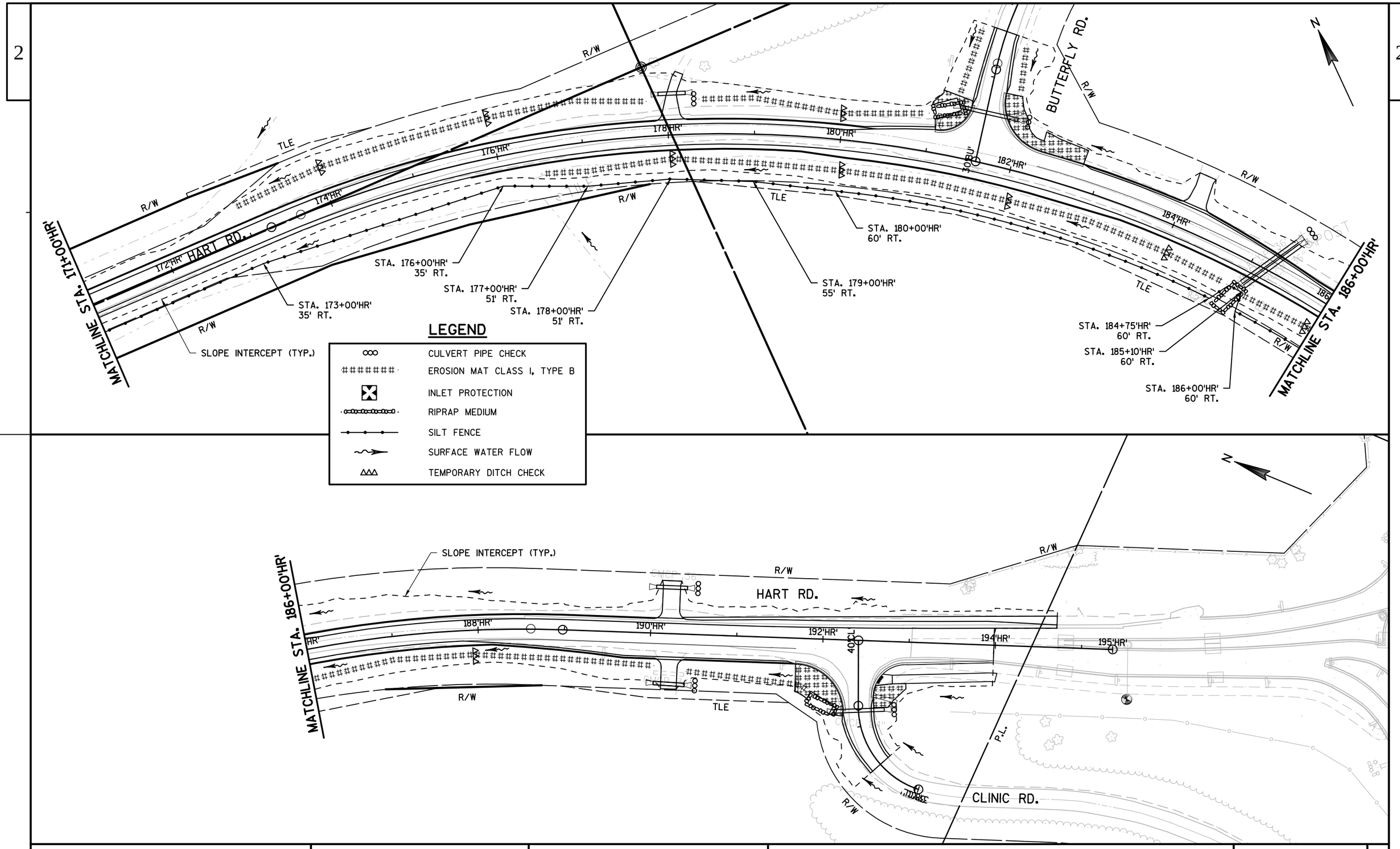


LEGEND

- CULVERT PIPE CHECK
- EROSION MAT CLASS I, TYPE B
- INLET PROTECTION
- RIPRAP MEDIUM
- SILT FENCE
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\022001_EC.DWG PLOT DATE : 7/21/2015 2:02 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



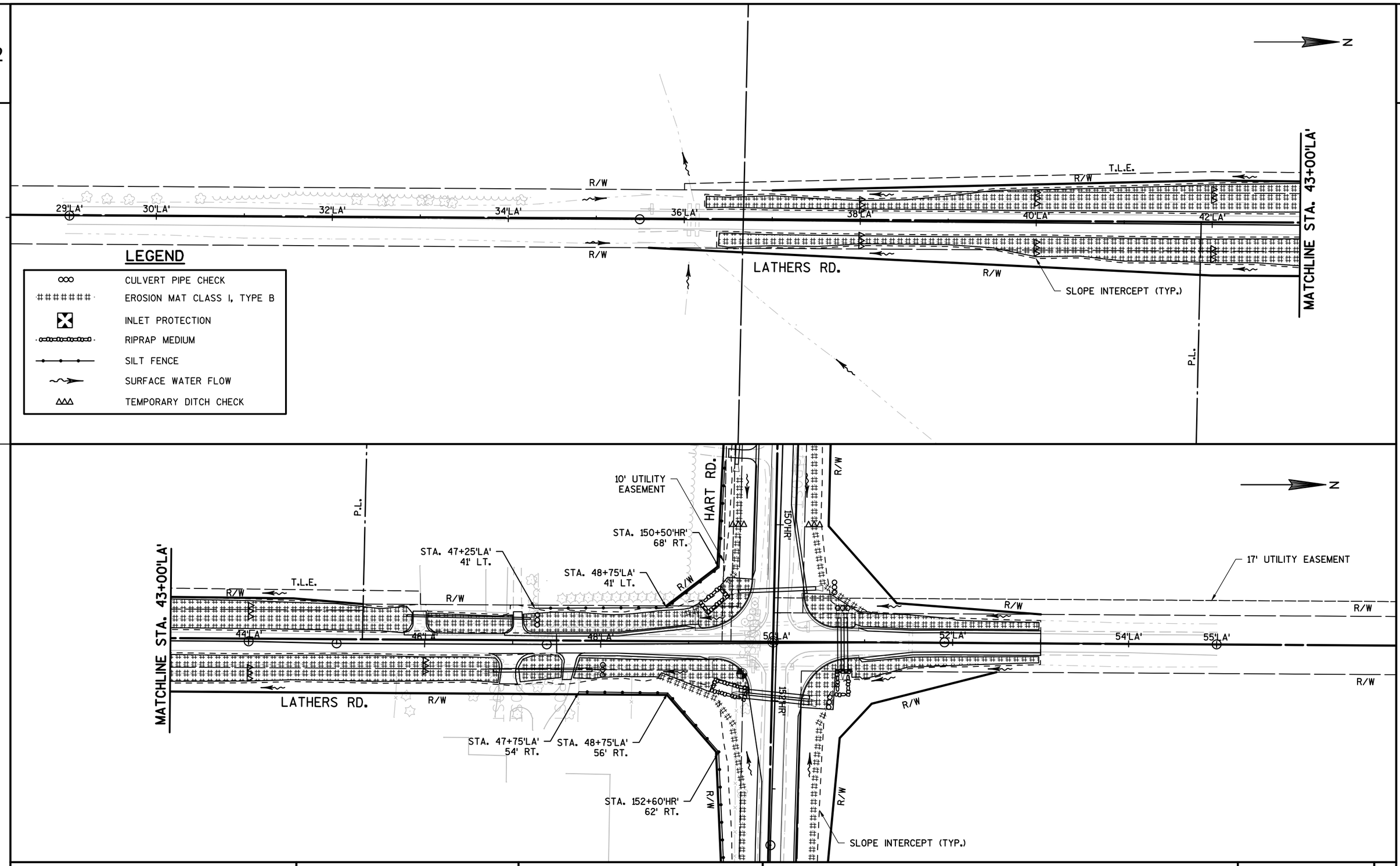
LEGEND

- CULVERT PIPE CHECK
- EROSION MAT CLASS I, TYPE B
- INLET PROTECTION
- RIPRAP MEDIUM
- SILT FENCE
- SURFACE WATER FLOW
- TEMPORARY DITCH CHECK

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\022001_EC.DWG PLOT DATE : 7/30/2015 12:23 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

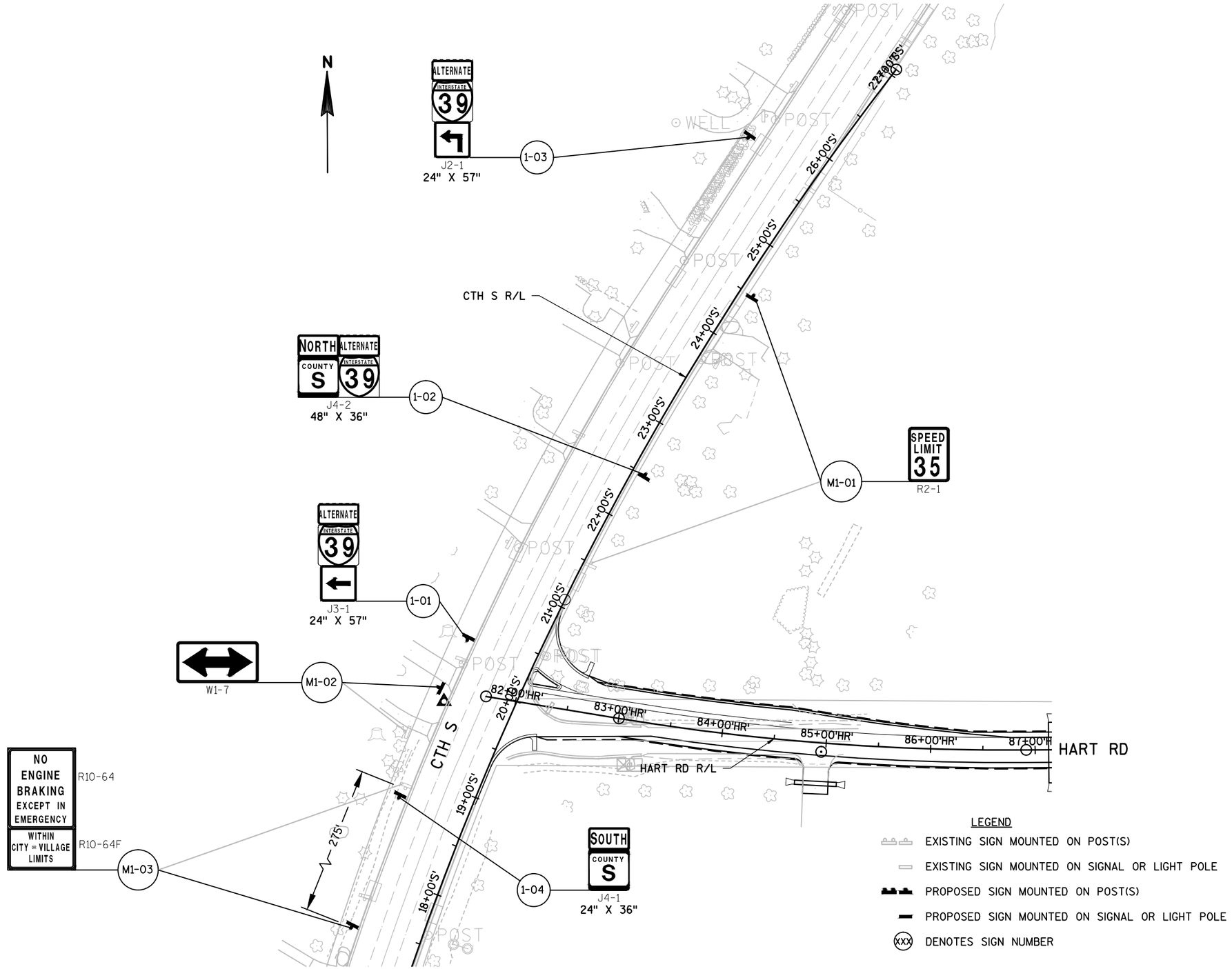
2



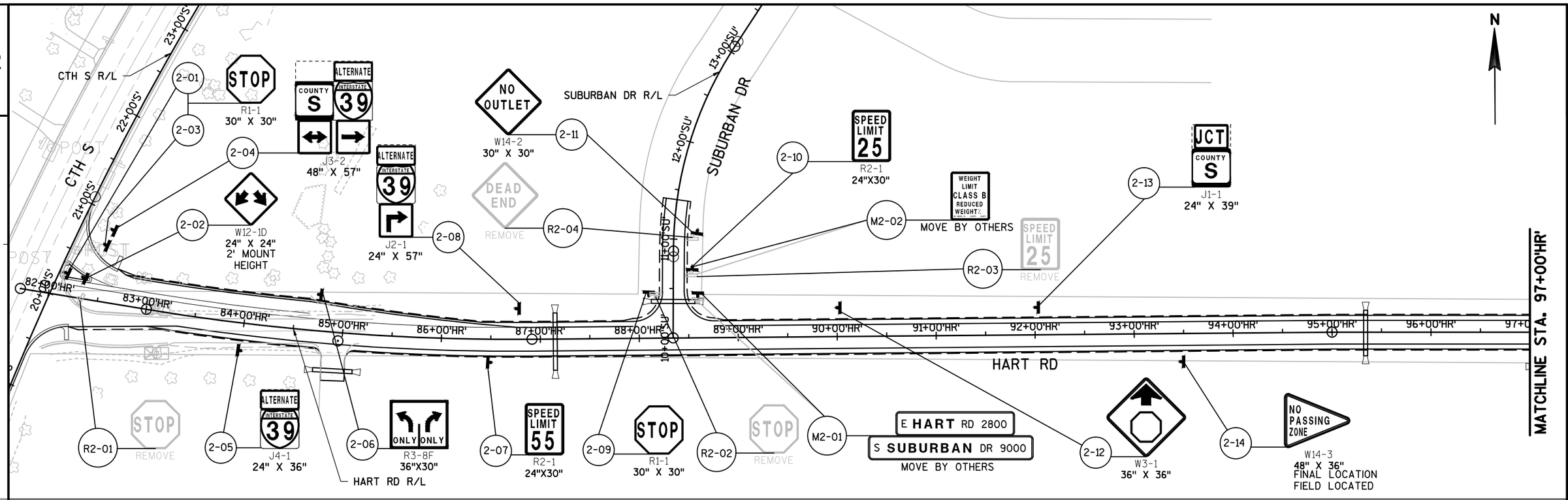
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EROSION CONTROL	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\022001_EC.DWG PLOT DATE : 7/21/2015 2:11 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

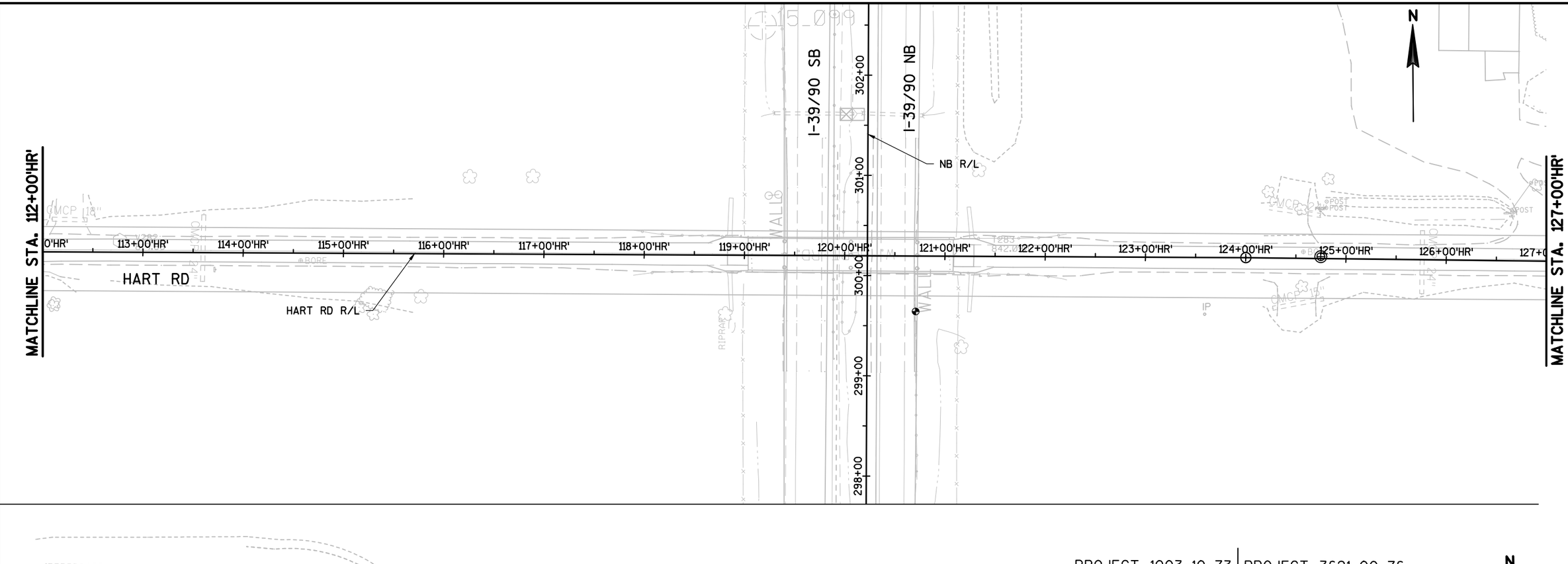
WISDOT/CADDS SHEET 44

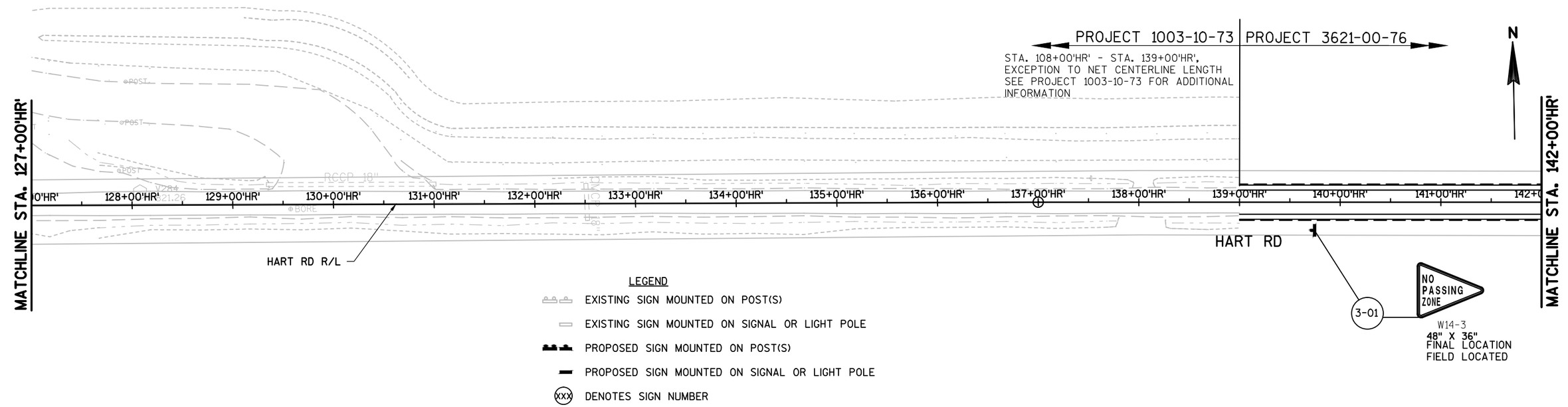


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: CTH S	SHEET 30	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET 31	E



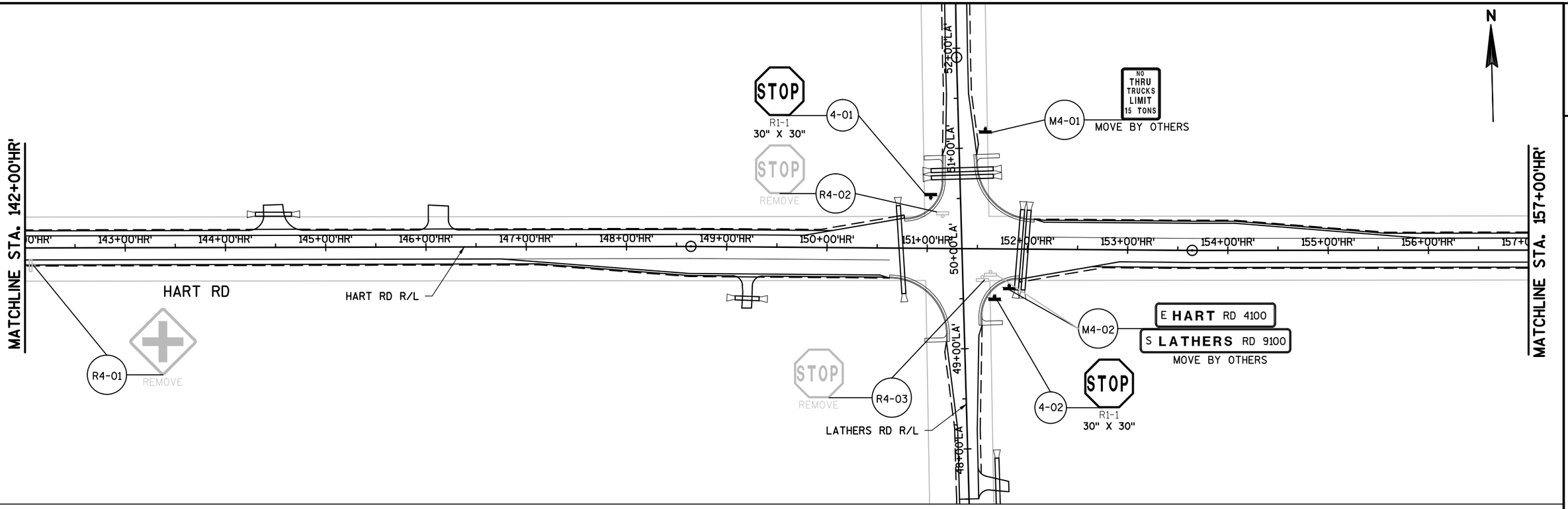


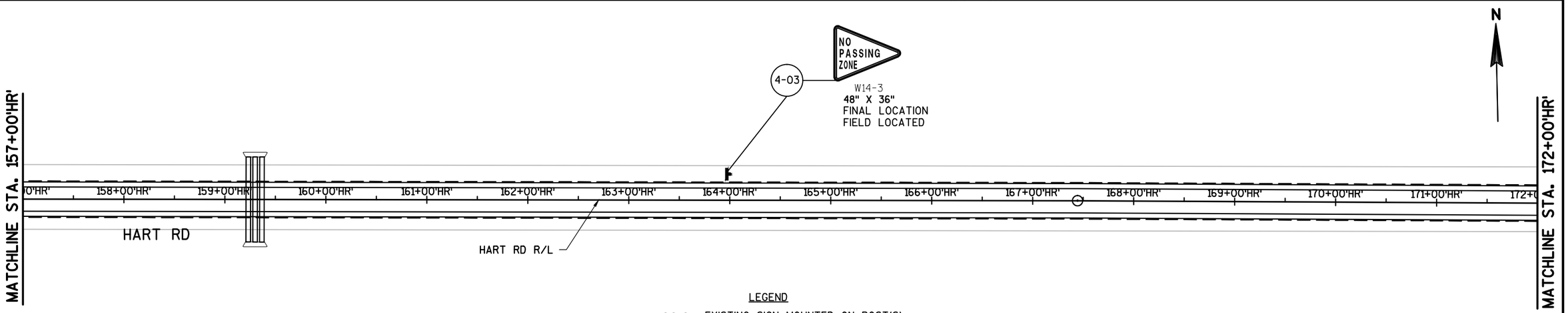
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023201_PS.DWG PLOT DATE : 7/22/2015 3:36 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



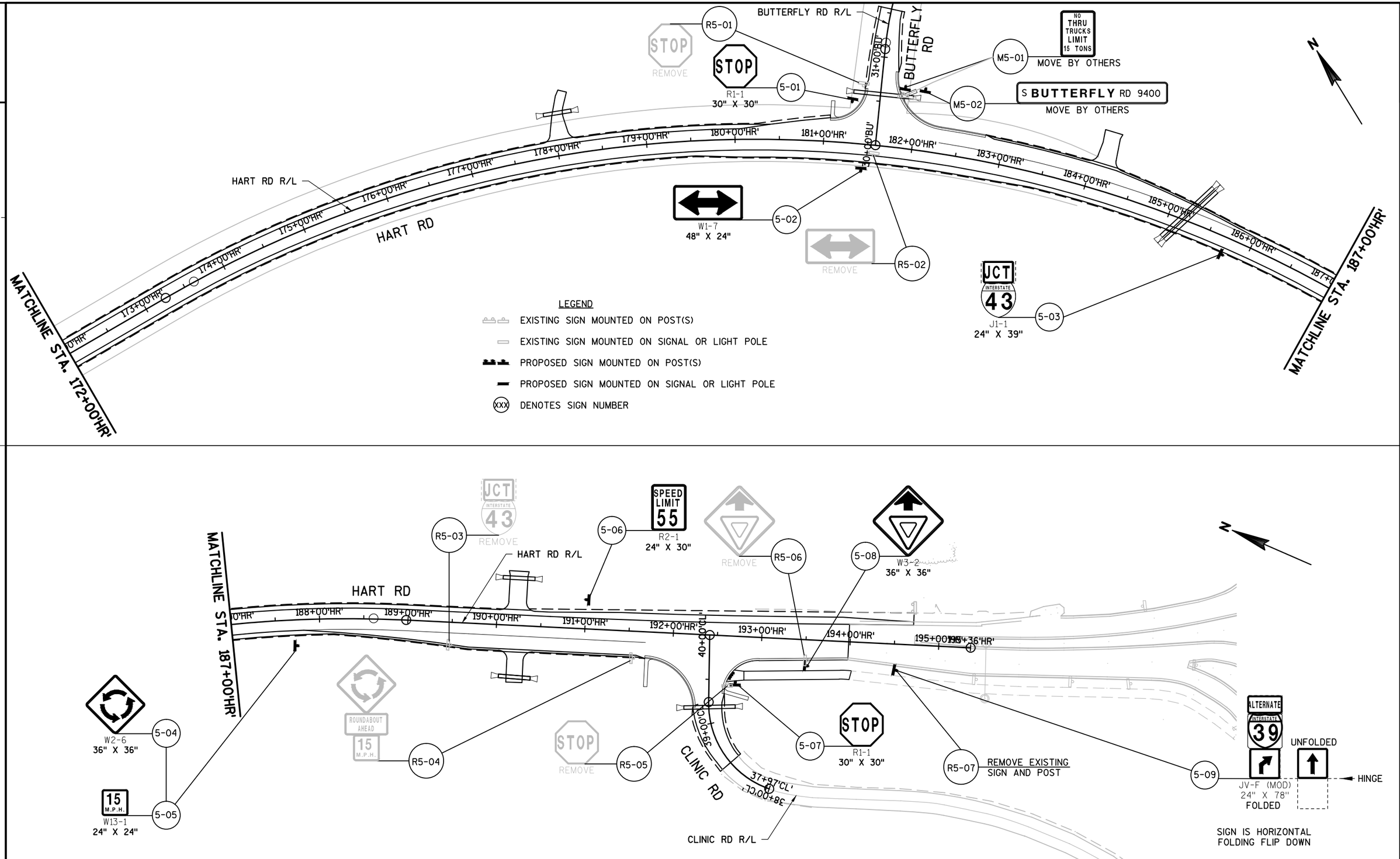


LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE
- (XXX) DENOTES SIGN NUMBER

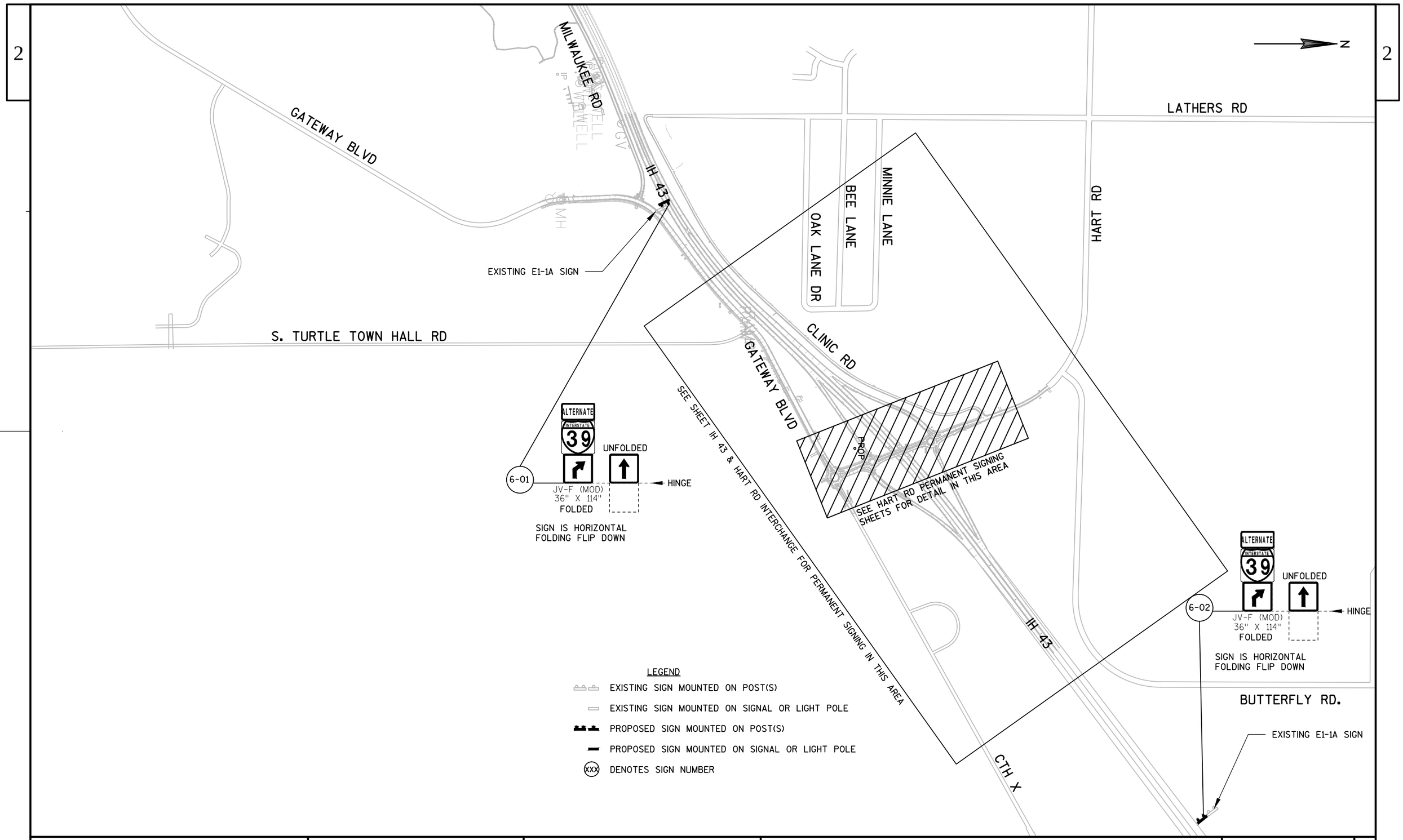
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023201_PS.DWG PLOT DATE : 7/22/2015 3:36 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



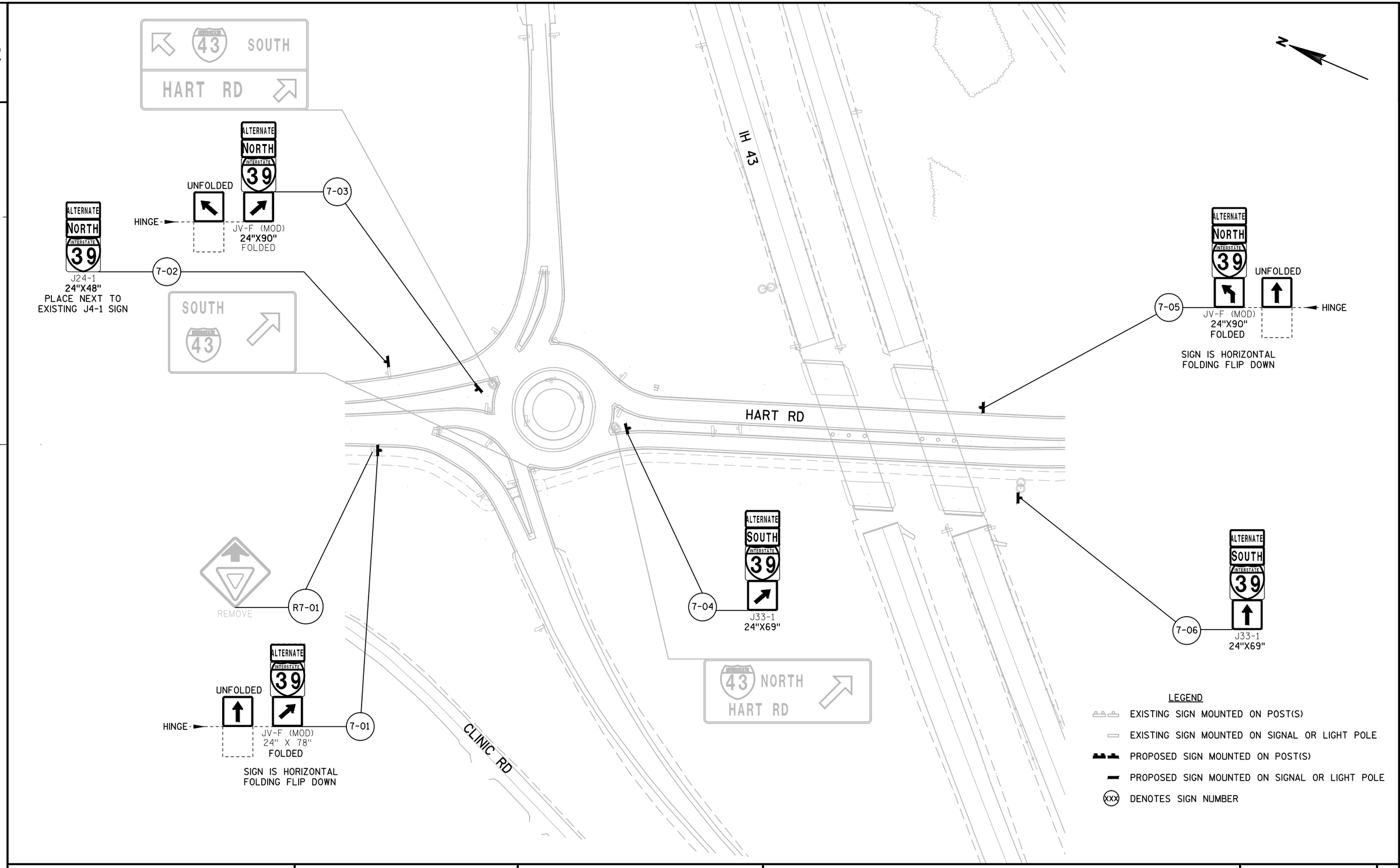
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023201_PS.DWG PLOT DATE : 7/22/2015 3:37 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: HART RD & IH 43 INTERCHANGE OVERVIEW	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023202_PS.DWG PLOT DATE : 7/22/2015 3:39 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023201_PS.DWG PLOT DATE : 7/22/2015 3:37 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE

(XXX) DENOTES SIGN NUMBER

N

HART RD
INTERSTATE 43 NORTH

EAST COUNTY X

POST

ALTERNATE NORTH INTERSTATE 39
J33-1
24"X69"
8-02

ALTERNATE NORTH INTERSTATE 39
J33-1
24"X69"
8-01

SOUTH INTERSTATE 43 USE LEFT LANE

ALTERNATE INTERSTATE 39 USE LEFT LANE
J22-1
24" X 60"
8-05

ALTERNATE INTERSTATE 39
J33-1
24" X 57"
8-08

X

TO INTERSTATE 43 HART RD

ALTERNATE INTERSTATE 39
J23-1
24" X 57"
8-06

INTERSTATE 43 SOUTH HART RD

ALTERNATE SOUTH INTERSTATE 39
J33-1
24"X69"
8-07

EXISTING OVERHEAD SIGN SUPPORT

ALTERNATE SOUTH INTERSTATE 39
J33-1
24"X69"
8-03

ALTERNATE SOUTH INTERSTATE 39
J33-1
24"X69"
8-04

INTERSTATE 43 NORTH HART RD

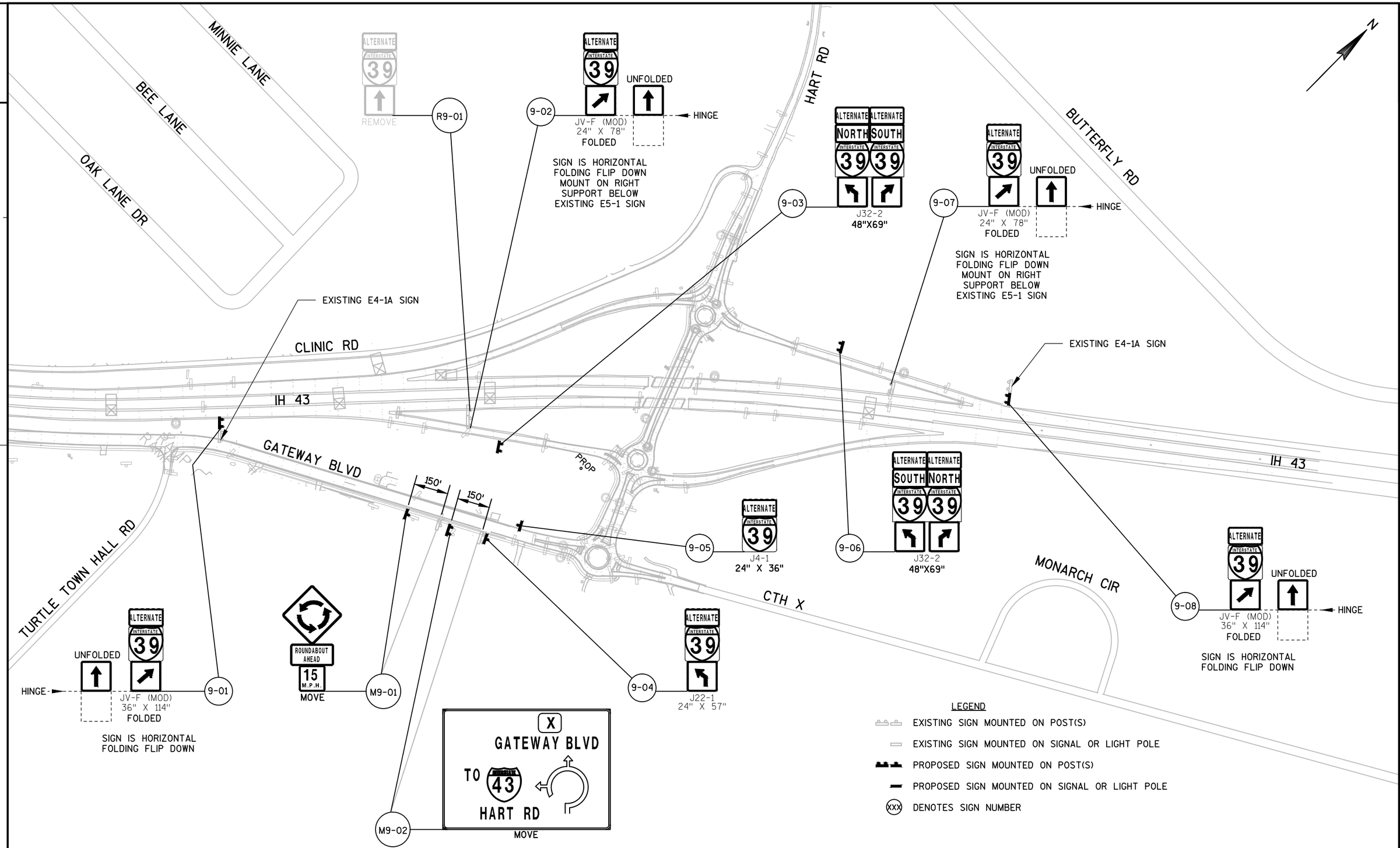
GATEWAY BLVD

ALTERNATE INTERSTATE 39
J23-1
24" X 57"
8-09

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PERMANENT SIGNING: HART RD	SHEET	E

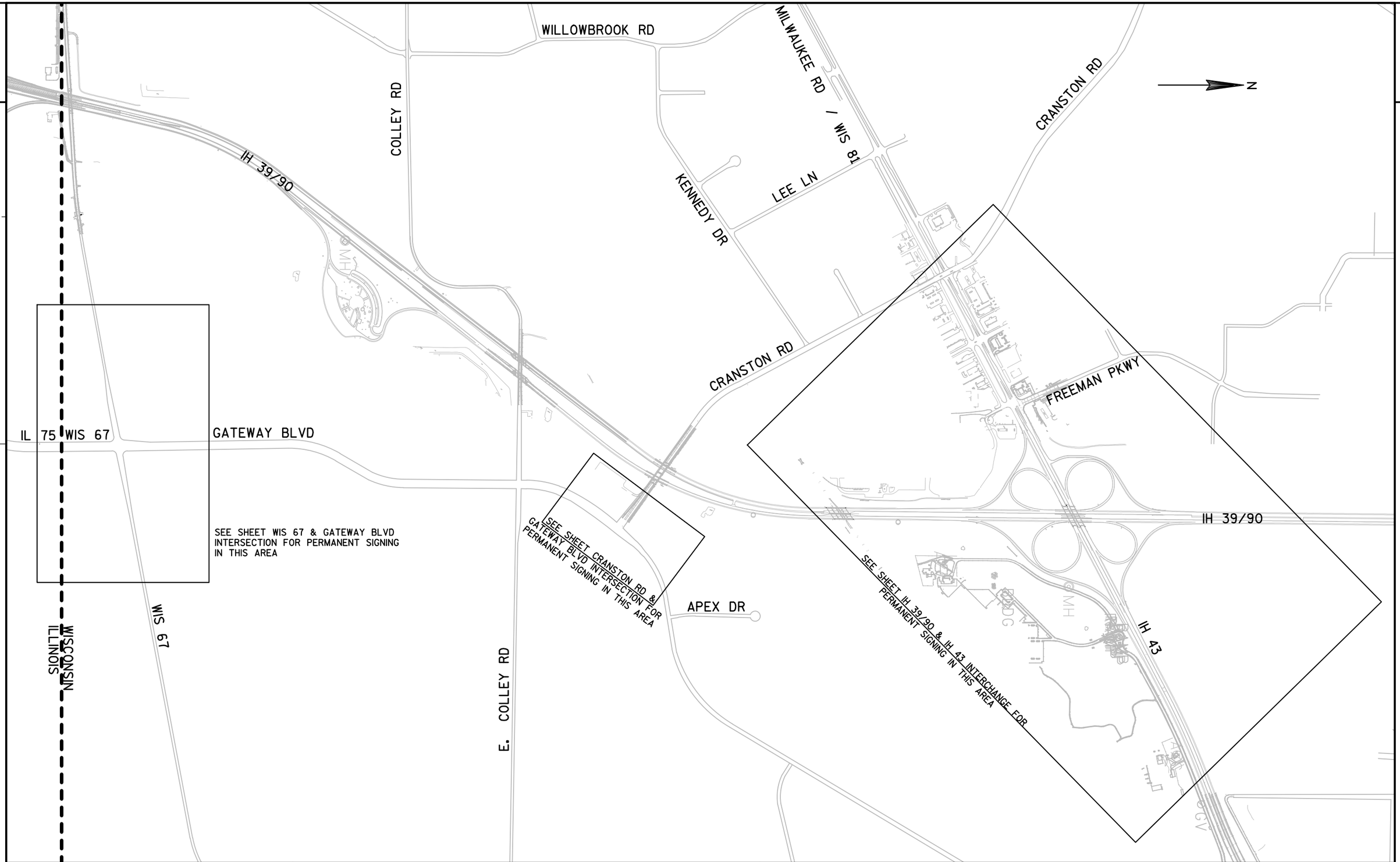
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023201_PS.DWG PLOT DATE : 7/22/2015 3:37 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

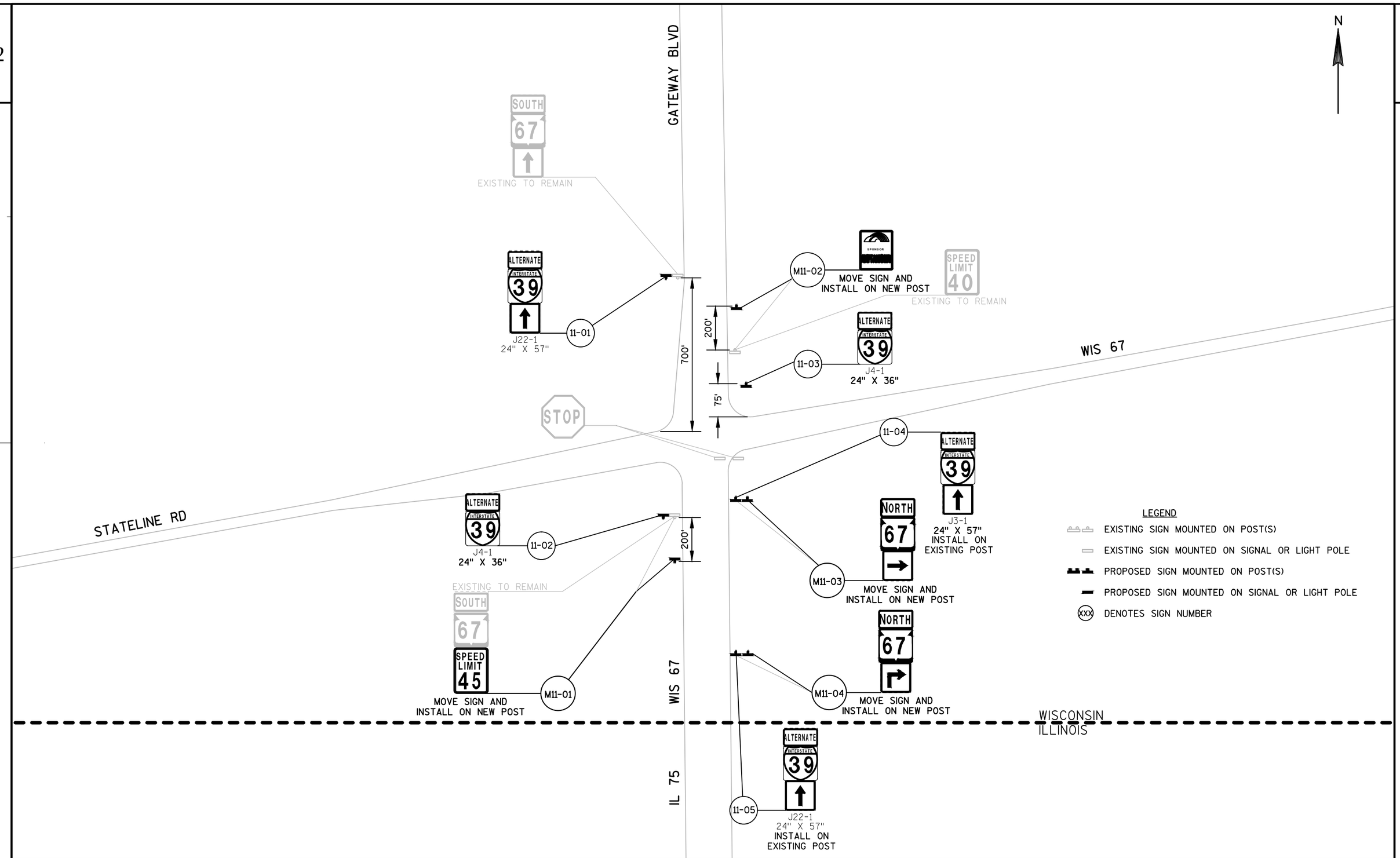


PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: IH 43 & HART RD INTERCHANGE	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023202_PS.DWG PLOT DATE : 7/22/2015 3:39 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:400 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: IH 39/90 ALTERNATE ROUTE OVERVIEW	SHEET 39	E



PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: WIS 67 & GATEWAY BLVD INTERSECTION	SHEET 40	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\023202_PS.DWG PLOT DATE : 7/22/2015 3:45 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON SIGNAL OR LIGHT POLE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON SIGNAL OR LIGHT POLE

XXX DENOTES SIGN NUMBER

N

CRANSTON RD

GATEWAY BLVD

12-01
ALTERNATE INTERSTATE 39
J4-1
24" X 36"
200'

12-02
ALTERNATE INTERSTATE 39
J22-1
24" X 57"
LOCATE MIDWAY BETWEEN
EXISTING R3-8A SIGNS

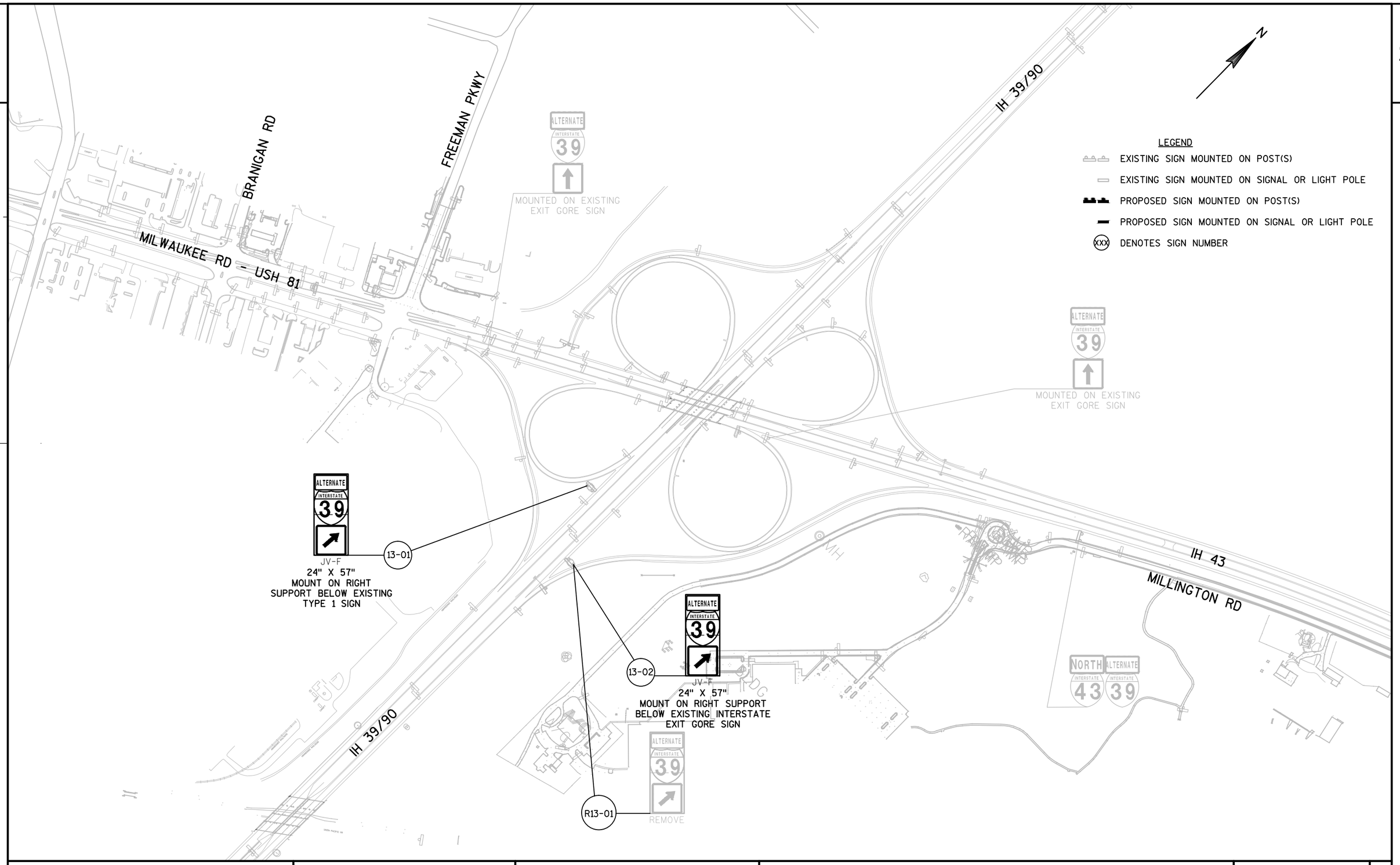
300'

12-03
ALTERNATE INTERSTATE 39
J22-1
24" X 57"

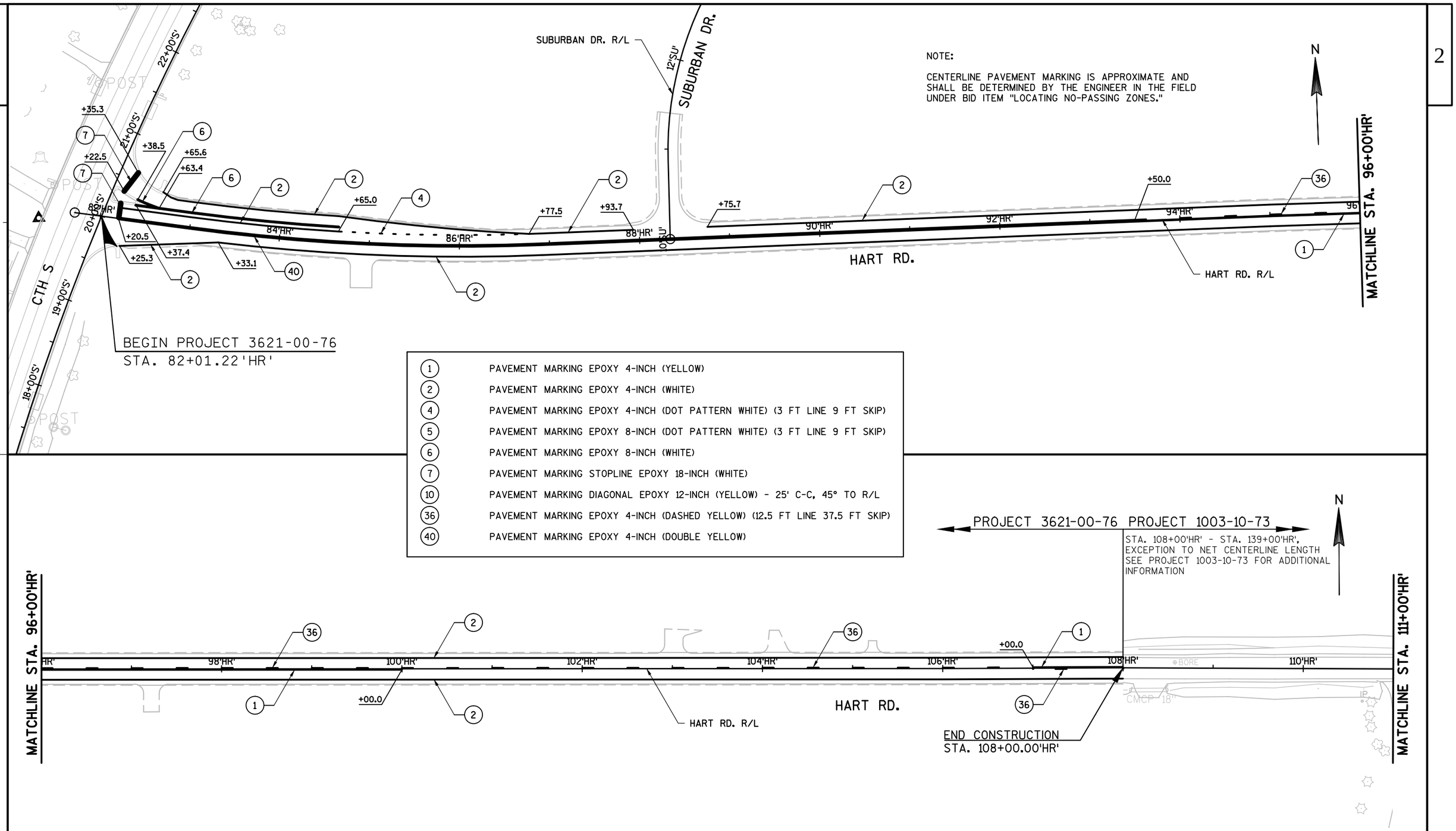
200'

12-04
ALTERNATE INTERSTATE 39
J4-1
24" X 36"

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: CRANSTON RD & GATEWAY BLVD INTERSECTION	SHEET 41	E



PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	PERMANENT SIGNING: IH 39/90 & IH 43 INTERCHANGE	SHEET 42	E



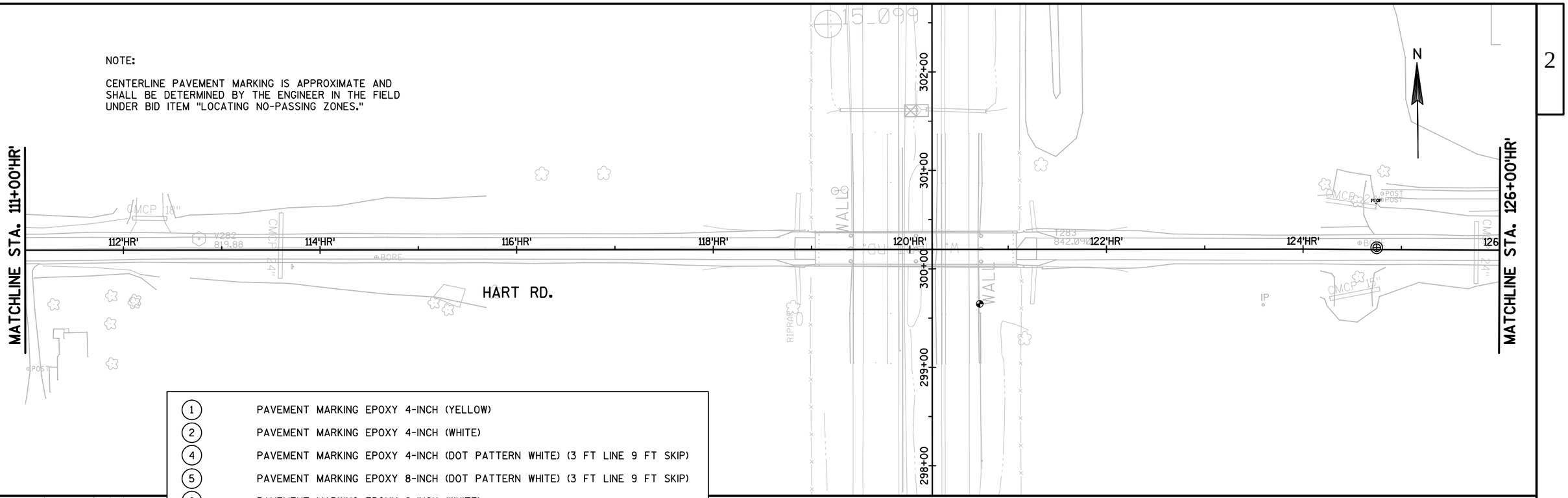
1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
4	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5	PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
7	PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
10	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) - 25' C-C, 45° TO R/L
36	PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)
40	PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PAVEMENT MARKING	SHEET 43 E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\024501_PM.DWG PLOT DATE : 7/21/2015 2:39 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 100'_1_XREF

NOTE:

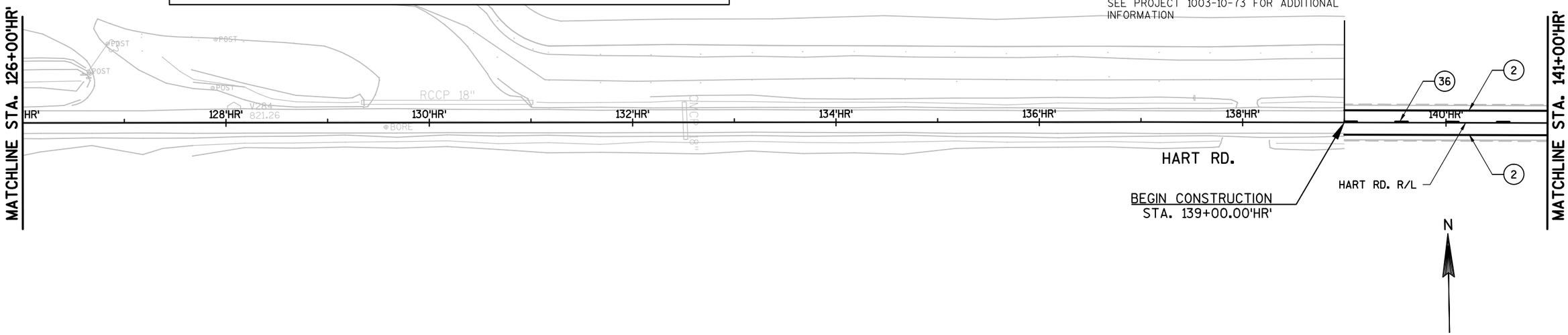
CENTERLINE PAVEMENT MARKING IS APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD UNDER BID ITEM "LOCATING NO-PASSING ZONES."



1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
4	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5	PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
7	PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
10	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) - 25' C-C, 45° TO R/L
36	PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)
40	PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)

PROJECT 1003-10-73 PROJECT 3621-00-76

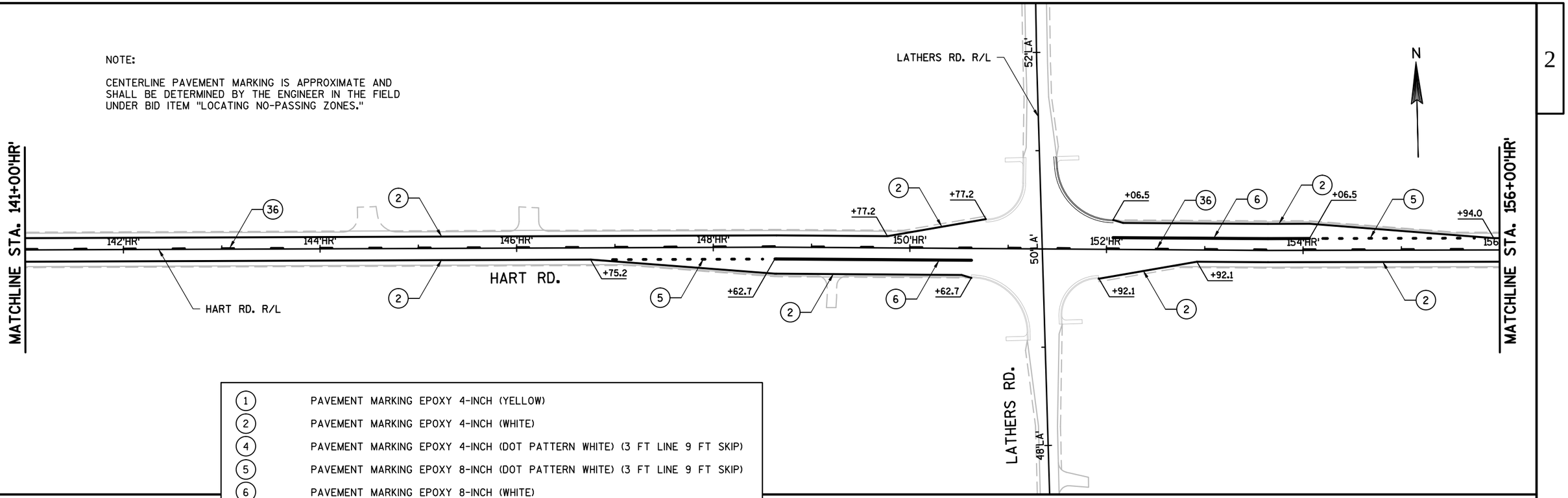
STA. 108+00'HR' - STA. 139+00'HR',
EXCEPTION TO NET CENTERLINE LENGTH
SEE PROJECT 1003-10-73 FOR ADDITIONAL INFORMATION



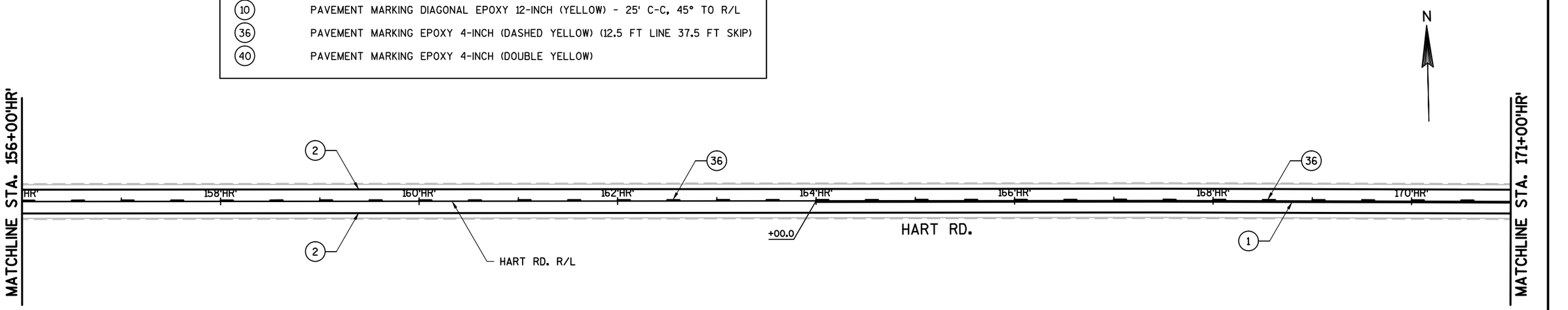
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PAVEMENT MARKING	SHEET 44	E

NOTE:

CENTERLINE PAVEMENT MARKING IS APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD UNDER BID ITEM "LOCATING NO-PASSING ZONES."



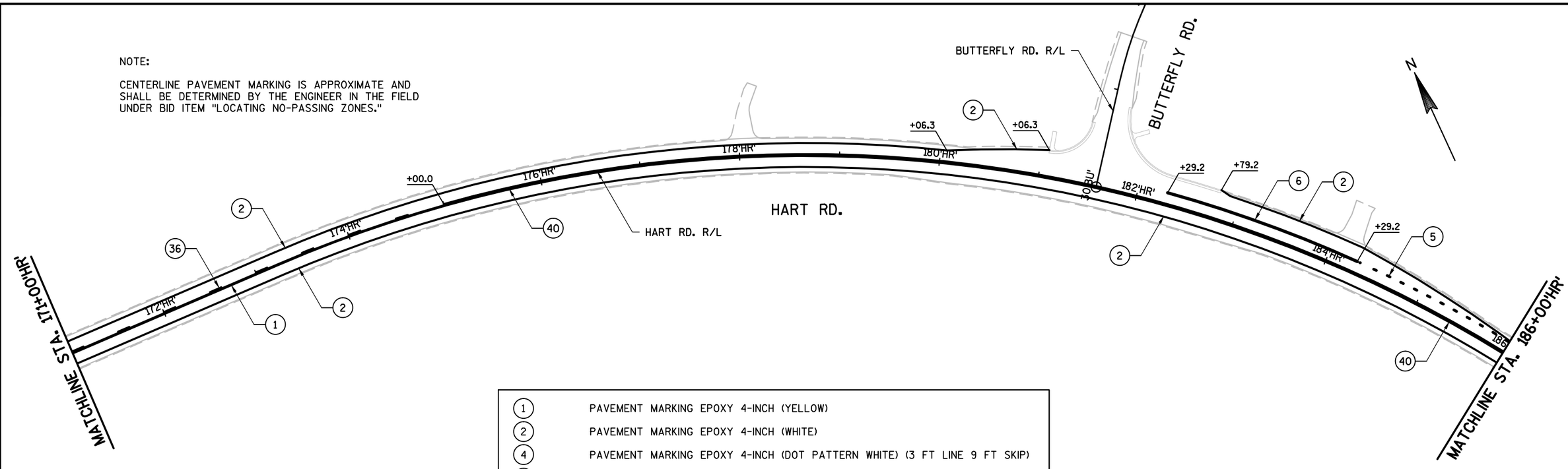
1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
4	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5	PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
7	PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
10	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) - 25' C-C, 45° TO R/L
36	PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)
40	PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)



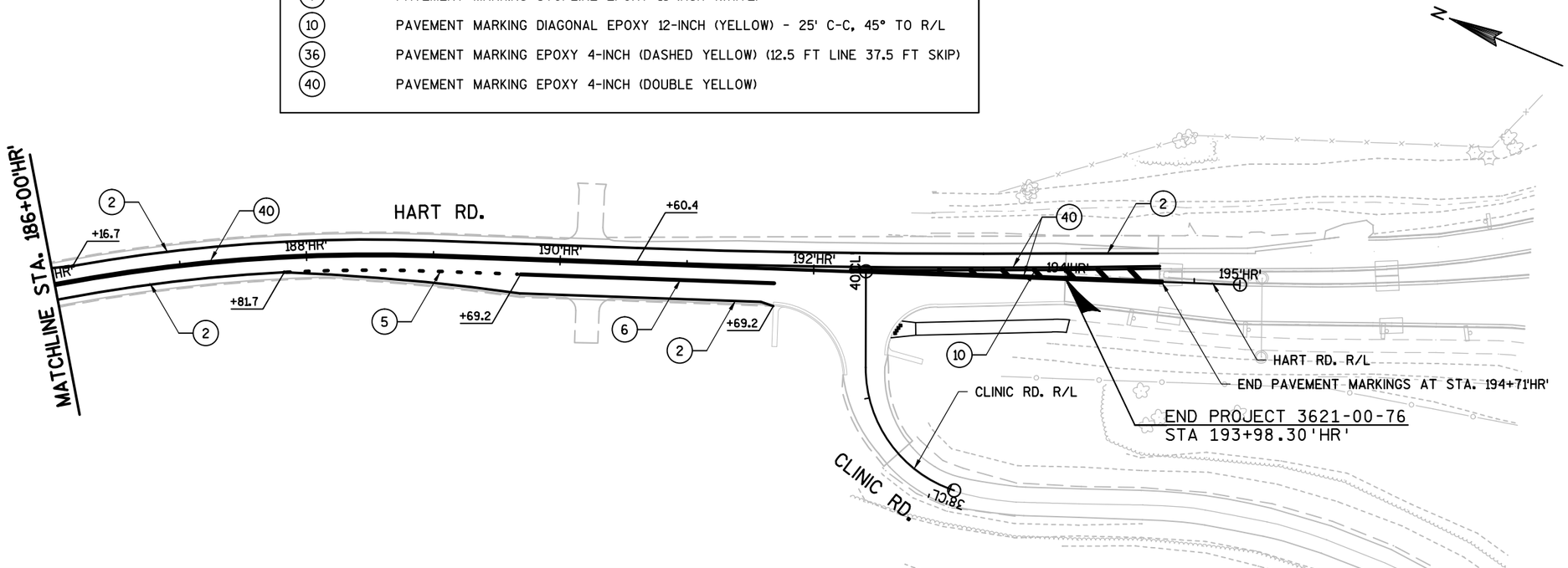
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PAVEMENT MARKING	SHEET 45 E

NOTE:

CENTERLINE PAVEMENT MARKING IS APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD UNDER BID ITEM "LOCATING NO-PASSING ZONES."



(1)	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2)	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(4)	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(5)	PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6)	PAVEMENT MARKING EPOXY 8-INCH (WHITE)
(7)	PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
(10)	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW) - 25' C-C, 45° TO R/L
(36)	PAVEMENT MARKING EPOXY 4-INCH (DASHED YELLOW) (12.5 FT LINE 37.5 FT SKIP)
(40)	PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PAVEMENT MARKING	SHEET 46	E

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. REMOVING/REPLACING OR COVERING/UNCOVERING SIGNS WILL BE INCIDENTAL TO OTHER TRAFFIC CONTROL ITEMS.

LEGEND

- PROJECT LIMITS
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- MB PORTABLE CHANGEABLE MESSAGE BOARD

2

2

N

BUSS RD

SCHROEDER RD

NEEDHAM RD

S

CREEK RD

SUBURBAN DR

INTERSTATE 39

INTERSTATE 90

LATHERS RD

SEE TRAFFIC CONTROL DETAILS FOR DETAILS IN THIS AREA

SEE TRAFFIC CONTROL DETAILS FOR DETAILS IN THIS AREA

SEE TRAFFIC CONTROL DETAILS FOR DETAILS IN THIS AREA

SEE TRAFFIC CONTROL DETAILS FOR DETAILS IN THIS AREA

SEE TRAFFIC CONTROL DETAILS FOR DETAILS IN THIS AREA

R11-2B 48" X 30" BRIDGE OUT

2 - TYPE III BARRICADES

HART RD

BUTTERFLY RD

INTERSTATE 43

X

R11-2B 48" X 30" BRIDGE OUT

5 - TYPE III BARRICADES

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C AND D

HART RD

SEE TRAFFIC CONTROL DETAILS: IH 43 FOR TRAFFIC CONTROL DETAILS IN THIS AREA

MINNIE LANE

BEE LANE

OAK LANE DR

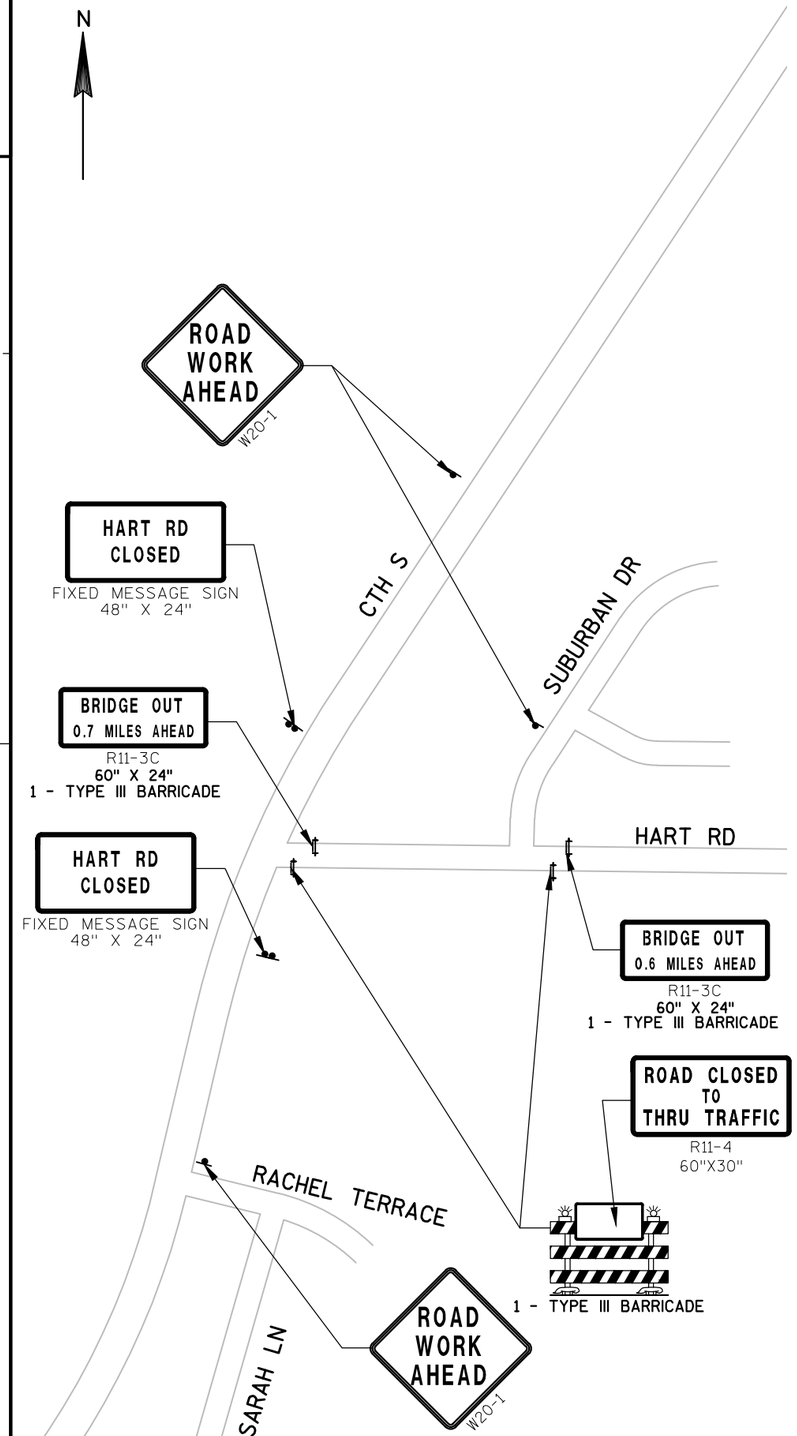
CLINIC RD

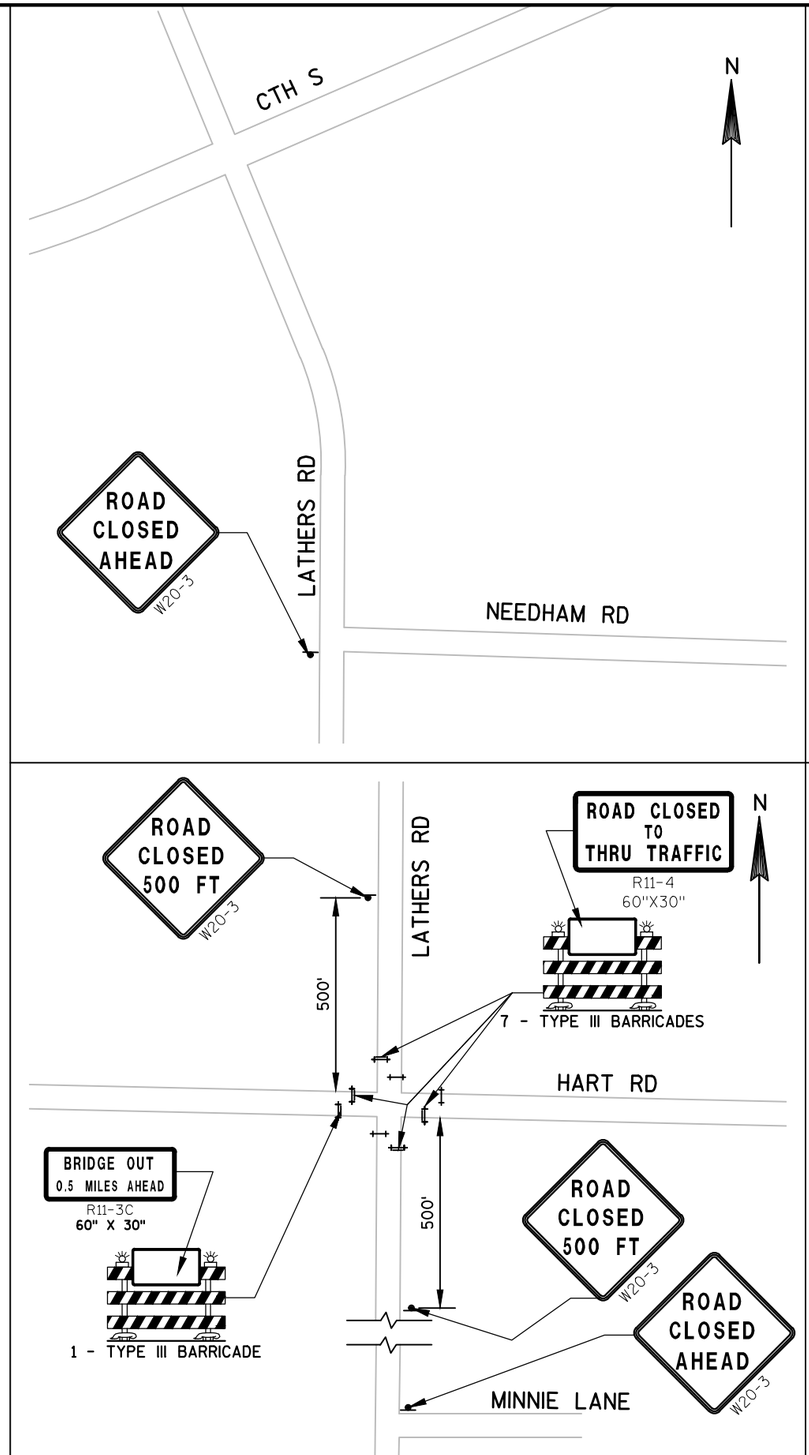
WALKER RD

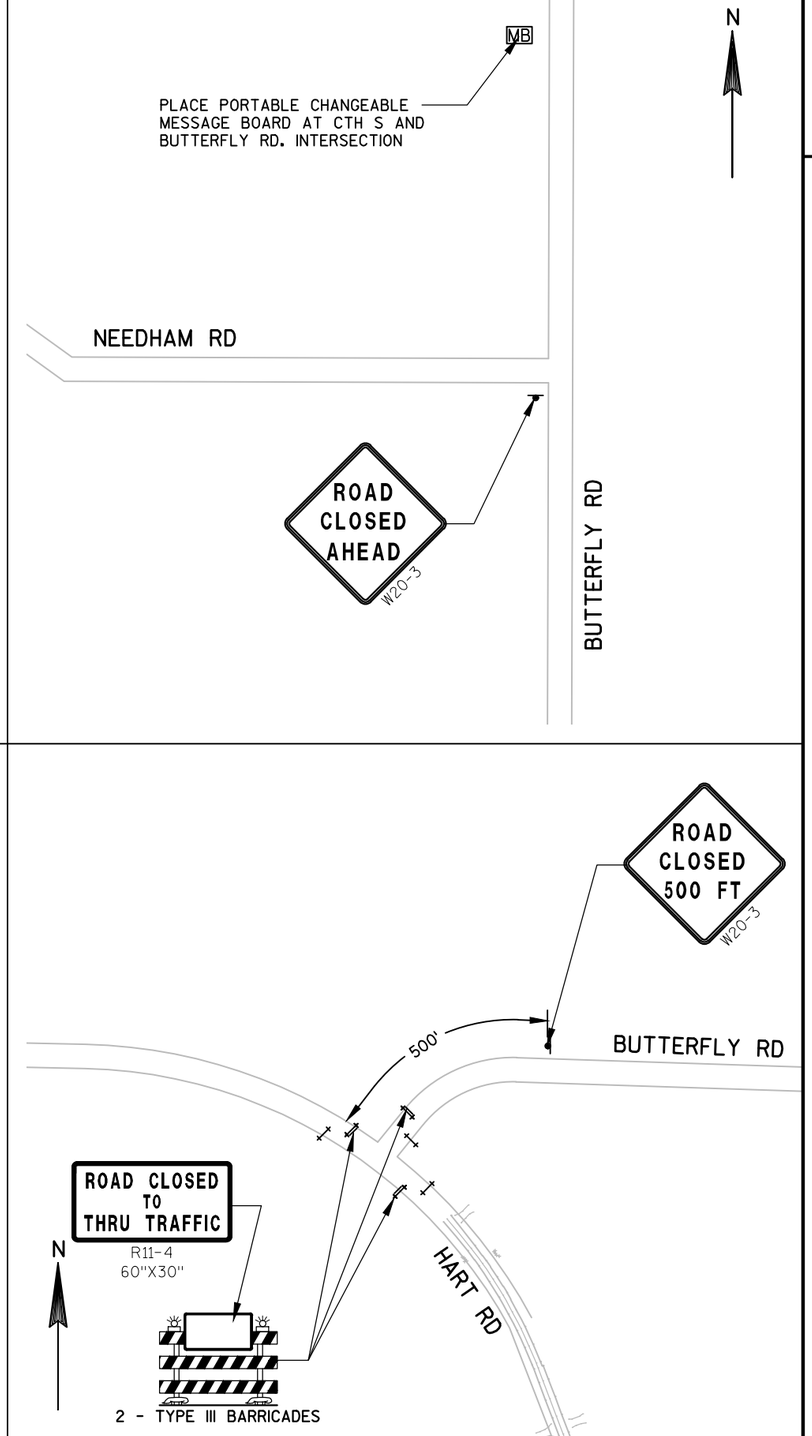
MURPHY WOODS RD

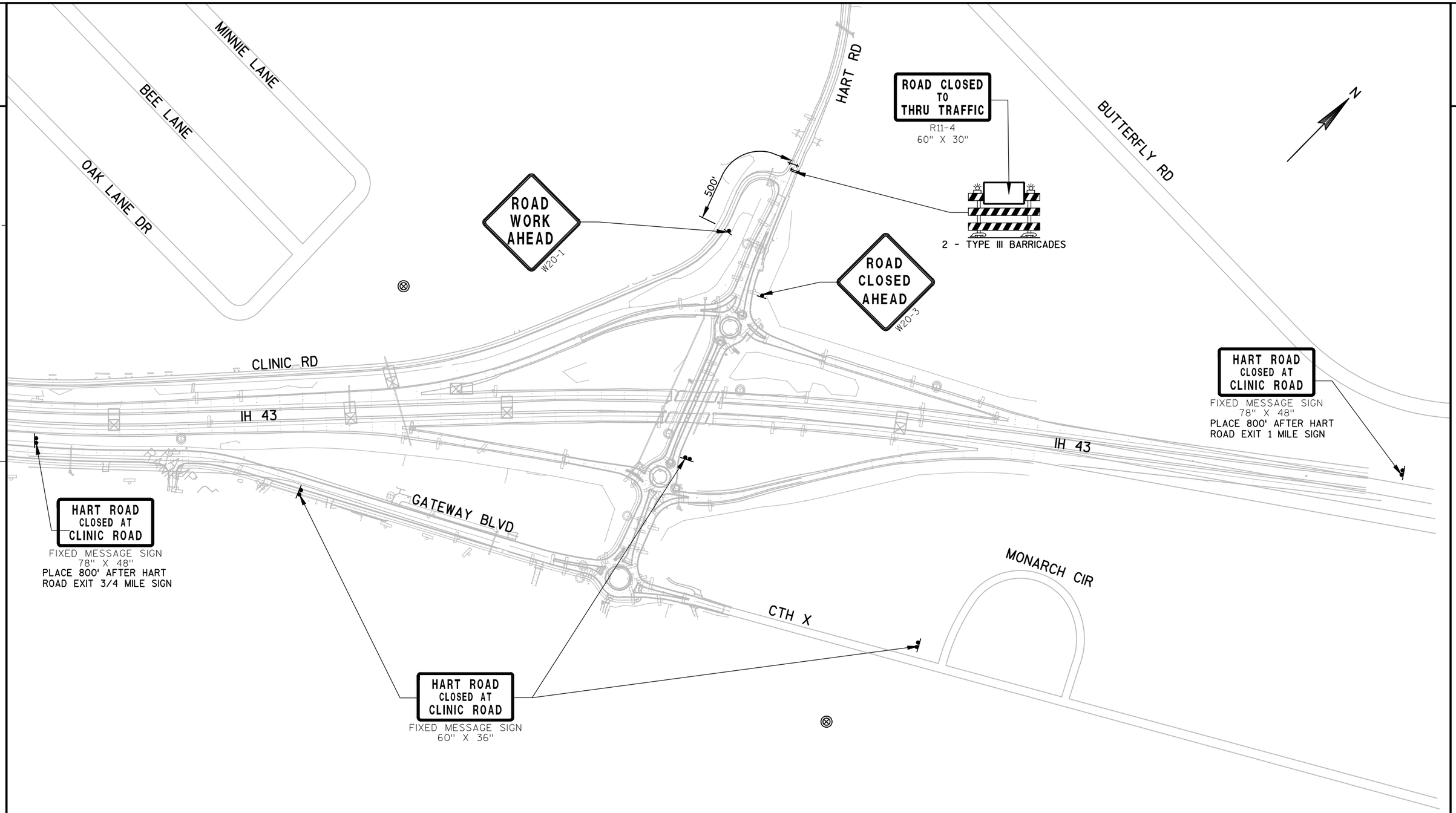
S

PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TRAFFIC CONTROL DETAILS OVERVIEW	SHEET 47	E


N
ROAD WORK AHEAD
W20-1
HART RD CLOSED
FIXED MESSAGE SIGN
48" X 24"
CTH S
SUBURBAN DR
BRIDGE OUT
0.7 MILES AHEAD
R11-3C
60" X 24"
1 - TYPE III BARRICADE
HART RD CLOSED
FIXED MESSAGE SIGN
48" X 24"
HART RD
BRIDGE OUT
0.6 MILES AHEAD
R11-3C
60" X 24"
1 - TYPE III BARRICADE
ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"
RACHEL TERRACE
1 - TYPE III BARRICADE
ROAD WORK AHEAD
W20-1
SARAH LN


CTH S
N
ROAD CLOSED AHEAD
W20-3
LATHERS RD
NEEDHAM RD
ROAD CLOSED 500 FT
W20-3
ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"
N
7 - TYPE III BARRICADES
500'
LATHERS RD
HART RD
BRIDGE OUT
0.5 MILES AHEAD
R11-3C
60" X 30"
1 - TYPE III BARRICADE
500'
ROAD CLOSED 500 FT
W20-3
ROAD CLOSED AHEAD
W20-3
MINNIE LANE


MB
PLACE PORTABLE CHANGEABLE MESSAGE BOARD AT CTH S AND BUTTERFLY RD. INTERSECTION
N
NEEDHAM RD
ROAD CLOSED AHEAD
W20-3
BUTTERFLY RD
ROAD CLOSED 500 FT
W20-3
500'
BUTTERFLY RD
ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"
N
HART RD
2 - TYPE III BARRICADES



PROJECT NO: 3621-00-76	HWY: HART RD	COUNTY: ROCK	TRAFFIC CONTROL DETAILS: IH 43	SHEET 49	E

2

N

EP: 27+06.85'S'
Y = 220184.519
X = 502787.783

27+07'S'

PI STA = 21+15.91'S'
Y = 219706.641
X = 502413.214
DELTA = 22°55'32"
D = 1°54'48"
T = 607.18
L = 1198.12
R = 2994
PC STA = 15+08.73'S'
PT STA = 27+06.85'S'

25+00'S'

EP: 15+29.84'SU'
Y = 220013.282
X = 503238.180

15+00'SU'

SUBURBAN DR

PT: 13+06.70'SU'
Y = 219827.302
X = 503114.888

PI STA = 12+00.44'SU'
Y = 219733.531
X = 503052.724
DELTA = 32°59'04"
D = 15°04'40"
T = 112.51
L = 218.76
R = 380
PC STA = 10+87.94'SU'
PT STA = 13+06.70'SU'

N33° 32' 30.08"E

BP: 81+71.21'HR'
Y = 219587.189
X = 502391.562

PC: 83+00.16'HR'
Y = 219565.392
X = 502518.655

PI

PI

N0° 33' 25.73"E

PC: 10+87.94'SU'
Y = 219621.031
X = 503051.630

PI: 95+00.00'HR'
Y = 219534.785
X = 503716.644

HART RD

20+00'S'

85+00'HR'

90+00'HR'

95+00'HR'

100+00'HR'

105+00'HR'

PI: 106+00.00'HR'
Y = 219527.955
X = 504816.626

PI: 108+00.00'HR'
Y = 219527.405
X = 505016.622

110+0

N89° 51' 16.36"E

S89° 38' 39.11"E

S89° 50' 32.89"E

S89° 21' 40.40"E

10+00'SU'

S80° 16' 05.42"E

BP: 10+00.00'SU'
Y = 219533.095
X = 503050.775

PI STA = 84+96.31'HR'
Y = 219532.235
X = 502711.982
DELTA = 9°52'38"
D = 2°31'27"
T = 196.15
L = 391.33
R = 2270
PC STA = 83+00.16'HR'
PT STA = 86+91.48'HR'
S.E. = 3.00%

PT: 86+91.48'HR'
Y = 219532.733
X = 502908.131

STA. 88+34.13'HR' =
STA. 10+00.00'SU'
Y = 219533.095
X = 503050.775

STA. 82+01.20'HR' =
STA. 20+00.00'S'
Y = 219582.119
X = 502421.124

CTH S

15+09'S'

BP: 15+08.73'S'
Y = 219120.603
X = 502254.380

BRASS DISK
FOUND
Y=219552.133
X=501407.356

ALUMINUM
MON. FOUND
Y=222176.032
X=504063.318

COMPUTED
LOCATION
Y=219531.098
X=504054.199

BERNTSEN MON. FOUND
Y=219510.140
X=506691.450

CONCRETE MON.
FOUND
Y=216869.845
X=504045.024

MATCHLINE STA. 110+00'HR'

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET 50	E

2

2

N

MATCHLINE STA. 110+00'HR'

0'HR'

115+00'HR'

S89° 21' 40.40"E

120+00'HR'

305'NB'

300'NB'

295'NB'

0'NB'

PI: 124+00.00'HR'
Y = 219509.567
X = 506616.518

125+00'HR'

HART RD

130+00'HR'

S88° 59' 46.56"E

135+00'HR'

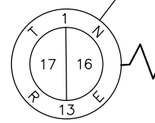
PI: 137+00.00'HR'
Y = 219486.794
X = 507916.323

140+0

S88° 48' 17.54"E

MATCHLINE STA. 140+00'HR'

BERNTSEN MON. FOUND
Y=219510.140
X=506691.450



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET 51	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\027201_AD.DWG PLOT DATE : 7/21/2015 2:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 200'_XREF

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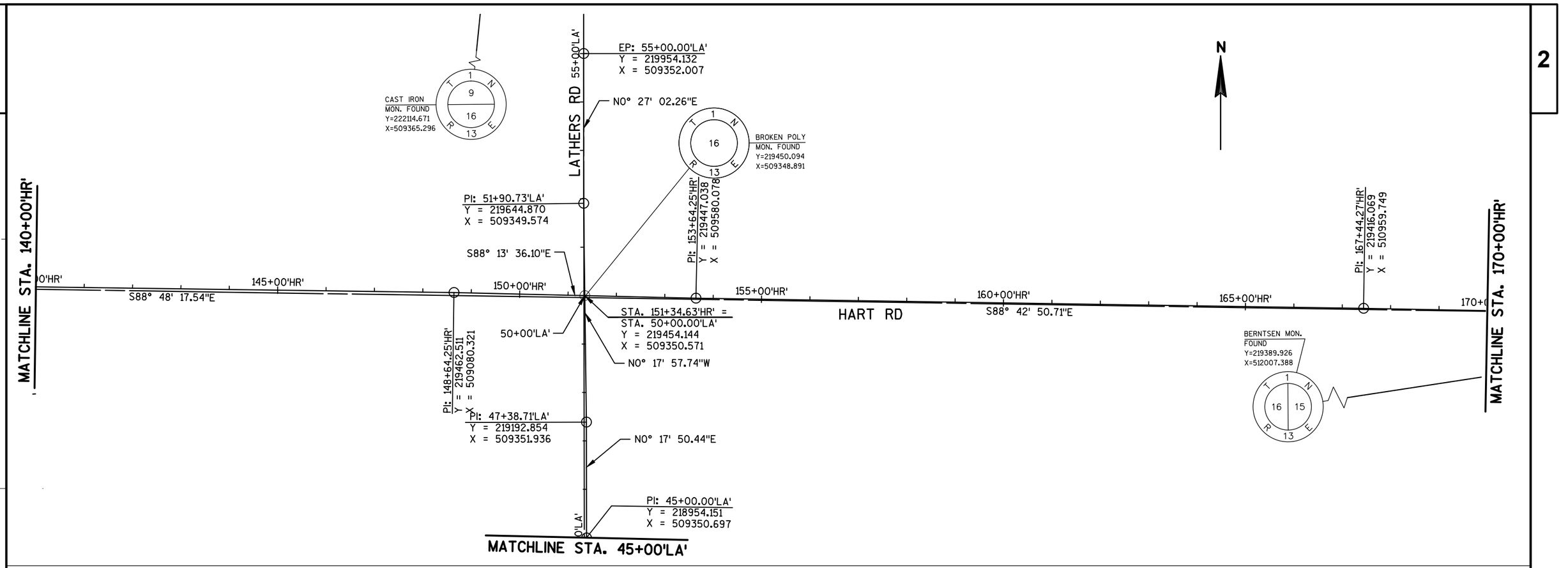
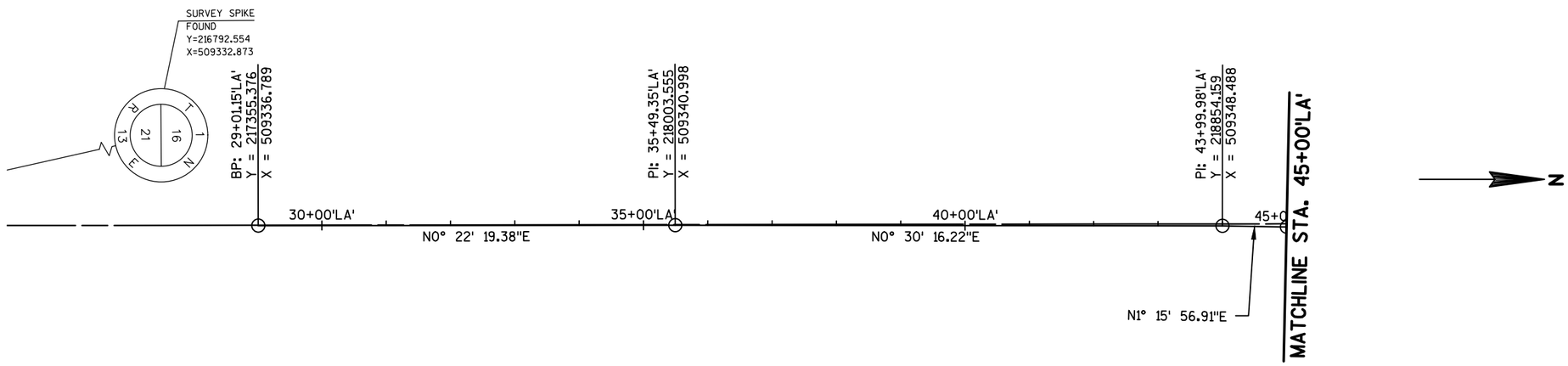
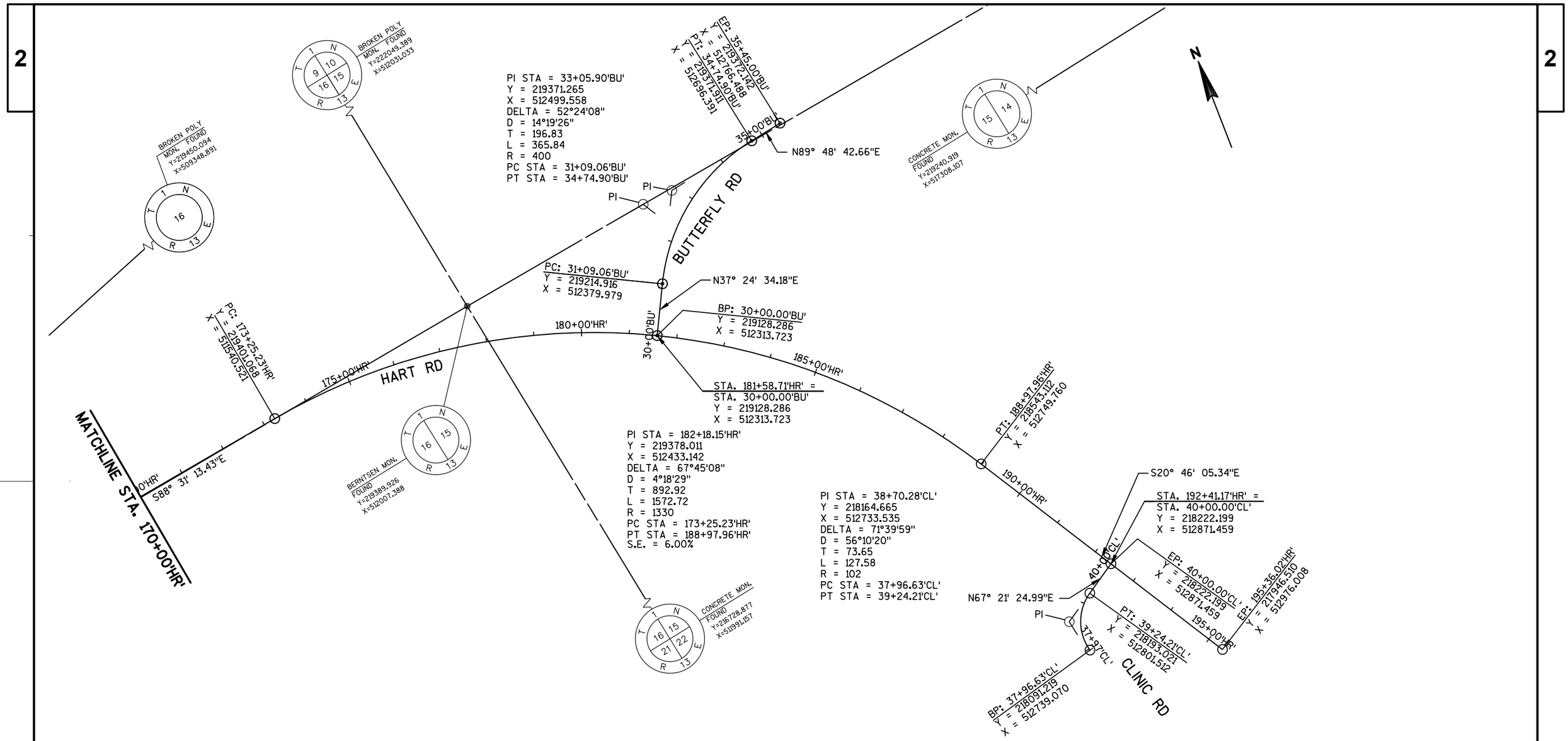




PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET	E

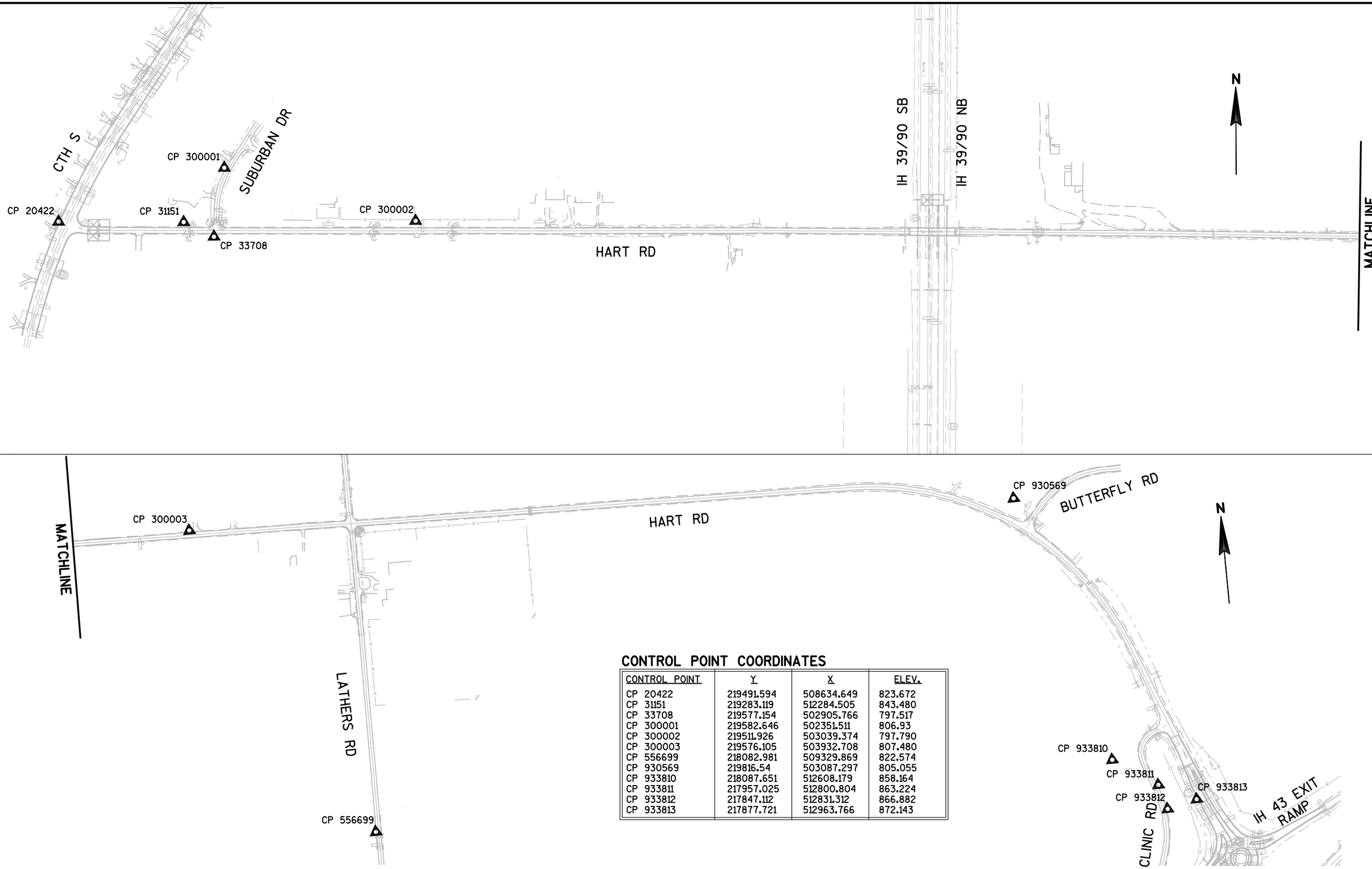
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\027201_AD.DWG PLOT DATE : 7/21/2015 2:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 200'_XREF

2



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	ALIGNMENT DIAGRAM	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\027201_AD.DWG PLOT DATE : 7/21/2015 2:55 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1" = 200'_XREF
WISDOT/CADDS SHEET 42



CONTROL POINT COORDINATES

CONTROL POINT	Y	X	ELEV.
CP 20422	219491.594	508634.649	823.672
CP 31151	219283.119	512284.505	843.480
CP 33708	219577.154	502905.766	797.517
CP 300001	219582.646	502351.511	806.93
CP 300002	219511.926	503039.374	797.790
CP 300003	219576.105	503932.708	807.480
CP 556699	218082.981	509329.869	822.574
CP 930569	219816.54	503087.297	805.055
CP 933810	218087.651	512608.179	858.164
CP 933811	217957.025	512800.804	863.224
CP 933812	217847.112	512831.312	866.882
CP 933813	217877.721	512963.766	872.143

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CONTROL POINTS	SHEET 54	E

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	3621-00-76 QUANTITY
0010	201.0105	Clearing	STA	9.000	9.000
0020	201.0120	Clearing	ID	250.000	250.000
0030	201.0205	Grubbing	STA	9.000	9.000
0040	201.0220	Grubbing	ID	370.000	370.000
0050	203.0100	Removing Small Pipe Culverts	EACH	25.000	25.000
0080	204.0100	Removing Pavement	SY	5,886.000	5,886.000
0100	204.0150	Removing Curb & Gutter	LF	345.000	345.000
0110	204.0155	Removing Concrete Sidewalk	SY	24.000	24.000
0140	204.0170	Removing Fence	LF	1,600.000	1,600.000
0150	204.0180	Removing Delineators and Markers	EACH	4.000	4.000
0160	204.0220	Removing Inlets	EACH	1.000	1.000
0170	204.0245	Removing Storm Sewer (size) 001. 12-Inch	LF	40.000	40.000
0180	205.0100	Excavation Common	CY	41,223.000	41,223.000
0220	213.0100	Finishing Roadway (project) 002. 3621-00-76	EACH	1.000	1.000
0230	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,190.000	1,190.000
0240	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	26,105.000	26,105.000
0260	305.0130	Base Aggregate Dense 3-Inch	TON	19,615.000	19,615.000
0300	455.0105	Asphaltic Material PG58-28	TON	480.000	480.000
0320	455.0605	Tack Coat	GAL	925.000	925.000
0330	460.1103	HMA Pavement Type E-3	TON	8,740.000	8,740.000
0350	460.2000	Incentive Density HMA Pavement	DOL	6,992.000	6,992.000
0360	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	16,194.000	16,194.000
0370	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	60.000	60.000
0380	465.0315	Asphaltic Flumes	SY	100.000	100.000
0390	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	10,640.000	10,640.000
0400	465.0475	Asphalt Center Line Rumble Strips 2-Lane Rural	LF	5,641.000	5,641.000
0450	504.0900	Concrete Masonry Endwalls	CY	12.000	12.000
0540	520.0118	Culvert Pipe Class III 18-Inch	LF	192.000	192.000
0550	520.0124	Culvert Pipe Class III 24-Inch	LF	32.000	32.000
0560	520.0136	Culvert Pipe Class Ill 36-Inch	LF	72.000	72.000
0570	520.1018	Apron Endwalls for Culvert Pipe 18-Inch	EACH	12.000	12.000
0580	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0590	520.1036	Apron Endwalls for Culvert Pipe 36-Inch	EACH	4.000	4.000
0600	521.0336	Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 4 to 1	EACH	4.000	4.000
0640	522.0318	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	44.000	44.000
0650	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	302.000	302.000
0660	522.0330	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	286.000	286.000
0670	522.0336	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	348.000	348.000
0690	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0700	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	12.000	12.000
0710	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	6.000	6.000
0720	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	4.000	4.000

3

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	3621-00-76 QUANTITY
0740	523.0143	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 43x68-Inch	LF	252.000	252.000
0750	523.0429	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	236.000	236.000
0760	523.0529	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	6.000	6.000
0790	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	336.000	336.000
0800	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	73.000	73.000
0810	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	625.000	625.000
0820	602.0410	Concrete Sidewalk 5-Inch	SF	365.000	365.000
0830	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	16.000	16.000
0870	606.0200	Riprap Medium	CY	160.000	160.000
0880	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0940	612.0700	Drain Tile Exploration	LF	100.000	100.000
1040	616.0600.S	Fence Temporary	LF	100.000	100.000
1050	616.0700.S	Fence Safety	LF	200.000	200.000
1070	618.0100	Maintenance And Repair of Haul Roads (project) 002. 3621-00-76	EACH	1.000	1.000
1080	619.1000	Mobilization	EACH	0.400	0.400
1090	624.0100	Water	MGAL	160.000	160.000
1100	625.0500	Salvaged Topsoil	SY	59,620.000	59,620.000
1110	627.0200	Mulching	SY	48,000.000	48,000.000
1120	628.1504	Silt Fence	LF	8,975.000	8,975.000
1130	628.1520	Silt Fence Maintenance	LF	8,975.000	8,975.000
1140	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
1150	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
1160	628.2004	Erosion Mat Class I Type B	SY	26,400.000	26,400.000
1170	628.6510	Soil Stabilizer Type B	ACRE	10.000	10.000
1180	628.7005	Inlet Protection Type A	EACH	1.000	1.000
1200	628.7015	Inlet Protection Type C	EACH	4.000	4.000
1210	628.7504	Temporary Ditch Checks	LF	570.000	570.000
1220	628.7555	Culvert Pipe Checks	EACH	140.000	140.000
1230	628.7560	Tracking Pads	EACH	2.000	2.000
1240	629.0205	Fertilizer Type A	CWT	47.000	47.000
1250	630.0110	Seeding Mixture No. 10	LB	50.000	50.000
1260	630.0130	Seeding Mixture No. 30	LB	1,350.000	1,350.000
1270	630.0200	Seeding Temporary	LB	2,000.000	2,000.000
1280	633.5200	Markers Culvert End	EACH	24.000	24.000
1290	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	1.000	1.000
1300	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
1310	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	21.000	21.000
1320	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	5.000	5.000
1330	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	5.000	5.000
1340	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	8.000	8.000
1350	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	9.000	9.000
1360	634.0818	Posts Tubular Steel 2x2-Inch X 18-FT	EACH	19.000	19.000
1370	637.2210	Signs Type II Reflective H	SF	403.260	403.260
1380	637.2215	Signs Type II Reflective H Folding	SF	215.000	215.000
1390	637.2230	Signs Type II Reflective F	SF	67.250	67.250

3

DATE 13NOV15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	3621-00-76 QUANTITY
1400	638.2102	Moving Signs Type II	EACH	9.000	9.000
1410	638.2602	Removing Signs Type II	EACH	23.000	23.000
1420	638.3000	Removing Small Sign Supports	EACH	17.000	17.000
1430	638.4000	Moving Small Sign Supports	EACH	5.000	5.000
1440	642.5201	Field Office Type C	EACH	0.500	0.500
1460	643.0200	Traffic Control Surveillance and Maintenance (project) 002. 3621-00-76	DAY	187.000	187.000
1470	643.0300	Traffic Control Drums	DAY	18,000.000	18,000.000
1480	643.0420	Traffic Control Barricades Type III	DAY	6,358.000	6,358.000
1490	643.0705	Traffic Control Warning Lights Type A	DAY	11,220.000	11,220.000
1520	643.0900	Traffic Control Signs	DAY	5,236.000	5,236.000
1530	643.0910	Traffic Control Covering Signs Type I	EACH	5.000	5.000
1540	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
1550	643.1000	Traffic Control Signs Fixed Message	SF	98.000	98.000
1560	643.1050	Traffic Control Signs PCMS	DAY	187.000	187.000
1570	645.0120	Geotextile Fabric Type HR	SY	435.000	435.000
1580	646.0106	Pavement Marking Epoxy 4-Inch	LF	25,304.000	25,304.000
1590	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,242.000	1,242.000
1610	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	42.000	42.000
1620	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	40.000	40.000
1630	648.0100	Locating No-Passing Zones	MI	2.130	2.130
1700	690.0150	Sawing Asphalt	LF	453.000	453.000
1710	690.0250	Sawing Concrete	LF	51.000	51.000
1740	SPV.0035	Special 001. Roadway Embankment	CY	28,000.000	28,000.000
1750	SPV.0060	Special 001. Baseline CPM Progress Schedule	EACH	0.500	0.500
1760	SPV.0060	Special 002. CPM Progress Schedule Updates and Accepted Revisions	EACH	3.000	3.000
1770	SPV.0060	Special 004. Landmark Reference Monuments Special	EACH	1.000	1.000
1820	SPV.0105	Special 002. Survey Project 3621-00-76	LS	1.000	1.000

3

3

CLEARING & GRUBBING

STATION	-	STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)	201.0120 CLEARING (ID)	201.0220 GRUBBING (ID)
21+82'S'			19' RT	---	---	18	18
22+12'S'			19' RT	---	---	26	26
82+00'HR'	-	85+00'HR'	LT	3	3	---	---
88+10'HR'			56' LT	---	---	6	6
88+73'HR'			49' LT	---	---	30	30
141+21'HR'			36' LT	---	---	12	12
141+24'HR'			36' LT	---	---	12	12
141+94'HR'			33' RT	---	---	24	24
144+27'HR'			34' RT	---	---	8	8
144+42'HR'			36' RT	---	---	8	8
145+38'HR'			25' LT	---	---	---	60
145+38'HR'			31' LT	---	---	---	60
147+00'HR'	-	150+00'HR'	LT & RT	3	3	---	---
153+05'HR'			34' RT	---	---	48	48
154+88'HR'			30' RT	---	---	12	12
159+06'HR'			26' RT	---	---	24	24
185+34'HR'			41' RT	---	---	22	22
47+00'LA'	-	50+00'LA'	LT & RT	3	3	---	---
			CATEGORY 1000 TOTALS	9	9	250	370
			PROJECT TOTALS	9	9	250	370

REMOVING PAVEMENT, REMOVING CURB & GUTTER, REMOVING CONCRETE SIDEWALK, REMOVING FENCE & REMOVING DELINEATORS AND MARKERS

STATION	-	STATION	LT/RT	204.0100 REMOVING PAVEMENT (SY)	204.0150 REMOVING CURB & GUTTER (LF)	204.0155 REMOVING CONCRETE SIDEWALK (SY)	204.0170 REMOVING FENCE (LF)	204.0180 REMOVING DELINEATORS AND MARKERS (EA)
81+75'HR'	-	83+10'HR'	RT	--	135	--	--	--
82+00'HR'	-	83+10'HR'	LT/RT	--	210	--	--	--
151+75'HR'	-	159+00'HR'	RT	--	--	--	725	--
172+54'HR'	-	193+98'HR	LT/RT	5,886	--	--	--	--
192+10'HR'			RT	--	--	--	--	4
192+60'HR'	-	192+81'HR'	RT	--	--	24	--	--
41+90'LA'	-	45+70'LA'	RT	--	--	--	420	--
47+30'LA'	-	49+40'LA'	LT	--	--	--	235	--
47+80'LA'	-	49+60'LA'	RT	--	--	--	220	--
			CATEGORY 1000 TOTALS	5,886	345	24	1,600	4
			PROJECT TOTALS	5,886	345	24	1,600	4

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	ESTIMATED LENGTH (FT)	ESTIMATED DIA. (IN)	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)
84+93'HR'	RT	36	12	1
87+15'HR'	RT/LT	47	24	1
95+34'HR'	RT/LT	41	18	1
98+82'HR'	RT/LT	43	18	1
103+02'HR'	LT	21	15	1
105+22'HR'	LT	20	15	1
107+06'HR'	RT/LT	41	18	1
151+13'HR'	RT/LT	41	30	1
151+61'HR'	RT/LT	44	30	2
159+30'HR'	RT/LT	39	48	3
178+10'HR'	LT	40	24	1
185+17'HR'	RT/LT	84	36	2
190+23'HR'	RT	35	36	1
190+23'HR'	LT	35	36	1
10+32'SU'	RT/LT	49	15	1
45+95'LA'	LT	23	24	1
47+06'LA'	LT	24	24	1
47+35'LA'	RT	107	36	1
51+52'LA'	RT/LT	44	36x54	1
30+58'BU'	RT/LT	50	24	1
39+19'CL'	RT/LT	77	24	1
		CATEGORY 1000 TOTALS		25
		PROJECT TOTALS		25

REMOVING STORM SEWER

STATION	-	STATION	LOCATION	204.0220 REMOVING INLETS (EACH)	204.0245.01 REMOVING STORM SEWER 12-INCH (LF)
83+10'HR'			2' LT	1	--
83+10'HR'	-	83+10'HR'	RT	--	40
			CATEGORY 1000 TOTALS	1	40
			PROJECT TOTALS	1	40

EARTHWORK (PROJECT 3621-00-76)

Category	Division	From/To Station	Location	Excavation Common (CY) (1) 205.0100		Fill (CY)	Roadway Embankment (CY) (4) SPV.0035.001	Mass Ordinate +/- (5)
				Cut (CY) (2)	EBS (CY) (3)			
1000	1	81+76'HR' - 108+00'HR'	HART RD	4,874	5,664	2,130	7,794	2,744
		139+00'HR' - 194+71'HR'	HART RD	12,616	10,249	5,092	15,341	7,525
		10+75'SU' - 11+40'SU'	SUBURBAN DR	158	0	0	0	158
		36+23'LA' - 49+25'LA'	LATHERS RD	2,378	414	315	728	2,063
		50+75'LA' - 53+00'LA'	LATHERS RD	378	0	143	143	235
		30+75'BU' - 31+55'BU'	BUTTERFLY RD	270	0	5	5	265
		38+50'CL' - 39+25'CL'	CLINIC RD	254	0	20	20	233
			UNDISTRIBUTED	0	3,968	0	3,968	0
	Project 3621-00-76 - Division 1 Subtotal			20,928	20,295	7,705	28,000	13,223
	Project 3621-00-76 - Division 1 Total			41,223			28,000	
	Project 3621-00-76 Totals			41,223			28,000	

1) Excavation Common = Cut + EBS Excavation. Item number 205.0100.

2) Cut volume includes concrete and asphaltic surface material.

3) EBS Excavation to be backfilled with roadway embankment unless otherwise noted in plans.

4) Roadway Embankment = (Fill + EBS Excavation)

5) The Mass Ordinate is calculated by division. A positive quantity indicates an excess of material within the Division and a negative quantity indicates a shortage of material within the Division. Structure Excavation is not included in this calculation.
Mass Ordinate = Cut - Fill. The Mass Ordinate is for information purposes only as Common Excavation and Roadway Embankment are not balanced for quantity purposes and does not guarantee the quality of Common Excavation, and if it can be reused onsite. All EBS material is assumed to be wasted offsite.

3

BASE AGGREGATE DENSE

STATION	-	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)	305.0130 BASE AGGREGATE DENSE 3-INCH (TON)
82+01'HR'	-	108+00'HR'	HART ROAD	240	7,390	5650
139+00'HR'	-	194+71'HR'	HART ROAD	515	17,280	12850
192+63'HR'	-	194+03'HR'	MULTI-USE PATH	--	80	--
10+50'SU'	-	11+40'SU'	SUBURBAN DRIVE	20	180	160
47+50'LA'	-	49+10'LA'	LATHERS ROAD	40	330	285
51+00'LA'	-	53+00'LA'	LATHERS ROAD	50	410	360
30+75'BU'	-	31+55'BU'	BUTTERFLY ROAD	20	180	160
38+50'CL'	-	39+25'CL'	CLINIC ROAD	20	180	150
			DRIVEWAYS/ FIELD ENTR.	285	75	--
			CATEGORY 1000 TOTALS	1,190	26,105	19,615
			PROJECT TOTALS	1,190	26,105	19,615

ASPHALTIC RUMBLE STRIPS

STATION	-	STATION	LOCATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL (LF)	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL (LF)
95+00'HR'	-	108+00'HR'	RT.	1,300	--
95+00'HR'	-	102+69'HR'	LT.	769	--
95+00'HR'	-	108+00'HR'	CENTERLINE	--	1,300
103+36'HR'	-	103+81'HR'	LT.	45	--
104+43'HR'	-	104+93'HR'	LT.	50	--
105+52'HR'	-	108+00'HR'	LT.	248	--
139+00'HR'	-	149+35'HR'	CENTERLINE	--	1,035
139+00'HR'	-	146+25'HR'	RT.	725	--
139+07'HR'	-	149+27'HR'	LT.	1,020	--
153+35'HR'	-	179+59'HR'	CENTERLINE	--	2,624
153+42'HR'	-	187+31'HR'	RT.	3,389	--
156+44'HR'	-	180+06'HR'	LT.	2,362	--
183+59'HR'	-	190+41'HR'	CENTERLINE	--	682
186+66'HR'	-	193+98'HR'	LT.	732	--
			CATEGORY 1000 TOTALS	10,640	5,641
			PROJECT TOTALS	10,640	5,641

3

HMA PAVEMENT ITEMS

STATION	-	STATION	LOCATION	PAVEMENT DEPTH (INCHES)	460.1103 HMA PAVEMENT E-3 (TON)	455.0105 ASPHALTIC MATERIAL PG 58-28 (TON)	455.0605 TACK COAT (GAL)	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES (TON)	465.0315 ASPHALTIC FLUMES (SY)	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS (LF)
82+01'HR'	-	108+00'HR'	HART ROAD	4	2,535	139	270	--	13	5,198
139+00'HR'	-	193+98'HR'	HART ROAD	4	5,805	319	615	--	--	10,996
192+80'HR'	-	194+00'HR'	MULTI-USE PATH	2.5	--	--	--	20	--	--
10+50'SU'	-	11+40'SU'	SUBURBAN DRIVE	4	55	3	5	--	--	--
47+50'LA'	-	49+10'LA'	LATHERS ROAD	4	100	6	10	--	20	--
51+00'LA'	-	53+00'LA'	LATHERS ROAD	4	130	7	15	--	20	--
30+75'BU'	-	31+55'BU'	BUTTERFLY ROAD	4	60	3	5	--	17	--
38+50"CL'	-	39+30'CL'	CLINIC ROAD	4	55	3	5	--	30	--
84+93'HR'			DRIVEWAY, RT	3	--	--	--	15	--	--
46+96'LA'			DRIVEWAY, RT	3	--	--	--	15	--	--
47+65'LA'			DRIVEWAY, RT	3	--	--	--	10	--	--
			CATEGORY 1000 TOTALS		8,740	480	925	60	100	16,194
			PROJECT TOTALS		8,740	480	925	60	100	16,194

3

DRIVEWAY CULVERT PIPE

INLET			OUTLET			CULVERT PIPE CLASS III			THICKNESS (INCHES)		CULVERT PIPE REINFORCED CONCRETE	
						520.0118	520.0124	520.0136			* 522.0330	* 523.0429
						18-INCH	24-INCH	36-INCH			CLASS IV	HORIZONTAL ELLIPTICAL CLASS HE-IV
STATION	OFFSET	ELEVATION	STATION	OFFSET	ELEVATION	LF	LF	LF	STEEL	ALUMINUM	30-INCH LF	29X45-INCH LF
84+73'HR'	39.5 RT	798.68	85+13'HR'	38.5 RT	797.70	40	--	--	0.064	0.060	--	--
97+40'HR'	34.6 RT	802.03	97+04'HR'	34.6 RT	801.93	36	--	--	0.064	0.060	--	--
103+21'HR'	31.3 LT	811.17	102+85'HR'	31.3 LT	810.74	36	--	--	0.064	0.060	--	--
105+12'HR'	27.5 LT	812.32	105+32'HR'	27.5 LT	812.31	20	--	--	0.064	0.060	--	--
144+66'HR'	33.1 LT	821.74	144+30'HR'	33.1 LT	821.63	36	--	--	0.064	0.060	--	--
149+09'HR'	50.9 RT	820.64	149+33'HR'	51.7 RT	820.49	24	--	--	0.064	0.060	--	--
178+21'HR'	48.2 LT	830.00	177+91'HR'	48.2 LT	829.13	--	32	--	0.064	0.075	--	--
190+41'HR'	53.6 LT	850.09	190+05'HR'	53.6 LT	848.45	--	--	36	0.079	0.105	--	--
190+41'HR'	49.4 RT	850.70	190+05'HR'	48.4 RT	849.95	--	--	36	0.079	0.105	--	--
47+20'LA'	29.3 LT	819.35	45+80'LA'	32.1 LT	819.21	--	--	--	--	--	140	--
47+90'LA'	29.1 RT	819.22	46+78'LA'	29.8 RT	819.11	--	--	--	--	--	--	112
(STATION/OFFSET/ELEV. AT END OF PIPE)					CATEGORY 1000 TOTALS	192	32	72			140	112
* ADDITIONAL QUANTITIES LISTED ELSEWHERE					PROJECT TOTALS	192	32	72			140	112

3

DRIVEWAY CULVERT PIPE STRUCTURES

INLET			OUTLET			APRON ENDWALLS FOR CULVERT PIPE				
						520.1018	520.1024	520.1036	* 522.1030	* 523.0529
						18-INCH	24-INCH	36-INCH	REINFORCED CONCRETE 30-INCH	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH
STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.	EACH	EACH	EACH	EACH	EACH
84+73'HR'	39.5 RT	798.68	85+13'HR'	38.5 RT	797.7	2	--	--	--	--
97+40'HR'	34.6 RT	802.03	97+04'HR'	34.6 RT	801.93	2	--	--	--	--
103+21'HR'	31.3 LT	811.17	102+85'HR'	31.3 LT	810.74	2	--	--	--	--
105+12'HR'	27.5 LT	812.32	105+32'HR'	27.5 LT	812.31	2	--	--	--	--
144+66'HR'	33.1 LT	821.74	144+30'HR'	33.1 LT	821.63	2	--	--	--	--
149+09'HR'	50.9 RT	820.64	149+33'HR'	51.7 RT	820.49	2	--	--	--	--
178+21'HR'	48.2 LT	830	177+91'HR'	48.2 LT	829.13	--	2	--	--	--
190+41'HR'	53.6 LT	850.09	190+05'HR'	53.6 LT	848.45	--	--	2	--	--
190+41'HR'	49.4 RT	850.70	190+05'HR'	48.4 RT	849.95	--	--	2	--	--
47+20'LA'	29.3 LT	819.35	45+80'LA'	32.1 LT	819.21	--	--	--	2	--
47+90'LA'	29.1 RT	819.22	46+78'LA'	29.8 RT	819.11	--	--	--	--	2
(STATION/OFFSET/ELEV. AT END OF PIPE)					CATEGORY 1000 TOTALS	12	2	4	2	2
* ADDITIONAL QUANTITIES LISTED ELSEWHERE					PROJECT TOTALS	12	2	4	2	2

CROSS PIPE CULVERTS

INLET			OUTLET			CULVERT PIPE REINFORCED CONCRETE					
						522.0318 CLASS IV 18-INCH	522.0324 CLASS IV 24-INCH	* 522.0330 CLASS IV 30-INCH	522.0336 CLASS IV 36-INCH	523.0143 HORIZONTAL ELLIPTICAL CLASS HE-III 43X68-INCH	* 523.0429 HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH
STATION	OFFSET	ELEVATION	STATION	OFFSET	ELEVATION	LF	LF	LF	LF	LF	LF
87+15'HR'	26.4 LT	795.41	87+15'HR'	31.6 RT	794.76	--	--	58	--	--	--
95+34'HR'	22.2 LT	801.92	95+34'HR'	23.8 RT	801.53	--	46	--	--	--	--
98+82'HR'	22.1 LT	803.03	98+82'HR'	23.9 RT	802.59	--	46	--	--	--	--
107+06'HR'	19.9 LT	810.99	107+06'HR'	22.1 RT	810.51	--	84	--	--	--	--
150+71'HR'	42.4 LT	820.00	150+77'HR'	45.4 RT	819.69	--	--	88	--	--	--
151+98'HR'	39.4 LT	819.80	151+93'HR'	40.8 RT	819.43	--	--	--	160	--	--
159+30'HR'	42.0 LT	818.46	159+30'HR'	42.0 RT	818.00	--	--	--	--	252	--
185+38'HR'	44.4 LT	839.57	185+03'HR'	27.6 RT	838.63	--	--	--	188	--	--
10+37'SU'	21.9 RT	797.58	10+37'SU'	22.1 LT	796.72	44	--	--	--	--	--
50+75'LA'	33.5 RT	820.00	50+75'LA'	28.5 LT	819.90	--	--	--	--	--	124
30+58'BU'	37.4 RT	837.16	30+58'BU'	30.3 LT	836.73	--	68	--	--	--	--
39+18'CL'	30.0 RT	854.60	39+19'CL'	28.0 LT	854.00	--	58	--	--	--	--
(STATION/OFFSET/ELEV. AT END OF PIPE)				CATEGORY 1000 TOTALS		44	302	146	348	252	124
* ADDITIONAL QUANTITIES LISTED ELSEWHERE				PROJECT TOTALS		44	302	146	348	252	124

CROSS PIPE STRUCTURES

INLET			OUTLET			521.0336 APRON ENDWALLS FOR CULVERT PIPE SLOPED CROSS DRAINS STEEL 36-INCH 4 TO 1	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE					504.0900 CONCRETE MASONRY ENDWALLS	633.5200 MARKERS CULVERT END
							522.1018 18-INCH	522.1024 24-INCH	* 522.1030 30-INCH	522.1036 36-INCH	* 523.0529 HORIZONTAL ELLIPTICAL 29X45-INCH		
STATION	OFFSET	ELEV.	STATION	OFFSET	ELEV.	EACH	EACH	EACH	EACH	EACH	EACH	CY	EACH
87+15'HR'	26.4 LT	795.41	87+15'HR'	31.6 RT	794.76	--	--	--	2	--	--	--	2
95+34'HR'	22.2 LT	801.92	95+34'HR'	23.8 RT	801.53	--	--	2	--	--	--	--	2
98+82'HR'	22.1 LT	803.03	98+82'HR'	23.9 RT	802.59	--	--	2	--	--	--	--	2
107+06'HR'	19.9 LT	810.99	107+06'HR'	22.1 RT	810.51	--	--	4	--	--	--	--	2
150+71'HR'	42.4 LT	820.00	150+77'HR'	45.4 RT	819.69	--	--	--	2	--	--	--	2
151+98'HR'	39.4 LT	819.80	151+93'HR'	40.8 RT	819.43	2	--	--	--	2	--	--	2
159+30'HR'	42.0 LT	818.46	159+30'HR'	42.0 RT	818.00	--	--	--	--	--	--	12	2
185+38'HR'	44.4 LT	839.57	185+03'HR'	27.6 RT	838.63	2	--	--	--	2	--	--	2
10+37'SU'	21.9 RT	797.58	10+37'SU'	22.1 LT	796.72	--	2	--	--	--	--	--	2
50+75'LA'	33.5 RT	820.00	50+75'LA'	28.5 LT	819.90	--	--	--	--	--	4	--	2
30+58'BU'	37.4 RT	837.16	30+58'BU'	30.3 LT	836.73	--	--	2	--	--	--	--	2
39+18'CL'	30.0 RT	854.60	39+19'CL'	28.0 LT	854.00	--	--	2	--	--	--	--	2
(STATION/OFFSET/ELEV. AT END OF PIPE)				CATEGORY 1000 TOTALS		4	2	12	4	4	4	12	24
* ADDITIONAL QUANTITIES LISTED ELSEWHERE				PROJECT TOTALS		4	2	12	4	4	4	12	24

CONCRETE CURB & GUTTER, CONCRETE SIDEWALK

STATION	-	STATION	LT/RT	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D (LF)	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J (LF)	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D (LF)	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW (SF)	COMMENTS
81+75'HR'	-	82+25'HR'	RT	95	-	--	--	--	S.E. RADIUS
82+10'HR'	-	82+40'HR'	LT	-	73	--	185	--	ISLAND
82+30'HR'	-	82+65'HR'	LT	80	-	--	--	--	N.E. RADIUS
150+63'HR'	-	151+23'HR'	RT	-	--	89	--	--	S.W. RADIUS
150+77'HR'	-	151+17'HR'	LT	-	--	86	--	--	N.W. RADIUS
151+46'HR'	-	152+07'HR'	LT	-	--	98	--	--	N.E. RADIUS
151+52'HR'	-	151+92'HR'	RT	-	--	69	--	--	S.E. RADIUS
181+06'HR'	-	181+44'HR'	LT	-	--	58	--	--	N. RADIUS
181+73'HR'	-	182+79'HR'	LT	-	--	139	--	--	E. RADIUS
191+69'HR'	-	192+29'HR'	RT	-	--	86	--	--	N.W. RADIUS
192+58'HR'	-	193+98'HR'	RT	161	--	--	--	--	S.W. RADIUS
192+63'HR'	-	192+82'HR'	RT	-	--	--	180	16	S.W. RADIUS
CATEGORY 1000 TOTALS				336	73	625	365	16	
PROJECT TOTALS				336	73	625	365	16	

RECONSTRUCTING INLETS

STATION	LT/RT	611.0430 RECONSTRUCTING INLETS (EACH)
83+17'HR'	RT	1
CATEGORY 1000 TOTALS		1
PROJECT TOTALS		1

DRAIN TILE EXPLORATION

LOCATION	612.0700 DRAIN TILE EXPLORATION (LF)
UNDISTRIBUTED	100
CATEGORY 1000 TOTALS	100
PROJECT TOTALS	100

FENCE TEMPORARY & FENCE SAFETY

STATION	-	STATION	LOCATION	616.0600.S FENCE TEMPORARY (LF)	616.0700.S FENCE SAFETY (LF)	COMMENTS
105+50'HR'	-	106+50'HR'	LT	--	110	PROTECT SEPTIC SYSTEM
UNDISTRIBUTED				100	90	
CATEGORY 1000 TOTALS				100	200	
PROJECT TOTALS				100	200	

WATER

DESCRIPTION	624.0100 WATER (MGAL)
PROJECT 3621-00-76	160
CATEGORY 1000 TOTALS	160
PROJECT TOTALS	160

SALVAGED TOPSOIL, MULCHING, EROSION MAT, FERTILIZER, SEEDING, & TEMPORARY SEEDING

STATION	-	STATION	LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.2004 EROSION MAT CLASS I TYPE B (SY)	629.0205 FERTILIZER TYPE A (CWT)	630.0110 SEEDING MIXTURE NO. 10 (LB)	630.0130 SEEDING MIXTURE NO. 30 (LB)	630.0200 SEEDING TEMPORARY (LB)
82+00'HR'	-	108+00'HR'	LT	7,750	5,770	1,980	4.9	--	140	209
82+00'HR'	-	108+00'HR'	RT	8,090	6,010	2,080	5.1	--	146	218
139+00'HR'	-	194+71'HR'	LT	18,450	14,900	3,550	11.6	--	332	498
139+00'HR'	-	194+71'HR'	RT	15,420	11,760	3,660	9.7	--	278	416
36+00'LA'	-	49+25'LA'	LT	4,450	--	4,450	2.8	--	80	120
36+00'LA'	-	49+25'LA'	RT	4,450	--	4,450	2.8	--	80	120
51+00'LA'	-	53+00'LA'	LT	510	--	510	0.3	--	9	14
51+00'LA'	-	53+00'LA'	RT	500	--	500	0.3	--	9	14
UNDISTRIBUTED				--	9,560	5,220	9.5	50	276	391
CATEGORY 1000 TOTALS				59,620	48,000	26,400	47.0	50	1,350	2,000
PROJECT TOTALS				59,620	48,000	26,400	47.0	50	1,350	2,000

EROSION CONTROL ITEMS

STATION	-	STATION	LOCATION	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.6510 SOIL STABILIZER TYPE B (ACRE)	606.0200 RIPRAP MEDIUM (CY)	645.0120 GEOTEXTILE FABRIC TYPE HR (SY)	INLET PROTECTION 628.7005 TYPE A (EACH)	INLET PROTECTION 628.7015 TYPE C (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7560 TRACKING PADS (EACH)	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
17+83'S'			RT	--	--	--	--	--	--	1	--	--	--	--	--
17+83'S'			LT	--	--	--	--	--	--	1	--	--	--	--	--
21+27'S'			RT	--	--	--	--	--	--	1	--	--	--	--	--
21+27'S'			LT	--	--	--	--	--	--	1	--	--	--	--	--
83+17'HR'			RT	--	--	--	--	--	1	--	--	--	--	--	--
82+00'HR'	-	108+00'HR'	RT	2460	2460	1.2	26	78	--	--	88	4	--	--	--
82+00'HR'	-	108+00'HR'	LT	--	--	1.2	4	12	--	--	88	21	--	--	--
139+00'HR'	-	188+00'HR'	RT	4720	4720	2.4	77	203	--	--	112	9	--	--	--
139+00'HR'	-	188+00'HR'	LT	--	--	3.1	19	54	--	--	96	67	--	--	--
36+00'LA'	-	49+25'LA'	RT	--	--	--	--	--	--	--	40	6	--	--	--
36+00'LA'	-	49+25'LA'	LT	--	--	--	--	--	--	--	32	3	--	--	--
UNDISTRIBUTED				1795	1795	2.1	34	88	--	--	114	30	2	5	4
CATEGORY 1000 TOTALS				8,975	8,975	10.0	160	435	1	4	570	140	2	5	4
PROJECT TOTALS				8,975	8,975	10.0	160	435	1	4	570	140	2	5	4

PERMANENT SIGNING

SIGN #	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	634.0612 POSTS WOOD 4X6-INCH 12 FT EACH	634.0614 14 FT EACH	634.0616 16 FT EACH	634.0618 18 FT EACH	634.0620 20 FT EACH	634.0622 22 FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16 FT EACH	634.0818 18 FT EACH	MESSAGE
1-01	J3-1	24 X 57	9.50	--	--	--	--	--	--	--	1	--	--	--	--	ALT ROUTE SIGNING
1-02	J4-2	48 X 36	12.00	--	--	--	--	--	--	1	--	--	--	--	--	CTH S/ALT ROUTE SIGNING
1-03	J2-1	24 X 57	9.50	--	--	--	--	--	--	--	1	--	--	--	--	ALT ROUTE SIGNING
1-04	J4-1	24 X 36	6.00	--	--	--	--	--	--	1	--	--	--	--	--	CTH S
2-01	R1-1	30 X 30	5.18	--	--	--	--	--	1	--	--	--	--	--	--	STOP
2-02	W12-1D	24 X 24	--	--	4.00	--	--	1	--	--	--	--	--	--	--	DOUBLE DIAGONAL ARROW
2-03	R1-1	30 X 30	5.18	--	--	--	--	--	--	1	--	--	--	--	--	STOP
2-04	J3-2	48 X 57	19.00	--	--	--	--	--	--	--	1	--	--	--	--	ALT ROUTE SIGNING
2-05	J4-1	24 X 36	6.00	--	--	--	--	--	--	1	--	--	--	--	--	ALT ROUTE SIGNING
2-06	R3-8F	36 X 30	7.50	--	--	--	--	--	--	1	--	--	--	--	--	ARROWS & ONLYS
2-07	R2-1	24 X 30	5.00	--	--	--	--	--	--	1	--	--	--	--	--	SPEED LIMIT 55 MPH
2-08	J2-1	24 X 57	9.50	--	--	--	--	--	--	--	1	--	--	--	--	ALT ROUTE SIGNING
2-09	R1-1	30 X 30	5.18	--	--	--	--	--	--	1	--	--	--	--	--	STOP
2-10	R2-1	24 X 30	5.00	--	--	--	--	--	--	1	--	--	--	--	--	SPEED LIMIT 25 MPH
2-11	W14-2	30 X 30	--	--	6.25	--	--	--	--	1	--	--	--	--	--	NO OUTLET
2-12	W3-1	36 X 36	--	--	9.00	--	--	--	--	1	--	--	--	--	--	STOP AHEAD
2-13	J1-1	24 X 39	6.50	--	--	--	--	--	--	1	--	--	--	--	--	JCT CTH S
2-14	W14-3	48 X 36	--	--	6.00	--	--	--	--	1	--	--	--	--	--	NO PASSING ZONE
3-01	W14-3	48 X 36	--	--	6.00	--	--	--	--	1	--	--	--	--	--	NO PASSING ZONE
4-01	R1-1	30 X 30	5.18	--	--	--	--	--	1	--	--	--	--	--	--	STOP
4-02	R1-1	30 X 30	5.18	--	--	--	--	--	1	--	--	--	--	--	--	STOP
4-03	W14-3	48 X 36	--	--	6.00	--	--	--	--	1	--	--	--	--	--	NO PASSING ZONE
5-01	R1-1	30 X 30	5.18	--	--	--	--	--	--	1	--	--	--	--	--	STOP
5-02	W1-7	48 X 24	--	--	8.00	--	--	--	--	1	--	--	--	--	--	TWO DIRECTION LARGE ARROW
5-03	J1-1	24 X 39	6.50	--	--	--	--	--	--	1	--	--	--	--	--	JCT I-43
5-04	W2-6	36 X 36	--	--	9.00	--	--	--	--	--	1	--	--	--	--	CHASING ARROWS
5-05	W13-1	24 X 24	--	--	4.00	--	--	--	--	--	--	--	--	--	--	ADVISORY SPEED 15 MPH
5-06	R2-1	24 X 30	5.00	--	--	--	--	--	--	1	--	--	--	--	--	SPEED LIMIT 55 MPH
5-07	R1-1	30 X 30	5.18	--	--	--	--	--	1	--	--	--	--	--	--	STOP
5-08	W3-2	36 X 36	--	--	9.00	--	--	--	--	1	--	--	--	--	--	YIELD AHEAD
5-09	JV-F(MOD)	24 X 78	--	13.00	--	--	--	--	--	--	--	1	--	--	--	ALT ROUTE SIGNING
6-01	JV-F(MOD)	36 x 114	--	28.50	--	--	--	--	--	--	--	--	2	--	--	ALT ROUTE SIGNING
6-02	JV-F(MOD)	36 x 114	--	28.50	--	--	--	--	--	--	--	--	2	--	--	ALT ROUTE SIGNING
7-01	JV-F(MOD)	24 x 78	--	13.00	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
7-02	J24-1	24 X 48	8.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
7-03	JV-F(MOD)	24 X 90	--	15.00	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
7-04	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
7-05	JV-F(MOD)	24 X 90	--	15.00	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
7-06	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-01	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-02	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-03	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-04	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING

PERMANENT SIGNING (CONT.)

SIGN #	SIGN CODE	SIGN SIZE IN X IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	634.0612 POSTS WOOD 4X6-INCH 12 FT EACH	634.0614 14 FT EACH	634.0616 16 FT EACH	634.0618 18 FT EACH	634.0620 20 FT EACH	634.0622 22 FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16 FT EACH	634.0818 18 FT EACH	MESSAGE
8-05	J22-1	24 X 60	10.00	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-06	J23-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-07	J33-1	24 X 69	11.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-08	J33-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
8-09	J23-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
9-01	JV-F(MOD)	36 X 114	--	28.50	--	--	--	--	--	--	--	--	2	--	--	ALT ROUTE SIGNING
9-02	JV-F(MOD)	24 X 78	--	13.00	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
9-03	J32-2	48 X 69	23.00	--	--	--	--	--	--	--	--	2	--	--	--	ALT ROUTE SIGNING
9-04	J22-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
9-05	J4-1	24 X 36	6.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
9-06	J32-2	48 X 69	23.00	--	--	--	--	--	--	--	--	2	--	--	--	ALT ROUTE SIGNING
9-07	JV-F(MOD)	24 X 78	--	13.00	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
9-08	JV-F(MOD)	36 x 114	--	28.50	--	--	--	--	--	--	--	--	2	--	--	ALT ROUTE SIGNING
11-01	J22-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
11-02	J4-1	24 X 36	6.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
11-03	J4-1	24 X 36	6.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
11-04	J3-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
11-05	J22-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
12-01	J4-1	24 X 36	6.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
12-02	J22-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
12-03	J22-1	24 X 57	9.50	--	--	--	--	--	--	--	--	--	--	--	1	ALT ROUTE SIGNING
12-04	J4-1	24 X 36	6.00	--	--	--	--	--	--	--	--	--	--	1	--	ALT ROUTE SIGNING
13-01	JV-F	24 X 57	--	9.50	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
13-02	JV-F	24 X 57	--	9.50	--	--	--	--	--	--	--	--	--	--	--	ALT ROUTE SIGNING
M1-01	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	SPEED LIMIT 35
M1-02	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	TWO DIRECTION LARGE ARROW
M1-03	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	NO ENGINE BRAKING/ LIMITS
M2-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M2-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M4-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M4-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M5-01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M5-02	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	MOVE BY OTHERS
M9-01	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	CHASING ARR./R-A-B AHEAD/15 MPH
M9-02	--	--	--	--	--	1	3	--	--	--	--	--	--	--	--	DIRECTIONAL SIGNAGE
M11-01	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	SPEED LIMIT 45
M11-02	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	ADOPT-A-ROAD
M11-03	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	NORTH 67 ARROW
M11-04	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	NORTH 67 ARROW
	CATEGORY 1000 TOTALS		403.26	215.00	67.25	9	5	1	4	21	5	5	8	9	19	
	PROJECT TOTALS		403.26	215.00	67.25	9	5	1	4	21	5	5	8	9	19	

3

REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS

SIGN #	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
R2-01	1	1
R2-02	1	1
R2-03	1	1
R2-04	1	1
R2-05	1	1
R4-01	1	1
R4-02	1	1
R4-03	1	1
R5-01	1	1
R5-02	1	1
R5-03	2	1
R5-04	3	1
R5-05	1	1
R5-06	1	1
R5-07	1	1
R7-01	1	1
R9-01	2	1
R13-01	2	---
CATEGORY 1000 TOTALS	23	17
PROJECT TOTALS	23	17

LOCATING NO-PASSING ZONES

STATION	-	STATION	LOCATION	648.0100 LOCATING NO-PASSING ZONES (MI)
82+01'HR'	-	194+71'HR'	HART ROAD	2.13
			CATEGORY 1000 TOTALS	2.13
			PROJECT TOTALS	2.13

TRAFFIC CONTROL

LOCATION	DAYS IN SERVICE	643.0300 DRUMS NO.	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO.	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO.	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO.	643.0900 SIGNS DAYS	643.0910 COVERING SIGNS TYPE I (EACH)	643.0920 COVERING SIGNS TYPE II (EACH)	643.1000 SIGNS FIXED MESSAGE (SF)	643.1050 SIGNS PCMS NO.	643.1050 SIGNS PCMS DAYS	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT 3621-00-76) DAYS
CTH S	187	10	1,870	2	374	4	748	4	748	--	--	16.00	1	187	--
SUBURBAN DR	187	10	1,870	2	374	4	748	3	561	--	--	--	--	--	--
LATHERS RD	187	20	3,740	8	1,496	16	2,992	9	1,683	--	--	--	--	--	--
BUTTERFLY RD	187	10	1,870	6	1,122	12	2,244	5	935	--	--	--	--	--	--
CLINIC RD	187	10	1,870	2	374	4	748	3	561	--	--	--	--	--	--
IH 43	187	--	--	--	--	--	--	--	--	--	--	82.00	--	--	--
HART RD	187	--	--	14	2,618	20	3,740	4	748	--	--	--	--	--	--
DRIVEWAYS	187	24	4,488	--	--	--	--	--	--	--	--	--	--	--	--
UNDISTRIBUTED		--	2,292	--	--	--	--	--	--	5	10	--	--	--	187
CATEGORY 1000 TOTALS			18,000		6,358		11,220		5,236	5	10	98.00		187	187
PROJECT TOTALS			18,000		6,358		11,220		5,236	5	10	98.00		187	187

PAVEMENT MARKING

STATION	-	STATION	LOCATION	646.0106 EPOXY 4-INCH YELLOW (LF)	646.0106 EPOXY 4-INCH WHITE (LF)	646.0126 EPOXY 8-INCH WHITE (LF)	647.0566 STOP LINE EPOXY 18-INCH (LF)	647.0726 DIAGONAL EPOXY 12-INCH (LF)
82+01'HR'	-	108+00'HR'	HART ROAD	3,372	5,323	254	42	--
139+00'HR'	-	194+71'HR'	HART ROAD	6,200	10,409	988	--	40
			TOTALS	9,572	15,732	1,242	42	40
			TOTAL FOR 646.0106	25,304				
			CATEGORY 1000 TOTALS	25,304		1,242	42	40
			PROJECT TOTALS	25,304		1,242	42	40

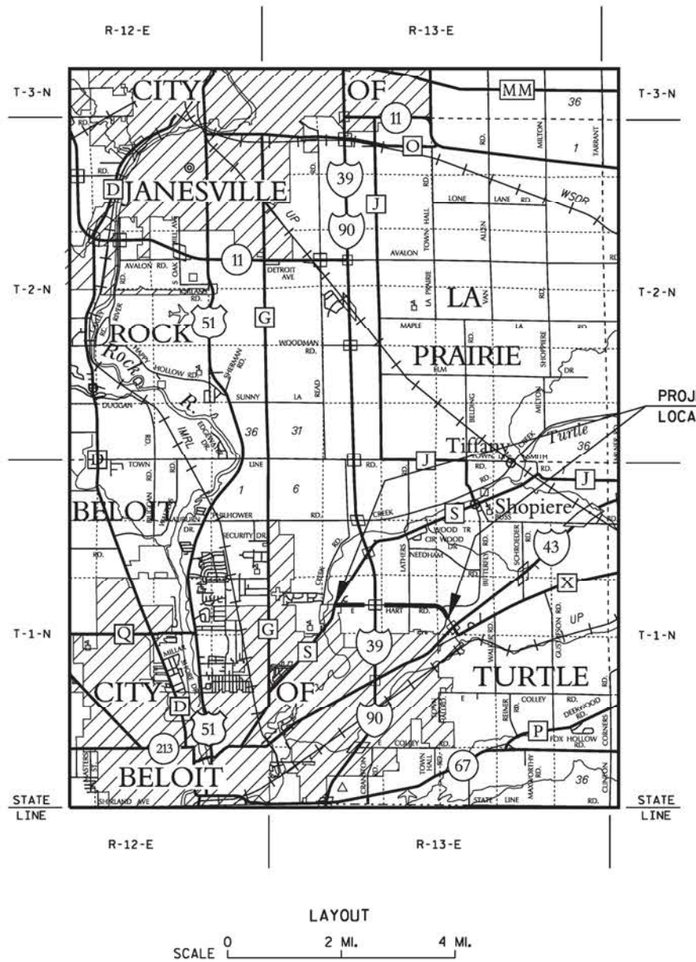
SAWING ASPHALT AND SAWING CONCRETE

STATION	LOCATION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)	COMMENTS
82+00'HR'	LT. & RT.	210	5	
84+93'HR'	RT.	24	--	
193+98'HR'	LT. & RT.	--	46	
194+71'HR'	LT	3	--	SHOULDER
194+02'HR'	RT.	10	--	MULTI-USE PATH
11+40'SU'	LT. & RT.	22	--	
46+96'LA'	RT.	82	--	
47+50'LA'	LT. & RT.	20	--	
47+65'LA'	RT.	12	--	
53+00'LA'	LT. & RT.	22	--	
31+55'LA'	LT. & RT.	24	--	
38+50'CL'	LT. & RT.	24	--	
CATEGORY 1000 TOTALS		453	51	
PROJECT TOTALS		453	51	

LANDMARK REFERENCE MONUMENTS SPECIAL

STATION	OFFSET	TOWNSHIP	RANGE	SECTION CORNER	SPV.0060.004 LANDMARK REFERENCE MONUMENTS SPECIAL (EACH)
151+33.08'HR'	4.10' RT	01N	13E	SEC 16 CENTER	1
				CATEGORY 1000 TOTALS	1
*ALL MONUMENTS SHALL BE TYPE A				PROJECT TOTALS	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET
PROJECT NO. 3621-00-21
CTH S - CTH X
HART ROAD, TOWN OF TURTLE
HART ROAD
ROCK COUNTY



THE NOTES, CONVENTIONAL SYMBOLS AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 3621-00-21.

NOTES:

DISTANCES SHOWN FROM THE RIGHT OF WAY LINE TO BUILDINGS ARE APPROXIMATE ONLY.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW R/W IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT OF WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

ALL RIGHT OF WAY LINES DEPICTED IN NON-AQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT OF WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS OR FROM CENTERLINE OF EXISTING PAVEMENT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" x 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLE'S EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING RIGHT OF WAY FOR CTH S (SHOPIERE ROAD) IS ESTABLISHED FROM PREVIOUS PROJECT 5989-02-85, PLAT OF INDIAN TRAIL, PLAT OF INDIAN TRAIL FIRST ADDITION, PLAT OF MOORE MANOR AND CSM 1261660.
EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED BY PLAT OF INDIAN TRAIL FIRST ADDITION, CSM 1261660, CSM 1118035, CSM 1117331, CSM 78661 AND DEED RECORDED IN VOL. 210, PAGE 506 AS DOC. 703930, TOWN ROAD RECORD, PAGE 107, DATED JUNE 21, 1847, PREVIOUS PROJECT 1093-2-22 AND GOVERNMENT LAND LINES.
EXISTING RIGHT OF WAY FOR LATHERS ROAD IS ESTABLISHED FROM TOWN ROAD RECORD, PAGE 136, DATED JANUARY 27, 1855, CSM 78661 AND GOVERNMENT LAND LINES.
EXISTING RIGHT OF WAY FOR E. BUTTERFLY ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1093-2-22 AND GOVERNMENT LAND LINES.
EXISTING RIGHT OF WAY FOR I-43 AND CLINIC ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1093-2-22.

EXISTING ACCESS CONTROL ALONG IH 39/90 FROM PREVIOUS PROJECT I-90-3 (2) 171.
EXISTING ACCESS CONTROL FOR I-43 AND CLINIC ROAD FROM PREVIOUS PROJECT 1093-2-22
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION SOUTHWEST REGION OFFICE, THE ROCK COUNTY HIGHWAY DEPARTMENT OR THE TOWN OF TURTLE.

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP, (IF UNLESS NOTED)
R/W MONUMENT	● (SET)
R/W STANDARD	△ ▲ (SET)
NON-MONUMENT R/W POINT	○
SIGN	| SIGN
SECTION CORNER MONUMENT	
FEE (HATCH VARIES)	
TEMPORARY LIMITED EASEMENT	
PERMANENT LIMITED EASEMENT	
R/W BOUNDARY POINT	100
TEMPORARY EASEMENT POINT	100
PARCEL NUMBER	102
UTILITY NUMBER	130
SIGN NUMBER (OFF PREMISE)	21-1

PROPOSED R/W LINE	
EXISTING H.E. LINE	
PROPERTY LINE	
LOT & TIE LINES	
SLOPE INTERCEPTS	
CORPORATE LIMITS	
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
ACCESS RESTRICTED (BY ACQUISTION)	
NO ACCESS (BY STATUTORY AUTHORITY)	
SECTION LINE	
QUARTER LINE	
SIXTEENTH LINE	
EXISTING CENTERLINE	
PROPOSED REFERENCE LINE	
PARALLEL OFFSET	
BUILDING	
BUILDING TO BE RAZED	

CONVENTIONAL ABBREVIATIONS

ACCESS POINT	AP	POINT OF REVERSE CURVATURE	PRC
ACCESS RIGHTS	AR	PRIVATE DRIVEWAY	P.D.
ACRES	AC.	POINT ON TANGENT	POT
AGRICULTURAL P.D.	AGRI. PD.	POINT OF TANGENCY	PT
AHEAD	AH	PROPERTY LINE	P.L.
ALUMINUM	ALUM.	RECORDED AS	(100')
AND OTHERS	ET.AL.	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM.
BLOCK	BLK	RIGHT	RT.
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CONCRETE	CONC.	SEPTIC VENT	SEPV.
CORNER	COR.	SQUARE FEET	S.F.
COUNTY	CO.	STATE TRUNK HIGHWAY	STH
COUNTY TRUNK HIGHWAY	CTH	STATION	STA.
DISTANCE	DIST.	SUBDIVISION	SUBD.
DOCUMENT NUMBER	DOC.	TANGENT	TAN.
EASEMENT	EASE.	TELEPHONE PEDESTAL	T.P.
EXISTING	EX.	TEMPORARY LIMITED EASEMENT	TLE
GAS VALVE	G.V.	TRANSPORTATION PROJECT PLAT	TPP
GOVERNMENT	GOV'T	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	VOL.
HIGHWAY EASEMENT	H.E.		
INDENTIFICATION	ID.		
IRON PIPE	I.P.		
LAND CONTRACT	LC		
LEFT	LT.		
MONUMENT	MON.		
NUMBER	NO.		
OUTLOT	O.L.		
PAGE	PG.		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF COMPOUND CURVE	PCC		
POINT OF CURVATURE	PC		
POINT OF INTERSECTION	PI		

CURVE DATA

LONG CHORD	L.C.
LONG CHORD BEARING	L.C.B.
RADIUS	R.
DEGREE OF CURVE	D.
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L.
TANGENT	T.
DIRECTION AHEAD	DA.
DIRECTION BACK	DB.

CONVENTIONAL UTILITY SYMBOLS

WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC			
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
SANITARY FORCE MAIN	FM		
		NON COMPENSABLE	COMPENSABLE
POWER POLE		⊡	⊡
TELEPHONE POLE		⌀	⌀
UTILITY PEDESTAL		⌑	⌑
ELECTRIC TOWER		⊠	

HIGHWAY DESIGNATIONS

COUNTY TRUNK HIGHWAY	G
STATE TRUNK HIGHWAY	67
UNITED STATES HIGHWAY	51
INTERSTATE HIGHWAY	39

PROJECT NUMBER 3621-00-21 - 4.01
SHEET 2 OF 2

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart_RD_Alt_RT\040100_rw.dgn PLOT DATE : 1/15/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:100

3621-00-21 4.00

2019598
RANDAL LEYES
REGISTER OF DEEDS
ROCK COUNTY, WI
RECORDED ON
01/29/2015 10:37:12AM
REC FEE: $25.00

EXEMPT #:
EXCLUSION CODE:
PAGES: 2

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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 3621-00-21-4.01
SHEET 1 OF 2
AMENDMENT NO:

TRANSPORTATION PROJECT PLAT NO: 3621-00-21 - 4.01

THAT PART OF LOT 5, THE PLAT OF INDIAN TRAIL FIRST ADDITION, LOCATED IN THE SW 1/4 OF THE NW 1/4, ALSO THAT PART OF LOT 1 OF CSM 1117331 LOCATED IN THE SE 1/4 OF THE NW 1/4 AND THE SW 1/4 OF THE NE 1/4, ALSO THAT PART OF THE SW 1/4 OF THE NE 1/4, THE NW 1/4 OF THE SE 1/4 AND THE NE 1/4 OF THE SW 1/4 OF SECTION 17, T 1 N, R 13 E, TOWN OF TURTLE, ALSO THAT PART OF LOT 1 OF CSM 1261660 LOCATED IN THE NE 1/4 OF THE SW 1/4 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 17, T 1 N, R 13 E, CITY OF BELOIT, ALL IN ROCK COUNTY, WISCONSIN.

RELOCATION ORDER HART ROAD, TOWN OF TURTLE (CTH S - CTH X).

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

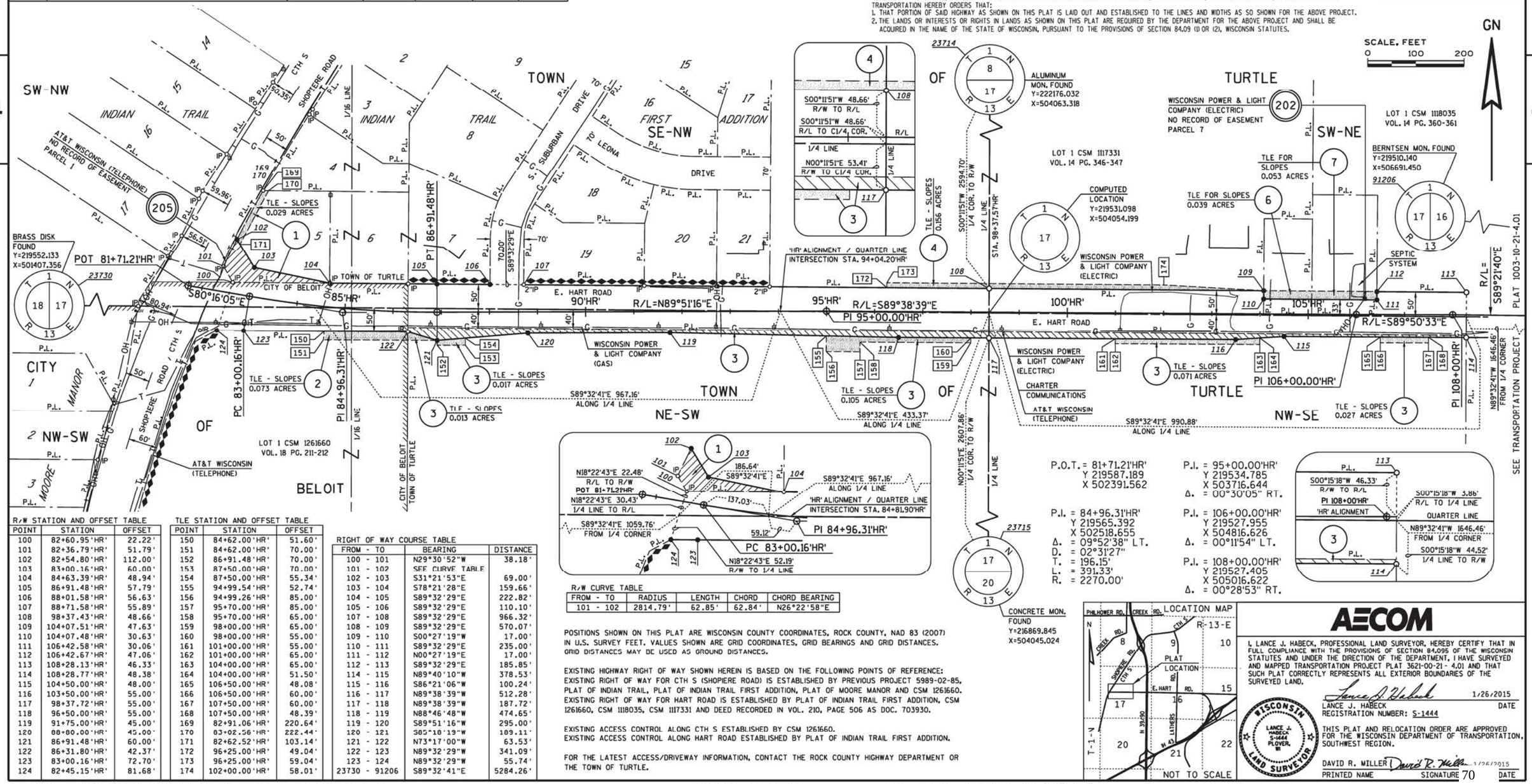
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED EXISTING	R/W ACRES REQUIRED TOTAL	TLE ACRES
1	JOHN SCHOLLMEYER	FEE & TLE	0.138	-----	0.138	0.029
2	ROCK VALLEY CHAPEL, INC.	TLE	-----	-----	-----	0.073
3	SHIRLEY M. CARLSON, AS TRUSTEE OF THE SHIRLEY CARLSON REVOCABLE TRUST U/A/D APRIL 10, 2007	FEE & TLE	0.558	-----	0.558	0.233
4	ROGER L. SKOGEN & SARA L. SKOGEN	TLE	-----	-----	-----	0.156
6	ROGER L. SKOGEN	TLE	-----	-----	-----	0.039
7	MATTHEW DONALD ZANZINGER	TLE	-----	-----	-----	0.053

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
202	WISCONSIN POWER & LIGHT COMPANY (ELECTRIC)	RELEASE OF RIGHTS
205	AT&T WISCONSIN (TELEPHONE)	RELEASE OF RIGHTS



R/W STATION AND OFFSET TABLE		
POINT	STATION	OFFSET
100	82+60.95'HR'	22.22'
101	82+36.79'HR'	51.79'
102	82+54.80'HR'	112.00'
103	83+00.16'HR'	60.00'
104	84+63.39'HR'	48.94'
105	86+91.48'HR'	57.79'
106	88+01.58'HR'	56.63'
107	88+71.58'HR'	55.89'
108	98+37.43'HR'	48.66'
109	104+07.51'HR'	47.63'
110	104+07.48'HR'	30.63'
111	106+42.58'HR'	30.06'
112	106+42.67'HR'	47.06'
113	108+28.13'HR'	46.33'
114	108+28.77'HR'	48.38'
115	104+50.00'HR'	48.00'
116	103+50.00'HR'	55.00'
117	98+37.72'HR'	55.00'
118	96+50.00'HR'	55.00'
119	91+75.00'HR'	45.00'
120	88+80.00'HR'	45.00'
121	86+91.48'HR'	60.00'
122	86+31.80'HR'	42.37'
123	83+00.16'HR'	72.70'
124	82+45.15'HR'	81.68'

TLE STATION AND OFFSET TABLE		
POINT	STATION	OFFSET
150	84+62.00'HR'	51.60'
151	84+62.00'HR'	70.00'
152	86+91.48'HR'	70.00'
153	87+50.00'HR'	70.00'
154	87+50.00'HR'	55.34'
155	94+99.54'HR'	52.74'
156	94+99.26'HR'	85.00'
157	95+70.00'HR'	85.00'
158	95+70.00'HR'	65.00'
159	98+00.00'HR'	65.00'
160	98+00.00'HR'	55.00'
161	101+00.00'HR'	55.00'
162	101+00.00'HR'	65.00'
163	104+00.00'HR'	65.00'
164	104+00.00'HR'	51.50'
165	106+50.00'HR'	48.08'
166	106+50.00'HR'	60.00'
167	107+50.00'HR'	60.00'
168	107+50.00'HR'	48.39'
169	82+91.06'HR'	220.64'
170	83+02.56'HR'	222.44'
171	82+62.52'HR'	103.14'
172	96+25.00'HR'	49.04'
173	96+25.00'HR'	59.04'
174	102+00.00'HR'	58.01'

RIGHT OF WAY COURSE TABLE		
FROM - TO	BEARING	DISTANCE
100 - 101	N29°30'52"W	38.18'
101 - 102	SEE CURVE TABLE	
102 - 103	S31°21'53"E	69.00'
103 - 104	S78°21'28"E	159.66'
104 - 105	S89°32'29"E	222.82'
105 - 106	S89°32'29"E	110.10'
107 - 108	S89°32'29"E	966.32'
108 - 109	S89°32'29"E	570.07'
109 - 110	S00°27'19"W	17.00'
110 - 111	S89°32'29"E	235.00'
111 - 112	N00°27'19"E	17.00'
112 - 113	S89°32'29"E	185.85'
114 - 115	N89°40'10"W	378.53'
115 - 116	S86°21'06"W	100.24'
116 - 117	N89°38'39"W	512.28'
117 - 118	N89°38'39"W	187.72'
118 - 119	N88°46'48"W	474.65'
119 - 120	S89°51'16"W	295.00'
120 - 121	S05°10'13"W	189.11'
121 - 122	N73°17'00"W	63.53'
122 - 123	N89°32'29"W	341.09'
123 - 124	N89°32'29"W	55.74'
23730 - 91206	S89°32'41"E	5284.26'

R/W CURVE TABLE				
FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
101 - 102	2814.79'	62.85'	62.84'	N26°22'58"E

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR CTH S (SHOPIERE ROAD) IS ESTABLISHED BY PREVIOUS PROJECT 5989-02-85, PLAT OF INDIAN TRAIL, PLAT OF INDIAN TRAIL FIRST ADDITION, PLAT OF MOORE MANOR AND CSM 1261660. EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED BY PLAT OF INDIAN TRAIL FIRST ADDITION, CSM 1261660, CSM 1118035, CSM 1117331 AND DEED RECORDED IN VOL. 210, PAGE 506 AS DOC. 703930.

EXISTING ACCESS CONTROL ALONG CTH S ESTABLISHED BY CSM 1261660.
EXISTING ACCESS CONTROL ALONG HART ROAD ESTABLISHED BY PLAT OF INDIAN TRAIL FIRST ADDITION.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE ROCK COUNTY HIGHWAY DEPARTMENT OR THE TOWN OF TURTLE.

LOCATION MAP

AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 3621-00-21 - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Lance J. Habeck 1/26/2015
LANCE J. HABECK DATE
REGISTRATION NUMBER: S-1444

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

DAVID R. MILLER David R. Miller 1/26/2015
PRINTED NAME SIGNATURE DATE

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart_RD_Alt_RT\040101_rw.dgn
APPRAISAL PLAT DATE : 1-26-15
PLOT DATE : 1/26/2015
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 1:100

3621-00-21 4.01

2021743
RANDAL LEYES
REGISTER OF DEEDS
ROCK COUNTY, WI
RECORDED ON
03/06/2015 08:15:54AM
REC FEE: 25.00
PAGES: 1
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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 3621-00-21-4.02
AMENDMENT NO:

SEE TRANSPORTATION PROJECT PLAT 1003-10-21 - 4.02

SEE TRANSPORTATION PROJECT PLAT 3621-00-21 - 4.03

4

4

TLE STATION AND OFFSET TABLE

POINT	STATION	OFFSET
250	159+00.00'HR'	75.00'
251	162+30.00'HR'	75.00'
252	162+30.00'HR'	65.80'
253	159+00.00'HR'	78.00'
254	159+60.00'HR'	78.00'
255	159+60.00'HR'	68.08'
256	36+00.00'L'	33.97'
257	36+00.00'L'	41.10'
258	41+99.86'L'	60.00'
259	45+95.00'L'	59.93'
260	45+95.00'L'	44.72'

RIGHT OF WAY COURSE TABLE

FROM - TO	BEARING	DISTANCE
200 - 201	S88°48'18"E	446.83'
201 - 202	N89°21'44"E	250.13'
202 - 203	S88°38'52"E	500.55'
203 - 204	N48°30'32"E	116.73'
204 - 205	N04°24'25"E	164.27'
206 - 207	S14°11'26"E	146.28'
207 - 208	S47°02'27"E	53.15'
208 - 209	S84°34'02"E	360.30'
209 - 210	N88°25'25"E	300.37'
210 - 211	S88°51'13"E	561.61'
212 - 213	N88°38'09"W	563.73'
213 - 214	N84°08'25"W	200.64'
214 - 215	N88°12'57"W	230.01'
215 - 216	S87°27'06"W	211.02'
216 - 217	S49°10'43"W	85.43'
217 - 218	S00°22'53"W	675.79'
218 - 219	S02°49'05"W	640.52'
220 - 221	N00°20'43"E	140.00'
221 - 222	N01°18'01"W	500.25'
222 - 223	N00°39'27"E	250.66'
223 - 224	N04°41'12"E	79.28'
224 - 225	N00°20'43"E	344.64'
225 - 226	N37°27'43"W	72.91'
226 - 227	N87°04'51"W	150.03'
227 - 228	N83°49'41"W	200.08'
228 - 229	N88°25'22"W	300.01'
229 - 230	N88°48'18"W	595.38'
91206 - 29502	S88°42'20"E	2658.12'
29502 - 29503	S88°42'13"E	2659.18'
29524 - 29502	N00°20'43"E	2657.59'
69040 - 29502	S00°21'10"W	2664.63'

R/W STATION AND OFFSET TABLE

POINT	STATION	OFFSET
200	138+03.17'HR'	47.00'
201	142+50.00'HR'	47.00'
202	145+00.00'HR'	55.00'
203	150+00.00'HR'	55.00'
204	51+36.70'L'	44.72'
205	53+00.00'L'	32.67'
206	52+50.00'L'	33.41'
207	51+07.56'L'	69.30'
208	152+40.00'HR'	75.00'
209	156+00.00'HR'	50.00'
210	159+00.00'HR'	65.00'
211	164+61.61'HR'	66.37'
212	164+63.73'HR'	68.77'
213	159+00.00'HR'	68.00'
214	157+00.00'HR'	52.00'
215	154+70.00'HR'	50.00'
216	152+60.00'HR'	65.00'
217	48+75.00'L'	58.00'
218	42+00.00'L'	58.00'
219	35+60.00'L'	32.14'
220	35+60.00'L'	33.86'
221	37+00.00'L'	34.24'
222	42+00.00'L'	50.00'
223	44+50.00'L'	50.00'
224	45+29.90'L'	44.77'
225	48+75.00'L'	43.06'
226	150+50.00'HR'	70.00'
227	149+00.00'HR'	67.00'
228	147+00.00'HR'	50.00'
229	144+00.00'HR'	48.00'
230	138+04.62'HR'	48.00'

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WISCONSIN POWER & LIGHT COMPANY (ELECTRIC)	RELEASE OF RIGHTS
203	WISCONSIN POWER & LIGHT COMPANY (GAS)	RELEASE OF RIGHTS
204	ANR PIPELINE COMPANY	RELEASE OF RIGHTS
205	AT&T WISCONSIN (TELEPHONE)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	R/W ACRES REQUIRED EXISTING	R/W ACRES REQUIRED TOTAL	TLE ACRES
3	SHIRLEY M. CARLSON, AS TRUSTEE OF THE SHIRLEY CARLSON REVOCABLE TRUST U/A/D APRIL 10, 2007	FEE & TLE	1.085	1.184	2.269	0.073
8	ROCK ROAD LATHERS LLC	FEE	0.828	1.203	2.031	-----
9	EUGENE G. LATHERS & JOAN K. LATHERS; JAMIE J. ZINGLER & SUSAN A. WISKERCHEN, TRUSTEES OF THE JAMIE JOAN ZINGER TRUST; SUSAN A. WISKERCHEN & JAMIE J. ZINGLER, TRUSTEES OF THE SUSAN ANN WISKERCHEN TRUST; JOHN W. DABSON & TARA J. TINDER, TRUSTEES OF THE JOHN WILLIAM DABSON TRUST; TARA J. TINDER & JOHN W. DABSON, TRUSTEES OF THE TARA JEAN TINDER TRUST; ALL TRUSTS CREATED UNDER THE JOHN & PATRICIA DABSON LIVING TRUST DATED DECEMBER 20, 2002	FEE & TLE	0.377	1.387	1.764	0.215
11	JOHN W. DABSON & TARA J. TINDER, TRUSTEES OF THE JOHN WILLIAM DABSON TRUST CREATED UNDER THE JOHN & PATRICIA DABSON LIVING TRUST, DATED DECEMBER 20, 2002 AND JOHN W. DABSON, JR.	FEE & TLE	0.194	-----	0.194	0.023
12	DANNY L. GANDER & CYNTHIA J. GANDER	FEE & TLE	0.916	1.200	2.116	0.010
13	AILEEN GEFFS	FEE & TLE	0.591	0.870	1.461	0.004

TOWN OF TURTLE

SE-NW

SW-NE

NE-SW

NW-SE

SW-SE

SE-NW

PLAT OF SURVEY DATED 4/29/2011

PLAT OF SURVEY DATED 12/17/86

CAST IRON MON. FOUND Y=222114.671 X=509365.296

BROKEN POLY MON. FOUND Y=219450.094 X=509348.891

BERNTSEN MON. FOUND Y=219510.140 X=506691.450

BERNTSEN MON. FOUND Y=219389.926 X=512007.388

ANR PIPELINE COMPANY 100' EASEMENT (NATURAL GAS) PARCEL 8 & 9

ANR PIPELINE COMPANY 100' EASEMENT - DOC. 1922165 EASEMENT - VOL. 41 PG. 164-165 DOC. 501610a - PARCEL 8

ANR PIPELINE COMPANY EASEMENT VOL. 41 PG. 230-231 NO WIDTH OR LOCATION GIVEN DOC. 501743a PARCEL 9

AT&T WISCONSIN (TELEPHONE)

WISCONSIN POWER & LIGHT COMPANY (ELECTRIC) 17' EASEMENT PARCEL 8

WISCONSIN POWER & LIGHT COMPANY (GAS) NO RECORD OF EASEMEMT PARCEL 8

WISCONSIN POWER & LIGHT COMPANY (ELECTRIC) NO RECORD OF EASEMEMT PARCEL 3

AT&T WISCONSIN (TELEPHONE) NO RECORD OF EASEMENT PARCEL 3

WISCONSIN POWER & LIGHT COMPANY (ELECTRIC) NO RECORD OF EASEMEMT PARCELS 12 AND 13

WISCONSIN POWER & LIGHT COMPANY (GAS) NO RECORD OF EASEMEMT PARCELS 12 AND 13

AT&T WISCONSIN (TELEPHONE) NO RECORD OF EASEMENT PARCEL 12

WISCONSIN POWER & LIGHT COMPANY (ELECTRIC) & WISCONSIN POWER & LIGHT COMPANY (GAS) - PARCEL 9 & 11

'L' ALIGNMENT / QUARTER LINE INTERSECTION STA. 51+45.41'L' S00°21'10"W 149.46' TO 1/4 COR.

LOT 1 CSM 786611 VOL. 2 PG. 275

LATHERS ROAD

E. HART ROAD

1/16 LINE STA. 138+03.89'HR'

1/16 LINE STA. 164+62.60'HR'

1/16 LINE STA. 36+67.09'L'

SURVEY SPIKE FOUND Y=216792.554 X=509332.873

S88°42'20"E 1329.06' ALONG 1/4 LINE

S88°42'13"E 1329.59' ALONG 1/4 LINE

R/L=S88°48'18"E

R/L=S88°13'36"E

R/L=S88°42'51"E

R/L=N00°17'58"W

R/L=N00°17'50"E

R/L=N00°30'16"E

R/L=N01°15'57"E

R/L=N00°27'02"E

PI 153+64.25'HR'

PI 148+64.25'HR'

PI 51+90.73'L'

PI 47+38.71'L'

PI 45+00.00'L'

PI 43+99.98'L'

PI 35+49.35'L'

TLE - SLOPES 0.073 ACRES

TLE - SLOPES 0.010 ACRES

TLE - SLOPES 0.004 ACRES

TLE - SLOPES 0.023 ACRES

TLE - SLOPES 0.215 ACRES

ENCROACHMENT

NOTE: EXISTING RIGHT OF WAY WIDTHS FOR HART ROAD ARE REFERENCED TO THE EAST-WEST QUARTER LINE OF SECTION 16. EXISTING RIGHT OF WAY WIDTHS FOR LATHERS ROAD ARE REFERENCED TO THE NORTH-SOUTH QUARTER LINE OF SECTION 16.

SCALE, FEET
0 100 200

P.I. = 137+00'HR'
Y 219486.794
X 507916.320
Δ. = 00°11'29" RT.

P.I. = 148+64.25'HR'
Y 219462.511
X 509080.321
Δ. = 00°34'42" RT.

P.I. = 153+64.25'HR'
Y 219447.038
X 509580.078
Δ. = 00°29'15" LT.

P.I. = 167+44.27'HR'
Y 219416.069
X 510959.749
Δ. = 00°11'38" RT.

P.I. = 35+49.35'L'
Y 218003.555
X 509340.998
Δ. = 00°07'57" RT.

P.I. = 43+99.98'L'
Y 218854.159
X 509348.488
Δ. = 00°45'41" RT.

P.I. = 45+00.00'L'
Y 218954.151
X 509350.697
Δ. = 00°58'07" LT.

P.I. = 47+38.71'L'
Y 219192.854
X 509351.936
Δ. = 00°35'48" LT.

P.I. = 51+90.73'L'
Y 219644.870
X 509349.574
Δ. = 00°45'00" RT.

P.I. = 55+00.00'L'
Y 219954.132
X 509352.007

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED BY CSM 786611, TOWN ROAD RECORD, PAGE 107, DATED JUNE 21, 1847 AND GOVERNMENT LAND LINES. EXISTING RIGHT OF WAY FOR LATHERS ROAD IS ESTABLISHED BY CSM 786611, TOWN ROAD RECORD, PAGE 136, DATED JANUARY 27, 1855 AND GOVERNMENT LAND LINES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE TOWN OF TURTLE.

TRANSPORTATION PROJECT PLAT NO: 3621-00-21 - 4.02

THAT PART OF LOT 1 OF CSM 786611, LOCATED IN THE NE 1/4 OF THE SW 1/4 AND THAT PART OF THE SW 1/4 OF THE NE 1/4, THE NW 1/4 OF THE SE 1/4, THE SW 1/4 OF THE SE 1/4, THE SE 1/4 OF THE SW 1/4, THE NE 1/4 OF THE SW 1/4 AND THE SE 1/4 OF THE NW 1/4, ALL IN SECTION 16, T 1 N, R 13 E, TOWN OF TURTLE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER HART ROAD, TOWN OF TURTLE (CTH S - CTH X) ROCK COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

202 WISCONSIN POWER & LIGHT COMPANY
17' ELECTRIC EASEMENT
VOL. 242 PG. 231-232 DOC. 714914
PARCEL 8

203 WISCONSIN POWER & LIGHT COMPANY
10' GAS EASEMENT
VOL. 198 PG. 307DOC. 699664a
PARCELS 9 & 11

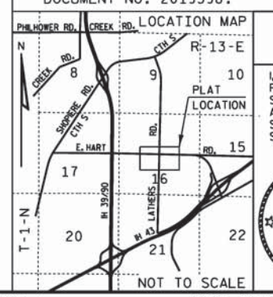
204 ANR PIPELINE COMPANY
100' EASEMENT
DOC. 1922165 - PARCEL 8

EASEMENT
VOL. 41 PG. 164-165 DOC. 501610a
PARCEL 8

EASEMENT
VOL. 41 PG. 230-231 DOC. 501743a
PARCEL 9

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ROCK COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 2019598.

LOCATION MAP



AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 3621-00-21 - 4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

LANCE J. HABECK — 3/2/2015
REGISTRATION NUMBER: S-1444

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

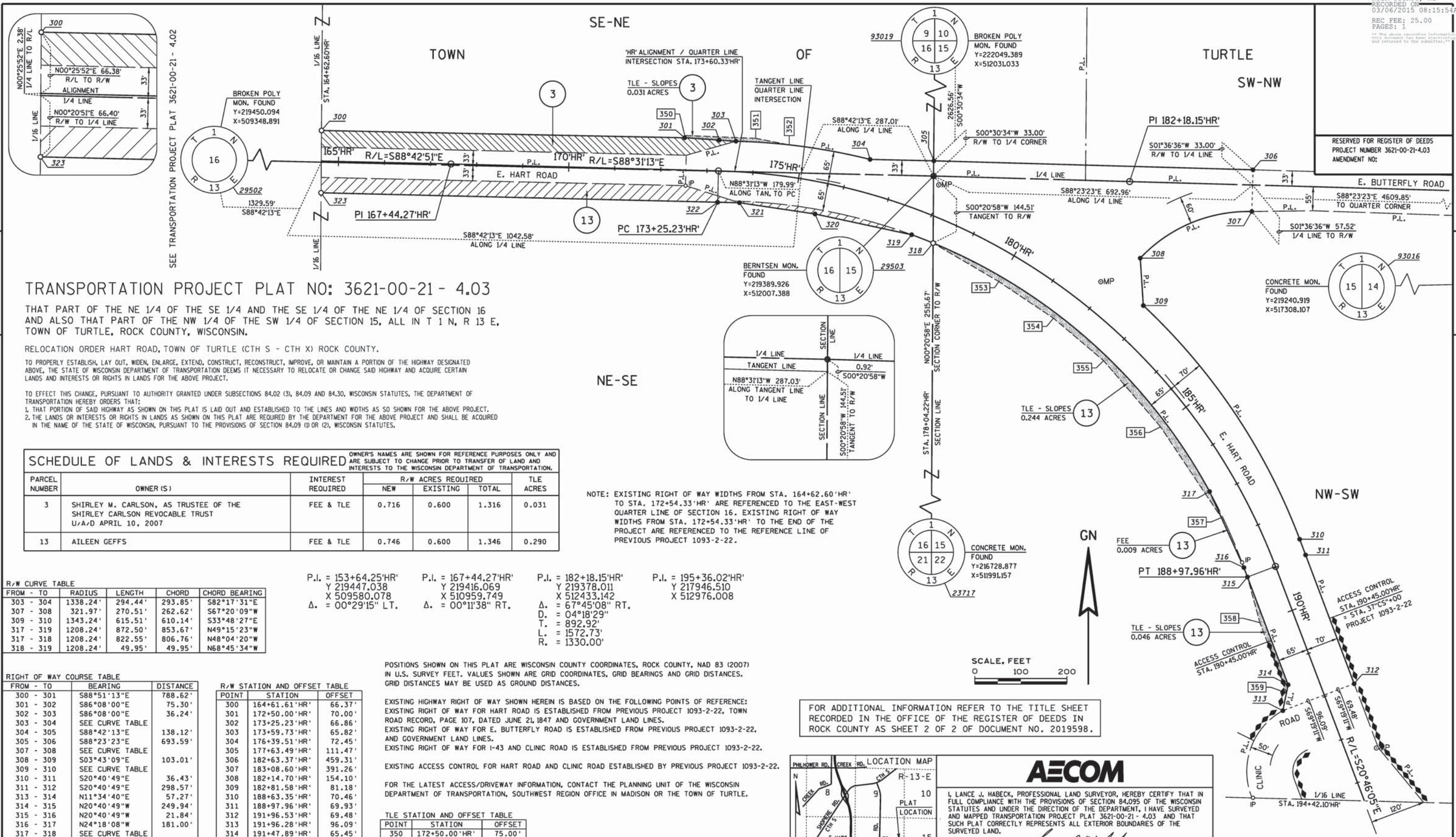
DAVID R. MILLER — 3/4/2015
PRINTED NAME — SIGNATURE — DATE

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart_RD_Alt_RT\040102_rw.dgn
APPRAISAL PLAT DATE : 3-2-15
PLOT DATE : 3/3/2015
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 1:100

3621-00-21 4.02

2021744
RANDAL LEYES
REGISTER OF DEEDS
ROCK COUNTY, WI
RECORDED ON
03/06/2015 08:15:54AM
REC FEE: 25.00
PAGES: 1
** The above recording information verifies that this document has been electronically recorded and returned to the submitter.**

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 3621-00-21-4.03
AMENDMENT NO:



4

TRANSPORTATION PROJECT PLAT NO: 3621-00-21 - 4.03

THAT PART OF THE NE 1/4 OF THE SE 1/4 AND THE SE 1/4 OF THE NE 1/4 OF SECTION 16 AND ALSO THAT PART OF THE NW 1/4 OF THE SW 1/4 OF SECTION 15, ALL IN T 1 N, R 13 E, TOWN OF TURTLE, ROCK COUNTY, WISCONSIN.

RELOCATION ORDER HART ROAD, TOWN OF TURTLE (CTH S - CTH X) ROCK COUNTY.

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND AND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES
			NEW	EXISTING	TOTAL	
3	SHIRLEY M. CARLSON, AS TRUSTEE OF THE SHIRLEY CARLSON REVOCABLE TRUST U/A/D APRIL 10, 2007	FEE & TLE	0.716	0.600	1.316	0.031
13	AILEEN GEFFS	FEE & TLE	0.746	0.600	1.346	0.290

NOTE: EXISTING RIGHT OF WAY WIDTHS FROM STA. 164+62.60'HR' TO STA. 172+54.33'HR' ARE REFERENCED TO THE EAST-WEST QUARTER LINE OF SECTION 16. EXISTING RIGHT OF WAY WIDTHS FROM STA. 172+54.33'HR' TO THE END OF THE PROJECT ARE REFERENCED TO THE REFERENCE LINE OF PREVIOUS PROJECT 1093-2-22.

P.I. = 153+64.25'HR'
Y 219447.038
X 509580.078
Δ. = 00°29'15" LT.

P.I. = 167+44.27'HR'
Y 219416.069
X 510959.749
Δ. = 00°11'38" RT.

P.I. = 182+18.15'HR'
Y 219378.011
X 512433.142
Δ. = 67°45'08" RT.
D. = 04°18'29"
T. = 892.92'
L. = 1572.73'
R. = 1330.00'

P.I. = 195+36.02'HR'
Y 217946.510
X 512976.008

R/W CURVE TABLE

FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
303 - 304	1338.24'	294.44'	293.85'	S82°17'31"E
307 - 308	321.97'	270.51'	262.62'	S67°20'09"W
309 - 310	1343.24'	615.51'	610.14'	S33°48'27"E
317 - 319	1208.24'	872.50'	853.67'	N49°15'23"W
317 - 318	1208.24'	822.55'	806.76'	N48°04'20"W
318 - 319	1208.24'	49.95'	49.95'	N68°45'34"W

RIGHT OF WAY COURSE TABLE

FROM - TO	BEARING	DISTANCE
300 - 301	S88°51'13"E	788.62'
301 - 302	S86°08'00"E	75.30'
302 - 303	S86°08'00"E	36.24'
303 - 304	SEE CURVE TABLE	
304 - 305	S88°42'13"E	138.12'
305 - 306	S88°23'23"E	693.59'
307 - 308	SEE CURVE TABLE	
308 - 309	S03°43'09"E	103.01'
309 - 310	SEE CURVE TABLE	
310 - 311	S20°40'49"E	36.43'
311 - 312	S20°40'49"E	298.57'
313 - 314	N11°34'40"E	57.27'
314 - 315	N20°40'49"W	249.94'
315 - 316	N20°40'49"W	21.84'
316 - 317	N24°18'08"W	181.00'
317 - 318	SEE CURVE TABLE	
318 - 319	SEE CURVE TABLE	
319 - 320	N77°52'34"W	214.63'
320 - 321	N81°34'23"W	165.89'
321 - 322	N88°38'09"W	47.25'
322 - 323	N88°38'09"W	861.27'
29502 - 29503	S88°42'13"E	2659.18'
23717 - 29503	S00°20'58"W	2661.10'
29503 - 93019	N00°30'34"E	2659.57'
29503 - 93016	S88°23'23"E	5302.81'

R/W STATION AND OFFSET TABLE

POINT	STATION	OFFSET
300	164+61.61'HR'	66.37'
301	172+50.00'HR'	70.00'
302	173+25.23'HR'	66.86'
303	173+59.73'HR'	65.82'
304	176+39.51'HR'	72.45'
305	177+63.49'HR'	111.47'
306	182+63.37'HR'	459.31'
307	183+08.60'HR'	391.26'
308	182+14.70'HR'	154.10'
309	182+81.58'HR'	81.18'
310	188+63.35'HR'	70.46'
311	188+97.96'HR'	69.93'
312	191+96.53'HR'	69.48'
313	191+96.28'HR'	96.09'
314	191+47.89'HR'	65.45'
315	188+97.96'HR'	65.07'
316	188+75.00'HR'	64.84'
317	186+85.00'HR'	59.94'
318	178+27.10'HR'	54.76'
319	177+75.00'HR'	55.41'
320	175+50.00'HR'	70.00'
321	173+75.00'HR'	67.00'
322	173+25.23'HR'	67.98'
323	164+63.73'HR'	68.77'

TLE STATION AND OFFSET TABLE

POINT	STATION	OFFSET
350	172+50.00'HR'	75.00'
351	174+00.00'HR'	75.00'
352	174+70.00'HR'	68.77'
353	180+00.00'HR'	65.00'
354	181+50.00'HR'	65.00'
355	183+00.00'HR'	65.00'
356	185+00.00'HR'	70.00'
357	187+50.00'HR'	64.54'
358	190+00.00'HR'	75.00'
359	191+62.97'HR'	75.00'

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ROCK COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT OF WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING RIGHT OF WAY FOR HART ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1093-2-22, TOWN ROAD RECORD, PAGE 107, DATED JUNE 21, 1847 AND GOVERNMENT LAND LINES.
EXISTING RIGHT OF WAY FOR E. BUTTERFLY ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1093-2-22, AND GOVERNMENT LAND LINES.
EXISTING RIGHT OF WAY FOR I-43 AND CLINIC ROAD IS ESTABLISHED FROM PREVIOUS PROJECT 1093-2-22.

EXISTING ACCESS CONTROL FOR HART ROAD AND CLINIC ROAD ESTABLISHED BY PREVIOUS PROJECT 1093-2-22.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION OFFICE IN MADISON OR THE TOWN OF TURTLE.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ROCK COUNTY AS SHEET 2 OF 2 OF DOCUMENT NO. 2019598.

AECOM

I, LANCE J. HABECK, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 3621-00-21 - 4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

LANCE J. HABECK — DATE 3/2/2015
REGISTRATION NUMBER: S-1444

WISCONSIN LAND SURVEYOR — LANCE J. HABECK S-1444 PLOVER, WI

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION, SOUTHWEST REGION.

DAVID R. WILLER — SIGNATURE — DATE 3/4/2015
PRINTED NAME

FILE NAME : P:\60242867\000_CAD\001_Drawings\Hart_RD_Alt_RT\040103_rw.dgn
APPRAISAL PLAT DATE : 3-2-15
PLOT DATE : 3/3/2015
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : 1:100

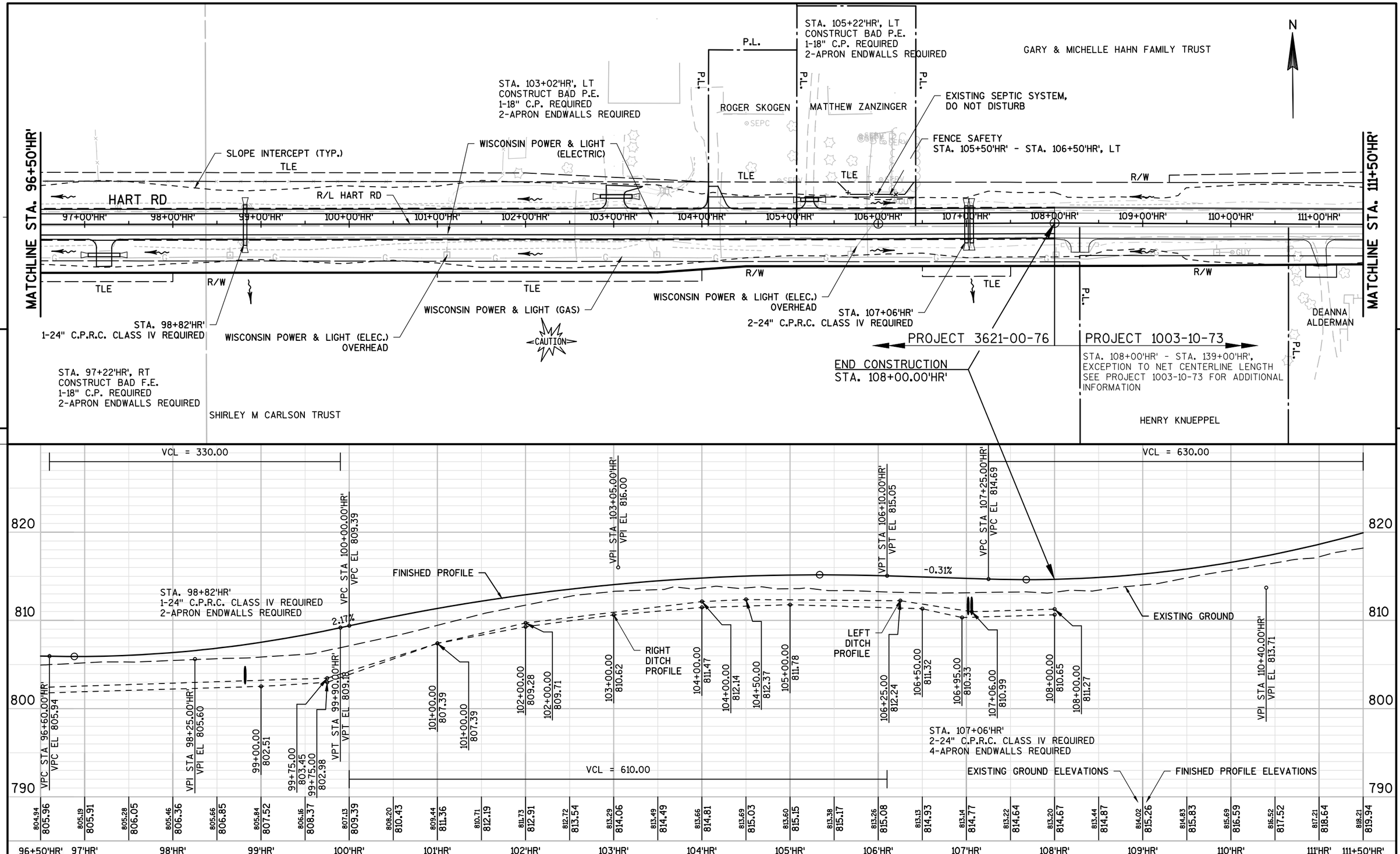
3621-00-21 4.03

AT&T
WILLIAM & LAURA HAEFNER
JOHN SCHOLLMEYER
KELLY & KENT NELSON
NICHOLAS & BETTY EVERDING
MARTHA JEAN (OLSON) BILLS
ELAINE SCHOLLMEYER
ROGER L & SARA L SKOGEN
ROGER SKOGEN
MARK & ANNE REDFEARN
SHIRLEY M CARLSON TRUST
ROCK VALLEY CHAPEL
CTH S
SUBURBAN DR
HART RD
R/L HART RD
P.L.
R/W
TLE
23+00'S
22+00'S
21+00'S
19+00'S
13+00'SU
12+00'SU
11+00'SU
10+00'SU
STA. 11+40'SU' SAWCUT
STA. 82+00'HR' SAWCUT
REMOVE TREE (TYP.)
WISCONSIN POWER & LIGHT (ELEC.) OVERHEAD
WISCONSIN POWER & LIGHT (GAS)
SLOPE INTERCEPT (TYP.)
82+00'HR'
83+00'HR'
84+00'HR'
85+00'HR'
86+00'HR'
87+00'HR'
88+00'HR'
89+00'HR'
90+00'HR'
91+00'HR'
92+00'HR'
93+00'HR'
94+00'HR'
95+00'HR'
96+00'HR'
STA. 82+01.20'HR'= STA. 20+00.00'S'
SEE CTH S INTERSECTION DETAIL FOR ADDITIONAL INFORMATION
BEGIN PROJECT 3621-00-76
STA. 82+01.20'HR'
Y = 219,582.12
X = 502,421.14
TLE STA. 84+93'HR', RT
CONSTRUCT ASPH. C.E.
1-18" C.P. REQUIRED
2-APRON ENDWALLS REQUIRED
STA. 88+34.13'HR'= STA. 10+00.00'SU'
SEE SUBURBAN DRIVE INTERSECTION DETAIL FOR ADDITIONAL INFORMATION
STA. 87+15'HR'
1-30" C.P.R.C. CLASS IV REQUIRED
STA. 95+34'HR'
1-24" C.P.R.C. CLASS IV REQUIRED
MATCHLINE STA. 96+50'HR'
N
CAUTION

VCL = 440.00
VCL = 120.00
VCL = 450.00
FINISHED PROFILE
EXISTING GROUND
-0.52%
-1.49%
1.63%
-0.20%
VPC STA 82+90.00'HR' VPC EL 804.89
VPI STA 83+50.00'HR' VPI EL 804.57
VPT STA 84+10.00'HR' VPT EL 803.68
VPC STA 84+80.00'HR' VPC EL 802.64
VPI STA 87+00.00'HR' VPI EL 799.36
VPT STA 89+20.00'HR' VPT EL 802.95
VPC STA 89+40.00'HR' VPC EL 803.27
VPI STA 91+65.00'HR' VPI EL 806.94
VPT STA 93+90.00'HR' VPT EL 806.48
STA 82+01.20'HR' EL 805.35
BEGIN CONSTRUCTION STA. 82+01.20'HR'
82+25.00 802.47
83+75.00 801.71
84+50.00 799.24
85+00.00 798.80
86+00.00 795.58
86+50.00 795.18
87+15.00 795.54
RIGHT DITCH PROFILE
LEFT DITCH PROFILE
89+00.00 798.16
89+00.00 799.27
90+00.00 800.31
90+00.00 801.05
91+00.00 801.88
91+00.00 802.27
92+00.00 803.00
92+00.00 803.08
93+50.00 803.53
93+50.00 803.53
94+00.00 803.36
94+00.00 803.36
95+00.00 802.21
95+34.00 801.42
95+33.82 802.03
STA. 87+15'HR' 1-30" C.P.R.C. CLASS IV REQUIRED 2-APRON ENDWALLS REQUIRED
STA. 95+34'HR' 1-24" C.P.R.C. CLASS IV REQUIRED 2-APRON ENDWALLS REQUIRED
EXISTING GROUND ELEVATIONS
FINISHED PROFILE ELEVATIONS
805.38
805.35 805.10
803.28 804.83
802.58 804.43
801.84 803.82
801.01 803.08
800.25 802.35
798.45 801.77
799.00 801.36
798.75 801.13
798.81 801.08
799.10 801.20
799.69 801.50
800.34 801.98
801.27 802.64
802.17 803.44
803.06 804.18
803.94 804.82
804.68 805.36
805.42 805.80
805.58 806.13
805.66 806.37
805.48 806.50
805.23 806.53
805.12 806.46
805.03 806.36
804.81 806.26
804.67 806.16
804.80 806.06
804.84 805.96
810
800
790
780
81+50'HR' 82'HR' 83'HR' 84'HR' 85'HR' 86'HR' 87'HR' 88'HR' 89'HR' 90'HR' 91'HR' 92'HR' 93'HR' 94'HR' 95'HR' 96'HR' 96+50'HR'

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG
PLOT DATE : 7/23/2015 9:45 AM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

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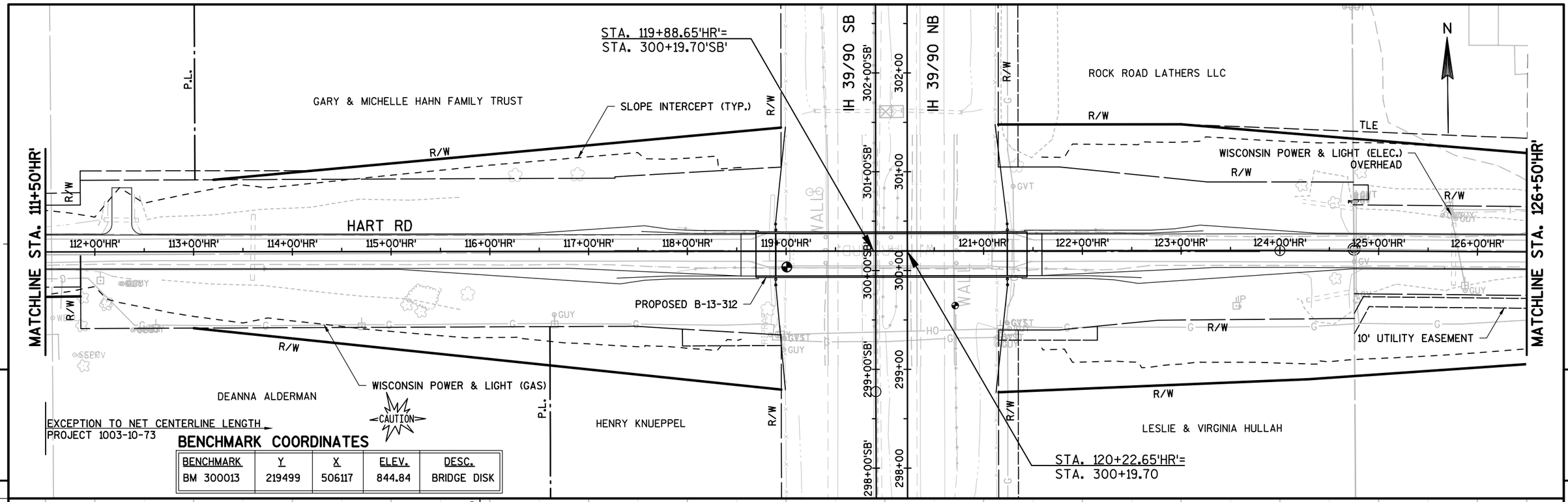
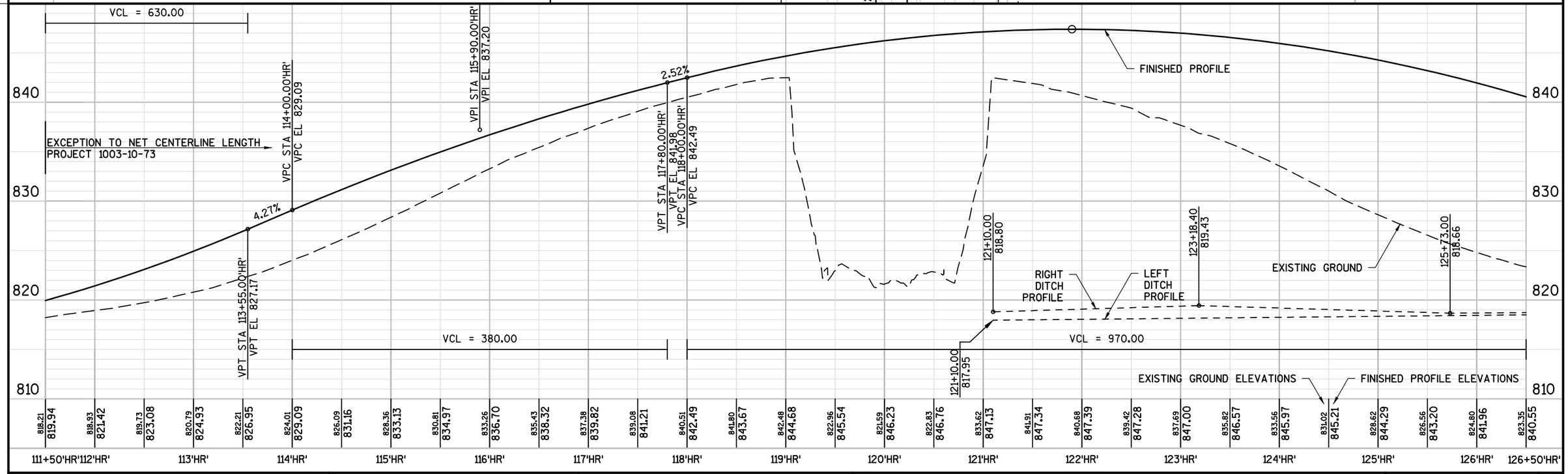
WISDOT/CADDS SHEET 44

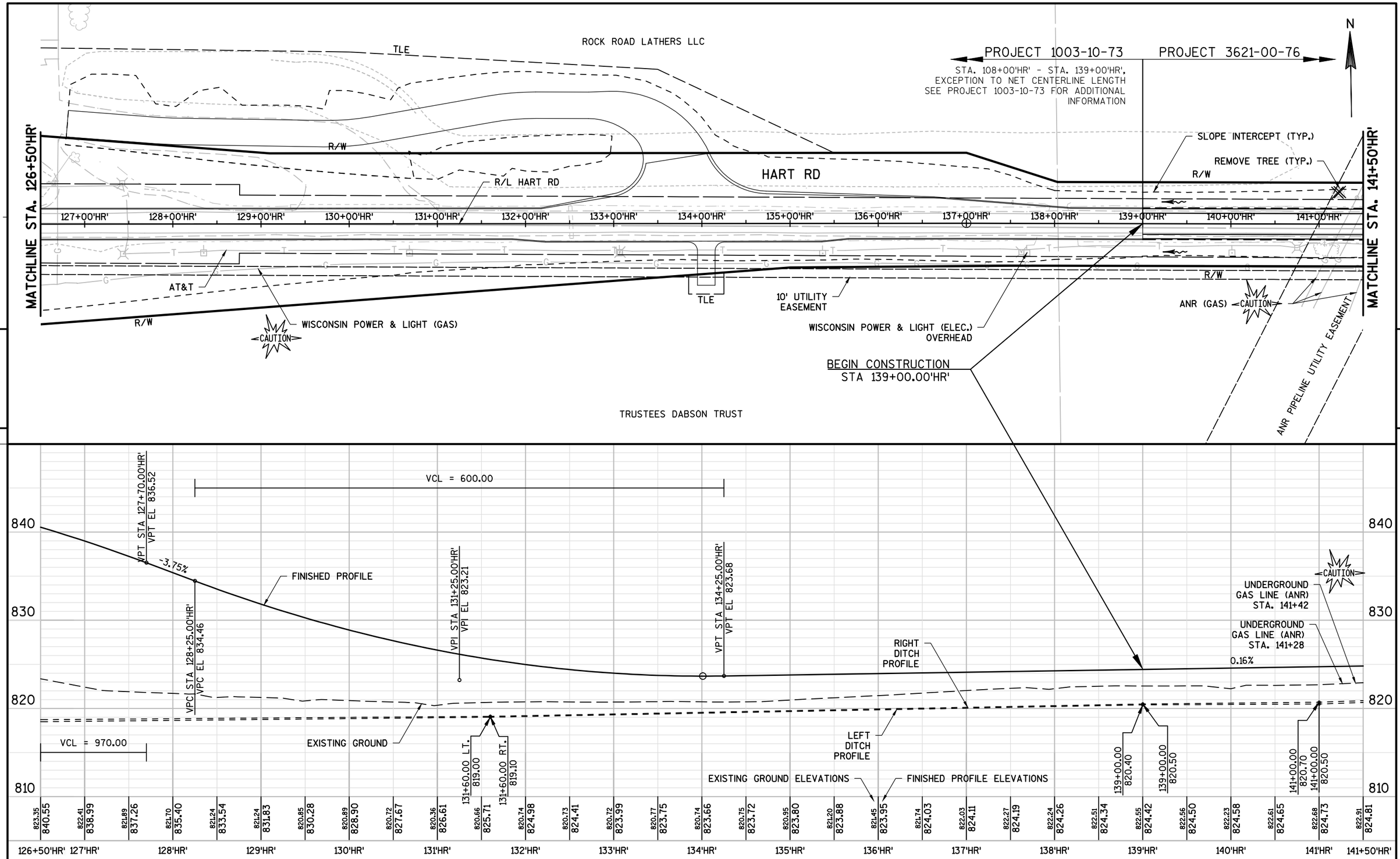


BENCHMARK COORDINATES

BENCHMARK	Y	X	ELEV.	DESC.
BM 300013	219499	506117	844.84	BRIDGE DISK



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET 75	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:47 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCHMARK COORDINATES

BENCHMARK	Y	X	ELEV.	DESC.
BM 300012	219414	509385	822.74	RR SPIKE IN POLE

ROCK ROAD LATHERS LLC

ANR PIPELINE UTILITY EASEMENT

CAUTION — ANR (GAS)

STA. 144+50'HR', LT
CONSTRUCT BAD P.E.
1-18" C.P. REQUIRED
2-APRON ENDWALLS REQUIRED

STA. 146+15'HR', LT
CONSTRUCT BAD F.E.

CAUTION — WISCONSIN POWER & LIGHT (GAS)

STA. 150+70'HR'
1-30" C.P.R.C. CLASS IV REQUIRED
SKEW 4° RHF

AT&T

SHIRLEY CARLSON TRUST

STA. 152+00'HR'
2-36" C.P.R.C. CLASS IV REQUIRED
SKEW 4° LHF

N

MATCHLINE STA. 141+50'HR'

REMOVE STUMP (TYP.)

R/W

HART RD

142+00'HR' 143+00'HR' 144+00'HR' 145+00'HR' 146+00'HR' 147+00'HR' 148+00'HR' 149+00'HR' 150+00'HR' 151+00'HR' 152+00'HR' 153+00'HR' 154+00'HR' 155+00'HR' 156+00'HR'

SLOPE INTERCEPT (TYP.)

MATCHLINE STA. 156+50'HR'

R/L HART RD

WISCONSIN POWER & LIGHT (ELEC.) OVERHEAD

REMOVE TREE (TYP.)

10' UTILITY EASEMENT

WISCONSIN POWER & LIGHT (GAS)

CAUTION

P.L.

TRUSTEES DABSON TRUST

AT&T

STA. 149+21'HR', RT
CONSTRUCT BAD P.E.
1-18" C.P. REQUIRED
2-APRON ENDWALLS REQUIRED

TRUSTEES - JOHN W DABSON TRUST

51+00'LA'

81+00'LA'

50+00'LA'

49+00'LA'

78+00'LA'

LATHERS RD

STA 151+34.63'HR'=
STA 50+00.00'LA'

SEE LATHERS ROAD INTERSECTION DETAIL FOR ADDITIONAL INFORMATION

CAUTION — WISCONSIN POWER & LIGHT (GAS)

DANNY & CYNTHIA GANDER

840
830
820
810
805

CAUTION — UNDERGROUND GAS LINE (ANR) STA. 141+71

VPC STA 146+00.00'HR'
VPC EL 825.51

VPI STA 151+00.00'HR'
VPI EL 826.29

VPT STA 156+00.00'HR'
VPT EL 825.57

RIGHT DITCH PROFILE

FINISHED PROFILE

LEFT DITCH PROFILE

EXISTING GROUND

143+50.00 RT. 821.60
143+50.00 LT. 821.37
146+00.00 822.17
146+50.00 822.28
147+00.00 821.00
149+00.00 820.69
150+80.00 819.63
150+80.00 819.97
152+00.00 819.79
152+00.00 819.43
153+50.00 821.43
154+50.00 821.59
154+50.00 822.30

STA. 150+70'HR'
1-30" C.P.R.C. CLASS IV REQUIRED
SKEW 4° RHF
2-APRON ENDWALLS REQUIRED

STA. 152+00'HR'
2-36" C.P.R.C. CLASS IV REQUIRED
SKEW 4° LHF
4-APRON ENDWALLS REQUIRED

VCL = 1000.00

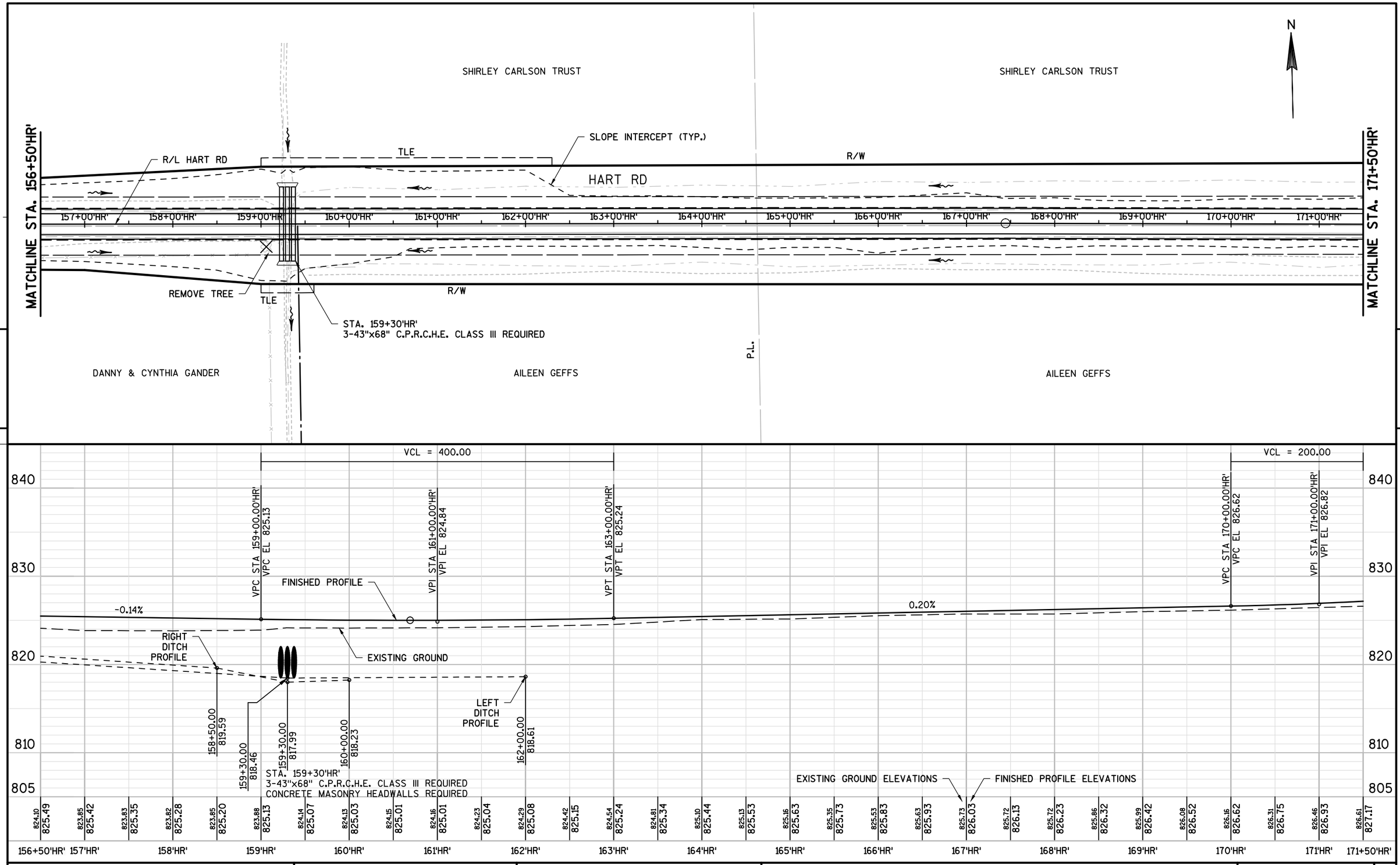
EXISTING GROUND ELEVATIONS — FINISHED PROFILE ELEVATIONS

141+50'HR'	142'HR'	143'HR'	144'HR'	145'HR'	146'HR'	147'HR'	148'HR'	149'HR'	150'HR'	151'HR'	152'HR'	153'HR'	154'HR'	155'HR'	156'HR'	156+50'HR'
822.91	824.81	823.11	824.89	823.26	824.97	823.46	825.04	823.58	825.12	823.79	825.20	824.13	825.28	824.55	825.35	824.63	825.43	824.60	825.51	824.29	825.58	823.92	825.65	823.57	825.71	823.19	825.76	823.02	825.80	823.02	825.84	822.97	825.87	823.00	825.89	823.03	825.91	823.34	825.91	823.67	825.91	823.77	825.90	823.90	825.89	824.25	825.86	824.66	825.83	824.82	825.79	825.05	825.75	824.91	825.69	824.64	825.63	824.36	825.57	824.10	825.49

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET 77	E

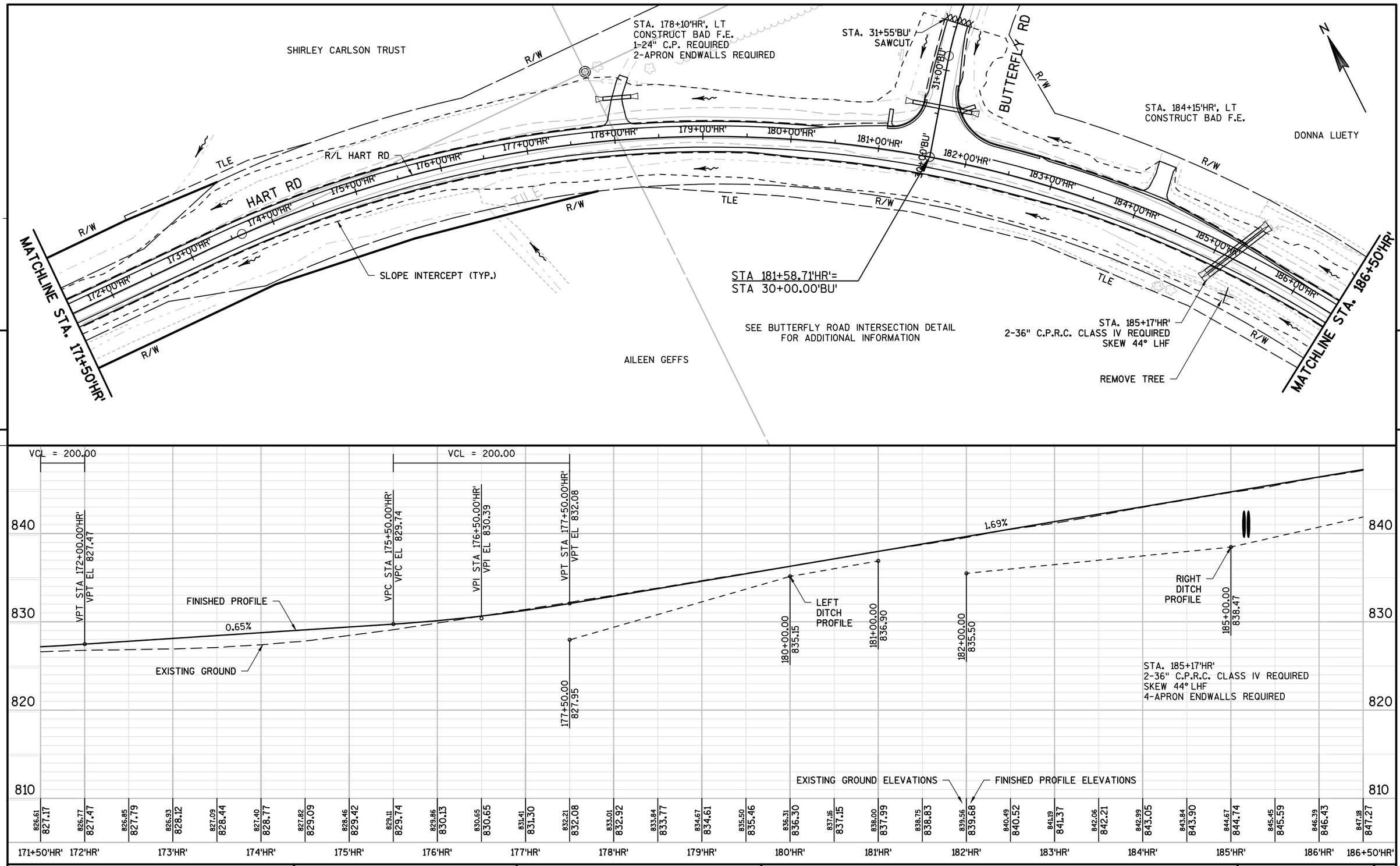
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:48 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



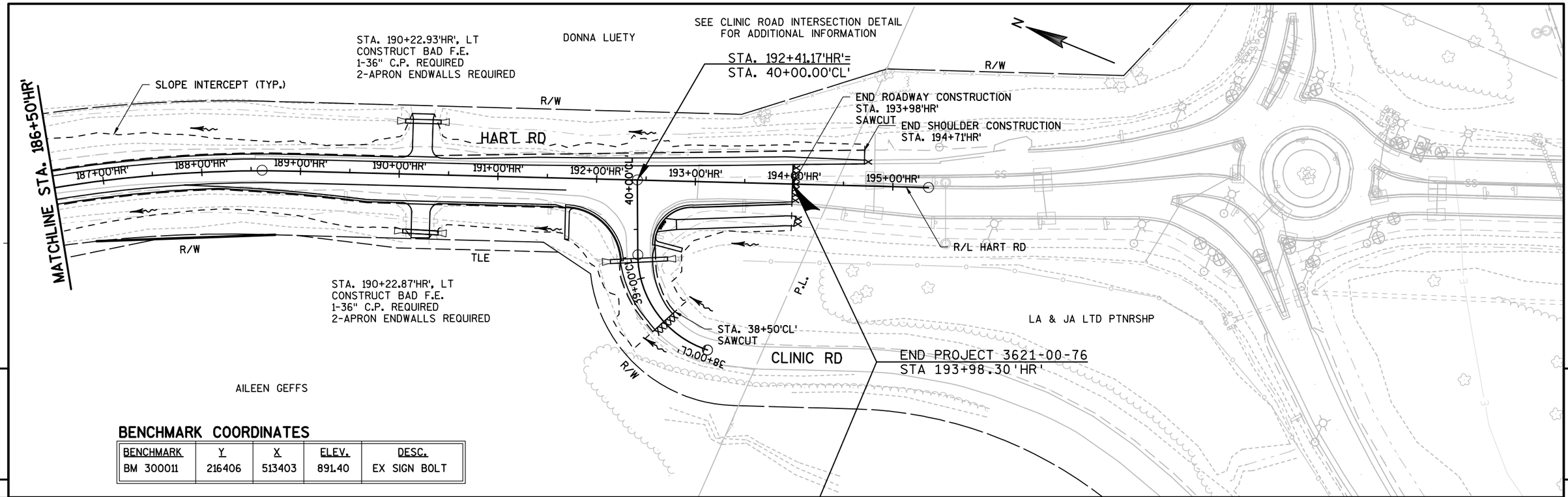
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:49 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



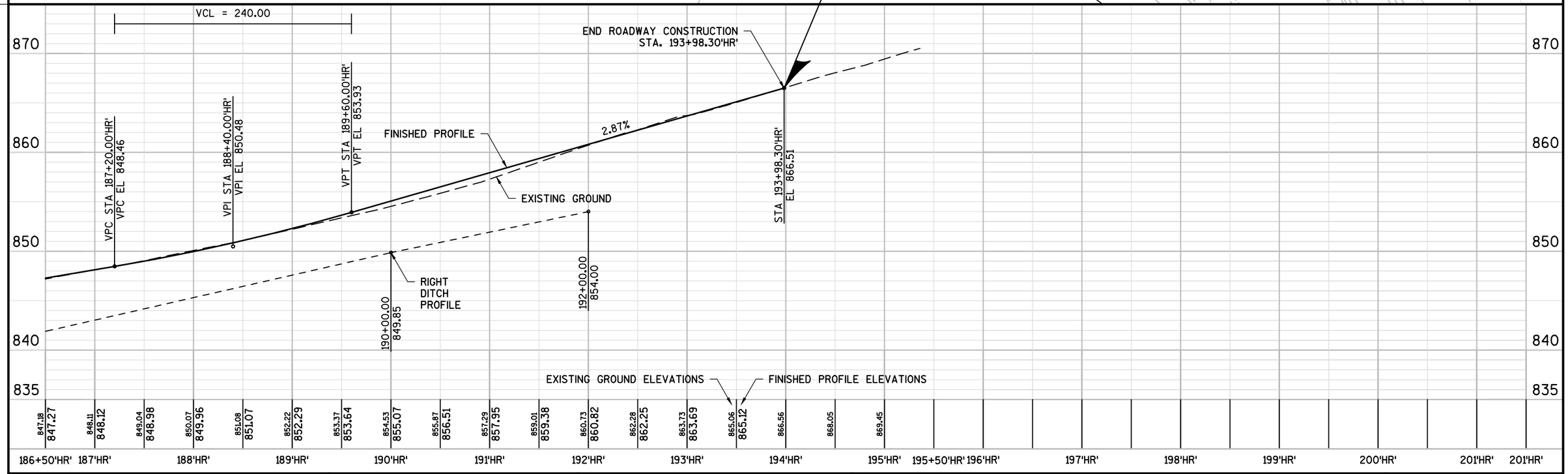
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET 79	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:50 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



BENCHMARK COORDINATES

BENCHMARK	Y	X	ELEV.	DESC.
BM 300011	216406	513403	891.40	EX SIGN BOLT



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:51 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

TRUSTEES DABSON TRUST

TRUSTEES DABSON TRUST

N

BEGIN DITCH GRADING
STA. 36+23'LA', LT.

R/L LATHERS RD

R/W

T.L.E.

R/W

29+01'LA' 30+00'LA' 31+00'LA' 32+00'LA' 33+00'LA' 34+00'LA' 35+00'LA' 36+00'LA' 37+00'LA' 38+00'LA' 39+00'LA' 40+00'LA' 41+00'LA' 42+00'LA' 43+0

LATHERS RD

MATCHLINE STA. 43+00'LA'

R/W

R/W

SLOPE INTERCEPT (TYP.)

BEGIN DITCH GRADING
STA. 36+38'LA', RT.

WISCONSIN POWER & LIGHT (ELEC.)
OVERHEAD

AILEEN GEFFS

AILEEN GEFFS

WISCONSIN POWER & LIGHT (GAS)

CAUTION

P.L.

DANNY &
CYNTHIA
GANDER

5

5

830

820

810

800

BEGIN DITCH GRADING
STA. 36+23'LA', LT.

BEGIN DITCH GRADING
STA. 36+38'LA', RT.

36+00.00
818.23

36+00.00
818.03

EXISTING GROUND
AT CENTERLINE

0.10%

0.10%

LEFT
DITCH
PROFILE

RIGHT
DITCH
PROFILE

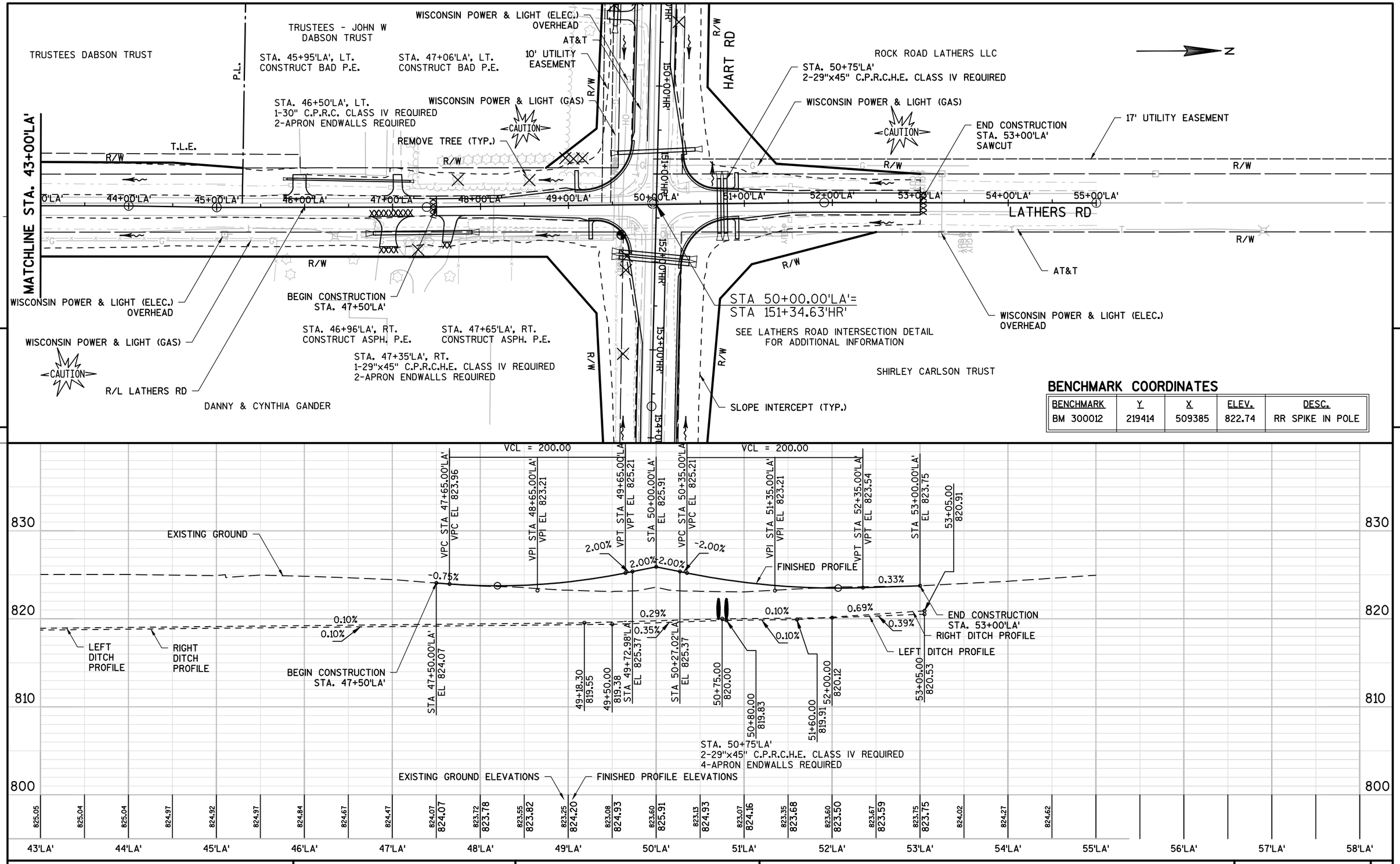
STA. 36+10'LA'
EXISTING 2-48" C.P. TO REMAIN

EXISTING GROUND ELEVATIONS
AT CENTERLINE

832.81 830.56 828.77 827.40 826.15 825.22 824.19 823.50 823.10 822.60 822.45 822.82 822.92 823.08 822.97 822.56 822.25 821.95 821.91 822.03 822.67 823.29 823.38 823.97 824.31 824.65 824.54 825.05

28'LA' 29'LA' 30'LA' 31'LA' 32'LA' 33'LA' 34'LA' 35'LA' 36'LA' 37'LA' 38'LA' 39'LA' 40'LA' 41'LA' 42'LA' 43'LA'

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE: LATHERS ROAD	SHEET 81	E



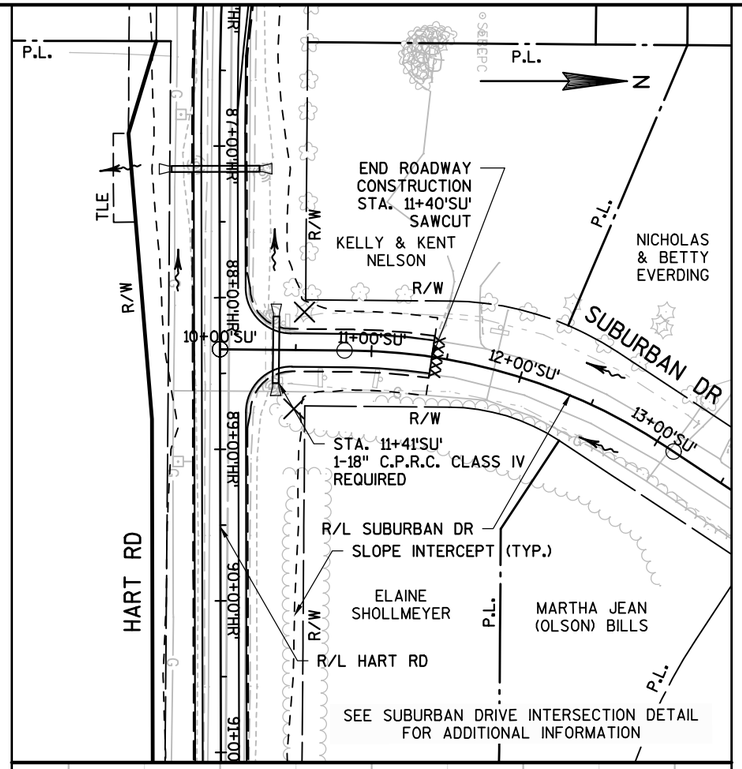
BENCHMARK COORDINATES

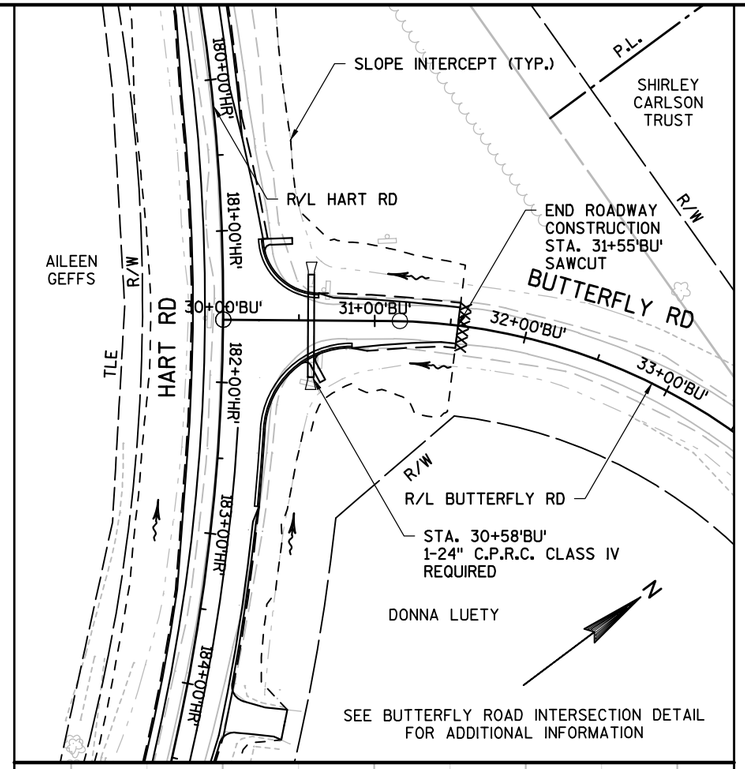
BENCHMARK	Y	X	ELEV.	DESC.
BM 300012	219414	509385	822.74	RR SPIKE IN POLE

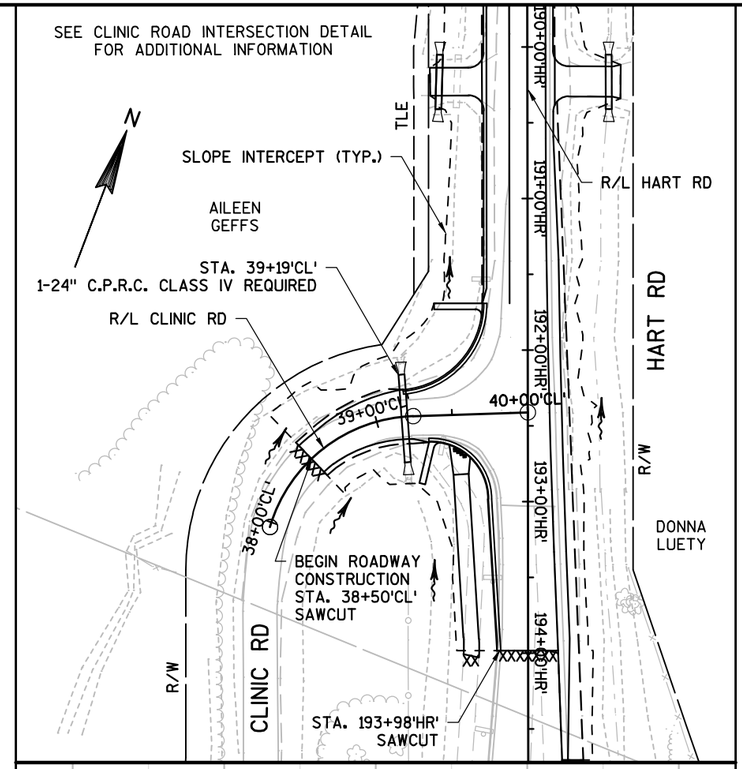
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE: LATHERS ROAD	SHEET	E

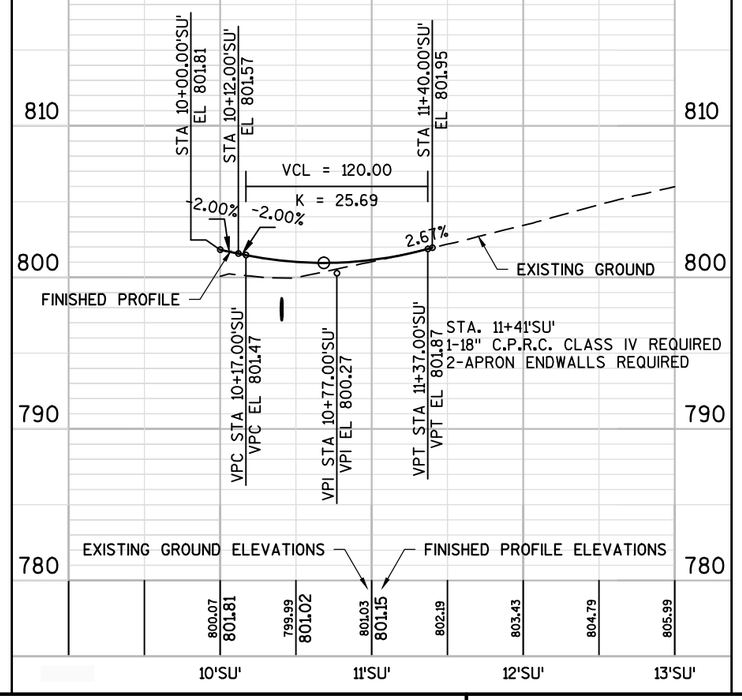
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\050101_PP.DWG PLOT DATE : 7/23/2015 9:53 AM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1 IN:100 FT

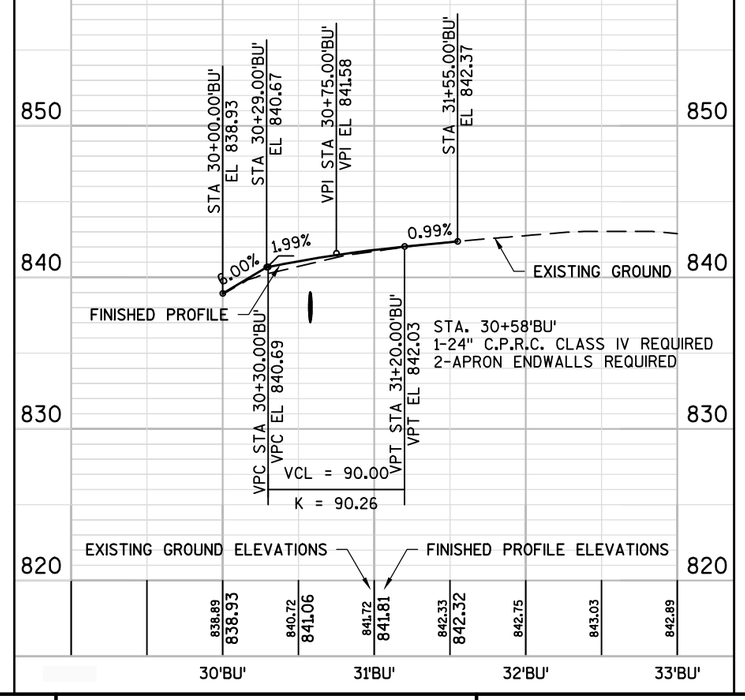
WISDOT/CADDS SHEET 44

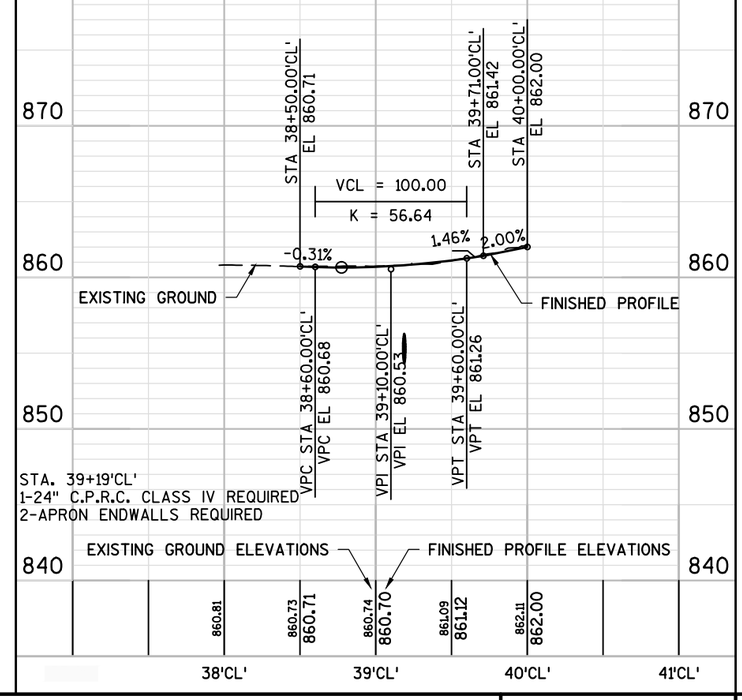








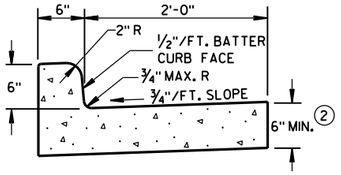




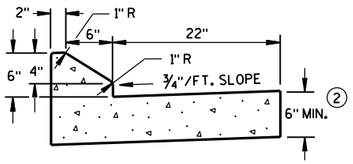
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	PLAN AND PROFILE	SHEET 83	E

Standard Detail Drawing List

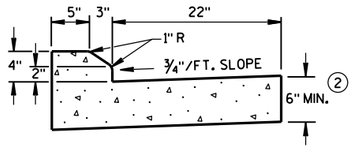
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F08-02	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A10-01A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-01D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-02A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-02B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C18-03	MEDIAN ISLAND MARKING
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-03A	BICYCLE LANE MARKING
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS



TYPES A & D ①

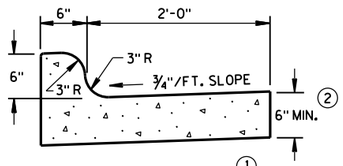


6" SLOPED CURB TYPES G & J ①

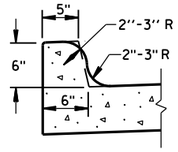


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

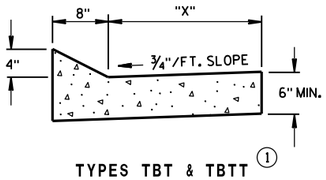


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

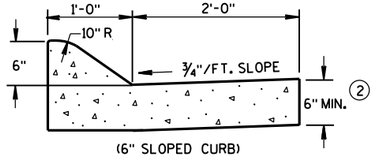
CONCRETE CURB & GUTTER 30"



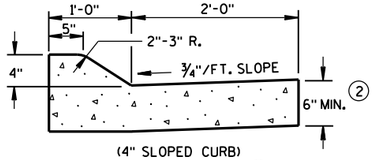
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

TBT & TBTT	"X"
30"	22"
36"	28"

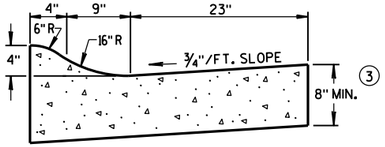


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

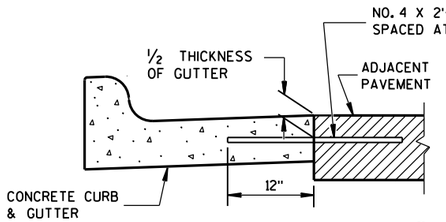
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

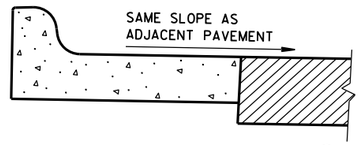
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

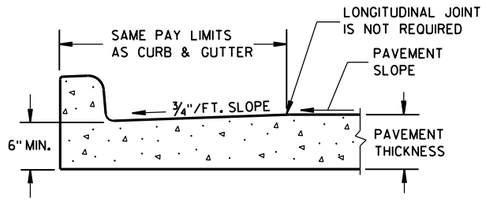
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



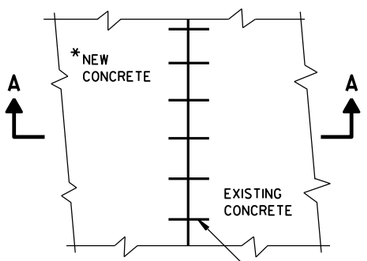
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

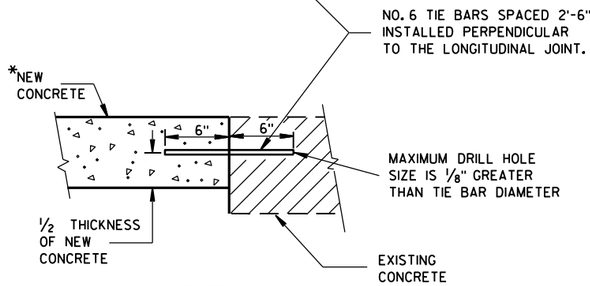


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



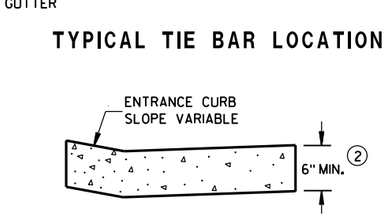
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

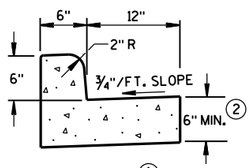


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

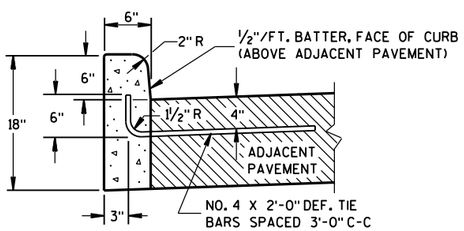


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

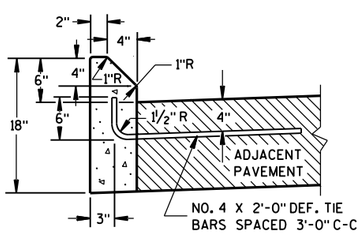


① TYPES A & D

CONCRETE CURB & GUTTER 18"

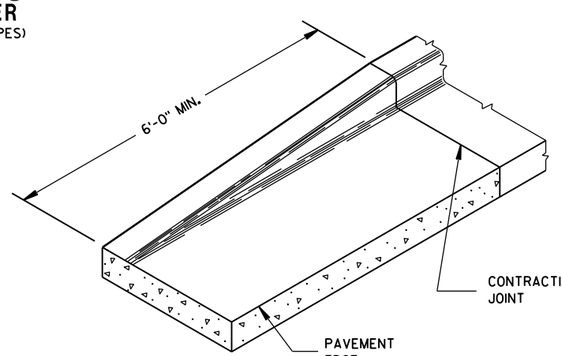


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

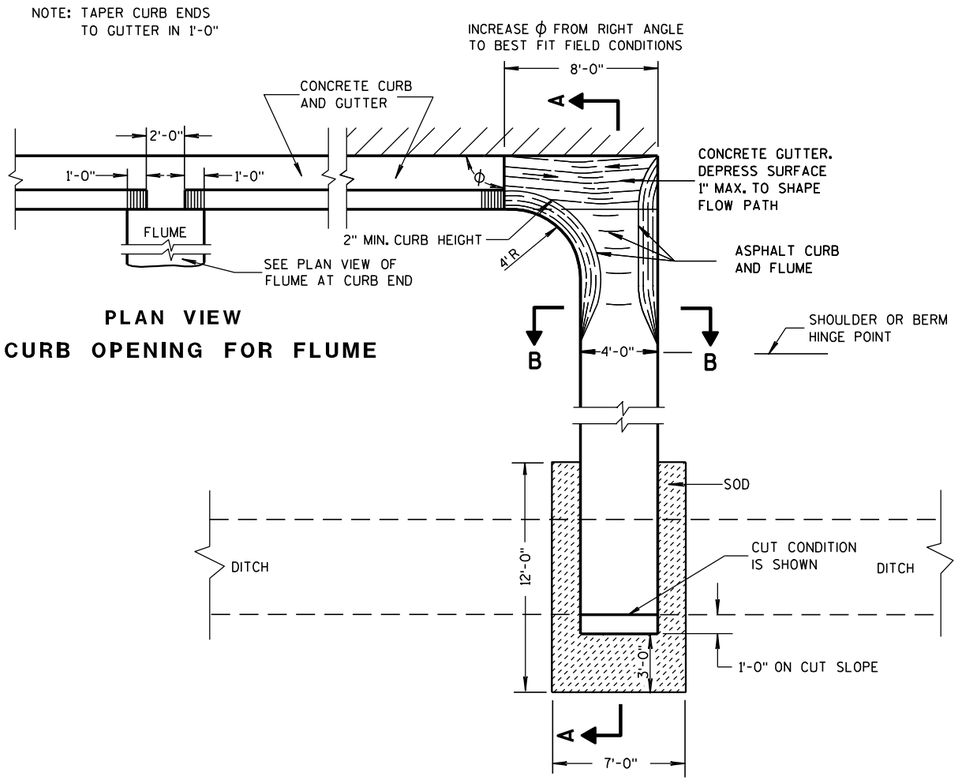
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

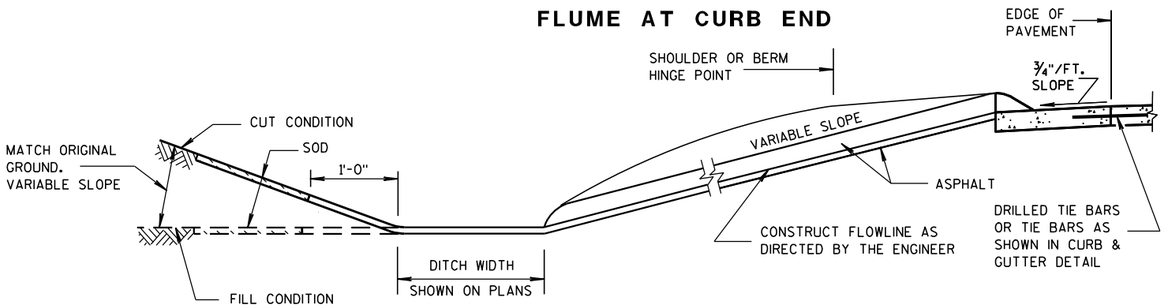
S.D.D. 8 D 1-18

ASPHALTIC FLUME

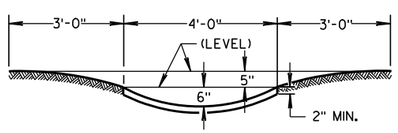


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

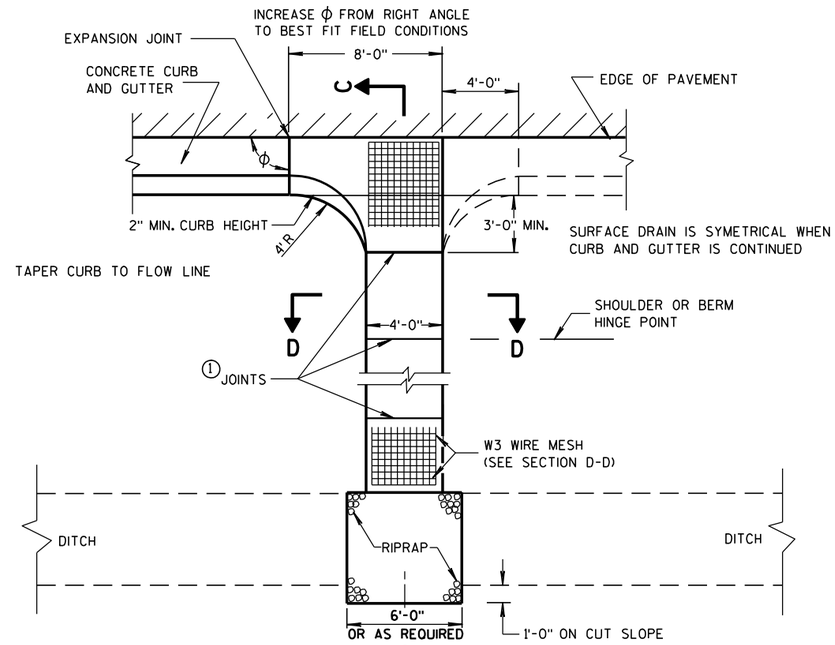
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

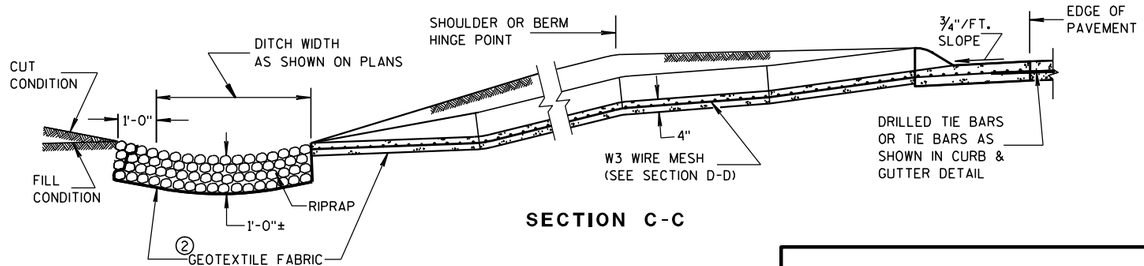
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

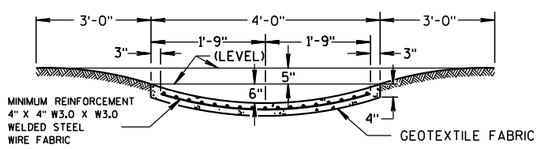
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT

FHWA

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S.D.D. 8 D 4-5

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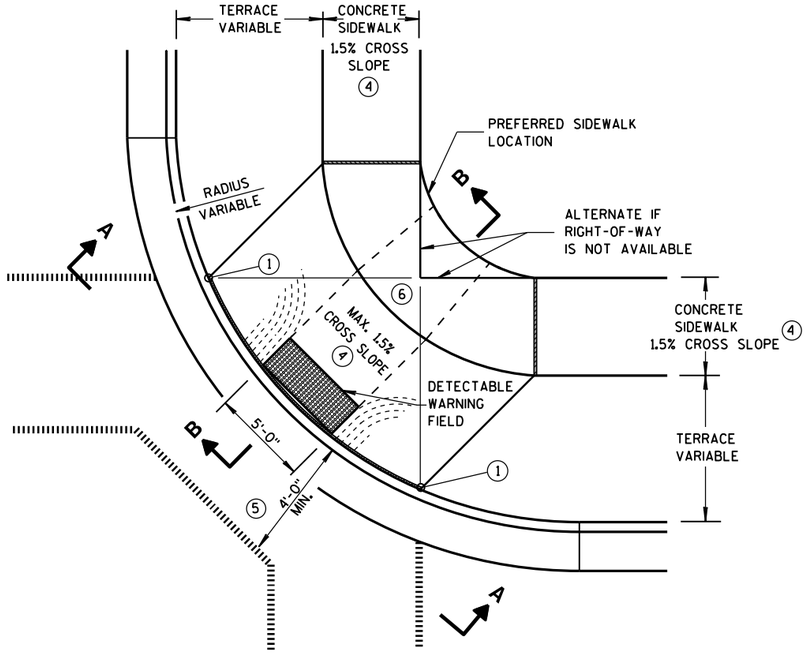
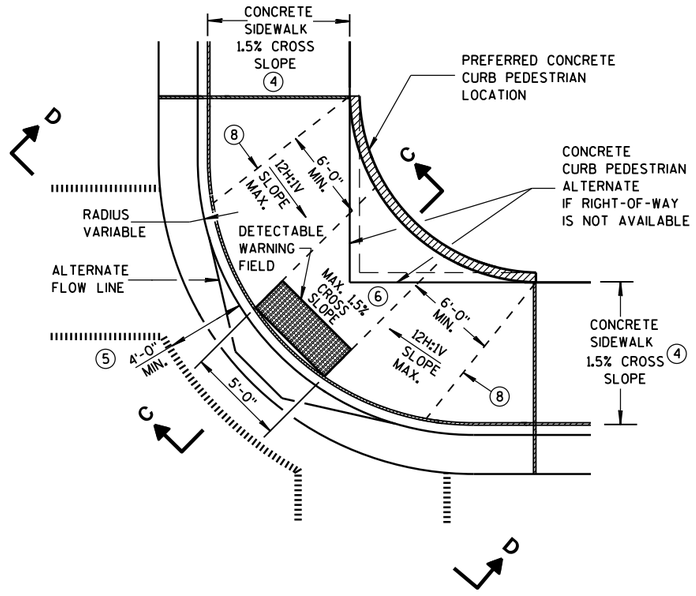


PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

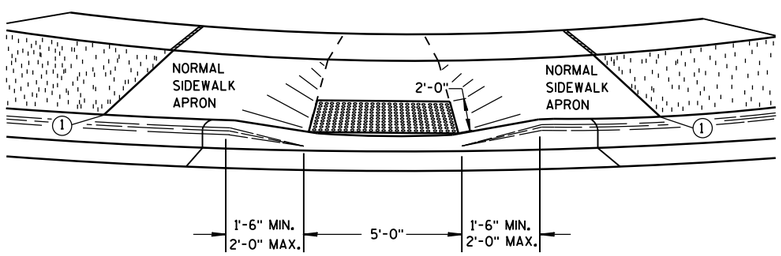
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

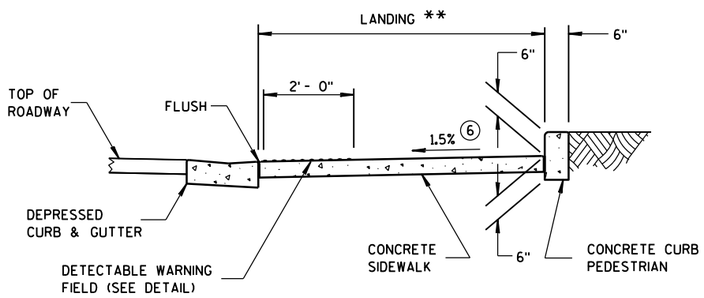
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

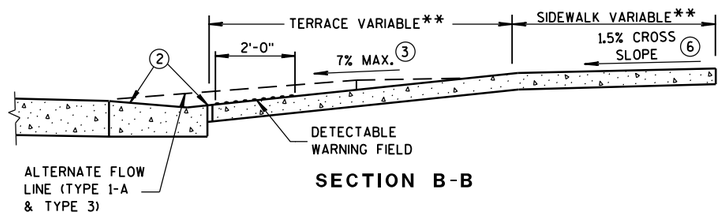
** WIDTH SHOWN ELSEWHERE IN THE PLANS



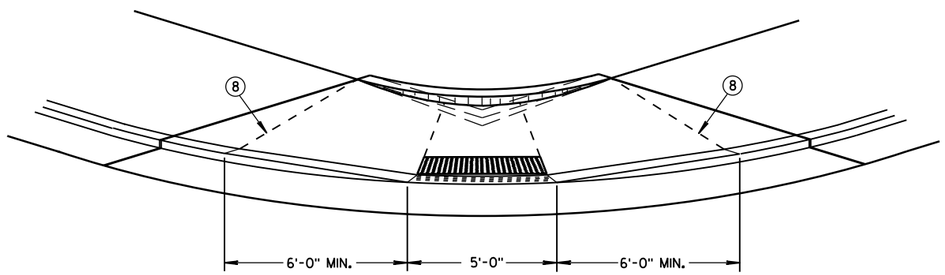
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



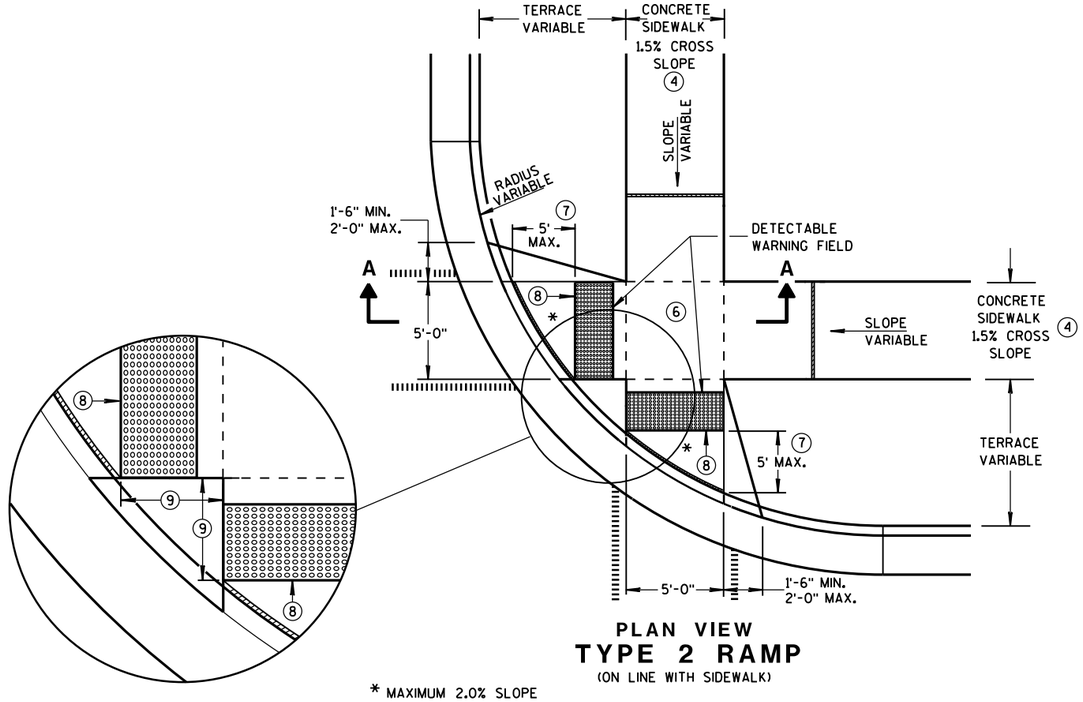
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

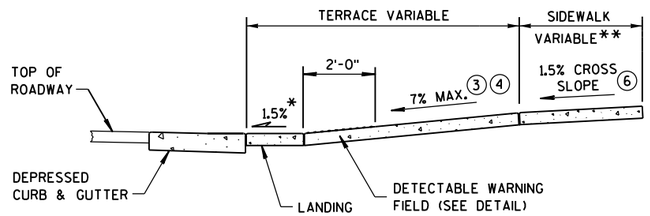


PLAN VIEW

TYPE 2 RAMP

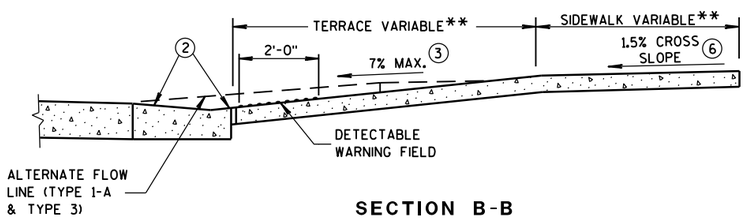
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

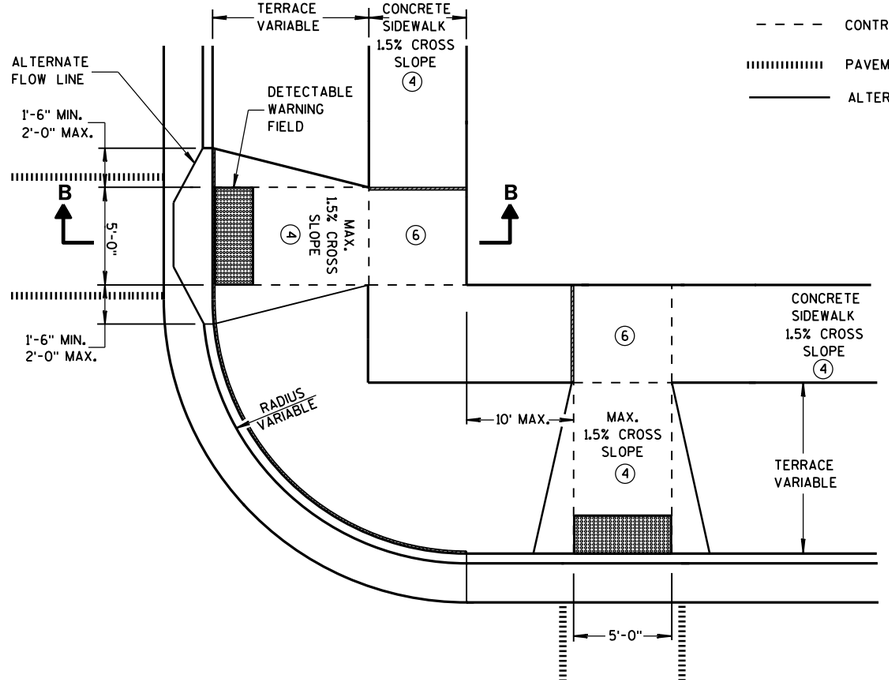
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

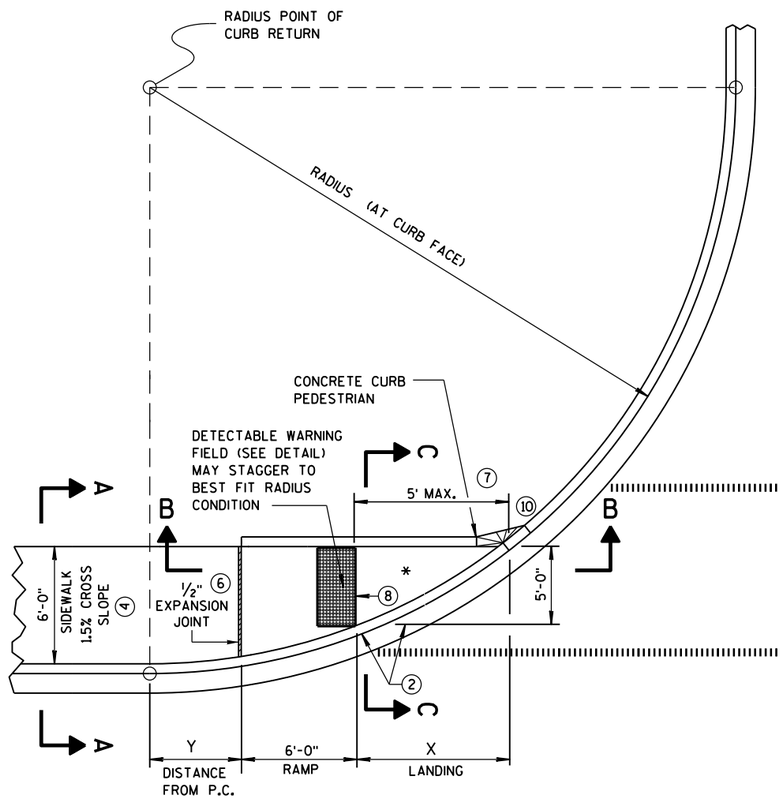
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

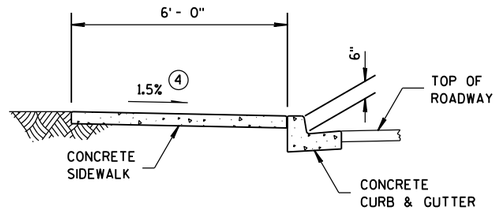
S.D.D. 8 D 5-16b



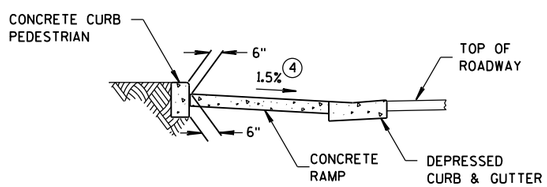
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

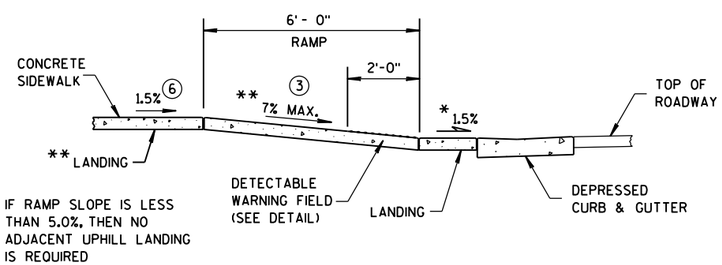
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

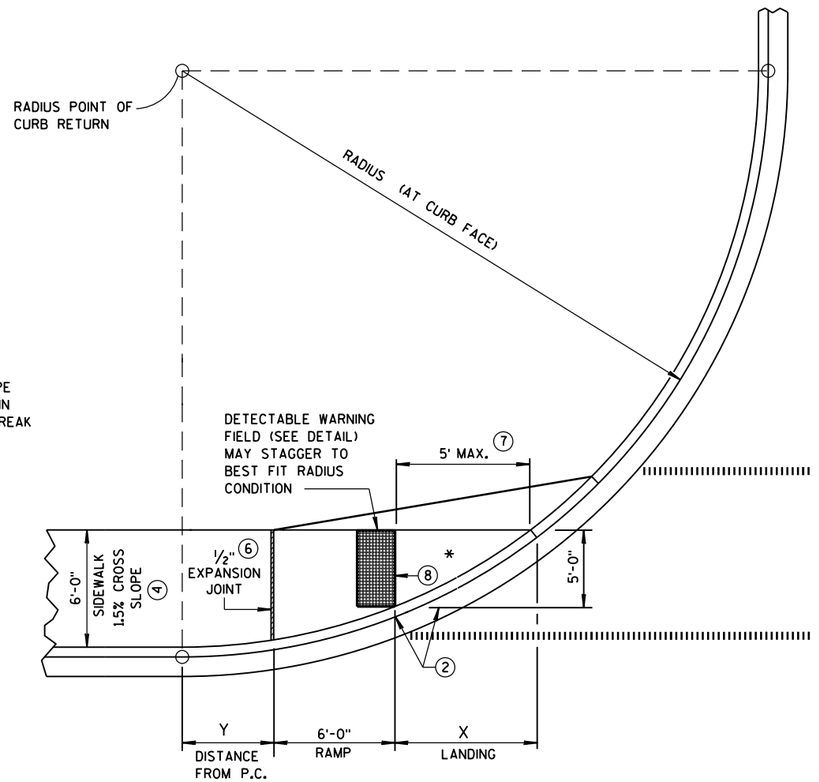


SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

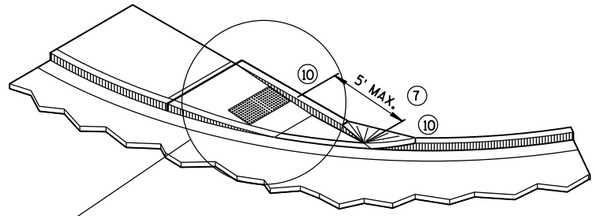
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

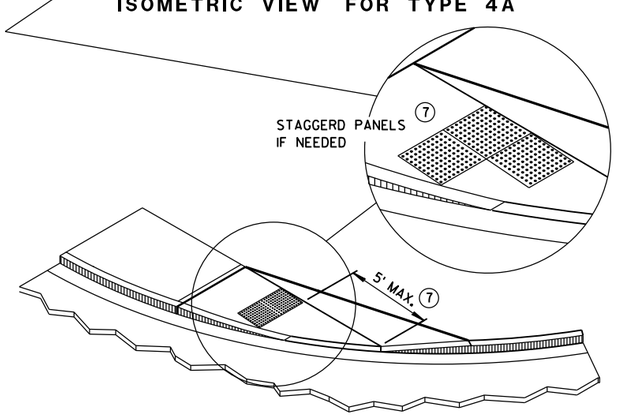
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

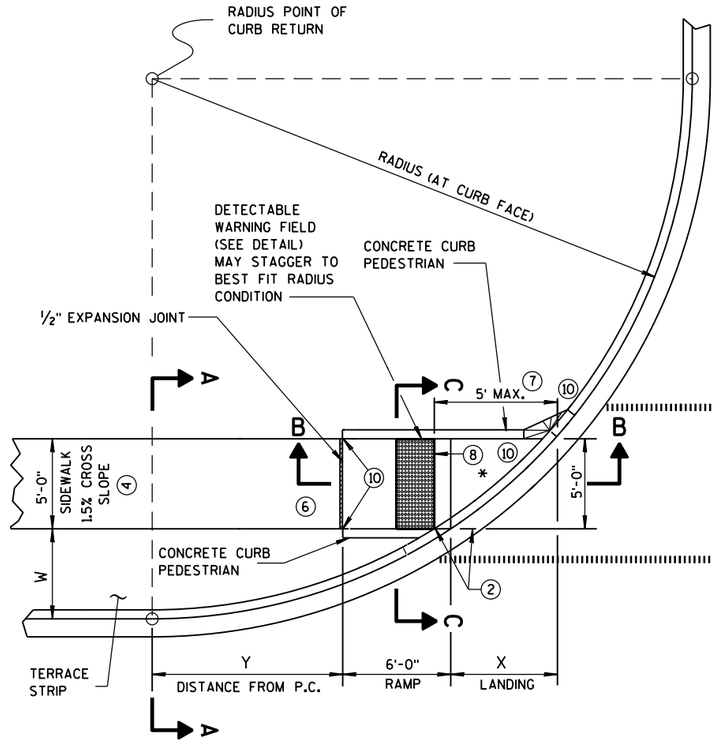
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

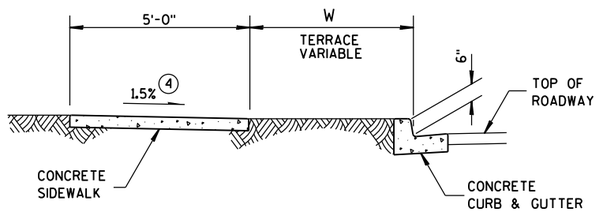
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

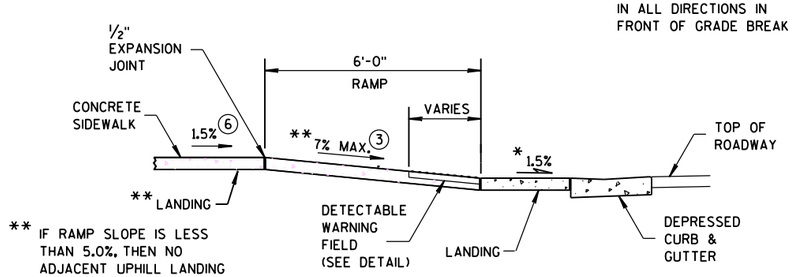
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

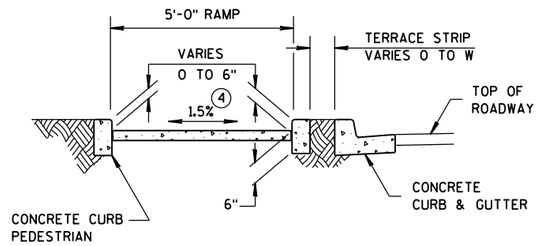
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

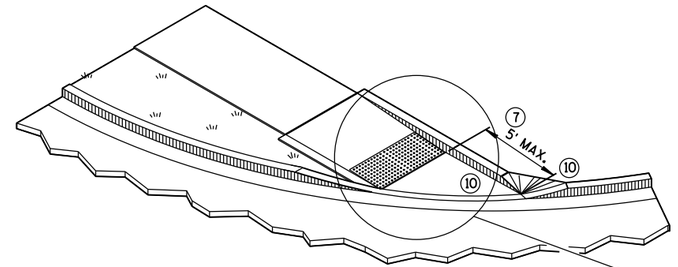
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

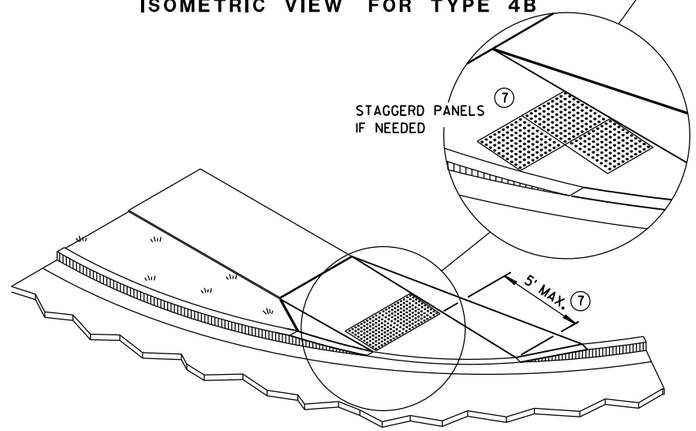
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

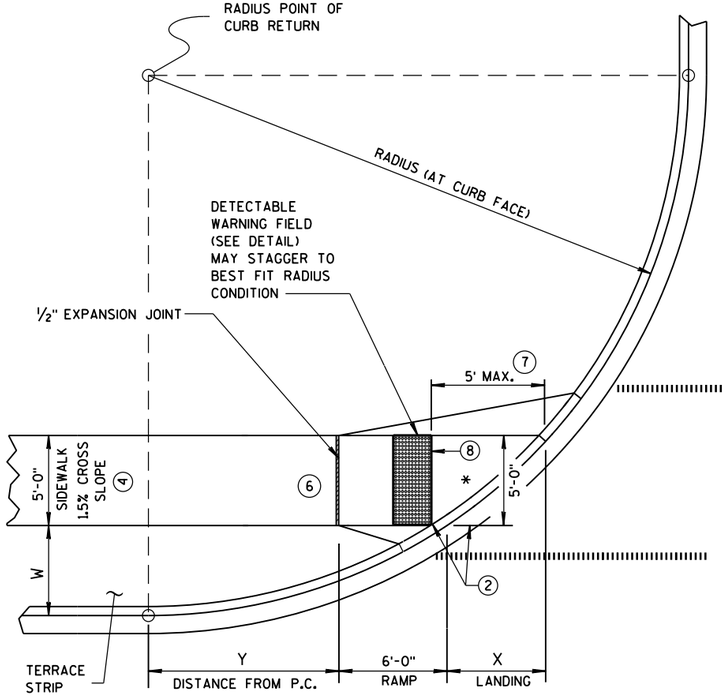
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-16d

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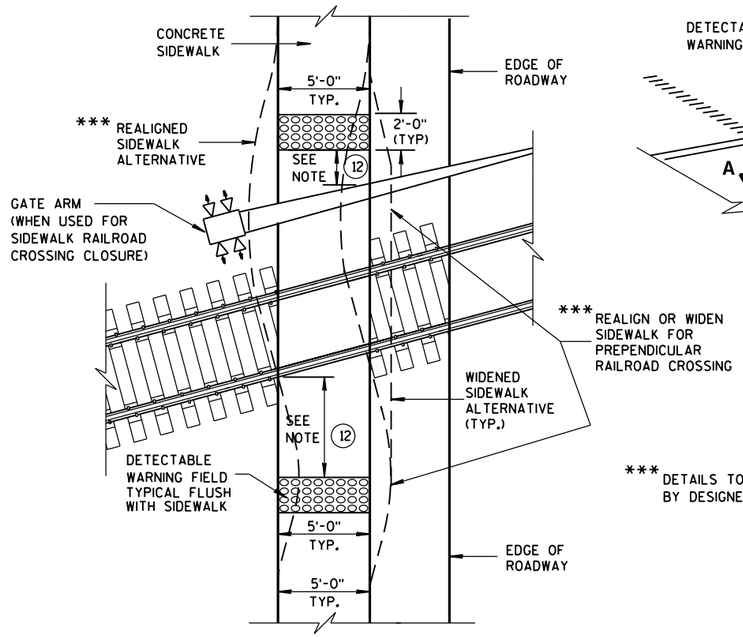
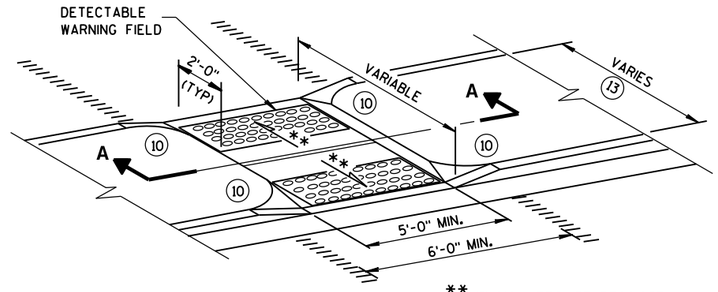
S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

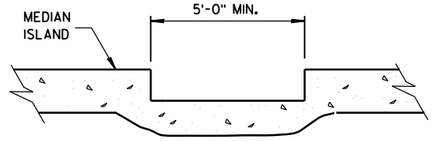
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

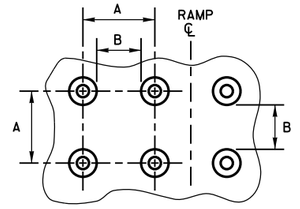
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



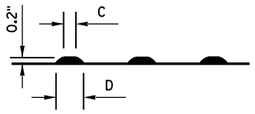
SECTION A-A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

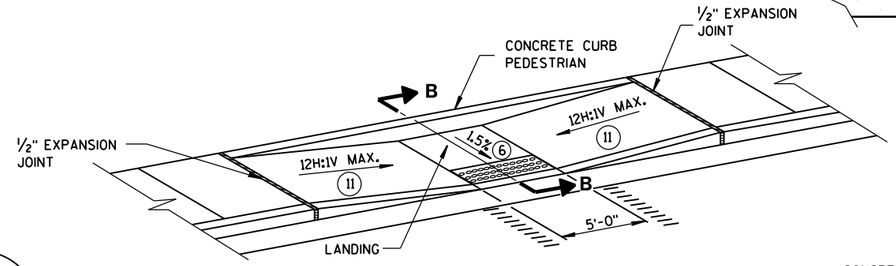


PLAN VIEW

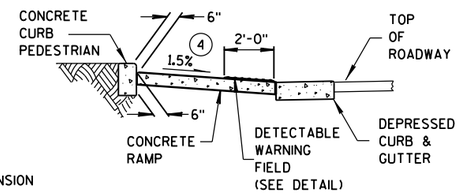


ELEVATION VIEW

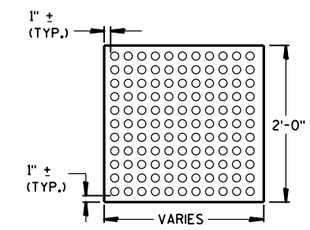
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A

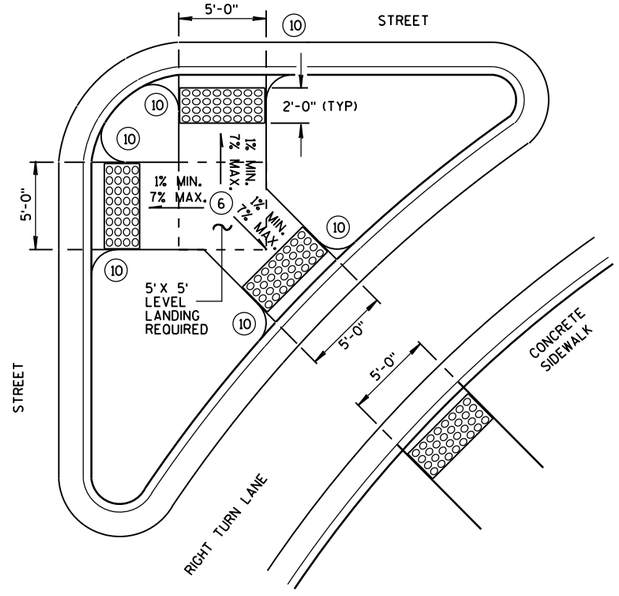


SECTION B-B

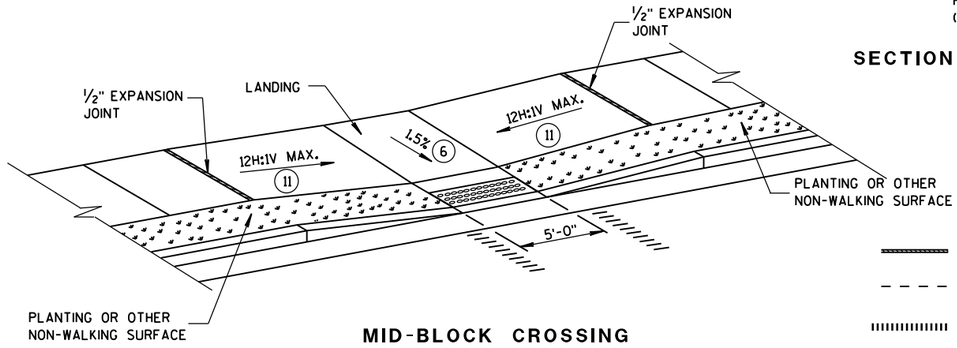


PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

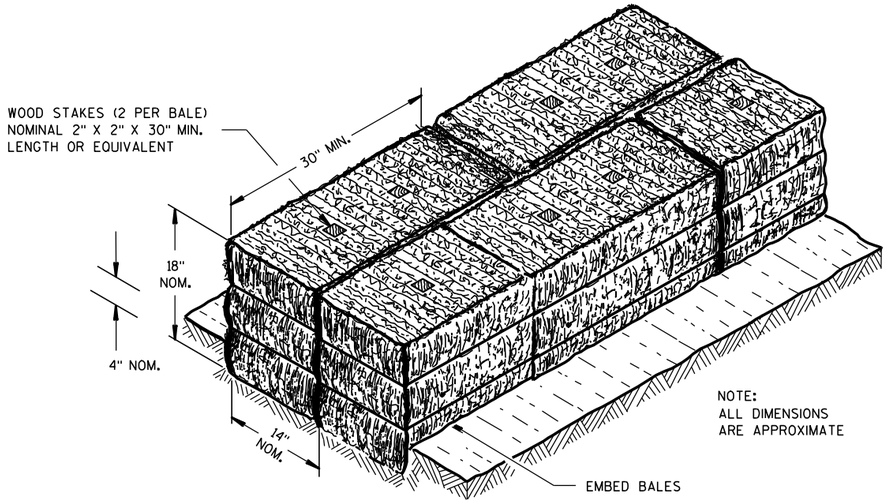
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

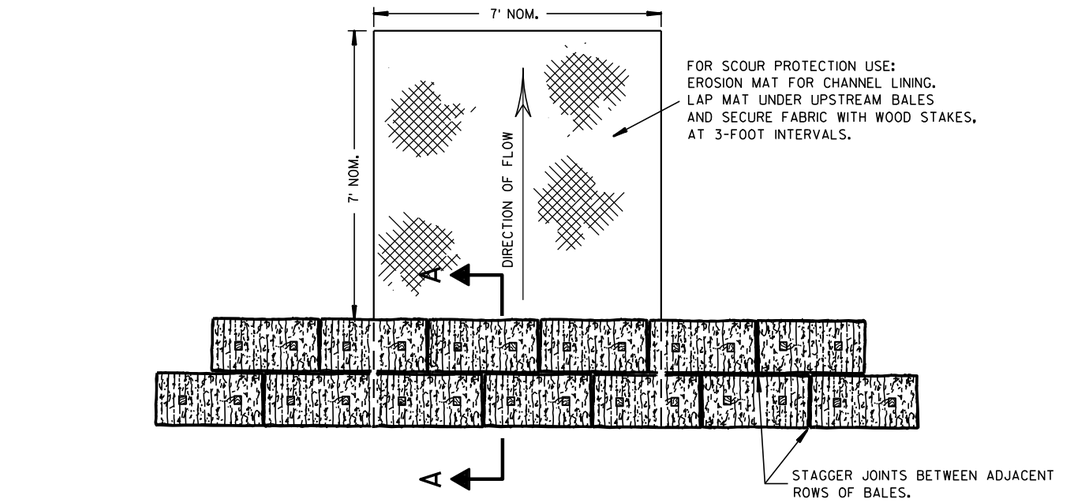
APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

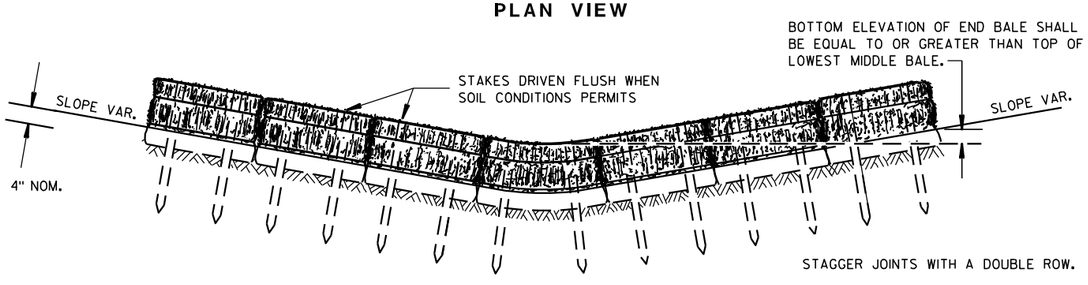
S.D.D. 8 D 5-16e



SECTION A-A



PLAN VIEW



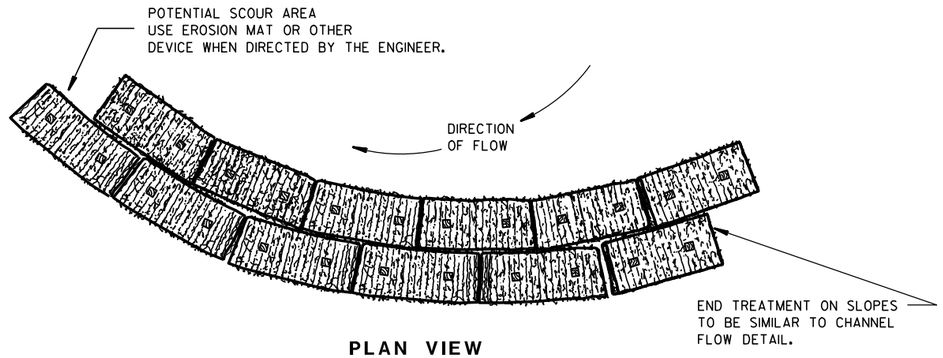
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

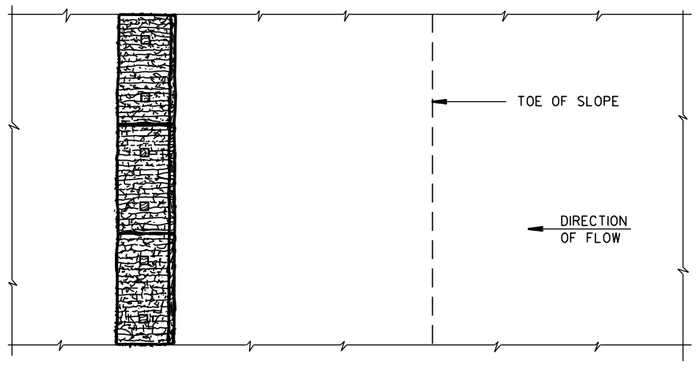
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

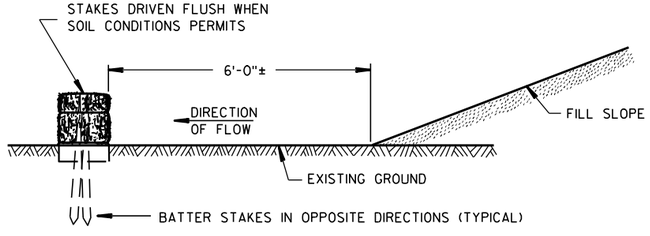


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

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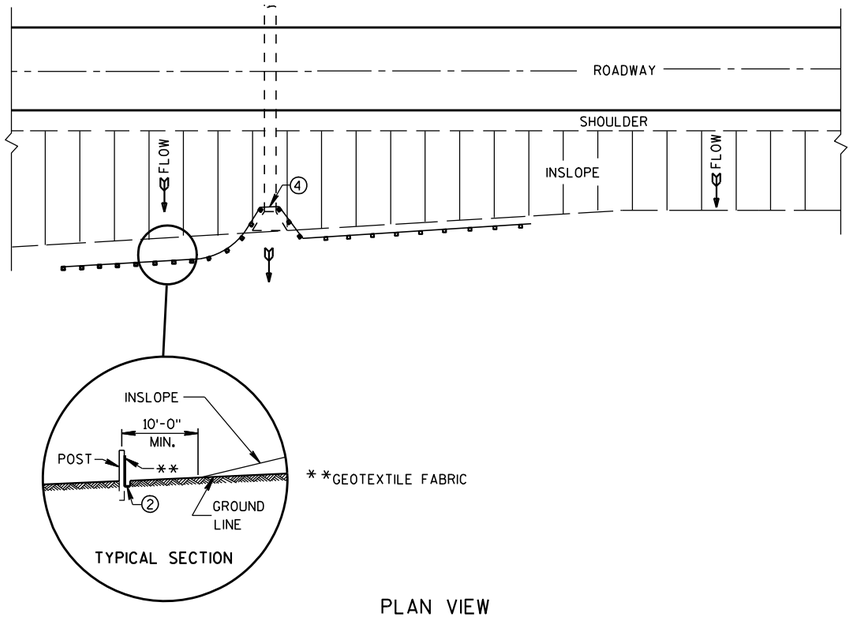
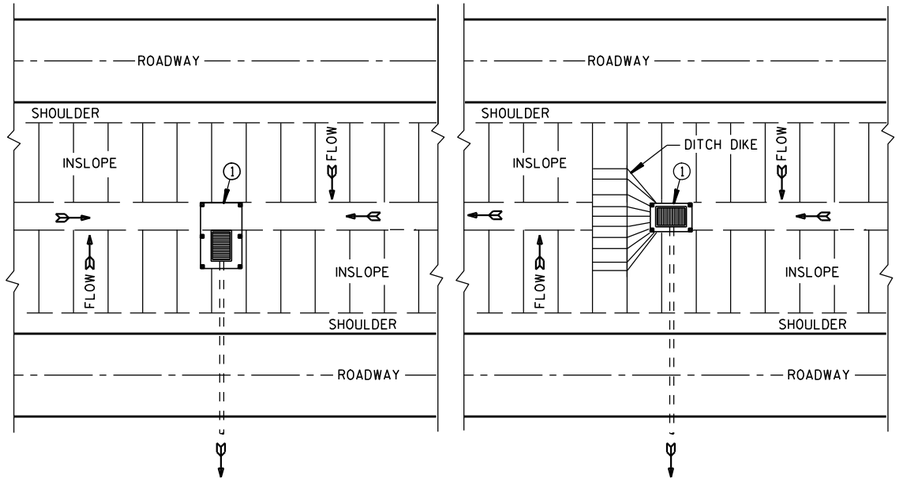
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



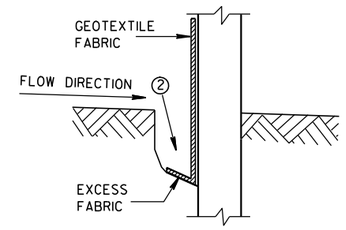
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

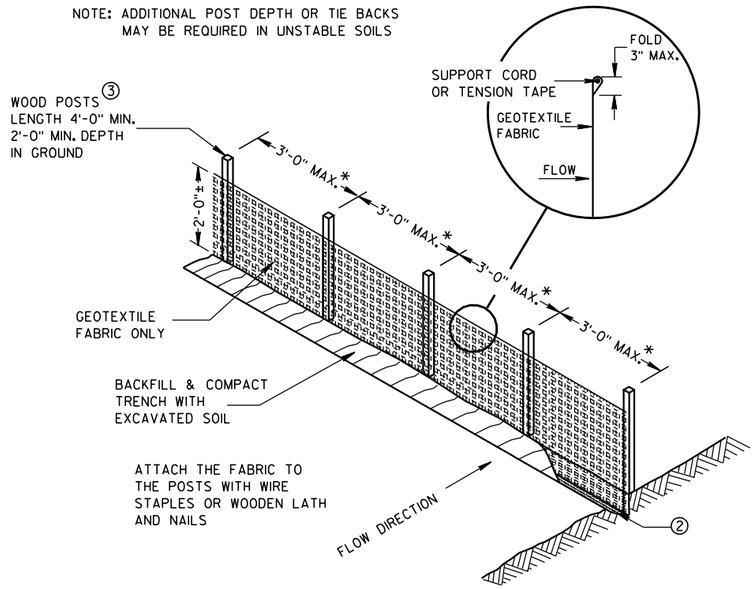
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

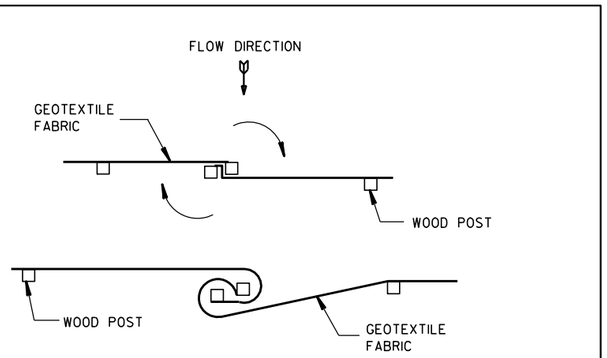
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



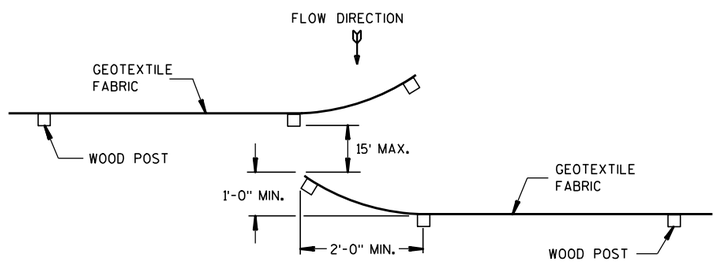
TRENCH DETAIL



SILT FENCE

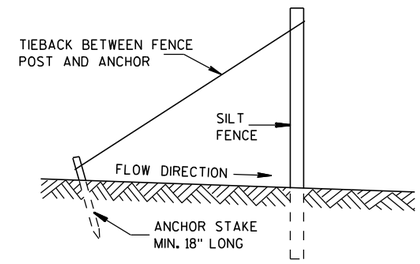


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

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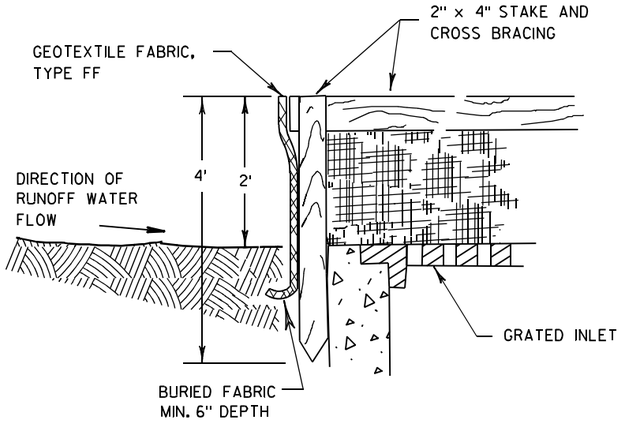
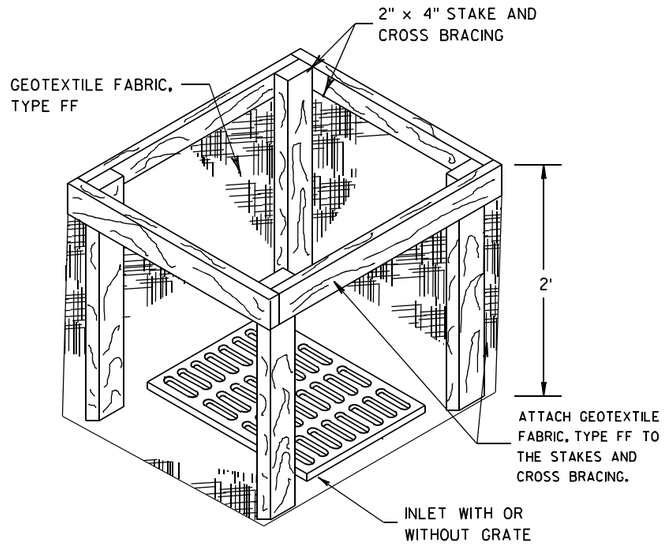
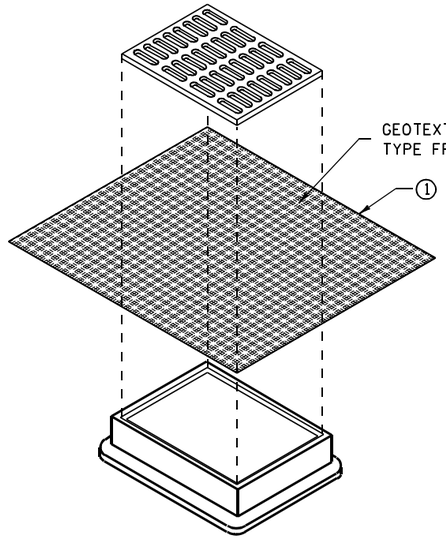
S.D.D. 8 E 9-6



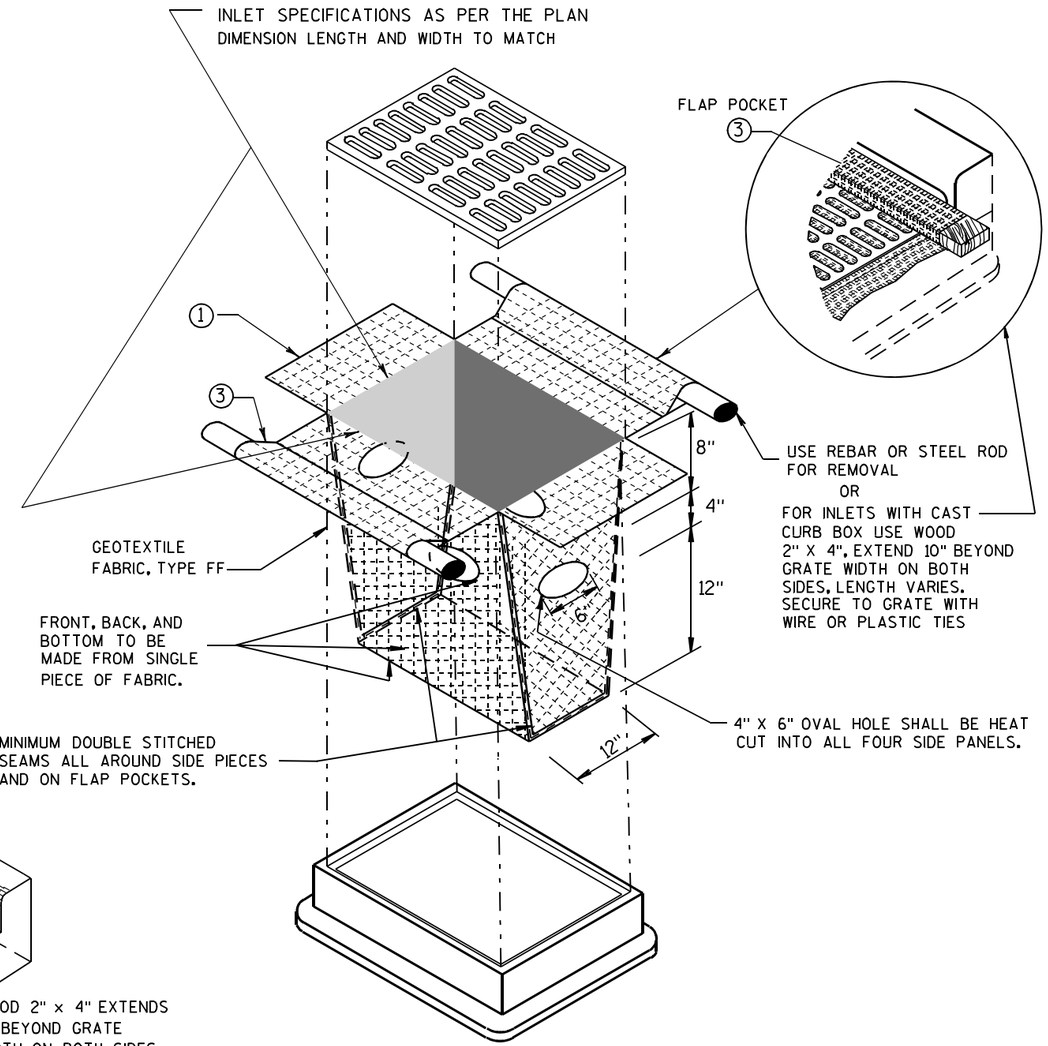


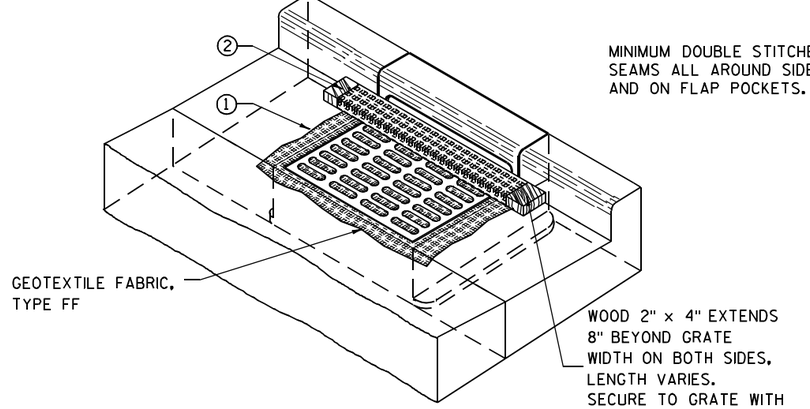
INLET PROTECTION, TYPE A



INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)





INLET PROTECTION, TYPE C (WITH CURB BOX)

INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

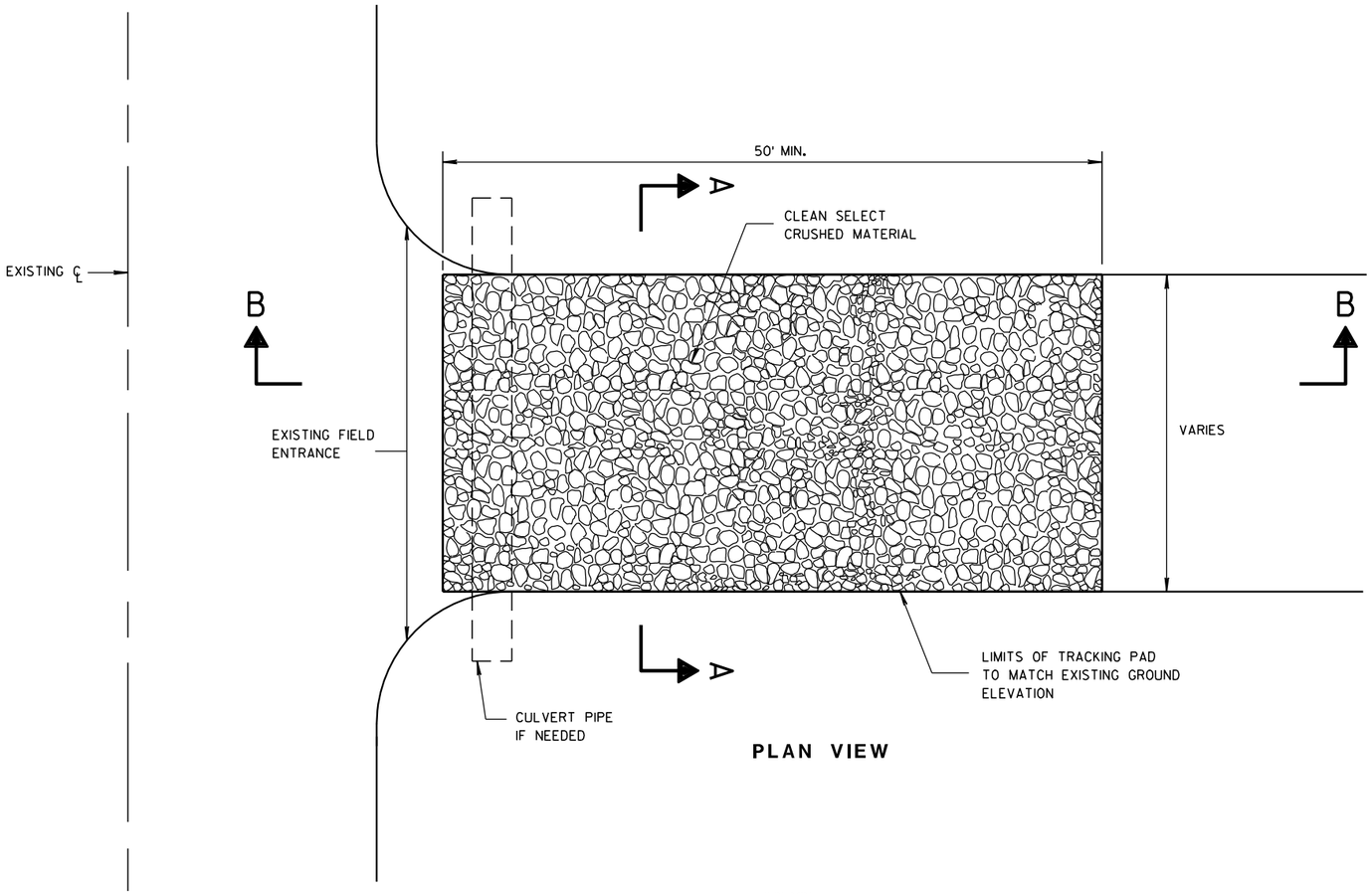
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

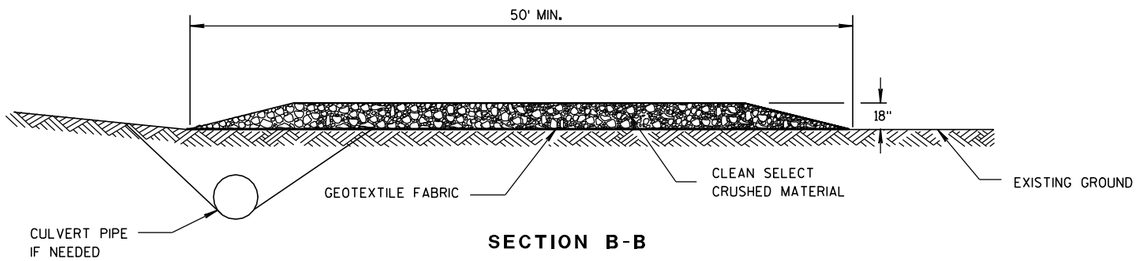
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 10-2



PLAN VIEW



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

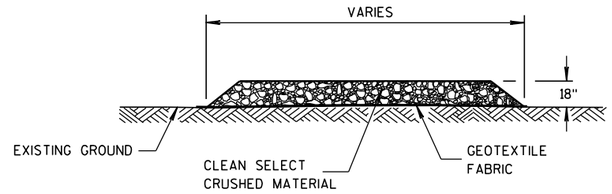
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

6

S.D.D. 8 E 14-1

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER 95	ENT

FHWA

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

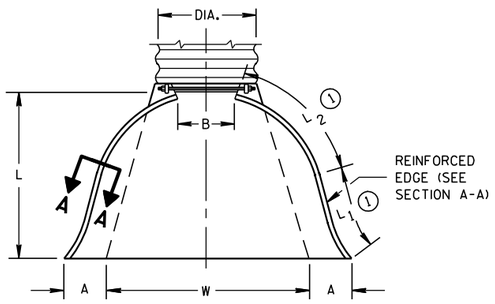
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

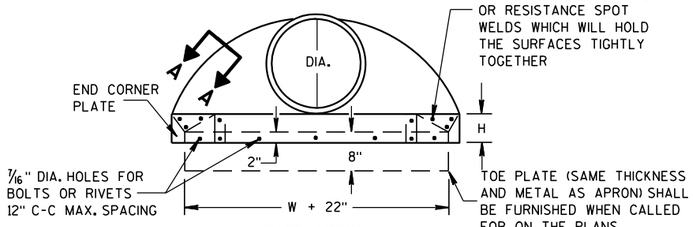
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

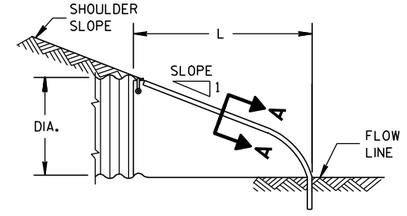
*MINIMUM
**MAXIMUM



PLAN VIEW

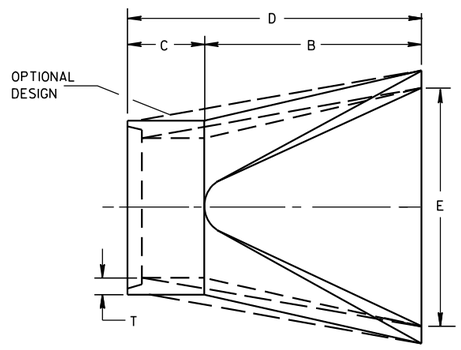


END VIEW

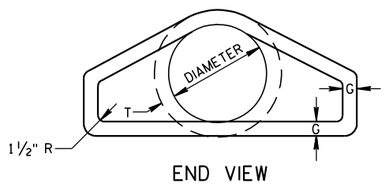


SIDE ELEVATION

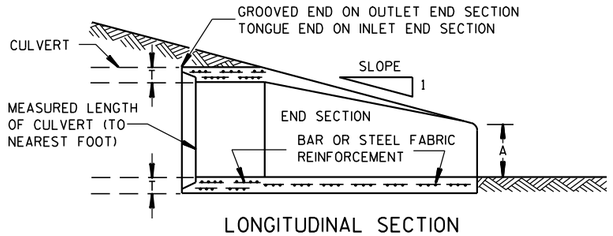
METAL ENDWALLS



PLAN

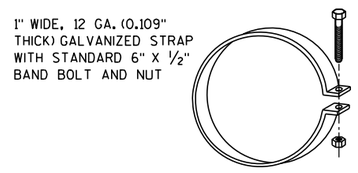


END VIEW



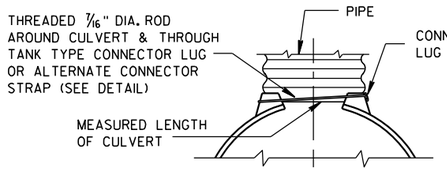
LONGITUDINAL SECTION

CONCRETE ENDWALLS

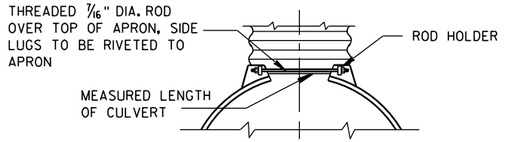


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

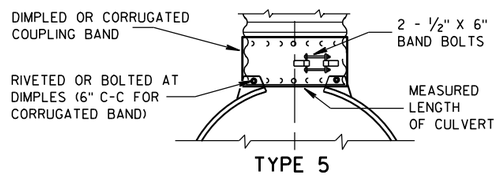


TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE

TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

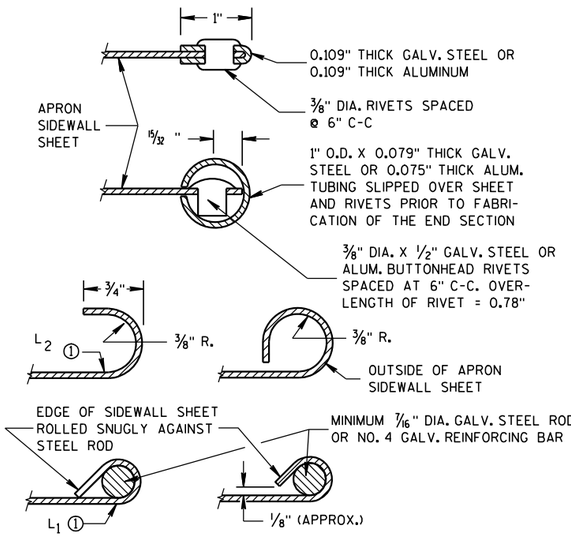
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

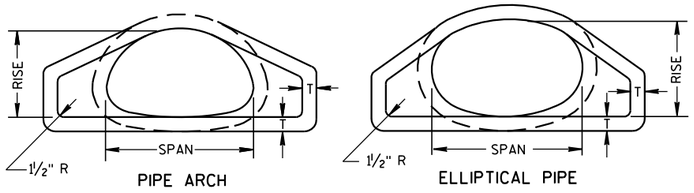
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

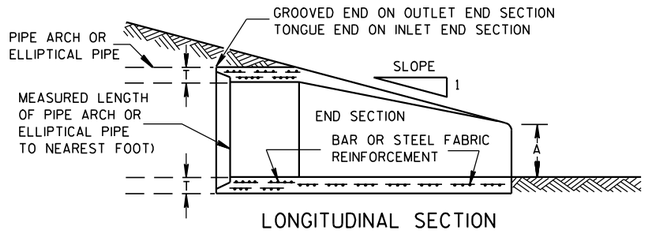
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

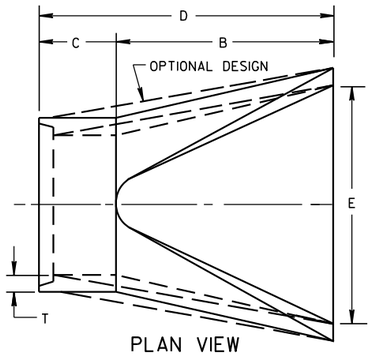
6
S.D.D. 8 F 1-11



END VIEW

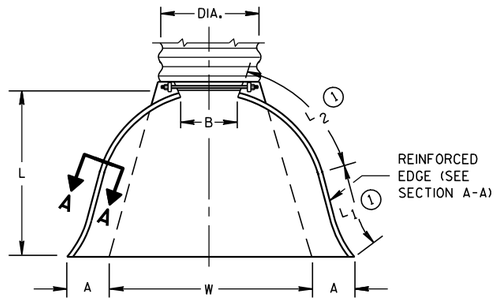


LONGITUDINAL SECTION

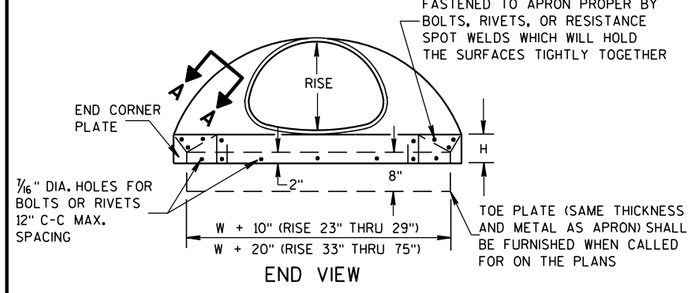


PLAN VIEW

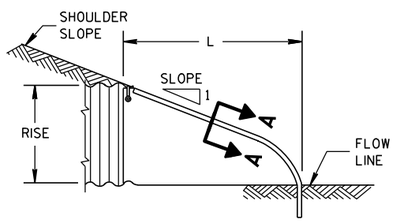
CONCRETE ENDWALLS



PLAN VIEW

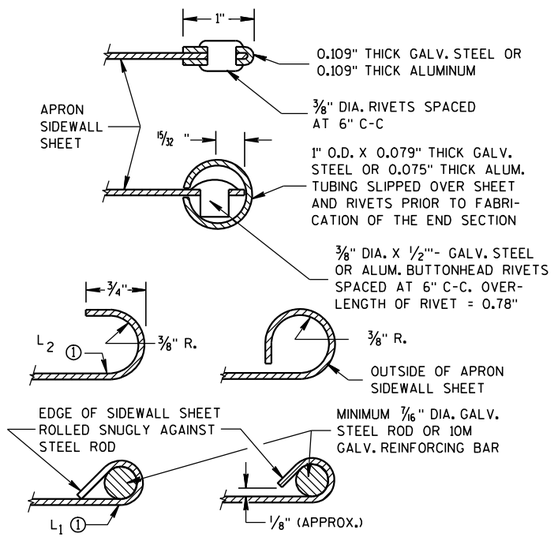


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

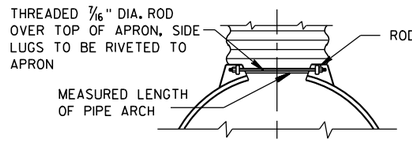
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

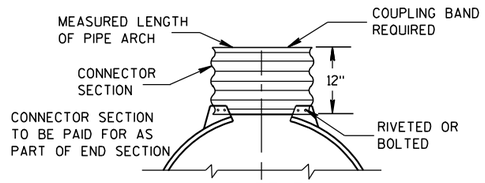
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



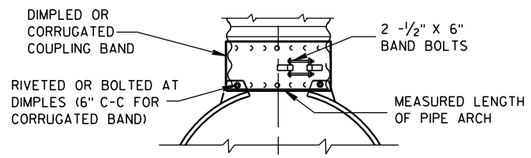
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

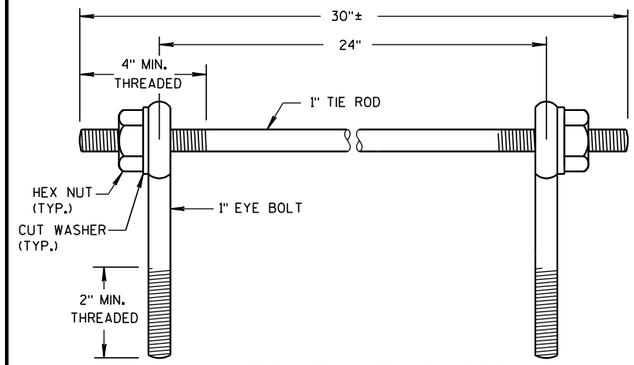
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

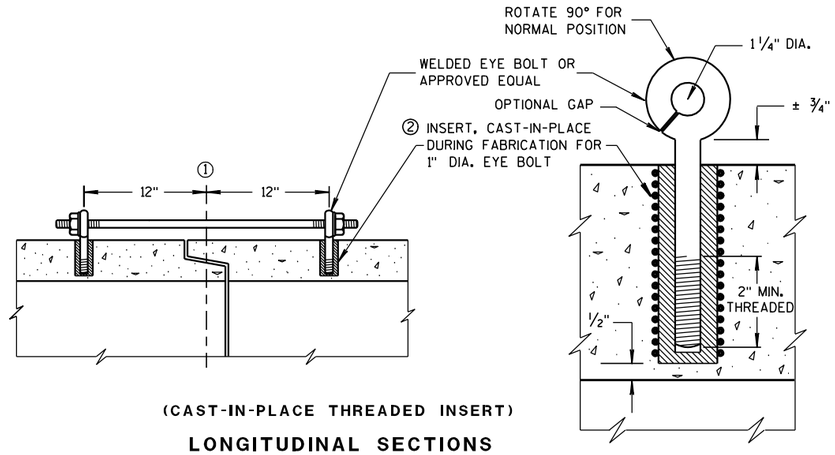
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

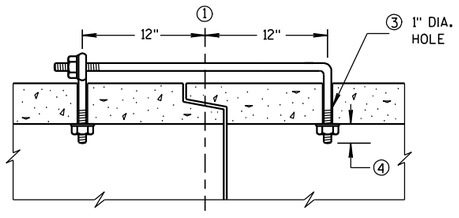
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

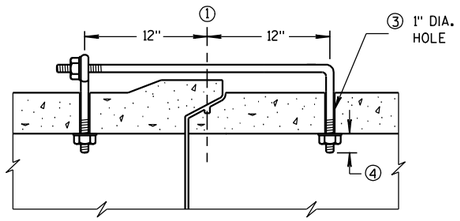
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

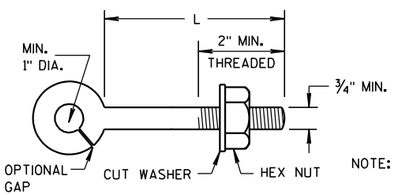


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

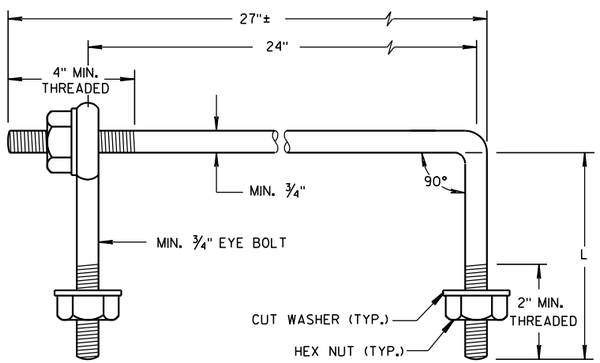
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

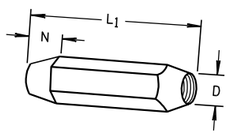
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

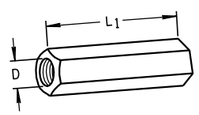
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



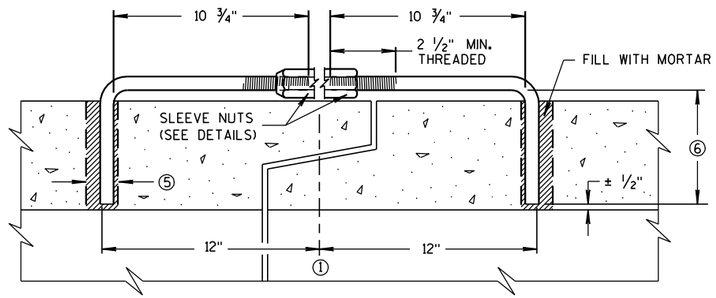
TAPERED



PLAIN

RIGHT AND LEFT THREADS

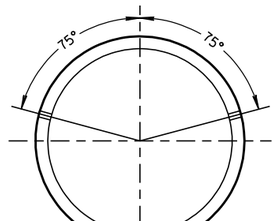
SLEEVE NUTS



LONGITUDINAL SECTION

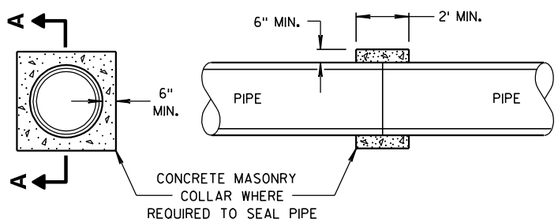
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
98

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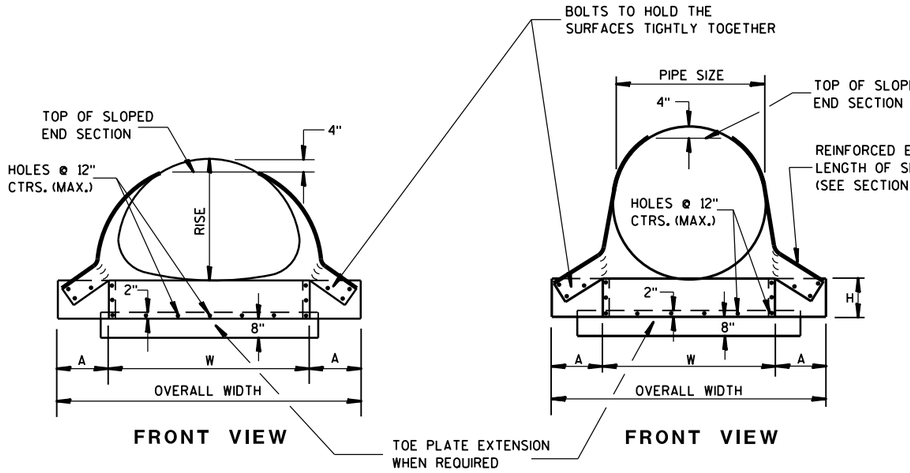
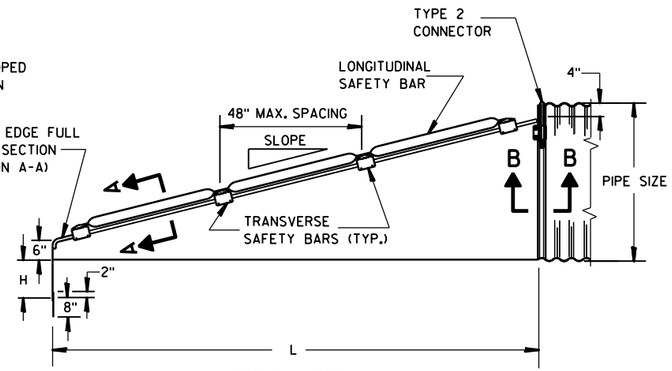


FRONT VIEW

FRONT VIEW



SIDE VIEW
(48" SIZE ILLUSTRATED)

GENERAL NOTES

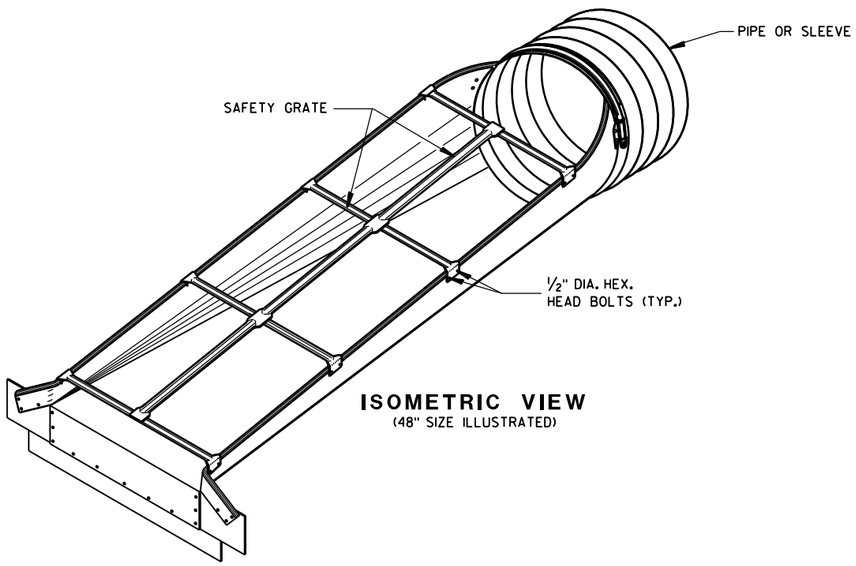
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SAFETY GRATES SHALL BE FABRICATED FROM 3-INCH DIAMETER GALVANIZED PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL. THE LONGITUDINAL BAR SHALL BE WELDED TO THE TRANSVERSE BARS WHERE THE BARS CROSS. THE NUMBER OF TRANSVERSE BARS REQUIRED WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

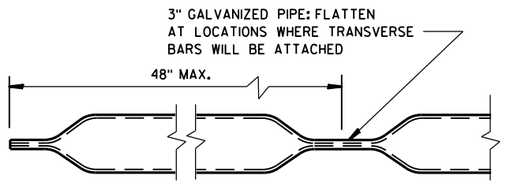
SLOPED STEEL ENDWALLS LOCATED AT THE ENDS OF CONCRETE CULVERT PIPE SHALL BE FURNISHED WITH STEEL ADAPTER SLEEVES.

STEEL APRON ENDWALLS FOR CULVERT PIPE CROSS DRAINS

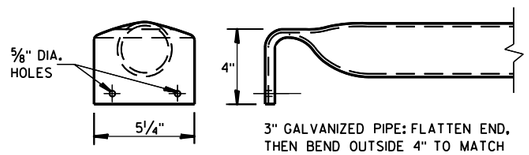
PIPE DIA. (IN.)	MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
36	.109	12	12	9	42	66	4:1	104	6:1	156
42	.109	12	16	12	48	80	4:1	128	6:1	192
48	.109	12	16	12	54	86	4:1	152	6:1	228
54	.109	12	16	12	60	92	4:1	176	6:1	264
60	.109	12	16	12	66	98	4:1	200	6:1	300



ISOMETRIC VIEW
(48" SIZE ILLUSTRATED)



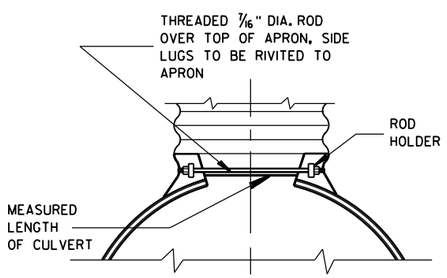
LONGITUDINAL SAFETY BAR



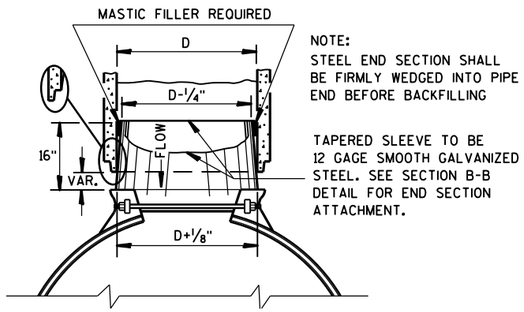
TRANSVERSE SAFETY BAR

STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS

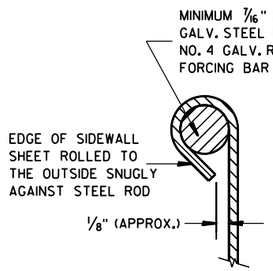
EQUIV. DIA. (IN.)	INCHES		MIN. THICK.		DIMENSIONS (Inches)				L DIMENSIONS			
	SPAN	RISE	IN.	GAGE	A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138
48	57	38	.109	12	16	12	63	95	4:1	112	6:1	168
54	64	43	.109	12	16	12	70	102	4:1	132	6:1	198
60	71	47	.109	12	16	12	77	109	4:1	148	6:1	222



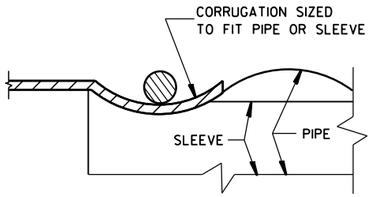
TYPE 2 CONNECTOR DETAIL



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



SECTION A-A



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED CROSS DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

FHWA

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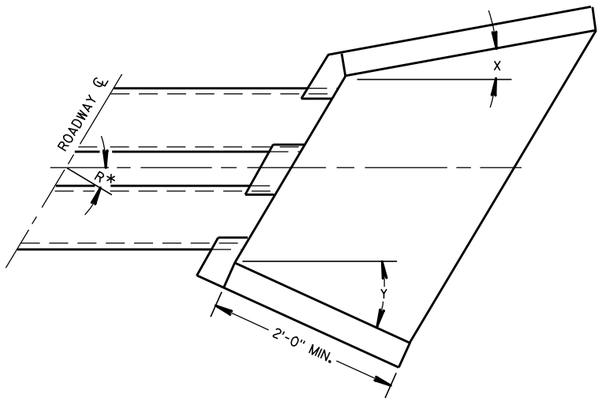
S.D.D. 8 F 8-2



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

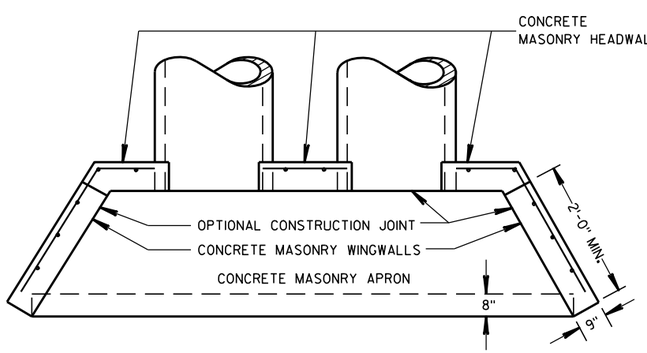
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

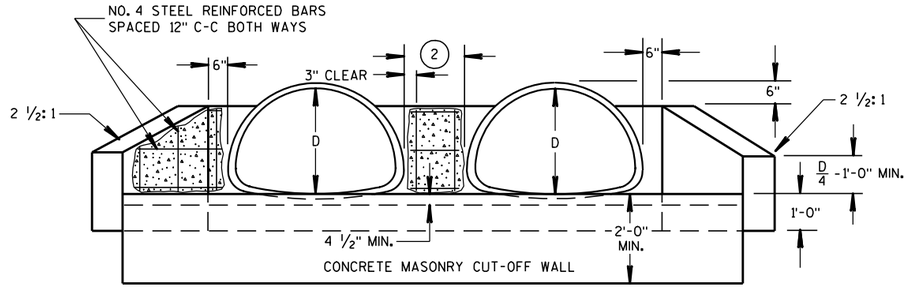
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



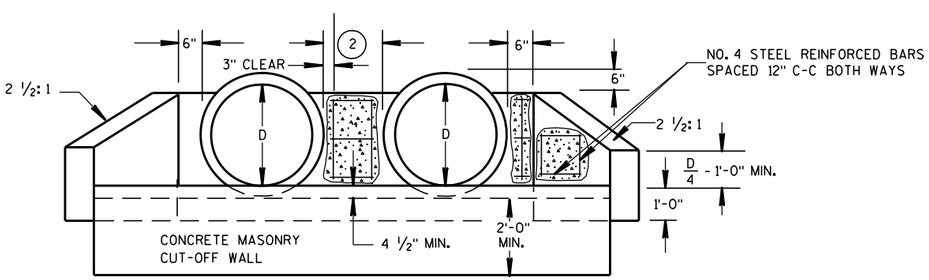
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



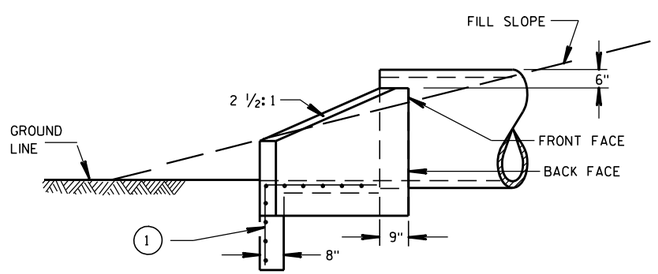
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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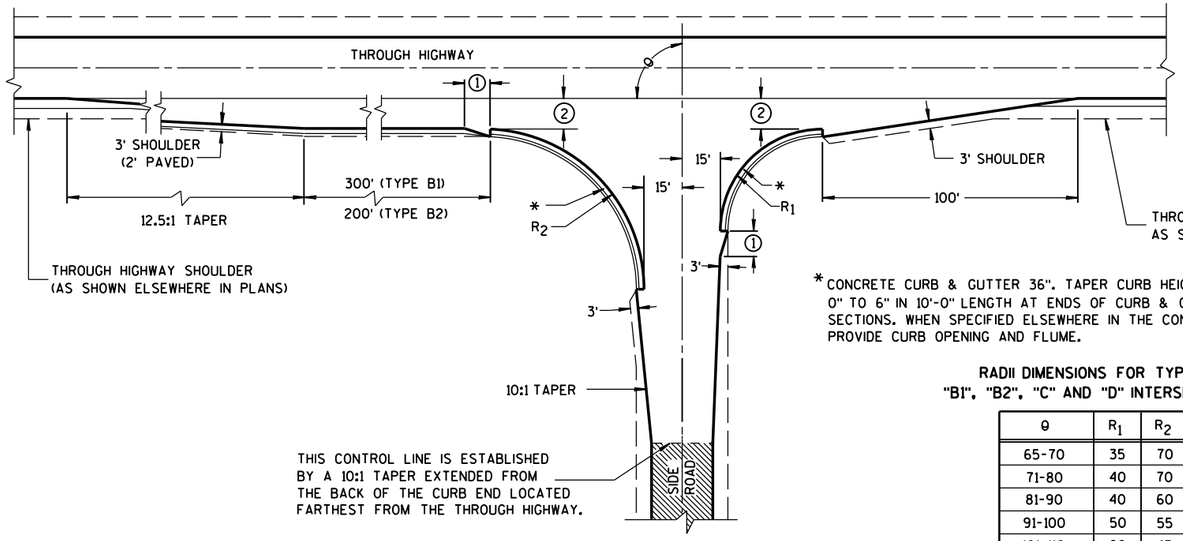
S.D.D. 8 F 10-1

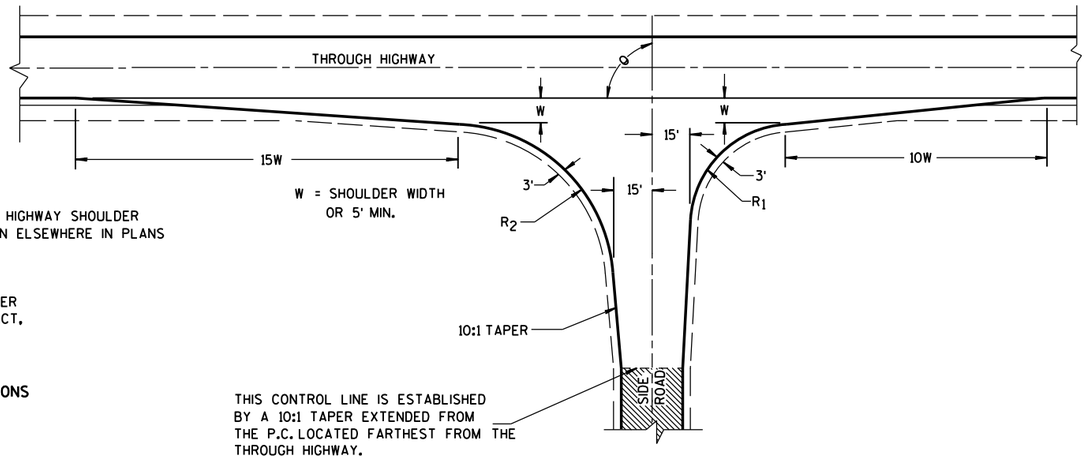


TYPE "B1" AND "B2"

*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

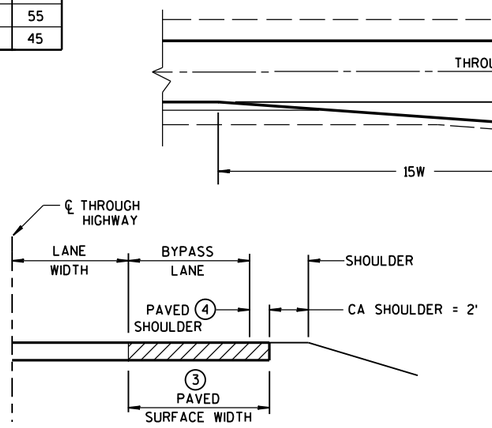
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

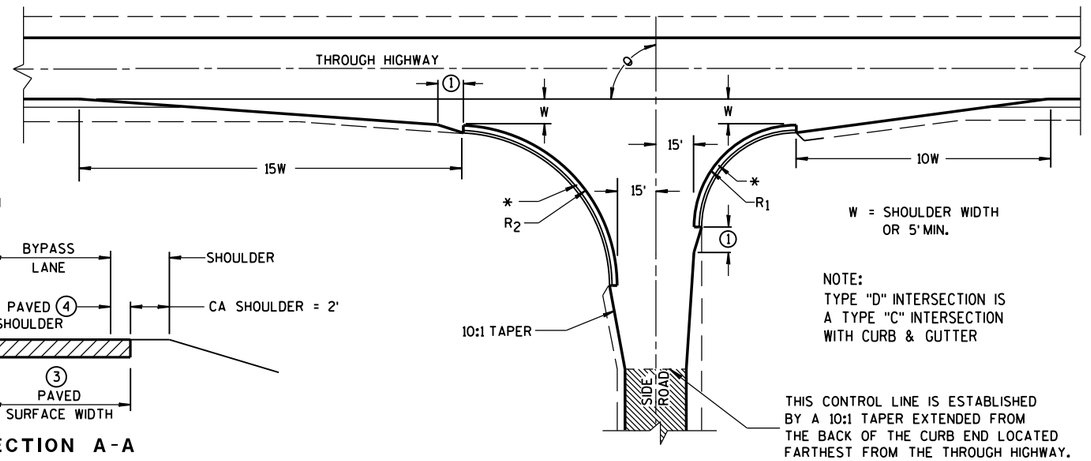
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

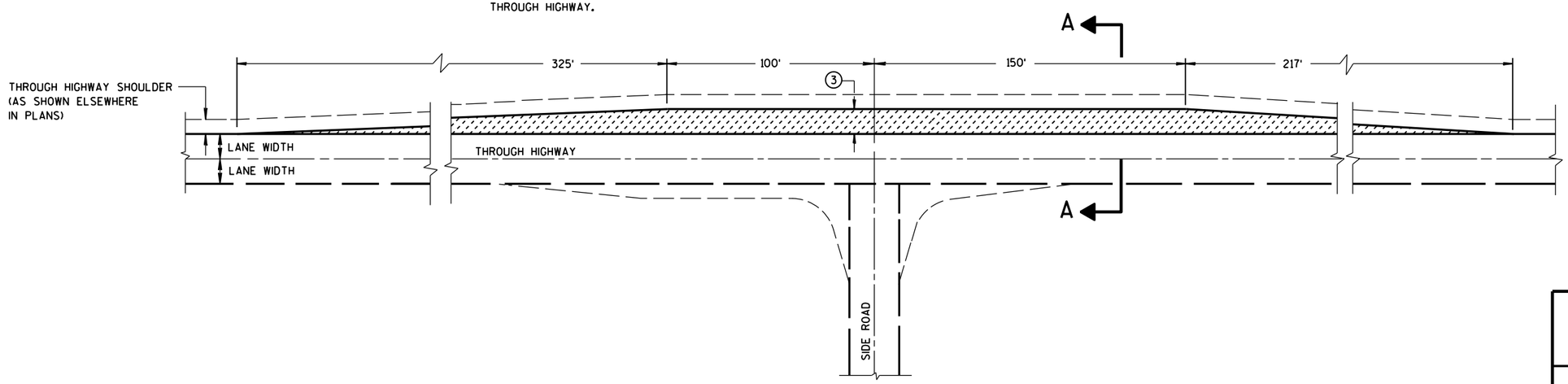
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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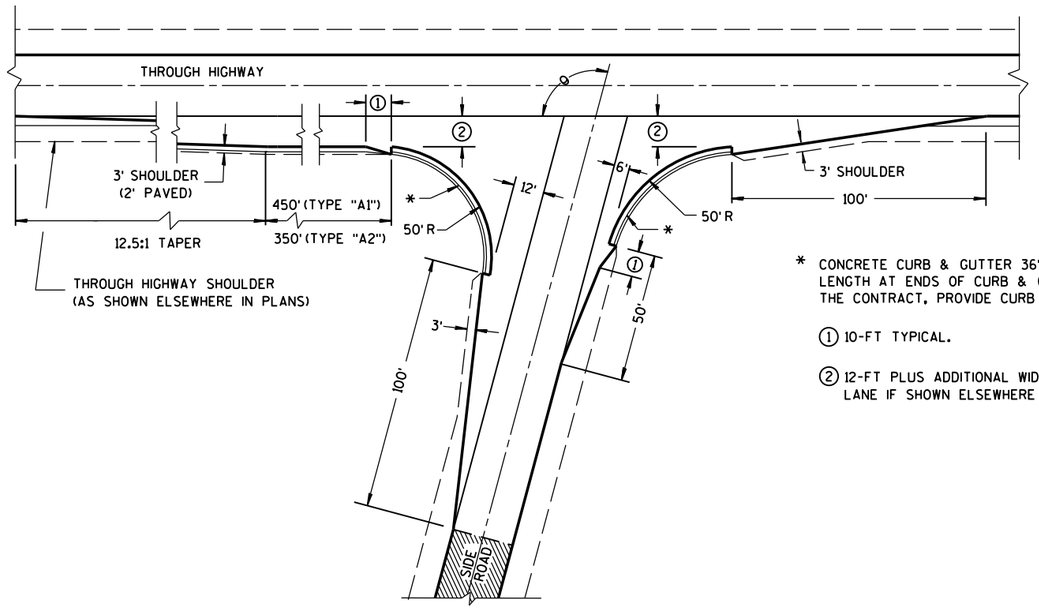
S.D.D. 9 A 1-13a



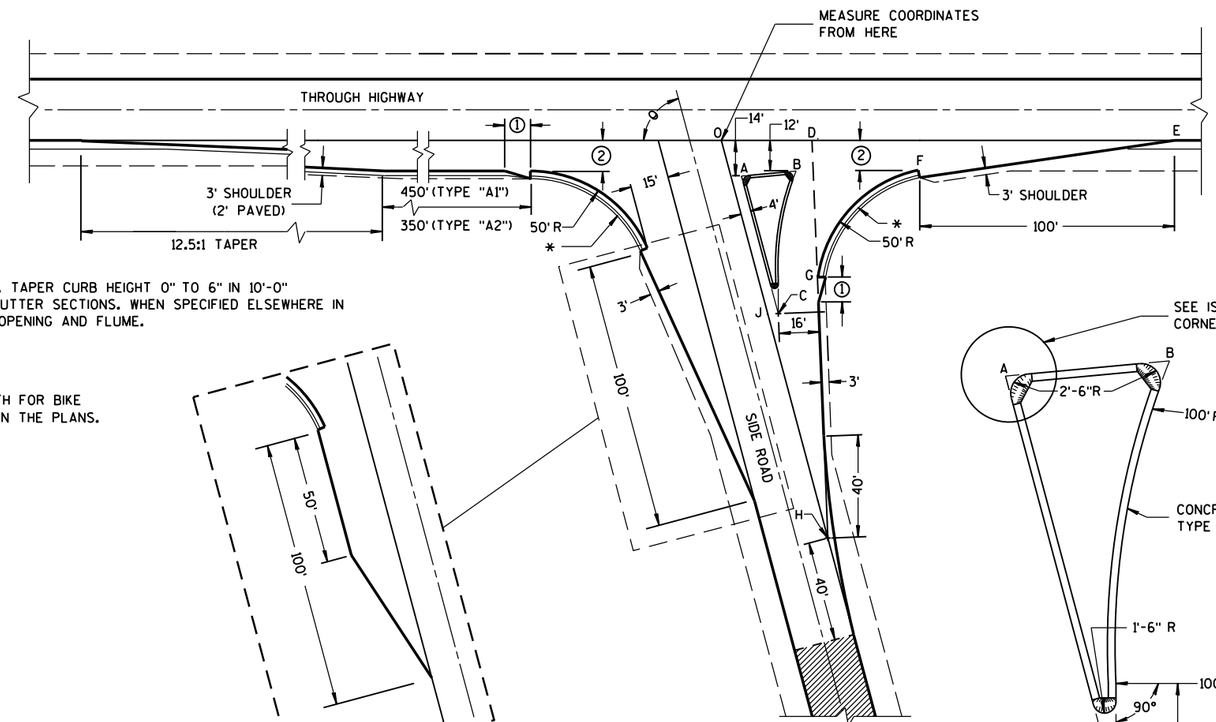
θ = MORE THAN 80°

* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

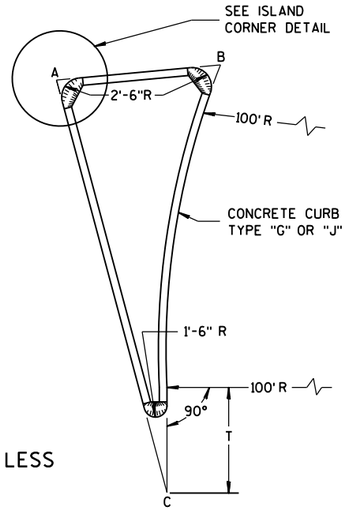
① 10-FT TYPICAL.

② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.

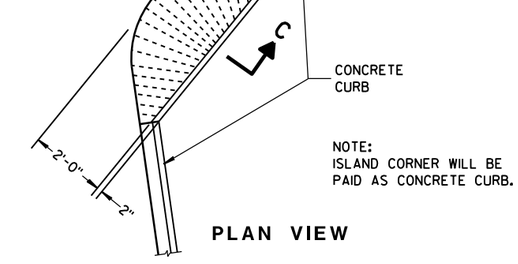
EXISTING PAVED SURFACE



θ = ACUTE ANGLES 80° OR LESS

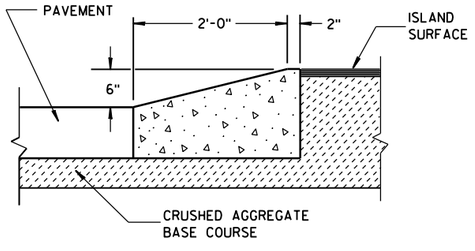


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



NOTE:
ISLAND CORNER WILL BE PAID AS CONCRETE CURB.

PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O") X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

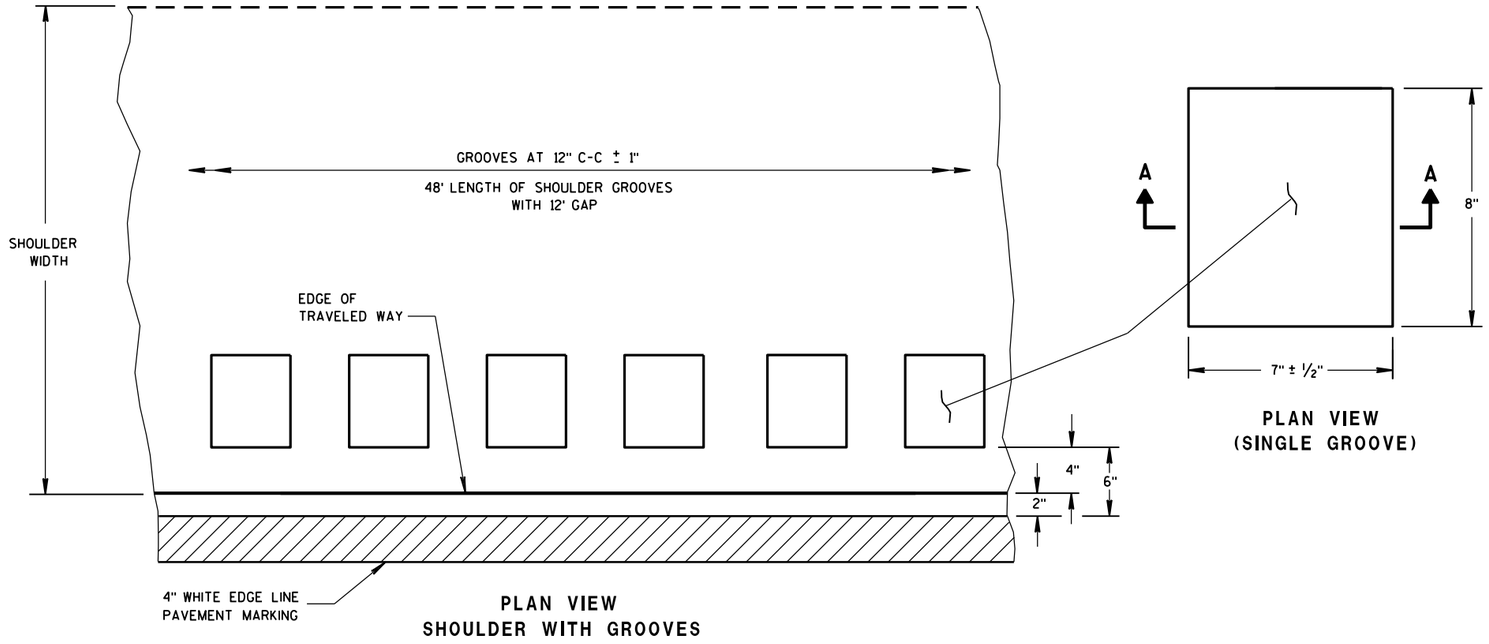
AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/18/12 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

S.D.D. 9 A 1-13b

S.D.D. 9 A 1-13b



PLAN VIEW
SHOULDER WITH GROOVES

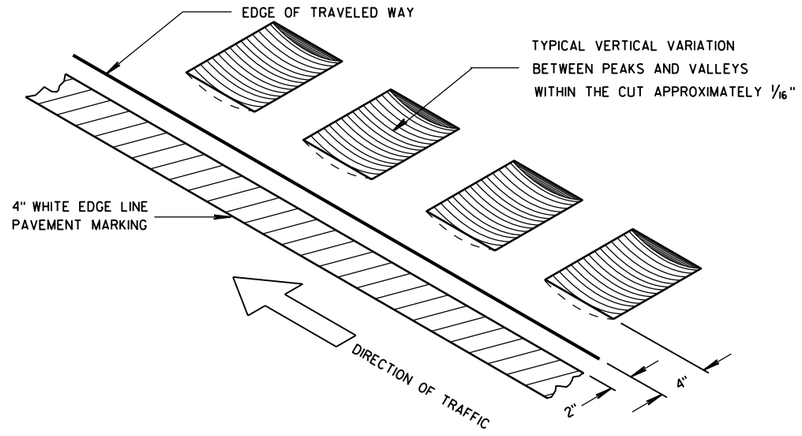
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

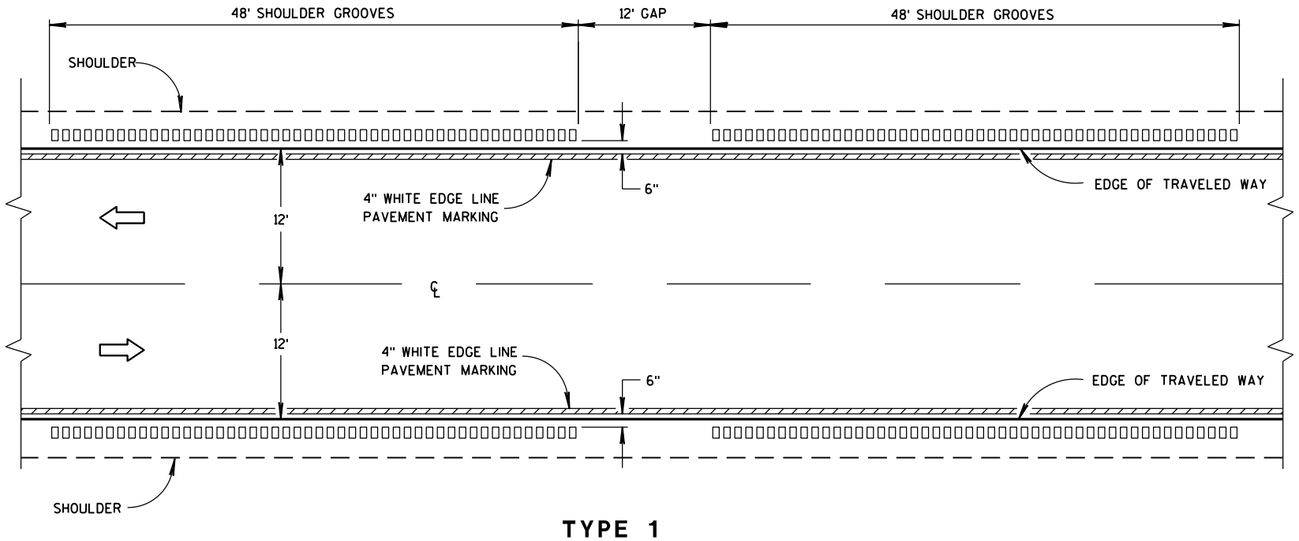
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

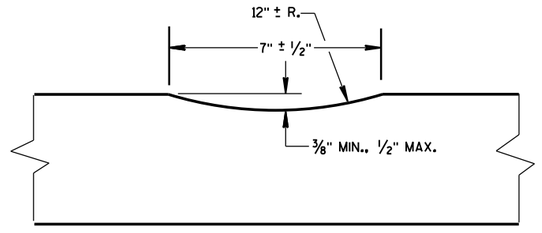


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2-LANE SHOULDER RUMBLE STRIP



SECTION A-A

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

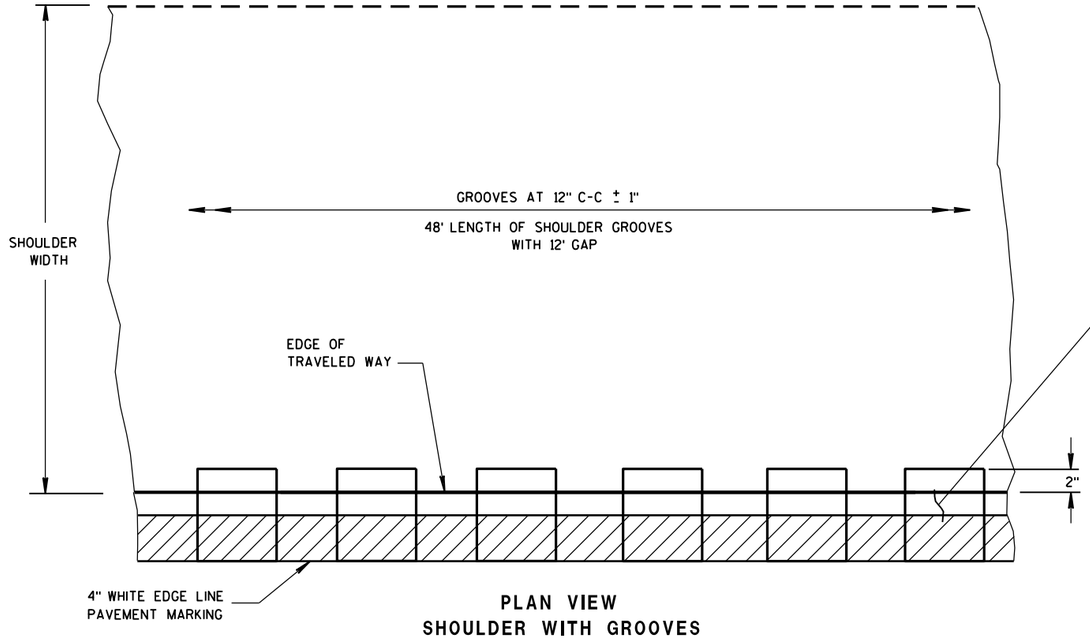
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

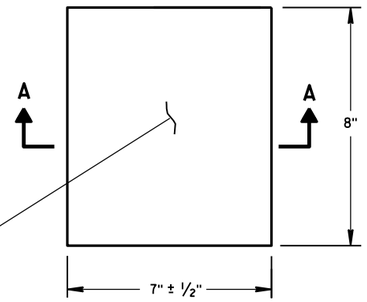
S.D.D. 13 A 10-1a

6

S.D.D. 13 A 10-1a



PLAN VIEW
SHOULDER WITH GROOVES



PLAN VIEW
(SINGLE GROOVE)

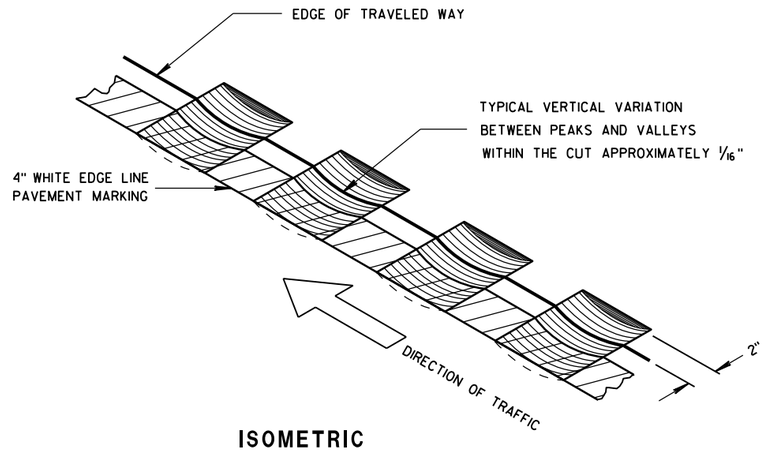
PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP

GENERAL NOTES

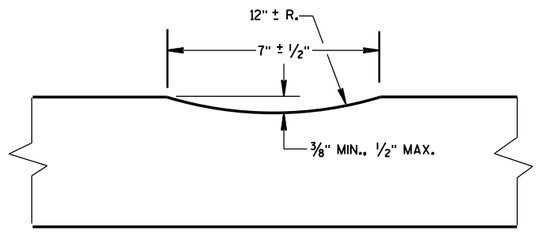
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

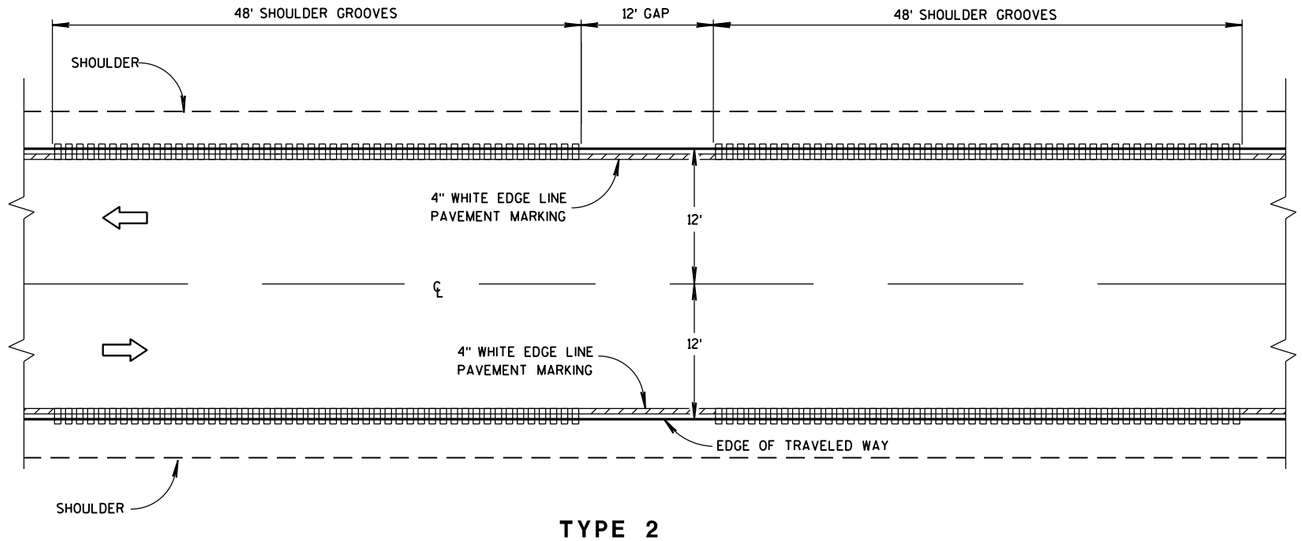
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



SECTION A-A



TYPE 2
2-LANE SHOULDER RUMBLE STRIP

6

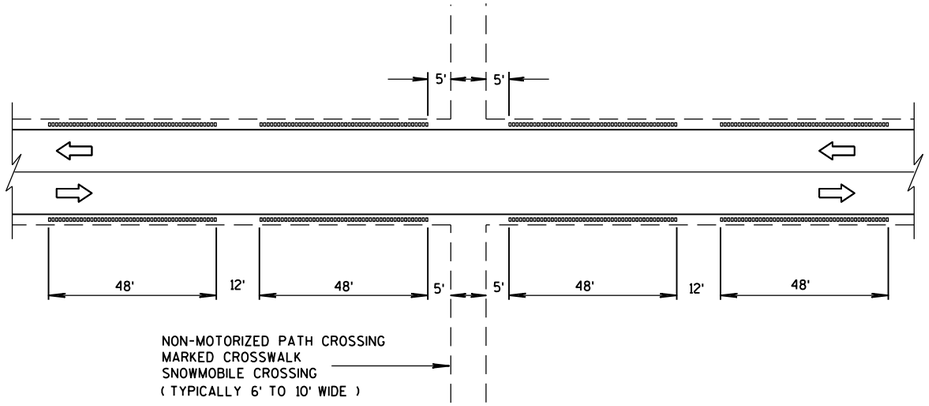
S.D.D. 13 A 10-1b

6

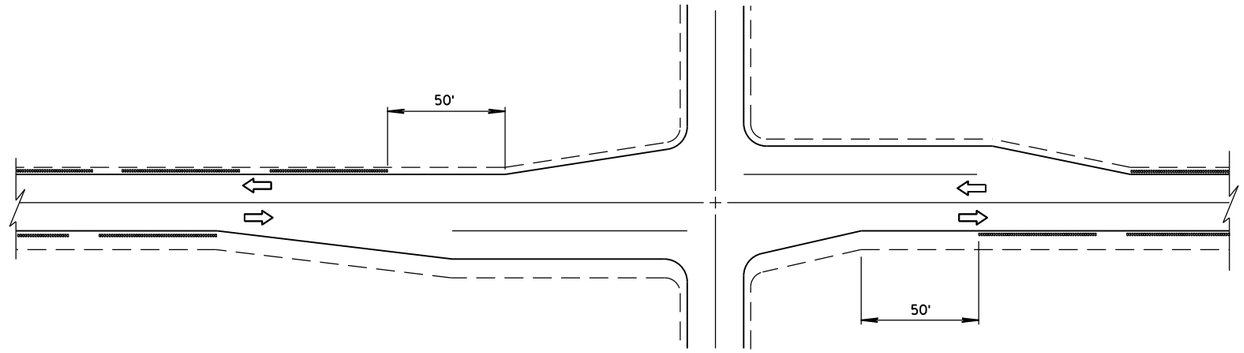
S.D.D. 13 A 10-1b

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

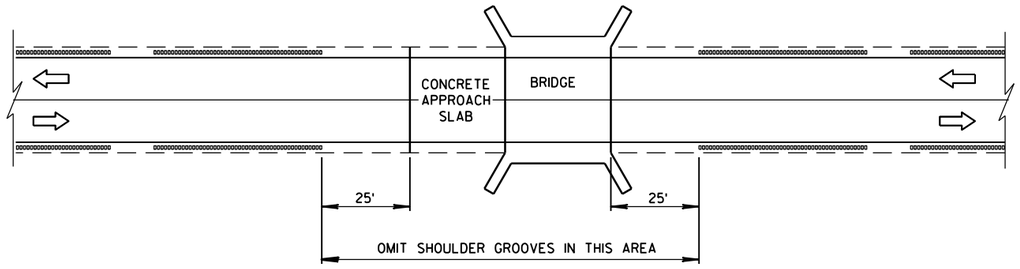
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR



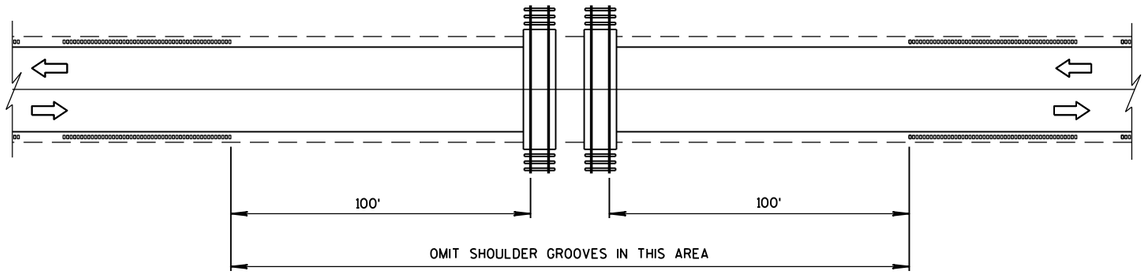
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



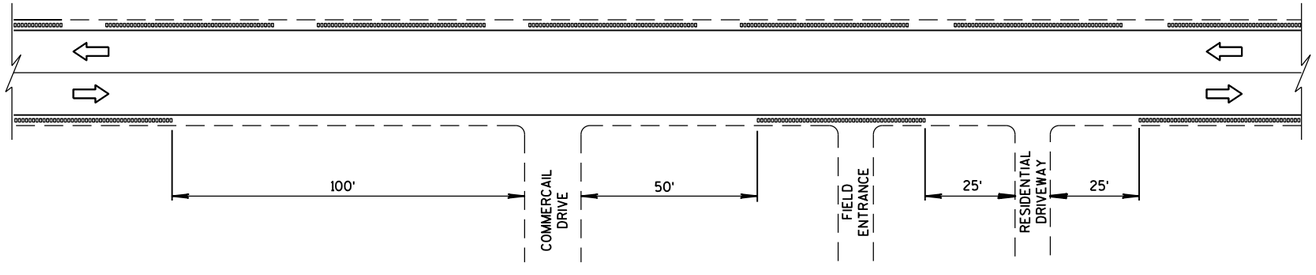
SHOULDER GROOVES AT INTERSECTIONS



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT DRIVEWAYS (1)

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

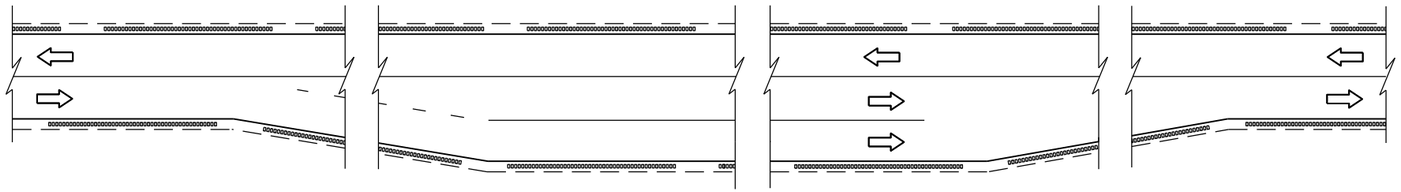
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

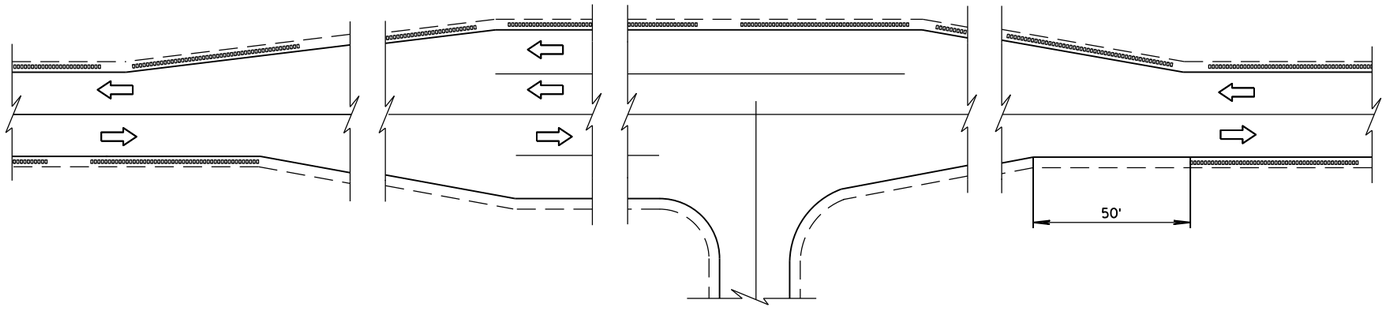
S.D.D. 13 A 10-1c

6

S.D.D. 13 A 10-1c



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

S.D.D. 13 A 10-1d

S.D.D. 13 A 10-1d

2-LANE RURAL
SHOULDER RUMBLE STRIP, MILLING

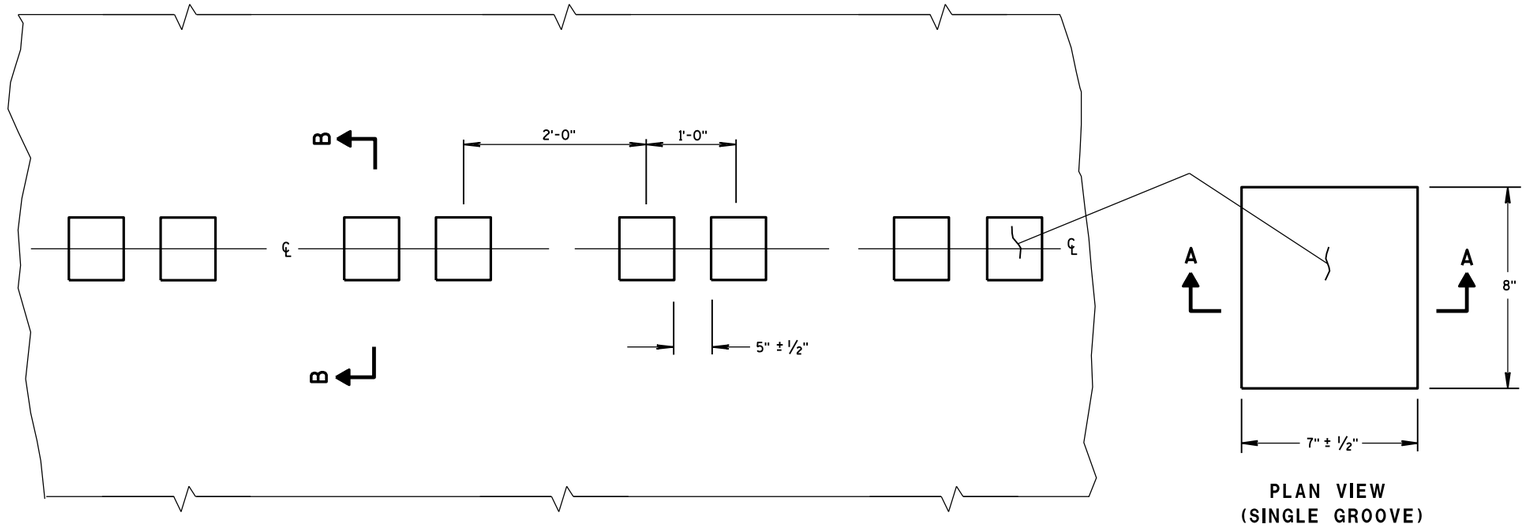
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA



PLAN VIEW
CENTER LINE WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

GENERAL NOTES

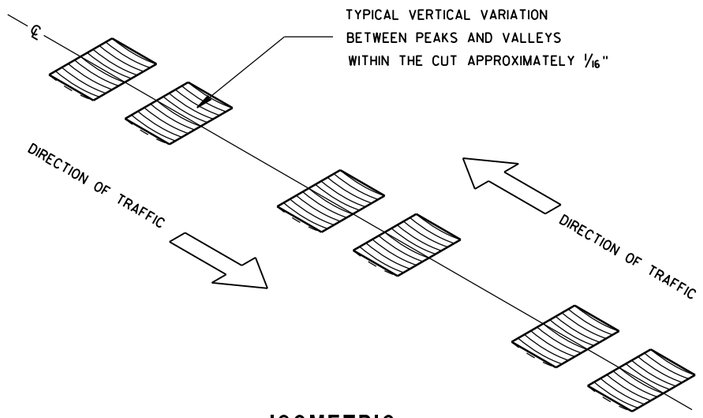
DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTER LINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

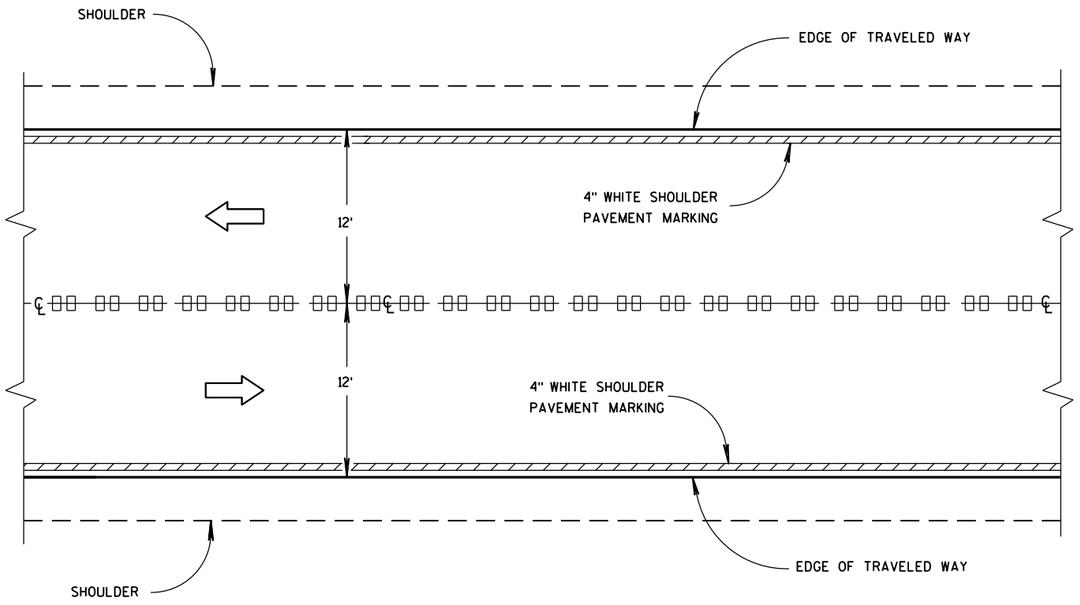
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

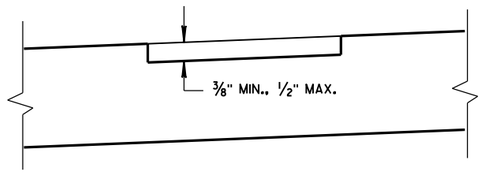
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



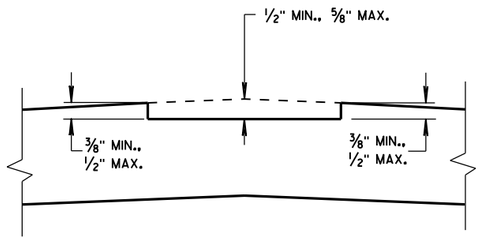
ISOMETRIC



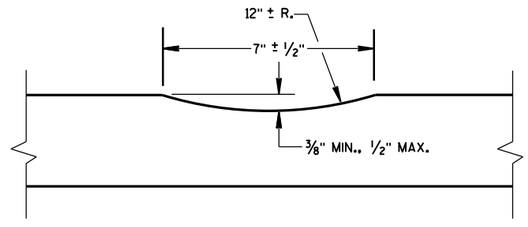
CENTER LINE GROOVES ON TWO-WAY ROADWAYS



SECTION B-B
SUPERELEVATED ROADWAY



SECTION B-B
CROWNED ROADWAY



SECTION A-A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

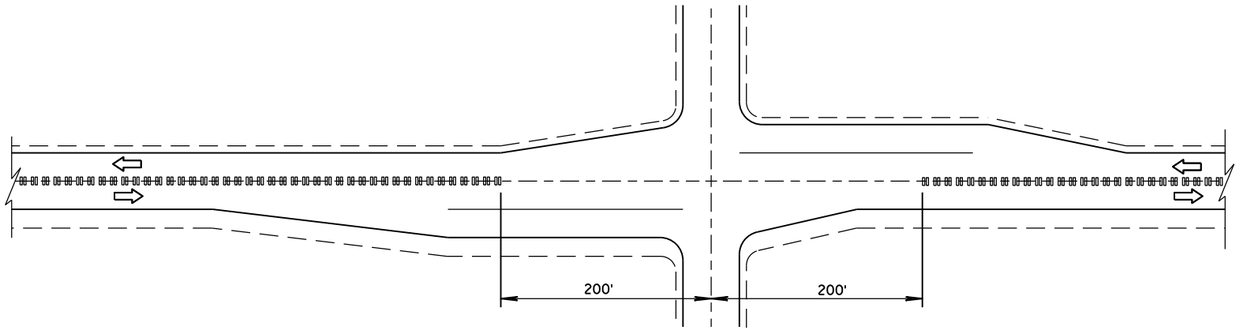
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

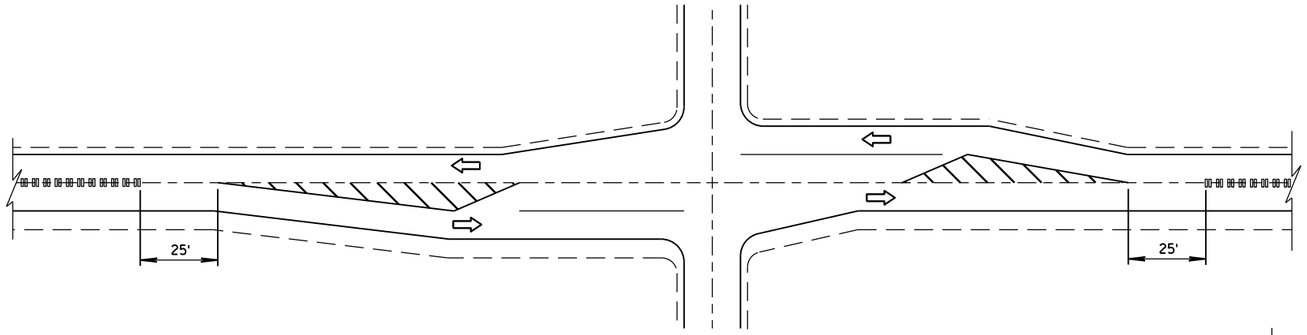
S.D.D. 13 A 11-2a

6

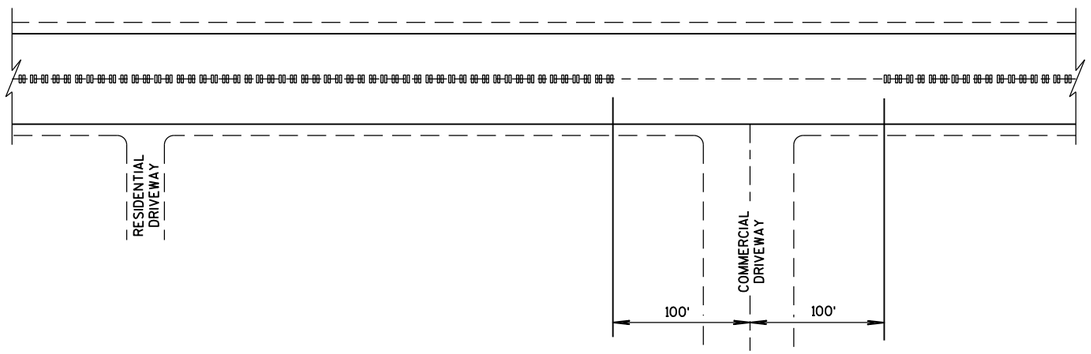
S.D.D. 13 A 11-2a



CENTER LINE GROOVES AT INTERSECTIONS

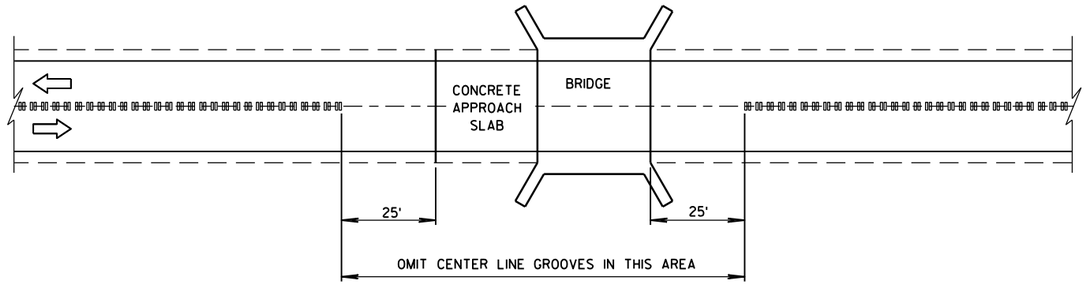


CENTER LINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)

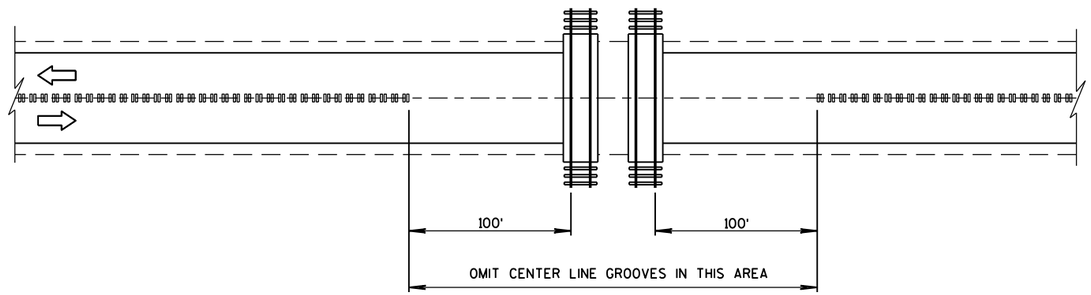


CENTER LINE GROOVES AT DRIVEWAYS (1)

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.



CENTER LINE GROOVES AT BRIDGES



CENTER LINE GROOVES AT RAILROADS

6

S.D.D. 13 A 11-2b

6

S.D.D. 13 A 11-2b

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

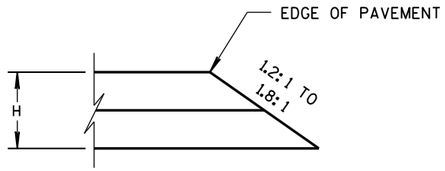
APPROVED

5/15/2013
DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

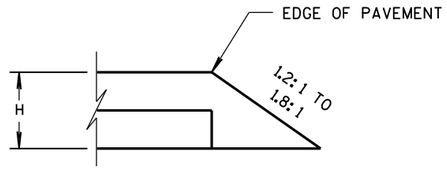
NT

FHWA



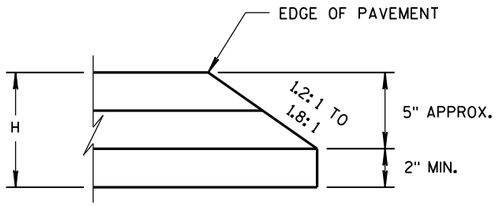
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



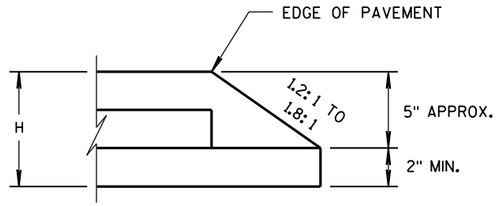
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

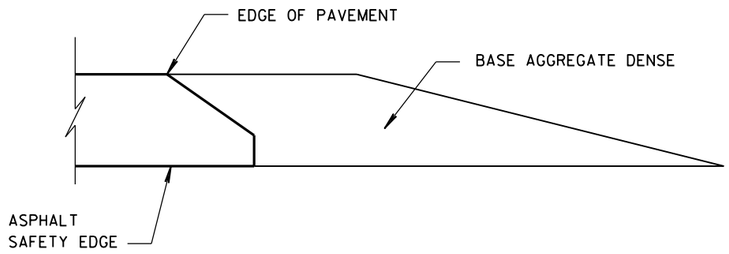
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

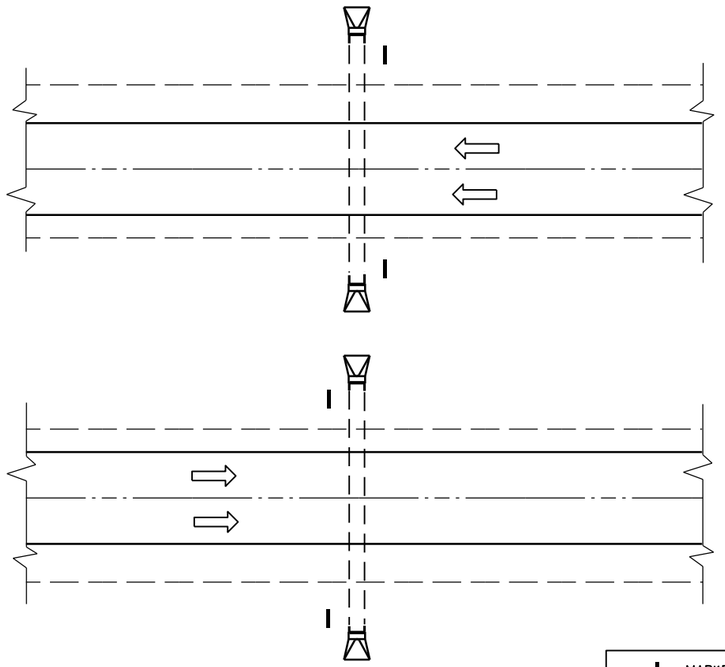
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

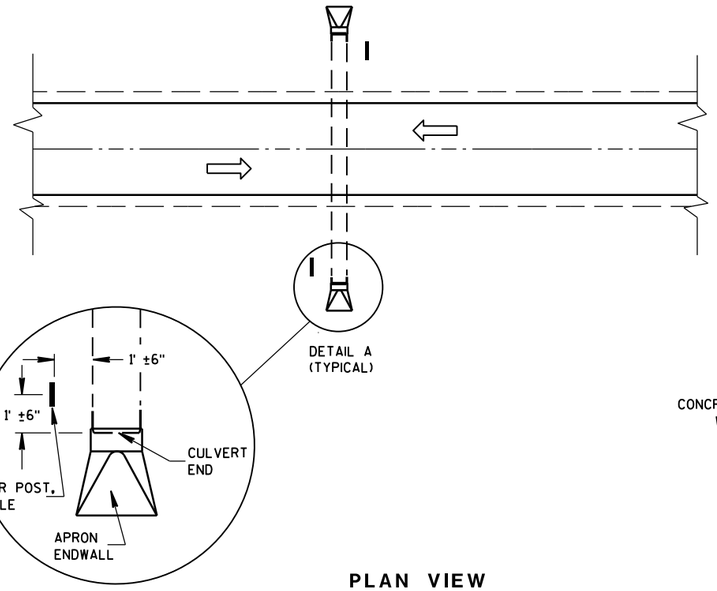
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

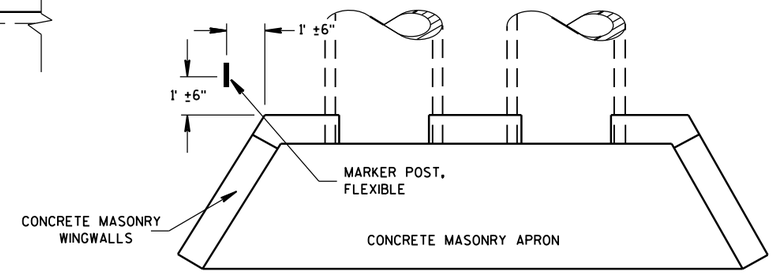
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

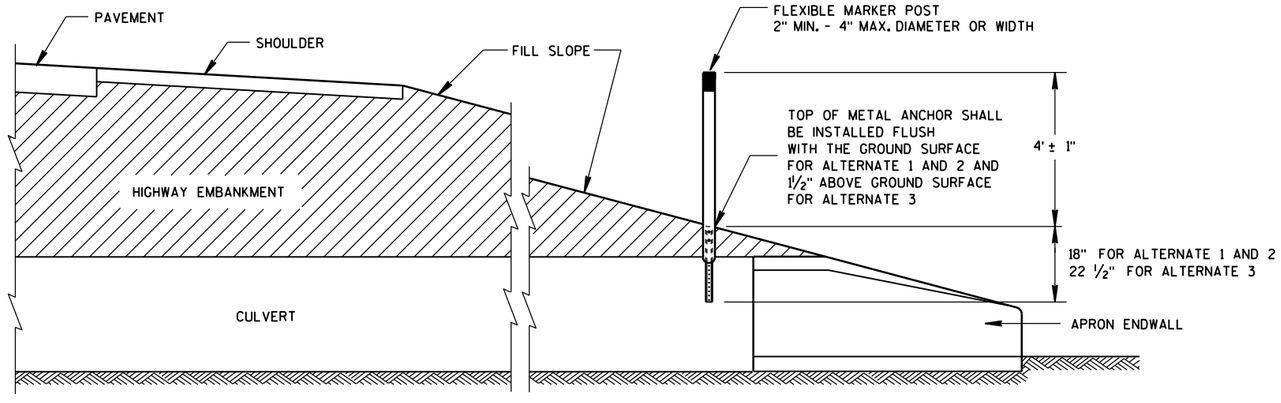
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

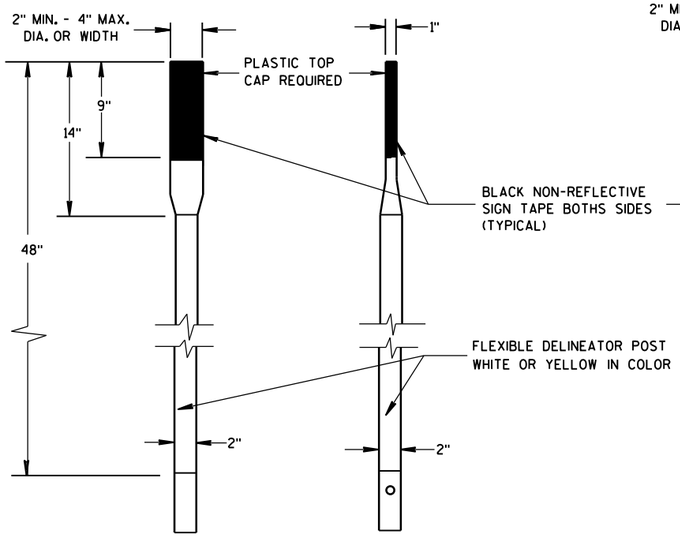
FLEXIBLE MARKER POST

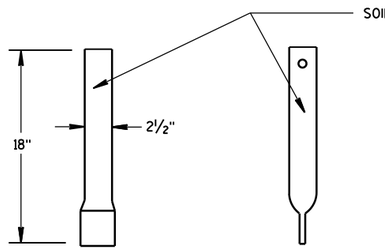
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

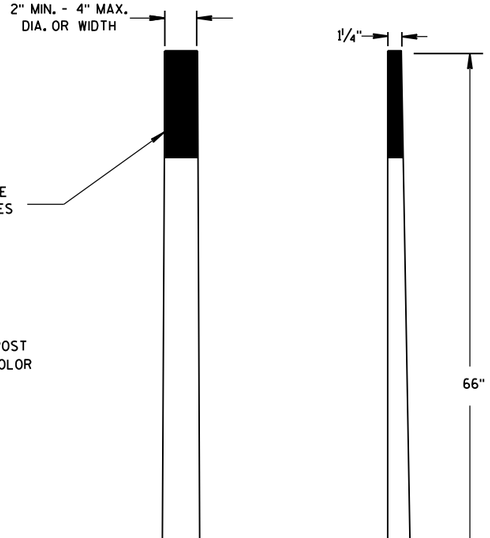
S.D.D. 15 A 3-2a





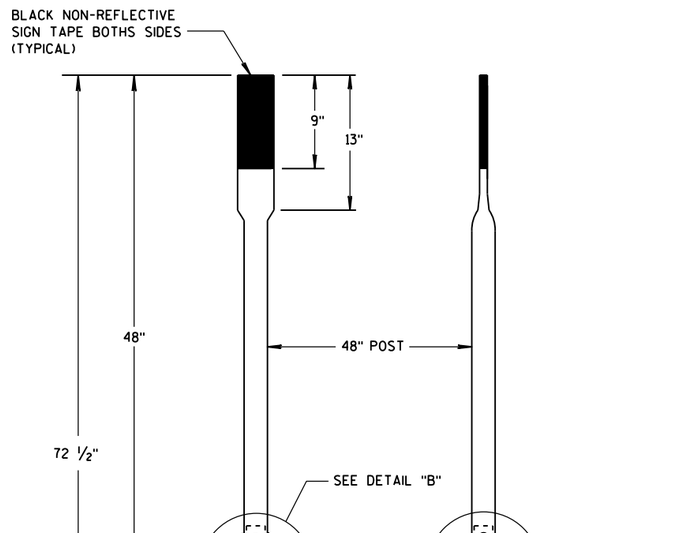
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

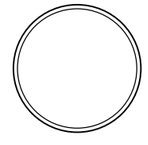
ALTERNATE 2



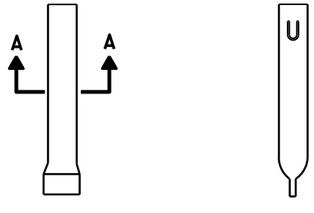
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

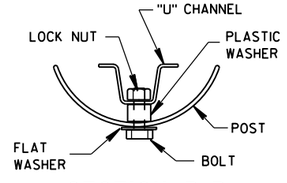


SECTION A-A

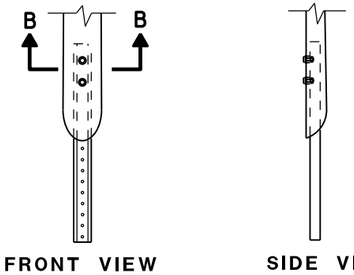


FRONT VIEW SIDE VIEW

ALTERNATE 1

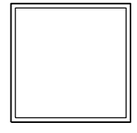


SECTION B-B

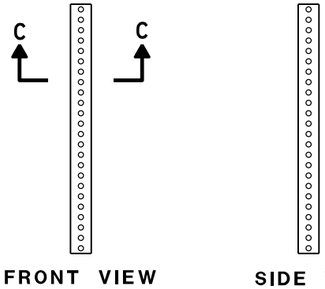


FRONT VIEW SIDE VIEW

ALTERNATE 2



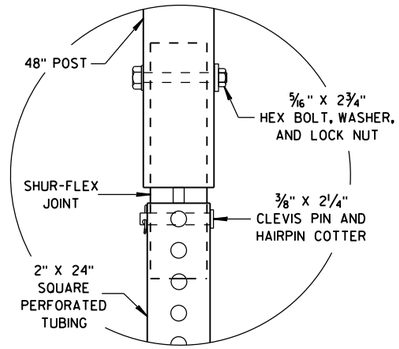
SECTION C-C



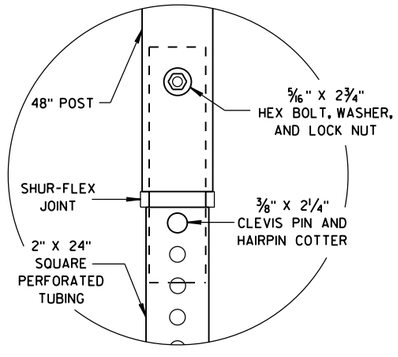
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

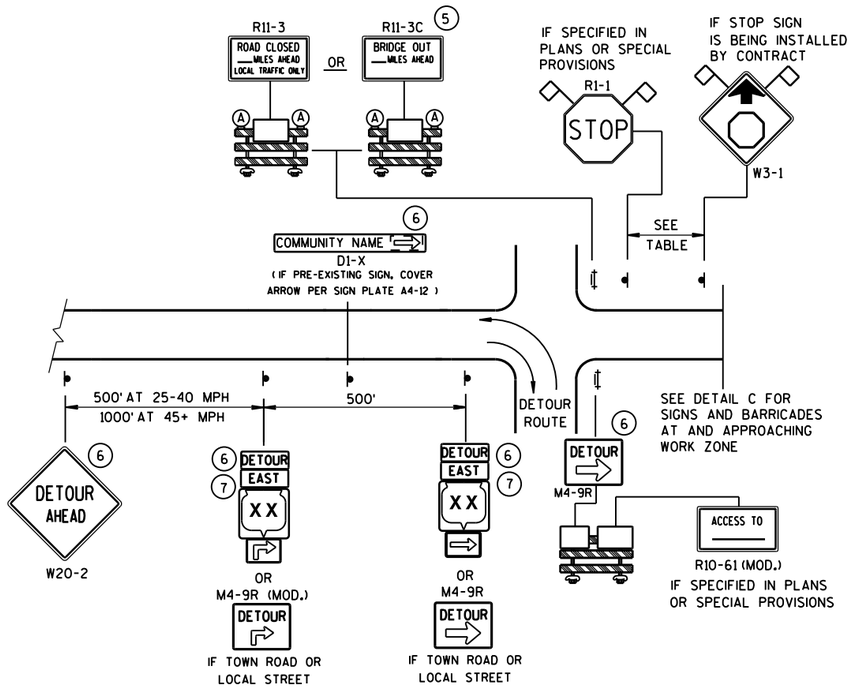
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

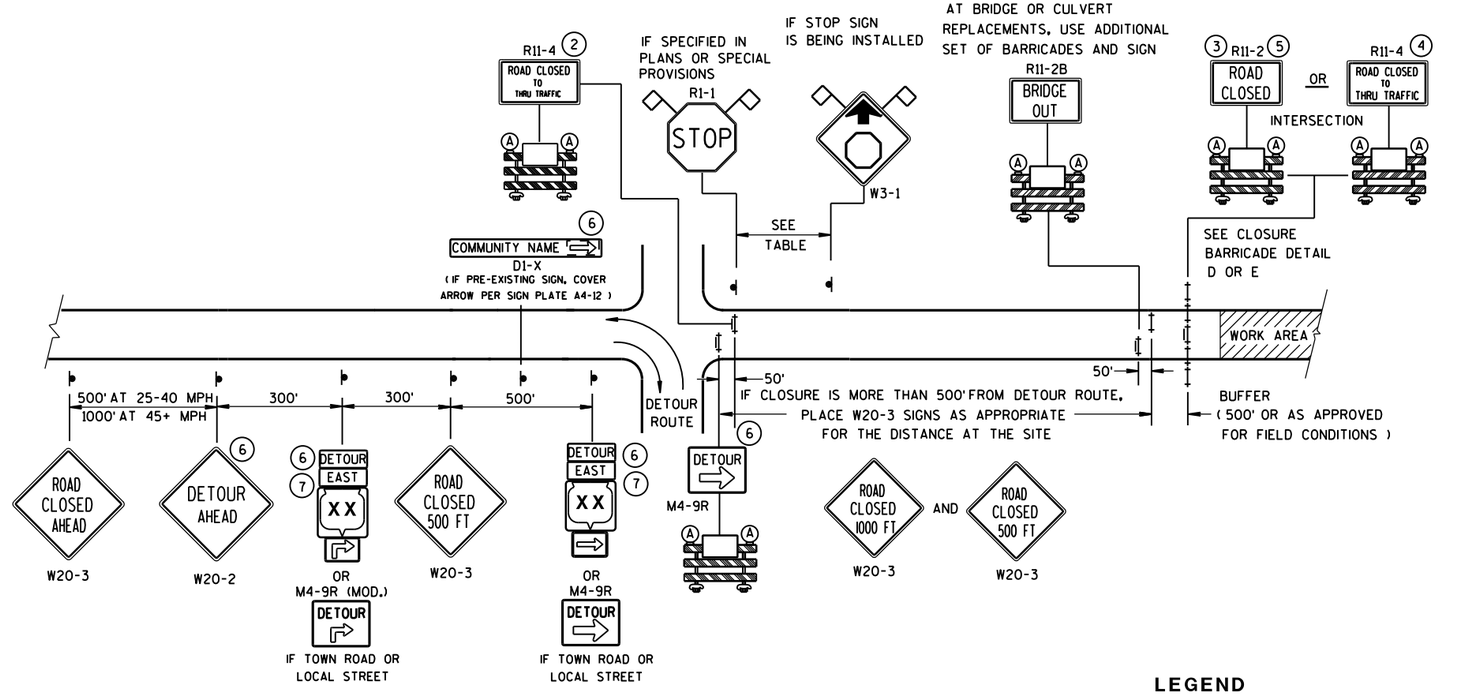
6

S.D.D. 15 A 3-2b



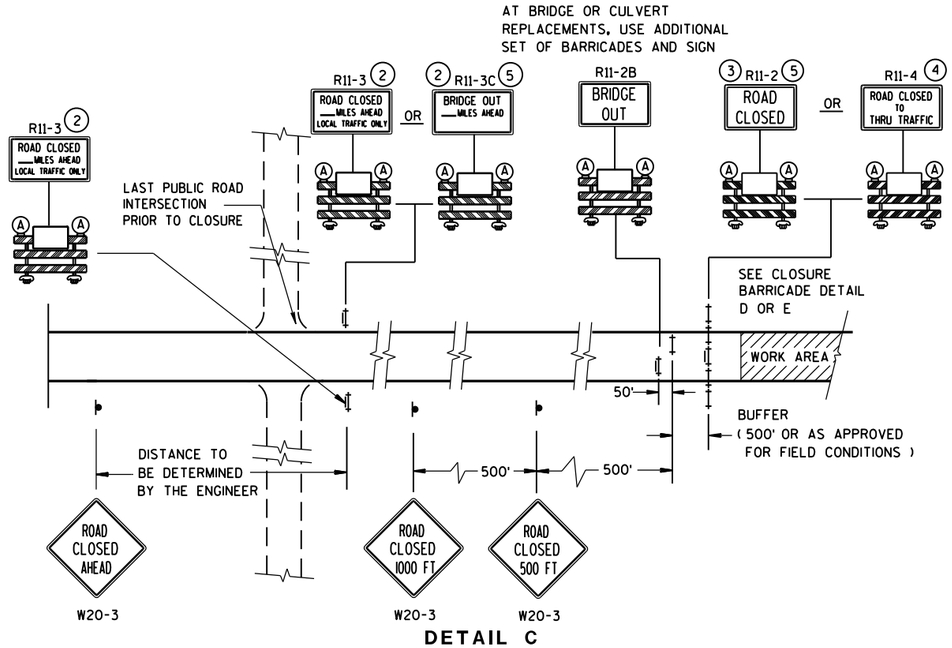
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

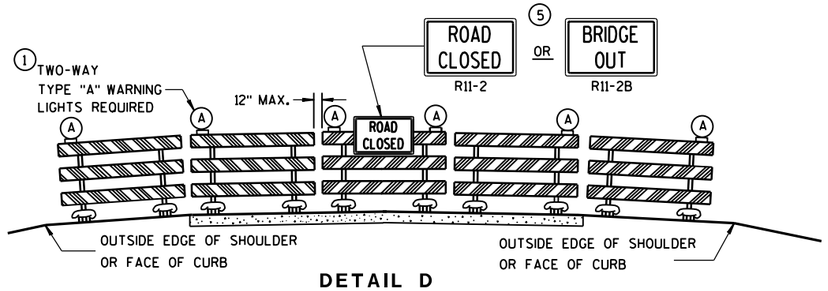
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — DESIGN

FHWA

6

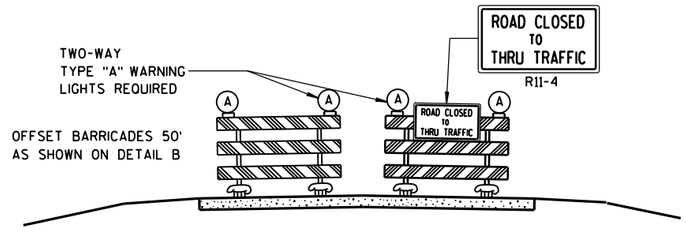
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

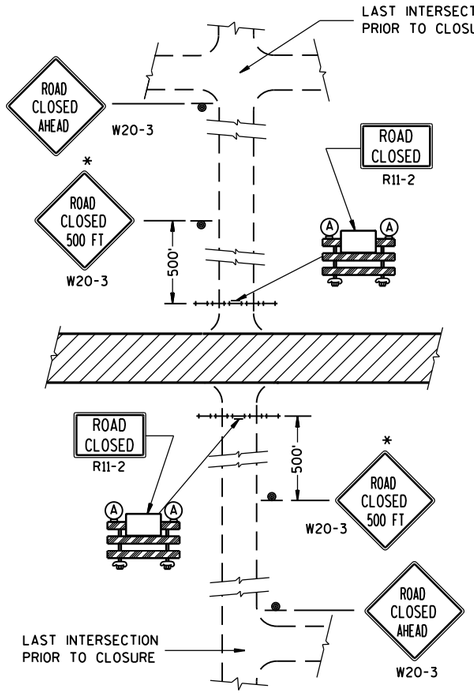
8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

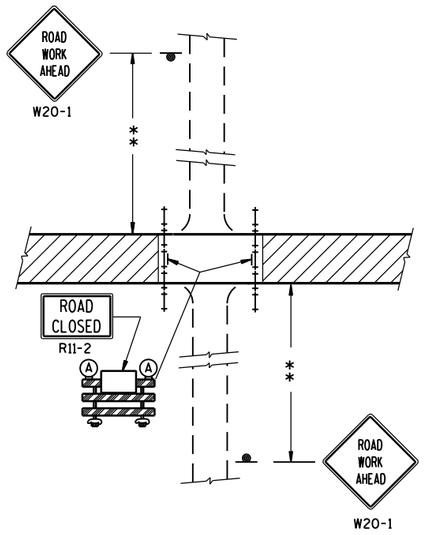
6

S.D.D. 15 C 2-5b



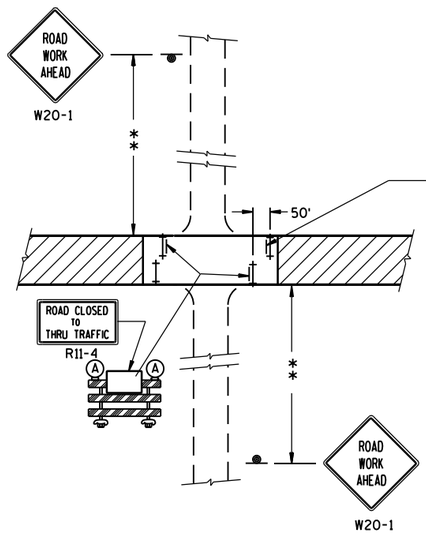
DETAIL 1

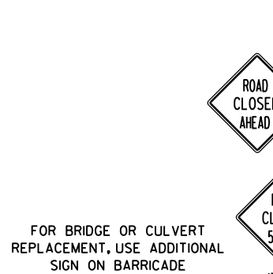
(NO ACCESS TO PROJECT)



DETAIL 2

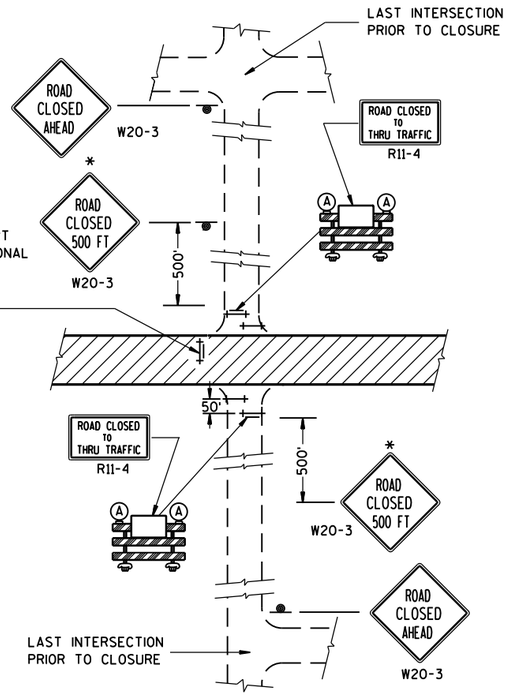
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

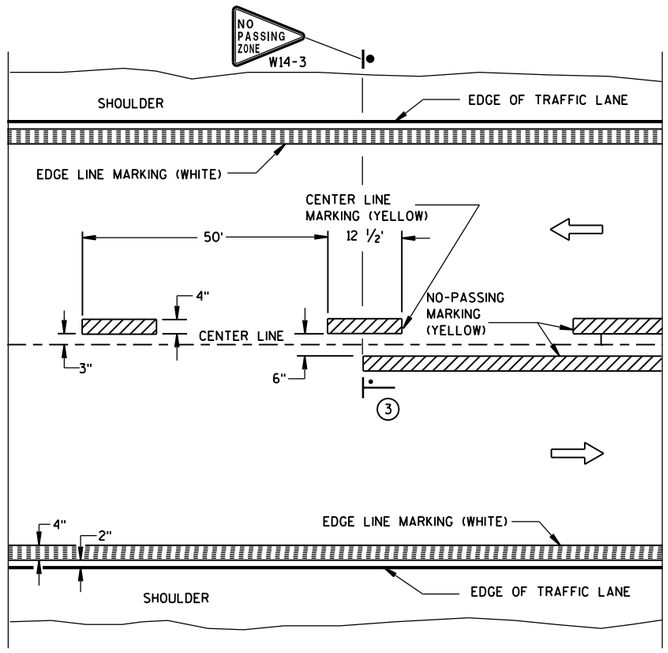
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

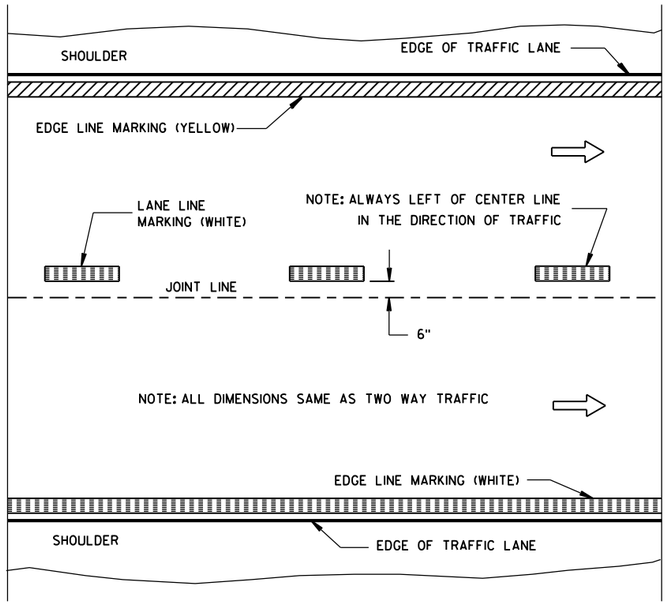
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 3-2

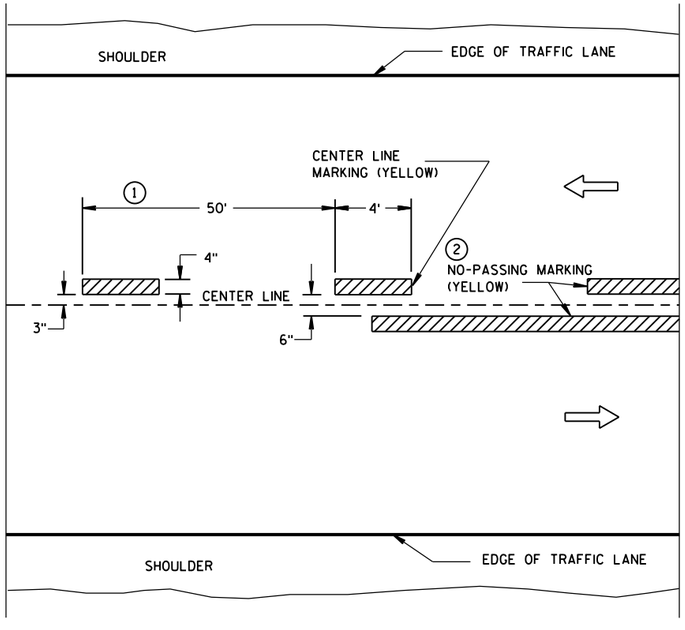


TWO WAY TRAFFIC

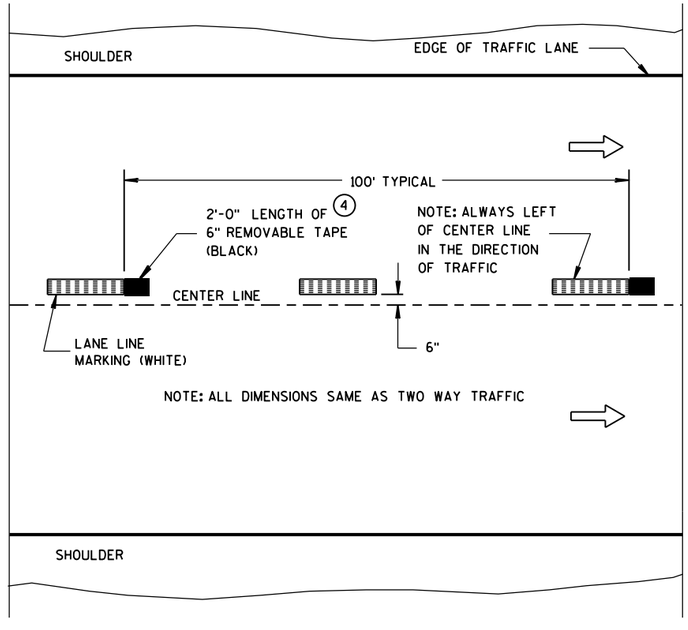


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

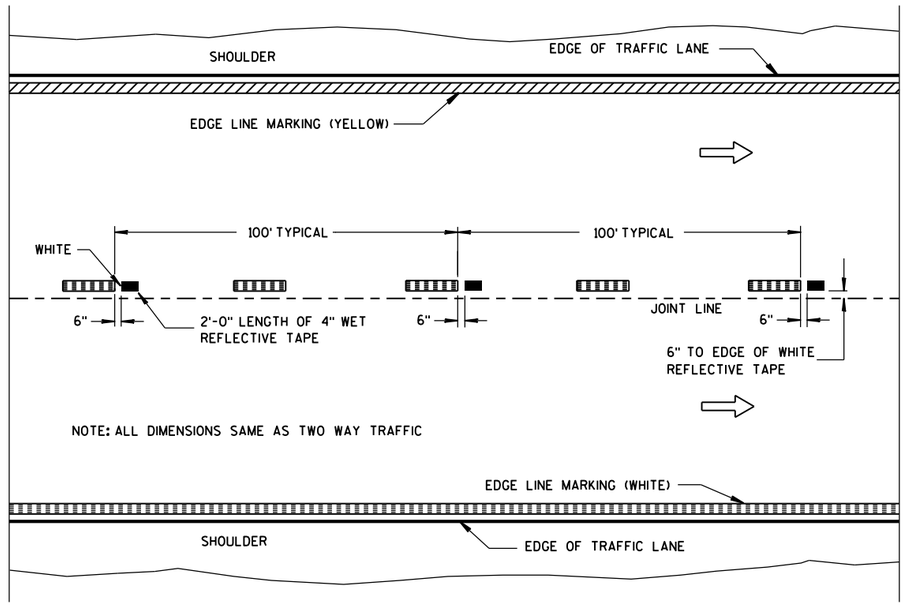
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 DATE

/S/ Travis Feltes STATE TRAFFIC E

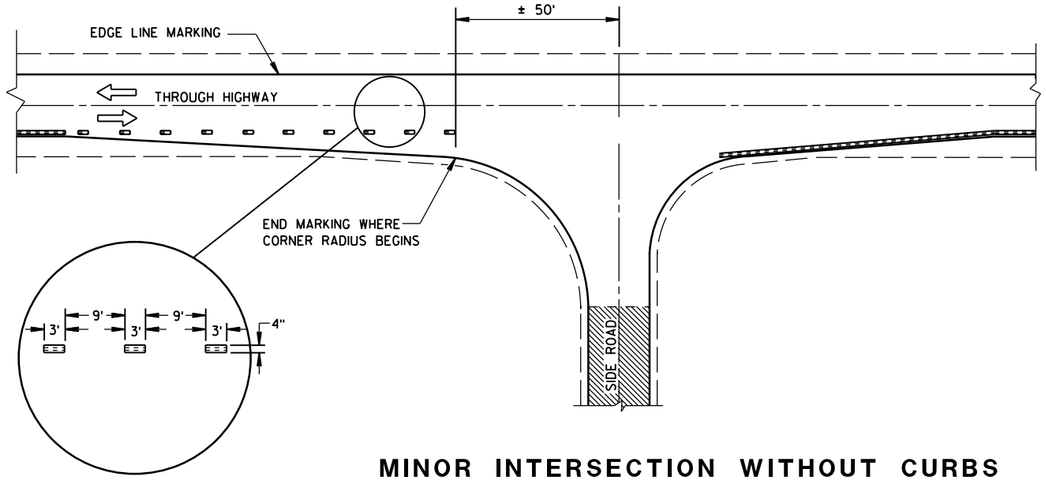
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

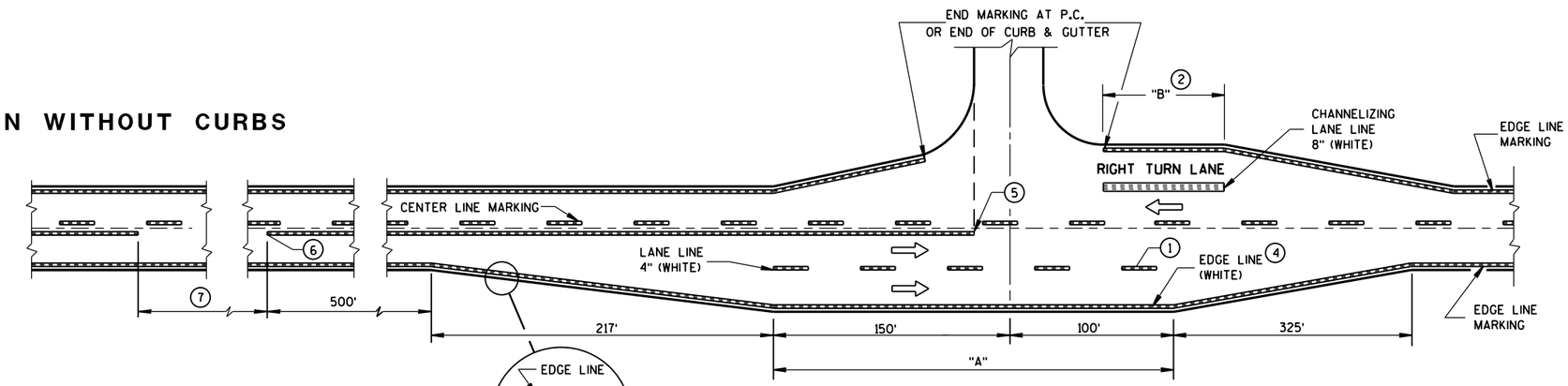
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

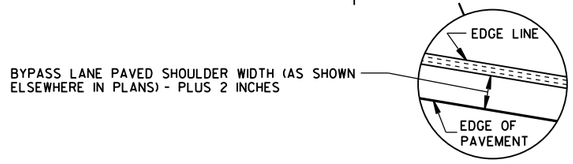
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

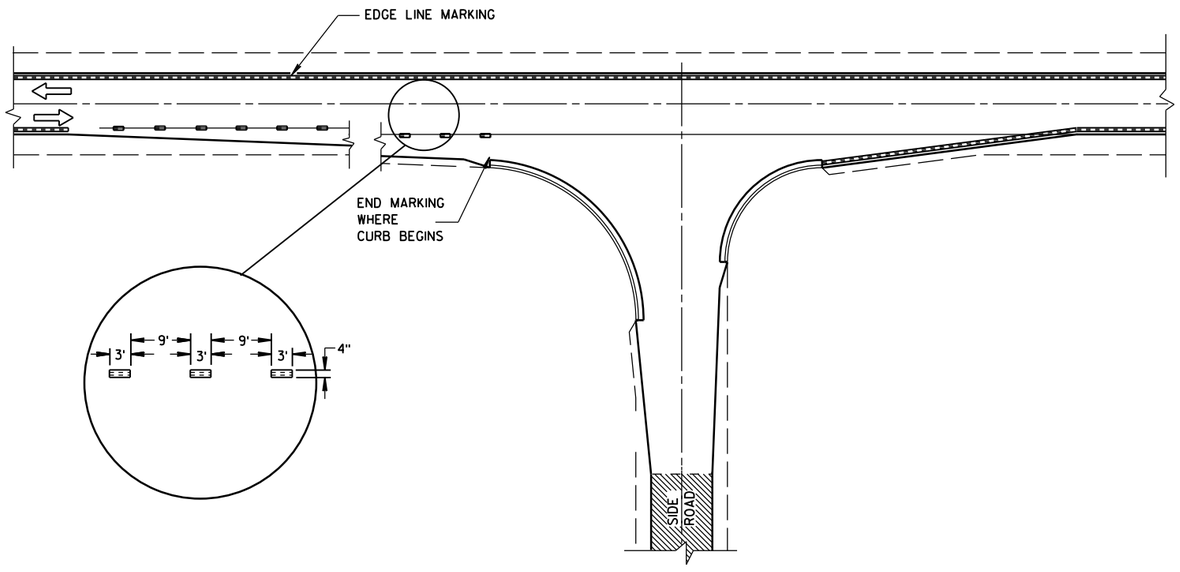
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





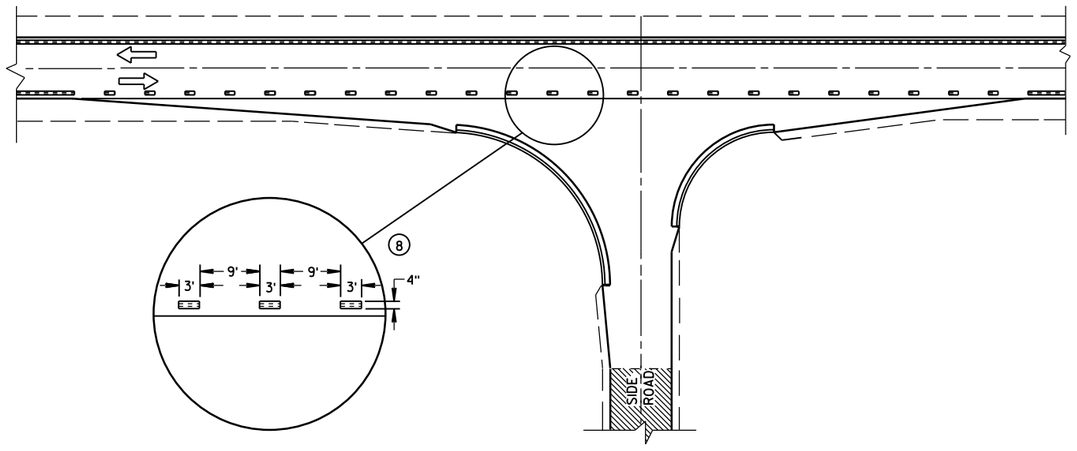
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

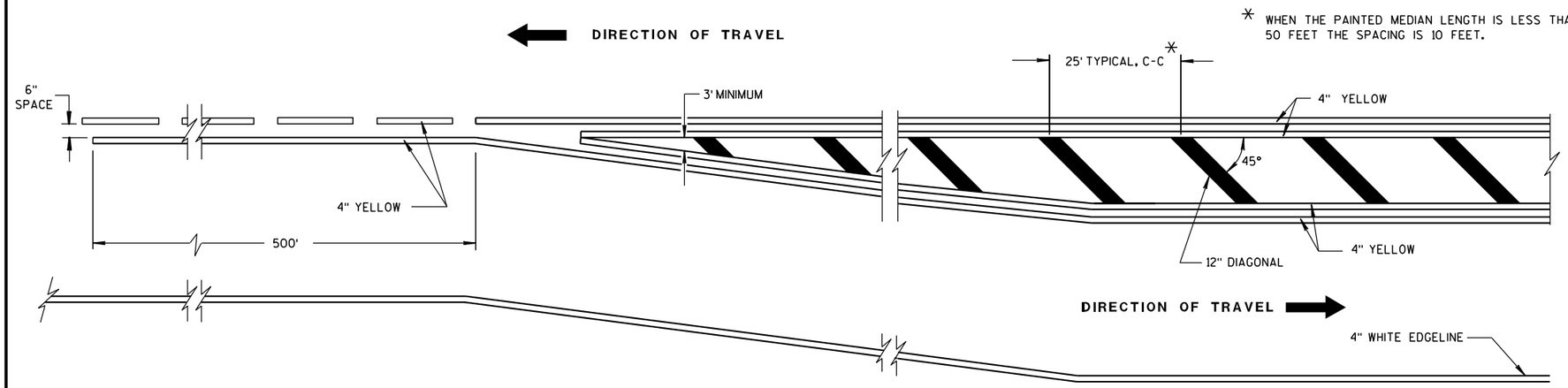
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

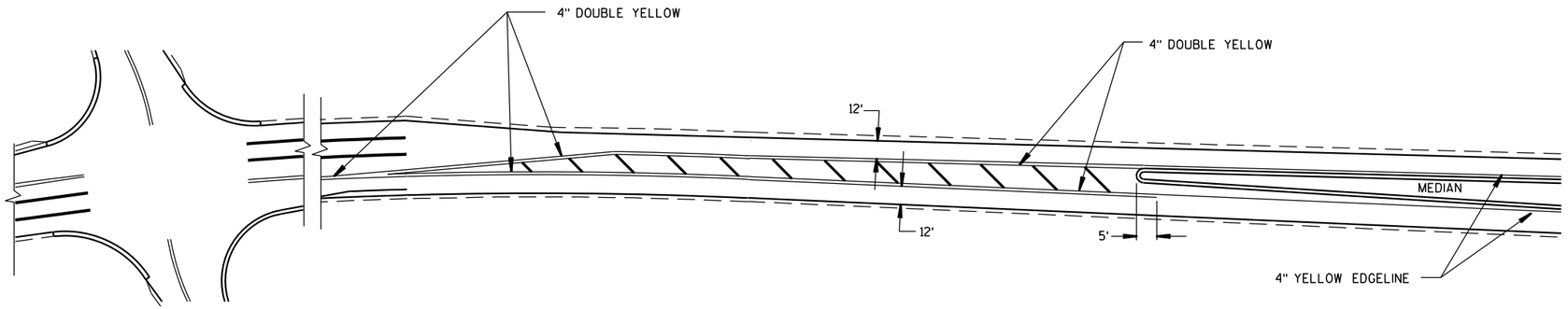
S.D.D. 15 C 8-16b



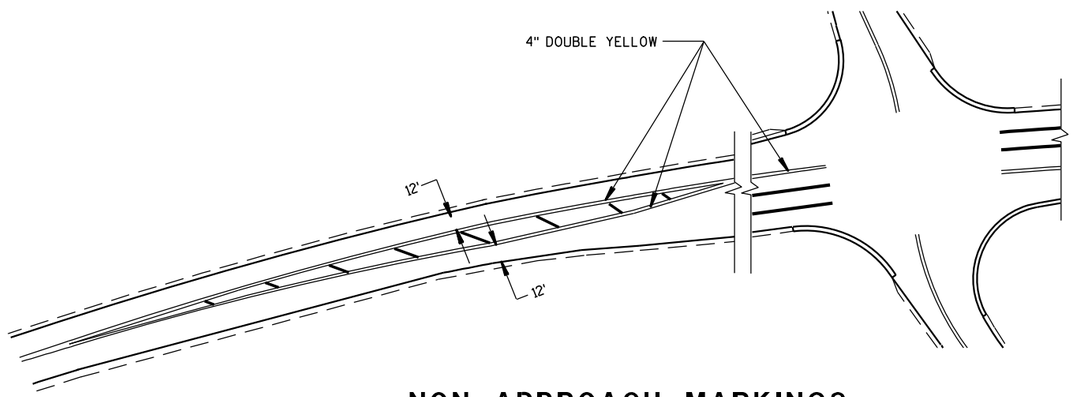
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	

6

S.D.D. 15 C 18-3

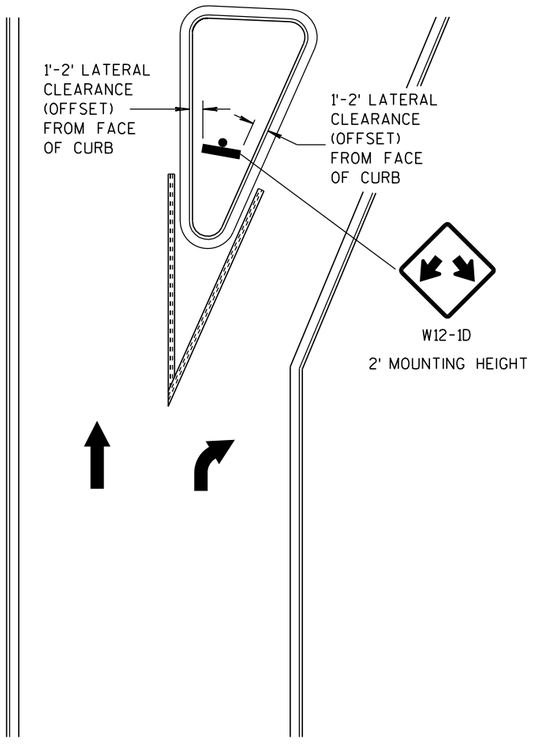
6

S.D.D. 15 C 18-3

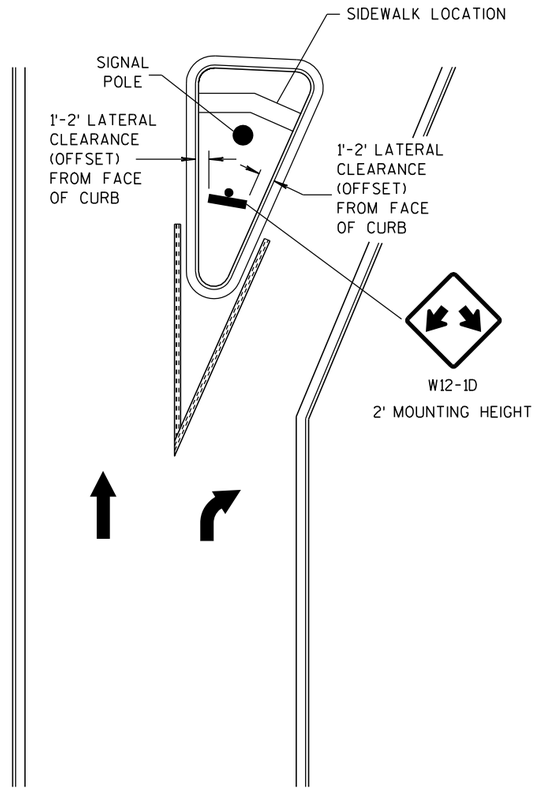
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

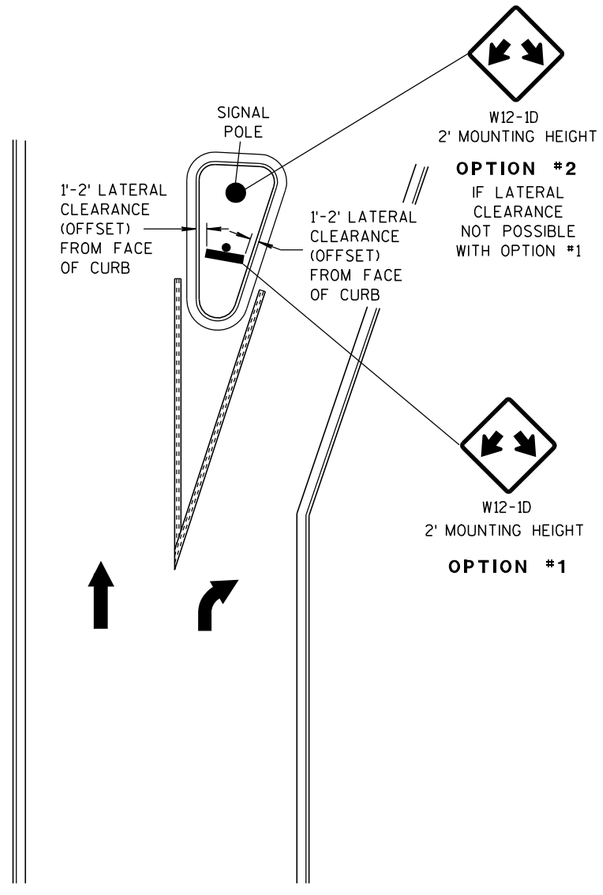
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



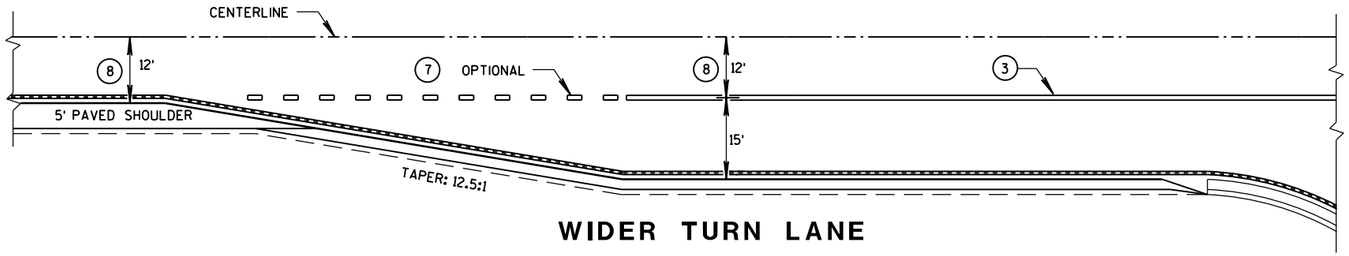
LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



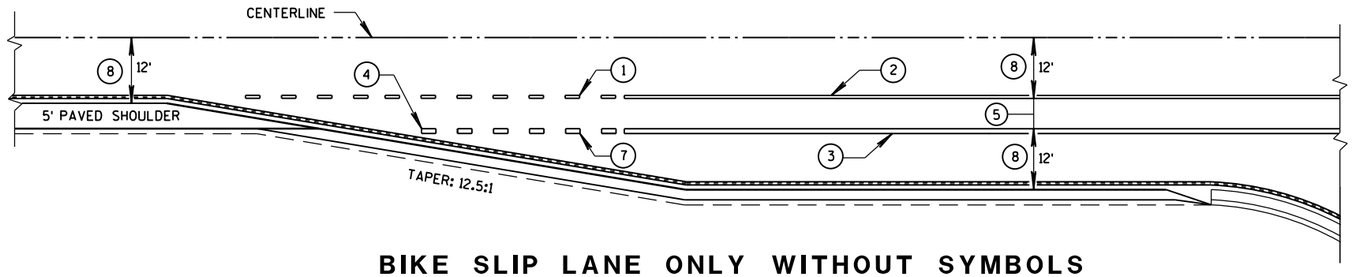
SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

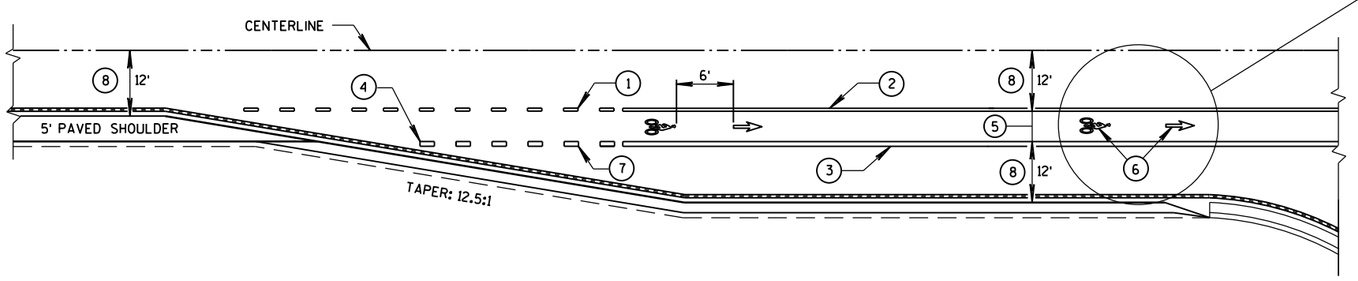
DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA	118 IGN



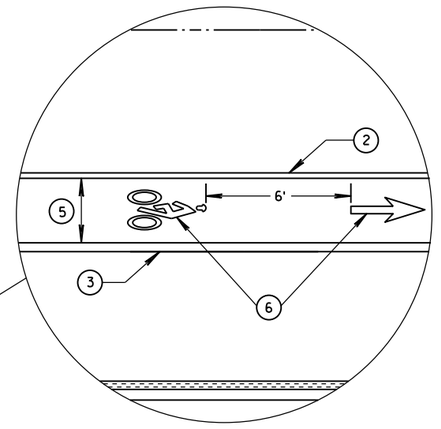
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

6

S.D.D. 15 C 29-3a

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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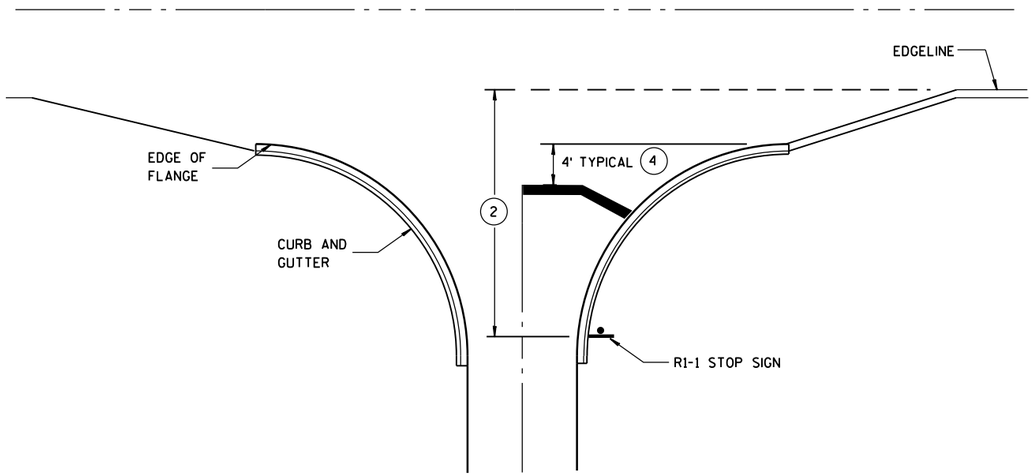
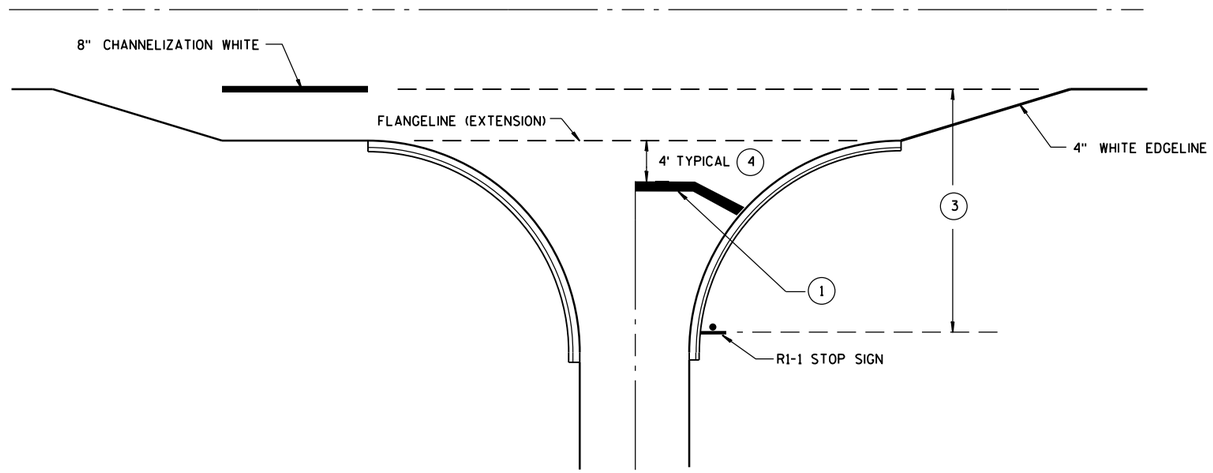
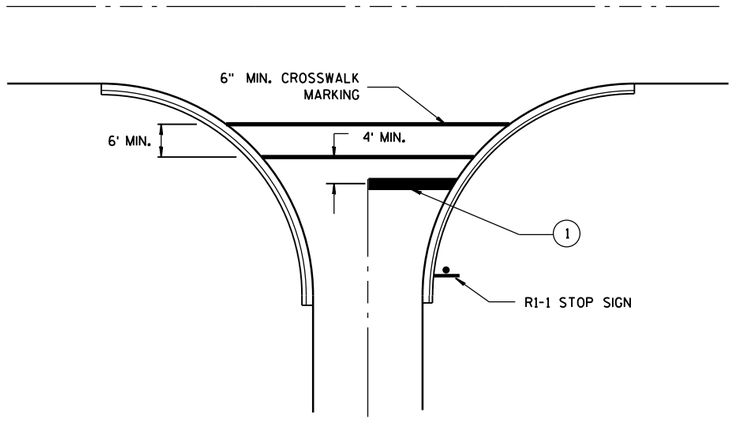
S.D.D. 15 C 29-3a



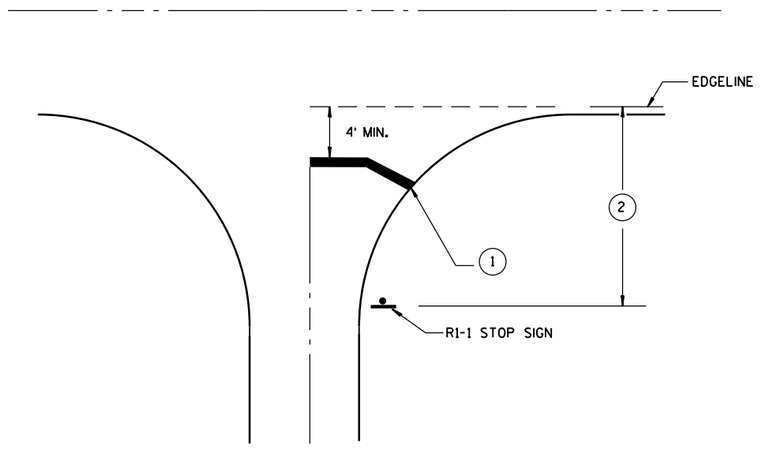
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

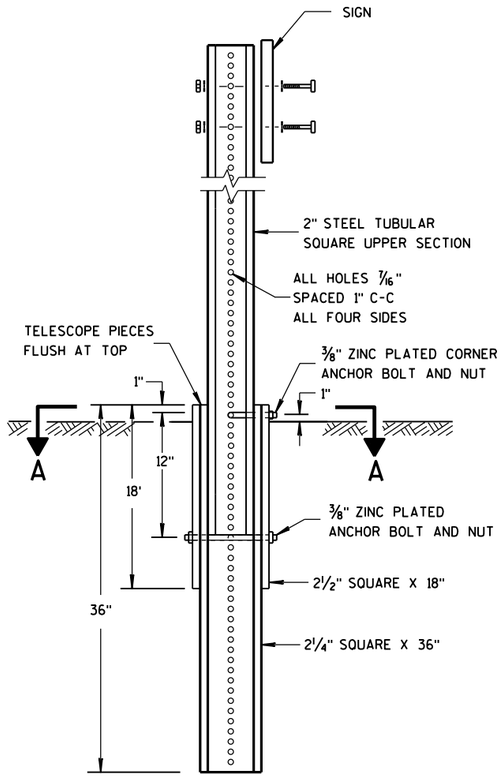
4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

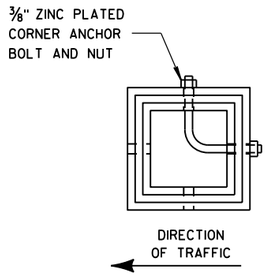
FHWA

6

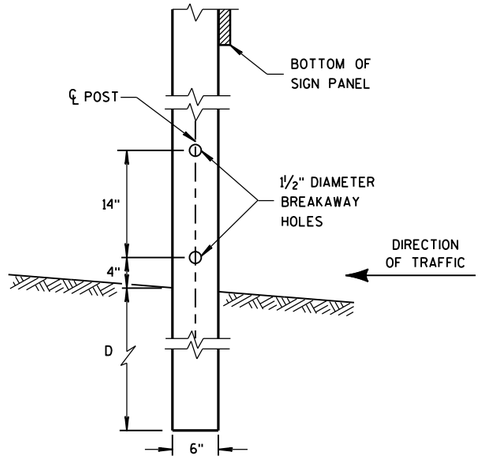
S.D.D. 15 C 33-1



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



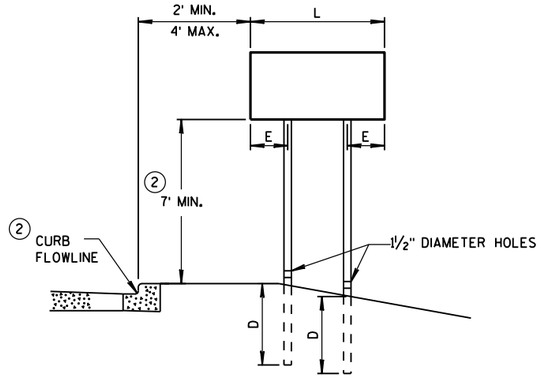
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

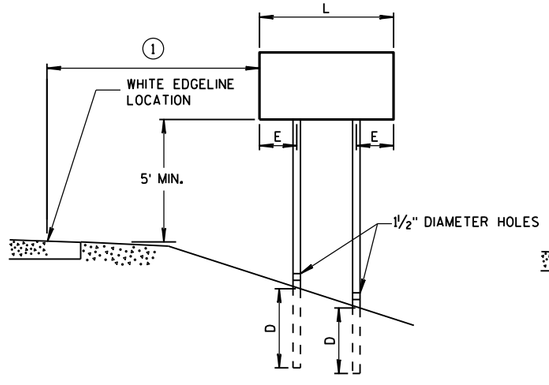
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

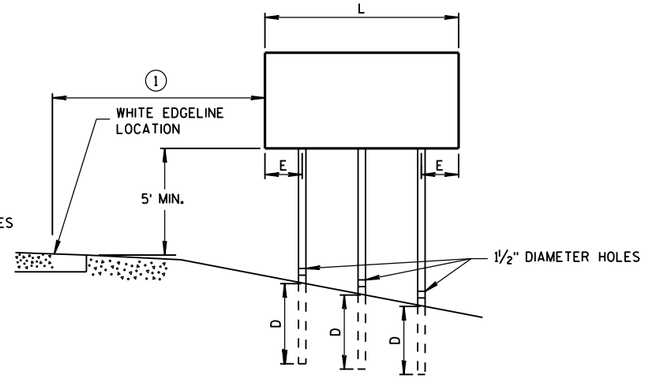
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

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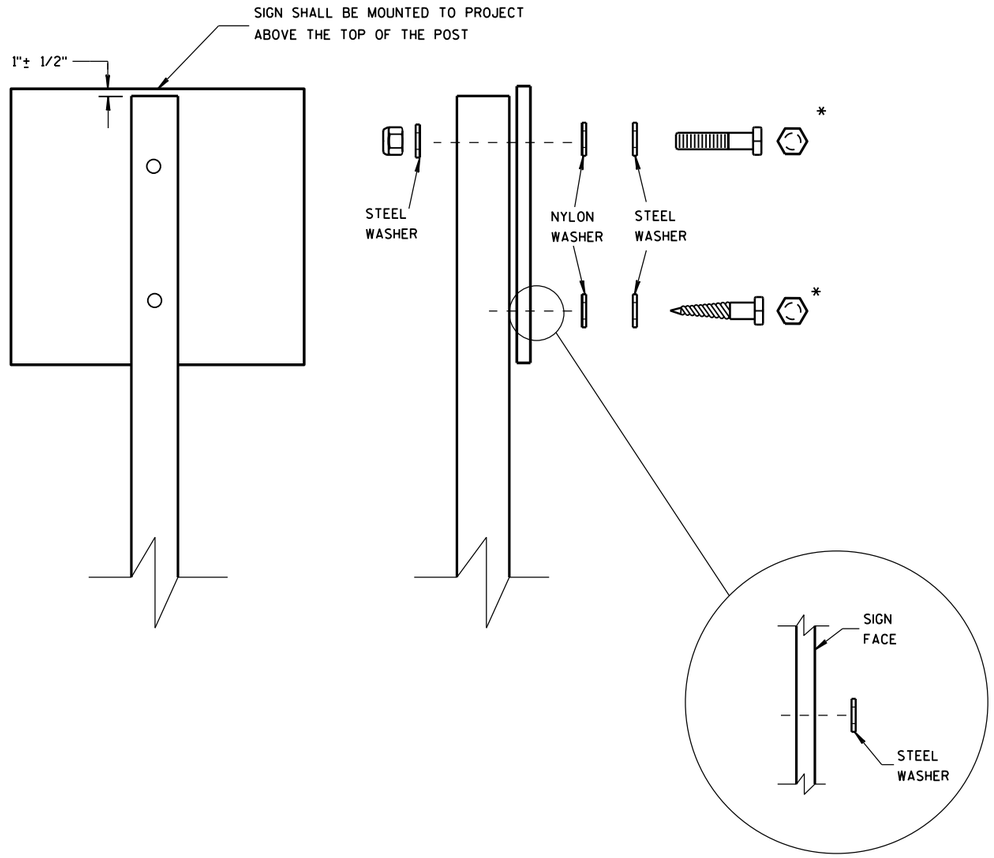
S.D.D. 15 D 38-1a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

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S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

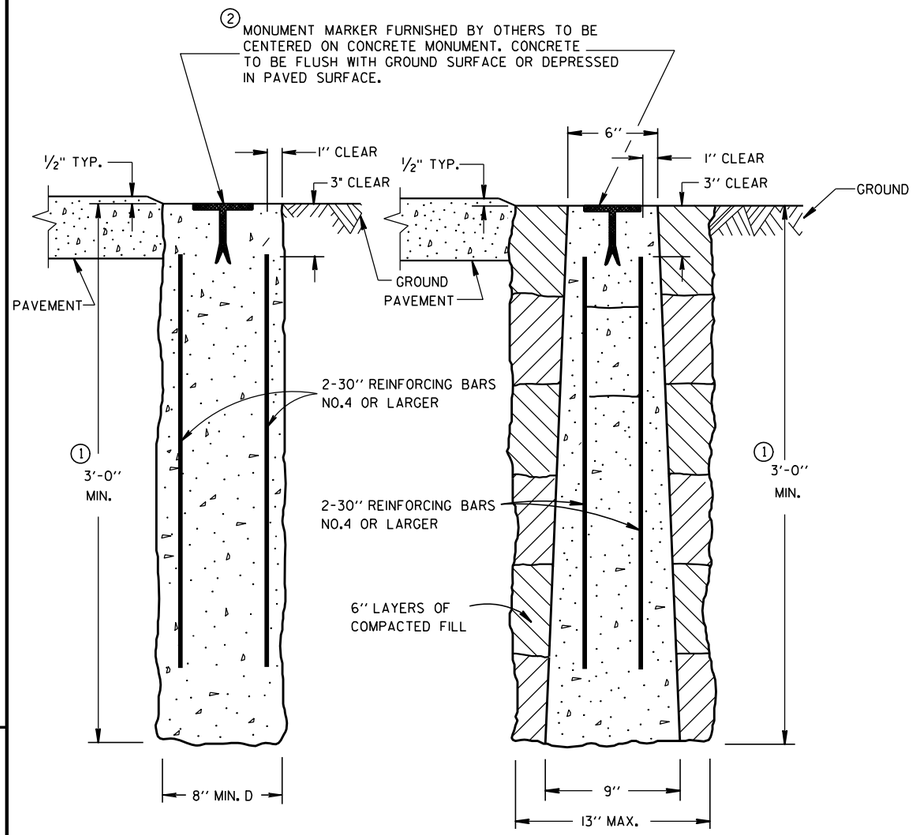
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

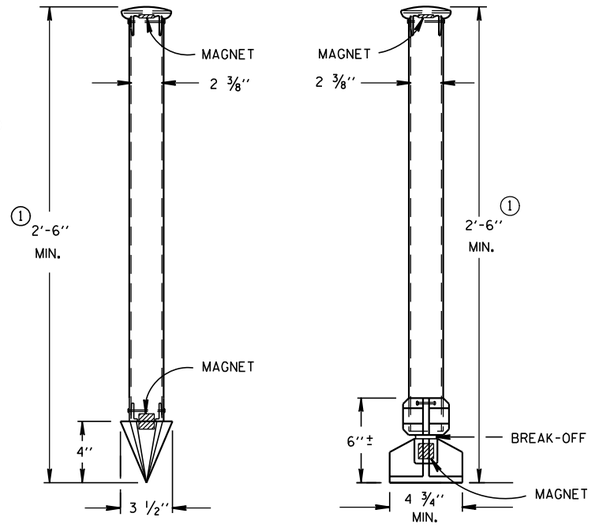
SIGN



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C TYPE D

DRIVE-IN MONUMENT BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

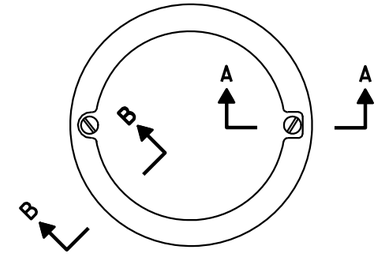
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

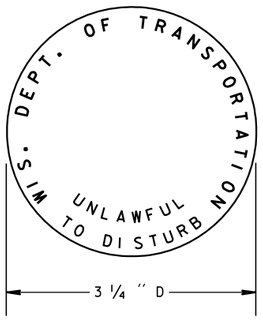
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.

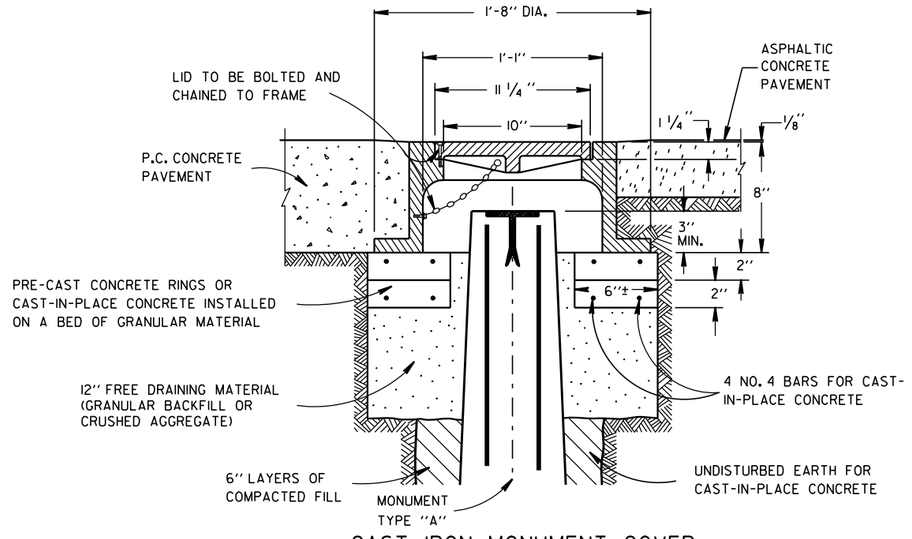


TOP VIEW



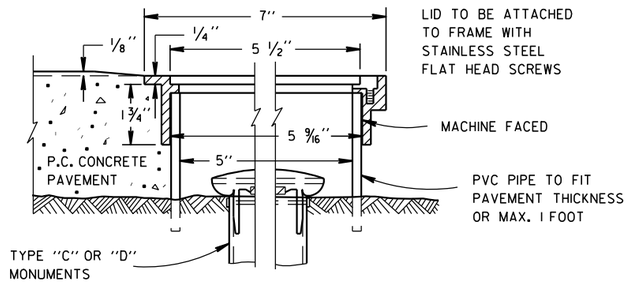
② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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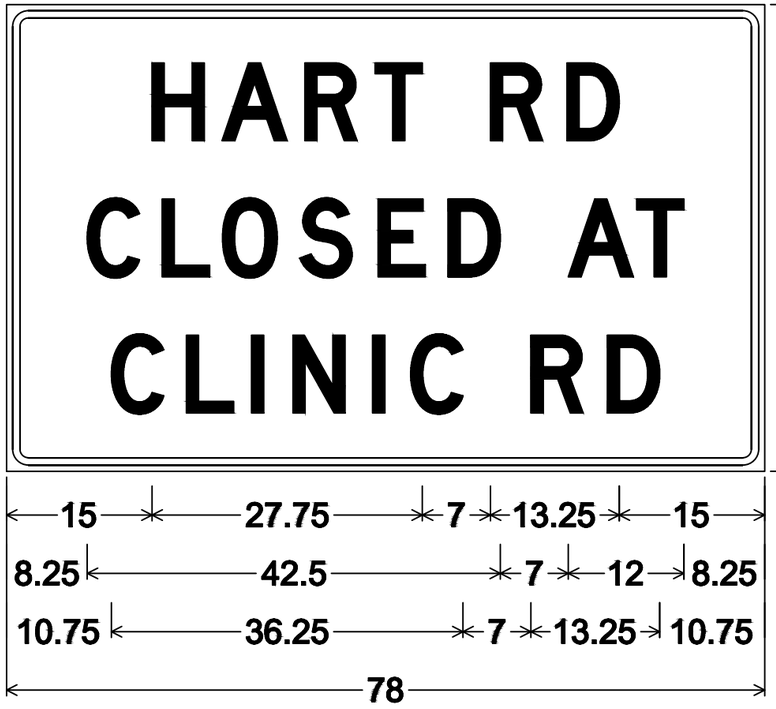
S.D.D. 16 A 1-6

6

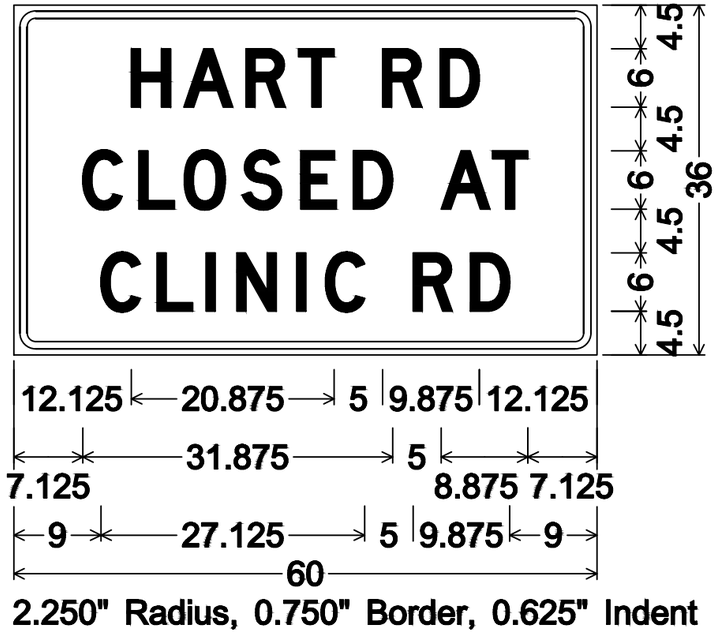
S.D.D. 16 A 1-6



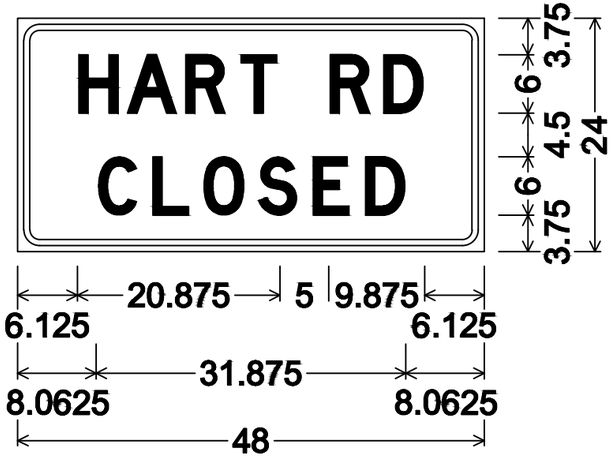
2.250" Radius, 0.750" Border, 0.625" Indent

NOTES

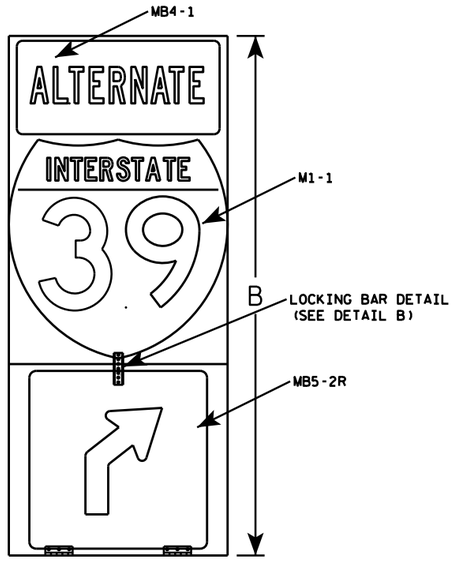
1. Signs are Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



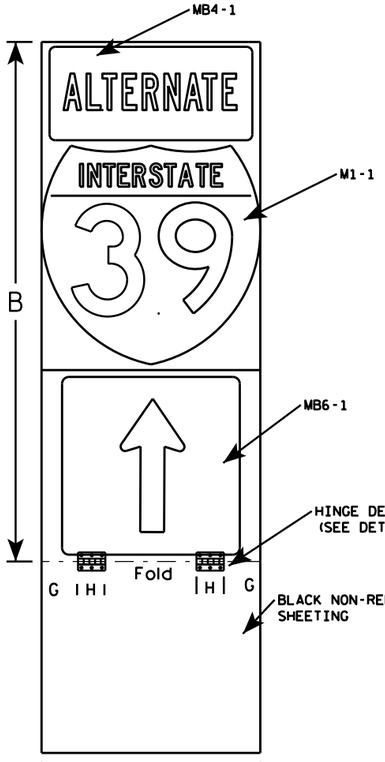
2.250" Radius, 0.750" Border, 0.625" Indent



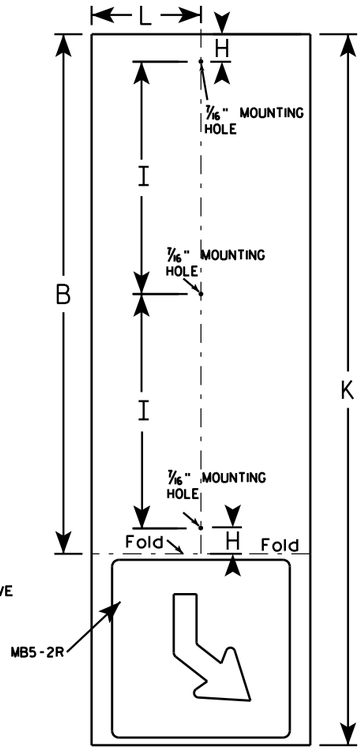
2.250" Radius, 0.750" Border, 0.625" Indent



(CLOSED POSITION)



(OPEN POSITION)

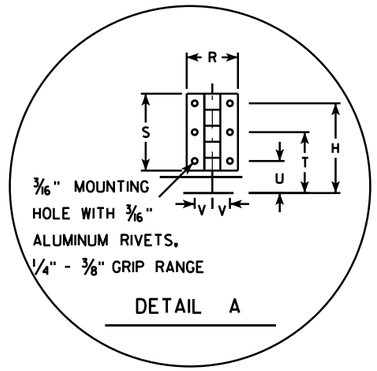


(OPEN POSITION)
(BACK VIEW)

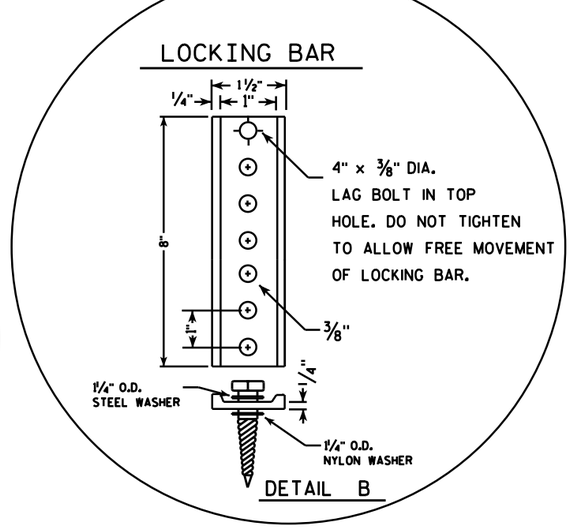
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - *
   Message - *
3. Message Series - C
4. Sign Base Material shall be aluminum and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Channel material shall be as specified in Section 633 of STD. Specs and weight shall be approx. 1.4 lbs/ft.

* See Appropriate Route Shield, Cardinals, Arrow, and A2-1S Sign Plates.



DETAIL A



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	57					4	3	25 1/2		78	12						2	3	2 5/8	1 1/4	11/16					13.0
3	36	84					6	3	39		114	18						2	3	2 5/8	1 1/4	11/16					28.5
4																											
5																											

JV-F (MOD)

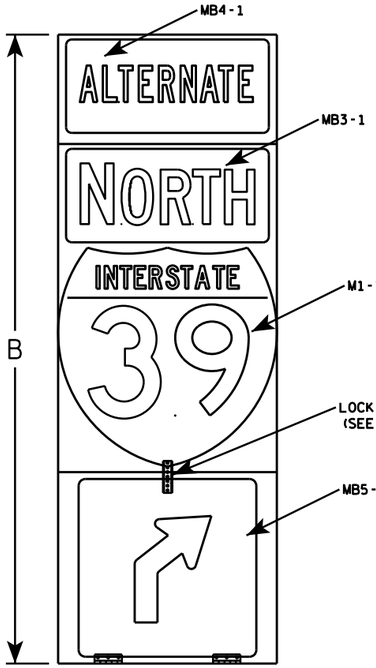
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

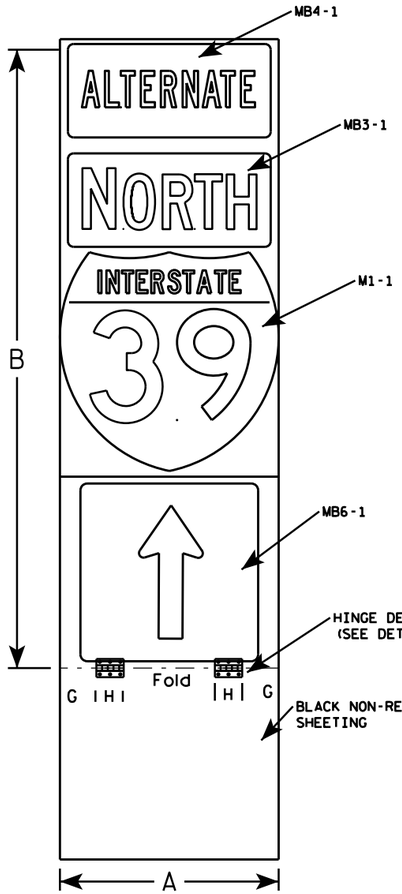
State Traffic Engineer

DATE 8/3/15 PLAT 125

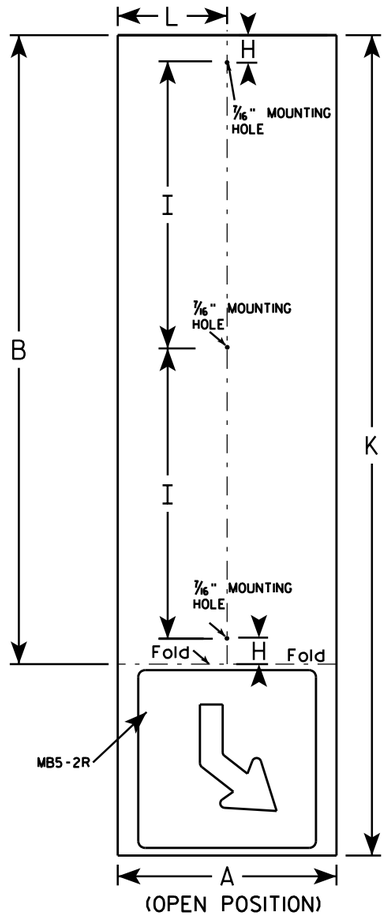
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



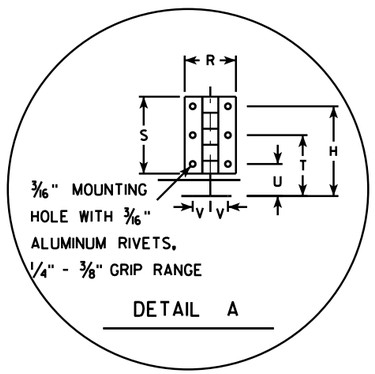
(CLOSED POSITION)



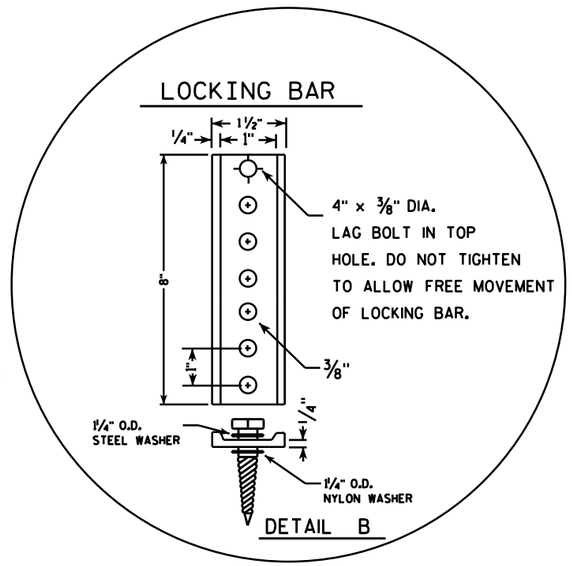
(OPEN POSITION)



(OPEN POSITION)
(BACK VIEW)



DETAIL A



DETAIL B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - *
   Message - *
3. Message Series - C
4. Sign Base Material shall be aluminum for Size 2 and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Channel material shall be as specified in Section 633 of STD. Specs and weight shall be approx. 1.4 lbs/ft.

* See Appropriate Route Shield, Cardinals, Arrow, and A2-1S Sign Plates.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	69					4	3	31 1/2		90	12						2	3	2 5/8	1 1/4	11/16					15.0
3	36	102					6	3	48		132	18						2	3	2 5/8	1 1/4	11/16					33.0
4																											
5																											

JV-F (MOD)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 7/30/15 PLAT 126

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

PROJECT ID 3621-00-76

DIVISION 1 - Hart Rd STA. 81+76'HR' - STA. 108+00'HR'

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
81+76'HR' AH	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82+00'HR'	23.84	68.62	5.34	0.00	30.30	2.36	0.00	30.30	2.36	0.00	27.94
82+17'HR'	17.49	167.98	6.02	0.00	76.62	3.68	0.00	106.92	6.04	0.00	100.88
82+59'HR'	41.33	168.60	0.00	94.67	257.63	4.61	72.46	364.55	10.64	72.46	353.90
83+00'HR'	41.18	83.07	0.26	53.25	191.92	0.20	112.80	556.46	10.84	185.26	545.62
83+03'HR'	2.57	47.17	1.38	56.29	6.19	0.08	5.20	562.65	10.92	190.46	551.73
83+21'HR'	18.26	55.01	3.85	62.32	34.54	1.77	40.10	597.20	12.69	230.56	584.51
83+50'HR'	29.18	34.12	11.14	55.46	48.16	8.10	63.64	645.36	20.79	294.20	624.57
84+00'HR'	50.00	18.26	32.96	62.84	48.50	40.83	109.54	693.86	61.62	403.74	632.23
84+50'HR'	50.00	22.54	44.54	42.15	37.78	71.76	97.21	731.63	133.38	500.95	598.25
84+65'HR'	15.03	24.91	46.56	76.37	13.21	25.36	32.99	744.84	158.74	533.94	586.10
84+96'HR'	30.79	41.52	34.53	58.67	37.88	46.24	77.00	782.72	204.98	610.94	577.74
85+00'HR'	4.18	37.79	35.12	51.50	6.14	5.39	8.53	788.86	210.37	619.47	578.49
85+50'HR'	50.00	17.72	69.25	49.42	51.40	96.64	93.44	840.26	307.00	712.91	533.25
86+00'HR'	50.00	16.26	82.73	121.09	31.46	140.72	157.88	871.72	447.73	870.79	423.99
86+40'HR'	40.10	12.90	99.17	125.13	21.65	135.06	182.82	893.37	582.79	1053.61	310.58
86+50'HR'	9.90	13.53	102.27	124.70	4.85	36.95	45.82	898.22	619.74	1099.43	278.48
86+71'HR'	20.82	15.42	103.42	123.92	11.16	79.30	95.86	909.38	699.04	1195.29	210.34
86+78'HR'	6.71	16.12	100.38	123.13	3.92	25.32	30.70	913.30	724.37	1225.99	188.93
86+91'HR'	13.95	17.14	95.38	124.62	8.60	50.59	64.03	921.89	774.95	1290.02	146.94
86+91'HR'	0.00	17.14	95.38	124.69	0.00	0.01	0.01	921.90	774.96	1290.03	146.93
87+00'HR'	8.51	18.29	93.48	103.00	5.59	29.77	35.89	927.48	804.74	1325.92	122.75
87+15'HR'	15.00	18.79	112.22	118.19	10.30	57.14	61.44	937.78	861.87	1387.36	75.91
87+33'HR'	17.82	19.28	87.23	116.55	12.56	65.82	77.46	950.34	927.69	1464.82	22.65
87+74'HR'	41.33	17.87	61.97	111.88	28.44	114.20	174.85	978.78	1041.89	1639.67	-63.11
87+94'HR'	19.55	10.85	61.32	121.84	10.40	44.63	84.61	989.18	1086.53	1724.28	-97.35
88+00'HR'	6.30	21.58	61.38	118.97	3.78	14.31	28.09	992.96	1100.84	1752.37	-107.88
88+15'HR'	15.49	24.44	40.41	165.86	13.20	29.19	81.68	1006.16	1130.03	1834.05	-123.87
88+34'HR'	18.64	47.52	28.47	150.00	24.84	23.78	109.05	1031.00	1153.81	1943.10	-122.81
88+74'HR'	39.87	30.11	10.64	132.10	57.32	28.88	208.29	1088.32	1182.68	2151.39	-94.37
89+00'HR'	26.00	56.08	2.13	122.66	41.50	6.15	122.66	1129.82	1188.83	2274.05	-59.02
90+00'HR'	100.00	77.97	0.00	111.21	248.24	3.94	433.09	1378.06	1192.78	2707.14	185.28
91+00'HR'	100.00	88.67	0.00	86.03	308.59	0.00	365.26	1686.65	1192.78	3072.40	493.87
92+00'HR'	100.00	98.97	0.00	79.27	347.48	0.00	306.11	2034.13	1192.78	3378.51	841.36
93+00'HR'	100.00	56.65	0.20	106.30	288.19	0.37	343.65	2322.32	1193.15	3722.16	1129.17
94+00'HR'	100.00	26.04	1.32	0.00	153.13	2.81	196.85	2475.45	1195.96	3919.01	1279.48
95+00'HR'	100.00	19.83	23.18	0.00	84.94	45.37	0.00	2560.39	1241.33	3919.01	1319.06
95+34'HR'	34.00	18.41	42.24	0.00	24.08	41.19	0.00	2584.47	1282.52	3919.01	1301.95
96+00'HR'	66.00	36.44	8.60	0.00	67.04	62.14	0.00	2651.51	1344.66	3919.01	1306.85
97+00'HR'	100.00	121.40	0.00	0.00	292.30	15.93	0.00	2943.80	1360.59	3919.01	1583.22
97+22'HR'	22.06	146.88	0.00	0.00	109.60	0.00	0.00	3053.40	1360.59	3919.01	1692.81
98+00'HR'	77.94	83.17	0.56	0.00	332.04	0.81	0.00	3385.44	1361.40	3919.01	2024.04
98+82'HR'	81.86	16.17	37.60	0.00	150.60	57.85	0.00	3536.04	1419.25	3919.01	2116.79
99+00'HR'	18.14	13.17	31.70	0.00	9.85	23.27	0.00	3545.89	1442.52	3919.01	2103.37
100+00'HR'	100.00	20.24	60.85	0.00	61.87	171.39	0.00	3607.76	1613.91	3919.01	1993.85

PROJECT ID 3621-00-76

DIVISION 1 - Hart Rd STA. 81+76'HR' - STA. 108+00'HR'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
101+00'HR'		100.00	41.52	37.40	0.00	114.37	181.94	0.00	3722.13	1795.85	3919.01	1926.28
102+00'HR'		100.00	72.61	7.99	0.00	211.35	84.06	0.00	3933.49	1879.91	3919.01	2053.58
103+00'HR'		100.00	109.33	0.49	66.67	336.93	15.70	123.46	4270.41	1895.61	4042.47	2374.80
104+00'HR'		100.00	58.40	0.34	87.07	310.61	1.54	284.70	4581.02	1897.15	4327.17	2683.87
104+13'HR'		12.58	55.62	0.54	81.06	26.56	0.20	39.16	4607.58	1897.36	4366.33	2710.23
105+00'HR'		87.42	27.21	1.42	103.81	134.10	3.17	299.29	4741.68	1900.53	4665.62	2841.15
105+22'HR'		22.27	9.41	4.19	98.93	15.10	2.31	83.60	4756.78	1902.84	4749.22	2853.94
106+00'HR'		77.74	9.19	21.21	96.91	26.78	36.57	281.93	4783.55	1939.41	5031.15	2844.15
107+00'HR'		100.00	11.35	35.08	76.81	38.04	104.24	321.69	4821.59	2043.64	5352.84	2777.95
108+00'HR'	BK	99.51	17.08	11.83	91.89	52.39	86.44	310.88	4873.98	2130.09	5663.72	2743.89
					Column totals	4873.98	2130.09	5663.73				

9

9

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	EARTHWORK DATA SHEET	SHEET 128	E

PROJECT ID 3621-00-76

DIVISION 1 - Hart Rd STA. 139+00'HR' - STA. 194+71'HR'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
139+00'HR'	AH	0.00	14.89	43.91	92.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140+00'HR'		100.00	16.55	65.02	96.95	58.22	201.72	351.06	58.22	201.72	351.06	-143.50
141+00'HR'		100.00	20.87	56.71	88.40	69.30	225.43	343.24	127.52	427.15	694.30	-299.63
142+00'HR'		100.00	19.94	34.54	93.96	75.57	168.98	337.70	203.09	596.13	1032.00	-393.04
143+00'HR'		100.00	28.07	25.27	92.93	88.91	110.76	346.09	292.00	706.89	1378.09	-414.89
144+00'HR'		100.00	26.17	15.63	97.20	100.44	75.74	352.09	392.44	782.63	1730.18	-390.19
144+50'HR'		50.00	46.77	5.79	97.81	67.54	19.83	180.56	459.98	802.46	1910.74	-342.48
145+00'HR'		50.00	46.59	1.72	83.39	86.44	6.95	167.78	546.43	809.42	2078.52	-262.99
146+00'HR'		100.00	36.45	4.89	85.89	153.78	12.24	313.48	700.20	821.66	2392.00	-121.45
146+13'HR'		12.52	34.05	4.98	91.04	16.35	2.29	41.03	716.55	823.95	2433.03	-107.39
147+00'HR'		87.48	21.79	33.44	94.21	90.46	62.24	300.09	807.01	886.18	2733.12	-79.17
147+13'HR'		12.65	18.50	44.44	94.99	9.44	18.24	44.31	816.45	904.43	2777.43	-87.98
148+00'HR'		87.35	25.14	83.25	114.00	70.59	206.56	338.07	887.04	1110.98	3115.50	-223.94
148+63'HR'		62.73	22.93	112.24	119.14	55.84	227.09	270.83	942.88	1338.07	3386.33	-395.19
148+64'HR'		1.39	23.43	111.86	119.59	1.19	5.75	6.12	944.07	1343.82	3392.45	-399.75
149+00'HR'		35.89	29.61	104.98	126.93	35.25	144.10	163.82	979.32	1487.92	3556.27	-508.60
149+21'HR'		20.88	36.76	91.15	142.39	25.66	75.83	104.13	1004.98	1563.75	3660.40	-558.77
149+94'HR'		72.69	25.63	127.68	115.04	83.98	294.57	346.53	1088.96	1858.32	4006.93	-769.36
150+00'HR'		6.43	24.92	131.94	115.38	6.02	30.92	27.44	1094.98	1889.24	4034.37	-794.26
150+05'HR'		4.95	24.51	134.66	115.72	4.53	24.43	21.18	1099.51	1913.67	4055.55	-814.16
150+53'HR'		47.78	24.40	165.37	115.53	43.28	265.48	204.62	1142.79	2179.15	4260.17	-1036.36
150+63'HR'		10.00	22.53	179.17	109.64	8.69	63.80	41.70	1151.48	2242.96	4301.87	-1091.47
150+77'HR'		14.44	23.87	221.21	102.02	12.41	107.06	56.60	1163.89	2350.02	4358.47	-1186.13
151+00'HR'		22.83	13.13	281.58	108.44	15.64	212.57	88.98	1179.53	2562.59	4447.45	-1383.06
151+35'HR'		34.63	43.24	52.95	110.00	36.15	214.54	140.09	1215.68	2777.13	4587.54	-1561.44
151+92'HR'		57.46	26.14	175.90	97.48	73.83	243.51	220.77	1289.51	3020.64	4808.31	-1731.13
152+00'HR'		7.91	35.09	167.06	99.49	8.97	50.23	28.85	1298.48	3070.87	4837.16	-1772.40
152+07'HR'		6.53	36.09	164.94	100.04	8.61	40.15	24.13	1307.09	3111.03	4861.29	-1803.94
152+17'HR'		10.00	37.37	111.61	103.35	13.60	51.21	37.66	1320.69	3162.24	4898.95	-1841.55
152+64'HR'		47.78	37.82	90.03	90.53	66.53	178.43	171.56	1387.22	3340.66	5070.51	-1953.44
152+76'HR'		11.38	36.99	76.83	90.38	15.76	35.16	38.12	1402.99	3375.83	5108.63	-1972.84
153+00'HR'		24.31	42.93	54.45	96.25	35.97	59.09	84.01	1438.96	3434.92	5192.64	-1995.96
153+64'HR'		64.25	34.62	29.81	92.61	92.27	100.25	224.70	1531.23	3535.17	5417.34	-2003.94
154+00'HR'		35.75	49.81	13.85	92.28	55.90	28.91	122.41	1587.13	3564.08	5539.75	-1976.95
154+07'HR'		6.53	51.53	13.24	91.14	12.26	3.28	22.19	1599.39	3567.35	5561.94	-1967.97
155+00'HR'		93.47	50.24	4.97	85.31	176.15	31.52	305.42	1775.54	3598.87	5867.36	-1823.33
155+57'HR'		56.61	34.01	11.60	87.43	88.33	17.37	181.10	1863.86	3616.24	6048.46	-1752.38
156+00'HR'		43.39	25.00	19.74	90.05	47.41	25.18	142.60	1911.28	3641.42	6191.06	-1730.15
157+00'HR'		100.00	27.21	28.01	95.69	96.69	88.43	343.96	2007.96	3729.85	6535.02	-1721.89
158+00'HR'		100.00	58.05	17.14	98.67	157.89	83.61	359.93	2165.85	3813.46	6894.95	-1647.61
159+00'HR'		100.00	78.42	32.23	93.27	252.72	91.43	355.44	2418.57	3904.89	7250.39	-1486.31
159+30'HR'		30.00	18.63	219.80	90.00	53.92	140.02	101.82	2472.49	4044.90	7352.21	-1572.41
160+00'HR'		70.00	47.86	56.98	81.13	86.19	358.79	221.84	2558.68	4403.69	7574.05	-1845.01
161+00'HR'		100.00	40.94	14.83	83.08	164.44	132.98	304.09	2723.13	4536.67	7878.14	-1813.55
162+00'HR'		100.00	40.84	11.19	81.61	151.44	48.19	304.98	2874.57	4584.86	8183.12	-1710.29

PROJECT ID 3621-00-76

DIVISION 1 - Hart Rd STA. 139+00'HR' - STA. 194+71'HR'

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
163+00'HR'	100.00	31.23	4.26	76.68	133.46	28.61	293.13	3008.03	4613.47	8476.25	-1605.44
164+00'HR'	100.00	45.77	2.02	59.56	142.59	11.63	252.30	3150.63	4625.10	8728.55	-1474.47
165+00'HR'	100.00	39.99	1.51	66.44	158.81	6.54	233.33	3309.44	4631.64	8961.88	-1322.20
166+00'HR'	100.00	47.68	1.77	57.42	162.35	6.07	229.37	3471.79	4637.71	9191.25	-1165.92
167+00'HR'	100.00	44.45	3.74	57.44	170.61	10.20	212.70	3642.40	4647.92	9403.95	-1005.51
167+44'HR'	44.27	42.17	1.26	62.43	71.01	4.10	98.26	3713.41	4652.01	9502.21	-938.60
168+00'HR'	55.73	38.78	2.13	67.63	83.55	3.50	134.23	3796.96	4655.51	9636.44	-858.55
169+00'HR'	100.00	41.88	0.15	65.12	149.37	4.22	245.83	3946.33	4659.74	9882.27	-713.41
170+00'HR'	100.00	43.23	0.02	66.47	157.61	0.31	243.69	4103.94	4660.05	10125.96	-556.11
171+00'HR'	100.00	45.16	0.00	0.00	163.69	0.04	123.09	4267.63	4660.09	10249.05	-392.46
171+12'HR'	11.90	44.19	0.02	0.00	19.69	0.00	0.00	4287.31	4660.09	10249.05	-372.78
171+65'HR'	53.33	38.30	0.38	0.00	81.47	0.40	0.00	4368.78	4660.49	10249.05	-291.71
172+00'HR'	34.77	28.78	1.09	0.00	43.20	0.95	0.00	4411.97	4661.43	10249.05	-249.46
172+19'HR'	18.56	24.03	2.39	0.00	18.15	1.20	0.00	4430.12	4662.63	10249.05	-232.50
172+72'HR'	53.33	11.94	12.80	0.00	35.53	15.00	0.00	4465.65	4677.63	10249.05	-211.98
173+00'HR'	28.11	15.09	18.10	0.00	14.07	16.08	0.00	4479.72	4693.71	10249.05	-214.00
173+25'HR'	25.23	18.17	19.51	0.00	15.54	17.57	0.00	4495.26	4711.29	10249.05	-216.03
173+25'HR'	0.01	18.17	19.51	0.00	0.00	0.00	0.00	4495.26	4711.29	10249.05	-216.03
173+50'HR'	24.77	22.49	21.69	0.00	18.65	18.90	0.00	4513.91	4730.19	10249.05	-216.28
173+79'HR'	28.56	25.60	23.09	0.00	25.43	23.68	0.00	4539.34	4753.87	10249.05	-214.53
174+00'HR'	21.44	18.16	19.70	0.00	17.37	16.99	0.00	4556.72	4770.86	10249.05	-214.14
174+50'HR'	50.00	22.12	9.53	0.00	37.30	27.06	0.00	4594.01	4797.92	10249.05	-203.91
175+00'HR'	50.00	39.67	0.54	0.00	57.21	9.32	0.00	4651.23	4807.25	10249.05	-156.02
175+50'HR'	50.00	64.95	0.00	0.00	96.87	0.50	0.00	4748.10	4807.75	10249.05	-59.65
176+00'HR'	50.00	89.88	0.00	0.00	143.36	0.00	0.00	4891.46	4807.75	10249.05	83.71
176+50'HR'	50.00	125.82	0.00	0.00	199.72	0.00	0.00	5091.18	4807.75	10249.05	283.43
177+00'HR'	50.00	160.34	0.00	0.00	264.96	0.00	0.00	5356.14	4807.75	10249.05	548.40
177+50'HR'	50.00	188.64	0.00	0.00	323.13	0.00	0.00	5679.27	4807.75	10249.05	871.53
178+00'HR'	50.00	241.81	0.00	0.00	398.56	0.00	0.00	6077.84	4807.75	10249.05	1270.09
178+05'HR'	4.52	234.24	0.00	0.00	39.85	0.00	0.00	6117.69	4807.75	10249.05	1309.94
178+50'HR'	45.48	173.19	0.00	0.00	343.15	0.00	0.00	6460.83	4807.75	10249.05	1653.08
179+00'HR'	50.00	156.79	0.00	0.00	305.54	0.00	0.00	6766.37	4807.75	10249.05	1958.62
179+50'HR'	50.00	143.85	0.00	0.00	278.37	0.00	0.00	7044.74	4807.75	10249.05	2236.99
180+00'HR'	50.00	144.71	0.00	0.00	267.19	0.00	0.00	7311.92	4807.75	10249.05	2504.18
180+06'HR'	6.25	147.56	0.00	0.00	33.83	0.00	0.00	7345.75	4807.75	10249.05	2538.01
180+26'HR'	19.79	151.39	0.00	0.00	109.54	0.00	0.00	7455.30	4807.75	10249.05	2647.55
180+40'HR'	13.55	149.68	0.00	0.00	75.55	0.00	0.00	7530.84	4807.75	10249.05	2723.09
180+50'HR'	10.41	147.76	0.00	0.00	57.36	0.00	0.00	7588.20	4807.75	10249.05	2780.45
180+86'HR'	36.26	132.20	0.00	0.00	187.96	0.00	0.00	7776.16	4807.75	10249.05	2968.41
181+00'HR'	13.74	131.49	0.00	0.00	67.12	0.00	0.00	7843.28	4807.75	10249.05	3035.53
181+06'HR'	6.25	125.11	0.34	0.00	29.69	0.04	0.00	7872.97	4807.79	10249.05	3065.19
181+50'HR'	43.75	174.02	0.00	0.00	242.36	0.28	0.00	8115.33	4808.06	10249.05	3307.27
181+59'HR'	8.71	164.98	0.00	0.00	54.70	0.00	0.00	8170.03	4808.06	10249.05	3361.97
182+00'HR'	41.29	116.05	15.69	0.00	214.87	12.00	0.00	8384.90	4820.06	10249.05	3564.84
182+50'HR'	50.00	102.35	4.02	0.00	202.22	18.25	0.00	8587.12	4838.31	10249.05	3748.81

PROJECT ID 3621-00-76

DIVISION 1 - Hart Rd STA. 139+00'HR' - STA. 194+71'HR'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
182+79'HR'		29.17	93.17	5.37	0.00	105.62	5.07	0.00	8692.74	4843.38	10249.05	3849.35
182+89'HR'		10.00	95.00	0.00	0.00	34.85	0.99	0.00	8727.58	4844.38	10249.05	3883.21
183+00'HR'		10.83	92.81	0.07	0.00	37.67	0.01	0.00	8765.25	4844.39	10249.05	3920.86
183+50'HR'		50.00	91.09	1.96	0.00	170.28	1.88	0.00	8935.53	4846.27	10249.05	4089.26
184+00'HR'		50.00	98.66	1.13	0.00	175.69	2.86	0.00	9111.22	4849.13	10249.05	4262.09
184+14'HR'		14.25	99.14	0.50	0.00	52.20	0.43	0.00	9163.42	4849.56	10249.05	4313.86
184+50'HR'		35.75	89.99	0.00	0.00	125.21	0.33	0.00	9288.63	4849.89	10249.05	4438.74
185+00'HR'		50.00	79.52	13.20	0.00	156.95	12.22	0.00	9445.58	4862.11	10249.05	4583.47
185+20'HR'		20.39	82.97	9.48	0.00	61.36	8.57	0.00	9506.95	4870.68	10249.05	4636.27
185+50'HR'		29.61	86.40	4.94	0.00	92.86	7.91	0.00	9599.81	4878.58	10249.05	4721.22
186+00'HR'		50.00	102.61	0.39	0.00	175.01	4.94	0.00	9774.82	4883.52	10249.05	4891.30
186+50'HR'		50.00	102.00	0.00	0.00	189.45	0.36	0.00	9964.27	4883.88	10249.05	5080.39
187+00'HR'		50.00	99.75	0.00	0.00	186.81	0.00	0.00	10151.08	4883.88	10249.05	5267.20
187+50'HR'		50.00	95.88	0.00	0.00	181.14	0.00	0.00	10332.22	4883.88	10249.05	5448.33
188+00'HR'		50.00	95.76	0.00	0.00	177.44	0.00	0.00	10509.66	4883.88	10249.05	5625.78
188+45'HR'		44.63	88.51	0.00	0.00	152.29	0.00	0.00	10661.95	4883.88	10249.05	5778.07
188+50'HR'		5.37	88.75	0.00	0.00	17.63	0.00	0.00	10679.58	4883.88	10249.05	5795.70
188+98'HR'		47.96	78.66	0.00	0.00	148.68	0.00	0.00	10828.26	4883.88	10249.05	5944.38
188+98'HR'		0.01	78.58	0.00	0.00	0.01	0.00	0.00	10828.27	4883.88	10249.05	5944.39
189+00'HR'		2.04	77.91	0.00	0.00	5.91	0.00	0.00	10834.18	4883.88	10249.05	5950.30
189+51'HR'		51.29	63.88	5.57	0.00	134.69	5.29	0.00	10968.87	4889.17	10249.05	6079.69
190+00'HR'		48.71	58.81	6.35	0.00	110.66	10.75	0.00	11079.53	4899.92	10249.05	6179.60
190+05'HR'		4.63	74.26	1.08	0.00	11.41	0.64	0.00	11090.93	4900.56	10249.05	6190.37
190+25'HR'		20.37	104.58	0.00	0.00	67.47	0.41	0.00	11158.40	4900.97	10249.05	6257.43
190+58'HR'		32.96	56.76	12.11	0.00	98.48	7.39	0.00	11256.88	4908.36	10249.05	6348.52
191+00'HR'		42.04	55.47	15.30	0.00	87.37	21.34	0.00	11344.25	4929.70	10249.05	6414.55
191+11'HR'		11.29	58.81	15.20	0.00	23.90	6.38	0.00	11368.15	4936.08	10249.05	6432.07
191+69'HR'		57.90	78.81	42.54	0.00	147.57	61.92	0.00	11515.72	4997.99	10249.05	6517.73
192+00'HR'		30.80	97.69	42.27	0.00	100.68	48.38	0.00	11616.40	5046.37	10249.05	6570.03
192+41'HR'		41.17	181.27	0.00	0.00	212.69	32.23	0.00	11829.09	5078.60	10249.05	6750.49
193+00'HR'		58.83	116.96	3.73	0.00	324.90	4.06	0.00	12153.99	5082.66	10249.05	7071.33
193+98'HR'		98.30	108.70	0.49	0.00	410.77	7.68	0.00	12564.75	5090.34	10249.05	7474.41
194+00'HR'		1.70	17.19	0.94	0.00	3.97	0.05	0.00	12568.73	5090.39	10249.05	7478.34
194+71'HR'	BK	70.57	19.30	0.00	0.00	47.69	1.23	0.00	12616.41	5091.61	10249.05	7524.80
					Column totals	12616.41	5091.61	10249.08				

PROJECT ID 3621-00-76

DIVISION 1 - Suburban Dr STA. 10+75'SU' - STA. 11+40'SU'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
10+75'SU'	AH	0.00	53.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10+88'SU'		12.94	61.18	0.00	0.00	27.45	0.00	0.00	27.45	0.00	0.00	27.45
11+00'SU'		12.06	66.18	0.00	0.00	28.44	0.00	0.00	55.90	0.00	0.00	55.90
11+37'SU'		37.00	71.28	0.00	0.00	94.19	0.00	0.00	150.08	0.00	0.00	150.08
11+40'SU'	BK	3.00	68.45	0.12	0.00	7.76	0.01	0.00	157.85	0.01	0.00	157.84
					Column totals	157.85	0.01	0.00				

PROJECT ID 3621-00-76

DIVISION 1 - Lathers Rd STA. 36+23'LA' - STA. 49+25'LA'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
36+23'LA'	AH	0.00	2.02	2.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37+00'LA'		77.00	6.73	0.47	0.00	12.48	4.51	0.00	12.48	4.51	0.00	7.97
38+00'LA'		100.00	7.73	0.00	0.00	26.78	0.87	0.00	39.25	5.38	0.00	33.88
39+00'LA'		100.00	7.49	0.00	0.00	28.19	0.00	0.00	67.44	5.38	0.00	62.06
40+00'LA'		100.00	17.50	0.00	0.00	46.28	0.00	0.00	113.72	5.38	0.00	108.34
41+00'LA'		100.00	41.24	1.93	0.00	108.78	3.57	0.00	222.49	8.95	0.00	213.54
42+00'LA'		100.00	64.05	6.07	0.00	194.98	14.81	0.00	417.48	23.76	0.00	393.71
43+00'LA'		100.00	90.96	9.31	0.00	287.06	28.48	0.00	704.53	52.25	0.00	652.29
44+00'LA'		99.98	76.95	7.47	0.00	310.89	31.07	0.00	1015.43	83.32	0.00	932.11
44+00'LA'		0.02	79.23	7.34	0.00	0.05	0.00	0.00	1015.47	83.32	0.00	932.15
45+00'LA'		100.00	76.86	7.92	0.00	289.06	28.26	0.00	1304.53	111.58	0.00	1192.95
45+00'LA'		0.00	76.98	7.93	0.00	0.00	0.00	0.00	1304.53	111.58	0.00	1192.95
45+94'LA'		94.24	85.09	6.02	0.00	282.83	24.34	0.00	1587.36	135.92	0.00	1451.44
46+00'LA'		5.76	27.84	9.11	0.00	12.05	1.61	0.00	1599.41	137.54	0.00	1461.88
46+96'LA'		95.52	81.12	11.03	0.00	192.74	35.63	0.00	1792.16	173.16	0.00	1618.99
47+06'LA'		10.12	68.73	0.00	0.00	28.09	2.07	0.00	1820.25	175.23	0.00	1645.02
47+39'LA'		33.06	27.59	0.13	0.00	58.97	0.08	0.00	1879.22	175.31	0.00	1703.91
47+50'LA'		11.29	90.44	3.17	45.00	24.68	0.69	9.41	1903.90	176.00	9.41	1727.90
47+65'LA'		15.00	145.12	2.80	45.45	65.43	1.66	25.13	1969.34	177.66	34.54	1791.68
48+00'LA'		35.00	73.45	11.68	46.04	141.67	9.39	59.30	2111.00	187.05	93.84	1923.96
49+00'LA'		100.00	48.66	29.33	84.42	226.13	75.94	241.59	2337.13	262.99	335.43	2074.14
49+25'LA'		25.00	38.86	81.98	85.00	40.52	51.53	78.44	2377.65	314.52	413.87	2063.13
					Column totals	2377.65	314.52	413.86				

PROJECT ID 3621-00-76

DIVISION 1 - Lathers Rd STA. 50+75'LA' - STA. 53+00'LA'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
50+75'LA'	AH	0.00	12.17	90.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51+00'LA'		25.00	21.34	41.78	0.00	15.51	61.24	0.00	15.51	61.24	0.00	-45.72
51+91'LA'		90.73	51.43	4.45	0.00	122.27	77.67	0.00	137.78	138.91	0.00	-1.13
52+00'LA'		9.27	56.69	0.63	0.00	18.56	0.87	0.00	156.34	139.78	0.00	16.56
53+00'LA'	BK	109.27	53.05	1.04	0.00	222.06	3.38	0.00	378.41	143.16	0.00	235.24
					Column totals	378.41	143.16	0.00				

PROJECT ID 3621-00-76

DIVISION 1 - Butterfly Rd STA. 30+75'BU' - STA. 31+55'BU'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
30+75'BU'	AH	0.00	74.55	11.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31+00'BU'		25.00	86.74	0.06	0.00	74.67	5.19	0.00	74.67	5.19	0.00	69.48
31+09'BU'		9.06	88.17	0.00	0.00	29.36	0.01	0.00	104.03	5.20	0.00	98.82
31+50'BU'		40.94	109.18	0.00	0.00	149.61	0.00	0.00	253.64	5.20	0.00	248.43
31+55'BU'	BK	5.00	71.74	0.00	0.00	16.75	0.00	0.00	270.39	5.20	0.00	265.18
					Column totals	270.39	5.20	0.00				

PROJECT ID 3621-00-76

DIVISION 1 - Clinic Rd STA. 38+50'CL' - STA. 39+25'CL'

STATION		Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)			Mass Ordinate
			Cut	Fill	EBS	Cut	Fill	EBS	Cut	Fill	EBS	
38+50'CL'	AH	3850.00	95.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39+00'CL'		50.00	81.70	1.39	0.00	163.84	1.29	0.00	163.84	1.29	0.00	162.56
39+24'CL'		24.21	111.09	38.55	0.00	86.44	17.91	0.00	250.28	19.19	0.00	231.09
39+25'CL'	BK	0.79	112.70	38.22	0.00	3.27	1.12	0.00	253.55	20.32	0.00	233.23
					Column totals	253.55	20.32	0.00				

BEGIN PROJECT
STA. 81+76'HR'

CTH S

81+76'HR'

82+00'HR'

82+17'HR'

TEL

SS

GAS

4.6, 805.43
4.6, 803.76
39.7, 805.00
41.7, 804.93
44.6, 805.35
44.6, 803.31
65.2, 805.49

1.5% 1.4% 1.3% 1.2% 1.1% 0.9% 0.8% 0.8% 0.7%

-59.0, 804.84
-59.0, 803.17
0.0, 805.27
0.0, 803.60
29.6, 804.81
31.2, 804.72
33.3, 805.12
33.3, 803.08
54.5, 805.22

0.4% 0.4% 0.4% 0.2% 0.4% 0.5% 0.4% 0.4% 0.6% 0.5% 1.3% 1.4% 1.5% 1.6% 1.6% 1.6% 1.6% 1.6% 1.5% 1.5%

10 FT
10 FT

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

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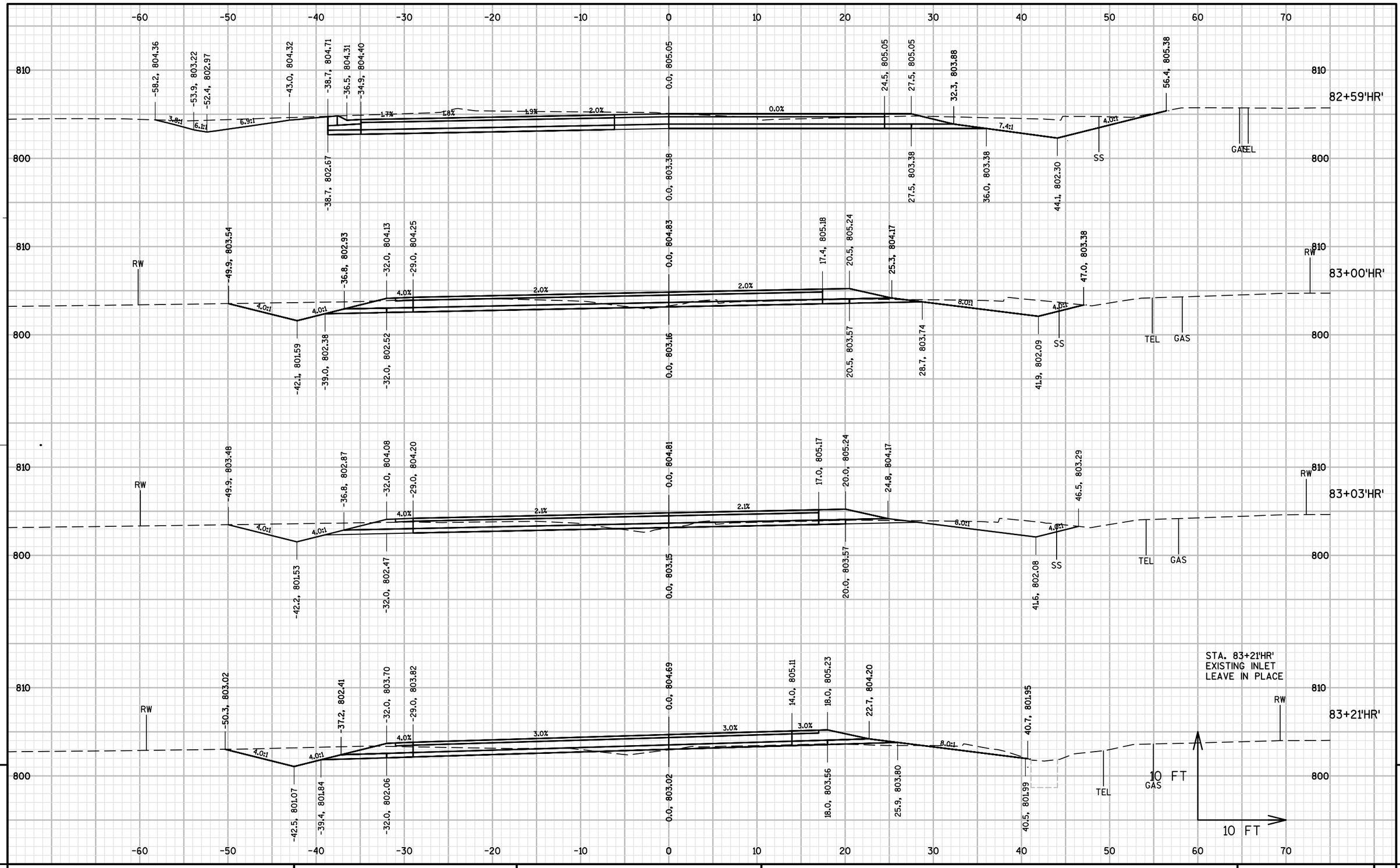
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

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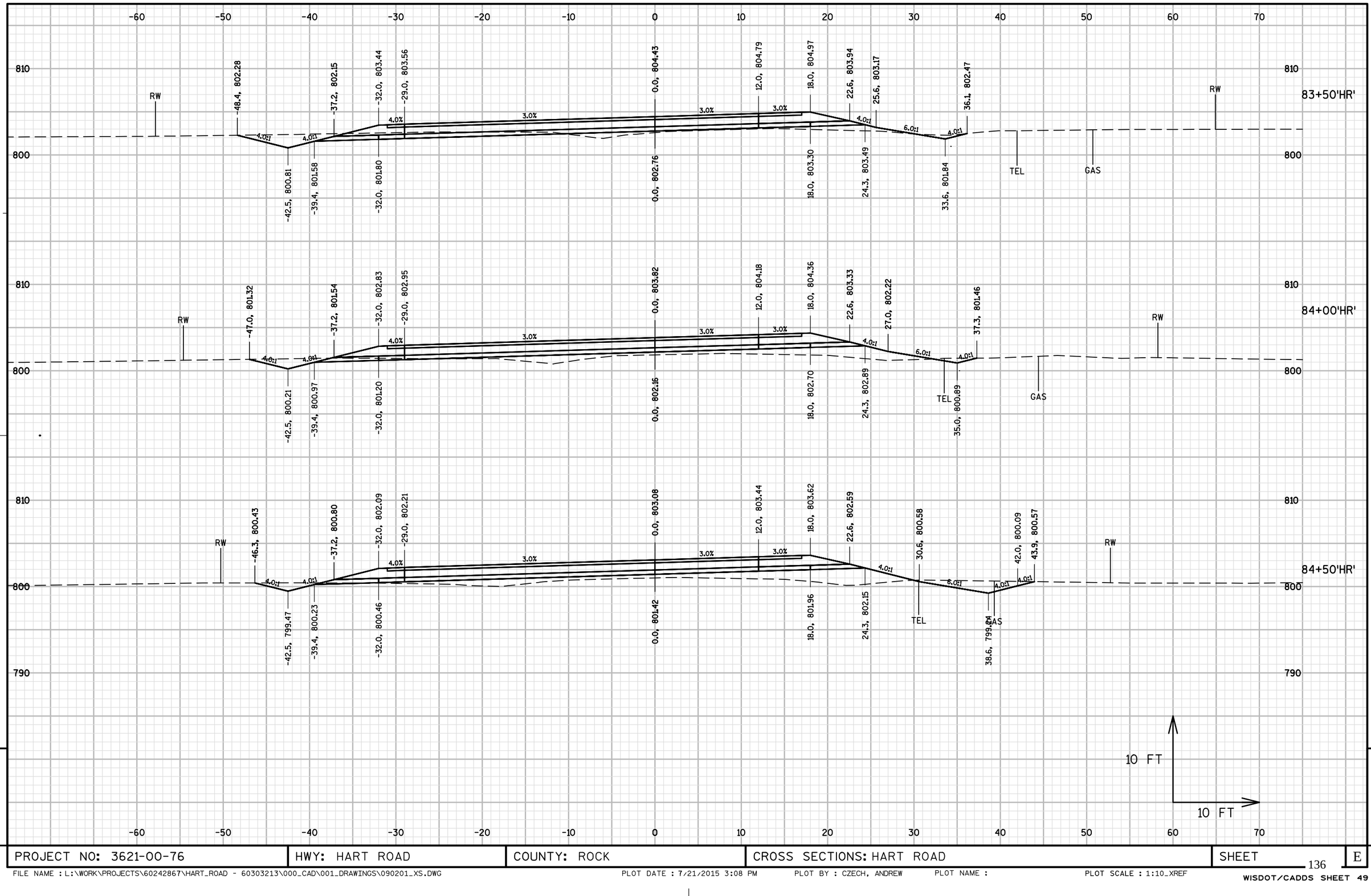
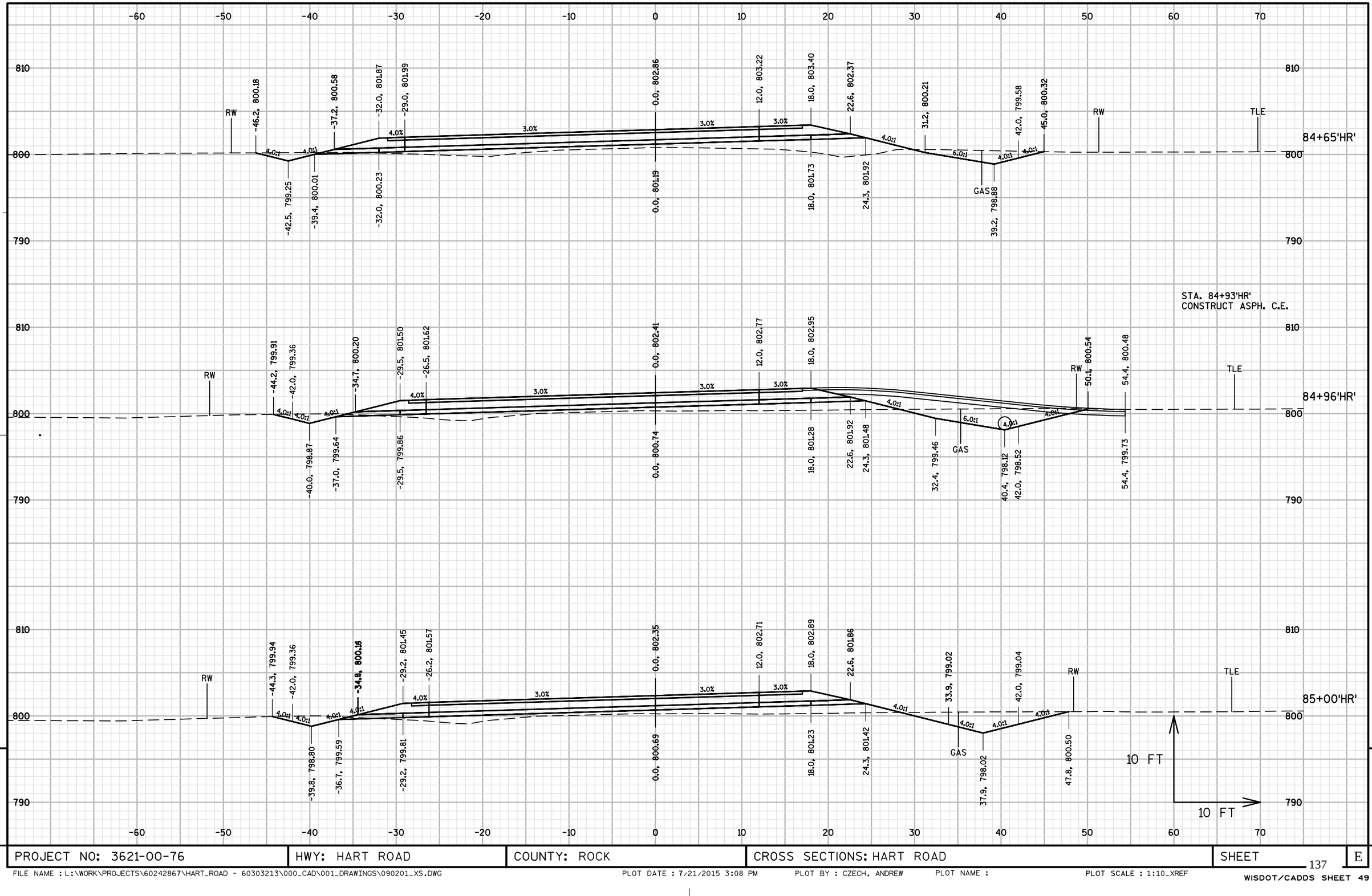
WISDOT/CADDS SHEET 49



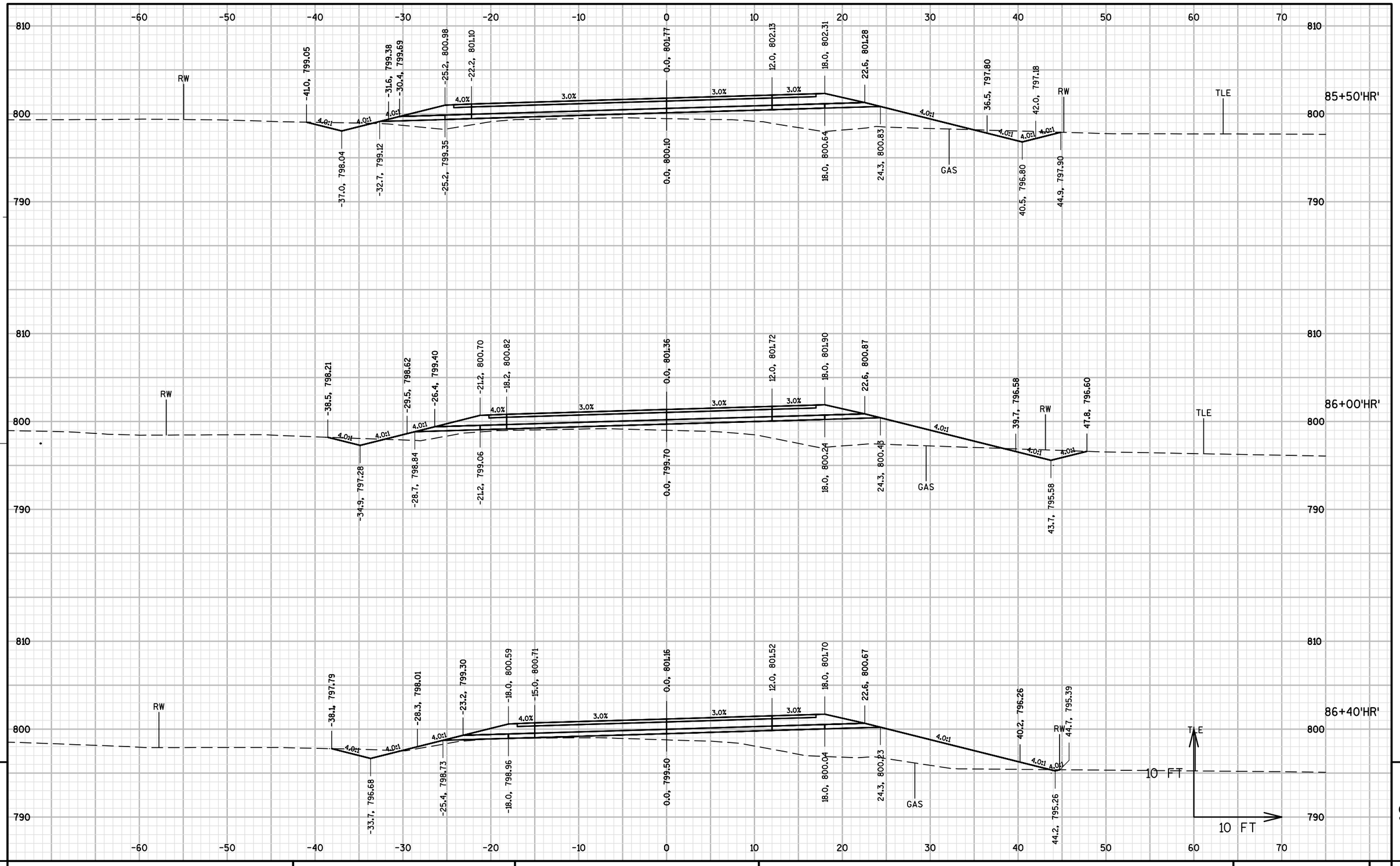
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

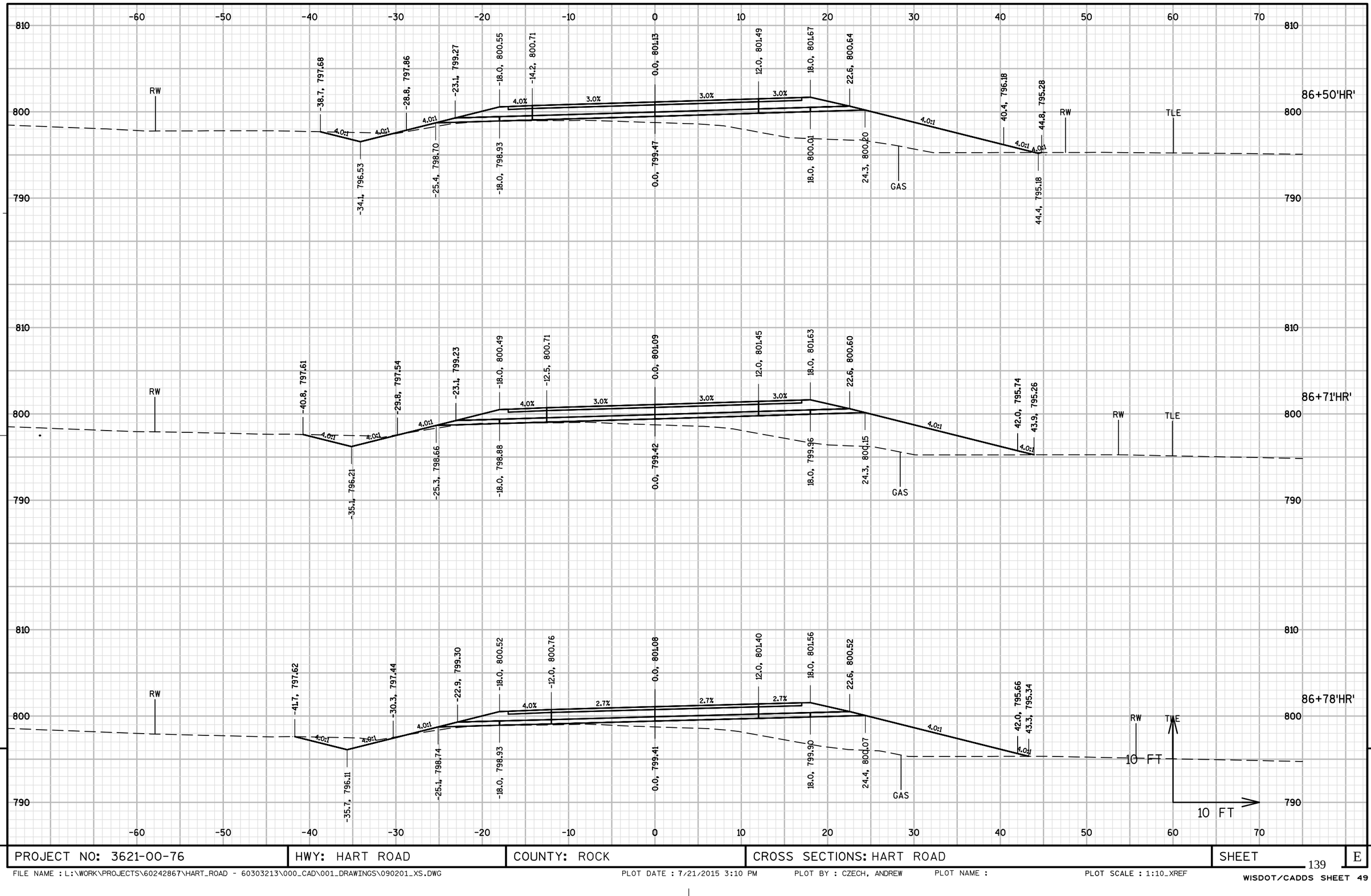
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:08 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

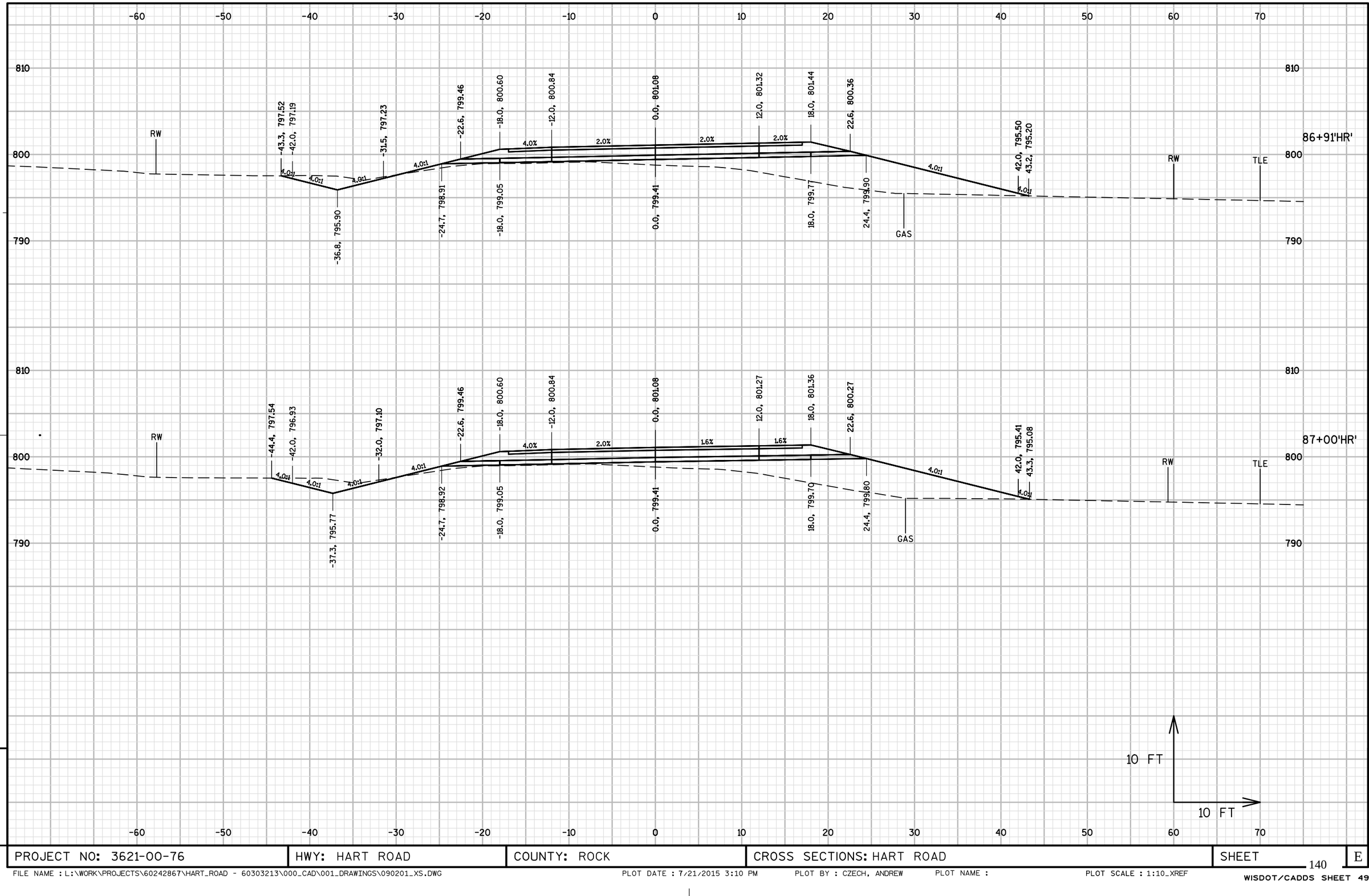
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:09 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:10 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

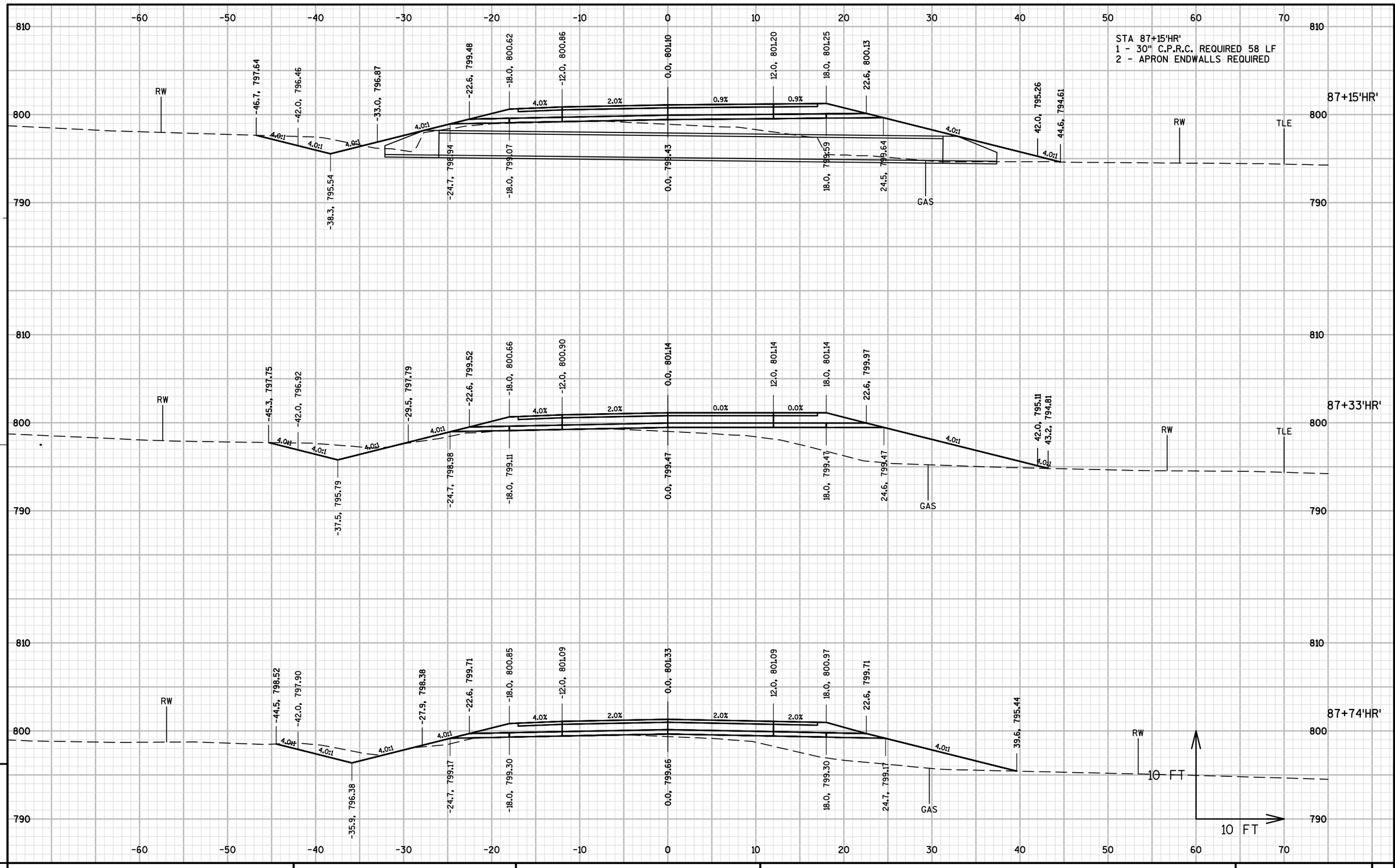


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET 140	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:10 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

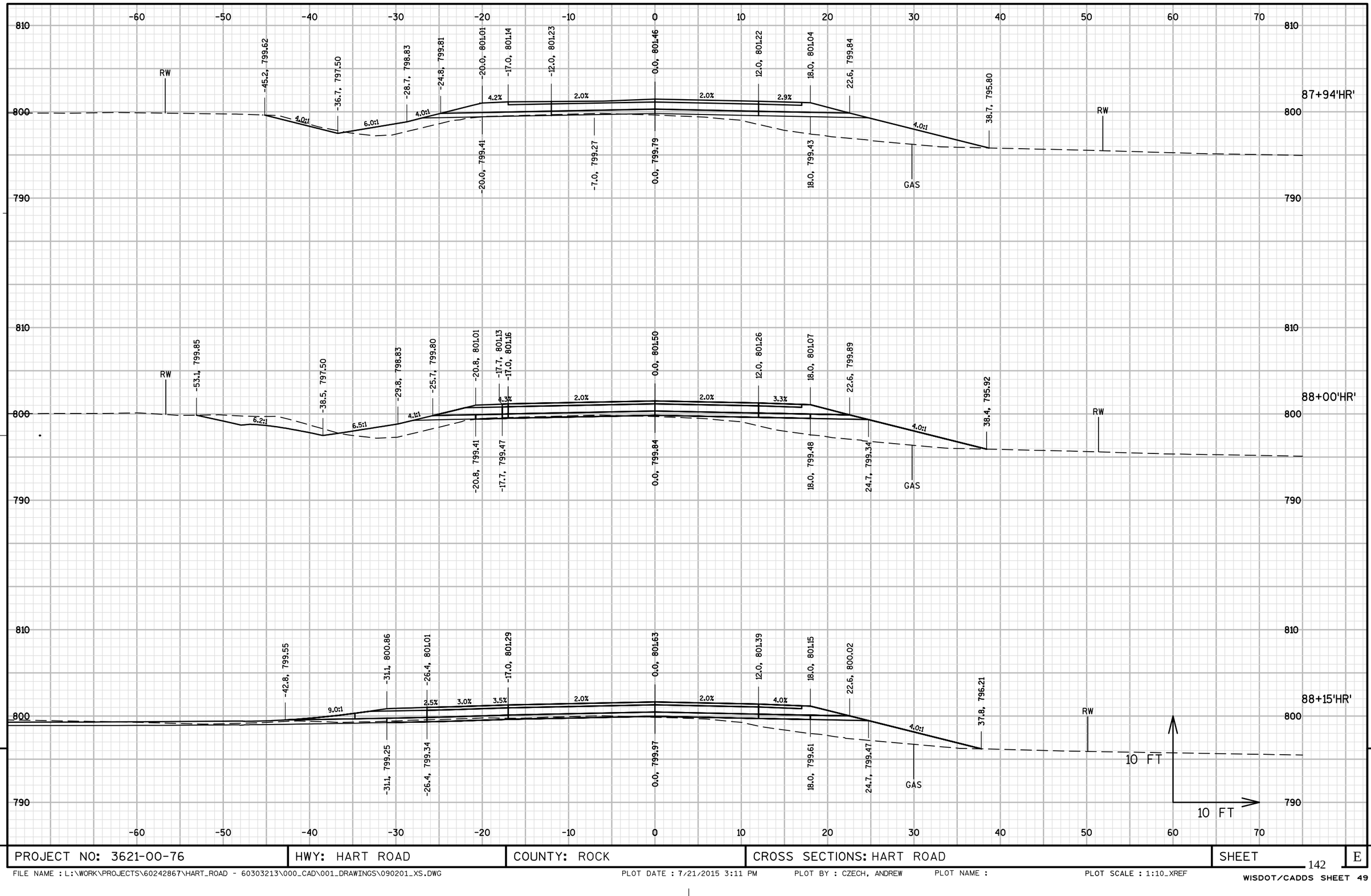
WISDOT/CADDS SHEET 49

STA 87+15'HR'
1 - 30" C.P.R.C. REQUIRED 58 LF
2 - APRON ENDWALLS REQUIRED



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:10 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:11 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

SUBURBAN DRIVE

88+34'HR'

0.1% 0.0% 0.1% 0.3% 0.4% 0.6% 0.8% 0.9% 1.0% 1.1% 1.2% 1.3% 1.4% 1.5% 1.6% 1.7% 1.8% 2.0% 2.0% 2.0% 4.0% 4.0:1

-17.0, 801.47 | 0.0, 801.81 | 12.0, 801.57 | 18.0, 801.33 | 22.6, 800.19 | 36.5, 796.71

0.0, 800.14 | 18.0, 799.78

RW | GAS

88+74'HR'

RW | -46.0, 800.46 | -37.8, 798.00 | -30.0, 799.35 | -24.9, 800.64 | -20.1, 801.85 | -17.0, 801.93 | 0.0, 802.27 | 12.0, 802.03 | 18.0, 801.79 | 22.6, 800.66 | 29.8, 798.85 | RW

3.3:1 | 5.8:1 | 3.9:1 | 2.0% | 2.0% | 4.0% | 4.0:1

-27.1, 800.09 | -20.1, 800.24 | -17.1, 800.31 | 0.0, 800.61 | 18.0, 800.25 | 24.7, 800.11 | GAS

89+00'HR'

RW | -52.0, 801.96 | -42.0, 799.46 | -28.8, 799.49 | -22.7, 801.02 | -18.1, 802.15 | -12.1, 802.39 | 0.0, 802.64 | 12.0, 802.40 | 18.0, 802.16 | 22.6, 801.02 | 24.2, 800.61 | 32.6, 799.37 | RW

4.0:1 | 4.0:1 | 6.0:1 | 4.0:1 | 4.0% | 2.0% | 2.0% | 4.0% | 4.0:1 | 6.0:1 | 4.0:1

-36.8, 798.16 | -24.9, 800.47 | -18.1, 800.61 | 0.0, 800.97 | 18.0, 800.61 | 25.0, 800.47 | GAS | 32.2, 799.27

10 FT | 10 FT

810 | 800 | 790

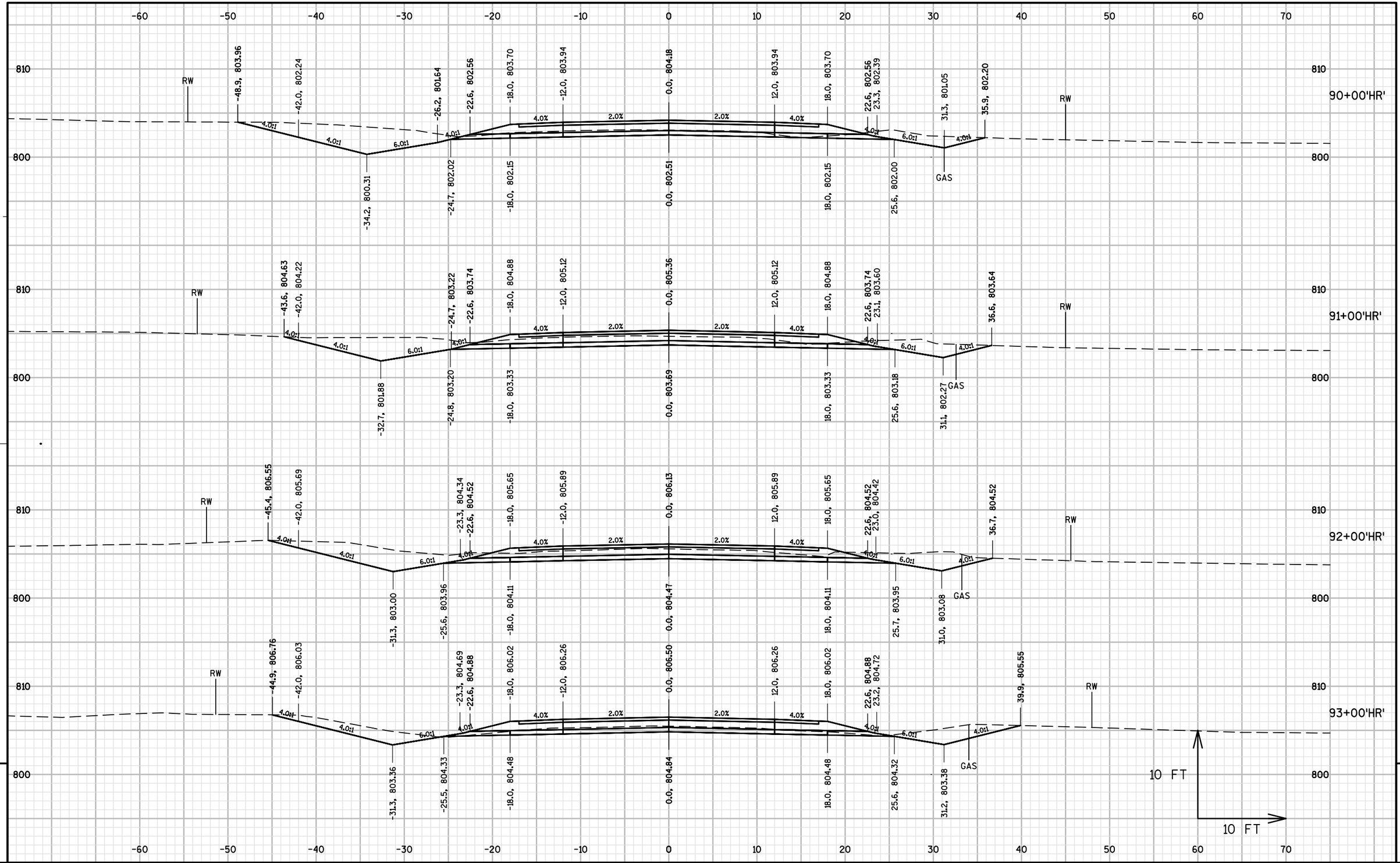
-60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9 | 9

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:11 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

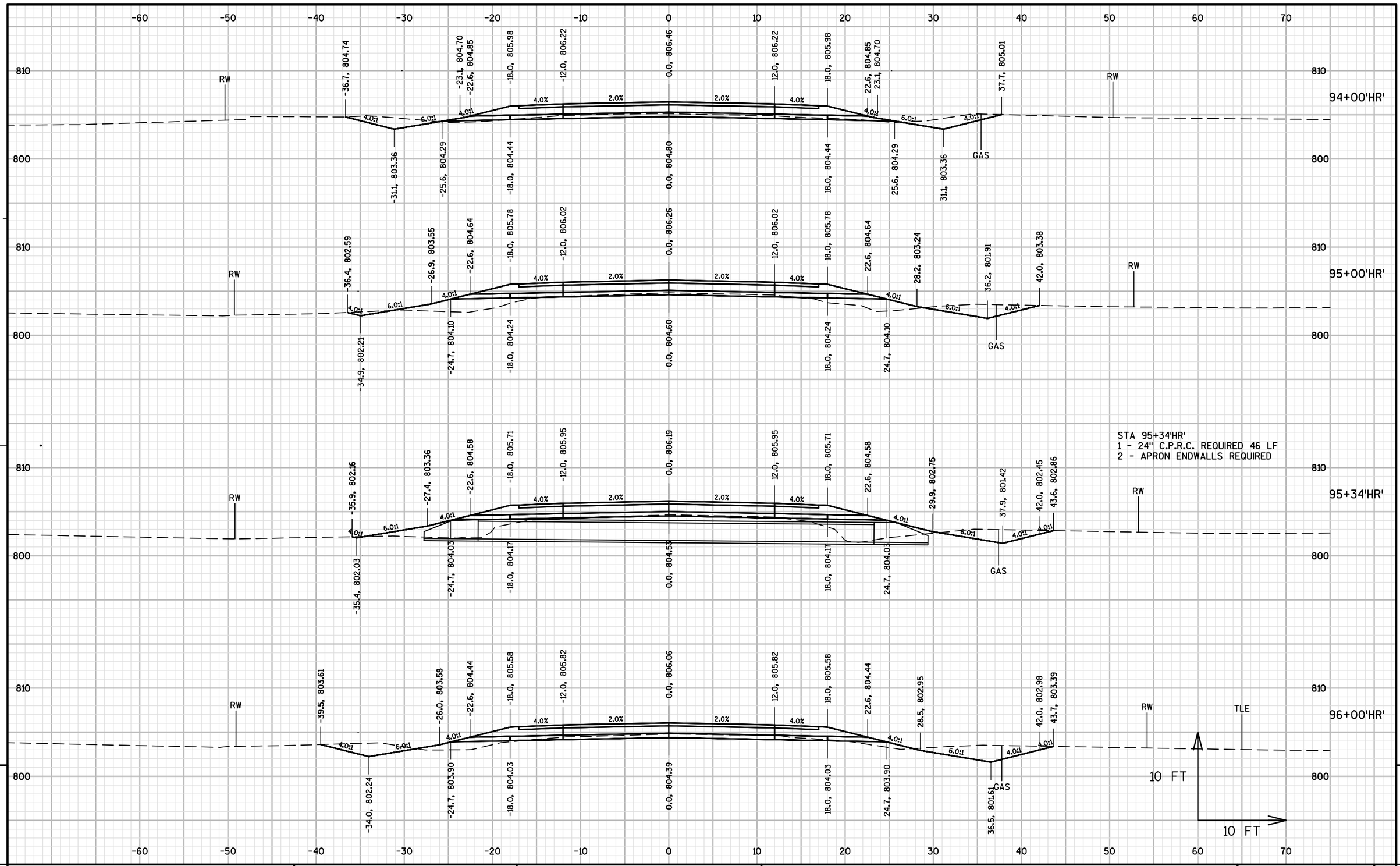
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET 144	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:12 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

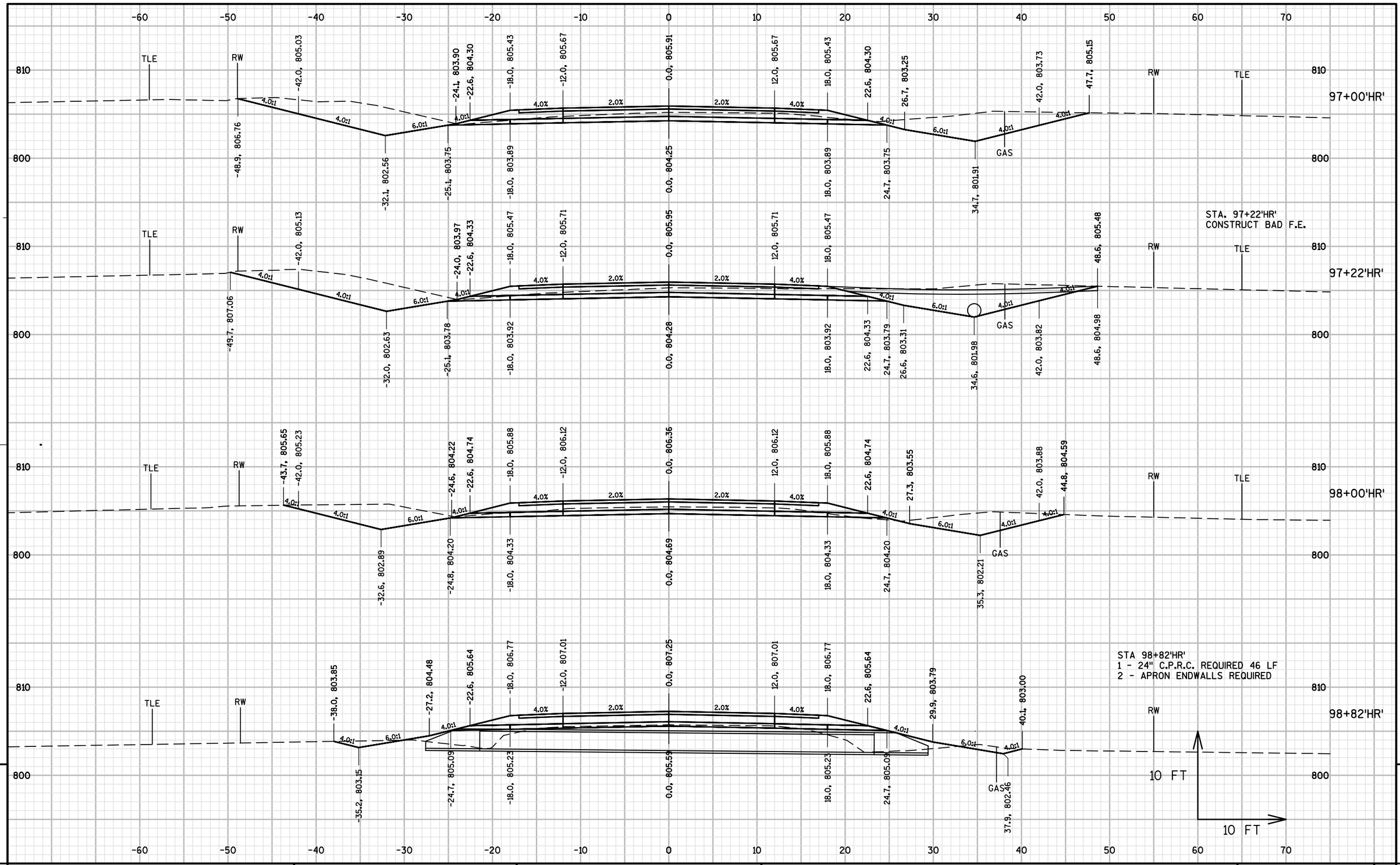
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:12 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

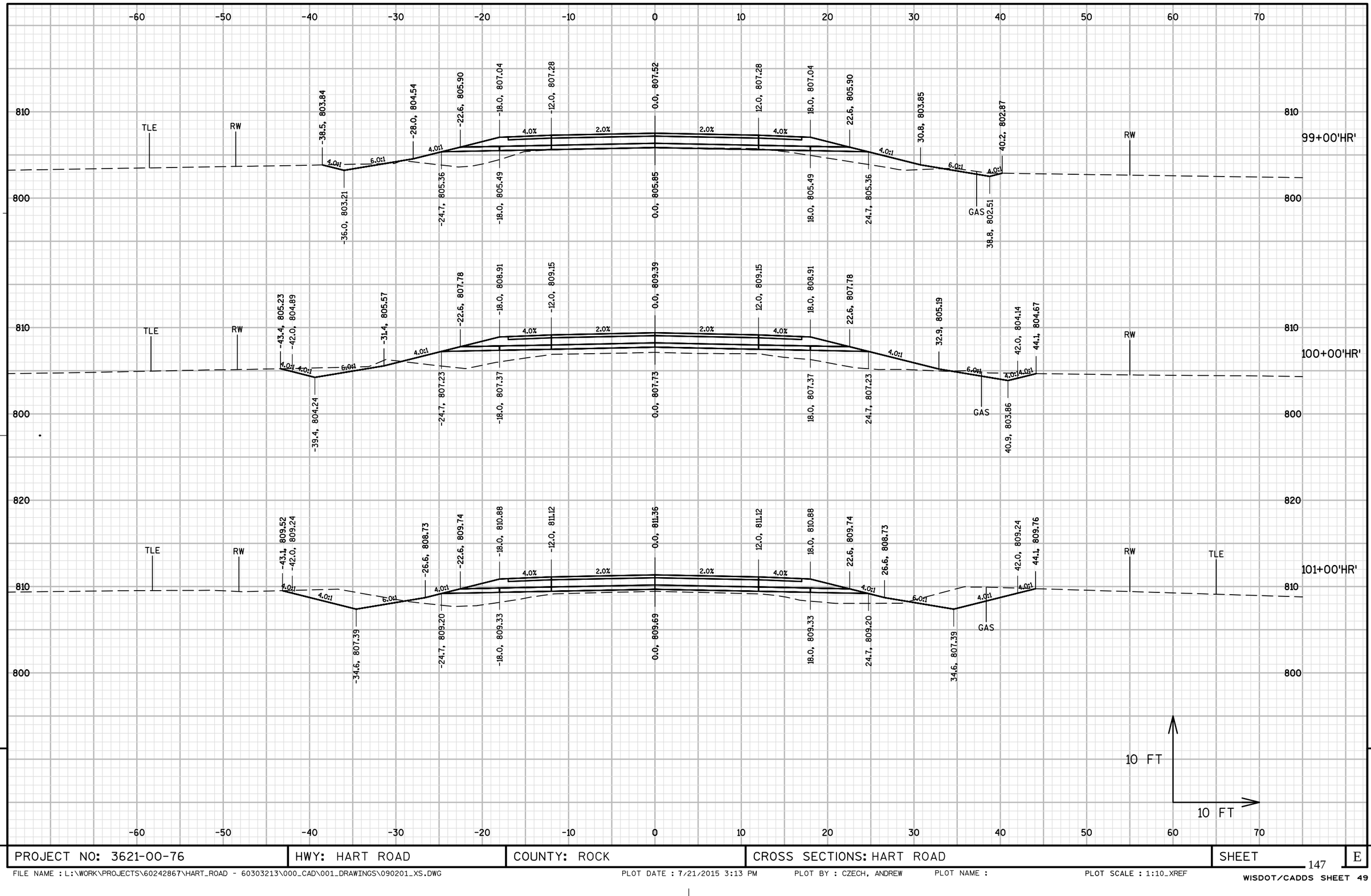
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

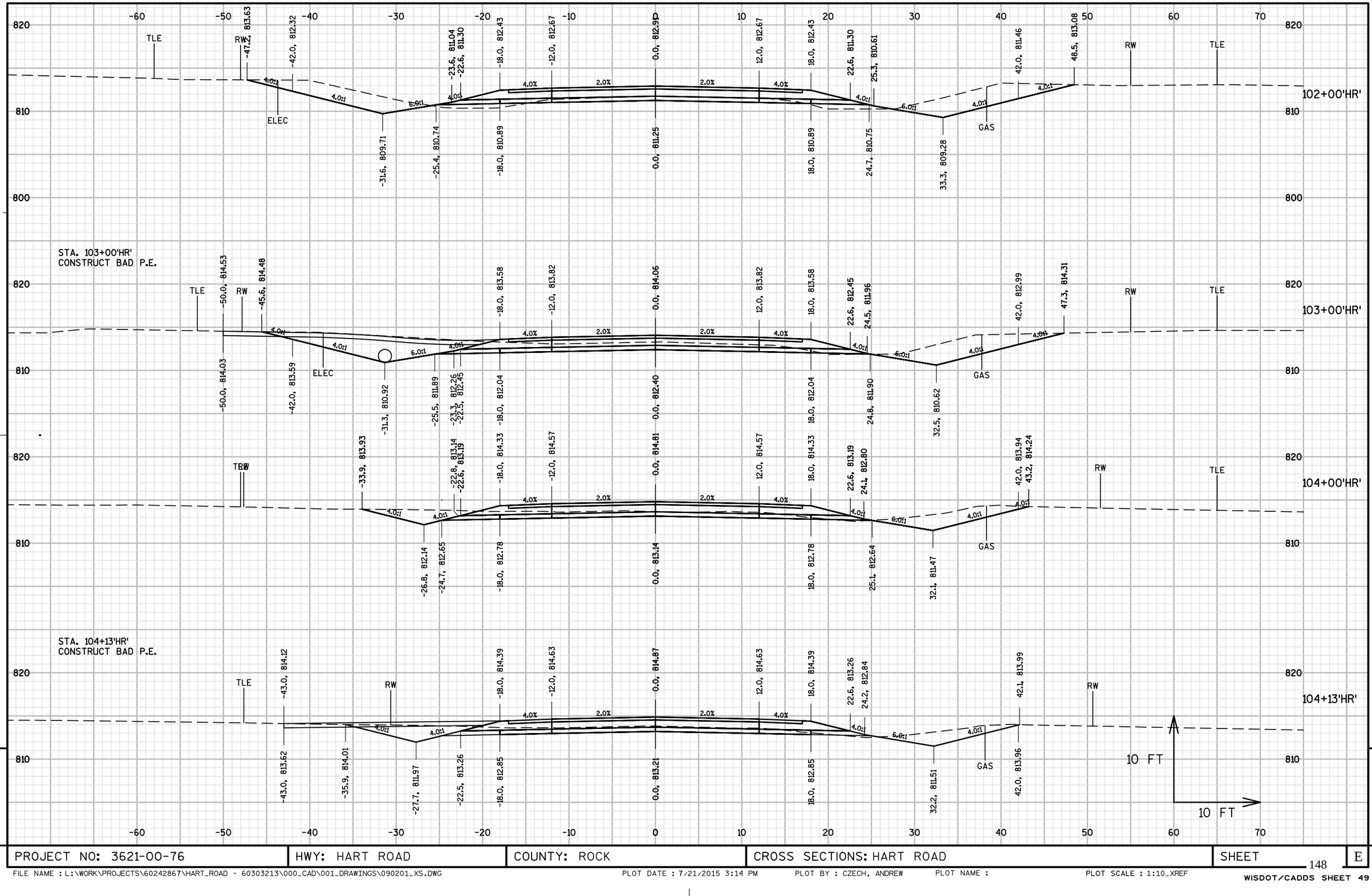
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:13 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



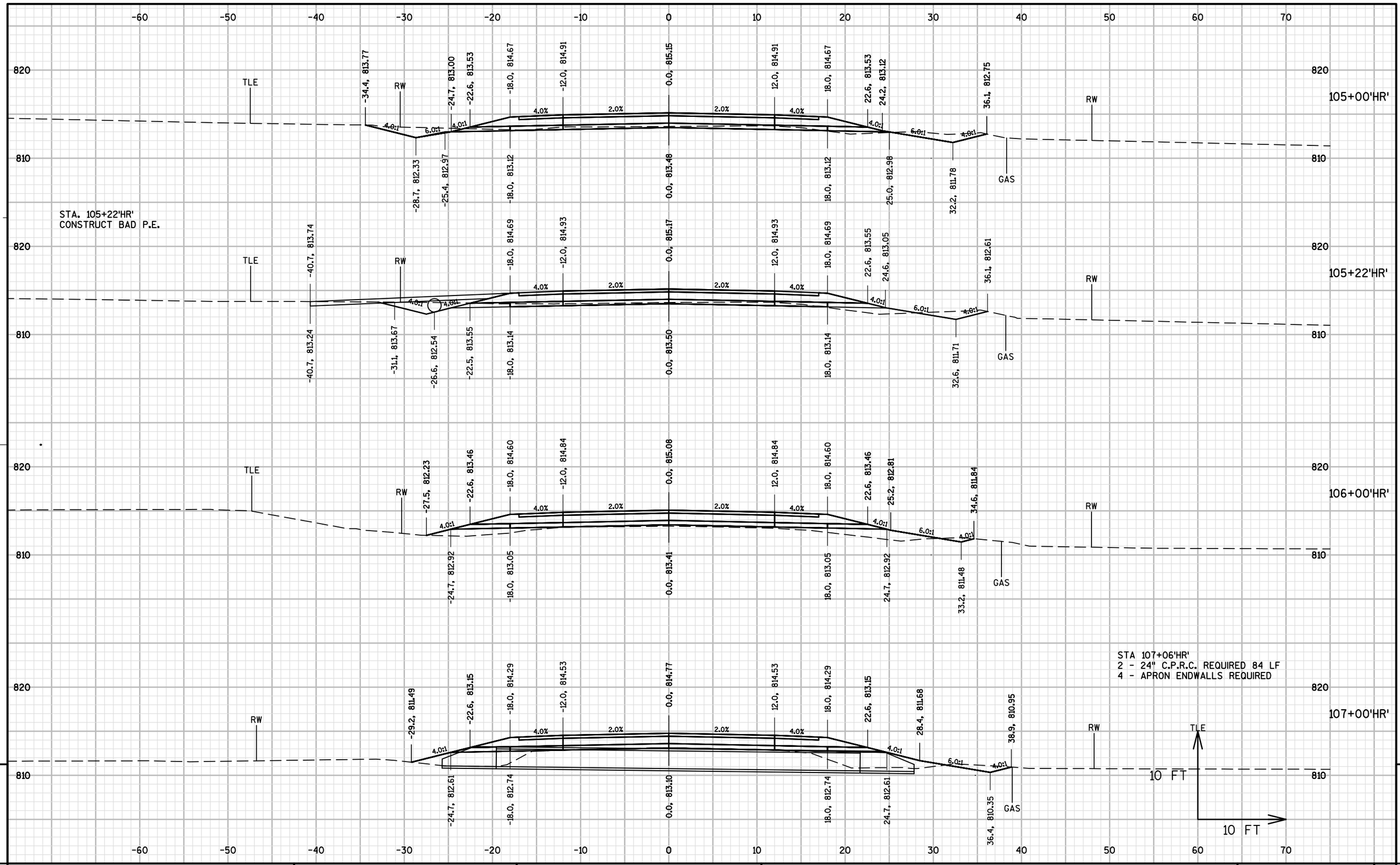
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:13 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



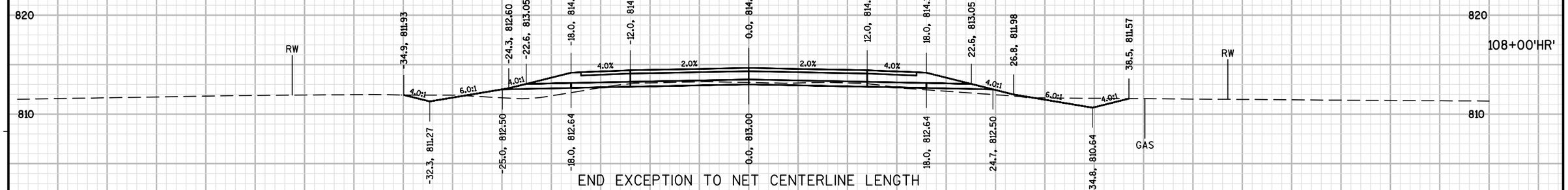
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:14 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

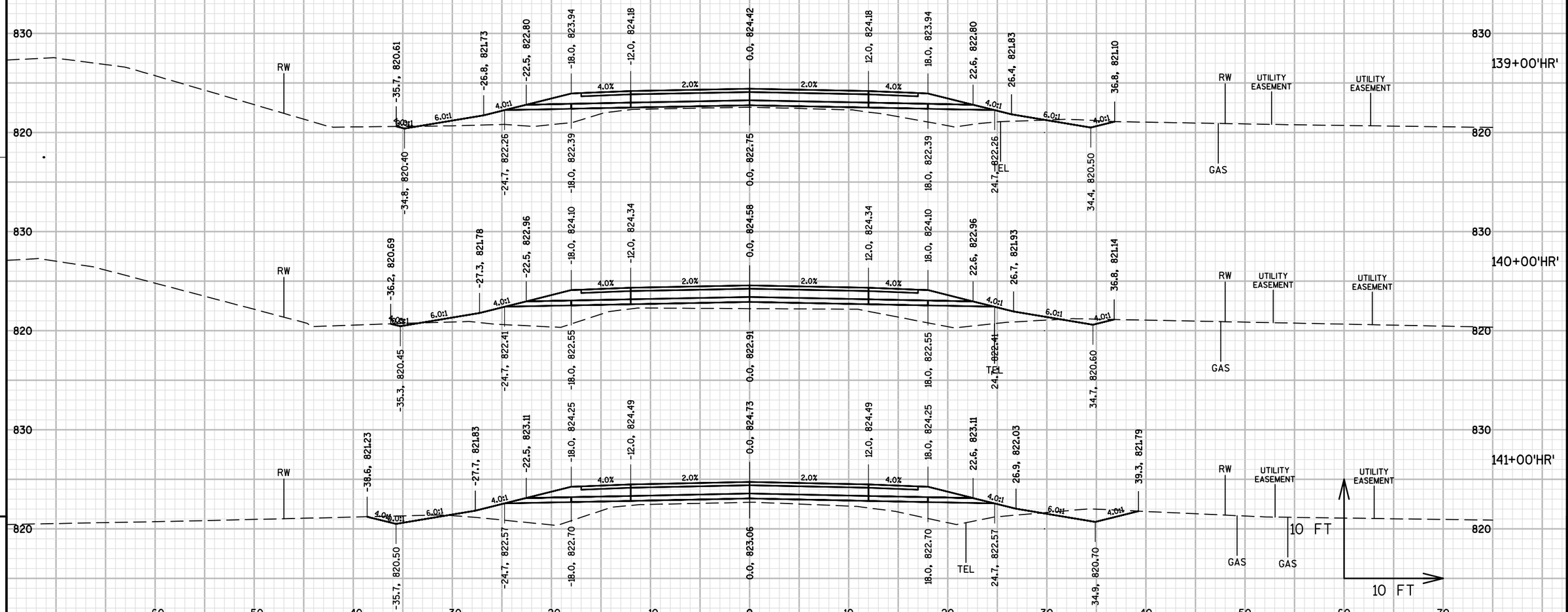


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

BEGIN EXCEPTION TO NET CENTERLINE LENGTH
STA. 108+00.00'HR'



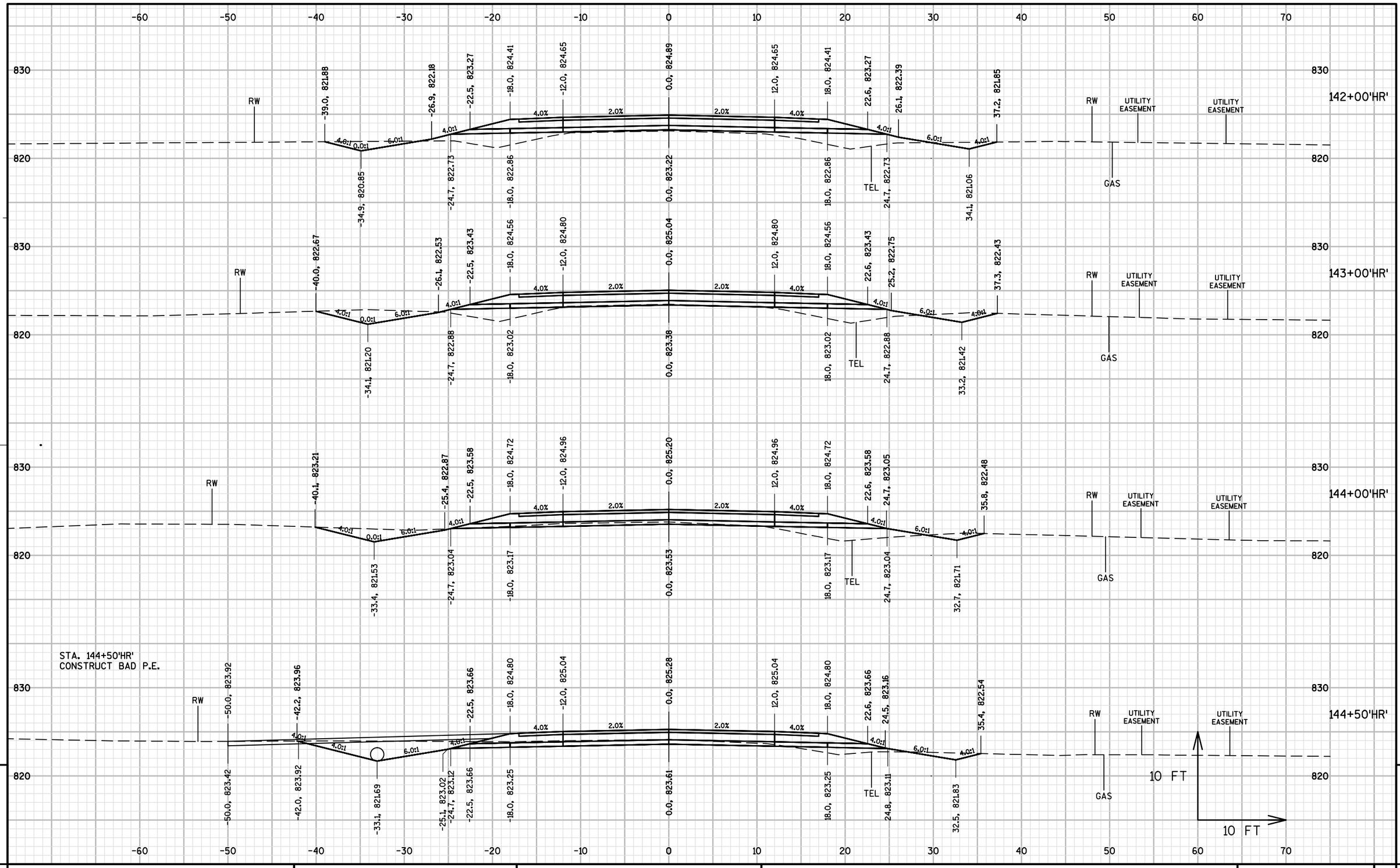
END EXCEPTION TO NET CENTERLINE LENGTH
STA. 139+00.00'HR'



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:15 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

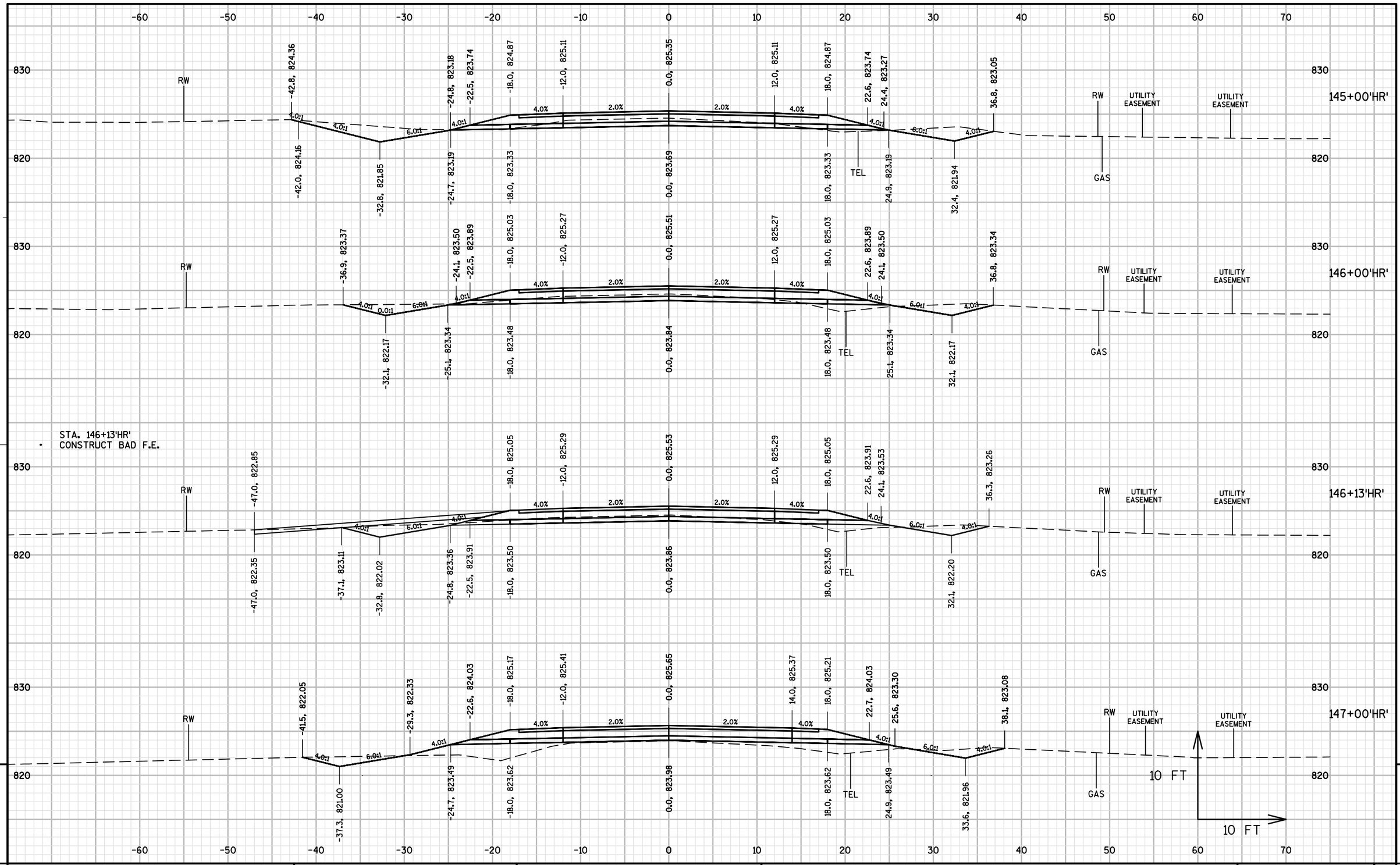
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:15 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

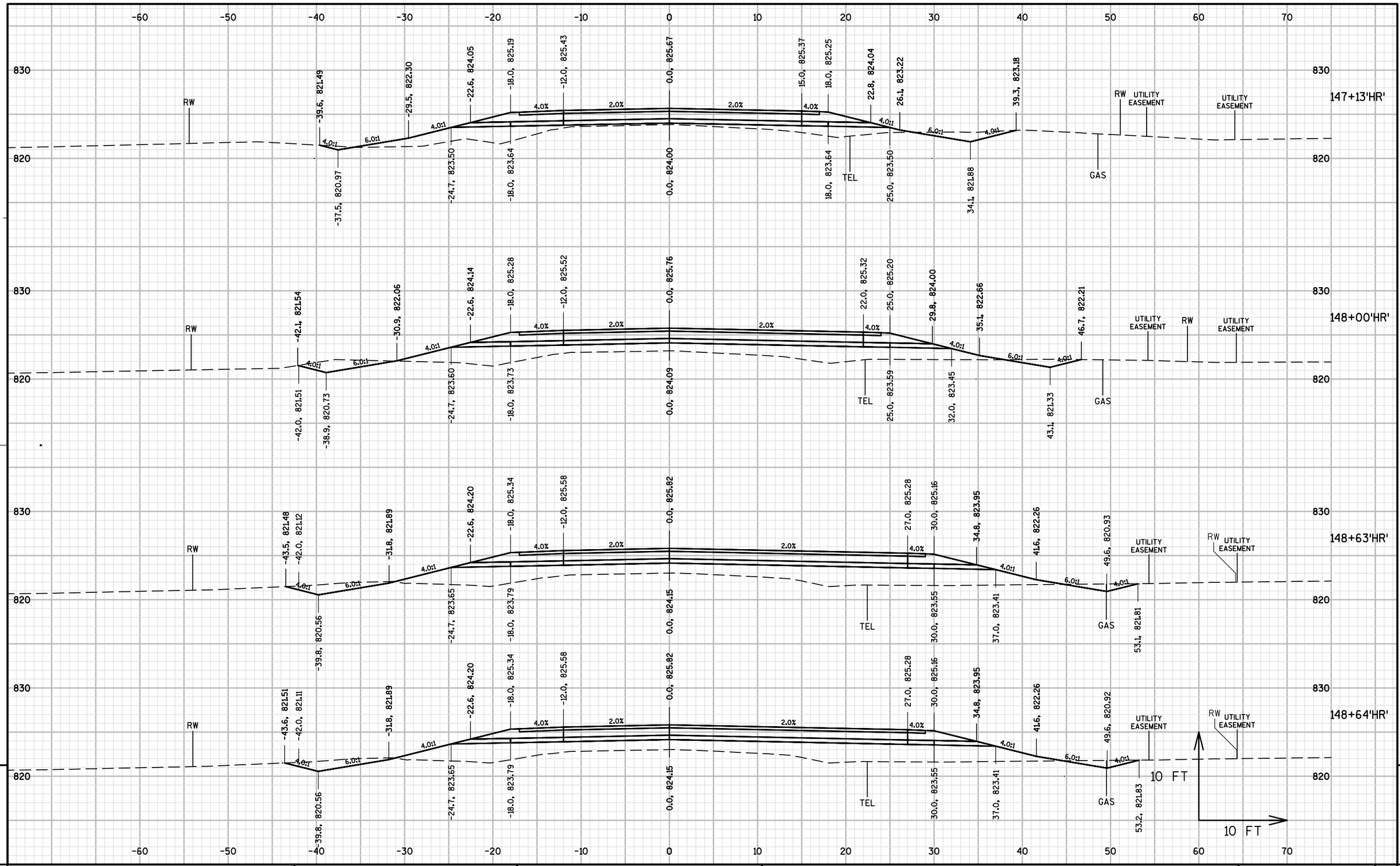
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

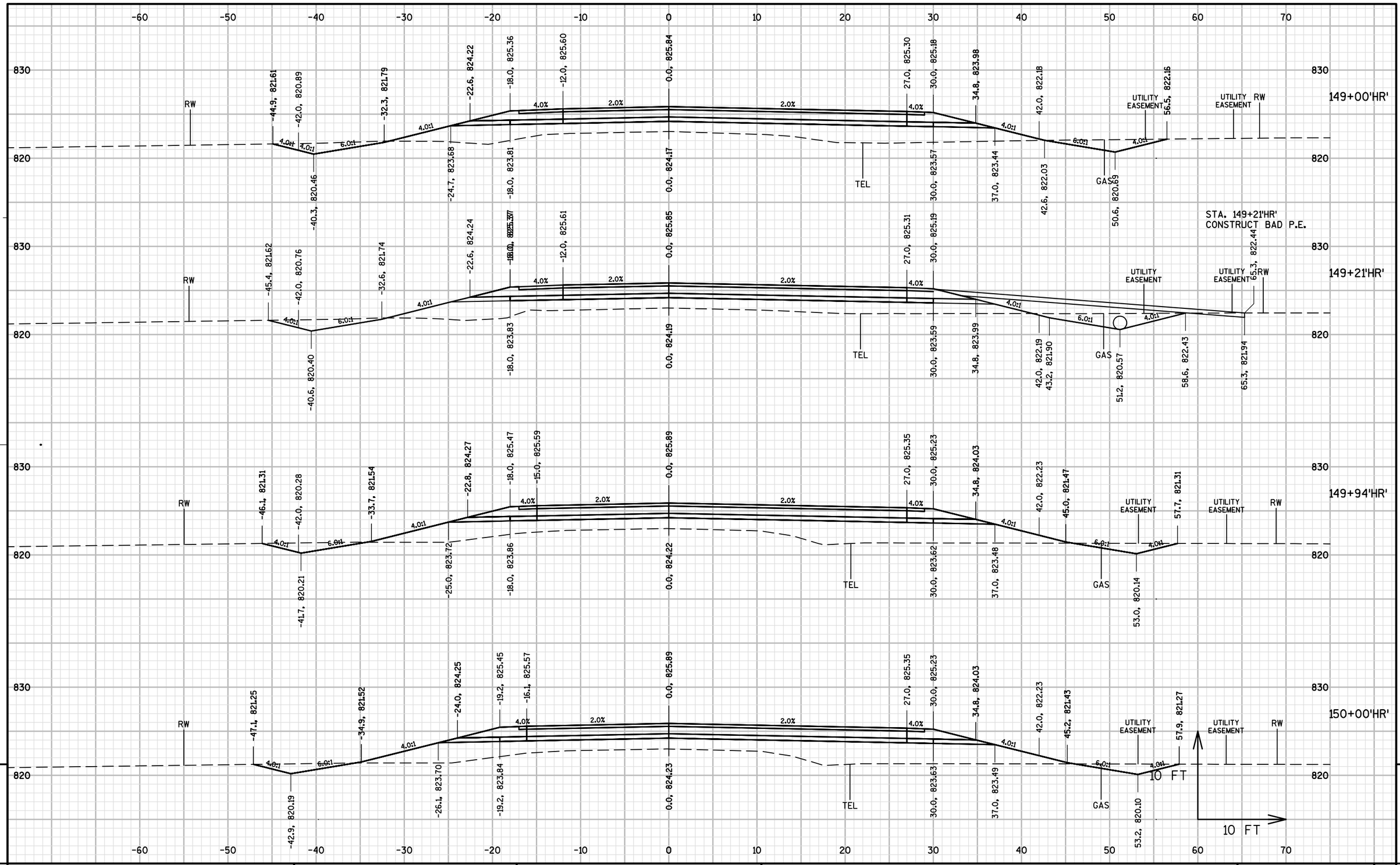
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:16 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

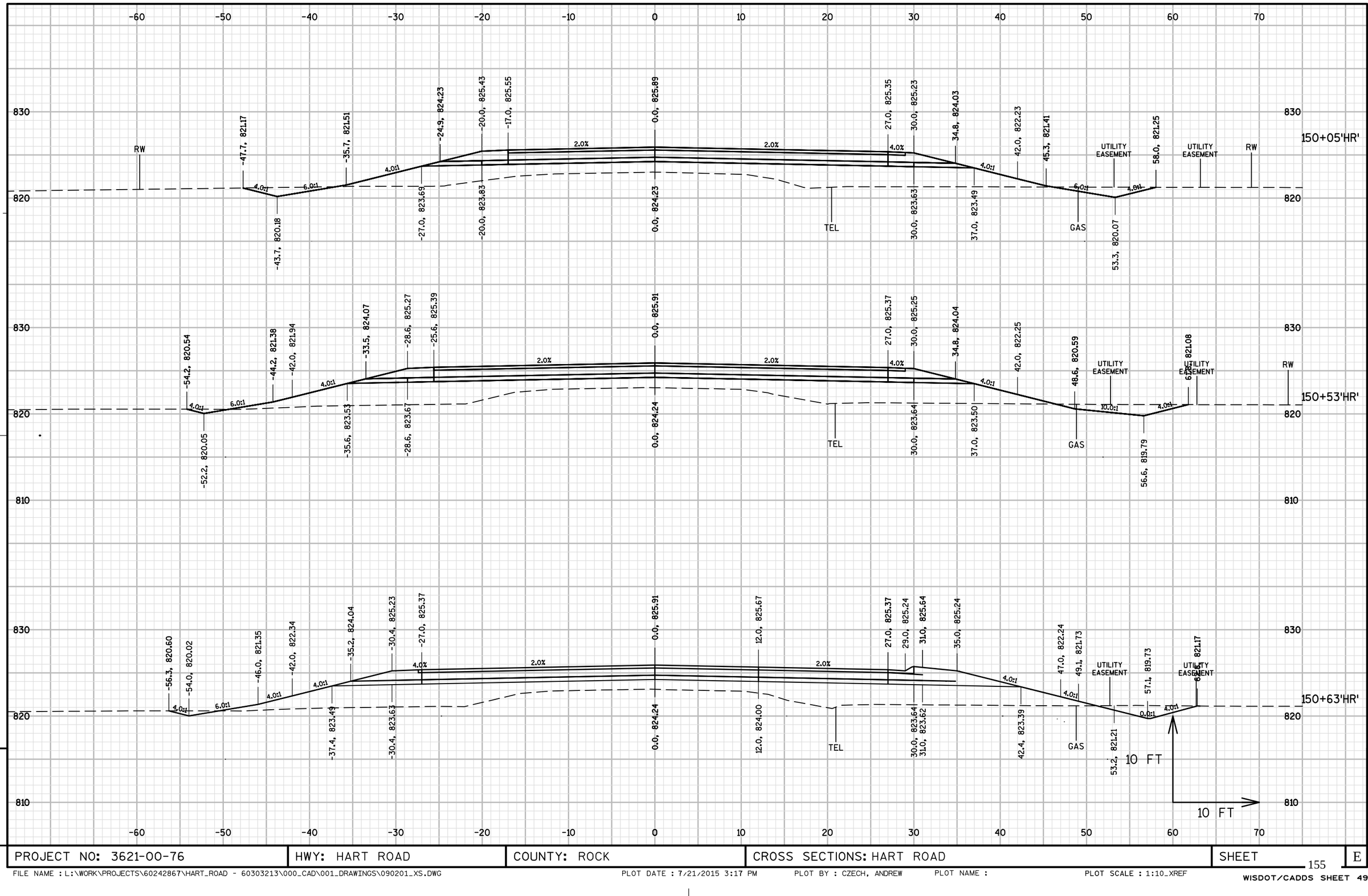
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:16 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:17 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:17 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

STA 150+70'HR'
1 - 30" C.P.R.C. REQUIRED 106 LF
SKEW 4° RHF
2 - APRON ENDWALLS REQUIRED

150+77'HR'

-58.7, 820.64 | -56.1, 820.62 | -47.0, 822.25 | -35.0, 825.25 | -31.0, 825.65 | -29.0, 825.25 | -27.0, 825.37 | -12.0, 825.67 | 0.0, 825.91 | 12.0, 825.67 | 28.8, 825.30 | 30.8, 825.17 | 32.9, 825.57 | 37.1, 825.15 | 49.7, 822.09 | 59.8, 819.69 | 67.3, 821.35

5.6:1 | 4.0:1 | 2.0% | 2.0% | 2.0% | 2.2% | 4.1:1 | 4.2:1 | 4.5:1

UTILITY EASEMENT | UTILITY EASEMENT

-31.0, 823.82 | 0.0, 824.24 | 32.9, 823.55 | TEL | GAS

151+00'HR'

-44.6, 824.77 | -39.2, 825.27 | -36.6, 824.91 | -34.2, 825.06 | -12.0, 825.67 | 0.0, 825.91 | 12.0, 825.67 | 40.0, 824.93 | 42.6, 824.78 | 45.3, 825.15 | 50.8, 824.68 | 69.4, 821.69

3.1% | 3.0% | 2.8% | 2.6% | 2.4% | 2.0% | 2.0% | 2.6% | 2.7% | 2.7% | 2.7% | 2.6%

UTILITY EASEMENT | UTILITY EASEMENT | 5.8:1 | 7.2:1

-39.2, 823.28 | -12.0, 824.01 | 0.0, 824.25 | 12.0, 824.01 | TEL | 45.2, 823.13 | GAS | 63.1, 822.57

LATHERS ROAD

151+35'HR'

-12.0, 825.67 | 0.0, 825.91 | 12.0, 825.67

1.7% 1.7% 1.7% 1.7% 1.7% 1.8% 1.8% 1.8% 1.8% 1.9% 1.9% 1.9% 2.0% 2.0% 2.0% 2.1% 2.1% 2.0% 2.0% 2.0% 2.0% 2.8% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 2.0% 1.9% 1.9% 1.8% 1.8% 1.8% 1.7% 1.7% 1.7% 1.7% 1.6% 1.6%

-12.0, 824.01 | 0.0, 824.25 | 12.0, 824.01 | TEL | GAS

10 FT | 10 FT

LATHERS ROAD

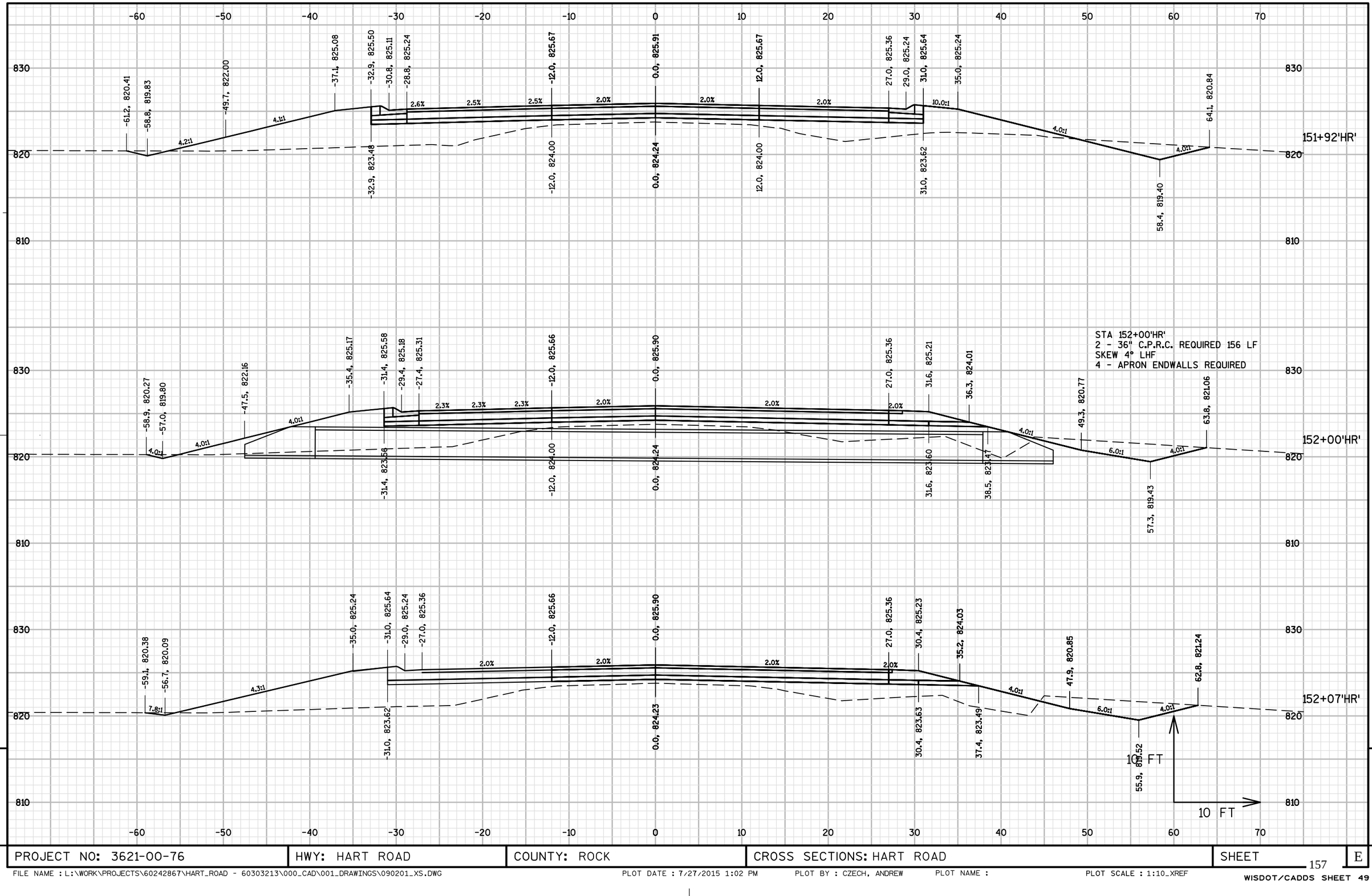
-60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

810 820 830

9 9

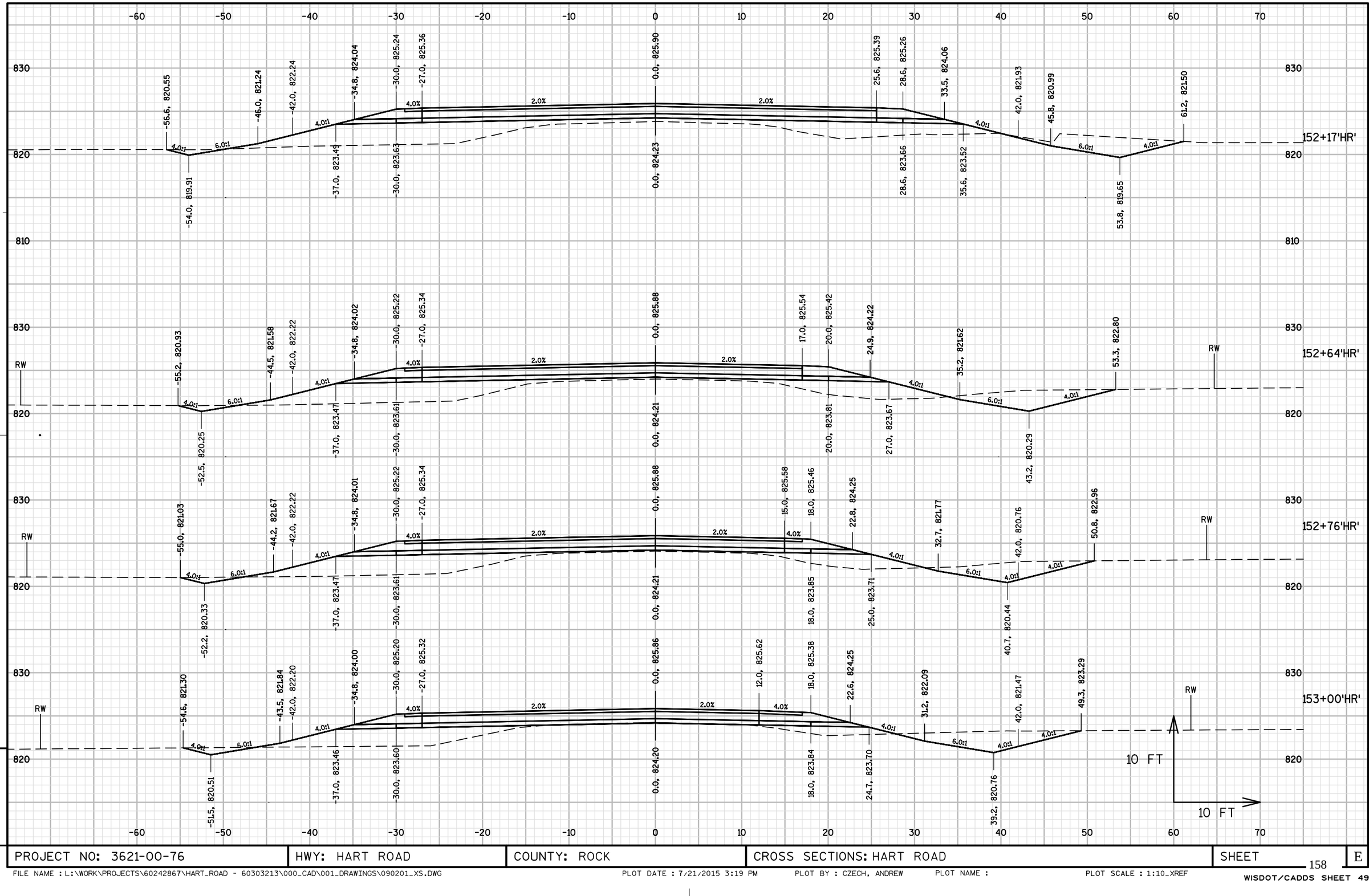
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:18 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

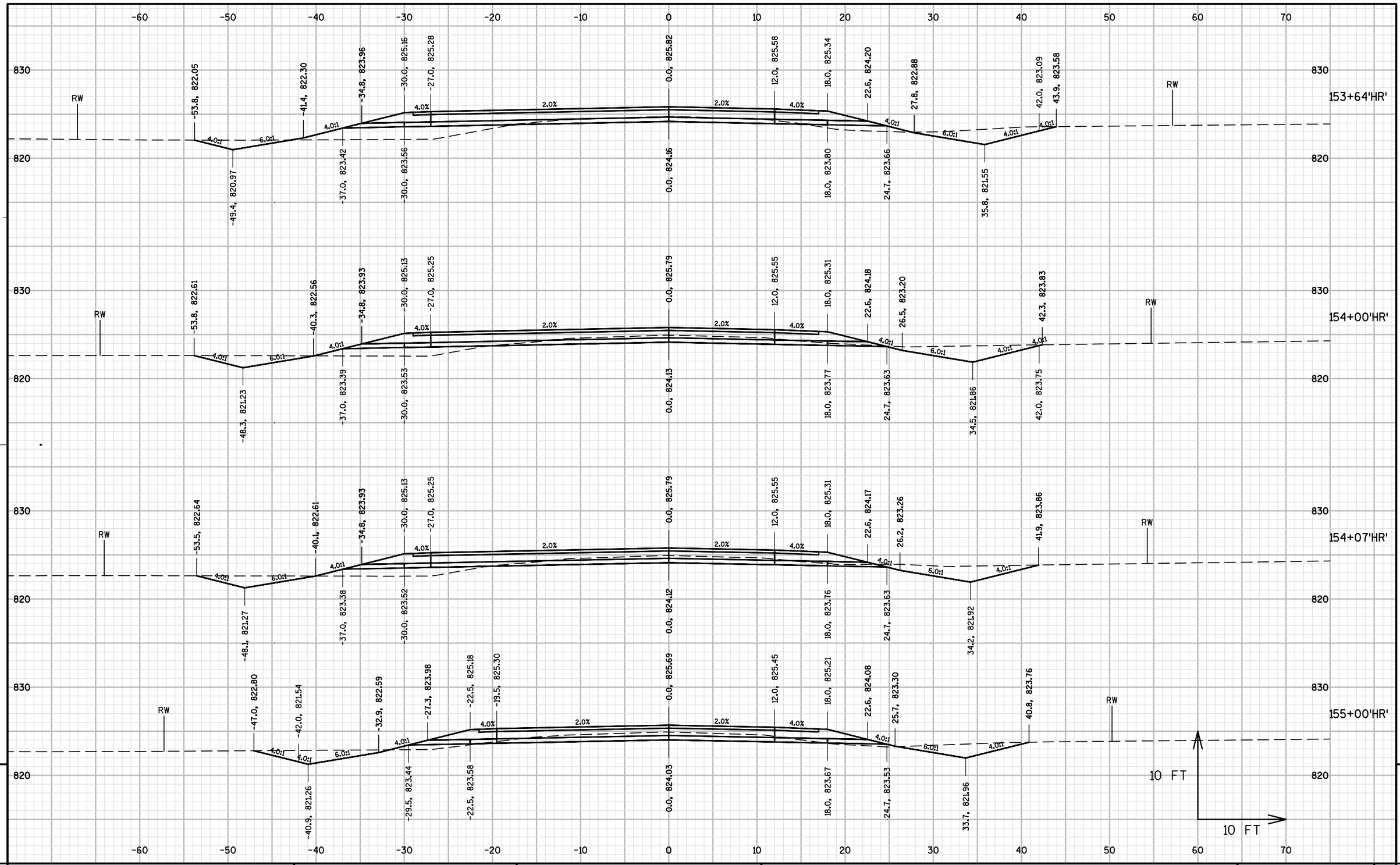
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/27/2015 1:02 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:19 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

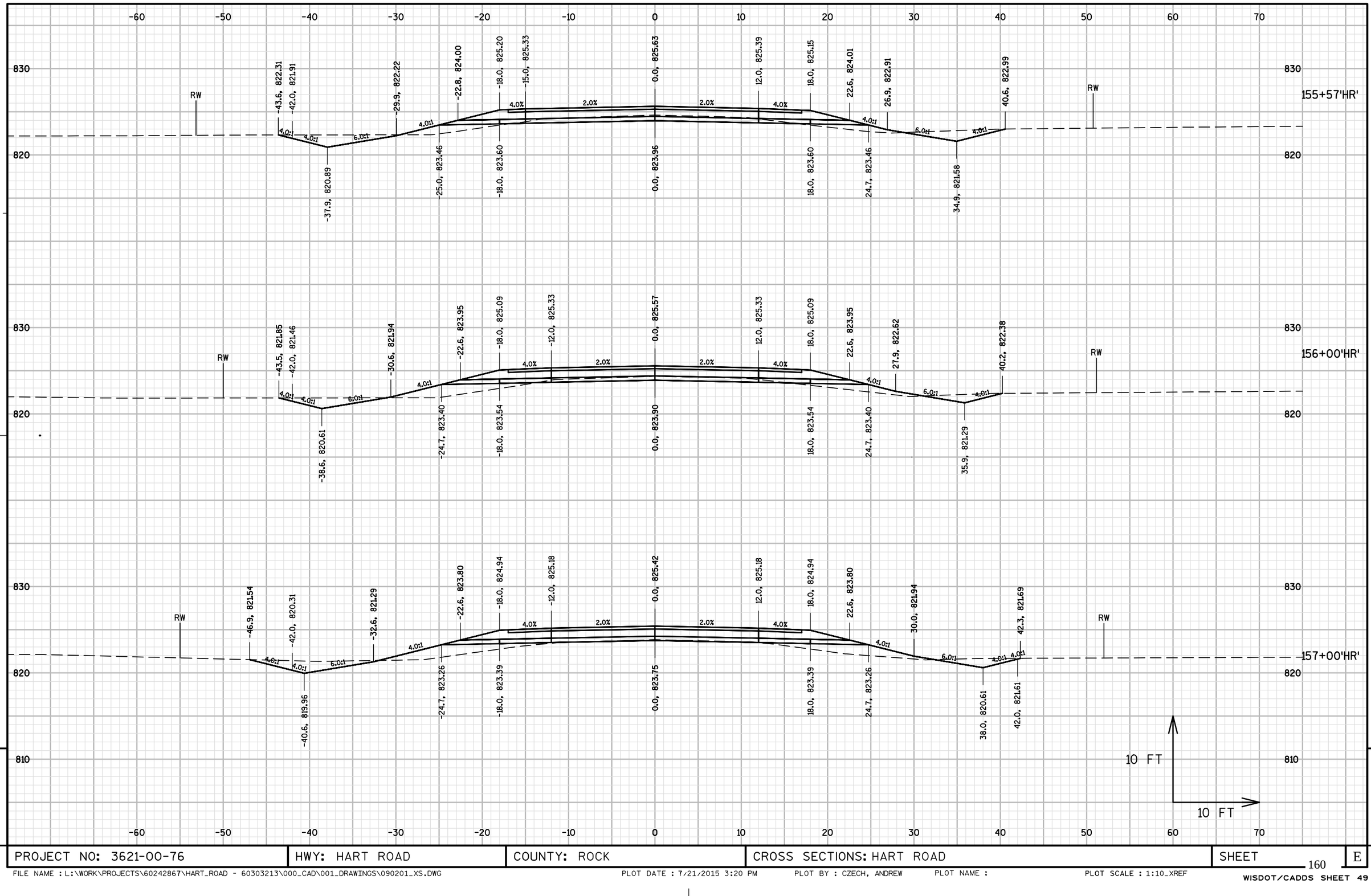
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

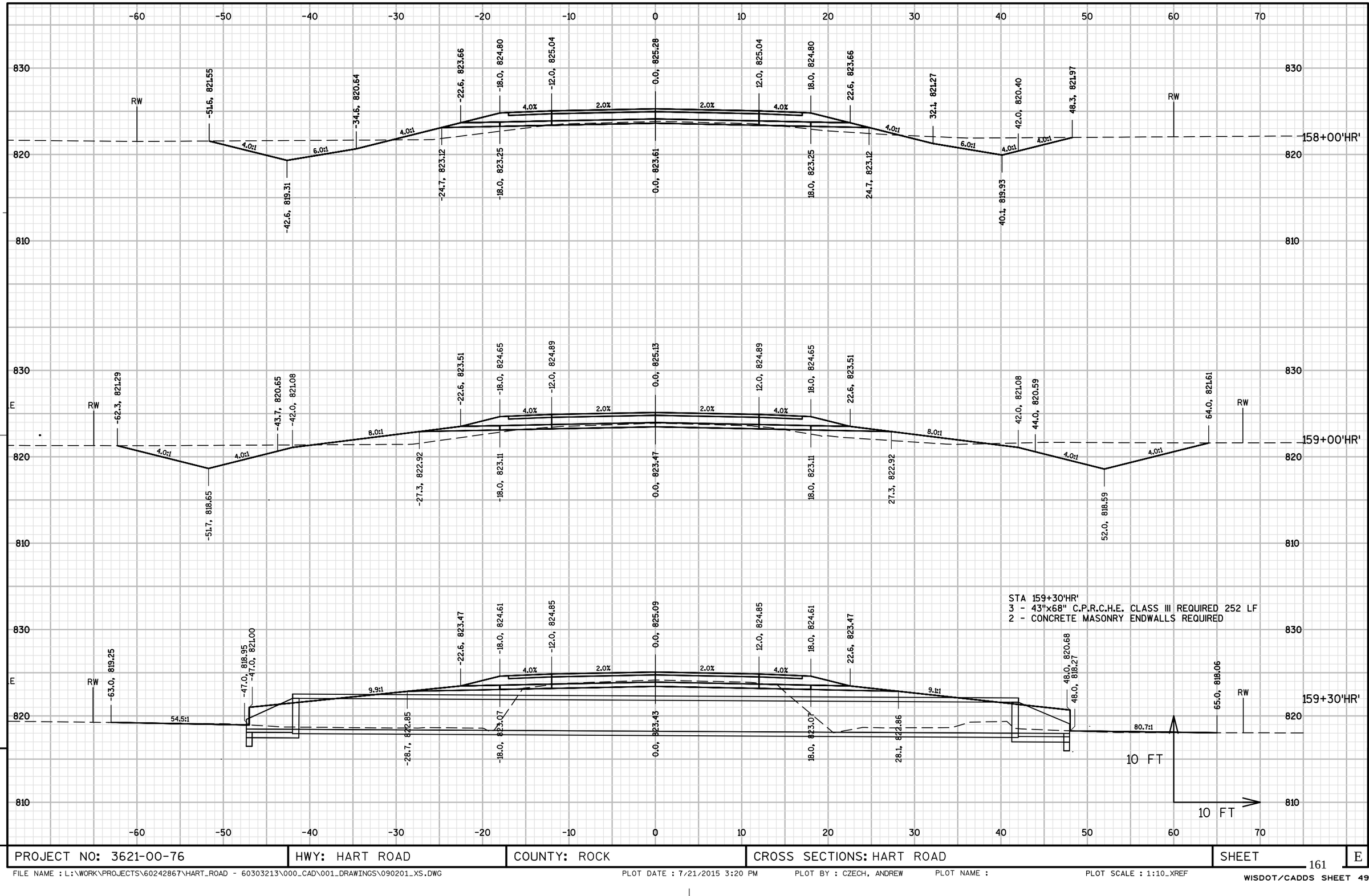
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:19 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



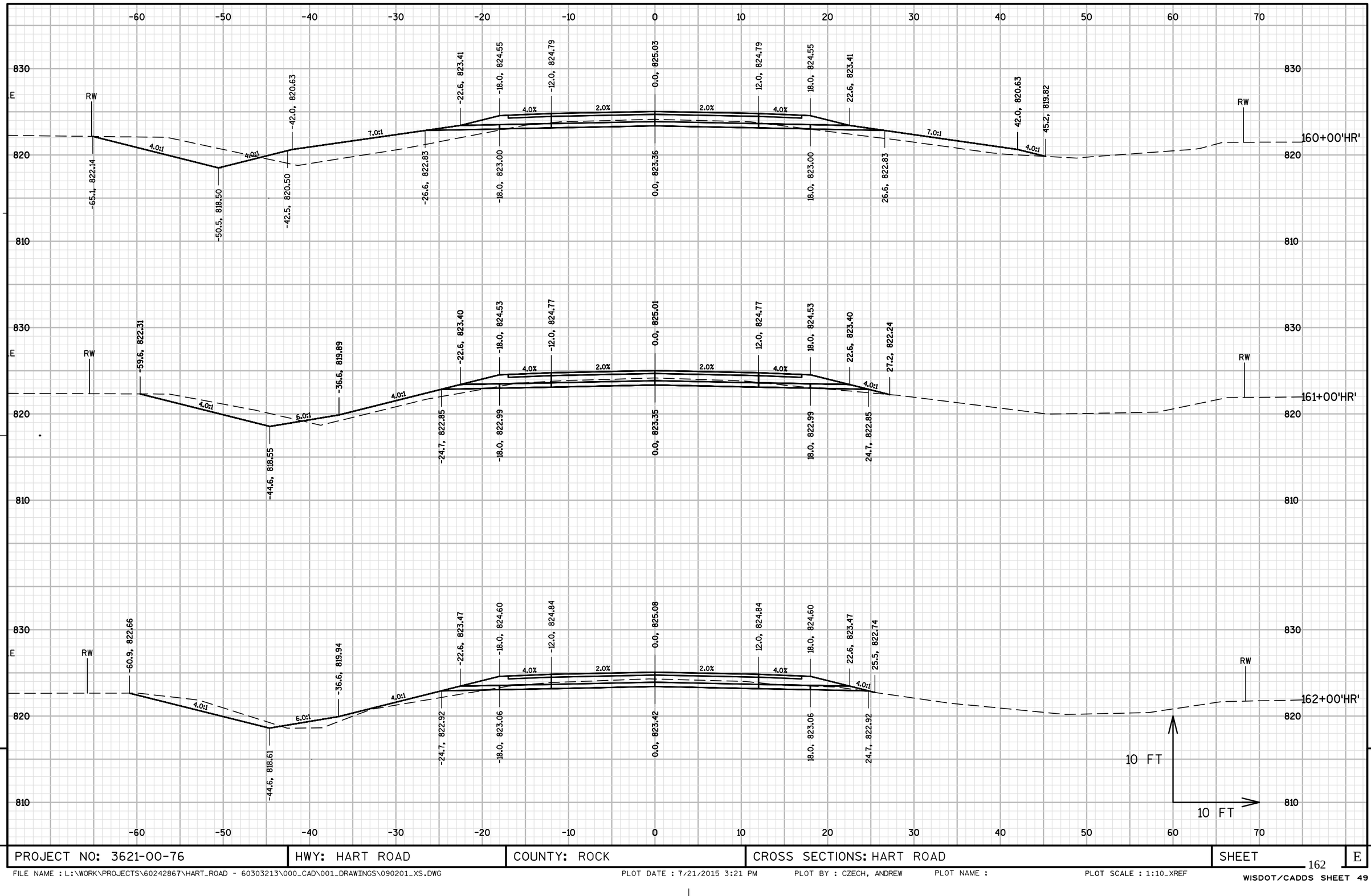
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:20 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

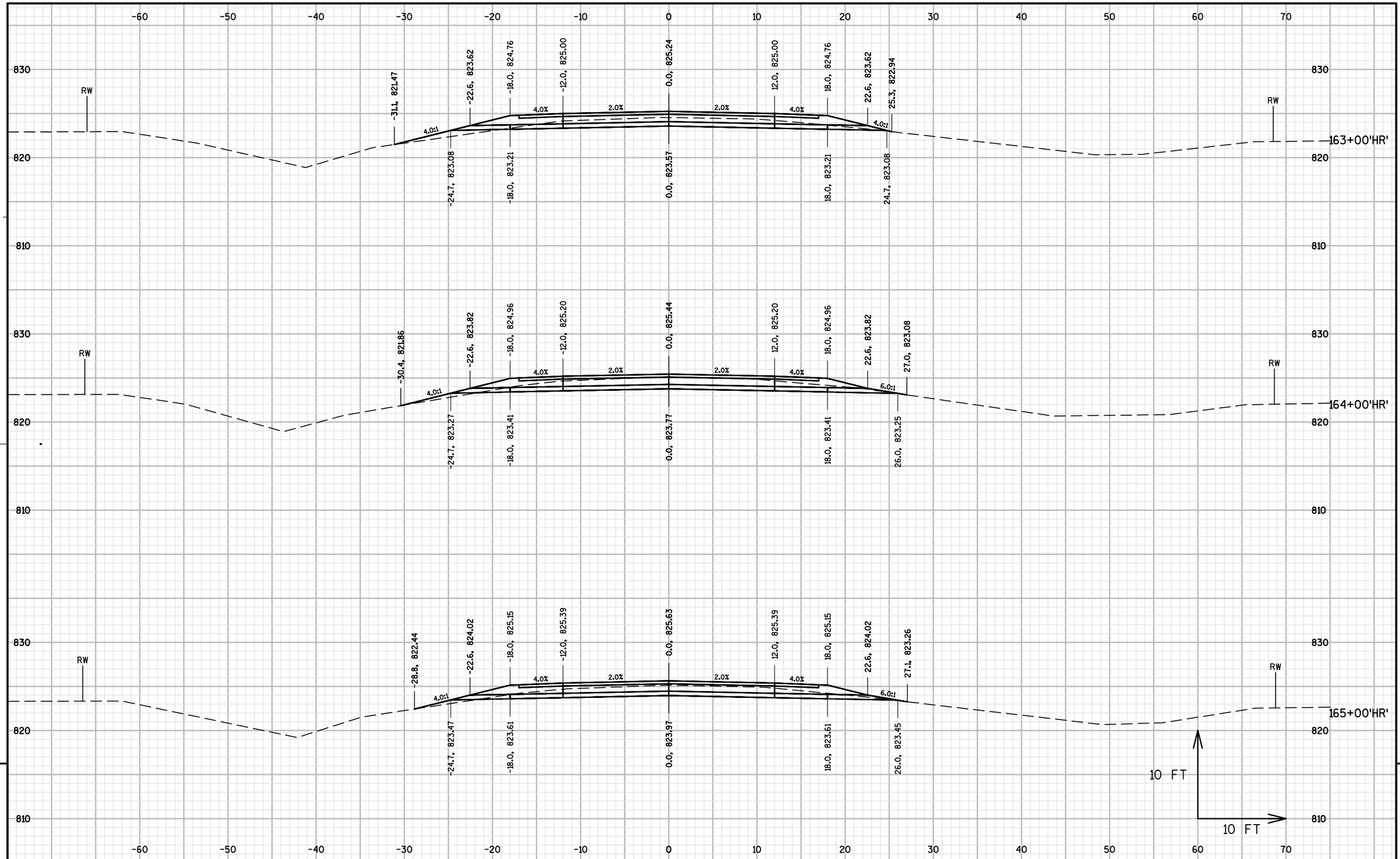


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:20 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

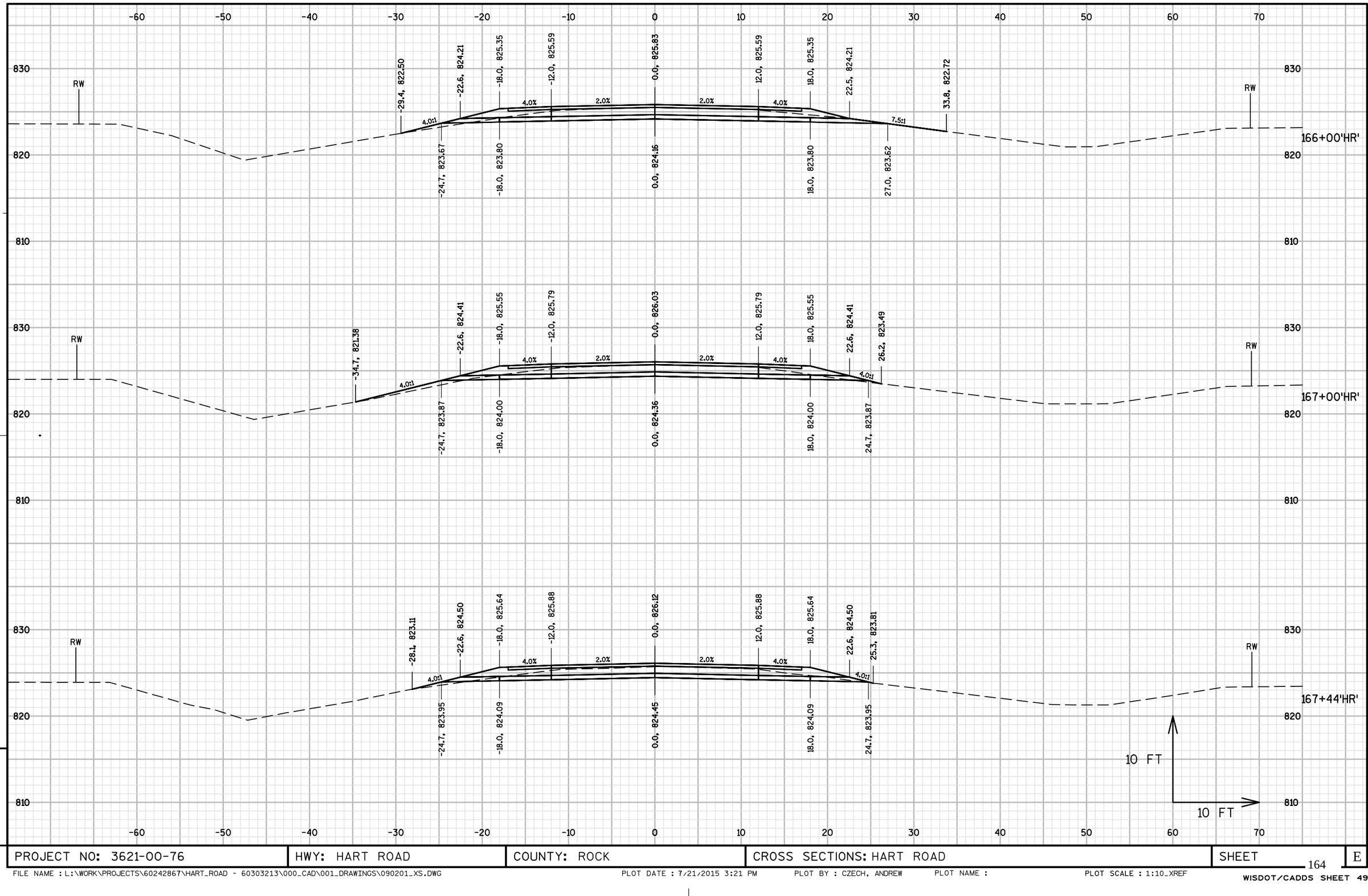


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

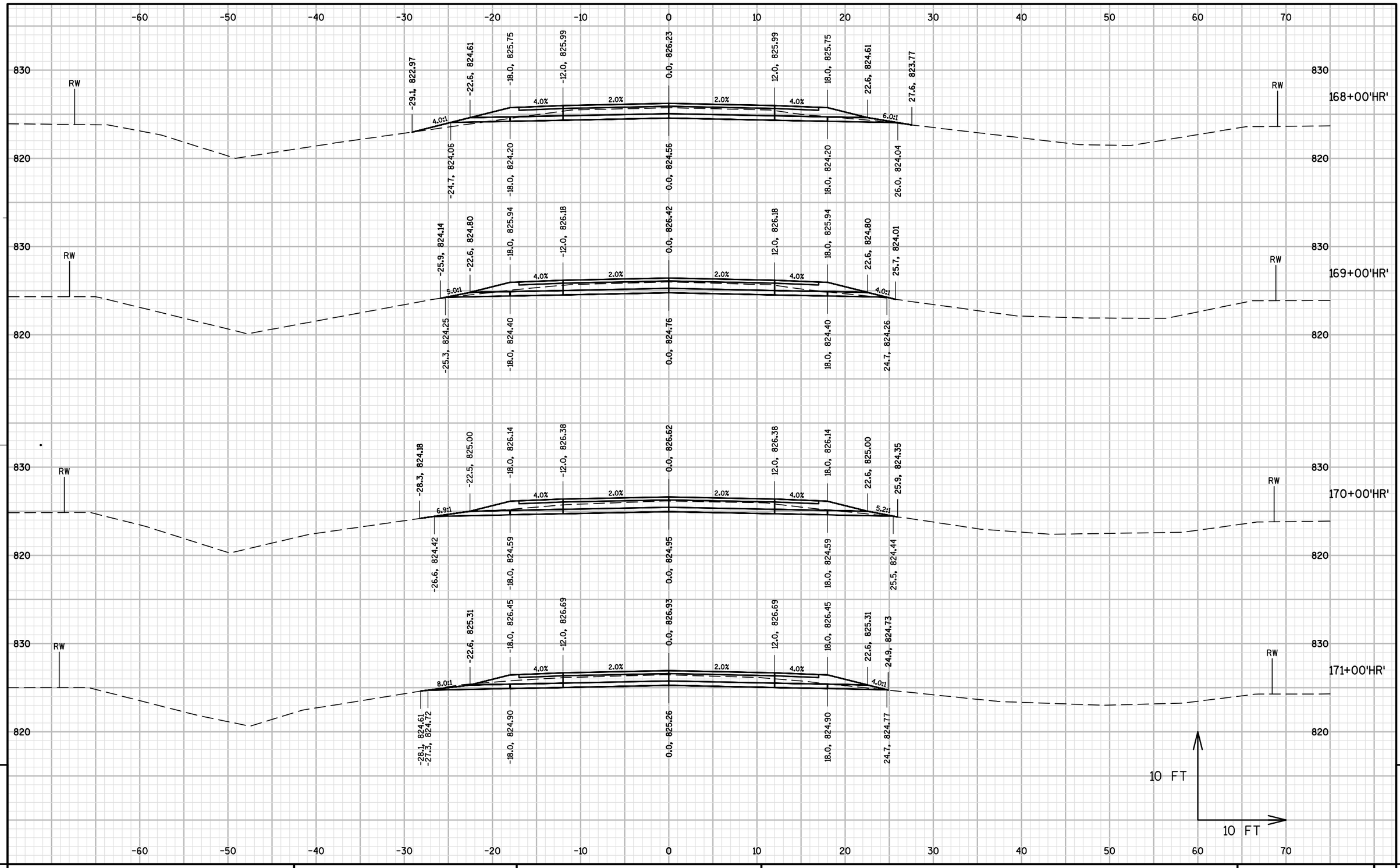
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:21 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:21 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

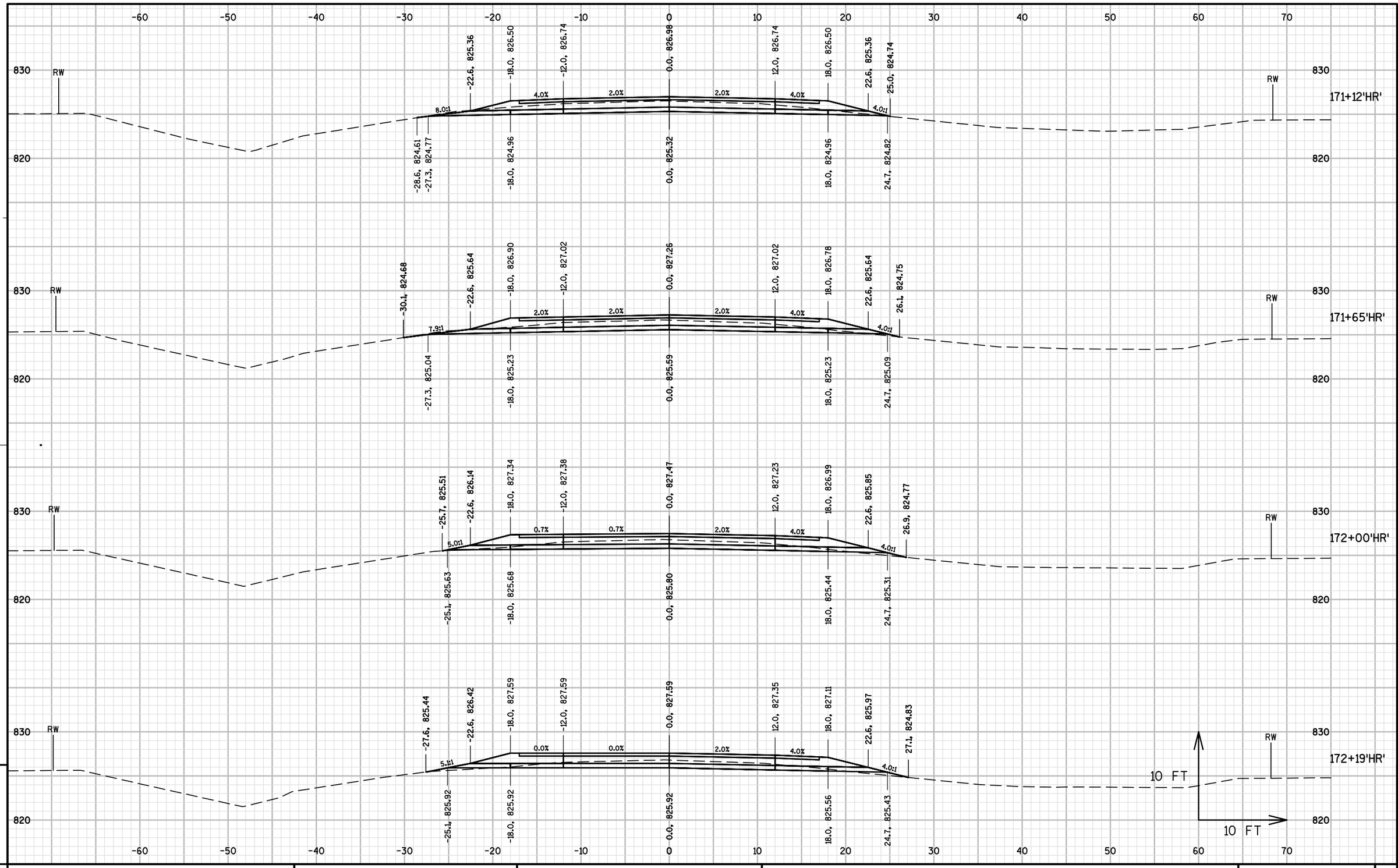
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

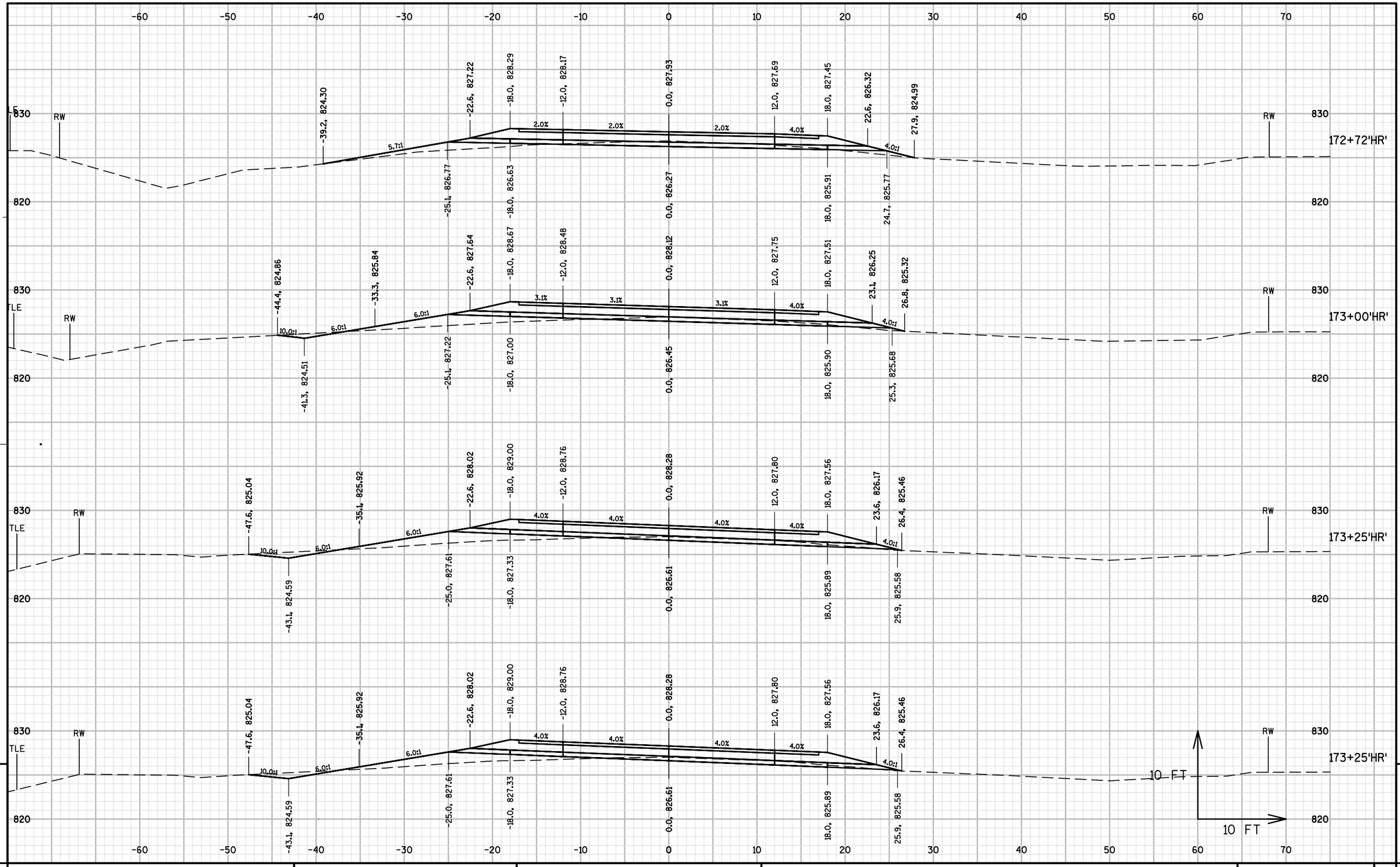
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:22 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

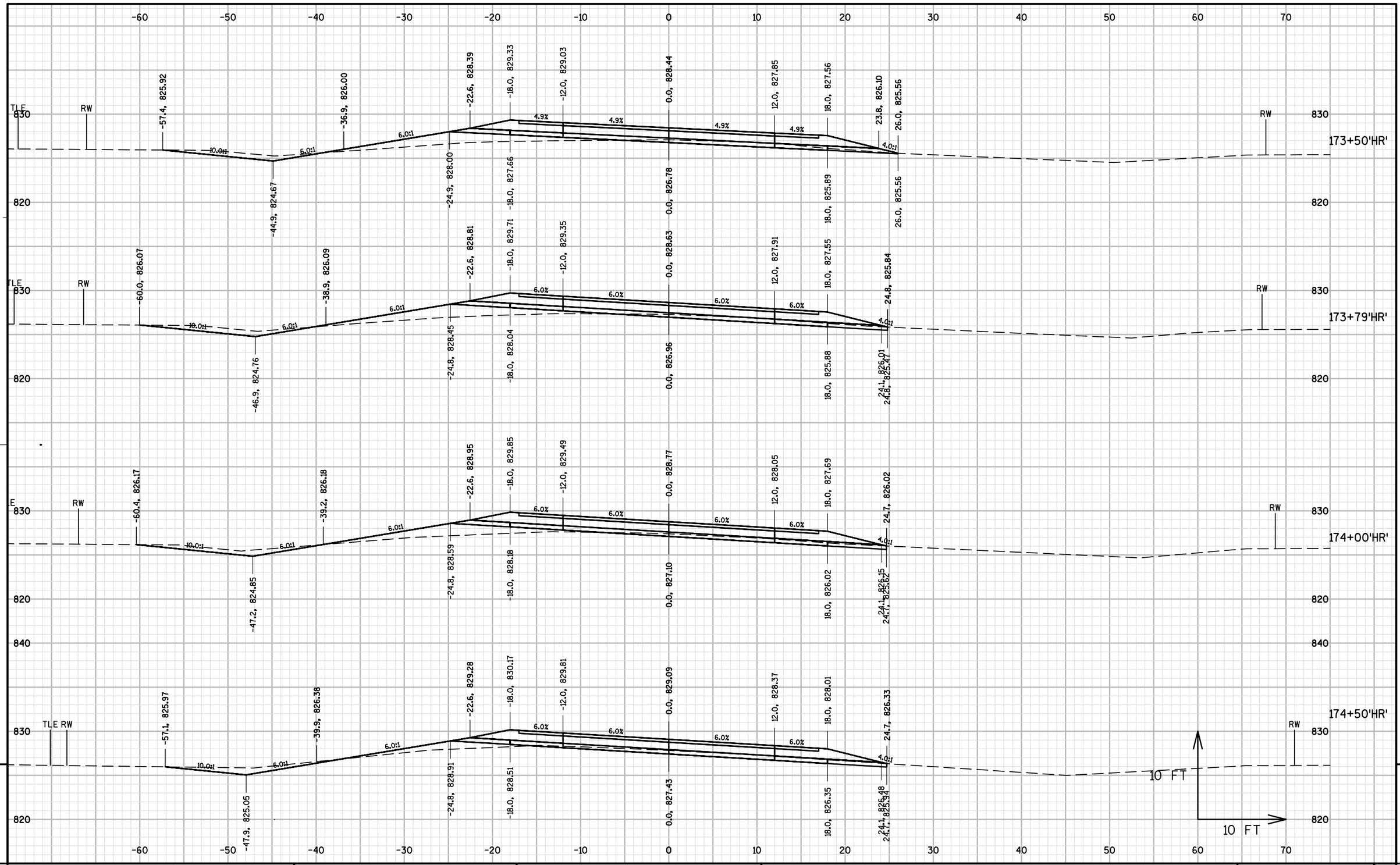
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:22 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:23 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

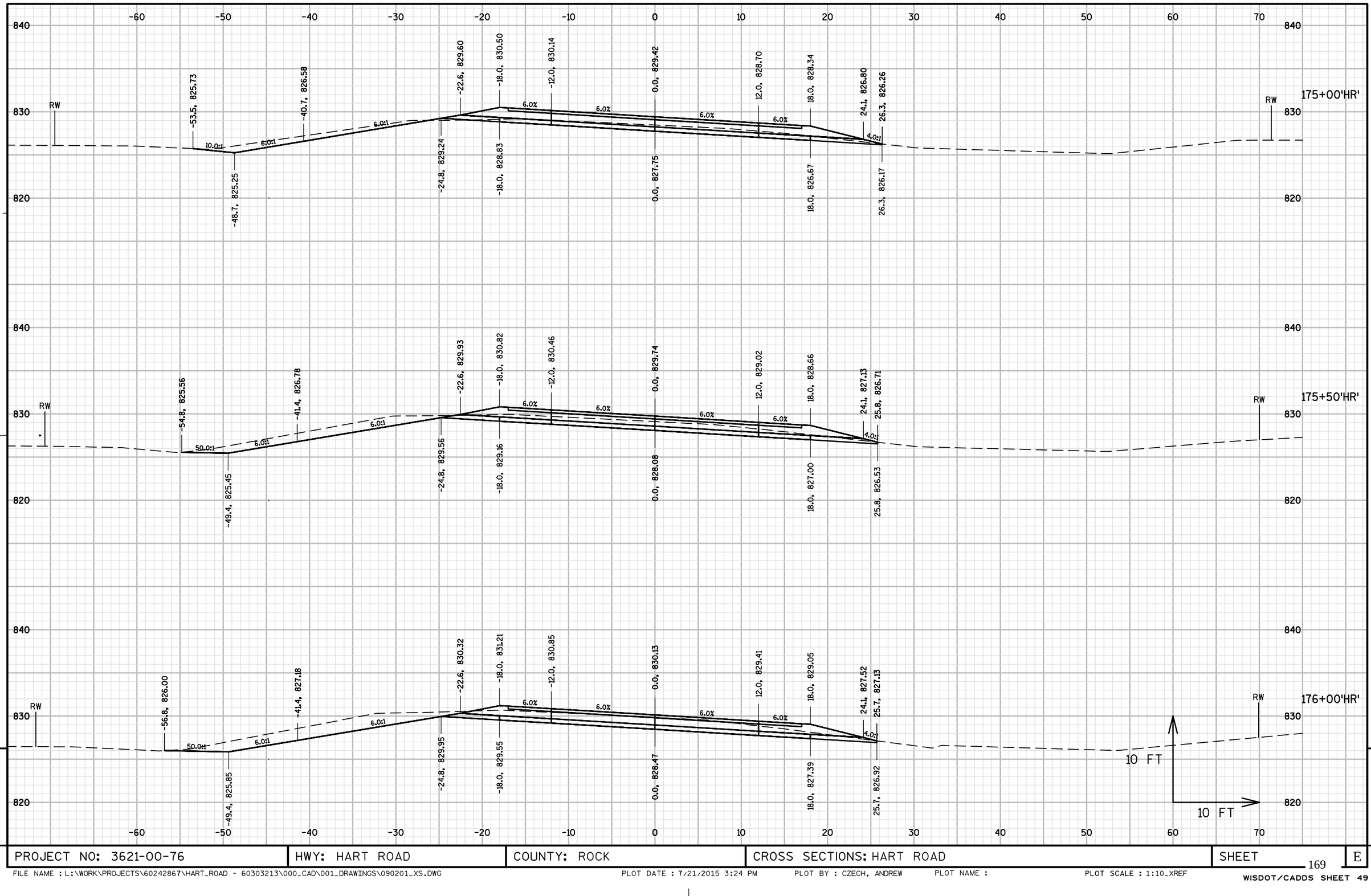
WISDOT/CADDS SHEET 49



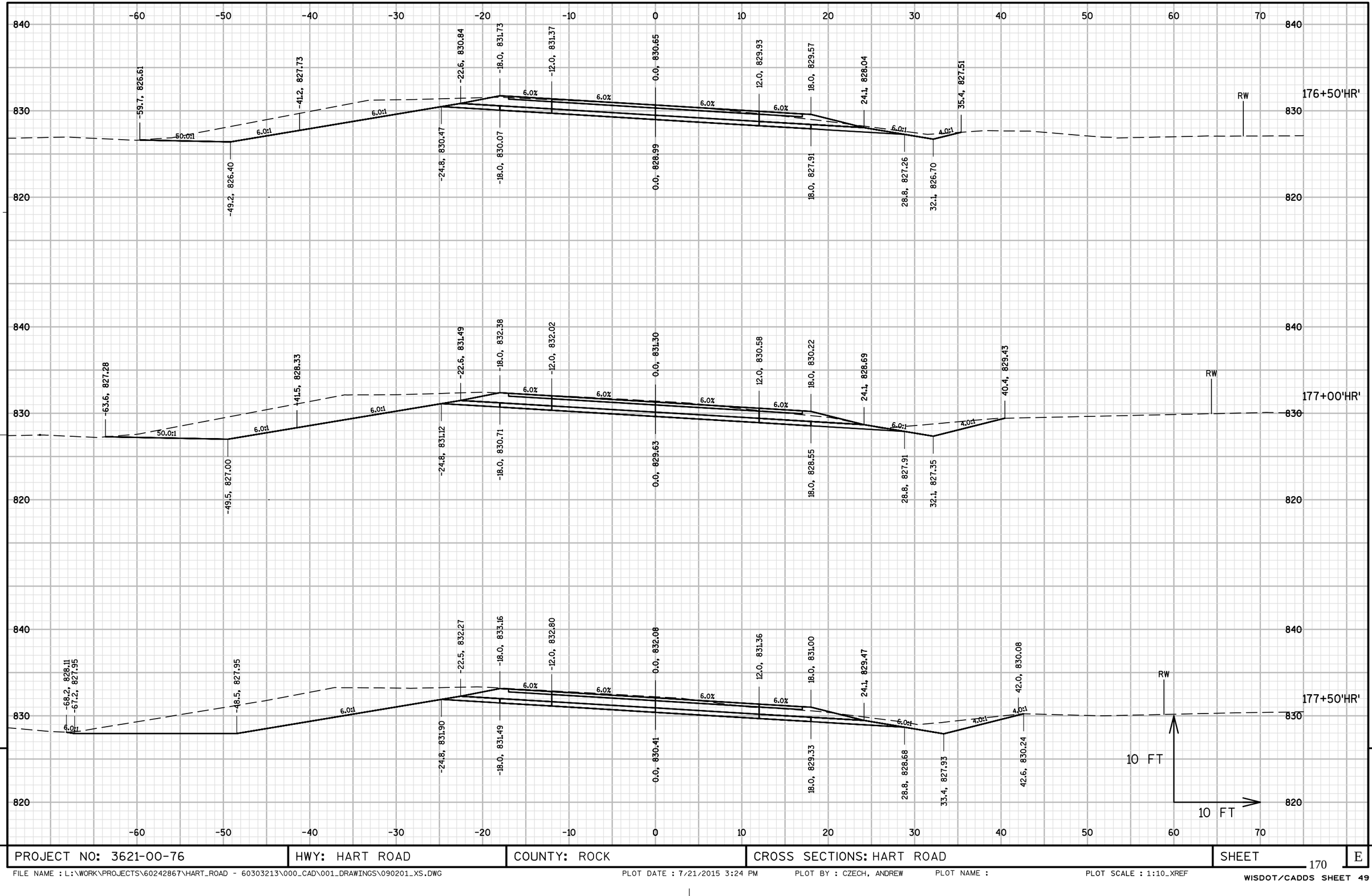
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:23 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



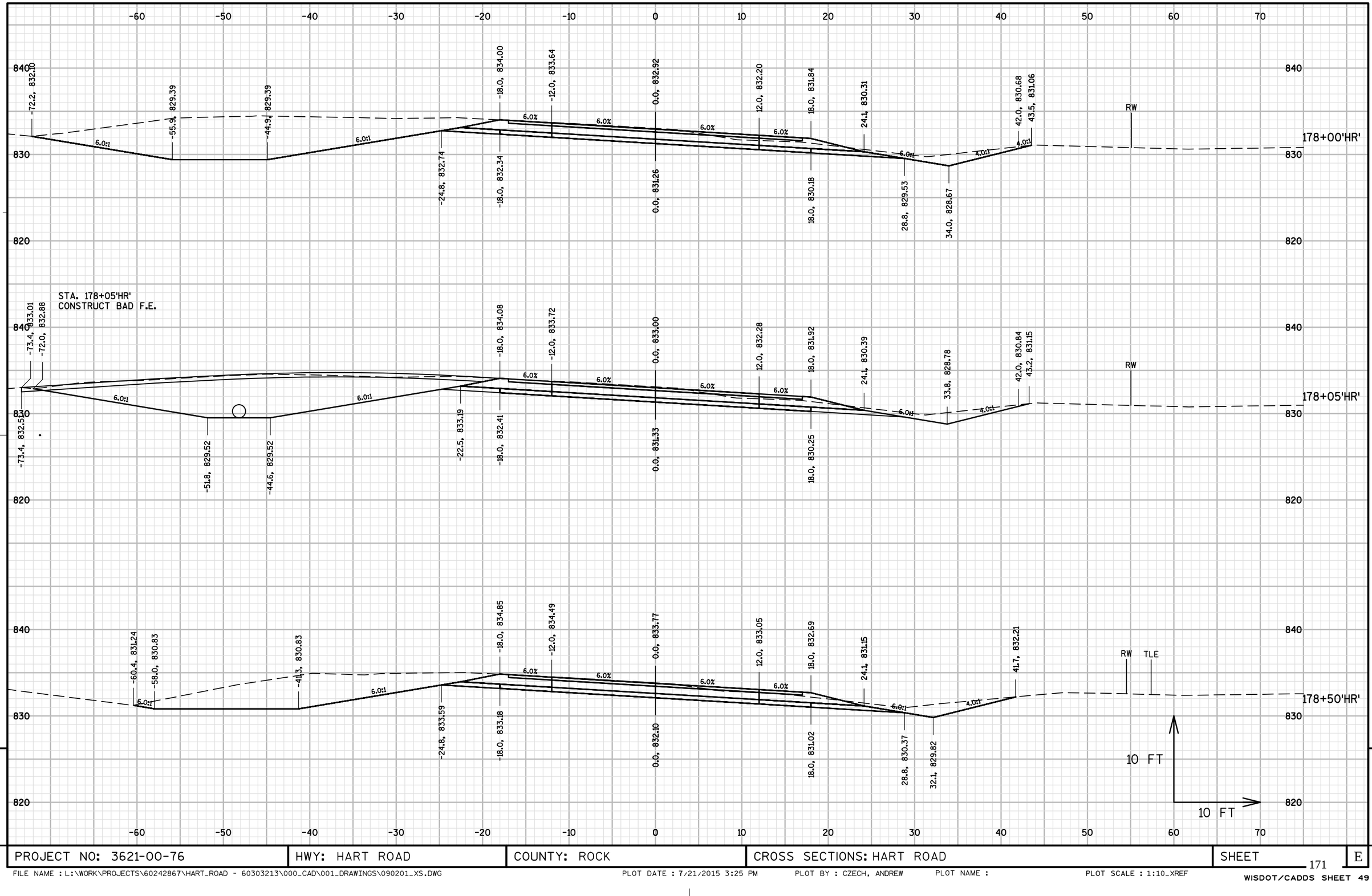
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



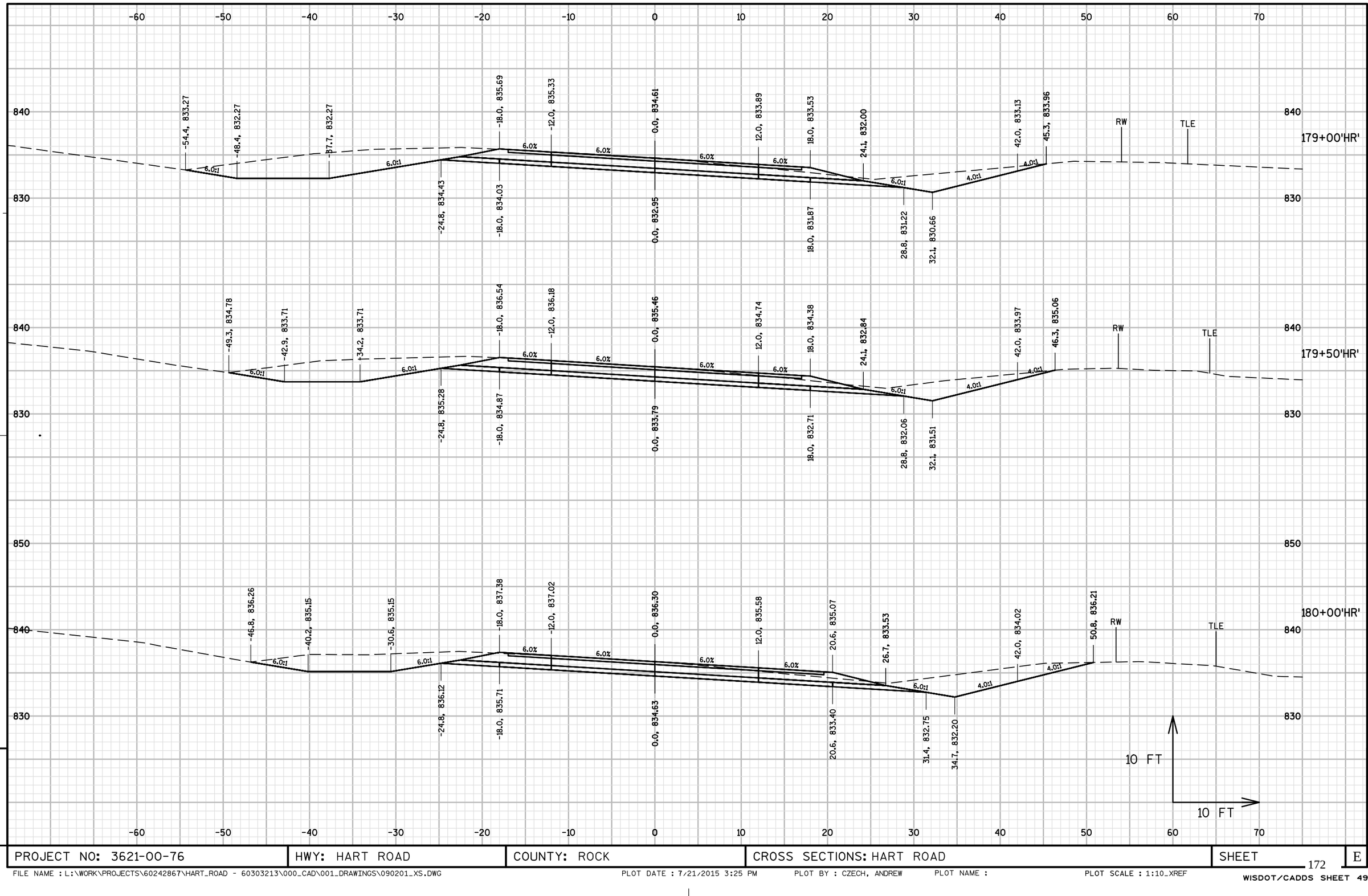
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:24 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

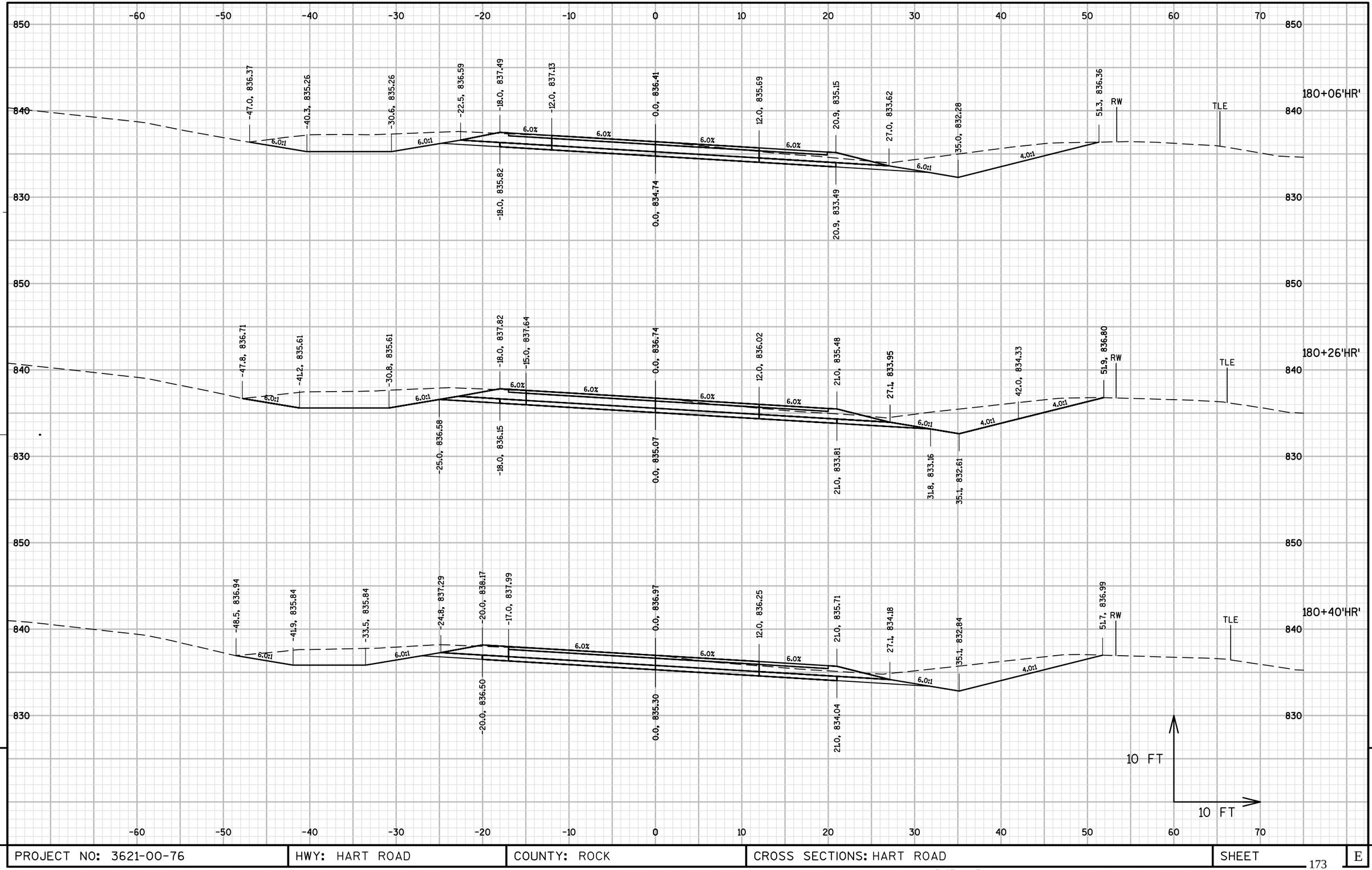
WISDOT/CADDS SHEET 49



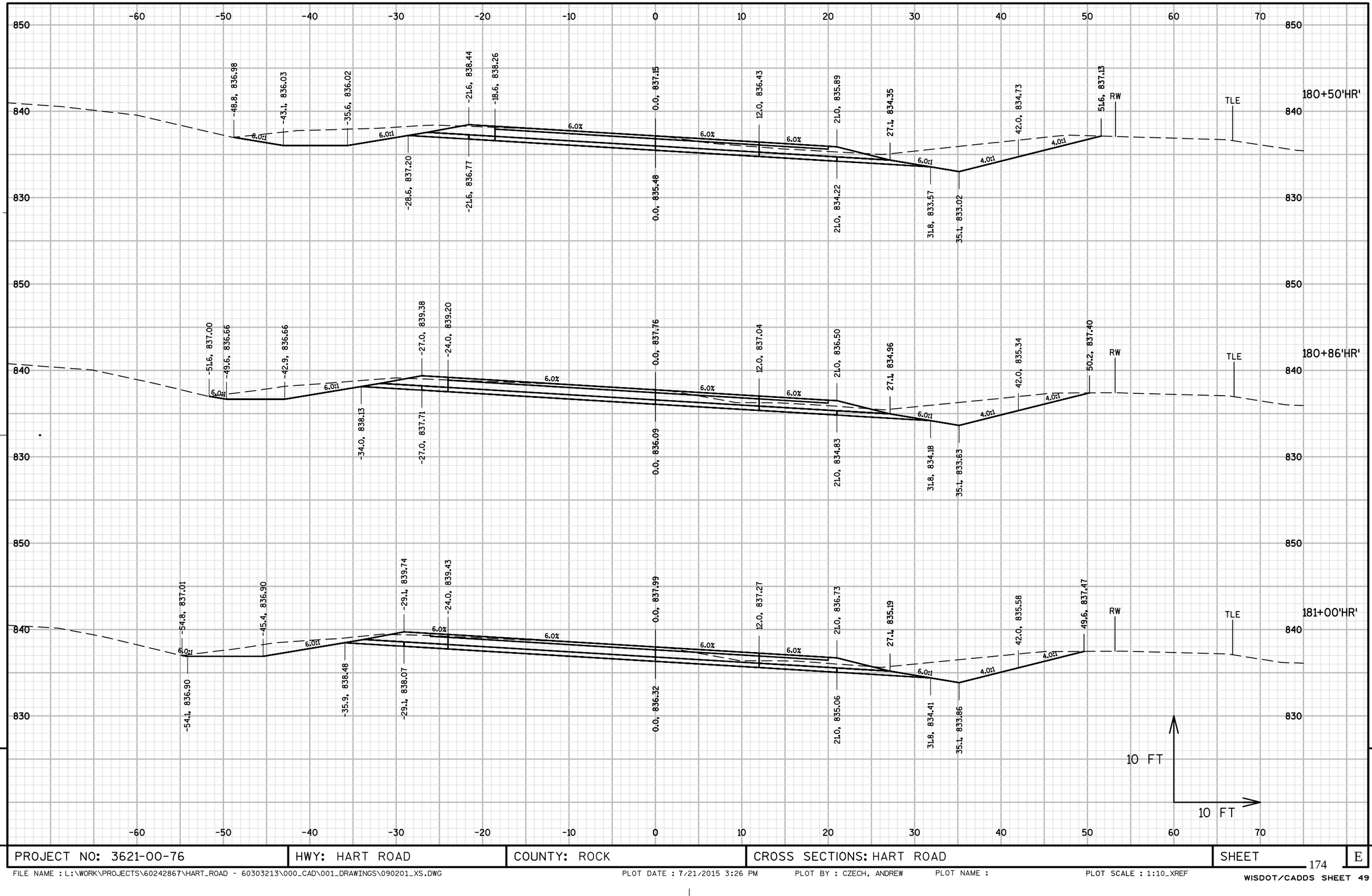
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

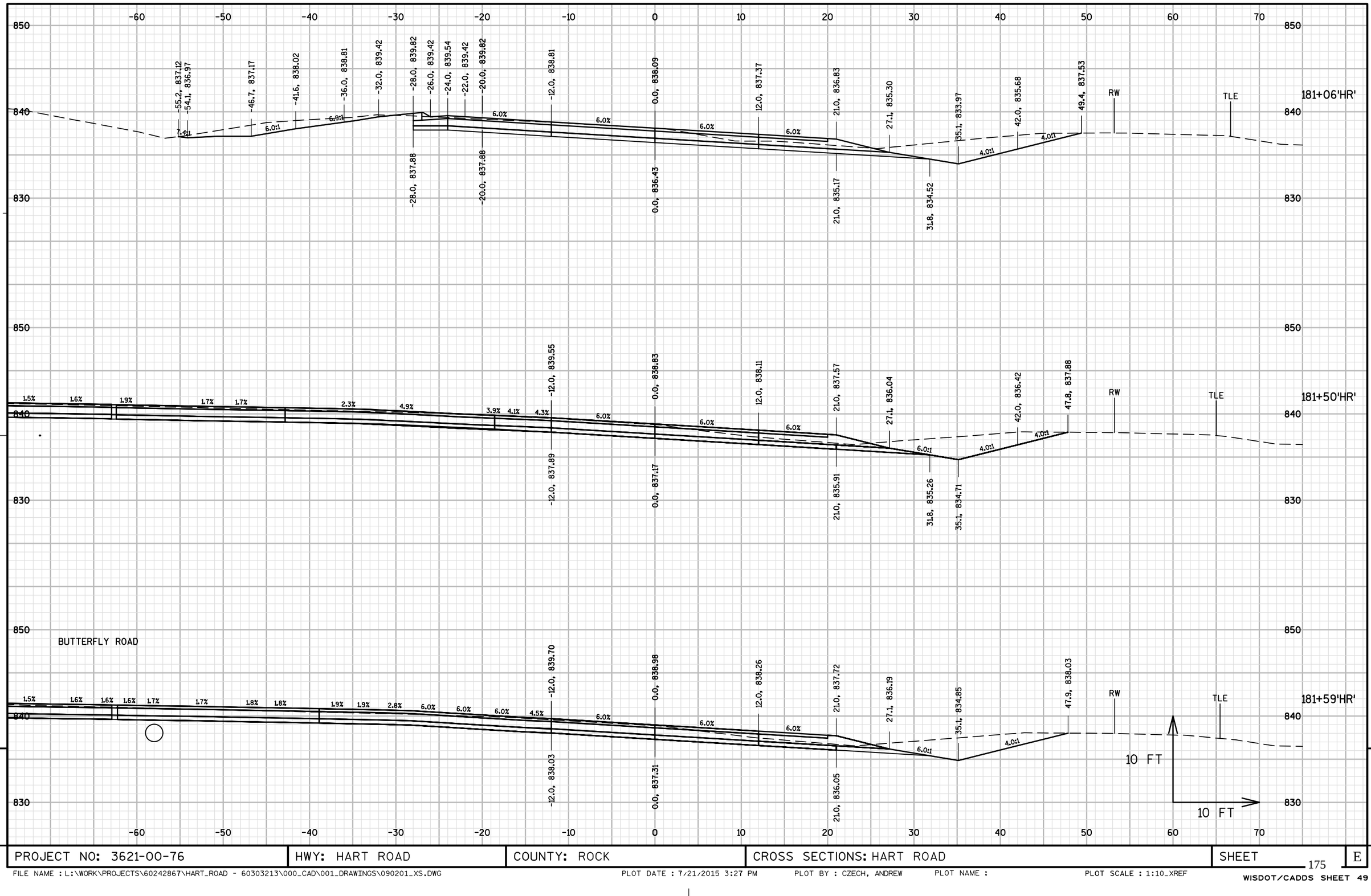


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

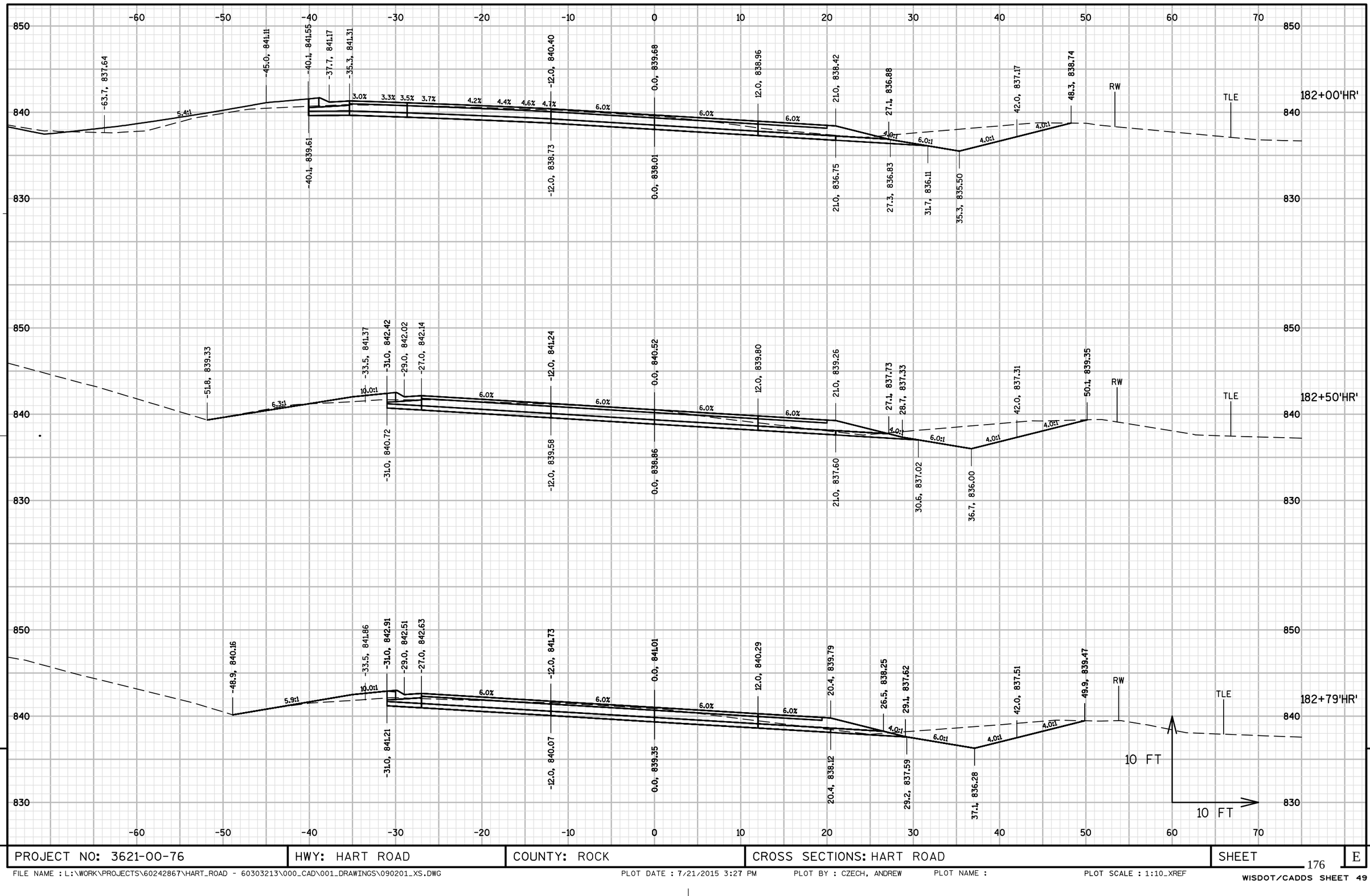
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:26 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



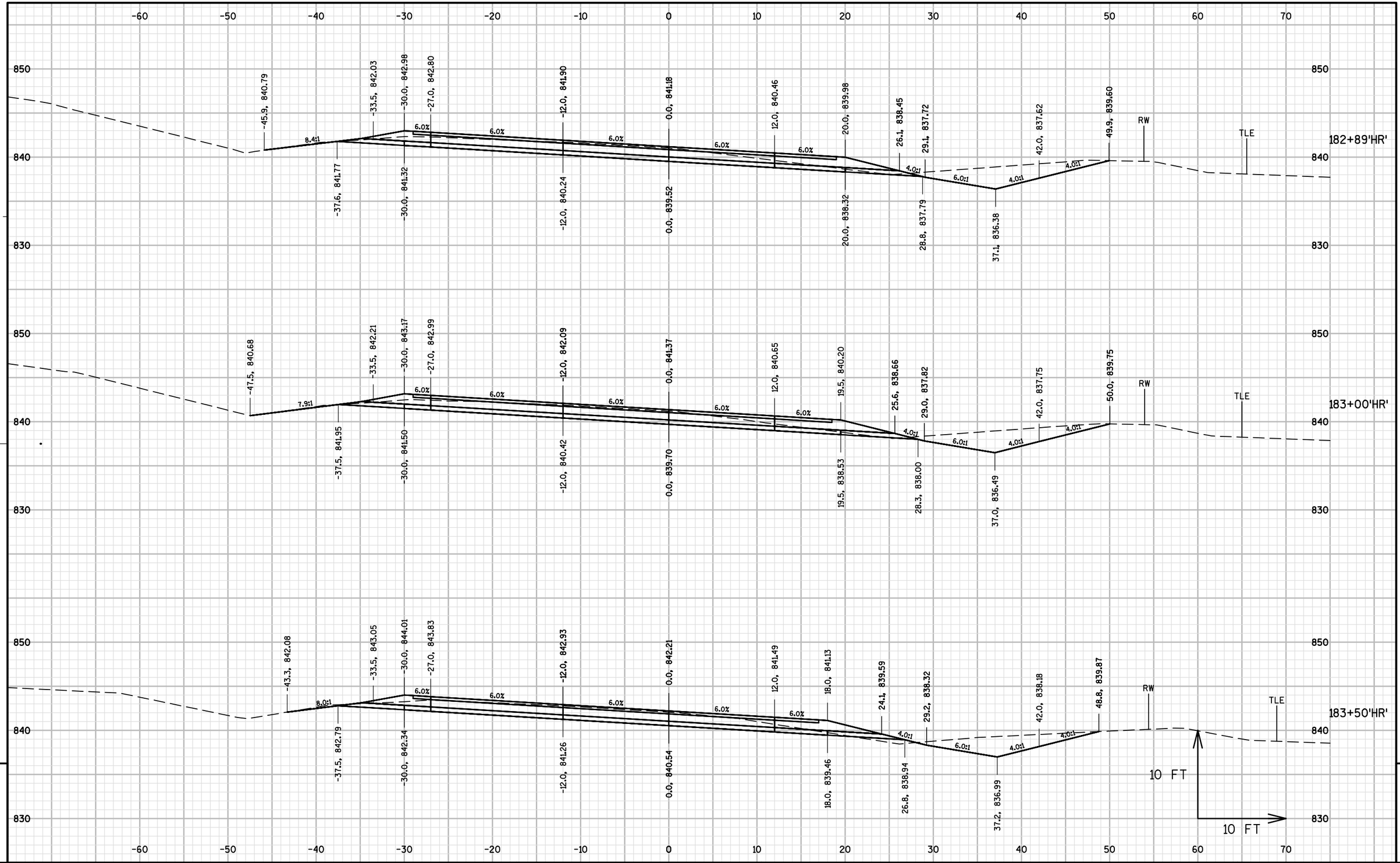
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:27 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



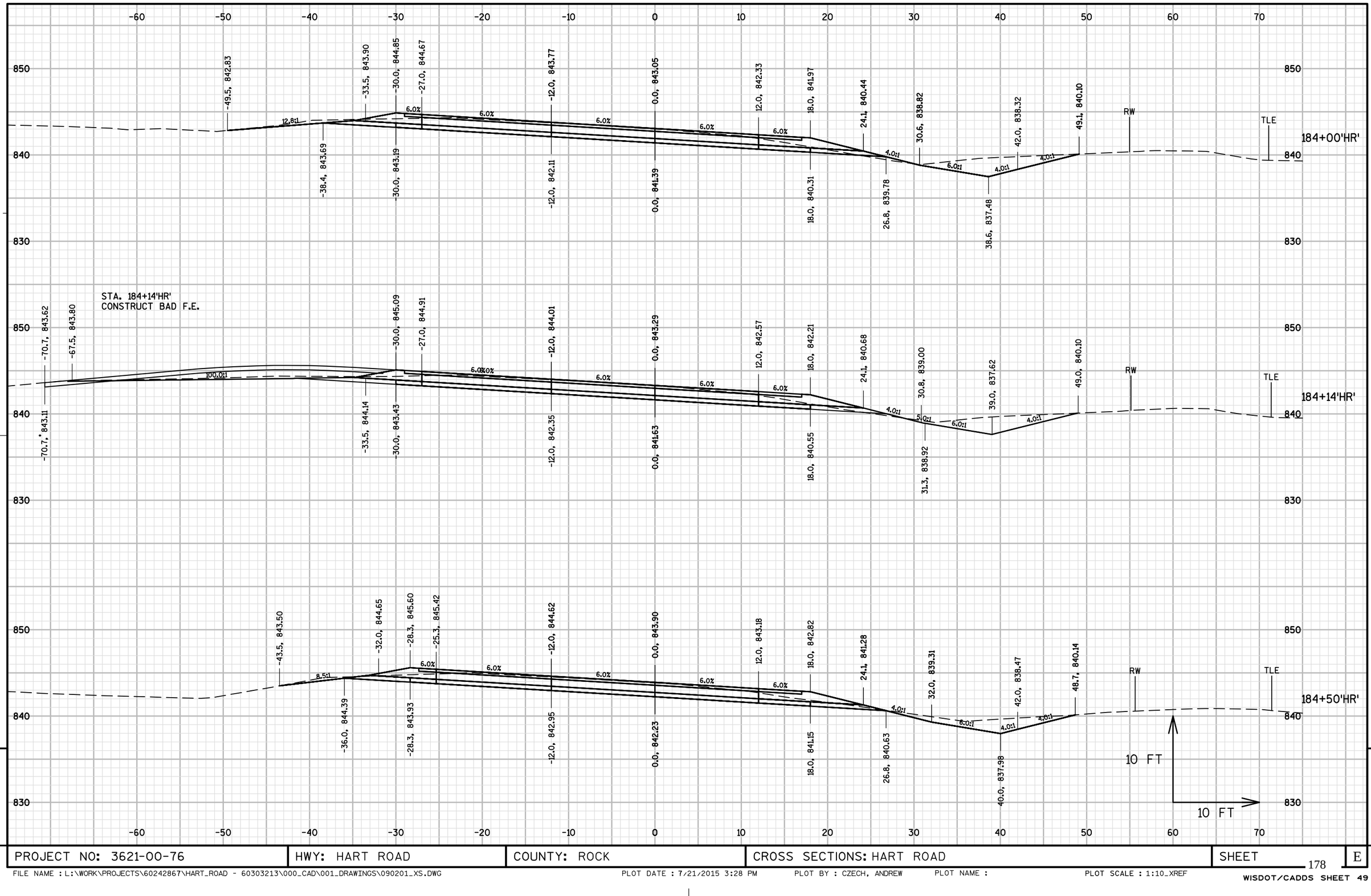
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



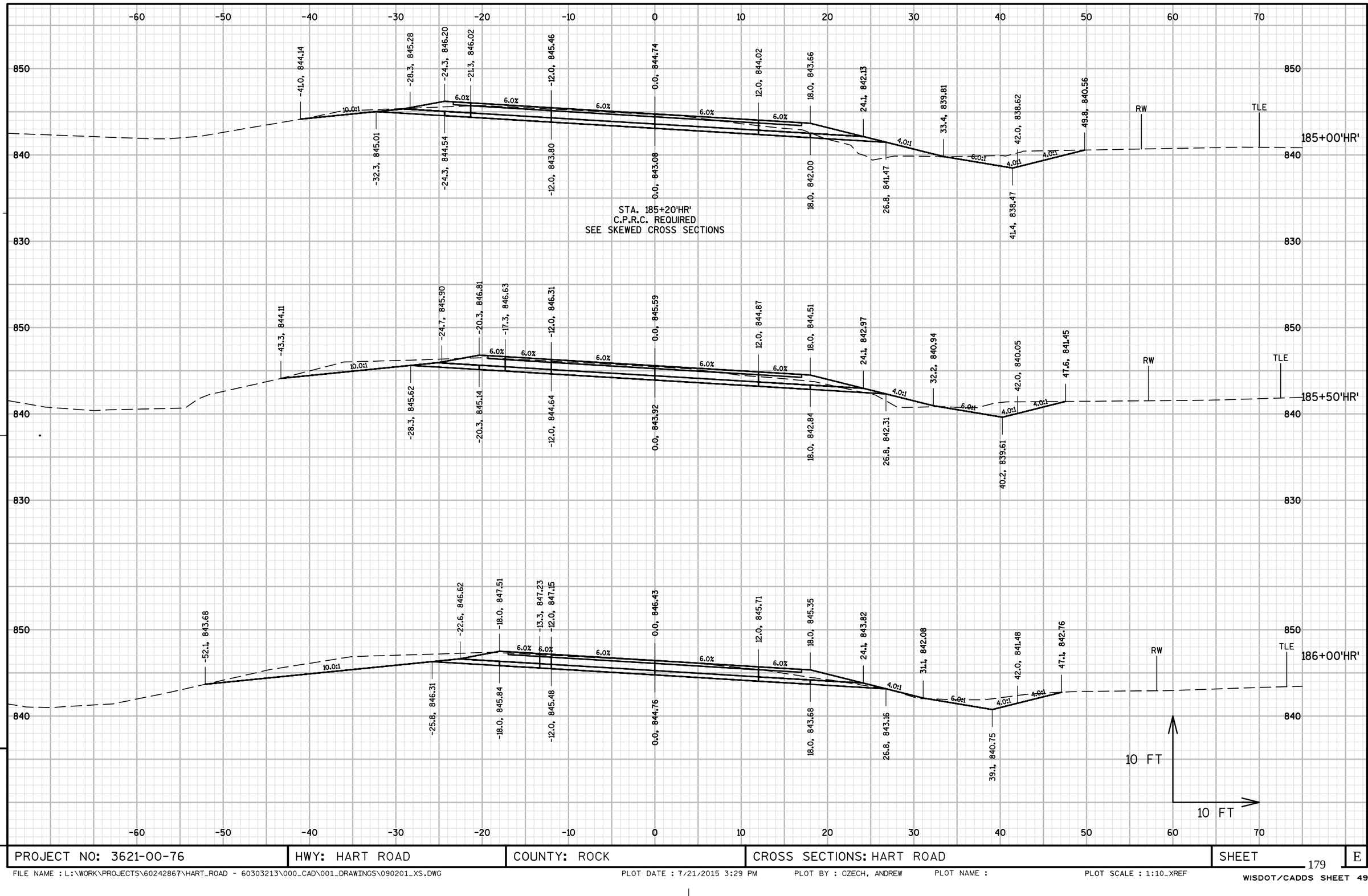
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:28 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



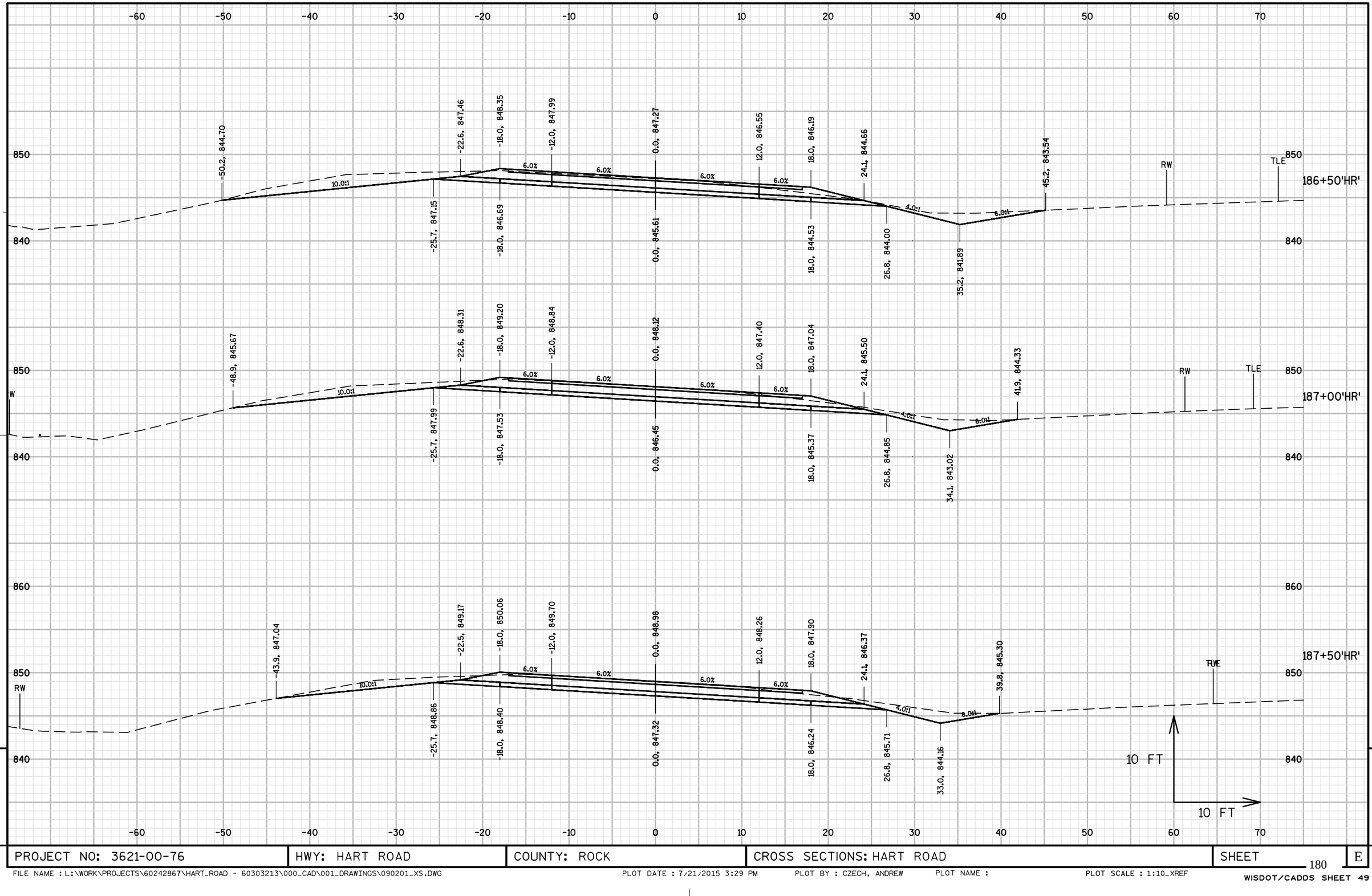
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



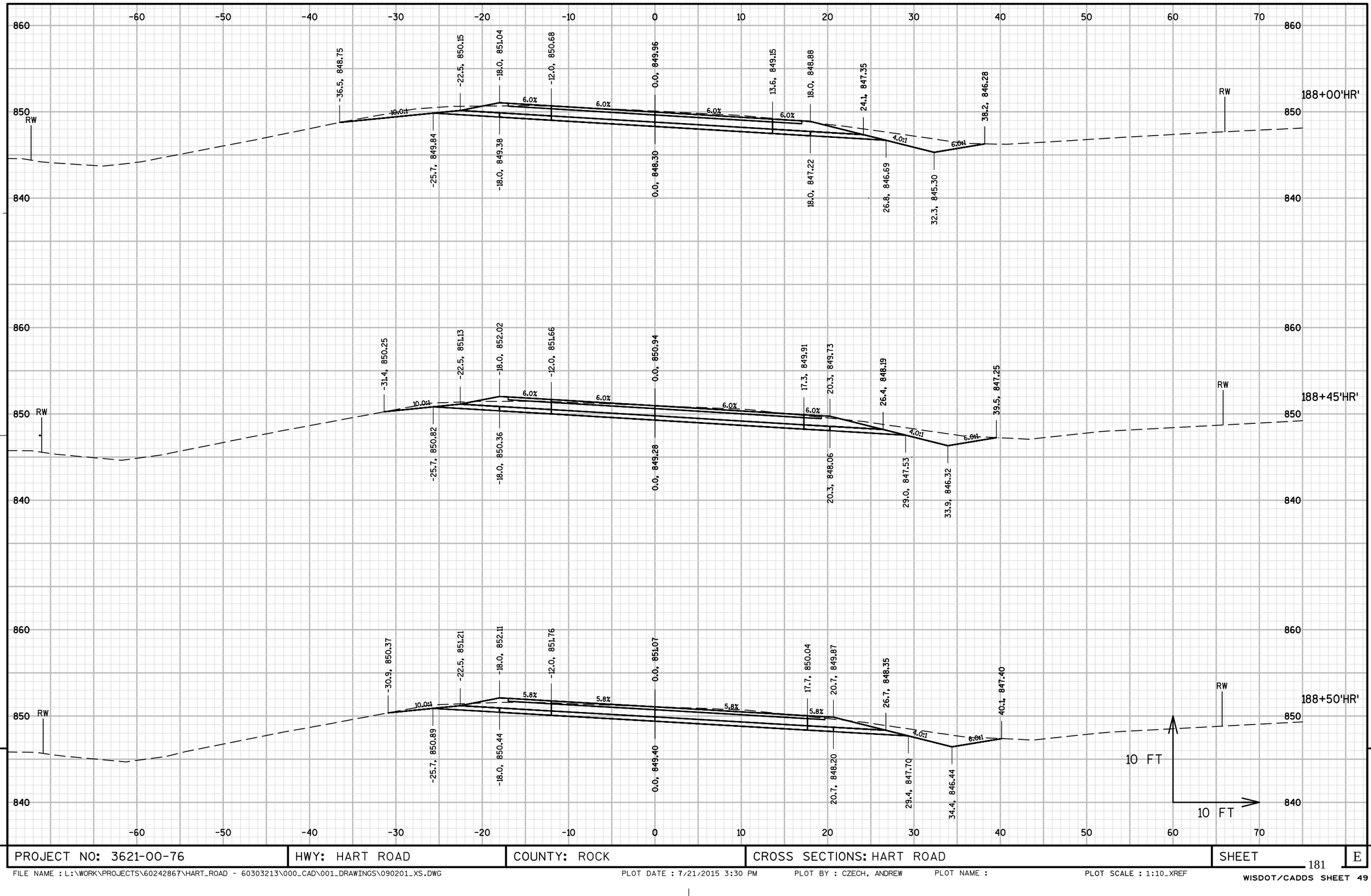
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:29 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



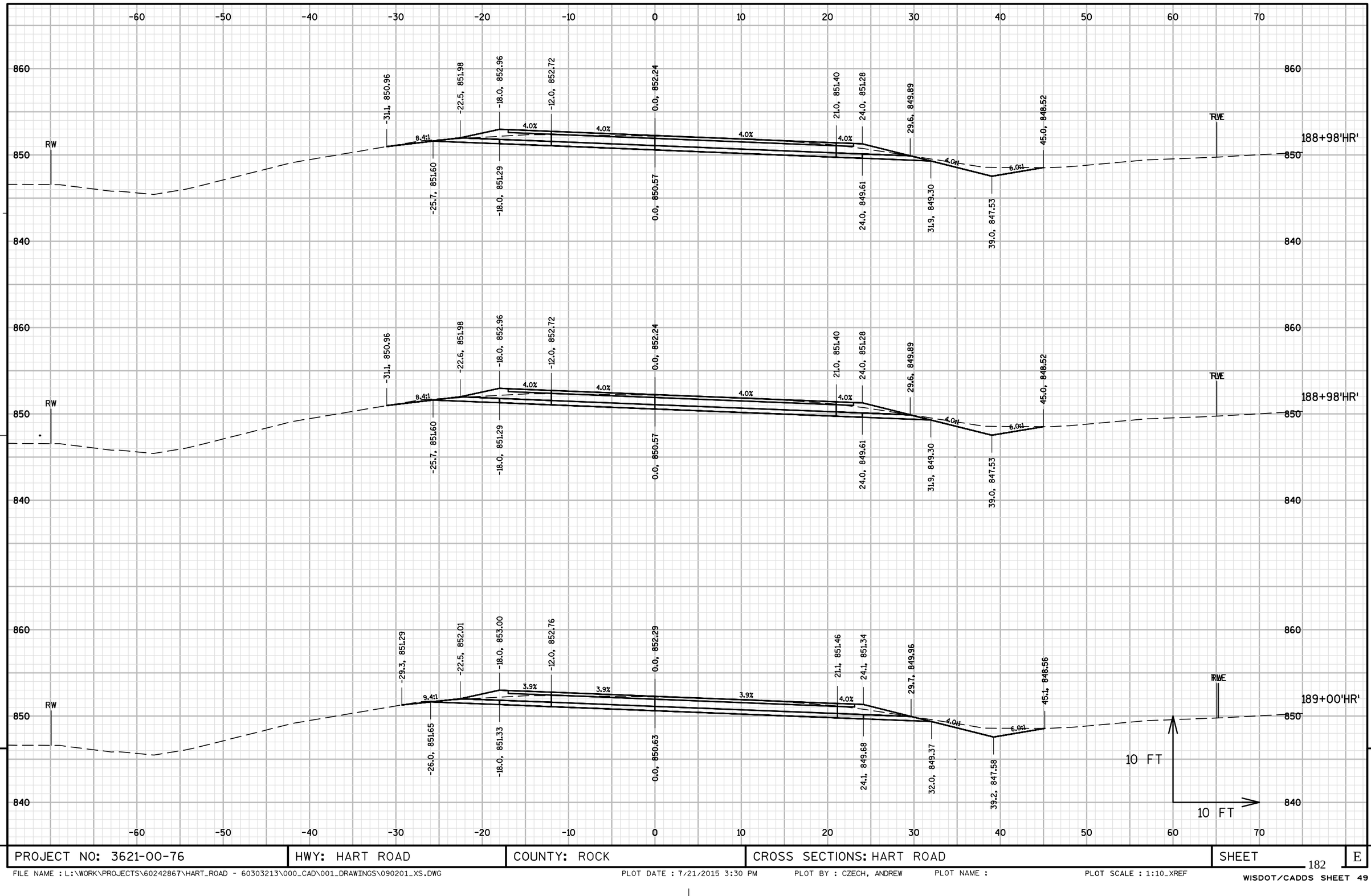
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:30 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

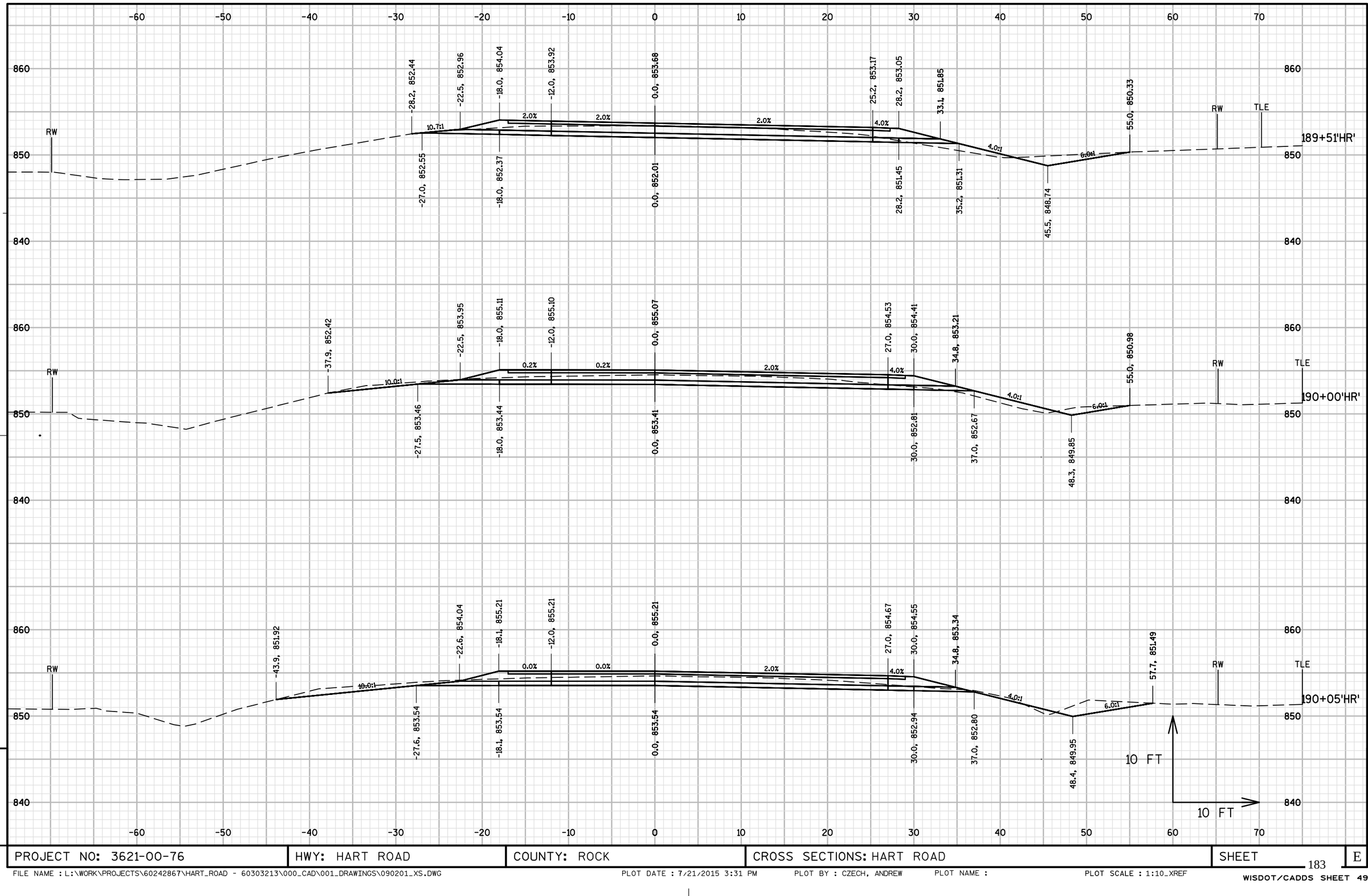
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:30 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:31 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

STA. 190+25'HR'
CONSTRUCT BAD F.E.

STA. 190+25'HR'
CONSTRUCT BAD F.E.

190+25'HR'

190+58'HR'

191+00'HR'

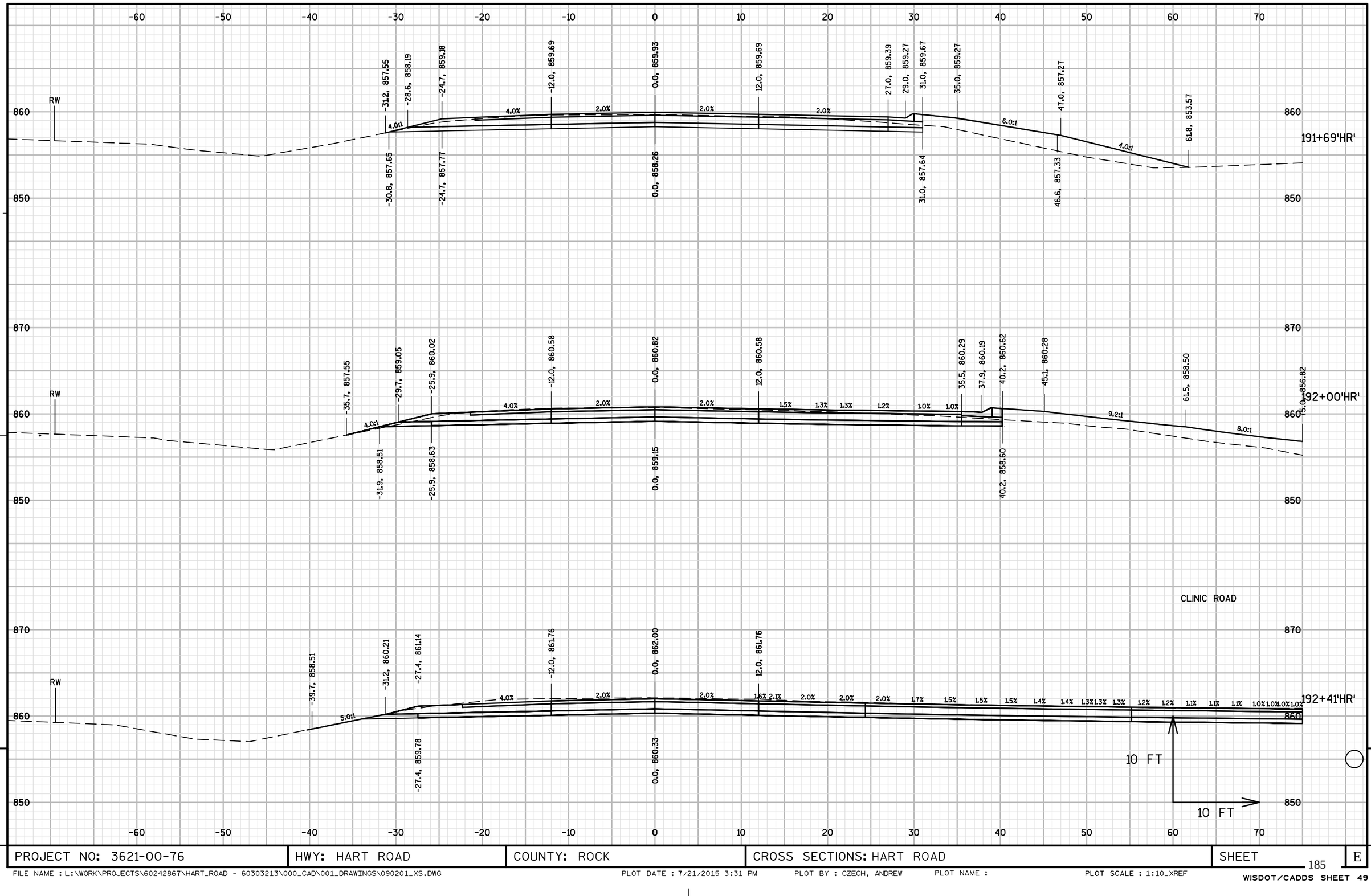
191+11'HR'

10 FT

10 FT

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

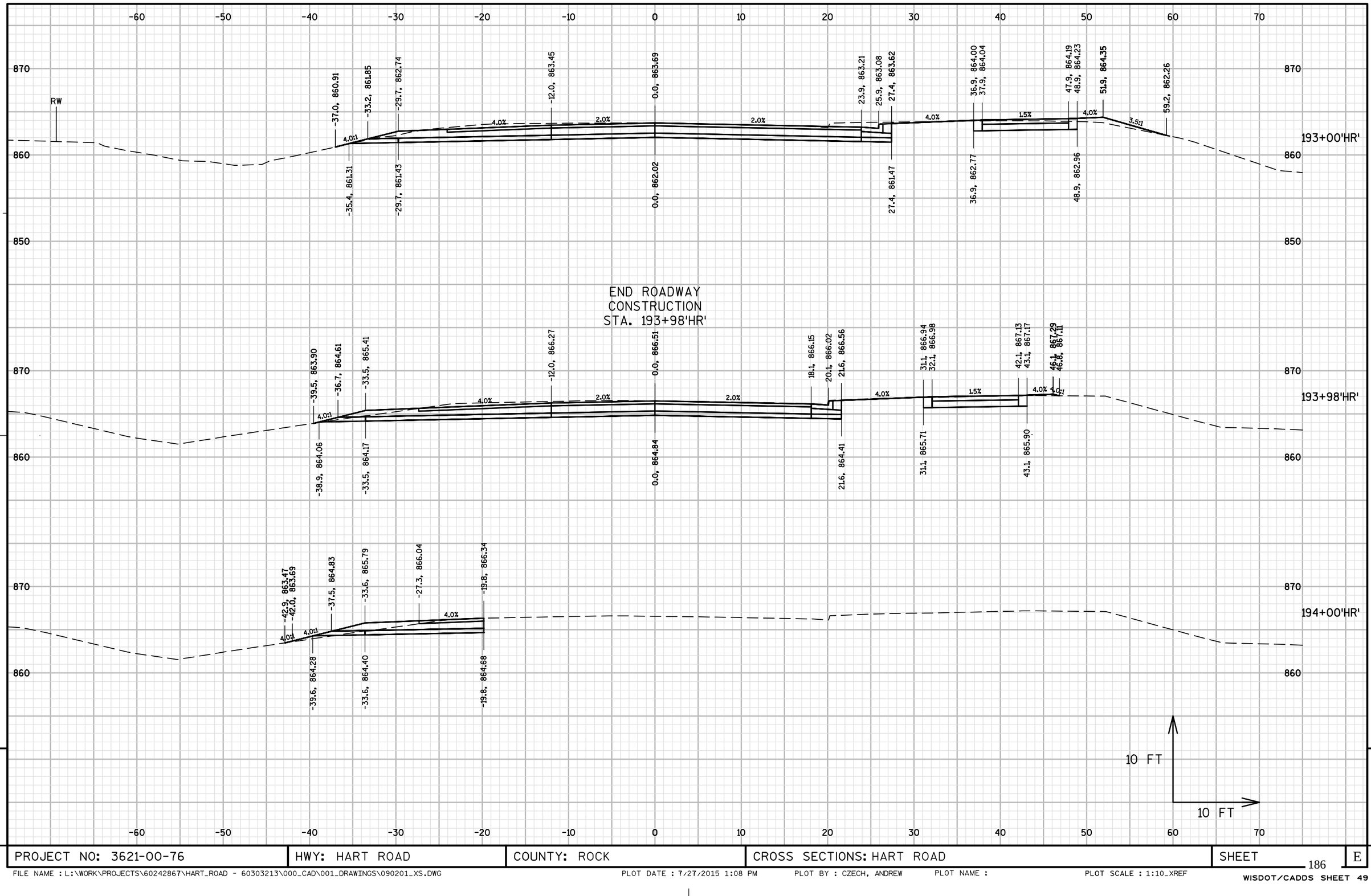
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:31 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:31 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/27/2015 1:08 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

END PROJECT
STA. 194+71'HR'

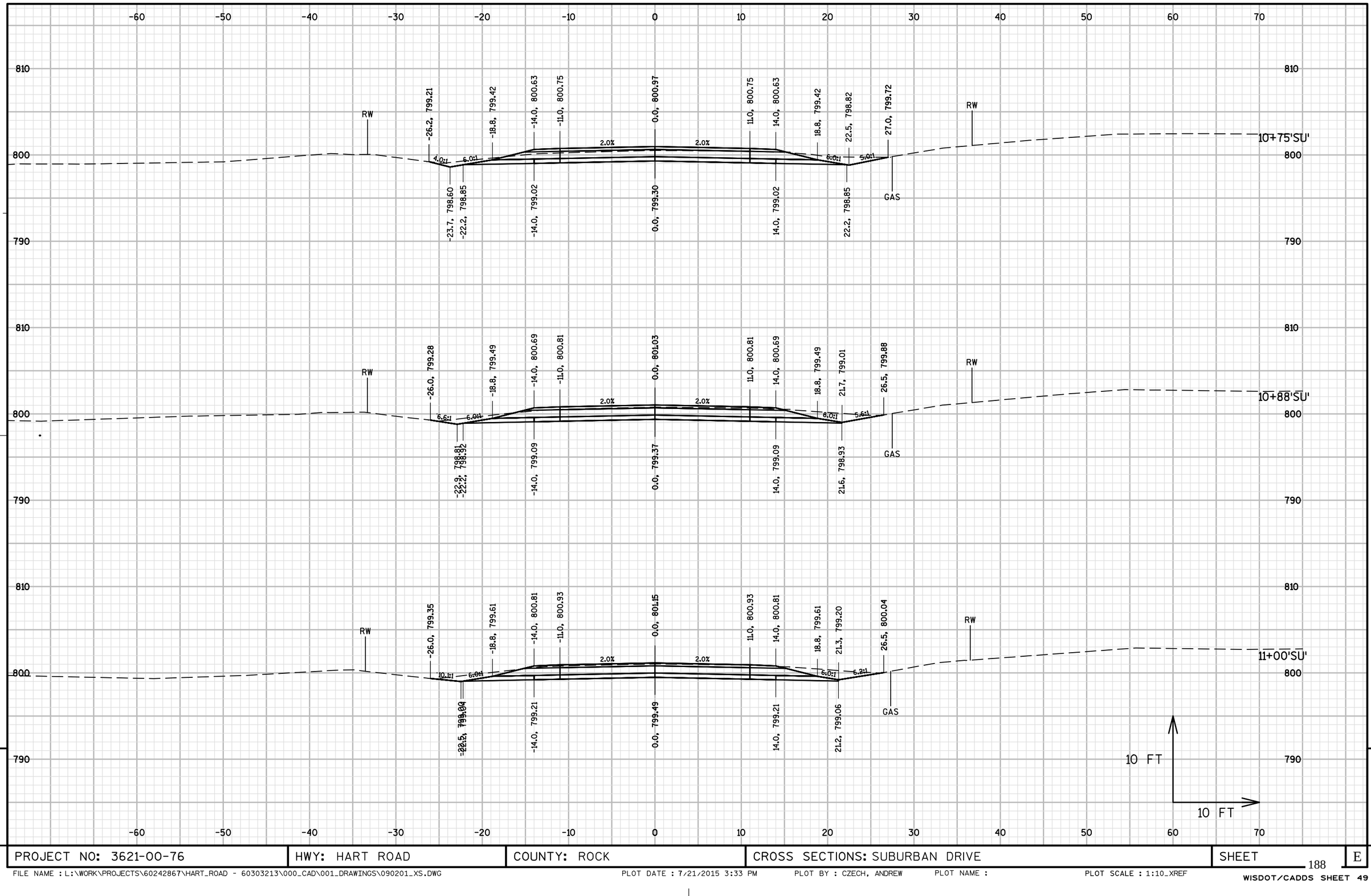
-42.3, 866.33
-40.2, 866.88
-36.3, 867.84
-26.4, 868.24
-22.3, 868.40
4.0%
4.0:1
-42.3, 866.34
-36.3, 866.46
-22.3, 866.74

194+71'HR'
195+00'HR'

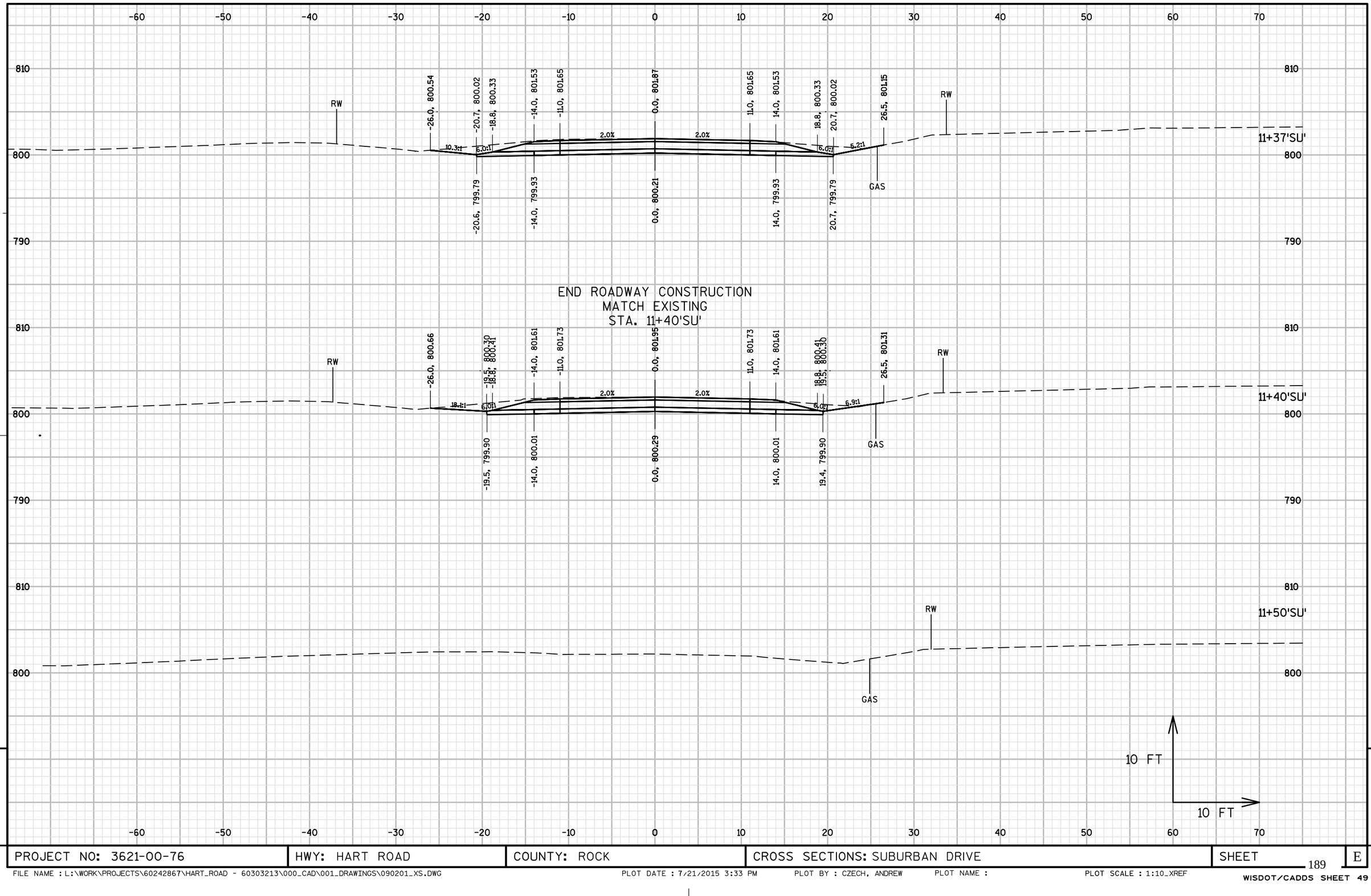
10 FT
10 FT

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:32 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

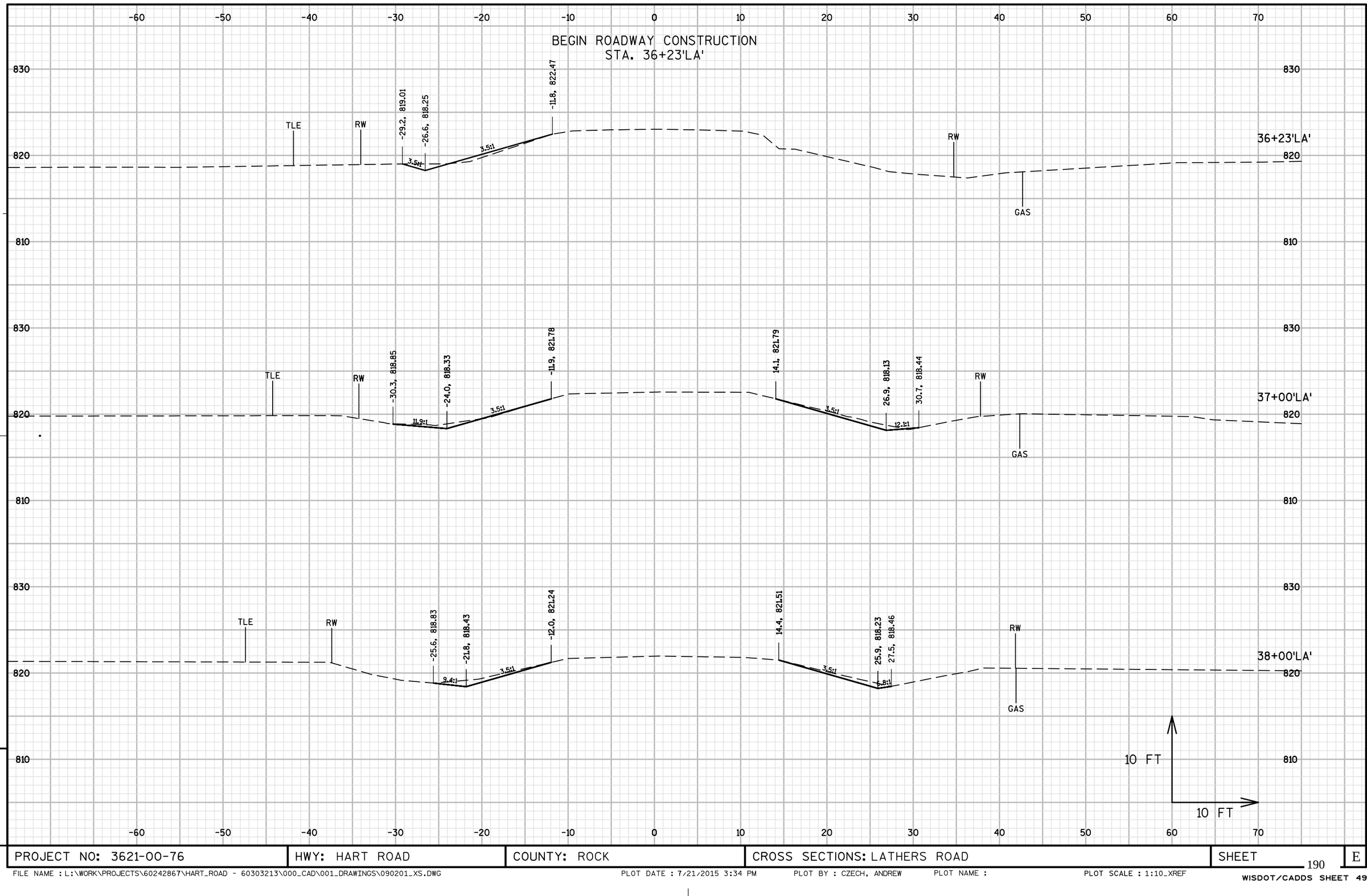


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: SUBURBAN DRIVE	SHEET	E



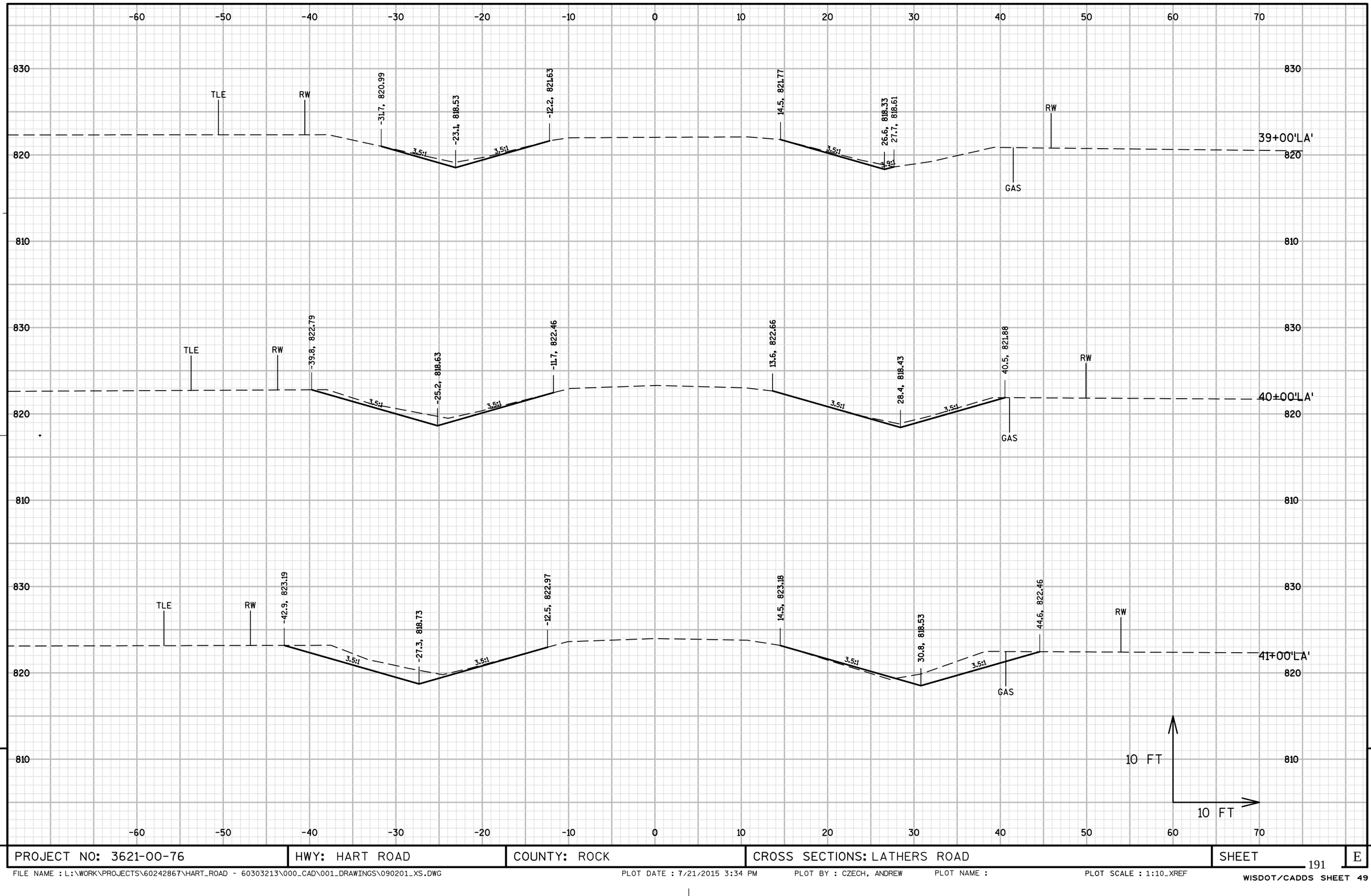
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: SUBURBAN DRIVE	SHEET	E

BEGIN ROADWAY CONSTRUCTION
STA. 36+23'LA'



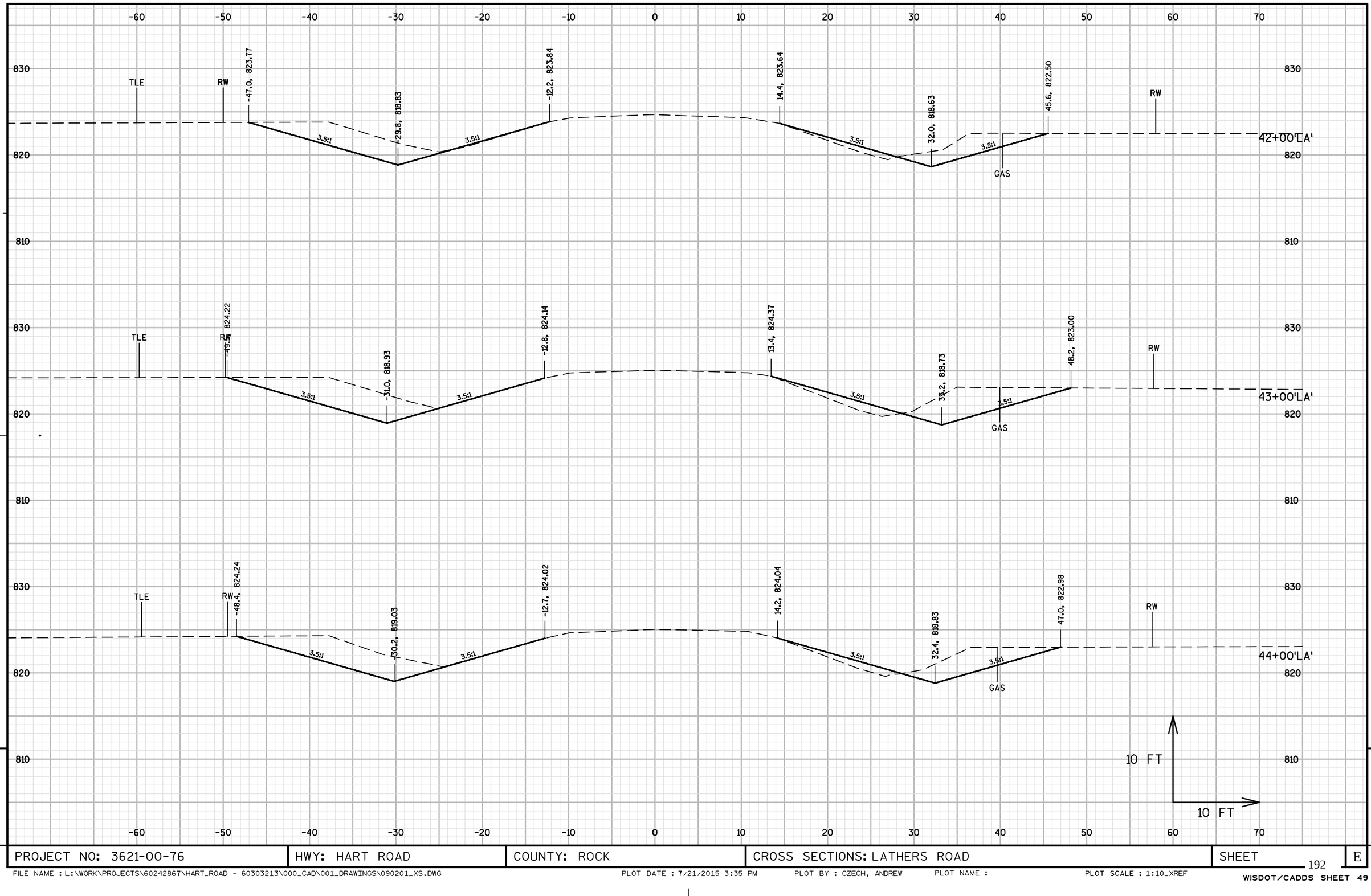
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:34 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



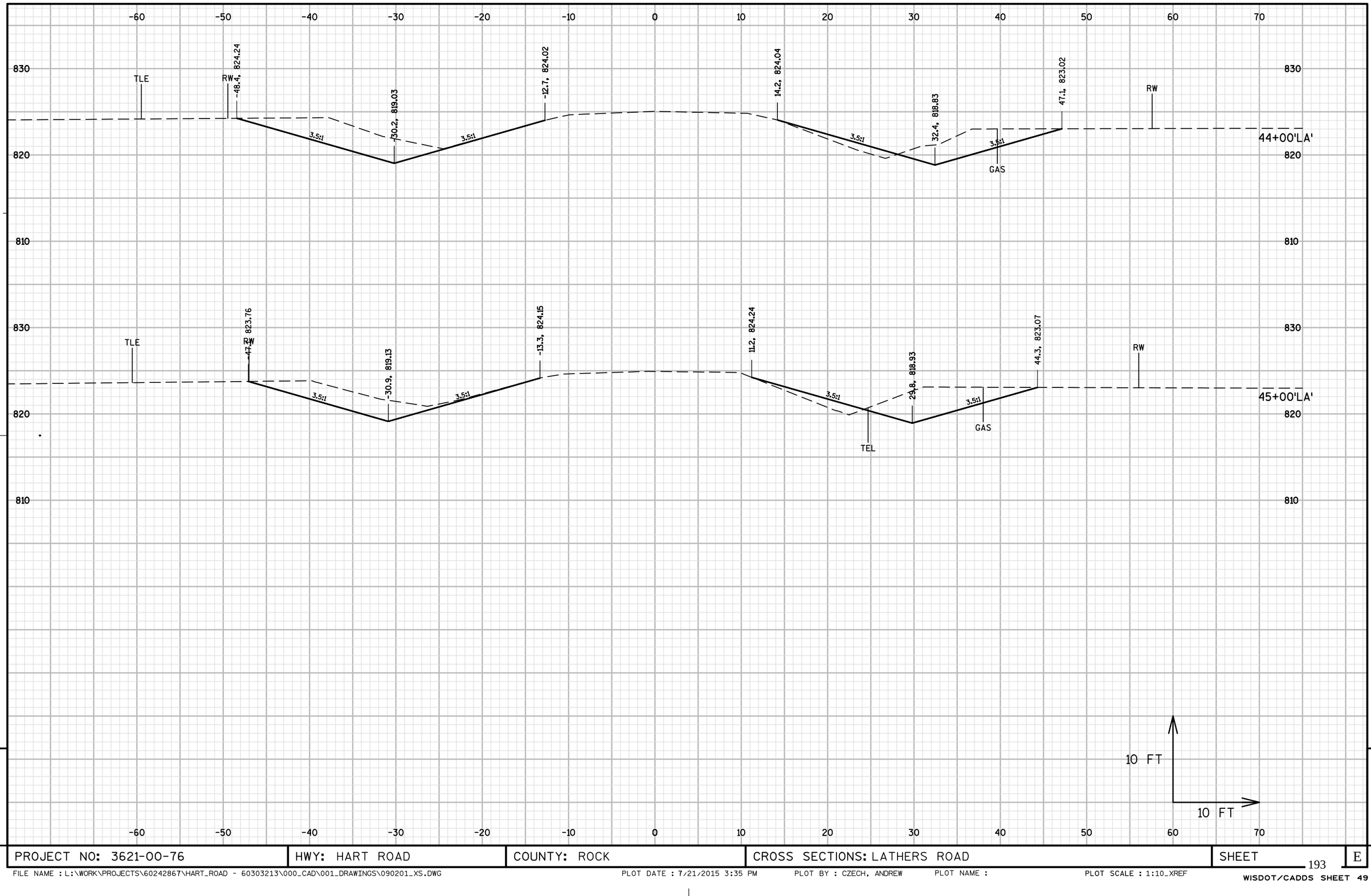
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:34 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

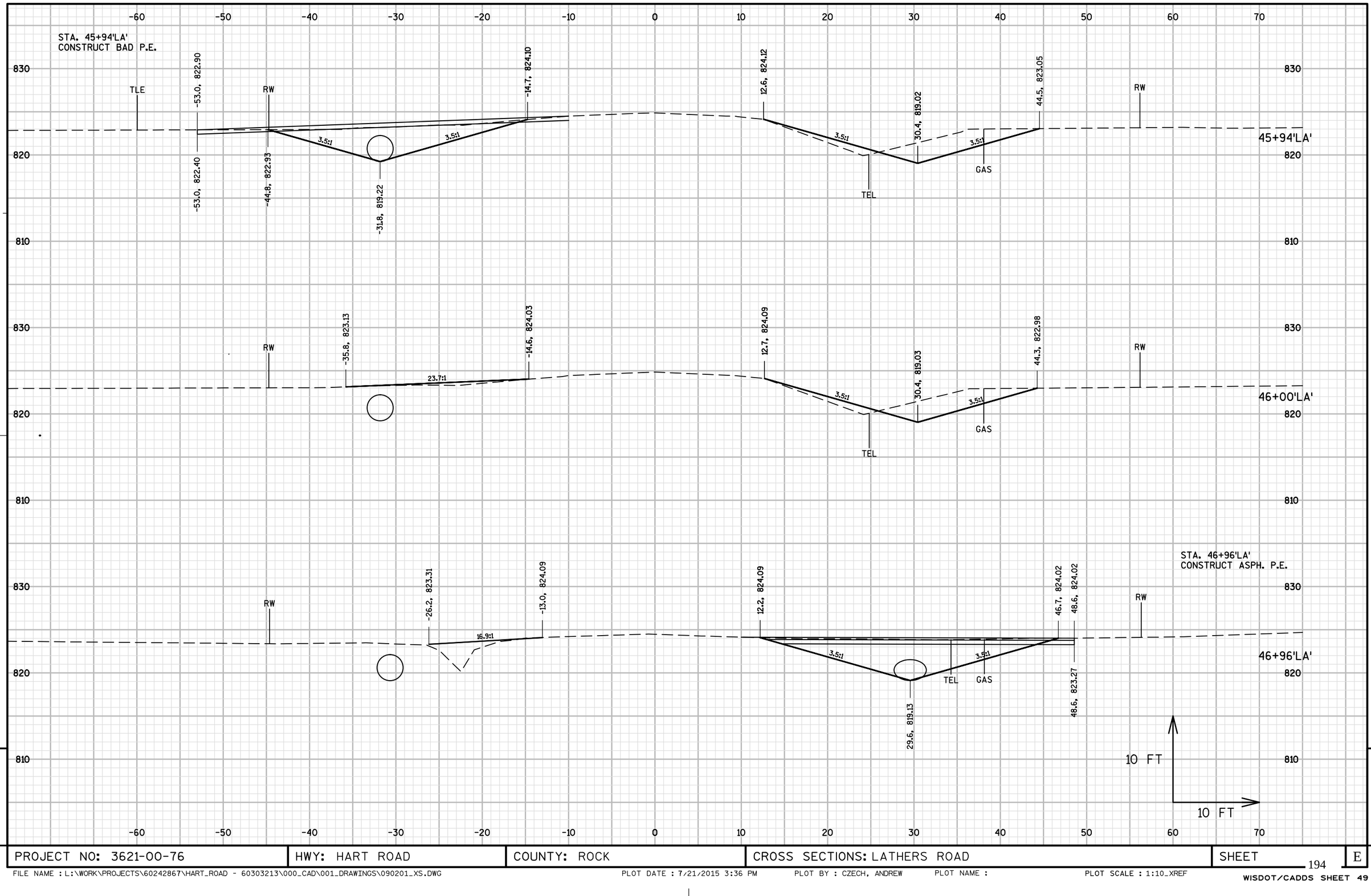


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:35 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



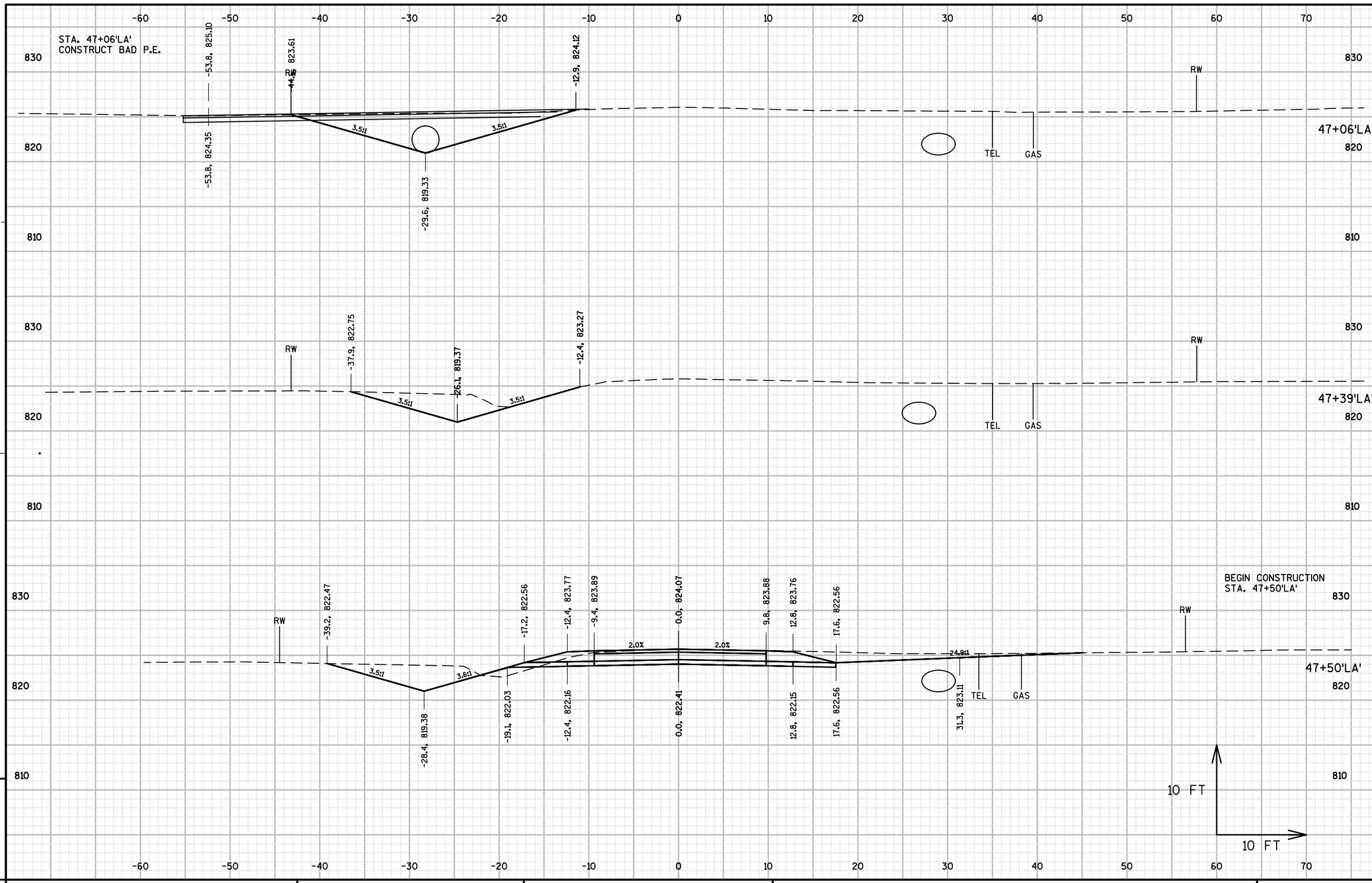
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

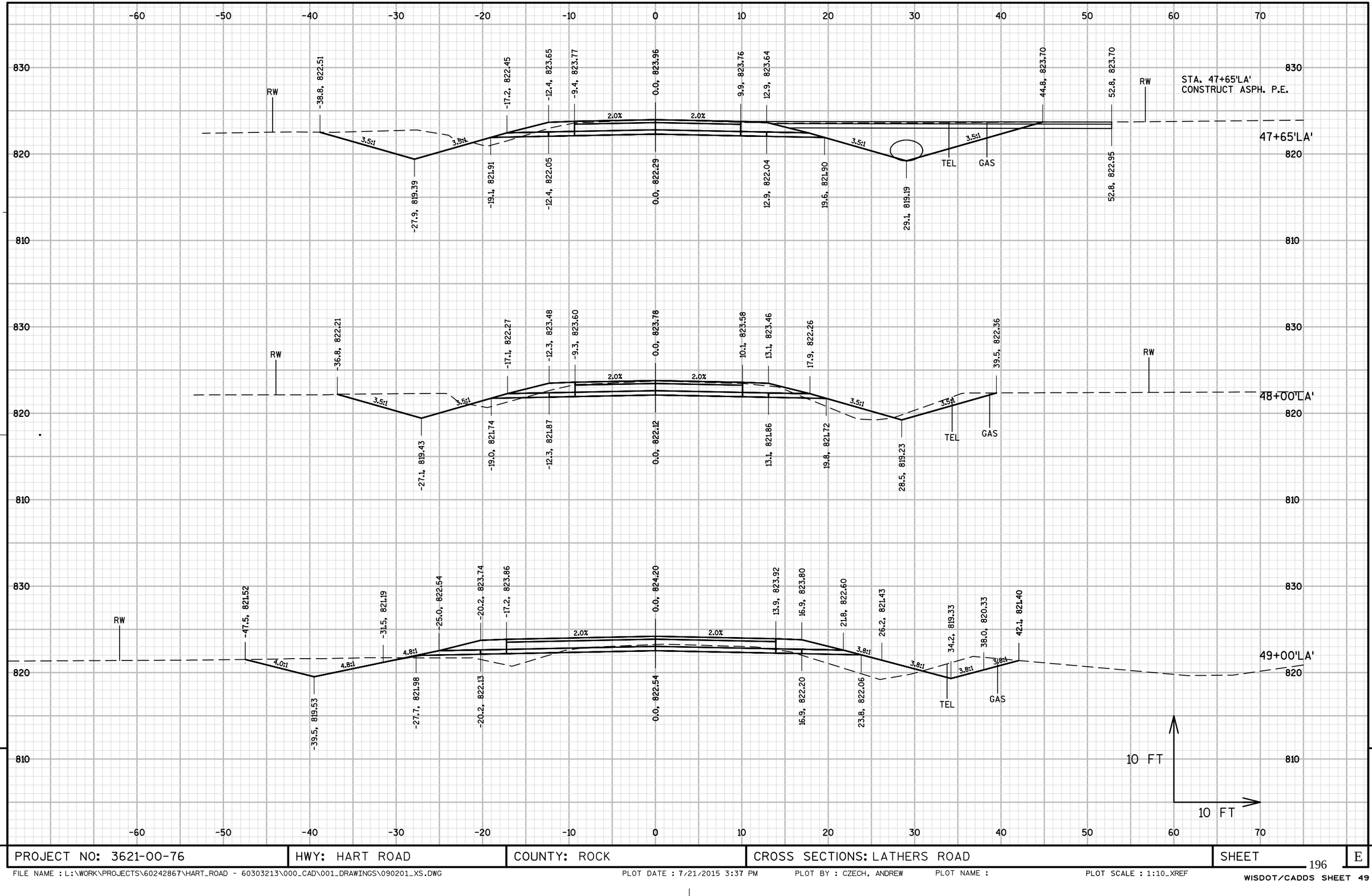
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:36 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

STA. 47+06'LA'
CONSTRUCT BAD P.E.



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

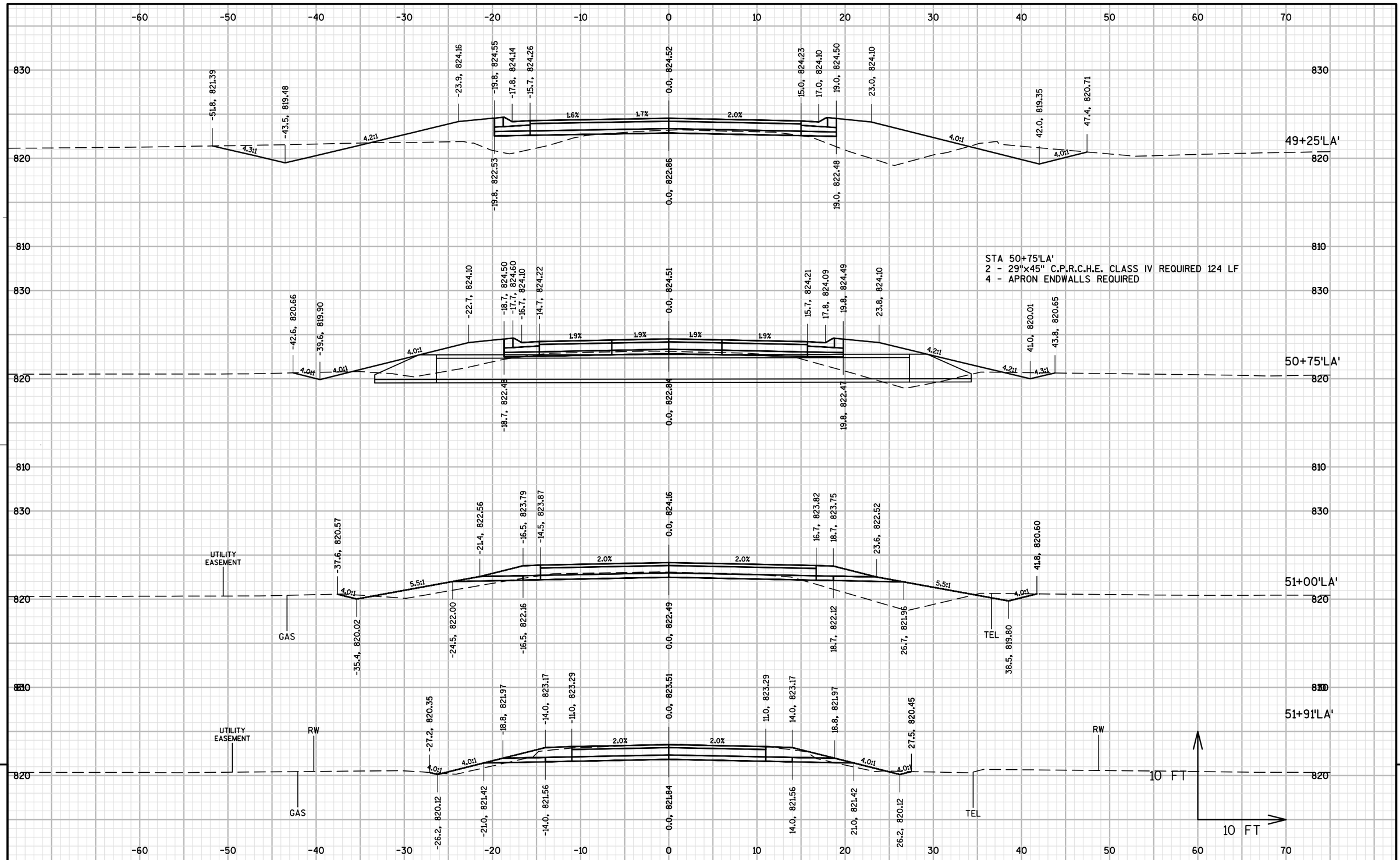
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG
PLOT DATE : 7/21/2015 3:36 PM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:37 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

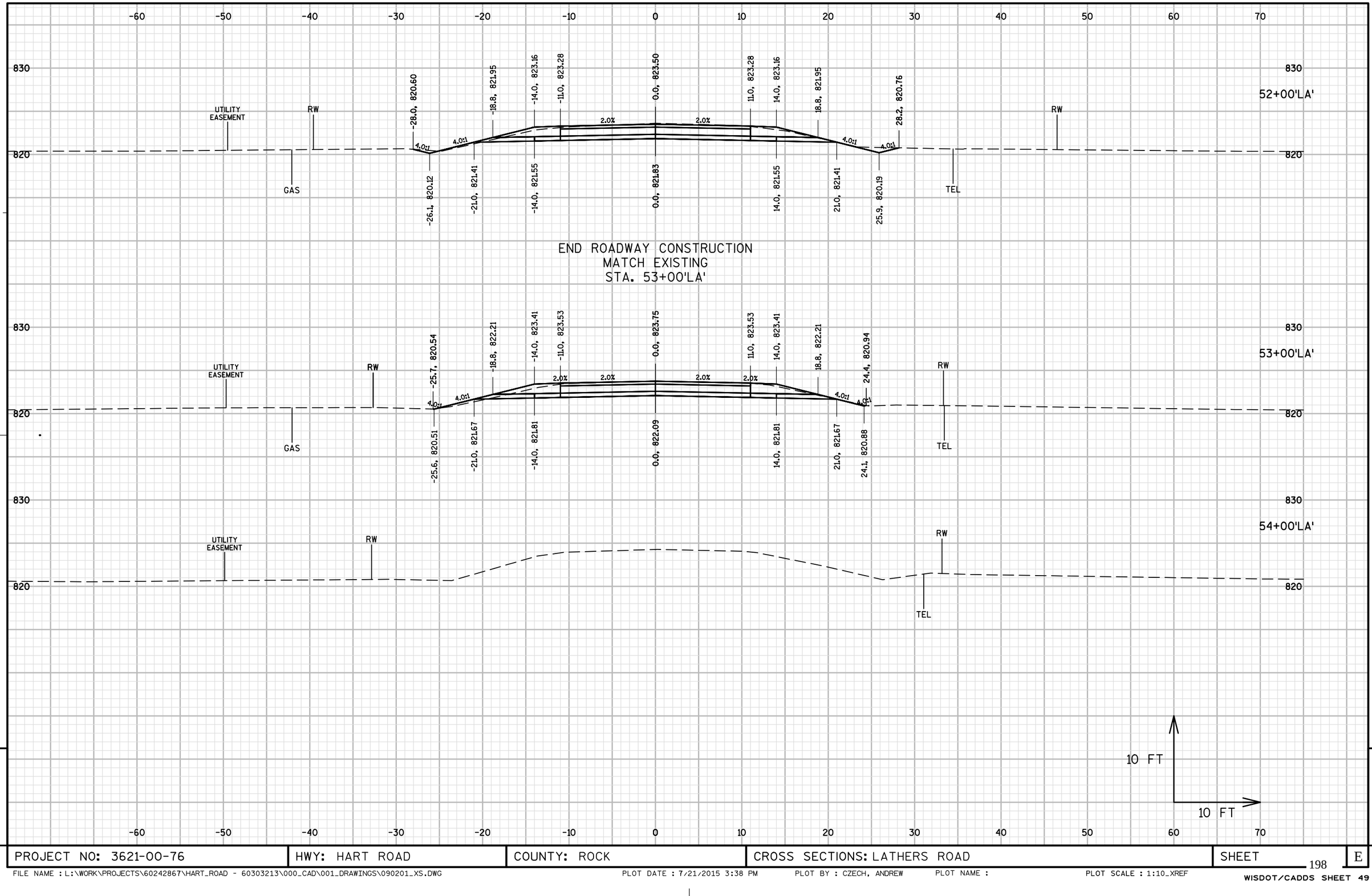
WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/27/2015 12:28 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

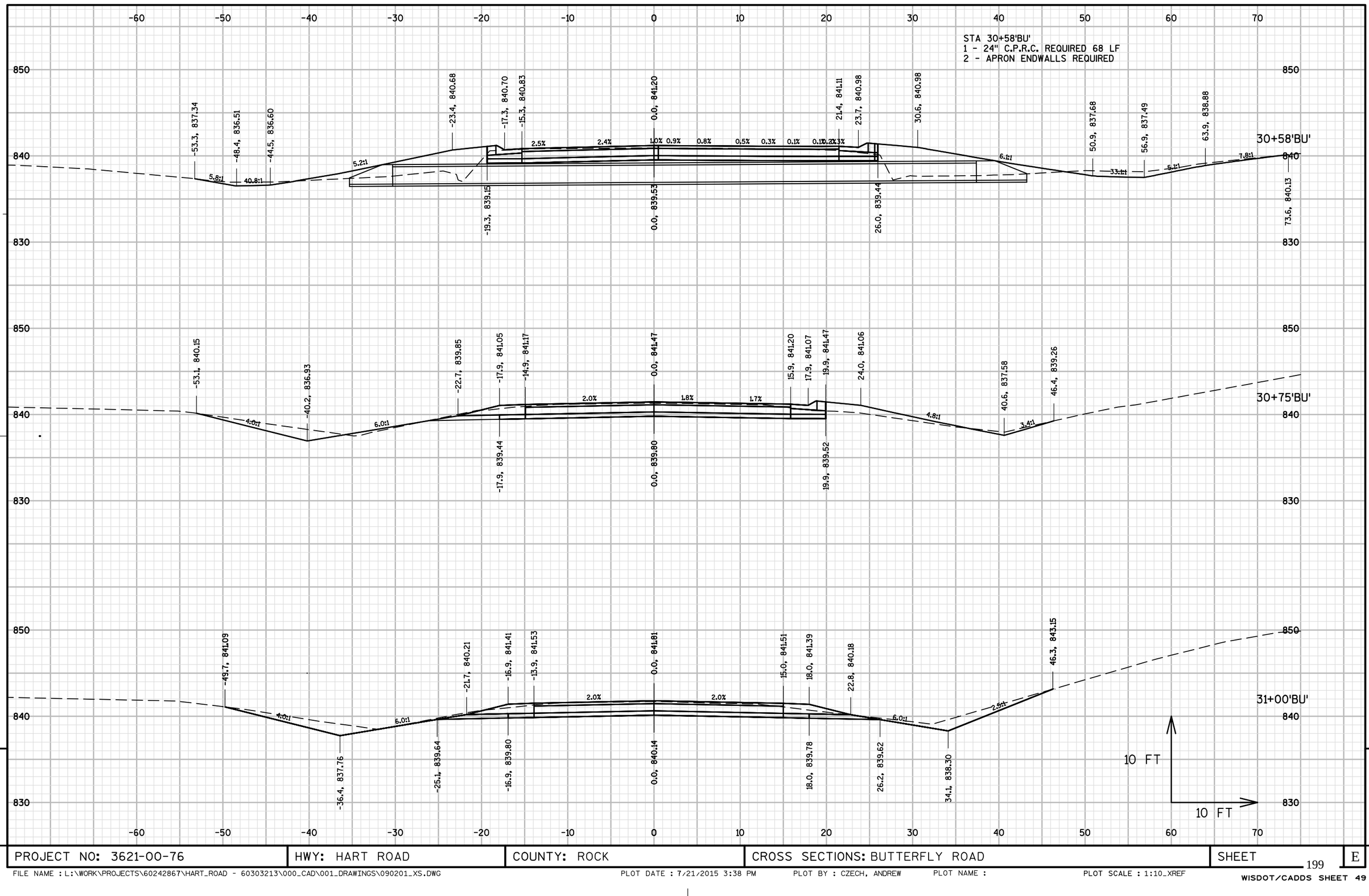
WISDOT/CADDS SHEET 49



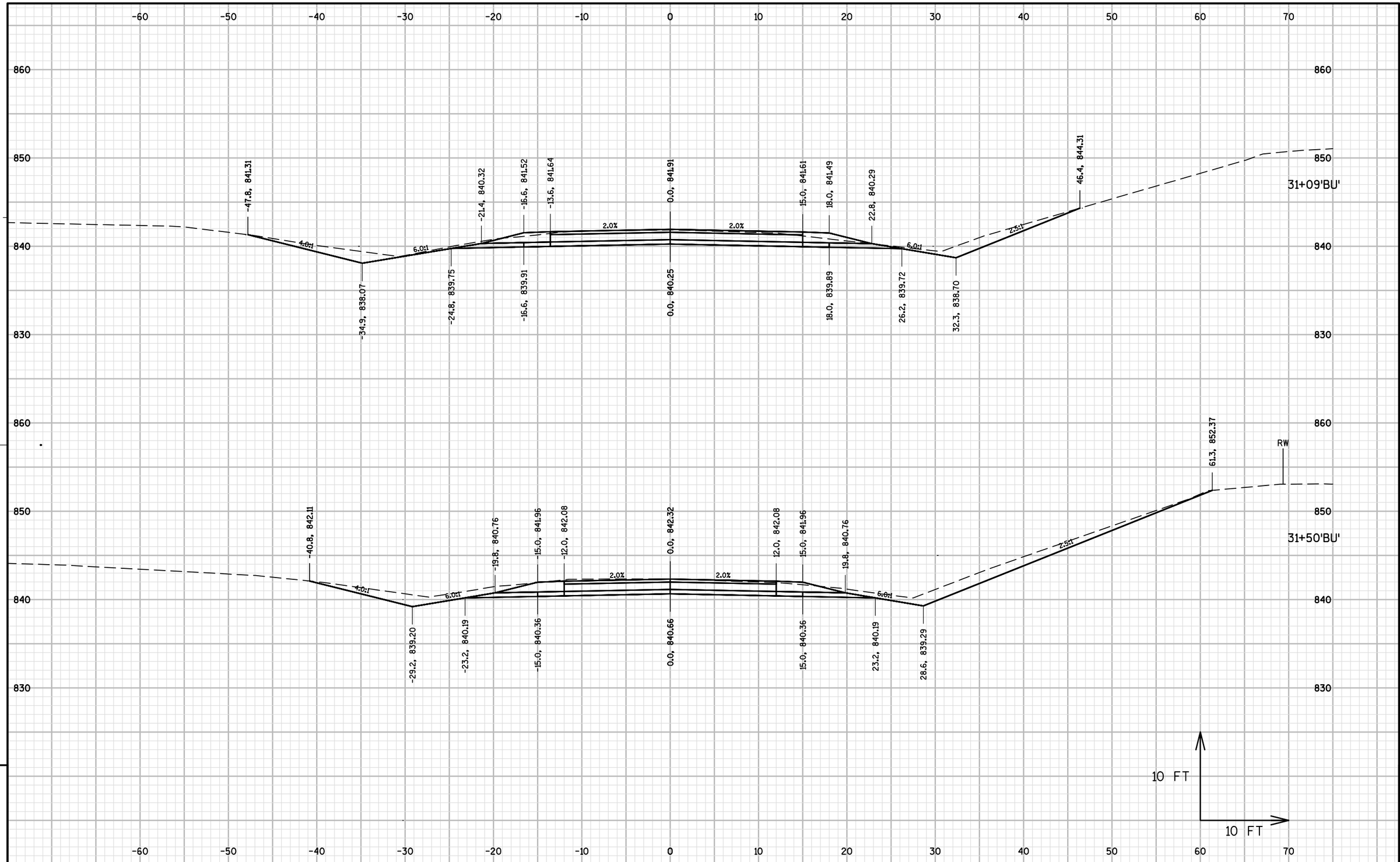
PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: LATHERS ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:38 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

STA 30+58'BU'
1 - 24" C.P.R.C. REQUIRED 68 LF
2 - APRON ENDWALLS REQUIRED



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: BUTTERFLY ROAD	SHEET	E

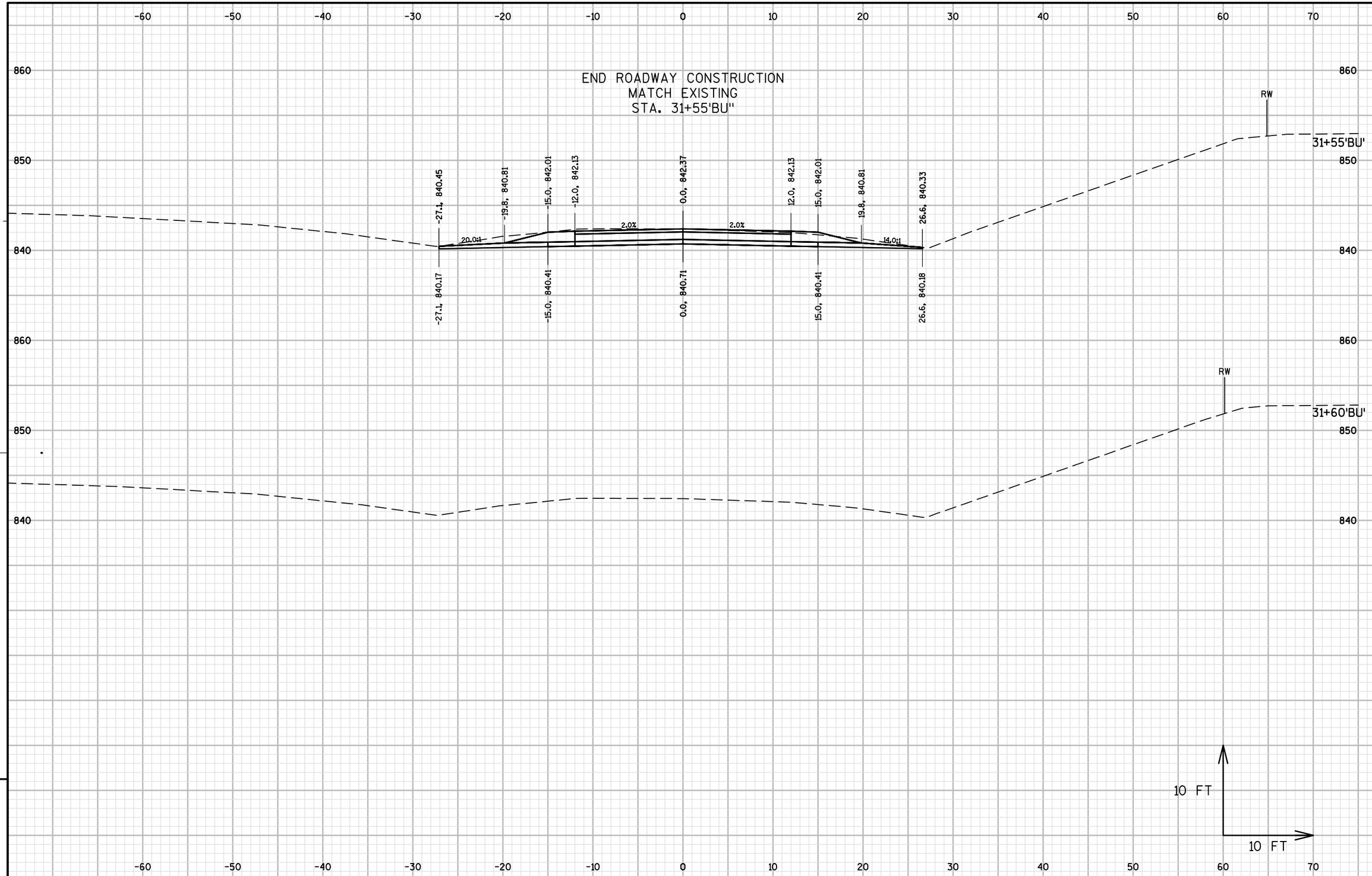


PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: BUTTERFLY ROAD	SHEET 200	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:39 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

END ROADWAY CONSTRUCTION
MATCH EXISTING
STA. 31+55'BU"



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: BUTTERFLY ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG
PLOT DATE : 7/21/2015 3:39 PM
PLOT BY : CZECH, ANDREW
PLOT NAME :
PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

BEGIN ROADWAY CONSTRUCTION
MATCH EXISTING
STA. 38+50'CL'

38+00'CL'

38+50'CL'

RW

-41.7, 855.69

-19.8, 859.15

-15.0, 860.35

-12.0, 860.47

0.0, 860.71

12.0, 860.47

15.0, 860.35

19.8, 859.15

33.3, 857.73

6.4:1

2.0%

2.0%

9.5:1

-23.4, 858.58

-15.0, 858.74

0.0, 859.04

15.0, 858.74

25.6, 858.53

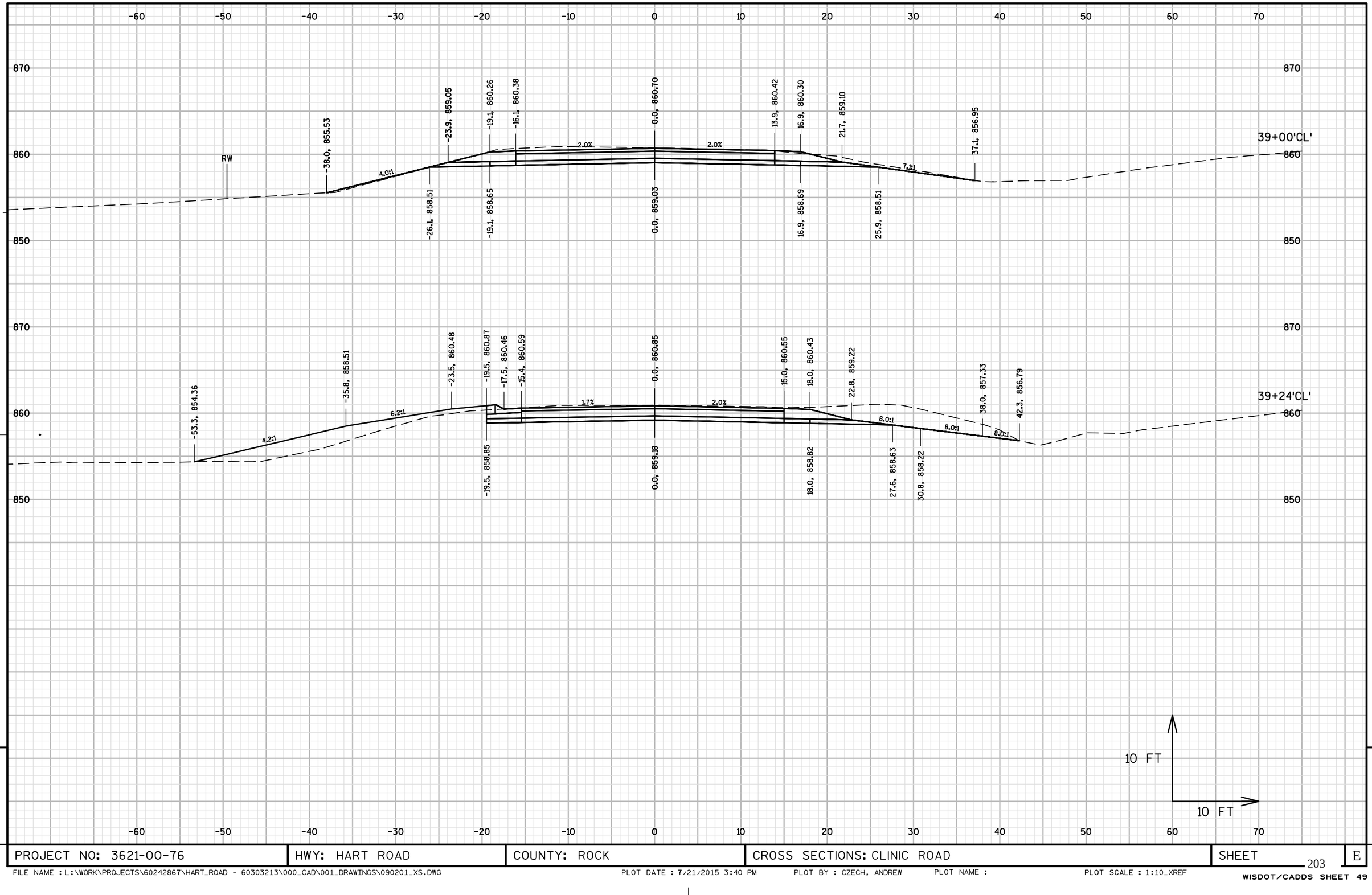
10 FT

10 FT

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: CLINIC ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:40 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49

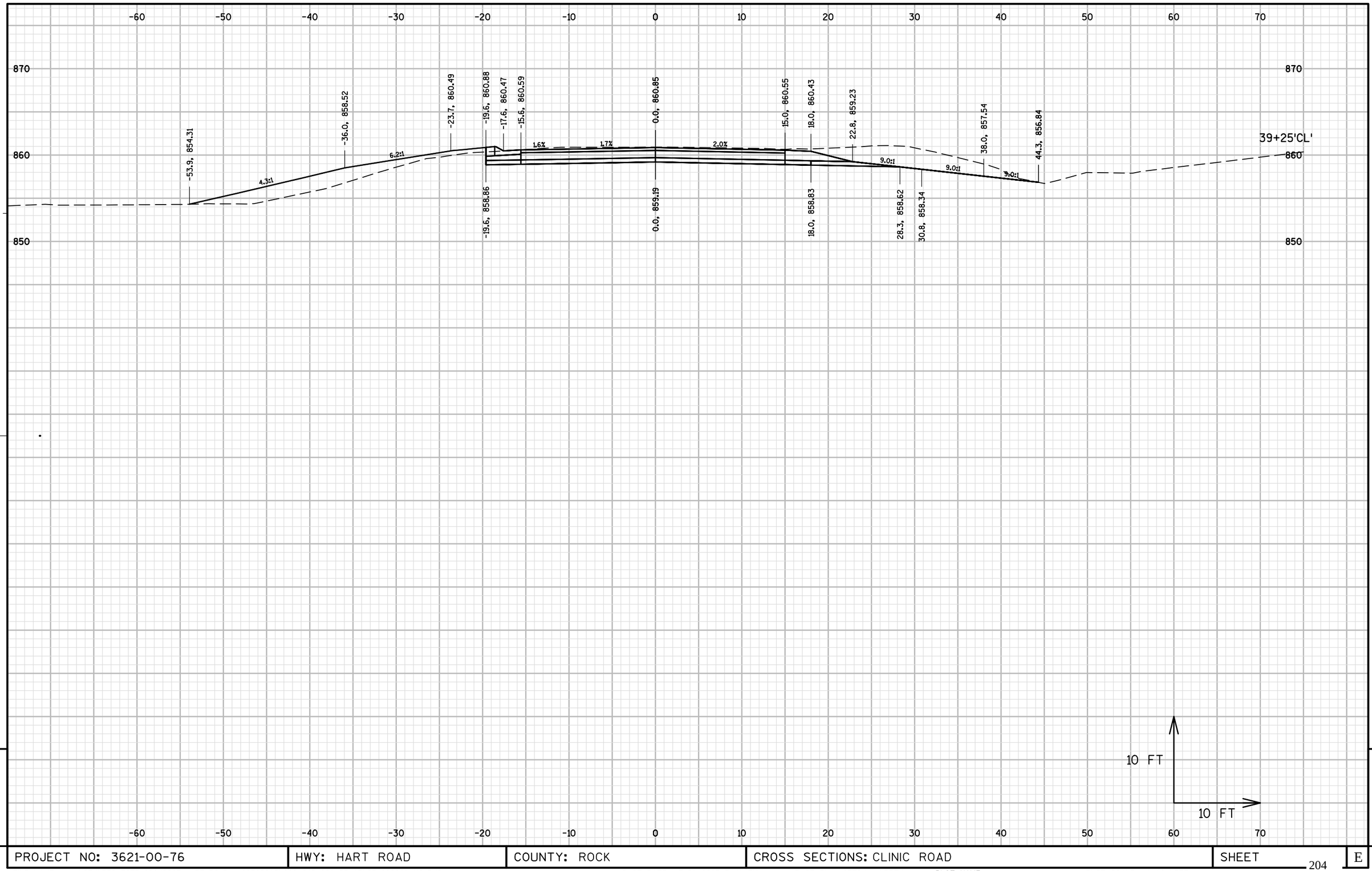


9

PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: CLINIC ROAD	SHEET	E

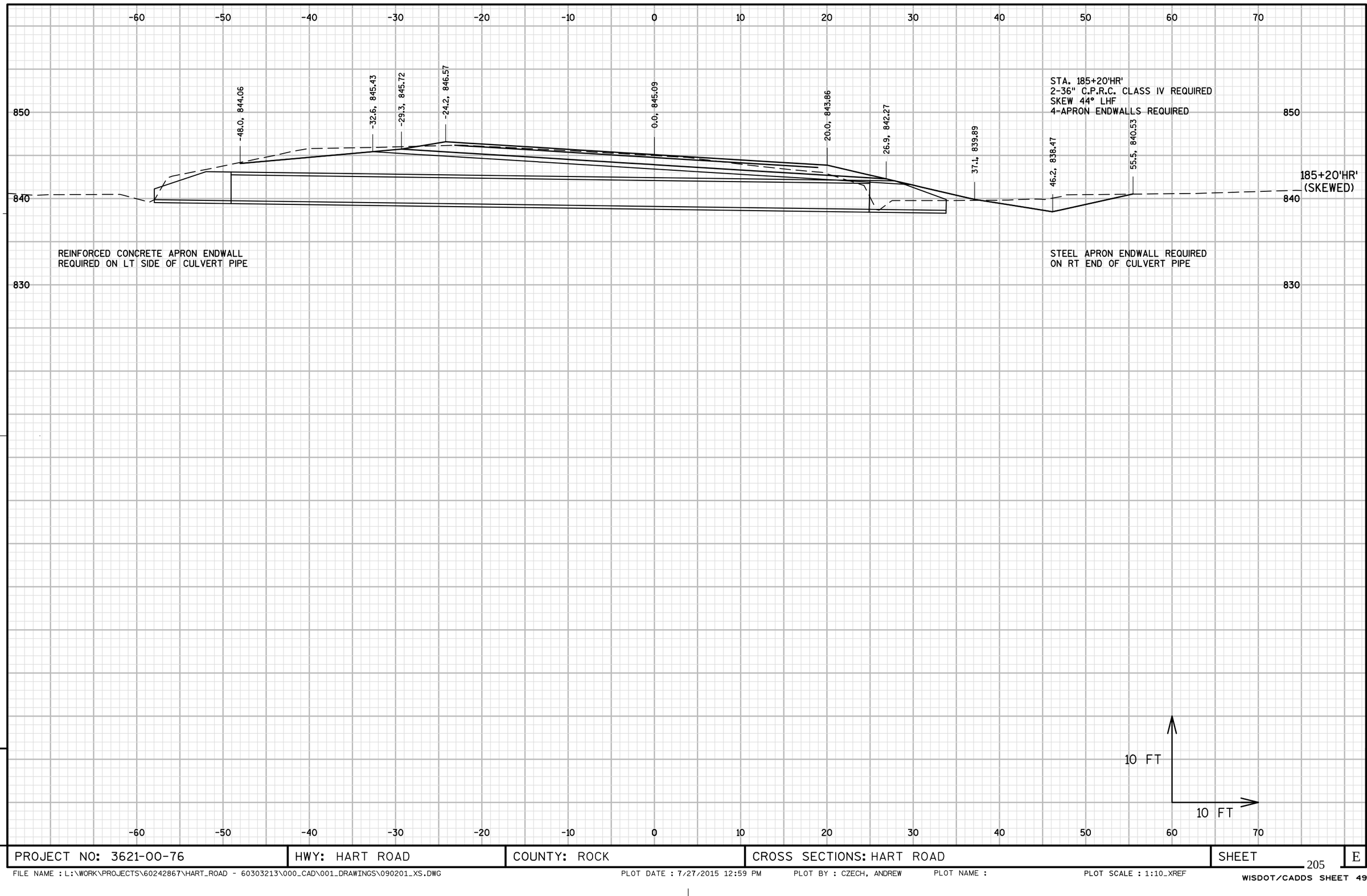
FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:40 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: CLINIC ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/21/2015 3:41 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF



PROJECT NO: 3621-00-76	HWY: HART ROAD	COUNTY: ROCK	CROSS SECTIONS: HART ROAD	SHEET	E

FILE NAME : L:\WORK\PROJECTS\60242867\HART_ROAD - 60303213\000_CAD\001_DRAWINGS\090201_XS.DWG PLOT DATE : 7/27/2015 12:59 PM PLOT BY : CZECH, ANDREW PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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