WKE Feb 14, 2023

PROJECT ID: 2709-07-70

WITH: N/A

COUNTY: WASHINGTON

ORDER OF SHEETS



TOTAL SHEETS = 206

21

DESIGN DESIGNATION

| | | | |
|---|---|---|---|
| A.A.D.T. | (2023) | = | 14,200 |
| A.A.D.T. | (2043) | = | 19,200 |
| D.H.V. | | = | 2,000 |
| D.D. | | = | 60/40 |
| T. | | = | 12.2% |
| DESIGN SPEED | | = | 55 MPH |
| ESALS | | = | 3,500,00 |

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

# LISBON - RICHFIELD

INTERSECTION WITH HILLSIDE ROAD

## CTH Q

## WASHINGTON COUNTY

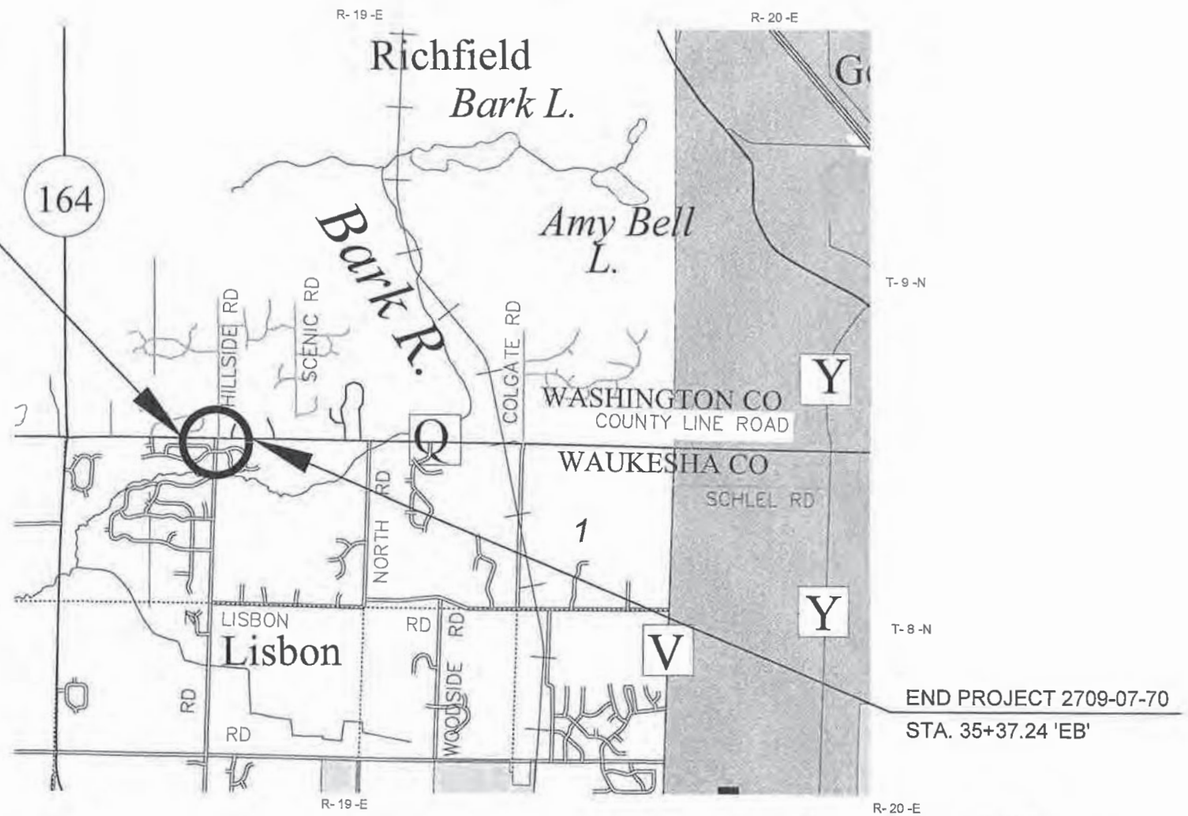
STATE PROJECT NUMBER

**2709-07-70**

| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 2709-07-70 | WISC 2023226 | 1 |
| | | |
| | | |
| | | |

BEGIN PROJECT 2709-07-70
STA. 20+00.00 'EA'
Y = 439,820.22
X = 2,436,696.27

END PROJECT 2709-07-70
STA. 35+37.24 'EB'




LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.227 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), NAD83(2011), SOUTH ZONE.

ALL ELEVATIONS ON THIS PLAN ARE REFERENCED TO NAVD 88 (2012), GEOID 12A.

CONVENTIONAL SYMBOLS

| | | |
|---|---|---|
| COUNTY LINE | | |
| CORPORATE LIMITS | | |
| PROPERTY LINE | | |
| LIMITED EASEMENT | | |
| EXISTING RIGHT OF WAY | | |
| PROPOSED OR NEW R/W LINE | | |
| FENCE | | |
| GUARD RAIL | | |
| SLOPE INTERCEPT | | |
| ORIGINAL GROUND | | |
| MARSH OR ROCK PROFILE (To be noted as such) | ROCK | |
| MARSH AREA | | |
| WOODED OR SHRUB AREA | | |
| STREAM OR WATER EDGE | | |
| BUSH | | |
| PINE TREE | (SIZE) | |
| TREE | (SIZE) | |
| TRAFFIC SIGNAL CONTROL CABINET | | |
| TRAFFIC SIGNAL | | |
| TRAFFIC SIGNAL MAST-ARM | | |
| TRAFFIC SIGNAL WITH LIGHT | | |
| EXISTING PULL BOX | | |
| BOLLARD | | |

| | |
|---|---|
| COMBUSTIBLE FLUIDS | CAUTION |
| UNDERGROUND UTILITIES GAS | (SIZE) G |
| SANITARY SEWER | (SIZE) SAN |
| STORM SEWER | (SIZE) SS |
| WATER | (SIZE) W |
| ELECTRIC | E |
| TELEPHONE | T |
| FIBER OPTIC | FO |
| CABLE TELEVISION | TV |
| FORCE MAIN | FM |
| MANHOLE | MH |
| UTILITY PEDESTAL | |
| FIBER OPTIC HAND HOLE | HH |
| POWER POLE | |
| TELEPHONE POLE | |
| RAILROAD | |
| HYDRANT | |
| LIGHT POLE | |
| RAILROAD SIGNAL | |
| SIGN | |
| TRANSMISSION TOWER | |
| VALVE | (TYPE) |
| CURB STOP | CS |
| EXISTING CULVERT | (SIZE, TYPE) |
| PROPOSED CULVERT (Box or Pipe) | |

ACCEPTED FOR

COUNTY of WASHINGTON

Scott M Schmidt (Printed Name) (Signature)

10/28/2022 (Date) CHIEF PUBLIC WORKS OFFICER (Title of Official)

ORIGINAL PLANS PREPARED BY

raSmith

CREATIVITY BEYOND ENGINEERING

rasmith.com

WISCONSIN BRAD E. SEVERSON 39758 APPLETON WI PROFESSIONAL ENGINEER

10/28/2022 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

| | |
|---|---|
| Surveyor | raSmith |
| Designer | raSmith |
| Project Manager | MICHAEL BAIRD |
| Regional Examiner | |
| Regional Supervisor | BRIAN BOOTHBY |

APPROVED FOR THE DEPARTMENT

DATE: 10/28/2022 Michael J. Baird (Signature)

E

FILE NAME : K:\1210009\CIVIL3D\2709070\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/28/2022 1:02 PM PLOT BY : SIEBERT, LUKE PLOT NAME :

## UTILITIES

AT&T WISCONSIN - COMMUNICATION
MR. DEAN HERRO
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MILWAUKEE, WI 53214-1226
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DH2572@ATT.COM

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THOMAS.DINEEN@LUMEN.COM

MCI METRO ACCESS TRANS SERVICES LLC - COMMUNICATION
100 COMMUNICATIONS DR
SUN PRAIRIE, WI 53590
SUBCONSULTANT: MOMENTUM DESIGN
MR. JUSTIN GUTIERREZ
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JGUTIERREZ@MOMENTUMDESIGN.US

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MR. BEAU ABUYA
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(414) 758-9241
BEAU.ABUYA@CHARTER.COM

WIN TECHNOLOGY - COMMUNICATION
MR. ERIC BECKER
800 WISCONSIN AVE, STE 219
EAU CLAIRE, WI 54703
(715)-797-2724
ERIC.BECKER@WINTECHNOLOGY.COM

WE ENERGIES - ELECTRIC
MR. JACOB CHRISTENSEN
W140N9100 LILLY ROAD
MENOMONEE FALLS, WI 53051
(414) 750-8548
JACOB.CHRISTENSEN@WE-ENERGIES.COM

WE ENERGIES - GAS
MR. JUSTIN BUSH
500 S 116TH STREET
WEST ALLIS, WI 53214
(414) 410-5212
JUSTIN.BUSH@WECENERGYGROUP.COM

## LIGHTING CONTACT

WE ENERGIES - LIGHTING
MR. RAYMOND JACHIMIEC
231 WEST MICHIGAN ST
MILWAUKEE, WI 53203
(414) 221-4847
RAYMOND.JACHIMIEC@WE-ENERGIES.COM

## DESIGN CONSULTANT

raSmith
MR. BRAD SEVERSON
100 WEST LAWRENCE STREET, SUITE 412
APPLETON, WI 54911
(920) 843-5738
BRAD.SEVERSON@RASMITH.COM

## PROJECT CONTACTS

WASHINGTON COUNTY HIGHWAY DEPARTMENT
MR. SCOTT SCHMIDT
900 LANG STREET
WEST BEND, WI 53095
(262) 335-6881
SCOTT.SCHMIDT@WASHCOWISCO.GOV

WISDOT SE REGION
MR. MICHAEL BAIRD
141 NW BARSTOW STREET
PO BOX 798
WAUKESHA, WI 53187
(262) 548-5918
MICHAEL.BAIRD@DOT.WI.GOV

WAUKESHA COUNTY
MS. KAREN BRAUN
515 W MORELAND BLVD, RM 220
WAUKESHA, WI 53188
(262) 548-7740
KBRAUN@WAUKESHACOUNTY.GOV

## WDNR LIAISON

DNR LIAISON
MR. BENTON STELZEL
141 NW BARSTOW STREET, #180
WAUKESHA, WI 53188
(262) 623-0194
BENTON.STELZEL@WISCONSIN.GOV

## GENERAL NOTES

1. NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.
2. EROSION CONTROL BMPs ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMPs SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.
3. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.
4. RESHAPE, RESTORE, AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED OUTSIDE THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT.
5. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS IN THE AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.
6. SEE SUBSURFACE EXPLORATION REPORTS FOR SOIL BORING INFORMATION. REPORTS ARE AVAILABLE FROM WASHINGTON COUNTY BY CONTACTING SCOTT SCHMIDT, WASHINGTON COUNTY DIRECTOR OF PUBLIC WORKS, (262) 335-6881.
7. STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
8. ALL CURB AND GUTTER RADII ARE MEASURE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.
9. CURB AND GUTTER GRADES ARE TO THE FLANGE LINE UNLESS OTHERWISE NOTED.
10. VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PLACEMENT ELEVATIONS.
11. THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, BIKE OR PARKING LANE.
12. SAWCUT EXISTING ASPHALT AND CONCRETE PAVEMENT AT THE MATCHLINE INDICATED ON THE PLANS UNLESS OTHERWISE IDENTIFIED IN THE PLAN OR AS DIRECTED BY THE ENGINEER.
13. ALL OPENINGS OF HOLES BELOW SUBGRADE RESULTING FROM REMOVALS OR ABANDONMENTS SHALL BE BACKFILLED IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECS. ALL BACKFILL MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.
14. PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLANS AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.
15. CONTRACTOR MUST CONTACT THE ENGINEER AND TED DUMKE, WASHINGTON COUNTY SURVEYOR, (262) 335-4436, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

## ABBREVIATIONS

BAD - BASE AGGREGATE DENSE
BMP - BEST MANAGEMENT PRACTICES
CMP - CORRUGATED METAL PIPE
CPCS - CULVERT PIPE CORRUGATED STEEL
HP -HIGH POINT
LC - LATERAL CLEARANCE
LP - LOW POINT
PACS - PIPE ARCH CORRUGATED STEEL
SEWRPC - SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

## ORDER OF SECTION 2 SHEETS



SOIL BORING SUMMARY
(APPROXIMATE LOCATIONS)

| Point # | Raw Description | ALIGNMENT | OFFSET |
|---|---|---|---|
| 9005 | BORE/B-1 | 22+20'EA' | 4' LT |
| 6955 | BORE/B-2 | 24+78'EA' | 66' RT |
| 6638 | BORE/B-3 | 32+27'WB' | 24' RT |
| 6571 | BORE/B-4 | 33+65'EB' | 15' RT |
| 9064 | BORE/B-5 | 61+62'NA' | 33' RT |
| 35 | BORE/B-6 | 62+48'NA' | 6' RT |
| 6703 | BORE/B-7 | 30+18'WB' | 15' RT |
| 36 | BORE/B-8 | 71+13'NB' | 8' RT |

2

2

N

BRIAR RIDGE LN

80'SB'
80'NB'
78'SB'
78'NB'
76'SB'
76'NB'
74'SB'
74'NB'
72'SB'
72'NB'

HILLSIDE RD

END CONSTRUCTION 2709-07-70
STA. 73+08.17 'NB'

VILLAGE OF RICHFIELD

JENCRIS CT

ONE-WAY STOP CONTROLLED

END PROJECT 2709-07-70
STA. 35+37.24 'EB'

BEGIN PROJECT 2709-07-70
STA. 20+00.00 'EA'
Y = 439,820.22
X = 2,436,696.27

WEPCO EASEMENT DOC. 423128

WEPCO EASEMENT DOC. 358303

WETLAND BOUNDARY

70'SB'
70'WB'

CTH Q

12'WA'
14'WA'
16'WA'
18'WA'
20'WA'
22'WA'
24'WA'
12'EA'
14'EA'
16'EA'
18'EA'
20'EA'
22'EA'
24'EA'

32'WB'
34'WB'
36'WB'
38'WB'
40'WB'
42'WB'
44'WB'
32'EB'
34'EB'
36'EB'
38'EB'
40'EB'
42'EB'
44'EB'

WASHINGTON CO
COUNTY LINE ROAD
WAUKESHA CO

SINGLE LANE ROUNDABOUT

62'SA'
62'NA'
60'SA'
60'NA'

NORWAUK RD

TOWN OF LISBON

58'SA'
58'NA'
56'SA'
56'NA'

HILLSIDE RD

BEGIN CONSTRUCTION 2709-07-70
STA. 60+00.00 'NA'

TWO-WAY STOP CONTROLLED

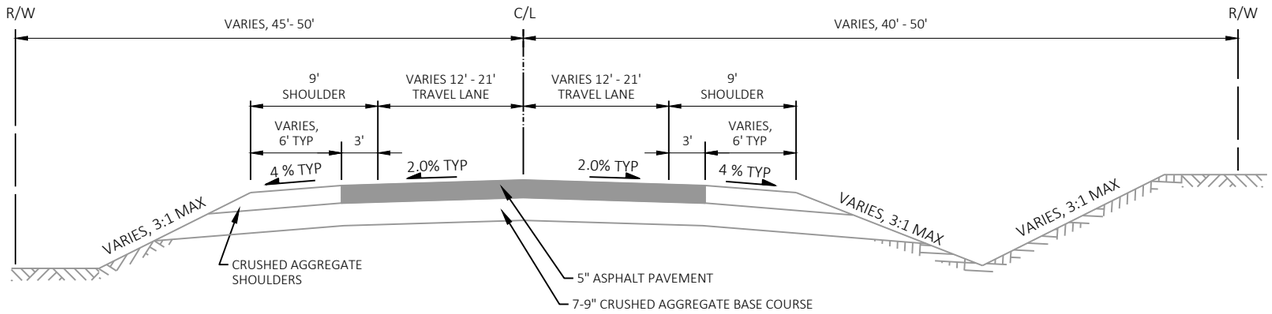
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PROJECT OVERVIEW | SHEET 3 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - Plan 1 IN 100 FT

PLOT DATE : 10/27/2022 2:34 PM
PLOT BY : SIEBERT, LUKE
PLOT NAME :
PLOT SCALE : 1 IN:200 FT

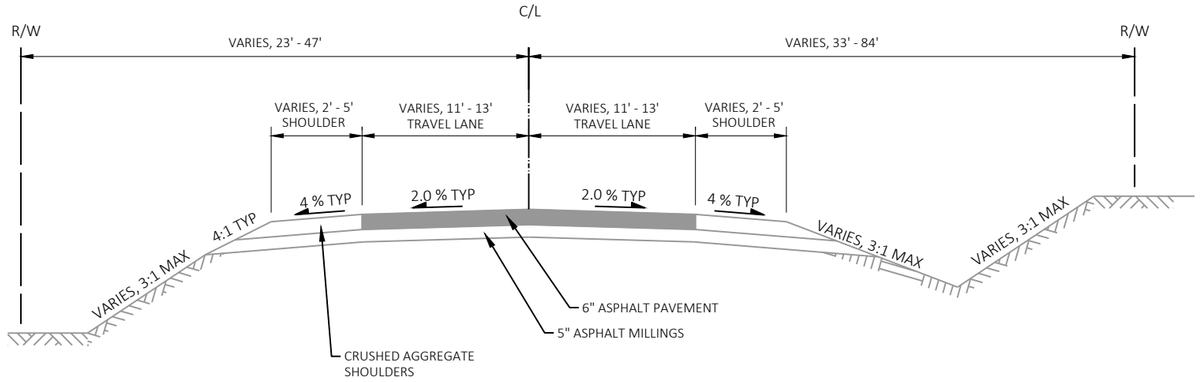
WISDOT/CADDS SHEET 42

2




## TYPICAL EXISTING SECTION
CTH Q

STA 20+00.00'EA' - STA 25+45.86'EA'
STA 30+26.15'EB' - STA 35+37.24'EB'
STA 20+00.00'WA' - STA 25+51.23'WA'
STA 30+29.57'WB' - STA 35+37.24'WB'

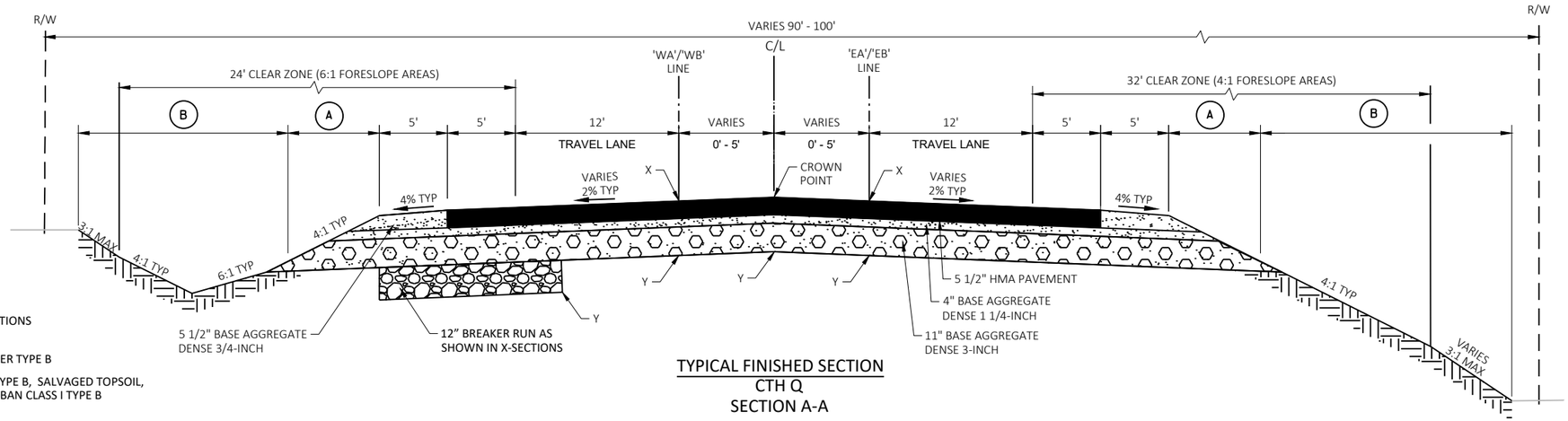



## TYPICAL EXISTING SECTION
HILLSIDE RD

STA 60+00.00'NA' - STA 62+90.58'NA'
STA 70+22.01'NB' - STA 73+08.17'NB'
STA 60+00.00'SA' - STA 62+37.92'SA'
STA 70+24.30'SB' - STA 73+08.17'SB'

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 4 | E |
|---|---|---|---|---|---|

2




LEGEND

"X" = POINTS REFERRED TO ON PROFILE
"Y" = POINTS REFERRED TO ON CROSS SECTIONS

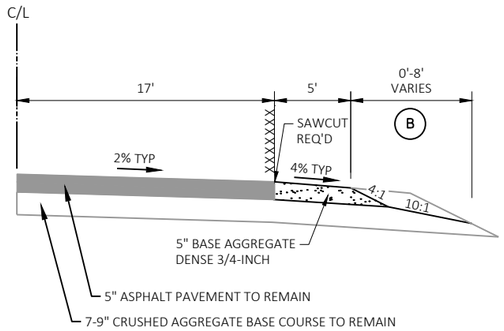
(A) SEEDING MIX NO. 30 AND FERTILIZER TYPE B

(B) SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EROSION MAT URBAN CLASS I TYPE B

## TYPICAL FINISHED SECTION
## CTH Q
## SECTION A-A

STA 20+00.00 'EA' - STA 22+00.00 'EA'
STA 33+33.16 'EB' - STA 35+37.24 'EB'
STA 20+00.00 'WA' - STA 22+00.00 'WA'
STA 33+36.28 'WB' - STA 35+37.24 'WB'

DESIGN SPEED - 55 MPH

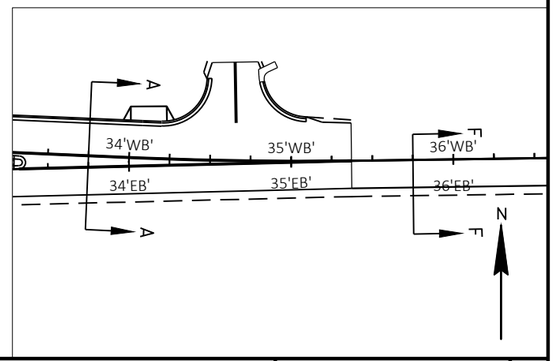



HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND MIXES:

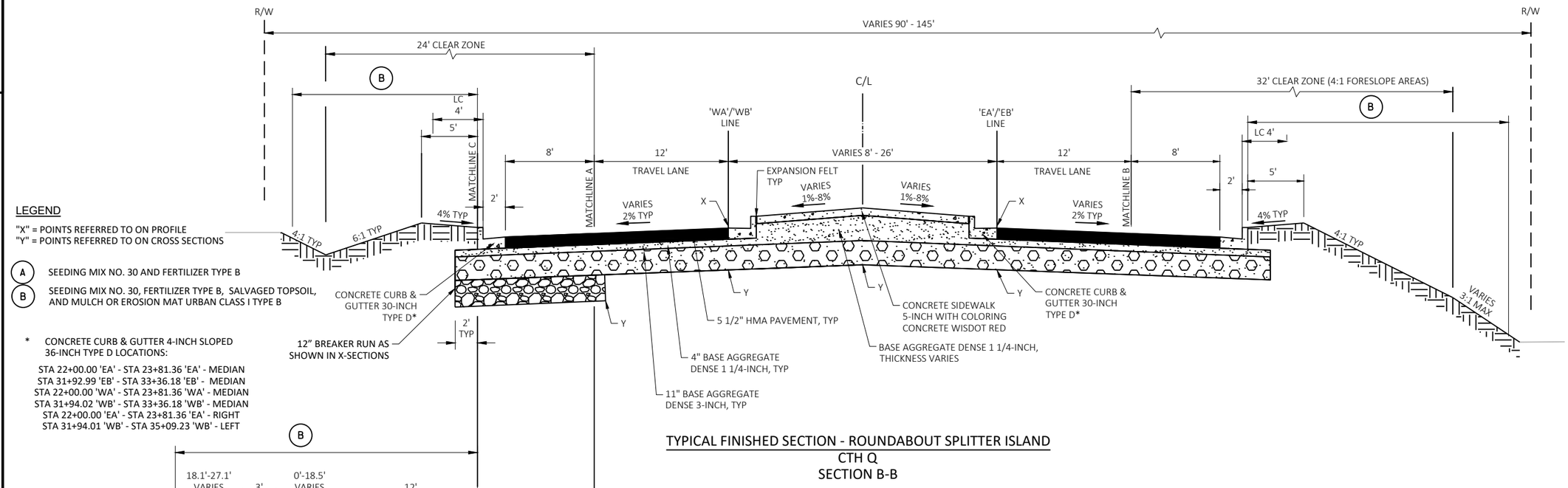
| THICKNESS | LAYERS | MIX SPECIFICATIONS |
|---|---|---|
| 5 1/2-INCH | ONE 2" UPPER LAYER<br>ONE 3 1/2" LOWER LAYER | 4 MT 58-28 H<br>2 MT 58-28 S |

## TYPICAL FINISHED SECTION
## CTH Q
## SECTION F-F

STA 35+37.24 'EB' - STA 37+25.61 'EB'




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 5 | E |
|---|---|---|---|---|---|




LEGEND

"X" = POINTS REFERRED TO ON PROFILE
"Y" = POINTS REFERRED TO ON CROSS SECTIONS

(A) SEEDING MIX NO. 30 AND FERTILIZER TYPE B

(B) SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EROSION MAT URBAN CLASS I TYPE B

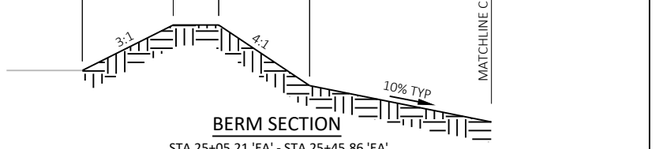
* CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LOCATIONS:

STA 22+00.00 'EA' - STA 23+81.36 'EA' - MEDIAN
STA 31+92.99 'EB' - STA 33+36.18 'EB' - MEDIAN
STA 22+00.00 'WA' - STA 23+81.36 'WA' - MEDIAN
STA 31+94.02 'WB' - STA 33+36.18 'WB' - MEDIAN
STA 22+00.00 'EA' - STA 23+81.36 'EA' - RIGHT
STA 31+94.01 'WB' - STA 35+09.23 'WB' - LEFT

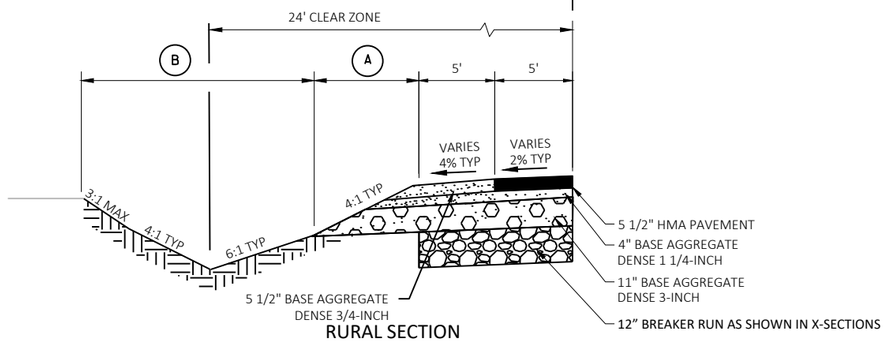
## TYPICAL FINISHED SECTION - ROUNDABOUT SPLITTER ISLAND
CTH Q
SECTION B-B

STA 22+00.00'EA' - STA 25+45.86'EA'
STA 30+26.15 'EB' - STA 33+32.16 'EB'
STA 22+00.00'WA' - STA 25+51.38 'WA'
STA 30+29.57 'WB' - STA 33+32.28 'WB'

DESIGN SPEED - 55 MPH



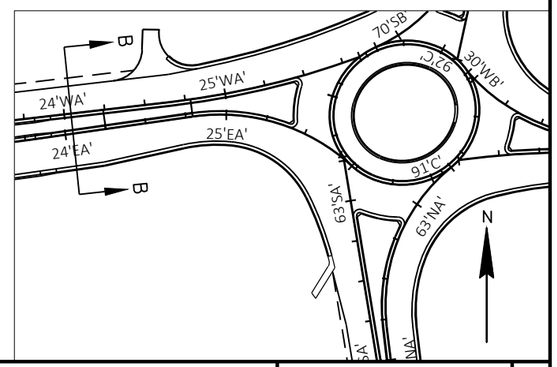

## BERM SECTION
STA 25+05.21 'EA' - STA 25+45.86 'EA'
SEE CONTOUR MAP DETAIL SHEET.




## RURAL SECTION
STA 22+00.00 'WA' - STA 24+67.82 'WA'
STA 31+50.00 'EB' - STA 33+32.16 'EB'
MATCHLINE B IS A MIRROR IMAGE

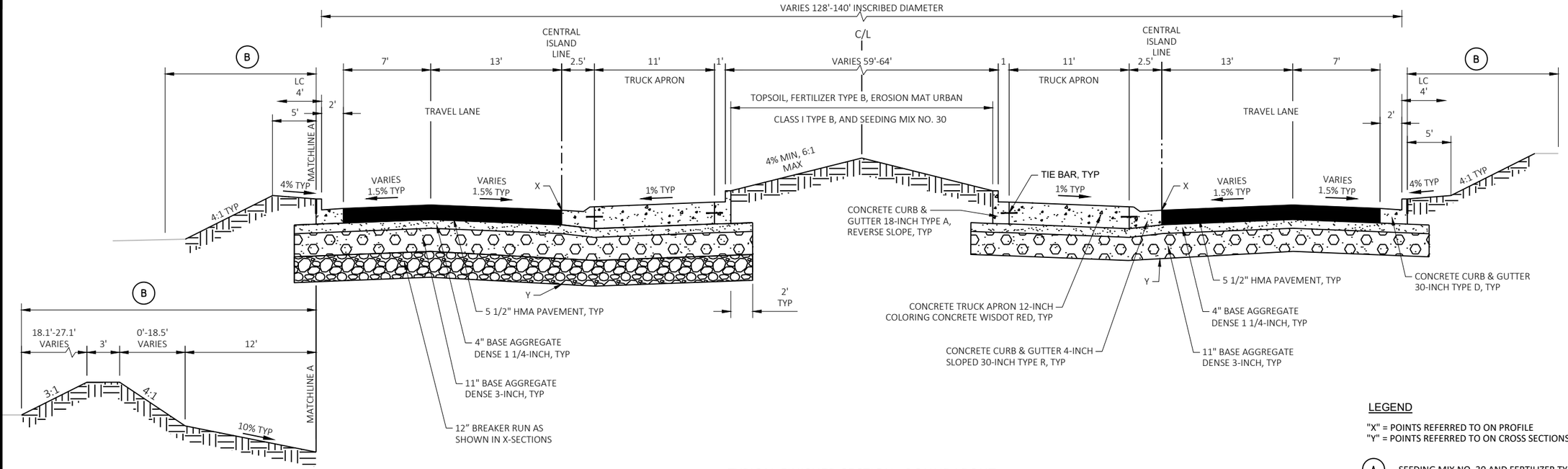
HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND MIXES:

| THICKNESS | LAYERS | MIX SPECIFICATIONS |
|---|---|---|
| 5 1/2-INCH | ONE 2" UPPER LAYER<br>ONE 3 1/2" LOWER LAYER | 4 MT 58-28 H<br>2 MT 58-28 S |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 6 | E |
|---|---|---|---|---|---|

2




## BERM SECTION

STA 92+23.72 'C' - STA 92+71.01 'C'
SEE CONTOUR MAP DETAIL SHEET.

## TYPICAL FINISHED SECTION - ROUNDABOUT

## SECTION C-C

STA 90+00.00 'C' - STA 92+84.18 'C'

LEGEND

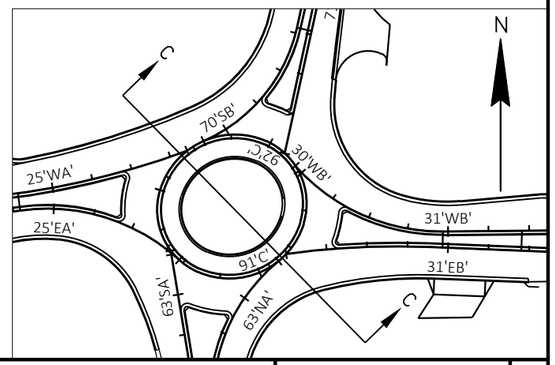
"X" = POINTS REFERRED TO ON PROFILE
"Y" = POINTS REFERRED TO ON CROSS SECTIONS

(A) SEEDING MIX NO. 30 AND FERTILIZER TYPE B

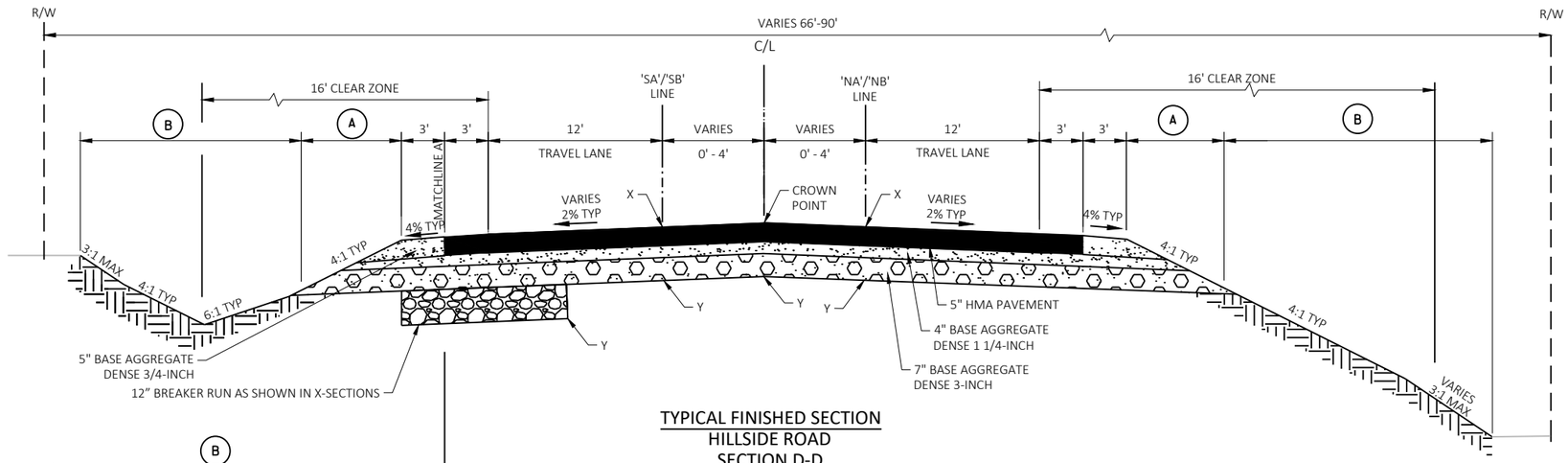
(B) SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EROSION MAT URBAN CLASS I TYPE B

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND MIXES:

| THICKNESS | LAYERS | MIX SPECIFICATIONS |
|---|---|---|
| 5 1/2-INCH | ONE 2" UPPER LAYER<br>ONE 3 1/2" LOWER LAYER | 4 MT 58-28 H<br>2 MT 58-28 S |



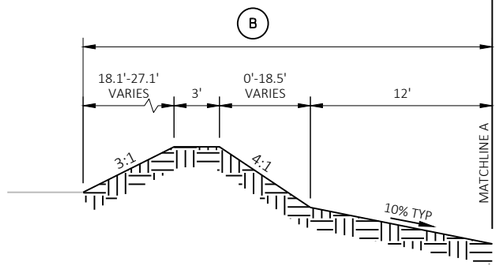

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 7 | E |
|---|---|---|---|---|---|




## TYPICAL FINISHED SECTION
## HILLSIDE ROAD
## SECTION D-D

STA 60+00.00'NA' - STA 61+84.40'NA'
STA 71+57.63'NB' - STA 73+08.17'NB'
STA 60+00.00'SA' - STA 61+83.94'SA'
STA 71+58.48'SB' - STA 73+08.17'SB'

DESIGN SPEED - 40 MPH




## BERM SECTION

STA 70+24.30 'SB' - STA 71+58.48 'SB'
SEE CONTOUR MAP DETAIL SHEET.

LEGEND

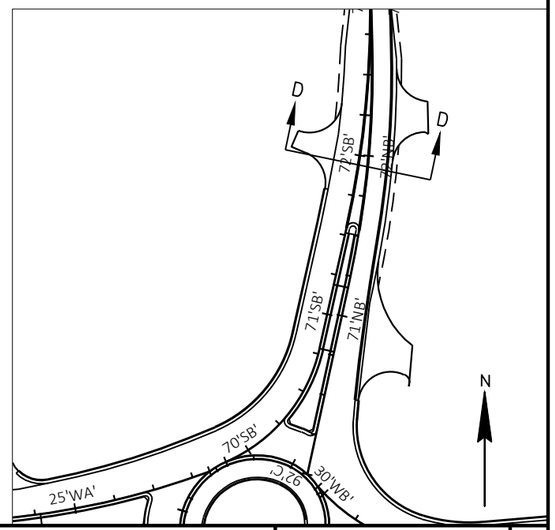
"X" = POINTS REFERRED TO ON PROFILE
"Y" = POINTS REFERRED TO ON CROSS SECTIONS

(A) SEEDING MIX NO. 30 AND FERTILIZER TYPE B

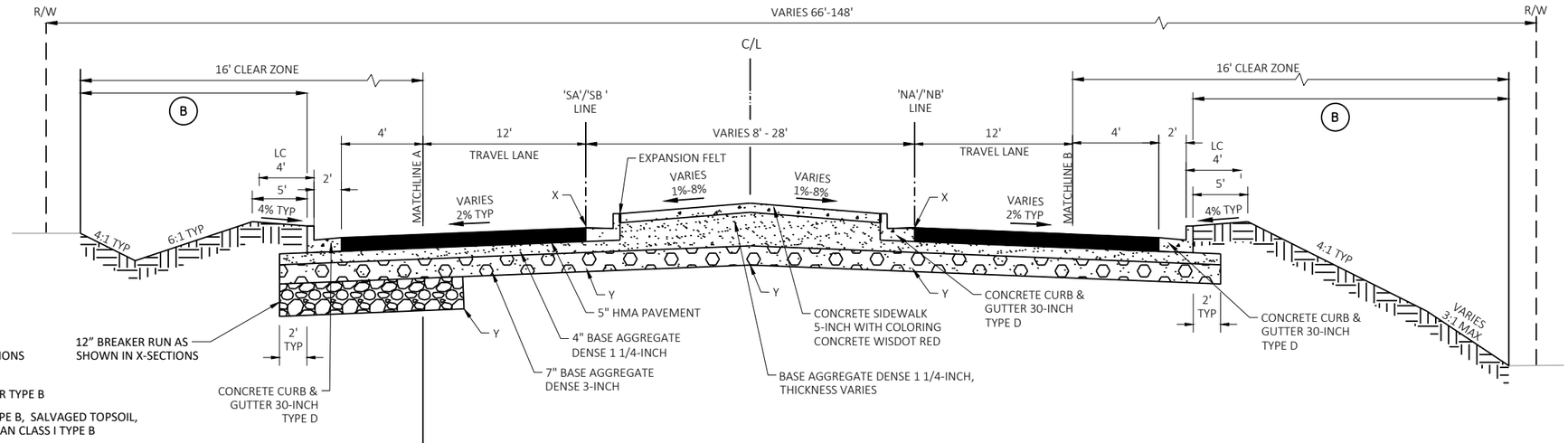
(B) SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EROSION MAT URBAN CLASS I TYPE B

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND MIXES:

| THICKNESS | LAYERS | MIX SPECIFICATIONS |
|---|---|---|
| 5-INCH | ONE 2" UPPER LAYER<br>ONE 3" LOWER LAYER | 4 MT 58-28 H<br>2 MT 58-28 S |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 8 | E |
|---|---|---|---|---|---|




LEGEND

"X" = POINTS REFERRED TO ON PROFILE
"Y" = POINTS REFERRED TO ON CROSS SECTIONS

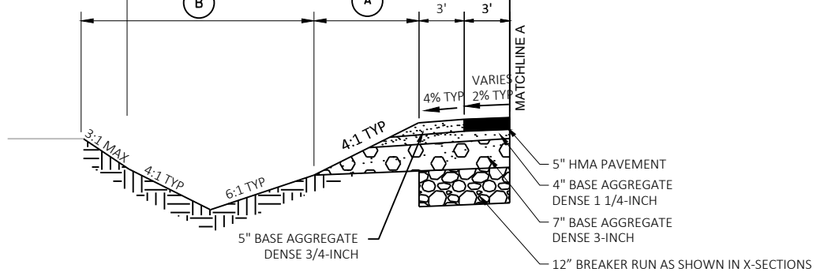
(A) SEEDING MIX NO. 30 AND FERTILIZER TYPE B

(B) SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EROSION MAT URBAN CLASS I TYPE B

## TYPICAL FINISHED SECTION
## HILLSIDE ROAD
## SECTION E-E

STA 61+88.40 'NA' - STA 62+90.58 'NA'
STA 70+22.01 'NB' - STA 71+55.12 'NB'
STA 61+87.94 'SA' - STA 62+37.92 'SA'
STA 70+24.30'SB - STA 71+58.48 'SB'

DESIGN SPEED - 40 MPH



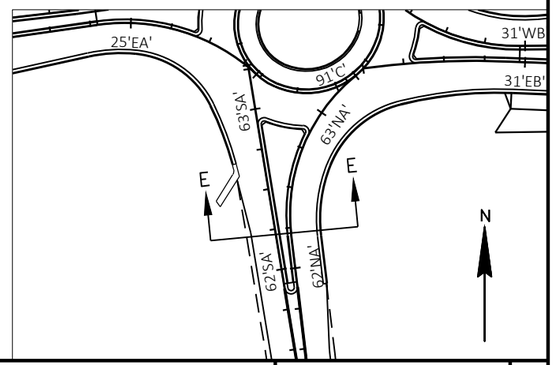

## RURAL SECTION

STA 71+13.36 'NB' - STA 71+55.12 'NB'
STA 61+87.94 'SA'- STA 62+68.62 'SA'

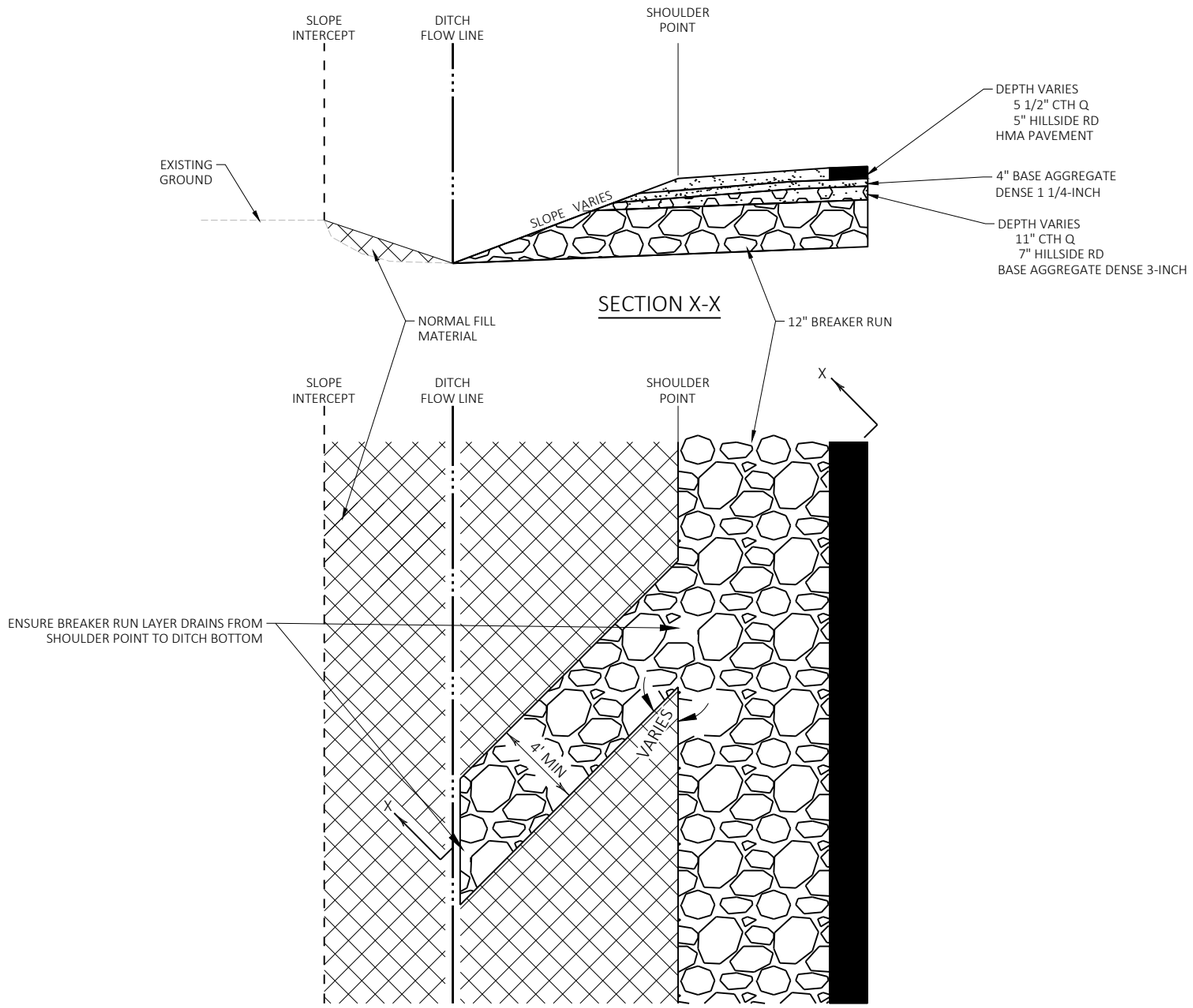
MATCHLINE B IS A MIRROR IMAGE

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND MIXES:

| THICKNESS | LAYERS | MIX SPECIFICATIONS |
|---|---|---|
| 5-INCH | ONE 2" UPPER LAYER<br>ONE 3" LOWER LAYER | 4 MT 58-28 H<br>2 MT 58-28 S |



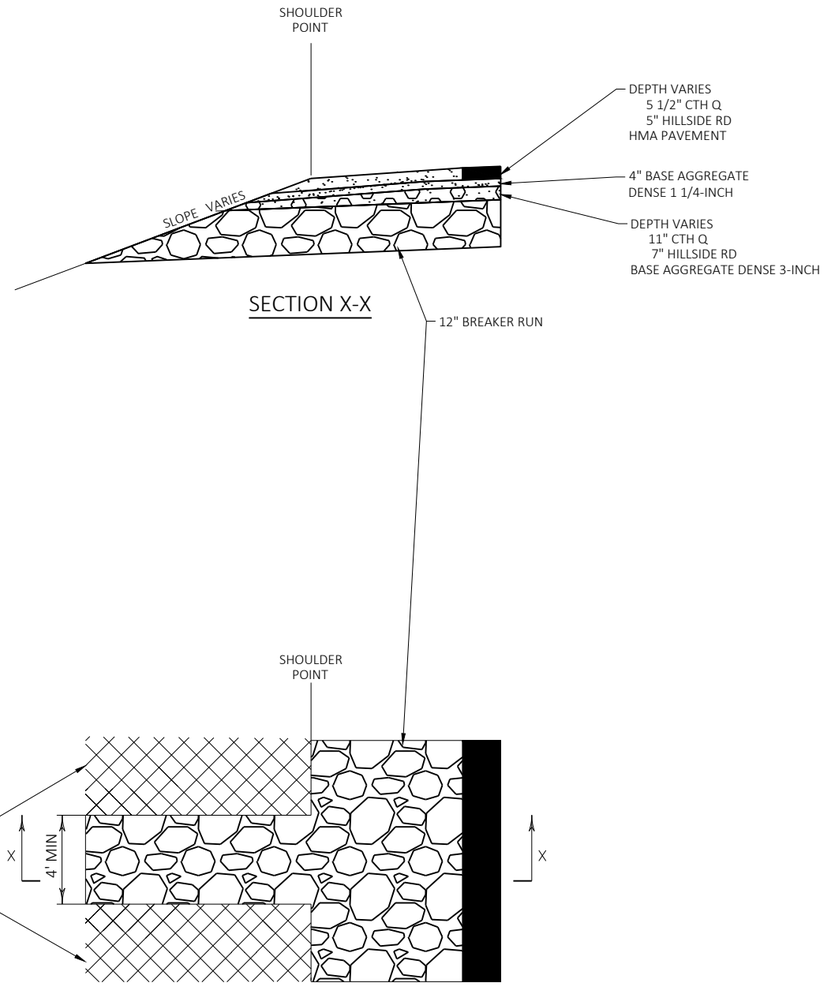

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TYPICAL SECTIONS | SHEET 9 | E |
|---|---|---|---|---|---|




SECTION X-X

PLAN VIEW

ANGLED RELIEF TRENCH IN SUBGRADE IMPROVEMENT AREAS
STA 21+50 'WA' LT
STA 24+00 'WA' LT
AND AS DETERMINED BY THE ENGINEER




SECTION X-X

PLAN VIEW

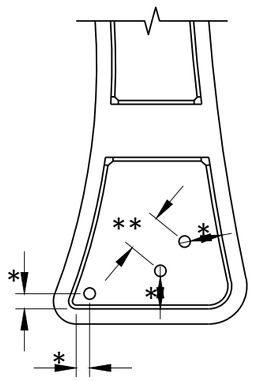
PERPENDICULAR RELIEF TRENCH IN SUBGRADE IMPROVEMENT AREAS
STA 62+50 'SA' LT
STA 70+40 'NB' RT
AND AS DETERMINED BY THE ENGINEER

2

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CONSTRUCTION DETAILS | SHEET 10 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/27/2022 7:38 AM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 42

2



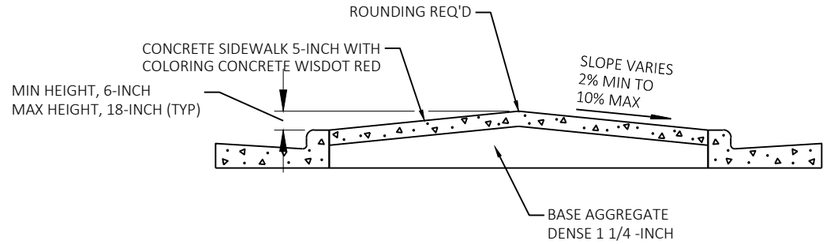

* DISTANCE TO BE LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.

SEE A4-3 SIGN PLATE FOR "TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POST"

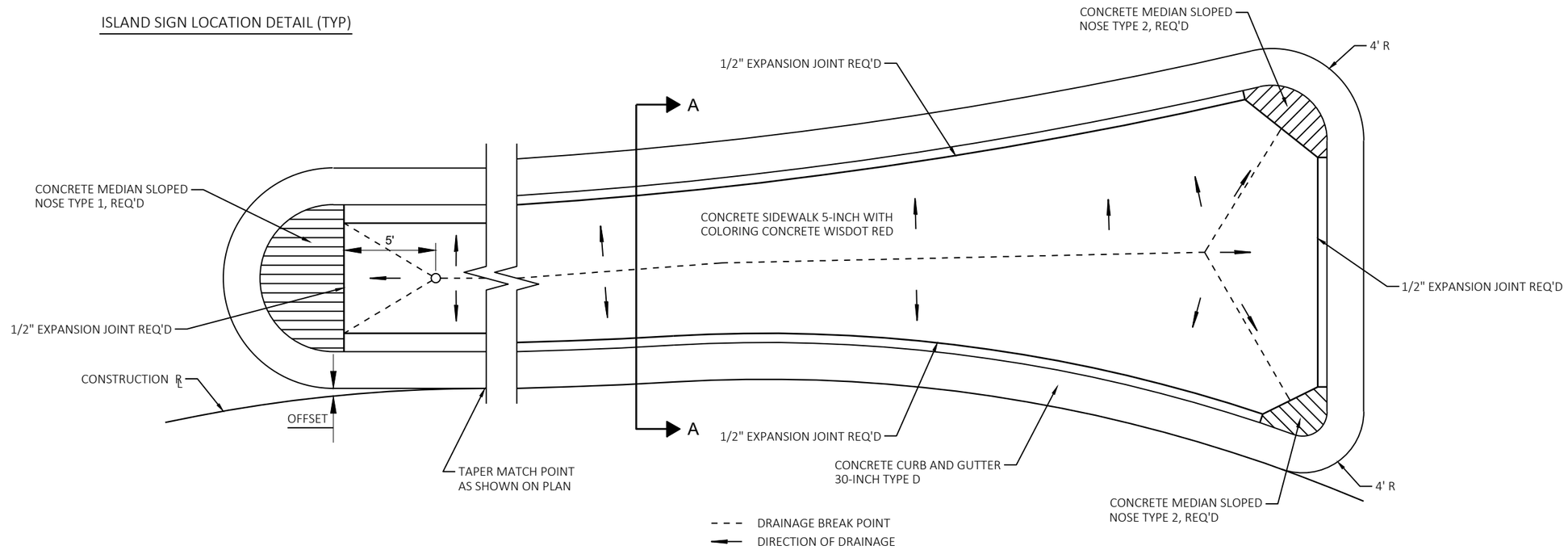
SEE A4-3B SIGN PLATE "SIGN POST BOX-OUTS"

** SEE A4-4 SIGN PLATE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE SUPPORTS"

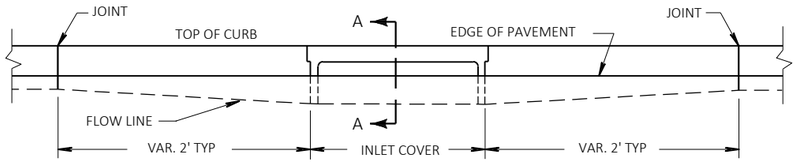
ISLAND SIGN LOCATION DETAIL (TYP)



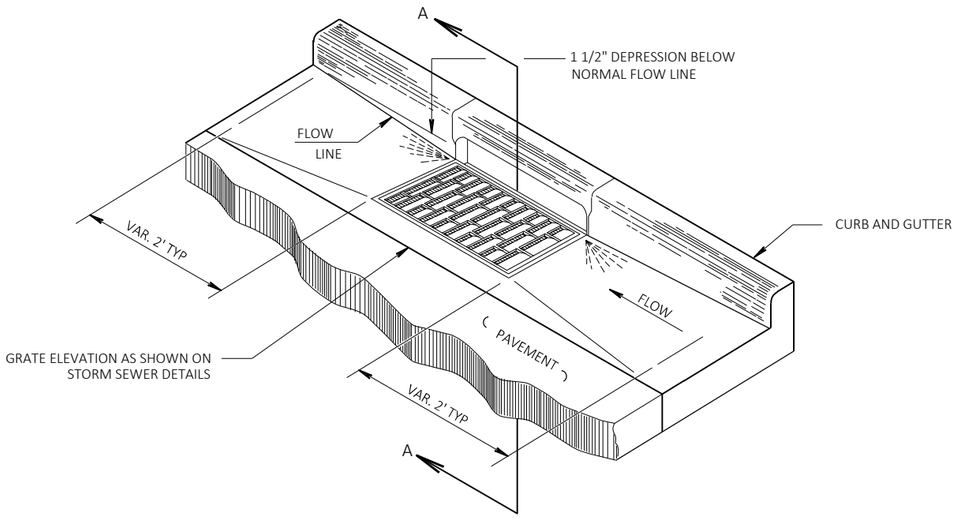

SECTION A-A

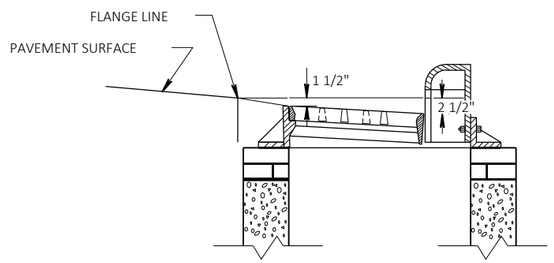



CONCRETE SPLITTER ISLAND DETAIL WITHOUT CROSSWALK



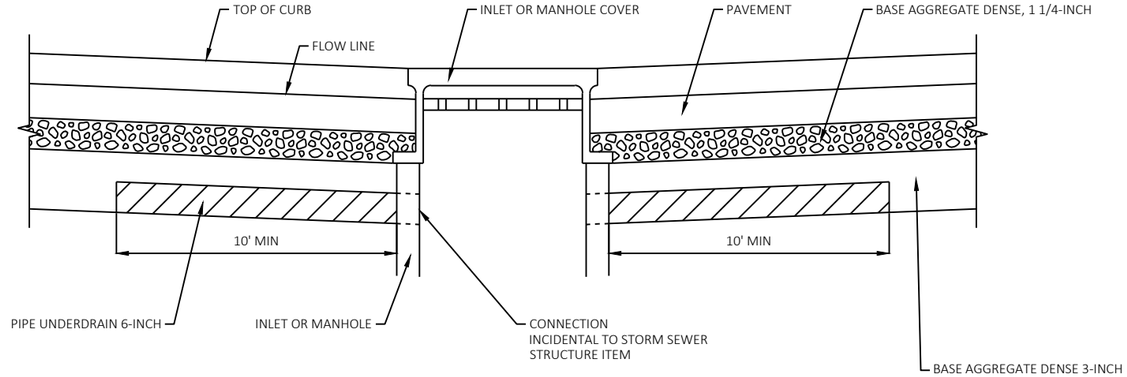

ELEVATION




SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

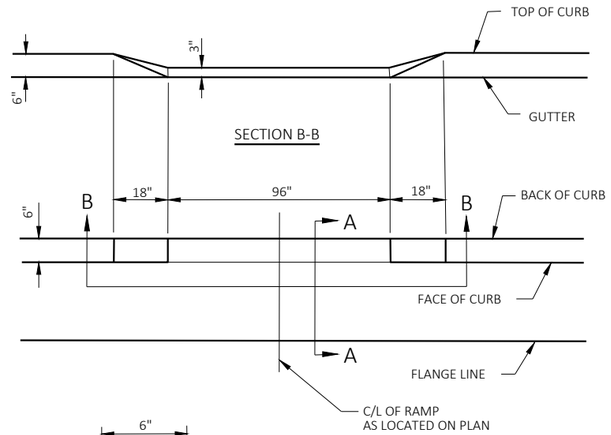



PIPE UNDERDRAIN DETAIL

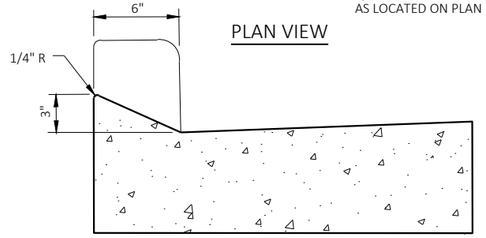
NOTE: AT LOW POINTS WITH DUAL INLETS, PIPE UNDERDRAIN IS ONLY INLCUDED ON THE UPSTREAM SIDE.

LOW POINT STORM SEWER STRUCTURES

| | | | | |
|---|---|---|---|---|
| 12 | 14 | 23 | 26 | 22A1 |
| 12A | 21 | 24 | 22A | 61 |
| 13 | 22 | 25 | 22B | 62 |



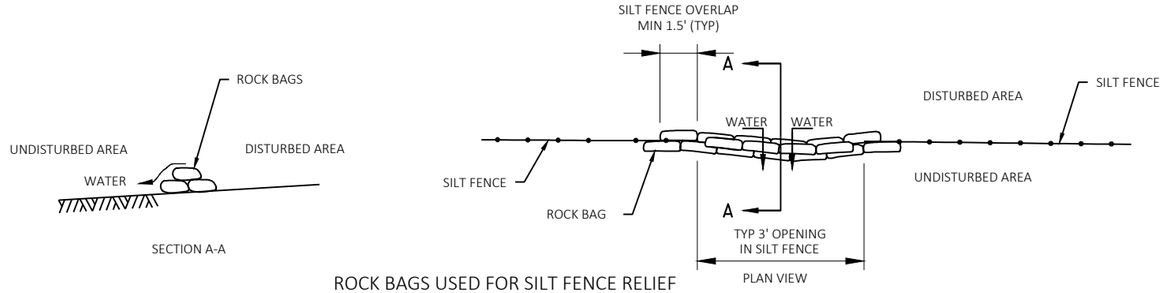

PLAN VIEW




SECTION A-A

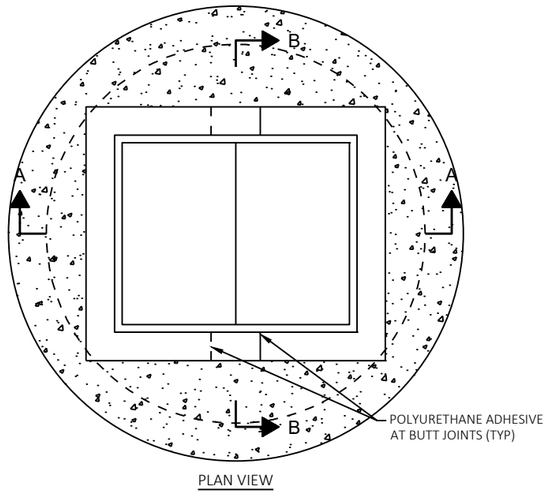
MAINTENANCE RAMP

STA 91+50.65 LT, CENTRAL ISLAND



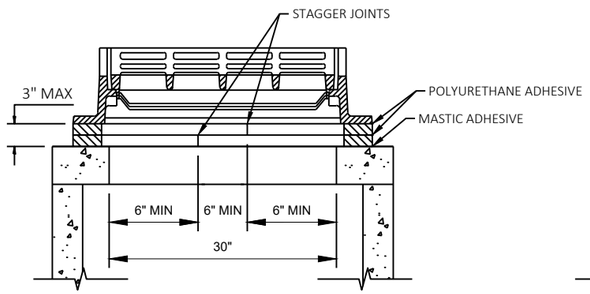

## ROCK BAGS USED FOR SILT FENCE RELIEF

SEE EROSION CONTROL PLAN FOR LOCATIONS

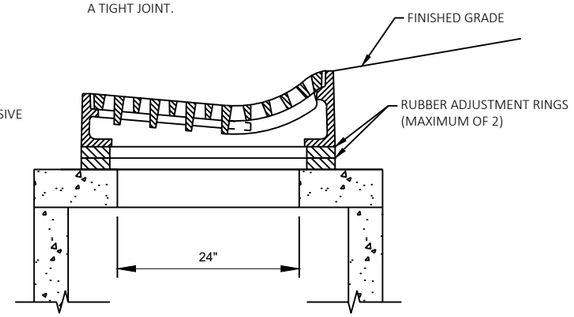



PLAN VIEW

NOTE:
ALL CUTS MADE TO RUBBER ADJUSTMENT RINGS SHALL
BE PERPENDICULAR AND PROVIDE
A TIGHT JOINT.

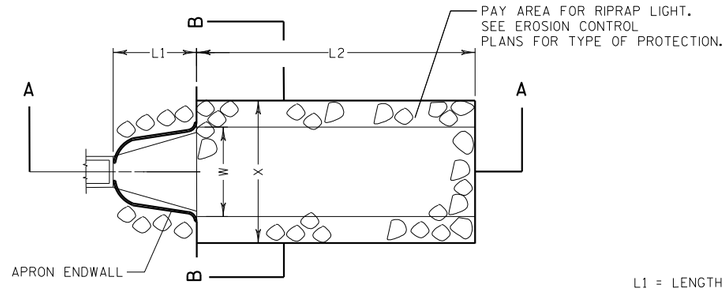



SECTION A-A

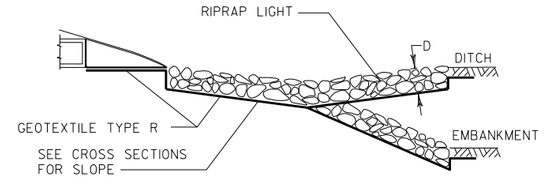



SECTION B-B

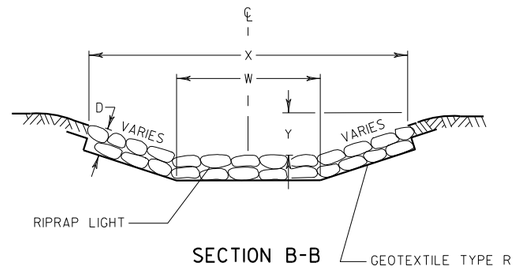
## RUBBER RING CUTTING DETAIL FOR INLETS & MANHOLES IN CURB & GUTTER




PLAN VIEW




SECTION A-A




SECTION B-B

L1 = LENGTH OF APRON END WALL

L2 = 3 x W (NOR) OR 10' MIN
OR AS INDICATED IN THE PLANS
OR AS DIRECTED BY THE ENGINEER

D = 12" FOR RIPRAP LIGHT

X = W+4' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+6' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
6" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

CONSTRUCTION NOTES:

1. GEOTEXTILE TYPE R SHALL EXTEND BENEATH THE ENTIRE LENGTH OF THE APRON ENDWALL SECTION. INSTALL ON PREPAVED FOUNDATION. GRADE PRIOR TO END WALL INSTALLATION.
2. COMPLETE GEOTEXTILE TYPE R AND RIPRAP LIGHT SECTION INSTALLATION PRIOR TO STORM WATER FLOW.

## RIPRAP LIGHT AND GEOTEXTILE TYPE R DETAIL AT APRON ENDWALLS

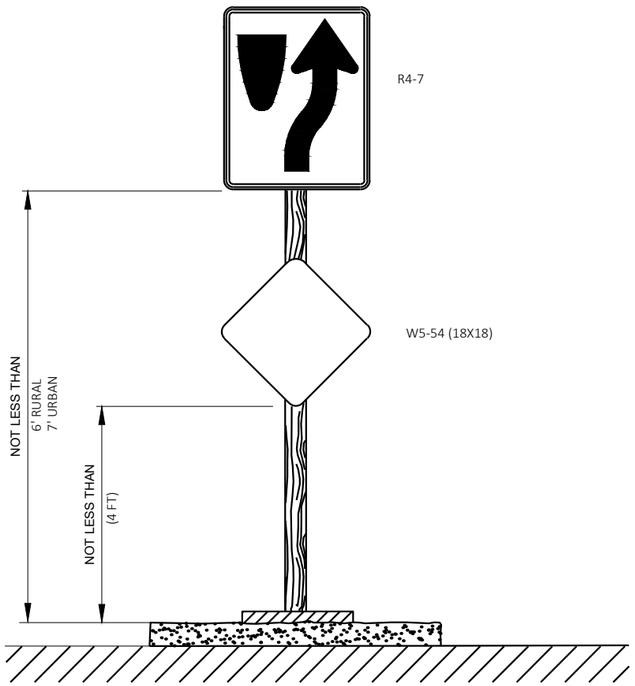
SEE EROSION CONTROL PLAN FOR LOCATIONS

2

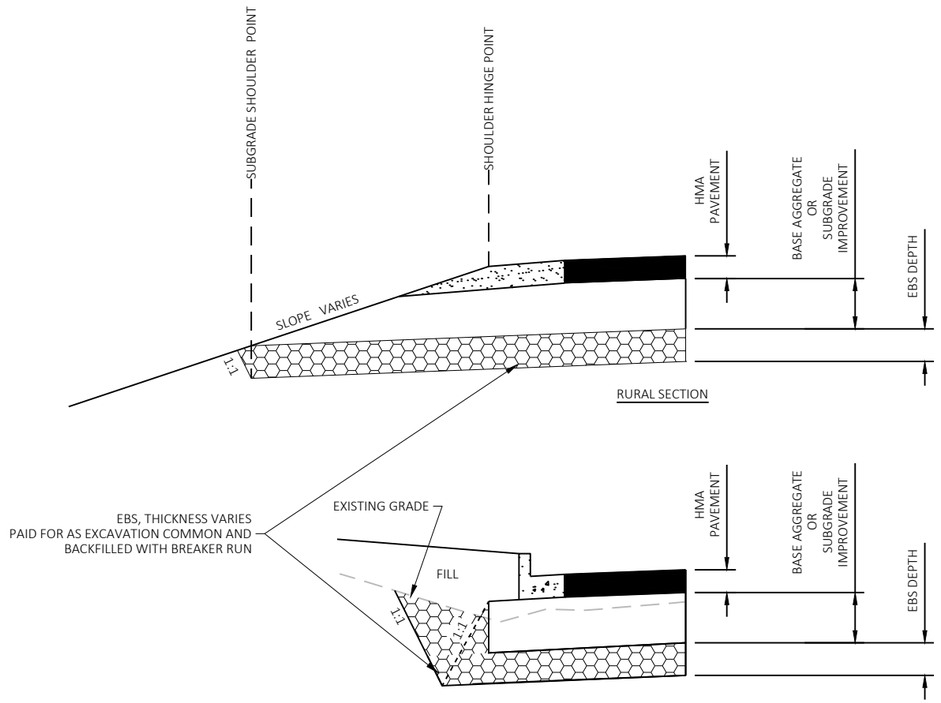
# RUNOFF COEFFICIENT TABLE

| | 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<br>.22 | .16<br>.30 | .22<br>.38 | .12<br>.26 | .20<br>.34 | .27<br>.44 | .15<br>.30 | .24<br>.37 | .33<br>.50 | .19<br>.34 | .28<br>.41 | .38<br>.56 |
| MEDIAN STRIP-<br>TURF | .19<br>.24 | .20<br>.26 | .24<br>.30 | .19<br>.25 | .22<br>.28 | .26<br>.33 | .20<br>.26 | .23<br>.30 | .30<br>.37 | .20<br>.27 | .25<br>.32 | .30<br>.40 |
| SIDE SLOPE-<br>TURF | | | .25<br>.32 | | | .27<br>.34 | | | .28<br>.36 | | | .30<br>.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 = 4.819 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.787 ACRES



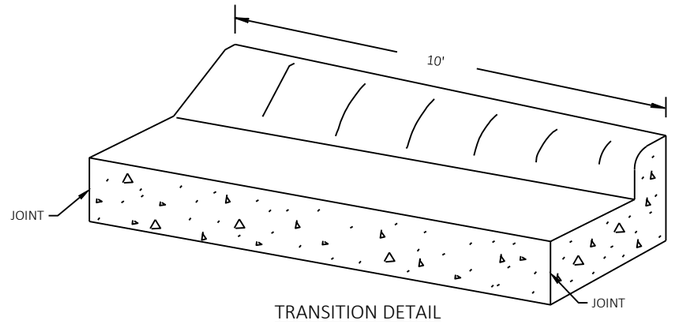

TYPICAL INSTALLATION FOR TRANSITION TO DIVIDED HIGHWAY OR OTHER SPECIAL NEEDS AREAS




EXCAVATION BELOW SUBGRADE

NOTES:

1. FINAL LOCATIONS AND DEPTHS TO BE DETERMINED BY THE ENGINEER.
2. IN RURAL SECTIONS, ENSURE POSITIVE DRAINAGE TO DITCH.
3. IN URBAN SECTIONS, ENSURE POSITIVE DRAINAGE TO PIPE UNDERDRAIN AT INLETS. SEE PIPE UNDERDRAN DETAIL.




TRANSITION DETAIL

CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D TO CONCRETE CURB & GUTTER 30-INCH TYPE D
(TO BE MEASURED & PAID FOR AS CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH)

2

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CONSTRUCTION DETAILS | SHEET 14 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 06
PLOT DATE : 10/27/2022 11:59 AM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:10 FT_1
WISDOT/CADDS SHEET 42

2

2

LEGEND

- X — GRUBBING (CLEARING TO BE PERFORMED BY OTHERS)
- REMOVING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERTS
- REMOVING FENCE
- XXXXX — SAWING ASPHALT
- SAWING CONCRETE
- SLOPE INTERCEPT

N

+85.91'WA'
-61.13' LT

+95.10'WA'
-60.55' LT

+00'WA'
-14.82' LT

+00'EA'
15.30' RT

20'WA'
20'EA'

21'WA'
21'EA'

22'WA'
22'EA'

23'WA'
23'EA'

'WA' LINE

'EA' LINE

CTH Q

18" CMCP

POST

BORE

ASPH

R/W

54"

MATCHLINE STA 24+00.00

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | REMOVAL PLAN | SHEET 15 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 01

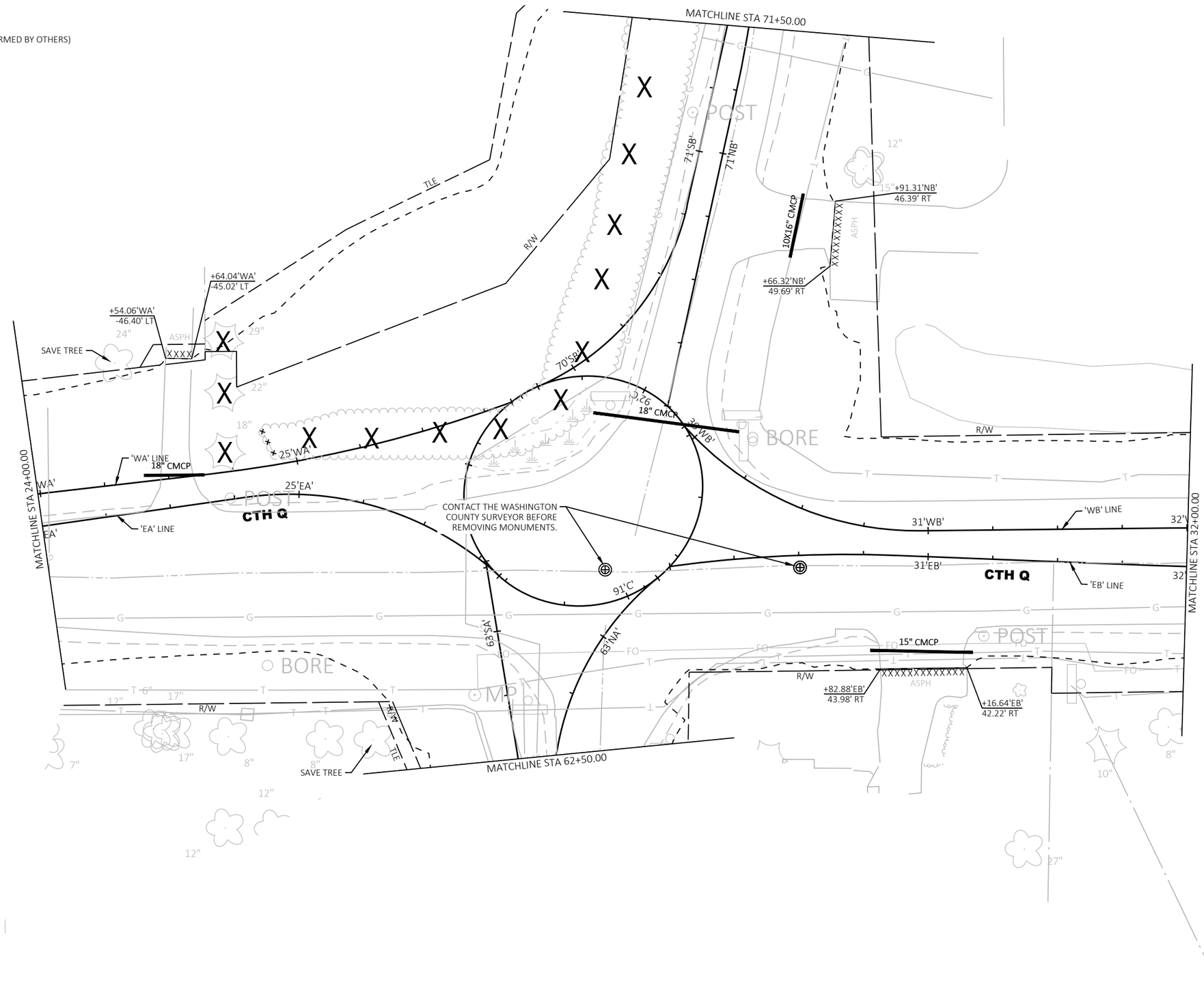
PLOT DATE : 10/27/2022 8:54 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- X — GRUBBING (CLEARING TO BE PERFORMED BY OTHERS)
- REMOVING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERTS
- REMOVING FENCE
- XXXXX — SAWING ASPHALT
- SAWING CONCRETE
- SLOPE INTERCEPT




N

2

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | REMOVAL PLAN | SHEET 16 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2022 9:45 AM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

X GRUBBING (CLEARING TO BE PERFORMED BY OTHERS)

REMOVING CONCRETE PAVEMENT

REMOVING CURB & GUTTER

REMOVING SMALL PIPE CULVERTS

REMOVING FENCE

XXXXX SAWING ASPHALT

SAWING CONCRETE

SLOPE INTERCEPT

N

2

MATCHLINE STA 32+00.00

'WB' LINE

'EB' LINE

CTH Q

JENCRIS COURT

201+00 'JC'

+49.84'WB'
-60.13' LT

+78.92'WB'
-61.11' LT

+99.77'WB'
-31.34' LT

+22.15'WB'
-32.41' LT

+37.24'WB'
-23.41' LT

+37.06'EB'
17.00' RT

+25.61'EB'
17.00' RT

33'WB'
33'EB'
34'WB'
34'EB'
35'WB'
35'EB'
36'WB'
36'EB'
37'WB'
37'EB'
38'WB'
38'EB'

R/W

SAVE TREE

ASPH

CONC

BORE

POST

FLAG

PLAY SET

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | REMOVAL PLAN | SHEET 17 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 03

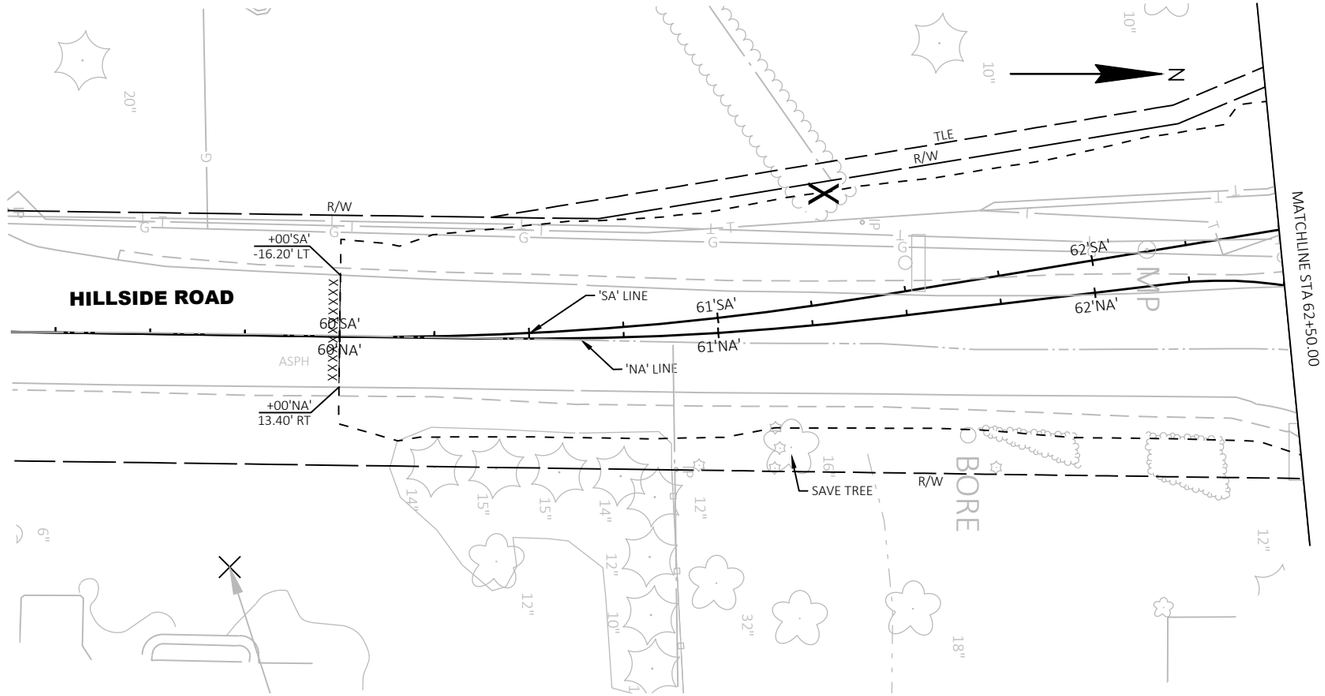
PLOT DATE : 10/27/2022 12:09 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

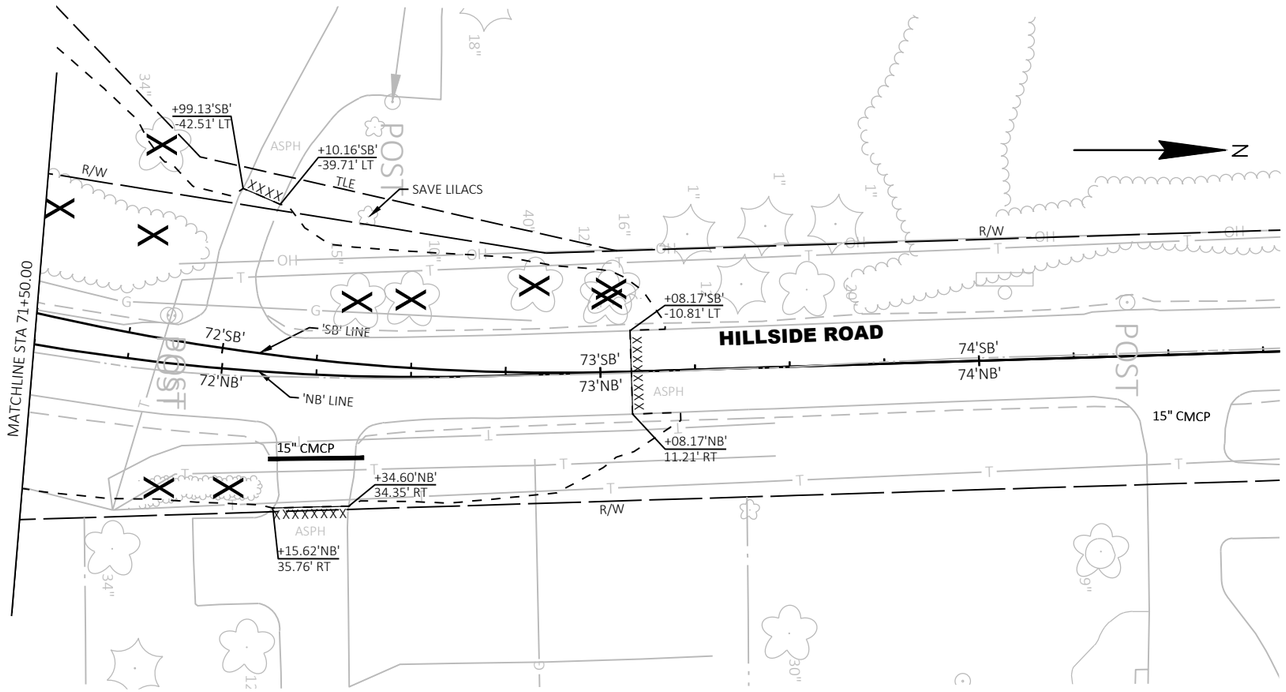
WISDOT/CADDS SHEET 42

2

LEGEND

- GRUBBING (CLEARING TO BE PERFORMED BY OTHERS)
- REMOVING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERTS
- REMOVING FENCE
- SAWING ASPHALT
- SAWING CONCRETE
- SLOPE INTERCEPT




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | REMOVAL PLAN | SHEET 18 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101-RM.DWG
LAYOUT NAME - 04

PLOT DATE : 10/27/2022 8:54 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

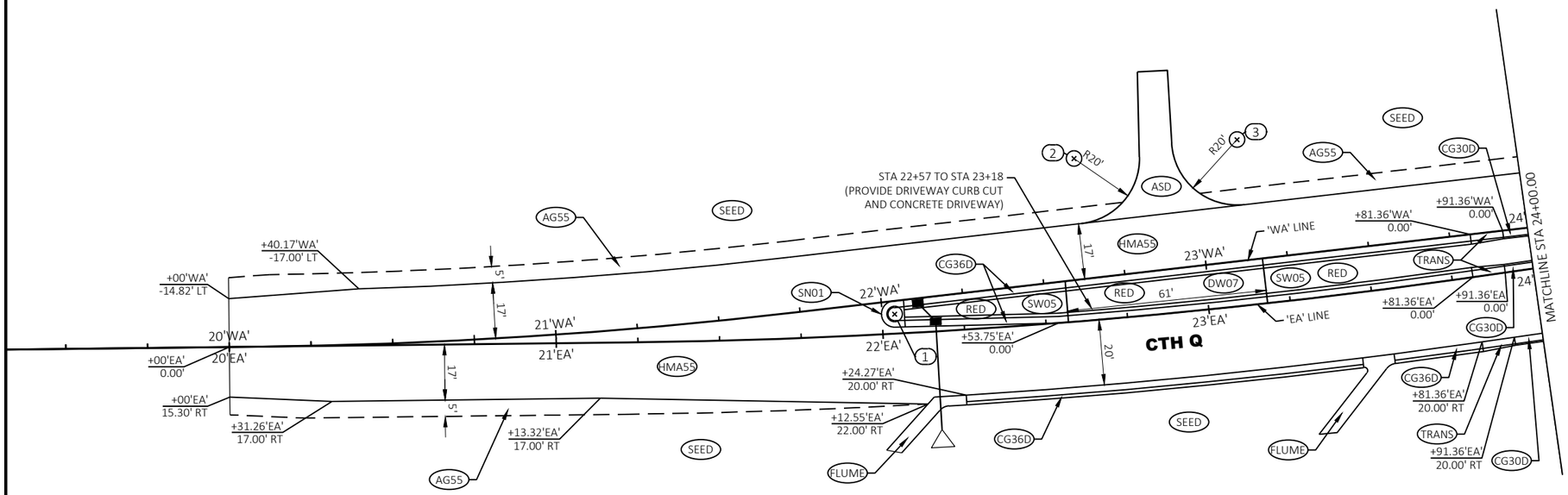
WISDOT/CADDS SHEET 42

2

LEGEND

| | |
|---|---|
| AG05 | 5" BASE AGGREGATE DENSE 3/4-INCH |
| AG55 | 5 1/2" BASE AGGREGATE DENSE 3/4-INCH |
| HMA05 | 5" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 7" BASE AGGREGATE DENSE 3-INCH |
| HMA55 | 5 1/2" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 11" BASE AGGREGATE DENSE 3-INCH |
| FLUME | ASPHALTIC FLUME |
| ASD | 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES |
| RED | COLORING CONCRETE WISDOT RED |
| DW07 | CONCRETE DRIVEWAY 7-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH |
| GRAY | COLORING CONCRETE CUSTOM (NEUTRAL GRAY) |
| SN01 | CONCRETE MEDIAN SLOPED NOSE TYPE 1 |
| SN02 | CONCRETE MEDIAN SLOPED NOSE TYPE 2 |
| SW05 | CONCRETE SIDEWALK 5-INCH |
| CTA12 | CONCRETE TRUCK APRON 12-INCH |
| CG18A | CONCRETE CURB & GUTTER 18-INCH TYPE A, REVERSE SLOPE |
| CG30D | CONCRETE CURB & GUTTER 30-INCH TYPE D |
| CG30R | CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R |
| CG36D | CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D |
| SEED | SEEDING MIX NO. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EMAT |
| TRANS | TRANSITION BETWEEN TWO DIFFERENT CURB TYPES |

N



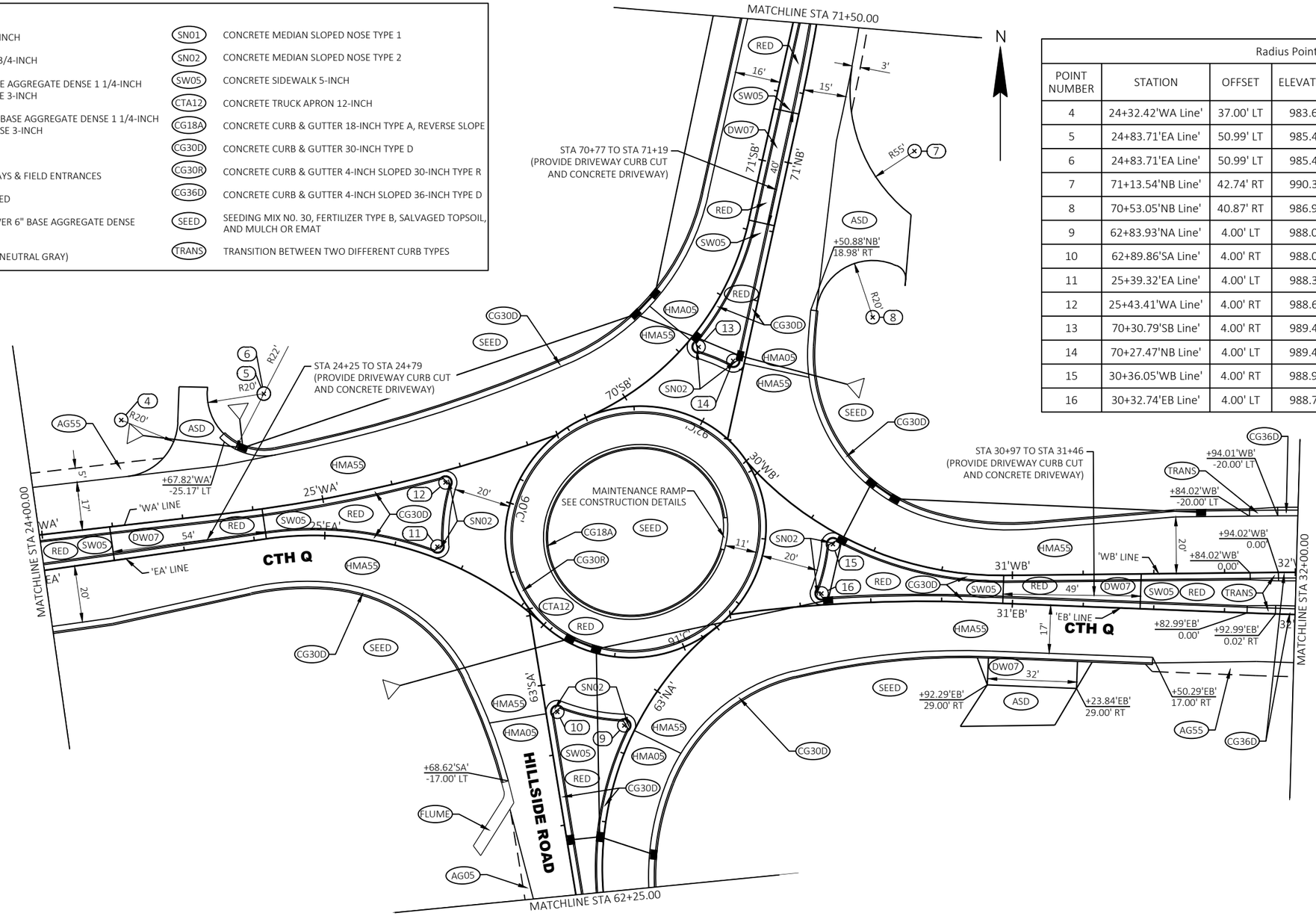

| Radius Points | | | | | | |
|---|---|---|---|---|---|---|
| POINT NUMBER | STATION | OFFSET | ELEVATION | NORTHING | EASTING | RADIUS |
| 1 | 22+03.88'EA Line' | 6.00' LT | 985.04 | 439830.28 | 2436899.77 | 4'R |
| 2 | 22+62.67'EA Line' | 49.79' LT | 982.62 | 439877.90 | 2436954.63 | 20'R |
| 3 | 23+14.17'EA Line' | 50.77' LT | 982.93 | 439883.66 | 2437004.50 | 20'R |

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING DETAILS | SHEET 19 | E |
|---|---|---|---|---|---|

2

LEGEND

| | | | |
|---|---|---|---|
| AG05 | 5" BASE AGGREGATE DENSE 3/4-INCH | SN01 | CONCRETE MEDIAN SLOPED NOSE TYPE 1 |
| AG55 | 5 1/2" BASE AGGREGATE DENSE 3/4-INCH | SN02 | CONCRETE MEDIAN SLOPED NOSE TYPE 2 |
| HMA05 | 5" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 7" BASE AGGREGATE DENSE 3-INCH | SW05 | CONCRETE SIDEWALK 5-INCH |
| HMA55 | 5 1/2" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 11" BASE AGGREGATE DENSE 3-INCH | CTA12 | CONCRETE TRUCK APRON 12-INCH |
| FLUME | ASPHALTIC FLUME | CG18A | CONCRETE CURB & GUTTER 18-INCH TYPE A, REVERSE SLOPE |
| ASD | 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES | CG30D | CONCRETE CURB & GUTTER 30-INCH TYPE D |
| RED | COLORING CONCRETE WISDOT RED | CG30R | CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R |
| DW07 | CONCRETE DRIVEWAY 7-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH | CG36D | CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D |
| GRAY | COLORING CONCRETE CUSTOM (NEUTRAL GRAY) | SEED | SEEDING MIX N0. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EMAT |
| | | TRANS | TRANSITION BETWEEN TWO DIFFERENT CURB TYPES |




Radius Points

| POINT NUMBER | STATION | OFFSET | ELEVATION | NORTHING | EASTING | RADIUS |
|---|---|---|---|---|---|---|
| 4 | 24+32.42'WA Line' | 37.00' LT | 983.64 | 439897.29 | 2437122.32 | 20'R |
| 5 | 24+83.71'EA Line' | 50.99' LT | 985.42 | 439906.61 | 2437172.72 | 20'R |
| 6 | 24+83.71'EA Line' | 50.99' RT | 985.42 | 439906.61 | 2437172.72 | 22'R |
| 7 | 71+13.54'NB Line' | 42.74' RT | 990.31 | 439992.29 | 2437402.68 | 55'R |
| 8 | 70+53.05'NB Line' | 40.87' RT | 986.96 | 439933.60 | 2437387.91 | 20'R |
| 9 | 62+83.93'NA Line' | 4.00' LT | 988.00 | 439789.42 | 2437300.12 | 4'R |
| 10 | 62+89.86'SA Line' | 4.00' RT | 988.02 | 439794.22 | 2437276.46 | 4'R |
| 11 | 25+39.32'EA Line' | 4.00' LT | 988.39 | 439852.61 | 2437234.09 | 4'R |
| 12 | 25+43.41'WA Line' | 4.00' RT | 988.65 | 439875.24 | 2437236.91 | 4'R |
| 13 | 70+30.79'SB Line' | 4.00' RT | 989.43 | 439923.14 | 2437326.38 | 4'R |
| 14 | 70+27.47'NB Line' | 4.00' LT | 989.44 | 439918.21 | 2437338.60 | 4'R |
| 15 | 30+36.05'WB Line' | 4.00' RT | 988.90 | 439853.44 | 2437373.86 | 4'R |
| 16 | 30+32.74'EB Line' | 4.00' LT | 988.73 | 439836.04 | 2437369.80 | 4'R |

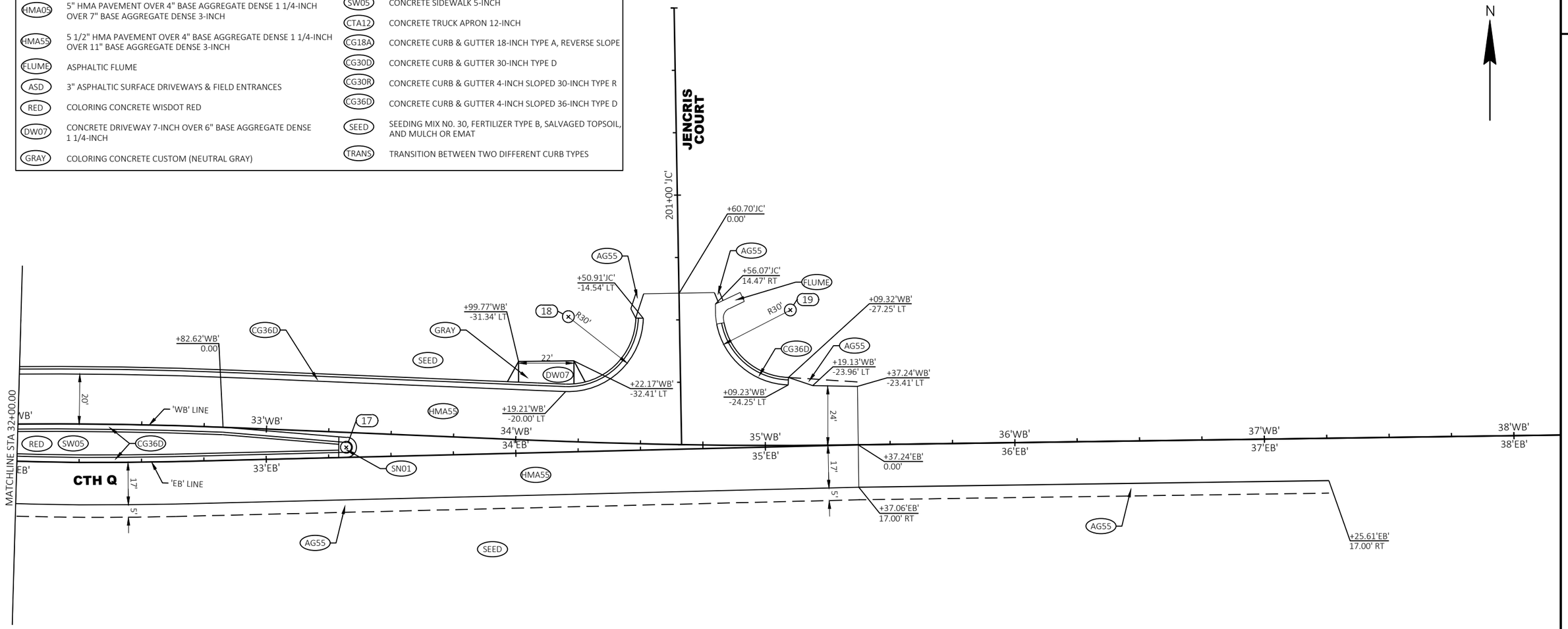
| | | | | |
|---|---|---|---|---|
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING DETAILS | SHEET 20 E |

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 02
PLOT DATE : 10/31/2022 2:56 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

| | | | |
|---|---|---|---|
| AG05 | 5" BASE AGGREGATE DENSE 3/4-INCH | SN01 | CONCRETE MEDIAN SLOPED NOSE TYPE 1 |
| AG55 | 5 1/2" BASE AGGREGATE DENSE 3/4-INCH | SN02 | CONCRETE MEDIAN SLOPED NOSE TYPE 2 |
| HMA05 | 5" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 7" BASE AGGREGATE DENSE 3-INCH | SW05 | CONCRETE SIDEWALK 5-INCH |
| HMA55 | 5 1/2" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 11" BASE AGGREGATE DENSE 3-INCH | CTA12 | CONCRETE TRUCK APRON 12-INCH |
| FLUME | ASPHALTIC FLUME | CG18A | CONCRETE CURB & GUTTER 18-INCH TYPE A, REVERSE SLOPE |
| ASD | 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES | CG30D | CONCRETE CURB & GUTTER 30-INCH TYPE D |
| RED | COLORING CONCRETE WISDOT RED | CG30R | CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R |
| DW07 | CONCRETE DRIVEWAY 7-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH | CG36D | CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D |
| GRAY | COLORING CONCRETE CUSTOM (NEUTRAL GRAY) | SEED | SEEDING MIX N0. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EMAT |
| | | TRANS | TRANSITION BETWEEN TWO DIFFERENT CURB TYPES |




| Radius Points | | | | | | |
|---|---|---|---|---|---|---|
| POINT NUMBER | STATION | OFFSET | ELEVATION | NORTHING | EASTING | RADIUS |
| 17 | 33+32.16'EB Line' | 4.00' LT | 992.13 | 439834.15 | 2437669.25 | 4'R |
| 18 | 200+52.01'Jencris Ct' | 44.52' LT | 992.13 | 439886.48 | 2437758.22 | 30'R |
| 19 | 200+53.17'Jencris Ct' | 44.45' RT | 990.07 | 439889.17 | 2437847.16 | 30'R |

| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING DETAILS | SHEET 21 | E |

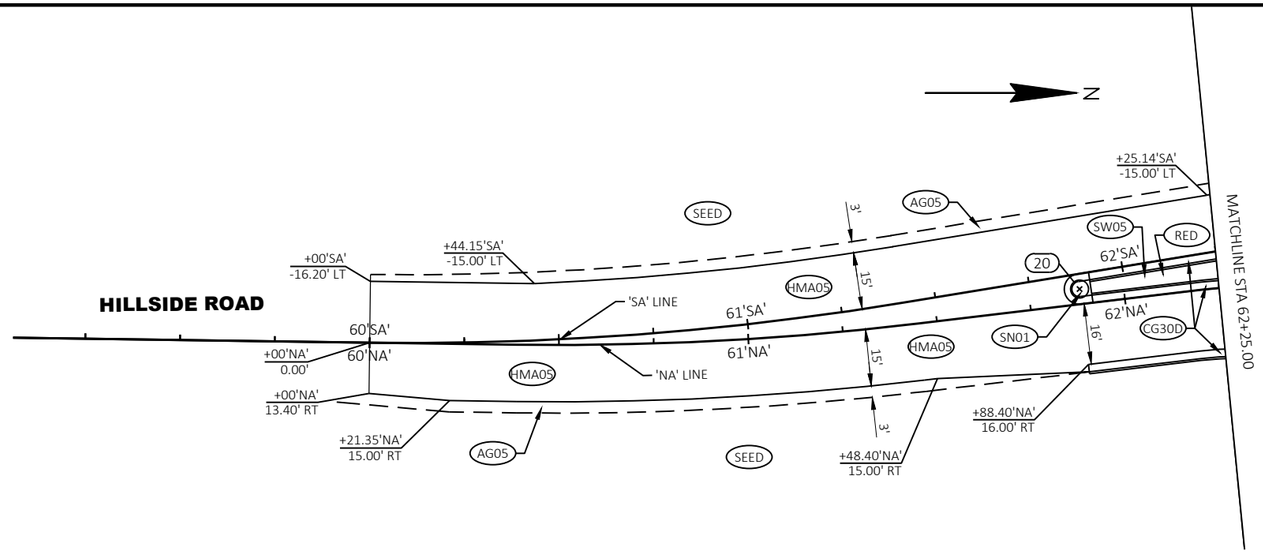
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021101_ID.DWG
LAYOUT NAME - 03

PLOT DATE : 10/31/2022 2:55 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

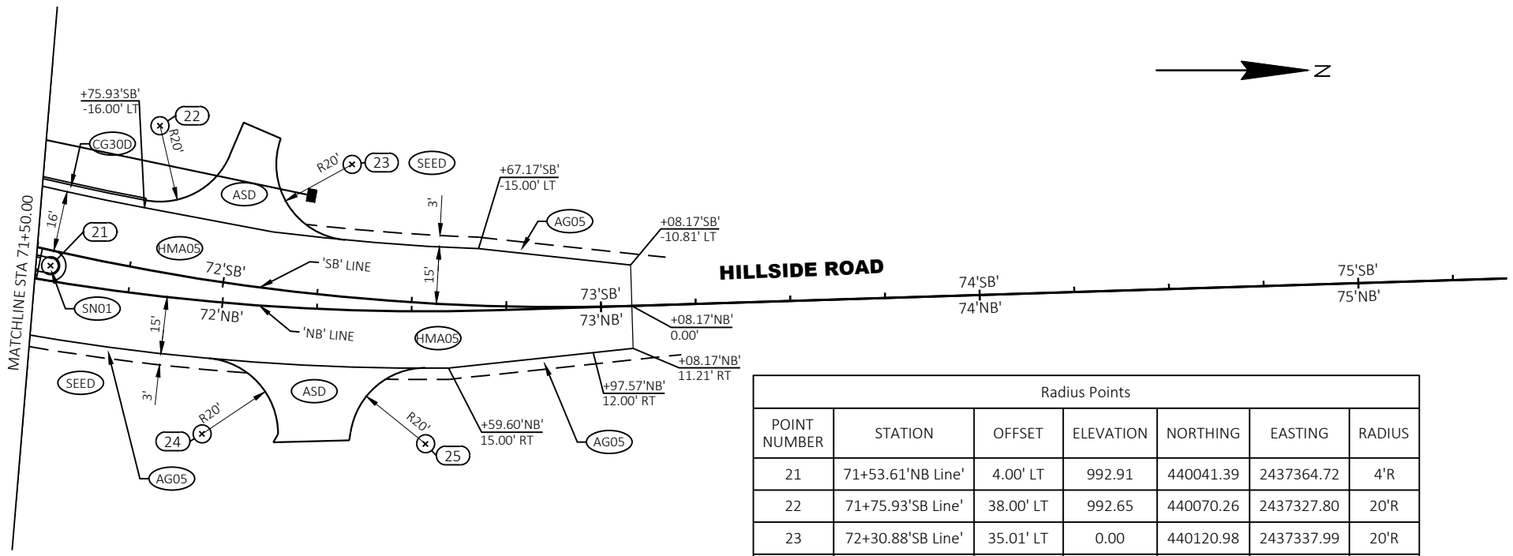
WISDOT/CADDS SHEET 42

LEGEND

| | | | |
|---|---|---|---|
| AG05 | 5" BASE AGGREGATE DENSE 3/4-INCH | SN01 | CONCRETE MEDIAN SLOPED NOSE TYPE 1 |
| AG55 | 5 1/2" BASE AGGREGATE DENSE 3/4-INCH | SN02 | CONCRETE MEDIAN SLOPED NOSE TYPE 2 |
| HMA05 | 5" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 7" BASE AGGREGATE DENSE 3-INCH | SW05 | CONCRETE SIDEWALK 5-INCH |
| | | CTA12 | CONCRETE TRUCK APRON 12-INCH |
| HMA55 | 5 1/2" HMA PAVEMENT OVER 4" BASE AGGREGATE DENSE 1 1/4-INCH OVER 11" BASE AGGREGATE DENSE 3-INCH | CG18A | CONCRETE CURB & GUTTER 18-INCH TYPE A, REVERSE SLOPE |
| | | CG30D | CONCRETE CURB & GUTTER 30-INCH TYPE D |
| FLUME | ASPHALTIC FLUME | CG30R | CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R |
| ASD | 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES | CG36D | CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D |
| RED | COLORING CONCRETE WISDOT RED | SEED | SEEDING MIX N0. 30, FERTILIZER TYPE B, SALVAGED TOPSOIL, AND MULCH OR EMAT |
| DW07 | CONCRETE DRIVEWAY 7-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH | | |
| GRAY | COLORING CONCRETE CUSTOM (NEUTRAL GRAY) | TRANS | TRANSITION BETWEEN TWO DIFFERENT CURB TYPES |




| Radius Points | | | | | | |
|---|---|---|---|---|---|---|
| POINT NUMBER | STATION | OFFSET | ELEVATION | NORTHING | EASTING | RADIUS |
| 20 | 61+88.40'NA Line' | 4.00' LT | 988.12 | 439693.65 | 2437292.98 | 4'R |




| Radius Points | | | | | | |
|---|---|---|---|---|---|---|
| POINT NUMBER | STATION | OFFSET | ELEVATION | NORTHING | EASTING | RADIUS |
| 21 | 71+53.61'NB Line' | 4.00' LT | 992.91 | 440041.39 | 2437364.72 | 4'R |
| 22 | 71+75.93'SB Line' | 38.00' LT | 992.65 | 440070.26 | 2437327.80 | 20'R |
| 23 | 72+30.88'SB Line' | 35.01' LT | 0.00 | 440120.98 | 2437337.99 | 20'R |
| 24 | 25+63.99'EA Line' | 288.28' LT | 992.91 | 440081.35 | 2437409.10 | 20'R |
| 25 | 25+56.33'EA Line' | 340.47' LT | 995.08 | 440140.35 | 2437411.75 | 20'R |

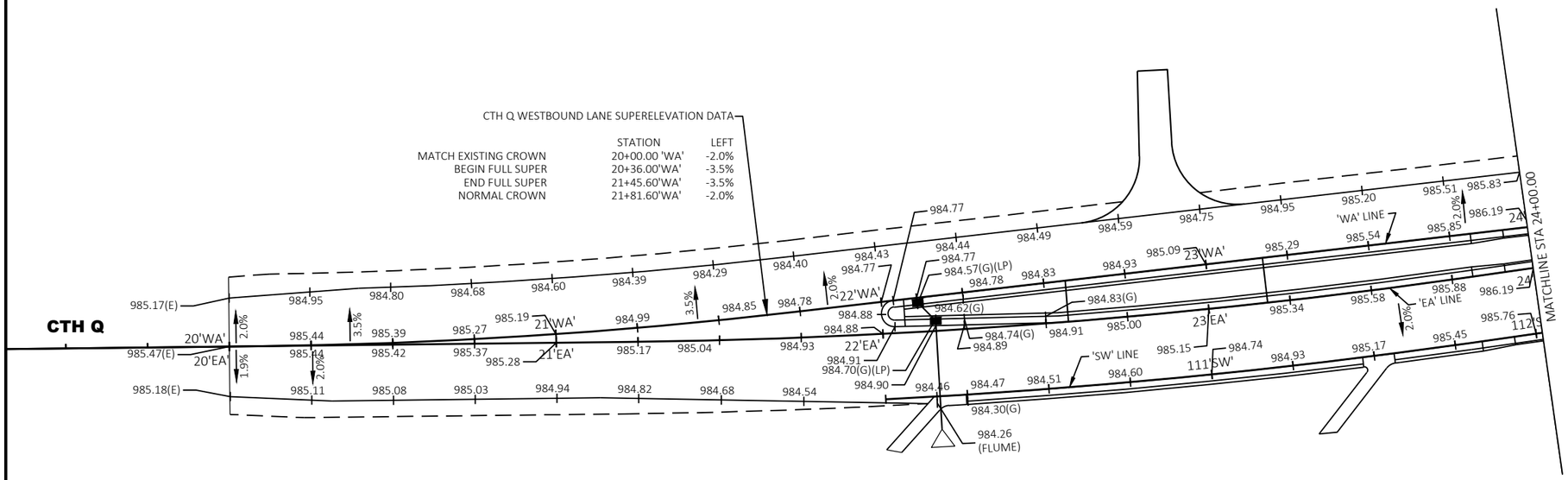
2

| LEGEND | |
|---|---|
| XXX.XX | PAVEMENT ELEVATION |
| (LP) | LOW POINT |
| (HP) | HIGH POINT |
| (E) | EXISTING |
| (G) | GUTTER GRADE |

N

CTH Q WESTBOUND LANE SUPERELEVATION DATA

| | STATION | LEFT |
|---|---|---|
| MATCH EXISTING CROWN | 20+00.00 'WA' | -2.0% |
| BEGIN FULL SUPER | 20+36.00'WA' | -3.5% |
| END FULL SUPER | 21+45.60'WA' | -3.5% |
| NORMAL CROWN | 21+81.60'WA' | -2.0% |

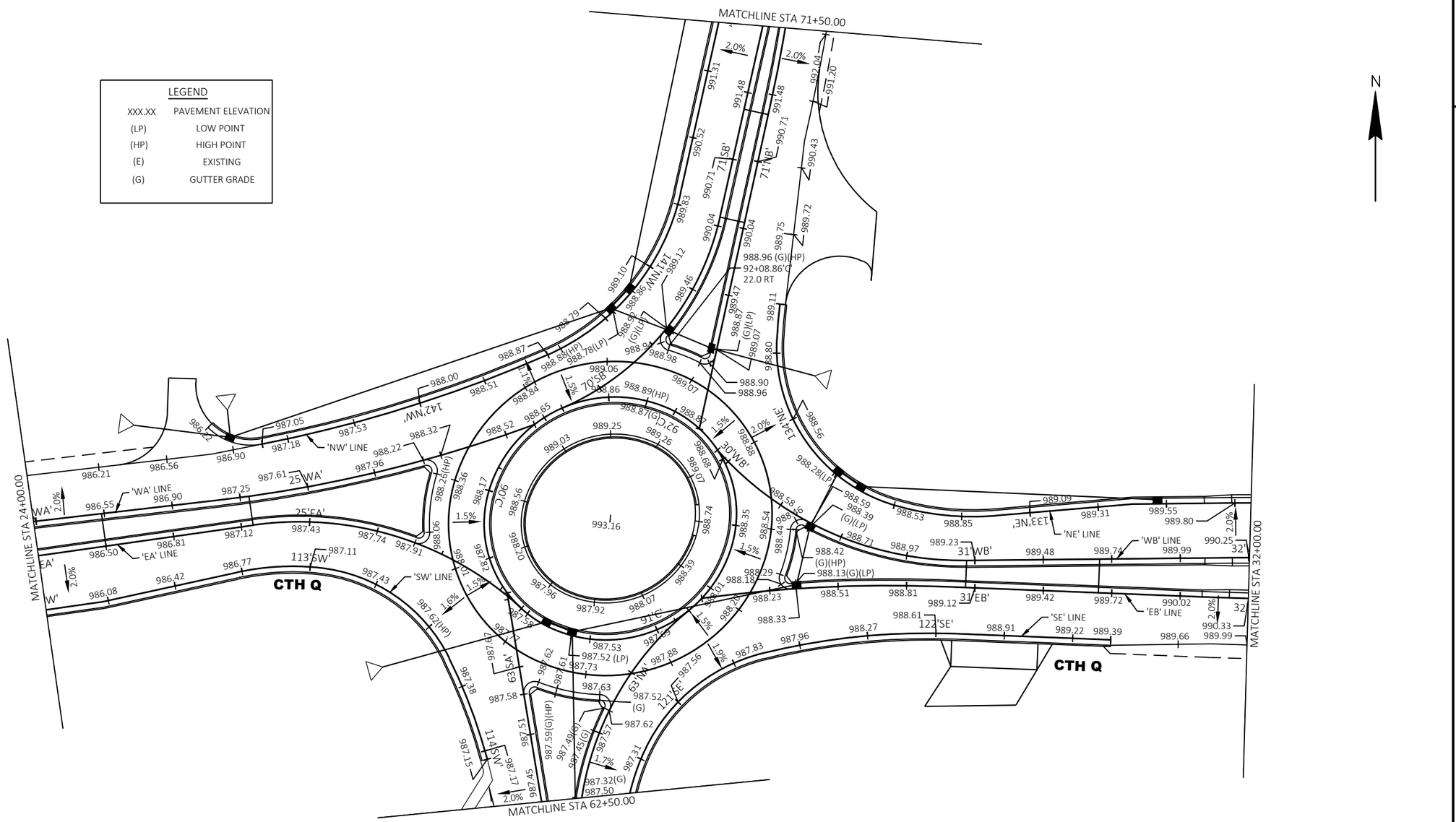



| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING GRADES | SHEET 23 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 7:41 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING GRADES | SHEET 24 | E |
|---|---|---|---|---|---|

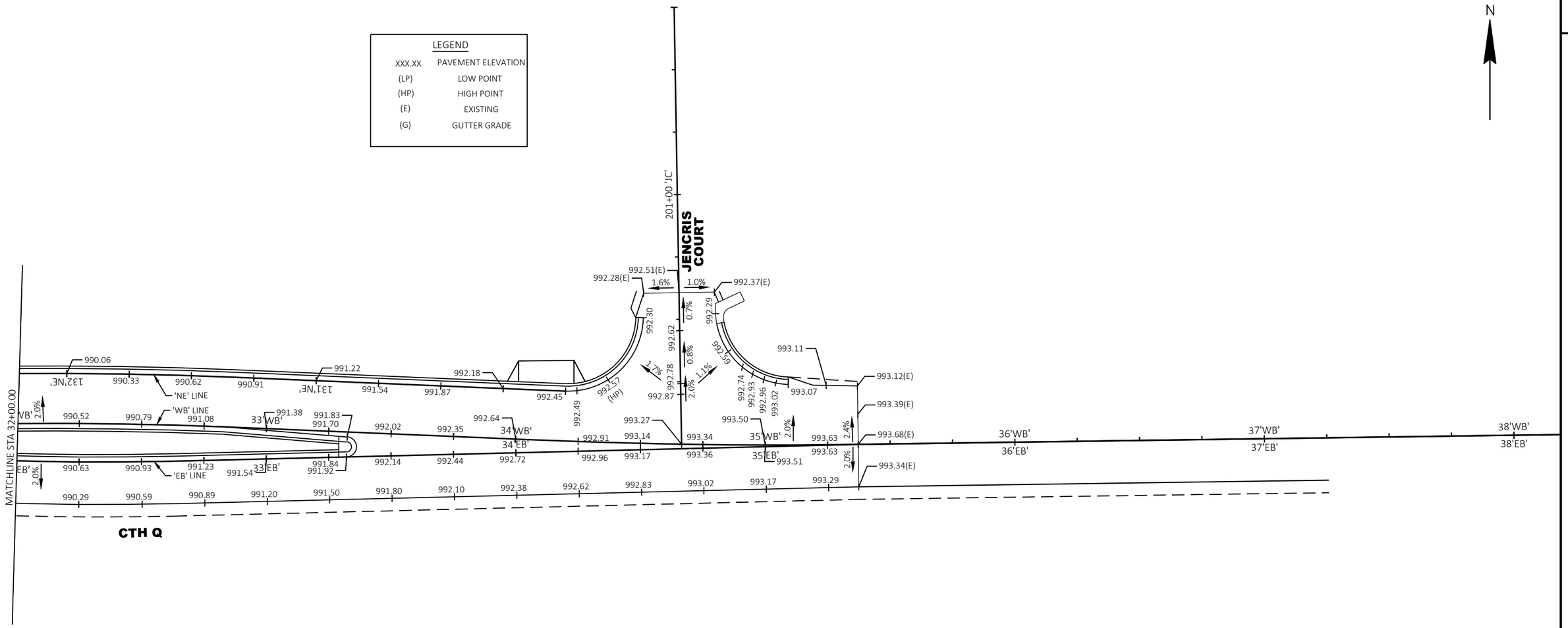
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2022 7:41 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

| LEGEND | |
|---|---|
| XXX.XX | PAVEMENT ELEVATION |
| (LP) | LOW POINT |
| (HP) | HIGH POINT |
| (E) | EXISTING |
| (G) | GUTTER GRADE |

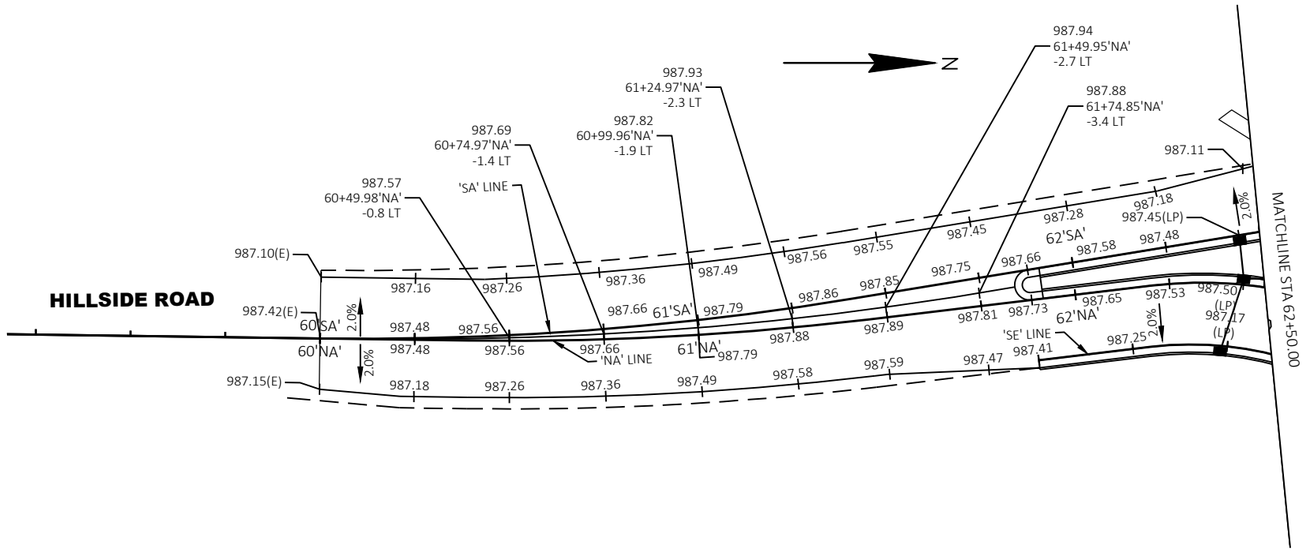


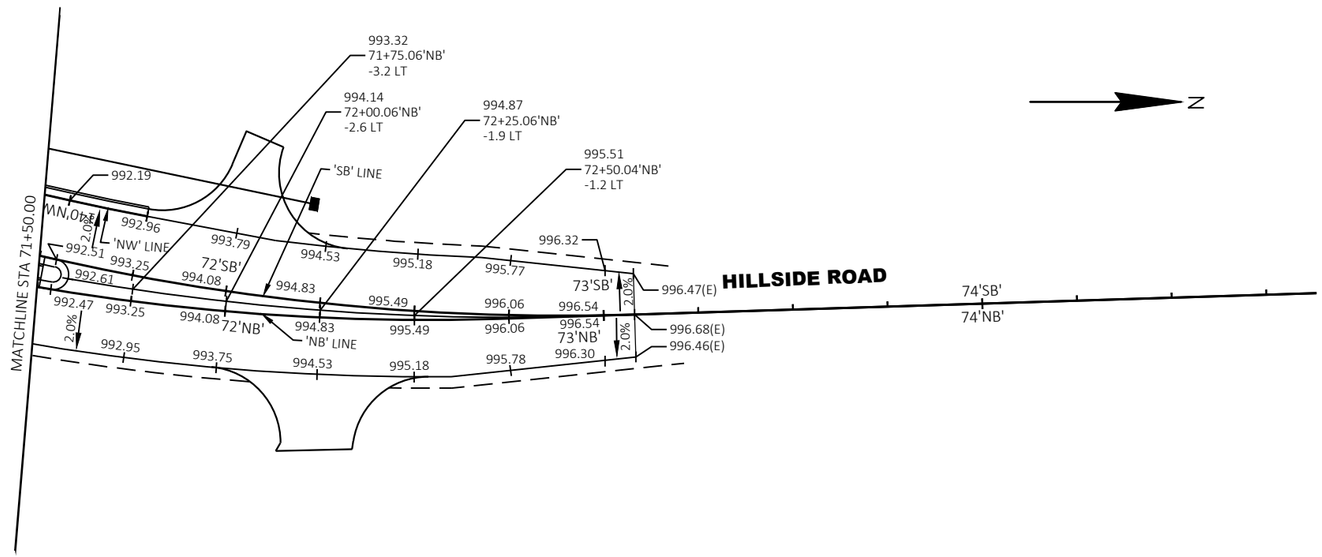

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING GRADES | SHEET 25 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\021201_PD.DWG
LAYOUT NAME - 03
PLOT DATE : 10/27/2022 7:41 AM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

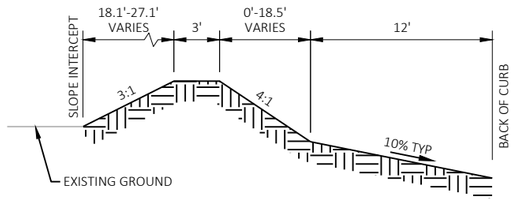
2

| LEGEND | |
|---|---|
| XXX.XX | PAVEMENT ELEVATION |
| (LP) | LOW POINT |
| (HP) | HIGH POINT |
| (E) | EXISTING |
| (G) | GUTTER GRADE |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVING GRADES | SHEET 26 | E |
|---|---|---|---|---|---|




TYPICAL SECTION A-A

2

SLOPE INTERCEPT

TLE

R/W

'NW' LINE

'WA' LINE

'CENTRAL ISLAND' LINE

'SB' LINE

CTH Q

HILLSIDE ROAD

A

A

N

985 986 987 988 989 990 991 992 993 994 995 996

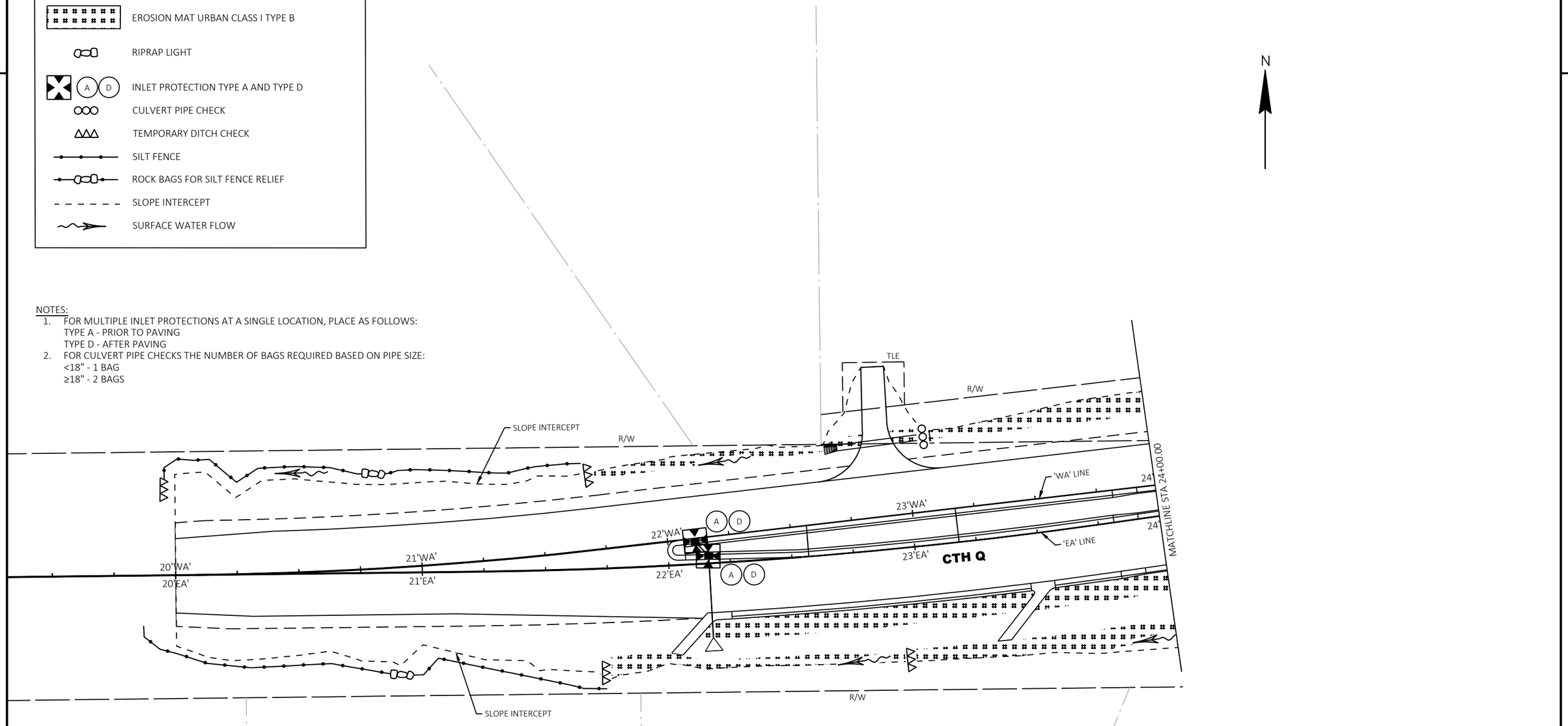
3:1 4:1 8:1 10:1

25'WA' 25'EA' 113'SW' 142'NW' 141'NW' 92+50'C' 70'SB' 71'SB' 71'NB' 72'SB' 144'NW'

## LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP LIGHT
- A D — INLET PROTECTION TYPE A AND TYPE D
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- ROCK BAGS FOR SILT FENCE RELIEF
- SLOPE INTERCEPT
- SURFACE WATER FLOW

NOTES:
1. FOR MULTIPLE INLET PROTECTIONS AT A SINGLE LOCATION, PLACE AS FOLLOWS:
   TYPE A - PRIOR TO PAVING
   TYPE D - AFTER PAVING
2. FOR CULVERT PIPE CHECKS THE NUMBER OF BAGS REQUIRED BASED ON PIPE SIZE:
   <18" - 1 BAG
   ≥18" - 2 BAGS



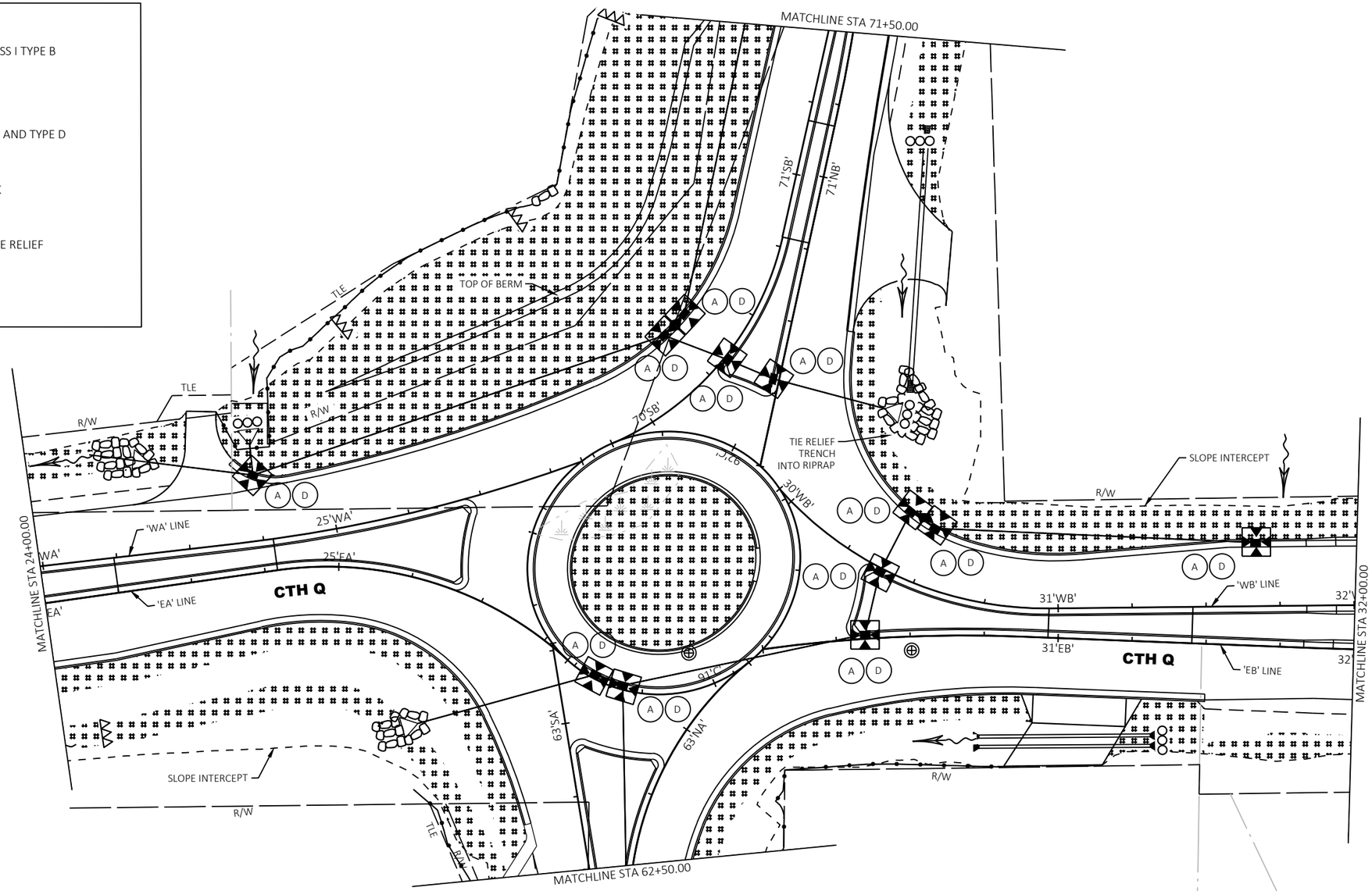

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EROSION CONTROL | SHEET 28 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/28/2022 3:34 PM
PLOT BY : SIEBERT, LUKE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP LIGHT
- A D — INLET PROTECTION TYPE A AND TYPE D
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- ROCK BAGS FOR SILT FENCE RELIEF
- SLOPE INTERCEPT
- SURFACE WATER FLOW




NOTES:

1. FOR MULTIPLE INLET PROTECTIONS AT A SINGLE LOCATION, PLACE AS FOLLOWS:
   TYPE A - PRIOR TO PAVING
   TYPE D - AFTER PAVING
2. FOR CULVERT PIPE CHECKS THE NUMBER OF BAGS REQUIRED BASED ON PIPE SIZE:
   <18" - 1 BAG
   ≥18" - 2 BAGS

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EROSION CONTROL | SHEET 29 | E |
|---|---|---|---|---|---|

2

2

LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP LIGHT
- A D — INLET PROTECTION TYPE A AND TYPE D
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- ROCK BAGS FOR SILT FENCE RELIEF
- SLOPE INTERCEPT
- SURFACE WATER FLOW

N

NOTES:
1. FOR MULTIPLE INLET PROTECTIONS AT A SINGLE LOCATION, PLACE AS FOLLOWS:
   TYPE A - PRIOR TO PAVING
   TYPE D - AFTER PAVING
2. FOR CULVERT PIPE CHECKS THE NUMBER OF BAGS REQUIRED BASED ON PIPE SIZE:
   <18" - 1 BAG
   ≥18" - 2 BAGS

JENCRIS COURT

SLOPE INTERCEPT

R/W

MATCHLINE STA 32+00.00

'WB' LINE

'EB' LINE

CTH Q

33'WB'
33'EB'
34'WB'
34'EB'
35'WB'
35'EB'
36'WB'
36'EB'
37'WB'
37'EB'
38'WB'
38'EB'

R/W

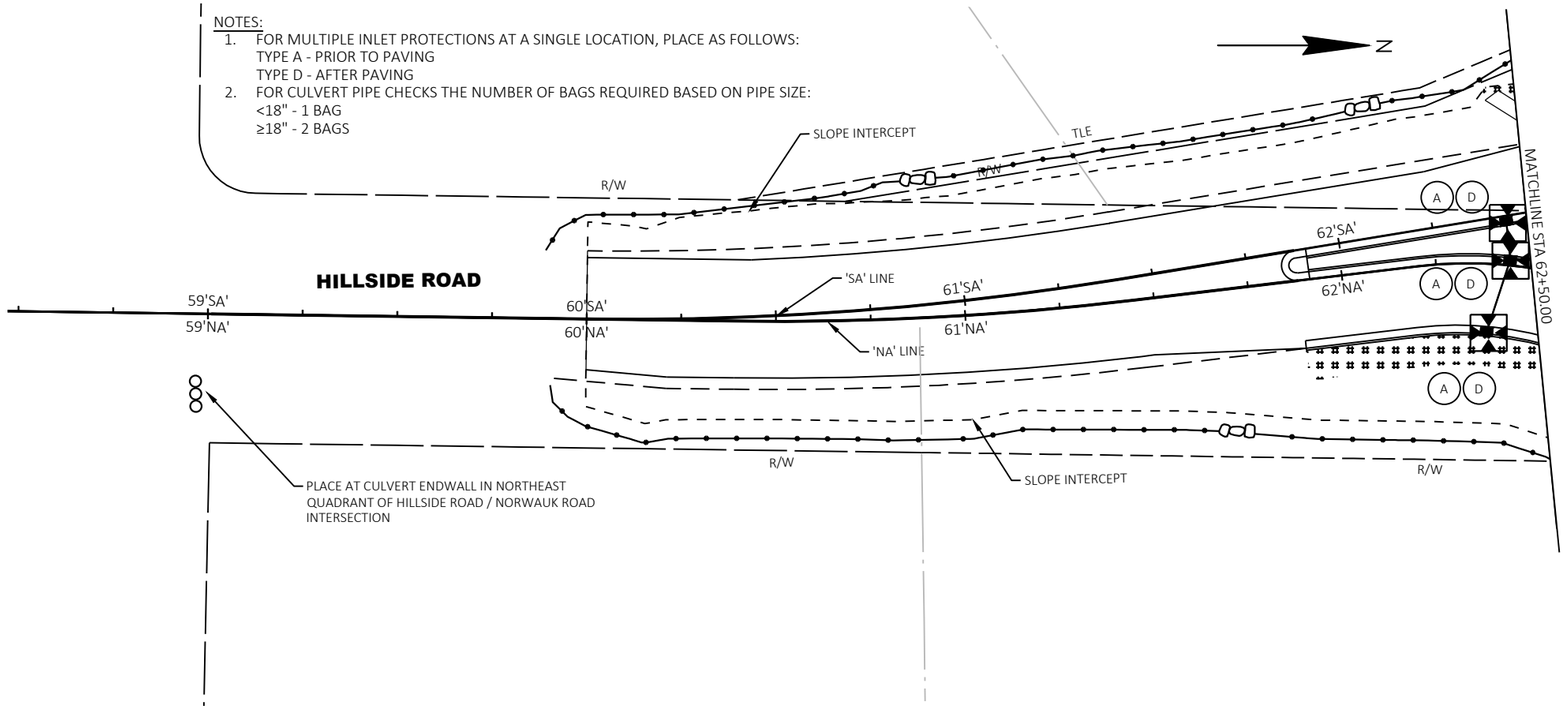
SLOPE INTERCEPT

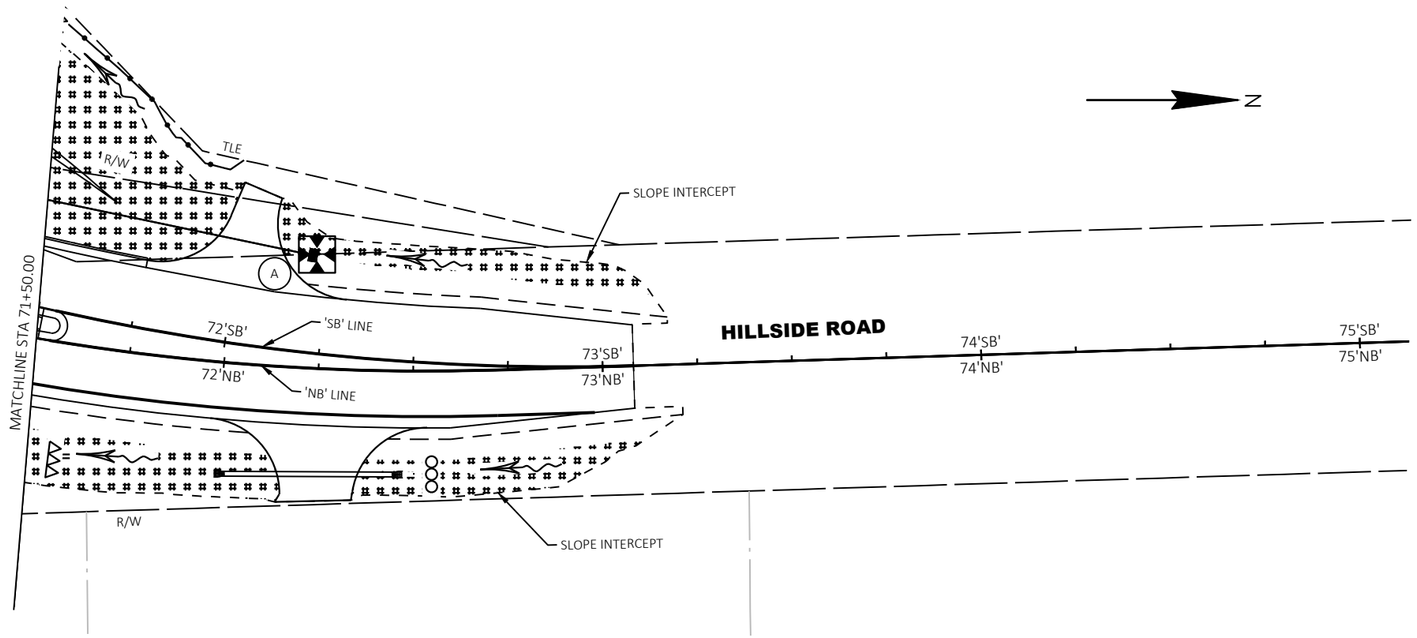
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EROSION CONTROL | SHEET 30 | E |
|---|---|---|---|---|---|

## LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP LIGHT
- A D — INLET PROTECTION TYPE A AND TYPE D
- CULVERT PIPE CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- ROCK BAGS FOR SILT FENCE RELIEF
- SLOPE INTERCEPT
- SURFACE WATER FLOW

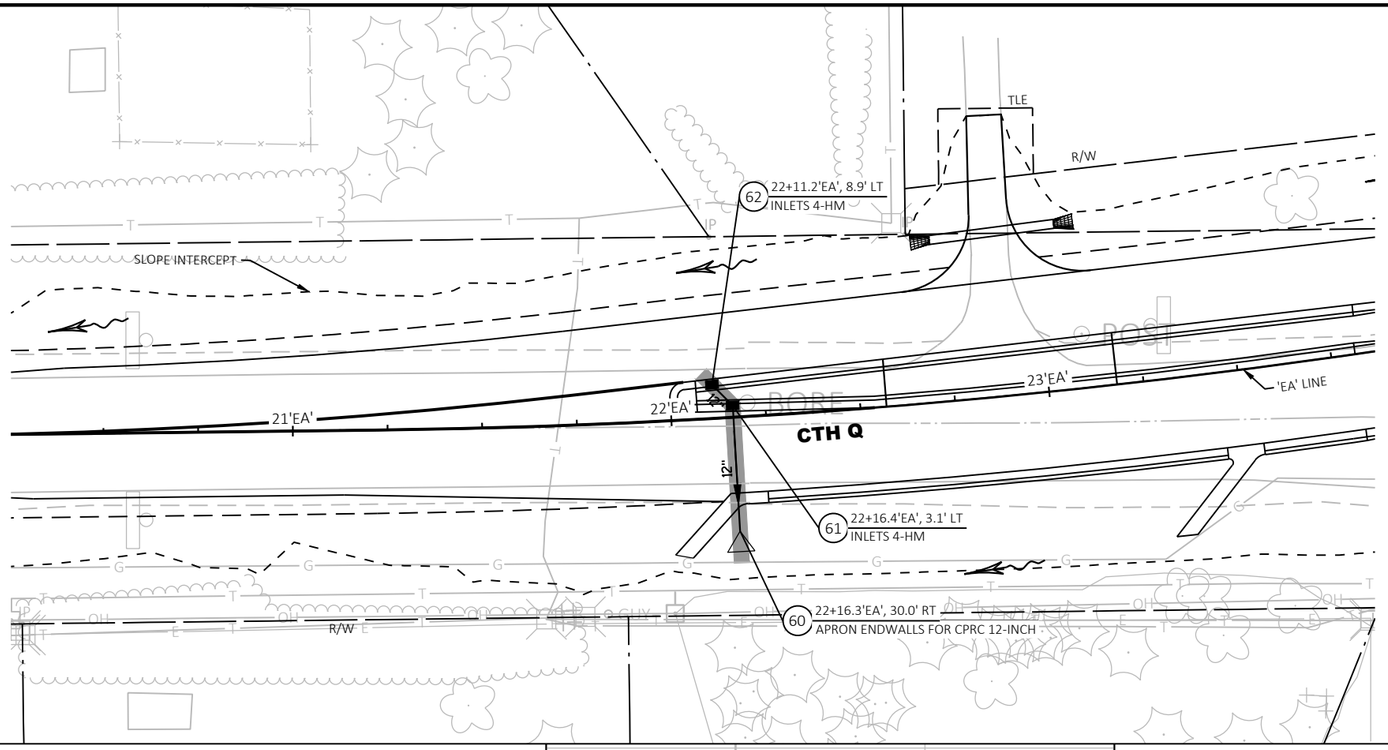
NOTES:
1. FOR MULTIPLE INLET PROTECTIONS AT A SINGLE LOCATION, PLACE AS FOLLOWS:
   TYPE A - PRIOR TO PAVING
   TYPE D - AFTER PAVING
2. FOR CULVERT PIPE CHECKS THE NUMBER OF BAGS REQUIRED BASED ON PIPE SIZE:
   <18" - 1 BAG
   ≥18" - 2 BAGS



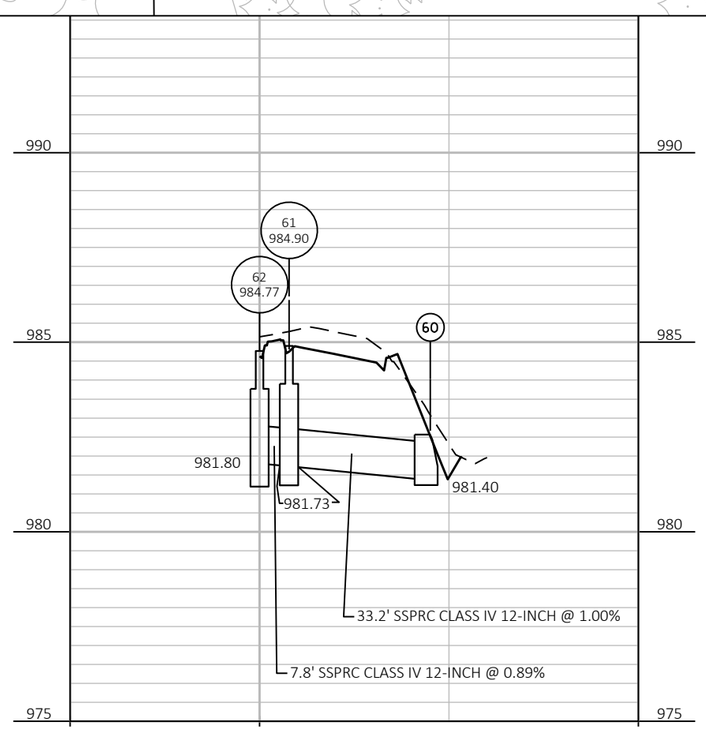

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EROSION CONTROL | SHEET 31 | E |
|---|---|---|---|---|---|

2



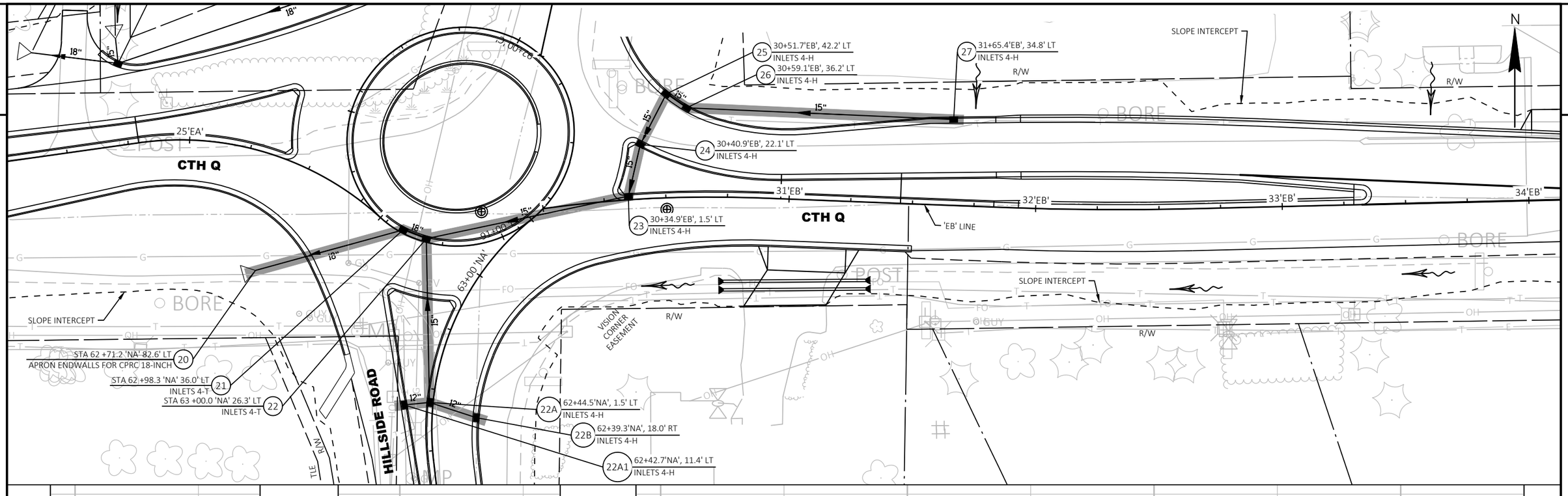

STORM SEWER GENERAL NOTES:

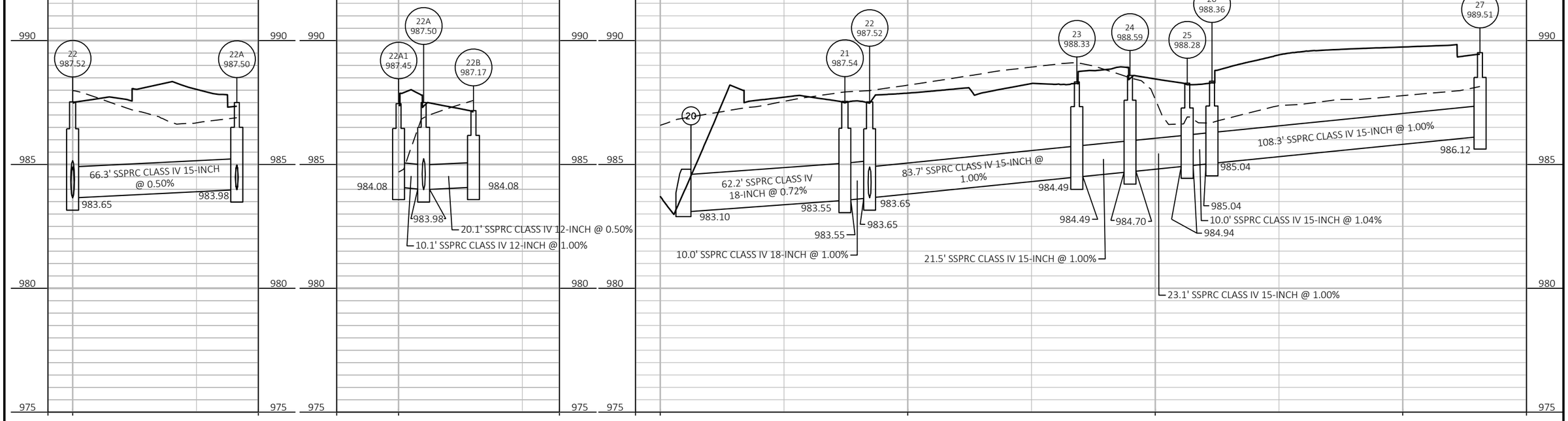
- ALL STA/OFFSET ARE MEASURED FROM THE NA, NB, EA OR EB R/L
- ALL STA/OFFSET ARE MEASURED TO THE CENTER OF STRUCTURE.
- RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE.
- PIPE LENGTHS REPRESENT THE LENGTH OF PIPE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | STORM SEWER | SHEET 32 | E |
|---|---|---|---|---|---|

2

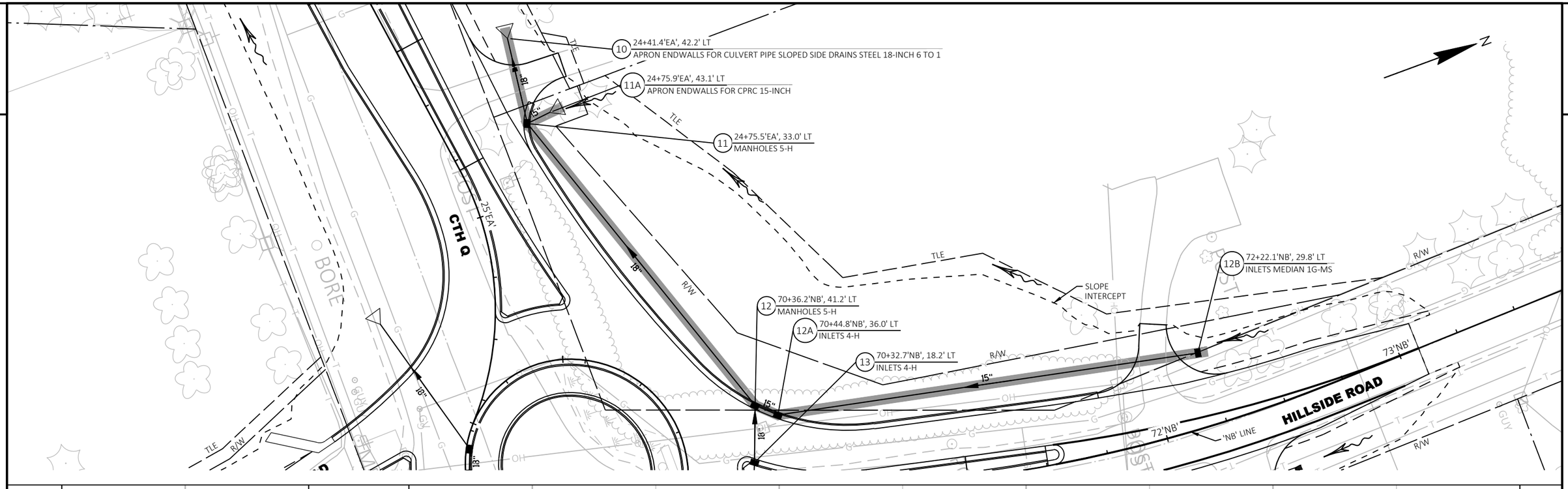


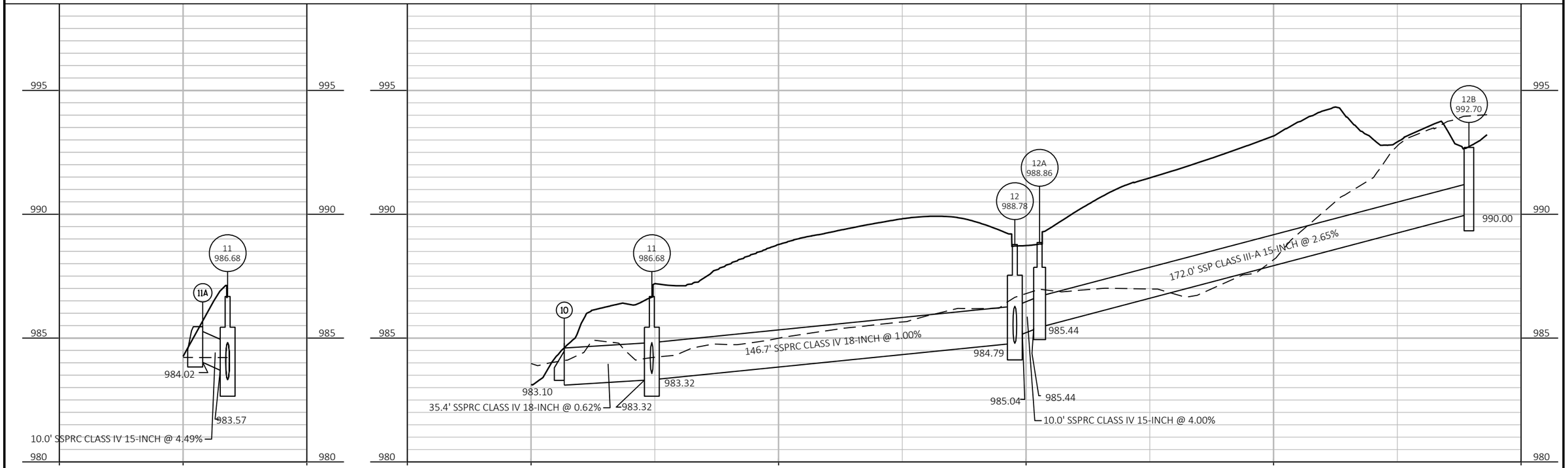




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | STORM SEWER | SHEET 33 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 02
PLOT DATE : 10/27/2022 1:49 PM
PLOT BY : SIEBERT, LUKE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2



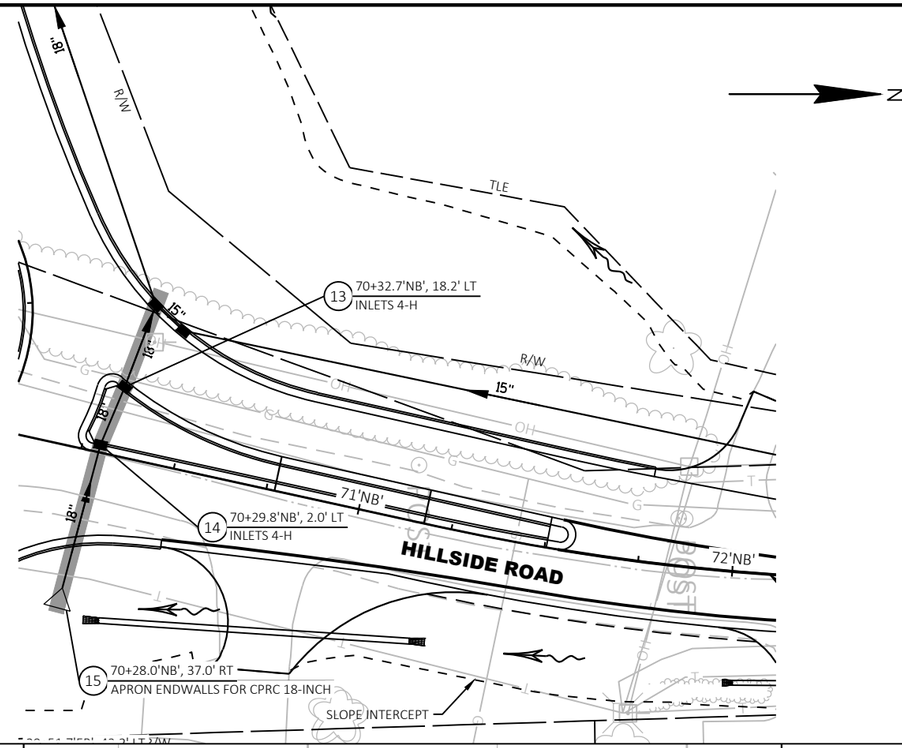



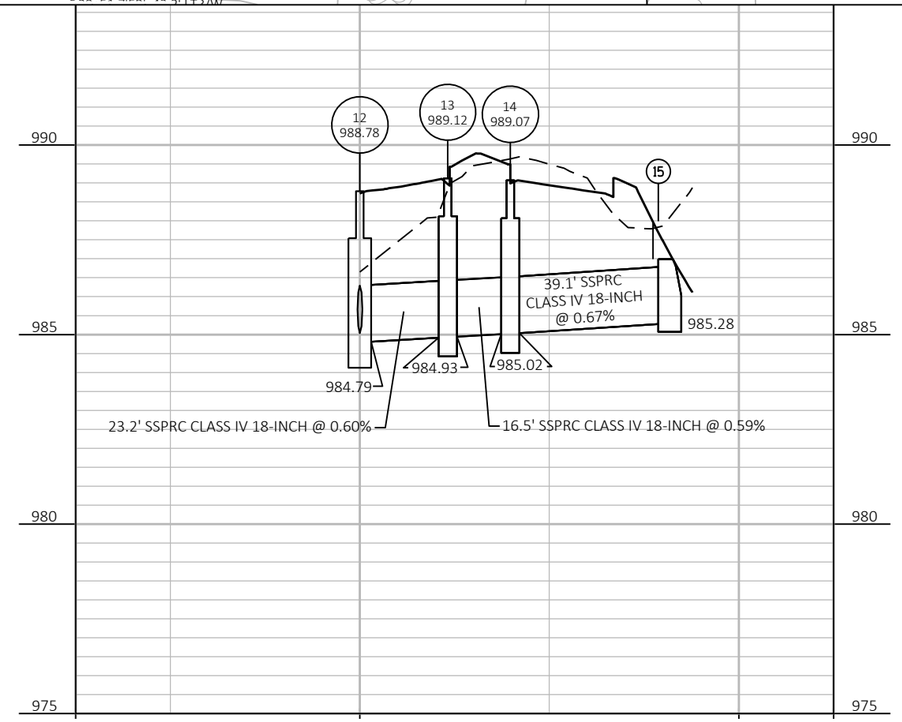

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | STORM SEWER | SHEET 34 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\022501-SS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/27/2022 7:43 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | STORM SEWER | SHEET 35 | E |
|---|---|---|---|---|---|

2

2

## SIGN REMOVAL LEGEND

EXISTING SIGN MOUNTED ON POST(S)

#R-## SIGN REMOVAL NUMBER

#M-## SIGN MOVED NUMBER

ESTR EXISTING SIGN TO REMAIN

NOTES:
REMOVING TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGN REMOVAL ITEM.

N

1R-01

1R-02

1R-03

SPEED LIMIT 50

R/W

R/W

'WA' LINE

'EA' LINE

MATCHLINE STA 24+00.00

20'WA'
20'EA'

21'WA'
21'EA'

22'WA'
22'EA'

23'WA'
23'EA'

24'
24'

CTH Q

POST

BORE

SHEET 1 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EXISTING SIGN REMOVALS | SHEET 36 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 2:04 PM

PLOT BY : SIEBERT, LUKE

PLOT NAME :

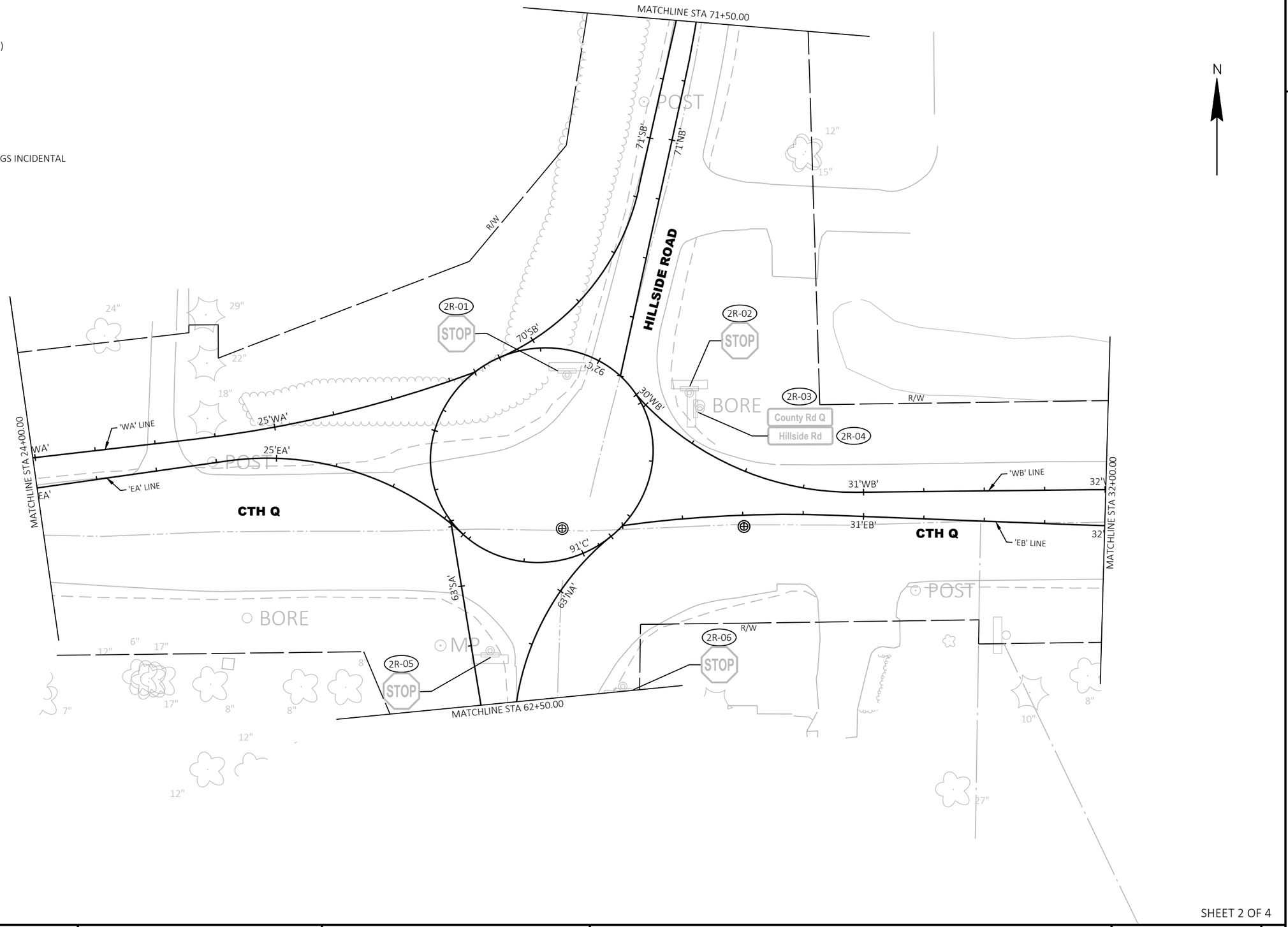
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

## SIGN REMOVAL LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- #R-## SIGN REMOVAL NUMBER
- #M-## SIGN MOVED NUMBER
- ESTR EXISTING SIGN TO REMAIN

NOTES:
REMOVING TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGN REMOVAL ITEM.




SHEET 2 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EXISTING SIGN REMOVALS | SHEET 37 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 02
PLOT DATE : 10/27/2022 2:04 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

## SIGN REMOVAL LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- #R-## SIGN REMOVAL NUMBER
- #M-## SIGN MOVED NUMBER
- ESTR EXISTING SIGN TO REMAIN

NOTES:
REMOVING TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGN REMOVAL ITEM.

N

JENCRIS COURT

201+00 'JC'

MATCHLINE STA 32+00.00

'WB' LINE

'EB' LINE

CTH Q

R/W

3R-01 STOP

3R-02

ESTR JENCRIS CT NO OUTLET

3R-03 SPEED LIMIT 50

3R-04

POST

BORE

FLAG

PLAYSET

SHEET 3 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EXISTING SIGN REMOVALS | SHEET 38 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 03

PLOT DATE : 10/27/2022 2:04 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

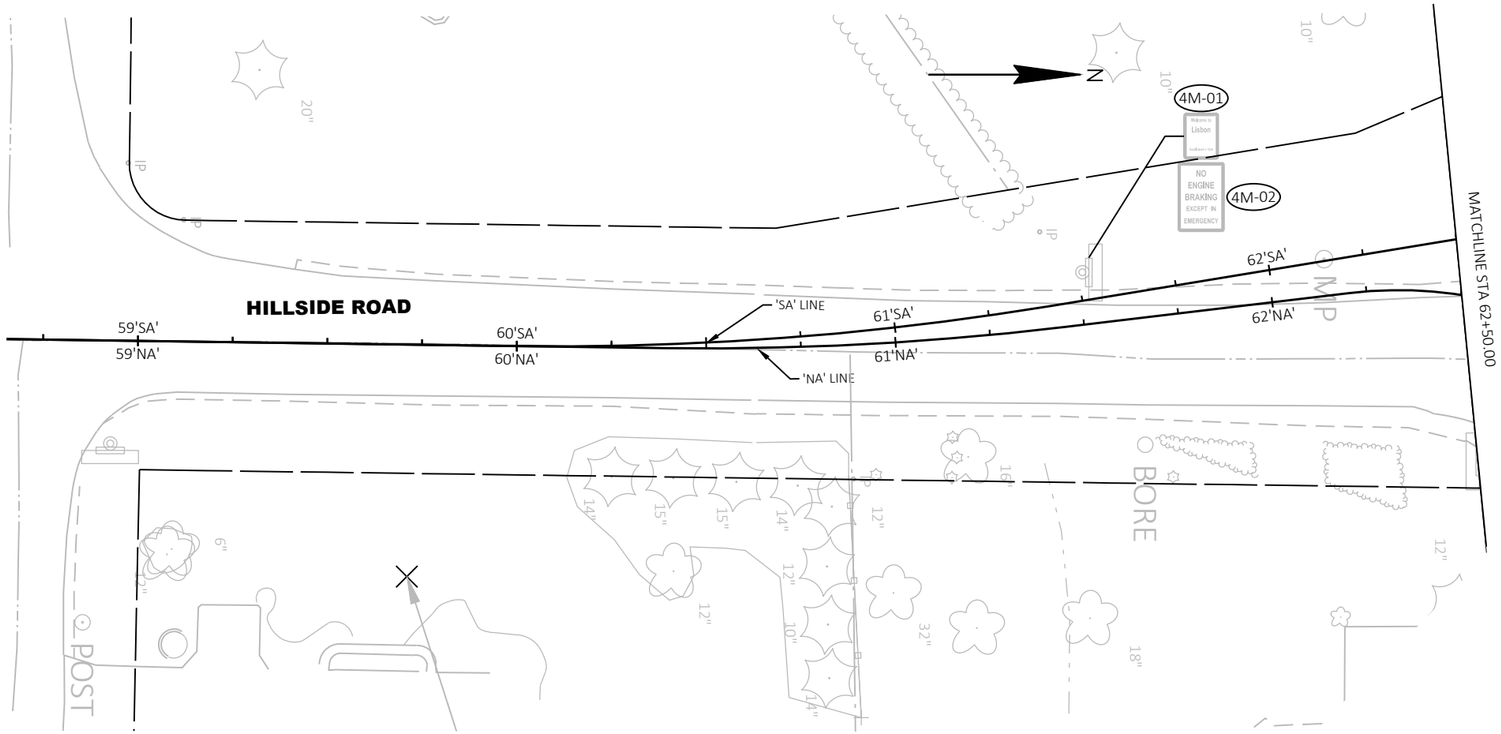
WISDOT/CADDS SHEET 42

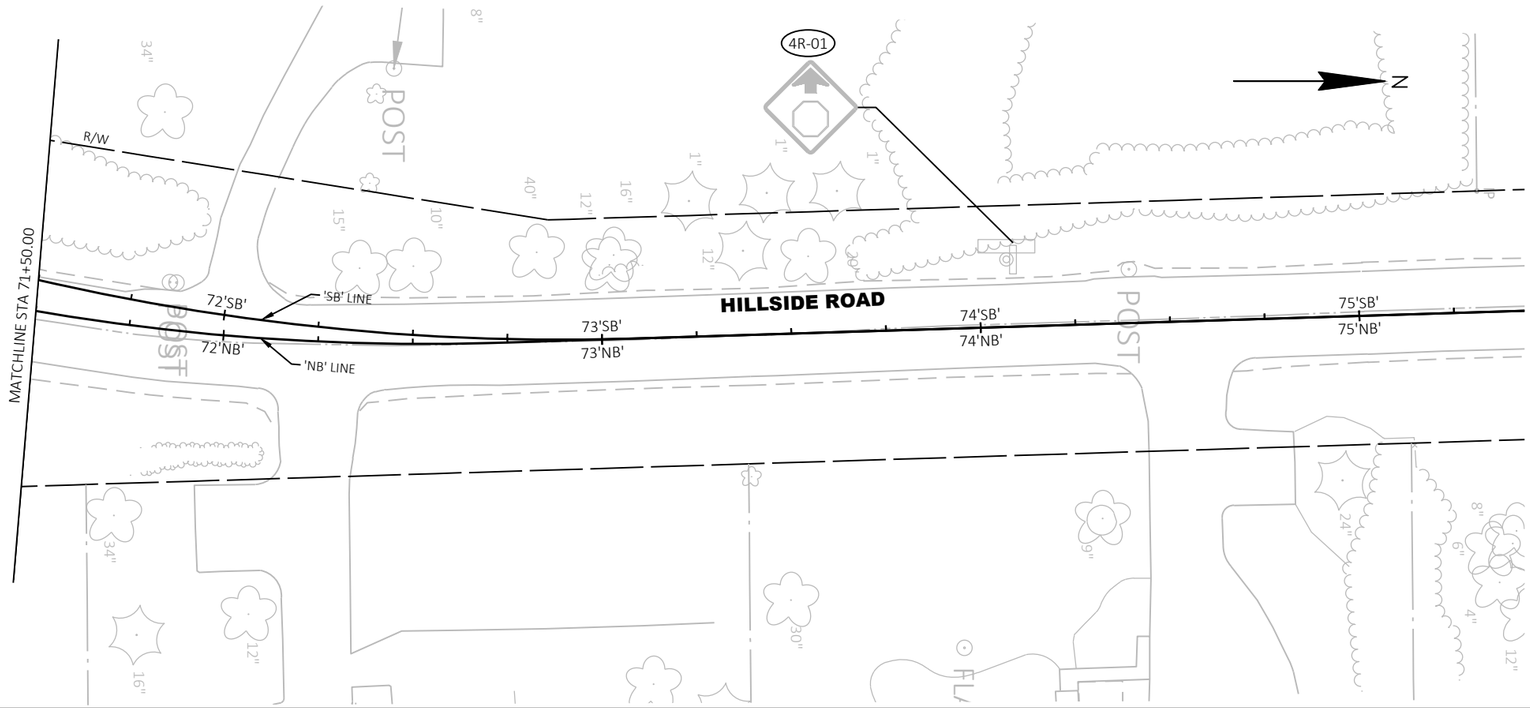
2

## SIGN REMOVAL LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- (#R-##) SIGN REMOVAL NUMBER
- (#M-##) SIGN MOVED NUMBER
- (ESTR) EXISTING SIGN TO REMAIN

NOTES:
REMOVING TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGN REMOVAL ITEM.




SHEET 4 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | EXISTING SIGN REMOVALS | SHEET 39 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-ES.DWG
LAYOUT NAME - 04
PLOT DATE : 10/27/2022 2:04 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

SIGNING LEGEND

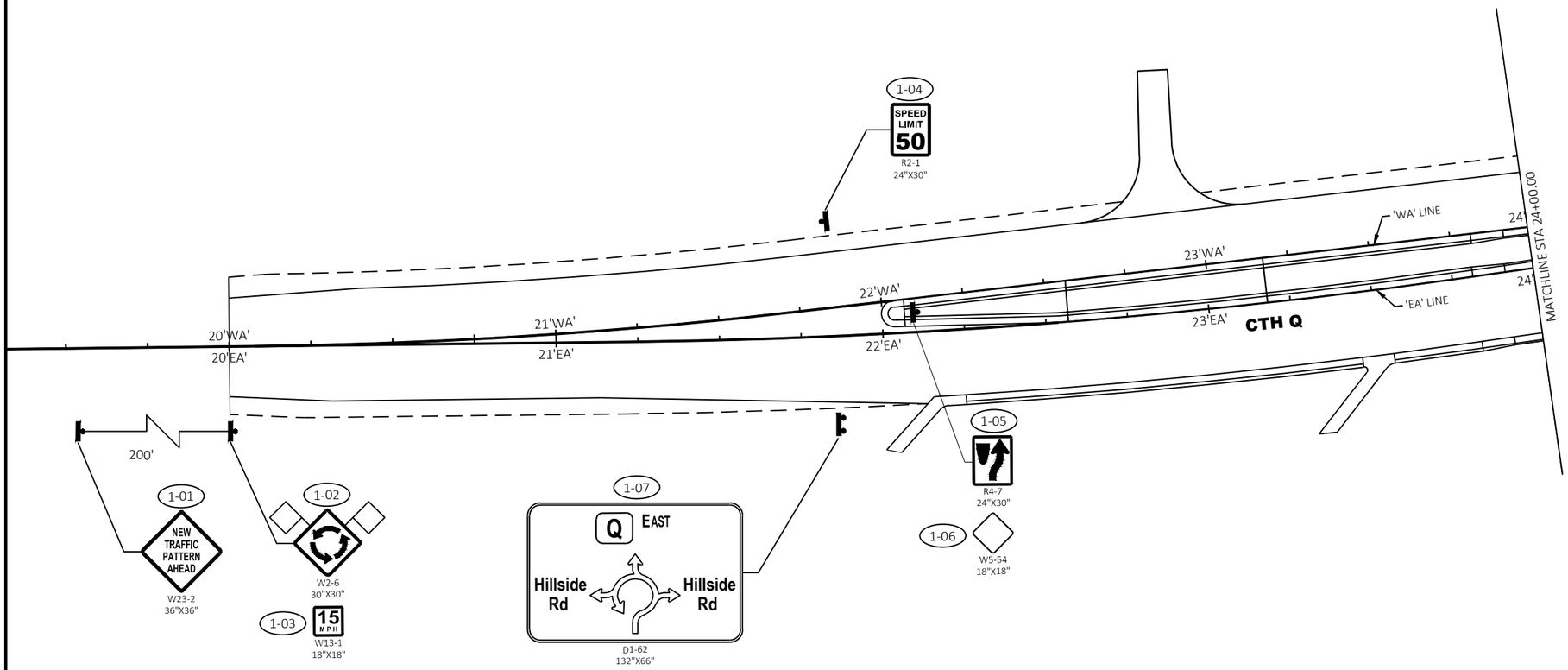
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON STEEL POST(S) (UNLESS NOTED OTHERWISE)
- #-## NEW SIGN NUMBER
- #M-## SIGN MOVED NUMBER
- 16"X16" ORANGE FLAGS

NOTES:
NEW YIELD SIGNS (R1-2) SHALL BE MOUNTED AT A HEIGHT OF 7'3" REGARDLESS OF THE SIGN INSTALLED BELOW.

SIZE OF D1-62 SIGNS SHOWN ARE APPROXIMATE. EXACT DIMENSIONS TO BE DETERMINED BY SIGN MANUFACTURER.

TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGNS.

N




SHEET 1 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PERMANENT SIGNING | SHEET 40 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 7:45 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

SIGNING LEGEND

EXISTING SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON STEEL POST(S) (UNLESS NOTED OTHERWISE)

#-## NEW SIGN NUMBER

#M-## SIGN MOVED NUMBER

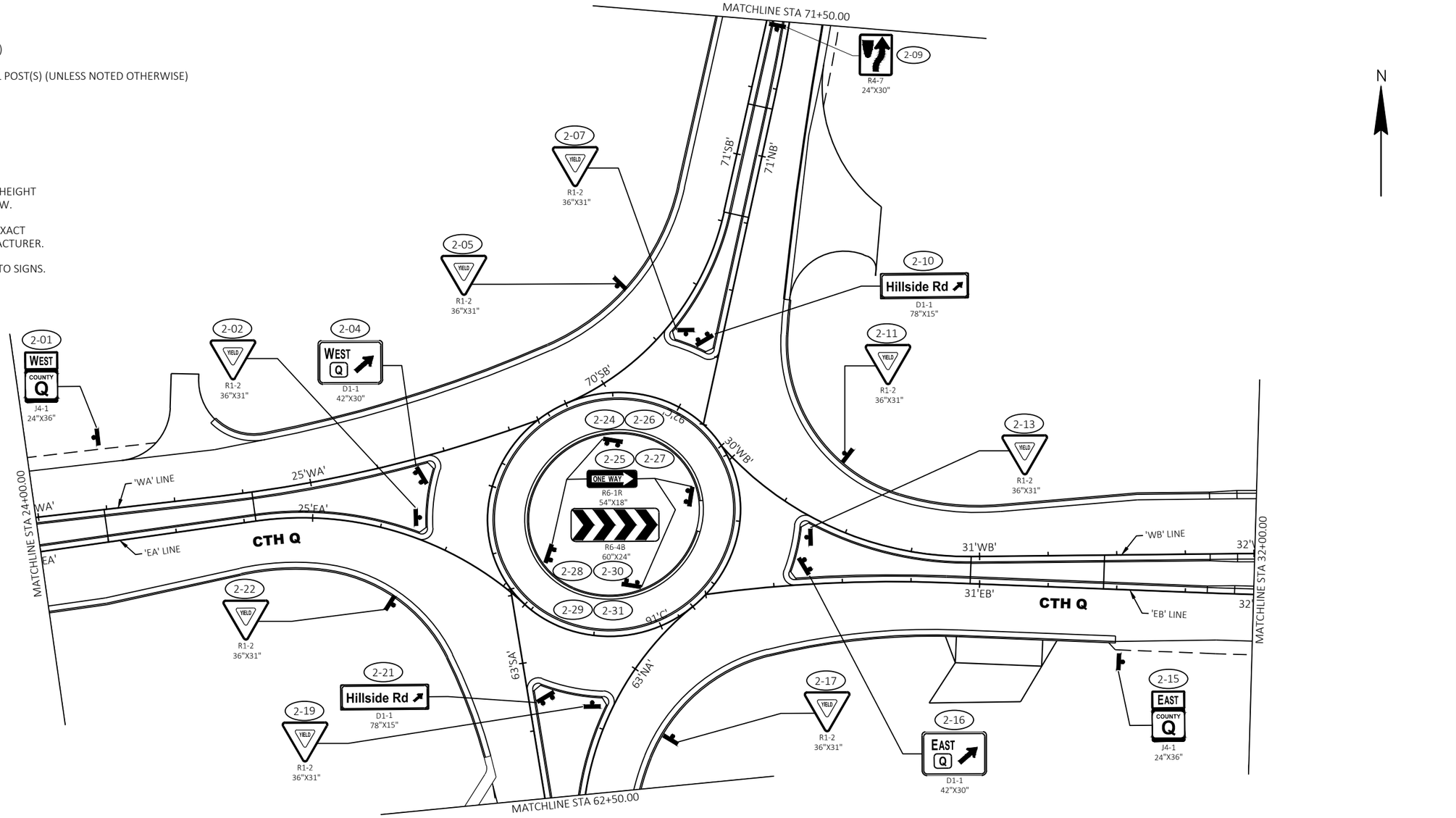
16"X16" ORANGE FLAGS

NOTES:
NEW YIELD SIGNS (R1-2) SHALL BE MOUNTED AT A HEIGHT OF 7'3" REGARDLESS OF THE SIGN INSTALLED BELOW.

SIZE OF D1-62 SIGNS SHOWN ARE APPROXIMATE. EXACT DIMENSIONS TO BE DETERMINED BY SIGN MANUFACTURER.

TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGNS.

SIGN NUMBERS NOT USED:
2-03 2-06
2-08 2-12
2-14 2-18
2-20 2-23






| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PERMANENT SIGNING | SHEET 41 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 02
PLOT DATE : 10/31/2022 10:45 AM
PLOT BY : SIEBERT, LUKE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

SIGNING LEGEND

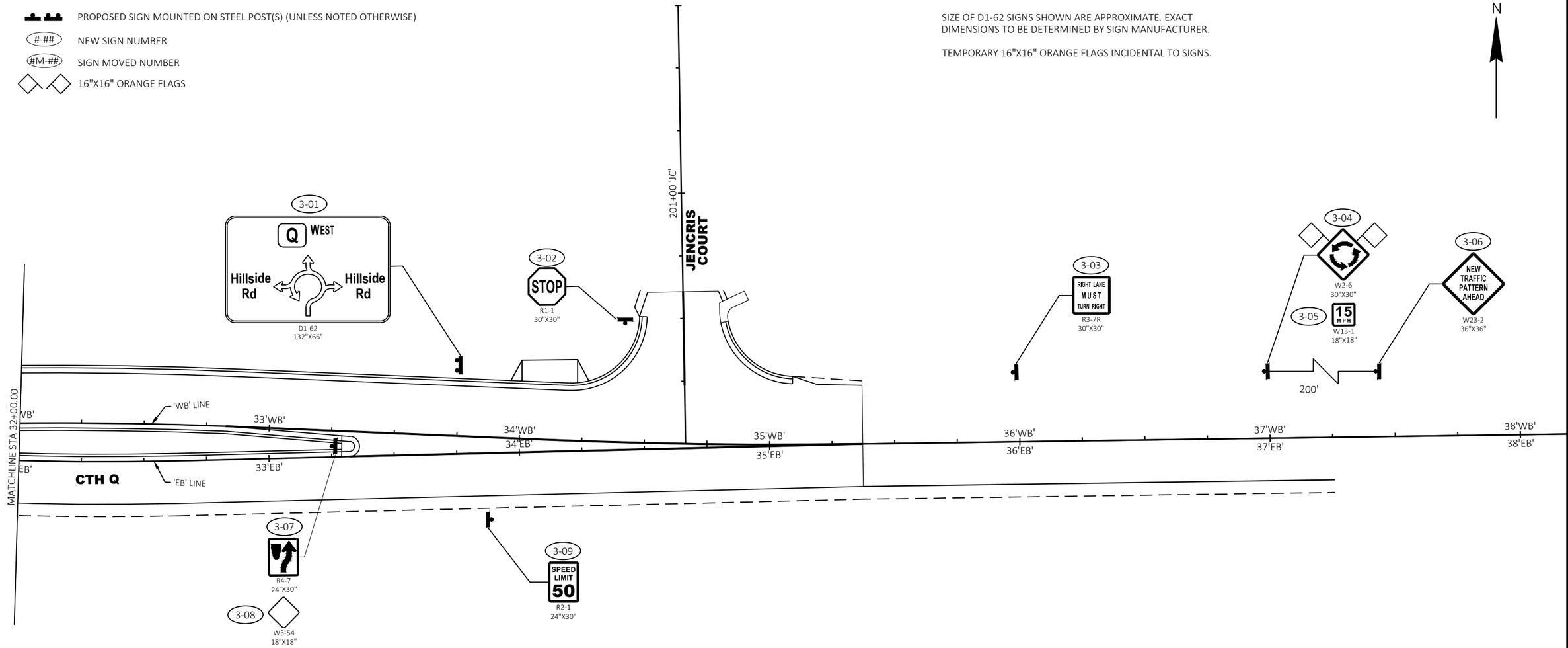
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON STEEL POST(S) (UNLESS NOTED OTHERWISE)
- #-## NEW SIGN NUMBER
- #M-## SIGN MOVED NUMBER
- 16"X16" ORANGE FLAGS

NOTES:
NEW YIELD SIGNS (R1-2) SHALL BE MOUNTED AT A HEIGHT OF 7'3" REGARDLESS OF THE SIGN INSTALLED BELOW.

SIZE OF D1-62 SIGNS SHOWN ARE APPROXIMATE. EXACT DIMENSIONS TO BE DETERMINED BY SIGN MANUFACTURER.

TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGNS.

N






| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PERMANENT SIGNING | SHEET 42 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 03
PLOT DATE : 10/27/2022 7:45 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

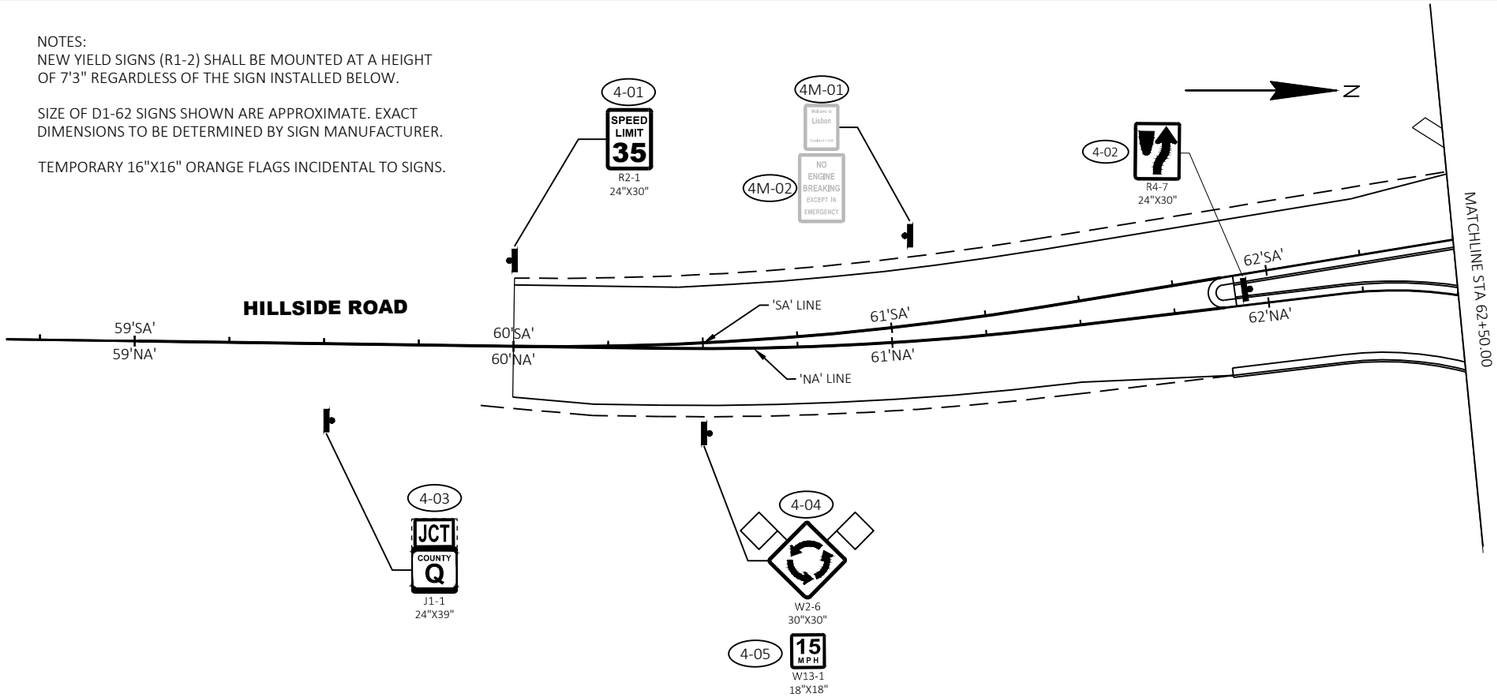
SIGNING LEGEND

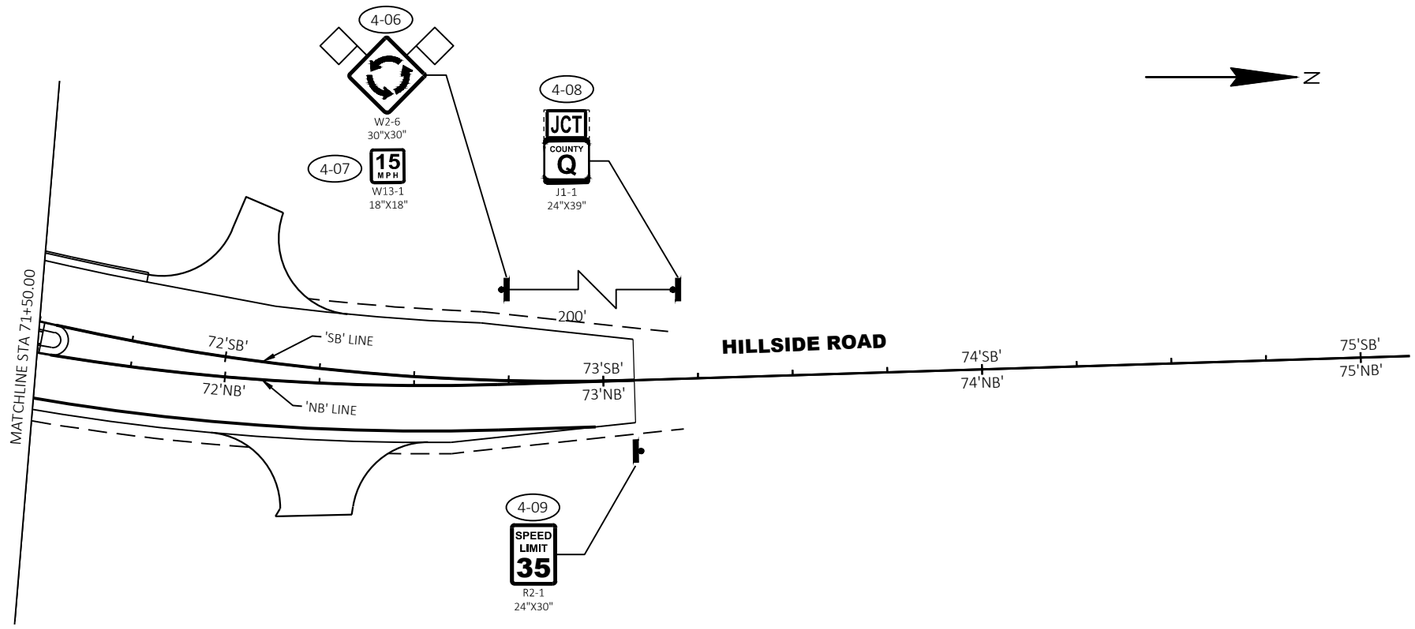
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON STEEL POST(S) (UNLESS NOTED OTHERWISE)
- #-## NEW SIGN NUMBER
- #M-## SIGN MOVED NUMBER
- 16"X16" ORANGE FLAGS

NOTES:
NEW YIELD SIGNS (R1-2) SHALL BE MOUNTED AT A HEIGHT OF 7'3" REGARDLESS OF THE SIGN INSTALLED BELOW.

SIZE OF D1-62 SIGNS SHOWN ARE APPROXIMATE. EXACT DIMENSIONS TO BE DETERMINED BY SIGN MANUFACTURER.

TEMPORARY 16"X16" ORANGE FLAGS INCIDENTAL TO SIGNS.




SHEET 4 OF 4

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PERMANENT SIGNING | SHEET 43 | E |
|---|---|---|---|---|---|

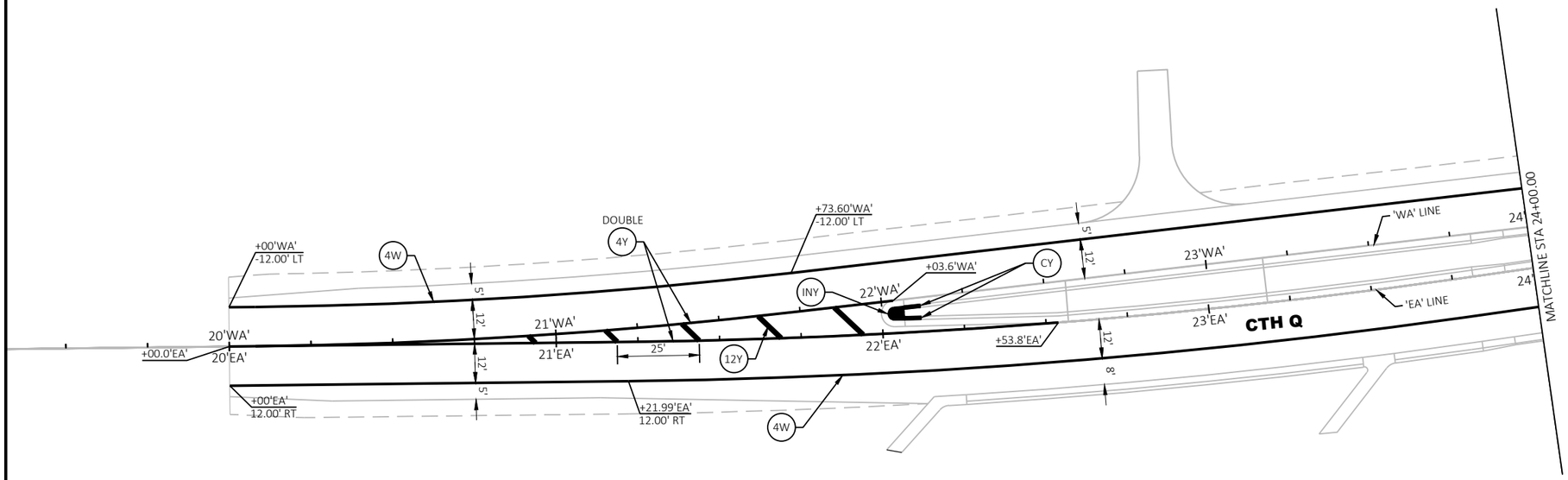
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/27/2022 7:45 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

## PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4DW) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, WHITE)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (18D) MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
- (18W) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (INY) MARKING ISLAND NOSE EPOXY (YELLOW)
- (CY) MARKING CURB EPOXY (YELLOW)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (4R) MARKING REMOVAL LINE 4-INCH
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)

N



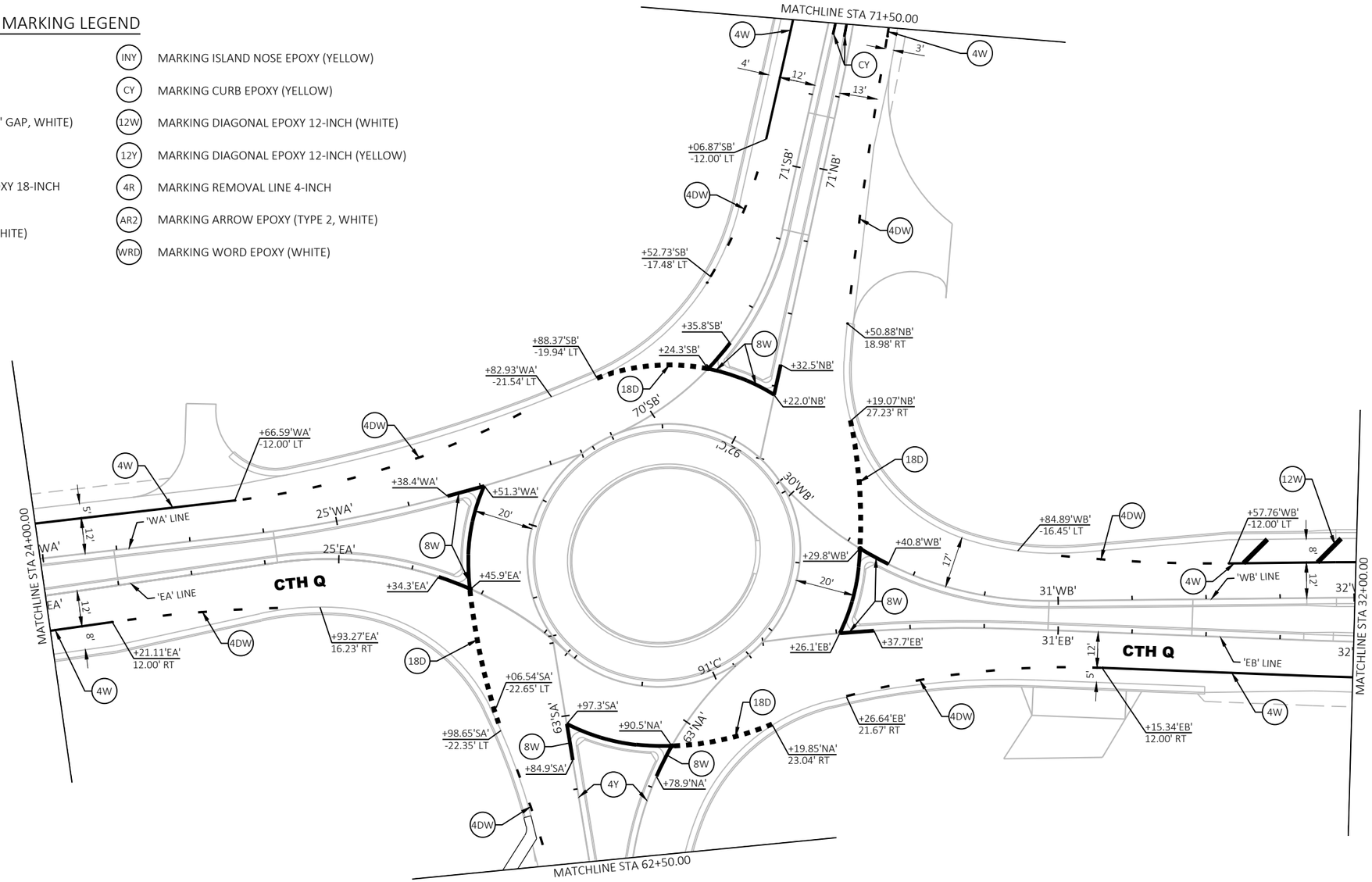

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVEMENT MARKING | SHEET 44 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 10/27/2022 7:45 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:40 FT

## PAVEMENT MARKING LEGEND

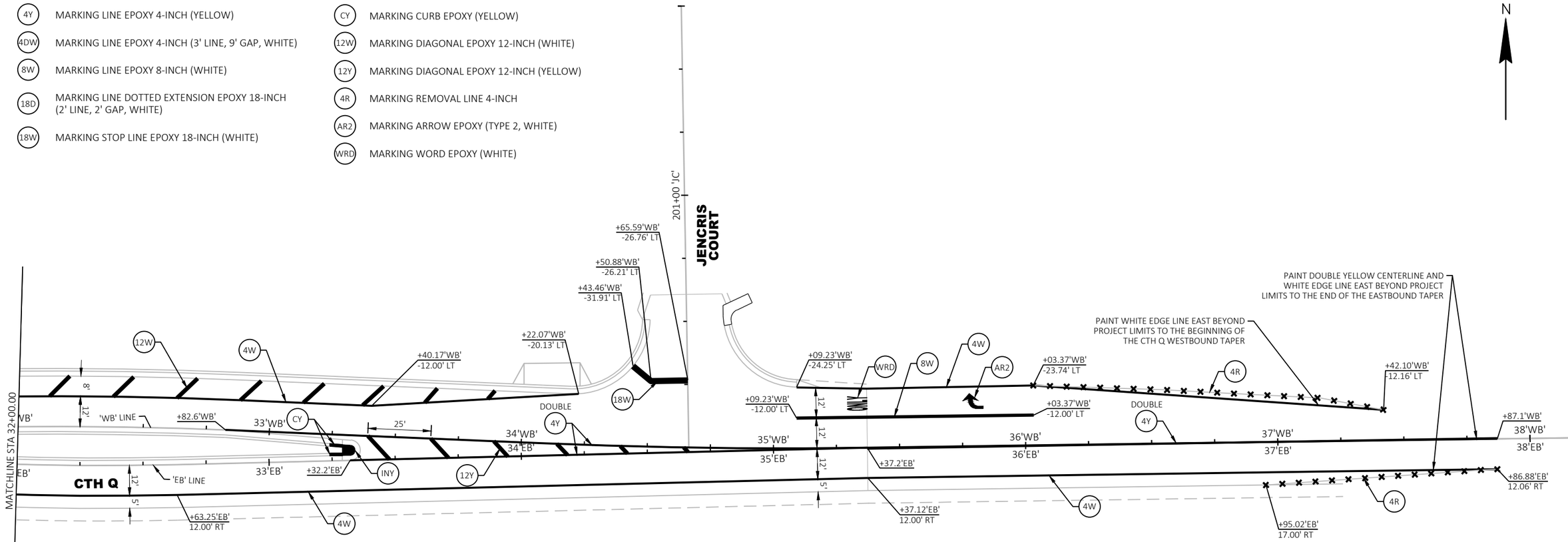
- 4W — MARKING LINE EPOXY 4-INCH (WHITE)
- 4Y — MARKING LINE EPOXY 4-INCH (YELLOW)
- 4DW — MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, WHITE)
- 8W — MARKING LINE EPOXY 8-INCH (WHITE)
- 18D — MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
- 18W — MARKING STOP LINE EPOXY 18-INCH (WHITE)
- INY — MARKING ISLAND NOSE EPOXY (YELLOW)
- CY — MARKING CURB EPOXY (YELLOW)
- 12W — MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- 12Y — MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- 4R — MARKING REMOVAL LINE 4-INCH
- AR2 — MARKING ARROW EPOXY (TYPE 2, WHITE)
- WRD — MARKING WORD EPOXY (WHITE)




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVEMENT MARKING | SHEET 45 | E |
|---|---|---|---|---|---|

## PAVEMENT MARKING LEGEND

- 4W — MARKING LINE EPOXY 4-INCH (WHITE)
- 4Y — MARKING LINE EPOXY 4-INCH (YELLOW)
- 4DW — MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, WHITE)
- 8W — MARKING LINE EPOXY 8-INCH (WHITE)
- 18D — MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
- 18W — MARKING STOP LINE EPOXY 18-INCH (WHITE)
- INY — MARKING ISLAND NOSE EPOXY (YELLOW)
- CY — MARKING CURB EPOXY (YELLOW)
- 12W — MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- 12Y — MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- 4R — MARKING REMOVAL LINE 4-INCH
- AR2 — MARKING ARROW EPOXY (TYPE 2, WHITE)
- WRD — MARKING WORD EPOXY (WHITE)

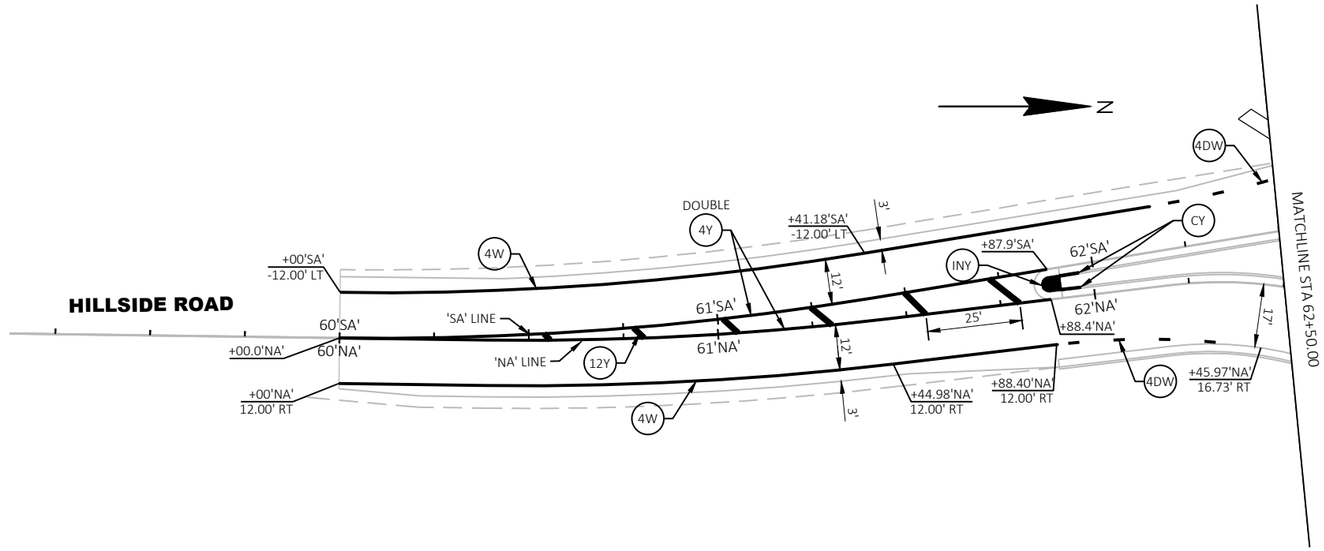


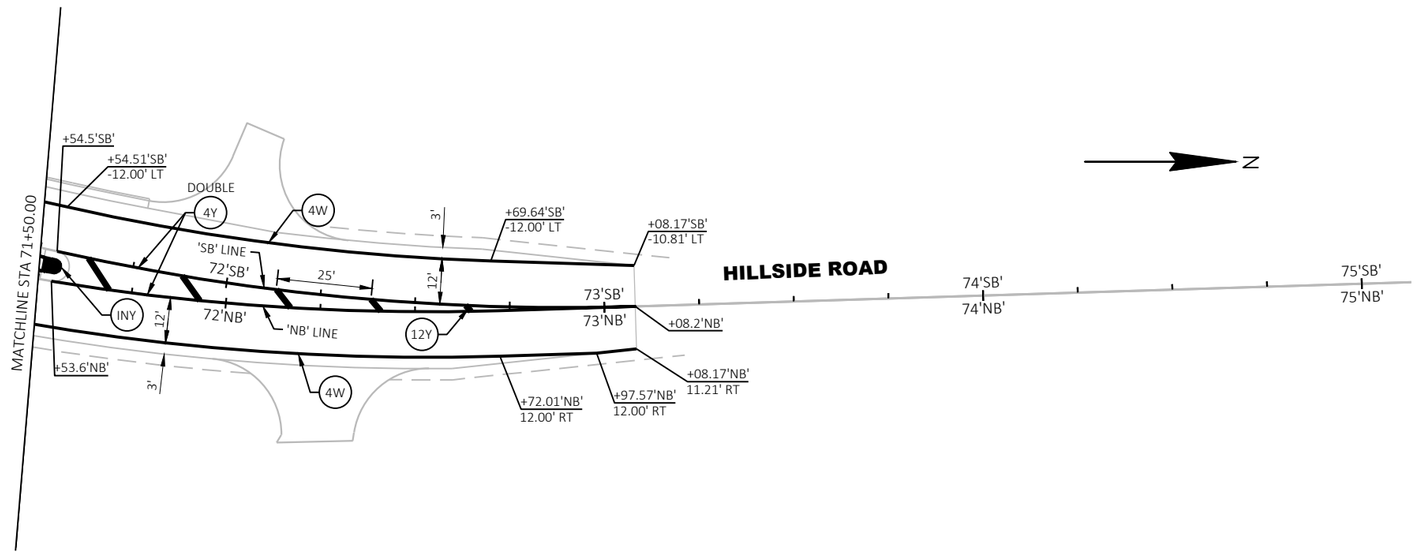

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PAVEMENT MARKING | SHEET 46 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 03
PLOT DATE : 10/27/2022 7:45 AM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

## PAVEMENT MARKING LEGEND

- (4W) MARKING LINE EPOXY 4-INCH (WHITE)
- (4Y) MARKING LINE EPOXY 4-INCH (YELLOW)
- (4DW) MARKING LINE EPOXY 4-INCH (3' LINE, 9' GAP, WHITE)
- (8W) MARKING LINE EPOXY 8-INCH (WHITE)
- (18D) MARKING LINE DOTTED EXTENSION EPOXY 18-INCH (2' LINE, 2' GAP, WHITE)
- (18W) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (INY) MARKING ISLAND NOSE EPOXY (YELLOW)
- (CY) MARKING CURB EPOXY (YELLOW)
- (12W) MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- (12Y) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (4R) MARKING REMOVAL LINE 4-INCH
- (AR2) MARKING ARROW EPOXY (TYPE 2, WHITE)
- (WRD) MARKING WORD EPOXY (WHITE)



2

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

WORK AREA

N

PLACE JUST SOUTH OF KENNEDY CIRCLE N

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED 500 FT W20-3D

500' TYP

500' TYP

BRIAR RIDGE LN

HILLSIDE RD

80'SB' 80'NB' 78'SB' 78'NB' 76'SB' 76'NB' 74'SB' 74'NB' 72'SB' 72'NB' 70'SB' 70'WB' 67'SA' 62'NA' 60'SA' 60'NA' 58'SA' 58'NA' 56'SA' 56'NA'

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETAIL E.

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

JENCRIS CT

SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETAIL E.

PLACE JUST WEST OF SCENIC ROAD

ROAD CLOSED 500 FT W20-3D

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED AHEAD W20-3A

500' TYP

500' TYP

SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETAIL E.

CTH Q

COUNTY LINE ROAD

12'WA' 14'WA' 16'WA' 18'WA' 20'WA' 22'WA' 24'WA' 32'WB' 34'WB' 36'WB' 38'WB' 40'WB' 42'WB' 44'WB'

12'EA' 14'EA' 16'EA' 18'EA' 20'EA' 22'EA' 24'EA' 32'EB' 34'EB' 36'EB' 38'EB' 40'EB' 42'EB' 44'EB'

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30"

SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETAIL E.

ROAD CLOSED AHEAD W20-3A

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED 500 FT W20-3D

500' TYP

500' TYP

PLACE JUST EAST OF BRIAR RIDGE LANE

SEE SDD BARRICADES AND SIGNS FOR VARIOUS CLOSURES, DETAIL D.

ROAD CLOSED R11-2 48"X30"

NORWAUK RD

ROAD CLOSED 500 FT W20-3D

ROAD CLOSED 1000 FT W20-3C

ROAD CLOSED AHEAD W20-3A

500' TYP

500' TYP

PLACE JUST NORTH OF BLUE HERON DRIVE

NOTES:

1. CTH Q/HILLSIDE RD INTERSECTION CLOSED TO THROUGH TRAFFIC. MAINTAIN EMERGENCY AND LOCAL RESIDENTIAL TRAFFIC AT ALL TIMES. SEE DETOUR PLAN.

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | TRAFFIC CONTROL PLAN | SHEET 48 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\025100-TC.DWG
LAYOUT NAME - Plan 1 IN 200 FT

PLOT DATE : 10/27/2022 2:07 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS.
3. THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
4. ALL EXISTING SIGNS THAT NEED TO BE COVERED SHALL BE COVERED WITH A BLANK ORANGE PANEL.
5. PLACE TRAFFIC CONTROL SIGNS PCMS 7 CALENDAR DAYS PRIOR TO START OF DETOUR.
6. SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL SIGNS AND TRAFFIC CONTROL DEVICES.
7. DO NOT PLACE ANY TRAFFIC CONTROL DEVICES WITHIN 50' OF RAILROAD RIGHT-OF-WAY.

LEGEND

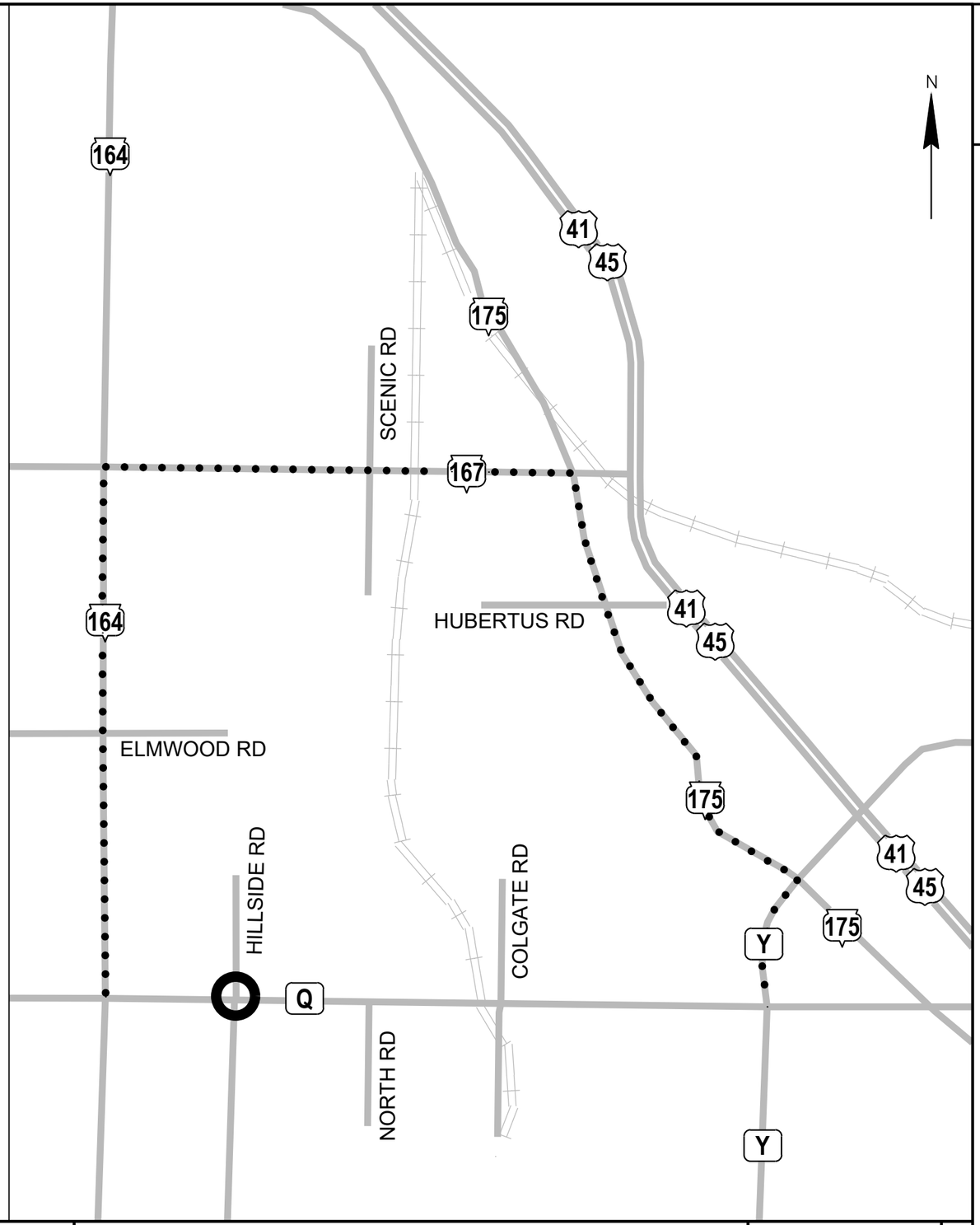
- COUNTY Q DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN
- EXISTING SIGN
- EXISTING OVERHEAD SIGN
- EXISTING RAILROADS
- COVERING SIGNS
- PCMS — TRAFFIC CONTROL SIGNS PCMS (PLACE 7 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE AT THE START OF CONSTRUCTION.)

1. DETOUR AHEAD — W20-2A
2. DETOUR — M4-8 24"X12"; EAST — M3-2 24"X12"; COUNTY Q — M1-5A 24"X24"
3. DETOUR — M4-8 24"X12"; WEST — M3-4 24"X12"; COUNTY Q — M1-5A 24"X24"
4. END DETOUR — M4-8A 24"X18"; EAST — M3-2 24"X12"; COUNTY Q — M1-5A 24"X24"
5. END DETOUR — M4-8A 24"X18"; WEST — M3-4 24"X12"; COUNTY Q — M1-5A 24"X24"
6. EAST — M3-2 24"X12"; COUNTY Q — M1-5A 24"X24"
7. WEST — M3-4 24"X12"; COUNTY Q — M1-5A 24"X24"
8. COUNTY Q — M1-5A 24"X24"
9. ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"
10. ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"
11. ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"
12. HWY Q CLOSED AT HILLSIDE RD USE ALT ROUTE — FMS 78"X36"

A. MO6-1 21"X21"
B. MO5-1L 21"X21"
C. MO6-1 21"X21"
D. MO5-1R 21"X21"
E. MO6-1 21"X21"
F. MO6-2 21"X21"

PCMS MESSAGE SHALL READ:

| 1ST FRAME | 2ND FRAME |
|---|---|
| COUNTY Q ROAD CLOSURE | BEGINS MM/DD |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | DETOUR PLAN - COUNTY Q OVERVIEW | SHEET 49 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 10/27/2022 7:46 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN: 5000 FT

LEGEND

- COUNTY Q DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN
- EXISTING SIGN
- EXISTING OVERHEAD SIGN
- EXISTING RAILROADS
- COVERING SIGNS
- PCMS — TRAFFIC CONTROL SIGNS PCMS (PLACE 7 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE AT THE START OF CONSTRUCTION.)

1 — DETOUR AHEAD — W20-2A

2 — DETOUR M4-8 24"X12" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

3 — DETOUR M4-8 24"X12" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

4 — END DETOUR M4-8A 24"X18" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

5 — END DETOUR M4-8A 24"X18" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

6 — EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

7 — WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

8 — COUNTY Q M1-5A 24"X24"

9 — ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

10 — ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

11 — ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

12 — HWY Q CLOSED AT HILLSIDE RD USE ALT ROUTE — FMS 78"X36"

A — MO6-1 21"X21"

B — MO5-1L 21"X21"

C — MO6-1 21"X21"

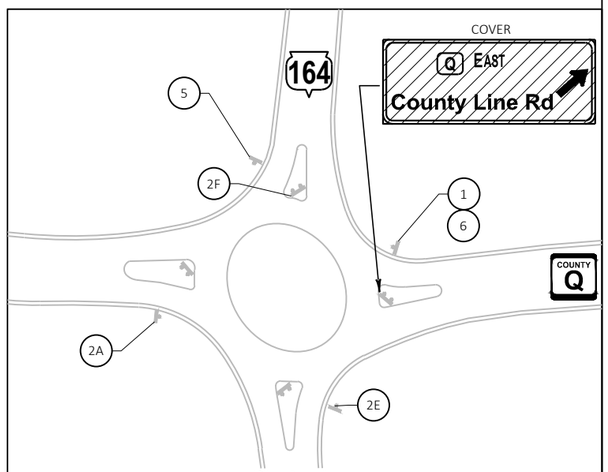
D — MO5-1R 21"X21"

E — MO6-1 21"X21"

F — MO6-2 21"X21"

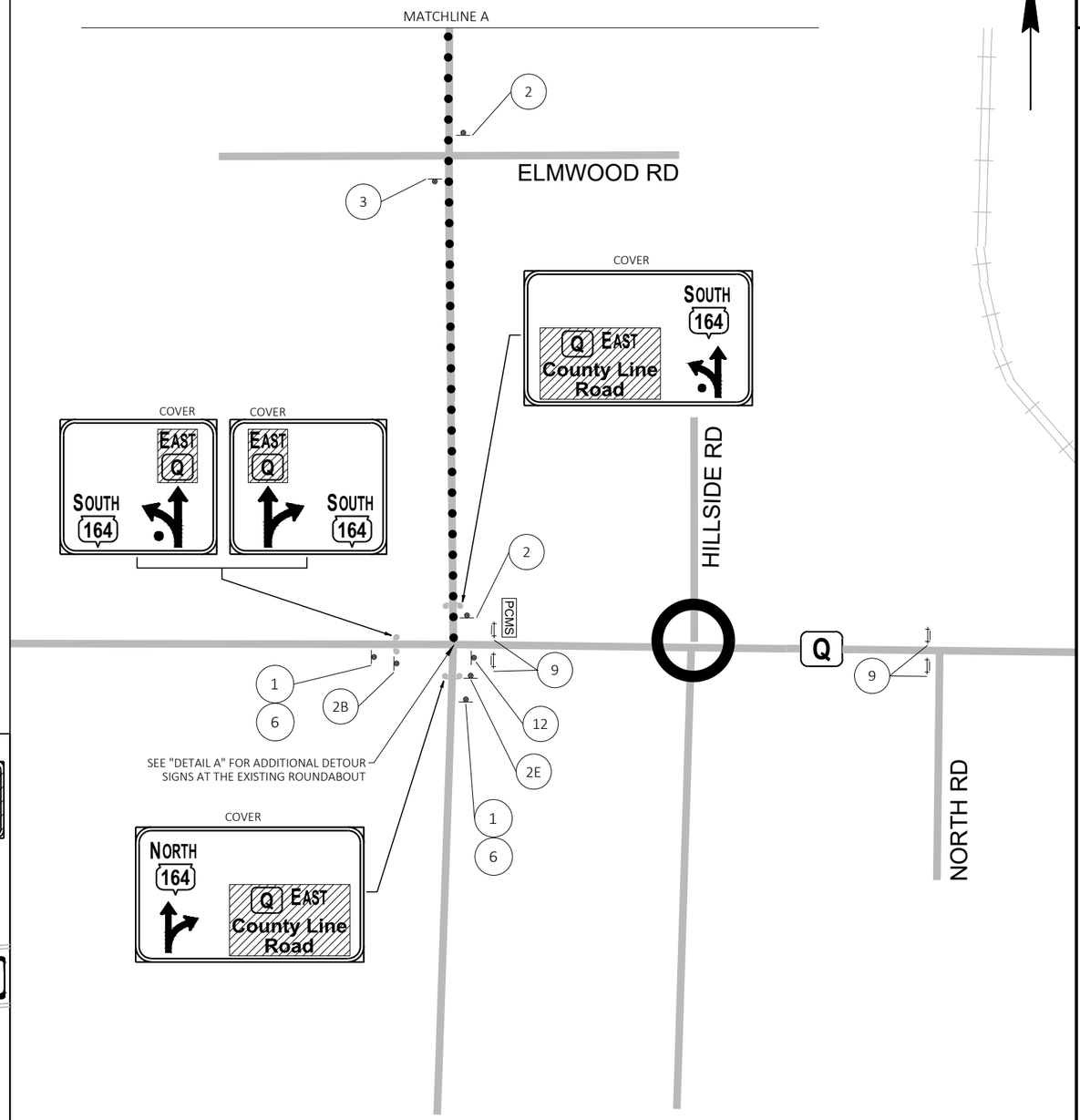
PCMS MESSAGE SHALL READ:

| 1ST FRAME | 2ND FRAME |
|---|---|
| COUNTY Q ROAD CLOSURE | BEGINS MM/DD |




DETAIL A

ALL SIGNS IN THIS DETAIL SHALL BE MOUNTED TO EXISTING SIGN SUPPORTS BELOW EXISTING SIGNS




N

LEGEND

- COUNTY Q DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN
- EXISTING SIGN
- EXISTING OVERHEAD SIGN
- EXISTING RAILROADS
- COVERING SIGNS
- PCMS — TRAFFIC CONTROL SIGNS PCMS (PLACE 7 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE AT THE START OF CONSTRUCTION.)

1) DETOUR AHEAD — W20-2A

2) DETOUR M4-8 24"X12" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

3) DETOUR M4-8 24"X12" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

4) END DETOUR M4-8A 24"X18" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

5) END DETOUR M4-8A 24"X18" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

6) EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

7) WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

8) COUNTY Q M1-5A 24"X24"

9) ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

10) ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

11) ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

12) HWY Q CLOSED AT HILLSIDE RD USE ALT ROUTE — FMS 78"X36"

A) MO6-1 21"X21"

B) MO5-1L 21"X21"

C) MO6-1 21"X21"

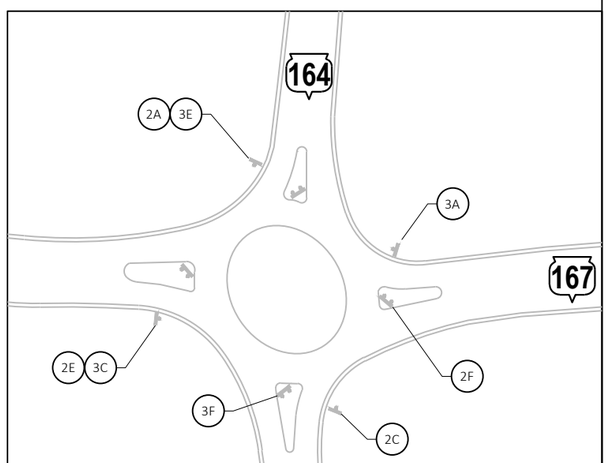
D) MO5-1R 21"X21"

E) MO6-1 21"X21"

F) MO6-2 21"X21"

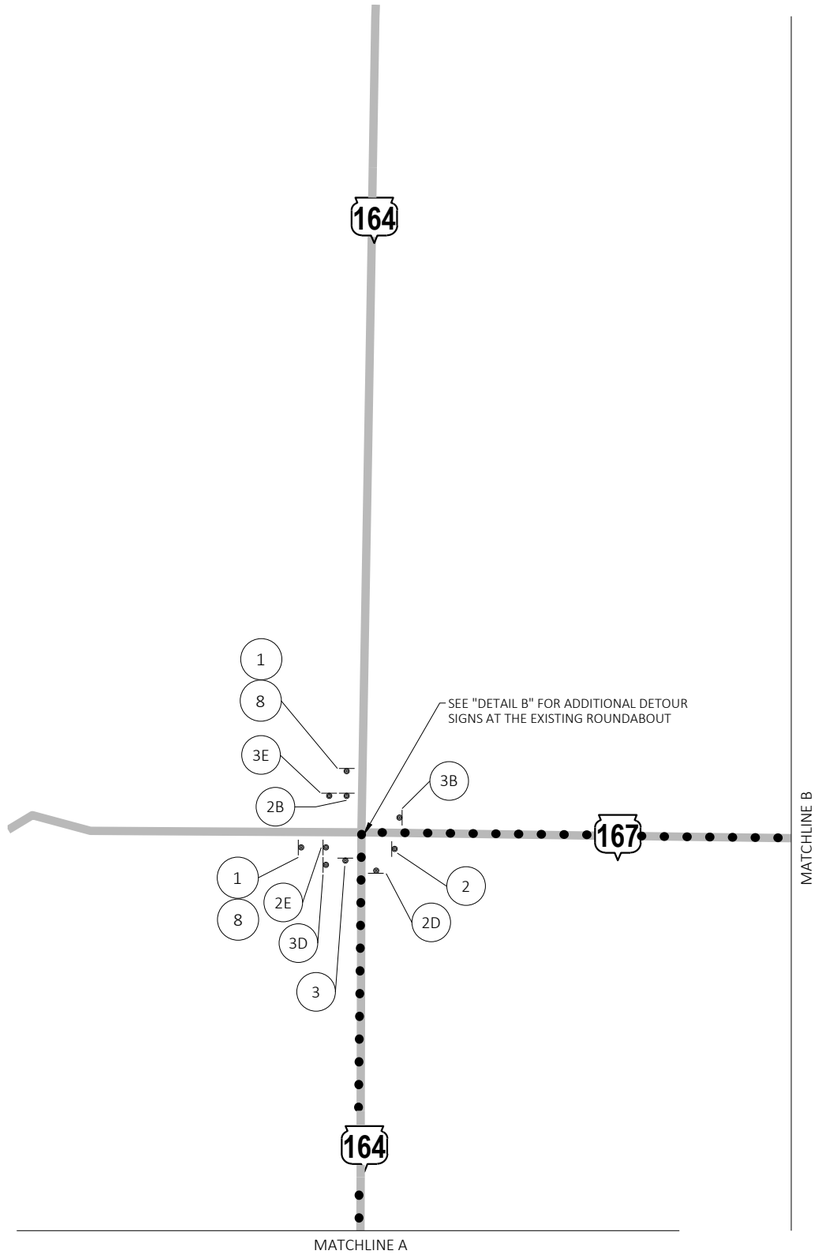
PCMS MESSAGE SHALL READ:

| 1ST FRAME | 2ND FRAME |
|---|---|
| COUNTY Q ROAD CLOSURE | BEGINS MM/DD |




DETAIL B

ALL SIGNS IN THIS DETAIL SHALL BE MOUNTED TO EXISTING SIGN SUPPORTS BELOW EXISTING SIGNS




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | DETOUR PLAN | SHEET 51 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 03

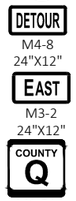
PLOT DATE : 10/27/2022 7:46 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN: 3000 FT

LEGEND

- COUNTY Q DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN
- EXISTING SIGN
- EXISTING OVERHEAD SIGN
- EXISTING RAILROADS
- COVERING SIGNS
- PCMS — TRAFFIC CONTROL SIGNS PCMS (PLACE 7 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE AT THE START OF CONSTRUCTION.)

1


W20-2A

2


M4-8 24"X12"
M3-2 24"X12"
M1-5A 24"X24"

3


M4-8 24"X12"
M3-4 24"X12"
M1-5A 24"X24"

4


M4-8A 24"X18"
M3-2 24"X12"
M1-5A 24"X24"

5


M4-8A 24"X18"
M3-4 24"X12"
M1-5A 24"X24"

6


M3-2 24"X12"
M1-5A 24"X24"

7


M3-4 24"X12"
M1-5A 24"X24"

8


M1-5A 24"X24"

9


R11-3 60"X30"

10


R11-3 60"X30"

11


R11-3 60"X30"

12


FMS 78"X36"

A

MO6-1 21"X21"

B

MO5-1L 21"X21"

C

MO6-1 21"X21"

D

MO5-1R 21"X21"

E

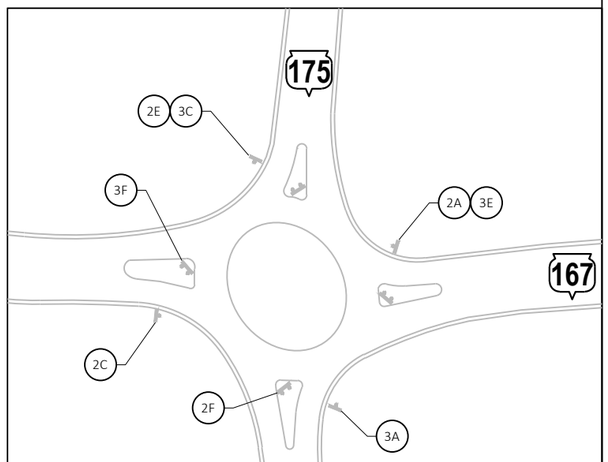
MO6-1 21"X21"

F

MO6-2 21"X21"

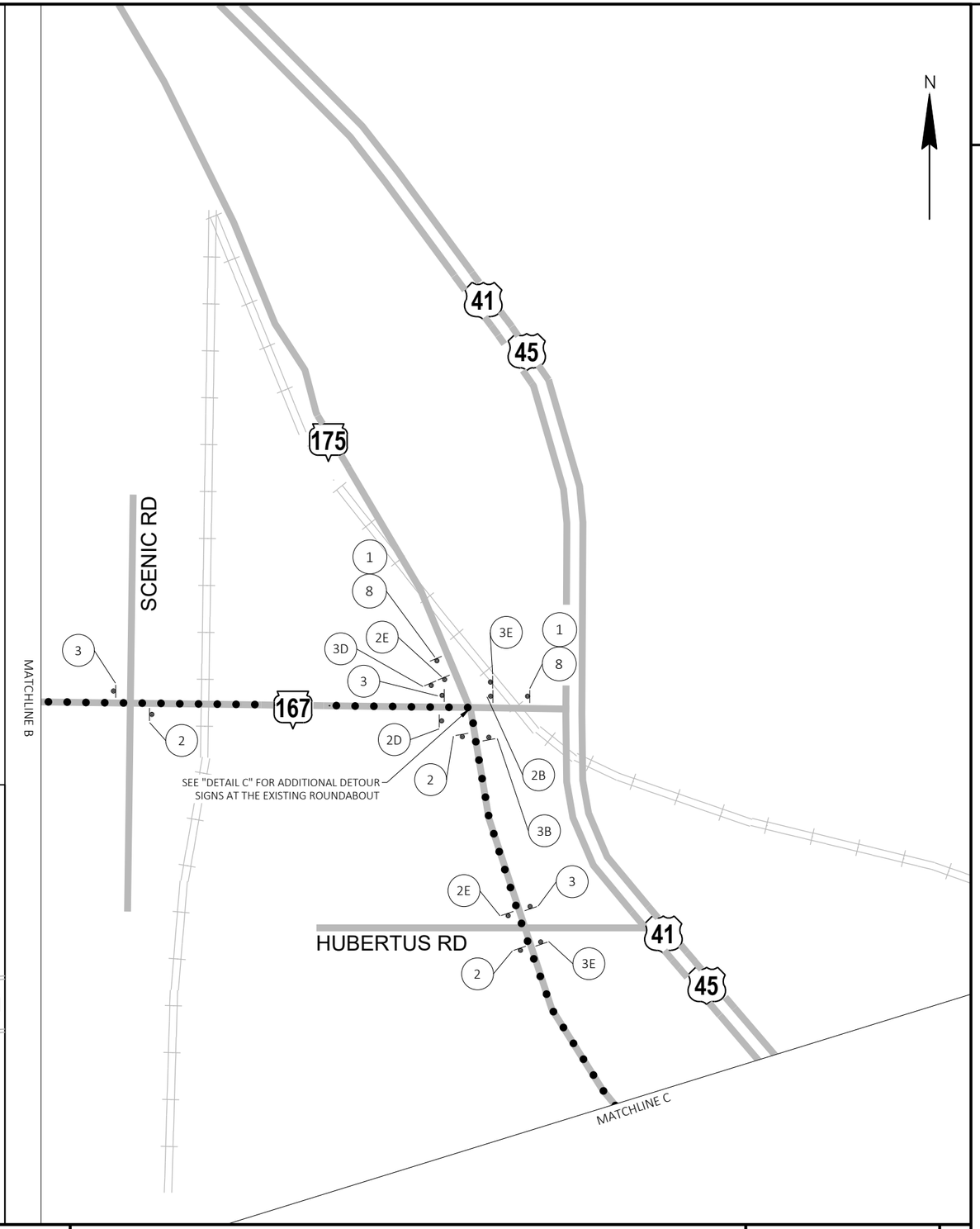
PCMS MESSAGE SHALL READ:

| 1ST FRAME | 2ND FRAME |
|---|---|
| COUNTY Q ROAD CLOSURE | BEGINS MM/DD |




DETAIL C

ALL SIGNS IN THIS DETAIL SHALL BE MOUNTED TO EXISTING SIGN SUPPORTS BELOW EXISTING SIGNS




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | DETOUR PLAN | SHEET 52 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 04

PLOT DATE : 10/27/2022 7:46 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN: 3000 FT

LEGEND

- COUNTY Q DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN
- EXISTING SIGN
- EXISTING OVERHEAD SIGN
- EXISTING RAILROADS
- COVERING SIGNS
- PCMS — TRAFFIC CONTROL SIGNS PCMS (PLACE 7 CALENDAR DAYS PRIOR TO THE START OF CONSTRUCTION. REMOVE AT THE START OF CONSTRUCTION.)

1 — DETOUR AHEAD — W20-2A

2 — DETOUR M4-8 24"X12" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

3 — DETOUR M4-8 24"X12" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

4 — END DETOUR M4-8A 24"X18" / EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

5 — END DETOUR M4-8A 24"X18" / WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

6 — EAST M3-2 24"X12" / COUNTY Q M1-5A 24"X24"

7 — WEST M3-4 24"X12" / COUNTY Q M1-5A 24"X24"

8 — COUNTY Q M1-5A 24"X24"

9 — ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

10 — ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

11 — ROAD CLOSED 4 MILES AHEAD LOCAL TRAFFIC ONLY — R11-3 60"X30"

12 — HWY Q CLOSED AT HILLSIDE RD USE ALT ROUTE — FMS 78"X36"

A — MO6-1 21"X21"

B — MO5-1L 21"X21"

C — MO6-1 21"X21"

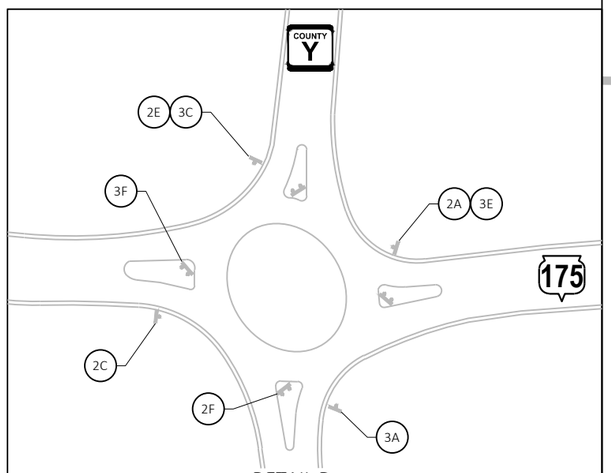
D — MO5-1R 21"X21"

E — MO6-1 21"X21"

F — MO6-2 21"X21"

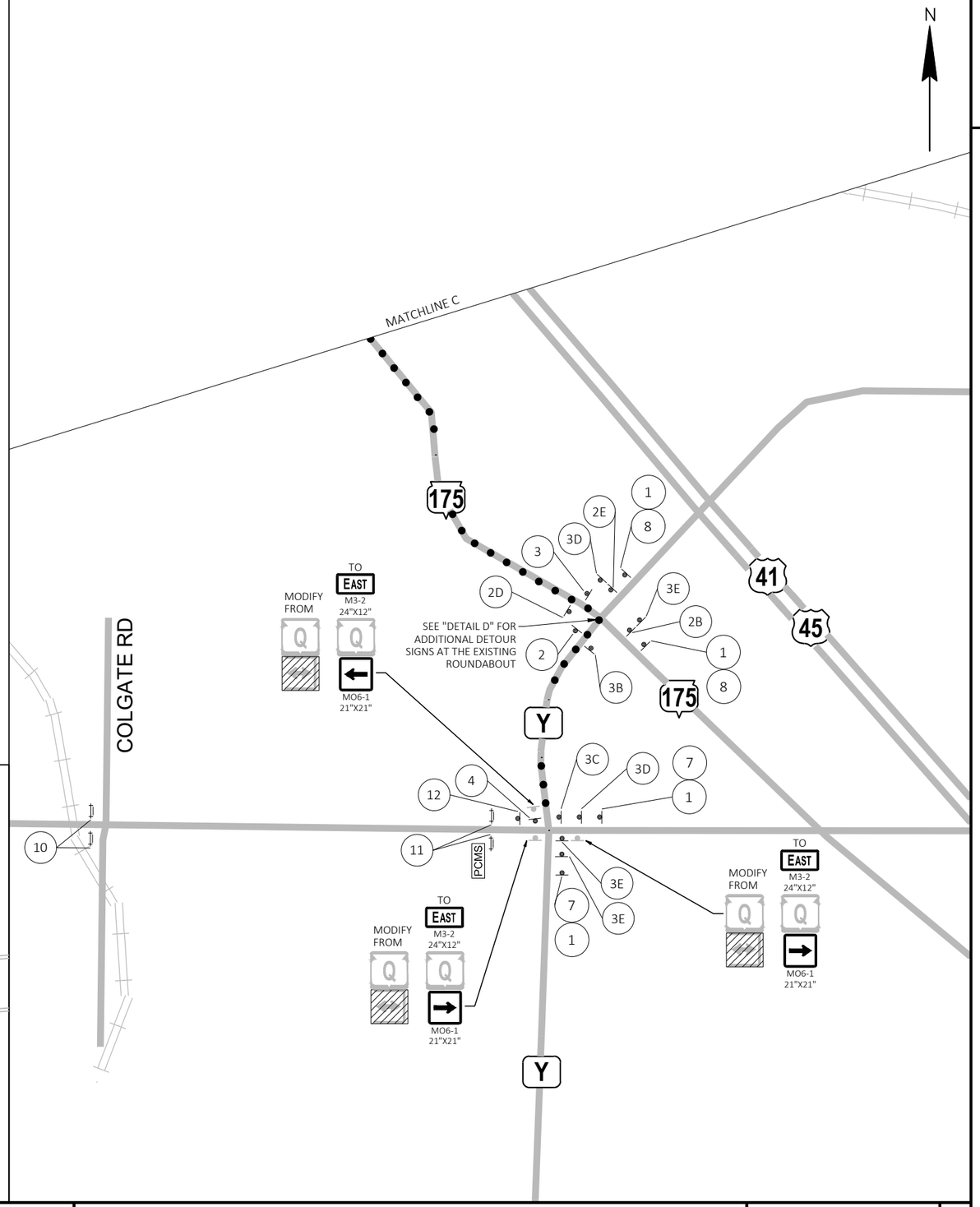
PCMS MESSAGE SHALL READ:

| 1ST FRAME | 2ND FRAME |
|---|---|
| COUNTY Q ROAD CLOSURE | BEGINS MM/DD |




DETAIL D

ALL SIGNS IN THIS DETAIL SHALL BE MOUNTED TO EXISTING SIGN SUPPORTS BELOW EXISTING SIGNS




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | DETOUR PLAN | SHEET 53 | E |
|---|---|---|---|---|---|

GENERAL NOTES:

1. THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
2. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS.
3. THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
4. PLACE SIGN 20F AT THE NORTHBOUND AND SOUTHBOUND EXISTS FROM THE STH 164/CTH Q ROUNDABOUT
5. DO NOT PLACE ANY TRAFFIC CONTROL DEVICES WITHIN 50' OF RAILROAD RIGHT-OF-WAY.

LEGEND

- HILLSIDE RD DETOUR
- PROJECT LOCATION
- BARRICADE TYPE III WITH TWO TYPE A WARNING LIGHTS AND ATTACHED SIGN
- POST MOUNTED SIGN

20


M4-8
24"X12"
FMS
42"x12"

21


22


R11-3
60"X30"

23


R11-3
60"X30"

A

MO6-1
21"X21"

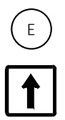
C

MO6-1
21"X21"

D

MO5-1R
21"X21"

E



MO6-1
21"X21"

F

MO6-2
21"X21"

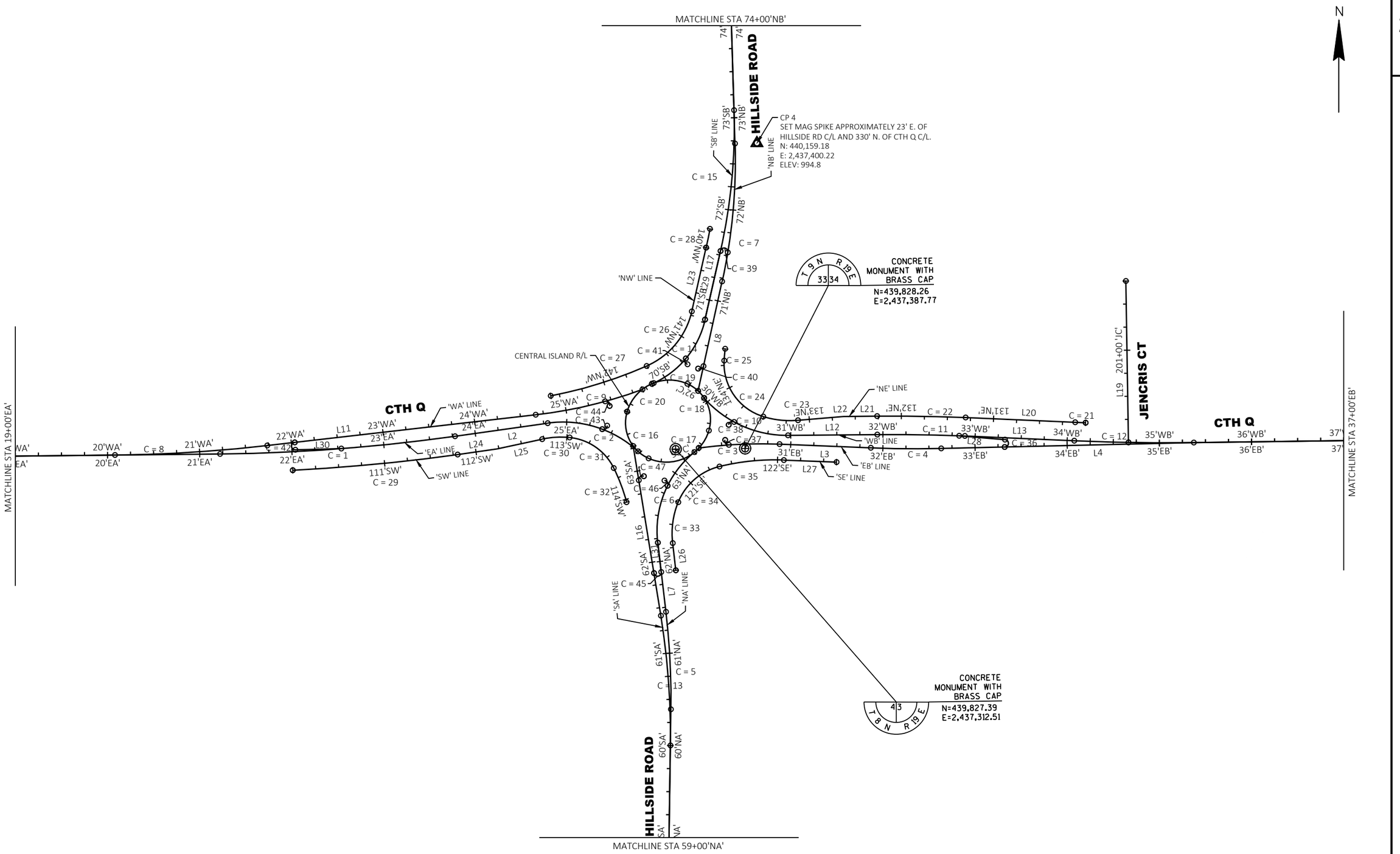
G


M4-6
24"X12"


2

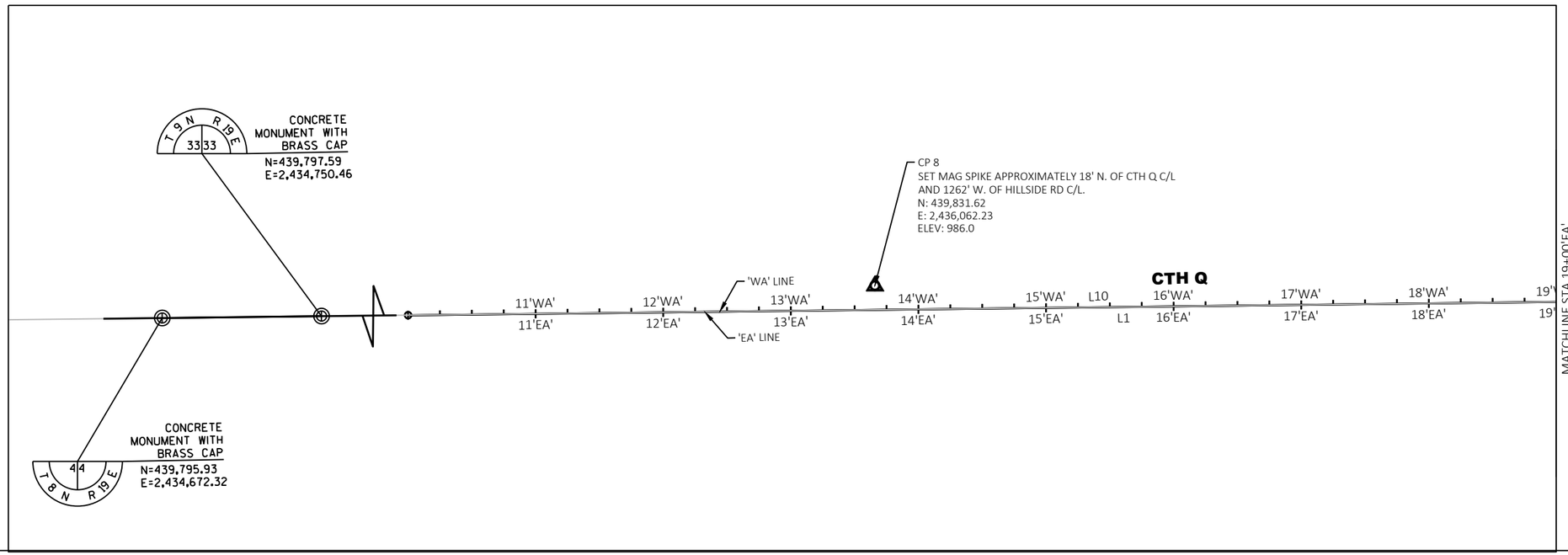
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | DETOUR PLAN - HILLSIDE ROAD | SHEET 54 | E |
|---|---|---|---|---|---|

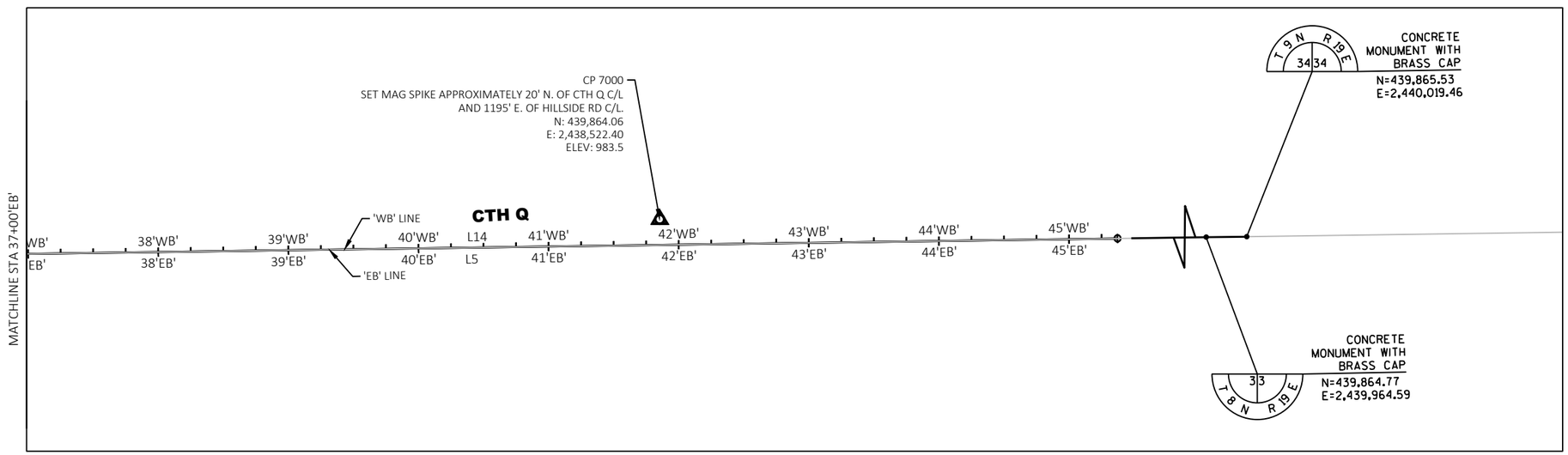
2




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | ALIGNMENT PLAN | SHEET 55 | E |
|---|---|---|---|---|---|

2



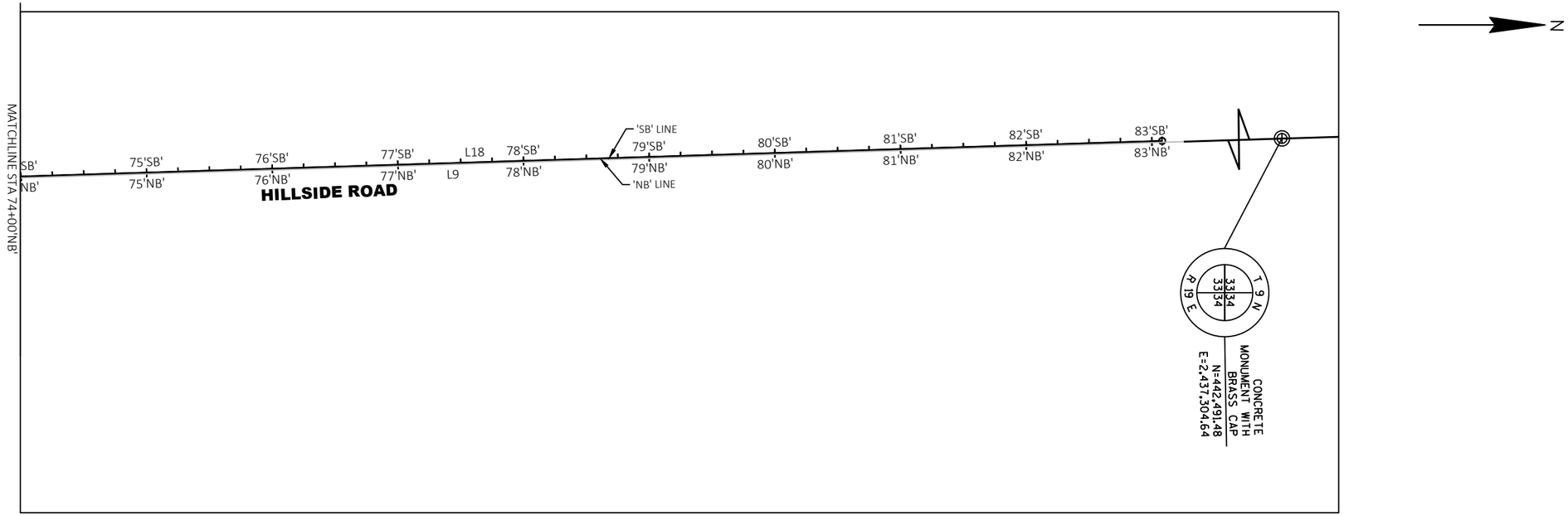



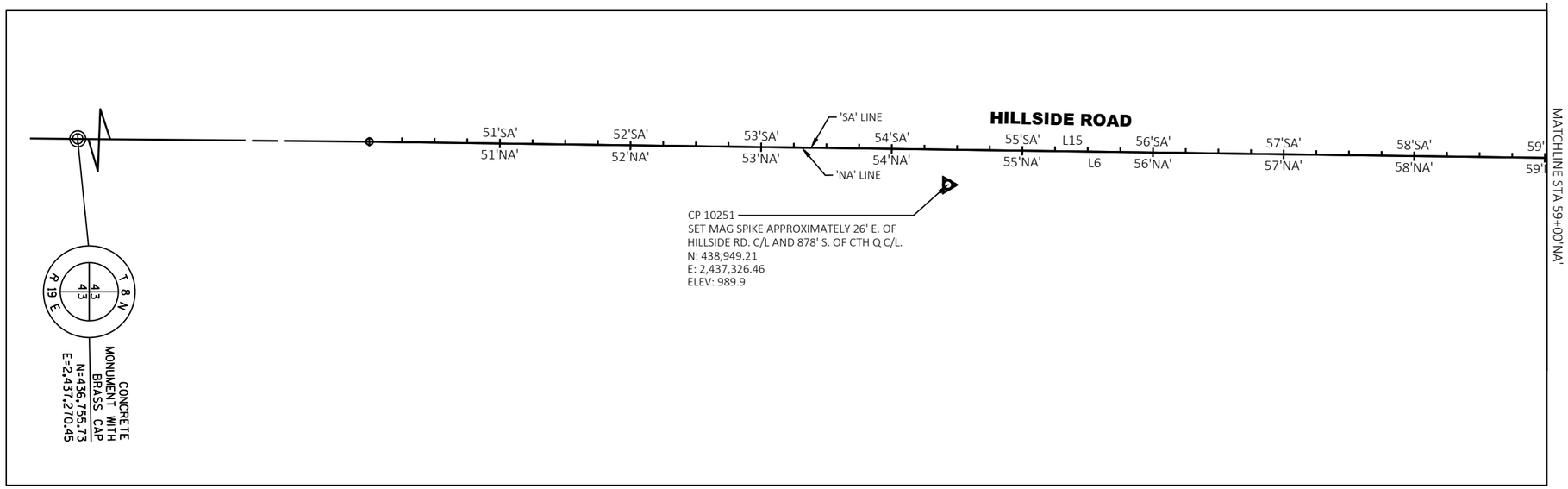

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | ALIGNMENT PLAN | SHEET 56 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 02

PLOT DATE : 10/27/2022 8:24 AM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:100 FT

2




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | ALIGNMENT PLAN | SHEET 57 | E |
|---|---|---|---|---|---|

2

| EA Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L1 | 10+00.00 | 21+21.99 | 439808.59 2435696.34 | 439821.64 2436818.25 | | | | | | 1121.99' | | | | | | N89°20'01.3"E |
| C = 1 | | | | | 22+50.09 | 439823.13 2436946.34 | 7°24'12" | 2°53'37" | 128.10' | 255.84' | 4.14' | 1980.00' | 21+21.99 | 23+77.83 | N89°20'01.3"E | N81°55'49.0"E |
| L2 | 23+77.83 | 24+79.28 | 439841.11 2437073.17 | 439855.35 2437173.61 | | | | | | 101.44' | | | | | | N81°55'49.0"E |
| C = 2 | | | | | 25+36.02 | 439863.32 2437229.80 | 50°37'08" | 47°44'47" | 56.75' | 106.02' | 12.74' | 120.00' | 24+79.28 | 25+85.29 | N81°55'49.0"E | S47°27'03.2"E |

| EB Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 3 | | | | | 30+44.03 | 439834.65 2437381.14 | 10°03'50" | 11°27'33" | 44.03' | 87.82' | 1.93' | 500.00' | 30+00.00 | 30+87.82 | N82°10'51.8"E | S87°45'17.9"E |
| L3 | 30+87.82 | 31+86.96 | 439832.92 2437425.13 | 439829.04 2437524.19 | | | | | | 99.14' | | | | | | S87°45'17.9"E |
| C = 4 | | | | | 32+25.12 | 439827.54 2437562.32 | 3°38'34" | 4°46'29" | 38.16' | 76.29' | 0.61' | 1200.00' | 31+86.96 | 32+63.25 | S87°45'17.9"E | N88°36'08.1"E |
| L4 | 32+63.25 | 35+37.24 | 439828.47 2437600.47 | 439835.16 2437874.37 | | | | | | 273.98' | | | | | | N88°36'08.1"E |
| L5 | 35+37.24 | 45+37.24 | 439835.16 2437874.37 | 439849.33 2438874.27 | | | | | | 1000.00' | | | | | | N89°11'17.1"E |

| NA Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L6 | 50+00.00 | 60+39.07 | 438506.35 2437293.42 | 439545.32 2437307.65 | | | | | | 1039.07' | | | | | | N0°47'04.3"E |
| C = 5 | | | | | 60+92.10 | 439598.35 2437308.37 | 7°35'07" | 7°09'43" | 53.03' | 105.91' | 1.76' | 800.00' | 60+39.07 | 61+44.98 | N0°47'04.3"E | N6°48'02.8"W |
| L7 | 61+44.98 | 62+20.51 | 439651.01 2437302.09 | 439726.00 2437293.15 | | | | | | 75.53' | | | | | | N6°48'02.8"W |
| C = 6 | | | | | 62+80.92 | 439785.99 2437286.00 | 57°33'04" | 52°05'13" | 60.41' | 110.49' | 15.50' | 110.00' | 62+20.51 | 63+31.00 | N6°48'02.8"W | N50°45'01.7"E |

| NB Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L8 | 70+00.00 | 71+21.42 | 439890.53 2437336.63 | 440009.13 2437362.62 | | | | | | 121.42' | | | | | | N12°21'24.9"E |
| C = 7 | | | | | 71+97.10 | 440083.06 2437378.81 | 14°08'41" | 9°23'34" | 75.68' | 150.59' | 4.68' | 610.00' | 71+21.42 | 72+72.01 | N12°21'24.9"E | N1°47'15.9"W |
| L9 | 72+72.01 | 83+08.17 | 440158.70 2437376.45 | 441194.36 2437344.13 | | | | | | 1036.16' | | | | | | N1°47'15.9"W |

| WA Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L10 | 10+00.00 | 20+08.00 | 439808.59 2435696.34 | 439820.32 2436704.27 | | | | | | 1008.00' | | | | | | N89°20'01.3"E |
| C = 8 | | | | | 20+90.87 | 439821.28 2436787.14 | 5°55'49" | 3°34'52" | 82.87' | 165.60' | 2.14' | 1600.00' | 20+08.00 | 21+73.60 | N89°20'01.3"E | N83°24'12.7"E |
| L11 | 21+73.60 | 24+66.59 | 439830.80 2436869.46 | 439864.46 2437160.51 | | | | | | 292.98' | | | | | | N83°24'12.7"E |
| C = 9 | | | | | 25+26.61 | 439871.35 2437220.13 | 13°41'24" | 11°27'33" | 60.02' | 119.47' | 3.59' | 500.00' | 24+66.59 | 25+86.05 | N83°24'12.7"E | N69°42'48.5"E |

| WB Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 10 | | | | | 30+48.97 | 439841.88 2437379.51 | 49°01'46" | 47°44'47" | 54.72' | 102.69' | 11.89' | 120.00' | 29+94.25 | 30+96.94 | S41°34'34.5"E | N89°23'39.9"E |
| L12 | 30+96.94 | 31+93.83 | 439842.46 2437434.23 | 439843.48 2437531.12 | | | | | | 96.90' | | | | | | N89°23'39.9"E |
| C = 11 | | | | | 32+41.30 | 439843.98 2437578.59 | 3°01'17" | 3°10'59" | 47.47' | 94.92' | 0.63' | 1800.00' | 31+93.83 | 32+88.76 | N89°23'39.9"E | S87°35'02.7"E |
| L13 | 32+88.76 | 34+07.67 | 439841.98 2437626.02 | 439836.97 2437744.82 | | | | | | 118.91' | | | | | | S87°35'02.7"E |
| C = 12 | | | | | 34+72.47 | 439834.24 2437809.57 | 3°13'40" | 2°29'28" | 64.80' | 129.57' | 0.91' | 2300.00' | 34+07.67 | 35+37.24 | S87°35'02.7"E | N89°11'17.1"E |
| L14 | 35+37.24 | 45+37.24 | 439835.16 2437874.37 | 439849.33 2438874.27 | | | | | | 1000.00' | | | | | | N89°11'17.1"E |

| SA Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L15 | 50+00.00 | 60+00.00 | 438506.35 2437293.42 | 439506.25 2437307.11 | | | | | | 1000.00' | | | | | | N0°47'04.3"E |
| C = 13 | | | | | 60+70.77 | 439577.02 2437308.08 | 10°06'41" | 7°09'43" | 70.77' | 141.18' | 3.12' | 800.00' | 60+00.00 | 61+41.18 | N0°47'04.3"E | N9°19'36.3"W |
| L16 | 61+41.18 | 63+27.45 | 439646.85 2437296.61 | 439830.66 2437266.42 | | | | | | 186.27' | | | | | | N9°19'36.3"W |

| SB Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 14 | | | | | 70+35.15 | 439918.43 2437333.04 | 53°46'55" | 57°17'45" | 50.71' | 93.87' | 12.12' | 100.00' | 69+84.44 | 70+78.31 | N66°25'40.9"E | N12°38'45.5"E |
| L17 | 70+78.31 | 71+54.51 | 439967.92 2437344.14 | 440042.27 2437360.82 | | | | | | 76.20' | | | | | | N12°38'45.5"E |
| C = 15 | | | | | 72+31.75 | 440117.64 2437377.73 | 14°26'01" | 9°23'34" | 77.24' | 153.67' | 4.87' | 610.00' | 71+54.51 | 73+08.17 | N12°38'45.5"E | N1°47'15.9"W |
| L18 | 73+08.17 | 83+08.17 | 440194.84 2437375.32 | 441194.36 2437344.13 | | | | | | 1000.00' | | | | | | N1°47'15.9"W |

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| Central Island | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 16 | | | | | 90+37.25 | 439832.32 2437249.05 | 83°08'04" | 136°25'07" | 37.25' | 60.94' | 14.14' | 42.00' | 90+00.00 | 90+60.94 | S16°44'53.7"W | S66°23'10.7"E |
| C = 17 | | | | | 91+15.07 | 439795.72 2437332.78 | 96°51'56" | 119°21'58" | 54.13' | 81.15' | 24.34' | 48.00' | 90+60.94 | 91+42.09 | S66°23'10.7"E | N16°44'53.7"E |
| C = 18 | | | | | 91+79.34 | 439883.22 2437359.11 | 83°08'04" | 136°25'07" | 37.25' | 60.94' | 14.14' | 42.00' | 91+42.09 | 92+03.03 | N16°44'53.7"E | N66°23'10.7"W |
| C = 19 | | | | | 92+22.78 | 439906.05 2437306.88 | 44°44'06" | 119°21'58" | 19.75' | 37.48' | 3.91' | 48.00' | 92+03.03 | 92+40.51 | N66°23'10.7"W | S68°52'43.5"W |
| C = 20 | | | | | 92+63.99 | 439890.47 2437266.55 | 52°07'41" | 119°21'58" | 23.48' | 43.67' | 5.43' | 48.00' | 92+40.51 | 92+84.18 | S68°52'43.5"W | S16°45'02.5"W |

| Jencris Ct | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L19 | 200+00.00 | 201+75.00 | 439835.24 2437803.63 | 440010.22 2437800.63 | | | | | | 175.00' | | | | | | N0°58'55.0"W |

| NE Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 21 | | | | | 130+05.72 | 439856.71 2437751.39 | 0°17'15" | 2°30'47" | 5.72' | 11.45' | 0.01' | 2280.00' | 130+00.00 | 130+11.45 | N87°52'18.2"W | N87°35'02.7"W |
| L20 | 130+11.45 | 131+30.36 | 439856.95 2437745.67 | 439861.96 2437626.86 | | | | | | 118.91' | | | | | | N87°35'02.7"W |
| C = 22 | | | | | 131+78.36 | 439863.99 2437578.90 | 3°01'17" | 3°08'53" | 48.00' | 95.98' | 0.63' | 1820.00' | 131+30.36 | 132+26.34 | N87°35'02.7"W | S89°23'39.9"W |
| L21 | 132+26.34 | 132+62.41 | 439863.48 2437530.91 | 439863.10 2437494.83 | | | | | | 36.08' | | | | | | S89°23'39.9"W |
| L22 | 132+62.41 | 133+12.41 | 439863.10 2437494.83 | 439858.85 2437445.01 | | | | | | 50.00' | | | | | | S85°07'29.4"W |
| C = 23 | | | | | 133+31.64 | 439857.22 2437425.85 | 21°46'20" | 57°17'45" | 19.23' | 38.00' | 1.83' | 100.00' | 133+12.41 | 133+50.41 | S85°07'29.4"W | N73°06'10.9"W |
| C = 24 | | | | | 133+97.38 | 439876.46 2437362.50 | 76°06'50" | 95°29'35" | 46.97' | 79.71' | 16.20' | 60.00' | 133+50.41 | 134+30.12 | N73°06'10.9"W | N3°00'38.8"E |
| C = 25 | | | | | 134+36.54 | 439929.78 2437365.31 | 3°40'50" | 28°38'52" | 6.43' | 12.85' | 0.10' | 200.00' | 134+30.12 | 134+42.97 | N3°00'38.8"E | N6°41'28.7"E |

| NW Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 28 | | | | | 139+89.57 | 440055.95 2437347.49 | 2°00'45" | 9°38'45" | 10.43' | 20.86' | 0.09' | 594.00' | 139+79.14 | 140+00.00 | S10°38'00.4"W | S12°38'45.5"W |
| L23 | 140+00.00 | 140+70.74 | 440045.77 2437345.21 | 439976.75 2437329.72 | | | | | | 70.74' | | | | | | S12°38'45.5"W |
| C = 26 | | | | | 141+13.83 | 439934.70 2437320.29 | 53°45'49" | 67°24'24" | 43.09' | 79.76' | 10.30' | 85.00' | 140+70.74 | 141+50.50 | S12°38'45.5"W | S66°24'34.4"W |
| C = 27 | | | | | 142+05.22 | 439895.56 2437230.65 | 12°29'30" | 11°27'33" | 54.72' | 109.01' | 2.99' | 500.00' | 141+50.50 | 142+59.51 | S66°24'34.4"W | S78°54'04.2"W |

| SW Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 29 | | | | | 110+89.94 | 439808.69 2436986.93 | 5°08'59" | 2°51'53" | 89.94' | 179.76' | 2.02' | 2000.00' | 110+00.00 | 111+79.76 | N87°04'48.4"E | N81°55'49.0"E |
| L24 | 111+79.76 | 112+23.05 | 439821.31 2437075.98 | 439827.39 2437118.83 | | | | | | 43.28' | | | | | | N81°55'49.0"E |
| L25 | 112+23.05 | 112+73.05 | 439827.39 2437118.83 | 439838.08 2437167.68 | | | | | | 50.00' | | | | | | N77°38'48.1"E |
| C = 30 | | | | | 112+88.13 | 439841.31 2437182.41 | 18°02'28" | 60°18'41" | 15.08' | 29.91' | 1.19' | 95.00' | 112+73.05 | 113+02.96 | N77°38'48.1"E | S84°18'43.4"E |
| C = 31 | | | | | 113+36.17 | 439836.53 2437230.46 | 57°55'49" | 95°29'35" | 33.21' | 60.66' | 8.58' | 60.00' | 113+02.96 | 113+63.62 | S84°18'43.4"E | S26°22'54.7"E |
| C = 32 | | | | | 113+83.45 | 439789.01 2437254.03 | 11°19'32" | 28°38'52" | 19.83' | 39.53' | 0.98' | 200.00' | 113+63.62 | 114+03.16 | S26°22'54.7"E | S15°03'22.8"E |

| SE Line | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L26 | 120+00.00 | 120+29.65 | 439696.02 2437312.84 | 439725.46 2437309.33 | | | | | | 29.65' | | | | | | N6°48'02.8"W |
| C = 33 | | | | | 120+52.79 | 439748.44 2437306.59 | 28°50'39" | 63°39'43" | 23.14' | 45.31' | 2.93' | 90.00' | 120+29.65 | 120+74.95 | N6°48'02.8"W | N22°02'35.7"E |
| C = 34 | | | | | 121+08.11 | 439800.62 2437327.72 | 54°03'09" | 88°08'50" | 33.16' | 61.32' | 7.97' | 65.00' | 120+74.95 | 121+36.27 | N22°02'35.7"E | N76°05'44.7"E |
| C = 35 | | | | | 121+71.74 | 439817.11 2437394.33 | 16°08'57" | 22°55'06" | 35.47' | 70.46' | 2.50' | 250.00' | 121+36.27 | 122+06.74 | N76°05'44.7"E | S87°45'17.9"E |
| L27 | 122+06.74 | 122+63.90 | 439815.73 2437429.77 | 439813.49 2437486.88 | | | | | | 57.16' | | | | | | S87°45'17.9"E |

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| East-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 36 | | | | | 0+75.02 | 439831.98 2437744.35 | 173°53'45" | 1432°23'40" | 75.02' | 12.14' | 71.12' | 4.00' | -0+00.00 | 0+12.14 | N88°36'08.1"E | N85°17'36.5"W |
| L28 | 0+12.14 | 0+62.00 | 439838.14 2437669.58 | 439842.23 2437619.89 | | | | | | 49.86' | | | | | | N85°17'36.5"W |

| East-EB-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 37 | | | | | 0+06.24 | 439831.60 2437363.86 | 114°40'54" | 1432°23'40" | 6.24' | 8.01' | 3.41' | 4.00' | -0+00.00 | 0+08.01 | S20°36'54.3"W | N85°55'59.9"E |

| East-WB-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 38 | | | | | 0+06.05 | 439859.84 2437370.45 | 113°03'35" | 1432°23'40" | 6.05' | 7.89' | 3.25' | 4.00' | -0+00.00 | 0+07.89 | N5°24'16.1"E | S61°32'09.2"E |

| North-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| L29 | 0+00.00 | 0+76.20 | 439967.92 2437344.14 | 440042.27 2437360.82 | | | | | | 76.20' | | | | | | N12°38'45.5"E |
| C = 39 | | | | | 2+14.53 | 440177.25 2437391.11 | 176°41'15" | 1432°23'40" | 138.34' | 12.34' | 134.39' | 4.00' | 0+76.20 | 0+88.53 | N12°38'45.5"E | S9°20'00.6"W |

| North-NB-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 40 | | | | | 0+05.22 | 439912.25 2437341.39 | 105°07'00" | 1432°23'40" | 5.22' | 7.34' | 2.58' | 4.00' | -0+00.00 | 0+07.34 | S62°31'35.1"E | N12°21'24.9"E |

| North-SB-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 41 | | | | | 0+06.07 | 439921.05 2437319.42 | 113°13'05" | 1432°23'40" | 6.07' | 7.90' | 3.27' | 4.00' | 0+00.00 | 0+07.90 | S39°52'16.0"W | S73°20'48.9"E |

| West-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 42 | | | | | 0+89.21 | 439824.00 2436810.69 | 174°51'56" | 1432°23'40" | 89.21' | 12.21' | 85.30' | 4.00' | -0+00.00 | 0+12.21 | S83°24'12.7"W | N88°32'16.7"E |
| L30 | 0+12.21 | 0+62.21 | 439826.28 2436899.87 | 439827.56 2436949.86 | | | | | | 50.00' | | | | | | N88°32'16.7"E |

| West-EA-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 43 | | | | | 0+06.09 | 439846.73 2437238.38 | 113°26'38" | 1432°23'40" | 6.09' | 7.92' | 3.29' | 4.00' | 0+00.00 | 0+07.92 | S69°23'58.5"E | N2°50'36.2"W |

| West-WA-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 44 | | | | | 0+07.28 | 439881.03 2437242.87 | 122°27'05" | 1432°23'40" | 7.28' | 8.55' | 4.31' | 4.00' | 0+00.00 | 0+08.55 | N17°03'07.1"E | S74°36'02.1"W |

| South-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 45 | | | | | 1+81.43 | 439513.97 2437318.44 | 177°28'26" | 1432°23'40" | 181.43' | 12.39' | 177.48' | 4.00' | -0+00.00 | 0+12.39 | S9°19'36.3"E | N6°48'02.8"W |
| L31 | 0+12.39 | 0+44.50 | 439694.12 2437296.95 | 439726.00 2437293.15 | | | | | | 32.11' | | | | | | N6°48'02.8"W |

| South-NA-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 46 | | | | | 0+06.21 | 439793.22 2437306.45 | 114°24'34" | 1432°23'40" | 6.21' | 7.99' | 3.38' | 4.00' | 0+00.00 | 0+07.99 | N26°14'00.3"E | N88°10'33.9"W |

| South-SA-MedNose | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NUMBER | BEGIN LINE (STA) | END LINE (STA) | BEGIN LINE (Y,X) | END LINE (Y,X) | PI (STA) | PI (Y,X) | DELTA | DEGREE | TANGENT | LENGTH | EXTERNAL | RADIUS | PC (STA) | PT (STA) | BEARING BACK | BEARING AHEAD |
| C = 47 | | | | | 0+06.99 | 439800.47 2437271.38 | 120°27'00" | 1432°23'40" | 6.99' | 8.41' | 4.05' | 4.00' | 0+00.00 | 0+08.41 | N68°52'35.9"W | S9°19'36.3"E |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0002 | 201.0205 | Grubbing | STA | 11.000 | 11.000 |
| 0004 | 201.0220 | Grubbing | ID | 9.000 | 9.000 |
| 0006 | 203.0100 | Removing Small Pipe Culverts | EACH | 6.000 | 6.000 |
| 0008 | 204.0100 | Removing Concrete Pavement | SY | 26.000 | 26.000 |
| 0010 | 204.0150 | Removing Curb & Gutter | LF | 105.000 | 105.000 |
| 0012 | 204.0170 | Removing Fence | LF | 12.000 | 12.000 |
| 0014 | 205.0100 | Excavation Common | CY | 7,533.000 | 7,533.000 |
| 0016 | 213.0100 | Finishing Roadway (project) 01. 2709-07-70 | EACH | 1.000 | 1.000 |
| 0018 | 305.0110 | Base Aggregate Dense 3/4-Inch | TON | 380.000 | 380.000 |
| 0020 | 305.0120 | Base Aggregate Dense 1 1/4-Inch | TON | 3,050.000 | 3,050.000 |
| 0022 | 305.0130 | Base Aggregate Dense 3-Inch | TON | 6,500.000 | 6,500.000 |
| 0024 | 311.0110 | Breaker Run | TON | 3,224.000 | 3,224.000 |
| 0026 | 405.0100 | Coloring Concrete WisDOT Red | CY | 204.000 | 204.000 |
| 0028 | 405.0200 | Coloring Concrete Custom | CY | 6.000 | 6.000 |
| 0030 | 416.0170 | Concrete Driveway 7-Inch | SY | 204.000 | 204.000 |
| 0032 | 416.0512 | Concrete Truck Apron 12-Inch | SY | 286.000 | 286.000 |
| 0034 | 455.0605 | Tack Coat | GAL | 391.000 | 391.000 |
| 0036 | 460.2000 | Incentive Density HMA Pavement | DOL | 1,600.000 | 1,600.000 |
| 0038 | 460.6222 | HMA Pavement 2 MT 58-28 S | TON | 1,560.000 | 1,560.000 |
| 0040 | 460.6424 | HMA Pavement 4 MT 58-28 H | TON | 930.000 | 930.000 |
| 0042 | 465.0120 | Asphaltic Surface Driveways and Field Entrances | TON | 76.000 | 76.000 |
| 0044 | 465.0315 | Asphaltic Flumes | SY | 47.000 | 47.000 |
| 0046 | 521.1012 | Apron Endwalls for Culvert Pipe Steel 12-Inch | EACH | 4.000 | 4.000 |
| 0048 | 521.1515 | Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 15-Inch 6 to 1 | EACH | 2.000 | 2.000 |
| 0050 | 521.1518 | Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1 | EACH | 3.000 | 3.000 |
| 0052 | 521.1728 | Apron Endwalls for Pipe Arch Sloped Side Drains Steel 28x20-Inch 6 to 1 | EACH | 2.000 | 2.000 |
| 0054 | 521.3112 | Culvert Pipe Corrugated Steel 12-Inch | LF | 116.000 | 116.000 |
| 0056 | 521.3115 | Culvert Pipe Corrugated Steel 15-Inch | LF | 45.000 | 45.000 |
| 0058 | 521.3118 | Culvert Pipe Corrugated Steel 18-Inch | LF | 82.000 | 82.000 |
| 0060 | 521.3728 | Pipe Arch Corrugated Steel 28x20-Inch | LF | 33.000 | 33.000 |
| 0062 | 522.1012 | Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch | EACH | 1.000 | 1.000 |
| 0064 | 522.1015 | Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch | EACH | 1.000 | 1.000 |
| 0066 | 522.1018 | Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch | EACH | 2.000 | 2.000 |
| 0068 | 601.0405 | Concrete Curb & Gutter 18-Inch Type A | LF | 194.000 | 194.000 |
| 0070 | 601.0411 | Concrete Curb & Gutter 30-Inch Type D | LF | 2,085.000 | 2,085.000 |
| 0072 | 601.0553 | Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D | LF | 1,148.000 | 1,148.000 |
| 0074 | 601.0581 | Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type R | LF | 272.000 | 272.000 |
| 0076 | 602.0410 | Concrete Sidewalk 5-Inch | SF | 5,357.000 | 5,357.000 |
| 0078 | 606.0100 | Riprap Light | CY | 28.000 | 28.000 |
| 0080 | 608.0412 | Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch | LF | 72.000 | 72.000 |
| 0082 | 608.0415 | Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch | LF | 333.000 | 333.000 |
| 0084 | 608.0418 | Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch | LF | 333.000 | 333.000 |
| 0086 | 608.3015 | Storm Sewer Pipe Class III-A 15-Inch | LF | 172.000 | 172.000 |
| 0088 | 611.0624 | Inlet Covers Type H | EACH | 13.000 | 13.000 |
| 0090 | 611.0627 | Inlet Covers Type HM | EACH | 2.000 | 2.000 |
| 0092 | 611.0642 | Inlet Covers Type MS | EACH | 1.000 | 1.000 |
| 0094 | 611.0652 | Inlet Covers Type T | EACH | 2.000 | 2.000 |
| 0096 | 611.2005 | Manholes 5-FT Diameter | EACH | 2.000 | 2.000 |
| 0098 | 611.3004 | Inlets 4-FT Diameter | EACH | 15.000 | 15.000 |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0100 | 611.3901 | Inlets Median 1 Grate | EACH | 1.000 | 1.000 |
| 0102 | 612.0106 | Pipe Underdrain 6-Inch | LF | 240.000 | 240.000 |
| 0104 | 619.1000 | Mobilization | EACH | 1.000 | 1.000 |
| 0106 | 620.0300 | Concrete Median Sloped Nose | SF | 352.000 | 352.000 |
| 0108 | 624.0100 | Water | MGAL | 170.000 | 170.000 |
| 0110 | 625.0500 | Salvaged Topsoil | SY | 5,560.000 | 5,560.000 |
| 0112 | 627.0200 | Mulching | SY | 1,920.000 | 1,920.000 |
| 0114 | 628.1504 | Silt Fence | LF | 2,164.000 | 2,164.000 |
| 0116 | 628.1520 | Silt Fence Maintenance | LF | 3,237.000 | 3,237.000 |
| 0118 | 628.1905 | Mobilizations Erosion Control | EACH | 8.000 | 8.000 |
| 0120 | 628.1910 | Mobilizations Emergency Erosion Control | EACH | 4.000 | 4.000 |
| 0122 | 628.2008 | Erosion Mat Urban Class I Type B | SY | 5,014.000 | 5,014.000 |
| 0124 | 628.7005 | Inlet Protection Type A | EACH | 28.000 | 28.000 |
| 0126 | 628.7020 | Inlet Protection Type D | EACH | 27.000 | 27.000 |
| 0128 | 628.7504 | Temporary Ditch Checks | LF | 183.000 | 183.000 |
| 0130 | 628.7555 | Culvert Pipe Checks | EACH | 19.000 | 19.000 |
| 0132 | 628.7560 | Tracking Pads | EACH | 4.000 | 4.000 |
| 0134 | 628.7570 | Rock Bags | EACH | 120.000 | 120.000 |
| 0136 | 629.0210 | Fertilizer Type B | CWT | 7.100 | 7.100 |
| 0138 | 630.0130 | Seeding Mixture No. 30 | LB | 165.000 | 165.000 |
| 0140 | 630.0200 | Seeding Temporary | LB | 125.000 | 125.000 |
| 0142 | 630.0300 | Seeding Borrow Pit | LB | 25.000 | 25.000 |
| 0144 | 630.0500 | Seed Water | MGAL | 236.000 | 236.000 |
| 0146 | 633.5200 | Markers Culvert End | EACH | 5.000 | 5.000 |
| 0148 | 634.0614 | Posts Wood 4x6-Inch X 14-FT | EACH | 26.000 | 26.000 |
| 0150 | 634.0616 | Posts Wood 4x6-Inch X 16-FT | EACH | 9.000 | 9.000 |
| 0152 | 634.0618 | Posts Wood 4x6-Inch X 18-FT | EACH | 7.000 | 7.000 |
| 0154 | 634.0620 | Posts Wood 4x6-Inch X 20-FT | EACH | 3.000 | 3.000 |
| 0156 | 637.2210 | Signs Type II Reflective H | SF | 314.220 | 314.220 |
| 0158 | 637.2230 | Signs Type II Reflective F | SF | 56.500 | 56.500 |
| 0160 | 638.2102 | Moving Signs Type II | EACH | 2.000 | 2.000 |
| 0162 | 638.2602 | Removing Signs Type II | EACH | 14.000 | 14.000 |
| 0164 | 638.3000 | Removing Small Sign Supports | EACH | 14.000 | 14.000 |
| 0166 | 642.5201 | Field Office Type C | EACH | 1.000 | 1.000 |
| 0168 | 643.0300 | Traffic Control Drums | DAY | 7,130.000 | 7,130.000 |
| 0170 | 643.0420 | Traffic Control Barricades Type III | DAY | 3,450.000 | 3,450.000 |
| 0172 | 643.0705 | Traffic Control Warning Lights Type A | DAY | 6,900.000 | 6,900.000 |
| 0174 | 643.0900 | Traffic Control Signs | DAY | 33,805.000 | 33,805.000 |
| 0176 | 643.0910 | Traffic Control Covering Signs Type I | EACH | 4.000 | 4.000 |
| 0178 | 643.0920 | Traffic Control Covering Signs Type II | EACH | 4.000 | 4.000 |
| 0180 | 643.1000 | Traffic Control Signs Fixed Message | SF | 84.500 | 84.500 |
| 0182 | 643.1050 | Traffic Control Signs PCMS | DAY | 24.000 | 24.000 |
| 0184 | 643.5000 | Traffic Control | EACH | 1.000 | 1.000 |
| 0186 | 645.0130 | Geotextile Type R | SY | 96.000 | 96.000 |
| 0188 | 646.1020 | Marking Line Epoxy 4-Inch | LF | 7,527.000 | 7,527.000 |
| 0190 | 646.3020 | Marking Line Epoxy 8-Inch | LF | 314.000 | 314.000 |
| 0192 | 646.5020 | Marking Arrow Epoxy | EACH | 1.000 | 1.000 |
| 0194 | 646.5120 | Marking Word Epoxy | EACH | 1.000 | 1.000 |
| 0196 | 646.6120 | Marking Stop Line Epoxy 18-Inch | LF | 24.000 | 24.000 |

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| Line | Item | Item Description | Unit | Total | Qty |
|---|---|---|---|---|---|
| 0198 | 646.6320 | Marking Dotted Extension Epoxy 18-Inch | LF | 88.000 | 88.000 |
| 0200 | 646.7120 | Marking Diagonal Epoxy 12-Inch | LF | 255.000 | 255.000 |
| 0202 | 646.8120 | Marking Curb Epoxy | LF | 40.000 | 40.000 |
| 0204 | 646.8220 | Marking Island Nose Epoxy | EACH | 4.000 | 4.000 |
| 0206 | 646.9000 | Marking Removal Line 4-Inch | LF | 231.000 | 231.000 |
| 0208 | 648.0100 | Locating No-Passing Zones | MI | 0.650 | 0.650 |
| 0210 | 650.4000 | Construction Staking Storm Sewer | EACH | 23.000 | 23.000 |
| 0212 | 650.4500 | Construction Staking Subgrade | LF | 3,563.000 | 3,563.000 |
| 0214 | 650.5000 | Construction Staking Base | LF | 3,563.000 | 3,563.000 |
| 0216 | 650.5500 | Construction Staking Curb Gutter and Curb & Gutter | LF | 3,687.000 | 3,687.000 |
| 0218 | 650.9500 | Construction Staking Sidewalk (project) 01. 2709-07-70 | EACH | 1.000 | 1.000 |
| 0220 | 650.9911 | Construction Staking Supplemental Control (project) 01. 2709-07-70 | EACH | 1.000 | 1.000 |
| 0222 | 650.9920 | Construction Staking Slope Stakes | LF | 3,563.000 | 3,563.000 |
| 0224 | 690.0150 | Sawing Asphalt | LF | 454.000 | 454.000 |
| 0226 | 690.0250 | Sawing Concrete | LF | 23.000 | 23.000 |
| 0228 | ASP.1T0A | On-the-Job Training Apprentice at $5.00/HR | HRS | 900.000 | 900.000 |
| 0230 | ASP.1T0G | On-the-Job Training Graduate at $5.00/HR | HRS | 1,750.000 | 1,750.000 |

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## GRUBBING*

| ROADWAY | STATION | TO | STATION | LOCATION | 201.0205 GRUBBING STA | 201.0220 GRUBBING ID |
|---|---|---|---|---|---|---|
| CTH Q | | | | | | |
| | 23+00'WA' | - | 26+00'WA' | LT | 3 | --- |
| | 33+72'WB' | - | 33+72'WB' | LT | --- | 9 |
| HILLSIDE ROAD | | | | | | |
| | 61+00'SA' | - | 62+00'SA' | LT | 1 | --- |
| | 71+00'NB' | - | 73+00'NB' | RT | 2 | --- |
| | 69+00'SB' | - | 74+00'SB' | LT | 5 | |
| | | | | TOTAL 0010 | 11 | 9 |

*CLEARING PERFORMED BY OTHERS.

## REMOVING FENCE

| STATION, OFFSET | TO | STATION, OFFSET | 204.0170 REMOVING FENCE LF |
|---|---|---|---|
| 24+88.12'WA', 14.8' LT | - | 24+91.90'WA', 3.6' LT | 12 |
| | | TOTAL 0010 | 12 |

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## REMOVING SMALL PIPE CULVERTS

| ROADWAY | STATION, OFFSET | DESCRIPTION | 203.0100 REMOVING SMALL PIPE CULVERTS EACH |
|---|---|---|---|
| CTH Q | | | |
| | 22+87'EA', 27'LT | 18" CMCP, 23 LF | 1 |
| | 24+53'EA', 12'LT | 18" CMCP, 24 LF | 1 |
| | 30+00'EB', 55'LT | 18" CMCP, 57 LF | 1 |
| | 30+99'EB', 36'RT | 15" CMCP, 40 LF | 1 |
| HILLSIDE ROAD | | | |
| | 70+79'NB', 34' RT | 16X10" CMCP, 26 LF | 1 |
| | 72+26'NB', 22' RT | 15" CMCP, 26 LF | 1 |
| | | TOTAL 0010 | 6 |

## REMOVING CONCRETE ITEMS

| ROADWAY | STATION | TO | STATION | LOCATION | 204.0100 REMOVING CONCRETE PAVEMENT SY | 204.0150 REMOVING CURB & GUTTER LF |
|---|---|---|---|---|---|---|
| CTH Q | | | | | | |
| | 33+35'WB' | - | 34+38'WB' | LT | 26 | 105 |
| | | | | TOTAL 0010 | 26 | 105 |

## EARTHWORK SUMMARY

| ALIGNMENT NAME | STATION TO STATION | LOCATION | 205.0100 COMMON EXCAVATION (1) [CY] CUT [CY] (2) | 205.0100 COMMON EXCAVATION (1) [CY] EBS IN CUT [CY] (3) | * SALVAGED/UNUSABLE PAVEMENT MATERIAL [CY] (4) | * AVAILABLE MATERIAL [CY] (5) | 311.0110 BREAKER RUN (6) [TON] CONVERSION FACTOR 1.80 | * EBS IN FILL [CY] (7) | * EBS TOTAL [CY] (8) | * EXPANDED EBS BACKFILL [CY] EXPANSION FACTOR 1.10 | * UNEXPANDED FILL [CY] | * EXPANDED FILL [CY] EXPANSION FACTOR 1.10 | * MASS ORDINATE +/- [CY] (9) | * WASTE [CY] (10) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EA LINE | 20+00'EA' - 25+32'EA' | CTH Q - WEST LEG | 1,897 | 92 | 240 | 1,657 | 210 | 14 | 106 | 117 | 23 | 25 | 1,632 | 1,724 |
| WA LINE | 22+50'WA' - 25+35'WA' | CTH Q - WEST LEG | 81 | 171 | 49 | 33 | 602 | 133 | 304 | 334 | 271 | 298 | -266 | 171 |
| EB LINE | 30+50'EB' - 37+25'EB' | CTH Q - EAST LEG | 1,985 | 10 | 244 | 1,741 | 20 | --- | 10 | 11 | 17 | 19 | 1,722 | 1,732 |
| WB LINE | 30+50'WB' - 33+00'WB' | CTH Q - EAST LEG | 440 | 116 | 175 | 266 | 230 | --- | 116 | 128 | 70 | 77 | 189 | 305 |
| NA LINE | 60+00'NA' - 62+75'NA' | HILLSIDE ROAD - SOUTH LEG | 427 | 29 | 123 | 304 | 93 | 18 | 47 | 52 | 41 | 45 | 259 | 288 |
| SA LINE | 62+00'SA' - 62+75'SA' | HILLSIDE ROAD - SOUTH LEG | 4 | 3 | 4 | --- | 125 | 60 | 63 | 69 | 83 | 91 | -91 | 3 |
| NB LINE | 70+40'NB' - 73+08'NB' | HILLSIDE ROAD - NORTH LEG | 709 | 50 | 86 | 624 | 99 | --- | 50 | 55 | 4 | 4 | 619 | 669 |
| SB LINE | 70+40'SB' - 71+50'SB' | HILLSIDE ROAD - NORTH LEG | 61 | 56 | 34 | 27 | 153 | 21 | 77 | 85 | 1,024 | 1,126 | -1 100 | 56 |
| CENTRAL ISLAND | 90+00'C' - 92+84'C' | ROUNDABOUT | 669 | 33 | 169 | 500 | 307 | 122 | 155 | 171 | 1,458 | 1,604 | -1 104 | 33 |
| ALIGNMENT TOTALS | | | 6,273 | 560 | 1,123 | 5,150 | 1,838 | 368 | 928 | 1,021 | 2,991 | 3,290 | 1,860 | 2,420 |
| UNDISTRIBUTED EBS | | | --- | 700 | --- | --- | 1,386 | --- | --- | 770 | --- | --- | --- | 700 |
| SUBTOTALS | | | 6,273 | 1,260 | 1,123 | 5,150 | 3,224 | 368 | 928 | 1,791 | 2,991 | 3,290 | 1,860 | 3,120 |
| TOTALS | | | 7,533 | | 1,123 | 5,150 | 3,224 | 368 | 928 | 1,791 | 2,991 | 3,290 | 1,860 | 3,120 |

NOTES:

***** NOT A BID ITEM, FOR INFORMATION ONLY

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS IN CUT COLUMNS. ITEM NUMBER 205.0100

(1a) COMMON EXCAVATION INCLUDES REMOVAL OF EXISTING CONCRETE PAVEMENT, ASPHALT, AND BASE COURSE TO THE PROPOSED SUBGRADE.

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS IN CUT TO BE BACKFILLED WITH BREAKER RUN, ITEM NUMBER 311.0110. EBS IN CUT MATERIAL TO BE WASTED.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL CONSISTS OF THE REMOVAL OF THE EXISTING ASPHALT PAVEMENT.

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(6) EBS TOTAL TO BE BACKFILLED WITH BREAKER RUN.

(7) EBS IN FILL IS DEFINED AS THE 12" BREAKER RUN LAYER IN FILL AREAS.

(8) EBS TOTAL IS DEFINED AS EBS IN FILL + EBS IN CUT AND IS USED TO CALCULATE EXPANDED EBS BACKFILL.

(9) MASS ORDINATE +/- = AVAILABLE MATERIAL - EXPANDED FILL. PLUS(+) QUANTITY INDICATES AN EXCESS OF MATERIAL . MINUS(-) INDICATES A SHORTAGE OF MATERIAL.

(10) WASTE = MASS ORDINATE (IF POSITIVE) + EBS IN CUT.

(11) FACTORS USED TO COMPUTE THE ANTICIPATED WASTE VOLUME ARE FOR GENERAL INFORMATION ONLY.

## BASE COURSE

| ROADWAY | STATION | TO | STATION | 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 AGGREGATE COMPACTION MGAL | 624.0100 WATER DUST CONTROL MGAL |
|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 140 | 910 | 2,210 | 51 | 5 |
| | 30+26.15'EB' | - | 35+37.24'EB' | 100 | 910 | 2,150 | 48 | 6 |
| | 35+37.24'EB' | - | 37+25.61'EB' | 40 | --- | --- | 1 | --- |
| HILLSIDE ROAD | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | 60 | 390 | 630 | 17 | 1 |
| | 70+22.01'NB' | - | 73+08.17'NB' | 40 | 450 | 600 | 17 | 2 |
| | | | | | --- | --- | --- | --- |
| CENTRAL ISLAND | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | --- | 390 | 910 | 20 | 2 |
| SUBTOTALS | | | | | | | | |
| | | | | 380 | 3,050 | 6,500 | 154 | 16 |
| | | | TOTAL 0010 | 380 | 3,050 | 6,500 | 170 | |

## COLORING CONCRETE CUSTOM

| ROADWAY | STATION | TO | STATION | LOCATION | 405.0200 COLORING CONCRETE CUSTOM CY |
|---|---|---|---|---|---|
| CTH Q | | | | | |
| | 33+97.33'EB' | - | 34+28.53'EB' | LT | 6 |
| | | | | TOTAL 0010 | 6 |

## CONCRETE ITEMS

| ROADWAY | STATION | TO | STATION | 405.0100 COLORING CONCRETE WISDOT RED CY | 416.0170 CONCRETE DRIVEWAY 7-INCH SY | 416.0512 CONCRETE TRUCK APRON 12-INCH SY | 601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF | 601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF | 601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF | 601.0581 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R LF | 602.0410 CONCRETE SIDEWALK 5-INCH SF | 620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 1 SF | 620.0300 CONCRETE MEDIAN SLOPED NOSE TYPE 2 SF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 40 | 87 | --- | --- | 547 | 538 | --- | 1,819 | 50 | 38 |
| | 30+26.15'EB' | - | 35+37.24'EB' | 45 | 98 | --- | --- | 592 | 610 | --- | 2,033 | 50 | 38 |
| HILLSIDE ROAD | | | | | | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | 12 | --- | --- | --- | 334 | --- | --- | 960 | 50 | 38 |
| | 70+22.01'NB' | - | 73+08.17'NB' | 11 | 19 | --- | --- | 425 | --- | --- | 545 | 50 | 38 |
| CENTRAL ISLAND | | | | | | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | 96 | --- | 286 | 194 | 187 | --- | 272 | --- | --- | --- |
| SUBTOTALS | | | | | | | | | | | | | |
| | | | | 204 | 204 | 286 | 194 | 2,085 | 1,148 | 272 | 5,357 | 200 | 152 |
| | | | TOTAL 0010 | 204 | 204 | 286 | 194 | 2,085 | 1,148 | 272 | 5,357 | 352 | |

HMA PAVEMENT ITEMS

| ROADWAY | STATION | TO | STATION | 455.0605 TACK COAT GAL | 460.6222 HMA PAVEMENT 2 MT 58-28 S TON | 460.6424 HMA PAVEMENT 4 MT 58-28 H TON | 465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON | 465.0315 ASPHALTIC FLUMES SY |
|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 114 | 470 | 270 | 23 | 28 |
| | 30+26.15'EB' | - | 35+37.24'EB' | 119 | 490 | 280 | 9 | 7 |
| HILLSIDE ROAD | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | 55 | 200 | 130 | --- | 12 |
| | 70+22.01'NB' | - | 73+08.17'NB' | 53 | 190 | 130 | 44 | --- |
| CENTRAL ISLAND | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | 50 | 210 | 120 | --- | --- |
| | | | TOTAL 0010 | 391 | 1,560 | 930 | 76 | 47 |

DRIVEWAY CULVERT PIPE ITEMS

| INLET STATION | INLET OFFSET | DISCHARGE STATION | DISCHARGE OFFSET | 521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH EACH | 521.1515 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 15-INCH 6 TO 1 EACH | * 521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH | 521.1728 APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL 28X20-INCH 6 TO 1 EACH | 521.3112 CULVERT PIPE CORRUGATED STEEL 12-INCH LF | 521.3115 CULVERT PIPE CORRUGATED STEEL 15-INCH LF | 521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF | 521.3728 PIPE ARCH CORRUGATED STEEL 28X20-INCH LF | MINIMUM METAL PIPE THICKNESS IN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | | | | |
| 23+00.36'EA' | 43.84' LT | 22+75.84'EA' | 43.05' LT | --- | --- | --- | 2 | --- | --- | --- | 33 | 0.064 |
| 31+32.57'EB' | 35.17' RT | 30+73.55'EB' | 37.61' RT | 2 | --- | --- | --- | 58 | --- | --- | --- | 0.064 |
| 31+32.34'EB' | 31.68' RT | 30+73.42'EB' | 34.17' RT | 2 | --- | --- | --- | 58 | --- | --- | --- | 0.064 |
| HILLSIDE RD | | | | | | | | | | | | |
| 71+20.50'NB' | 31.14' RT | 70+39.10'NB' | 43.41' RT | --- | --- | 2 | --- | --- | --- | 82 | --- | 0.064 |
| 72+44.82'NB' | 27.35' RT | 72+02.33'NB' | 29.29' RT | --- | 2 | --- | --- | --- | 45 | --- | --- | 0.064 |
| | | TOTAL 0010 | | 4 | 2 | 2 | 2 | 116 | 45 | 82 | 33 | |

* ADDITIONAL QUANTITIES ELSEWHERE IN THE PLANS. SEE STORM SEWER STRUCTURES TABLE.

3

STORM SEWER PIPES

| FROM | | TO | INLET ELEVATION | DISCHARGE ELEVATION | SLOPE FT/FT | 608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF | 608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF | 608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF | 608.3015 STORM SEWER PIPE CLASS III-A 15-INCH LF |
|---|---|---|---|---|---|---|---|---|---|
| 11 | - | 10 | 983.32 | 983.10 | 0.0062 | --- | --- | 35.4 | --- |
| 11A | - | 11 | 984.02 | 983.57 | 0.0449 | --- | 10.0 | --- | --- |
| 11 | - | 12 | 984.79 | 983.32 | 0.0100 | --- | --- | 146.7 | --- |
| 12A | - | 12 | 985.44 | 985.04 | 0.0400 | --- | 10.0 | --- | --- |
| 12B | - | 12A | 990.00 | 985.44 | 0.0265 | --- | --- | --- | 172.0 |
| 13 | - | 12 | 984.93 | 984.79 | 0.0060 | --- | --- | 23.2 | --- |
| 13 | - | 14 | 985.02 | 984.93 | 0.0059 | --- | --- | 16.5 | --- |
| 14 | - | 15 | 985.28 | 985.02 | 0.0067 | --- | --- | 39.1 | --- |
| 20 | - | 21 | 983.55 | 983.10 | 0.0077 | --- | --- | 62.1 | --- |
| 22 | - | 21 | 983.65 | 983.55 | 0.0100 | --- | --- | 10.0 | --- |
| 22A | - | 22A1 | 984.08 | 983.98 | 0.0100 | 10.1 | --- | --- | --- |
| 22A | - | 22 | 983.98 | 983.65 | 0.0050 | --- | 66.3 | --- | --- |
| 22B | - | 22A | 984.08 | 983.98 | 0.0050 | 20.1 | --- | --- | --- |
| 23 | - | 22 | 984.49 | 983.65 | 0.0100 | --- | 83.7 | --- | --- |
| 24 | - | 23 | 984.70 | 984.49 | 0.0100 | --- | 21.5 | --- | --- |
| 25 | - | 24 | 984.94 | 984.70 | 0.0100 | --- | 23.1 | --- | --- |
| 26 | - | 25 | 985.04 | 984.94 | 0.0104 | --- | 10.0 | --- | --- |
| 27 | - | 26 | 986.12 | 985.04 | 0.0100 | --- | 108.3 | --- | --- |
| 61 | - | 60 | 981.73 | 981.40 | 0.0100 | 33.2 | --- | --- | --- |
| 62 | - | 61 | 981.80 | 981.73 | 0.0089 | 7.8 | --- | --- | --- |
| | | | | | TOTALS | 72 | 333 | 333 | 172 |

3

STORM SEWER STRUCTURES

| STRUCTURE | STATION | OFFSET | RIM ELEVATION | INVERT ELEVATION | DEPTH FT | * 521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 EACH | 522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 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 | 611.0624 INLET COVERS TYPE H EACH | 611.0627 INLET COVERS TYPE HM EACH | 611.0642 INLET COVERS TYPE MS EACH | 611.0652 INLET COVERS TYPE T EACH | 611.2005 MANHOLES 5-FT DIAMETER EACH | 611.3004 INLETS 4-FT DIAMETER EACH | 611.3901 INLETS MEDIAN 1 GRATE EACH | 612.0106 PIPE UNDERDRAIN 6-INCH LF | 633.5200 MARKERS CULVERT END EACH | 650.4000 CONSTRUCTION STAKING STORM SEWER EACH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 24+41.4'EA' | 42.2' LT | --- | 983.10 | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 1 |
| 11 | 24+75.5'EA' | 33.0' LT | 986.68 | 983.32 | 2.82 | --- | --- | --- | --- | 1 | --- | --- | --- | 1 | --- | --- | --- | --- | 1 |
| 11A | 24+75.9'EA' | 43.1' LT | --- | 984.02 | --- | --- | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 1 |
| 12 | 70+36.2'NB' | 41.2' LT | 988.78 | 984.79 | 3.45 | --- | --- | --- | --- | 1 | --- | --- | --- | 1 | --- | --- | 10 | --- | 1 |
| 12A | 70+44.8'NB' | 36.0' LT | 988.86 | 985.44 | 2.86 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 10 | --- | 1 |
| 12B | 72+22.1'NB' | 29.8' LT | 992.70 | 990.00 | 2.70 | --- | --- | --- | --- | --- | --- | 1 | --- | --- | --- | 1 | --- | --- | 1 |
| 13 | 70+32.7'NB' | 18.2' LT | 989.12 | 984.93 | 3.65 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 14 | 70+29.8'NB' | 2.0' LT | 989.07 | 985.02 | 3.51 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 15 | 70+28.0'NB' | 37.0' RT | --- | 985.28 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 1 |
| 20 | 62+71.2'NA' | 82.6' LT | --- | 983.10 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 1 |
| 21 | 62+98.3'NA' | 36.0' LT | 987.54 | 983.55 | 3.37 | --- | --- | --- | --- | --- | --- | --- | 1 | --- | 1 | --- | 10 | --- | 1 |
| 22 | 63+00.0'NA' | 26.3' LT | 987.52 | 983.65 | 3.25 | --- | --- | --- | --- | --- | --- | --- | 1 | --- | 1 | --- | 10 | --- | 1 |
| 22A1 | 62+42.7'NA' | 11.4' LT | 987.45 | 984.08 | 2.79 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 22A | 62+44.5'NA' | 1.5' LT | 987.50 | 983.98 | 2.96 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 22B | 62+39.3'NA' | 18.0' RT | 987.17 | 984.08 | 2.51 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 23 | 30+34.9'EB' | 1.5' LT | 988.33 | 984.49 | 3.28 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 24 | 30+40.9'EB' | 22.1' LT | 988.59 | 984.70 | 3.33 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 25 | 30+51.7'EB' | 42.2' LT | 988.28 | 984.94 | 2.78 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 10 | --- | 1 |
| 26 | 30+59.1'EB' | 36.2' LT | 988.36 | 985.04 | 2.75 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | 10 | --- | 1 |
| 27 | 31+65.4'EB' | 34.8' LT | 989.51 | 986.12 | 2.83 | --- | --- | --- | --- | 1 | --- | --- | --- | --- | 1 | --- | --- | --- | 1 |
| 60 | 22+16.3'EA' | 30.0' RT | --- | 981.40 | --- | --- | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 1 |
| 61 | 22+16.4'EA' | 3.1' LT | 984.90 | 981.73 | 2.59 | --- | --- | --- | --- | --- | 1 | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| 62 | 22+11.2'EA' | 8.9' LT | 984.77 | 981.80 | 2.39 | --- | --- | --- | --- | --- | 1 | --- | --- | --- | 1 | --- | 20 | --- | 1 |
| | | | | | TOTALS | 1 | 1 | 1 | 2 | 13 | 2 | 1 | 2 | 2 | 15 | 1 | 240 | 5 | 23 |

NOTES:
STR DEPTH = RIM ELEV - INVERT ELEV - CASTING HEIGHT - ADJUSTMENT RING HEIGHT + LOWEST PIPE THICKNESS
CASTING HEIGHT = 0" FOR TYPE MS COVERS, 6" FOR TYPE H & HM COVERS, 7" FOR TYPE T COVERS
ADJUSTMENT RING HEIGHT = 3" TYPICAL

* ADDITIONAL QUANTITIES ELSEWHERE IN THE PLANS. SEE DRIVEWAY CULVERT PIPE ITEMS TABLE.

3

EROSION CONTROL

| ROADWAY | STATION | TO | STATION | 606.0100 RIPRAP LIGHT CY | 627.0200 MULCHING SY | 628.1504 SILT FENCE LF | 628.1520 SILT FENCE MAINTENANCE LF | 628.1905 MOBILIZATIONS EROSION CONTROL EACH | 628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH | 628.2008 EROSION MAT URBAN CLASS I TYPE B SY | 628.7005 INLET PROTECTION TYPE A EACH | 628.7020 INLET PROTECTION TYPE D EACH | 628.7504 TEMPORARY DITCH CHECKS LF | 628.7555 CULVERT PIPE CHECKS EACH | 628.7560 TRACKING PADS EACH | 628.7570 ROCK BAGS EACH | 645.0130 GEOTEXTILE TYPE R SY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 6 | 782 | 475 | 713 | --- | --- | 1,032 | 3 | 3 | 78 | 3 | --- | 30 | 30 |
| | 30+26.15'EB' | - | 35+37.24'EB' | --- | 236 | 478 | 717 | --- | --- | 893 | 5 | 5 | 26 | 2 | --- | --- | --- |
| HILLSIDE ROAD | | | | | | | | | | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | --- | 371 | 557 | 836 | --- | --- | 162 | 3 | 3 | --- | --- | --- | 45 | --- |
| | 70+22.01'NB' | - | 73+08.17'NB' | 12 | 91 | 128 | 192 | --- | --- | 1,104 | 5 | 4 | 26 | 4 | --- | 15 | 46 |
| CENTRAL ISLAND | | | | | | | | | | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | --- | 50 | 86 | 129 | --- | --- | 813 | 2 | 2 | 13 | --- | --- | --- | --- |
| UNDISTRIBUTED | | | | 10 | 390 | 440 | 650 | 8 | 4 | 1,010 | 10 | 10 | 40 | 10 | 4 | 30 | 20 |
| | | | TOTAL 0010 | 28 | 1,920 | 2,164 | 3,237 | 8 | 4 | 5,014 | 28 | 27 | 183 | 19 | 4 | 120 | 96 |

NOTES:
FOR CULVERT PIPE CHECKS, AMOUNT OF BAGS REQUIRED PER PIPE BASED ON PIPE DIAMETER:
<18" - 1 REQUIRED
≥18" - 2 REQUIRED

RESTORATION

| CATEGORY | STATION | TO | STATION | 625.0500 SALVAGED TOPSOIL SY | 629.0210 FERTILIZER TYPE B CWT | 630.0130 SEEDING MIXTURE NO. 30 LB | 630.0200 SEEDING TEMPORARY LB | 630.0300 SEEDING BORROW PIT LB | 630.0500 SEED WATER MGAL |
|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 1,820 | 1.5 | 42 | 34 | --- | 52 |
| | 30+26.15'EB' | - | 35+37.24'EB' | 1,130 | 1.0 | 27 | 22 | --- | 34 |
| HILLSIDE ROAD | | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | 540 | 0.6 | 15 | 12 | --- | 19 |
| | 70+22.01'NB' | - | 73+08.17'NB' | 1,200 | 0.9 | 25 | 20 | --- | 31 |
| CENTRAL ISLAND | | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | 870 | 0.6 | 16 | 13 | --- | 20 |
| UNDISTRIBUTED | | | | --- | 2.5 | 40 | 25 | 25 | 80 |
| | | | TOTAL 0010 | 5,560 | 7.1 | 165 | 125 | 25 | 236 |

3

## REMOVING SIGNS

| SIGN # | SHEET # | SIGN CODE | SIGN MOUNTED ON SAME POST AS # | 638.2602 REMOVING SIGNS TYPE II EACH | 638.3000 REMOVING SMALL SIGN SUPPORTS EACH | DESCRIPTION |
|---|---|---|---|---|---|---|
| 1R-01 | 1 OF 4 | W2-1 | - | 1 | 1 | CROSS ROAD |
| 1R-02 | 1 OF 4 | W2-1 | - | 1 | 1 | CROSS ROAD |
| 1R-03 | 1 OF 4 | R2-1 | - | 1 | 1 | SPEED LIMIT 50 MPH |
| 2R-01 | 2 OF 4 | R1-1 | - | 1 | 1 | STOP |
| 2R-02 | 2 OF 4 | R1-1 | - | 1 | 1 | STOP |
| 2R-03 | 2 OF 4 | --- | - | 1 | 1 | COUNTY RD Q |
| 2R-04 | 2 OF 4 | --- | 2R-03 | 1 | - | HILLSIDE RD |
| 2R-05 | 2 OF 4 | R1-1 | - | 1 | 1 | STOP |
| 2R-06 | 2 OF 4 | R1-1 | - | 1 | 1 | STOP |
| 3R-01 | 3 OF 4 | R1-1 | - | 1 | 1 | STOP |
| 3R-02 | 3 OF 4 | W2-1 | - | 1 | 1 | CROSS ROAD |
| 3R-03 | 3 OF 4 | R2-1 | - | 1 | 1 | SPEED LIMIT 50 MPH |
| 3R-04 | 3 OF 4 | W2-1 | - | 1 | 1 | CROSS ROAD |
| 4R-01 | 4 OF 4 | W3-1 | - | 1 | 1 | STOP AHEAD |
| 4M-01 | 4 4 | --- | - | - | 1 | WELCOME TO LISBON |
| 4M-02 | 4 OF 4 | --- | 4M-01 | - | - | NO ENGINE BRAKING EXCEPT IN EMERGENCY |
| **PROJECT TOTAL** | | | | **14** | **14** | |

## PERMANENT SIGNING

| SIGN # | SIGN CODE | SHEET # | SIGN SIZE | SIGN SIZE W IN. | X | SIGN SIZE H IN. | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH | 634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH | 634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH | 634.0620 POSTS WOOD 4X6-INCH X 20-FT EACH | 638.2102 MOVING SIGNS TYPE II EACH | SIGN MOUNTED ON SAME POST AS # | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-01 | W23-2 | 1 OF 4 | 2S | 36 | X | 36 | - | 9 | - | - | - | 1 | - | - | NEW TRAFFIC PATTERN AHEAD | - |
| 1-02 | W2-6 | 1 OF 4 | 2S | 30 | X | 30 | - | 6.25 | - | 1 | - | - | - | - | CIRCULAR INTERSECTION SIGN | TEMP FLAGS REQUIRED. |
| 1-03 | W13-1 | 1 OF 4 | 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | 1-02 | ADVISORY SPEED PLATE (YELLOW BACK) | 15 MPH |
| 1-04 | R2-1 | 1 OF 4 | 2S | 24 | X | 30 | 5 | - | 1 | - | - | - | - | - | SPEED LIMIT ___ MPH | 50 MPH |
| 1-05 | R4-7 | 1 OF 4 | 2S | 24 | X | 30 | 5 | - | 1 | - | - | - | - | - | KEEP RIGHT | - |
| 1-06 | W5-54 | 1 OF 4 | 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | - | CLEARANCE MARKER WITH YELLOW TYPE F SHEE | - |
| 1-07 | D1-62 | 1 OF 4 | 2S | 132 | X | 66 | 60.5 | - | - | - | 1 | 2 | - | - | ROUNDABOUT DESTINATION - DIRECTION SIGN | SEE SIGN DETAILS. |
| 2-01 | J4-1 | 2 OF 4 | 2S | 24 | X | 36 | 6 | - | 1 | - | - | - | - | - | REASSURANCE ASSEMBLY (1 HEADED ROUTE PAI | WEST COUNTY Q |
| 2-02 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-03 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-04 | D1-1 | 2 OF 4 | 2S | 42 | X | 30 | 8.75 | - | 1 | - | - | - | - | - | ONE DESTINATION (ARROW) | SEE SIGN DETAILS. (WEST Q) |
| 2-05 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-06 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-07 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-08 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-09 | R4-7 | 2 OF 4 | 2S | 24 | X | 30 | 5 | - | 1 | - | - | - | - | - | KEEP RIGHT | - |
| 2-10 | D1-1 | 2 OF 4 | 2S | 78 | X | 15 | 8.125 | - | 2 | - | - | - | - | - | ONE DESTINATION (ARROW) | SEE SIGN DETAILS. (HILLSIDE RD) |
| 2-11 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-12 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-13 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-14 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-15 | J4-1 | 2 OF 4 | 2S | 24 | X | 36 | 6 | - | 1 | - | - | - | - | - | REASSURANCE ASSEMBLY (1 HEADED ROUTE PAI | EAST COUNTY Q |
| 2-16 | D1-1 | 2 OF 4 | 2S | 42 | X | 30 | 8.75 | - | 1 | - | - | - | - | - | ONE DESTINATION (ARROW) | SEE SIGN DETAILS. (EAST Q) |
| 2-17 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-18 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-19 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-20 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-21 | D1-1 | 2 OF 4 | 2S | 78 | X | 15 | 8.125 | - | 2 | - | - | - | - | - | ONE DESTINATION (ARROW) | SEE SIGN DETAILS. (HILLSIDE RD) |
| 2-22 | R1-2 | 2 OF 4 | 2S | 36 | X | 31 | 3.88 | - | 1 | - | - | - | - | - | YIELD | - |
| 2-23 | --- | 2 OF 4 | 2S | 0 | X | 0 | - | - | - | - | - | - | - | - | NUMBER NOT USED | - |
| 2-24 | R6-1R | 2 OF 4 | 2S | 36 | X | 12 | 3 | - | 1 | - | - | - | - | - | ONE WAY RIGHT ARROW | - |
| 2-25 | R6-1R | 2 OF 4 | 2S | 36 | X | 12 | 3 | - | 1 | - | - | - | - | - | ONE WAY RIGHT ARROW | - |
| 2-26 | R6-4B | 2 OF 4 | 2S | 60 | X | 24 | 10 | - | - | - | - | - | - | 2-24 | ROUNDABOUT CHEVRON BANK | - |
| 2-27 | R6-4B | 2 OF 4 | 2S | 60 | X | 24 | 10 | - | - | - | - | - | - | 2-25 | ROUNDABOUT CHEVRON BANK | - |
| 2-28 | R6-1R | 2 OF 4 | 2S | 36 | X | 12 | 3 | - | 1 | - | - | - | - | - | ONE WAY RIGHT ARROW | - |
| 2-29 | R6-1R | 2 OF 4 | 2S | 36 | X | 12 | 3 | - | 1 | - | - | - | - | - | ONE WAY RIGHT ARROW | - |
| 2-30 | R6-4B | 2 OF 4 | 2S | 60 | X | 24 | 10 | - | - | - | - | - | - | 2-28 | ROUNDABOUT CHEVRON BANK | - |
| 2-31 | R6-4B | 2 OF 4 | 2S | 60 | X | 24 | 10 | - | - | - | - | - | - | 2-29 | ROUNDABOUT CHEVRON BANK | - |
| 3-01 | D1-62 | 3 OF 4 | 2S | 132 | X | 66 | 60.5 | - | - | - | 3 | - | - | - | ROUNDABOUT DESTINATION - DIRECTION SIGN | SEE SIGN DETAILS. |
| 3-02 | R1-1 | 3 OF 4 | 2S | 30 | X | 30 | 5.18 | - | 1 | - | - | - | - | - | STOP | - |
| 3-03 | R3-7R | 3 4 | 2S | 30 | X | 30 | 6.25 | - | - | 1 | - | - | - | - | RIGHT LANE MUST TURN RIGHT | - |
| 3-04 | W2-6 | 3 OF 4 | 2S | 30 | X | 30 | - | 6.25 | - | 1 | - | - | - | - | CIRCULAR INTERSECTION SIGN | TEMP FLAGS REQUIRED. |
| 3-05 | W13-1 | 3 OF 4 | 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | 3-04 | ADVISORY SPEED PLATE (YELLOW BACK) | 15 MPH |
| 3-06 | W23-2 | 3 OF 4 | 2S | 36 | X | 36 | - | 9 | - | 1 | - | - | - | - | NEW TRAFFIC PATTERN AHEAD | - |
| 3-07 | R4-7 | 3 OF 4 | 2S | 24 | X | 30 | 5 | - | - | 1 | - | - | - | - | KEEP RIGHT | - |
| 3-08 | W5-54 | 3 OF 4 | 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | 3-07 | CLEARANCE MARKER WITH YELLOW TYPE F SHEE | - |
| 3-09 | R2-1 | 3 OF 4 | 2S | 24 | X | 30 | 5 | - | 1 | - | - | - | - | - | SPEED LIMIT ___ MPH | 50 MPH |
| 4-01 | R2-1 | 4 OF 4 | 2S | 24 | X | 30 | 5 | - | - | 1 | - | - | - | - | SPEED LIMIT ___ MPH | 35 MPH |
| 4-02 | R4-7 | 4 OF 4 | 2S | 24 | X | 30 | 5 | - | 1 | - | - | - | - | - | KEEP RIGHT | - |
| 4-03 | J1-1 | 4 OF 4 | 2S | 24 | X | 39 | 6.5 | - | - | - | 1 | - | - | - | JUNCTION OR END ASSEMBLY | JCT COUNTY Q |
| **SUBTOTAL** | | | | | | | **302.72** | **39.5** | **26** | **6** | **5** | **3** | **0** | | | |

3

## PERMANENT SIGNING (CONT.)

| SIGN # | SIGN CODE | SIGN SIZE | W IN. | X | H IN. | 637.2210 SIGNS TYPE II REFLECTIVE H SF | 637.2230 SIGNS TYPE II REFLECTIVE F SF | 634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH | 634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH | 634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH | 634.0620 POSTS WOOD 4X6-INCH X 20-FT EACH | 638.2102 MOVING SIGNS TYPE II EACH | SIGN MOUNTED ON SAME POST AS # | DESCRIPTION | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4-04 | W2-6 | 4 OF 4 2S | 30 | X | 30 | - | 6.25 | - | 1 | - | - | - | - | CIRCULAR INTERSECTION SIGN | TEMP FLAGS REQUIRED. |
| 4-05 | W13-1 | 4 OF 4 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | - | ADVISORY SPEED PLATE (YELLOW BACK) | 15 MPH |
| 4-06 | W2-6 | 4 OF 4 2S | 30 | X | 30 | - | 6.25 | - | 1 | - | - | - | - | CIRCULAR INTERSECTION SIGN | TEMP FLAGS REQUIRED. |
| 4-07 | W13-1 | 4 OF 4 2S | 18 | X | 18 | - | 2.25 | - | - | - | - | - | - | ADVISORY SPEED PLATE (YELLOW BACK) | 15 MPH |
| 4-08 | J1-1 | 4 OF 4 2S | 24 | X | 39 | 6.5 | - | - | - | 1 | - | - | - | JUNCTION OR END ASSEMBLY | JCT COUNTY Q |
| 4-09 | R2-1 | 4 OF 4 2S | 24 | X | 30 | 5 | - | - | - | 1 | - | - | - | SPEED LIMIT ___MPH | 35 MPH |
| 4M-01 | --- | 4 OF 4 2S | 24 | X | 30 | - | - | - | 1 | - | - | 1 | - | WELCOME TO LISBON | - |
| 4M-02 | --- | 4 OF 4 2S | 24 | X | 24 | - | - | - | - | - | - | 1 | 4M-01 | NO ENGINE BRAKING EXCEPT IN EMERGENCY | - |
| **SUBTOTAL** | | | | | | **11.5** | **17** | **0** | **3** | **2** | **0** | **2** | | | |
| **PROJECT TOTAL** | | | | | | **314.22** | **56.5** | **26** | **9** | **7** | **3** | **2** | | | |

3

## TRAFFIC CONTROL

| | 643.0300 | | 643.0420 | | 643.0705 | | 643.0900 | | 643.1050 | | 643.5000 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | TRAFFIC CONTROL DRUMS | | TRAFFIC CONTROL BARRICADES TYPE III | | TRAFFIC CONTROL WARNING LIGHTS TYPE A | | TRAFFIC CONTROL SIGNS | | TRAFFIC CONTROL SIGNS PCMS | | TRAFFIC CONTROL | |
| ** ESTIMATED CALENDAR DAYS | ** EACH | DAY | ** EACH | DAY | ** EACH | DAY | ** EACH | DAY | ** EACH | DAY | EACH | REMARKS |
| 7 | --- | --- | --- | --- | --- | --- | --- | --- | 2 | 14 | --- | PRIOR TO CONSTRUCTION |
| 95 | 50 | 4,750 | 13 | 1,235 | 26 | 2,470 | 19 | 1,805 | --- | --- | --- | DURING CONSTRUCTION |
| --- | --- | 2,380 | --- | 885 | --- | 1,770 | --- | 460 | --- | 10 | 1 | UNDISTRIBUTED |
| TOTAL 0010 | | 7,130 | | 2,120 | | 4,240 | | 2,265 | | 24 | 1 | |

*ADDITIONAL QUANTITIES ON DETOUR TABLE.
** FOR INFORMATIONAL PURPOSES ONLY.

## TRAFFIC CONTROL SIGN COVERING

| | | | 643.0910 | | | 643.0920 |
|---|---|---|---|---|---|---|
| * STAGE | * NUMBER OF CYCLES | * NUMBER OF SIGNS | TRAFFIC CONTROL COVERING SIGNS TYPE I EACH | * NUMBER OF CYCLES | * NUMBER OF SIGNS | TRAFFIC CONTROL COVERING SIGNS TYPE II EACH |
| 1 | 1 | 4 | 4 | 1 | 4 | 4 |
| TOTAL 0010 | | | 4 | | | 4 |

*FOR INFORMATIONAL PURPOSES ONLY.

## DETOUR

| | * | 643.0420 | * | 643.0705 | * | 643.0900 |
|---|---|---|---|---|---|---|
| | | TRAFFIC CONTROL BARRICADES TYPE III | | TRAFFIC CONTROL WARNING LIGHTS TYPE A | | TRAFFIC CONTROL SIGNS |
| ** ESTIMATED CALENDAR DAYS | ** EACH | DAY | ** EACH | DAY | ** EACH | DAY |
| 95 | 14 | 1,330 | 28 | 2,660 | 332 | 31,540 |
| TOTAL 0010 | | 1,330 | | 2,660 | | 31,540 |

*ADDITIONAL QUANTITIES ON TRAFFIC CONTROL TABLE.
** FOR INFORMATIONAL PURPOSES ONLY.

## TRAFFIC CONTROL FIXED MESSAGE

| | 643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE |
|---|---|
| LOCATION | SF |
| PROJECT WIDE | 84.5 |
| TOTAL 0010 | 84.5 |

3

## PAVEMENT MARKING

| ROADWAY | STATION | TO | STATION | 646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF | 646.1020 MARKING LINE EPOXY 4-INCH WHITE LF | 646.3020 MARKING LINE EPOXY 8-INCH LF | 646.5020 MARKING ARROW EPOXY TYPE 2 EACH | 646.5120 MARKING WORD EPOXY EACH | 646.6120 MARKING STOP LINE EPOXY 18-INCH LF | 646.6320 DOTTED EXTENSION EPOXY 18-INCH LF | 646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF | 646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF | 646.8120 MARKING CURB EPOXY LF | 646.8220 MARKING ISLAND NOSE EPOXY EACH | 646.9000 MARKING REMOVAL LINE 4-INCH LF | 648.0100 LOCATING NO-PASSING ZONES MI | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 819 | 934 | 25 | --- | --- | --- | --- | 38 | --- | 10 | 1 | --- | --- | |
| | 30+26.15'EB' | - | 37+87.05'EB' | 1,360 | 1,213 | 117 | 1 | 1 | 24 | --- | 45 | 103 | 10 | 1 | 231 | --- | |
| HILLSIDE ROAD | | | | | | | | | | | | | | | | | |
| | 58+91.79'NA' | - | 62+90.58'NA' | 745 | 440 | 24 | --- | --- | --- | --- | 38 | --- | 10 | 1 | --- | --- | |
| | 70+22.01'NB' | - | 73+08.17'NB' | 617 | 399 | 22 | --- | --- | --- | --- | 31 | --- | 10 | 1 | --- | --- | |
| CENTRAL ISLAND | | | | | | | | | | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | --- | --- | 126 | --- | --- | --- | 88 | --- | --- | --- | --- | --- | --- | |
| UNDISTRIBUTED | | | | | | | | | | | | | | | | | |
| | | | | 1,000 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 0.65 | SEE NOTE 1. |
| SUBTOTALS | | | | | | | | | | | | | | | | | |
| | | | | 4,541 | 2,986 | 314 | 1 | 1 | 24 | 88 | 152 | 103 | 40 | 4 | 231 | 0.65 | |
| | | | TOTAL 0010 | 7,527 | | 314 | 1 | 1 | 24 | 88 | 255 | | 40 | 4 | 231 | 0.65 | |

NOTES:
1) LOCATE PASSING ZONE FROM 1000' EAST OF THE CTH Q & STH 164 ROUNDABOUT AND THE WEST PROJECT LIMITS AT STA 20+00.00'EA'.

## CONSTRUCTION STAKING

| ROADWAY | STATION | TO | STATION | 650.4500 CONSTRUCTION STAKING SUBGRADE LF | 650.5000 CONSTRUCTION STAKING BASE LF | 650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF | 650.9500.01 CONSTRUCTION STAKING SIDEWALK (PROJECT) (2709-07-70) EACH | 650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (2709-07-70) EACH | 650.9920 CONSTRUCTION STAKING SLOPE STAKES LF |
|---|---|---|---|---|---|---|---|---|---|
| CTH Q | | | | | | | | | |
| | 20+00.00'EA' | - | 25+45.86'EA | 546 | 546 | 657 | --- | --- | 546 |
| | 20+00.00'WA' | - | 25+51.35'WA | 552 | 552 | 427 | --- | --- | 552 |
| | 30+26.15'EB' | - | 35+37.24'EB' | 512 | 512 | 427 | --- | --- | 512 |
| | 30+29.57'WB' | - | 35+37.24'WB' | 508 | 508 | 767 | --- | --- | 508 |
| HILLSIDE ROAD | | | | | | | | | |
| | 60+00.00'NA' | - | 62+90.58'NA' | 291 | 291 | 194 | --- | --- | 291 |
| | 60+00.00'SA' | - | 62+97.30'SA' | 298 | 298 | 139 | --- | --- | 298 |
| | 70+22.01'NB' | - | 73+08.17'NB' | 287 | 287 | 158 | --- | --- | 287 |
| | 70+24.30'SB' | - | 73+08.17'SB' | 284 | 284 | 267 | --- | --- | 284 |
| CENTRAL ISLAND | | | | | | | | | |
| | 90+00.00'C' | - | 92+84.18'C' | 285 | 285 | 651 | --- | --- | 285 |
| PROJECT WIDE | | | | | | | | | |
| | | | | --- | --- | --- | 1 | 1 | --- |
| | | | TOTAL 0010 | 3,563 | 3,563 | 3,687 | 1 | 1 | 3,563 |

NOTES:
SEE STORM STRUCTURE TABLE FOR ITEM 650.4000 CONSTRUCTION STAKING STORM SEWER.

## SAWING PAVEMENT

| ROADWAY | STATION | TO | STATION | LOCATION | 690.0150 SAWING ASPHALT LF | 690.0250 SAWING CONCRETE LF |
|---|---|---|---|---|---|---|
| CTH Q | | | | | | |
| | 20+00'EA' | - | 20+00'EA' | LT+RT | 31 | --- |
| | 22+85'EA' | - | 22+95'EA' | LT | 10 | --- |
| | 24+56'EA' | - | 24+66'EA' | LT | 10 | --- |
| | 30+83'EB' | - | 31+17'EB' | RT | 34 | --- |
| | 34+02'EB' | - | 34+24'EB' | LT | --- | 23 |
| | 34+53'EB' | - | 34+81'EB' | LT | 29 | --- |
| | 35+37'EB' | - | 35+37'EB' | LT+RT | 41 | --- |
| | 35+38'EB' | - | 37+26'EB' | RT | 189 | --- |
| HILLSIDE ROAD | | | | | | |
| | 60+00'NA' | - | 60+00'NA' | LT+RT | 30 | --- |
| | 70+66'NB' | - | 70+91'NB' | RT | 26 | --- |
| | 72+01'NB' | - | 72+13'NB' | LT | 11 | --- |
| | 72+16'NB' | - | 72+35'NB' | RT | 21 | --- |
| | 73+08'NB' | - | 73+08'NB' | LT+RT | 22 | --- |
| | | | | TOTAL 0010 | 454 | 23 |

| R/W PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
|---|---|---|
| 2709-07-20 | 4.01 | 4 |
| CONSTRUCTION PROJECT NUMBER 2709-07-70 | | |

PLAT OF RIGHT OF WAY REQUIRED FOR

# CTH Q
# INTERSECTION WITH HILLSIDE RD

CTH Q — WASHINGTON COUNTY

## CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE — CULVERT

SECTION CORNER SYMBOL (23 24 26 25)
SECTION CORNER MONUMENT
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) IP
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — SIGN
OFF-PREMISE SIGN #1-25 — SIGN

| | COMPENSABLE | NON-COMPENSABLE |
|---|---|---|
| ELECTRIC POLE | ■ | □ |
| TELEPHONE POLE | ◪ | ⌀ |
| PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC ) | ⧓ | ⧒ |

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25 — UTILITY NUMBER 40
PARALLEL OFFSETS

## 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 |
| ELECTRIC TOWER | ☒ |

## CONVENTIONAL ABBREVIATIONS

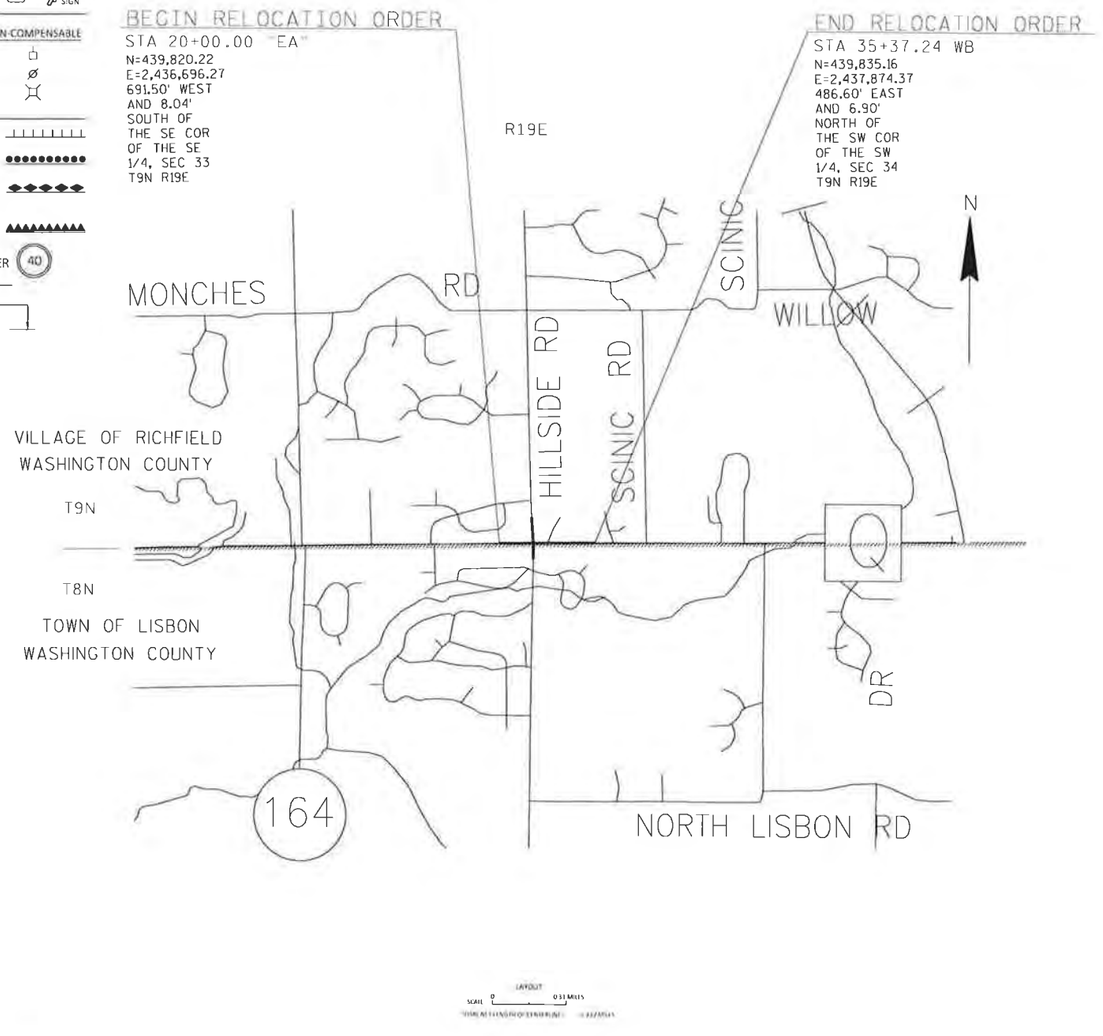
| | | | |
|---|---|---|---|
| ACCESS RIGHTS | AR | POINT OF COMPOUND CURVE | PCC |
| ACRES | AC | POINT OF INTERSECTION | PI |
| AHEAD | AH | PROPERTY LINE | PL |
| ALUMINUM | ALUM | RECORDED AS | (100') |
| AND OTHERS | ET AL | REEL / IMAGE | R/I |
| BACK | BK | REFERENCE LINE | R/L |
| BLOCK | BLK | REMAINING | REM |
| CENTERLINE | C/L | RESTRICTIVE DEVELOPMENT EASEMENT | RDE |
| CERTIFIED SURVEY MAP | CSM | RIGHT | RT |
| CONCRETE | CONC | RIGHT OF WAY | R/W |
| COUNTY | CO | SECTION | SEC |
| COUNTY TRUNK HIGHWAY | CTH | SEPTIC VENT | SEPV |
| DISTANCE | DIST | SQUARE FEET | SF |
| CORNER | COR | STATE TRUNK HIGHWAY | STH |
| DOCUMENT NUMBER | DOC | STATION | STA |
| EASEMENT | EASE | TELEPHONE PEDESTAL | TP |
| EXISTING | EX | TEMPORARY LIMITED EASEMENT | TLE |
| GAS VALVE | GV | TRANSPORTATION PROJECT PLAT | TPP |
| GRID NORTH | GN | UNITED STATES HIGHWAY | USH |
| HIGHWAY EASEMENT | HE | VOLUME | V |
| IDENTIFICATION | ID | | |
| LAND CONTRACT | LC | | |
| LEFT | LT | | |
| MONUMENT | MON | | |
| NATIONAL GEODETIC SURVEY | NGS | | |
| NUMBER | NO | | |
| OUTLOT | OL | | |
| PAGE | P | | |
| POINT OF TANGENCY | PT | | |
| PERMANENT LIMITED EASEMENT | PLE | | |
| POINT OF BEGINNING | POB | | |
| POINT OF CURVATURE | PC | | |

## CURVE DATA ABBREVIATIONS

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE | Δ /DELTA |
| LENGTH OF CURVE | L |
| TANGENT | T |
| DIRECTION AHEAD | DA |
| DIRECTION BACK | DB |

BEGIN RELOCATION ORDER
STA 20+00.00 "EA"
N=439,820.22
E=2,436,696.27
691.50' WEST
AND 8.04'
SOUTH OF
THE SE COR
OF THE SE
1/4, SEC 33
T9N R19E

END RELOCATION ORDER
STA 35+37.24 WB
N=439,835.16
E=2,437,874.37
486.60' EAST
AND 6.90'
NORTH OF
THE SW COR
OF THE SW
1/4, SEC 34
T9N R19E




## NOTES:

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 2011, NAVD88 2012.

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF WASHINGTON COUNTY.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 DESIRABLE. ALL (TLES) ON THE PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

ORIGINAL PLAT PREPARED BY

raSmith
CREATIVITY BEYOND ENGINEERING
N16745 W. Bluemound Road Brookfield WI 53005
262.781.1000 Fax 262.781.8465
www.rasmithnational.com

WISCONSIN MICHAEL J. RATZBURG S-2716 WAUKESHA WI LAND SURVEYOR

DATE: 2/11/2022 Michael J. Ratzburg
LAND SURVEYOR

| REVISION DATE | WASHINGTON COUNTY HIGHWAY DEPARTMENT |
|---|---|
| | APPROVED FOR THE DEPARTMENT DATE: 3/09/22 (Signature) |

# SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS' NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO MILWAUKEE COUNTY.

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND AND INTERESTS TO WAUKESHA COUNTY

| PARCEL NUMBER | SHEET NUMBER | OWNER(S) | INTEREST REQUIRED | TOTAL ACRES | R/W REQUIRED ACRES | | | TOTAL REMAINING ACRES | T.L.E. TEMP. ACRES | P.L.E. PERM. ACRES | PARCEL NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NEW | EXISTING | TOTAL | | | | |
| 1 | 4.04 | LAVERNE L. JUNG & JOYCE M JUNG JOINT REVOCABLE LIVING TRUST | FEE, TLE | 1.26 | 0.103 | - | 0.103 | 1.157 | 0.015 | - | 1 |
| 2 | 4.04 | JOSEPH A ZANOTTI | FEE, TLE | 2.77 | 0.223 | - | 0.223 | 2.547 | 0.233 | - | 2 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| UTILITY NUMBER | SHEET | NAME | INTEREST |
|---|---|---|---|
| 100 | 4.04 | WE ENERGIES-ELECTRIC | RELEASE OF RIGHTS |
| 101 | 4.04 | WE ENERGIES-GAS | RELEASE OF RIGHTS |

REVISION DATE

DATE 2/11/2022

GRID FACTOR

SCALE, FEET 0 NA NA

HWY: CTH Q

COUNTY: WASHINGTON

STATE R/W PROJECT NUMBER 2709-07-20

CONSTRUCTION PROJECT NUMBER 2709-07-70

PLAT SHEET 4.02

PS&E SHEET 77

E

FILE NAME : TPP100-WASHINGTON.DWG
LAYOUT NAME - sheet 4.02

PLOT DATE : 3/9/2022 10:12 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 75

4

VILLAGE OF RICHFIELD
WASHINGTON COUNTY

CONCRETE MONUMENT WITH BRASS CAP
N=442,491.48
E=2,437,304.64
T 9 N R 19 E 33 34 33 34

HILLSIDE RD.

CONCRETE MONUMENT WITH BRASS CAP
N=439,828.26
E=2,437,387.77
T 9 N R 19 E 33 34

SW-SW

SE-SE

BEGIN RELOCATION ORDER
STA 20+00.00 WA
N=439,820.22
E=2,436,696.27

END RELOCATION ORDER
STA 35+37.24 WB
N=439,835.16
E=2,437,874.37

CONCRETE MONUMENT WITH BRASS CAP
N=439,797.59
E=2,434,750.46
T 9 N R 19 E 33 33

CONCRETE MONUMENT WITH BRASS CAP
N=439,865.53
E=2,440,019.46
T 9 N R 19 E 34 34

1

2

CTH Q

CONCRETE MONUMENT WITH BRASS CAP
N=439,795.93
E=2,434,672.32
T 8 N R 19 E 4 4

CONCRETE MONUMENT WITH BRASS CAP
N=439,864.77
E=2,439,964.59
T 8 N R 19 E 3 3

CONCRETE MONUMENT WITH BRASS CAP
N=439,827.39
E=2,437,312.51
T 8 N R 19 E 4 3

NW-NW

NE-NE

HILLSIDE RD.

TOWN OF LISBON
WAUKESHA COUNTY

CONCRETE MONUMENT WITH BRASS CAP
N=436,755.73
E=2,437,270.45
T 8 N R 19 E 4 3 4 3

| | | | |
|---|---|---|---|
| REVISION DATE | DATE 2/11/2022 | SCALE, FEET 0 200 400 | HWY: CTH Q |
| | GRID FACTOR | | COUNTY: WASHINGTON |

| | | |
|---|---|---|
| STATE R/W PROJECT NUMBER 2709-07-20 | PLAT SHEET 4.03 | |
| CONSTRUCTION PROJECT NUMBER 2709-07-70 | PS&E SHEET 78 | E |

FILE NAME : TPP100-WASHINGTON.DWG
LAYOUT NAME - SHEET 4.03

PLOT DATE : 3/9/2022 10:13 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 75

| RW COURSE TABLE | | |
|---|---|---|
| 300-301 | N0°40'12"W | 12.04' |
| 301-302 | N83°24'13"E | 201.56' |
| 302-303 | N0°16'34"W | 3.24' |
| 303-304 | N89°39'47"E | 12.16' |
| 304-305 | S0°20'13"E | 13.78' |
| 305-306 | N68°55'48"E | 111.35' |
| 306-307 | N39°52'05"E | 62.62' |
| 307-308 | N09°07'02"E | 187.91' |
| 308-309 | S01°47'16"E | 123.91' |
| 309-310 | S20°13'59"W | 181.92' |
| 311-300 | S89°20'01"W | 200.29' |
| 311-310 | S89°20'01"W | 126.80' |
| 311-302 | N00°20'13"W | 32.86' |

| TLE COURSE TABLE | | |
|---|---|---|
| 700-701 | N0°40'12"W | 20.03' |
| 701-702 | N89°20'01"E | 25.00' |
| 702-703 | S0°40'12"E | 17.43' |
| 703-701 | S83°24'13"W | 25.13' |
| 704-705 | N50°24'26"E | 15.00' |
| 705-706 | N89°20'01"E | 20.00' |
| 706-302 | S0°20'13"E | 6.14' |
| 302-704 | S83°24'13"W | 31.80' |
| 706-707 | N0°20'13"W | 9.08' |
| 707-712 | N57°13'35"E | 65.09' |
| 712-708 | N64°02'13"E | 61.48' |
| 708-709 | N10°22'04"E | 67.13' |
| 709-710 | N46°17'01"E | 55.87' |
| 710-711 | N12°41'15"E | 112.31' |
| 711-308 | S02°10'42"E | 19.01' |

| HWY | BASIS OF EXISTING R/W | R/W WIDTH | YEAR |
|---|---|---|---|
| CTH Q | HILLSIDE MANOR ESTATES | 100' | 1976 |
| HILLSIDE RD | HILLSIDE MANOR ESTATES | 66' | 1976 |

## NOTES:

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), NAD 27 (91) SOUTH ZONE.

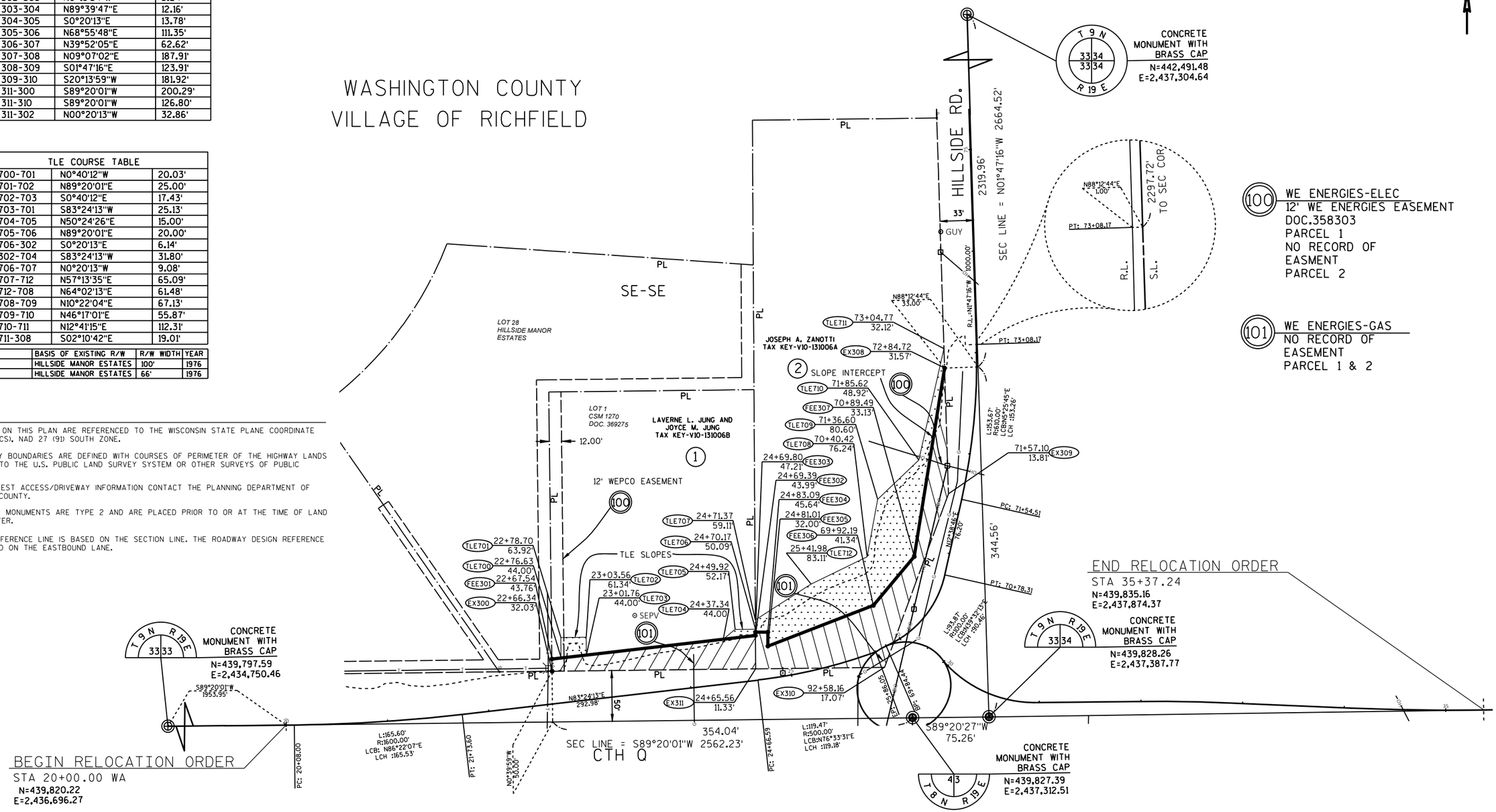
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER SURVEYS OF PUBLIC RECORD.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF WASHINGTON COUNTY.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

THE PLAT REFERENCE LINE IS BASED ON THE SECTION LINE. THE ROADWAY DESIGN REFERENCE LINE IS BASED ON THE EASTBOUND LANE.

WASHINGTON COUNTY
VILLAGE OF RICHFIELD




100 WE ENERGIES-ELEC
12' WE ENERGIES EASEMENT
DOC.358303
PARCEL 1
NO RECORD OF
EASMENT
PARCEL 2

101 WE ENERGIES-GAS
NO RECORD OF
EASEMENT
PARCEL 1 & 2

| | | | | | |
|---|---|---|---|---|---|
| REVISION DATE | DATE 2/11/2022 | SCALE, FEET 0 50 100 | HWY: CTH Q | STATE R/W PROJECT NUMBER 2709-07-20 | PLAT SHEET 4.04 |
| | GRID FACTOR | | COUNTY: WASHINGTON | CONSTRUCTION PROJECT NUMBER 2709-07-70 | PS&E SHEET 79 E |

FILE NAME : TPP100-WASHINGTON.DWG
LAYOUT NAME - SHEET 4.04

PLOT DATE : 3/9/2022 10:13 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 75

| RW PROJECT NUMBER | SHEET NUMBER | TOTAL SHEETS |
|---|---|---|
| 2709-07-20 | | |
| CONSTRUCTION PROJECT NUMBER 2709-07-70 | 4.01 | 4 |

PLAT OF RIGHT OF WAY REQUIRED FOR

# CTH Q
# INTERSECTION WITH HILLSIDE ROAD

CTH Q — WAUKESHA COUNTY

## CONVENTIONAL SYMBOLS

- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W OR HE LINE
- PROPERTY LINE
- LOT, TIE & OTHER MINOR LINES
- SLOPE INTERCEPT
- CORPORATE LIMITS
- UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
- NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
- TEMPORARY LIMITED EASEMENT AREA
- EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
- TRANSMISSION STRUCTURES
- BUILDING — TO BE REMOVED
- BRIDGE — CULVERT

- SECTION CORNER SYMBOL
- SECTION CORNER MONUMENT
- R/W MONUMENT (TO BE SET)
- NON-MONUMENTED R/W POINT
- FOUND IRON PIN (1-INCH UNLESS NOTED) IP
- GEODETIC SURVEY MONUMENT
- SIXTEENTH CORNER MONUMENT
- SIGN — OFF-PREMISE SIGN

| | COMPENSABLE | NON-COMPENSABLE |
|---|---|---|
| ELECTRIC POLE | | |
| TELEPHONE POLE | | |
| PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.) | | |

- ACCESS RESTRICTED BY ACQUISITION
- NO ACCESS (BY STATUTORY AUTHORITY)
- ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
- NO ACCESS (NEW HIGHWAY)
- PARCEL NUMBER (25) — UTILITY NUMBER (40)
- PARALLEL OFFSETS

## CONVENTIONAL UTILITY SYMBOLS

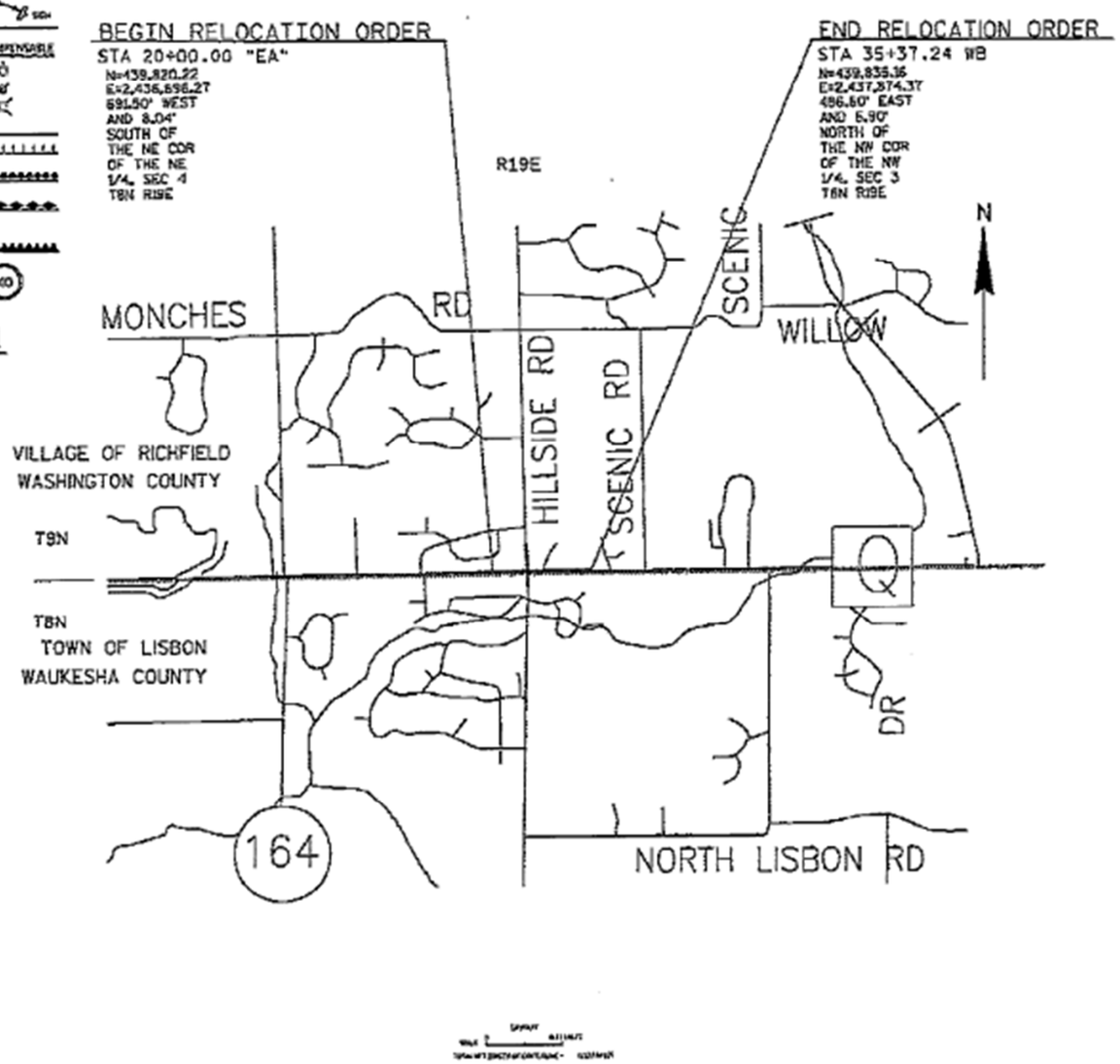
- WATER
- GAS
- TELEPHONE
- OVERHEAD TRANSMISSION LINES
- ELECTRIC
- CABLE TELEVISION
- FIBER OPTIC
- SANITARY SEWER
- STORM SEWER
- ELECTRIC TOWER

## CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS RIGHTS | AR | POINT OF COMPOUND CURVE | PCC |
| ACRES | AC | POINT OF INTERSECTION | PI |
| AHEAD | AH | PROPERTY LINE | PL |
| ALUMINUM | ALUM | RECORDED AS | (100') |
| AND OTHERS | ET AL | REEL / IMAGE | R/I |
| BACK | BK | REFERENCE LINE | R/L |
| BLOCK | BLK | REMAINING | REM |
| CENTERLINE | C/L | RESTRICTIVE DEVELOPMENT EASEMENT | RDE |
| CERTIFIED SURVEY MAP | CSM | | |
| CONCRETE | CONC | RIGHT | RT |
| COUNTY | CO | RIGHT OF WAY | R/W |
| COUNTY TRUNK HIGHWAY | CTH | SECTION | SEC |
| DISTANCE | DIST | SEPTIC VENT | SEPV |
| CORNER | COR | SQUARE FEET | SF |
| DOCUMENT NUMBER | DOC | STATE TRUNK HIGHWAY | STH |
| EASEMENT | EASE | STATION | STA |
| EXISTING | EX | TELEPHONE PEDESTAL | TP |
| GAS VALVE | GV | TEMPORARY LIMITED EASEMENT | TLE |
| GRID NORTH | GN | | |
| HIGHWAY EASEMENT | HE | TRANSPORTATION PROJECT PLAT | TPP |
| IDENTIFICATION | ID | UNITED STATES HIGHWAY | USH |
| LAND CONTRACT | LC | VOLUME | V |
| LEFT | LT | | |
| MONUMENT | MON | | |
| NATIONAL GEODETIC SURVEY | NGS | | |
| NUMBER | NO | | |
| OUTLOT | OL | | |
| PAGE | P | | |
| POINT OF TANGENCY | PT | | |
| PERMANENT LIMITED EASEMENT | PLE | | |
| POINT OF BEGINNING | POB | | |
| POINT OF CURVATURE | PC | | |

## CURVE DATA ABBREVIATIONS

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE | Δ/DELTA |
| LENGTH OF CURVE | L |
| TANGENT | T |
| DIRECTION AHEAD | DA |
| DIRECTION BACK | DB |




NOTES:

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD83 2011 NAVD 2012.

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 DESIRABLE. ALL TLE(S) ON THE PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

ORIGINAL PLAT PREPARED BY

raSmith

WISCONSIN MICHAEL J. RATZBURG S-2236 WAUKESHA LAND SURVEYOR

DATE: 2/11/2022 Michael J. Ratzburg
LAND SURVEYOR

| REVISION DATE |
|---|

WAUKESHA COUNTY

APPROVED FOR WAUKESHA COUNTY DEPARTMENT OF PUBLIC WORKS

DATE 2-22-22 Allison Bussler
(Signature)
Allison Bussler
(Printed Name)

DATE 2/21/22 Kara Brown
(Signature)
Kara Brown
(Printed Name)

# SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS' NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO MILWAUKEE COUNTY.

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND AND INTERESTS TO WAUKESHA COUNTY

| PARCEL NUMBER | SHEET NUMBER | OWNER(S) | INTEREST REQUIRED | TOTAL ACRES | R/W REQUIRED ACRES | | | TOTAL REMAINING ACRES | T.L.E. TEMP. ACRES | P.L.E. PERM. ACRES | PARCEL NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | NEW | EXISTING | TOTAL | | | | |
| 1 | 4.04 | DAVID W SENDERHAUF JR & DENISE L SHEEHAN | FEE, TLE | 1.137 | 0.082 | - | 0.082 | 1.055 | 0.017 | - | 1 |
| 2 | 4.04 | TIMOTHY T GROSS | FEE, TLE | 0.708 | 0.009 | - | 0.009 | 0.699 | 0.009 | - | 2 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| UTILITY NUMBER | SHEET | NAME | INTEREST | | | | | | | | |
| 100 | 4.04 | WE ENERGIES | RELEASE OF RIGHTS | | | | | | | | |
| 101 | 4.04 | AT&T TELEPHONE | RELEASE OF RIGHTS | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

4

4

REVISION DATE

DATE 2/11/2022

GRID FACTOR

SCALE, FEET 0 NA NA

HWY: CTH Q

COUNTY: WAUKESHA

STATE R/W PROJECT NUMBER 2709-07-20

CONSTRUCTION PROJECT NUMBER 2709-07-70

PLAT SHEET 4.02

PS&E SHEET 81

E

FILE NAME : TPP100-WAUKESHA.DWG
LAYOUT NAME - SHEET 4.02 WAUKESHA

PLOT DATE : 3/9/2022 10:09 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 75

4

4

VILLAGE OF RICHFIELD
WASHINGTON COUNTY

TOWN OF LISBON
WAUKESHA COUNTY

CTH Q

HILLSIDE RD.

HILLSIDE RD.

CONCRETE MONUMENT WITH BRASS CAP
T 9 N R 19 E
33 34 / 33 34
N=442,491.48
E=2,437,304.64

CONCRETE MONUMENT WITH BRASS CAP
T 9 N R 19 E
33 34
N=439,828.26
E=2,437,387.77

SW-SW

SE-SE

BEGIN RELOCATION ORDER
STA 20+00.00 "EA"
N=439,820.22
E=2,436,696.27

END RELOCATION ORDER
STA 35+37.24 WB
N=439,835.16
E=2,437,874.37

CONCRETE MONUMENT WITH BRASS CAP
T 9 N R 19 E
33 33
N=439,797.59
E=2,434,750.46

CONCRETE MONUMENT WITH BRASS CAP
T 9 N R 19 E
34 34
N=439,865.53
E=2,440,019.46

CONCRETE MONUMENT WITH BRASS CAP
T 8 N R 19 E
4 4
N=439,795.93
E=2,434,672.32

CONCRETE MONUMENT WITH BRASS CAP
T 8 N R 19 E
3 3
N=439,864.77
E=2,439,964.59

CONCRETE MONUMENT WITH BRASS CAP
T 8 N R 19 E
4 3
N=439,827.39
E=2,437,312.51

NW-NW

NE-NE

CONCRETE MONUMENT WITH BRASS CAP
T 8 N R 19 E
4 3 / 4 3
N=436,755.73
E=2,437,270.45

1

2

35 40 45

| | | | | | |
|---|---|---|---|---|---|
| REVISION DATE | DATE 2/11/2022 | SCALE, FEET 0 200 400 | HWY: CTH Q | STATE R/W PROJECT NUMBER 2709-07-20 | PLAT SHEET 4.03 |
| | GRID FACTOR | | COUNTY: WAUKESHA | CONSTRUCTION PROJECT NUMBER 2709-07-70 | PS&E SHEET 82 E |

FILE NAME : TPP100-WAUKESHA.DWG
LAYOUT NAME - SHEET 4.03-WAUKESHA

PLOT DATE : 3/9/2022 10:09 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 75

100 WE ENERGIES
10' WE ENERGIES EASEMENT
DOC.1028930
PARCELS 1&2
WE ENERGIES EASEMENT
NON DESCRIPT
V.1193, P.550
DOC.761764

101 AT&T- TELEPHONE
10' AT&T EASEMENT
DOC.1028930
PARCELS 1&2
AT&T TELEPHONE
NON DESCRIPT
DOC.761764
V.1193 P.550
DOC.761764

| R/W COURSE TABLE | | |
|---|---|---|
| 300-301 | S22°48'18"E | 53.00' |
| 301-304 | S9°19'36"E | 92.75' |
| 304-305 | N55°01'40"E | 13.47' |
| 304-302 | S9°19'36"E | 62.25' |
| 302-305 | N0°47'04"E | 69.15' |
| 302-303 | N0°47'04"E | 133.24' |
| 303-301 | S89°20'01"W | 48.44' |

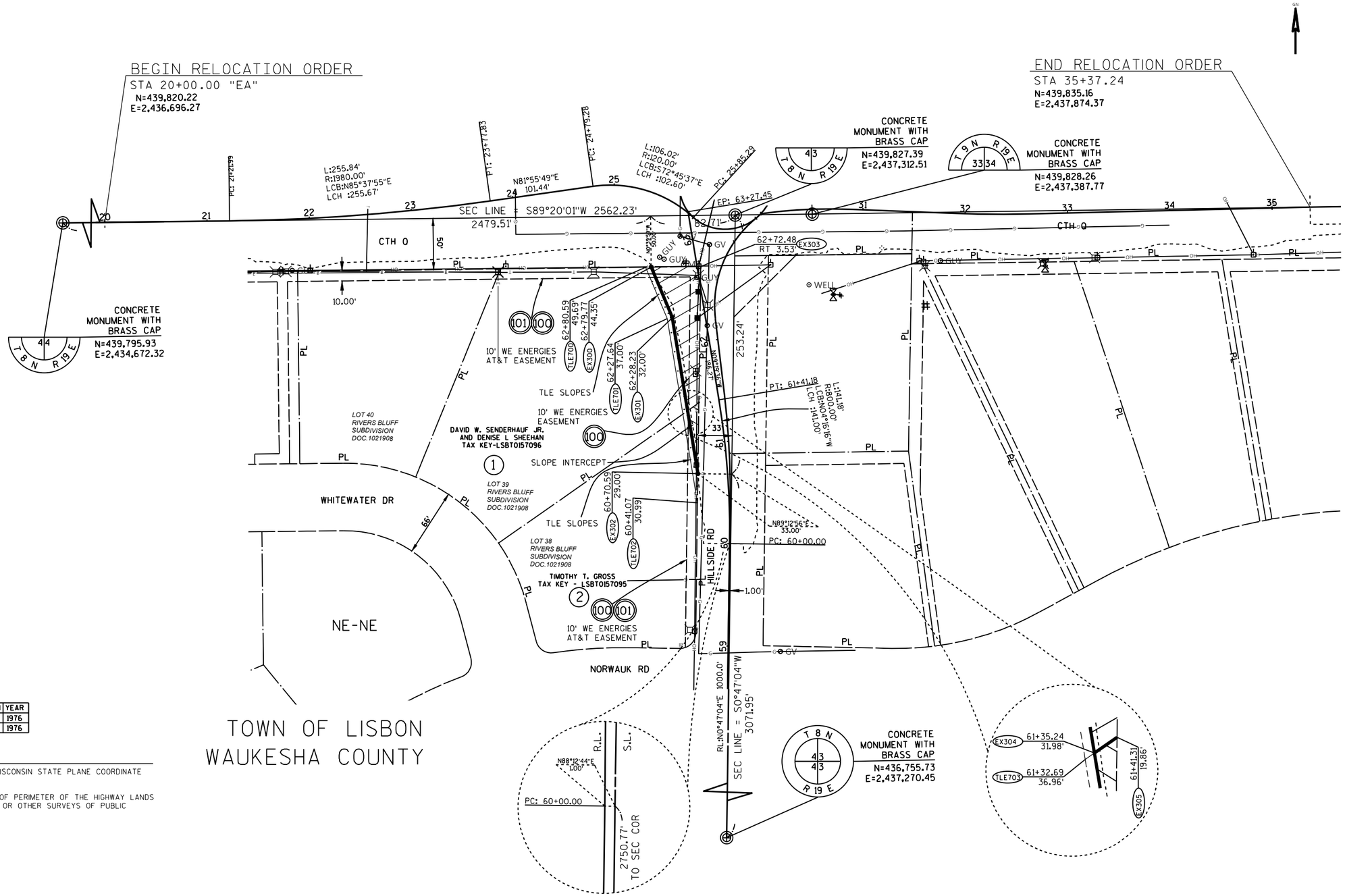
| TLE COURSE TABLE | | |
|---|---|---|
| 300-700 | S89°20'01"W | 5.40' |
| 700-701 | S22°57'05"E | 53.87' |
| 701-703 | S9°19'36"E | 94.56' |
| 703-304 | N55°01'40"E | 5.55' |
| 703-702 | S9°19'36"E | 87.88' |
| 702-302 | N0°47'04"E | 28.48' |

| HWY | BASIS OF EXISTING R/W | R/W WIDTH | YEAR |
|---|---|---|---|
| CTH O | RIVERS BLUFF SUBDIVISION | 100' | 1976 |
| HILLSIDE RD | RIVERS BLUFF SUBDIVISION | 66' | 1976 |

NOTES:

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), NAD 27 (91) SOUTH ZONE.

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



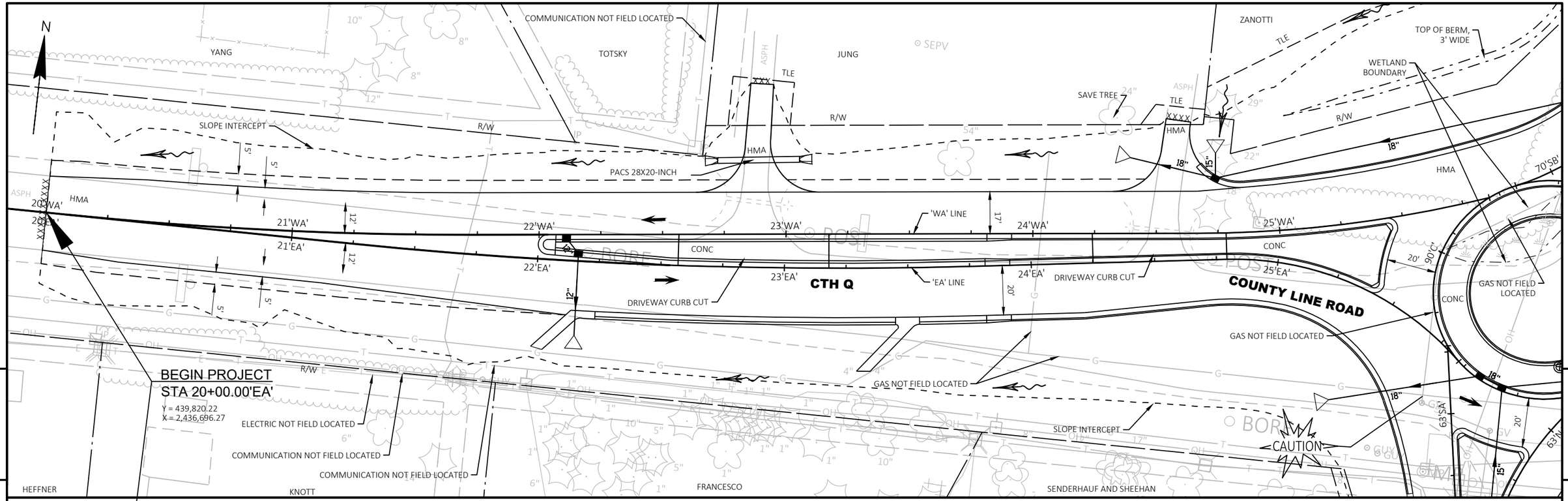

| | | | |
|---|---|---|---|
| REVISION DATE | DATE 2/11/2022 | HWY: CTH Q | STATE R/W PROJECT NUMBER 2709-07-20 |
| | GRID FACTOR | COUNTY: WAUKESHA | CONSTRUCTION PROJECT NUMBER 2709-07-70 |
| | SCALE, FEET 0 50 100 | | PLAT SHEET 4.04 |
| | | | PS&E SHEET 83 |

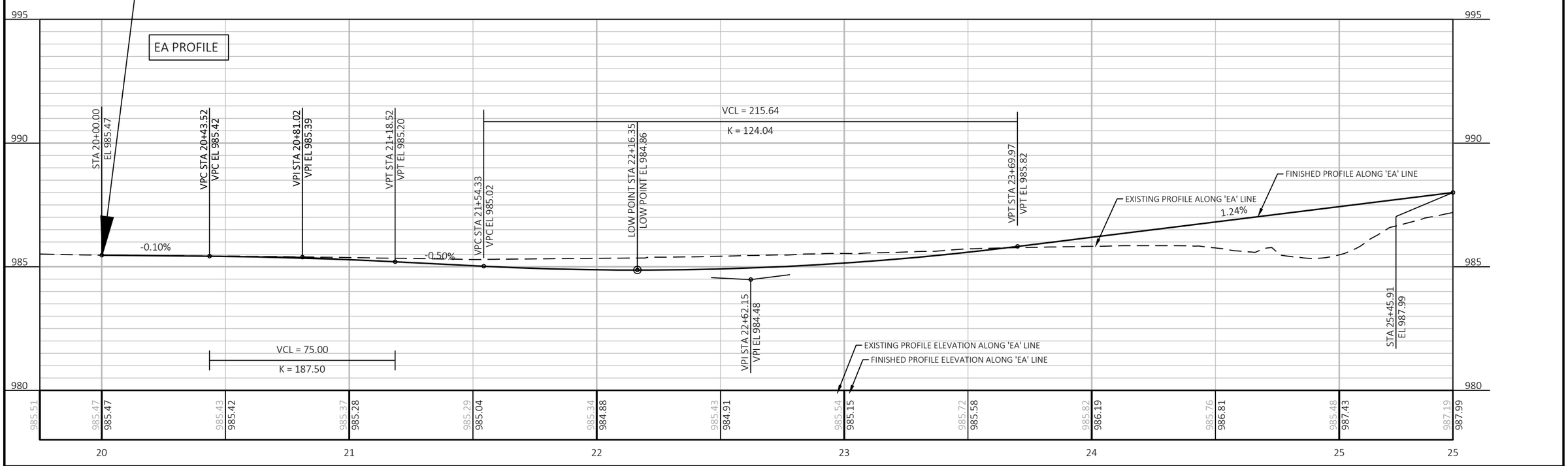
E

FILE NAME : TPP100-WAUKESHA.DWG
LAYOUT NAME - SHEET 4.04-WAUKESHA

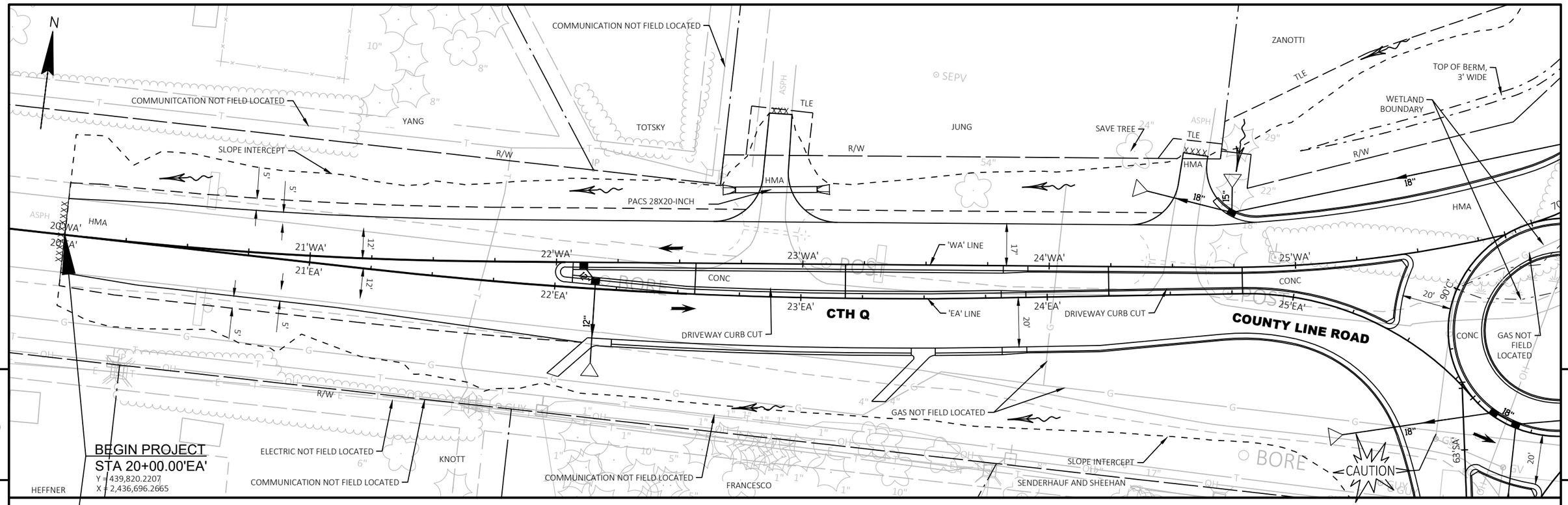
PLOT DATE : 3/9/2022 10:10 AM PLOT BY : SCHWEITZER, JEFFREY PLOT NAME : PLOT SCALE : 1 IN:50 FT

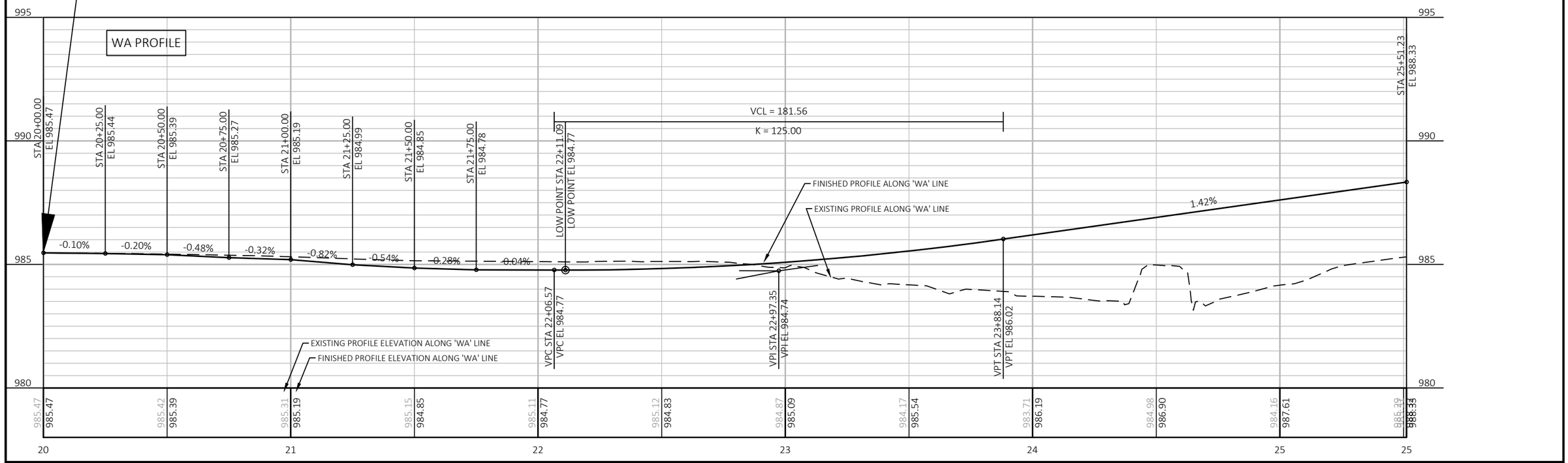
WISDOT/CADDS SHEET 75




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q EA LINE | SHEET 84 | E |
|---|---|---|---|---|---|



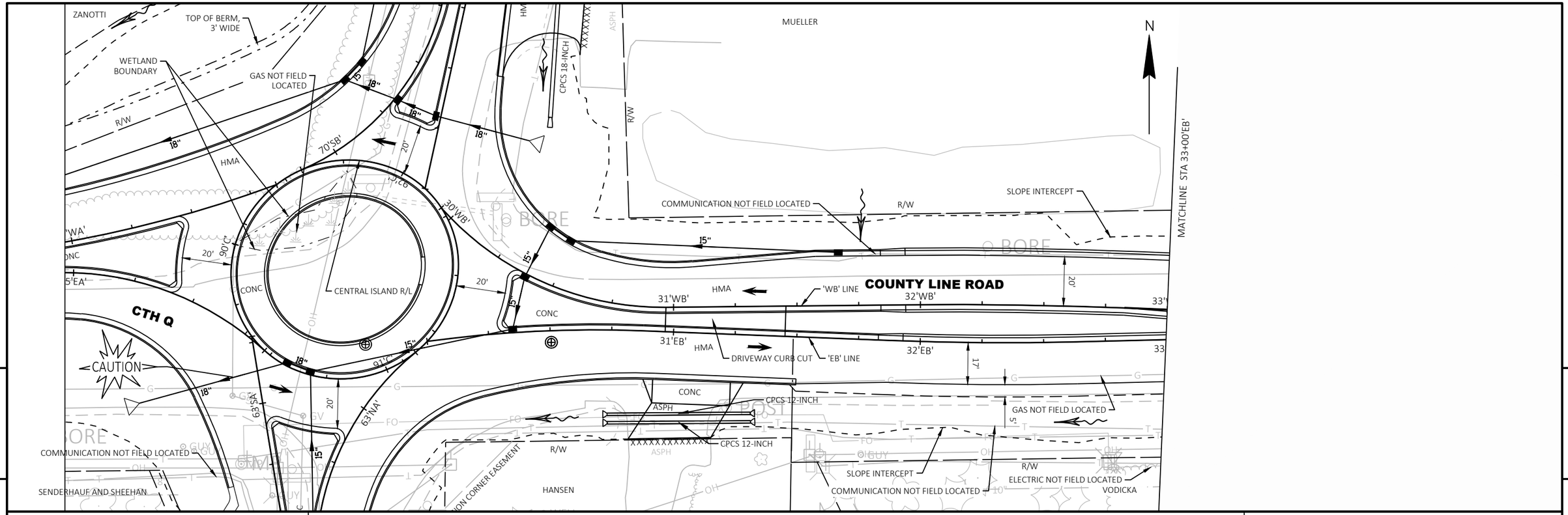



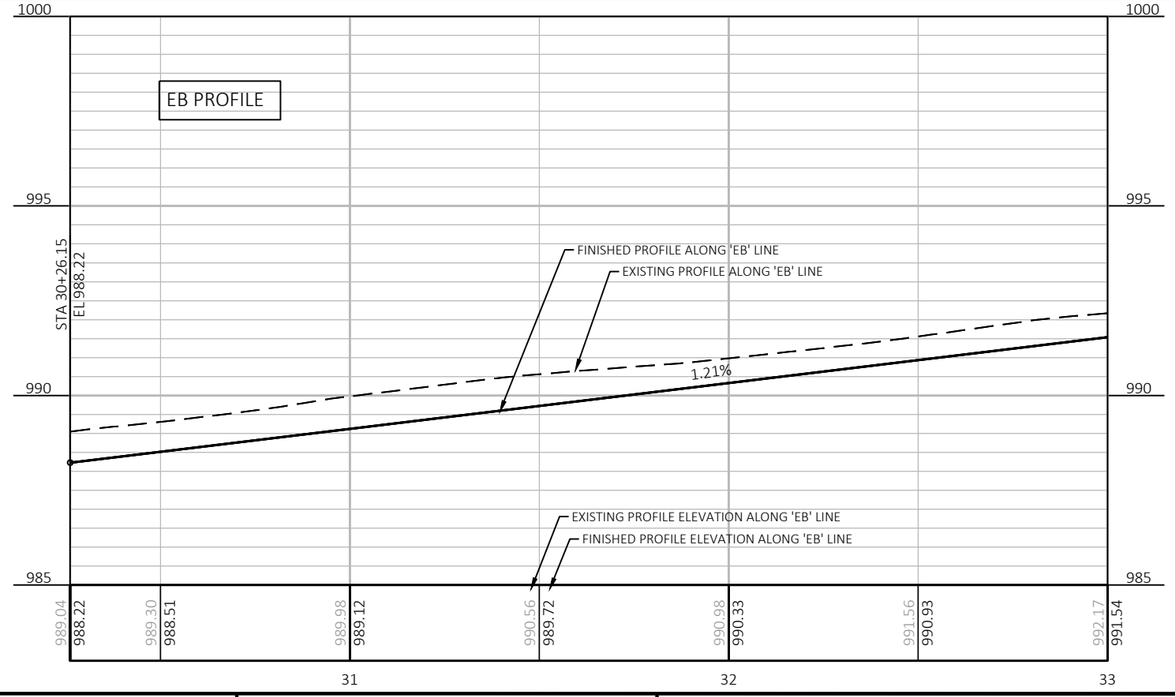

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q WA LINE | SHEET 85 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - WA - (01)

PLOT DATE : 10/27/2022 2:25 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



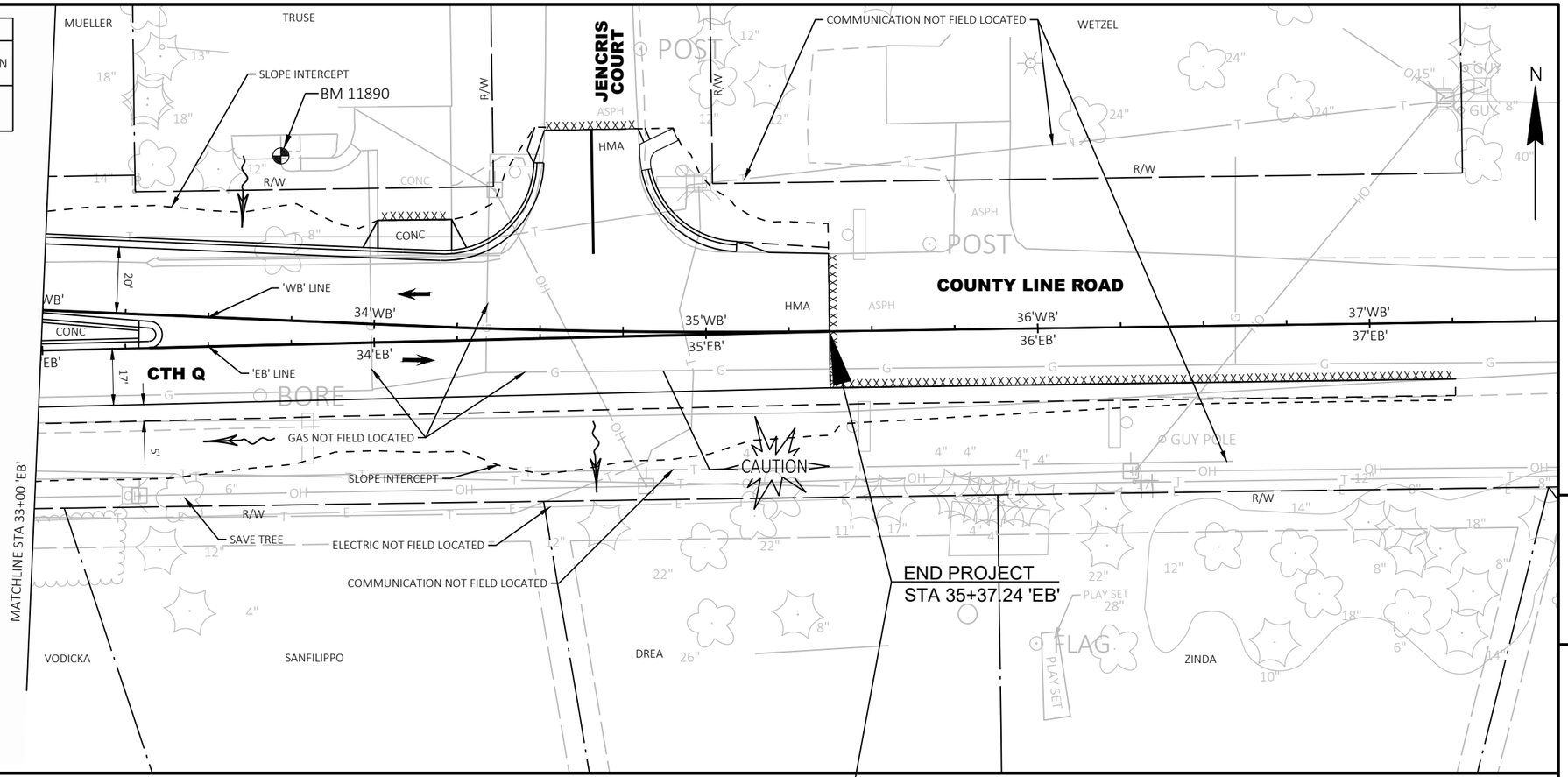



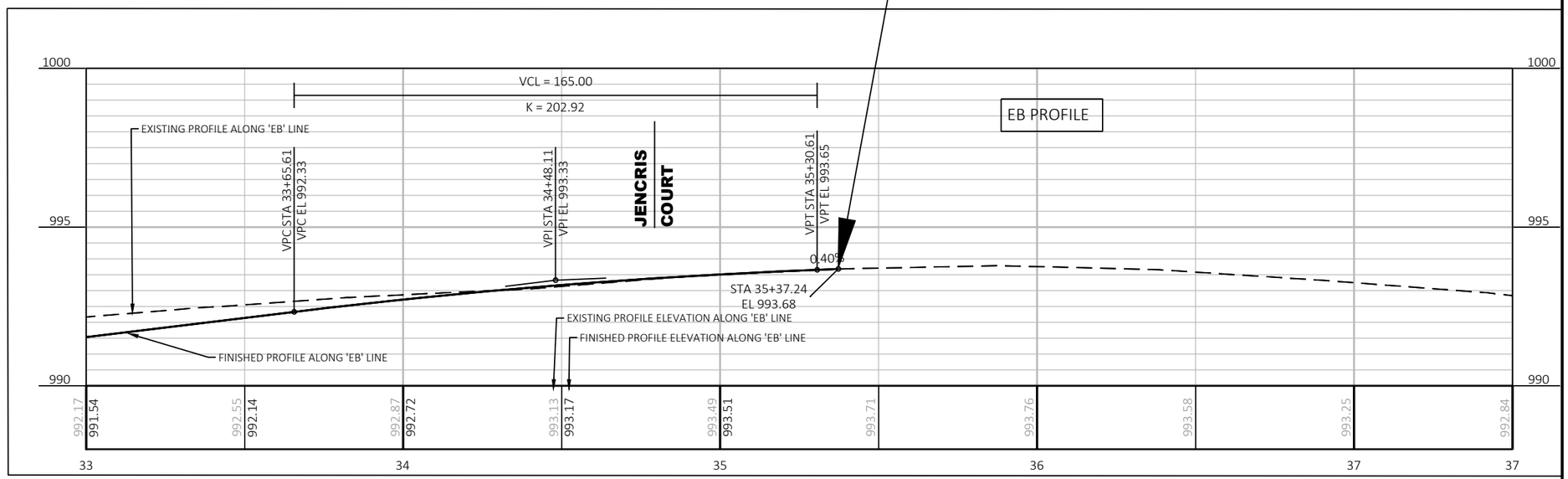

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q EB LINE | SHEET 86 E |
|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - EB - (01)

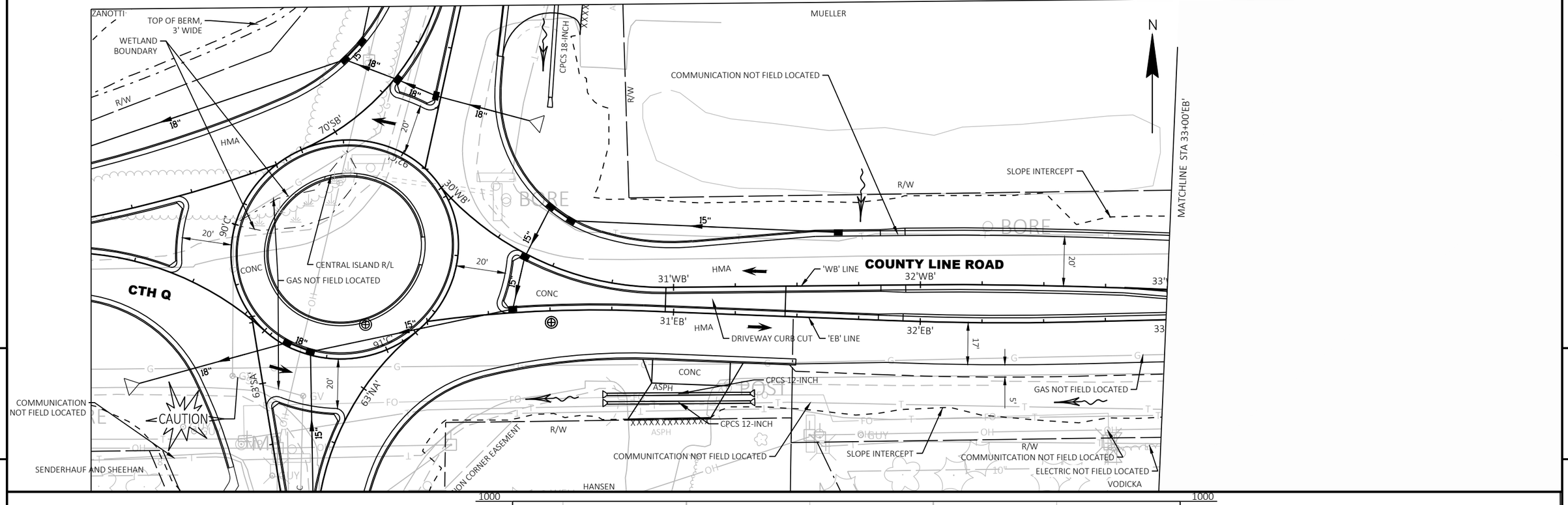
PLOT DATE : 10/27/2022 2:25 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

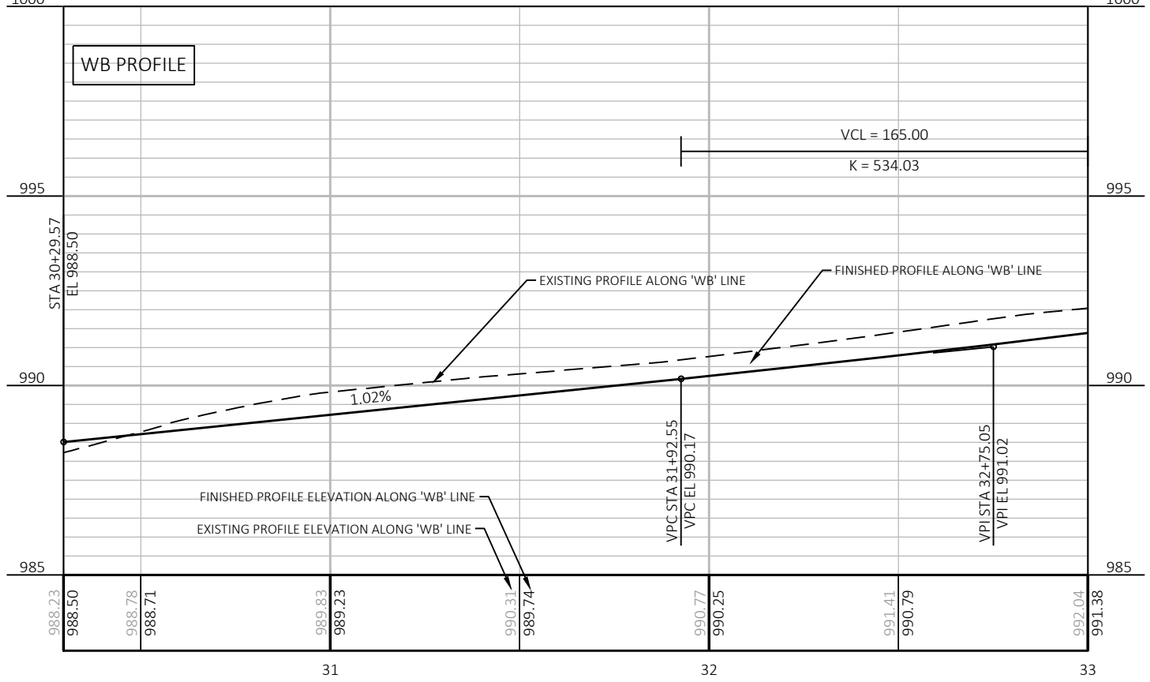
| BENCHMARK TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | DESCRIPTION | ELEVATION |
| 11890 | 439,888 | 2,437,709 | TOP OF SW COR. OF CONC. STOOP OF HOUSE #4074 | 994.94 |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q EB LINE | SHEET 87 | E |
|---|---|---|---|---|---|



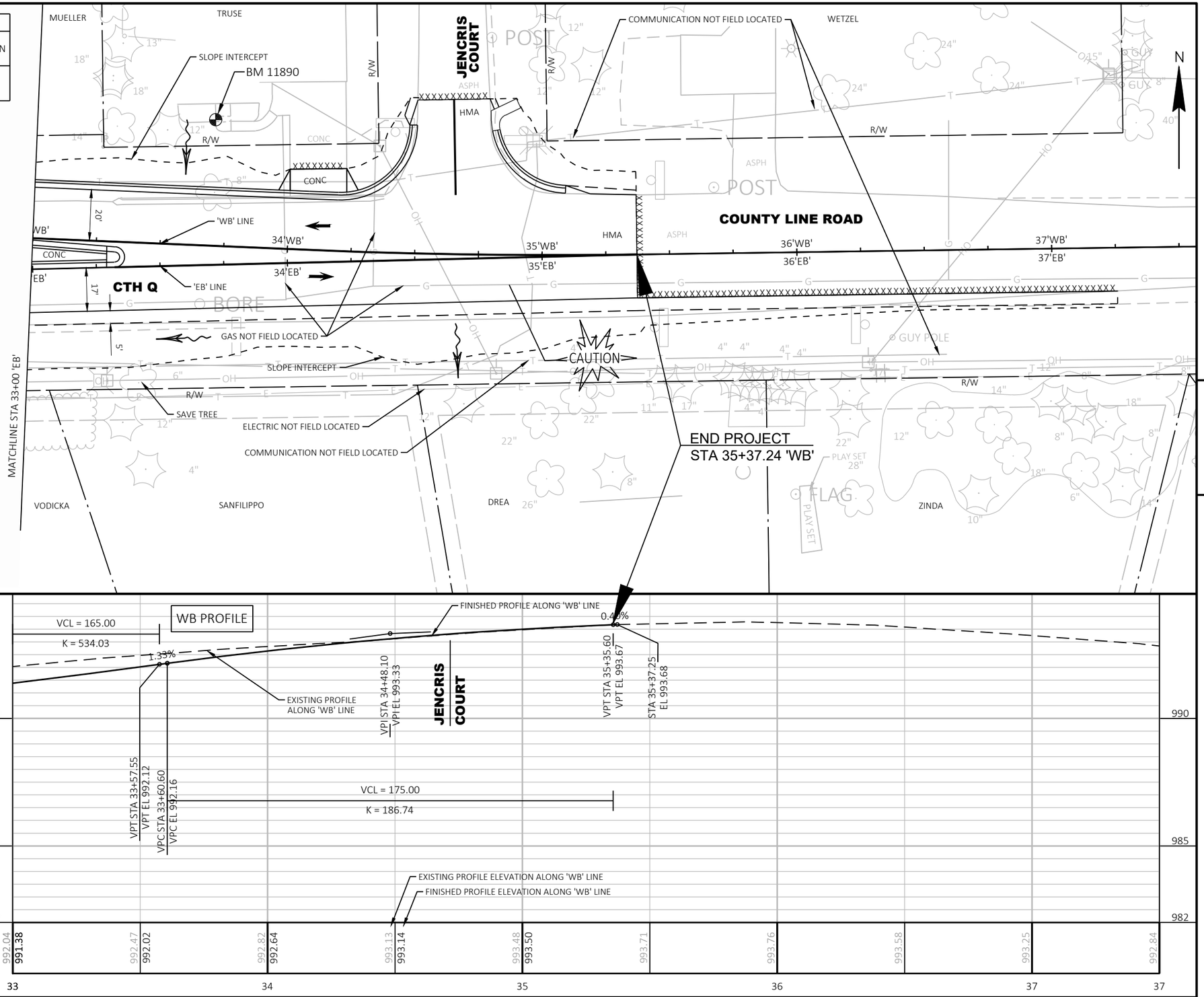

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q WB LINE | SHEET 88 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - WB - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

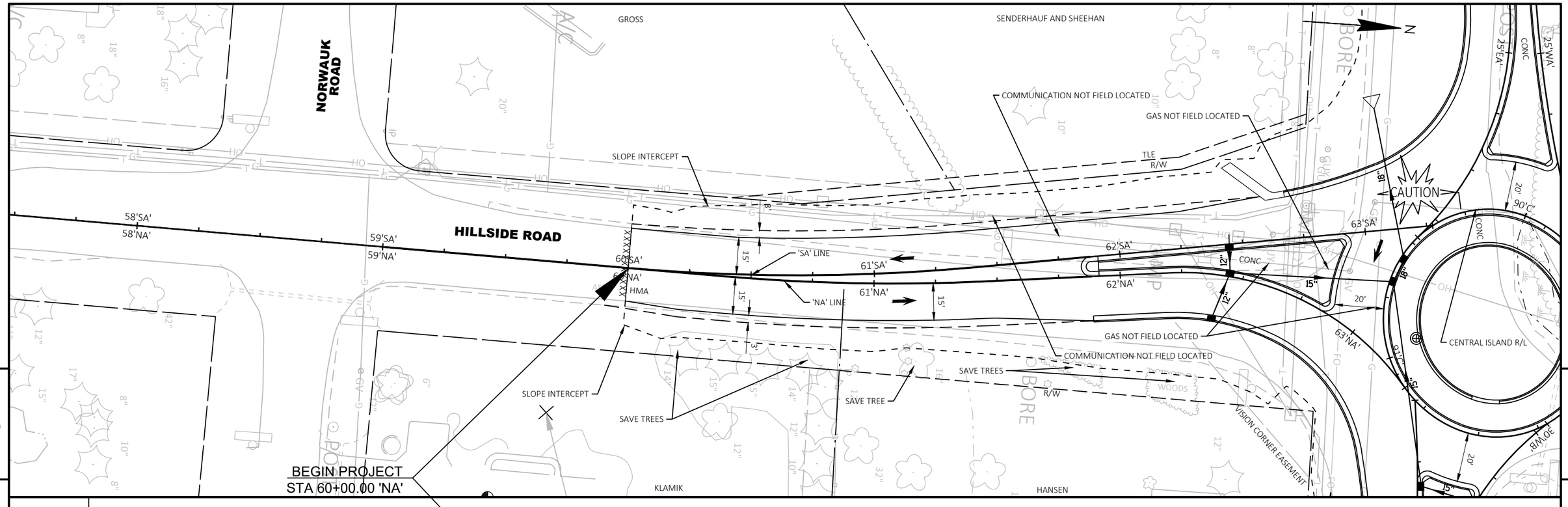
| BENCHMARK TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | DESCRIPTION | ELEVATION |
| 11890 | 439,888 | 2,437,709 | TOP OF SW COR. OF CONC. STOOP OF HOUSE #4074 | 994.94 |

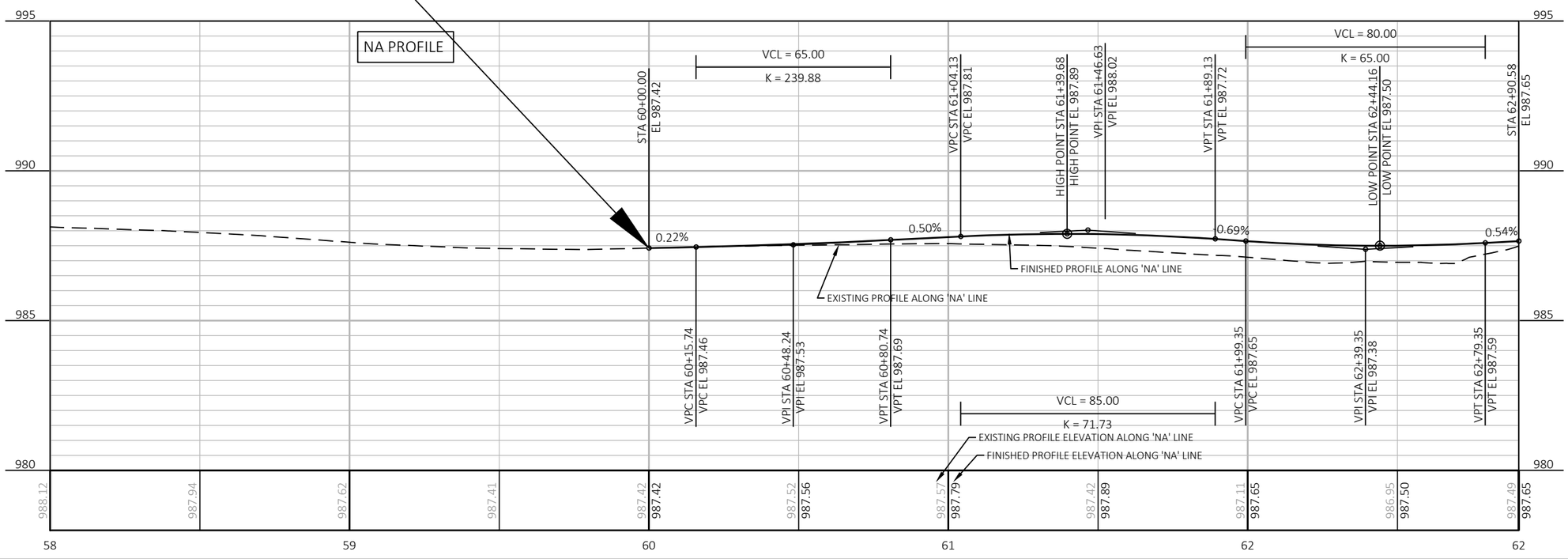



| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CTH Q WB LINE | SHEET 89 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - WB - (02)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT



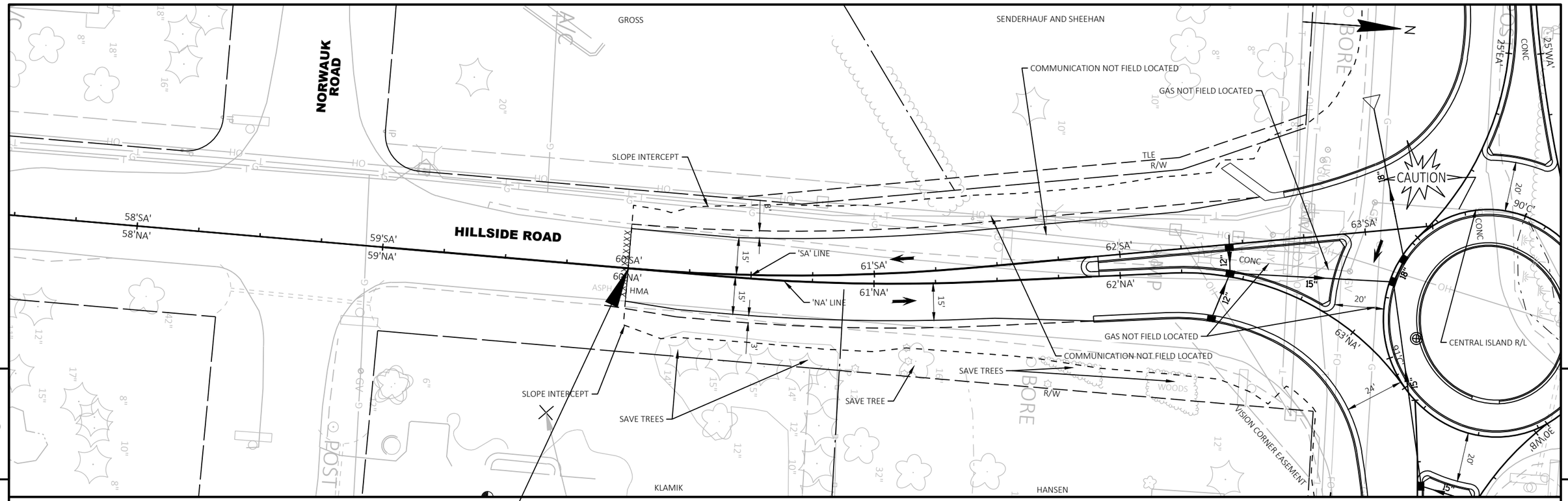



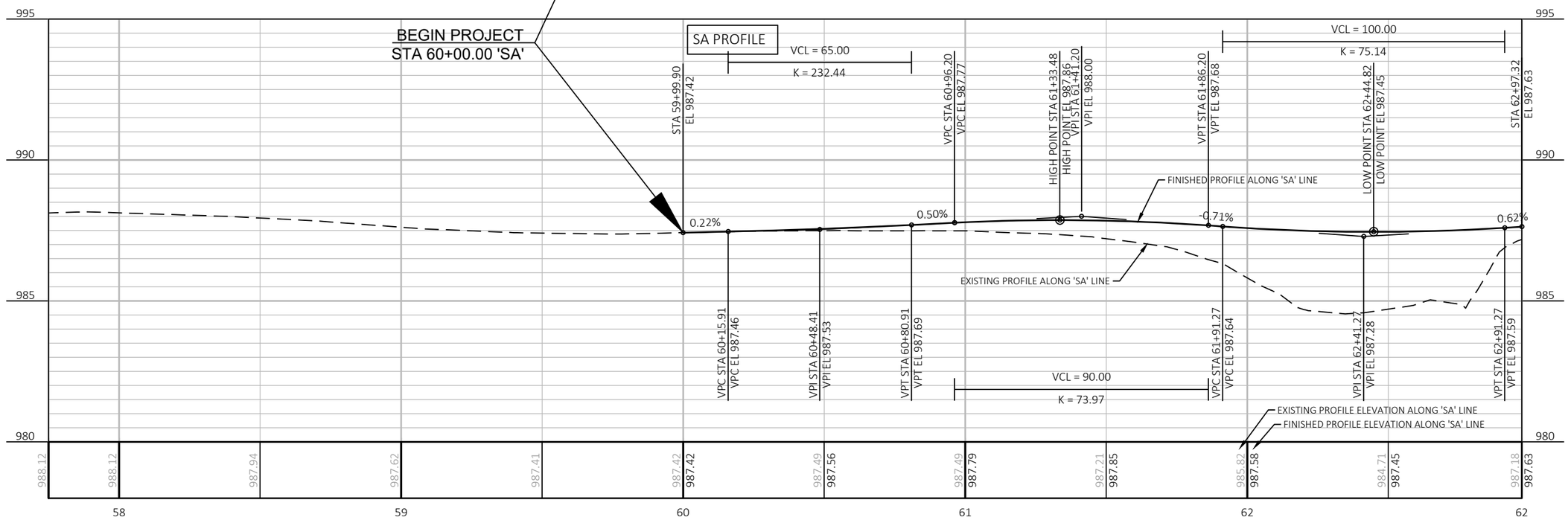

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: HILLSIDE ROAD NA LINE | SHEET 90 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - NA - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



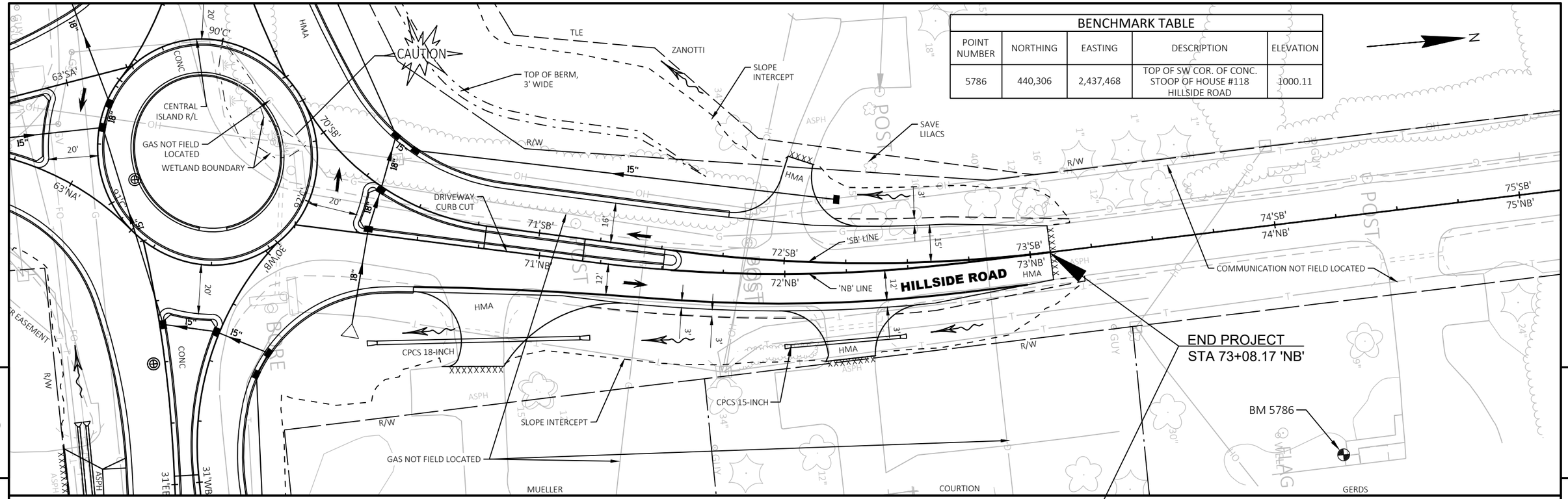

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: HILLSIDE ROAD SA LINE | SHEET 91 | E |
|---|---|---|---|---|---|

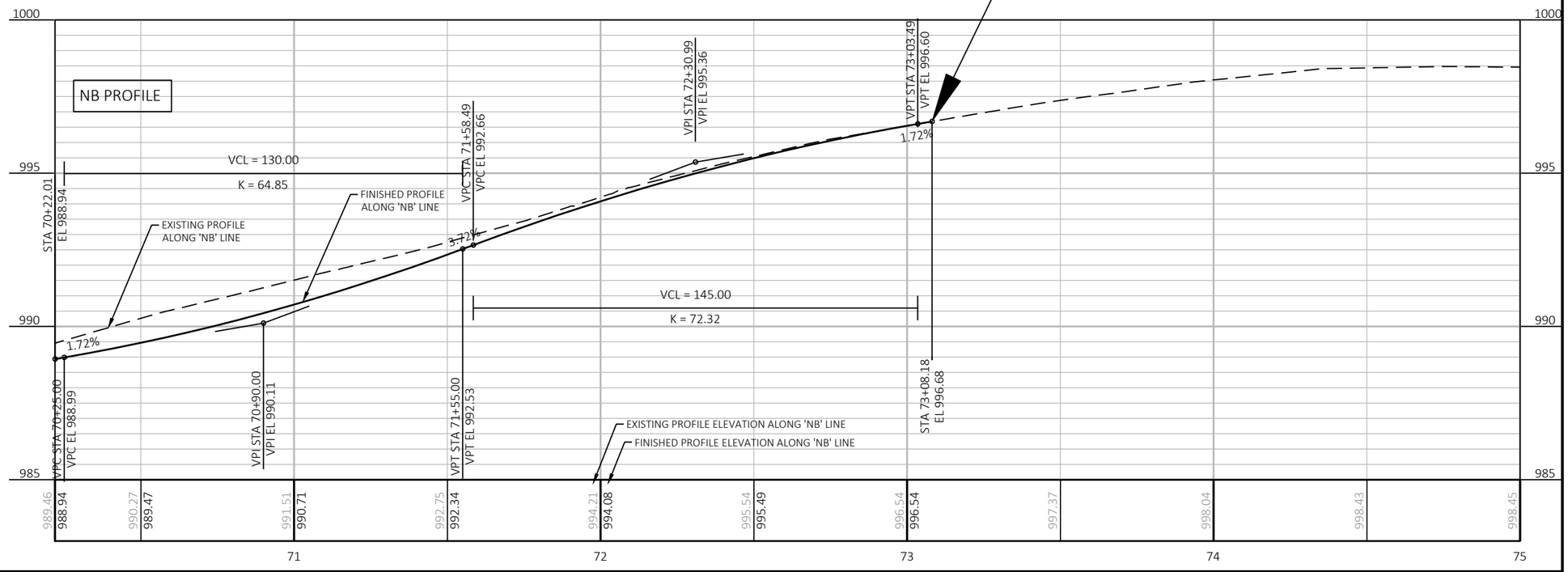
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - SA - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

| BENCHMARK TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | DESCRIPTION | ELEVATION |
| 5786 | 440,306 | 2,437,468 | TOP OF SW COR. OF CONC. STOOP OF HOUSE #118 HILLSIDE ROAD | 1000.11 |



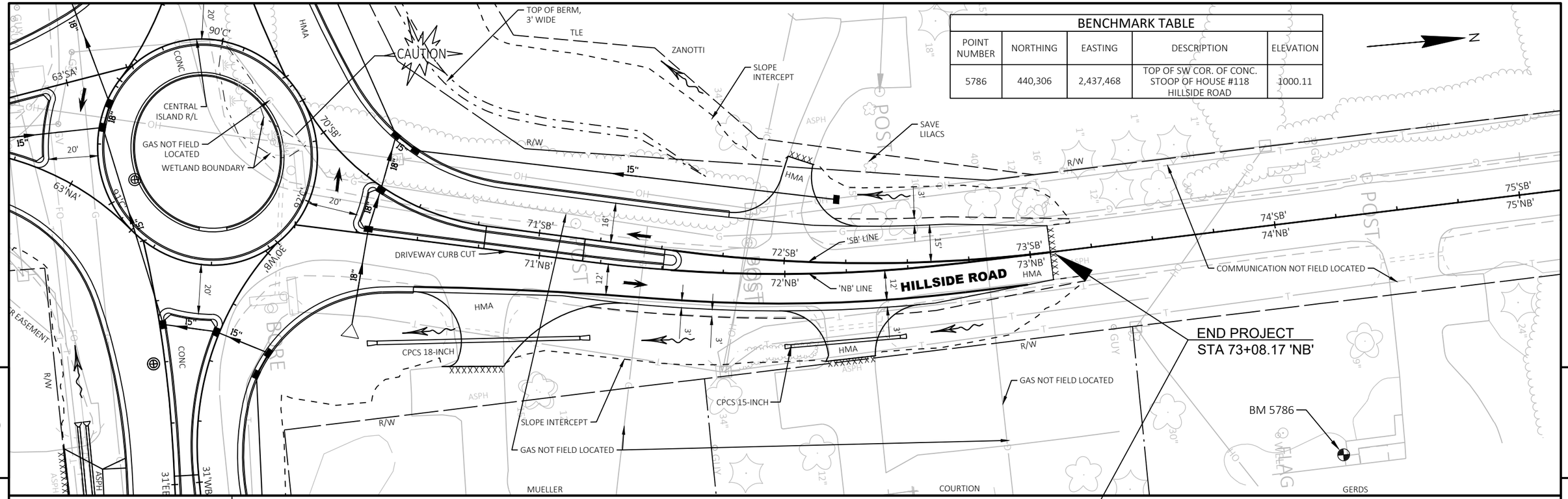

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: HILLSIDE ROAD NB LINE | SHEET 92 | E |
|---|---|---|---|---|---|

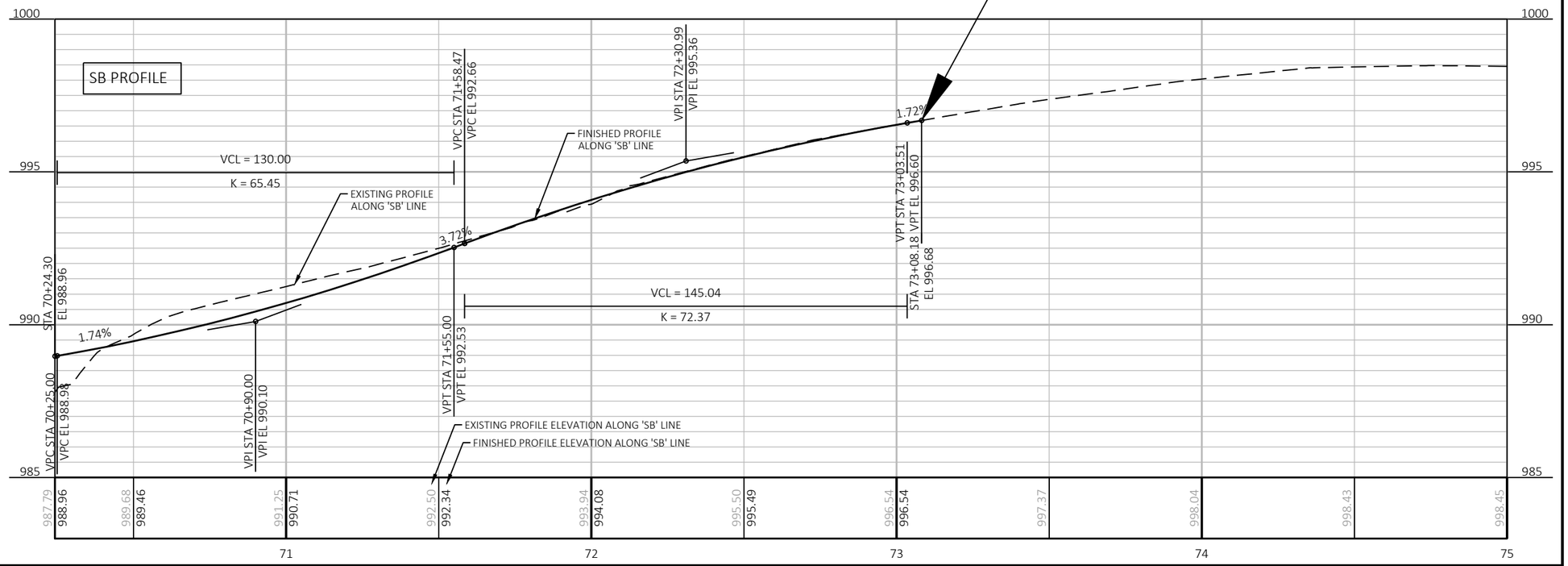
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - NB - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

| BENCHMARK TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | DESCRIPTION | ELEVATION |
| 5786 | 440,306 | 2,437,468 | TOP OF SW COR. OF CONC. STOOP OF HOUSE #118 HILLSIDE ROAD | 1000.11 |



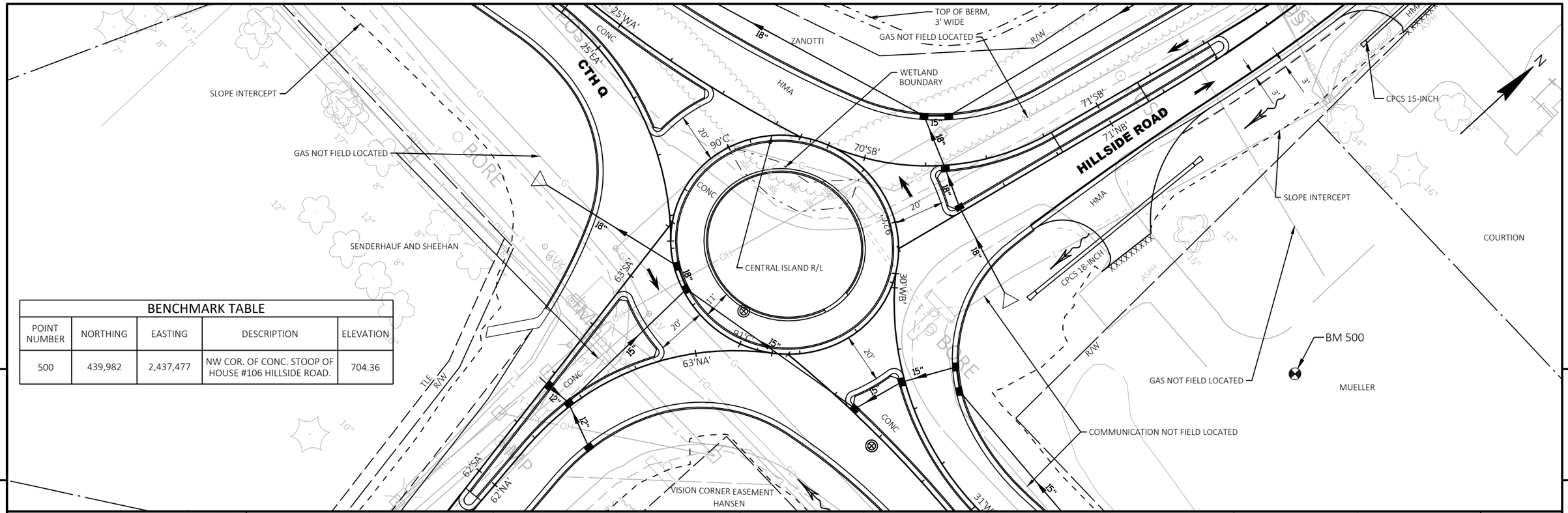



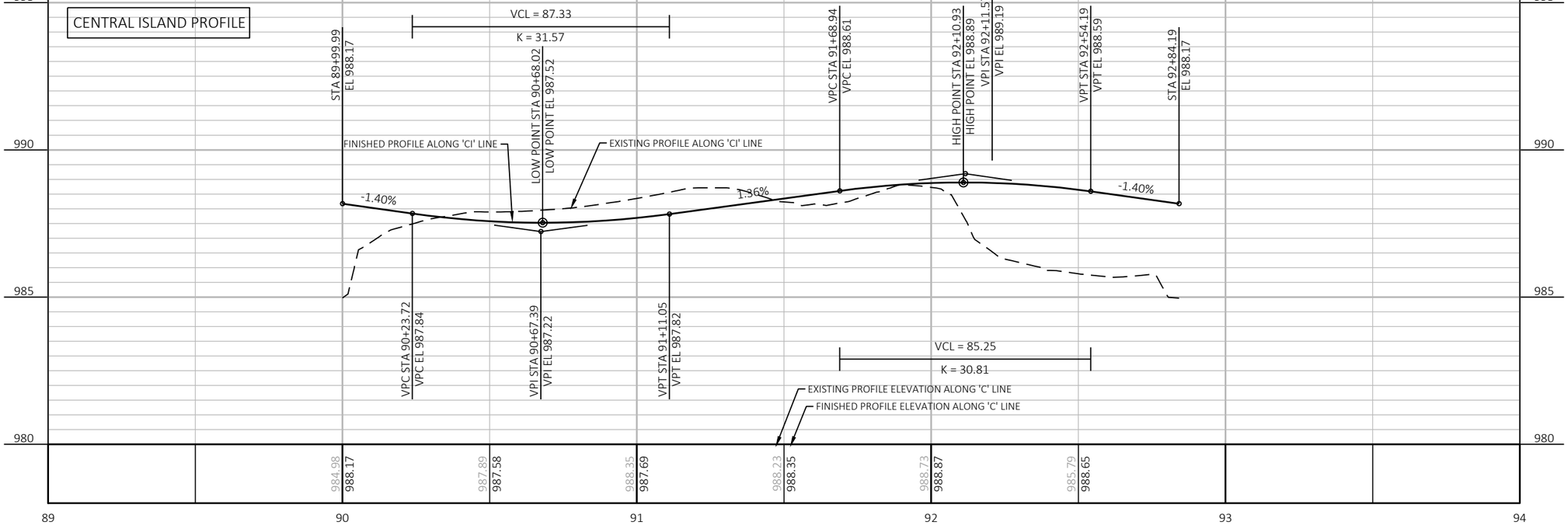

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: HILLLSIDE ROAD SB LINE | SHEET 93 E |
|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - SB - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

| BENCHMARK TABLE | | | | |
|---|---|---|---|---|
| POINT NUMBER | NORTHING | EASTING | DESCRIPTION | ELEVATION |
| 500 | 439,982 | 2,437,477 | NW COR. OF CONC. STOOP OF HOUSE #106 HILLSIDE ROAD. | 704.36 |




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | PLAN AND PROFILE: CENTRAL ISLAND | SHEET 94 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - CI - (01)

PLOT DATE : 10/27/2022 2:26 PM PLOT BY : SIEBERT, LUKE PLOT NAME : PLOT SCALE : 1 IN:40 FT

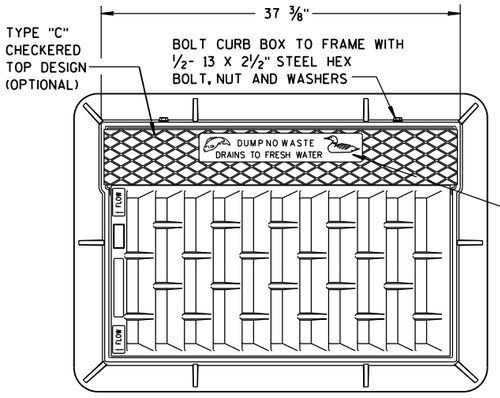
WISDOT/CADDS SHEET 44

# Standard Detail Drawing List

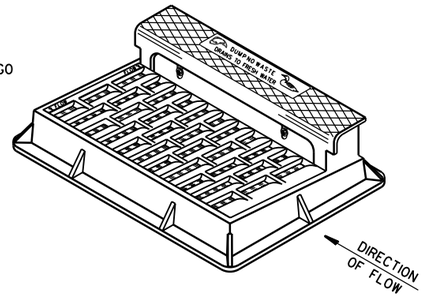
| | |
|---|---|
| 08A05-19A | INLET COVERS TYPE A, H, A-S, H-S & Z |
| 08A05-19B | INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM |
| 08A05-19C | INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S |
| 08B09-03 | MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER |
| 08C06-02 | INLETS 3-FT AND 4-FT DIAMETER |
| 08C08-02 | INLETS MEDIAN 1 AND 2 GRATE |
| 08D01-22A | CONCRETE CURB & GUTTER |
| 08D01-22B | CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS |
| 08D04-06 | CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES |
| 08D19-03 | DRIVEWAY AND SIDEWALK RAMPS TYPE Z |
| 08D21-01 | DRIVEWAYS WITHOUT CURB & GUTTER |
| 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 |
| 08E15-01 | CULVERT PIPE CHECK |
| 08F01-11 | APRON ENDWALLS FOR CULVERT PIPE |
| 08F02-01 | APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE |
| 08F04-08 | JOINT TIES FOR CONCRETE PIPE  AND CONCRETE COLLAR DETAIL |
| 08F07-05 | STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS |
| 11B02-02 | CONCRETE MEDIAN NOSE |
| 13C01-19 | CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES |
| 13C13-10 | URBAN DOWELED CONCRETE PAVEMENT |
| 13C18-07C | CONCRETE PAVEMENT JOINT TYPES |
| 13C18-07E | CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS |
| 13C19-03 | HMA LONGITUDINAL JOINTS |
| 15A03-02A | FLEXIBLE MARKER POST FOR CULVERT END |
| 15A03-02B | FLEXIBLE MARKER POST FOR CULVERT END |
| 15C02-08A | BARRICADES AND SIGNS FOR MAINLINE CLOSURES |
| 15C02-08B | BARRICADES AND SIGNS FOR VARIOUS CLOSURES |
| 15C02-08C | DETOUR SIGNING FOR MAINLINE CLOSURES |
| 15C03-05 | BARRICADES AND SIGNS FOR SIDEROAD CLOSURES |
| 15C04-05 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC |
| 15C05-05 | TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS |
| 15C07-15B | PAVEMENT MARKING WORDS |
| 15C07-15C | PAVEMENT MARKING ARROWS |
| 15C08-22AL | ONGITUDINAL MARKING (MAINLINE) |
| 15C08-22D | PAVEMENT MARKING (TURN LANES) |
| 15C11-09B | CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS |
| 15C12-09A | TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION |
| 15C18-06A | MEDIAN ISLAND MARKING PAVEMENT MARKINGS |
| 15C18-06B | MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE |
| 15C33-04 | STOP LINE AND CROSSWALK PAVEMENT MARKING |
| 15D29-06 | TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD |



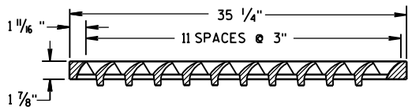
6

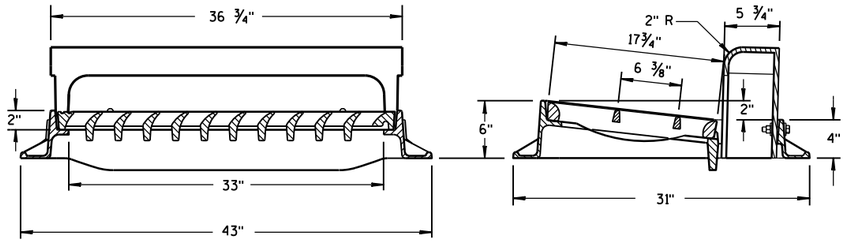


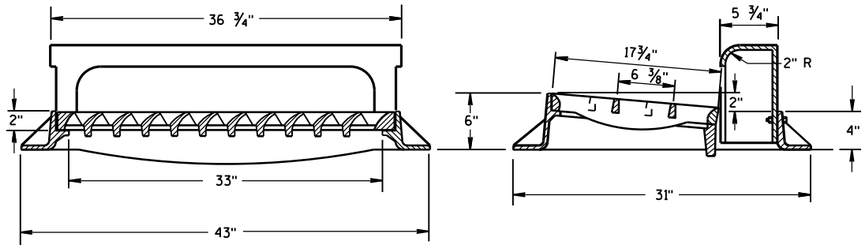

**NOTE:**
**GRATE IS REVERSIBLE.**




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

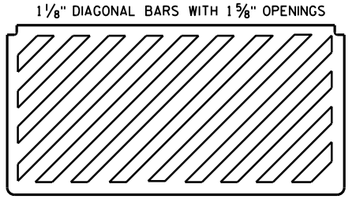



## TYPE "H"

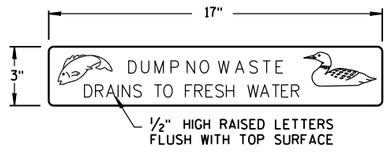
**NOTE: EITHER CASTING IS ACCEPTABLE**



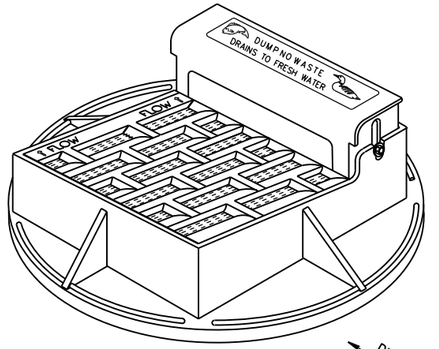

**SPECIAL GRATE FOR TYPE "H" COVER**

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)




**LOGO DETAIL**




NOTE: CURB BOX ADJUSTABLE 4" TO 9"

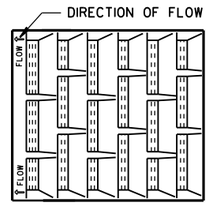
**NOTE:**
**GRATE IS REVERSIBLE.**

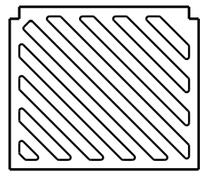
## GENERAL NOTES

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 CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

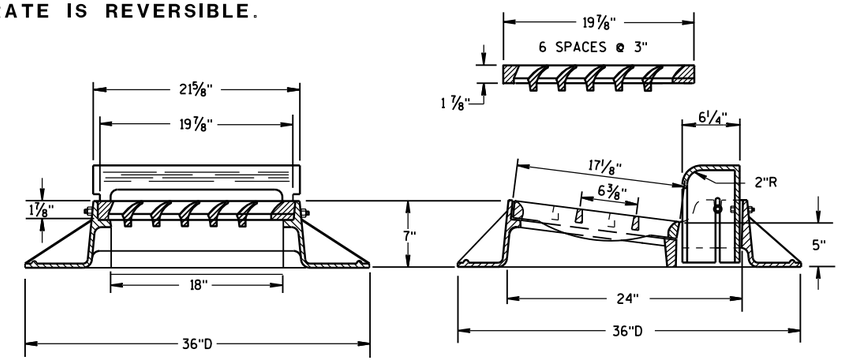


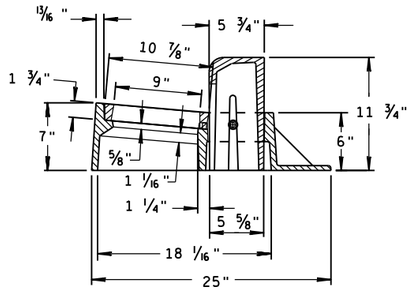

**SPECIAL GRATE FOR TYPE "A" COVER**

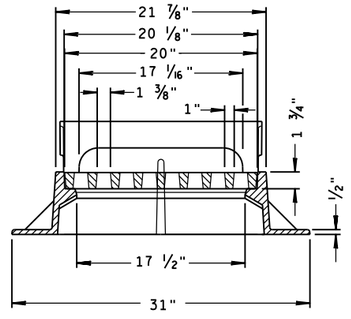
(MEASURES 19 3/4" X 17" X 1 7/8")

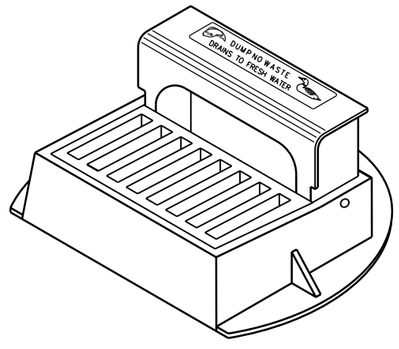
(NOTED AS TYPE A-S ON DRAINAGE TABLE)




## TYPE "A"




## TYPE "Z"

**INLET COVERS**
**TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

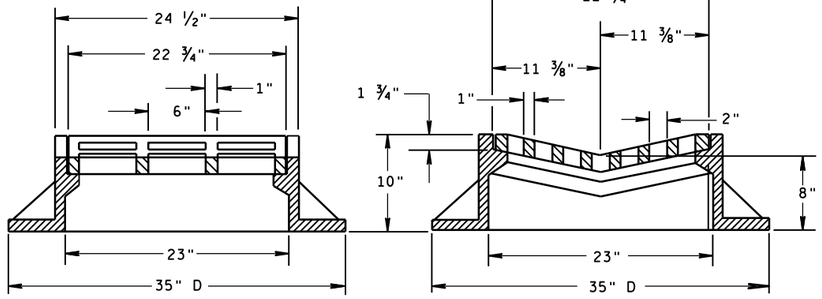
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

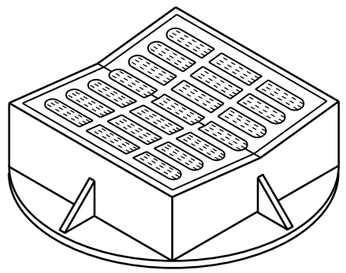


6

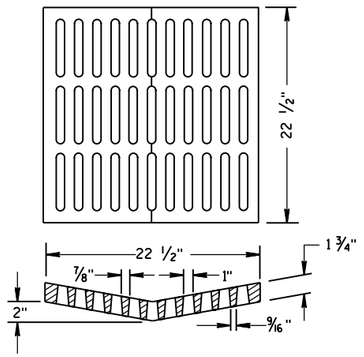


S.D.D. 8 A 5-19a



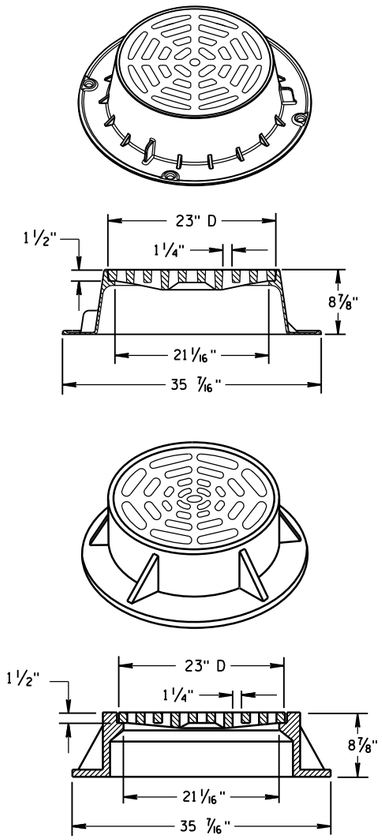



TYPE "B"




ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE




TYPE "C"

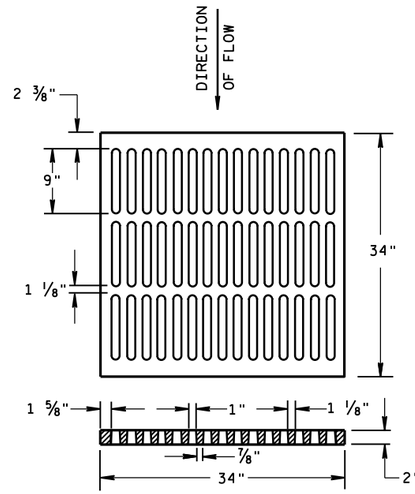
NOTE: EITHER CASTING IS ACCEPTABLE

## 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.

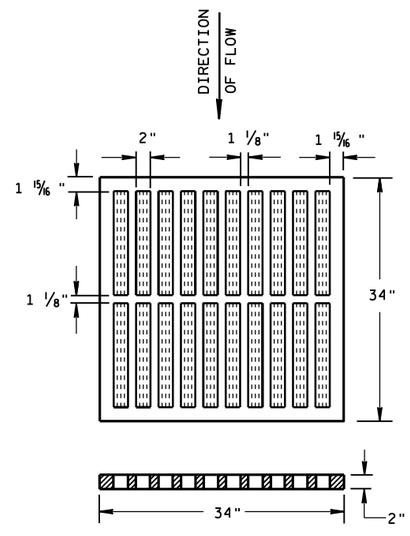
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



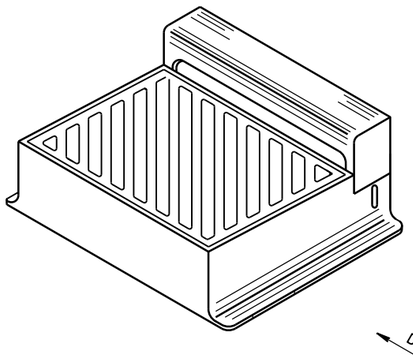

ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



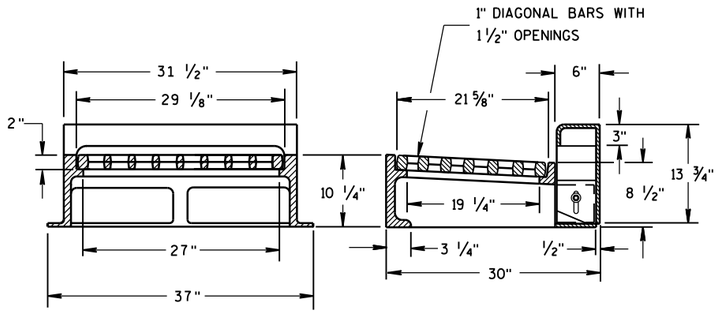

TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE






DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.




NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

**INLET COVERS**
**TYPE B, B-A, C, MS, MS-A, & WM**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

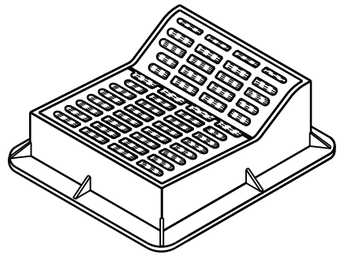
APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

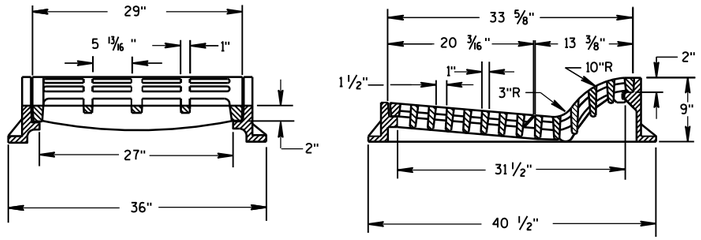


6



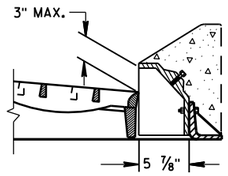
S.D.D. 8 A 5-19b






## TYPE "F"

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




## ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

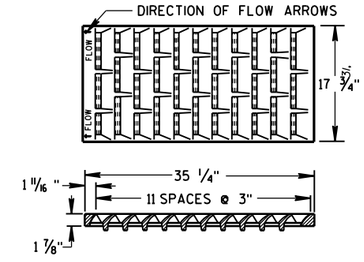
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

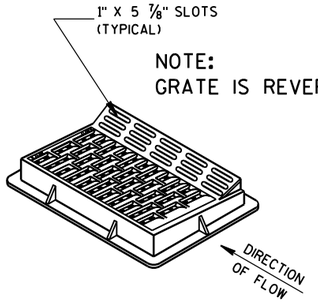
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

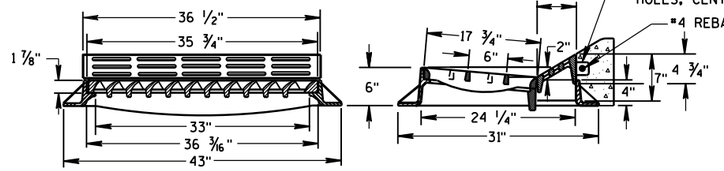
## GENERAL NOTES

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.



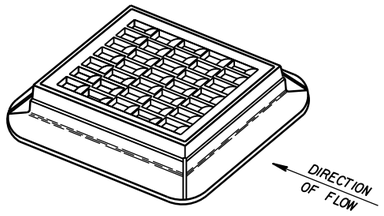



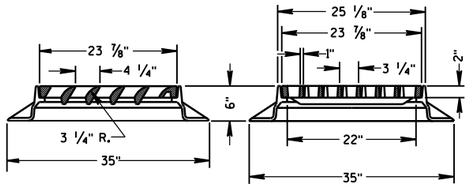




## TYPE "HM"

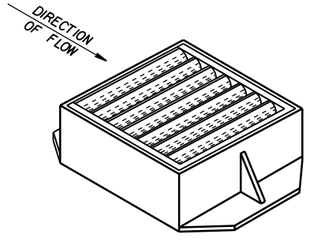
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

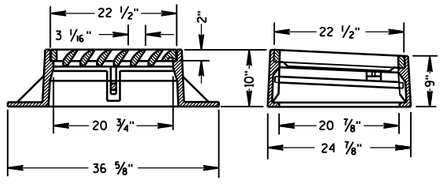
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



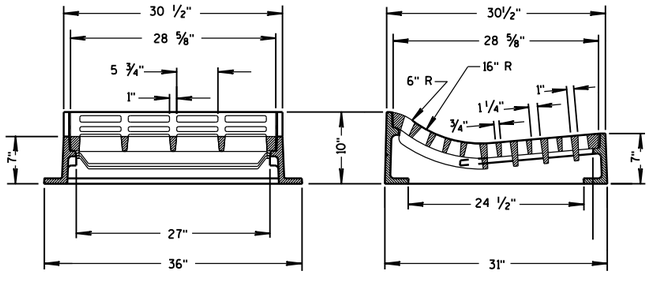




## TYPE "S"



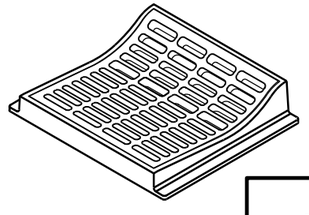




## TYPE "V"




## 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

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11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
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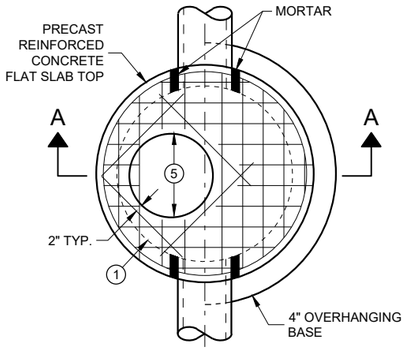
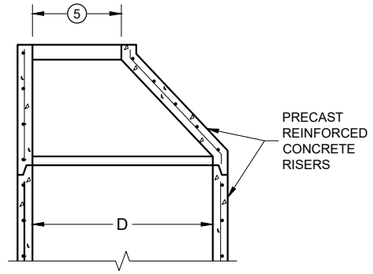
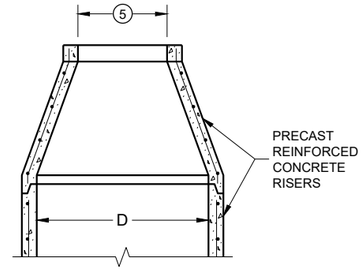



**PLAN VIEW**
**CIRCULAR OPENING**




**OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP**




**OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP**

## MANHOLE COVER OPENING MATRIX

| OPENING SIZE (FT.) \ MANHOLE COVER TYPE | C | ALL J'S | K | L | M |
|---|---|---|---|---|---|
| 2 DIA. | X | X | | X | |
| 3 DIA. | | | X | | X |

## PIPE MATRIX

| MANHOLE SIZE (DIA.) | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES | | MINIMUM WALL THICKNESS (IN) | MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS |
|---|---|---|---|---|
| | 180° SEPARATION (IN) | 90° SEPARATION (IN) | | |
| 3-FT | 15 | 12 | 4 | 6 |
| 4-FT | 24 | 18 | 4 | 6 |
| 5-FT | 36 | 24 | 5 | 8 |
| 6-FT | 42 | 36 | 6 | 8 |
| 7-FT | 48 | 36/42* | 7 | 8 |
| 8-FT | 60 | 42 | 8 | 8 |
| 9-FT | 66 | 54 | 9 | 10 |
| 10-FT | 72 | 60 | 10 | 10 |

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

## 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 MANHOLE 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 DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE 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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL 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.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

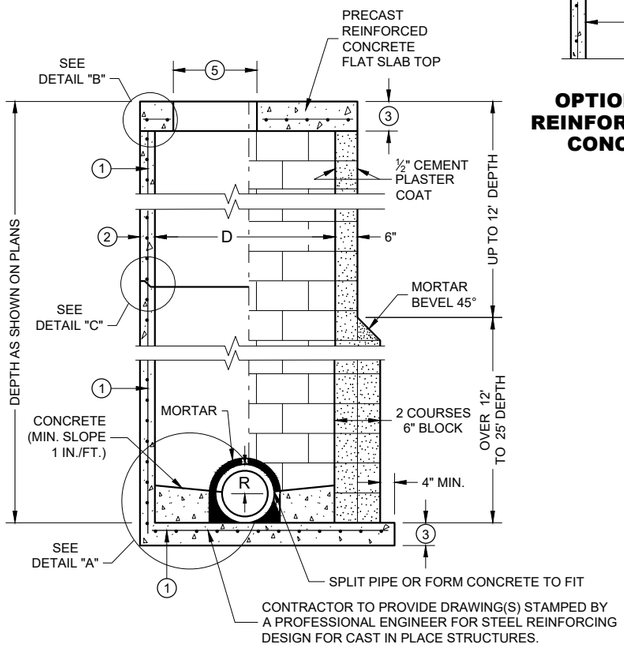
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

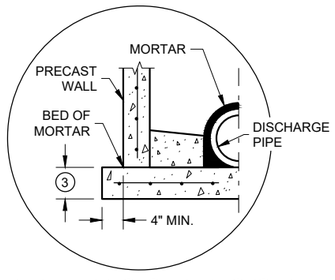
(5) SEE MANHOLE COVER OPENING MATRIX.



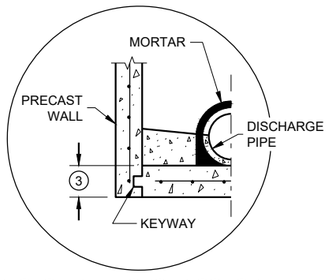

**SECTION A - A**

**PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE**

**CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)**

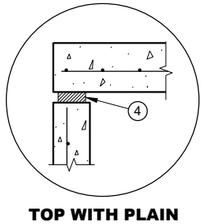



**SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION**

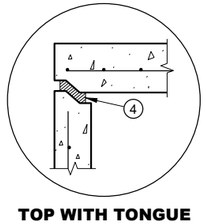



**PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION**

**DETAIL "A"**

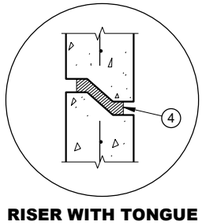



**TOP WITH PLAIN END JOINT**



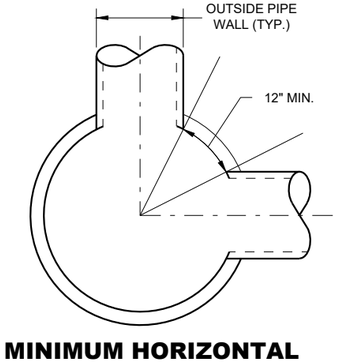

**TOP WITH TONGUE AND GROOVE JOINT**

**DETAIL "B"**




**RISER WITH TONGUE AND GROOVE JOINT**

**DETAIL "C"**




**MINIMUM HORIZONTAL PIPE SEPARATION**

**MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER**

STATE OF WISCONSIN
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APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

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**MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER**



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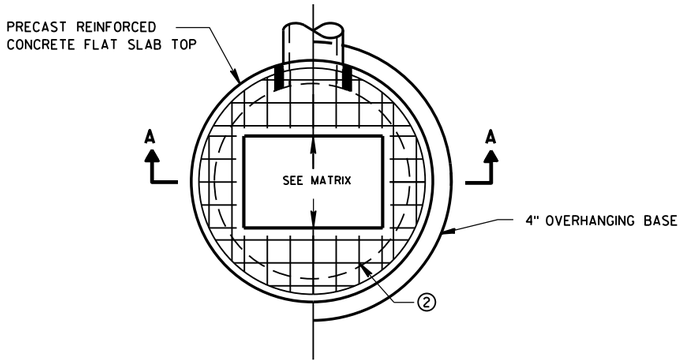
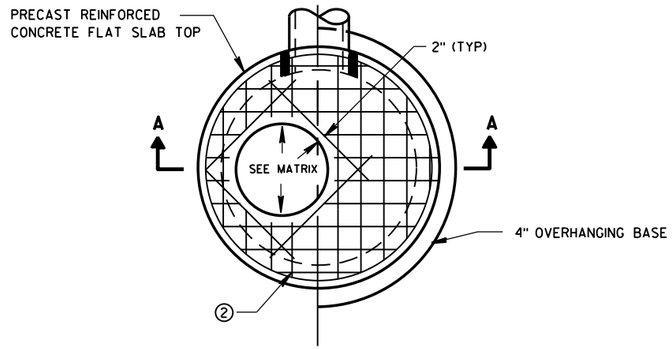
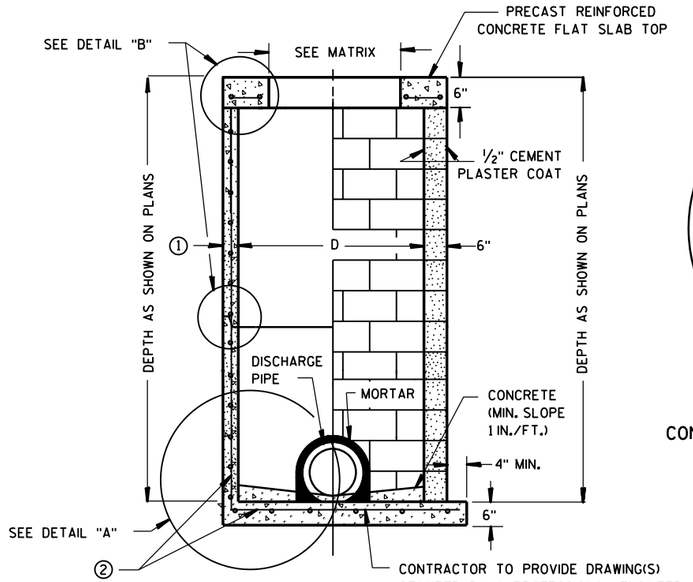



PLAN VIEW RECTANGULAR OPENING




PLAN VIEW CIRCULAR OPENING

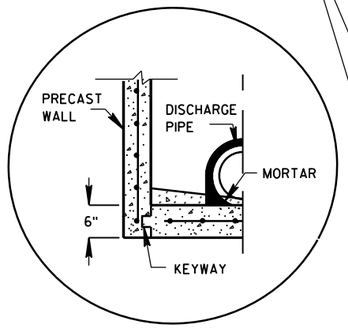



SECTION A-A

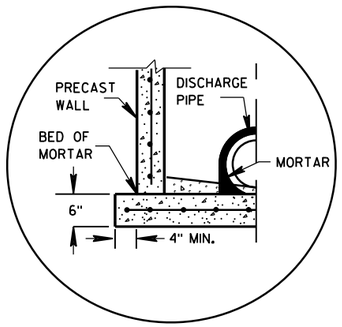
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

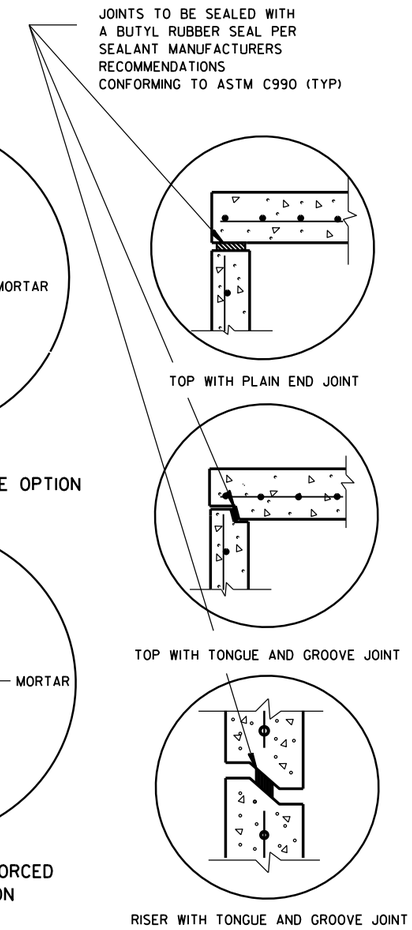



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION




SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"




DETAIL "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.

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 DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE 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 FOUNDATION 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.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

4" OVERHANGING BASES ARE REQUIRED FOR ALL 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.

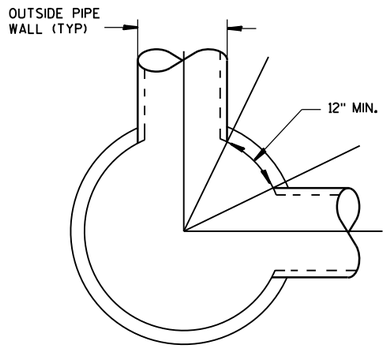
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

## INLET COVER OPENING MATRIX

| | INLET COVER TYPE | ALL A'S | ALL B'S | BW | C | F | ALL H'S | S | T | V | WM | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| INLET SIZE | OPENING SIZE (FT) | | | | | | | | | | | |
| 3-FT | 2 DIA. | | | | X | | | | | | | X |
| | 2X2 | X | X | | | | | X | | X | | |
| 4-FT | 2 DIA. | | | | X | | | | | | | X |
| | 2X2 | X | X | | | | | X | | X | | |
| | 2X2.5 | | | X | | | | X | X | X | X | |
| | 2X3 | | | | | | X | | | | | |
| | 2.5X3 | | | | | X | | | | | | |




DETAIL "C"

## PIPE MATRIX

| INLET SIZE | MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES | |
|---|---|---|
| | 180° SEPARATION (IN) | 90° SEPARATION (IN) |
| 3-FT | 15 | 12 |
| 4-FT | 24 | 18 |

INLETS 3-FT AND 4-FT DIAMETER

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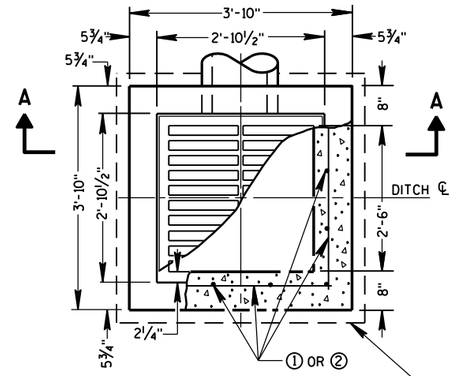
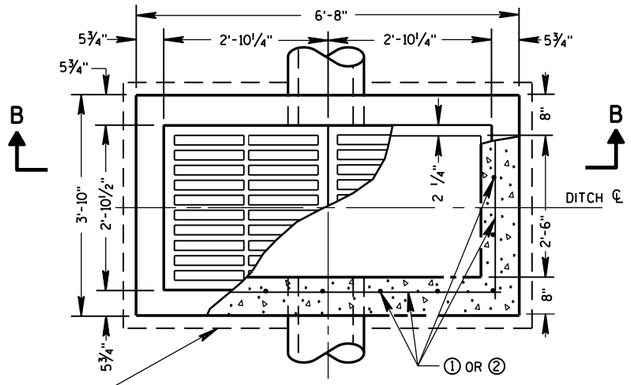
INLETS 3-FT AND 4-FT DIAMETER

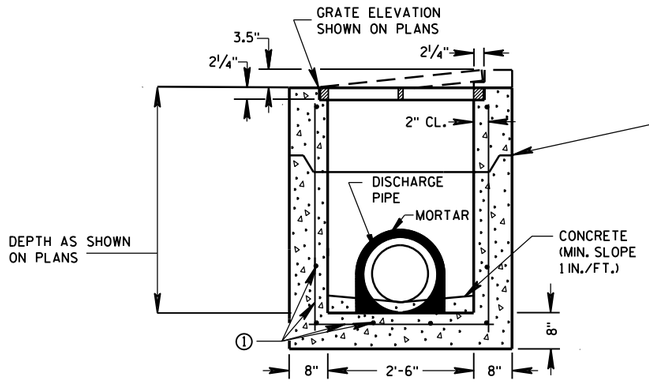



PLAN VIEW

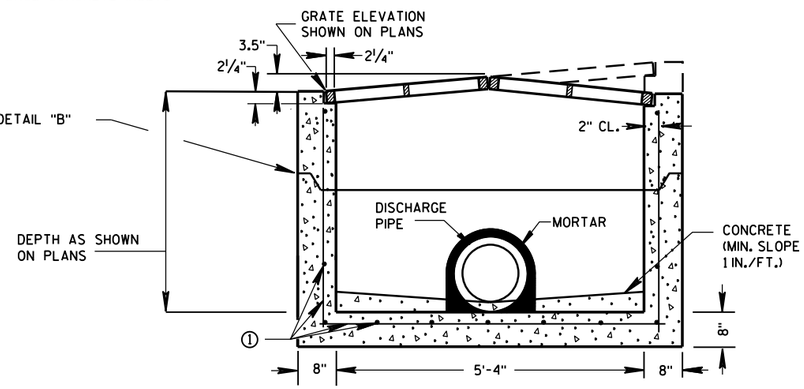



PLAN VIEW

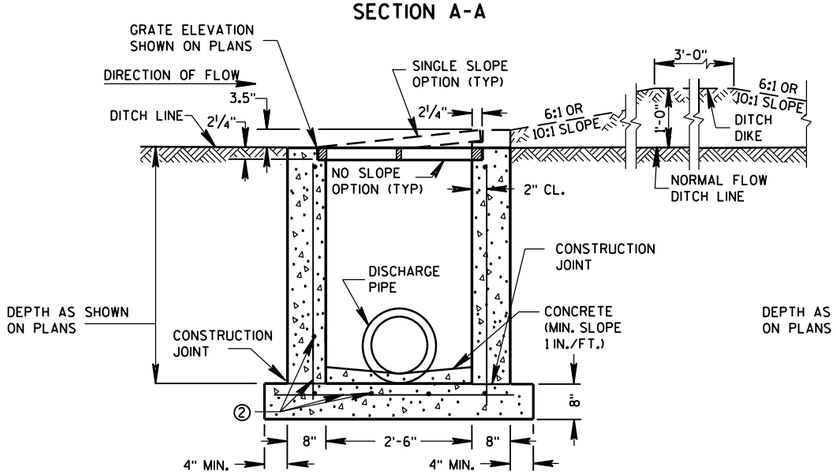
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



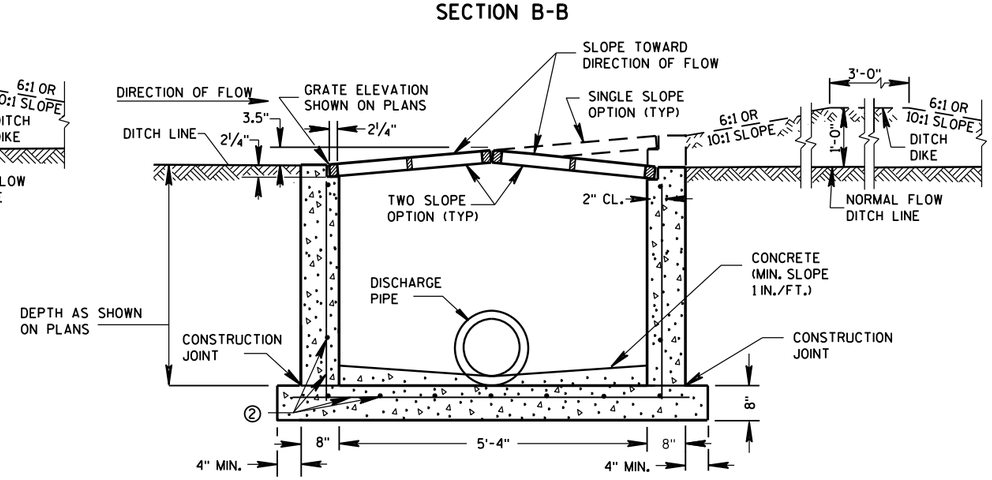

PRECAST REINFORCED CONCRETE SECTION A-A




PRECAST REINFORCED CONCRETE SECTION B-B




REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A




REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

## INLETS MEDIAN 1 GRATE

## INLETS MEDIAN 2 GRATE

## 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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 FOUNDATION 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.

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

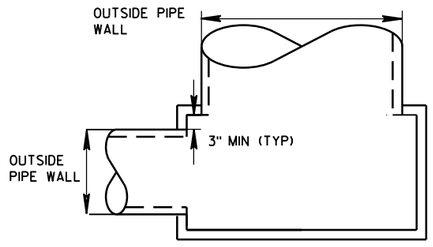
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

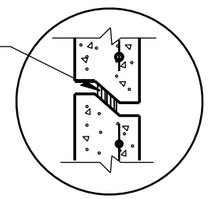
### PIPE MATRIX

| | MAXIMUM INSIDE PIPE DIAMETER | |
|---|---|---|
| INLET SIZE | WIDTH (IN) | LENGTH (IN) |
| 1 GRATE | 18 | 18 |
| 2 GRATE | 18 | 42 |




DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
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APPROVED
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/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVI ENT
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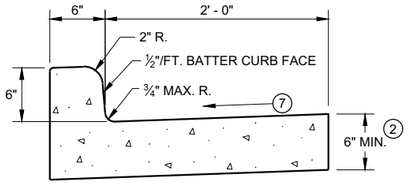
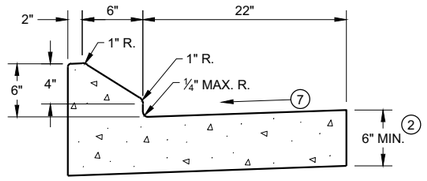
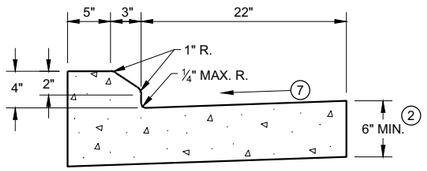
S.D.D. 8 C 8-2



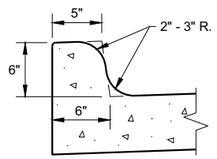

**TYPES A (1) & D**



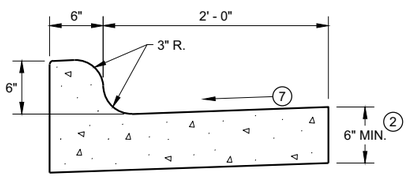

**6" SLOPED CURB TYPES G (1) & J**




**4" SLOPED CURB TYPES G (1) & J**

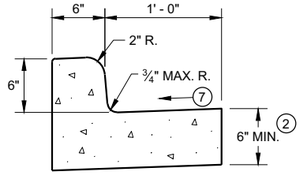



**TYPES K (1) & L**
(OPTIONAL CURB SHAPE)



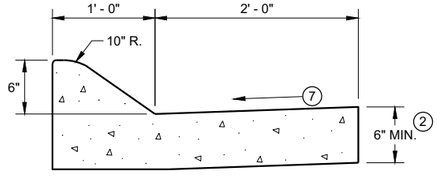

**TYPES K (1) & L**

**CONCRETE CURB AND GUTTER 30"**




**TYPES A (1) & D**

**CONCRETE CURB AND GUTTER 18"**

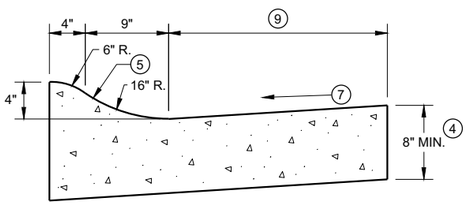



**6" SLOPED CURB TYPES A (1) & D**



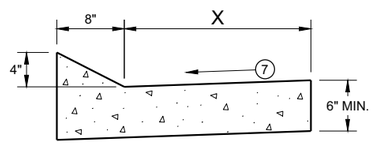

**4" SLOPED CURB TYPES A (1) & D**

**CONCRETE CURB AND GUTTER 36"**




**4" SLOPED CURB TYPES R (1) & T**

| TBT & TBTT | X |
|---|---|
| 30" | 22" |
| 36" | 28" |

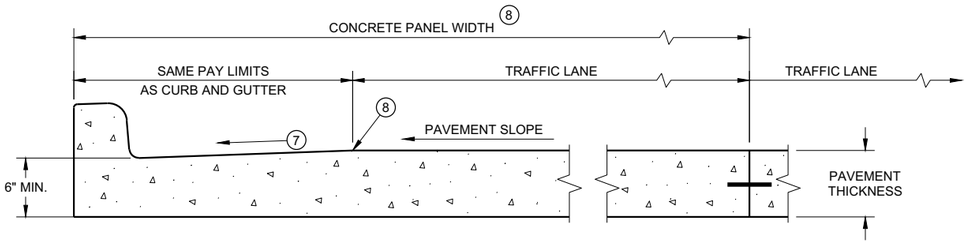



**TYPES TBT & TBTT (1)**

**CONCRETE CURB AND GUTTER**

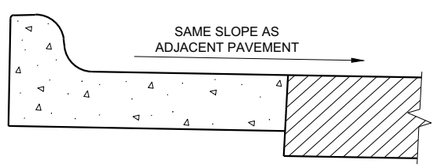
**PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE**

| PAVEMENT THICKNESS | MAXIMUM PANEL WIDTH |
|---|---|
| LESS THAN 10" | 12' |
| 10" & ABOVE | 15' |




**PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER**

* BIKE LANE IS NOT SHOWN




**REVERSE SLOPE GUTTER (6)**
(TYPICAL FOR ALL CURB & GUTTER TYPES)

## GENERAL NOTES

DETAILS OF CONSTRUCTION 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 AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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 GUTTERS 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) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) 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.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

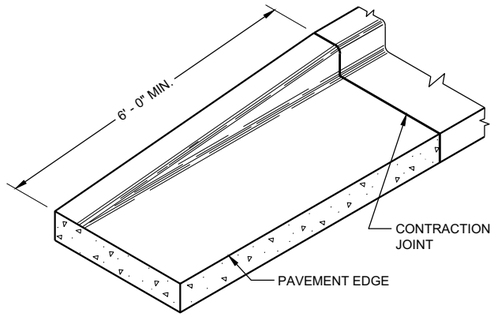
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

**CONCRETE CURB AND GUTTER**

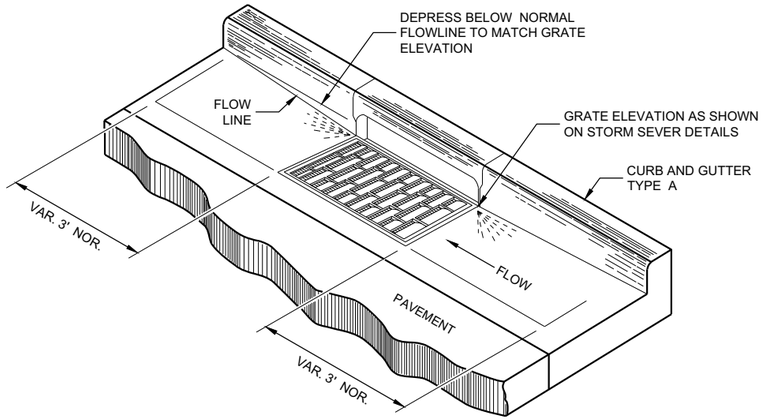


SDD 08D01 - 22a

6




**END SECTIONCURB AND GUTTER**




**DETAIL OF CURB AND GUTTER AT INLETS**
(TYPICAL H INLET COVER SHOWN)

## GENERAL NOTES

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

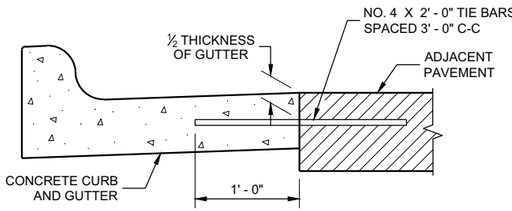
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

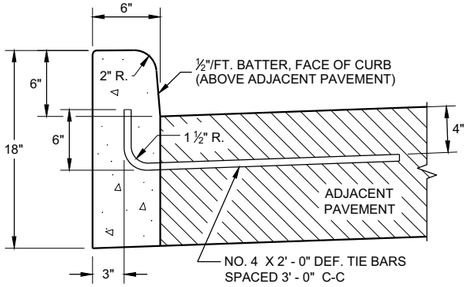
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

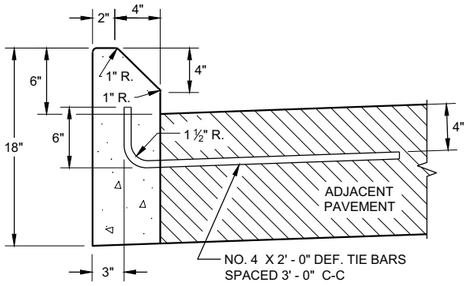
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.




**TYPICAL TIE BAR LOCATION (1)**

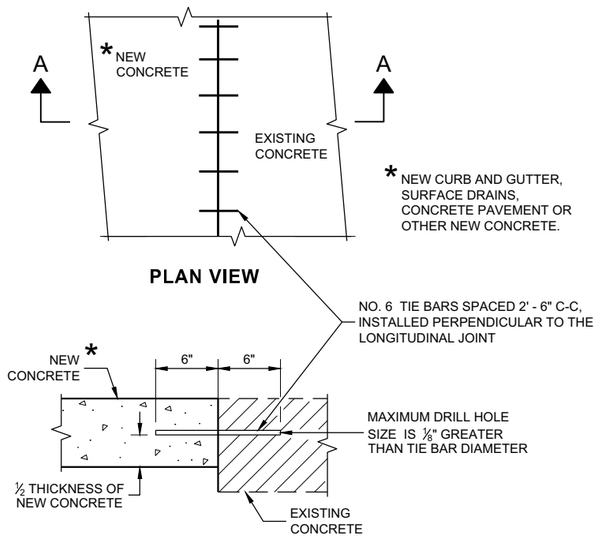



**TYPES A (1) & D**




**TYPES G (1) & J**

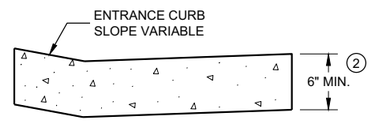
**CONCRETE CURB**




**PLAN VIEW**

**SECTION A - A**

**TIE BARS DRILLED INTO EXISTING PAVEMENT**




**DRIVEWAY ENTRANCE CURB (9)**
(WHEN DIRECTED BY THE ENGINEER)

**CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA



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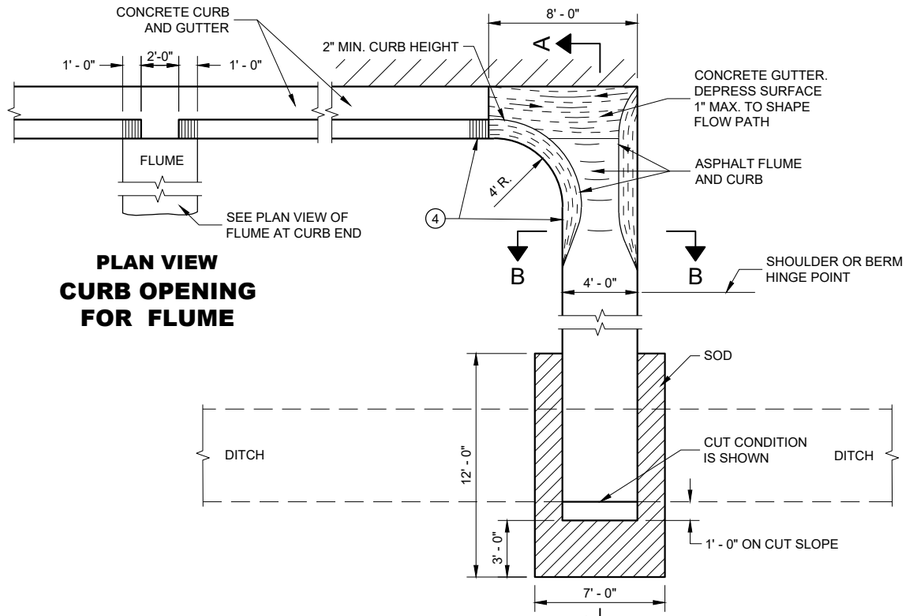
SDD08D01 - 22b

SDD08D01 - 22b

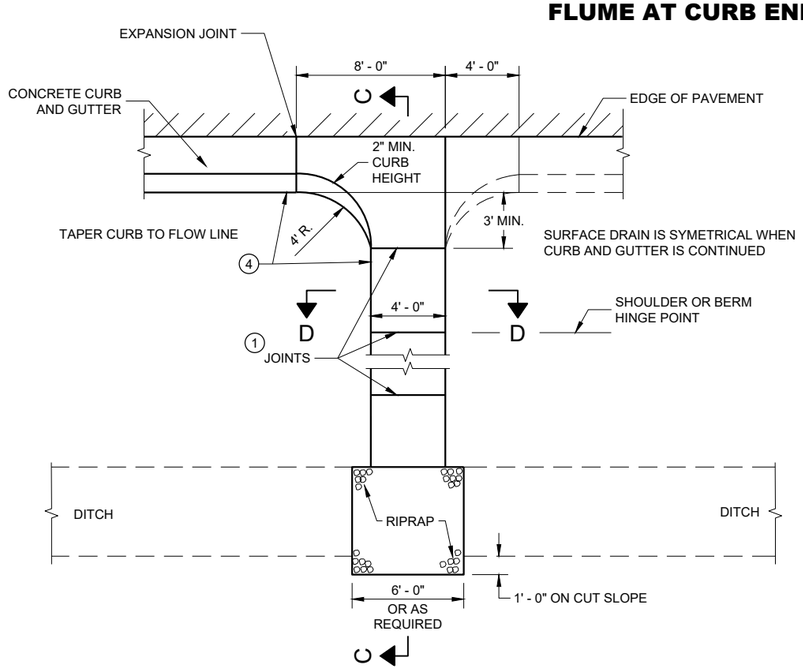
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

## ASPHALTIC FLUME




**PLAN VIEW**
**CURB OPENING FOR FLUME**

**PLAN VIEW**
**FLUME AT CURB END**



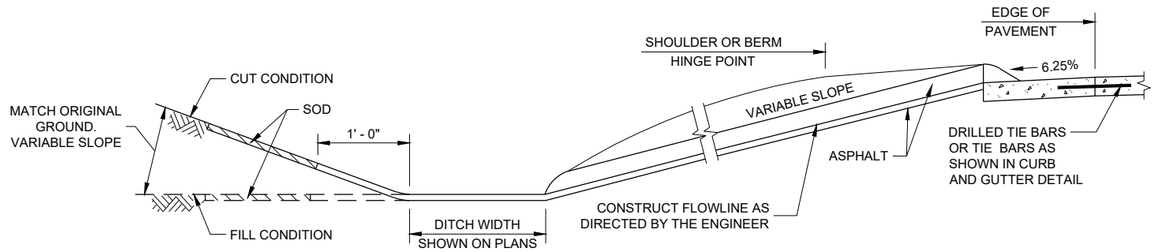

**PLAN VIEW**
**CONCRETE SURFACE DRAIN**

## GENERAL NOTES

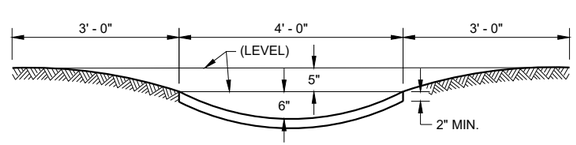
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

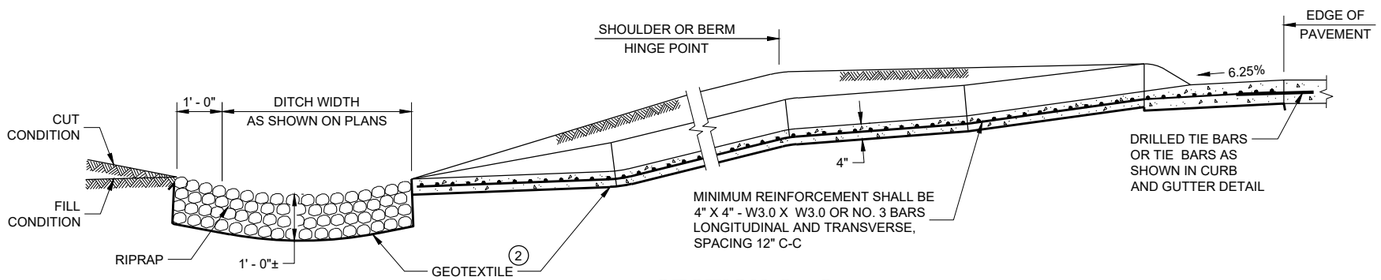
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



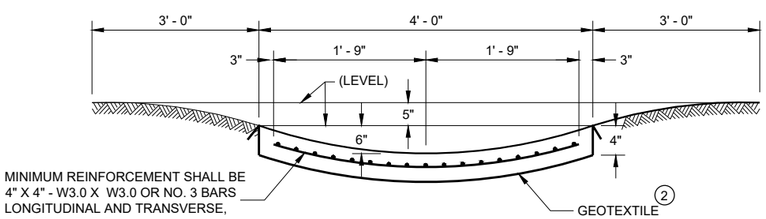

**SECTION A - A**




**SECTION B - B**




**SECTION C - C**




**SECTION D - D**

**CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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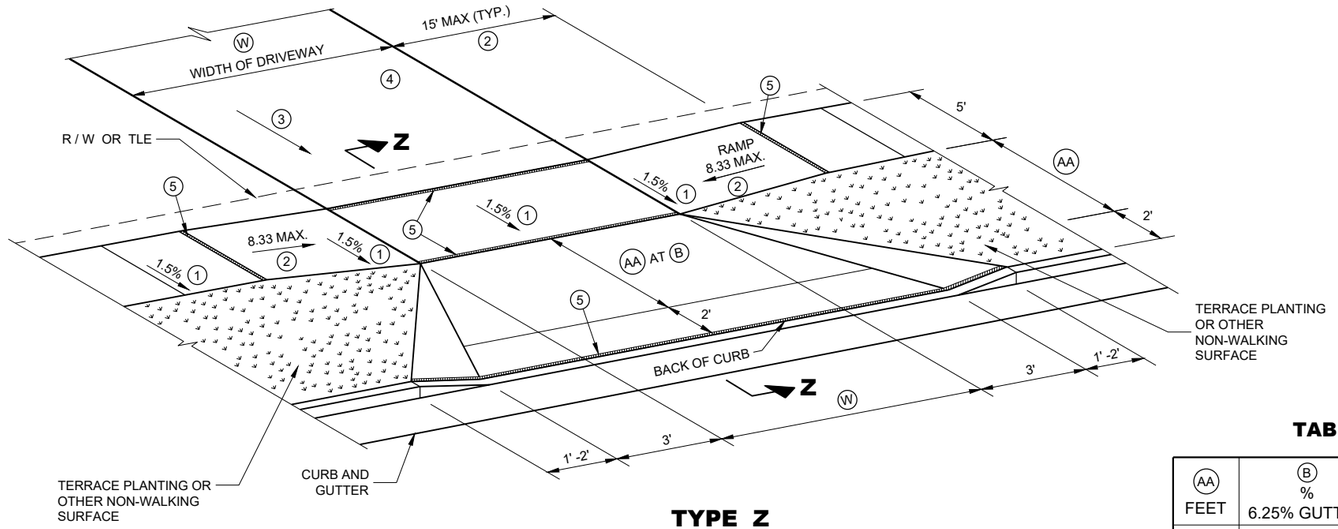
SDD 08D04 - 06




**TYPE Z**
**SIDEWALK WITH WIDER TERRACE**
**TERRACE VARIES 7 TO 12 FEET**

## GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY.

(3) DRIVEWAY SLOPES: DESIRABLE MAXIMUM
- 10.5% UP AWAY FROM SIDEWALK (SAG)
- 8.5% DOWN AWAY FROM SIDEWALK (CREST)
- ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) DRIVEWAY TYPES
- 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
- 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
- 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

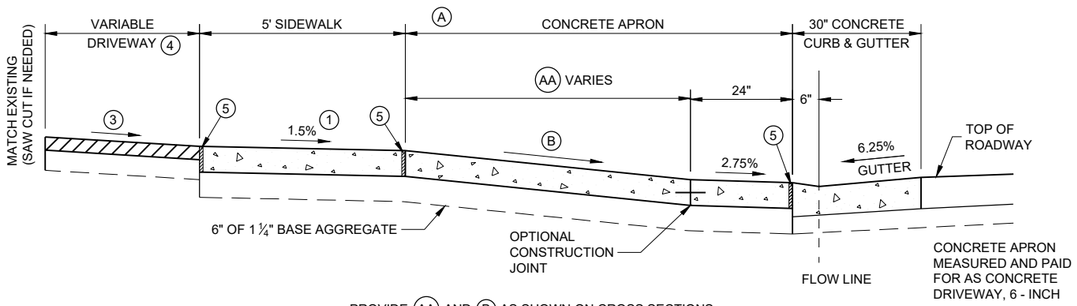
(5) ½" EXPANSION JOINT FILLER.

**TABLE Z**

| (AA) FEET | (B) % 6.25% GUTTER | (B) % 4% GUTTER |
|---|---|---|
| 4.5' | 11.5% | 9% TO 11.5% |
| 5.5' | 9% TO 11.5% | 8% TO 11.5% |
| 6.5' | 8% TO 11.5% | 6% TO 11.5% |
| 7.5' | 7% TO 11.5% | 6% TO 11.5% |
| 8.5' | 6% TO 11.5% | 5% TO 11.5% |
| 9.5' | 5% TO 11.5% | 4% TO 11.5% |

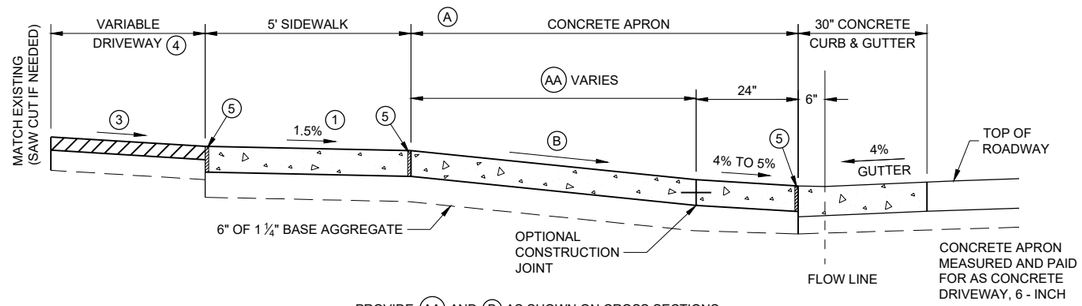
(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)

16' MIN. - 35' MAX. COMMERCIAL (CE)




PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

**6.25% GUTTER SLOPE**




PROVIDE (AA) AND (B) AS SHOWN ON CROSS SECTIONS.

**4% GUTTER SLOPE**

NOTE: SIDEWALK MY BE DEPRESSED IN DRIVEWAY AREAS FOR (B) VALUES NOT SHOWN IN TABLE Z.

SIDEWALK WITHIN THE LIMITS OF THE DRIVEWAY PAID FOR AS CONCRETE DRIVEWAY 6-INCH.

SEPARATE PAYMENT FOR BASE AGGREGATE WILL BE MADE.

**SECTION Z - Z**

**DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER**

**(URBAN AND SUBURBAN)**

**DRIVEWAY AND SIDEWALK RAMPS TYPE Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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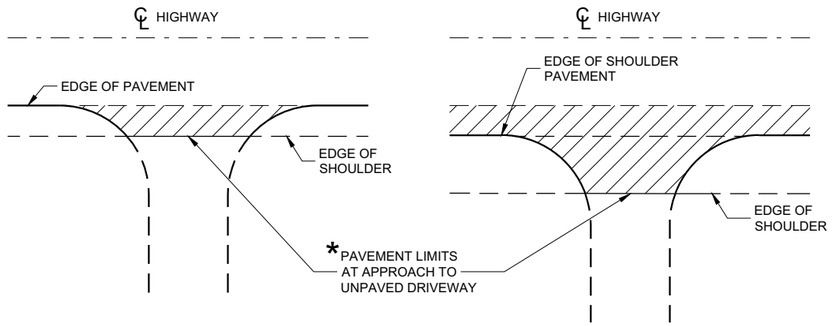
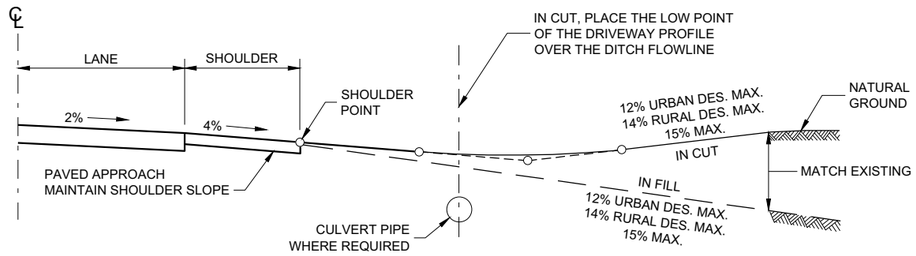
SDD 08D19 - 03



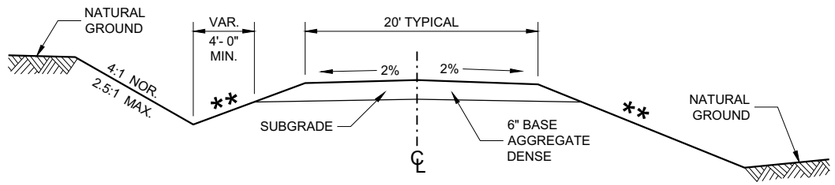

**PLAN VIEW**
(UNPAVED SHOULDER ON HIGHWAY)

**PLAN VIEW**
(PAVED SHOULDER ON HIGHWAY)

## RURAL DRIVEWAY INTERSECTION DETAIL
## (NO CURB AND GUTTER OR SIDEWALK)




## TYPICAL DRIVEWAY PROFILES

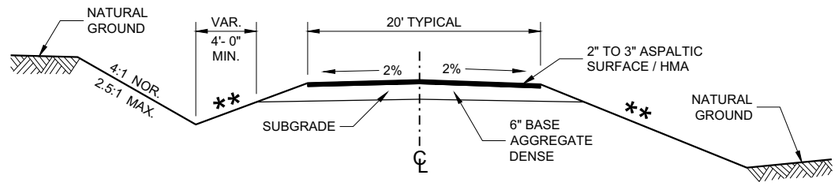



**IN CUT** **IN FILL**

## TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

| POSTED SPEED MPH | MAX. SLOPE |
|---|---|
| <35 | 4:1 |
| ≥ 35 TO < 60 | 6:1 |
| ≥60 | 10:1 |




**IN CUT** **IN FILL**

## TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

6

SDD 08D21 - 01

SDD 08D21 - 01

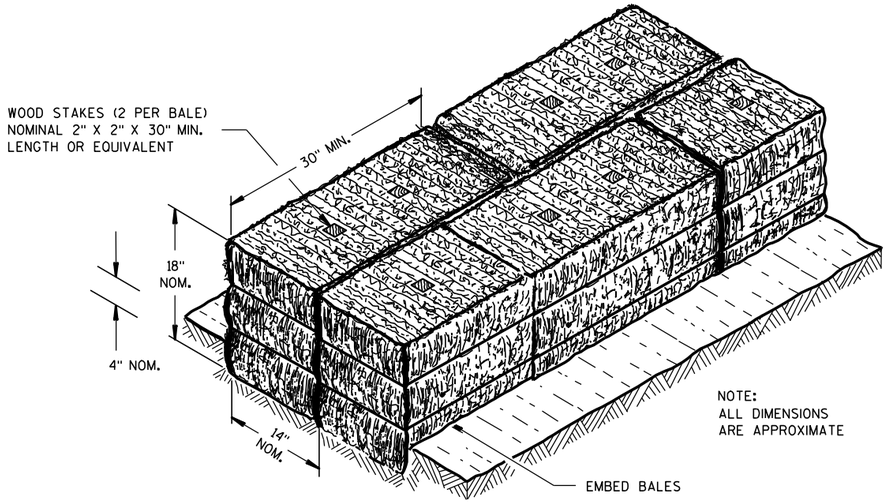
**DRIVEWAYS WITHOUT CURB AND GUTTER**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

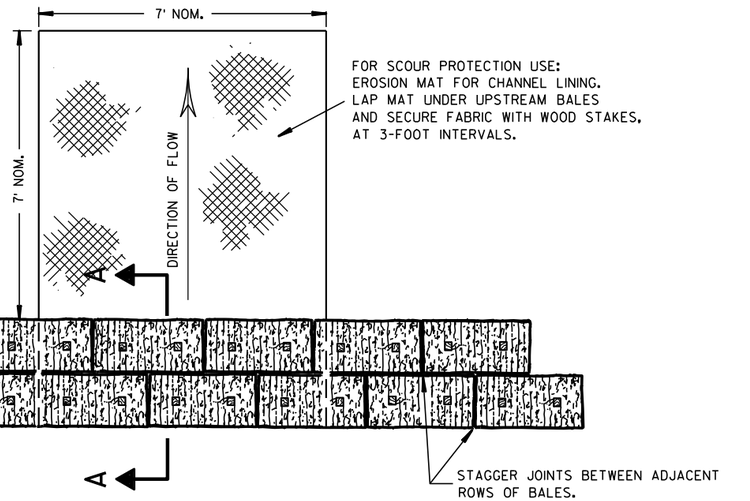
APPROVED
December 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

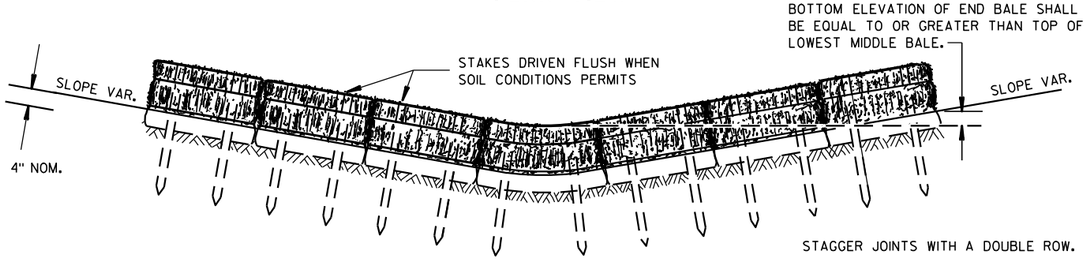
FHWA




**SECTION A-A**




**PLAN VIEW**



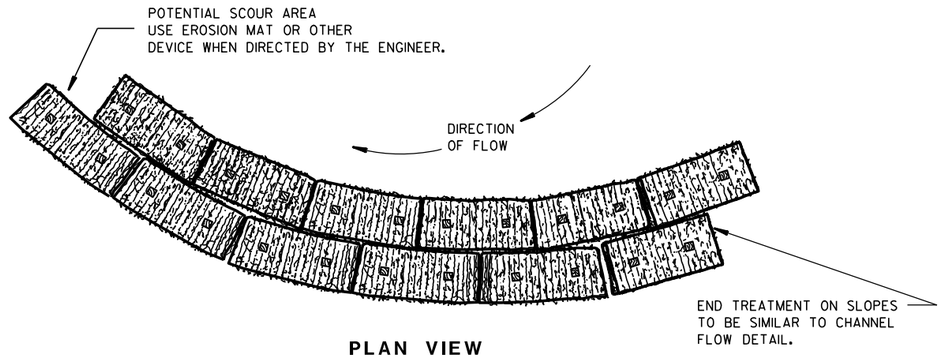

**FRONT ELEVATION**

## TEMPORARY DITCH CHECK USING EROSION BALES (1)

## GENERAL NOTES

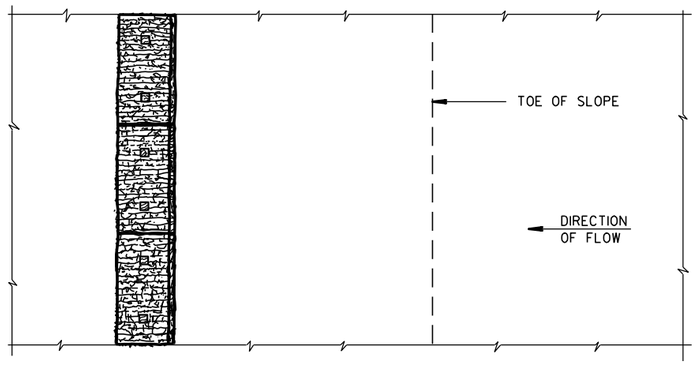
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

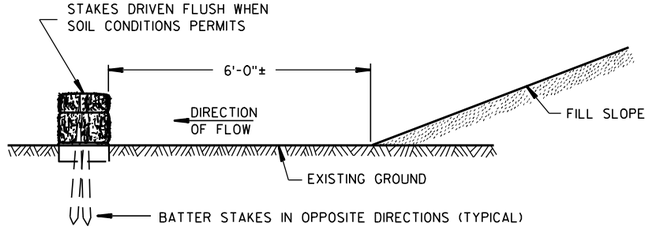



**PLAN VIEW**

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

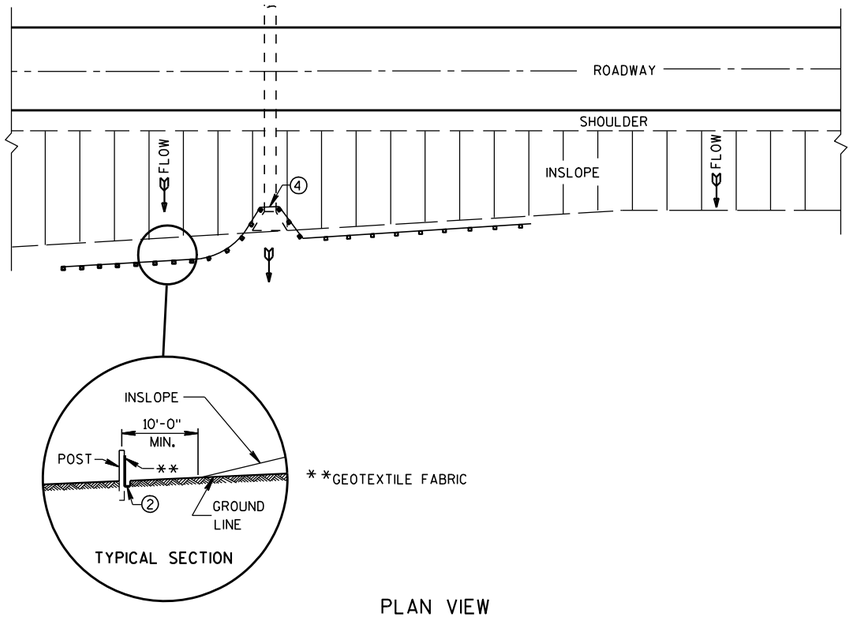


6

S.D.D. 8 E 8-3

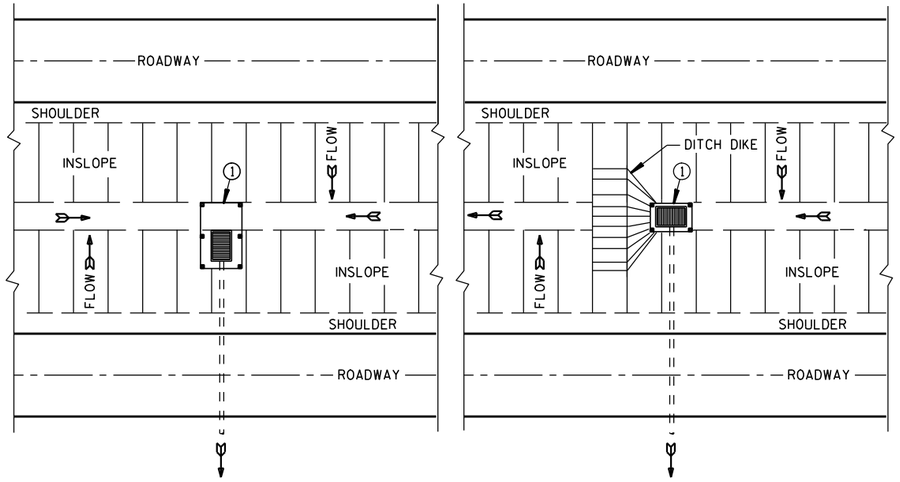
6

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.

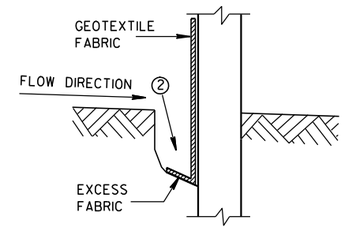
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

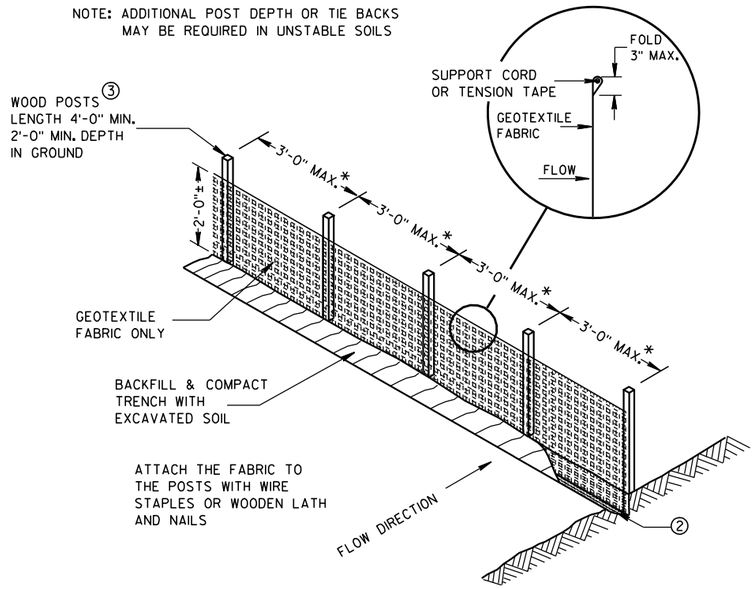
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

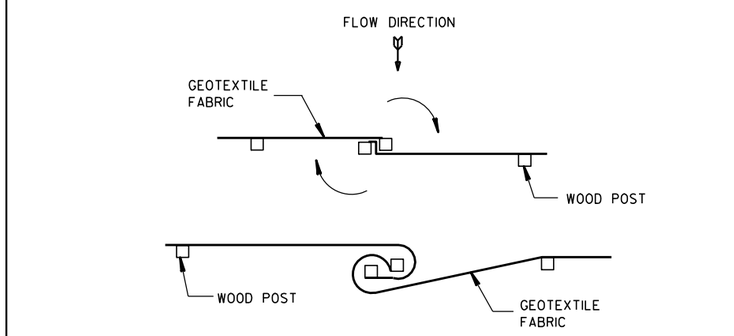
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



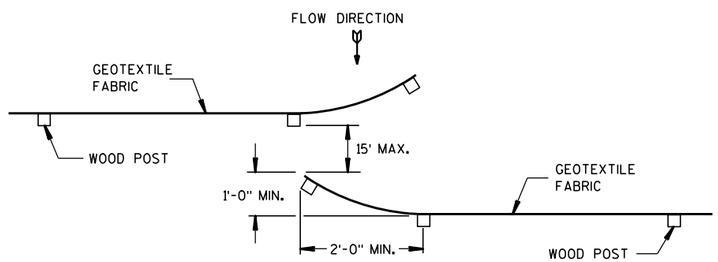

## TRENCH DETAIL




## SILT FENCE

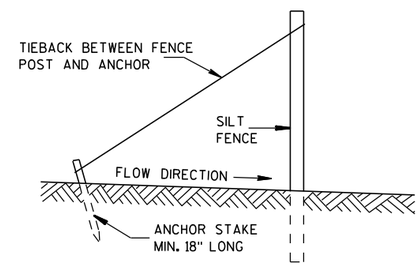



TWIST METHOD




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



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S.D.D. 8 E 9-6

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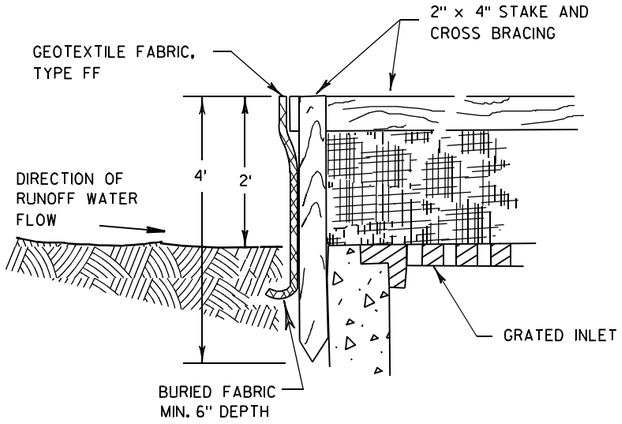
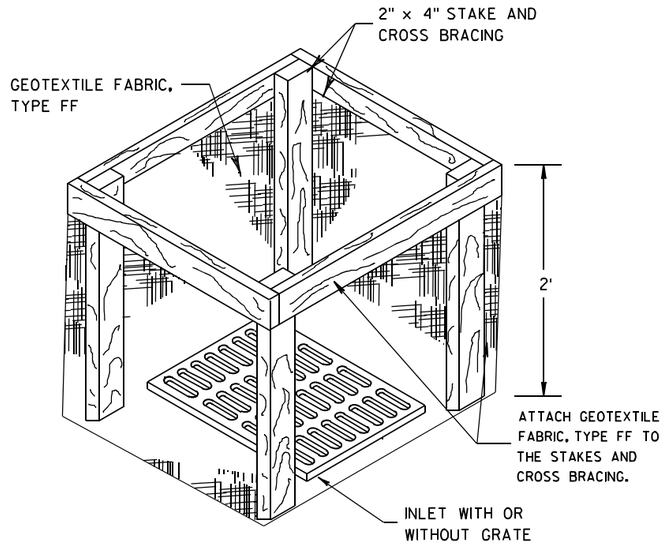
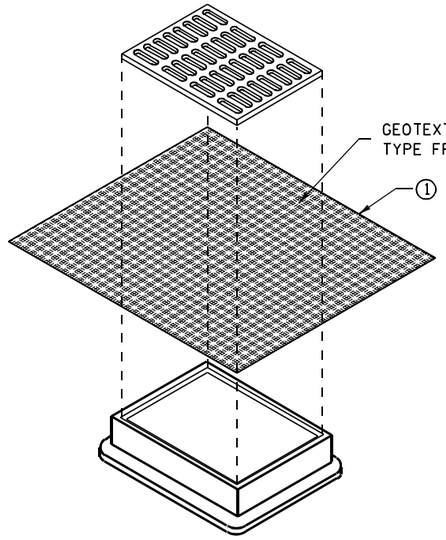
S.D.D. 8 E 9-6



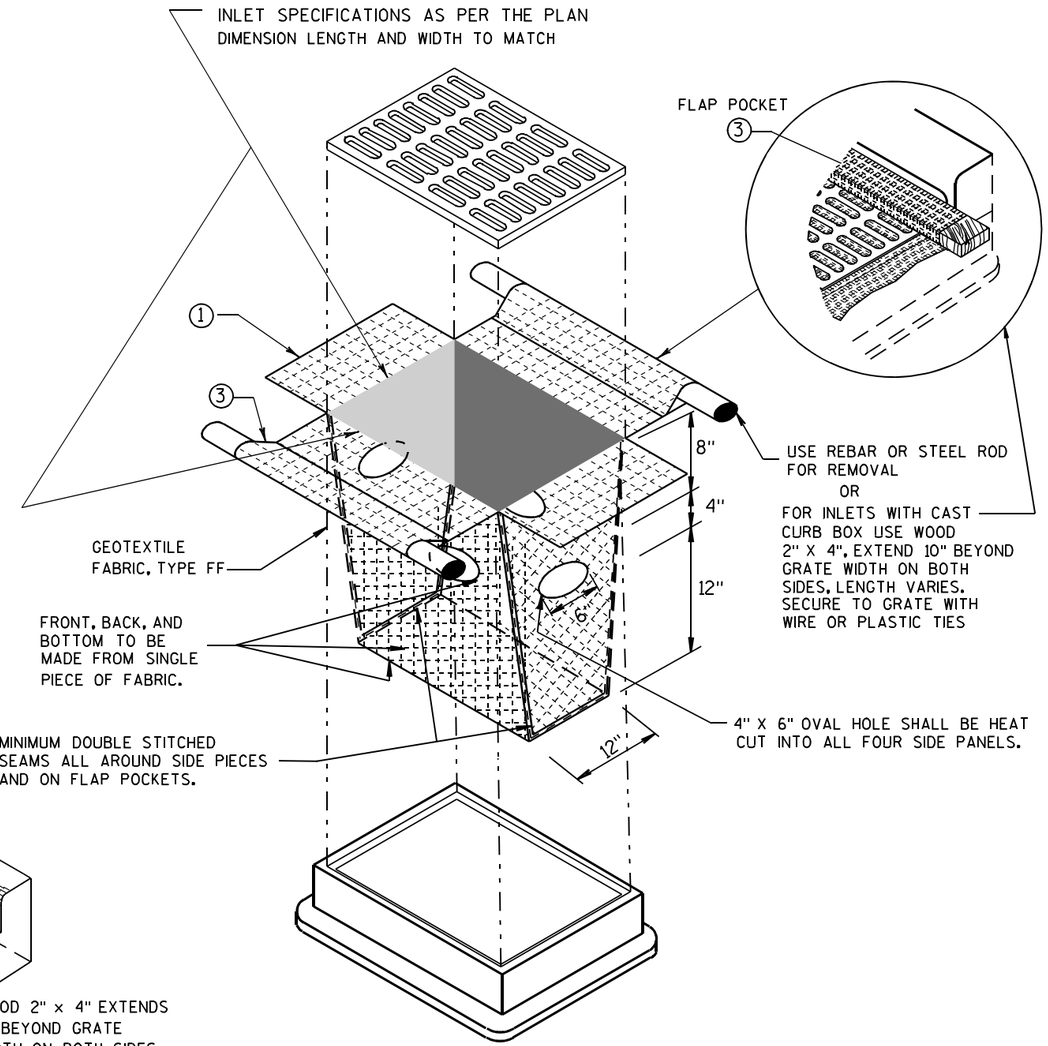




## INLET PROTECTION, TYPE A



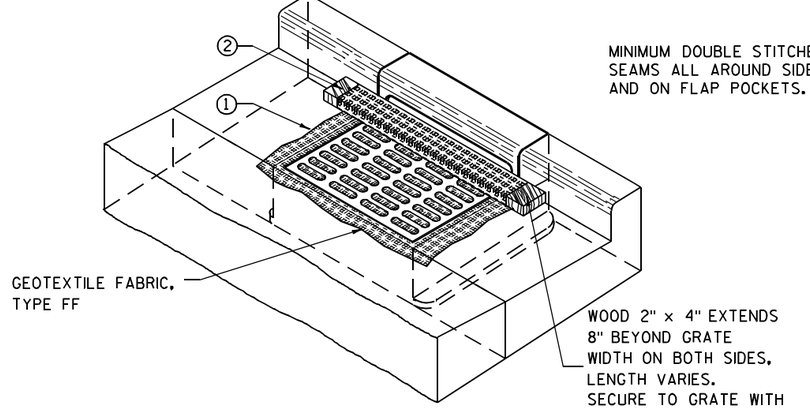

## INLET PROTECTION, TYPE B
## (WITHOUT CURB BOX)

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




## INLET PROTECTION, TYPE D

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




## INLET PROTECTION, TYPE C (WITH CURB BOX)

## 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.

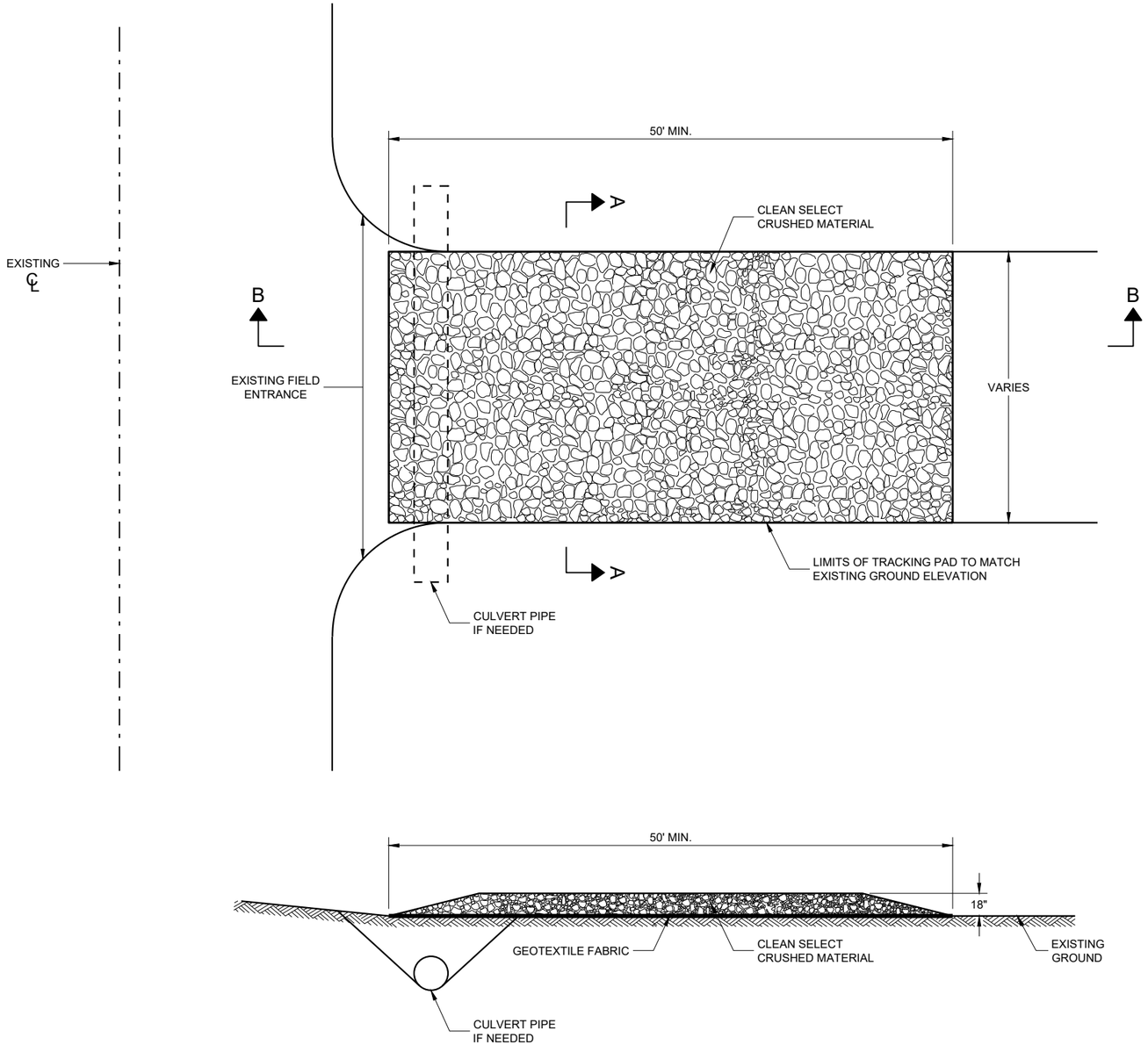
**INLET PROTECTION**
**TYPE A, B, C, AND D**

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







**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.

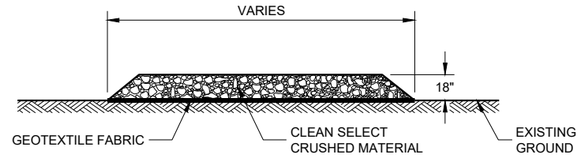
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

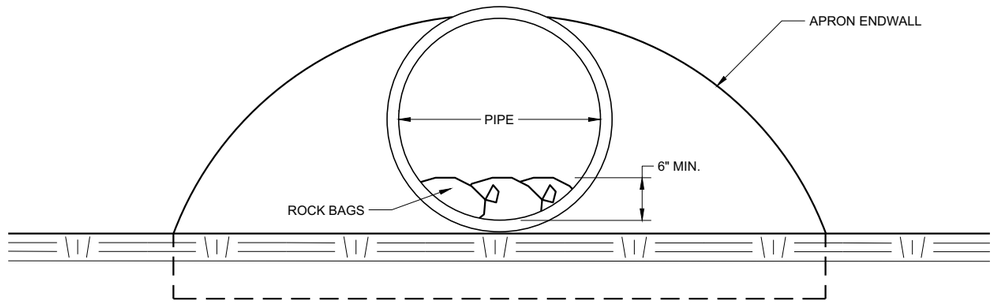
FHWA



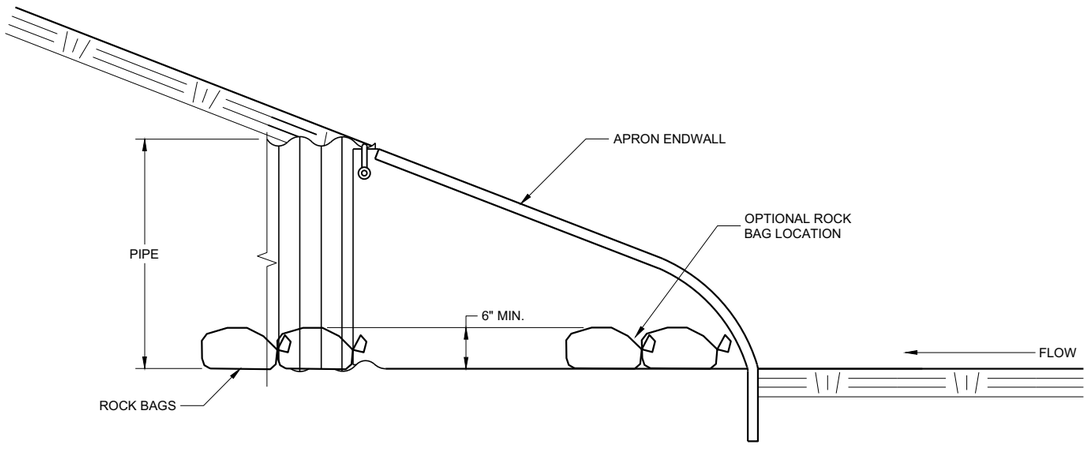
6



SDD 08E14 - 01




**END VIEW**




**SIDE VIEW**

## CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

| CULVERT PIPE CHECK | |
|---|---|
| STATE OF WISCONSIN<br>DEPARTMENT OF TRANSPORTATION | |
| APPROVED<br>May 2019<br>DATE | /S/ Daniel Schave<br>EROSION CONTROL ENGI |
| FHWA | |





6
SDD 08E15 - 01

## METAL APRON ENDWALLS

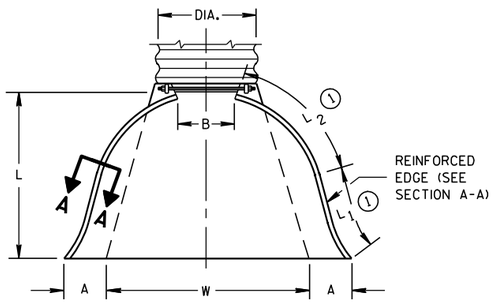
| PIPE DIA. (IN.) | MIN. THICK. (Inches) STEEL | MIN. THICK. (Inches) ALUM. | DIMENSIONS (Inches) A (±1") | B (MAX.) | H (±1") | L (±1 1/2") | L1 ① | L2 ① | W (±2") | APPROX. SLOPE | BODY |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | .064 | .060 | 6 | 6 | 6 | 21 | 12 | 17 1/2 | 24 | 2 1/2 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

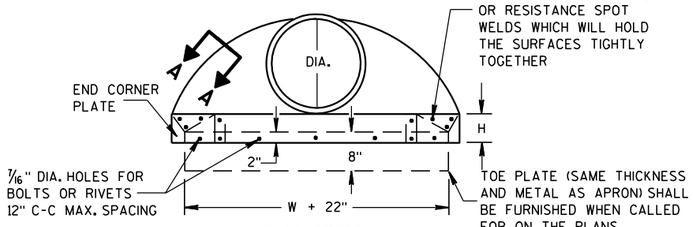
## REINFORCED CONCRETE APRON ENDWALLS

| 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 |

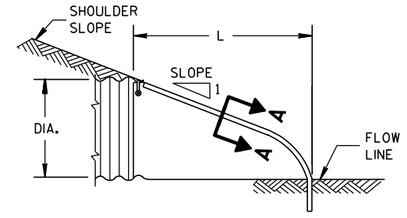
*MINIMUM
**MAXIMUM




PLAN VIEW

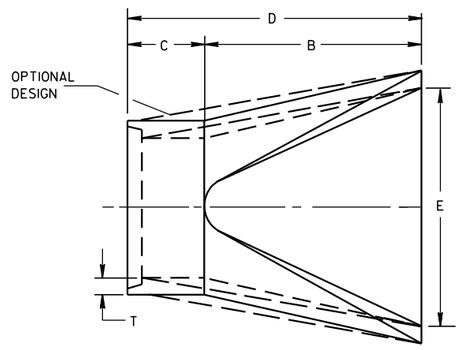



END VIEW

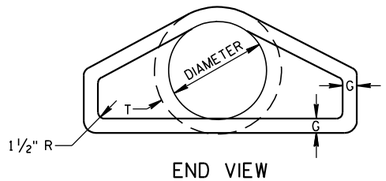



SIDE ELEVATION

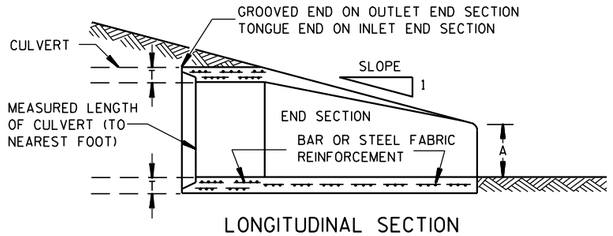
## METAL ENDWALLS




PLAN

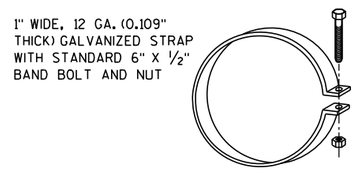



END VIEW



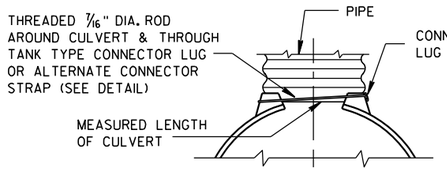

LONGITUDINAL SECTION

## CONCRETE ENDWALLS

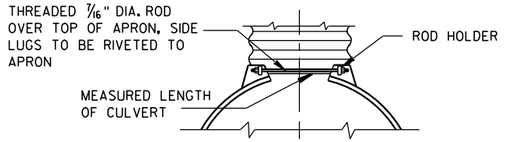



ALTERNATE FOR TYPE 1 CONNECTION

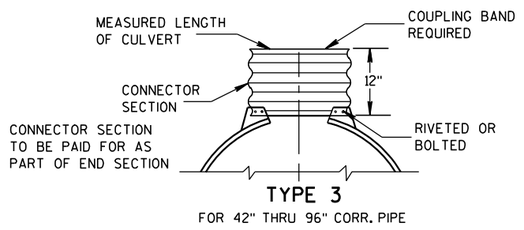
## END SECTION CONNECTOR STRAP



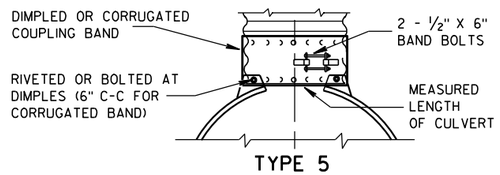

TYPE 1
FOR 12" THRU 24" CORR. PIPE




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

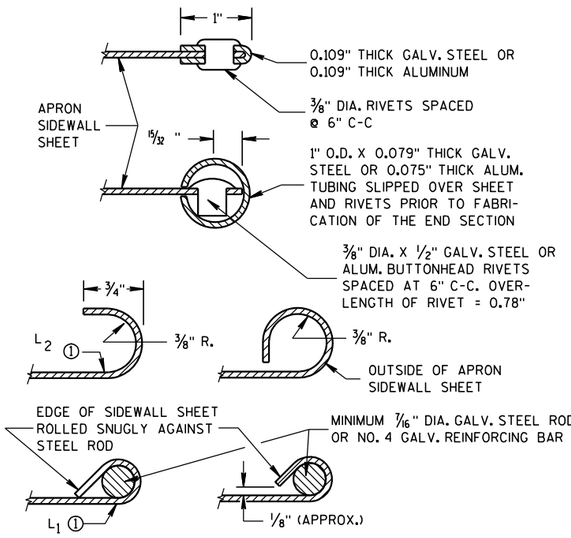
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

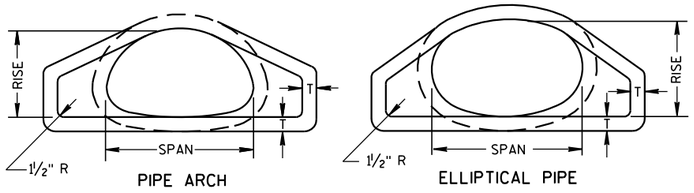
# APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

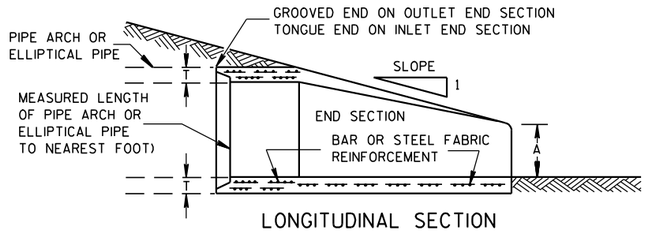
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



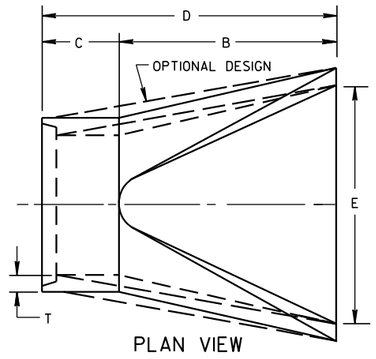

6
S.D.D. 8 F 1-11




END VIEW

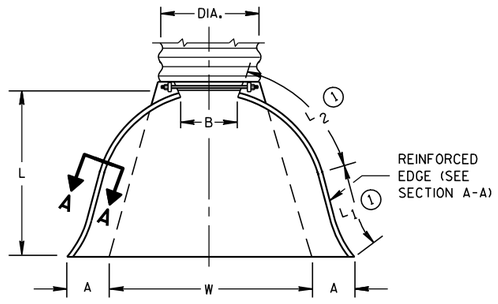



LONGITUDINAL SECTION

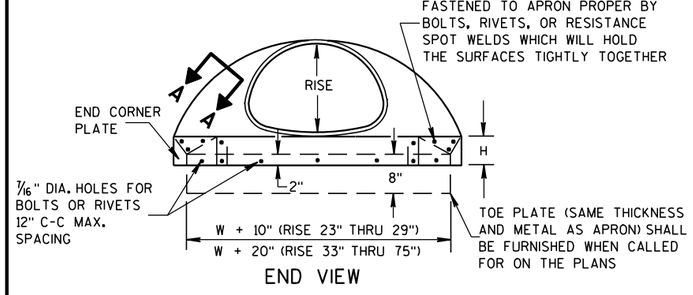



PLAN VIEW

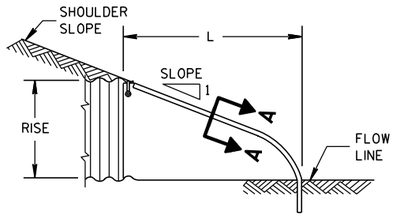
# CONCRETE ENDWALLS




PLAN VIEW

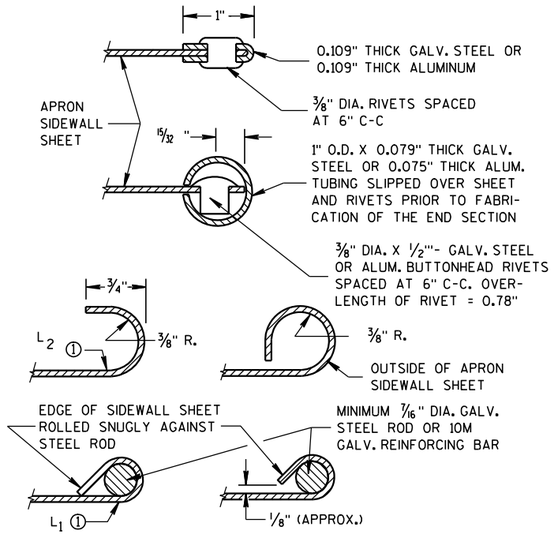



END VIEW




SIDE ELEVATION

# METAL ENDWALLS




# SECTION A-A

## 2- ⅔" X ½" 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 (±1½") | 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 (±1½") | 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

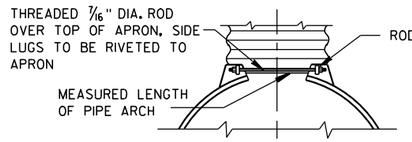
## REINFORCED CONCRETE PIPE ARCH

| 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

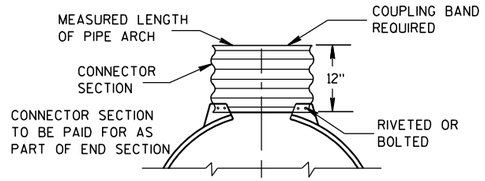
| EQUIV. DIA. (Inches) | DIMENSIONS (Inches) ** SPAN | ** RISE | T | A | B | C | D | E | APPROX. SLOPE |
|---|---|---|---|---|---|---|---|---|---|
| 24 | 30 | 19 | 3¼ | 8½ | 39 | 33 | 72 | 48 | 3 to 1 |
| 30 | 38 | 24 | 3¾ | 9½ | 54 | 18 | 72 | 60 | 3 to 1 |
| 36 | 45 | 29 | 4½ | 11⅛ | 60 | 24 | 84 | 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



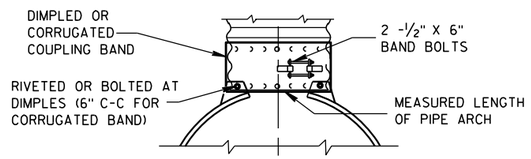

TYPE 2

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

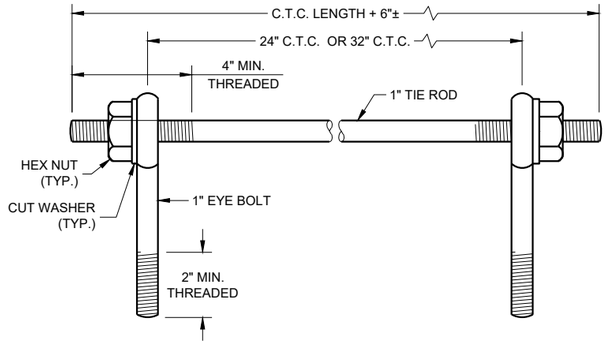
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

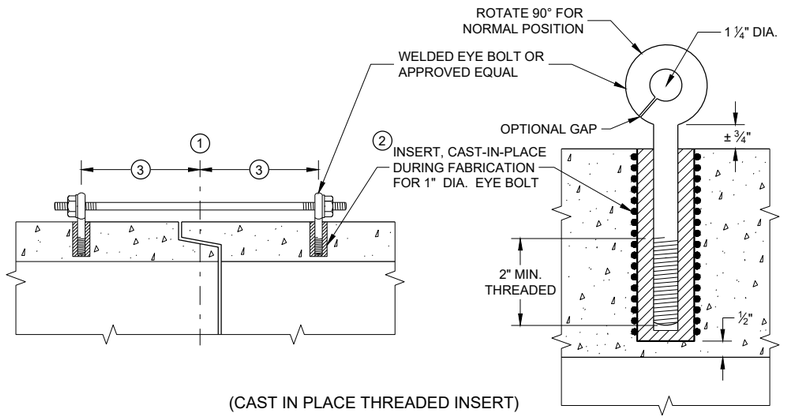


6

S.D.D. 8 F 2-1




**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) CENTER LINE 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.

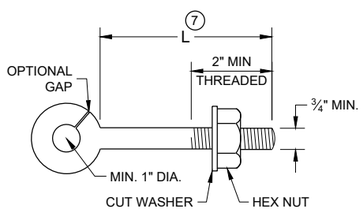
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

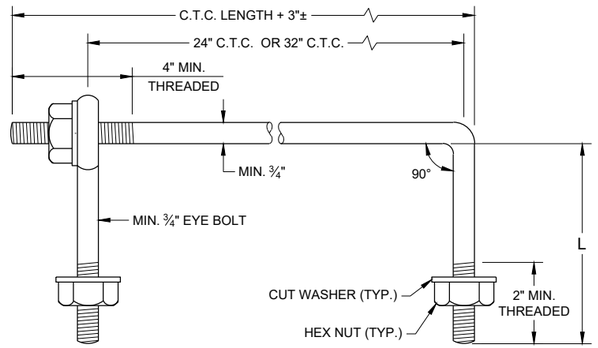
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

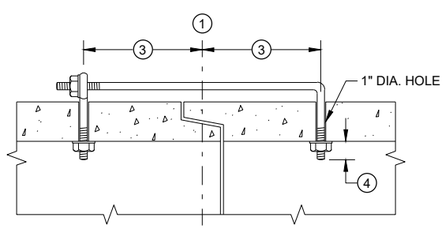



**EYE BOLT** (7)

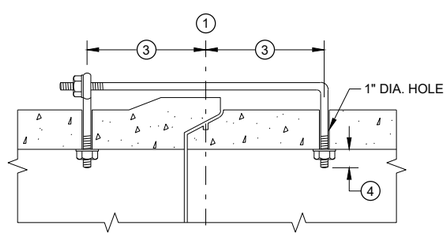
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.




**EYE BOLT AND TIE ROD**




(TONGUE AND GROOVE PIPE)




(MODIFIED BELL PIPE)

**LONGITUDINAL SECTION**

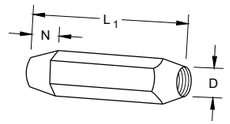
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

| PIPE DIAMETER | TIE ROD DIAMETER | D | $L_1$ | N |
|---|---|---|---|---|
| 12 - 60 | ⅝ | ⅝ | 5 | ½ |
| 66 - 84 | ¾ | ¾ | 5 | ½ |
| 90 - 144 | 1 | 1 | 7 | 1 7/16 |

DIMENSIONS SHOWN ARE IN INCHES

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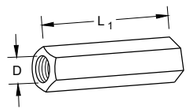
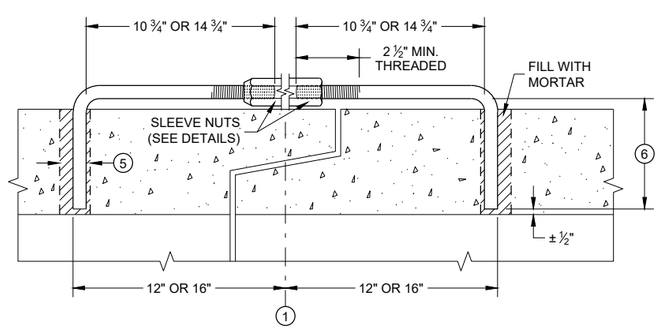



PLAIN

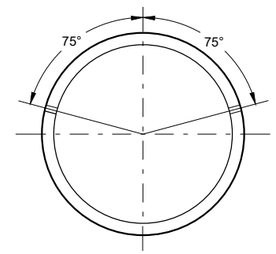
RIGHT AND LEFT THREADS

**SLEEVE NUTS**



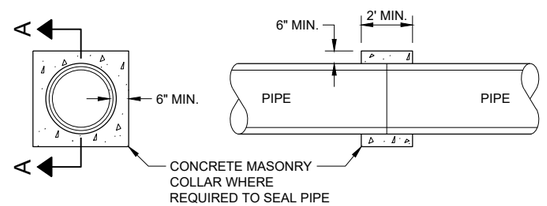

**LONGITUDINAL SECTION**

## 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

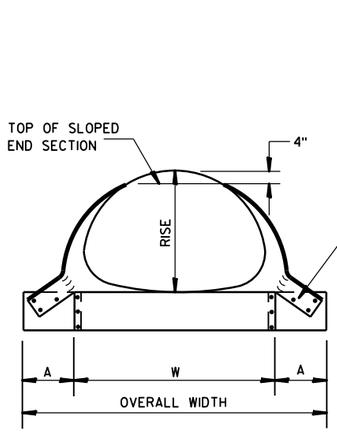
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

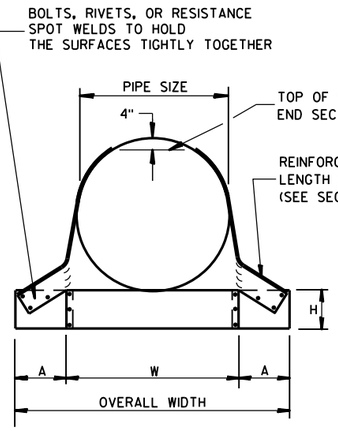


SDD 08F04 - 08

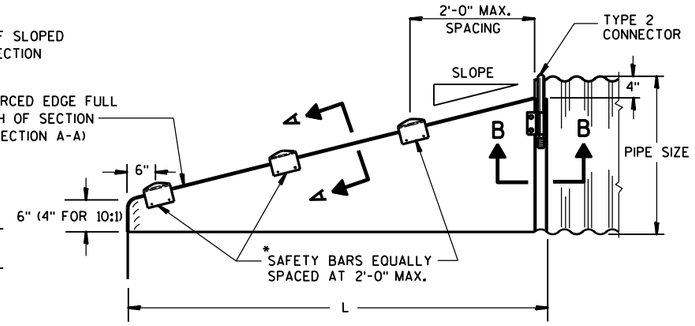
SDD 08F04 - 08




FRONT VIEW




FRONT VIEW




SIDE VIEW

## GENERAL NOTES

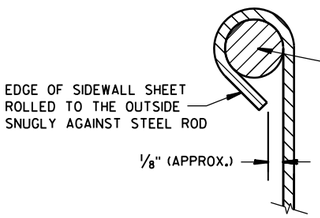
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

**STEEL APRON ENDWALLS FOR CULVERT PIPE**
**SLOPED SIDE DRAINS**

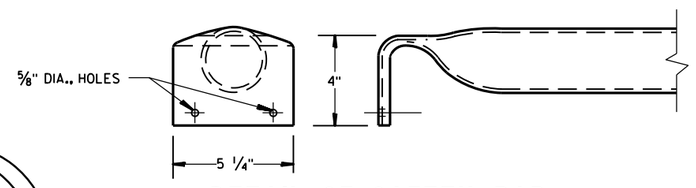
| PIPE DIA. (IN.) | MIN. THICK. (Inches) | DIMENSIONS (Inches) | | | | L DIMENSIONS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | H | W | OVERALL WIDTH | SLOPE | LENGTH INCHES | SLOPE | LENGTH INCHES | SLOPE | LENGTH INCHES |
| 15 | .064 | 8 | 6 | 21 | 37 | 4:1 | 20 | 6:1 | 30 | 10:1 | 70 |
| 18 | .064 | 8 | 6 | 24 | 40 | 4:1 | 32 | 6:1 | 48 | 10:1 | 100 |
| 21 | .064 | 8 | 6 | 27 | 43 | 4:1 | 44 | 6:1 | 66 | 10:1 | 130 |
| 24 | .064 | 8 | 6 | 30 | 46 | 4:1 | 56 | 6:1 | 84 | 10:1 | 160 |
| 30 | .109 | 12 | 9 | 36 | 60 | 4:1 | 80 | 6:1 | 120 | 10:1 | 220 |
| 36 | .109 | 12 | 9 | 42 | 66 | 4:1 | 104 | 6:1 | 156 | 10:1 | 280 |
| 42 | .109 | 16 | 12 | 48 | 80 | 4:1 | 128 | 6:1 | 192 | —— | —— |
| 48 | .109 | 16 | 12 | 54 | 86 | 4:1 | 152 | 6:1 | 228 | —— | —— |
| 54 | .109 | 16 | 12 | 60 | 92 | 4:1 | 176 | 6:1 | 264 | —— | —— |
| 60 | .109 | 16 | 12 | 66 | 98 | 4:1 | 200 | 6:1 | 300 | —— | —— |




SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

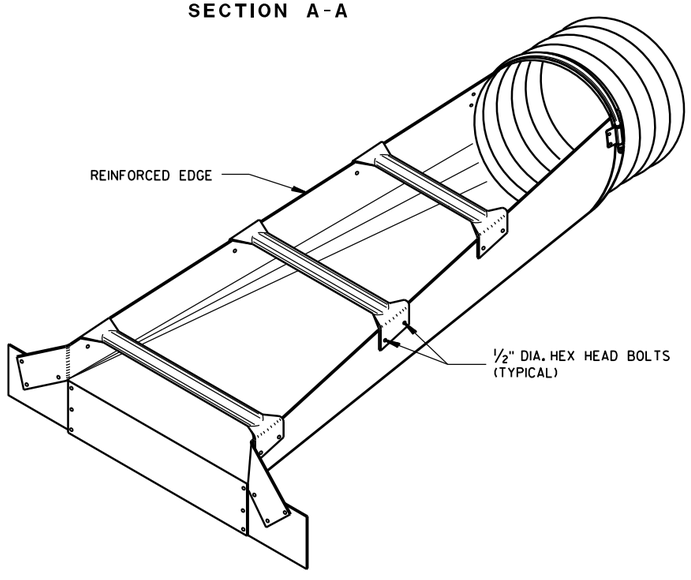



DETAIL OF SAFETY BAR

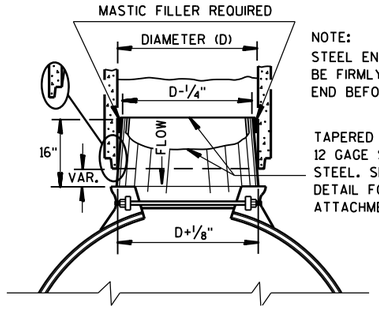
**STEEL APRON ENDWALLS FOR PIPE ARCH**
**SLOPED SIDE DRAINS**

| EQUIV. DIA. (Inches) | (Inches) SPAN | (Inches) RISE | MIN. THICK. (Inches) ① | DIMENSIONS (Inches) A | H | W | OVERALL WIDTH | L DIMENSIONS SLOPE | LENGTH INCHES | SLOPE | LENGTH INCHES | SLOPE | LENGTH INCHES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 17 | 13 | .064 * | 7 | 6 | 30 | 44 | 4:1 | 19 | 6:1 | 30 | 10:1 ② | 70 |
| 18 | 21 | 15 | .064 * | 8 | 6 | 27 | 43 | 4:1 | 20 | 6:1 | 30 | 10:1 | 70 |
| 21 | 24 | 18 | .064 * | 8 | 6 | 30 | 46 | 4:1 | 32 | 6:1 | 48 | 10:1 | 100 |
| 24 | 28 | 20 | .064 * | 8 | 6 | 34 | 50 | 4:1 | 40 | 6:1 | 60 | 10:1 | 120 |
| 30 | 35 | 24 | .079 * | 12 | 9 | 41 | 65 | 4:1 | 56 | 6:1 | 84 | 10:1 | 160 |
| 36 | 42 | 29 | .109 * | 12 | 9 | 48 | 72 | 4:1 | 76 | 6:1 | 114 | 10:1 | 210 |
| 42 | 49 | 33 | .109 | 16 | 12 | 55 | 87 | 4:1 | 92 | 6:1 | 138 | —— | —— |
| 48 | 57 | 38 | .109 | 16 | 12 | 63 | 95 | 4:1 | 112 | 6:1 | 168 | —— | —— |
| 54 | 64 | 43 | .109 | 16 | 12 | 70 | 102 | 4:1 | 132 | 6:1 | 198 | —— | —— |

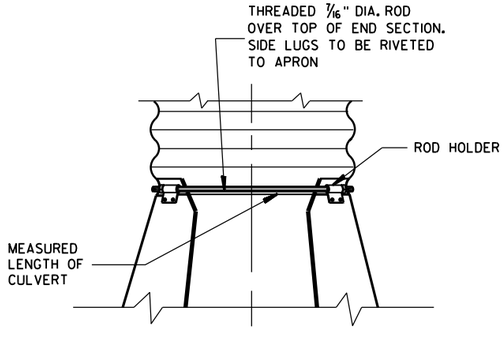
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



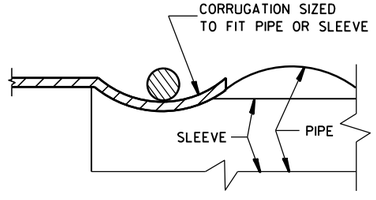

ISOMETRIC VIEW




STEEL ADAPTER SLEEVE FOR CONCRETE PIPE




TYPE 2
CONNECTION DETAIL




SECTION B-B

**STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



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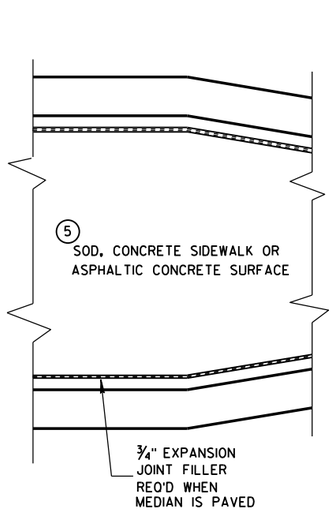
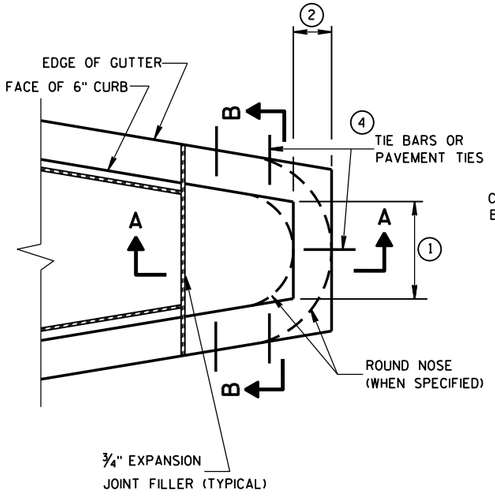
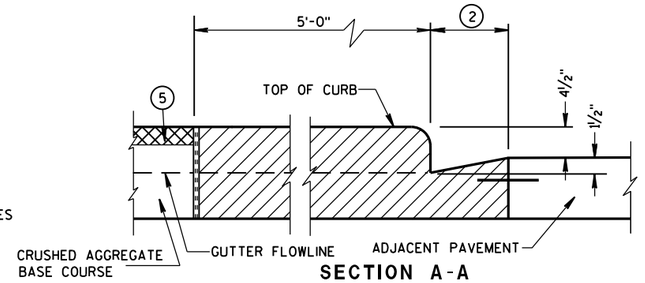
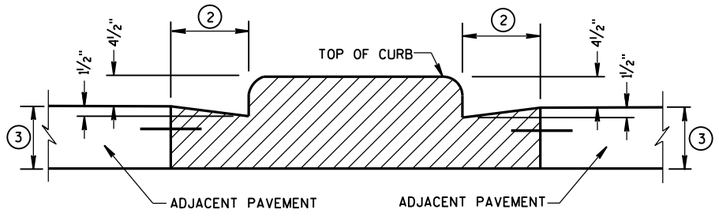
S.D.D. 8 F 7-5




SECTION A-A




SECTION B-B

## CONCRETE MEDIAN BLUNT NOSE DETAIL

## 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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

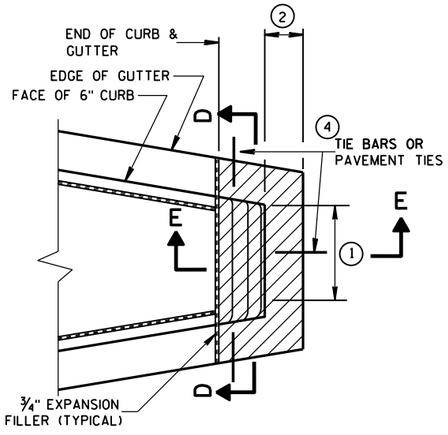
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

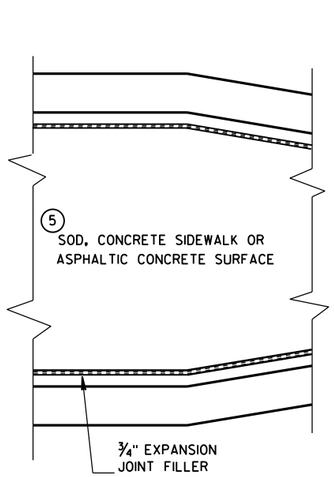
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

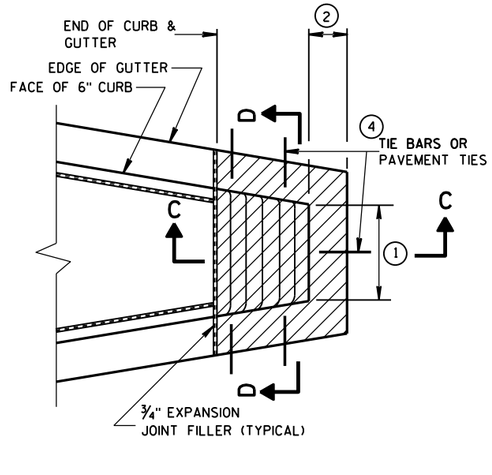
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

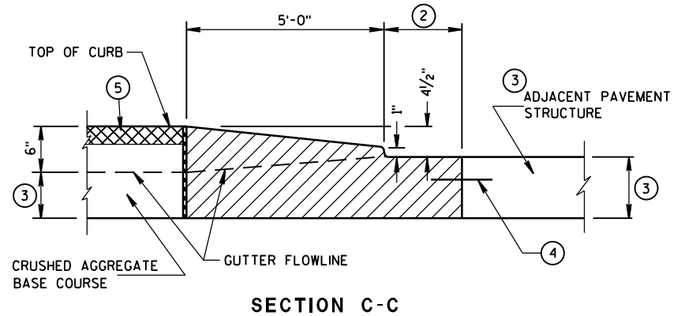
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



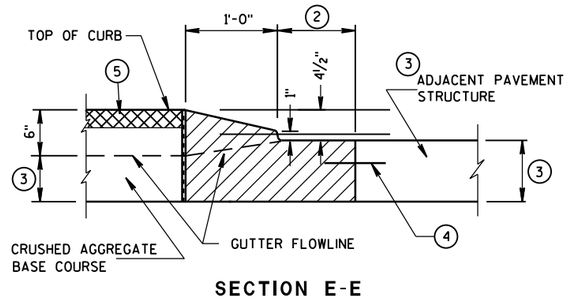




## CONCRETE MEDIAN SLOPED NOSE TYPE 1

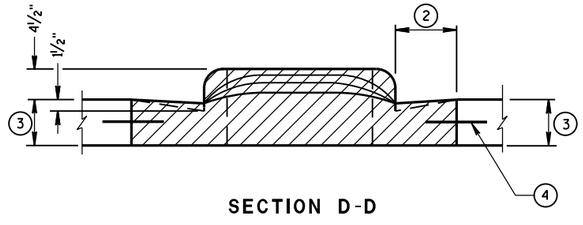



SECTION C-C




SECTION E-E

## CONCRETE MEDIAN SLOPED NOSE TYPE 2

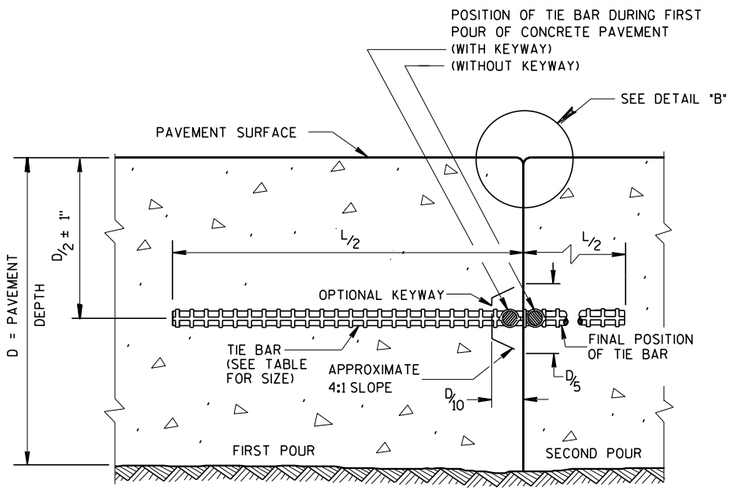



SECTION D-D

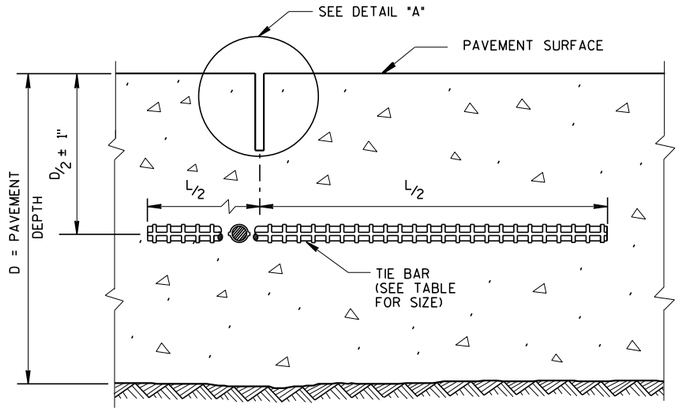
CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA




## CONSTRUCTION JOINT




## SAWED JOINT

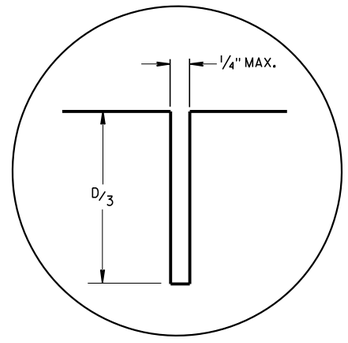
## GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

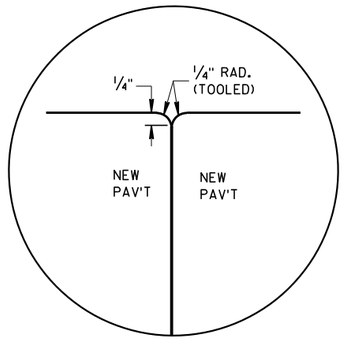
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

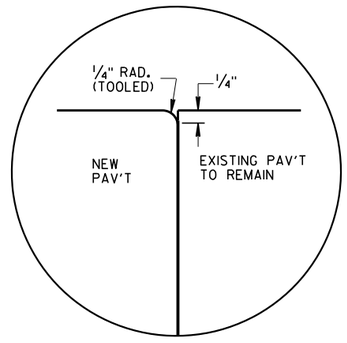
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



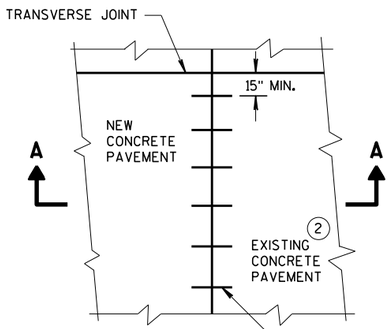

## DETAIL "A"



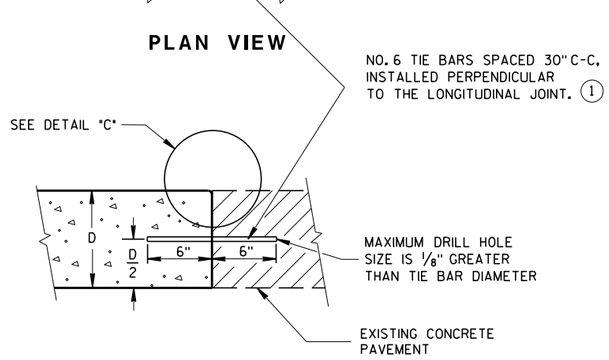

## DETAIL "B"




## DETAIL "C"




## PLAN VIEW



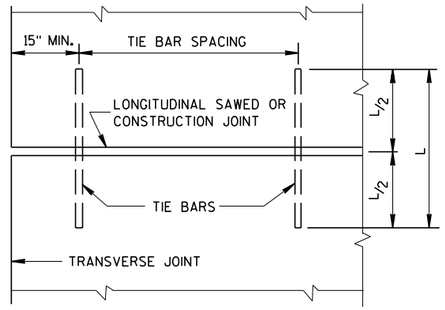

## SECTION A-A
## LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

### TIE BAR TABLE

| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 1/2" | NO. 4 | 30" | 36" |
| ≥ 10 1/2" | NO. 5 | 36" | 36" |
| | NO. 4 * | 30" | 24" ** |

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.




## PLAN VIEW
SHOWING LOCATION OF TIE BARS

## CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA



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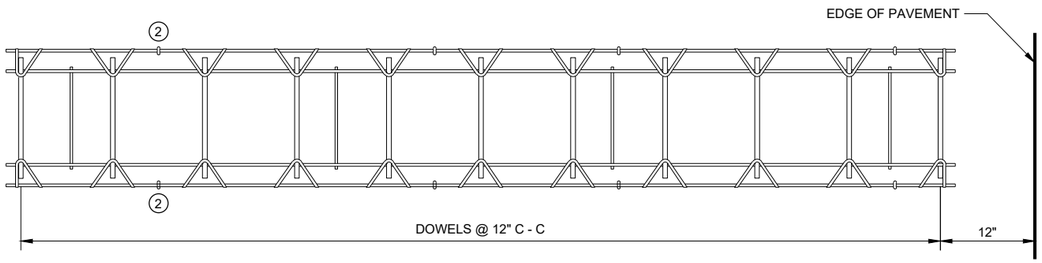
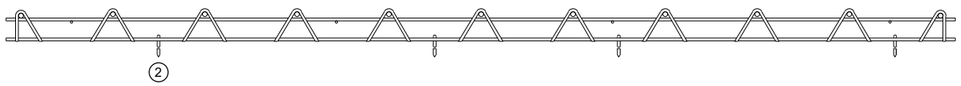
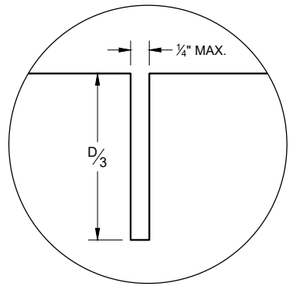



**PLAN VIEW**




**SIDE VIEW**

## CONTRACTION JOINT DOWEL ASSEMBLY (1)




**JOINT DETAIL**

## GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

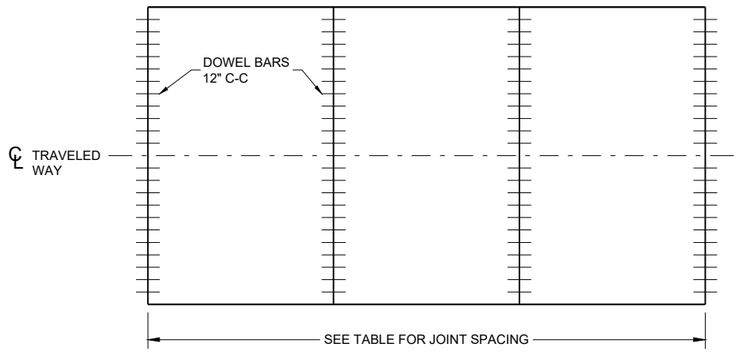
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

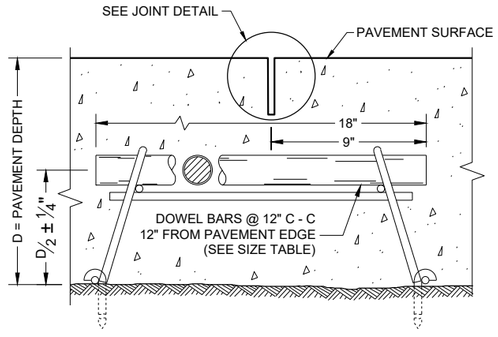
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



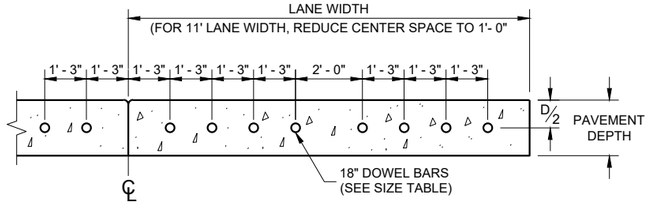

**CONTRACTION JOINT LOCATIONS**



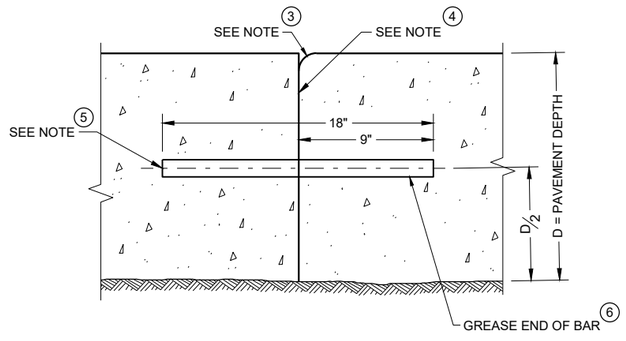

**DOWELED CONTRACTION JOINT**

### PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

| PAVEMENT DEPTH (D) | DOWEL BAR DIAMETER | CONTRACTION JOINT SPACING |
|---|---|---|
| 5 ½", 6", 6 ½" | NONE | 12' |
| 7", 7 ½" | 1" | 14' |
| 8", 8 ½" | 1 ¼" | 15' |
| 9" & ABOVE | 1 ¼" | 15' |




**DRILLED DOWEL BAR CONSTRUCTION JOINT (7)**




**TRANSVERSE CONSTRUCTION JOINT**

**URBAN DOWELED CONCRETE PAVEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA



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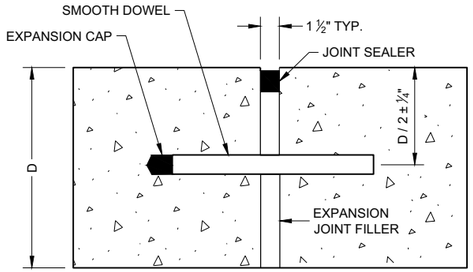
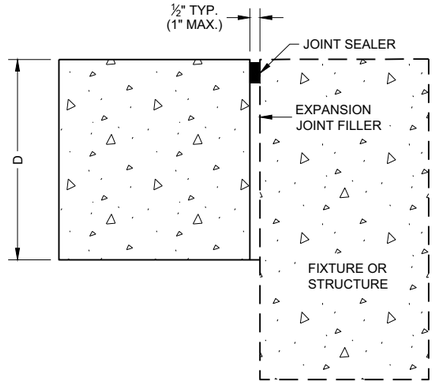



**DOWELED TRANSVERSE** (1)




**UNTIED - LONGITUDINAL**

## EXPANSION JOINTS

### TIE BAR TABLE

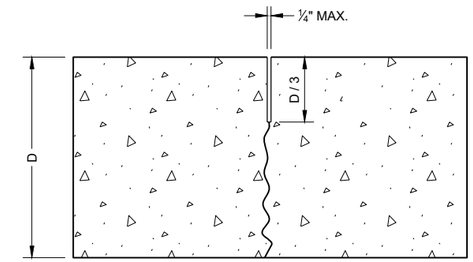
| PAVEMENT DEPTH (D) | TIE BAR SIZE | TIE BAR LENGTH (L) | MAX. TIE BAR SPACING |
|---|---|---|---|
| < 10 ½" | NO. 4 | 30" | 36" |
| ≥ 10 ½" | NO. 5 | 36" | 36" |
| | NO. 4* | 30" | 24"** |

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

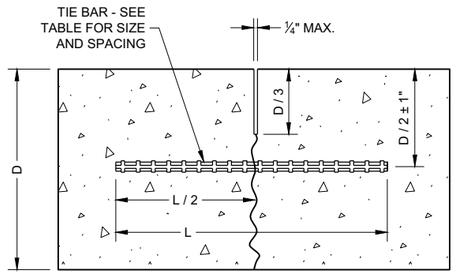
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

### GENERAL NOTES

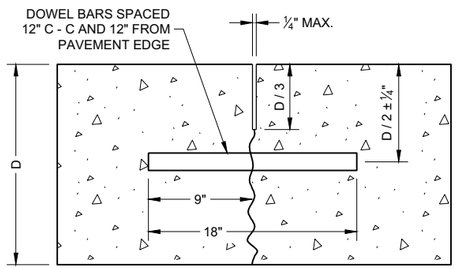
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.




**UNDOWELED TRANSVERSE**

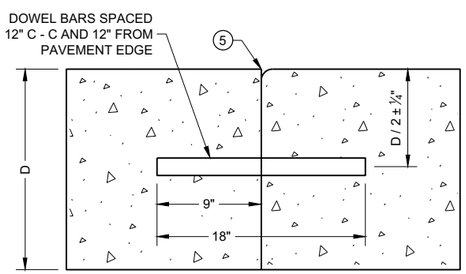



**TIED LONGITUDINAL**

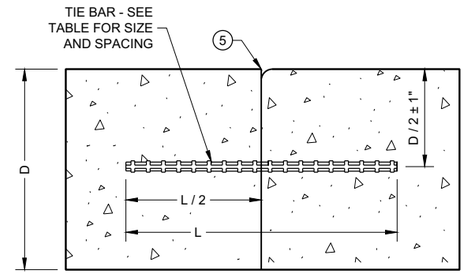



**DOWELED TRANSVERSE**

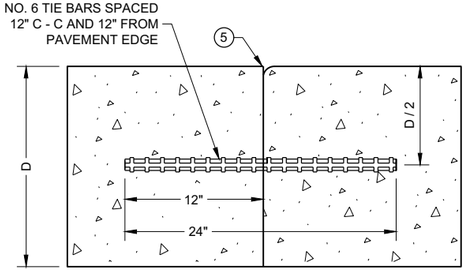
## CONTRACTION JOINTS (2)



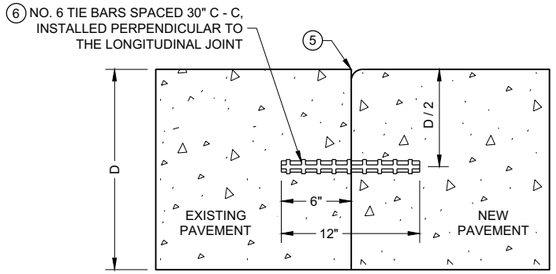

**DOWELED TRANSVERSE** (3)




**TIED LONGITUDINAL**




**TIED TRANSVERSE** (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)




**TIED LONGITUDINAL TO EXISTING**

## CONSTRUCTION JOINTS (4)

**CONCRETE PAVEMENT JOINT TYPES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



6

SDD 13C18 - 07c

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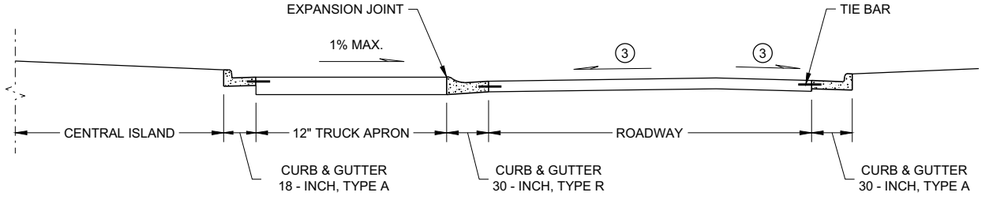
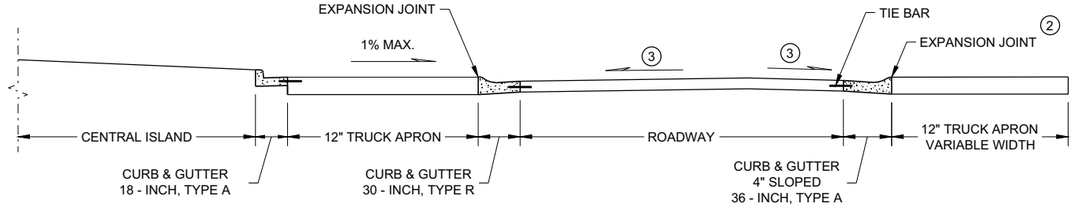
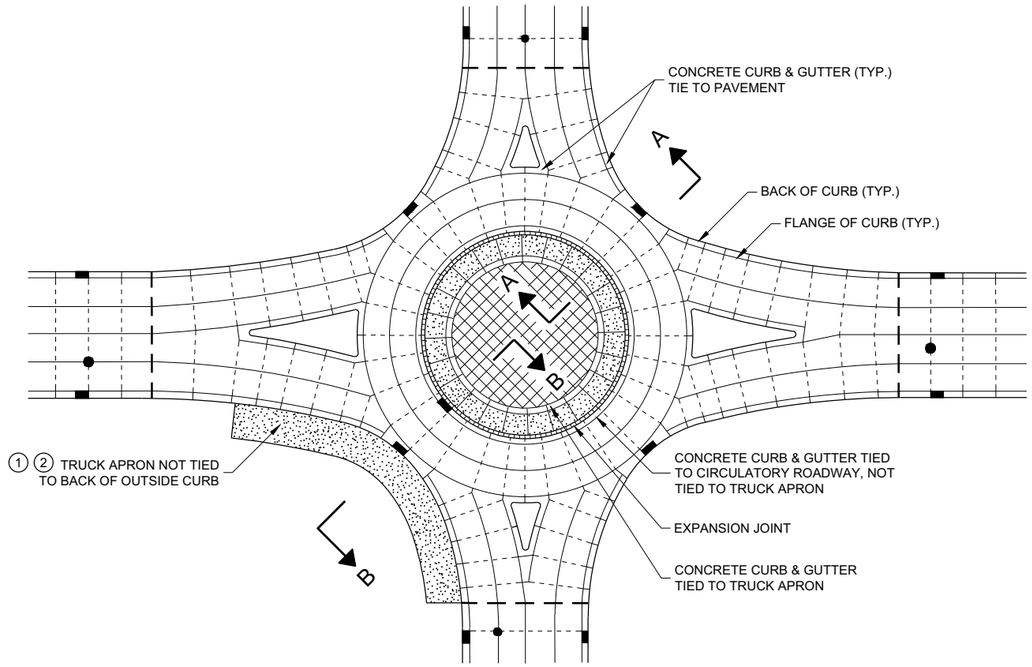
SDD 13C18 - 07c



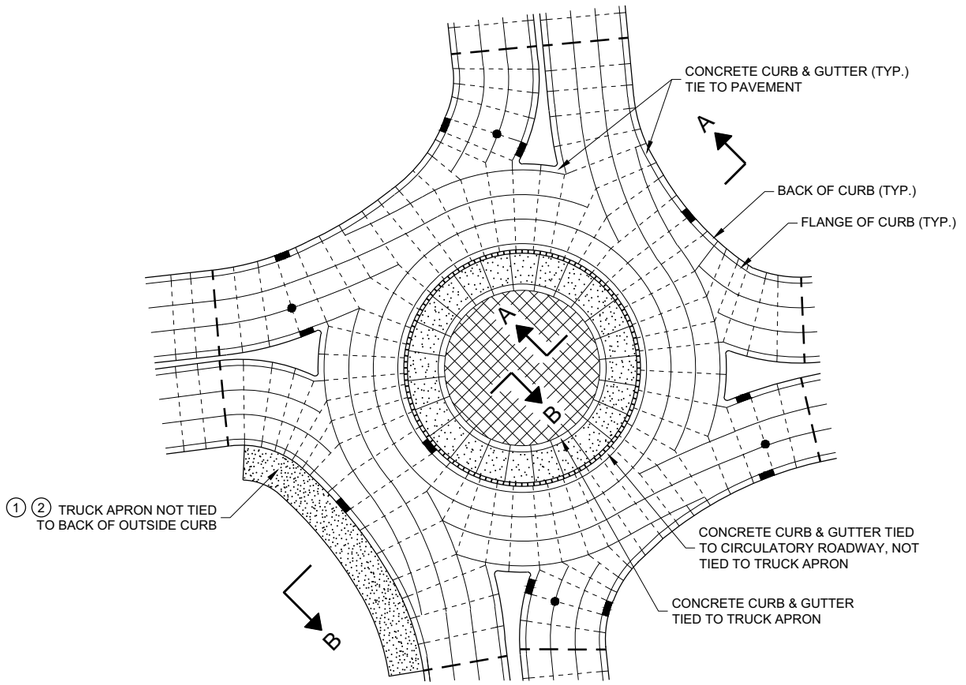

**SECTION A - A**




**SECTION B - B**




**ISOLATED CIRCLE JOINT LAYOUT FOR ROUNDABOUTS**




**PINWHEEL JOINT LAYOUT FOR ROUNDABOUTS**

## GENERAL NOTES

MAXIMUM JOINT SPACING IS IN ACCORDANCE WITH THE TABLE SHOWN ON SDD 13C18 - SHEET "a"

USE EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.

DO NOT DOWEL OR TIE THE TRUCK APRON TRANSVERSE JOINTS.

(1) DESIGNER DETERMINES SIZE AND LOCATION(S) OF TRUCK APRON TO ACCOMODATE TRACKING OF OVERSIZE / OVERWEIGHT VEHICLES.

(2) TIE THE OUTSIDE TRUCK APRON TO THE BACK SIDE OF CURB ONLY WHEN ENTIRE TRUCK APRON IS LESS THAN 3 FEET.

(3) CONFORM TO PLAN CONSTRUCTION DETAILS FOR CIRCULATORY ROADWAY CROSS SLOPE.

## LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT
- TRUCK APRON
- CENTRAL ISLAND
- UTILITY STRUCTURES

**CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA



6

SDD 13C18 - 07e

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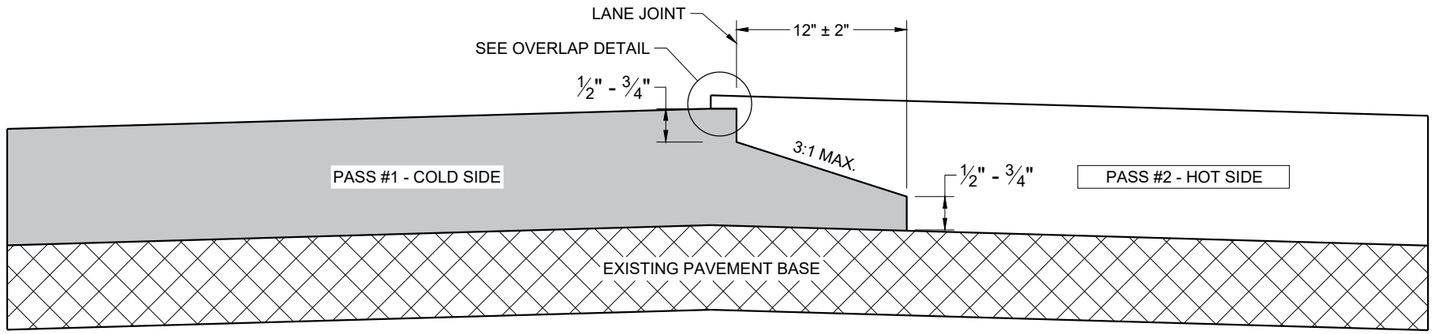
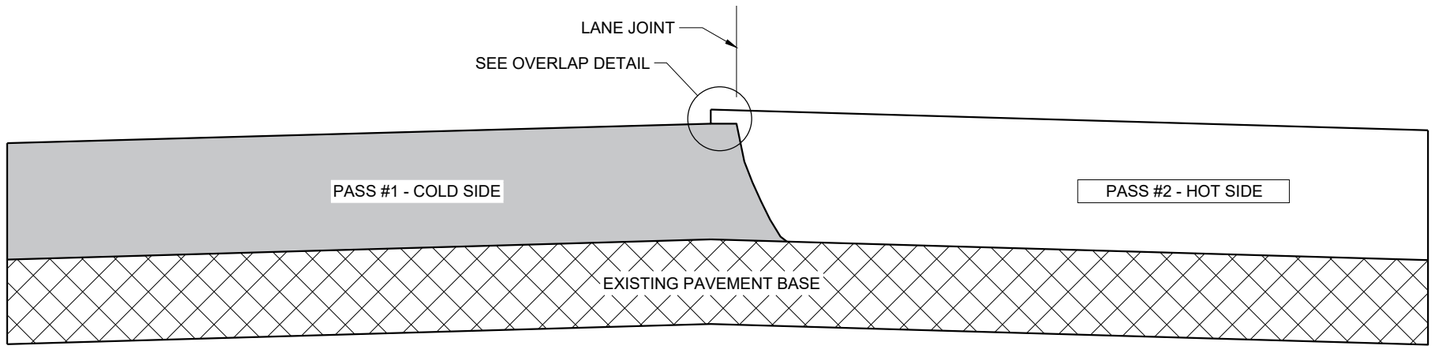
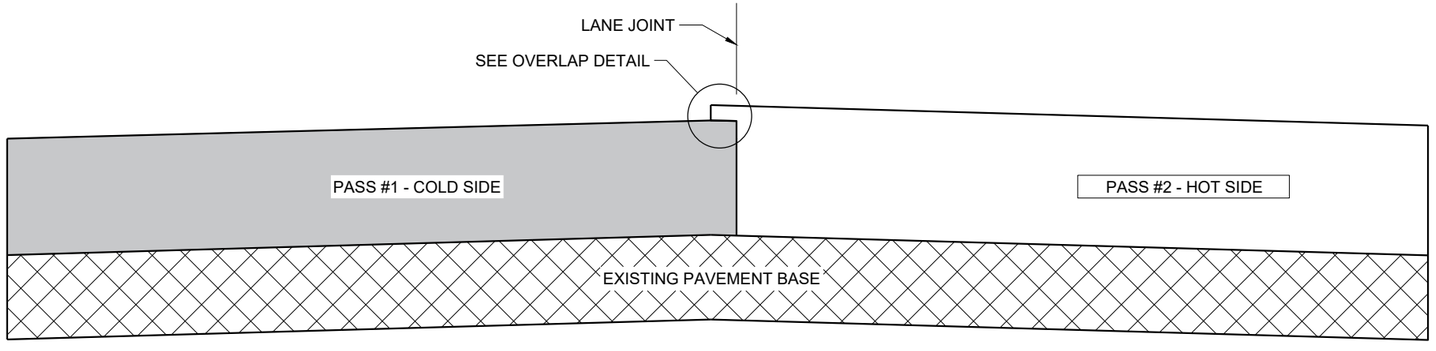
SDD 13C18 - 07e




**TYPICAL PAVEMENT CROSS SECTION**
**NOTCHED WEDGE JOINT**




**TYPICAL PAVEMENT CROSS SECTION**
**VERTICAL JOINT**




**TYPICAL PAVEMENT CROSS SECTION**
**VERTICAL JOINT (MILLED)**

## GENERAL NOTES

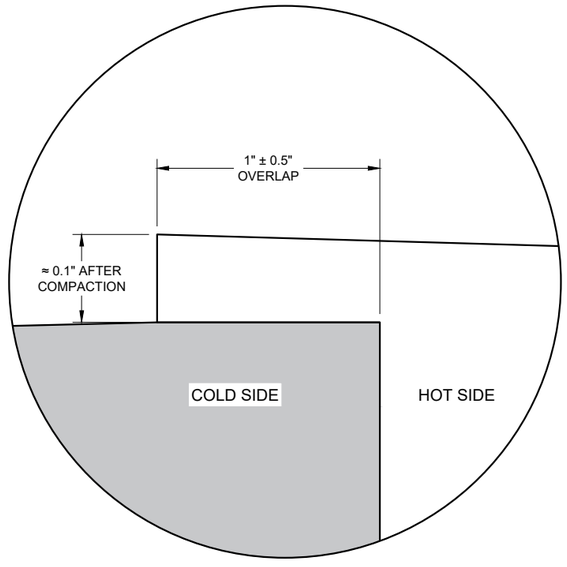
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.




**OVERLAP DETAIL (TYPICAL)**

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SDD 13C19 - 03

SDD 13C19 - 03

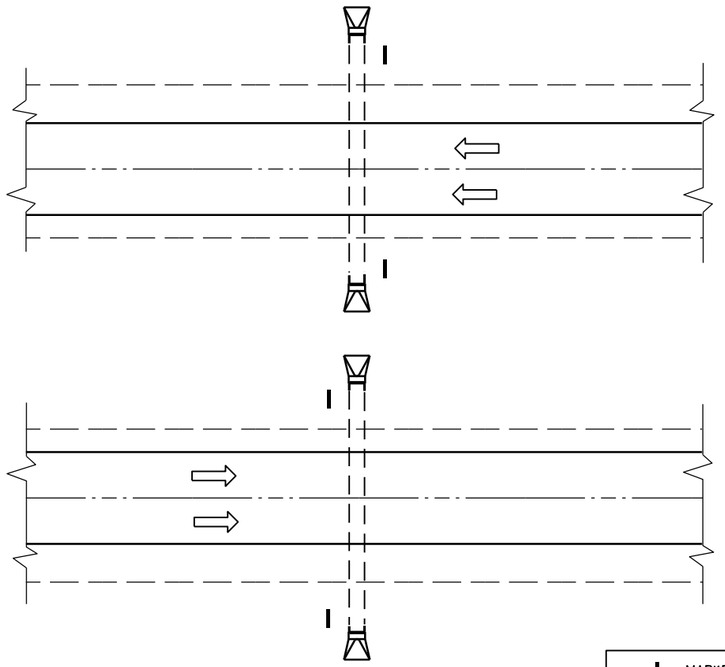
**HMA LONGITUDINAL JOINTS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

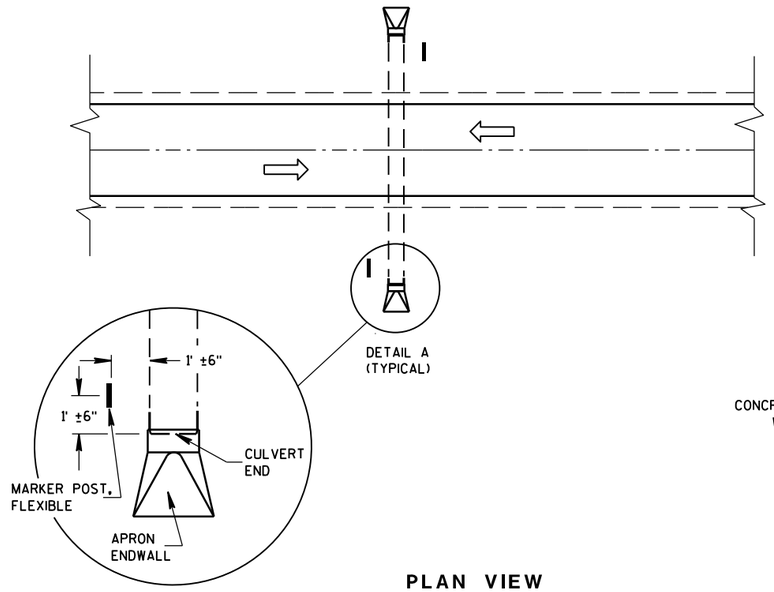
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



PLAN VIEW

## DIVIDED HIGHWAY




DETAIL A
(TYPICAL)

PLAN VIEW

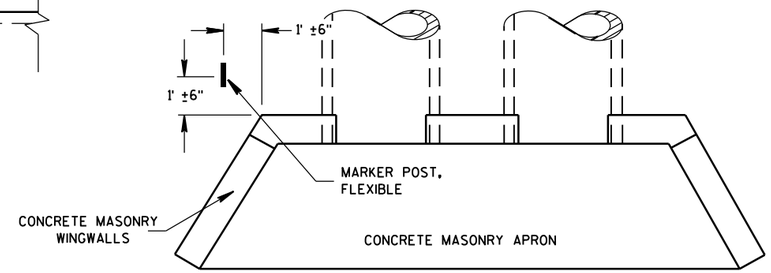
## UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

## GENERAL NOTES

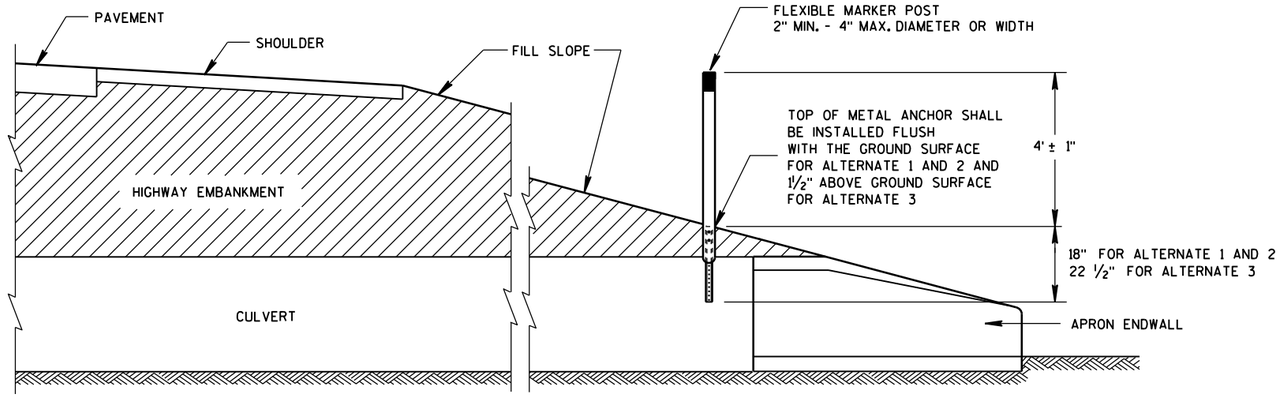
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.




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



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S.D.D. 15 A 3-2a

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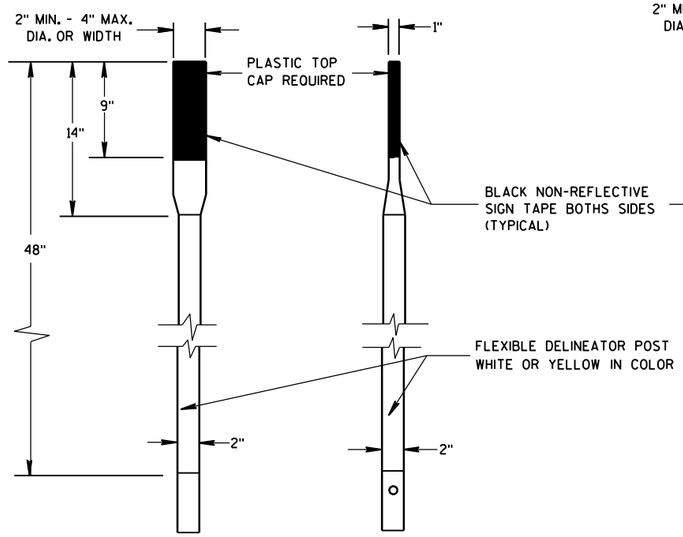
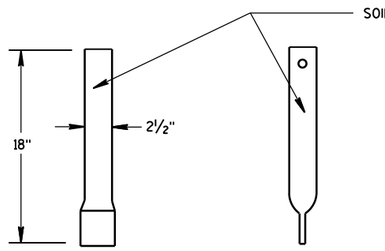
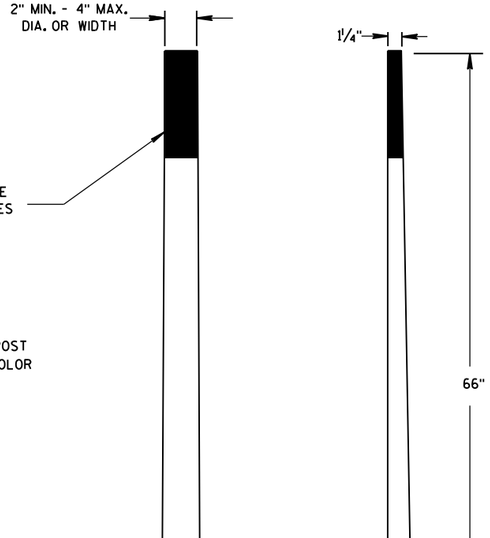
S.D.D. 15 A 3-2a



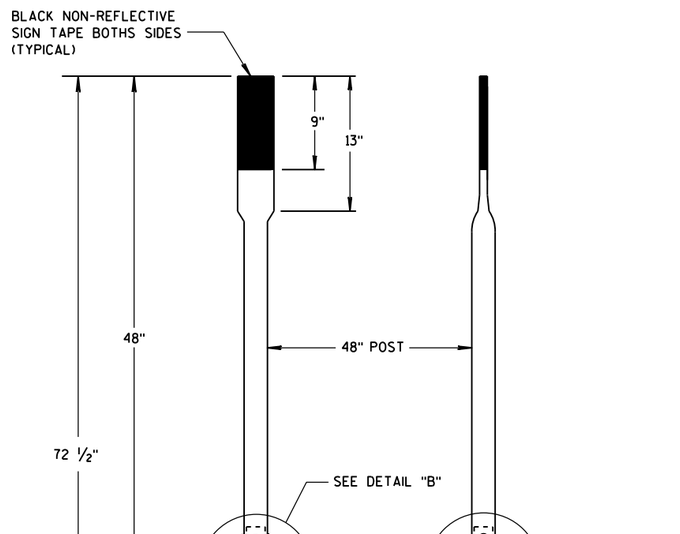

FRONT VIEW SIDE VIEW

ALTERNATE 1




FRONT VIEW SIDE VIEW

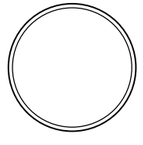
ALTERNATE 2



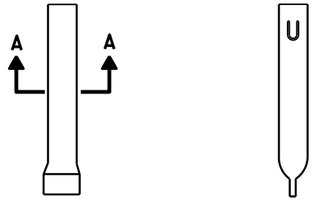

FRONT VIEW SIDE VIEW

ALTERNATE 3

## FLEXIBLE MARKER POSTS

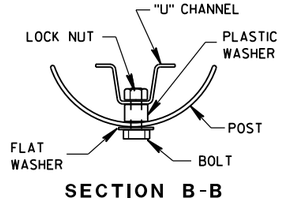


SECTION A-A

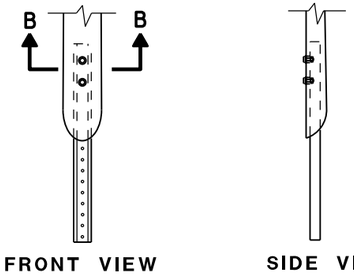



FRONT VIEW SIDE VIEW

ALTERNATE 1

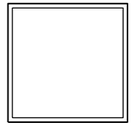



SECTION B-B

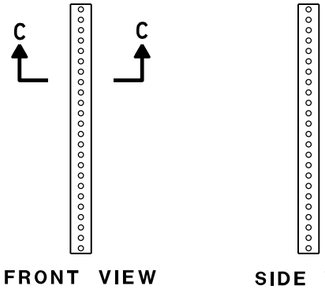



FRONT VIEW SIDE VIEW

ALTERNATE 2



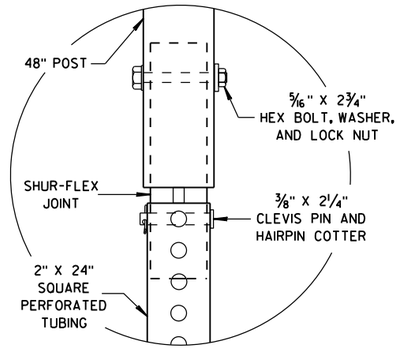
SECTION C-C



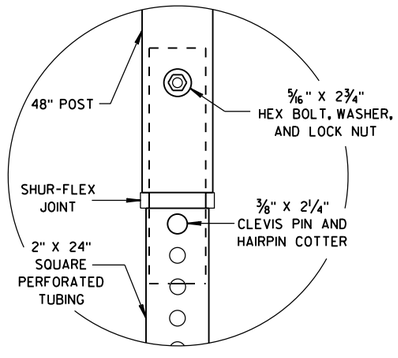

FRONT VIEW SIDE VIEW

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



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S.D.D. 15 A 3-2b

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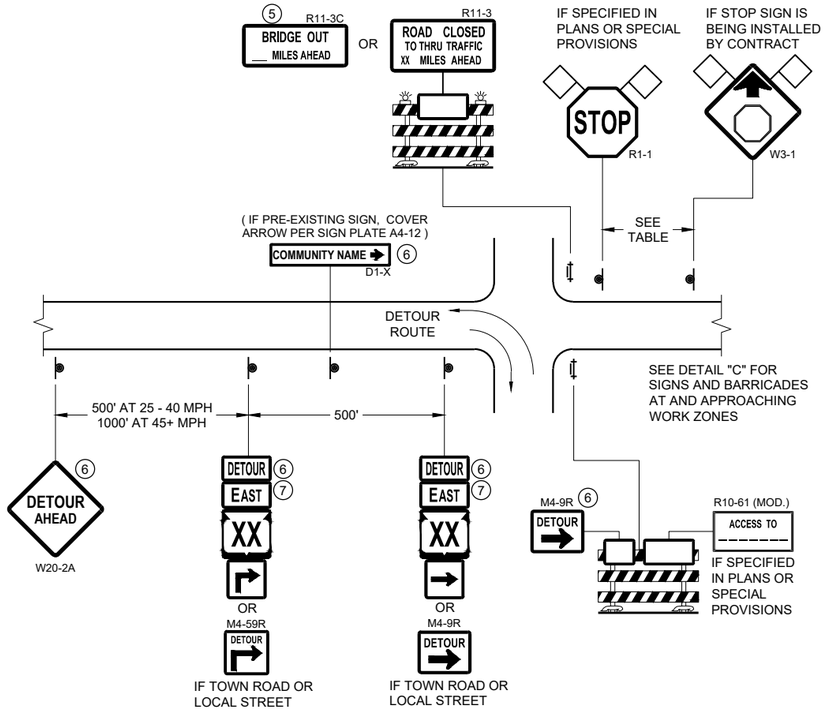
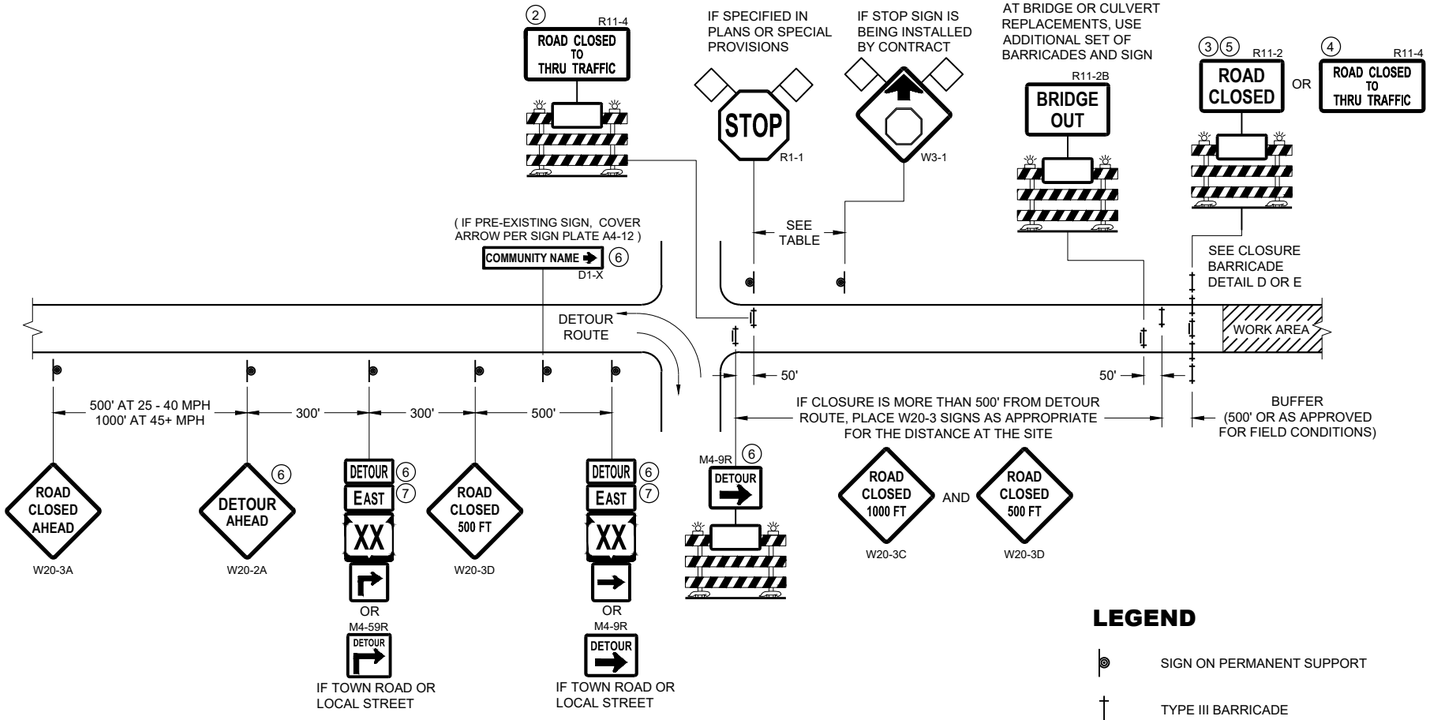
S.D.D. 15 A 3-2b




## DETAIL A
## MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO 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 )

## LEGEND

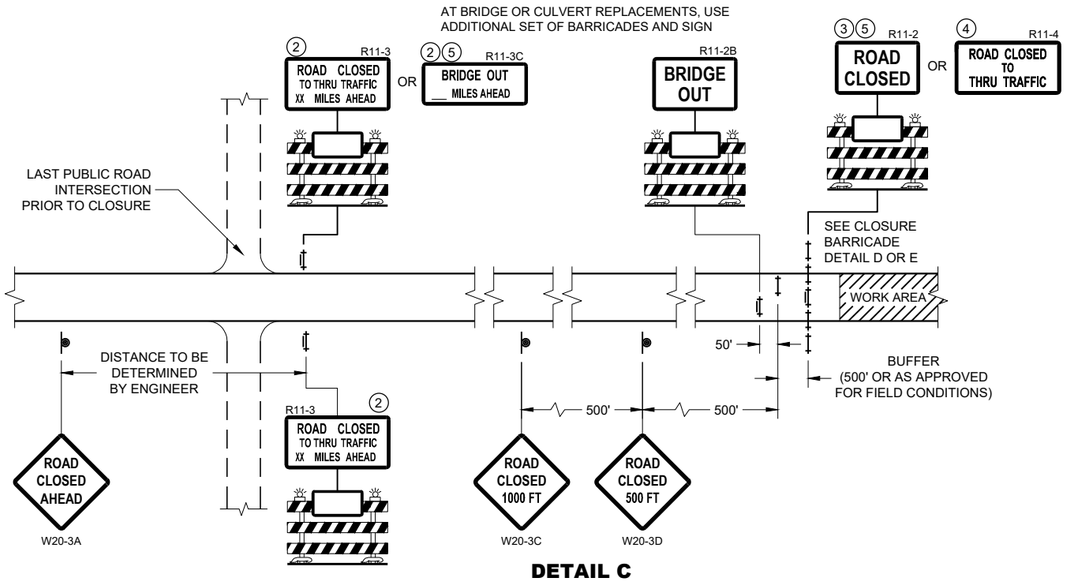
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8

EAST M3 - X

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M06 - 1




## 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

**BARRICADES AND SIGNS FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

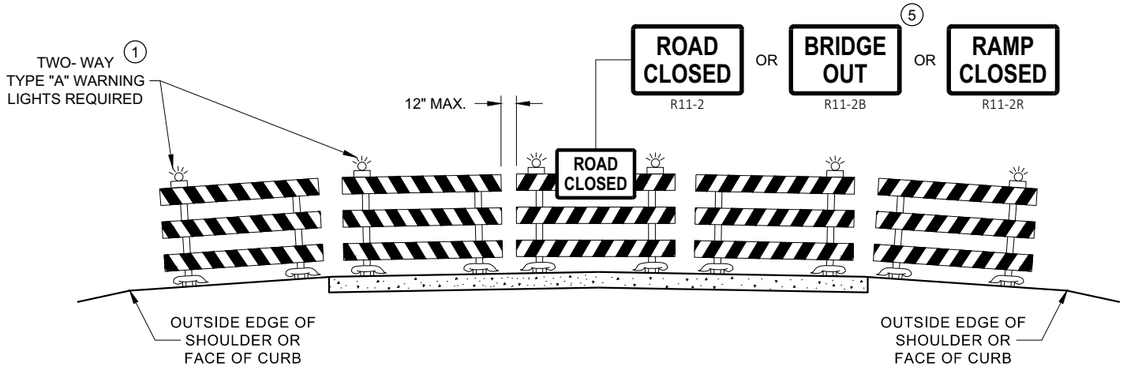
FHWA



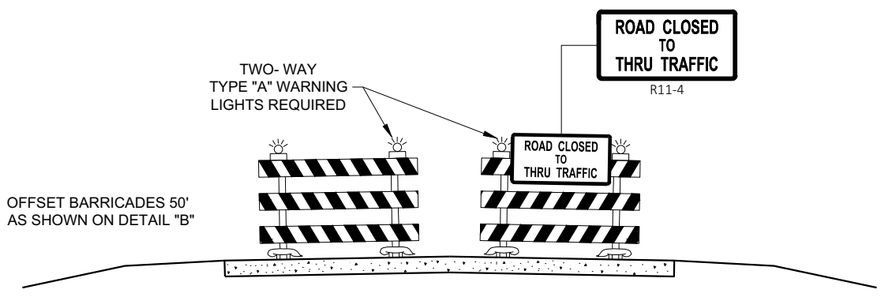
6

SDD 15C02 - 08a

SDD 15C02 - 08a




**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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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 AN 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 ROAD 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 VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA



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SDD 15C02 - 08b

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SDD 15C02 - 08b

**THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.**

## LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- M05 - 1
- OR M06 - 1
- OR M06 - 1

## GENERAL NOTES

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

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. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" 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)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR ROUTE

WORK AREA

DETOUR NEXT X MILES *
G20-51

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

MATCH POINT

M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-9R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

**DETAIL F**
**DETOUR SIGNING**

**DETOUR SIGNING FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



SDD 15C02 - 08c

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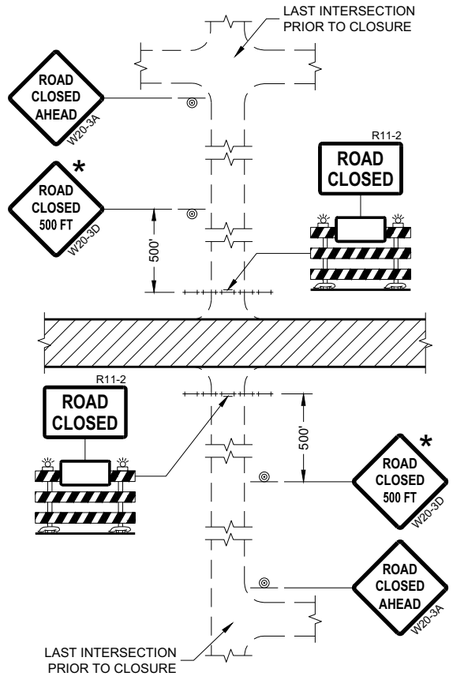
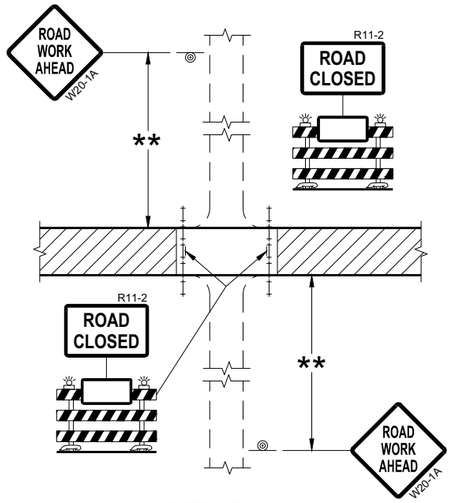
SDD 15C02 - 08c




**DETAIL 1**
(NO ACCESS TO PROJECT)




**DETAIL 2**
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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 (500 FEET DESIRABLE) 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 REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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.

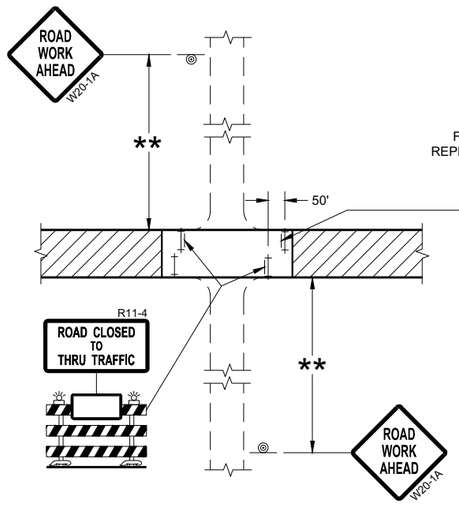
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

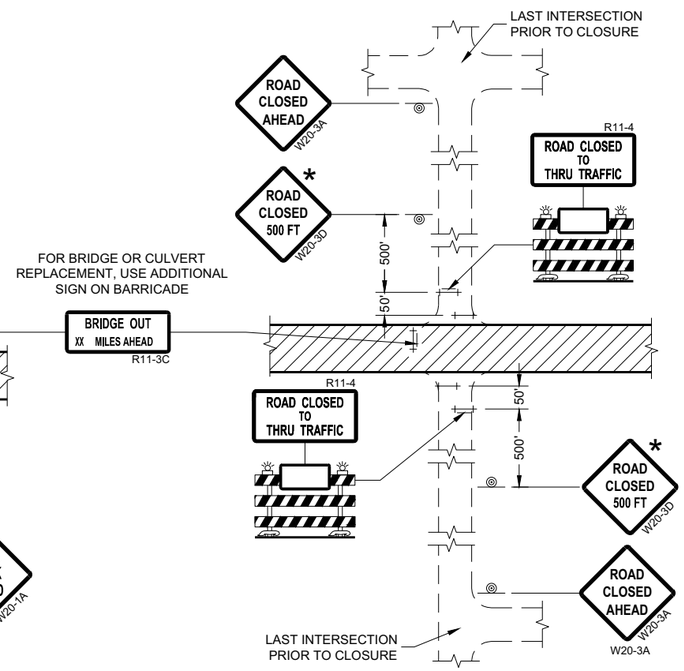
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.




**DETAIL 3**
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

**DETAIL 4**
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

## LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

**BARRICADES AND SIGNS FOR SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



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SDD 15C03 - 05

## GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

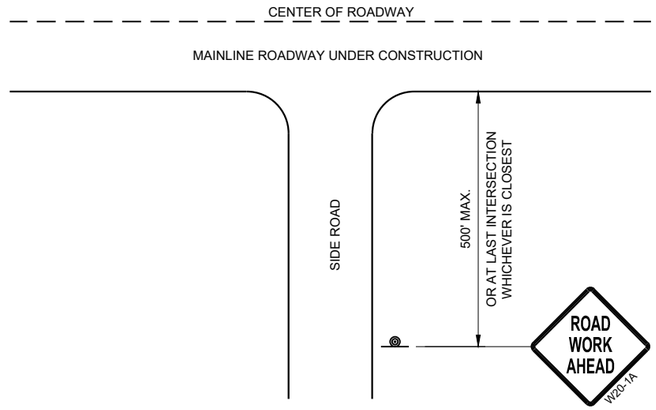
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



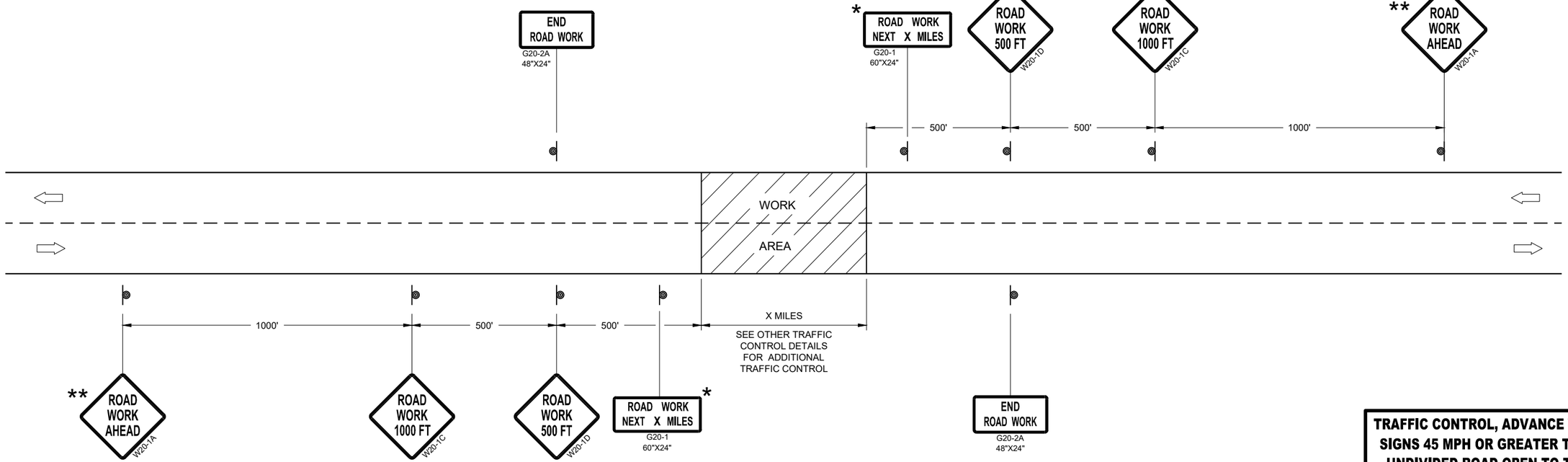

**TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL**

## LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA




**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER**

**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C04 - 05

## GENERAL NOTES

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

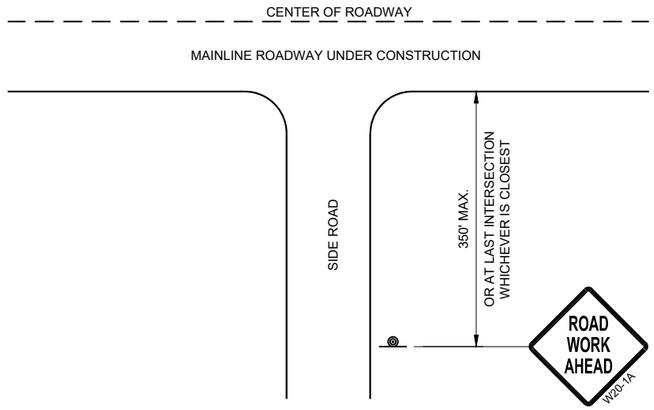
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 REESTABLISHED.

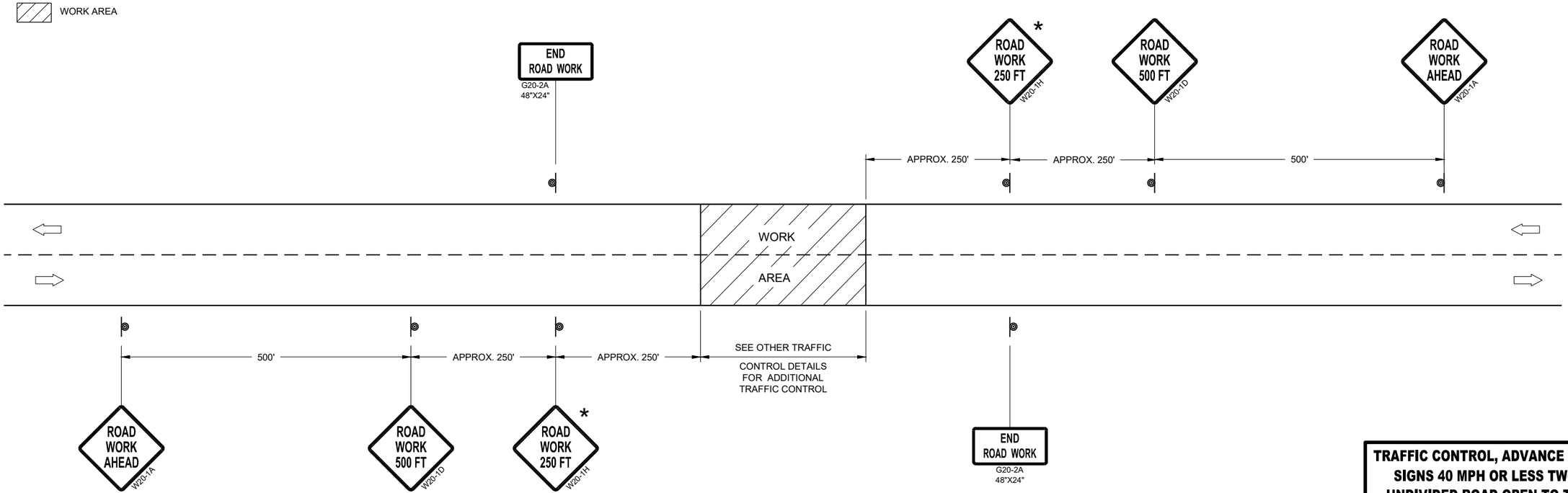
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.




**TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL**

## LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA




**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS**

**TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



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SDD 15C05 - 05

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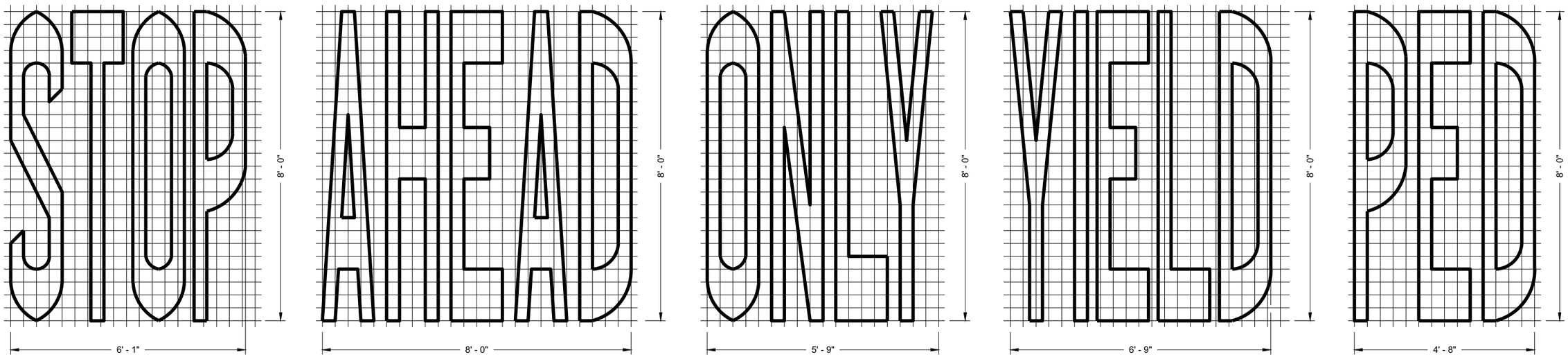
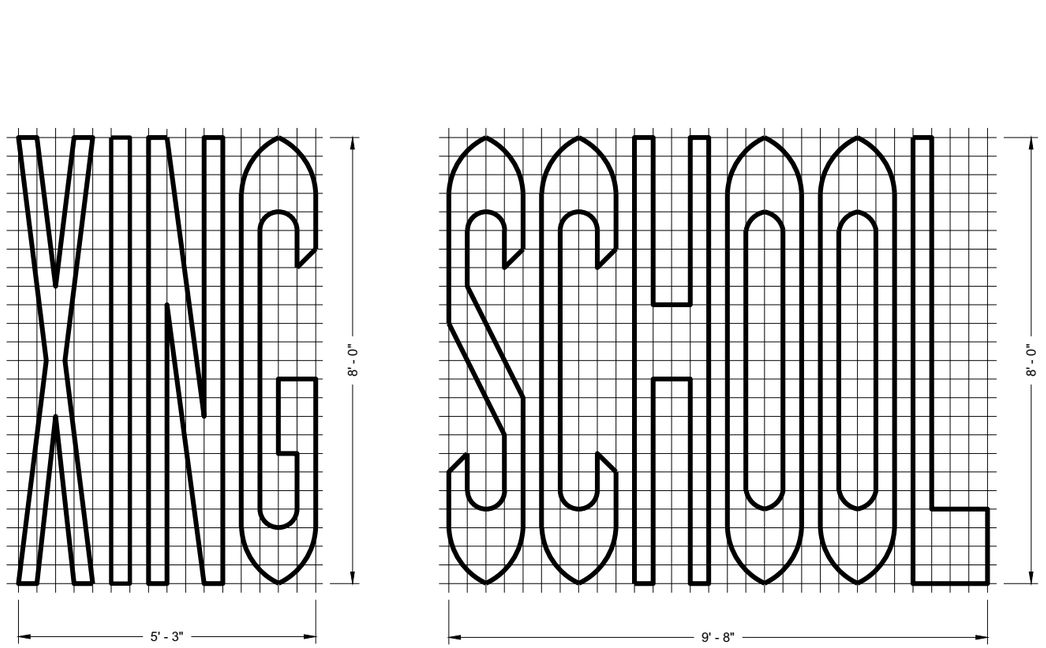
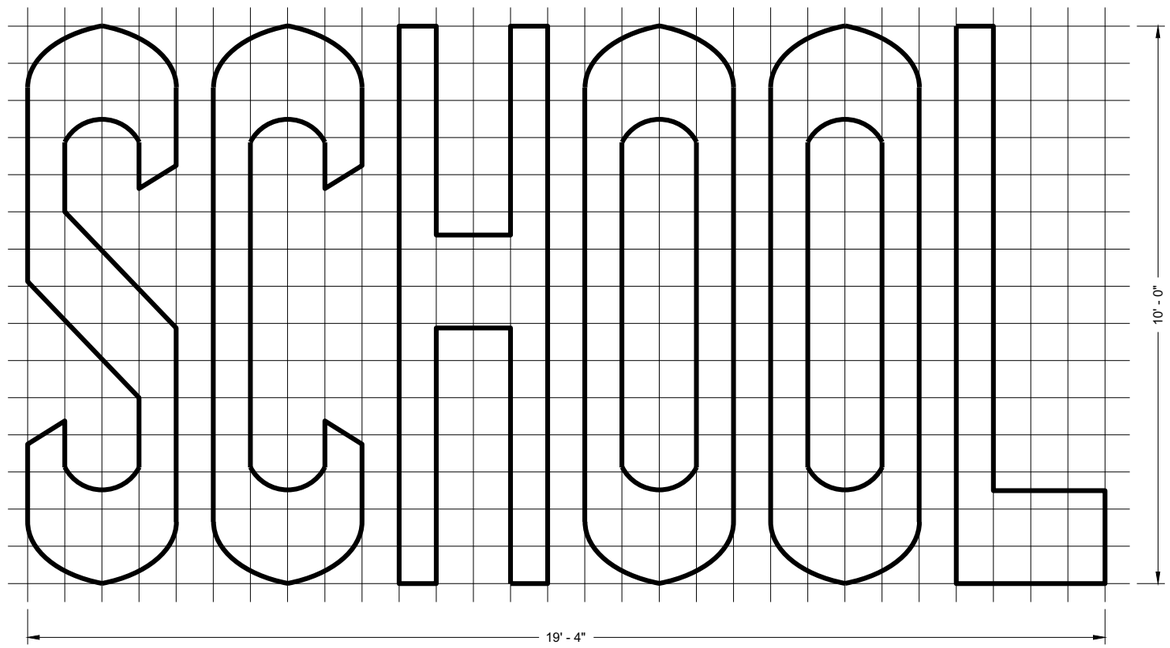
SDD 15C05 - 05




**SINGLE LANE**




**TWO - LANE**

## GENERAL NOTES

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

**PAVEMENT MARKING WORDS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA



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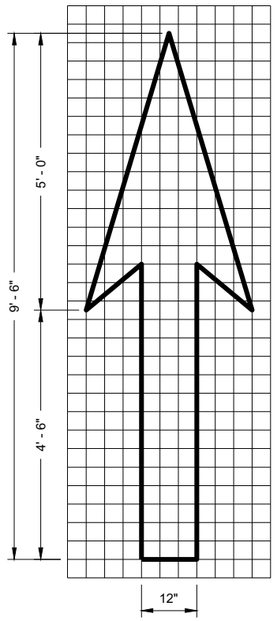
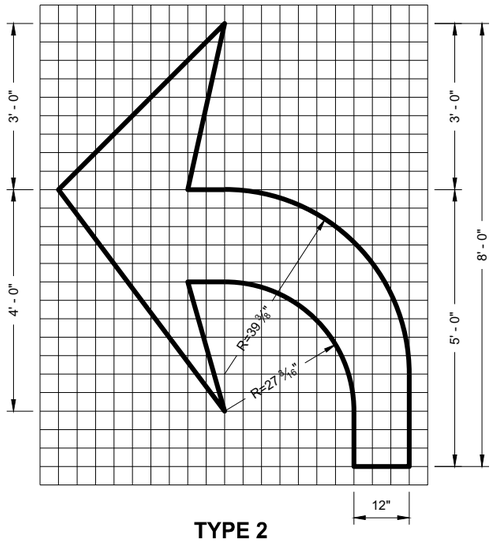
SDD 15C07 - 15b

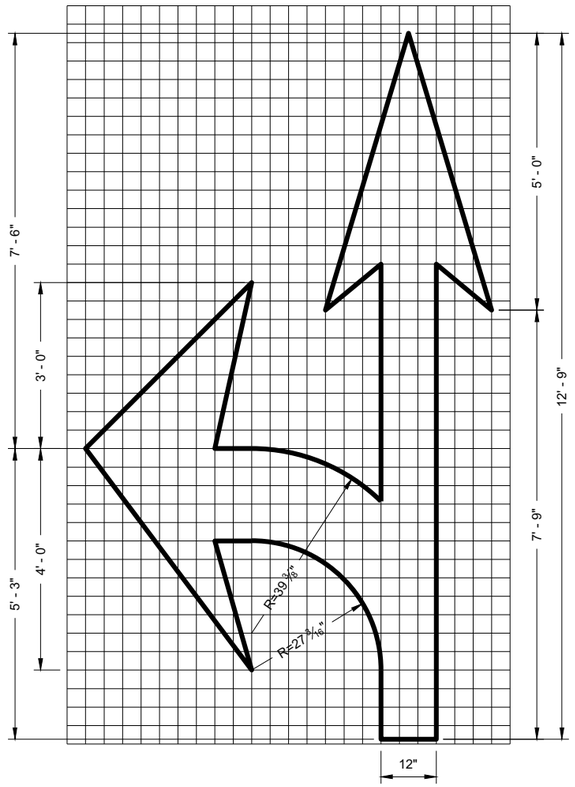
SDD 15C07 - 15b




TYPE 1



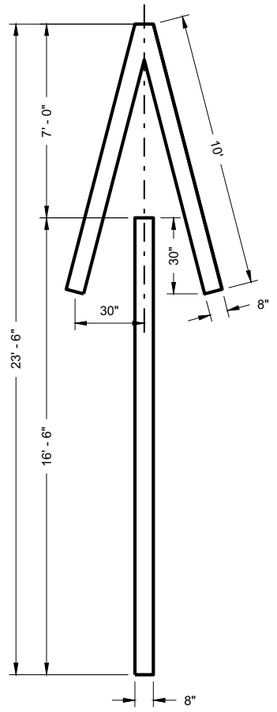

TYPE 2



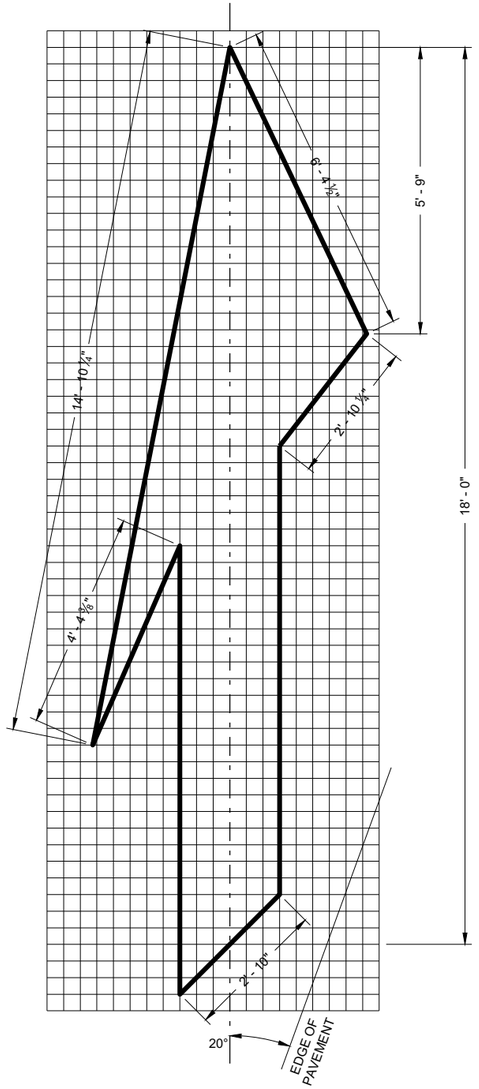

TYPE 3

## GENERAL NOTES

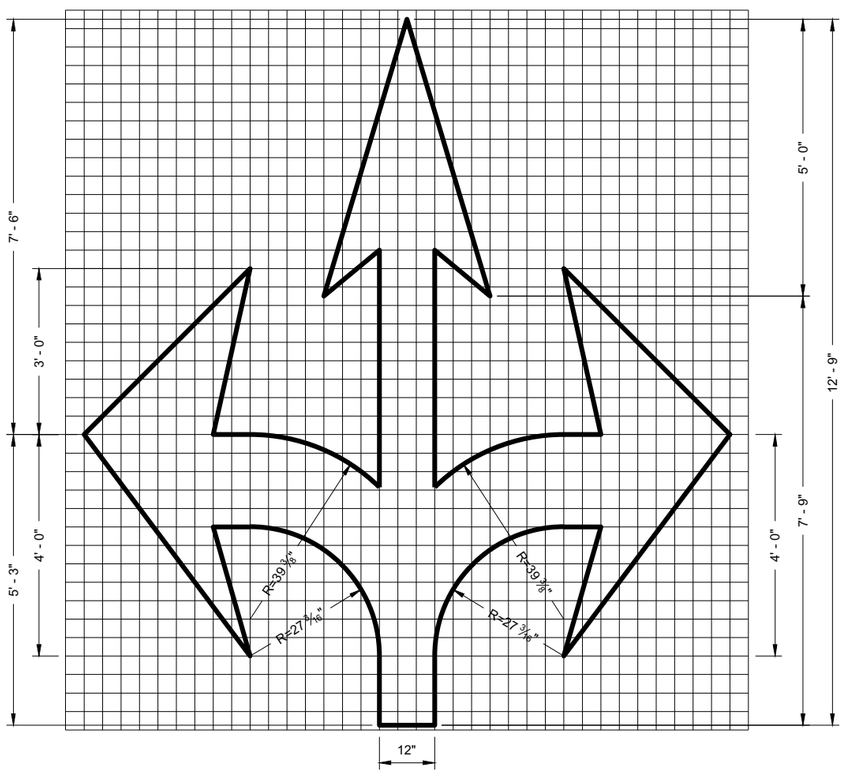
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



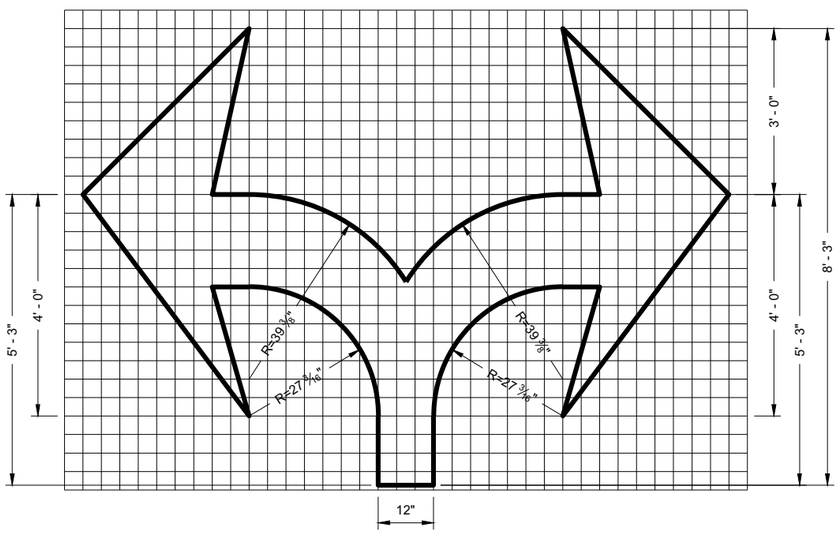

TYPE 4




TYPE 5 LANE DROP ARROW




TYPE 6




TYPE 7

**PAVEMENT MARKING ARROWS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA



6

SDD 15C07 - 15c

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SDD 15C07 - 15c

## GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

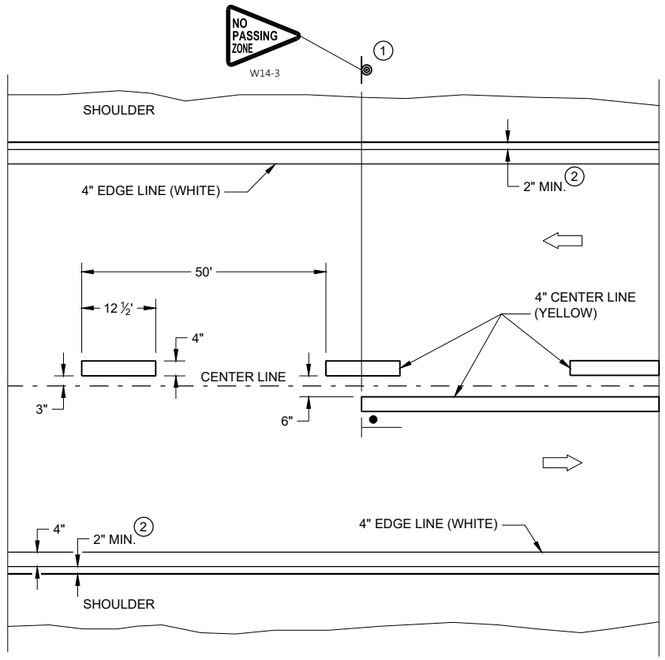
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

## LEGEND

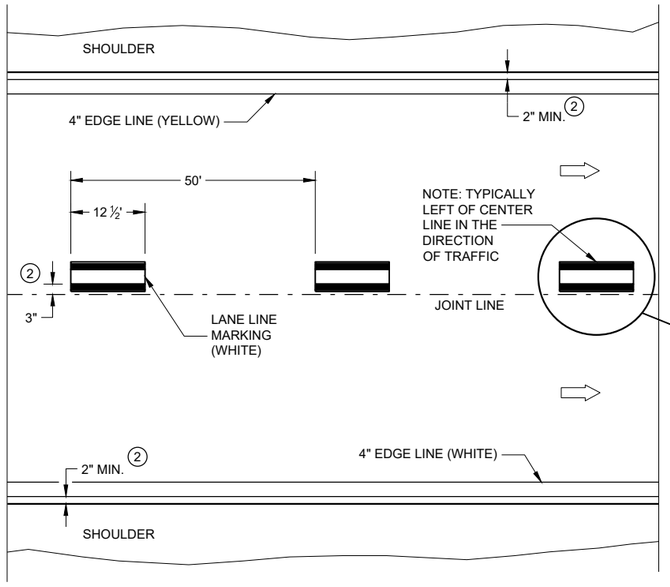
"T" MARKING

SIGN ON PERMANENT SUPPORT

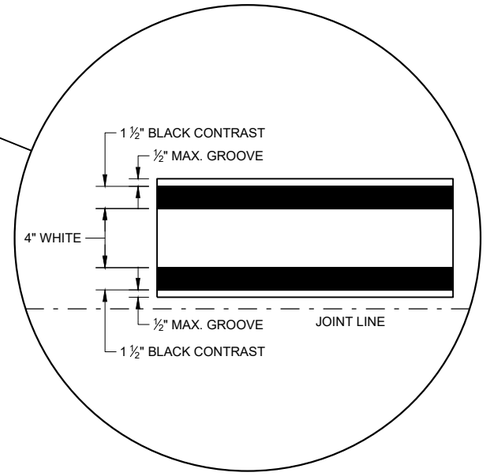
DIRECTION OF TRAFFIC




**TWO WAY TRAFFIC**




**ONE WAY TRAFFIC**




## PERMANENT PAVEMENT MARKING

**PERMANENT LONGITUDINAL PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA



6

SDD 15C08 - 22a

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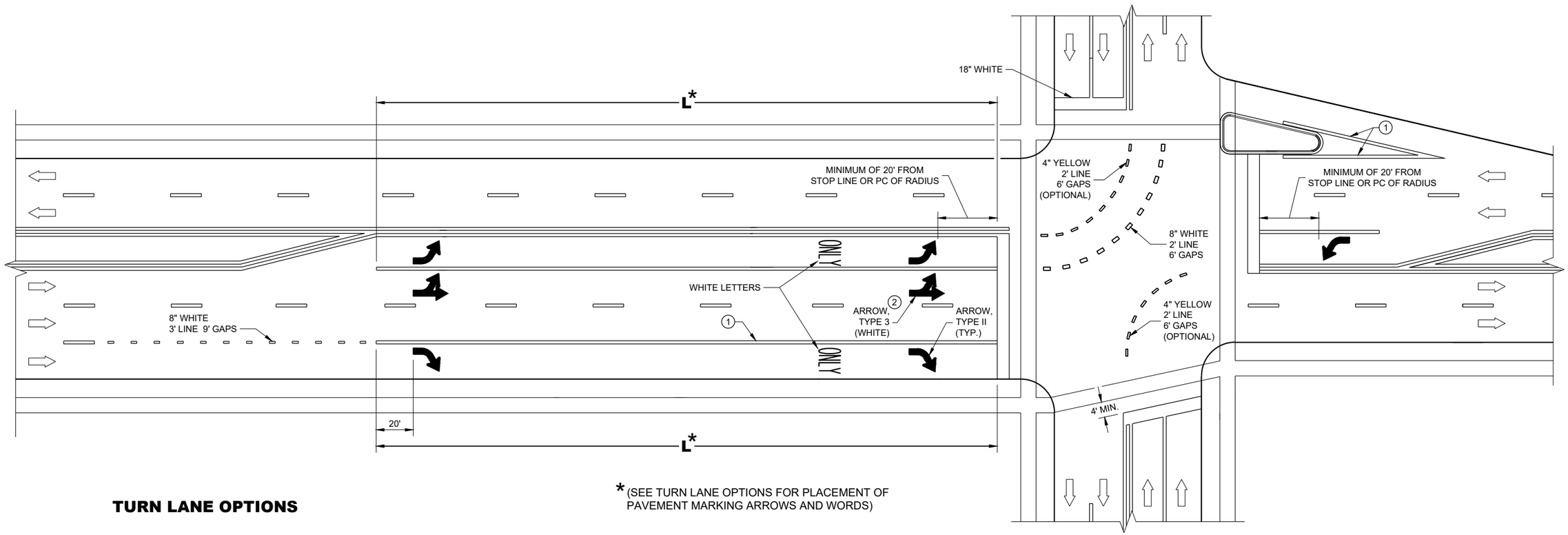
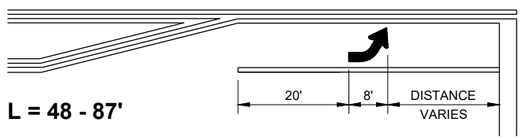
SDD 15C08 - 22a



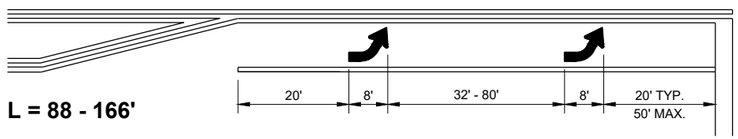

* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

## TURN LANE OPTIONS

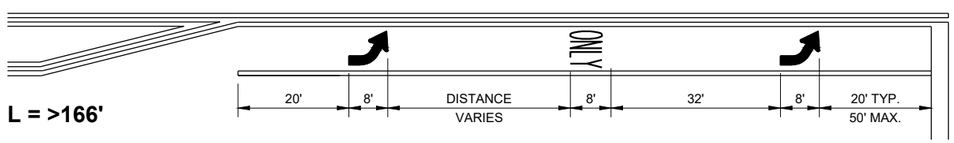
LENGTH OF TURN BAY ( **L** ) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS




**L = 48 - 87'**




**L = 88 - 166'**




**L = >166'**

## GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

**L** = LENGTH OF TURN BAY

**PAVEMENT MARKING (TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

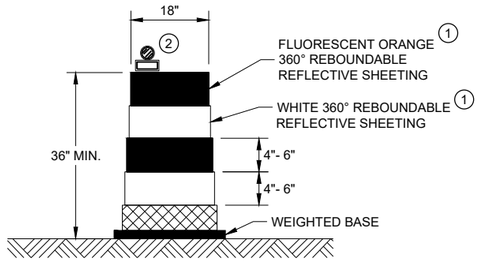


SDD 15C08 - 22d

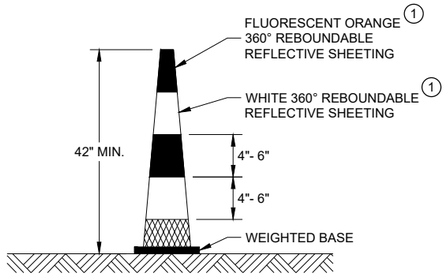
6
SDD 15C08 - 22d

## GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

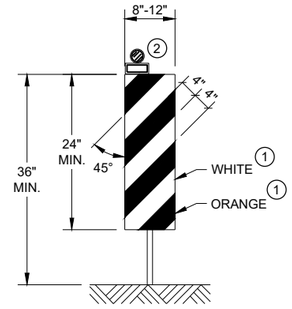



### DRUM



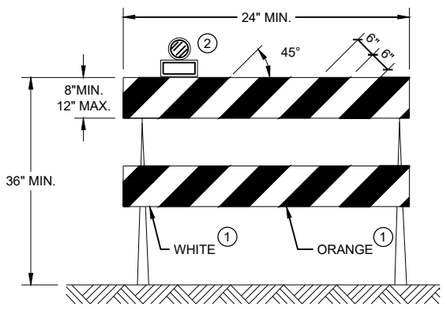

### 42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



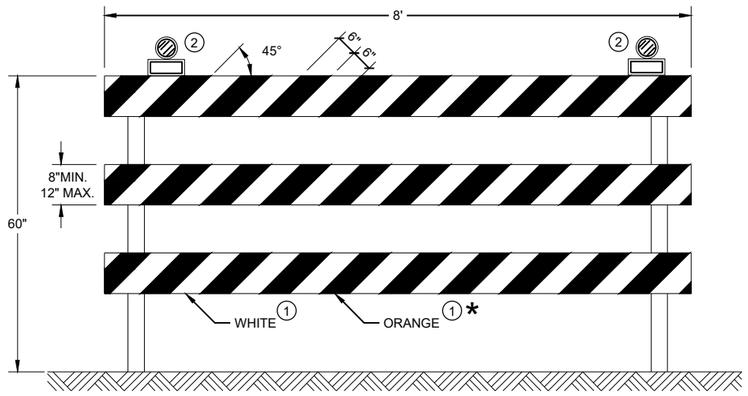

### VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.




### TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES**
**DRUMS, CONES, BARRICADES**
**AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



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SDD15C11 - 09b

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SDD15C11 - 09b

## LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

## GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR 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.

## FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

## TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

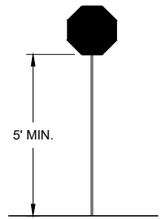
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



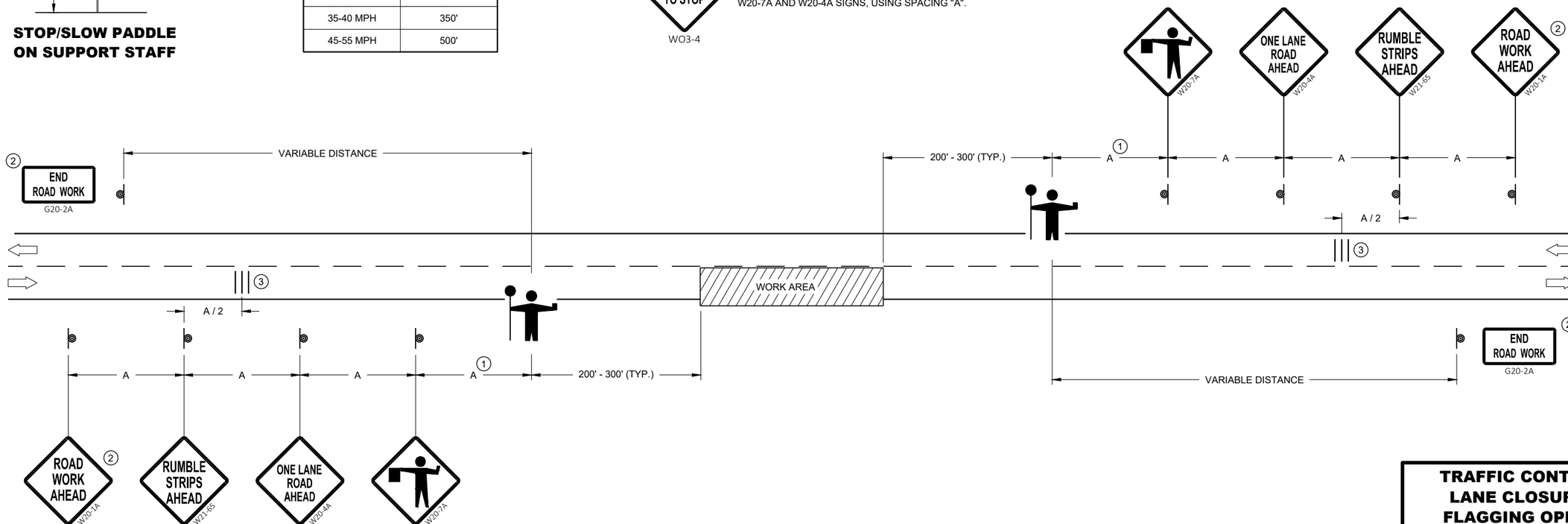

**STOP/SLOW PADDLE ON SUPPORT STAFF**

## SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

| SPEED LIMIT | SPACING "A" |
|---|---|
| 25-30 MPH | 200' |
| 35-40 MPH | 350' |
| 45-55 MPH | 500' |


WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".




# TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA



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SDD 15C12 - 09a

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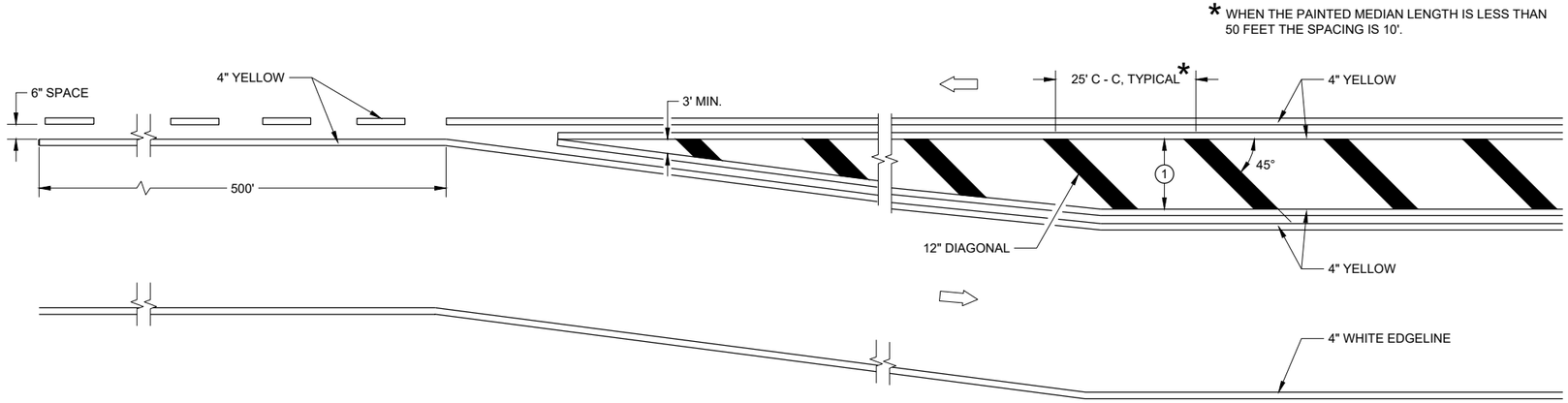
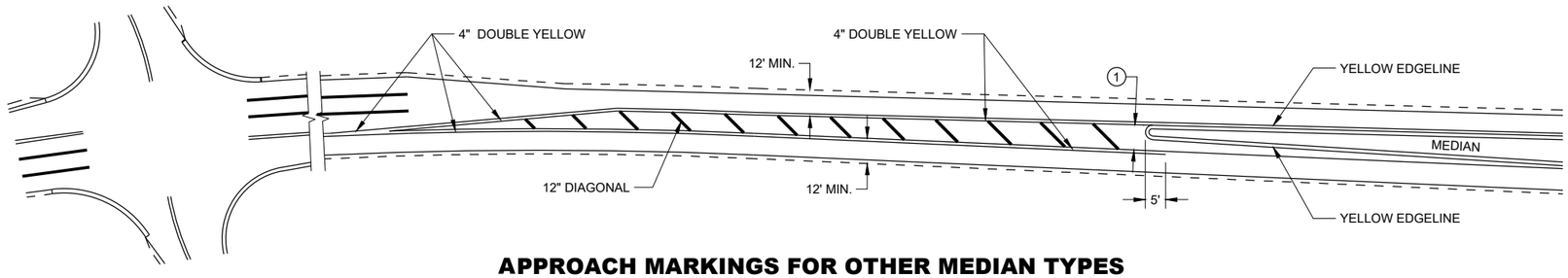
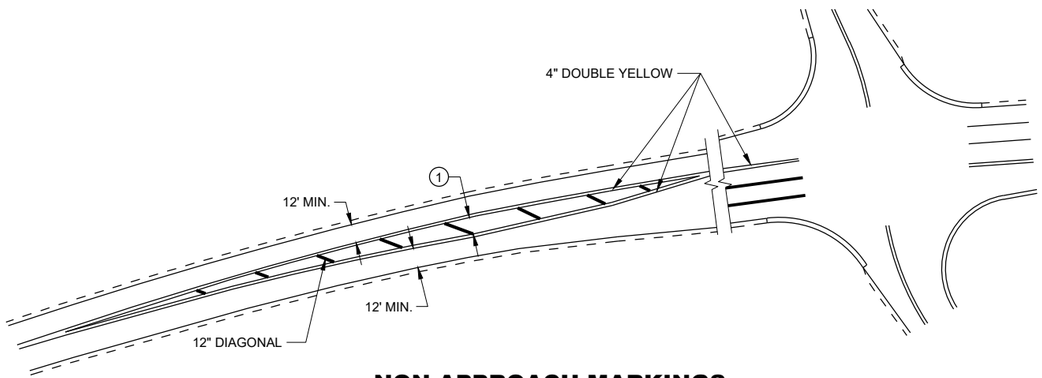
SDD 15C12 - 09a




**MEDIAN ISLAND DETAIL**




**APPROACH MARKINGS FOR OTHER MEDIAN TYPES**




**NON-APPROACH MARKINGS**

## GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

⇨ DIRECTION OF TRAVEL

**MEDIAN ISLAND PAVEMENT MARKINGS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER
FHWA



6

SDD 15C18 - 06a

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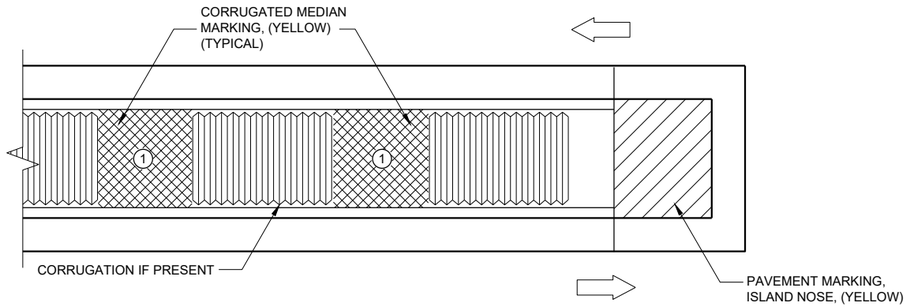
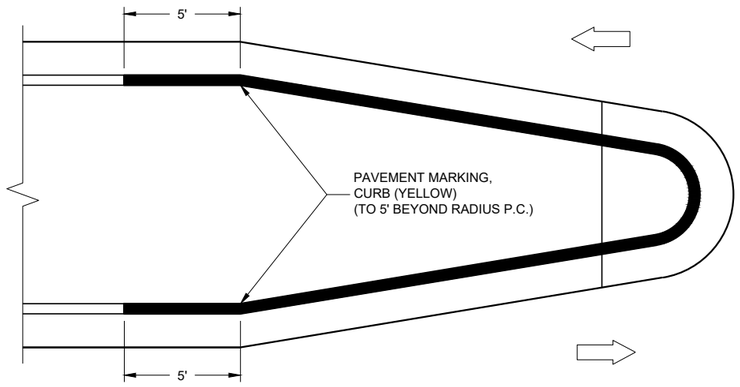
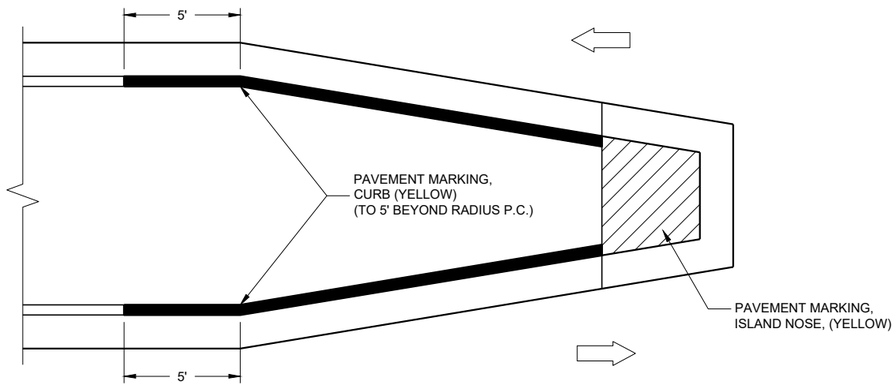
SDD 15C18 - 06a




**MEDIAN ISLAND WITH SQUARE BLUNT NOSE**




**MEDIAN ISLAND WITH ROUND BLUNT NOSE**




**MEDIAN ISLAND WITH SLOPED NOSE**

## TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

## GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

**PAVEMENT MARKINGS, MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA



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SDD 15C18 - 06b

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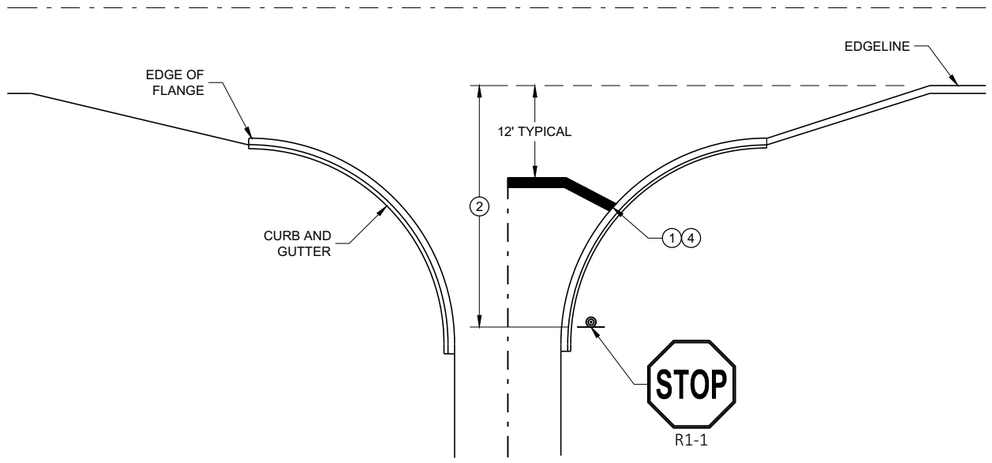
SDD15C18 - 06b

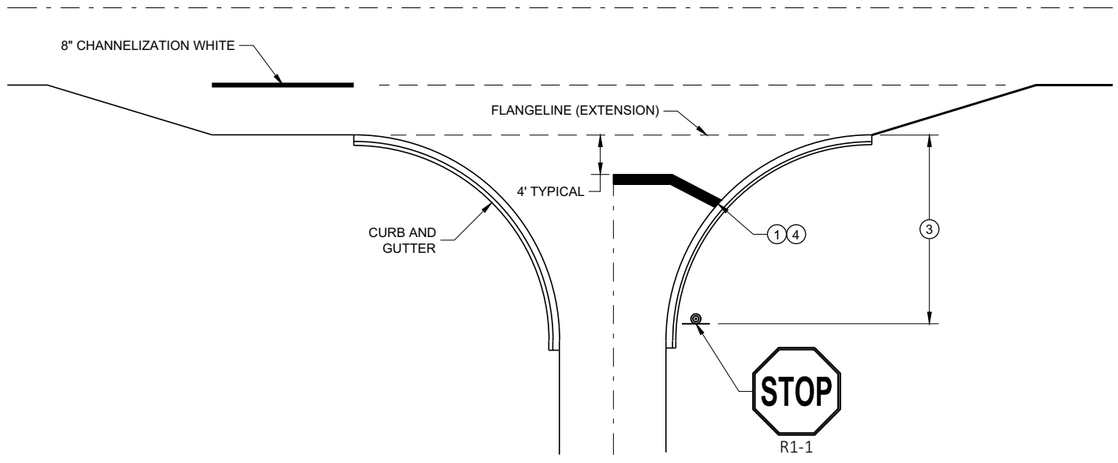
## GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

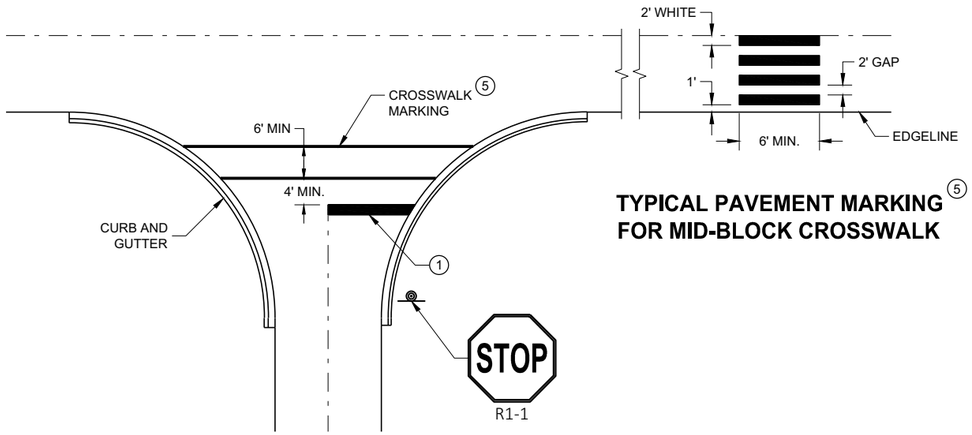
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.




**TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER**



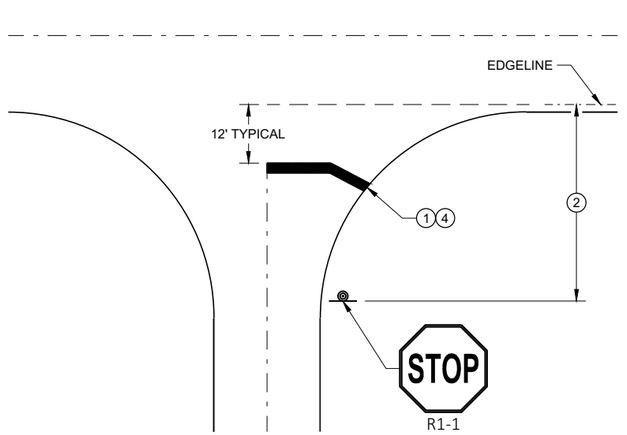

**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE**




**TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING**




**TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5**




**TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER**

**STOP LINE AND CROSSWALK PAVEMENT MARKING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA



6

SDD 15C33 - 04

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SDD 15C33 - 04

## LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

| POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH) | ADVANCE WARNING SIGN SPACING (A) FEET |
|---|---|
| 0-30 | 200' |
| 35-40 | 350' |
| 45-55 | 500' |

## GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

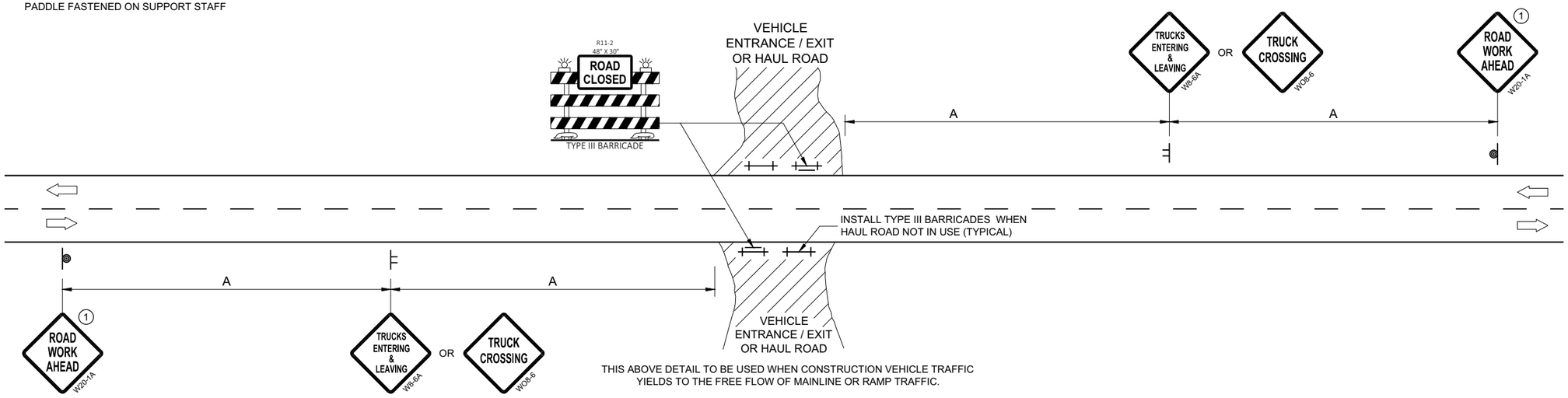
WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

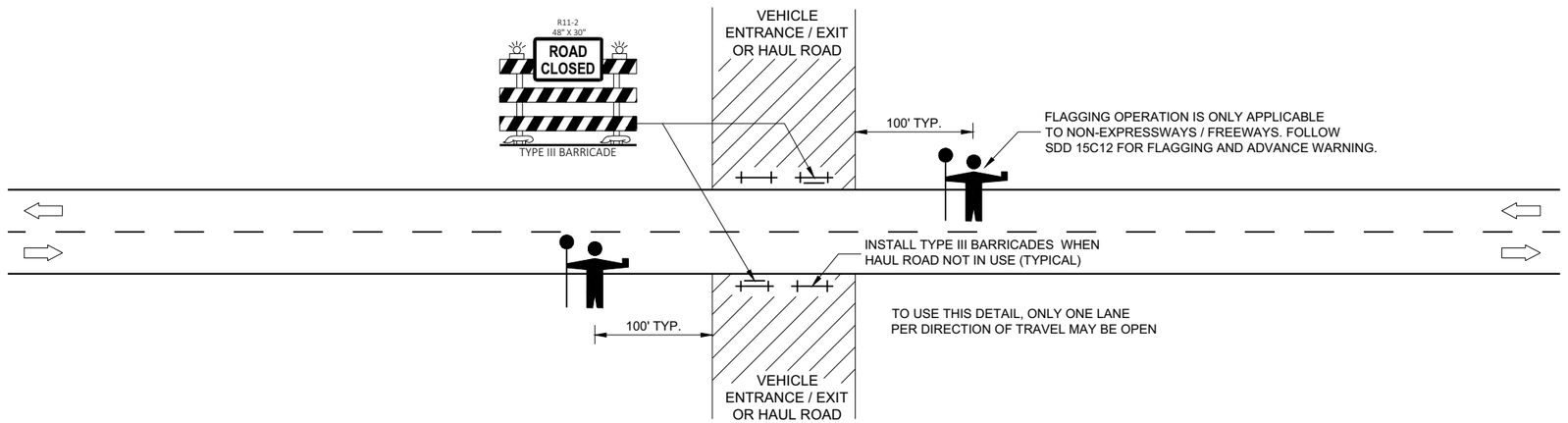
WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

(1) THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.




THIS ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC.




TO USE THIS DETAIL, ONLY ONE LANE PER DIRECTION OF TRAVEL MAY BE OPEN

THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

# TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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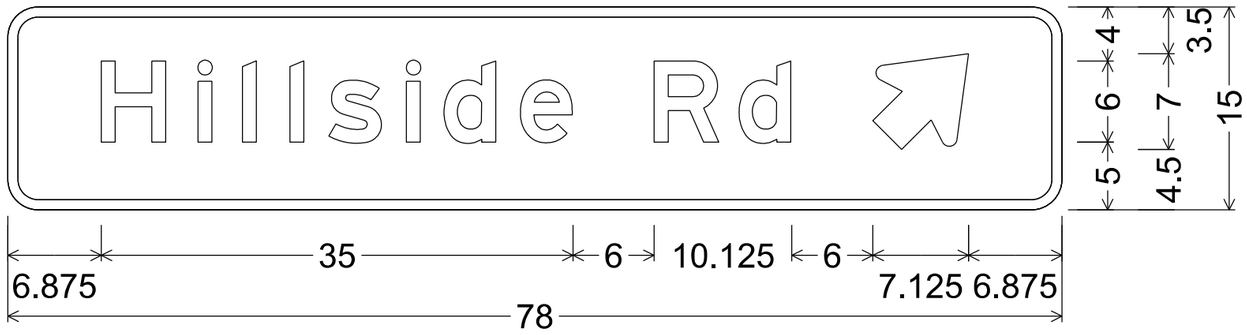
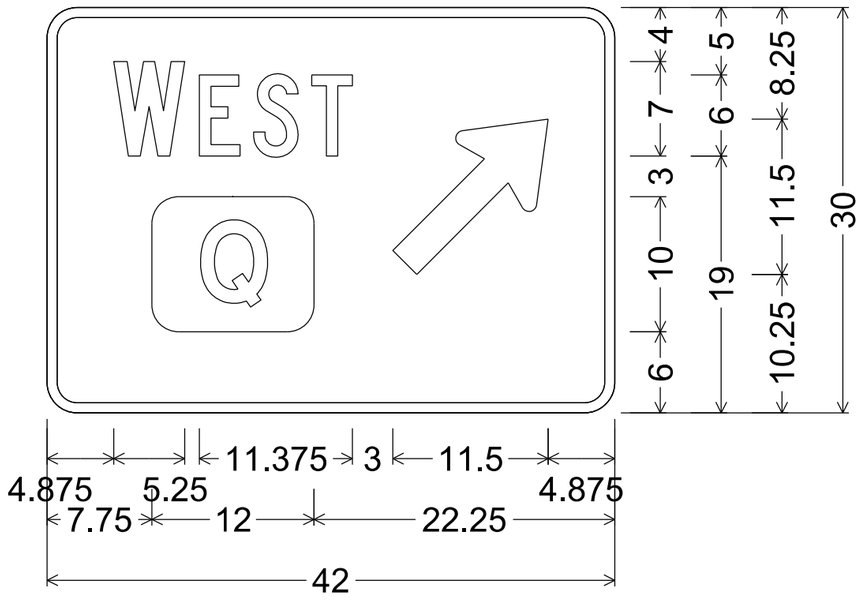
SDD 15D29 - 06

NOTES

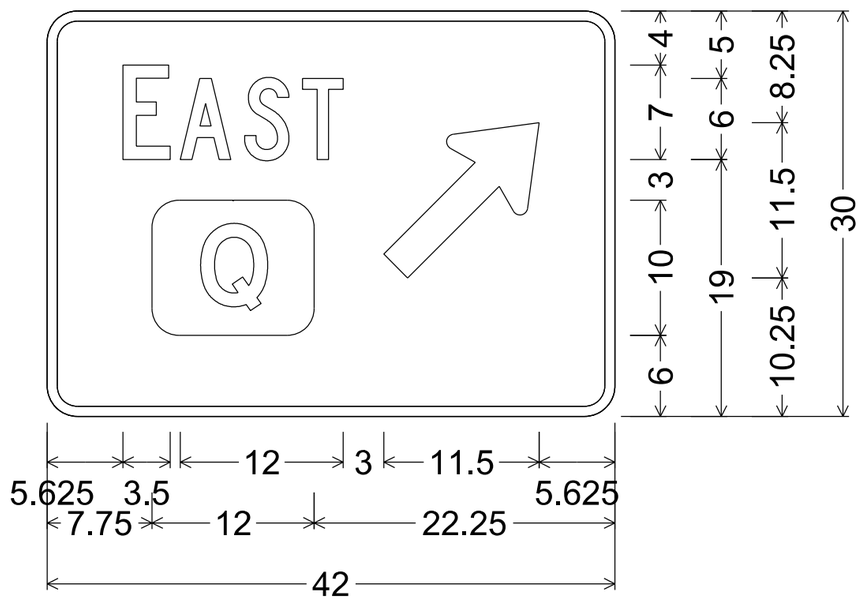
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E or as noted



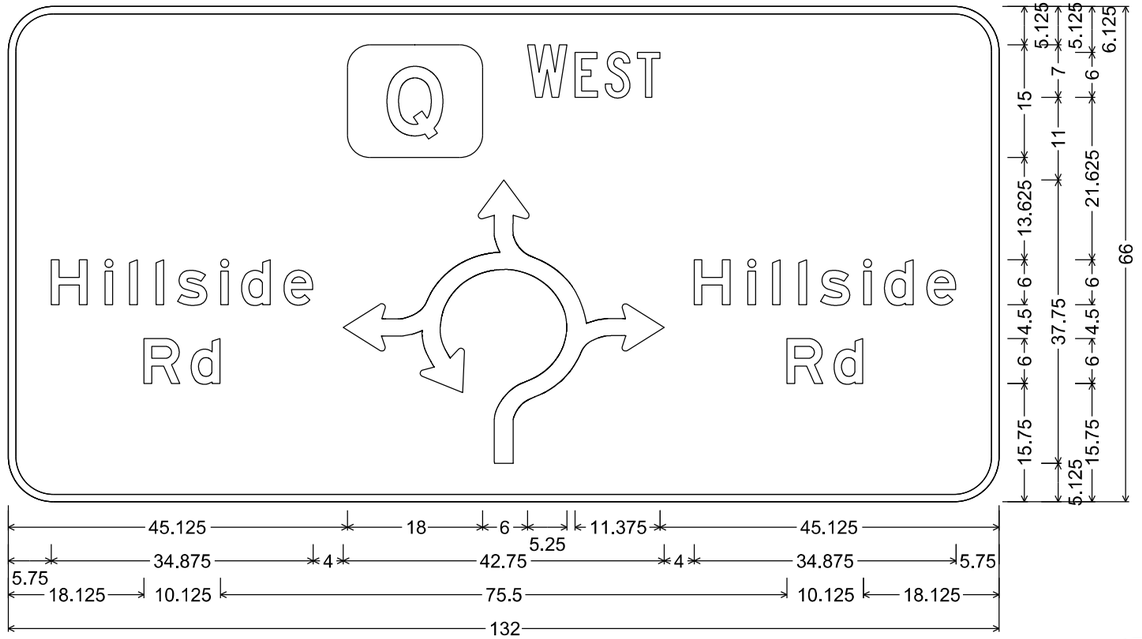

D1-1 2.250" Radius, 0.750" Border (Qty. 2);




D1-1; 2.250" Radius, 0.750" Border
"WEST", C



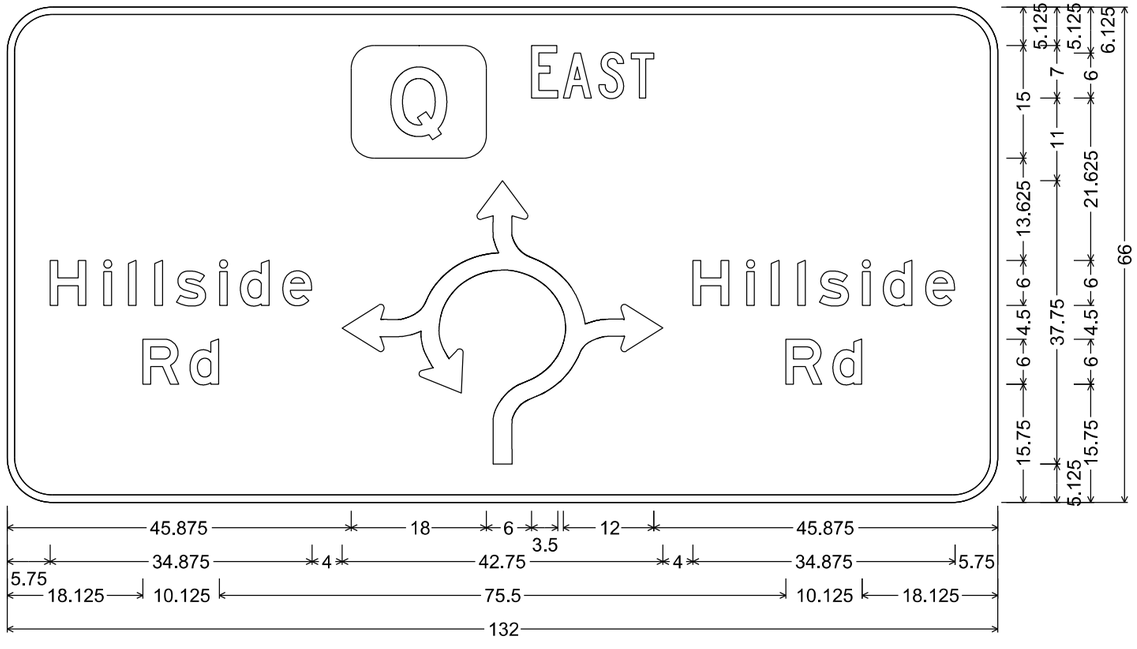

D1-1; 2.250" Radius, 0.750" Border
"EAST", C



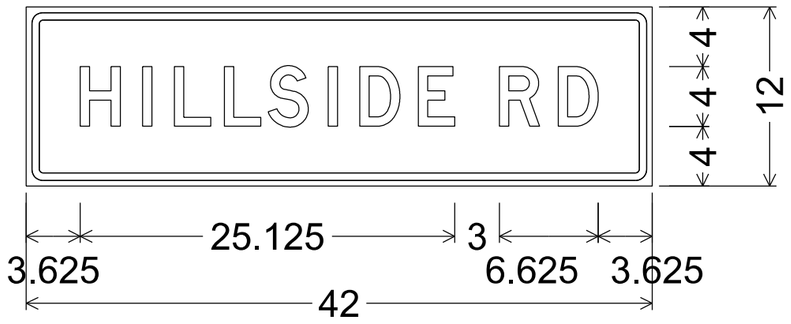

D1-62; 6.000" Radius, 1.000" Border
"WEST", C

## NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E or as noted



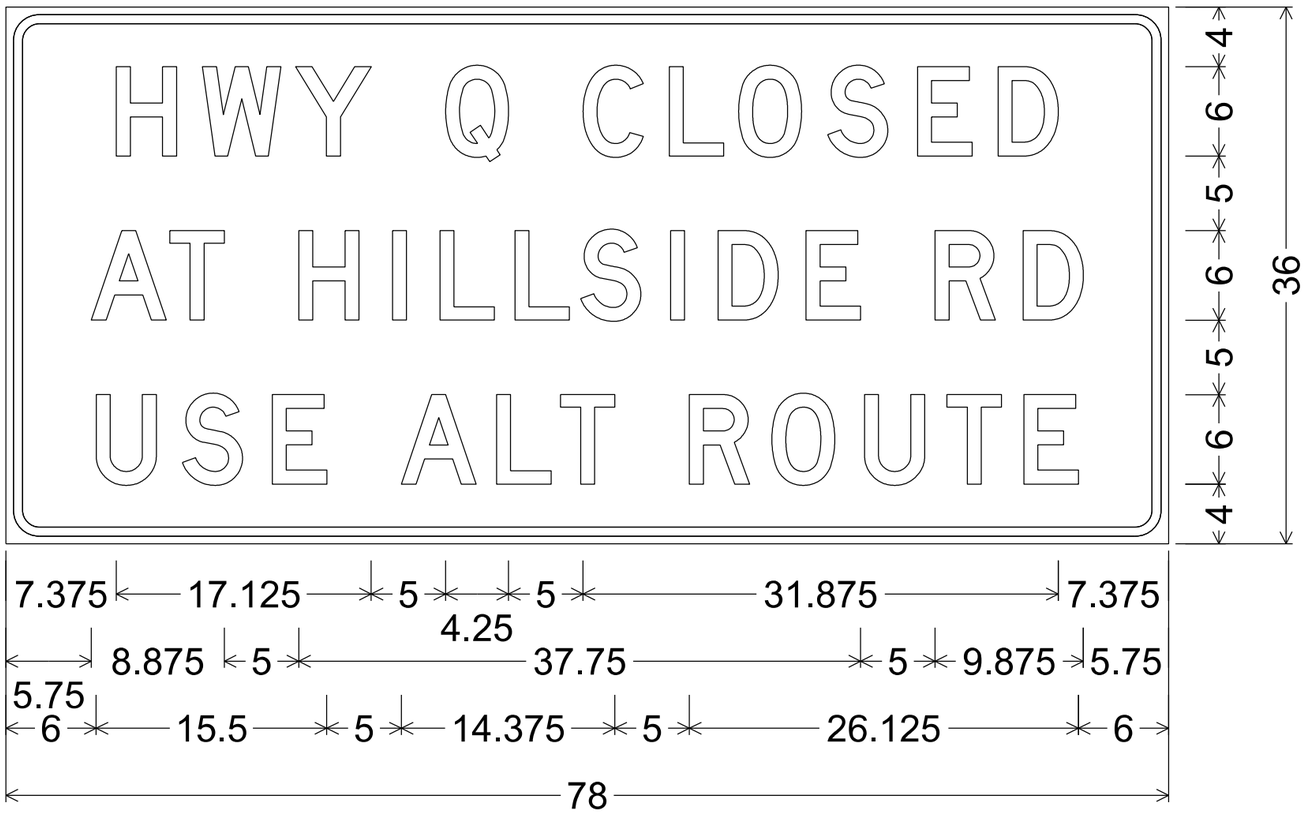

D1-62; 6.000" Radius, 1.000" Border
"EAST", C




1.125" Radius, 0.500" Border, 0.375" Indent

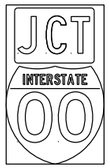
NOTES

1. Fixed Message Signs Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

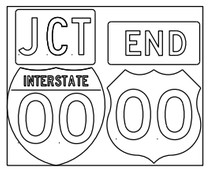



2.250" Radius, 0.625" Border, 0.500" Indent

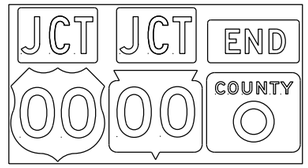
# TYPICAL ASSEMBLIES



J1-1



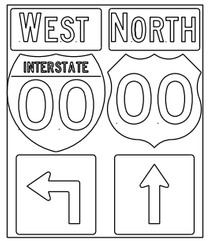
J1-2



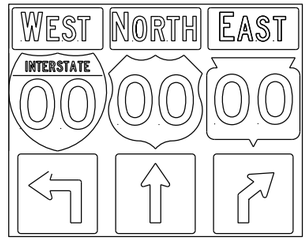
J1-3

JR1-1

J2-1

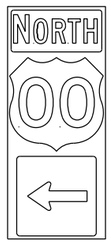


J2-2

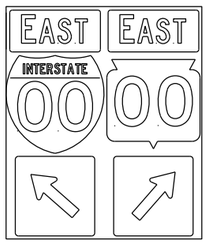


J2-3

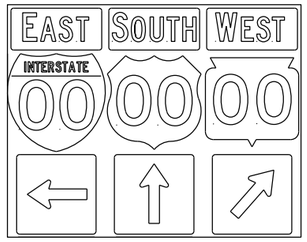
JV
( Typical Vertical J-Assembly
See Note 10 and 11 )



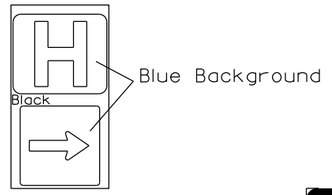
J3-1



J3-2

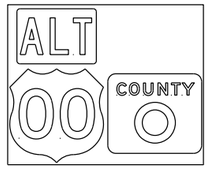


J3-3

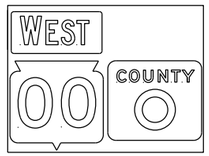


JH-1

J4-1

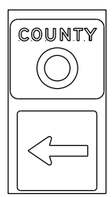


J4-2



J4-2

J12-1



J13-1

J32-1

J33-1

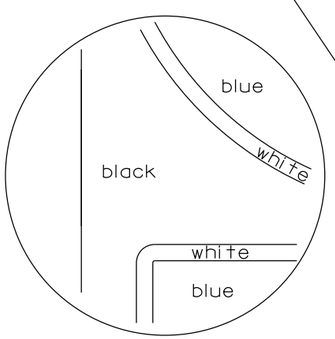
J22-1

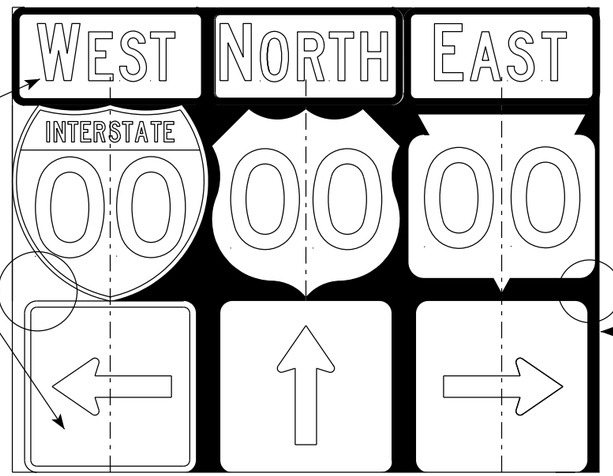
J23-1

JR13-1

JR23-1

JR99-1




NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

SHEET NO: 143 E

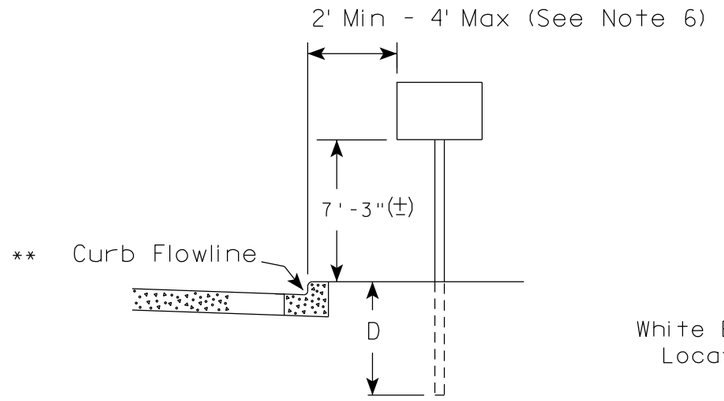
FILE NAME : C:\CAEfiles\Projects\tr_stdplate_A21S.dgn PLOT DATE : 18-MAR 2021 1:37 PLOT BY : mscj9h PLOT NAME :

WISDOT/CADDS SHEET 42

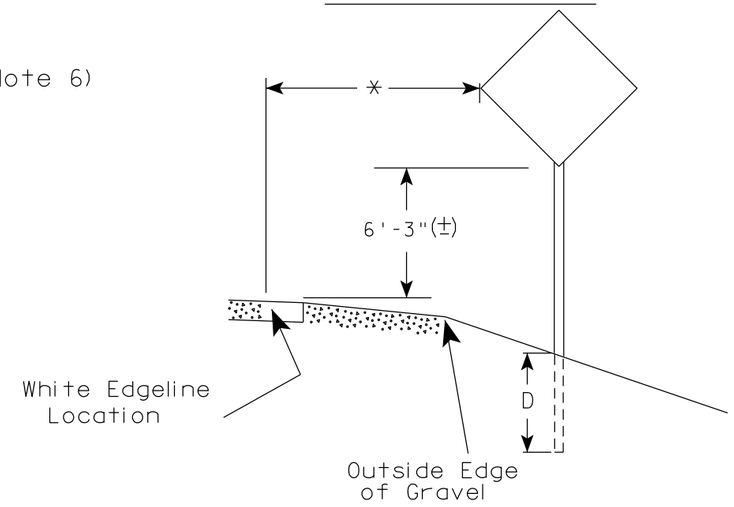
7

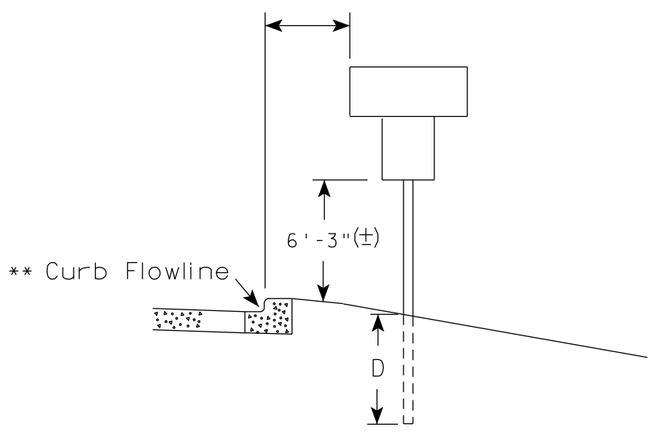
7

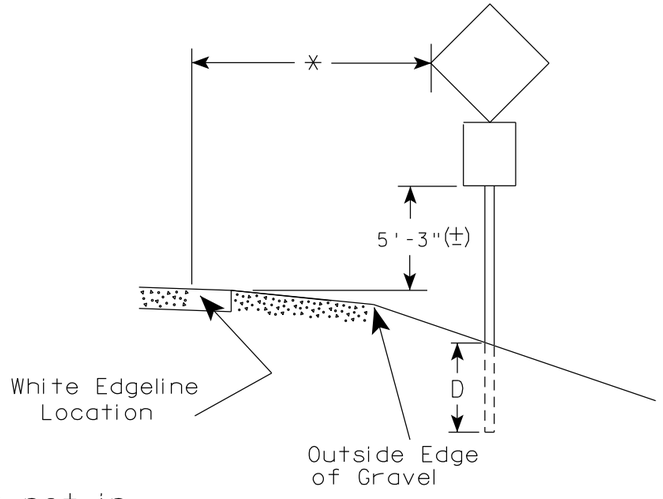
## URBAN AREA




## RURAL AREA (See Note 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. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

### POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq.Ft.) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

### GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

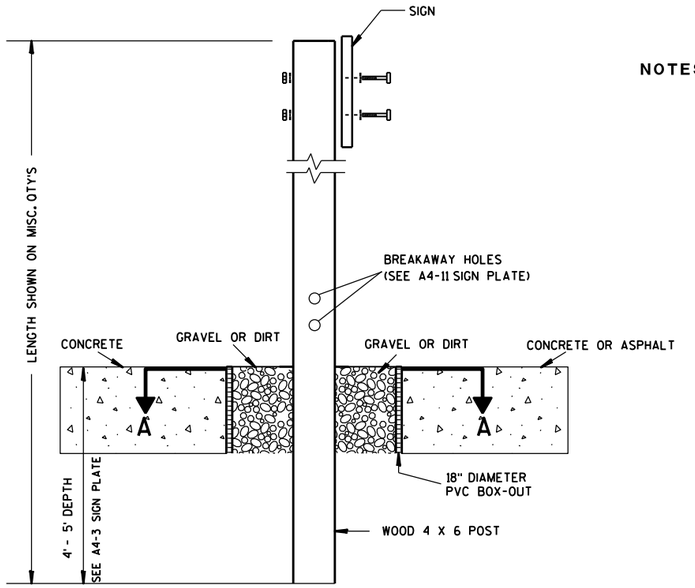
# TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

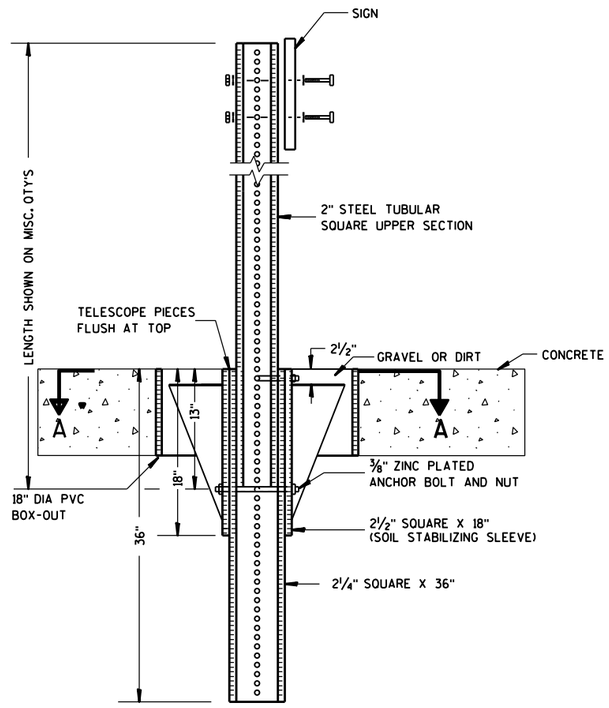
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 144 | E |
|---|---|---|---|---|---|




**ELEVATION VIEW**

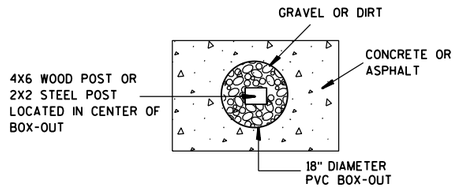
**DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT**

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.




**ELEVATION VIEW**

**DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT**




**PLAN VIEW**

**FOR NEW CONCRETE/ASPHALT INSTALLATIONS**

# SIGN POST BOX-OUTS A4-3B

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

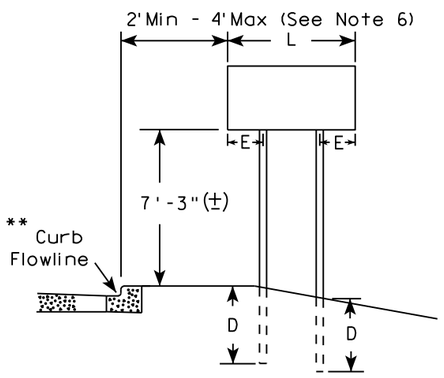
DATE 1/27/14 PLATE NO. A4-3B.1



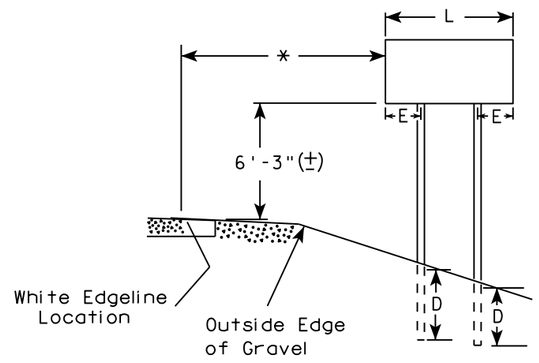
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

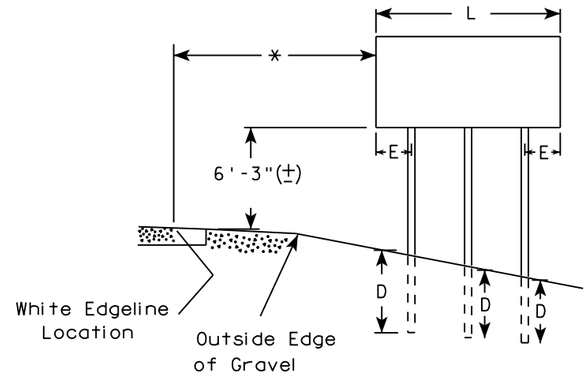
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

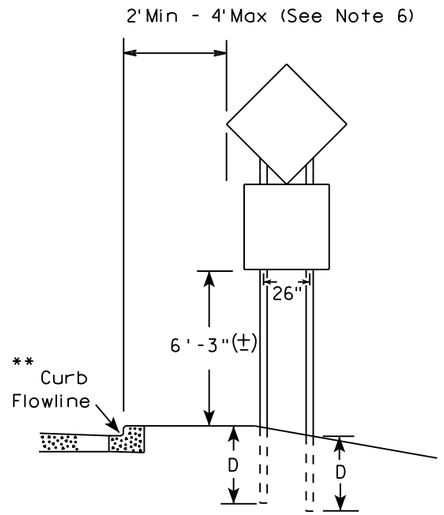
## URBAN AREA



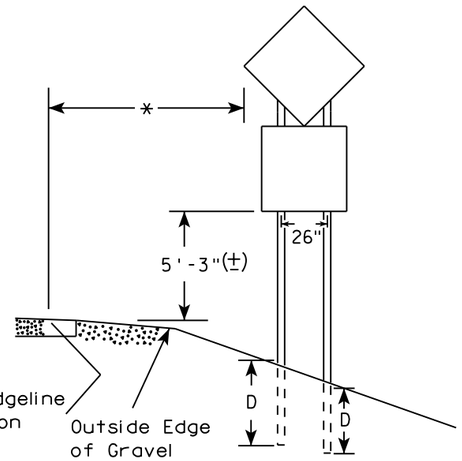

## RURAL AREA (See Note 3)




48" DIAMOND WARNING SIGN




48" DIAMOND WARNING SIGN

| SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED) | | |
|---|---|---|
| | L | E |
| *** | Greater than 48" Less than 60" | 12" |
| | 60" to 108" | L/5 |

| SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED) | |
|---|---|
| L | E |
| Greater than 108" to 144" | 12" |

### GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** 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. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

### POST EMBEDMENT DEPTH

| Area of Sign Installation ( Sq. Ft. ) | D ( Min ) |
|---|---|
| 20 or Less | 4' |
| Greater than 20 | 5' |

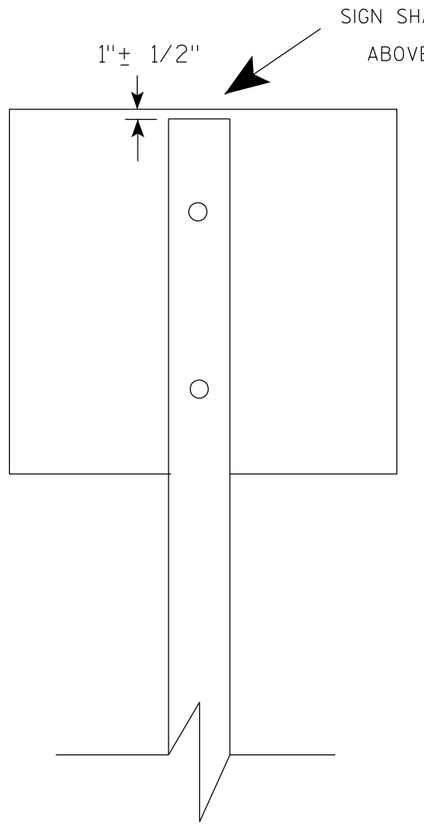
**TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS**

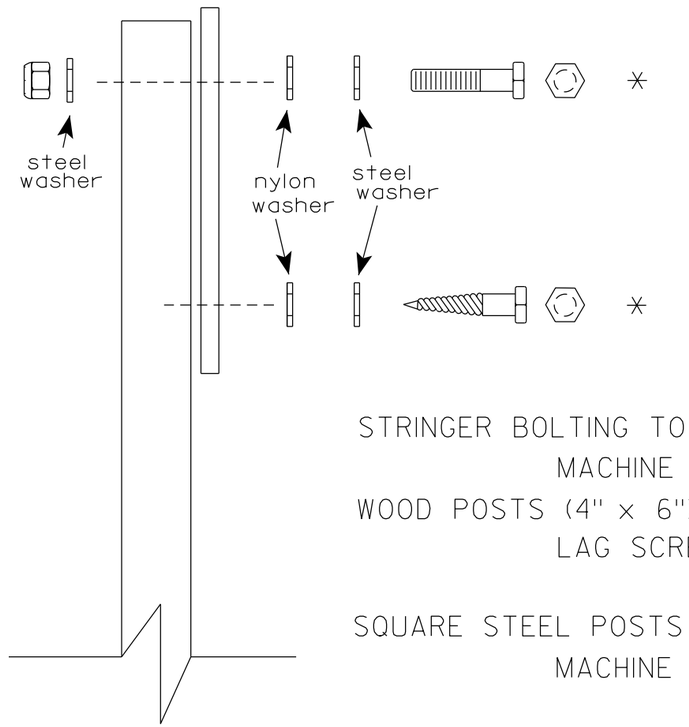
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 146 | E |
|---|---|---|---|---|---|




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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

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

* 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, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

# ATTACHMENT OF SIGNS TO POSTS

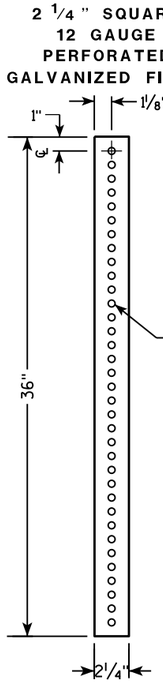
*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

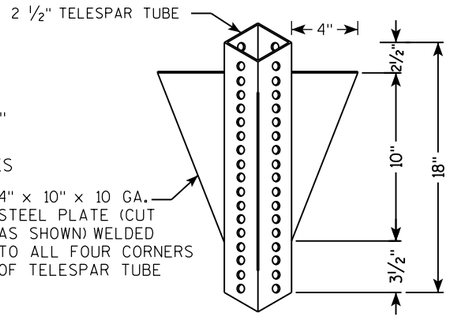
DATE 4/1/2020 PLATE NO. A4-8.9

## TELESCOPIC TUBING ANCHORS
## TWO PIECE SYSTEM

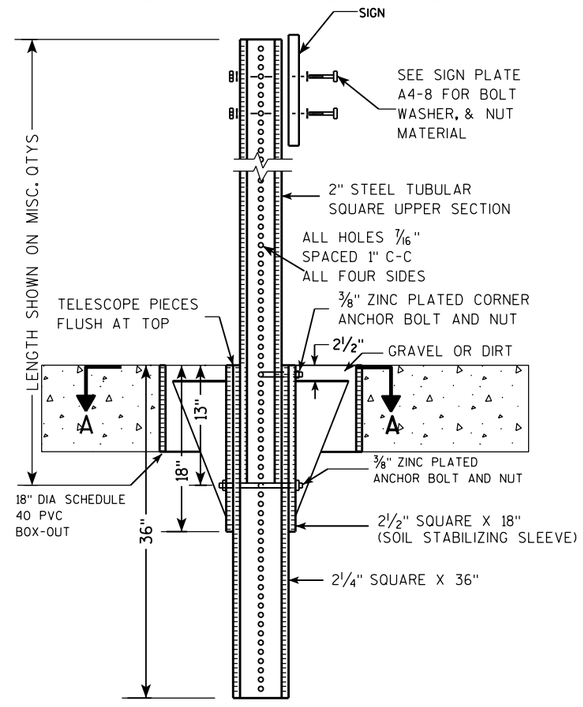
**2 ¼ " SQUARE**
**12 GAUGE**
**PERFORATED**
**GALVANIZED FINISH**



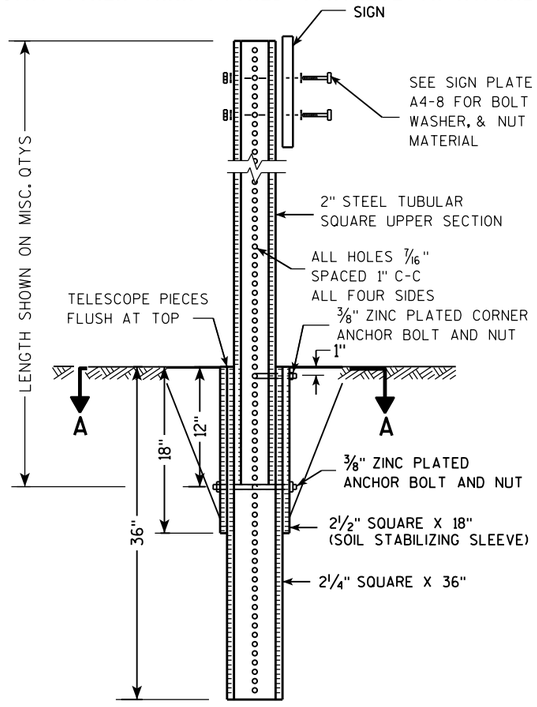

**2 ½ " SQUARE**
**12 GAUGE**
**OMNI-DIRECTIONAL**
**PERFORATED**
**SOIL STABILIZING SLEEVE**
**GALVANIZED FINISH**

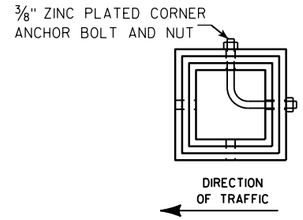



## DETAIL OF TUBULAR STEEL SIGN POST
**(IN POURED CONCRETE OR ASPHALT)**




## DETAIL OF TUBULAR STEEL SIGN POST
**(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)**




**SECTION A-A**

| Area of Sign Installation (Sq. Ft.) | Number of Required 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).**

TUBULAR STEEL
SIGN POST
A4-9

*WISCONSIN DEPT OF TRANSPORTATION*

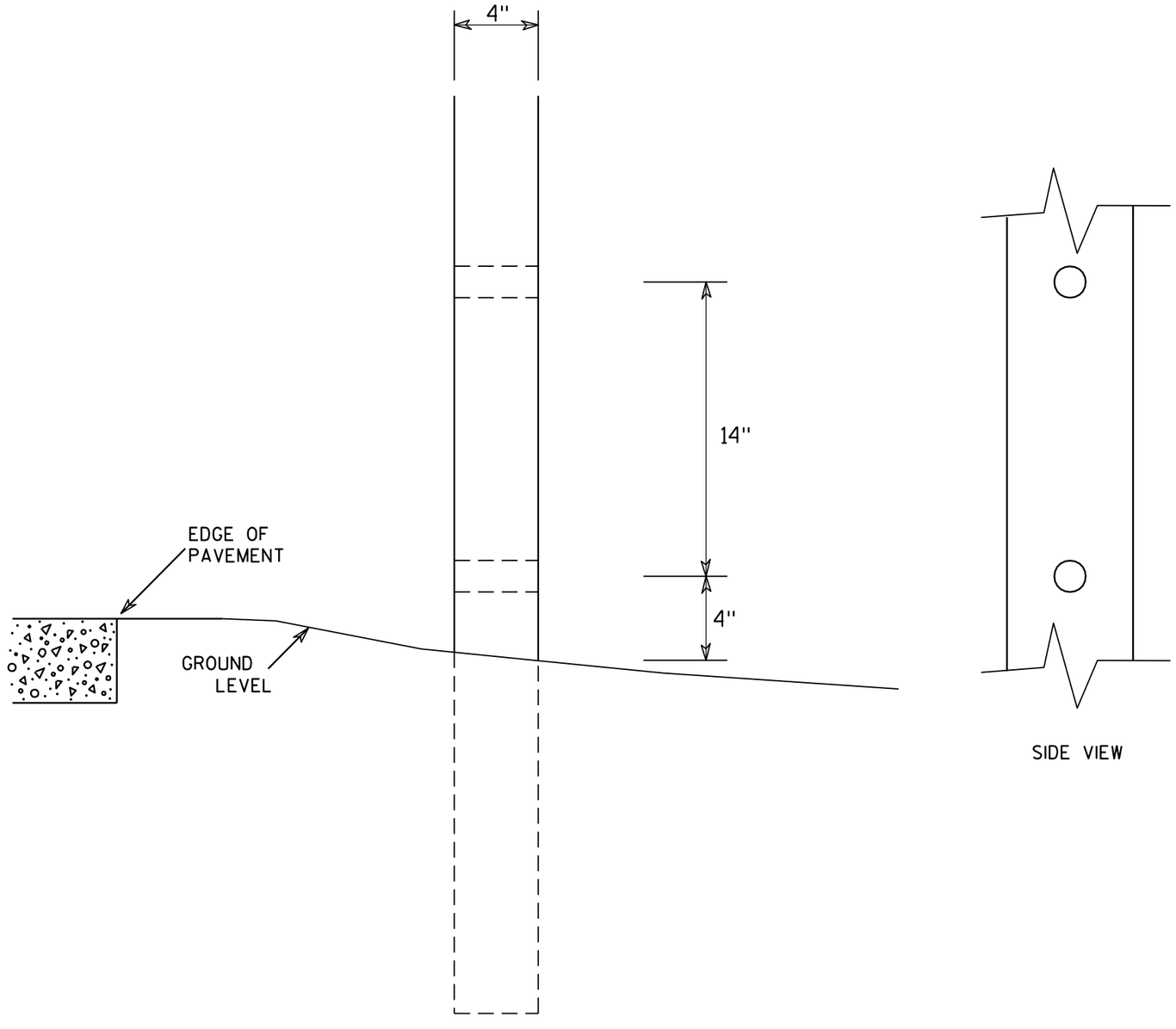
APPROVED Matthew R Rauch
*for* State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42






SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

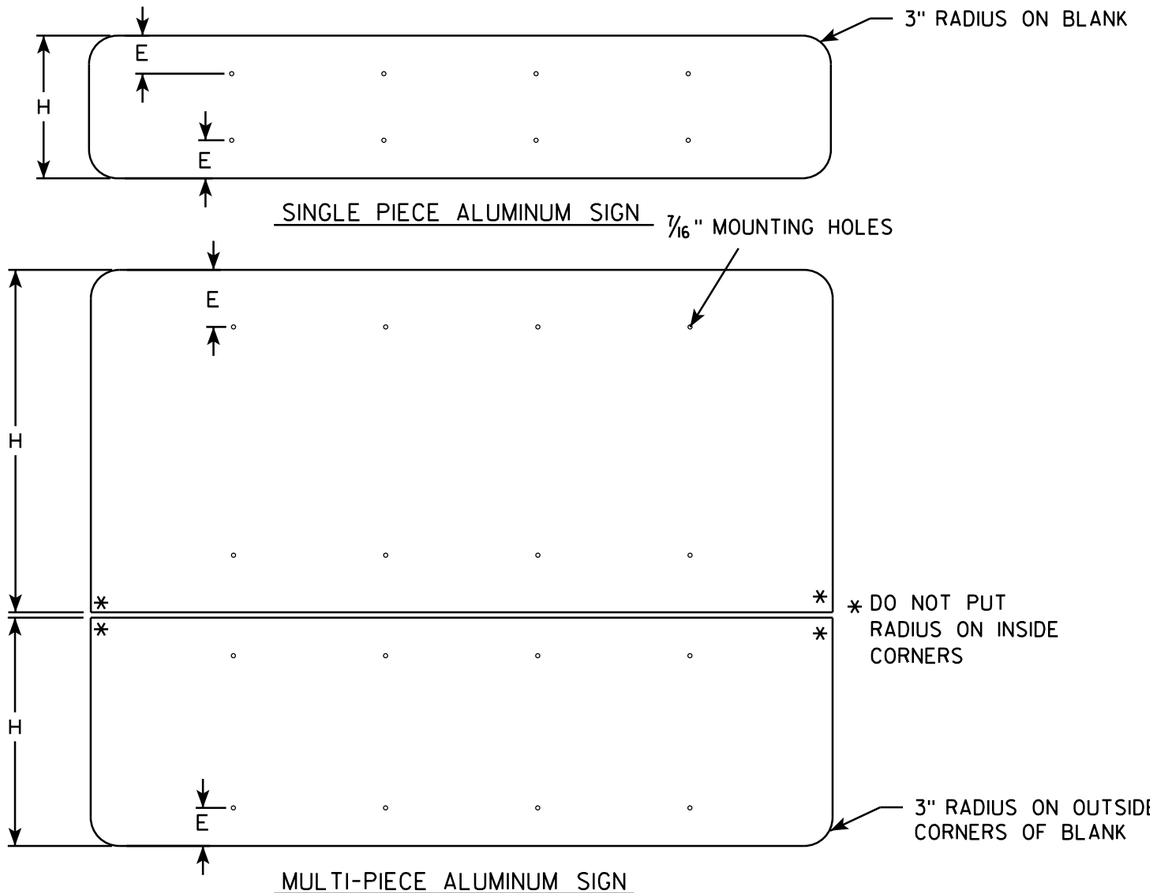
# 4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

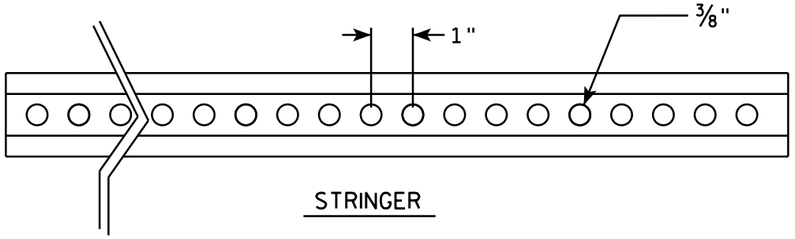
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 149 | E |
|---|---|---|---|---|---|




# GENERAL NOTES

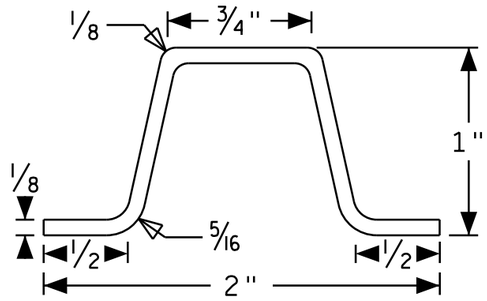
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

| SIGN WIDTH | STRINGER WIDTH | POSTS | HOLE SPACING | MOUNTING HOLES |
|---|---|---|---|---|
| 78" | 72" | 2 | 16" | 15" 31" 47" 63" |
| 84" | 72" | 2 | 17" | 16½" 33½" 50½" 67½" |
| 90" | 72" | 2 | 18" | 18" 36" 54" 72" |
| 96" | 90" | 2 | 19" | 19½" 38½" 57½" 76½" |
| 102" | 90" | 2 | 20" | 21" 41" 61" 81" |
| 108" | 90" | 2 | 21" | 22½" 43½" 64½" 85½" |
| 114" | 108" | 3 | 15" | 12" 27" 42" 57" 72" 87" 102" |
| 120" | 108" | 3 | 16" | 12" 28" 44" 60" 76" 92" 108" |
| 126" | 108" | 3 | 17" | 12" 29" 46" 63" 80" 97" 114" |
| 132" | 126" | 3 | 18" | 12" 30" 48" 66" 84" 102" 120" |
| 138" | 126" | 3 | 19" | 12" 31" 50" 69" 88" 107" 126" |
| 144" | 126" | 3 | 20" | 12" 32" 52" 72" 92" 112" 132" |

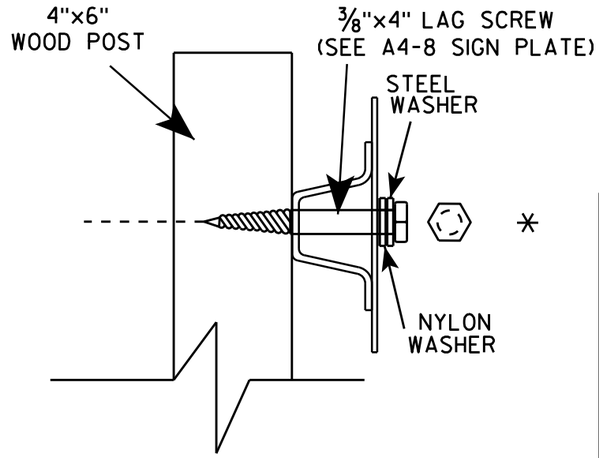



STRINGER

CROSS SECTION VIEW OF CHANNEL




POST MOUNTING




## SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

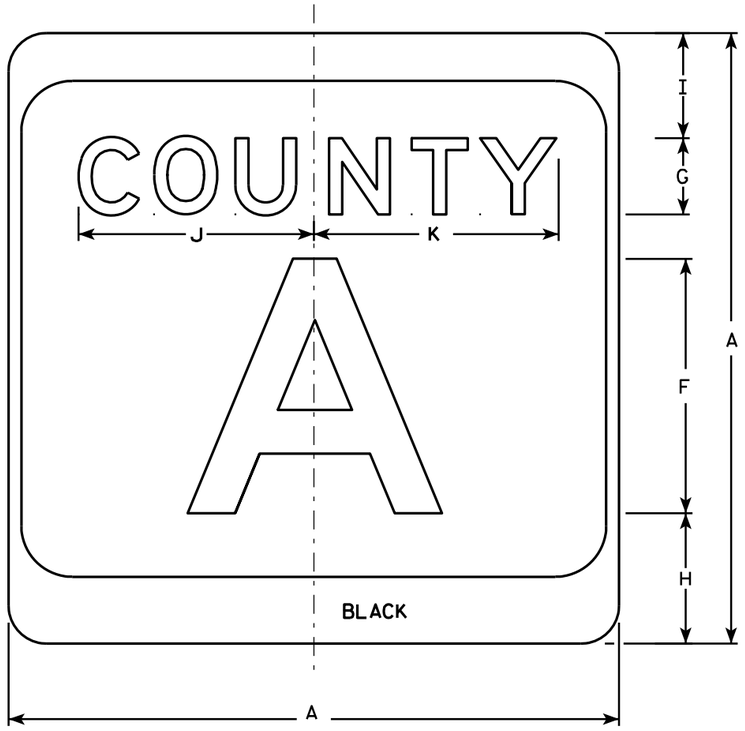
for State Traffic Engineer

DATE 4/26/16 PLATE NO A4-18.1

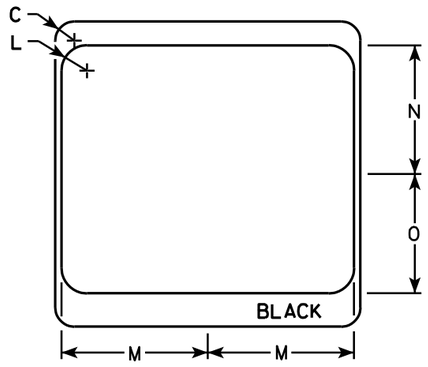
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

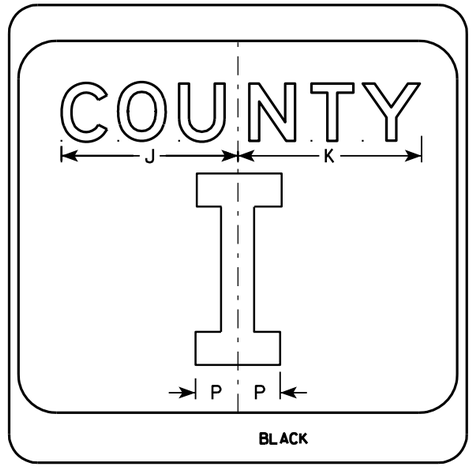


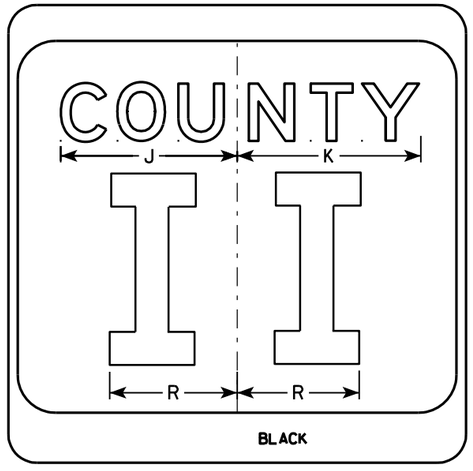
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42




M1-5A




NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

| 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 | | 1 1/2 | | | 10 | 3 | 5 1/8 | 4 1/8 | 9 1/4 | 9 5/8 | 2 | 11 1/2 | 10 1/8 | 9 3/8 | 2 1/4 | | 6 5/8 | | | | | | | | | 4.0 |
| 3 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 4 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |
| 5 | 36 | | 2 1/4 | | | 16 | 4 | 7 5/8 | 5 5/8 | 12 1/4 | 12 7/8 | 3 | 17 1/8 | 15 1/4 | 14 | 3 3/8 | | 10 | | | | | | | | | 9.0 |

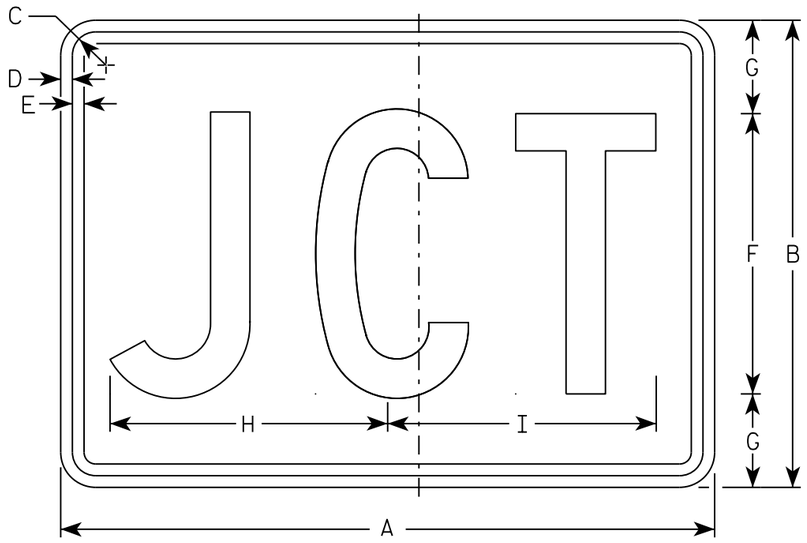
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

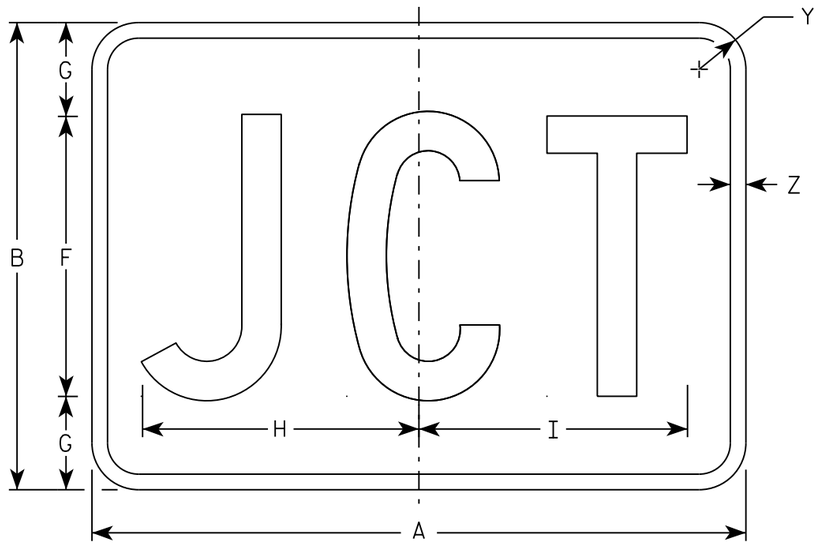
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 151 | E |
|---|---|---|---|---|---|




M2-1
MM2-1
MP2-1




MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - Yellow

| 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 | 21 | 15 | 1 1/8 | 3/8 | 3/8 | 9 | 3 | 8 7/8 | 8 5/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 2.20 |
| 3 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 4 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |
| 5 | 30 | 21 | 1 1/8 | 3/8 | 3/8 | 13 | 4 | 12 7/8 | 12 3/8 | | | | | | | | | | | | | | | | 1 1/2 | 1/2 | 4.40 |

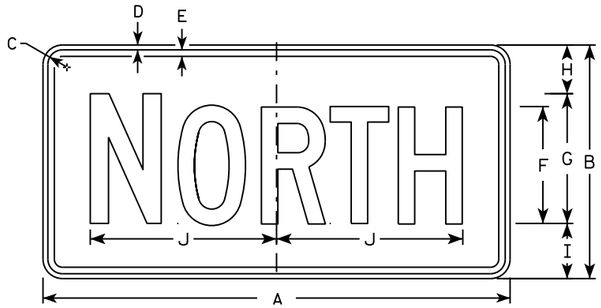
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

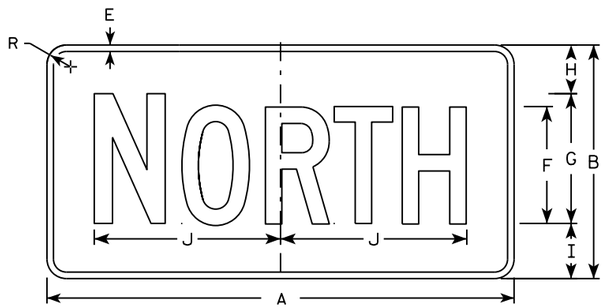
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 152 12-1.12

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|



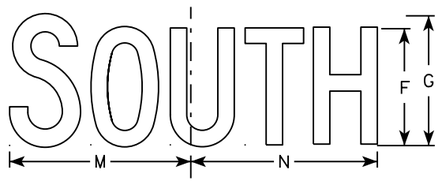

M3-1
MM3-1
MP3-1



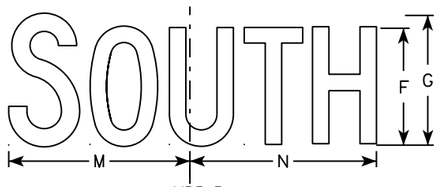

MB3-1
MK3-1
MN3-1


M3-2
MM3-2
MP3-2

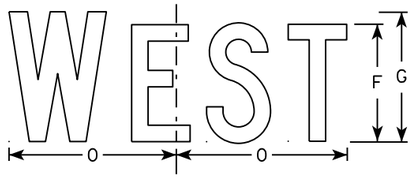

MB3-2
MK3-2
MN3-2



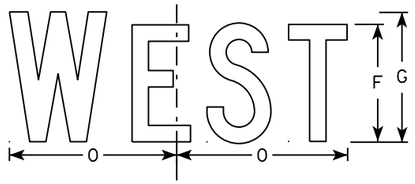

M3-3
MM3-3
MP3-3




MB3-3
MK3-3
MN3-3




M3-4
MM3-4
MP3-4




MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

| 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 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 7 | 2 1/4 | 2 3/4 | 10 1/4 | 7 7/8 | 8 3/8 | 10 1/4 | 9 3/4 | 8 3/4 | | | 1 1/2 | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 10 | 3 3/4 | 4 1/4 | 14 3/8 | 12 | 12 1/8 | 14 | 14 1/8 | 13 | | | 1 1/2 | | | | | | | | | 4.5 |

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

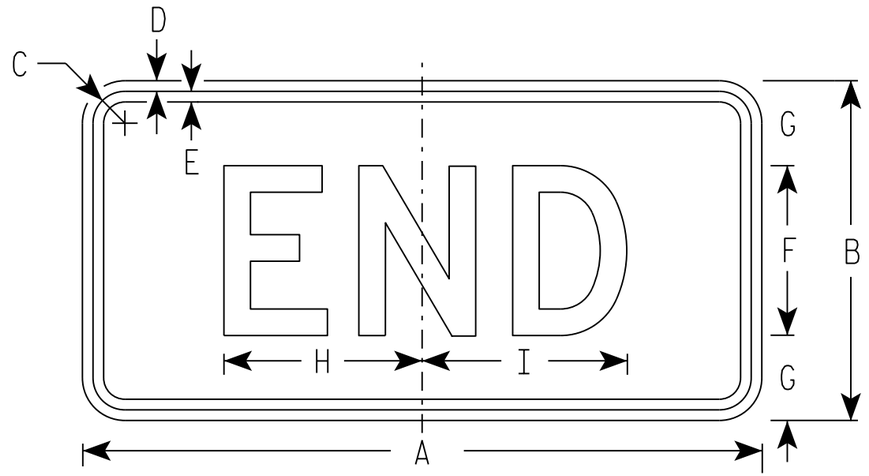
APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

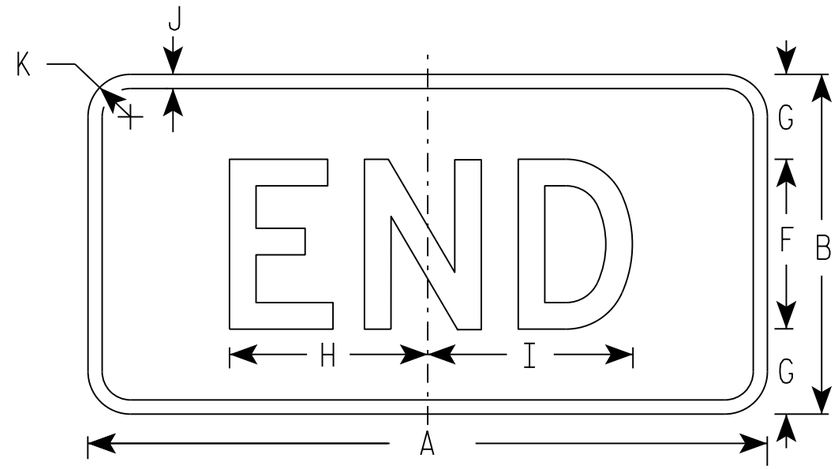


PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000




M4-6
MM4-6
MP4-6




MB4-6
MK4-6
MN4-6
MR4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MP4-6 Background - White
   Message - Blue

   MR4-6 Background - Brown
   Message - Yellow

| 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 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 7 | 7 1/4 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 2.00 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 4 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |
| 5 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 12 | 11 7/8 | 1/2 | 1 1/2 | | | | | | | | | | | | | | | | 4.5 |

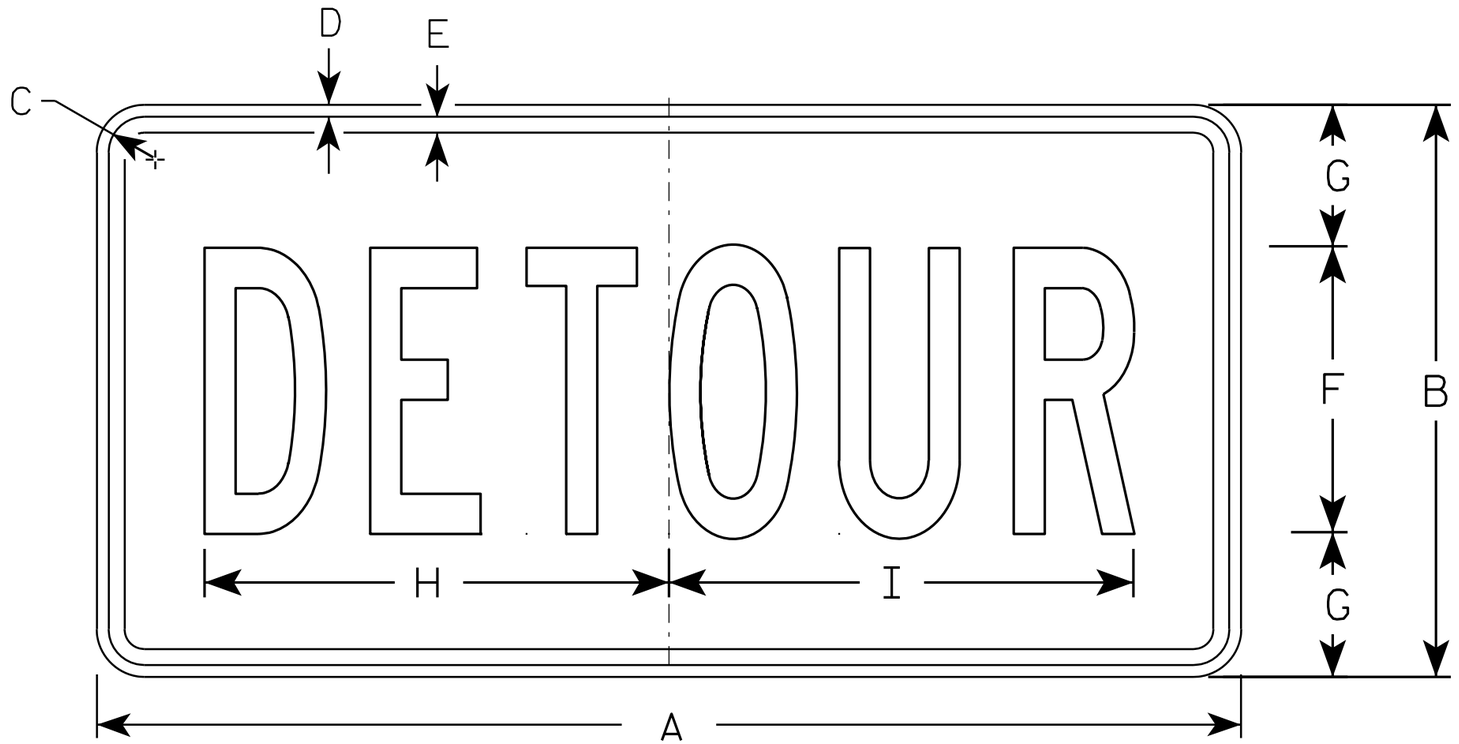
STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 154 '14-7.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E




M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| 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 | 12 | 1 1/8 | 3/8 | 3/8 | 6 | 3 | 10 | 10 1/4 | | | | | | | | | | | | | | | | | | 2.0 |
| 3 | 36 | 18 | 1 1/8 | 3/8 | 1/2 | 9 | 4 1/2 | 14 5/8 | 14 1/2 | | | | | | | | | | | | | | | | | | 4.5 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

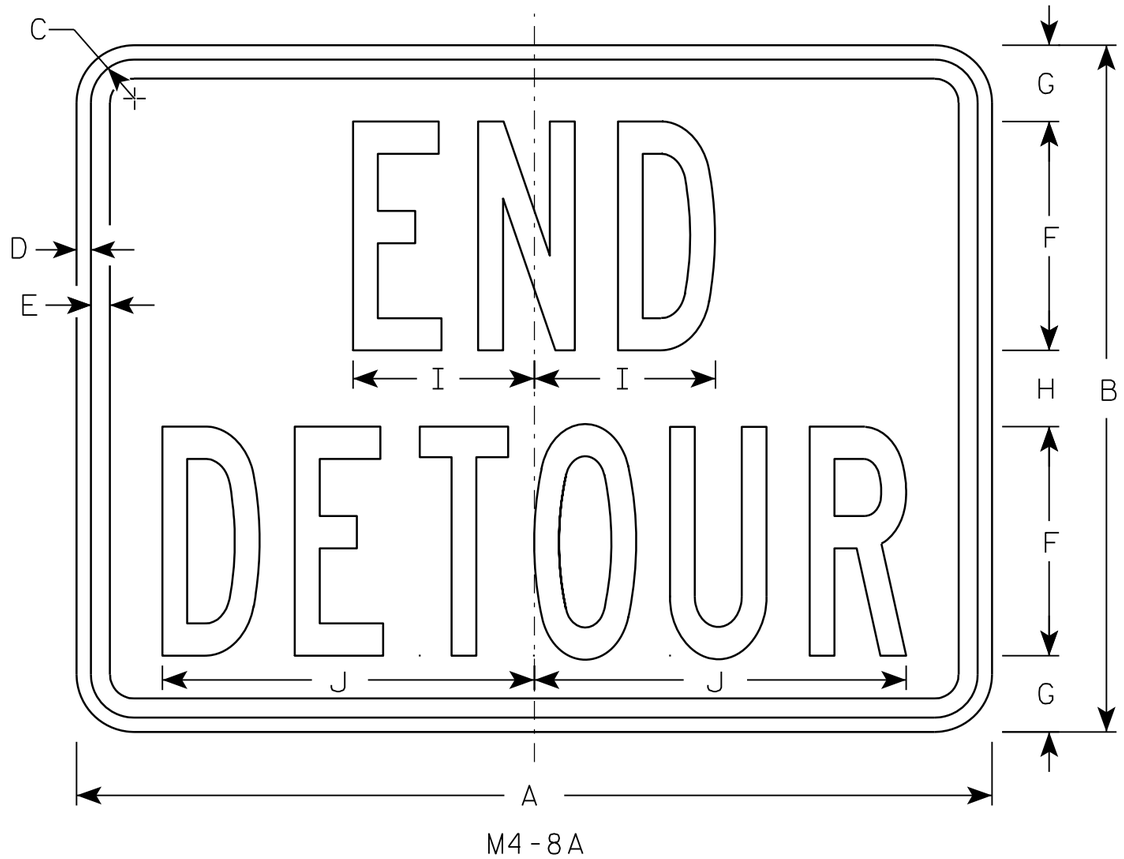
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 155 | E |
|---|---|---|---|---|---|




M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| 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 | 18 | 1 1/8 | 3/8 | 1/2 | 6 | 2 | 2 | 4 3/4 | 9 3/4 | | | | | | | | | | | | | | | | | 3.0 |
| 3 | 30 | 24 | 1 1/8 | 3/8 | 1/2 | 8 | 2 1/2 | 3 | 6 3/4 | 13 | | | | | | | | | | | | | | | | | 5.0 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

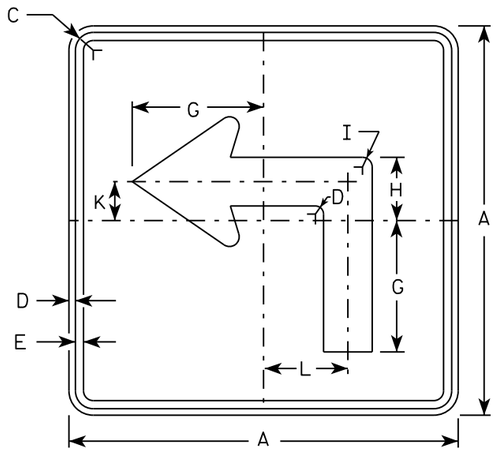
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

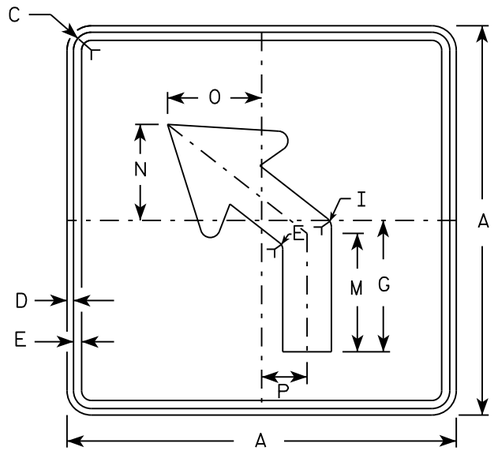
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

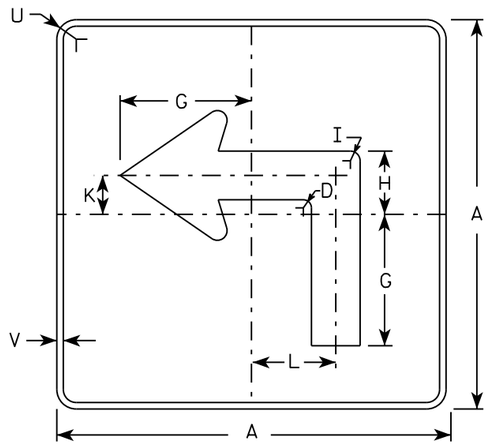
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 156 | E |
|---|---|---|---|---|---|



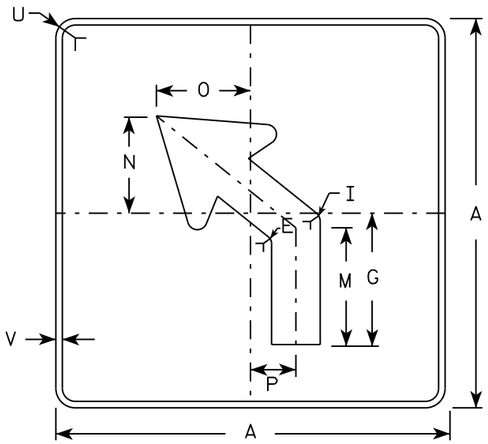

M5-1L
MM5-1L
MO5-1L
MP5-1L



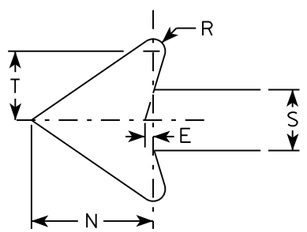

M5-2L
MM5-2L
MO5-2L
MP5-2L




MB5-1L
MK5-1L
MN5-1L
MR5-1L




MB5-2L
MK5-2L
MN5-2L
MR5-2L




NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

| 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 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 | 3 3/8 | 5/8 | | 2 1/8 | 4 1/2 | 6 3/8 | 5 1/4 | 5 | 2 1/2 | | 1/2 | 2 5/8 | 3 | 1 1/2 | 1/2 | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 1/8 | 4 7/8 | 7/8 | | 3 | 6 1/2 | 9 1/8 | 7 1/2 | 7 1/4 | 3 1/2 | | 3/4 | 3 3/4 | 4 1/4 | 1 7/8 | 1/2 | | | | | 6.25 |

STANDARD SIGN
M5-1 & M5-2

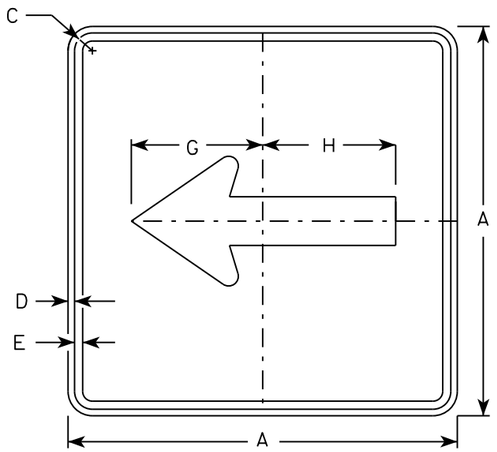
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

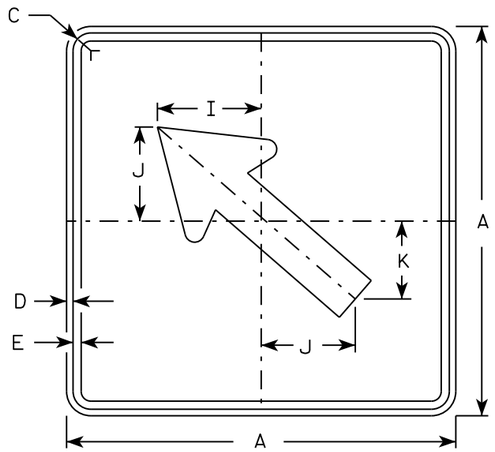
DATE 10/15/15 PLATE No. M5-1.13



PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



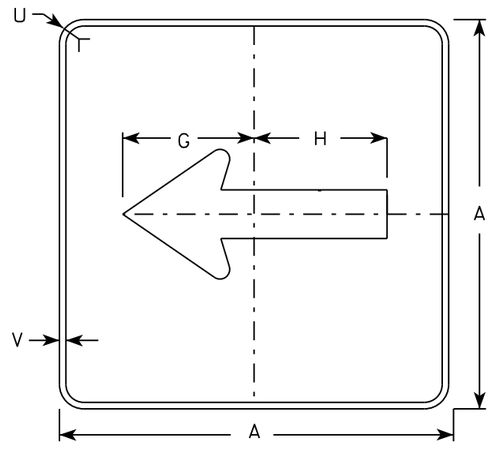

M6-1
MM6-1
MO6-1
MP6-1



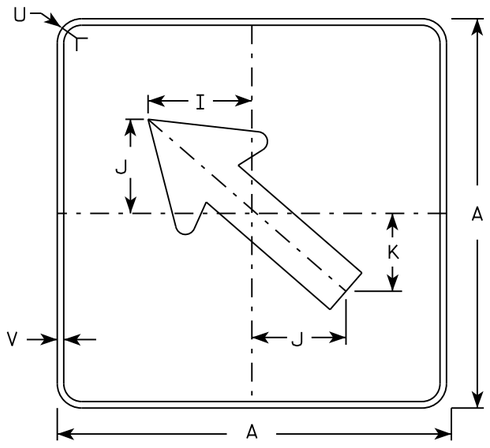

M6-2
MM6-2
MO6-2
MP6-2

NOTES

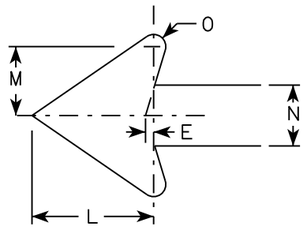
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow




MB6-1
MK6-1
MN6-1
MR6-1




MB6-2
MK6-2
MN6-2
MR6-2




| 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 | 21 | | 1 1/8 | 3/8 | 3/8 | | 7 1/2 | 7 1/8 | 5 5/8 | 5 | 4 1/4 | 5 1/4 | 3 | 2 5/8 | 1/2 | | | | | | 1 1/2 | 1/2 | | | | | | 3.06 |
| 3 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |
| 4 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |
| 5 | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/4 | 10 1/4 | 8 | 7 1/4 | 6 | 7 1/2 | 4 1/4 | 3 3/4 | 3/4 | | | | | | 1 7/8 | 1/2 | | | | | | 6.25 |

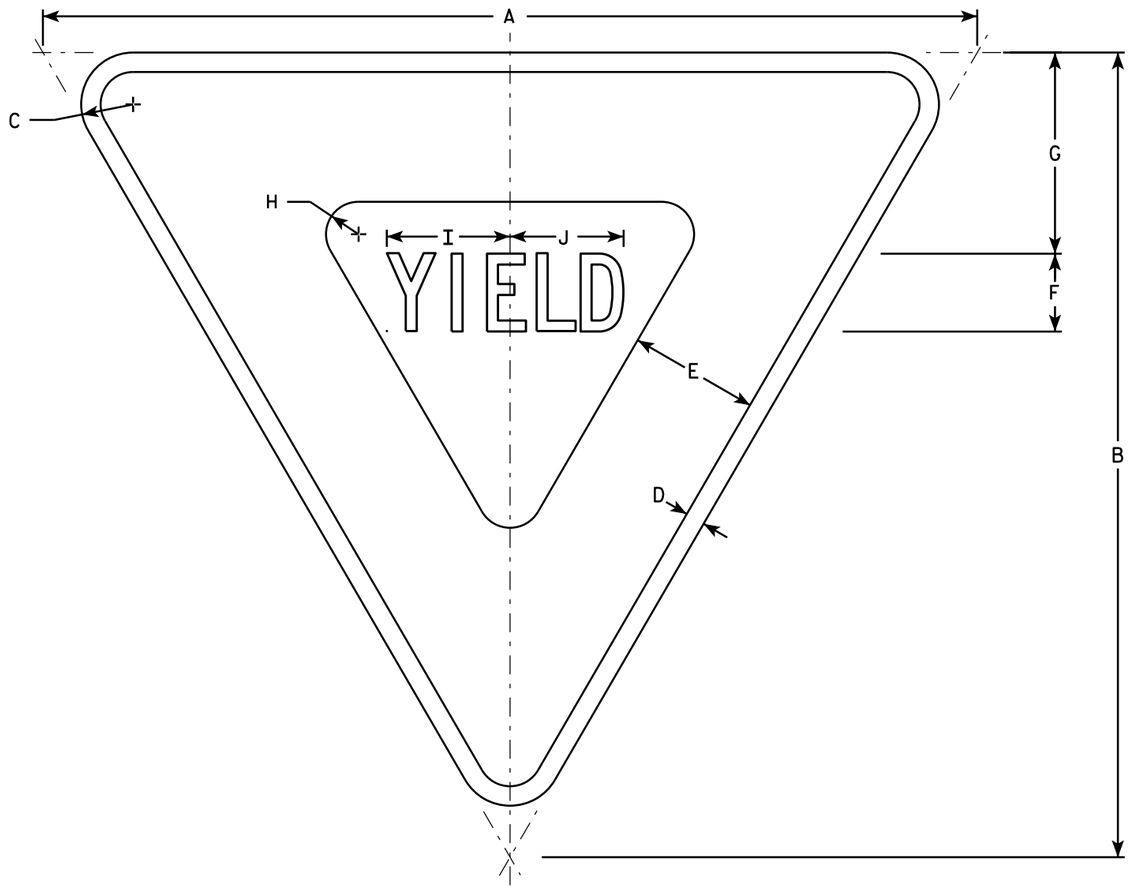
STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 158 M6-1.15

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|




R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

| 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 | 30 | 26 | 1 1/2 | 5/8 | 4 | 2 1/2 | 6 3/8 | 7/8 | 4 | 3 5/8 | | | | | | | | | | | | | | | | | 2.71 |
| 2S | 36 | 31 | 2 | 3/4 | 5 | 3 | 7 3/4 | 1 1/4 | 4 3/4 | 4 3/8 | | | | | | | | | | | | | | | | | 3.88 |
| 2M | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 3 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 4 | 48 | 42 | 3 | 1 | 6 | 4 | 9 3/4 | 2 | 6 1/4 | 5 7/8 | | | | | | | | | | | | | | | | | 7.00 |
| 5 | 60 | 52 | 3 | 1 1/2 | 8 | 5 | 13 | 2 1/2 | 7 7/8 | 7 1/4 | | | | | | | | | | | | | | | | | 10.83 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 18 | 15 1/2 | 1 | 3/8 | 2 1/2 | 1 1/2 | 3 7/8 | 5/8 | 2 3/8 | 2 1/4 | | | | | | | | | | | | | | | | | 0.97 |

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

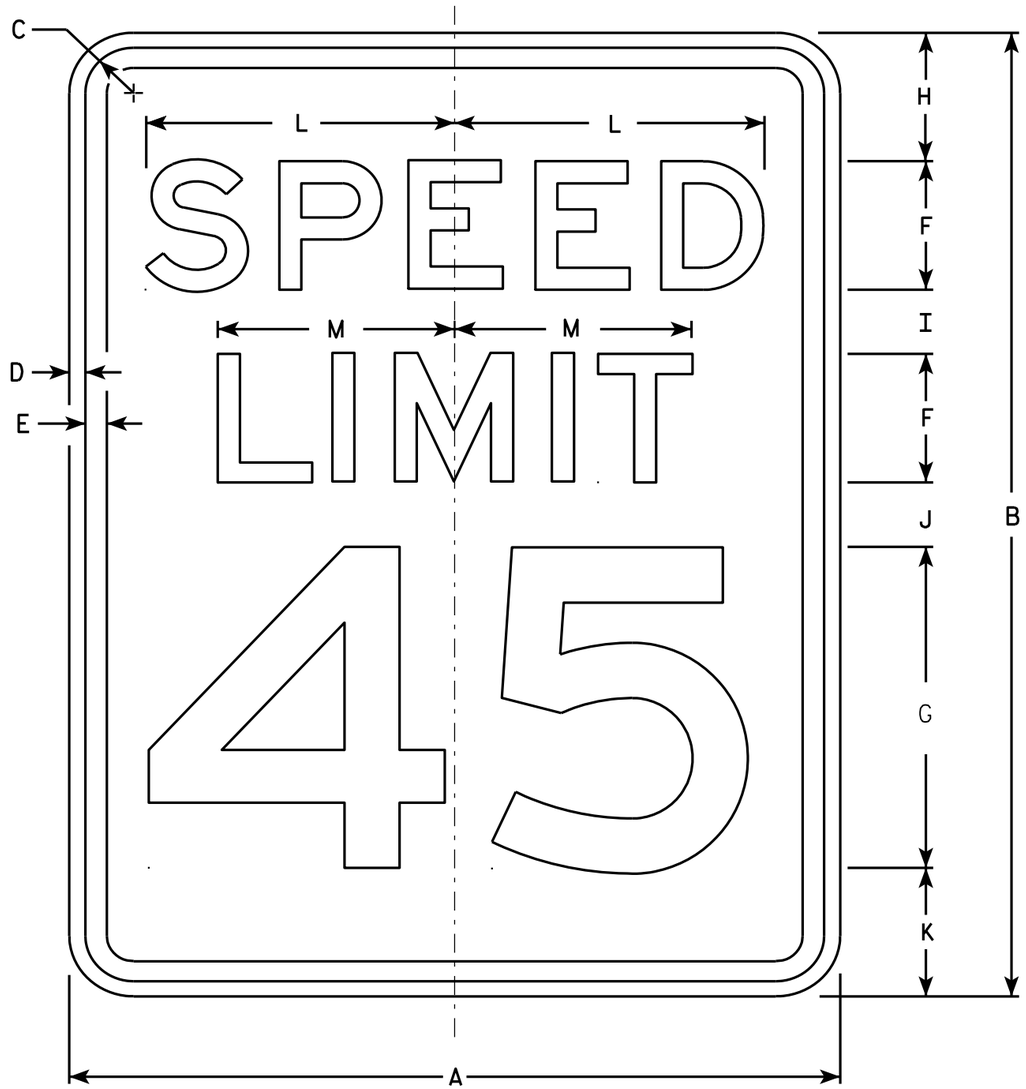
DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000

WISDOT/CADDS SHEET 42




R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

| 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 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 | 8 | 3 | 2 | 2 | 3 | 7 1/4 | 5 1/2 | | | | | | | | | | | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 | 10 | 3 | 2 1/4 | 3 3/8 | 3 3/8 | 9 5/8 | 7 3/8 | | | | | | | | | | | | | | 5.0 |
| 2M | 30 | 36 | 1 3/8 | 1/2 | 5/8 | 5 | 12 | 5 | 2 1/2 | 2 1/2 | 4 | 12 | 9 1/4 | | | | | | | | | | | | | | 7.5 |
| 3 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 4 | 36 | 48 | 1 3/8 | 1/2 | 5/8 | 6 | 14 | 6 | 5 | 5 | 6 | 14 3/8 | 11 | | | | | | | | | | | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 8 | 20 | 6 | 4 1/2 | 6 3/4 | 6 3/4 | 19 1/4 | 14 5/8 | | | | | | | | | | | | | | 20.0 |

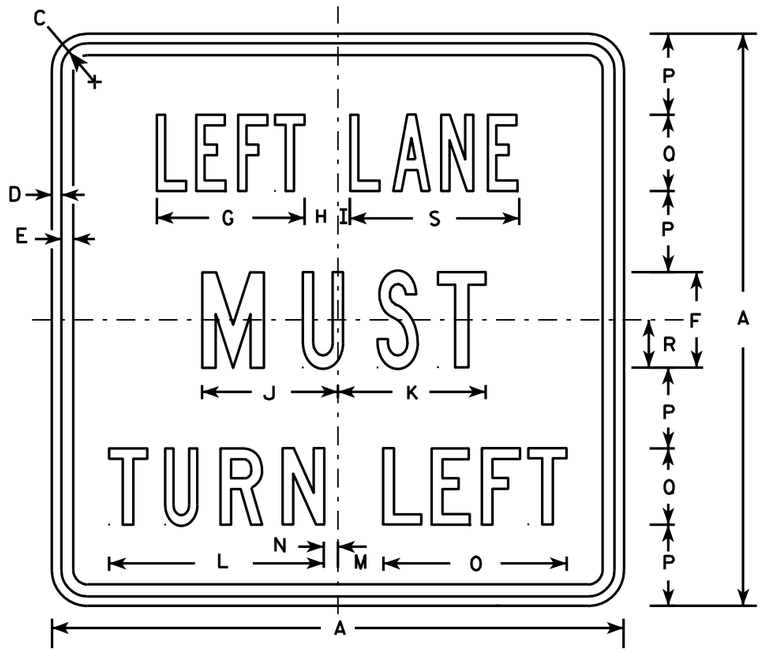
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

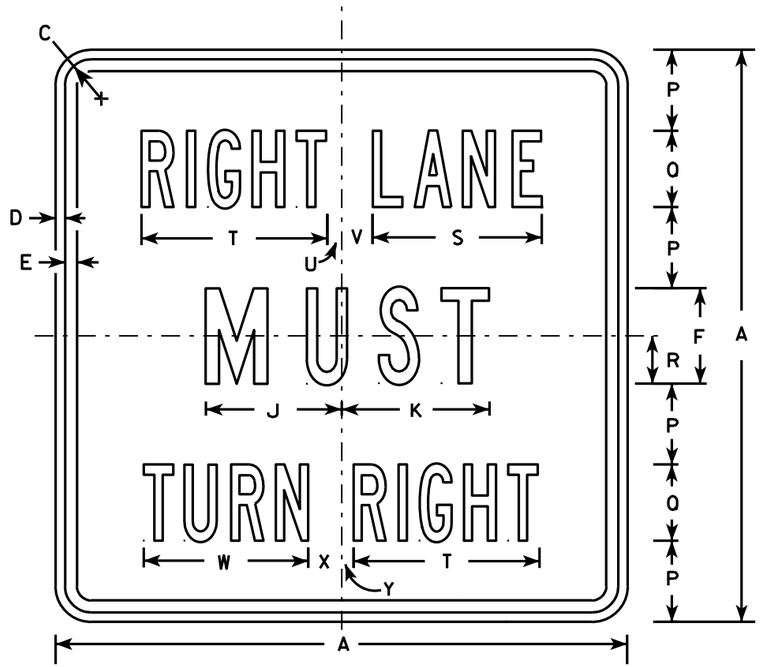
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 160 | E




R3-7L




R3-7R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| 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 | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | 5 | 7 3/4 | 1 3/4 | 5/8 | 7 1/8 | 7 3/4 | 11 1/4 | 2 3/8 | 3/4 | 9 5/8 | 4 1/4 | 4 | 2 1/2 | 8 7/8 | 9 3/4 | 3/4 | 1 5/8 | 8 5/8 | 1 5/8 | 5/8 | | 6.25 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 9 5/8 | 2 | 1 1/8 | 8 3/4 | 9 | 13 1/2 | 3 7/8 | 1 1/2 | 12 1/2 | 5 | 5 | 3 | 10 5/8 | 12 | 7/8 | 2 1/4 | 10 5/8 | 2 1/8 | 1 | | 9.00 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 13 1/2 | 2 3/8 | 1 1/2 | 11 1/2 | 11 7/8 | 17 3/4 | 3 5/8 | 2 1/2 | 16 3/8 | 6 1/2 | 7 | 4 | 14 3/8 | 16 7/8 | 5/8 | 3 1/4 | 15 1/8 | 2 3/4 | 1 1/8 | | 16.00 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

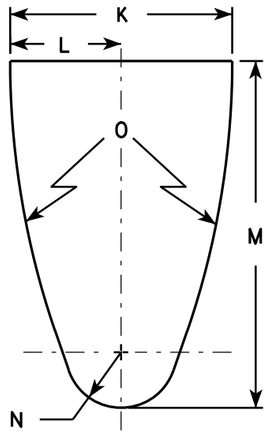
STANDARD SIGN
R3-7L & R3-7R

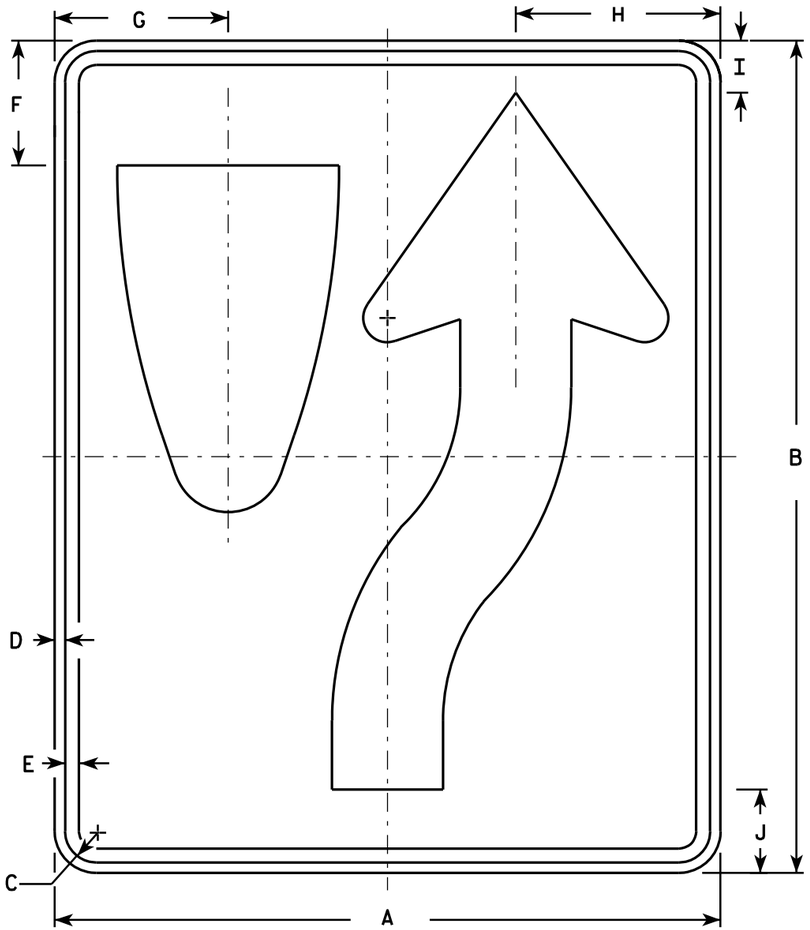
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 161 | E

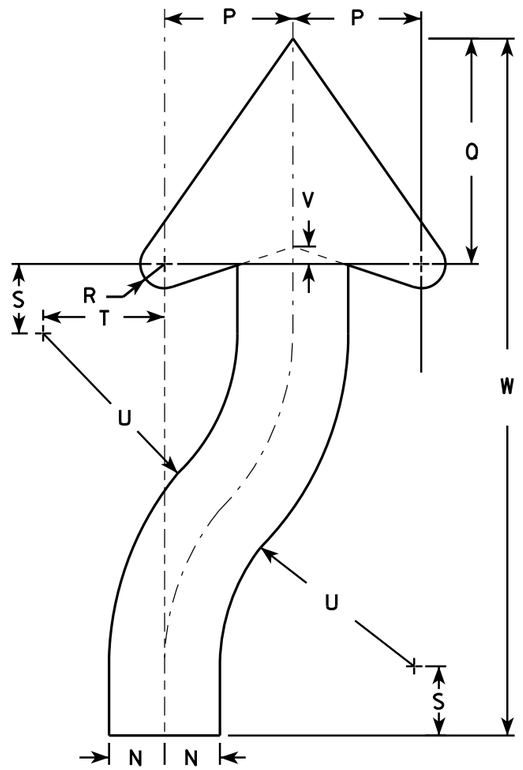



R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.




ARROW DETAIL

| 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 | 18 | 24 | 1 1/8 | 3/8 | 1/2 | 3 3/8 | 4 3/4 | 5 1/2 | 1 3/8 | 2 1/4 | 6 | 3 | 9 3/8 | 1 1/2 | 22 1/2 | 3 1/2 | 6 1/8 | 5/8 | 1 7/8 | 3 1/4 | 6 3/4 | 1/2 | 20 3/8 | | | | 3.0 |
| 2S | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 2M | 24 | 30 | 1 1/8 | 3/8 | 1/2 | 4 1/2 | 6 1/4 | 7 3/8 | 1 7/8 | 3 | 8 | 4 | 12 1/2 | 2 | 30 | 4 5/8 | 8 1/8 | 7/8 | 2 1/2 | 4 3/8 | 9 | 5/8 | 25 1/8 | | | | 5.0 |
| 3 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 4 | 36 | 48 | 1 3/4 | 1/2 | 5/8 | 6 3/4 | 9 3/8 | 11 1/8 | 2 7/8 | 4 1/2 | 12 | 6 | 18 3/4 | 3 | 45 | 6 7/8 | 12 1/4 | 1 1/4 | 3 3/4 | 6 5/8 | 13 1/2 | 1 | 40 3/4 | | | | 12.0 |
| 5 | 48 | 60 | 2 1/4 | 3/4 | 1 | 9 | 12 1/2 | 14 3/4 | 3 3/4 | 6 | 16 | 8 | 25 | 4 | 60 | 9 1/4 | 16 1/4 | 1 5/8 | 5 | 8 3/4 | 18 | 1 1/4 | 50 1/4 | | | | 20.0 |

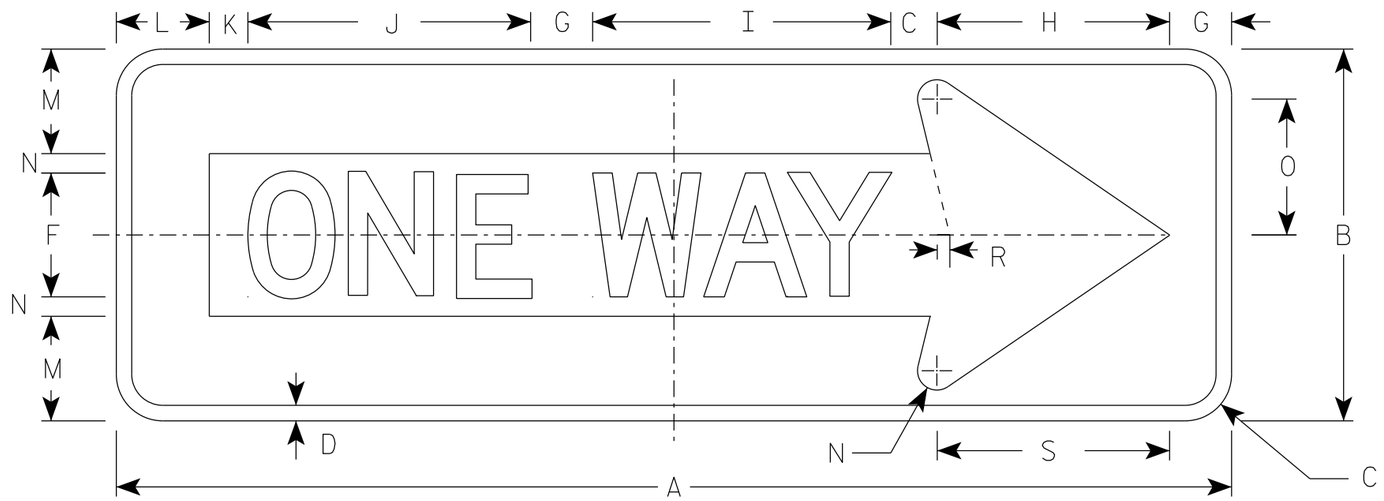
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

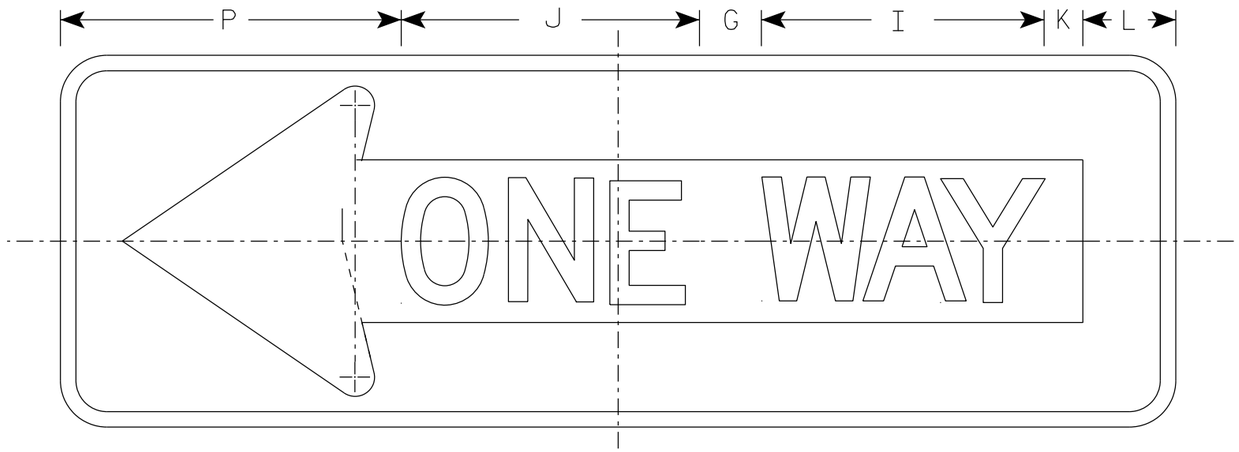
| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 162 | E |
|---|---|---|---|---|---|




R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D




R6-1L

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 36 | 12 | 1 1/2 | 1/2 | | 4 | 2 | 7 1/2 | 9 5/8 | 9 1/8 | 1 1/4 | 3 | 3 3/8 | 5/8 | 4 3/8 | 11 | | 3/8 | 7 1/2 | | | | | | | | 3.0 |
| 2M | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 3 | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 4 | 54 | 18 | 2 1/4 | 3/4 | | 6 | 3 | 11 1/4 | 13 5/8 | 14 1/2 | 1 7/8 | 4 1/2 | 5 | 1 | 6 1/2 | 16 1/2 | | 5/8 | 11 1/4 | | | | | | | | 6.75 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-1 L & R

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

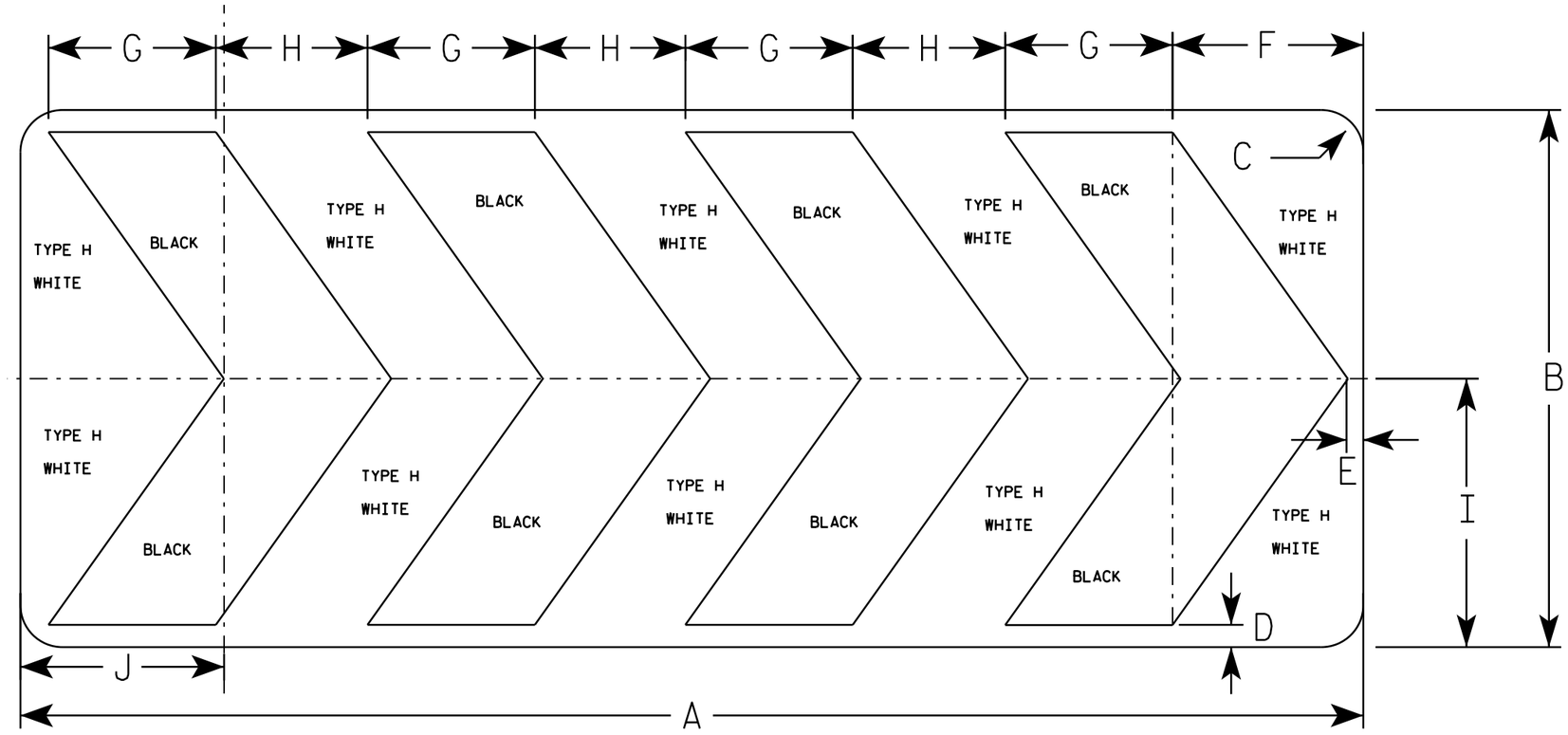
DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

SHEET NO: 163 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - WHITE
   Message - BLACK
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.




R6-4B

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 60 | 24 | 1 7/8 | 1 | 3/4 | 8 1/2 | 7 1/2 | 6 3/4 | 12 | 9 1/8 | | | | | | | | | | | | | | | | | 10.0 |
| 2M | 60 | 24 | 1 7/8 | 1 | 3/4 | 8 1/2 | 7 1/2 | 6 3/4 | 12 | 9 1/8 | | | | | | | | | | | | | | | | | 10.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R6-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

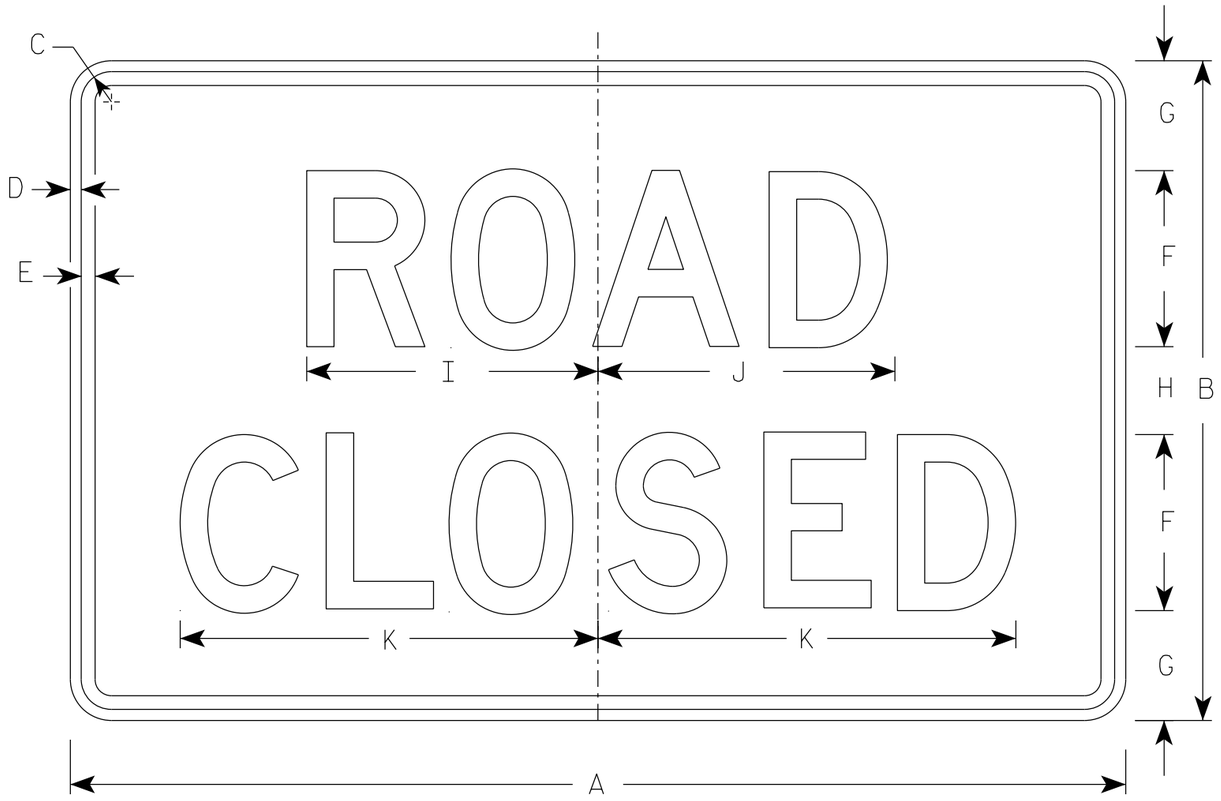
DATE 8/21/14 PLATE NO. R6-4.3

PROJECT NO: SHEET NO: E



FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R64B.DGN PLOT DATE : 21-AUG-2014 15:01 PLOT BY : mscsja

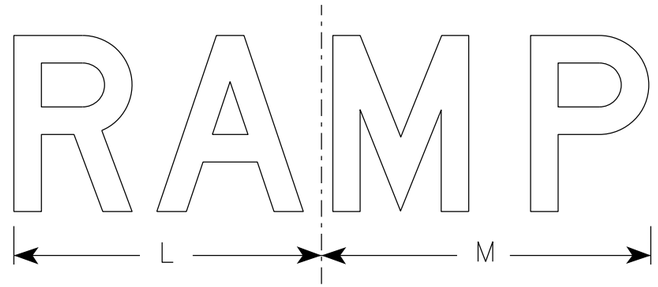
WISDOT/CADDS SHEET 42



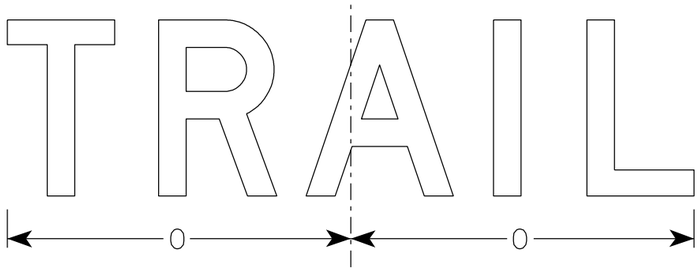

R11-2

NOTES

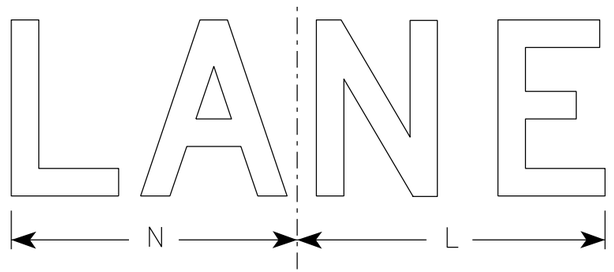
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.




R11-2R




R11-2T




R11-2L

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 2M | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 3 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 4 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |
| 5 | 48 | 30 | 1 3/8 | 1/2 | 5/8 | 8 | 5 | 4 | 13 1/4 | 13 1/2 | 19 | 14 | 15 | 13 | 15 5/8 | | | | | | | | | | | | 10.0 |

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

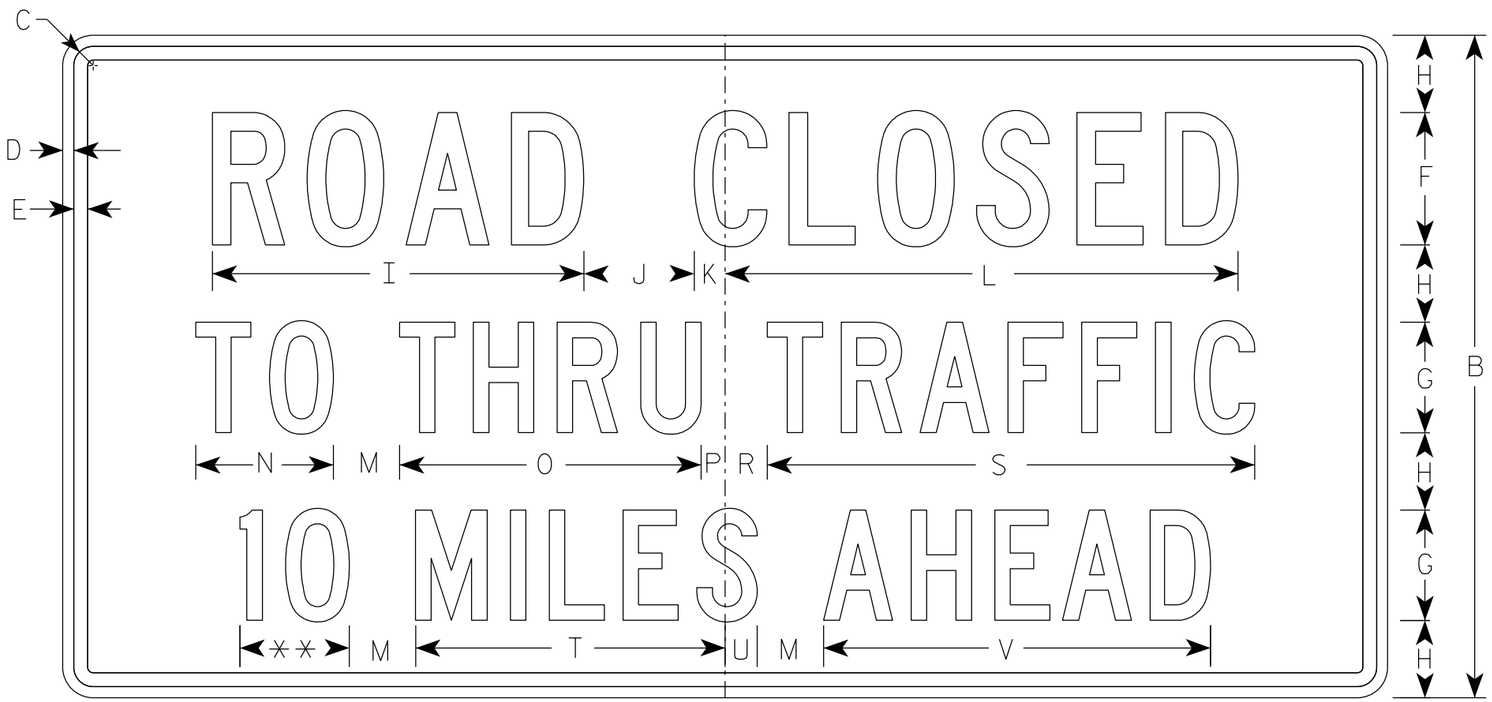
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E |
|---|---|---|---|---|---|

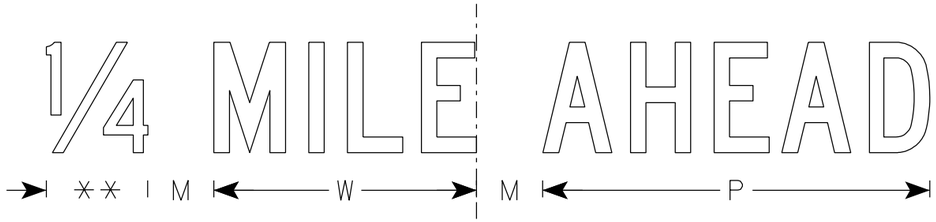
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.




R11-3

** See Note 5



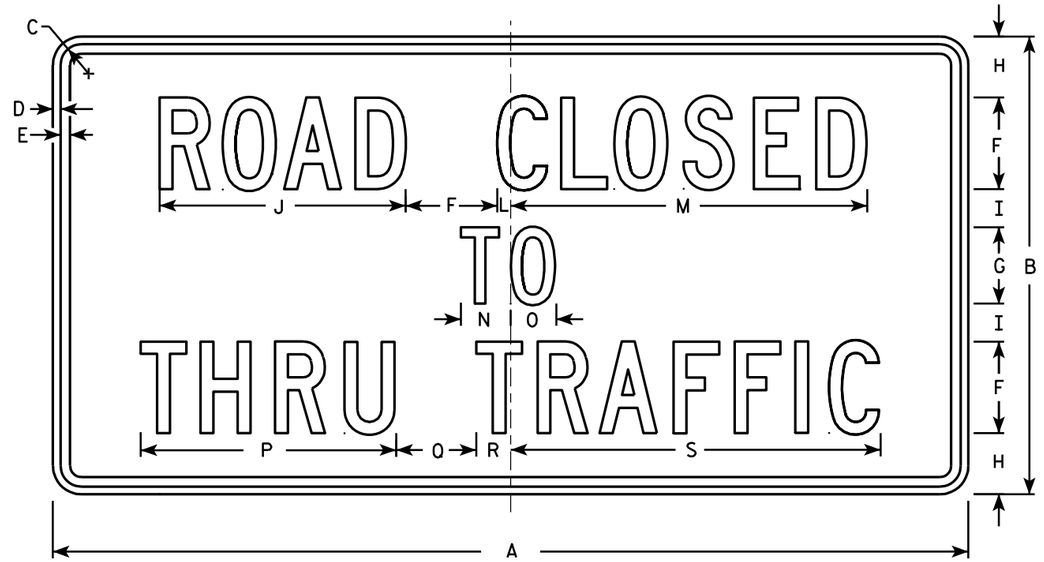

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | 18 | 1 1/4 | 3/8 | 3/8 | 4 | 3 | 2 | 11 1/4 | 3 | 1 1/8 | 15 3/8 | 2 | 3 3/4 | 8 1/4 | 5/8 | | 1 3/8 | 13 1/4 | 8 3/8 | 7/8 | 10 1/2 | 7 1/8 | | | | 4.5 |
| 2S | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 3 1/2 | 16 7/8 | 5 | 1 3/8 | 23 1/4 | 3 | 6 1/4 | 13 5/8 | 1 1/8 | | 1 7/8 | 22 1/8 | 14 | 1 1/2 | 17 1/2 | 11 7/8 | | | | 12.5 |
| 2M | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 3 1/2 | 16 7/8 | 5 | 1 3/8 | 23 1/4 | 3 | 6 1/4 | 13 5/8 | 1 1/8 | | 1 7/8 | 22 1/8 | 14 | 1 1/2 | 17 1/2 | 11 7/8 | | | | 12.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

| PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 166 | E |
|---|---|---|---|---|---|




R11-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 | | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 | | | | | | | | 12.5 |
| 2M | 60 | 30 | 1 3/8 | 1/2 | 5/8 | 6 | 5 | 4 | 2 1/2 | 16 1/8 | | 7/8 | 23 3/8 | 3 1/4 | 3 | 16 3/4 | 5 1/4 | 2 1/4 | 24 1/4 | | | | | | | | 12.5 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

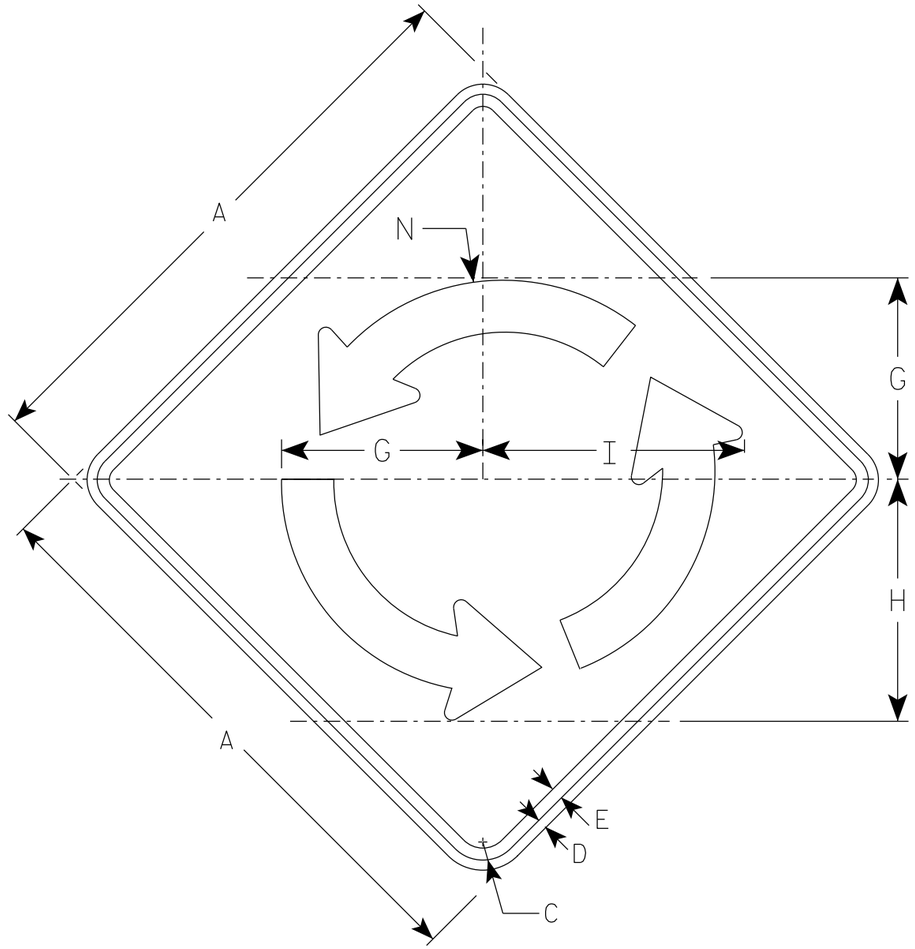
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 167 | E

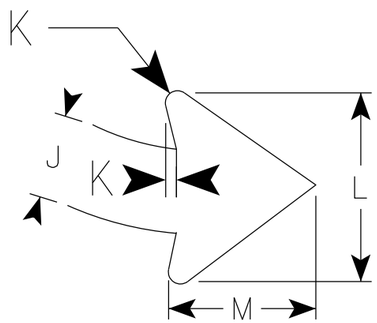



W2-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black

Arrow Detail




| 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 | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/8 | 12 1/2 | 13 1/2 | 2 3/4 | 3/8 | 6 | 4 3/4 | 11 1/8 | | | | | | | | | | | 6.25 |
| 2M | 30 | | 1 3/8 | 1/2 | 5/8 | | 10 3/8 | 12 1/2 | 13 1/2 | 2 3/4 | 3/8 | 6 | 4 3/4 | 11 1/8 | | | | | | | | | | | 6.25 |
| 3 | 36 | | 1 5/8 | 5/8 | 3/4 | | 12 1/2 | 15 | 16 1/4 | 3 1/4 | 1/2 | 7 3/8 | 5 3/4 | 13 3/8 | | | | | | | | | | | 9.00 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | | 16 5/8 | 20 | 16 1/4 | 4 3/8 | 5/8 | 9 3/4 | 7 5/8 | 17 7/8 | | | | | | | | | | | 16.0 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W2-6

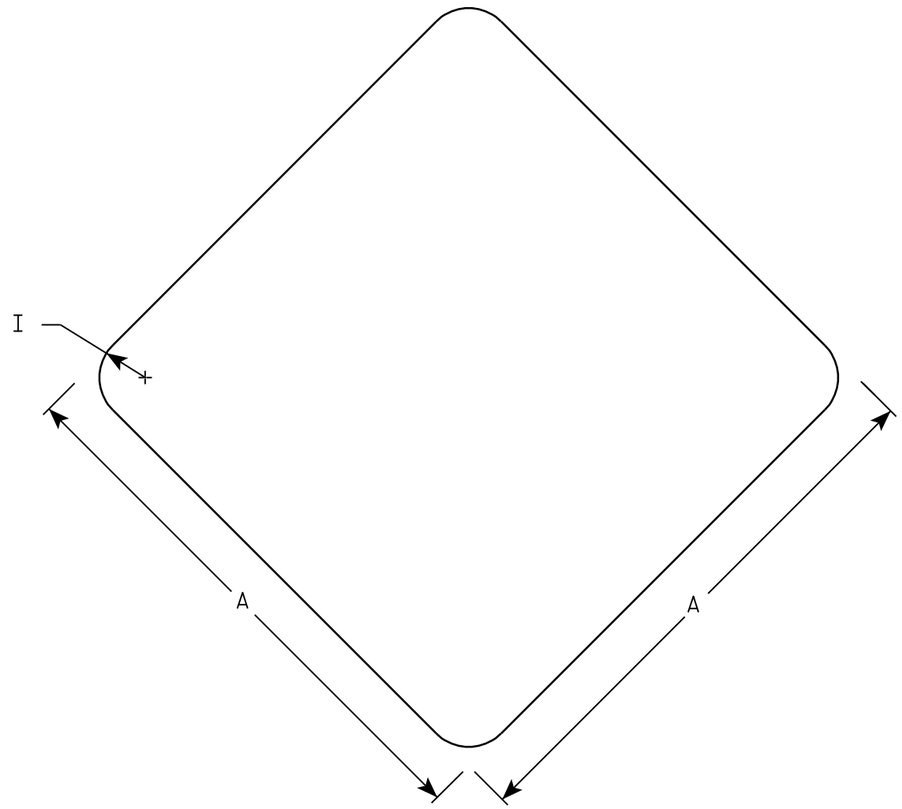
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/21 PLATE NO. W2-6.7

PROJECT NO:

SHEET NO: 168 E




W5-54

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

| 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 | 12 | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 1.0 |
| 2S | 18 | | | | | | | | 1 ½ | | | | | | | | | | | | | | | | | | 2.25 |
| 2M | 18 | | | | | | | | 1 ½ | | | | | | | | | | | | | | | | | | 2.25 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

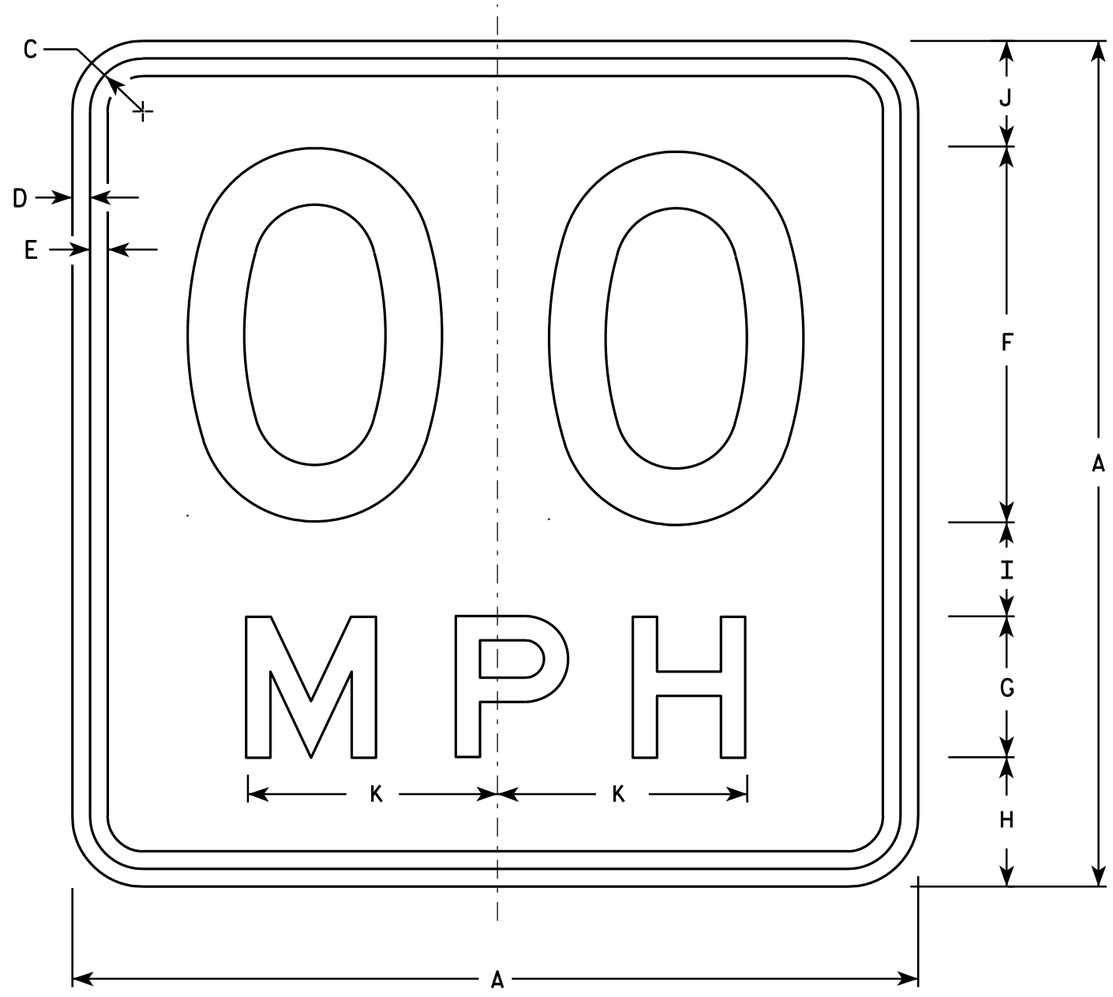
STANDARD SIGN
W5-54

*WISCONSIN DEPT OF TRANSPORTATION*

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 169 | E




W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

| | 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 | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| * | 2S | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| * | 2M | 18 | | 1 1/8 | 3/8 | 3/8 | 8 | 3 | 2 3/4 | 2 | 2 1/4 | 5 3/8 | | | | | | | | | | | | | | | | 2.25 |
| | 3 | 24 | | 1 1/8 | 3/8 | 1/2 | 10 | 4 | 4 | 2 3/4 | 3 1/4 | 6 5/8 | | | | | | | | | | | | | | | | 4.00 |
| | 4 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |
| | 5 | 36 | | 1 5/8 | 5/8 | 3/4 | 16 | 6 | 5 1/2 | 4 | 4 1/2 | 10 5/8 | | | | | | | | | | | | | | | | 9.00 |

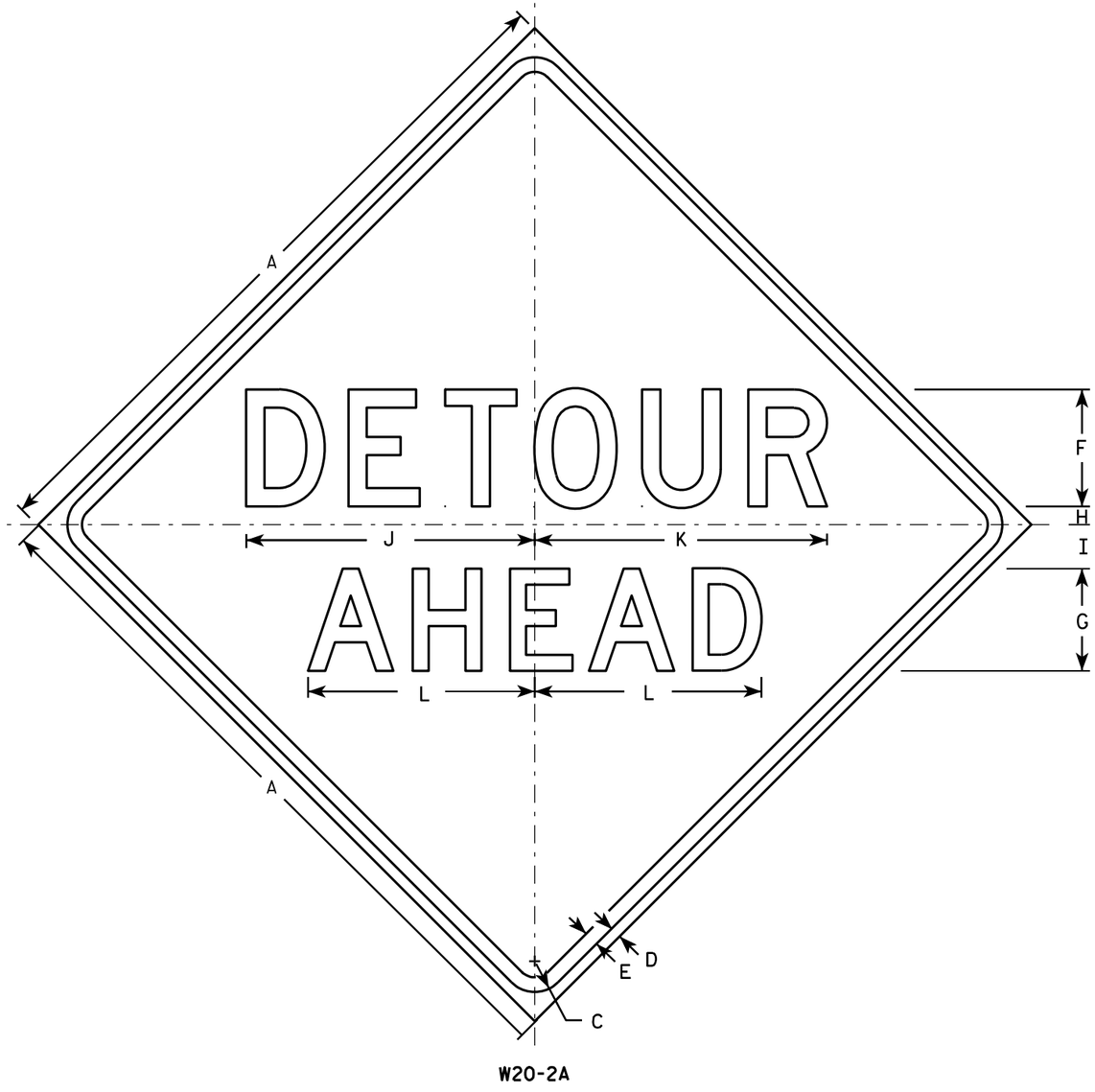
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

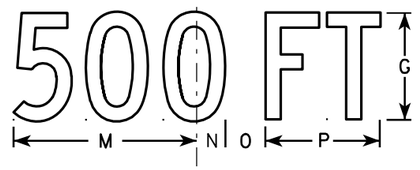
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

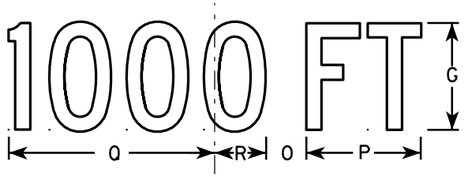
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 170 | E



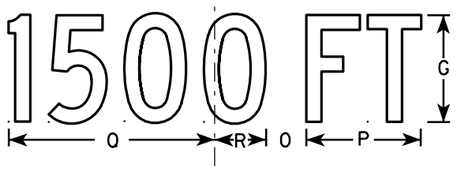

W20-2A



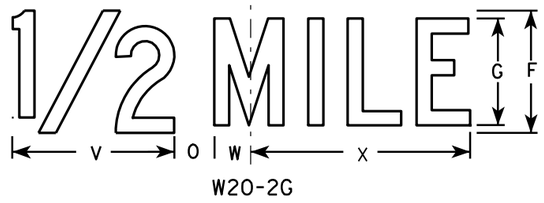

W20-2D




W20-2C




W20-2B




W20-2G


W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

| SIZE | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | O | R | S | T | U | V | W | X | Y | Z | Area sq. ft. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 36 | | 1 5/8 | 5/8 | 3/4 | 6 | 5 | 1 | 2 1/4 | 14 3/4 | 15 | 11 5/8 | 9 | 1 3/8 | 1 7/8 | 5 5/8 | 10 1/8 | 2 1/2 | 1 1/8 | 4 1/2 | 3 1/2 | 8 | 1 3/4 | 10 3/4 | | | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 8 | 7 | 1 1/4 | 3 | 19 3/4 | 20 | 15 1/2 | 12 | 1 7/8 | 2 5/8 | 7 1/2 | 13 1/2 | 3 3/8 | 1 1/2 | 6 | 4 5/8 | 10 5/8 | 2 3/8 | 14 3/8 | | | 16.0 |

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

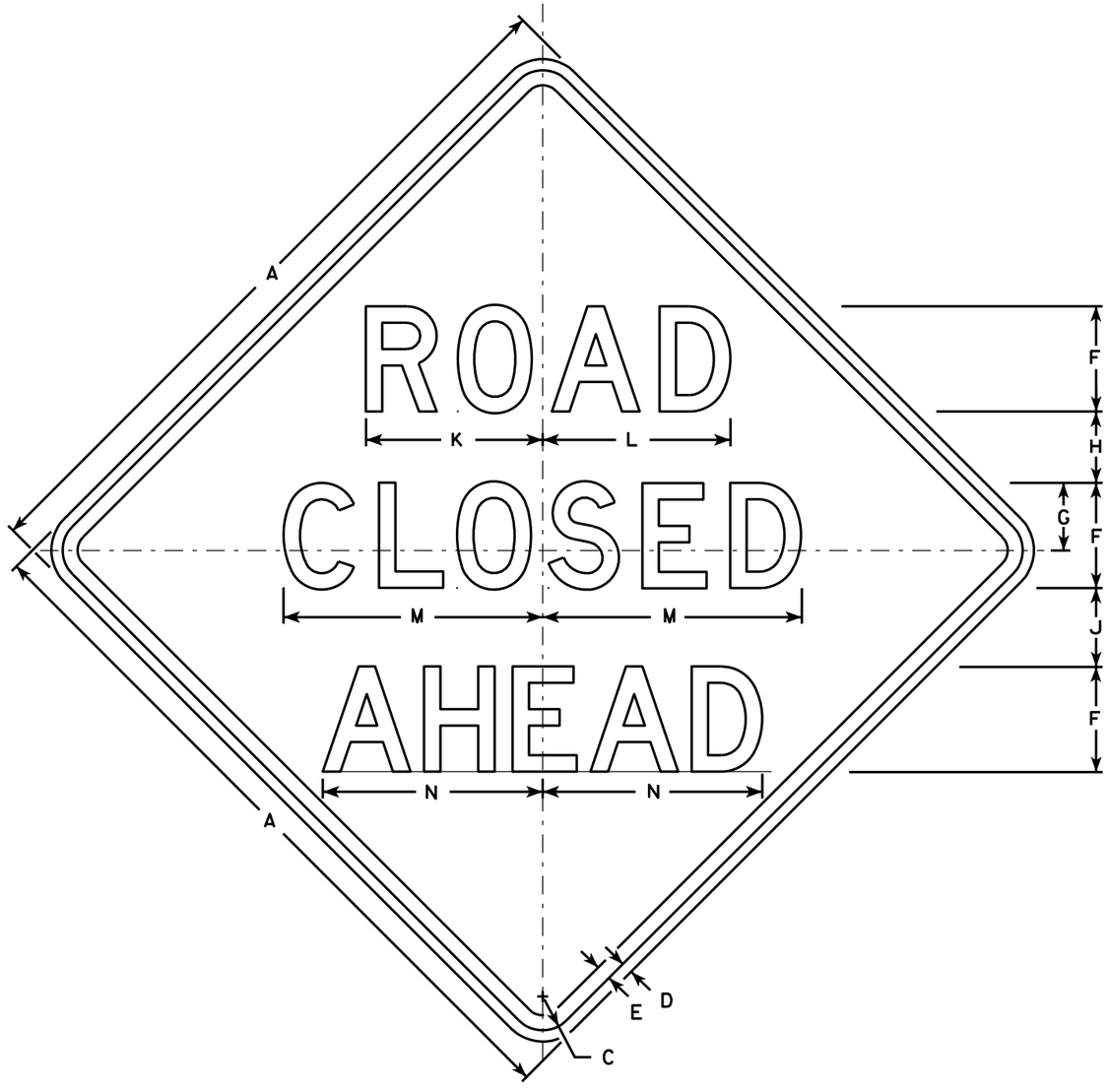
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

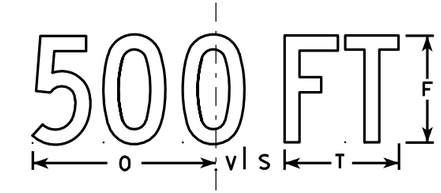
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 171 | E


7

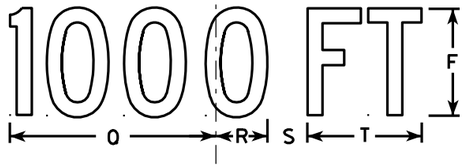
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



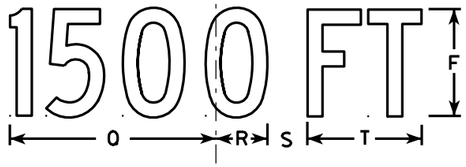

W20-3A



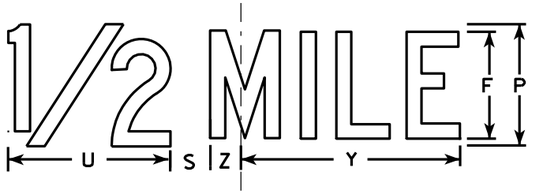

W20-3D



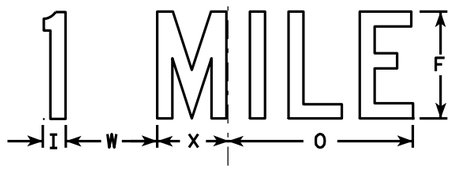

W20-3C




W20-3B




W20-3G




W20-3F

**NOTES**

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

| 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 | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 3 3/8 | 3 1/2 | 1 1/8 | 4 | 8 3/8 | 8 7/8 | 12 1/2 | 11 | 9 | 6 | 10 1/8 | 2 1/2 | 1 7/8 | 5 5/8 | 8 | 1 3/8 | 4 1/2 | 3 1/2 | 10 3/4 | 1 3/4 | 9.0 |
| 2S | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 2M | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 3 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 4 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |
| 5 | 48 | | 2 1/4 | 3/4 | 1 | 7 | 4 1/2 | 4 3/4 | 1 1/2 | 5 1/4 | 11 3/4 | 12 1/2 | 17 1/4 | 14 5/8 | 12 | 8 | 13 1/2 | 3 3/8 | 2 5/8 | 7 1/2 | 10 5/8 | 1 7/8 | 6 | 4 5/8 | 14 3/8 | 2 3/8 | 16.0 |

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

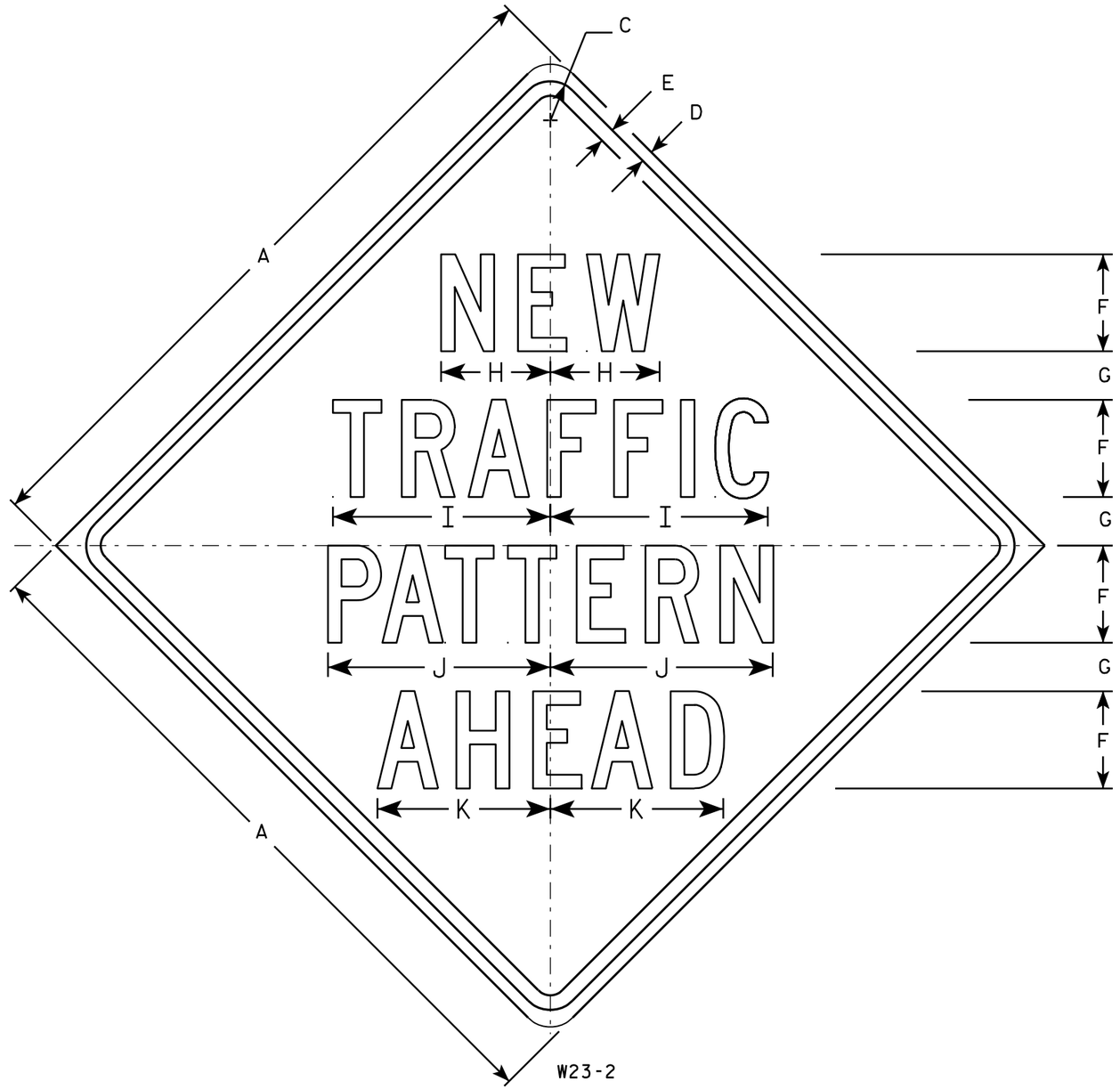
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 172 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000

WISDOT/CADDS SHEET 42

7

7




NOTES

1. Sign isType II - Type F Reflective - reference WIS DOT Standard Specification forHIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2S | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 2 1/2 | 5 5/8 | 11 1/4 | 11 1/2 | 8 7/8 | | | | | | | | | | | | | | | | 9.0 |
| 2M | 36 | | 1 5/8 | 5/8 | 3/4 | 5 | 2 1/2 | 5 5/8 | 11 1/4 | 11 1/2 | 8 7/8 | | | | | | | | | | | | | | | | 9.0 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |

STANDARD SIGN
W23-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W23-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E

EA LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 20+00 | 0.00 | 80.37 | 0.01 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 20+50 | 49.90 | 88.82 | 0.68 | 0.00 | 0.00 | 156 | 22 | 1 | 0 | 0 | 0 | 156 | 22 | 1 | 133 |
| 21+00 | 50.00 | 92.48 | 0.00 | 0.00 | 3.94 | 168 | 22 | 1 | 0 | 4 | 4 | 324 | 44 | 2 | 278 |
| 21+50 | 50.00 | 103.23 | 0.75 | 0.00 | 7.78 | 181 | 22 | 1 | 0 | 11 | 11 | 505 | 65 | 3 | 436 |
| 22+00 | 50.00 | 120.18 | 0.93 | 0.00 | 12.79 | 207 | 22 | 2 | 0 | 19 | 19 | 712 | 87 | 6 | 619 |
| 22+50 | 50.00 | 87.03 | 0.50 | 0.00 | 0.00 | 192 | 22 | 1 | 0 | 12 | 12 | 904 | 109 | 7 | 788 |
| 23+00 | 50.00 | 94.25 | 0.11 | 0.00 | 0.00 | 168 | 22 | 1 | 0 | 0 | 0 | 1,072 | 131 | 8 | 934 |
| 23+50 | 50.00 | 95.88 | 0.00 | 0.00 | 0.00 | 176 | 22 | 0 | 0 | 0 | 0 | 1,248 | 153 | 8 | 1,088 |
| 24+00 | 50.00 | 95.41 | 0.66 | 0.40 | 10.01 | 177 | 22 | 1 | 0 | 9 | 10 | 1,425 | 174 | 9 | 1,242 |
| 24+50 | 50.00 | 95.34 | 1.50 | 0.37 | 8.44 | 177 | 22 | 2 | 1 | 17 | 18 | 1,602 | 196 | 11 | 1,395 |
| 25+00 | 50.00 | 97.14 | 5.64 | 6.43 | 4.11 | 178 | 22 | 7 | 6 | 12 | 18 | 1,780 | 218 | 19 | 1,543 |
| 25+33 | 32.50 | 98.06 | 4.67 | 5.82 | 9.26 | 117 | 22 | 6 | 7 | 8 | 15 | 1,897 | 240 | 25 | 1,632 |

WA LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/ UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 22+50 | 0.00 | 26.86 | 0.11 | 1.65 | 14.81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23+00 | 50.00 | 22.06 | 0.00 | 1.45 | 21.23 | 45 | 8 | 0 | 3 | 33 | 36 | 45 | 8 | 0 | 37 |
| 23+50 | 50.00 | 3.93 | 0.71 | 10.78 | 13.66 | 24 | 8 | 1 | 11 | 32 | 44 | 69 | 16 | 1 | 52 |
| 24+00 | 50.00 | 2.56 | 4.76 | 20.89 | 3.65 | 6 | 8 | 5 | 29 | 16 | 45 | 75 | 25 | 7 | 44 |
| 24+50 | 50.00 | 1.99 | 4.87 | 1.51 | 22.19 | 4 | 8 | 9 | 21 | 24 | 45 | 79 | 33 | 17 | 30 |
| 25+00 | 50.00 | 0.00 | 72.71 | 27.59 | 28.80 | 2 | 8 | 72 | 27 | 47 | 74 | 81 | 41 | 96 | -56 |
| 25+35 | 34.94 | 0.00 | 211.63 | 36.93 | 0.39 | 0 | 8 | 184 | 42 | 19 | 61 | 81 | 49 | 298 | -266 |

EB LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 30+50 | 0.00 | 100.02 | 0.01 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31+00 | 50.00 | 100.75 | 0.00 | 0.00 | 0.00 | 186 | 15 | 0 | 0 | 0 | 0 | 186 | 15 | 0 | 171 |
| 31+50 | 49.94 | 88.07 | 0.00 | 0.00 | 0.00 | 175 | 15 | 0 | 0 | 0 | 0 | 361 | 30 | 0 | 331 |
| 32+00 | 50.06 | 92.55 | 0.00 | 0.00 | 0.00 | 167 | 15 | 0 | 0 | 0 | 0 | 528 | 45 | 0 | 483 |
| 32+50 | 50.00 | 95.71 | 0.00 | 0.00 | 0.00 | 174 | 15 | 0 | 0 | 0 | 0 | 702 | 60 | 0 | 642 |
| 33+00 | 50.00 | 87.85 | 0.00 | 0.00 | 0.00 | 170 | 15 | 0 | 0 | 0 | 0 | 872 | 75 | 0 | 797 |
| 33+50 | 50.00 | 140.60 | 0.00 | 0.00 | 3.97 | 212 | 15 | 0 | 0 | 4 | 4 | 1,084 | 90 | 0 | 994 |
| 34+00 | 50.00 | 110.95 | 0.01 | 0.00 | 0.89 | 233 | 15 | 0 | 0 | 5 | 5 | 1,317 | 105 | 0 | 1,212 |
| 34+50 | 50.00 | 146.57 | 0.00 | 0.00 | 0.00 | 238 | 15 | 0 | 0 | 1 | 1 | 1,555 | 120 | 0 | 1,435 |
| 34+67 | 16.67 | 157.00 | 0.00 | 0.00 | 0.00 | 94 | 15 | 0 | 0 | 0 | 0 | 1,649 | 135 | 0 | 1,514 |
| 35+00 | 33.33 | 100.19 | 13.00 | 0.00 | 0.00 | 159 | 15 | 8 | 0 | 0 | 0 | 1,808 | 150 | 9 | 1,649 |
| 35+37 | 37.10 | 99.15 | 0.00 | 0.00 | 0.00 | 137 | 15 | 9 | 0 | 0 | 0 | 1,945 | 165 | 19 | 1,761 |
| 35+50 | 12.90 | 3.93 | 0.00 | 0.00 | 0.00 | 25 | 15 | 0 | 0 | 0 | 0 | 1,970 | 180 | 19 | 1,771 |
| 36+00 | 50.00 | 2.82 | 0.00 | 0.00 | 0.00 | 6 | 15 | 0 | 0 | 0 | 0 | 1,976 | 195 | 19 | 1,762 |
| 36+50 | 50.00 | 1.90 | 0.00 | 0.00 | 0.00 | 4 | 16 | 0 | 0 | 0 | 0 | 1,980 | 211 | 19 | 1,750 |
| 37+00 | 50.00 | 1.31 | 0.00 | 0.00 | 0.00 | 3 | 16 | 0 | 0 | 0 | 0 | 1,983 | 228 | 19 | 1,737 |
| 37+25 | 25.00 | 2.07 | 0.00 | 0.00 | 0.00 | 2 | 16 | 0 | 0 | 0 | 0 | 1,985 | 244 | 19 | 1,722 |

* EBS IN FILL IS DEFINED AS THE 12" BREAKER RUN LAYER IN FILL AREAS.

** EBS TOTAL IS DEFINED AS EBS IN FILL + EBS IN CUT AND IS USED TO CALCULATE EXPANDED EBS BACKFILL.

WB LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 30+50 | 0.00 | 42.03 | 7.94 | 0.00 | 18.18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31+00 | 50.00 | 42.21 | 19.95 | 0.00 | 9.03 | 78 | 35 | 26 | 0 | 25 | 25 | 78 | 35 | 29 | 15 |
| 31+50 | 50.00 | 42.53 | 9.67 | 0.00 | 12.59 | 78 | 35 | 27 | 0 | 20 | 20 | 156 | 70 | 58 | 28 |
| 32+00 | 50.00 | 45.62 | 3.60 | 0.00 | 13.82 | 82 | 35 | 12 | 0 | 24 | 24 | 238 | 105 | 72 | 62 |
| 32+50 | 50.00 | 54.30 | 0.97 | 0.00 | 13.10 | 93 | 35 | 4 | 0 | 25 | 25 | 331 | 140 | 76 | 116 |
| 33+00 | 50.00 | 63.95 | 0.00 | 0.00 | 11.02 | 109 | 35 | 1 | 0 | 22 | 22 | 440 | 175 | 77 | 189 |

NA LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 60+00 | 0.00 | 55.34 | 0.05 | 0.00 | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 60+50 | 49.90 | 49.70 | 2.08 | 0.00 | 0.00 | 97 | 21 | 2 | 0 | 0 | 0 | 97 | 21 | 2 | 74 |
| 61+00 | 50.00 | 42.24 | 6.55 | 1.09 | 6.85 | 85 | 21 | 8 | 1 | 6 | 7 | 182 | 41 | 11 | 130 |
| 61+50 | 50.00 | 40.63 | 8.77 | 8.57 | 6.89 | 77 | 21 | 14 | 9 | 13 | 22 | 259 | 62 | 26 | 171 |
| 62+00 | 50.00 | 33.61 | 2.28 | 0.00 | 1.94 | 69 | 21 | 10 | 8 | 8 | 16 | 328 | 82 | 37 | 209 |
| 62+50 | 50.00 | 37.00 | 1.85 | 0.00 | 0.00 | 65 | 21 | 4 | 0 | 2 | 2 | 393 | 103 | 42 | 249 |
| 62+75 | 25.00 | 36.03 | 4.89 | 0.00 | 0.00 | 34 | 21 | 3 | 0 | 0 | 0 | 427 | 123 | 45 | 259 |

SA LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 62+00 | 0.00 | 0.04 | 13.76 | 17.47 | 3.02 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 62+50 | 50.00 | 0.96 | 30.38 | 22.69 | 0.00 | 1 | 2 | 41 | 37 | 3 | 40 | 1 | 2 | 45 | -46 |
| 62+75 | 25.00 | 5.53 | 59.62 | 26.78 | 0.00 | 3 | 2 | 42 | 23 | 0 | 23 | 4 | 4 | 91 | -91 |

NB LINE

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 70+40 | 0.00 | 109.27 | 4.21 | 0.00 | 6.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70+50 | 10.00 | 104.76 | 0.79 | 0.00 | 5.48 | 40 | 12 | 1 | 0 | 2 | 2 | 40 | 12 | 1 | 27 |
| 71+00 | 50.00 | 76.72 | 0.00 | 0.00 | 0.00 | 168 | 12 | 1 | 0 | 5 | 5 | 208 | 25 | 2 | 181 |
| 71+50 | 50.00 | 56.66 | 0.00 | 0.00 | 0.00 | 123 | 12 | 0 | 0 | 0 | 0 | 331 | 37 | 2 | 292 |
| 72+00 | 50.00 | 73.63 | 0.62 | 0.00 | 12.51 | 121 | 12 | 1 | 0 | 12 | 12 | 452 | 49 | 3 | 400 |
| 72+50 | 50.00 | 68.77 | 0.00 | 0.00 | 9.19 | 132 | 12 | 1 | 0 | 20 | 20 | 584 | 62 | 4 | 518 |
| 73+00 | 50.00 | 53.40 | 0.00 | 0.00 | 2.48 | 113 | 12 | 0 | 0 | 11 | 11 | 697 | 74 | 4 | 619 |
| 73+08 | 8.13 | 29.09 | 0.00 | 0.00 | 0.00 | 12 | 12 | 0 | 0 | 0 | 0 | 709 | 86 | 4 | 619 |

* EBS IN FILL IS DEFINED AS THE 12" BREAKER RUN LAYER IN FILL AREAS.

** EBS TOTAL IS DEFINED AS EBS IN FILL + EBS IN CUT AND IS USED TO CALCULATE EXPANDED EBS BACKFILL.

SB LINE

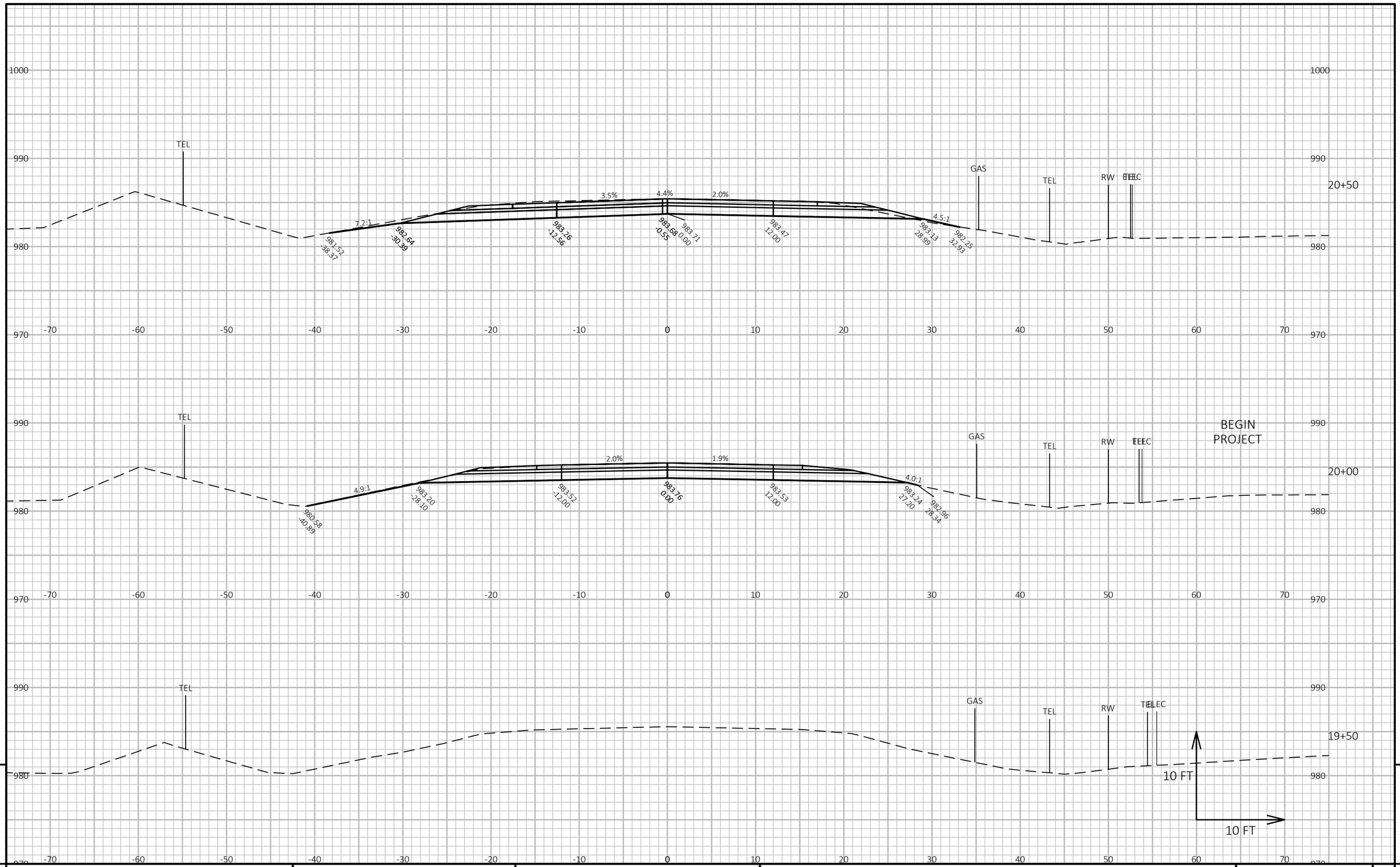
| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 70+40 | 0.00 | 9.96 | 254.82 | 3.40 | 21.50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70+50 | 10.00 | 15.59 | 255.77 | 2.07 | 19.91 | 5 | 12 | 95 | 1 | 8 | 9 | 5 | 12 | 105 | -112 |
| 71+00 | 50.00 | 16.93 | 293.74 | 5.03 | 11.43 | 30 | 11 | 509 | 7 | 29 | 36 | 35 | 23 | 664 | -653 |
| 71+50 | 50.00 | 11.39 | 160.24 | 8.95 | 8.76 | 26 | 11 | 420 | 13 | 19 | 32 | 61 | 35 | 1,126 | -1,100 |

CENTRAL ISLAND

| STATION | DISTANCE | AREA (SF) | | | | INCREMENTAL VOL (CY) (UNADJUSTED) | | | | | | CUMULATIVE VOL (CY) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CUT | FILL | * EBS IN FILL | EBS IN CUT | CUT | SALVAGED/UNUSABLE PAVEMENT MATERIAL | FILL | * EBS IN FILL | EBS IN CUT | ** EBS TOTAL | CUT 1.00 | SALVAGED/UNUSABLE PAVEMENT MATERIAL | EXPANDED FILL 1.10 | MASS ORDINATE |
| 90+00 | 0.00 | 0.00 | 125.42 | 35.13 | 4.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90+25 | 24.99 | 72.10 | 81.73 | 0.00 | 0.00 | 33 | 15 | 96 | 16 | 2 | 18 | 33 | 15 | 106 | -88 |
| 90+50 | 25.00 | 77.58 | 121.66 | 0.00 | 0.00 | 69 | 15 | 94 | 0 | 0 | 0 | 102 | 31 | 209 | -138 |
| 90+75 | 25.00 | 78.57 | 75.48 | 0.00 | 0.00 | 72 | 15 | 91 | 0 | 0 | 0 | 174 | 46 | 309 | -181 |
| 91+00 | 25.00 | 88.40 | 85.79 | 0.00 | 0.00 | 77 | 15 | 75 | 0 | 0 | 0 | 251 | 62 | 392 | -202 |
| 91+25 | 25.00 | 139.35 | 79.86 | 0.00 | 0.00 | 105 | 15 | 77 | 0 | 0 | 0 | 356 | 77 | 476 | -197 |
| 91+50 | 25.00 | 84.16 | 76.89 | 0.00 | 0.00 | 103 | 15 | 73 | 0 | 0 | 0 | 459 | 92 | 557 | -190 |
| 91+75 | 25.00 | 100.82 | 90.73 | 0.00 | 20.04 | 86 | 15 | 78 | 0 | 9 | 9 | 545 | 108 | 642 | -205 |
| 92+00 | 25.00 | 83.59 | 87.70 | 0.00 | 0.00 | 85 | 15 | 83 | 0 | 9 | 9 | 630 | 123 | 734 | -227 |
| 92+25 | 25.00 | 0.00 | 188.76 | 40.01 | 11.88 | 39 | 15 | 128 | 19 | 5 | 24 | 669 | 139 | 875 | -344 |
| 92+50 | 25.00 | 0.00 | 453.38 | 42.38 | 0.00 | 0 | 15 | 297 | 38 | 5 | 44 | 669 | 154 | 1,201 | -686 |
| 92+84 | 34.18 | 0.00 | 125.42 | 35.13 | 4.00 | 0 | 15 | 366 | 49 | 3 | 52 | 669 | 169 | 1,604 | -1,104 |

* EBS IN FILL IS DEFINED AS THE 12" BREAKER RUN LAYER IN FILL AREAS.

** EBS TOTAL IS DEFINED AS EBS IN FILL + EBS IN CUT AND IS USED TO CALCULATE EXPANDED EBS BACKFILL.




9

9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - EA LINE | SHEET 177 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 01

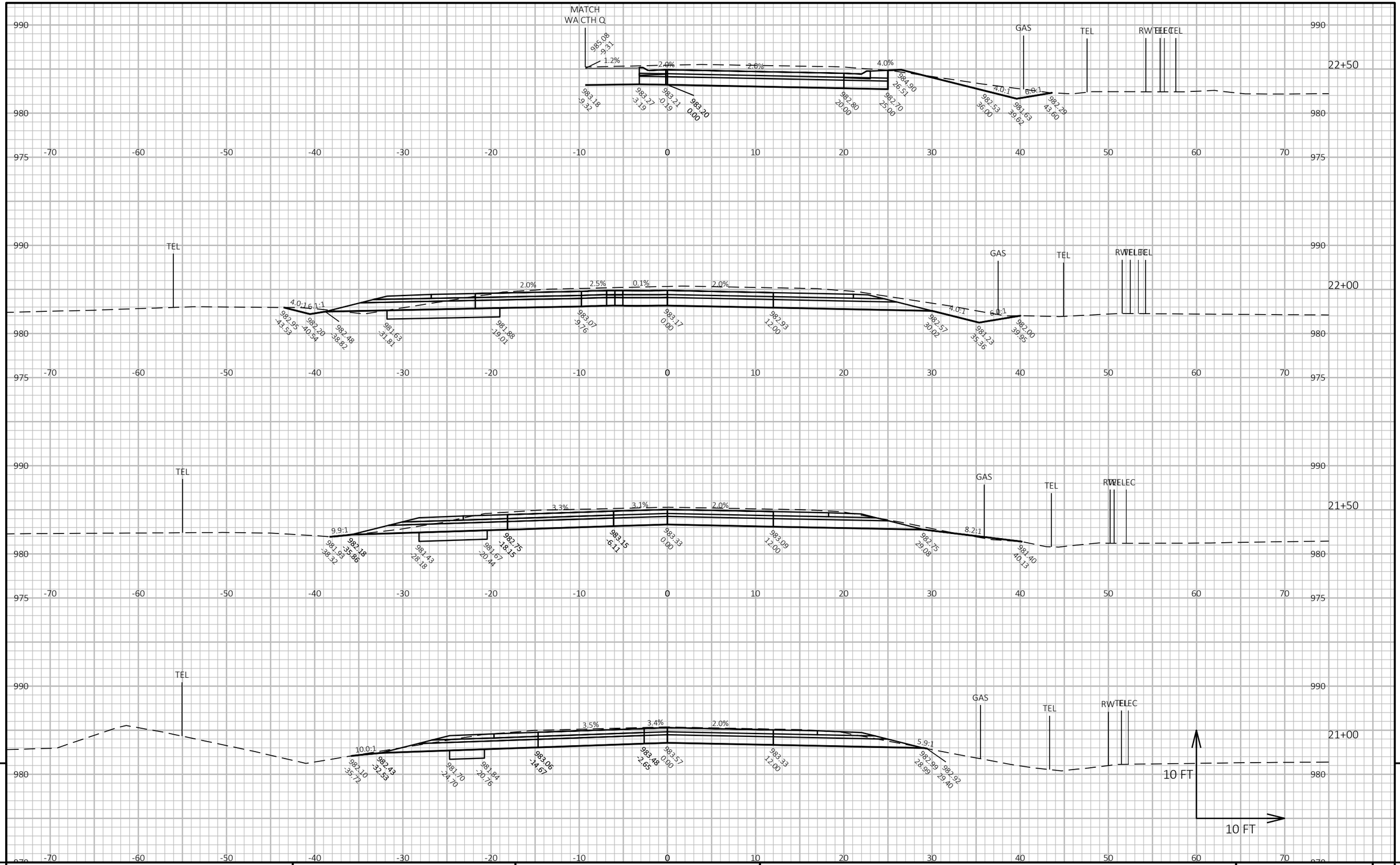
PLOT DATE : 10/28/2022 3:12 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

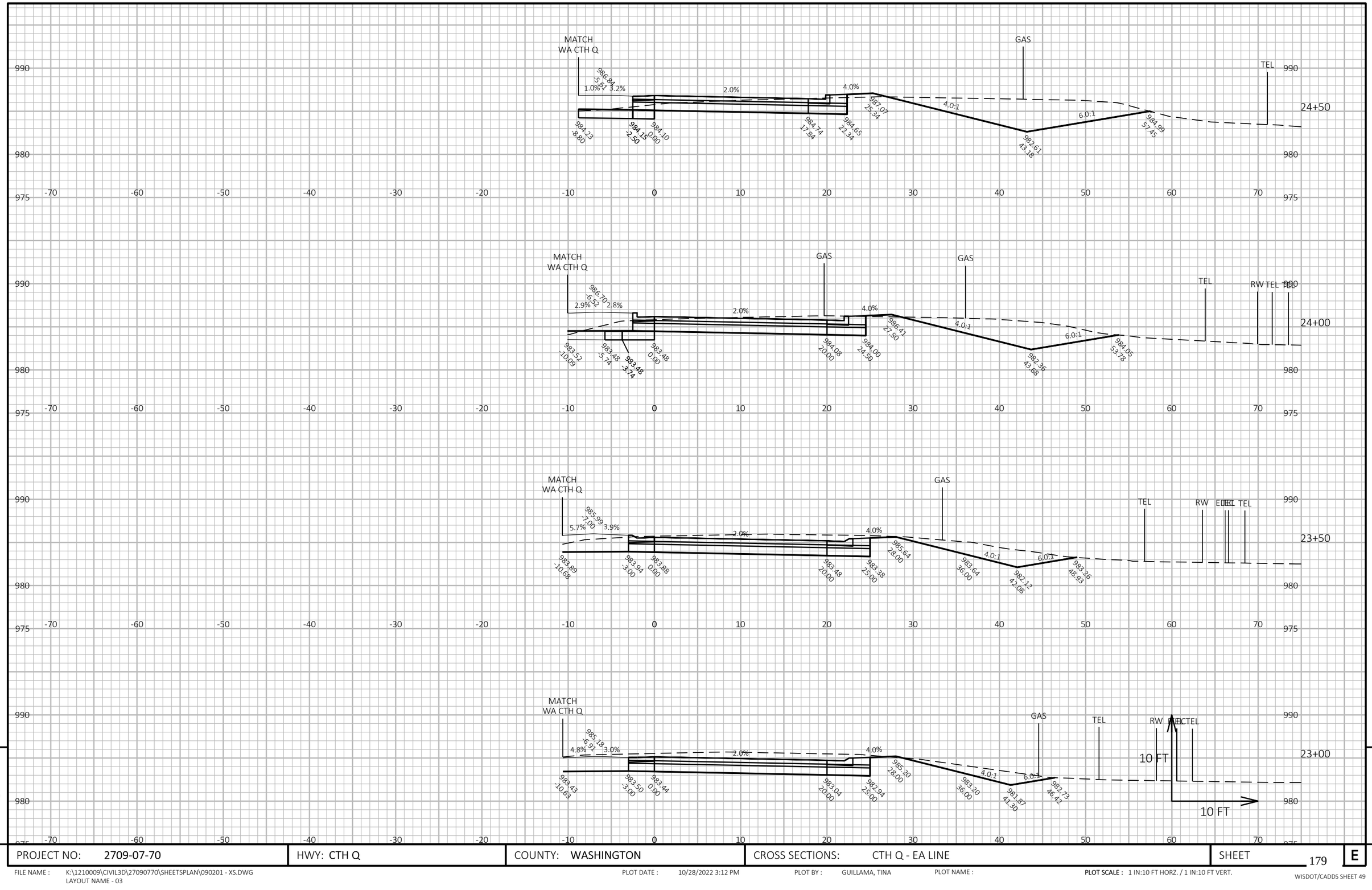
9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - EA LINE | SHEET 178 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/28/2022 3:12 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

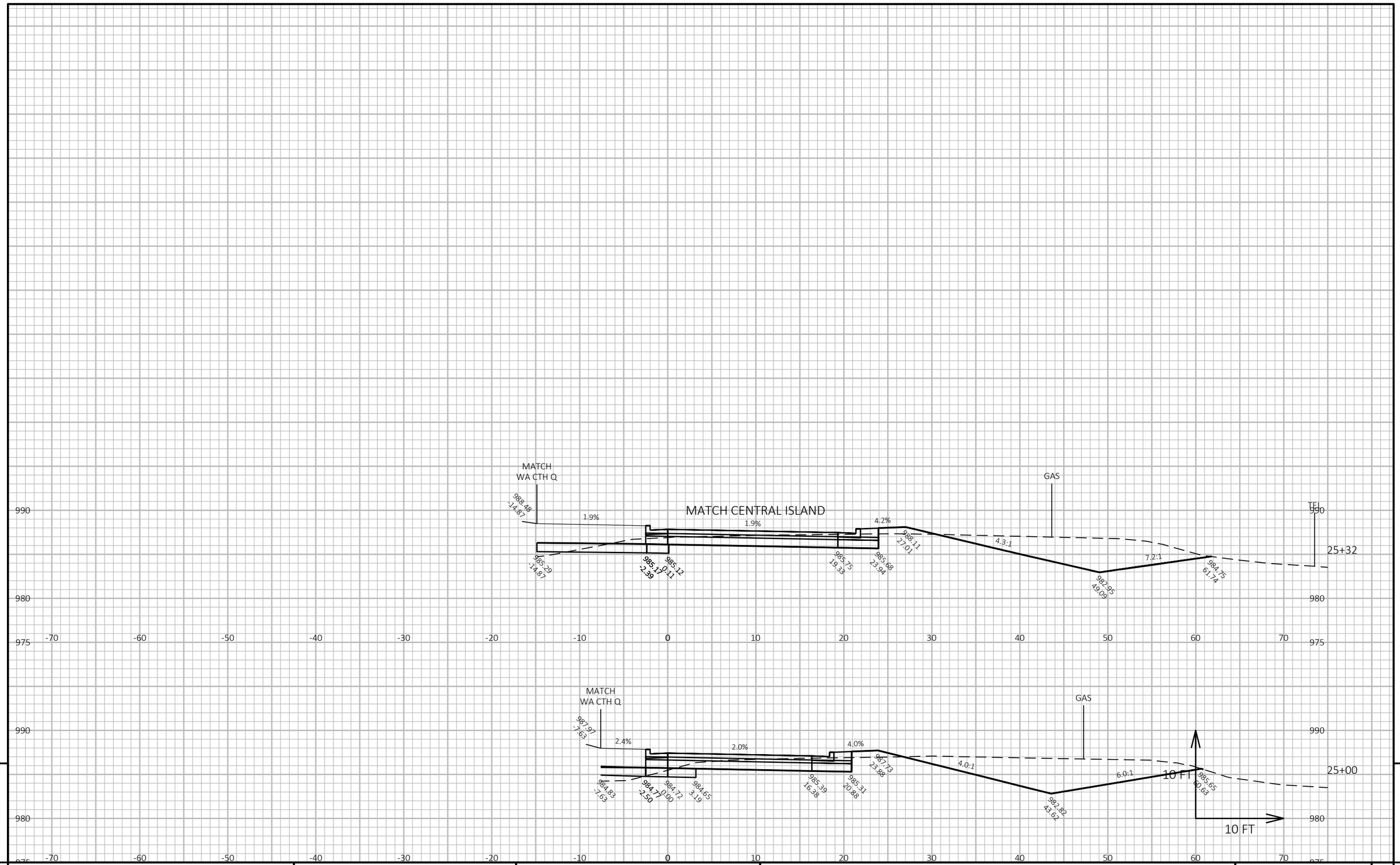



| | | | | |
|---|---|---|---|---|
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - EA LINE | SHEET 179 E |

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 03

PLOT DATE : 10/28/2022 3:12 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

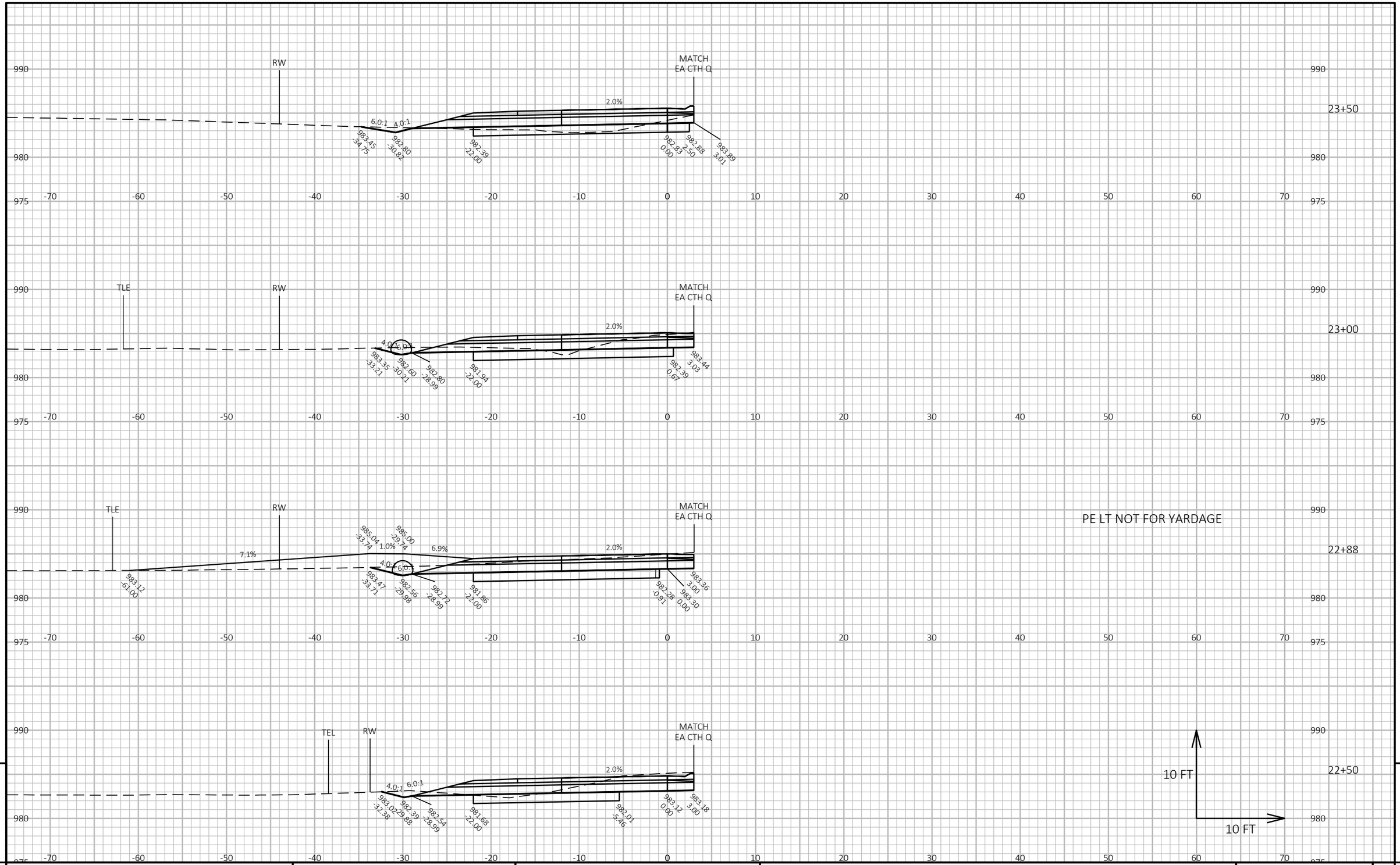
9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - EA LINE | SHEET 180 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 04

PLOT DATE : 10/28/2022 3:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




| | | | | |
|---|---|---|---|---|
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - WA LINE | SHEET 181 E |

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 15

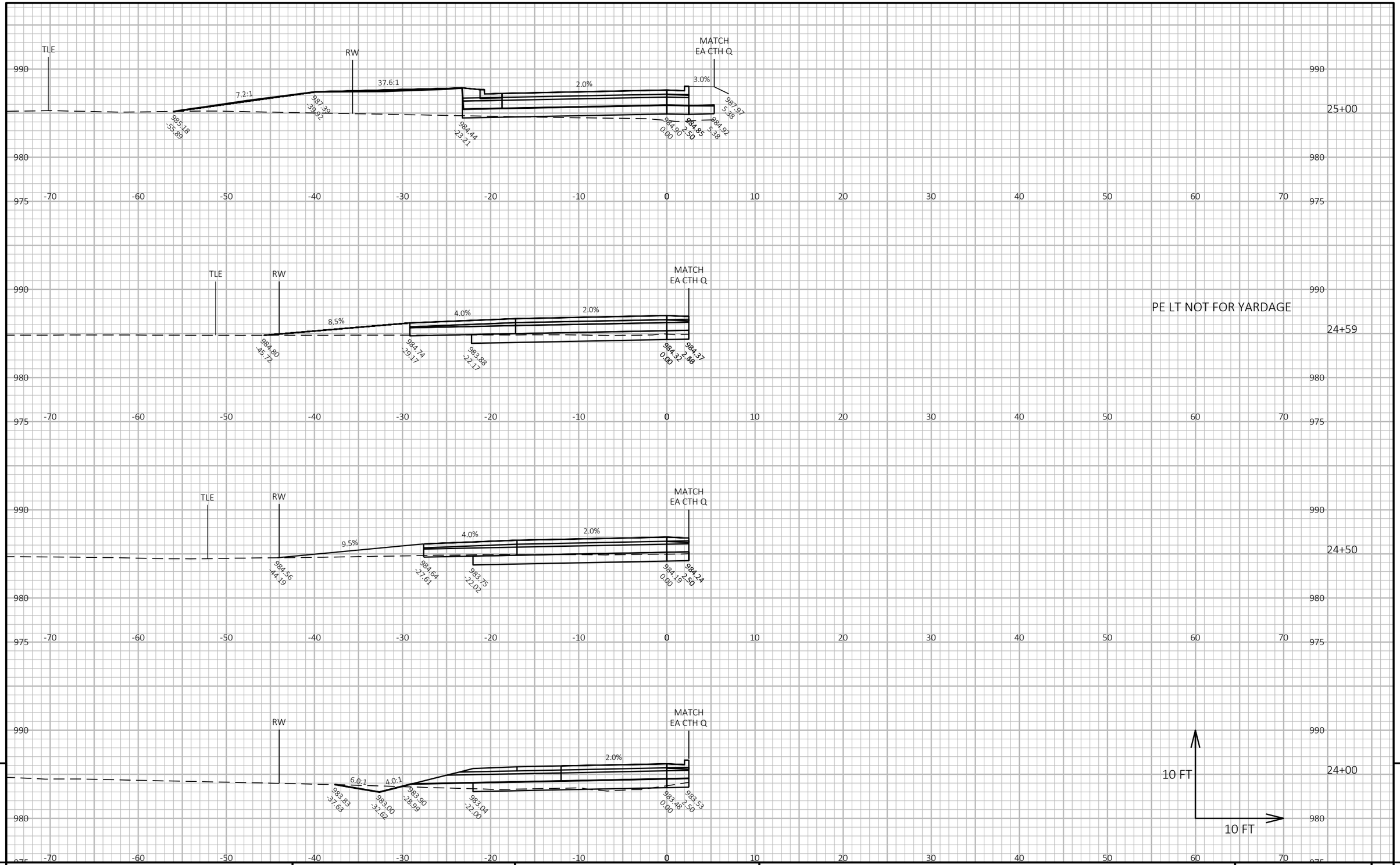
PLOT DATE : 10/28/2022 3:13 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




9

9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - WA LINE | SHEET 182 | E |
|---|---|---|---|---|---|

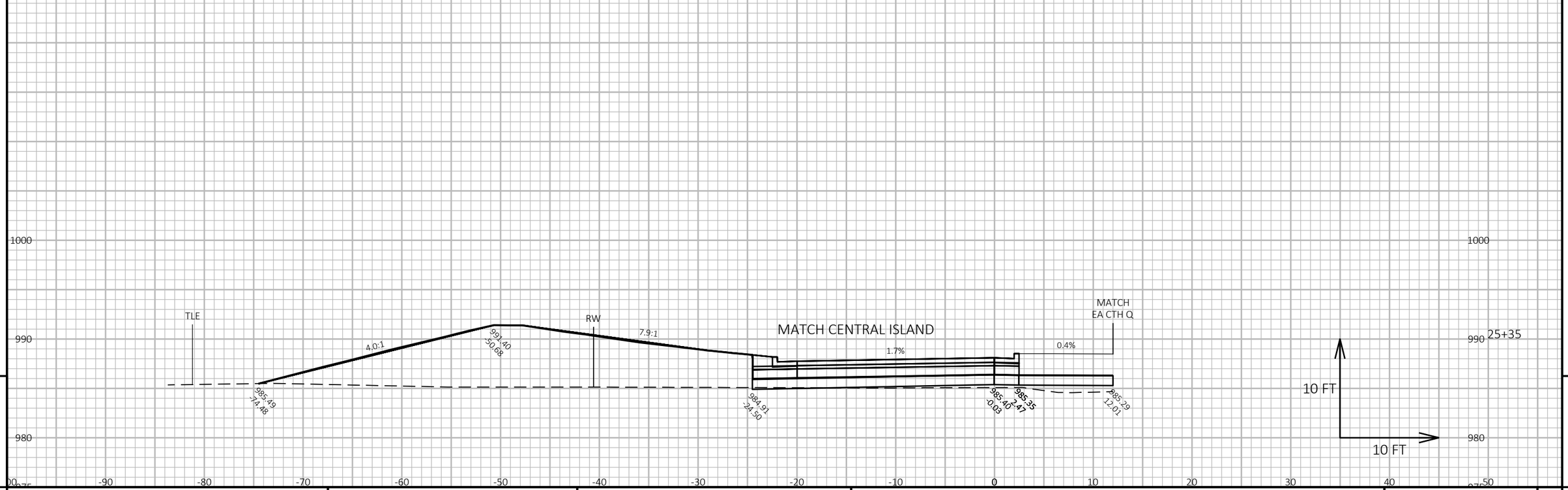
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 16

PLOT DATE : 10/28/2022 3:13 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.




9

9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - WA LINE | SHEET 183 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 17

PLOT DATE : 10/28/2022 3:13 PM

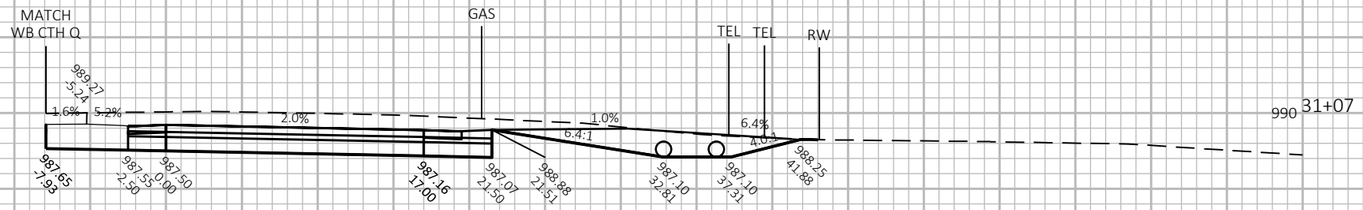
PLOT BY : GUILLAMA, TINA

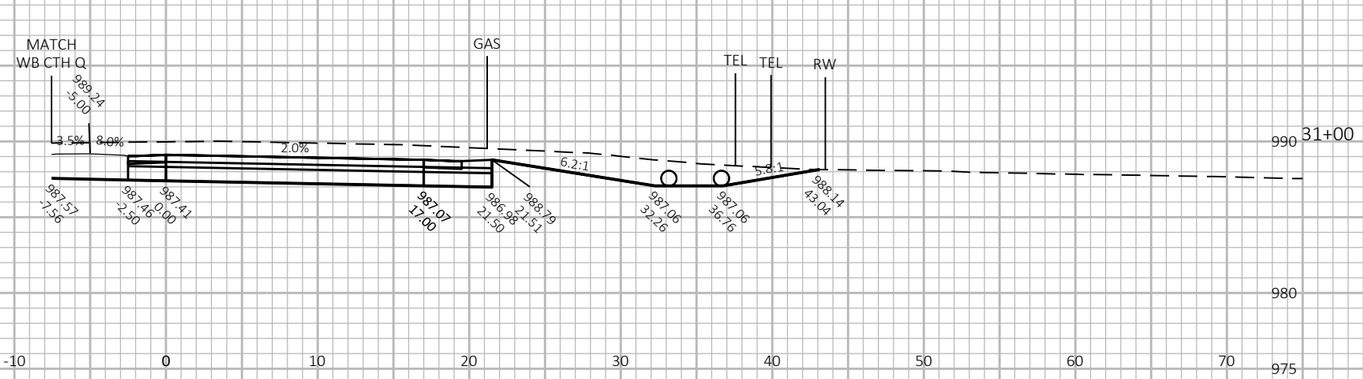
PLOT NAME :

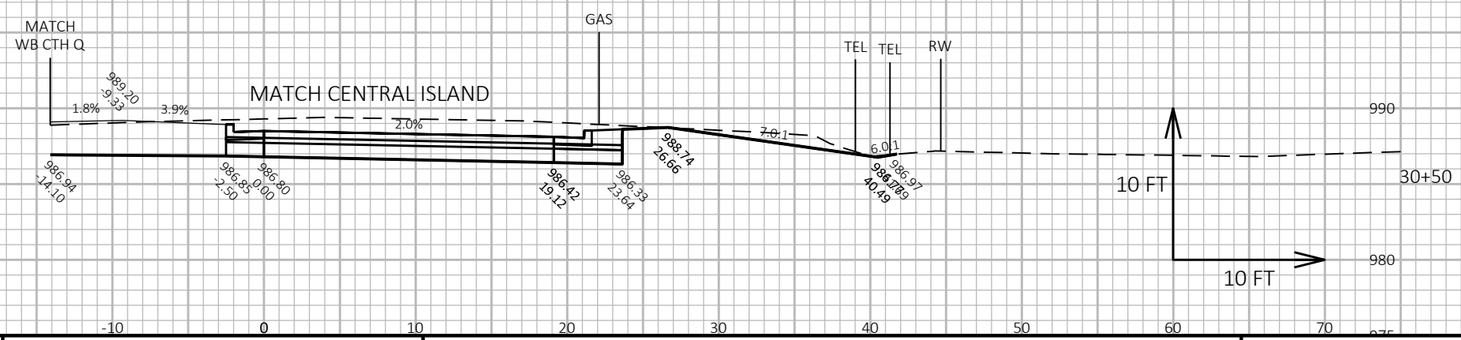
**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

PE RT NOT FOR YARDAGE




9

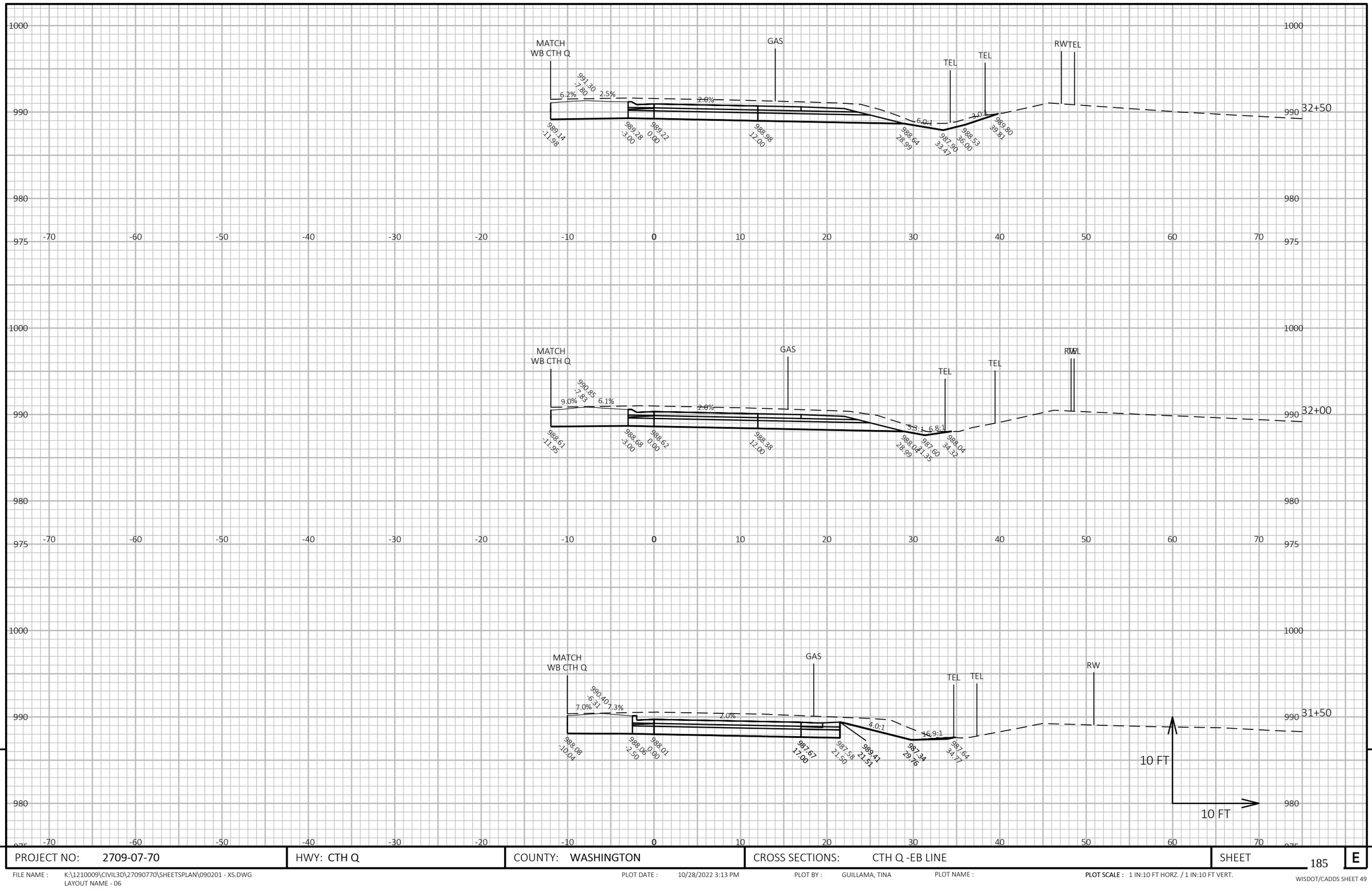
9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 184 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 05

PLOT DATE : 10/31/2022 11:58 AM PLOT BY : SIEBERT, LUKE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

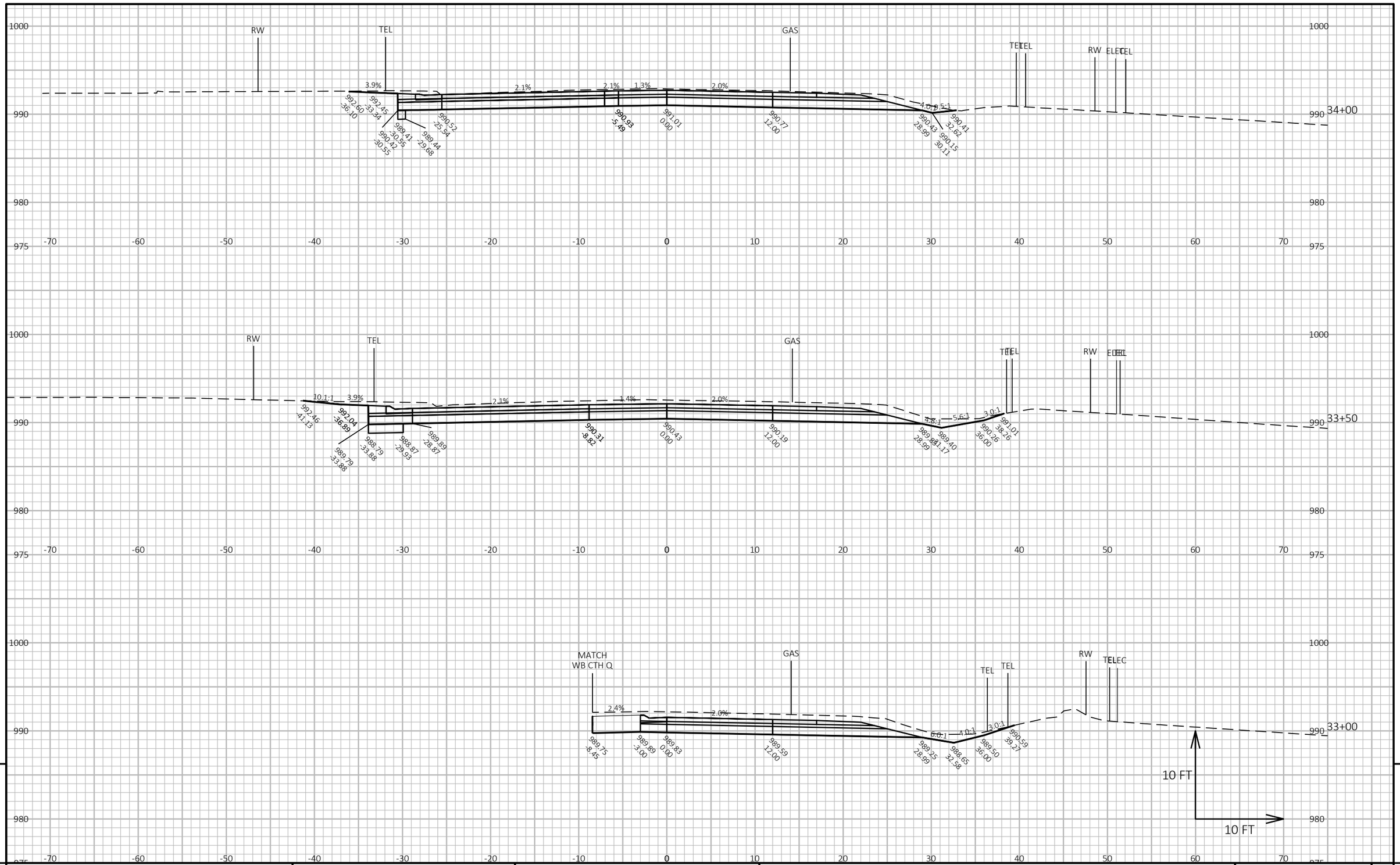



| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 185 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 06

PLOT DATE : 10/28/2022 3:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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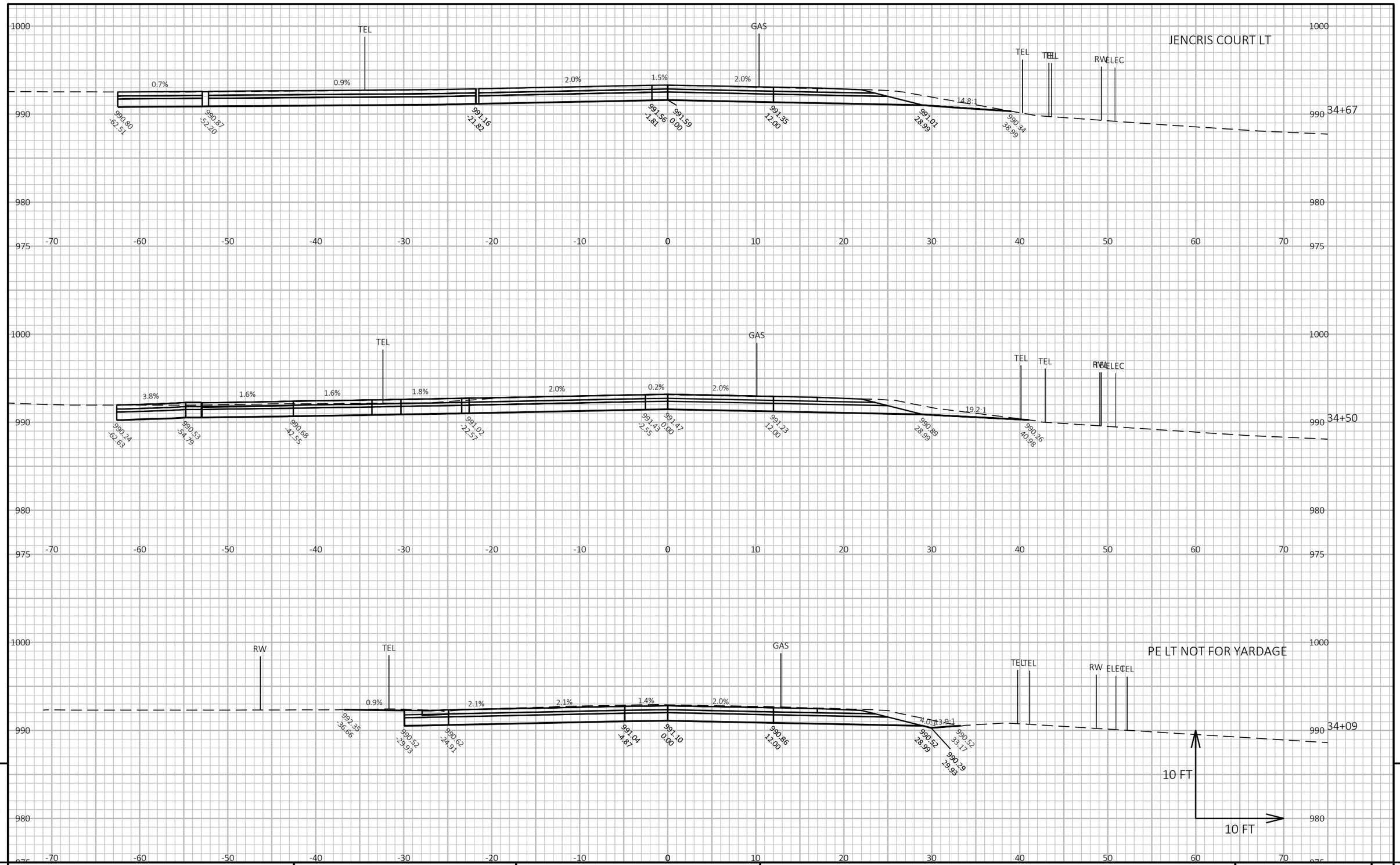
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 186 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 07

PLOT DATE : 10/28/2022 3:13 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 187 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 08

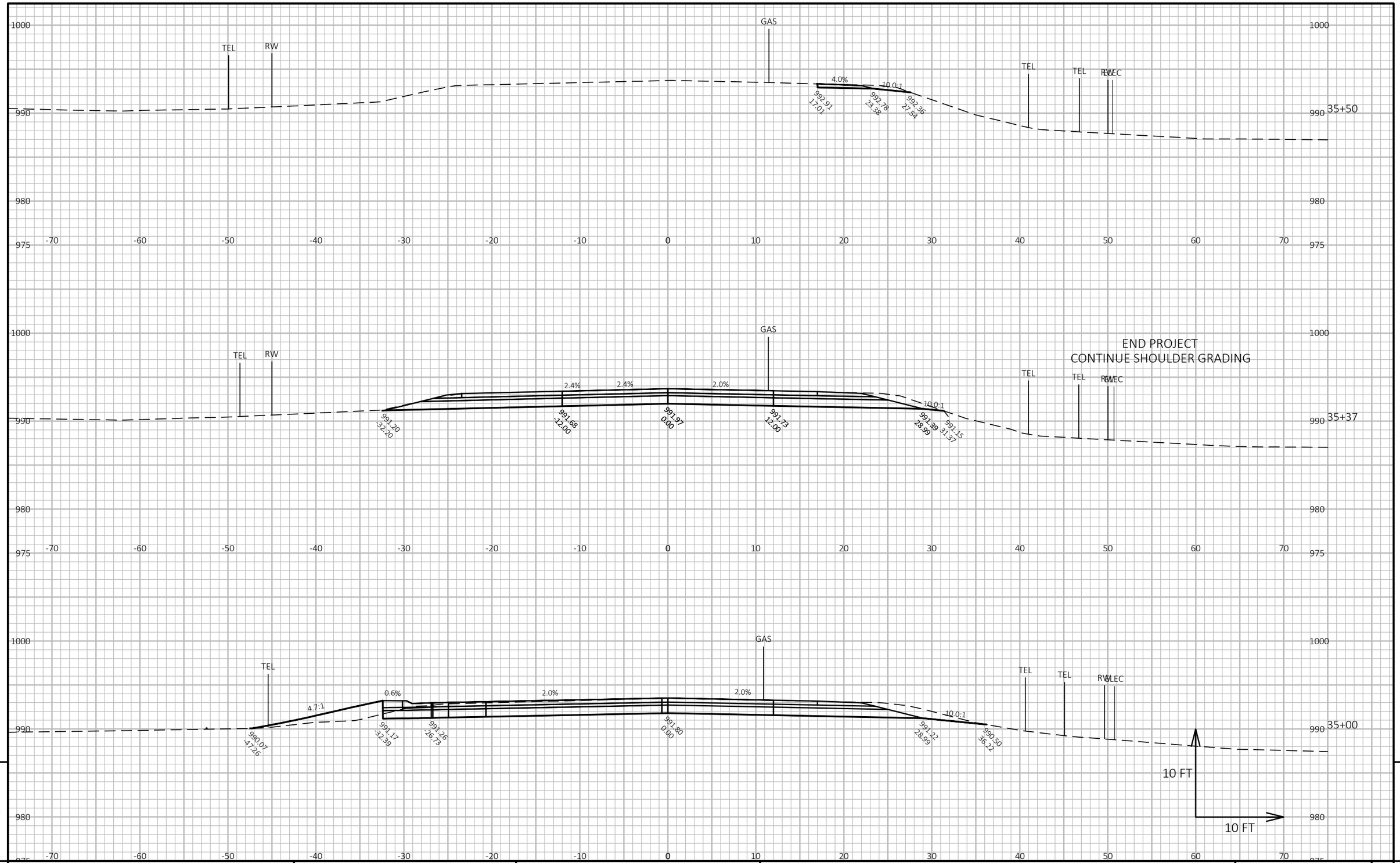
PLOT DATE : 10/28/2022 3:13 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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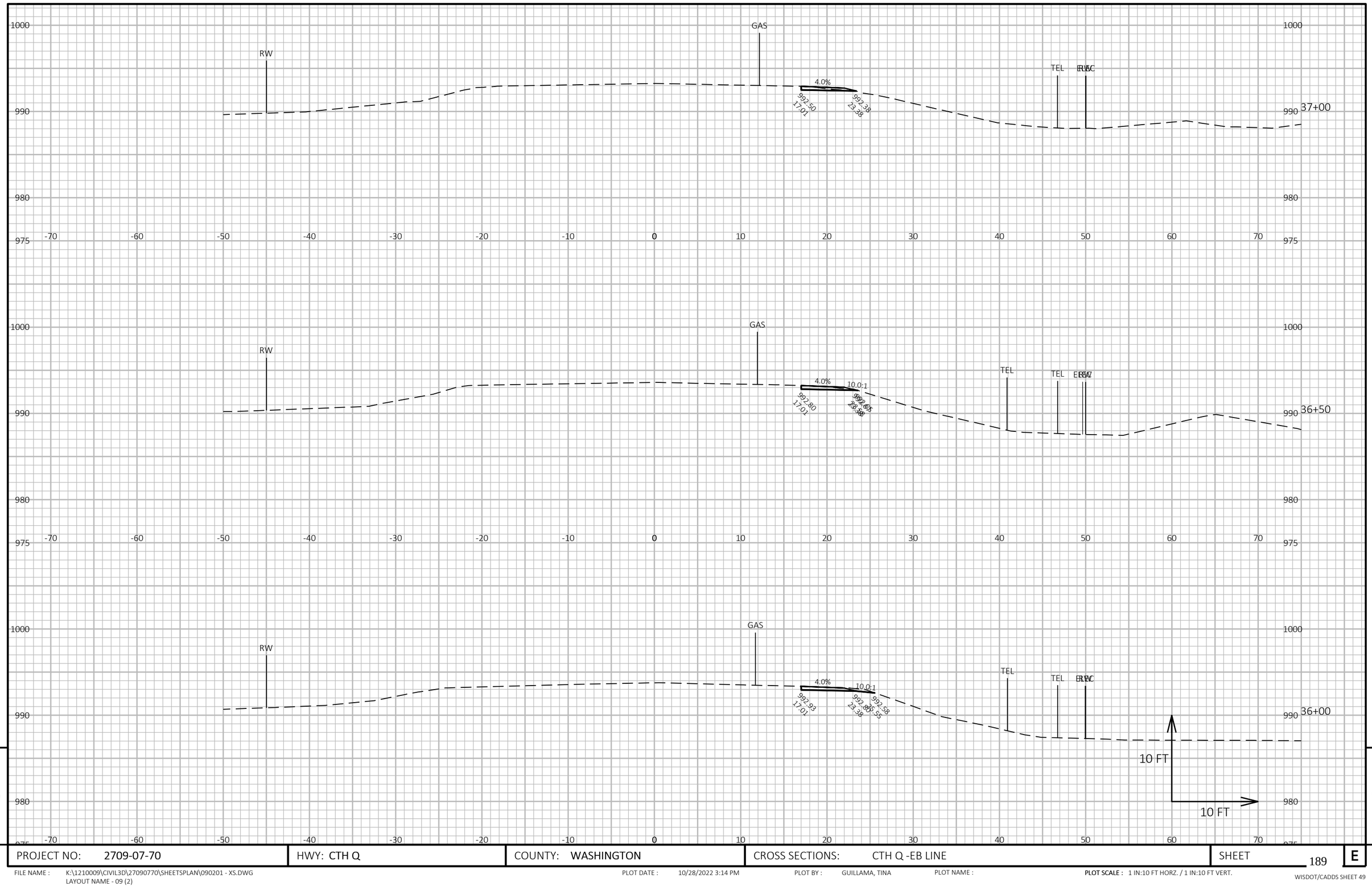
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 188 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 09

PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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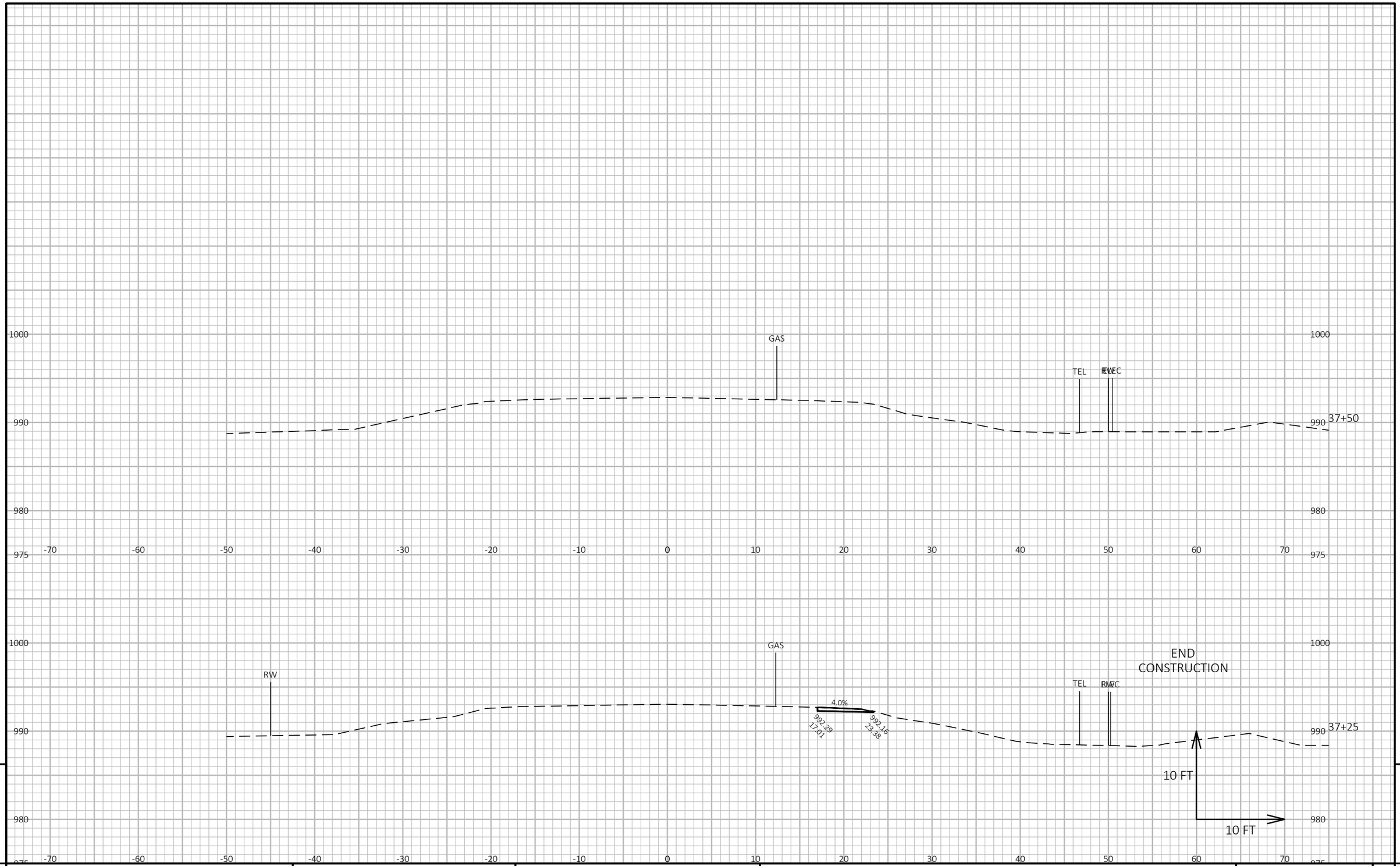
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 189 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 09 (2)

PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q -EB LINE | SHEET 190 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 09 (3)

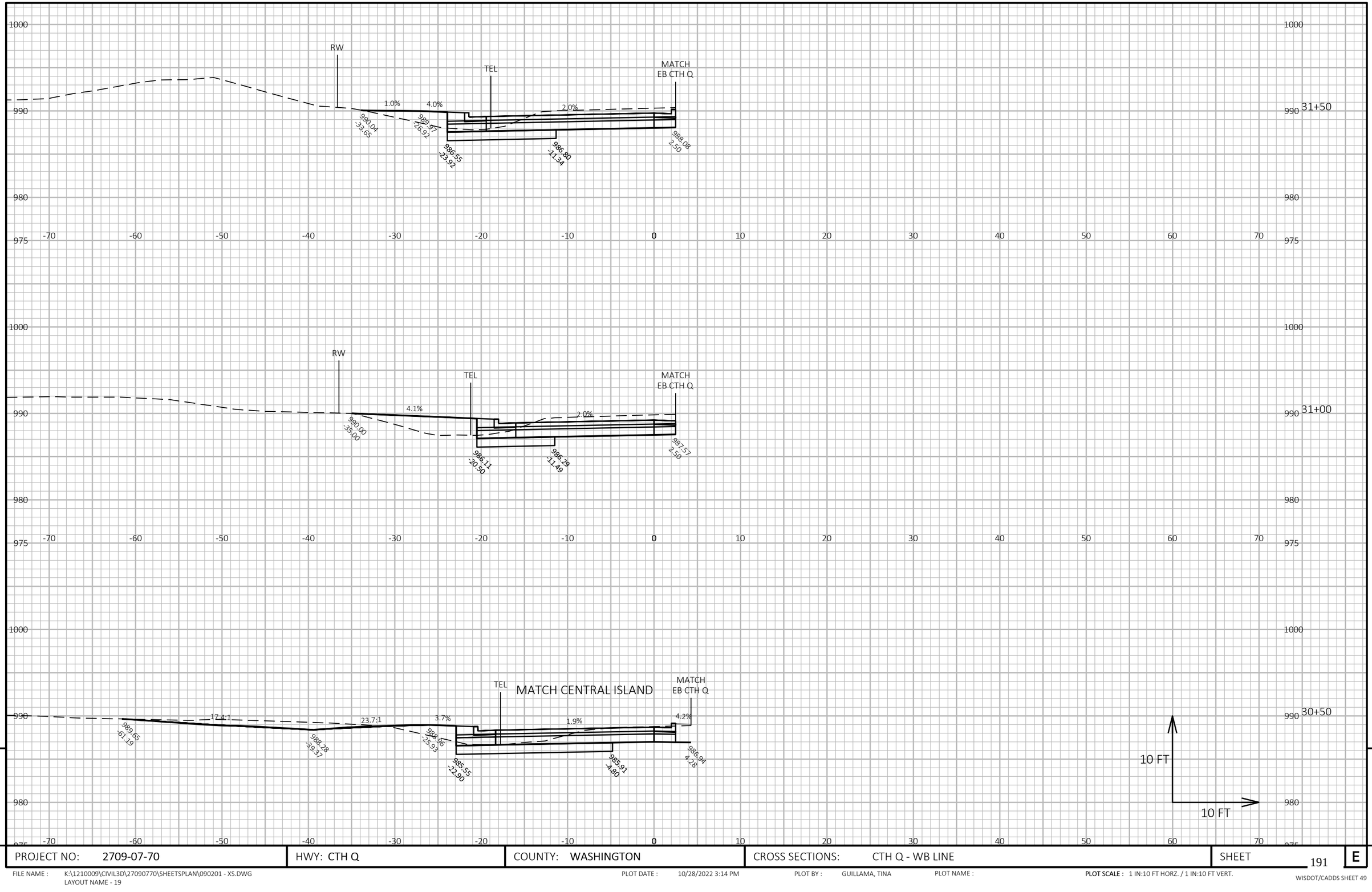
PLOT DATE : 10/28/2022 3:14 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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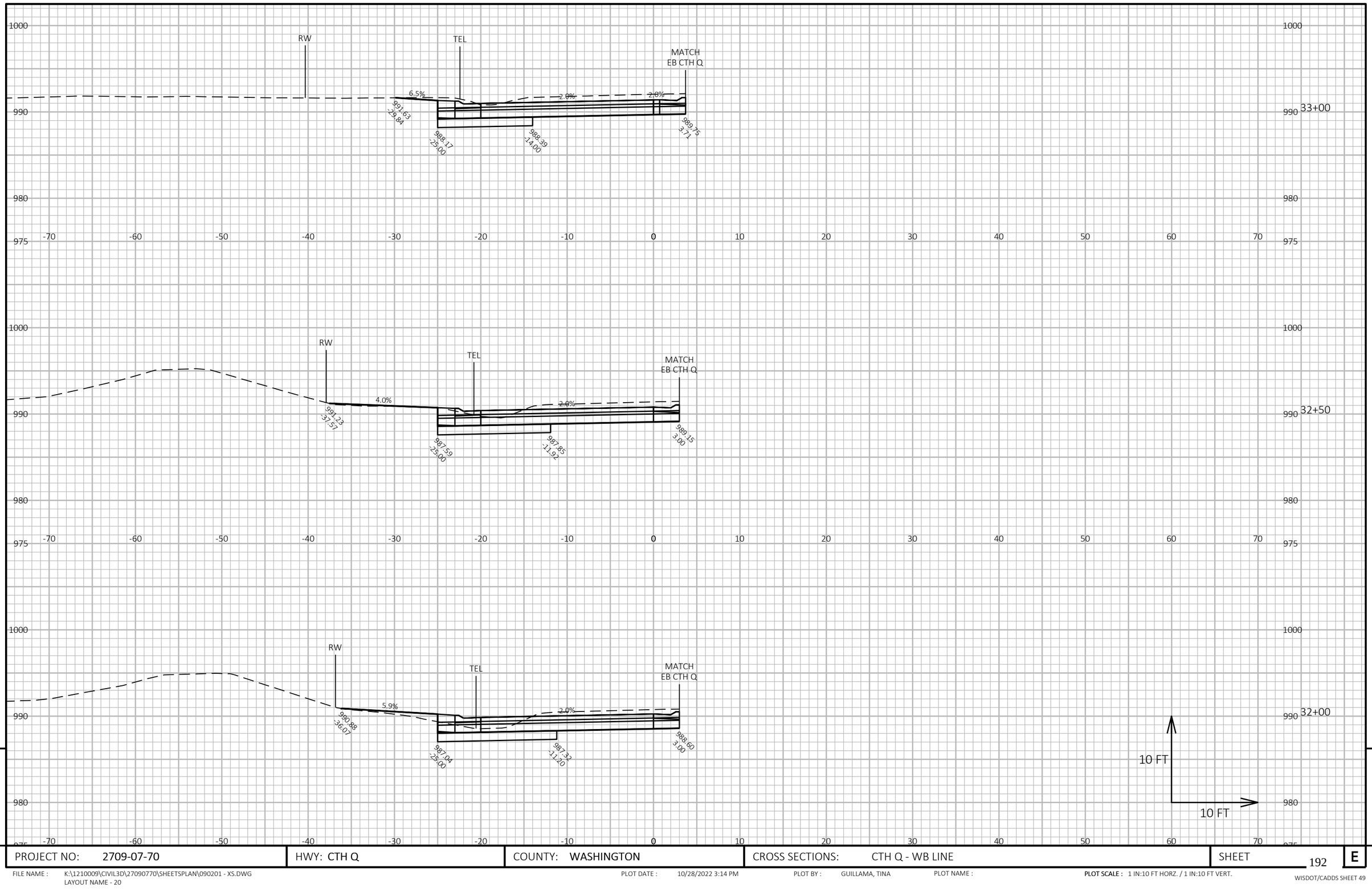
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - WB LINE | SHEET 191 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 19

PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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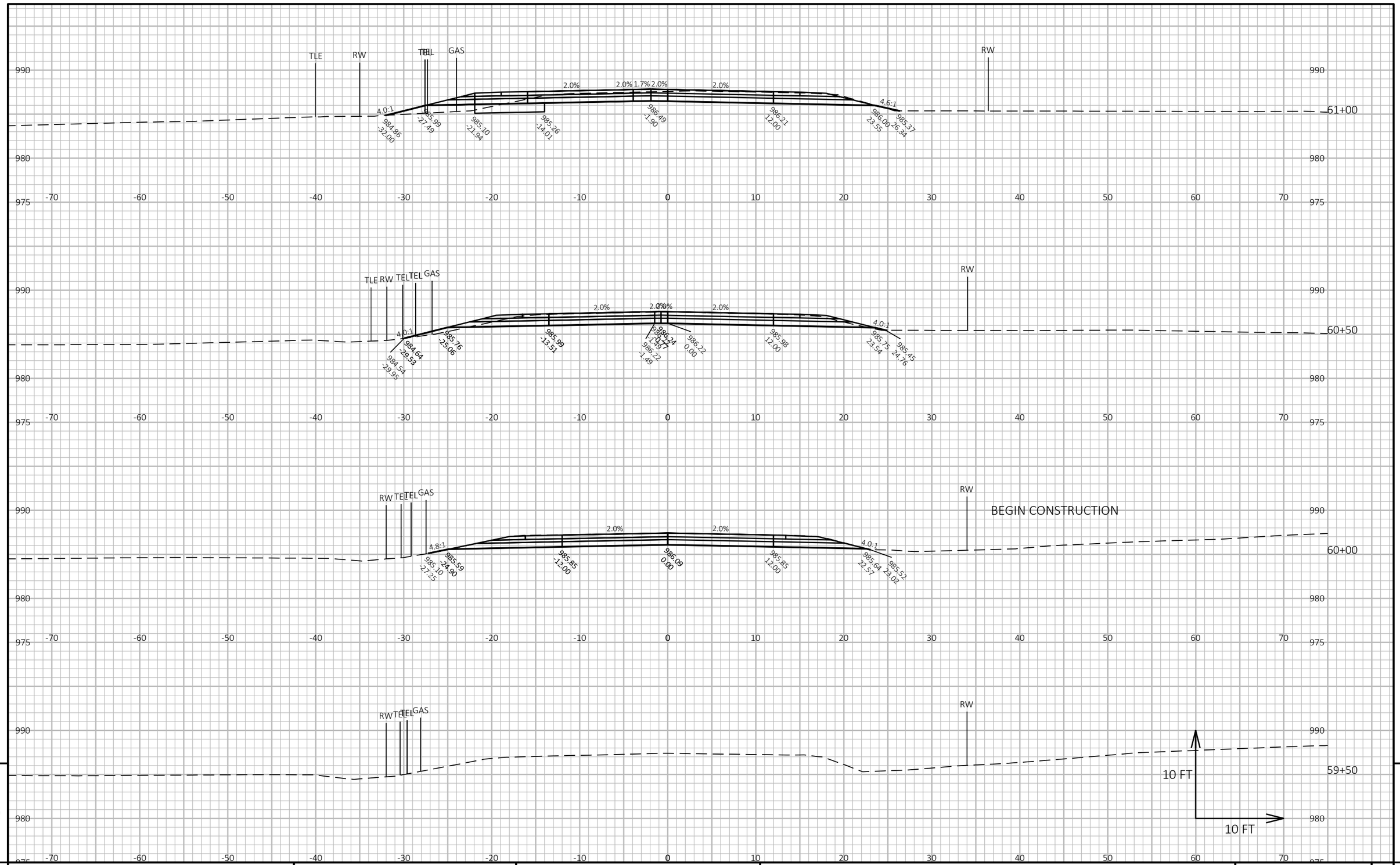
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CTH Q - WB LINE | SHEET 192 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 20

PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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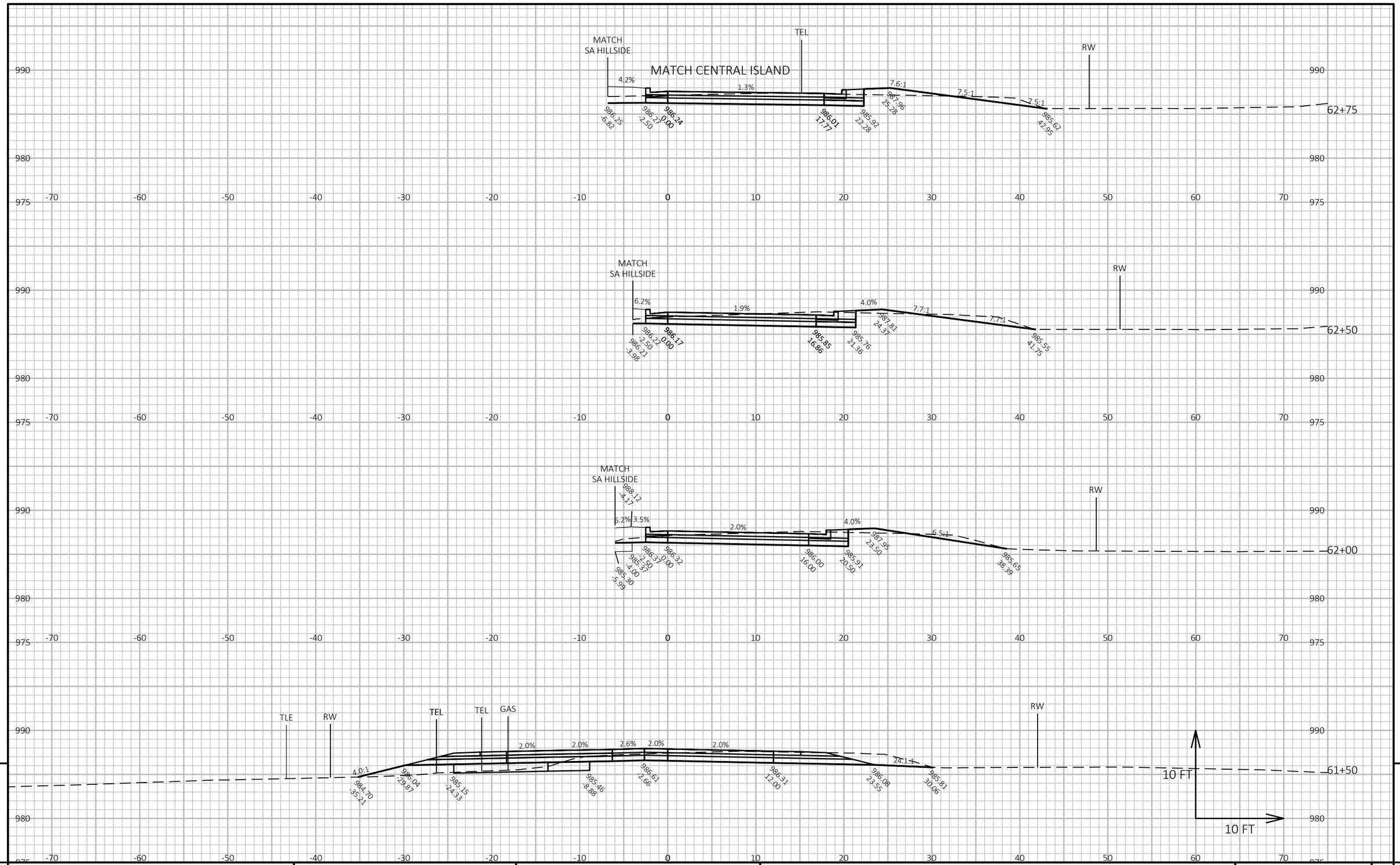
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NA LINE | SHEET 193 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 10

PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

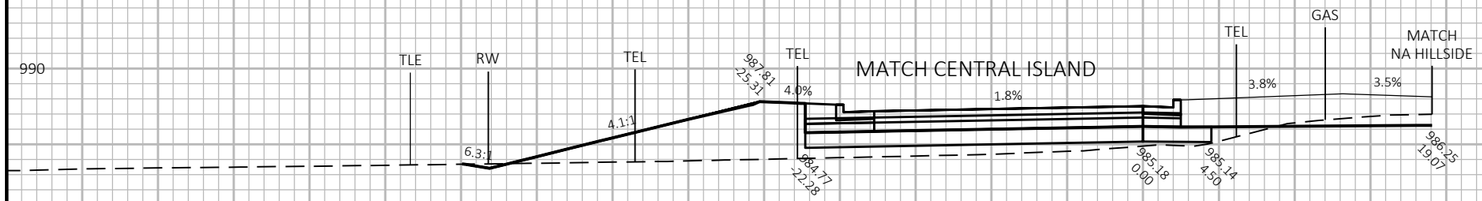


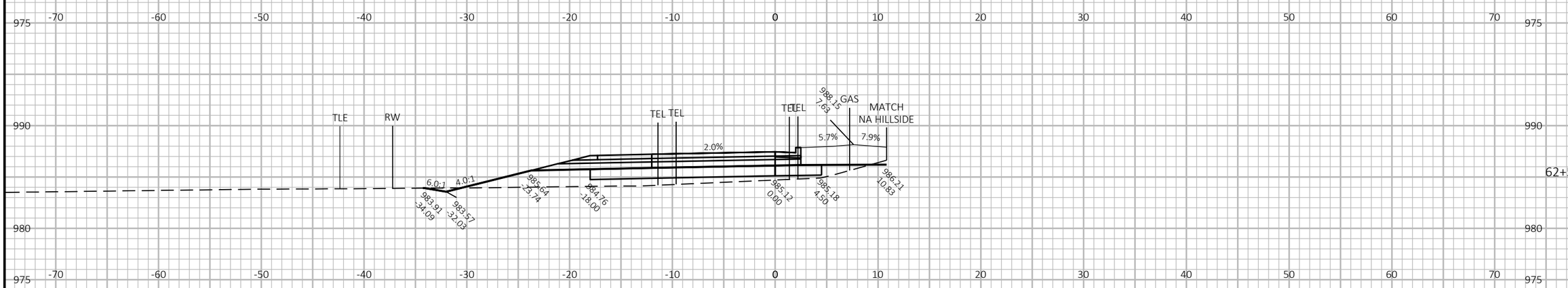

| | | | | | |
|---|---|---|---|---|---|
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NA LINE | SHEET 194 | E |

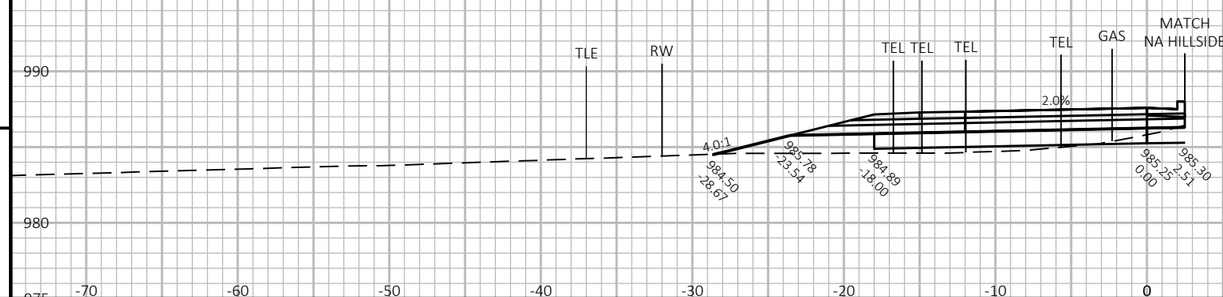
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 11

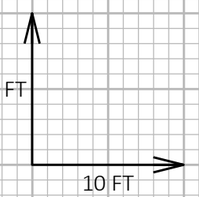
PLOT DATE : 10/28/2022 3:14 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - SA LINE | SHEET 195 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 24

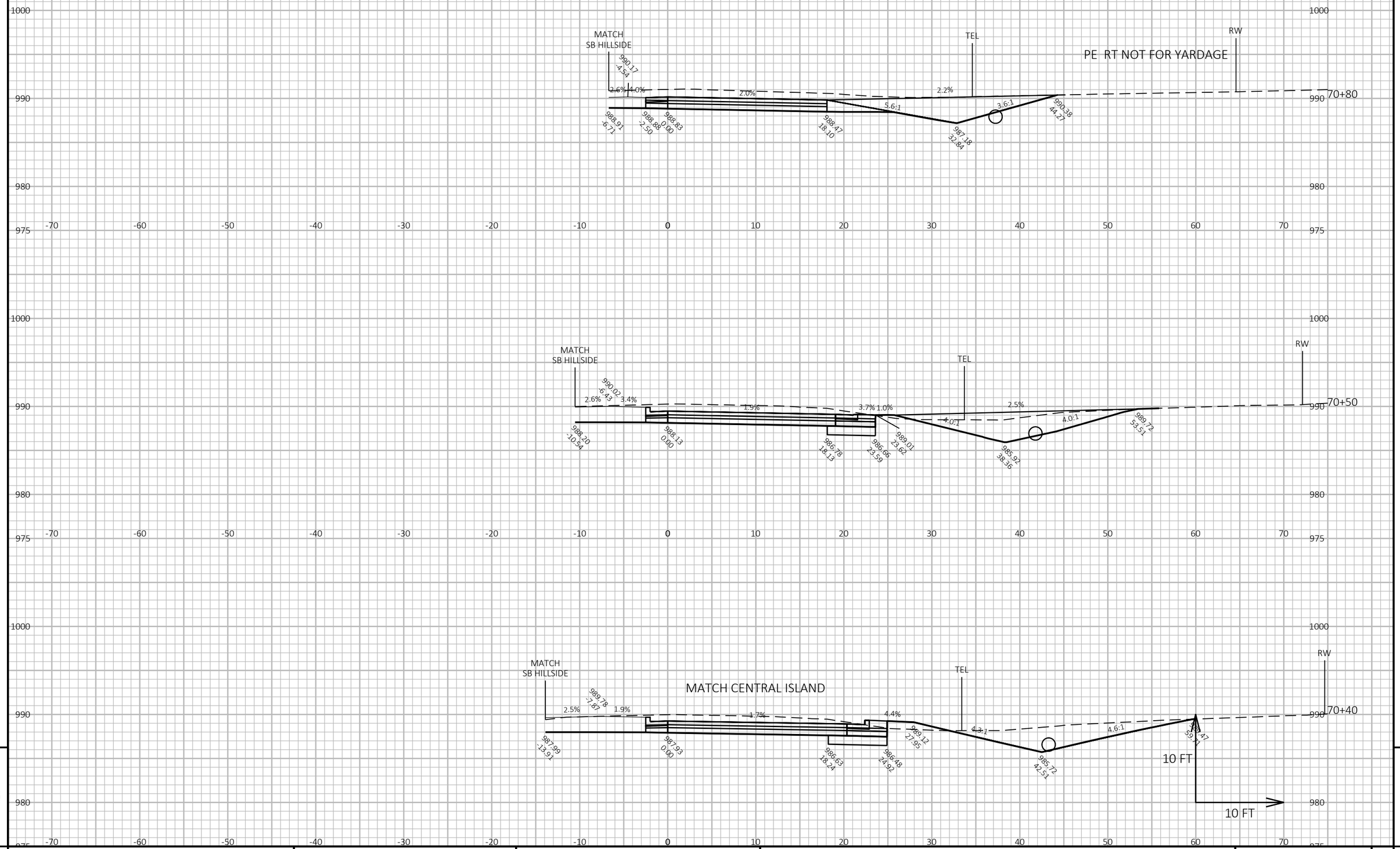
PLOT DATE : 10/31/2022 11:57 AM

PLOT BY : SIEBERT, LUKE

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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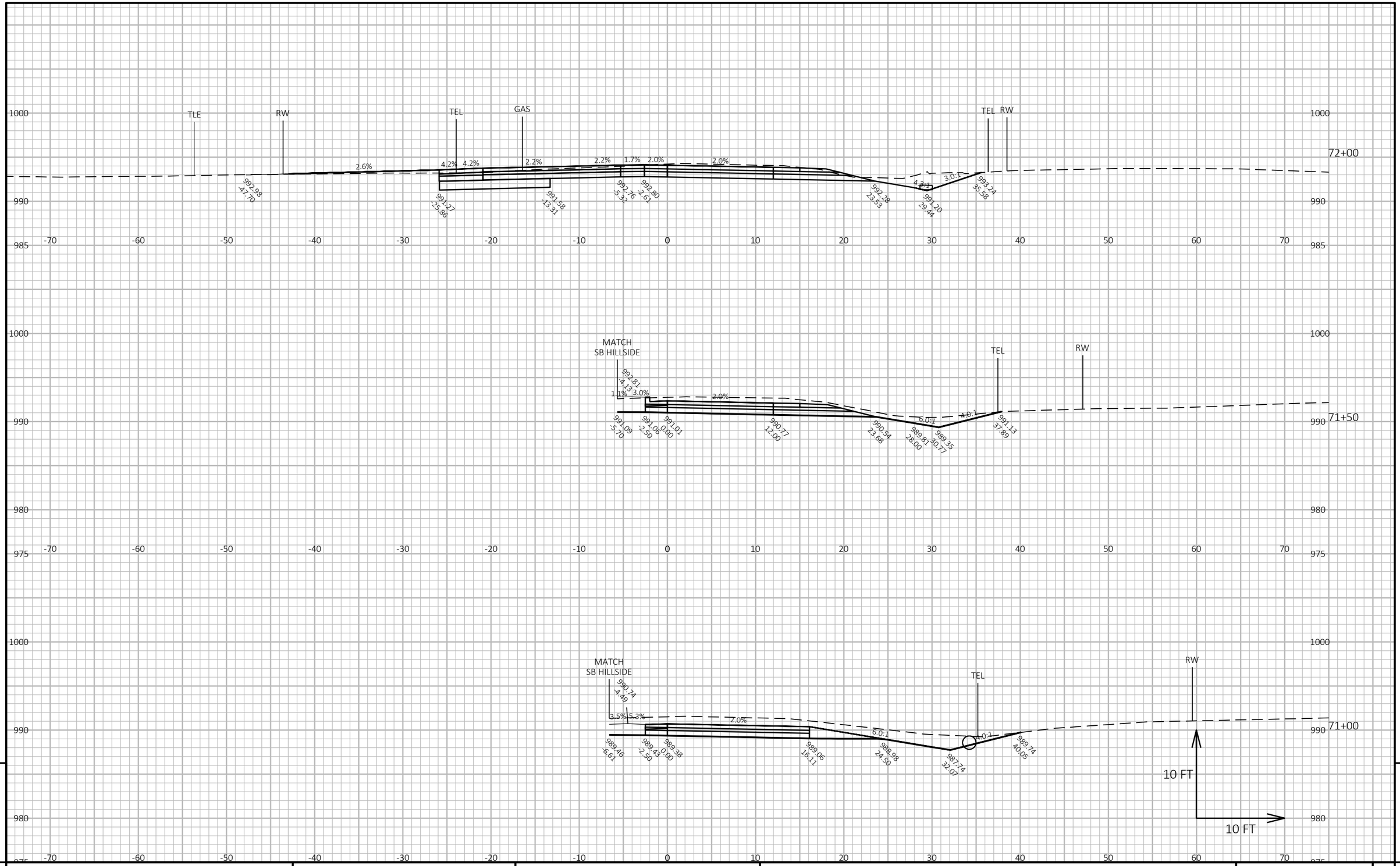
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NB LINE | SHEET 196 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 12

PLOT DATE : 10/31/2022 11:56 AM PLOT BY : SIEBERT, LUKE PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

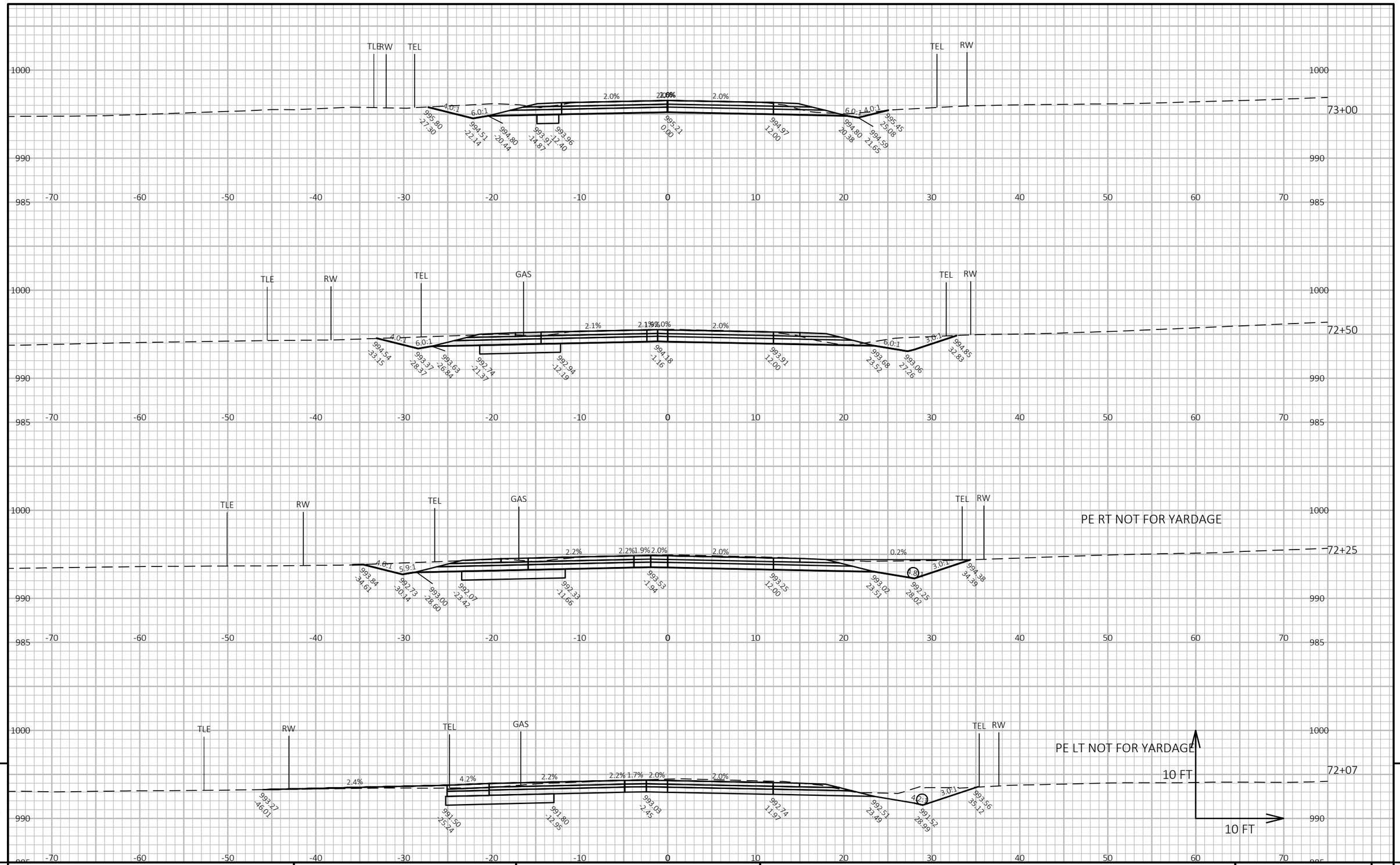



| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NB LINE | SHEET 197 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 13

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NB LINE | SHEET 198 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 14

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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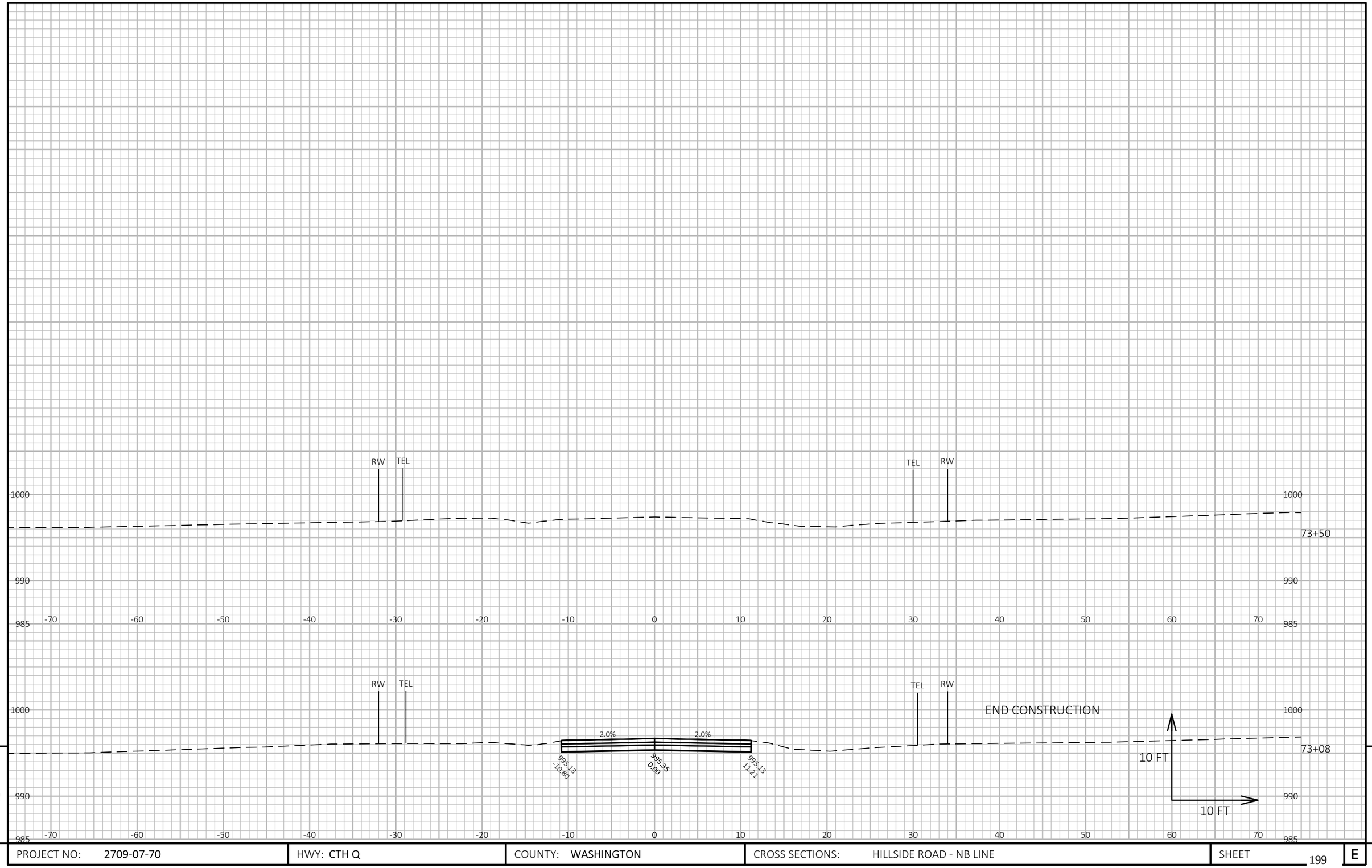


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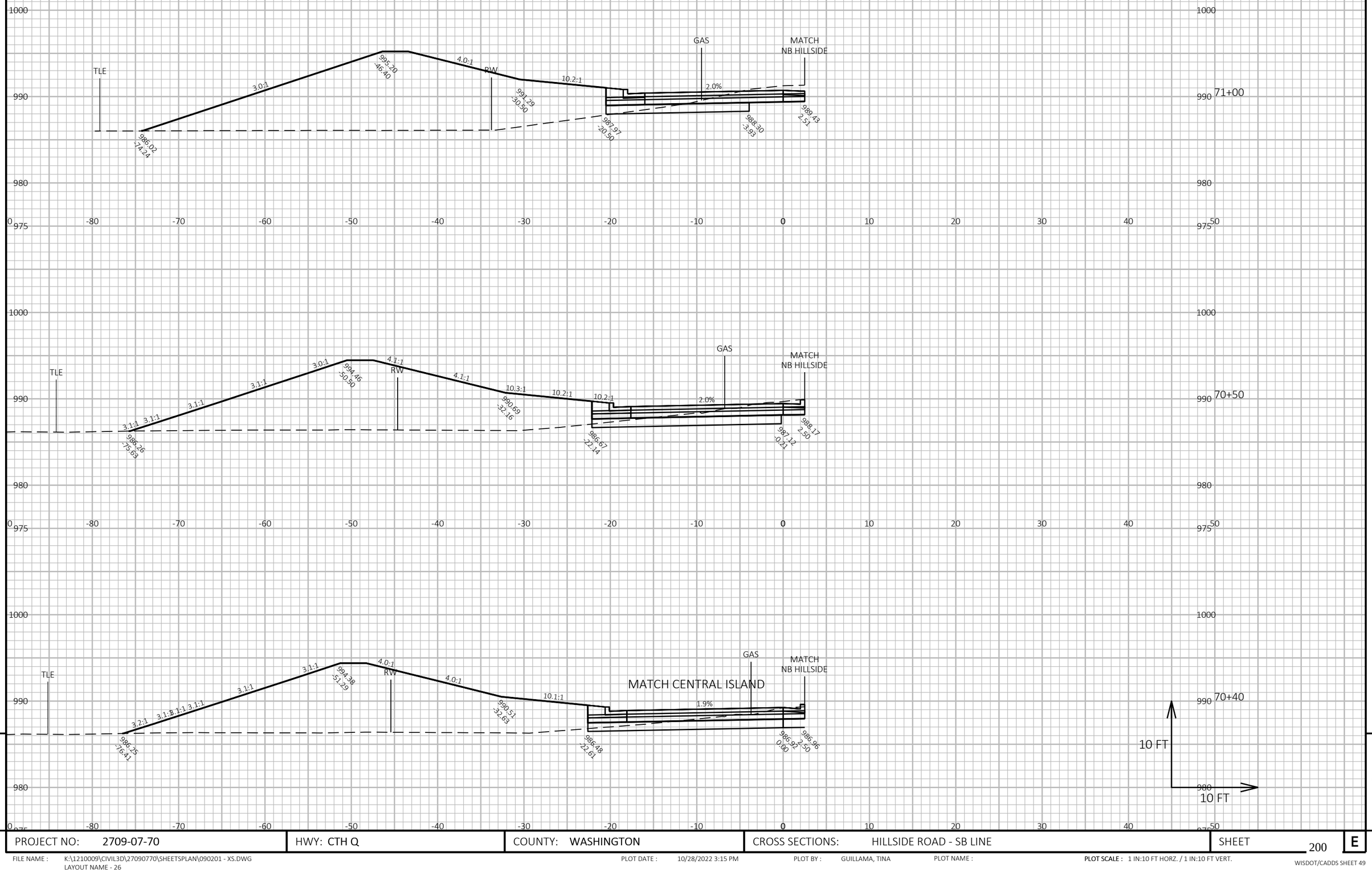
| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - NB LINE | SHEET 199 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 14 (2)

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

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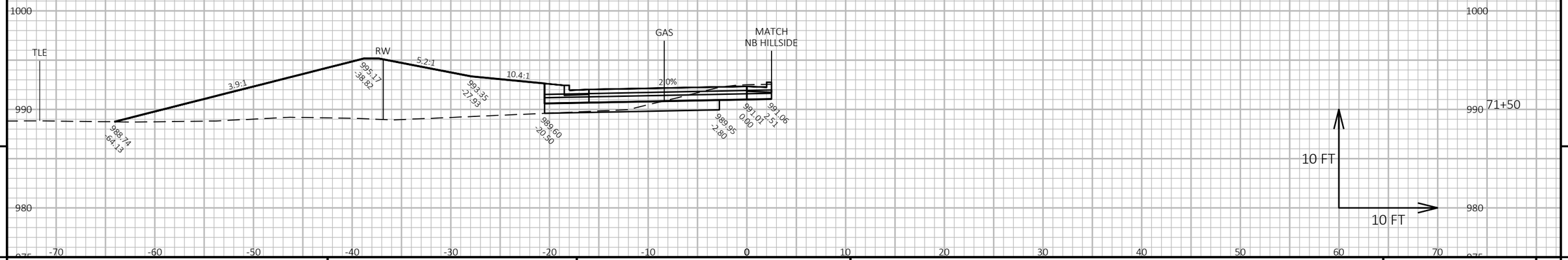
9

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - SB LINE | SHEET 200 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 26

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

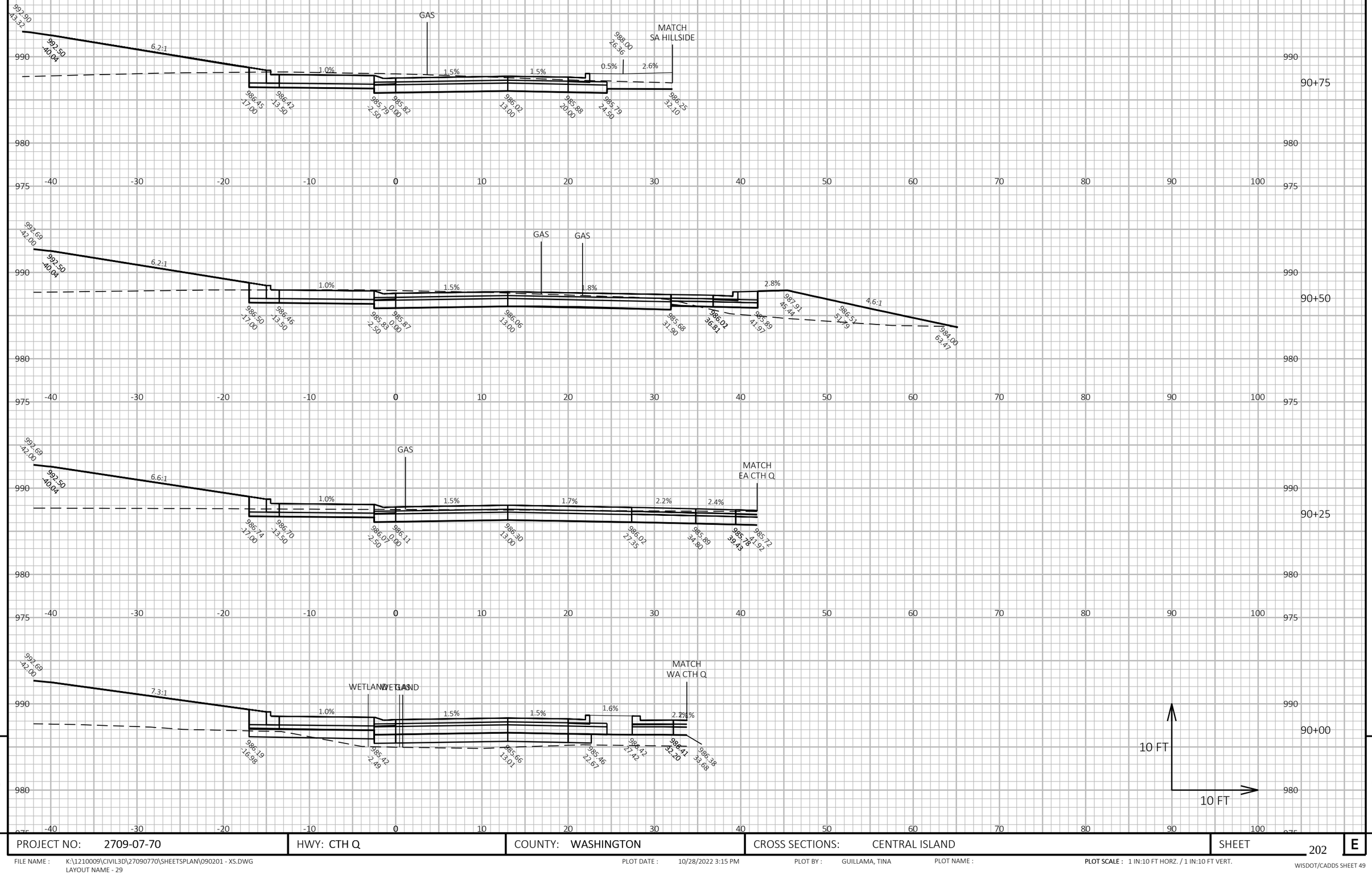


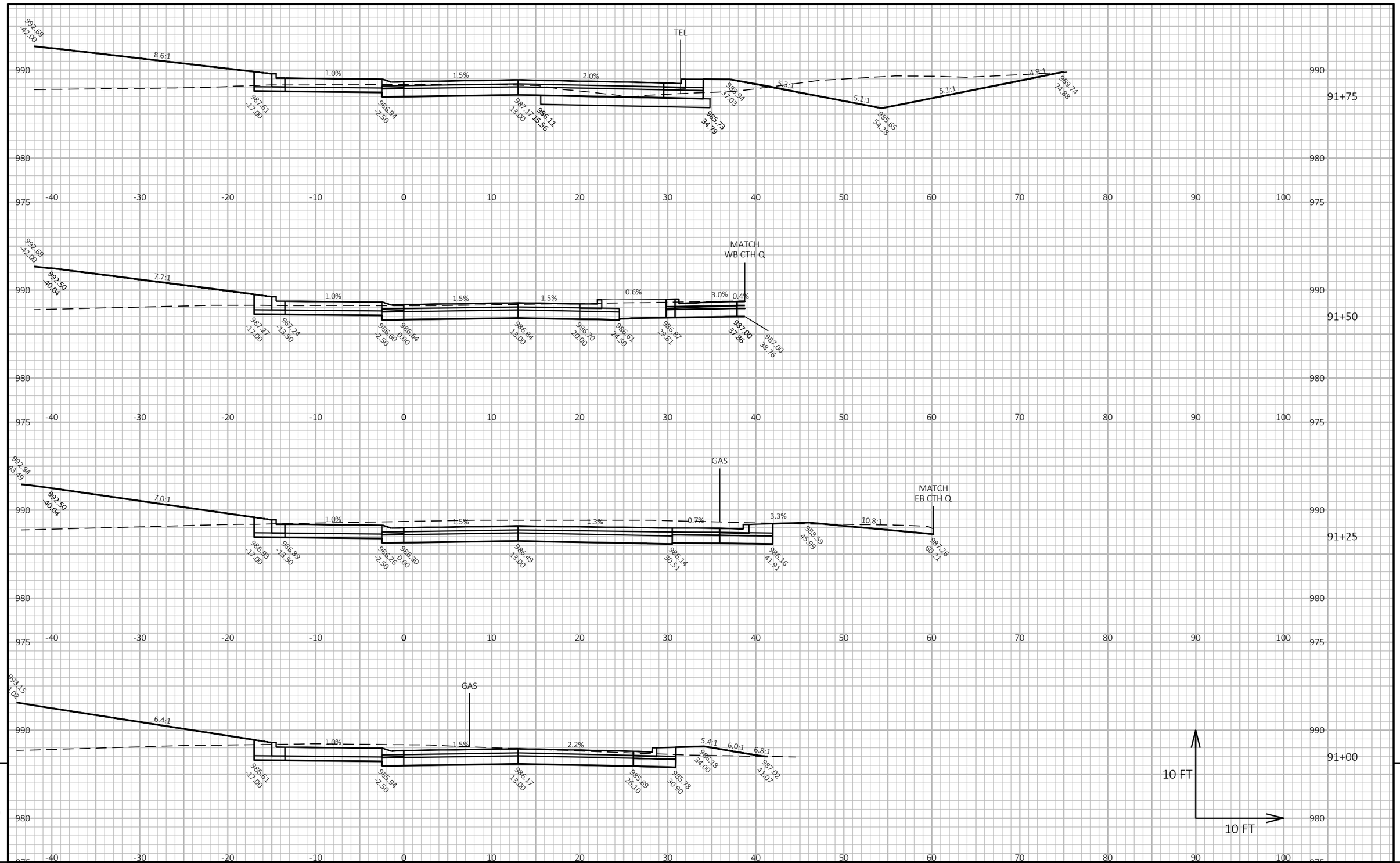

| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: HILLSIDE ROAD - SB LINE | SHEET 201 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 27

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49


992.90
43.32
992.50
40.04
6.2:1
1.0%
1.5%
GAS
1.5%
988.00
26.36
0.5%
2.6%
MATCH
SA HILLSIDE
986.45
17.00
986.42
13.50
985.79
2.50
985.82
9.00
986.02
13.00
985.88
20.00
985.79
24.50
986.25
32.10
990
980
975
-40
-30
-20
-10
0
10
20
30
40
50
60
70
80
90
100
90+75
992.69
42.00
992.50
40.04
6.2:1
1.0%
1.5%
GAS
GAS
1.8%
2.8%
4.6:1
986.50
17.00
986.46
13.50
985.83
2.50
985.87
9.00
986.06
13.00
985.68
31.90
986.03
36.81
985.89
41.97
987.91
45.44
986.51
51.79
984.00
63.47
90+50
992.69
42.00
6.6:1
992.50
40.04
1.0%
1.5%
GAS
1.7%
2.2%
2.4%
MATCH
EA CTH Q
986.74
17.00
986.70
13.50
986.07
2.50
986.11
9.00
986.30
13.00
986.02
27.35
985.89
34.80
985.78
39.43
985.72
41.92
90+25
992.69
42.00
7.3:1
WETLAND
WETLAND
1.0%
1.5%
1.5%
1.6%
2.2%
MATCH
WA CTH Q
986.19
16.98
985.42
2.49
985.66
13.01
985.46
22.67
986.42
27.42
986.41
32.20
986.38
33.68
90+00
10 FT
10 FT
9
9
PROJECT NO: 2709-07-70
HWY: CTH Q
COUNTY: WASHINGTON
CROSS SECTIONS: CENTRAL ISLAND
SHEET 202
E
FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 29
PLOT DATE : 10/28/2022 3:15 PM
PLOT BY : GUILLAMA, TINA
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CENTRAL ISLAND | SHEET 203 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 30

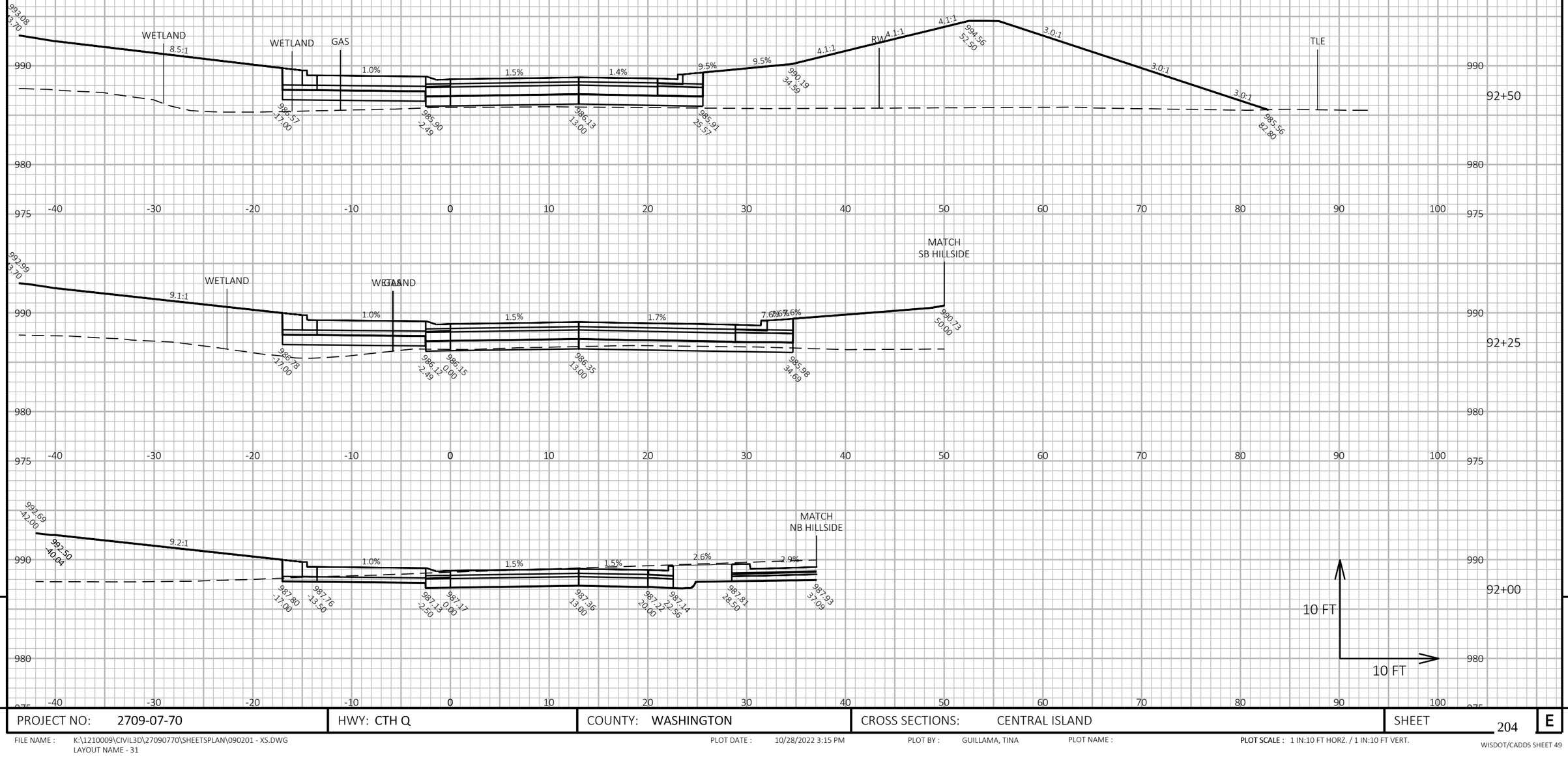
PLOT DATE : 10/28/2022 3:15 PM

PLOT BY : GUILLAMA, TINA

PLOT NAME :

**PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49




| PROJECT NO: 2709-07-70 | HWY: CTH Q | COUNTY: WASHINGTON | CROSS SECTIONS: CENTRAL ISLAND | SHEET 204 | E |
|---|---|---|---|---|---|

FILE NAME : K:\1210009\CIVIL3D\27090770\SHEETSPLAN\090201 - XS.DWG
LAYOUT NAME - 31

PLOT DATE : 10/28/2022 3:15 PM PLOT BY : GUILLAMA, TINA PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

**Wisconsin Department of Transportation**

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov