

PROJECT ID: HWY 24-01
WITH: N/A

COUNTY: WASHINGTON

WASHINGTON COUNTY HIGHWAY DEPARTMENT

PLAN OF PROPOSED IMPROVEMENT

POLK - JACKSON

SHERMAN ROAD TO STH 60

CTH P

WASHINGTON COUNTY

COUNTY PROJECT NUMBER

HWY 24-01

ORDER OF SHEETS

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

TOTAL SHEETS = 142

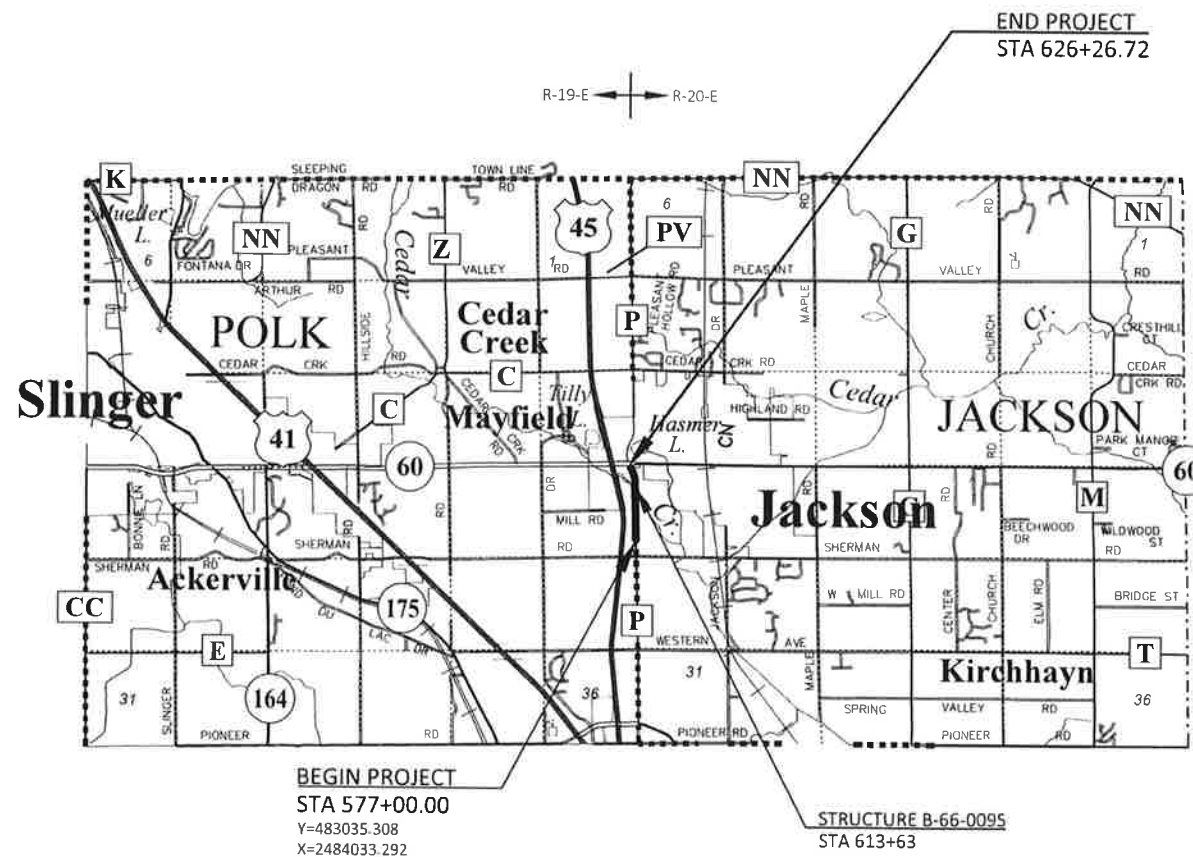


DESIGN DESIGNATION

A.A.D.T.	2024	=	4,500
A.A.D.T.	2044	=	7,400
D.H.V.		=	455
D.D.		=	50/50
T.		=	13.6%
DESIGN SPEED		=	50 MPH
ESALS		=	1,500,000 HMA

CONVENTIONAL SYMBOLS

PLAN	PROFILE
CORPORATE LIMITS	GRADE LINE
PROPERTY LINE	ORIGINAL GROUND
LOT LINE	MARSH OR ROCK PROFILE (To be noted as such)
LIMITED HIGHWAY EASEMENT	SPECIAL DITCH
EXISTING RIGHT OF WAY	GRADE ELEVATION
PROPOSED OR NEW R/W LINE	CULVERT (Profile View)
SLOPE INTERCEPT	UTILITIES
REFERENCE LINE	ELECTRIC
EXISTING CULVERT	FIBER OPTIC
PROPOSED CULVERT (Box or Pipe)	GAS
COMBUSTIBLE FLUIDS	SANITARY SEWER
MARSH AREA	STORM SEWER
WOODED OR SHRUB AREA	TELEPHONE
	WATER
	UTILITY PEDESTAL
	POWER POLE
	TELEPHONE POLE



BEGIN PROJECT
STA 577+00.00
Y=483035.308
X=2484033.292

STRUCTURE B-66-0095
STA 613+63

END PROJECT
STA 626+26.72



TOTAL NET LENGTH OF CENTERLINE = 0.933 MI

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

ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NAVD88 (2012).

ACCEPTED FOR
WASHINGTON COUNTY
Date: 1/30/24
SCOTT SCHMIDT
CHIEF PUBLIC WORKS OFFICER

ORIGINAL PLANS PREPARED BY
GREMME
& ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
83 South Pioneer Road, Suite 300
Fond du Lac, WI 54935
(920) 924-5720



DATE: _____
JEFFREY A. CHVOSTA, PE

GENERAL NOTES

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

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

A VERTICAL SAW CUT SHALL BE MADE THROUGH EXISTING DRIVEWAYS, SIDEWALKS AND PAVEMENTS AT THE REMOVAL LIMITS.

SAWCUT LOCATIONS SHOWN ON THE PLANS ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD.

WHEN THE QUANTITY OF THE ITEMS OF BASE AGGREGATE DENSE, HMA PAVEMENT OR ASPHALTIC SURFACE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE MATERIAL SHOWN ON THE PLAN IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE EXACT LOCATION AND LAYOUT OF PRIVATE ENTRANCES IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

SALVAGED TOPSOIL, FERTILIZER, SEED AND MULCH OR EROSION MAT AS SHOWN IN PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE PLACED ON ALL DISTURBED AREAS, EXCLUSIVE OF THE AREA OCCUPIED BY THE NEW PAVEMENTS, SIDEWALKS, ENTRANCES, AND RELATED STRUCTURES.

SECTIONS AS SHOWN ON THE CROSS-SECTIONS INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

CURB AND GUTTER RADII ARE SHOWN TO THE FLANGE OF CURB.

ROTATE MANHOLE COVERS TO MATCH LANE LINES OR CENTER OF LANE AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC PAVEMENT SHALL BE MEASURED AND PAID FOR AS EXCAVATION COMMON.

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, PASSING, OR PARKING LANE.

THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND SCOTT SCHMIDT, WASHINGTON COUNTY CHIEF PUBLIC WORKS OFFICER, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

ORDER OF SECTION 2 SHEETS

- GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL PLAN
STORM SEWER LAYOUT
SIGNING & PAVEMENT MARKING PLAN
ALIGNMENT DIAGRAM

ABBREVIATIONS

Table with 2 columns: Abbreviation and Full Name. Includes entries like AEW (APRON ENDWALL), AGG (AGGREGATE), AH (AHEAD), ASP (ASPHALT), BK (BACK), BAD (BASE AGGREGATE DENSE), BM (BENCH MARK), CC (CENTER OF CURVATURE), CE (COMMERCIAL ENTRANCE), C&G (CURB AND GUTTER), C/L (CENTER OR CONSTRUCTION LINE), CONC (CONCRETE), CPCM (CULVERT PIPE CORRUGATED METAL), CPCS (CULVERT PIPE CORRUGATED STEEL), CPCR (CULVERT PIPE REINFORCED CONCRETE), CSD (CONCRETE SURFACE DRAIN), CY (CUBIC YARD), D (DEGREE OF CURVE), Δ (DELTA), DISCH (DISCHARGE), E (EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE INTERSECTION), ELEV (ELEVATION), FE (FIELD ENTRANCE), HMA (HOT MIX ASPHALT), HP (HIGH POINT), HT (HEIGHT), INV (INVERT), L (LENGTH OF CURVE), LHF (LEFT HAND FORWARD), LP (LOW POINT), LT (LEFT), MAX (MAXIMUM), MIN (MINIMUM), M/L (MATCHLINE), NC (NORMAL CROWN), NOM (NOMINAL), NORM (NORMAL), PAVT (PAVEMENT), PC (POINT OF CURVE), PCC (POINT OF COMPOUND CURVE), PE (PRIVATE ENTRANCE), PI (POINT OF INTERSECTION), PLE (PERMANENT LIMITED EASEMENT), PT (POINT OF TANGENT), R (RADIUS OF CURVE), R/L (REFERENCE LINE), R/W (RIGHT OF WAY), RC (REVERSE CROWN), RCAEW (APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE), RCP (REINFORCED CONCRETE PIPE), REQ'D (REQUIRED), RHF (RIGHT HAND FORWARD), RO (RUN OFF LENGTH), RT (RIGHT), SALV (SALVAGED), SDD (STANDARD DETAIL DRAWING), SE (SUPER ELEVATION), SEG (SEGMENT), SF (SQUARE FOOT), SS (STORM SEWER), STA (STATION), SY (SQUARE YARD), T (TANGENT LENGTH), TLE (TEMPORARY LIMITED EASEMENT), TYP (TYPICAL), V (VELOCITY OR DESIGN SPEED), VC (VERTICAL CURVE), VCL (VERTICAL CURVE LENGTH), VPC (POINT OF VERTICAL CURVE), VPI (POINT OF VERTICAL INTERSECTION), VPRC (POINT OF VERTICAL REVERSE CURVE), VPT (POINT OF VERTICAL TANGENT).

UTILITIES

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EROSION CONTROL NOTES

EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH LOCAL ORDINANCES AND THE WDNR CONSERVATION PRACTICE TECHNICAL STANDARDS.

EROSION CONTROL ITEMS SHOWN ARE APPROXIMATE, THE EXACT LOCATION SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THAT THE MEASURE IS NO LONGER NECESSARY. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING EROSION CONTROL MEASURE AS DIRECTED BY THE ENGINEER.

ALL EXISTING AND PROPOSED INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION TYPE C. THE FIRST SET OF EXISTING INLETS OUTSIDE OF THE PROJECT LIMITS SHALL ALSO RECEIVE INLET PROTECTION.

SILT FENCE SHALL BE INSTALLED IN AREAS WHERE ON-SITE SOILS AND STORMWATER MAY EXIT THE CONSTRUCTION SITE.

TRACKING PAD(S) SHALL BE MAINTAINED AND ALL ACCESS TO AND FROM RECONSTRUCT AREAS SHALL BE VIA TRACKING PAD(S) ONLY.

GEOTEXTILE FABRIC SHALL BE PLACED UNDER AREAS REQUIRING RIPRAP.

INSTALL CULVERT PIPE DITCH CHECKS IN ALL UPSTREAM ENDS OF CULVERTS WITH APRON ENDWALLS.

ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH DAY. FLUSHING SHALL NOT BE ALLOWED.

FOR ANY DISTURBED AREA THAT REMAINS INACTIVE FOR MORE THAN 7 WORKING DAYS, OR WHERE GRADING EXTENDS BEYOND THE PERMANENT SEEDING DEADLINES, THE SITE MUST BE TREATED WITH TEMPORARY STABILIZATION MEASURES SUCH AS SOIL TREATMENT, TEMPORARY SEEDING, AND/OR MULCHING.

ALL DISTURBED AREAS SHALL BE TREATED WITH STABILIZATION MEASURES AS SPECIFIED WITHIN 3 WORKING DAYS OF FINAL GRADING.

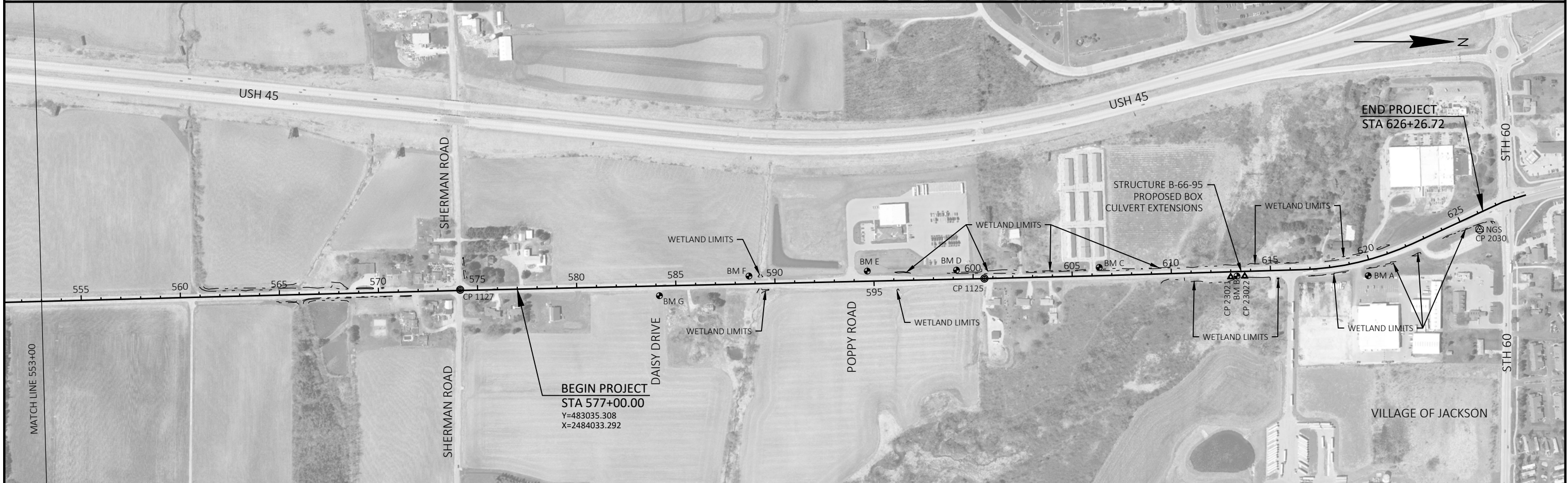
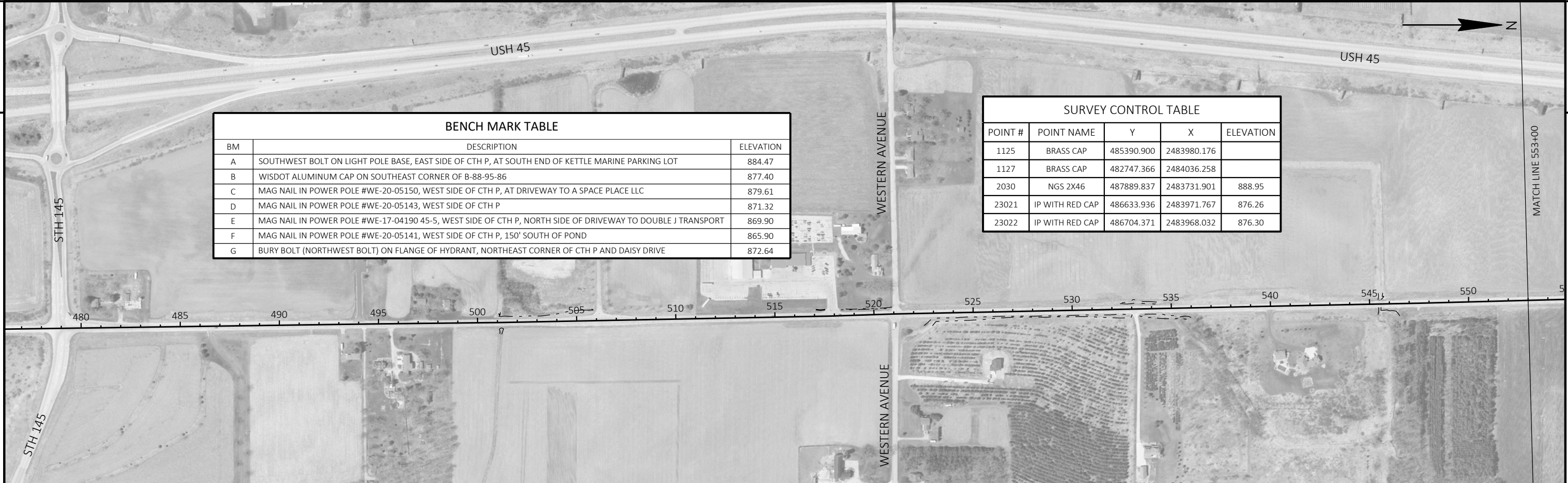
ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR THE APPLICATION OF STABILIZATION MEASURES MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.

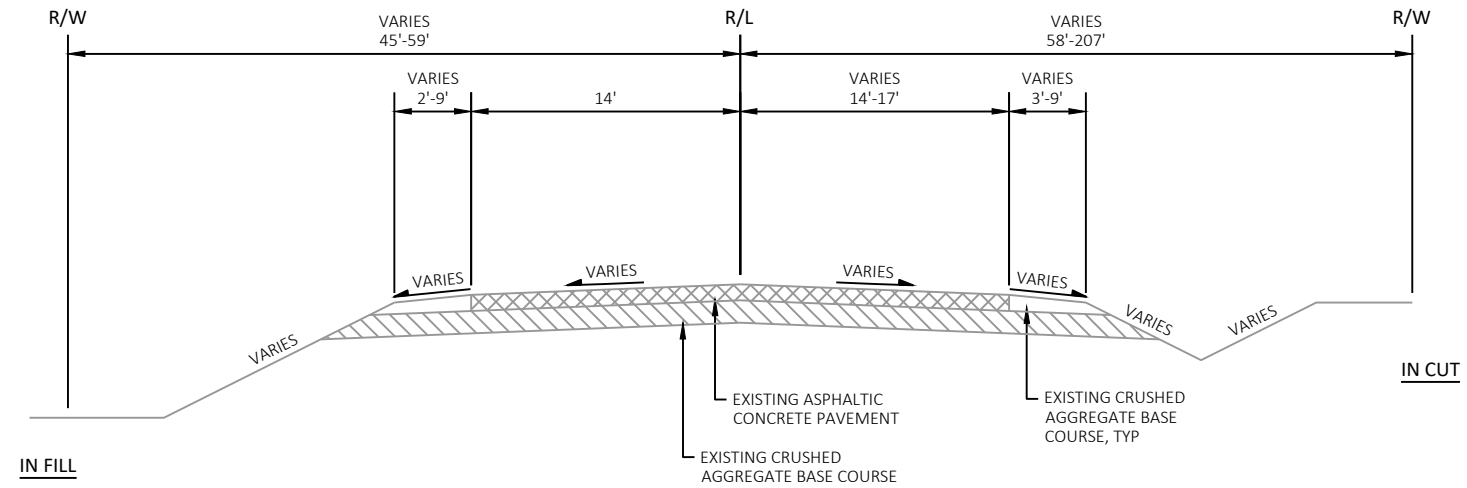
CONSTRUCTION SEQUENCE

- 1. COMPLETE SLOPE STAKING TO AVOID EXCESSIVE CONSTRUCTION DISTURBANCE
2. INSTALL TEMPORARY EROSION CONTROL MEASURES (SILT FENCE, PIPE CHECKS, AND TRACKING PAD(S)). ADD TEMPORARY EROSION CONTROL MEASURES AS GRADING WORK PROGRESSES. TOPSOIL STRIPPING SHALL NOT BEGIN UNTIL EROSION CONTROL MEASURES ARE IN PLACE.
3. STRIP TOPSOIL AND CLEAR & GRUB IN A PROGRESSIVE MANNER THROUGHOUT THE PROJECT, AS NEEDED FOR GRADING WORK. CONSTRUCT PERIMETER CONTROL AROUND ANY STOCKPILES AND PLACE TEMPORARY SEEDING AS REQUIRED. LIMIT THE SIZE OF DISTURBED AREAS TO THAT WHICH CAN BE READILY STABILIZED.
4. COMPLETE GRADING WORK, PLACING PERMANENT EROSION CONTROL MEASURES AS PRACTICAL.
5. CONSTRUCT ROADWAY AND ADJUST INLET PROTECTION AS NECESSARY.
6. COMPLETE REMAINING TOPSOIL, LANDSCAPING, AND PERMANENT EROSION CONTROL MEASURES THROUGHOUT THE PROJECT. REMOVE ACCUMULATED SEDIMENT FROM TEMPORARY EROSION CONTROL MEASURES AND REMOVE AND DISPOSE OF USED EROSION CONTROL DEVICES AFTER 70% VEGETATIVE STABILIZATION HAS OCCURRED.

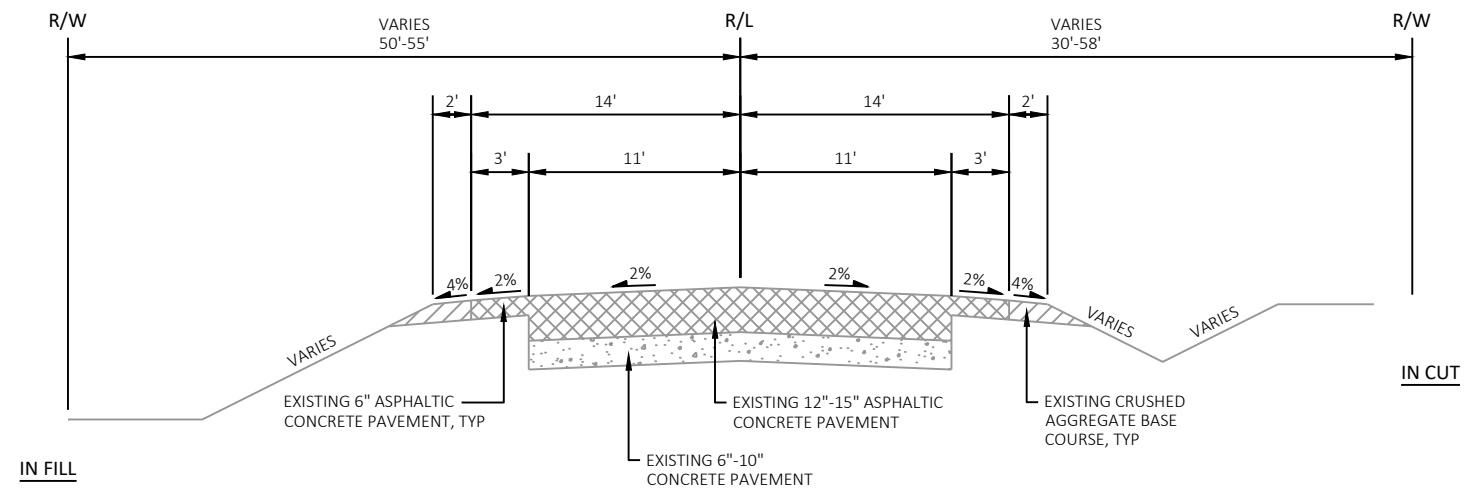
BENCH MARK TABLE		
BM	DESCRIPTION	ELEVATION
A	SOUTHWEST BOLT ON LIGHT POLE BASE, EAST SIDE OF CTH P, AT SOUTH END OF KETTLE MARINE PARKING LOT	884.47
B	WISDOT ALUMINUM CAP ON SOUTHEAST CORNER OF B-88-95-86	877.40
C	MAG NAIL IN POWER POLE #WE-20-05150, WEST SIDE OF CTH P, AT DRIVEWAY TO A SPACE PLACE LLC	879.61
D	MAG NAIL IN POWER POLE #WE-20-05143, WEST SIDE OF CTH P	871.32
E	MAG NAIL IN POWER POLE #WE-17-04190 45-5, WEST SIDE OF CTH P, NORTH SIDE OF DRIVEWAY TO DOUBLE J TRANSPORT	869.90
F	MAG NAIL IN POWER POLE #WE-20-05141, WEST SIDE OF CTH P, 150' SOUTH OF POND	865.90
G	BURY BOLT (NORTHWEST BOLT) ON FLANGE OF HYDRANT, NORTHEAST CORNER OF CTH P AND DAISY DRIVE	872.64

SURVEY CONTROL TABLE				
POINT #	POINT NAME	Y	X	ELEVATION
1125	BRASS CAP	485390.900	2483980.176	
1127	BRASS CAP	482747.366	2484036.258	
2030	NGS 2X46	487889.837	2483731.901	888.95
23021	IP WITH RED CAP	486633.936	2483971.767	876.26
23022	IP WITH RED CAP	486704.371	2483968.032	876.30

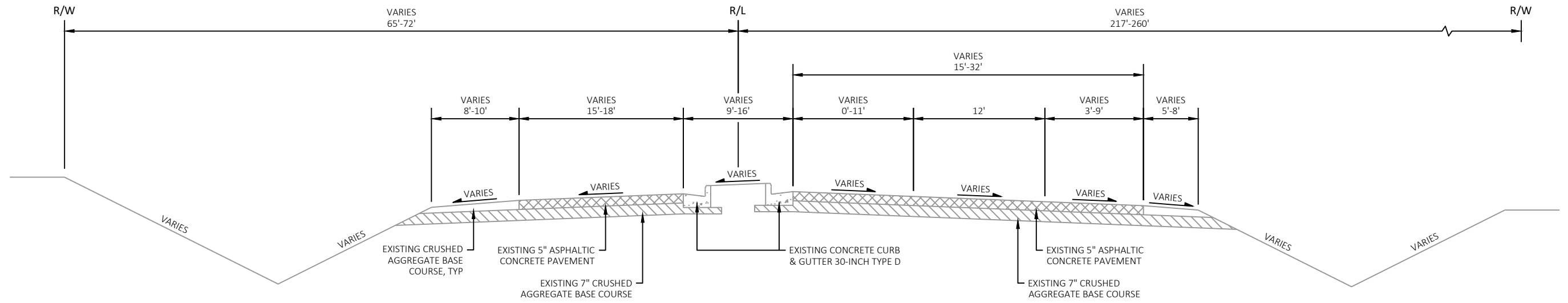




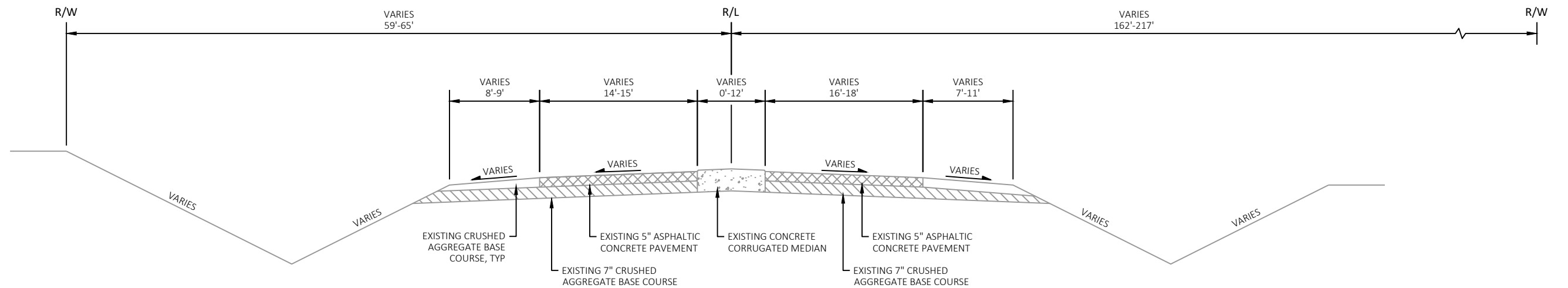
TYPICAL EXISTING SECTION
 CTH P
 STA 613+25 - STA 623+55.72



TYPICAL EXISTING SECTION
 CTH P
 STA 577+00 - STA 613+25

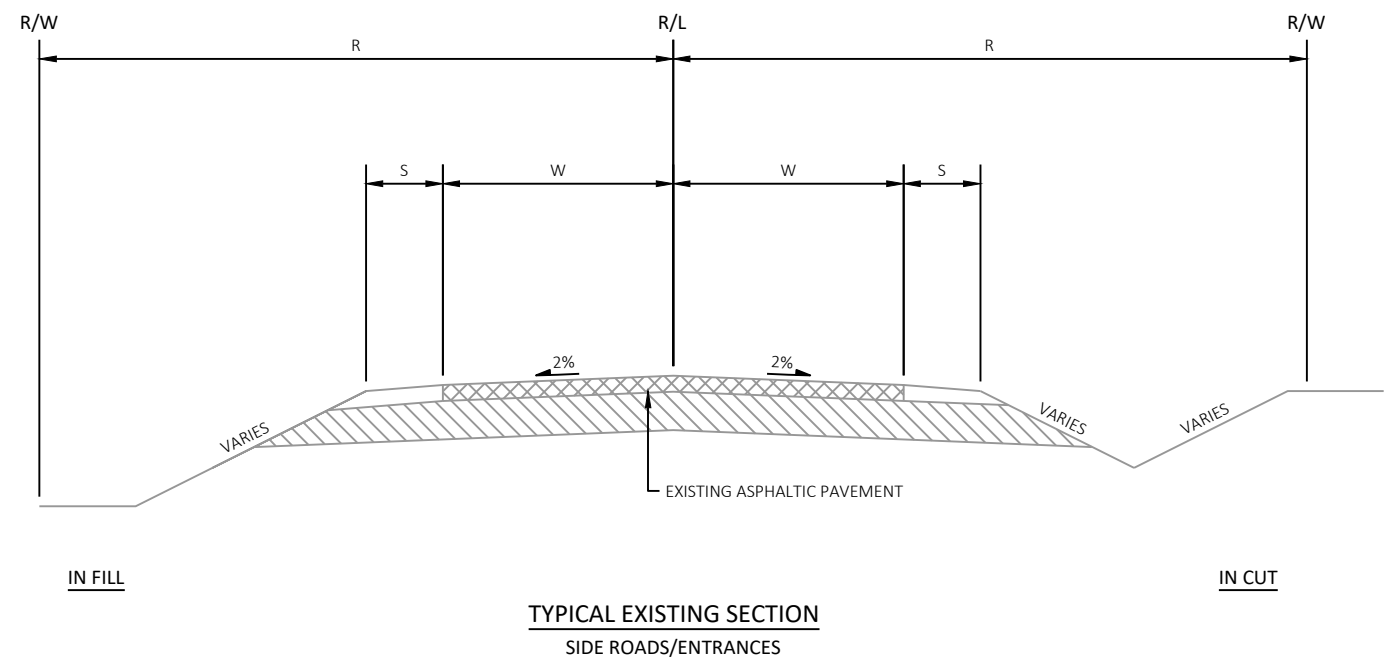


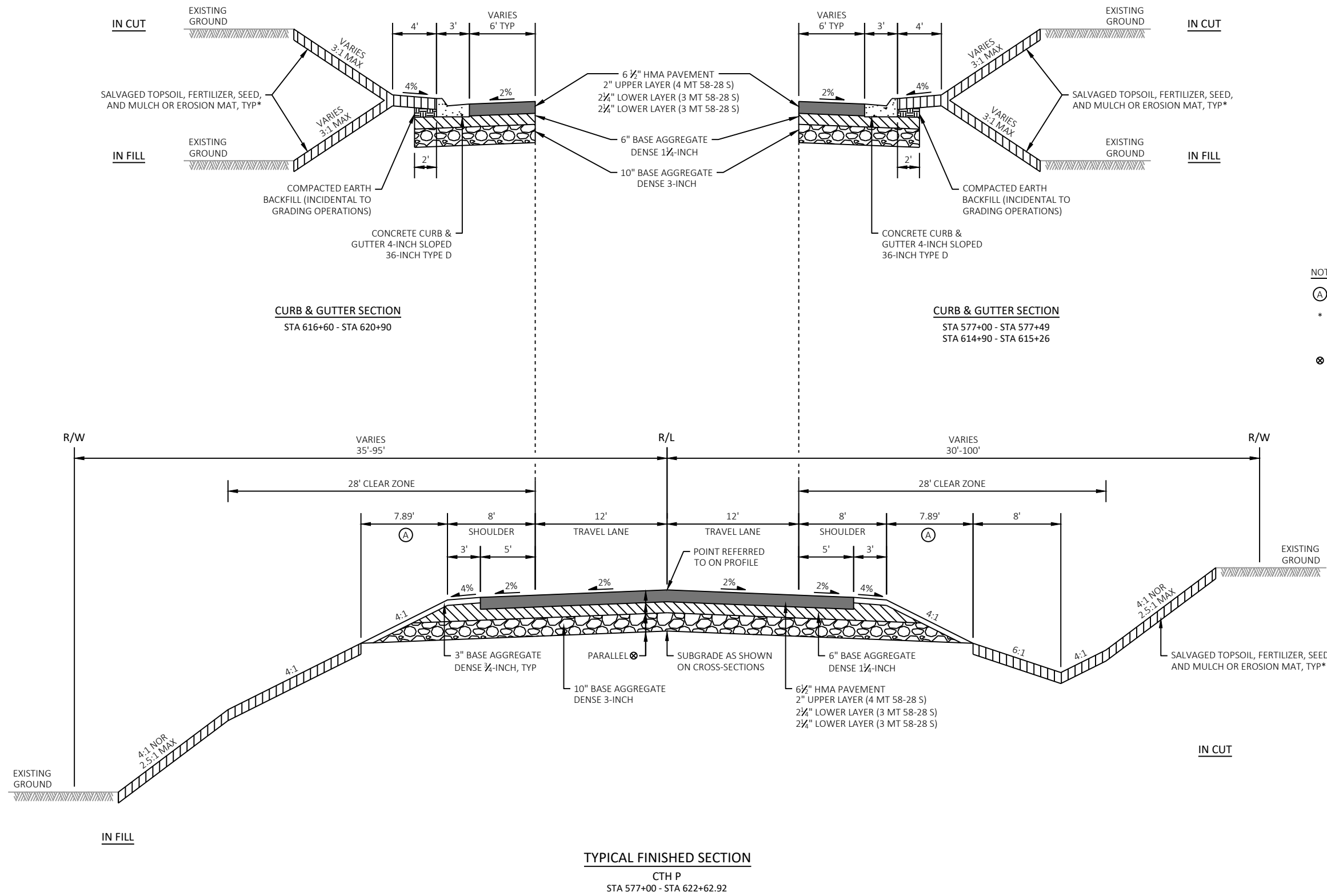
TYPICAL EXISTING SECTION
 CTH P
 STA 624+82.38 - STA 626+26.72



TYPICAL EXISTING SECTION
 CTH P
 STA 623+55.72 - STA 624+82.38

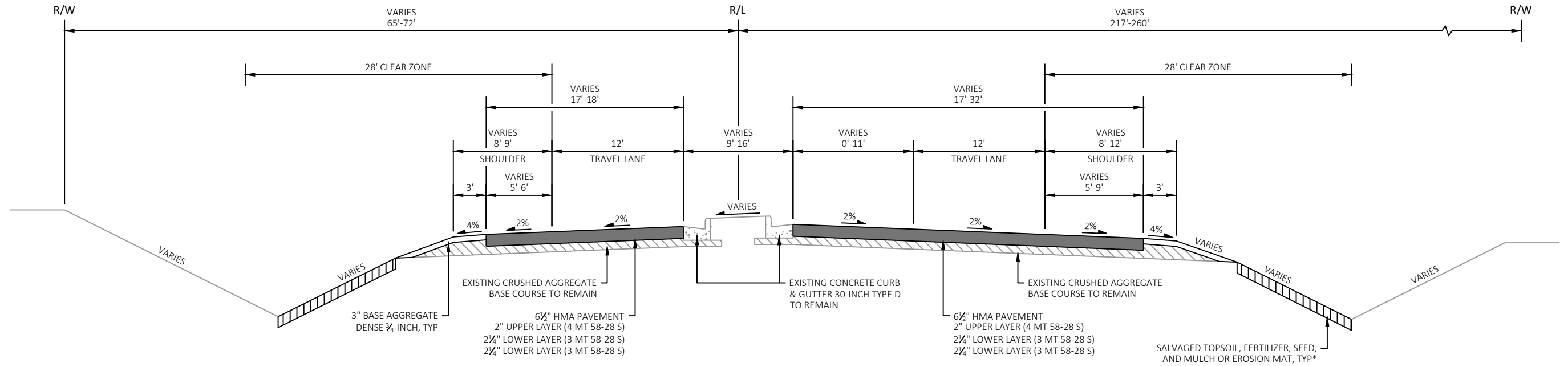
SIDE ROADS - EXISTING						
STREET	LEFT SIDE			RIGHT SIDE		
	ROW (R)	SHOULDER (S)	OVERALL WIDTH (W)	OVERALL WIDTH (W)	SHOULDER (S)	ROW (R)
DAISY DRIVE	33'	2'	12'	12'	2'	33'
DOUBLE J TRANSPORT DRIVEWAY	N/A	N/A	15'	15'	N/A	N/A
POPPY ROAD	33'	2'	12'	12'	2'	33'
KERRY INGREDIENTS DRIVEWAY	N/A	N/A	15'	15'	N/A	N/A



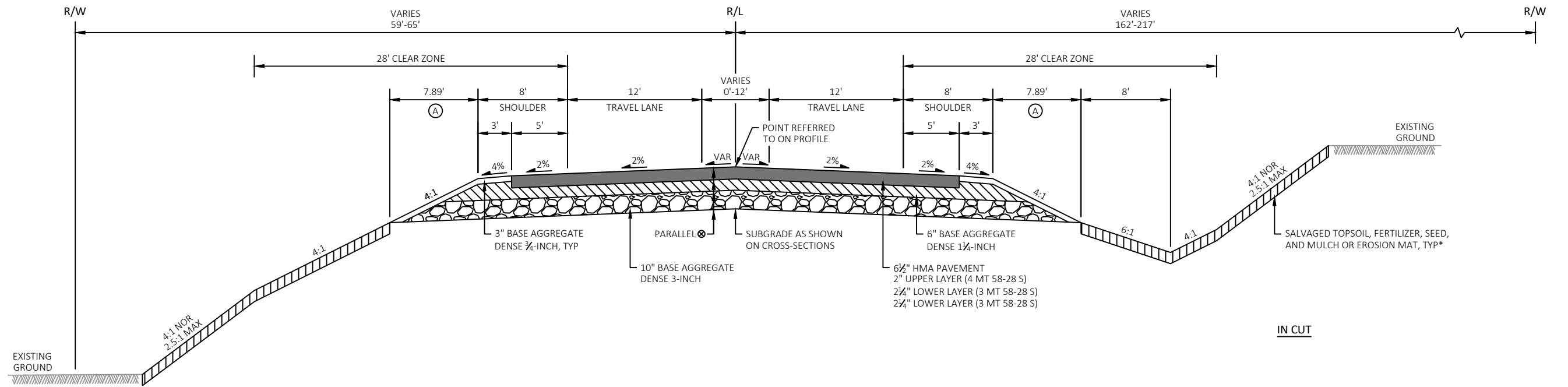


NOTES:

- (A) SEEDING & FERTILIZER
- * SEE MISCELLANEOUS QUANTITIES AND EROSION CONTROL PLANS FOR LOCATIONS AND TYPES.
- ⊗ SUBGRADE SLOPES ARE PARALLEL TO TRAVEL LANE.

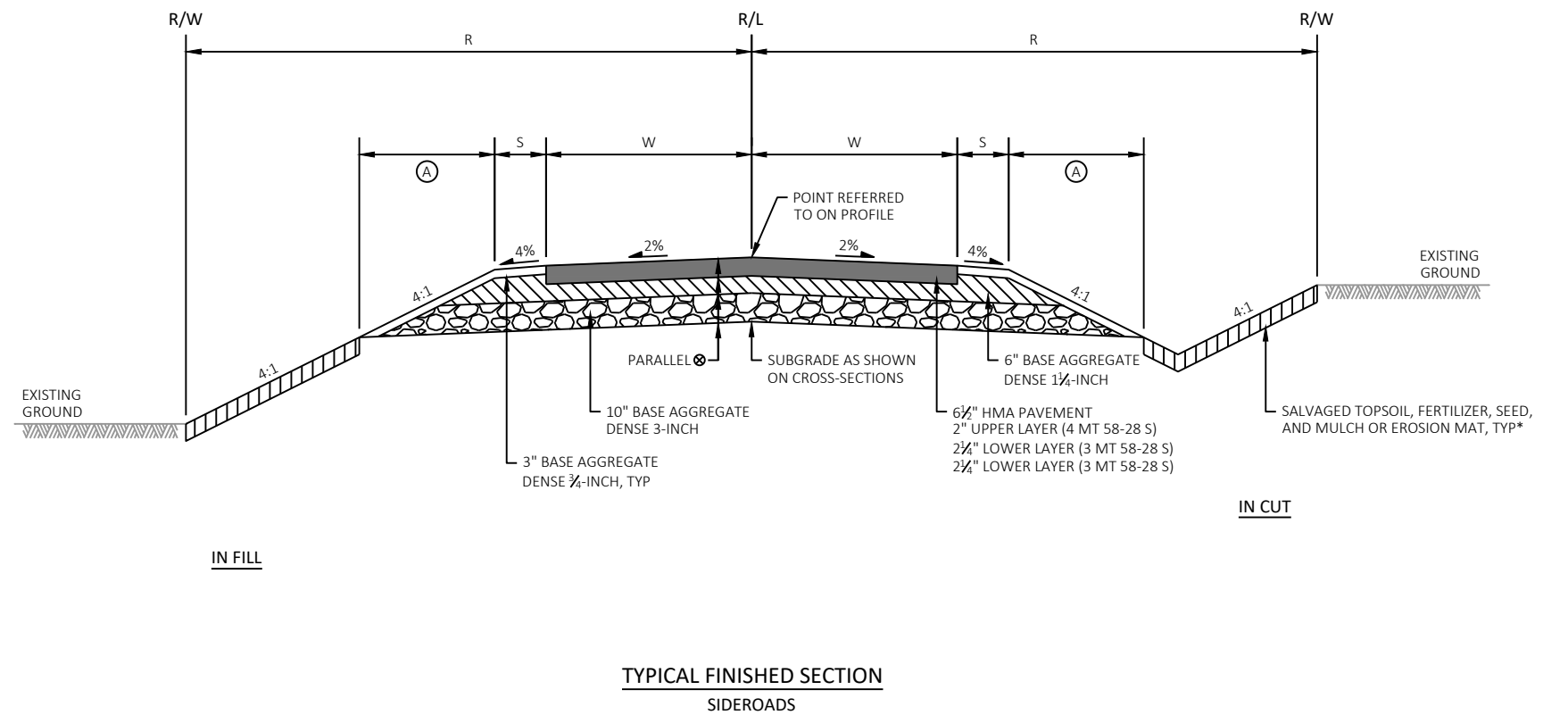


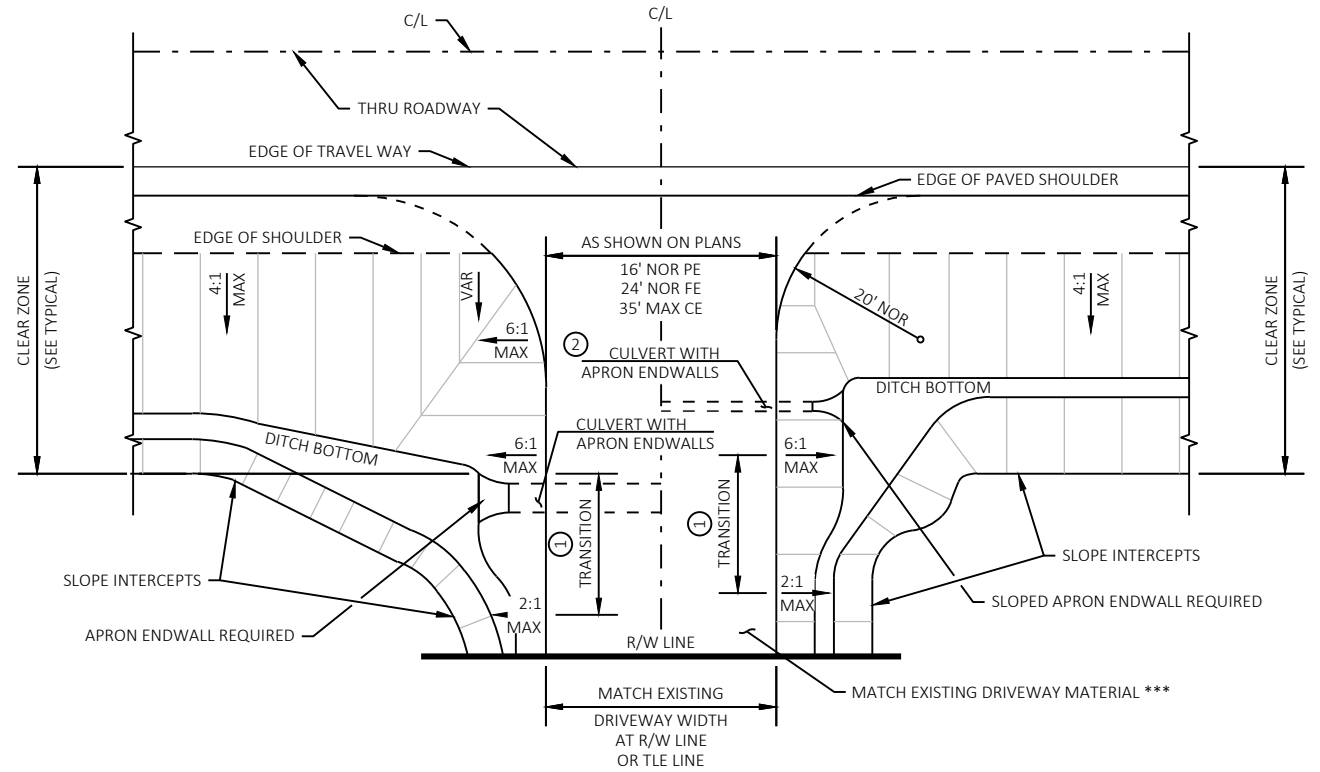
TYPICAL FINISHED SECTION
 CTH P
 STA 624+82.38 - STA 626+26.72



TYPICAL FINISHED SECTION
 CTH P
 STA 622+62.92 - STA 624+89.36

SIDE ROADS - PROPOSED						
STREET	LEFT SIDE			RIGHT SIDE		
	ROW (R)	SHOULDER (S)	OVERALL WIDTH (W)	OVERALL WIDTH (W)	SHOULDER (S)	ROW (R)
DAISY DRIVE	33'	2'	VARIES 12'-15'	VARIES 12'-15'	2'	33'
DOUBLE J TRANSPORT DRIVEWAY	N/A	3'	15'	15'	3'	N/A
POPPY ROAD	33'	2'	VARIES 12'-15'	VARIES 12'-15'	2'	33'
FUTURE DEVELOPMENT DRIVEWAY	N/A	3'	15'	15'	3'	N/A
KERRY INGREDIENTS DRIVEWAY	N/A	3'	15'	15'	3'	N/A



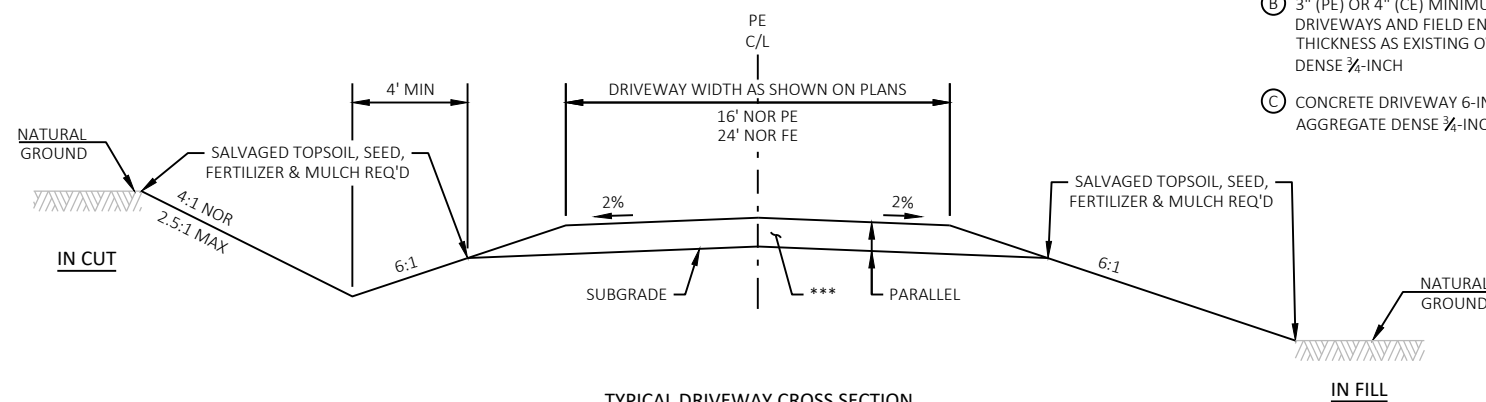


- ① TRANSITION TO BE ACCOMPLISHED WITHIN THE RIGHT OF WAY
- ② BLEND 6 : 1 SLOPES TO MATCH APRON ENDWALLS

FOR CULVERTS OUTSIDE CLEAR ZONE

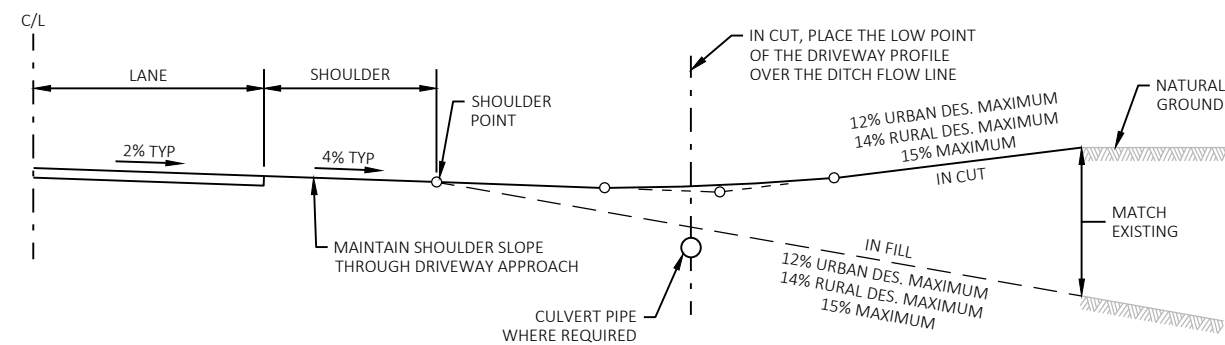
FOR CULVERTS WITHIN CLEAR ZONE

RURAL DRIVEWAY PLAN VIEW



TYPICAL DRIVEWAY CROSS SECTION

- *** (A) 6" BASE AGGREGATE DENSE 3/4-INCH
- (B) 3" (PE) OR 4" (CE) MINIMUM ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OR SAME THICKNESS AS EXISTING OVER 6" BASE AGGREGATE DENSE 3/4-INCH
- (C) CONCRETE DRIVEWAY 6-INCH OVER 6" BASE AGGREGATE DENSE 3/4-INCH



TYPICAL DRIVEWAY PROFILE

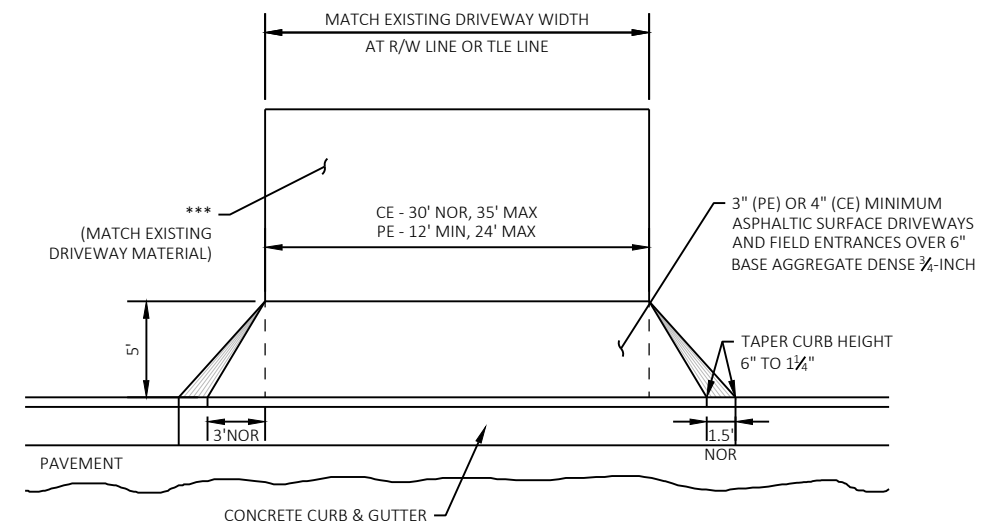
RURAL ENTRANCE DETAIL

*** 6" BASE AGGREGATE DENSE 3/4-INCH

3" (PE) OR 4" (CE) ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OR SAME THICKNESS AS EXISTING OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH

CONCRETE DRIVEWAY 6-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4-INCH


NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

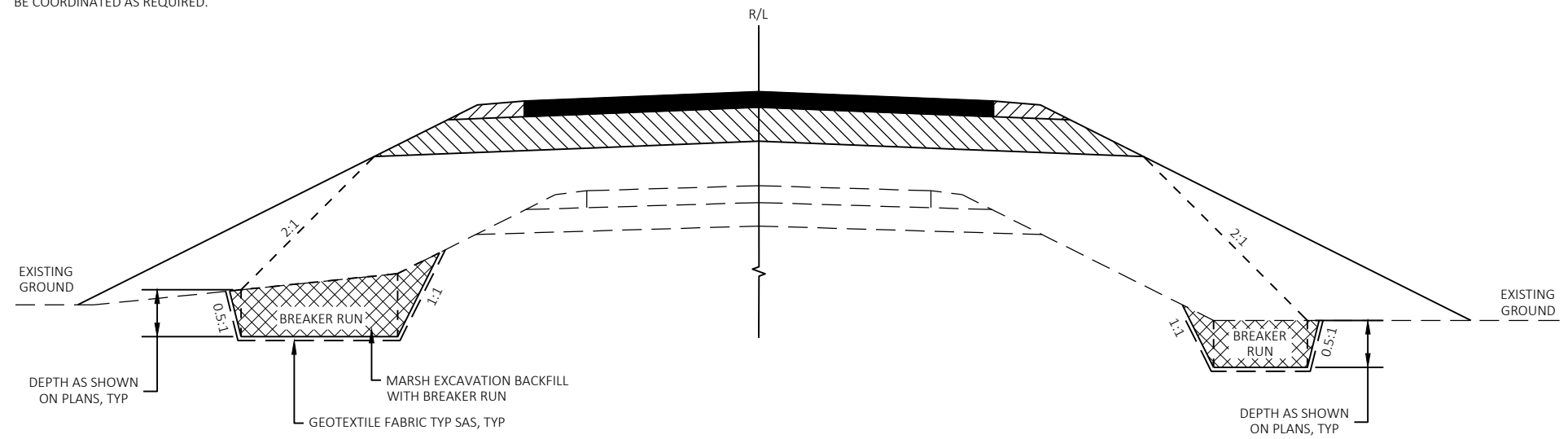


RURAL ENTRANCE DETAIL WITH CURB & GUTTER

SCHEDULE OF PARTIAL MARSH EXCAVATION CONSTRUCTION OPERATIONS:

1. EXCAVATE TO MARSH EXCAVATION ELEVATIONS SHOWN.
2. IF ENGINEER DEEMS SUBGRADE ACCEPTABLE, PLACE GEOTEXTILE FABRIC TYPE SAS AND BACKFILL WITH BREAKER RUN TO EXISTING GROUND. REMAINDER OF VOID TO BE BACKFILLED WITH FILL TO SUBGRADE. CONSTRUCT ROADWAY PER TYPICAL SECTIONS. ADDITIONAL CONSTRUCTION OPERATIONS FOR MARSH EXCAVATION DEEMED UNACCEPTABLE WILL BE COORDINATED AS REQUIRED.

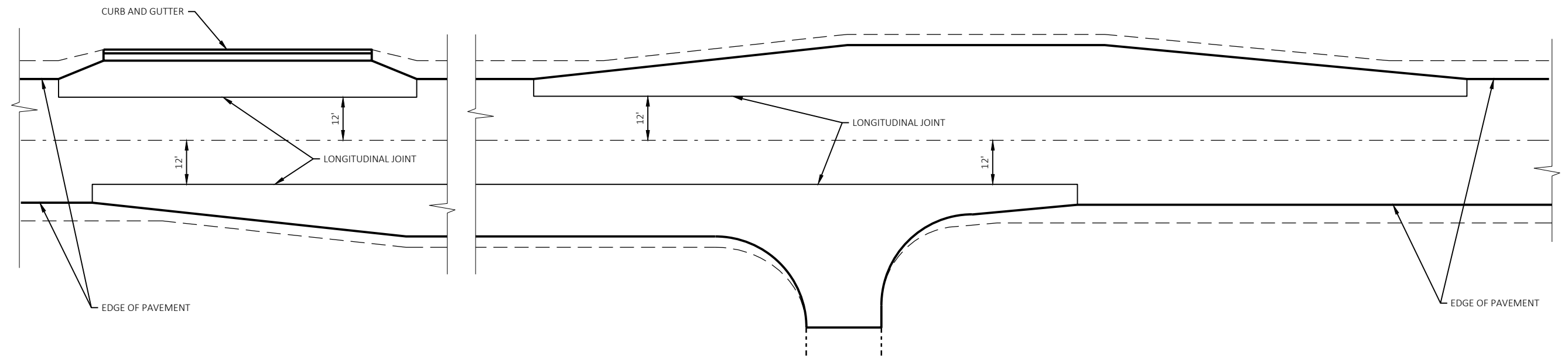
 MARSH EXCAVATION



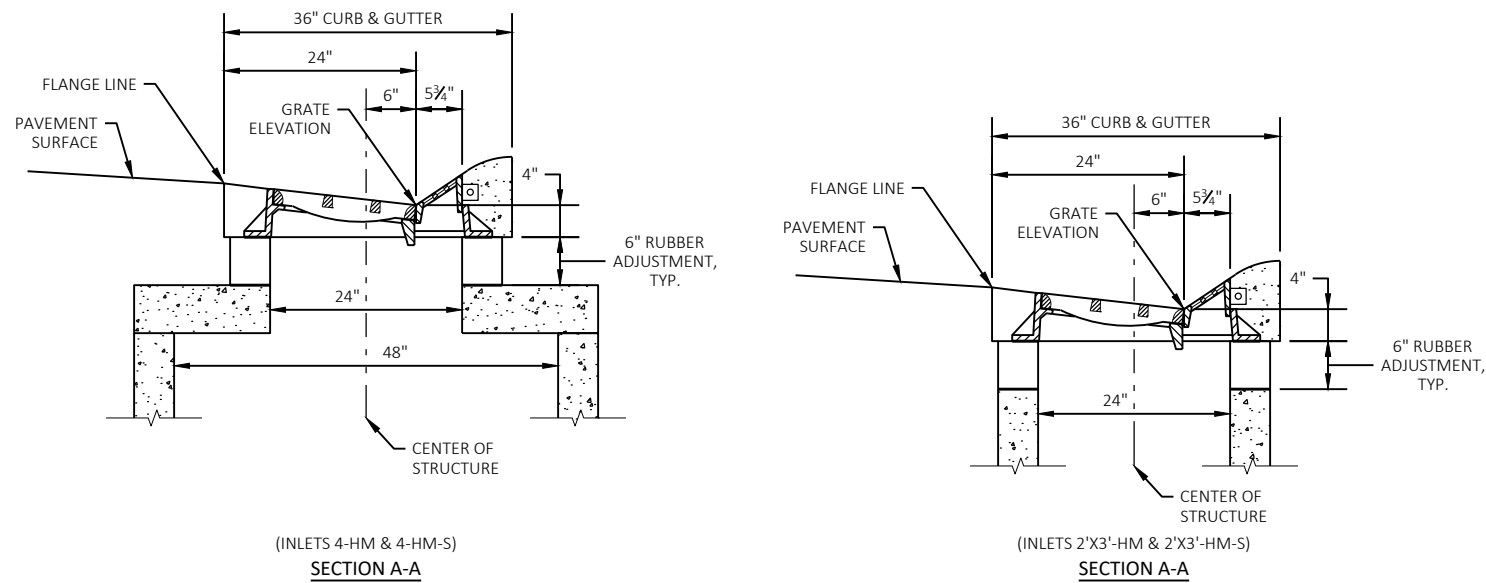
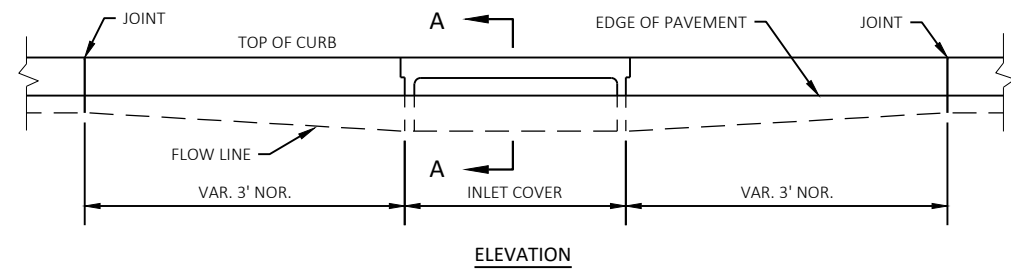
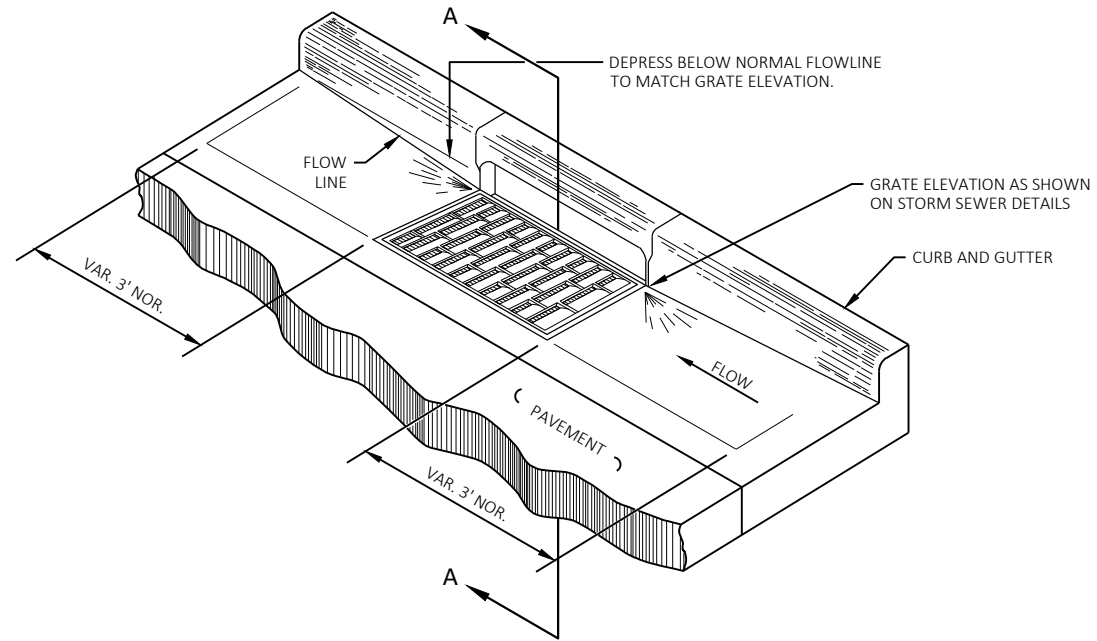
PARTIAL MARSH EXCAVATION DETAIL

STA 589+20 - STA 589+69 RT
 STA 609+50 - STA 610+66 RT
 STA 609+92 - STA 615+48 LT
 STA 613+25 - STA 614+87 RT

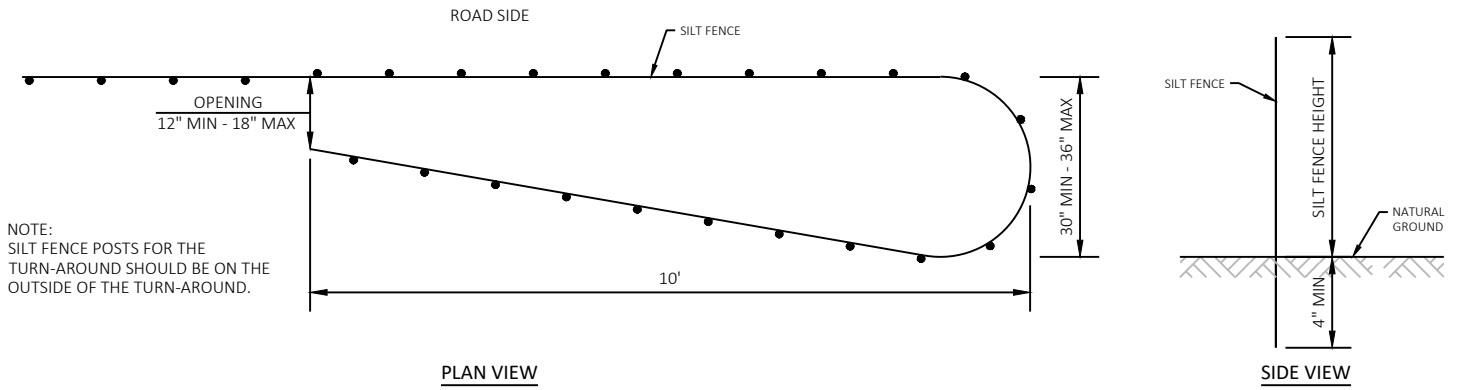
* TO BE USED AT ALL INTERSECTIONS, BYPASS LANES, PASSING LANES, AND RURAL CURB SECTIONS



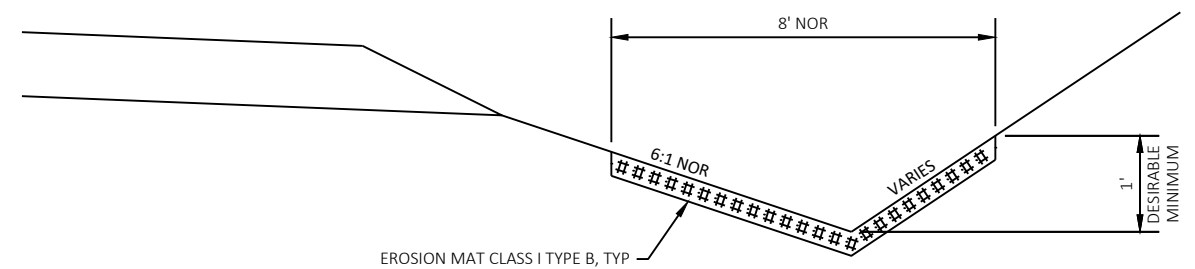
HMA LONGITUDINAL JOINT DETAIL



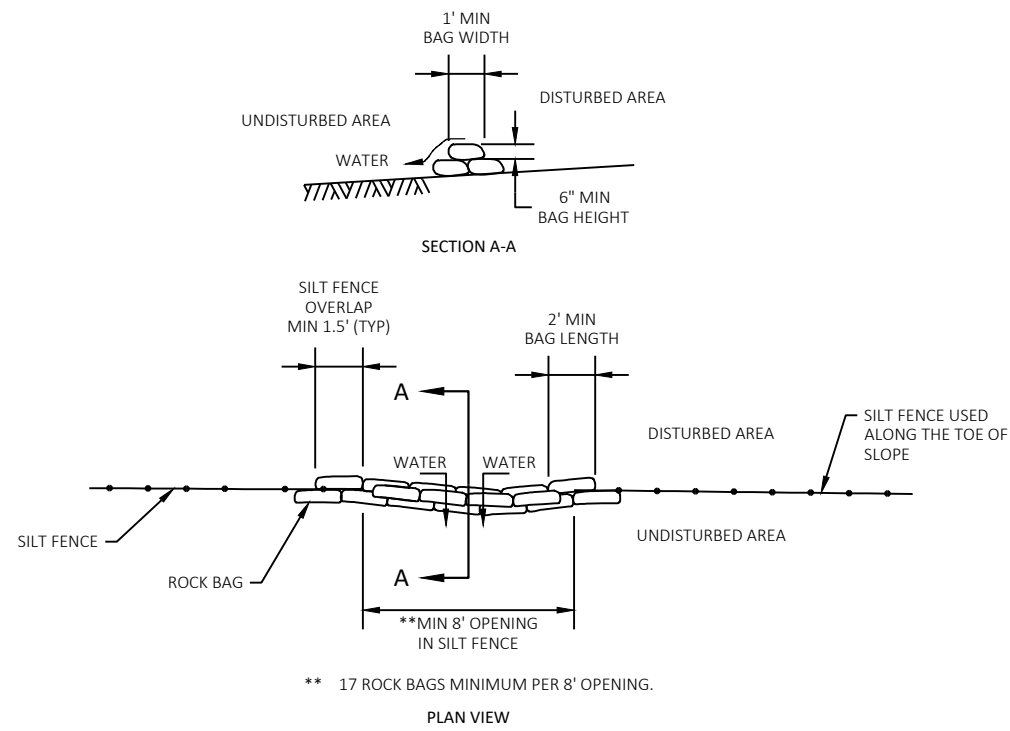
CURB AND GUTTER DETAIL AT INLETS



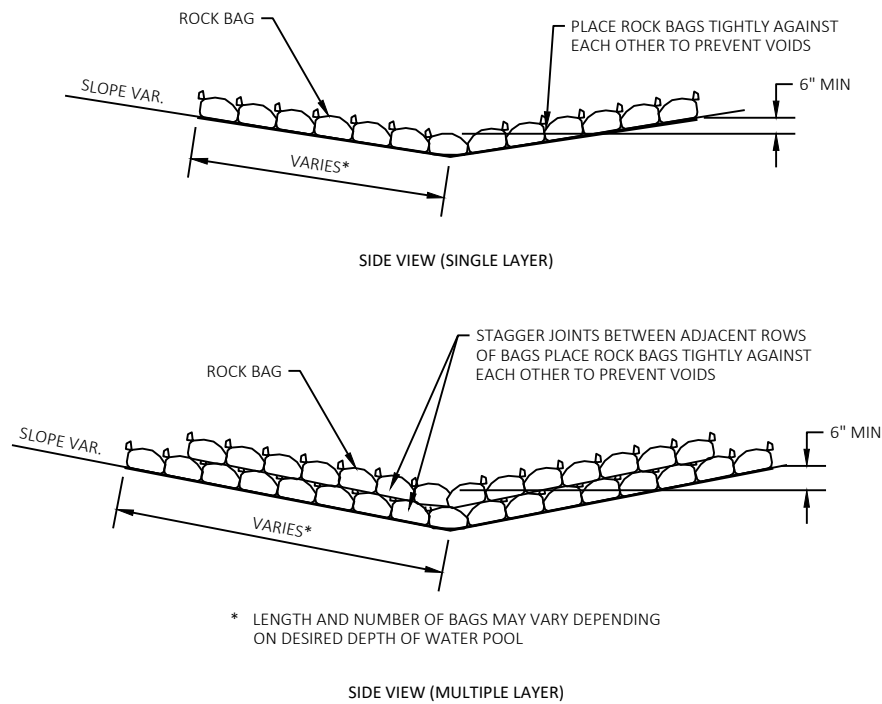
SILT FENCE TURN-AROUND DETAIL



EROSION MAT DETAIL FOR DITCHES

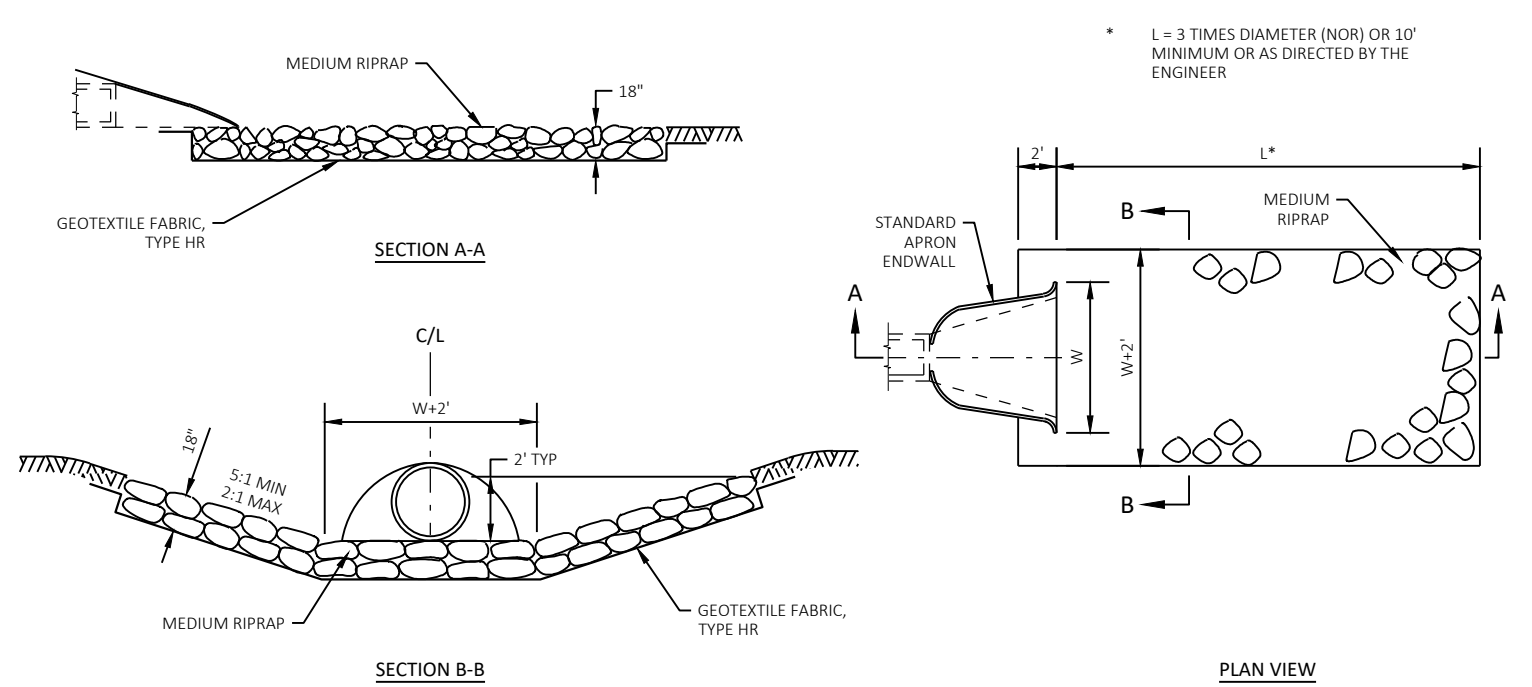


ROCK BAGS USED FOR SILT FENCE RELIEF POINT

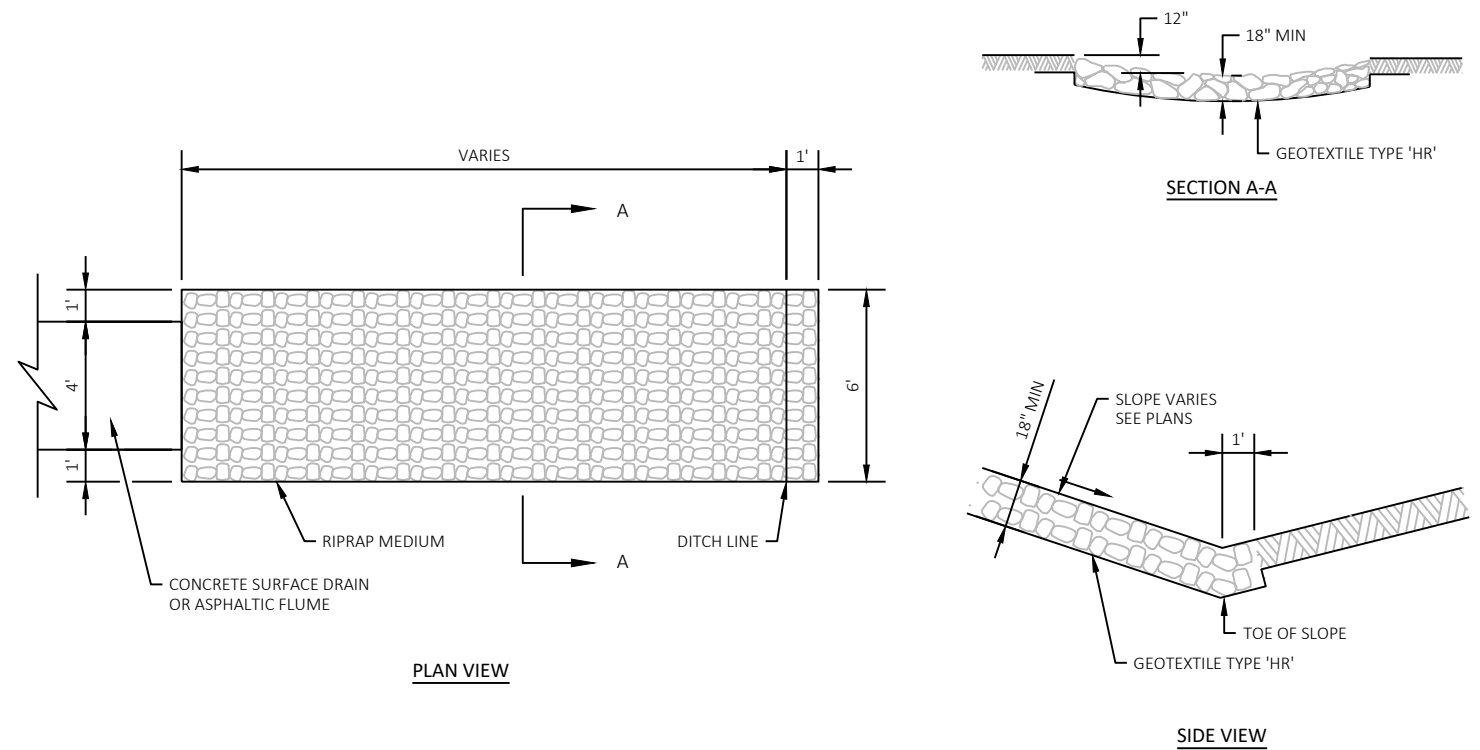


ROCK BAGS USED FOR DITCH CHECKS

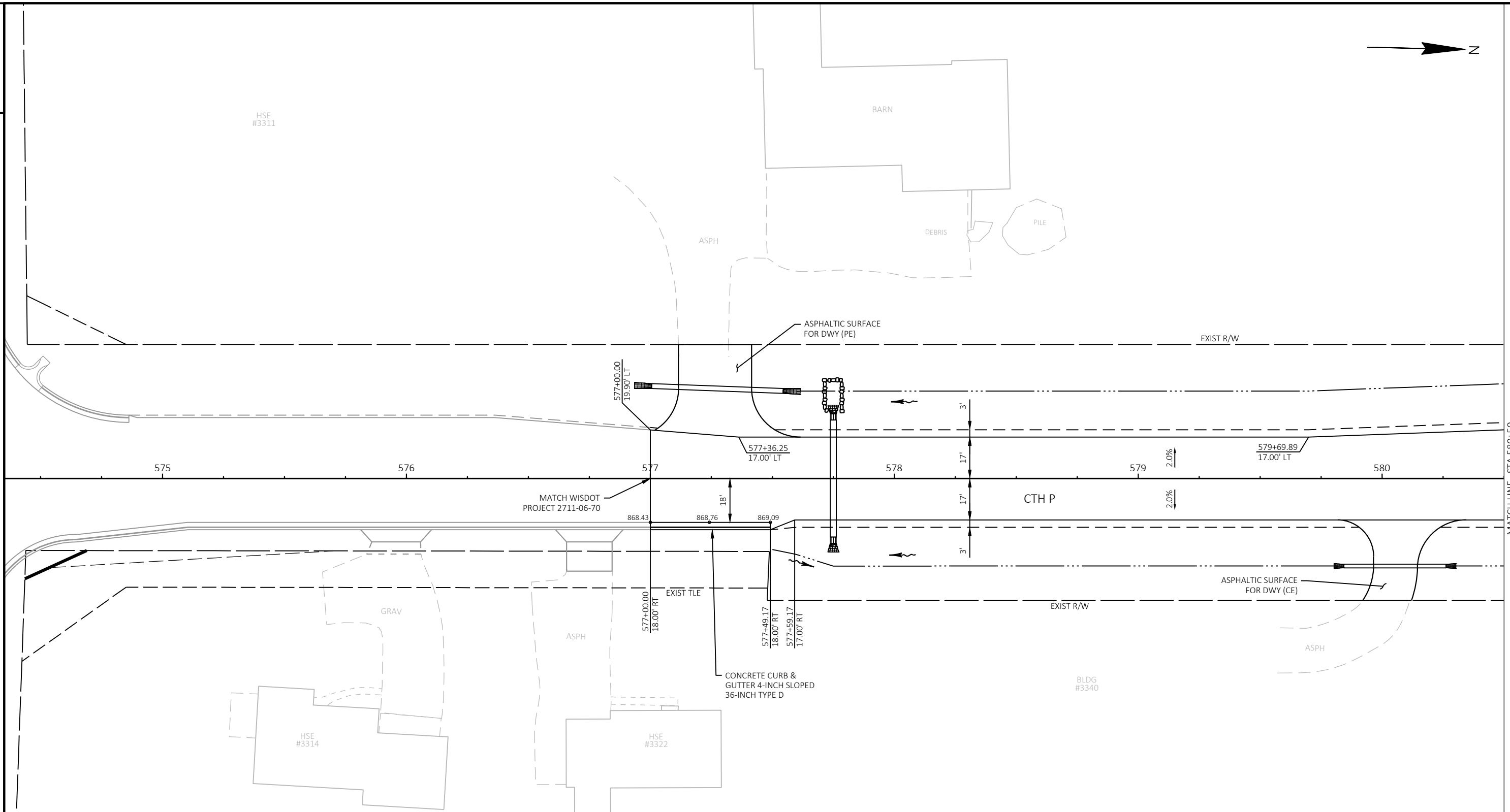
ROCK BAGS DETAIL



MEDIUM RIPRAP AND GEOTEXTILE FABRIC
DETAIL AT APRON ENDWALLS



MEDIUM RIPRAP AND GEOTEXTILE DETAIL AT FLUME



LEGEND	NOTES
XXX.XX PROPOSED ELEVATIONS	ALL CURB RADII ARE TO FLANGE OF CURB.
(XXX.XX) EXISTING ELEVATIONS	ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT.
■ PROPOSED INLET	ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT.
⊙ PROPOSED STORM SEWER MANHOLE	PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.
◁ PROPOSED ENDWALL	PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

LEGEND

- XXX.XX PROPOSED ELEVATIONS
- (XXX.XX) EXISTING ELEVATIONS
- PROPOSED INLET
- PROPOSED STORM SEWER MANHOLE
- ◁ PROPOSED ENDWALL

NOTES

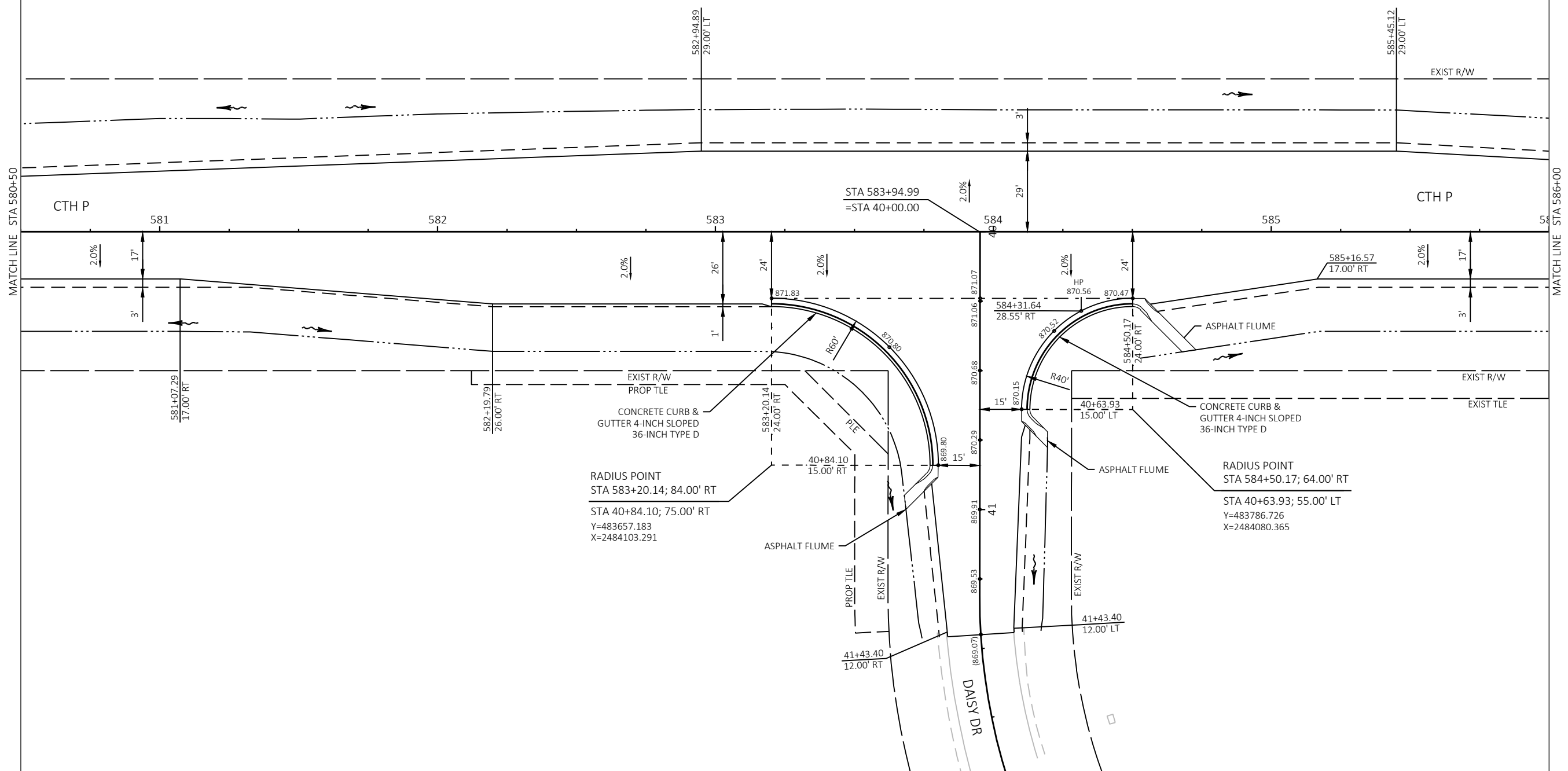
ALL CURB RADII ARE TO FLANGE OF CURB.

ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT.

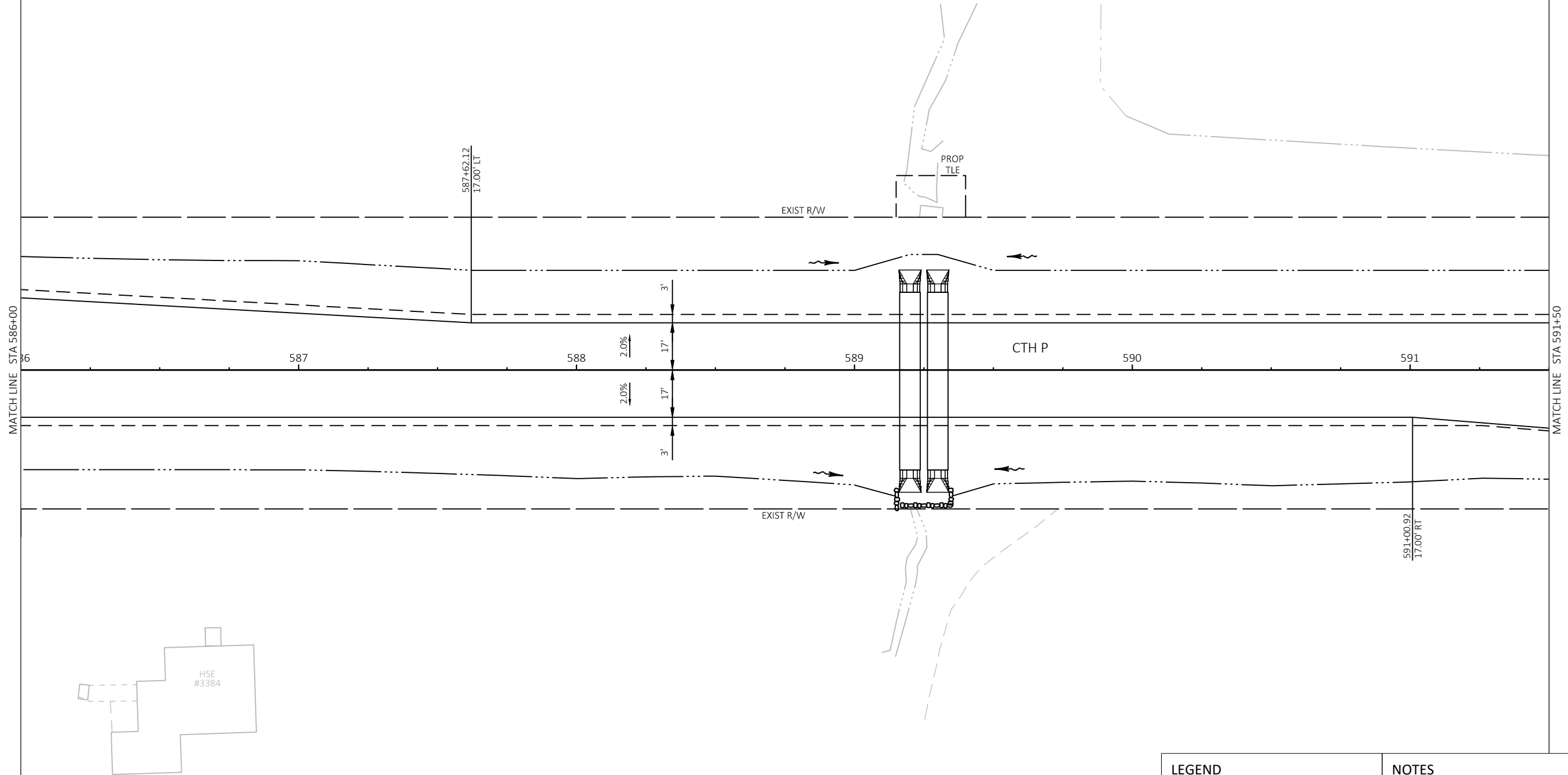
ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT.

PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.

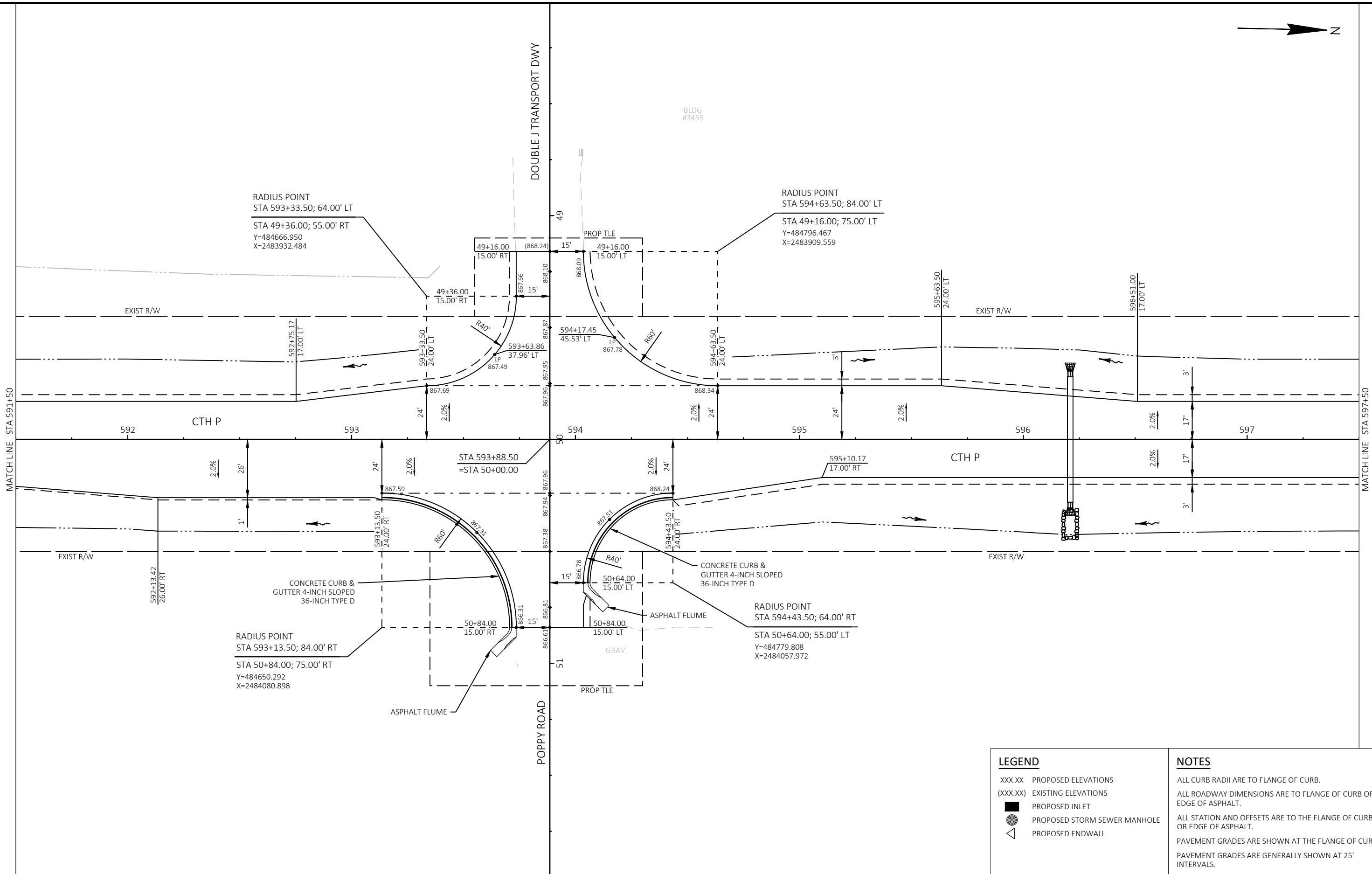
PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.



PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PLAN DETAILS	SHEET 15	E
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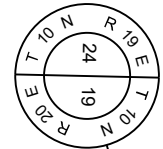


LEGEND	NOTES
XXX.XX PROPOSED ELEVATIONS	ALL CURB RADII ARE TO FLANGE OF CURB. ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT. ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT. PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB. PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.
(XXX.XX) EXISTING ELEVATIONS	
■ PROPOSED INLET	
⊙ PROPOSED STORM SEWER MANHOLE	
◁ PROPOSED ENDWALL	



LEGEND	
XXX.XX	PROPOSED ELEVATIONS
(XXX.XX)	EXISTING ELEVATIONS
	PROPOSED INLET
	PROPOSED STORM SEWER MANHOLE
	PROPOSED ENDWALL

NOTES
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PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.
PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.



ASPHALT PARKING LOT

HSE #3503

EXIST R/W

GRAVEL (PE)

MATCH LINE STA 597+50

MATCH LINE STA 603+50

598

599

600

601

2.0%

CTH P

2.0%

602

603

3'
17'
17'
3'

EXIST R/W

ASPHALTIC SURFACE FOR DWY (PE)

GRAVEL (PE)

GRAV

HSE #3502

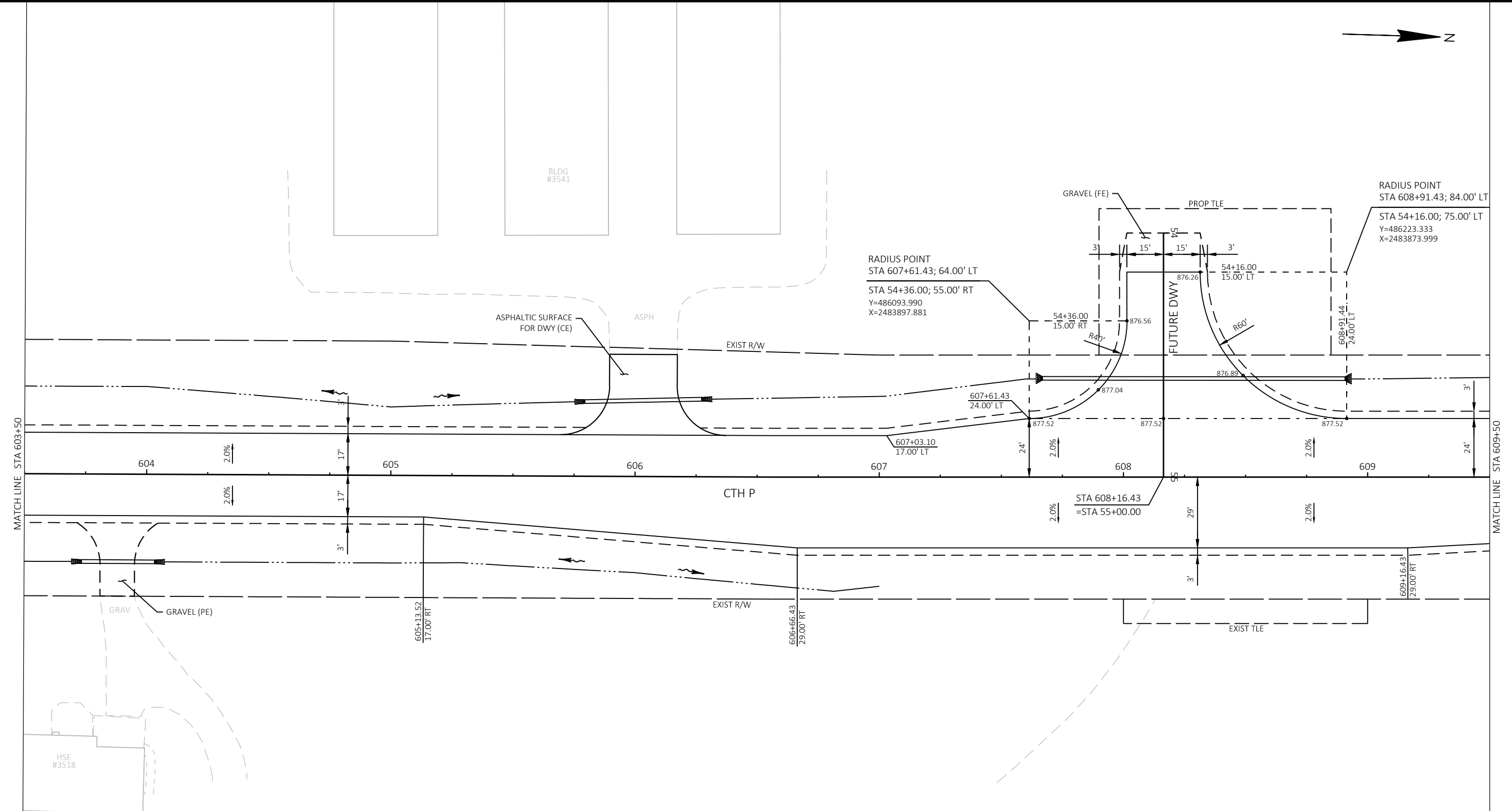
HSE #3510

LEGEND

- XXX.XX PROPOSED ELEVATIONS
- (XXX.XX) EXISTING ELEVATIONS
- PROPOSED INLET
- ⊙ PROPOSED STORM SEWER MANHOLE
- ◁ PROPOSED ENDWALL

NOTES

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 ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT.
 ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT.
 PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.
 PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.



MATCH LINE STA 603+50

MATCH LINE STA 609+50

LEGEND

XXX.XX	PROPOSED ELEVATIONS
(XXX.XX)	EXISTING ELEVATIONS
■	PROPOSED INLET
⊙	PROPOSED STORM SEWER MANHOLE
◁	PROPOSED ENDWALL

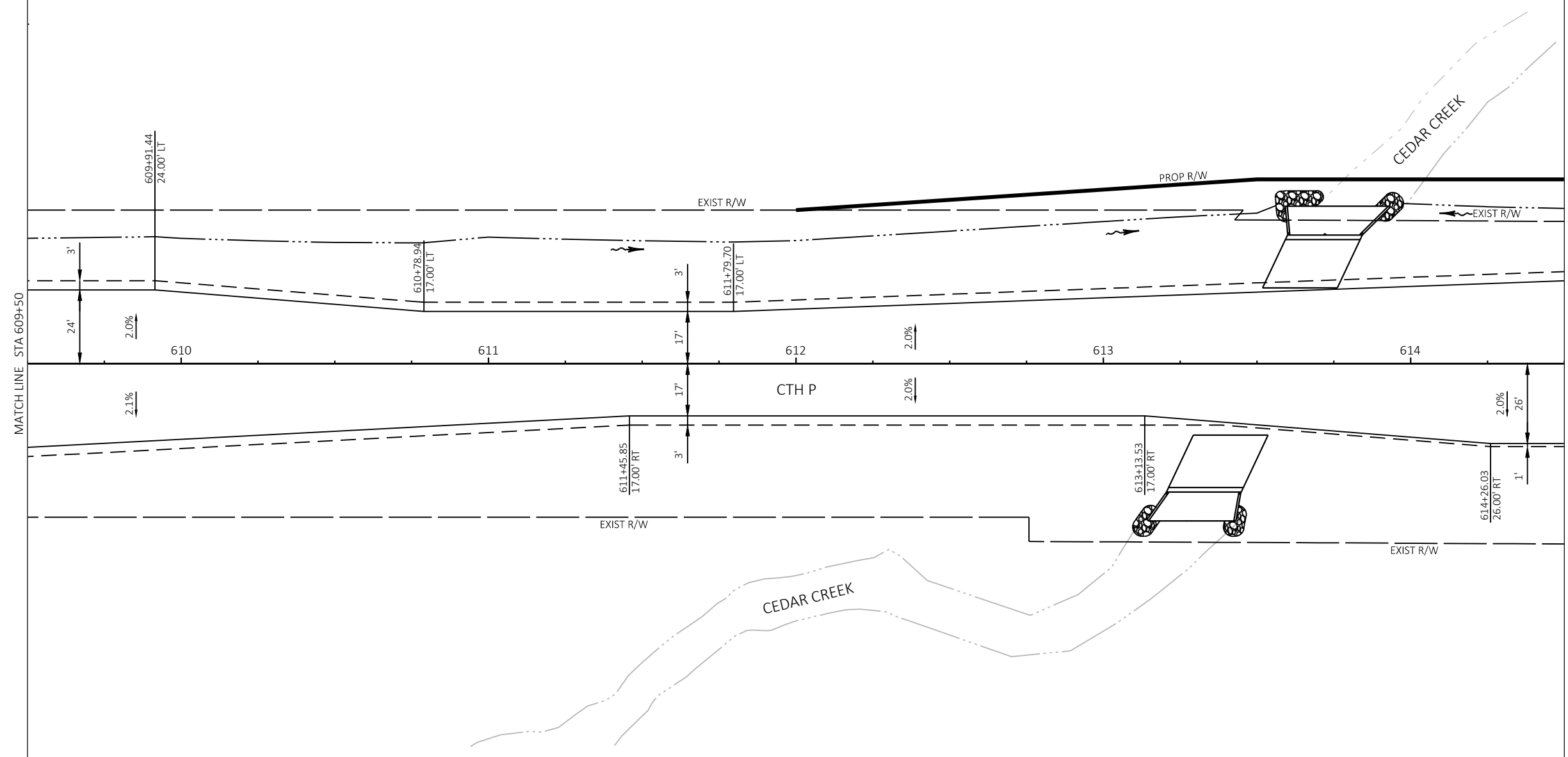
NOTES

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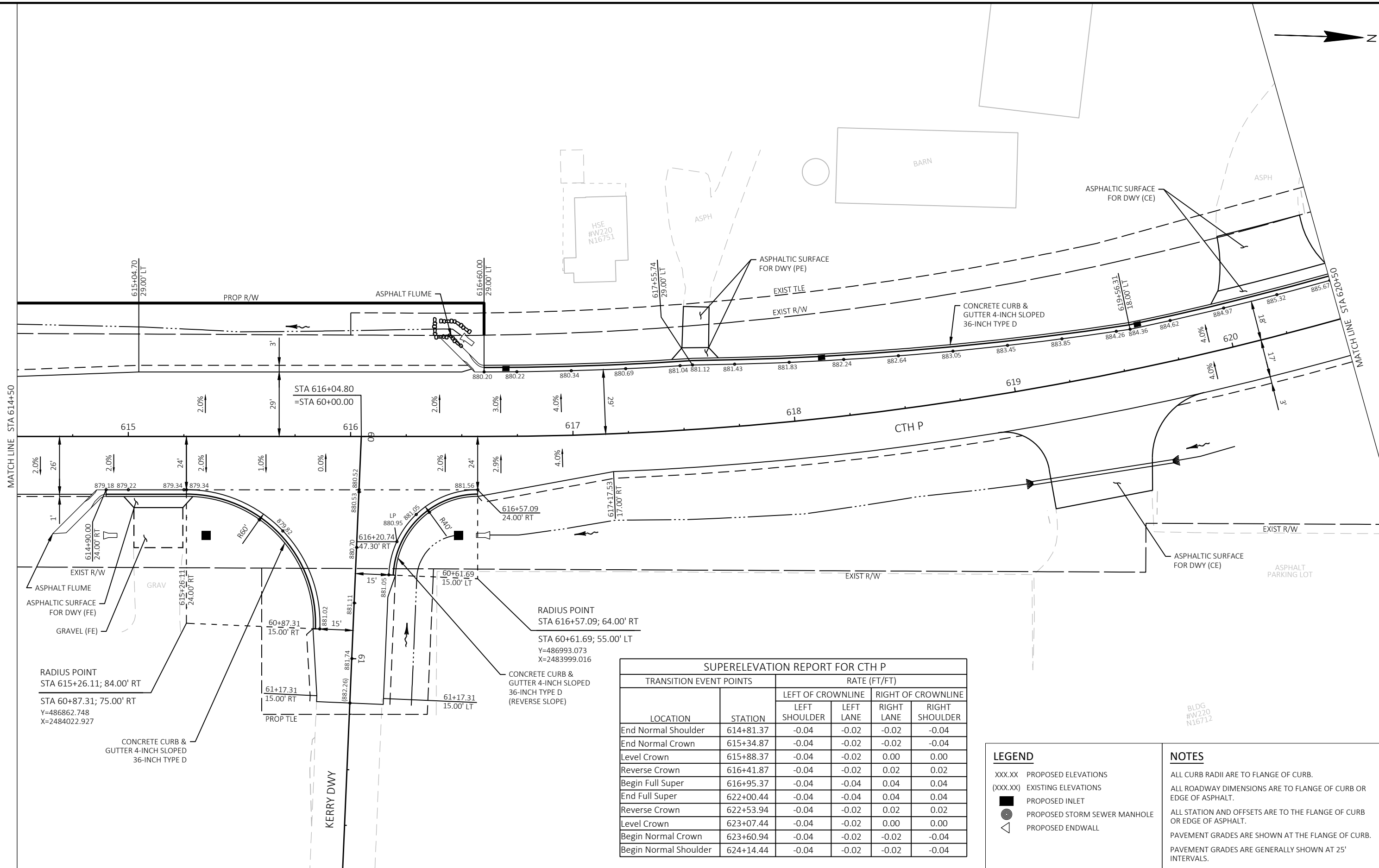
MATCH LINE STA 609+50

MATCH LINE STA 614+50



LEGEND	
XXX.XX	PROPOSED ELEVATIONS
(XXX.XX)	EXISTING ELEVATIONS
	PROPOSED INLET
	PROPOSED STORM SEWER MANHOLE
	PROPOSED ENDWALL

NOTES
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PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.
PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.



SUPERELEVATION REPORT FOR CTH P

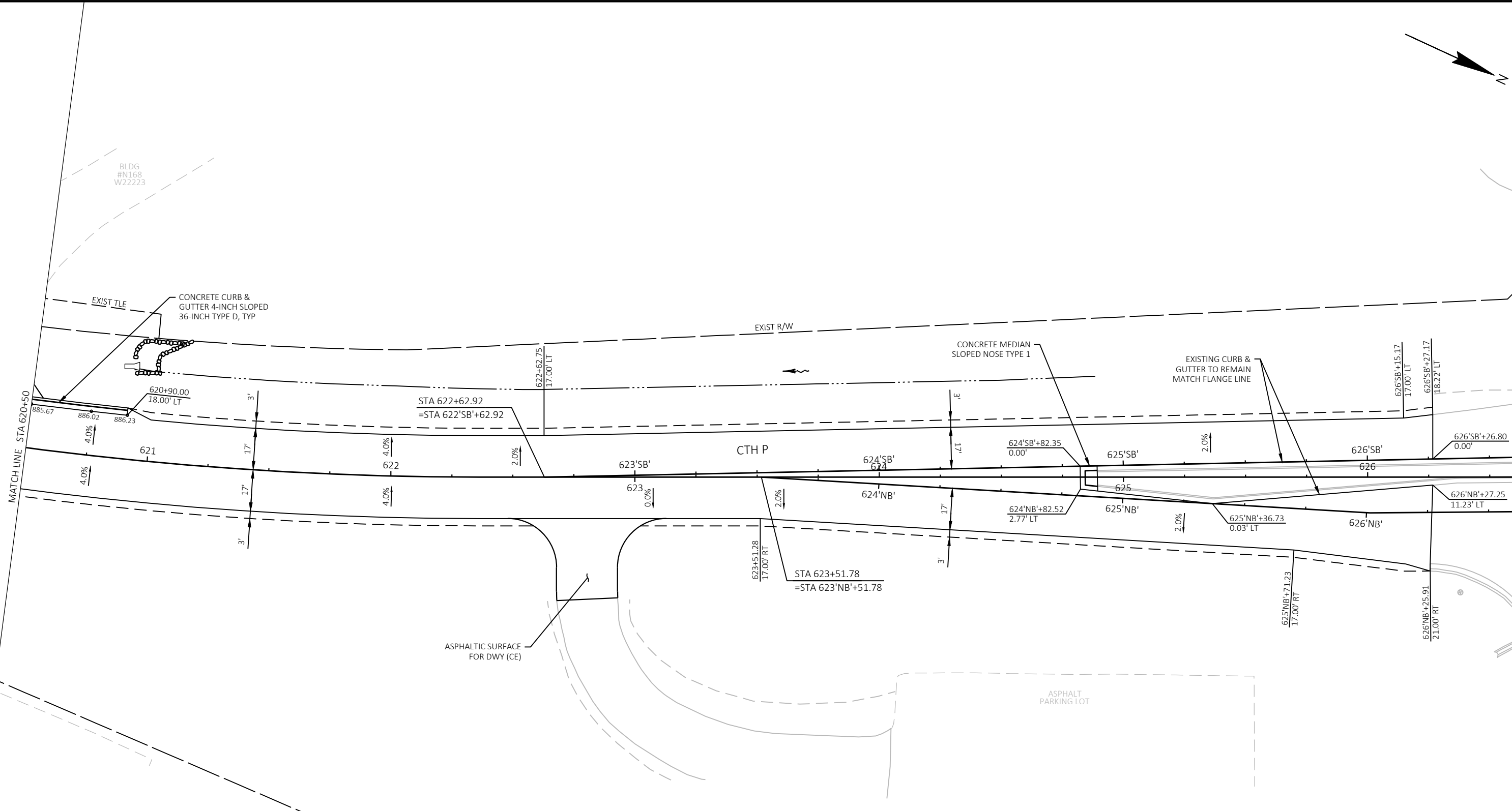
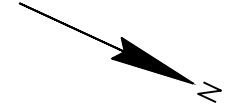
LOCATION	STATION	RATE (FT/FT)			
		LEFT OF CROWNLIN		RIGHT OF CROWNLIN	
		LEFT SHOULDER	LEFT LANE	RIGHT LANE	RIGHT SHOULDER
End Normal Shoulder	614+81.37	-0.04	-0.02	-0.02	-0.04
End Normal Crown	615+34.87	-0.04	-0.02	-0.02	-0.04
Level Crown	615+88.37	-0.04	-0.02	0.00	0.00
Reverse Crown	616+41.87	-0.04	-0.02	0.02	0.02
Begin Full Super	616+95.37	-0.04	-0.04	0.04	0.04
End Full Super	622+00.44	-0.04	-0.04	0.04	0.04
Reverse Crown	622+53.94	-0.04	-0.02	0.02	0.02
Level Crown	623+07.44	-0.04	-0.02	0.00	0.00
Begin Normal Crown	623+60.94	-0.04	-0.02	-0.02	-0.04
Begin Normal Shoulder	624+14.44	-0.04	-0.02	-0.02	-0.04

LEGEND

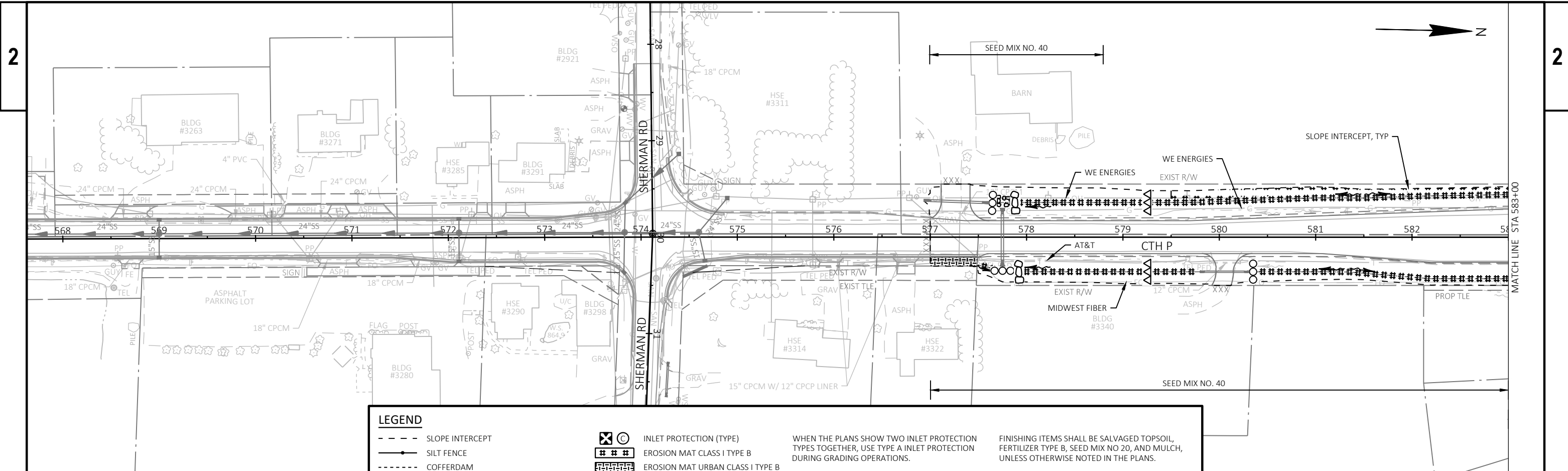
- XXX.XX PROPOSED ELEVATIONS
- (XXX.XX) EXISTING ELEVATIONS
- PROPOSED INLET
- ⊙ PROPOSED STORM SEWER MANHOLE
- ◁ PROPOSED ENDWALL

NOTES

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- ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT.
- ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT.
- PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB.
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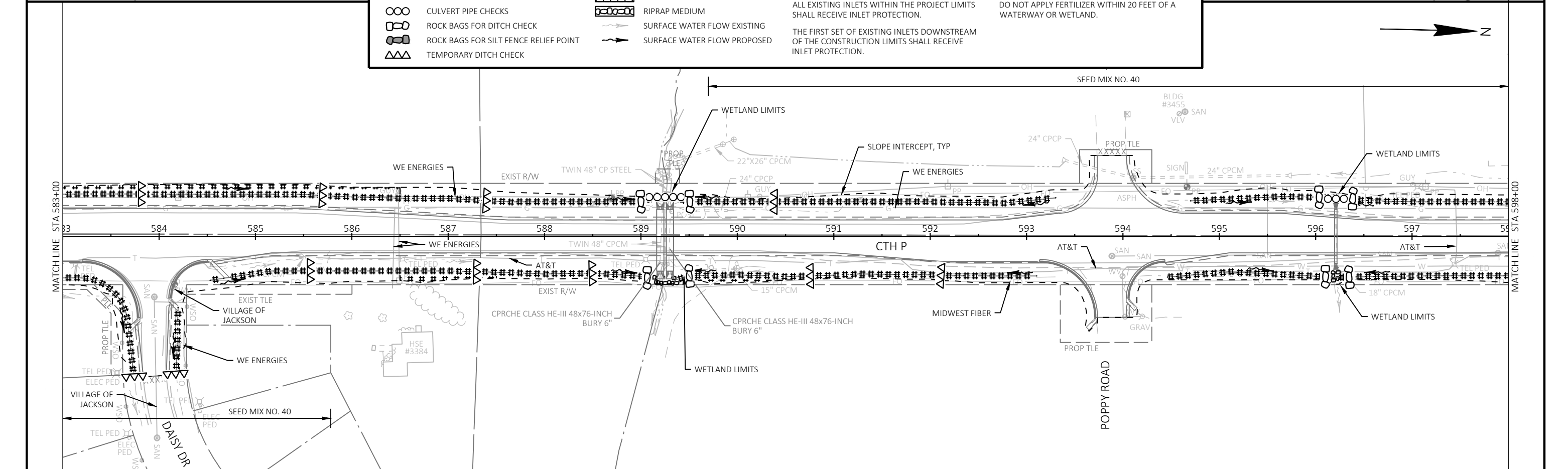


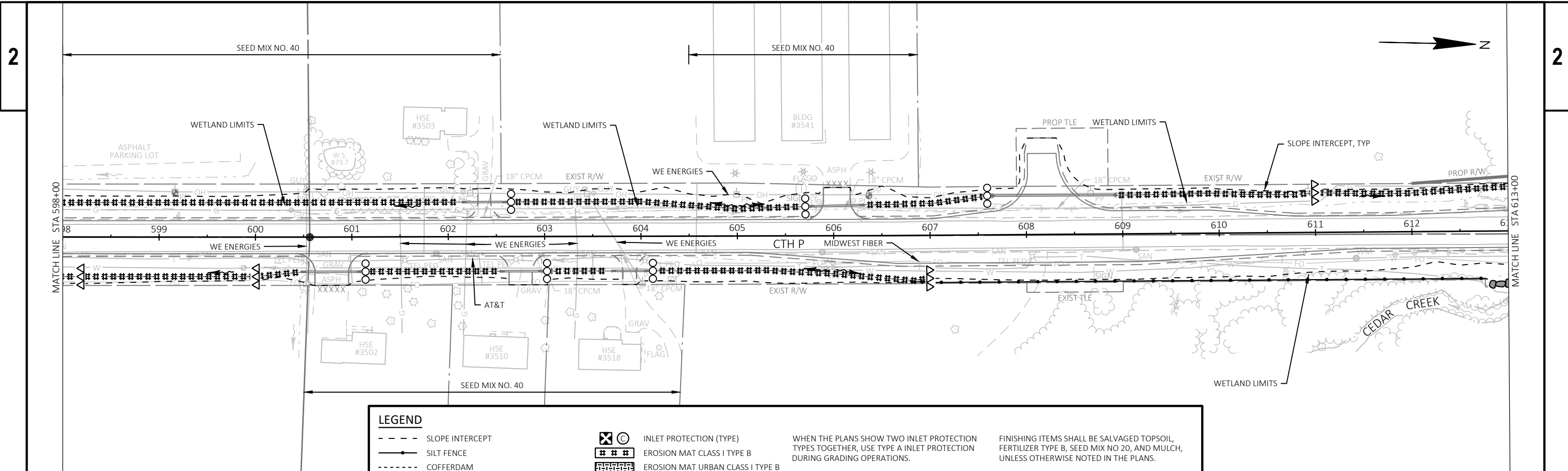
LEGEND		NOTES
XXX.XX	PROPOSED ELEVATIONS	ALL CURB RADII ARE TO FLANGE OF CURB. ALL ROADWAY DIMENSIONS ARE TO FLANGE OF CURB OR EDGE OF ASPHALT. ALL STATION AND OFFSETS ARE TO THE FLANGE OF CURB OR EDGE OF ASPHALT. PAVEMENT GRADES ARE SHOWN AT THE FLANGE OF CURB. PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.
(XXX.XX)	EXISTING ELEVATIONS	
■	PROPOSED INLET	
⊙	PROPOSED STORM SEWER MANHOLE	
◁	PROPOSED ENDWALL	



LEGEND

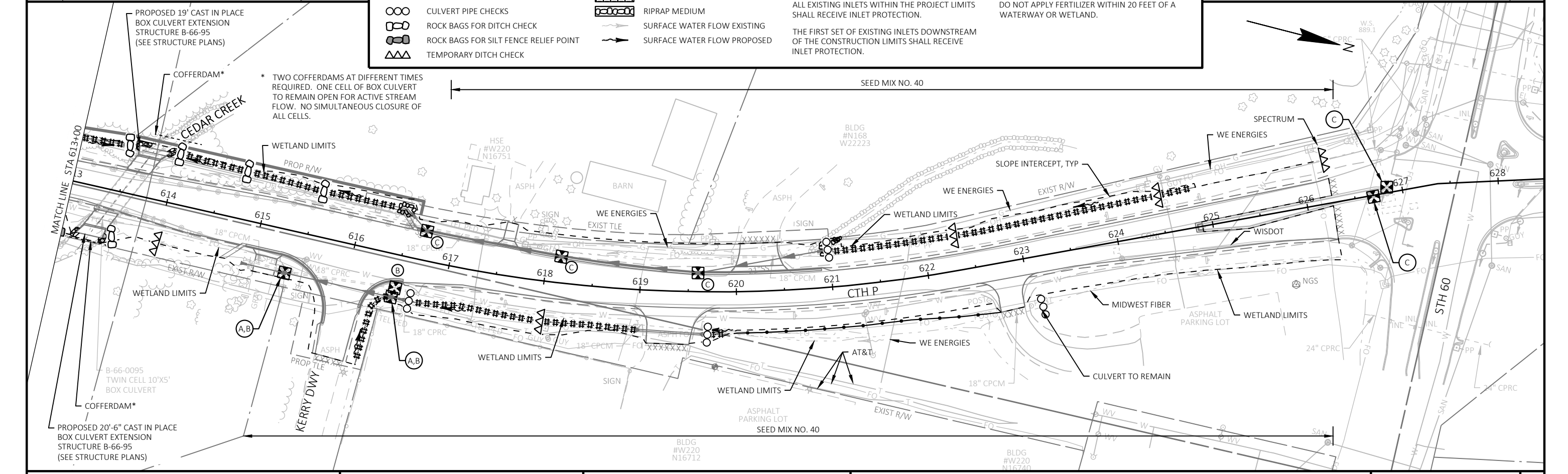
---	SLOPE INTERCEPT	⊗	INLET PROTECTION (TYPE)	WHEN THE PLANS SHOW TWO INLET PROTECTION TYPES TOGETHER, USE TYPE A INLET PROTECTION DURING GRADING OPERATIONS.	FINISHING ITEMS SHALL BE SALVAGED TOPSOIL, FERTILIZER TYPE B, SEED MIX NO 20, AND MULCH, UNLESS OTHERWISE NOTED IN THE PLANS.
— —	SILT FENCE	##	EROSION MAT CLASS I TYPE B		
- - - -	COFFERDAM		EROSION MAT URBAN CLASS I TYPE B	ALL EXISTING INLETS WITHIN THE PROJECT LIMITS SHALL RECEIVE INLET PROTECTION.	DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WATERWAY OR WETLAND.
⊗	CULVERT PIPE CHECKS	⊗	RIPRAP MEDIUM		
⊗	ROCK BAGS FOR DITCH CHECK	→	SURFACE WATER FLOW EXISTING	THE FIRST SET OF EXISTING INLETS DOWNSTREAM OF THE CONSTRUCTION LIMITS SHALL RECEIVE INLET PROTECTION.	
⊗	ROCK BAGS FOR SILT FENCE RELIEF POINT	→	SURFACE WATER FLOW PROPOSED		
△	TEMPORARY DITCH CHECK				

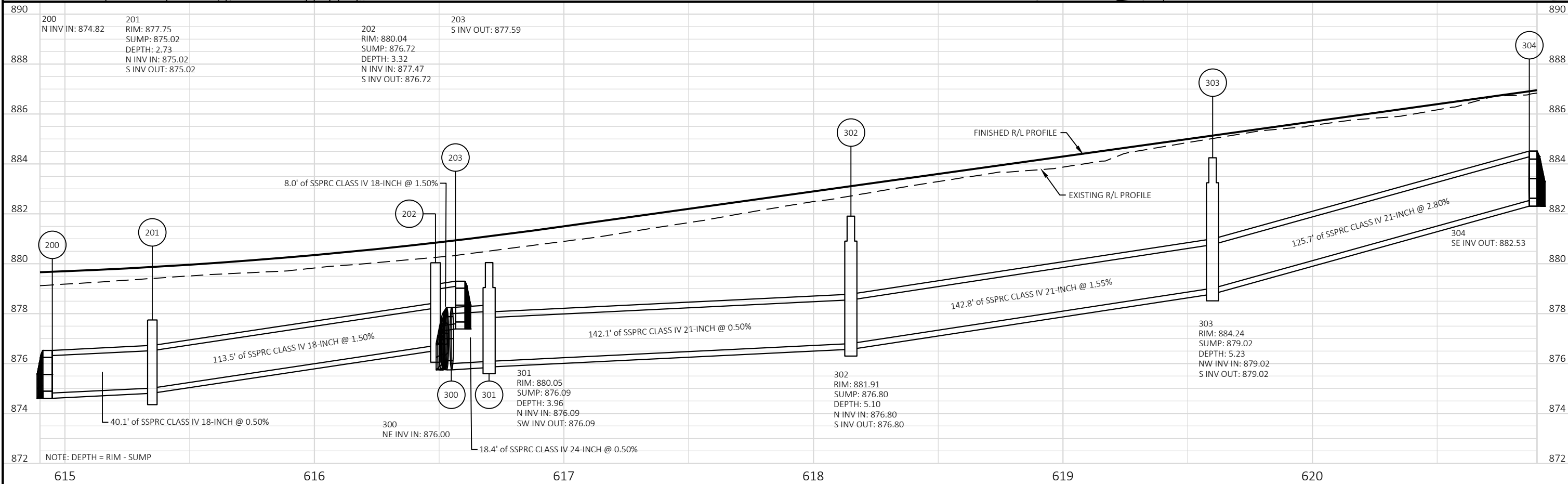
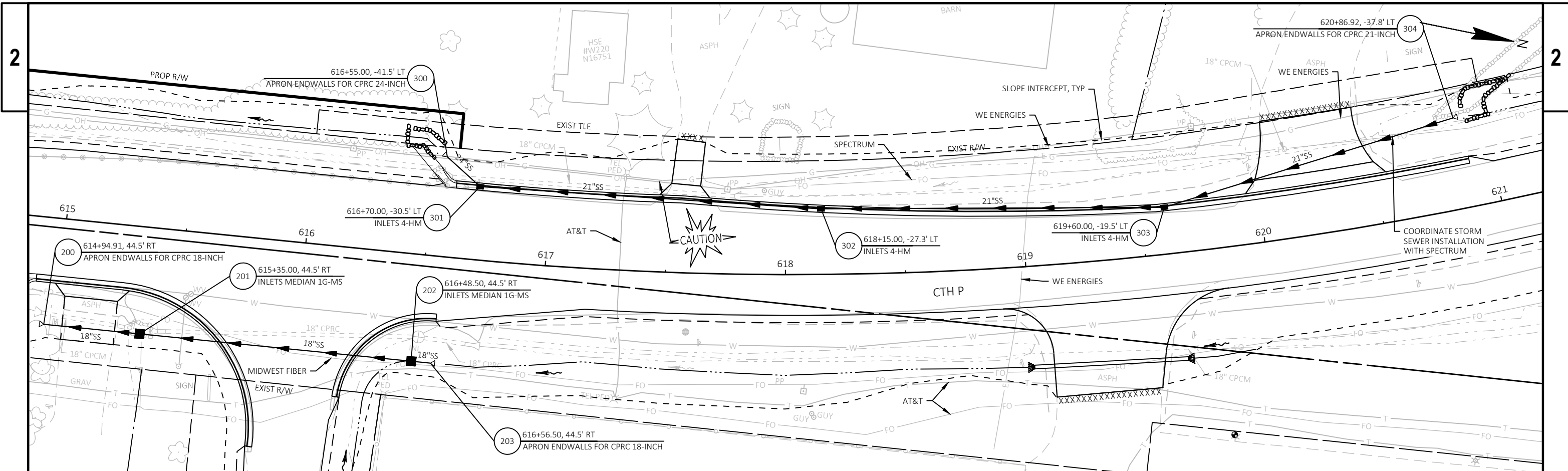




LEGEND

---	SLOPE INTERCEPT	⊗	INLET PROTECTION (TYPE)	WHEN THE PLANS SHOW TWO INLET PROTECTION TYPES TOGETHER, USE TYPE A INLET PROTECTION DURING GRADING OPERATIONS.	FINISHING ITEMS SHALL BE SALVAGED TOPSOIL, FERTILIZER TYPE B, SEED MIX NO 20, AND MULCH, UNLESS OTHERWISE NOTED IN THE PLANS.
—	SILT FENCE	##	EROSION MAT CLASS I TYPE B		
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⊗	ROCK BAGS FOR SILT FENCE RELIEF POINT	→	SURFACE WATER FLOW PROPOSED		
△	TEMPORARY DITCH CHECK				





STORM SEWER STRUCTURE DATA

STRUCTURE NUMBER	ALIGNMENT	STATION	OFFSET	LOCATION	TYPE	RIM/GRATE ELEVATION	STRUCTURE INV ELEV	TOTAL DEPTH	SUMP DEPTH	CONNECTING PIPES	PIPE DIRECTION	PIPE SIZE & TYPE	PIPE INVERT	PIPE ROUTE	PIPE LENGTH	PIPE SLOPE	REMARKS
200	CTH P	614+94.91	44.50	RT	APRON ENDWALLS FOR CPRC 18-INCH					201-200 IN	N	SSPRC CLASS IV 18-INCH	874.82	FROM STR: 201	--	--	
201	CTH P	615+35.00	44.50	RT	INLETS MEDIAN 1G-MS	877.75	875.02	2.73	0.00	202-201 IN 201-200 OUT	N S	SSPRC CLASS IV 18-INCH SSPRC CLASS IV 18-INCH	875.02 875.02	FROM STR: 202 TO STR: 200	-- 40.09'	-- 0.50%	
202	CTH P	616+48.50	44.50	RT	INLETS MEDIAN 1G-MS	880.04	876.72	3.32	0.00	203-202 IN 202-201 OUT	N S	SSPRC CLASS IV 18-INCH SSPRC CLASS IV 18-INCH	877.47 876.72	FROM STR: 203 TO STR: 201	-- 113.50'	-- 1.50%	
203	CTH P	616+56.50	44.50	RT	APRON ENDWALLS FOR CPRC 18-INCH					203-202 OUT	S	SSPRC CLASS IV 18-INCH	877.59	TO STR: 202	8.00'	1.50%	
300	CTH P	616+55.00	-41.50	LT	APRON ENDWALLS FOR CPRC 24-INCH					301-300 IN	NE	SSPRC CLASS IV 24-INCH	876.00	FROM STR: 301	--	--	
301	CTH P	616+70.00	-30.50	LT	INLETS 4-HM	880.05	876.09	3.96	0.00	302-301 IN 301-300 OUT	N SW	SSPRC CLASS IV 21-INCH SSPRC CLASS IV 24-INCH	876.09 876.09	FROM STR: 302 TO STR: 300	-- 18.40'	-- 0.50%	
302	CTH P	618+15.00	-27.25	LT	INLETS 4-HM	881.91	876.80	5.10	0.00	303-302 IN 302-301 OUT	N S	SSPRC CLASS IV 21-INCH SSPRC CLASS IV 21-INCH	876.80 876.80	FROM STR: 303 TO STR: 301	-- 142.05'	-- 0.50%	
303	CTH P	619+60.00	-19.50	LT	INLETS 4-HM	884.24	879.02	5.23	0.00	304-303 IN 303-302 OUT	NW S	SSPRC CLASS IV 21-INCH SSPRC CLASS IV 21-INCH	879.02 879.02	FROM STR: 304 TO STR: 302	-- 142.79'	-- 1.55%	
304	CTH P	620+86.92	-37.82	LT	APRON ENDWALLS FOR CPRC 21-INCH					304-303 OUT	SE	SSPRC CLASS IV 21-INCH	882.53	TO STR: 303	125.67'	2.80%	

NOTES:

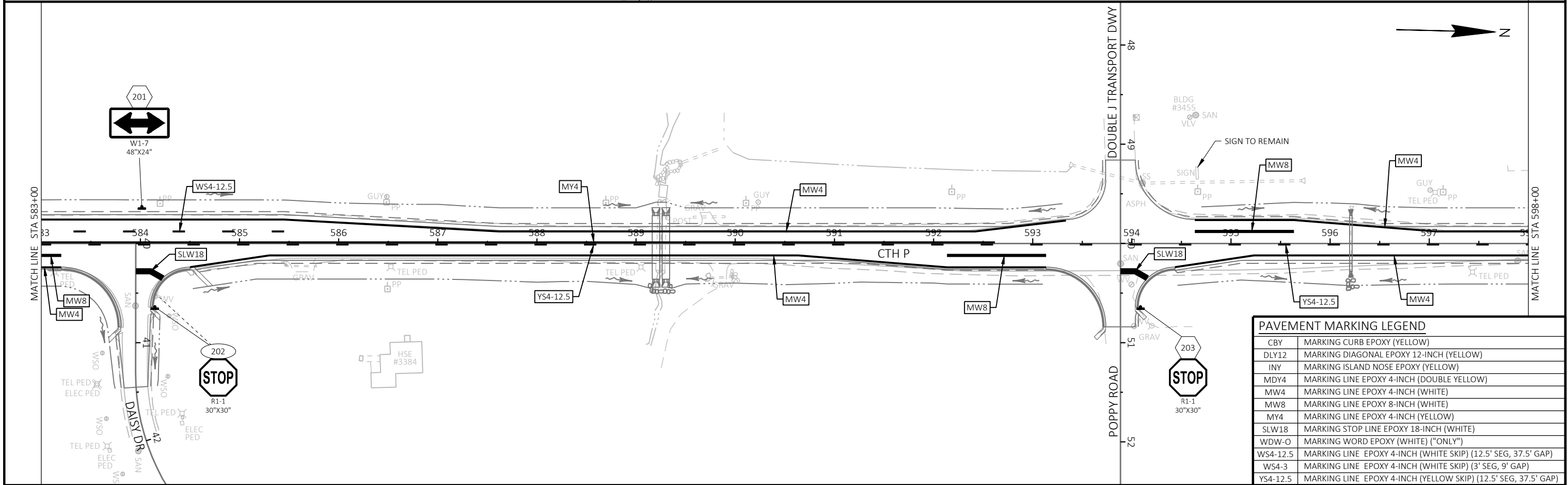
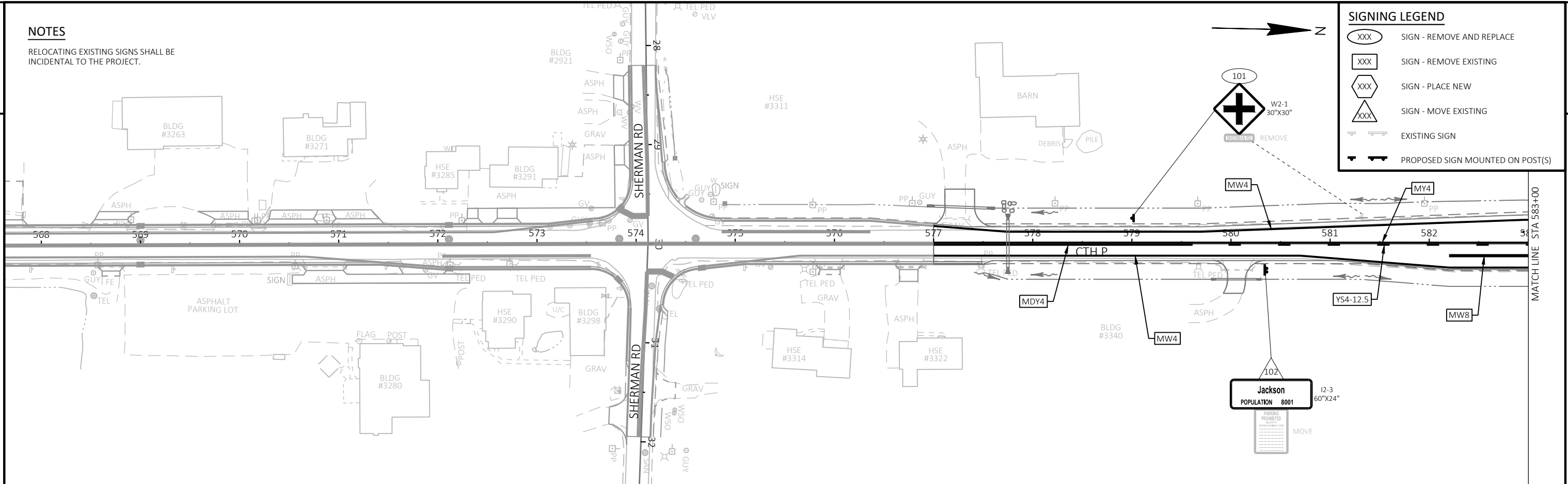
1. TOTAL DEPTH = RIM/GRATE ELEVATION - STRUCTURE INVERT ELEVATION.
2. MANHOLES SHALL BE CONSTRUCTED IN A WAY THAT WILL ALLOW THE CASTING TO BE ALIGNED IN THE MIDDLE OF A LANE OR ON A JOINT LINE.
3. CONTRACTOR SHALL VERIFY EXISTING PIPE SIZES, MATERIALS AND INVERT ELEVATION WHEN CONNECTING NEW STORM SEWER INTO EXISTING PIPES PRIOR TO MANUFACTURING INLETS AND MANHOLES.
4. STATION/ OFFSET OF STORM SEWER STRUCTURES ARE TO THE CENTER OF STRUCTURE EXCEPT FOR CONCRETE APRON ENDWALLS WHICH ARE TO PIPE END.

NOTES

RELOCATING EXISTING SIGNS SHALL BE INCIDENTAL TO THE PROJECT.

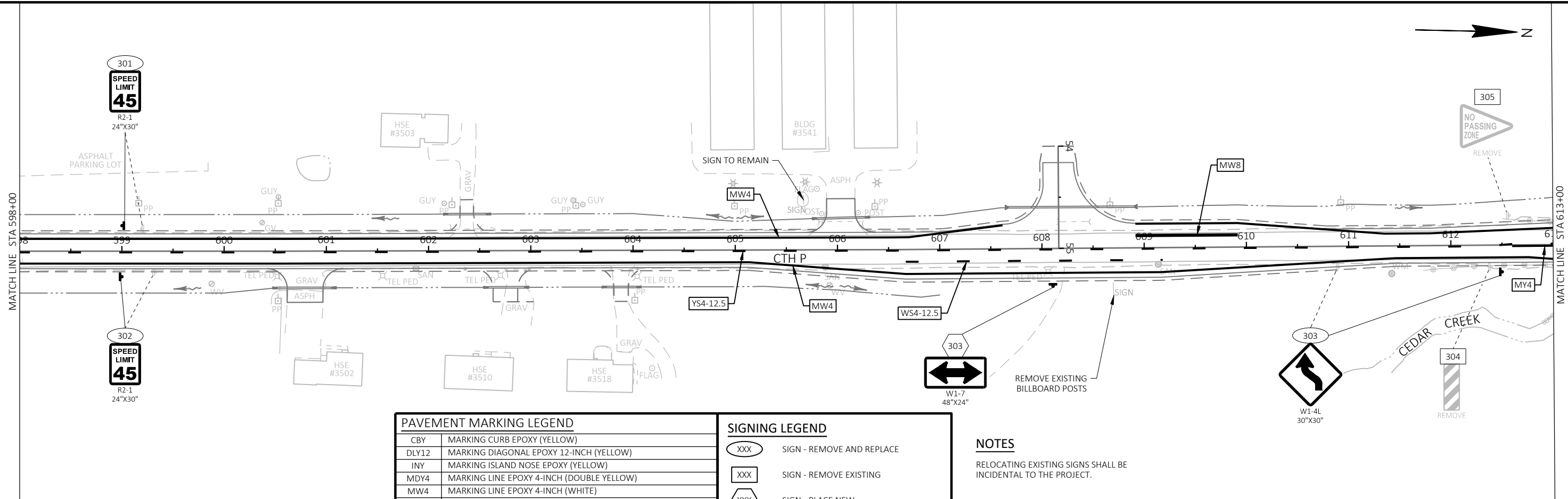
SIGNING LEGEND

- (XXX) SIGN - REMOVE AND REPLACE
- [XXX] SIGN - REMOVE EXISTING
- {XXX} SIGN - PLACE NEW
- △XXX SIGN - MOVE EXISTING
- EXISTING SIGN
- PROPOSED SIGN MOUNTED ON POST(S)



PAVEMENT MARKING LEGEND

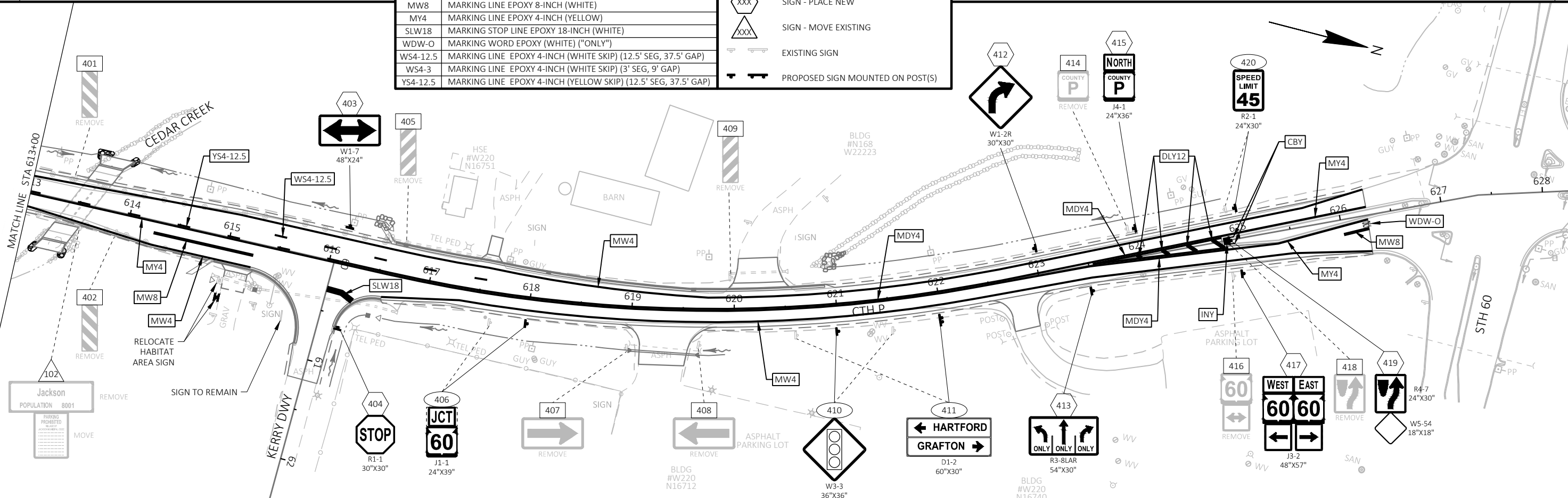
CBY	MARKING CURB EPOXY (YELLOW)
DLY12	MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
INY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4	MARKING LINE EPOXY 4-INCH (WHITE)
MW8	MARKING LINE EPOXY 8-INCH (WHITE)
MY4	MARKING LINE EPOXY 4-INCH (YELLOW)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WDW-O	MARKING WORD EPOXY (WHITE) ("ONLY")
WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS4-3	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS4-12.5	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

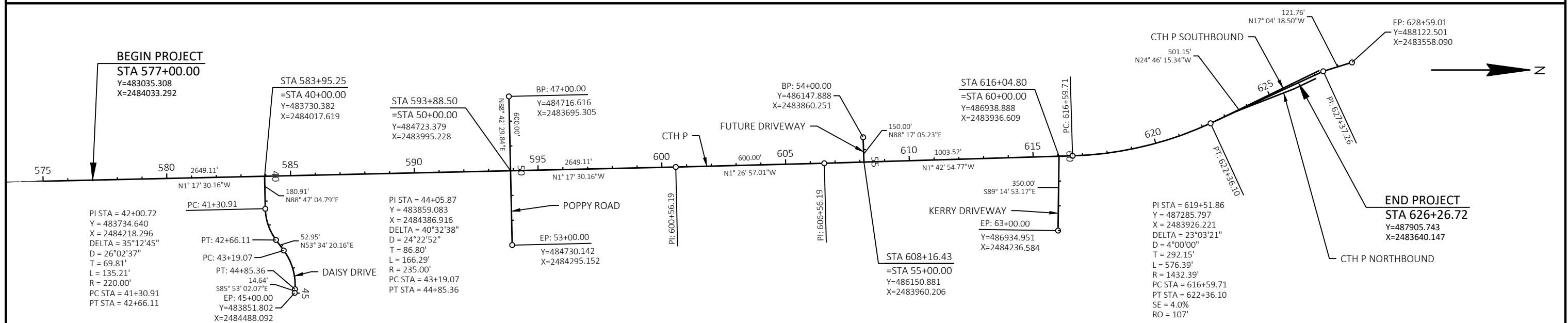
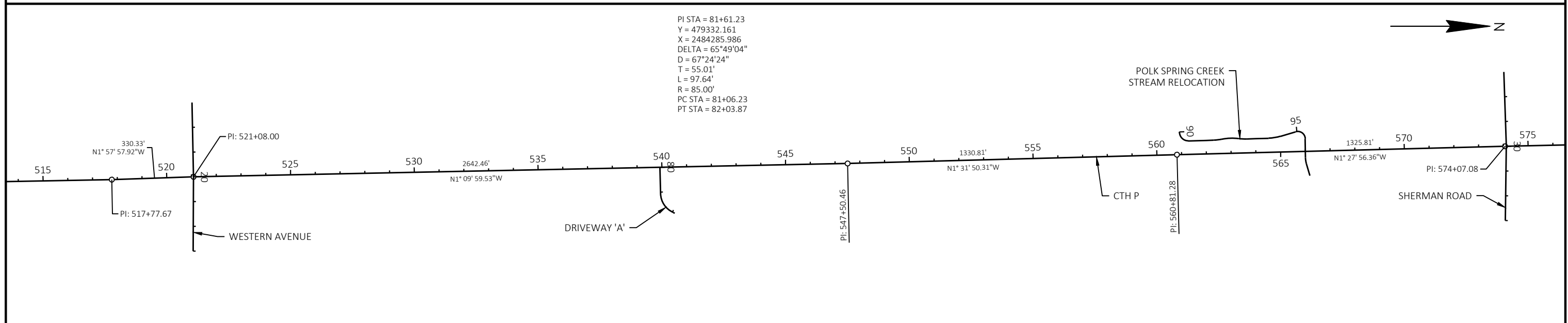
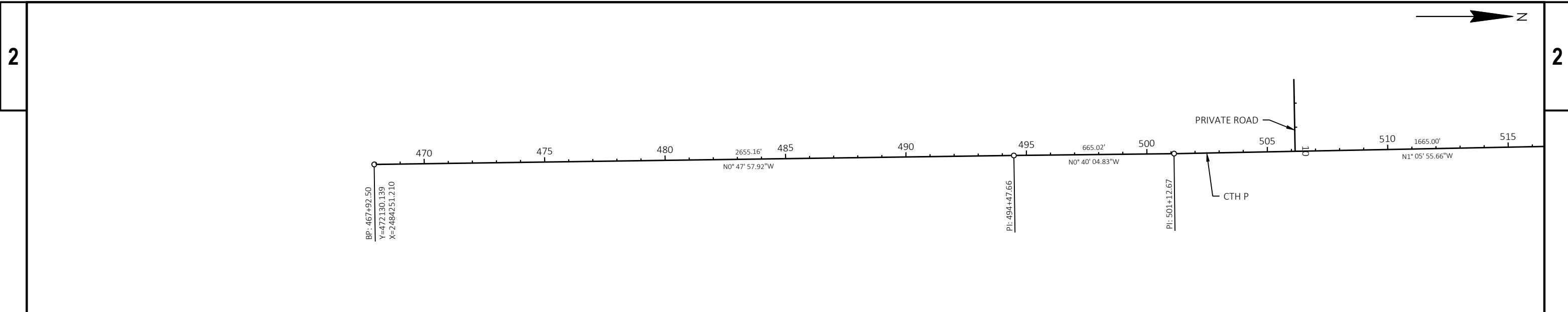


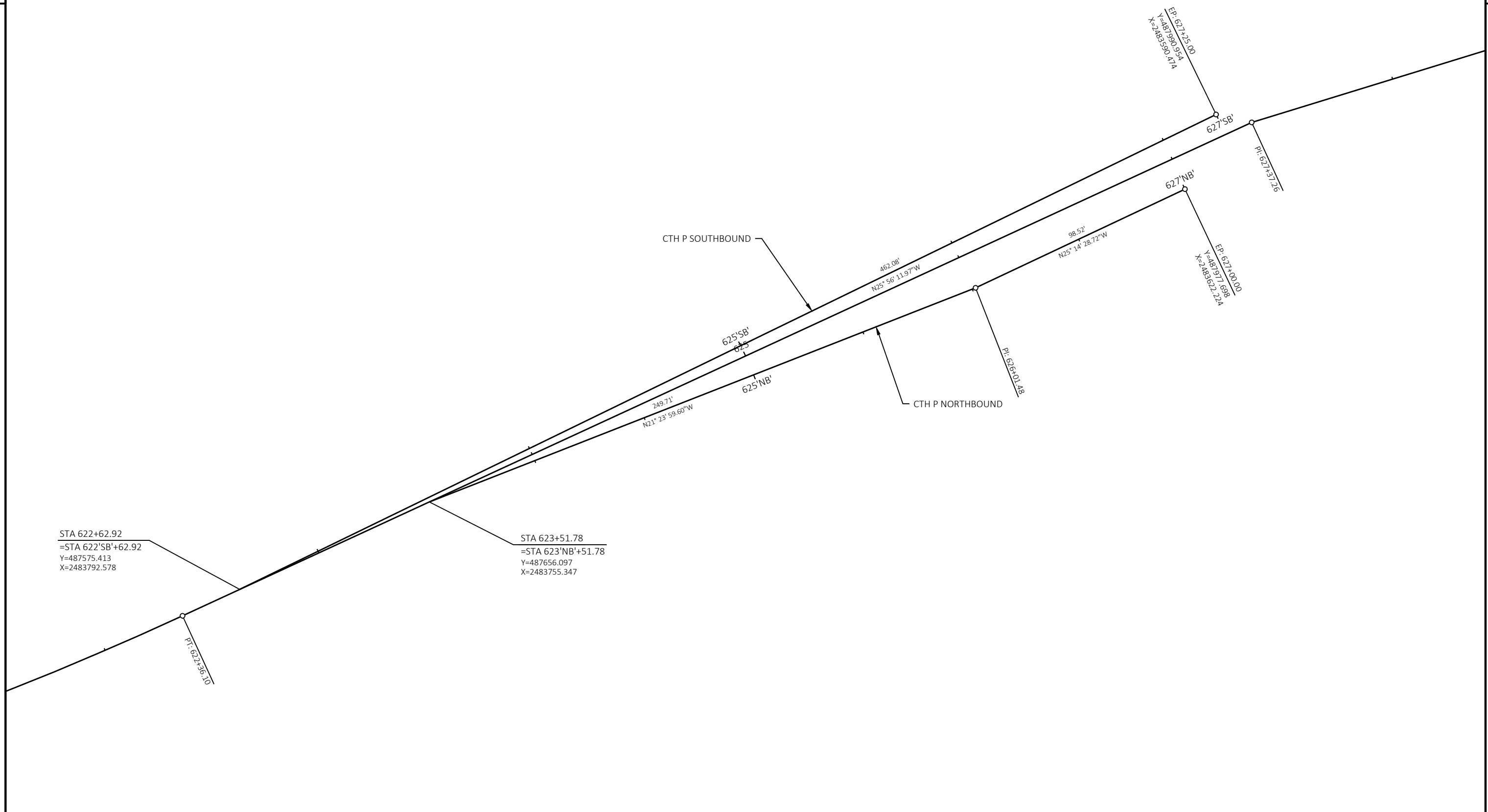
PAVEMENT MARKING LEGEND	
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INY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4	MARKING LINE EPOXY 4-INCH (WHITE)
MW8	MARKING LINE EPOXY 8-INCH (WHITE)
MY4	MARKING LINE EPOXY 4-INCH (YELLOW)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WDW-O	MARKING WORD EPOXY (WHITE) ("ONLY")
WS4-12.5	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS4-3	MARKING LINE EPOXY 4-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS4-12.5	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

SIGNING LEGEND	
XXX	SIGN - REMOVE AND REPLACE
XXX	SIGN - REMOVE EXISTING
XXX	SIGN - PLACE NEW
XXX	SIGN - MOVE EXISTING
[Symbol]	EXISTING SIGN
[Symbol]	PROPOSED SIGN MOUNTED ON POST(S)

NOTES
 RELOCATING EXISTING SIGNS SHALL BE INCIDENTAL TO THE PROJECT.

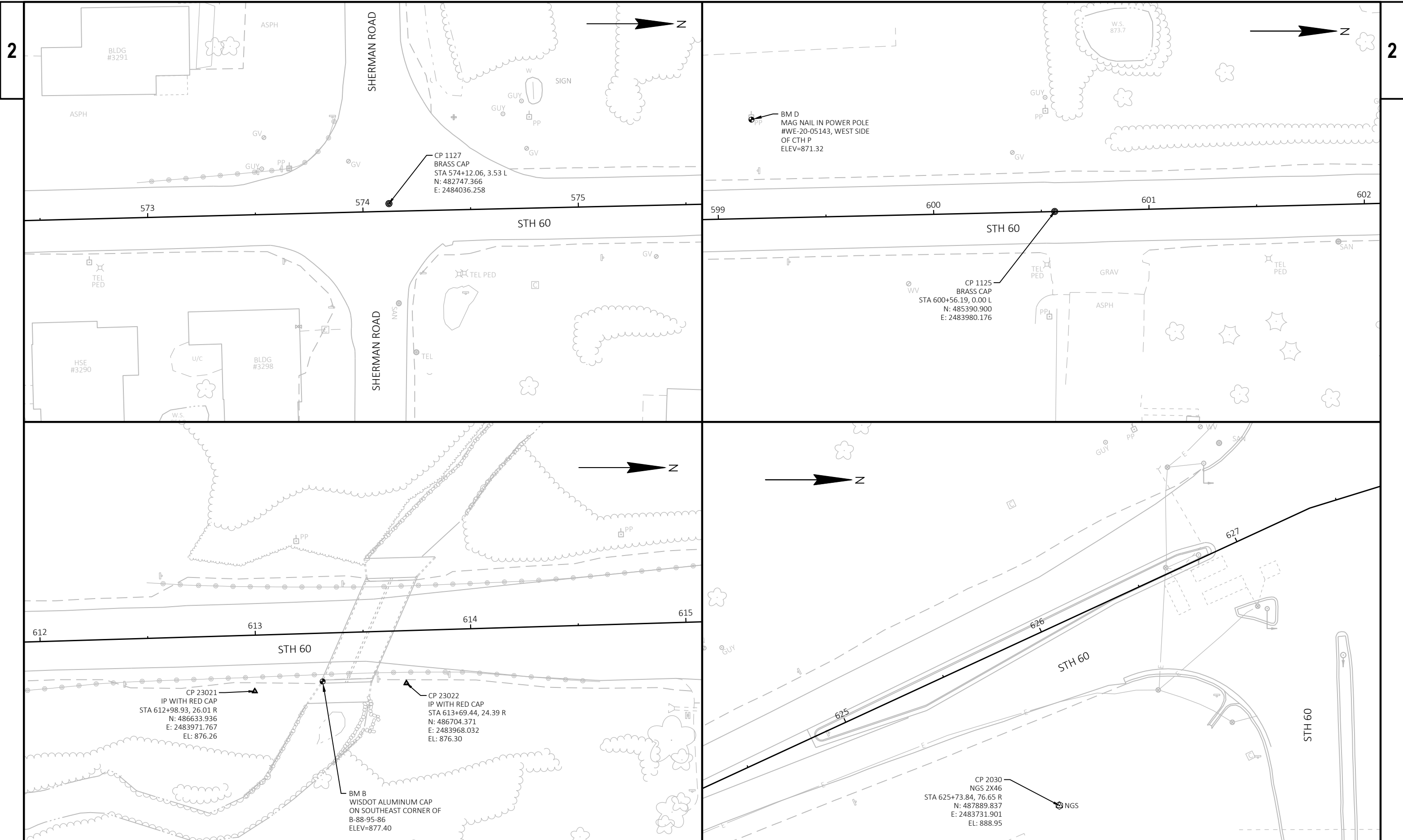






STA 622+62.92
 =STA 622'SB'+62.92
 Y=487575.413
 X=2483792.578

STA 623+51.78
 =STA 623'NB'+51.78
 Y=487656.097
 X=2483755.347



PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	ALIGNMENT LAYOUT SURVEY CONTROL	SHEET 31 E
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GRUBBING

STATION - STATION	201.0205 STA
600+00 - 603+00	3
612+00 - 617+00	5
TOTAL	8

CLEARING TO BE DONE BY WASHINGTON COUNTY.

REMOVING ITEMS

STATION - STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	203.0220 REMOVING STRUCTURE (B-66-95) EACH	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.0220 REMOVING INLETS EACH	204.0245 REMOVING STORM SEWER (18-INCH) LF	204.9060.S REMOVING BILLBOARD POSTS EACH	COMMENTS
CATEGORY CODE 0010											
577+00 - 613+25	LT & RT	--	--	8,865	--	--	--	--	--	--	CTH P
577+22	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
580+06	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
583+20 - 584+50	RT	--	--	--	149	--	--	--	--	--	DAISY DRIVE
585+62	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
589+25	LT & RT	4	--	--	--	--	2	--	--	--	--
589+74	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
589+86	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
596+21	LT & RT	1	--	--	--	--	1	--	--	--	--
602+38	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
602+85	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
603+88	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
606+02	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
608+31	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
608+70	RT	--	--	--	--	--	--	--	--	--	--
611+73 - 616+73	LT & RT	--	--	--	--	711	1	--	--	--	--
615+11	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
615+26 - 616+74	RT	--	--	--	158	--	--	1	--	--	KERRY DRIVEWAY
617+58	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
619+34	RT	1	--	--	--	--	--	--	--	--	DRIVEWAY
620+25	LT	1	--	--	--	--	--	--	--	--	DRIVEWAY
622+57	RT	--	--	--	--	--	1	--	--	--	--
623+56 - 625+27	LT & RT	--	--	115	--	--	--	--	--	--	CONCRETE CORRUGATED MEDIAN
TOTALS		19	--	8,980	307	711	5	1	--	--	

BASE AGGREGATE DENSE ITEMS

STATION - 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
577+00 - 624+89	1,865	11,070	20,105
TOTALS	1,865	11,070	20,105

BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS BASED ON 2.1 TONS/CY.
 BASE AGGREGATE DENSE 1 1/4-INCH WEIGHT CALCULATIONS BASED ON 2.0 TONS/CY.
 BASE AGGREGATE DENSE 3-INCH WEIGHT CALCULATIONS BASED ON 2.2 TONS/CY.

BREAKER RUN & GEOSYNTHETICS

STATION	LOCATION	311.0110 BREAKER RUN TON	645.0140 GEOTEXTILE TYPE SAS SY
UNDISTRIBUTED EBS			
589+20 - 589+69	RT	75	82
609+50 - 610+65	RT	175	187
609+92 - 615+48	LT	605	498
613+25 - 614+87	RT	295	281
TOTAL		2,850	2,550

BREAKER RUN WEIGHT CALCULATIONS BASED ON 1.8 TONS/ CY.

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON
577+00 - 626+27	LT & RT	2,530	6,380	2,830
TOTALS		2,530	6,380	2,830

HMA PAVEMENT WEIGHT CALCULATIONS BASED ON 112 LB/SY/IN.
 TACK COAT CALCULATIONS BASED ON 0.050 GAL/SY

**ASPHALTIC SURFACE
DRIVEWAYS AND FIELD ENTRANCES**

STATION	LOCATION	465.0120 TON
577+22	LT	25
580+05	RT	19
600+80	RT	26
606+03	LT	29
615+13	RT	3
617+57	LT	6
619+31	RT	52
620+25	LT	34
622+80	RT	26
TOTAL		220

ASPHALTIC SURFACE WEIGHT CALCULATIONS BASED
 ON 112 LB/SY/IN.

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/ UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	205.0400 MARSH EXCAVATION (6)	REDUCED MARSH IN FILL (8)	REDUCED EBS IN FILL (9)	EXPANDED MARSH BACKFILL (10)	EXPANDED EBS BACKFILL (11)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE (15)	COMMENT
			FACTOR 0.60	FACTOR 0.80				FACTOR 1.50	FACTOR 1.30	FACTOR 1.25						
DIVISION 1																
CTH P	577+00/623+50	CTH P	19,240	940	8,296	10,944	546	328	752	819	1,222	1,631	689	10,255	10,255	
CTH P NORTHBOUND	624+00/624+89.57	CTH P NORTHBOUND	148	0	89	59	0	0	0	0	0	0	0	59	59	
CTH P SOUTHBOUND	623+00/624+89.311	CTH P SOUTHBOUND	464	0	167	297	0	0	0	0	0	0	0	297	297	
DAISY DRIVE	40+24/41+45	DAISY DRIVE	375	0	51	324	0	0	0	0	0	19	24	300	300	
DOUBLE J TRANSPORT DRIVEWAY	49+16/49+76	DOUBLE J TRANSPORT DRIVEWAY	219	0	36	183	0	0	0	0	0	3	4	179	179	
POPPY ROAD	50+24/50+84	POPPY ROAD	159	0	0	159	0	0	0	0	0	27	34	125	125	
FUTURE DEVELOPMENT DRIVEWAY	54+00/54+76	FUTURE DEVELOPMENT DRIVEWAY	71	0	0	71	0	0	0	0	0	34	43	29	29	
KERRY INGREDIENTS DRIVEWAY	60+24.022/61+20	KERRY INGREDIENTS DRIVEWAY	309	0	49	260	0	0	0	0	0	8	10	250	250	
DIVISION 1 SUBTOTAL			20,985	940	8,688	12,297	546	328	752	819	1,222	1,722	803	11,494	11,494	
GRAND TOTAL			20,985	940	8,688	12,297	546	328	752	819	1,222	1,722	803	11,494	11,494	
TOTAL COMMON EXC			21,925													

NOTES:

- (1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100
- (2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
- (3) EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL = LENGTH * TYPICAL WIDTH * TYPICAL DEPTH
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (6) MARSH EXCAVATION - TO BE BACKFILLED WITH BREAKER RUN
- (7) NOT USED
- (8) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = 0.60
- (9) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.80
- (10) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN
- (11) EXPANDED EBS BACKFILL - THIS IS TO BE FILLED WITH BREAKER RUN
- (12) NOT USED
- (13) EXPANDED FILL FACTOR = 1.25. EXPANDED FILL = (UNEXPANDED FILL - REDUCED MARSH - REDUCED EBS) * FILL FACTOR
- (14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
- (15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

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ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY
CATEGORY CODE 0010		
584+50	RT	11
614+90	RT	11
616+60	LT	10
40+64	LT	5
40+84	RT	6
50+64	LT	5
50+84	RT	7
TOTALS		55

DRIVEWAY CULVERT PIPE SUMMARY

STATION	LOCATION	521.1018*	521.1518	521.1524	521.3118*	521.3124
		APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1	CULVERT PIPE CORRUGATED STEEL 18-INCH	CULVERT PIPE CORRUGATED STEEL 24-INCH
CATEGORY CODE 0010		EACH	EACH	EACH	LF	LF
577+26.94' LT	CTH P	--	--	2	--	54
580+05.30' RT	CTH P	--	2	--	42	--
600+78.31' RT	CTH P	--	2	--	54	--
602+37.49' LT	CTH P	--	2	--	38	--
602+75.58' RT	CTH P	--	2	--	36	--
603+88.41' RT	CTH P	--	2	--	30	--
606+03.24' LT	CTH P	--	2	--	48	--
619+31.88' RT	CTH P	2	--	--	64	--
TOTALS		2	12	2	312	54

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS

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CONCRETE CURB AND GUTTER ITEMS

STATION - STATION	LOCATION	601.0553	650.5500	COMMENTS
		CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	
CATEGORY CODE 0010		LF	LF	
577+00 - 577+59	RT	49	49	CTH P
583+20 - 583+78	RT	91	91	DAISY DRIVE
584+12 - 584+50	RT	60	60	DAISY DRIVE
593+13 - 593+71	RT	91	91	POPPY ROAD
594+05 - 594+43	RT	60	60	POPPY ROAD
614+90 - 615+84	RT	130	130	KERRY DRIVEWAY
616+19 - 616+57	RT	58	58	KERRY DRIVEWAY
616+60 - 620+90	LT	423	423	CTH P
TOTALS		962	962	

CROSS CULVERT PIPE SUMMARY

STATION	LOCATION	521.1018*	521.3118*	522.0124	522.1024*	522.2348	522.2648	633.5200	650.6000	**
		APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	CULVERT PIPE CORRUGATED STEEL 18-INCH	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	CULVERT PIPE REINFORCED CONCRETE CLASS HE-III 48X76-INCH	CULVERT PIPE APRON ENDWALLS FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 48X76-INCH	APRON ENDWALLS FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 48X76-INCH	MARKERS CULVERT END	CONSTRUCTION STAKING PIPE CULVERTS
CATEGORY CODE 0010		EACH	LF	LF	EACH	LF	EACH	EACH	EACH	EACH
577+75.00	CTH P	--	--	48	2	--	--	2	1	12
589+20.00	CTH P	--	--	--	--	64	2	1	1	12
589+30.00	CTH P	--	--	--	--	64	2	1	1	12
596+21.00	CTH P	--	--	56	2	--	--	2	1	12
608+28.79' LT	CTH P	2	124	--	--	--	--	--	1	--
TOTALS		2	124	104	4	128	4	6	5	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS.

**NON-BID ITEM: FOR INFORMATION ONLY

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STORM SEWER ITEMS

STRUCTURE	STATION	*** OFFSET	LOCATION	522.1018	522.1021	522.1024*	608.0418	608.0421	608.0424	611.0627	611.0642	611.3004	611.3901	650.4000	** JOINT TIES
				APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	INLET COVERS TYPE HM	INLET COVERS TYPE MS	INLETS 4-FT DIAMETER	INLETS MEDIAN 1 GRATE	CONSTRUCTION STAKING STORM SEWER	
CATEGORY CODE 0010															
200	614+94.91	44.50'	RT CTH P	1	--	--	--	--	--	--	--	--	--	1	6
201	615+35.00	44.50'	RT CTH P	--	--	--	40	--	--	--	1	--	1	1	--
202	616+48.50	44.50'	RT CTH P	--	--	--	114	--	--	--	1	--	1	1	--
203	616+56.50	44.50'	RT CTH P	1	--	--	8	--	--	--	--	--	--	1	6
300	616+55.00	41.50'	LT CTH P	--	--	1	--	--	--	--	--	--	--	1	6
301	616+70.00	30.50'	LT CTH P	--	--	--	--	--	18	1	--	1	--	1	--
302	618+15.00	27.25'	LT CTH P	--	--	--	--	142	--	1	--	1	--	1	--
303	619+60.00	19.50'	LT CTH P	--	--	--	--	143	--	1	--	1	--	1	--
304	620+86.92	37.82'	LT CTH P	--	1	--	--	126	--	--	--	--	--	1	6
TOTALS				2	1	1	162	411	18	3	2	3	2	9	

REMARKS:

- *ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS.
- **NON-BID ITEM: FOR INFORMATION ONLY
- ***STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

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ADJUSTING MANHOLE COVERS

STATION	LOCATION	EXISTING ELEVATION	FINISHED ELEVATION	611.8110 EACH
CATEGORY CODE 0010				
594+11	LT	867.88	867.76	1
TOTAL				1

RIPRAP AND GEOTEXTILE FABRIC ITEMS

STATION - STATION	LOCATION	606.0200	645.0120	COMMENTS
		RIPRAP MEDIUM	GEOTEXTILE TYPE HR	
CATEGORY CODE 0010				
577+75	LT	4	15	CROSS CULVERT
589+25	RT	6	22	CROSS CULVERT
596+21	RT	4	15	CROSS CULVERT
616+38 - 616+54	LT	5	18	SS OUTFALL
620+91 - 621+13	LT	9	29	SWALE
UNDISTRIBUTED		7	26	
TOTALS		35	125	

CONCRETE MEDIAN SLOPED NOSE

STATION	LOCATION	620.0300	COMMENTS
		SF	
CATEGORY CODE 0010			
624+82 - 624+89	LT & RT	70	TYPE 1
TOTAL		70	

RESTORATION ITEMS

STATION - STATION	LOCATION	625.0500	627.0200	628.2004	628.2008	629.0210	630.0120	630.0140	630.0500
		SALVAGED TOPSOIL	MULCHING SY	EROSION MAT CLASS I TYPE B SY	EROSION MAT URBAN CLASS I TYPE B SY	FERTILIZER TYPE B CWT	SEED MIX NO. 20 LB	SEED MIX NO. 40 LB	SEED WATER MGAL
CATEGORY CODE 0010									
577+00 - 593+89	LT	3,001	1,140	1,861	--	2.8	79	27	99
577+00 - 583+95	RT	1,391	770	572	49	1.2	--	34	42
583+95 - 593+89	RT	1,921	1,041	880	--	1.7	57	11	60
593+89 - 608+31	LT	2,491	1,432	1,059	--	2.2	23	49	79
593+89 - 616+05	RT	3,218	2,255	963	--	3.1	106	18	110
608+31 - 626+27	LT	3,213	2,258	955	--	2.7	55	40	95
616+05 - 626+27	RT	1,910	1,607	303	--	1.6	--	45	56
UNDISTRIBUTED		4,285	2,627	1,647	11	3.7	80	51	134
TOTALS		21,430	13,130	8,240	60	19.0	400	275	675

NOTES: DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A BODY OF WATER OR WETLAND

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EROSION CONTROL ITEMS

STATION	LOCATION	628.1504	628.7005	628.7010	628.7015	628.7504	628.7555	628.7560	628.7570
		SILT FENCE	INLET PROTECTION TYPE A	INLET PROTECTION TYPE B	INLET PROTECTION TYPE C	TEMPORARY DITCH CHECKS	CULVERT PIPE CHECKS	TRACKING PADS	ROCK BAGS
		LF	EACH	EACH	EACH	LF	EACH	EACH	EACH
CATEGORY CODE 0010									
577+00 - 593+90	LT	--	--	--	--	60	38	--	45
577+00 - 583+95	RT	--	--	--	--	24	5	--	15
583+95 - 593+90	RT	--	--	--	--	72	--	--	30
593+90 - 608+31	LT	--	--	--	--	--	9	--	30
593+90 - 613+52	RT	630	--	--	--	36	6	--	47
608+31 - 613+52	LT	--	--	--	--	12	--	--	15
613+52 - 626+27	LT	--	--	--	3	36	3	--	45
613+52 - 616+05	RT	--	1	1	--	12	--	--	15
616+05 - 626+27	RT	279	1	2	--	12	6	--	--
626+69 - 626+84	LT & RT	--	--	--	2	--	--	--	--
UNDISTRIBUTED		226	--	--	--	66	18	2	63
TOTALS		1,135	2	3	5	330	85	2	305

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TRAFFIC CONTROL ITEMS

	NUMBER OF DAYS IN SERVICE	643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.5000 TRAFFIC CONTROL
		NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	EACH
		CATEGORY CODE 0010		CATEGORY CODE 0010		CATEGORY CODE 0010		CATEGORY CODE 0010
PROJECT 24-01	--	--	--	--	--	--	--	1
DAISY DRIVE	117	2	234	4	468	2	234	--
TOTALS			234		468		234	1

PAVEMENT MARKING ITEMS

STATION - STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH		646.3020 MARKING LINE EPOXY 8-INCH	646.5120 MARKING WORD EPOXY	646.6120 MARKING STOP LINE EPOXY 18-INCH	646.7120 MARKING DIAGONAL EPOXY 12-INCH	646.8120 MARKING CURB EPOXY YELLOW	646.8220 MARKING ISLAND NOSE EPOXY YELLOW	COMMENTS
		WHITE LF	YELLOW LF	WHITE LF	WHITE EACH	WHITE LF	YELLOW LF	YELLOW LF	YELLOW EACH	
CATEGORY CODE 0010										
577+00 - 626+27	LT & RT	9,399	5,481	525	1	--	47	10	1	--
40+28	LT	--	--	--	--	29	--	--	--	DAISY DRIVE
50+28	LT	--	--	--	--	29	--	--	--	POPPY ROAD
60+28	LT	--	--	--	--	28	--	--	--	KERRY DRIVEWAY
TOTALS		9,399	5,481	525	1	86	47	10	1	

LOCATING NO-PASSING ZONES

STATION - STATION	648.0100 MI
CATEGORY CODE 0010	
577+00 - 626+27	0.93
TOTALS	
	0.93

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SIGNING ITEMS																
SIGN NUMBER	EXISTING STATION	EXISTING LOCATION	PROPOSED STATION	PROPOSED LOCATION	ROADWAY	SIGN CODE	SIZE	634.0614 POSTS WOOD 4X6X14 EACH	634.0616 POSTS WOOD 4X6X16 EACH	634.0618 POSTS WOOD 4X6X18 EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
CATEGORY CODE 0010																
101	581+31	LT	579+00	LT	CTH P	W2-1	30X30	--	1	--	--	6.25	--	1	1	--
102	613+57	RT	580+36	RT	CTH P	I2-3	60X24	--	2	--	10.00	--	--	1	1	REPLACE JACKSON POPULATION SIGN MOVE PARKING PROHIBITED SIGN
201	--	--	584+01	LT	CTH P	W1-7	48X24	--	1	--	--	8.00	--	--	--	--
202	40+52	LT	40+64	LT	DAISY DRIVE	R1-1	30X30	1	--	--	5.18	--	--	1	1	--
203	--	--	50+64	LT	POPPY ROAD	R1-1	30X30	1	--	--	5.18	--	--	--	--	--
301	599+19	LT	599+00	LT	CTH P	R2-1	24X30	1	--	--	5.00	--	--	1	1	45 MPH
302	599+33	RT	599+00	RT	CTH P	R2-1	24X30	1	--	--	5.00	--	--	1	1	45 MPH
303	--	--	608+10	RT	CTH P	W1-7	48X24	--	1	--	--	8.00	--	--	--	--
304	610+90	RT	612+50	RT	CTH P	W1-4L	30X30	--	1	--	--	6.25	--	1	1	--
305	612+39	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
306	612+57	LT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
401	613+42	LT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
402	613+89	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
403	--	--	616+12	LT	CTH P	W1-7	48X24	--	1	--	--	8.00	--	--	--	--
404	--	--	60+62	LT	ERRY DRIVEW	R1-1	30X30	1	--	--	5.18	--	--	--	--	--
405	616+69	LT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
406	617+65	RT	618+00	RT	CTH P	J1-1	24X39	--	1	--	6.50	--	--	1	1	M2-1; M1-6 [60]
407	618+95	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
408	619+67	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
409	619+98	LT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
410	621+54	RT	621+00	RT	CTH P	W3-3	36X36	--	1	--	--	9.00	--	1	1	--
411	620+60	RT	622+00	RT	CTH P	D1-2	60X30	--	2	--	12.50	--	--	1	1	HARTFORD [LA]; GRAFTON [RA]
412	--	--	623+00	LT	CTH P	W1-2R	30X30	--	1	--	--	6.25	--	--	--	--
413	--	--	623+50	RT	CTH P	R3-8LAR	54X30	--	1	--	11.25	--	--	--	--	--
414	623+92	LT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
415	--	--	624+00	LT	CTH P	J4-1	24X36	--	1	--	6.00	--	--	--	--	M3-1; M1-5A [P]
416	624+89	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
417	--	--	625+00	RT	CTH P	J3-2	48X57	--	--	1	19.00	--	--	--	--	M3-4; M1-6 [60]; LA / M3-2; M1-6 [60]; RA
418	624+91	RT	--	--	CTH P	--	--	--	--	--	--	--	--	1	1	--
419	--	--	624+91	RT	CTH P	R4-7 W5-54	24X30 18X18	1 --	-- --	-- --	5.00 --	-- 2.25	-- --	-- --	-- --	MOUNT AT STANDARD MOUNTING HEIGHT MOUNT BELOW R4-7 SIGN AT A MOUNTING HEIGHT OF 4-FT
420	624+90	LT	625+00	LT	CTH P	R2-1	24X30	1	--	--	5.00	--	--	1	1	45 MPH
TOTALS								7	14	1	100.79	54.00	1	21	21	

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3

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 SUBGRADE	650.5000 BASE	650.6501 STRUCTURE LAYOUT	650.9911 SUPPLEMENTAL CONTROL	650.9920 SLOPE STAKES
CATEGORY CODE 0010						
PROJECT 24-01		--	--	--	1	--
577+00 - 626+27	LT & RT	4,782	4,927	--	--	4,927
40+00 - 41+45	LT & RT	145	145	--	--	145
49+16 - 50+84	LT & RT	168	168	--	--	168
54+16 - 55+00	LT & RT	84	84	--	--	84
60+00 - 61+20	LT & RT	120	120	--	--	120
B-66-95	LT & RT	--	--	1	--	--
TOTALS		5,299	5,444	1	1	5,444

STAKING ITEMS FOR STORM SEWER, CURB & GUTTER, AND PIPE CULVERTS SHOWN ELSEWHERE

SAWING PAVEMENT ITEMS

STATION - STATION	LOCATION	690.0150 ASPHALT	690.0250 CONCRETE	COMMENTS
CATEGORY CODE 0010				
577+00	LT & RT	38	--	CTH P
577+20	LT	21	--	DRIVEWAY
580+05	RT	20	--	DRIVEWAY
600+80	RT	35	--	DRIVEWAY
606+03	LT	28	--	DRIVEWAY
617+57	LT	12	--	DRIVEWAY
619+31	RT	44	--	DRIVEWAY
620+25	LT	39	--	DRIVEWAY
622+80	RT	25	--	DRIVEWAY
624+89 - 625+27	LT & RT	--	43	MEDIAN
626+27	LT & RT	50	--	CTH P
41+45	LT & RT	24	--	DAISY DRIVE
49+16	LT & RT	30	--	DOUBLE J TRANSPORT DRIVEWAY
50+84	LT & RT	30	--	POPPY ROAD
61+17	LT & RT	29	--	KERRY DRIVEWAY
TOTALS		425	43	

INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM

LOCATION	999.2000.S EACH	COMMENTS
CATEGORY CODE 0010		
613+52	1	BOX CULVERT CONSTRUCTION
TOTAL	1	

3

PROJECT ITEMS

PROJECT	460.9000.S MATERIAL TRANSFER VEHICLE	619.1000 MOBILIZATION	SPV.0105.01 TEMPORARY MAILBOX ACCOMMODATIONS
CATEGORY CODE 0010			
PROJECT 24-01	1	1	1
TOTALS	1	1	1

CONVENTIONAL SYMBOLS

SECTION LINE		PARCEL NUMBER	UTILITY NUMBER
QUARTER LINE		SECTION CORNER	R/W MONUMENT
SIXTEENTH LINE		NOTATION FOR COMBUSTIBLE FLUIDS	NON-MONUMENTED R/W POINT
NEW REFERENCE LINE		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	FOUND IRON PIN
NEW R/W LINE		CAUTION	VALVE (GAS, WATER, ETC.)
EXISTING R/W LINE		CAUTION	SIGN
PROPERTY LINE		CAUTION	OFF-PREMISE SIGN
LOT, TIE, AND OTHER MINOR LINES			
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			

TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING		NO ACCESS (NEW HIGHWAY)	
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT	
BRIDGE		SIXTEENTH CORNER MONUMENT	
		PARALLEL OFFSETS	

CONVENTIONAL UTILITY SYMBOLS

WATER		NON-COMPENSABLE	COMPENSABLE
GAS			
TELEPHONE			
OVERHEAD TRANSMISSION LINES			
ELECTRIC			
CABLE TELEVISION			
FIBER OPTIC			
SANITARY SEWER			
STORM SEWER			
ELECTRIC TOWER			
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			

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

CONVENTIONAL ABBREVIATIONS

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

R/W PROJECT NUMBER HWY 24-01	SHEET NUMBER 4.01	TOTAL SHEETS 7
R/W PROJECT NUMBER HWY 24-01		
PLAT OF RIGHT OF WAY REQUIRED FOR CTH P SHERMAN ROAD - STH 60		
TOWN OF POLK, TOWN OF JACKSON, VILLAGE OF JACKSON		WASHINGTON COUNTY
CONSTRUCTION PROJECT NUMBER HWY 24-01		

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM (WSPCS), SOUTH ZONE, NAD27 IN US SURVEY FEET. ALL COORDINATES AND DISTANCES SHOWN ON THIS PLAT ARE GROUND VALUES. TO CONVERT FROM NORTH GROUND COORDINATES TO NORTH GRID COORDINATES, MULTIPLY BY A FACTOR OF 0.999887663. TO CONVERT FROM EAST GROUND COORDINATES TO EAST GRID COORDINATES, SUBTRACT 2,000,000 AND MULTIPLY RESULT BY A FACTOR OF 0.99988511, AND THEN ADD 2,000,000.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 MONUMENTS (TYPICALLY 1" I.D. X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

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 THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

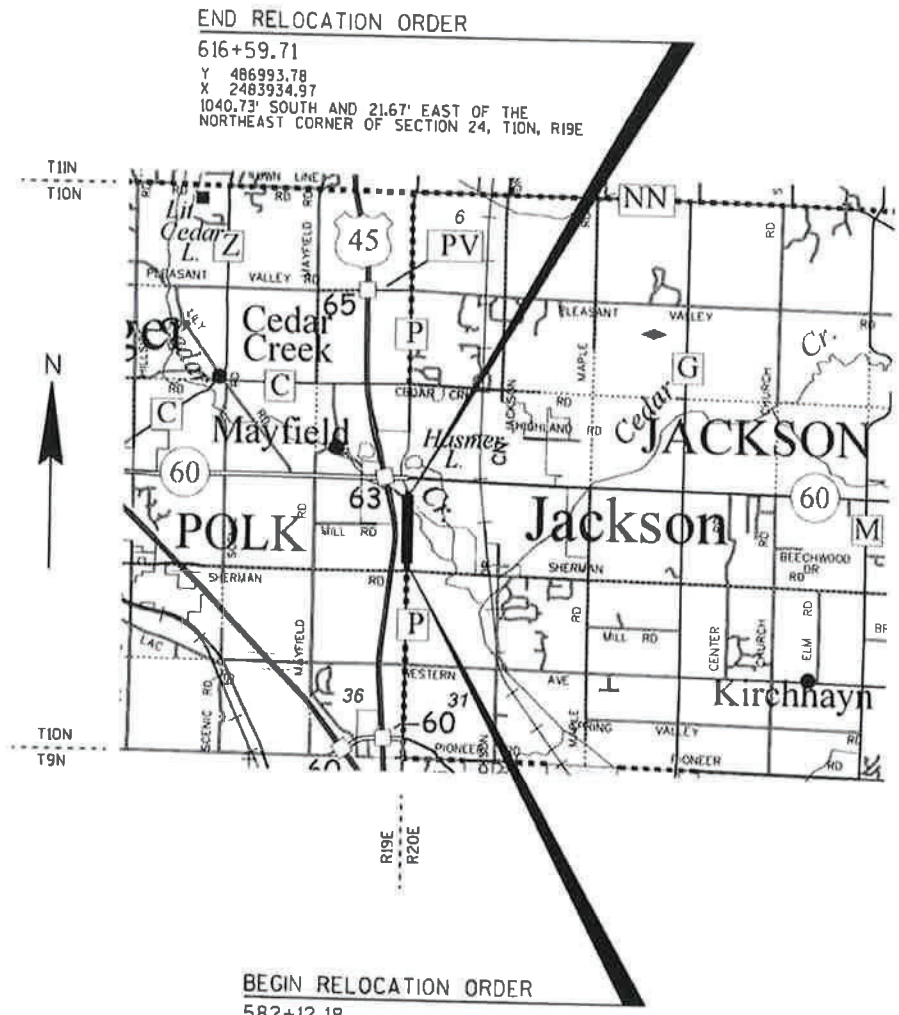
PROPERTY LINES SHOWN ON THIS PLAT FOR PROPERTIES BEING IMPACTED ARE DRAWN FROM DATA DERIVED FROM FILED/RECORDED MAPS AND DOCUMENTS OF PUBLIC RECORD. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE DETAIL PAGES.

CAUTION:
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.



END RELOCATION ORDER
616+59.71
Y 486993.78
X 2483934.97
1040.73' SOUTH AND 21.67' EAST OF THE
NORTHEAST CORNER OF SECTION 24, T10N, R19E

BEGIN RELOCATION ORDER
582+12.18
Y 483547.36
X 2484021.75
800.00' NORTH AND 14.51' WEST OF THE
SOUTHWEST CORNER OF SECTION 19, T10N, R20E



TOTAL NET LENGTH OF CENTERLINE = 0.653 MI.

ACCEPTED FOR
WASHINGTON COUNTY
Date 01/11/23
SCOTT SCHMIDT
CHIEF PUBLIC WORKS OFFICER

ORIGINAL PLAT PREPARED BY
G GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac

80 South Pioneer Road, Suite 300 • Fond du Lac, WI 54606
(920) 824-5720 • Fax (920) 824-5720
12/18/22
DATE JAY W. PANETTI, PLS



REVISED: 12/18/2022

SCHEDULE OF LANDS & INTERESTS REQUIRED

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


PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			P.L.E. ACRES PERM.	T.L.E. ACRES TEMP.	TAX KEY NUMBER
				NEW	EXISTING	TOTAL			
25	4.04	HOME PATH FINANCIAL LIMITED PARTNERSHIP	PLE, TLE	0	0	0	0.010	0.039	V3_0521027
31	4.05	MARK A. HAUSER	TLE	0	0	0	0	0.004	T9_076700C
35	4.05	NORTHERN RED OAK, LLC	TLE	0	0	0	0	0.065	T9_076200Z
36	4.05	HOME PATH FINANCIAL LIMITED PARTNERSHIP	TLE	0	0	0	0	0.131	V3_052000Z002
44	4.06	DOUGLAS W. PETSCH AND NANCY J. PETSCH, AS TRUSTEES OF THE DOUGLAS W. PETSCH AND NANCY J. PETSCH REVOCABLE LIVING TRUST DATED JANUARY 14, 1997	FEE, TLE	0.017	0	0.017	0	0.131	T9_074300D
45	4.07	KERRY INGREDIENTS	TLE	0	0	0	0	0.114	V3_051800A
46	4.06, 4.07	WUNDOW ENTERPRISES, LLC	FEE	0.100	0	0.100	0	0	V3_0744
150	4.04	SPECTRUM	RELEASE OF RIGHTS						
160	4.04	WE ENERGIES	RELEASE OF RIGHTS						
170	4.04, 4.07	AT&T WISCONSIN	RELEASE OF RIGHTS						

4

4

SHEET 2 OF 7 SHEETS

REVISED: 4/14/2023

REVISION DATE	DATE 12/15/2022	SCALE, FEET	HWY: CTH P	R/W PROJECT NUMBER HWY 24-01	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: WASHINGTON	CONSTRUCTION PROJECT NUMBER HWY 24-01	PS&E SHEET 40 E

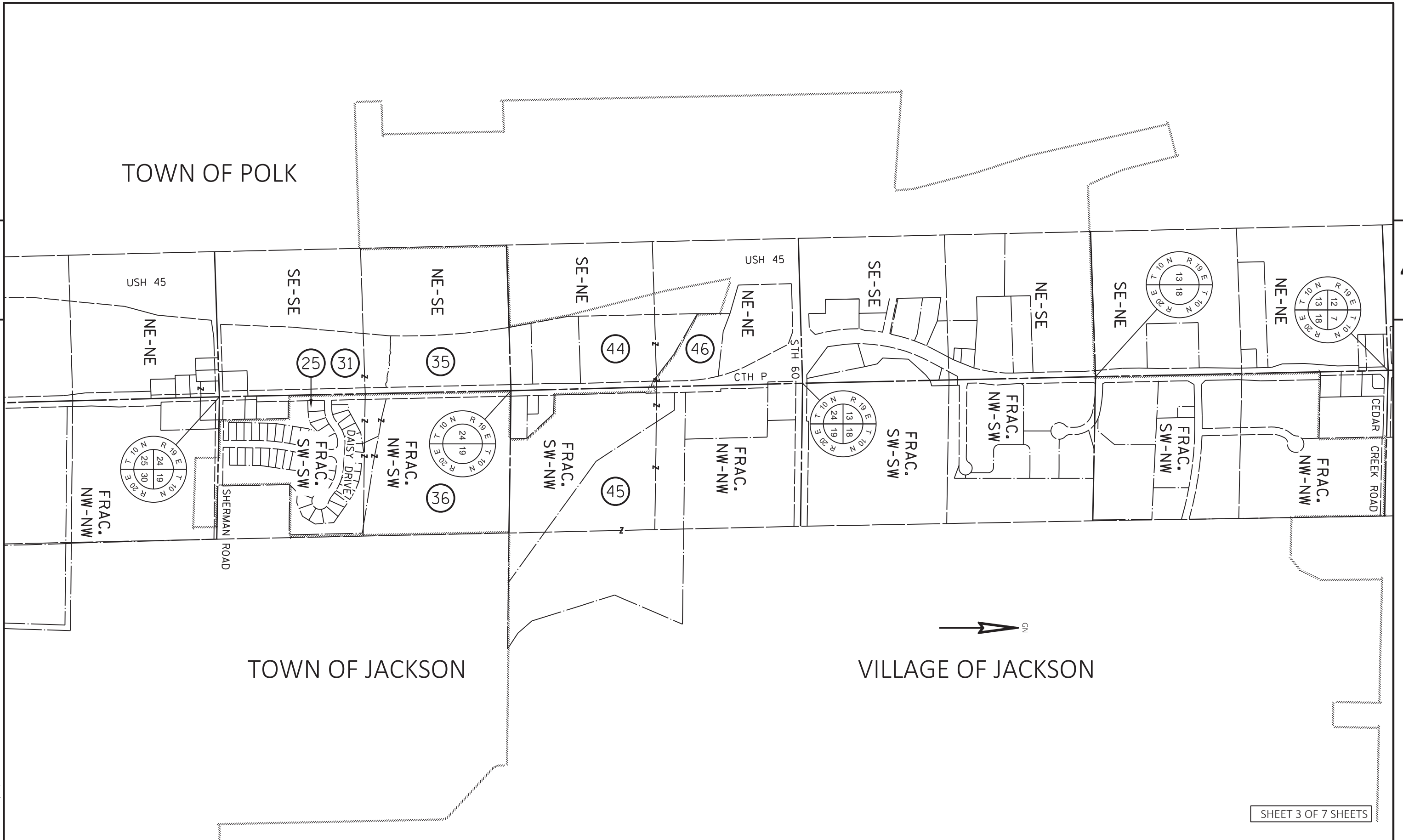
TOWN OF POLK

TOWN OF JACKSON

VILLAGE OF JACKSON

4

4



SHEET 3 OF 7 SHEETS

REVISION DATE	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

DATE	12/15/2022
GRID FACTOR	_____



HWY:	CTH P
COUNTY:	WASHINGTON

R/W PROJECT NUMBER	HWY 24-01
CONSTRUCTION PROJECT NUMBER	HWY 24-01

PLAT SHEET	4.03
PS&E SHEET	41
	E

REVISED: 12/27/2022



TOWN OF POLK

BASIS OF EXISTING R/W	
ROUTE	BASIS
CTH P	R/W PROJECT HWY 13-15
SHERMAN ROAD	R/W PROJECT HWY 13-15
TIGER LILY DRIVE	MORNING MEADOWS SUBDIVISION
DAISY DRIVE	MORNING MEADOWS SUBDIVISION ADDITION NO. 1

COURSE TABLE - PARCEL 25 TLE

FROM POINT	TO POINT	BEARING	DISTANCE
1127	601	N01°12'55"W	800.12'
601	602	N88°42'30"E	52.46'
602	701	N01°17'30"W	120.00'
701	703	N43°44'47"E	42.40'
703	603	N88°47'05"E	50.86'
*603	*604	N87°14'36"E	12.96'
604	605	S04°09'01"E	12.36'
605	606	S88°47'05"W	64.49'
606	607	S43°28'29"W	35.42'
607	608	S01°17'30"E	112.82'
608	602	S88°47'05"W	5.00'

*SEE CURVE TABLE

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
603	604	255.39'	12.96'	N87°14'36"E	12.96'

COORDINATE TABLE

POINT	NORTH	EAST
1125	485390.9000	2483980.1760
1127	482747.3660	2484036.2580
601	483547.3067	2484019.2880
602	483548.4893	2484071.7329
603	483700.1664	2484149.1977
604	483700.7896	2484162.1400
605	483688.4573	2484163.0348
606	483687.0894	2484098.5553
607	483661.3893	2484074.1885
608	483548.5953	2484076.7319
701	483668.4589	2484069.0277
702	483698.4513	2484068.3514
703	483699.0876	2484098.3446

PLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
701	583+32.18	50.00'
702	583+62.18	50.00'
703	583+62.14	80.00'

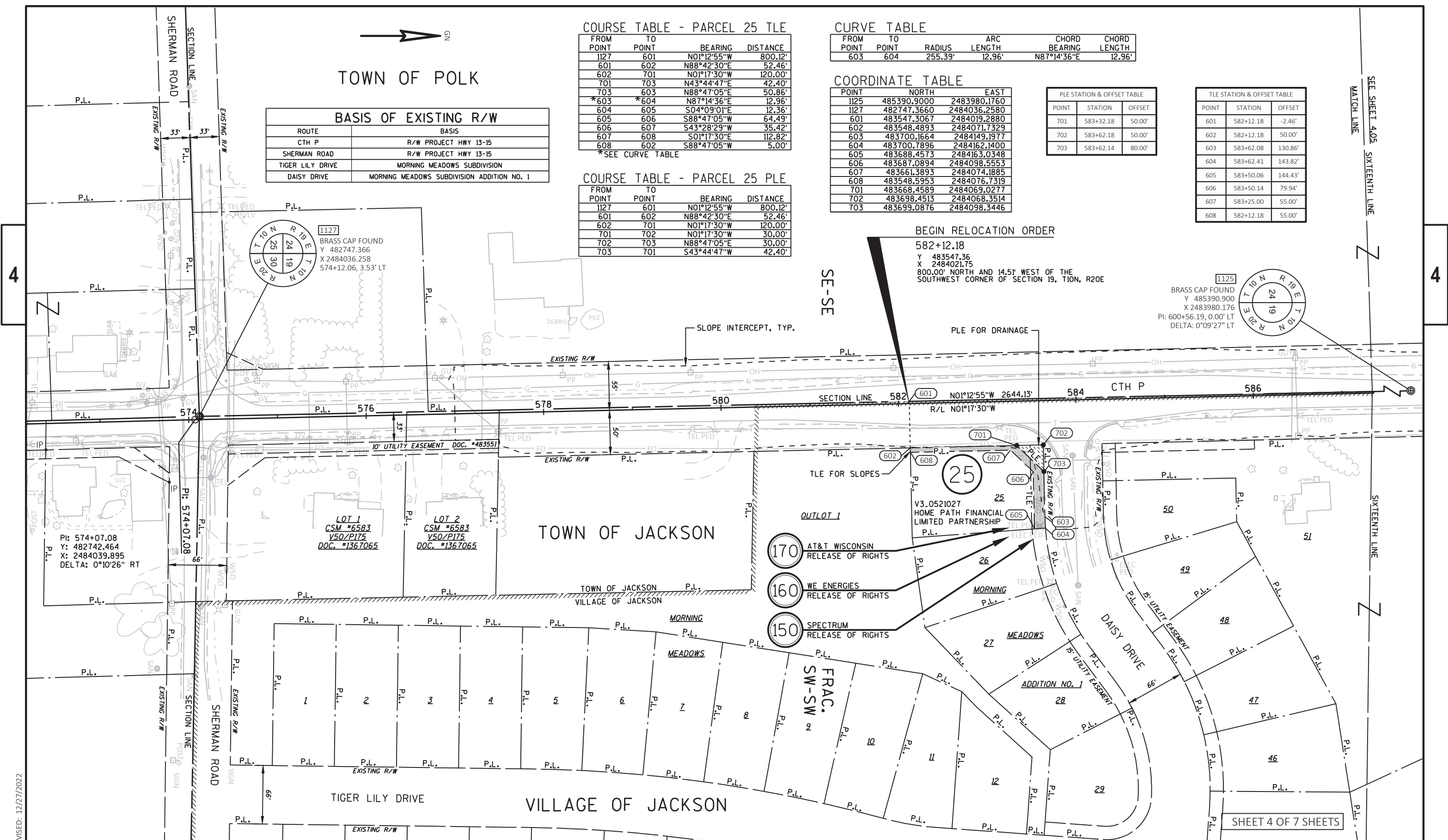
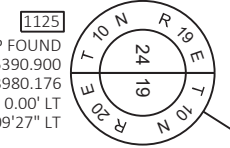
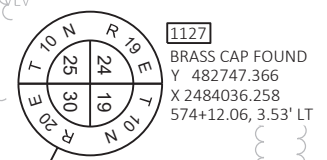
TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
601	582+12.18	-2.46'
602	582+12.18	50.00'
603	583+62.08	130.86'
604	583+62.41	143.82'
605	583+50.06	144.43'
606	583+50.14	79.94'
607	583+25.00	55.00'
608	582+12.18	55.00'

COURSE TABLE - PARCEL 25 PLE

FROM POINT	TO POINT	BEARING	DISTANCE
1127	601	N01°12'55"W	800.12'
601	602	N88°42'30"E	52.46'
602	701	N01°17'30"W	120.00'
701	702	N01°17'30"W	30.00'
702	703	N88°47'05"E	30.00'
703	701	S43°44'47"W	42.40'

BEGIN RELOCATION ORDER

582+12.18
 Y 483547.36
 X 2484021.75
 800.00' NORTH AND 14.51' WEST OF THE
 SOUTHWEST CORNER OF SECTION 19, T10N, R20E



4

4

REVISED: 12/27/2022

REVISION DATE	DATE 12/15/2022	SCALE, FEET 0 50 100	HWY: CTH P	R/W PROJECT NUMBER HWY 24-01	PLAT SHEET 4.04
	GRID FACTOR		COUNTY: WASHINGTON	CONSTRUCTION PROJECT NUMBER HWY 24-01	PS&E SHEET 42

TOWN OF POLK

COURSE TABLE - PARCELS 31 & 35

FROM POINT	TO POINT	BEARING	DISTANCE
1125	640	S01°12'55"E	1141.19'
640	641	S88°42'30"W	53.48'
641	642	S88°42'30"W	15.00'
642	643	N01°17'30"W	25.00'
643	644	N88°42'30"E	15.00'
644	641	S01°17'30"E	25.00'

COURSE TABLE - PARCEL 35

FROM POINT	TO POINT	BEARING	DISTANCE
1125	610	S01°12'55"E	626.19'
610	611	S88°42'30"W	54.17'
611	612	S01°17'30"E	75.00'
612	613	S88°42'30"W	35.00'
613	614	N01°17'30"W	75.00'
614	611	N88°42'30"E	35.00'

31
T9.076700C
MARK A. HAUSER

35
T9.076200Z
NORTHERN RED OAK, LLC

STORMWATER MANAGEMENT FACILITY
MAINTENANCE AGREEMENT
DOC. #1467841

36
V3.052000Z002
HOME PATH FINANCIAL
LIMITED PARTNERSHIP

PI: 600+56.19
Y: 485390.900
X: 2483980.176
DELTA: 0°09'27" LT

BRASS CAP FOUND
Y 485390.900
X 2483980.176
PI: 600+56.19, 0.00' LT
DELTA: 0°09'27" LT

COORDINATE TABLE

POINT	NORTH	EAST
1125	485390.9000	2483980.1760
1127	482747.3660	2484036.2580
610	484764.8499	2483993.4575
611	484763.6288	2483939.3063
612	484688.6479	2483940.9970
613	484687.8589	2483906.0064
614	484762.8399	2483904.3157
615	484765.9958	2484044.2797
616	484767.3484	2484104.2649
617	484672.3725	2484106.4064
618	484671.0200	2484046.4213
640	484249.9653	2484004.3833
641	484248.7597	2483950.9157
642	484248.4216	2483935.9195
643	484273.4152	2483935.3560
644	484273.7534	2483950.3521

COURSE TABLE - PARCEL 36

FROM POINT	TO POINT	BEARING	DISTANCE
1125	610	S01°12'55"E	626.19'
610	615	N88°42'30"E	50.84'
615	616	N88°42'30"E	60.00'
616	617	S01°17'30"E	95.00'
617	618	S88°42'30"W	60.00'
618	615	N01°17'30"W	95.00'

VILLAGE OF JACKSON

BASIS OF EXISTING R/W	
ROUTE	BASIS
CTH P	R/W PROJECT HWY 13-15

SHEET 5 OF 7 SHEETS

REVISED: 12/27/2022

REVISION DATE	DESCRIPTION

DATE	12/15/2022
GRID FACTOR	



HWY:	CTH P
COUNTY:	WASHINGTON

R/W PROJECT NUMBER	HWY 24-01
CONSTRUCTION PROJECT NUMBER	HWY 24-01

PLAT SHEET	4.05
PS&E SHEET	43



TOWN OF POLK

BASIS OF EXISTING R/W	
ROUTE	BASIS
CTH P	R/W PROJECT HWY 13-15

LOT 2
CSM #4708
V32/P14
DOC. #723292

LOT 1
CSM #4708
V32/P14
DOC. #723292

44

46

T9.074300D
DOUGLAS W. PETSCH AND NANCY J. PETSCH,
AS TRUSTEES OF THE DOUGLAS W. PETSCH
AND NANCY J. PETSCH REVOCABLE LIVING
TRUST DATED JANUARY 14, 1997

V3.0744
WUNDOW
ENTERPRISES,
LLC

COORDINATE TABLE

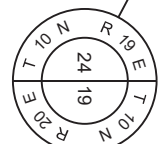
POINT	NORTH	EAST
1121	488034.5120	2483913.2980
1125	485390.9000	2483980.1760
501	486712.6946	2483946.7373
502	486711.1702	2483896.7606
503	486675.7310	2483897.6620
504	486678.2710	2483894.3910
505	486532.7775	2483898.7477
506	486682.4109	2483884.2628
507	486710.7631	2483883.4138
620	486124.2414	2483961.6244
621	486122.9611	2483911.0193
622	486121.1652	2483851.0469
623	486216.1227	2483848.2034
624	486217.9185	2483908.1758

COURSE TABLE - PARCEL 44 TLE

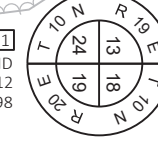
FROM POINT	TO POINT	BEARING	DISTANCE
1125	620	N01°26'57"W	733.58'
620	621	S88°33'03"W	50.62'
621	622	S88°17'05"W	60.00'
622	623	N01°42'55"W	95.00'
623	624	N88°17'05"E	60.00'
624	621	S01°42'55"E	95.00'

COURSE TABLE - PARCELS 44 & 46 FEE

FROM POINT	TO POINT	BEARING	DISTANCE
1125	501	N01°26'57"W	1322.22'
501	502	S88°15'10"W	50.00'
502	503	S01°27'25"E	35.45'
503	504	N52°10'12"W	4.14'
504	505	S01°42'55"E	145.56'
505	506	N05°31'45"W	150.33'
506	507	N01°42'55"W	28.36'
507	502	N88°15'10"E	13.35'



BRASS CAP FOUND
Y 485390.900
X 2483980.176
PI: 600+56.19, 0.00' LT
DELTA: 0°09'27" LT



BRASS CAP FOUND
Y 488034.512
X 2483913.298

PI: 606+56.19
Y: 485990.707
X: 2483965.003
DELTA: 0°15'58" LT

10' RIGHT-OF-WAY GRANT
DOC. #480542
DOC. #480543

SLOPE INTERCEPT, TYP.

FRAC.
SW-NW

VILLAGE OF JACKSON

TOWN OF JACKSON

REVISED: 12/27/2022

REVISION DATE	_____	_____	_____	_____
---------------	-------	-------	-------	-------

DATE	12/15/2022
GRID FACTOR	_____



HWY:	CTH P
COUNTY:	WASHINGTON

R/W PROJECT NUMBER	HWY 24-01
CONSTRUCTION PROJECT NUMBER	HWY 24-01

PLAT SHEET	4.06
PS&E SHEET	44

COURSE TABLE - PARCEL 46

FROM POINT	TO POINT	BEARING	DISTANCE
1125	501	N01°26'57"W	1322.22'
501	502	S88°15'10"W	50.00'
502	507	S88°15'10"W	13.35'
507	510	N01°42'55"W	281.35'
510	511	N88°17'05"E	14.48'
*511	*513	S01°54'50"E	22.34'
513	502	S01°26'55"E	259.00'

*SEE CURVE TABLE

CURVE DATA - R/L CURVE 1

PI STA = 619+51.86
 Y = 487285.797
 X = 2483926.221
 DELTA = 23°03'21"
 D = 4°00'00"
 T = 292.15'
 L = 576.39'
 R = 1432.39'
 PC STA = 616+59.71
 Y = 486993.778
 X = 2483934.966
 PT STA = 622+36.10
 Y = 487551.065
 X = 2483803.813
 BK = N01°42'54.8"W
 AH = N24°46'15.3"W

CURVE TABLE

FROM POINT	TO POINT	RADIUS	ARC LENGTH	CHORD BEARING	CHORD LENGTH
511	513	1382.39'	22.34'	S01°54'50"E	22.34'

END RELOCATION ORDER

616+59.71
 Y 486993.78
 X 2483934.97
 1040.73' SOUTH AND 216.7' EAST OF
 OF THE NORTHEAST CORNER OF
 SECTION 24, T10N, R19E

BASIS OF EXISTING R/W	
ROUTE	BASIS
CTH P	R/W PROJECT HWY 13-15

COORDINATE TABLE

POINT	NORTH	EAST
1121	488034.5120	2483913.2980
1125	485390.9000	2483980.1760
501	486712.6946	2483946.7373
502	486711.1702	2483896.7606
507	486710.7631	2483883.4138
510	486991.9822	2483874.9926
511	486992.4157	2483889.4669
513	486970.0860	2483890.2130
630	486894.2383	2483942.1446
631	486895.8846	2483997.1210
632	486973.1222	2483995.1669
633	486972.2626	2484060.6661
634	486897.8542	2484062.8942

COURSE TABLE - PARCEL 45

FROM POINT	TO POINT	BEARING	DISTANCE
1125	630	N01°26'57"W	1503.82'
630	631	N88°17'05"E	55.00'
631	632	N01°26'57"W	77.26'
632	633	S89°14'53"E	65.50'
633	634	S01°42'55"E	74.44'
634	631	S88°17'05"W	65.80'

NON-EXCLUSIVE EASEMENT
 FOR INGRESS AND EGRESS
 DOC. #622156

PARCEL 1
 CSM #1619
 V8/P223
 DOC. #386314

FRAC.
 NW-NW

TOWN OF POLK

VILLAGE OF JACKSON

VILLAGE OF JACKSON

46
 V3-0744
 WUNDOW ENTERPRISES, LLC

LOT 1
 CSM #4708
 V32/P14
 DOC. #723292

170
 AT&T WISCONSIN
 RELEASE OF RIGHTS

45
 V3-051800A
 KERRY INGREDIENTS

1125
 BRASS CAP FOUND
 Y 485390.900
 X 2483980.176
 PI: 600+56.19, 0.00' LT
 DELTA: 0°09'27" LT

1121
 BRASS CAP FOUND
 Y 488034.512
 X 2483913.298

SHEET 7 OF 7 SHEETS

REVISED: 12/27/2022

REVISION DATE	DESCRIPTION

DATE 12/15/2022

GRID FACTOR

SCALE, FEET



HWY: CTH P

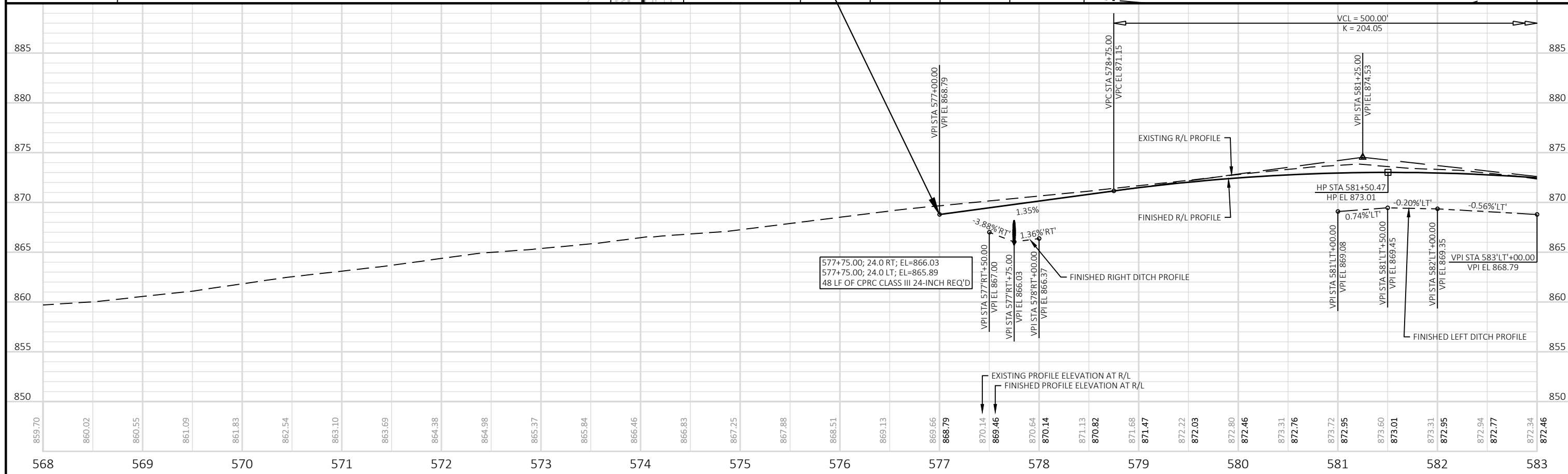
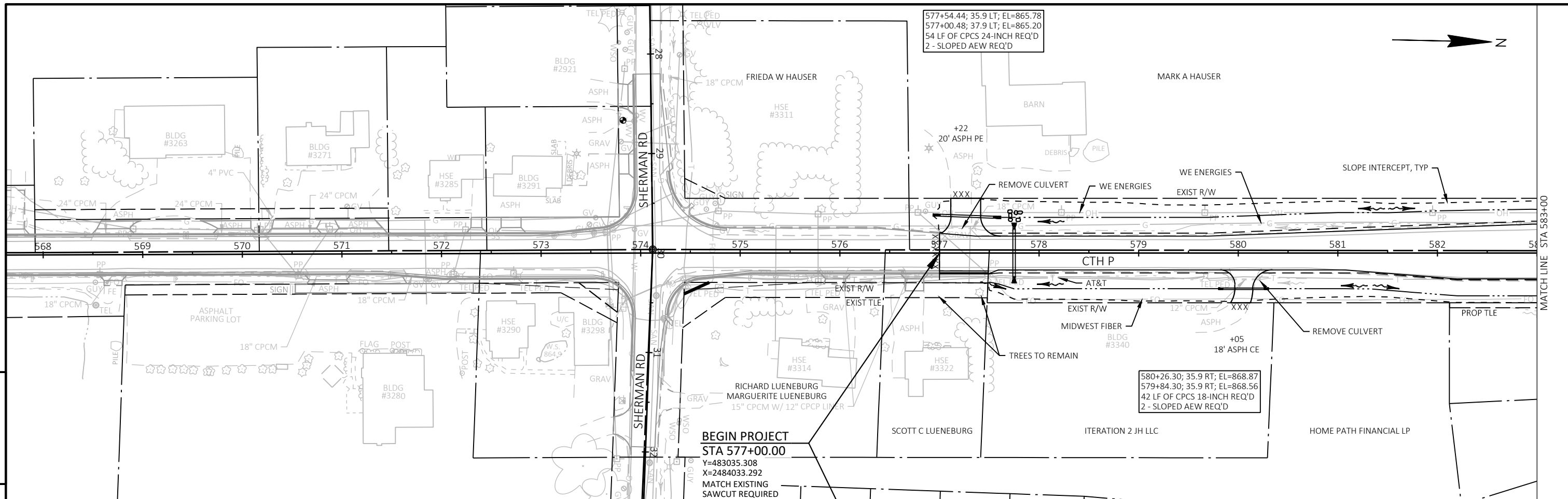
COUNTY: WASHINGTON

R/W PROJECT NUMBER HWY 24-01

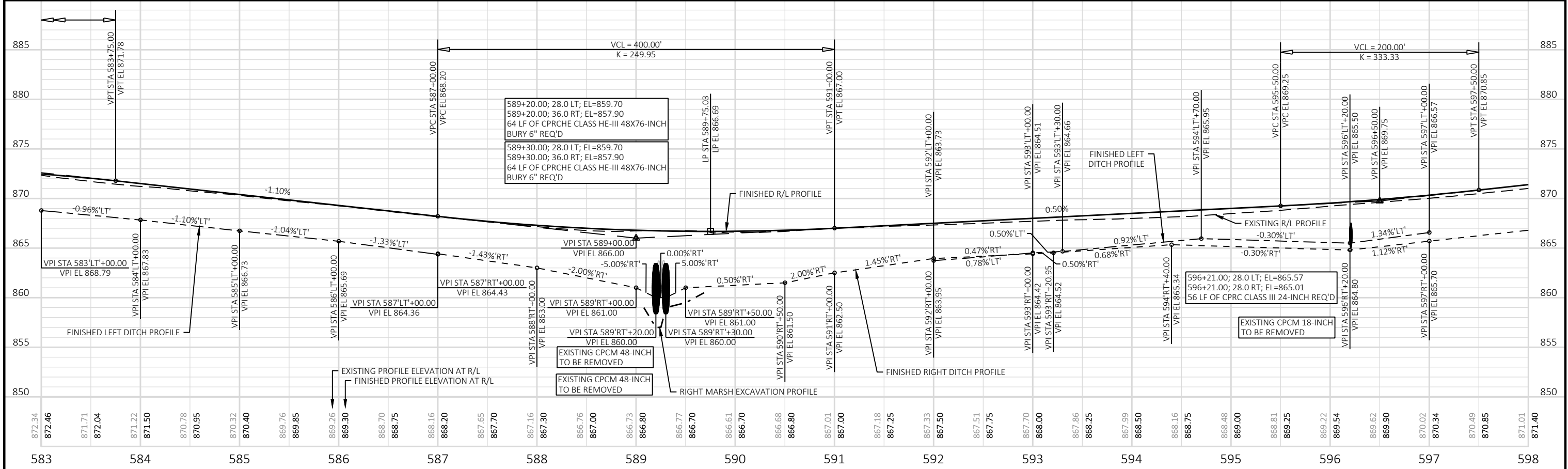
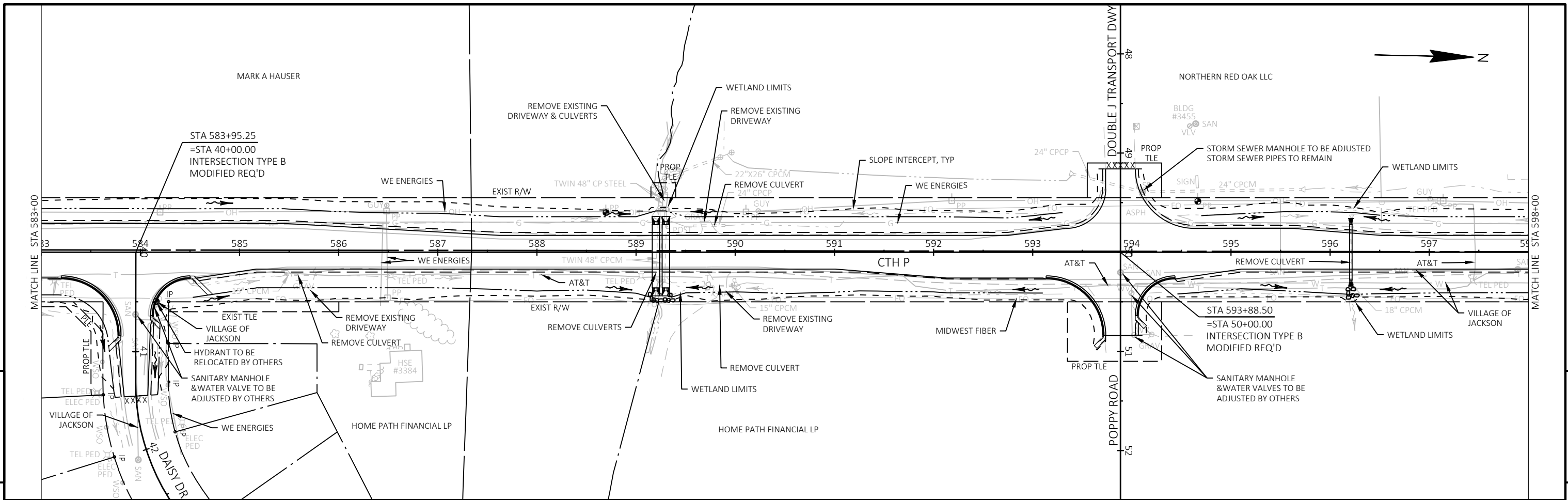
CONSTRUCTION PROJECT NUMBER HWY 24-01

PLAT SHEET 4.07

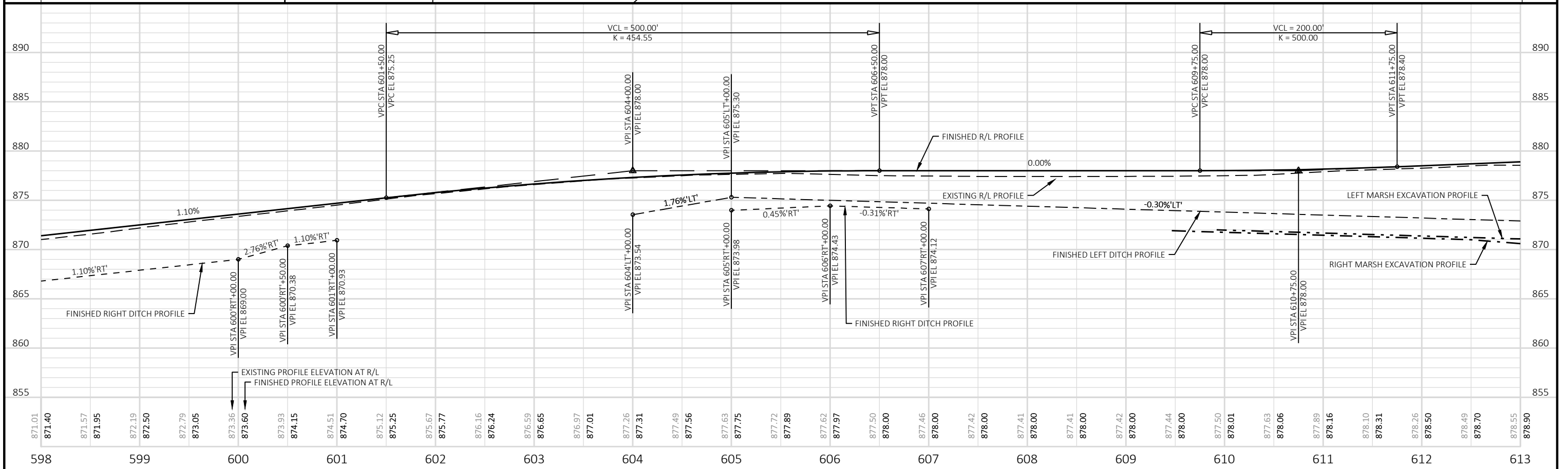
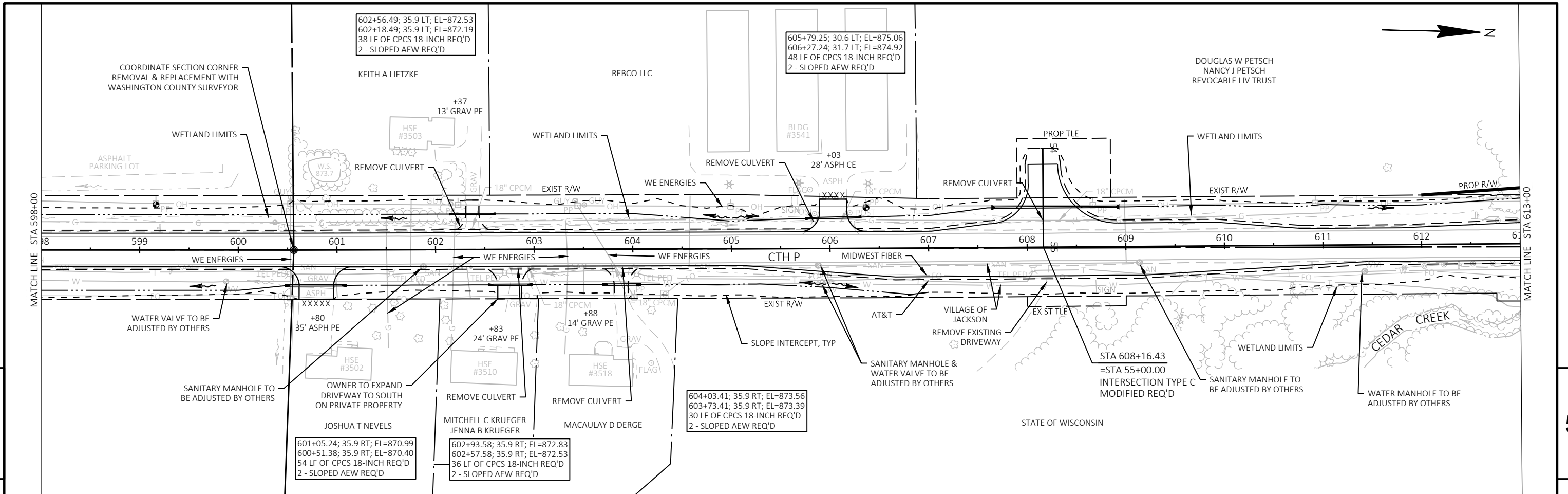
PS&E SHEET 45 E



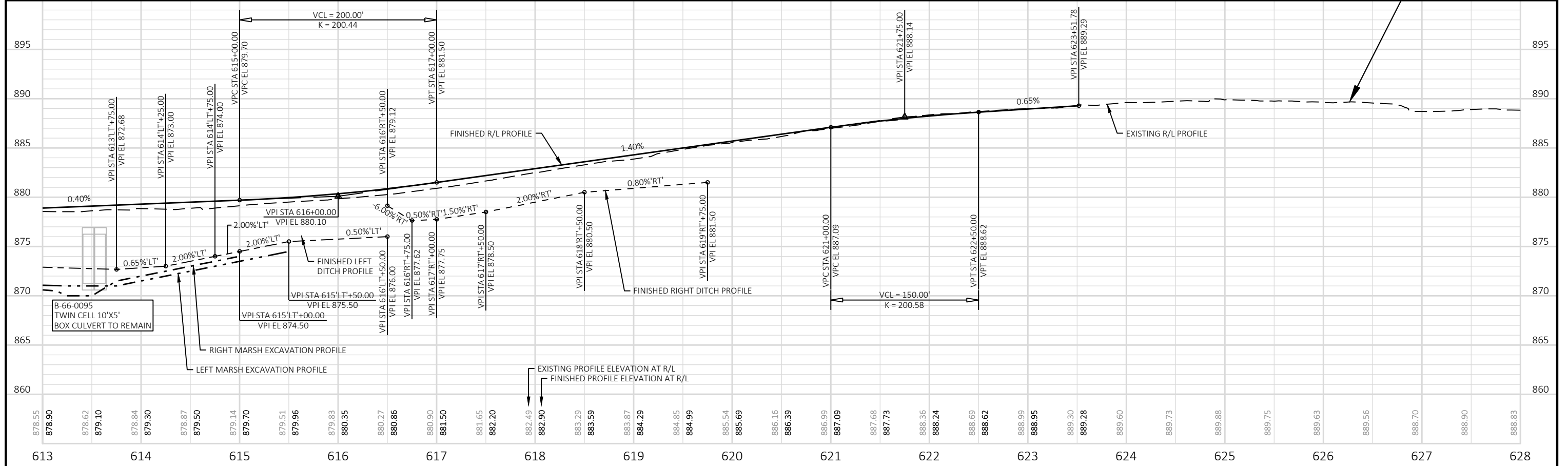
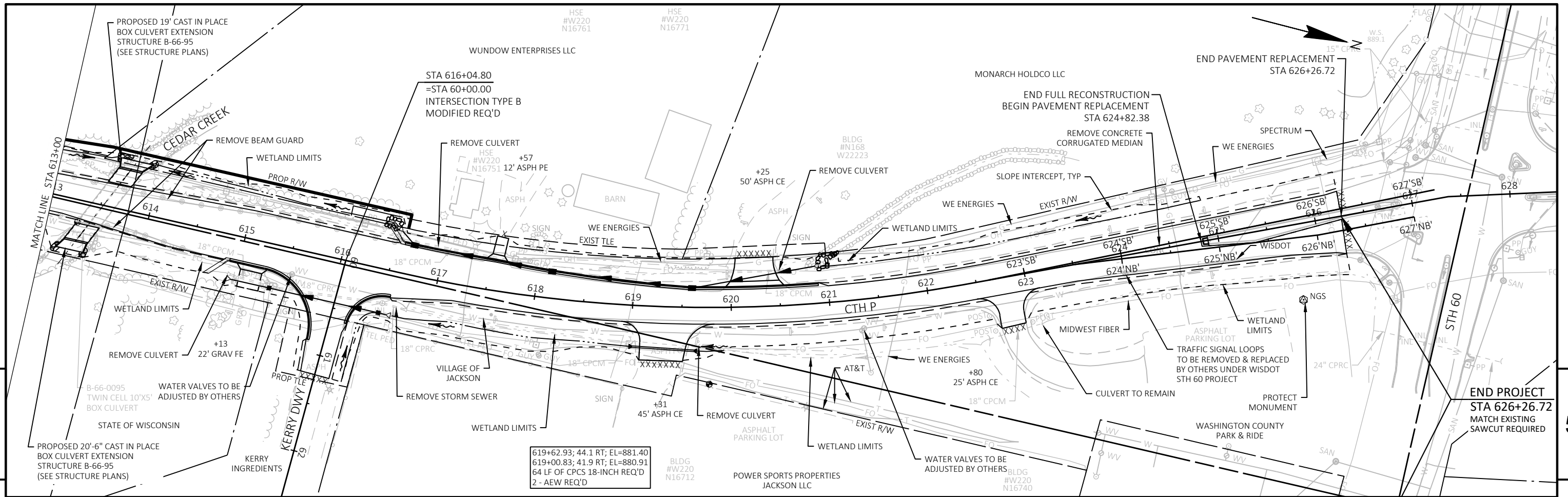
PROJECT NO:	HWY 24-01	HWY:	CTH P	COUNTY:	WASHINGTON	PLAN AND PROFILE:	CTH P	SHEET	46	E
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PROJECT NO:	HWY 24-01	HWY:	CTH P	COUNTY:	WASHINGTON	PLAN AND PROFILE:	CTH P	SHEET	47	E
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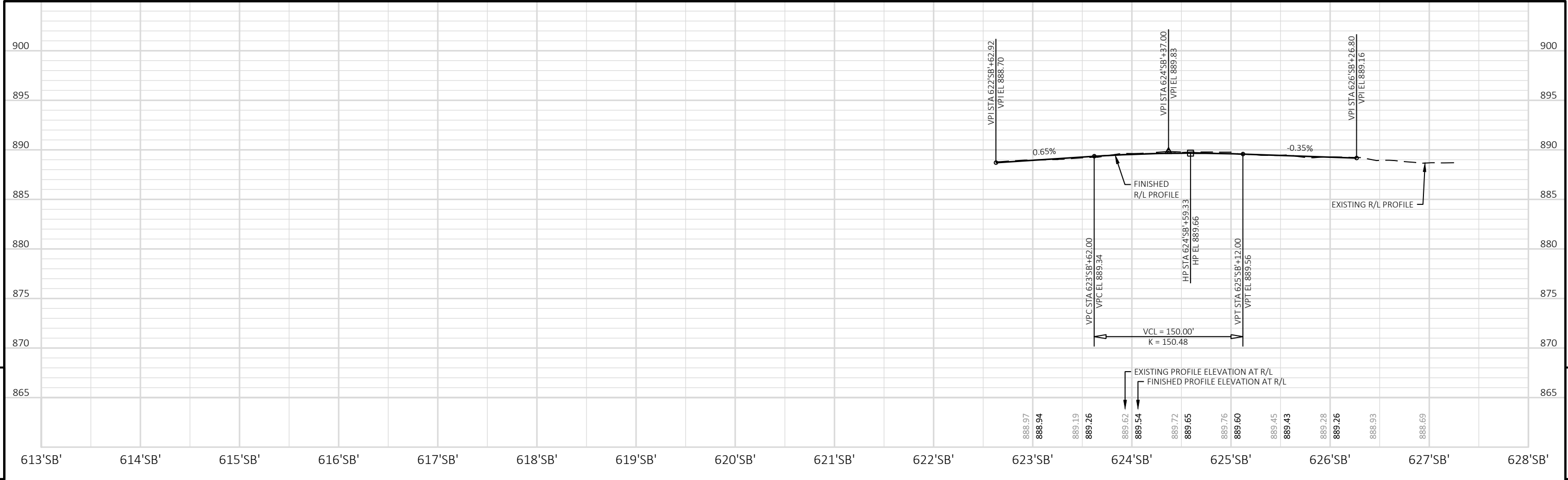


PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PLAN AND PROFILE: CTH P	SHEET 48
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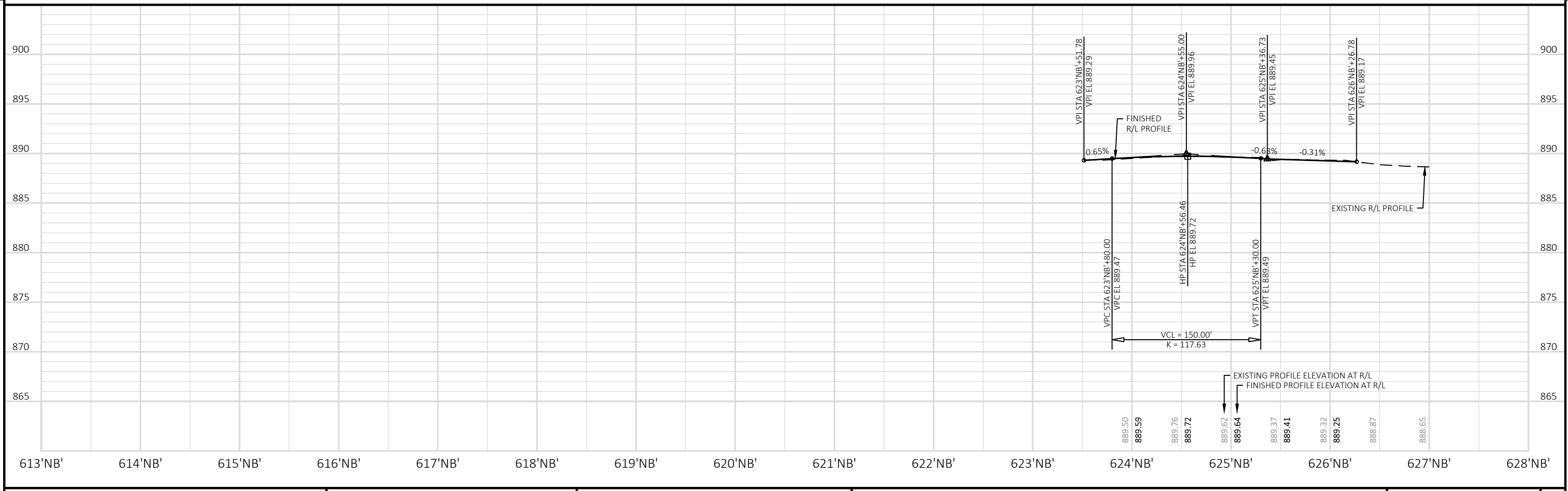


PROJECT NO:	HWY 24-01	HWY:	CTH P	COUNTY:	WASHINGTON	PLAN AND PROFILE:	CTH P	SHEET	49	E
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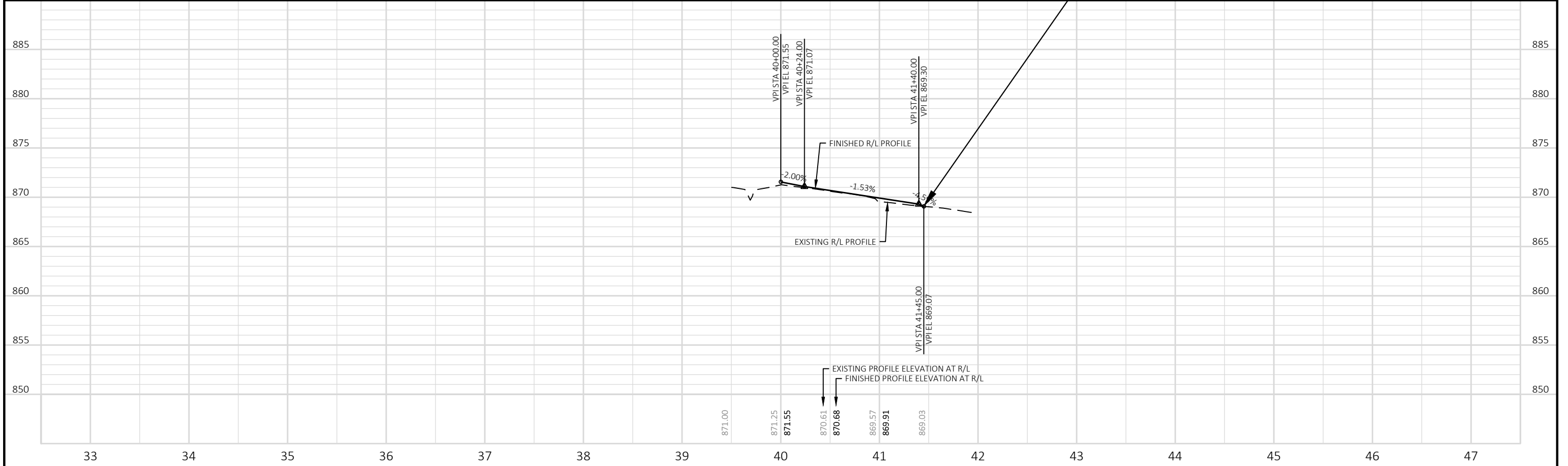
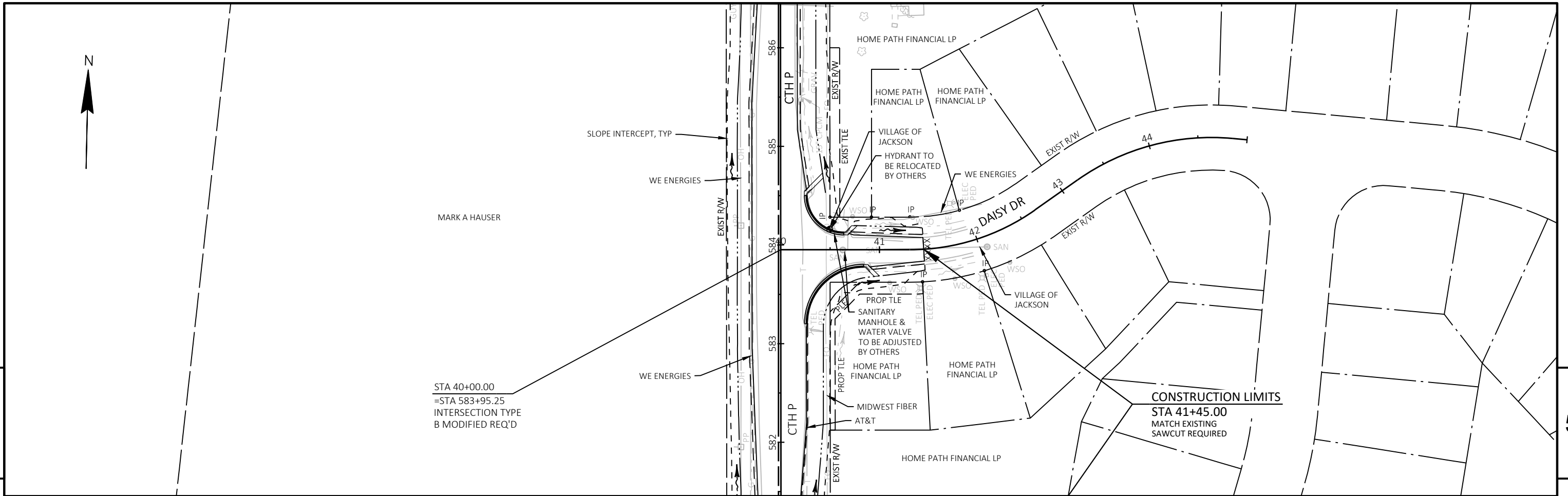
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5



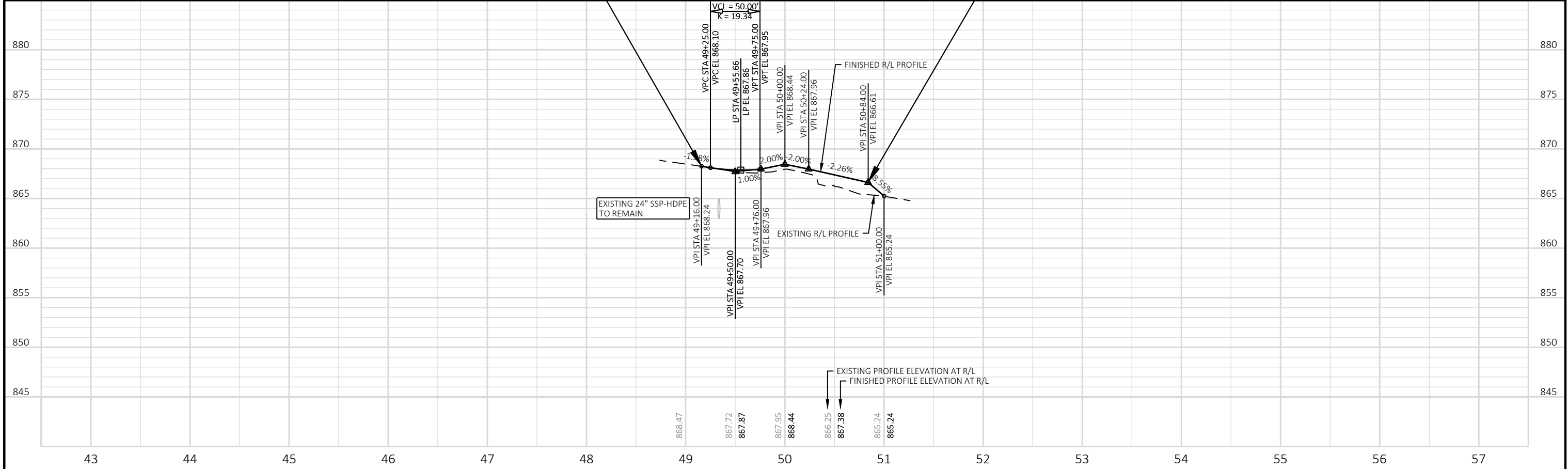
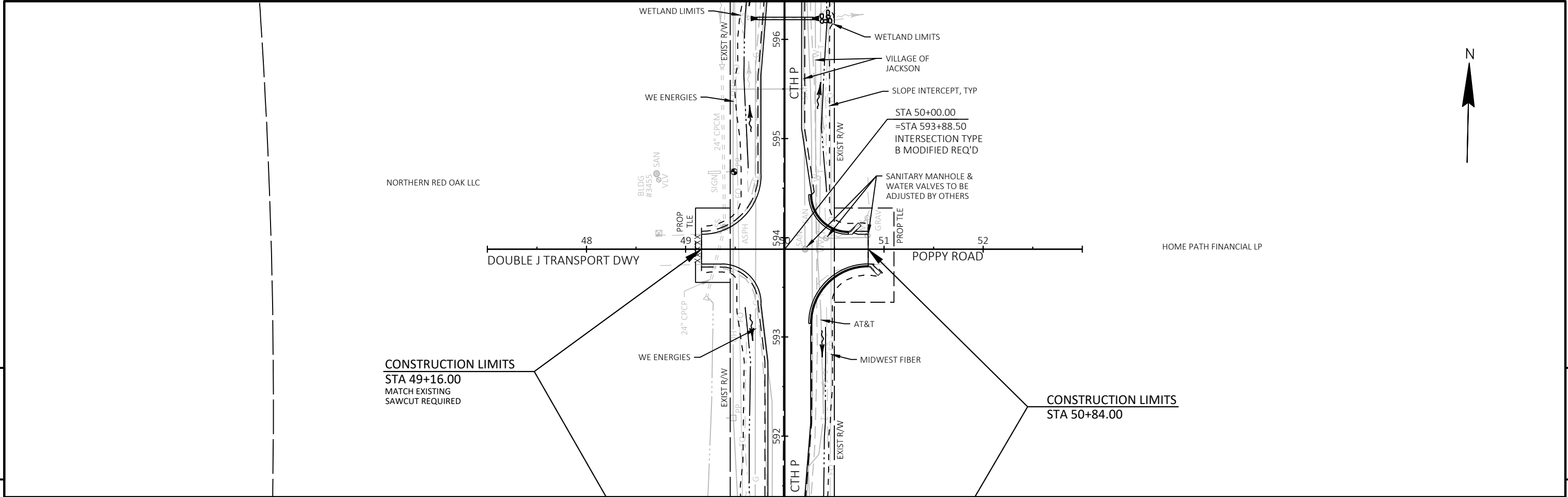
PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PROFILE: CTH P NORTHBOUND & SOUTHBOUND	SHEET 50
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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON PLAN AND PROFILE: DAISY DRIVE SHEET 51 E

5

5



PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PLAN AND PROFILE: DOUBLE J TRANSPORT DRIVEWAY & POPPY ROAD	SHEET 52	E
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5

5

CONSTRUCTION LIMITS
STA 54+00.00

WE ENERGIES

PROP TIE

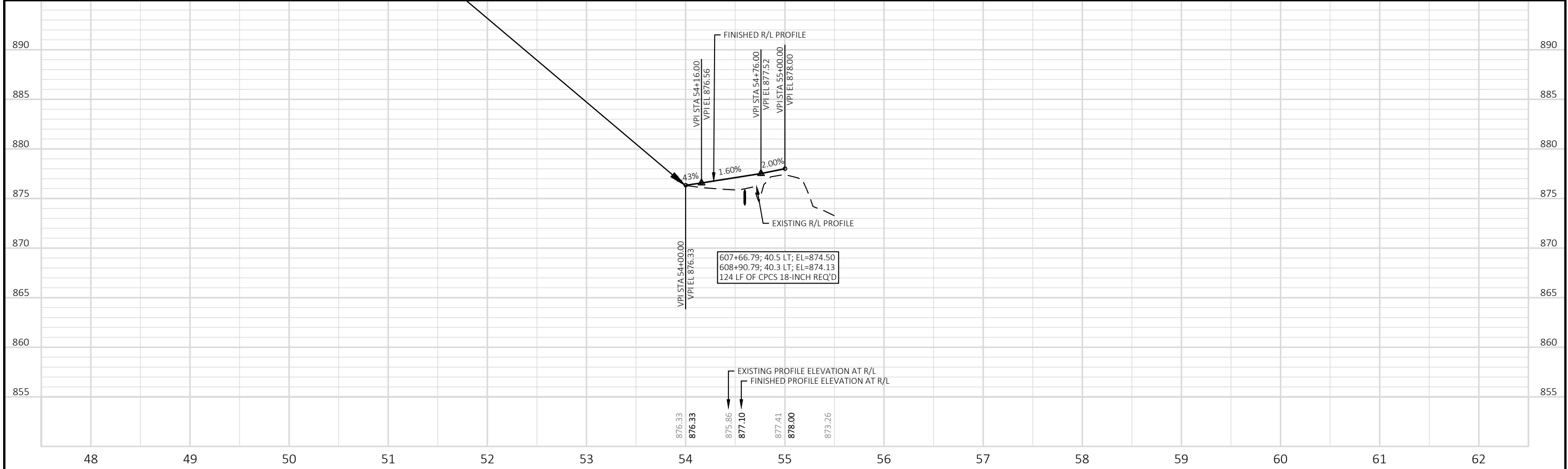
WE ENERGIES

MIDWEST FIBER

AT&T

VILLAGE OF JACKSON

STA 55+00.00
=STA 608+16.43
INTERSECTION TYPE
C MODIFIED REQ'D

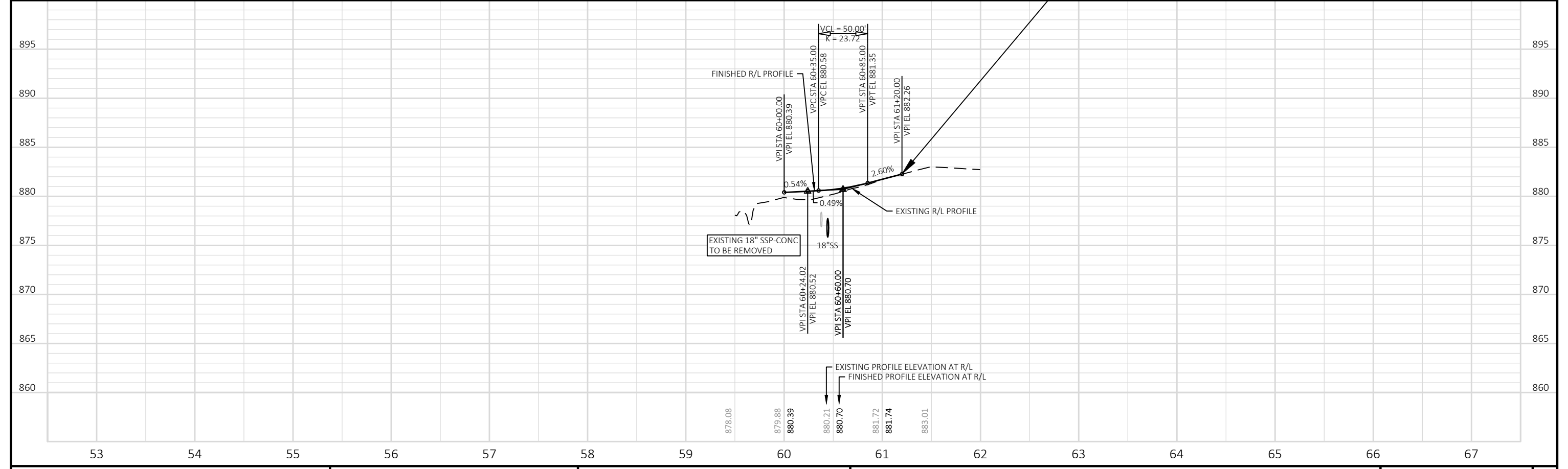
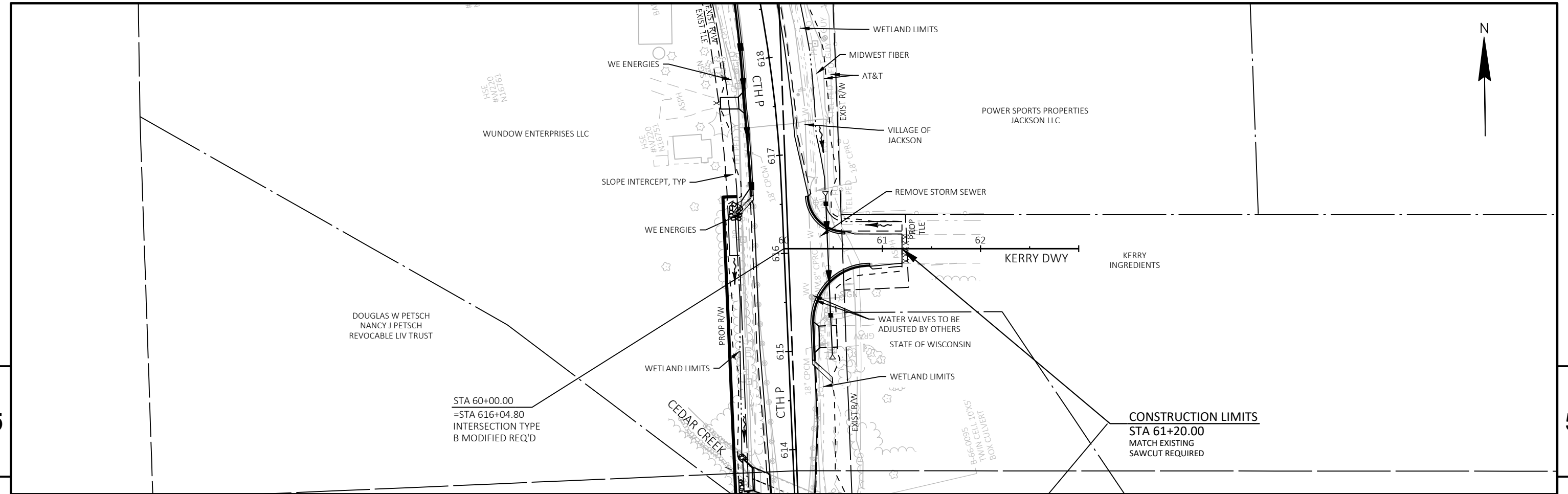


PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PLAN AND PROFILE: FUTURE DEVELOPMENT DRIVEWAY	SHEET 53	E
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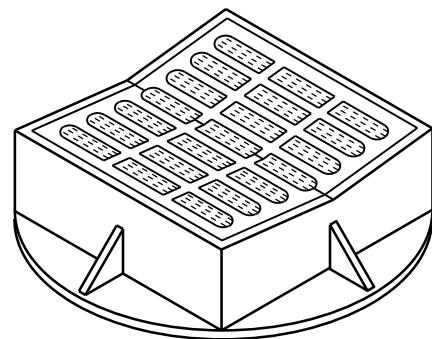
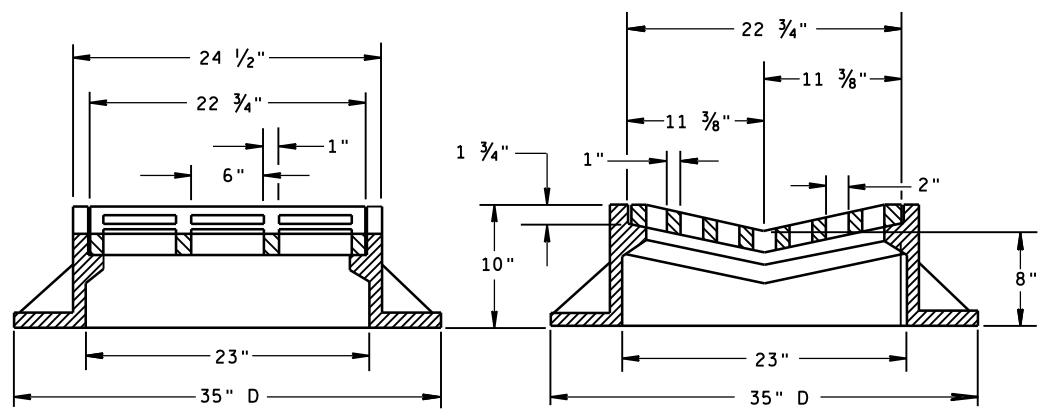


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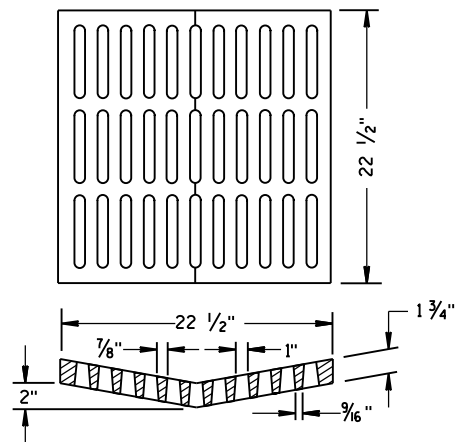
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PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	PLAN AND PROFILE: KERRY INGREDIENTS DRIVEWAY	SHEET 54	E
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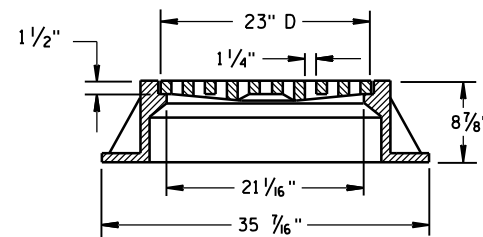
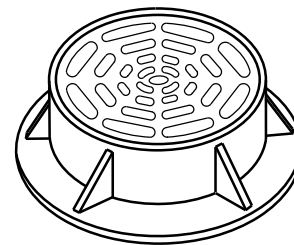
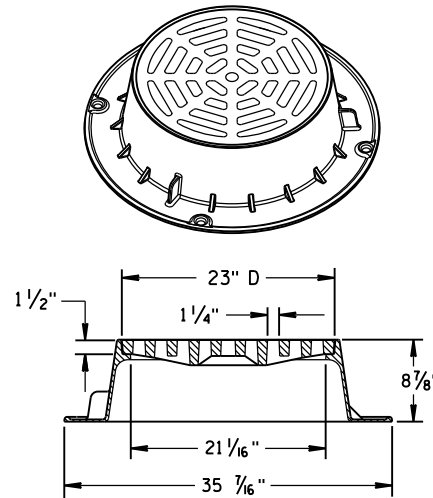


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

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

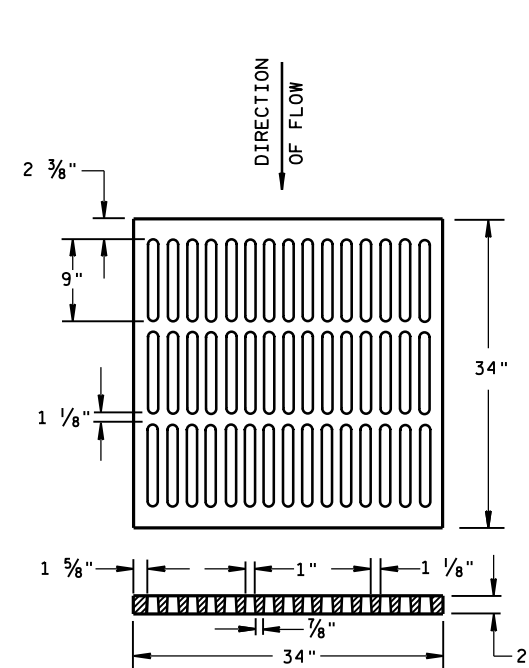


TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE

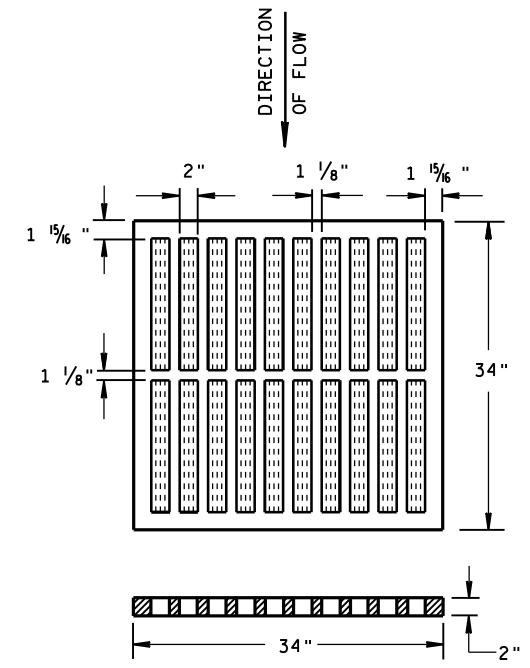
GENERAL NOTES

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.



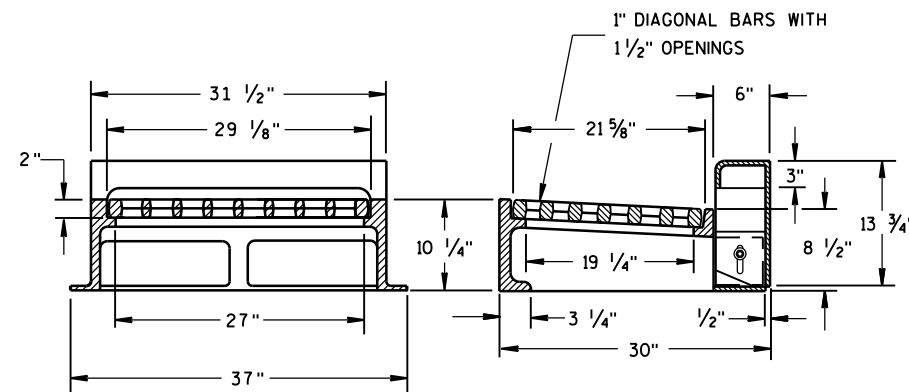
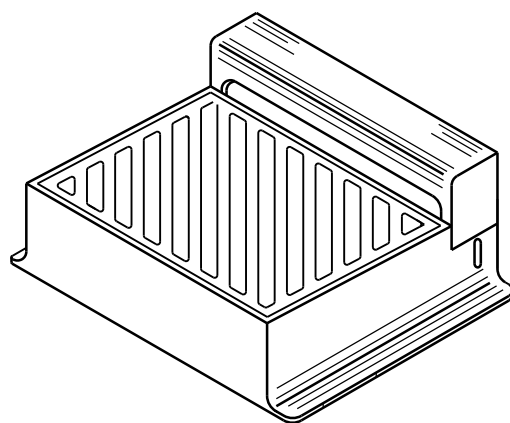
ALTERNATIVE TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

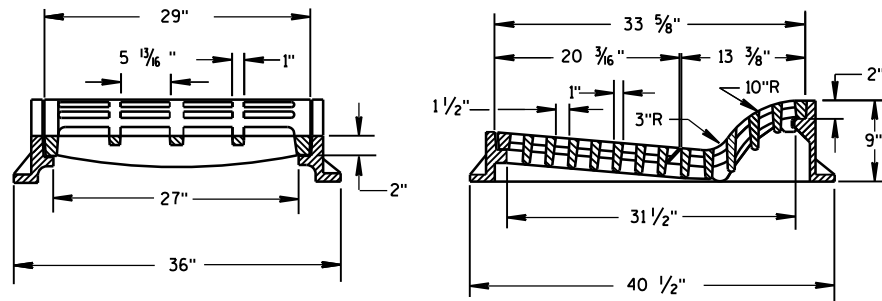
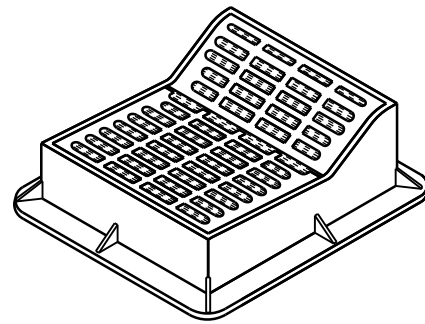
DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

DIRECTION OF FLOW

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

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



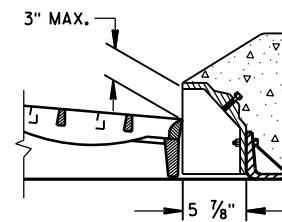
TYPE "F"

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

GENERAL NOTES

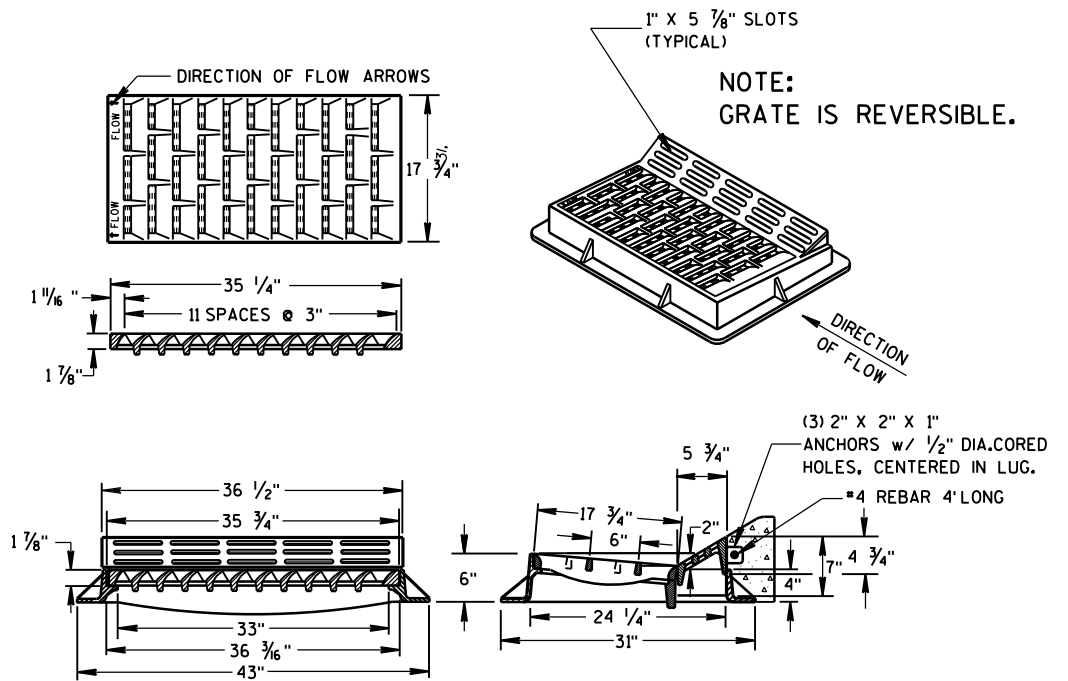
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.



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



TYPE "HM"

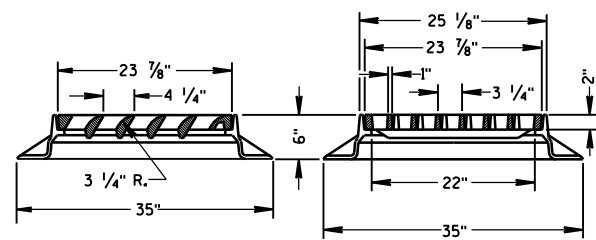
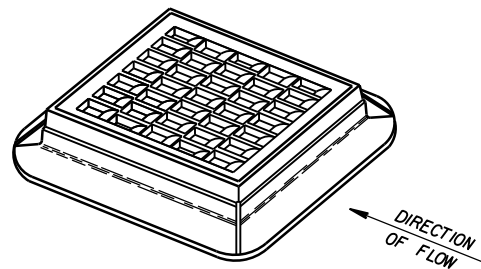
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

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

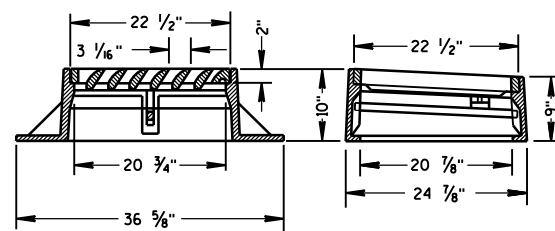
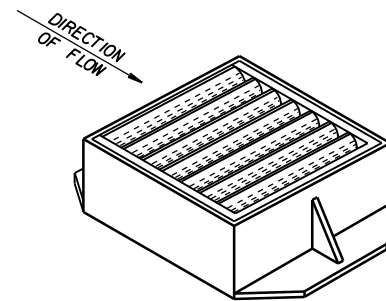
NOTE: SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

6

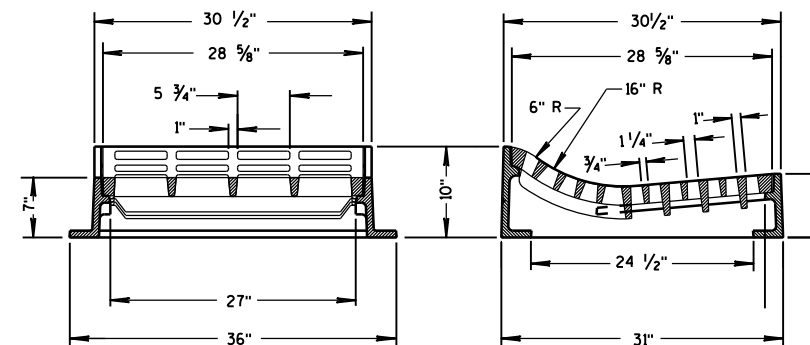
6



TYPE "S"

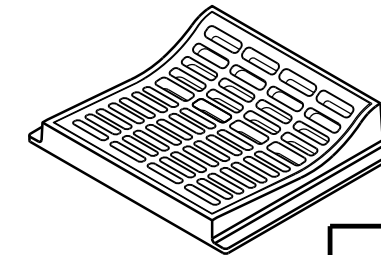


TYPE "V"



TYPE "T"

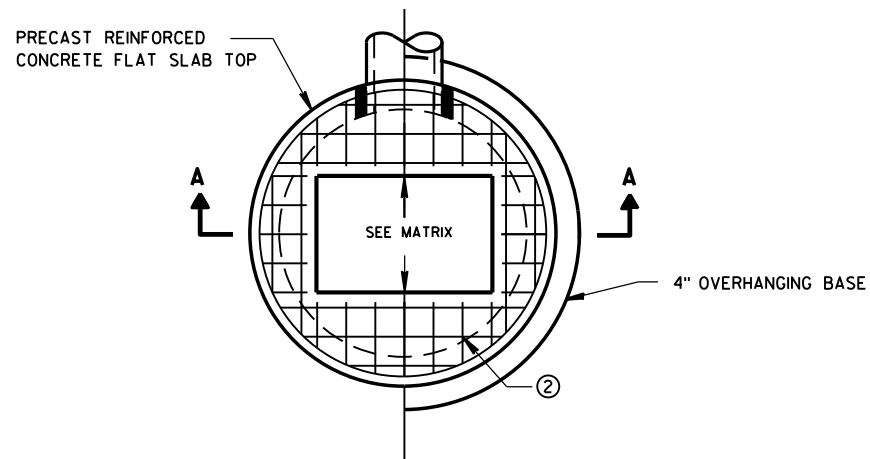
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



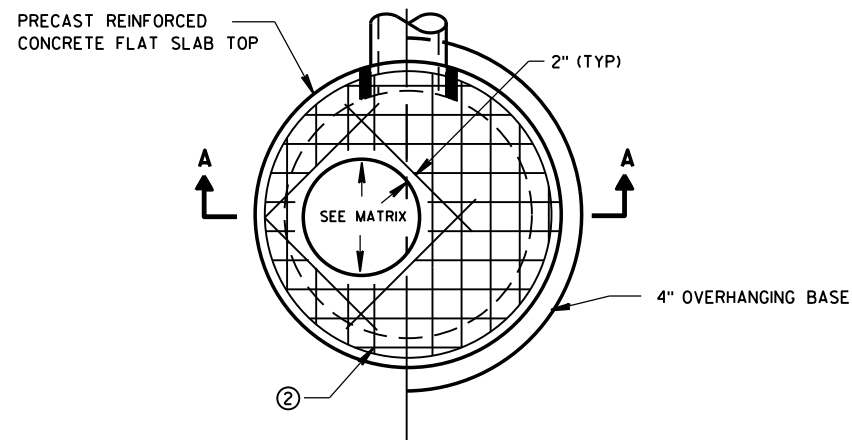
INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 DATE /s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

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.

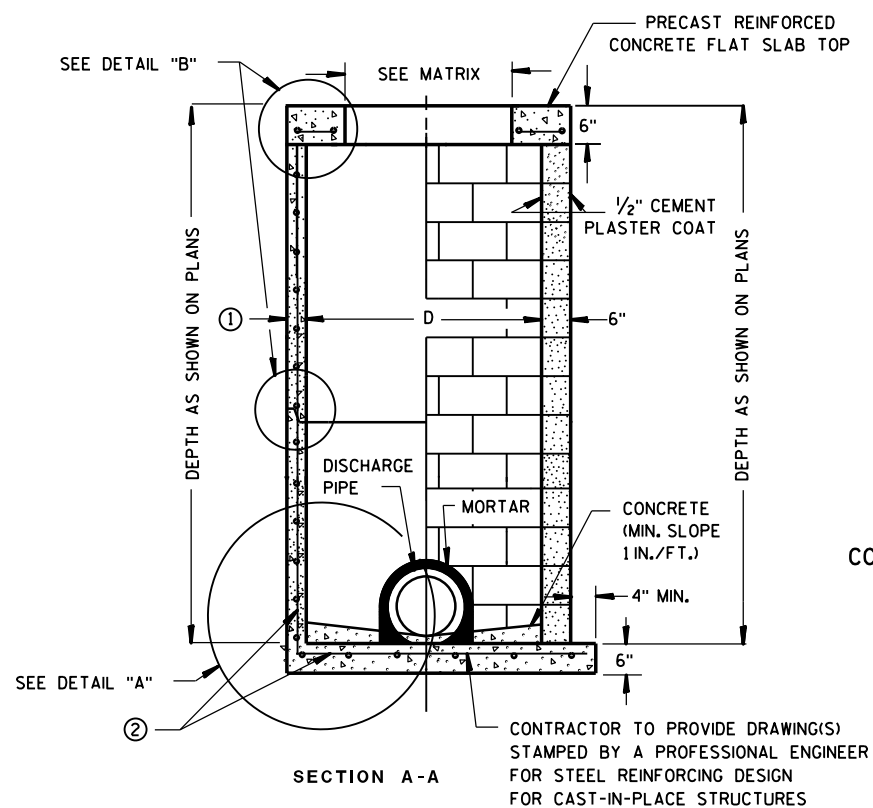
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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.

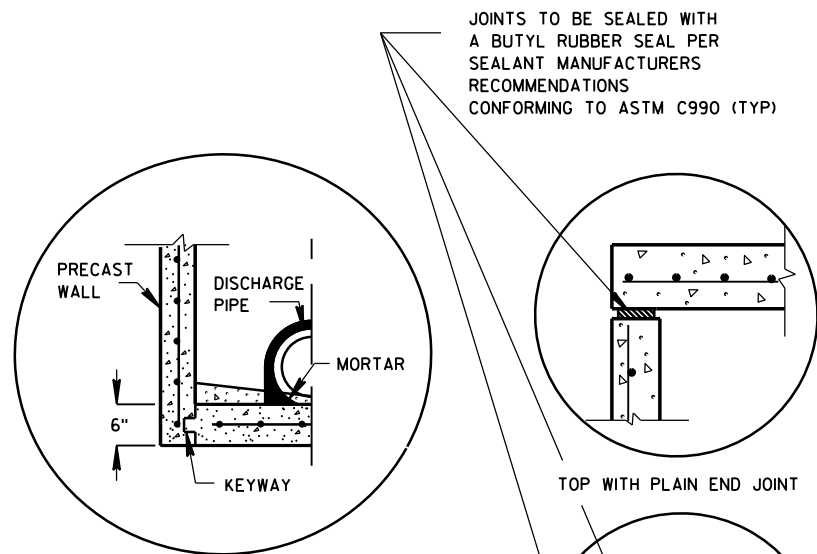
INLET COVER OPENING MATRIX

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

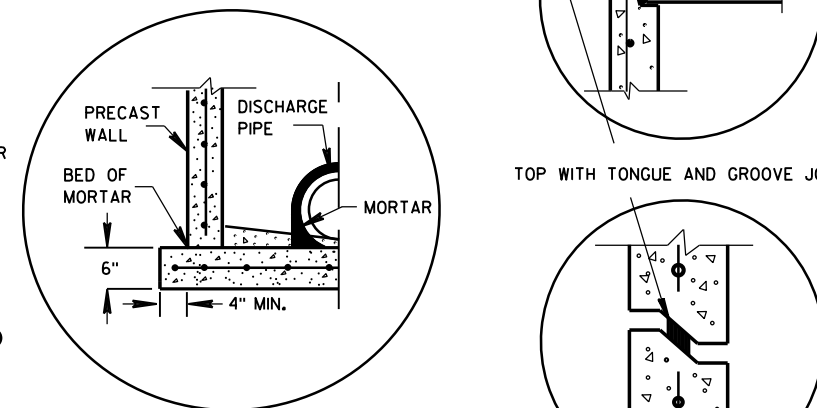


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE OR CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

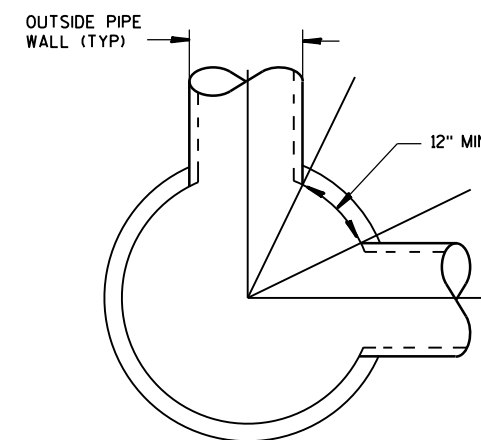


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER



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

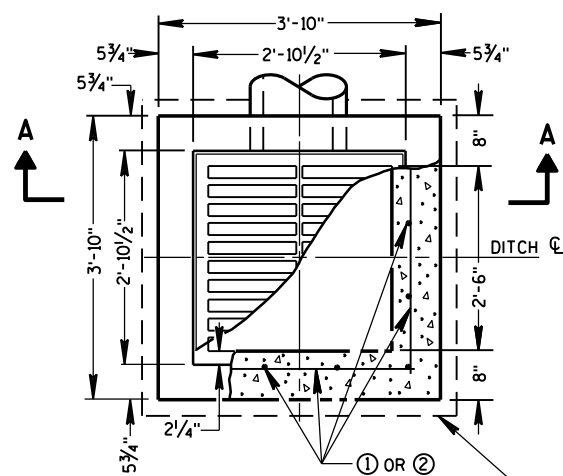
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

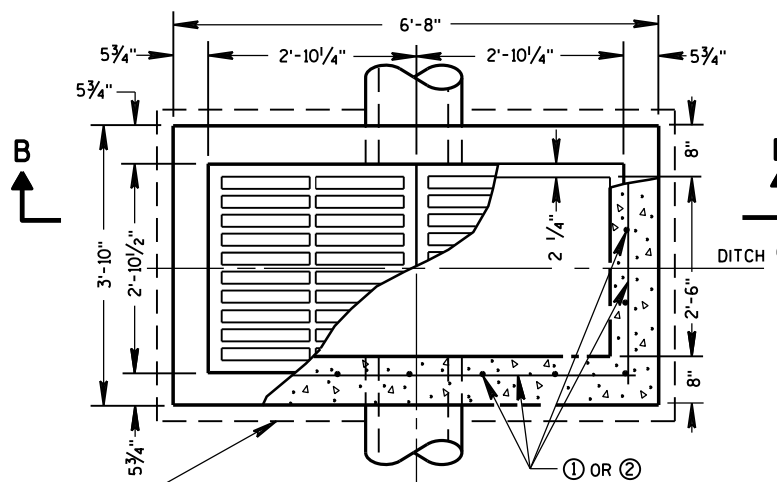
APPROVED
 Sept., 2016 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
 FHWA



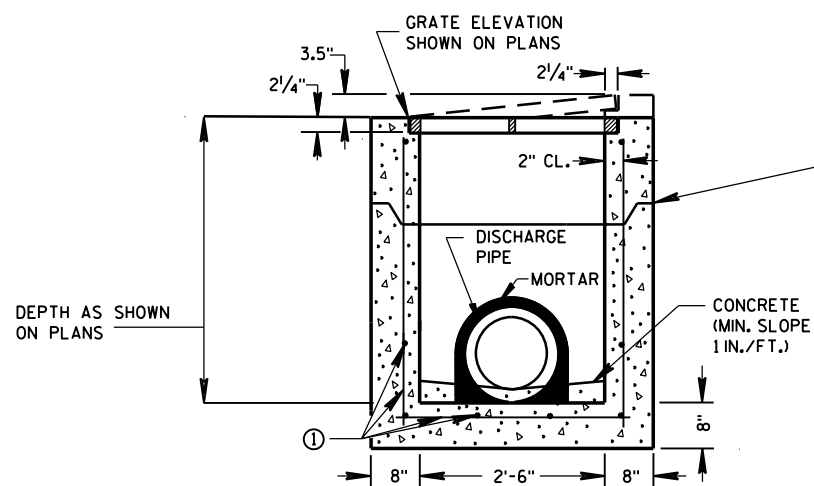
SDD 8C8 Inlets Median 1 and 2 Grate



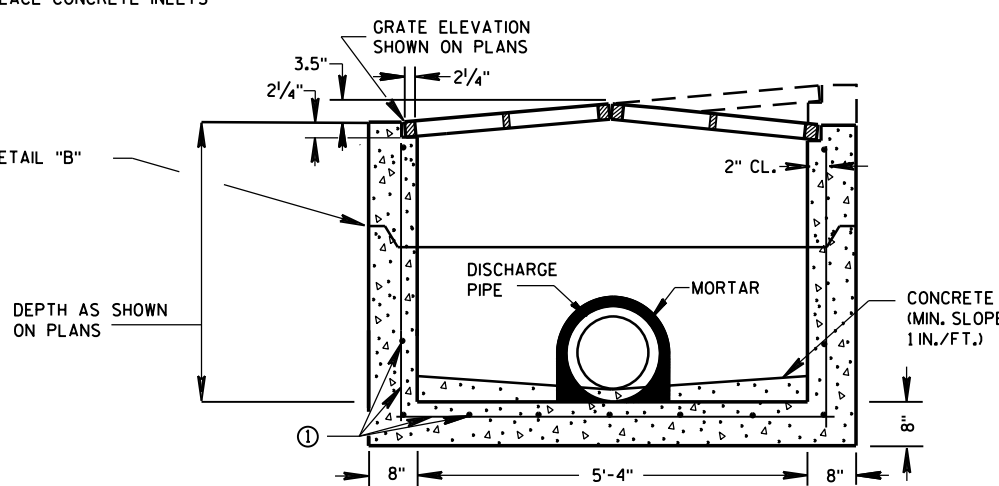
PLAN VIEW



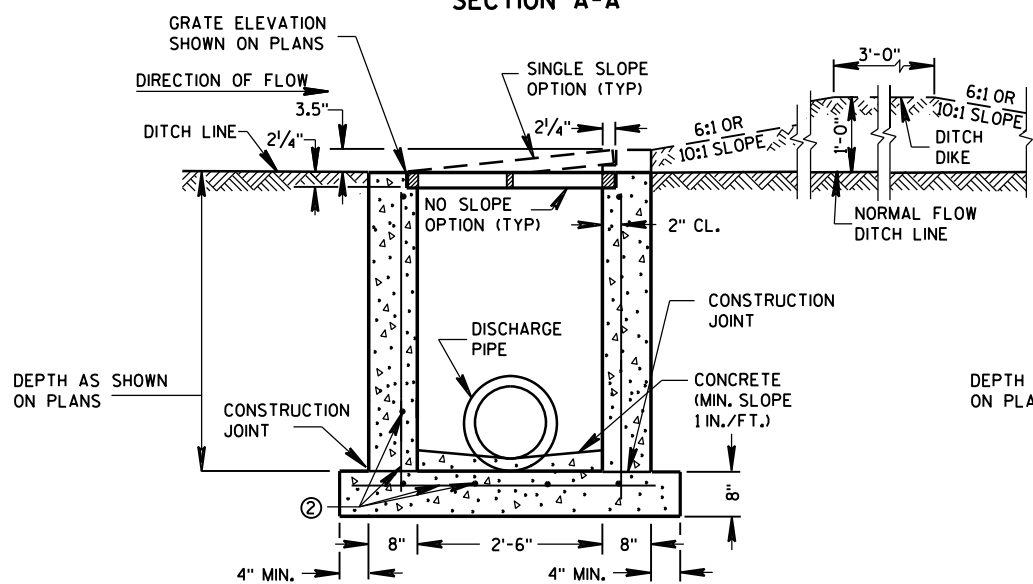
PLAN VIEW



PRECAST REINFORCED CONCRETE SECTION A-A

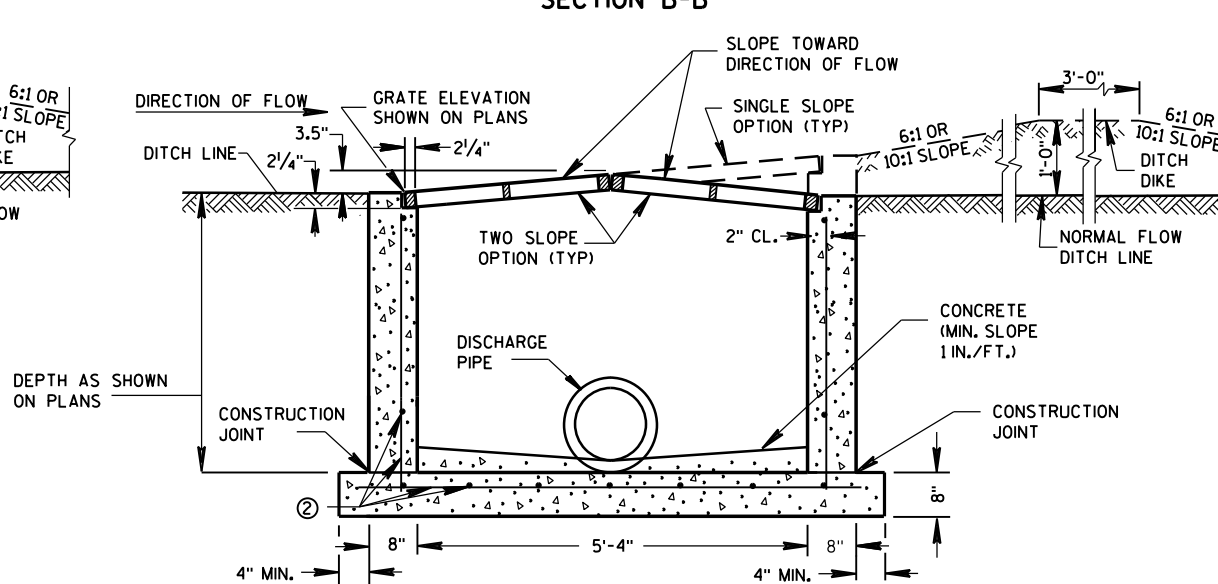


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

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, IG-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.

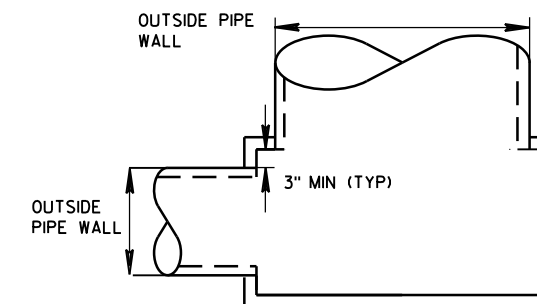
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

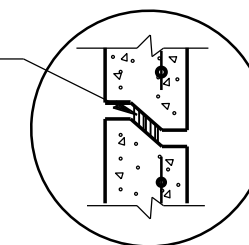
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	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"

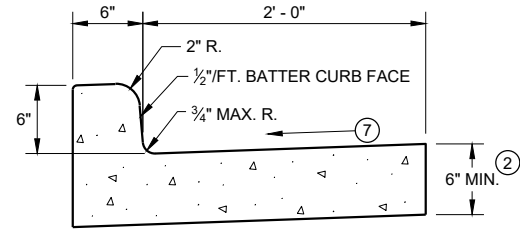
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

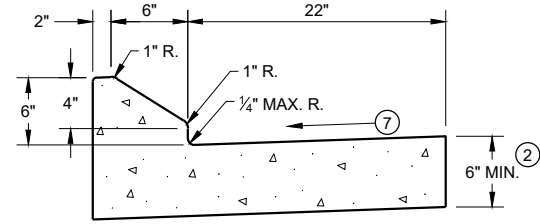
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



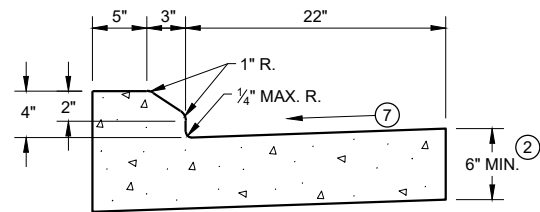
SDD 08D01-a Concrete Curb and Gutter



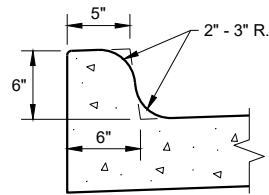
TYPES A¹ & D



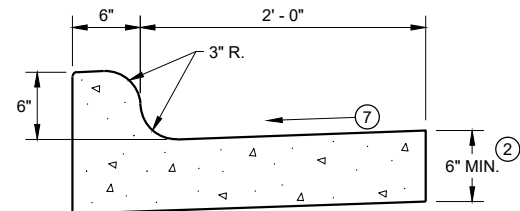
6" SLOPED CURB TYPES G¹ & J



4" SLOPED CURB TYPES G¹ & J

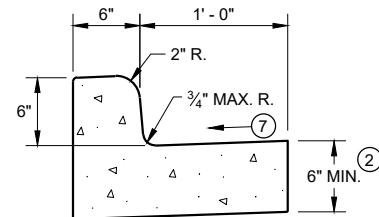


TYPES K¹ & L
(OPTIONAL CURB SHAPE)



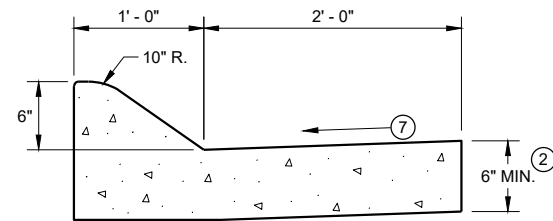
TYPES K¹ & L

CONCRETE CURB AND GUTTER 30"

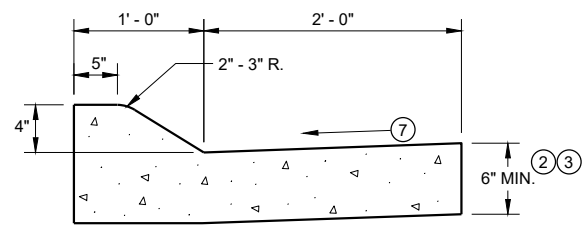


TYPES A¹ & D

CONCRETE CURB AND GUTTER 18"

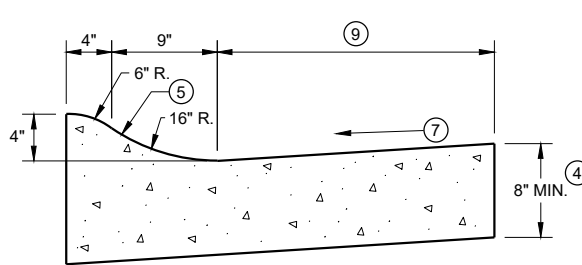


6" SLOPED CURB TYPES A¹ & D



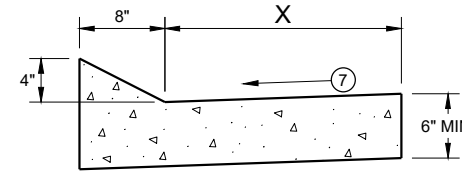
4" SLOPED CURB TYPES A¹ & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R¹ & T

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

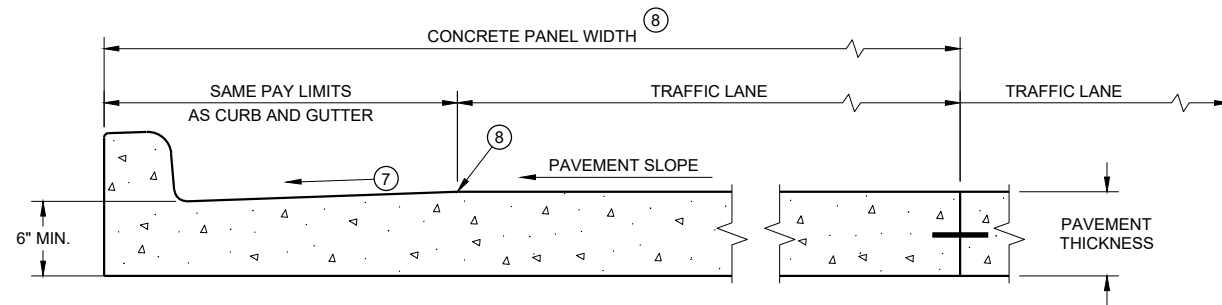


TYPES TBT & TBTT¹

CONCRETE CURB AND GUTTER

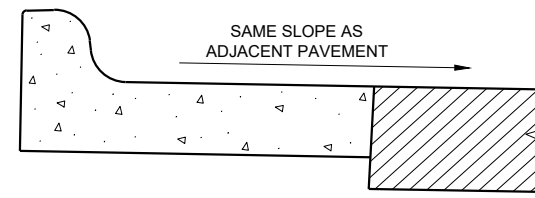
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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 GUTTER⁶
(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

6

6

SDD 08D01 - 22a

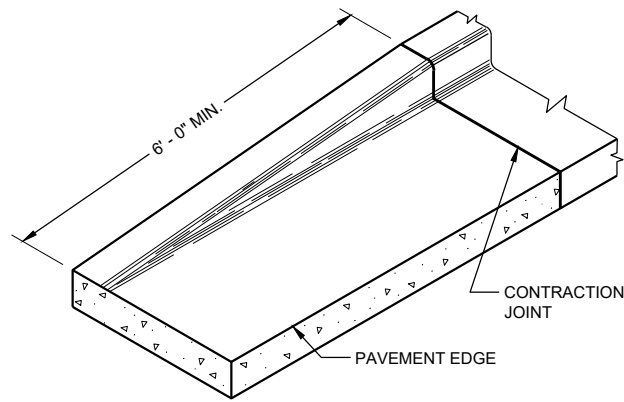
SDD 08D01 - 22a

CONCRETE CURB AND GUTTER

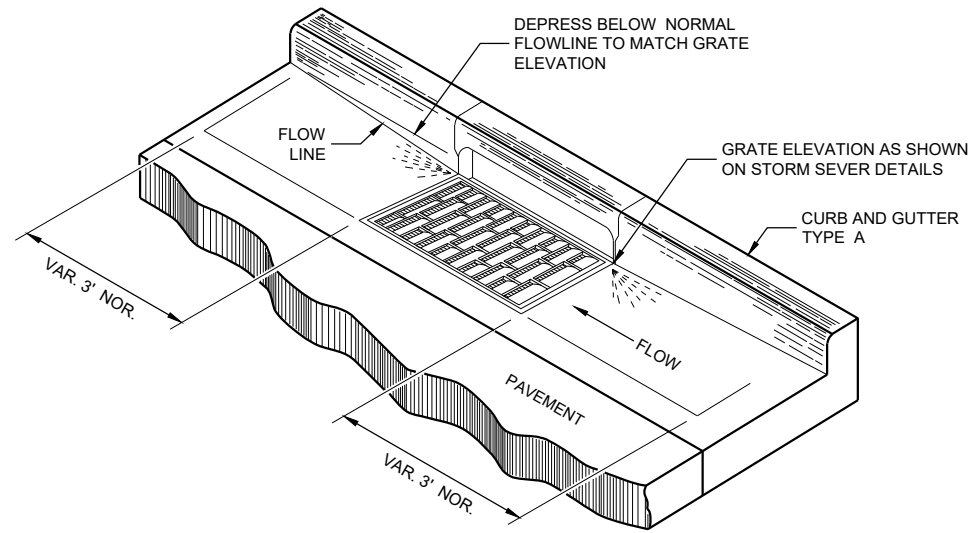
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 59



SDD 08D01-b Concrete Gutter, Ties, and Curb and Gutter Applications



END SECTION CURB AND GUTTER



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

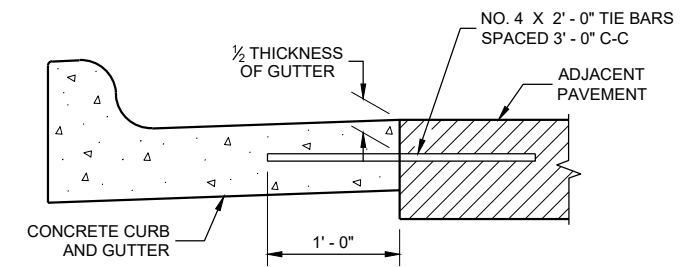
GENERAL NOTES

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

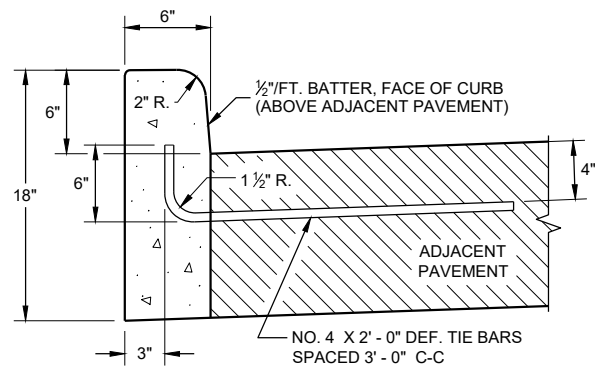
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

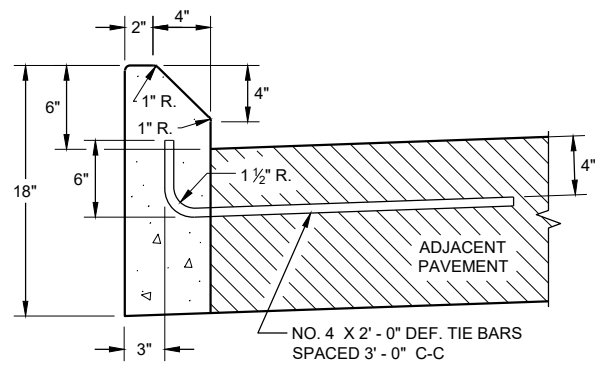
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION ①

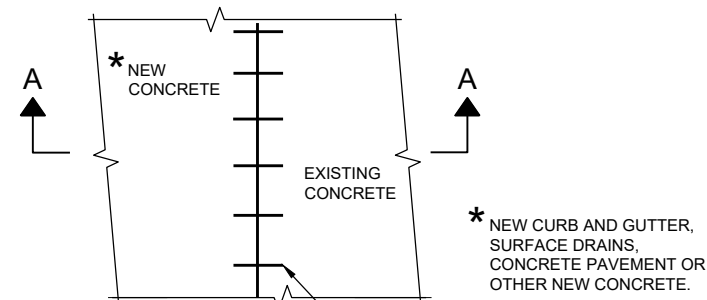


TYPES A ① & D

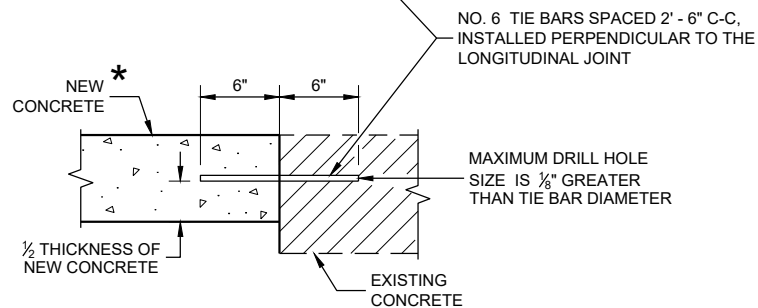


TYPES G ① & J

CONCRETE CURB

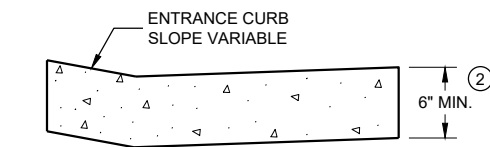


PLAN VIEW



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/ Rodney Taylor 60
ROADWAY STANDARDS DEVELOPMENT ENGINEER

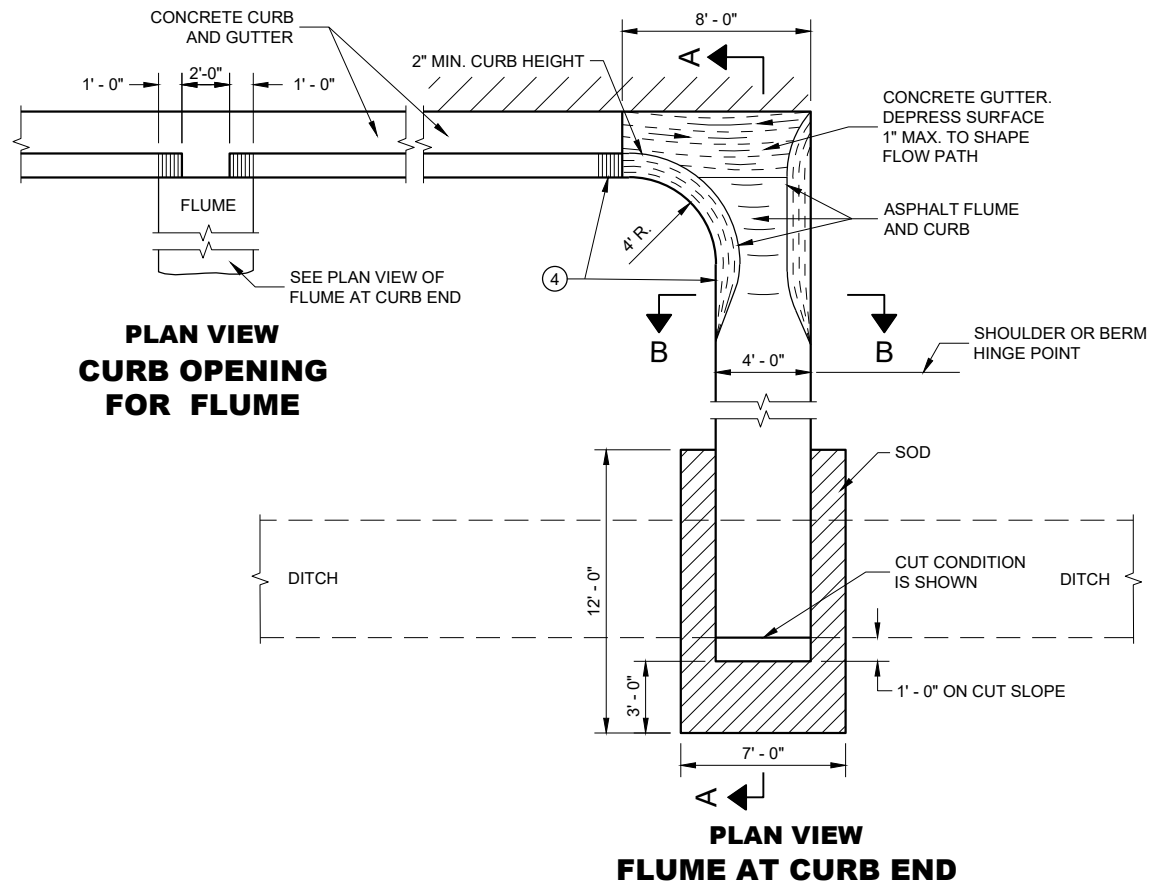
FHWA



SDD 08D04 Concrete Surface Drains and Asphaltic Flumes

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

ASPHALTIC FLUME

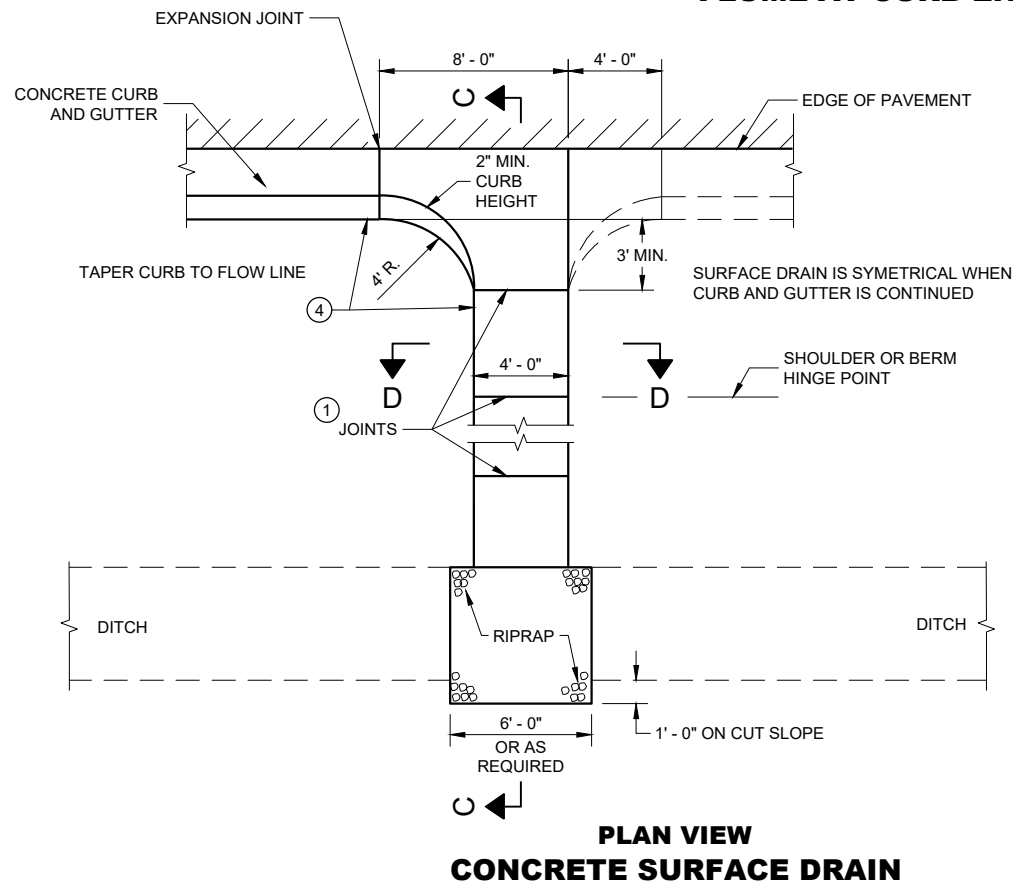
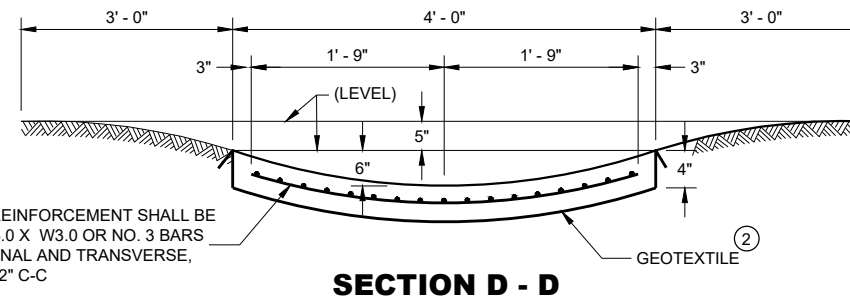
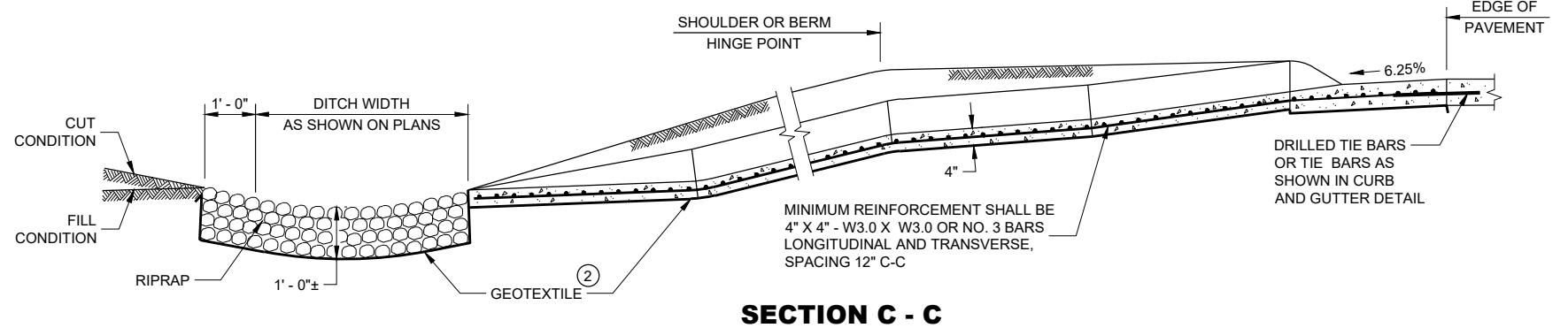
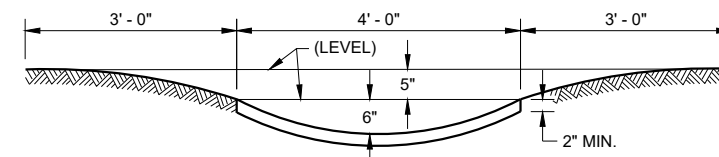
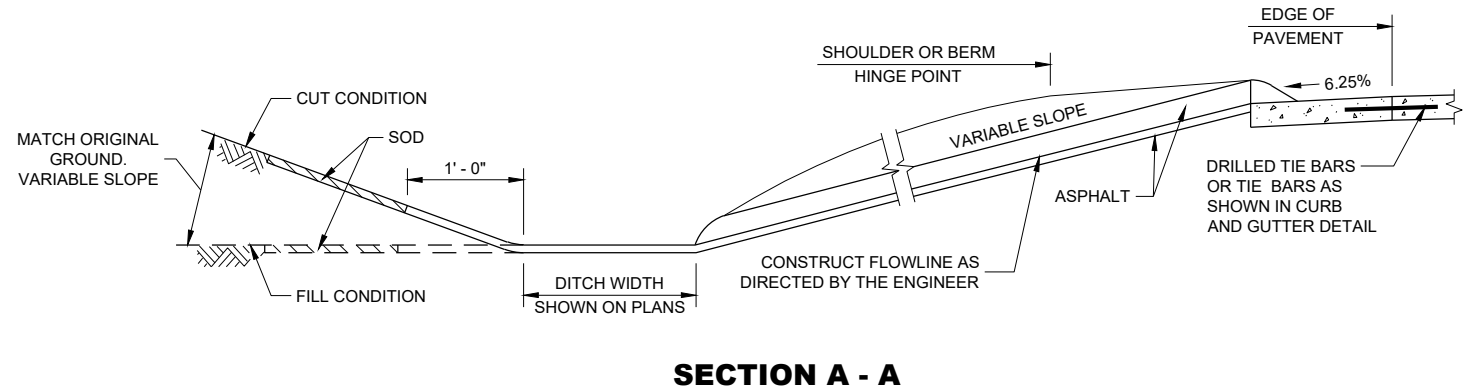


GENERAL NOTES

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.

- JOINTS SHALL BE 1/8" TO 1/4" WIDE BY 1 1/2" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- 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.



CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

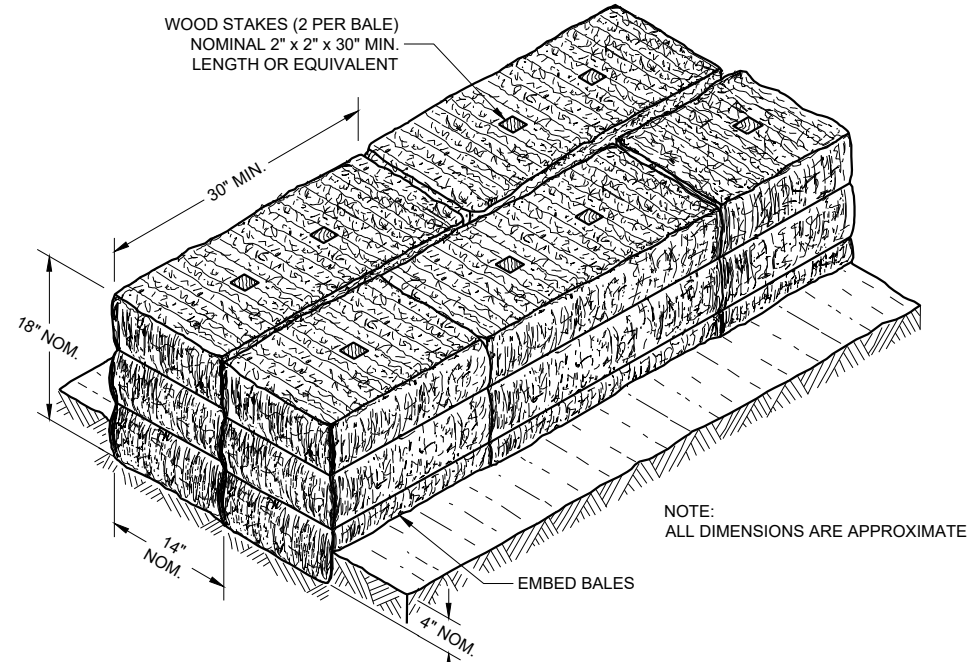
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SDD 08D04 - 06

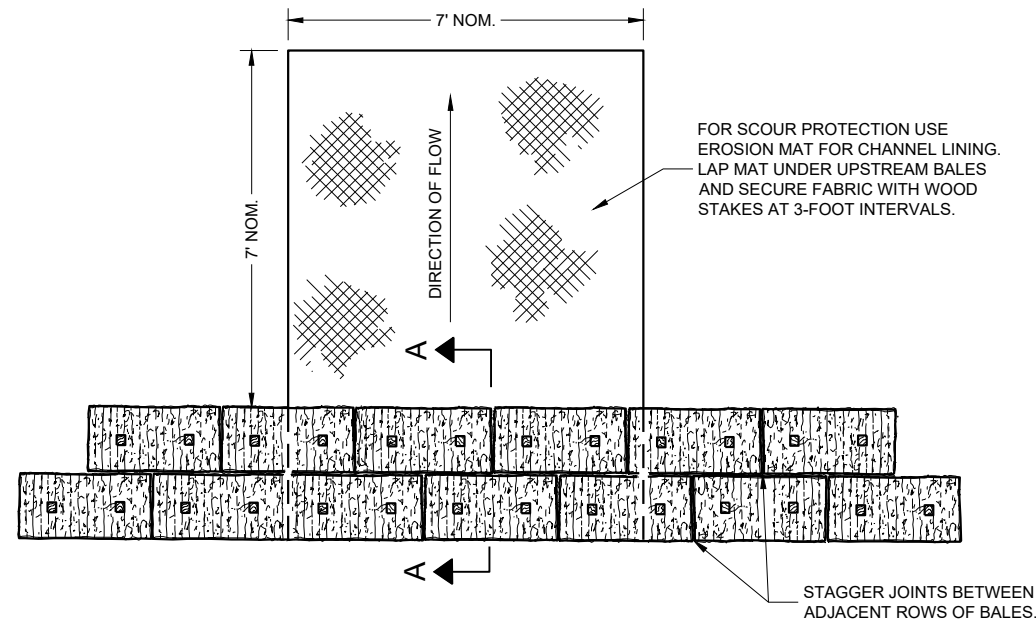
SDD 08D04 - 06



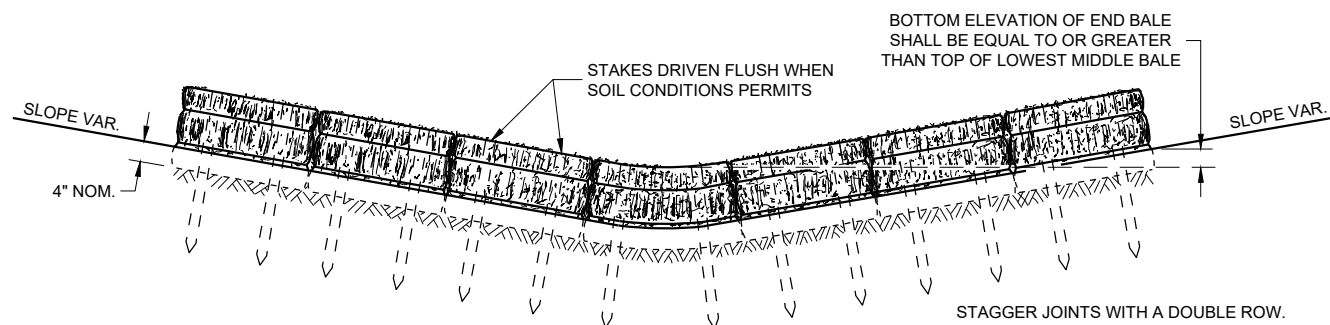
SDD 08E08 Typical Installations of Erosion Bales / Temporary Ditch Checks



SECTION A - A



PLAN VIEW



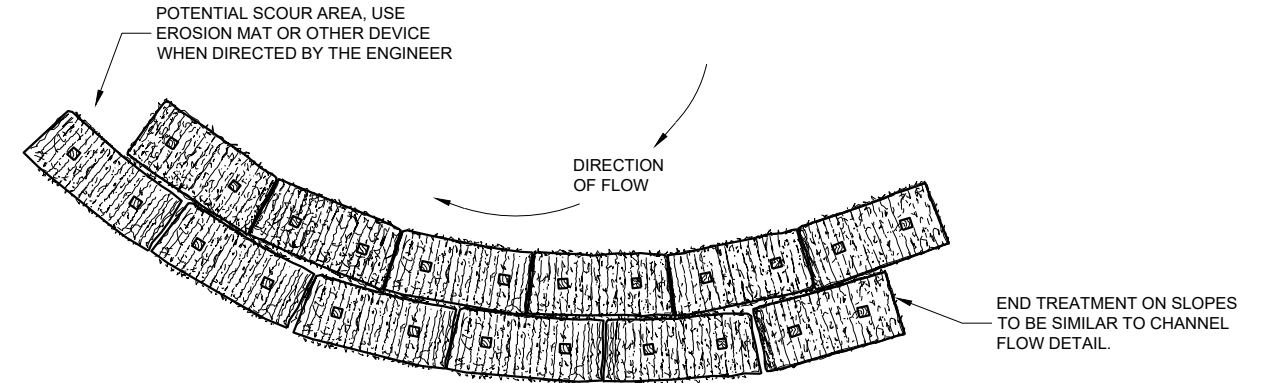
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES¹

GENERAL NOTES

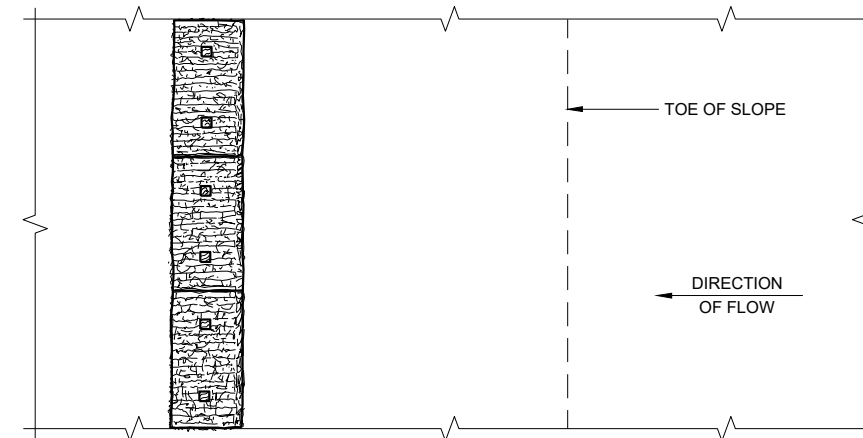
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

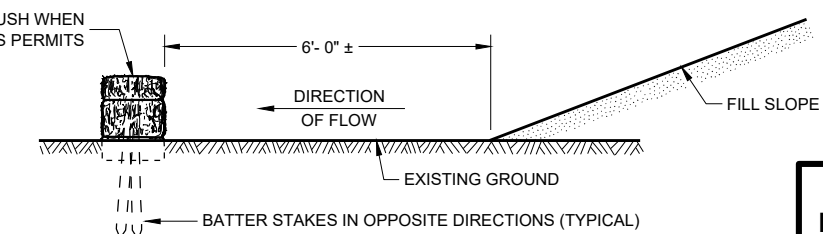


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN ELEVATION



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES/TEMPORARY DITCH CHECKS

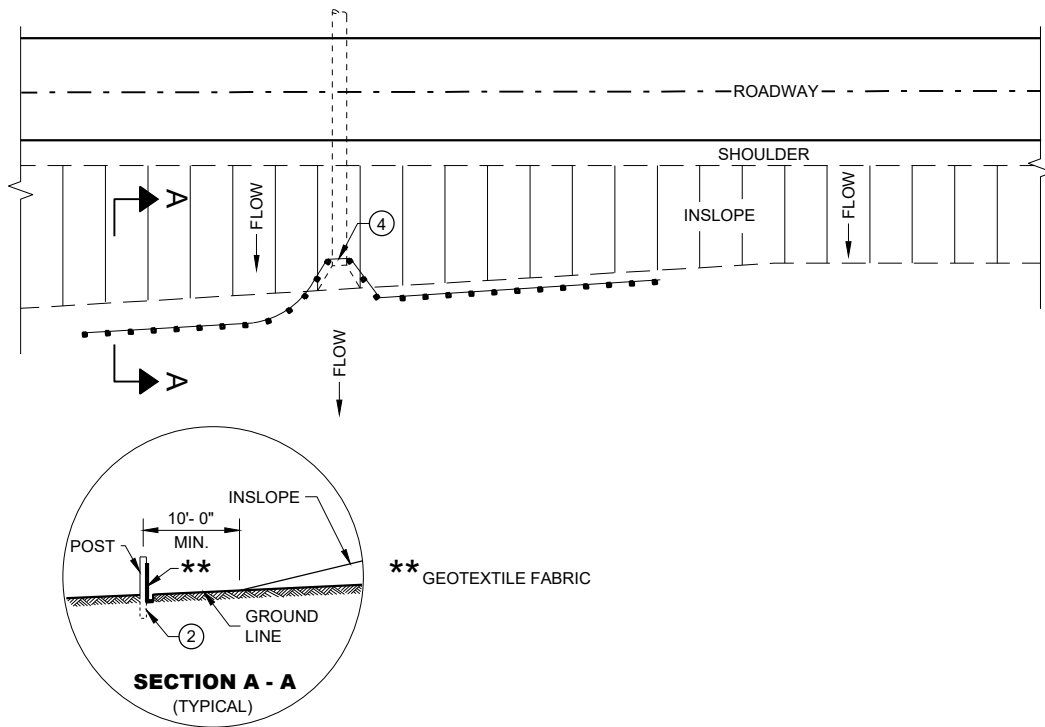
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

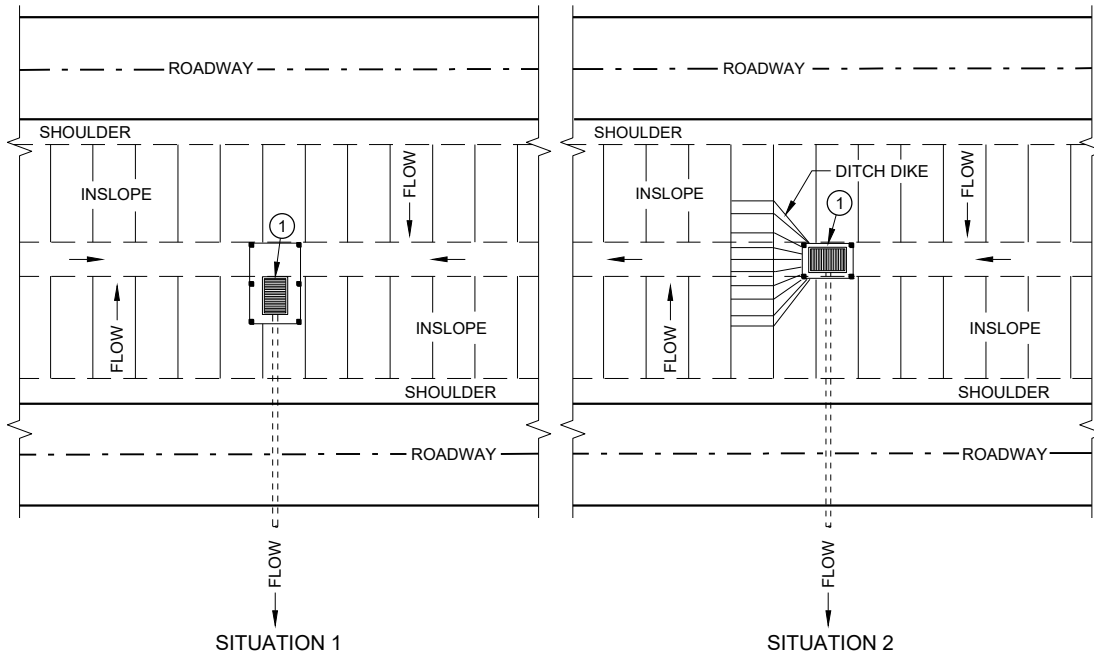
6/4/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT
ENGINEER

FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

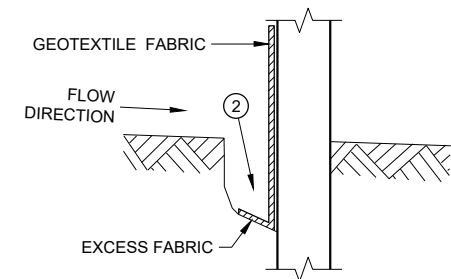


PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

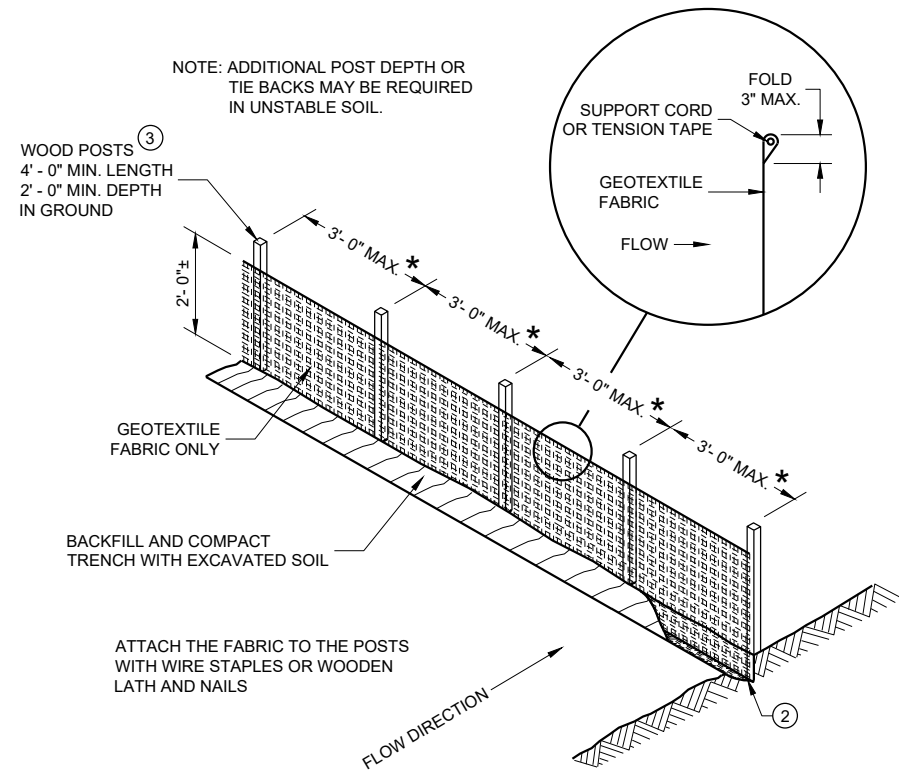
GENERAL NOTES

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

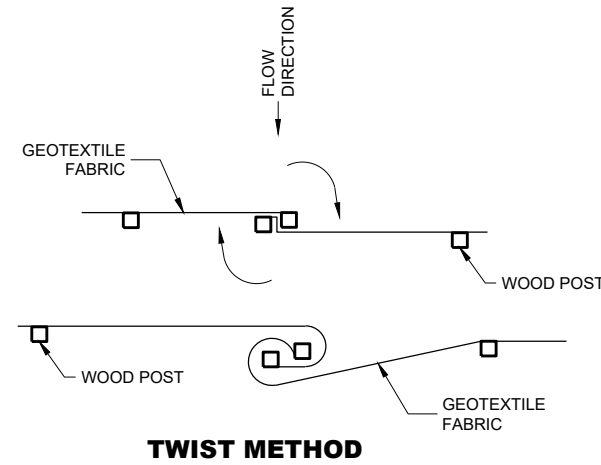
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE AND 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/2" X 1 1/2" 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.



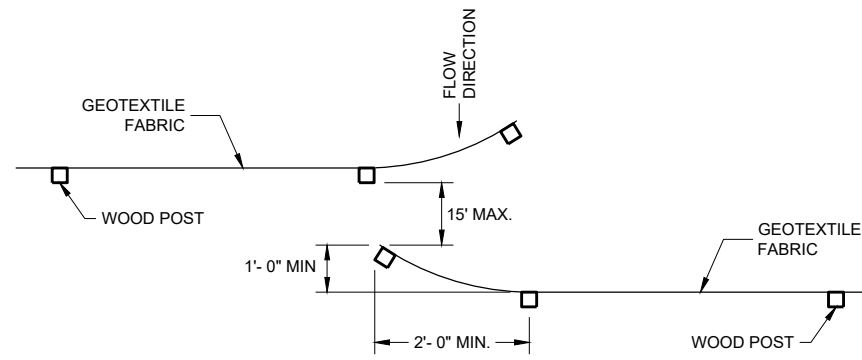
TRENCH DETAIL



SILT FENCE

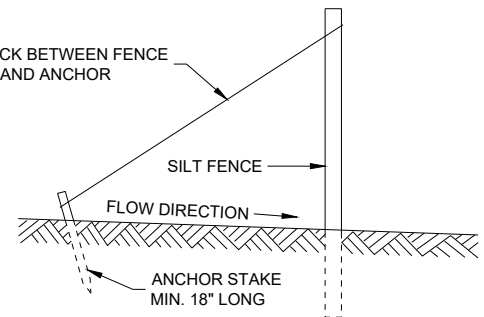


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

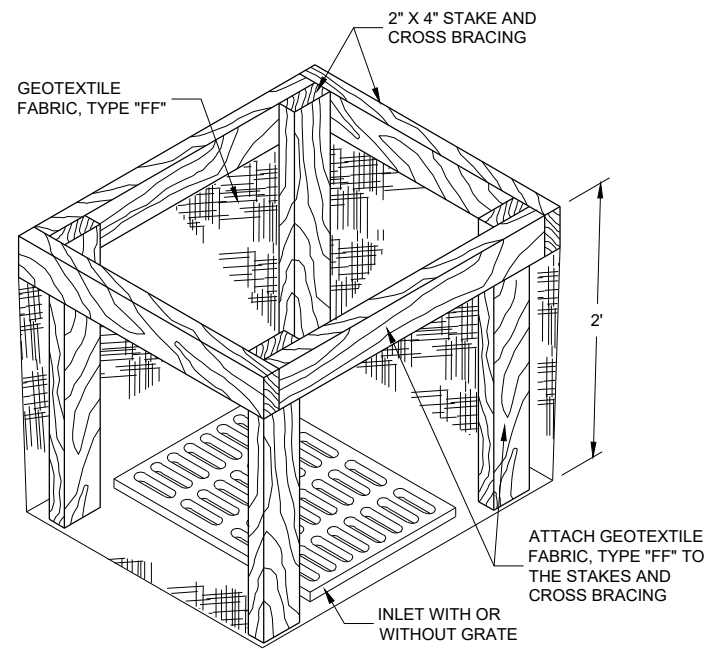
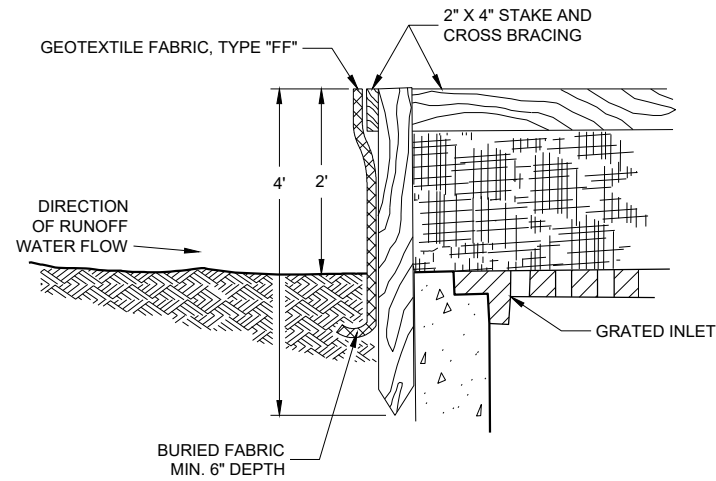
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

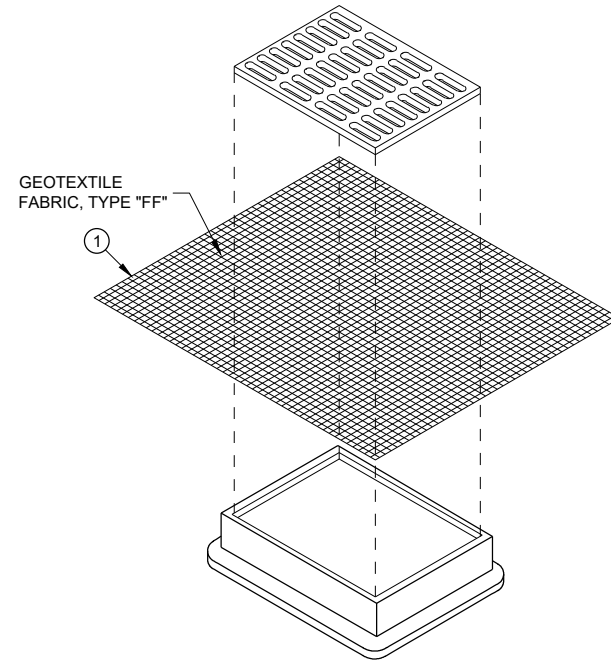
FHWA



SDD 08E10 Inlet Protection, Types A, B, C and D

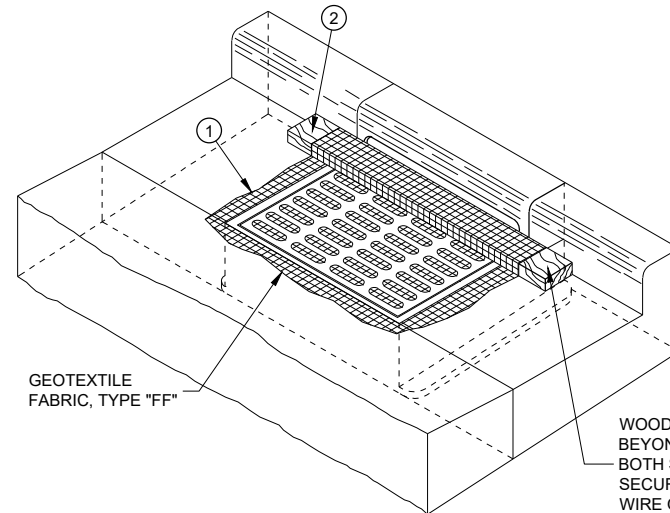


INLET PROTECTION, TYPE "A"



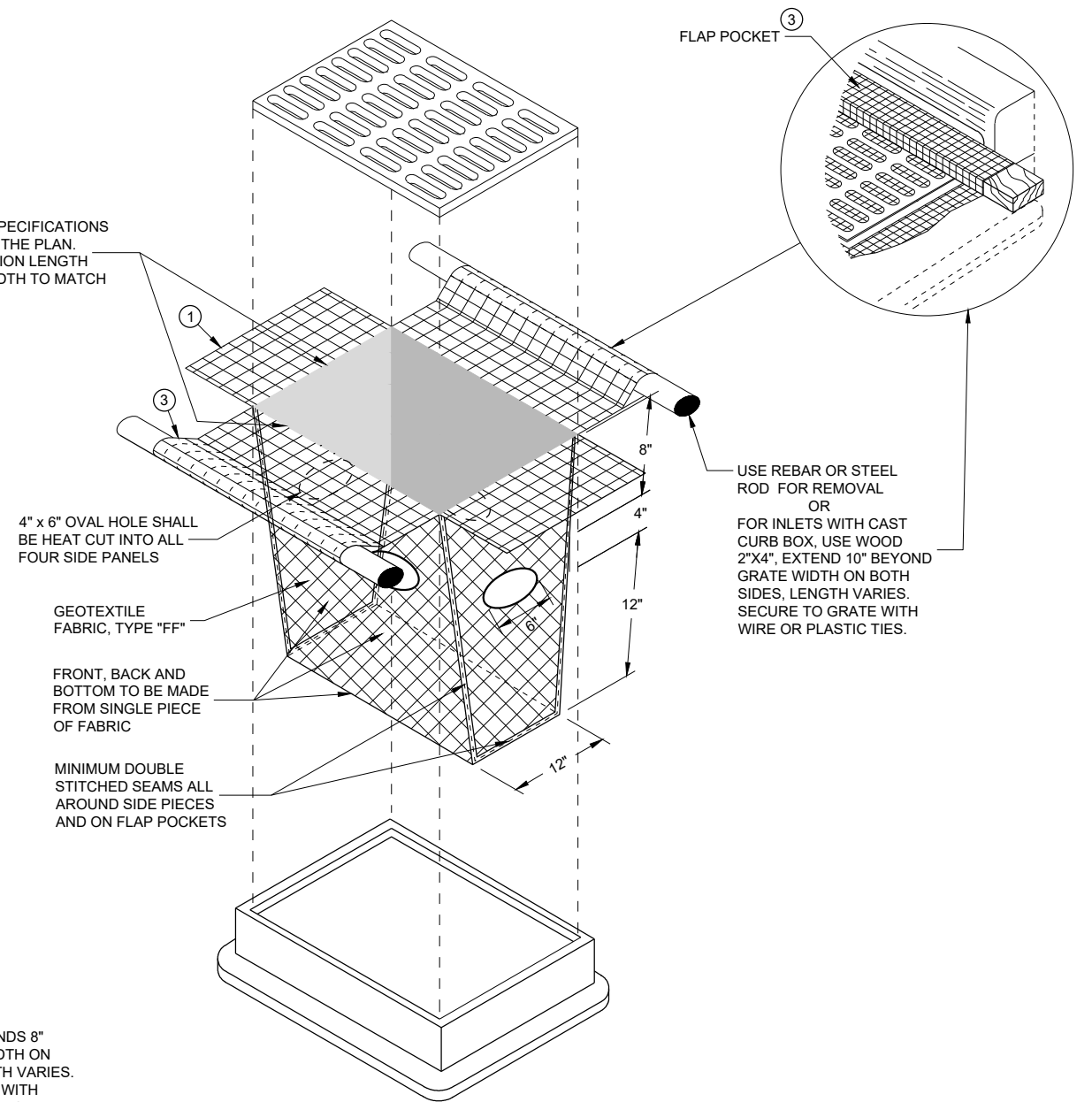
INLET PROTECTION, TYPE "B" (WITHOUT CURB BOX)

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



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

INLET SPECIFICATIONS AS PER THE PLAN. DIMENSION LENGTH AND WIDTH TO MATCH



INLET PROTECTION, TYPE "D"

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

GENERAL NOTES

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

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

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

- 1 FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- 2 FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- 3 FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPES 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

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

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.

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 TYPES A, B, C AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/s/ Beth Cannestra
10/16/02	DATE
	ROADWAY STANDARDS DEVELOPMENT ENGINEER



SDD 08E14 Tracking Pad

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.

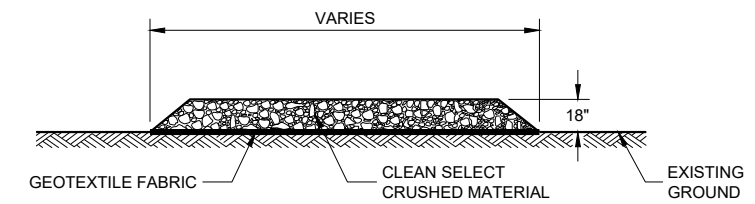
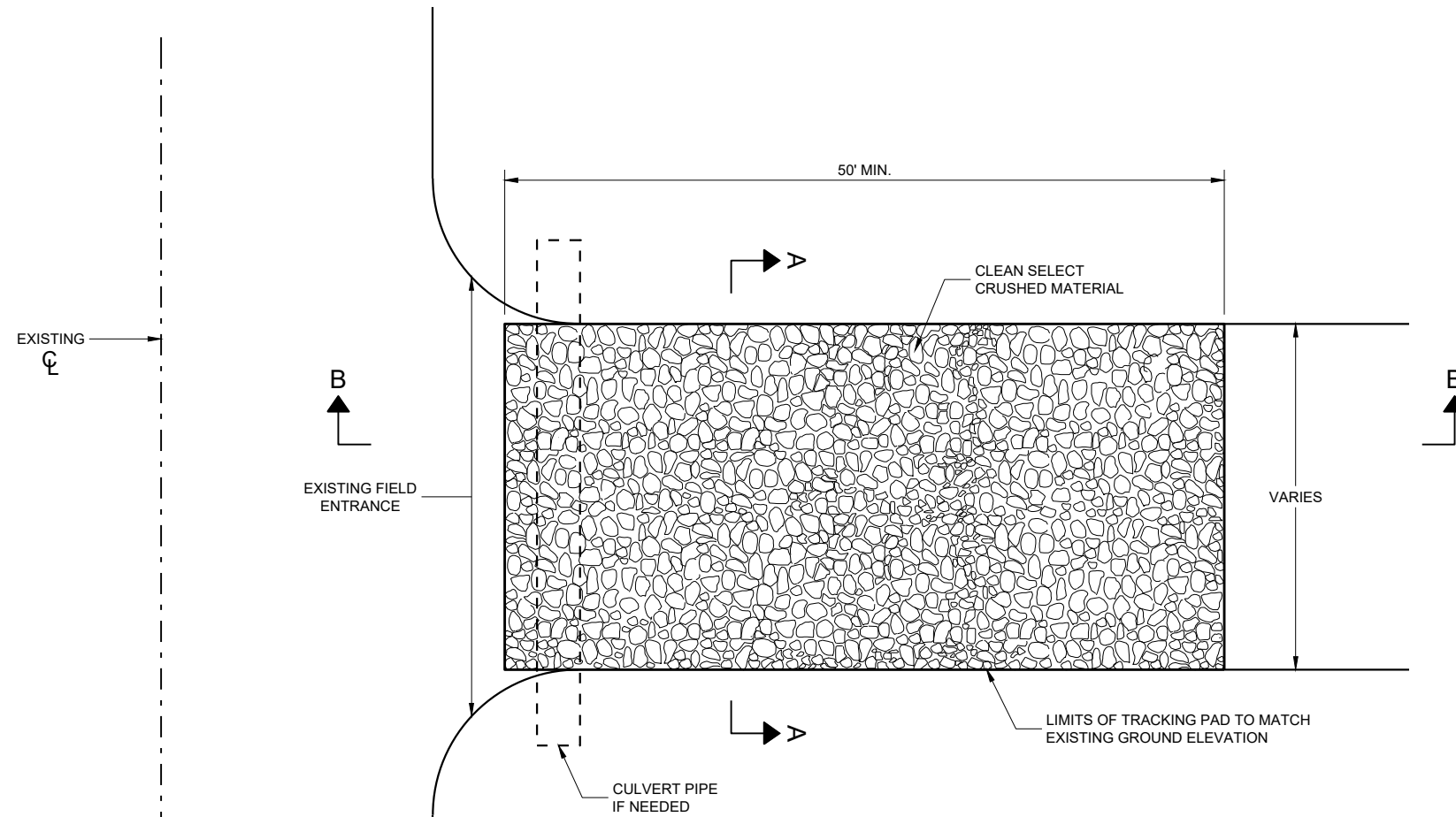
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

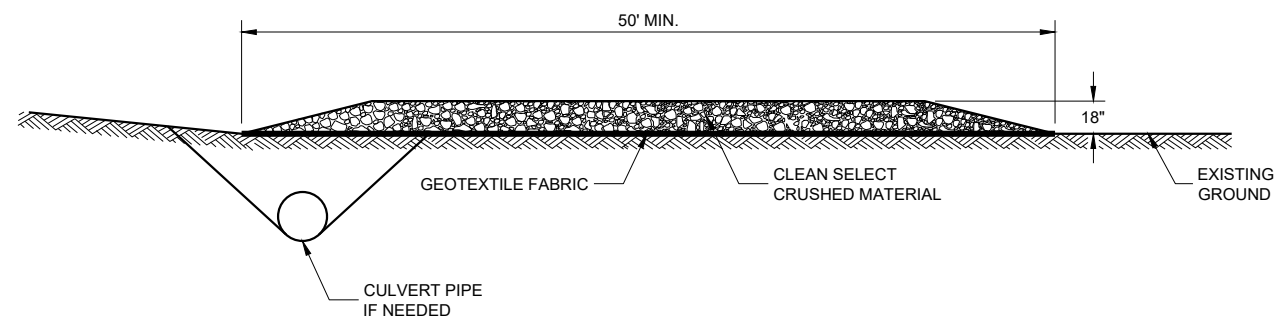
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

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



SECTION B - B

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

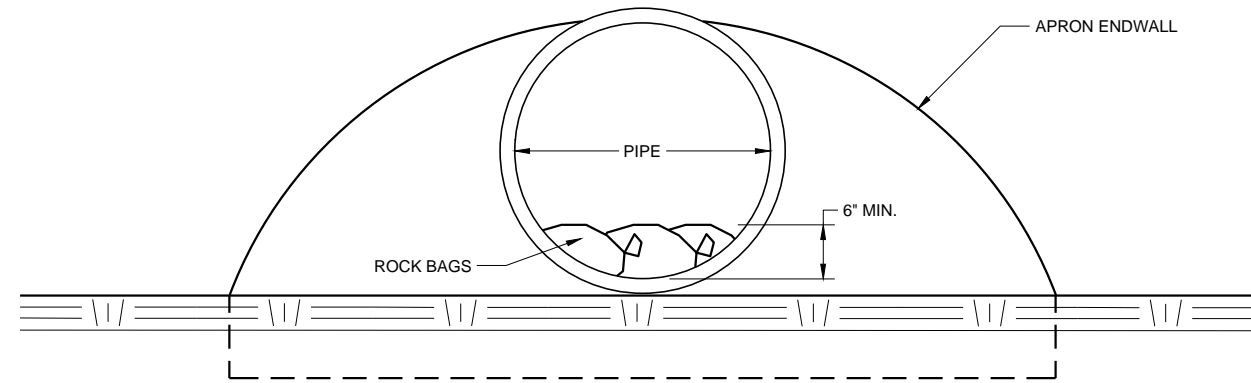
FHWA

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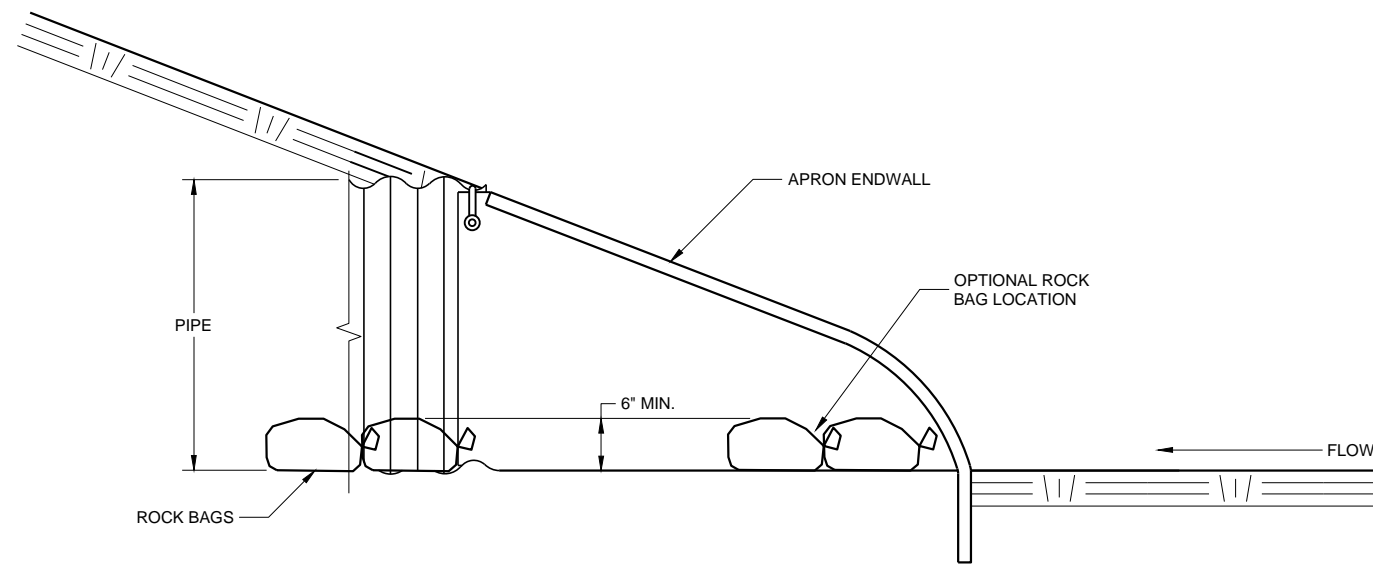
SDD 08E14 - 01

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SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

6

6

SDD 08E15 - 01

SDD 08E15 - 01

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE May 2019	/s/ Daniel Schave EROSION CONTROL ENGINEER

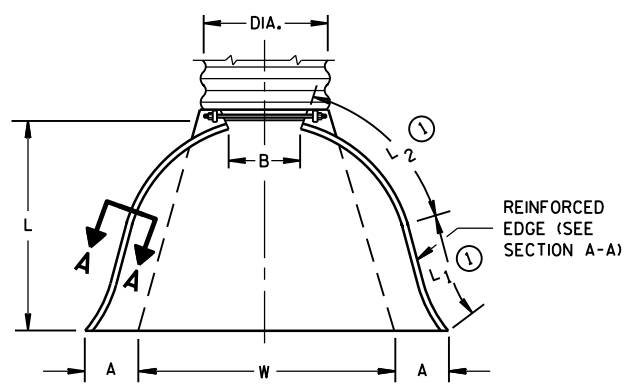
FHWA

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1/2")	L1 (Ⓛ)	L2 (Ⓛ)	W (±2")		
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	8	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	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

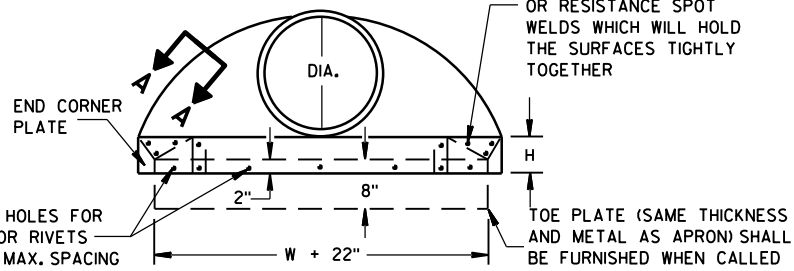
REINFORCED CONCRETE APRON ENDWALLS									
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE	
	T	A	B	C	D	E	G		
12	2	4	24	48 1/8	72 7/8	24	2	3 to 1	
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1	
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1	
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1	
24	3	9 1/2	43 1/2	30	73 1/2	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 1/4	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



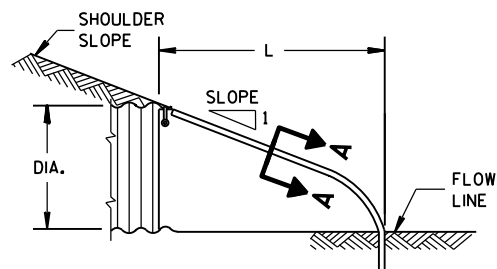
PLAN VIEW

REINFORCED EDGE (SEE SECTION A-A)
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

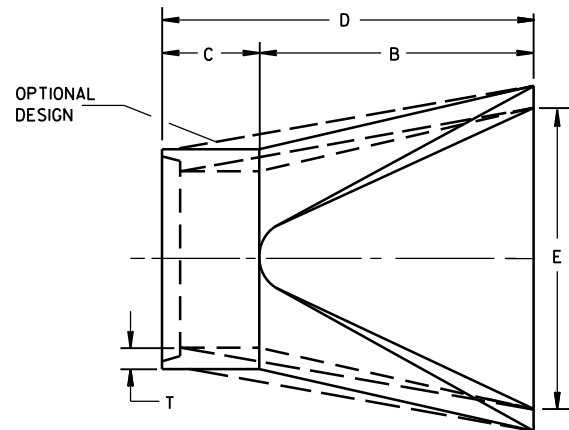


END VIEW

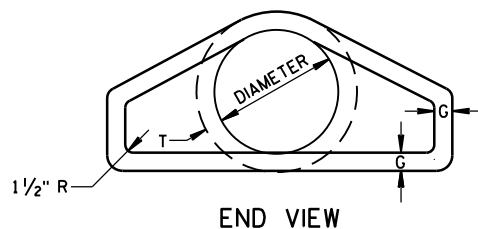
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



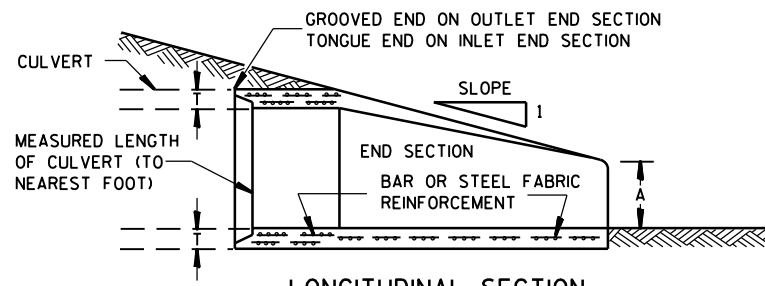
SIDE ELEVATION
METAL ENDWALLS



PLAN

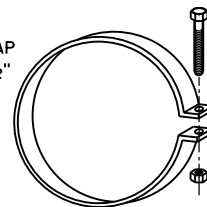


END VIEW



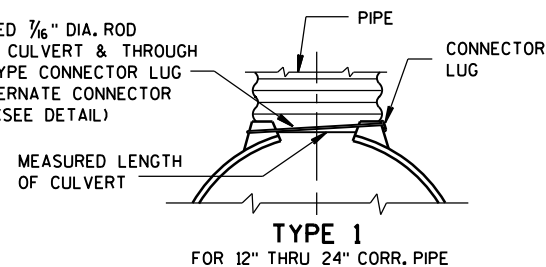
LONGITUDINAL SECTION
CONCRETE ENDWALLS

1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP

THREADED 1/8" DIA. ROD AROUND CULVERT & THROUGH TANK TYPE CONNECTOR LUG OR ALTERNATE CONNECTOR STRAP (SEE DETAIL)



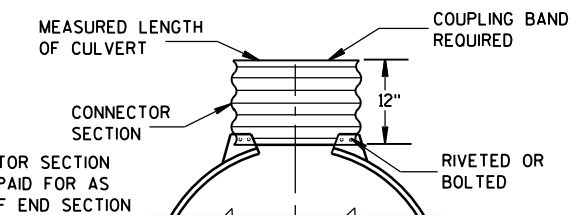
TYPE 1
FOR 12" THRU 24" CORR. PIPE

THREADED 1/8" DIA. ROD OVER TOP OF APRON, SIDE LUGS TO BE RIVETED TO APRON



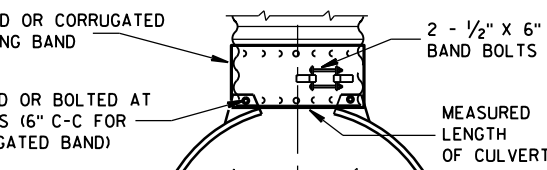
TYPE 2
FOR 30" THRU 96" CORR. PIPE

MEASURED LENGTH OF CULVERT
CONNECTOR SECTION TO BE PAID FOR AS PART OF END SECTION



TYPE 3
FOR 42" THRU 96" CORR. PIPE

DIMPLED OR CORRUGATED COUPLING BAND
RIVETED OR BOLTED AT DIMPLES (6" C-C FOR CORRUGATED BAND)



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

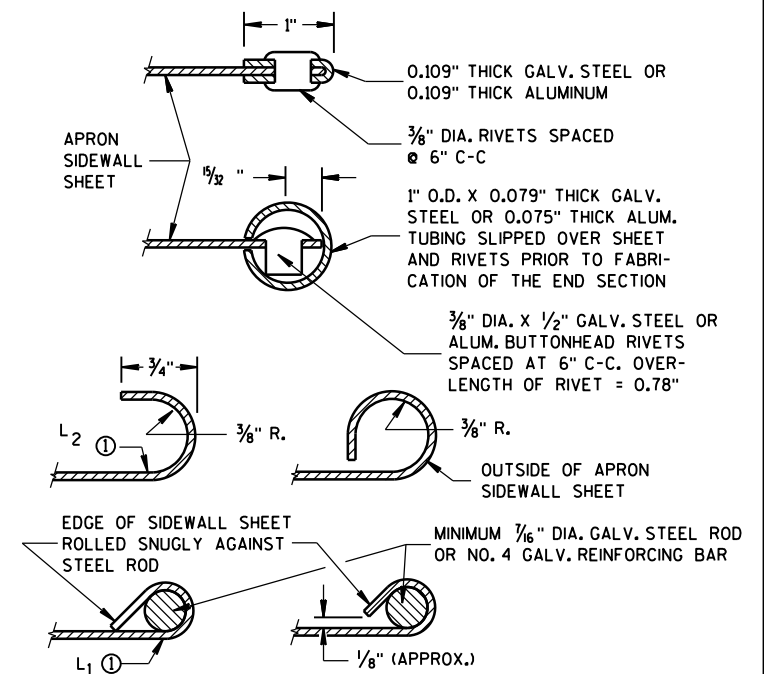
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

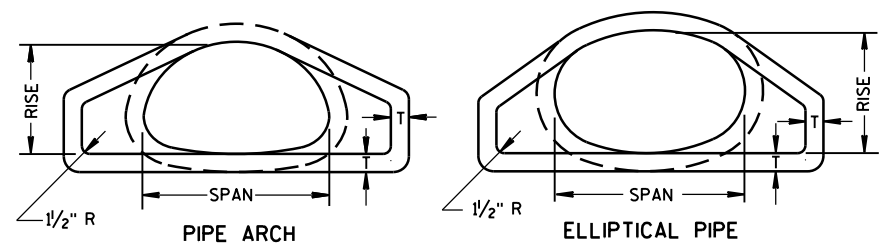
Ⓛ FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

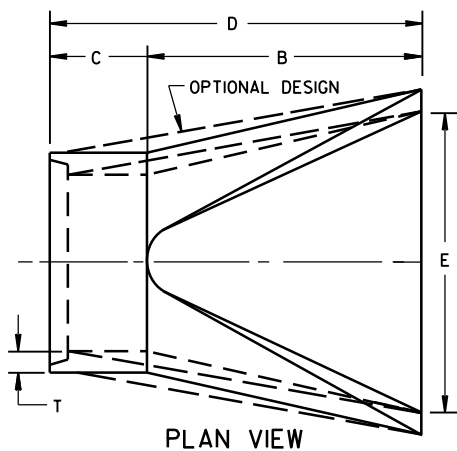
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-30-94 /s/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

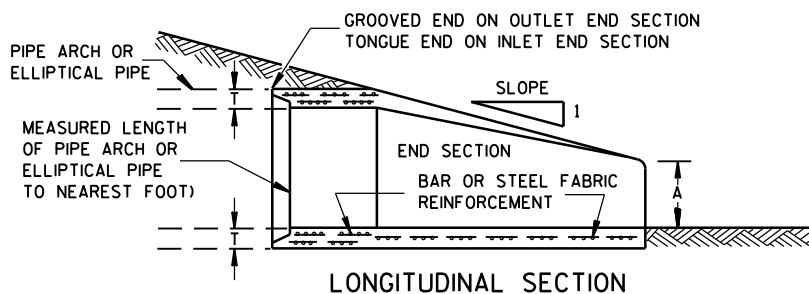
SDD 8F2 Apron Endwalls for Pipe Arch and Elliptical Pipe



END VIEW



PLAN VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A	B	H	L	L ₁	L ₂	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	⊙	⊙	(±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 3/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 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.

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A	B	H	L	L ₁	L ₂	W		
					(±1")	(MAX.)	(±1")	(±1 1/2")	⊙	⊙	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 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	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
	24	29	18	3	8 1/2	39	33	72	
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 3/8	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	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	28 1/2	83	19	102	144	2 to 1

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
	24	30	19	3 1/4	8 1/2	39	33	72	
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

** NOMINAL SIZE

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.

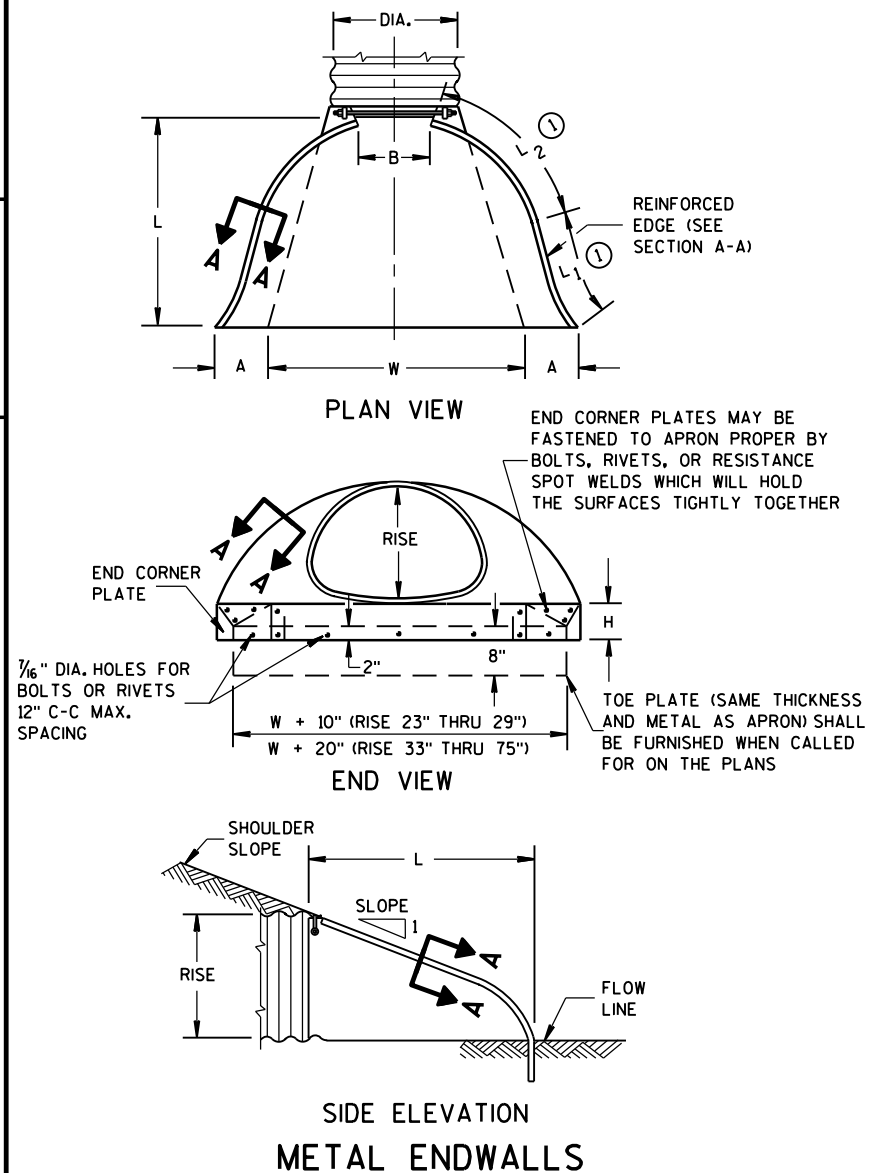
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

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.

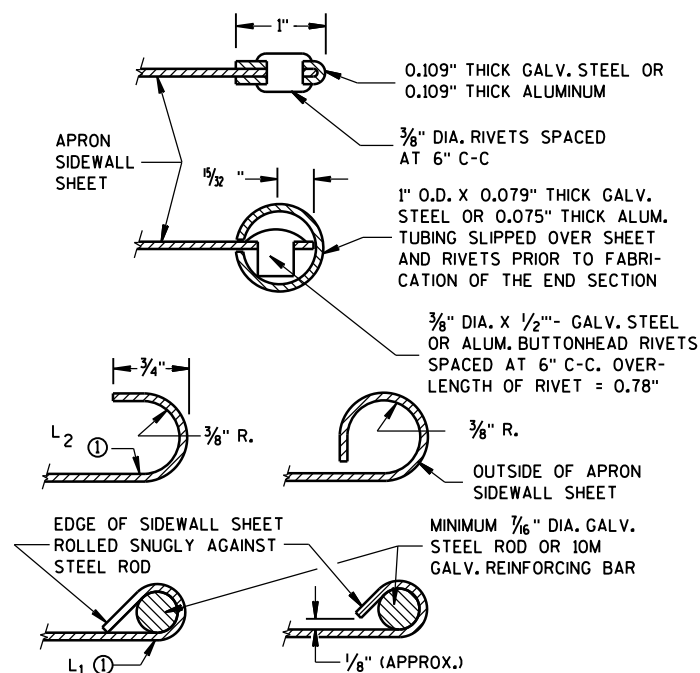
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER 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.

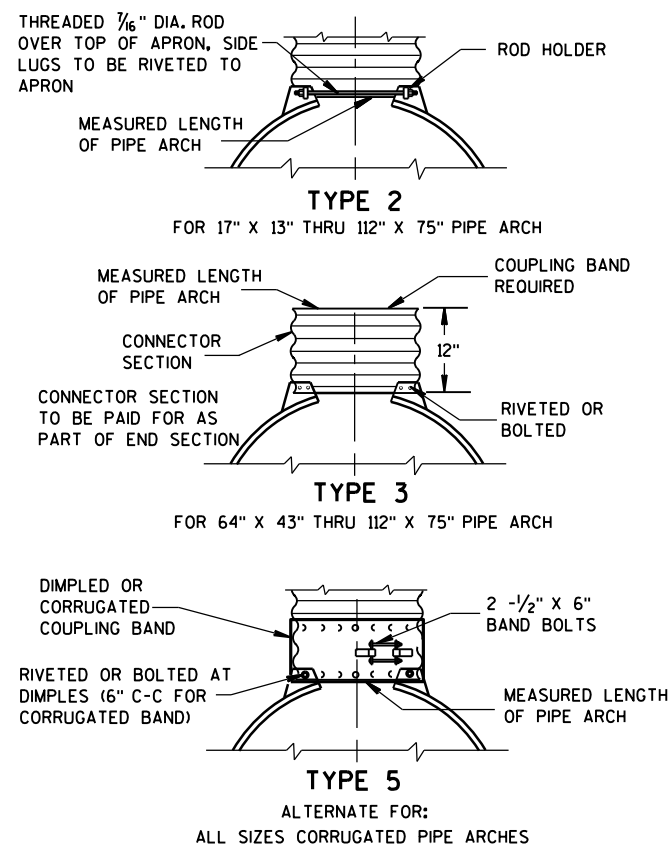
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



METAL ENDWALLS



SECTION A-A



CONNECTION DETAILS

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

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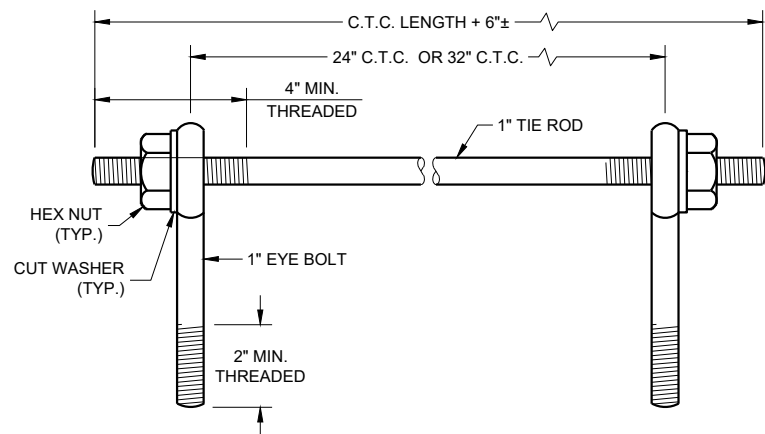
S.D.D. 8 F 2-1

S.D.D. 8 F 2-1

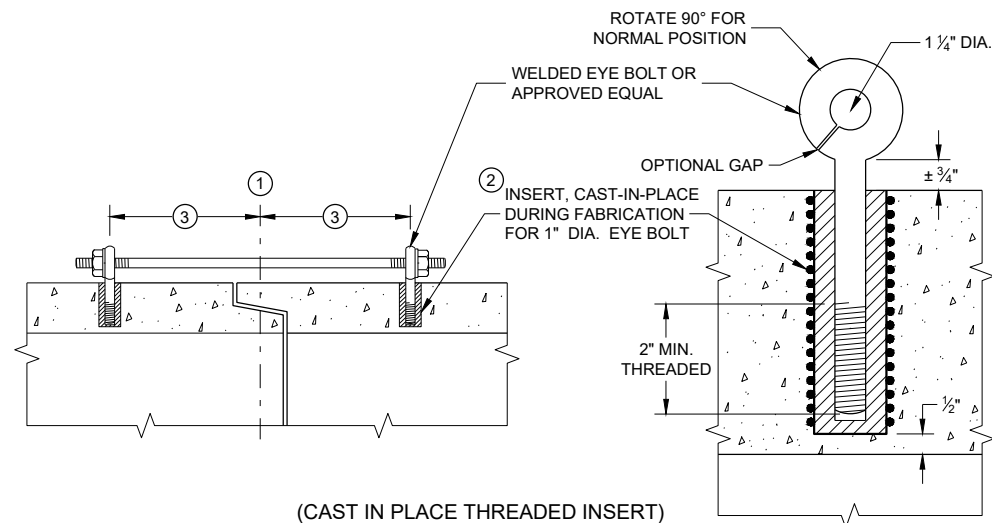
APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11-30-94 DATE	/s/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



SDD 08F04 Joint Ties for Concrete Pipe and Concrete Collar Detail



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



(CAST IN PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

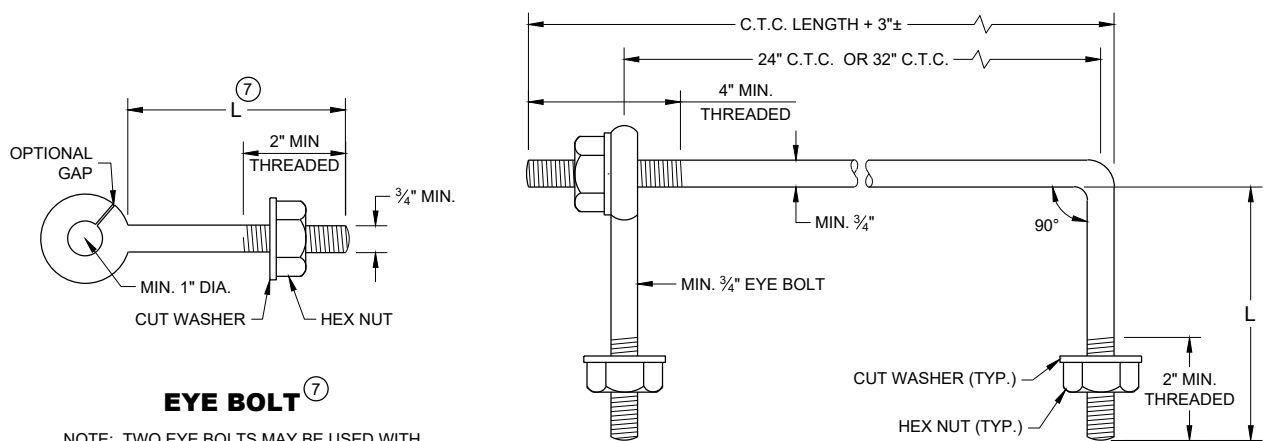
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

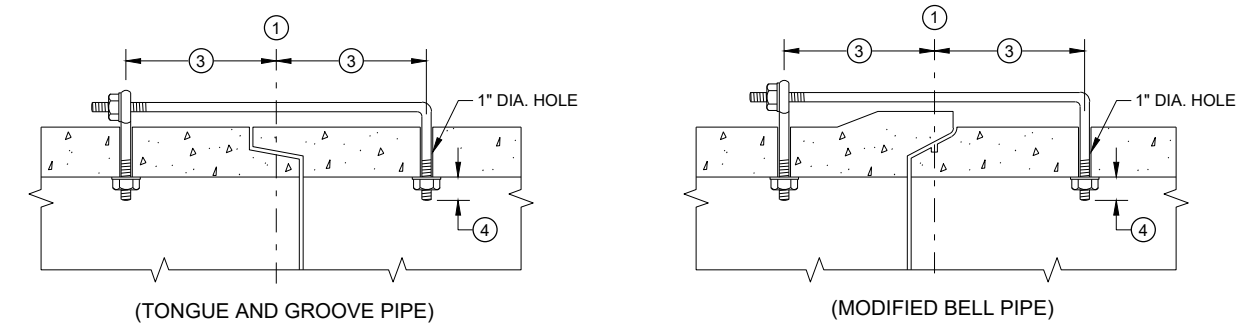
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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 1/2 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 AND TIE ROD

EYE BOLT ⑦
 NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>



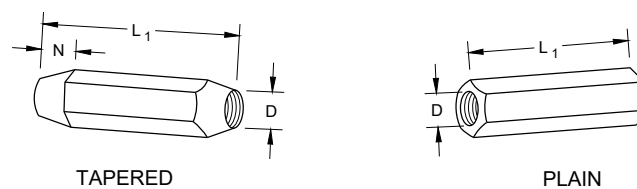
LONGITUDINAL SECTION
 (JOINT TIES FOR 18\"/>

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

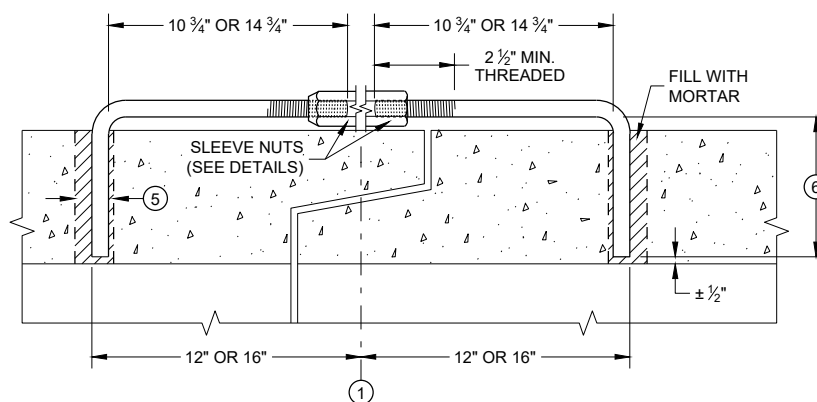
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

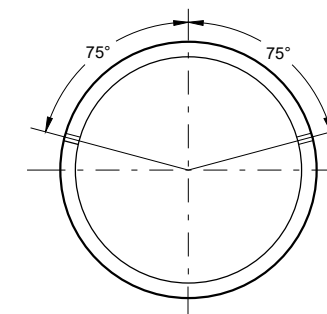
DIMENSIONS SHOWN ARE IN INCHES



RIGHT AND LEFT THREADS
SLEEVE NUTS

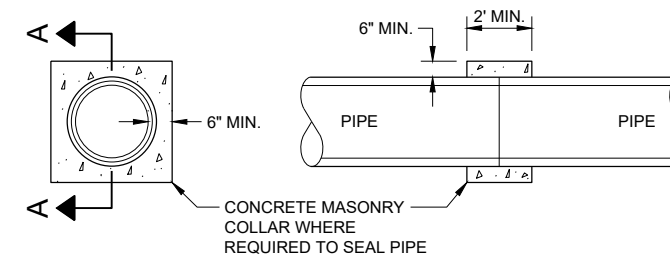


LONGITUDINAL SECTION
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

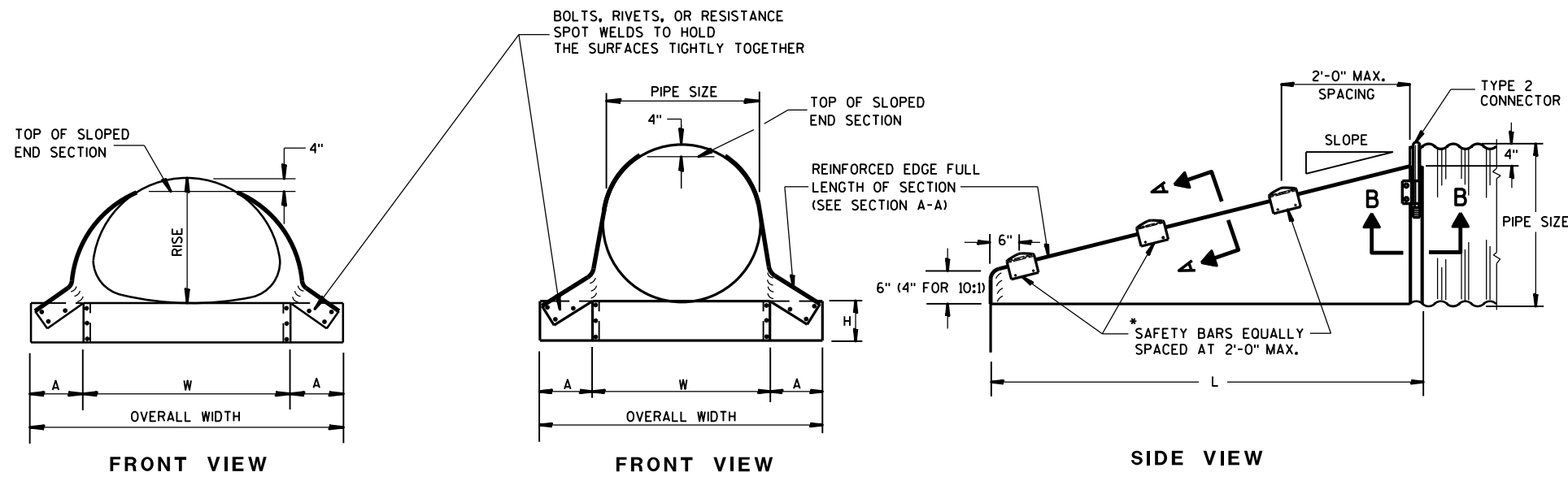
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2021 /S/ Rodney Taylor
 DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

SDD 8F7 Steel Apron Endwalls for Culvert Pipe and Pipe Arch Sloped Side Drains



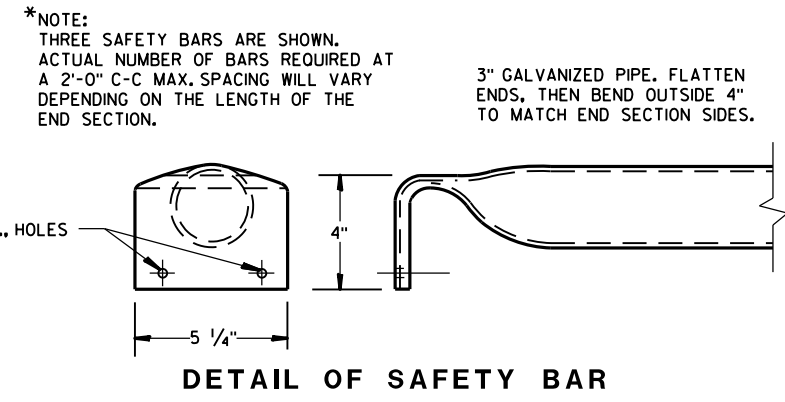
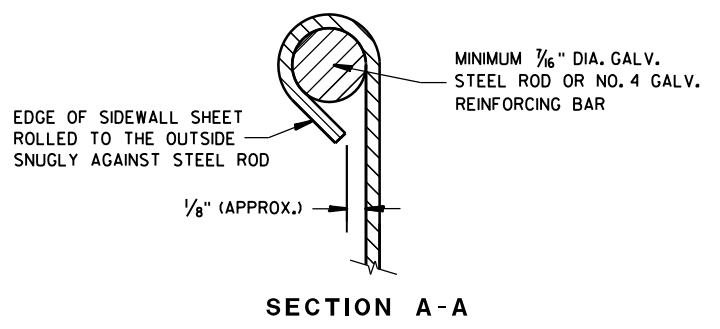
GENERAL NOTES

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.

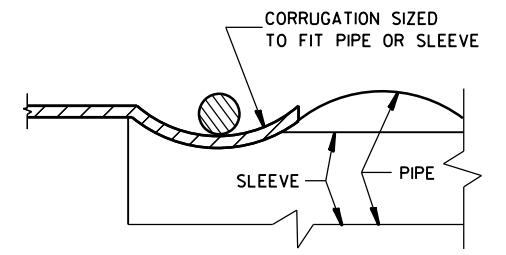
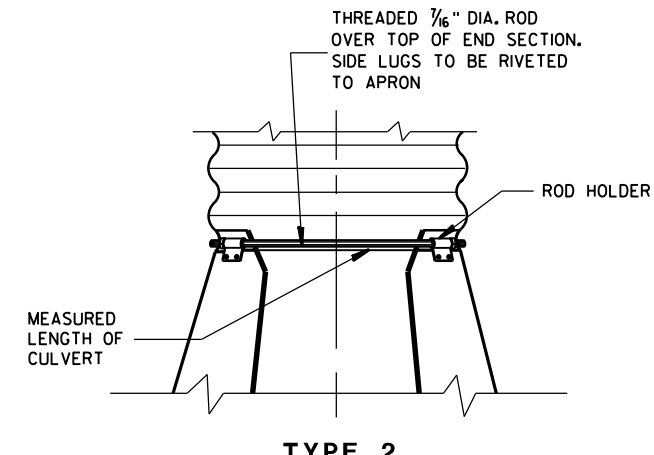
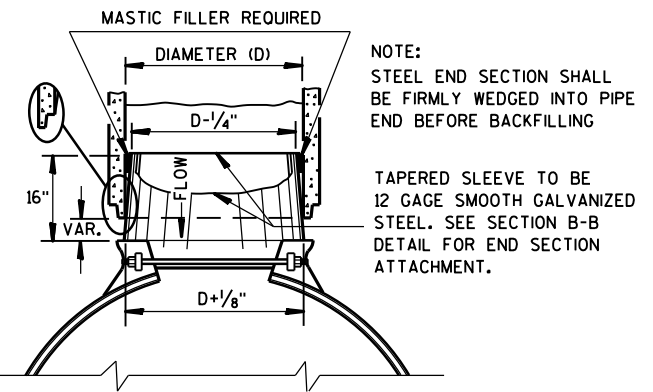
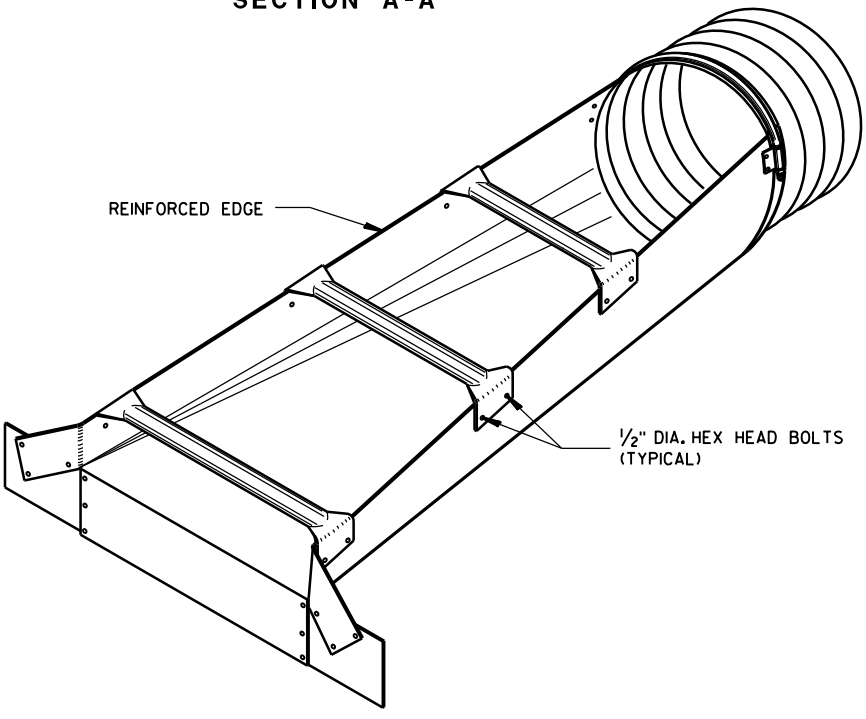
SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

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	—	—



STEEL APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches) ①	DIMENSIONS (Inches)				L DIMENSIONS					
	SPAN	RISE		A	H	W	OVERALL WIDTH	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.



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 9/14/2012 /s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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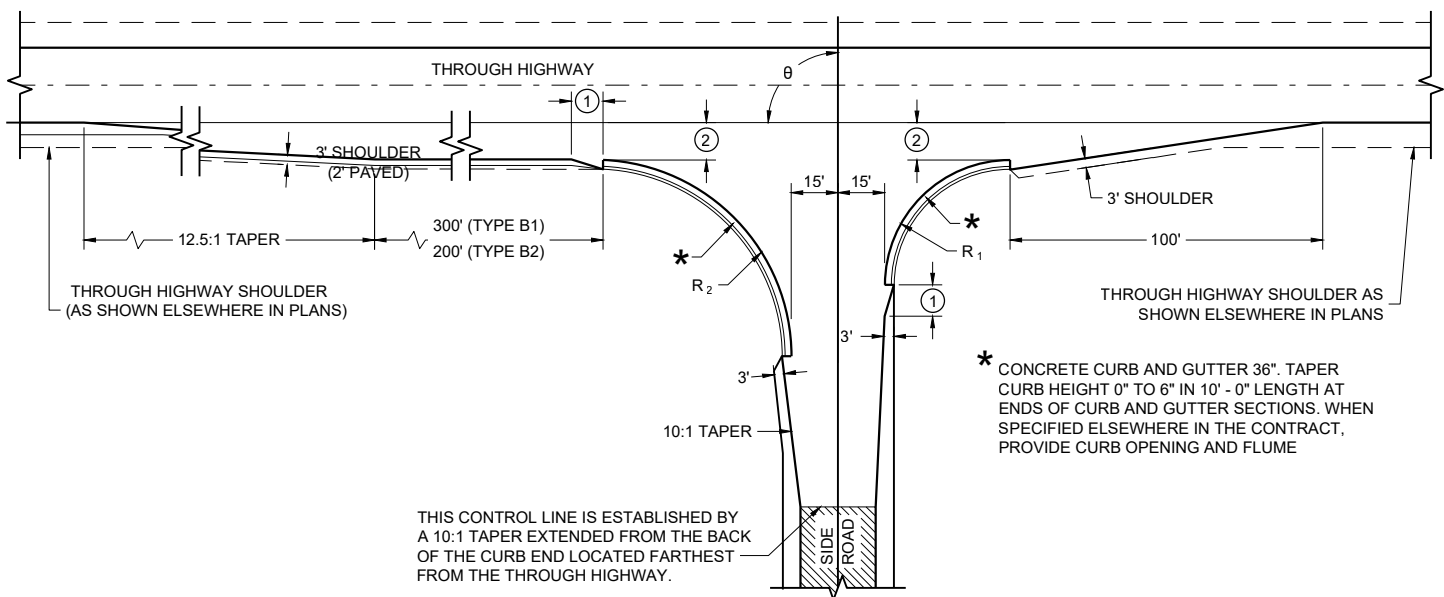
S.D.D. 8 F 7-5

S.D.D. 8 F 7-5

ISOMETRIC VIEW

STEEL ADAPTER SLEEVE FOR CONCRETE PIPE

TYPE 2 CONNECTION DETAIL



TYPE "B1" AND "B2"

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R ₁	R ₂
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

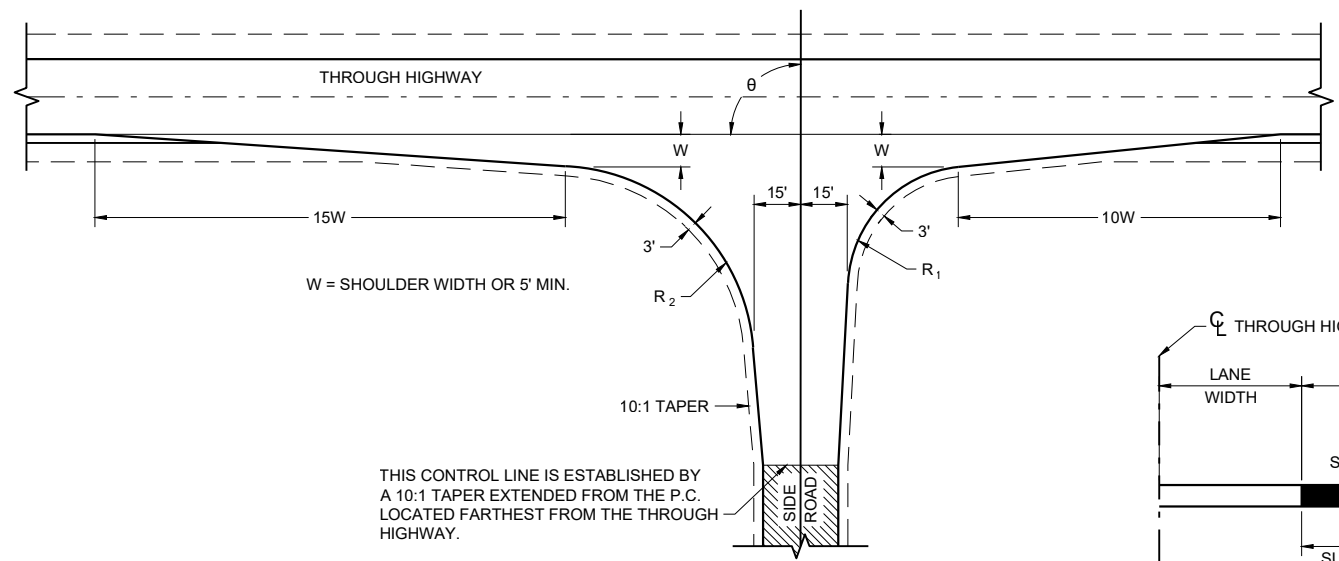
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

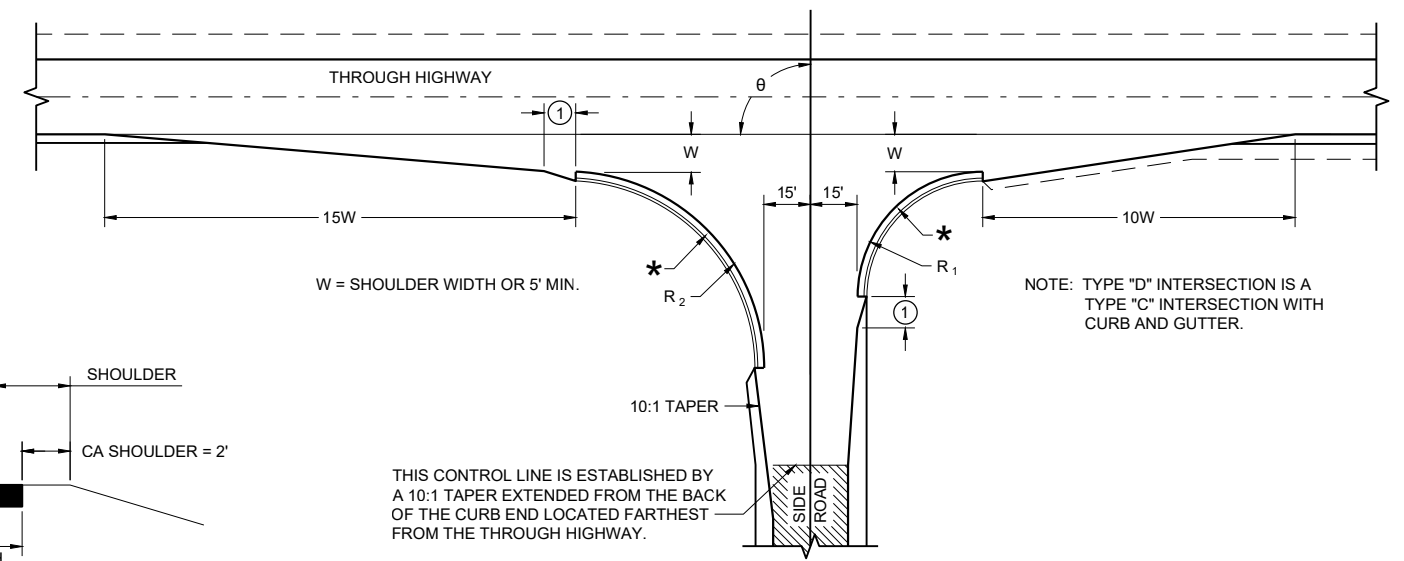
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

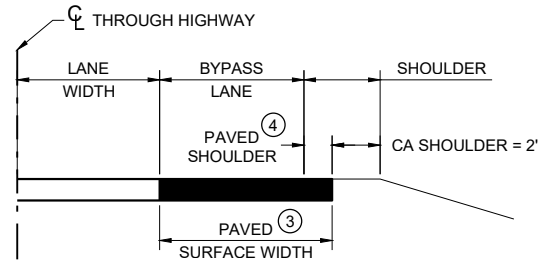
- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



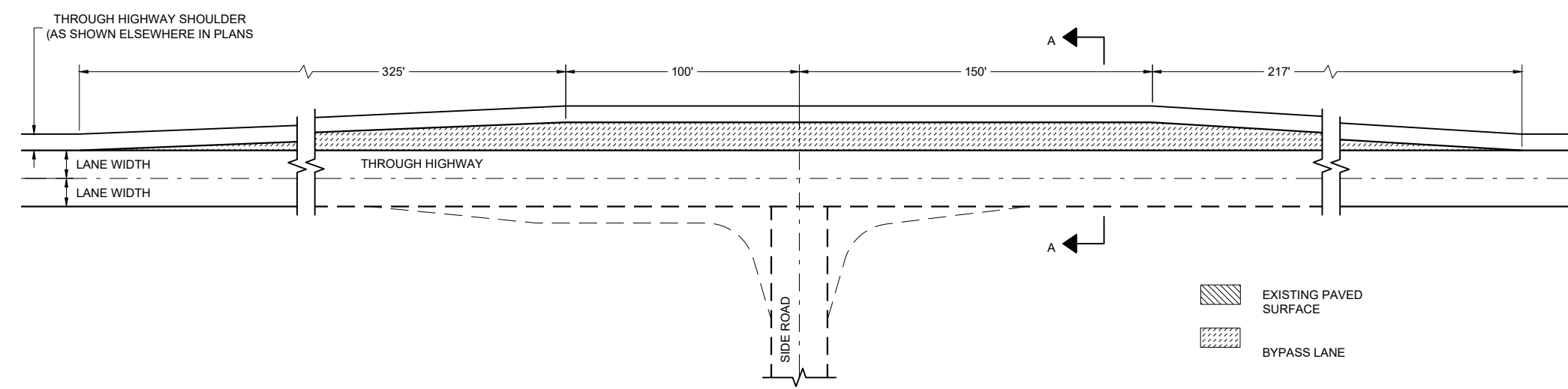
TYPE "C"



TYPE "D"



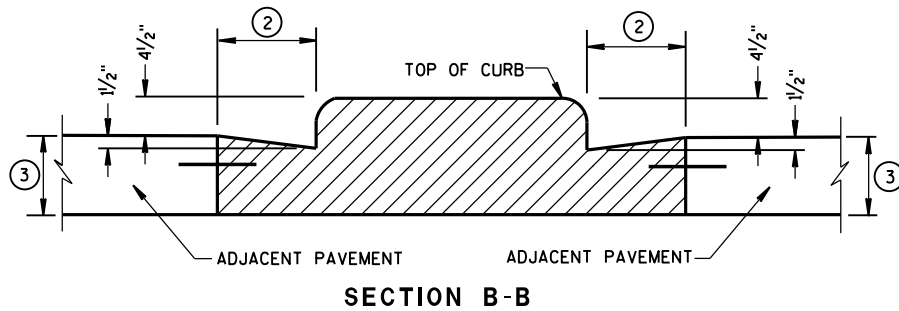
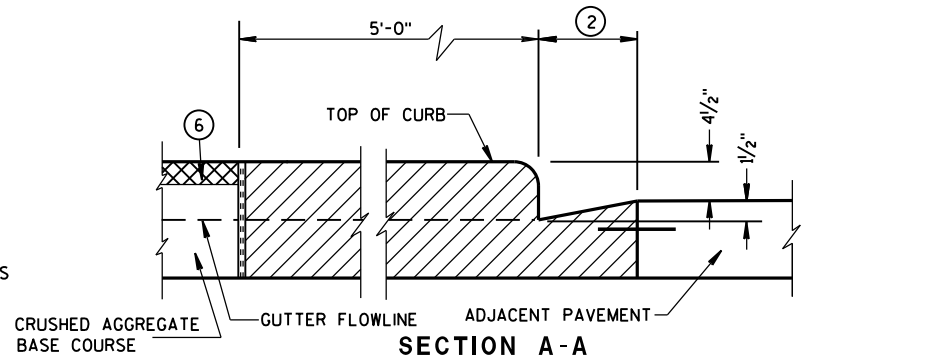
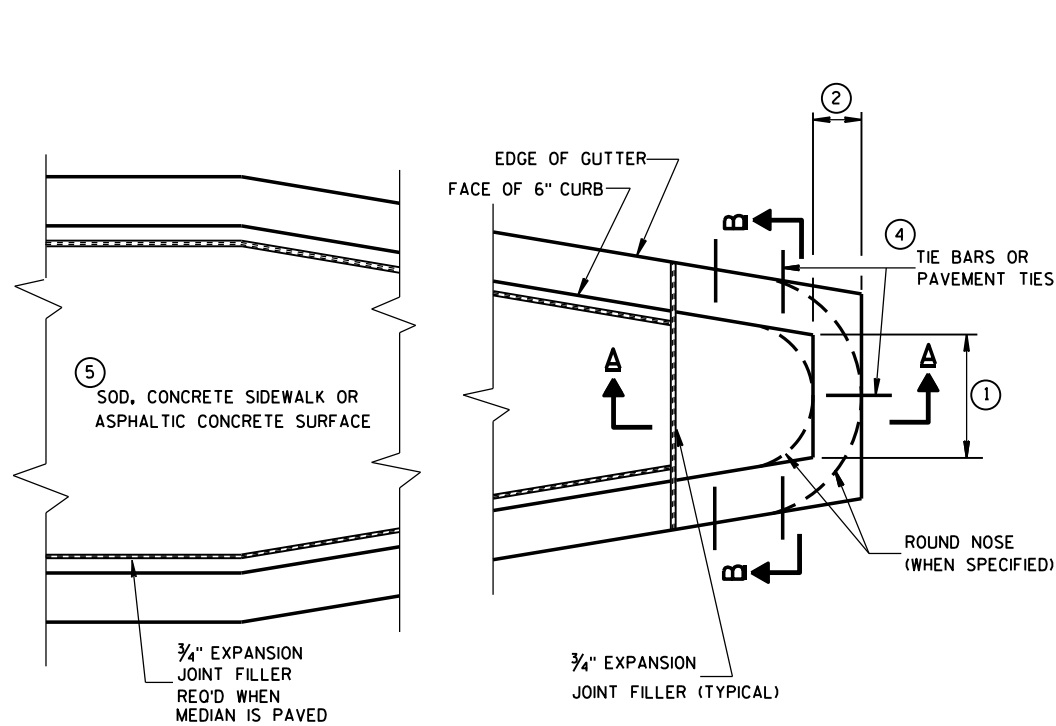
SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

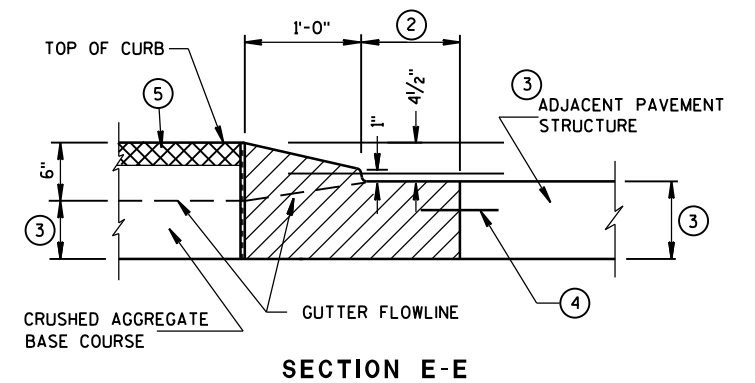
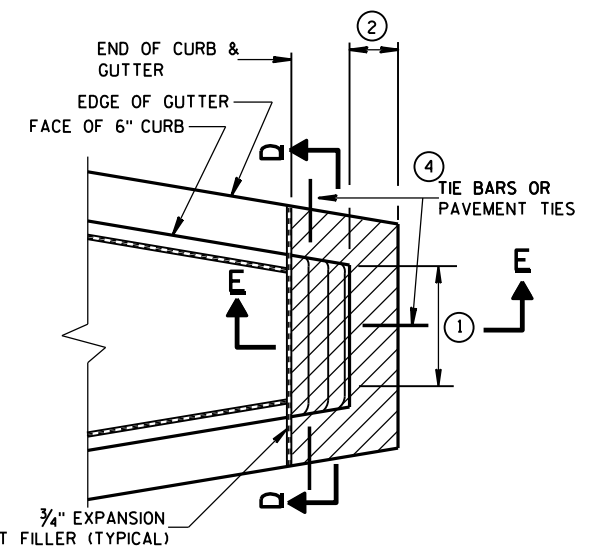


CONCRETE MEDIAN BLUNT NOSE DETAIL

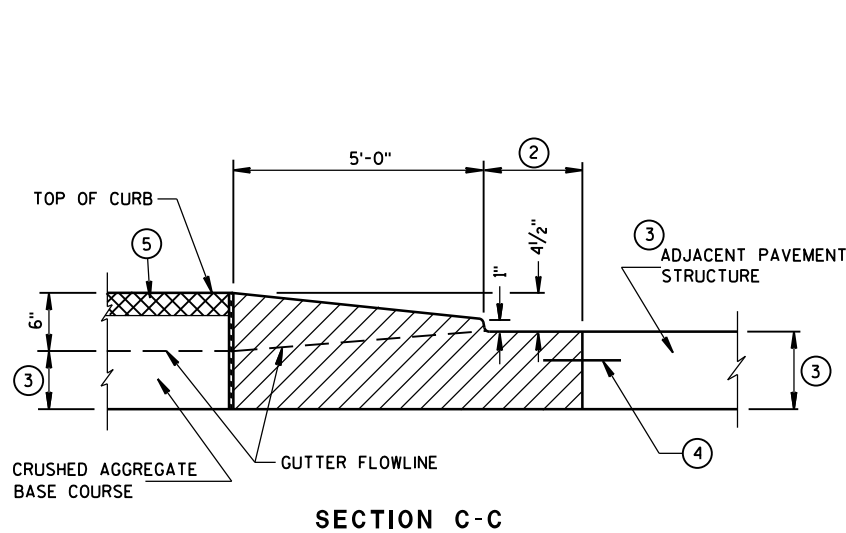
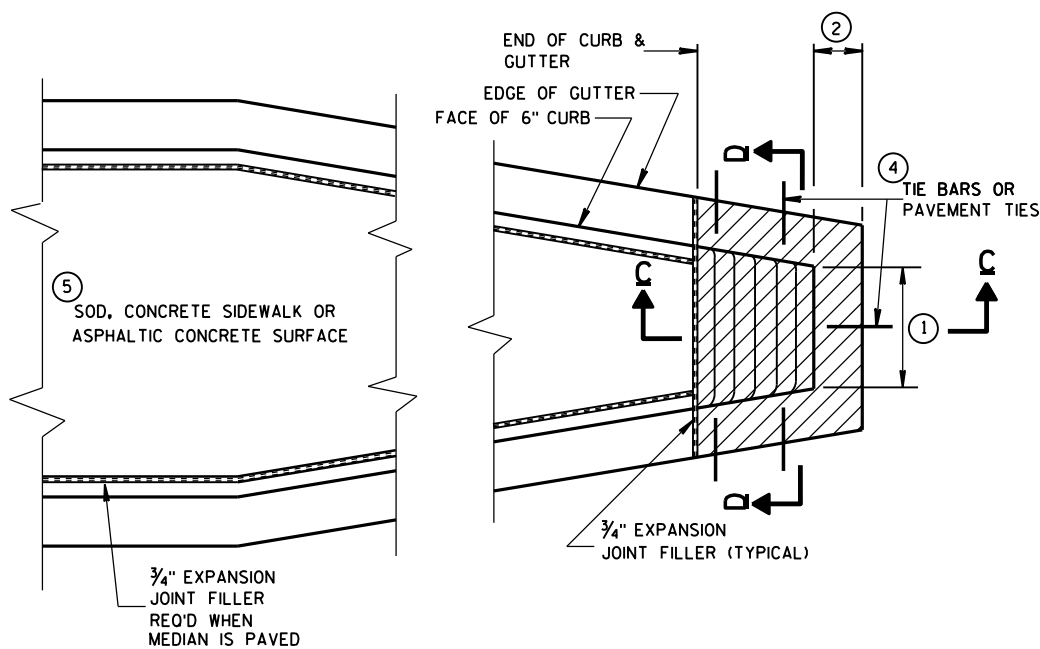
GENERAL NOTES

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.

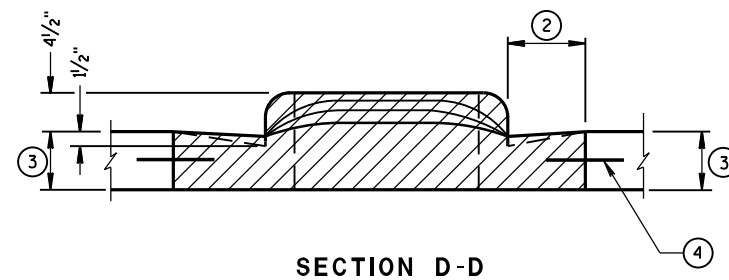
- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING 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 2



CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

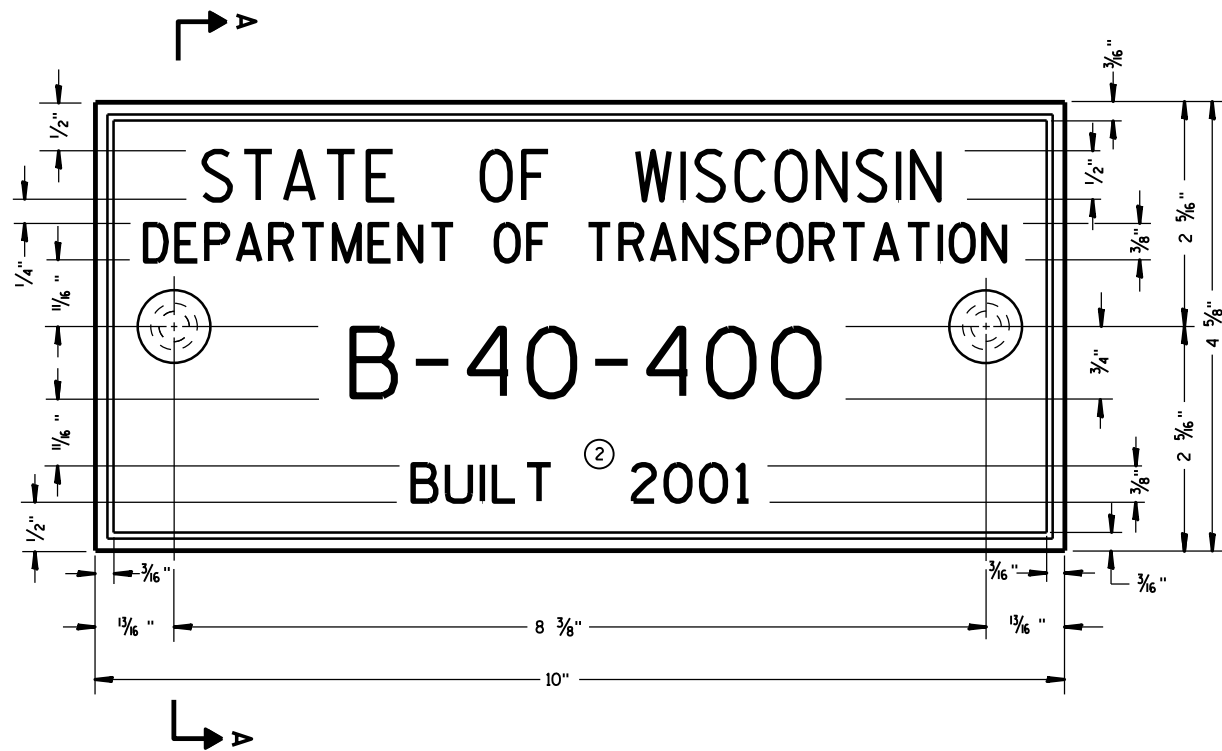
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6-8-2006 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

6

S.D.D. 11 B 2-2

S.D.D. 11 B 2-2



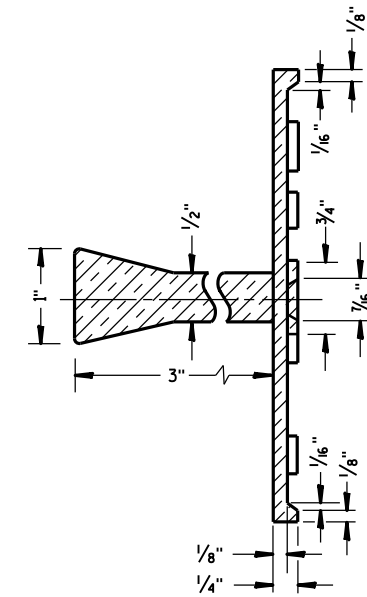
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

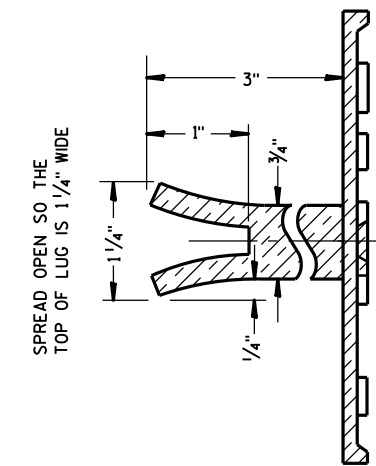
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

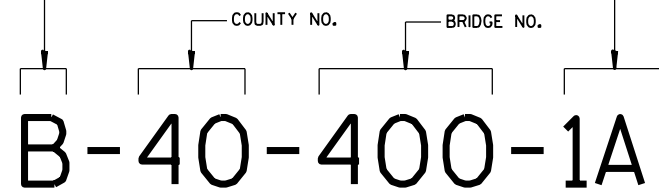
6

6

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

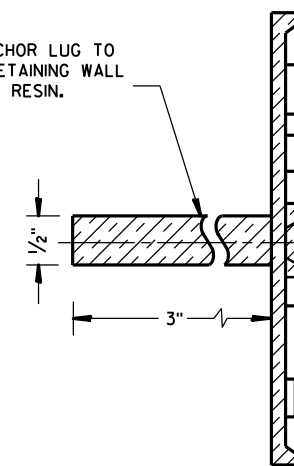
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



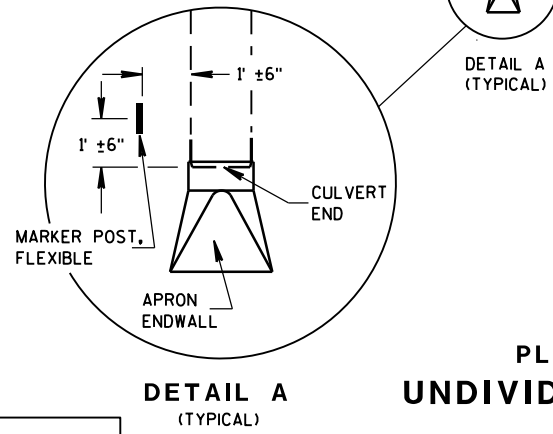
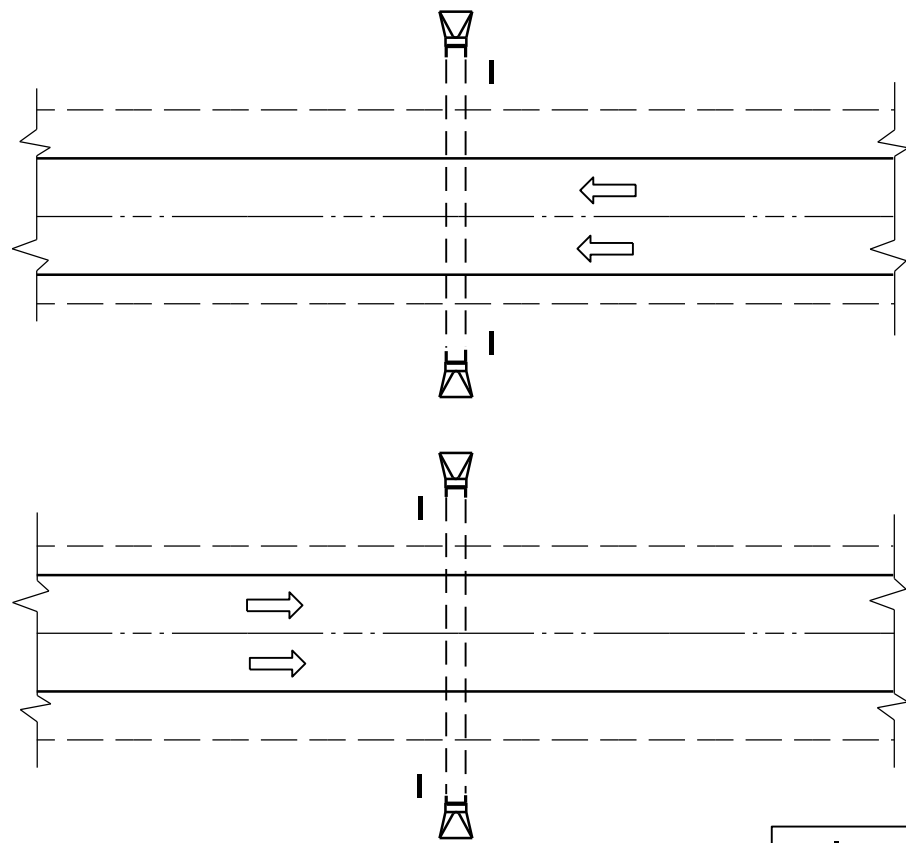
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



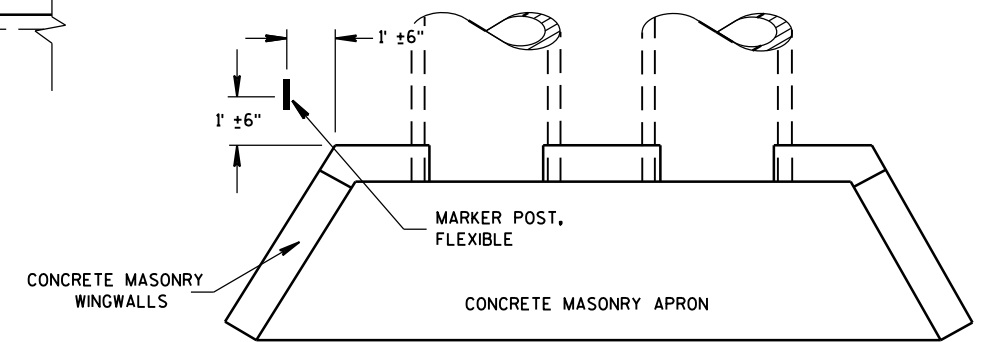
ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE	/S/ Scot Becker 73 CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	

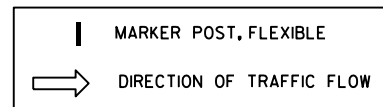


GENERAL NOTES

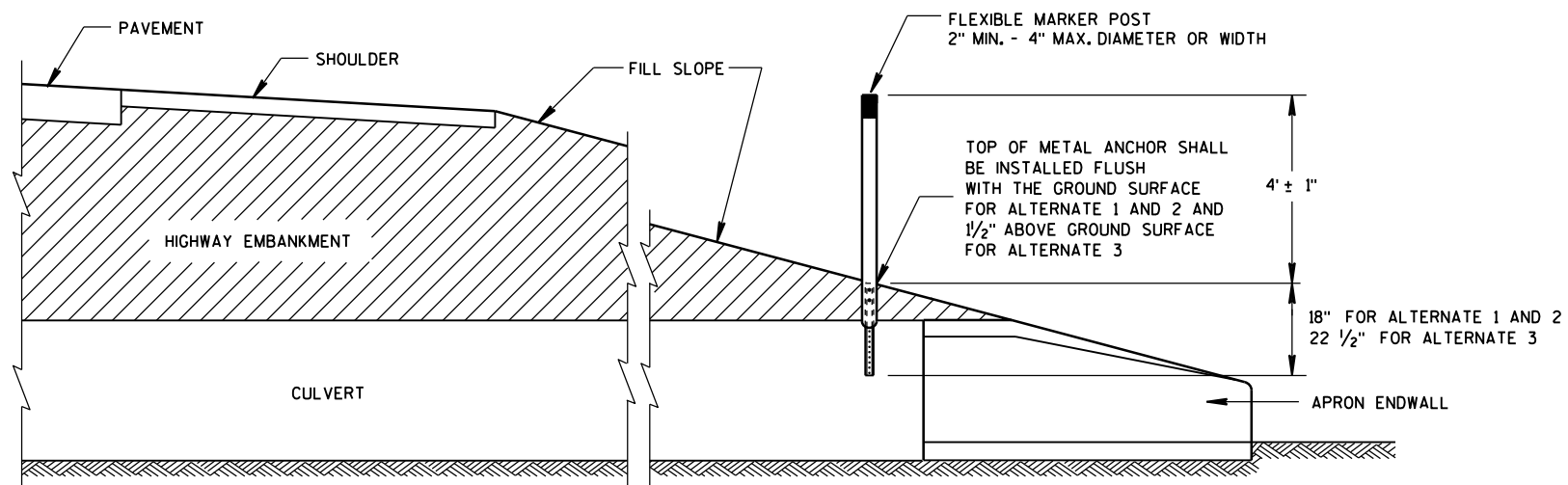
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH



FLEXIBLE MARKER POST LOCATION



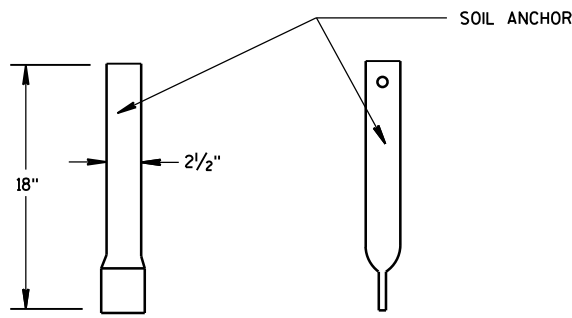
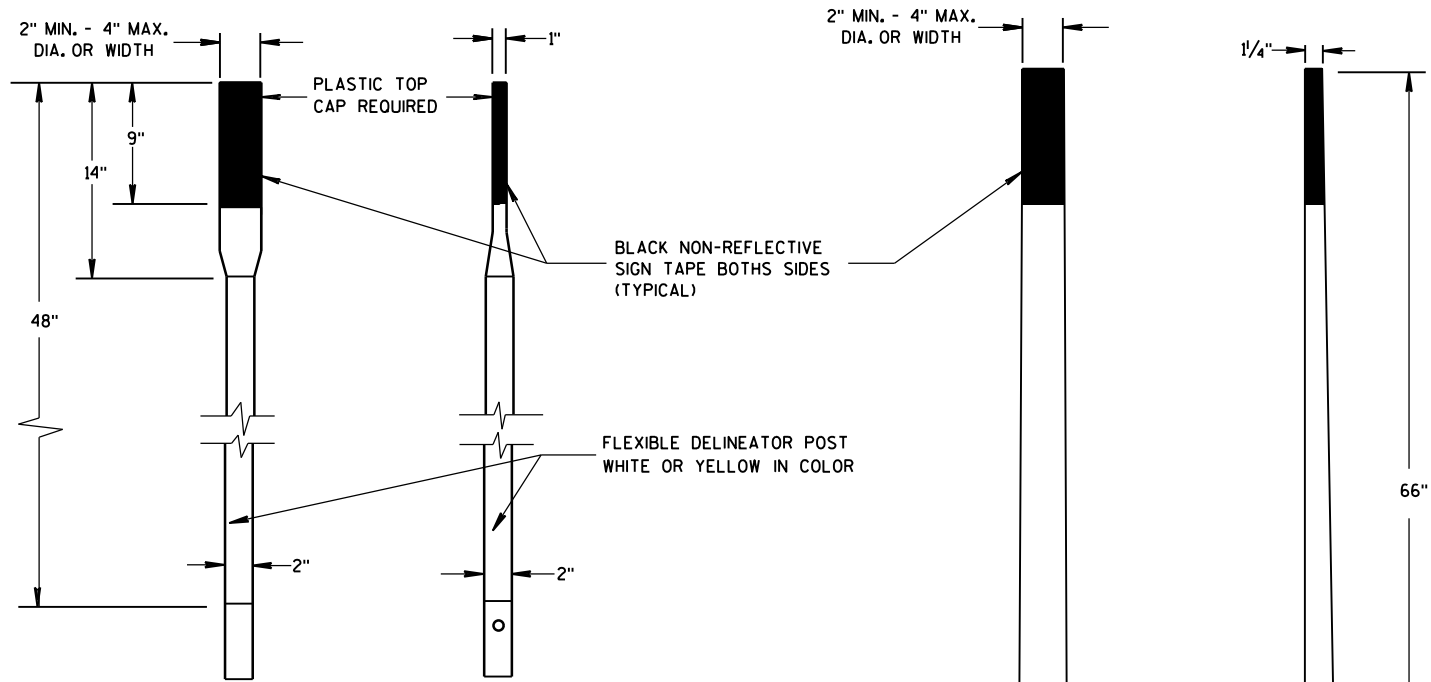
CROSS SECTION FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

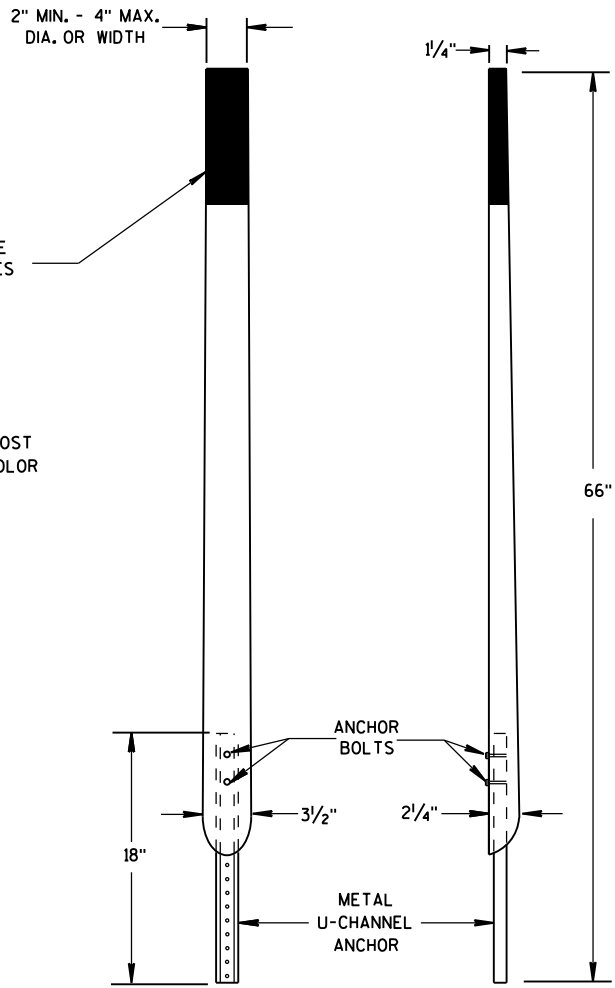
STATE OF WISCONSIN 74 DEPARTMENT OF TRANSPORTATION



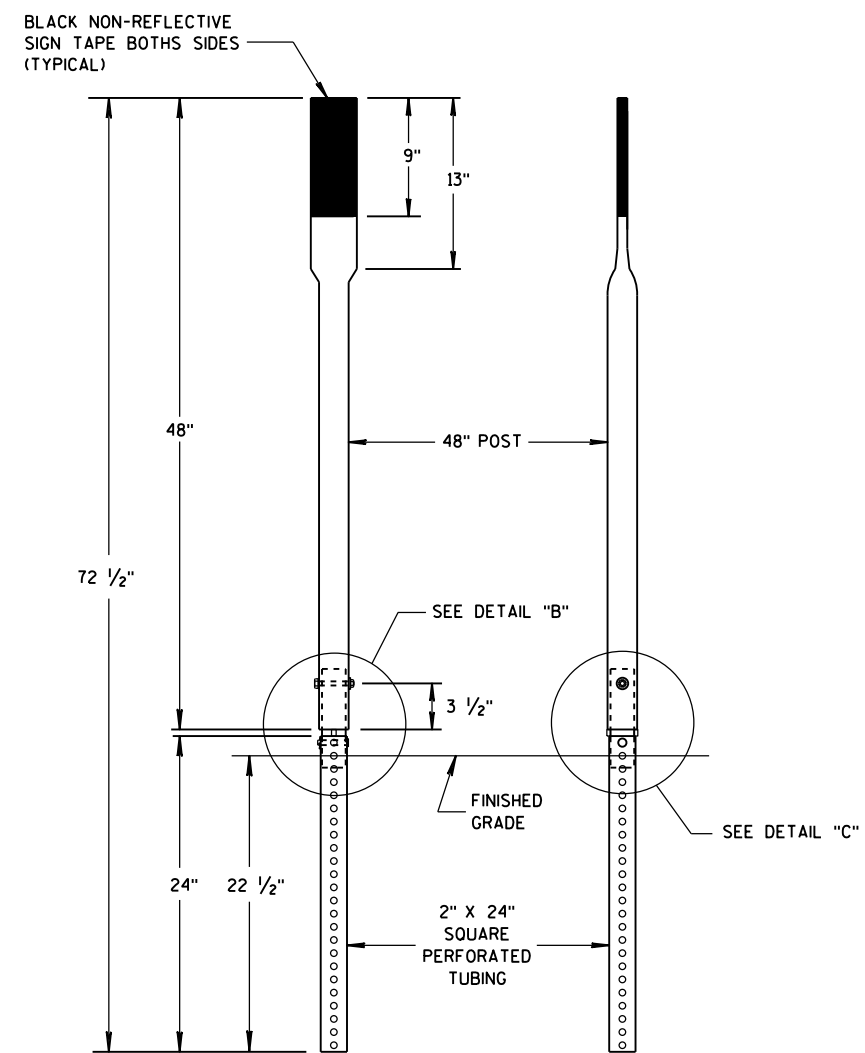
SDD 15A3-b Flexible Marker Post for Culvert End



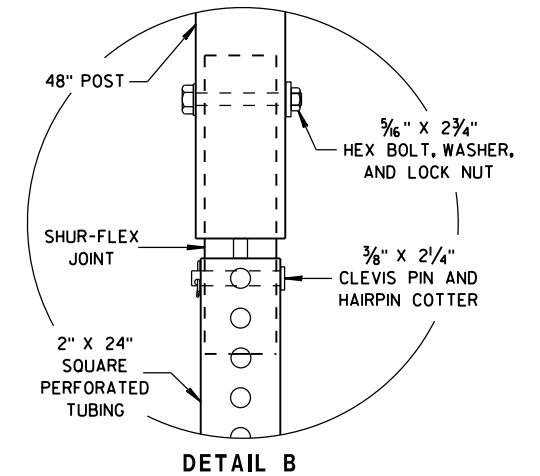
FRONT VIEW SIDE VIEW
ALTERNATE 1



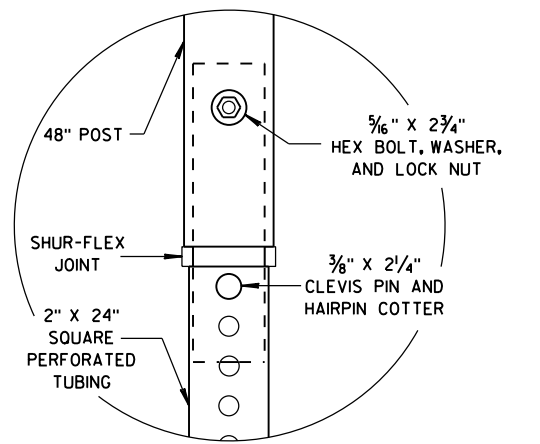
FRONT VIEW SIDE VIEW
ALTERNATE 2



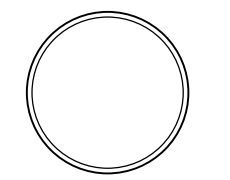
FRONT VIEW SIDE VIEW
ALTERNATE 3



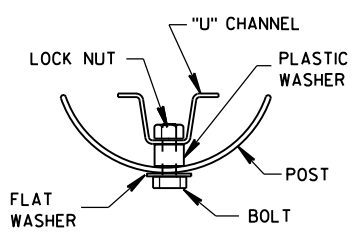
DETAIL B



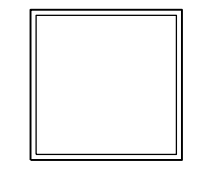
DETAIL C



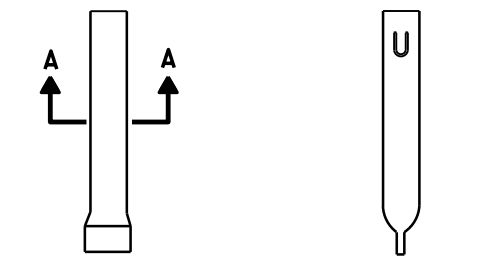
SECTION A-A



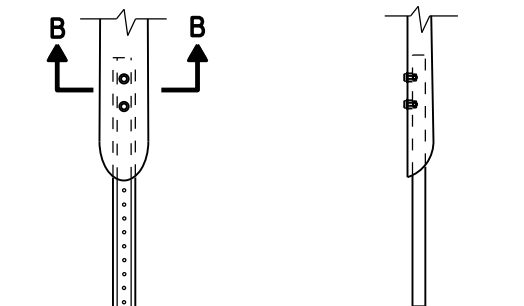
SECTION B-B



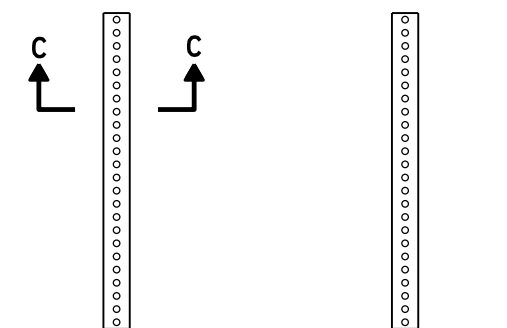
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



FRONT VIEW SIDE VIEW
ALTERNATE 2



FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

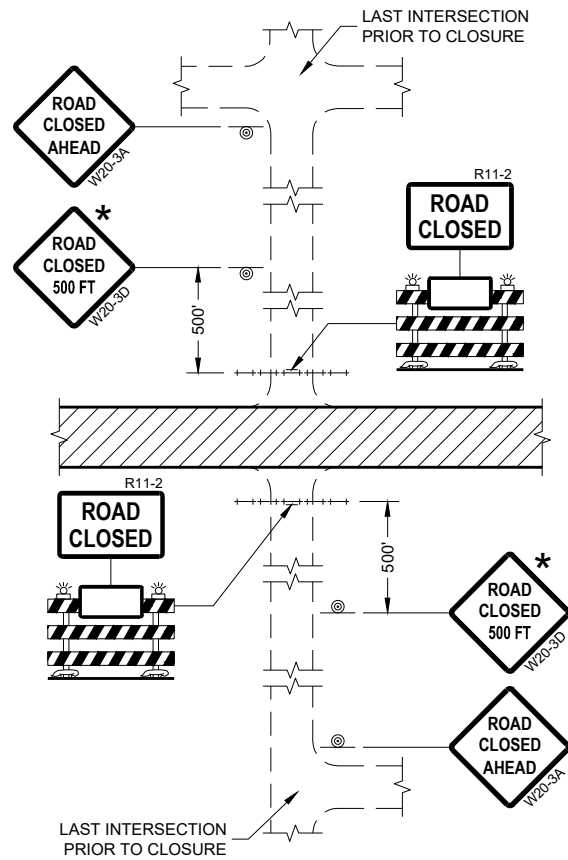
FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

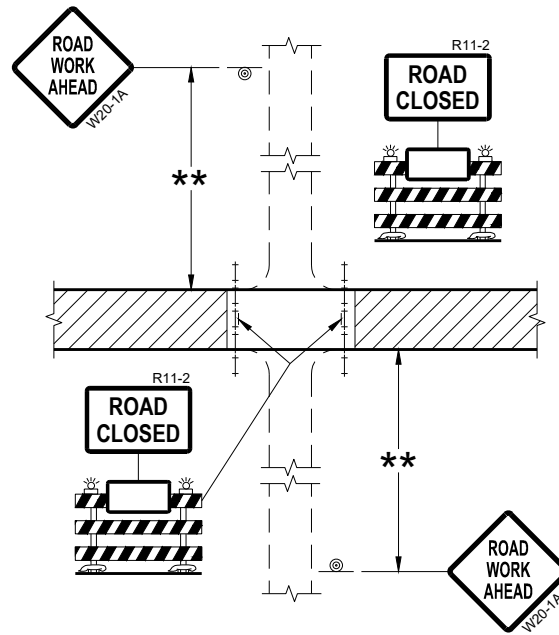
APPROVED	/S/ Travis Feltes
10/1/2012	DATE
	STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



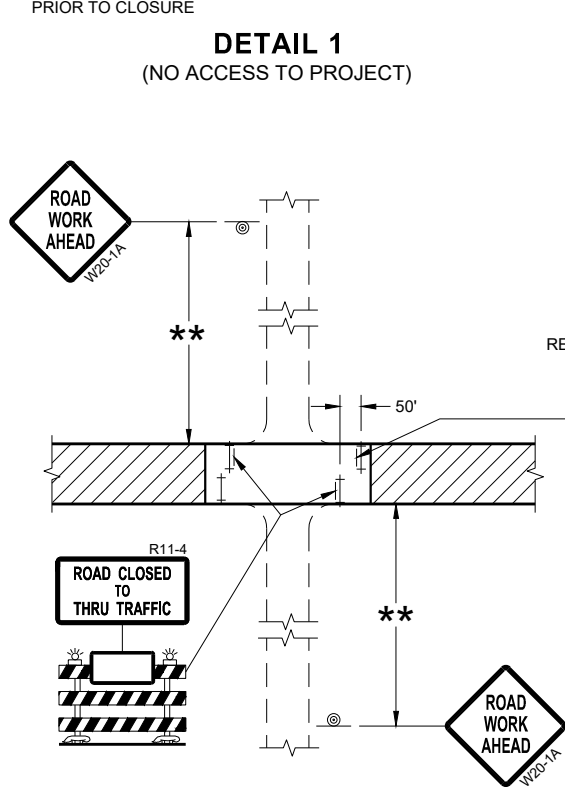
SDD 15C03 Barricades and Signs for Sideroad Closures



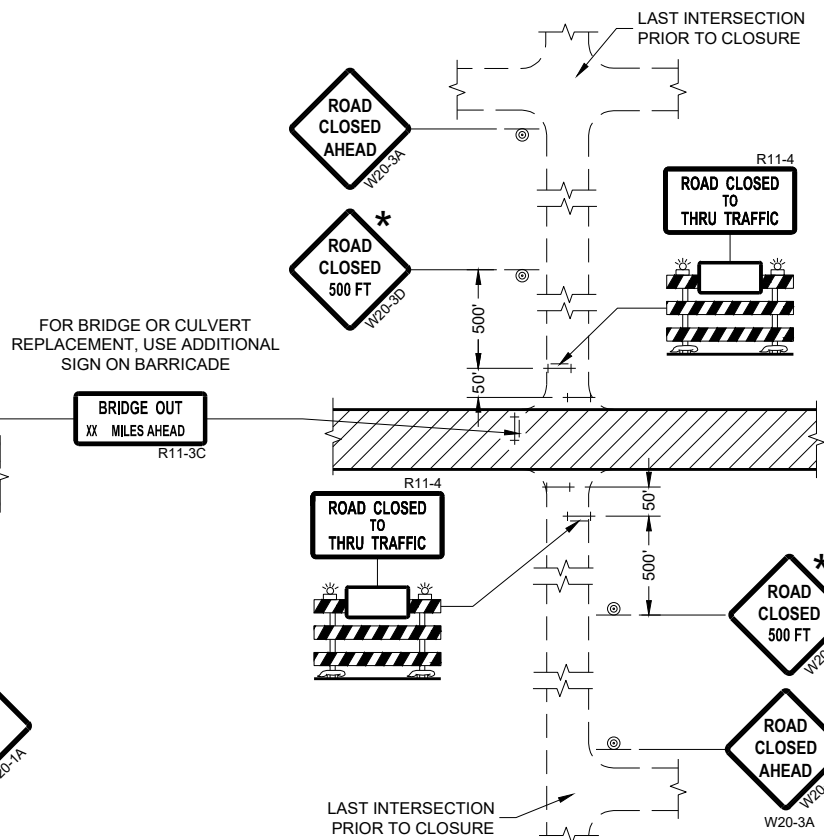
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



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



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

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (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.

LEGEND

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

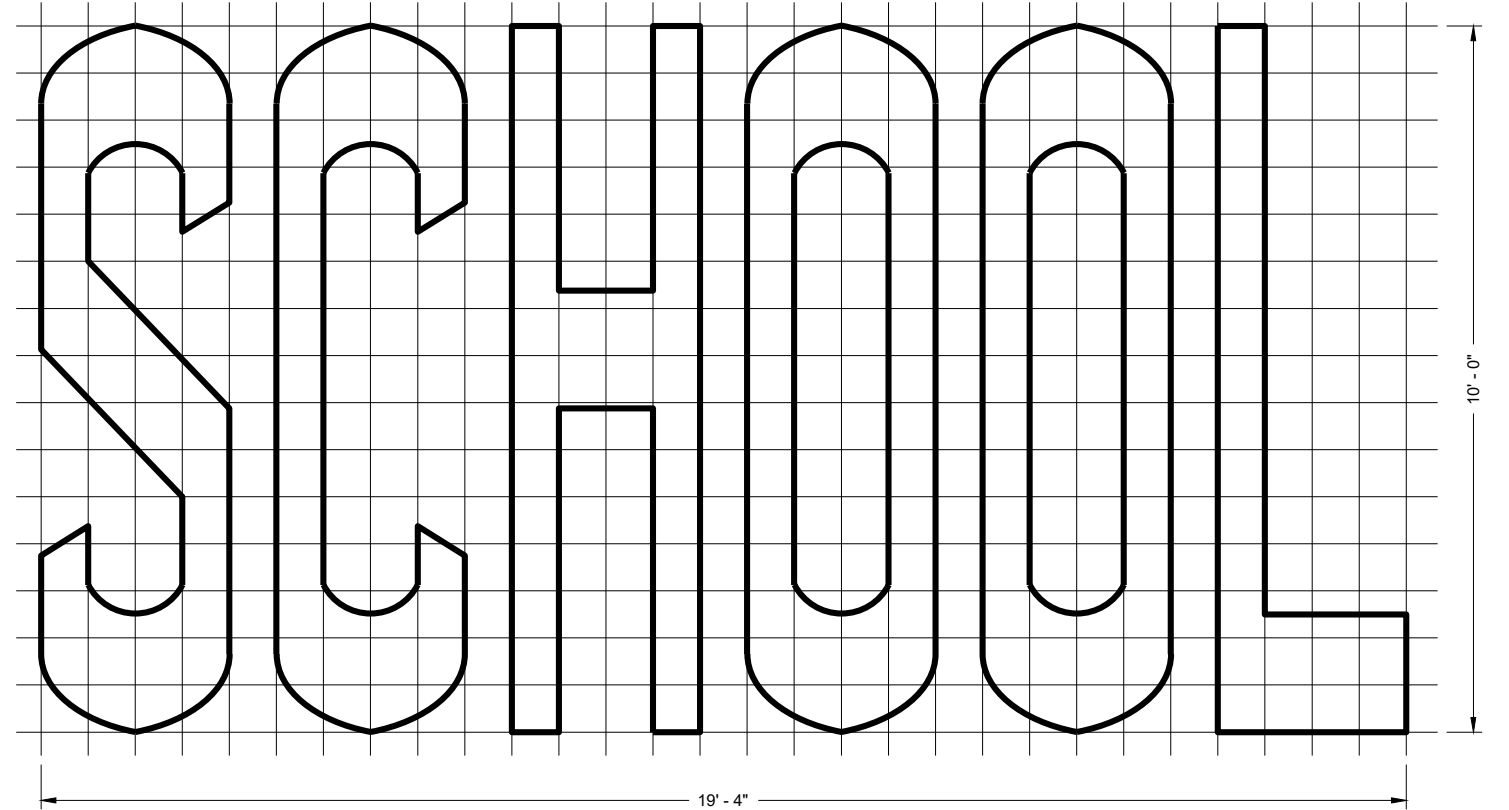
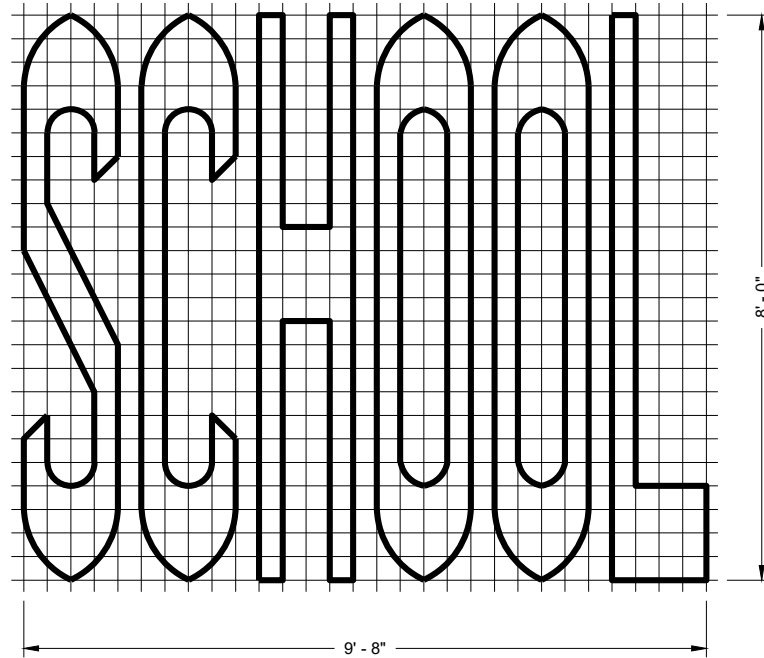
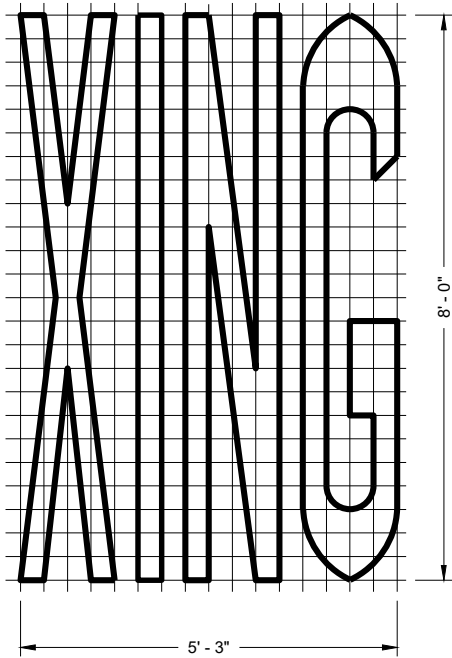
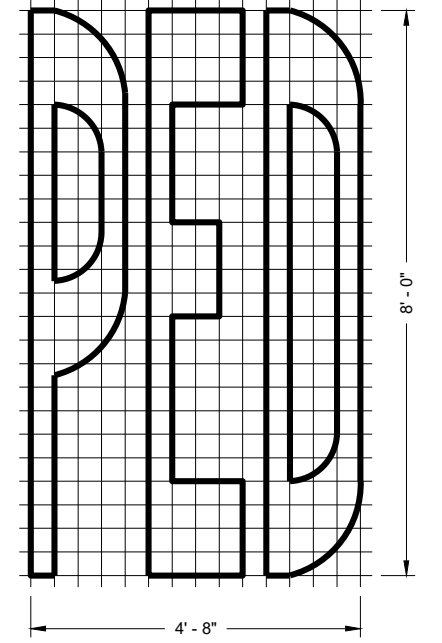
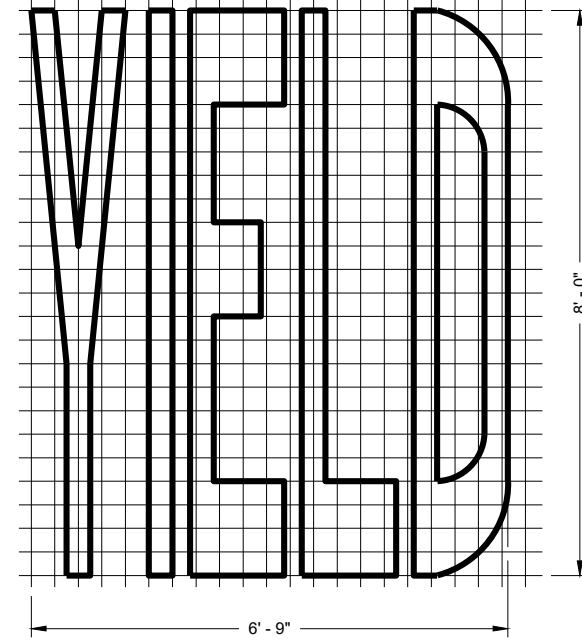
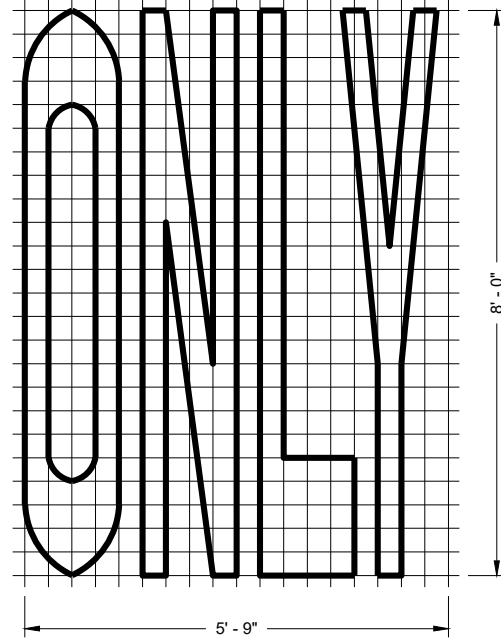
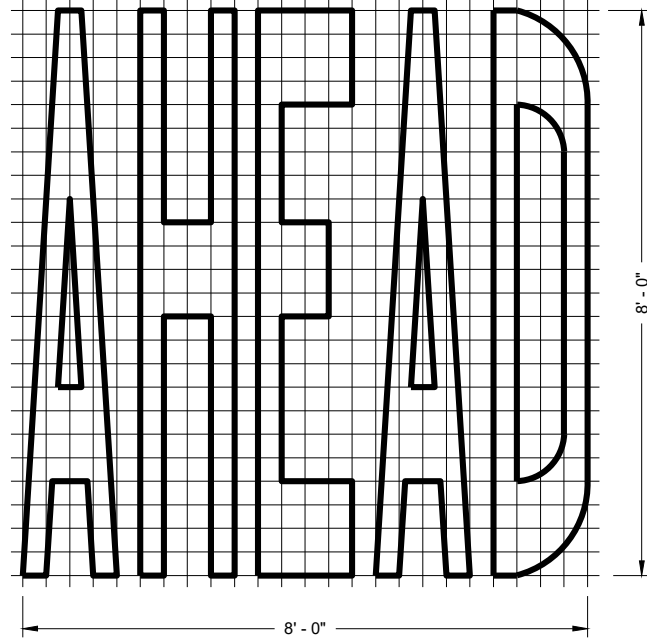
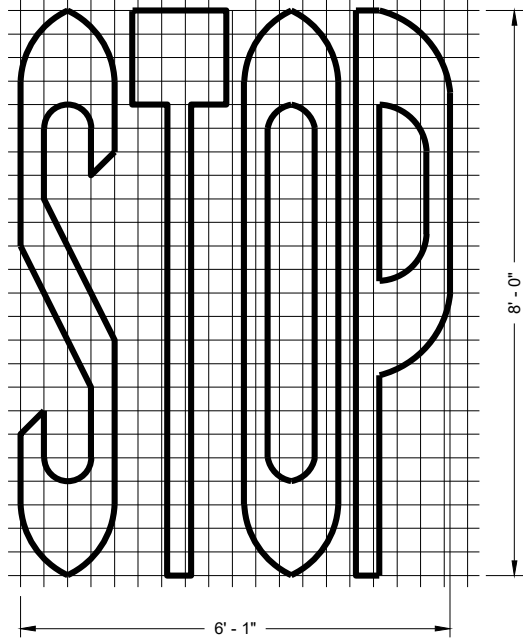
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke 76
DATE WORK ZONE ENGINEER



SDD 15C07-b Pavement Marking Words



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 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

SDD 15C07 - 15b




SDD 15C07 - 15b

GENERAL NOTES

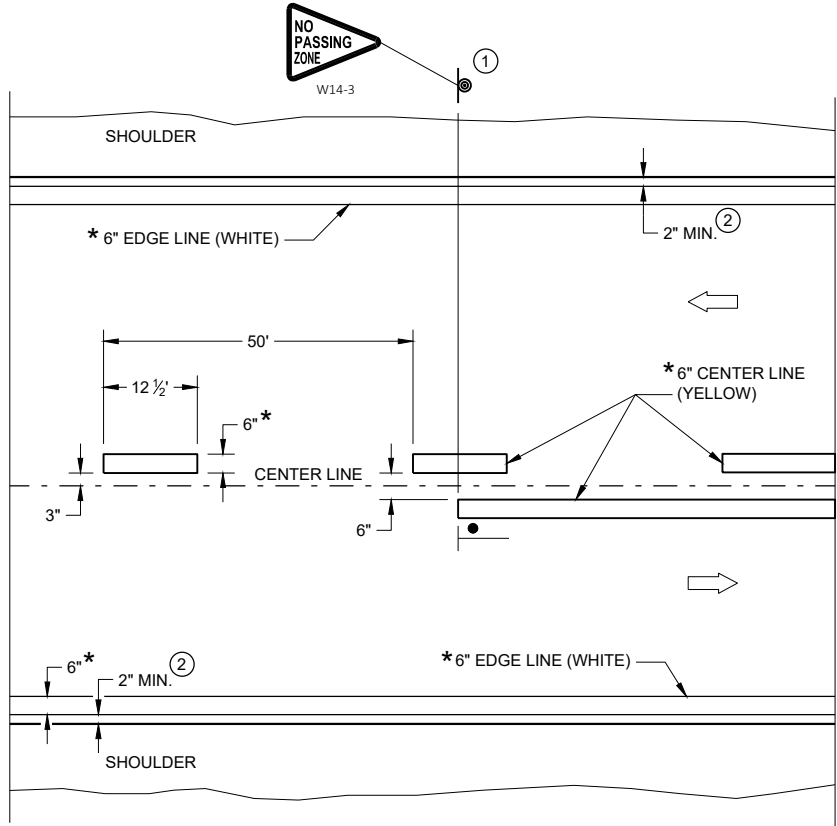
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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.

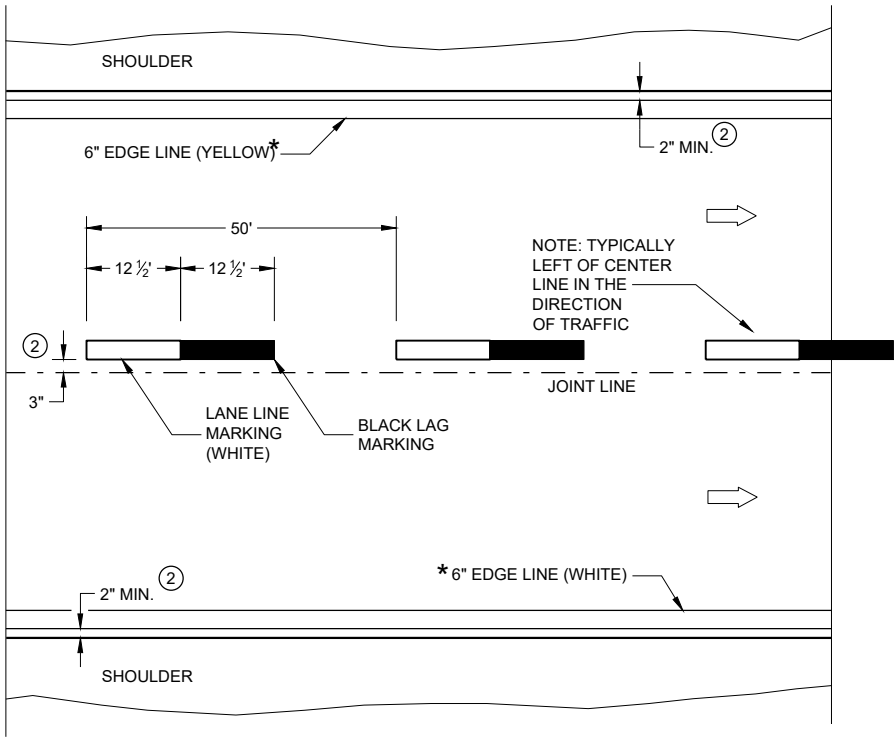
LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

SDD 15C08-23a

SDD 15C08-23a

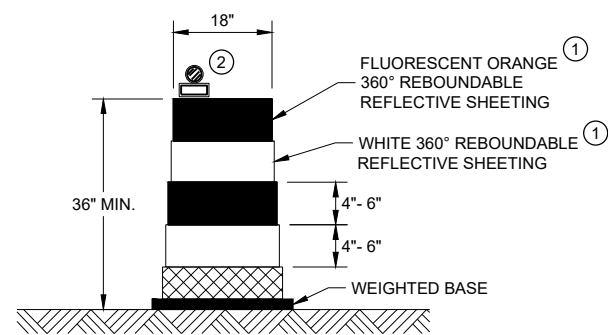
PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER

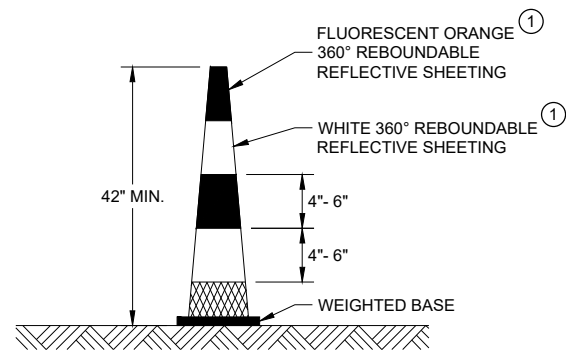
FHWA

78



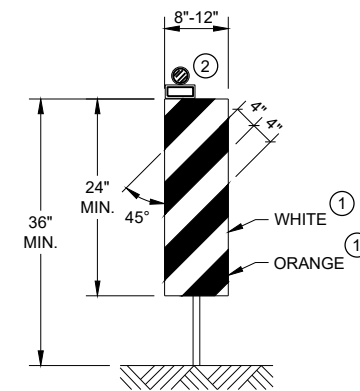
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

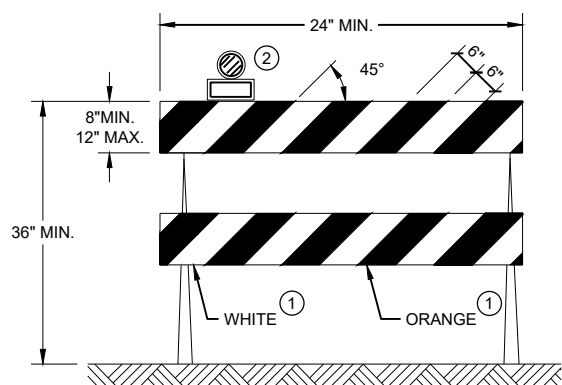


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO
THE TRAFFIC SIDE FOR CHANNELIZATION.

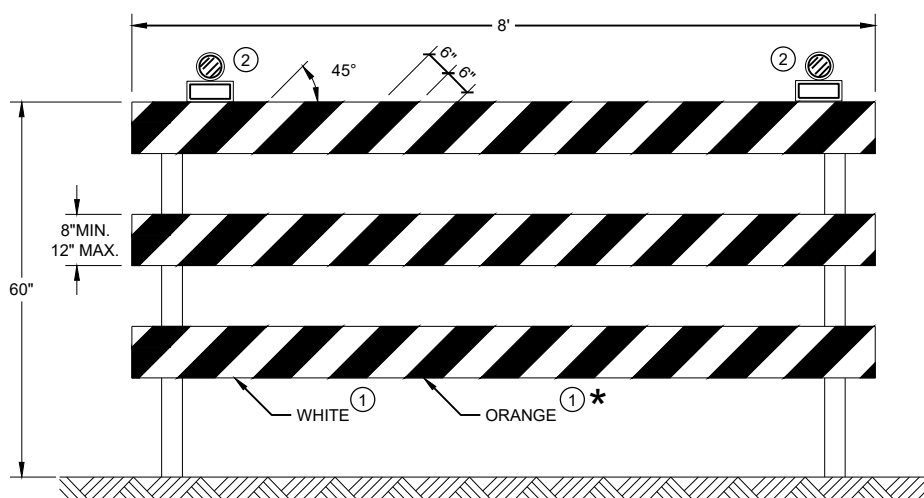
GENERAL NOTES

- 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.



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

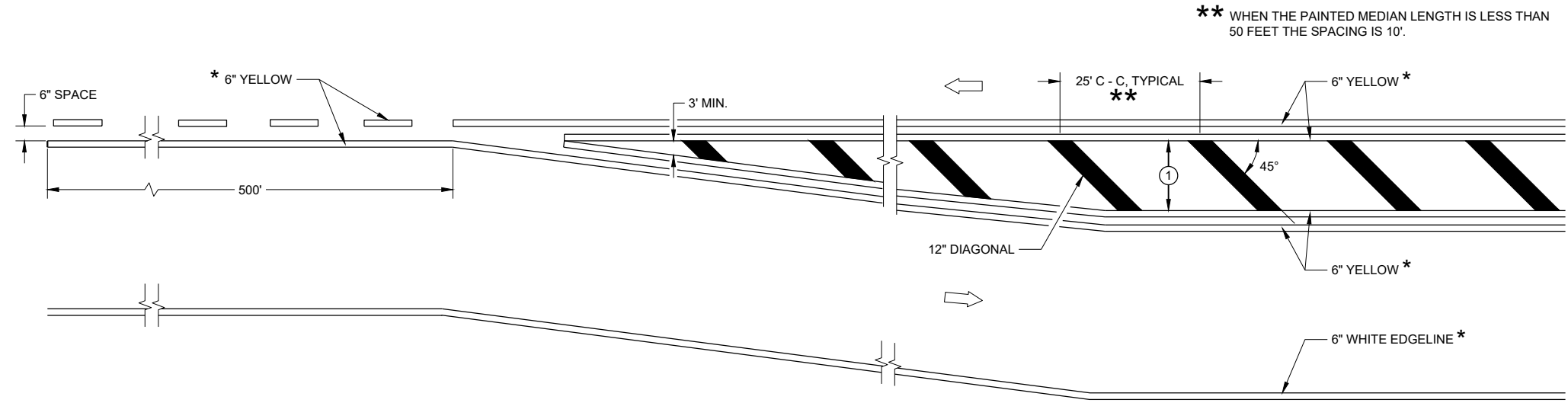
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke 79
DATE WORK ZONE ENGINEER
FHWA



MEDIAN ISLAND DETAIL

** WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.

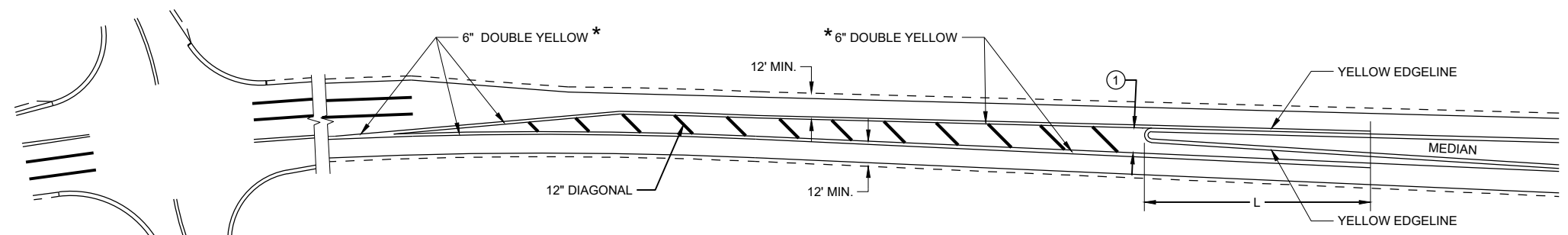
GENERAL NOTES

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.

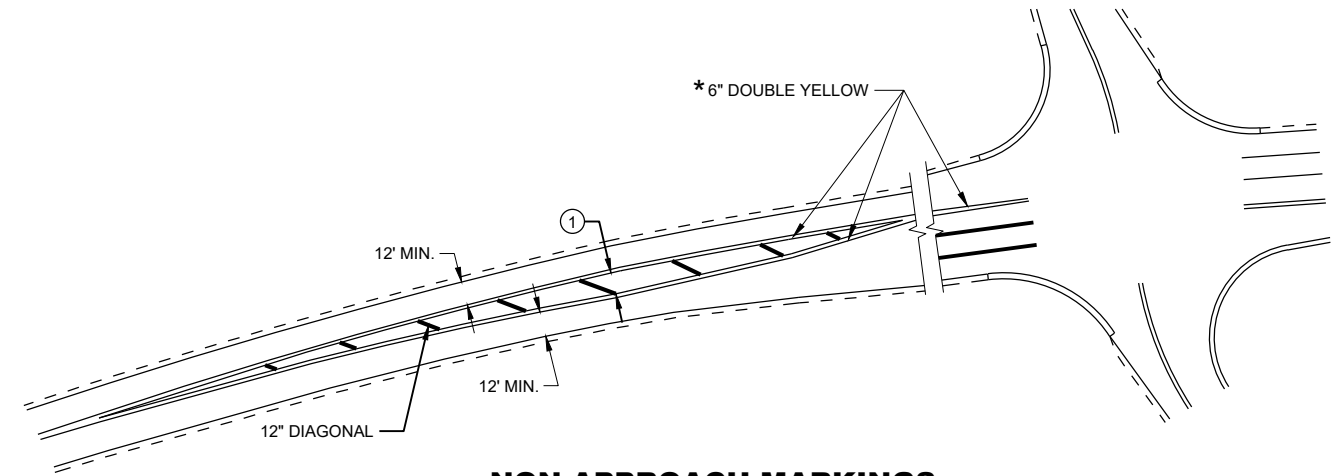
➔ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

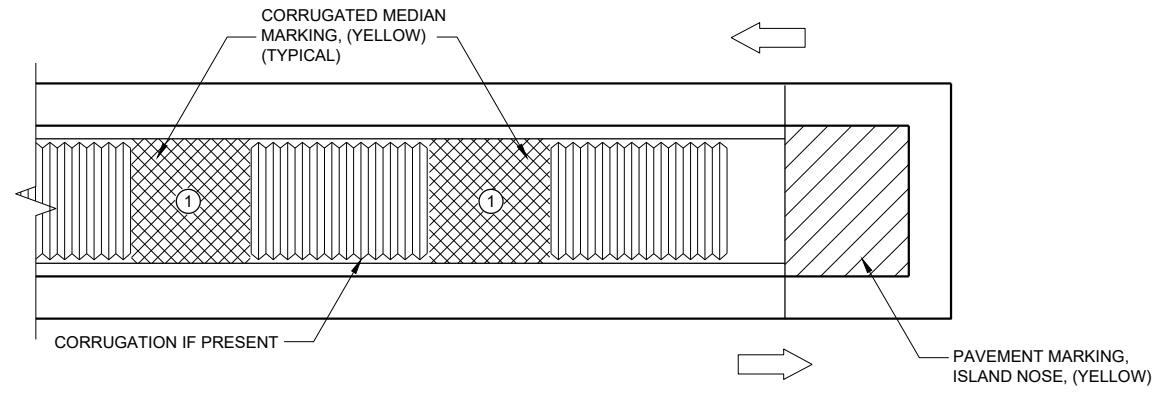
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6

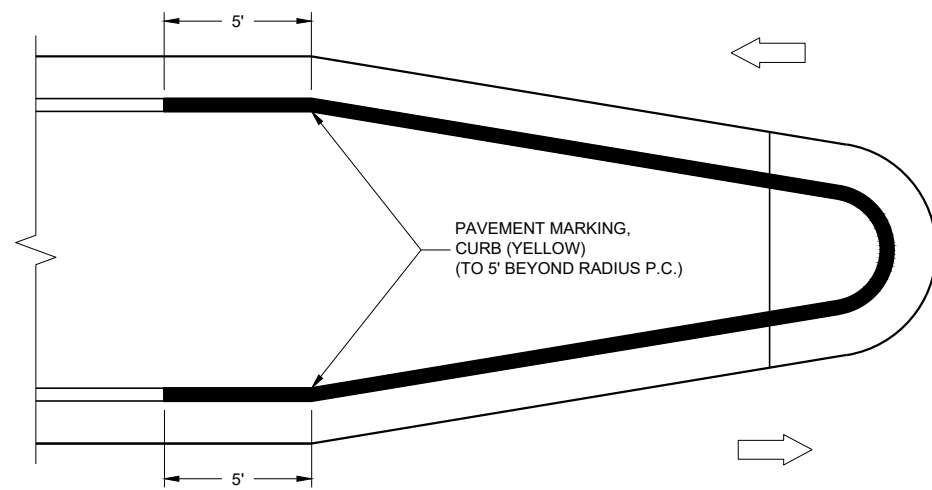
SDD 15C18-08a

SDD 15C18-08a

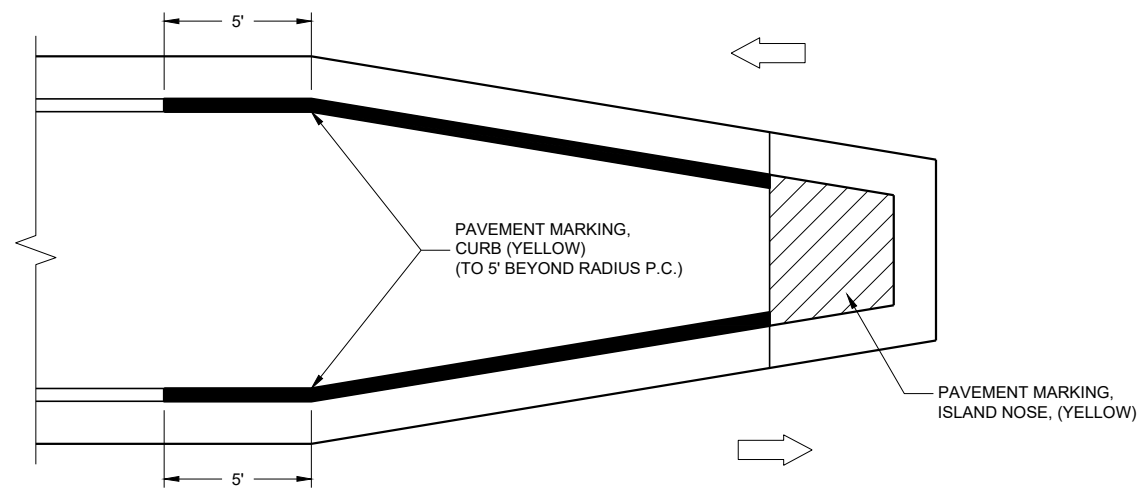
MEDIAN ISLAND PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Jeannie Silver STATE SIGNING AND MARKING ENGINEER



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

6

6

SDD 15C18-08b

SDD 15C18-08b

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER 81

FHWA

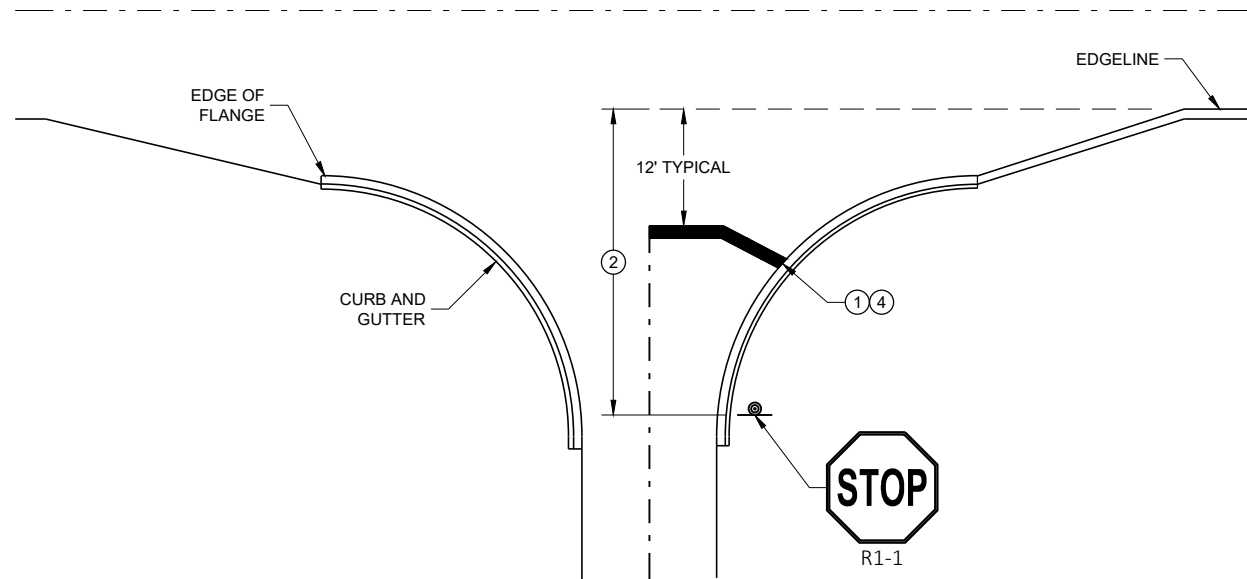


SDD 15C33 Stop Line and Crosswalk Pavement Marking

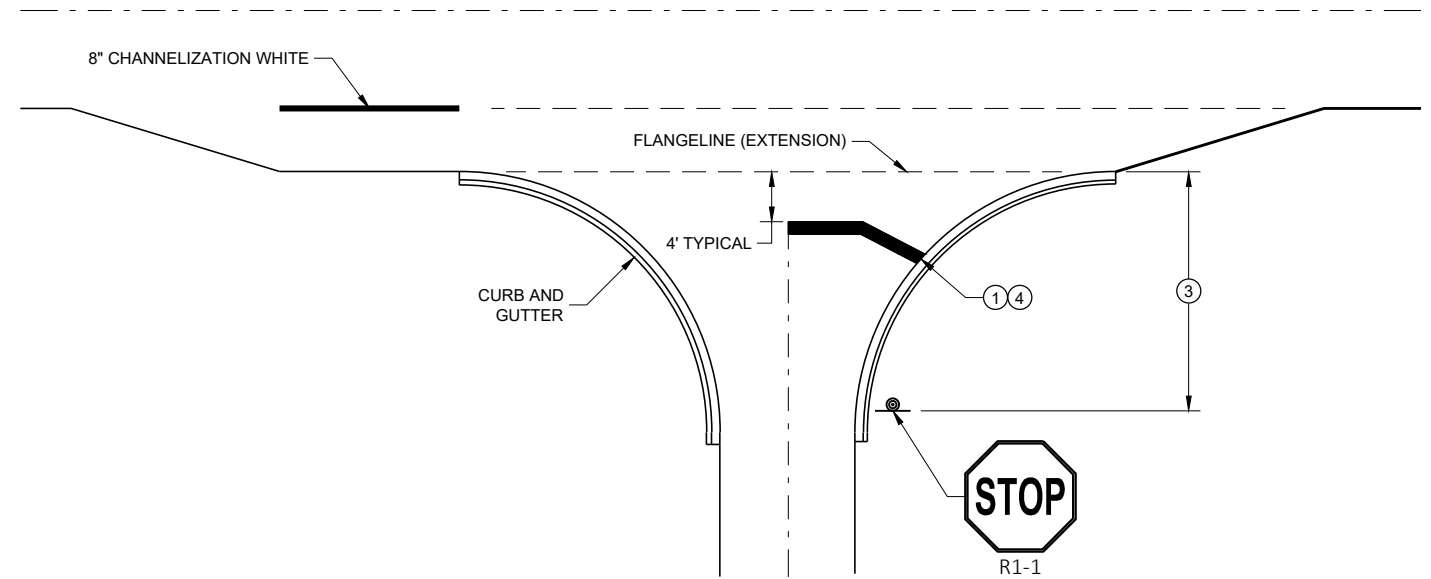
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

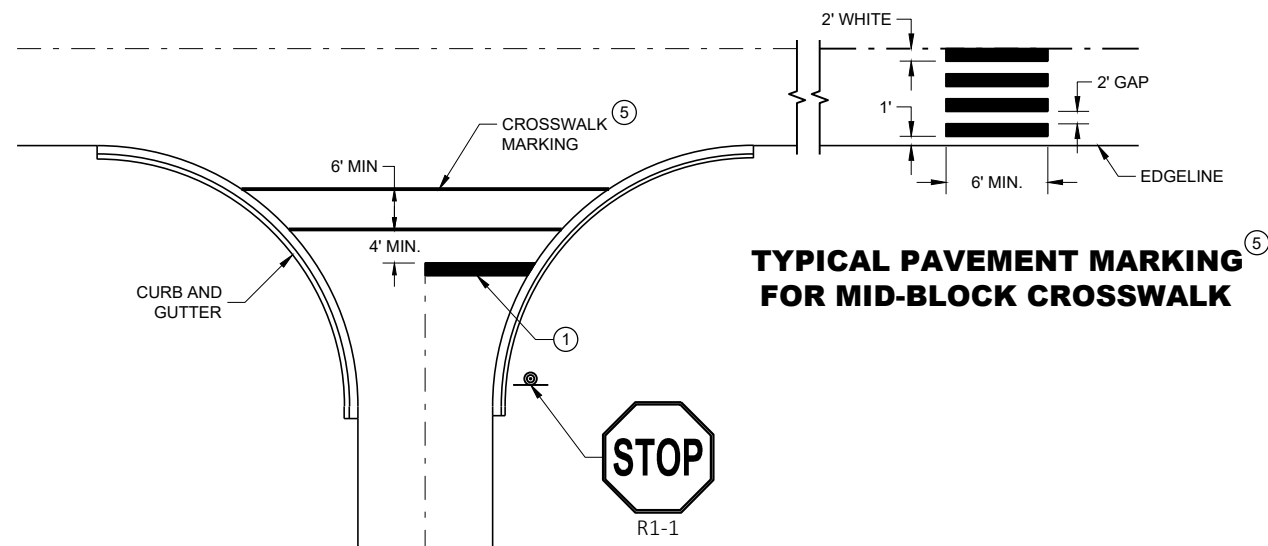
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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.



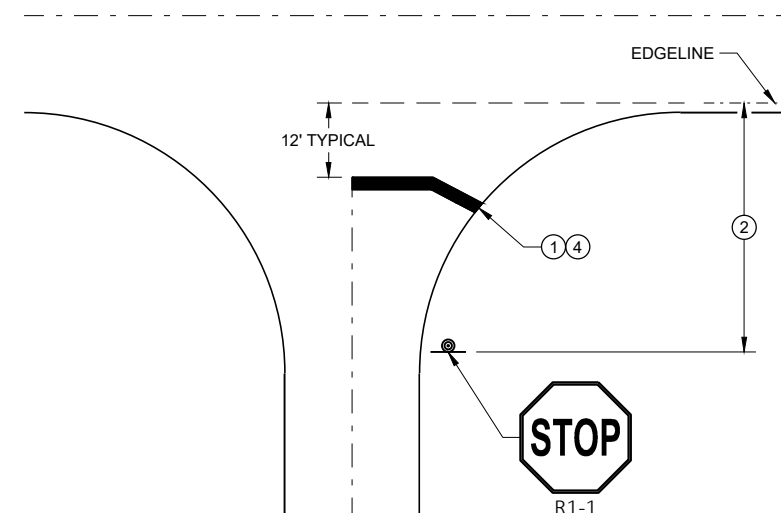
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

6

6

SDD 15C33 - 04

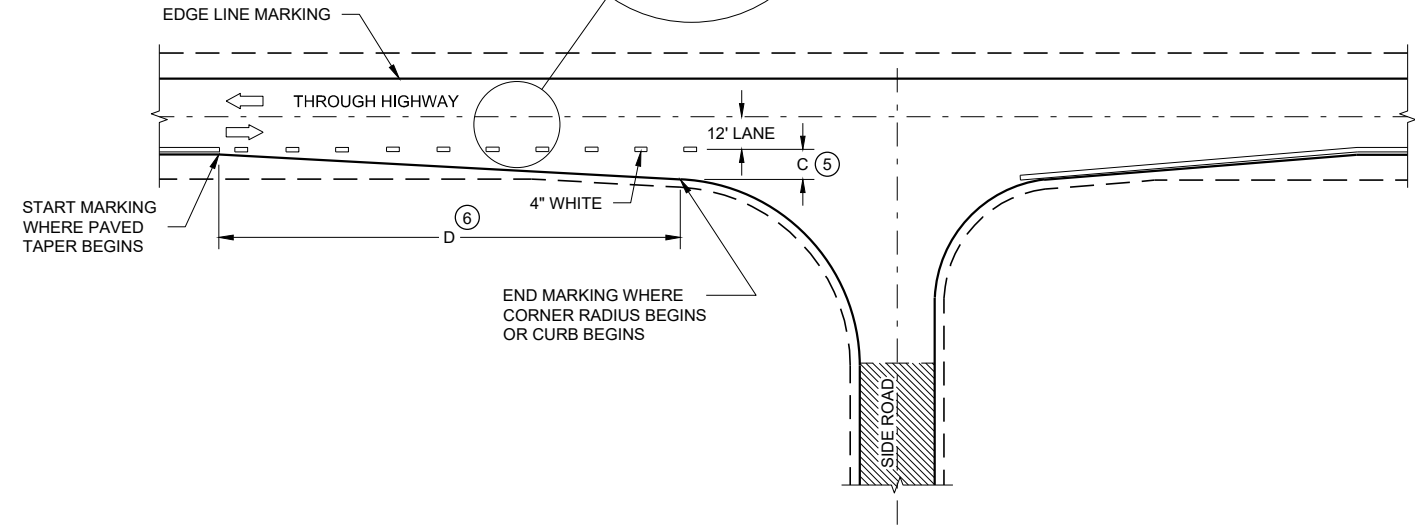
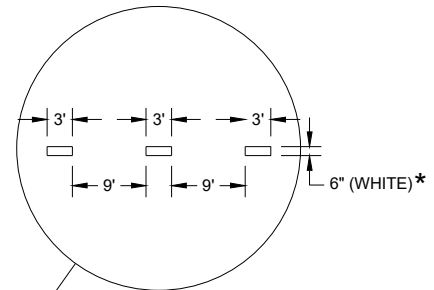
SDD 15C33 - 04

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2019 /S/ Matthew Rauch
 DATE STATE SIGNING AND MARKING ENGINEER

FHWA



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

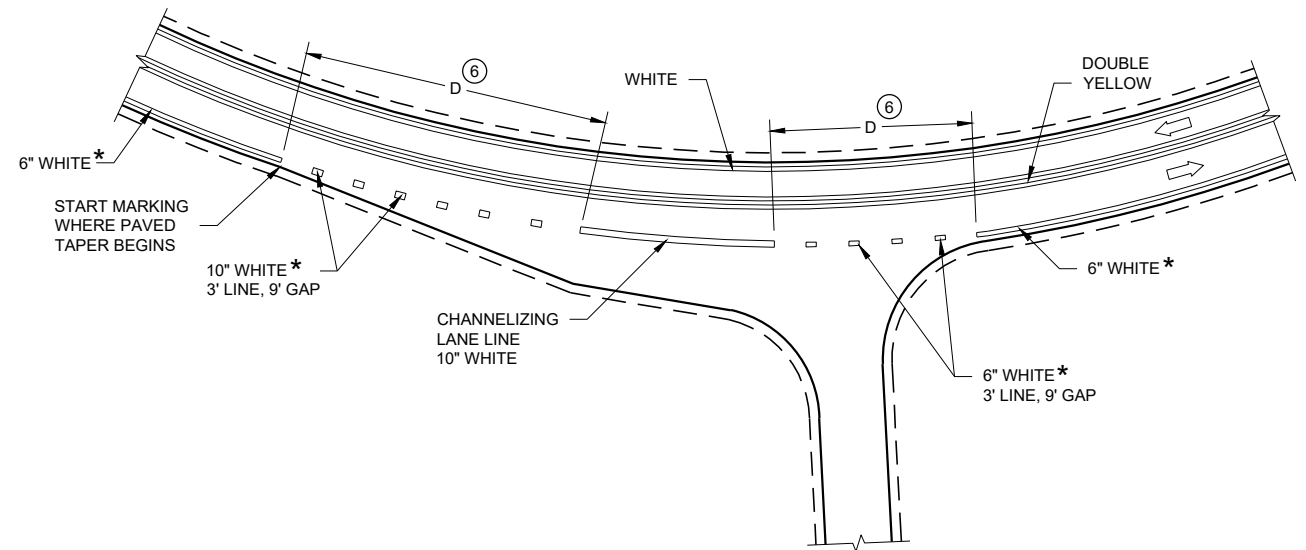
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

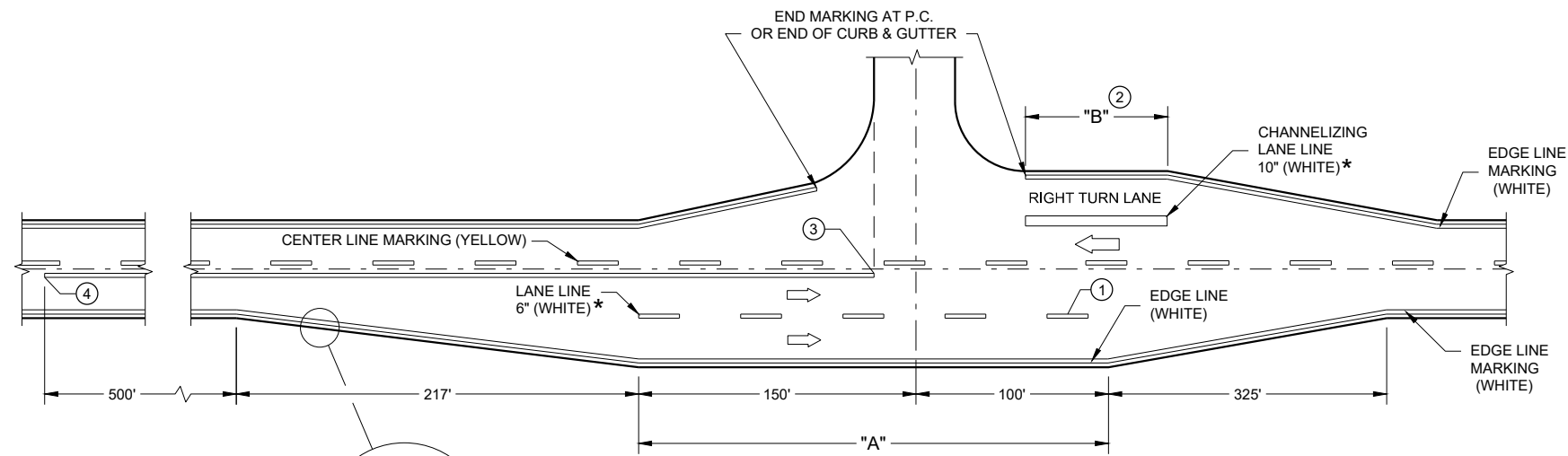
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

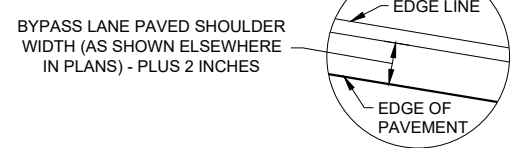
➔ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**



**PAVEMENT MARKING
(INTERSECTIONS)**

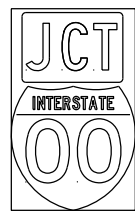
6

6

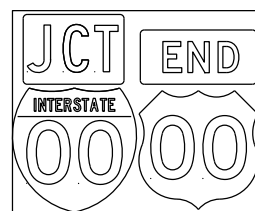
SDD 15C35-06a

SDD 15C35-06a

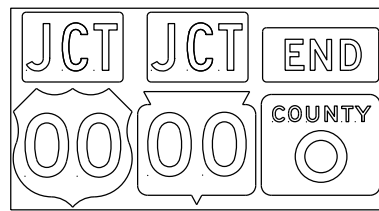
TYPICAL ASSEMBLIES



J1-1



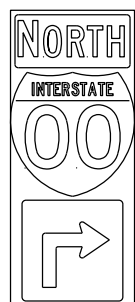
J1-2



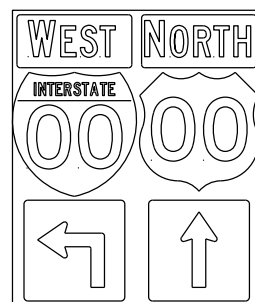
J1-3



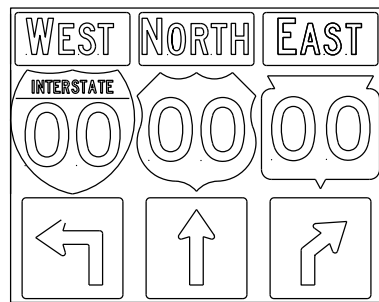
JR1-1



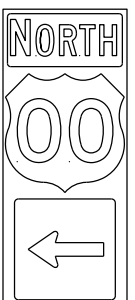
J2-1



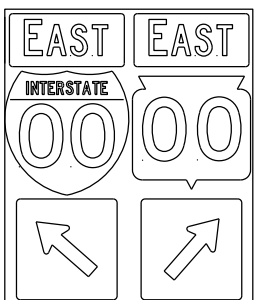
J2-2



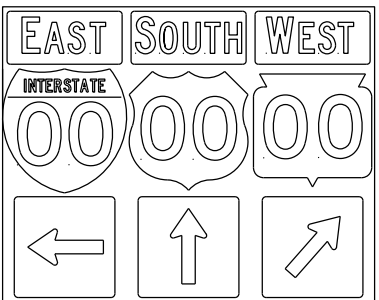
J2-3



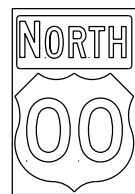
J3-1



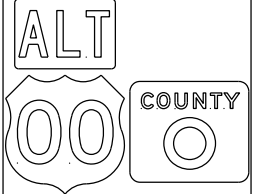
J3-2



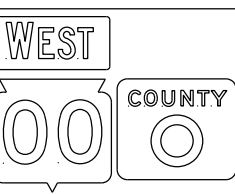
J3-3



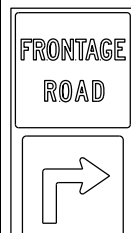
J4-1



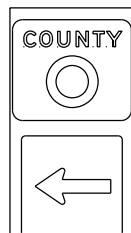
J4-2



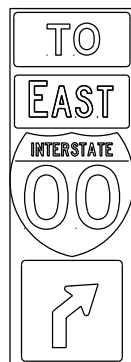
J4-2



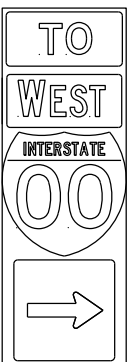
J12-1



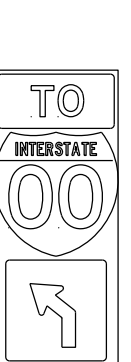
J13-1



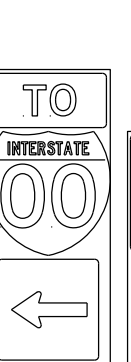
J32-1



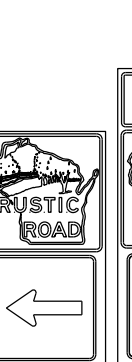
J33-1



J22-1



J23-1



JR13-1



JR23-1

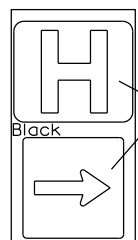


JR99-1



JV

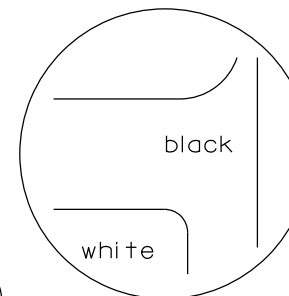
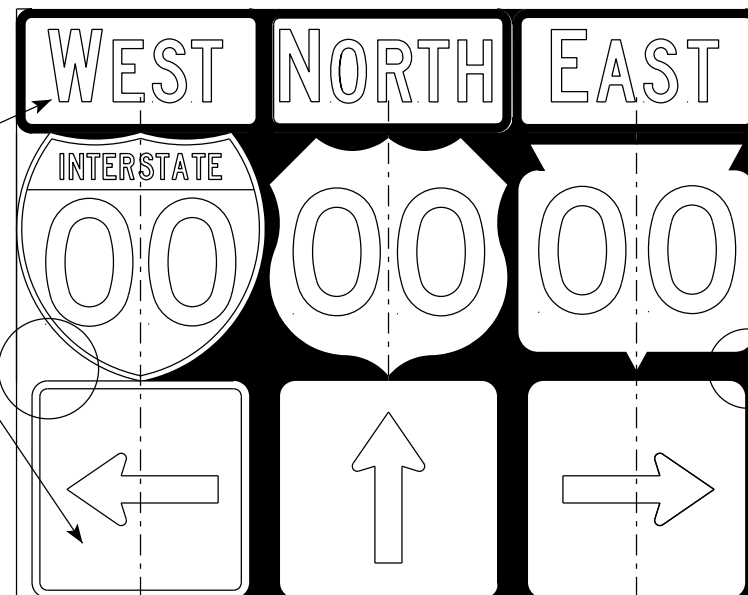
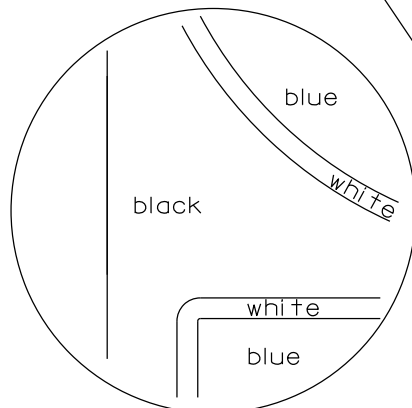
(Typical Vertical J-Assembly See Note 10 and 11)



JH-1

Blue Background

blue background with interstate



black background

- ### NOTES
- Signs are Type II - Type H Reflective
 - Color:
 - Background - Black Non-reflective
 - Message - see Note 5
 - Message Series - See Note 5
 - Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
 - The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
 - Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
 - 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.
 - 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.
 - Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (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.
 - All Vertical J Assemblies are given a Sign Code of JV
 - 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

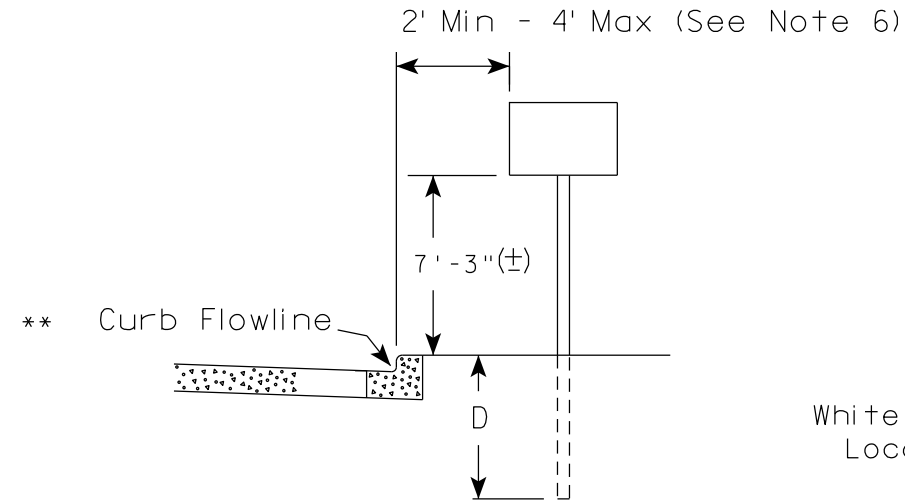
PROJECT NO:

SHEET NO: 84

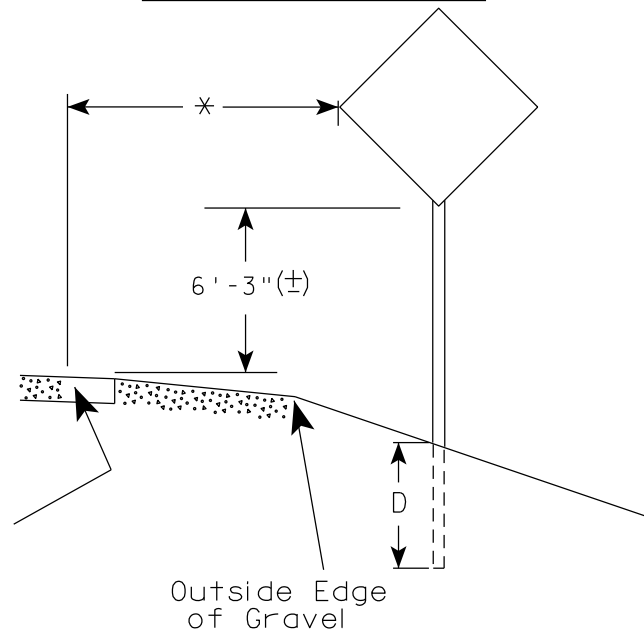
E

URBAN AREA

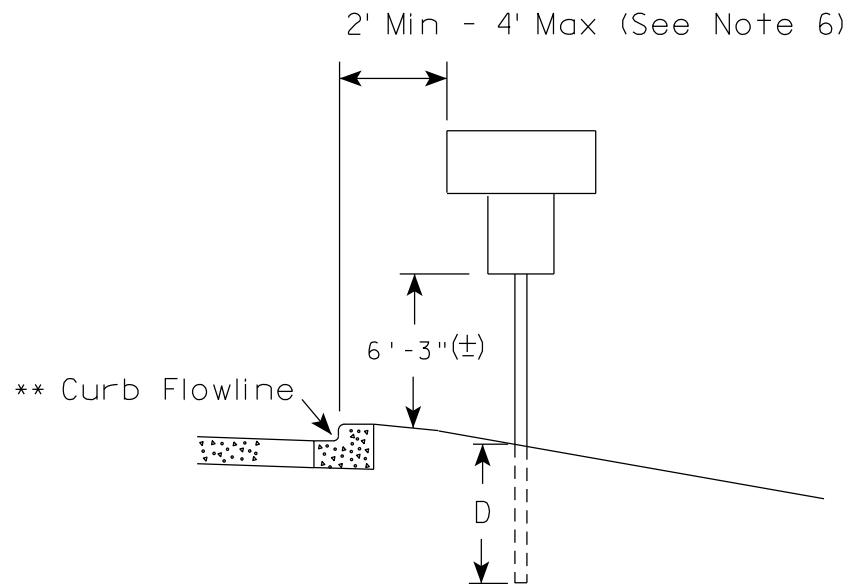
RURAL AREA (See Note 2)



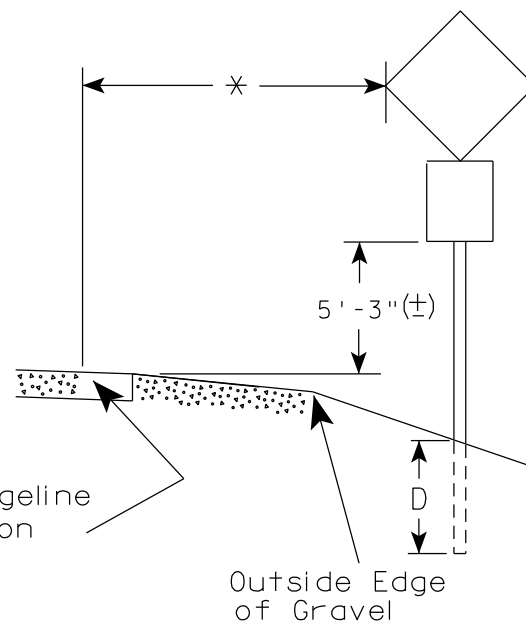
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

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 directed by the 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.

* 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.

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



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

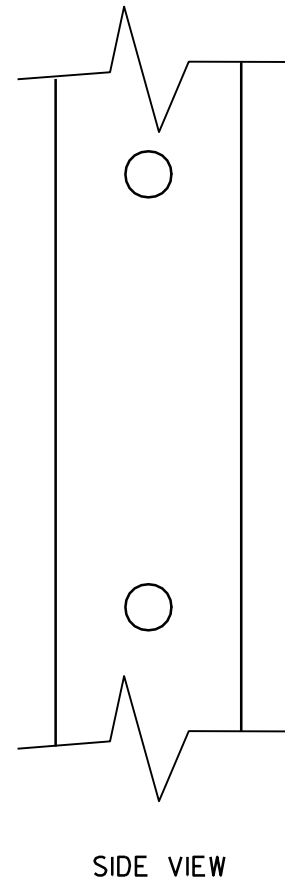
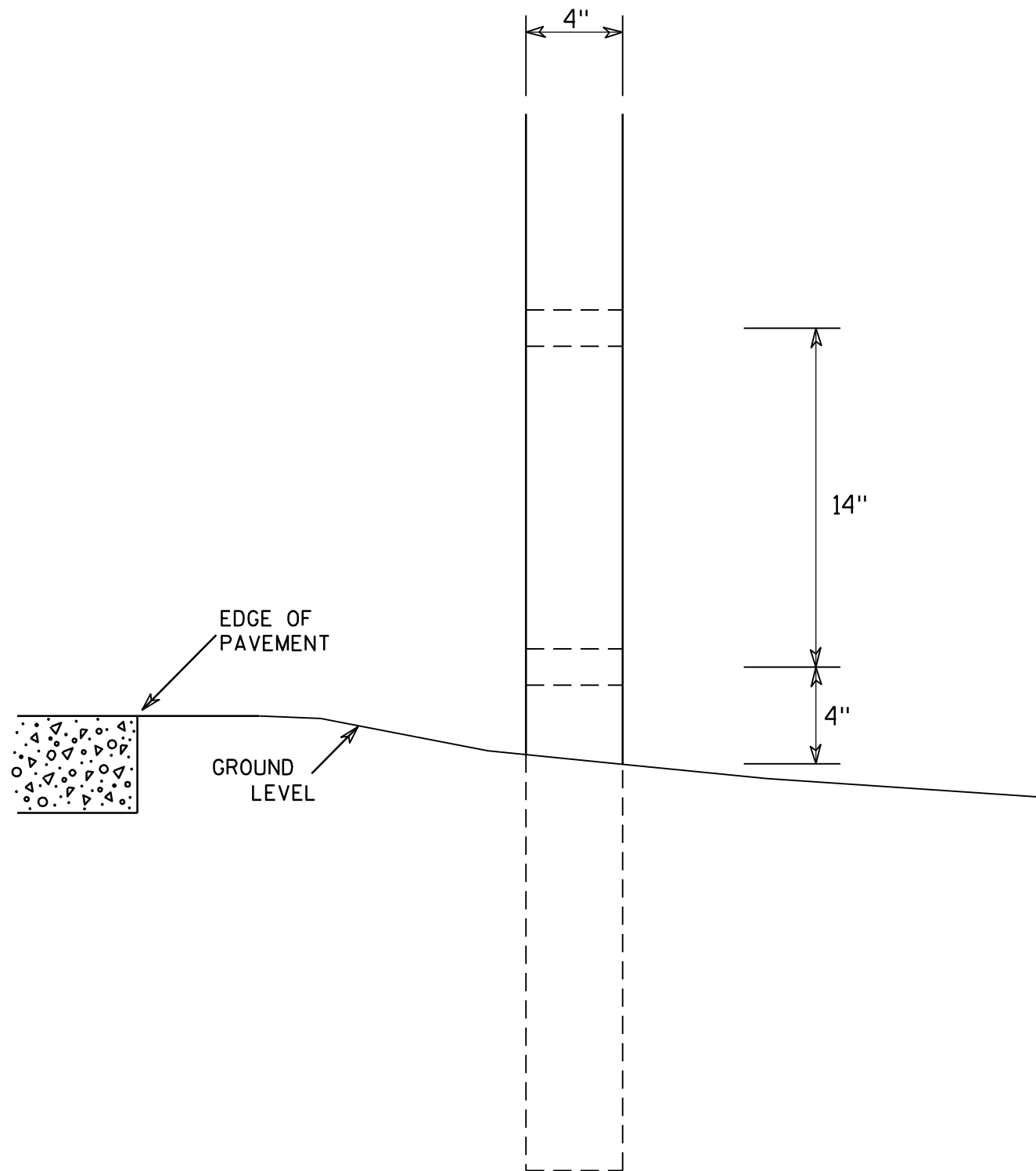
DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED <i>Matthew R. Rauch</i> for State Traffic Engineer	
DATE 1/27/14	PLATE NO. A4-3B.1



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

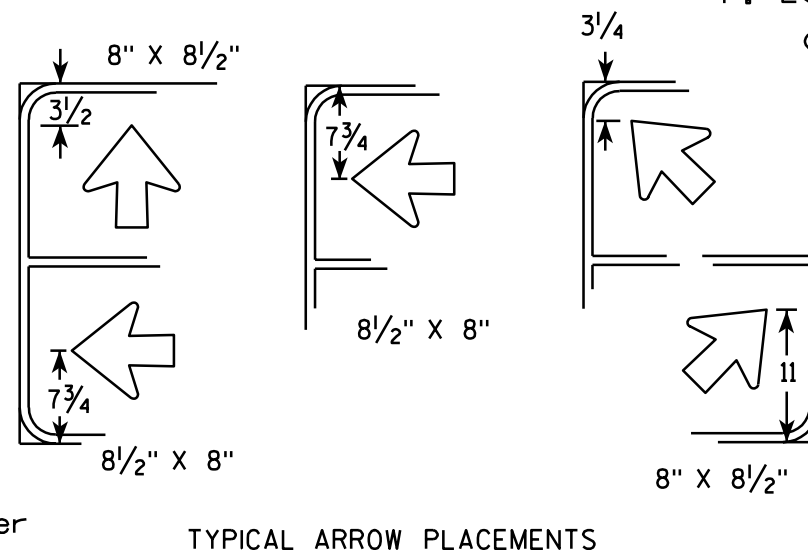
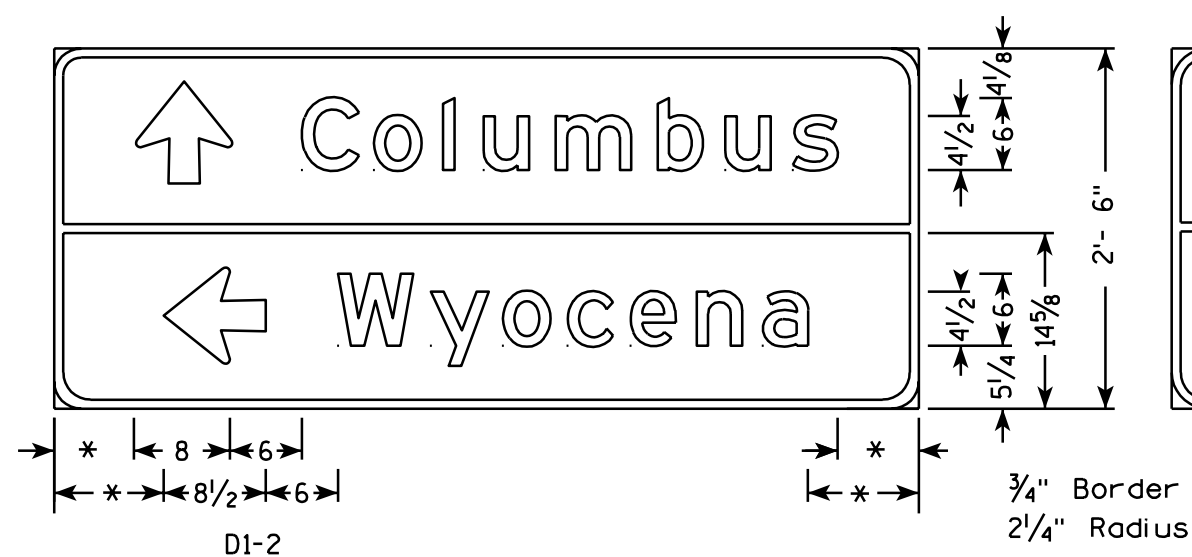
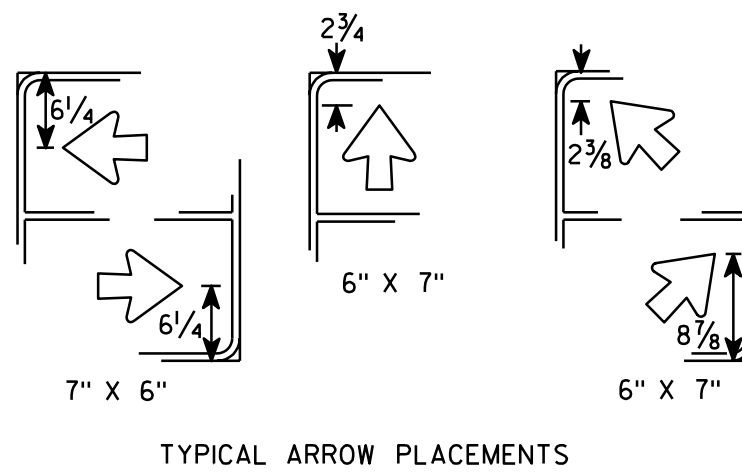
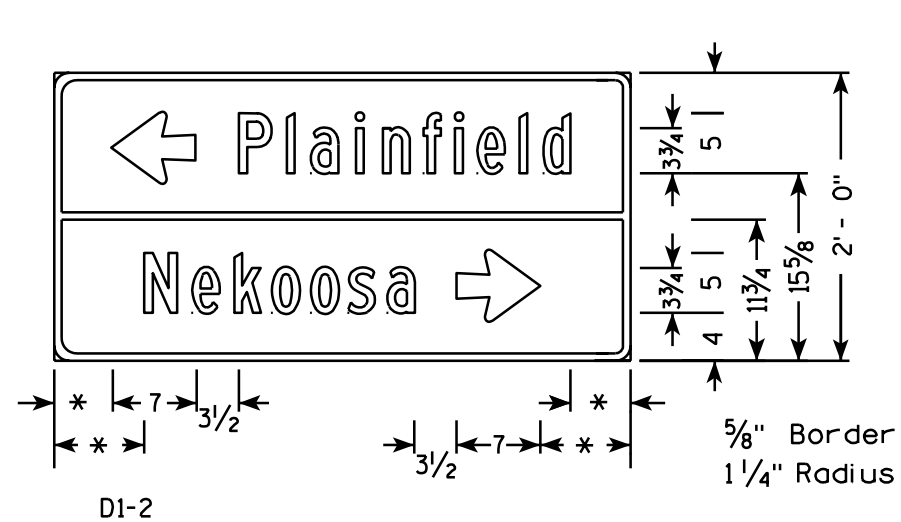
7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

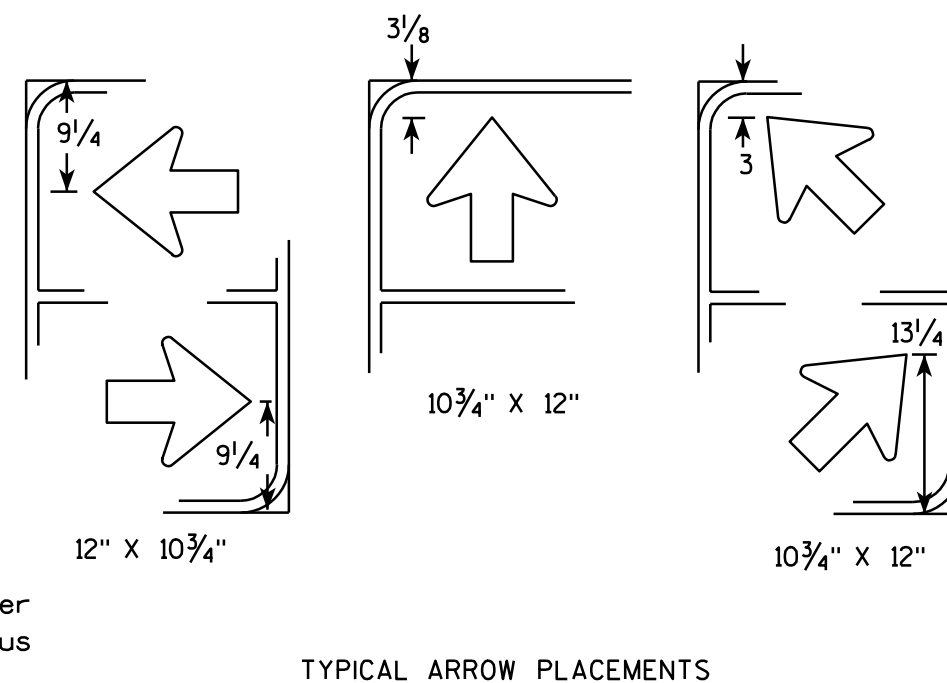
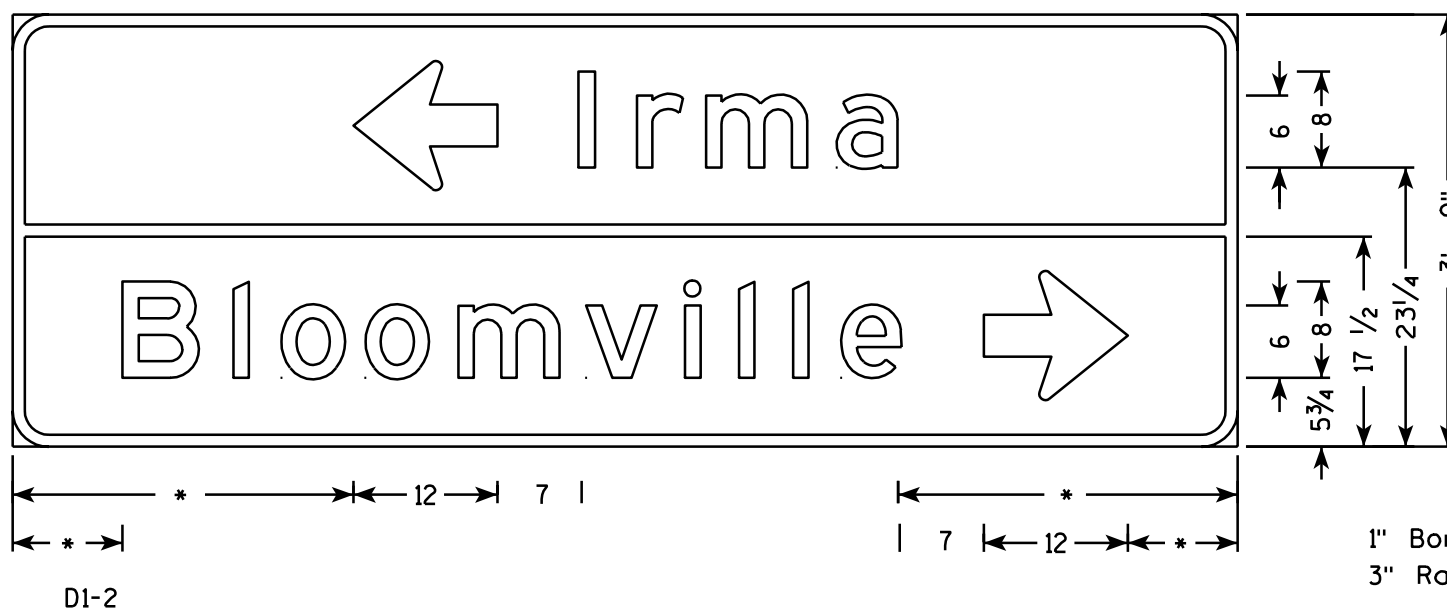
TYPICAL EXAMPLES

NOTES

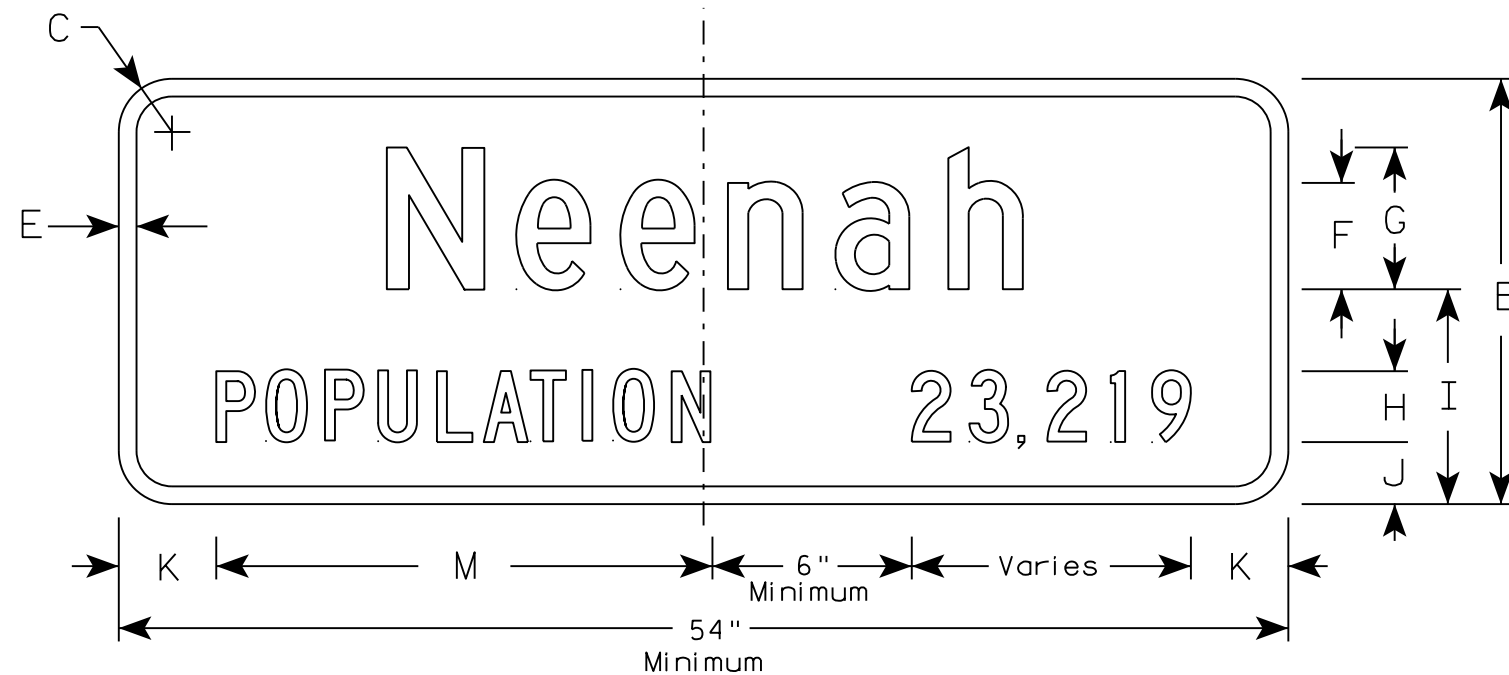
1. All signs are Type II - Type H Reflective
2. Color:
Background - Green
Message - White - Type H Reflective
3. Message Series for 3 3/4" L C is Series C and Series E for 4 1/2" L C and 6" L C.
4. Overall length of these signs is in 6" increments.
5. Arrows as per standard plate A1-2.
6. Tilt arrow is always at 45°.
7. Each line of copy including the arrow is centered on the board.



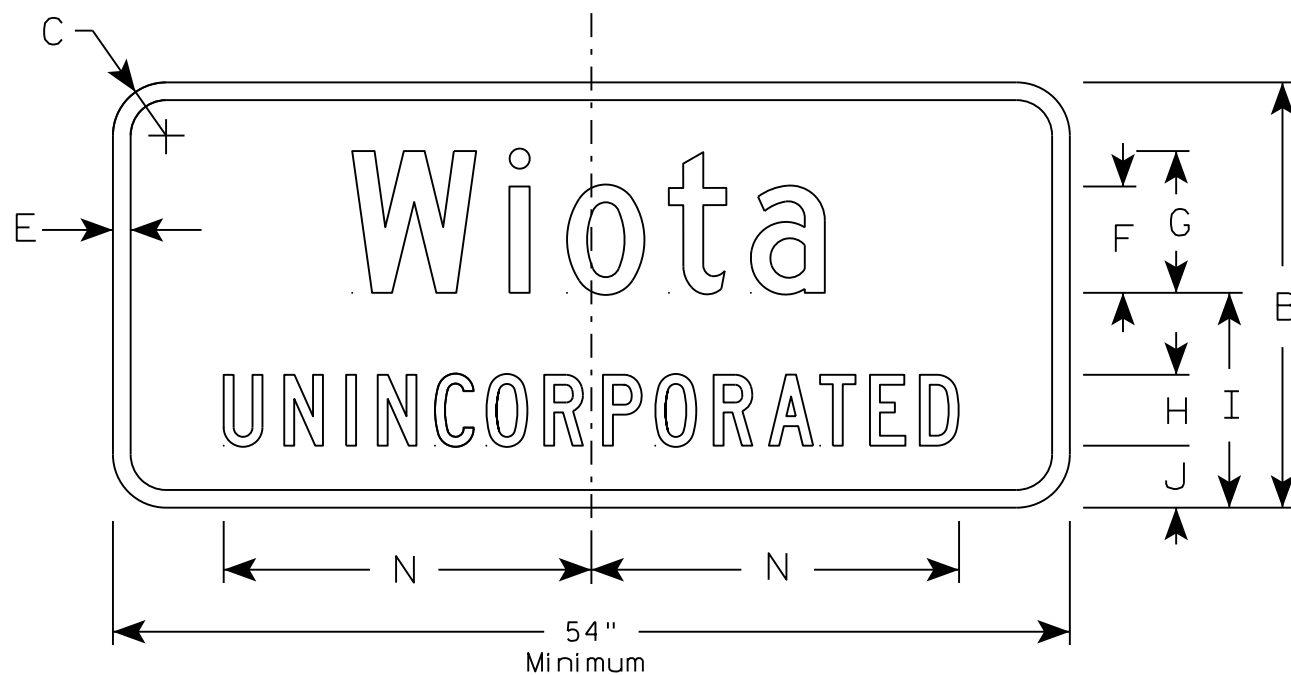
* Minimum dimension normally height of upper case letter.



DESTINATION - DIRECTIONAL SIGNS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 6/20/03	PLATE NO. A11-11C.4



- NOTES**
1. Sign is Type II - Type H Reflective
 2. Color:
Background - Green
Message - White
 3. Message Series - See Note 4
 4. First line is Series D, and the second line is series C.
 5. Horizontal board length will be in 6 inch increments to accommodate variable messages. Minimum dimensions are noted. Substitute appropriate population figure but note the minimum 6 inch spacing between the word and the numerals. Optically balance the Community name around the centerline of the sign.



7

7

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	Varies	24	3		1	6	8	4	12 1/8	3 1/2	5 1/2		28	20 3/4												Varies	
3																											
4																											
5																											

TYPICAL SIGN
I2-3

WISCONSIN DEPT OF TRANSPORTATION

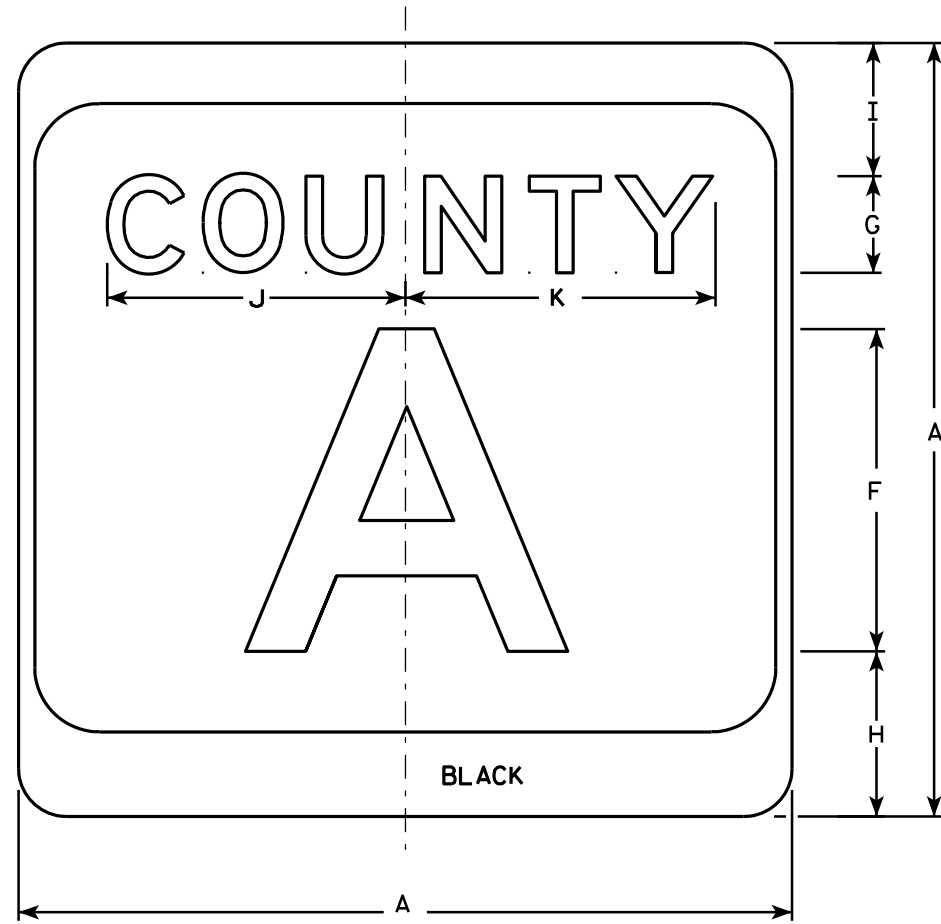
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/20/17 PLATE NO. I2-3.6

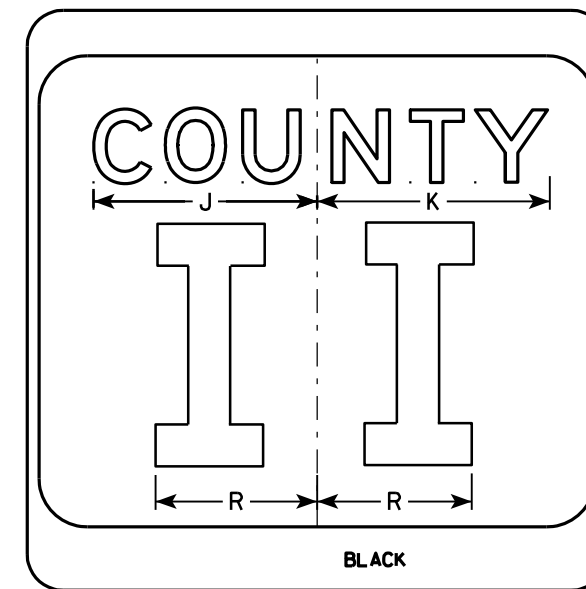
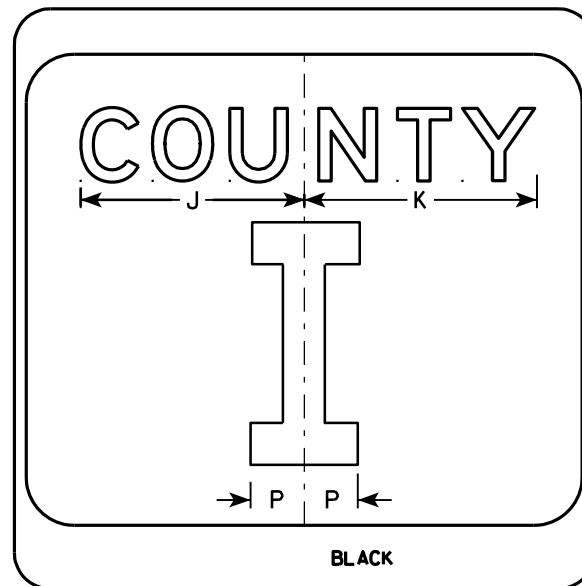
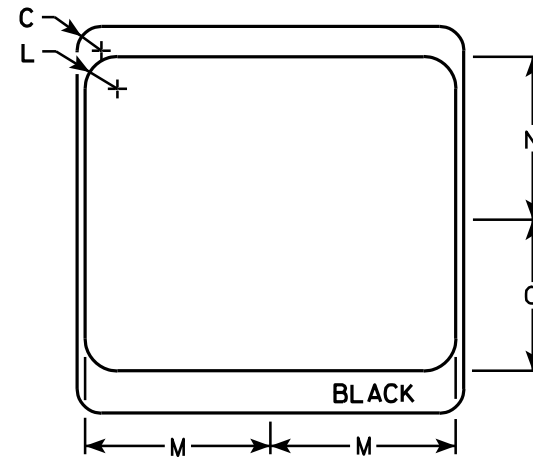
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 89 **E**

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



M1-5A



7

7

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

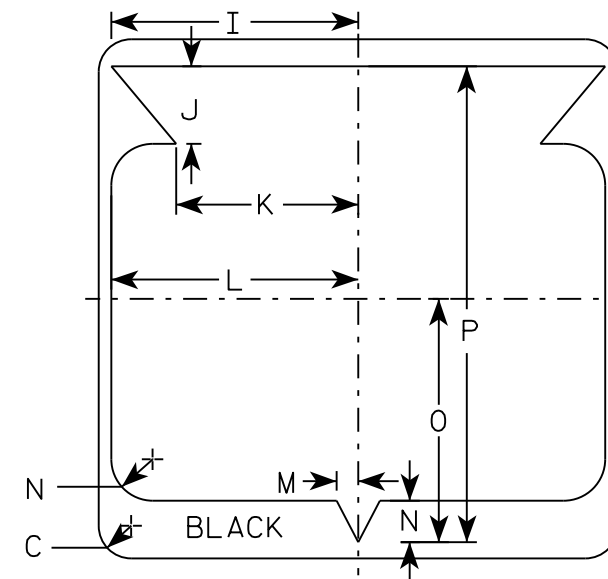
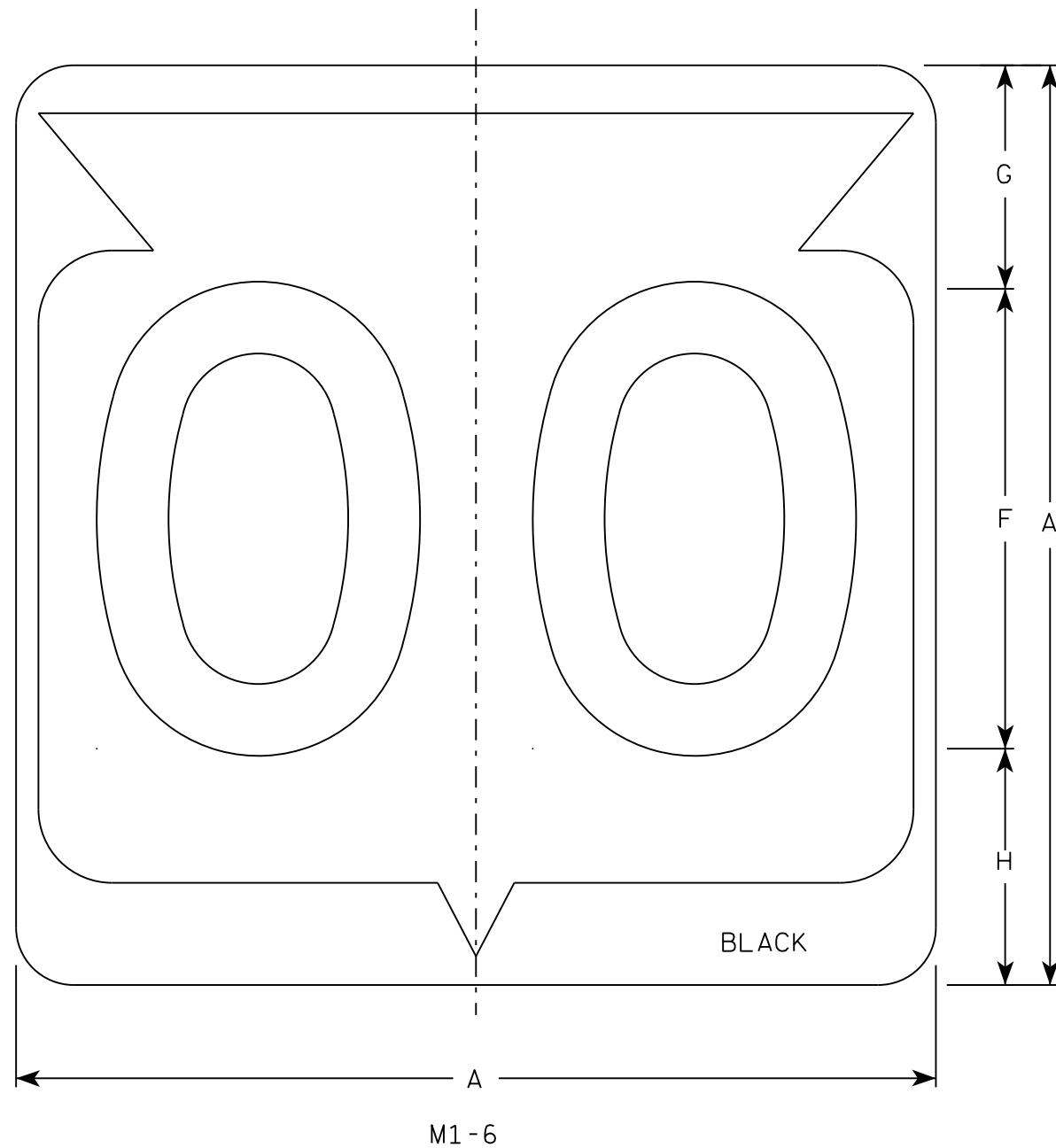
APPROVED *Matthew R. Raub*
For State Traffic Engineer

DATE 9/27/11 PLATE NO. MI-5A.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 90 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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.



7

7

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			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

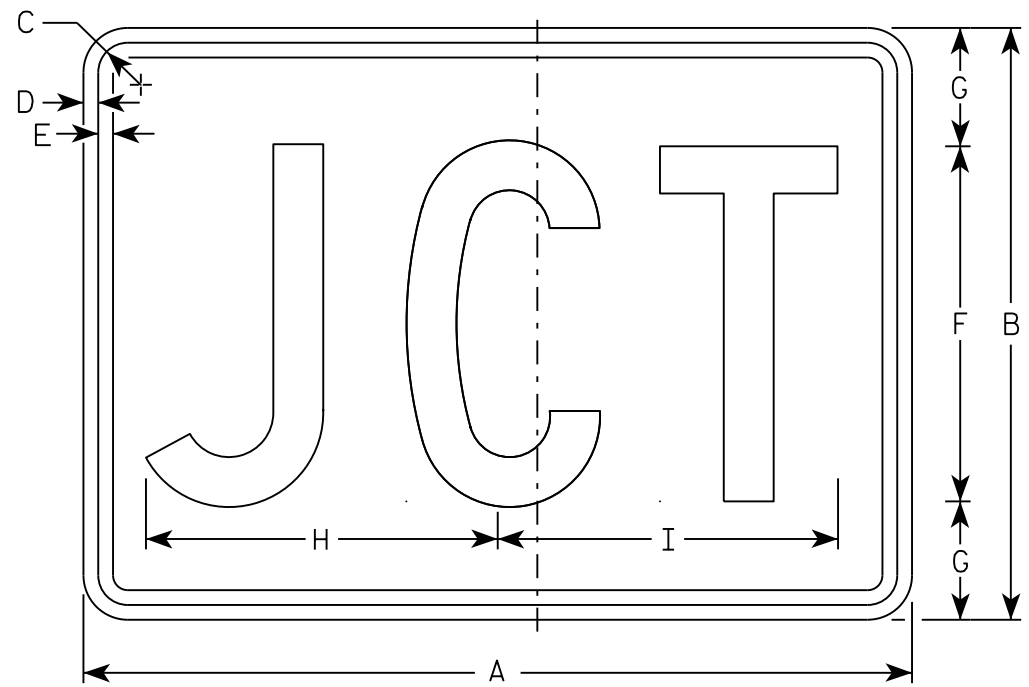
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

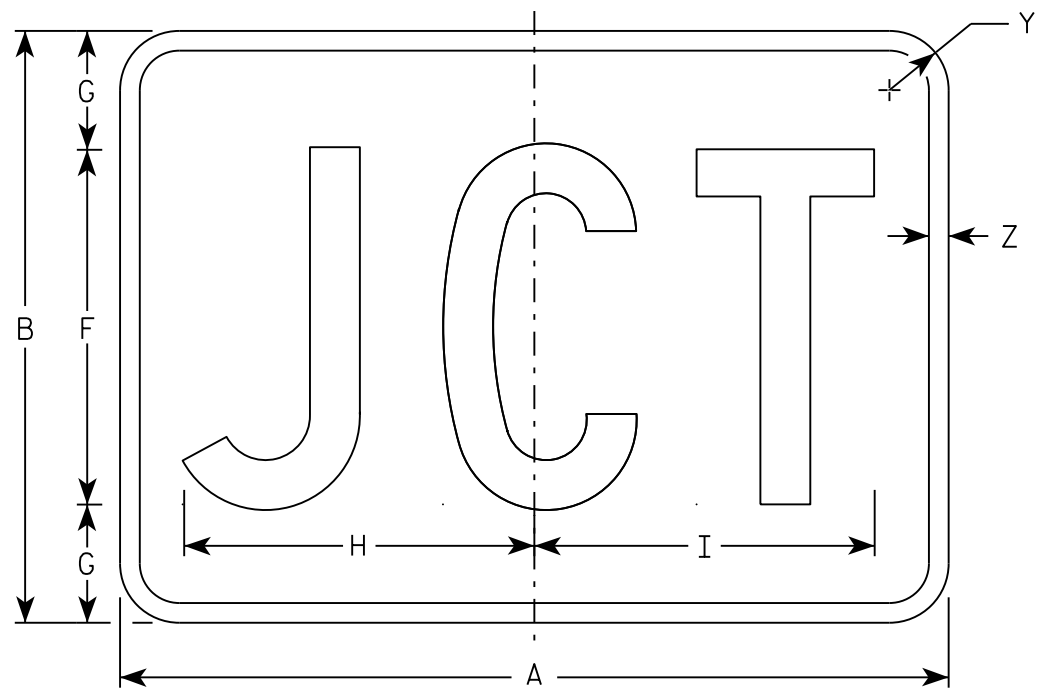
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 91 **E**

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



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

7

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

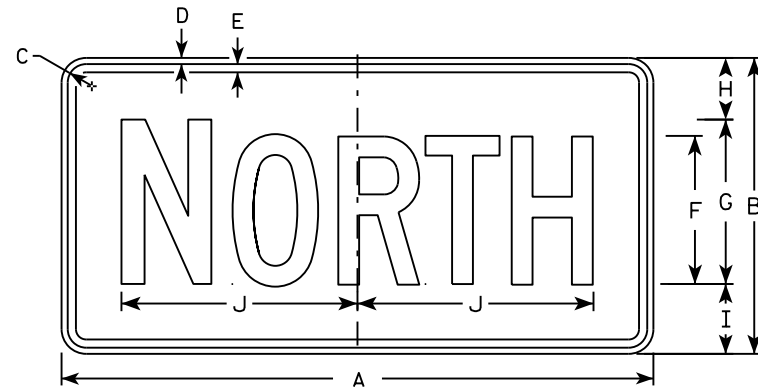
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

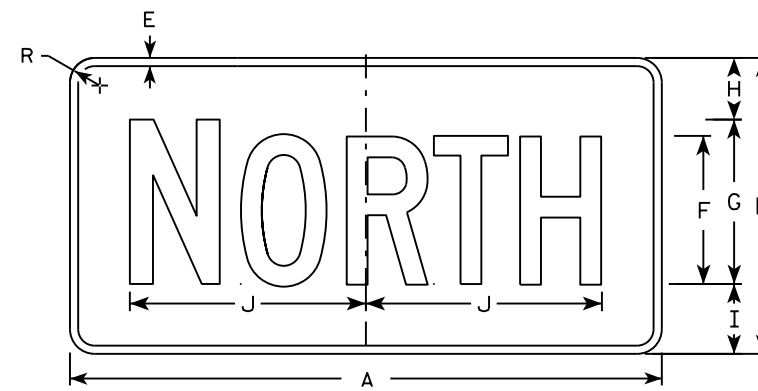
DATE 10/15/15 PLATE NO 92M2-1.12

NOTES

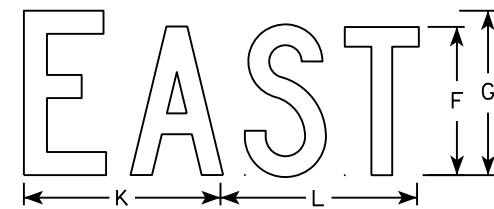
- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4 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
- Note the first letter of each direction is larger than the remainder of the message.



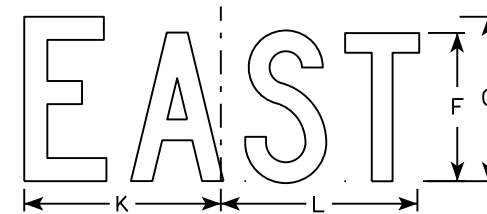
M3-1
MM3-1
MP3-1



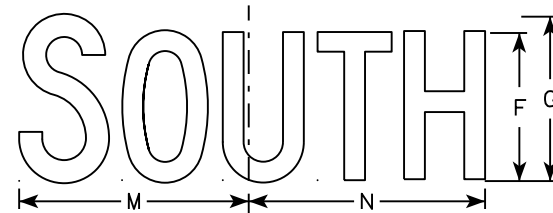
MB3-1
MK3-1
MN3-1



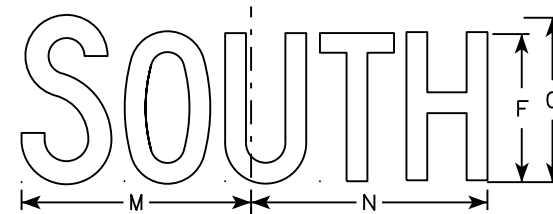
M3-2
MM3-2
MP3-2



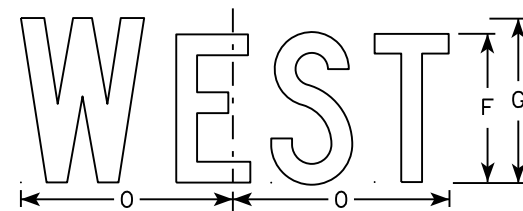
MB3-2
MK3-2
MN3-2



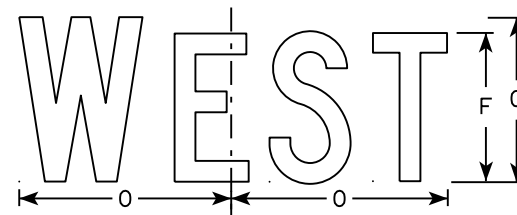
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

7

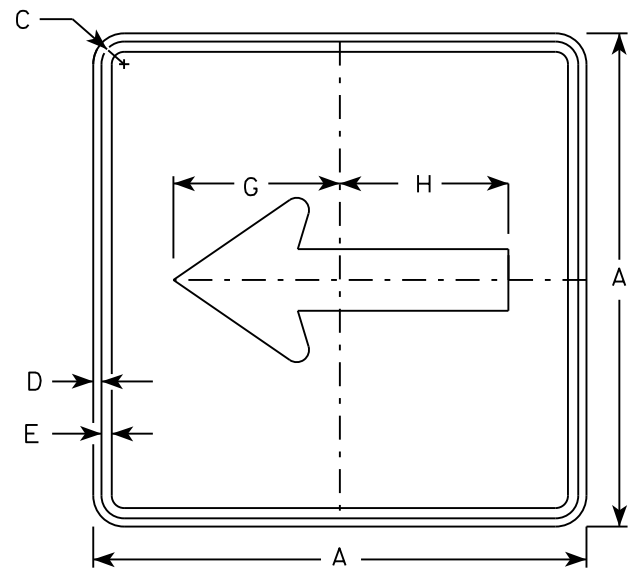
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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 thru M3-4
SERIES

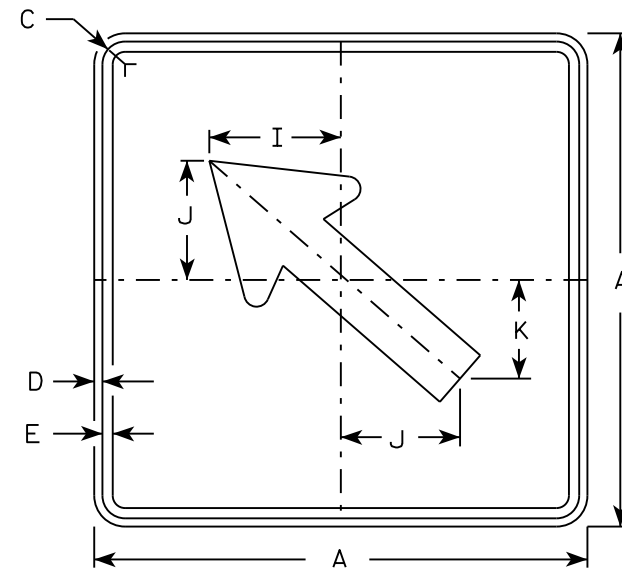
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

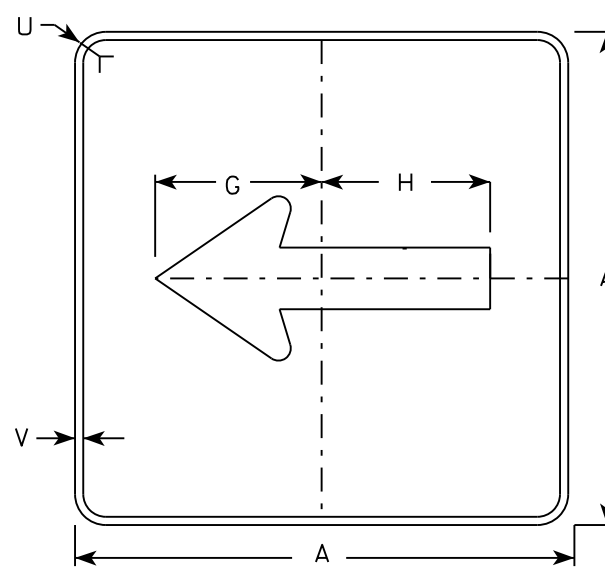
DATE 10/15/15 PLATE NO. M3-1.14



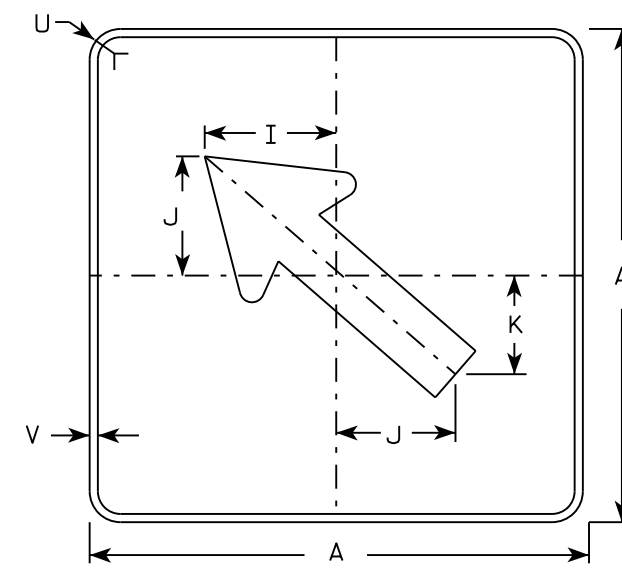
M6-1
MM6-1
M06-1
MP6-1



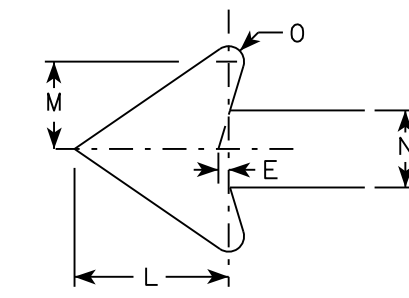
M6-2
MM6-2
M06-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See note 4
Message - See note 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.
- 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
M06-1 and M06-2 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

7

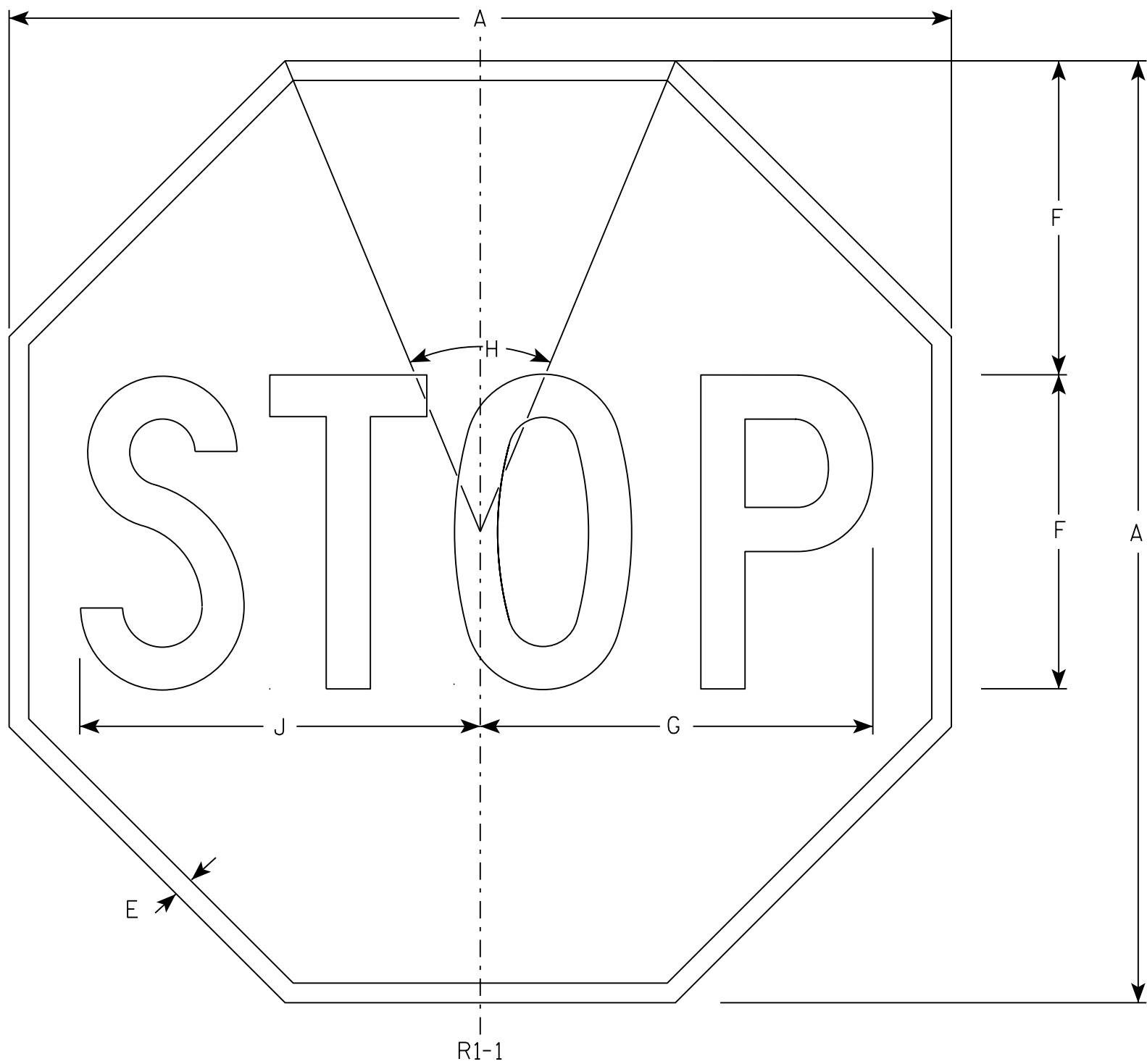
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 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 NO. M6-1.15



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Red
Message - White
3. Message Series - C

7

7

R1-1

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				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

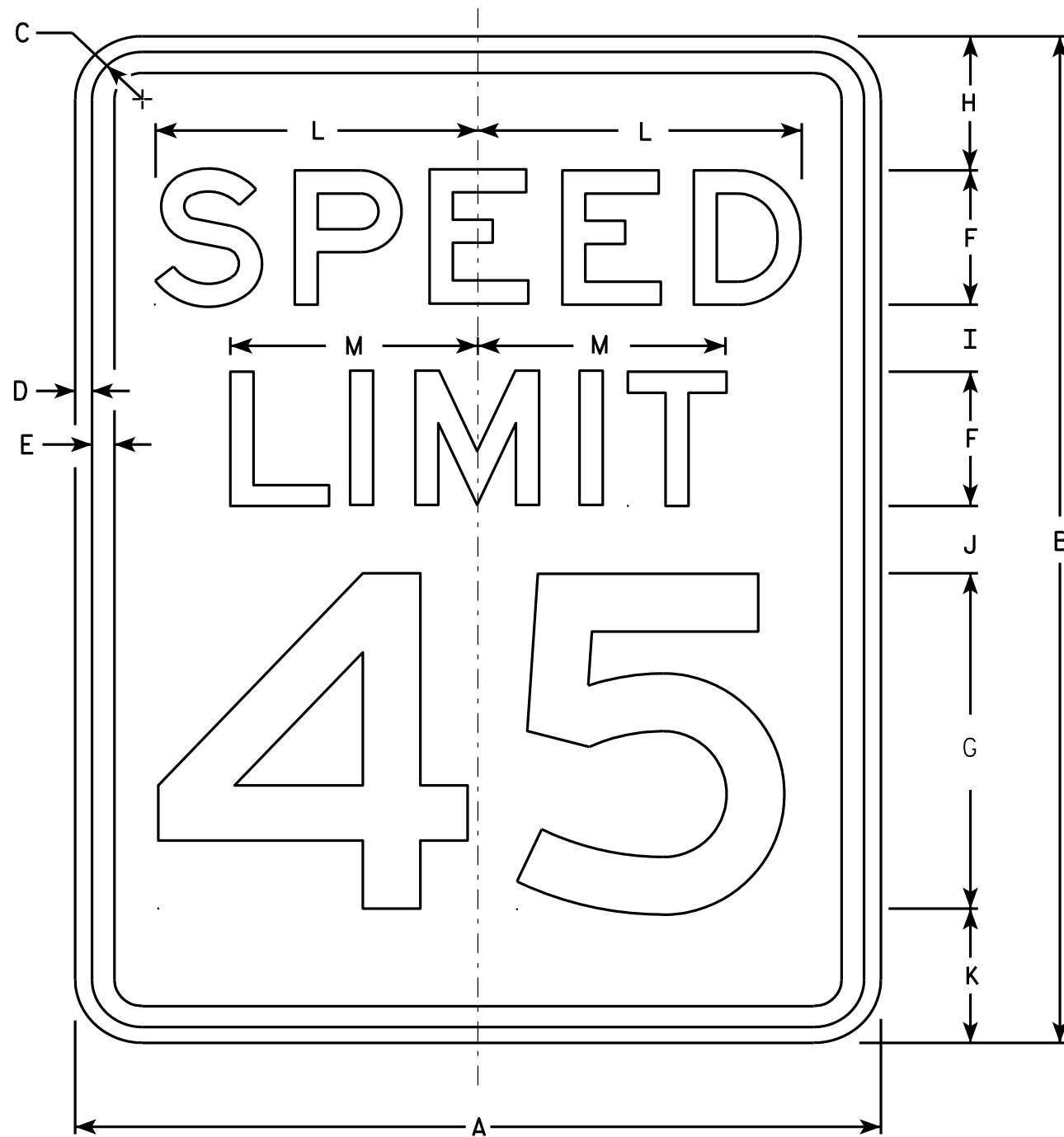
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: ⁹⁵ **E**



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.

7

7

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: 96 **E**

NOTES

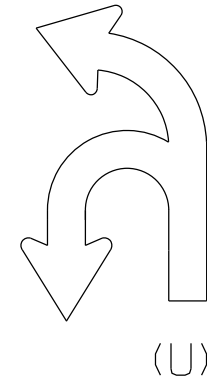
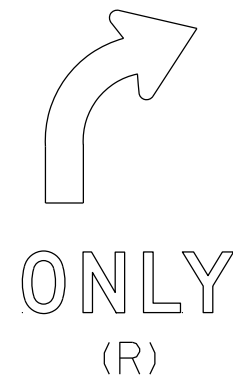
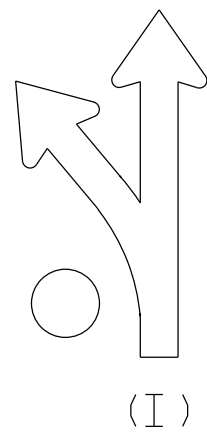
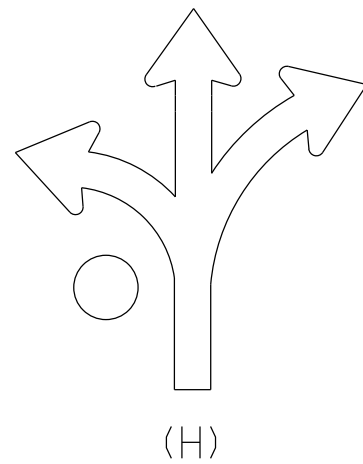
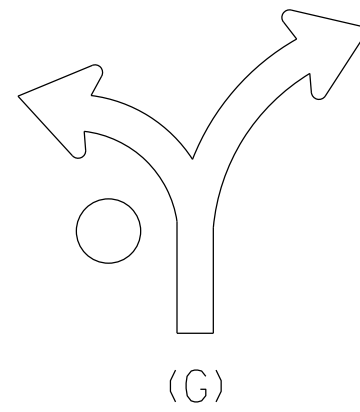
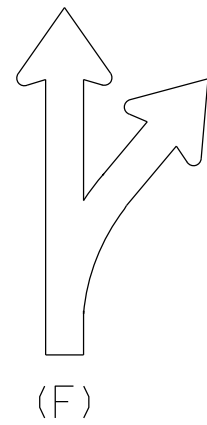
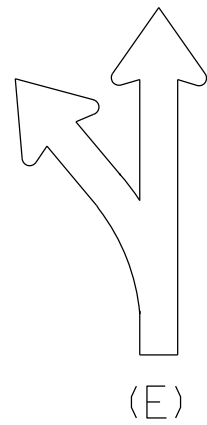
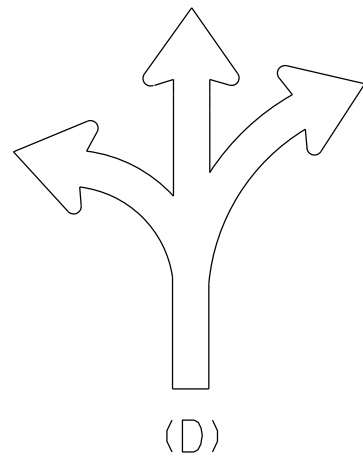
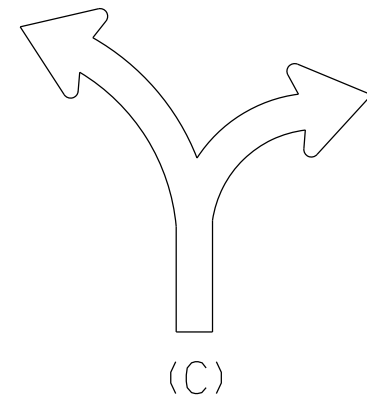
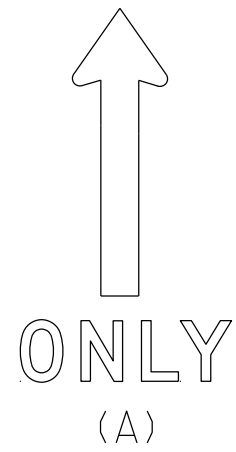
1. Sigs are Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

- | | |
|-------------|----------------------------|
| 1 Letter = | 3.75 sq ft for Size 2 |
| | 6.0 sq ft for Size 3 |
| | 10.0 sq ft for Size 4 or 5 |
| 2 Letters = | 7.5 sq ft for Size 2 |
| | 12.0 sq ft for Size 3 |
| | 20.0 sq ft for Size 4 or 5 |
| 3 Letters = | 11.25 sq ft for Size 2 |
| | 18.0 sq ft for Size 3 |
| | 30.0 sq ft for Size 4 or 5 |
| 4 Letters = | 15.0 sq ft for Size 2 |
| | 24.0 sq ft for Size 3 |
| | 40.0 sq ft for Size 4 or 5 |
| 5 Letters = | 18.75 sq ft for Size 2 |
| | 30.0 sq ft for Size 3 |
| | 50.0 sq ft for Size 4 or 5 |
| 6 Letters = | 22.5 sq ft for Size 2 |
| | 36.0 sq ft for Size 3 |
| | 60.0 sq ft for Size 4 or 5 |

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq.Ft. changes.

Add the amounts when these letters are used:

- 1.25 sq ft for Size 2
- 1.5 sq ft for Size 3
- 2.0 sq ft for Size 4 or 5



STANDARD SIGN
R3-8 Series

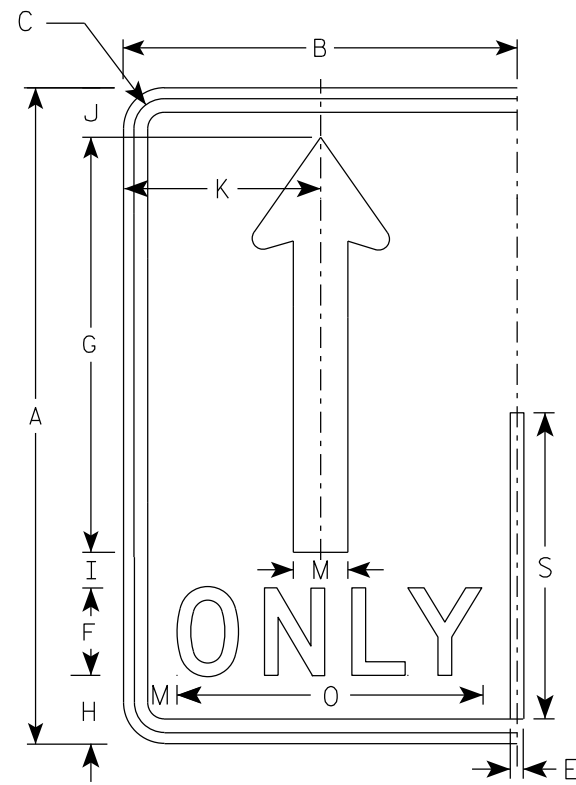
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

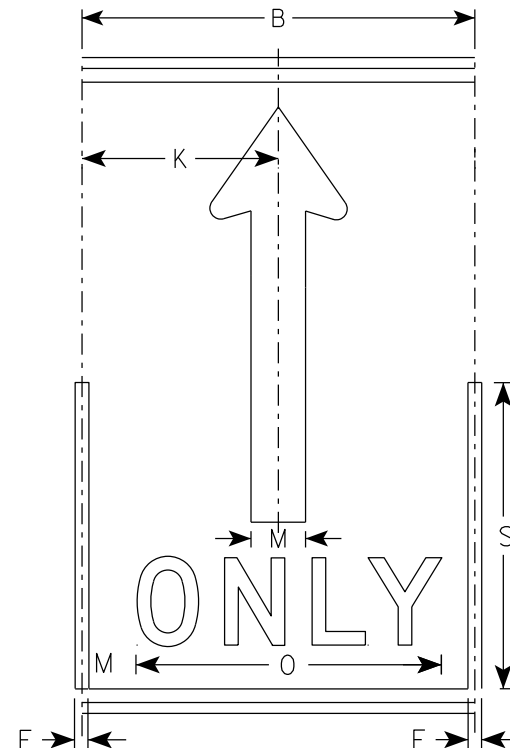
DATE 5/21/19 PLATE NO. R3-8.1

NOTES

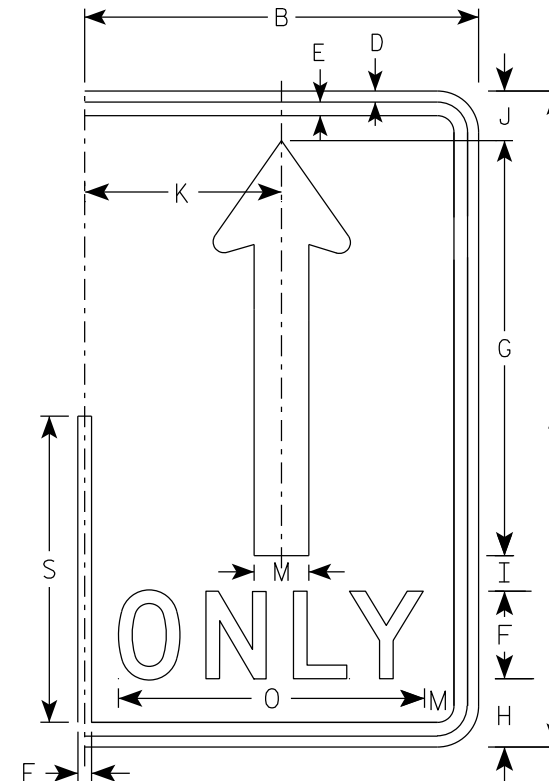
1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D



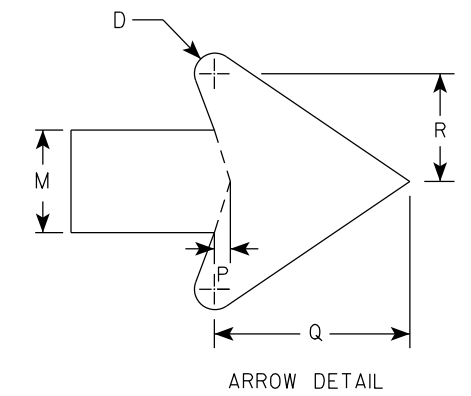
(A)



(A)



(A)



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																											
2S	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

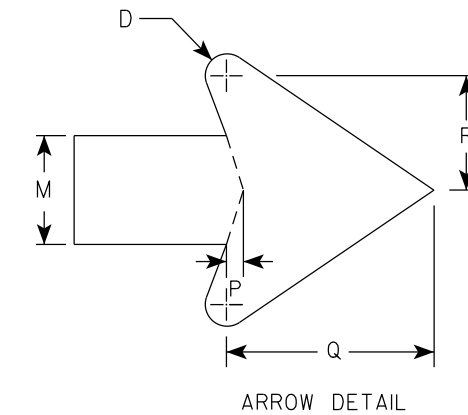
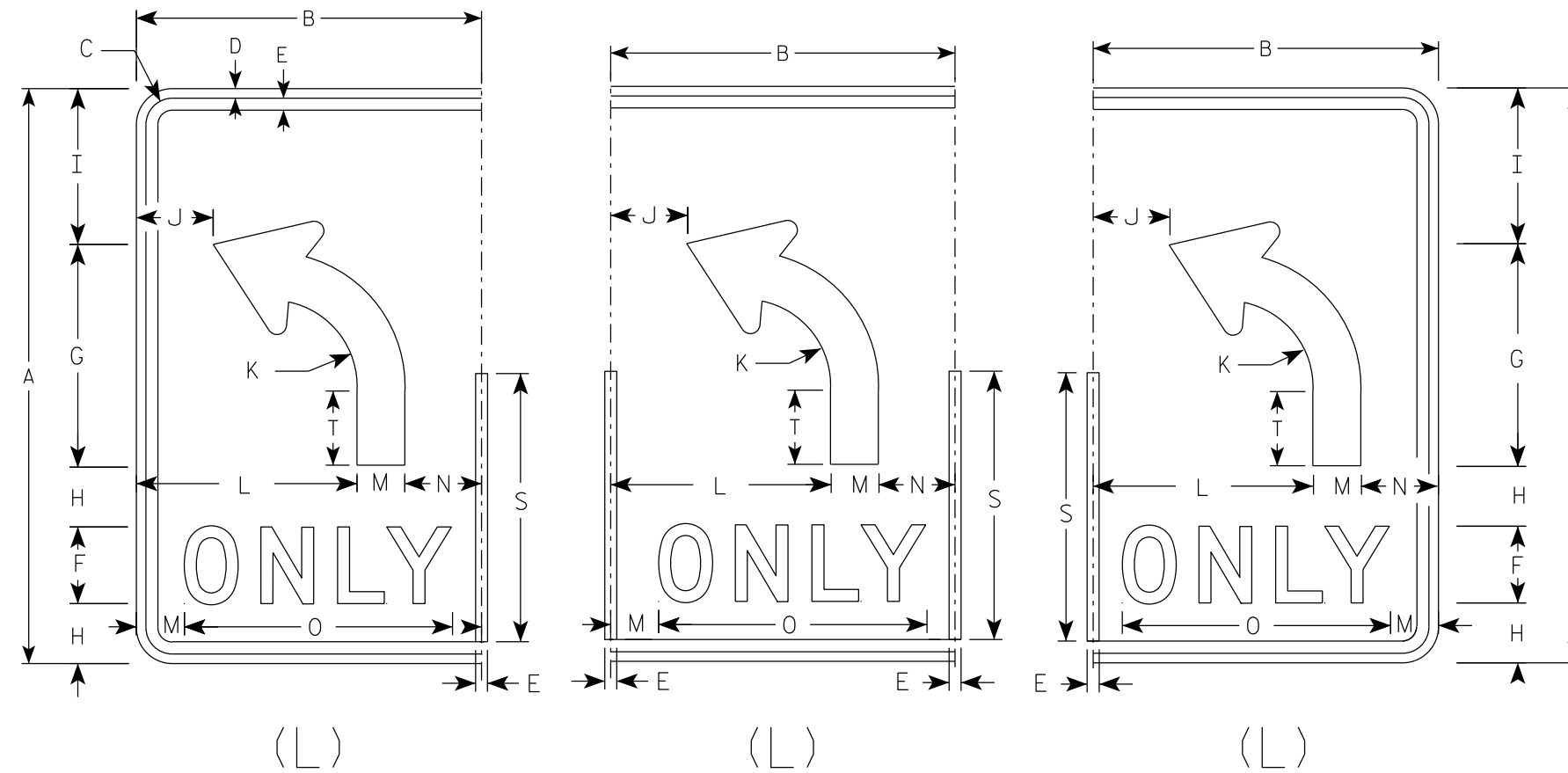
APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: HWY: COUNTY: SHEET NO: 98 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D



7

7

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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

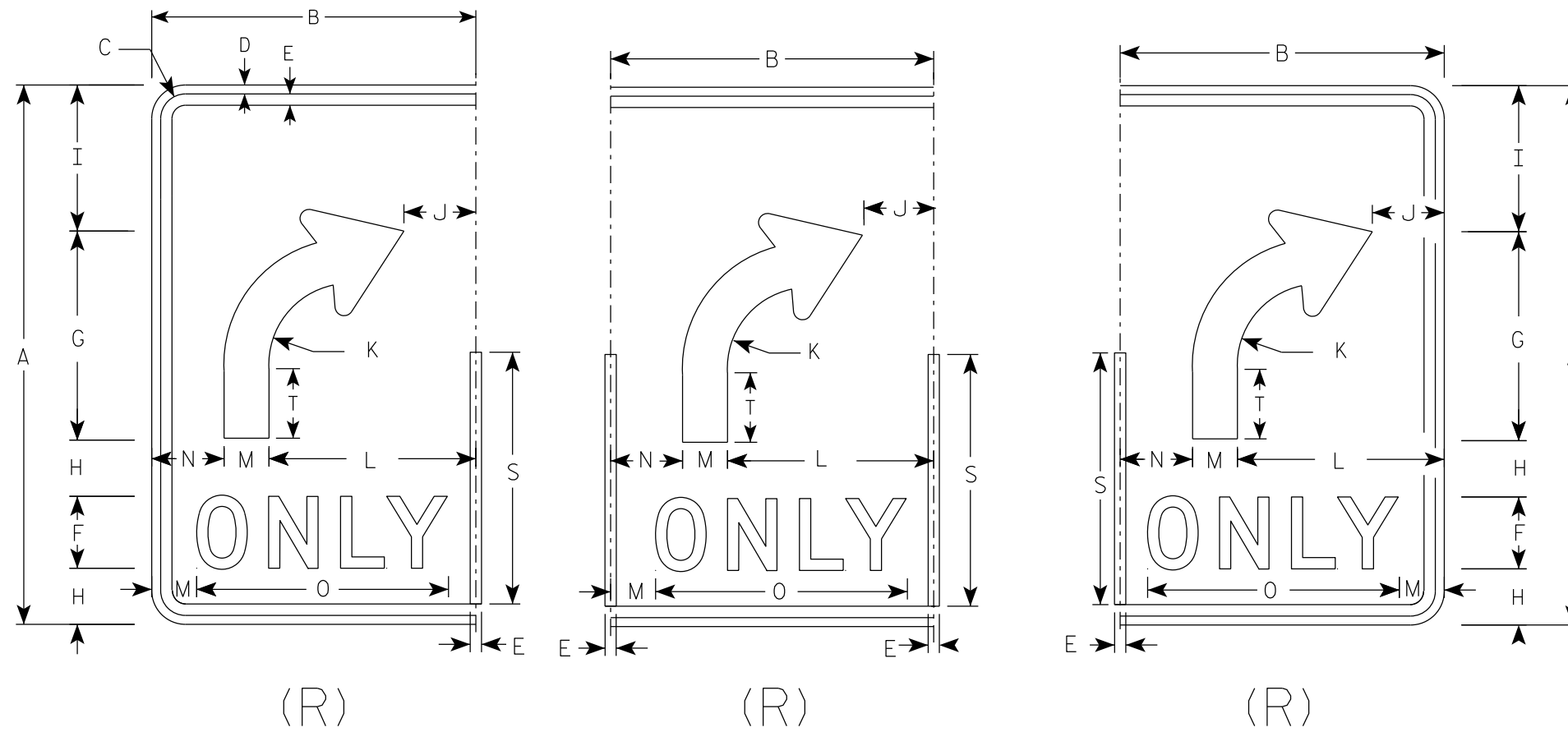
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: SHEET NO: 99 E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D



7

7

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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

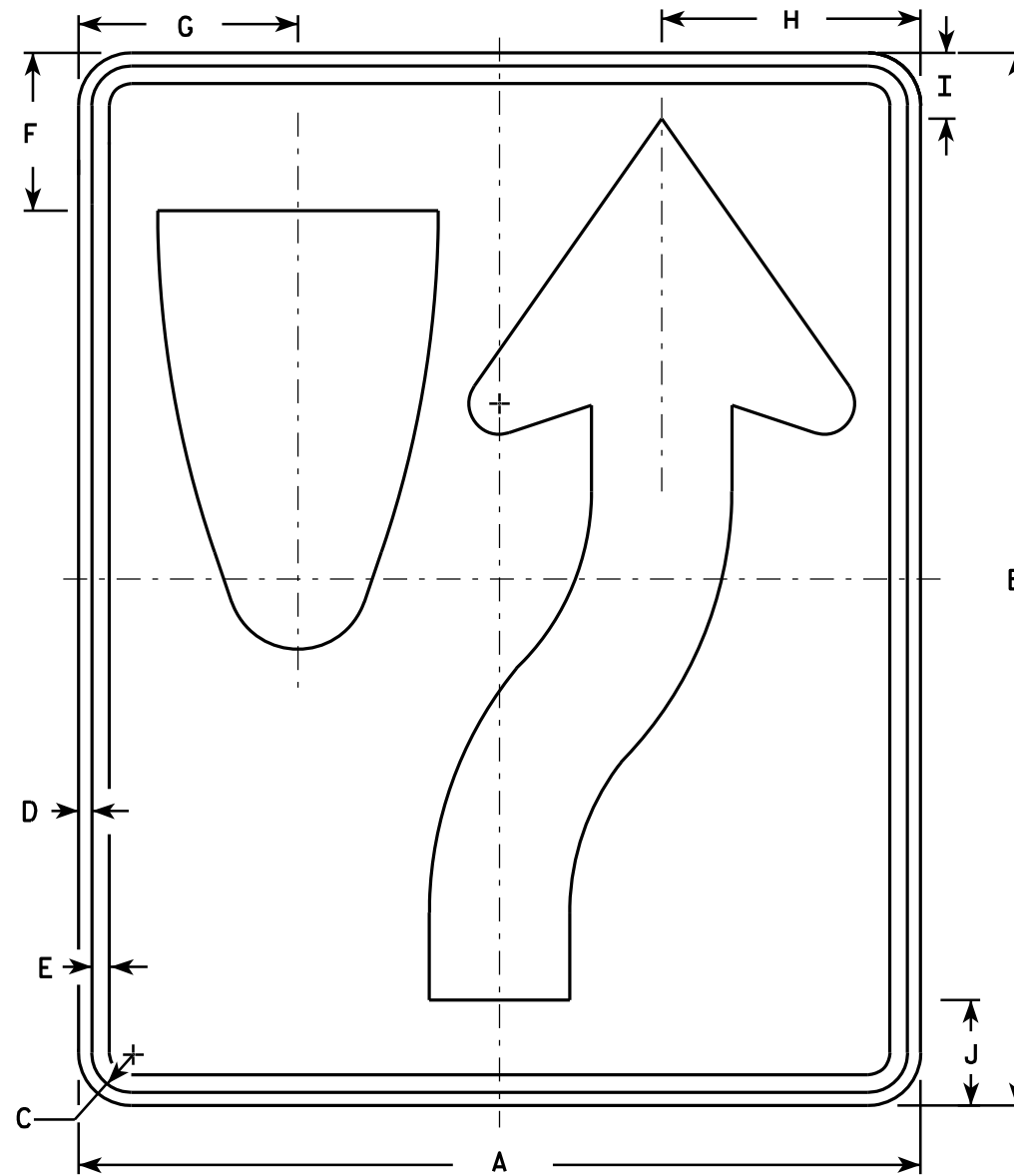
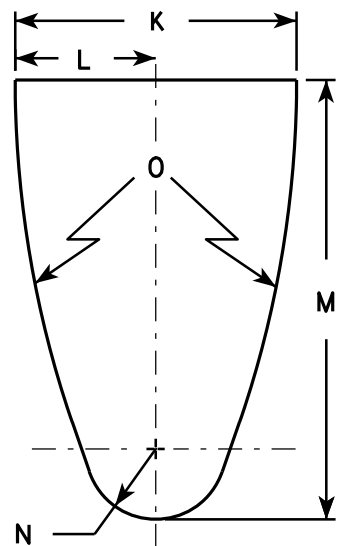
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

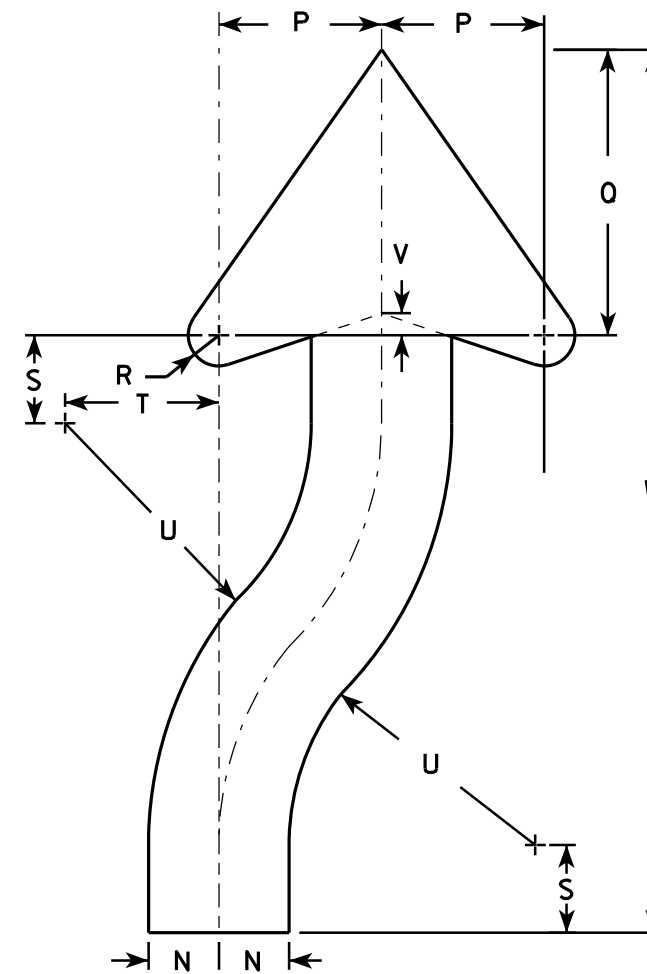
DATE 5/21/19 PLATE NO. R3-8.1

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.



R4-7



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

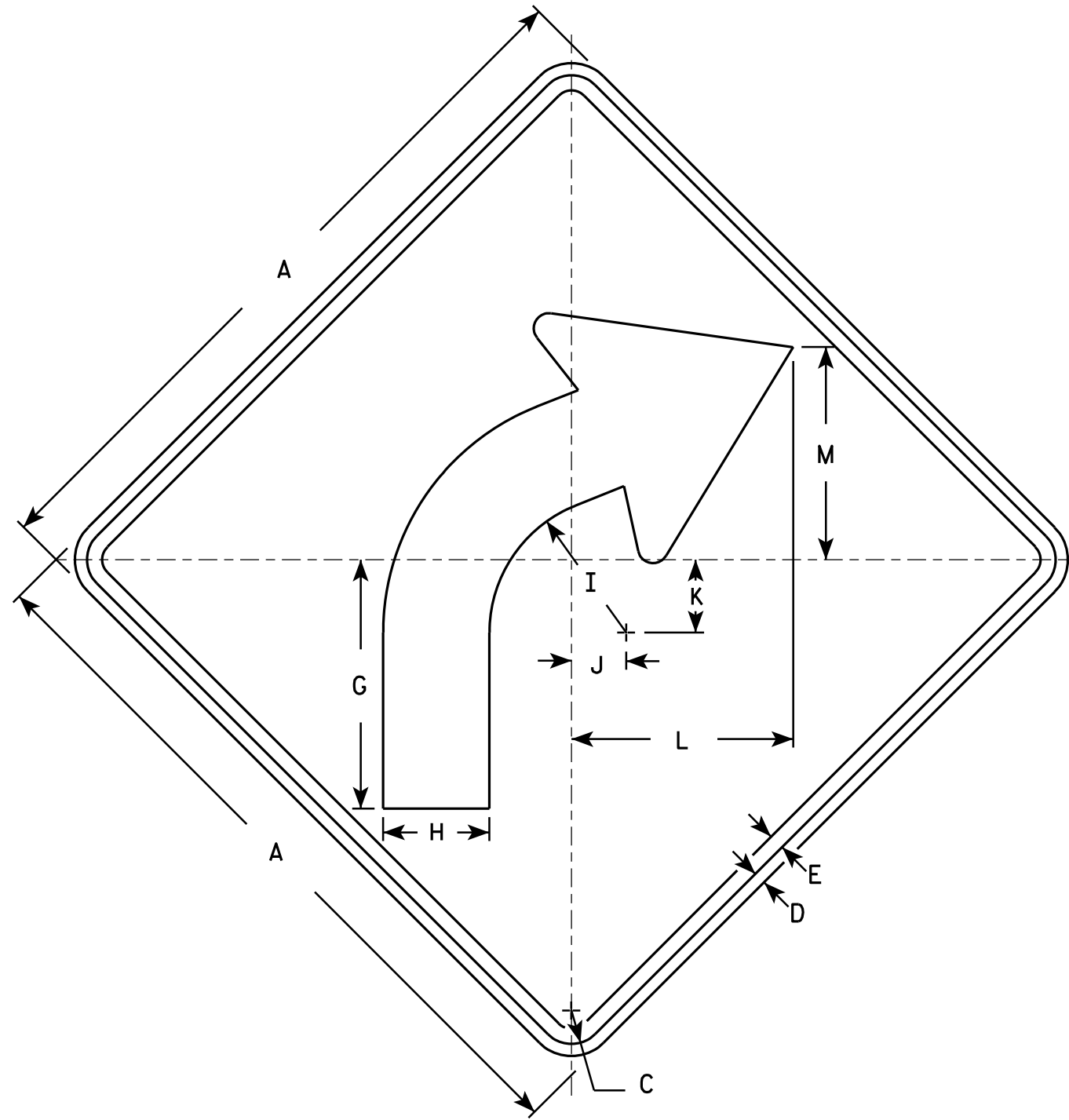
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

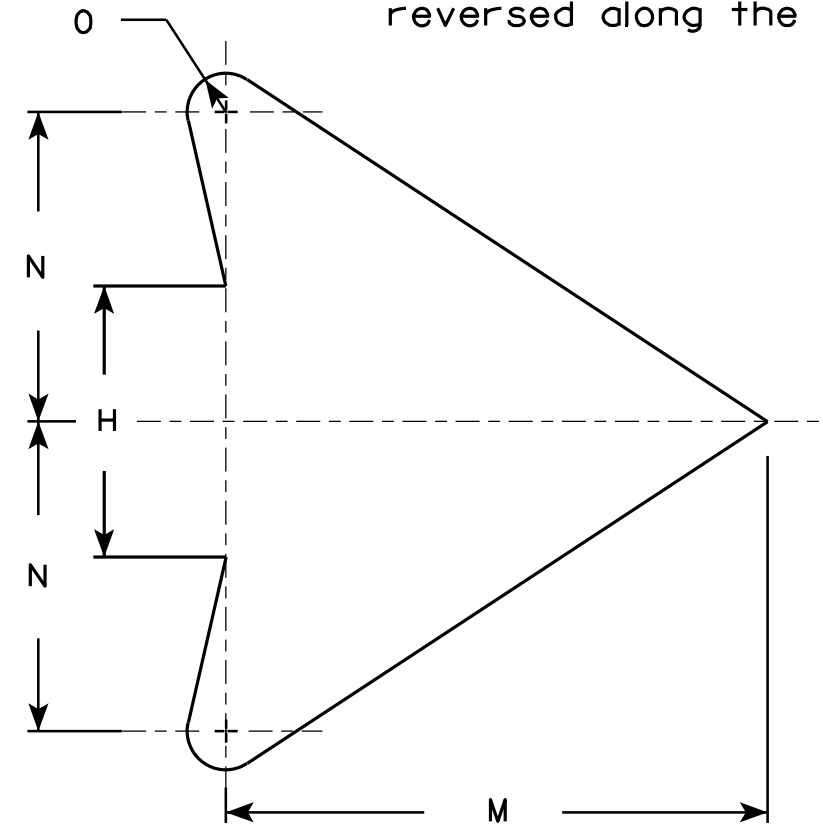
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 101 **E**

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. 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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R

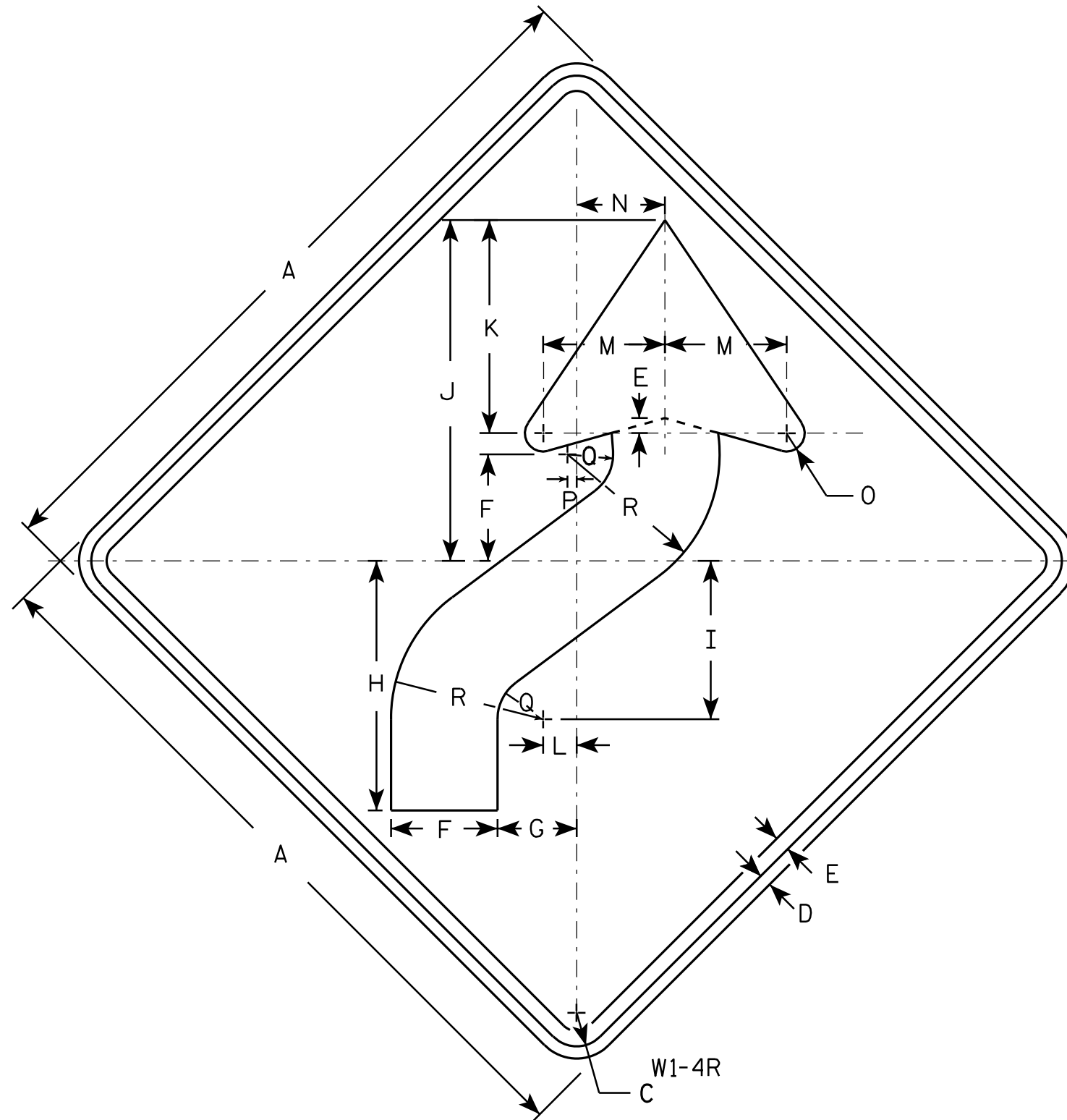


ARROW DETAIL

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	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/15/12 PLATE NO. W1-2.10



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. 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. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

7

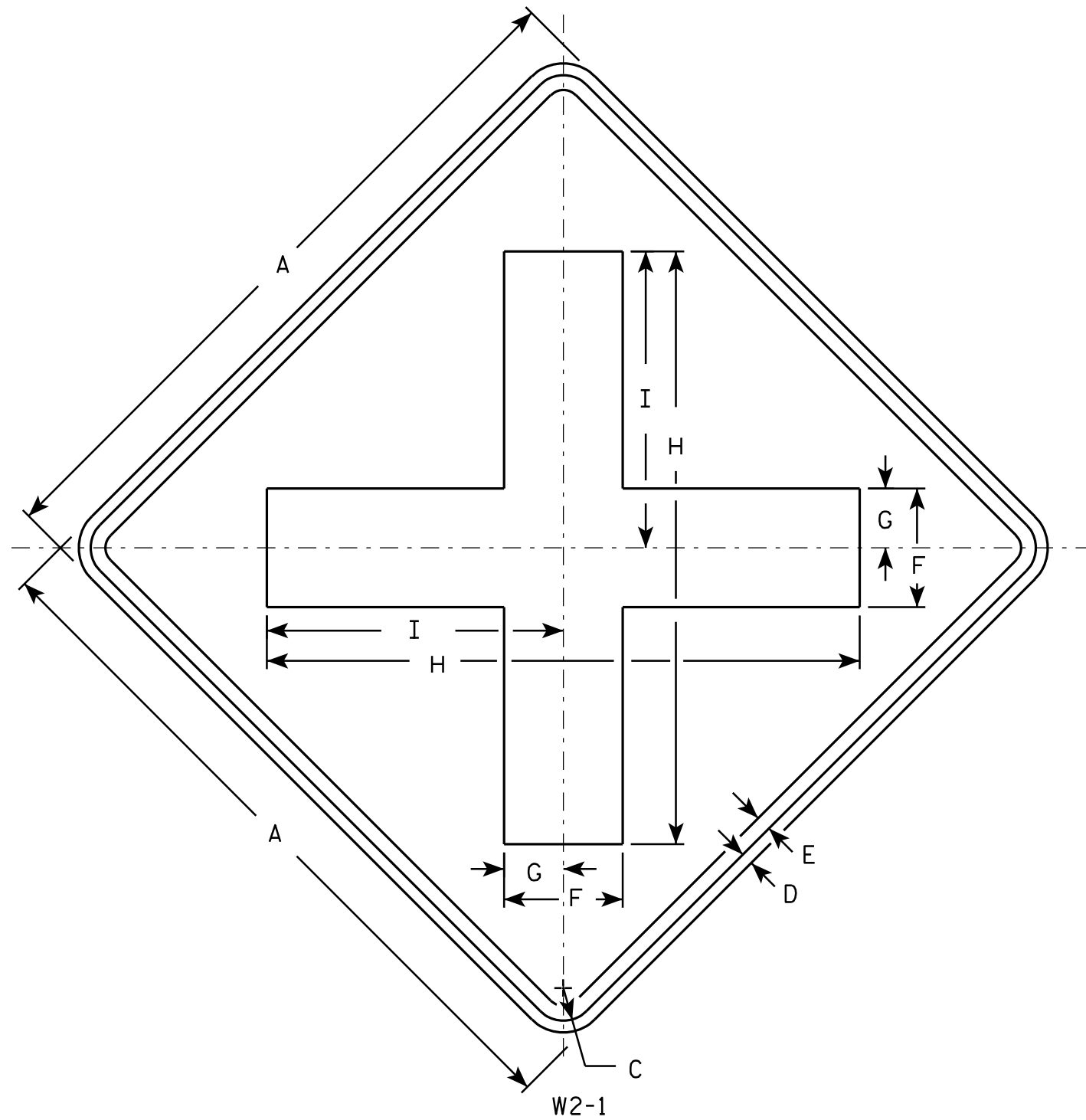
7

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	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W1 - 4

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Raub*
for State Traffic Engineer
DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 103 **E**



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. 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.

7

7

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	24		1 1/8	3/8	1/2	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

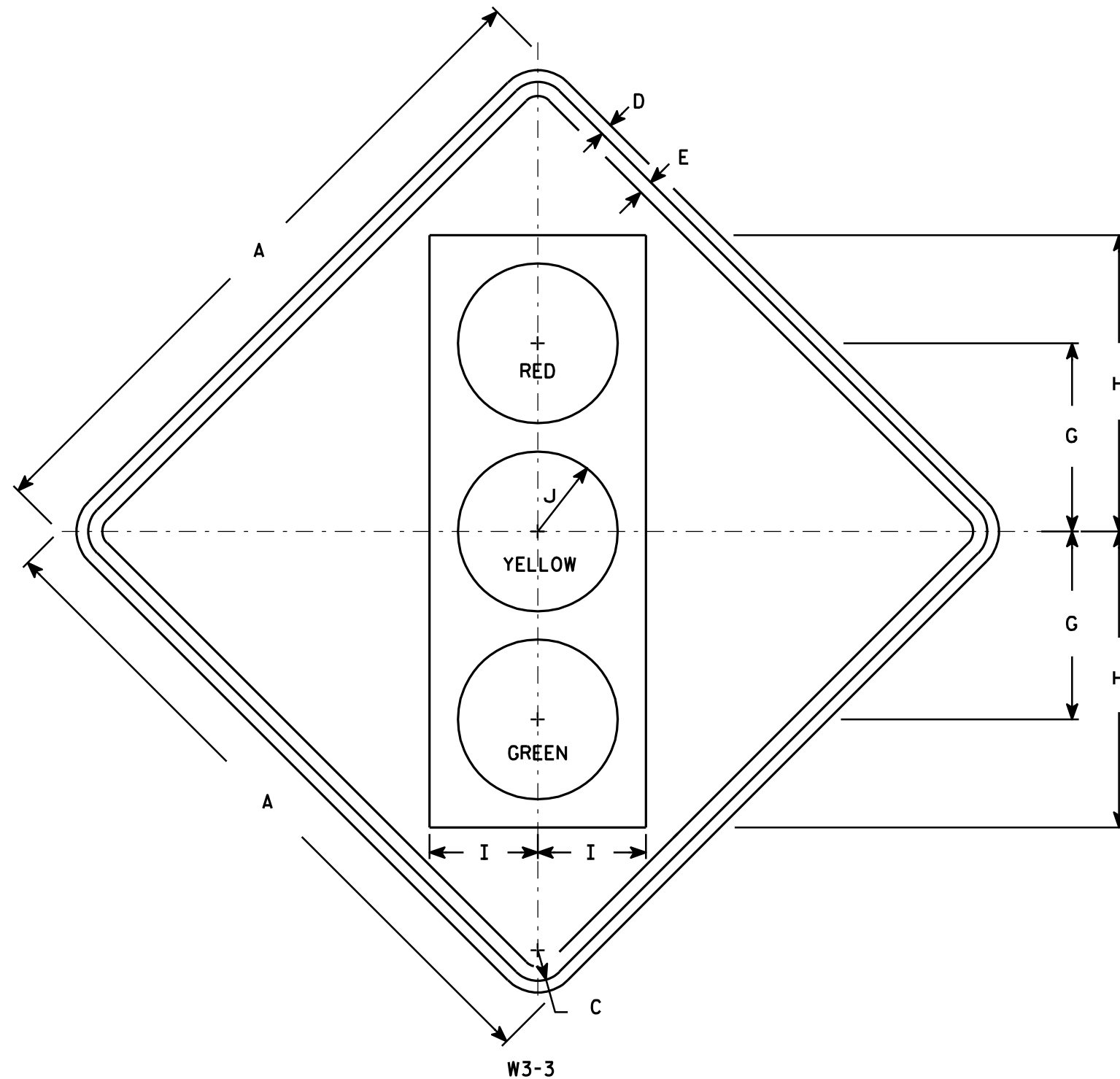
STANDARD SIGN
W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: ¹⁰⁴ _____ E



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 - 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. Symbol and border are non-reflective black.
Top circle - Type H ReflectORIZED Red
Center circle - Same as background
Bottom circle - Type H ReflectORIZED Green

7

7

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		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

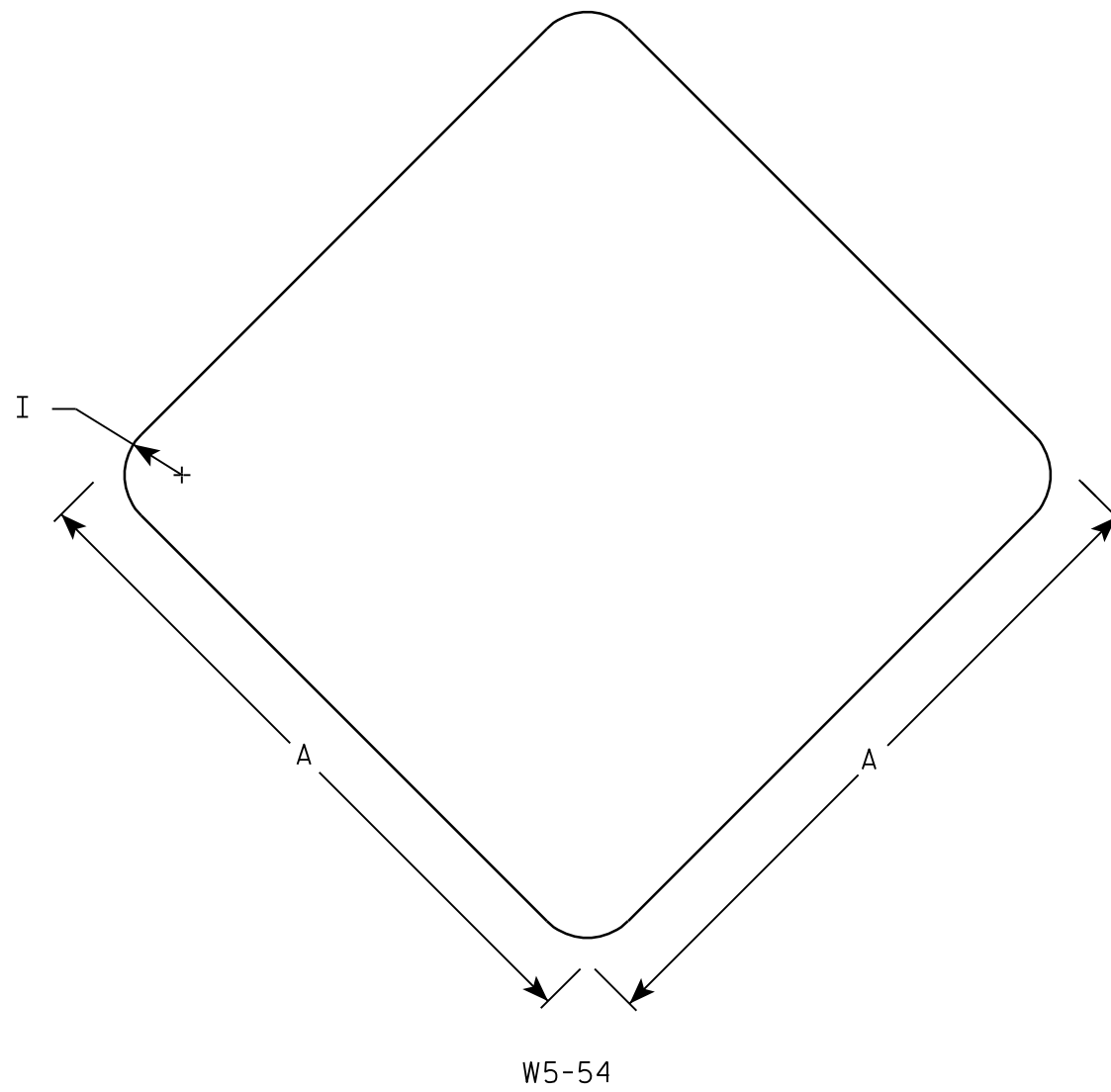
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: ¹⁰⁵ _____ E

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.



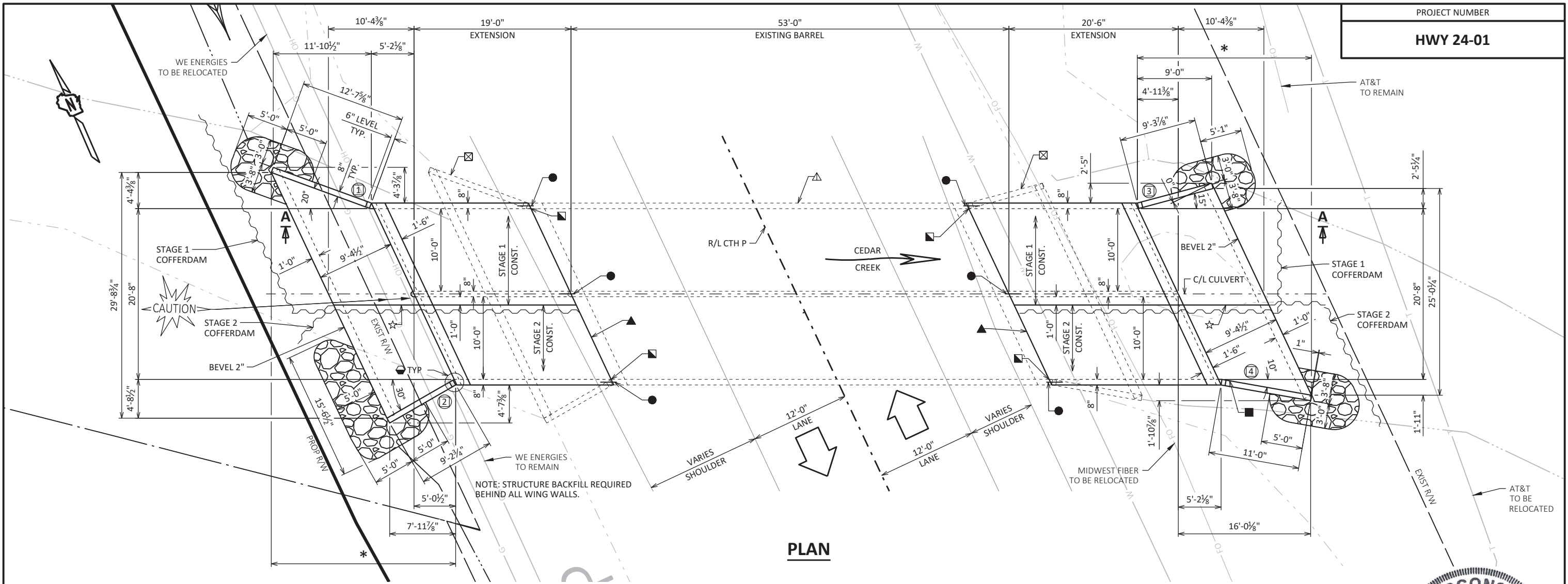
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7

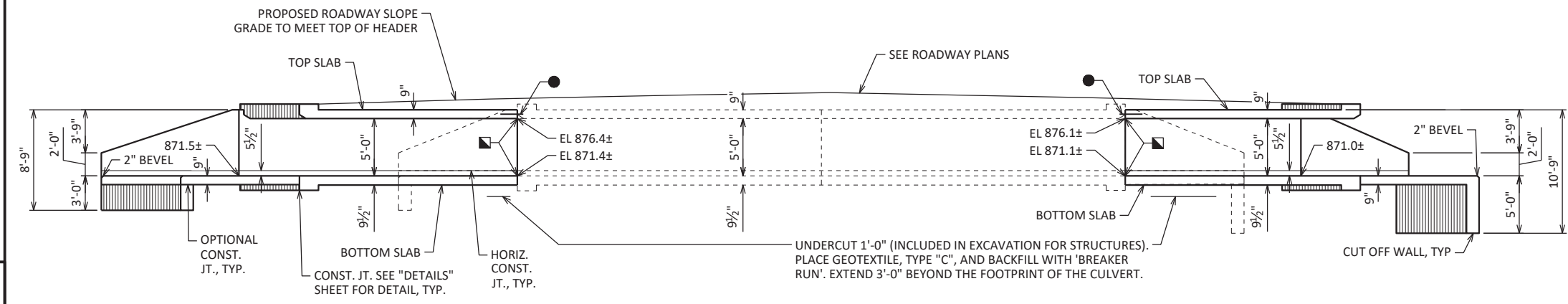
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 1/2																		2.25
2M	18								1 1/2																		2.25
3																											
4																											
5																											

STANDARD SIGN W5-54	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 11/3/10	PLATE NO. W5-54.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 106	E
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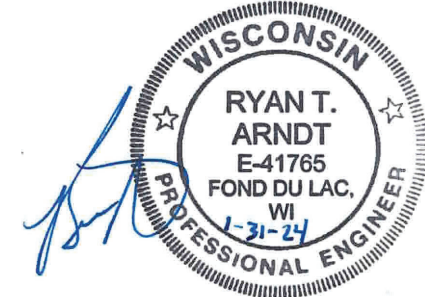
PLAN



ELEVATION

LIST OF DRAWINGS:

1. GENERAL PLAN
2. QUANTITIES AND CROSS SECTION
3. SUBSURFACE EXPLORATION
4. BOX CULVERT DETAILS
5. SLAB REINFORCEMENT DETAILS
6. SLAB REINFORCEMENT DETAILS
7. APRON DETAILS
8. WINGWALL DETAILS
9. BAR REINFORCEMENT DETAILS



STRUCTURE DESIGN CONTACTS:
 CONSULTANT CONTACT: ANDREW KLEMP 920-924-5720
 BRIDGE OFFICE CONTACT: AARON BONK 608-261-0261

NO.	DATE	REVISION	BY

GREMMER & ASSOCIATES, INC.
 CONSULTING ENGINEERS
 Stevens Point • Fond du Lac

STRUCTURE B-66-95
 CTH P OVER CEDAR CREEK

COUNTY	WASHINGTON	VILLAGE	JACKSON
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DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	RTA	DESIGNED CK'D	ALK	DRAWN BY	AJS	PLANS CK'D	ALK
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GENERAL PLAN SHEET 1 OF 9
107

DESIGN DATA

LIVE LOAD:
 DESIGN LOADING: HL-93
 INVENTORY RATING: RF = 1.04
 OPERATING RATING: RF = 1.34
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

EARTHLOAD:
 DESIGNED FOR 1.0 FT. OF FILL.

MATERIAL PROPERTIES:
 CONCRETE MASONRY $f_c = 3,500$ PSI
 BAR STEEL REINFORCEMENT $f_y = 60,000$ PSI

DESIGN DATA

LIVE LOAD (EXISTING):
 TAKEN FROM HSI, 11/01/2023
 INVENTORY RATING: HS26
 OPERATING RATING: HS43
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

HYDRAULIC DATA

100-YEAR FREQUENCY:
 $Q_{100} = 1253$ C.F.S.
 $V_{100} = 8.4$ F.P.S.
 $HW_{100} = 858.77$ EL.
 WATERWAY AREA = 105 SQ. FT.
 DRAINAGE AREA = 3.5 SQ. MI.
 ROADWAY OVERTOPPING = 25 YRS
 SCOUR CRITICAL CODE = 8

2-YEAR FREQUENCY:
 $Q_2 = 352$ C.F.S.
 $V_2 = 7.0$ F.P.S.
 $HW_2 = 856.24$ EL.

TRAFFIC DATA

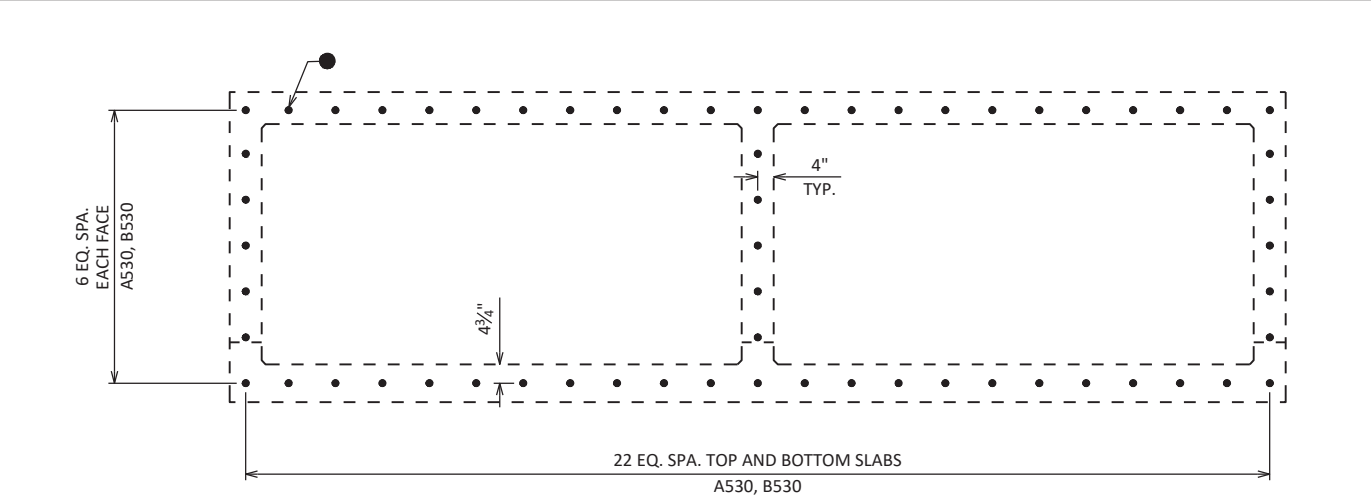
CTH P:
 ADT = 7,400 (2044)
 R.D.S. = 50 MPH

LEGEND

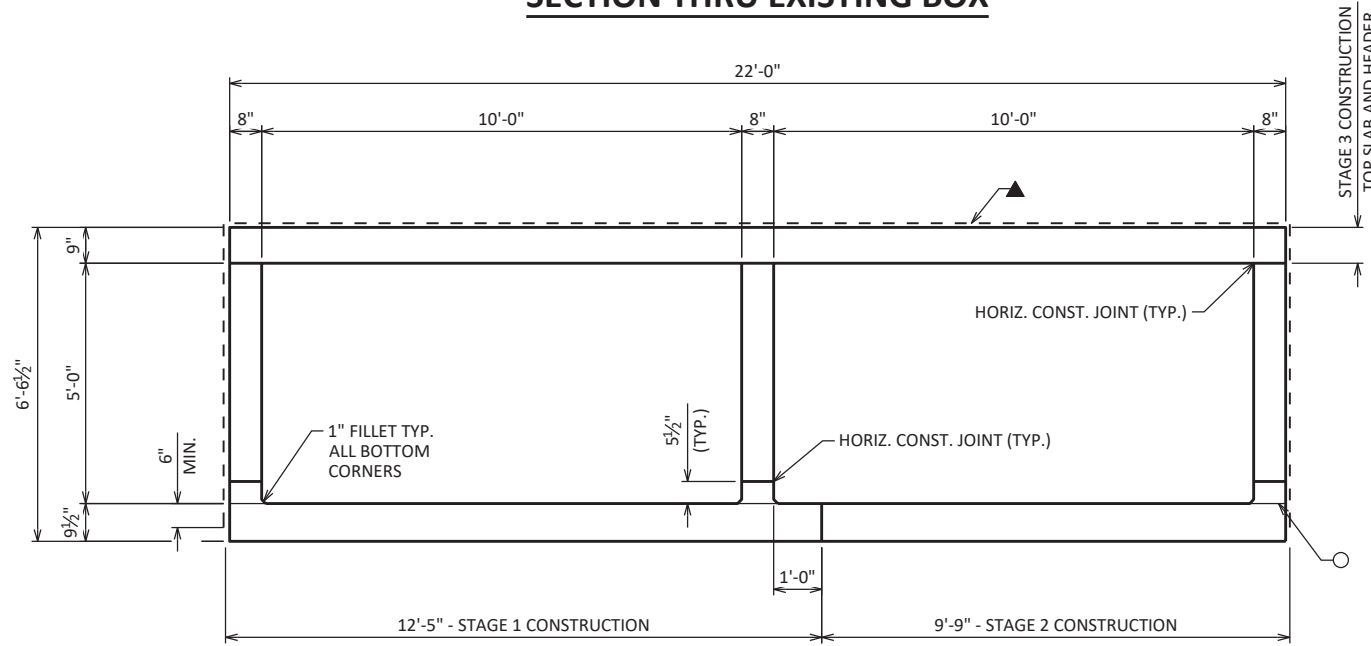
- INDICATES WING NUMBER
- * BUILD APRON AND END OF BOX LEVEL
- ☒ REMOVE EXISTING APRON AND WINGS.
- INSIDE WALLS AND SLABS TO MATCH EXISTING (TYP.)
- ⚡ SEE CORNER DETAILS ON "APRON DETAILS" SHEET
- ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0 1/2" INTO SOUND CONCRETE AND SPACE AT MAX 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP & BOTTOM SLAB)
- VERT. CONST. JOINT (TYP.)
- ☆ OPTIMAL. LONGIT. CONST. JOINT
- △ EXIST. BARREL TO REMAIN IN PLACE
- NAME PLATE LOCATION (SEE "WINGWALL DETAILS" SHEET)

8

8



SECTION THRU EXISTING BOX



SECTION THRU BOX CULVERT
LOOKING EAST

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	TOTAL
203.0220	REMOVING STRUCTURE B-66-95	EACH	1
206.2001	EXCAVATION FOR STRUCTURES CULVERTS B-66-95	EACH	1
206.5001	COFFERDAMS B-66-95	EACH	4
210.2500	BACKFILL STRUCTURE TYPE B	TON	420
311.0110	BREAKER RUN	TON	114
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	122
504.0100	CONCRETE MASONRY CULVERTS	CY	95
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	20,290
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	780
505.0904	BAR COUPLERS NO. 4	EACH	40
505.0906	BAR COUPLERS NO. 6	EACH	47
505.0909	BAR COUPLERS NO. 9	EACH	46
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	17
606.0300	RIPRAP HEAVY	CY	21
645.0105	GEOTEXTILE TYPE C	SY	196
645.0120	GEOTEXTILE TYPE HR	SY	31
NON-BID ITEMS			
----	FILLER	SIZE	3/4"

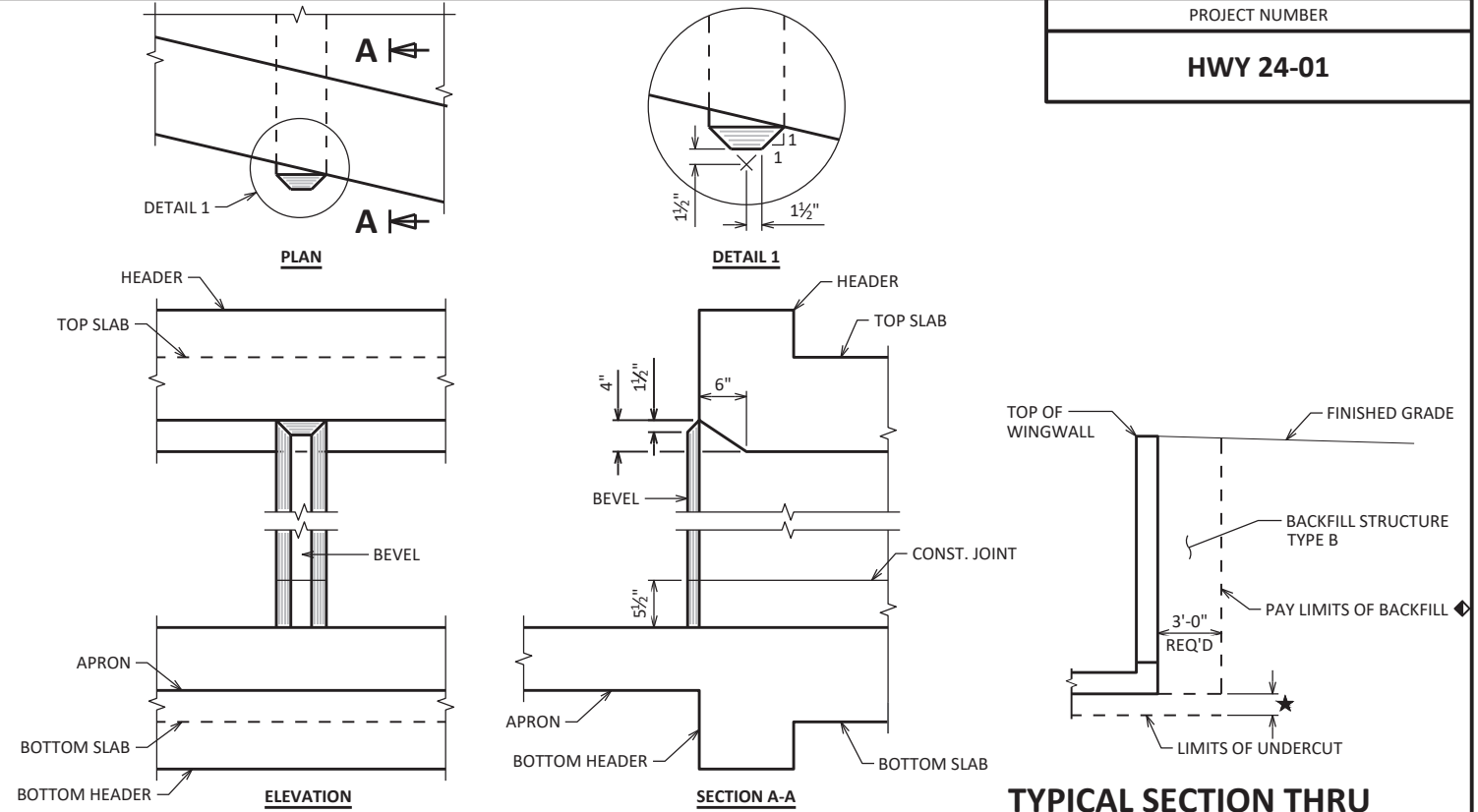
GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- BEVEL EXPOSED EDGES OF CONCRETE 3/8" UNLESS OTHERWISE NOTED.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS B-66-95" SHALL BE THE EXISTING GROUNDLINE.
- ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

- PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1 INCH DEEP SAWCUT, UNLESS SPECIFIED OTHERWISE.
- UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.
- THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR.

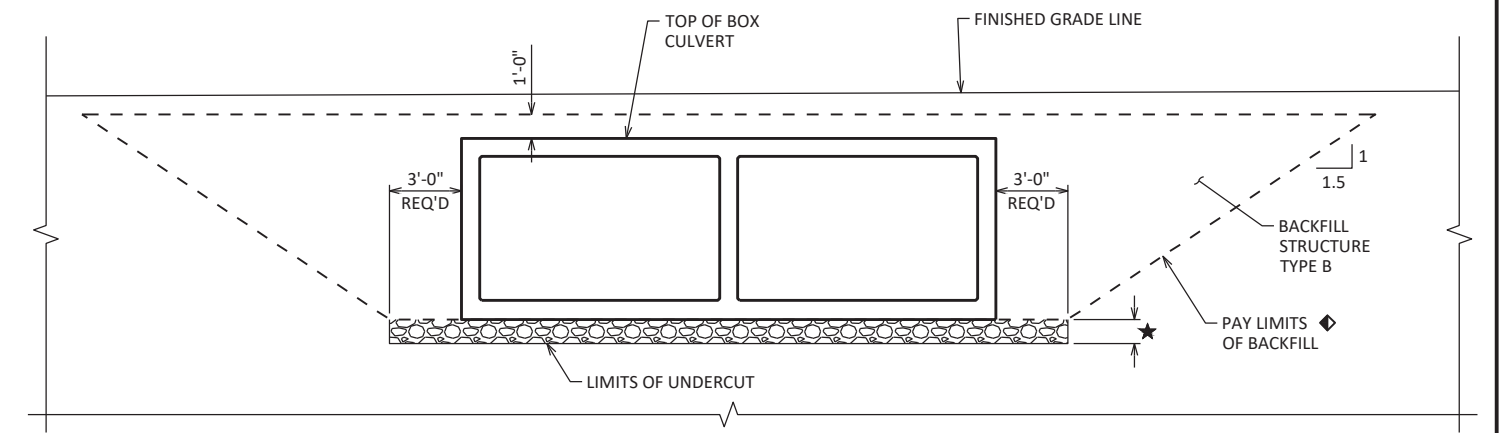
LEGEND

- ▲ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.
- ★ UNDERCUT 1'-0". EXCAVATION FOR UNDERCUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".
- ◆ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ALTERNATE CONST. JT. OMIT 1" FILLET IF OPTIONAL CONST. JT. IS USED.
- ADHESIVE ANCHORS NO. 5 BARS, EMBED 1'-0 1/2" INTO SOUND CONCRETE AND SPACE AT MAX 1'-0" CENTERS. (TYP. IN ALL WALLS AND TOP & BOTTOM SLAB)



INLET NOSE DETAILS

TYPICAL SECTION THRU BOX CULVERT WINGWALL



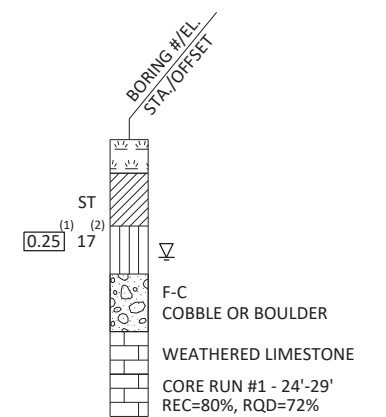
TYPICAL SECTION THRU BOX CULVERT

NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D ALK
QUANTITIES AND CROSS SECTION		SHEET 2 108	

MATERIAL SYMBOLS

	ASPHALT		TOPSOIL		PEAT
	CONCRETE		FILL		GRAVEL
	SAND		CLAY		SILT
	BOULDERS OR COBBLES		LIMESTONE		BEDROCK (UNKNOWN)
	SHALE		SANDSTONE		IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

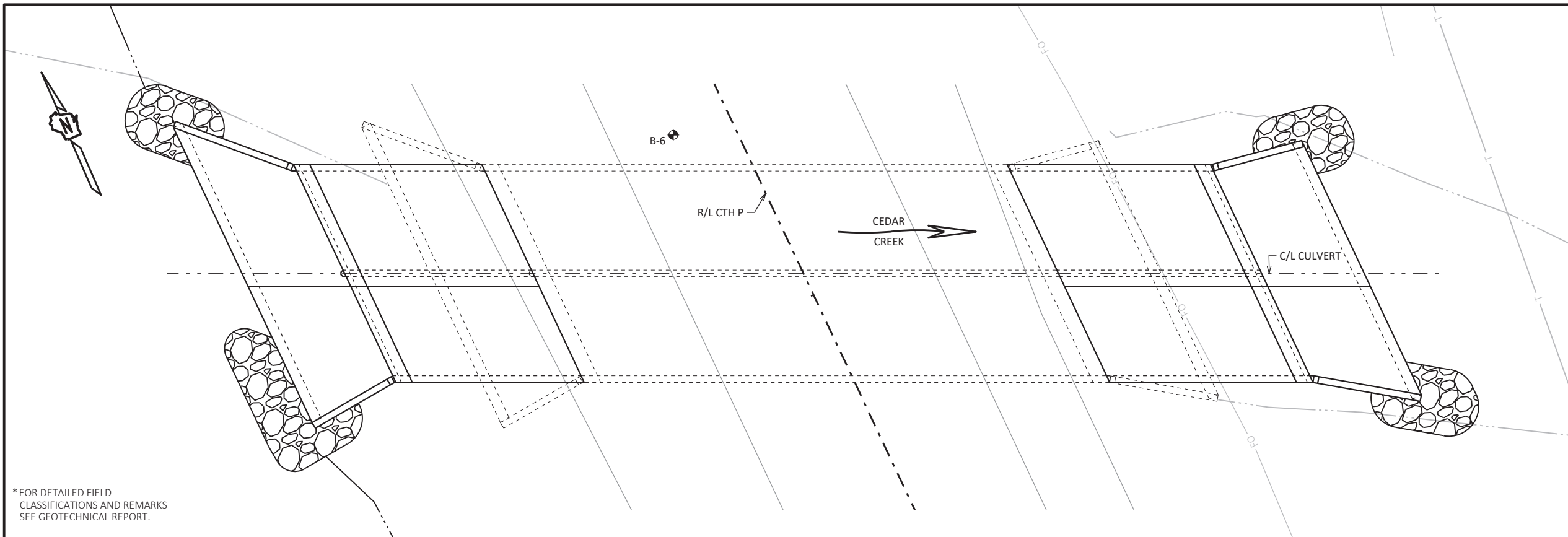
NO.	DATE	REVISION	BY

STRUCTURE B-66-95

DRAWN BY	AJS	PLANS CK'D	ALK
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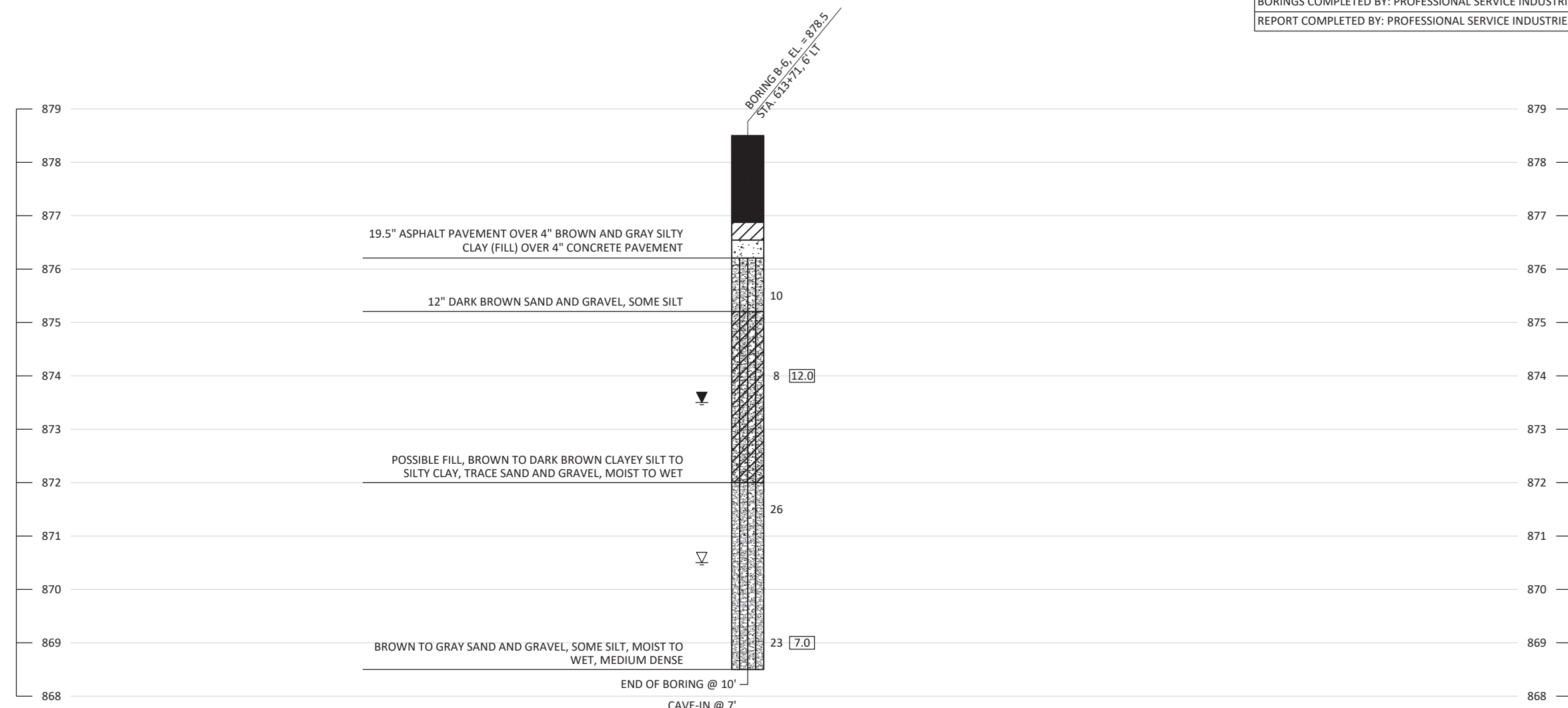
SUBSURFACE EXPLORATION	SHEET 3 109
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SCALE = 1:20



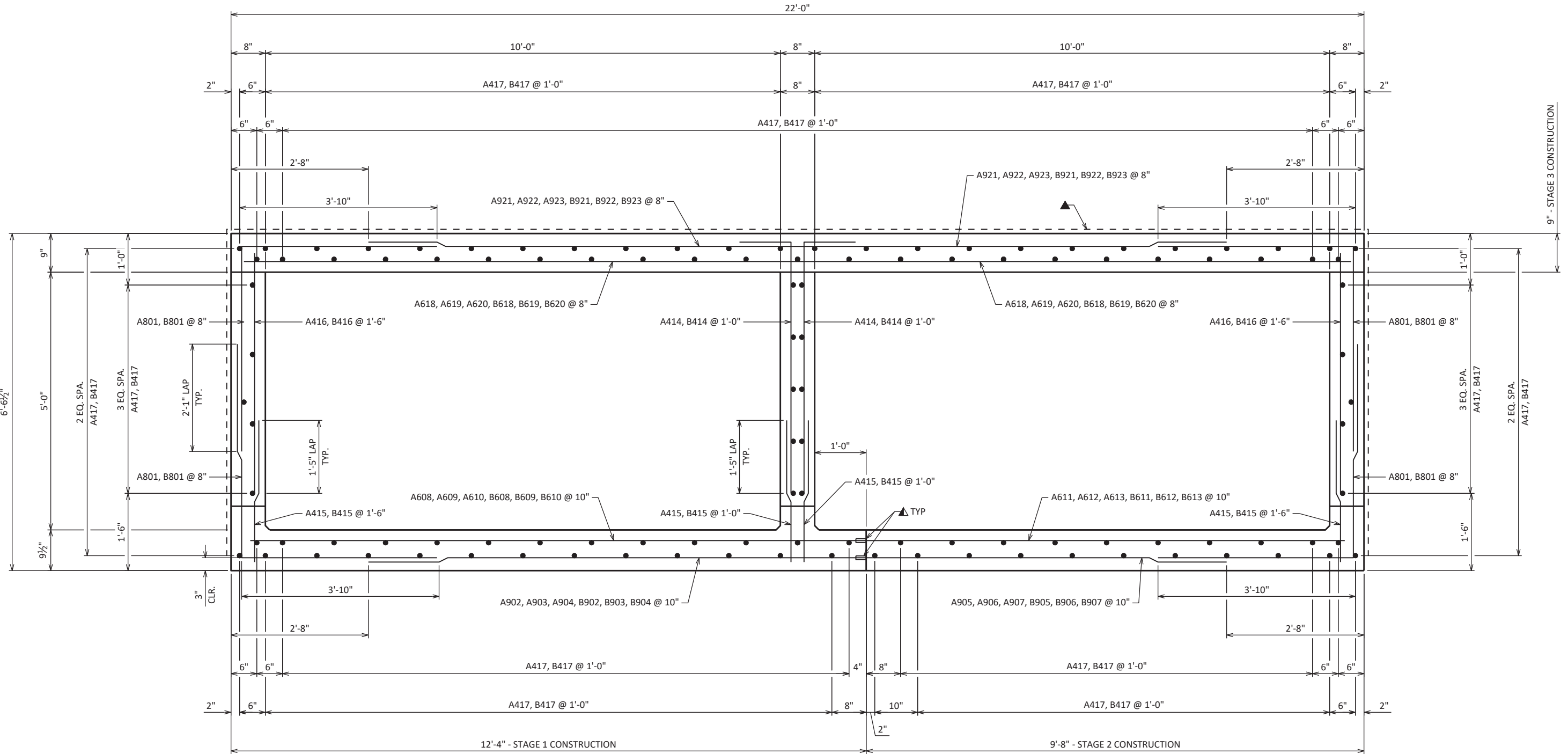
* FOR DETAILED FIELD CLASSIFICATIONS AND REMARKS SEE GEOTECHNICAL REPORT.

BORING #	DATE COMPLETED
B-6	12/17/2001
BORINGS COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.	
REPORT COMPLETED BY: PROFESSIONAL SERVICE INDUSTRIES, INC.	



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8

8

LEGEND

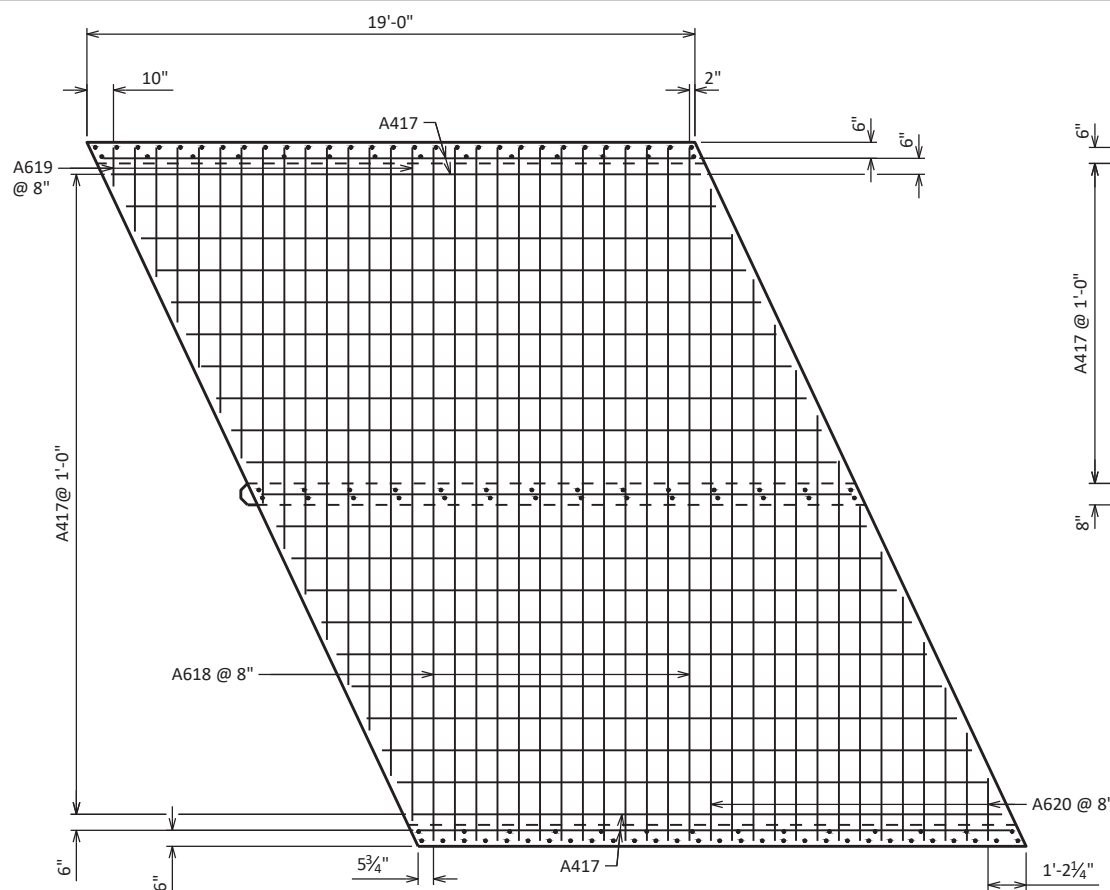
- ▲ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING UP WALLS AND ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.
- ▲ PROVIDE THREADED BAR COUPLERS AT CONSTRUCTION JOINT. SEE SHEET 8 FOR DETAILS.

SECTION THRU BOX CULVERT

LOOKING EAST

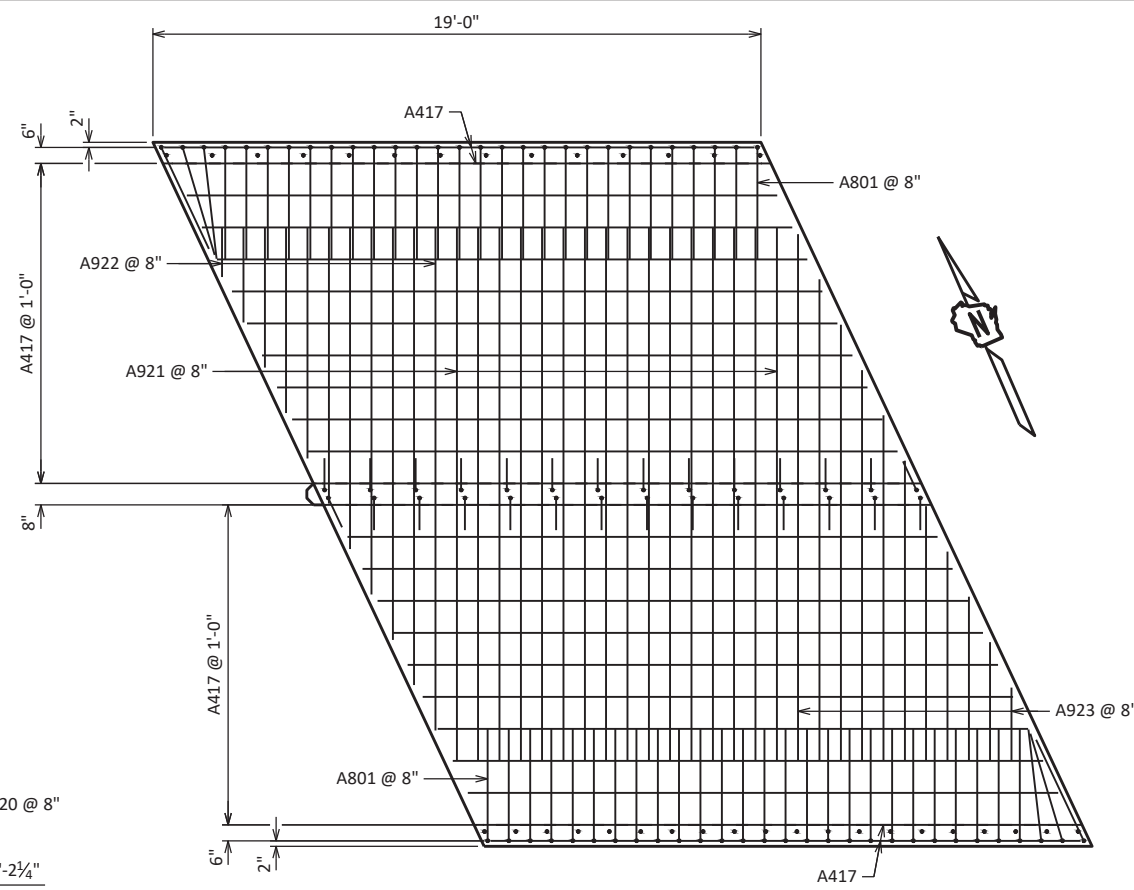
NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D
BY		ALK	ALK
BOX CULVERT DETAILS			SHEET 4 110

SCALE = 2.00



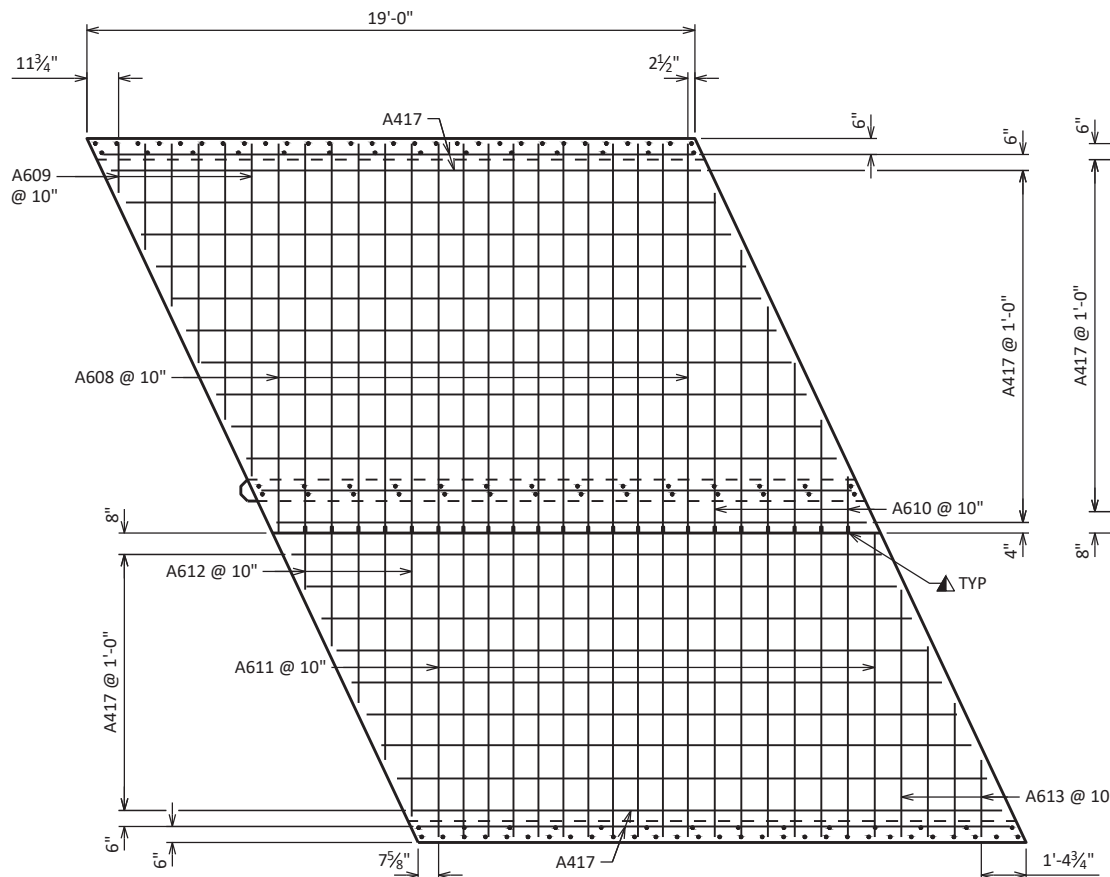
TOP SLAB INSIDE STEEL

HEADER NOT SHOWN FOR CLARITY
WEST EXTENSION



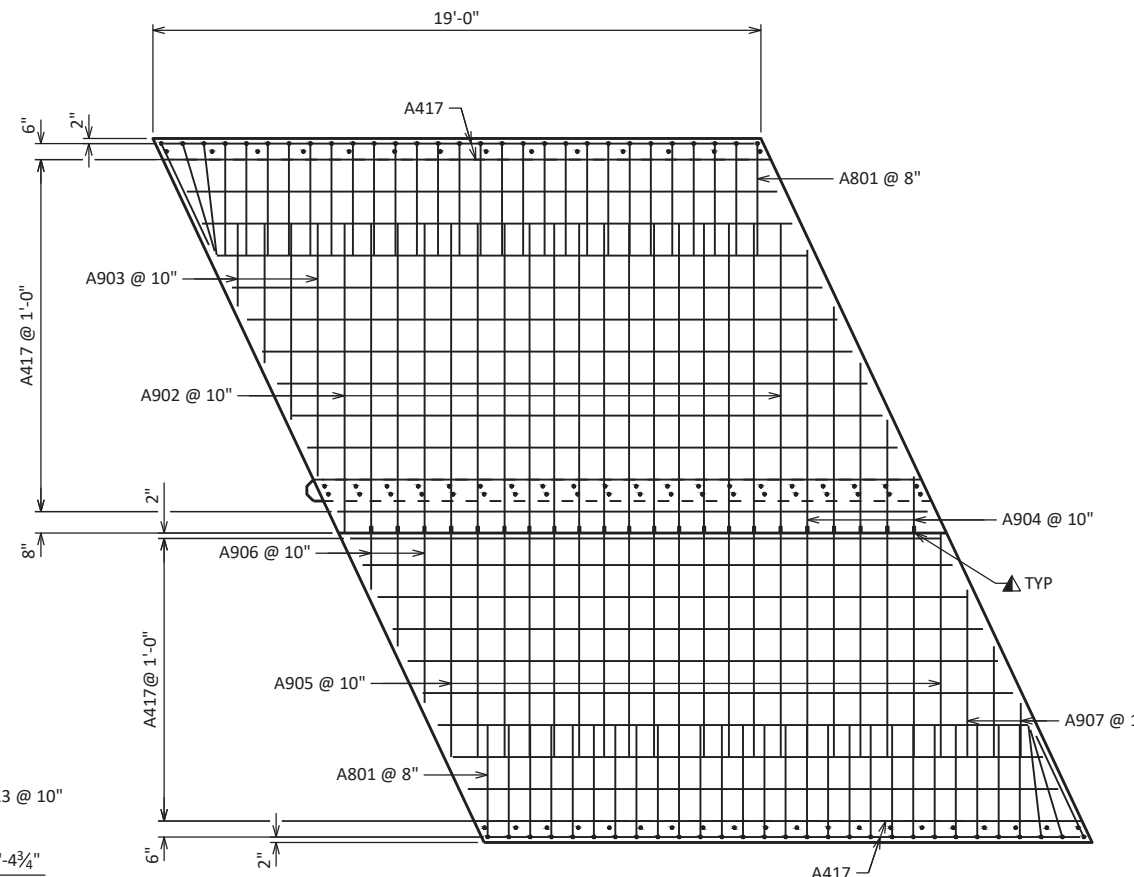
TOP SLAB OUTSIDE STEEL

HEADER NOT SHOWN FOR CLARITY
WEST EXTENSION



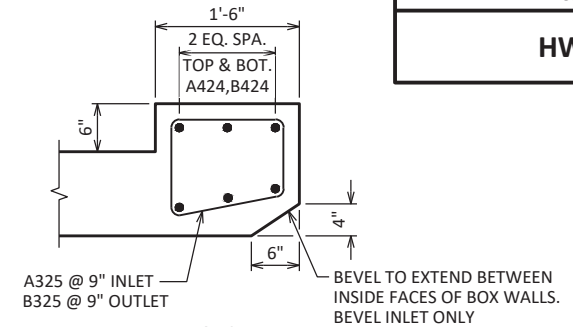
BOTTOM SLAB INSIDE STEEL

WEST EXTENSION

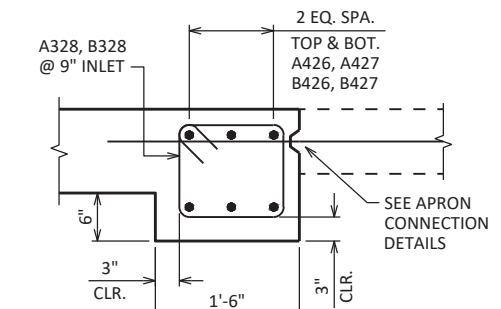


BOTTOM SLAB OUTSIDE STEEL

WEST EXTENSION

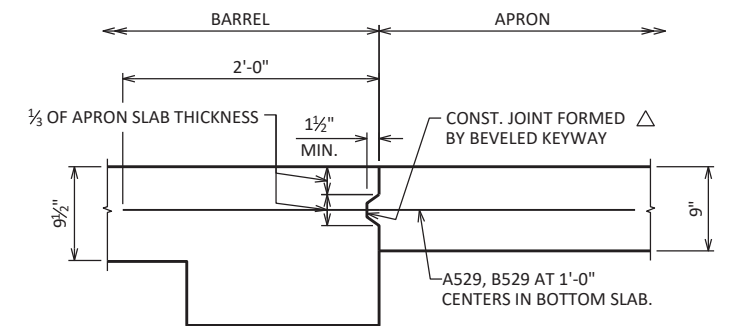


TOP SLAB



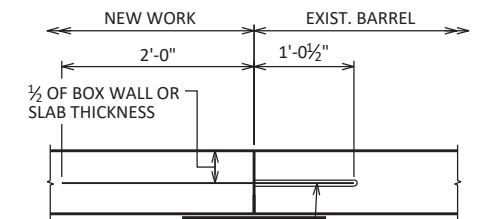
BOTTOM SLAB

SECTION THRU HEADER



APRON CONNECTION DETAIL

△ IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING. #5 BARS 4'-0" AT 1'-0" CENTERS REQUIRED.



18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL JOINTS UP THE WALL AND ACROSS TOP SLAB.
A530, B530 AT 1'-0" SPACING ADHESIVE ANCHOR #5 BAR. EMBED 1'-0 1/2" INTO SOUND CONCRETE. TYP. IN ALL WALLS AND TOP & BOTTOM SLAB.

VERTICAL CONSTRUCTION JOINT

TYPICAL WALLS AND TOP & BOTTOM SLAB

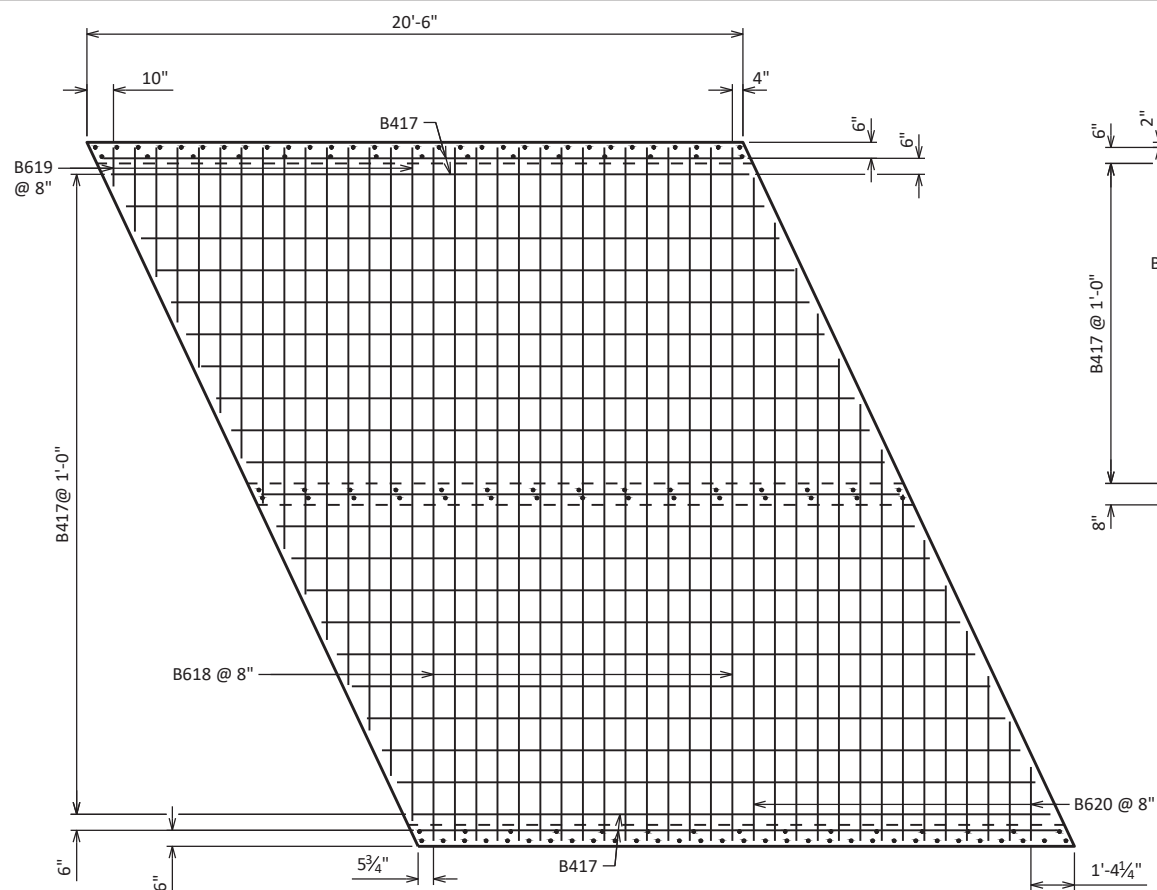
NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D ALK
SLAB REINFORCEMENT DETAILS		SHEET 5 111	

LEGEND

▲ PROVIDE THREADED BAR COUPLERS AT CONSTRUCTION JOINT. SEE SHEET 8 FOR DETAILS.

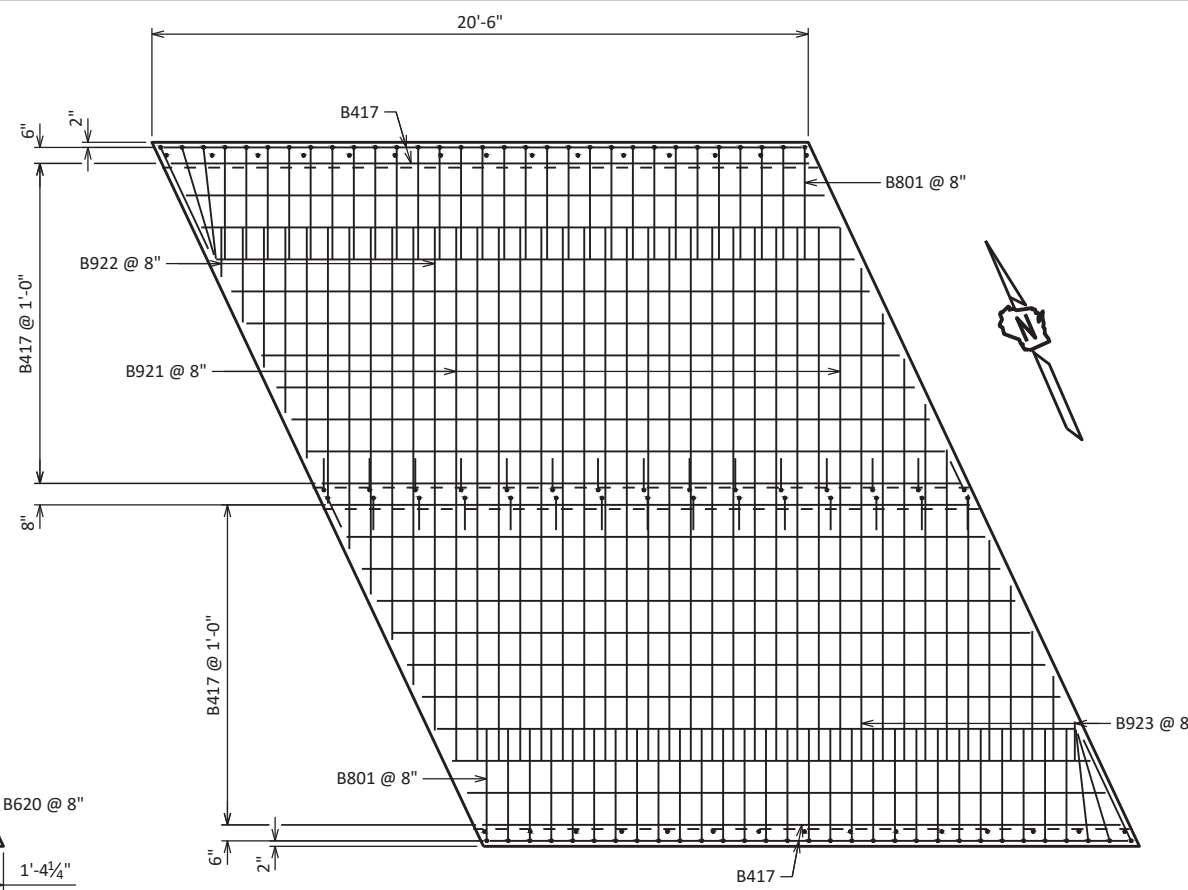
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8



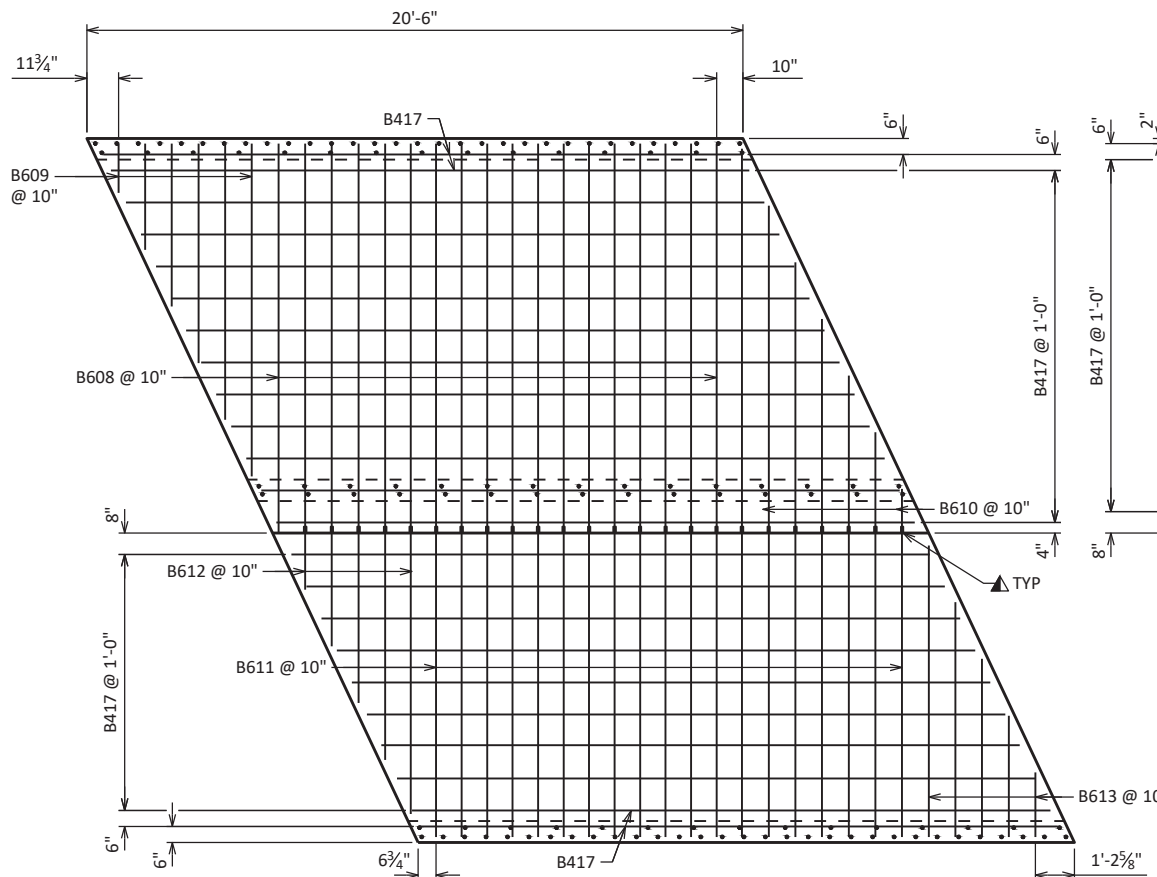
TOP SLAB INSIDE STEEL

HEADER NOT SHOWN FOR CLARITY
EAST EXTENSION



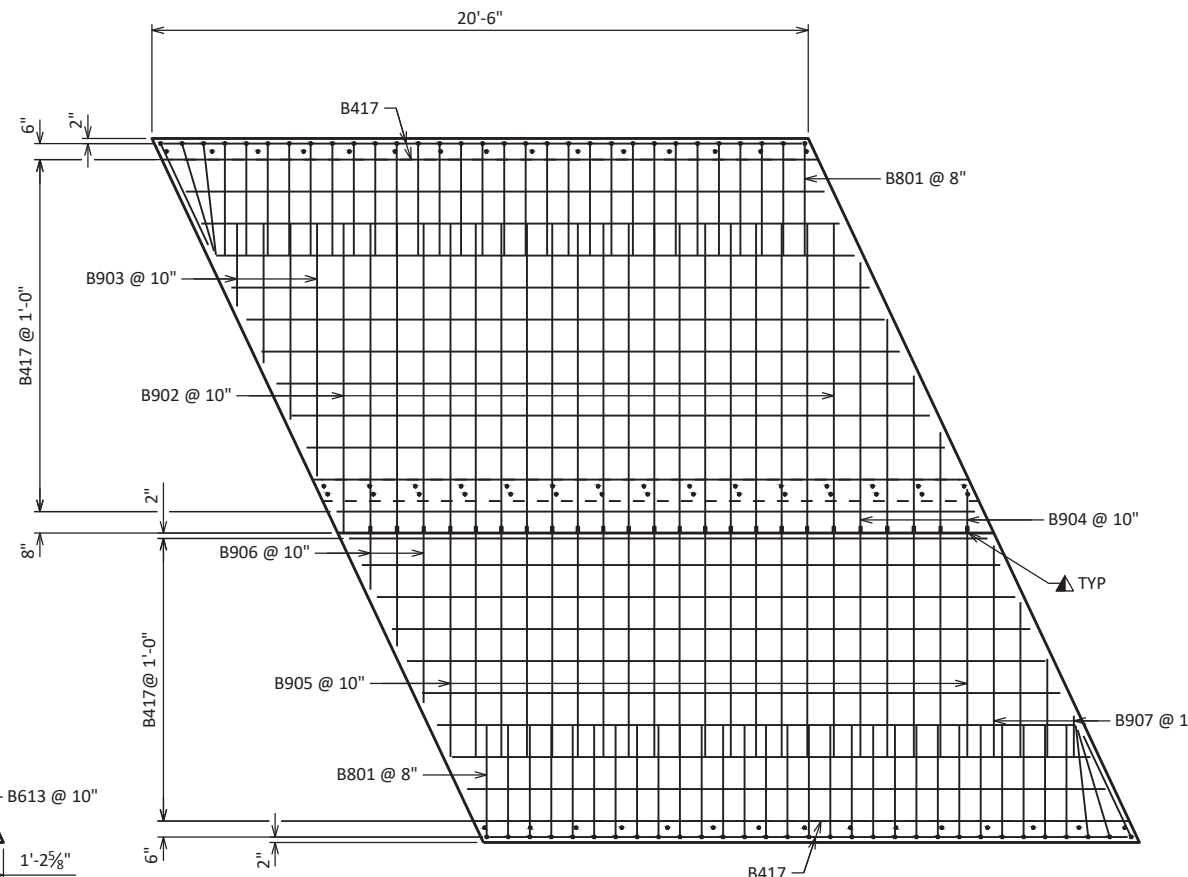
TOP SLAB OUTSIDE STEEL

HEADER NOT SHOWN FOR CLARITY
EAST EXTENSION



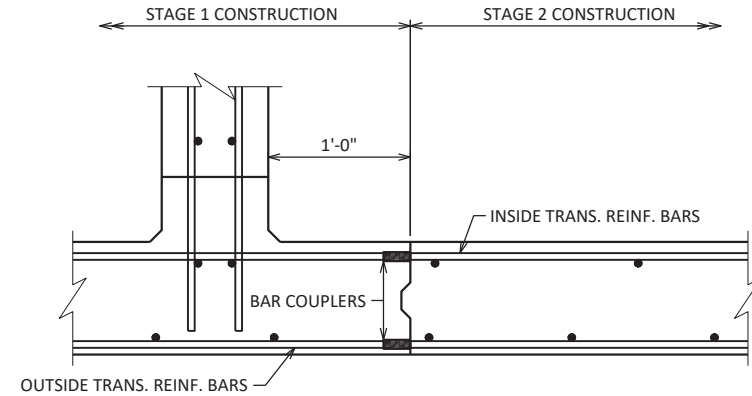
BOTTOM SLAB INSIDE STEEL

EAST EXTENSION SIMILAR



BOTTOM SLAB OUTSIDE STEEL

EAST EXTENSION SIMILAR

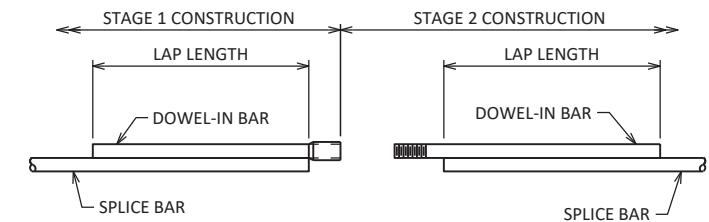


SECTION THRU BOTTOM SLAB

ONE-PIECE THREADED COUPLER SHOWN

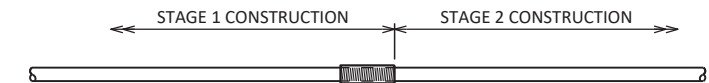
NOTES

FOR DOWEL BAR COUPLERS, ALL
DOWEL BARS SHALL BE LAPPED AND
TIED TO THE REINFORCEMENT BARS.



DOWEL BAR COUPLER

STAGE 2 DOWEL SCREWS INTO
COUPLER PLACED IN STAGE 1



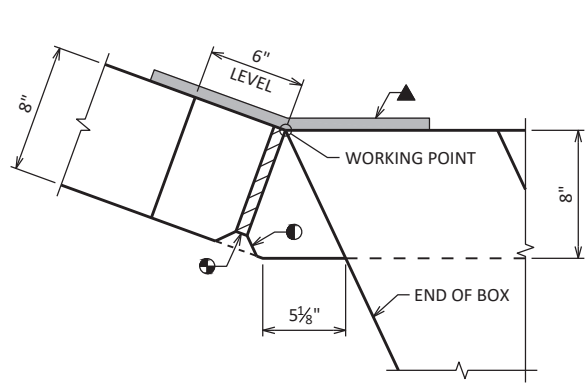
ONE-PIECE THREADED COUPLER

BAR COUPLER ALTERNATIVES

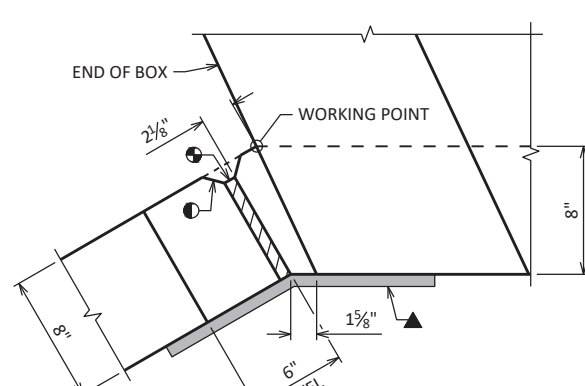
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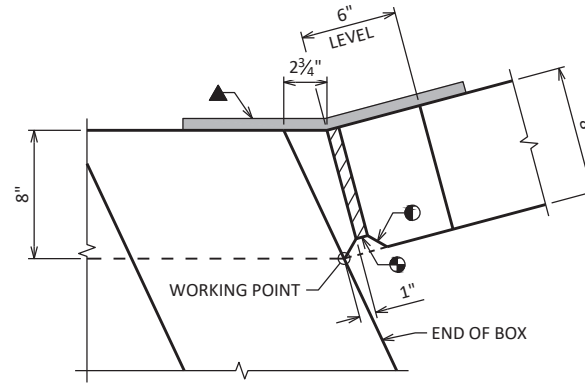
NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D ALK
SLAB REINFORCEMENT DETAILS		SHEET 6/12	



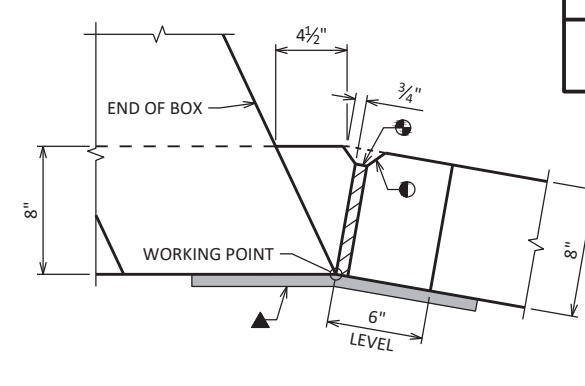
CORNER 1



CORNER 2



CORNER 3

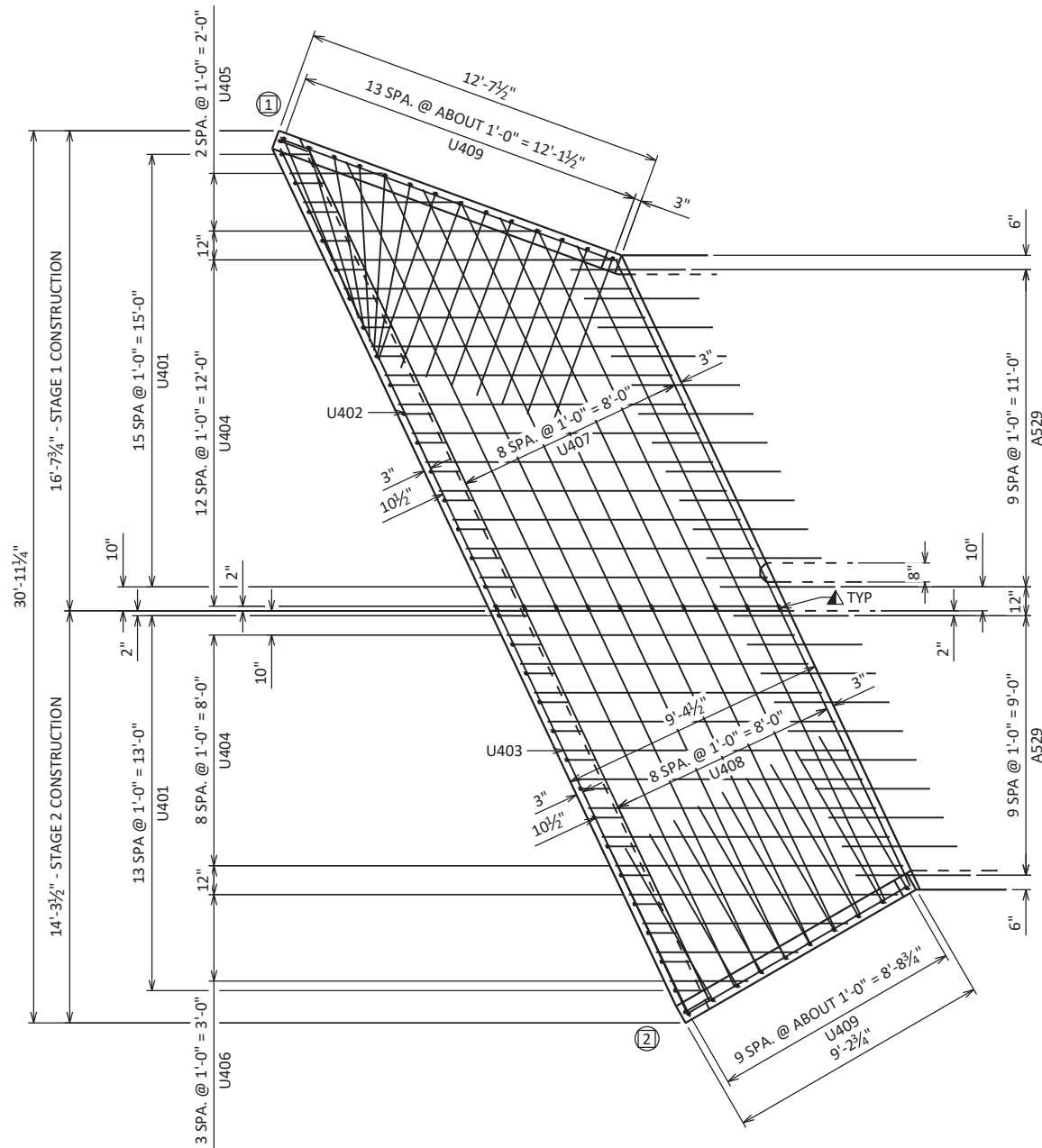


CORNER 4

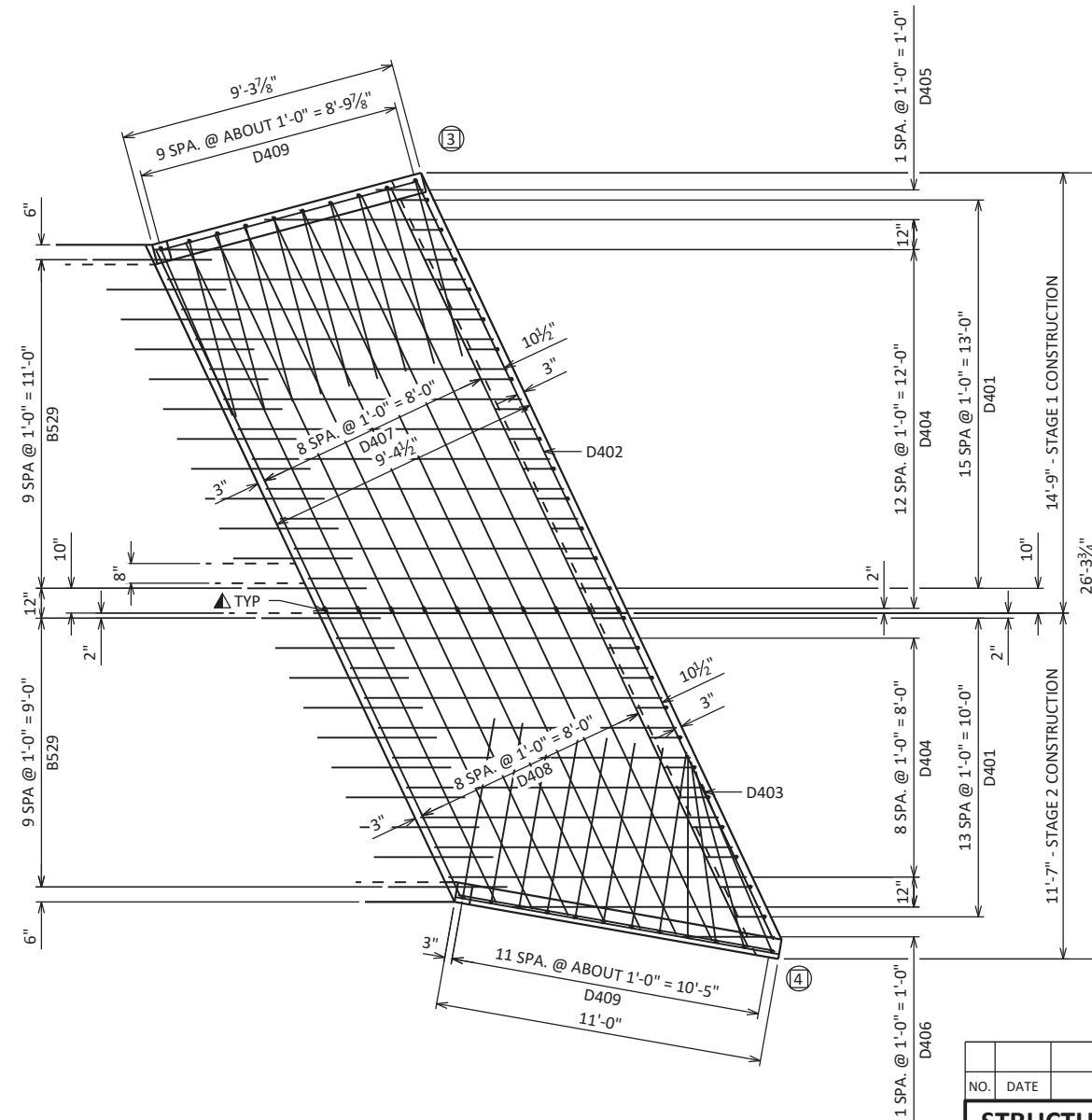
CORNER DETAILS

LEGEND

- 1" BEVEL TYPICAL
- 3/4" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.
- ▲ 18" MIN. RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL. (FLUSH WITH FACE OF CONCRETE)



INLET APRON PLAN



OUTLET APRON PLAN

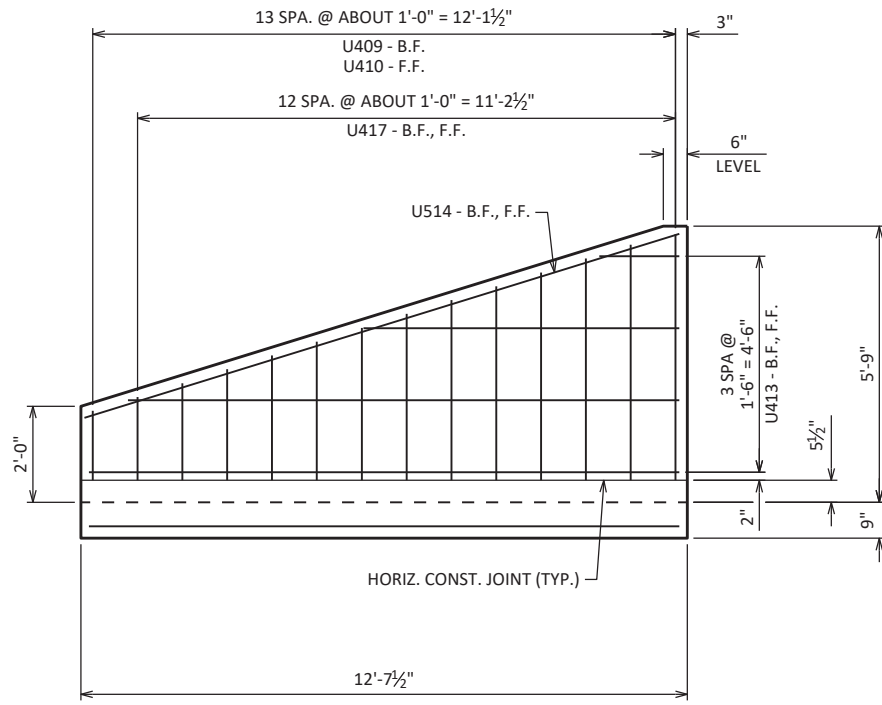
NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D ALK
APRON DETAILS		SHEET 7/113	

SCALE = 6.00

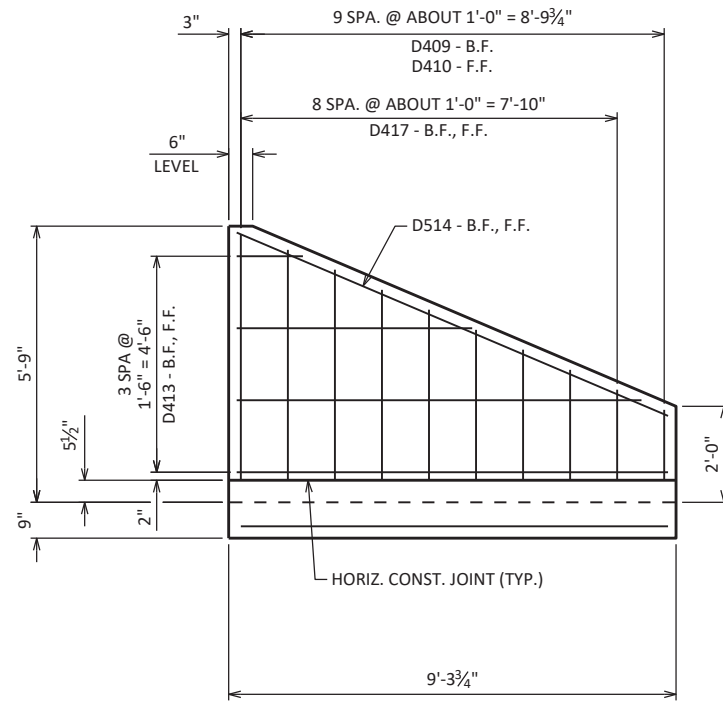
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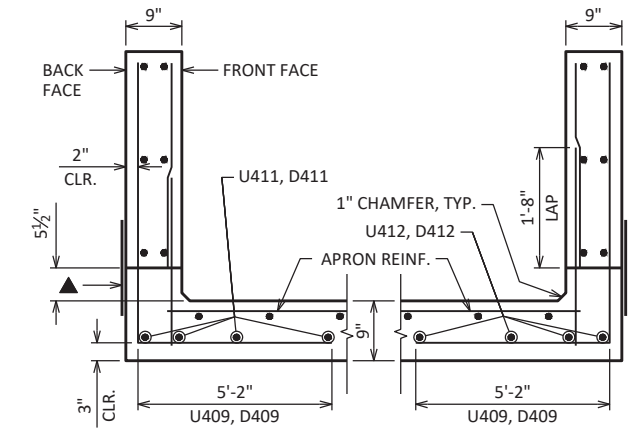
▲ 18" RUBBERIZED MEMBRANE WATERPROOFING, PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE LENGTH OF WING, TYP.



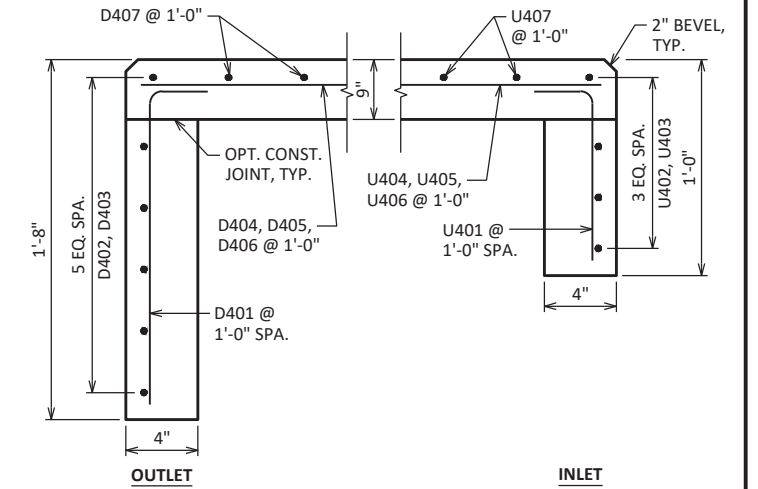
SECTION THRU WING 1



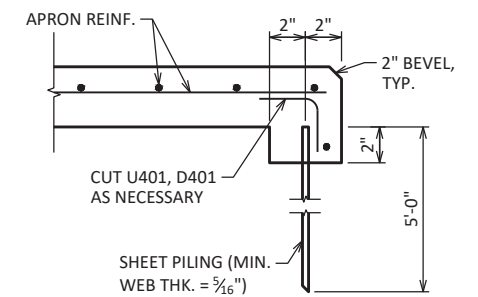
SECTION THRU WING 3



SECTION THRU WINGS

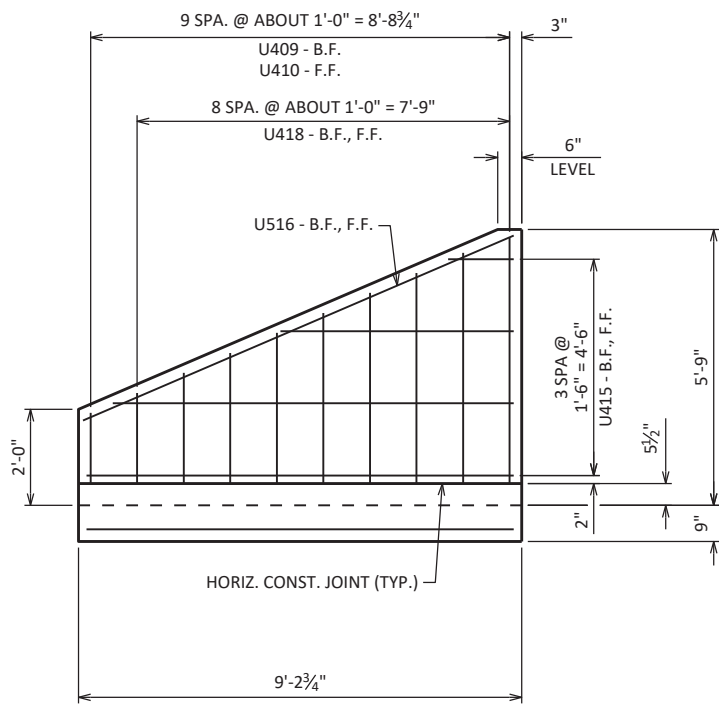


CUT-OFF WALLS

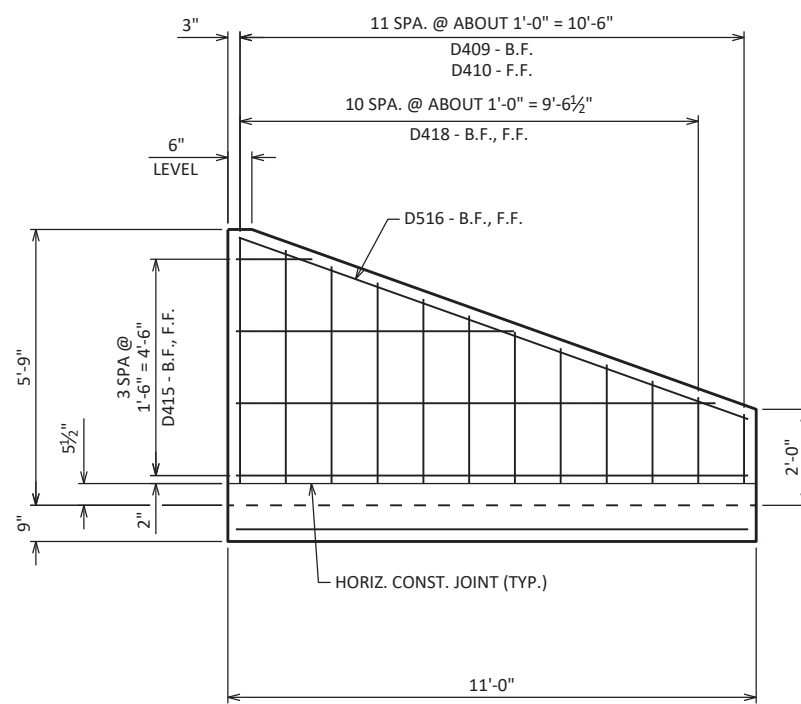


ALTERNATE CUT-OFF WALLS

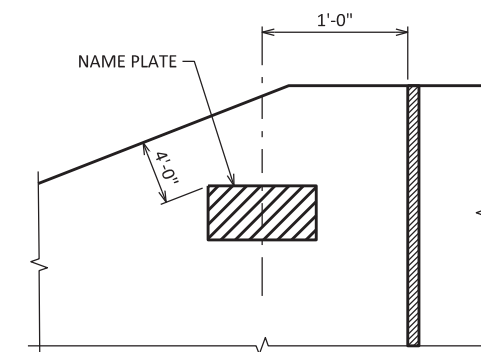
THE ABOVE ALTERNATIVE MAY BE USED IN LIEU OF CAST-IN-PLACE CONCRETE CUT-OFF WALLS. PAYMENT WILL BE BASED ON THE CONCRETE CUT-OFF WALLS.



SECTION THRU WING 2



SECTION THRU WING 4



NAME PLATE DETAIL

WING 4

NO.	DATE	REVISION	BY
STRUCTURE B-66-95			
DRAWN BY		AJS	PLANS CK'D ALK
WINGWALL DETAILS			SHEET 8/14

SCALE = 4:00

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DIVISION 1 - CTH P

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)				
		CUT	FILL	MARSH EXC	CUT	FILL	MARSH EXC	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	REDUCED MARSH IN FILL	MASS ORDINATE
NOTE 1	NOTE 3	NOTE 4	NOTE 6	NOTE 8								
577+00	0.00	168.27	2.75	0.00	0	0	0	0	0	0	0	0
578+00	100.00	211.90	0.00	0.00	704	5	0	704	6	0	0	698
579+00	100.00	199.88	0.00	0.00	763	0	0	1,467	6	0	0	1,461
580+00	100.00	203.98	0.00	0.00	748	0	0	2,215	6	0	0	2,209
581+00	100.00	209.05	0.00	0.00	765	0	0	2,980	6	0	0	2,974
582+00	100.00	177.35	0.00	0.00	716	0	0	3,696	6	0	0	3,690
583+00	100.00	162.91	0.00	0.00	630	0	0	4,326	6	0	0	4,320
584+00	100.00	126.18	0.00	0.00	535	0	0	4,861	6	0	0	4,855
585+00	100.00	180.27	0.00	0.00	568	0	0	5,429	6	0	0	5,423
586+00	100.00	158.18	0.00	0.00	627	0	0	6,056	6	0	0	6,050
587+00	100.00	148.16	0.00	0.00	567	0	0	6,623	6	0	0	6,617
588+00	100.00	101.00	0.02	0.00	461	0	0	7,084	6	0	0	7,078
589+00	100.00	88.83	9.24	0.00	352	17	0	7,436	28	0	0	7,409
590+00	100.00	95.83	13.35	0.00	342	42	0	7,778	80	0	0	7,698
591+00	100.00	102.40	1.71	0.00	367	28	0	8,145	115	0	0	8,030
592+00	100.00	119.12	0.00	0.00	410	3	0	8,555	119	0	0	8,436
593+00	100.00	116.40	0.00	0.00	436	0	0	8,991	119	0	0	8,872
594+00	100.00	66.44	0.00	0.00	339	0	0	9,330	119	0	0	9,211
595+00	100.00	100.09	0.27	0.00	308	1	0	9,638	120	0	0	9,518
596+00	100.00	113.22	0.00	0.00	395	1	0	10,033	121	0	0	9,912
597+00	100.00	93.09	0.00	0.00	382	0	0	10,415	121	0	0	10,294
598+00	100.00	88.37	1.74	0.00	336	3	0	10,751	125	0	0	10,626
599+00	100.00	78.66	7.18	0.00	309	17	0	11,060	146	0	0	10,914
600+00	100.00	82.77	7.97	0.00	299	28	0	11,359	181	0	0	11,178
601+00	100.00	157.51	0.00	0.00	445	15	0	11,804	200	0	0	11,604
602+00	100.00	119.58	1.64	0.00	513	3	0	12,317	204	0	0	12,113
603+00	100.00	144.72	0.00	0.00	489	3	0	12,806	208	0	0	12,599
604+00	100.00	144.50	0.00	0.00	536	0	0	13,342	208	0	0	13,135
605+00	100.00	128.79	0.00	0.00	506	0	0	13,848	208	0	0	13,641
606+00	100.00	110.24	0.00	0.00	443	0	0	14,291	208	0	0	14,084
607+00	100.00	59.58	17.44	0.00	314	32	0	14,605	248	0	0	14,358
608+00	100.00	50.13	27.66	0.00	203	84	0	14,808	353	0	0	14,456
609+00	100.00	49.08	34.88	0.00	184	116	0	14,992	498	0	0	14,495
610+00	100.00	58.30	48.61	39.04	199	155	72	15,191	637	72	43	14,554
611+00	100.00	63.92	38.60	11.93	226	161	94	15,417	768	166	100	14,649
612+00	100.00	69.58	17.45	11.00	247	104	42	15,664	867	208	125	14,798
613+00	100.00	64.29	17.30	22.07	248	64	61	15,912	901	269	161	15,011
614+00	100.00	62.34	53.36	42.80	235	131	120	16,147	975	389	233	15,173
615+00	100.00	82.56	30.30	21.12	268	155	118	16,415	1,080	507	304	15,335
616+00	100.00	90.95	2.55	0.00	321	61	39	16,736	1,127	546	328	15,609

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH BREAKER RUN
5 - EXPANDED EBS	NOT USED
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	NOT USED
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

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DIVISION 1 - CTH P

STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)				
		CUT	FILL	MARSH EXC	CUT	FILL	MARSH EXC	CUT	EXPANDED FILL	EXPANDED MARSH BACKFILL	REDUCED MARSH IN FILL	MASS ORDINATE
NOTE 1	NOTE 3	NOTE 1	NOTE 4	NOTE 6	NOTE 8							
617+00	100.00	97.53	11.77	0.00	349	27	0	17,085	1,161	546	328	15,925
618+00	100.00	96.33	29.52	0.00	359	76	0	17,444	1,256	546	328	16,189
619+00	100.00	82.43	48.13	0.00	331	144	0	17,775	1,436	546	328	16,340
620+00	100.00	82.20	17.84	0.00	305	122	0	18,080	1,588	546	328	16,492
621+00	100.00	95.52	0.00	0.00	329	33	0	18,409	1,629	546	328	16,780
622+00	100.00	118.59	0.00	0.00	396	0	0	18,805	1,629	546	328	17,176
623+00	100.00	58.70	0.00	0.00	328	0	0	19,133	1,629	546	328	17,504
623+50	50.00	57.37	0.00	0.00	107	0	0	19,240	1,629	546	328	17,611
					19,240	1,631	546					

DIVISION 1 - CTH P NORTHBOUND

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
NOTE 1	NOTE 3	NOTE 1	NOTE 8					
624+00	0.00	46.46	0.00	0	0	0	0	
624+50	50.00	46.09	0.37	86	0	86	86	
624+89.57	39.57	38.14	0.06	62	0	148	148	
				148	0			

DIVISION 1 - CTH P SOUTHBOUND

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
NOTE 1	NOTE 3	NOTE 1	NOTE 8					
623+00	0.00	57.95	0.00	0	0	0	0	
623+50	50.00	64.58	0.00	113	0	113	113	
624+00	50.00	73.79	0.00	128	0	241	241	
624+50	50.00	74.41	0.00	137	0	378	378	
624+89.311	39.31	44.32	0.02	86	0	464	464	
				464	0			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH BREAKER RUN
5 - EXPANDED EBS	NOT USED
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	NOT USED
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

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DIVISION 1 - DAISY DRIVE

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
		NOTE 1	NOTE 3	NOTE 1		NOTE 8		
40+24	0.00	217.47	0.00	0	0	0	0	0
40+50	26.00	80.47	0.00	143	0	143	0	143
41+00	50.00	62.55	9.82	132	9	275	11	264
41+45	45.00	56.88	1.72	100	10	375	24	351
				375	19			

DIVISION 1 - DOUBLE J TRANSPORT DRIVEWAY

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
		NOTE 1	NOTE 3	NOTE 1		NOTE 8		
49+16	0.00	68.24	1.34	0	0	0	0	0
49+50	34.00	82.94	2.41	95	2	95	3	93
49+76	26.00	174.68	0.00	124	1	219	4	215
				219	3			

DIVISION 1 - POPPY ROAD

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
		NOTE 1	NOTE 3	NOTE 1		NOTE 8		
50+24	0.00	180.63	0.00	0	0	0	0	0
50+50	26.00	44.74	19.07	109	9	109	11	98
50+84	34.00	33.98	10.14	50	18	159	34	125
				159	27			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH BREAKER RUN
5 - EXPANDED EBS	NOT USED
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	NOT USED
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

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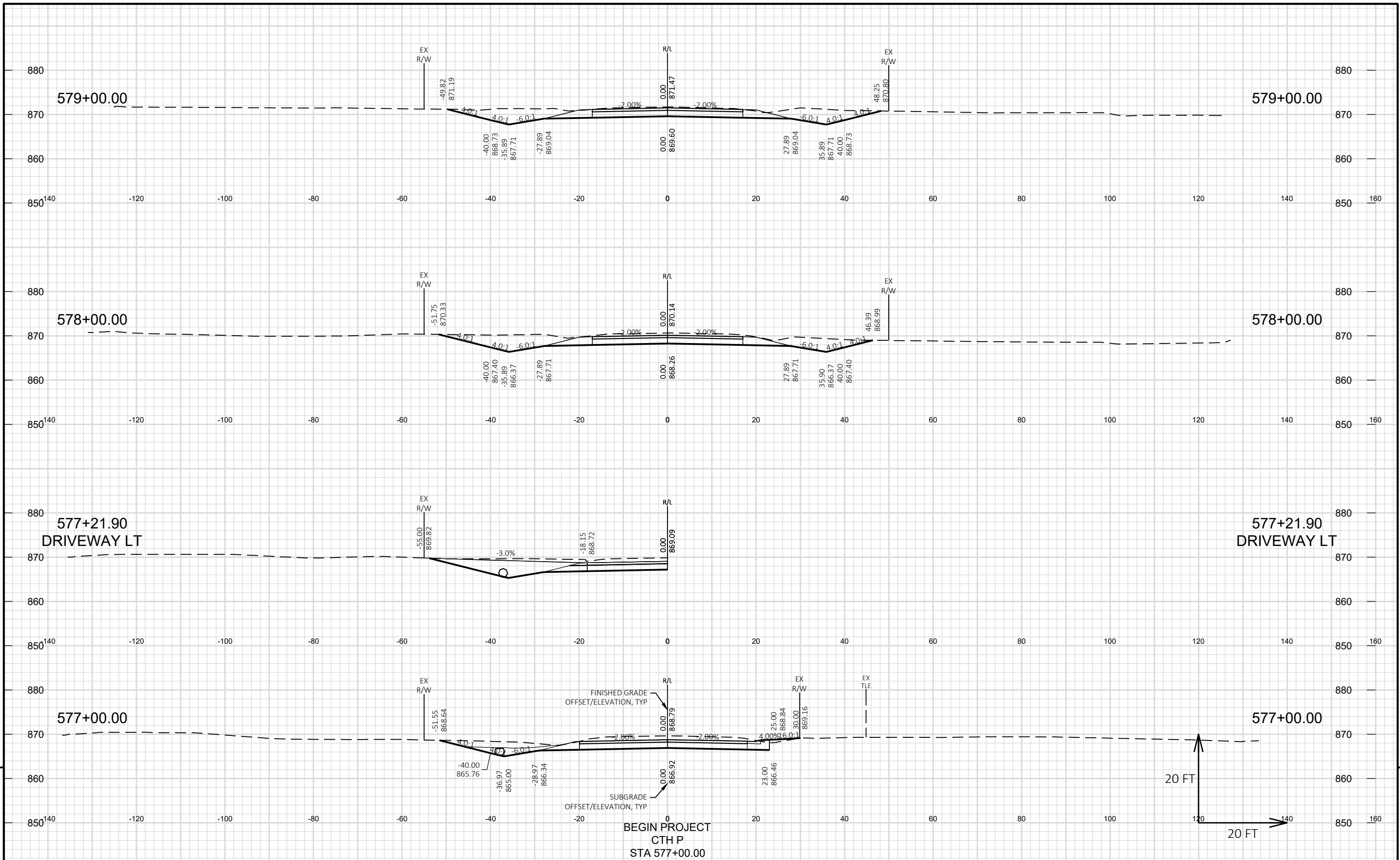
DIVISION 1 - FUTURE DEVELOPMENT DRIVEWAY

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
54+00	0.00	0.00	0.00	0	0	0	0	0
54+50	50.00	43.79	7.51	41	7	41	9	32
54+76	26.00	18.78	47.69	30	27	71	43	29
				71	34			

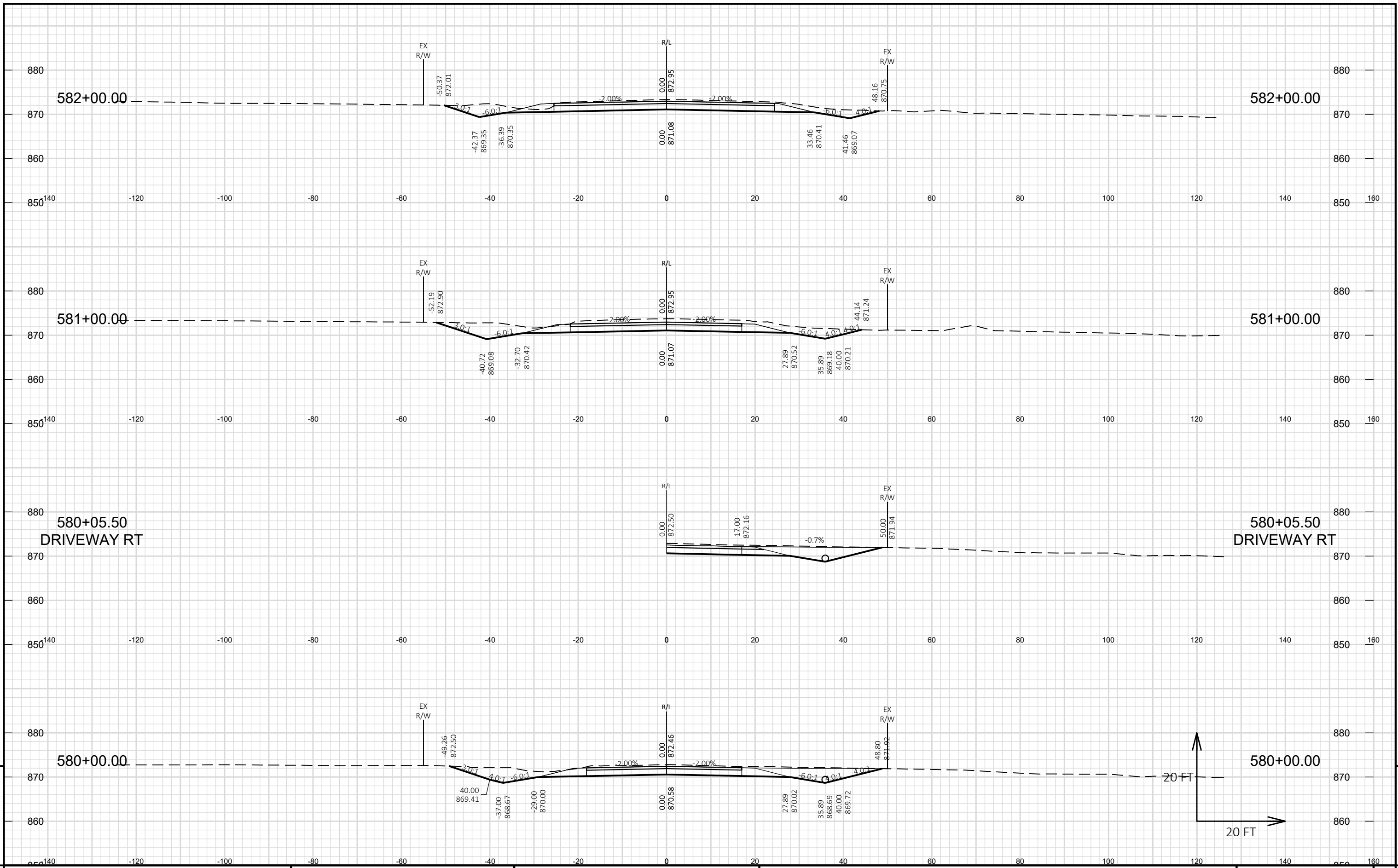
DIVISION 1 - KERRY INGREDIENTS DRIVEWAY

STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
		CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
60+24.022	0.00	144.21	0.00	0	0	0	0	0
60+50	25.98	86.62	5.65	111	3	111	4	107
61+00	50.00	71.42	0.00	146	5	257	10	247
61+20	20.00	68.06	0.50	52	0	309	10	299
				309	8			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
4 - EXPANDED MARSH BACKFILL	WILL BE BACKFILLED WITH BREAKER RUN
5 - EXPANDED EBS	NOT USED
6 - REDUCED MARSH IN FILL	REDUCED MARSH EXCAVATION THAT CAN BE USED IN FILL
7 - REDUCED EBS IN FILL	NOT USED
8 - MASS ORDINATE	IF MARSH AND EBS TO BE BACKFILLED WITH GRANULAR: [CUT - SALVAGED PAVT - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

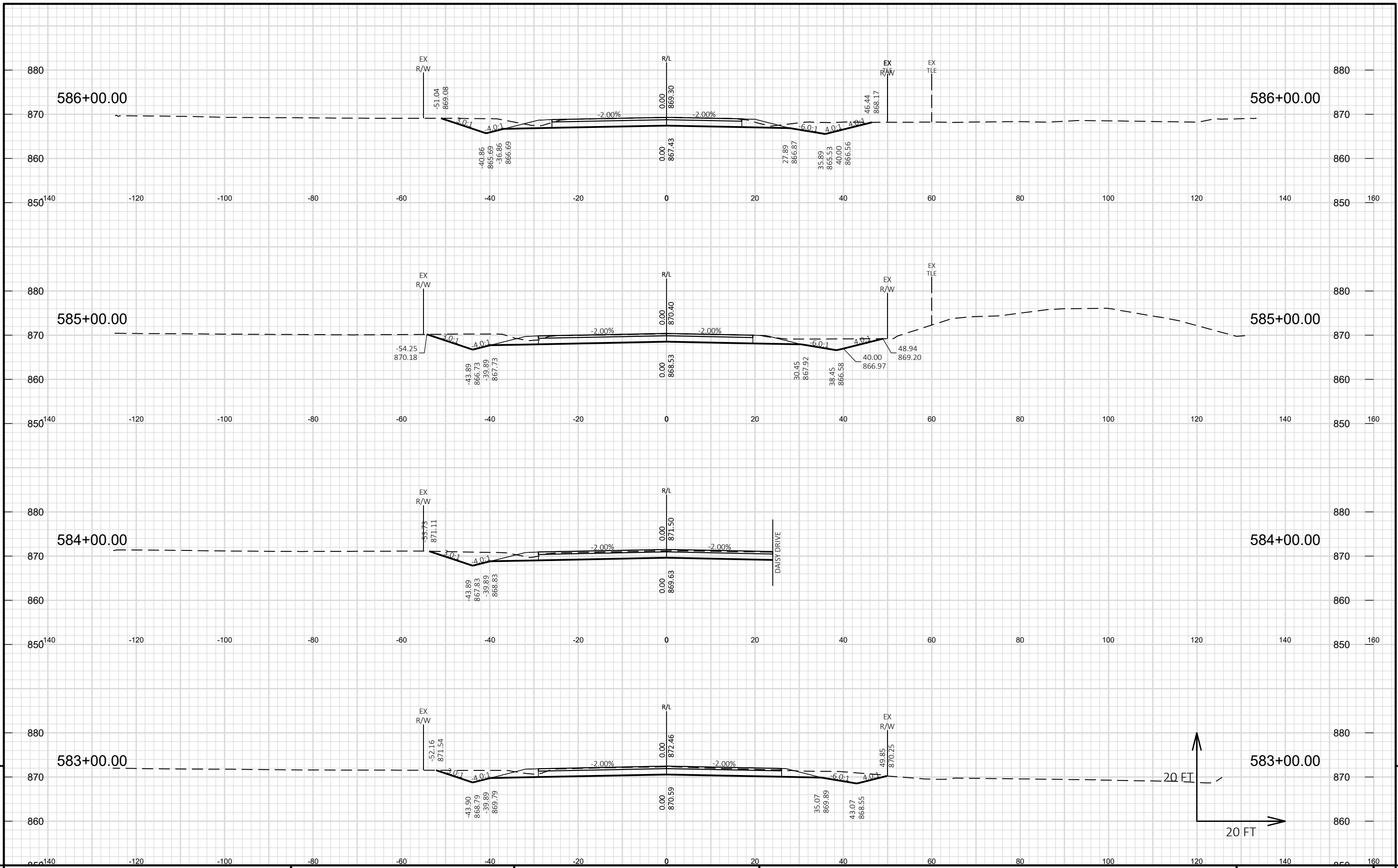


PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 120 **E**



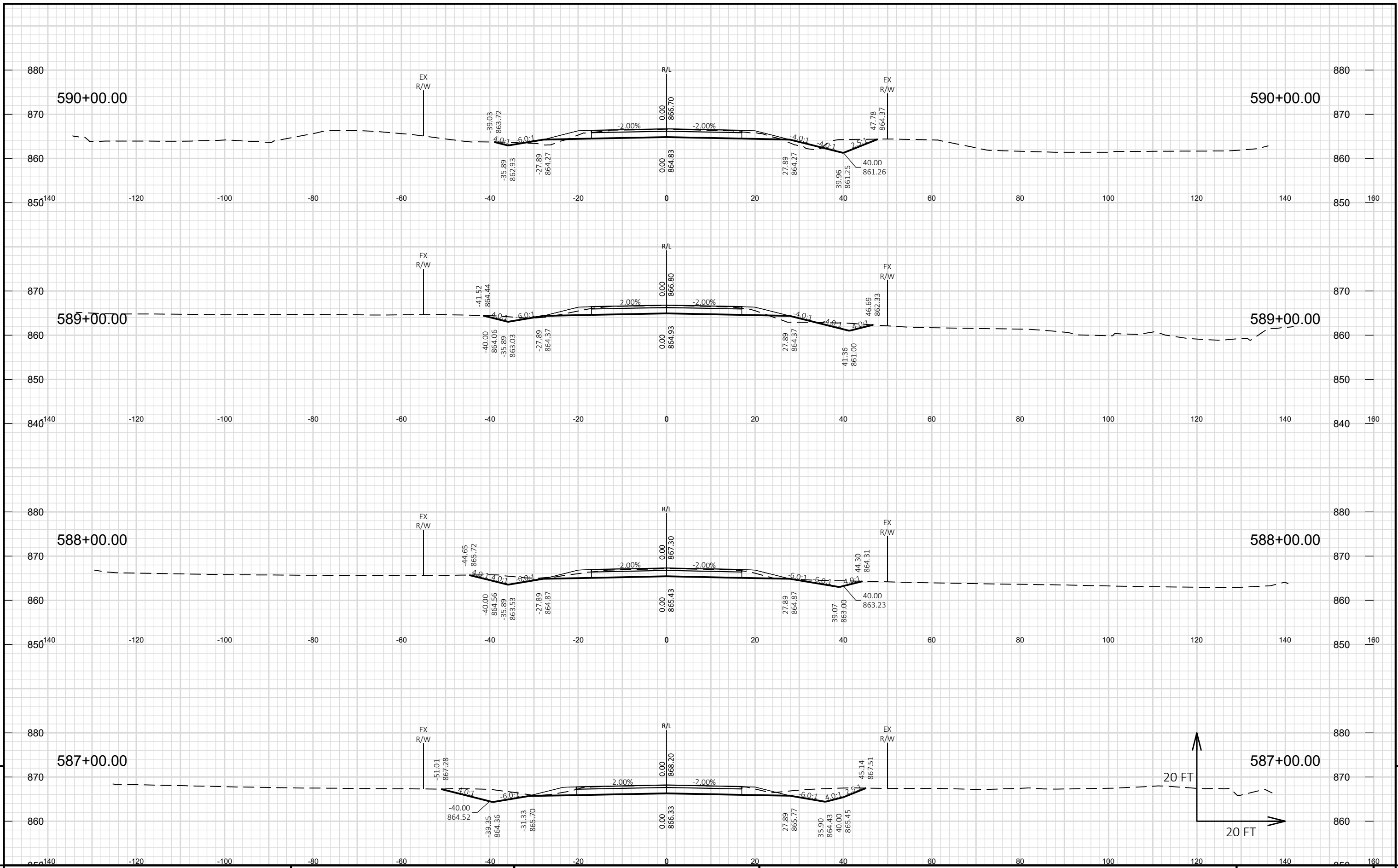
PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 121 E

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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 122 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH_P_STH 145-STH 60\CIVIL3D\CTH P\SHEETSPLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

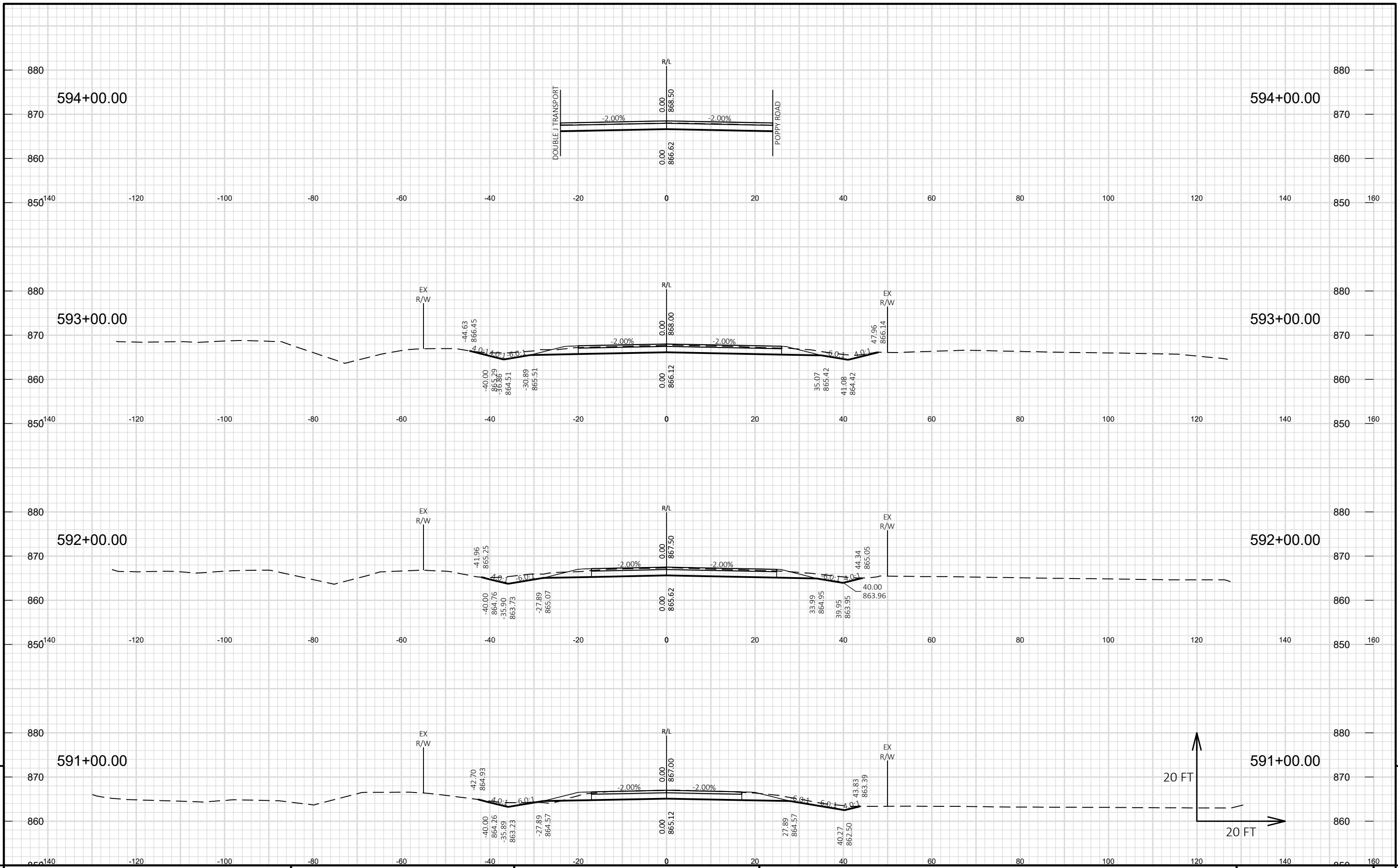


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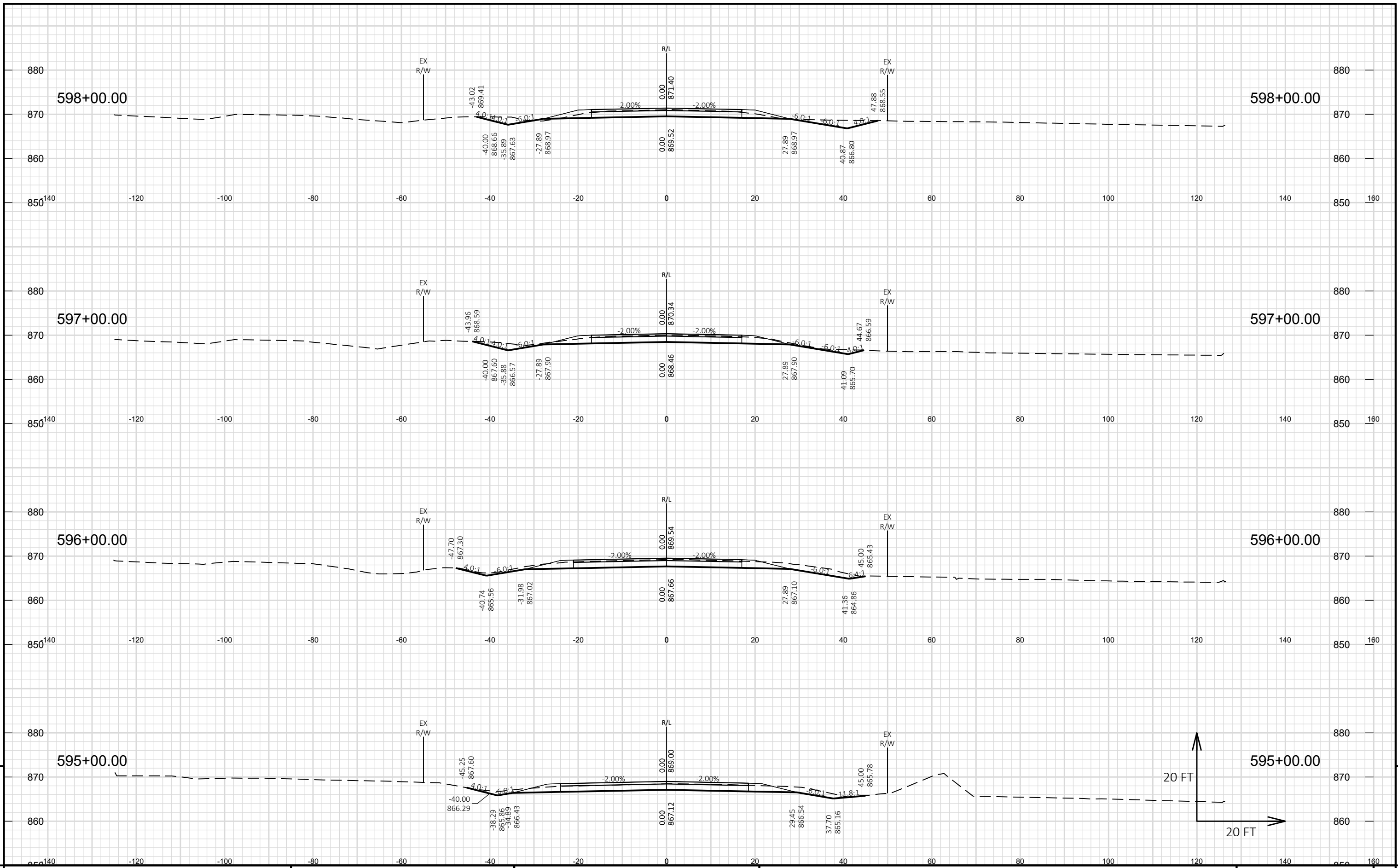
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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 123 E

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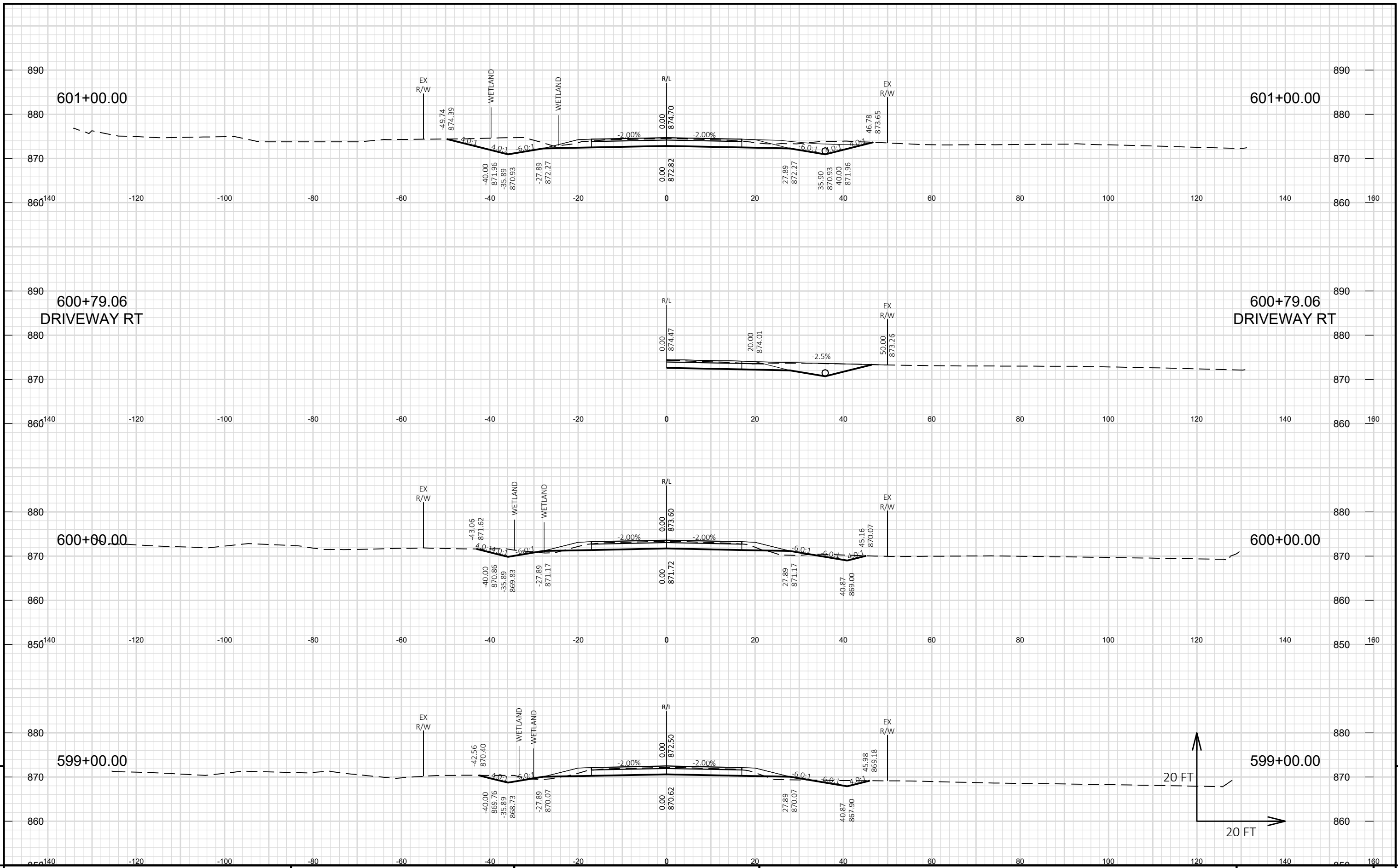


PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 124 E



PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 125 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH P_STH 145-STH 60\CIVIL3D\CTH P\SHEETSPLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

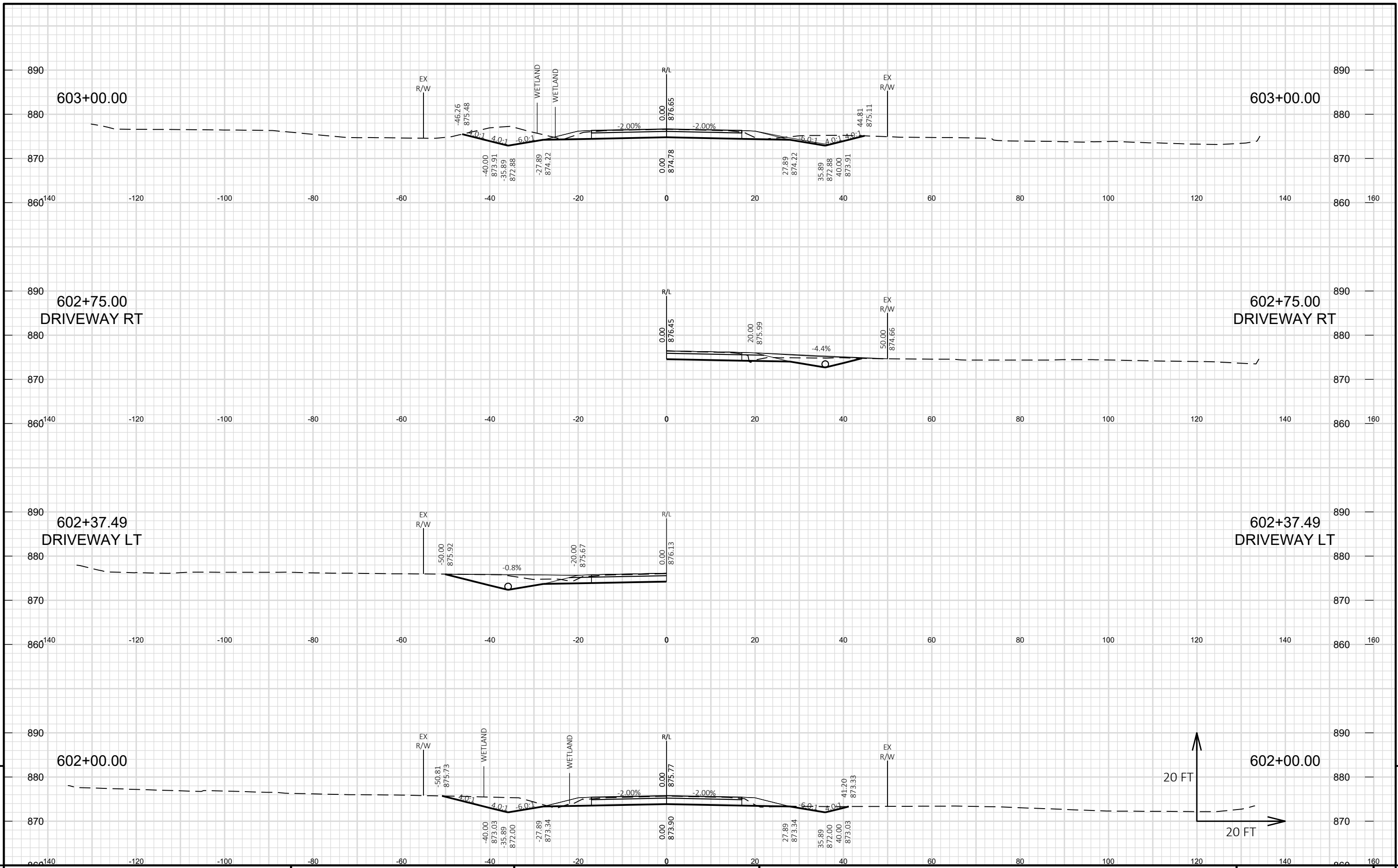


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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 126 E

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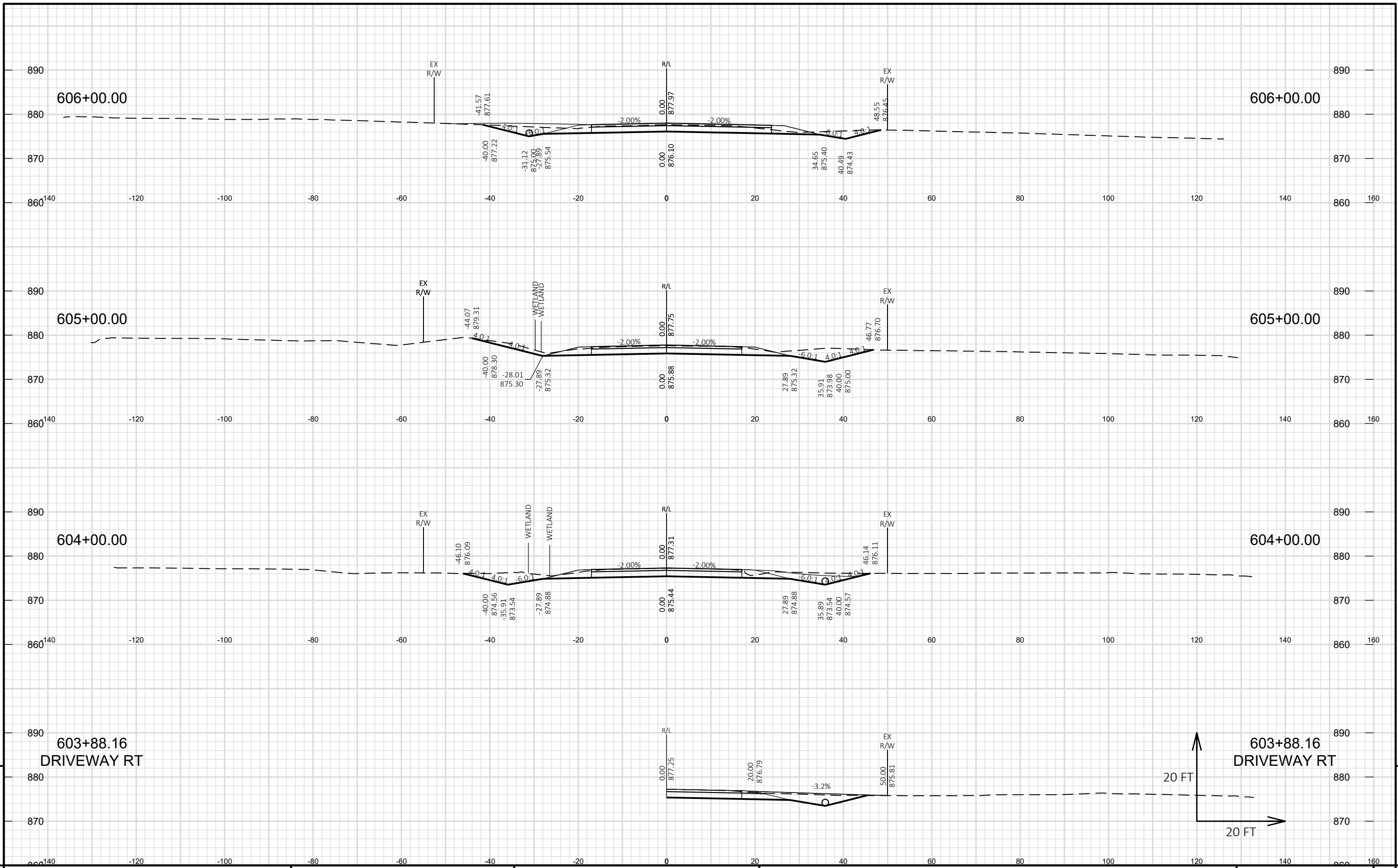


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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 127 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH_P_STH 145-STH 60\CIVIL3D\CTH P\SHEETSPLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



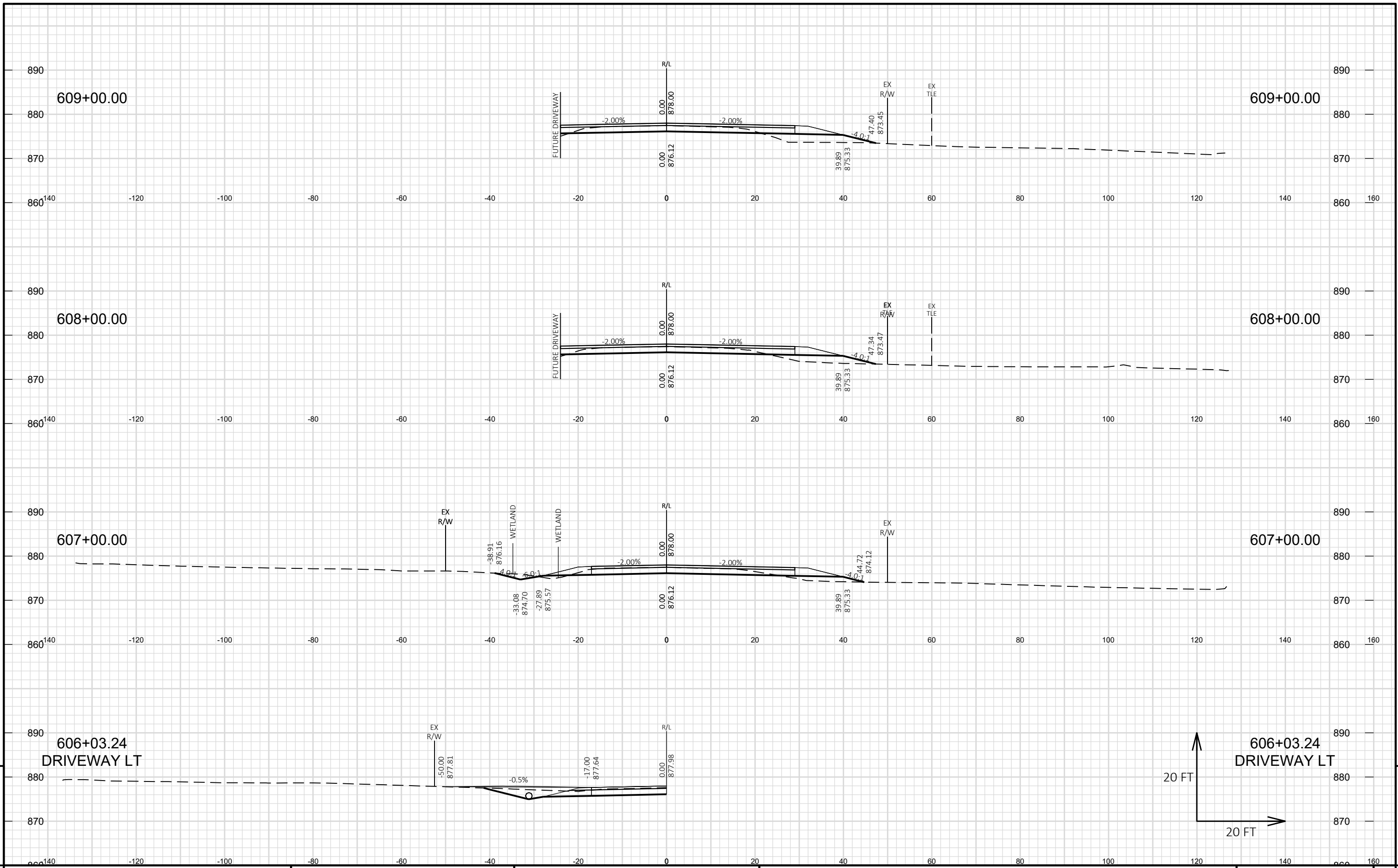
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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 128 E

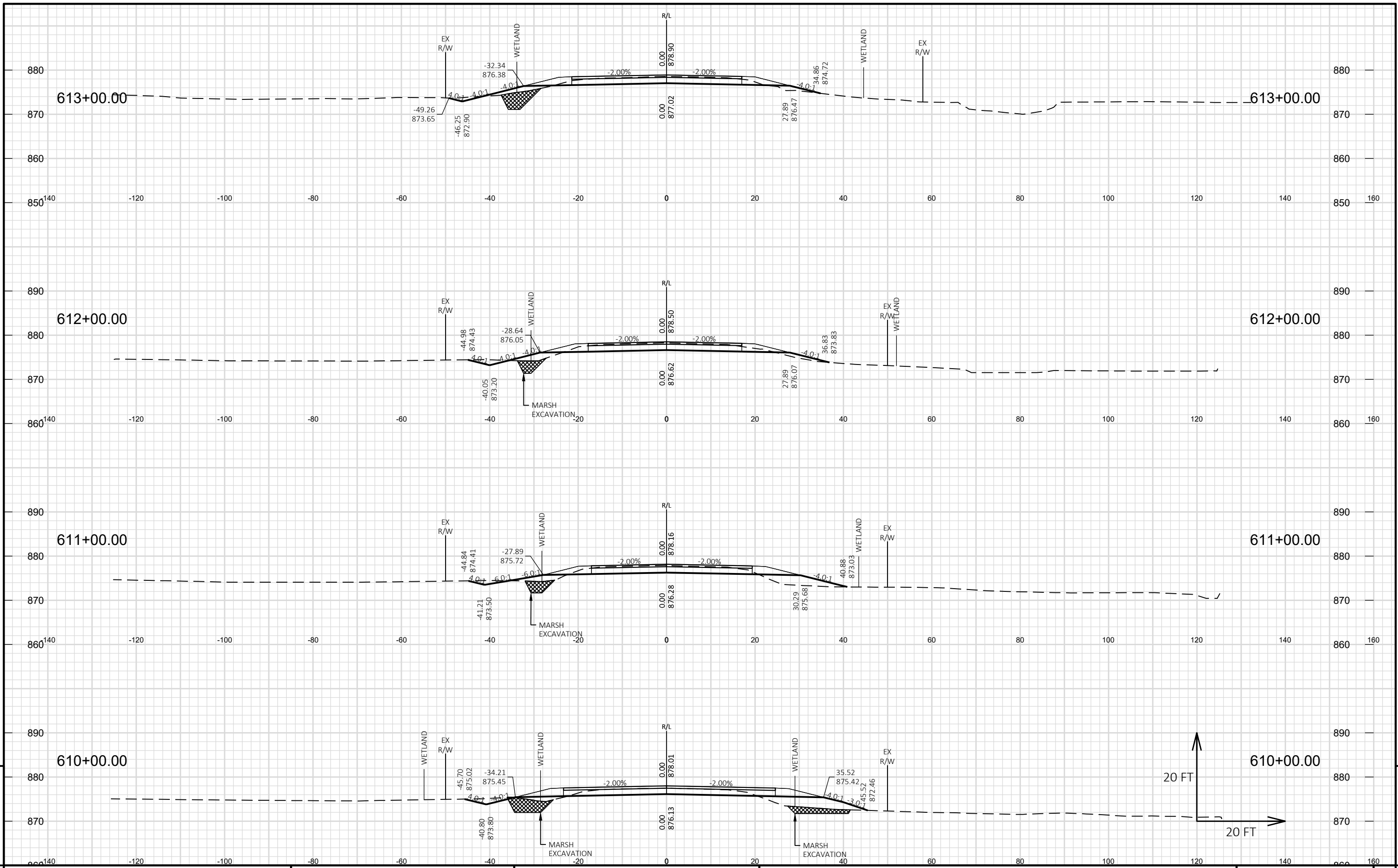
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LAYOUT NAME - 108-CTH P



PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 129 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH_P_STH 145-STH 60\CIVIL3D\CTH P\SHEETS\PLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49

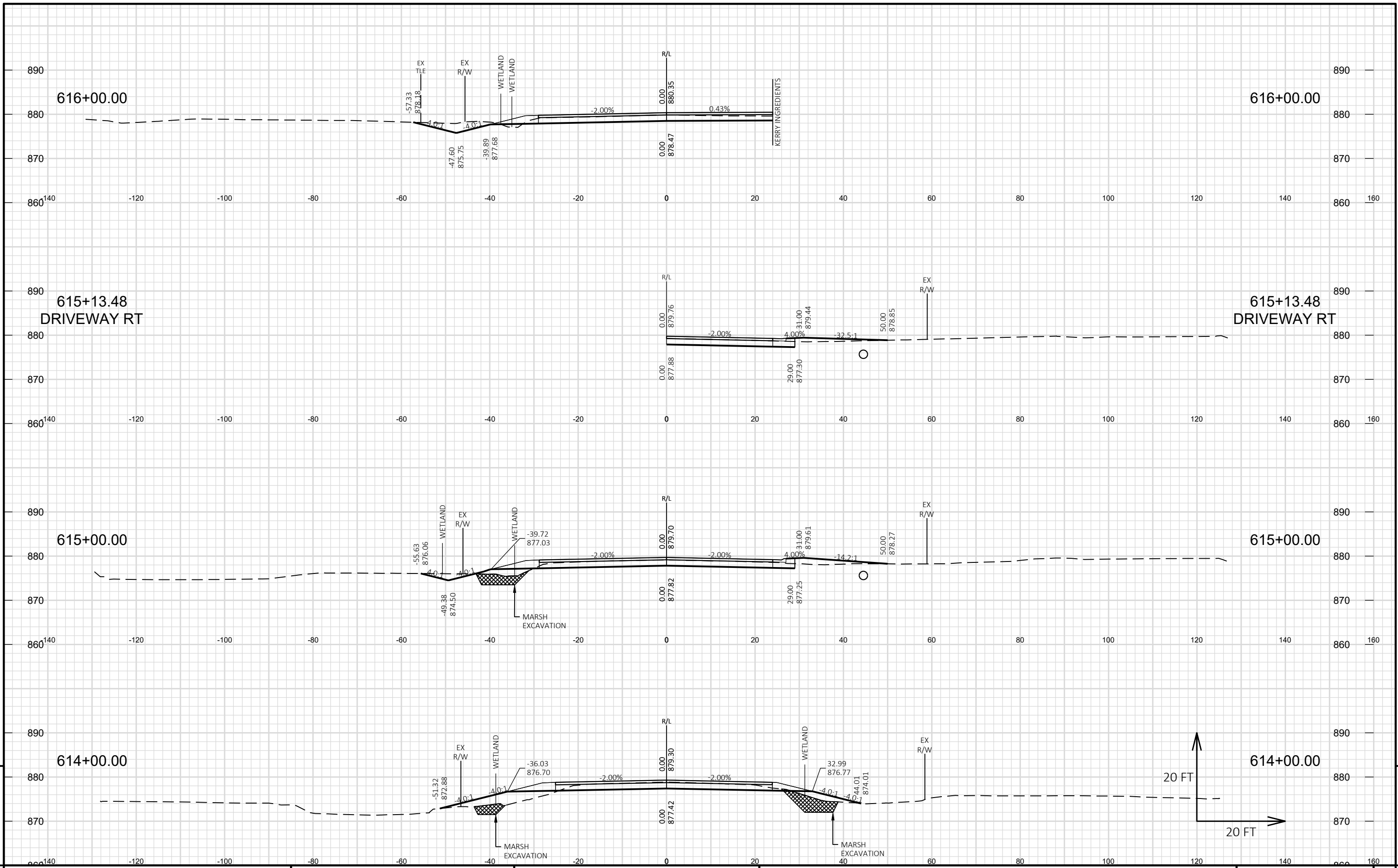


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PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 130 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH_P_STH 145-STH 60\CIVIL3D\CTH P\SHEETSPLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADDs SHEET 49

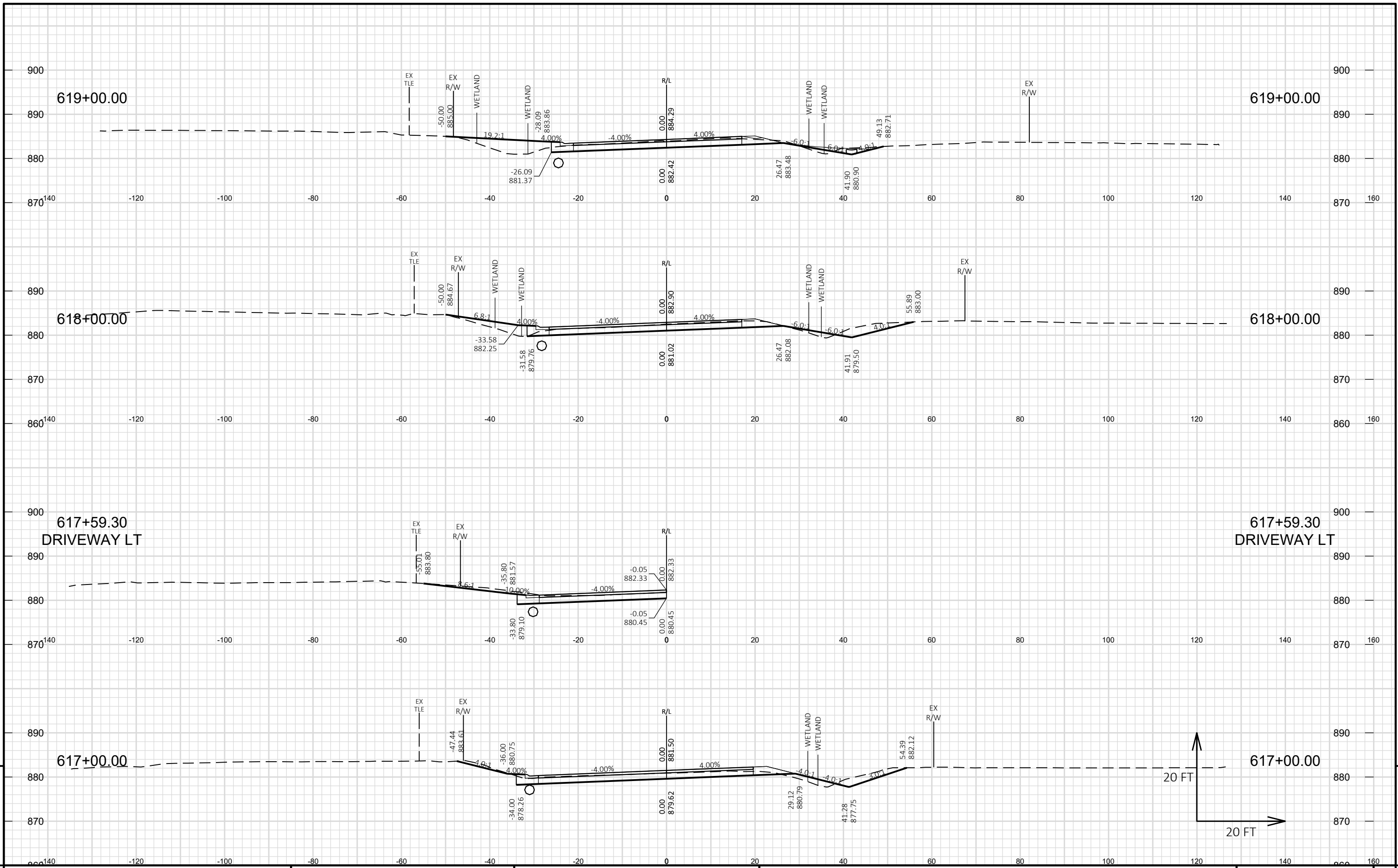


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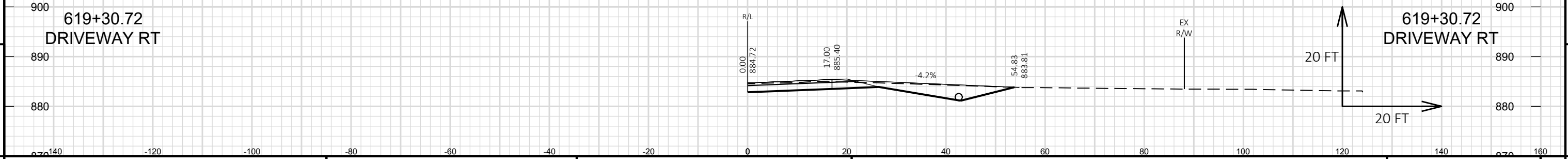
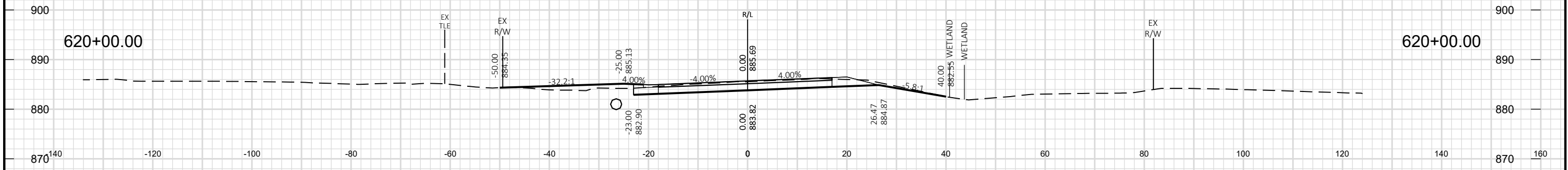
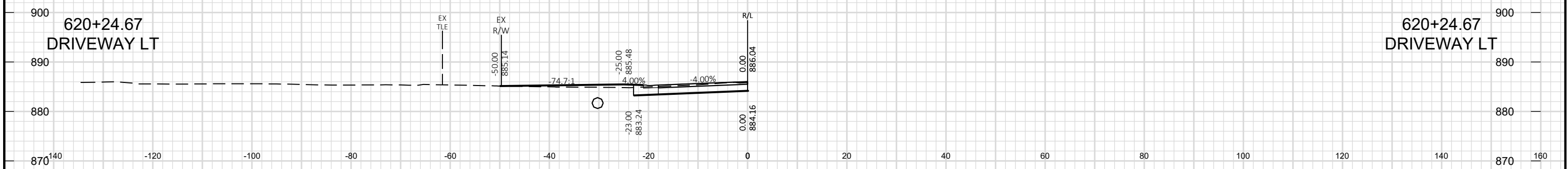
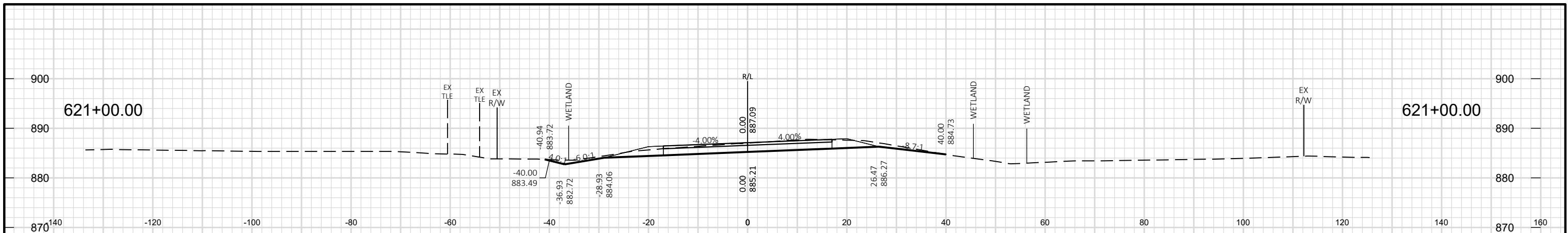
PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 131 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH P_STH 145-STH 60\CIVIL3D\CTH P\SHEETS\PLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



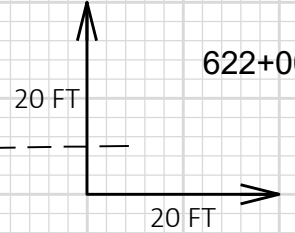
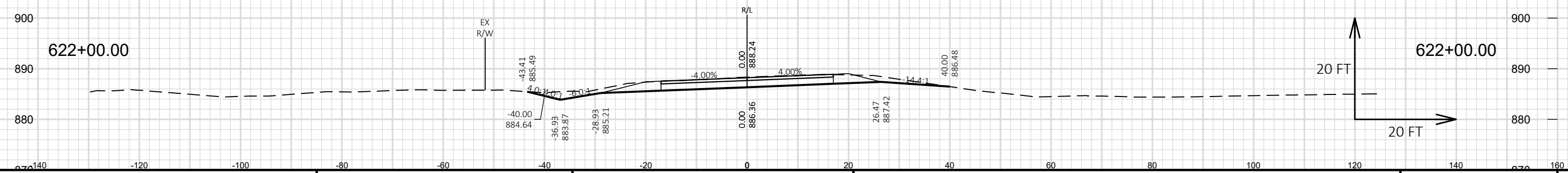
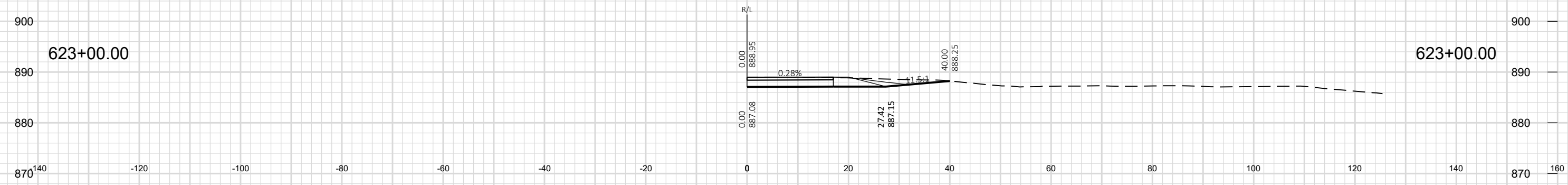
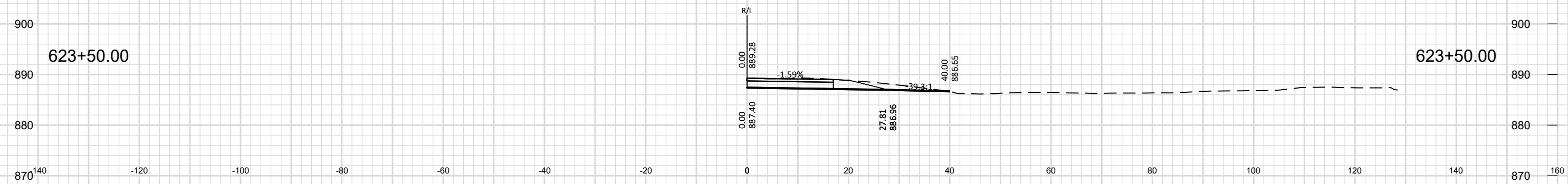
PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SHEET 132 E

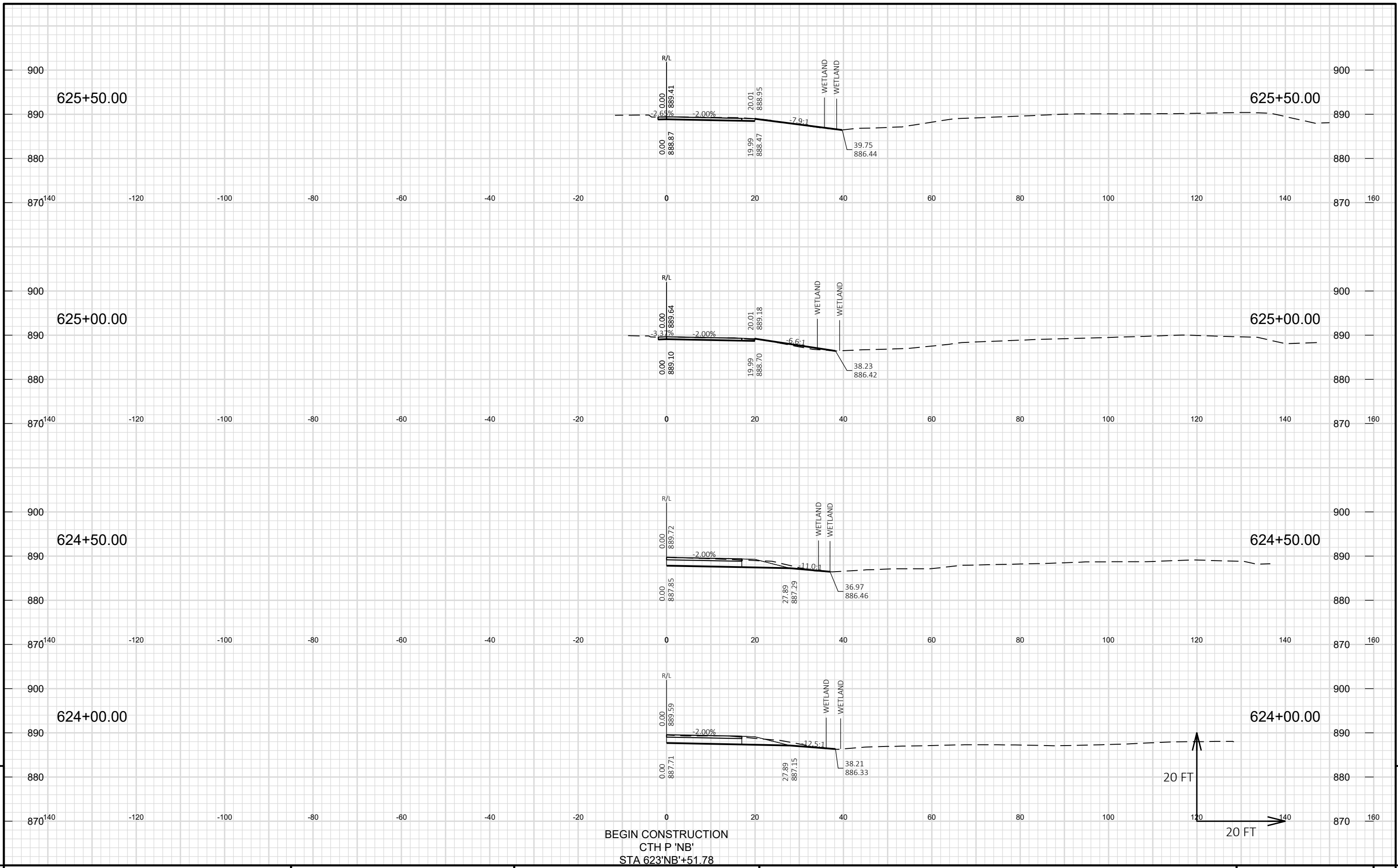
FILE NAME: S:\CURRPROJ\WASHINCO\CTH P_STH 145-STH 60\CIVIL3D\CTH P\SHEETS\PLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:31 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



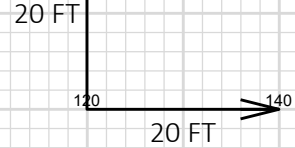
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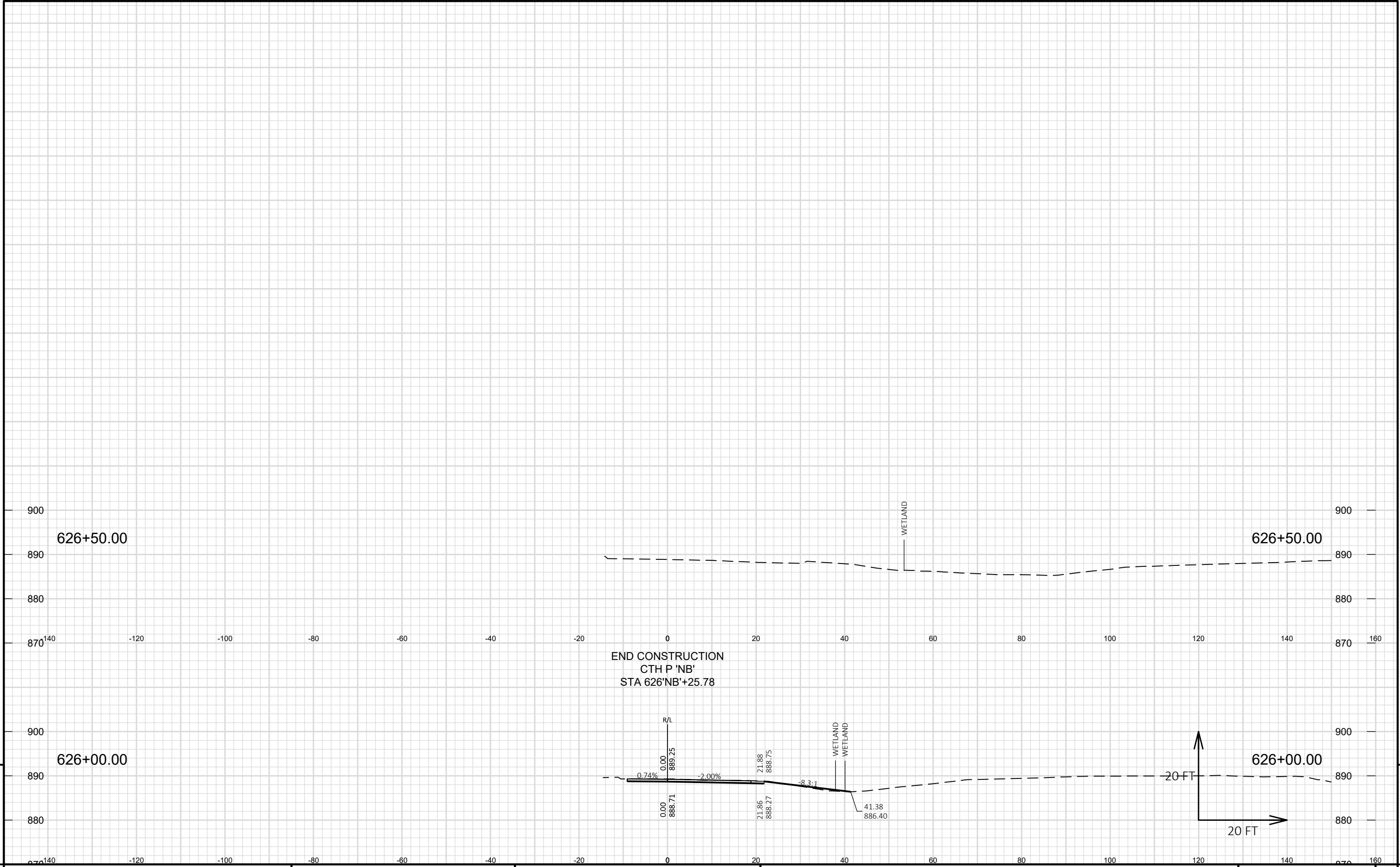
END CONSTRUCTION
 CTH P
 STA 623+51.78





BEGIN CONSTRUCTION
 CTH P 'NB'
 STA 623'NB'+51.78



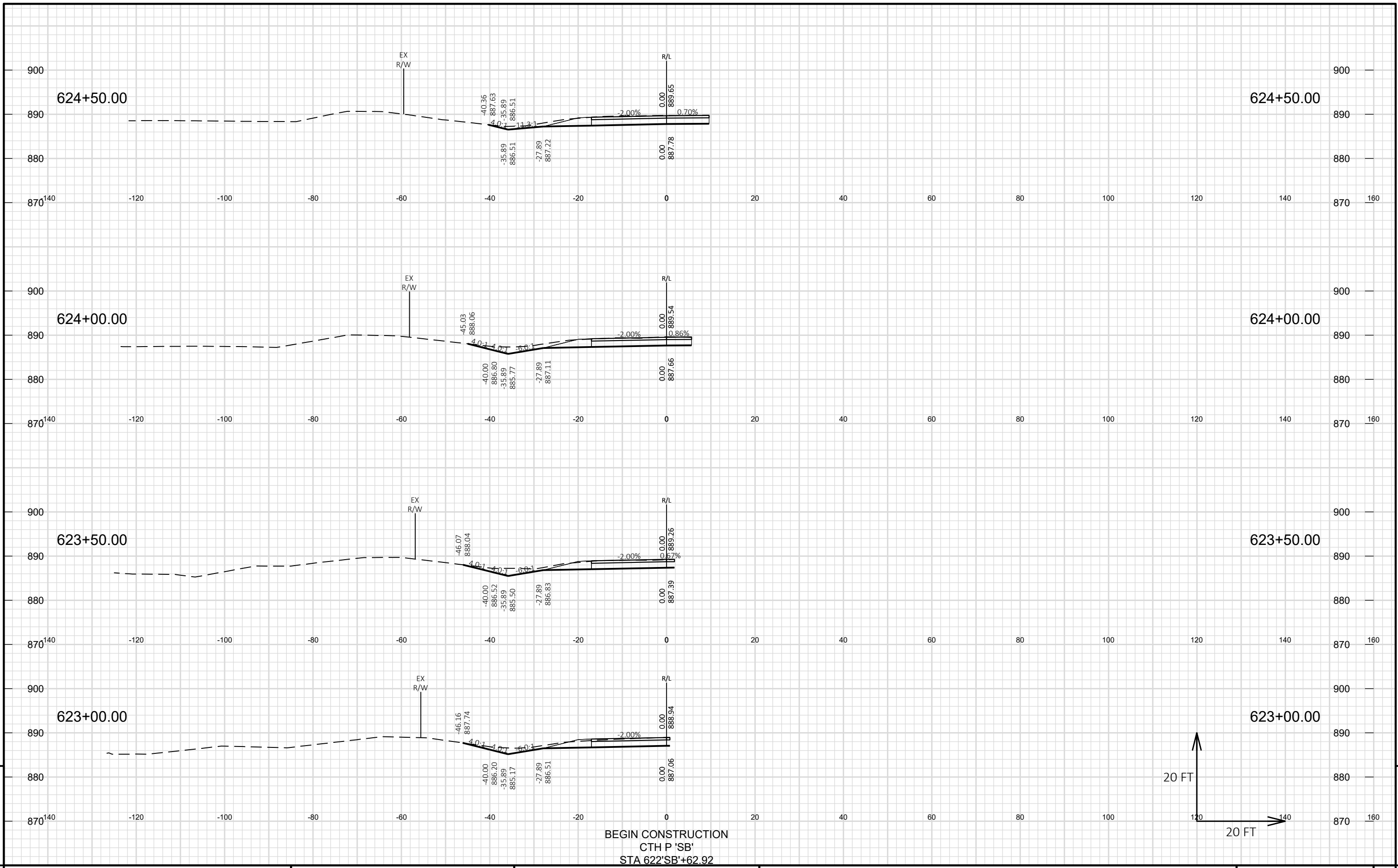


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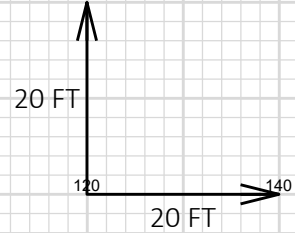
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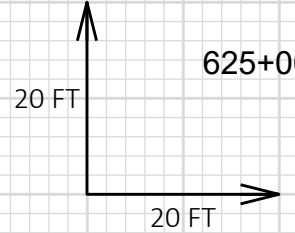
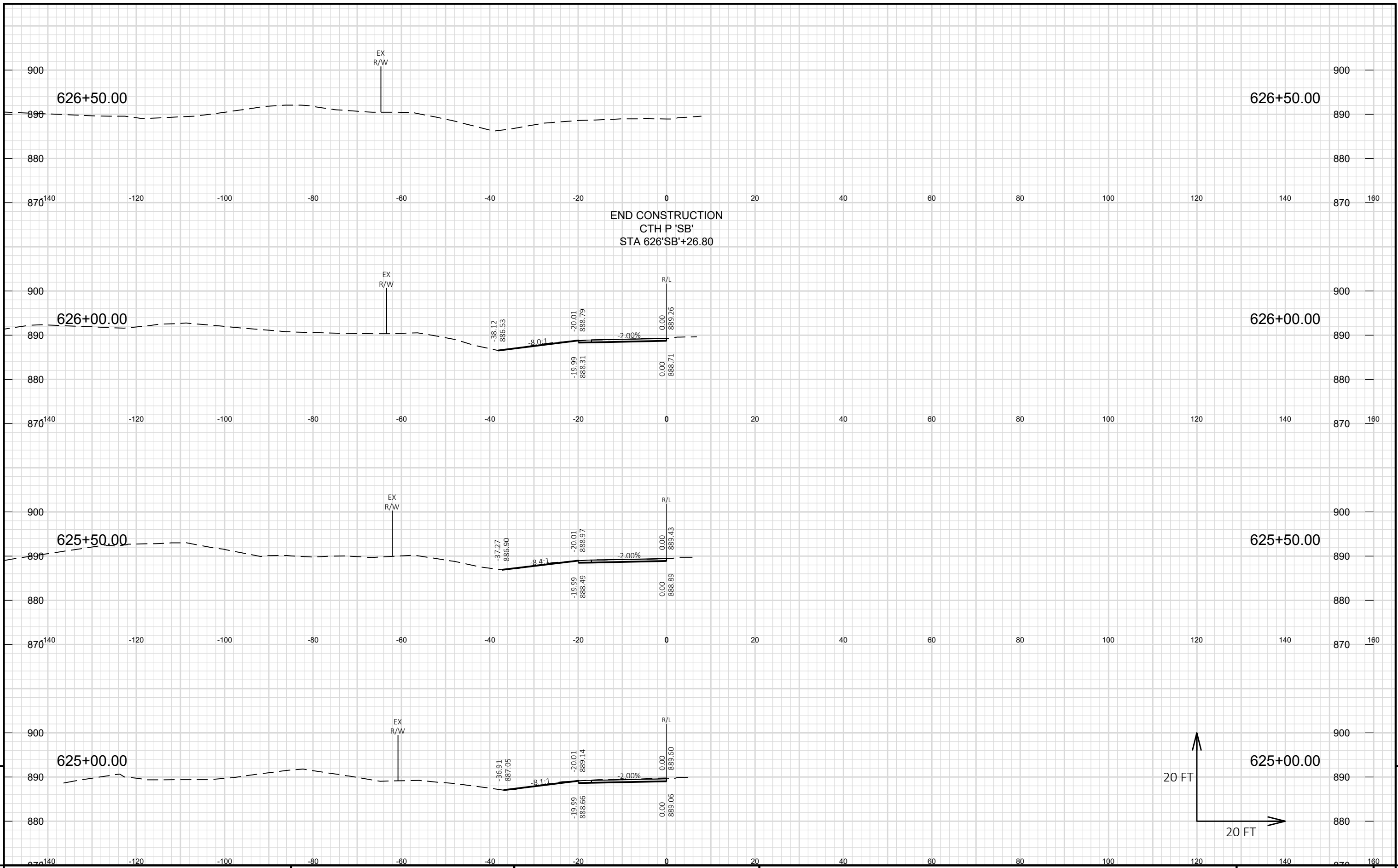
PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P NORTHBOUND SHEET 136 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH P_STH 145-STH 60\CIVIL3D\CTH P\SHEETSPLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:32 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



BEGIN CONSTRUCTION
 CTH P 'SB'
 STA 622'SB'+62.92



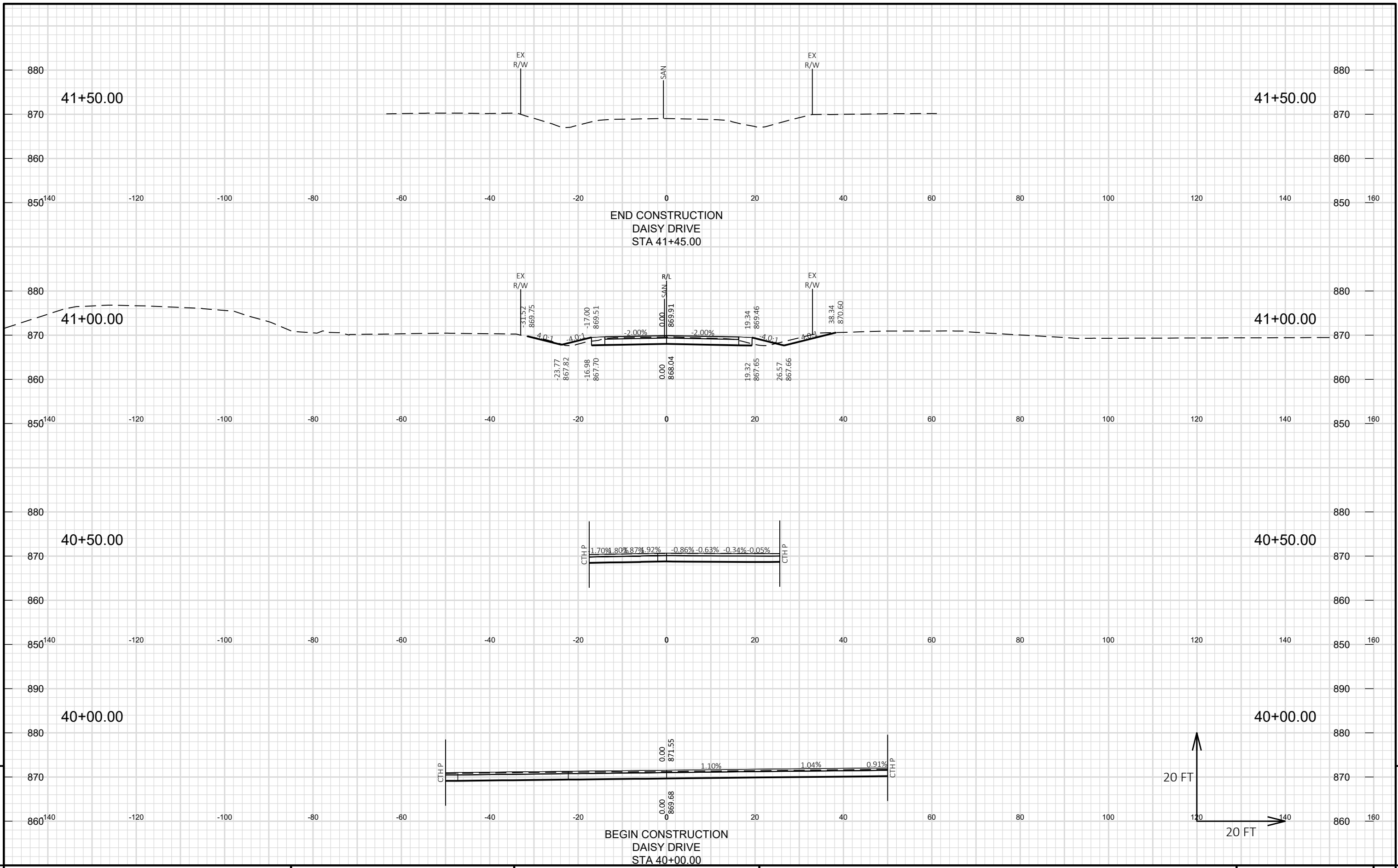


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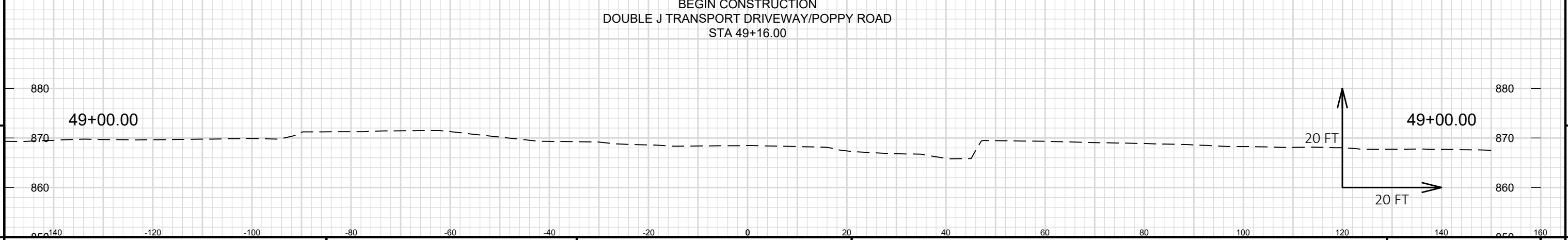
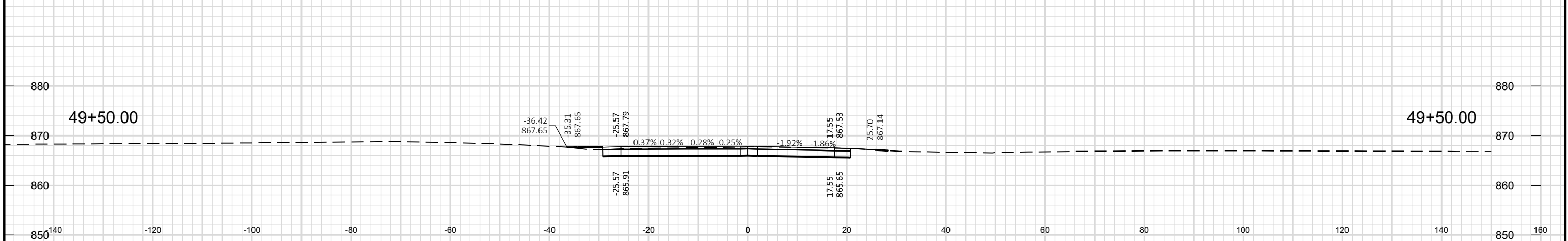
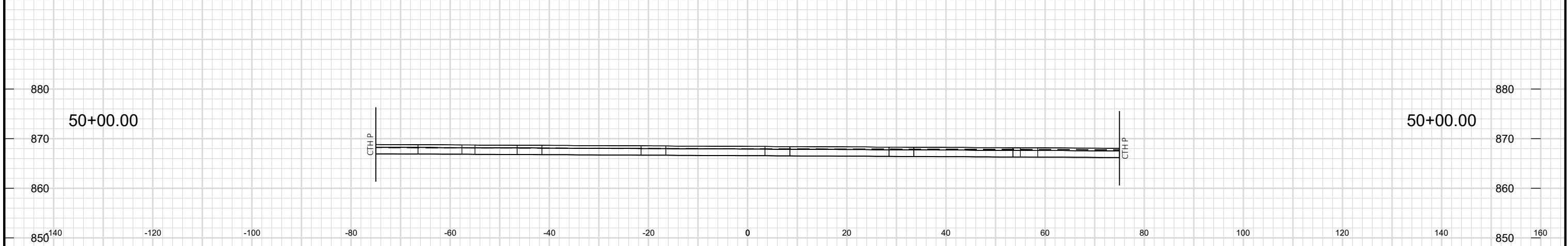
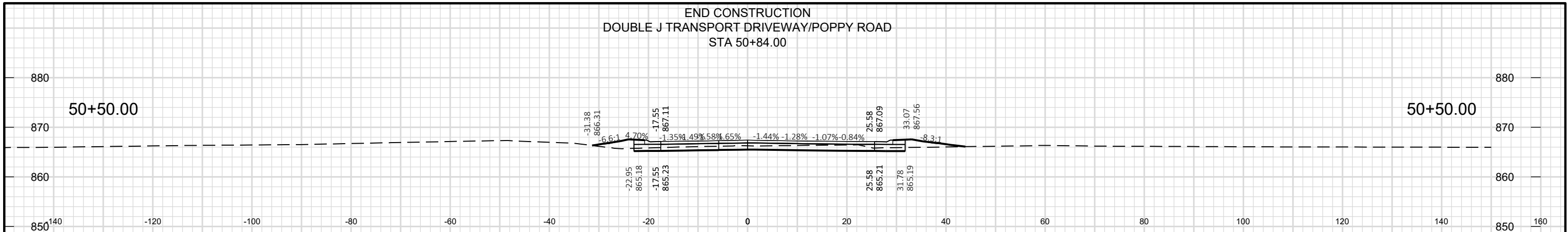
PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: CTH P SOUTHBOUND SHEET 138 E

FILE NAME: S:\CURRPROJ\WASHINCO\CTH P_STH 145-STH 60\CIVIL3D\CTH P\SHEETS\PLAN\COUNTY\COUNTY_CTHP-090201-XS.DWG PLOT DATE: 1/30/2024 8:32 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:20 FT HORZ. / 1 IN:20 FT VERT. WISDOT/CADD SHEET 49



PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: DAISY DRIVE SHEET 139 **E**

END CONSTRUCTION
DOUBLE J TRANSPORT DRIVEWAY/POPPY ROAD
STA 50+84.00

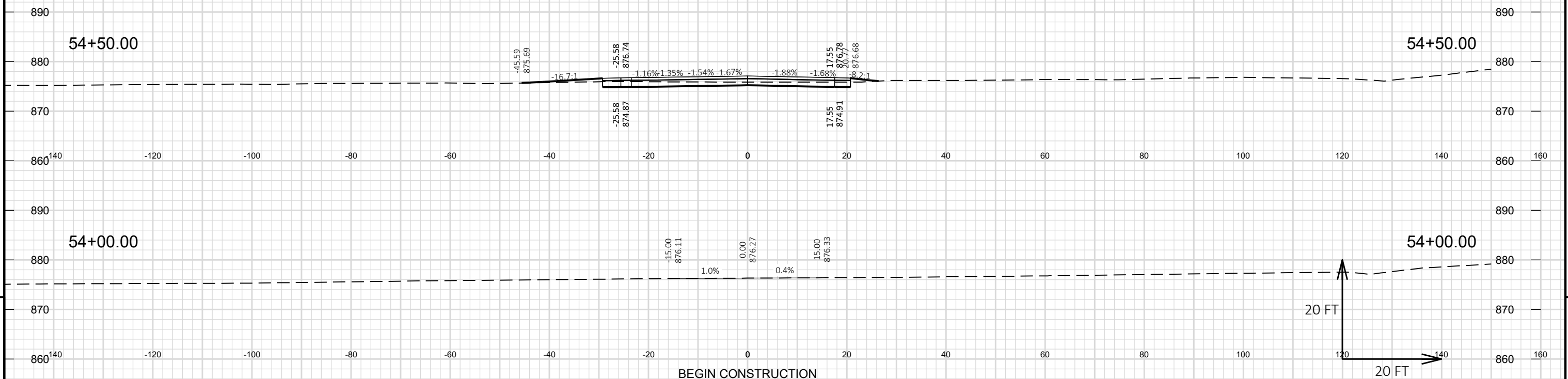


PROJECT NO: HWY 24-01 HWY: CTH P COUNTY: WASHINGTON CROSS SECTIONS: DOUBLE J TRANSPORT DRIVEWAY & POPPY ROAD SHEET 140 E

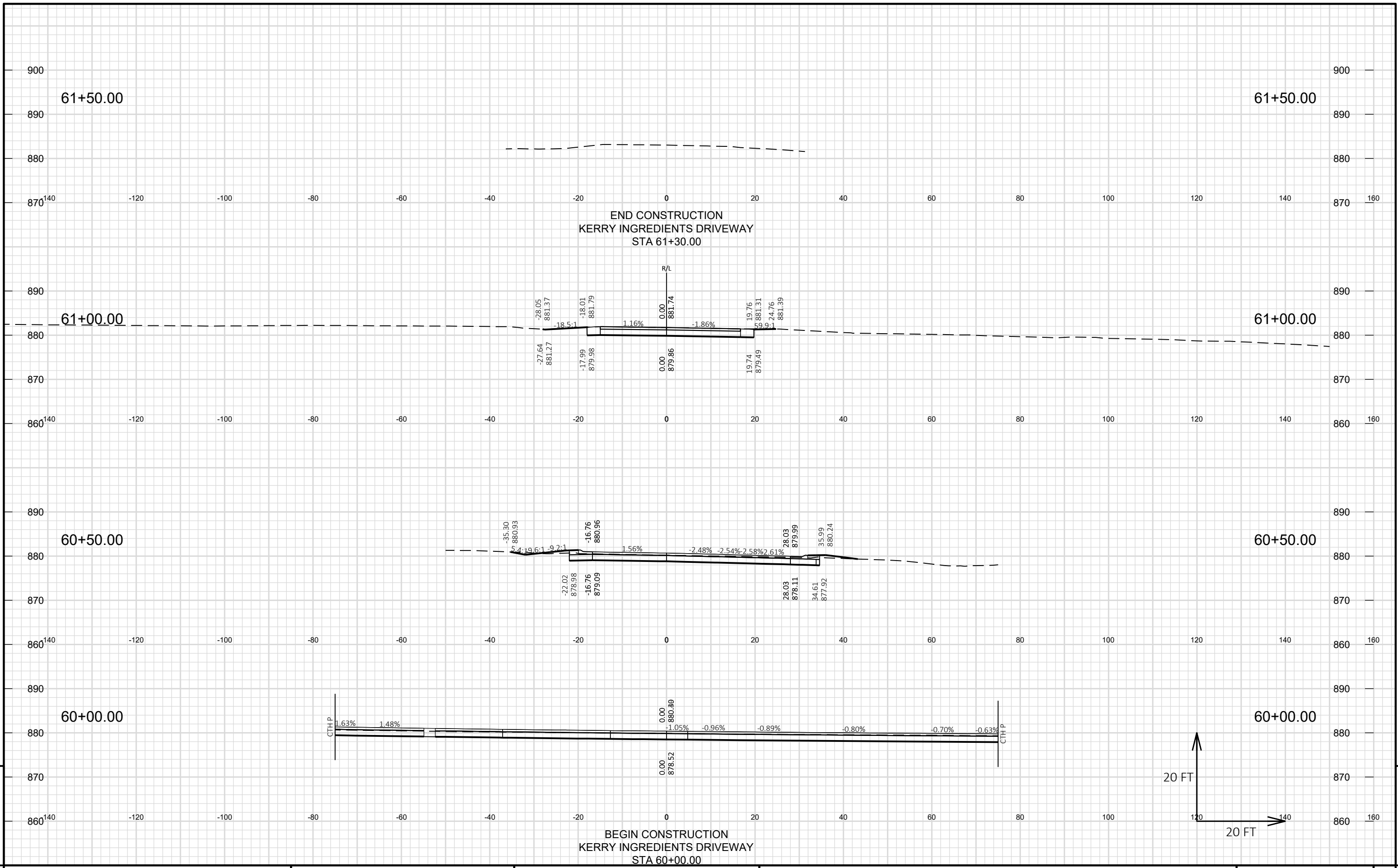
END CONSTRUCTION
 FUTURE DEVELOPMENT DRIVEWAY
 STA 55+00.00



BEGIN CONSTRUCTION
 FUTURE DEVELOPMENT DRIVEWAY
 STA 54+00.00



PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	CROSS SECTIONS: FUTURE DEVELOPMENT DRIVEWAY	SHEET 141	E
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PROJECT NO: HWY 24-01	HWY: CTH P	COUNTY: WASHINGTON	CROSS SECTIONS: KERRY INGREDIENTS DRIVEWAY	SHEET 142	E
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