

PROJECT ID:  
WTH: N/A

4160-04-71

COUNTY: OUTAGAMIE

### ORDER OF SHEETS

SECTION NO.	1	TITLE
SECTION NO.	2	TYPICAL SECTIONS AND DETAILS
SECTION NO.	3	ESTIMATE OF QUANTITIES
SECTION NO.	3	MISCELLANEOUS QUANTITIES
SECTION NO.	4	RIGHT OF WAY PLAT
SECTION NO.	5	PLAN AND PROFILE
SECTION NO.	6	STANDARD DETAIL DRAWINGS
SECTION NO.	7	SIGN PLATES
SECTION NO.	8	STRUCTURE PLANS
SECTION NO.	9	COMPUTER EARTHWORK DATA
SECTION NO.	9	CROSS SECTIONS

TOTAL SHEETS = \_\_\_\_



二

CTH 'CE' DESIGN DESIGNATION

A.D.T.	(2010)	27,100
A.D.T.	(2030)	38,000
D.H.V.	(2030)	4,370
D.D.		50/50
T. (% OF A.D.T.)		3.0
SPEED LIMIT		45 MPH

## CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

**FEDERALLY FUNDED**

**PLAN OF PROPOSED IMPROVEMENT**

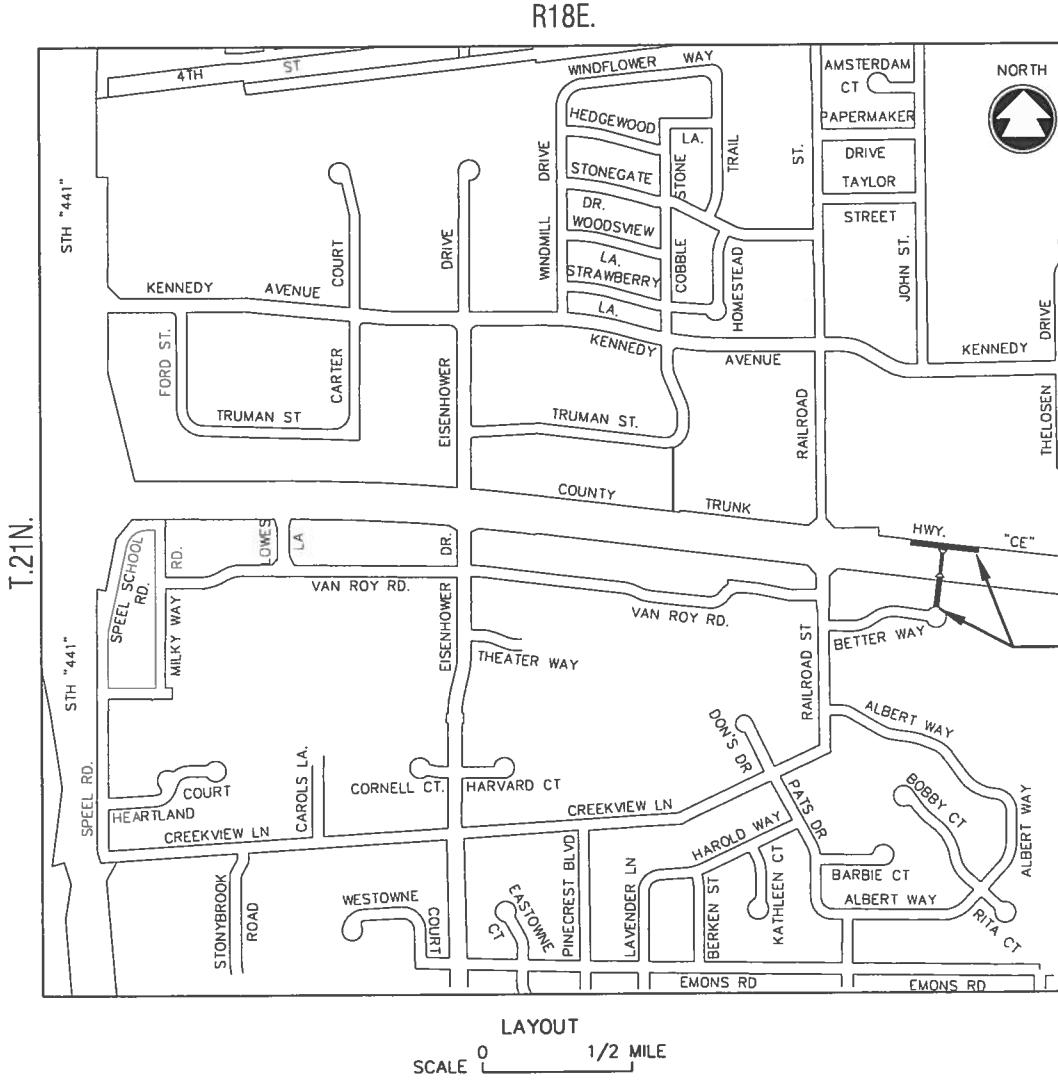
**CTH CE UNDERPASS**

**RAILROAD STREET - CTH N**

**OUTAGAMIE COUNTY**

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4160-04-71		

STATE PROJECT NUMBER  
**4160-04-71**



## PROJECT LOCATION

RECEIVED  
JAN 20 2011  
OUTAGAMIE COUNTY  
HIGHWAY DEPT

ORIGINAL PLANS PREPARED BY

**McMAHON**

ENGINEERS ARCHITECTS

PROFESSIONAL ENGINEER

WISCONSIN

8-2-10

MICHAEL P.  
KOHLBECK  
E-37535  
APPLETON  
WI

SIGNATURE  
*Michael P. Kohlbeck*

GENERAL NOTES

BEARINGS AND COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, OUTAGAMIE COUNTY. THE COORDINATES SHOWN ARE GROUND COORDINATES AND ARE TO BE USED AS GROUND VALUES.

NO MONUMENTS WILL BE PLACED AT THE LIMITS OF THE TEMPORARY LIMITED EASEMENTS (T.L.E.'S).

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE AND ARE BASED ON UTILITY LOCATES OBTAINED FROM THE UTILITIES WHEN THE SURVEY DATA WAS COLLECTED PRIOR TO THE FINAL DESIGN OF THE PROJECT. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN ON THE PLAN SHEETS OR CROSS SECTIONS.

WHEN THE QUANTITIES OF BASE AGGREGATE DENSE AND HMA PAVEMENT ARE MEASURED FOR PAYMENT BY THE TON, THE THICKNESS AS SHOWN ON THE TYPICAL SECTIONS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATION OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE ELEVATIONS SHOWN ON THE CROSS SECTIONS ARE FINISHED SUBGRADE ELEVATIONS AT EDGES OF SUBGRADE, PROPOSED BREAK POINTS, DITCH FLOWLINES AND SLOPE INTERCEPTS.

ALL DISTURBED AREAS NOT OTHERWISE SURFACED SHALL BE RESTORED WITH SALVAGED TOPSOIL, FERTILIZER, SEED AND EROSION MAT OR MULCH.

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

ALL RADII SHOWN ON THE PLAN SHEETS ARE TO FINISHED EDGE OF PAVEMENT.

FILL AS SHOWN ON THE PLAN PERTAINS TO EMBANKMENT CONSTRUCTED FROM COMMON EXCAVATION. THE FACTOR USED FOR EXPANDING THE FILLS TO COMPLETE THE VOLUME OF MATERIAL REQUIRED IS 30% FOR COMMON EXCAVATION

STANDARD ABBREVIATIONS AND SYMBOLS

ADJ.	ADJUST	NOR.	NORMAL
ASPH	ASPHALT	P.E.	PRIVATE ENTRANCE
AVE.	AVENUE	P.G.L.	PROFILE GRADE LINE
B-B	BENCH MARK	P.I.	POINT OF INTERSECTION
B.A.D.	BACK TO BACK OF CURB	P.T.	POINT OF TANGENCY
B.O.C. or B/C	BASE AGGREGATE DENSE	P.V.C.	POINT OF VERTICAL CURVATURE
Q or CL	BACK OF CURB	P.V.I.	POINT OF VERTICAL INTERSECTION
CONC.	CENTERLINE	P.V.T.	POINT OF VERTICAL TANGENCY
C.M.P.	CONCRETE	P/L	PROPERTY LINE
C.T.H.	CORRUGATED METAL CULVERT PIPE	PLE	PERMANENT LIMITED EASEMENT
CL.	COUNTY TRUNK HIGHWAY	PVT.	PAVEMENT
△	CLASS	PED.	PEDESTAL
D.	DELTA	R or RAD	RADIUS
DW	DEGREE OF CURVE	R.C.P.	REINFORCED CONCRETE PIPE
E.	DRIVEWAY	RECON.	RECONSTRUCT
EB	EAST	REQ'D	REQUIRED
E-MAT	EASTBOUND	R/L	REFERENCE LINE
ELEV	EROSION MAT	REM.	REMOVE
EOP	ELEVATION	R/W	RIGHT OF WAY
EOR	EDGE OF PAVEMENT	RD.	ROAD
EXIST.	END OF RADIUS	RT.	RIGHT
F-F	EXISTING	S.	SOUTH
FL	FACE TO FACE OF CURB	SAN	SANITARY SEWER
GRAV	FLOWLINE	SB	SOUTH BOUND
GV	GRAVEL	S.D.D.	STANDARD DETAIL DRAWING
HDPE	GAS VALVE	S.I.	SLOPE INTERCEPT
HE	HIGH DENSITY POLYETHYLENE CULVERT PIPE	STA.	STATION
HMA	HIGHWAY EASEMENT	S.T.H.	STATE TRUNK HIGHWAY
H.P.	HMA	STA.	STATION
HYD.	HIGH POINT	SW	CONCRETE SIDEWALK
L.	HYDRANT	T.I.	TEMPORARY INTEREST
L.V.C.	LENGTH OF CURVE	TLE	TEMPORARY LIMITED EASEMENT
L.S.	LENGTH OF VERTICAL CURVE	TYP.	TYPICAL
LT.	LANDSCAPING	V.C.	VERTICAL CURVE
MH	LEFT	WB	WESTBOUND
MAX	MANHOLE	W	WATERMAIN
MIN	MAXIMUM	WV	WATER VALVE/SHUTOFF
NB	MINIMUM	Q&V	HYDRANT W/AUXILIARY VALVE
NO.	NORTH BOUND		LIGHT POLE

VILLAGE OF KIMBERLY

RICK HERMUS  
DIRECTOR OF PUBLIC WORKS  
1940 BUCHANAN STREET  
LITTLE CHUTE, WI 54140  
(920) 788-7395

UTILITIES

DARBOY SANITARY DISTRICT NO. 1  
STEVE LAMERS  
N398 COUNTY ROAD N  
APPLETON, WI 54915  
(920) 788-6048

TIME WARNER CABLE  
VINCE ALBIN  
352D DESTINATION DRIVE  
APPLETON, WI 54915  
(920) 831-9249

WE-ENERGIES (ELECTRIC)  
JIM QUINN  
800 S. LYNNDALE DRIVE  
APPLETON, WI 54914  
(920) 380-3401

AT&T WISCONSIN  
CHRIS SABOURIN  
221 WEST WASHINGTON STREET  
4TH FLOOR  
APPLETON, WI 54913  
(920) 735-3252

DESIGN CONTACT

MIKE KOHLBECK  
McMAHON  
1445 McMAHON DRIVE  
NEENAH, WI 54956  
(920) 751-4200

DNR LIAISON

DAVE BOUGIE  
NORTHEAST REGION  
STORM WATER MANAGEMENT SPECIALIST  
2984 SHAWANO AVE  
GREEN BAY, WI 54307-0448  
(920) 662-5124

LAND USE:	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)	SLOPE RANGE (PERCENT)		SLOPE RANGE (PERCENT)
0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.26	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE-TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT												
CONCRETE												
BRICK												
DRIVES, WALKS												
ROOFS												
GRAVEL ROADS, SHOULDERS												
TOTAL PROJECT AREA=	1.26 ACRES											
TOTAL OISTRIBUTED AREA=	1.26 ACRES											

TOTAL PROJECT AREA= 1.26 ACRES

TOTAL OISTRIBUTED AREA= 1.26 ACRES

STATE PROJECT NUMBER: 4160-04-71

HWY: CTH CE

COUNTY: OUTAGAMIE

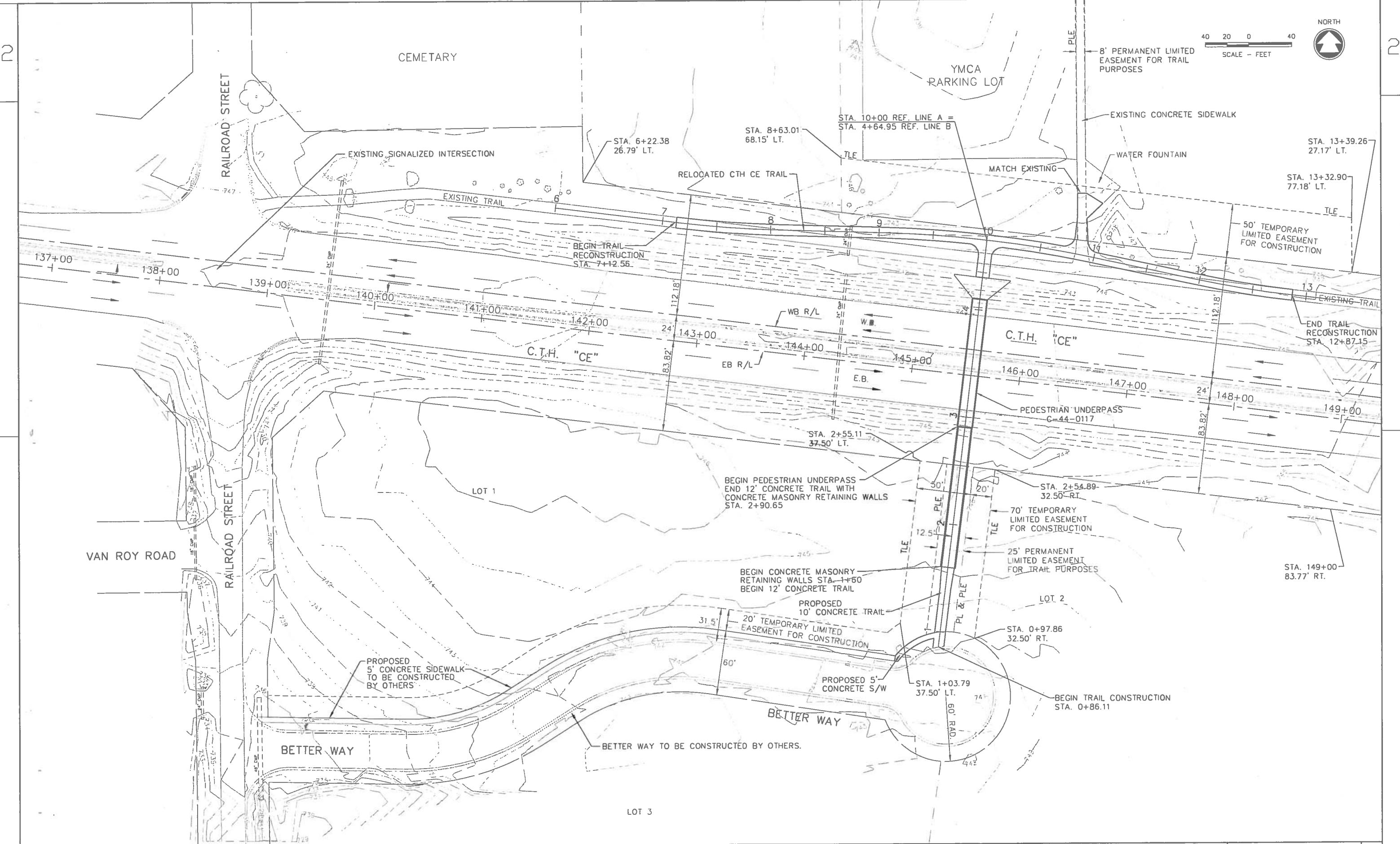
GENERAL NOTES

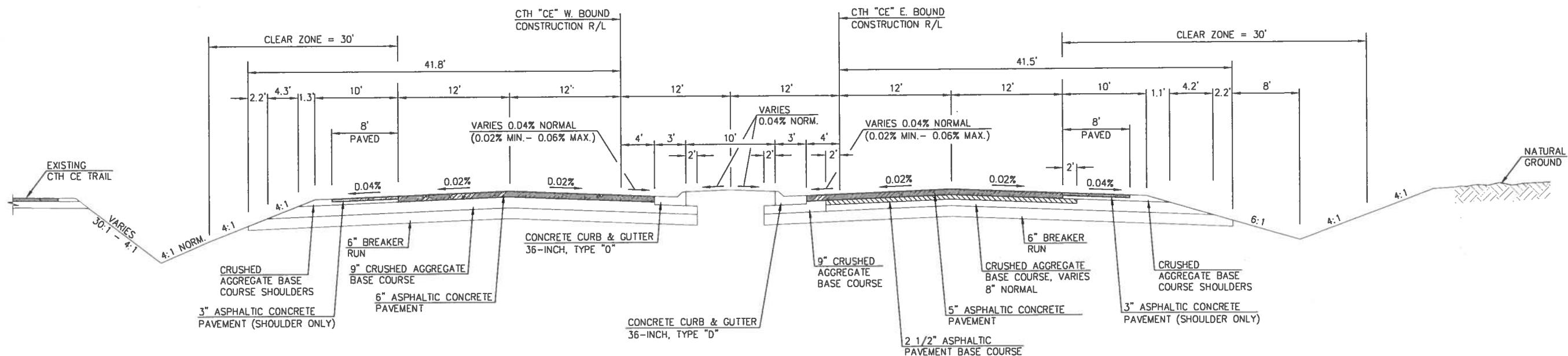
SHEET NO:

E



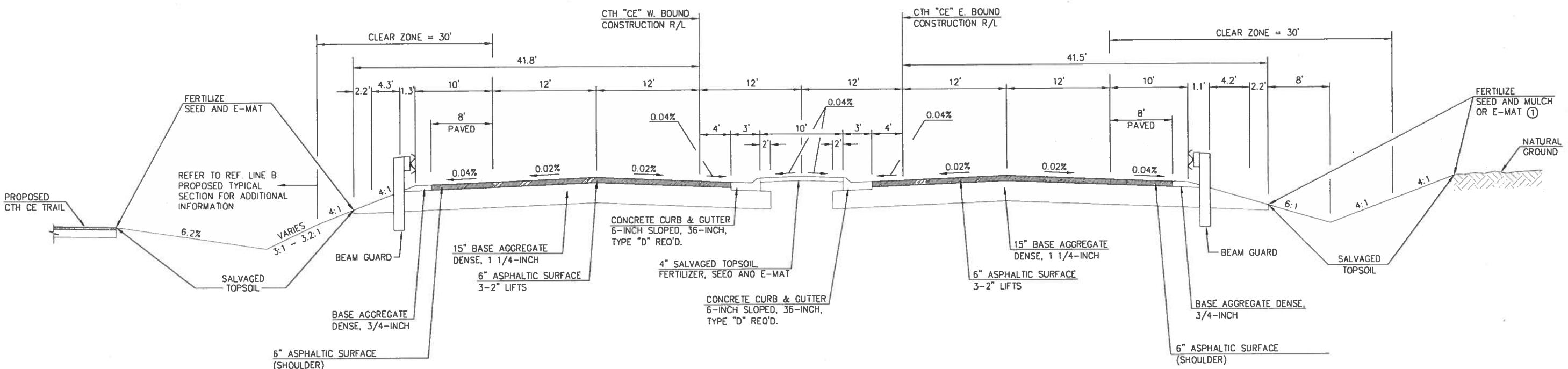
Toll Free (800) 242-8511  
Milwaukee Area (414) 258-1181  
Hearing Impaired TDD (800) 542-2289  
www.DiggersHotline.com





EXISTING TYPICAL SECTION - CTH C

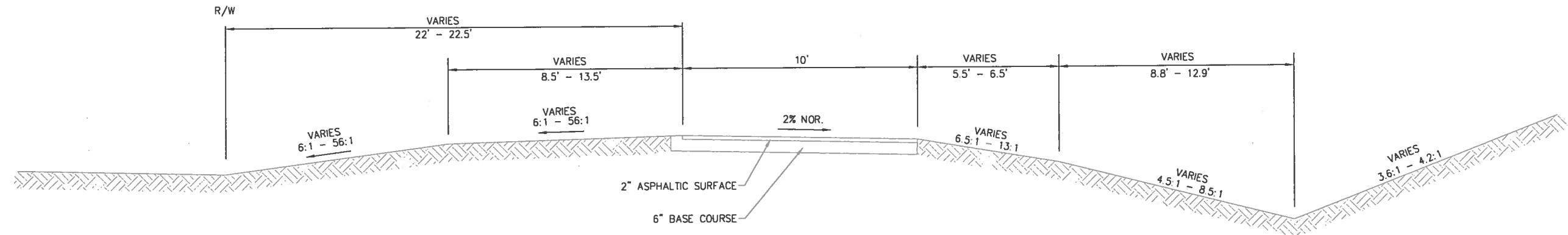
STA. 145+30 - STA. 145+80



PROPOSED TYPICAL SECTION - CTH CE

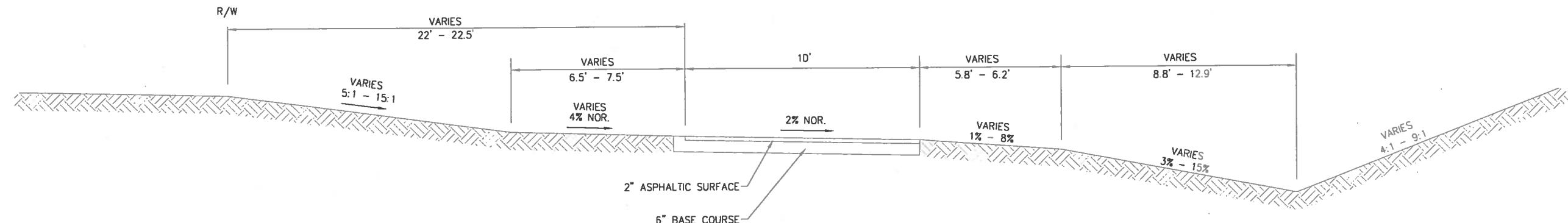
STA. 145+30 - STA. 145+80

① REFER TO "PERMANENT EROSION CONTROL DETAIL & PERMANENT SIGNING" FOR LOCATIONS OF MULCH AND E-MAT



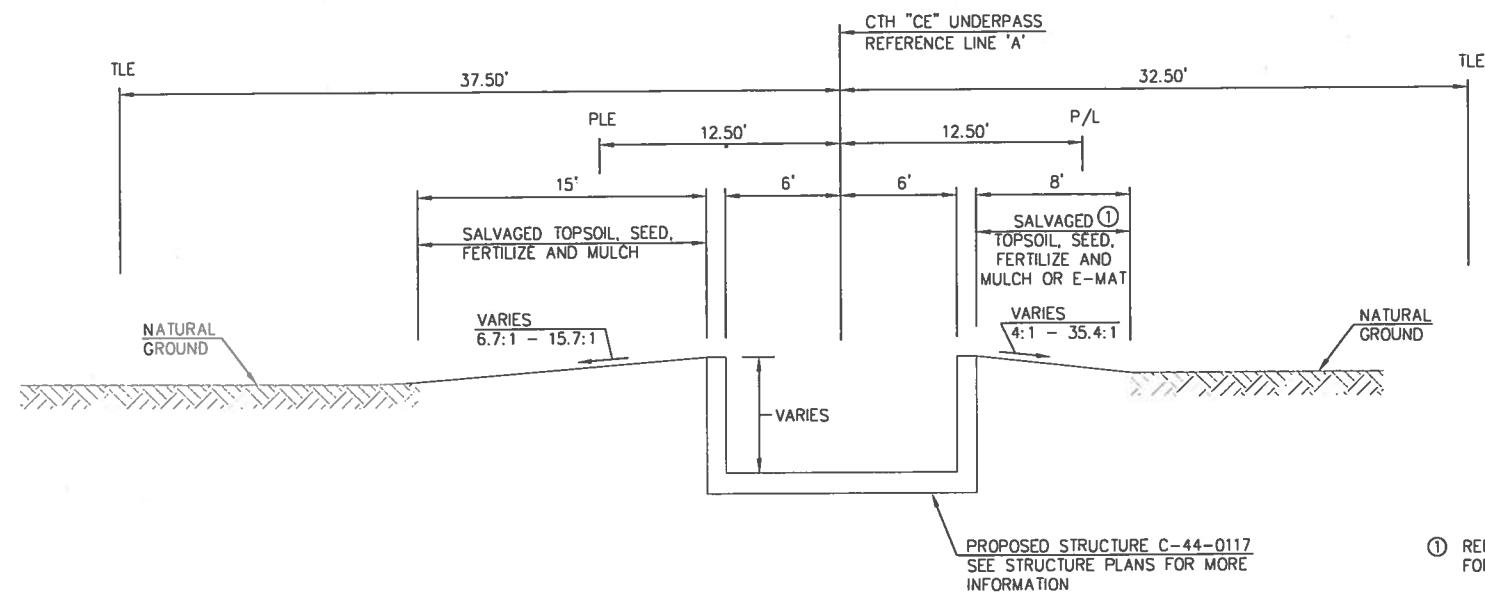
CTH CE TRAIL - EXISTING TYPICAL SECTION

STA. 7+12.56 - STA. 10+85.75



CTH CE TRAIL - EXISTING TYPICAL SECTION

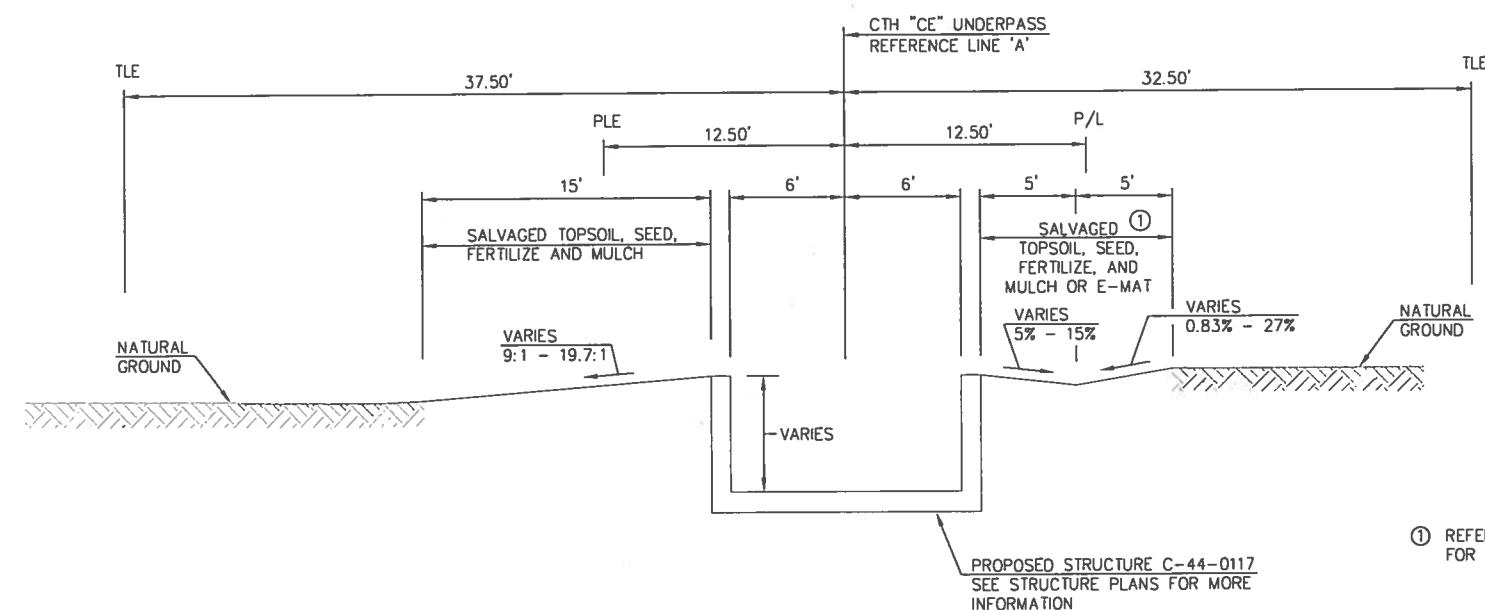
STA. 10+85.75 - STA. 12+87.15



### PROPOSED TYPICAL SECTION – BETTER WAY CONNECTION

STA. 1+60 - STA. 1+90  
STA. 2+50 - STA. 2+90.65

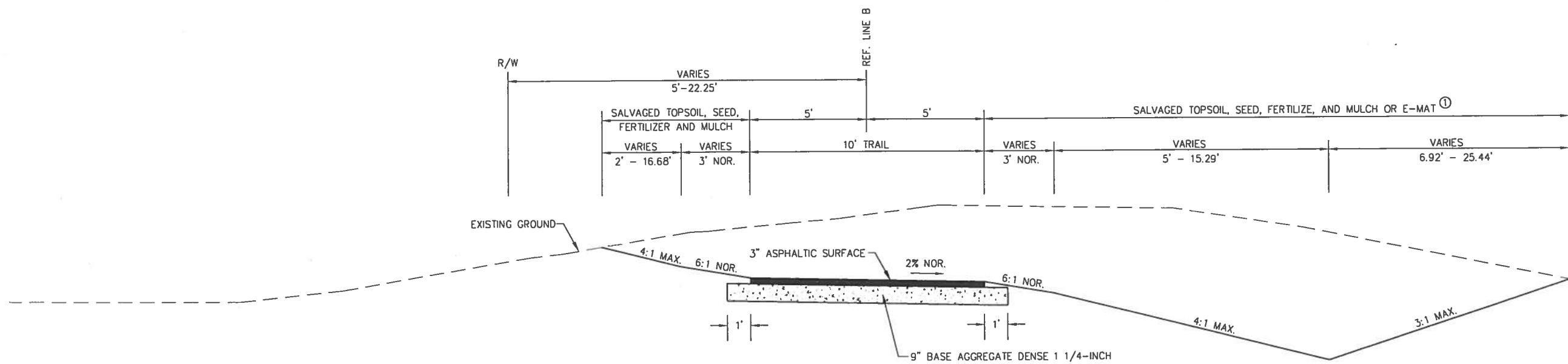
① REFER TO "PERMANENT EROSION CONTROL DETAIL & PERMANENT SIGNING" FOR LOCATIONS OF MULCH AND E-MAT



PROPOSED TYPICAL SECTION - BETTER WAY CONNECTION

STA. 1+90 - STA. 2+50

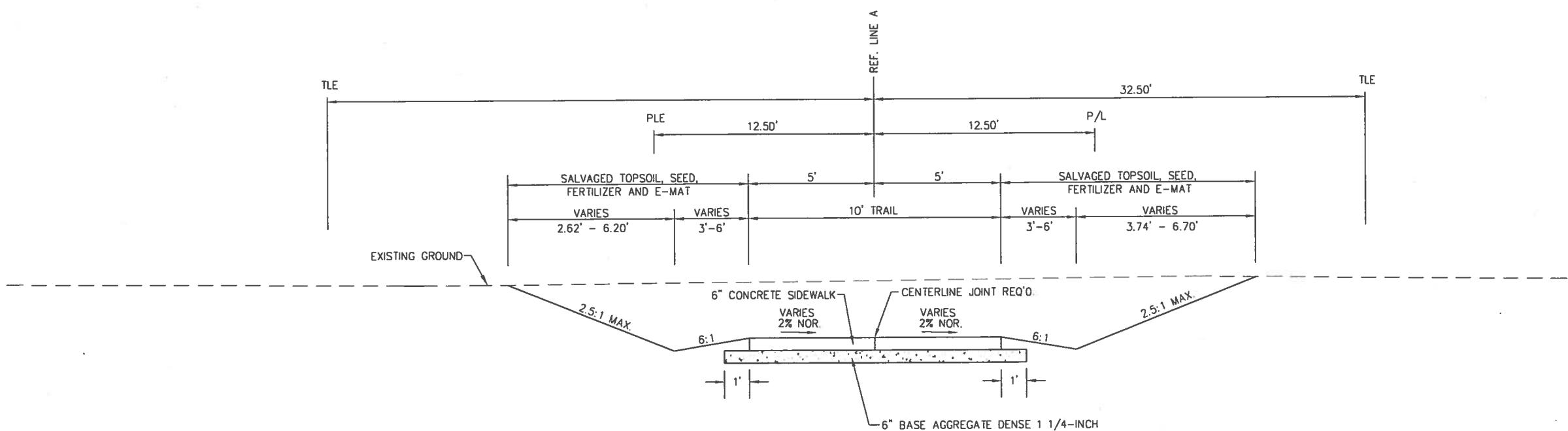
① REFER TO "PERMANENT EROSION CONTROL DETAIL & PERMANENT SIGNING" FOR LOCATIONS OF MULCH AND E-MAT



PROPOSED TYPICAL TRAIL SECTION  
CTH 'CE' TRAIL (REF. LINE B)

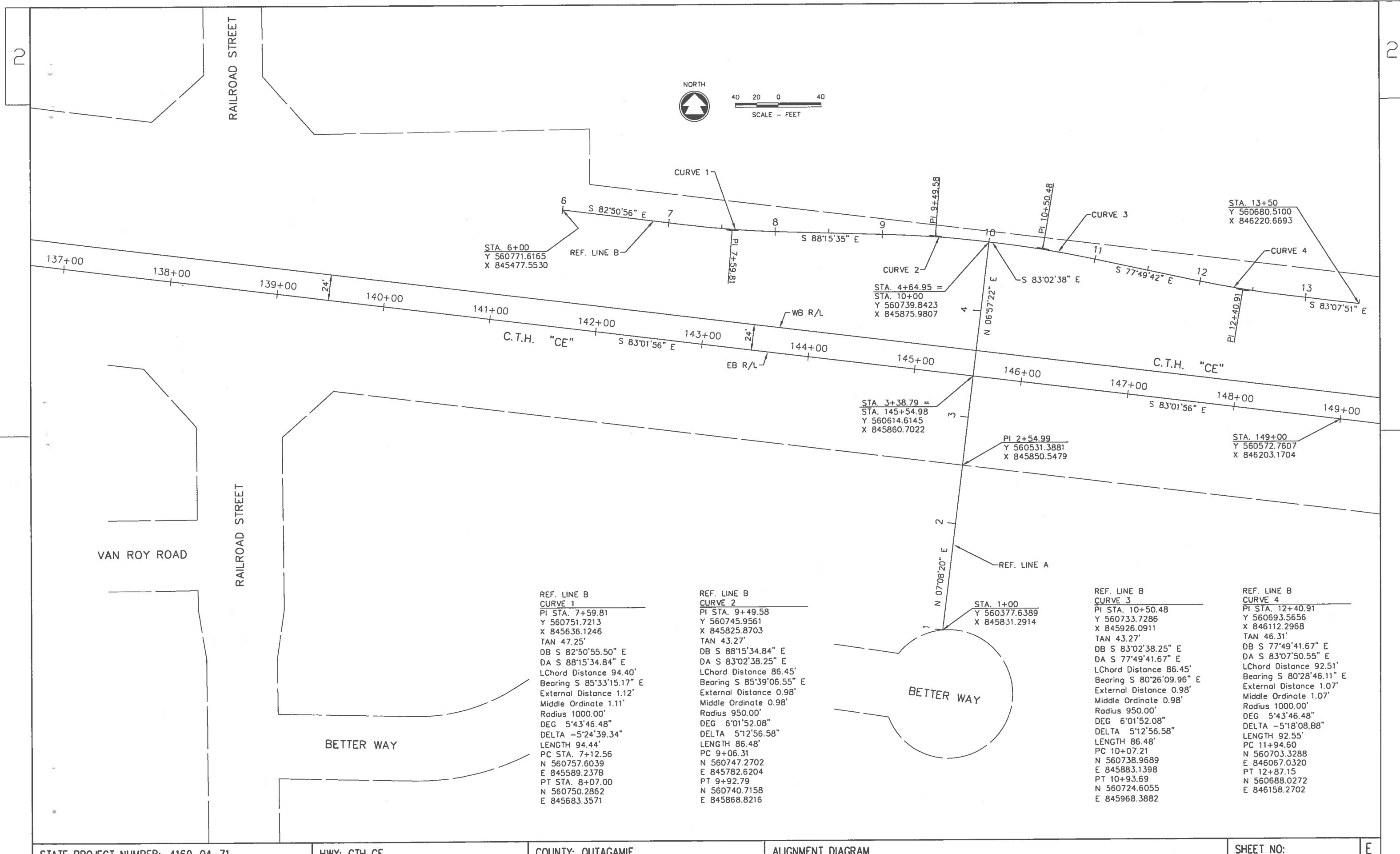
① REFER TO "PERMANENT EROSION CONTROL DETAIL & PERMANENT SIGNING" FOR LOCATIONS OF MULCH AND E-MAT

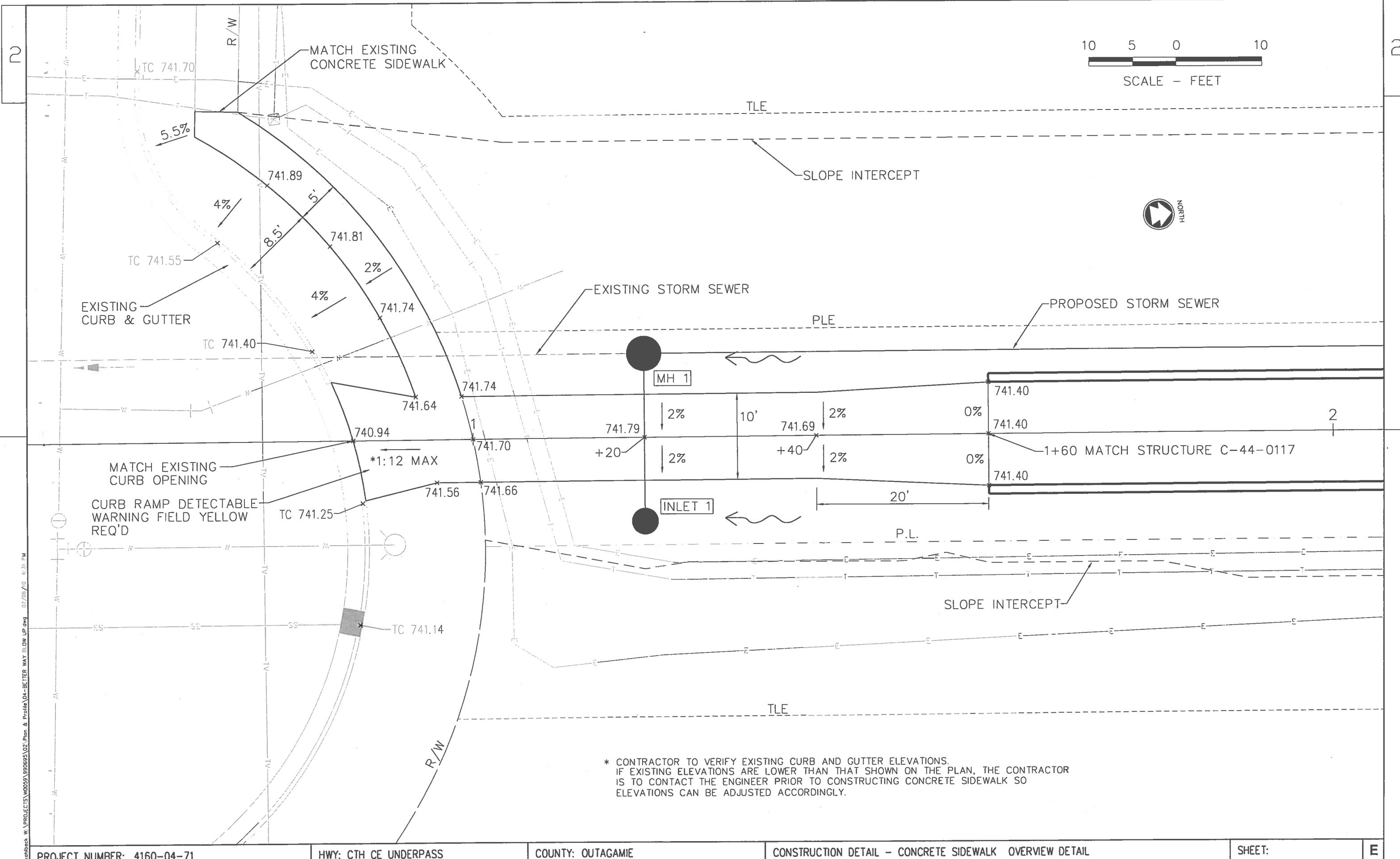
STA. 7+12.56 - STA. 12+87.15



PROPOSED TYPICAL TRAIL SECTION  
BETTER WAY CONNECTION (REF. LINE A)

STA. 0+86.11 - 1+60





20 10 0 20  
SCALE - FEET



STA. 4+64.95 REF. LINE A =  
STA. 10+00.00 REF. LINE B

SLOPE INTERCEPT

ABANDONED FIBER OPTIC LINE

REMOVE CMP

CMP

8

24"

EXISTING TRAIL (ASPH.)

EXISTING TRAIL (ASPH.)

REF. LINE B

EW 2

SLOPE INTERCEPT

112.18'

BASE AGGREGATE DENSE 3/4"

GRAVEL SHOULDER

PAVED SHOULDER +05.00

SAWING ASPHALT REQ'D

SAWING CONCRETE REQ'D

GRAVEL SHOULDER

PAVED SHOULDER +05.00

SAWING ASPHALT REQ'D

PAVED SHOULDER +05.00

GRAVEL SHOULDER

REMOVE CMP

CMP

8

24"

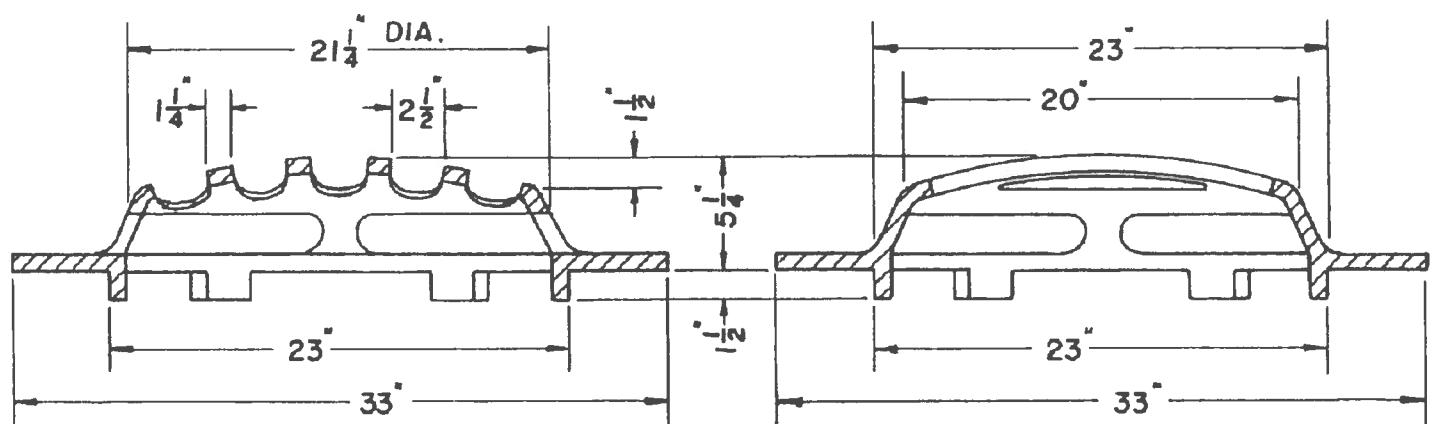
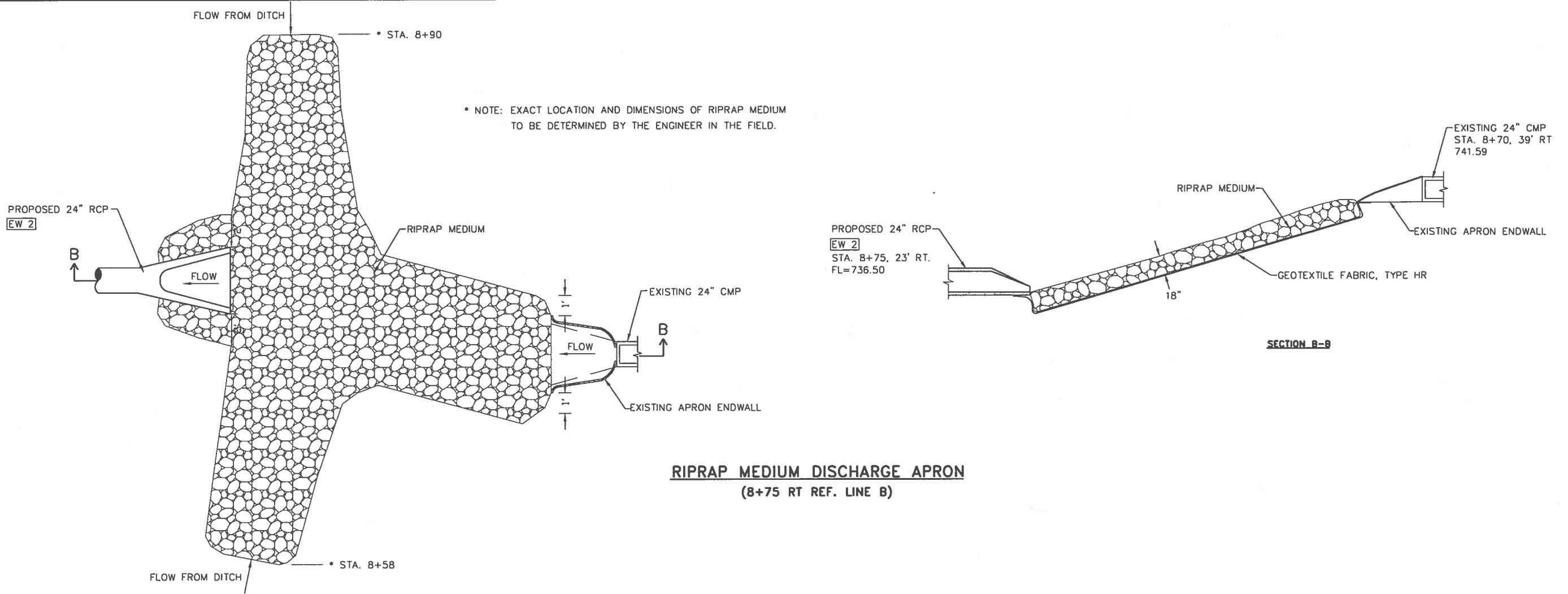
PROJECT NUMBER: 4160-04-71

HWY: CTH CE UNDERPASS

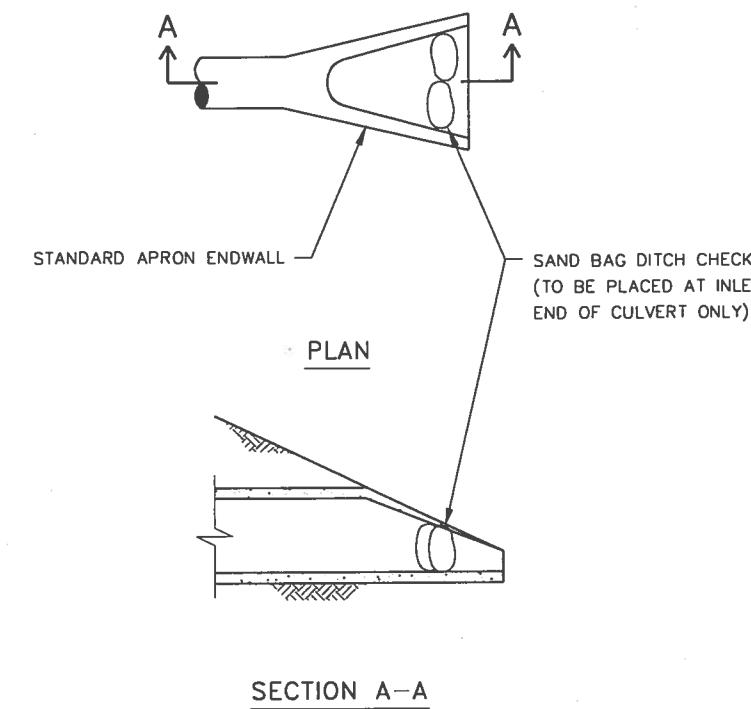
COUNTY: OUTAGAMIE

CTH CE CONSTRUCTION DETAIL

SHEET: E

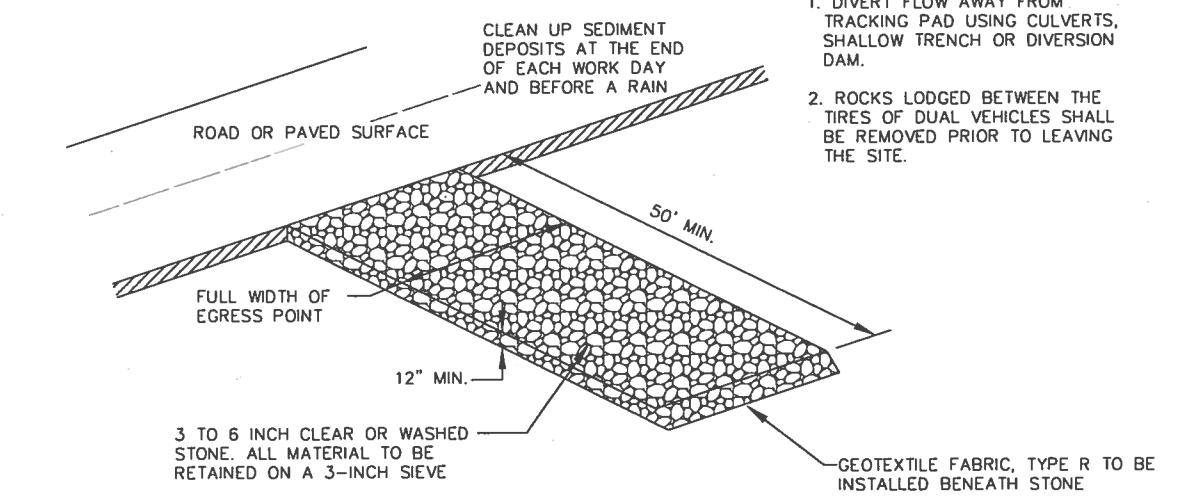


INLET COVER, TYPE A SPECIAL  
WEIGHT = 196 LBS.

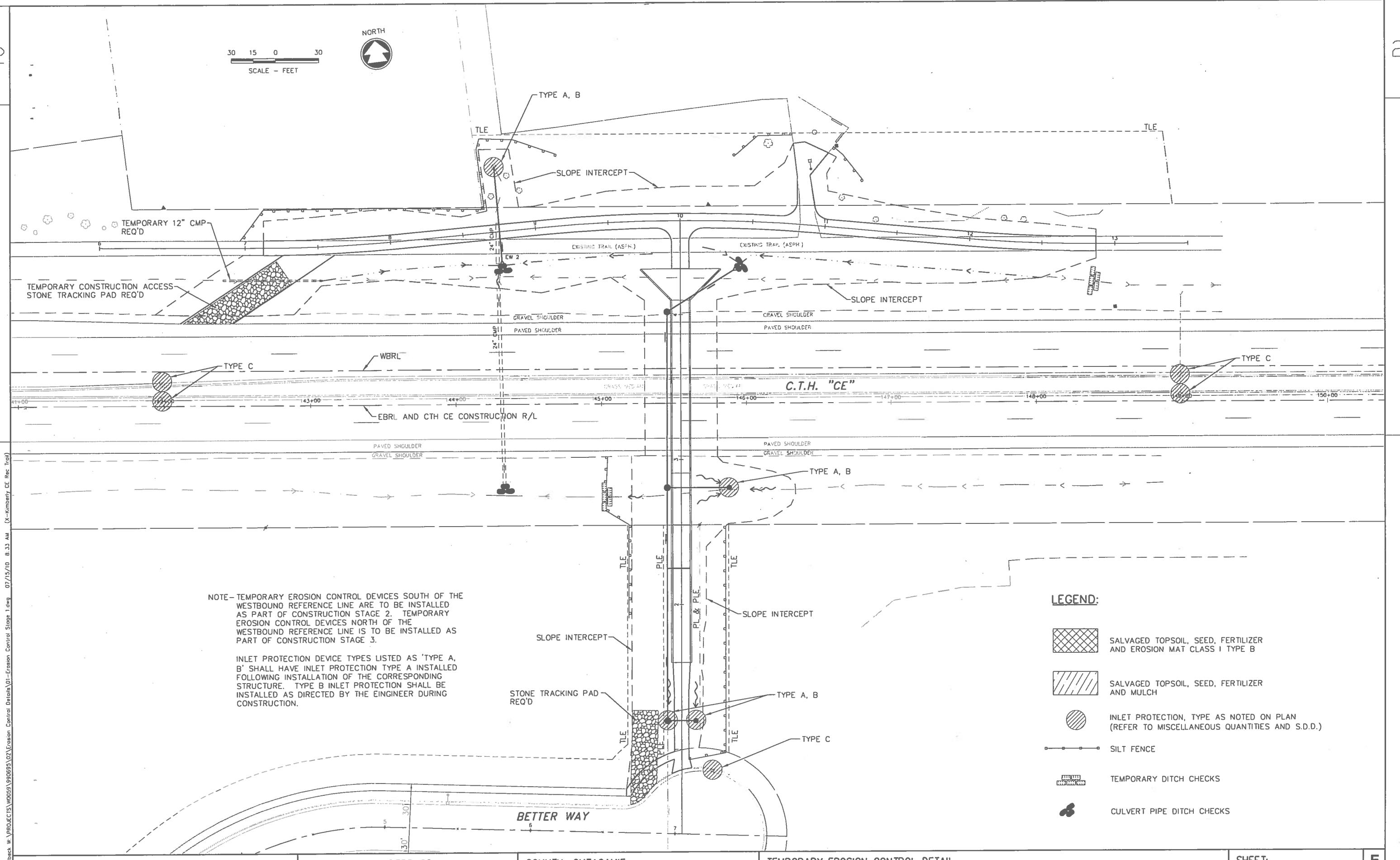


### CULVERT PIPE DITCH CHECKS

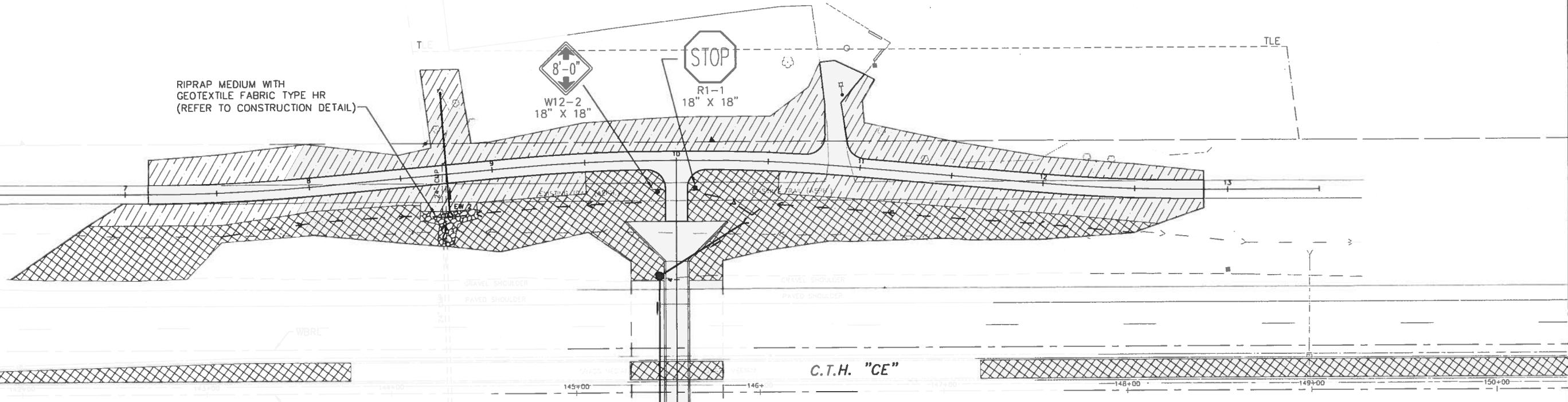
**EW 1 AND EW 2**



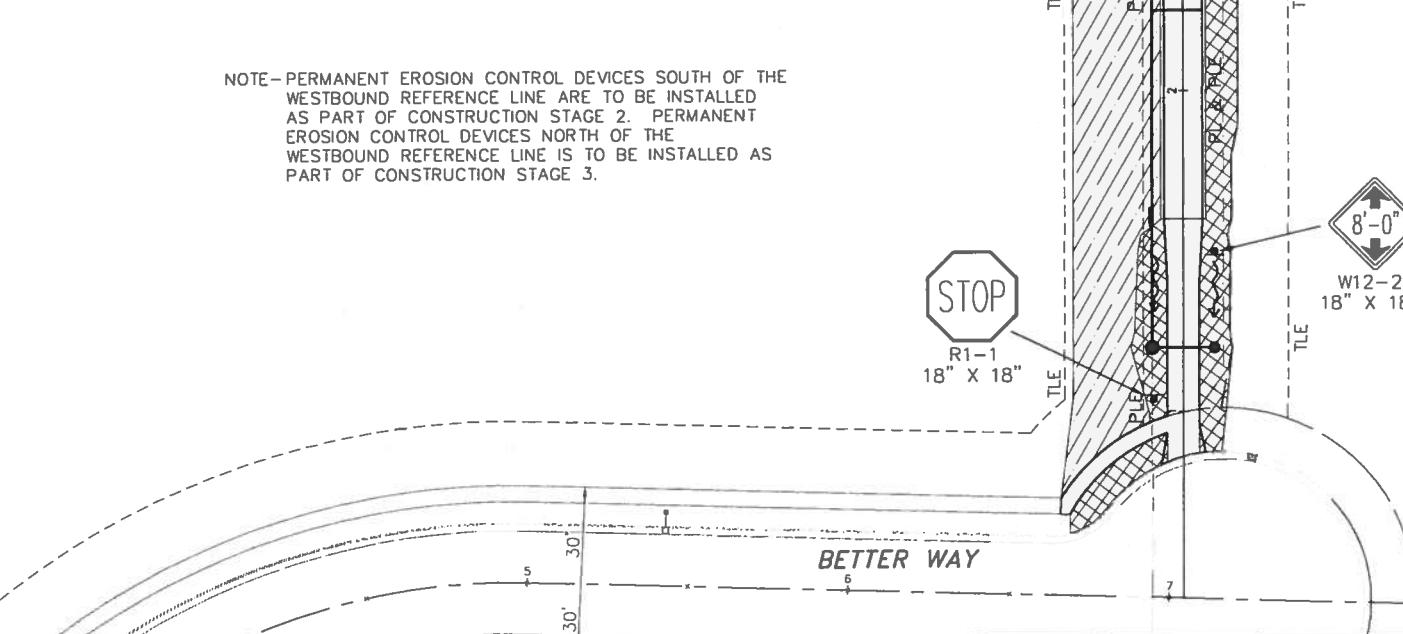
### STONE TRACKING PAD DETAIL



30 15 0 30  
SCALE - FEET

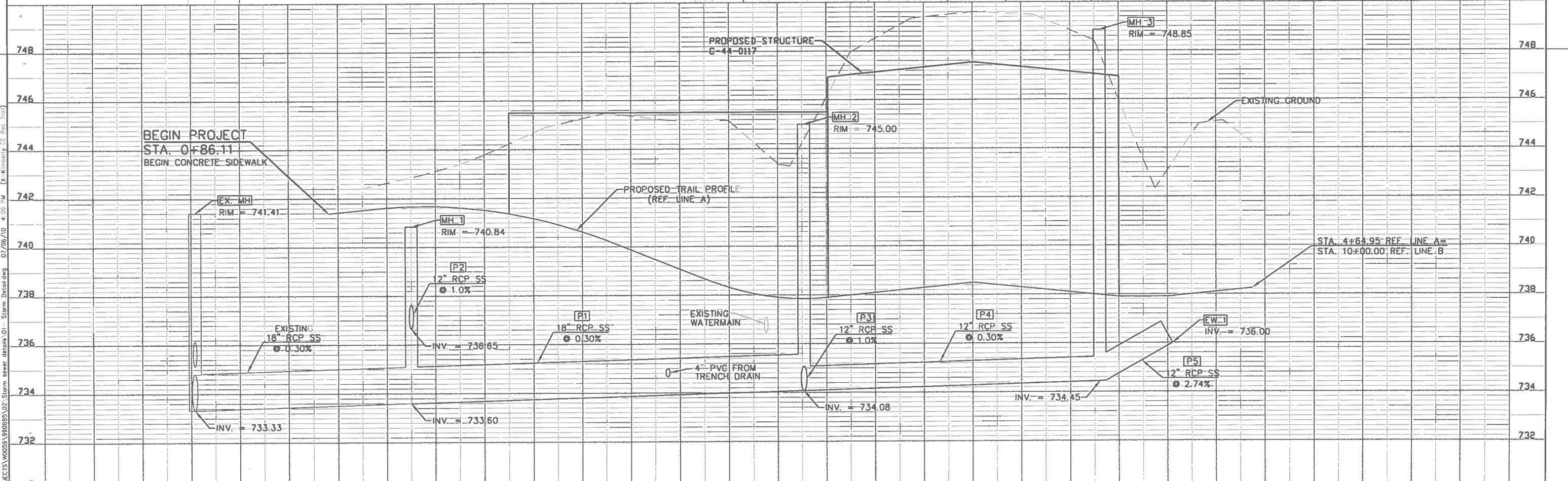
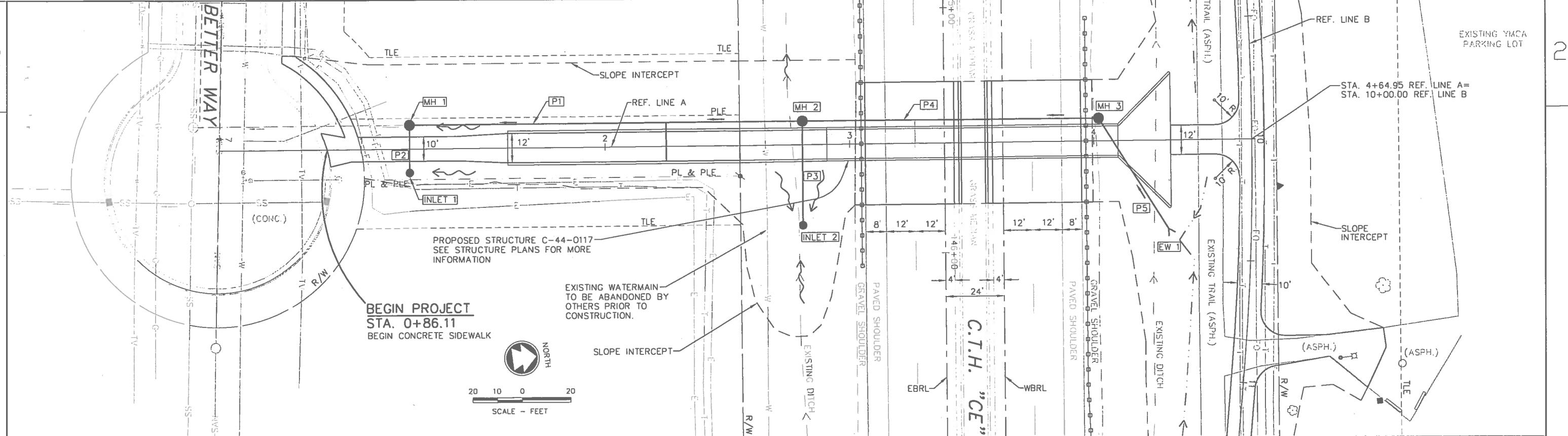


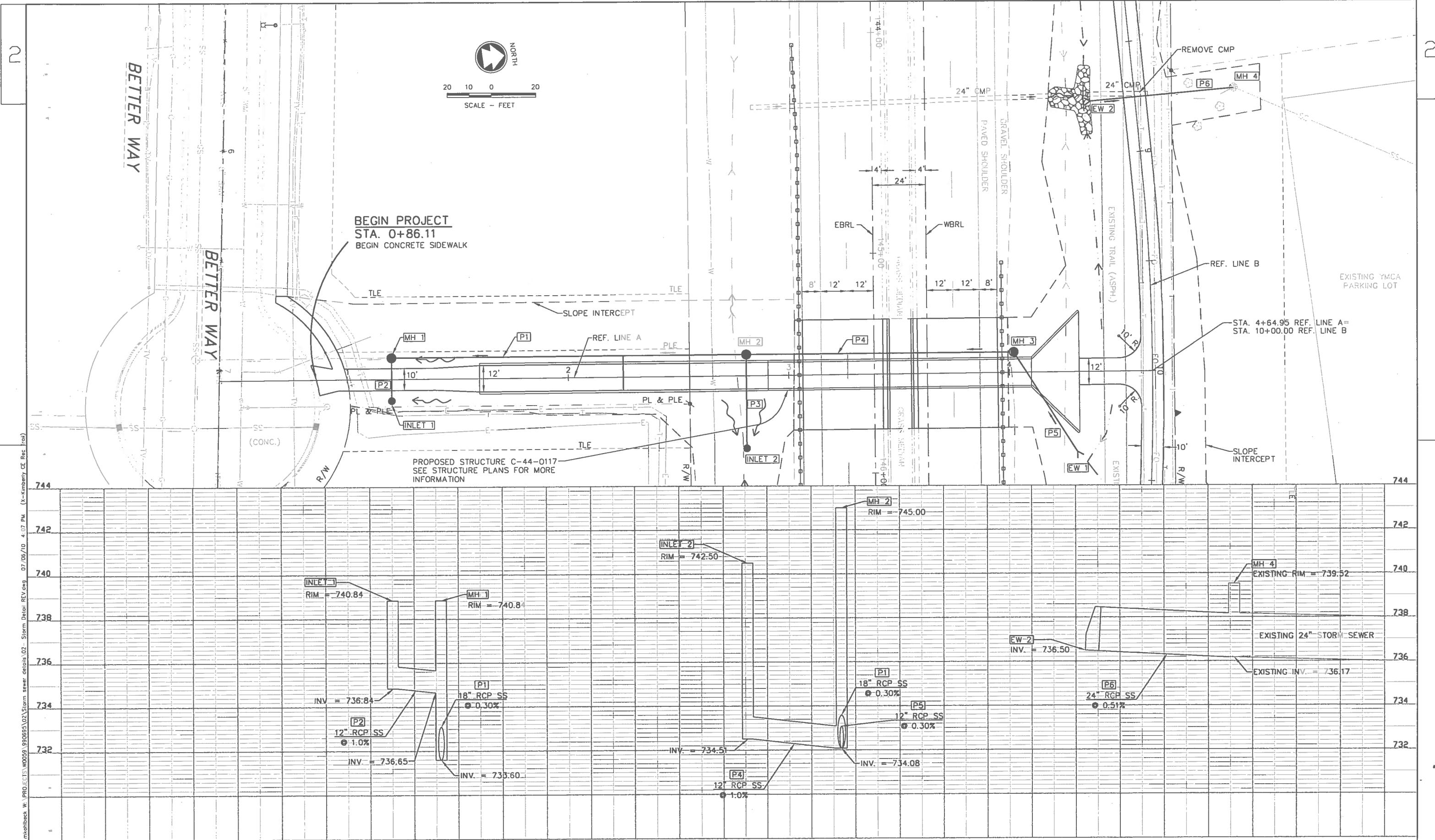
NOTE—PERMANENT EROSION CONTROL DEVICES SOUTH OF THE WESTBOUND REFERENCE LINE ARE TO BE INSTALLED AS PART OF CONSTRUCTION STAGE 2. PERMANENT EROSION CONTROL DEVICES NORTH OF THE WESTBOUND REFERENCE LINE IS TO BE INSTALLED AS PART OF CONSTRUCTION STAGE 3.



LEGEND:

- SALVAGED TOPSOIL, SEED, FERTILIZER AND EROSION MAT CLASS I TYPE B
- SALVAGED TOPSOIL, SEED, FERTILIZER AND MULCH
- INLET PROTECTION, TYPE AS NOTED ON PLAN (REFER TO MISCELLANEOUS QUANTITIES AND S.D.D.)
- SILT FENCE
- TEMPORARY DITCH CHECKS
- CULVERT PIPE DITCH CHECKS





## CLEARING AND GRUBBING

LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID
8+71.50 LT, REF. LINE B	4	4
8+83.00 LT, REF. LINE B	4	4
11+10, 21' LT, REF. LINE B	4	4
11+35, 8' LT, REF. LINE B	4	4
PROJECT TOTALS	16	16

REMOVING SMALL PIPE CULVERTS  
203.0100

STATION	LOCATION	EACH	REMARKS
8+75, REF. LINE B	CROSS CULVERT	1	24" X 28' CMP
PROJECT TOTAL		1	

REMOVING ASPHALTIC SURFACE  
204.0110

STATION	LOCATION	S.Y.	DESCRIPTION
140+76 LT - 143+77.50 LT 147+20 LT - 150+55 LT	CTH CE CTH CE	430 567	TEMP. CROSSOVER REMOVAL TEMP. CROSSOVER REMOVAL
PROJECT TOTAL *		997	

REMOVING CURB & GUTTER  
204.0150

STATION	LOCATION	L.F.
145+30 - 145+80, CTH CE	EASTBOUND MEDIAN	50
145+30 - 145+80, CTH CE	WESTBOUND MEDIAN	50
140+76 - 143+77.50, CTH CE	WESTBOUND MEDIAN	301
140+76 - 143+77.50, CTH CE	EASTBOUND MEDIAN	302
147+38.50 - 150+44, CTH CE	WESTBOUND MEDIAN	306
147+20 - 150+55, CTH CE	EASTBOUND MEDIAN	335
PROJECT TOTAL		1344

## EARTHWORK SUMMARY

LOCATION	205.0100 EXCAVATION COMMON C.Y.	*EXPANDED FILL C.Y.	MASS HAUL (WASTE) C.Y.	DESCRIPTION
1+00 - 1+60, REF. LINE A 7+12.56 - 12+87.15, REF. LINE B BETTER WAY CONNECTION	112 3763 18	1.5 - --	2 3763 18	
TEMP. CROSSOVER STA. 140+76 - STA. 143+77.50	174	-	--	STAGE 1 CONSTRUCTION
TEMP. CROSSOVER STA. 147+38.50 - STA. 150+44	227	-	--	STAGE 1 CONSTRUCTION
TEMP. CROSSOVER STA. 140+76 - STA. 143+77.50	-	40	52	STAGE 4 RESTORATION
TEMP. CROSSOVER STA. 147+38.50 - STA. 150+44	-	59	77	STAGE 4 RESTORATION
TEMP. CONSTRUCTION ACCESS STA. 6+58 RT - 7+31 RT, REF. LINE B	-	160	208	-208
PROJECT TOTALS	4294	260.5	339	3955

## BASE AGGREGATE DENSE

STATION TO STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
145+30 - 145+80 LT, CTH CE	GRAVEL SHOULDER	30	-
145+30 - 145+80 RT, CTH CE	GRAVEL SHOULDER	30	-
4+31.65 - 4+59.95, REF. LINE A 0+86.11 - 1+60, REF. LINE A	TRAIL / STRUCTURE TRANSITION	-	23
7+13 - 12+87, REF. LINE B	SIDEWALK	-	34
10+85 LT, REF. LINE B	TRAIL	-	383
145+30 - 145+80 LT, CTH CE	TRAIL / YMCA TRANSITION	-	45
145+30 - 145+80 RT, CTH CE	CTH CE EB RECONSTRUCTION	-	222
-	CTH CE WB RECONSTRUCTION	-	222
140+76 - 143+77.50 LT, CTH CE	BETTER WAY SIDEWALK	-	12
147+20 - 150+00 LT, CTH CE	TEMPORARY CROSSOVER	--	286
147+20 - 150+00 LT, CTH CE	TEMPORARY CROSSOVER	--	378
PROJECT TOTALS	60	1605	

## ASPHALTIC ITEMS

STATION TO STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	465.0125 ASPHALTIC SURFACE TON	455.0605 TACK COAT GAL
145+30 - 145+80, CTH CE	EB LANES	70	-	10
145+30 - 145+80, CTH CE	WB LANES	70	-	10
7+12.56 - 12+87.15, REF LINE B	ASPHALT TRAIL	110	-	-
4+31.65 - 4+59.95, REF. LINE A	ASPHALT TRAIL	7	-	-
10+85 LT, REF. LINE B	ASPHALT TRAIL (TRANSITION)	14	-	-
140+76 - 143+77.50, CTH CE	TEMPORARY CROSSOVER	-	120	-
140+76 - 143+77.50, CTH CE	TEMPORARY CROSSOVER	-	156	-
140+76 - 143+77.50, CTH CE	*WB LANES	24	2	-
140+76 - 143+77.50, CTH CE	*EB LANES	24	2	-
147+20 - 150+55, CTH CE	*WB LANES	25	2	-
147+20 - 150+55, CTH CE	*EB LANES	25	2	-
PROJECT TOTAL	369	276	28	

CULVERT PIPE TEMPORARY 12-INCH  
520.4012

STATION TO STATION	LOCATION	L.F.
6+85 RT. - 7+52 RT.	REF. LINE B	68

PROJECT TOTAL 68

## DRILLED TIE BARS

416.0610

LOCATION	DESC	EACH
145+30 CTH CE	WB MEDIAN CURB AND GUTTER	2
145+30 CTH CE	EB MEDIAN CURB AND GUTTER	2
145+80 CTH CE	WB MEDIAN CURB AND GUTTER	2
145+80 CTH CE	EB MEDIAN CURB AND GUTTER	2
140+76 CTH CE	WB MEDIAN CURB AND GUTTER	2
140+76 CTH CE	EB MEDIAN CURB AND GUTTER	2
143+77.50 CTH CE	EB MEDIAN CURB AND GUTTER	2
143+77.50 CTH CE	WB MEDIAN CURB AND GUTTER	2
147+20 CTH CE	EB MEDIAN CURB AND GUTTER	2
147+38.50 CTH CE	WB MEDIAN CURB AND GUTTER	2
150+44 CTH CE	WB MEDIAN CURB AND GUTTER	2
150+55 CTH CE	EB MEDIAN CURB AND GUTTER	2
PROJECT TOTAL	24	

NOTE:  
TIE BARS REQ'D BETWEEN EXISTING CURB & GUTTER  
AND PROPOSED CURB & GUTTER, 1'-6" C-C

## CONCRETE CURB &amp; GUTTER, TYPE D

STATION TO STATION	LOCATION	LF
145+30 - 145+80	CTH CE, WB MEDIAN	50
145+30 - 145+80	CTH CE, EB MEDIAN	50
140+76 - 143+77.50	CTH CE, WB MEDIAN	301
140+76 - 143+77.50	CTH CE, EB MEDIAN	302
147+20 - 150+55	CTH CE, EB MEDIAN	335
147+38.50 - 150+44	CTH CE, WB MEDIAN	306
PROJECT TOTAL	1344	

CONCRETE SIDEWALK 6-INCH  
602.0415

STATION TO STATION	LOCATION	S.F.	REMARKS
0+86.11 - 1+60	REF. LINE A BETTER WAY	761 217	TRAIL 5' CONCRETE SIDEWALK
PROJECT TOTAL	978		

CURB RAMP DETECTABLE WARNING FIELD YELLOW  
602.0505

STATION	LOCATION	S.F.
0+87.50	REF. LINE A	16
PROJECT TOTAL		16

RIPRAP MEDIUM & GEOTEXTILE FABRIC HR

RIPRAP MEDIUM	GEOTEXTILE FABRIC		
STATION	LOCATION	CY	TYPE HR
8+75 RT, REF. LINE B	CTH CE DITCH	17	52
PROJECT TOTALS		17	52

STORM SEWER SUMMARY

PIPE NO.	FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	608.0312 RCPSS CLASS III	608.0318 RCPSS CLASS III	608.0324 RCPSS CLASS III	12-INCH L.F.	18-INCH L.F.	24-INCH L.F.	SLOPE %	REMARKS
P1	MH2	MH1	734.08	733.60				161			0.30	
P2	INLET 1	MH1	736.84	736.65	20						0.95	
P3	INLET 2	MH2	734.51	734.08	43						1.00	
P4	MH3	MH2	734.45	734.08	121						0.31	
P5	EW1	MH3	736.00	734.45	51						2.77	*
P6	EW2	MH4	736.50	736.17				60			0.51	*
			PROJECT TOTALS	235	161			60				

\* JOINT TIES REQUIRED - NON-BID ITEM, FOR INFORMATIONAL PURPOSES ONLY.

REINFORCED CONCRETE APRON ENDWALLS AND ADJOINING TWO SECTIONS OF CONCRETE PIPE SHALL BE TIED TOGETHER AS SHOWN ON THE STANDARD DETAIL DRAWINGS.

STORM SEWER STRUCTURES

STRUCTURE NO.	STATION	LOCATION	ENDWALLS		MANHOLES	INLETS	INLET COVERS	MANHOLE COVERS	RIM ELEVATION	FLOWLINE OF STRUCTURE	STRUCTURE DEPTH
			522.1012 12-INCH EACH	522.1024 24-INCH EACH							
MH1	1+20.00, REF. LINE A	11' LT.			1		1	1	740.84	733.60	6.74
INLET 1	1+20.00, REF. LINE A	11' RT.			1	1	1	1	740.84	736.84	3.50
MH2	2+81.00, REF. LINE A	10' LT.			1		1	1	745.00	734.08	9.67
INLET 2	2+81.00, REF. LINE A	33' RT			1	1	1	1	742.50	734.51	7.49
MH3	4+02.00, REF. LINE A	10' LT.			1		1	1	748.85	734.45	13.15
EW1	4+32.00, REF. LINE A	38.6' RT.	1						—	736.00	—
EW2	8+75, REF. LINE B	23' RT.		1					—	736.50	—

PROJECT TOTALS 1 1 3 2 3 2

LOCATION IS TO CENTER OF STRUCTURE FOR MANHOLES AND TYPE 1 INLETS

LOCATION IS TO CENTER OF INFLOW POINT FOR ENDWALLS

FLOW LINE OF STRUCTURE = LOWEST PIPE FLOW LINE ELEVATION ENTERING STRUCTURES

FLOW LINE OF STRUCTURE = CENTER OF INFLOW POINT FOR ENDWALLS

RIM ELEVATION = FINISHED FLOWLINE OF CASTING AT TYPE 1 INLETS WITH TYPE A SPECIAL CASTINGS  
RIM ELEVATION = TOP OF CASTING FOR STRUCTURES WITH TYPE J MANHOLE CASTINGS

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 6" FOR TYPE 1 MANHOLES AND TYPE 1 INLETS WITH TYPE A SPECIAL CASTINGS  
STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 15" FOR TYPE 1 MANHOLES WITH TYPE J MANHOLE CASTINGS

STEEL PLATE BEAM GUARD CLASS A  
614.0305

STATION	LOCATION	L.F.
144+55 RT - 146+05 RT	CTH CE	150
145+05 RT - 146+55 RT	CTH CE	150

PROJECT TOTAL 300

STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL  
614.0370

STATION	LOCATION	EACH
144+05 RT - 144+55 RT	CTH CE	1
146+55 LT - 147+05 LT	CTH CE	1

PROJECT TOTAL 2

WATER  
624.0100

STATION TO STATION	LOCATION	MGAL
0+61.74 - 3+02.90	REF. LINE A	2
6+38 - 12+87.15	REF. LINE B	2
140+76 - 150+55	CTH CE	2

PROJECT TOTALS 6

LANDSCAPING SUMMARY								
STATION	LOCATION	625.0500 SALVAGED TOPSOIL	627.0200 MULCHING	628.2004 EROSION MAT CLASS I TYPE B	629.0210 FERTILIZER TYPE B	630.0140 SEEDING MIXTURE NO. 40	630.0200 SEEDING TEMPORARY	
		S.Y.	S.Y.	S.Y.	CWT.	LB.	LB.	
0+61.74 LT. - 3+02.90 LT.	REF. LINE A	705	609	96	0.45	13	10	
0+87 RT. - 3+02.90 RT.	REF. LINE A	484	194	290	0.31	9	7	
6+38 RT. - 12+87.15 RT.	REF. LINE B	2132	632	1500	1.34	39	29	
7+12.56 LT. - 12+87.15 LT.	REF. LINE B	1045	1045	—	0.66	19	14	
145+30 - 145+80	CTH CE	56	—	56	0.04	1	1	
140+76 LT - 143+77.50 LT	CTH CE	240	—	240	0.15	5	4	
147+20 LT - 150+55 LT	CTH CE	360	—	360	0.23	7	5	
UNDISTRIBUTED	PROJECT LIMITS	502	248	254	0.32	24	18	
PROJECT TOTALS		5524	2728	2796	3.50	117	88	

SILT FENCE			
STATION TO STATION	LOCATION	L.F.	628.1504 SILT FENCE
			628.1520 SILT FENCE MAINTENANCE
0+90 RT. - 2+55 RT.	REF. LINE A	185	185
1+90 LT. - 3+02 LT.	REF. LINE A	100	100
6+96 LT. - 9+20 LT.	REF. LINE B	285	285
10+35 LT. - 10+73 LT.	REF. LINE B	50	50
11+00 LT. - 11+24 LT.	REF. LINE B	30	30
PROJECT TOTALS		650	650

INLET PROTECTION			
STATION	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH
		628.7015 TYPE C EACH	
142+00 LT.	CTH CE	2	
149+00 LT.	CTH CE	2	
0+86 RT.	REF. LINE A	1	1
1+20 LT.	REF. LINE A	1	1
1+20 RT.	REF. LINE A	1	1
2+81 RT.	REF. LINE A	1	1
8+75 LT.	REF. LINE B	1	1
PROJECT TOTAL		4	4
			5

DITCH CHECKS			
STATION	LOCATION	628.7504 TEMPORARY L.F.	628.7550 CULVERT PIPE EACH
			REMARKS
144+33.50 RT.	CTH CE	1	EXISTING 24" CMP
145+00 RT.	CTH CE	9	CTH CE DITCH
8+18 RT.	REF. LINE B	9	CTH CE DITCH
8+75 RT.	REF. LINE B	1	24" RCP STORM SEWER
10+38.50 RT.	REF. LINE B	1	12" RCP STORM SEWER
11+30 RT.	REF. LINE B	9	CTH CE DITCH
12+88 RT.	REF. LINE B	9	CTH CE DITCH
PROJECT TOTAL		36	3

PERMANENT SIGNING QUANTITIES								
SIGN NO.	STATION	LOCATION	SIGN CODE	SIGN DESCRIPTION	SIGN SIZE (W x H) IN	634.0809 POSTS TUBULAR STEEL 2 x 2-INCH x 9.5-FT EACH	637.0202 SIGNS REFLECTIVE TYPE II SF	
01	1+04	REF LINE A - 9.25' LT	R1-1	STOP	18 x 18	1	1.86	
02	1+50	REF LINE A - 9.75' RT	W12-2	LOW CLEARANCE	18 x 18	1	2.25	
03	4+48	REF LINE A - 10.25' LT	W12-2	LOW CLEARANCE	18 x 18	1	1.86	
04	4+50	REF LINE A - 10.25' RT	R1-1	STOP	18 x 18	1	2.25	
PROJECT TOTALS					4		8.22	

MOUNTING HEIGHTS SHALL BE 4-5 FT FROM THE EDGE OF PAVEMENT TO BOTTOM EDGE OF SIGN

STAGE	SERVICE PERIOD (DAYS)	643.0900 SIGNS (NO.) (DAYS)		643.0420 BARRICADES (NO.) (DAYS)		643.0300 DRUMS (NO.) (DAYS)		643.0705 WARNING LIGHTS TYPE A (NO.) (DAYS)		643.0715 WARNING LIGHTS TYPE C (NO.) (DAYS)	
		643.0900 SIGNS (NO.)	643.0900 SIGNS (DAYS)	643.0420 BARRICADES (NO.)	643.0420 BARRICADES (DAYS)	643.0300 DRUMS (NO.)	643.0300 DRUMS (DAYS)	643.0705 WARNING LIGHTS TYPE A (NO.)	643.0705 WARNING LIGHTS TYPE A (DAYS)	643.0715 WARNING LIGHTS TYPE C (NO.)	643.0715 WARNING LIGHTS TYPE C (DAYS)
1	3	49	147	4	12	91	273	8	24	20	60
2	35	60	2100	8	280	140	4900	16	560	85	2975
3	46	73	3358	8	368	126	5796	16	736	68	3128
4	7	49	343	4	28	91	637	8	56	20	140
PROJECT TOTALS		231	5948	24	688	448	11606	48	1376	193	6303

## PAVEMENT MARKING

	646.0106 EPOXY 4-INCH (EDGELINE, YELLOW)	646.0106 EPOXY 4-INCH (EDGELINE, WHITE)	646.0106 EPOXY 4-INCH (LANE LINE, WHITE)
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STATION TO STATION	LOCATION	L.F.	L.F.	L.F.
145+30 - 145+80	CTH CE, WB LANES	50		
145+30 - 145+80	CTH CE, EB LANES	50	50	13
150+43 - 154+19	CTH CE, WB LANES			89
144+15.00 - 147+16.00	CTH CE, WB LANES			75
140+47 - 141+60	CTH CE, EB LANES	113		
142+92.50 - 144+05.50	CTH CE, WB LANES	113		
142+40 - 150+43	CTH CE, WB LANES		803	
147+25 - 148+39	CTH CE, WB LANES	113		
149+71 - 150+84	CTH CE, EB LANES	113		
141+34 - 142+20	CTH CE, WB LANES	86		
142+77 - 143+88	CTH CE, EB LANES	111		
146+92.50 - 147+98.50	CTH CE, EB LANES	106		
149+31 - 150+51	CTH CE, WB LANES	120		
PROJECT TOTALS		975	853	177
646.0106 TOTAL PAVEMENT MARKING EPOXY 4-INCH=		2005		

SAWING ASPHALT  
690.0150

STATION	LOCATION	L.F.	DESCRIPTION
145+30	CTH CE	37	WB MATCH POINT
145+30	CTH CE	37	EB MATCH POINT
145+80	CTH CE	37	WB MATCH POINT
145+80	CTH CE	37	EB MATCH POINT
7+12.56	REF. LINE B	10	TRAIL MATCH POINT
12+87.15	REF. LINE B	10	TRAIL MATCH POINT
10+74.20 - 10+98.00 LT	REF. LINE B	26	MATCH POINT (YMCA)
140+76 - 143+77.50	CTH CE, WB LANES	305	CROSS OVER RESTORATION
140+76 - 143+77.50	CTH CE, EB LANES	306	CROSS OVER RESTORATION
147+38.50 - 150+44	CTH CE, WB LANES	310	CROSS OVER RESTORATION
147+20 - 150+55	CTH CE, EB LANES	339	CROSS OVER RESTORATION
PROJECT TOTAL		1454	

SAWING CONCRETE  
690.0250

STATION	LOCATION	L.F.	DESCRIPTION
145+30	CTH CE	6	EB & WB MEDIAN C&G
145+80	CTH CE	6	EB & WB MEDIAN C&G
140+76	CTH CE	6	EB & WB MEDIAN C&G
143+77.50	CTH CE	6	EB & WB MEDIAN C&G
147+20	CTH CE	3	EB MEDIAN C&G
147+38.50	CTH CE	3	WB MEDIAN C&G
150+44	CTH CE	3	WB MEDIAN C&G
150+55	CTH CE	3	EB MEDIAN C&G
PROJECT TOTAL		36	

## TEMPORARY PAVEMENT MARKING &amp; REMOVING PAVEMENT MARKINGS

STATION TO STATION	STAGE	LOCATION	L.F.	649.0400 REMOVABLE TAPE 4-INCH (YELLOW)	649.0400 REMOVABLE TAPE 4-INCH (WHITE)	649.0400 REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)	649.0801 REMOVABLE TAPE 8-INCH	649.1200 STOP LINE REMOVABLE TAPE 18-INCH	646.0600 REMOVING PAVEMENT MARKINGS
132+94.25 - 136+10.25	1	CTH CE, EB LANES	--	316	--	--	--	--	--
139+20.33 - 140+20.33	1	CTH CE, WB LANES	100	--	--	--	100	--	--
151+00 - 153+44.70	1	CTH CE, WB LANES	245	--	--	--	--	--	63
134+90.25 - 136+09.25	2	CTH CE, EB LANES	--	119	--	--	--	--	--
136+09.25 - 137+09.25	2	CTH CE, EB LANES	--	--	937	--	100	--	--
140+37.50 - 149+71.00	2	CTH CE, EB LANES	412	--	--	--	--	--	--
140+47.00 - 144+56.50	2	CTH CE, EB LANES	412	--	--	--	--	--	--
146+74.00 - 150+84.00	2	CTH CE, EB LANES	117	--	--	--	--	--	--
143+39.70 - 144+56.50	2	CTH CE, WB LANES	615	--	--	--	--	--	--
146+74.00 - 152+88.00	2	CTH CE, WB LANES	--	435	--	--	--	--	--
144+56.50 - 146+74.00	2	CTH CE, EB & WB LANES	--	804	--	--	--	--	--
142+40.00 - 150+43.00	2	CTH CE, EB LANES	--	--	--	--	--	--	113
142+40.00 - 141+60.00	2	CTH CE, EB LANES	--	--	--	--	--	--	803
142+40.00 - 150+43.00	2	CTH CE, WB LANES	--	--	--	--	--	--	113
142+92.50 - 144+05.50	2	CTH CE, EB LANES	--	--	--	--	--	--	75
144+15.00 - 147+16.00	2	CTH CE, EB LANES	--	--	--	--	--	--	113
147+25.00 - 148+39.00	2	CTH CE, EB LANES	--	--	--	--	--	--	113
149+71.00 - 150+84.00	2	CTH CE, EB LANES	--	--	--	--	--	--	13
150+43.00 - 151+00.00	2	CTH CE, WB LANES	--	316	--	--	--	--	--
132+94.25 - 136+10.25	3	CTH CE, EB LANES	--	--	--	--	--	12	--
139+37.00	3	CTH CE, WB LANES	--	--	1526	--	--	--	--
139+37.00 - 146+83.00	3	CTH CE, EB & WB LANES	--	--	243	--	--	--	--
140+35.80 - 142+77.00	3	CTH CE, WB LANES	--	--	1275	--	--	--	--
141+47.25 - 154+19.00	3	CTH CE, WB LANES	370	--	--	--	--	--	--
146+83.00 - 150+51.00	3	CTH CE, WB LANES	--	--	--	--	--	--	86
141+34.00 - 142+20.00	3	CTH CE, WB LANES	--	--	--	--	--	--	111
142+77.00 - 143+88.00	3	CTH CE, WB LANES	--	--	--	--	--	--	106
146+92.50 - 147+98.50	3	CTH CE, WB LANES	--	--	--	--	--	--	120
149+31.00 - 150+51.00	3	CTH CE, WB LANES	--	--	--	--	--	--	13
153+44.70 - 154+19.00	3	CTH CE, WB LANES	--	--	--	--	--	--	--
138+48.00 - 139+37.00	3	CTH CE & RAILROAD ST INTER.	--	--	--	--	60	--	--
132+94.25 - 136+10.25	4	CTH CE, EB LANES	316	--	--	--	--	--	--
139+20.33 - 140+20.33	4	CTH CE, WB LANES	100	--	--	--	--	--	--
139+20.33 - 140+20.33	4	CTH CE, WB LANES	--	--	--	--	100	--	--
PROJECT TOTALS			2371	4326	1961	360	12		1842
649.0400 TOTAL REMOVABLE TAPE 4-INCH=			8658						

UTILITY LINE OPENING  
SPV.0060.04

STATION	LOCATION	QUANTITY EACH
UNDISTRIBUTED	PROJECT 4160-04-71	2
	PROJECT TOTAL	2

STONE TRACKING PAD  
SPV.0060.06

STATION	LOCATION	EACH
0+62 LT - 1+27 LT 6+58 RT - 7+31 RT	REF. LINE A REF. LINE B	1 1
	PROJECT TOTAL	2

PVC SDR 35, 4-INCH  
SPV.0090.02

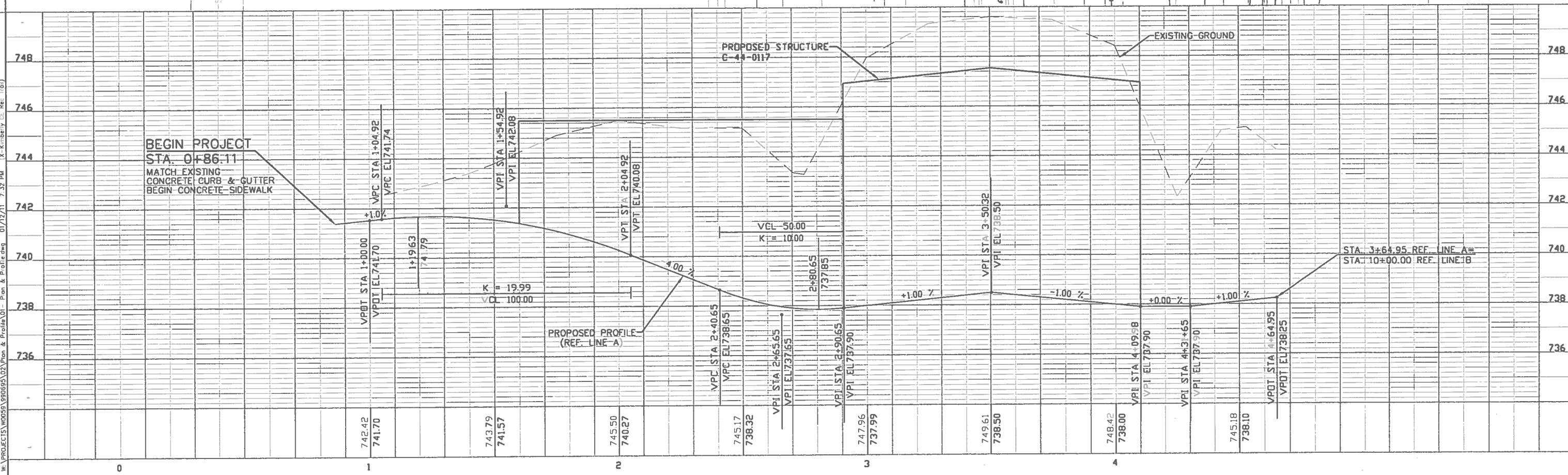
STATION	LOCATION	QUANTITY L.F.	DESCRIPTION
2+25	REF. LINE A	4	TRENCH DRAIN TO PIPE RUN P1
2+80.65	REF. LINE A	3	TRENCH DRAIN TO PIPE RUN P3

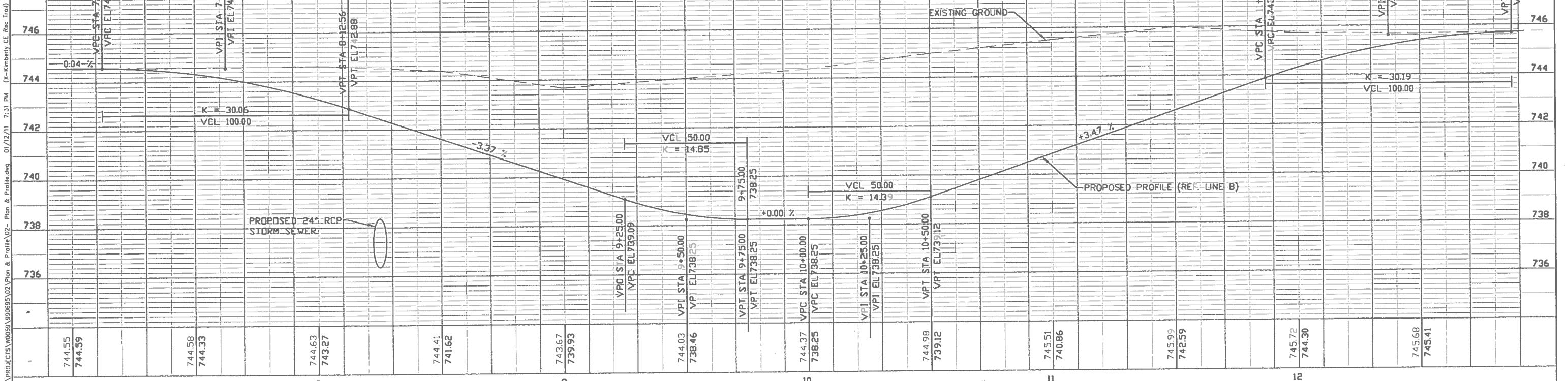
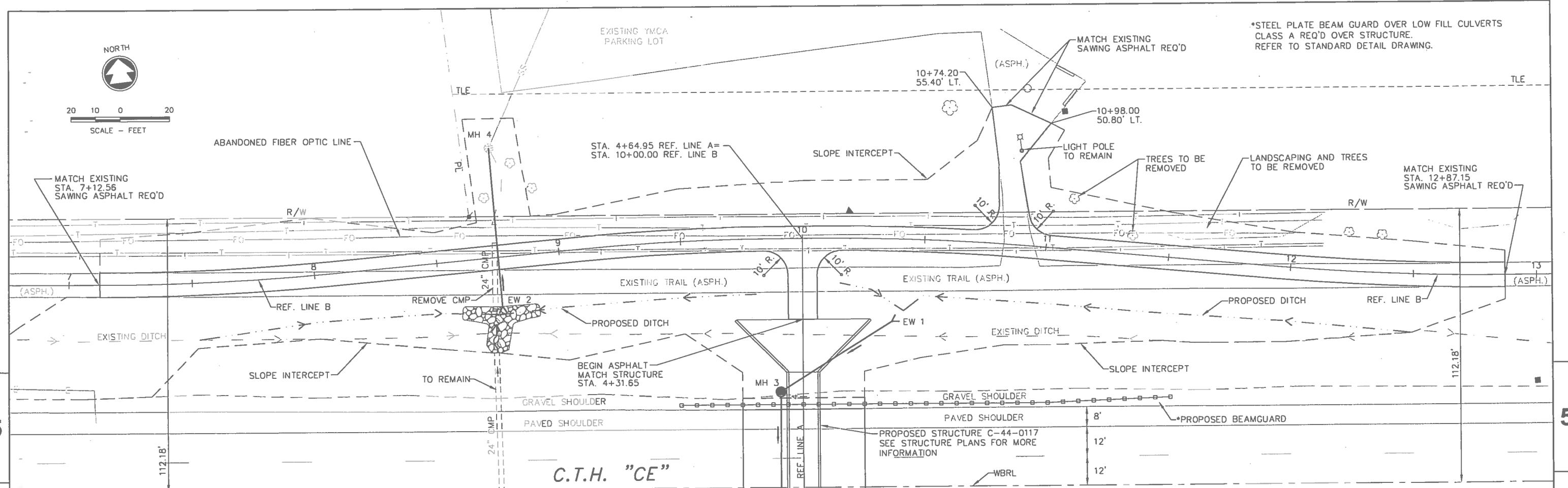
PROJECT TOTAL 36

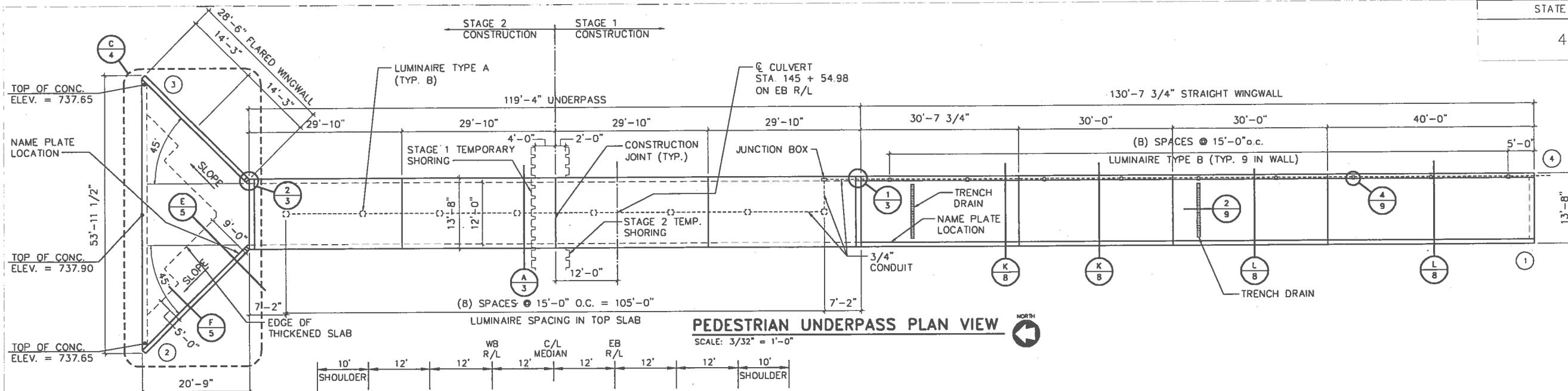
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TLE

mikebck w:\PROJECTS\W0099\990695\02\Plan &amp; Profile\01 - Plan &amp; Profile.dwg 01/12/11 7:32 PM (X-Knobly GE Rec. Tcm)

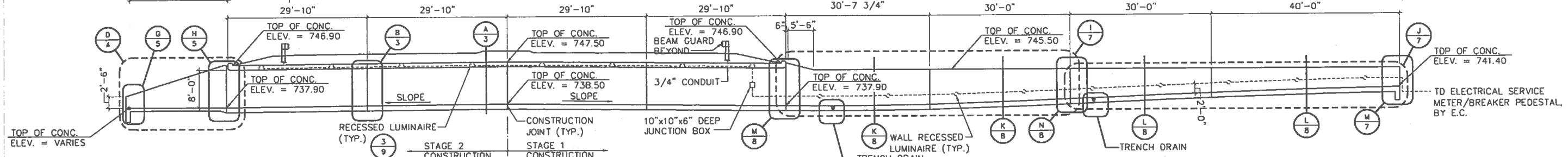






PEDESTRIAN UNDERPASS PLAN VIEW

SCALE: 3/32" = 1'-0"



PEDESTRIAN UNDERPASS SECTION VIEW

SCALE: 3/32" = 1'-0" (LOOKING EAST)

## NOTES

1. BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
2. THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-44-0117" SHALL BE THE EXISTING GROUND LINE.
3. WHEN STRUCTURE BACKFILL IS REQUIRED: ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACK FILL TO THE ELEVATION AND SECTION EXISTING PRIOR TO EXCAVATION WITHIN THE LENGTH OF THE UNDERRAPASS.
4. 8" BACKFILL COARSE AGGREGATE SIZE NO. 1 SHALL BE PLACED BENEATH THE ENTIRE STRUCTURE. BACKFILL COARSE AGGREGATE SIZE NO. 1 SHALL BE 8" THICK BELOW ALL CONCRETE TO THE LIMITS OF THE STRUCTURE.
5. RUBBERIZED MEMBRANE WATERPROOFING SHALL BE 18" WIDE AND LOCATED ON ALL CONSTRUCTION JOINTS.

## GENERAL NOTES

1. DRAWINGS SHALL NOT BE SCALED.
2. FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION: M213.

## DESIGN DATA

LIVE LOAD:	-
DESIGN RATING	- HL93
EARTH LOAD:	- DESIGNED FOR 2.0 FT. FILL DEPTH
ULTIMATE DESIGN STRESSES:	
CONCRETE MASONRY	- $f'_c = 3,500$ psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	- $f_y = 60,000$ psi
TRAFFIC DATA:	
ADT (2010)	- 27,100
ADT (2030)	- 38,000
DHV (2030)	- 4,370
D.D.	- 50/50
T (% of ADT)	- 30
SPEED LIMIT	- 45 MPH

TOTAL ESTIMATED QUANTITIES						
ITEM NO.	DESCRIPTION	UNIT	UNDERPASS	FLARED WINGWALL	STRAIGHT WINGWALL	TOTALS
206.2000	EXCAVATION FOR STRUCTURES CULVERTS (C-44-0117)	L.S.	—	—	—	1
504.0100	CONCRETE MASONRY CULVERTS	C.Y.	185	39	123	347
505.0410	BAR STEEL REINFORCEMENT HS CULVERTS	LB.	34,230	4,080	14,760	53,070
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	S.Y.	103	10	50	163
210.0100	BACKFILL STRUCTURE	C.Y.	—	—	—	1,750
2D9.0300.S	BACKFILL COARSE AGGREGATE SIZE NO. 1	C.Y.	—	—	—	102
652.0105	CONDUIT RIGID METALLIC - 3/4"	L.F.	125	—	135	260
SPV.0060.03	JUNCTION BOX - 10x10x6	EA.	1	—	—	1
655.0615	ELECTRICAL WIRE LIGHTING 10AWG	L.F.	400	—	430	830
656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL	L.S.	—	—	—	1
SPV.0060.02	LIGHTING UNITS WALKWAY - RECESSED CEILING LUMINAIRE	EA.	8	—	—	8
SPV.0060.01	LIGHTING UNITS WALKWAY - WALL RECESSED LUMINAIRE	EA.	—	—	9	9
SPV.0090.01	TRENCH DRAIN COVER	L.F.	—	—	20	20
206.6010.S	TEMPORARY SHDRING STRUCTURE C-44-0117	L.S.	—	—	—	1
NON-BIO ITEMS						
		UNIT	UNDERPASS	FLARED WINGWALL	STRAIGHT WINGWALL	TOTALS
	FILLER - SEAL ALL EXPOSED HORIZ. & VERTICAL SURFACES OF 1/2" & 3/4" FILLER WITH JOINT SEALER	SIZE	—	—	—	1/2", 3/4"

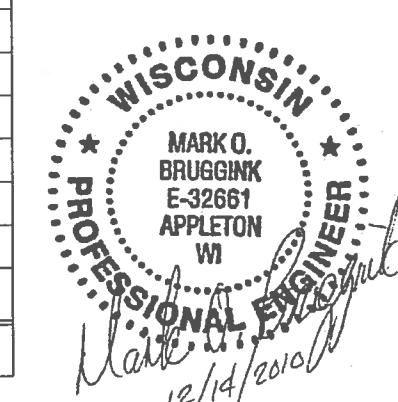
## LIST OF DRAWINGS

1. PEDESTRIAN UNDERPASS PLAN & SECTION
2. SOIL BORINGS
3. PEDESTRIAN UNDERPASS TRANSVERSE SECTION & SECTIONS
4. WINGWALL REINFORCEMENT PLAN AND ELEVATION
5. WINGWALL SECTIONS AND CULVERT SECTIONS
6. WINGWALL BILL OF BARS
7. WINGWALL ELEVATIONS
8. WINGWALL SECTIONS
9. DETAILS

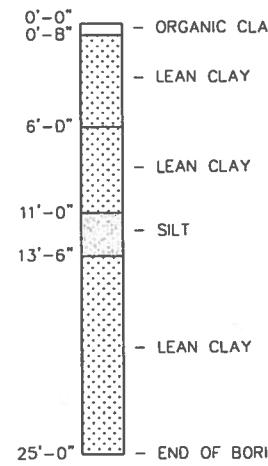
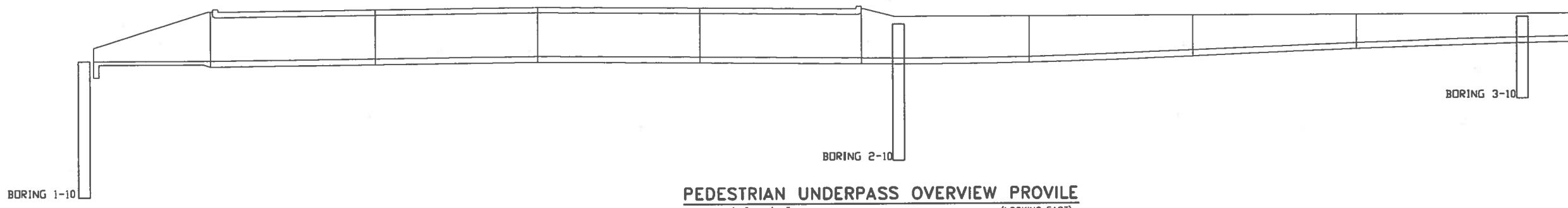
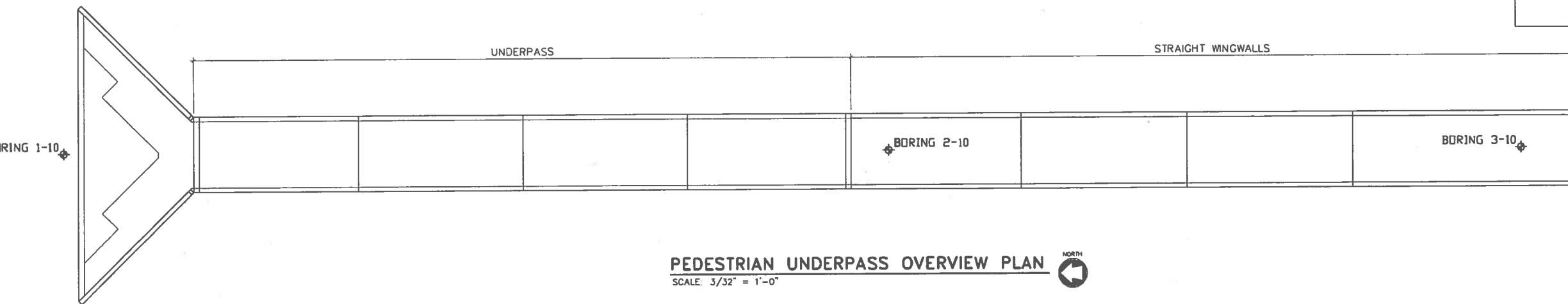
NO.	DATE	REVISION	BY
Plans Prepared By			

McMAHON  
ENGINEERS / ARCHITECTS

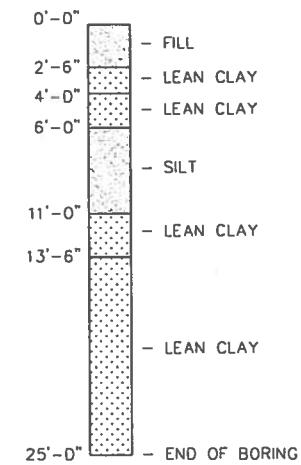
WISDOT	BUREAU OF STRUCTURES
APPROVED	CHIEF STRUCTURES DESIGN ENGINEER DATE
STRUCTURE C-44-0117	DATE
CTH CE PEDESTRIAN UNDERPASS	
COUNTY OUTAGAMIE	VILLAGE KIMBERLY
DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 4th EDITION	LOAD HL-93
DESIGNED BY MOB	DESIGN DRAWN BY
CK'D.	SEG
MOB	PLANS CK'D.
MOB	MOB
PED. UNDERPASS PLAN & SECTION SHEET 1 OF 9	



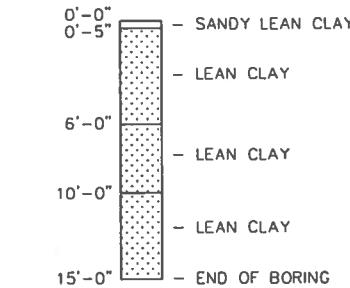
STATE PROJECT NUMBER	4160-04-71
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SOIL BORING 1-10



SOIL BORING 2-10



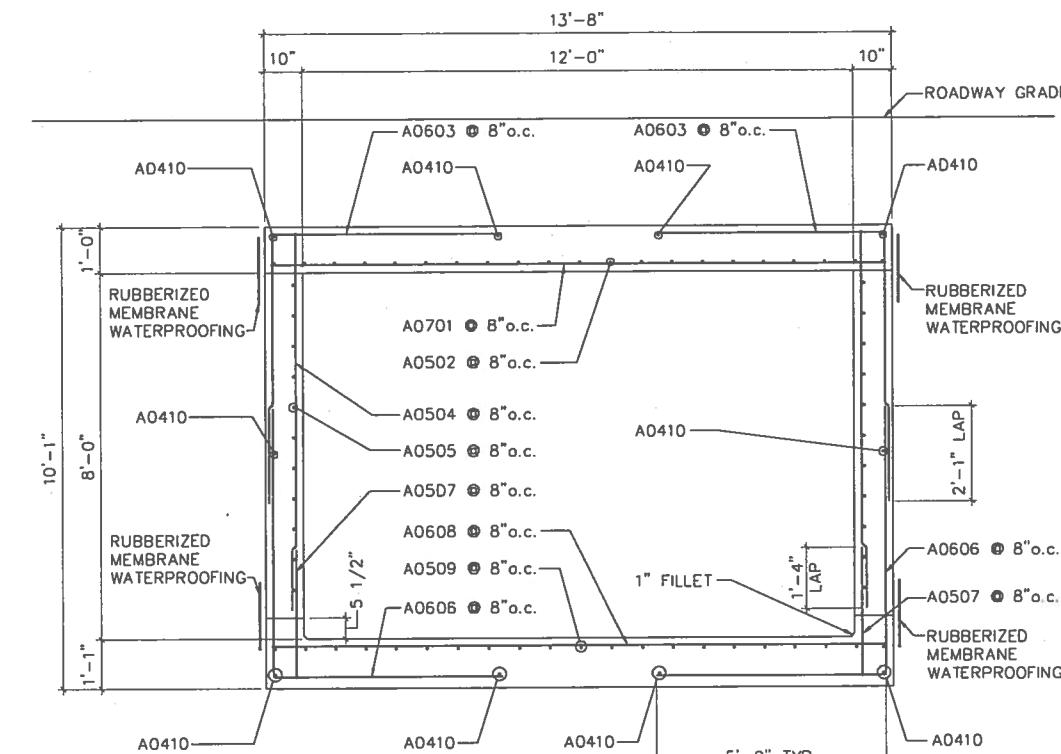
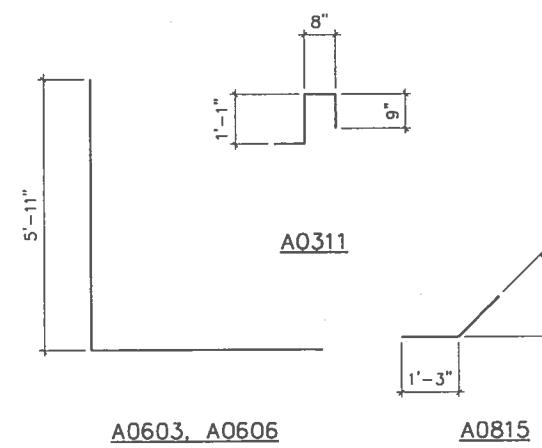
SOIL BORING 3-10

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-44-0117			
DRAWN BY SEG PLANS CK'D. MOB			
DETAILS	SHEET 2 OF 9		
	CTH CE	SCALE	

BILL OF BARS					
BAR MARK	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
A0701	179	13'-4"			TRANSVERSE BARS - TOP SLAB
A0502	84	29'-6"			LONGITUDINAL BARS - TOP SLAB
A0603	358	10'-11"	X		BENT BARS - TOP SLAB
A0504	358	9'-8"			VERTICAL BARS - WALLS
A0505	88	29'-6"			HORIZONTAL BARS - WALLS
A0606	358	10'-11"	X		DOWEL BARS - WALL OUTSIDE FACE
A0507	358	2'-8"			DOWEL BARS - WALL INSIDE FACE
A0608	179	13'-4"			TRANSVERSE BARS - BOTTOM SLAB
A0509	84	29'-6"			LONGITUDINAL BARS - BOTTOM SLAB
A0410	40	29'-6"			STABILIZING BARS
A0311	42	3'-2"	X		HEADER
A0412	4	13'-4"			HEADER
A0513	120	4'-0"			CONSTRUCTION JOINT
A0514	26	4'-0"			ENDS OF UNDERPASS
A0815	2	2'-6"	X		SMOOTH BAR - CULVERT TO FLARED WINGWALL
A0816	2	2'-6"			SMOOTH BAR - CULVERT TO STRAIGHT WINGWALL

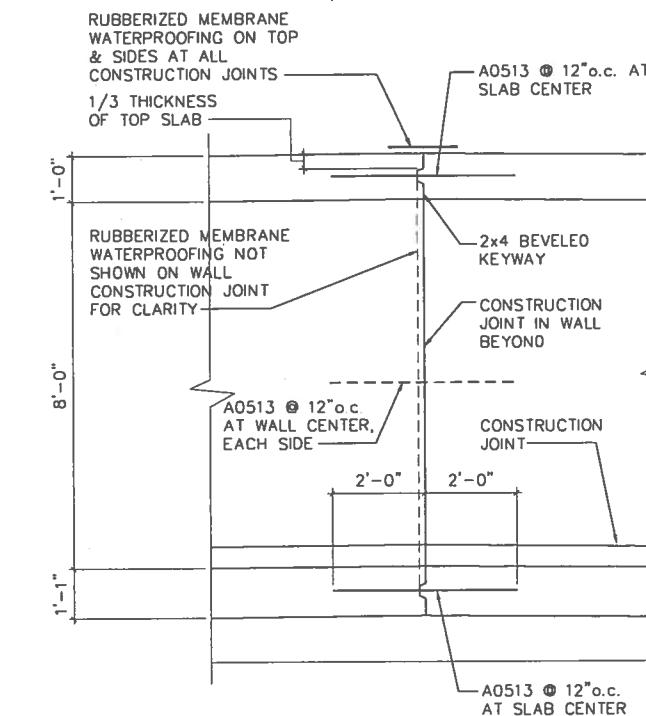
## BAR NOTES

1. THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
2. DIMENSIONS IN BENDING DETAILS ARE "OUT TO OUT" OF BAR.
3. THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



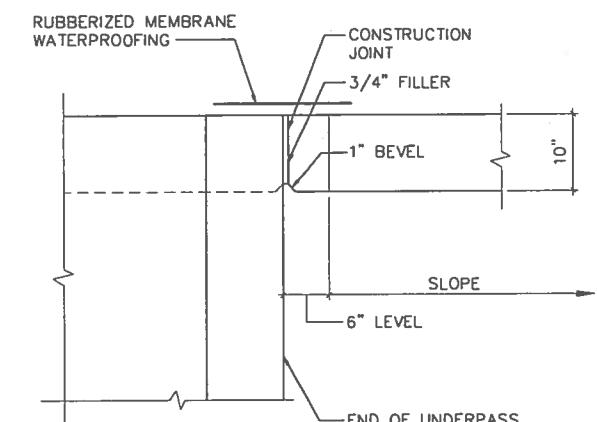
PEDESTRIAN UNDERPASS - TRANSVERSE SECTION

SCALE: 1/2" = 1'-0"



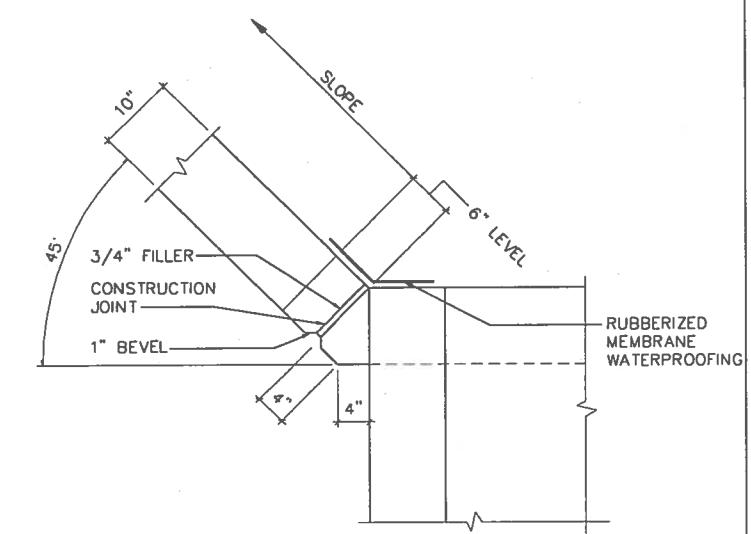
PARTIAL CULVERT SECTION

SCALE: 1/2" = 1'-0"



WINGWALL TO UNDERPASS DETAIL

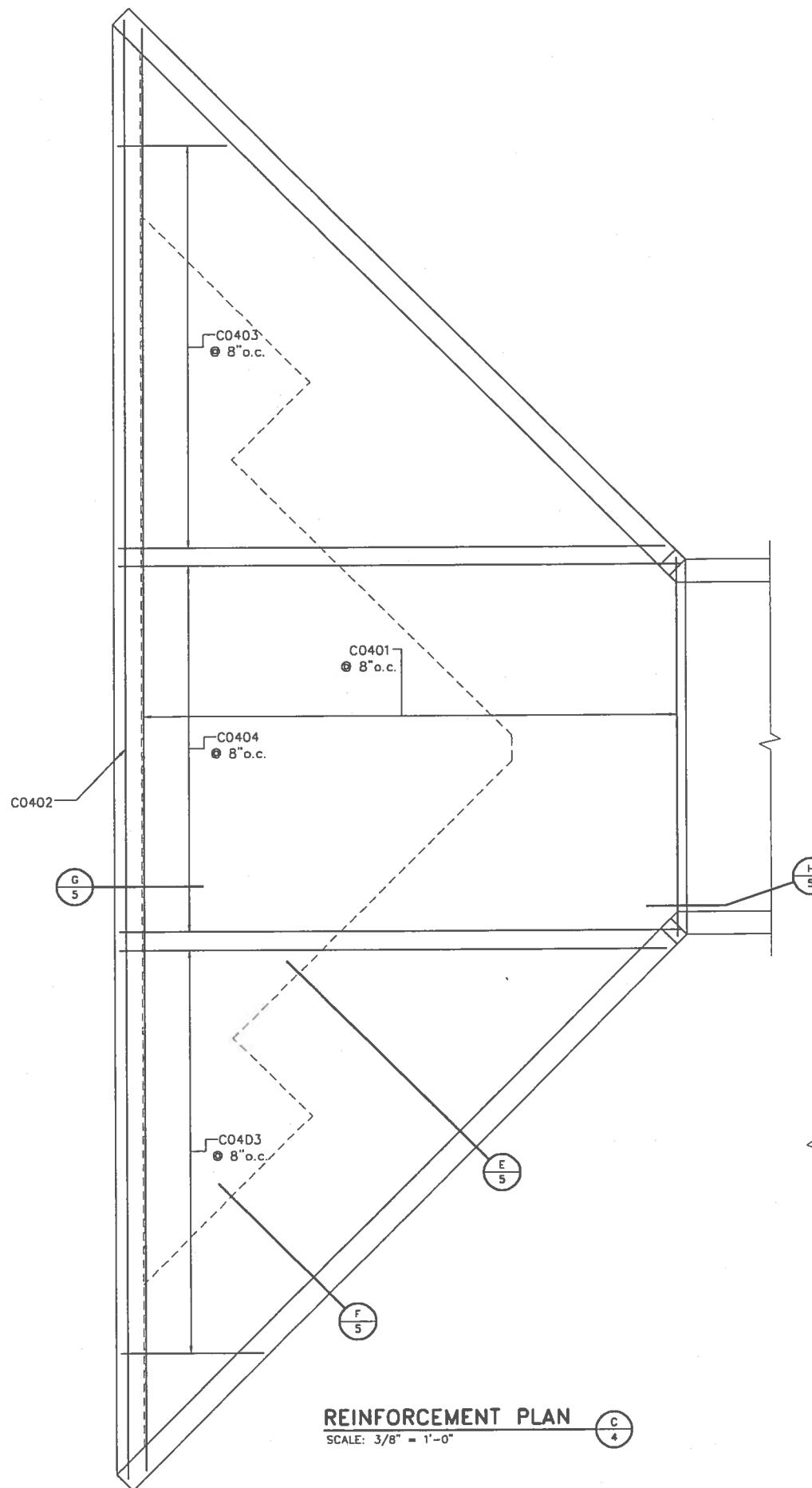
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WINGWALL TO UNDERPASS DETAIL

SCALE: 1" = 1'-0"

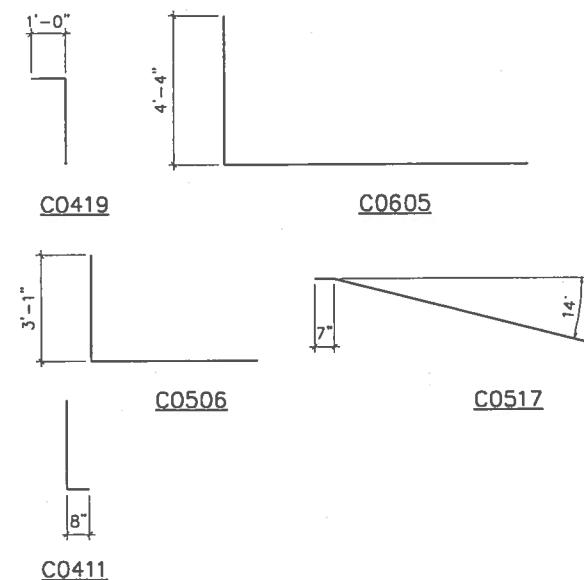
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-44-0117			
DRAWN BY SEG PLANS CK'D. MOB			
PED. UNDERPASS	SHEET 3 OF 9		
TRAN. SECTION		CTH CE	SCALE



## BAR SERIES TABLE

BAR MARK	NO. REQUIRED	LENGTH
C0401	(1) SERIES OF 30 BARS	13'-10" TO 52'-6"
C0403	(2) SERIES OF 23 BARS	5'-2" TO 19'-10"
C0509	(2) SERIES OF 42 BARS	1'-9" TO 8'-1"
C0412	(2) SERIES OF 22 BARS	8'-3" TO 1'-9"
C0414	(4) SERIES OF 4 BARS	6'-4" TO 23'-7"

NOTE: BUNDLE AND TAG EACH SERIES SEPARATELY

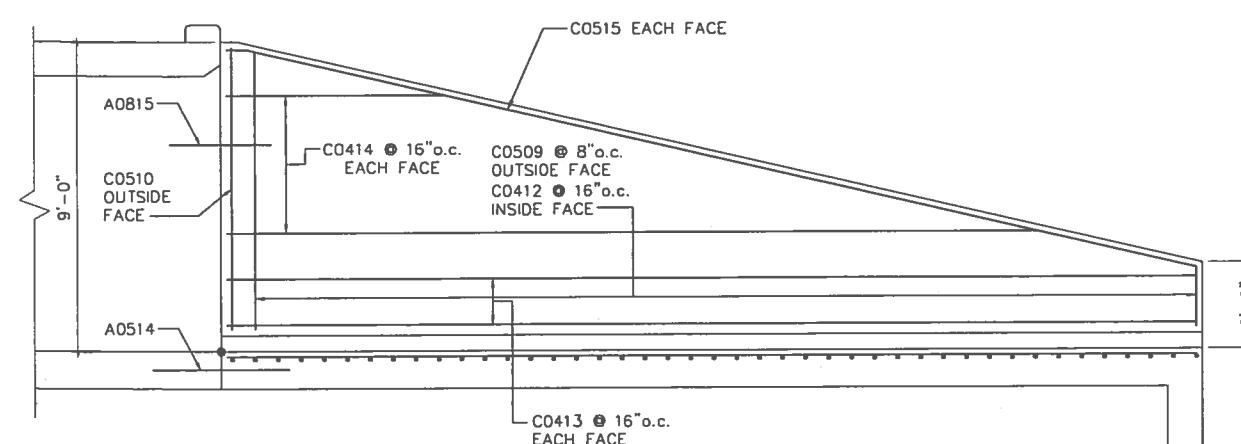


## BILL OF BARS

BAR MARK	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
CO401	30	33'-2"		△	TRANSVERSE - FLARED WINGWALL BASE SLAB
CO402	1	53'-2"			TRANSVERSE - FLARED WINGWALL BASE SLAB
CO403	46	12'-6"		△	LONGITUDINAL - FLARED WINGWALL BASE SLAB
CO404	21	20'-5"			LONGITUDINAL - FLARED WINGWALL BASE SLAB
CD605	44	13'-2"	X		DOWEL BARS - WALL OUTSIDE FACE
CO506	42	7'-11"	X		DOWEL BARS - WALL OUTSIDE FACE
CD407	4	28'-2"			STABILIZING BARS
CO408	2	14'-0"			STABILIZING BARS
CO509	84	4'-11"		△	VERTICAL BARS - WALL OUTSIDE FACE
CO510	2	8'-3"			VERTICAL BARS - WALL OUTSIDE FACE
CO411	44	3'-5"	X		DOWEL BARS - WALL INSIDE FACE
CO412	44	5'-0"		△	VERTICAL BARS - WALL INSIDE FACE
CO413	8	28'-2"			HORIZONTAL BARS - WALL OUTSIDE FACE
CD414	16	15'-0"		△	HORIZONTAL BARS - WALL OUTSIDE FACE
CO515	4	28'-11"	X		DIAGONAL BARS - WALL
CO416	4	53'-2"			CUTOFF WALL
CO417	54	3'-6"	X		CUTOFF WALL

## BAR NOTES

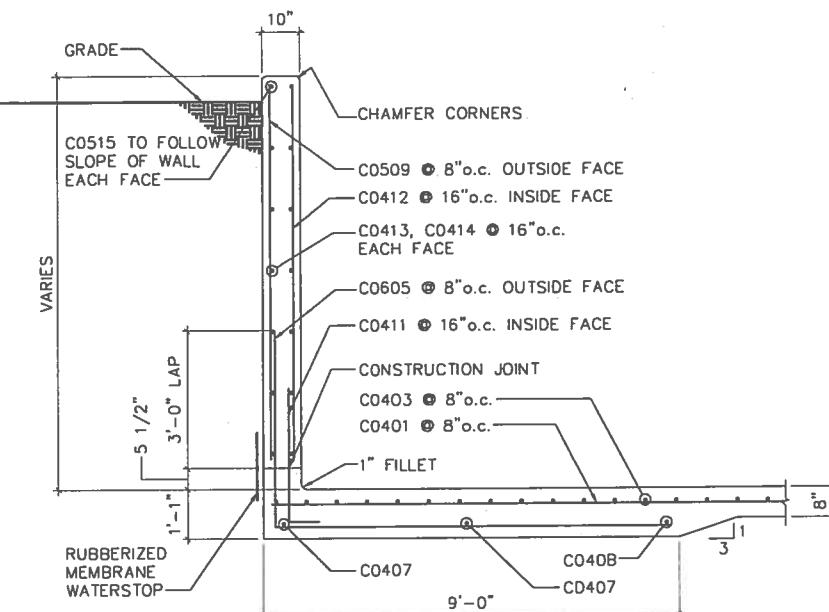
1. THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
2. DIMENSIONS IN BENDING DETAILS ARE "OUT TO OUT" OF BAR.
3. THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).
4.  LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



### WING WALL ELEVATION

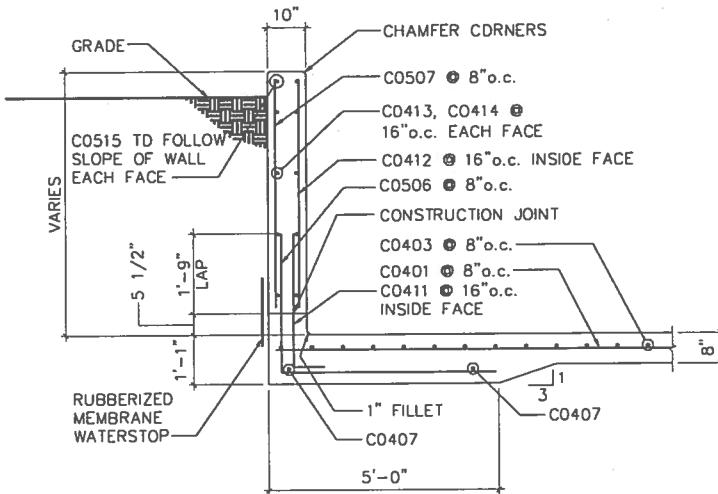
SCALE:  $3/8"$  =  $1'-0"$

NO.	DATE	REVISION	BY		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE C-44-0117					
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DRAWN BY SEG	PLANS CK'D. MOB				
WINGWALL REINF. PLAN & SECTION		SHEET 4 OF 9 CTH CE			



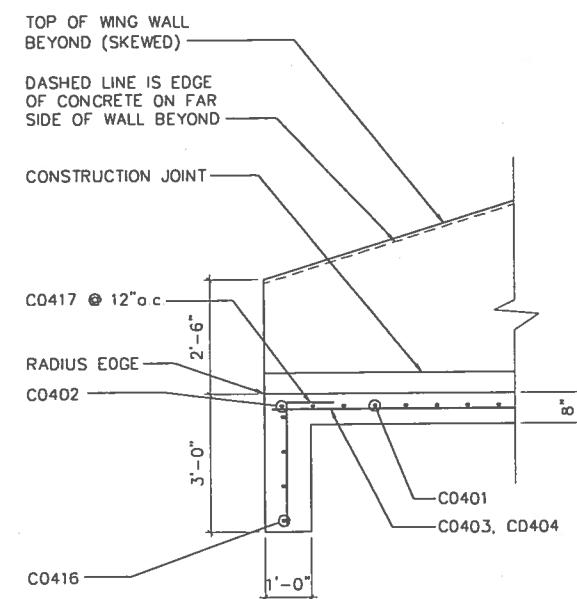
WINGWALL SECTION

SCALE: 1/2" = 1'-0"



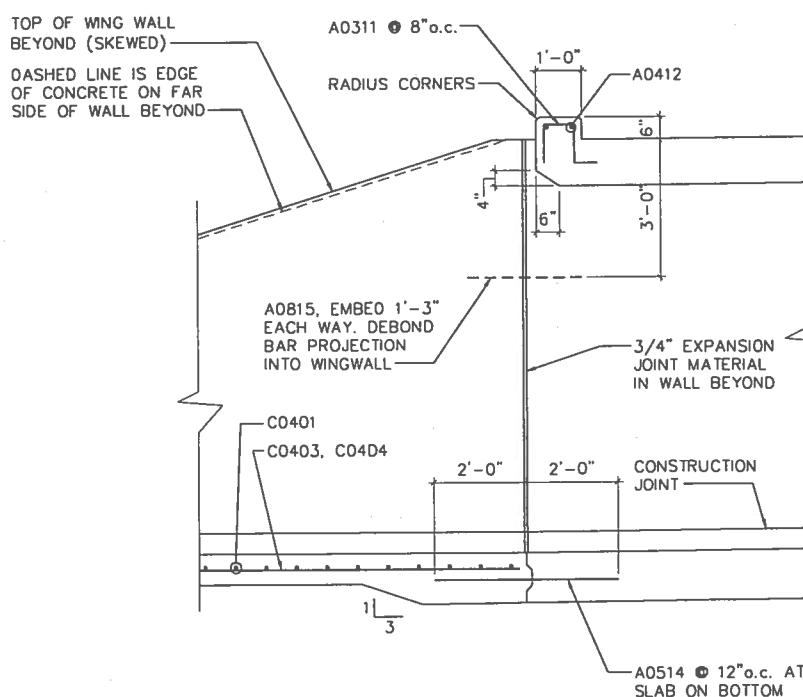
WINGWALL SECTION

SCALE: 1/2" = 1'-0"



PARTIAL CULVERT SECTION

SCALE: 1/2" = 1'-0"



PARTIAL CULVERT SECTION

SCALE: 1/2" = 1'-0"

NO	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-44-0117			
DRAWN BY SEG PLANS CK'D. MOB			
WINGWALL & CULVERT SECTION	SHEET 5 OF 9	CTH CE	SCALE

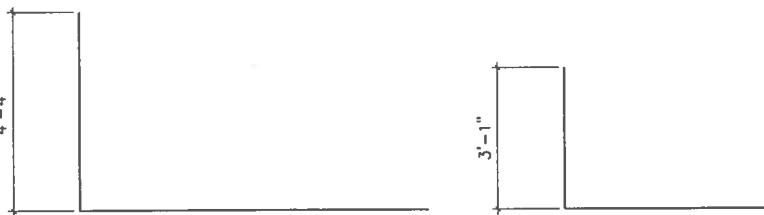
BILL OF BARS					
BAR MARK	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
B0401	196	13'-4"			TRANSVERSE - STRAIGHT WINGWALL BASE SLAB
B0402	21	30'-4"			LONGITUDINAL - STRAIGHT WINGWALL BASE SLAB
B0403	42	29'-8"			LONGITUDINAL - STRAIGHT WINGWALL BASE SLAB
B0404	21	39'-8"			LONGITUDINAL - STRAIGHT WINGWALL BASE SLAB
B0405	4	30'-4"			STABILIZING BARS
B0406	8	29'-8"			STABILIZING BARS
B0407	4	39'-8"			STABILIZING BARS
B0608	182	12'-1"	X		DOWEL BARS - WALL OUTSIDE FACE
B0509	210	8'-5"	X		DOWEL BARS - WALL OUTSIDE FACE
B0510	18	7'-6"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0511	44	6'-10"			VERTICAL BARS - WALL OUTSIDE FACE
B0512	30	6'-9"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0513	30	6'-7"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0514	30	6'-3"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0515	30	5'-11"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0516	90	5'-0"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0517	30	4'-3"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0518	90	3'-9"	△		VERTICAL BARS - WALL OUTSIDE FACE
B0419	202	3'-5"	X		DOWEL BARS - WALL INSIDE FACE
B0420	10	7'-6"	△		VERTICAL BARS - WALL INSIDE FACE
B0421	22	6'-10"			VERTICAL BARS - WALL INSIDE FACE
B0422	14	6'-9"	△		VERTICAL BARS - WALL INSIDE FACE
B0423	2	6'-8"			VERTICAL BARS - WALL INSIDE FACE
B0424	16	6'-7"	△		VERTICAL BARS - WALL INSIDE FACE
B0425	14	6'-3"	△		VERTICAL BARS - WALL INSIDE FACE
B0426	16	5'-11"	△		VERTICAL BARS - WALL INSIDE FACE
B0427	46	5'-0"	△		VERTICAL BARS - WALL INSIDE FACE
B0428	16	4'-3"	△		VERTICAL BARS - WALL INSIDE FACE
B0429	44	3'-9"	△		VERTICAL BARS - WALL INSIDE FACE
B0430	2	3'-4"			VERTICAL BARS - WALL INSIDE FACE
B0431	16	30'-4"			HORIZONTAL BARS - WALL EACH FACE
B0432	28	29'-8"			HORIZONTAL BARS - WALL EACH FACE
B0433	8	39'-8"			HORIZONTAL BARS - WALL EACH FACE
B0534	4	8'-8"	X		HORIZONTAL BARS - WALL EACH FACE
B0435	4	29'-3"			HORIZONTAL BARS - WALL EACH FACE
B0436	4	7'-2"			HORIZONTAL BARS - WALL EACH FACE
B0437	4	12'-9"			HORIZONTAL BARS - WALL EACH FACE
B0538	4	30'-4"			HORIZONTAL BARS - TOP OF WALLS
B0539	8	29'-8"			HORIZONTAL BARS - TOP OF WALLS
B0540	4	39'-8"			HORIZONTAL BARS - TOP OF WALLS
B0541	80	4'-0"			CONSTRUCTION JOINT
B0442	4	13'-4"			CUTOFF WALL
B0443	14	3'-6"	X		CUTOFF WALL
B0444	28	5'-6"	X		TRENCH DRAIN

BAR SERIES TABLE		
BAR MARK	NO. REQUIRED	LENGTH
B0510	(2) SERIES OF 9 BARS	6'-10" TO 8'-3"
B0512	(2) SERIES OF 15 BARS	6'-8" TO 6'-10"
B0513	(2) SERIES OF 15 BARS	6'-5" TO 6'-8"
B0514	(2) SERIES OF 15 BARS	6'-1" TO 6'-5"
B0515	(2) SERIES OF 15 BARS	5'-8" TO 6'-1"
B0516	(2) SERIES OF 45 BARS	4'-5" TO 5'-8"
B0517	(2) SERIES OF 15 BARS	4'-1" TO 4'-5"
B0518	(2) SERIES OF 45 BARS	3'-4" TO 4'-1"
B0420	(2) SERIES OF 5 BARS	6'-10" TO 8'-3"
B0422	(2) SERIES OF 7 BARS	6'-8" TO 6'-10"
B0424	(2) SERIES OF 8 BARS	6'-5" TO 6'-8"
B0425	(2) SERIES OF 7 BARS	6'-1" TO 6'-5"
B0426	(2) SERIES OF 8 BARS	5'-8" TO 6'-1"
B0427	(2) SERIES OF 23 BARS	4'-5" TO 5'-8"
B0428	(2) SERIES OF 8 BARS	4'-1" TO 4'-5"
B0429	(2) SERIES OF 22 BARS	3'-4" TO 4'-1"

## BAR NOTES

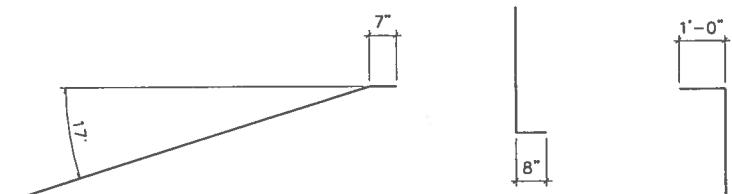
1. THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
2. DIMENSIONS IN BENDING DETAILS ARE "OUT TO OUT" OF BAR.
3. THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).
4. △ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NOTE: BUNDLE AND TAG EACH SERIES SEPARATELY.



B0608

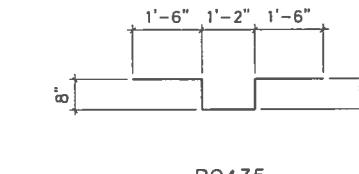
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B0522

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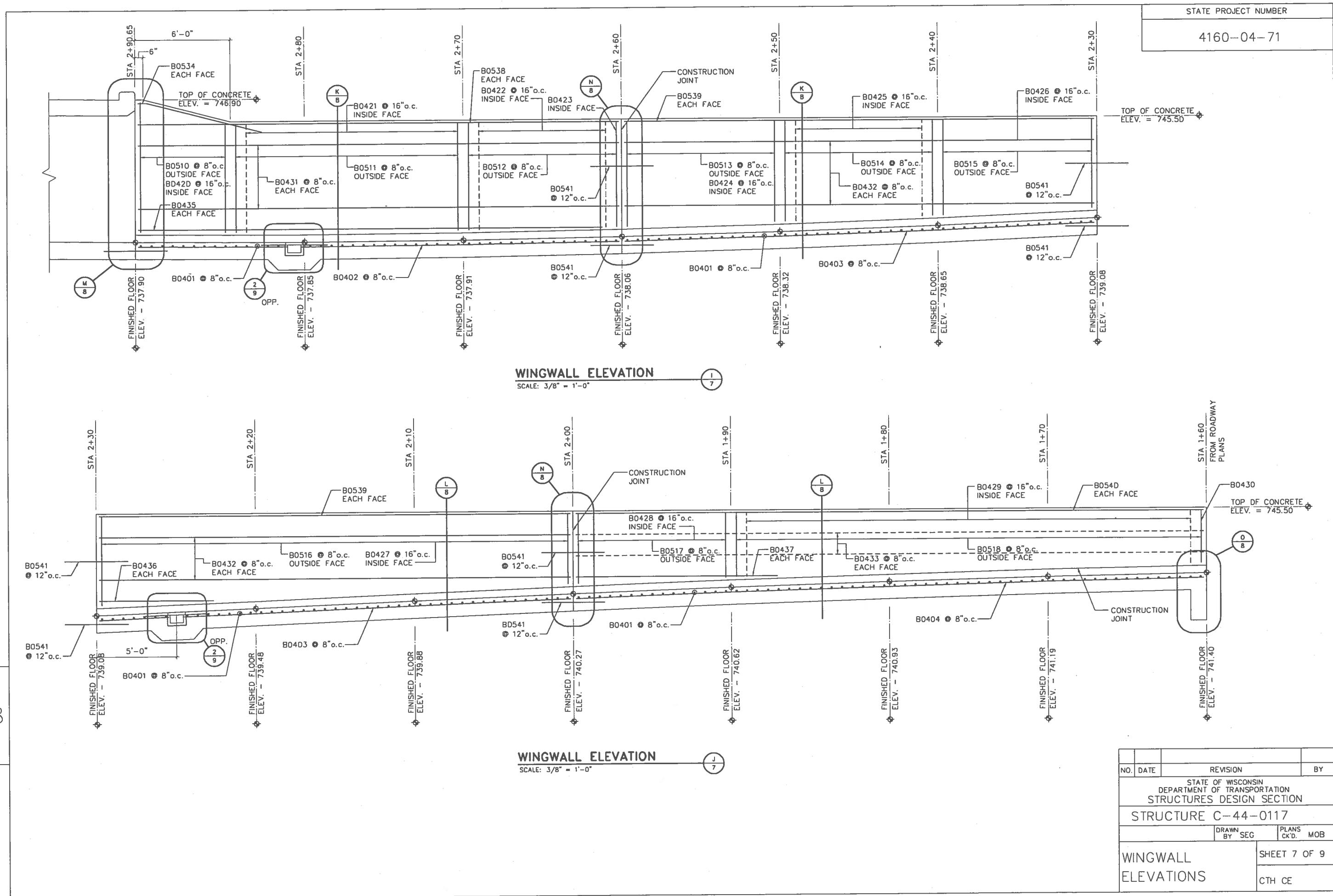
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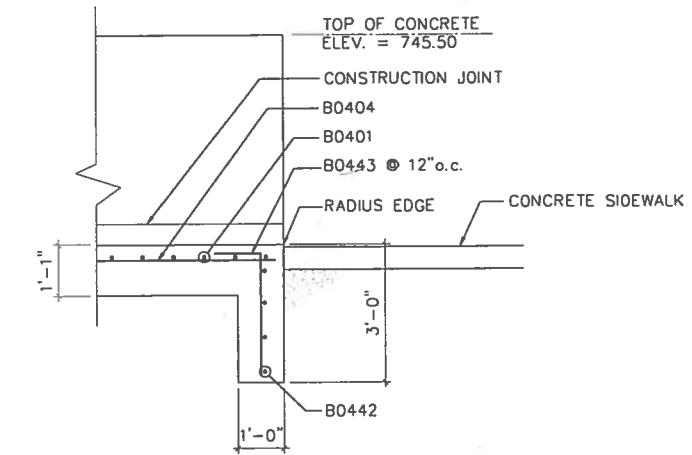
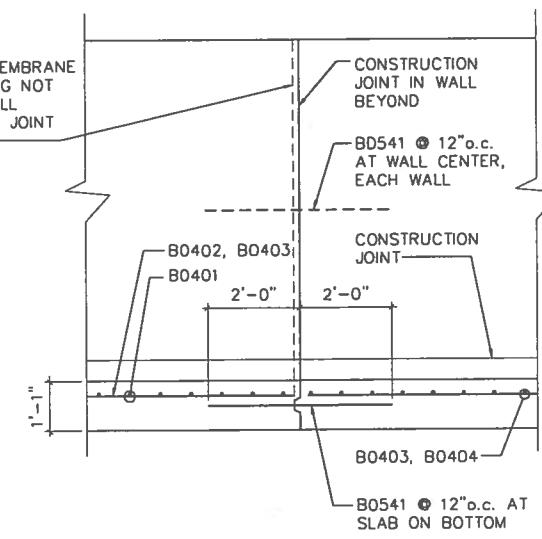
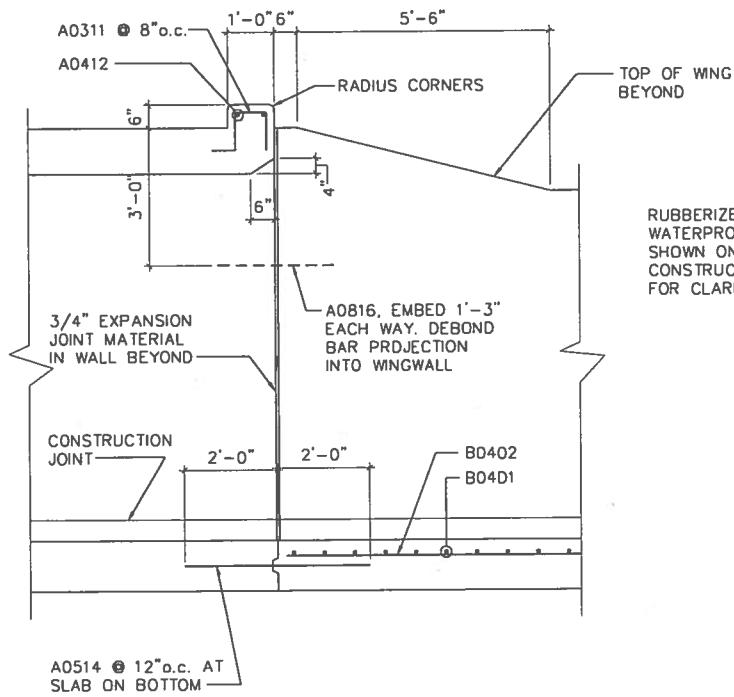
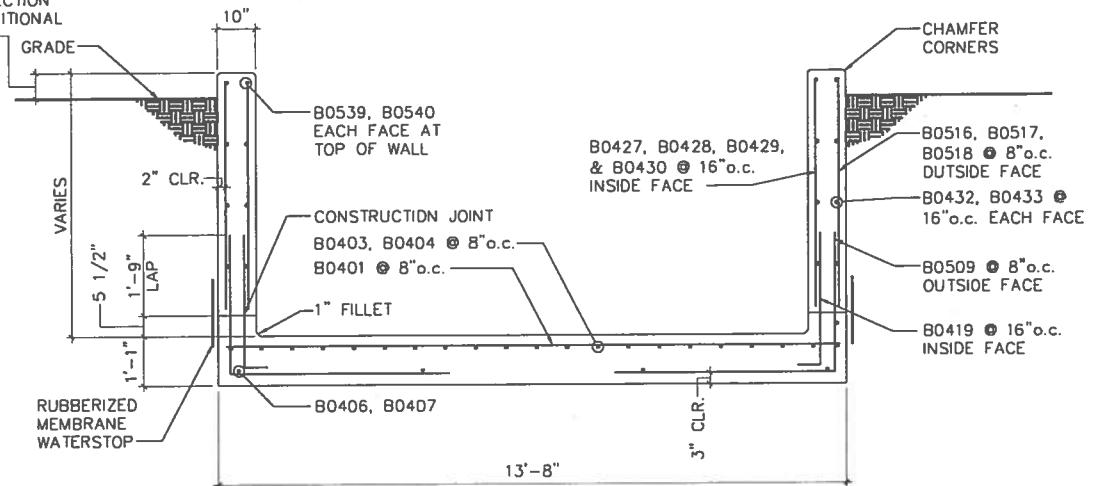
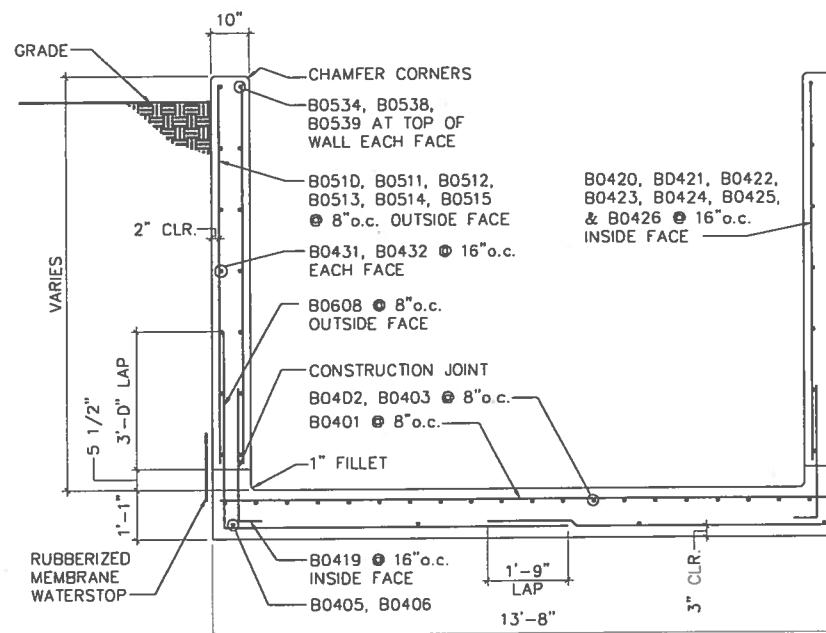


B0435

STATE PROJECT NUMBER	
4160-04-71	

NO	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-44-0117			
DRAWN BY SEG PLANS CK'D. MOB			
WINGWALL BILL OF BARS	SHEET 6 OF 9		
CTH CE			SCALE =



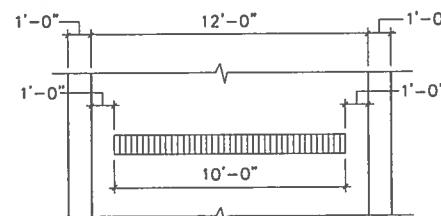


NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE 4160-04-71			
DRAWN BY	SEG	PLANS CK'D.	MOB
WINGWALL	SECTION	SHEET 8 OF 9	SCALE = CTH CE

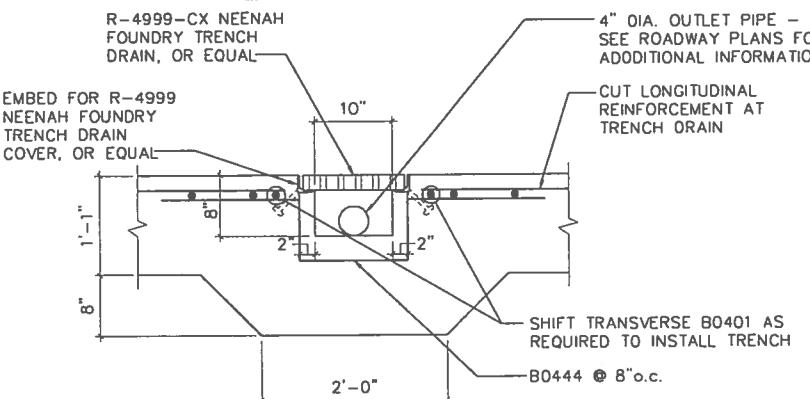
ELECTRICAL NOTES

1. RECESSED LUMINAIRES, JUNCTION BOX, AND CONDUIT SHALL BE CAST INTO THE CONCRETE SLAB OR WALLS AND NOT SURFACE MOUNTED.
2. JUNCTION BOX LOCATION TO BE DETERMINED BY CONTRACTOR IN THE FIELD.
3. CONTROL:
  - A. PROVIDE PHOTOCELL. MOUNT TO EXTERIOR OF METER/BREAKER PEDESTAL
  - B. PROVIDE 120V, 15A CONTROL RELAY. WIRE SUCH THAT PHOTOCELL CONTACT ENERGIZES THE RELAY COIL. WIRE LIGHTS TO BE SWITCHED BY THE RELAY CONTACT.
4. WIRING:
  - A. PROVIDE ONE CIRCUIT FOR TUNNEL LIGHTS. PROVIDE A SEPARATE CIRCUIT FOR WALKWAY LIGHTS.
  - B. USE MINIMUM #10 AWG. THHN COPPER CIRCUIT CONDUCTORS, WITH MINIMUM #12 EQUIPMENT GROUNDWIRE.
  - C. EXPOSED CONDUIT: USE RIGID GALVANIZED STEEL CONDUIT. (MINIMUM SIZE 3/4").
  - D. CONCRETE ENCASED CONDUIT: USE RIGID GALVANIZED STEEL CONDUIT, OR PVC CONDUIT (MINIMUM SIZE 3/4").
5. LUMINAIRES:
 

TYPE A: REBELLE CAT. # 8000-CP-70S-120-CTG-CG-BZ, OR EQUAL  
TYPE B: REBELLE CAT. # 1573R-70S-LV-BZ, OR EQUAL
6. SEE SPECIAL PROVISIONS.

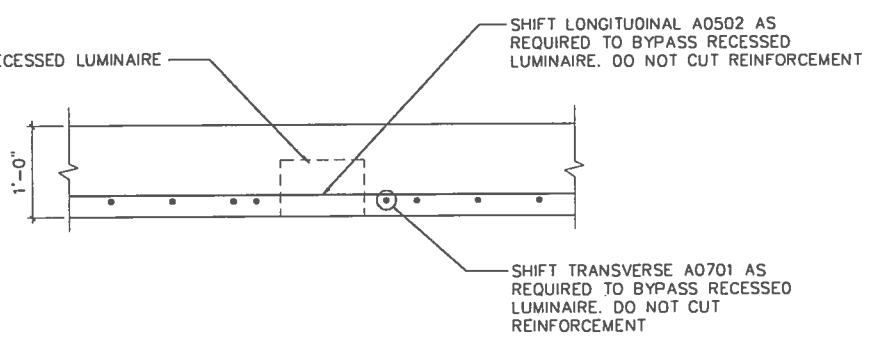


TRENCH PLAN

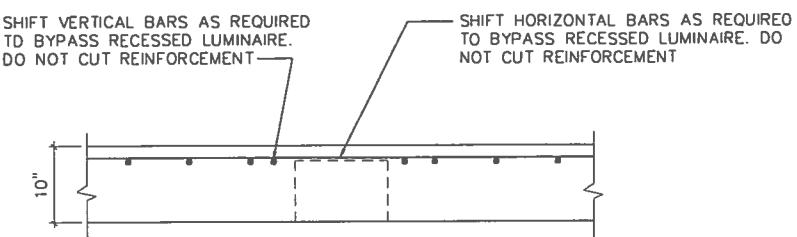


TRENCH DRAIN DETAIL

SCALE: 1" = 1'-0"

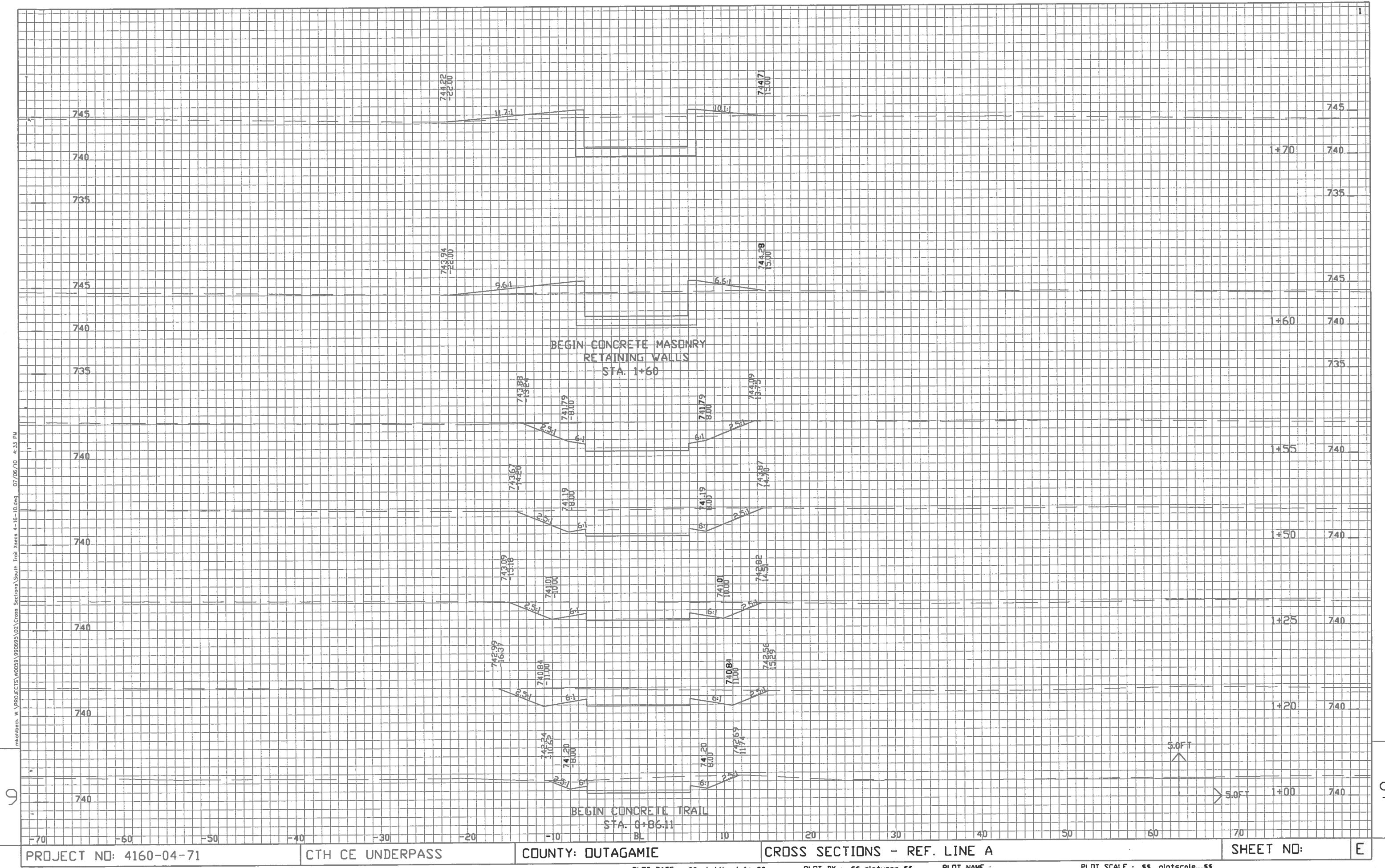
TOP SLAB RECESSED LUMINAIRE DETAIL  
(TYPE A)

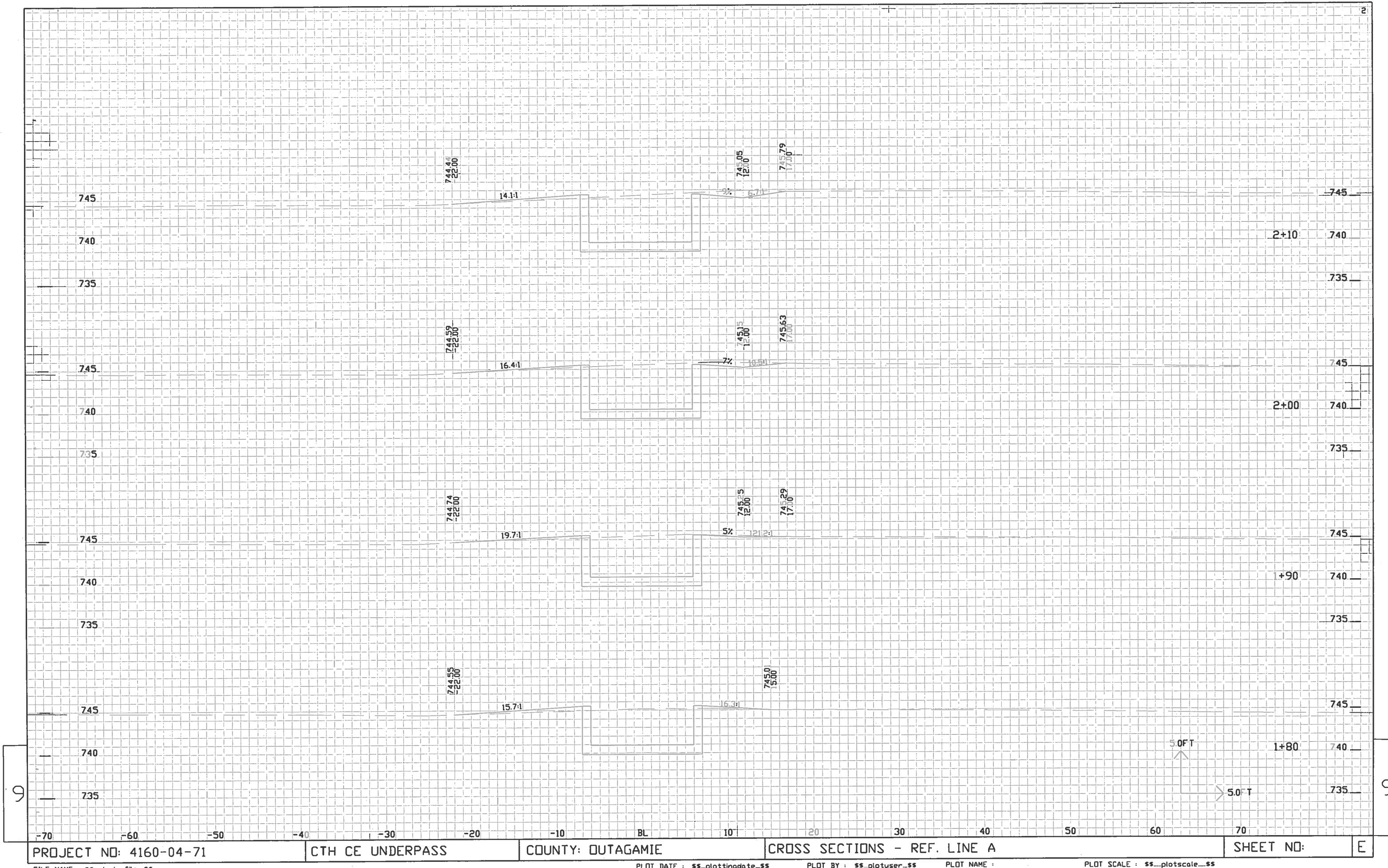
SCALE: 1" = 1'-0"

WALL RECESSED LUMINAIRE DETAIL  
(TYPE B)

SCALE: 1" = 1'-0"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-44-0117			
DRAWN BY SEG PLANS CK'D. MOB			
DETAILS		SHEET 9 OF 9	
CTH CE		SCALE =	





PROJECT NO: 4160-04-71

## CTH CE UNDERPASS

COUNTY: OUTAGAMIE

## CROSS SECTIONS - REF. LINE A

SHEET NO:

FILE NAME : \$s...designfile...\$s

PLOT DATE : **ss...plottingdate...ss**

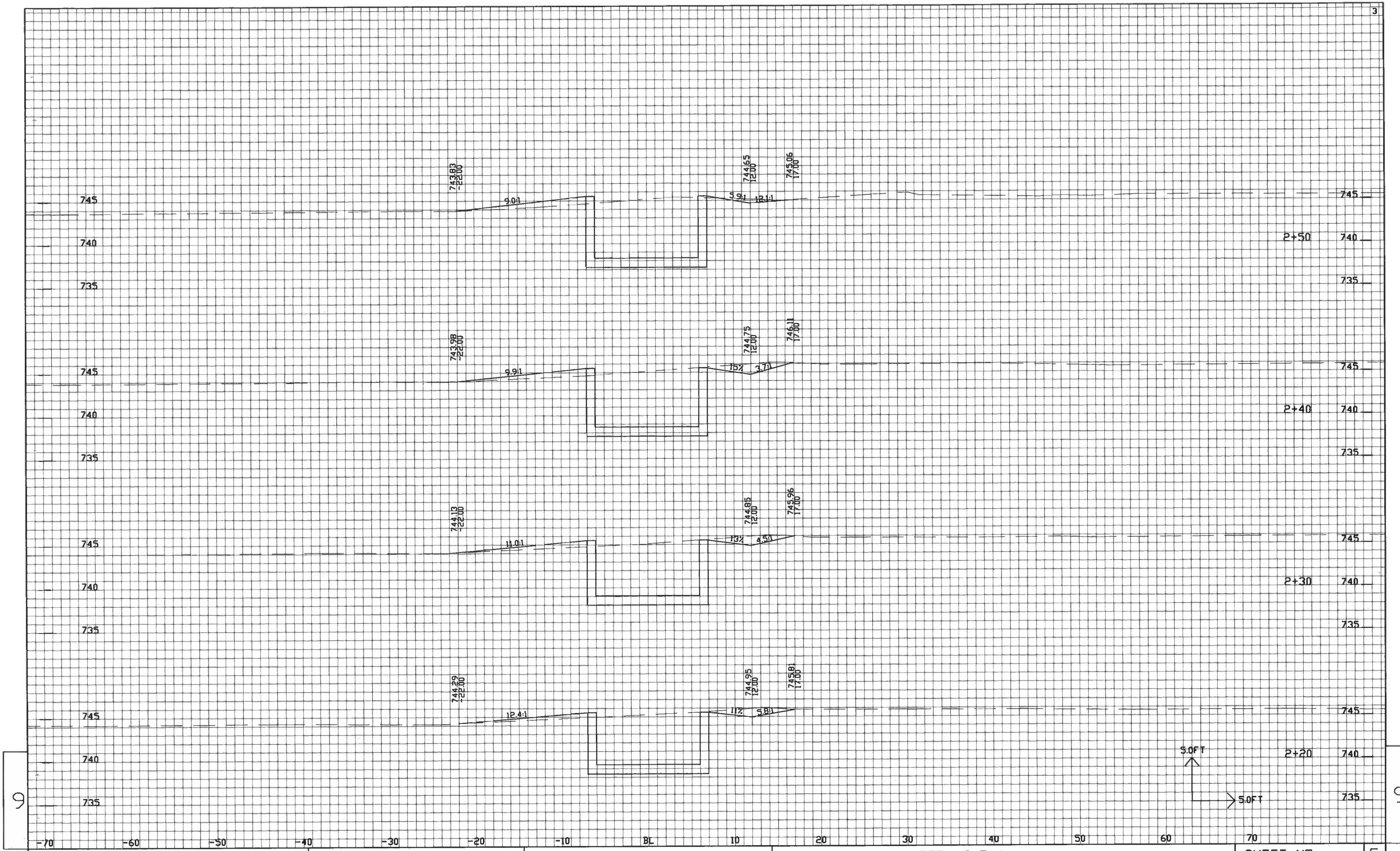
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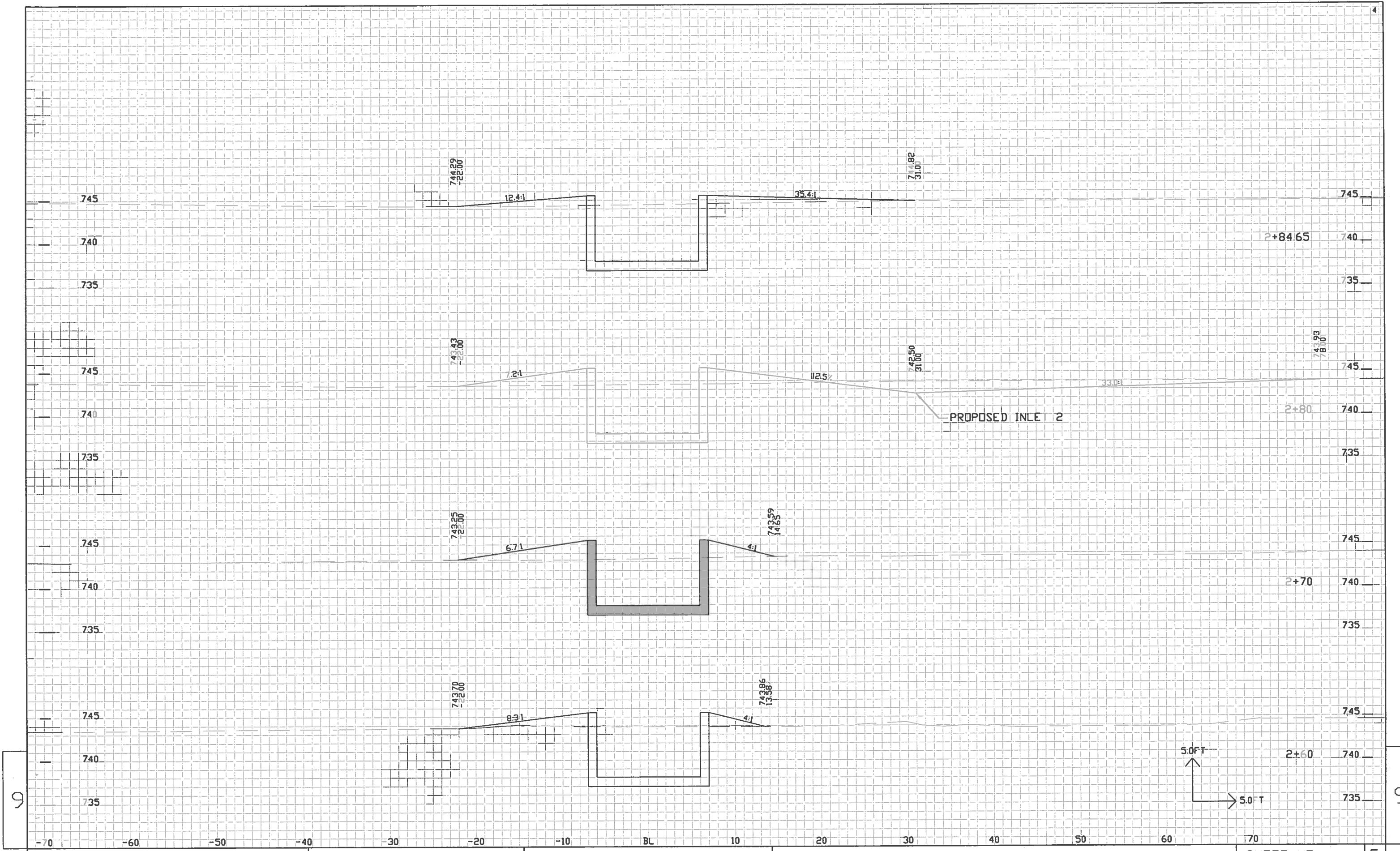
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EEET NO:

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PROJECT NO: 4160-04-71

## CTH CE UNDERPASS

COUNTY: OUTAGAMIE

CROSS SECTIONS - REF. LINE A

SHEET NO:

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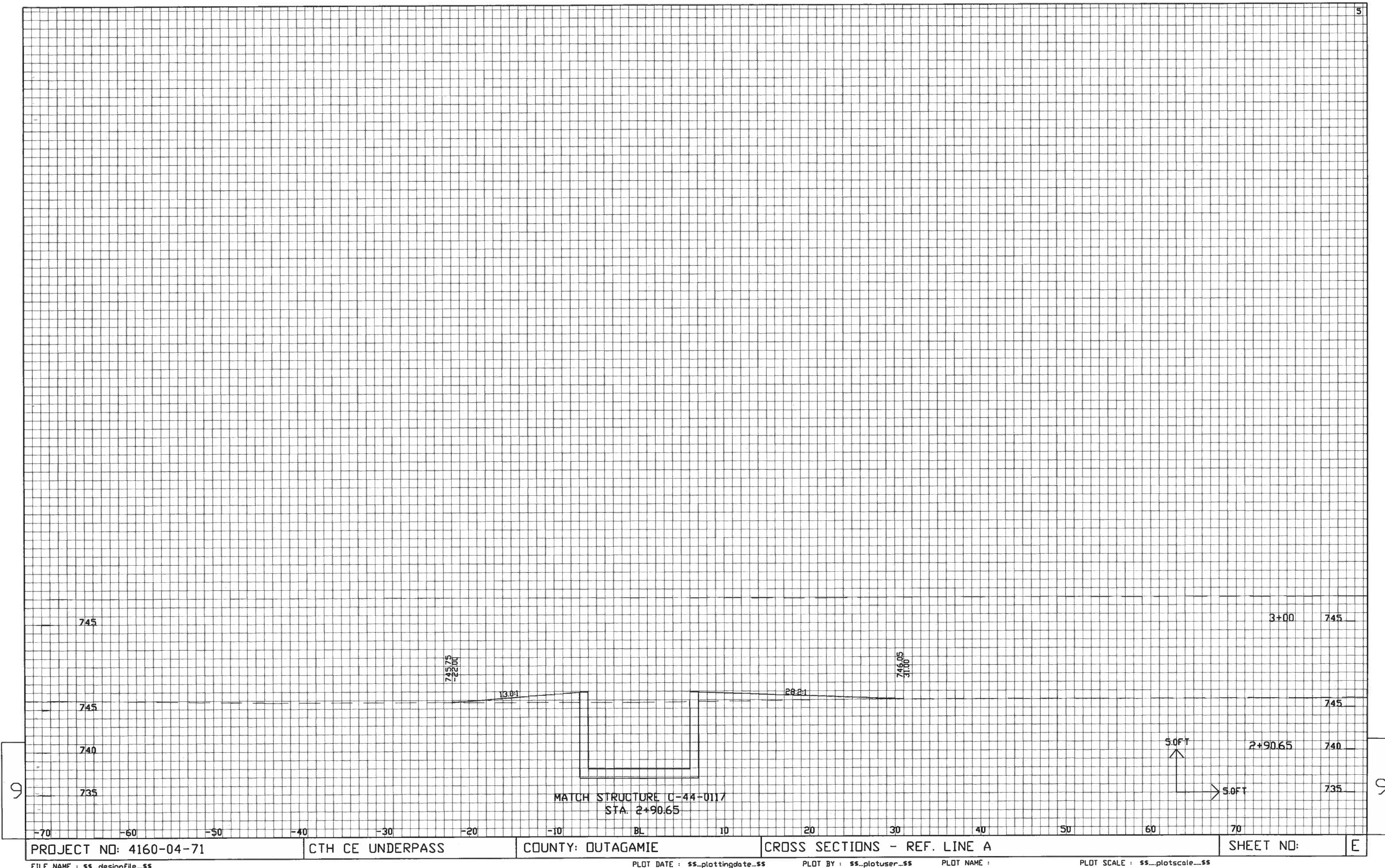
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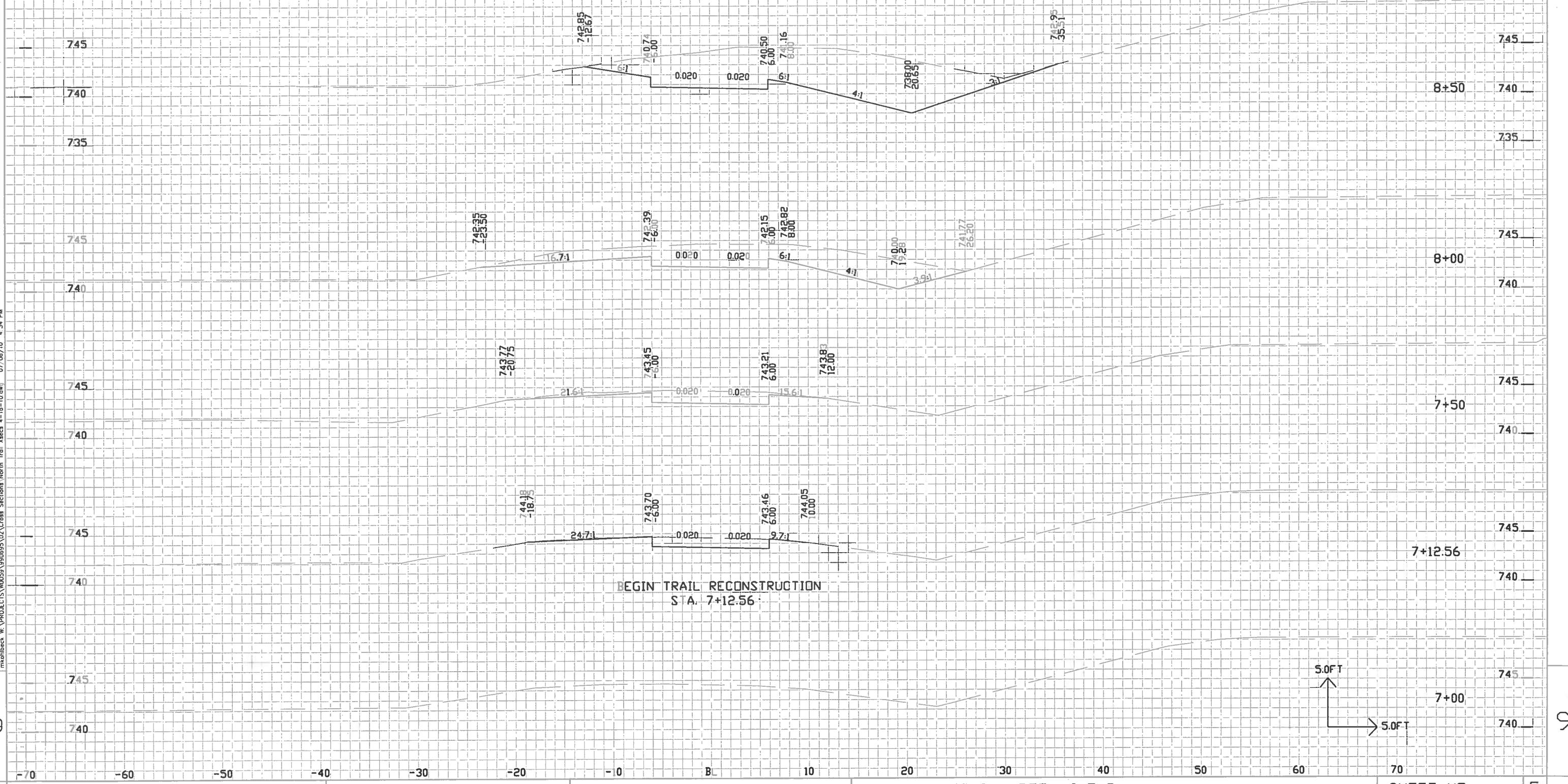
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PLOT NAME :

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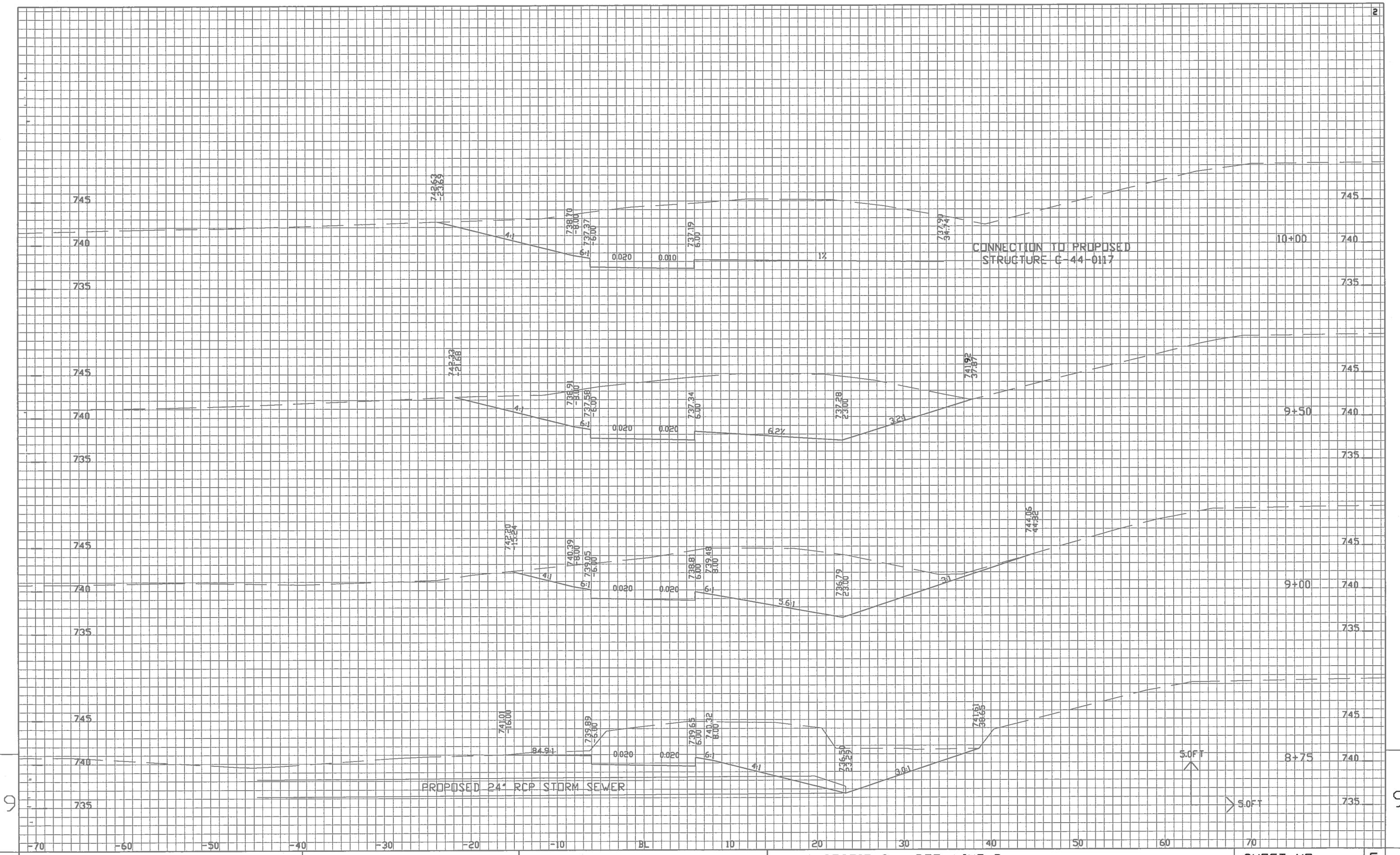
PROJECT NO: 4160-04-71

## CTH CE UNDERPASS

COUNTY: OUTAGAMIE

CROSS SECTIONS - REF. LINE B

SHEET NO:



PROJECT NO: 4160-04-71

## CTH CE UNDERPASS

COUNTY: OUTAGAMIE

CROSS SECTIONS - REF. LINE B

SHEET NO:

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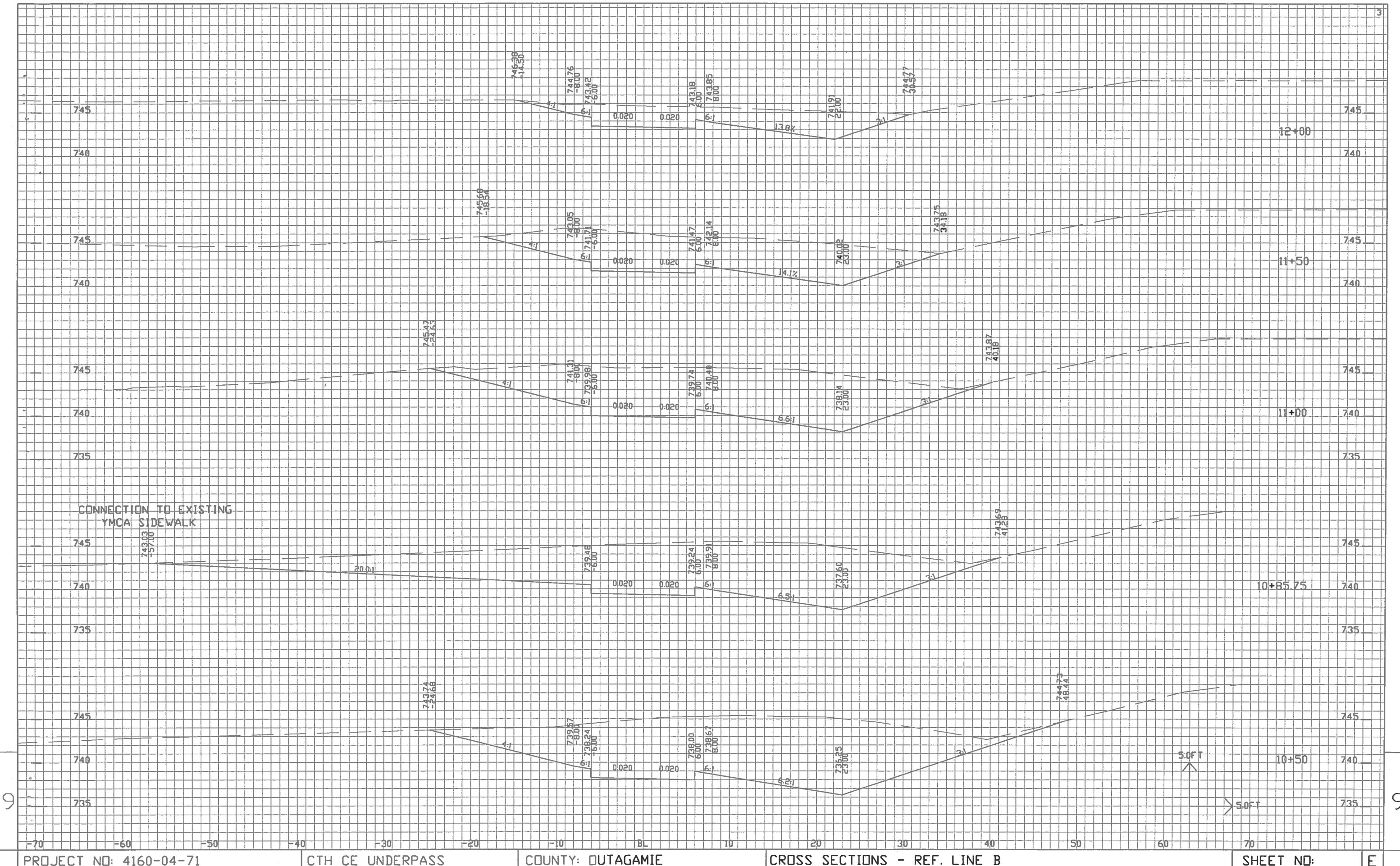
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PLOT DATE : ss...plottingdate...

PLOT BY : \$s...plotuser...\$

PLOT NAME :

PLOT SCALE : ~~ss...plotscale...ss~~



PROJECT NO: 4160-04-71

CTH CE UNDERPASS

COUNTY: OUTAGAMIE

## CROSS SECTIONS - REF. LINE B

SHEET NO:

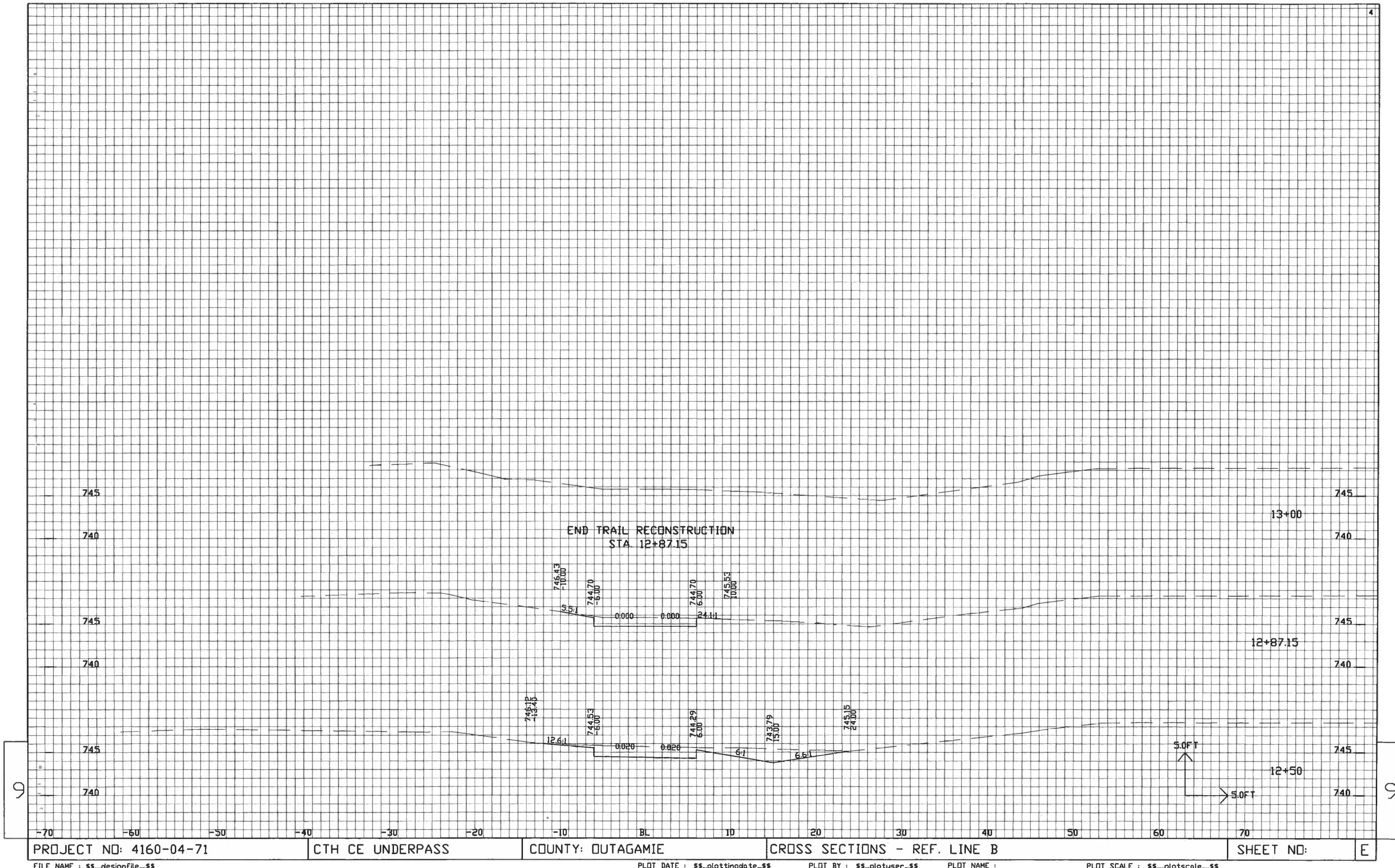
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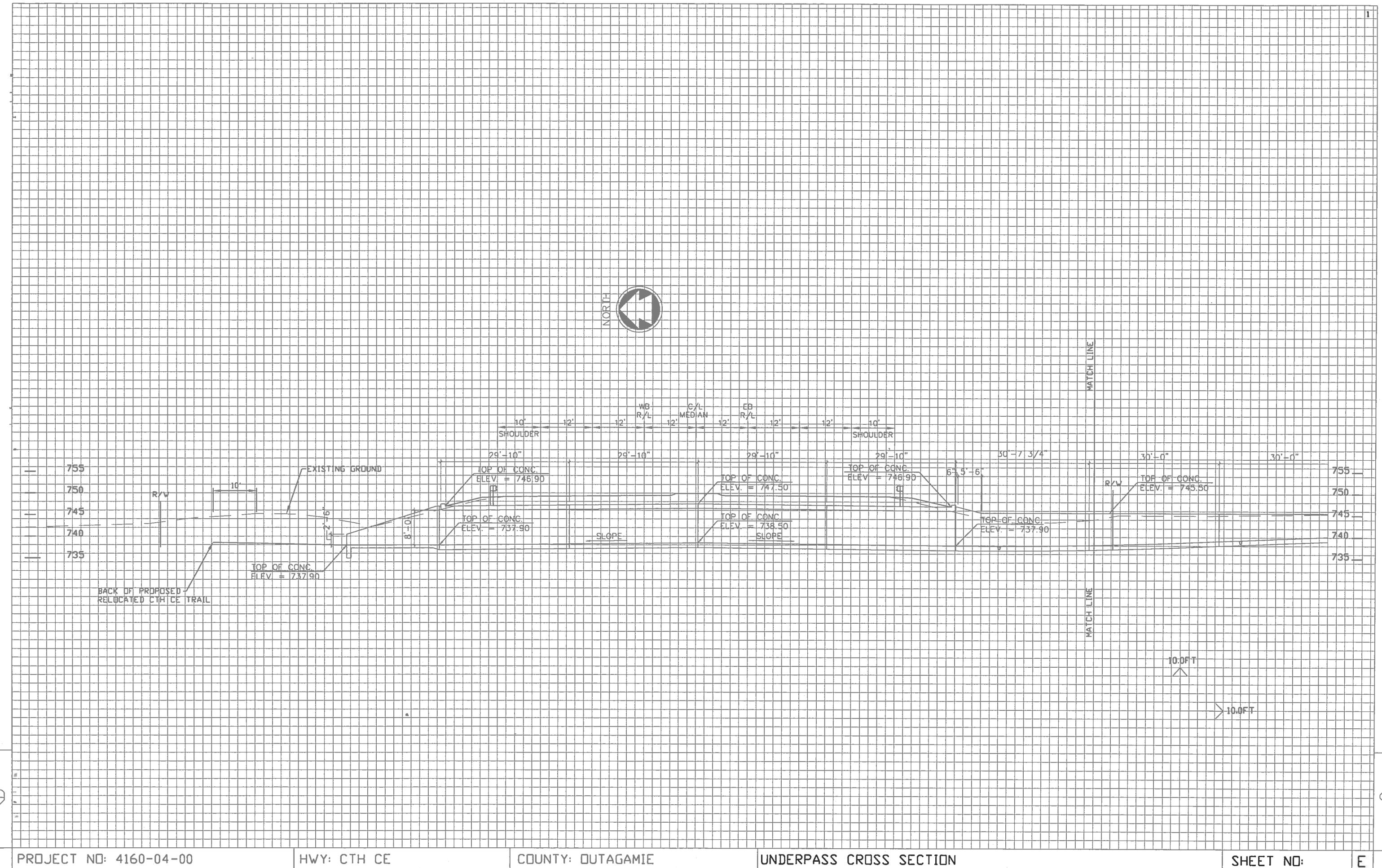
PLOT DATE : **ss...plottingdate...ss**

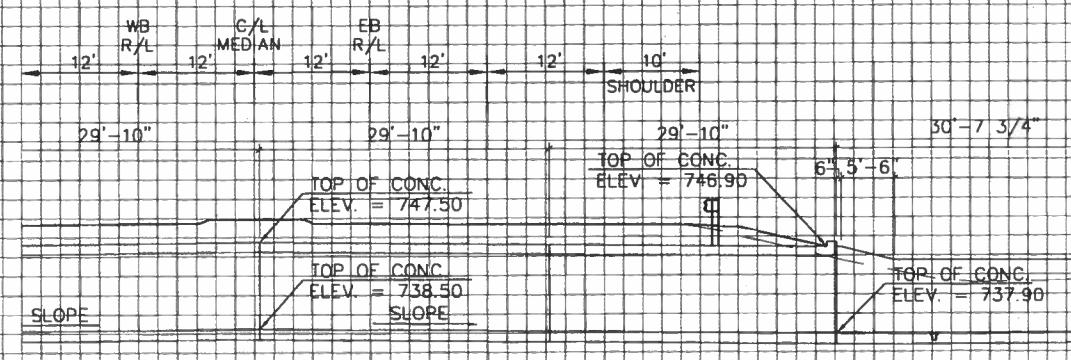
PLOT BY : \$\$\_plotuser\_\$\$

LOT NAME :

PLOT SCALE : ss\_plotscale\_ss

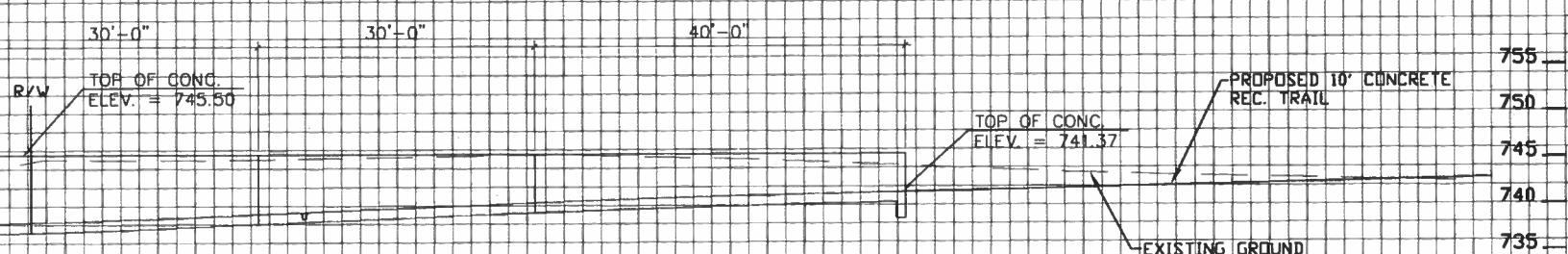






MATCH LINE

MATCH LINE



10.0FT  
10.0FT

6

9