

The logo of the Metropolitan Council, featuring a stylized, abstract graphic above the text "METROPOLITAN COUNCIL". The graphic consists of several overlapping, curved, grey shapes that form a triangular, somewhat abstract structure. The text "METROPOLITAN" is in a large, bold, black serif font, and "COUNCIL" is in a smaller, bold, black serif font below it.

# CIVIL EAST CONSTRUCTION

# VOLUME 6

---

# RETAINING WALLS

[illegible]



THE COUNCIL, THROUGH THE DEVELOPMENT OF THESE PLANS, DOES NOT INTEND THAT THEY WILL PREJUDICE OR COMPROMISE ANY STATE OR FEDERAL ENVIRONMENTAL REVIEW OR OTHER LEGAL REQUIREMENTS. THESE PLANS DO NOT LIMIT THE PROJECT DESIGN ALTERNATIVES OR MITIGATIVE MEASURES THAT THE COUNCIL MAY UNDERTAKE IF THE PROPOSED SWLRT PROJECT PROCEEDS TO CONSTRUCTION.

WARNING: THIS RECORD MAY CONTAIN SENSITIVE SECURITY INFORMATION THAT IS CONTROLLED UNDER 49 CFR PARTS 15 AND 1520. NO PART OF THIS RECORD MAY BE DISCLOSED TO PERSONS WITHOUT A "NEED TO KNOW", AS DEFINED IN 49 CFR PARTS 15 AND 1520, EXCEPT WITH THE WRITTEN PERMISSION OF THE ADMINISTRATOR OF THE TRANSPORTATION SECURITY ADMINISTRATION OR THE SECRETARY OF TRANSPORTATION. UNAUTHORIZED RELEASE MAY RESULT IN CIVIL PENALTY OR OTHER ACTION. FOR U.S. GOVERNMENT AGENCIES, PUBLIC DISCLOSURE IS GOVERNED BY 5 U.S.C. 552 AND 49 CFR PARTS 15 AND 1520.

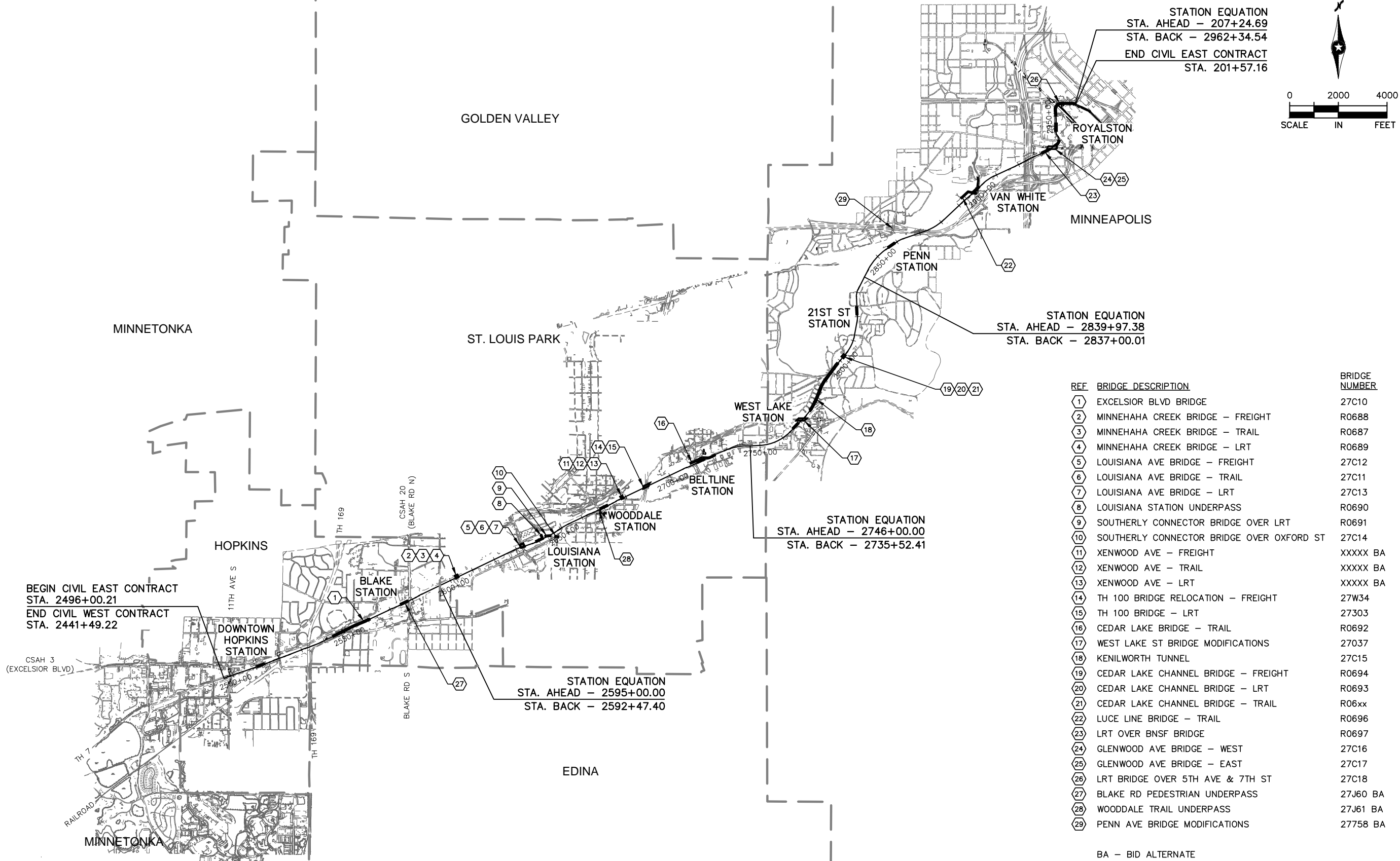
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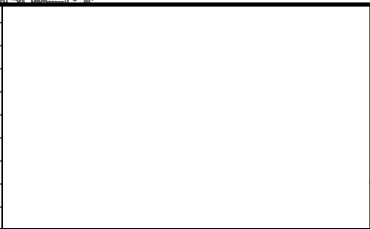
Sep. 21 2015 06:12 am V:\3400\_ADC\CAD\CAD MANAGEMENT\DRAWING LIST\E1-GEN-1DX.dwg By: V-KrewaMR

CIVIL EAST						CIVIL EAST						CIVIL EAST							
SHT #	SHEET NAME	SHEET DESCRIPTION	STATION	STATION	REV	SHT #	SHEET NAME	SHEET DESCRIPTION	STATION	STATION	REV	SHT #	SHEET NAME	SHEET DESCRIPTION	STATION	STATION	REV		
VOLUME 6 - RETAINING WALLS						73	RTW-E308-PLE	RTW-E308 PLAN AND ELEVATION											
1	E0-RTW-CVR-001	COVER SHEET				74	RTW-E308-DTL	RTW-E308 GEOMETRY											
2	E0-RTW-IDX-001	VOLUME INDEX OF PLAN SHEETS				75	RTW-E309-PLE	RTW-E309 PLAN AND ELEVATION											
3	E0-GEN-KEY-001	GENERAL KEY MAP				76	RTW-E309-DTL	RTW-E309 GEOMETRY											
4	E0-GEN-NTS-001	GENERAL LEGEND AND ABBREVIATIONS SHEET 1				77	RTW-E310-PLE	RTW-E310 PLAN AND ELEVATION											
5	E0-GEN-NTS-002	GENERAL LEGEND AND ABBREVIATIONS SHEET 2				78	RTW-E310-DTL	RTW-E310 GEOMETRY											
6	RTW-NTS-001	STRUCTURAL ABBREVIATIONS & SYMBOLS				79	RTW-E311-PLE	RTW-E311 PLAN AND ELEVATION											
7	RTW-LAY-001	SHEET LAYOUT INDEX (1 OF 6)				80	RTW-E311-DTL	RTW-E311 GEOMETRY											
8	RTW-LAY-002	SHEET LAYOUT INDEX (2 OF 6)				81	RTW-E312-PLE	RTW-E312 PLAN AND ELEVATION											
9	RTW-LAY-003	SHEET LAYOUT INDEX (3 OF 6)				82	RTW-E312-DTL	RTW-E312 GEOMETRY											
10	RTW-LAY-004	SHEET LAYOUT INDEX (4 OF 6)				83	RTW-E313-PLE	RTW-E313 PLAN AND ELEVATION											
11	RTW-LAY-005	SHEET LAYOUT INDEX (5 OF 6)				84	RTW-E313-DTL	RTW-E313 GEOMETRY											
12	RTW-LAY-006	SHEET LAYOUT INDEX (6 OF 6)				85	RTW-E314-PLE	RTW-E314 PLAN AND ELEVATION											
13	RTW-E102-PLE	RTW-E102 PLAN AND ELEVATION				86	RTW-E314-DTL	RTW-E314 GEOMETRY											
14	RTW-E102-DTL	RTW-E102 GEOMETRY				87	RTW-E316-PLE	RTW-E316 PLAN AND ELEVATION											
15	RTW-E103-PLE	RTW-E103 PLAN AND ELEVATION				88	RTW-E316-DTL	RTW-E316 GEOMETRY											
16	RTW-E103-DTL	RTW-E103 GEOMETRY				89	RTW-E317-PLE	RTW-E317 PLAN AND ELEVATION											
17	RTW-E104-PLE	RTW-E104 PLAN AND ELEVATION				90	RTW-E317-DTL	RTW-E317 GEOMETRY											
18	RTW-E104-DTL	RTW-E104 GEOMETRY				91	RTW-E405-PLE-001	RTW-E405 PLAN AND ELEVATION (1 OF 2)	1+00	7+00									
19	RTW-E105-PLE	RTW-E105 PLAN AND ELEVATION				92	RTW-E405-PLE-002	RTW-E405 PLAN AND ELEVATION (2 OF 2)	7+00	12+33									
20	RTW-E105-DTL	RTW-E105 GEOMETRY				93	RTW-E405-DTL	RTW-E405 GEOMETRY											
21	RTW-E106-PLE	RTW-E106 PLAN AND ELEVATION				94	RTW-E407-PLE	RTW-E407 PLAN AND ELEVATION											
22	RTW-E106-DTL	RTW-E106 GEOMETRY				95	RTW-E407-DTL	RTW-E407 GEOMETRY											
23	RTW-E107-PLE	RTW-E107 PLAN AND ELEVATION				96	RTW-E411-PLE	RTW-E411 PLAN AND ELEVATION											
24	RTW-E107-DTL	RTW-E107 GEOMETRY				97	RTW-E411-DTL	RTW-E411 GEOMETRY											
25	RTW-E201-PLE	RTW-E201 PLAN AND ELEVATION				98	RTW-E412-PLE	RTW-E412 PLAN AND ELEVATION											
26	RTW-E201-DTL	RTW-E201 GEOMETRY				99	RTW-E412-DTL	RTW-E412 GEOMETRY											
27	RTW-E203-PLE	RTW-E203 PLAN AND ELEVATION				100	RTW-E415-PLE	RTW-E415 PLAN AND ELEVATION											
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29	RTW-E204-PLE	RTW-E204 PLAN AND ELEVATION				102	RTW-E416-PLE	RTW-E416 PLAN AND ELEVATION											
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33	RTW-E206-PLE	RTW-E206 PLAN AND ELEVATION				106	RTW-E418-PLE	RTW-E418 PLAN AND ELEVATION											
34	RTW-E206-DTL	RTW-E206 GEOMETRY				107	RTW-E418-DTL	RTW-E418 GEOMETRY											
35	RTW-E207-PLE	RTW-E207 PLAN AND ELEVATION				108	RTW-E420-PLE	RTW-E420 PLAN AND ELEVATION											
36	RTW-E207-DTL	RTW-E207 GEOMETRY				109	RTW-E420-DTL	RTW-E420 GEOMETRY											
37	RTW-E208-PLE	RTW-E208 PLAN AND ELEVATION				110	RTW-E421-PLE	RTW-E421 PLAN AND ELEVATION											
38	RTW-E208-DTL	RTW-E208 GEOMETRY				111	RTW-E421-DTL	RTW-E421 GEOMETRY											
39	RTW-E209-PLE	RTW-E209 PLAN AND ELEVATION				112	RTW-E423-PLE	RTW-E423 PLAN AND ELEVATION											
40	RTW-E209-DTL	RTW-E209 GEOMETRY				113	RTW-E423-DTL	RTW-E423 GEOMETRY											
41	RTW-E211-PLE	RTW-E211 PLAN AND ELEVATION																	
42	RTW-E211-DTL	RTW-E211 GEOMETRY																	
43	RTW-E214-PLE	RTW-E214 PLAN AND ELEVATION																	
44	RTW-E214-DTL	RTW-E214 GEOMETRY																	
45	RTW-E215-PLE	RTW-E215 PLAN AND ELEVATION																	
46	RTW-E215-DTL	RTW-E215 GEOMETRY																	
47	RTW-E216-PLE	RTW-E216 PLAN AND ELEVATION																	
48	RTW-E216-DTL	RTW-E216 GEOMETRY																	
49	RTW-E217-PLE	RTW-E217 PLAN AND ELEVATION																	
50	RTW-E217-DTL	RTW-E217 GEOMETRY																	
51	RTW-E218-PLE	RTW-E218 PLAN AND ELEVATION																	
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54	RTW-E221-DTL	RTW-E221 GEOMETRY																	
55	RTW-E226-PLE	RTW-E226 PLAN AND ELEVATION																	
56	RTW-E226-DTL	RTW-E226 GEOMETRY																	
57	RTW-E227-PLE	RTW-E227 PLAN AND ELEVATION																	
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60	RTW-E230-DTL	RTW-E230 GEOMETRY																	
61	RTW-E301-PLE	RTW-E301 PLAN AND ELEVATION																	
62	RTW-E301-DTL	RTW-E301 GEOMETRY																	
63	RTW-E302-PLE	RTW-E302 PLAN AND ELEVATION																	
64	RTW-E302-DTL	RTW-E302 GEOMETRY																	
65	RTW-E303-PLE	RTW-E303 PLAN AND ELEVATION																	
66	RTW-E303-DTL	RTW-E303 GEOMETRY																	
67	RTW-E304-PLE	RTW-E304 PLAN AND ELEVATION																	
68	RTW-E304-DTL	RTW-E304 GEOMETRY																	
69	RTW-E305-PLE	RTW-E305 PLAN AND ELEVATION																	
70	RTW-E305-DTL	RTW-E305 GEOMETRY																	
71	RTW-E307-PLE	RTW-E307 PLAN AND ELEVATION																	
72	RTW-E307-DTL	RTW-E307 GEOMETRY																	
NO.		DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL	<div>AECOM</div>		<div><div>METROPOLITAN COUNCIL</div><div>SOUTHWEST Green Line LRT Extension</div></div>		<div>CIVIL EAST - VOLUME 6 RETAINING WALLS VOLUME INDEX OF PLAN SHEETS</div>				<div>DISCIPLINE: GENERAL</div>		<div>SHEET NAME: E0-RTW-IDX - 001</div>		<div>SHEET 2 OF 113</div>
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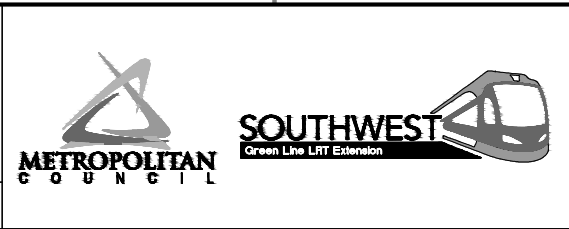
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CIVIL EAST - VOLUME 6  
GENERAL  
KEY MAP

DISCIPLINE: GENERAL  
SHEET NAME: E0-GEN-KEY - 001

SHEET  
3  
OF  
113

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TRACK LINETYPES

- ROADWAY
- TRACK (LRT)
- TRACK (FRT)
- RETAINING WALL
- BALLAST CURB
- TUNNEL WALL
- FENCE
- EX ROW
- PROP ROW
- PROP TCE
- PROP PE
- FENCE / RAILING
- ID ID INTRUSION DETECTION

CIVIL LINETYPES

- ROADWAY
- TRACK (LRT)
- TRACK (FRT)
- RETAINING WALL
- BALLAST CURB
- TUNNEL WALL
- CONCRETE CURB AND GUTTER
- TRAIL
- SIDEWALK
- DRIVEWAY
- BRIDGE
- SAWCUT
- FENCE
- DELINEATED WETLAND
- WATER EDGE
- EX ROW
- PROP ROW
- PROP TCE
- PROP PE
- CROSSWALK
- STOP BAR
- MEDIAN NOSE

TRACK SYMBOLS

- PROPOSED DIRECTIONAL LANE USE
- EXISTING DIRECTIONAL LANE USE
- PEDESTRIAN FLASHER
- AUTOMATIC GATE
- RAIL TURNOUT
- RAIL CROSSOVER (DOUBLE)
- RAIL CROSSOVER (SINGLE)
- POINT OF SWITCH (PS)
- OCS POLE FOUNDATION
- RAIL LUBRICATOR
- POINT OF INTERSECTION (PI) OF TURNOUT (TO)
- RAILROAD CURVE NUMBER

NOTE:  
ALL TURNOUTS AND CROSSOVERS TO BE EQUIPPED WITH POWER SWITCH MACHINES AND SWITCH HEATERS

CIVIL SYMBOLS

- ACCESSIBLE PEDESTRIAN CURB RAMP (DESIGN VARIES)
- PROPOSED DIRECTIONAL LANE USE
- EXISTING DIRECTIONAL LANE USE
- AUTOMATIC GATE
- HANDICAP PARKING STALL
- TACTILE WARNING STRIP
- TPSS BUILDING (TPSS-SW###)
- SIGNAL OR INTERMEDIATE OR PLATFORM OR XING OR TUNNEL HOUSE OR ANY COMBINATION OF THESE

SURVEY NOTES

- THE HORIZONTAL DATUM OF THIS MAP IS BASED ON THE HENNEPIN COUNTY COORDINATE SYSTEM WHICH IS RELATED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM NAD 83 (2007) ADJUSTMENT SOUTH ZONE.
- THE PLANIMETRIC FEATURES SHOWN ON THIS MAP ARE AS PREPARED BY AERO-METRIC, INC. FROM AERIAL DATA AND IMAGERY COLLECTED IN APRIL 2012, AS SUPPLEMENTED BY FIELD SURVEYS COMPLETED BY MFRA, INC.
- HORIZONTAL POSITIONAL ACCURACY: USING THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY, THE DATA SET TESTED 0.14 FEET HORIZONTAL ACCURACY AT A 95% CONFIDENCE LEVEL.
- VERTICAL POSITIONAL ACCURACY: USING THE NATIONAL STANDARD FOR SPATIAL DATA ACCURACY, THE DATA SET TESTED 0.10 FEET VERTICAL ACCURACY AT 95% CONFIDENCE LEVEL.

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CIVIL EAST - VOLUME 6  
GENERAL  
LEGEND AND ABBREVIATIONS  
SHEET 1

DISCIPLINE: GENERAL

SHEET NAME: E0-GEN-NTS - 001



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ABBREVIATIONS

AD	ALGEBRAIC DIFFERENCE
AVE	AVENUE
BGN	BEGIN
BP	BEGINNING POINT
BVCE	BEGINNING VERTICAL CURVE ELEVATION
BVCS	BEGINNING VERTICAL CURVE STATION
BLVD	BOULEVARD
BNSF	BURLINGTON NORTHERN SANTA FE RAILWAY
C&G	CURB AND GUTTER
☉	CENTERLINE
CIR	CIRCLE
CP	CANADIAN PACIFIC
CPRAIL	CANADIAN PACIFIC RAILWAY
CS	CURVE TO SPIRAL
CSAH	COUNTY STATE AID HIGHWAY
D&U	DRAINAGE AND UTILITY
DF	DIRECT FIXATION
DR	DRIVE
DTL	DETAIL
DWY	DRIVEWAY
E	EAST
Ea	ACTUAL SUPERELEVATION (INCHES)
EB	EAST BOUND
EL or ELEV	ELEVATION
EP	END POINT
ESMT	EASEMENT
Eu	UNBALANCED SUPERELEVATION (INCHES)
EVCE	ENDING VERTICAL CURVE ELEVATION
EVCS	ENDING VERTICAL CURVE STATION
EX	EXISTING
HCRRRA	HENNEPIN COUNTY REGIONAL RAILROAD AUTHORITY
LH	LEFT HAND
LN	LANE
LRT	LIGHT RAIL TRANSIT
Lc	CURVE LENGTH (FEET)
Ls	SPIRAL LENGTH (FEET)
MIN	MINIMUM
MPH	MILES PER HOUR
MPLS	CITY OF MINNEAPOLIS
MPRB	MINNEAPOLIS PARK AND RECREATION BOARD
N	NORTH
NB	NORTH BOUND
NIC	NOT IN CONTRACT
NO	NUMBER
OMF	OPERATIONS AND MAINTENANCE FACILITY
OCS	OVERHEAD CONTACT SYSTEM
OH	OVERHEAD
PC	POINT OF CURVE
PE	PERMANENT EASEMENT
PITO	POINT OF INTERSECTION OF TURNOUT
PKWY	PARKWAY
POT	POINT ON TANGENT
PROP	PROPOSED
PS	POINT OF SWITCH
PT	POINT OF TANGENT
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS (FEET)
RD	ROAD
RL	RAIL LUBRICATOR
r	RATE OF CHANGE VERTICAL CURVE
RH	RIGHT HAND
ROW	RIGHT OF WAY
S	SOUTH
SB	SOUTH BOUND
SC	SPIRAL TO CURVE
SIG-COMM	SIGNAL COMMUNICATION
ST	STREET
ST	SPIRAL TO TANGENT
STA	STATION
TCE	TEMPORARY CONSTRUCTION EASEMENT
TH	TRUNK HIGHWAY
THRU	THROUGH
TOR	TOP OF RAIL
TPSS	TRACTION POWER SUBSTATION
TRK	TRACK
TS	TANGENT TO SPIRAL
TYP	TYPICAL
UG	UNDERGROUND
V	DESIGN VELOCITY (MPH)
VC	VERTICAL CURVE
W	WEST
WB	WEST BOUND

TRAIL INDEX

ABBREVIATED NAME	FULL NAME / LOCATION
TRAIL 1	UNDER RED CIRCLE DR, LRT, AND YELLOW CIRCLE DR
TRAIL 2	FROM TRAIL 1 TO GREEN CIRCLE DR
TRAIL 3	OPUS STATION ACCESS FROM BREN RD E
TRAIL 4	FROM BREN RD W TO TRAIL 5
TRAIL 5	FROM OPUS STATION TO GREEN CIRCLE DR
TRAIL 6	FROM TRAIL 5 TO SMETANA RD
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL TRAIL/FROM SHADY OAK STATION TO 11TH AVE
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL TRAIL/WEST OF EXCELSIOR
CEDAR LAKE TRAIL	CEDAR LAKE LRT REGIONAL LRT TRAIL/BETWEEN EXCELSIOR AND KENILWORTH TRAIL CONNECTION
MIDTOWN GREENWAY	MIDTOWN GREENWAY/EAST OF KENILWORTH TRAIL CONNECTION
TRAIL A	KENILWORTH TRAIL (SECONDARY)/BETWEEN CEDAR-ISLES CHANNEL AND 21ST STREET STATION
TRAIL B	KENILWORTH TRAIL (SECONDARY)/BETWEEN 21ST STREET STATION AND PENN STATION
TRAIL B	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL C	10' CONNECTOR TRAIL FROM CEDAR LAKE LRT REGIONAL TRAIL TO TYLER AVE.
TRAIL D	10' CONNECTOR TRAIL/BELTLINE STATION TO CEDAR LAKE LRT REGIONAL TRAIL
KENILWORTH TRAIL	KENILWORTH TRAIL (MAIN)/W LAKE ST TO PENN STATION
CEDAR LAKE TRAIL	CEDAR LAKE TRAIL (MAIN)/PENN STATION TO TH 394
TRAIL E	KENILWORTH TRAIL (SECONDARY)/EAST OF W LAKE ST
TRAIL F	KENILWORTH TRAIL (SECONDARY)/WEST OF CEDAR LAKE PKWY
TRAIL G	KENILWORTH TRAIL (SECONDARY)/WEST OF PENN STATION
TRAIL G	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL H	10' CONNECTOR TRAIL/EAST OF PENN STATION TO KENWOOD PKWY
TRAIL I	NOT USED
CEDAR LAKE TRAIL	CEDAR LAKE TRAIL (MAIN)/AT-GRADE CROSSING AT PENN STATION
TRAIL J	CEDAR LAKE TRAIL (SECONDARY)/NORTHWEST OF PENN STATION
TRAIL K	CEDAR LAKE TRAIL (SECONDARY)/NORTHWEST OF PENN STATION
TRAIL L	CEDAR LAKE TRAIL (SECONDARY)/EAST OF PENN STATION
TRAIL M	NOT USED
TRAIL N	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO EDGEBROOK DRIVE
TRAIL O	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO W LAKE STREET
TRAIL P	8' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO LOUISIANA AVE
TRAIL Q	10' CONNECTOR TRAIL FROM CEDAR LAKE TRAIL TO TH 7 SERVICE ROAD
TRAIL R	20' CONNECTOR TRAIL FROM VAN WHITE STATION TO CEDAR LAKE TRAIL
TRAIL S	NOT USED
TRAIL T	8' CONNECTOR TRAIL FROM VAN WHITE STATION TO VAN WHITE MEMORIAL BLVD
TRAIL U	10' TRAIL PARALLEL TO CEDAR LAKE PKWY
LUCE LINE TRAIL	LUCE LINE REGIONAL TRAIL/ON BRIDGE OVER LIGHT RAIL
TRAIL V	CONNECTOR TRAIL TO LUCE LINE REGIONAL TRAIL WEST OF LIGHT RAIL
TRAIL W	CONNECTOR TRAIL TO LUCE LINE REGIONAL TRAIL WEST OF LIGHT RAIL

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CIVIL EAST - VOLUME 6  
GENERAL  
LEGEND AND ABBREVIATIONS  
SHEET 2

DISCIPLINE: GENERAL

SHEET NAME: E0-GEN-NTS - 002

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ABBREVIATION LIST:

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	N	NORTH
ABT	ABOUT	NB	NORTH BOUND
ABUT	ABUTMENT	NBL	NORTH BOUND LANE(S)
ADT	AVERAGE DAILY TRAFFIC	NO	NUMBER
APPROX	APPROXIMATE (OR APPROXIMATELY)	OC	ON CENTER
ASSY	ASSEMBLY	OFF	OFFSET
AVE	AVENUE	PC	POINT OF CURVATURE
AZ	AZIMUTH	PCC	POINT OF COMPOUND CURVE
@	AT	PG	PROFILE GRADE
BF	BACK FACE	PI	POINT OF INTERSECTION
BIT	BITUMINOUS	PL	PLATE
BM	BENCH MARK	POC	POINT OF CURVE
BM	BEAM	POT	POINT OF TANGENT
BOT	BOTTOM	PSI	POUNDS PER SQUARE INCH
BR	BRIDGE	PT	POINT OF TANGENCY
BRG	BEARING	PKWY	PARKWAY
BTWN	BETWEEN	PED	PEDESTRIAN
C-I-P	CAST-IN-PLACE	PERF	PERFORATED
℄	CENTERLINE	PT	POINT
CJ	CONSTRUCTION JOINT	R	RADIUS
CLR	CLEAR	ROW	RIGHT OF WAY
COL	COLUMN	RDWY	ROADWAY
CONC	CONCRETE	REINF	REINFORCED (OR REINFORCING/MENT)
CONST	CONSTRUCTION	REQ'D	REQUIRED
CASH	COUNTY AND STATE HIGHWAY	RT	RIGHT
DIA	DIAMETER	S	SOUTH
DIAPH	DIAPHRAGM	SB	SOUTH BOUND
DL	DEADLOAD	SBL	SOUTH BOUND LANE(S)
DWL	DOWEL	SDWK	SIDEWALK
E	EAST	SER	SERIES
EB	EAST BOUND	SHLDR	SHOULDER
EBL	EAST BOUND LANE(S)	SP	SPACES
EA	EACH	SPA	SPACED
EF	EACH FACE	SPG	SPACING
EJ	EXPANSION JOINT	ST	STREET
EL	ELEVATION	STA	STATION
EMBED	EMBEDMENT	STD	STANDARD
ENGR	ENGINEER	STRUCT	STRUCTURAL
EQ	EQUAL	SYM	SYMMETRICAL
EXP	EXPANSION	TH	TRUNK HIGHWAY
FF	FRONT FACE	TOR	TOP OF RAIL
FIN	FINISHED	TTC	TANGENT TO CURVE
FIX	FIXED	TYP	TYPICAL
FTG	FOOTING	VC	VERTICAL CURVE
GALV	GALVANIZED	VPC	VERTICAL POINT OF CURVATURE
HORIZ	HORIZONTAL	VPI	VERTICAL POINT OF INTERSECTION
HS	HIGH STRENGTH	VPT	VERTICAL POINT OF TANGENCY
JCT	JUNCTION	VAR	VARIES
JT	JOINT	VERT	VERTICAL
LT	LEFT	W	WEST
MAX	MAXIMUM	WB	WEST BOUND
MIN	MINIMUM	WBL	WEST BOUND LANE(S)
MISC	MISCELLANEOUS	WC	WEARING COURSE
		WP	WORKING POINT
		WW	WINGWALL

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





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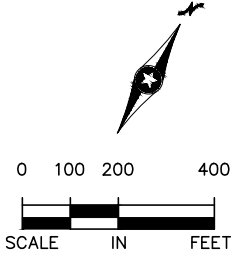
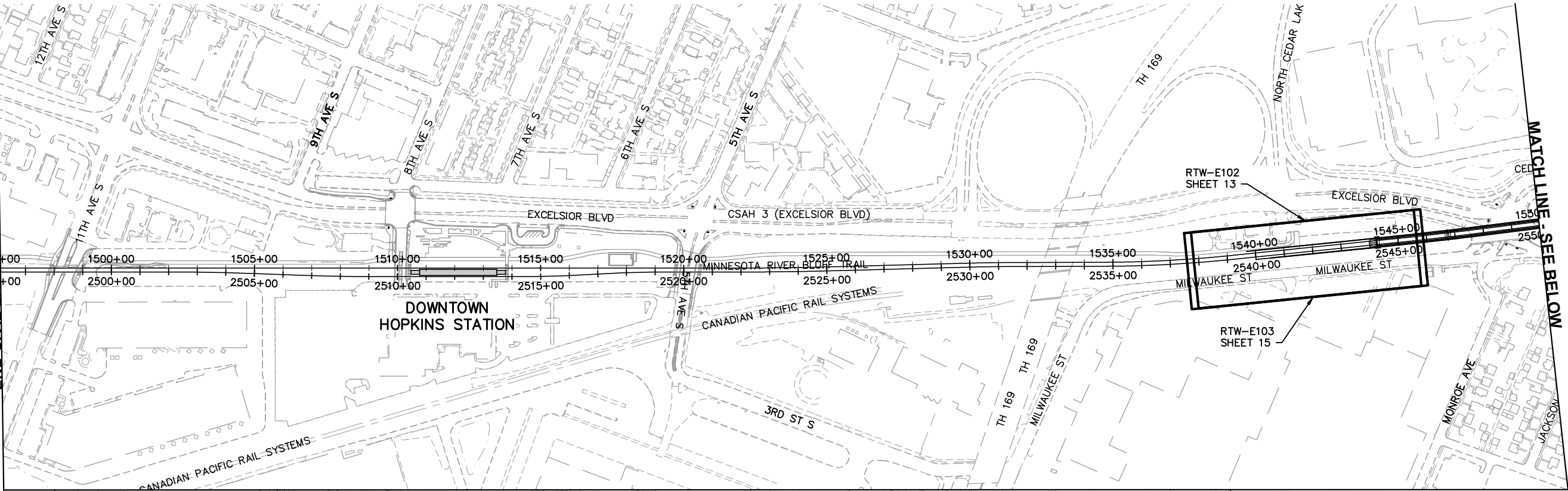
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
STRUCTURAL ABBREVIATIONS  
& SYMBOLS

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-NTS-001

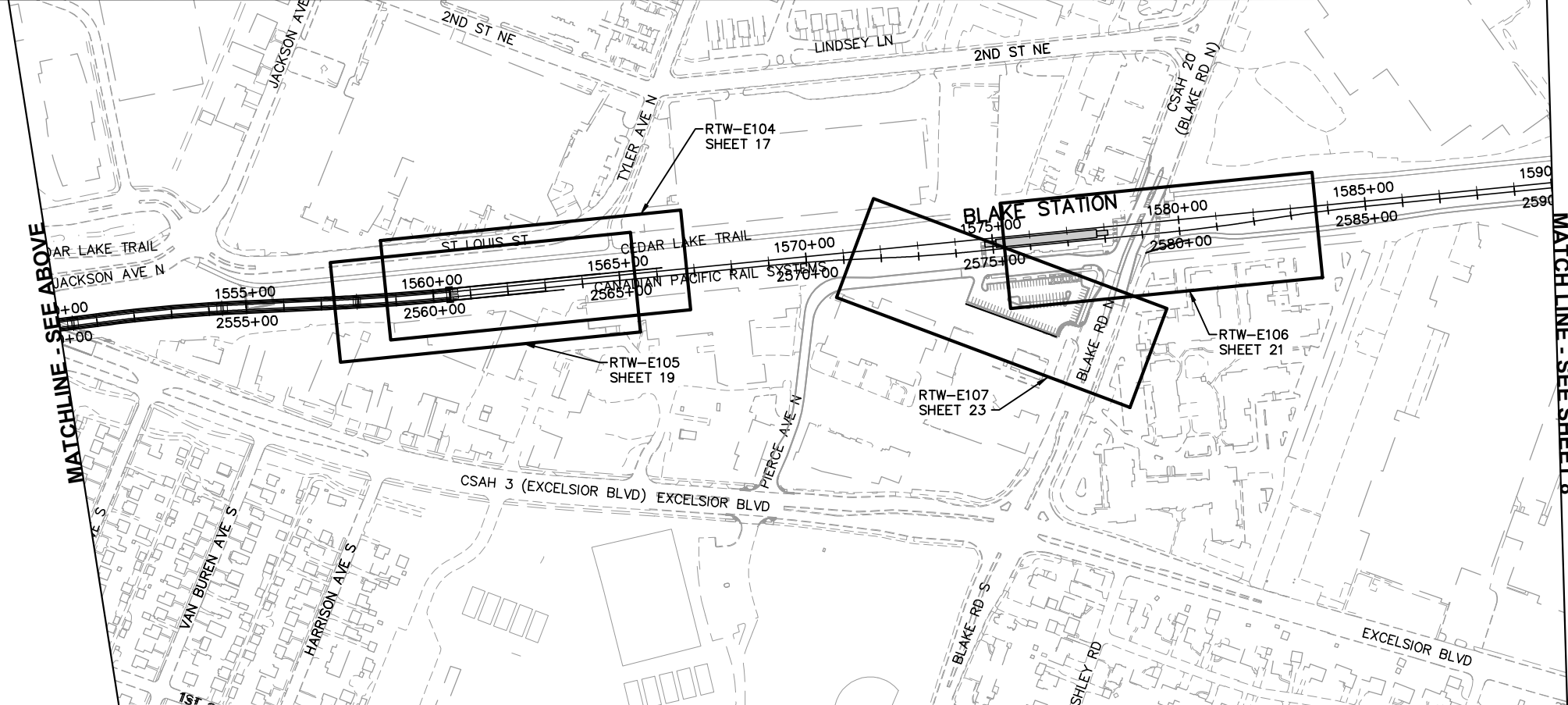
Sep. 21 2015 04:35 pm V:\3400\_ADC\CAD\00\_EAST\PLANSHEETS\STRUCTURES\RETAINING WALLS\RTW-LAY.dwg By: V-PoteiPJ

END CIVIL EAST - BEGIN CIVIL WEST



MATCH LINE - SEE BELOW

MATCHLINE - SEE ABOVE



MATCH LINE - SEE SHEET 8

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



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CIVIL EAST - VOLUME 6  
RETAINING WALLS  
SHEET LAYOUT INDEX  
(1 OF 6)

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-LAY - 001

SHEET  
7  
OF  
113



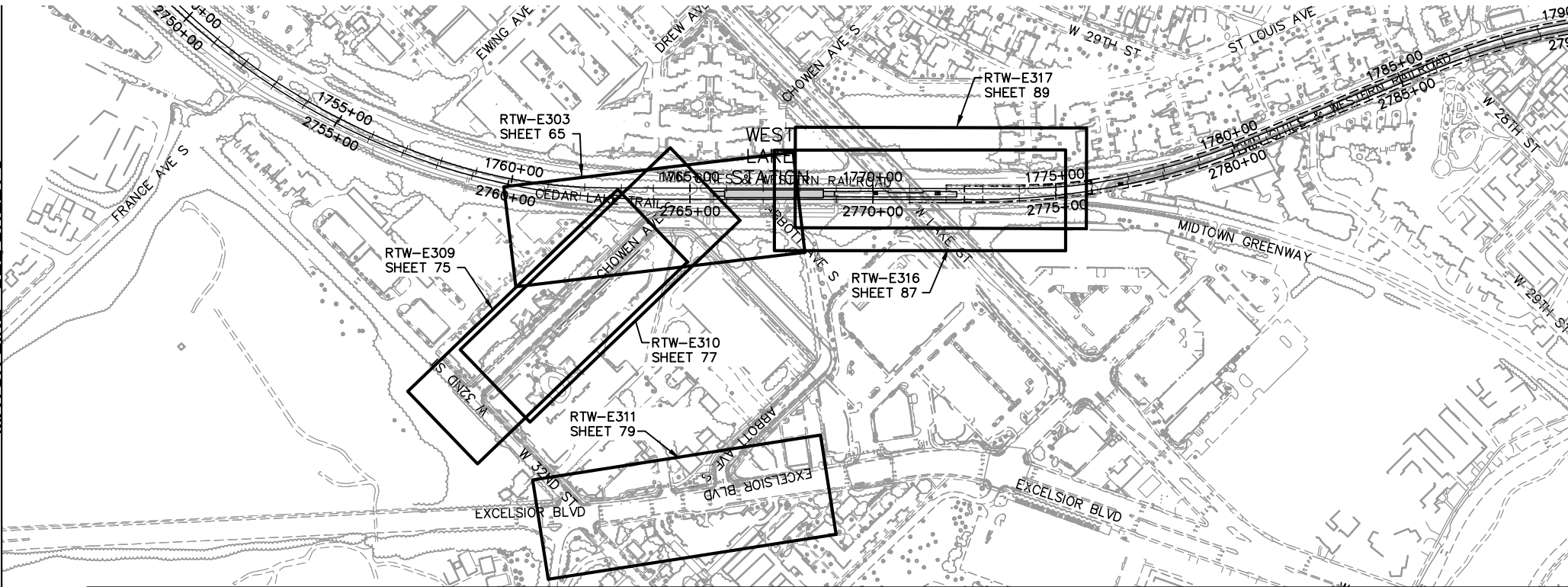






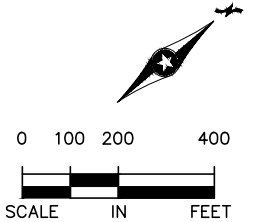
Sep. 21 2015 04:42 pm V:\3400\_ADC\CAD\00\_EAST\PLANSHEETS\STRUCTURES\RETAINING WALLS\RTW-LAY.dwg By: V-PoteiPJ

MATCH LINE - SEE SHEET 9

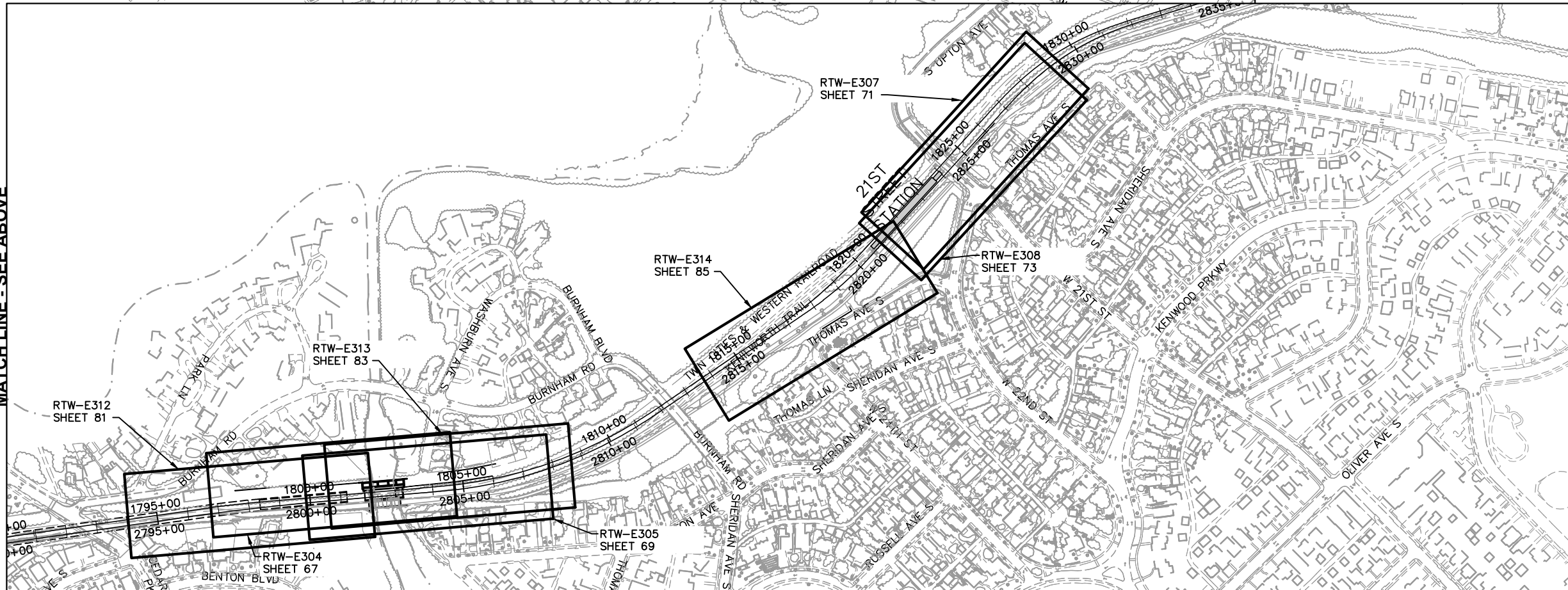


MATCH LINE - SEE BELOW

MATCH LINE - SEE SHEET 11



MATCH LINE - SEE ABOVE



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

**AECOM**

60% SUBMISSION - 09/28/15



**CIVIL EAST - VOLUME 6  
RETAINING WALLS  
SHEET LAYOUT INDEX  
(4 OF 6)**

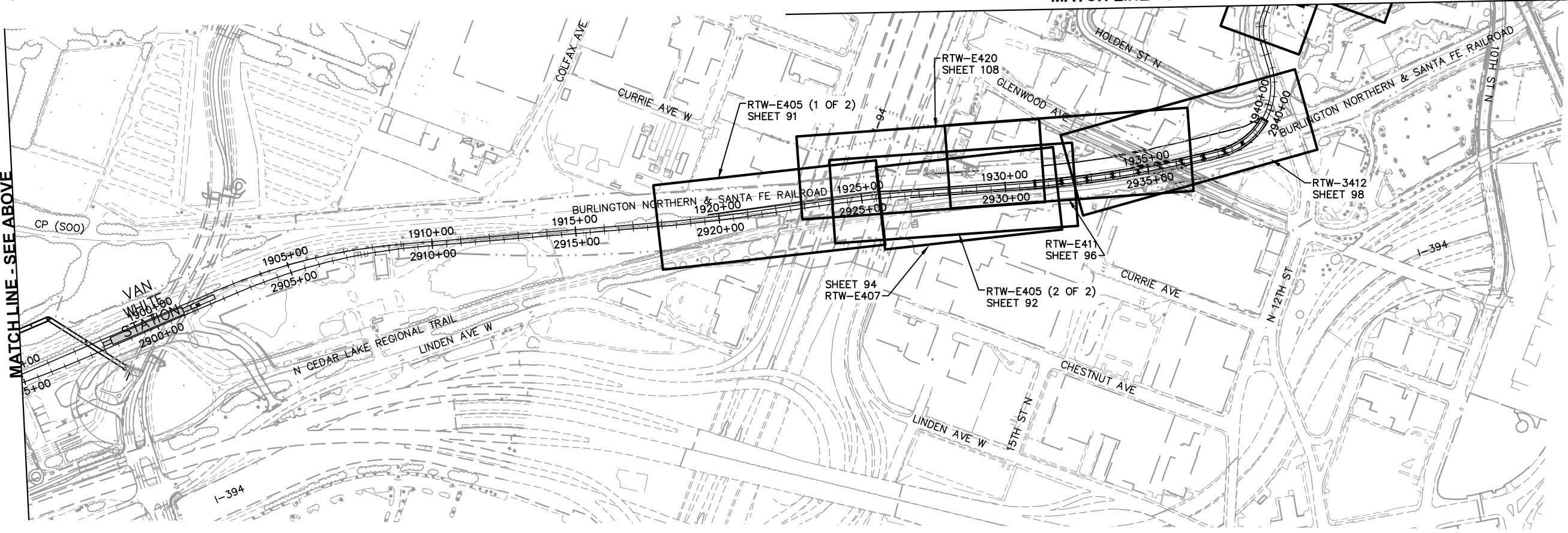
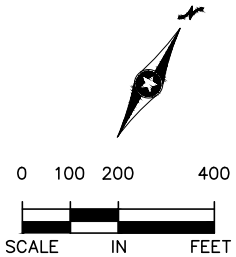
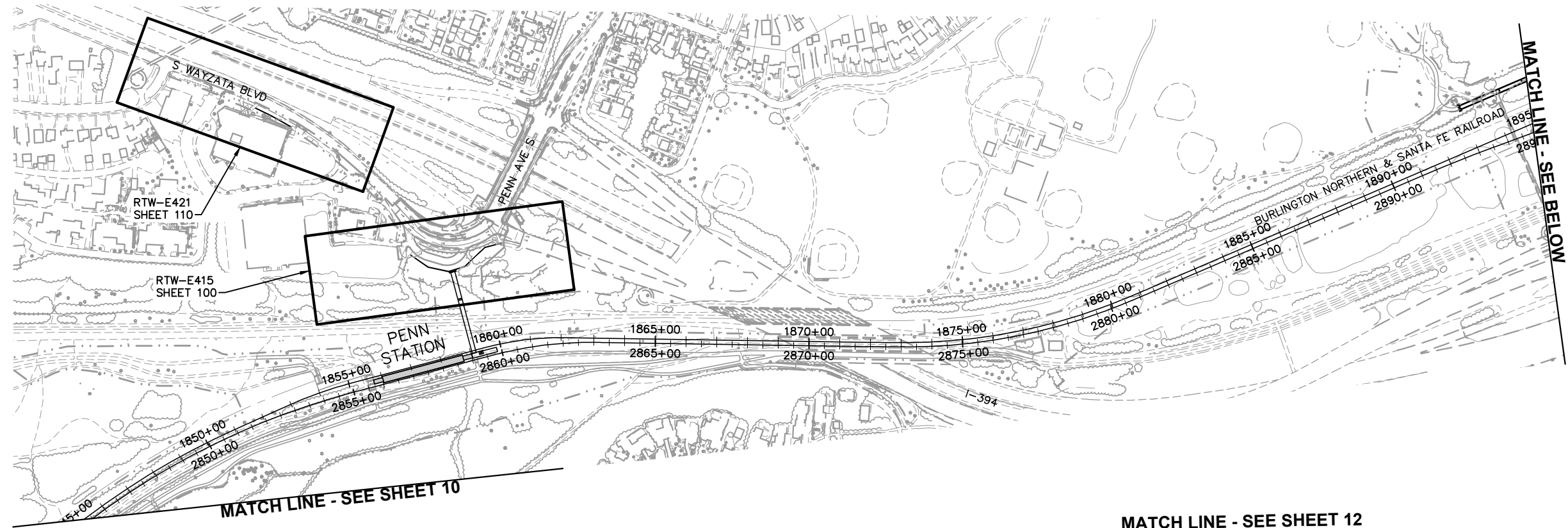
DISCIPLINE:  
**STRUCTURES**

SHEET NAME:  
**RTW-LAY - 004**

**SHEET  
10  
OF  
113**



Sep. 21 2015 04:45 pm V:\3400\_ADC\CAD\00\_EAST\PLANSHEETS\STRUCTURES\RETAINING WALLS\RTW-LAY.dwg By: V-PoteiPJ



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





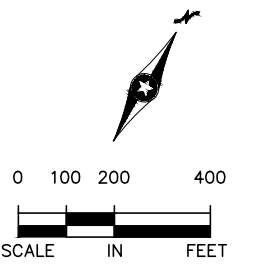
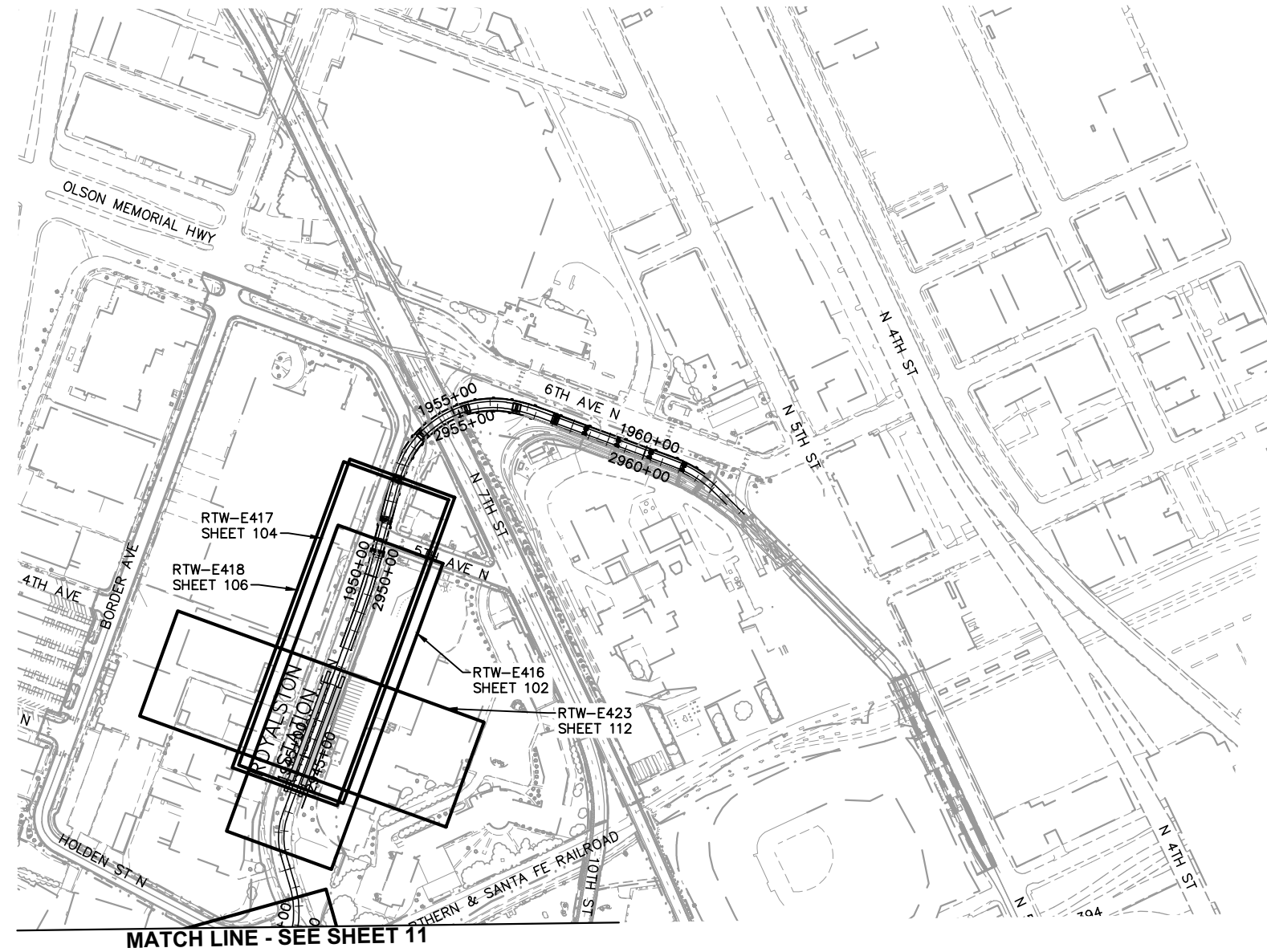
60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
SHEET LAYOUT INDEX  
(5 OF 6)

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-LAY - 005

[illegible]**AECOM**

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**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**SHEET LAYOUT INDEX**  
**(6 OF 6)**

DISCIPLINE:

## STRUCTURES

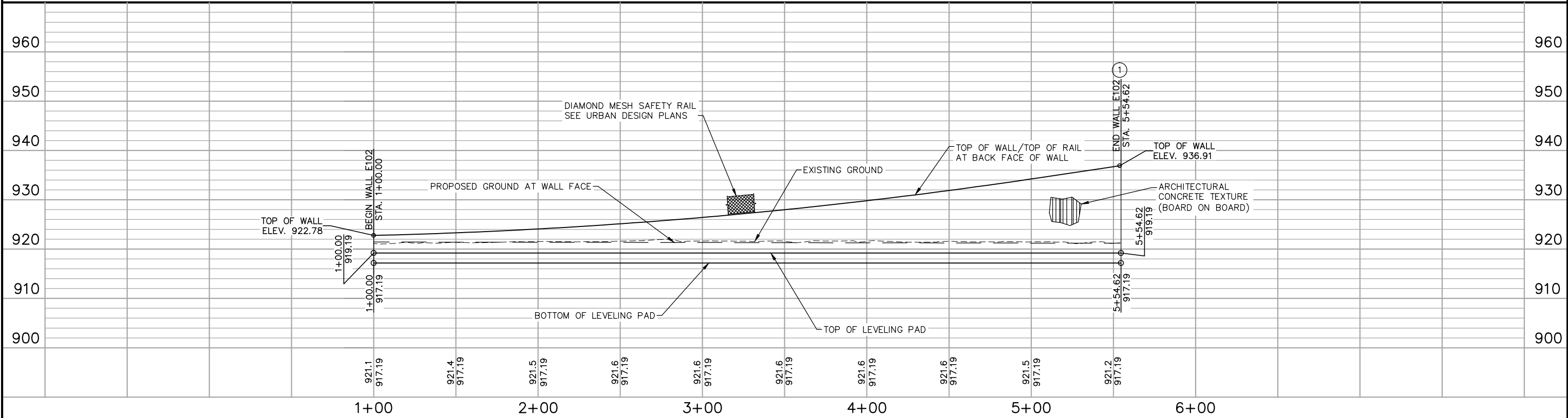
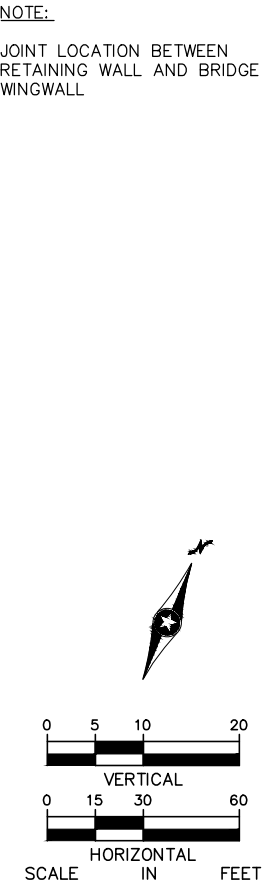
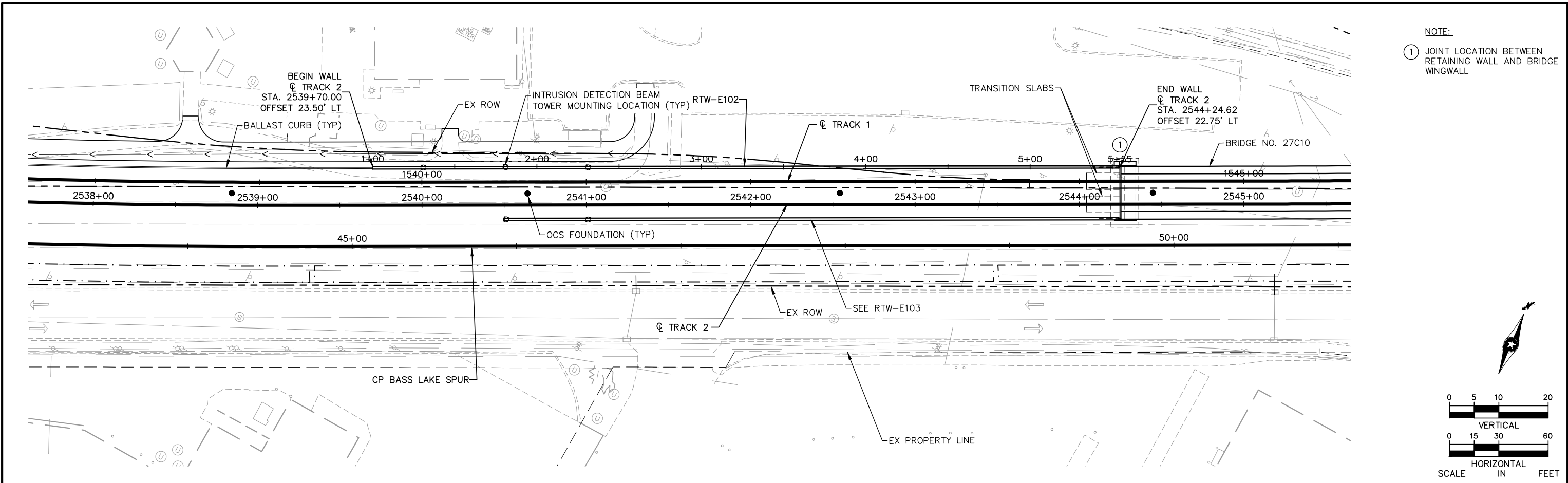
**SHEET NAME:**

RTW-LAY - 006

HEET  
12  
OF  
113



Sep. 19 2015 09:38 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E102.dwg By: V-PatelPU



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL


**AECOM**

60% SUBMISSION - 09/28/15

**METROPOLITAN**  
COUNCIL

**SOUTHWEST**  
Green Line LRT Extension

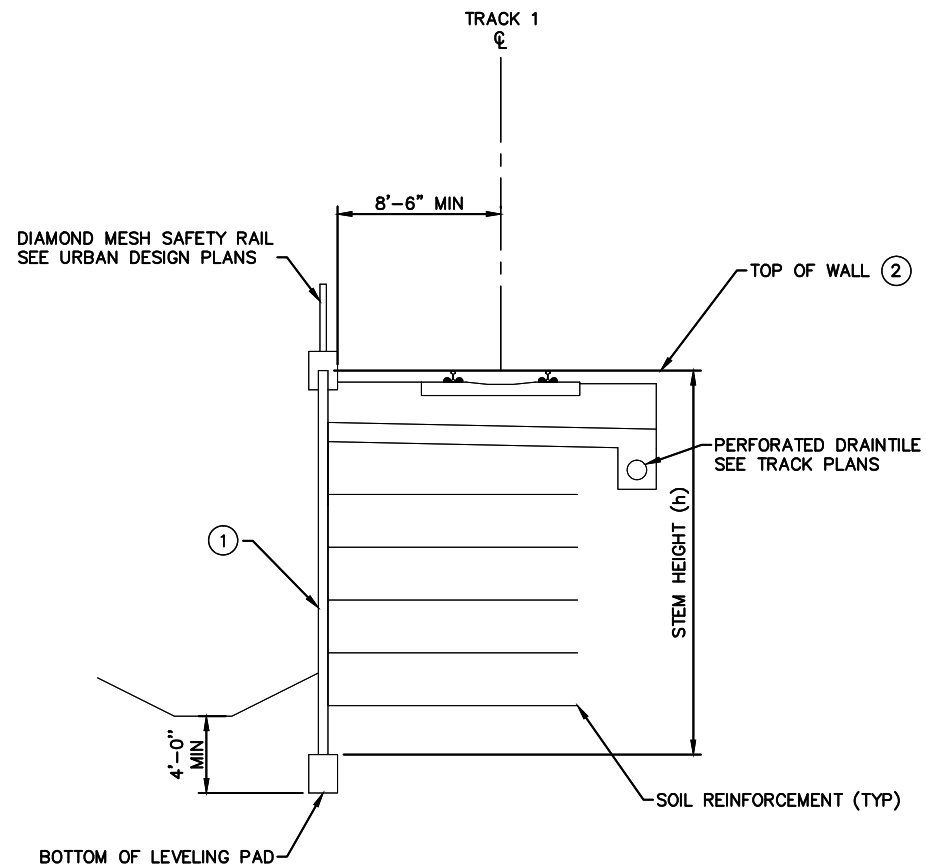
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E102 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E102 - PLE**

**SHEET**  
**13**  
**OF**  
**113**

Sep. 19 2015 09:38 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E102.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - 3. RETAINING WALL TO BE MSE WALL

RTW-E102 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

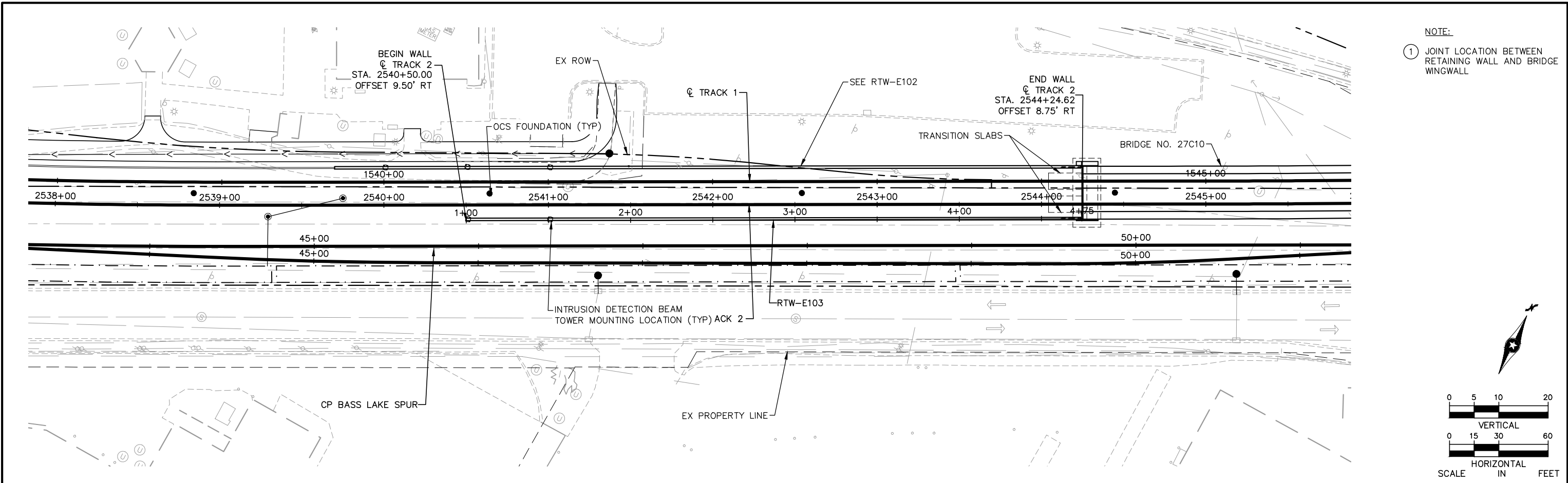


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E102 GEOMETRY

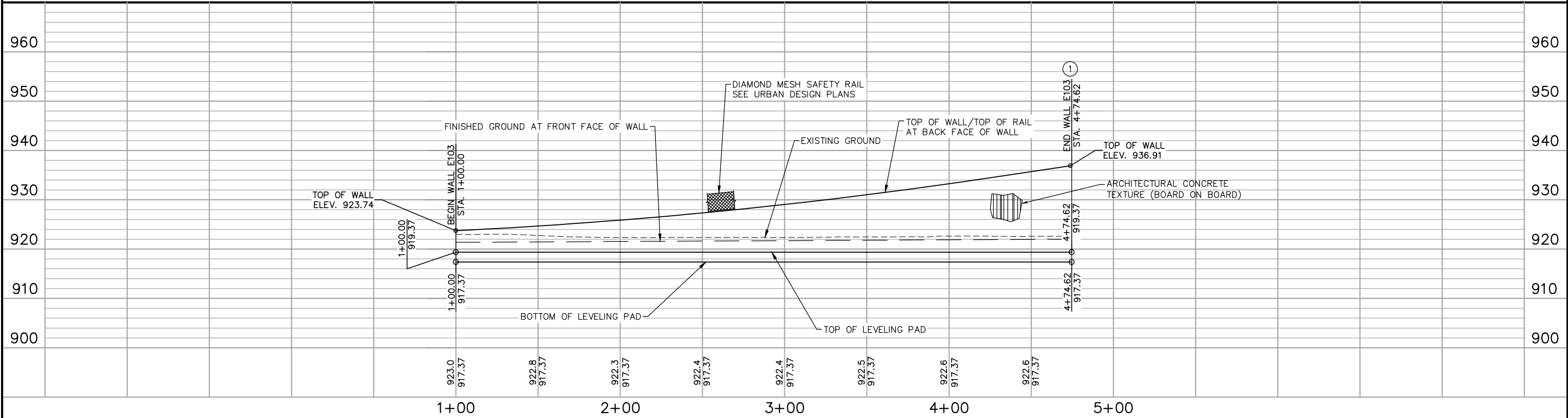
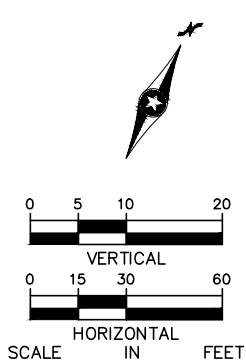
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E102 - DTL

Sep. 19 2015 09:42 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E103.dwg By: V-PatelPU



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

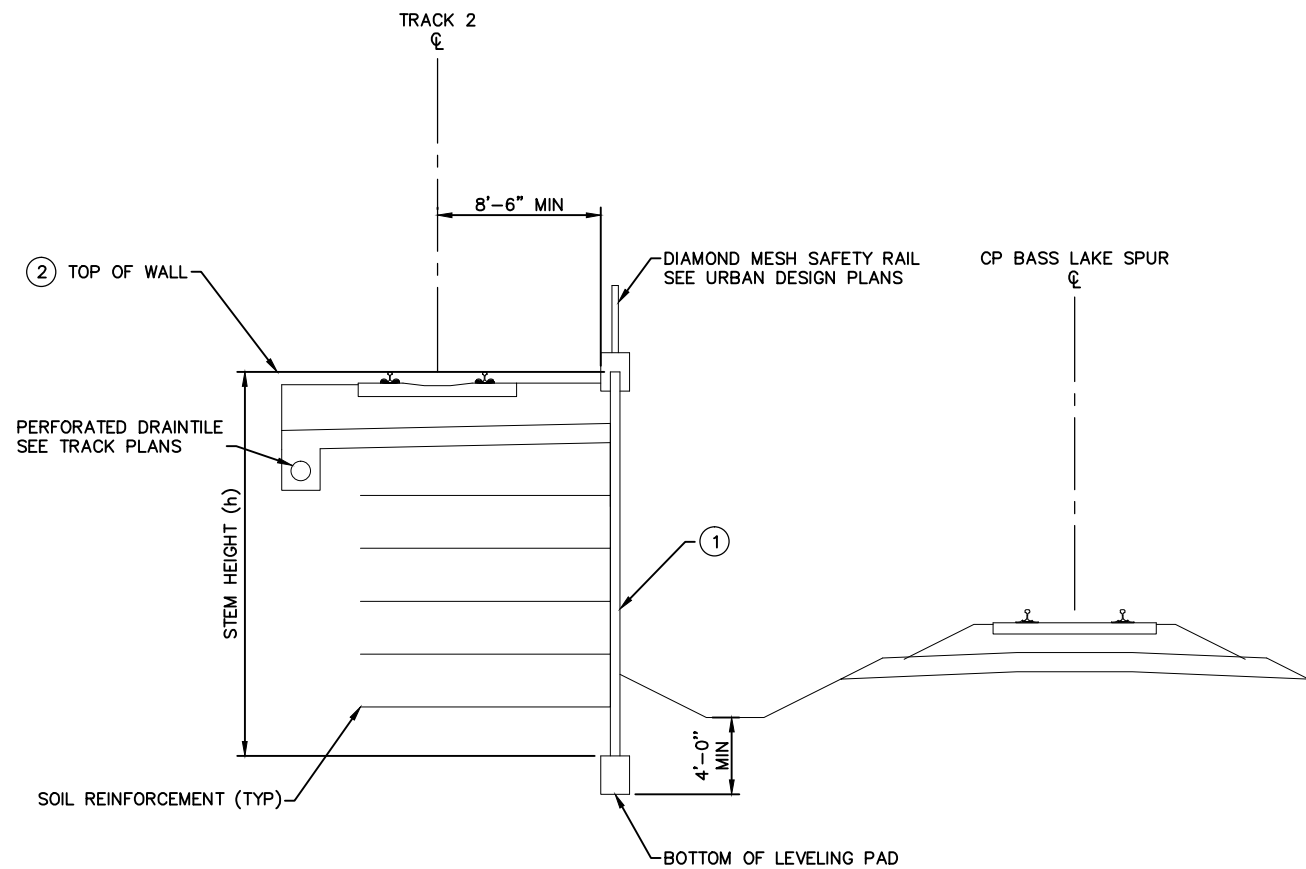


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E103 PLAN AND ELEVATION		SHEET 15 OF 113
DISCIPLINE: STRUCTURES	SHEET NAME: RTW-E103 - PLE	

Sep. 19 2015 09:42 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E103.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION (Ea)  
THROUGH OUTSIDE CURVES AND SPIRALS
  - 3. RETAINING WALL TO BE MSE WALL

RTW-E103 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E103 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E103 - DTL

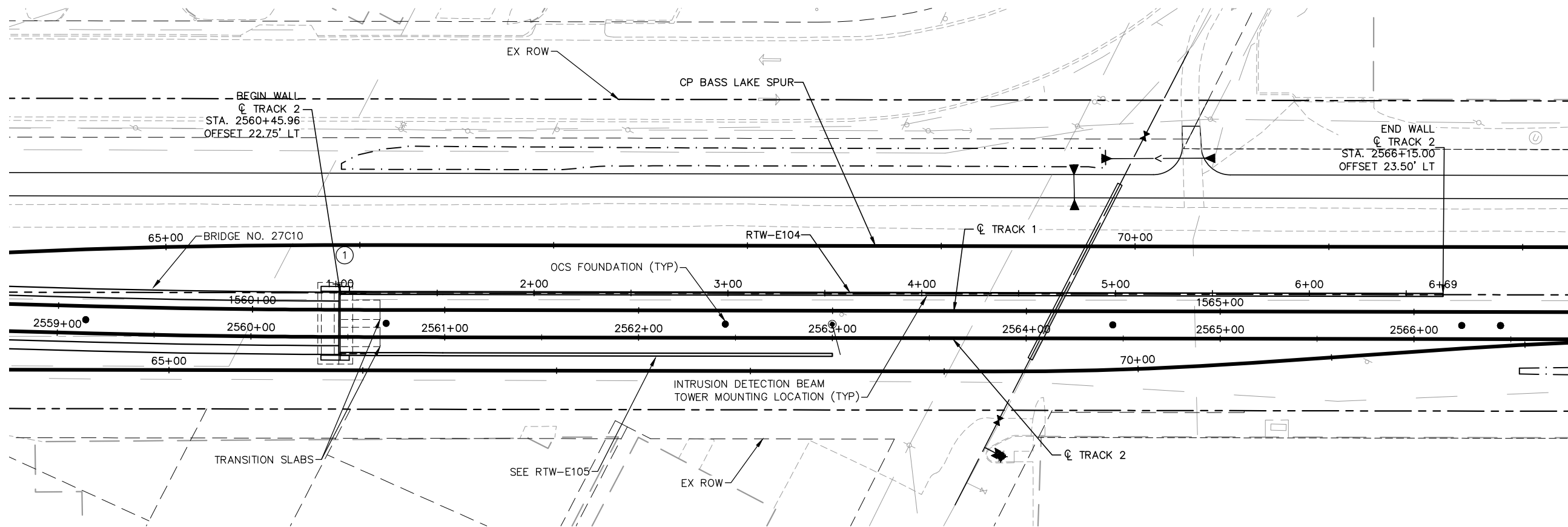
SHEET

16

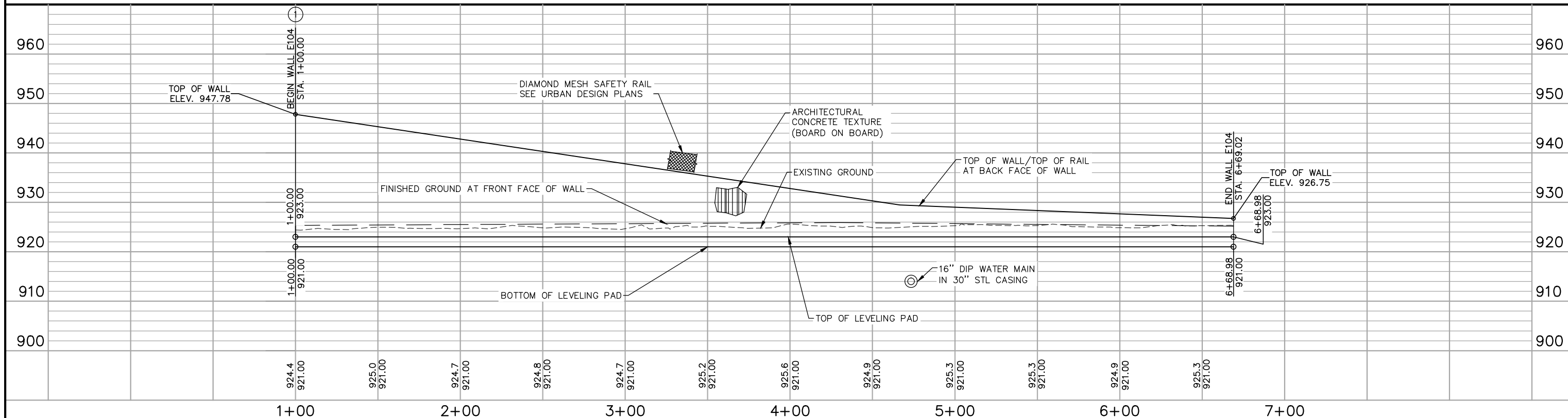
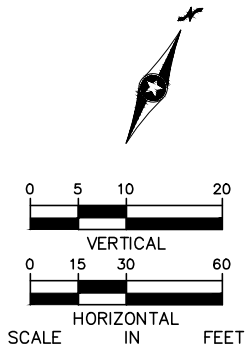
OF

113

Sep. 19 2015 09:46 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E104.dwg By: V-PatelPU



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL


**AECOM**

60% SUBMISSION - 09/28/15

**METROPOLITAN**  
COUNCIL

**SOUTHWEST**  
Green Line LRT Extension

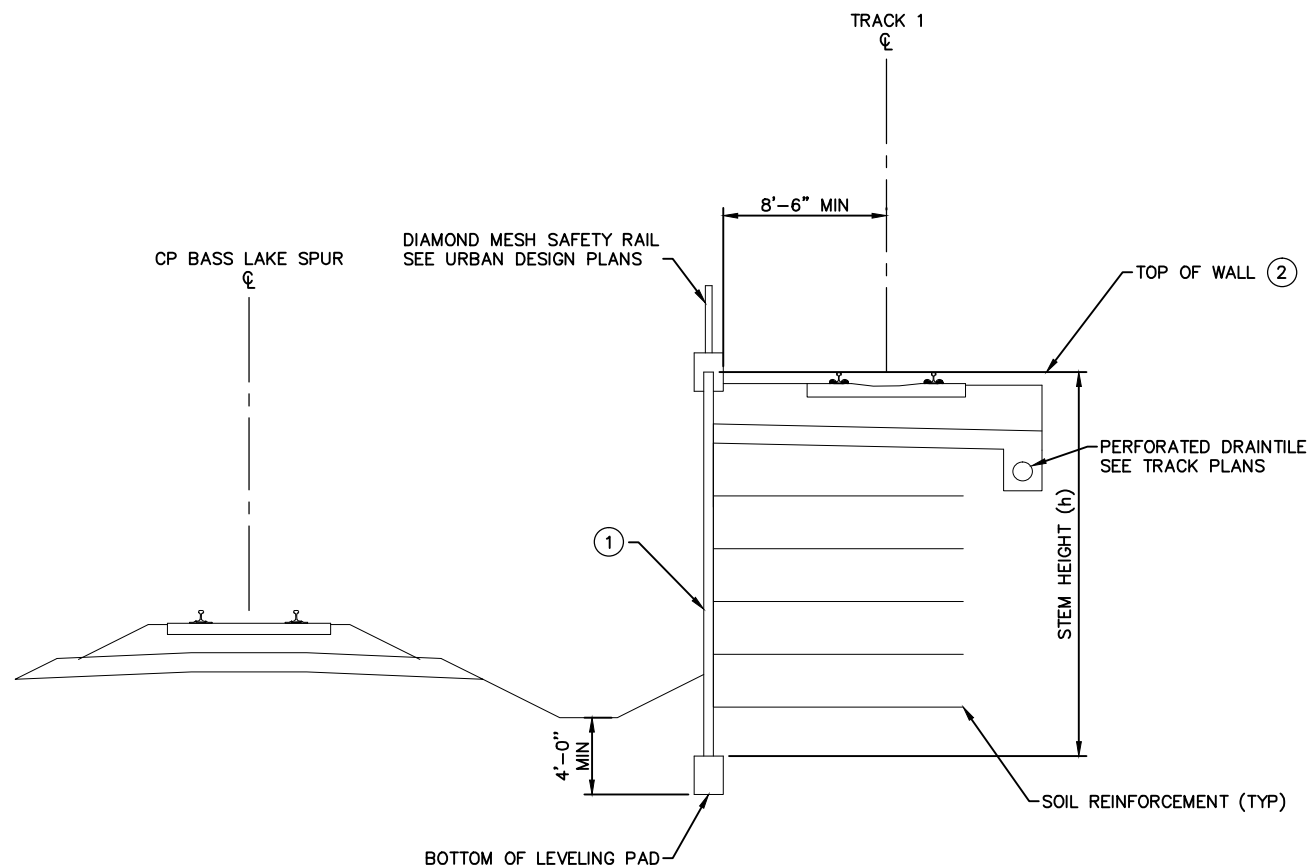
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E104 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E104 - PLE**

**SHEET**  
**17**  
**OF**  
**113**

Sep. 19 2015 09:46 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E104.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - 3. RETAINING WALL TO BE MSE WALL

RTW-E104 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



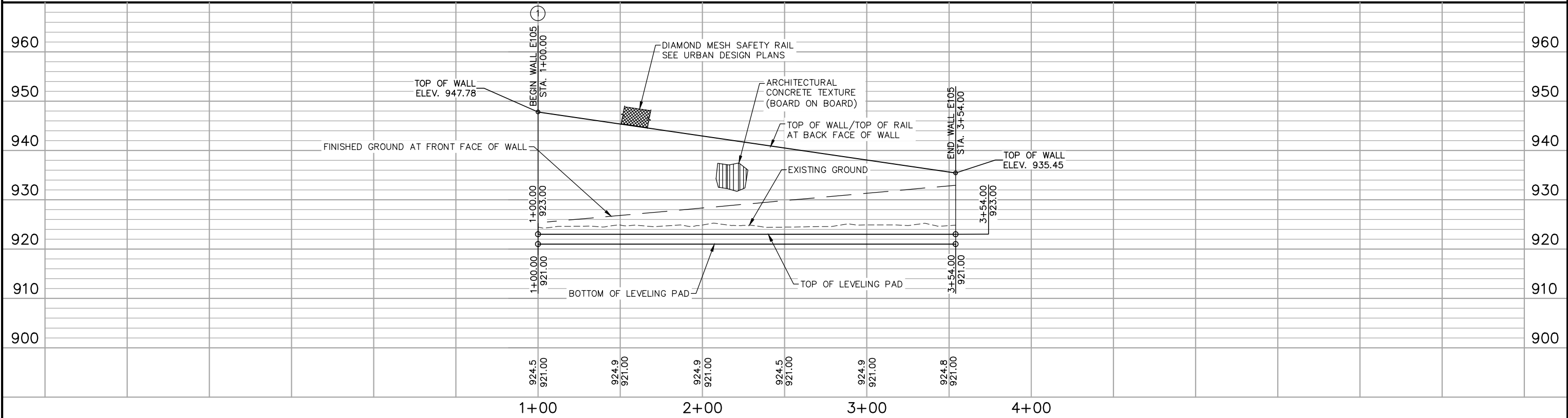
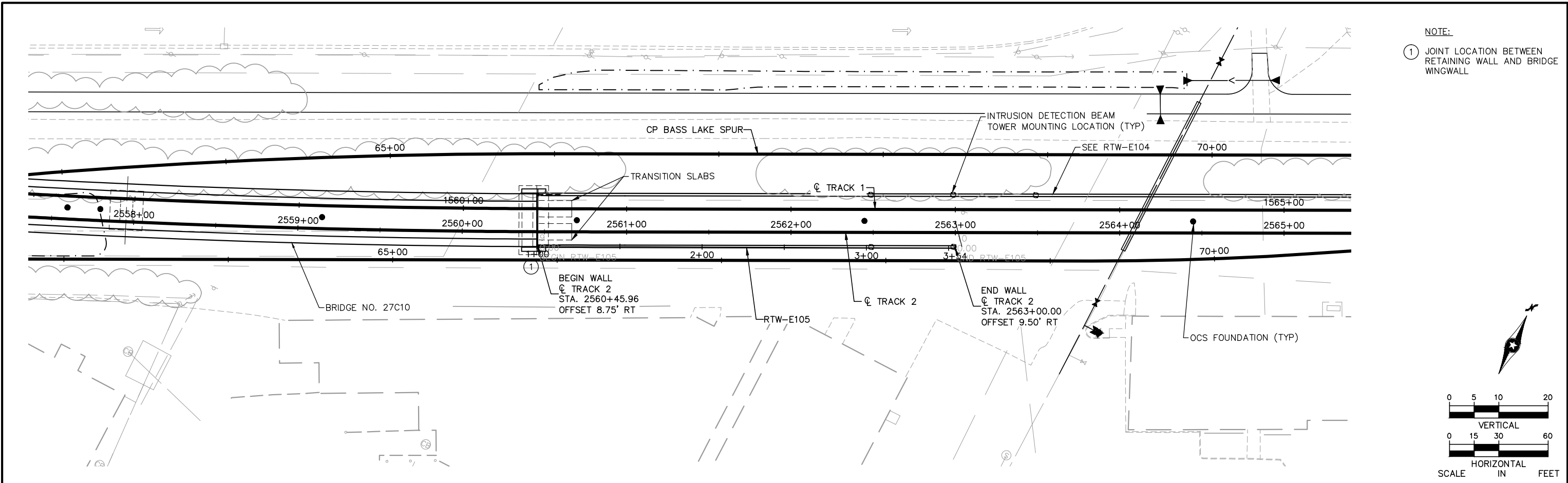
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E104 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E104 - DTL

SHEET  
18  
OF  
113

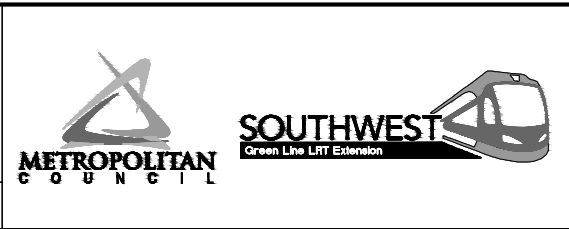
Sep. 19 2015 09:49 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E105.dwg By: V-PatelPU



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

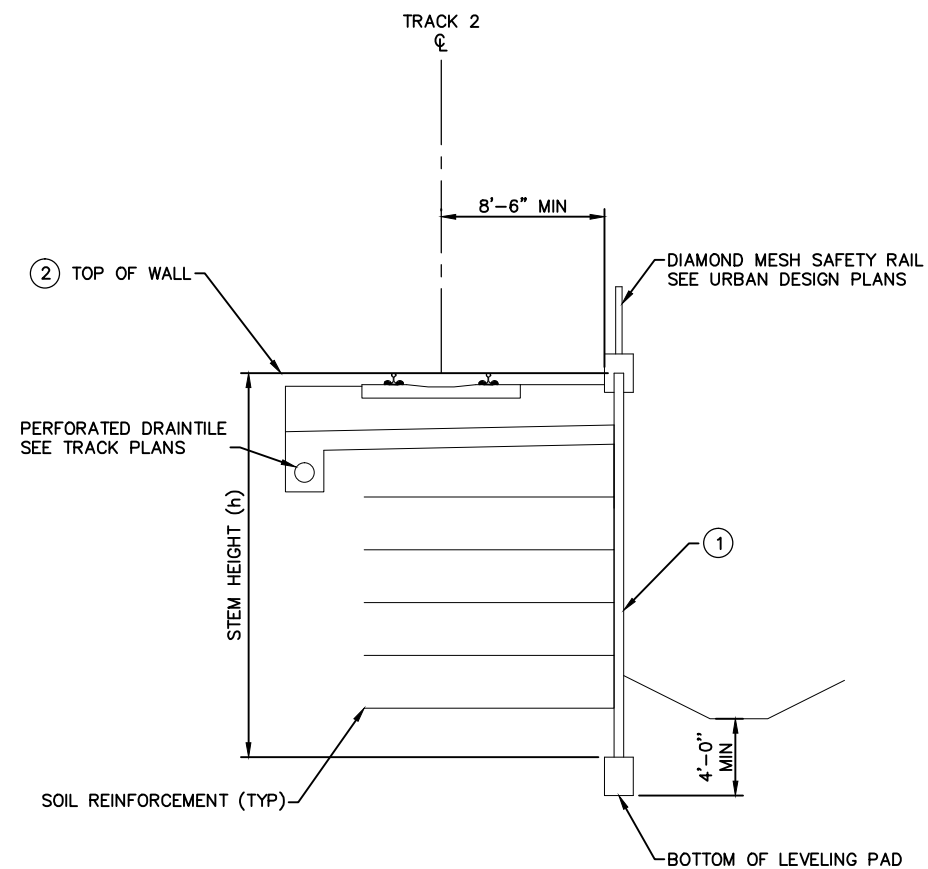


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E105 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES		19
SHEET NAME: RTW-E105 - PLE		OF
		113

Sep. 21 2015 09:57 am V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E105.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - 3. RETAINING WALL TO BE MSE WALL

RTW-E105 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E105 GEOMETRY

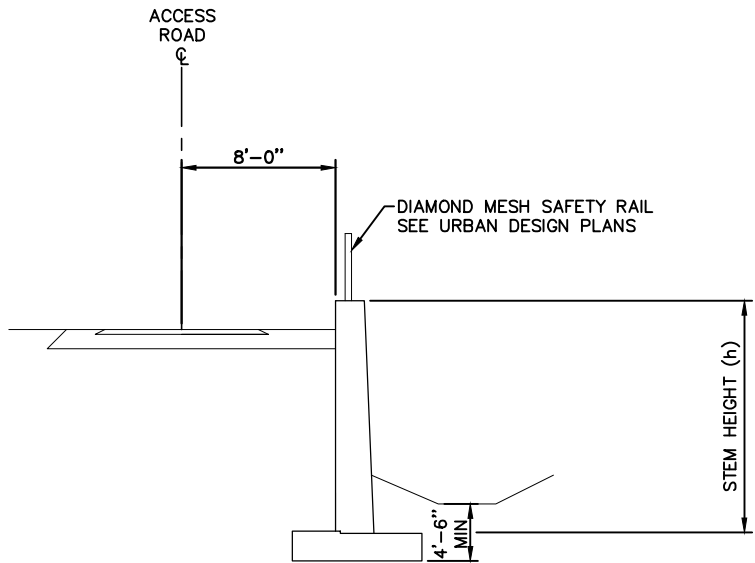
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E105 - DTL





Sep. 18 2015 05:49 pm V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E106.dwg By: V-PatelPJ

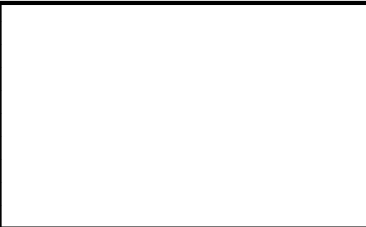


- NOTE:  
1. RETAINING WALL TO BE CIP ON SPREAD FOOTING

RTW-E106 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E106 GEOMETRY

DISCIPLINE: STRUCTURES

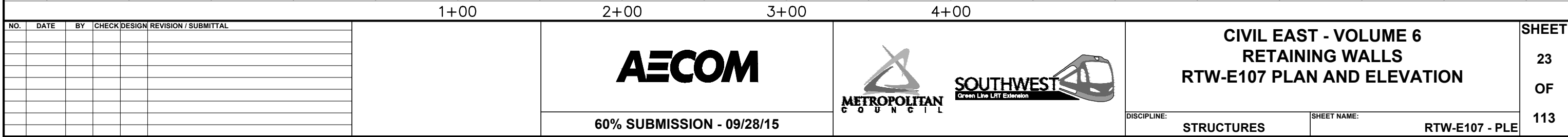
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SHEET

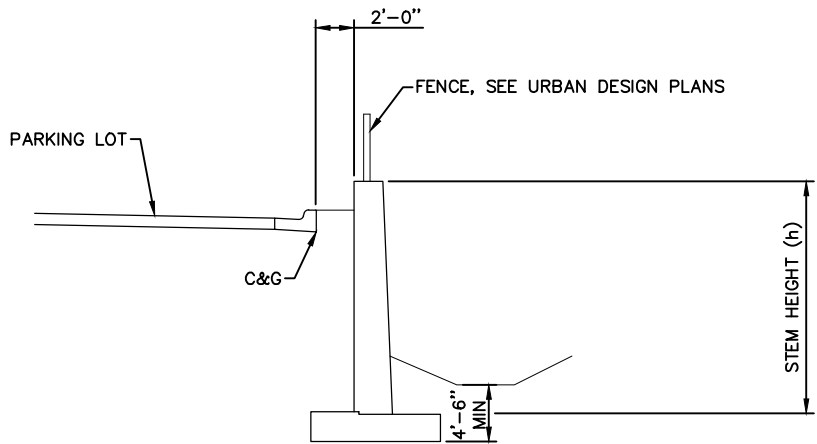
22

OF

113



Sep. 18 2015 05:53 pm V:\3400\_ADC\CAD\SEGMENT E1\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E107.dwg By: V-PatelPJ

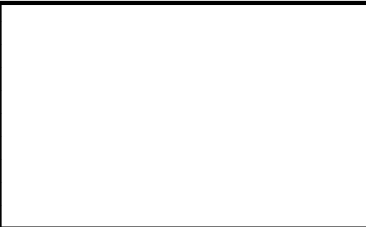


- NOTE:  
1. RETAINING WALL TO BE CIP ON SPREAD FOOTING

RTW-E107 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



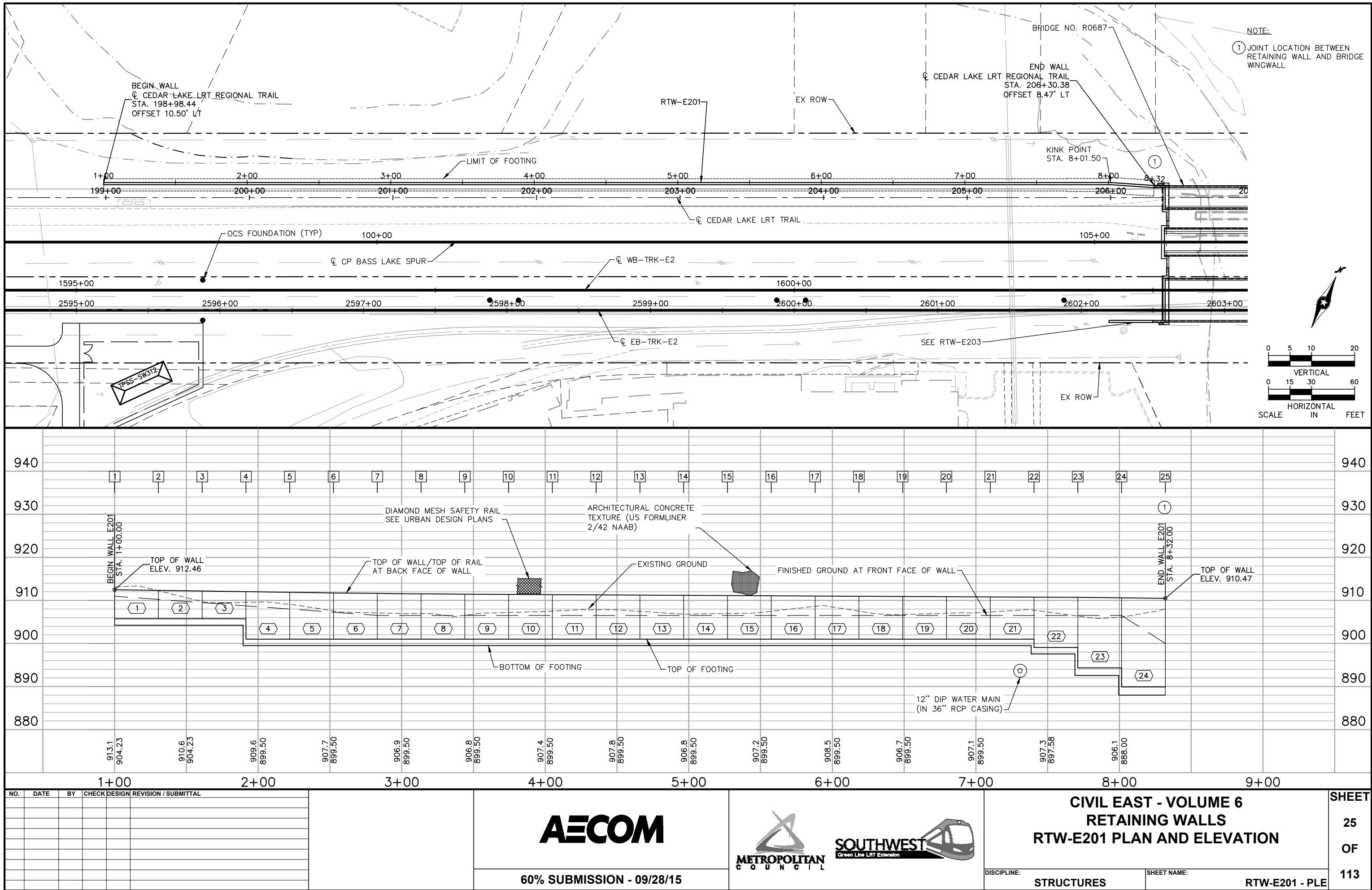
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E107 GEOMETRY

DISCIPLINE: STRUCTURES

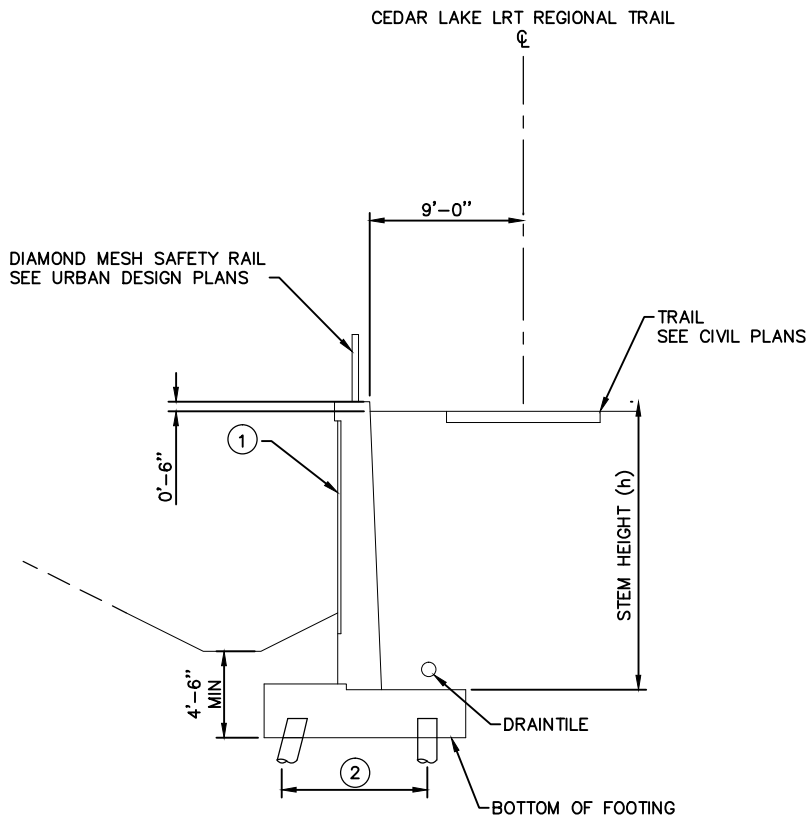
SHEET NAME: RTW-E107 - DTL

SHEET  
24  
OF  
113

Sep. 18 2015 06:00 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E201.dwg By: V-PatelPJ



Sep. 18 2015 06:01 pm V:\3400\_ADC\CAD\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E201.dwg By: V-PatelPU



- NOTE:
- 1. ARCHITECTURAL CONCRETE TEXTURE
  - 2. PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

### RTW-E201 SECTION

NOT TO SCALE

RTW-E201 GEOMETRICS (CIPC)											
PANEL NO.	PANEL LENGTH	WALL JT NUMBER	WALL JT TYPE	COORDINATES		BOT OF FOOTING ELEV		TOP OF WALL ELEVATION		STEM HEIGHT (h)	
				NORTHING	EASTING	DOWN STA	UP STA	DOWN STA	UP STA	DOWN STA	UP STA
1	30'-6"	1	CJ	500615.724	150616.861	-	904.23	-	912.46	-	6'-8 3/4"
2	30'-6"	2	CJ	500643.23	150630.04	904.23	904.23	912.46	912.31	6'-7"	6'-7"
3	30'-6"	3	EJ	500670.736	150643.218	904.23	904.23	912.31	912.17	6'-5 1/4"	6'-5 1/4"
4	30'-6"	4	CJ	500698.242	150656.397	904.23	899.5	912.17	912.03	6'-3 5/8"	11'-0 3/8"
5	30'-6"	5	CJ	500725.748	150669.575	899.5	899.5	912.03	911.88	10'-10 1/2"	10'-10 1/2"
6	30'-6"	6	EJ	500753.254	150682.754	899.5	899.5	911.88	911.74	10'-8 7/8"	10'-8 7/8"
7	30'-6"	7	CJ	500780.76	150695.933	899.5	899.5	911.74	911.62	10'-7 1/2"	10'-7 1/2"
8	30'-6"	8	CJ	500808.266	150709.111	899.5	899.5	911.62	911.52	10'-6 1/4"	10'-6 1/4"
9	30'-6"	9	EJ	500835.771	150722.29	899.5	899.5	911.52	911.45	10'-5 3/8"	10'-5 3/8"
10	30'-6"	10	CJ	500863.277	150735.469	899.5	899.5	911.45	911.39	10'-4 5/8"	10'-4 5/8"
11	30'-6"	11	CJ	500890.783	150748.647	899.5	899.5	911.39	911.34	10'-4 1/8"	10'-4 1/8"
12	30'-6"	12	EJ	500918.289	150761.826	899.5	899.5	911.34	911.28	10'-3 3/8"	10'-3 3/8"
13	30'-6"	13	CJ	500945.795	150775.005	899.5	899.5	911.28	911.23	10'-2 3/4"	10'-2 3/4"
14	30'-6"	14	CJ	500973.301	150788.183	899.5	899.5	911.23	911.17	10'-2"	10'-2"
15	30'-6"	15	EJ	501000.807	150801.362	899.5	899.5	911.17	911.12	10'-1 1/2"	10'-1 1/2"
16	30'-6"	16	CJ	501028.313	150814.54	899.5	899.5	911.12	911.06	10'-0 3/4"	10'-0 3/4"
17	30'-6"	17	CJ	501055.819	150827.719	899.5	899.5	911.06	911.01	10'-0 1/8"	10'-0 1/8"
18	30'-6"	18	EJ	501083.324	150840.898	899.5	899.5	911.01	910.96	9'-11 1/2"	9'-11 1/2"
19	30'-6"	19	CJ	501110.83	150854.076	899.5	899.5	910.96	910.9	9'-10 3/4"	9'-10 3/4"
20	30'-6"	20	CJ	501138.336	150867.255	899.5	899.5	910.9	910.85	9'-10 1/4"	9'-10 1/4"
21	30'-6"	21	EJ	501165.842	150880.434	899.5	899.5	910.85	910.79	9'-9 1/2"	9'-9 1/2"
22	30'-6"	22	EJ	501193.348	150893.612	899.5	897.58	910.79	910.74	9'-8 7/8"	11'-7 7/8"
23	30'-6"	23	EJ	501220.854	150906.791	897.58	892.58	910.74	910.68	11'-7 1/4"	16'-4 1/4"
24	30'-6"	24	EJ	501248.36	150919.969	892.58	888	910.68	910.6	16'-3 1/4"	20'-8 1/8"
24	30'-6"	25	EJ	501276.683	150931.285	888	-	910.6	-	20'-6 5/8"	-



GEOMETRIC CHANGE TABLE			
PANEL NO.	KINK POINT STATION	COORDINATES	
		NORTHING	EASTING
24	801+50.00	150919.9694	501248.3596
25			

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

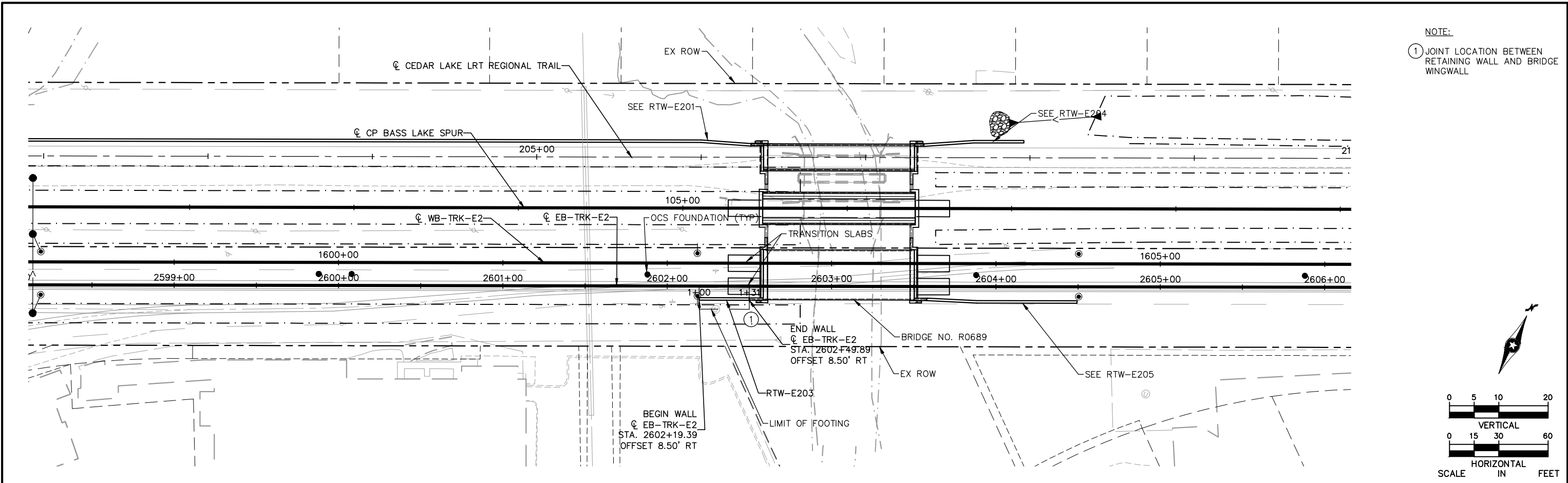


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E201 GEOMETRY

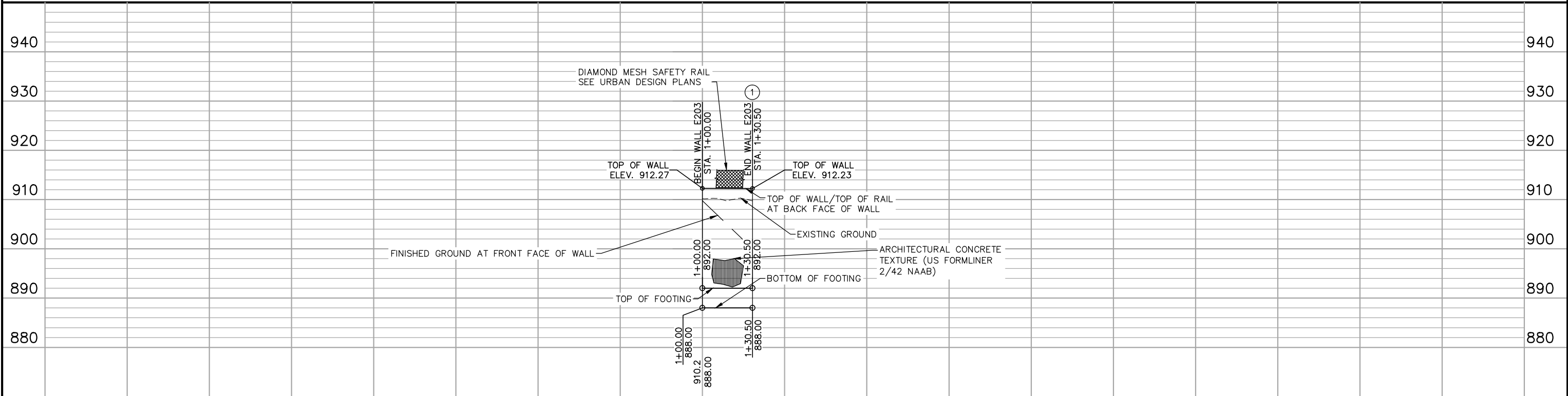
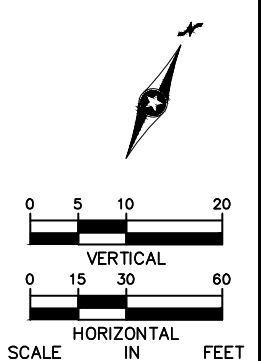
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E201 - DTL

Sep. 18 2015 06:05 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E203.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

**AECOM**

60% SUBMISSION - 09/28/15

**METROPOLITAN COUNCIL**

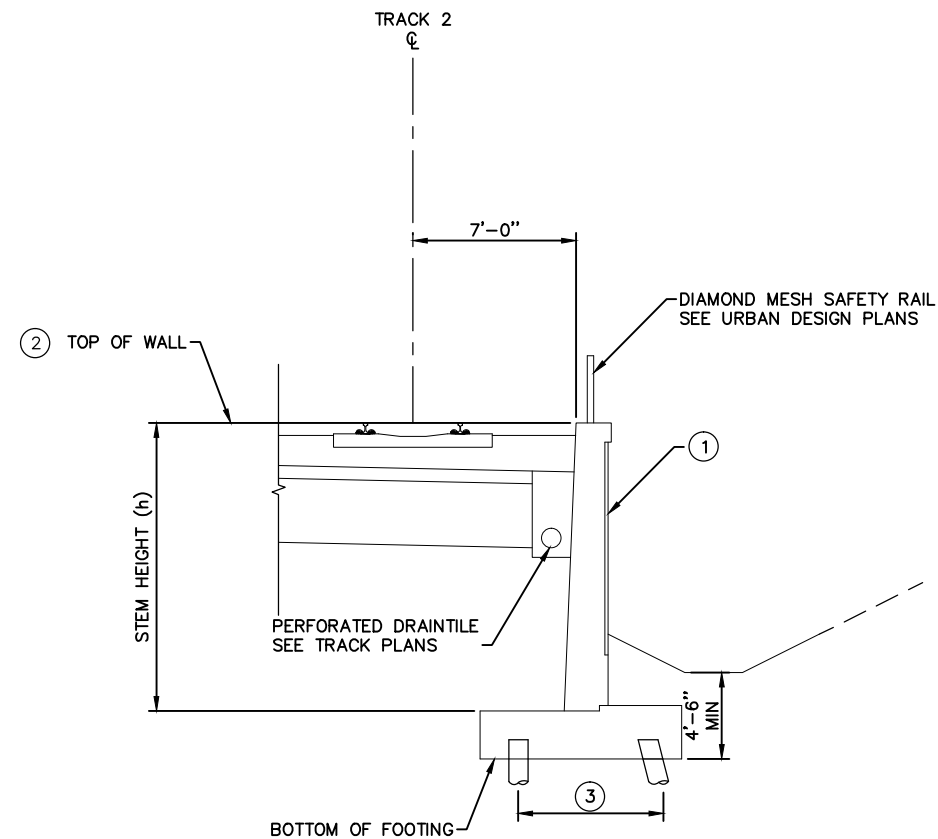
**SOUTHWEST**  
Green Line LRT Extension

**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E203 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**  
SHEET NAME: **RTW-E203 - PLE**

**SHEET**  
**27**  
**OF**  
**113**

Sep. 18 2015 06:05 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E203.dwg By: V-PatelPJ



- NOTE:**
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E203 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E203 GEOMETRY

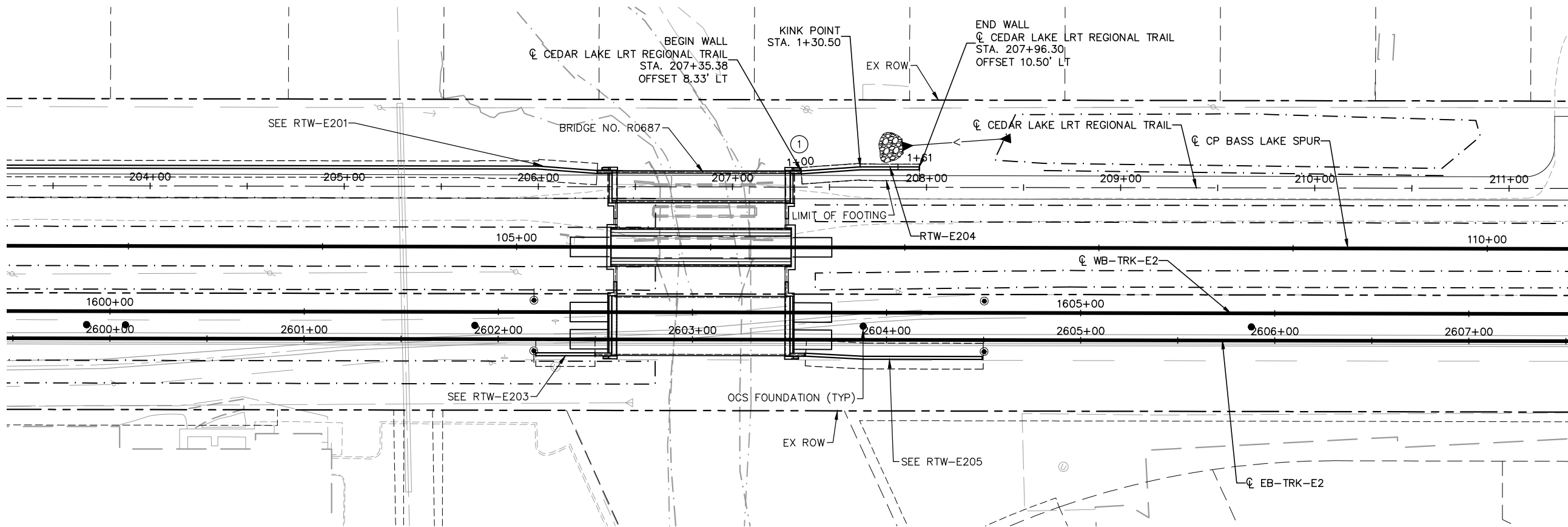
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E203 - DTL

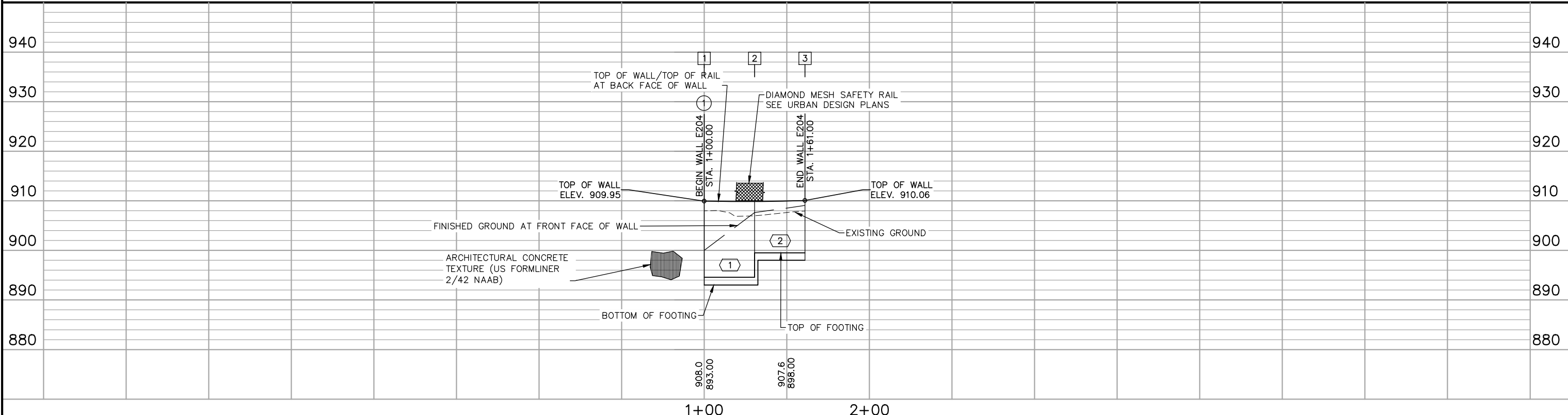
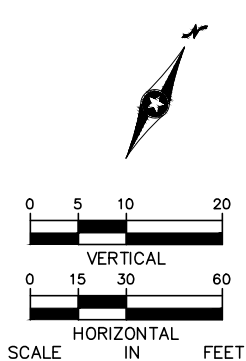
SHEET 28 OF 113



Sep. 18 2015 06:10 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E204.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

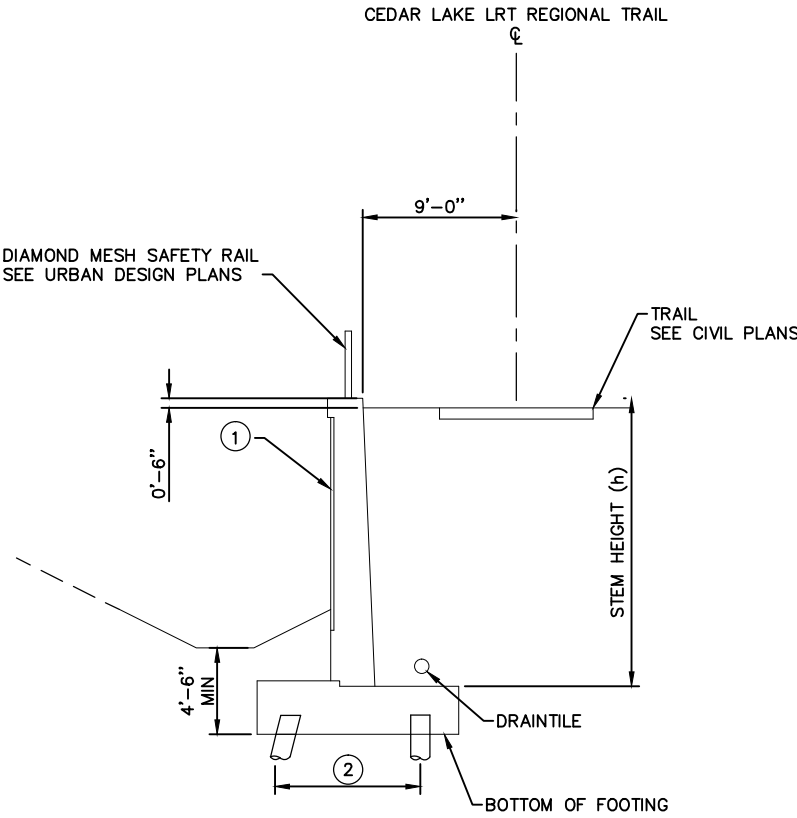
60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E204 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E204 - PLE

SHEET 29 OF 113

Sep. 18 2015 06:10 pm V:\3400\_ADC\CAD\CAD SHEETS\STRUCTURES\RETAINING WALLS\RTW-E204.dwg By: V-PatelPJ



- NOTE:
- 1 ARCHITECTURAL CONCRETE TEXTURE
  - 2 PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E204 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

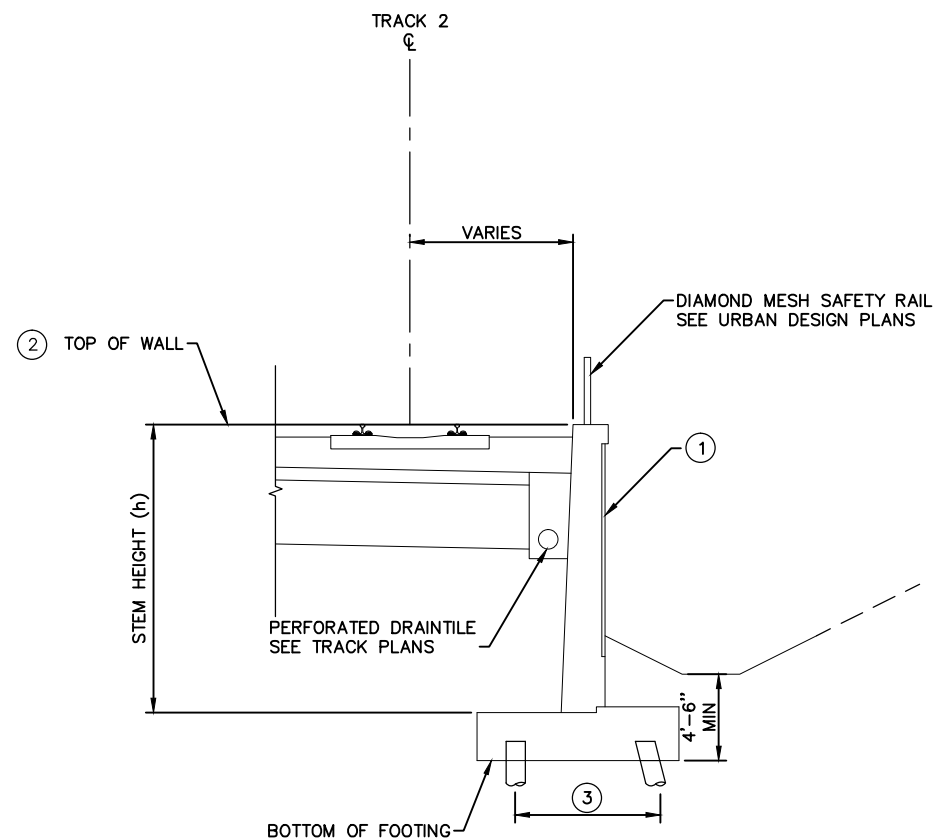
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E204 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E204 - DTL



Sep. 18 2015 06:14 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E205.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E205 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



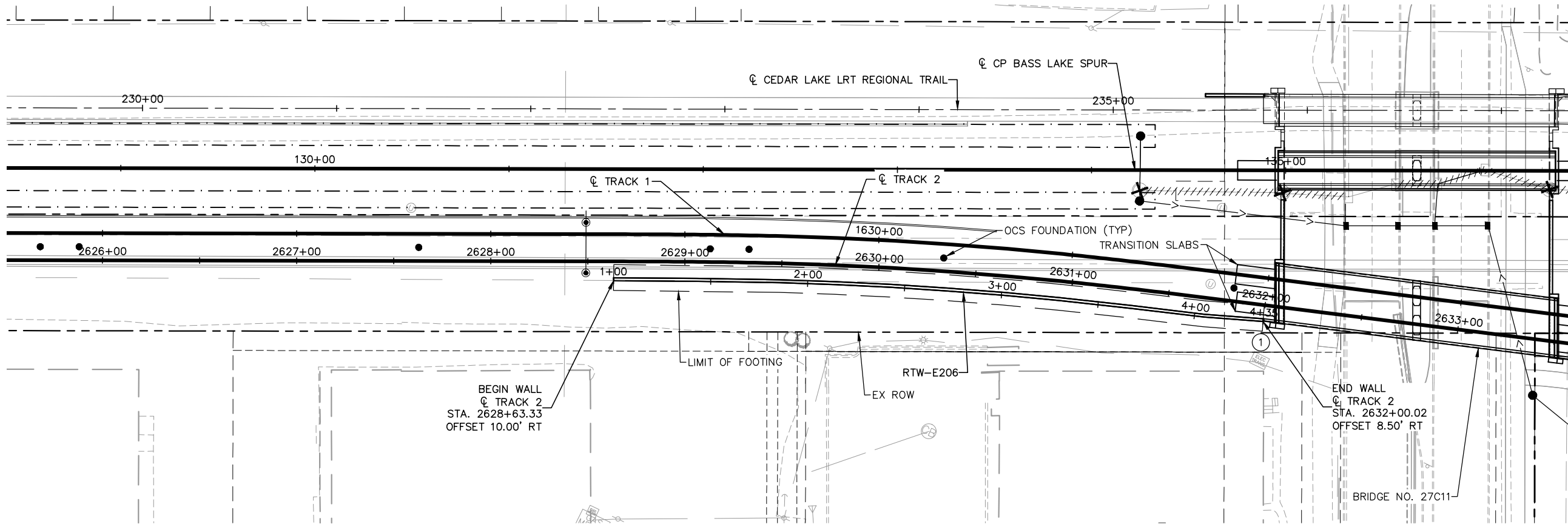
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E205 GEOMETRY

DISCIPLINE: STRUCTURES

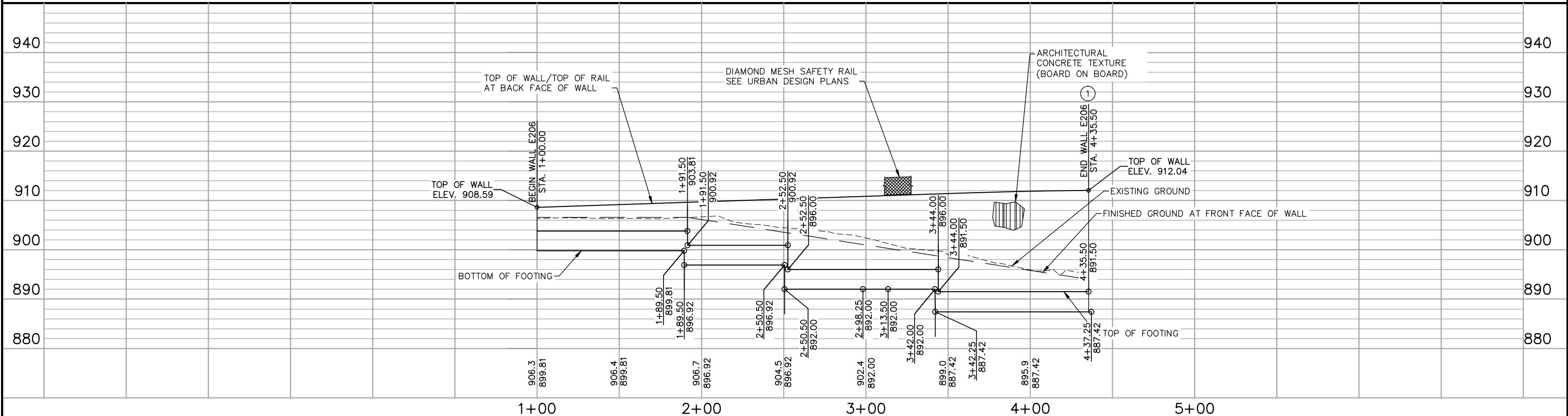
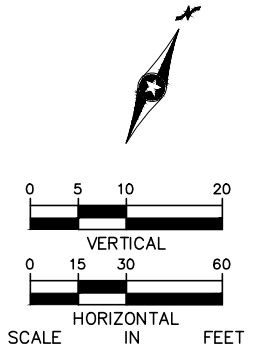
SHEET NAME: RTW-E205 - DTL

SHEET  
32  
OF  
113

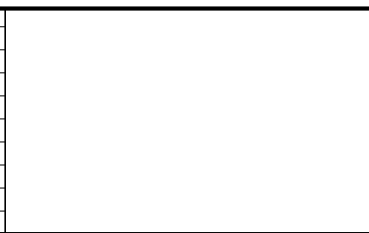
Sep. 18 2015 06:19 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E206.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



**60% SUBMISSION - 09/28/15**

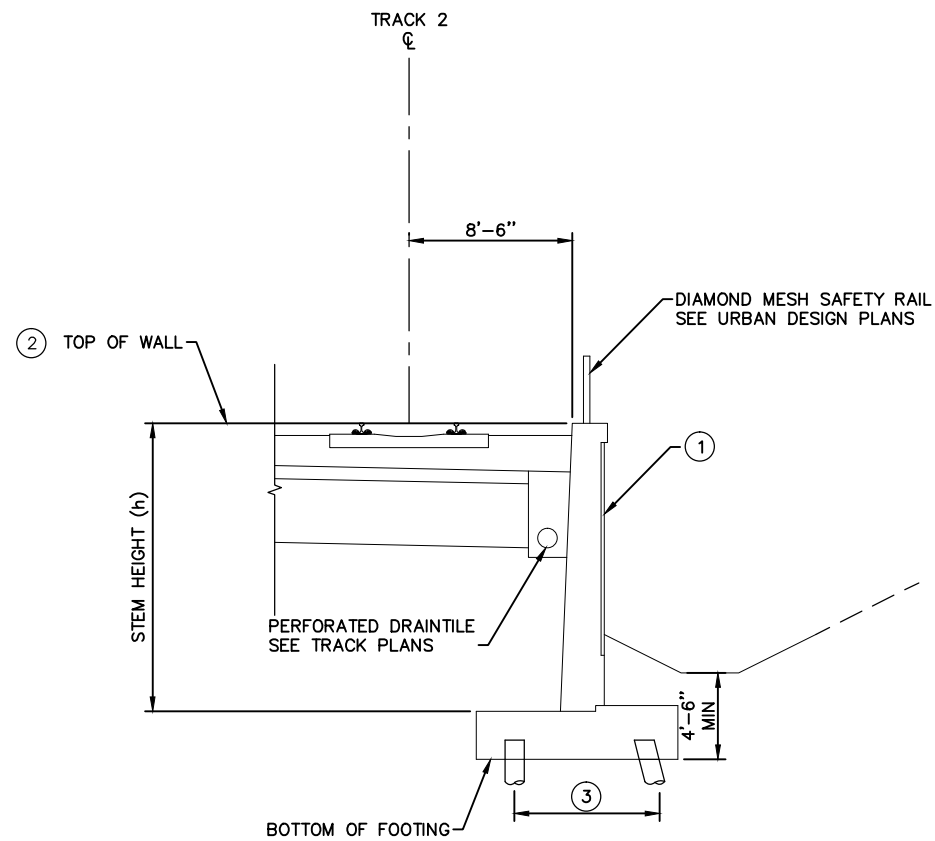


**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E206 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**  
SHEET NAME: **RTW-E206 - PLE**

**SHEET**  
**33**  
**OF**  
**113**

Sep. 18 2015 06:20 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E206.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E206 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

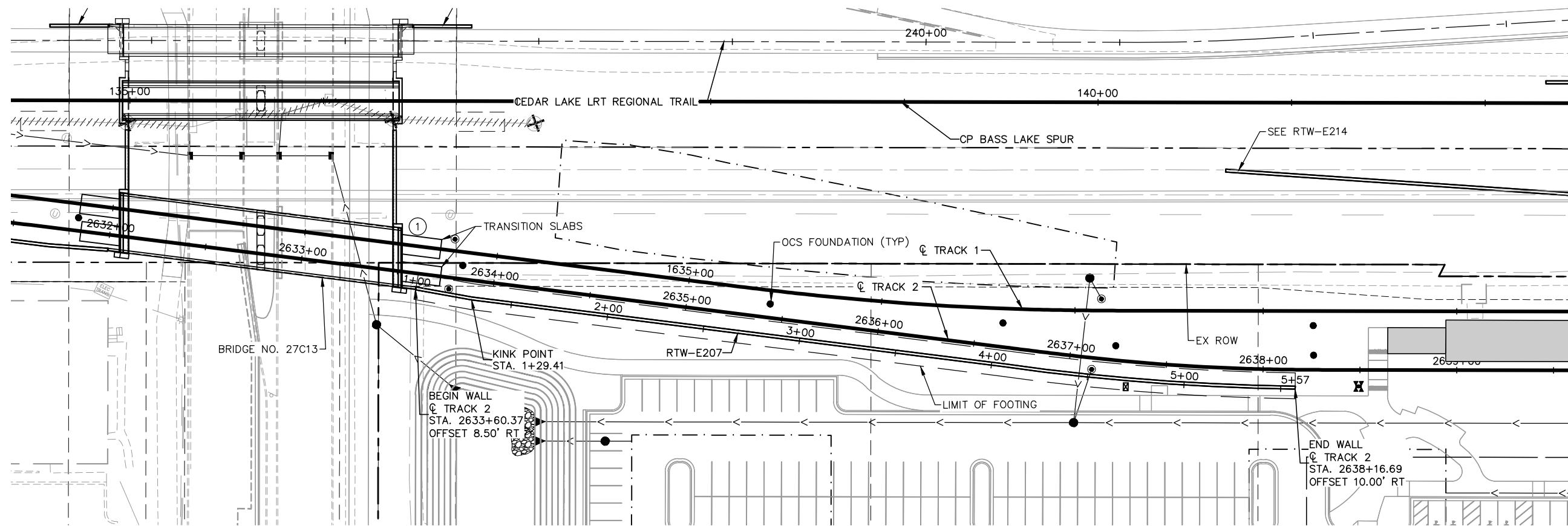


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E206 GEOMETRY

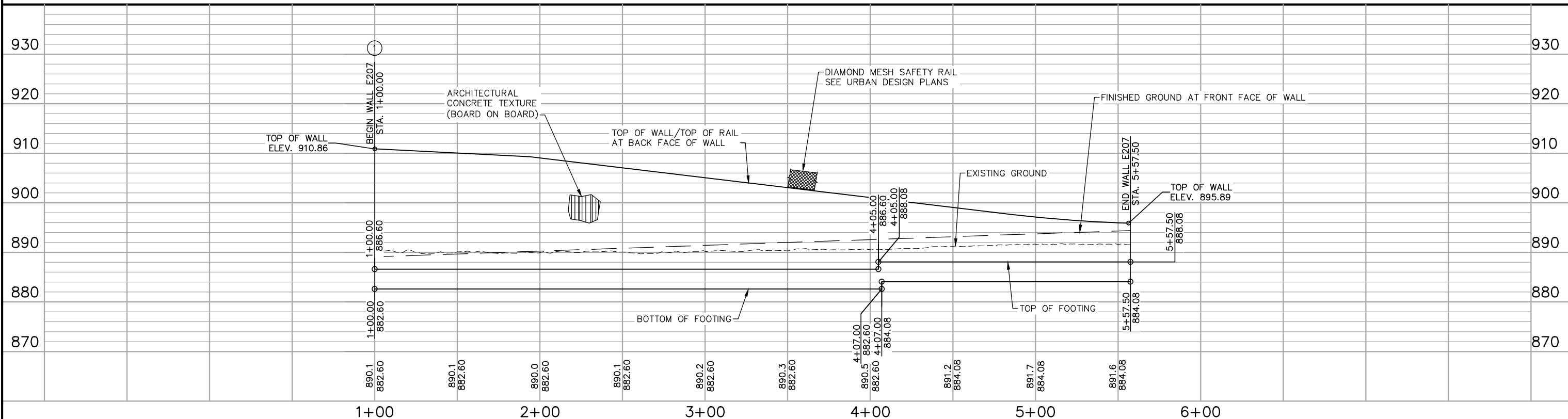
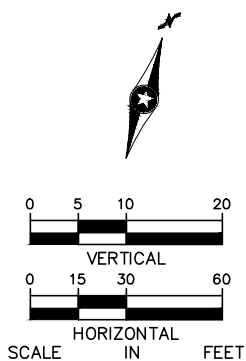
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E206 - DTL

Sep. 18 2015 06:24 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E207.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL


**AECOM**

60% SUBMISSION - 09/28/15

**METROPOLITAN COUNCIL**

**SOUTHWEST**  
Green Line LRT Extension

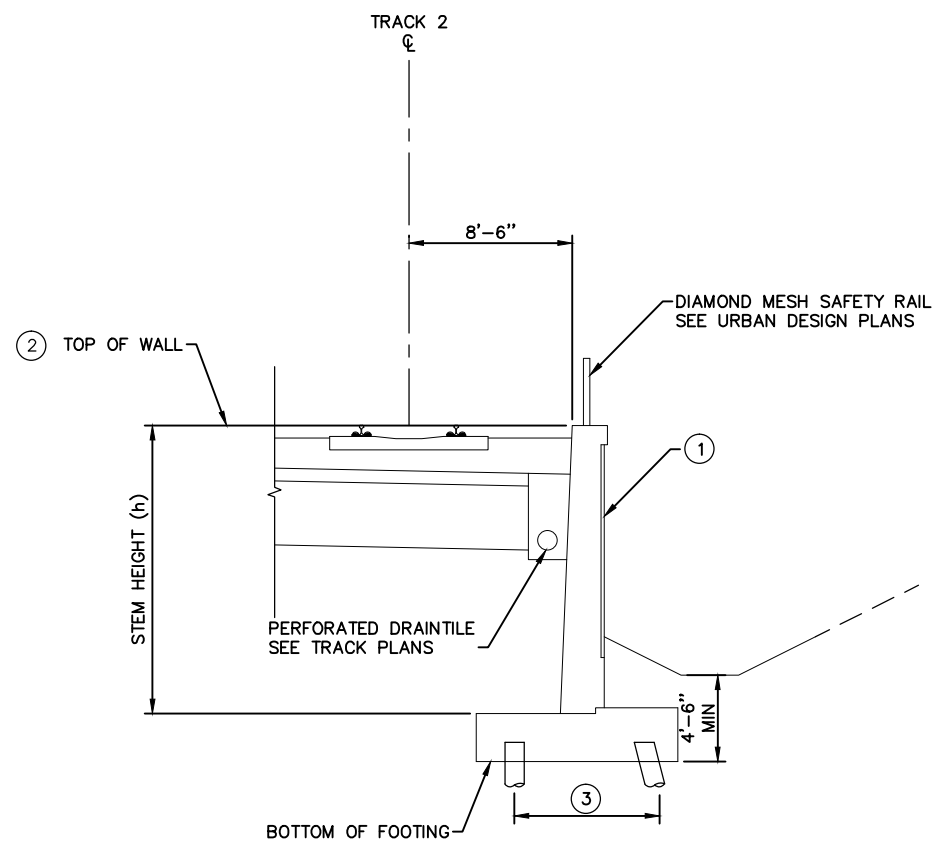
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E207 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E207 - PLE**

**SHEET 35 OF 113**

Sep. 18 2015 06:24 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E207.dwg By: V-PatelPJ



- NOTE:**
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

**RTW-E207 SECTION**

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



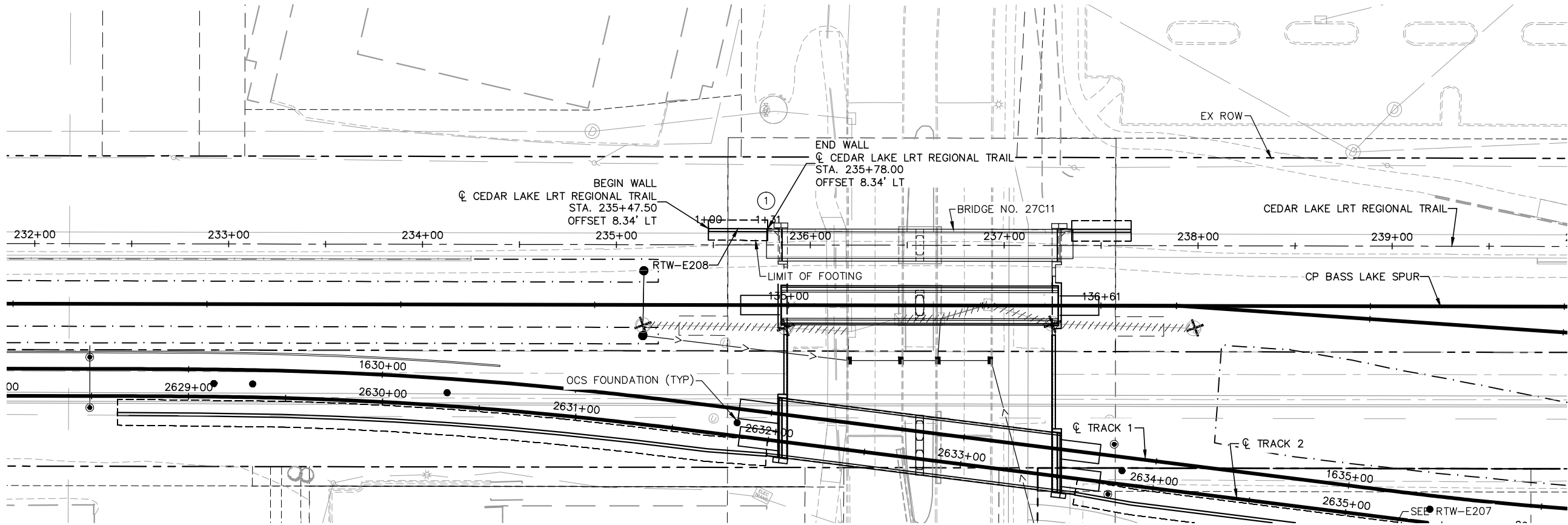
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E207 GEOMETRY

DISCIPLINE: STRUCTURES

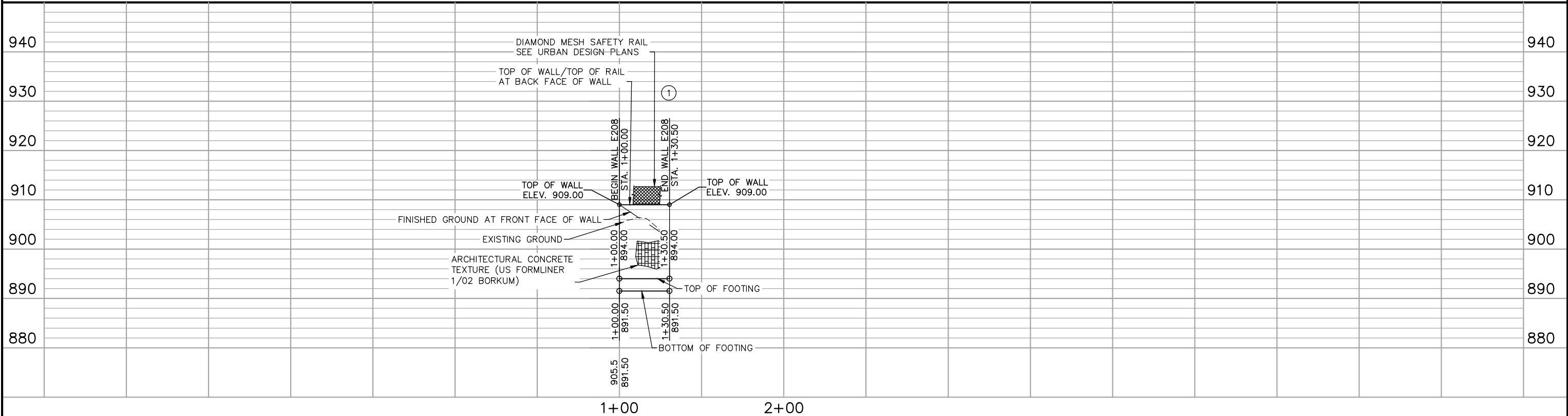
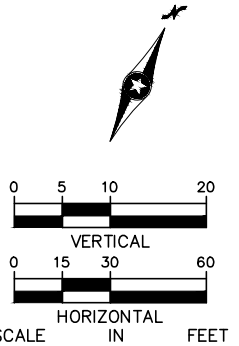
SHEET NAME: RTW-E207 - DTL



Sep. 18 2015 06:28 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E208.dwg By: V-PatelPJ



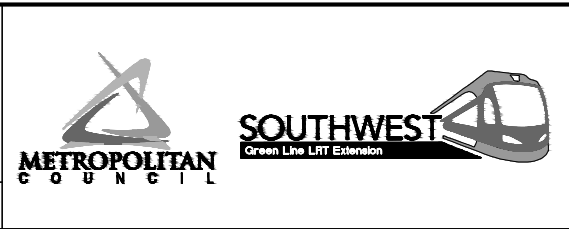
NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

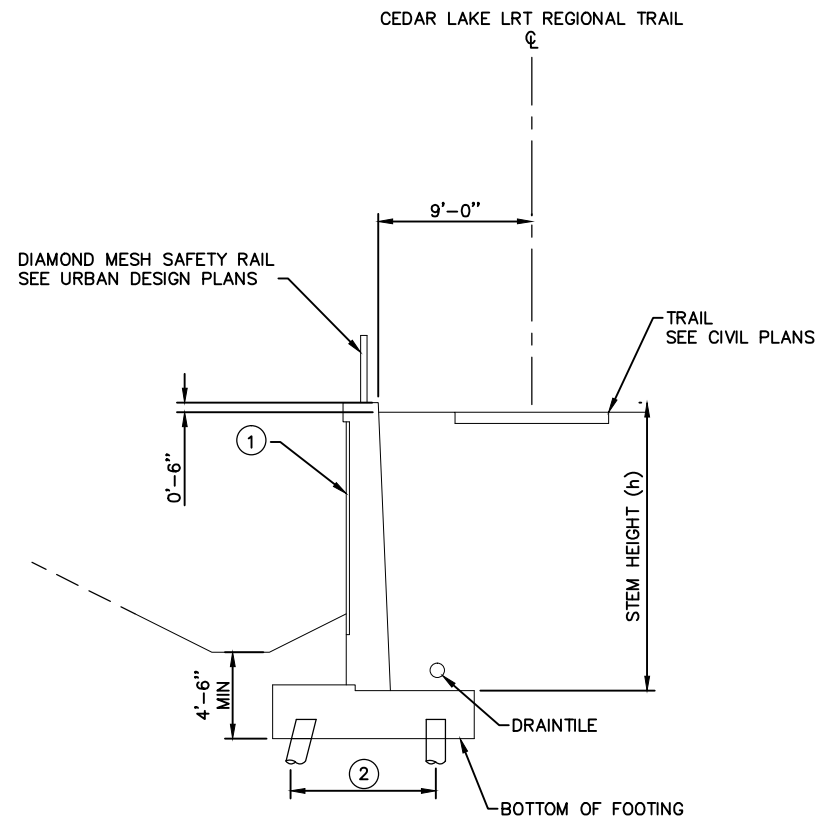


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E208 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E208 - PLE

SHEET  
37  
OF  
113

Sep. 18 2015 06:28 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E208.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E208 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



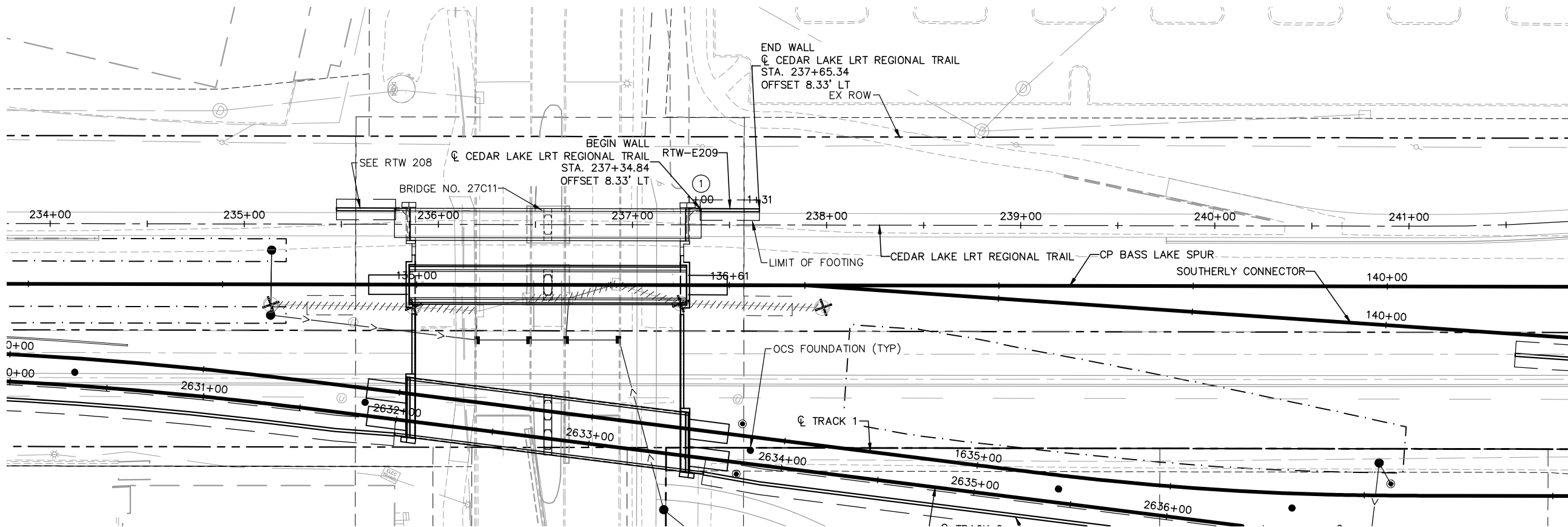
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E208 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E208 - DTL

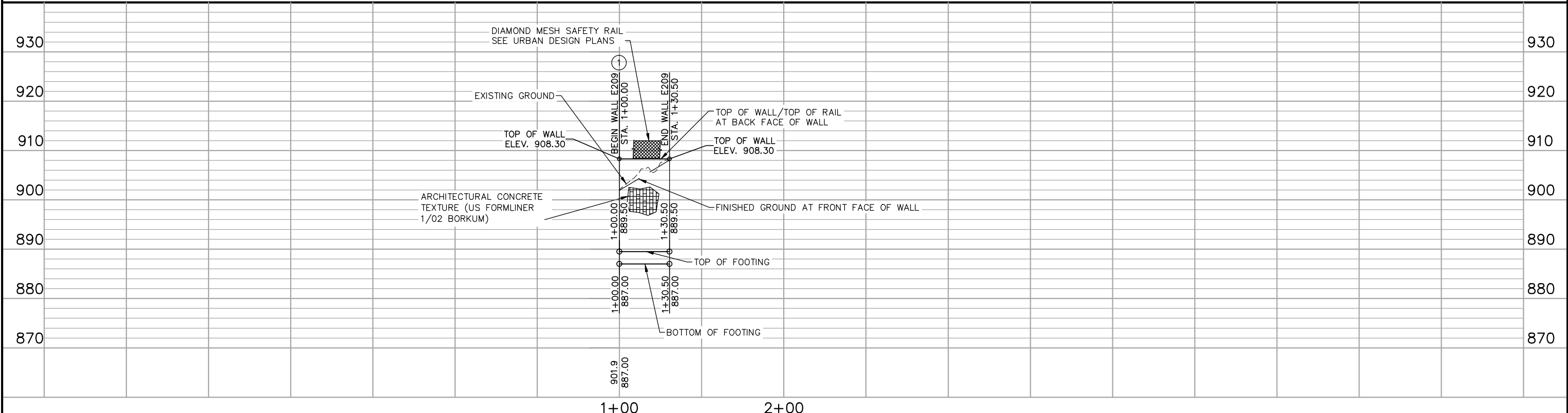
SHEET  
38  
OF  
113

Sep. 18 2015 06:33 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E209.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL

0 5 10 20  
VERTICAL  
0 15 30 60  
HORIZONTAL  
SCALE IN FEET



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

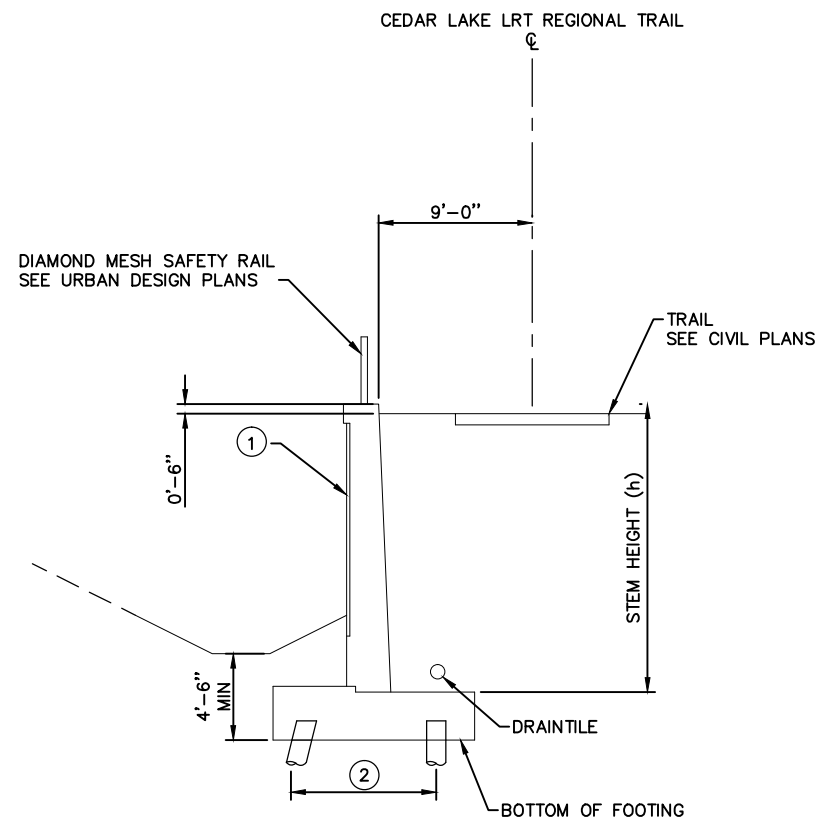


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E209 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES SHEET NAME: RTW-E209 - PLE

SHEET 39 OF 113

Sep. 18 2015 06:33 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E209.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E209 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E209 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E209 - DTL

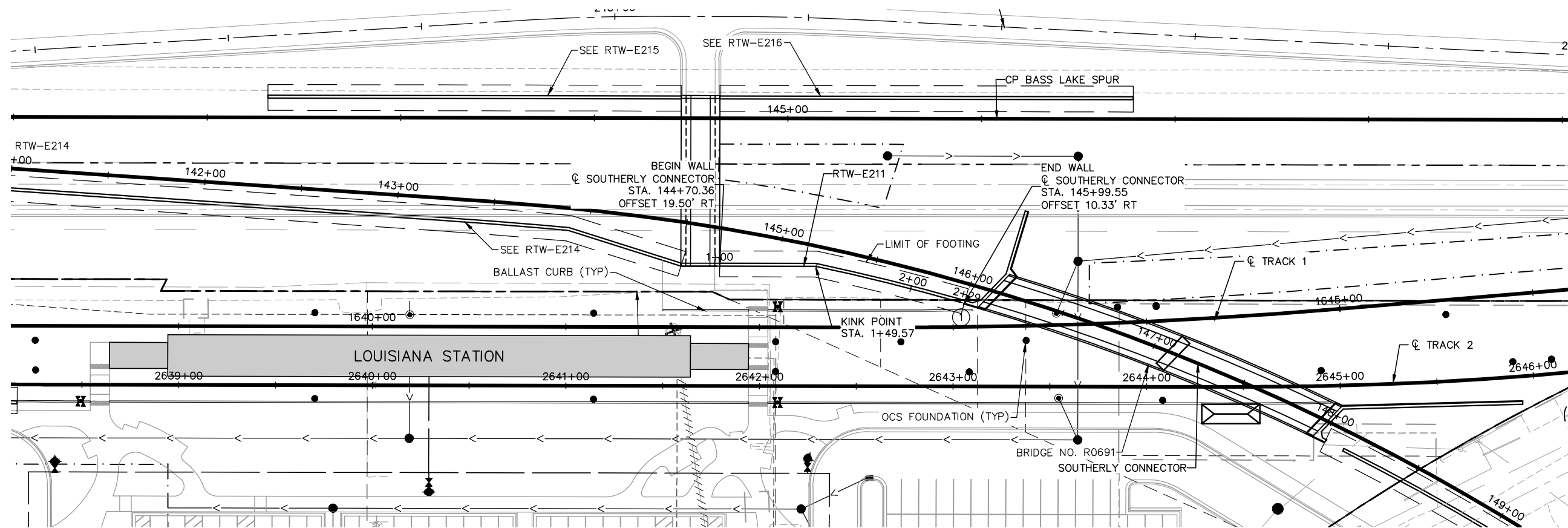
SHEET

40

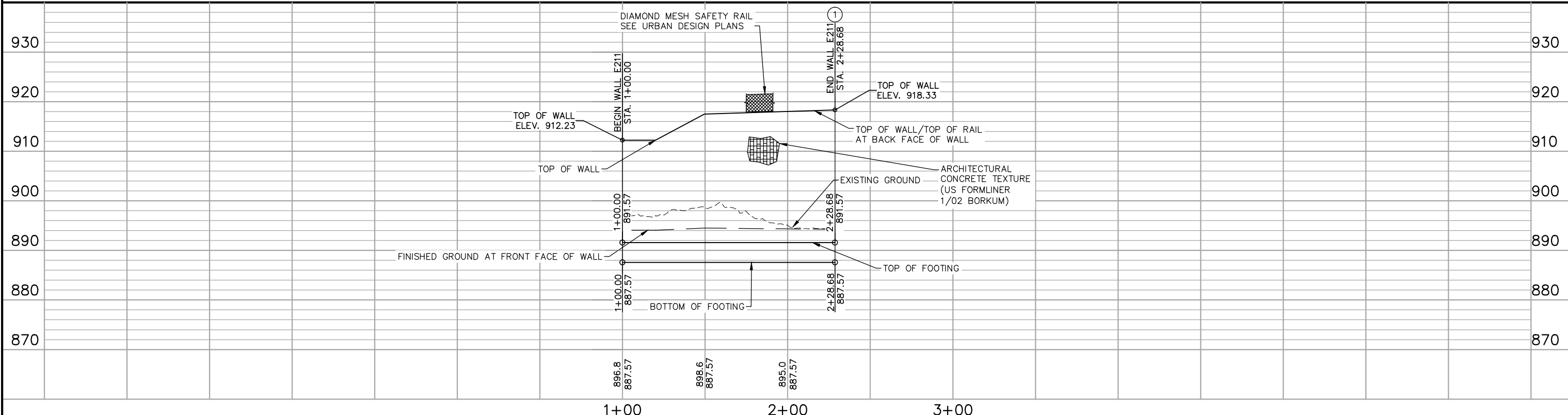
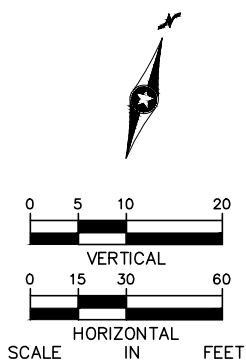
OF

113

Sep. 18 2015 06:37 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E211.dwg By: V-PatelPU



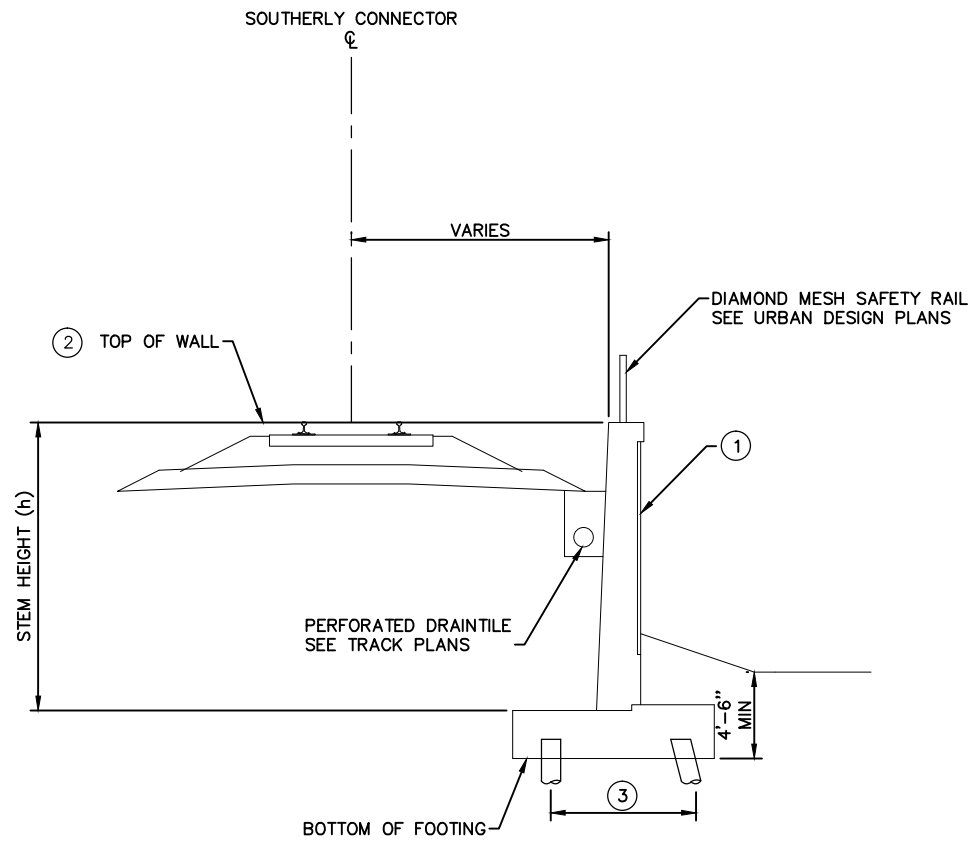
NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

<b>AECOM</b>	<b>METROPOLITAN</b> COUNCIL	<b>SOUTHWEST</b> Green Line LRT Extension	<b>CIVIL EAST - VOLUME 6</b>		<b>SHEET</b>  41 OF 113
			<b>RETAINING WALLS</b>		
60% SUBMISSION - 09/28/15			<b>RTW-E211 PLAN AND ELEVATION</b>		RTW-E211 - PLE
			DISCIPLINE: <b>STRUCTURES</b>	SHEET NAME:	

Sep. 18 2015 06:37 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E211.dwg By: V-PatelPU



- NOTE:**
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E211 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

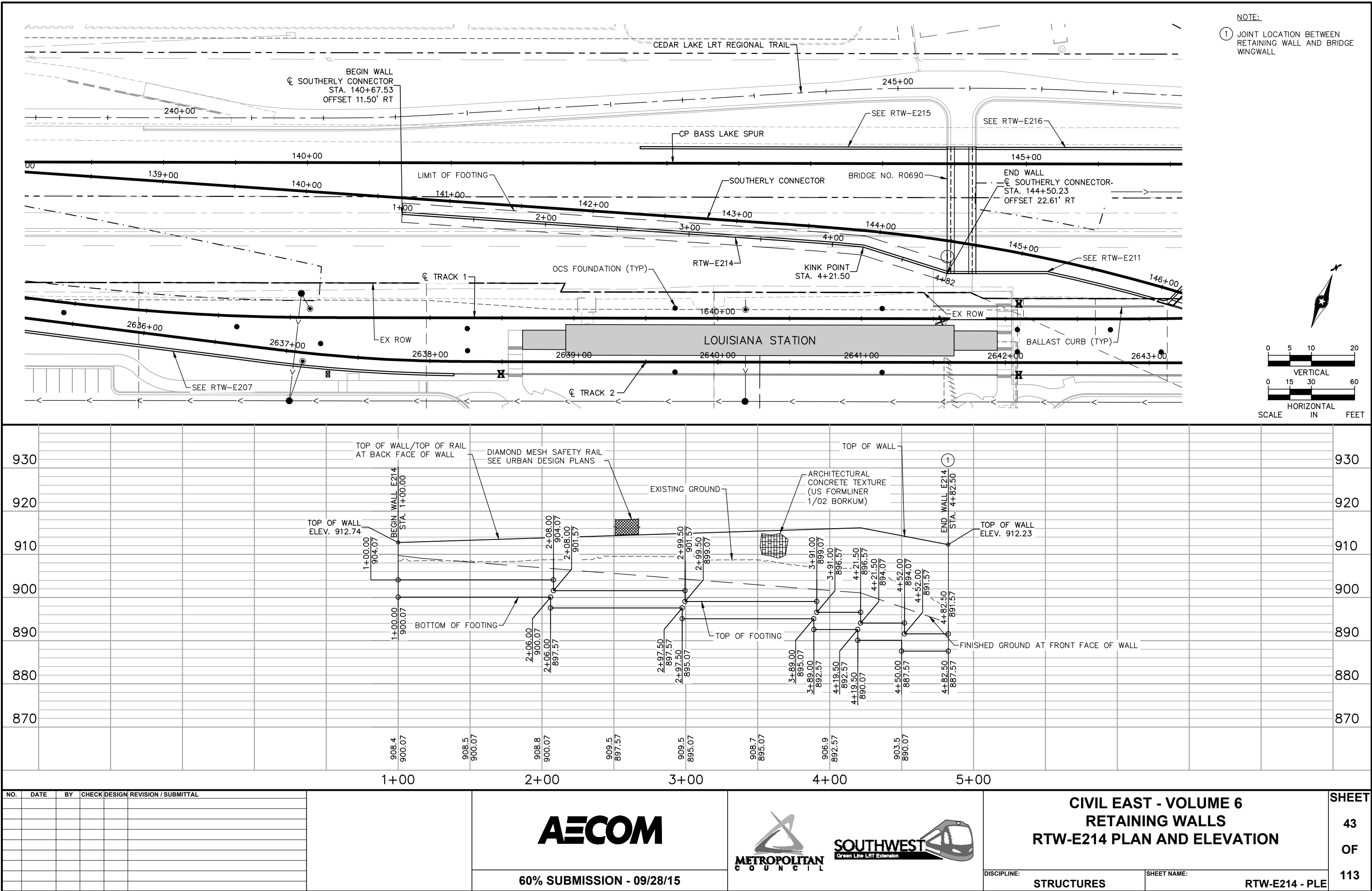


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E211 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E211 - DTL

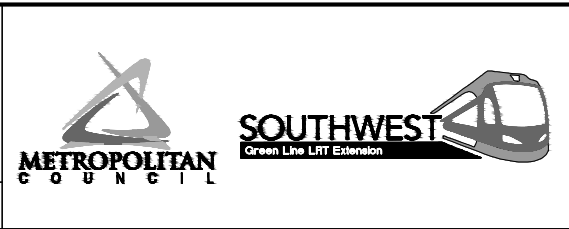
Sep. 18 2015 06:41 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E214.dwg By: V-PatelPU



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

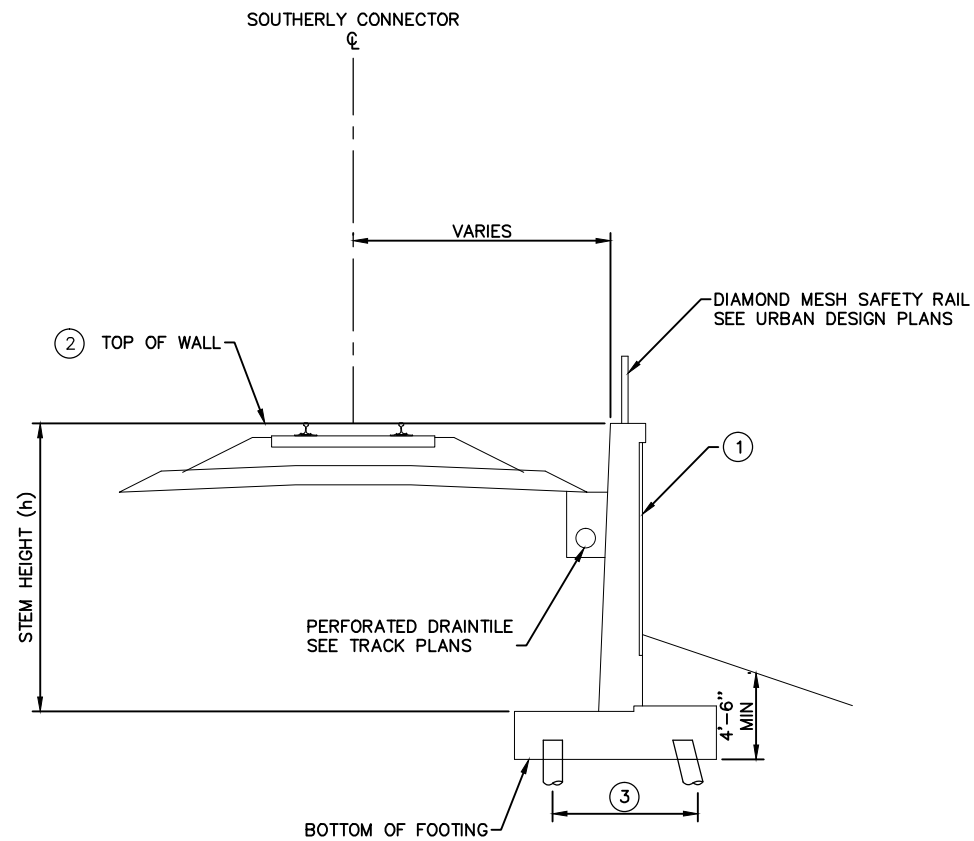


60% SUBMISSION - 09/28/15



<div>CIVIL EAST - VOLUME 6</div> <div>RETAINING WALLS</div> <div>RTW-E214 PLAN AND ELEVATION</div>		SHEET 43 OF 113
DISCIPLINE:	SHEET NAME:	
STRUCTURES	RTW-E214 - PLE	

Sep. 18 2015 06:41 pm V:\3400\_ADC\CAD\CAD SHEETS\STRUCTURES\RETAINING WALLS\RTW-E214.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E214 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



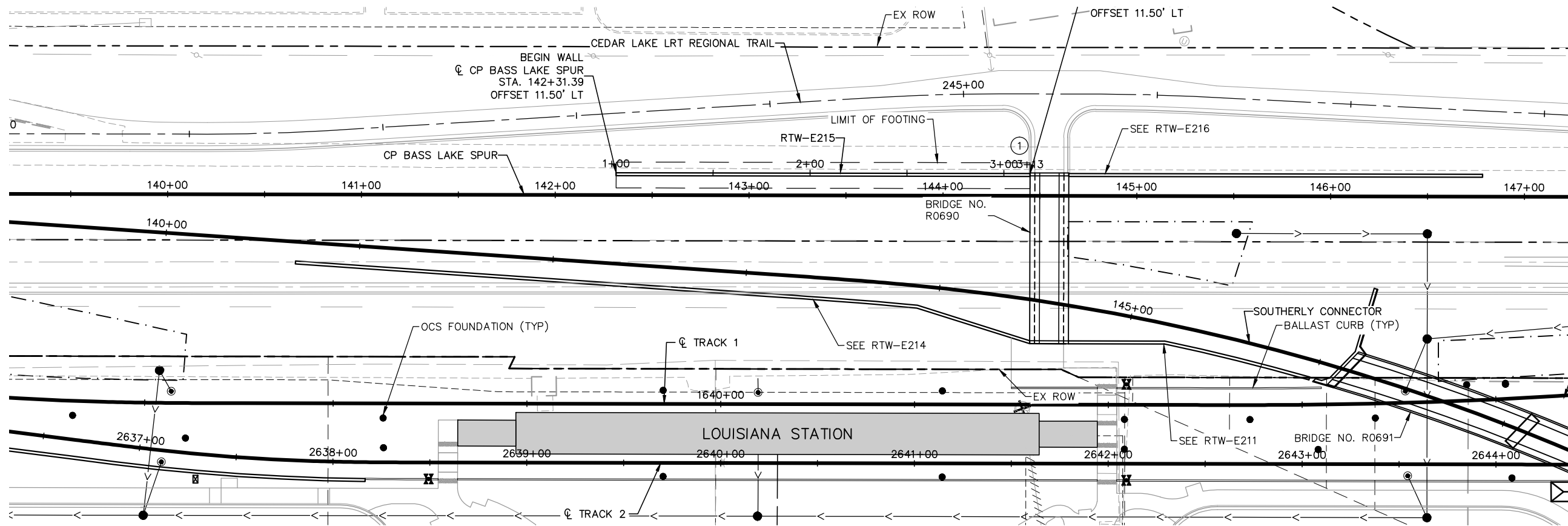
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E214 GEOMETRY

DISCIPLINE: STRUCTURES

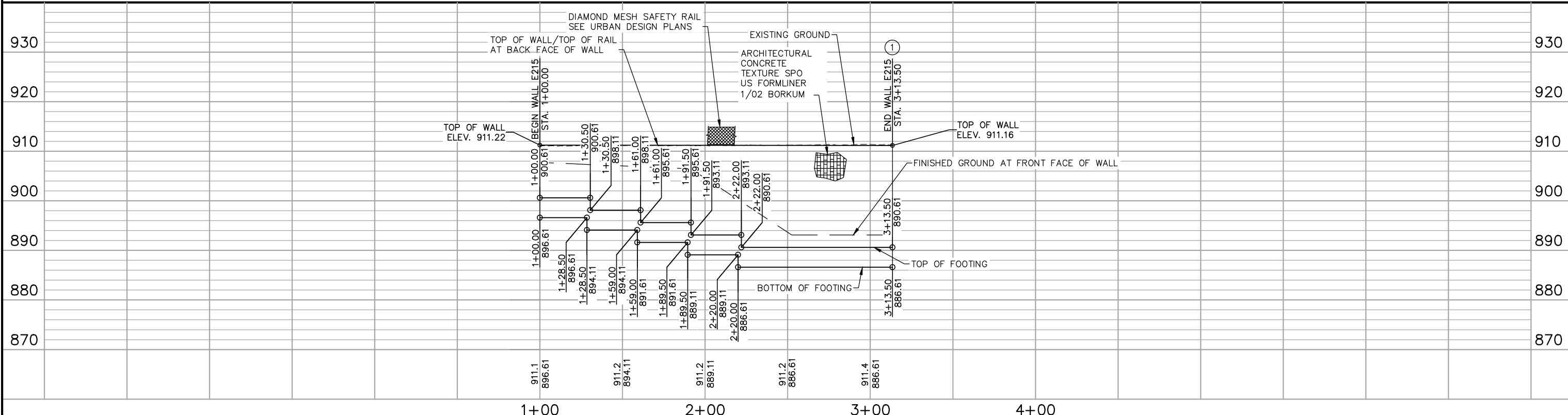
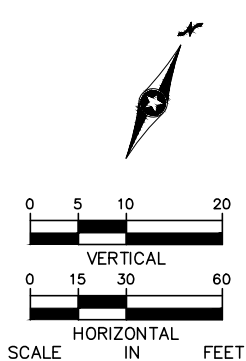
SHEET NAME: RTW-E214 - DTL



Sep. 18 2015 06:45 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E215.dwg By: V-PatelPj



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

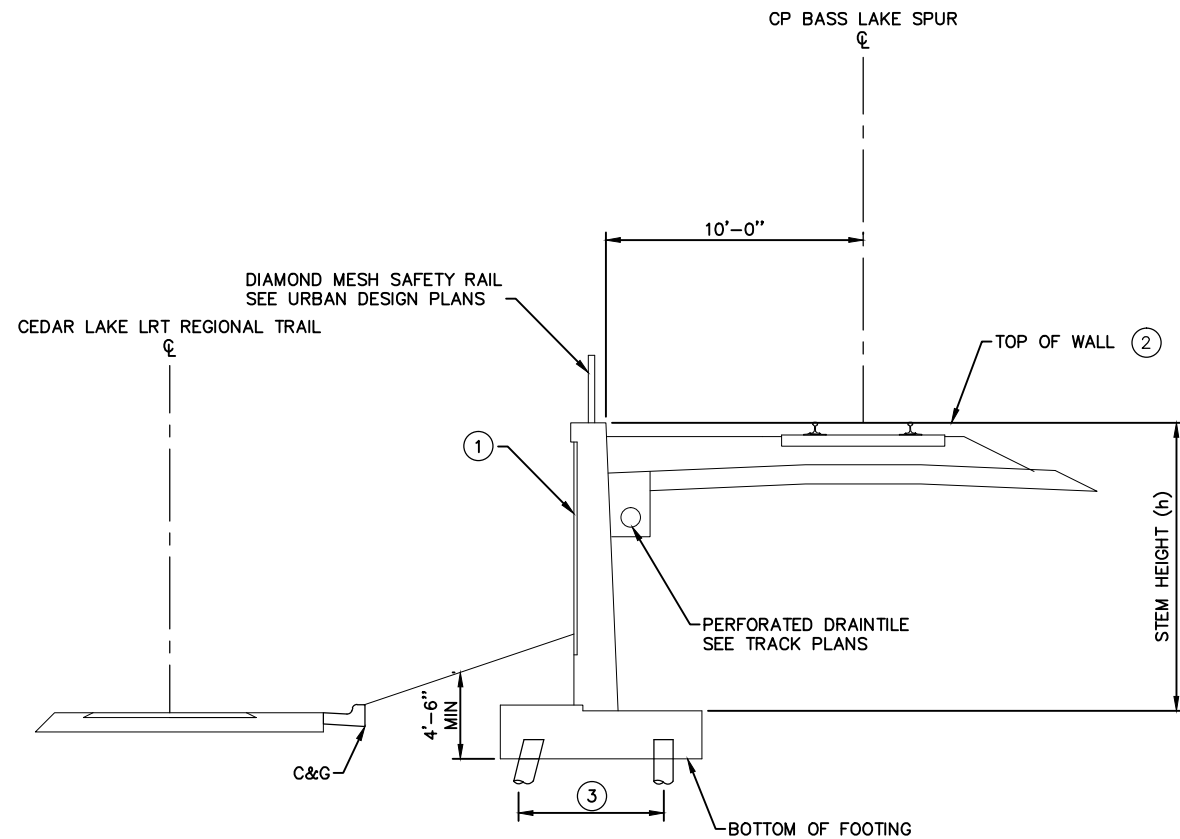


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E215 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E215 - PLE

SHEET  
45  
OF  
113

Sep. 18 2015 06:45 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E215.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E215 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

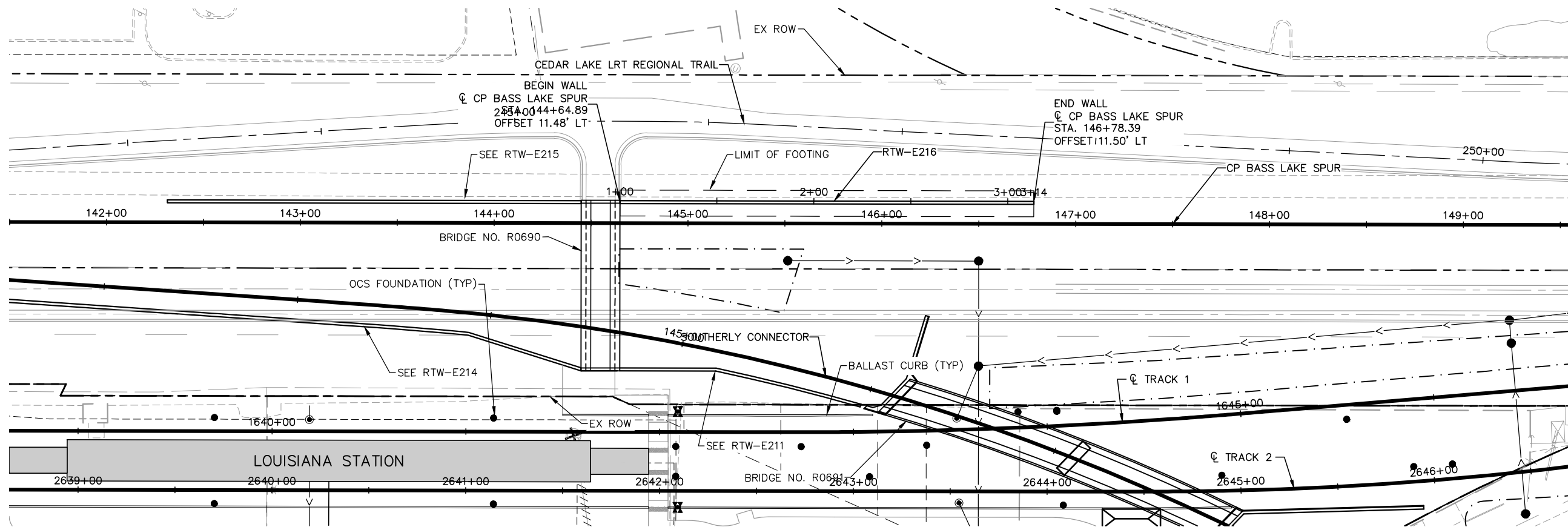


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E215 GEOMETRY

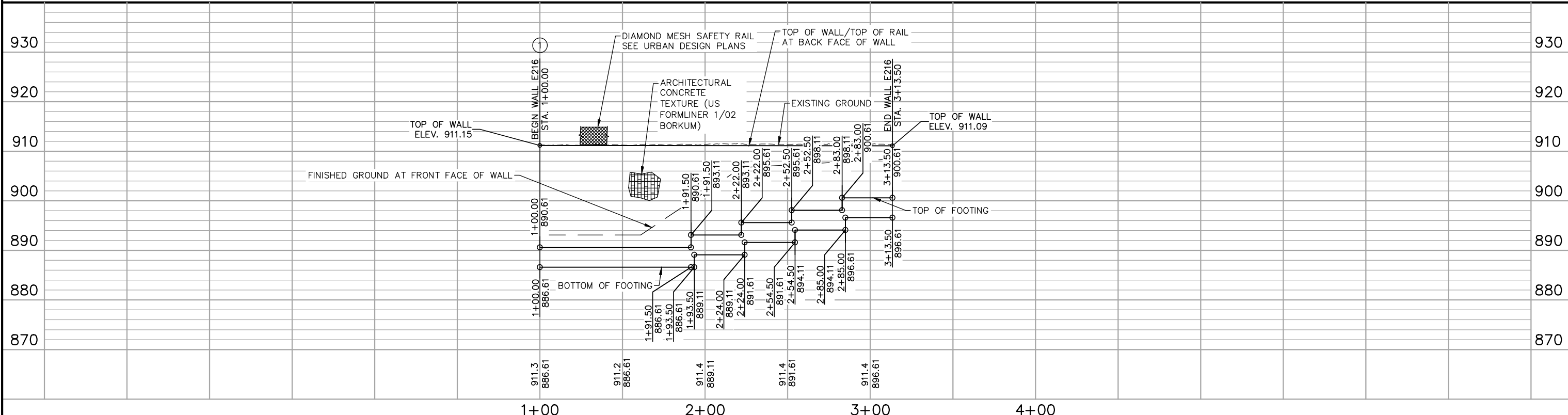
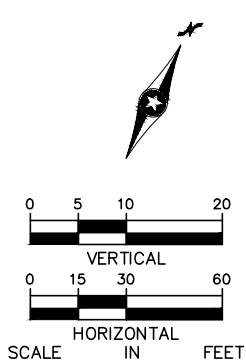
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E215 - DTL

Sep. 18 2015 06:50 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E216.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

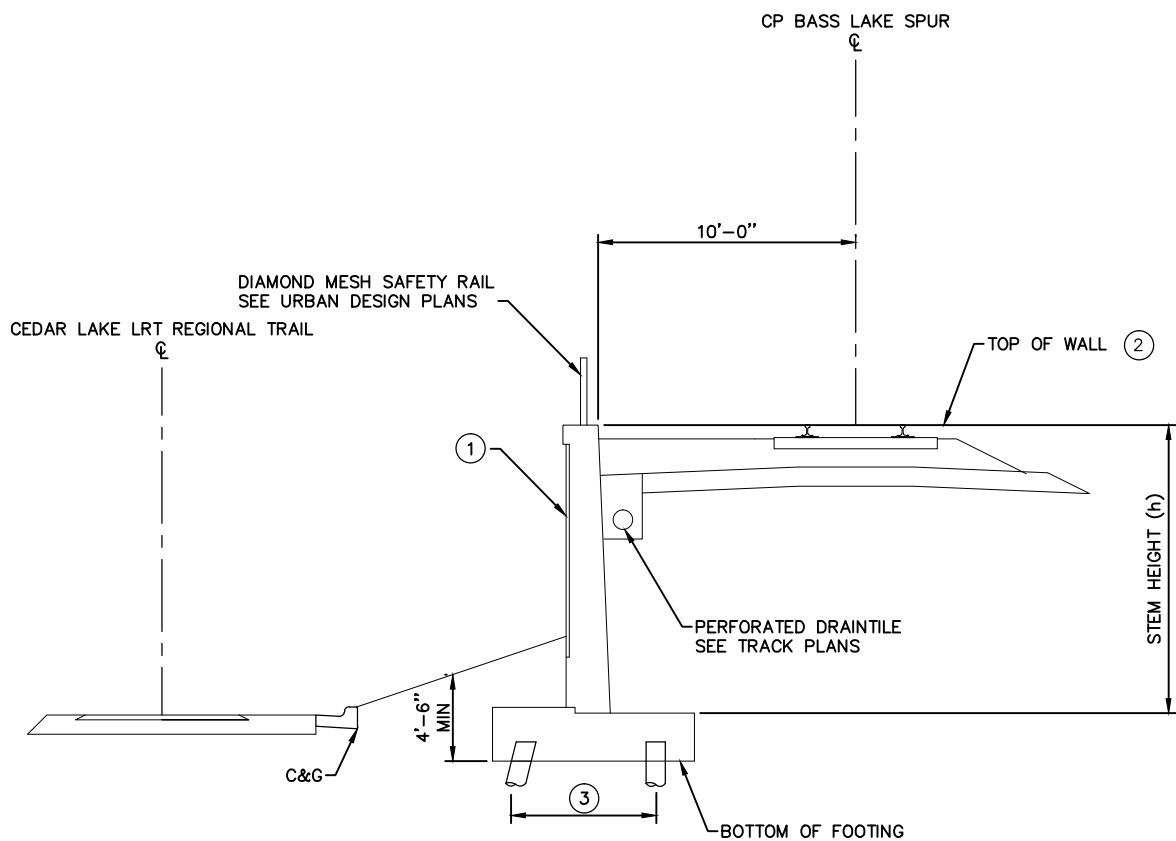


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E216 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E216 - PLE

SHEET  
47  
OF  
113

Sep. 18 2015 06:51 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E216.dwg By: V-PatelPU



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E216 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

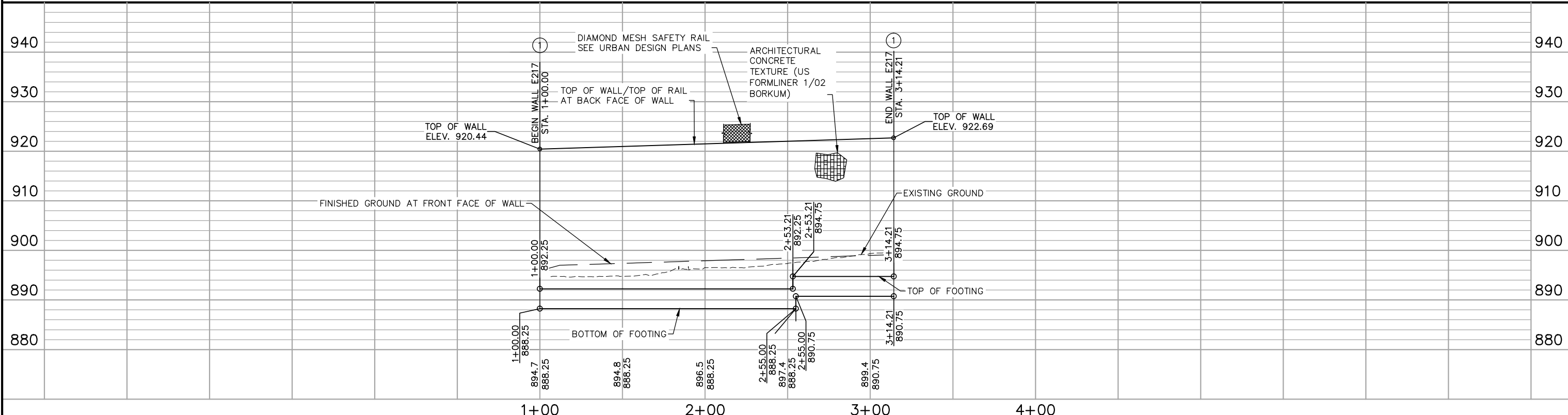
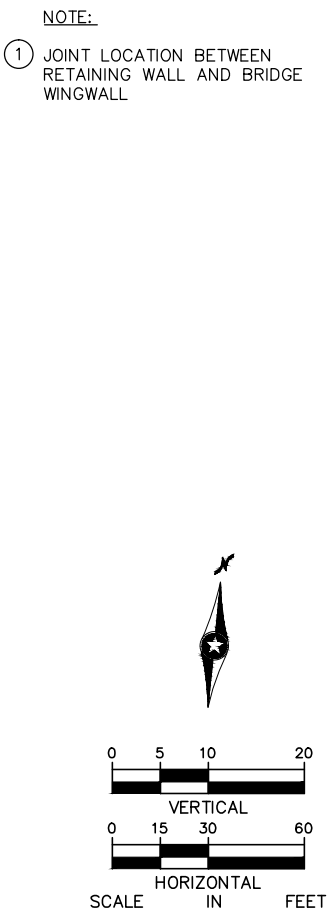
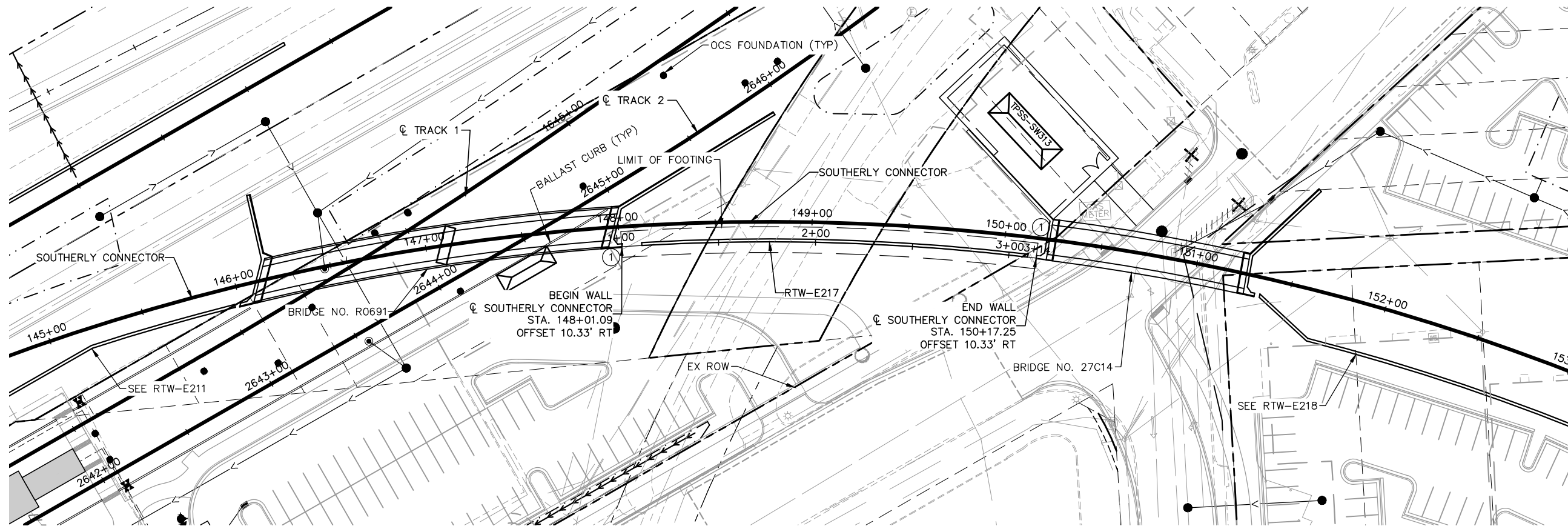


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E216 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E216 - DTL

Sep. 18 2015 06:55 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E217.dwg By: V-PatelPJ



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

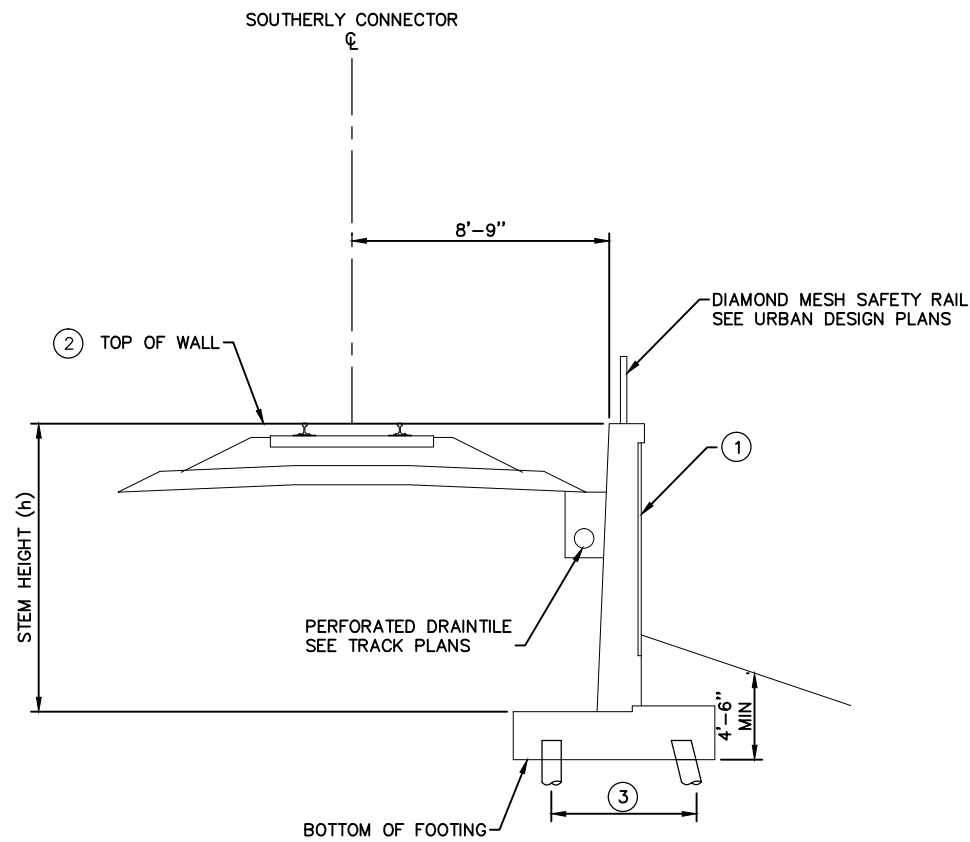


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E217 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES		49
SHEET NAME: RTW-E217 - PLE		OF
		113

Sep. 18 2015 06:55 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E217.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E217 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



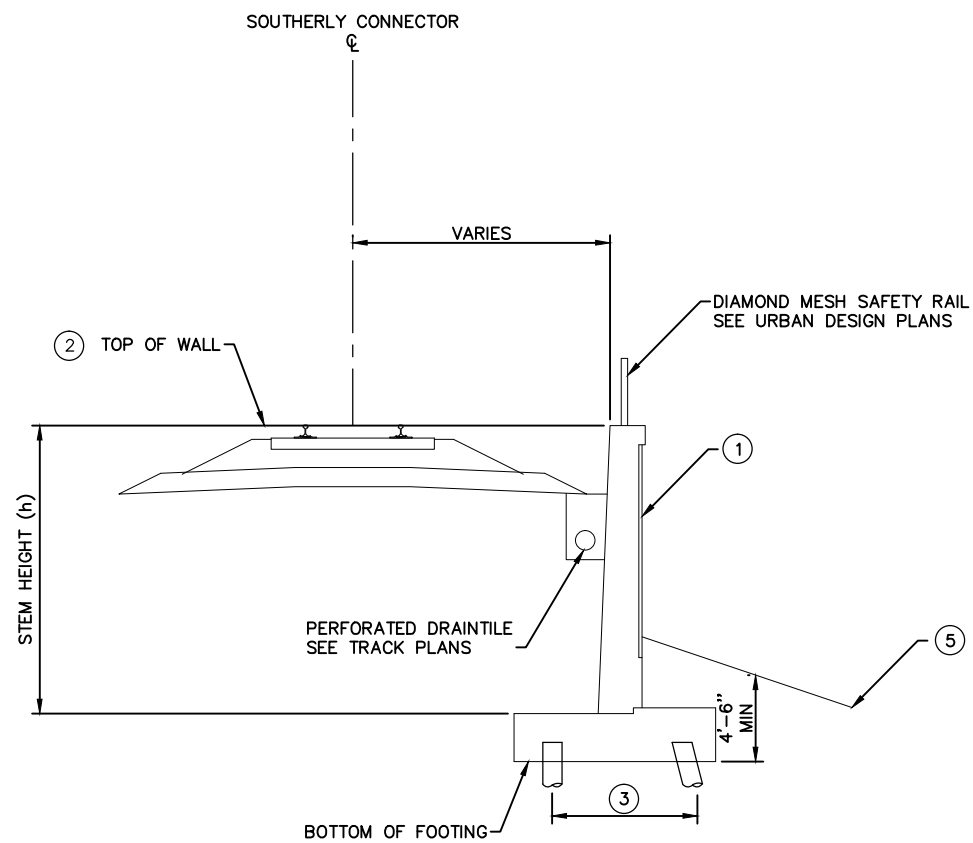
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E217 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E217 - DTL



Sep. 18 2015 07:00 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E218.dwg By: V-PatelPJ

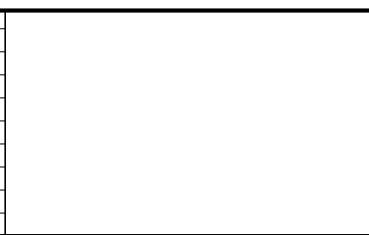


- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES
  - ⑤ PARKING LOT FOR PORTION OF WALL HERE

RTW-E218 SECTION


NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



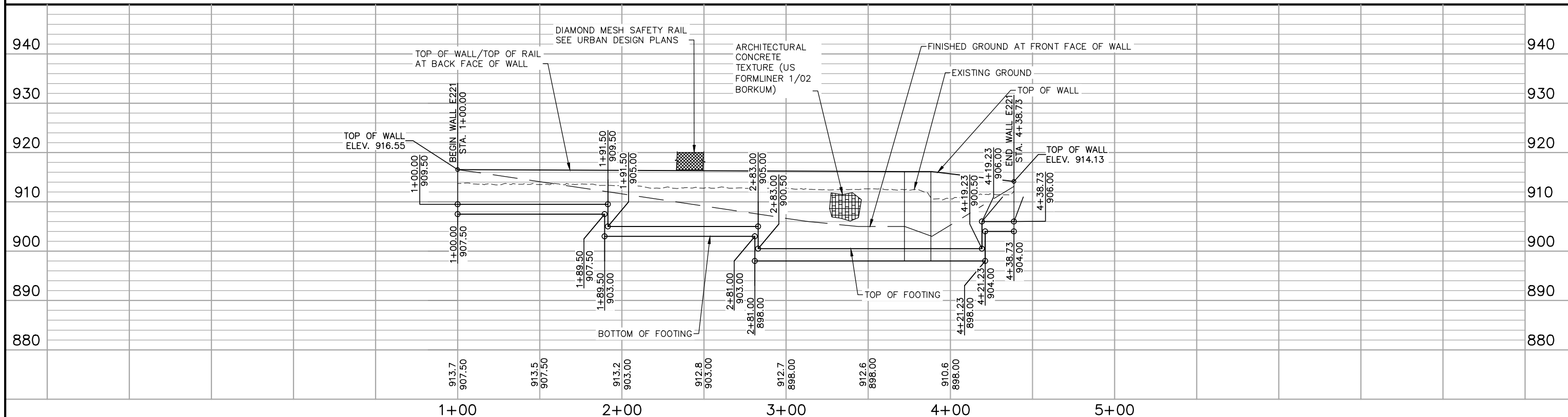
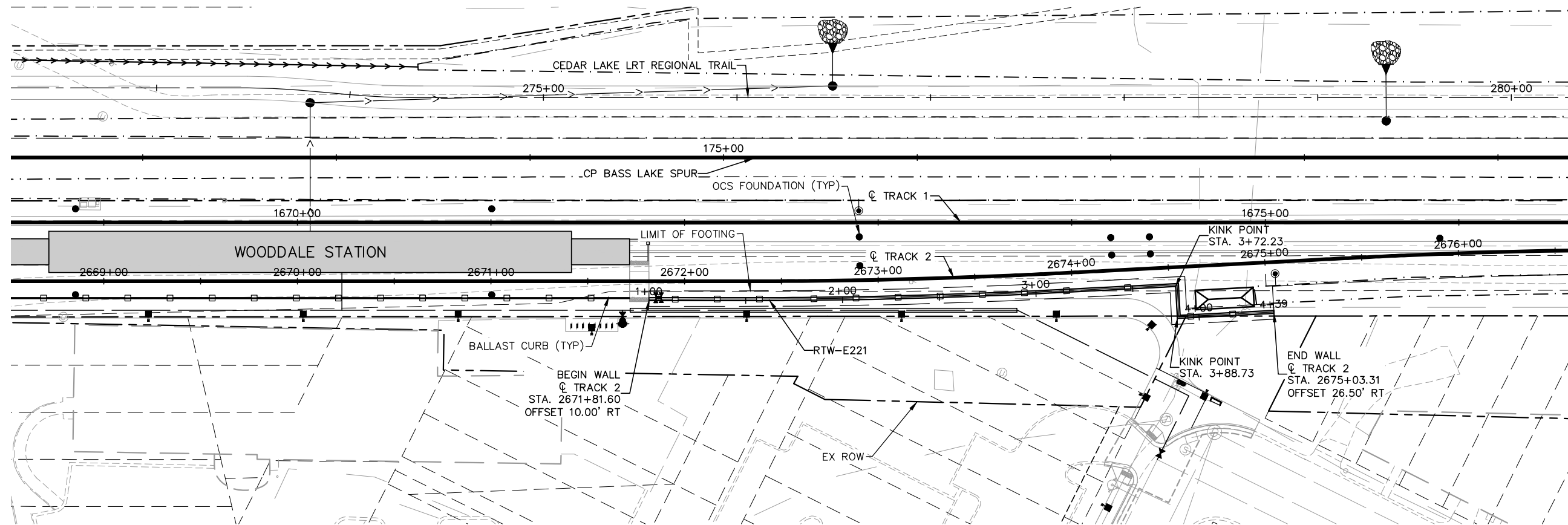
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E218 GEOMETRY

DISCIPLINE: STRUCTURES

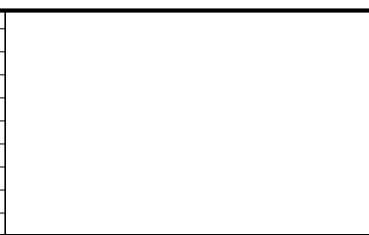
SHEET NAME: RTW-E218 - DTL



Sep. 18 2015 07:06 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E221.dwg By: V-PatelPU



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

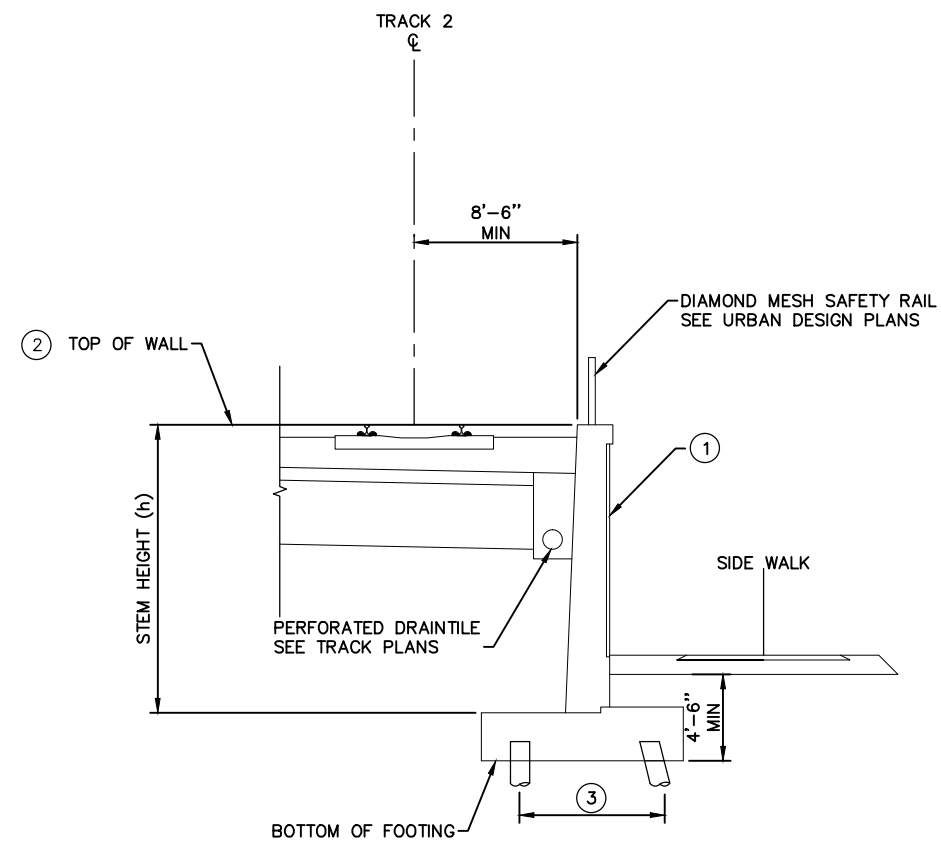


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E221 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES		53
SHEET NAME: RTW-E221 - PLE		OF
		113

Sep. 18 2015 07:06 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E221.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E221 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

**AECOM**

60% SUBMISSION - 09/28/15



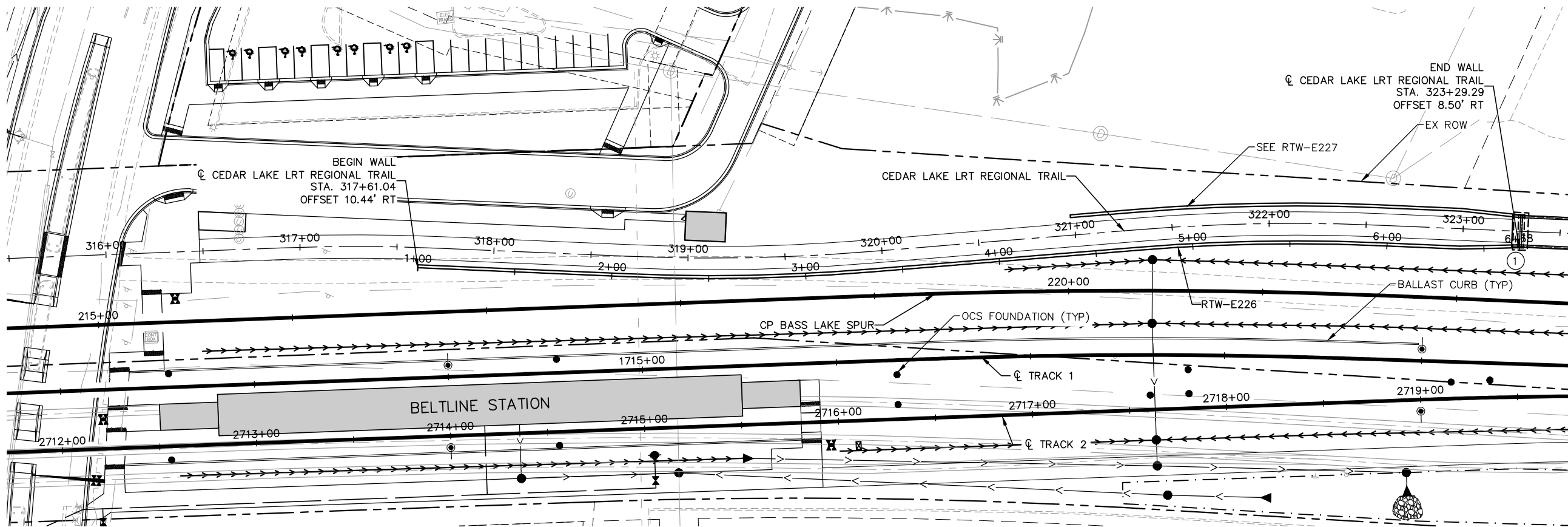
**CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E221 GEOMETRY**

DISCIPLINE:  
**STRUCTURES**

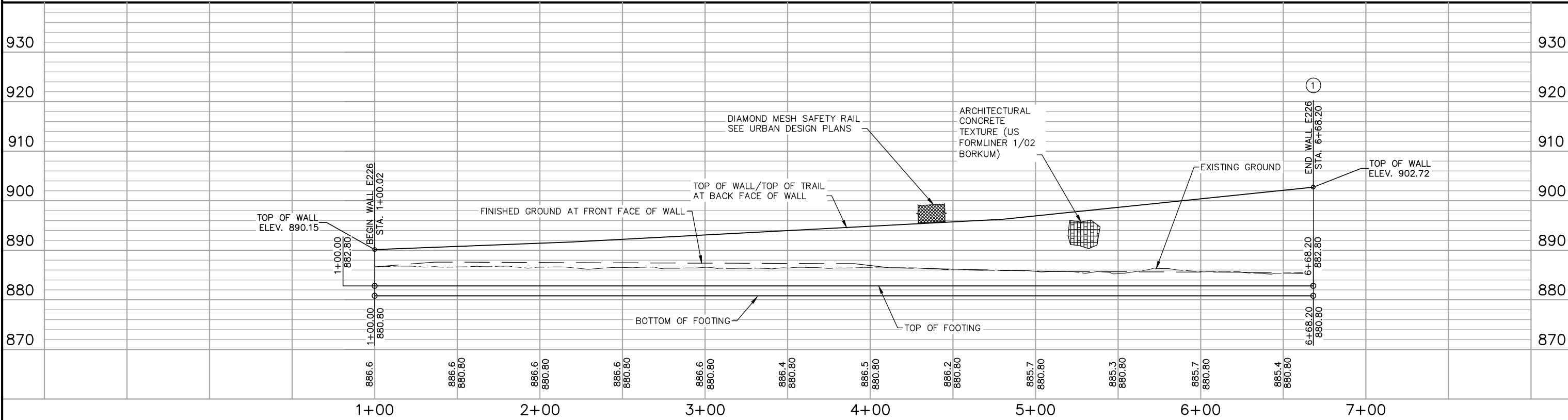
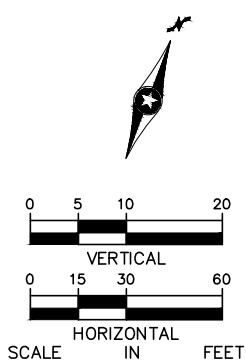
SHEET NAME:  
**RTW-E221 - DTL**

**SHEET  
54  
OF  
113**

Sep. 21 2015 10:47 am V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E226.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

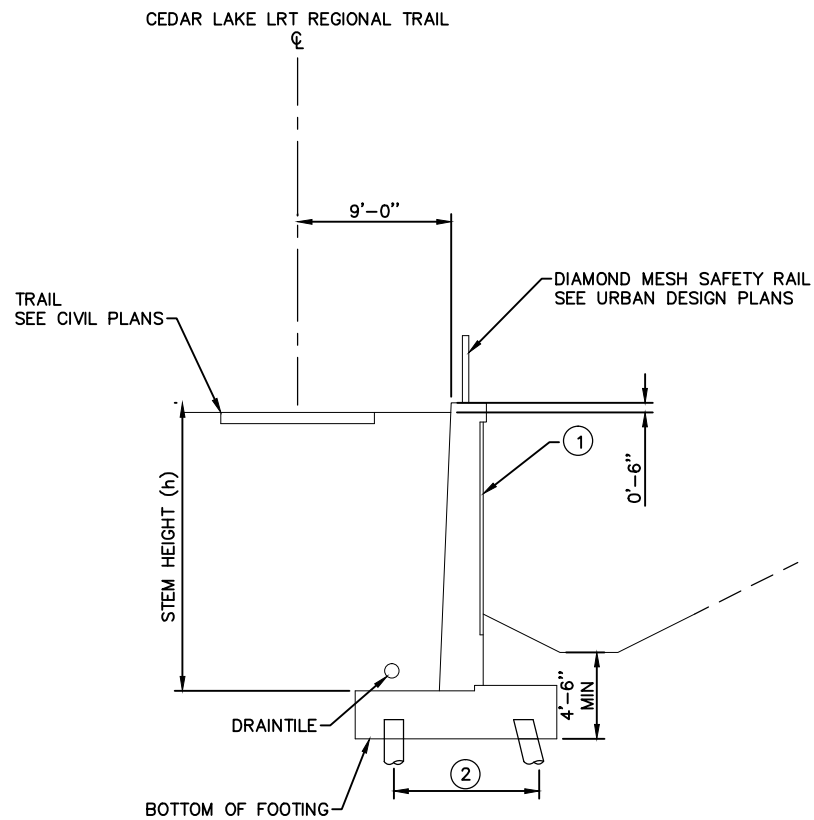


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E226 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E226 - PLE

SHEET  
55  
OF  
113

Sep. 18 2015 07:12 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E226.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E226 SECTION


NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

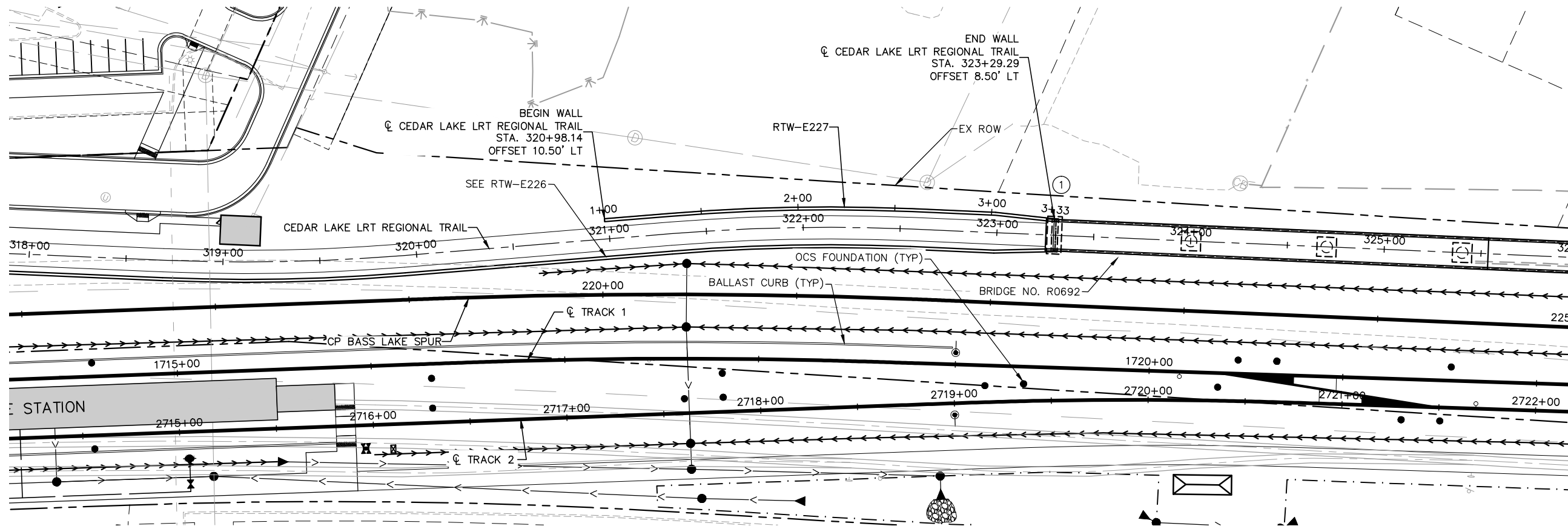


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E226 GEOMETRY

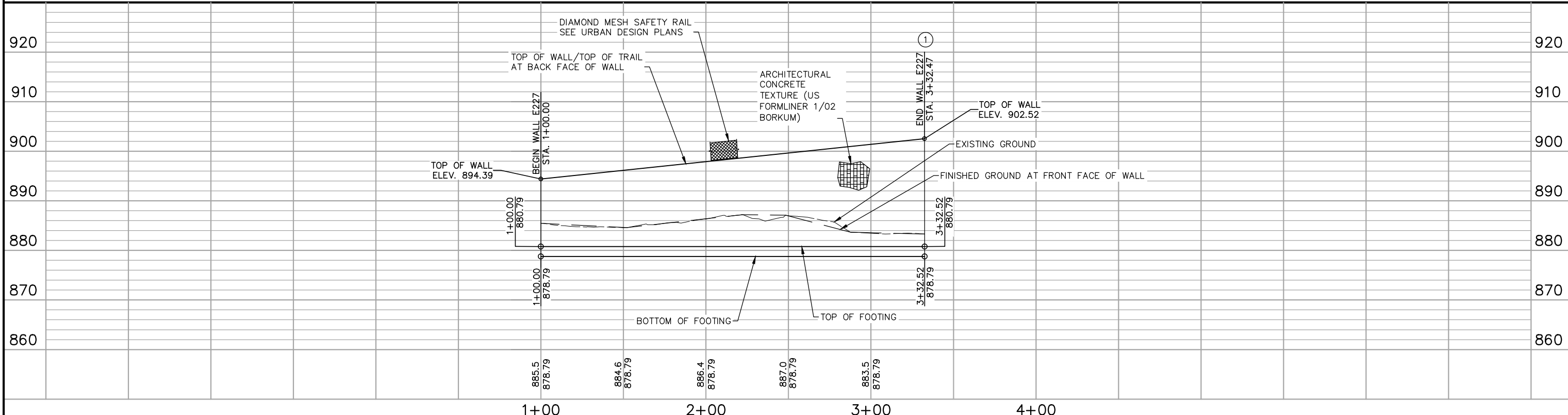
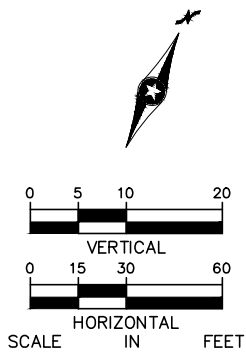
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E226 - DTL

Sep. 21 2015 11:05 am V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E227.dwg By: V-PatelPU



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

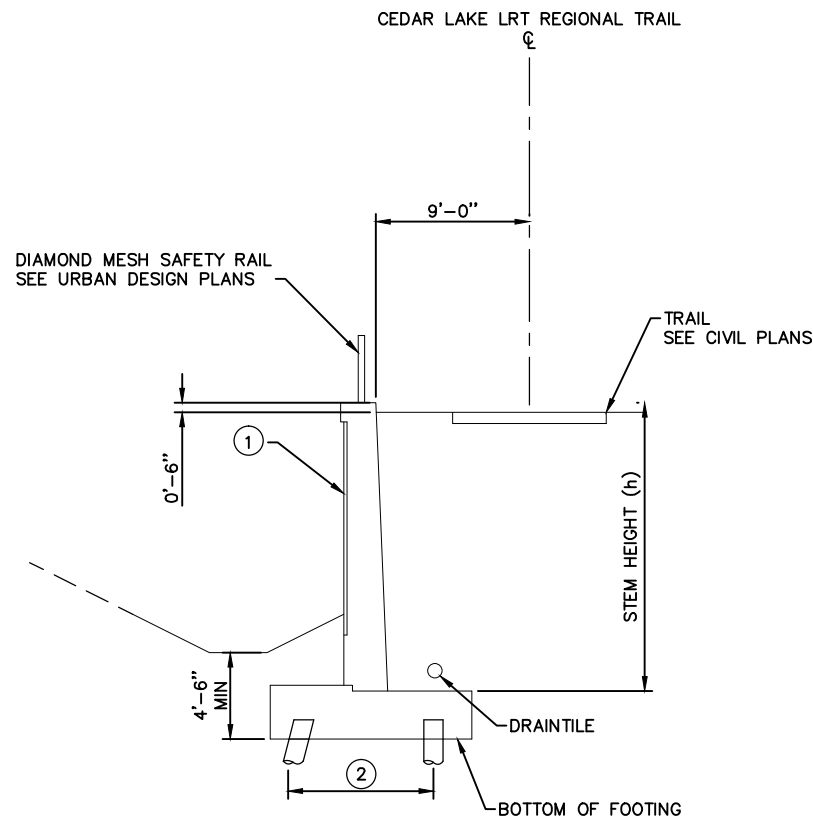
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E227 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**      SHEET NAME: **RTW-E227 - PLE**

**60% SUBMISSION - 09/28/15**

**SHEET 57 OF 113**

Sep. 18 2015 07:17 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E227.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E227 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



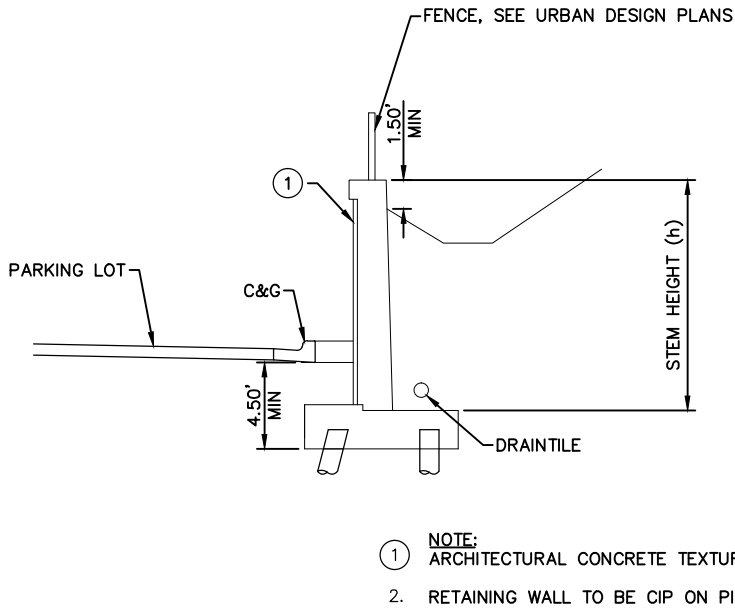
60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E227 GEOMETRY

DISCIPLINE: STRUCTURES




SHEET NAME: RTW-E227 - DTL





RTW-E230 SECTION

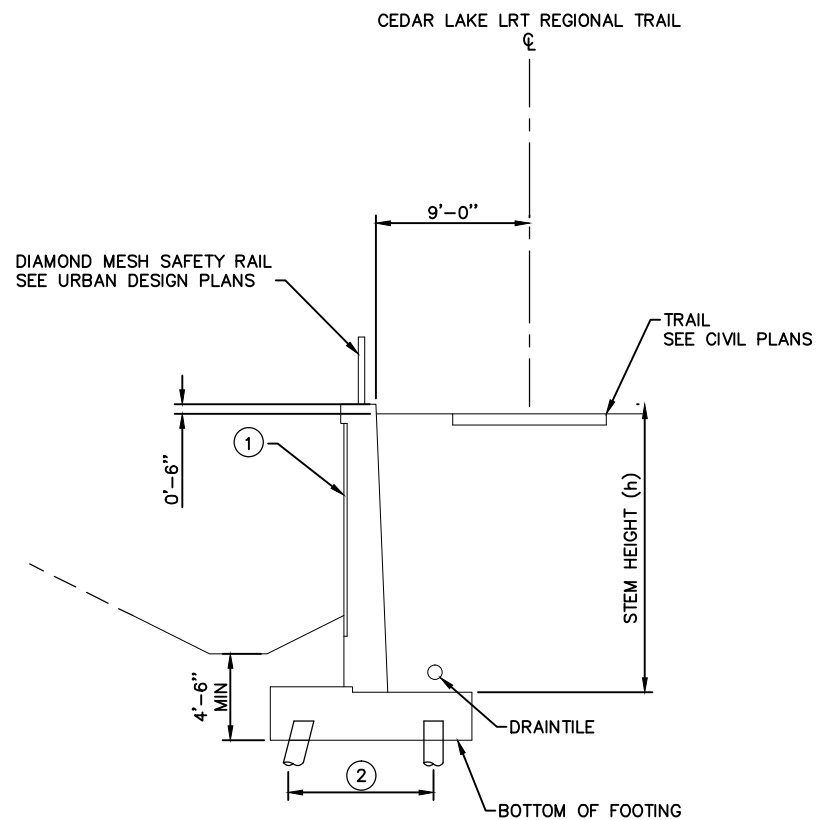
**DRAFT-WORK IN PROCESS**

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL	<div></div> <div></div>		CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E230 GEOMETRY		SHEET  60  OF  113
60% SUBMISSION - 09/28/15						DISCIPLINE: STRUCTURES		SHEET NAME: RTW-E230 - DTL		





Sep. 18 2015 07:28 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E301.dwg By: V-PatelPJ



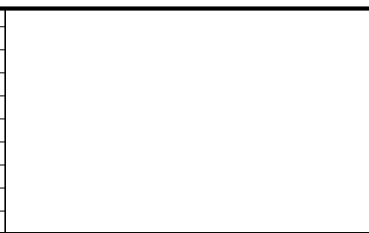
- NOTE:
- 1 ARCHITECTURAL CONCRETE TEXTURE
  - 2 PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E301 SECTION

NOT TO SCALE

DRAFT-WORK IN PROCESS

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E301 GEOMETRY

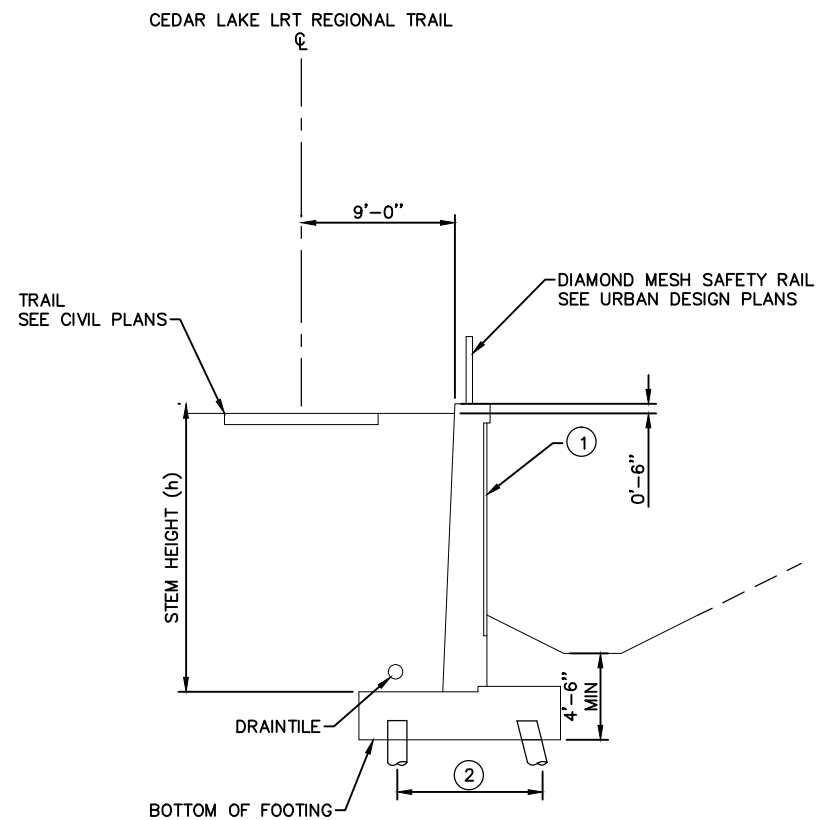
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E301 - DTL

SHEET  
62  
OF  
113



Sep. 18 2015 07:34 pm V:\3400\_ADC\CAD\SEGMENT E2\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E302.dwg By: V-PatelPJ



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E302 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E302 GEOMETRY

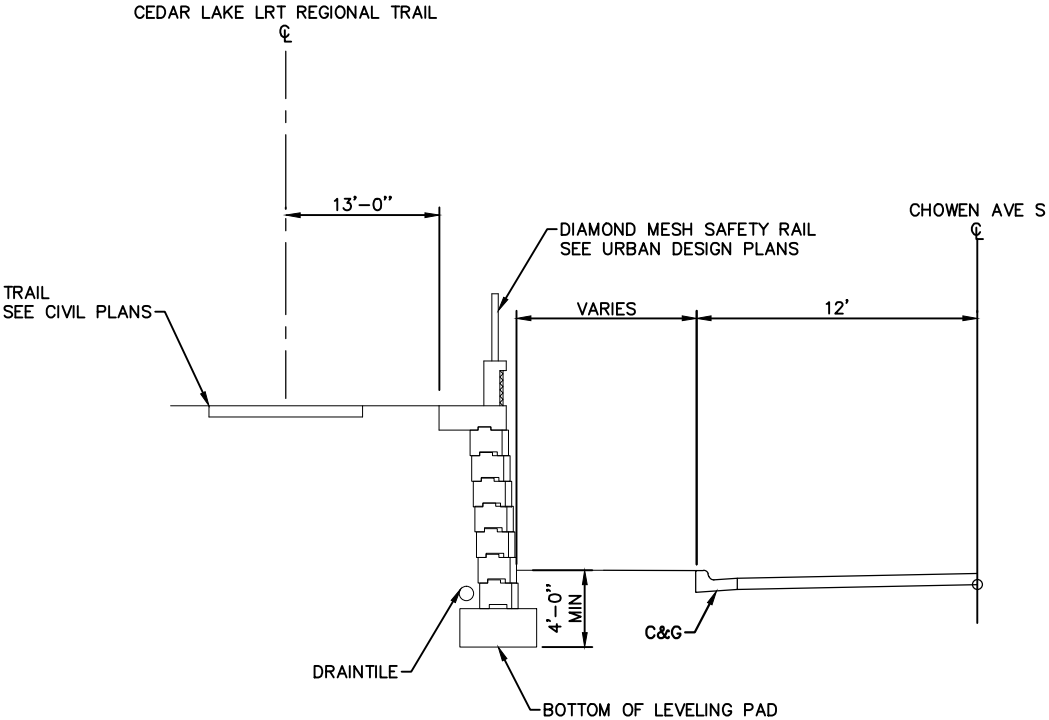
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E302 - DTL

SHEET  
64  
OF  
113



Sep. 21 2015 02:24 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E303.dwg By: V-PatelPJ

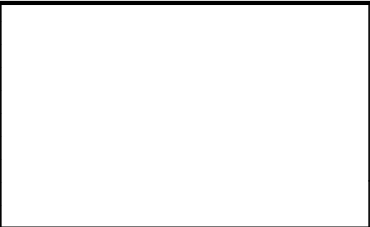


- NOTE:  
1. RETAINING WALL TO BE PMBW

RTW-E303 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





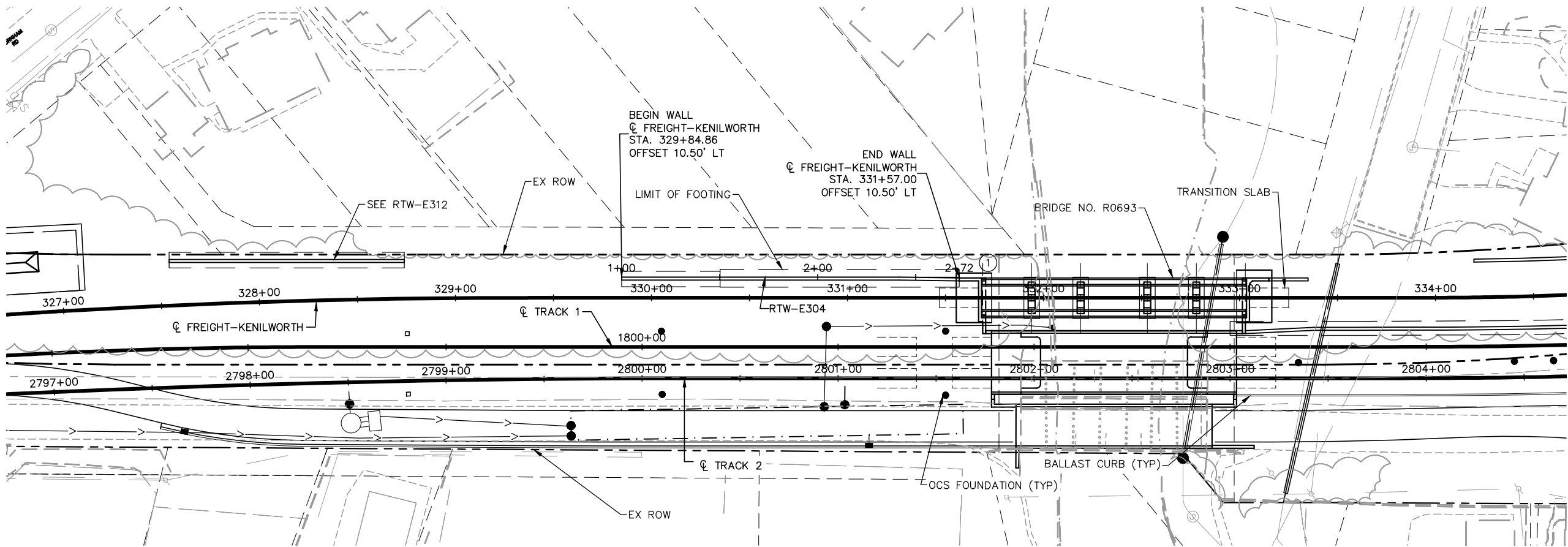
60% SUBMISSION - 09/28/15



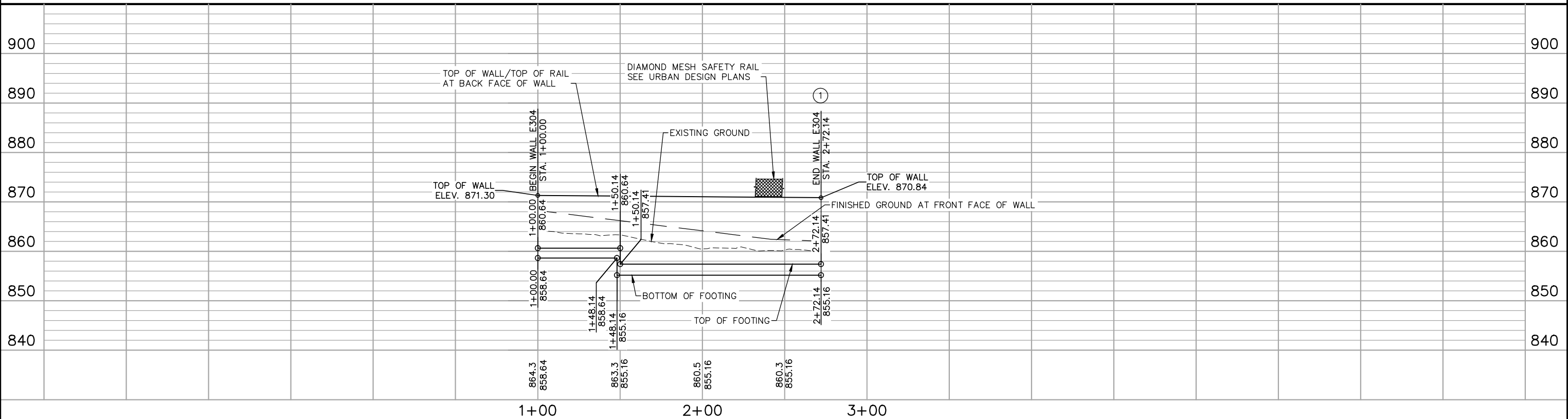
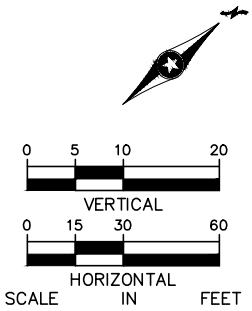
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E303 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E303 - DTL



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND  
BRIDGE WINGWALL.

[illegible]**AECOM**

**60% SUBMISSION - 09/28/15**



# SOUTHWEST

Green Line LRT Extension



**CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E304 PLAN AND ELEVATION**

DISCIPLINE:

## STRUCTURES

SHEET NAME:
-------------

RTW-E304 - PLE

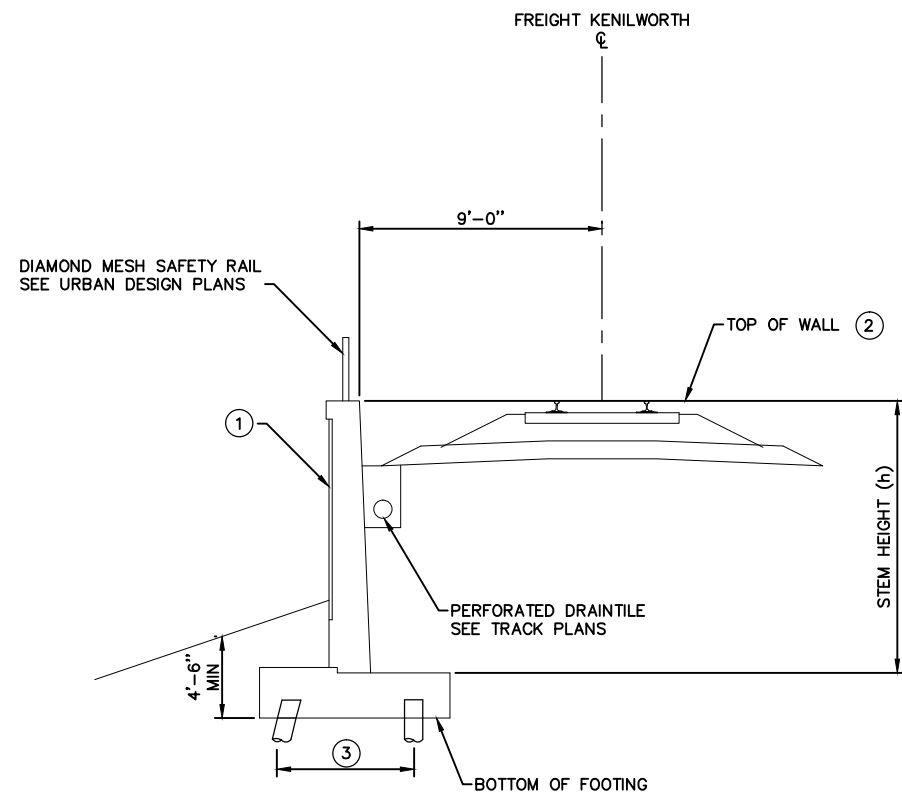
SHEET

67

DF

13

Sep. 21 2015 01:56 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E304.dwg By: V-NutzmaML

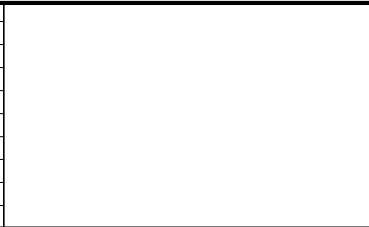


- NOTE:**
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E304 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



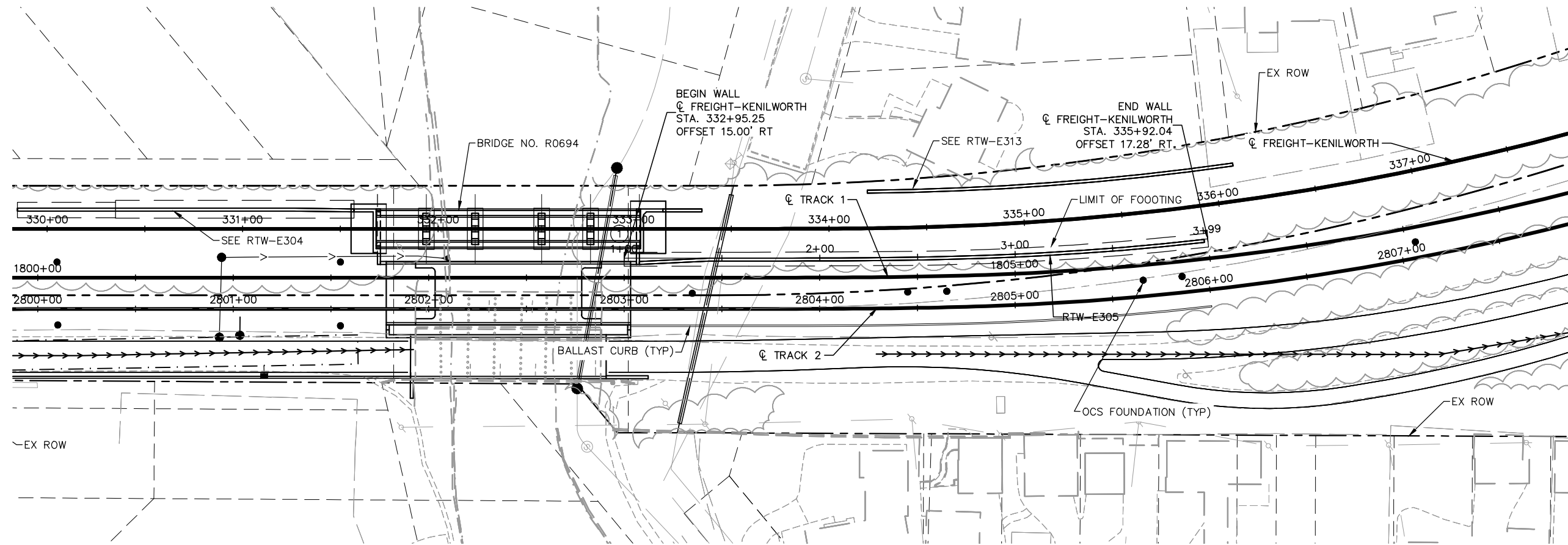
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E304 GEOMETRY

DISCIPLINE: STRUCTURES

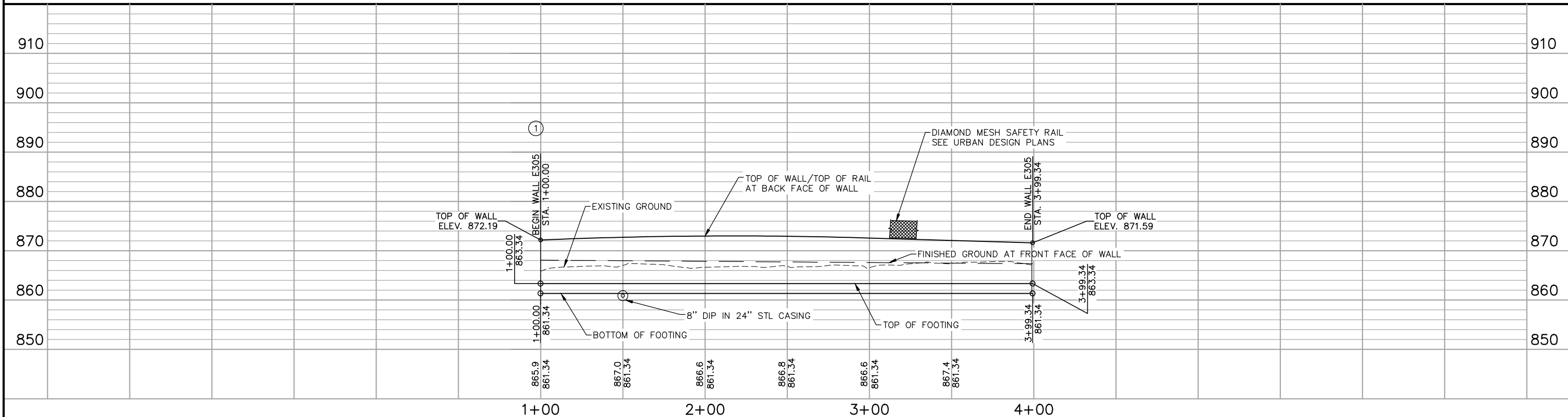
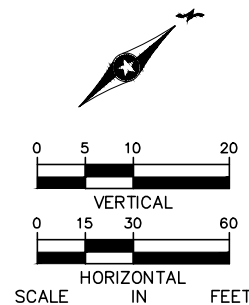
SHEET NAME: RTW-E304 - DTL



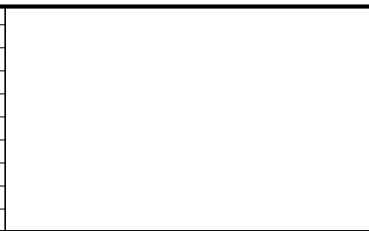
Sep. 24 2015 04:35 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E305.dwg By: V-PatelPJ



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND  
BRIDGE WINGWALL.



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

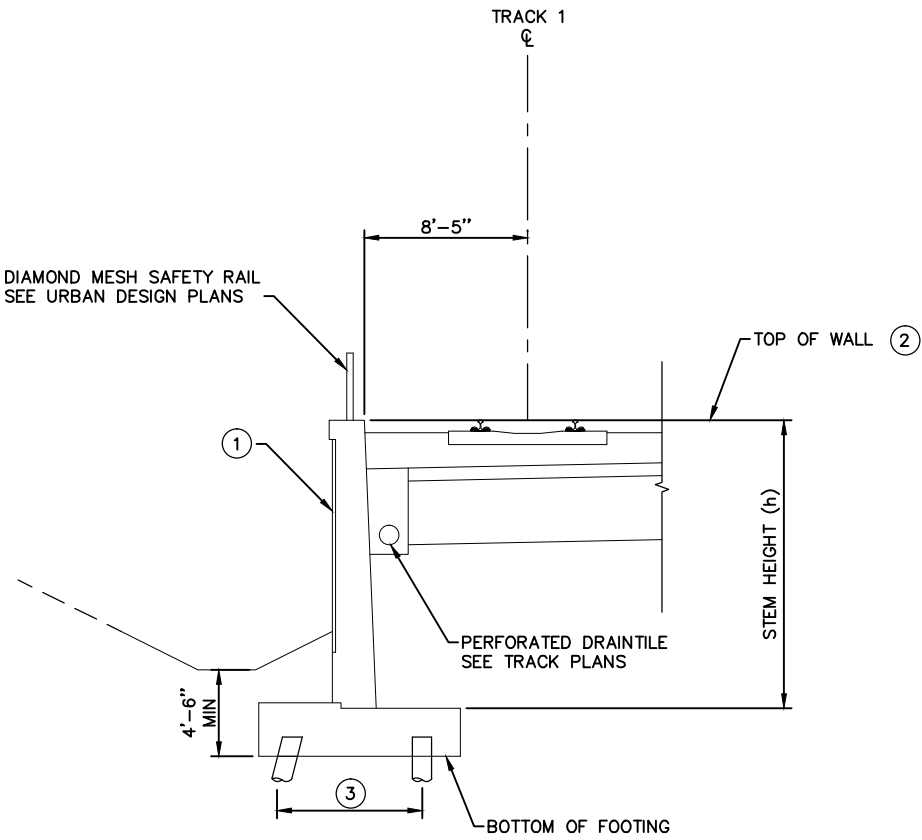


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E305 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES	SHEET NAME: RTW-E305 - PLE	69 OF 113

Sep. 21 2015 02:06 pm v:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E305.dwg By: V-NutzmaML

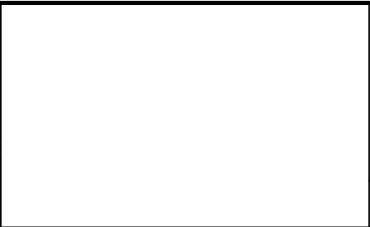


- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION (Ea)  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E305 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



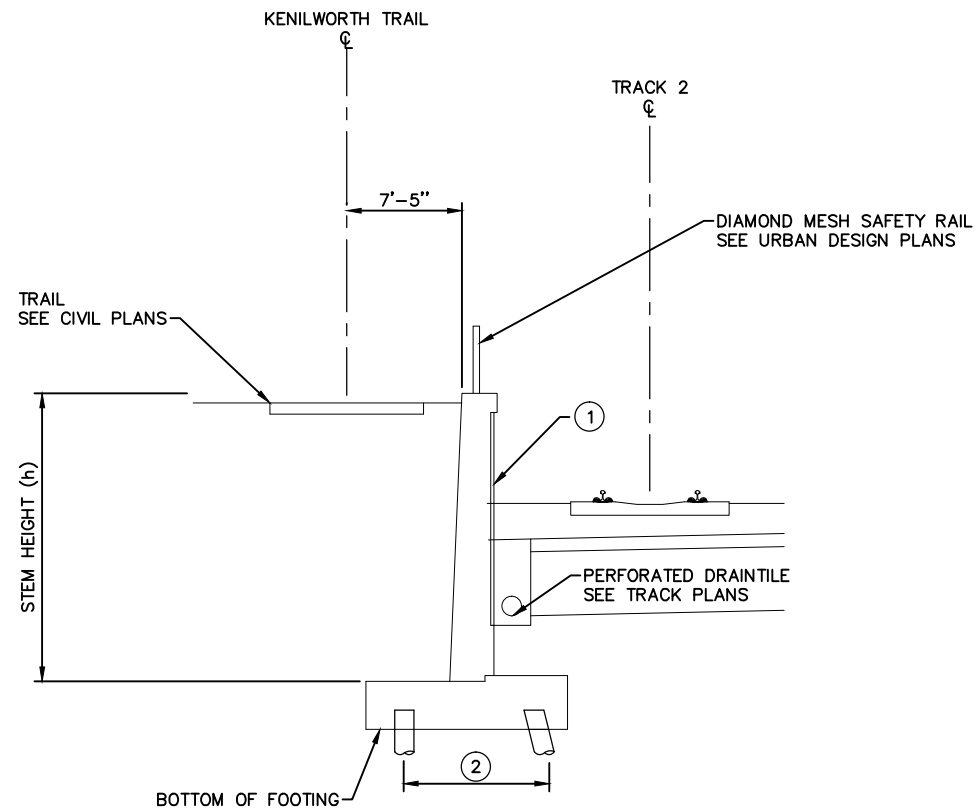
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E305 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E305 - DTL



Sep. 21 2015 02:18 pm V:\3400\_ADC\CAD\CAD SHEETS\STRUCTURES\RETAINING WALLS\RTW-E307.dwg By: V-NutzmaML

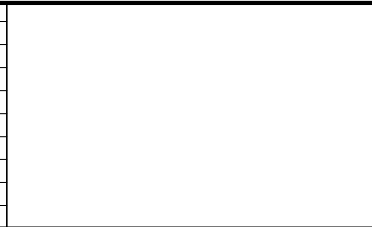


- NOTE:
- 1 ARCHITECTURAL CONCRETE TEXTURE
  - 2 PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E307 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E307 GEOMETRY

DISCIPLINE: STRUCTURES

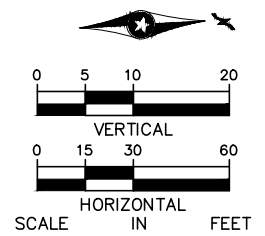
SHEET NAME: RTW-E307 - DTL

SHEET

72

OF

113

[illegible]

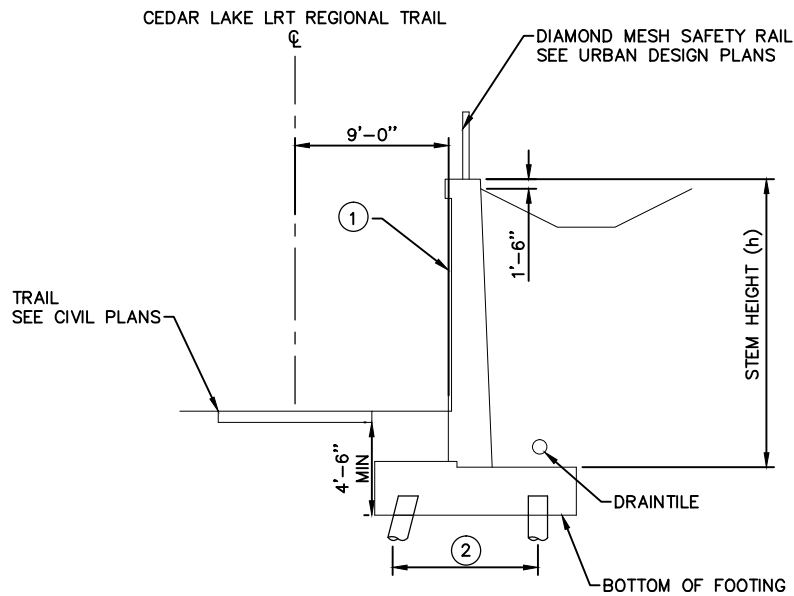
**60% SUBMISSION - 09/28/15**



DISCIPLINE: **STRUCTURES**

**SHEET**  
**73**  
**OF**  
**113**

Sep. 21 2015 02:27 pm v:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E308.dwg By: V-NutzmaML

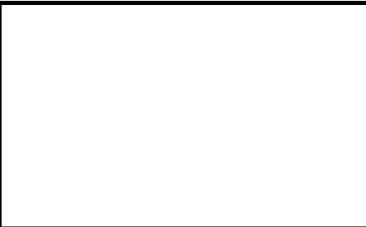


- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E308 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

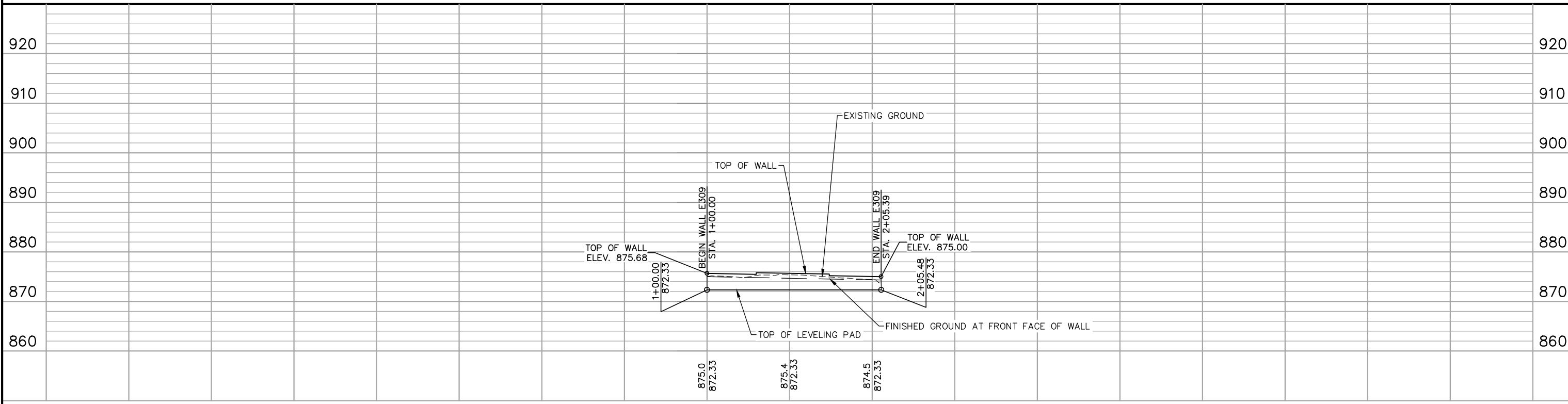





CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E308 GEOMETRY

DISCIPLINE: STRUCTURES

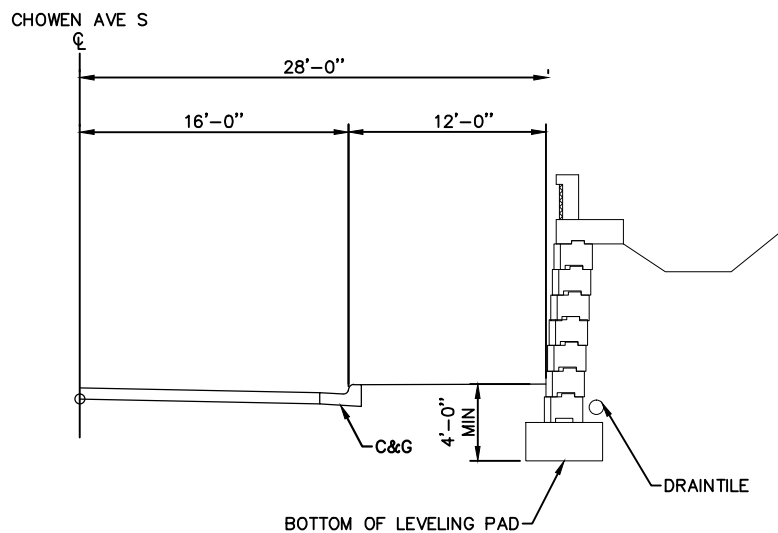
SHEET NAME: RTW-E308 - DTL

SHEET  
74  
OF  
113



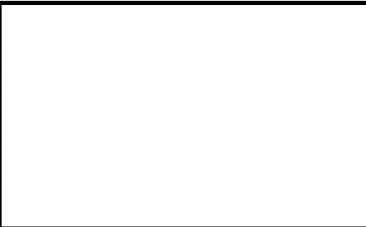
						1+00		2+00		CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E309 PLAN AND ELEVATION		SHEET 75 OF 113
NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL			 		DISCIPLINE: STRUCTURES SHEET NAME: RTW-E309 - PLE		
						60% SUBMISSION - 09/28/15						

Sep. 21 2015 02:36 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E309.dwg By: V-PatelPJ



NOTE:  
1. RETAINING WALL TO BE PMBW  
RTW-E309 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



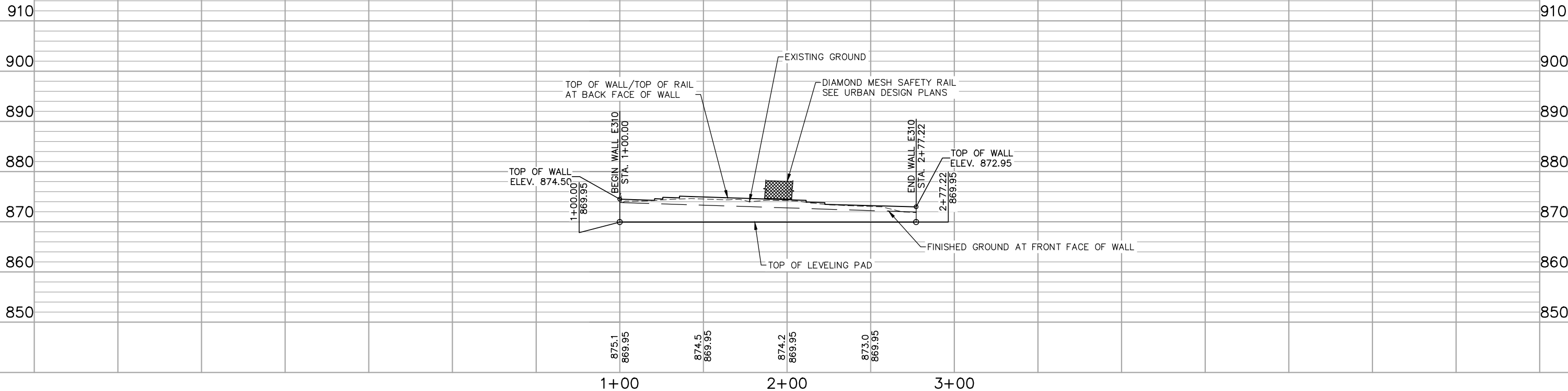
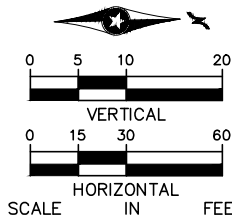
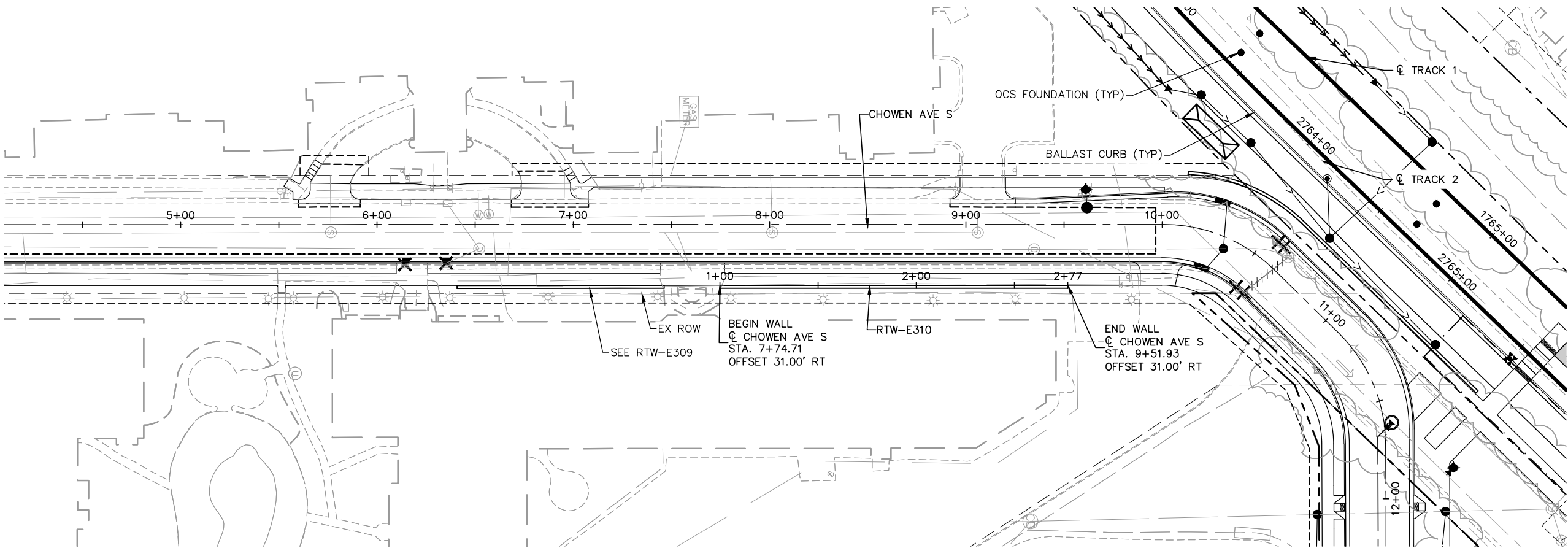
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E309 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E309 - DTL



Sep. 21 2015 03:00 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E310.dwg By: V-PatelPU



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

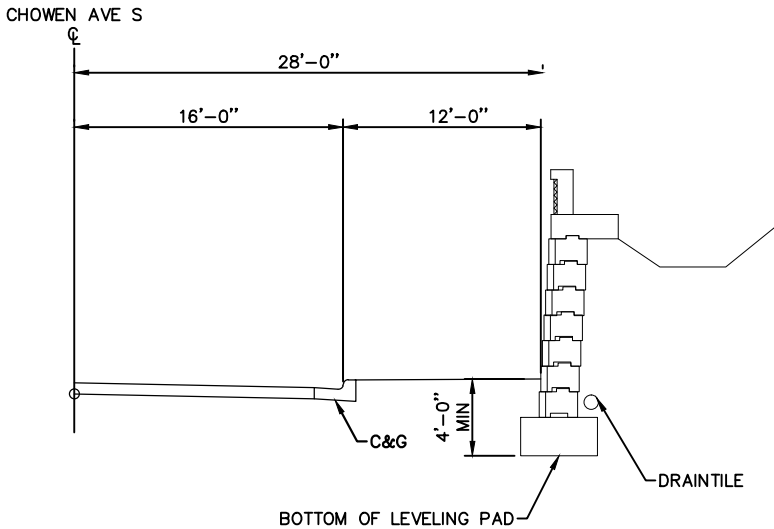


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E310 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E310 - PLE

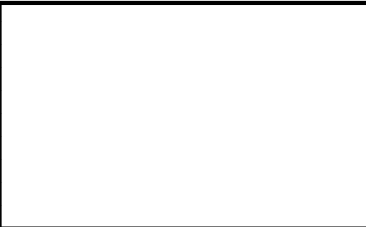
SHEET  
77  
OF  
113

Sep. 21 2015 03:00 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E310.dwg By: V-PatelPJ



NOTE:  
1. RETAINING WALL TO BE PMBW  
RTW-E310 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



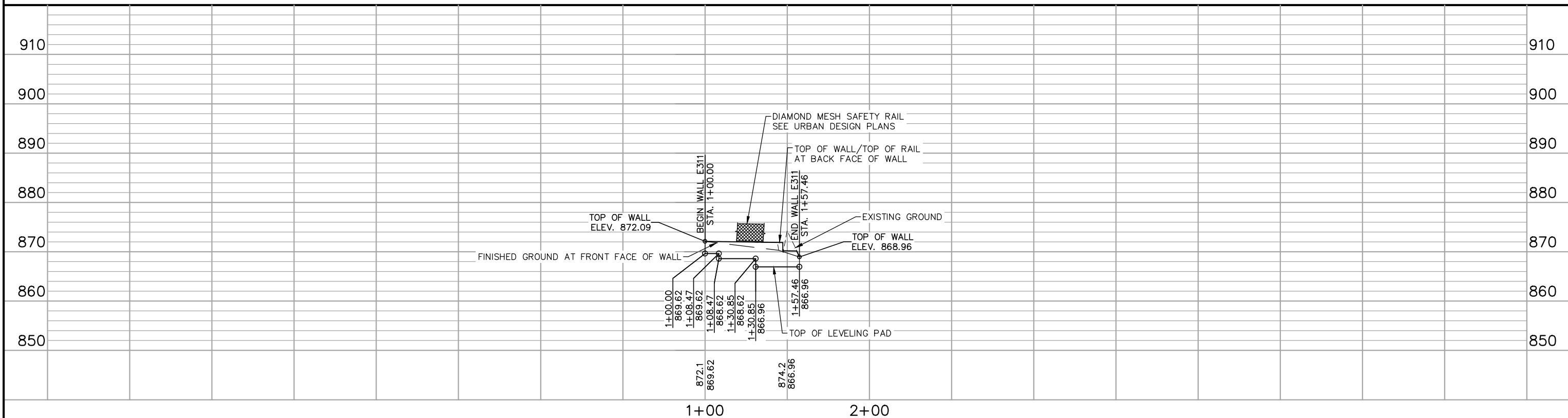
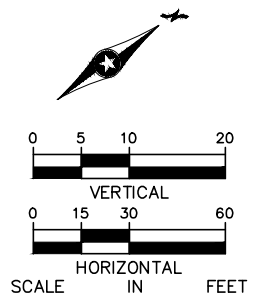
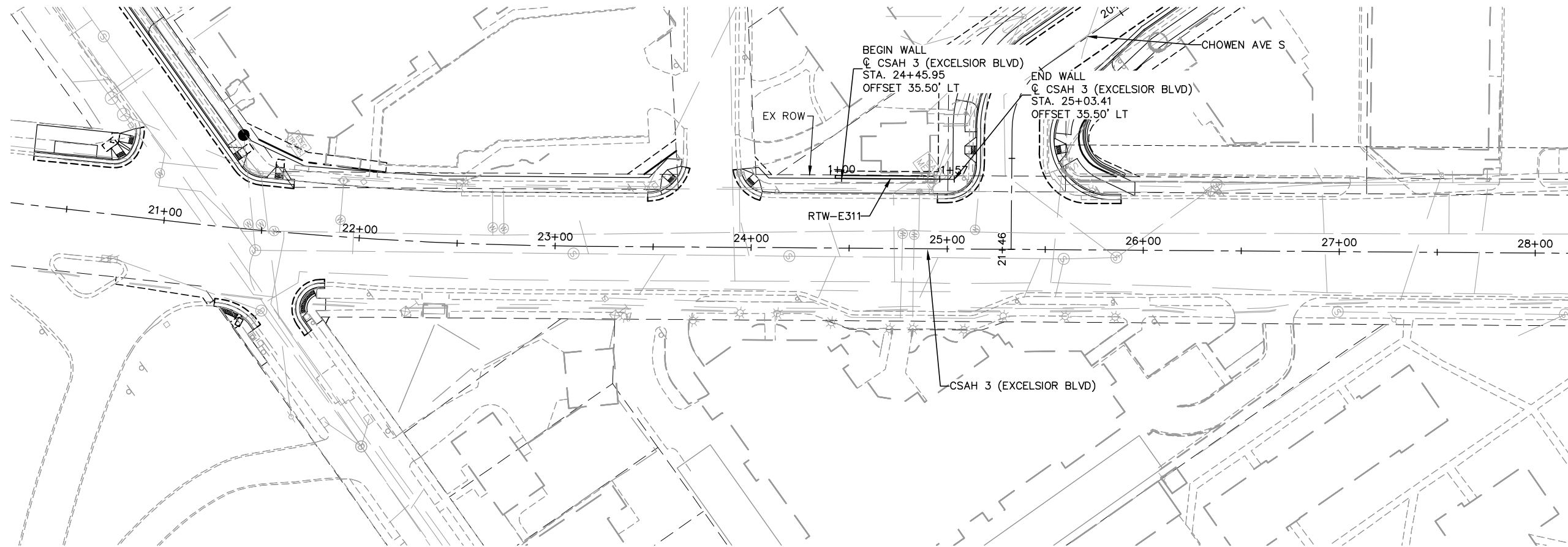
60% SUBMISSION - 09/28/15






CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E310 GEOMETRY

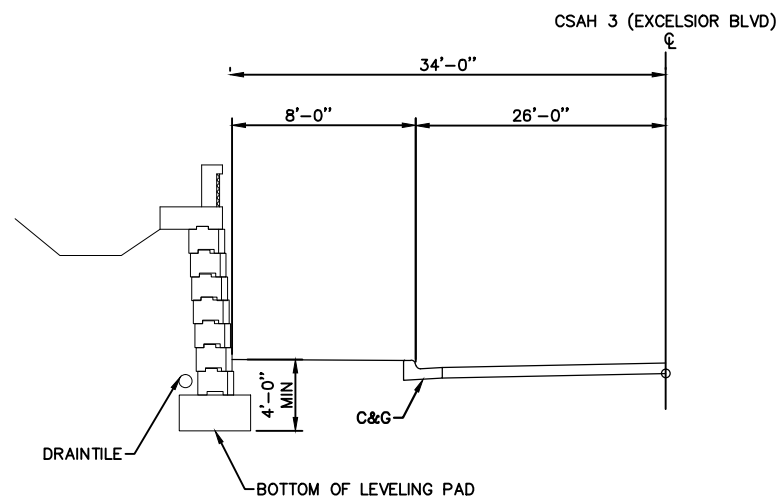
DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E310 - DTL

SHEET  
78  
OF  
113



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL	<div></div>	<div></div>	<div>CIVIL EAST - VOLUME 6</div> <div>RETAINING WALLS</div> <div>RTW-E311 PLAN AND ELEVATION</div>		<div>SHEET</div> <div>79</div> <div>OF</div> <div>113</div>
						60% SUBMISSION - 09/28/15	<div>DISCIPLINE:</div> <div>STRUCTURES</div>		<div>SHEET NAME:</div> <div>RTW-E311 - PLE</div>	

Sep. 21 2015 02:50 pm v:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E311.dwg By: V-PatelPJ



NOTE:  
1. RETAINING WALL TO BE PMBW  
RTW-E311 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E311 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E311 - DTL

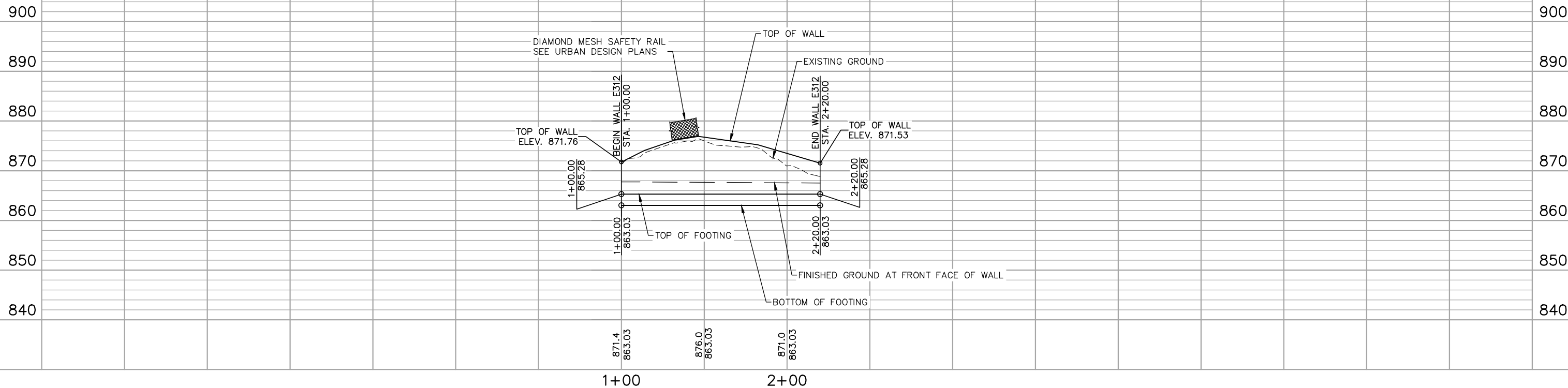
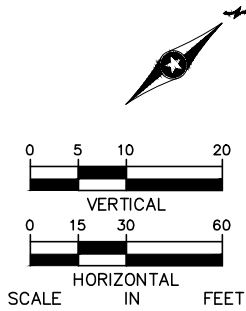
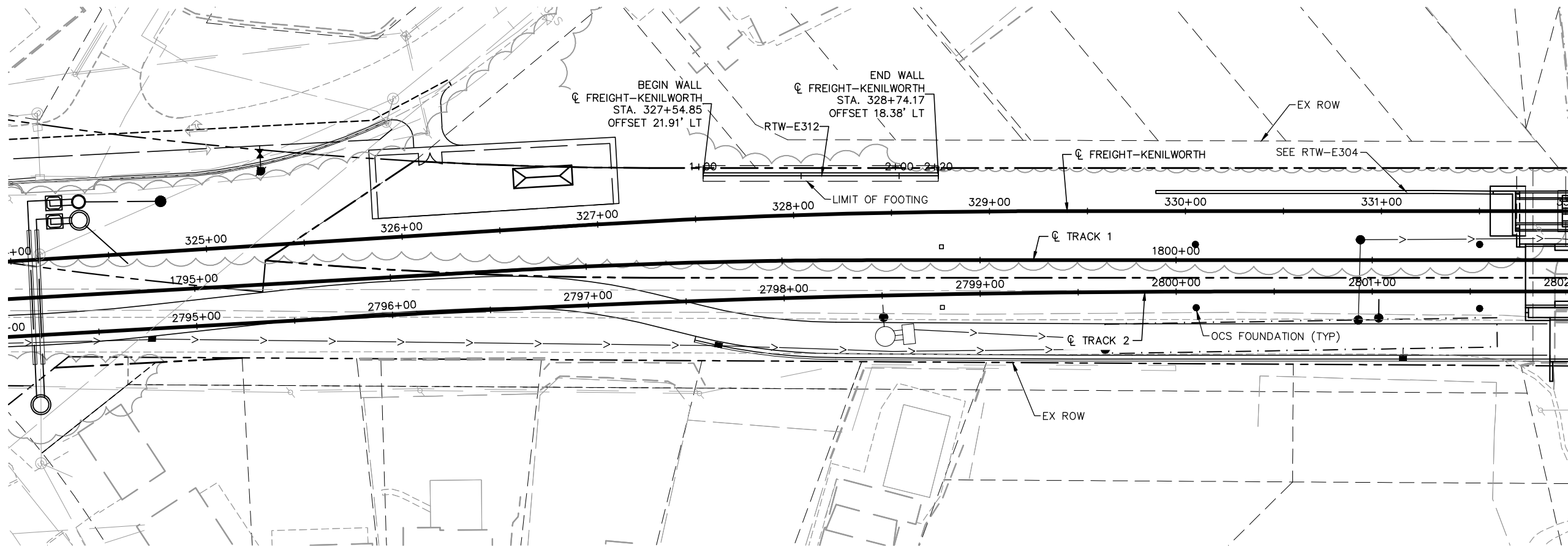
SHEET

80

OF

113

Sep. 24 2015 04:26 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E312.dwg By: V-PatelPJ



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

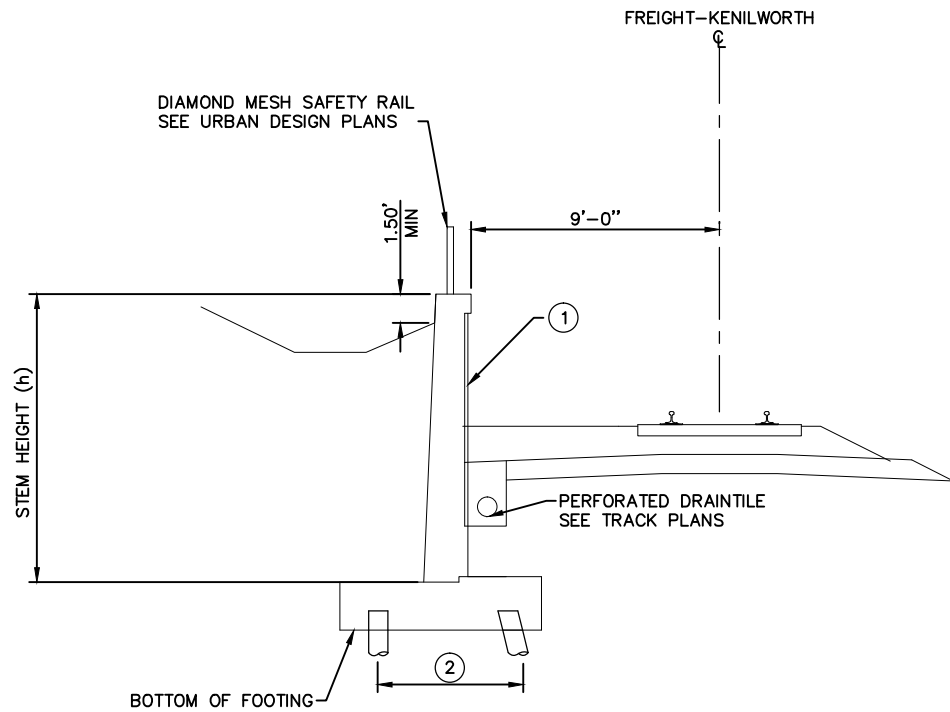


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E312 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E312 - PLE

SHEET  
81  
OF  
113

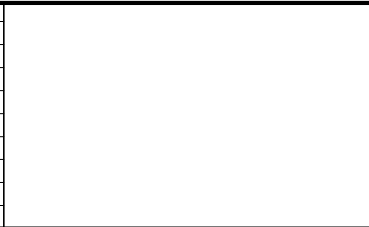
Sep. 21 2015 02:37 pm v:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E312.dwg By: V-NutzmaML



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E312 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



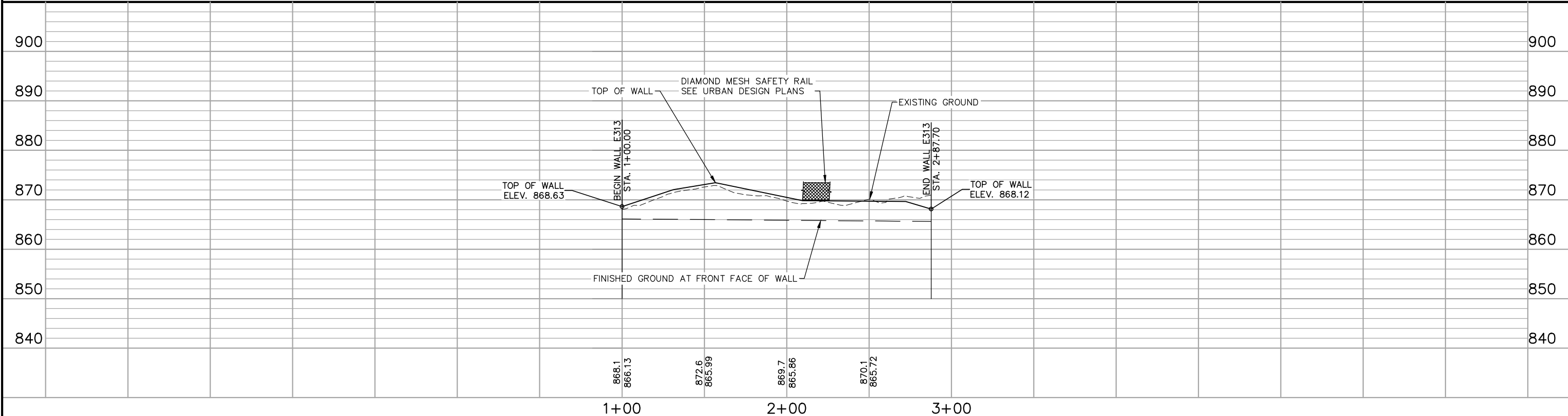
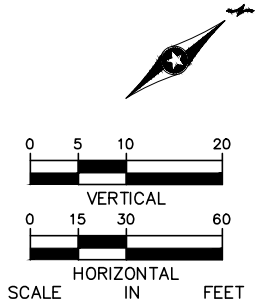
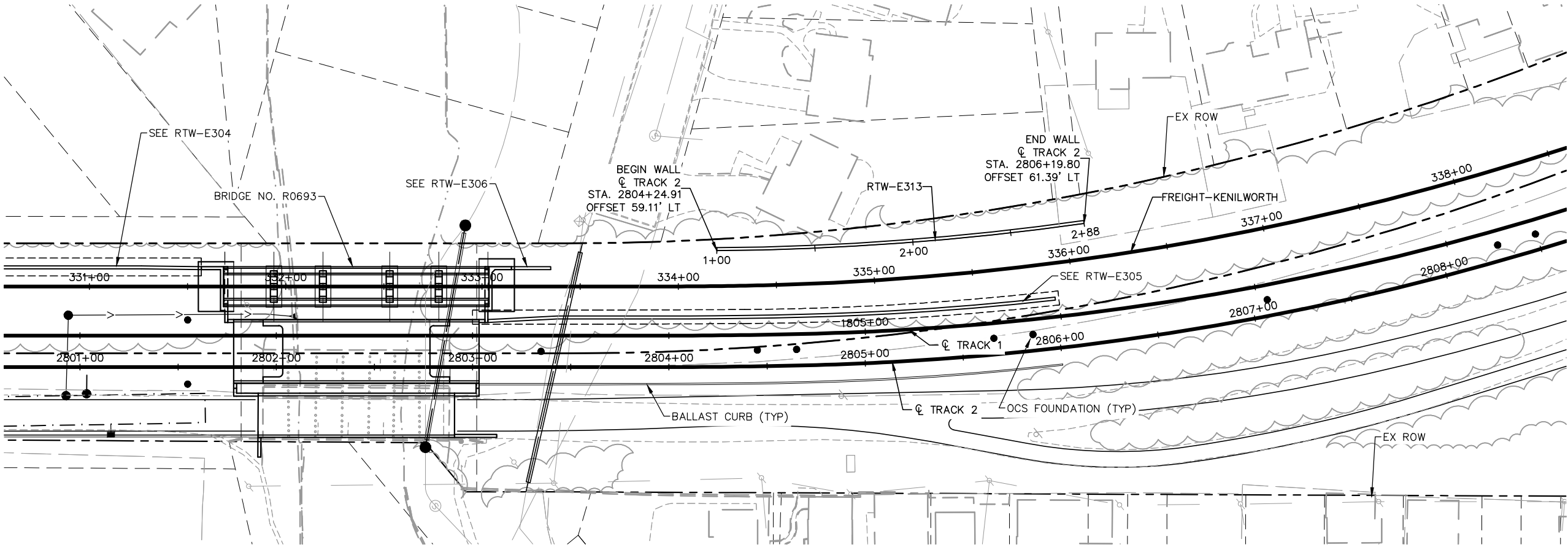
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E312 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E312 - DTL

SHEET  
82  
OF  
113

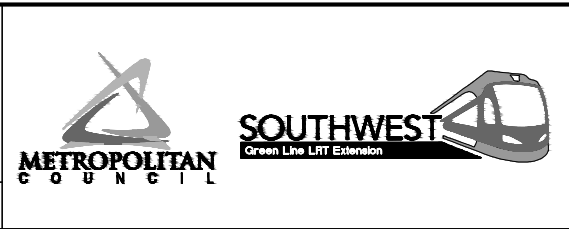
Sep. 24 2015 04:50 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E313.dwg By: V-PatelPJ



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

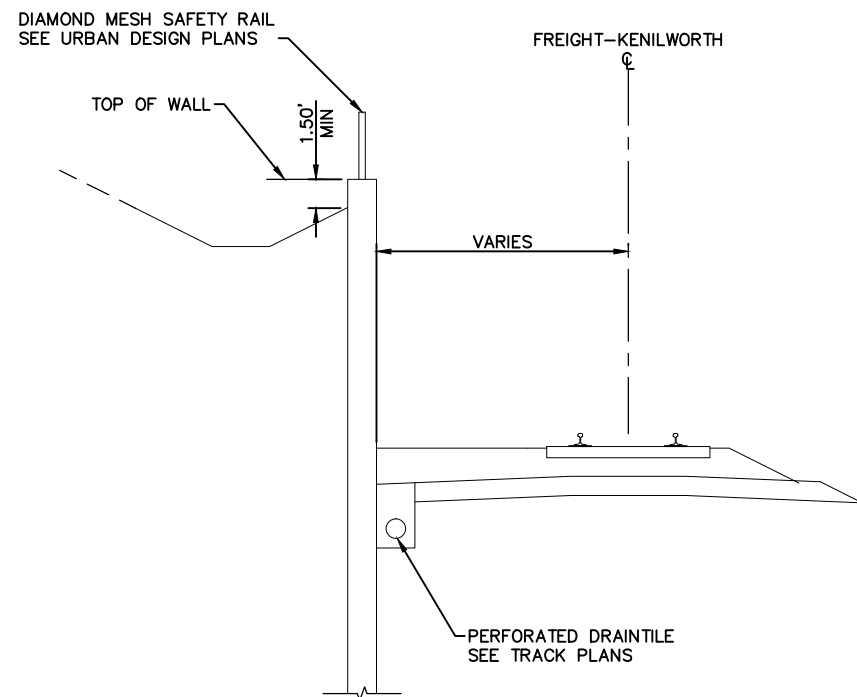


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E313 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES		83
SHEET NAME: RTW-E313 - PLE		OF
		113

Sep. 21 2015 03:32 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E313.dwg By: V-PatelPJ



- NOTE:**  
1. RETAINING WALL TO BE SHEET PILE

RTW-E313 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



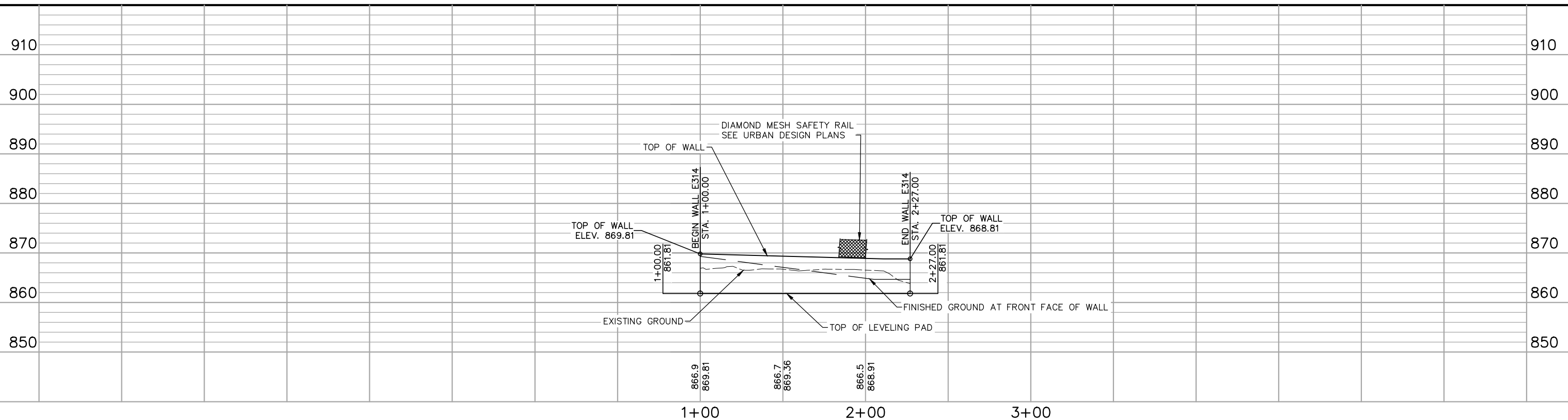
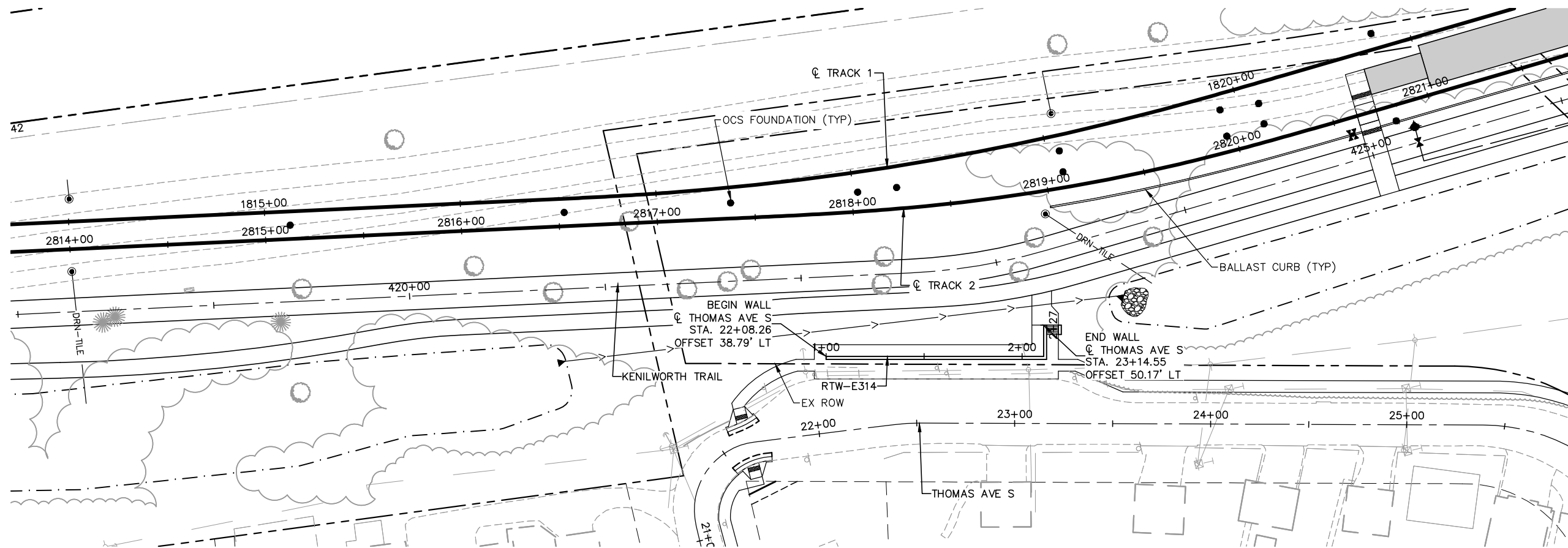
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E313 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E313 - DTL

SHEET 84 OF 113



[illegible]**AECOM**

**60% SUBMISSION - 09/28/15**



**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E314 PLAN AND ELEVATION**

DISCIPLINE:

## STRUCTURES

<b>SHEET NAME:</b>
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RTW-E314 - PLE

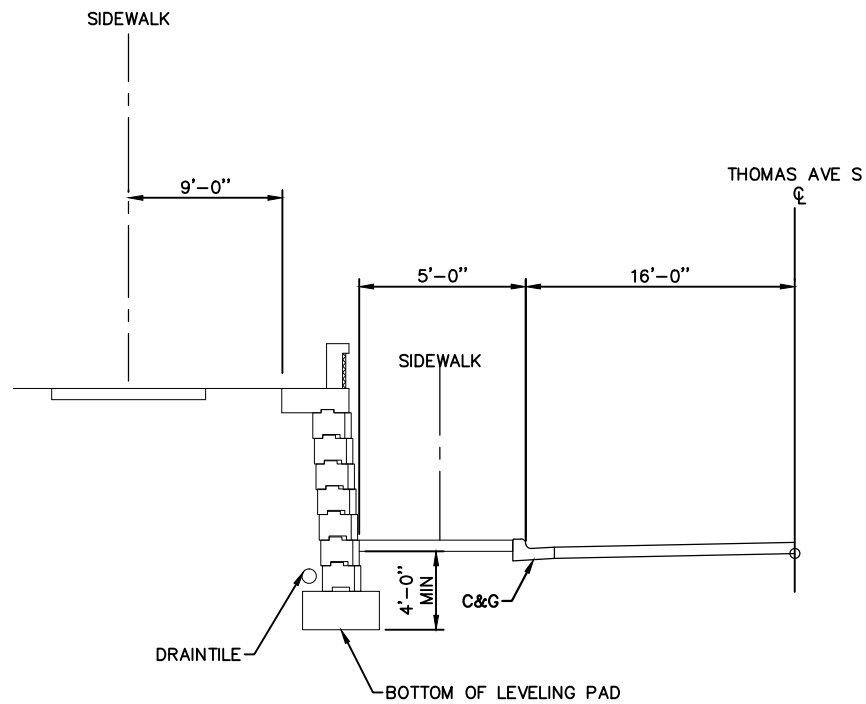
SHEET

35

DF

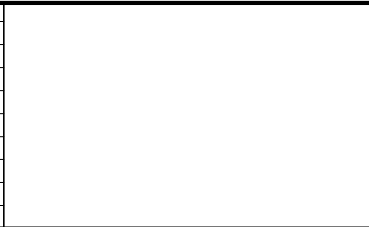
13

Sep. 21 2015 02:08 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E314.dwg By: V-PatelPJ



NOTE:  
1. RETAINING WALL TO BE PMBW  
RTW-E314 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



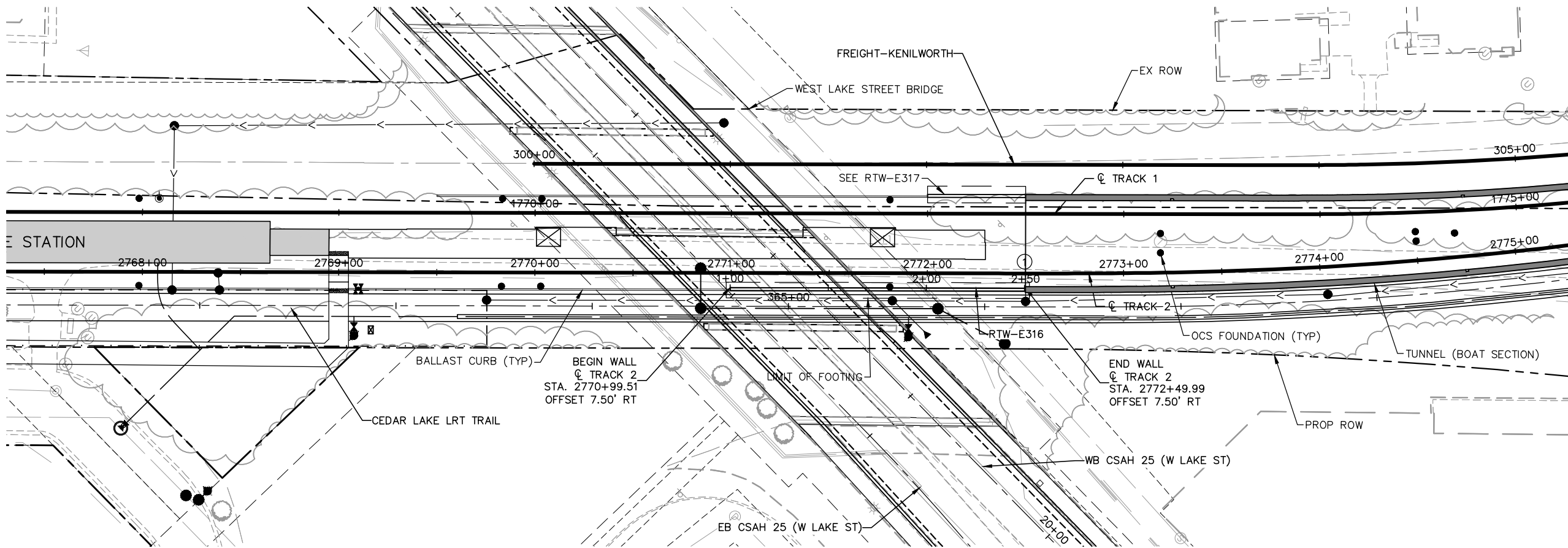
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E314 GEOMETRY

DISCIPLINE: STRUCTURES

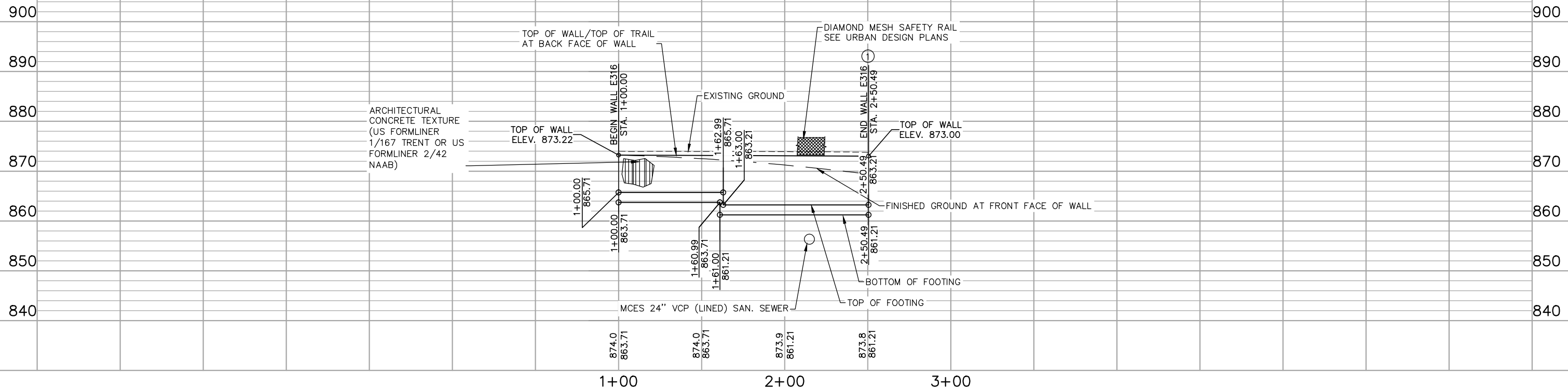
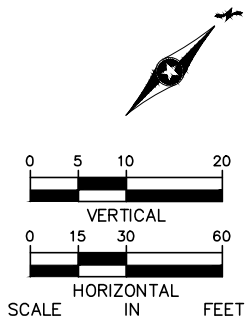
SHEET NAME: RTW-E314 - DTL

SHEET  
86  
OF  
113

Sep. 18 2015 08:15 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E316.dwg By: V-PatelPU



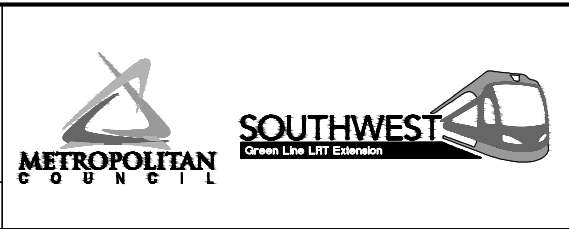
NOTE:  
① JOINT LOCATION BETWEEN RETAINING WALL AND TUNNEL BOAT SECTION



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



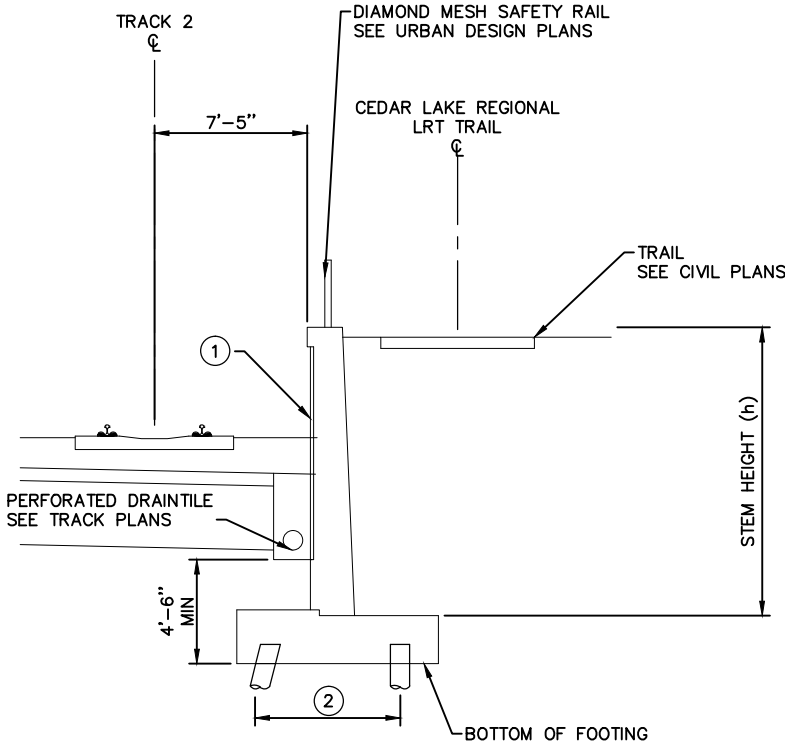
60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E316 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E316 - PLE

SHEET  
87  
OF  
113



- ① NOTE:  
ARCHITECTURAL CONCRETE TEXTURE
- ② PILE ROWS AND PILE SPACING VARIES
3. RETAINING WALL TO BE CIP ON PILES

RTW-E316 SECTION  
NOT TO SCALE

[illegible]**AECOM**

**60% SUBMISSION - 09/28/15**



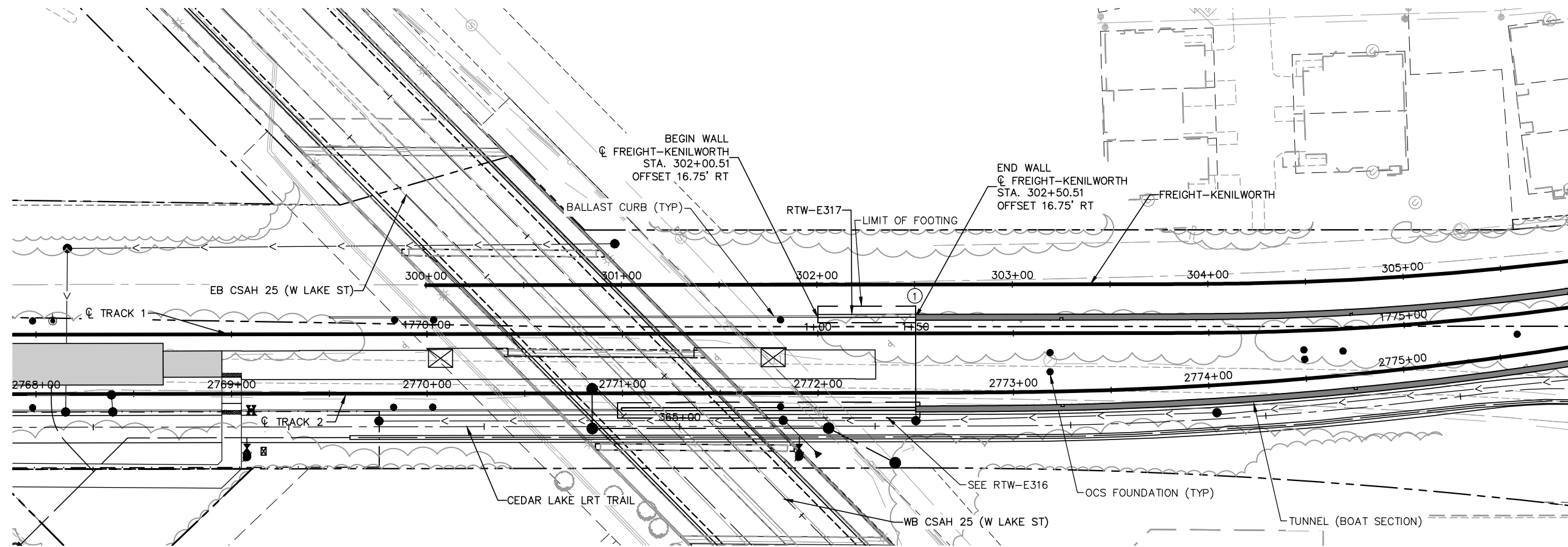
**CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E316 GEOMETRY**

DISCIPLINE: **STRUCTURES**

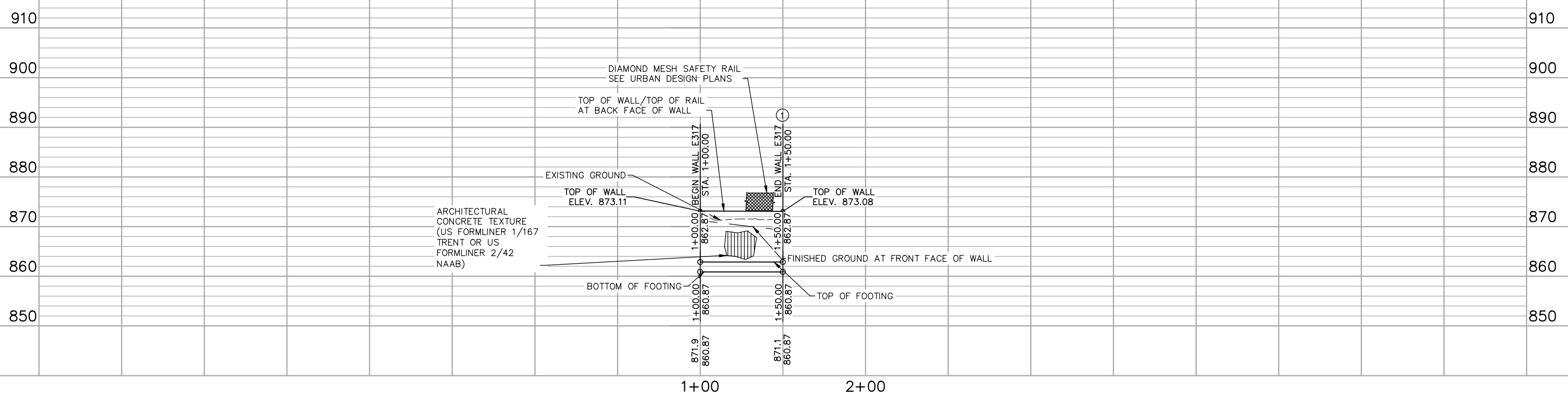
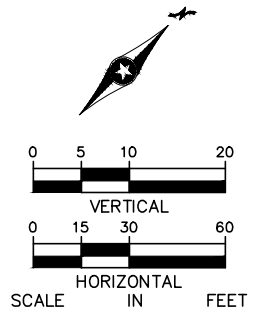
SHEET NAME:	RTW-E316 - DTL
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**SHEET**  
**88**  
**OF**  
**113**

Sep. 18 2015 08:21 pm V:\3400\_ADC\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E317.dwg By: V-PatelPU



NOTE:  
① JOINT LOCATION BETWEEN RETAINING WALL AND TUNNEL BOAT SECTION



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



**AECOM**

60% SUBMISSION - 09/28/15



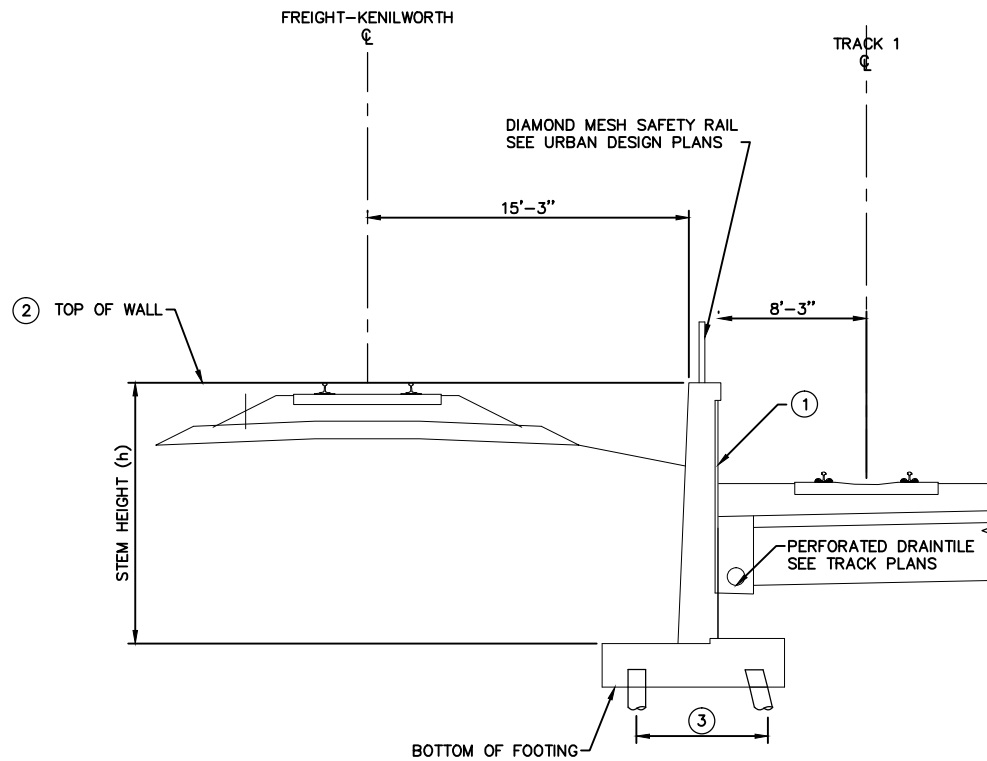
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E317 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E317 - PLE**

**SHEET**  
**89**  
**OF**  
**113**

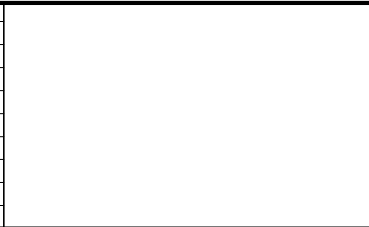
Sep. 21 2015 02:51 pm V:\3400\_ADC\CAD\CAD\SEGMENT E3\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E317.dwg By: V-NutzmaML



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E317 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

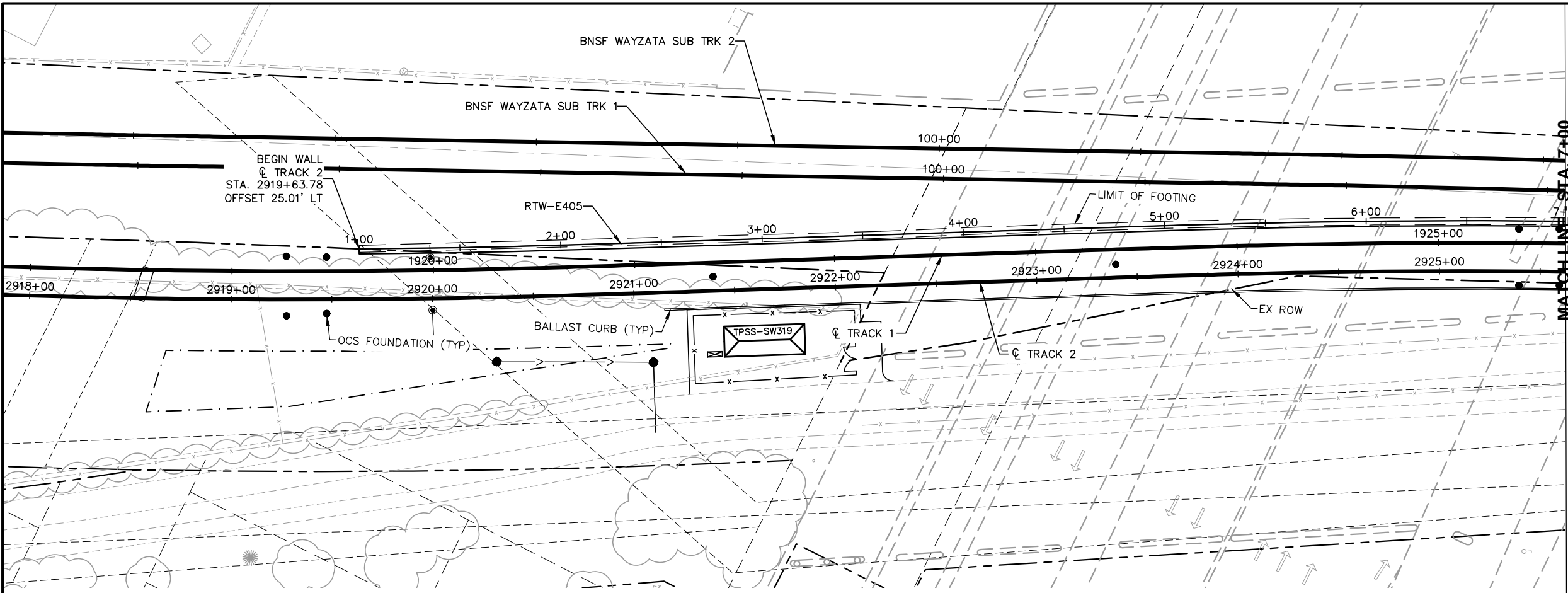


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E317 GEOMETRY

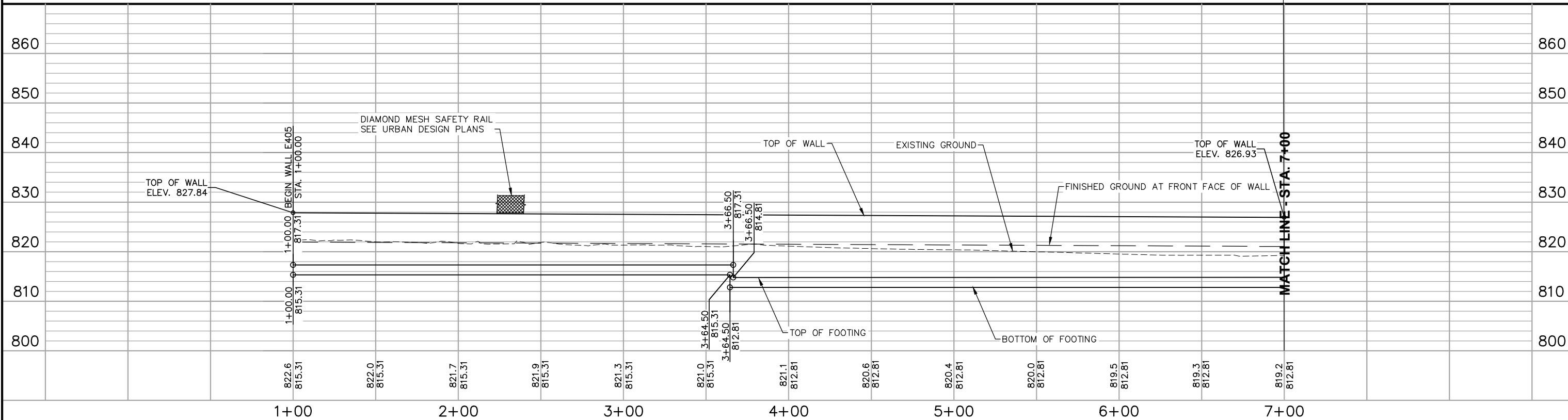
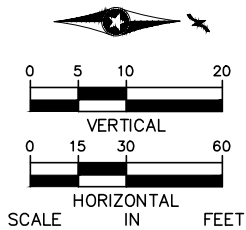
DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E317 - DTL

Sep. 21 2015 01:38 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E405.dwg By: V-HabtamGD



MATCH LINE - STA. 7+00

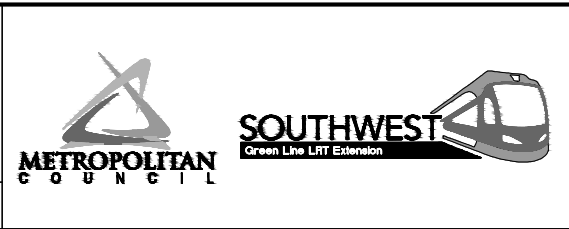


MATCH LINE - STA. 7+00

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

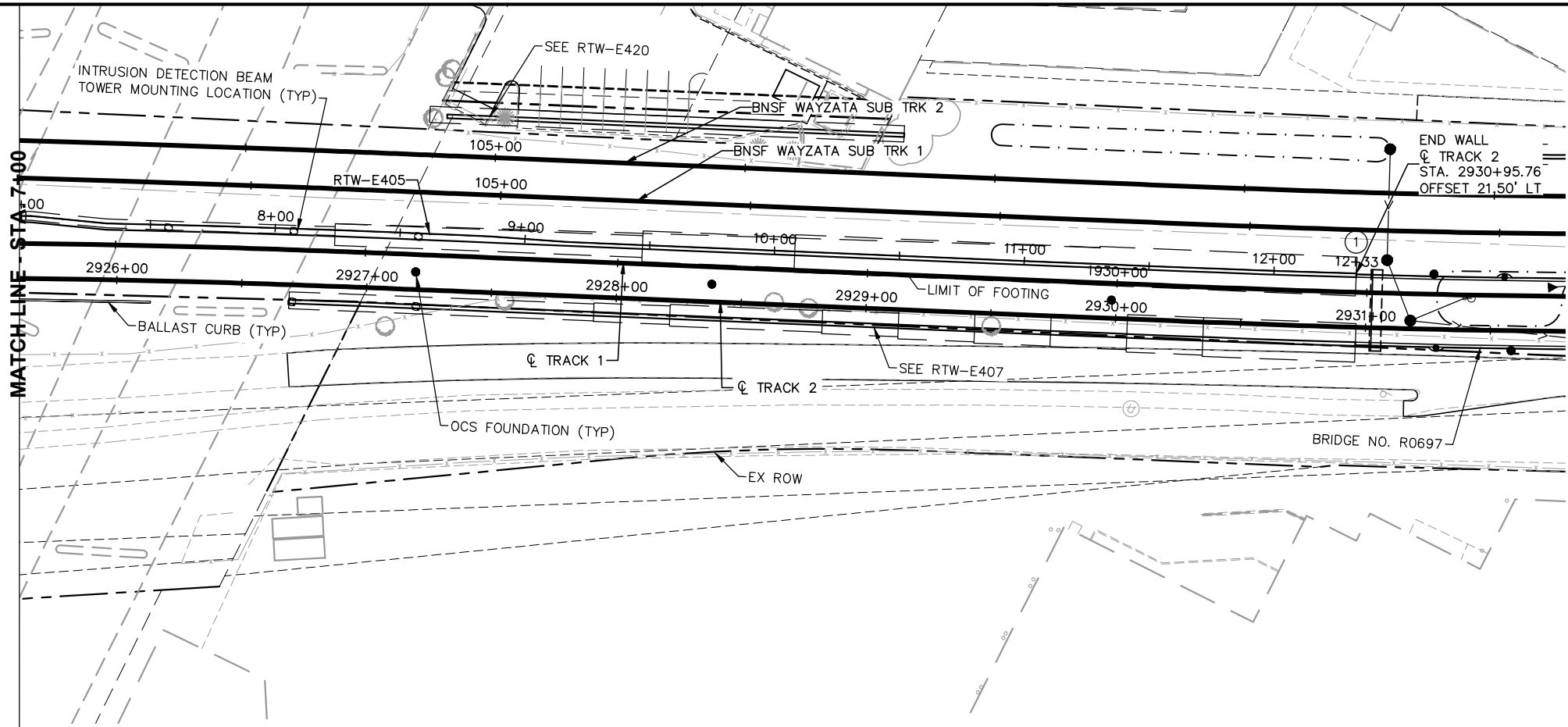


60% SUBMISSION - 09/28/15

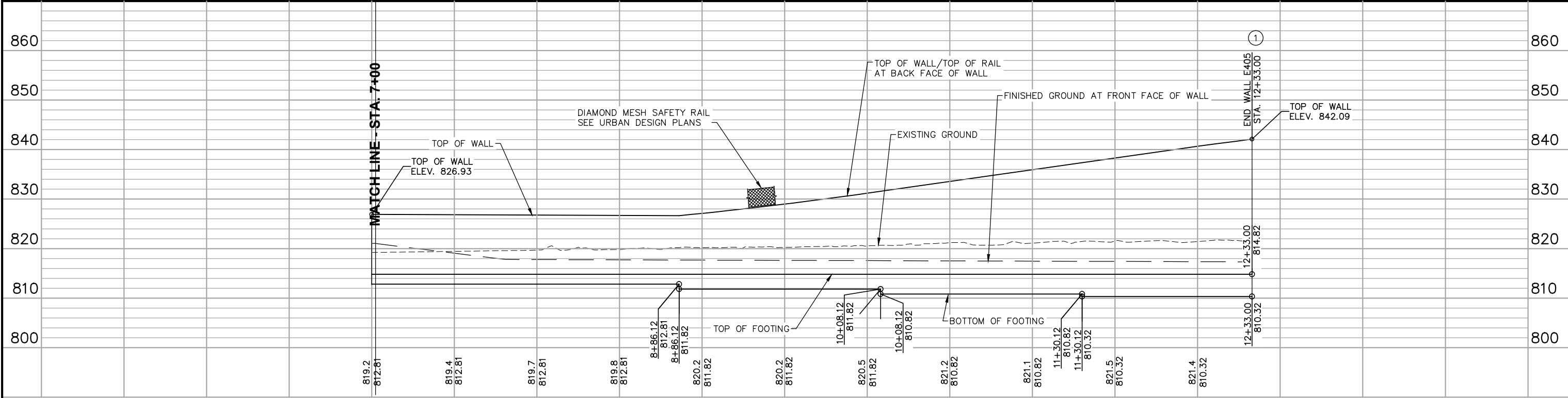
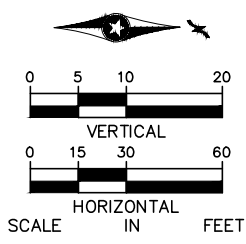


CIVIL EAST - VOLUME 6		SHEET 91 OF 113
RETAINING WALLS		
RTW-E405 PLAN AND ELEVATION (1 OF 2)		
STA. 1+00 TO STA. 7+00		
DISCIPLINE:	SHEET NAME:	
STRUCTURES	RTW-E405 - PLE-001	

Sep. 21 2015 01:38 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E405.dwg By: V-HabtamGD



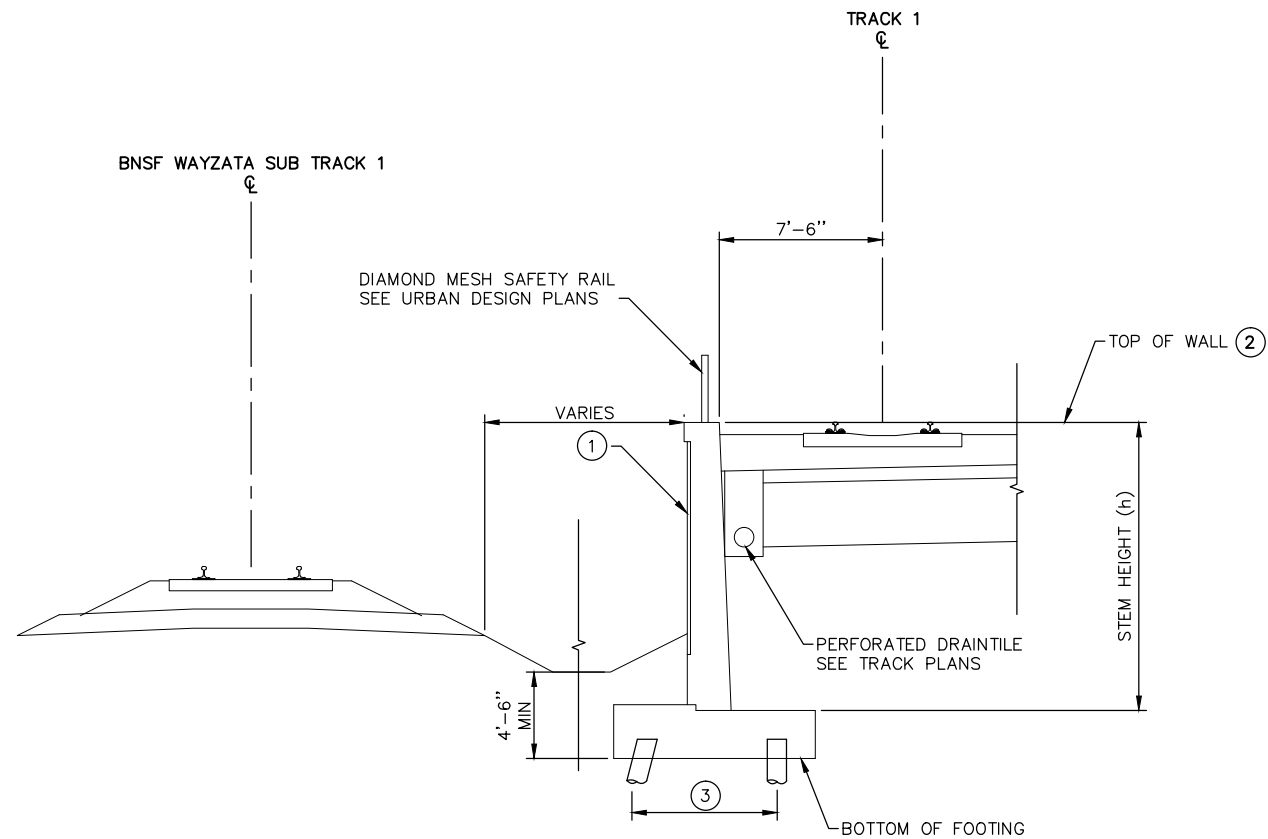
NOTE:  
JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.						7+00		8+00		9+00		10+00		11+00		12+00		SHEET NO.	
DATE																		92	
BY																		OF	
CHECK/DESIGN																		113	
REVISION / SUBMITTAL																			



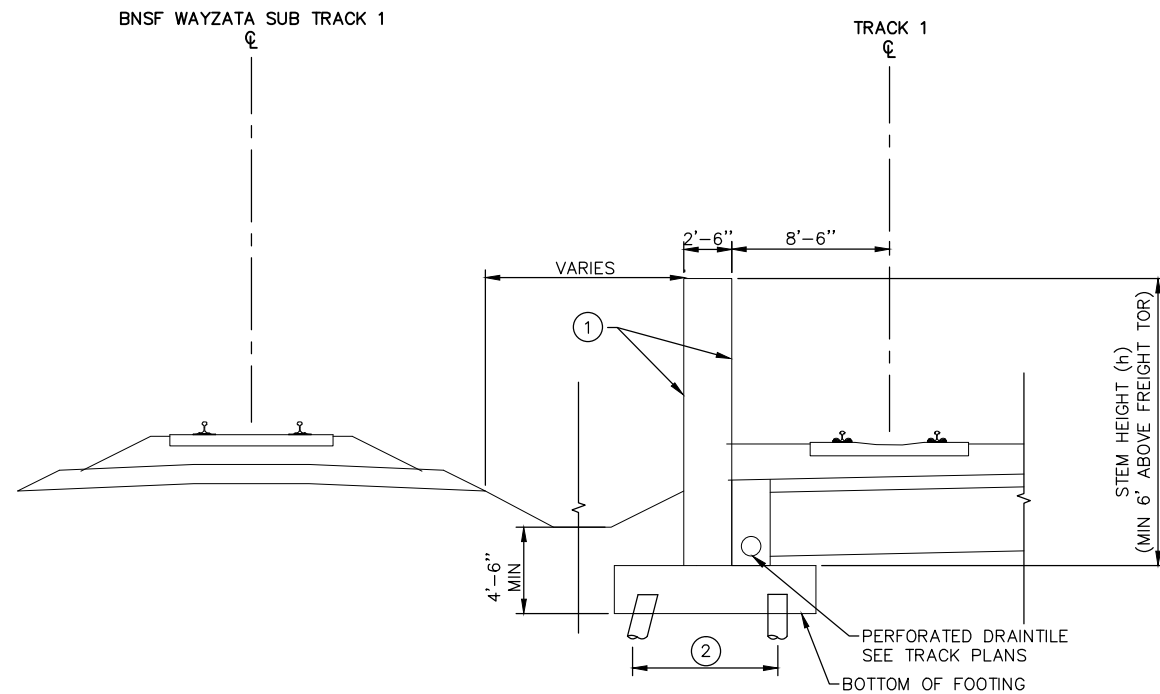
Sep. 21 2015 02:59 pm v:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E405.dwg By: V-NutzmaML



- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E\alpha$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E405 SECTION  
STA 8+86 TO 12+33

NOT TO SCALE

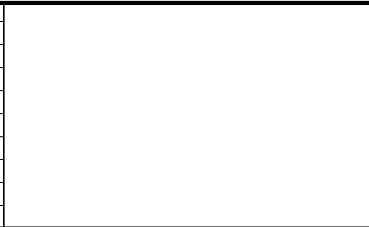


- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E405 SECTION (CORRIDOR PROTECTION BARRIER)  
STA 1+00 TO 8+86

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

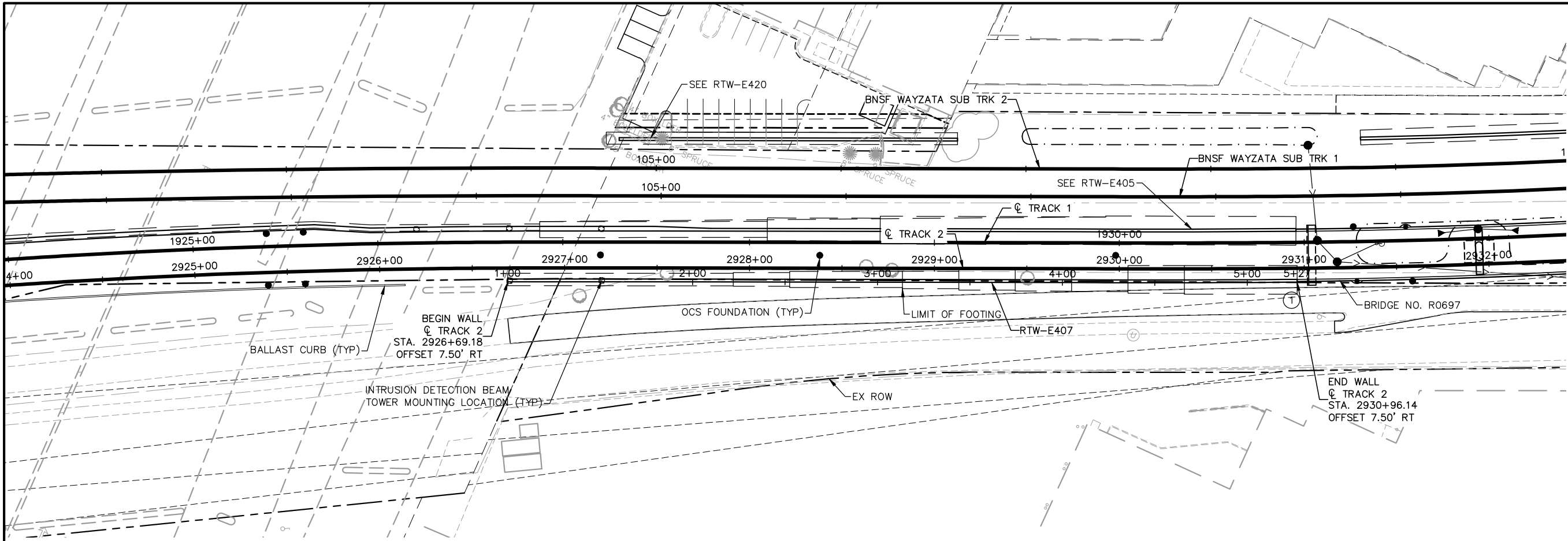


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E405 GEOMETRY

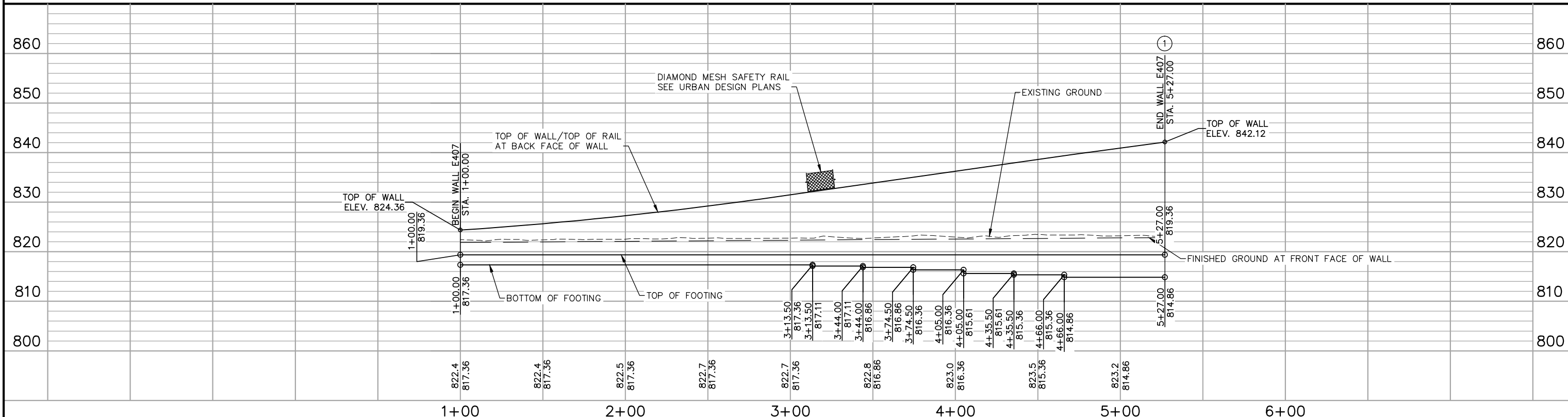
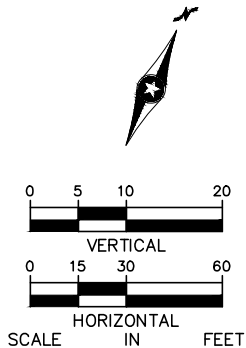
DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E405 - DTL

SHEET  
93  
OF  
113

Sep. 18 2015 08:27 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E407.dwg By: V-PatelPJ



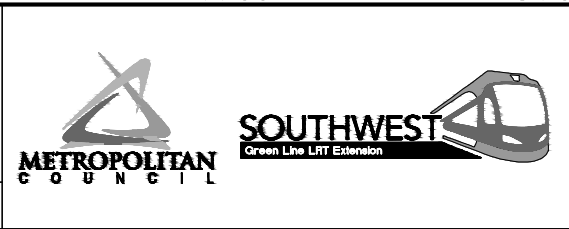
NOTE:  
JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

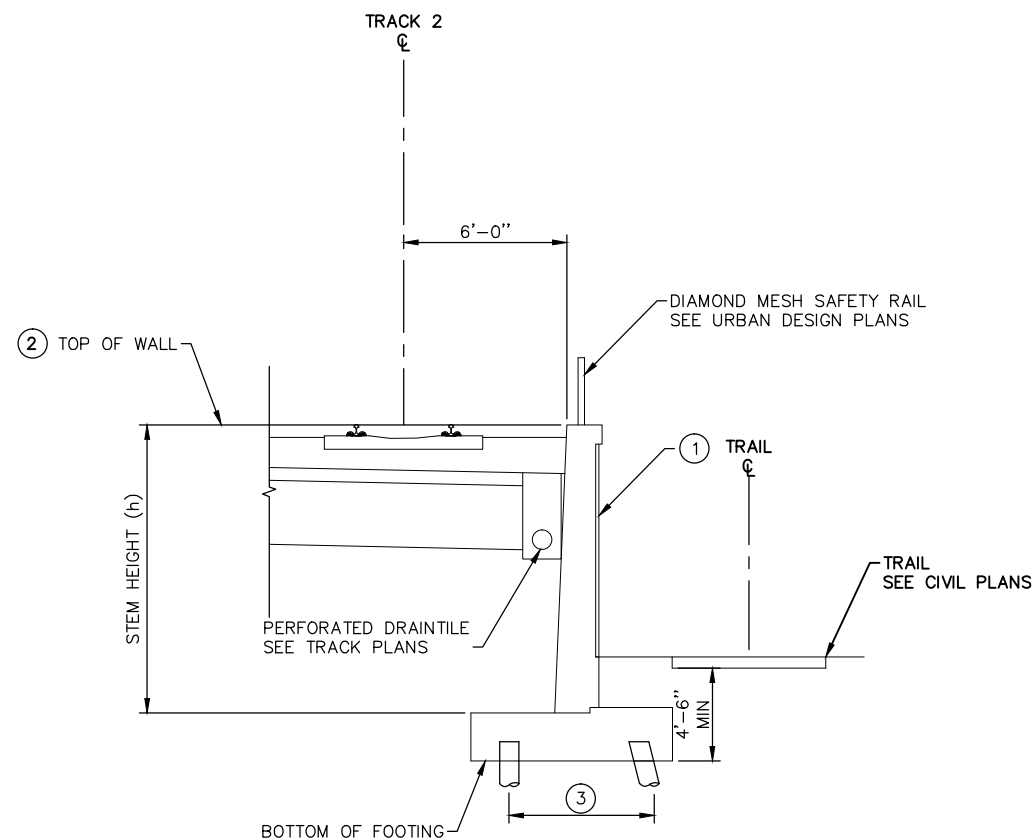


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E407 PLAN AND ELEVATION		SHEET 94 OF 113
DISCIPLINE:	SHEET NAME:	
STRUCTURES	RTW-E407 - PLE	

Sep. 21 2015 03:03 pm v:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E407.dwg By: V-NutzmaML

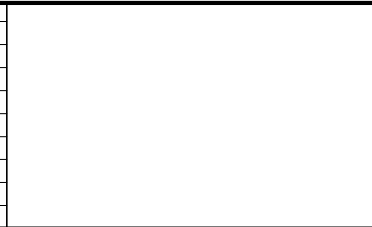


- NOTE:
- (1) ARCHITECTURAL CONCRETE TEXTURE
  - (2) TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION (Ea)  
THROUGH OUTSIDE CURVES AND SPIRALS
  - (3) PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E407 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

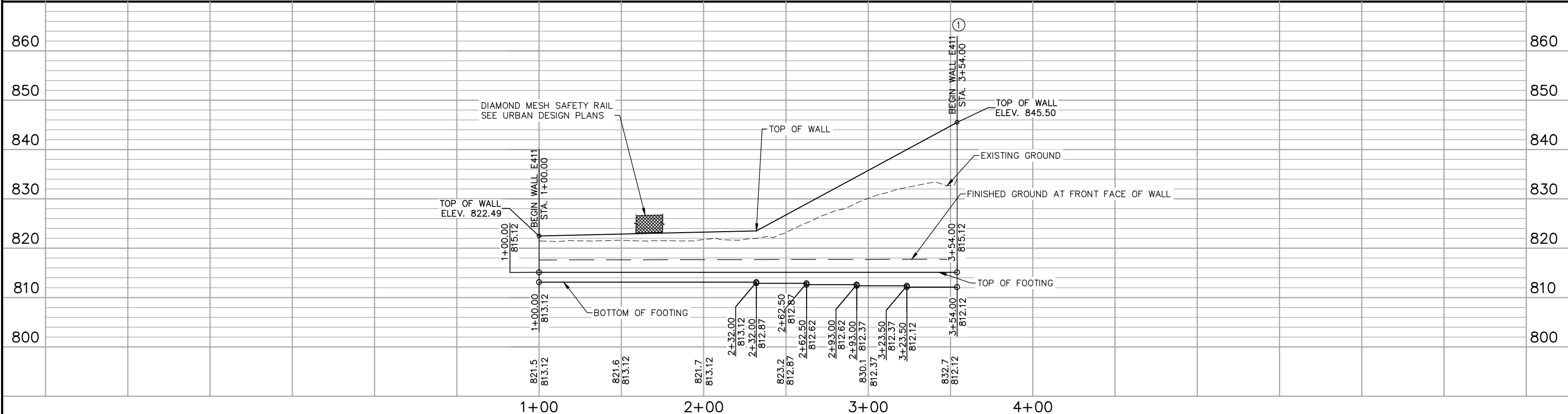
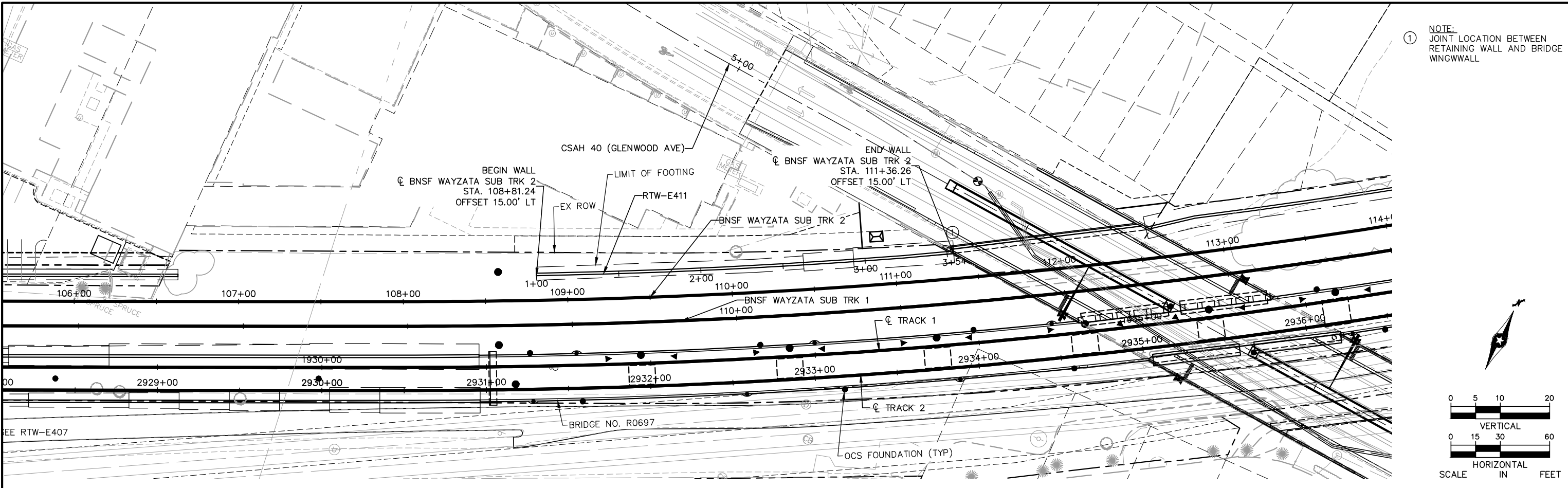


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E407 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E407 - DTL

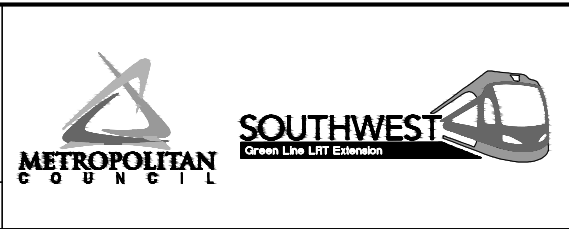
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NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

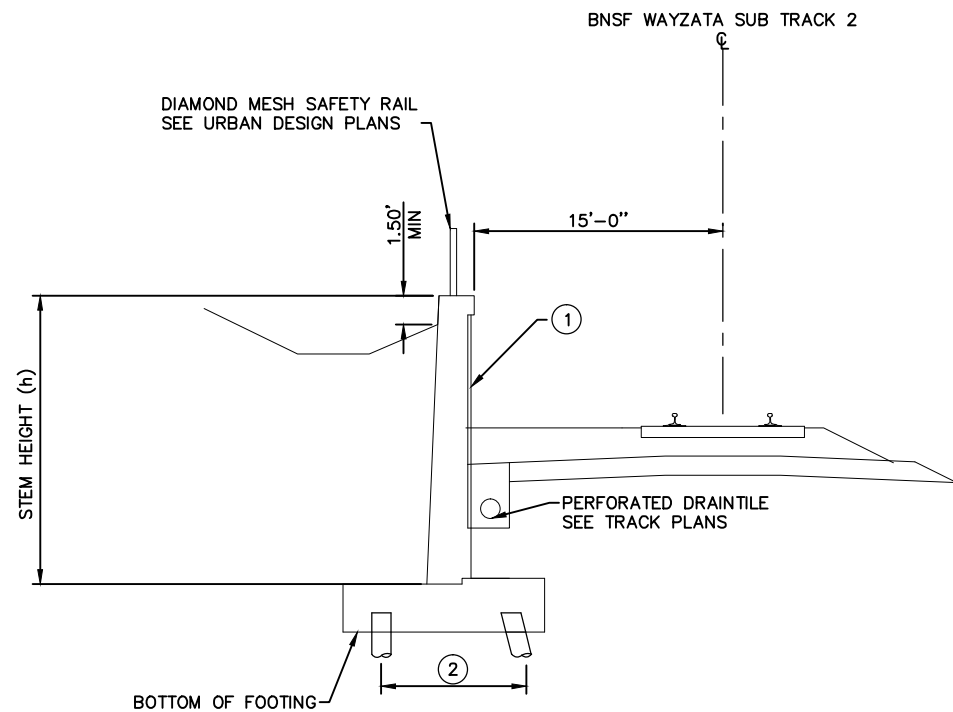


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E411 PLAN AND ELEVATION		SHEET
DISCIPLINE: STRUCTURES	SHEET NAME: RTW-E411 - PLE	96 OF 113

Sep. 21 2015 03:07 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E411.dwg By: V-NutzmaML

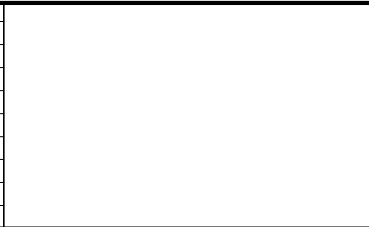


- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E411 SECTION

NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15

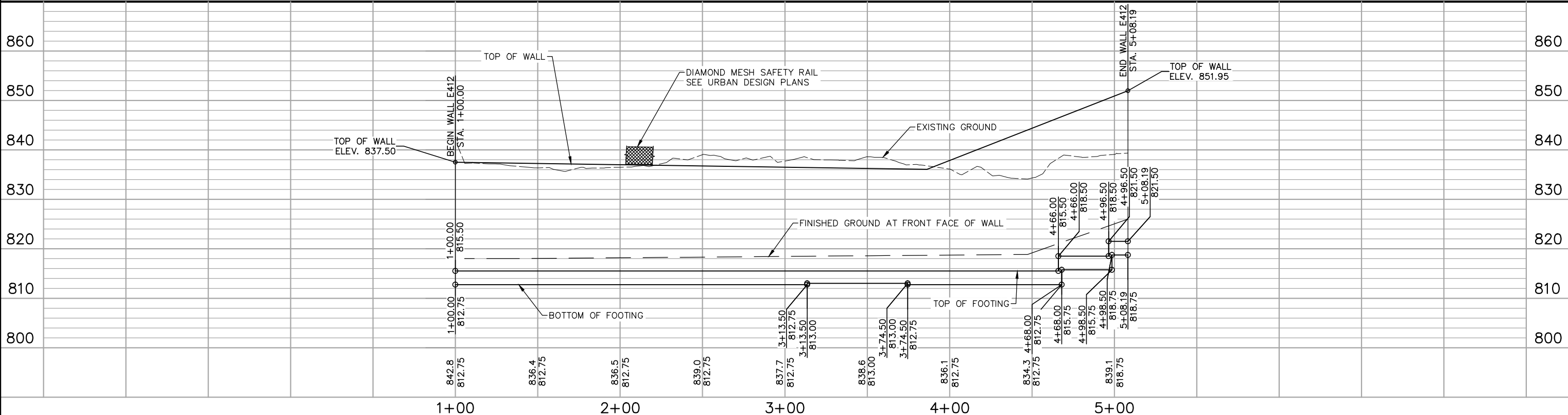
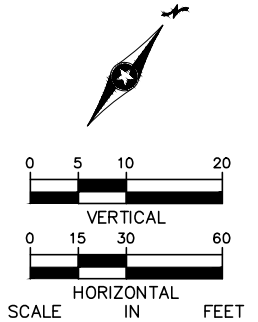
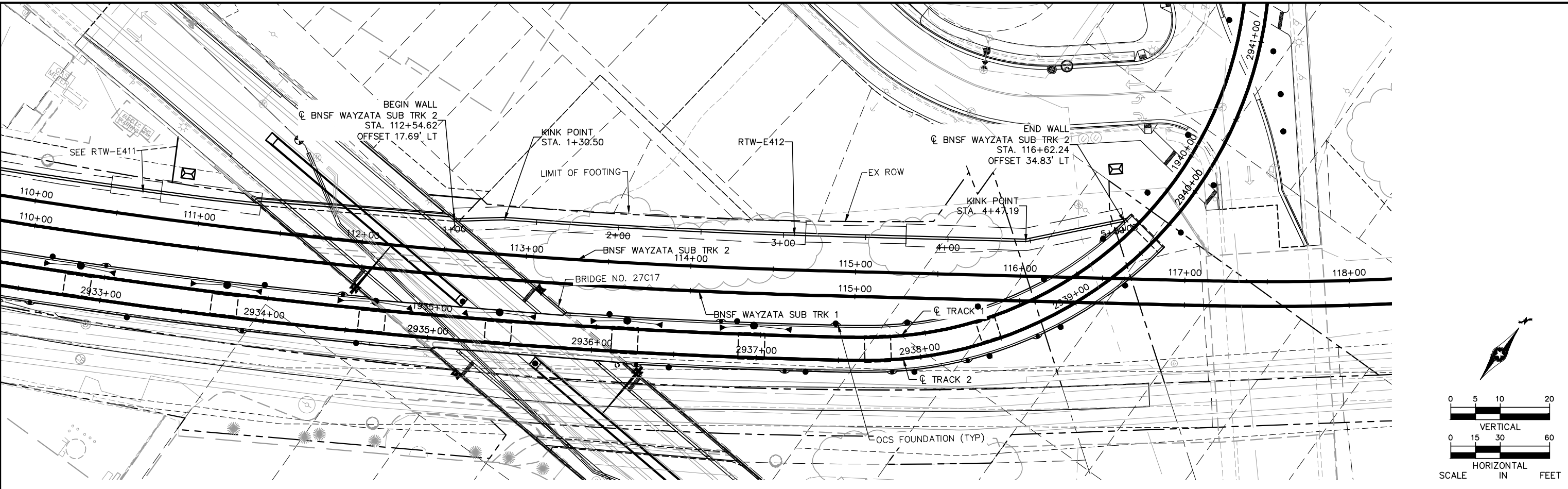


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E411 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E411 - DTL

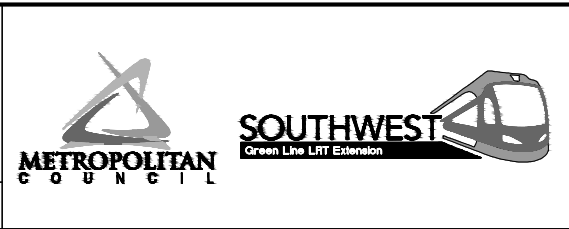
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NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

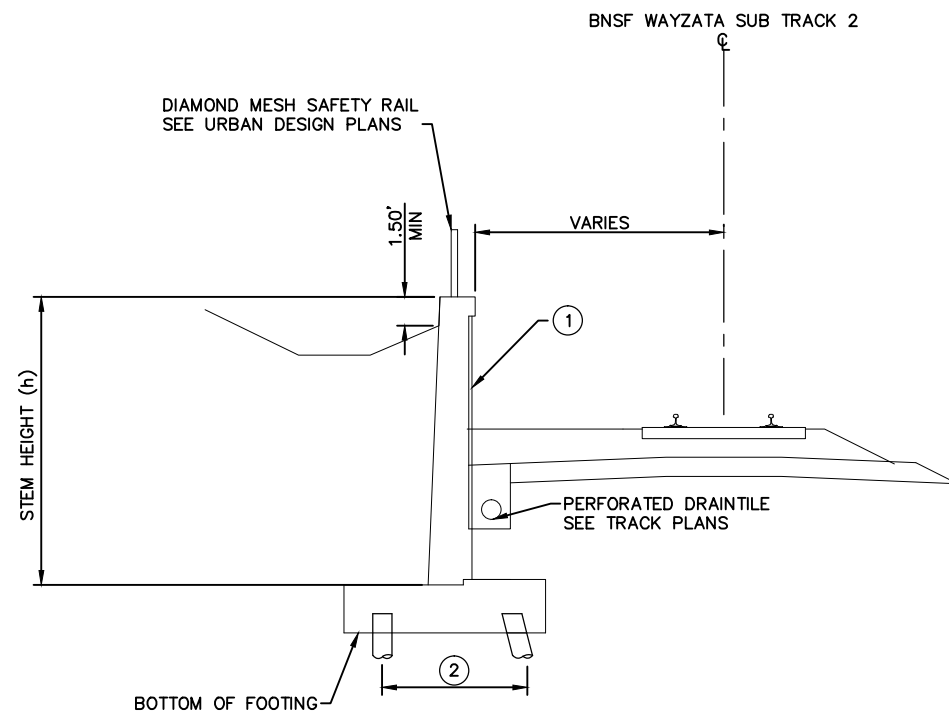


CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E412 PLAN AND ELEVATION

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E412 - PLE

SHEET 98 OF 113

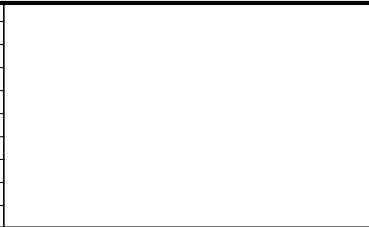
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- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E412 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





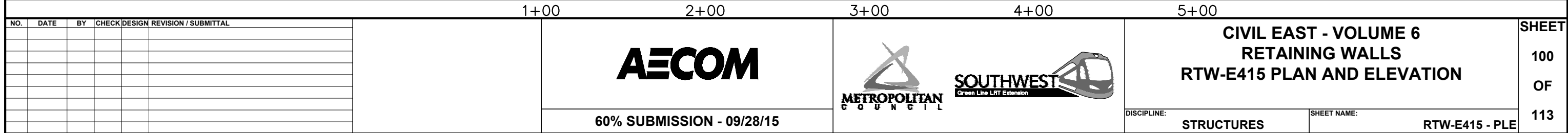
60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E412 GEOMETRY

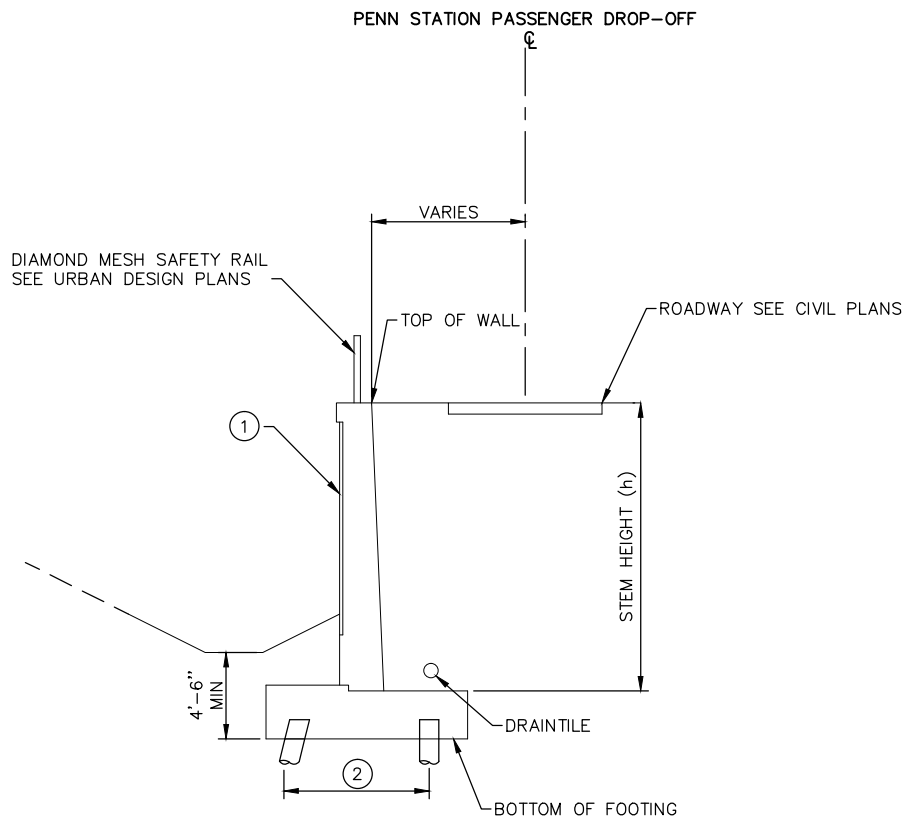
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SHEET NAME: RTW-E412 - DTL





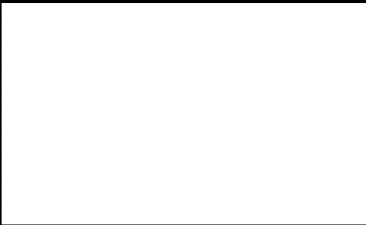
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- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

RTW-E415 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



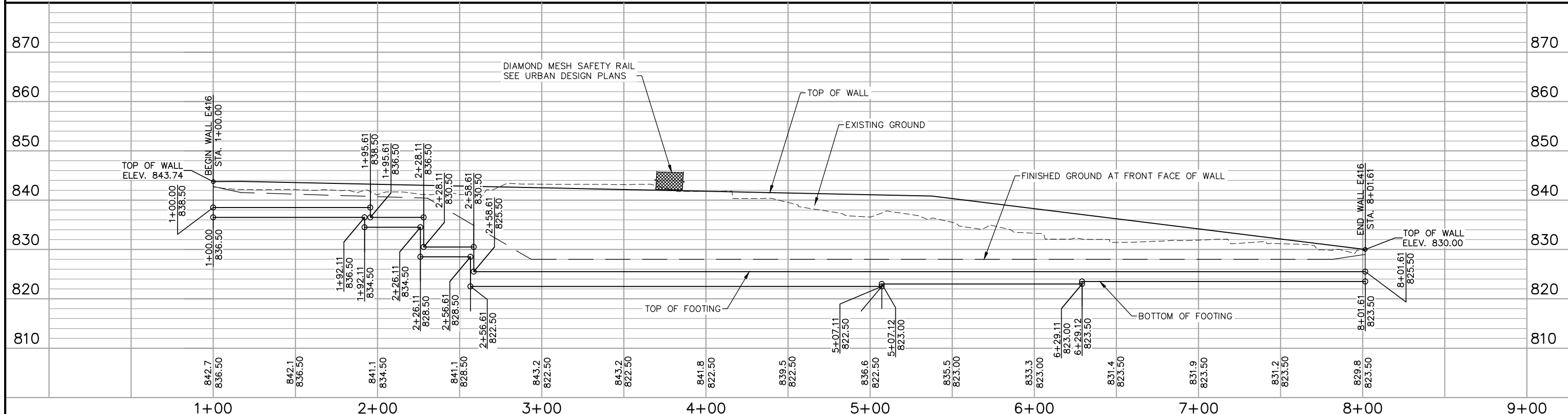
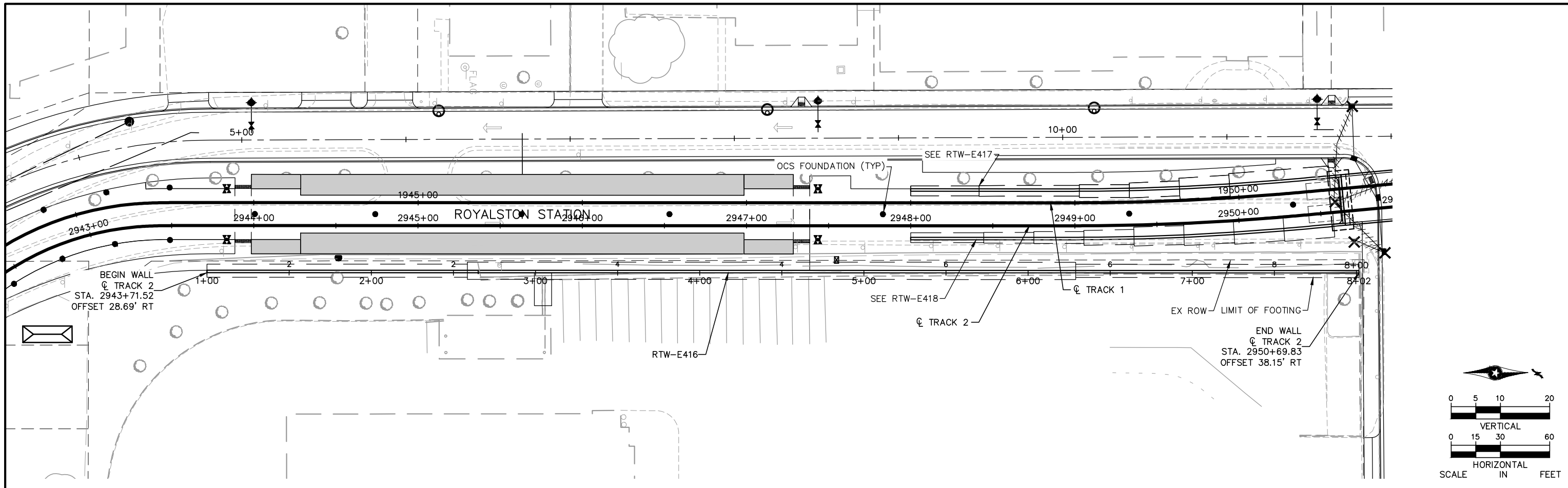
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E415 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E415 - DTL

SHEET  
101  
OF  
113

Sep. 21 2015 01:32 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E416.dwg By: V-PatelPU



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL


**AECOM**

60% SUBMISSION - 09/28/15

**METROPOLITAN**  
COUNCIL

**SOUTHWEST**  
Green Line LRT Extension

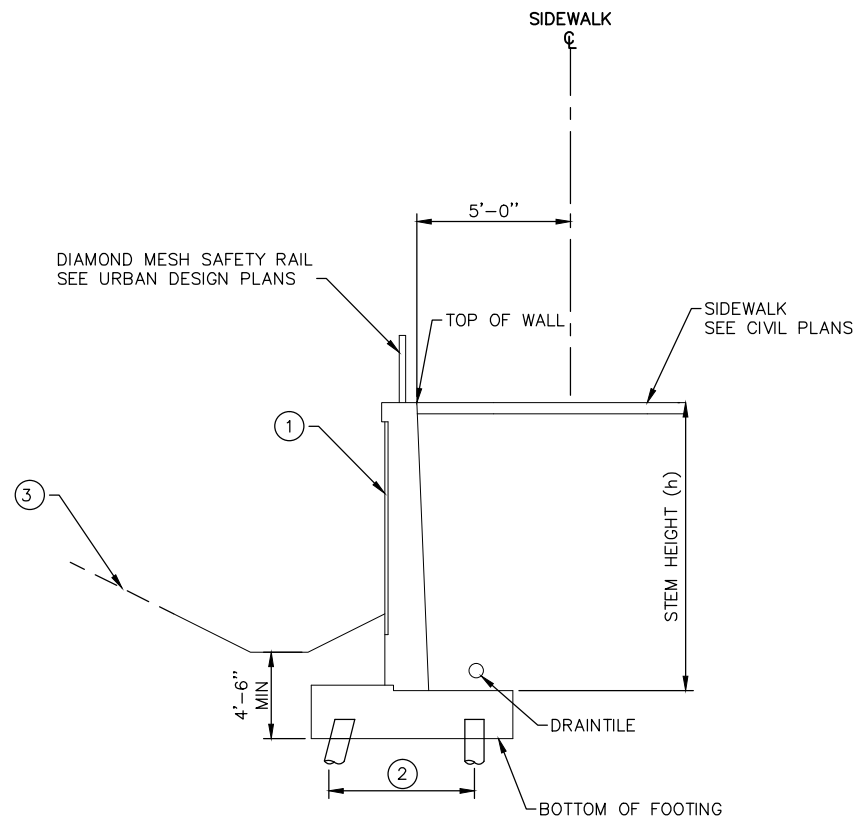
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E416 PLAN AND ELEVATION**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E416 - PLE**

**SHEET**  
**102**  
**OF**  
**113**

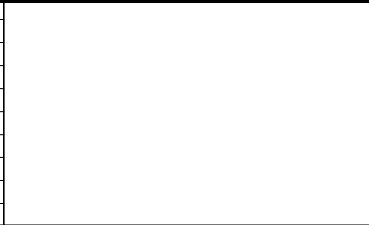
Sep. 21 2015 03:19 pm V:\3400\_ADC\CAD\CAD SHEETS\STRUCTURES\RETAINING WALLS\RTW-E416.dwg By: V-NutzmaML



- NOTE:
- 1. ARCHITECTURAL CONCRETE TEXTURE
  - 2. PILE ROWS AND PILE SPACING VARIES
  - 3. PARKING LOT AT FRONT FACE OF WALL
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E416 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



60% SUBMISSION - 09/28/15

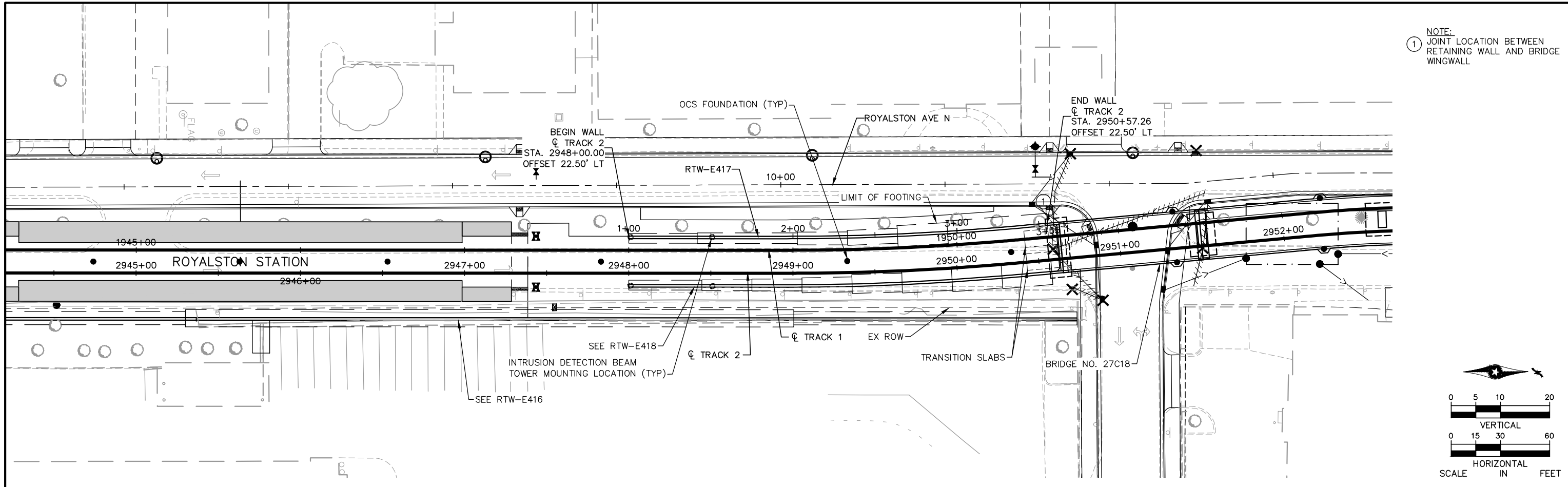
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E416 GEOMETRY

DISCIPLINE: STRUCTURES

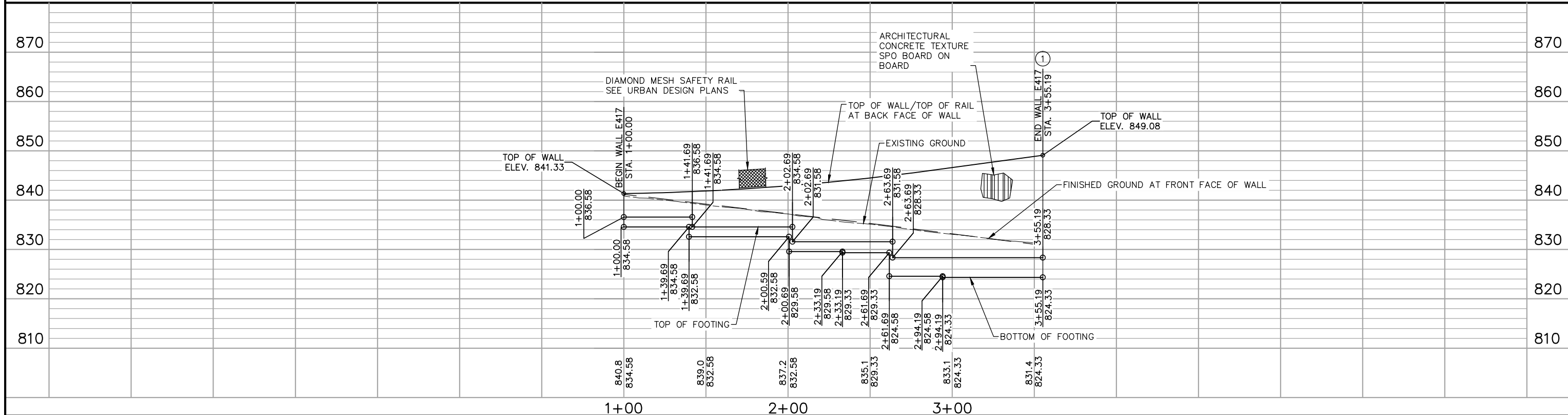
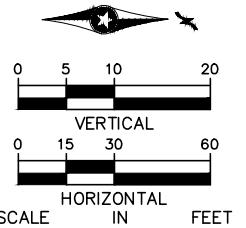
SHEET NAME: RTW-E416 - DTL

SHEET  
103  
OF  
113

Sep. 18 2015 08:41 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E417.dwg By: V-PatelPU



NOTE:  
① JOINT LOCATION BETWEEN  
RETAINING WALL AND BRIDGE  
WINGWALL



NO.	DATE	BY	CHECK/DESIGN	REVISION / SUBMITTAL

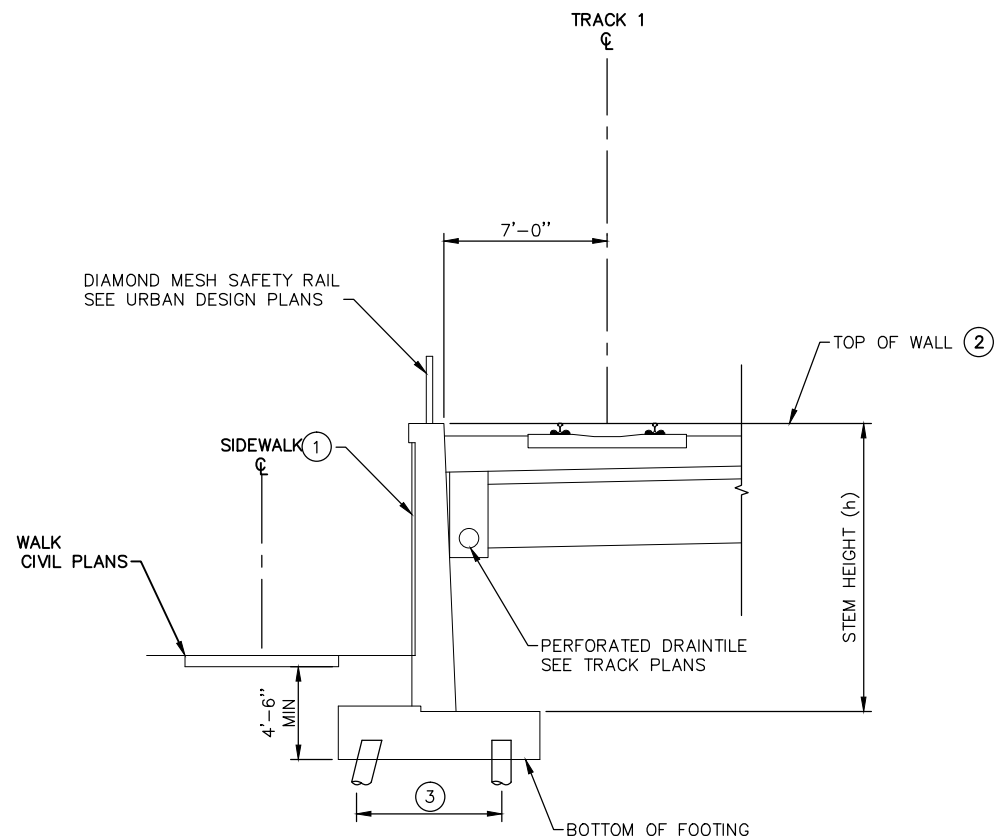


60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6 RETAINING WALLS RTW-E417 PLAN AND ELEVATION		SHEET
DISCIPLINE:	STRUCTURES	104
SHEET NAME:	RTW-E417 - PLE	OF
		113

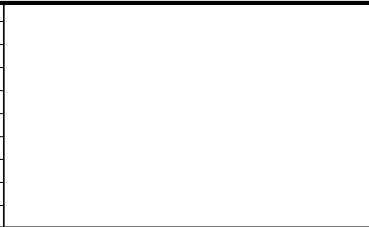
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- NOTE:
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_a$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - ③ PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E417 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



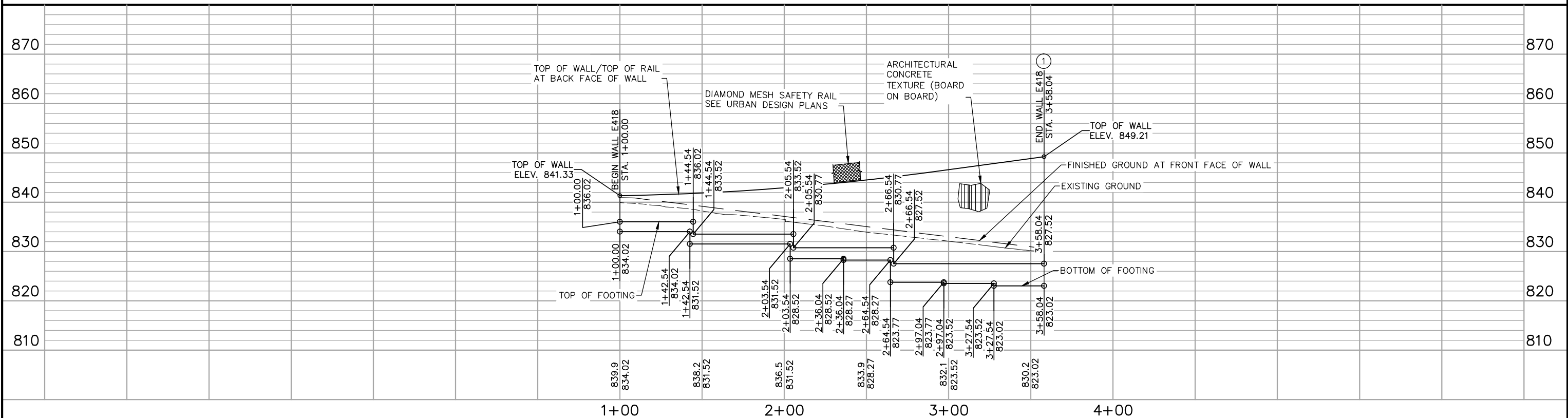
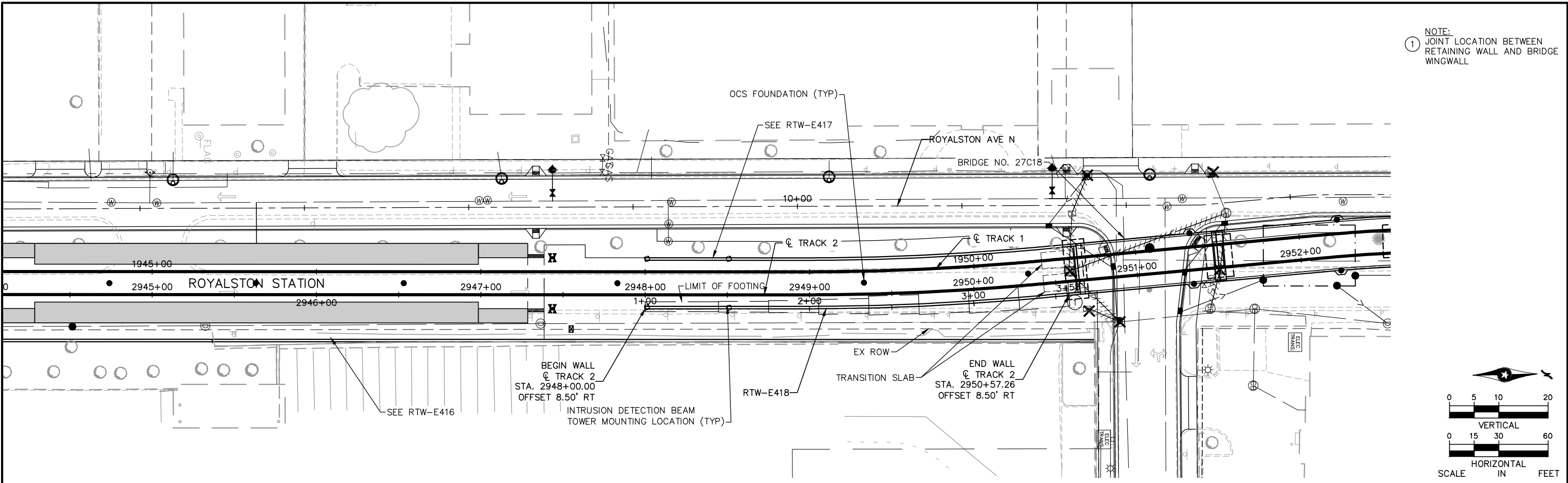
CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E417 GEOMETRY

DISCIPLINE: STRUCTURES

SHEET NAME: RTW-E417 - DTL

SHEET  
105  
OF  
113

Sep. 18 2015 08:44 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E418.dwg By: V-PatelPJ



NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL

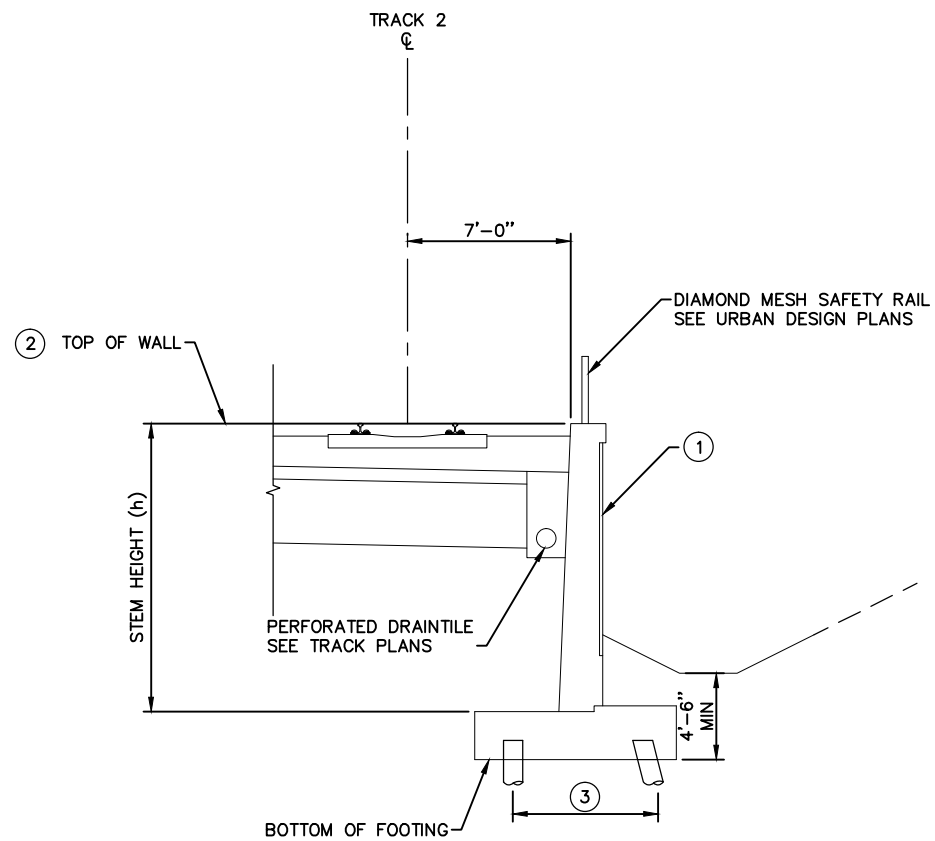


60% SUBMISSION - 09/28/15



<div>CIVIL EAST - VOLUME 6</div> <div>RETAINING WALLS</div> <div>RTW-E418 PLAN AND ELEVATION</div>		<div>SHEET</div> <div>106</div> <div>OF</div> <div>113</div>
DISCIPLINE:	SHEET NAME:	
STRUCTURES	RTW-E418 - PLE	

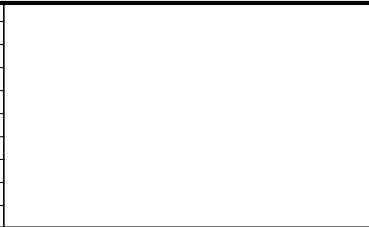
Sep. 21 2015 03:27 pm v:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E418.dwg By: V-NutzmaML



- NOTE:
- (1) ARCHITECTURAL CONCRETE TEXTURE
  - (2) TOP OF WALL = TOP OF RAIL THROUGH TANGENTS  
TOP OF WALL = TOP OF RAIL + SUPERELEVATION ( $E_o$ )  
THROUGH OUTSIDE CURVES AND SPIRALS
  - (3) PILE ROWS AND PILE SPACING VARIES
  - 4. RETAINING WALL TO BE CIP ON PILES

RTW-E418 SECTION  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



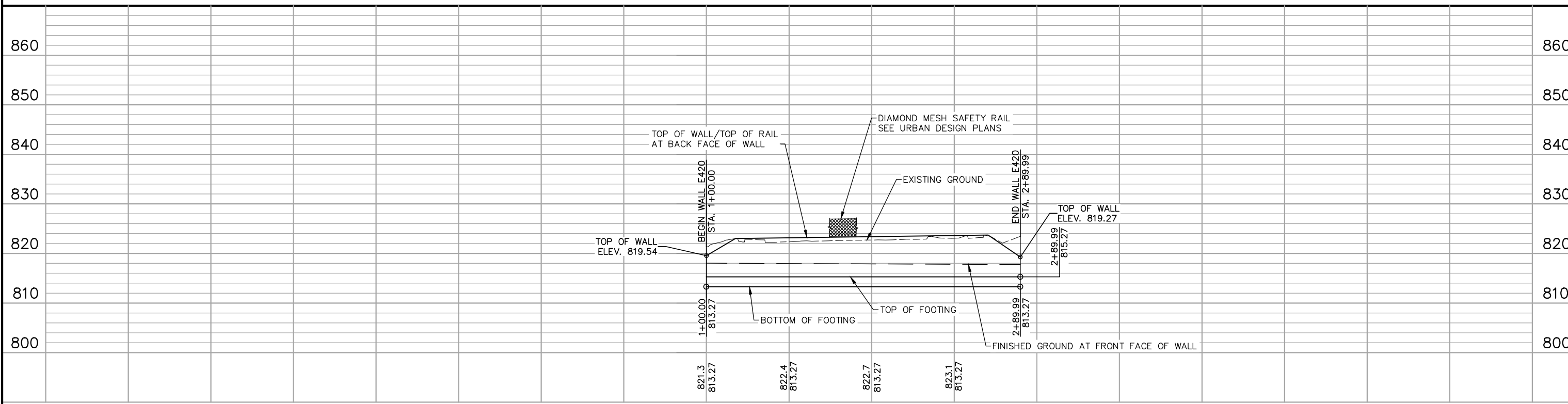
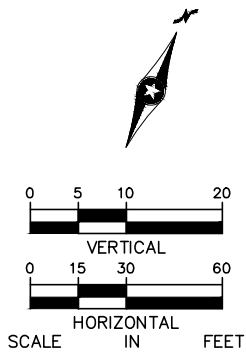
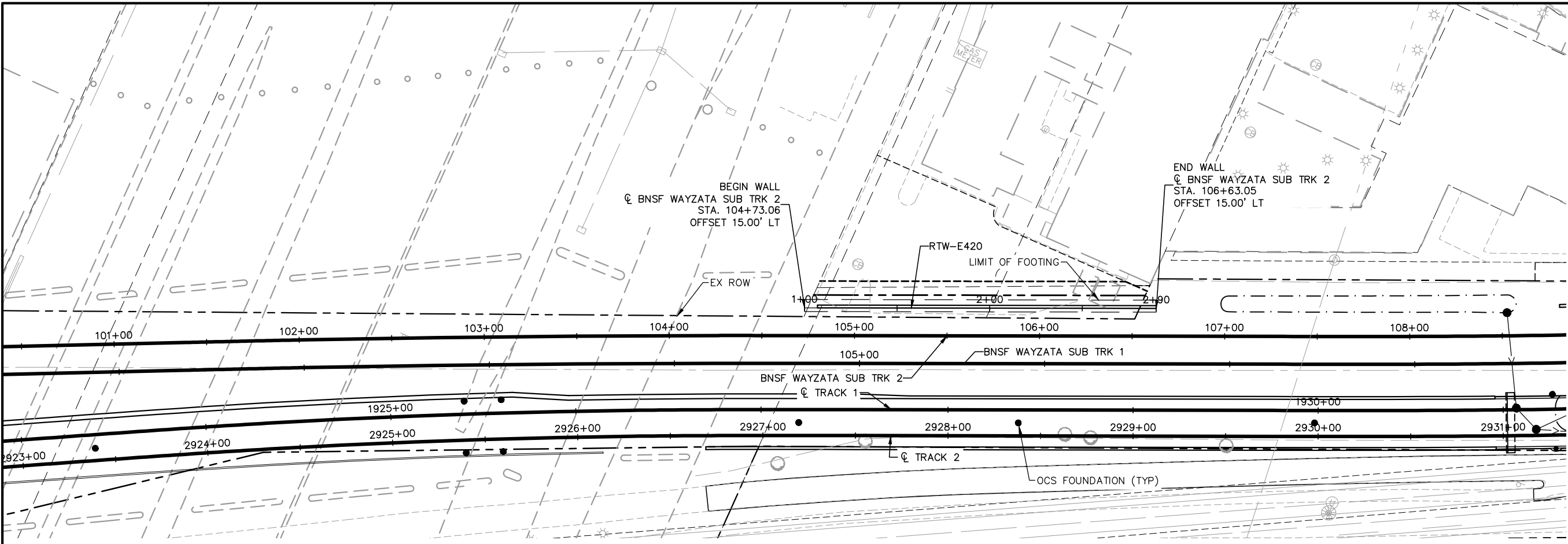
60% SUBMISSION - 09/28/15

CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E418 GEOMETRY

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E418 - DTL

SHEET  
107  
OF  
113

Sep. 18 2015 08:47 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E420.dwg By: V-PatelPJ

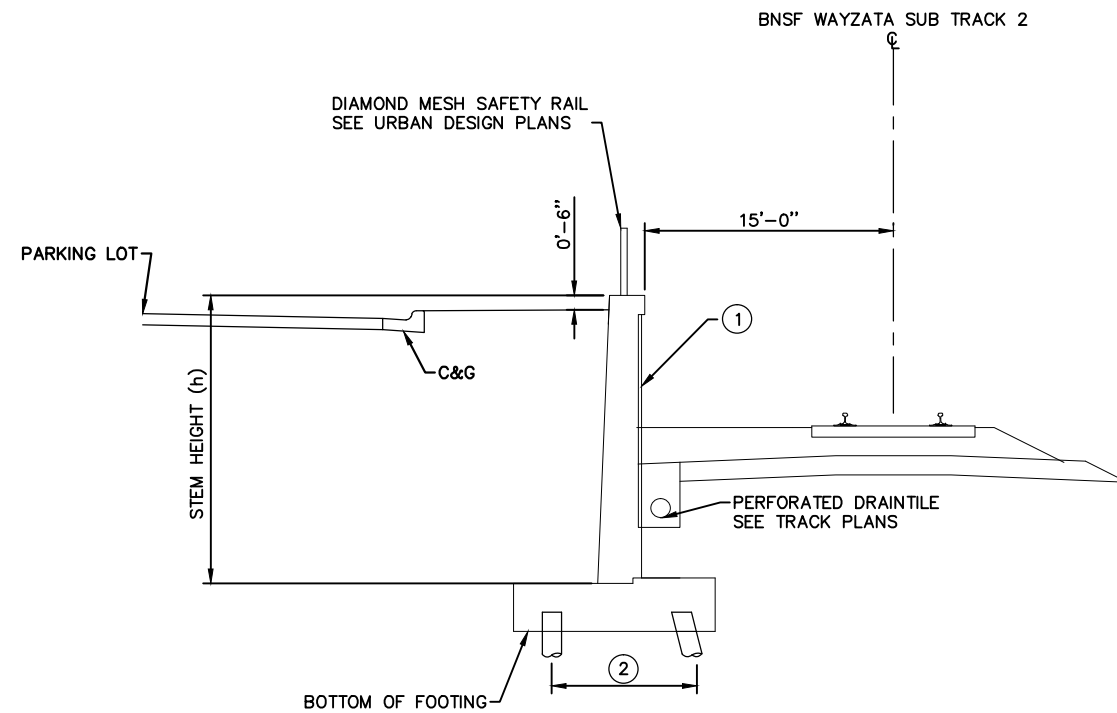


NO.						DATE		BY		CHECK/DESIGN		REVISION / SUBMITTAL	

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<b>60% SUBMISSION - 09/28/15</b>									<b>STRUCTURES</b>					
									<b>RTW-E420 - PLE</b>					



Sep. 21 2015 03:30 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E420.dwg By: V-NutzmaML



- NOTE:**
- ① ARCHITECTURAL CONCRETE TEXTURE
  - ② PILE ROWS AND PILE SPACING VARIES
  - 3. RETAINING WALL TO BE CIP ON PILES

**RTW-E420 SECTION**  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



**AECOM**

60% SUBMISSION - 09/28/15



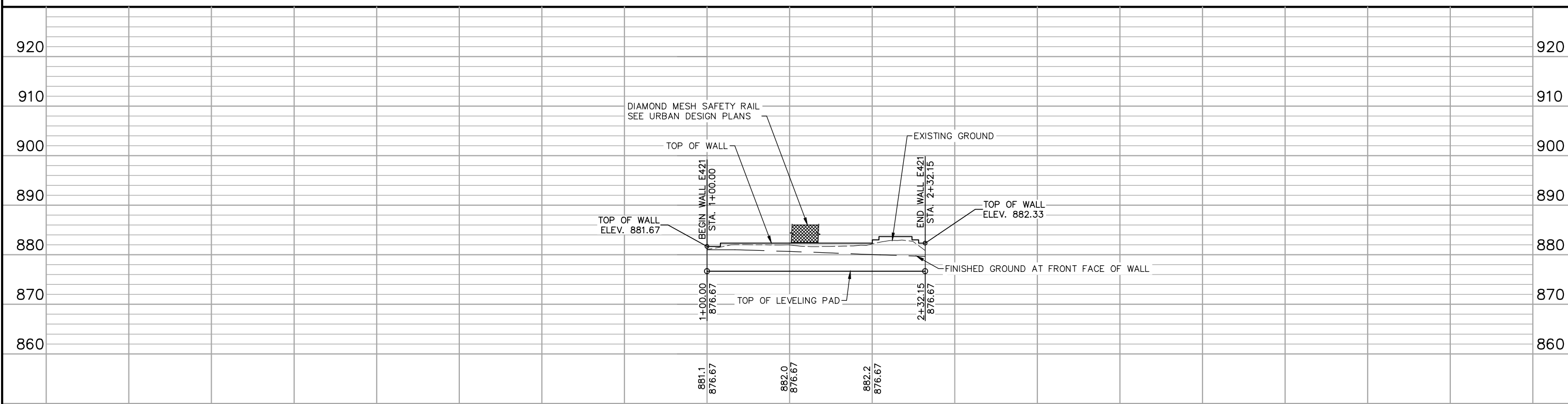
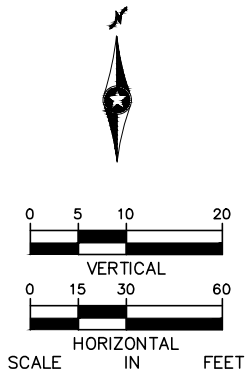
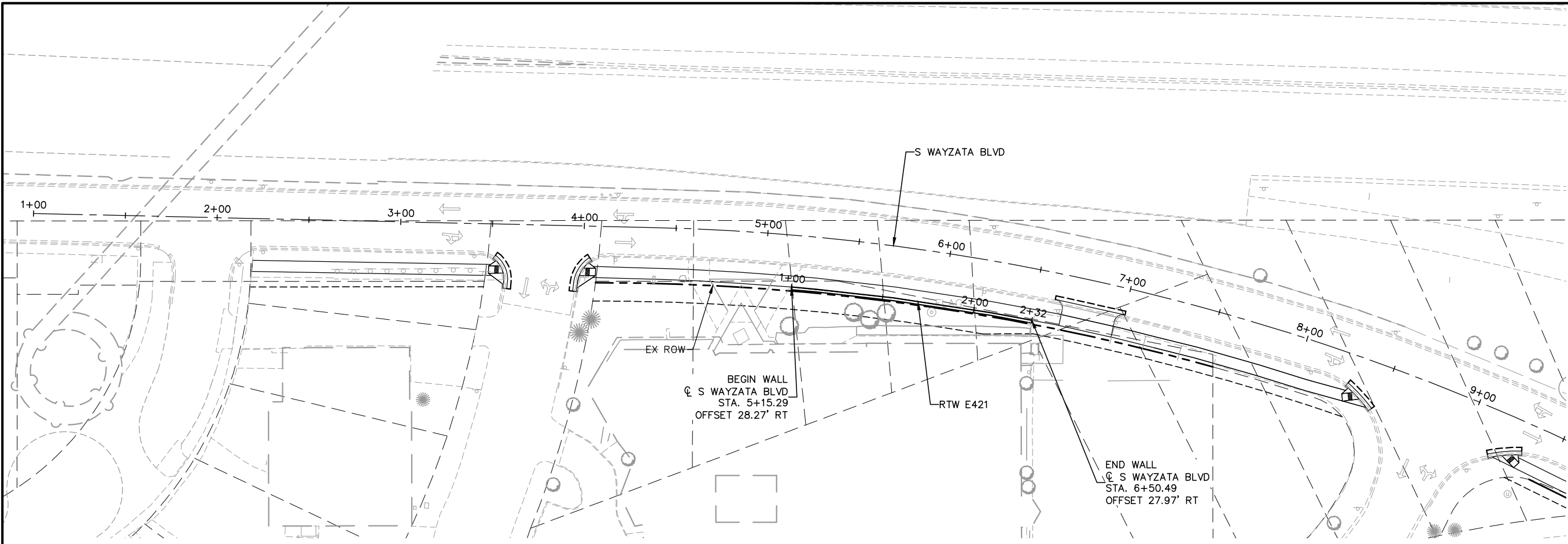
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E420 GEOMETRY**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E420 - DTL**

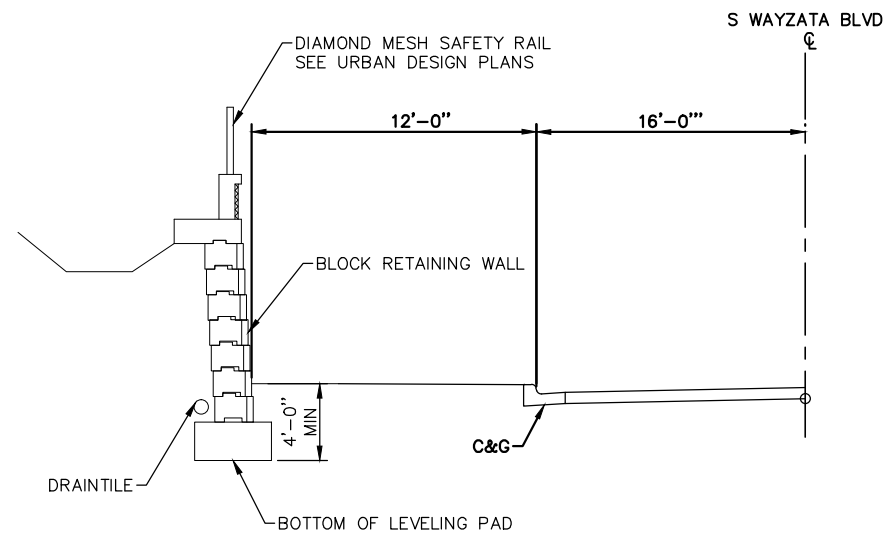
**SHEET**  
**109**  
**OF**  
**113**

Sep. 21 2015 02:42 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E421.dwg By: V-PatelPJ



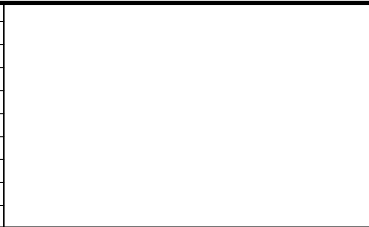
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NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL																																																							
60% SUBMISSION - 09/28/15						DISCIPLINE: <b>STRUCTURES</b>		SHEET NAME: <b>RTW-E421 - PLE</b>																																																				

Sep. 21 2015 02:42 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E421.dwg By: V-PatelPJ



- NOTE:**  
1. RETAINING WALL TO BE PMBW
- RTW-E421 SECTION**  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL



**AECOM**

60% SUBMISSION - 09/28/15



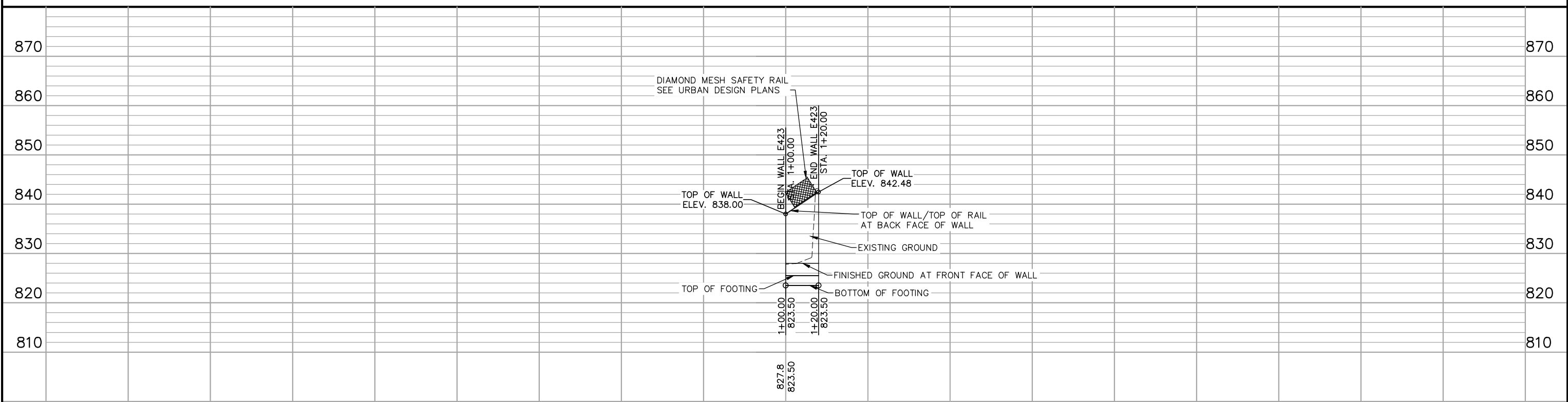
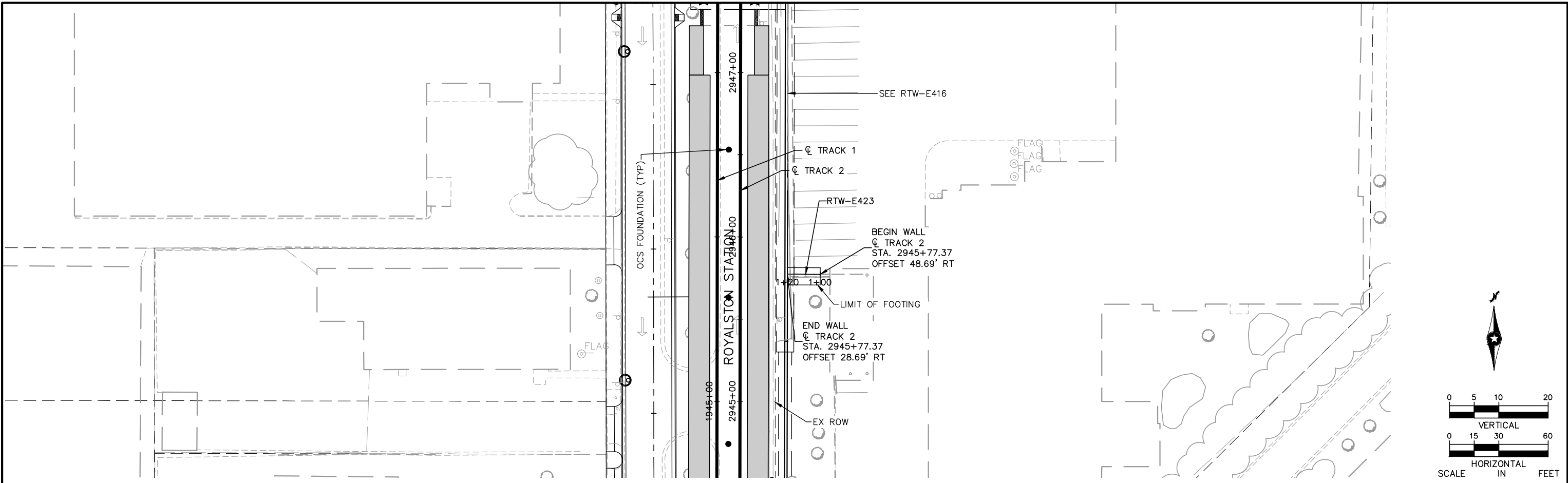
**CIVIL EAST - VOLUME 6**  
**RETAINING WALLS**  
**RTW-E421 GEOMETRY**

DISCIPLINE: **STRUCTURES**

SHEET NAME: **RTW-E421 - DTL**

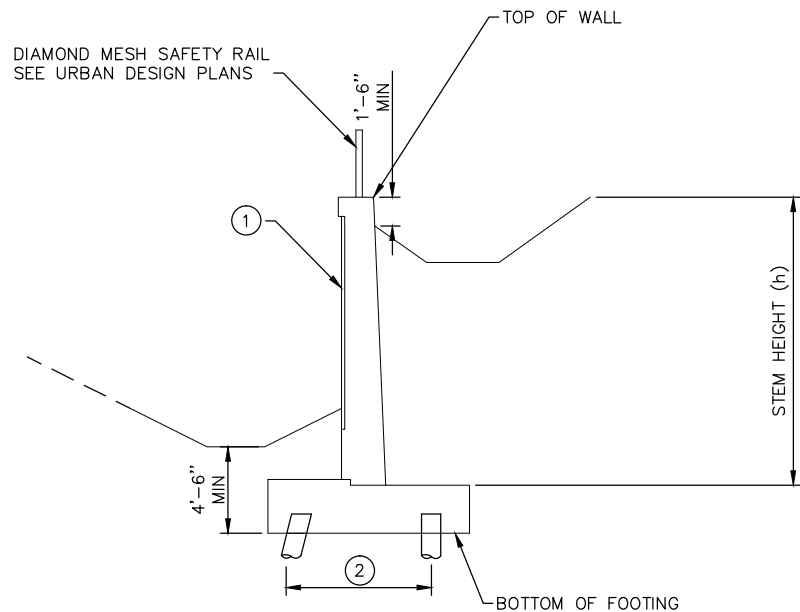
**SHEET**  
**111**  
**OF**  
**113**

Sep. 18 2015 08:50 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E423.dwg By: V-PatelPJ



NO.						DATE						BY						CHECK/DESIGN						REVISION / SUBMITTAL					

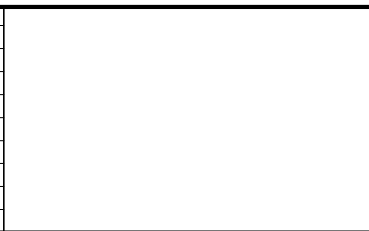
Sep. 21 2015 03:34 pm V:\3400\_ADC\CAD\SEGMENT E4\PLAN SHEETS\STRUCTURES\RETAINING WALLS\RTW-E423.dwg By: V-NutzmaML



- ① **NOTE:**  
ARCHITECTURAL CONCRETE TEXTURE
- ② PILE ROWS AND PILE SPACING VARIES

**RTW-E423 SECTION**  
NOT TO SCALE

NO.	DATE	BY	CHECK	DESIGN	REVISION / SUBMITTAL





60% SUBMISSION - 09/28/15



CIVIL EAST - VOLUME 6  
RETAINING WALLS  
RTW-E423 GEOMETRY

DISCIPLINE: STRUCTURES  
SHEET NAME: RTW-E423 - DTL

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113  
OF  
113