

L:\Projects\0D0T\B24085\_CUY-87-0424\2009.dgn\bridge\siteplan.dgn 09-SEP-2014 9:33AM MBittner

BUCKEYE ROAD  
CURVE 1  
P.I. STA. 35+41.90  
 $\Delta = 11^{\circ}24'20''$  LT  
 $D_c = 12^{\circ}43'57''$   
R = 450.00'  
T = 44.94'  
L = 89.57'  
E = 2.24'

STA. 15+18.09 WOODHILL RD. =  
STA. 35+00.07 BUCKEYE RD.

POINT OF MIN.  
VERT. CL.  
STA. 14+79.51  
60.91 LT

CENTERLINE DEFLECTION  
WOODHILL ROAD  
P.I. STA. 15+18.55  
 $\Delta = 0^{\circ}33'11''$  RT

UTILITIES	DISPOSITION
FIRST ENERGY	TBRBO
CPP	TBRBO
TELECOM (MULTIPLE)	TBRBO
CWD	TBR
DEOG	TBRBO
TRAFFIC SIGNAL CONTROL	TBR

TBR = TO BE RELOCATED  
TBRBO = TO BE RELOCATED BY OTHERS

STA. 36+36.41 BUCKEYE RD.  
STA. 50+00.00 SHAKER BLVD. E.B.

**SITE PLAN**

Q SHAKER BLVD. (EB)

- R1 10-30-13 REVISED WINGWALL AND REMOVAL LIMITS
- R2 9-04-14 REVISED WINGWALL AND REMOVAL LIMITS

TRAFFIC DATA				
	BUCKEYE (W. OF WOODHILL)	SHAKER (E. OF WOODHILL)	WOODHILL (E. OF WOODHILL)	BUCKEYE (E. OF WOODHILL)
2014 ADT.....	14,700	11,920	11,700	9,340
2034 ADT.....	18,090	11,920	11,700	9,340
2034 ADTT.....	360	240	700	470

**EXISTING STRUCTURE**

TYPE: REINFORCED CONCRETE FRAME

SPANS: 14'-0" ± 14'-0" ± FACE TO FACE OF WALL

ROADWAY: VARIES

LOADING: 24 TON TRUCK WITH 10' AXLE SPACING

WEARING SURFACE: BITUMINOUS CONCRETE

APPROACH SLABS: N/A

SKREW: 32°25' ± RIGHT FOWARD

STRUCTURE FILE NUMBER: 1807447

**PROPOSED STRUCTURE**

TYPE: SINGLE SPAN STEEL BEAM SUPERSTRUCTURE ON PROPPED SOLDIER PILE ABUTMENTS

PROPOSED WORK: REPLACE EXISTING BRIDGE USING PHASED CONSTRUCTION. SEE GENERAL NOTES

SPAN: 59'-8" C/C BEARINGS ALONG REFERENCE CHORD

ROADWAY: VARIES: SEE INTERSECTION DETAIL SHEET

SIDEWALK: VARIES

LOADING: HS-25, CASE II AND ALTERNATE MILITARY LOADING  
60 PSF FUTURE WEARING SURFACE

WEARING SURFACE: MONOLITHIC CONCRETE

ALIGNMENT: NO CURVE ALONG WOODHILL ROAD

APPROACH SLABS: 15'-0" (AS I-81)

SKREW: 32°11'11" RIGHT FOWARD WITH RESPECT TO THE REFERENCE CHORD

SUPERELEVATION: NONE

CROWN: VARIES

LATITUDE: N41°28'58" LONGITUDE: W81°37'04"

**FOUNDATION DATA**

PROPOSED SOLDIER PILE FOUNDATIONS FOR THE ABUTMENTS SHALL BE 3.5 FT. & 4.5 FT. DIAMETER DRILLED SHAFTS WITH 3 FT. & 4 FT. DIAMETER ROCK SOCKETS RESPECTIVELY. THE ULTIMATE CAPACITIES FOR THE ROCK SOCKETS ARE AS FOLLOWS:

20 TSF BELOW ELEVATION 735.00

**NOTE:**  
EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS-SECTIONS.

SEE SCHEMATIC PLAN FOR REFERENCE CHORD DETAIL

**LEGEND:**

⊕ = SOIL BORING

**BENCHMARK # 1**  
DESCRIPTION: "X" CHISELED IN CONCRETE WALK, SOUTHEAST OF WAMELINK/WOODHILL INTERSECTION  
STA 18+23.25 OFFSET 58.11' RT  
EL. 781.38

**BENCHMARK # 2**  
DESCRIPTION: PK NAIL SET NORTH OF BUCKEYE/WOODHILL INTERSECTION  
STA 16+52.79, OFFSET 87.28' LEFT  
EL. 775.46



DATE: LPC 5-3-12  
REVIEWED: LPC 5-3-12  
STRUCTURE FILE NUMBER: 1807439

DRAWN: CDC  
CHECKED: CDC

DESIGNED: CDC  
CHECKED: MKB

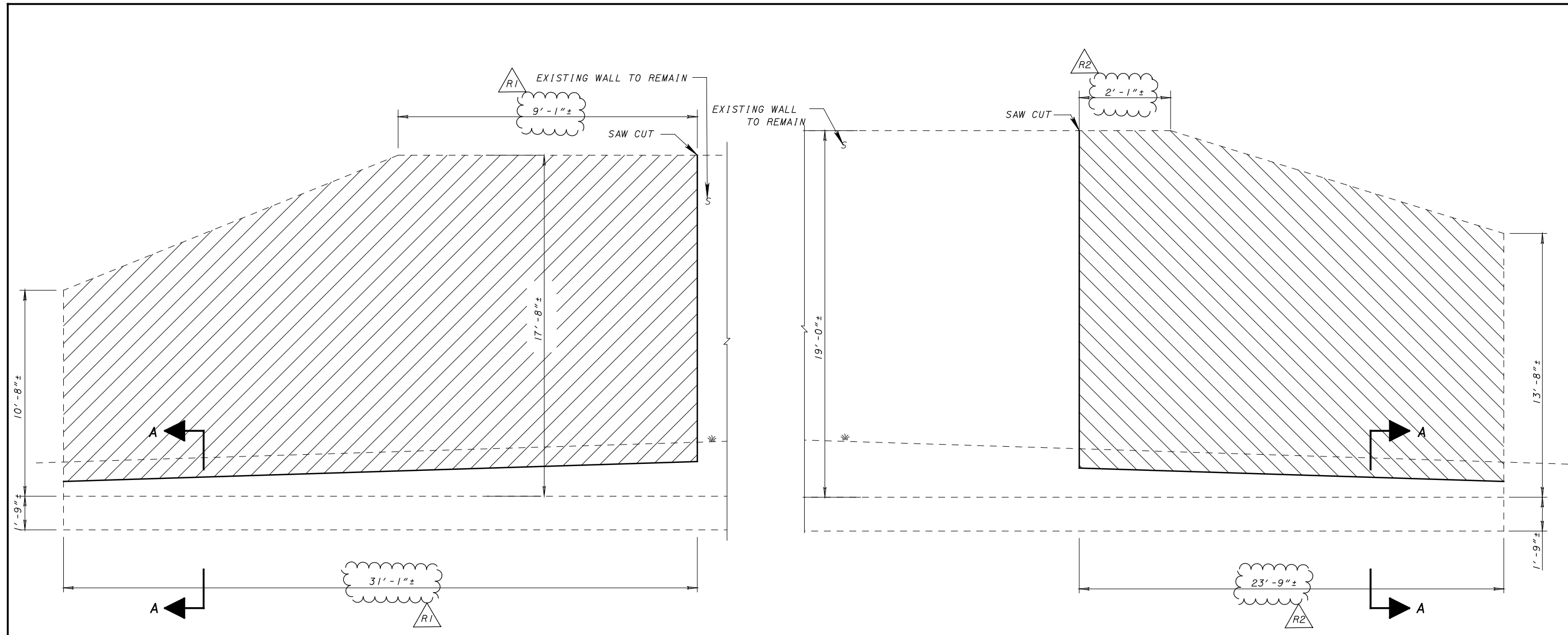
CUYAHOGA COUNTY  
STA. 14+69.30  
STA. 15+32.52

**SITE PLAN 1 OF 2**  
BRIDGE NO. CUY-87-0424 OVER GCRTA

CUY-87-424  
PID 10787

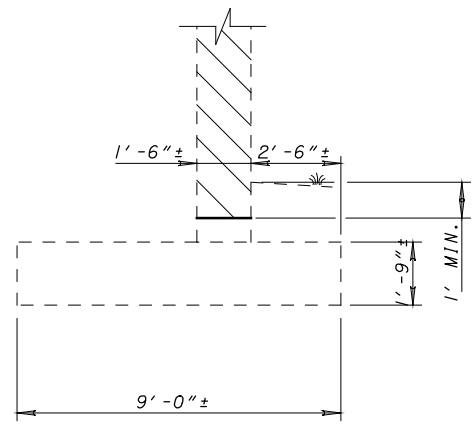
1 / 51

208  
298



ELEVATION  
NORTH SHAKER RETAINING WALL,  
EAST OF BRIDGE

ELEVATION  
SOUTH SHAKER RETAINING WALL,  
EAST OF BRIDGE



SECTION A-A

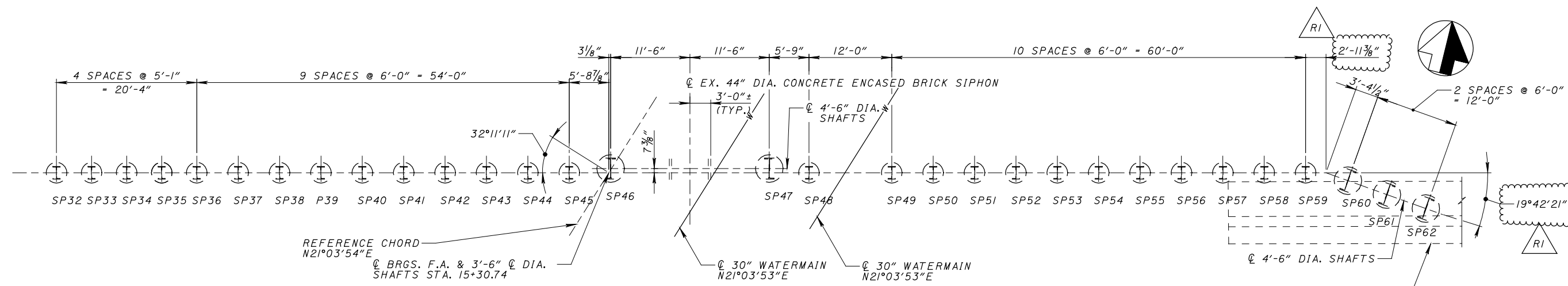
**LEGEND**

LIMITS OF REMOVAL. INCLUDE WITH ITEM 202, STRUCTURE REMOVED, AS PER PLAN

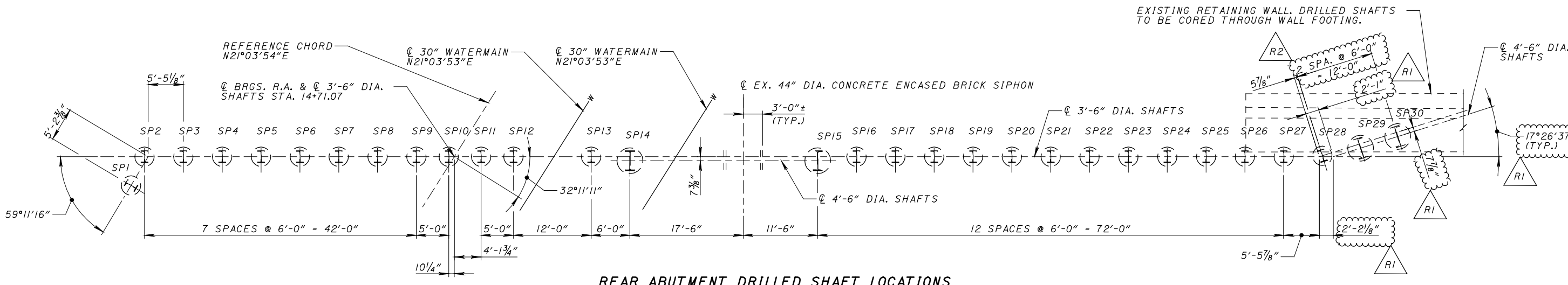
SEE SHEET 3/51 FOR ADDITIONAL DETAILS

10-30-13 REVISED REMOVAL LIMITS  
 9-04-14 REVISED REMOVAL LIMITS

\$\$\$gn\$\$\$

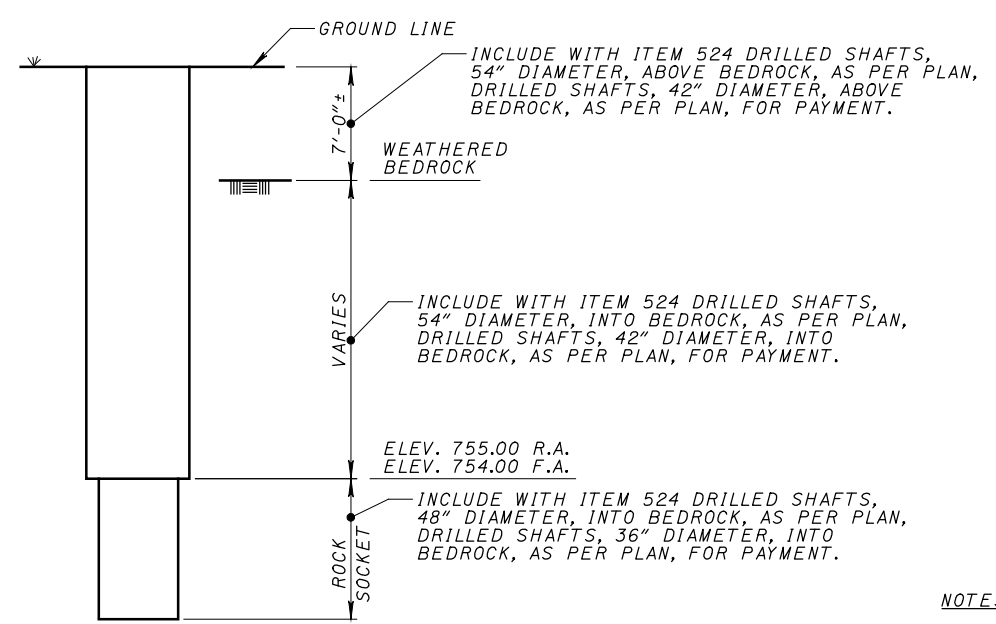


**FORWARD ABUTMENT DRILLED SHAFT LOCATIONS**



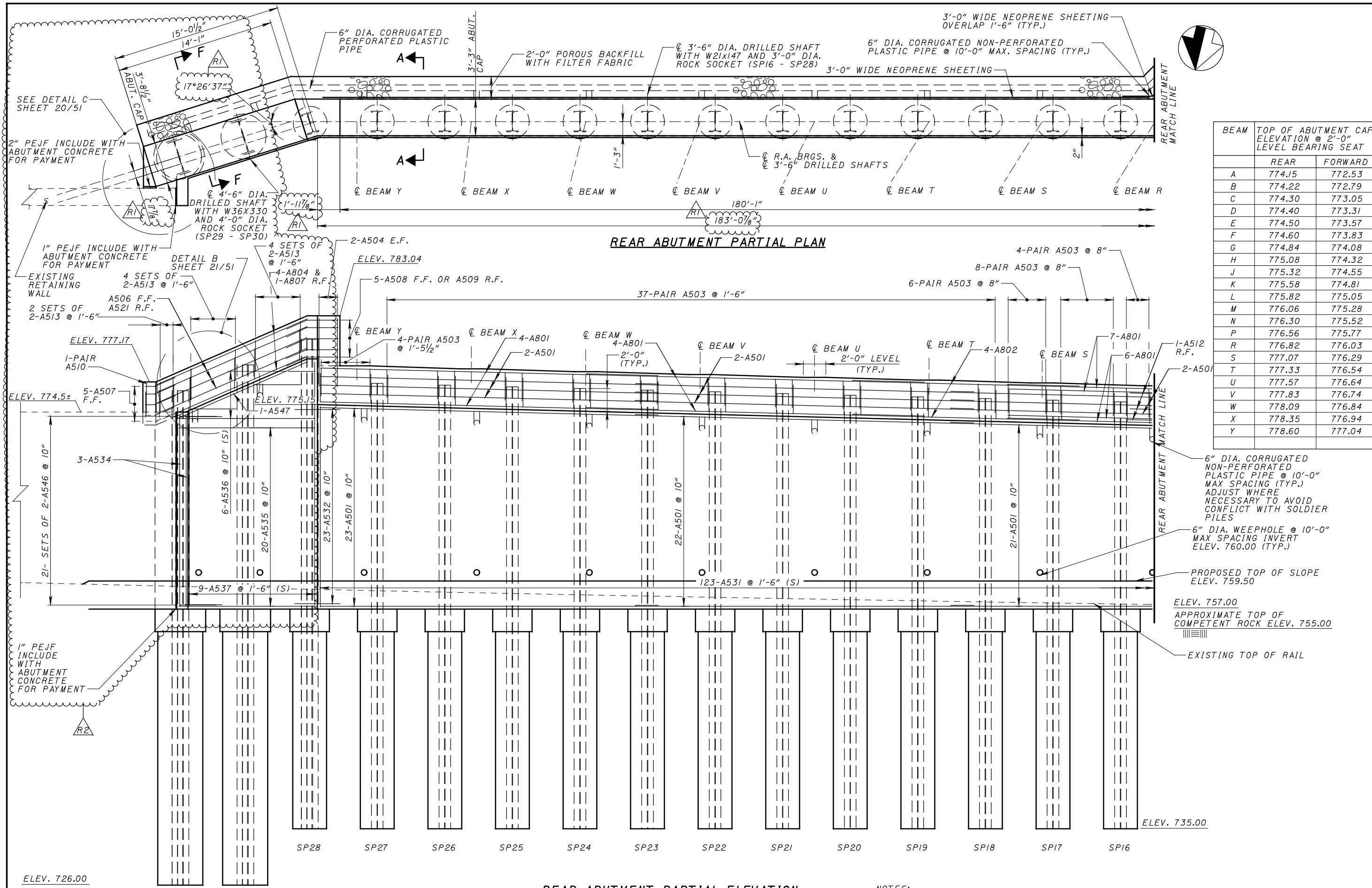
**REAR ABUTMENT DRILLED SHAFT LOCATIONS**

SOLDIER PILE PROPERTIES			
PILES	SHAFT DIAMETER	ROCK SOCKET DIAMETER	GALVANIZED STEEL SECTION
SPI - SPII, SPI6 - SP28, SP32 - SP45, SP50 - SP59	3'-6"	3'-0"	W21x147
SPI2 - SPI3, SP48 - SP49	3'-6"	3'-0"	W21x182
SPI4 - SPI5, SP46 - SP47	4'-6"	4'-0"	W36x282
SP29 - SP30, SP60 - SP62	4'-6"	4'-0"	W36x330



**DRILLED SHAFT PAYMENT DETAIL**  
(SEE DETAIL SHEETS FOR ADDITIONAL INFORMATION)

- NOTES:
- SEE SHEETS 19/51 THRU 24/51 FOR ADDITIONAL SOLDIER PILE DETAILS.
  - SEE ABUTMENT PLAN AND ELEVATION SHEETS 15/51 THRU 18/51 FOR TIP ELEVATIONS.
  - R1 10-30-13 REVISED DIMENSIONS
  - R2 9-04-14 REMOVED SP31



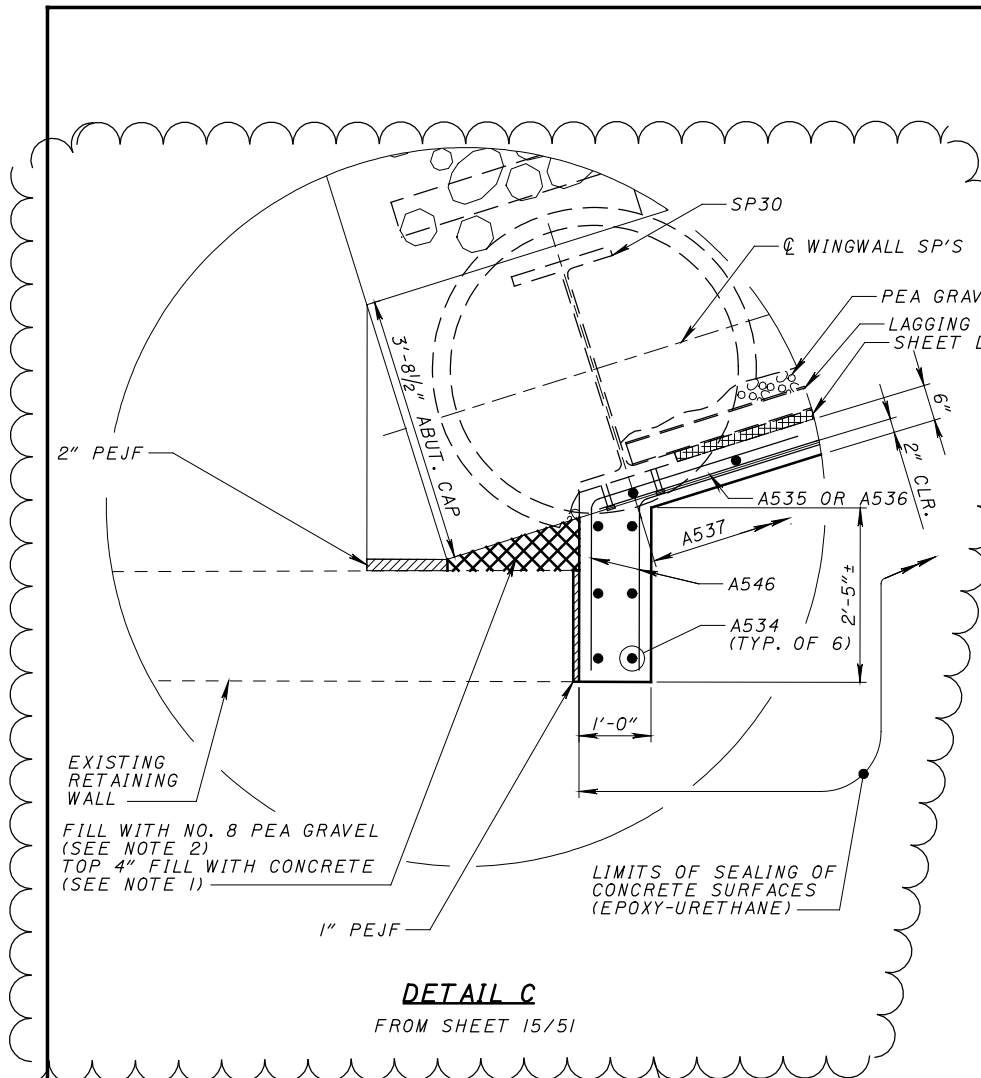
BEAM	TOP OF ABUTMENT CAP ELEVATION @ 2'-0" LEVEL BEARING SEAT	
	REAR	FORWARD
A	774.15	772.53
B	774.22	772.79
C	774.30	773.05
D	774.40	773.31
E	774.50	773.57
F	774.60	773.83
G	774.84	774.08
H	775.08	774.32
J	775.32	774.55
K	775.58	774.81
L	775.82	775.05
M	776.06	775.28
N	776.30	775.52
P	776.56	775.77
R	776.82	776.03
S	777.07	776.29
T	777.33	776.54
U	777.57	776.64
V	777.83	776.74
W	778.09	776.84
X	778.35	776.94
Y	778.60	777.04

**REAR ABUTMENT PARTIAL ELEVATION**

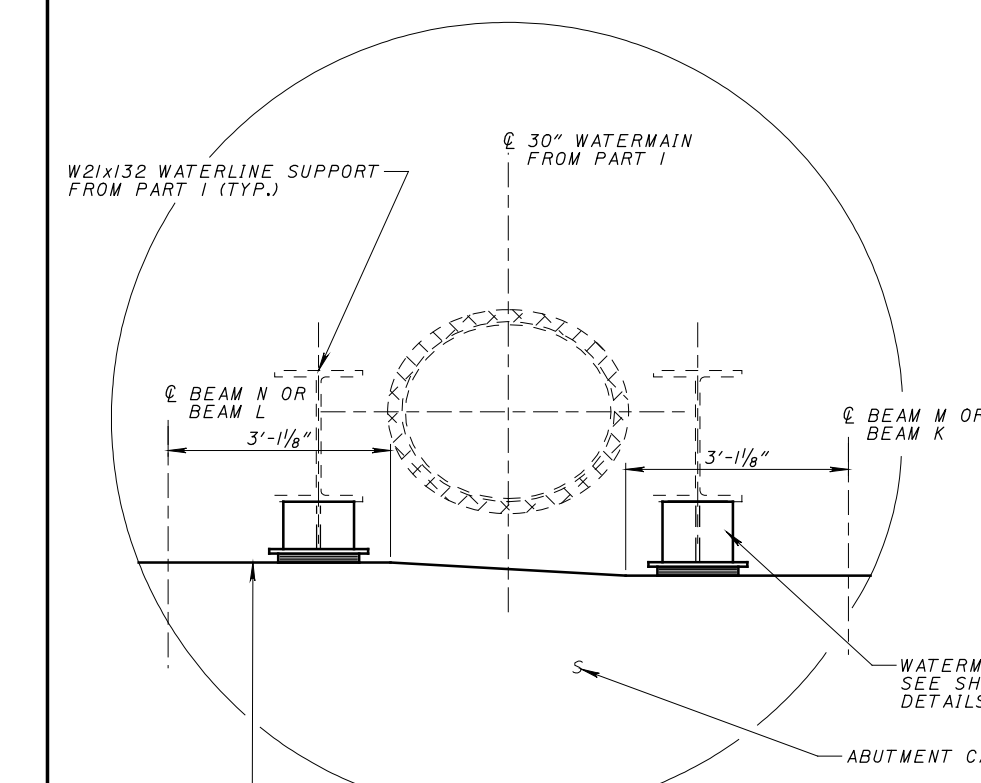
- △ RI 10-30-13 REVISED WINGWALL LIMITS AND REINFORCING STEEL
- △ R2 9-04-14 REMOVED SP31 AND MODIFIED WINGWALL

- NOTES:**
- SEE SHEET 19/51 FOR SECTION A-A
  - SEE SHEET 22/51 FOR SECTION F-F
  - SEE FOUNDATION PLAN SHEET 14/51 FOR SIZE AND LOCATION OF DRILLED SHAFT
  - FOR C BEAM LOCATIONS, SEE FRAMING PLAN SHEET 30/51.
  - #8 BARS = 6'-4" LAP
  - #5 BARS = 2'-0" LAP

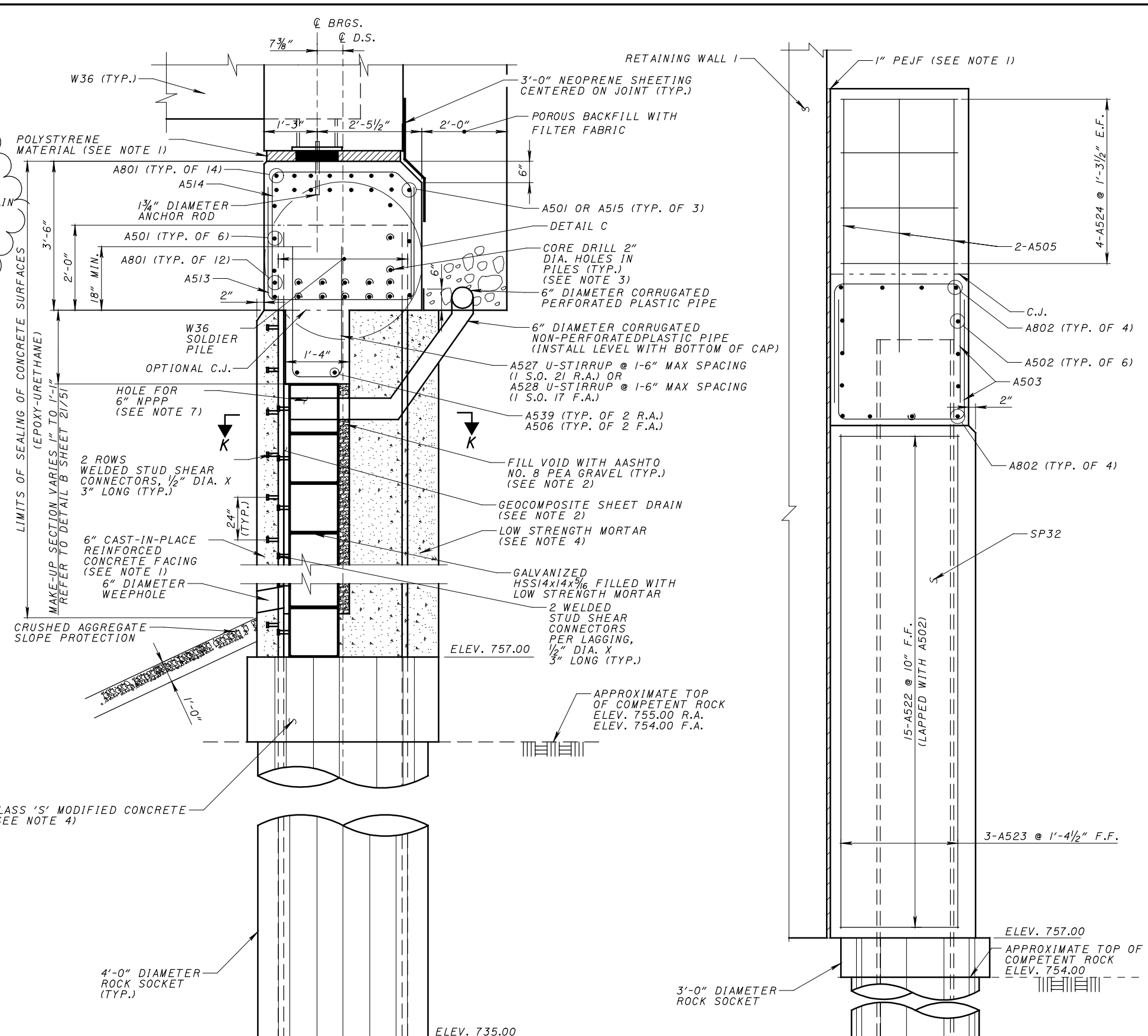
\$DATE\$  
\$FILE\$



**DETAIL C**  
FROM SHEET 15/51



**DETAIL A**



**SECTION C-C**

**VIEW G-G** (SEE SHEET 17/51 FOR LOCATION)

**NOTES:**

1. INCLUDE WITH ITEM 511 SUBSTRUCTURE CONCRETE FOR PAYMENT.
2. INCLUDE WITH ITEM SPECIAL 610E5010 LAGGING FOR PAYMENT.
3. INCLUDE WITH ITEM 513 SOLDIER PILES FOR PAYMENT.
4. INCLUDE WITH ITEM 524 DRILLED SHAFT FOR PAYMENT.
5. SEE SHEET 24/51 FOR DETAIL C.
6. SEE SHEET 23/51 FOR SECTION K-K
7. SHOP DRILLED CENTERED VERTICALLY IN TOP ROW OF LAGGING.

\$DATE\$  
\$FILE\$

RI 9-04-14 ADDED DETAIL C

