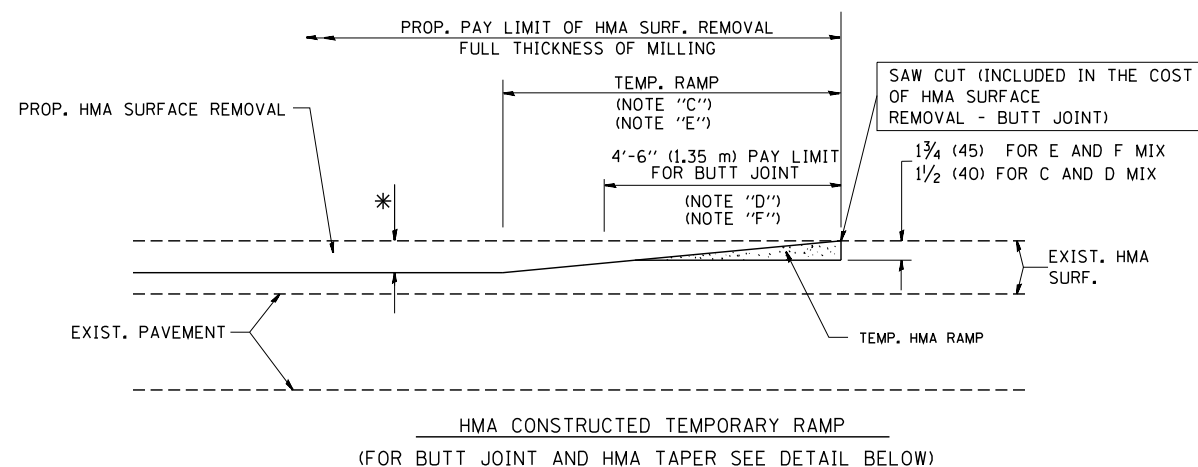
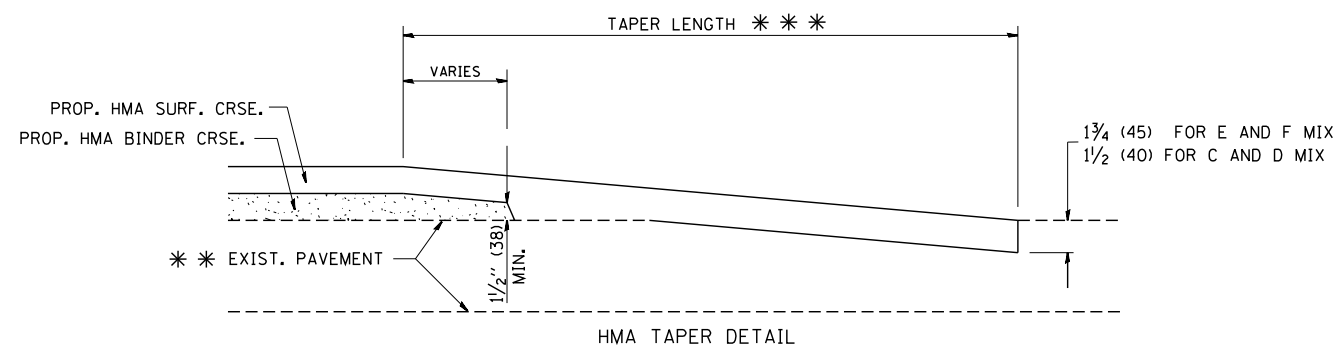
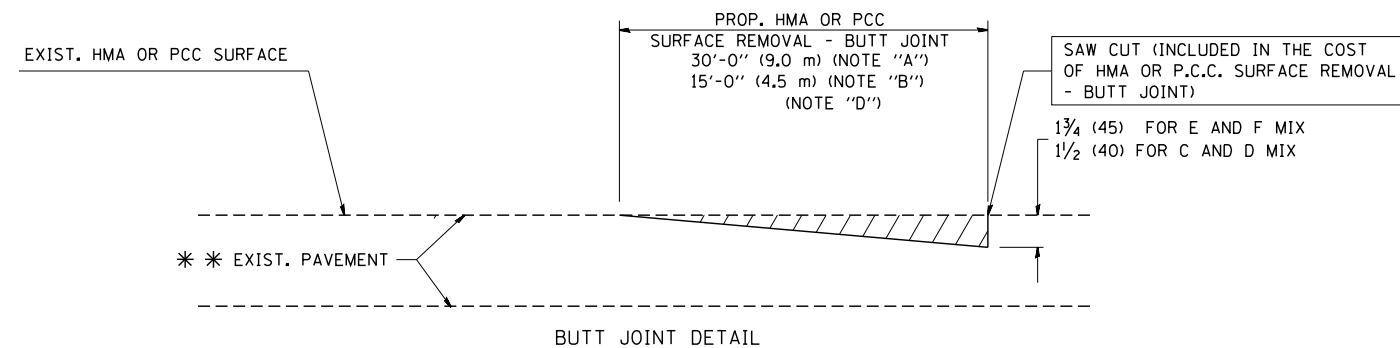


OPTION 1



OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

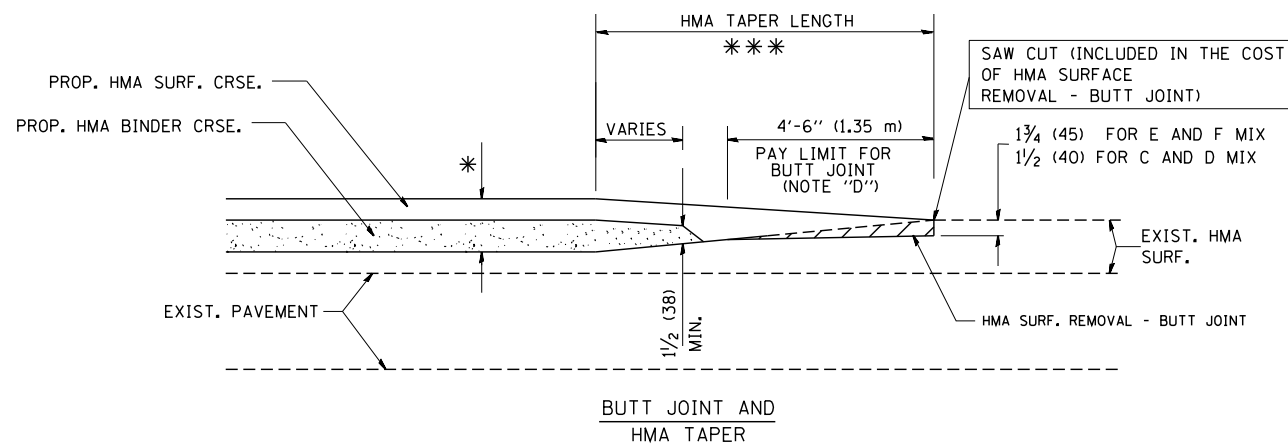
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- * * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

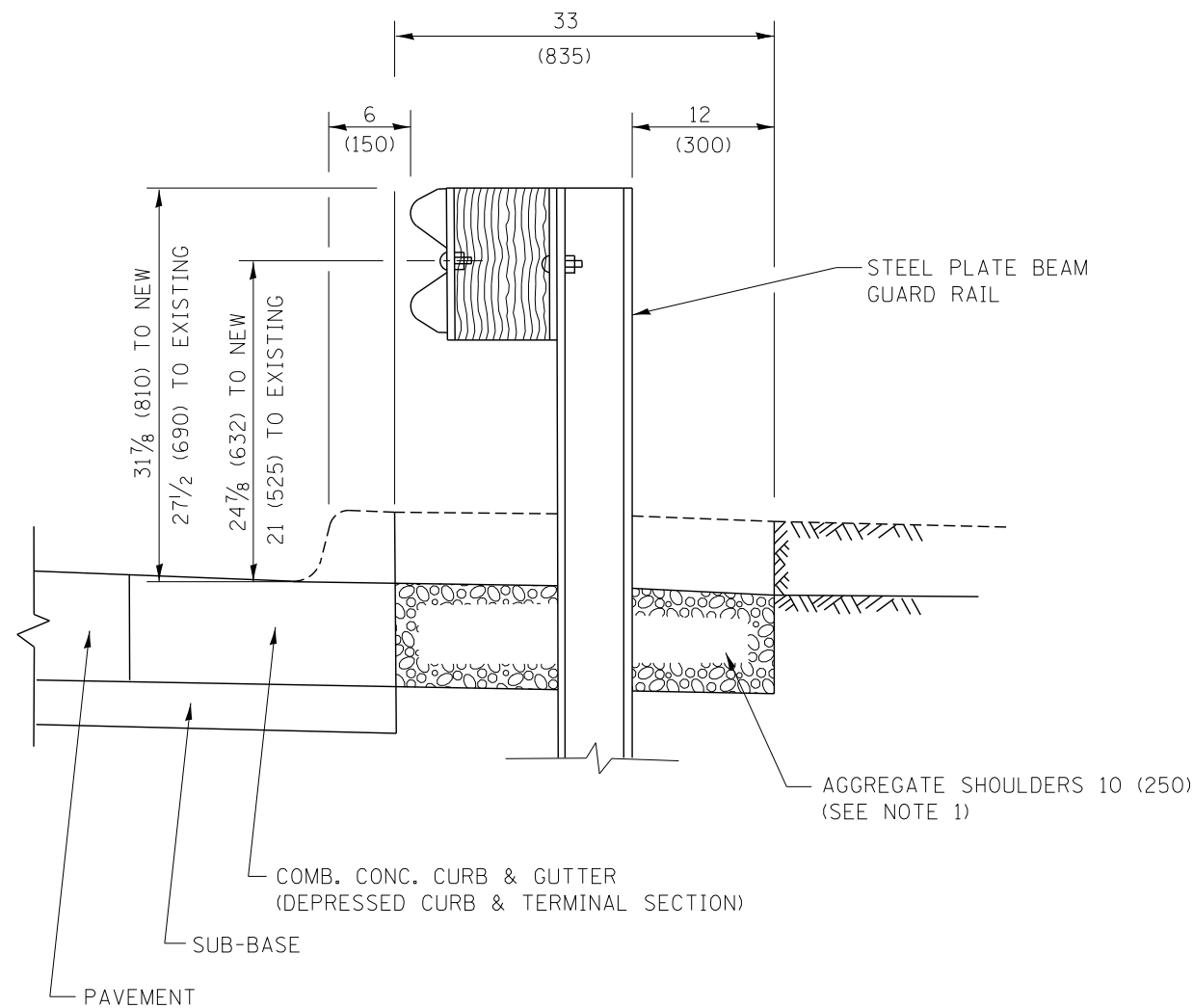
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	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

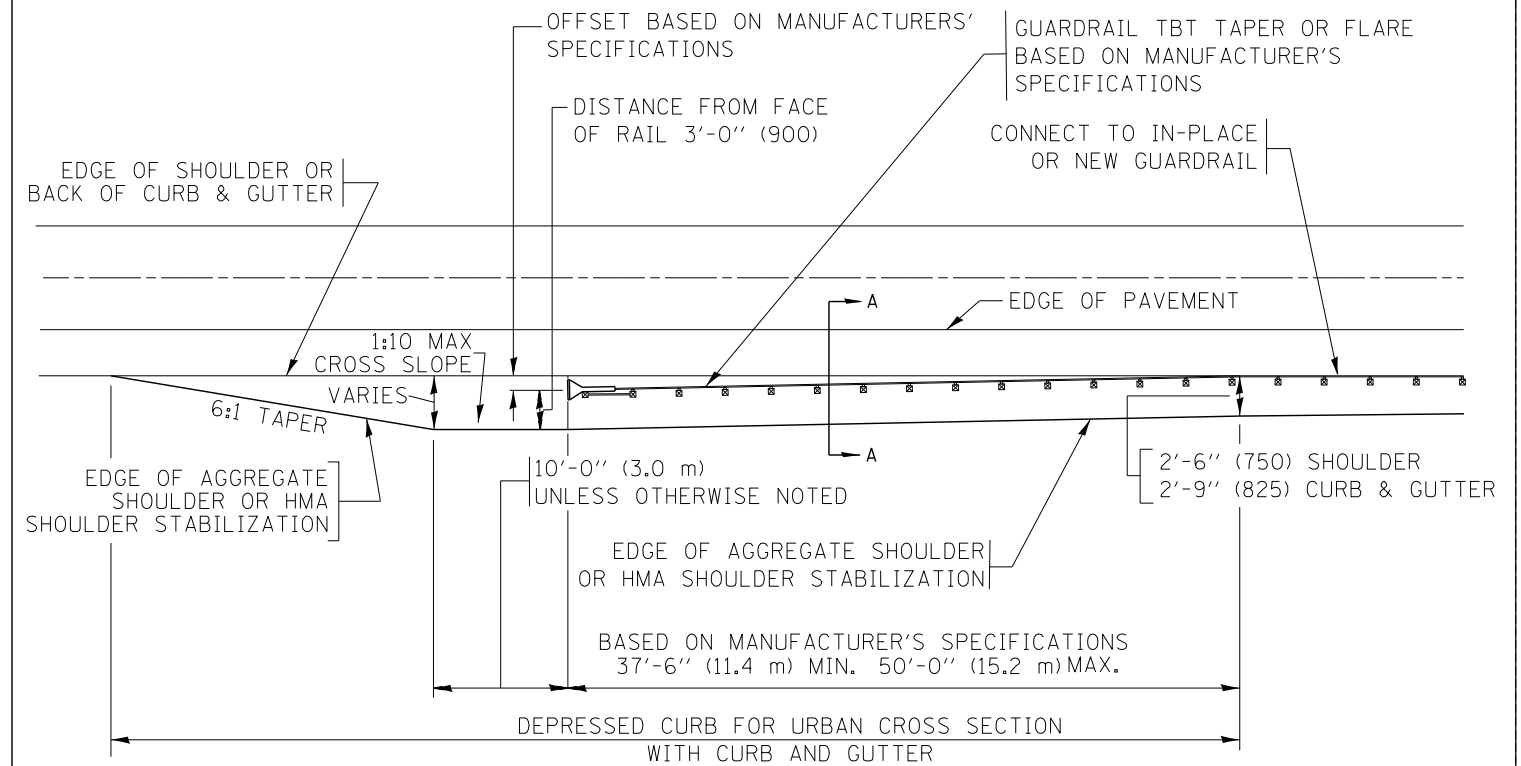
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338	(112 & 113)WRS-5	DUPAGE	963	701
BD400-05 BD32		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

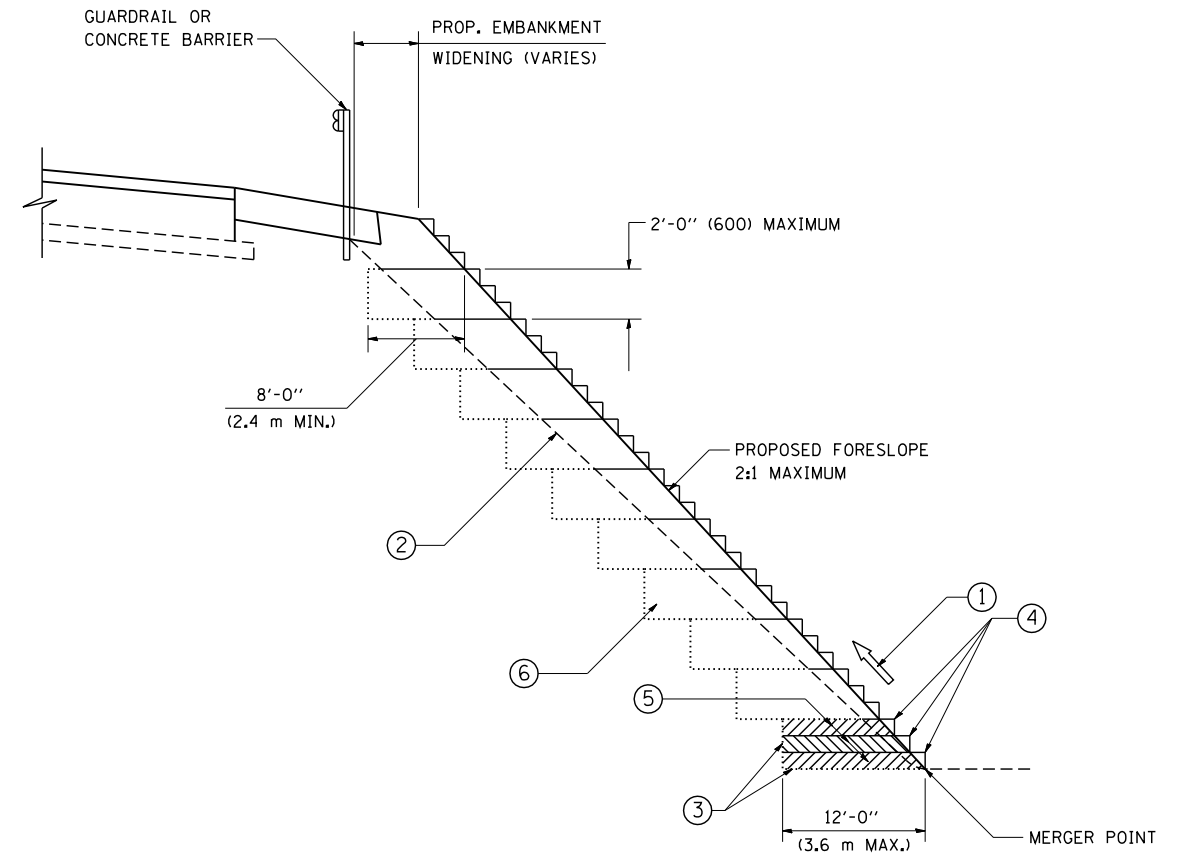
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	PLOT DATE = 9/4/2012	DATE - 09-22-90	REVISED - R. BORO 08-06-2012

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND
SHOULDER TREATMENT AT TBT TY 1 SPL.**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	702
BD600-10 (BD 34)		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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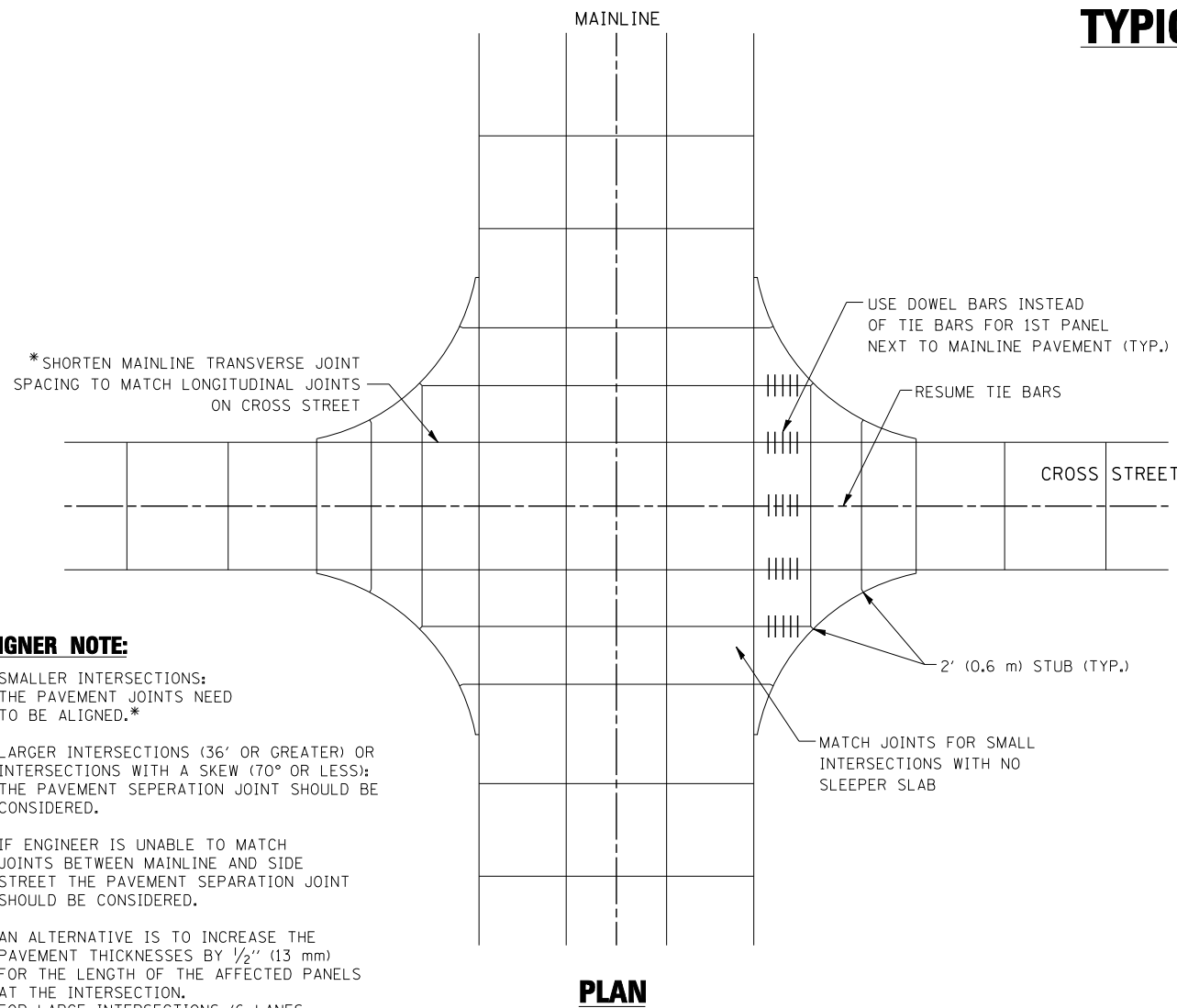
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL			
FOR EMBANKMENT WIDENING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	703
BD-51			CONTRACT NO. 60I31	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TYPICAL APPLICATION

THE USE OF CROSS STREET PAVEMENT SEPARATION JOINTS FOR SKEWED OR LARGE INTERSECTIONS WHERE JOINTS MAY NOT MATCH



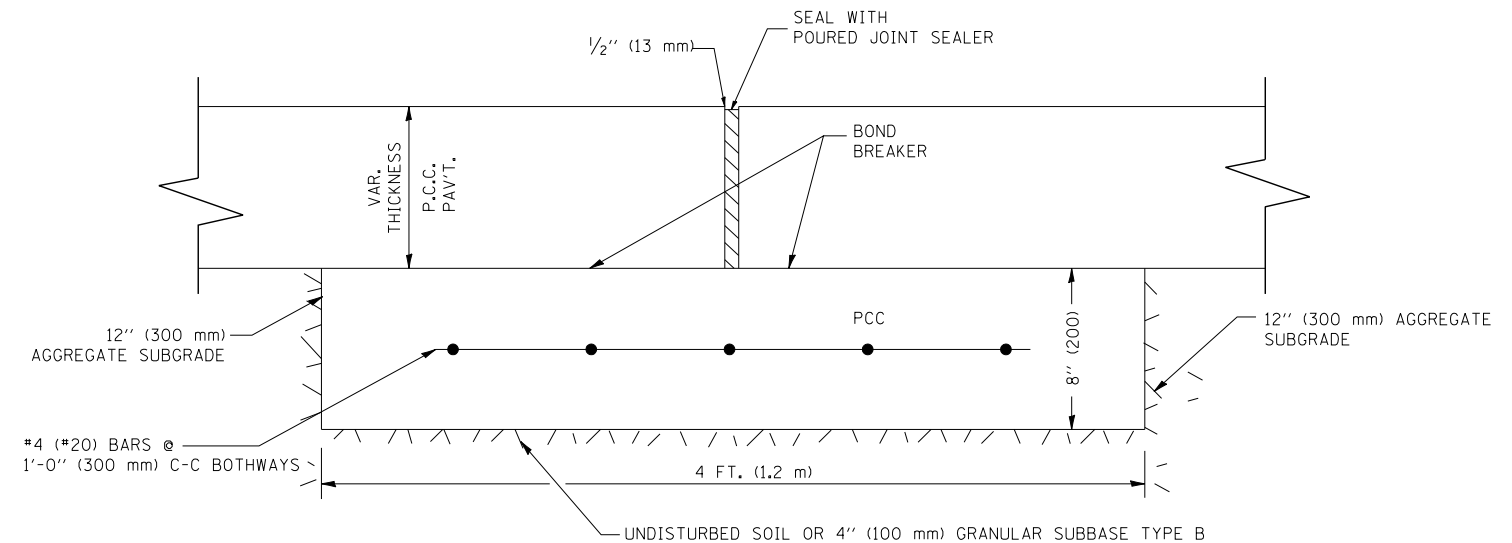
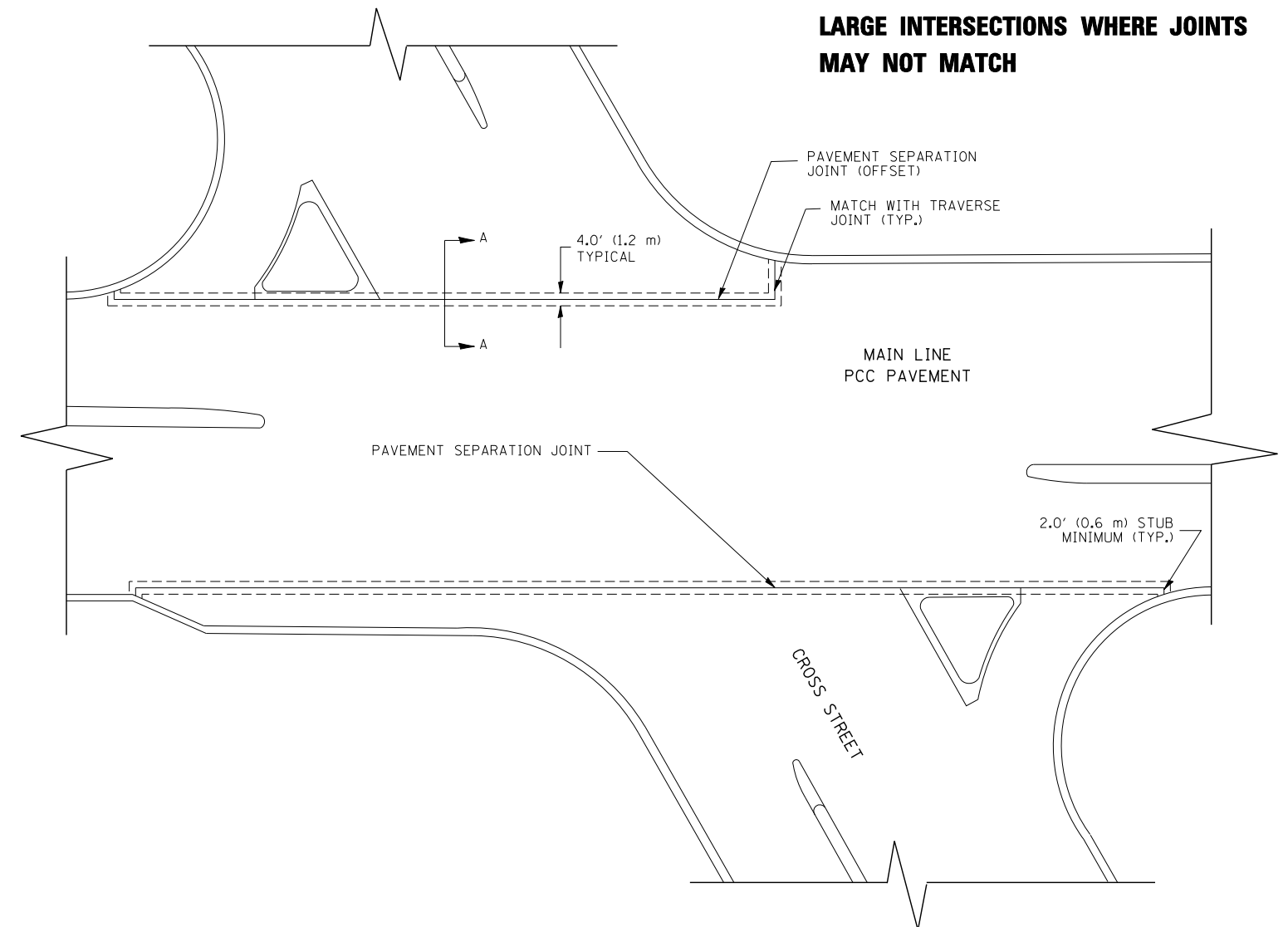
PLAN

DESIGNER NOTE:

1. SMALLER INTERSECTIONS: THE PAVEMENT JOINTS NEED TO BE ALIGNED.*
2. LARGER INTERSECTIONS (36' OR GREATER) OR INTERSECTIONS WITH A SKEW (70° OR LESS): THE PAVEMENT SEPERATION JOINT SHOULD BE CONSIDERED.
3. IF ENGINEER IS UNABLE TO MATCH JOINTS BETWEEN MAINLINE AND SIDE STREET THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
4. AN ALTERNATIVE IS TO INCREASE THE PAVEMENT THICKNESSES BY 1/2" (13 mm) FOR THE LENGTH OF THE AFFECTED PANELS AT THE INTERSECTION. FOR LARGE INTERSECTIONS (6 LANES OR MORE) WHERE JOINTS CAN BE MATCHED, USE #8 (25) DOWEL BARS INSTEAD OF #8 (25) TIE BARS AT EDGE OF MAINLINE PAVEMENT WHEN NO PAVEMENT SEPARATION JOINTS USED.

NOTE:

1. JOINT FILLER SHALL CONSIST OF A SHEET OF 1/2" (13 mm) BITUMINOUS PREFORMED FIBER JOINT FILLER CONFORMING TO ARTICLE 1051.03 OF THE STANDARD SPECIFICATIONS.
2. THE JOINT SHALL BE SEALED WITH A HOT POUR JOINT SEALER CONFORMING TO ARTICLE 1050.02 OF THE STANDARD SPECIFICATIONS.
3. A SINGLE LAYER OF FELT ROOFING PAPER SHALL SERVE AS A BOND BREAKER.
4. JOINT SHALL CONTINUE THROUGH COMBINATION CURB & GUTTER OR PCC SHOULDER.
5. PAVEMENT SEPARATION JOINT IS TO BE PAID FOR AS "SLEEPER SLAB" AND IS TO BE MEASURED IN PLACE BY THE LINEAL FOOT.
6. BOND BREAKER AND 1/2" (13 mm) JOINT AND FILLER SHALL BE INCIDENTAL TO THE PAY ITEM "SLEEPER SLAB".



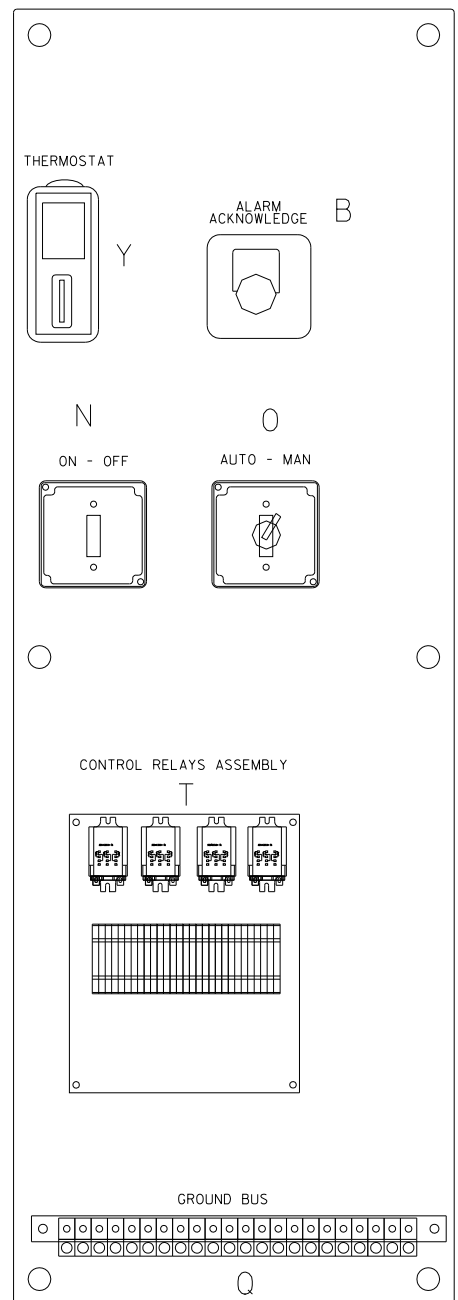
PROPOSED SECTION A-A

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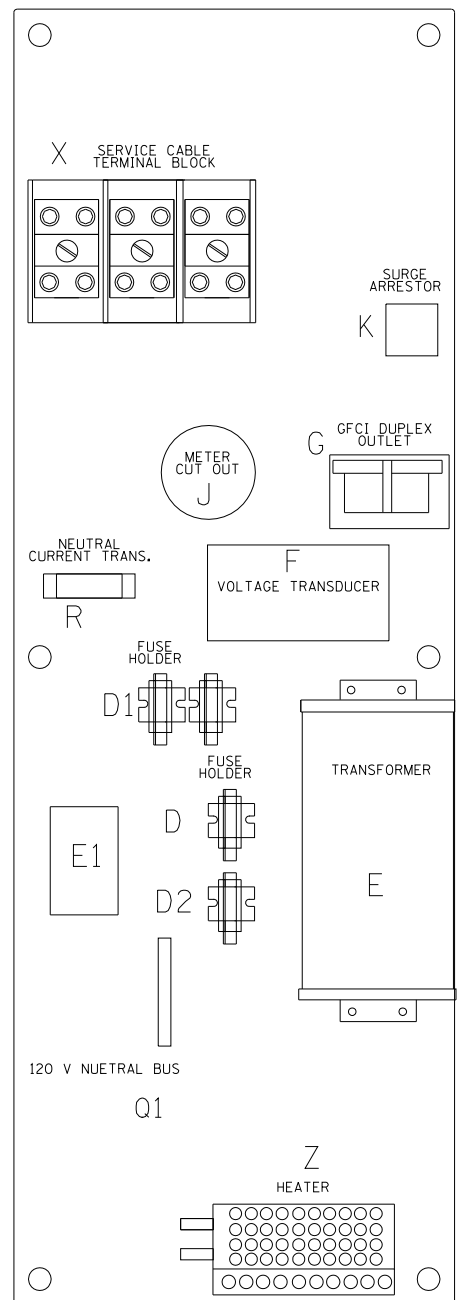
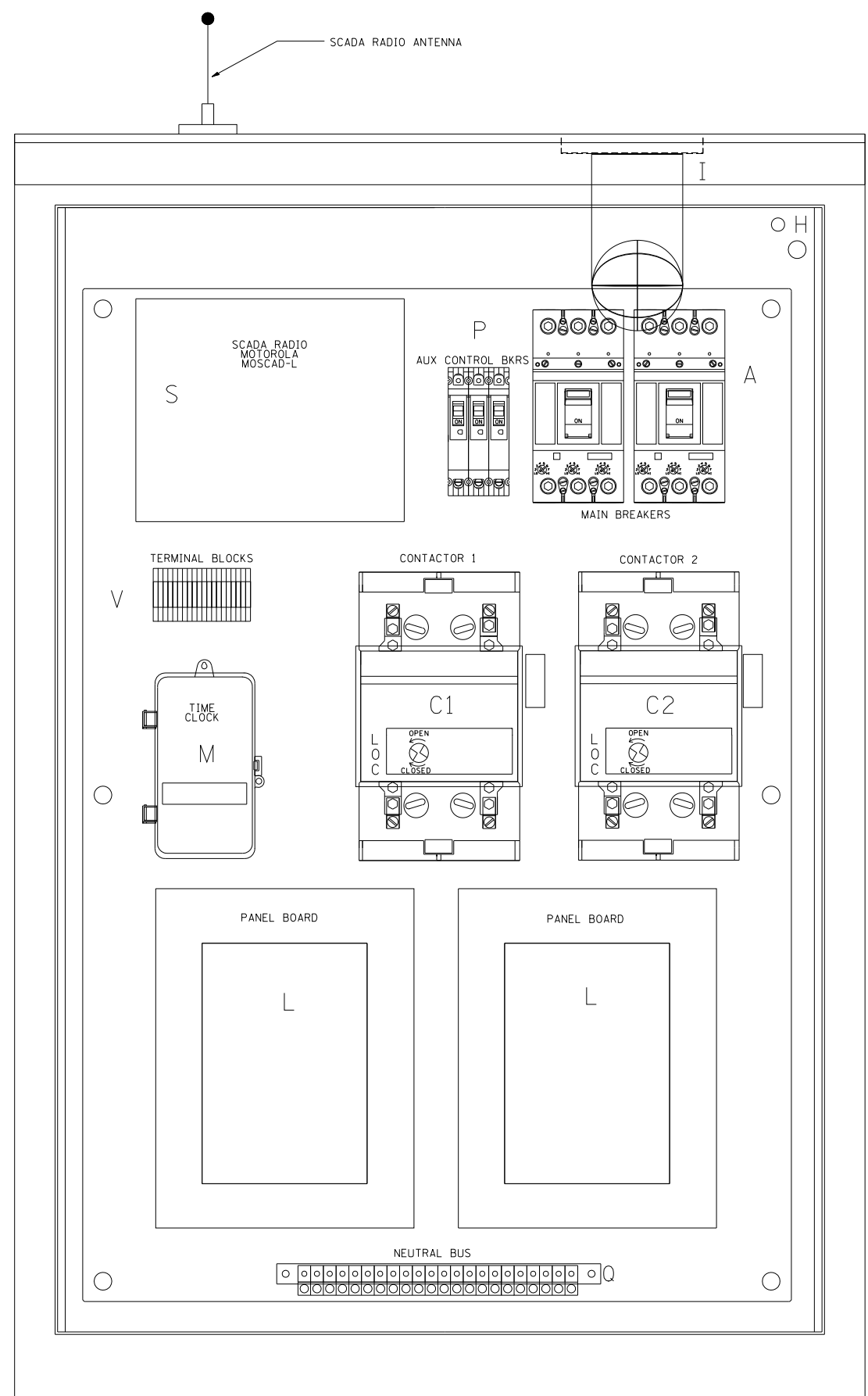
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	704
BD52		CONTRACT NO. 60I31		
ILLINOIS FED. AID PROJECT				



LEFT SIDE PANEL



RIGHT SIDE PANEL

BILL OF MATERIALS

ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2 *	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20 FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK-2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVERED TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
P	2	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T *	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X *	1	620 AMP SLIPICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

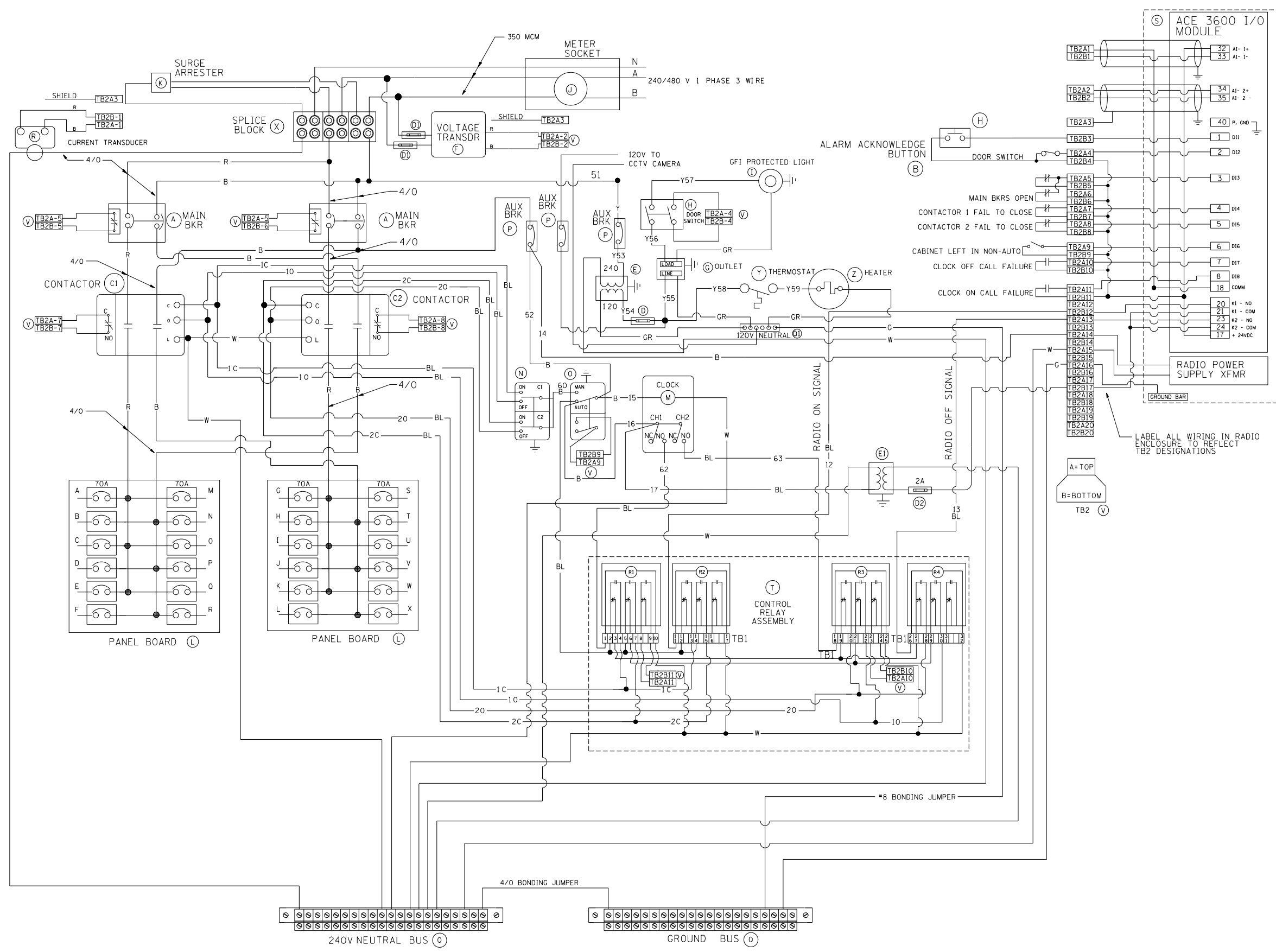
* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

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		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, RADIO CONTROL DUPLIX TYPE WITH SCADA			
SCALE: NONE	SHEET NO. 1 OF 4 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	705
BE-205			CONTRACT NO. 60131	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



BILL OF MATERIALS		
ITEM #	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 175 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK-20A FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-1/2 FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK- 2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120-24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH A-20G0-B7-K
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900KS11B13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE
P	2	BREAKER IP 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 1/0 AND *6 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA ACE 3600
T	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32
V	20	TERMINAL BLOCKS
X	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

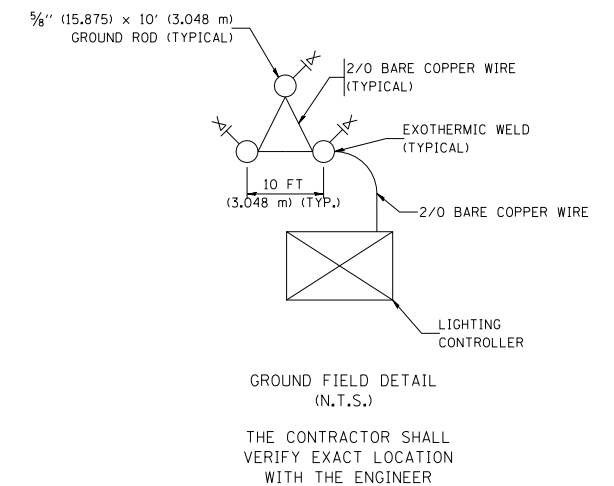
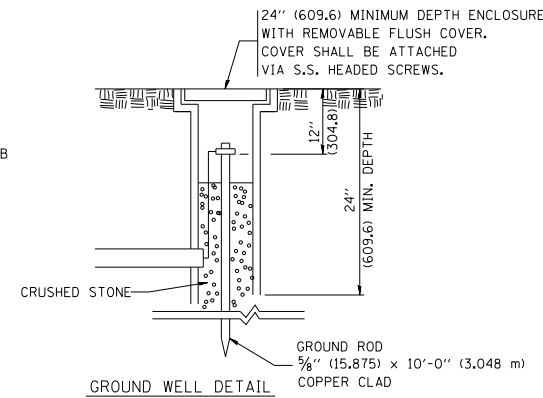
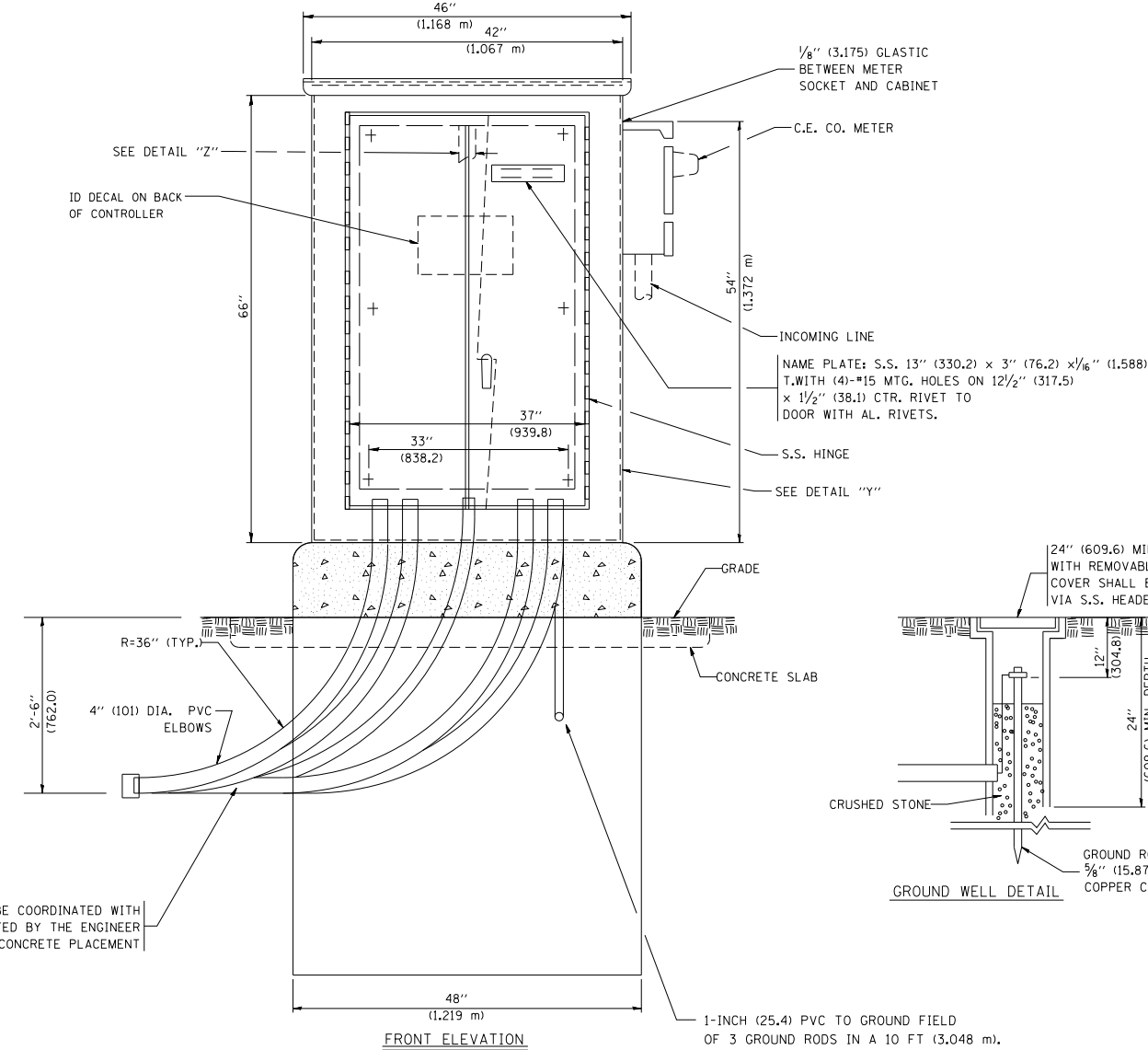
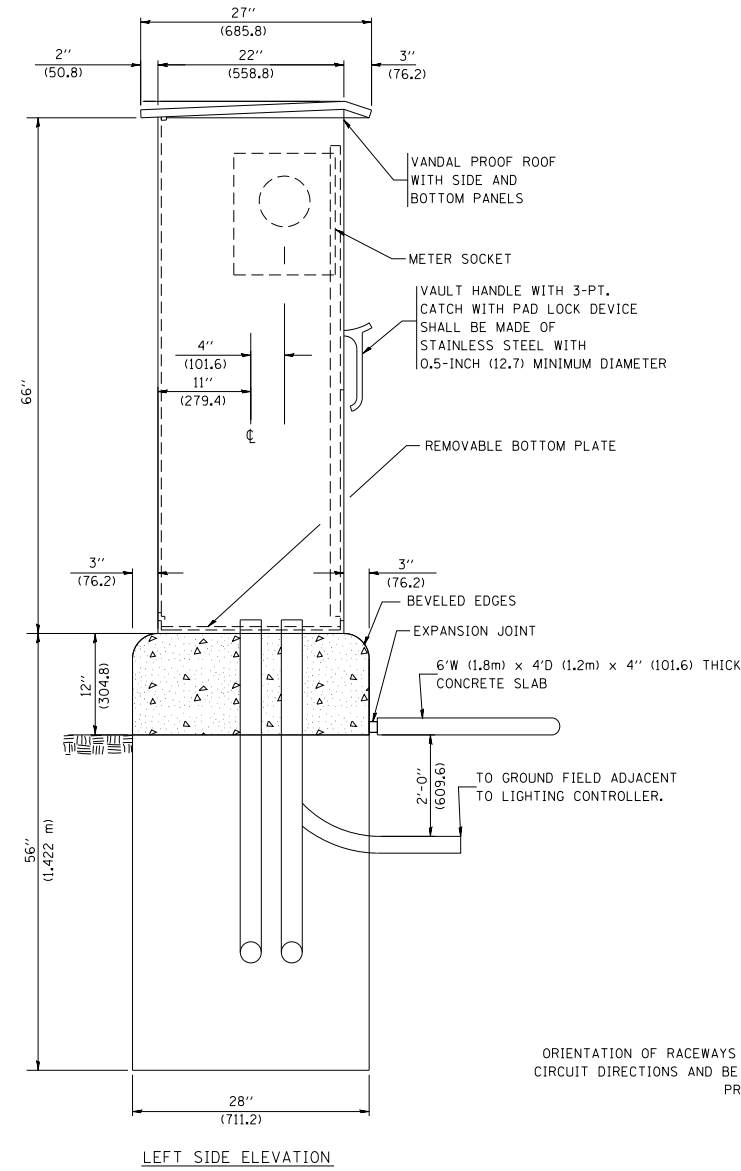
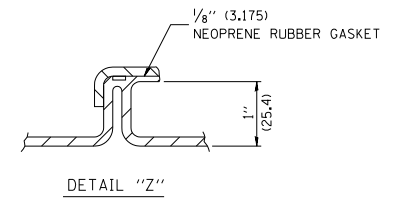
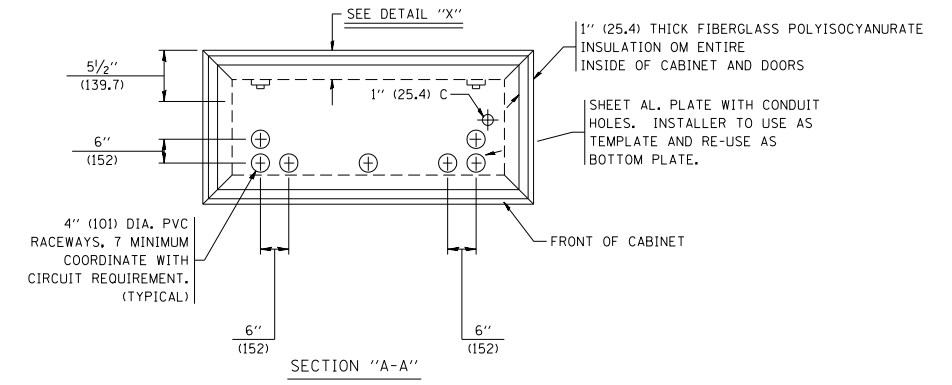
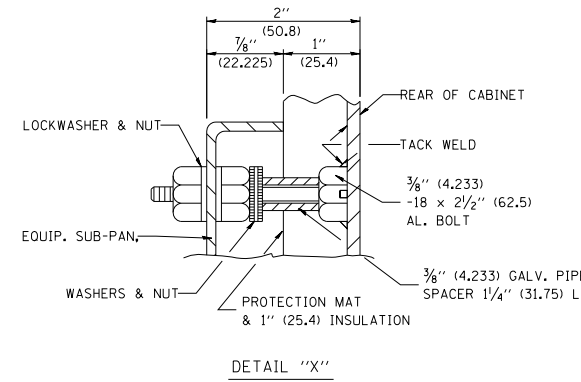
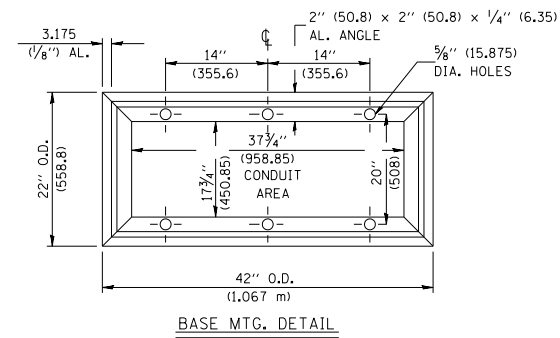
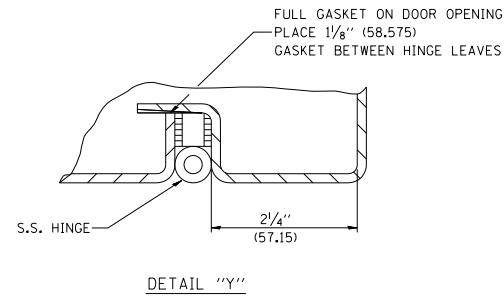
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		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING CONTROLLER, RADIO CONTROL
DUPLIX TYPE WITH SCADA**

SCALE: NONE SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	706
BE-205		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



ORIENTATION OF RACEWAYS SHALL BE COORDINATED WITH CIRCUIT DIRECTIONS AND BE INSPECTED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT

1-INCH (25.4) PVC TO GROUND FIELD OF 3 GROUND RODS IN A 10 FT (3.048 m). TRIANGLE CONNECTED VIA BARE COPPER WIRE. VERIFY EXACT LOCATION OF GROUND FIELD WITH THE ENGINEER. NO GROUND WELL SHALL BE PLACED IN CONCRETE PAD IN FRONT OF CONTROLLER.

FILE NAME =	USER NAME = leuso	DESIGNED -	REVISED - R. TOMSONS 08-19-04
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		PLOT SCALE = 50.000' / IN.	REVISED - R. TOMSONS 03-10-10
		PLOT DATE = 3/30/2010	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LIGHTING CONTROLLER, RADIO CONTROL
DUPLIX TYPE WITH SCADA**

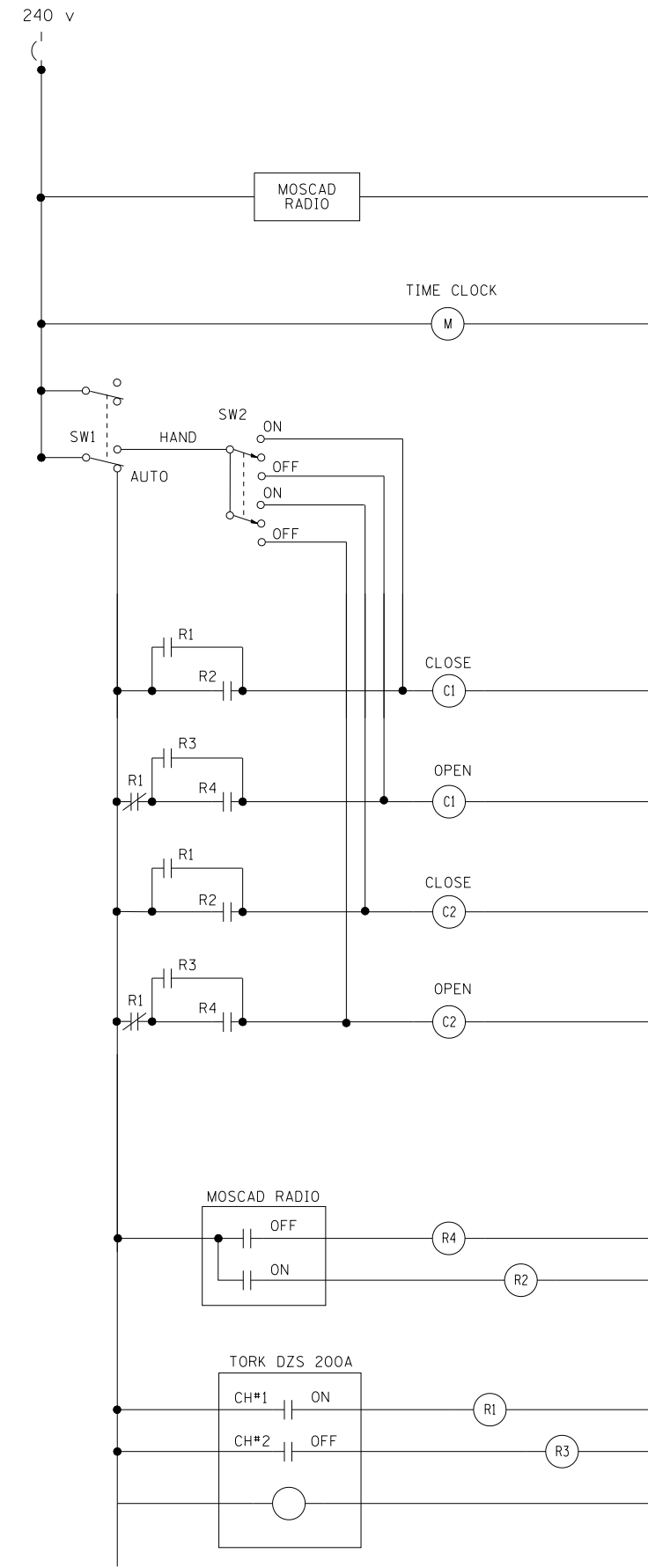
SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	707
BE-205		CONTRACT NO. 60131		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTES

- CABINET SHALL BE FABRICATED FROM 0.125-INCH (3.175) SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH (19.05) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH (3.175) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES, SET CH.1 TO 23 MINUTES AFTER ASTRONOMICAL SUNSET, 50 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +28 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW, SCADA WIRING SHALL BE #18.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

R - RED	Y - YELLOW
B - BLACK	W - WHITE
BL- BLUE	G - GREEN
	GR - GREY
- MOSCAD I/O WIRING SHALL BE:
 - DIGITAL INPUT (DI) WIRING SHALL BE #18 MTW PURPLE.
 - ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.
 - AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	DIGITAL INPUT 1	ALARM KNOWLEDGE
2	DIGITAL INPUT 2	DOOR OPEN
3	DIGITAL INPUT 3	MAINS) BREAKER OPEN
4	DIGITAL INPUT 4	CONTACTOR 1 OPEN
5	DIGITAL INPUT 5	CONTACTOR 2 OPEN
6	DIGITAL INPUT 6	CABINET IN NON-AUTO
7	DIGITAL INPUT 7	BACK-UP CLOCK OFF CALL
8	DIGITAL INPUT 8	BACK-UP CLOCK ON CALL
17	24 V+	24+VDC
18	DI COMMON	COMMON
21	K1 C	K1 COMMON
22	K1 NO	LIGHTS ON CALL
24	K2 C	K2 COMMON
25	K2 NO	LIGHTS OFF CALL
32	ANALOG INPUT 1 (+)	CABINET NEUTRAL CURRENT
33	ANALOG INPUT 1 (-)	CABINET NEUTRAL CURRENT
34	ANALOG INPUT 2 (+)	CABINET SERVICE VOLTAGE
35	ANALOG INPUT 2 (-)	CABINET SERVICE VOLTAGE
40	P. GROUND	GROUND

ALL ANALOG INPUTS WILL BE 4-20 MA ONLY. DIGITAL OUTPUT RELAYS WILL BE ELECTRICALLY ENERGIZED AND MOMENTARILY HELD
MIXED I/O MODULE MODEL NUMBER V436

FILE NAME =	USER NAME = leuss	DESIGNED -	REVISED - R. TOMSONS 08-19-04
ca:\pwork\PWIDOT\LEYSAN\0108315\be205.dgn		DRAWN -	REVISED - R. TOMSONS 05-11-09
		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

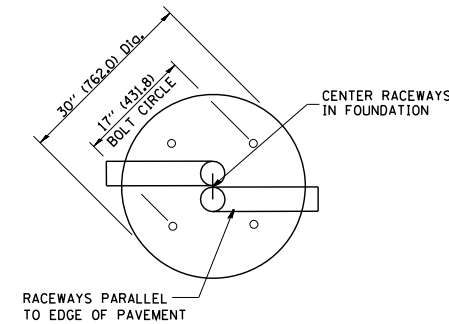
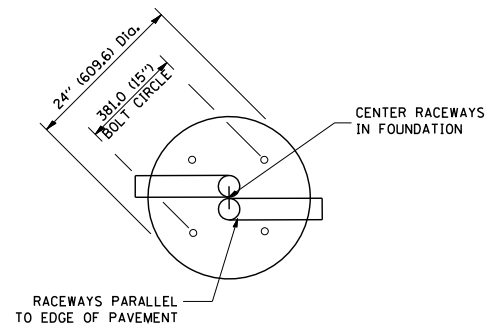
**LIGHTING CONTROLLER, RADIO CONTROL
DUPLIX TYPE WITH SCADA**

SCALE: NONE SHEET NO. 4 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	708
BE-205			CONTRACT NO.60I31	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O _u = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)

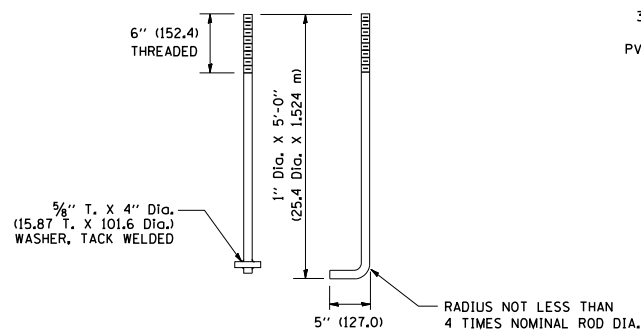


TOP VIEW

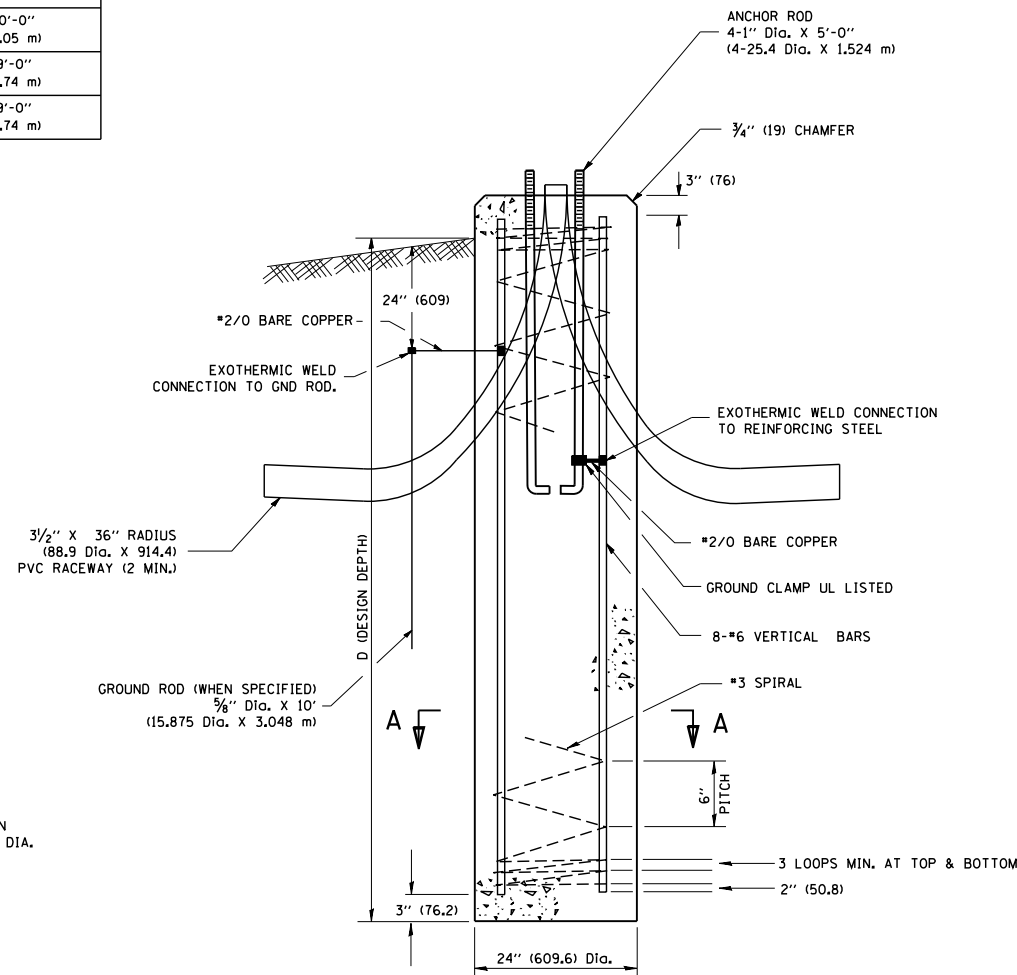
TOP VIEW

NOTES

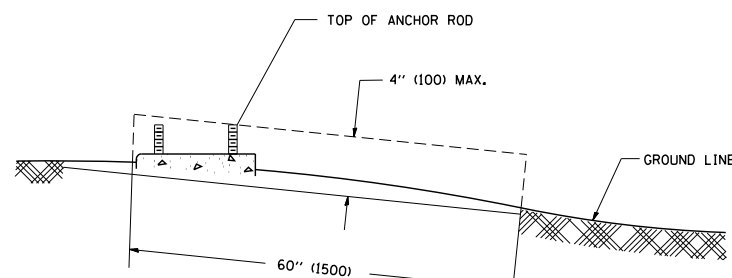
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



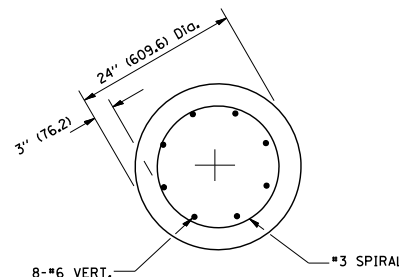
ANCHOR ROD DETAIL



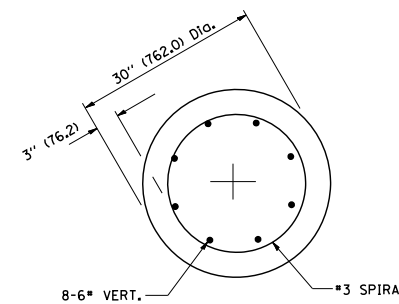
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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PLOT DATE = 1/4/2008

DESIGNED -
DRAWN -
CHECKED -
DATE -

REVISED - 04-22-02
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION

40' (12.192 m) TO 47' 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

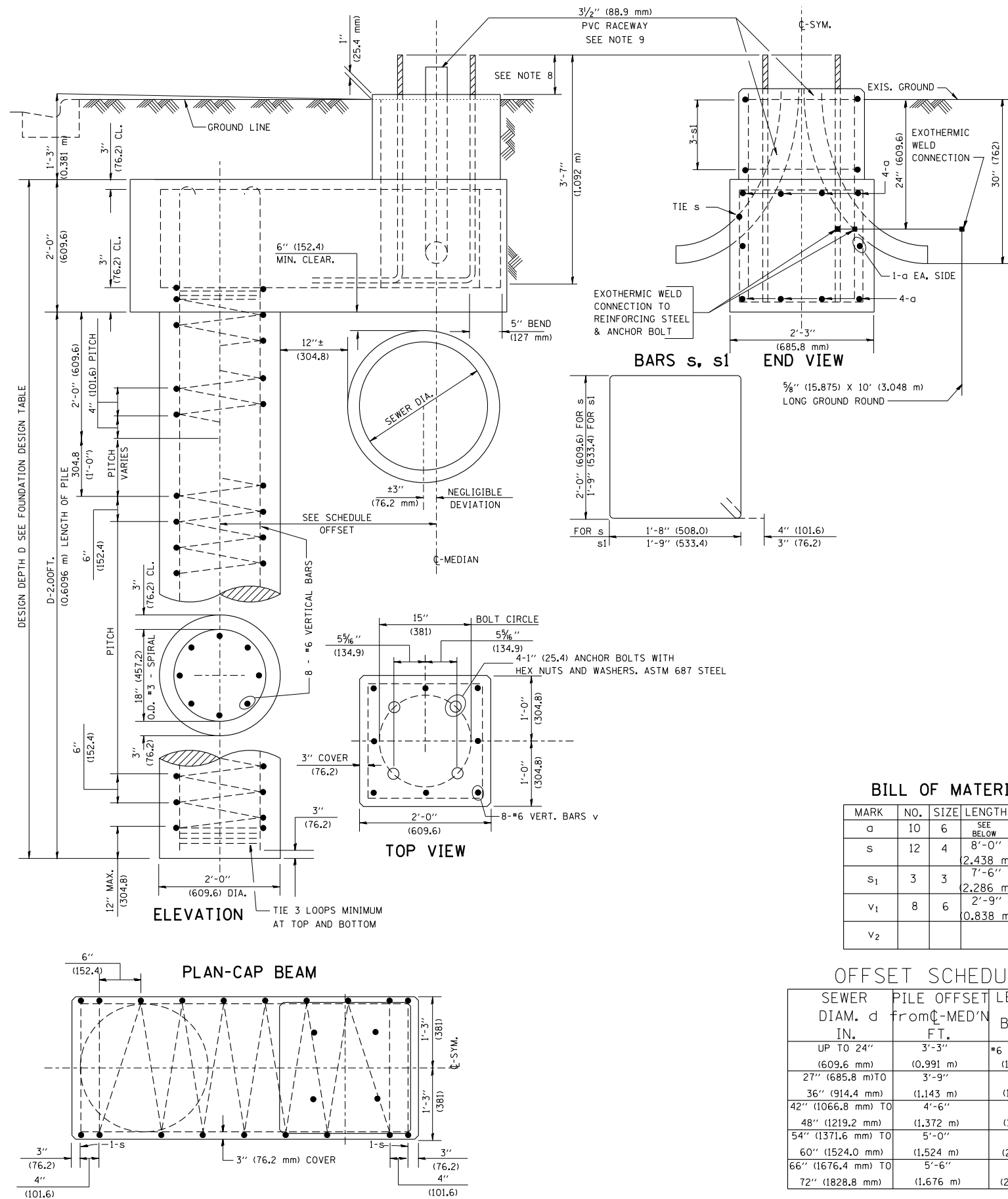
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	709
BE-301		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FOUNDATION DESIGN TABLE

TYPE OF SOIL	DESIGN DEPTH OF FOUNDATION		REINFORCEMENT IN FOUNDATION			
	SINGLE ARM D	TWIN ARM D	SINGLE ARM		TWIN ARM	
			VERT BARS	SPIRAL	VERT BARS	SPIRAL
SOFT CLAY	13'-0" (3.962 m)	15'-0" (4.572 m)	8-#6X12'-6" (3.810 m)	#3X122' (37.186 m)	8-#6X14'-3" (4.343 m)	#3X141' (42.977 m)
MEDIUM CLAY	9'-6" (2.896 m)	10'-9" (3.277 m)	8-#6X9'-0" (2.743 m)	#3X90' (27.432 m)	8-#6X10'-0" (3.048 m)	#3X100' (30.480 m)
STIFF CLAY	7'-0" (2.134 m)	8'-0" (2.438 m)	8-#6X6'-6" (1.981 m)	#3X66' (20.112 m)	8-#6X7'-6" (2.286 m)	#3X76' (23.165 m)
LOOSE SAND	9'-0" (2.743 m)	10'-0" (3.048 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)	8-#6X9'-6" (2.896 m)	#3X94' (28.651 m)
MEDIUM SAND	8'-3" (2.515 m)	9'-0" (2.743 m)	8-#6X8'-0" (2.438 m)	#3X78' (23.774 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
DENSE SAND	7'-9" (2.362 m)	9'-0" (2.743 m)	8-#6X7'-6" (2.286 m)	#3X73' (22.250 m)	8-#6X8'-6" (2.591 m)	#3X85' (25.908 m)
ROCK OR SOLIDIFIED SLAG	5'-0" (1.524 m)	5'-0" (1.524 m)	NONE	NONE	NONE	NONE

NOTES

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ENGINEER SHALL DETERMINE THE CLASS OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE.
- EXCAVATION OF THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER, 24" (609.6 mm) OR 30" (762.0 mm) IN DIAMETER.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORM.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF FOUNDATION WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS. IF LIGHT POLE IS MOUNTED WITHOUT BREAKAWAY DEVICE, ANCHOR BOLTS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE TOP OF THE FOUNDATION. THE CONTRACTOR SHALL CONFIRM ANCHOR BOLT EXTENTION WITH ENGINEER.
- RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.
- THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE LIGHT IS ERECTED.



BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	SHAPE
a	10	6	SEE BELOW	—
s	12	4	8'-0" (2,438 m)	□
s ₁	3	3	7'-6" (2,286 m)	□
v ₁	8	6	2'-9" (0,838 m)	—
v ₂				

OFFSET SCHEDULE

SEWER DIAM. d IN.	PILE OFFSET FROM C-MED'N FT.	LENGTH OF BAR a FT.
UP TO 24" (609.6 mm)	3'-3" (0.991 m)	#6 x 5'-3" (1.600 m)
27" (685.8 mm) TO	3'-9" (1.143 m)	5'-9" (1.753 m)
36" (914.4 mm) TO	4'-6" (1.372 m)	6'-6" (1.981 m)
42" (1066.8 mm) TO	5'-0" (1.524 m)	7'-0" (2.134 m)
48" (1219.2 mm) TO	5'-6" (1.676 m)	7'-6" (2.286 m)
54" (1371.6 mm) TO	6'-0" (1.828 m)	
60" (1524.0 mm) TO		
66" (1676.4 mm) TO		
72" (1828.8 mm)		

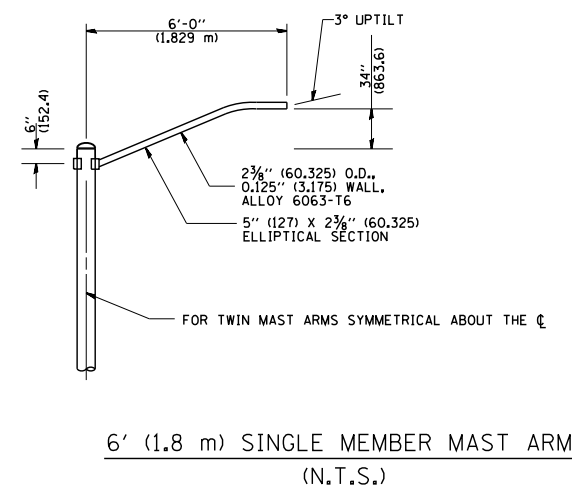
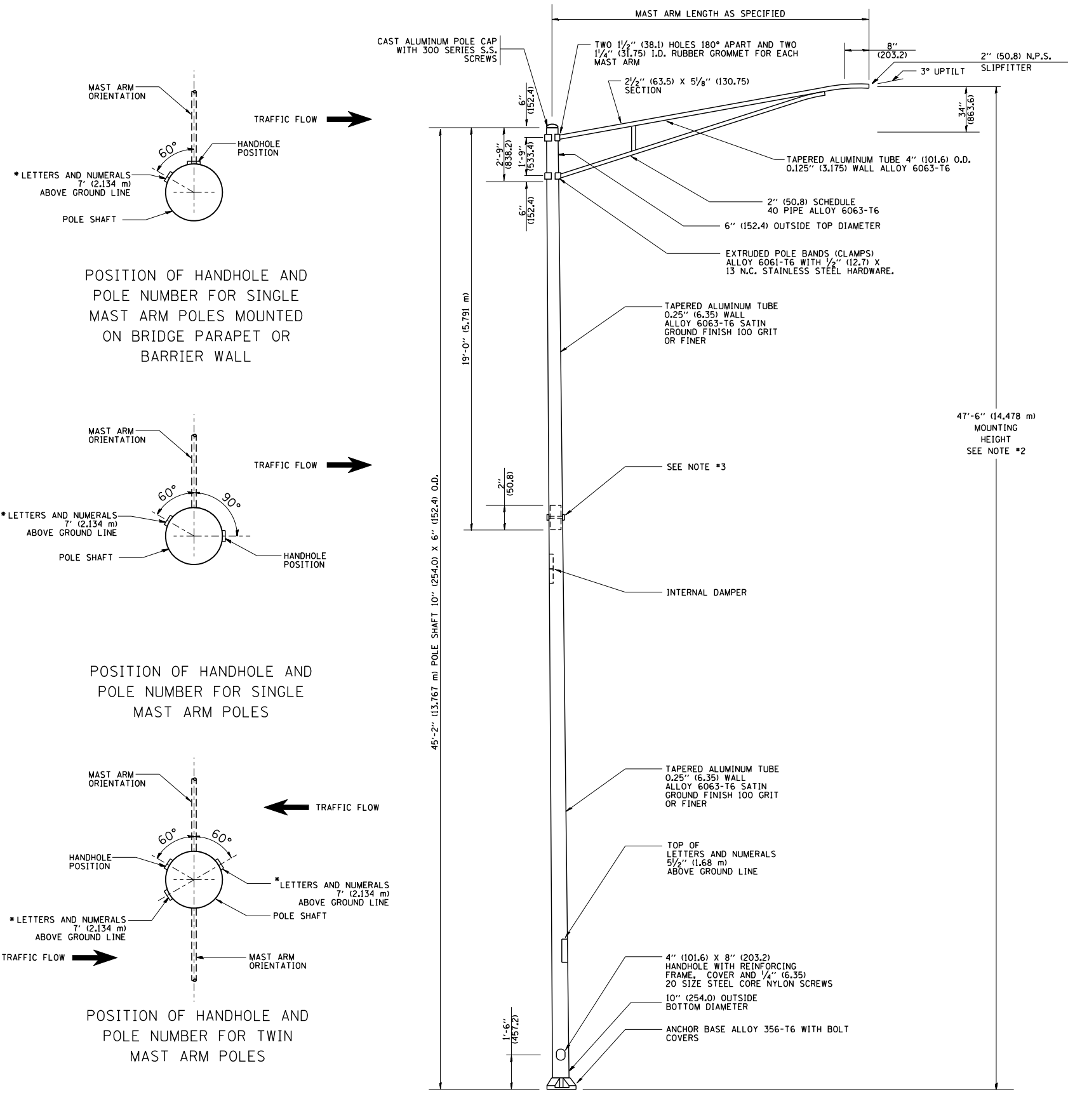
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		CHECKED -	REVISED -
		DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

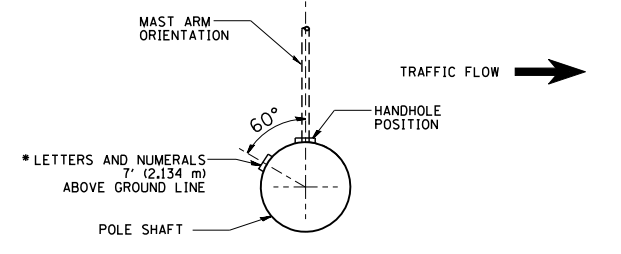
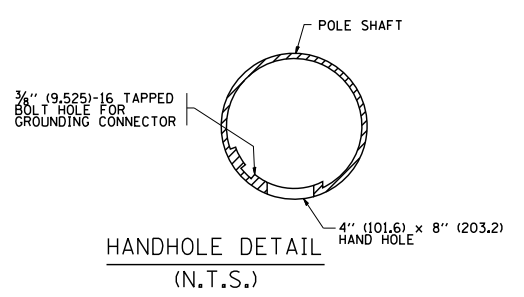
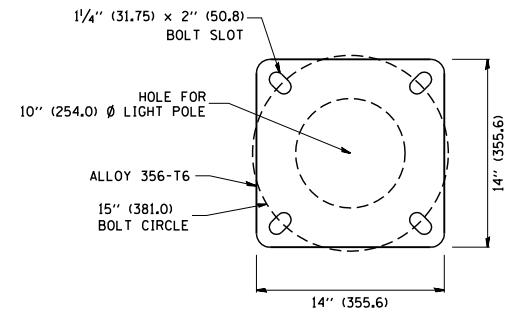
LIGHT POLE FOUNDATION OFFSET
40" (1,016 mm) TO 47 1/2" (1,206 mm) M.H.
15" (381 mm) BOLT CIRCLE

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

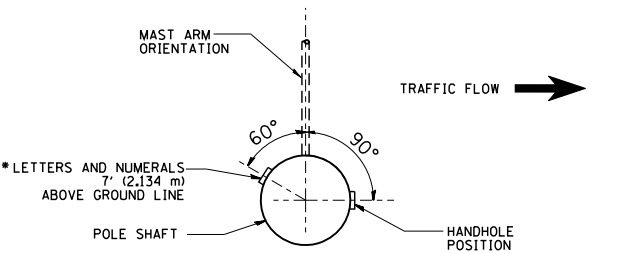
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BE-310		CONTRACT NO. 60131		
ILLINOIS FED. AID PROJECT				



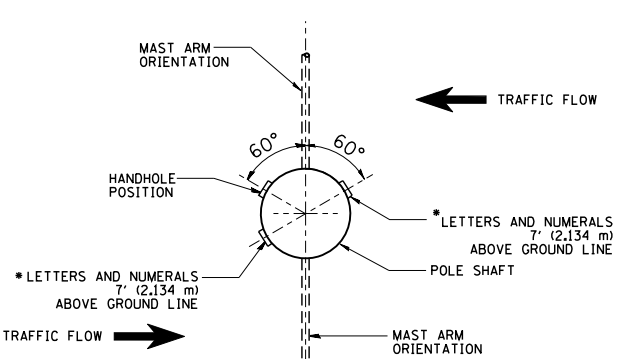
- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 4. THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 5. THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 6. LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 7. LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 8. LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



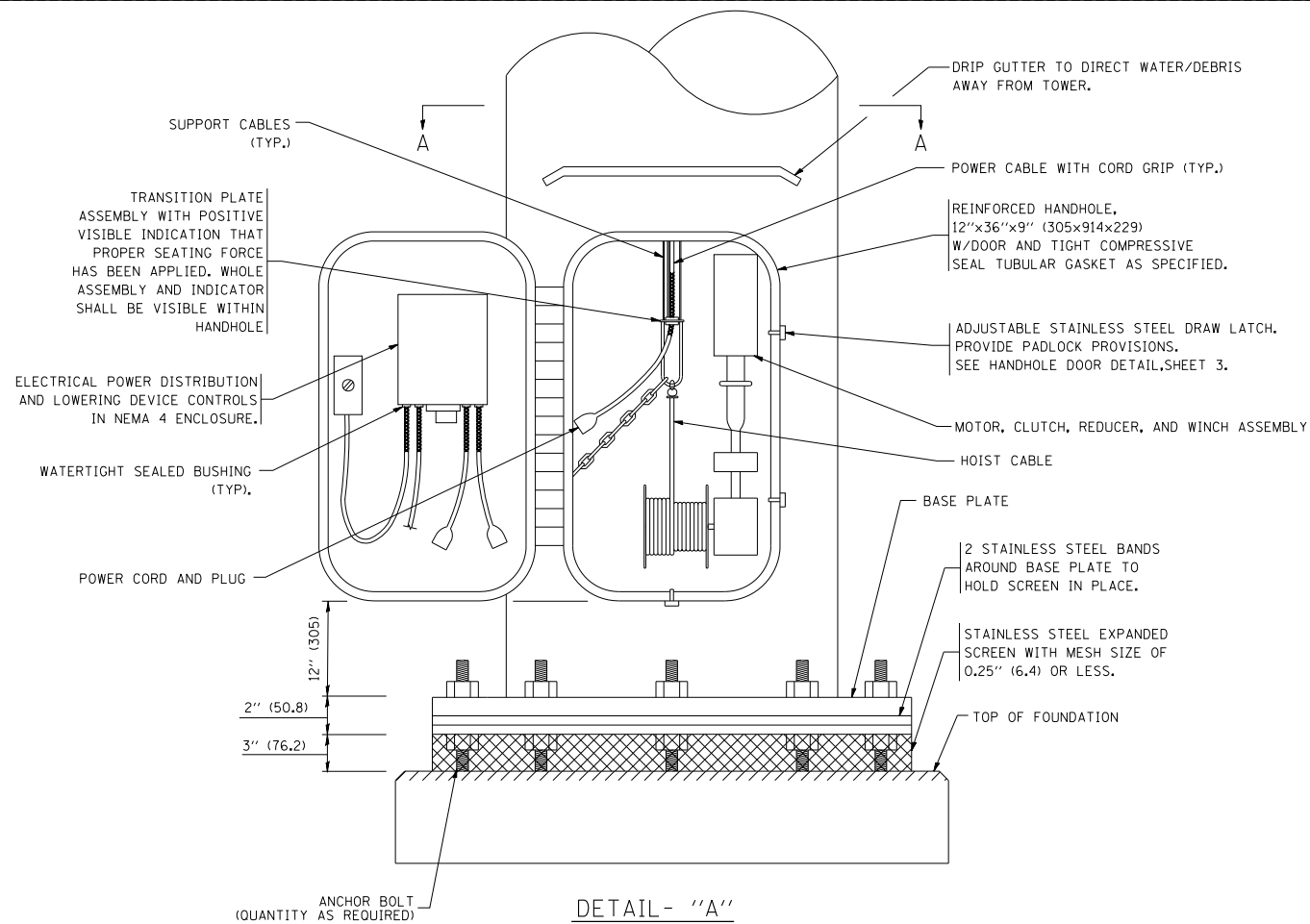
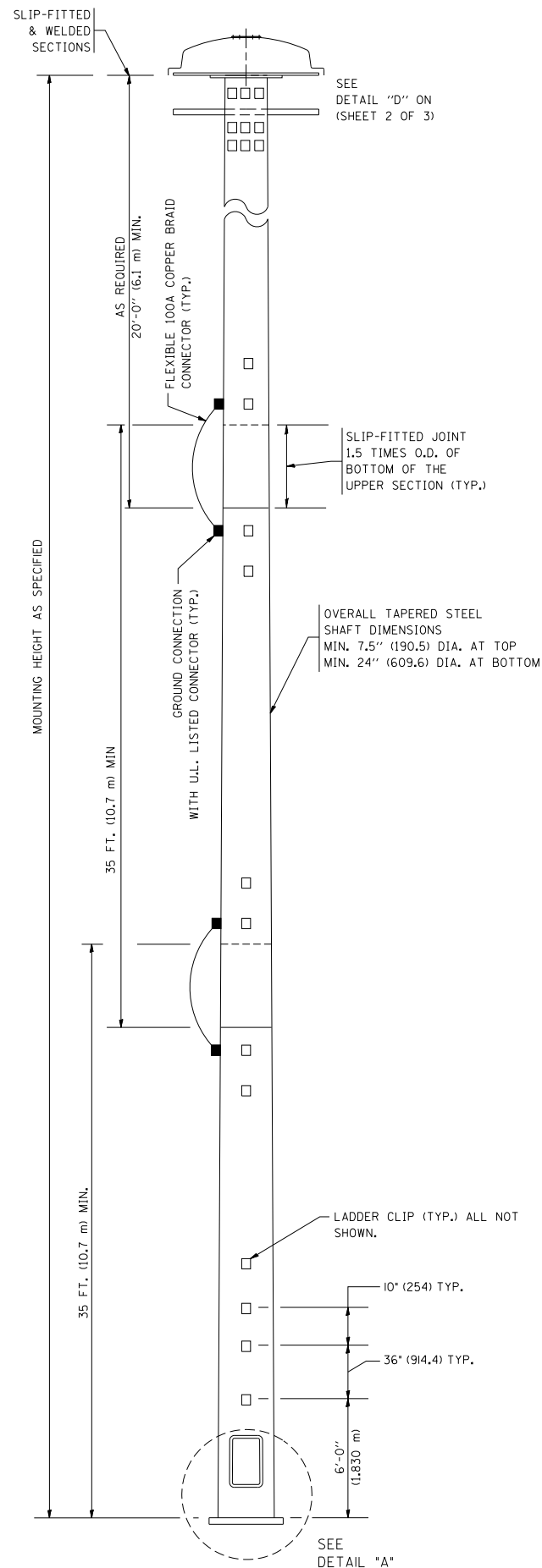
POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

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		DRAWN -	REVISED - R. TOMSONS 09-03-03
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

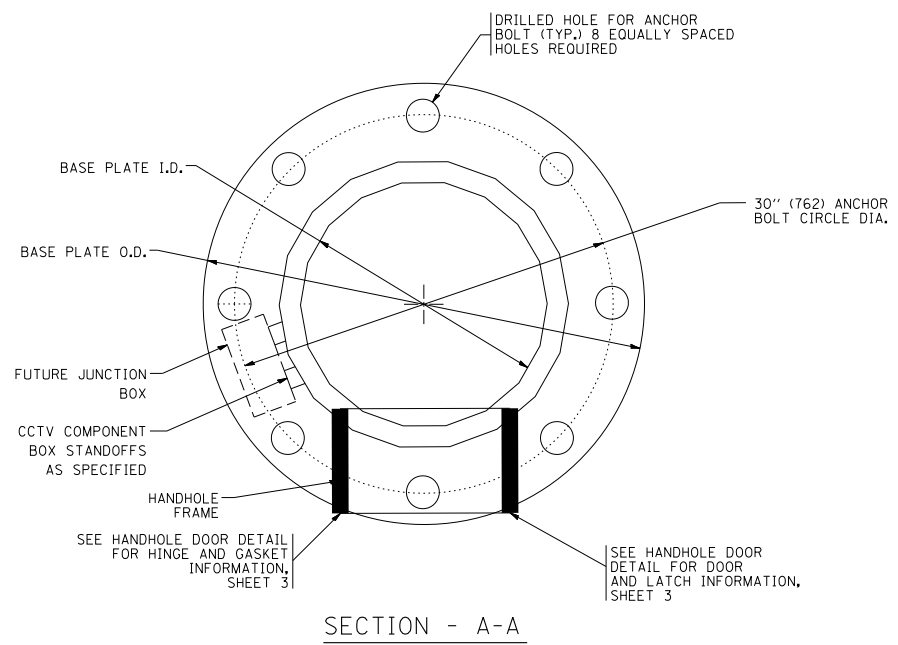
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALUMINUM LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	711
BE-400		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



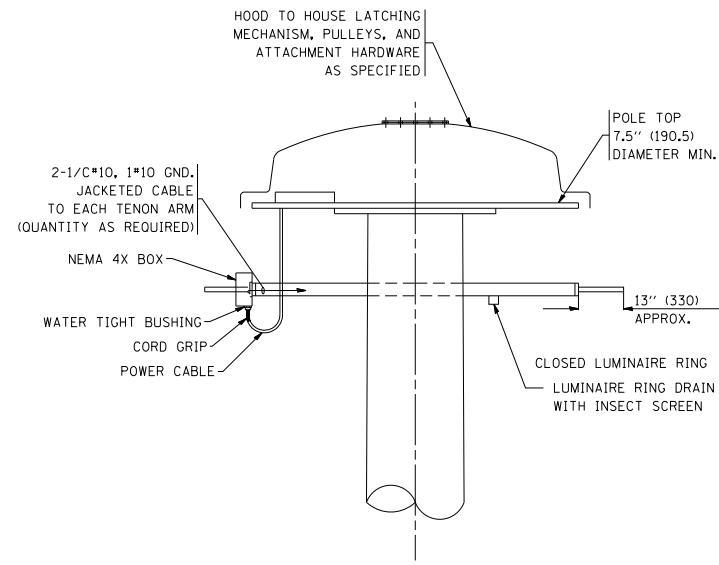
DETAIL - "A"
3 CABLE LOWERING & SUPPORT MECHANISM SHOWN.



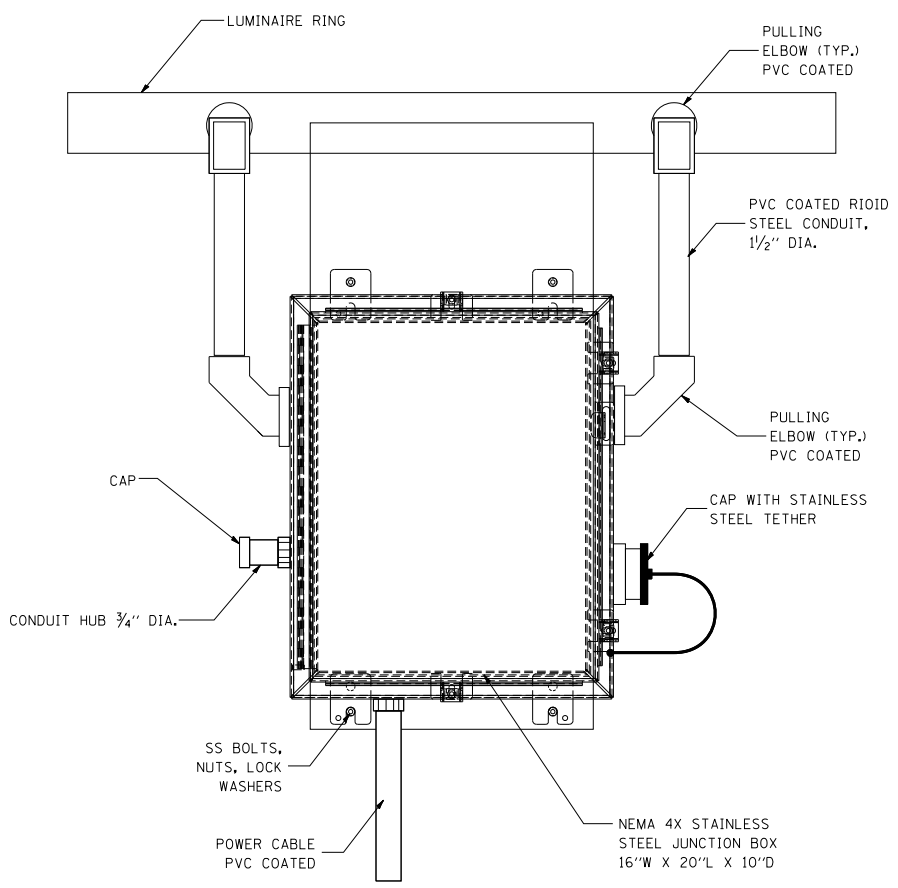
SECTION - A-A

- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - THE DESIGN SHALL BE BASED UPON AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS" CURRENT AT THE TIME THE PROJECT IS ADVERTISED AND A TOTAL COMBINED LUMINAIRE WEIGHT OF 720 LBS. (326 kg) AND HAVING A TOTAL PROJECTED AREA OF 24 SQ. FT. (7.3 sq. m).
 - ALL TOWER SHAFT COMPONENTS, INCLUDING, BUT NOT LIMITED TO THE SHAFT SECTIONS, BASE PLATE, LADDER CLIPS, HANDHOLE DOOR, HANDHOLE REINFORCING, RAIN GUTTER, AND BASE PLATE, SHALL BE FABRICATED FROM HIGH-STRENGTH, LOW ALLOY, STEEL WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI (345 K PA) ACCORDING TO AASHTO M 223 (ASTM A 572 GR50)
 - THE ELECTRIC MOTOR, MOTOR GEAR REDUCER, WINCH DRUM ASSEMBLY AND AUTOMATIC SHUTOFF SWITCH OF THE LOWERING DEVICE SHALL BE ACCESSIBLE FROM THE FRONT OF THE TOWER FOR EASY REMOVAL AND MAINTENANCE. ALL COMPONENTS SHALL BE REMOVABLE THROUGH THE HANDHOLE.
 - THE LIGHT TOWER SHAFT SHALL HAVE LADDER CLIPS. CLIPS SHALL BEGIN 6 FT. (1.8 m) ABOVE THE BASE PLATE WITH ALTERNATE 36 INCH (900) AND 10 INCH (250) SPACING THEREAFTER, FOR THE ENTIRE LENGTH. THE TOP 10 FT. (3 m) OF THE POLE SHAFT SHALL HAVE 3 SETS OF CLIPS. EACH SET OF CLIPS SHALL BE 120 DEGREES APART. CLIPS SHALL BE 0.25 X 2 INCHES (6 X 50) WELDED TO THE SHAFT TO PRODUCE A SLOT 0.625 INCHES (15.9) DEEP AND 1.625 INCHES (41.3) LONG. THE TOP INSIDE EDGE SHALL BE CHAMFERED.
 - A COPPER BONDING JUMPER SHALL BOND SLIP-FIT POLE SECTIONS TOGETHER WITH A FLAT COPPER MESH AND STAINLESS STEEL GROUND LUGS.
 - ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
 - THE ENTIRE TOWER INCLUDING THE SHAFT, HANDHOLE, HANDHOLE DOOR, BASE PLATE AND ALL OTHER ELEMENTS WELDED TO THE SHAFT SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 (ASTM A 123) AND THEN PAINTED AS SPECIFIED. THE LUMINAIRE RING SHALL BE PRIMED AND PAINTED AS SPECIFIED.
 - THE FINISH COAT SHALL BE ANSI 70, SKY GREY COLOR SAMPLE TO BE SUBMITTED FOR APPROVAL. ON LIGHT TOWERS DESIGNED FOR A CCTV CAMERA TO BE INSTALLED, THE TOP SECTION OR 30 FT. WHICH EVER IS GREATER OF THE TOWER SHAFT SHALL BE PAINTED FLAT BLACK. OTHER SECTIONS SHALL BE ANSI 70, SKY GREY.
 - ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.
 - THE LIGHT TOWER SHALL BE STRAIGHT AND CENTERED ON ITS LONGITUDINAL AXIS, UNDER NO-WIND CONDITIONS, SO WHEN EXAMINED NOT TRANSIT FROM ANY DIRECTION, THE DEVIATION FROM THE NORMAL SHALL NOT EXCEED 1/8 IN. IN 3 FT (2 mm IN 1 m) WITHIN ANY 5 FT (1.5 m) OF HEIGHT, WITH TOTAL DEVIATION NOT TO EXCEED 3 IN. (75) FROM THE VERTICAL AXIS THROUGH THE CENTER OF THE POLE BASE.
 - PVC CONDUIT WILL NOT BE ALLOWED FOR ANY LIGHT TOWER COMPONENT.
 - COUNTER WEIGHTS TO BE INCLUDED AS A PART OF THE LIGHT TOWER PAY ITEM.

FILE NAME = W:\diststd\22x34\be500.dgn	USER NAME = leuss	DESIGNED - DRAWN -	REVISED - R. TOMSONS 08-04-03 REVISED - R. TOMSONS 05-11-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGH MAST LIGHT TOWER 90 FT TO 110 FT (27 m TO 34 m)			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - R. TOMSONS 09-02-10		SCALE: NONE	SHEET NO. 1 OF 3 SHEETS	STA.	TO STA.	338	(112 & 113) WRS-5	DUPAGE	963	712
	PLOT DATE = 11/22/2010	DATE -	REVISED -		BE-500		CONTRACT NO. 60131		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

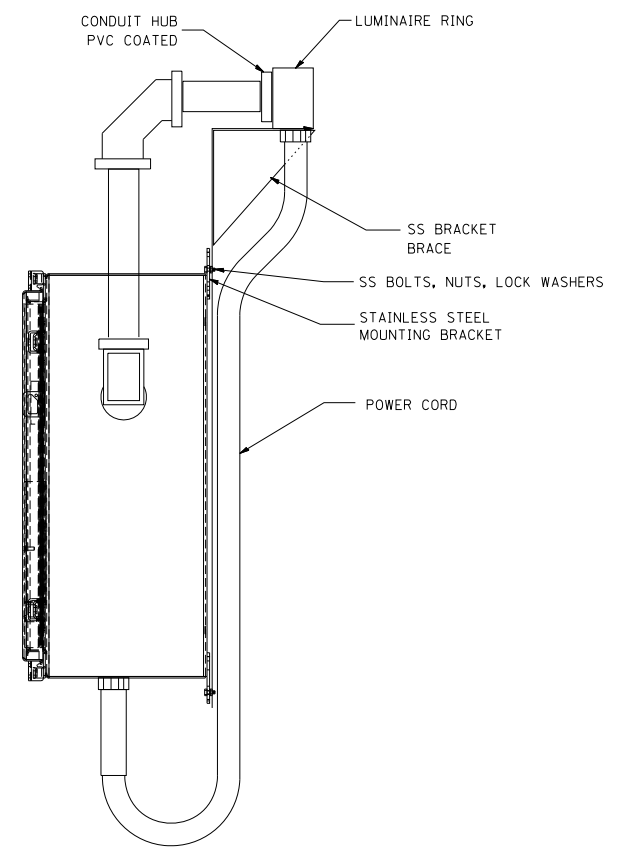


DETAIL - "D"

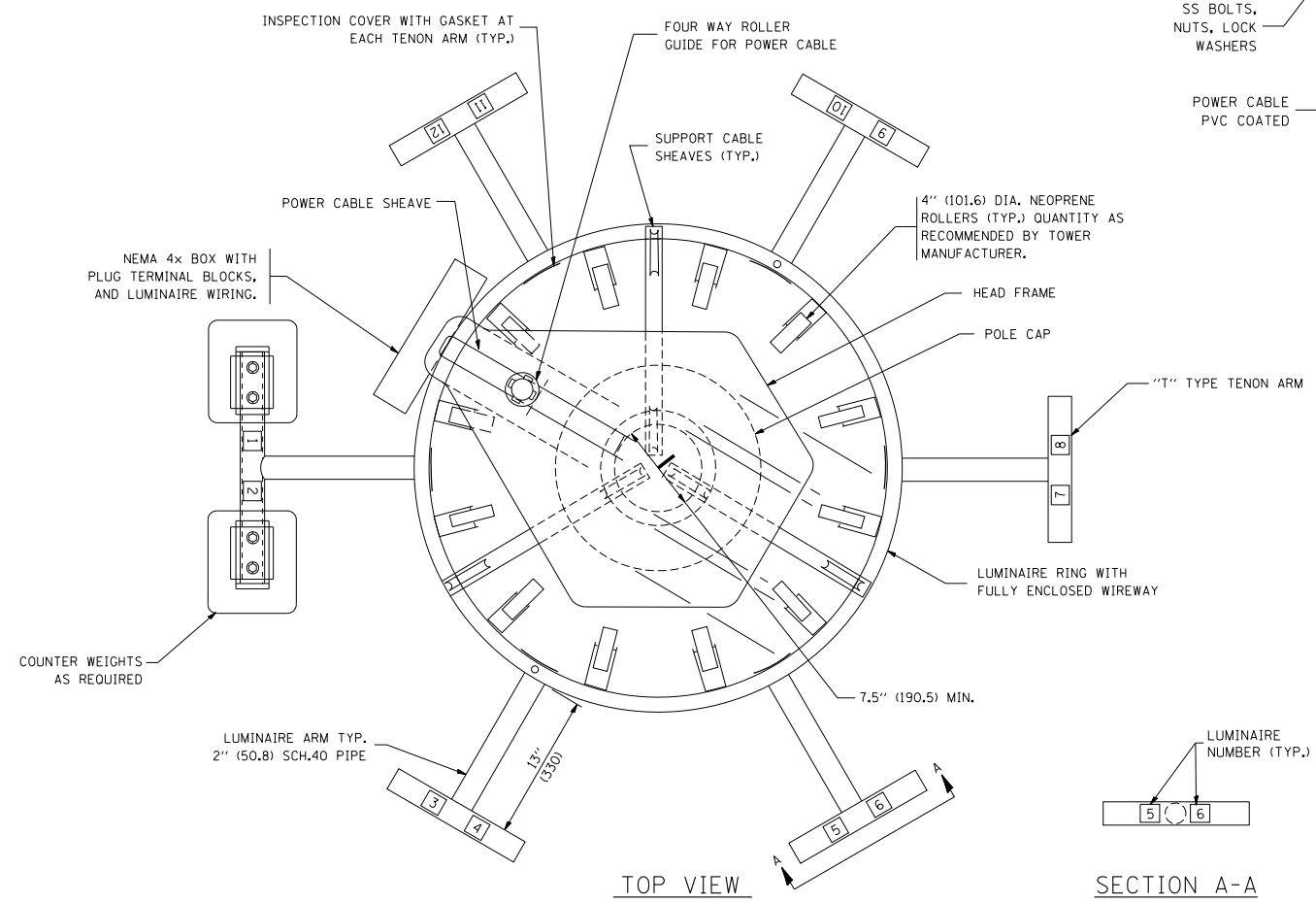


FRONT VIEW
N.T.S.

LUMINAIRE RING TERMINAL BOX

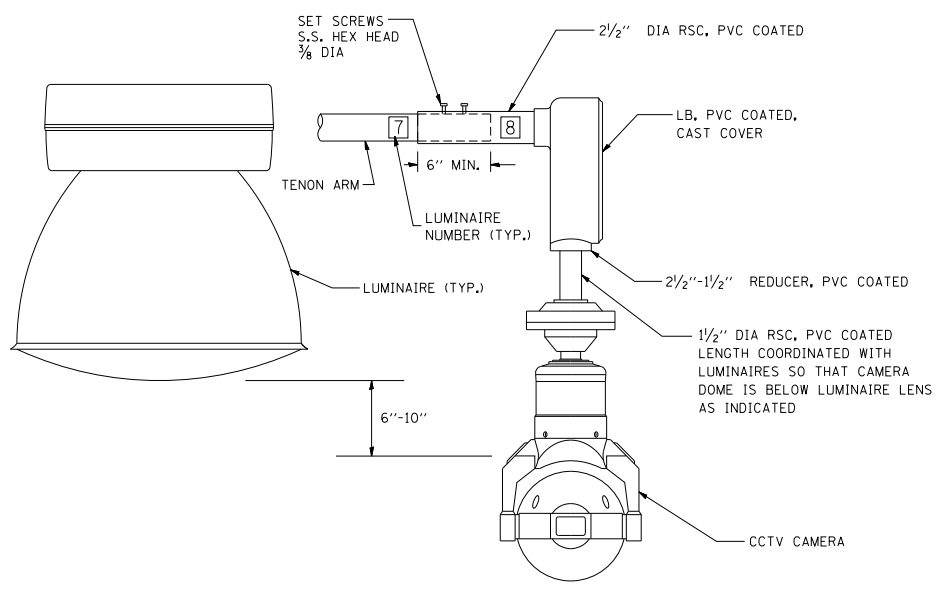


SIDE VIEW
N.T.S.



TOP VIEW

SECTION A-A



CCTV CAMERA MOUNTING DETAIL

NOTES:

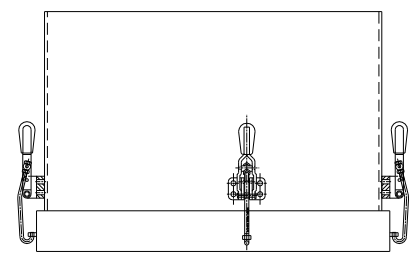
- LUMINAIRE WIRES SHALL EXTEND 24 INCHES (609 mm) LONGER THAN THEIR RESPECTIVE TENON ARM AND SHALL BE TRAINED BACK INTO THE ARM WHICH SHALL THEN BE CLOSED WITH A CAP AS SPECIFIED ALL WIRES SHALL BE CAPPED WITH HEAT SHRINK INSULATING BOOTS, CRIMP CAPS ARE UNACCEPTABLE. ALL RING WIRES SHALL BE TAGGED WITH WIRE MARKERS AT BOTH ENDS THE TENON ARMS SHALL ALSO BE TAGGED CORRESPONDING TO THE WIRING CONTAINED WITHIN.
- SPLICING WILL NOT BE ALLOWED WITHIN THE LUMINAIRE RING.
- ALL TOWER SHAFT HARDWARE, SUCH AS GROUND LUGS, JUNCTION BOXES, HARDWARE FOR THE HANDHOLE DOOR, INCLUDING THE HANDLE/LATCH MECHANISM, HINGE AND DOOR STOP, SHALL BE STAINLESS STEEL. ALL CONDUIT AND CONDUIT FITTINGS SHALL BE PVC COATED GALVANIZED STEEL.
- ALL MULTI-CONDUCTOR CABLES SHALL BE FITTED WITH A HEAT-SHRINK MULTI-LEG BOOT. THE BOOT SHALL MEET MILITARY SPECIFICATION MIL-I-81765/1.

FILE NAME = W:\diststd\22x34\be500.dgn	USER NAME = leuss	DESIGNED - DRAWN -	REVISED - R. TOMSONS 08-04-03 REVISED - R. TOMSONS 05-11-09
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. TOMSONS 09-02-10
	PLOT DATE = 11/22/2010	DATE -	REVISED -

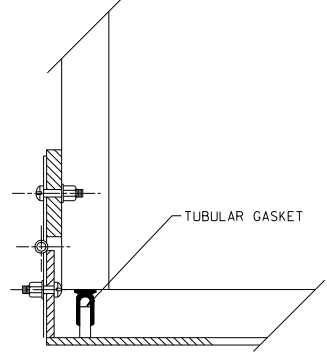
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER 90 FT TO 110 FT (27 m TO 34 m)			
SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.

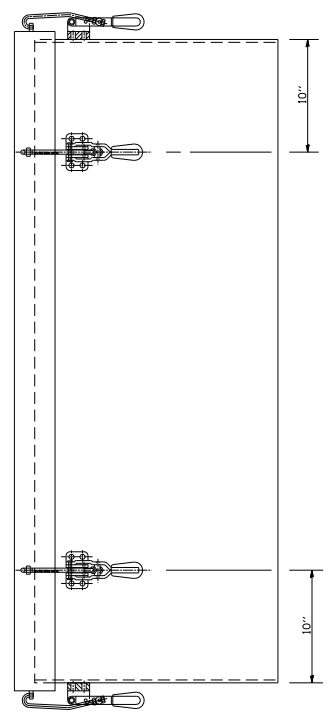
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	713
BE-500		CONTRACT NO.60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



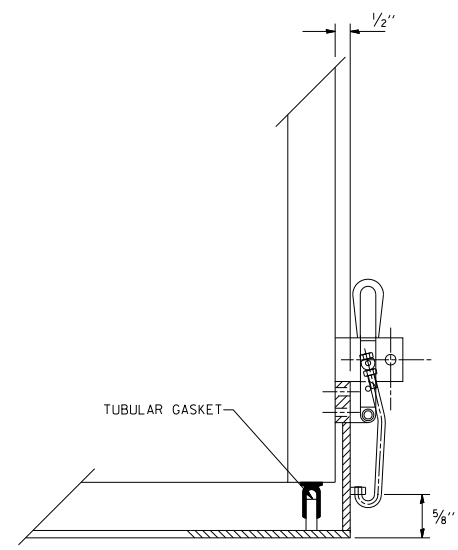
TOP VIEW



HINGE DETAIL

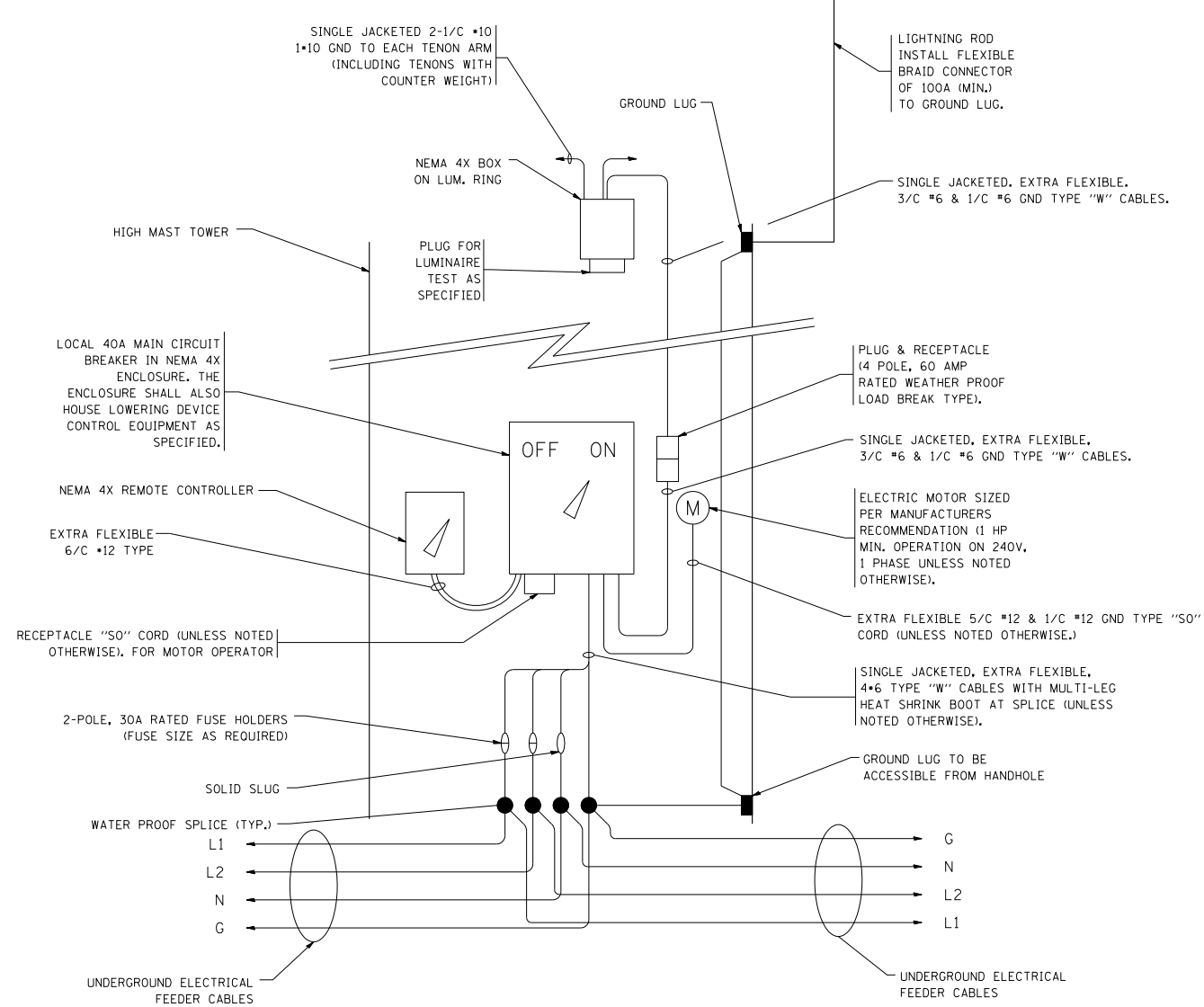


SIDE VIEW

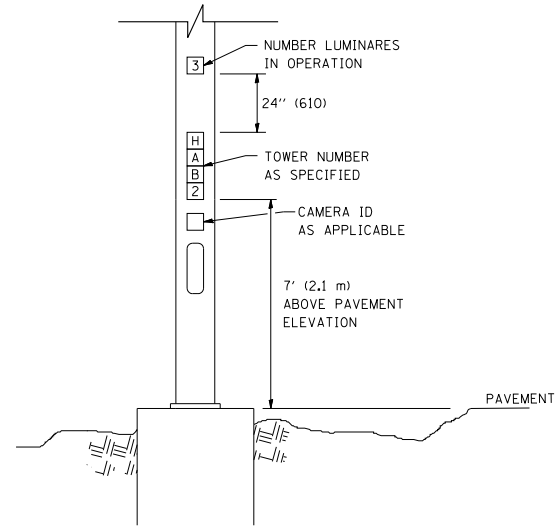


LATCH DETAIL

HANDHOLE DOOR DETAILS



HIGH MAST POLE WIRING DIAGRAM



LIGHT TOWER NUMBERING DETAIL

FILE NAME = W:\diststd\22x34\be500.dgn	USER NAME = leuso	DESIGNED - DRAWN -	REVISED - R. TOMSONS 08-04-03 REVISED - R. TOMSONS 05-11-09
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. TOMSONS 09-02-10
	PLOT DATE = 11/22/2010	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

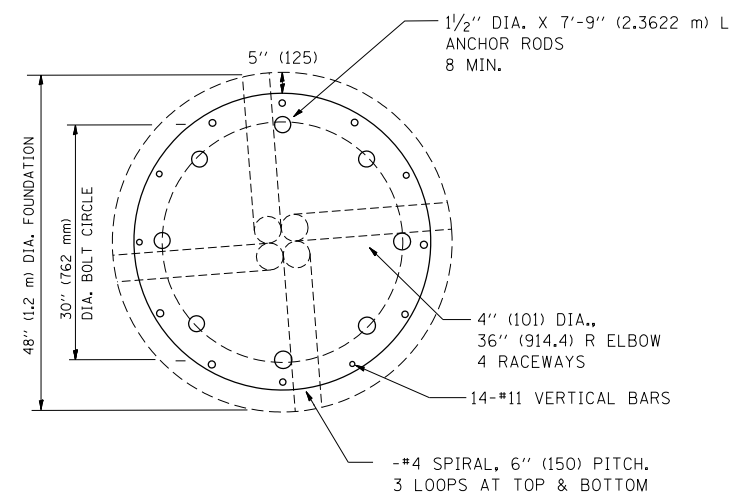
HIGH MAST LIGHT TOWER			
90 FT TO 110 FT (27 m TO 34 m)			
SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	714
BE-500		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

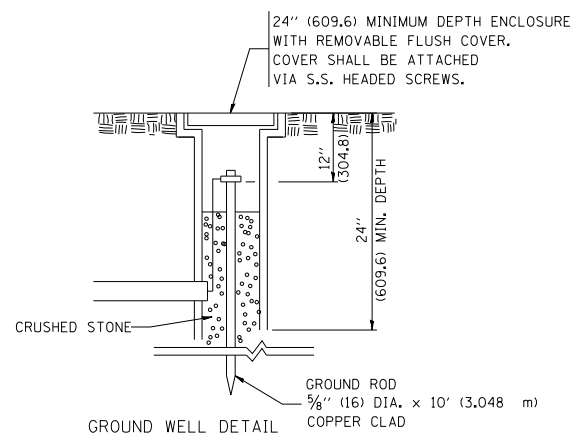
SOIL CONSISTENCY		SHAFT LENGTH (D) TABLE		
		AVERAGE STRENGTH	LIGHT TOWER MOUNTING HEIGHT	
COHESIVE	SOFT	Qu In tsf (Qu In kPa)	100 FT. (30 m)	110 FT. (34 m)
	MEDIUM	<0.5 (<50)	22'-6" (6.9 m)	24'-0" (7.2 m)
	STIFF	0.5 TO 1 (50 TO 100)	18'-6" (5.7 m)	19'-0" (5.8 m)
	VERY STIFF	1 TO 2 (100 TO 200)	15'-6" (4.7 m)	16'-0" (4.9 m)
	HARD	2 TO 4 (200 TO 400)	13'-6" (4.1 m)	14'-0" (4.2 m)
GRANULAR		N in BLOWS/FT. (N in BLOWS/0.3m)		
	VERY LOOSE	<5 (<5)	18'-0" (5.4 m)	18'-6" (5.6 m)
	LOOSE	5 TO 10 (5 TO 10)	16'-6" (4.9 m)	17'-0" (5.1 m)
	MEDIUM	10 TO 25 (10 TO 25)	15'-6" (4.7 m)	16'-0" (4.9 m)
	DENSE	25 TO 50 (25 TO 50)	15'-0" (4.5 m)	15'-6" (4.6 m)
	VERY DENSE	>50 (>50)	14'-0" (4.2 m)	14'-6" (4.4 m)

DESIGN NOTES

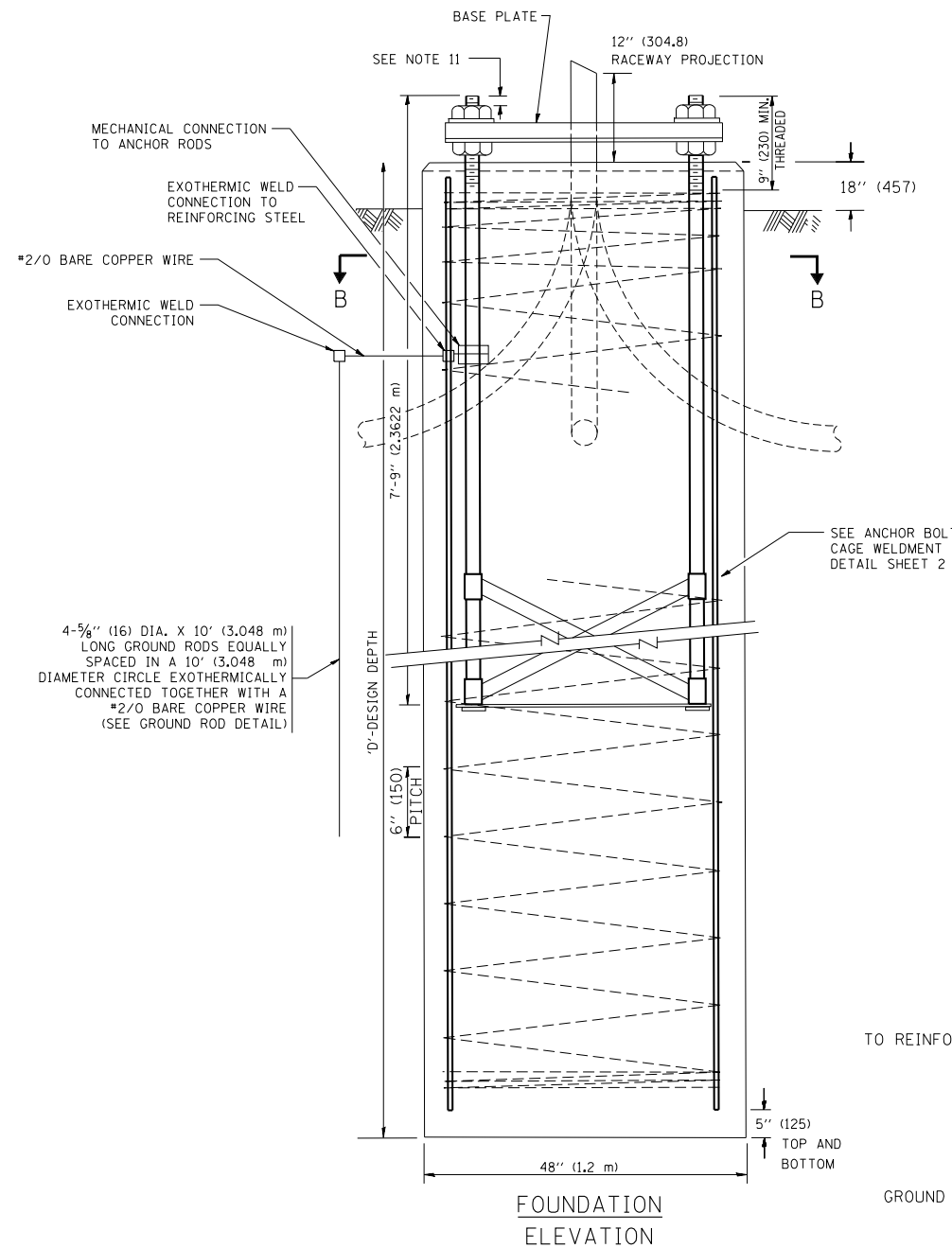
- (1) ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
- (2) THE ANCHOR RODS SHALL BE VERTICAL NO ADJUSTMENT SHALL BE ALLOWED AFTER THE FOUNDATION IS PLACED.
- (3) THE GAP BETWEEN THE FOUNDATION AND THE BASE PLATE SHALL BE ENCLOSED WITH A STAINLESS STEEL SCREEN FASTENED WITH A STAINLESS STEEL BAND.
- (4) THE TOP OF THE FOUNDATION TO 18" (450) BELOW GRADE SHALL BE FORMED.
- (5) SURFACE WATER WILL NOT BE PERMITTED TO ENTER THE HOLE AND ALL WATER WHICH MAY HAVE INFILTRATED INTO THE HOLE SHALL BE REMOVED BEFORE PLACING CONCRETE.
- (6) THE LIGHT TOWER SHALL NOT BE ERECTED UNTIL AFTER THE CONCRETE HAS BEEN CURED ACCORDING TO ARTICLE 1020.13.
- (7) ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725(GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.9.
- (8) ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED FOR APPROVAL WITH TOWER MANUFACTURER REQUIREMENTS.
- (9) REINFORCEMENT BARS SHALL BE ACCORDING TO ARTICLE 1006.10
- (10) TWO ANCHOR RODS OPPOSITE EACH OTHER SHALL HAVE THE ANCHOR ROD THREADS PEENED AFTER NUTS ARE INSTALLED.
- (11) A MINIMUM OF THREE FULL THREADS SHALL REMAIN EXPOSED AFTER LIGHT TOWER IS INSTALLED.
- (12) ALL GROUNDING INDICATED IN THE PLANS SHALL BE INCLUDED IN THE COST OF THE LIGHT TOWER FOUNDATION AND SHALL NOT BE PAID FOR SEPARATELY.



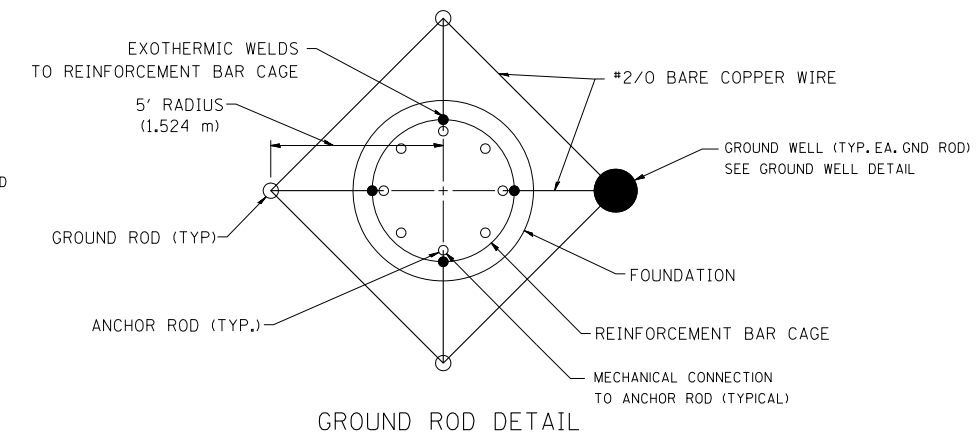
SECTION-B-B



GROUND WELL DETAIL



FOUNDATION ELEVATION



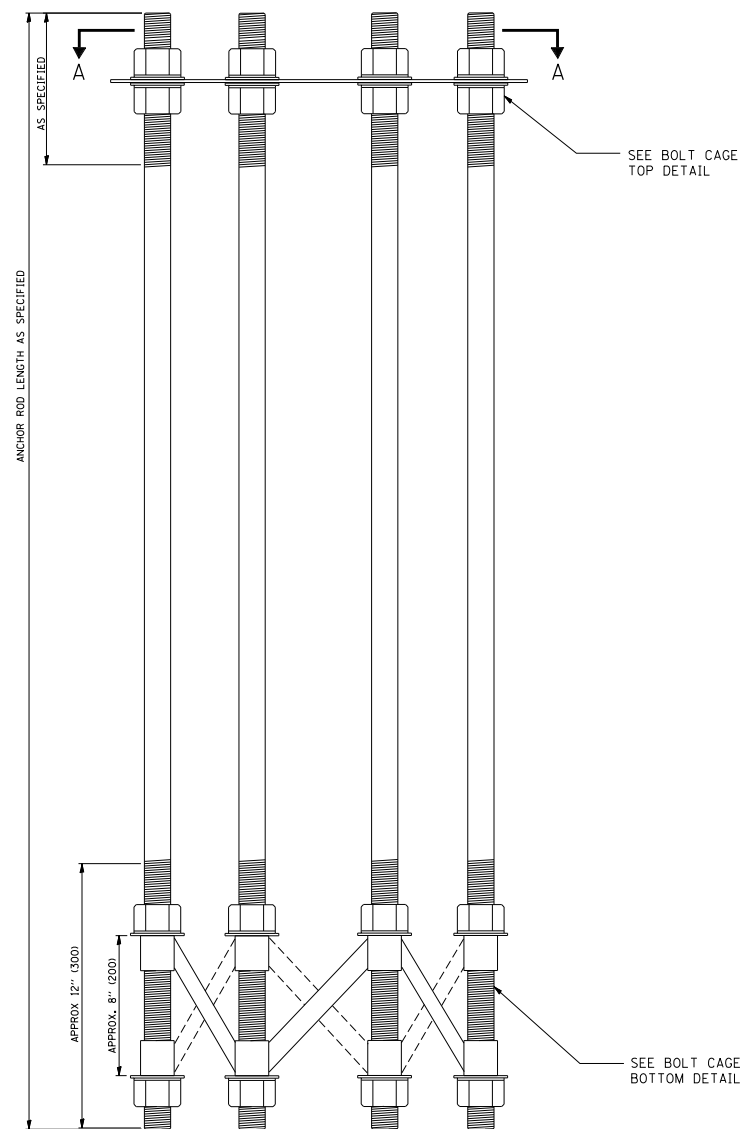
GROUND ROD DETAIL

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 04-22-02
ca:\pw_work\p1dot\drivakosgn\d0108315\be501.dgn		DRAWN -	REVISED - R. TOMSONS 03-12-10
		CHECKED -	REVISED - R. TOMSONS 09-02-10
		DATE -	REVISED -

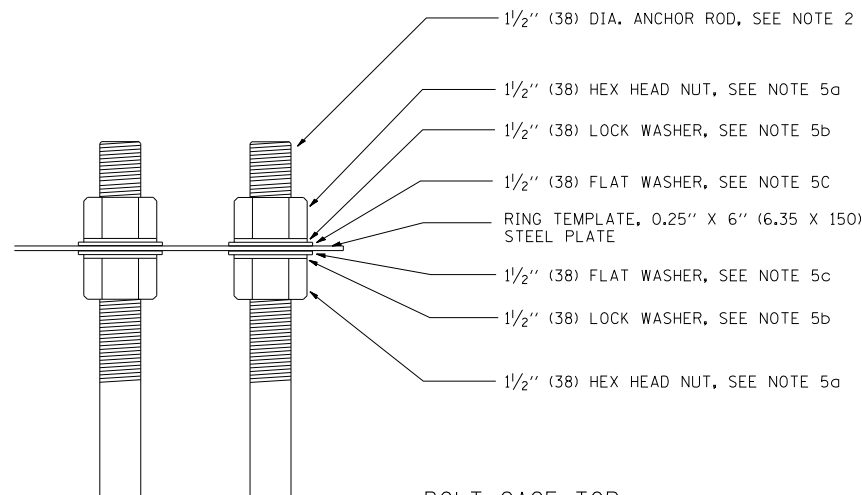
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HIGH MAST LIGHT TOWER			
90 FT TO 110 FT (27 m TO 34 m) FOUNDATION DETAIL			
SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.

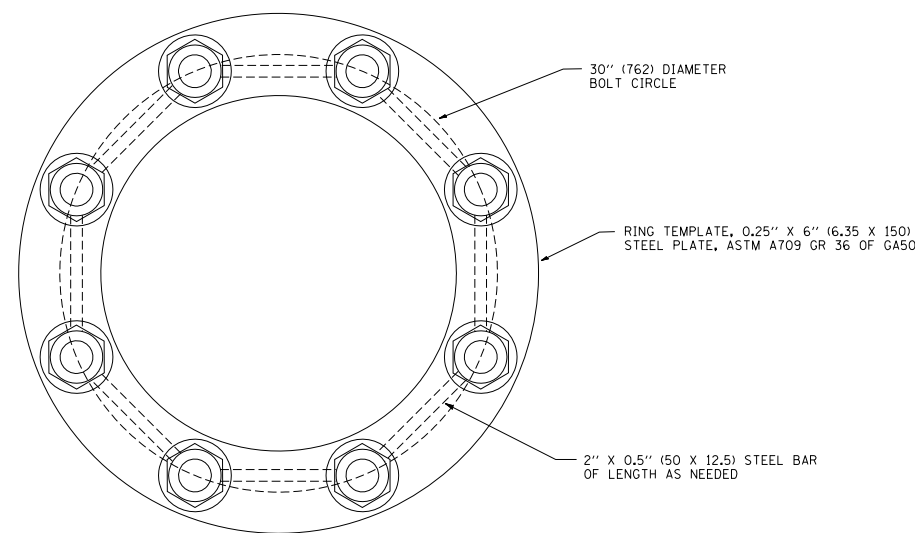
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	715
BE-501		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



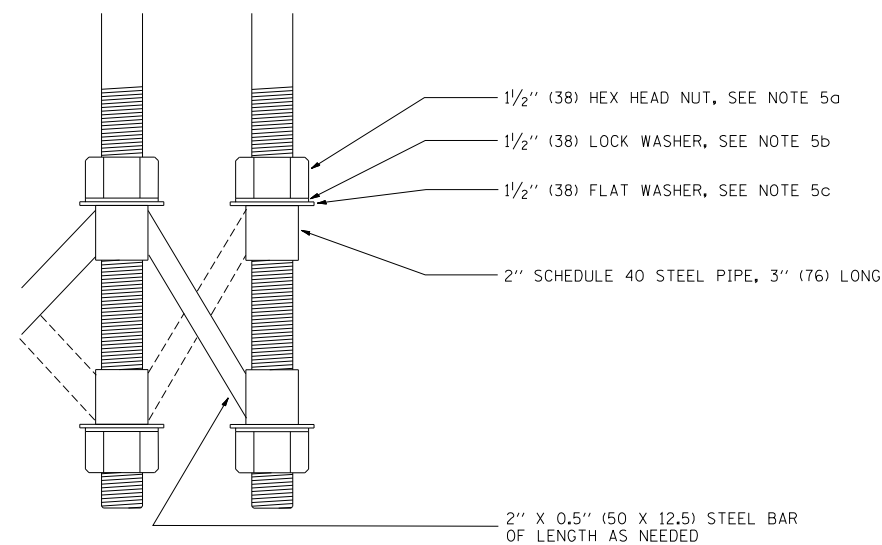
ANCHOR BOLT CAGE



BOLT CAGE TOP



SECTION A-A



BOLT CAGE BOTTOM

NOTES

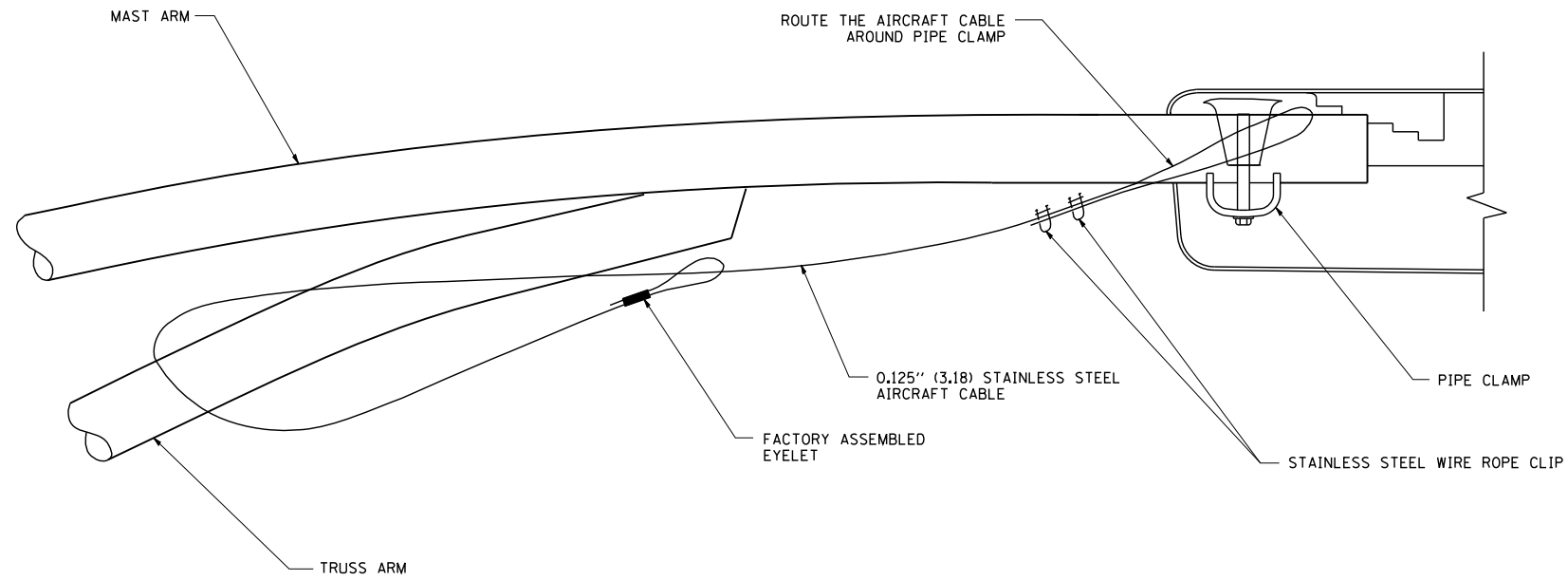
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ANCHOR RODS SHALL BE STRAIGHT AND SHALL BE ACCORDING TO AASHTO M 314 OR ASTM F1554, GRADE 725 (GRADE 105) AND GALVANIZED ACCORDING TO ARTICLE 1006.09.
3. ANCHOR ROD INFORMATION SHALL BE SUBMITTED FOR APPROVAL AND SHALL BE FULLY COORDINATED WITH TOWER MANUFACTURERS REQUIREMENTS.
4. CUT NUTS, OR JAM NUTS, ARE NOT ALLOWED
5. ANCHOR ROD CAGE HARDWARE SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - a) 1.5 (38) HEX HEAD NUTS
AASHTO M291, GRADE C, C3, D, DH OR DH3
HOT DIPPED GALVANIZED AASHTO M 232
 - b) 1.5 (38) HELICAL LOCK WASHERS
ANSI/ASME B18.21.1
I.D. 1.504 - 1.524
O.D. 2.159 MAX.
WIDTH 0.292 MIN.
THICKNESS 0.375 MIN.
HARDNESS 26-45 ROCKWELL C
HOT DIPPED GALVANIZED AASHTO M232
 - c) 1.5 (38) FLAT WASHERS
AASHTO M293
O.D. 2.75
I.D. 1.56
THICKNESS 0.16 - 0.25
HARDNESS 26-45 ROCKWELL C.
HOT DIPPED GALVANIZED AASHTO M232
6. THE SHAFT LENGTHS SHALL BE BASED ON SOIL BORINGS IN THE PLANS AND OR A DETERMINATION OF SOIL CONDITIONS BY THE ENGINEER.
7. ALL FOUNDATION REINFORCEMENT STEEL SHALL BE EPOXY COATED.
8. THE FOUNDATION SHALL BE POURED MONOLITHICALLY AND SHALL HAVE NO CONSTRUCTION JOINTS.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 04-22-02
ca:\pwwork\pwwork\drivakosgn\d0108315\be501.dgn		DRAWN -	REVISED - R. TOMSONS 03-12-10
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. TOMSONS 09-02-10
	PLOT DATE = 9/21/2010	DATE -	REVISED -

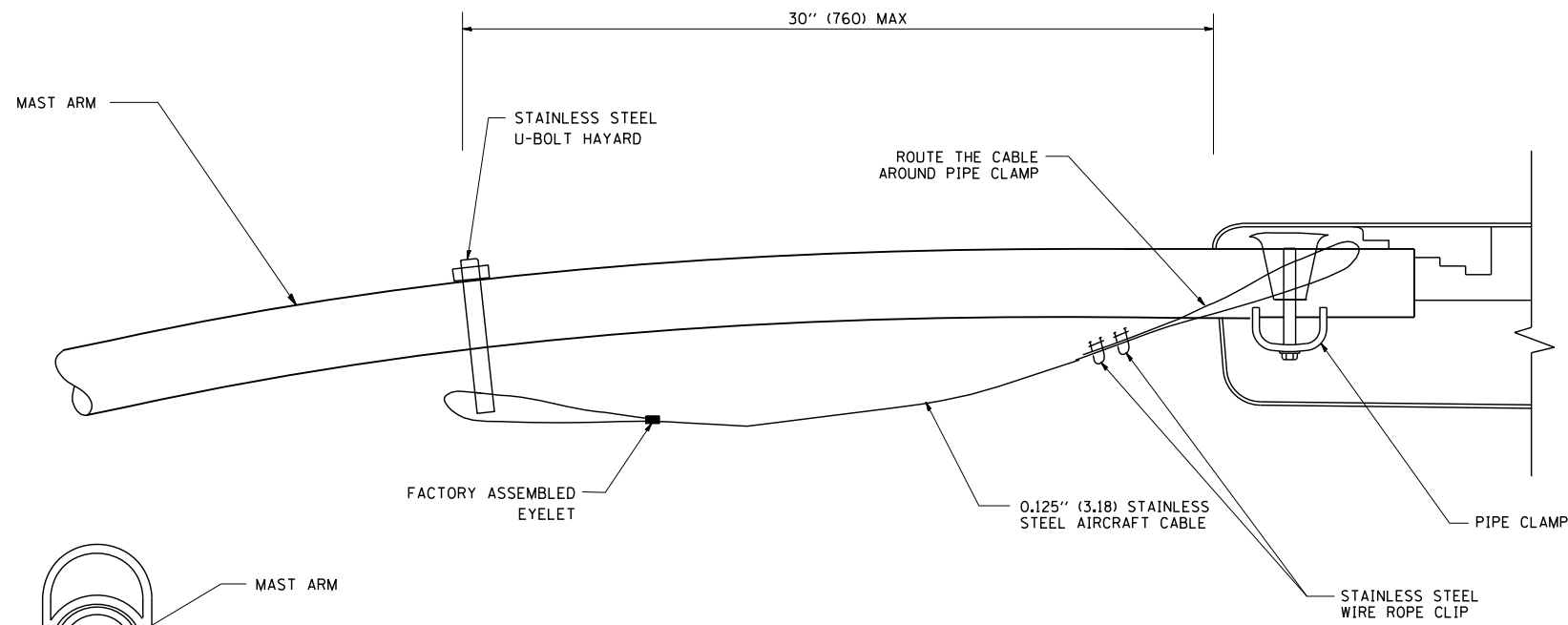
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

HIGH MAST LIGHT TOWER			
90 FT TO 110 FT (27 m TO 34 m) FOUNDATION DETAIL			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

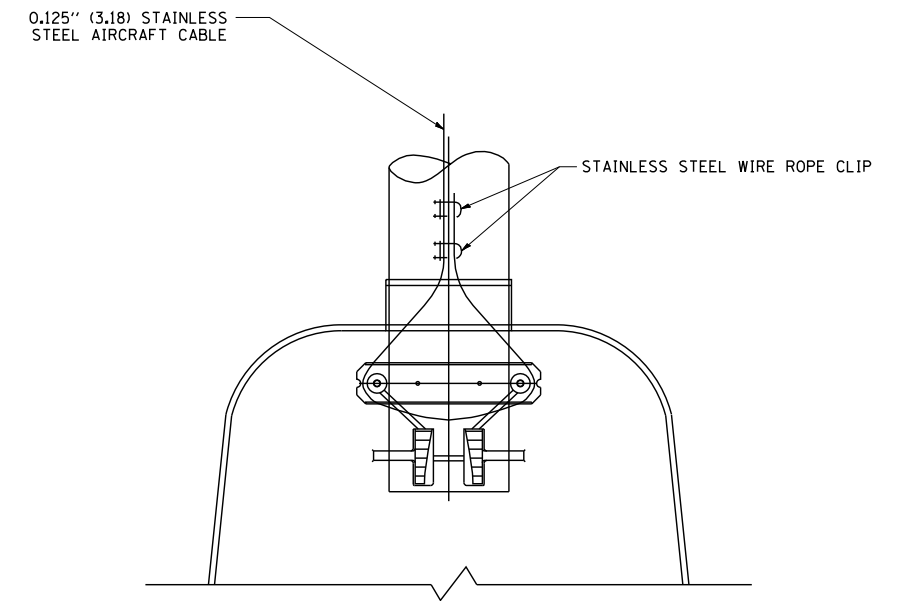
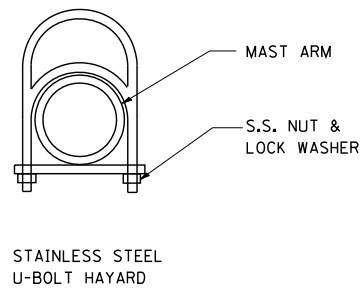
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	716
BE-501		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SIDE VIEW (TRUSS ARM)
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.

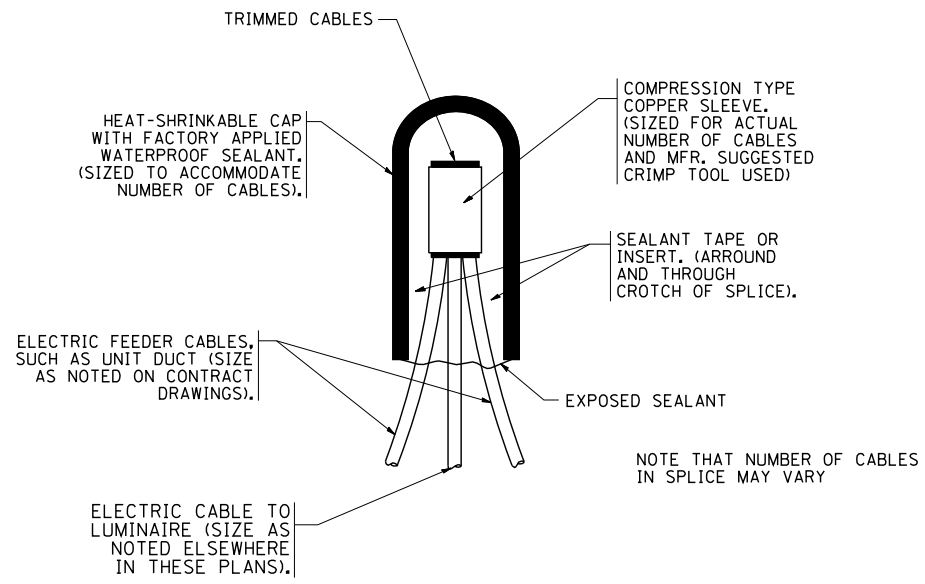


BOTTOM VIEW
N.T.S.

NOTES:

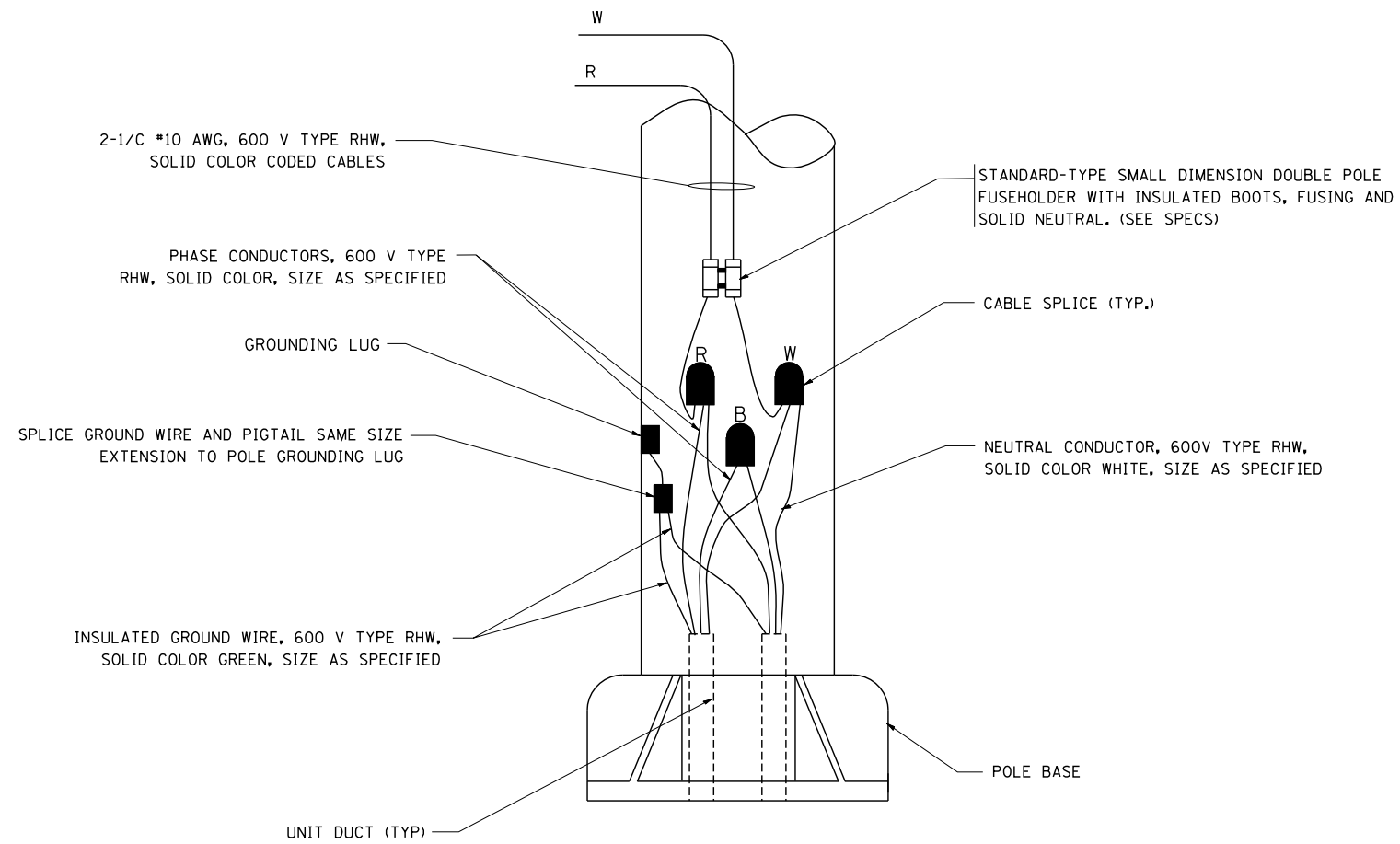
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

FILE NAME = W:\diststd\22x34\be701.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LUMINAIRE SAFETY CABLE ASSEMBLY			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -					338	(112 & 113) WRS-5	DUPAGE	963	717
PLOT DATE = 1/4/2008	DATE -	REVISED -	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-701		CONTRACT NO. 60131		
							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



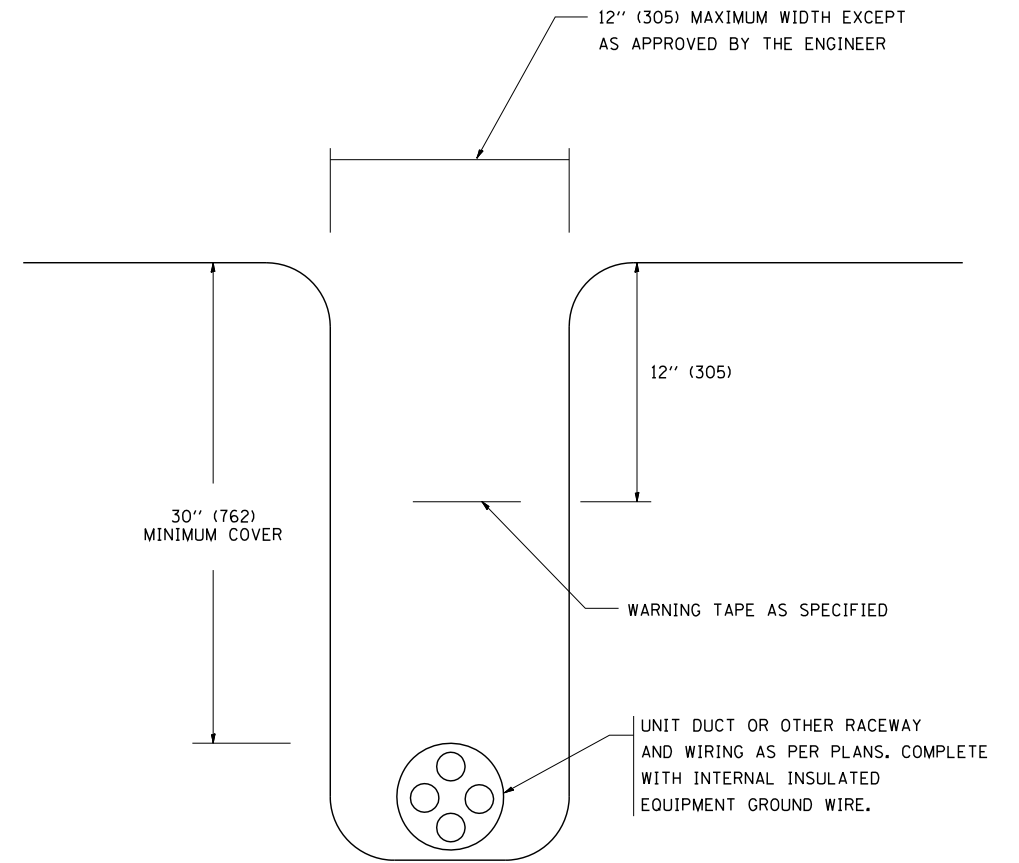
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

FILE NAME =	USER NAME = gaglionob
W:\diststd\22x34\be702.dgn	

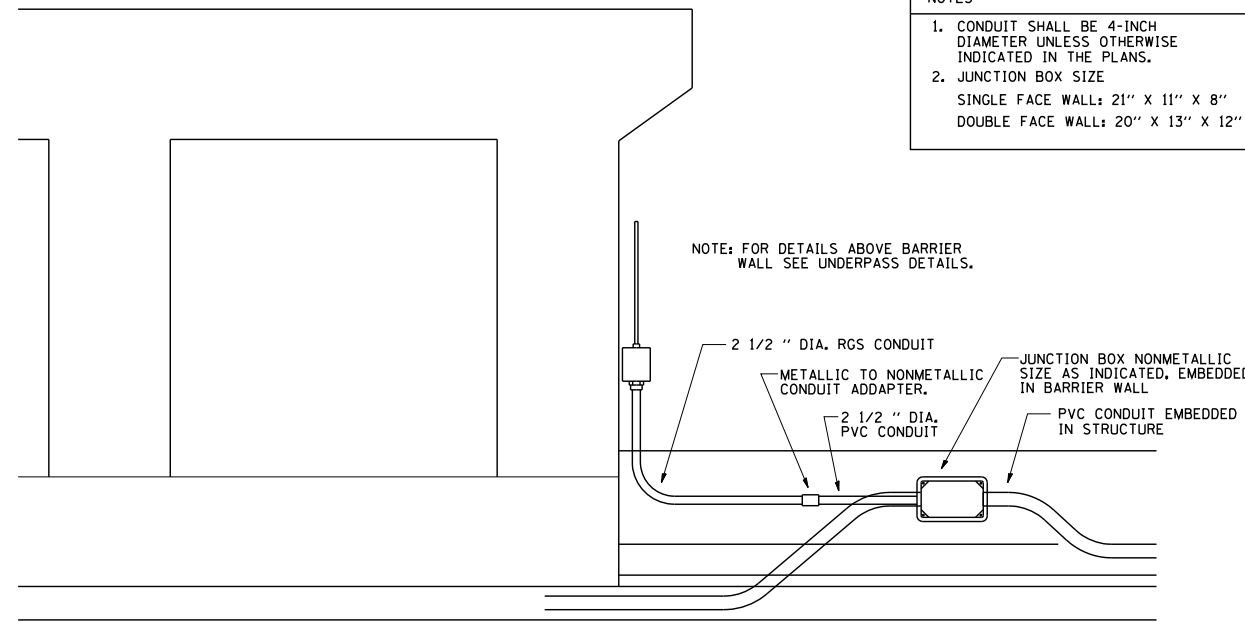
DESIGNED -	REVISD - 08-08-03
DRAWN -	REVISD -
PLOT SCALE = 50.000' / IN.	CHECKED -
PLOT DATE = 1/4/2008	DATE -

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MISC. ELECTRICAL DETAILS SHEET A			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	718
BE-702		CONTRACT NO. 60131		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

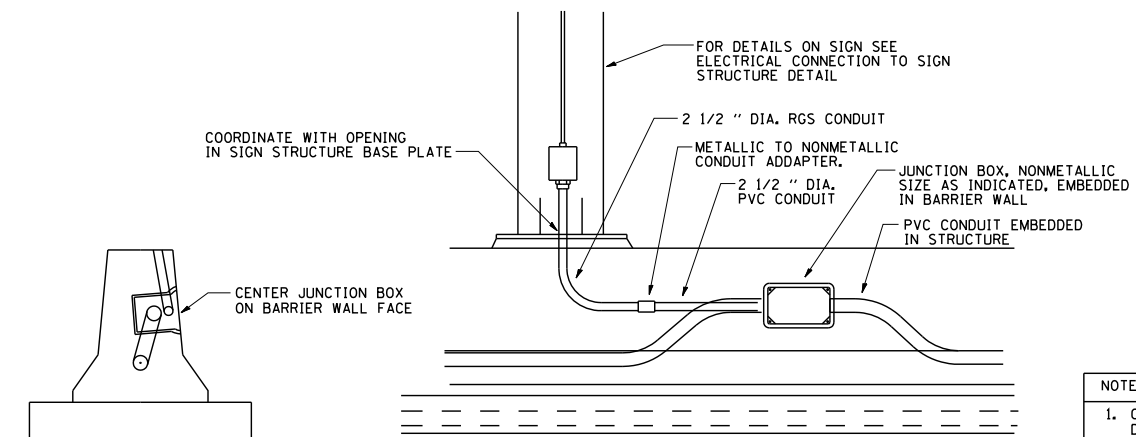


NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

NOTE: FOR DETAILS ABOVE BARRIER WALL SEE UNDERPASS DETAILS.

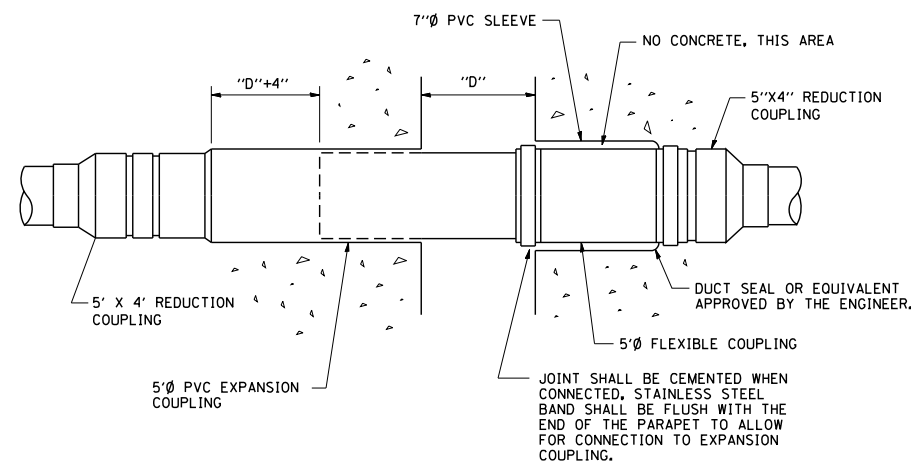
ED - BWD
ELECTRIC CONNECTION TO UNDERPASS LIGHTING



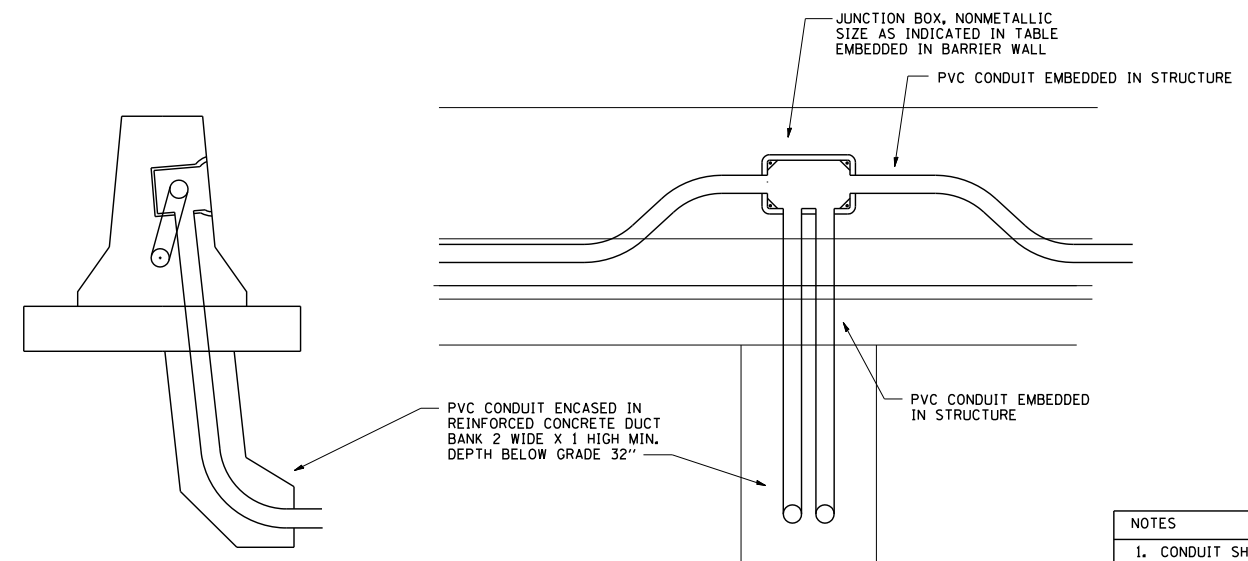
NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

ED - SGN
JUNCTION BOX EMBEDDED IN BARRIER WALL FOR SIGN LIGHTING



INSTALLATION OF CONDUIT
IN BRIDGE PARAPET EXPANSION JOINT
(N.T.S.)



NOTES

1. CONDUIT SHALL BE 4-INCH DIAMETER UNLESS OTHERWISE INDICATED IN THE PLANS.
2. JUNCTION BOX SIZE
SINGLE FACE WALL: 21" X 11" X 8"
DOUBLE FACE WALL: 20" X 13" X 12"

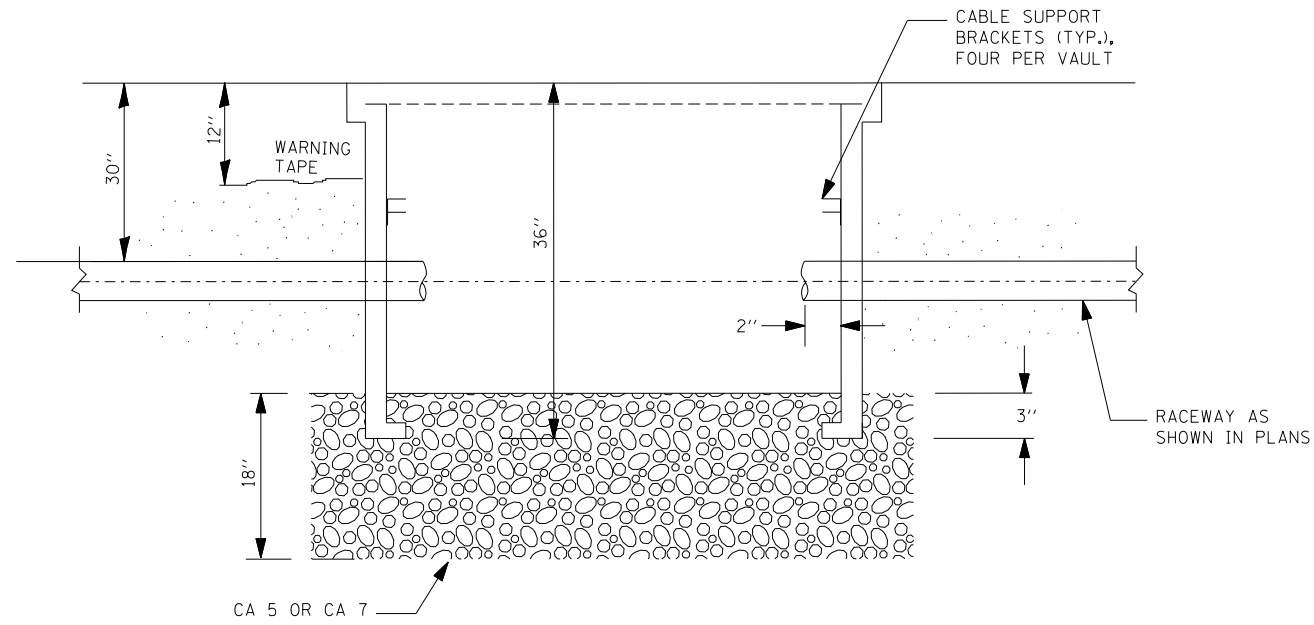
ED - BW
JUNCTION BOX EMBEDDED IN BARRIER WALL

FILE NAME = be703.dgn	USER NAME = gaglianobt	DESIGNED - DRAWN -	REVISED - REVISED -
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISOR -	DATE - 01-20-2009
PLOT DATE = 2/5/2009	DATE -	REVISOR -	

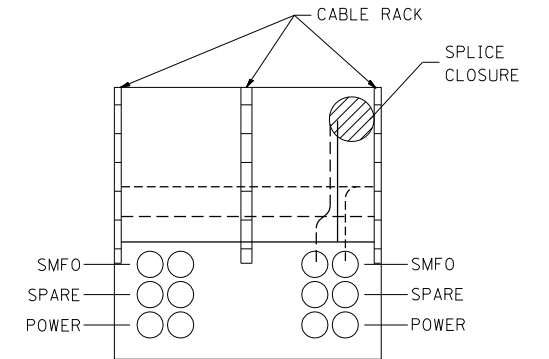
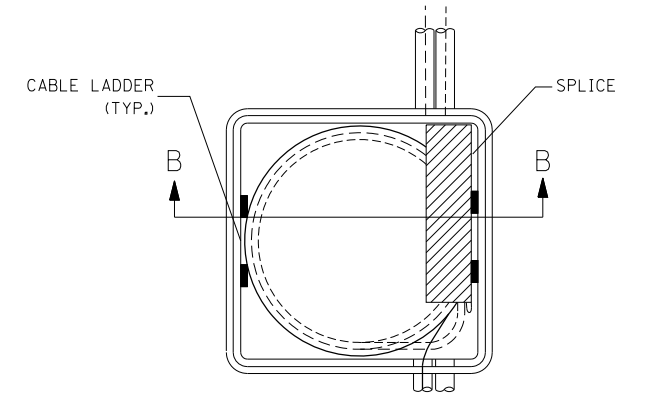
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS, SHEET B			
J BOX EMBEDDED IN BARRIER WALL - INSTALLATION OF CONDUIT IN BRIDGE PARAPET EXPANSION JOINT - ELECTRIC CONNECTION TO UNDERPASS LIGHTING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

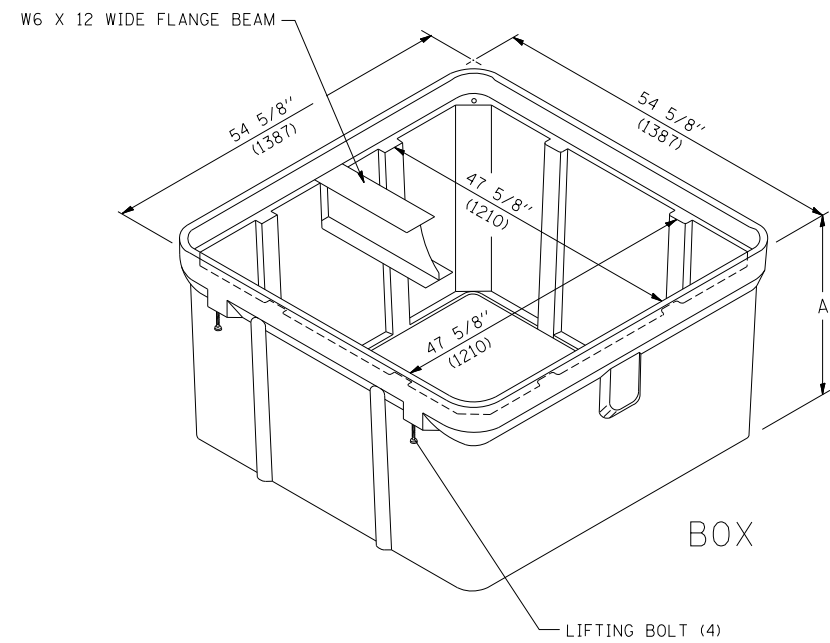
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	719
BE-703		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



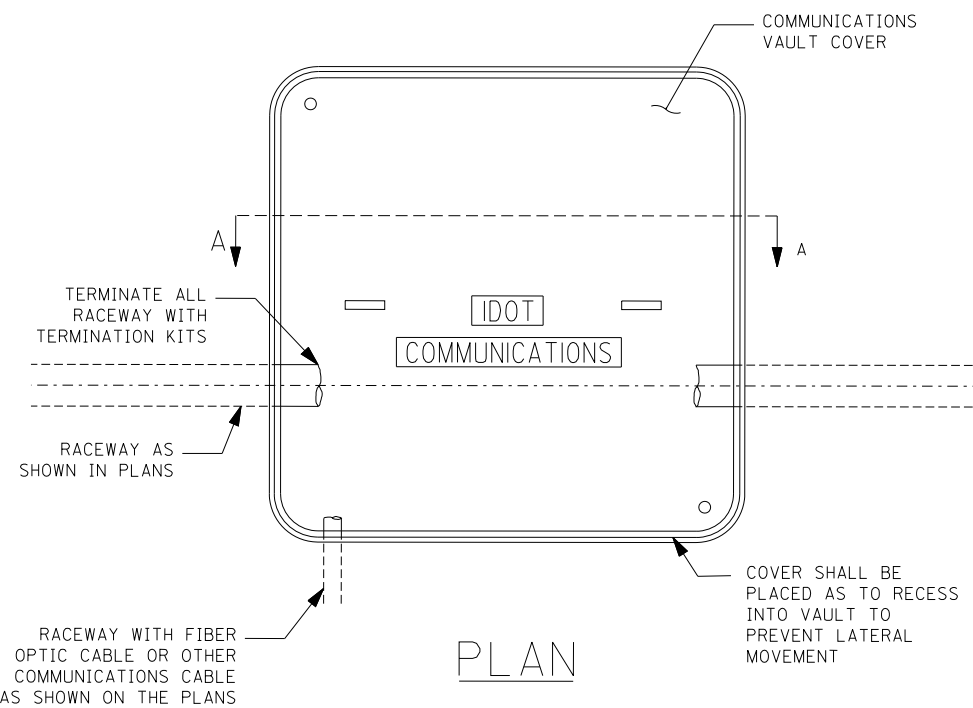
SECTION A-A



SECTION B-B



ISOMETRIC



PLAN

NOTES:

1. BOX SHALL HAVE AN OPEN BASE.
2. COVER SHALL WITHSTAND A 22,500/33,750 DESIGN/TEST LOADING AND SHALL LOCK.
3. ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT, IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
4. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.
5. ALL DIMENSIONS ARE MINIMUM AND A LARGER SIZE HANDHOLE MAY BE USED, WITH THE APPROVAL OF THE ENGINEER, TO FACILITATE USING A MANUFACTURER'S STANDARD PRODUCT.

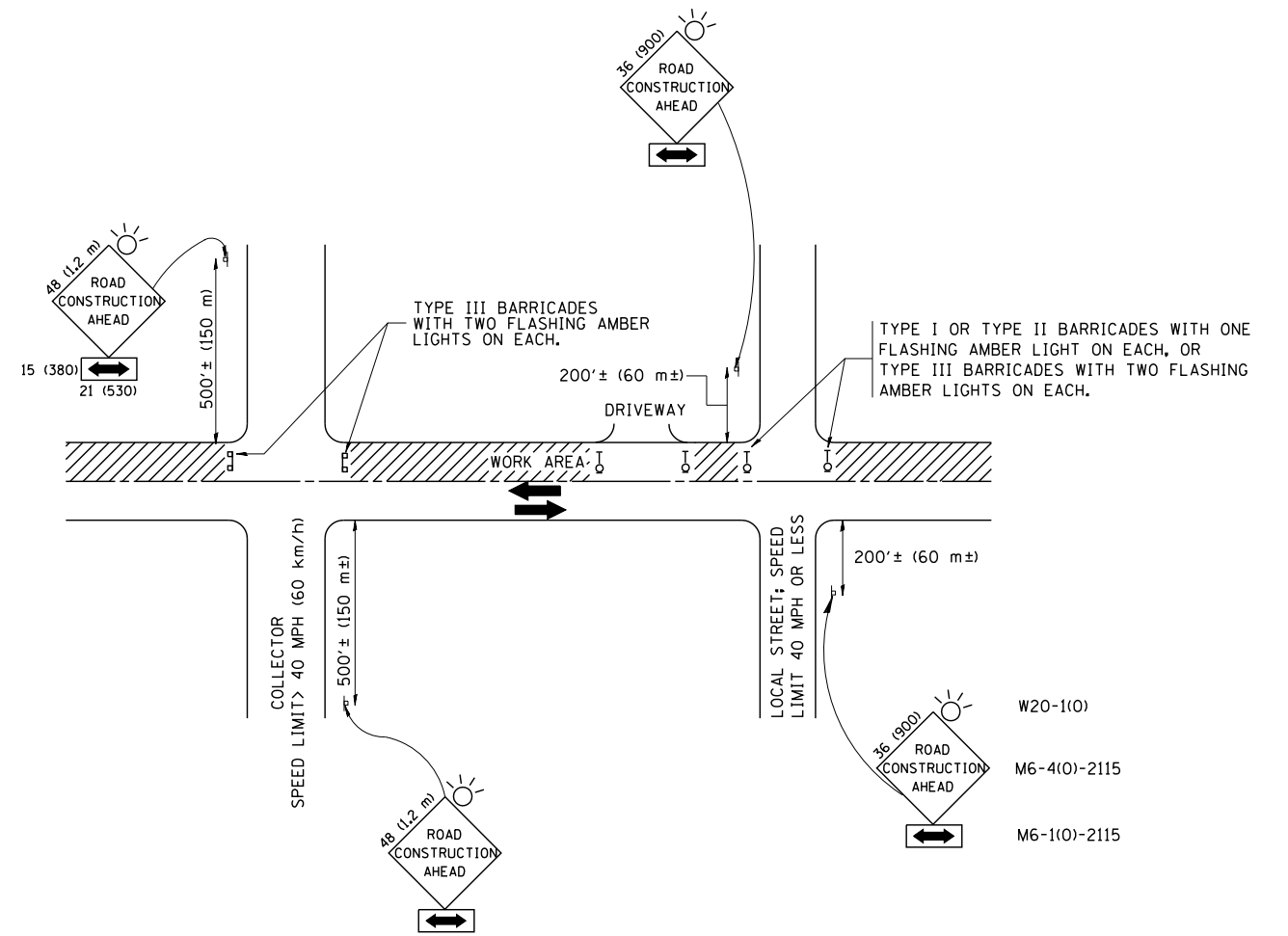
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ct:\pw\work\PWIDOT\LEYSAN\0108315\be705.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE - 03-22-10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

COMMUNICATIONS VAULT, COMPOSITE CONCRETE

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	720
BE-705		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

- USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

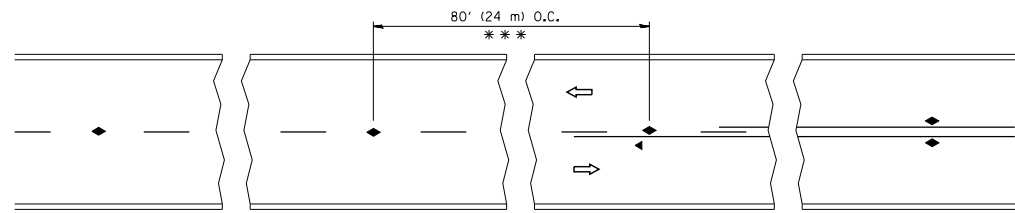
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

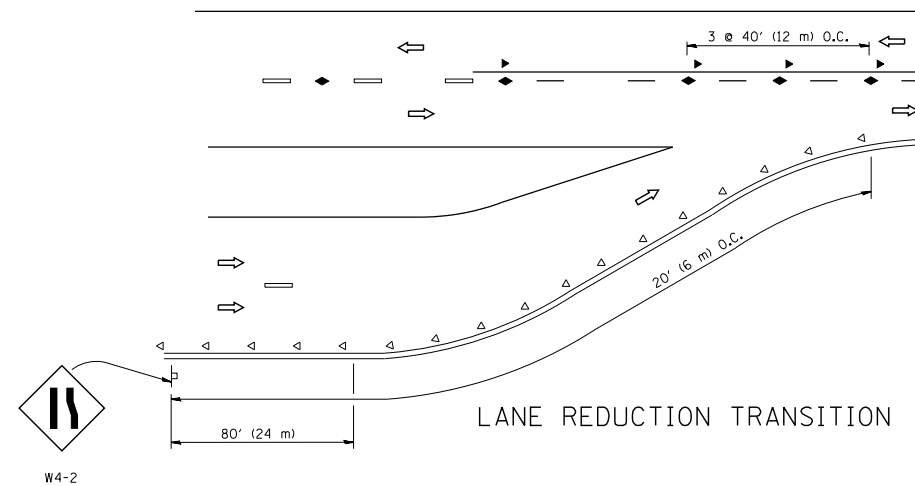
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	721
TC-10		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

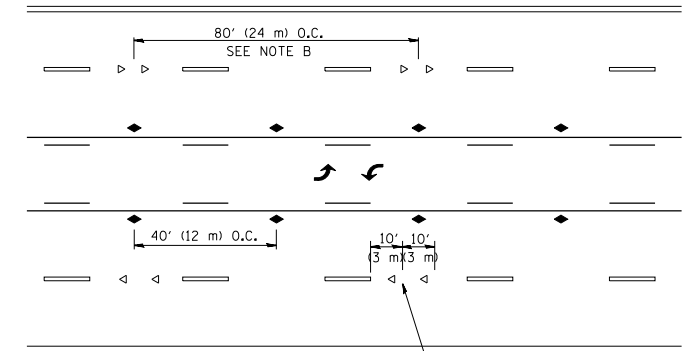


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

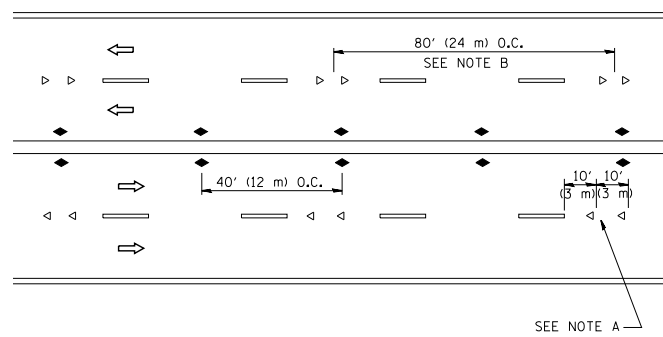
TWO-LANE/TWO-WAY



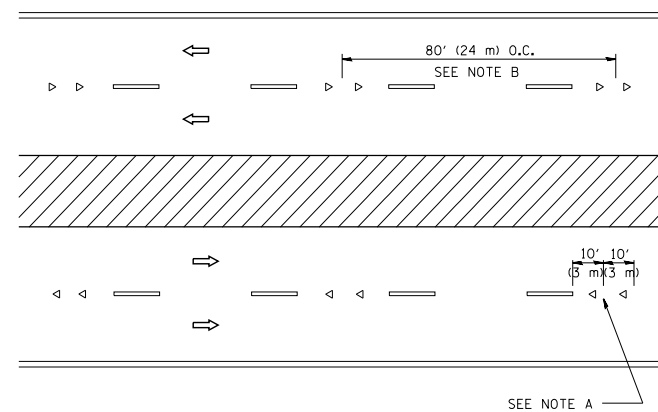
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

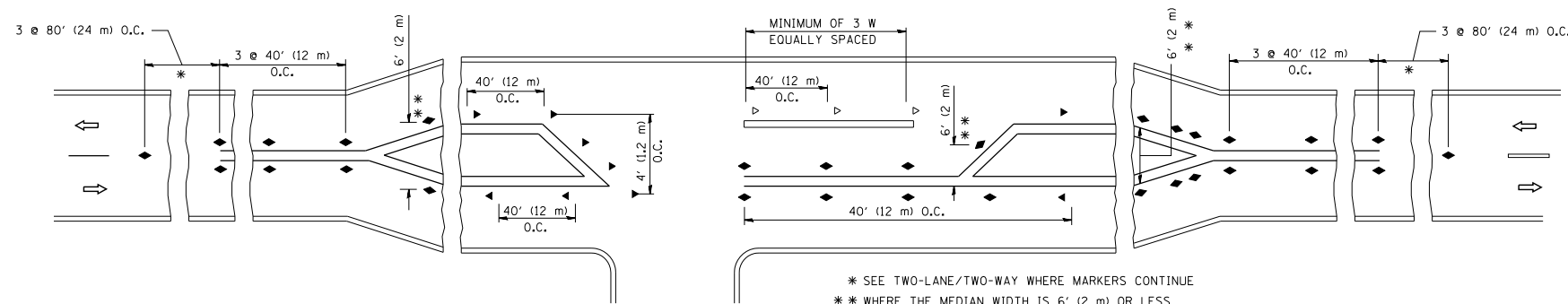
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

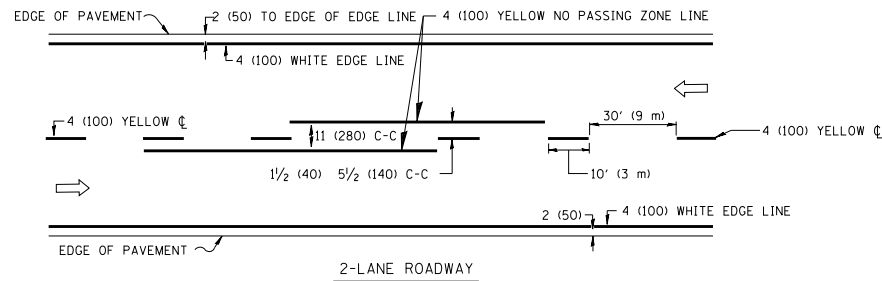
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09

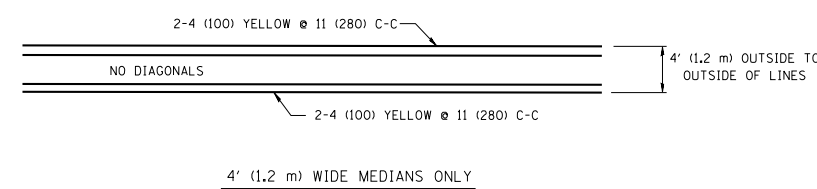
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
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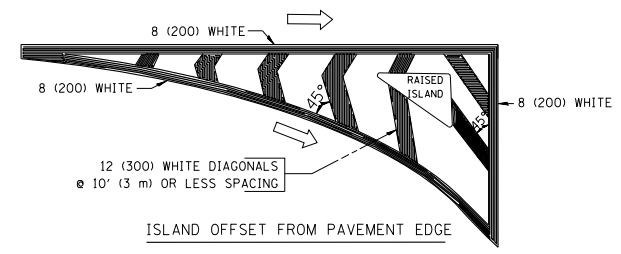
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



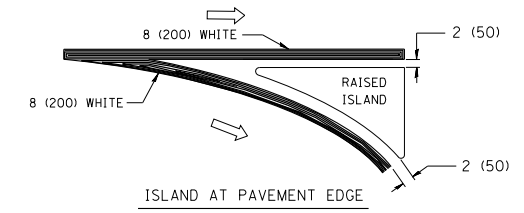
2-LANE ROADWAY



4' (1.2 m) WIDE MEDIANS ONLY

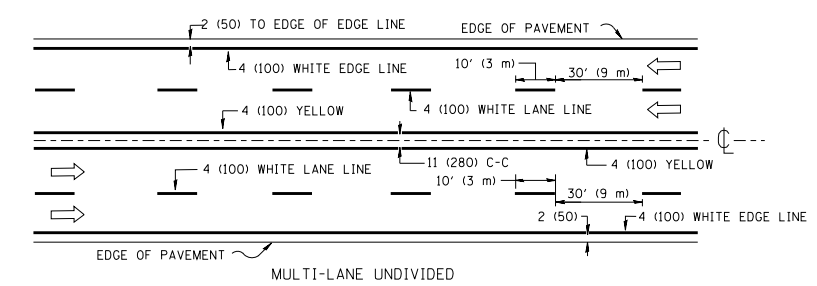


ISLAND OFFSET FROM PAVEMENT EDGE

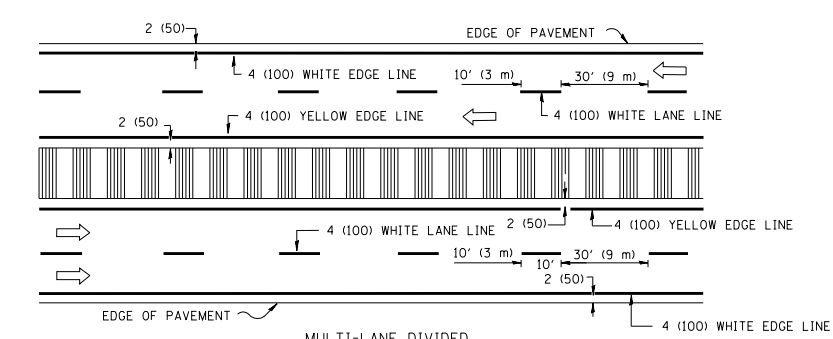


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



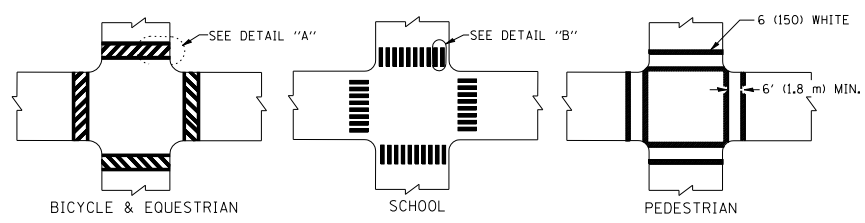
MULTI-LANE UNDIVIDED



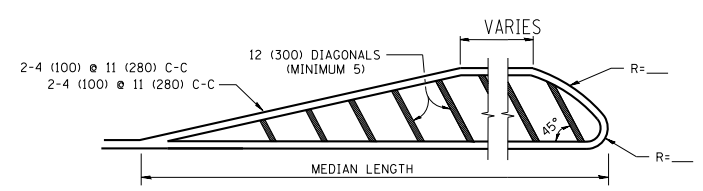
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

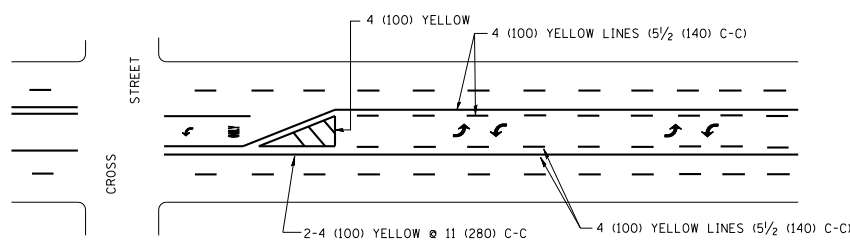
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

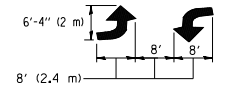


MEDIANS OVER 4' (1.2 m) WIDE



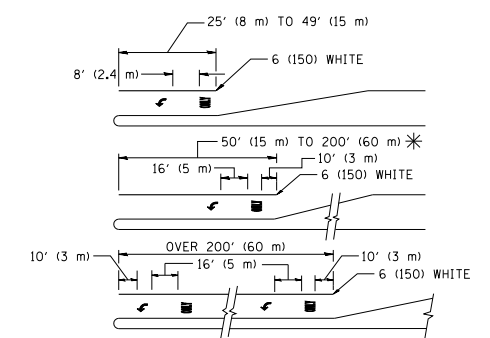
TYPICAL PAINTED MEDIAN MARKING

A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²) * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

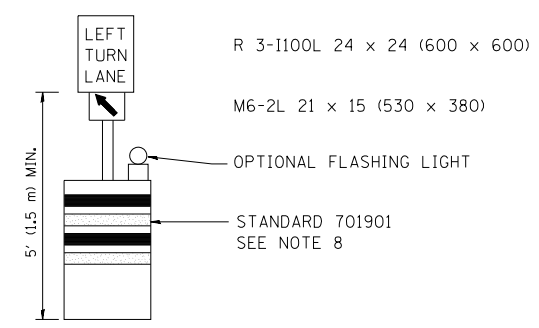
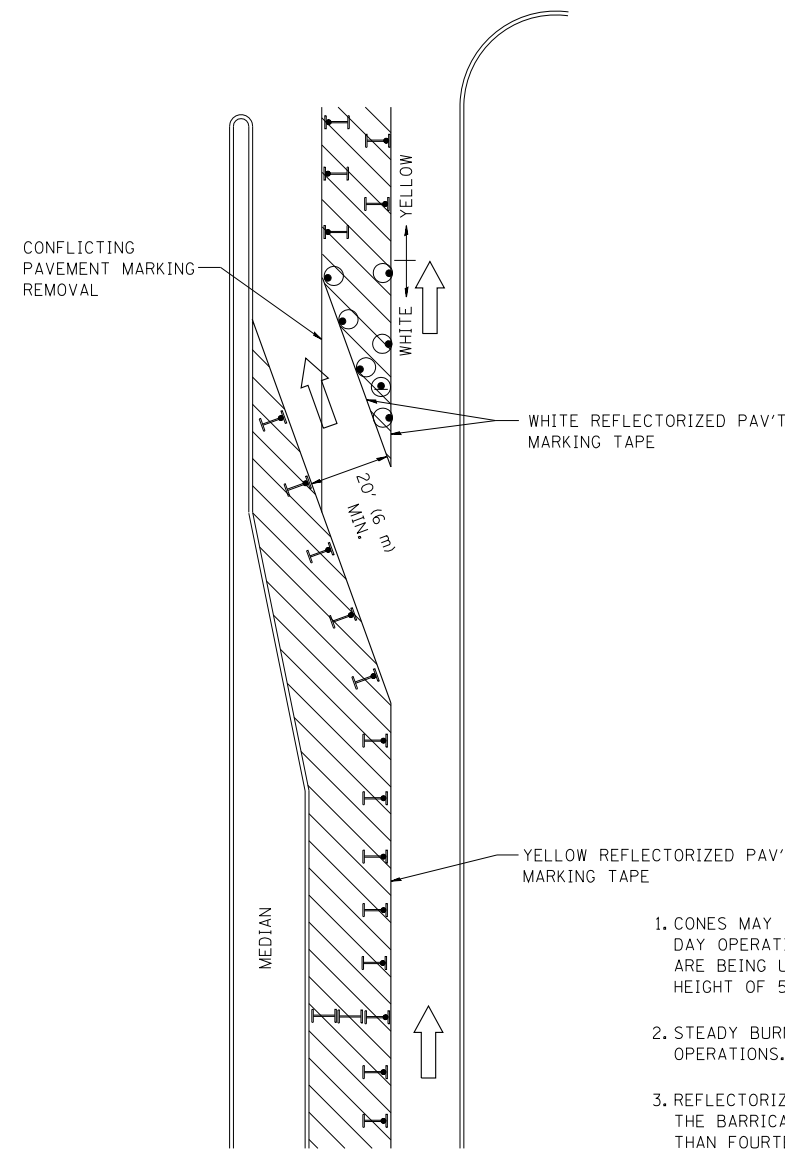
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-13		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				









GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

LEGEND

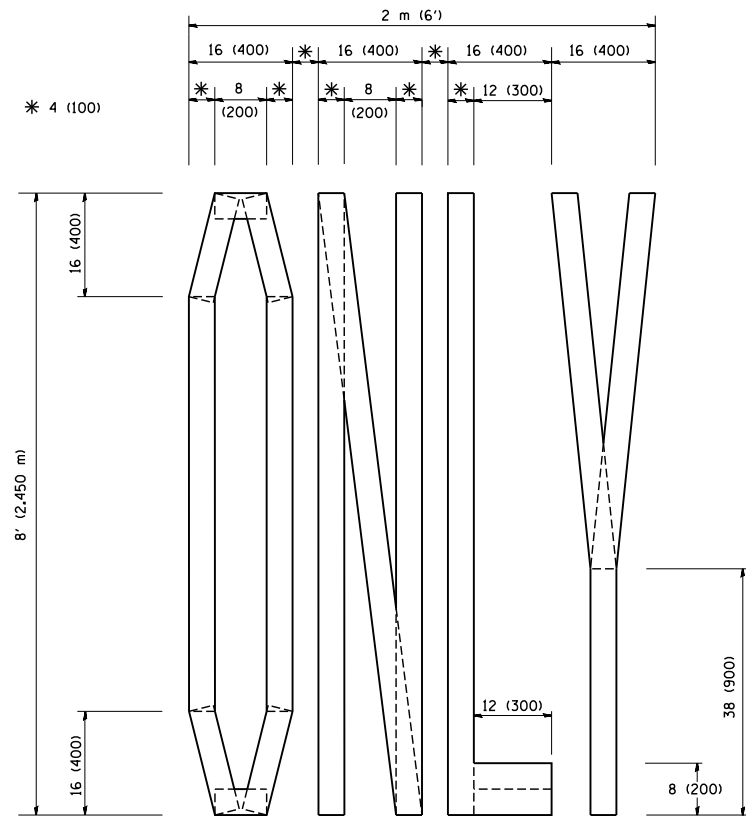
-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

FILE NAME =	USER NAME = drivakosgn	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
ct:\pw\work\PWIDOT\DRIVAKOSGN\d0108315\14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
		REVISED - A. HOUSEH 10-12-96	REVISED -
		REVISED -T. RAMMACHER 01-06-00	REVISED -

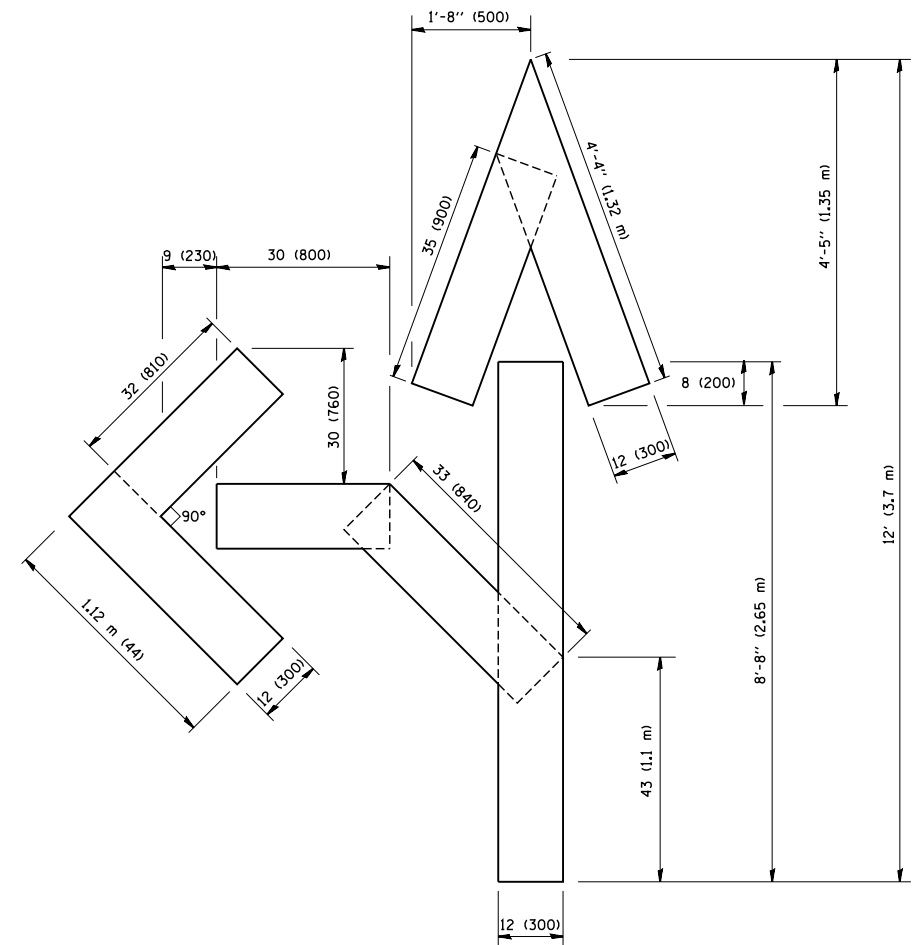
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

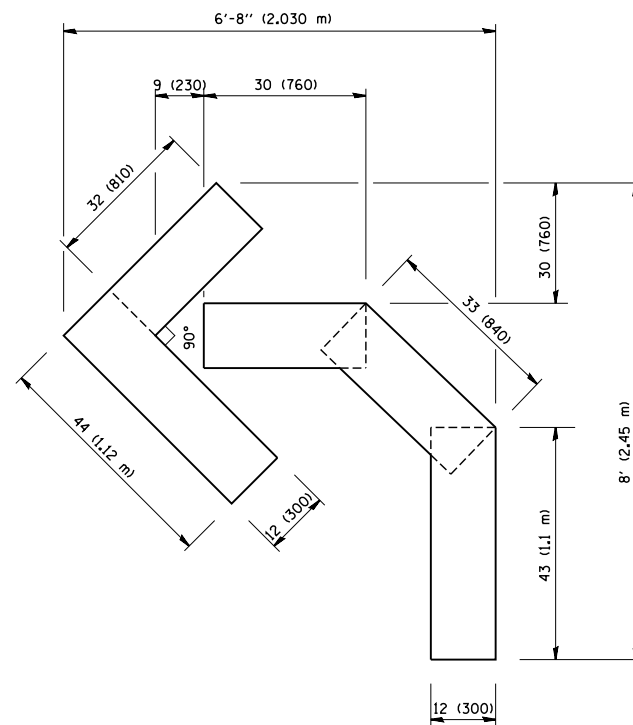
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	724
TC-14			CONTRACT NO. 60I31	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = W:\diststd\22x34\tc16.dgn	USER NAME = gaglionobt	DESIGNED - DRAWN -	REVISED -T. RAMMACHER 06-05-96 REVISED -T. RAMMACHER 11-04-97
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	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

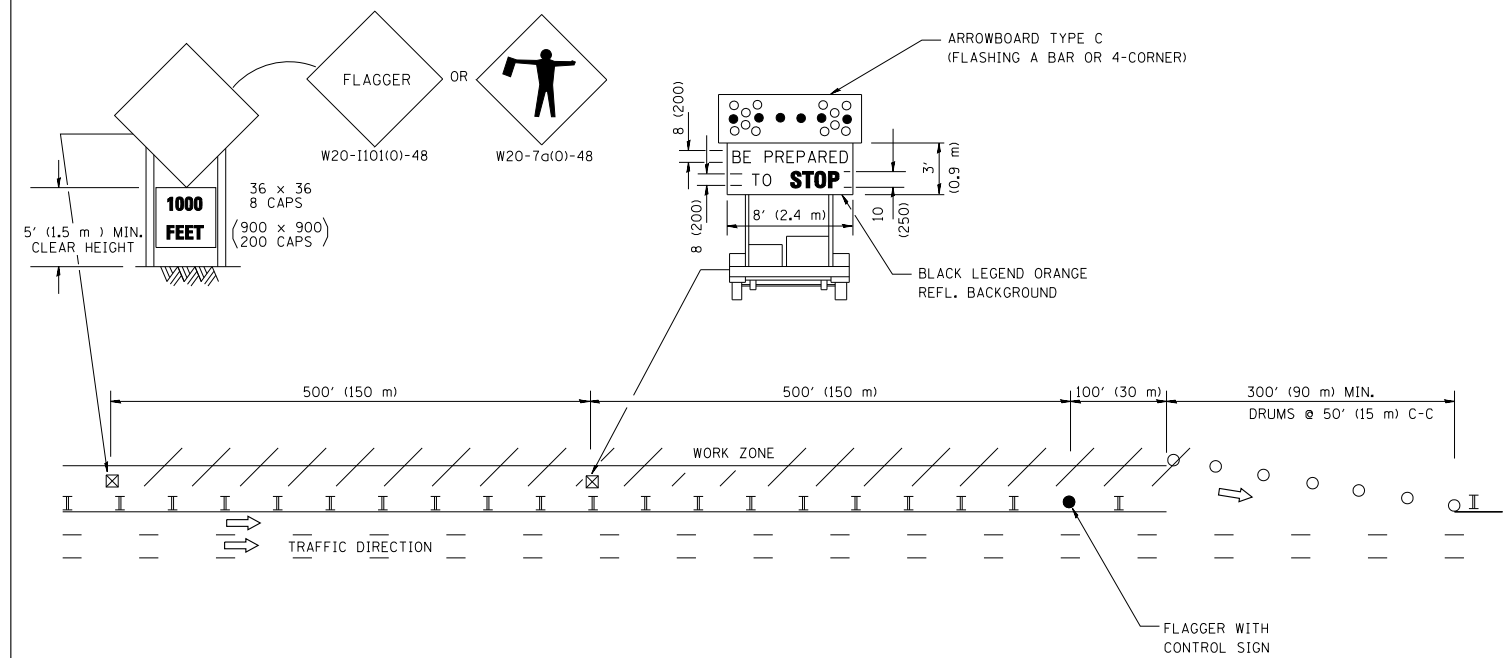
**PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

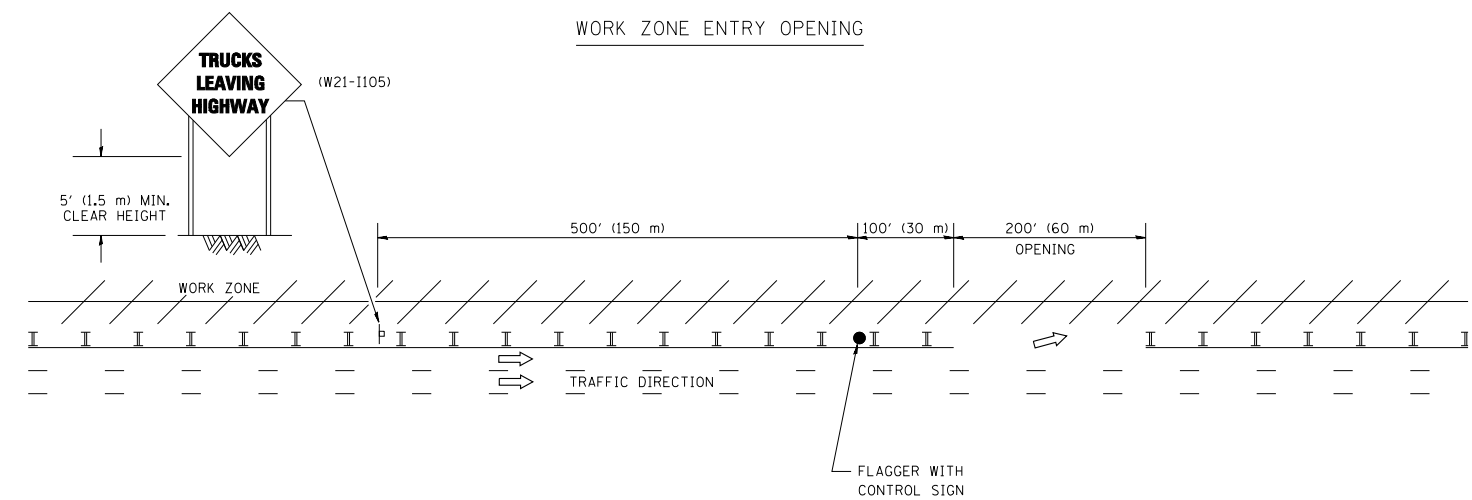
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TC-16		CONTRACT NO. 60131		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = leuso	DESIGNED -	REVISED - J.A.F. 04-03
W:\diststd\22x34\tc18.dgn		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE -	REVISED - S.P.B. 12-09


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS


SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	726
TC-18			CONTRACT NO. 60131	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				






ROUTE MARKERS

 FOR U.S. ROUTES
M1-40-2424






 FOR ILLINOIS ROUTES
M1-50-2424

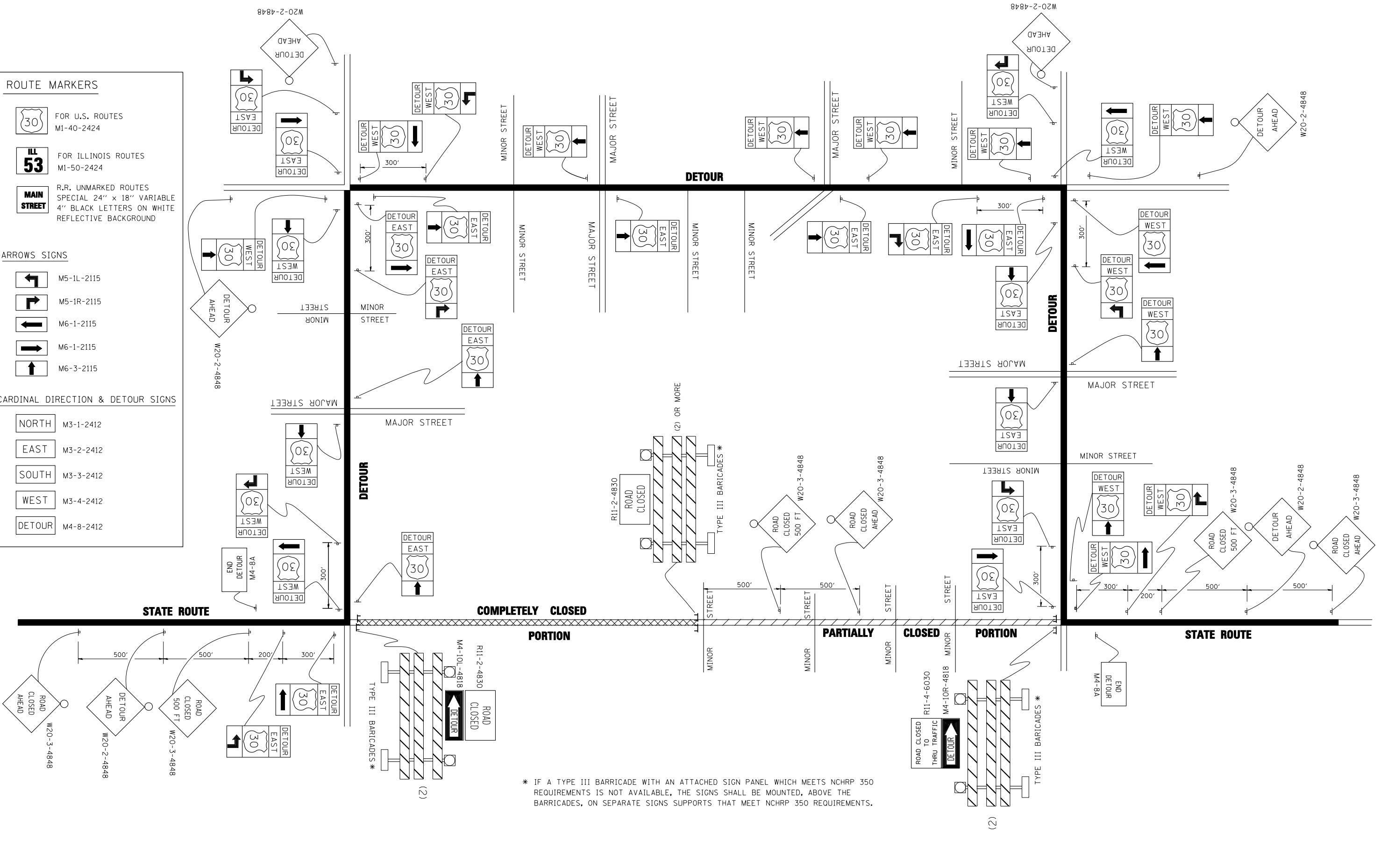
 R.R. UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

-  M5-1L-2115
-  M5-1R-2115
-  M6-1-2115
-  M6-1-2115
-  M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

-  NORTH M3-1-2412
-  EAST M3-2-2412
-  SOUTH M3-3-2412
-  WEST M3-4-2412
-  DETOUR M4-8-2412



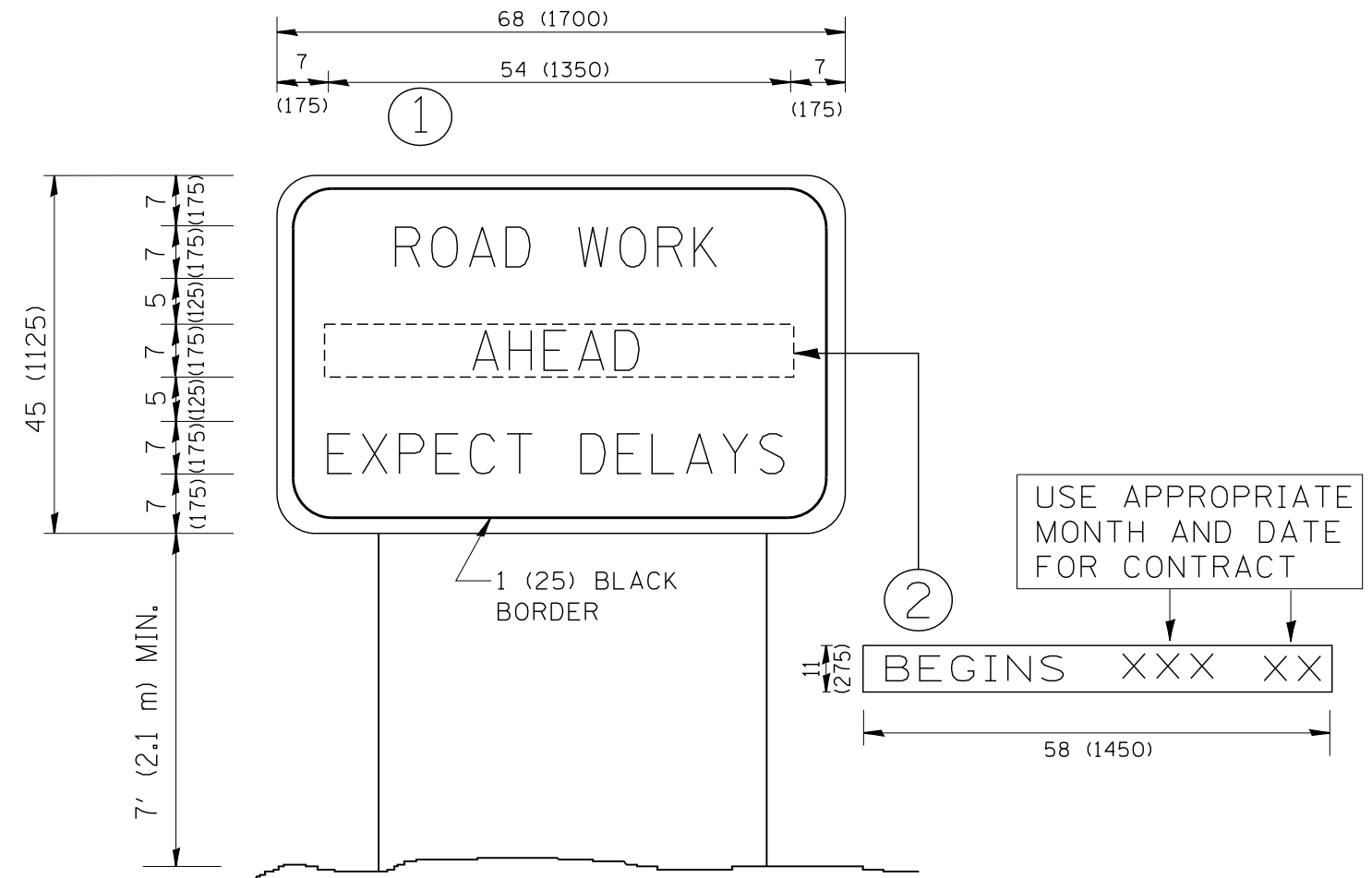
* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
ct:\pw\work\PWIDOT\DRIVAKOSGN\10108315\10121.dgn		DRAWN -	REVISED - R. BORO 09-14-09
		PLOT SCALE = 49.9999' / IN.	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	727
TC-21		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

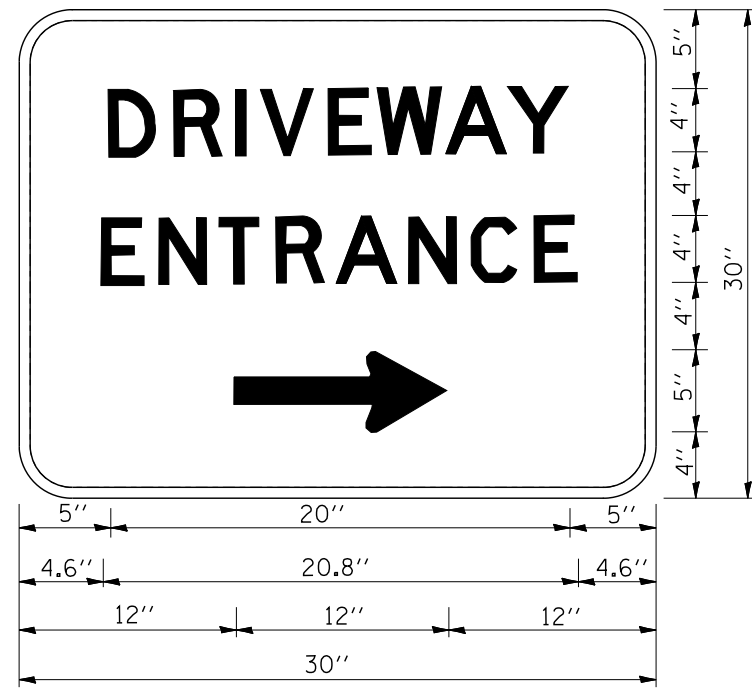
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		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	728
TC-22		CONTRACT NO. 60131		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\tc26.dgn	USER NAME = gegl@nabt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY ENTRANCE SIGNING

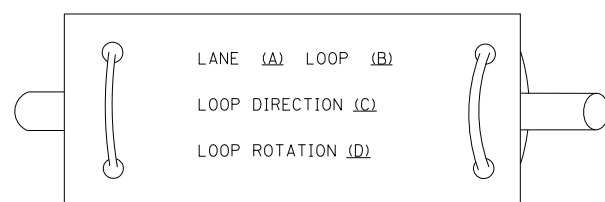
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-26			CONTRACT NO. 60131	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

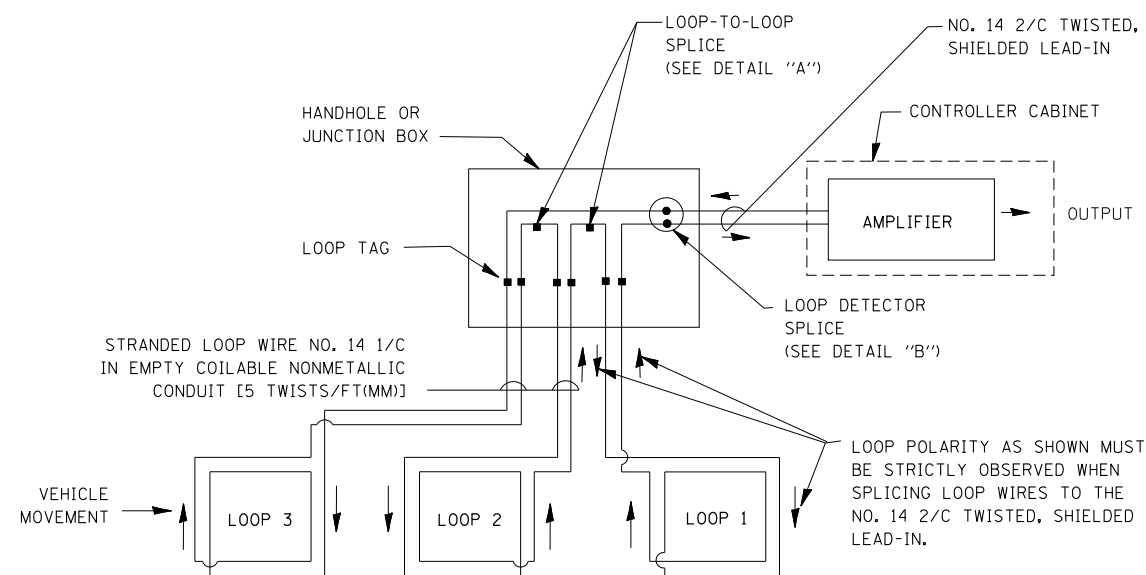
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

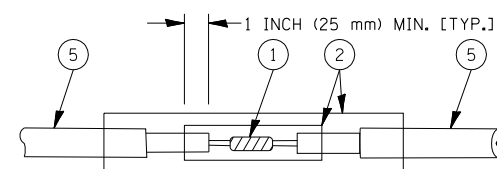


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

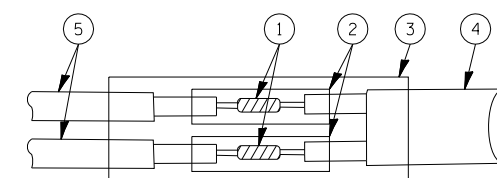


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

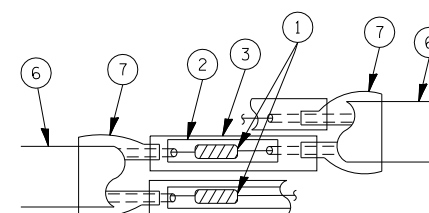


DETAIL "A"
LOOP-TO-LOOP SPLICE

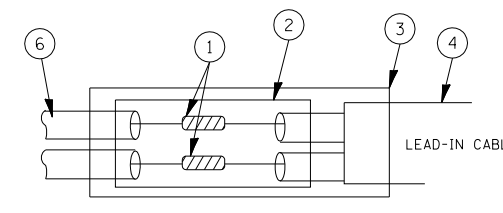


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PREFORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = bauerdl	DESIGNED - DAD	REVISED -
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PLOT SCALE = 50.0000' / IN.		CHECKED - DAD	REVISED -
PLOT DATE = 11/4/2009		DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

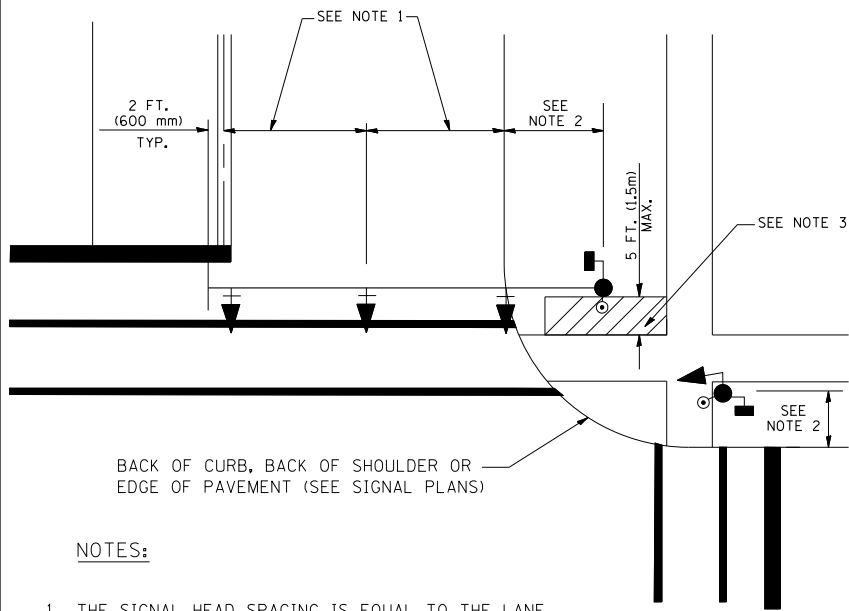
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	730
TS-05		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

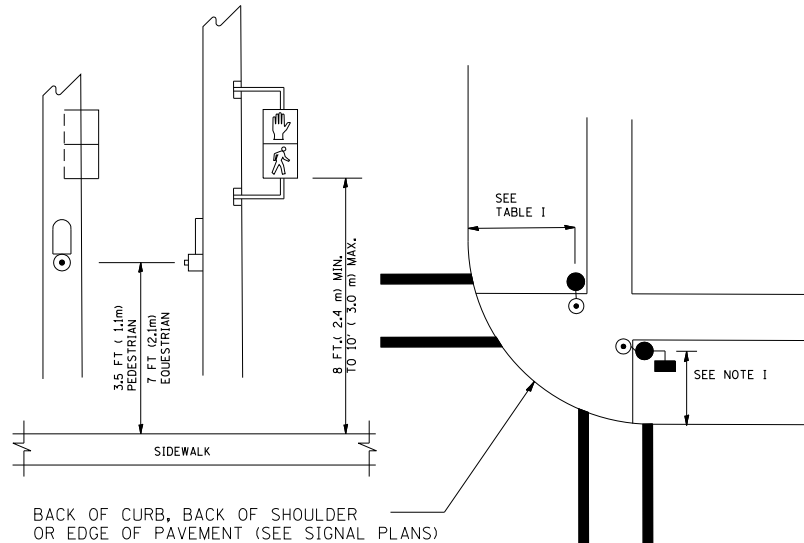
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

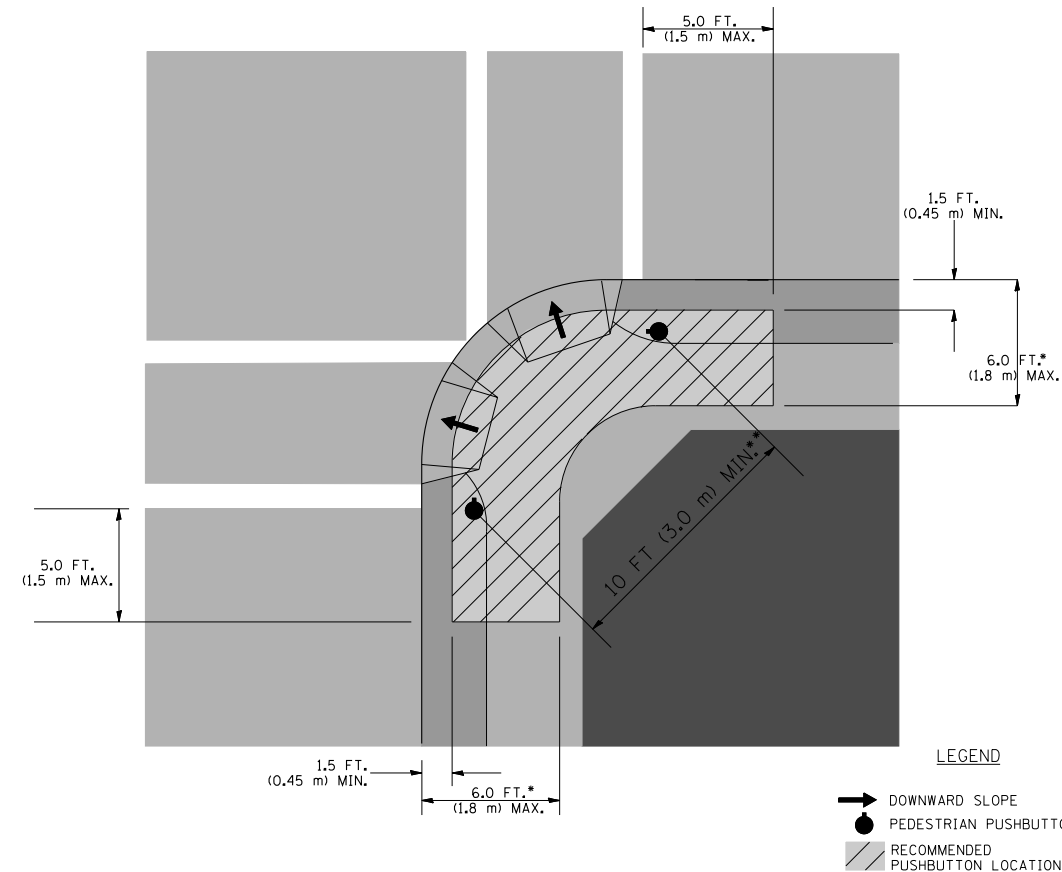
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

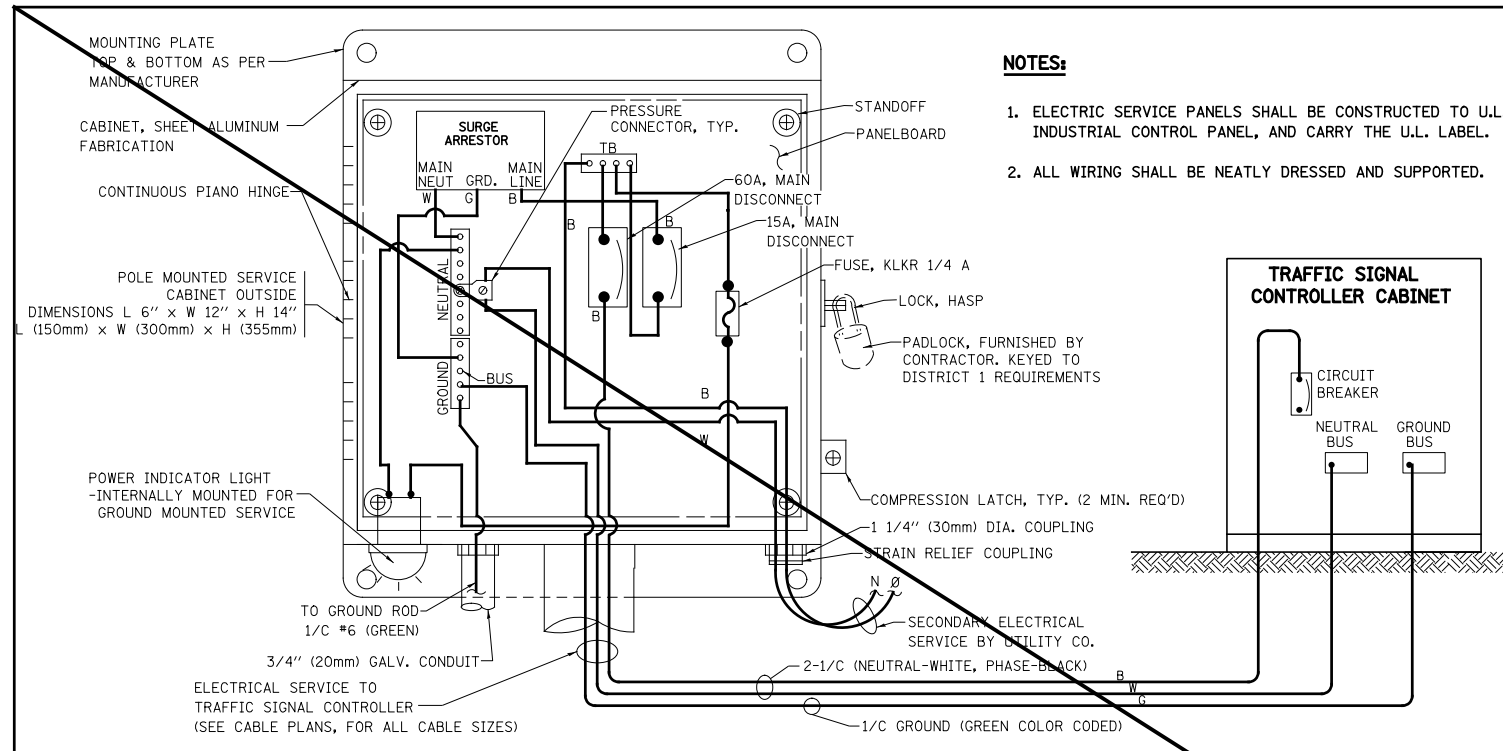
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

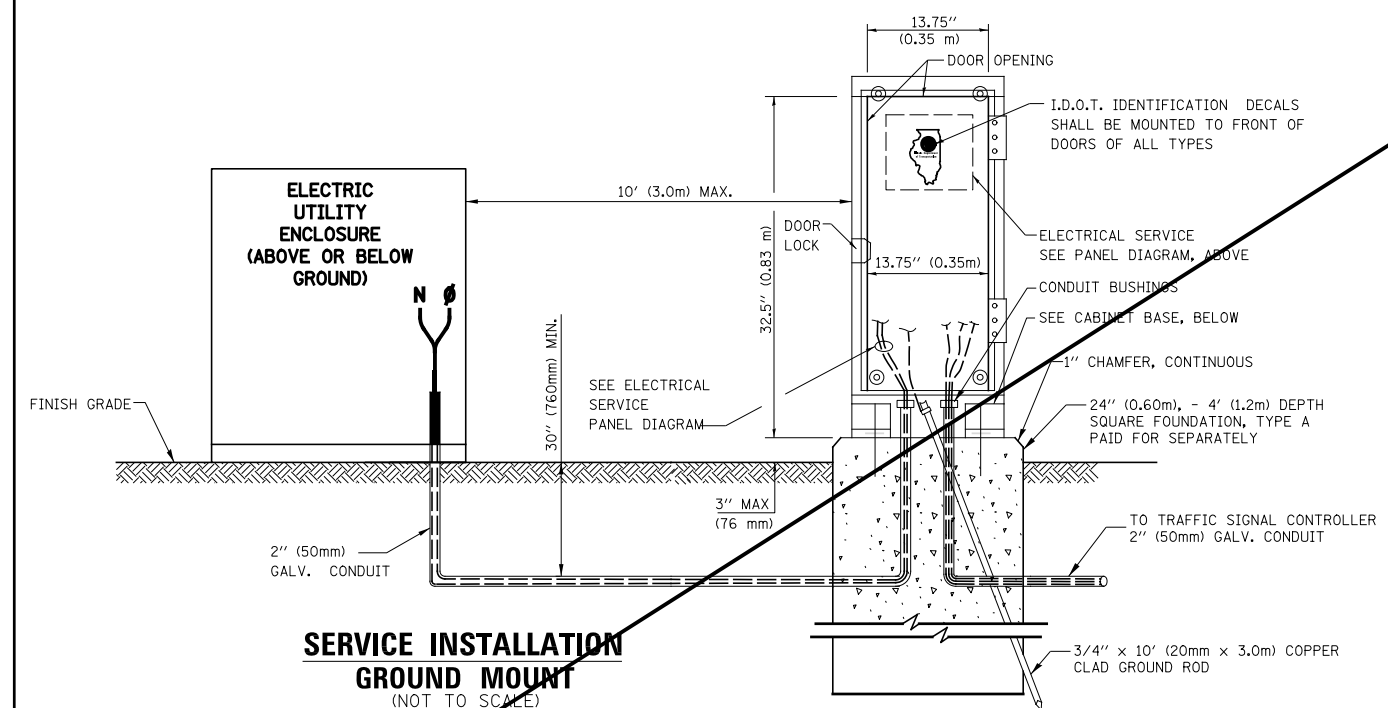
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

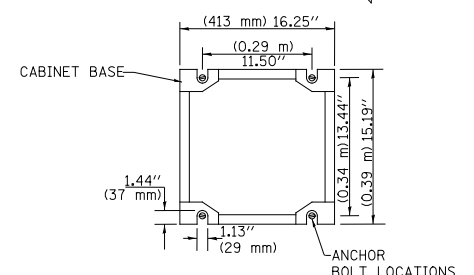


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT
 (NOT TO SCALE)

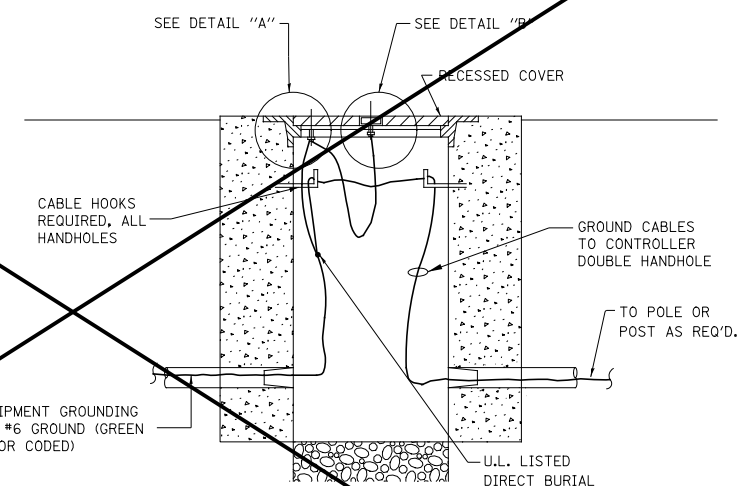
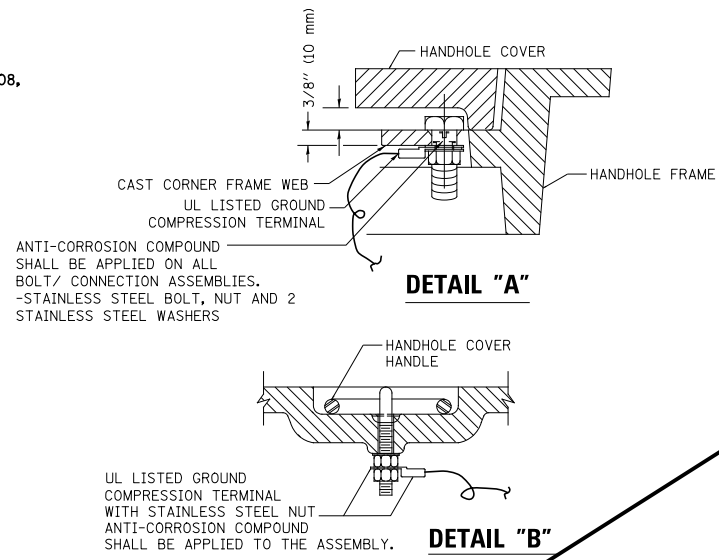
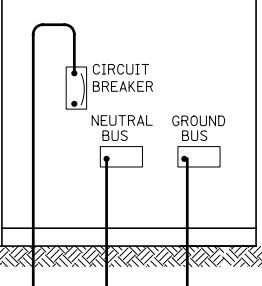
CABINET - BASE BOLT PATTERN
 (NOT TO SCALE)



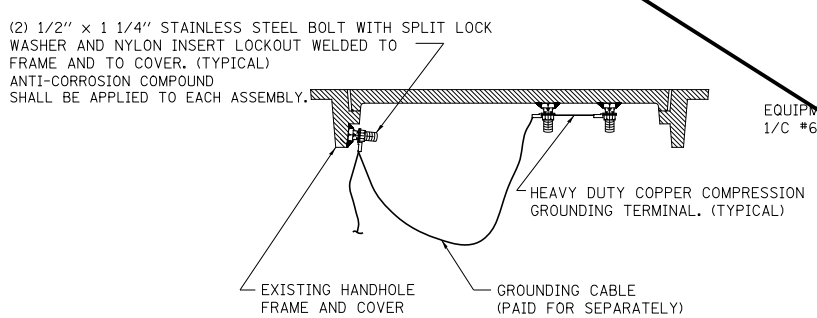
NOTES:

1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

TRAFFIC SIGNAL CONTROLLER CABINET



HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

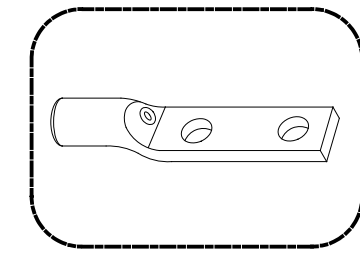


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL
 (NOT TO SCALE)

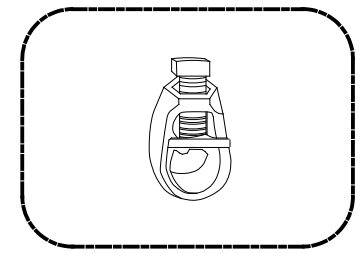
NOTES:

GROUNDING SYSTEM

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4\"/>
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



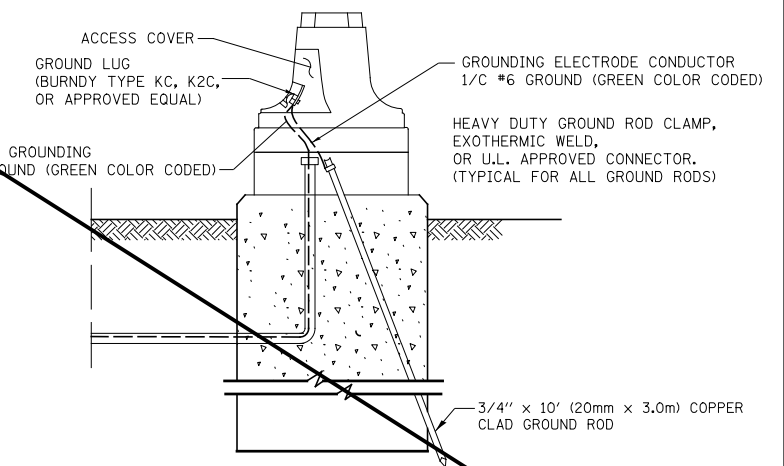
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4\"/>

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL
 (NOT TO SCALE)

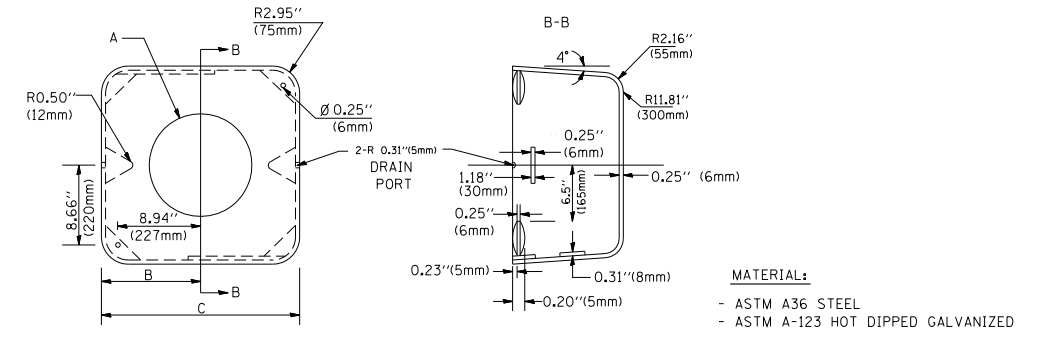
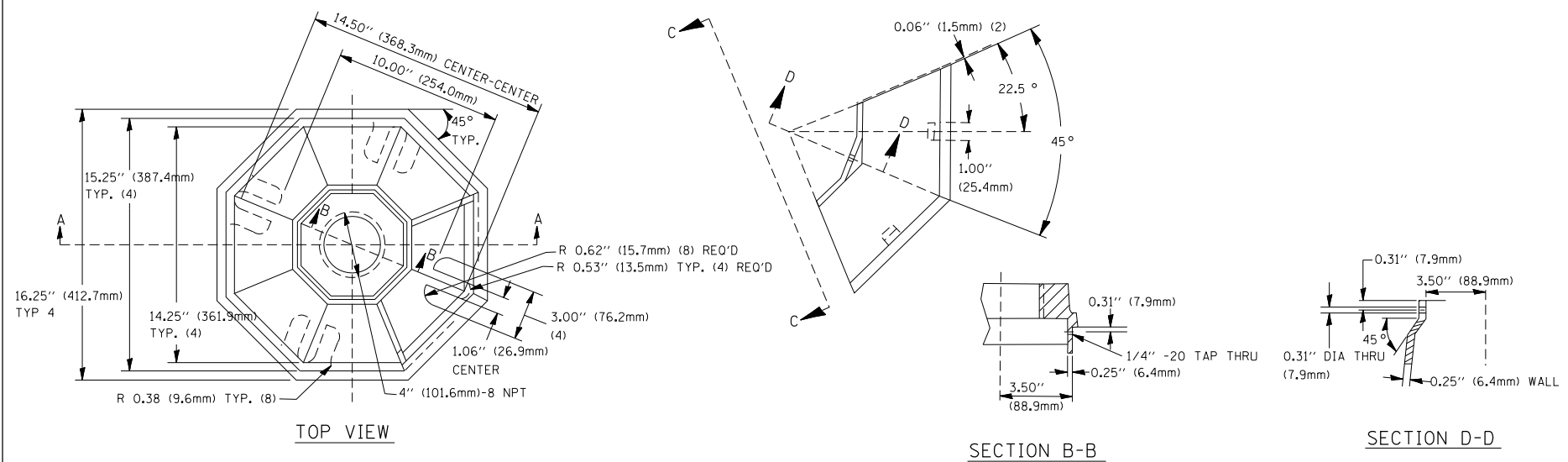
SEE TRAFFIC SIGNAL PLANS SHEET TS-51

FILE NAME =	USER NAME = \$USER\$	DESIGNED - DAD	REVISED -
*FILEL\$		DRAWN - BCK	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED - DAD	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET NO. 3 OF 6 SHEETS	STA.	TO STA.

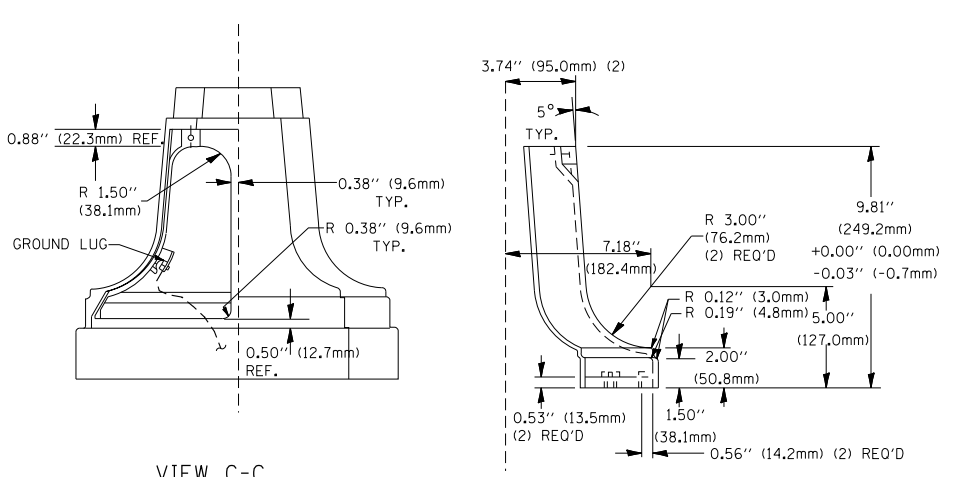
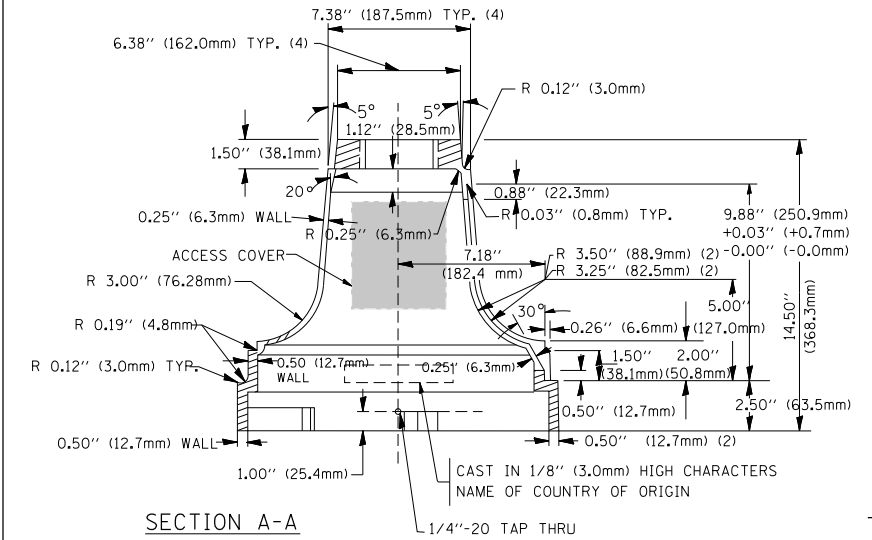
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	732
TS-05		CONTRACT NO.	60131	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



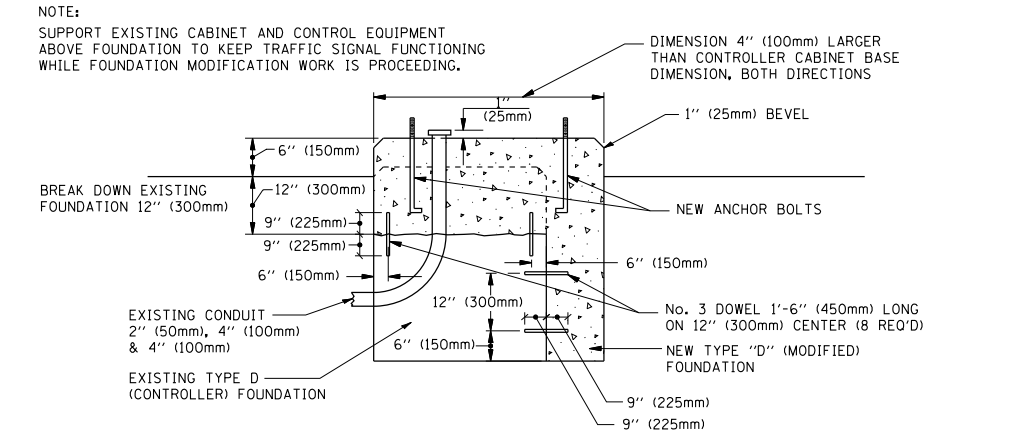
A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIABLES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIABLES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIABLES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) - 12\" (300mm)	126 lbs (57 kg)

NOTES:

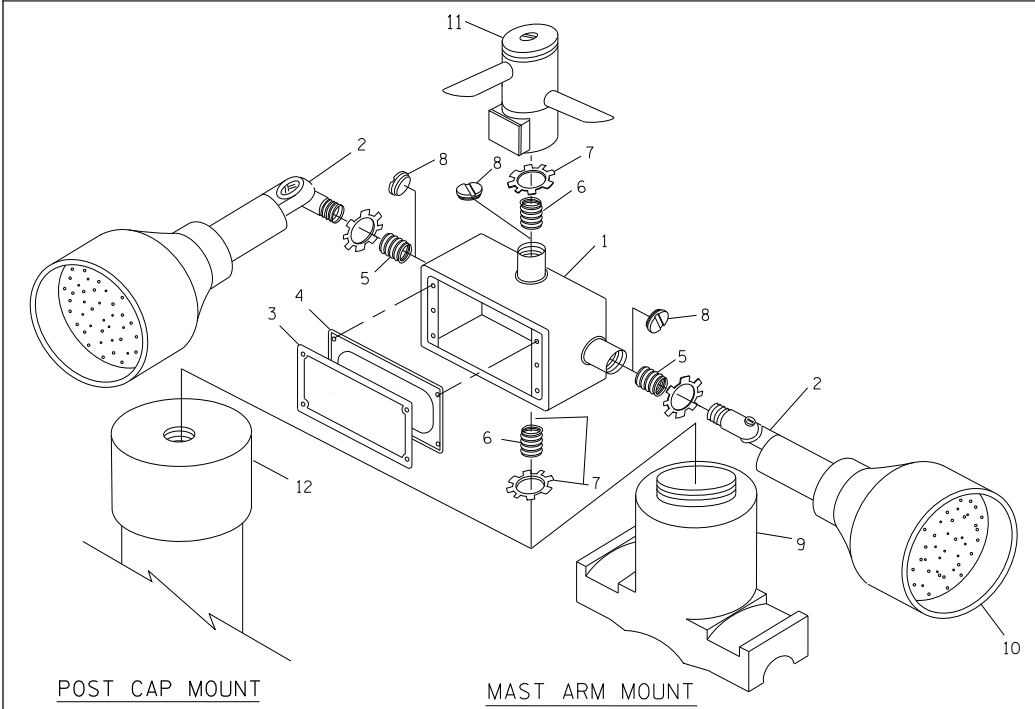
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



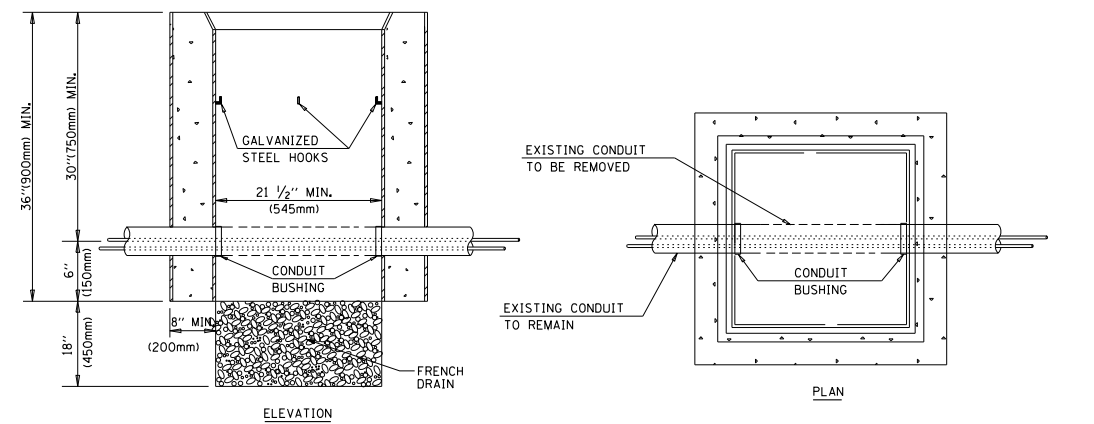
MODIFY EXISTING TYPE "D" FOUNDATION



ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT

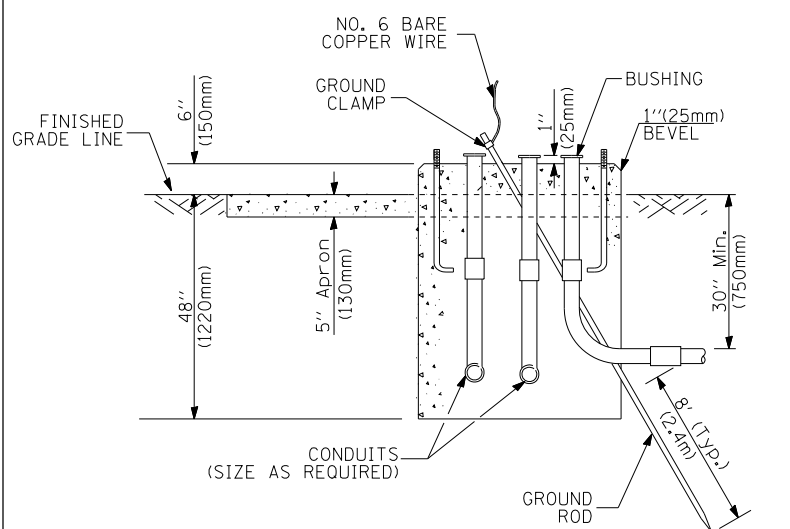
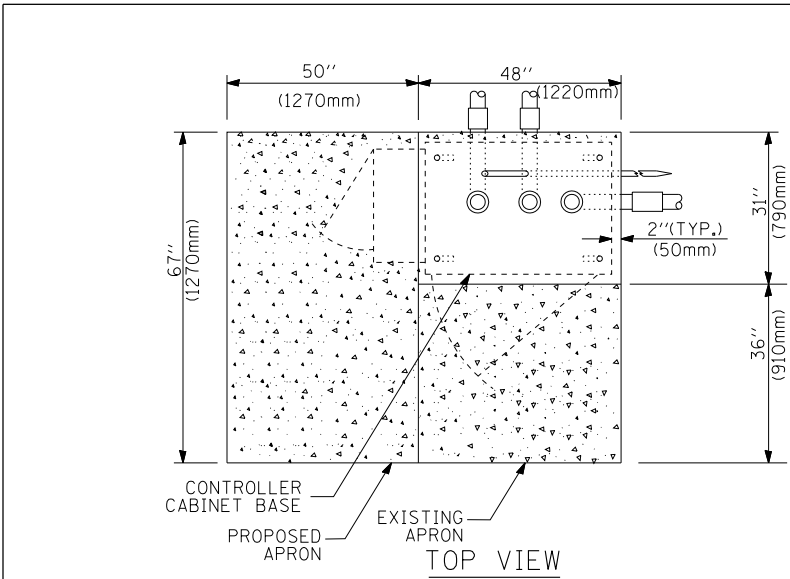
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		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

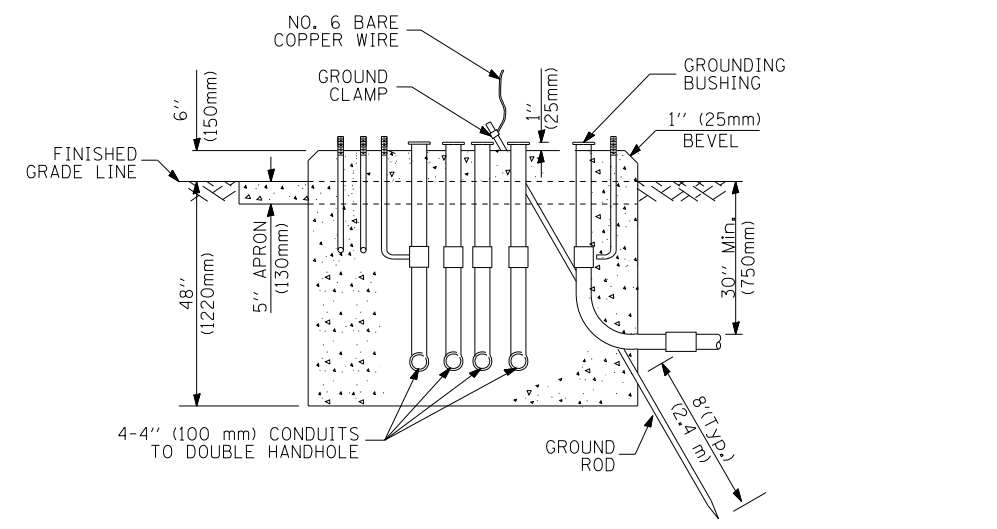
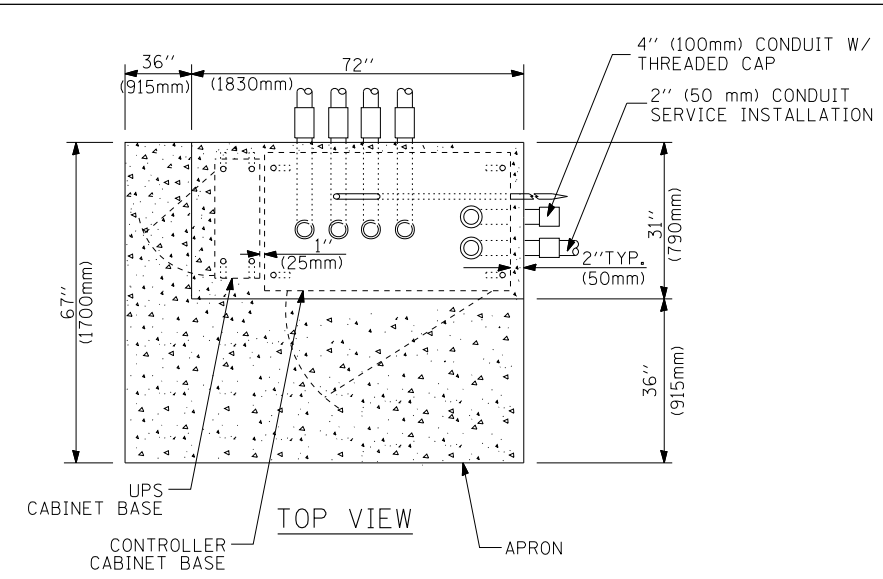
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 4 OF 6 SHEETS STA. TO STA.

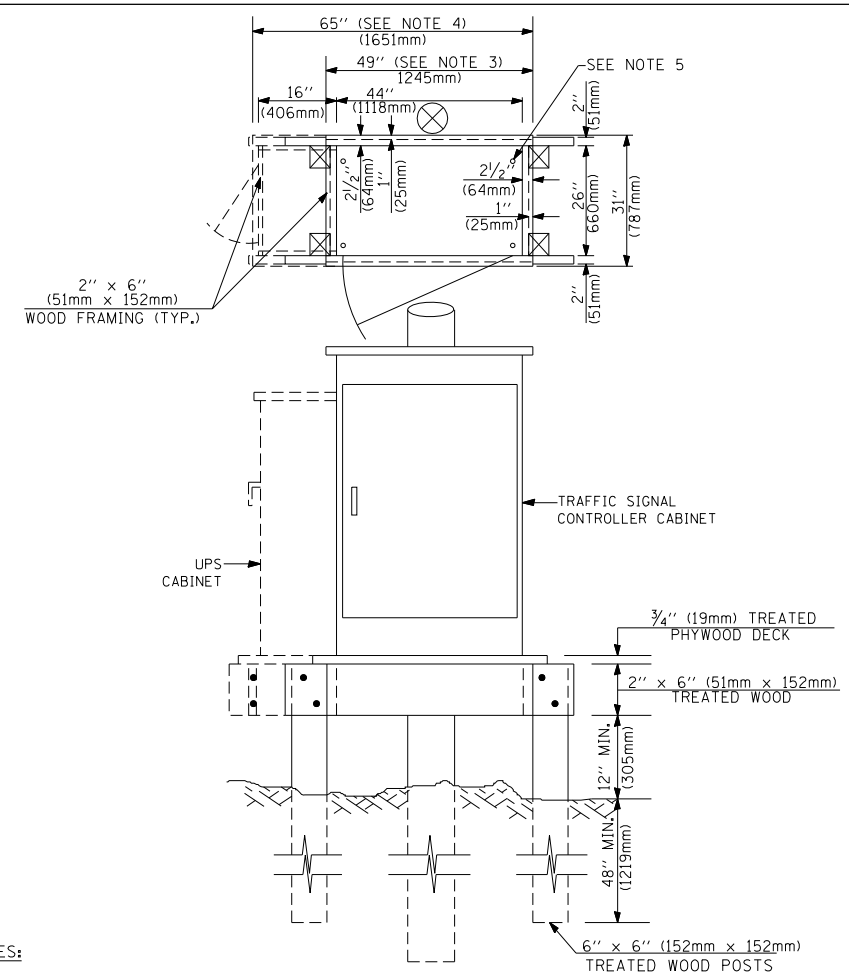
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	733
TS-05		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



**TYPE C
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**



NOTES:

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

MAST ARM LENGTH	FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET NO. 5 OF 6 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113)WRS-5	DUPAGE	963	734
TS-05		CONTRACT NO. 60131		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F 24F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				RAILROAD SYMBOLS			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD CONTROL CABINET			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				FLASHING SIGNAL			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				CROSSING GATE			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSBUCK			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

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		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

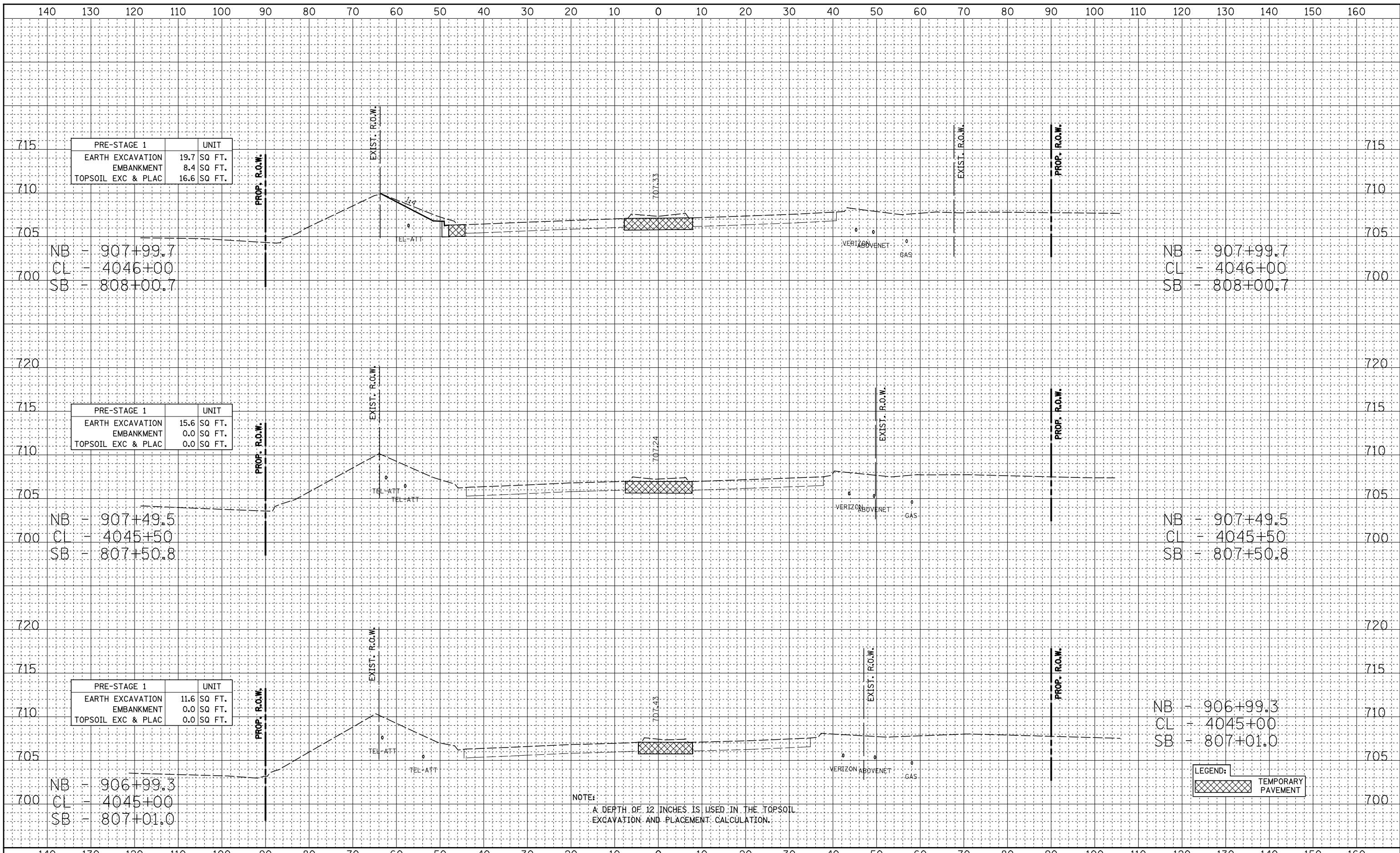
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TS-05		CONTRACT NO. 60I31		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCALE: NONE SHEET NO. 6 OF 6 SHEETS STA. TO STA.

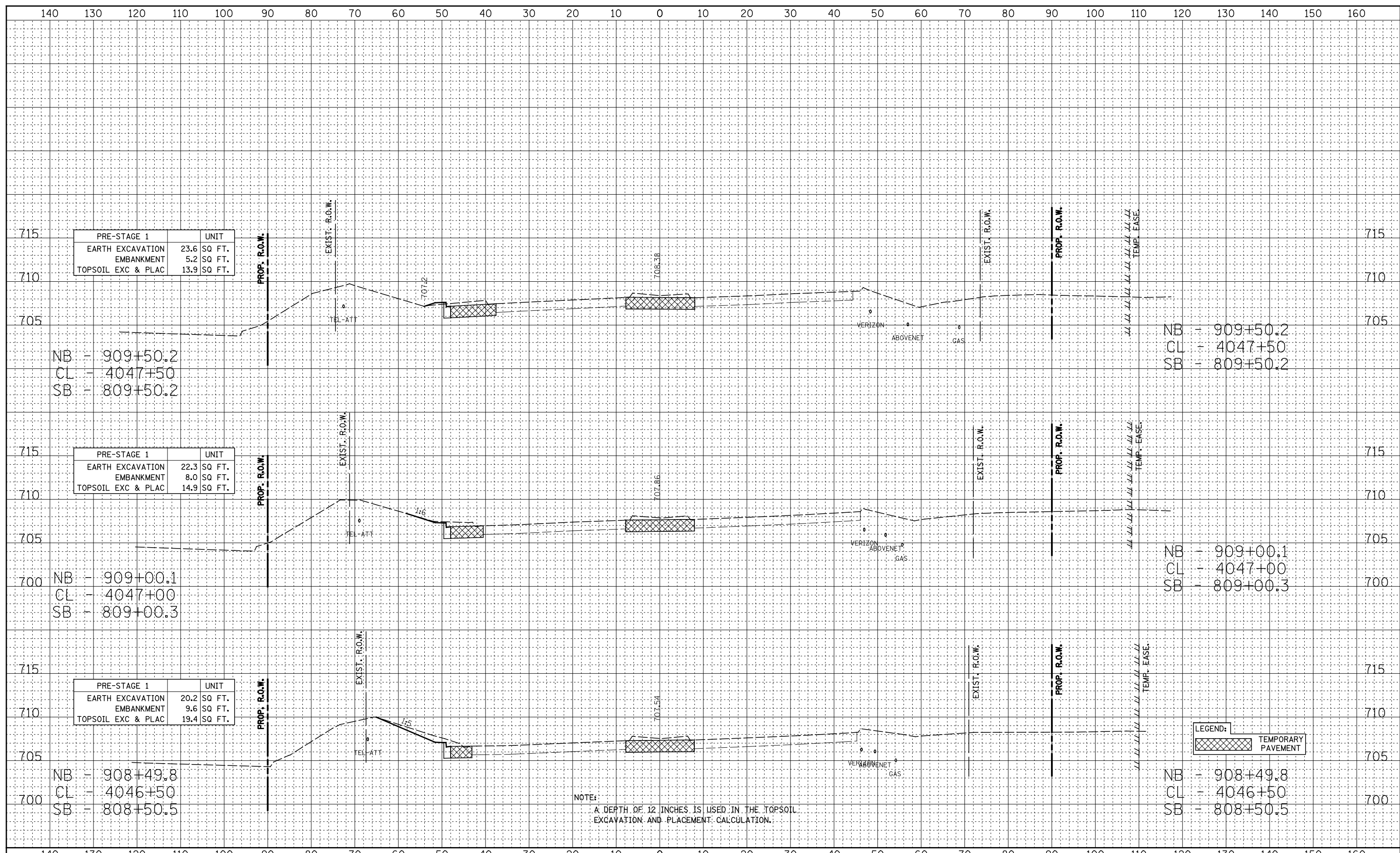
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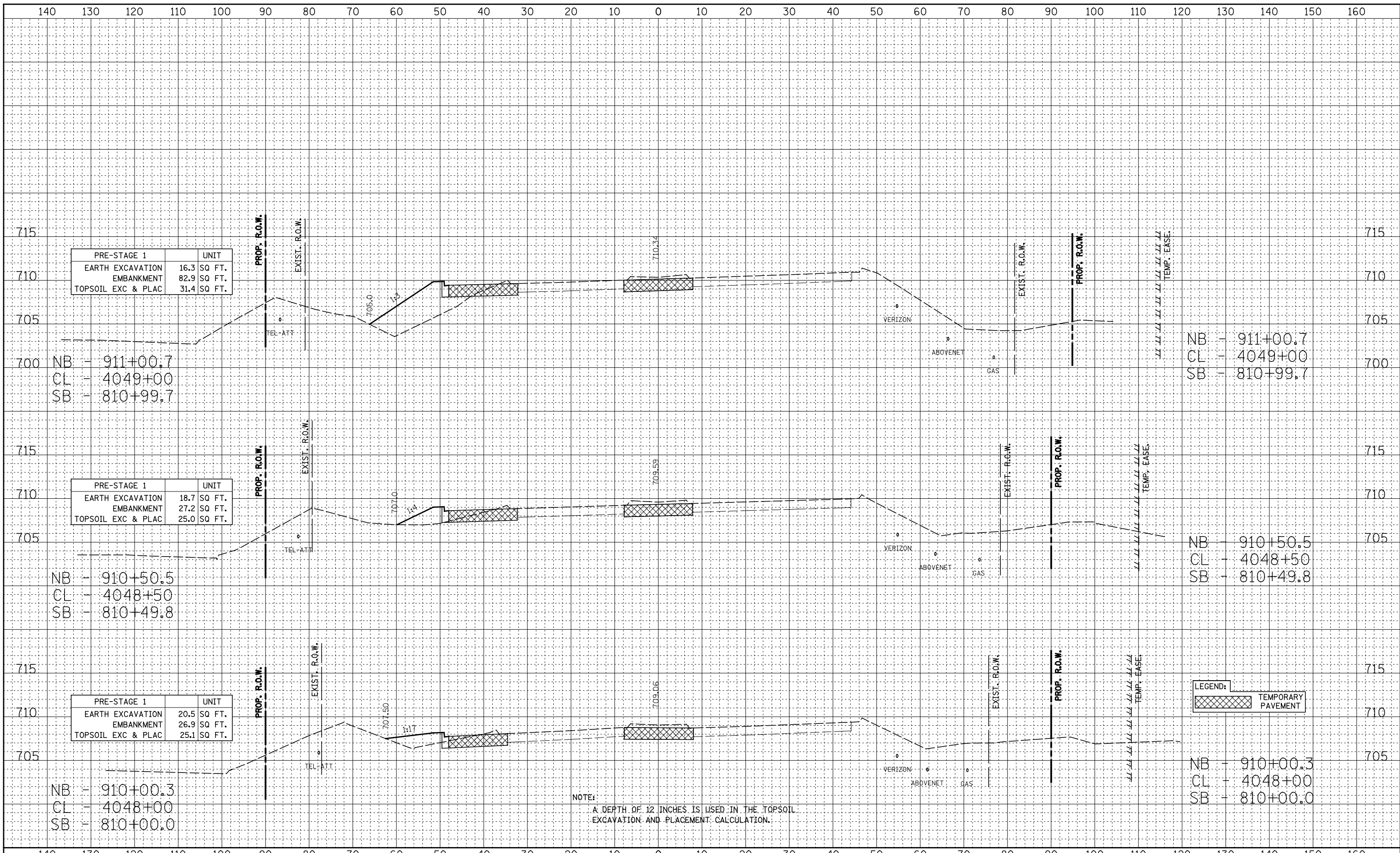
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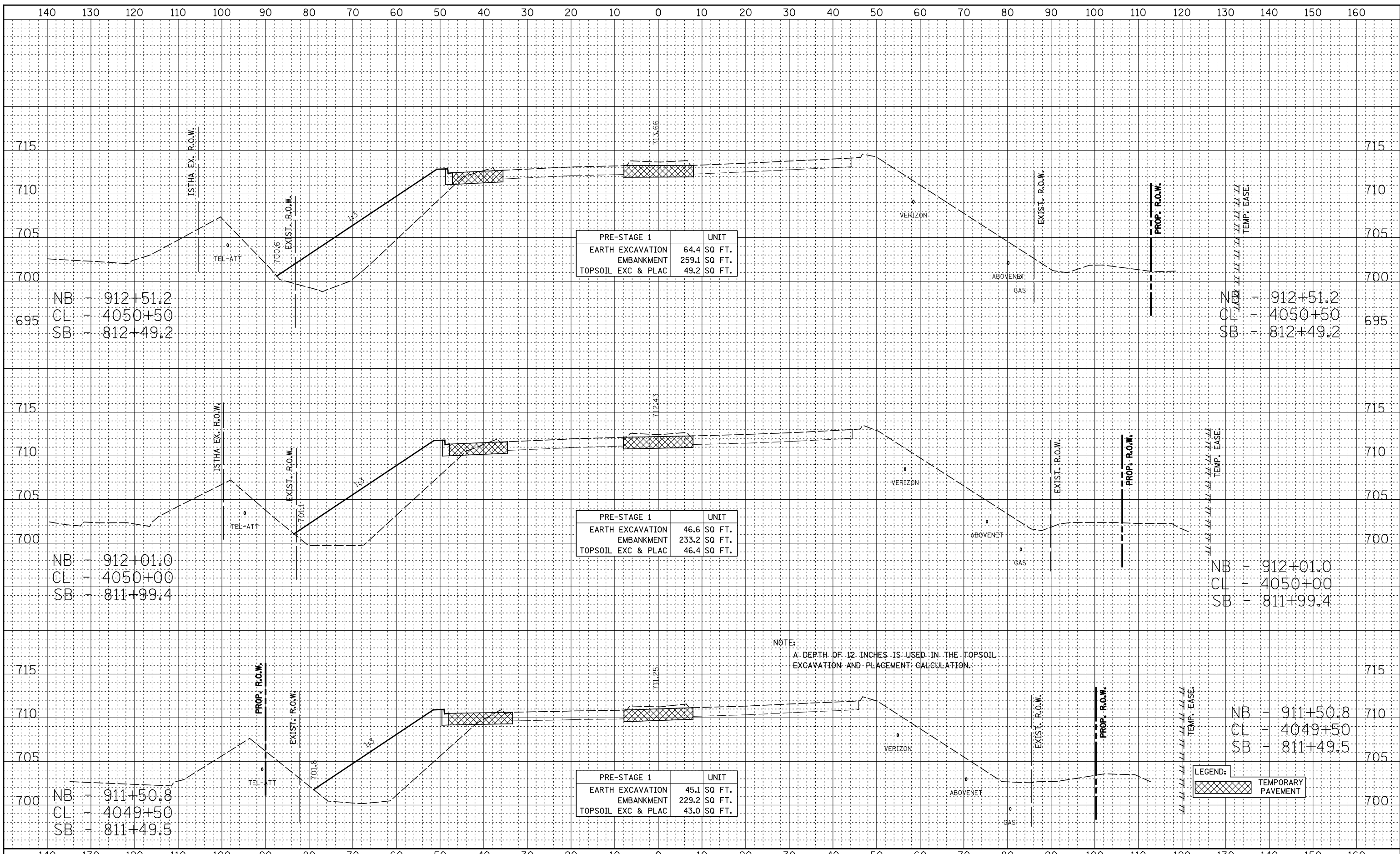
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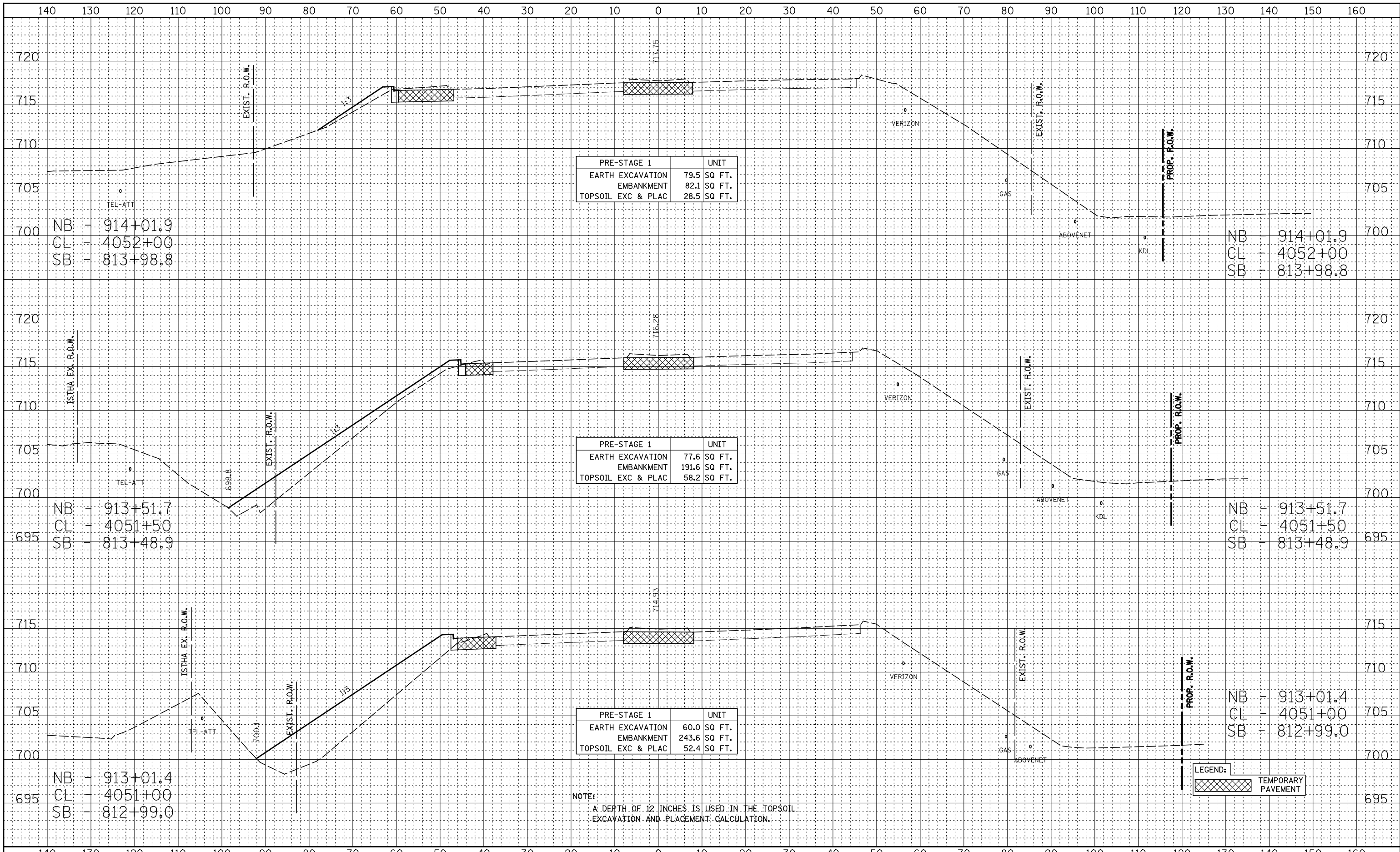
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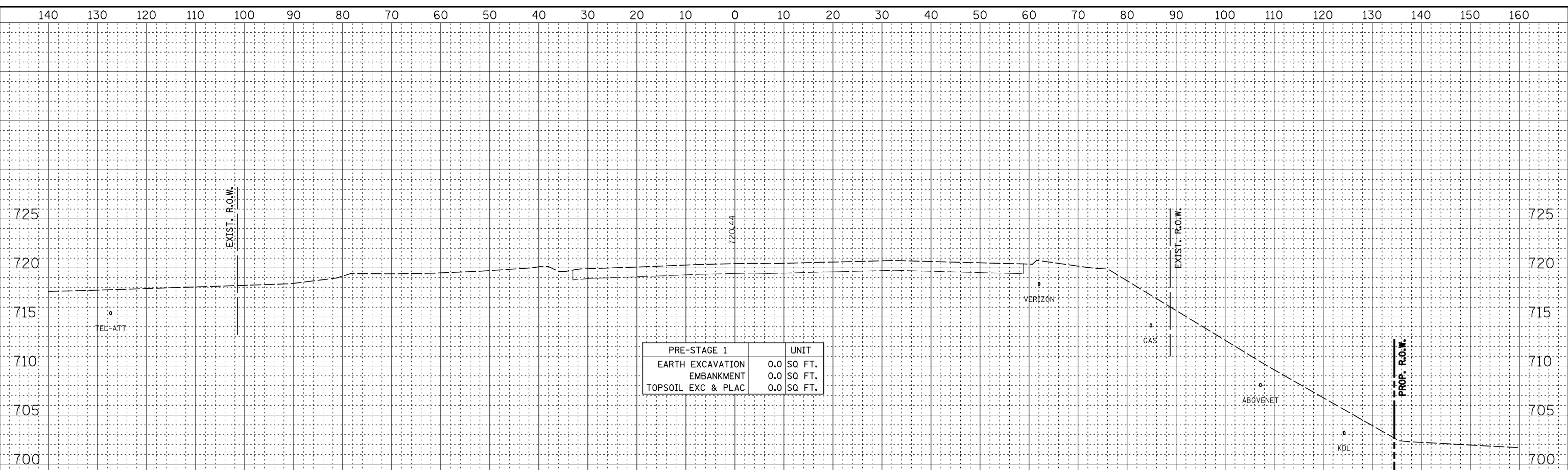


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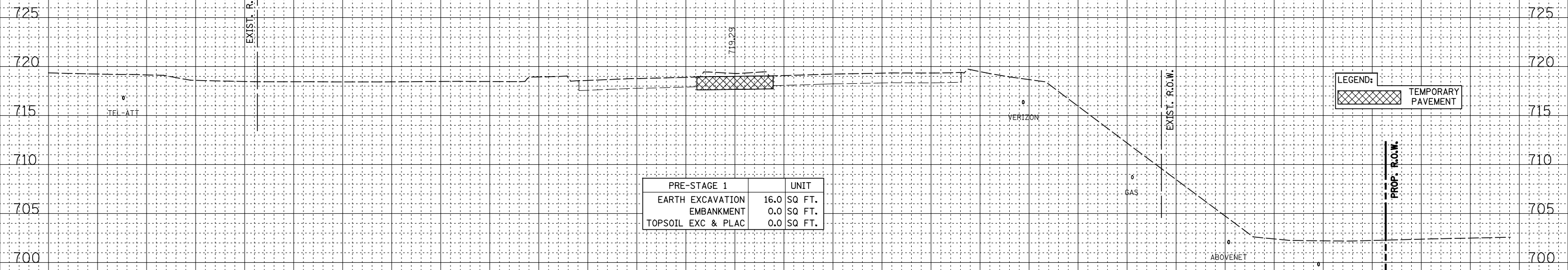
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NOTE BOOK	PLOTTED
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NB - 915+03.1
 CL - 4053+00
 SB - 814+99.7

NB - 915+03.1
 CL - 4053+00
 SB - 814+99.7

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ORIGINAL SURVEY	SURVEYED
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NB - 914+52.2
 CL - 4052+50
 SB - 814+48.6

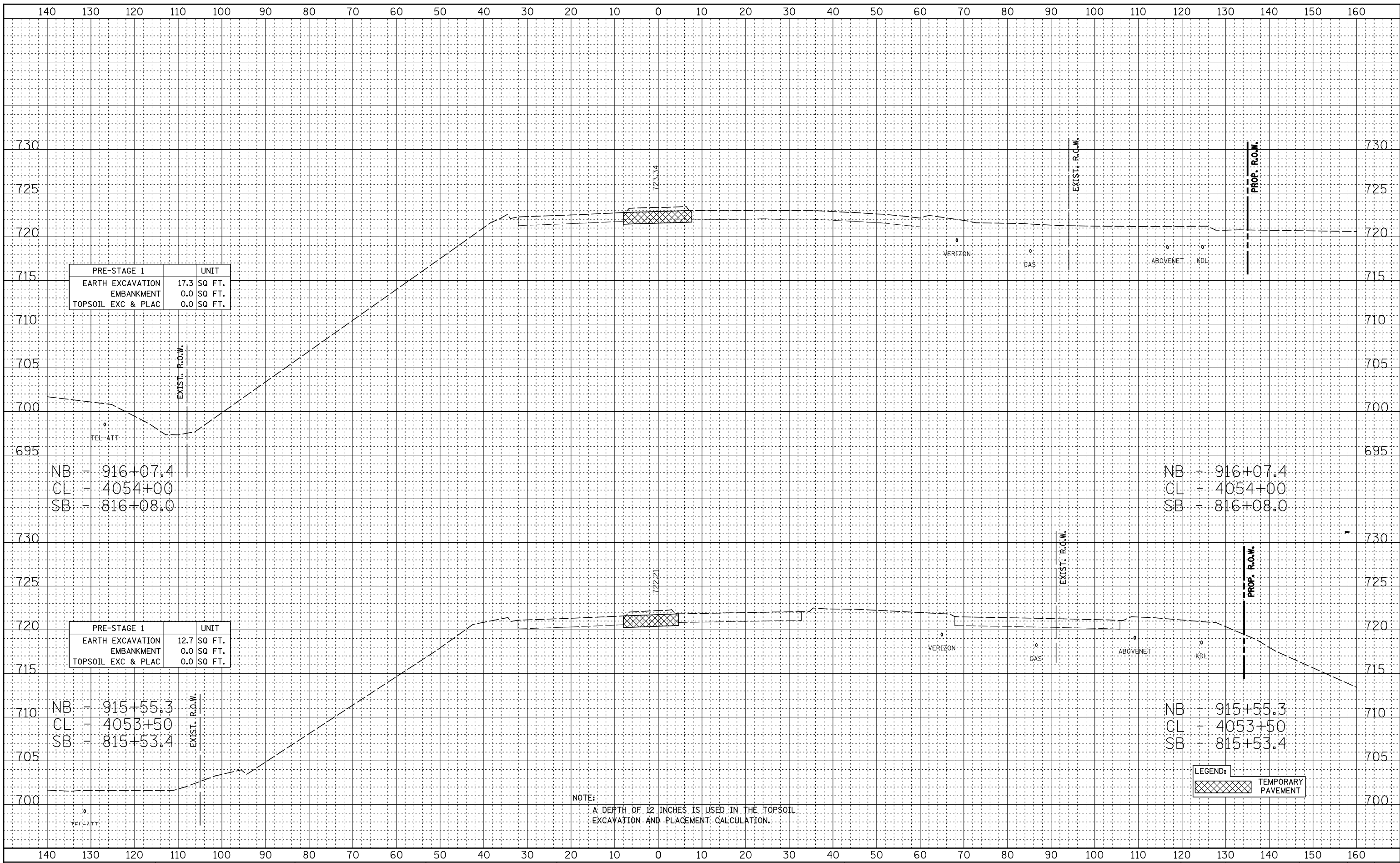
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 CL - 4052+50
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NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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PRE-STAGE 1		UNIT
EARTH EXCAVATION	17.3	SQ FT.
EMBANKMENT	0.0	SQ FT.
TOPSOIL EXC & PLAC	0.0	SQ FT.

PRE-STAGE 1		UNIT
EARTH EXCAVATION	12.7	SQ FT.
EMBANKMENT	0.0	SQ FT.
TOPSOIL EXC & PLAC	0.0	SQ FT.

NB - 916+07.4
 CL - 4054+00
 SB - 816+08.0

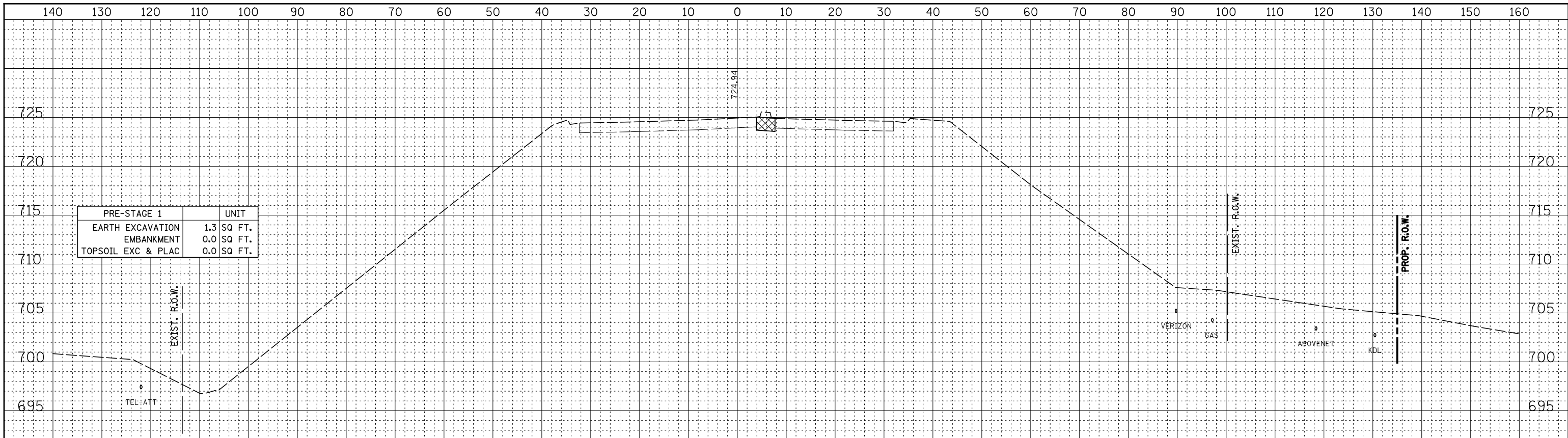
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 SB - 816+08.0

NB - 915+55.3
 CL - 4053+50
 SB - 815+53.4

NB - 915+55.3
 CL - 4053+50
 SB - 815+53.4

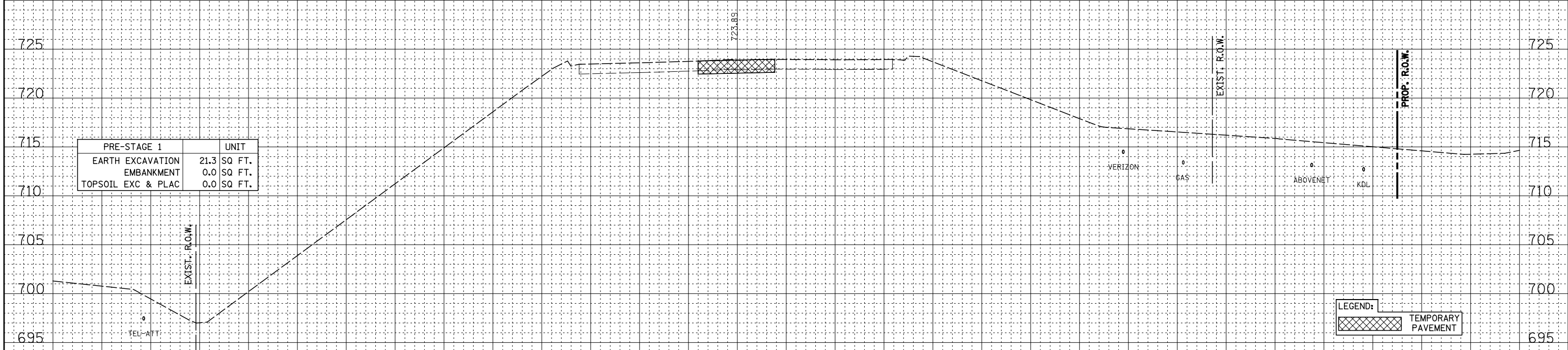
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 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

LEGEND:	
	TEMPORARY PAVEMENT



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 CL - 4055+00
 SB - 817+16.6


NB - 917+11.6
 CL - 4055+00
 SB - 817+16.6



NB - 916+59.5
 CL - 4054+50
 SB - 816+62.6

NB - 916+59.5
 CL - 4054+50
 SB - 816+62.6

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL
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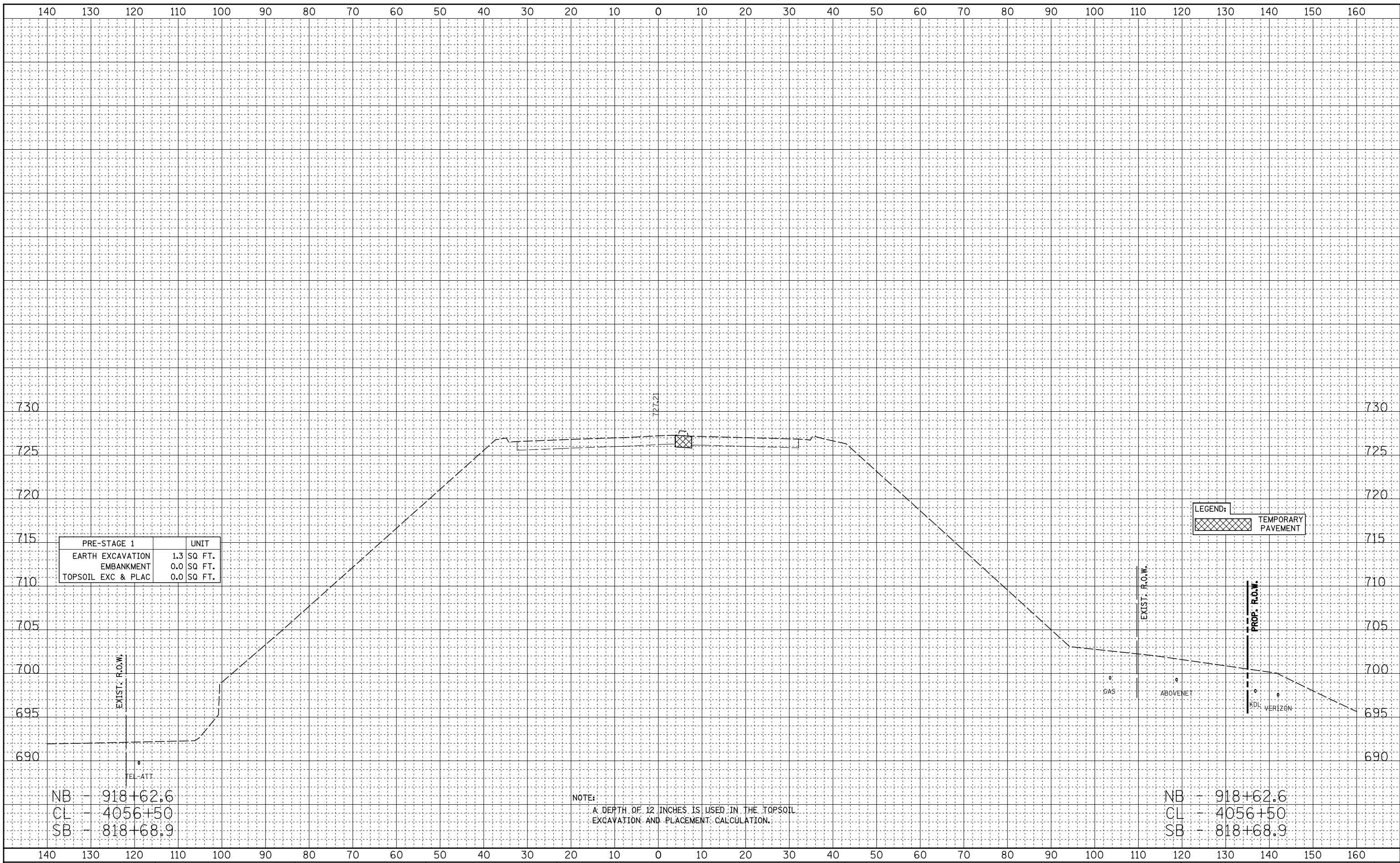
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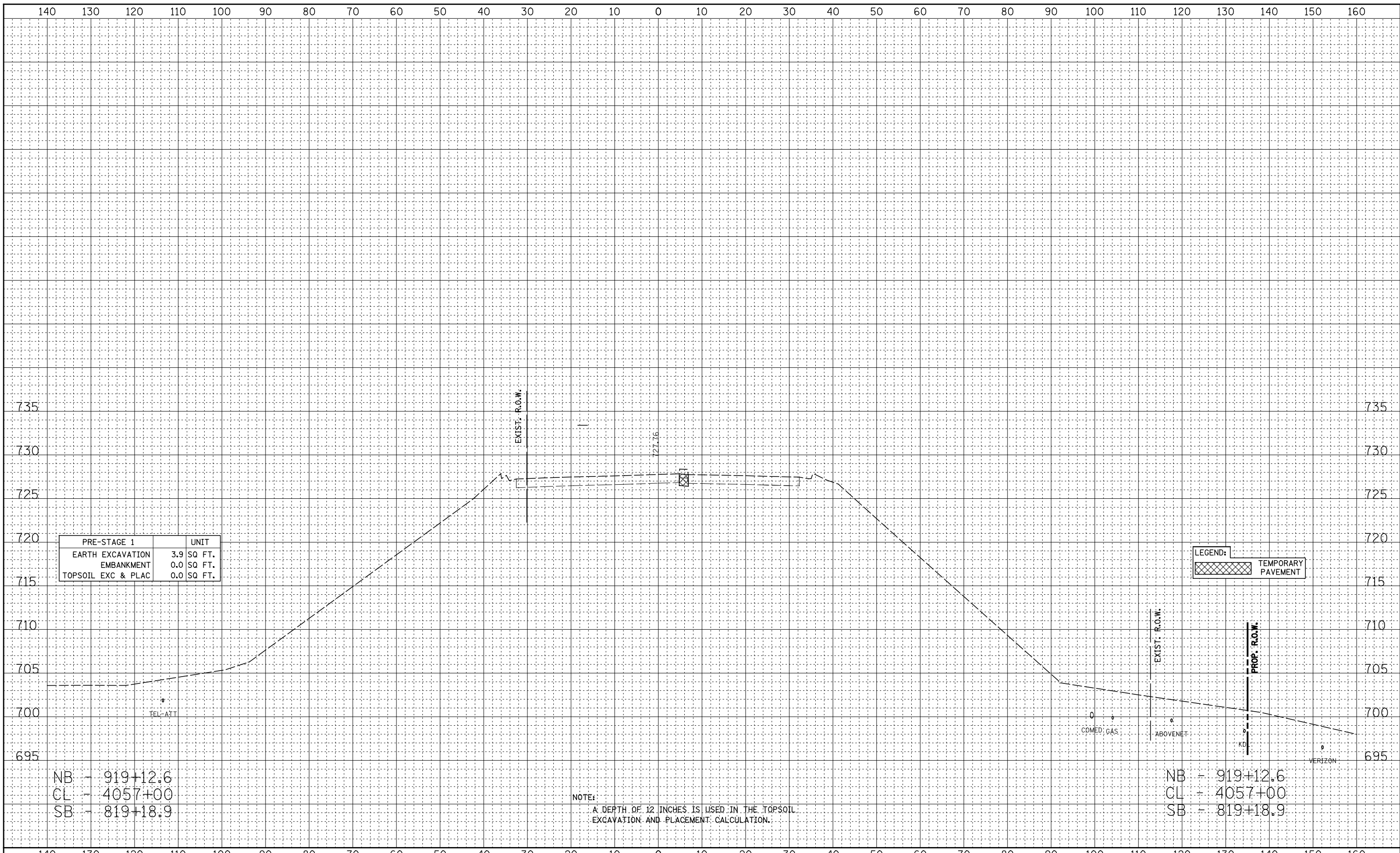
NB - 918+62.6
 CL - 4056+50
 SB - 818+68.9

NOTE:
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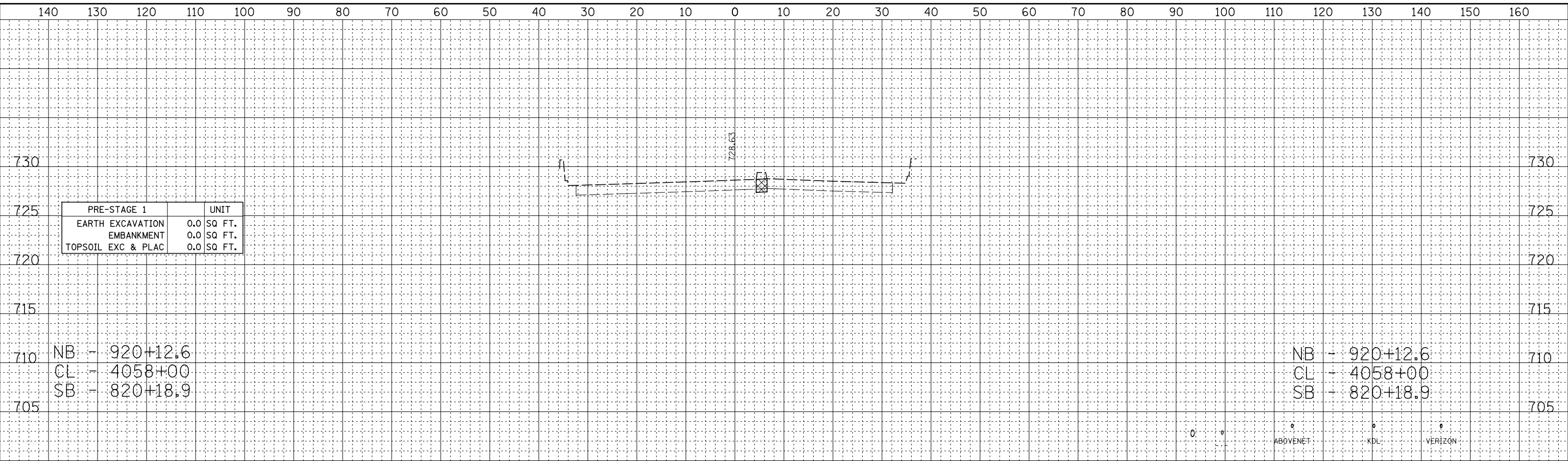
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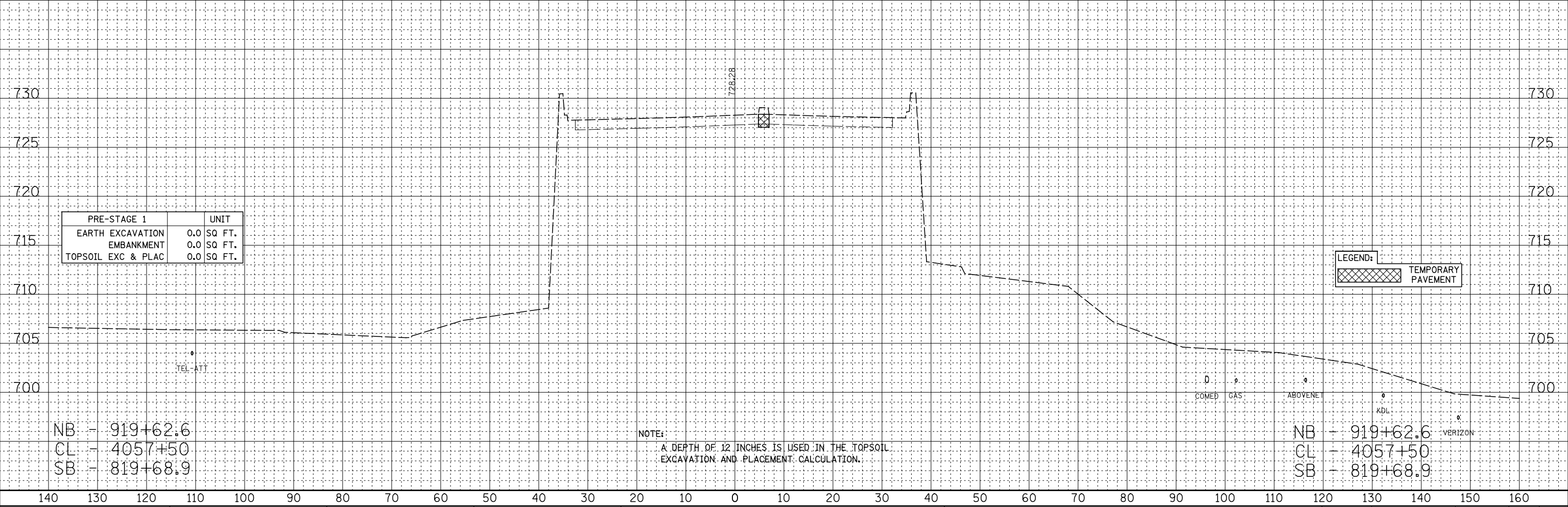
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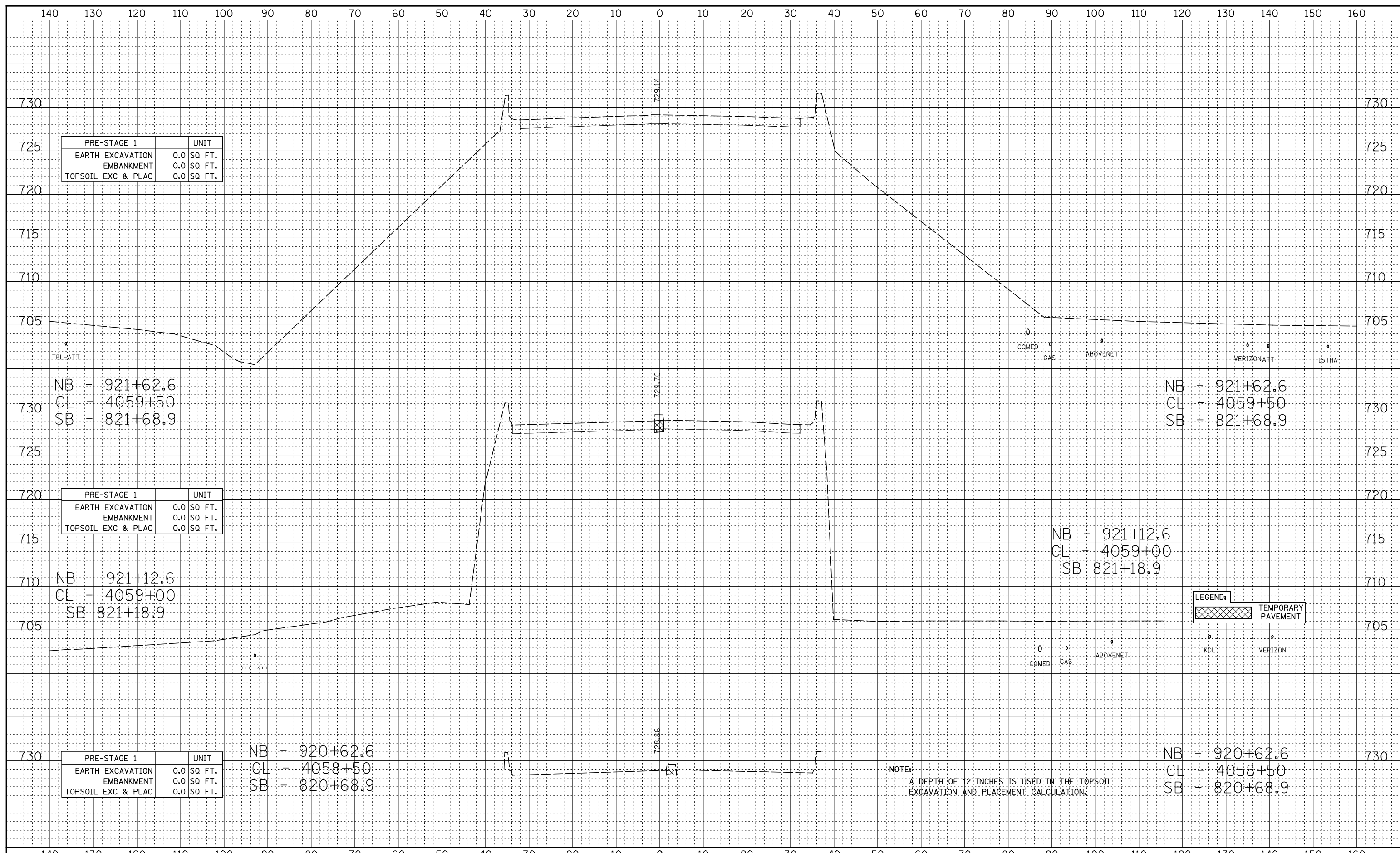


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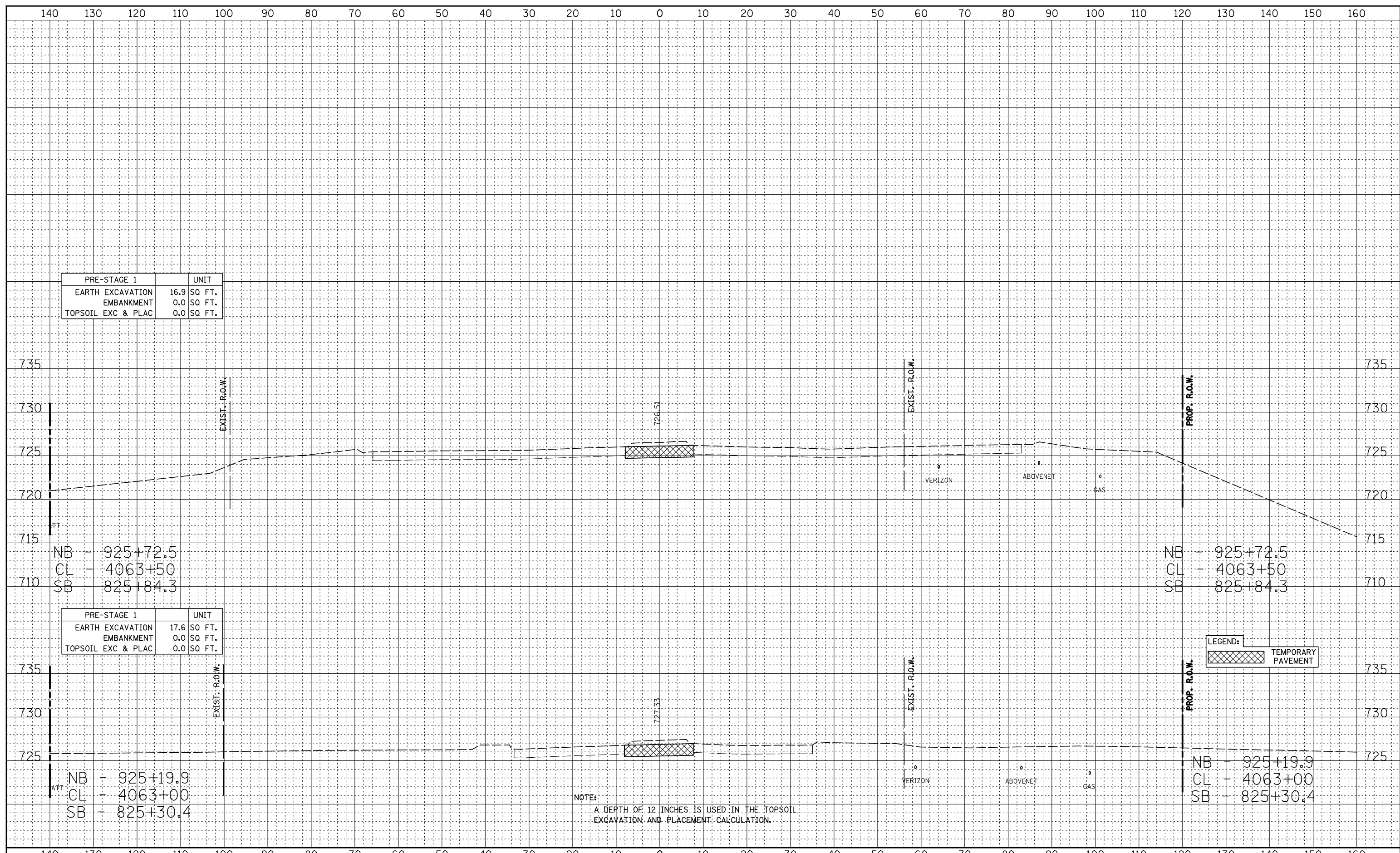


	TEMPORARY PAVEMENT
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NOTE: A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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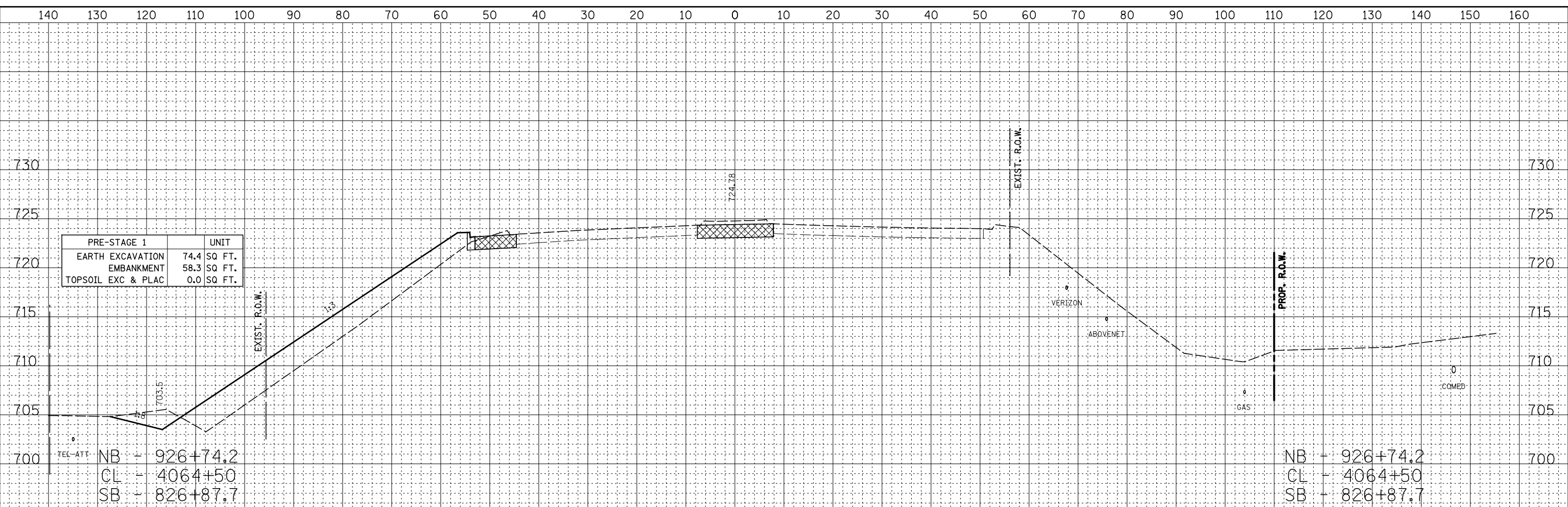
PRE-STAGE 1		UNIT
EARTH EXCAVATION	16.9	SQ. FT.
EMBANKMENT	0.0	SQ. FT.
TOPSOIL EXC & PLAC	0.0	SQ. FT.

PRE-STAGE 1		UNIT
EARTH EXCAVATION	17.6	SQ. FT.
EMBANKMENT	0.0	SQ. FT.
TOPSOIL EXC & PLAC	0.0	SQ. FT.

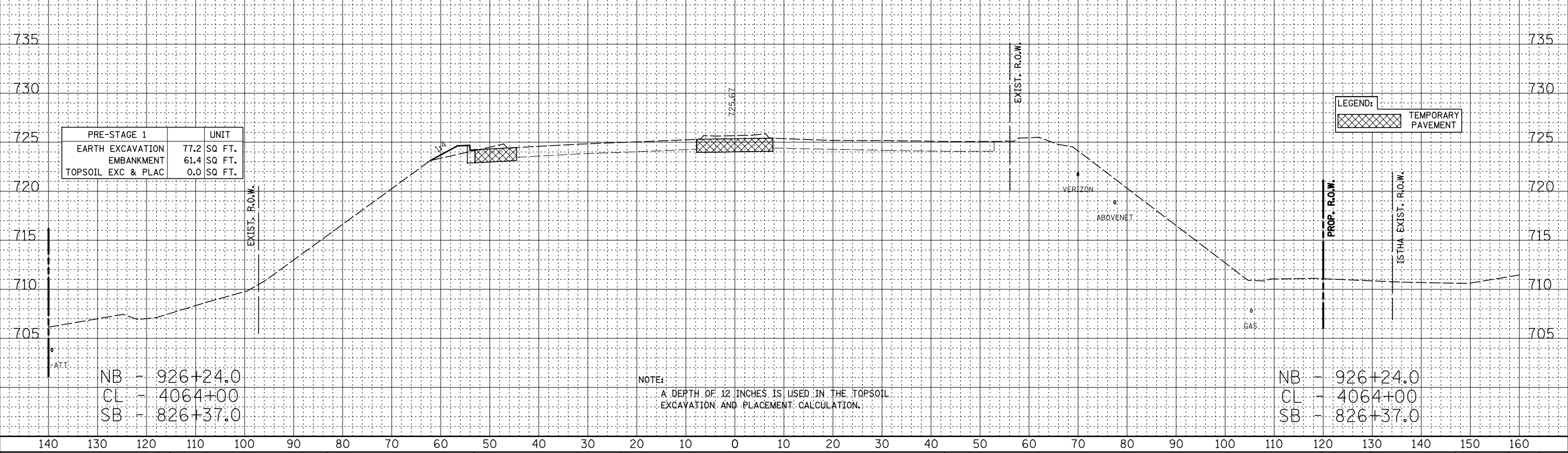
LEGEND:	
	TEMPORARY PAVEMENT

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED



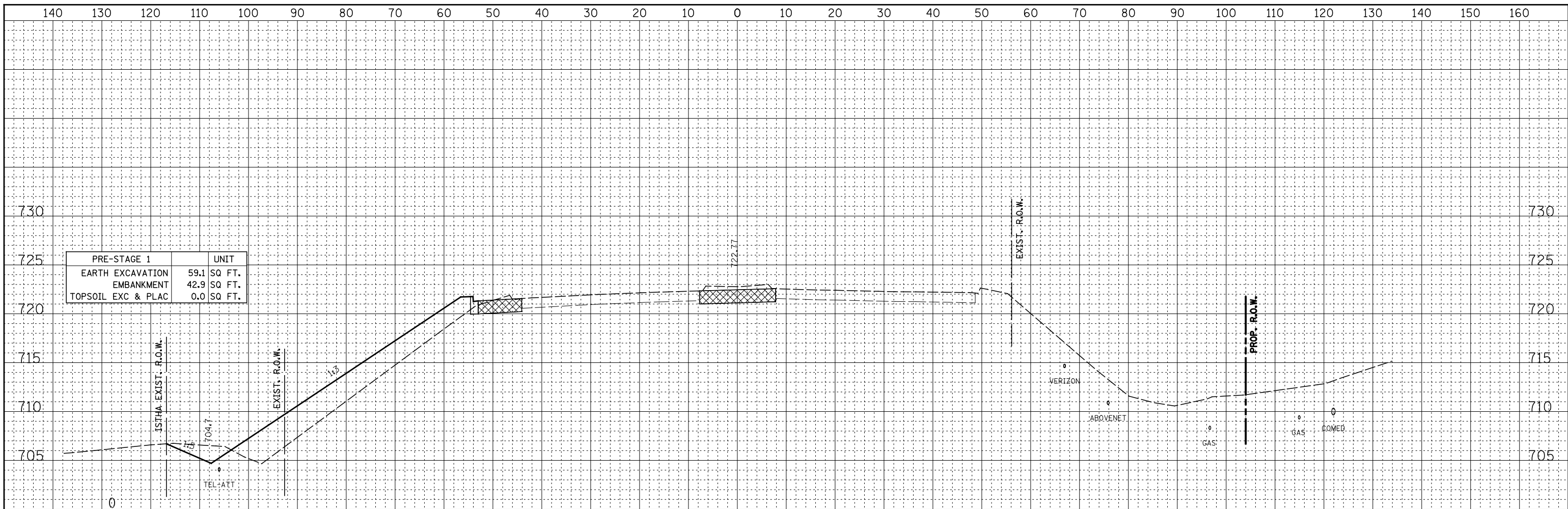
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED



NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

LEGEND:
TEMPORARY PAVEMENT

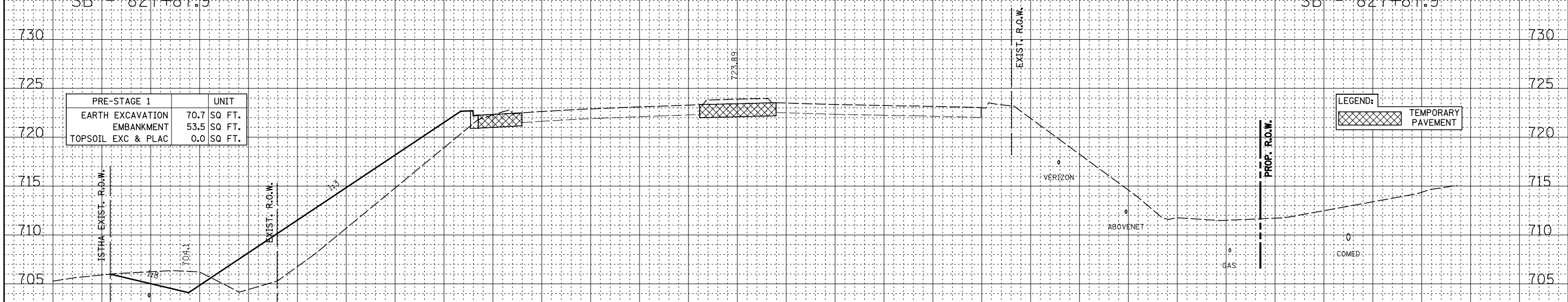
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NB - 927+74.6
 CL - 4065+50
 SB - 827+87.9

NB - 927+74.6
 CL - 4065+50
 SB - 827+87.9

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NB - 927+24.4
 CL - 4065+00
 SB - 827+37.7

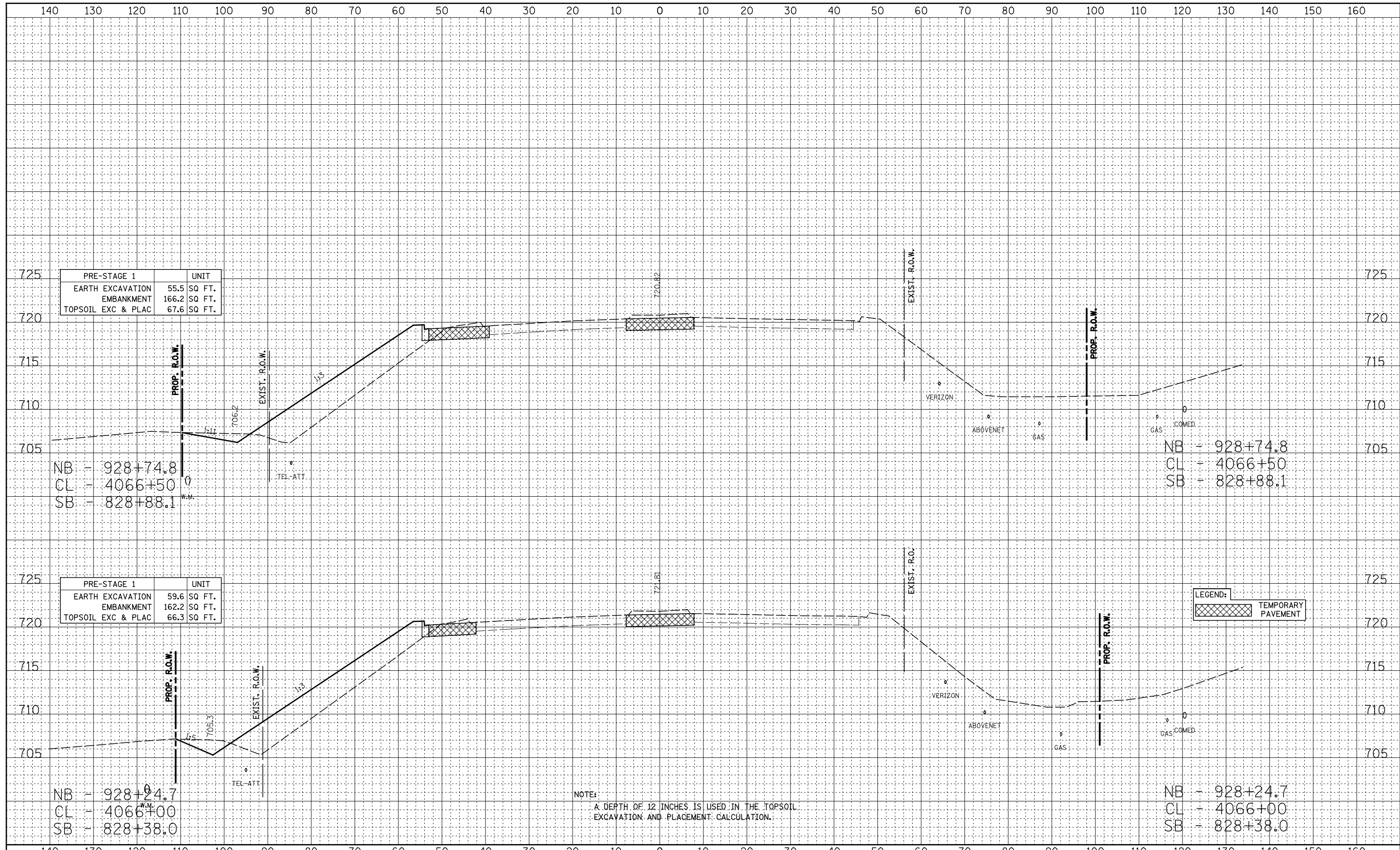
NB - 927+24.4
 CL - 4065+00
 SB - 827+37.7

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

LEGEND:
 TEMPORARY PAVEMENT

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NOTE BOOK	PLOTTED
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	AREAS CHECKED



PRE-STAGE 1		UNIT
EARTH EXCAVATION	55.5	SQ FT.
EMBANKMENT	166.2	SQ FT.
TOPSOIL EXC & PLAC	67.6	SQ FT.

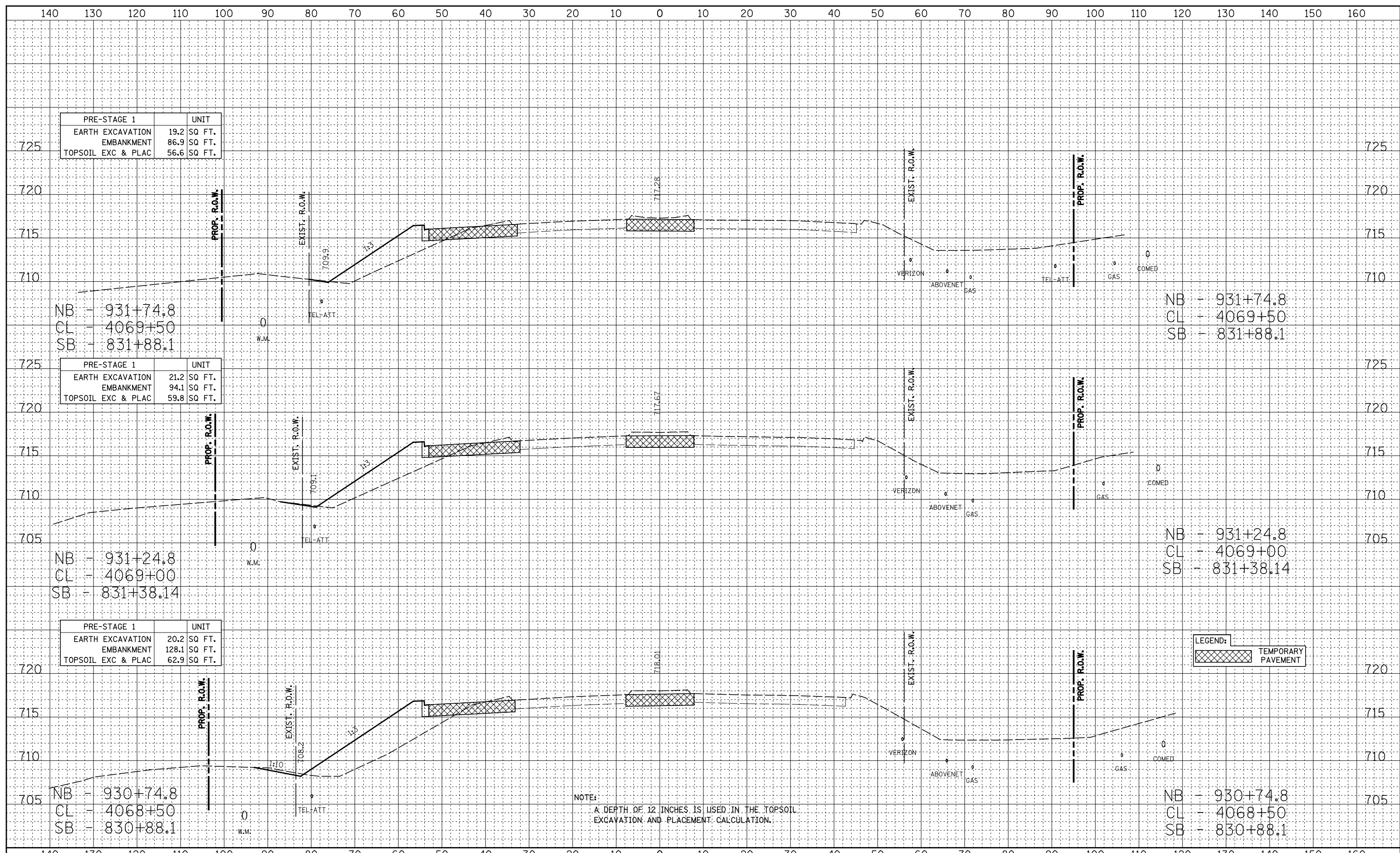
PRE-STAGE 1		UNIT
EARTH EXCAVATION	59.6	SQ FT.
EMBANKMENT	162.2	SQ FT.
TOPSOIL EXC & PLAC	66.3	SQ FT.

LEGEND:	
	TEMPORARY PAVEMENT

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
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PRE-STAGE 1		UNIT
EARTH EXCAVATION	19.2	SQ FT.
EMBANKMENT	86.9	SQ FT.
TOPSOIL EXC & PLAC	56.6	SQ FT.

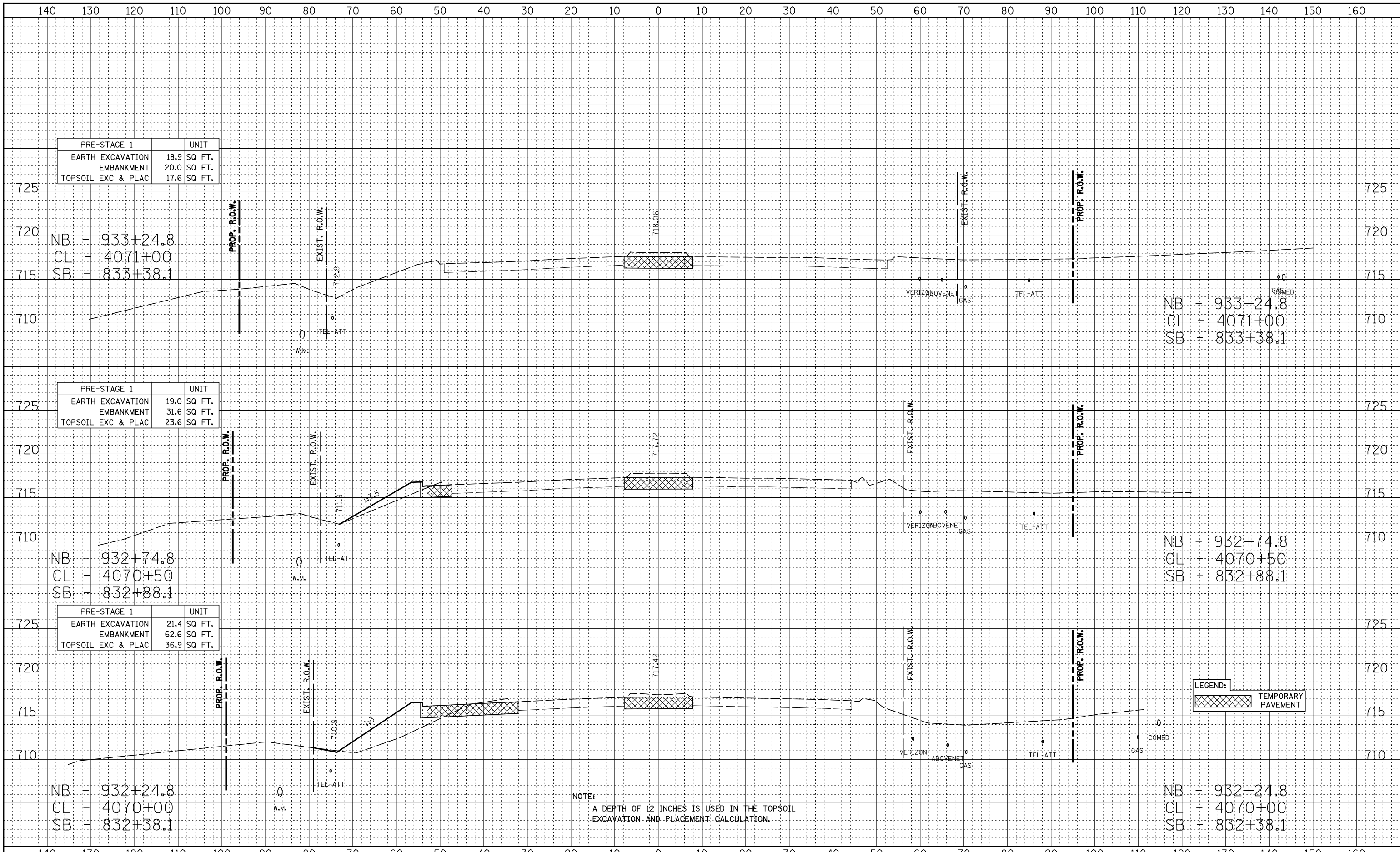
PRE-STAGE 1		UNIT
EARTH EXCAVATION	21.2	SQ FT.
EMBANKMENT	94.1	SQ FT.
TOPSOIL EXC & PLAC	59.8	SQ FT.

PRE-STAGE 1		UNIT
EARTH EXCAVATION	20.2	SQ FT.
EMBANKMENT	128.1	SQ FT.
TOPSOIL EXC & PLAC	62.9	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

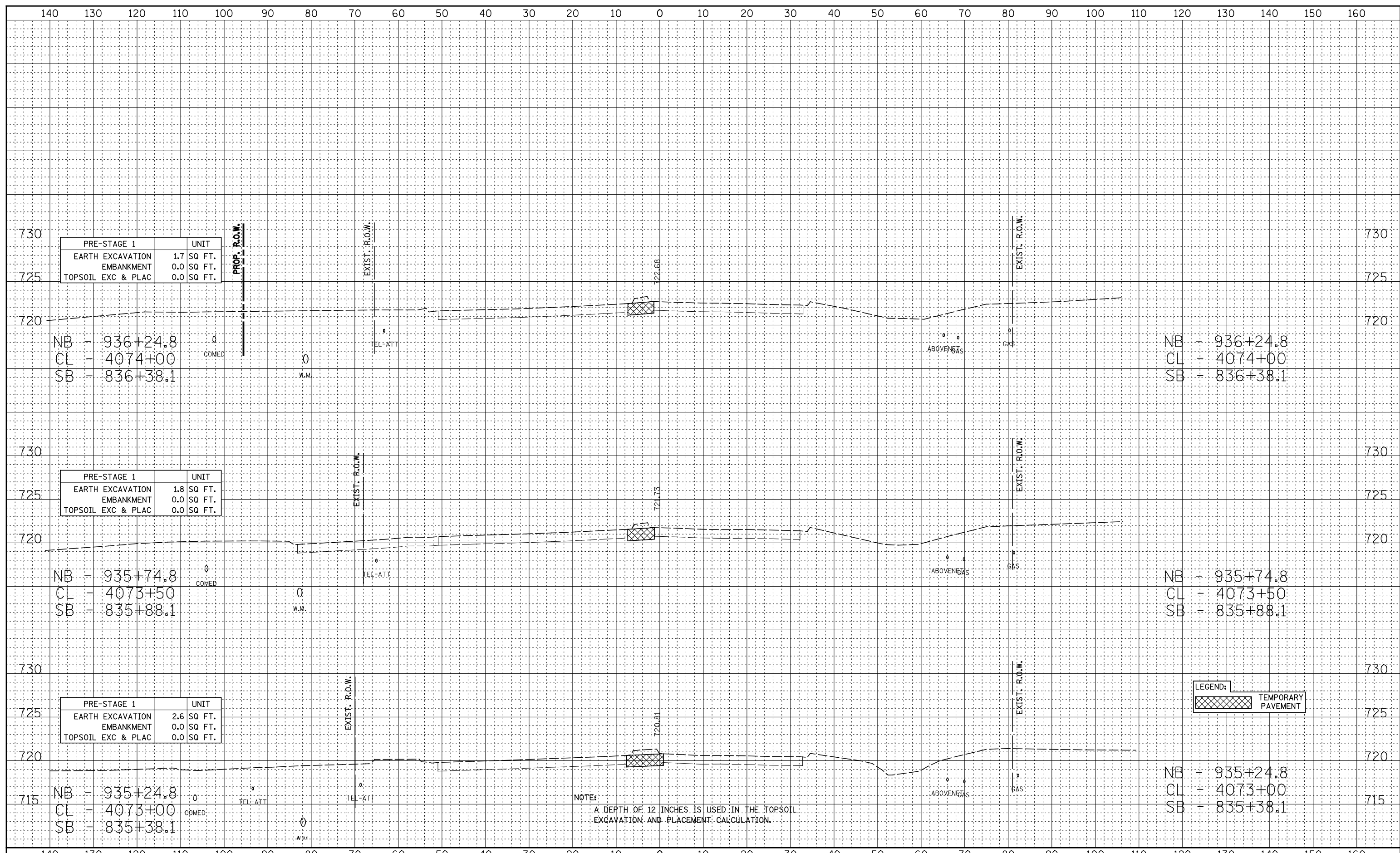
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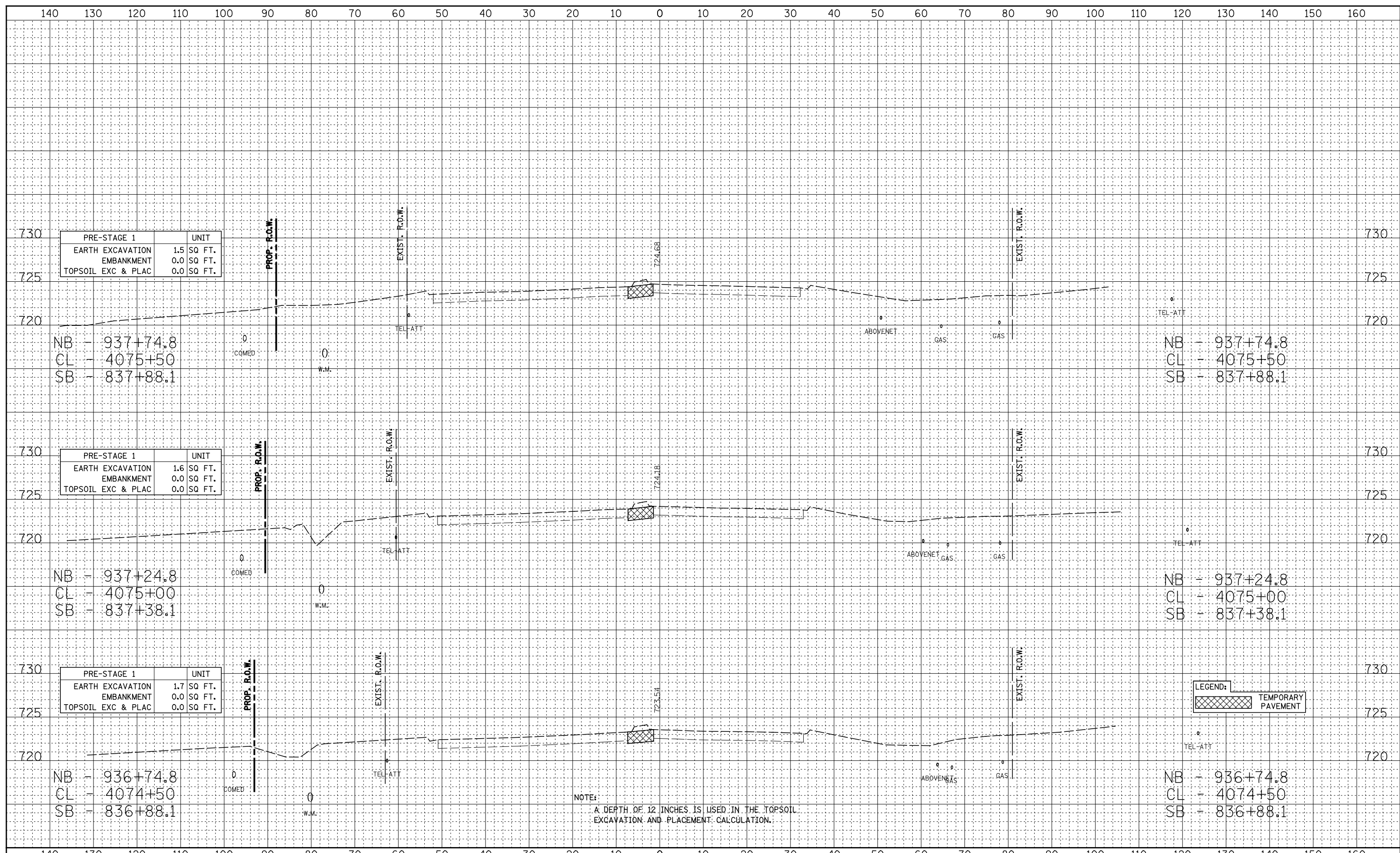
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NOTE: A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

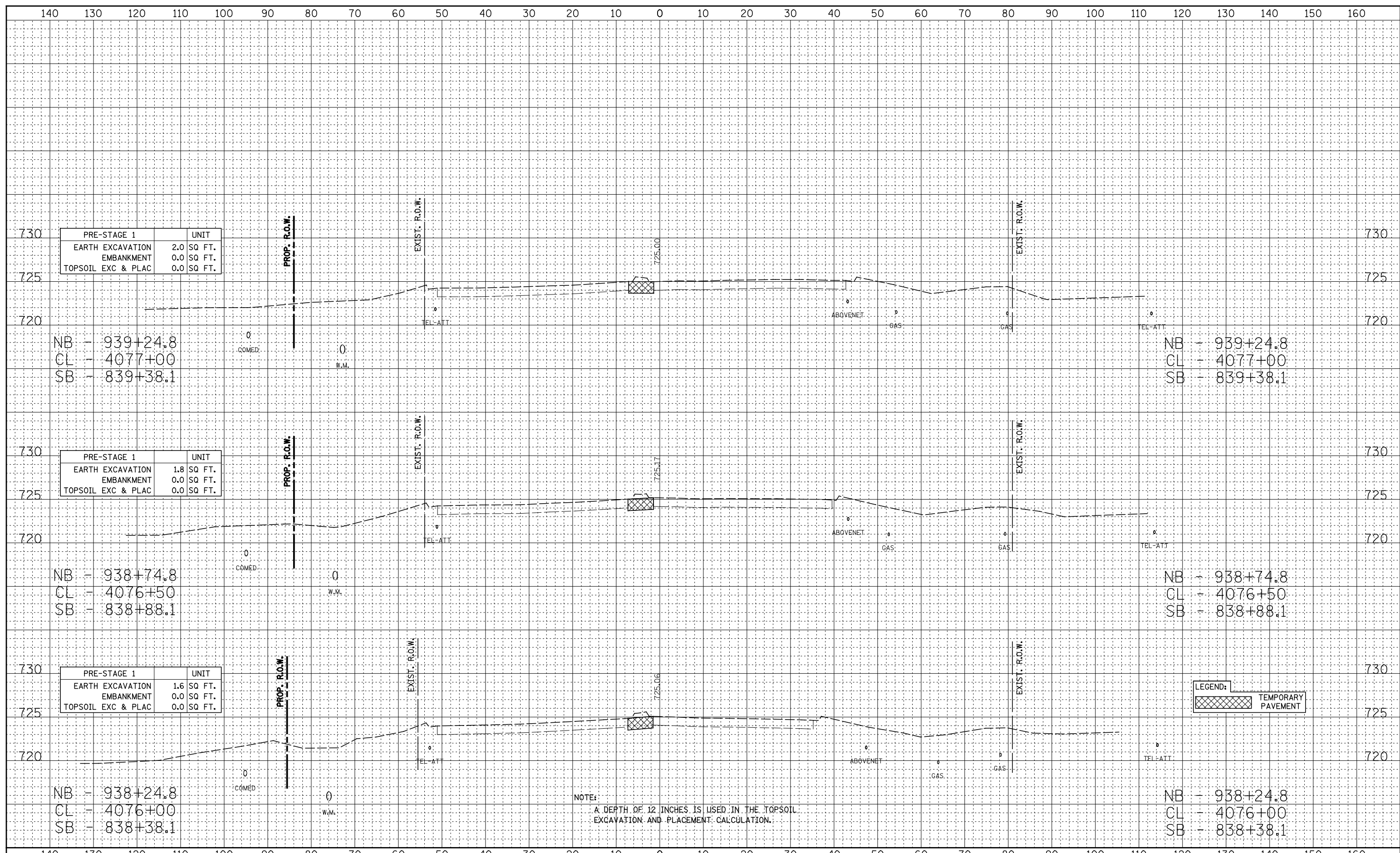
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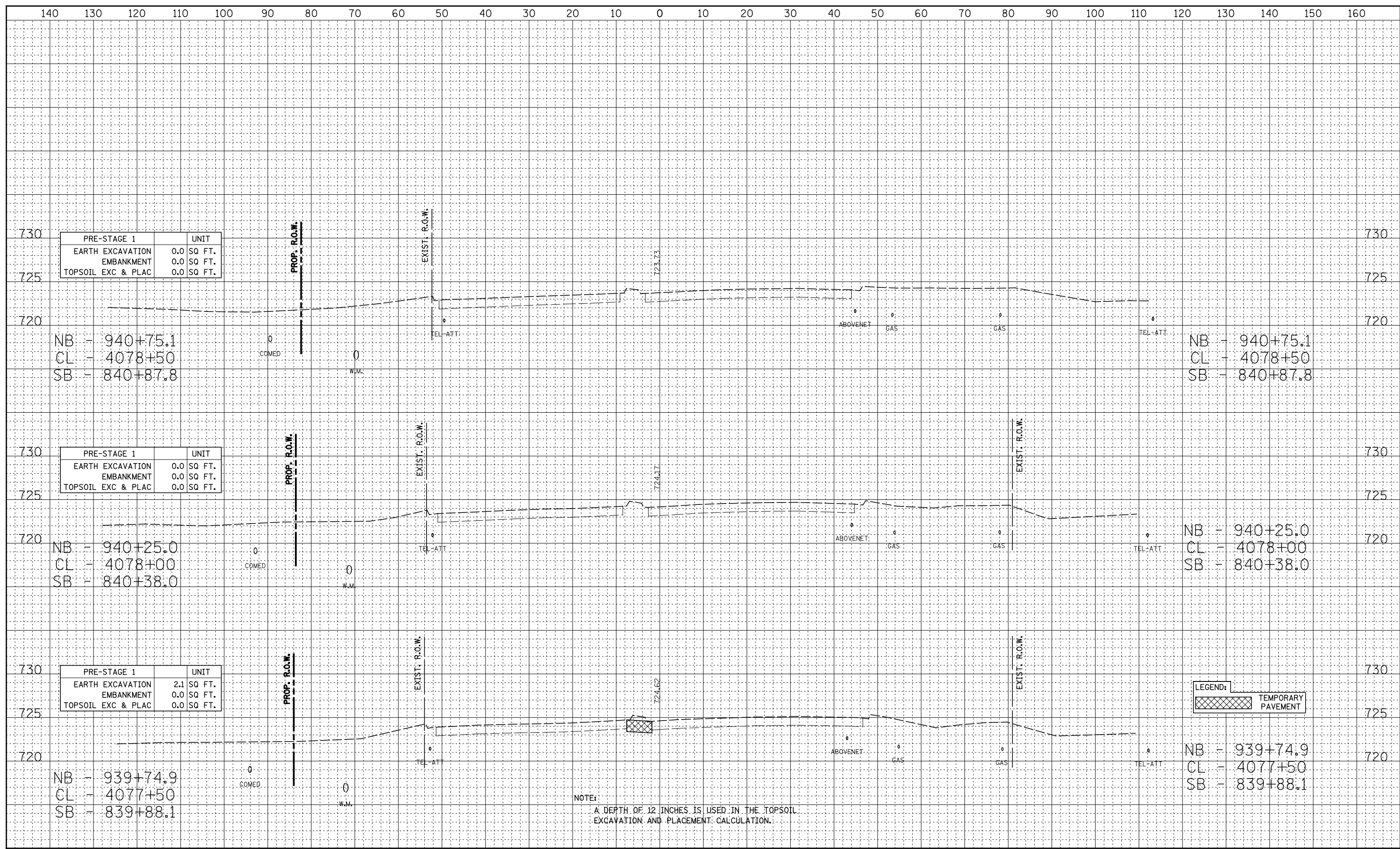


NOTE: A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

LEGEND: TEMPORARY PAVEMENT

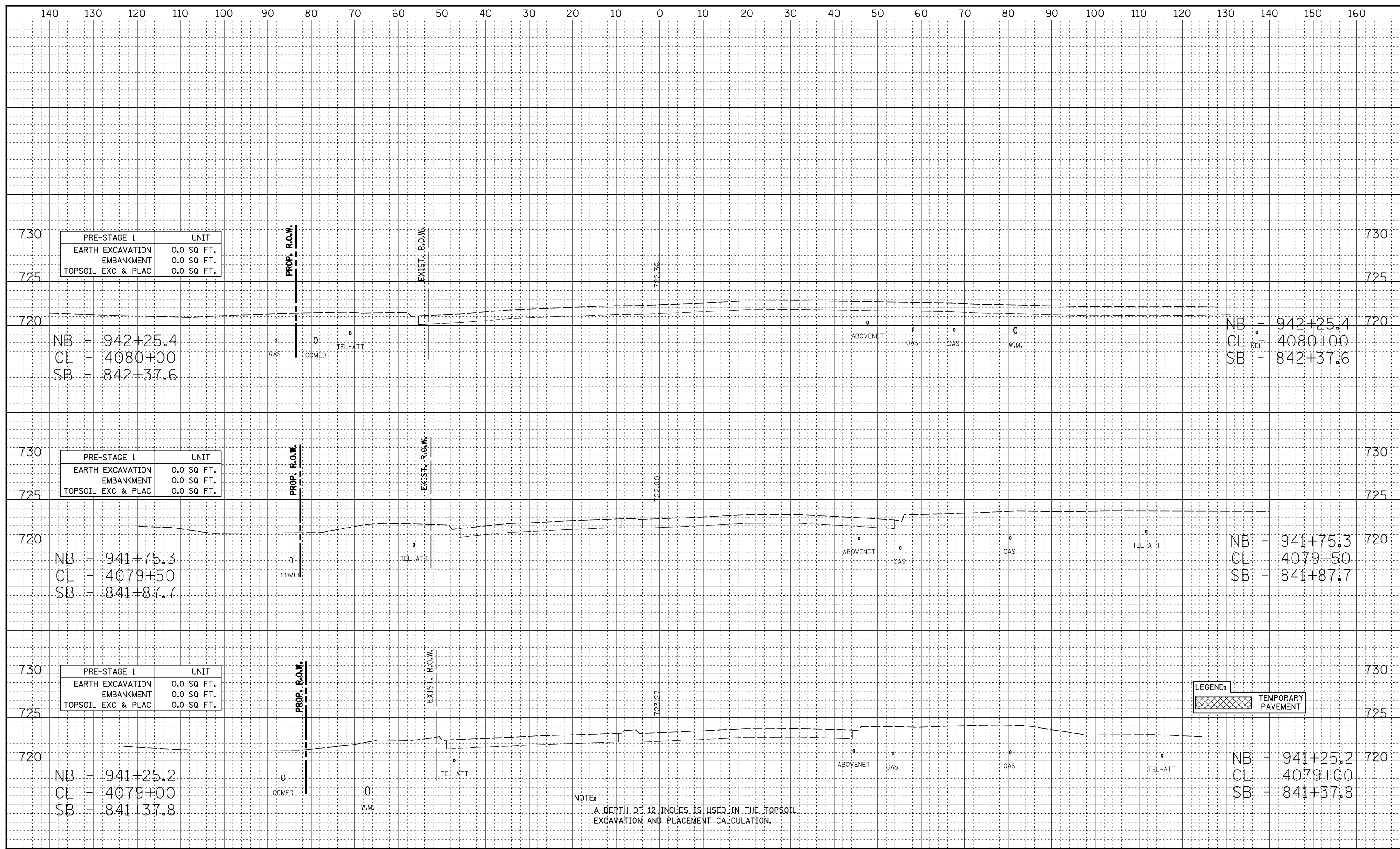
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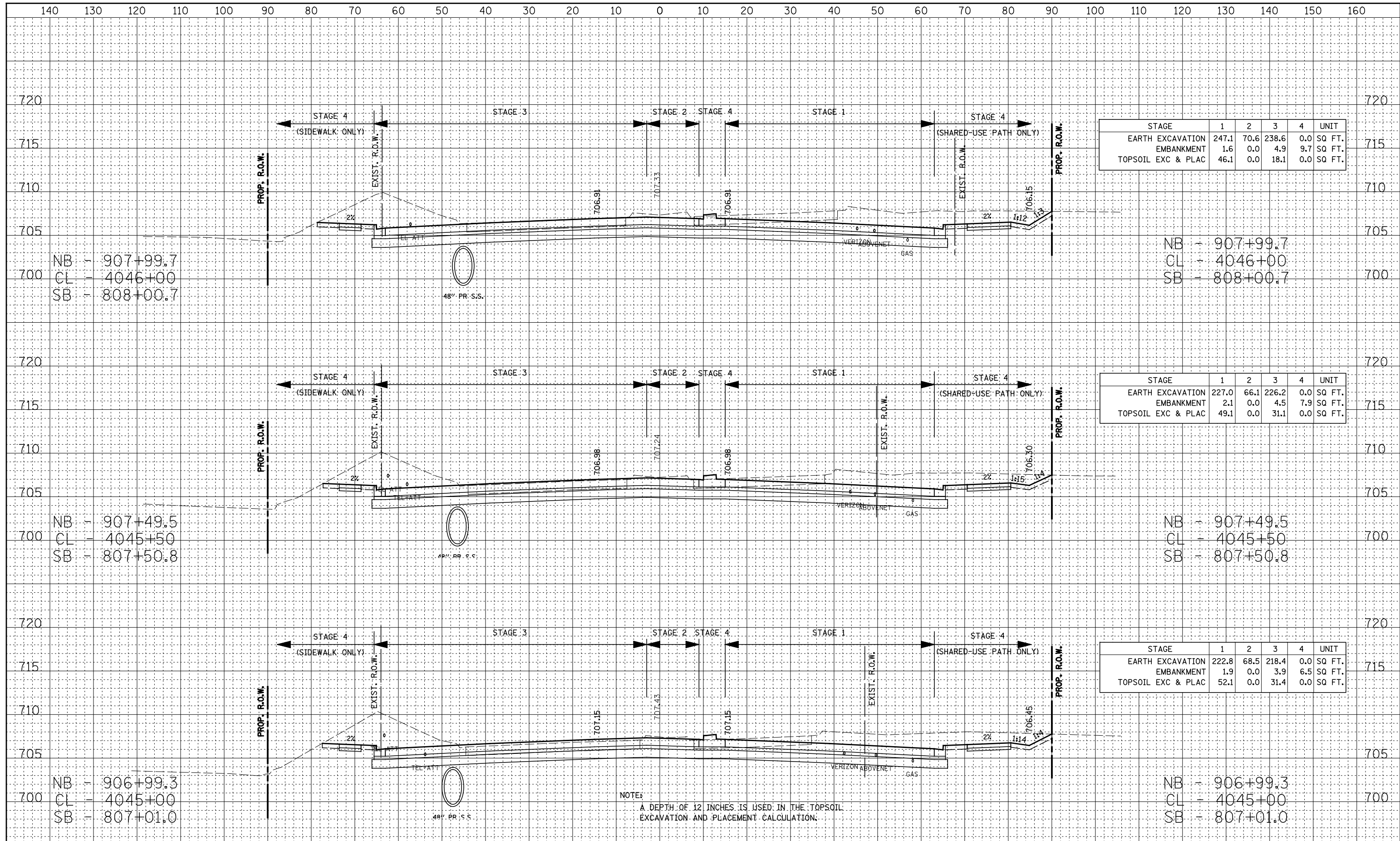
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TEMPLATE	
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NB - 907+99.7
 CL - 4046+00
 SB - 808+00.7

NB - 907+49.5
 CL - 4045+50
 SB - 807+50.8

NB - 906+99.3
 CL - 4045+00
 SB - 807+01.0

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	247.1	70.6	238.6	0.0	SQ FT.
EMBANKMENT	1.6	0.0	4.9	9.7	SQ FT.
TOPSOIL EXC & PLAC	46.1	0.0	18.1	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	227.0	66.1	226.2	0.0	SQ FT.
EMBANKMENT	2.1	0.0	4.5	7.9	SQ FT.
TOPSOIL EXC & PLAC	49.1	0.0	31.1	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	222.8	68.5	218.4	0.0	SQ FT.
EMBANKMENT	1.9	0.0	3.9	6.5	SQ FT.
TOPSOIL EXC & PLAC	52.1	0.0	31.4	0.0	SQ FT.

NB - 907+99.7
 CL - 4046+00
 SB - 808+00.7

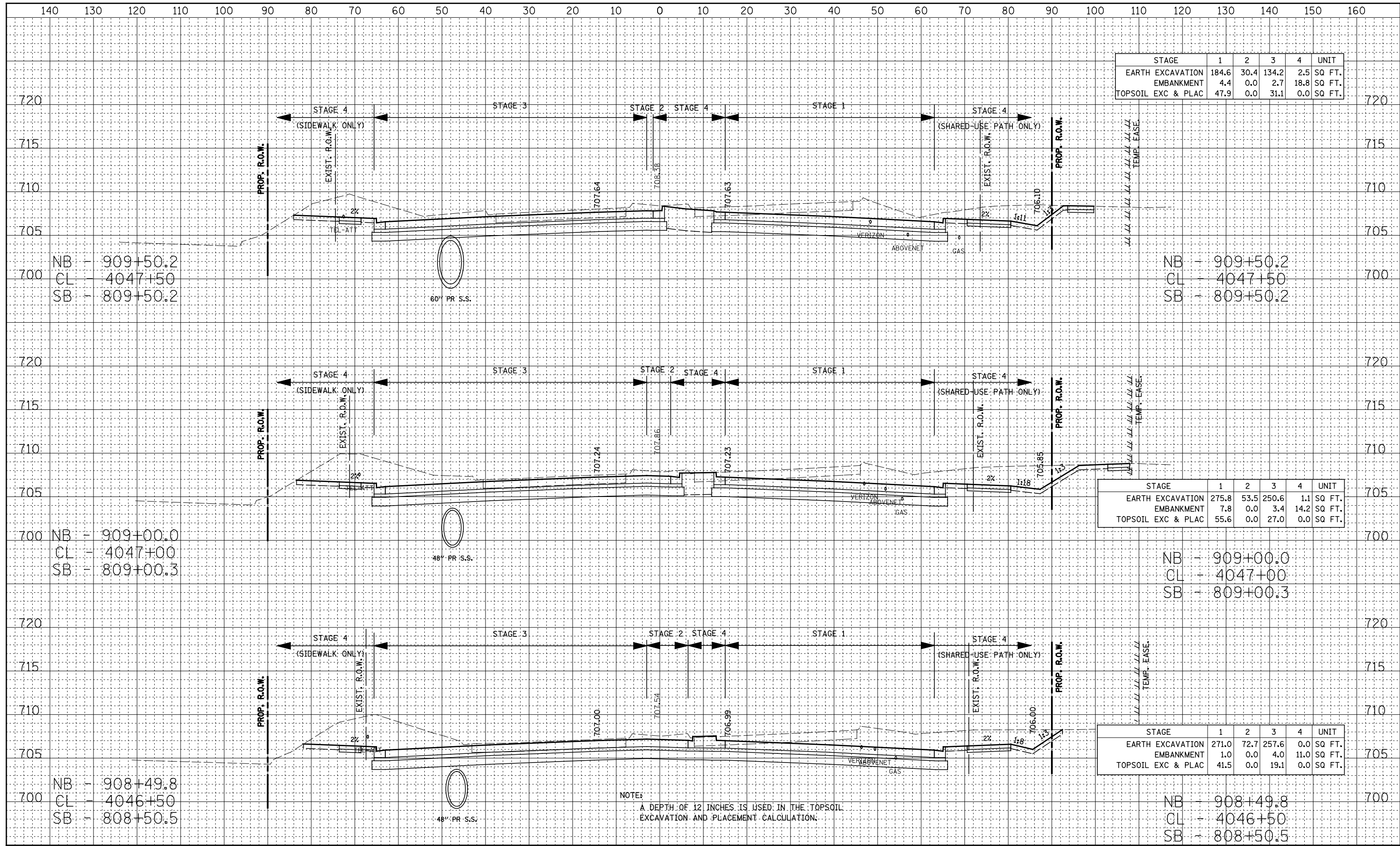
NB - 907+49.5
 CL - 4045+50
 SB - 807+50.8

NB - 906+99.3
 CL - 4045+00
 SB - 807+01.0

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	184.6	30.4	134.2	2.5	SQ FT.
EMBANKMENT	4.4	0.0	2.7	18.8	SQ FT.
TOPSOIL EXC & PLAC	47.9	0.0	31.1	0.0	SQ FT.

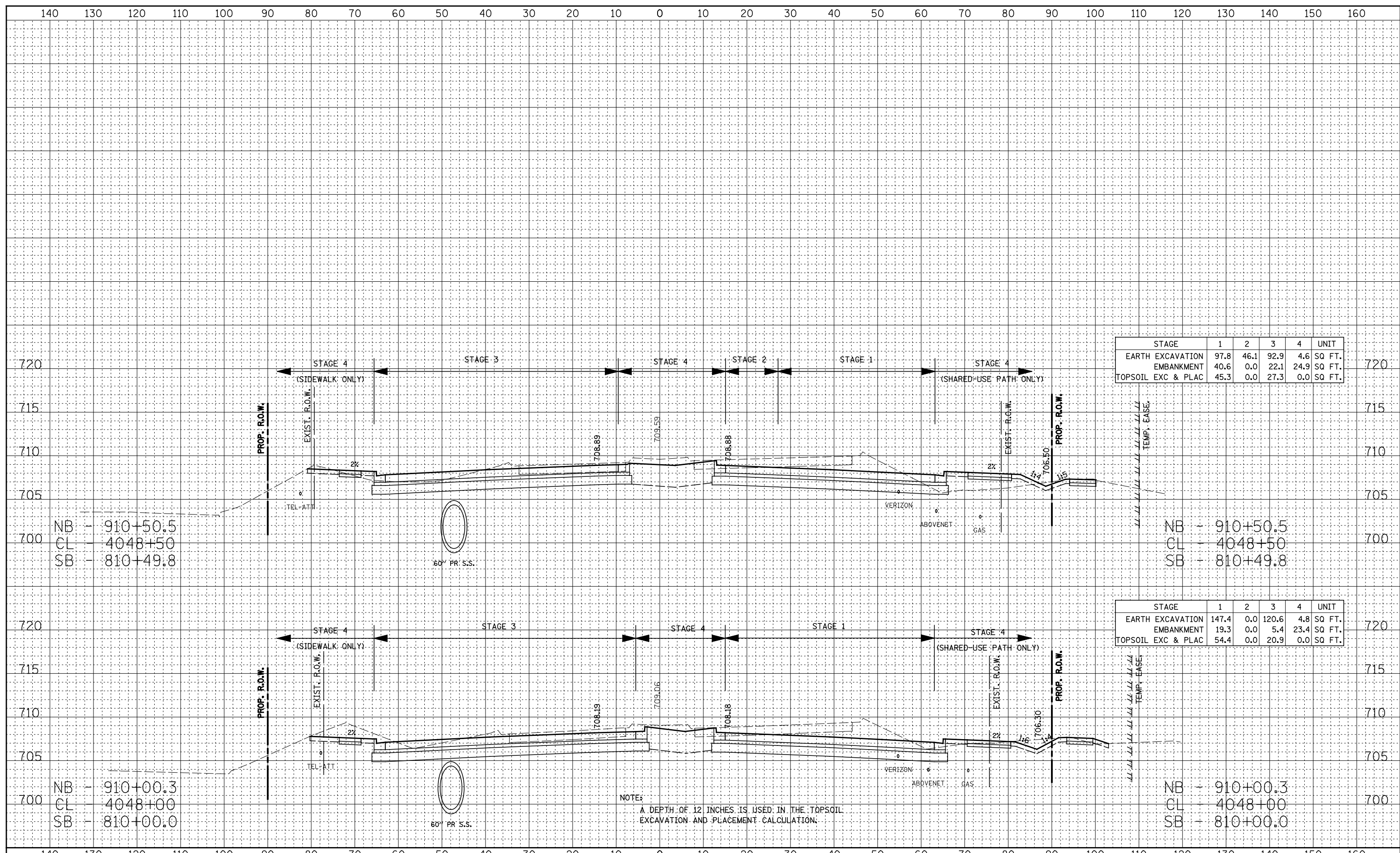
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	275.8	53.5	250.6	1.1	SQ FT.
EMBANKMENT	7.8	0.0	3.4	14.2	SQ FT.
TOPSOIL EXC & PLAC	55.6	0.0	27.0	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	271.0	72.7	257.6	0.0	SQ FT.
EMBANKMENT	1.0	0.0	4.0	11.0	SQ FT.
TOPSOIL EXC & PLAC	41.5	0.0	19.1	0.0	SQ FT.

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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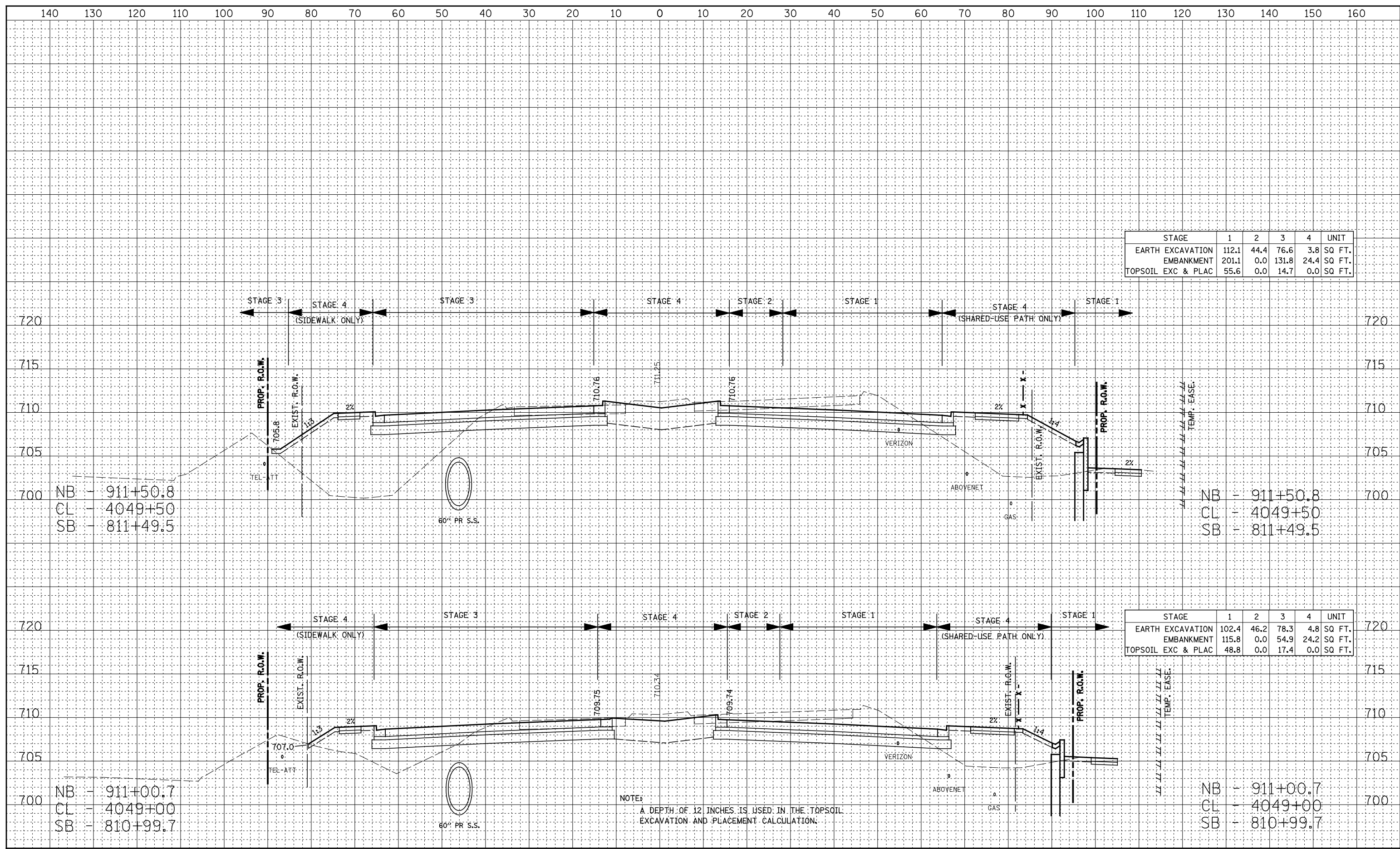
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	97.8	46.1	92.9	4.6	SQ FT.
EMBANKMENT	40.6	0.0	22.1	24.9	SQ FT.
TOPSOIL EXC & PLAC	45.3	0.0	27.3	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	147.4	0.0	120.6	4.8	SQ FT.
EMBANKMENT	19.3	0.0	5.4	23.4	SQ FT.
TOPSOIL EXC & PLAC	54.4	0.0	20.9	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
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FINL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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ORIGINAL SURVEY	SURVEYED
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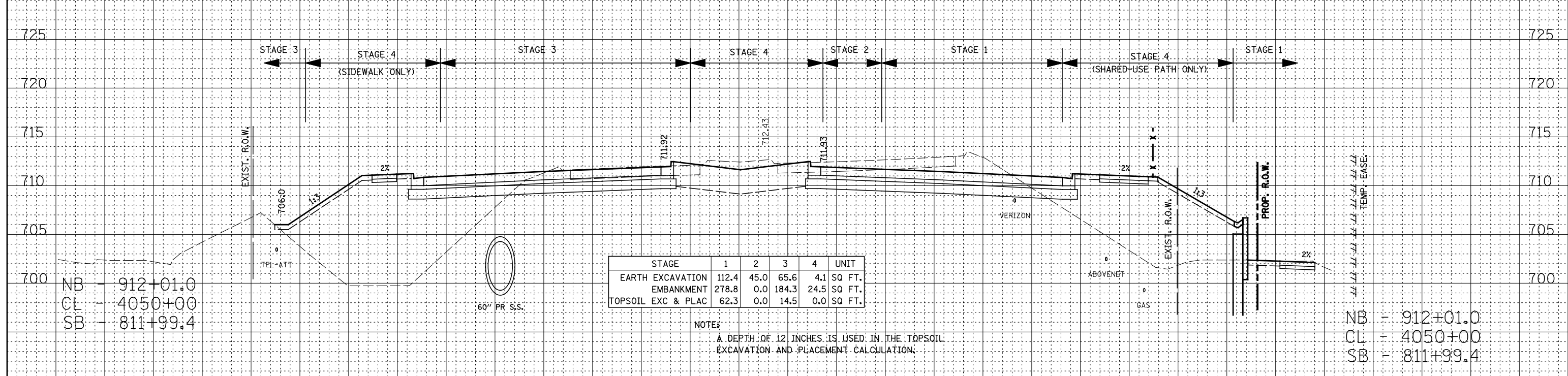
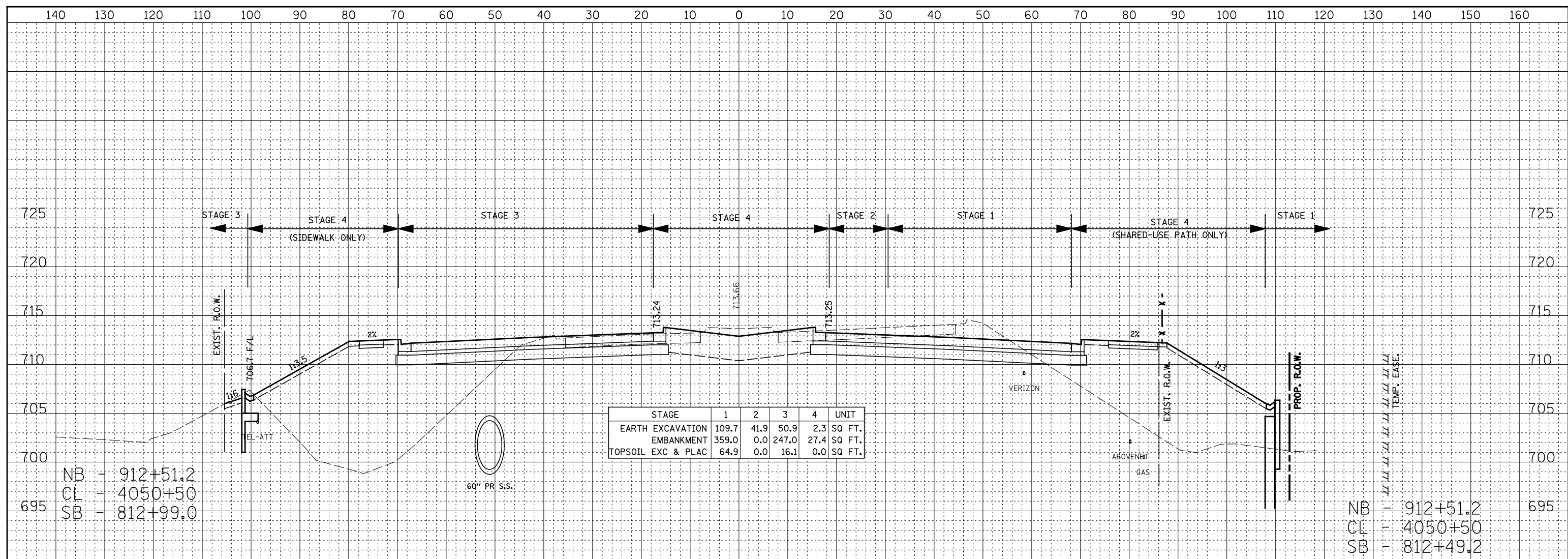
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	112.1	44.4	76.6	3.8	SQ. FT.
EMBANKMENT	201.1	0.0	131.8	24.4	SQ. FT.
TOPSOIL EXC & PLAC	55.6	0.0	14.7	0.0	SQ. FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	102.4	46.2	78.3	4.8	SQ. FT.
EMBANKMENT	115.8	0.0	54.9	24.2	SQ. FT.
TOPSOIL EXC & PLAC	48.8	0.0	17.4	0.0	SQ. FT.

NOTE:
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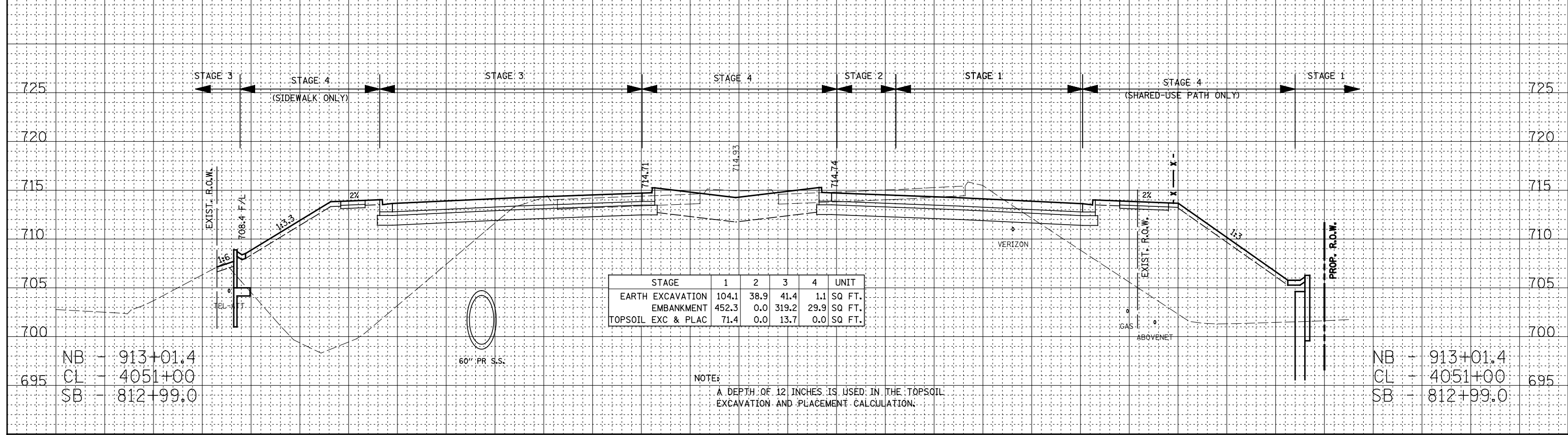
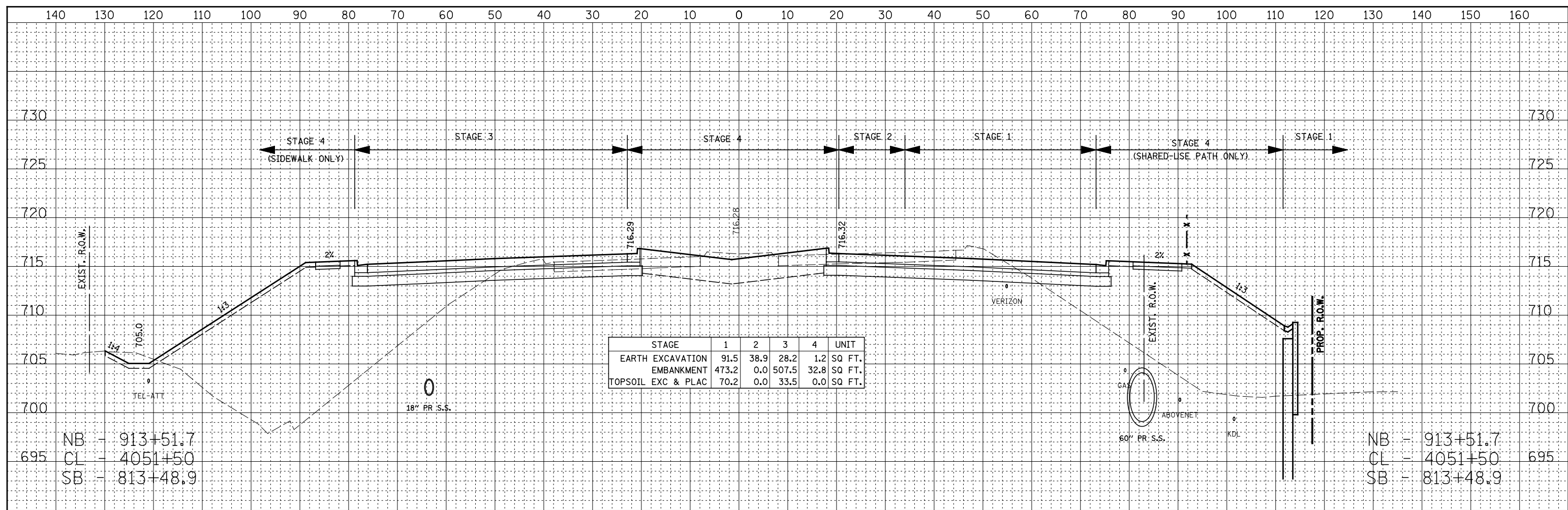
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NOTE:
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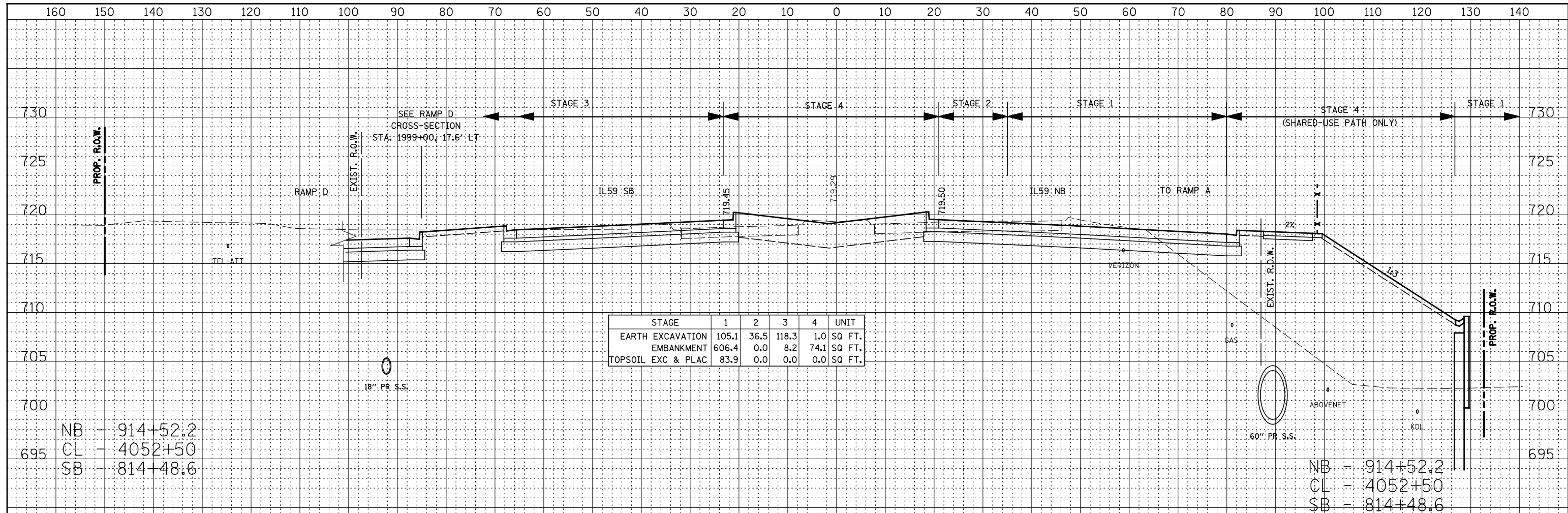
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NOTE:
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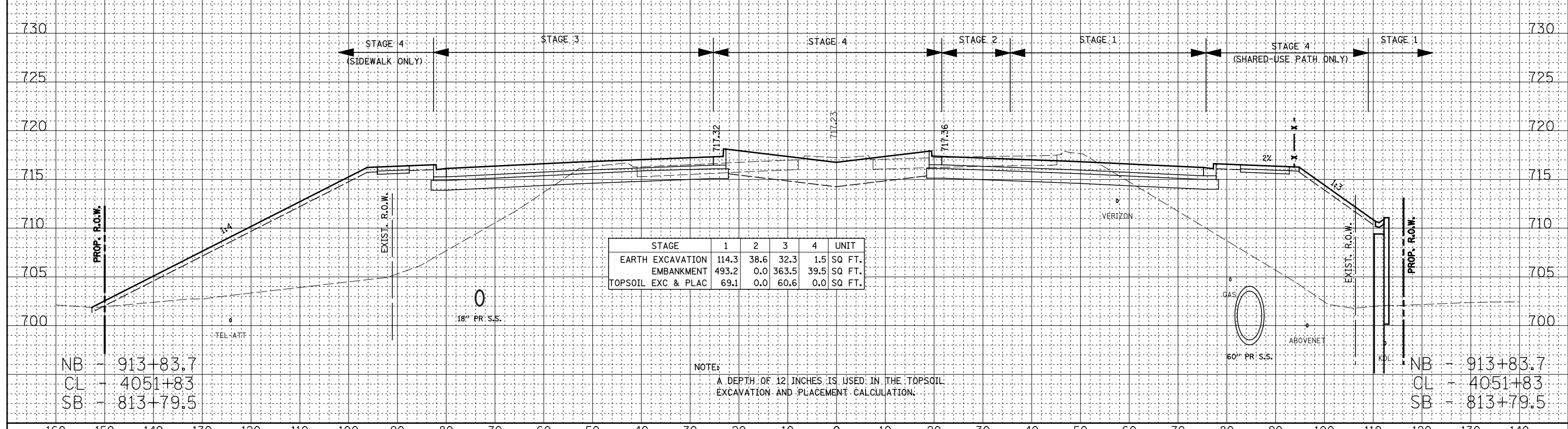
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NB - 914+52.2
 CL - 4052+50
 SB - 814+48.6

NB - 914+52.2
 CL - 4052+50
 SB - 814+48.6

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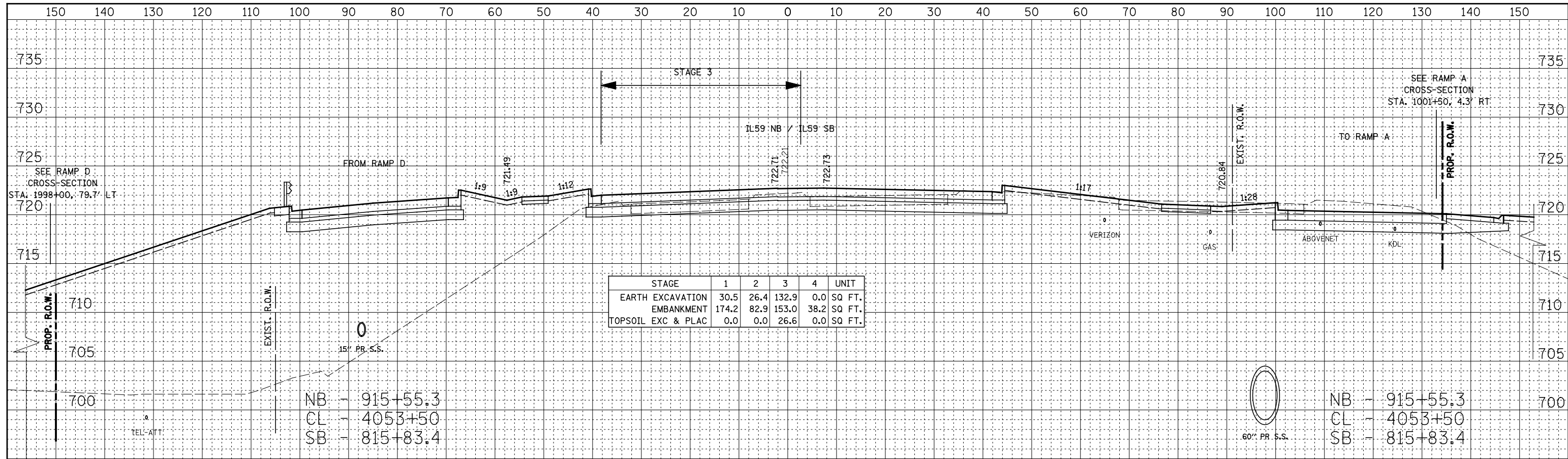


NB - 913+83.7
 CL - 4051+83
 SB - 813+79.5

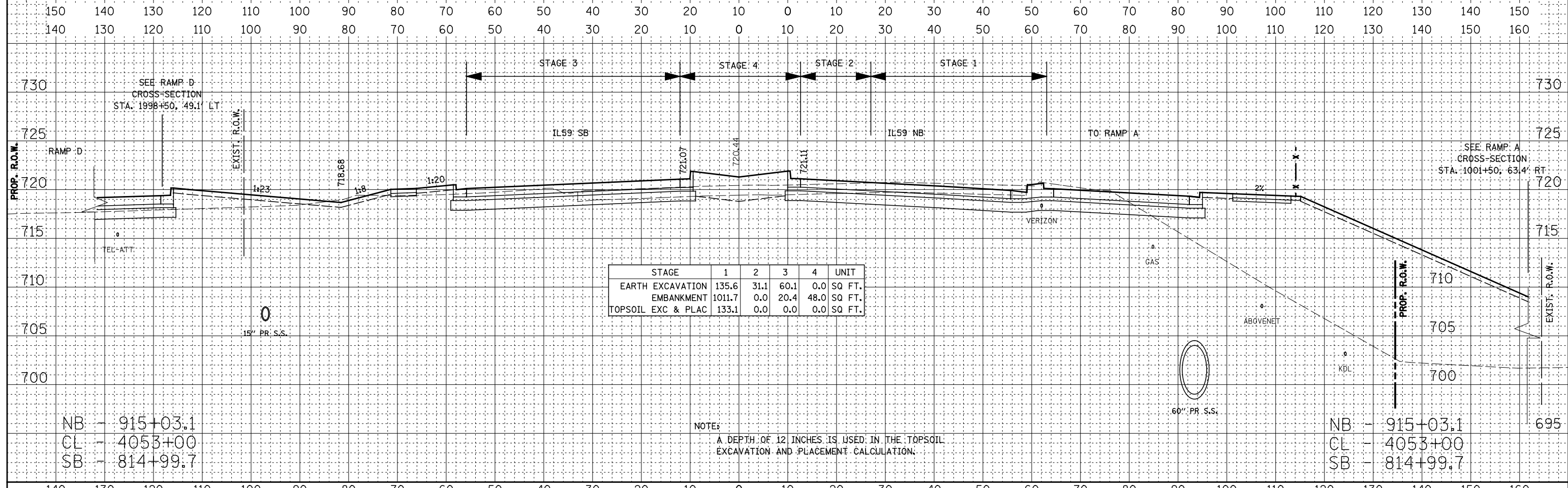
NB - 913+83.7
 CL - 4051+83
 SB - 813+79.5

NOTE:
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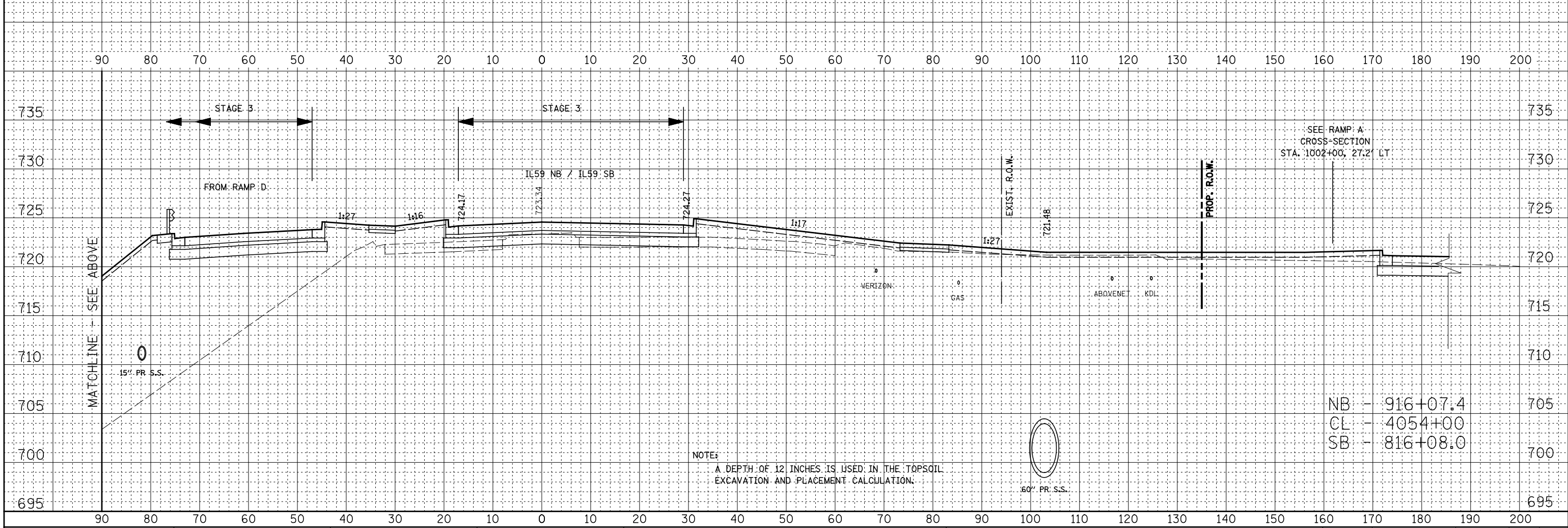
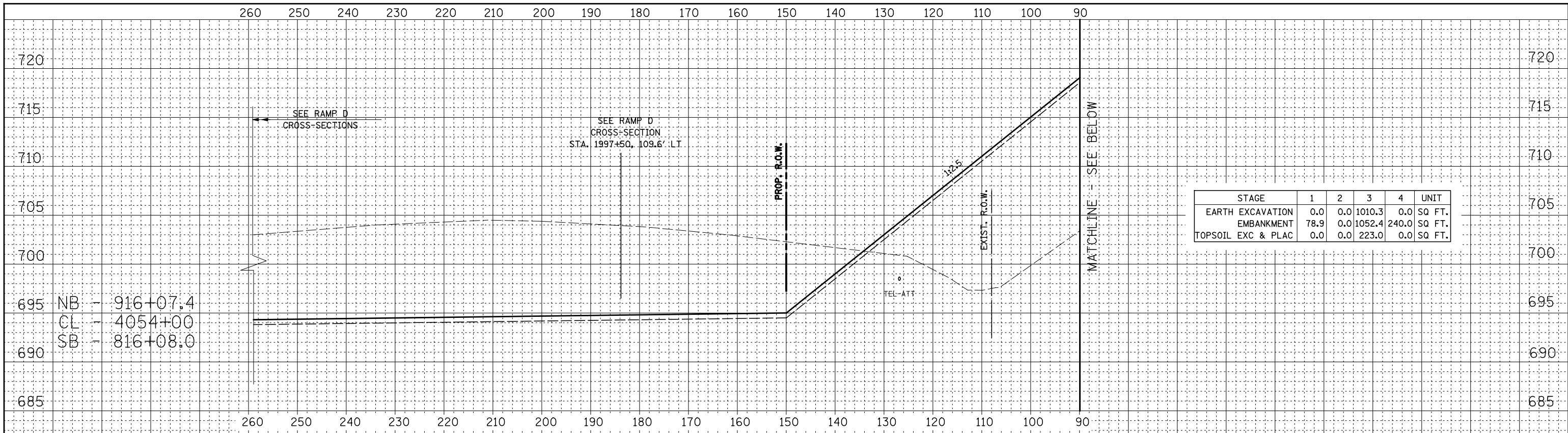
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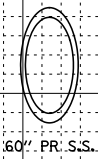
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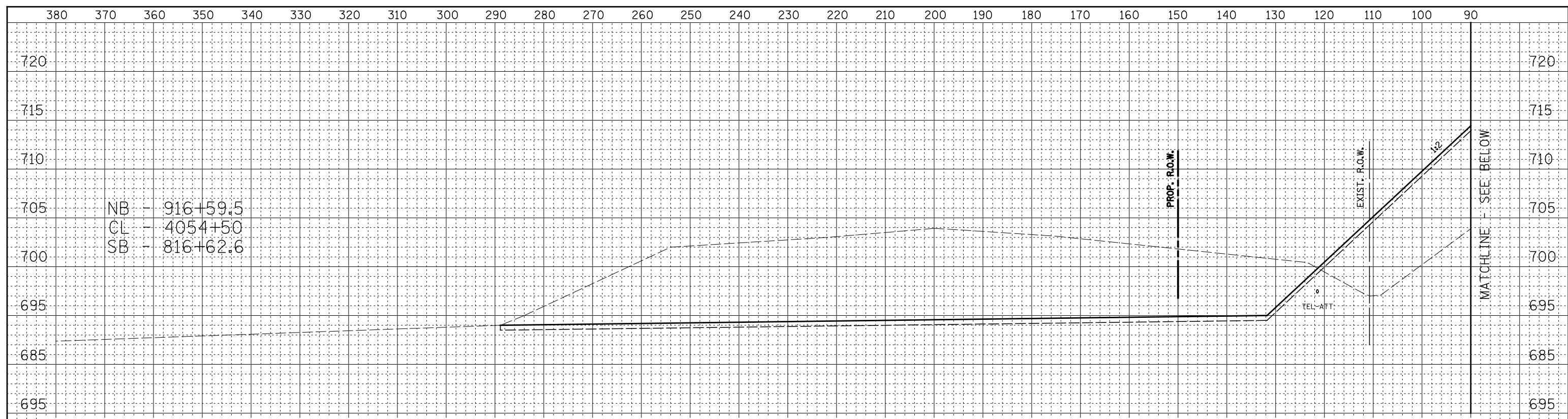
NOTE:
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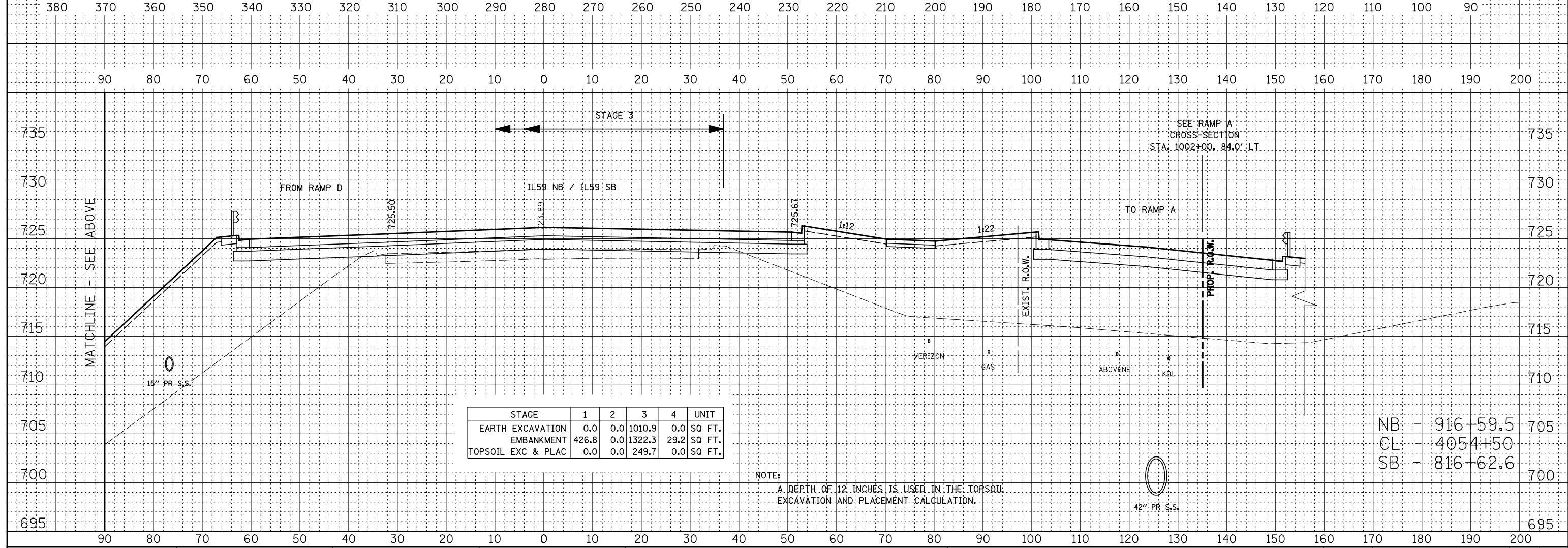
NB - 916+07.4
CL - 4054+00
SB - 816+08.0

FILE NAME =	USER NAME = *USER*	DESIGNED - RTA	REVISED -	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p> <p align="center">CROSS-SECTIONS ILLINOIS ROUTE 59 - STAGE 1 THRU 4</p>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FILEL		DRAWN - KES	REVISED -		338	(112 & 113) WRS-5	DUPAGE	963	774
		CHECKED - PJO	REVISED -		CONTRACT NO. 60131				
		DATE - 10/15/2012	REVISED -		ILLINOIS FED. AID PROJECT				

DATE	
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FINAL SURVEY	SURVEYED
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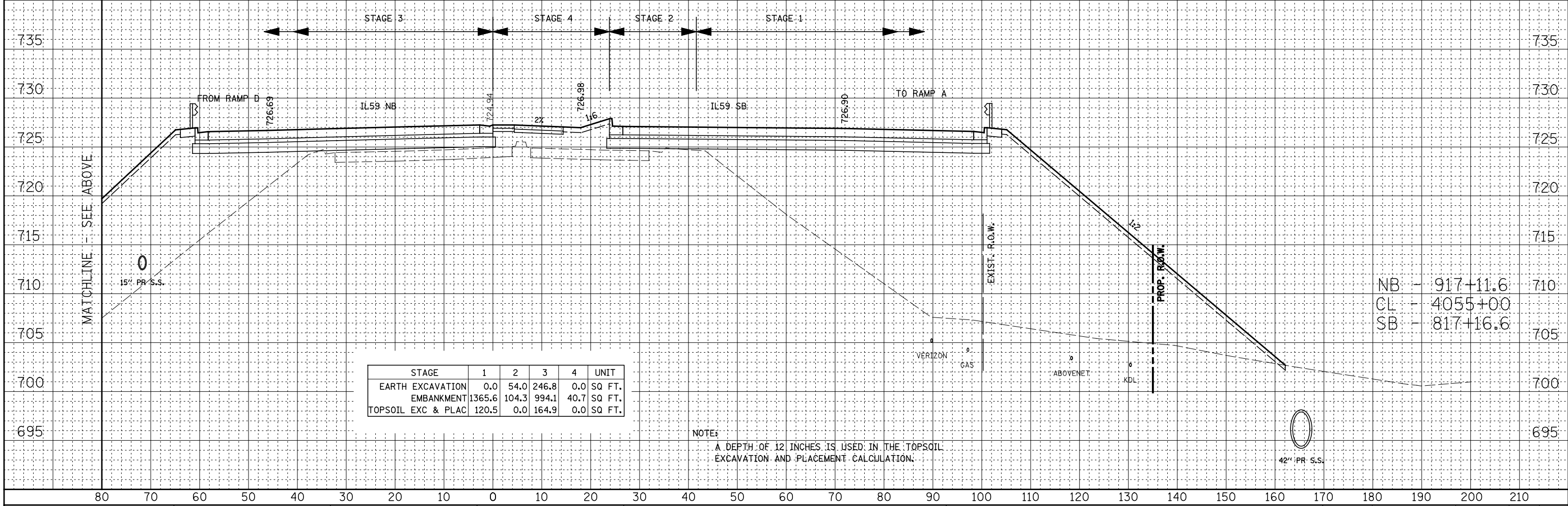
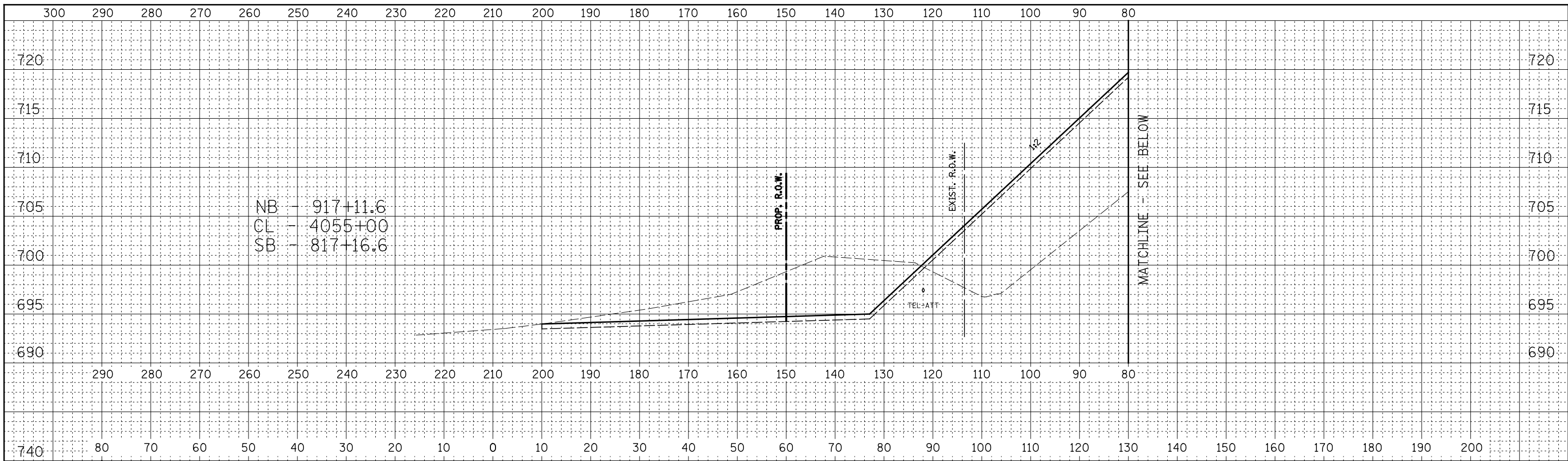


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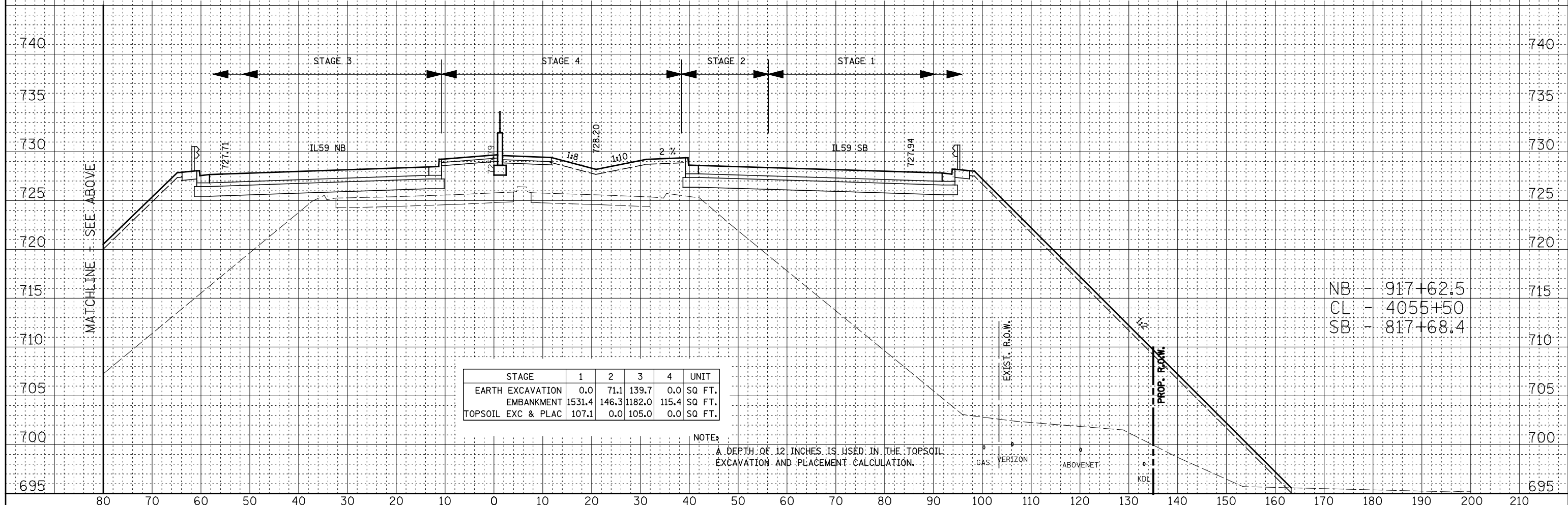
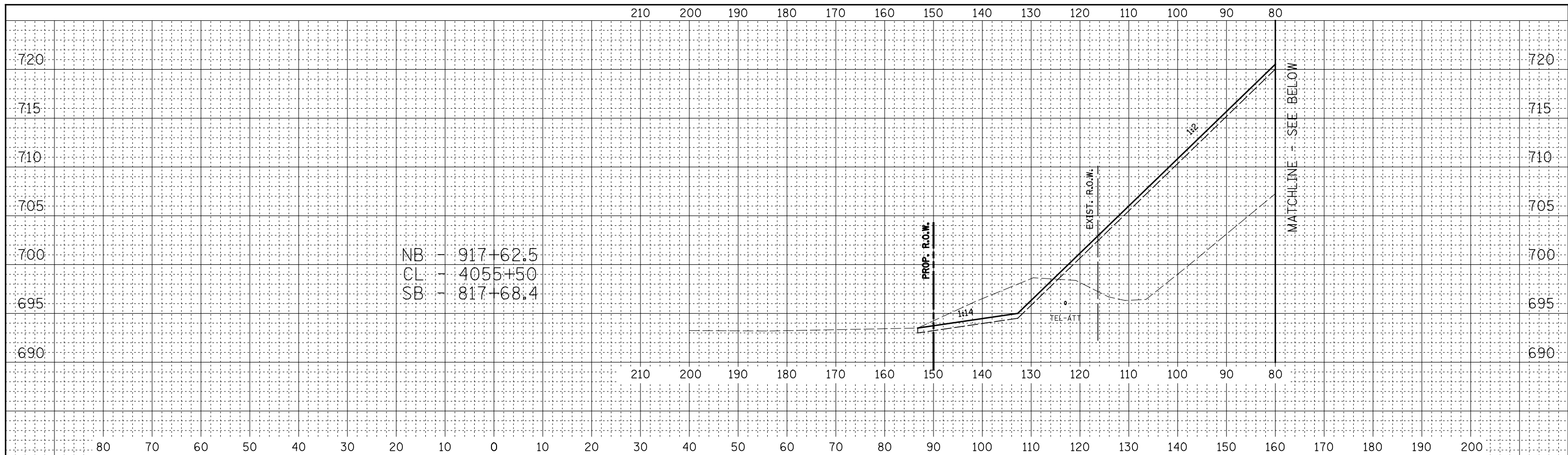


STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	0.0	54.0	246.8	0.0	SQ FT.
EMBANKMENT	1365.6	104.3	994.1	40.7	SQ FT.
TOPSOIL EXC & PLAC	120.5	0.0	164.9	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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NOTE BOOK	PLOTTED
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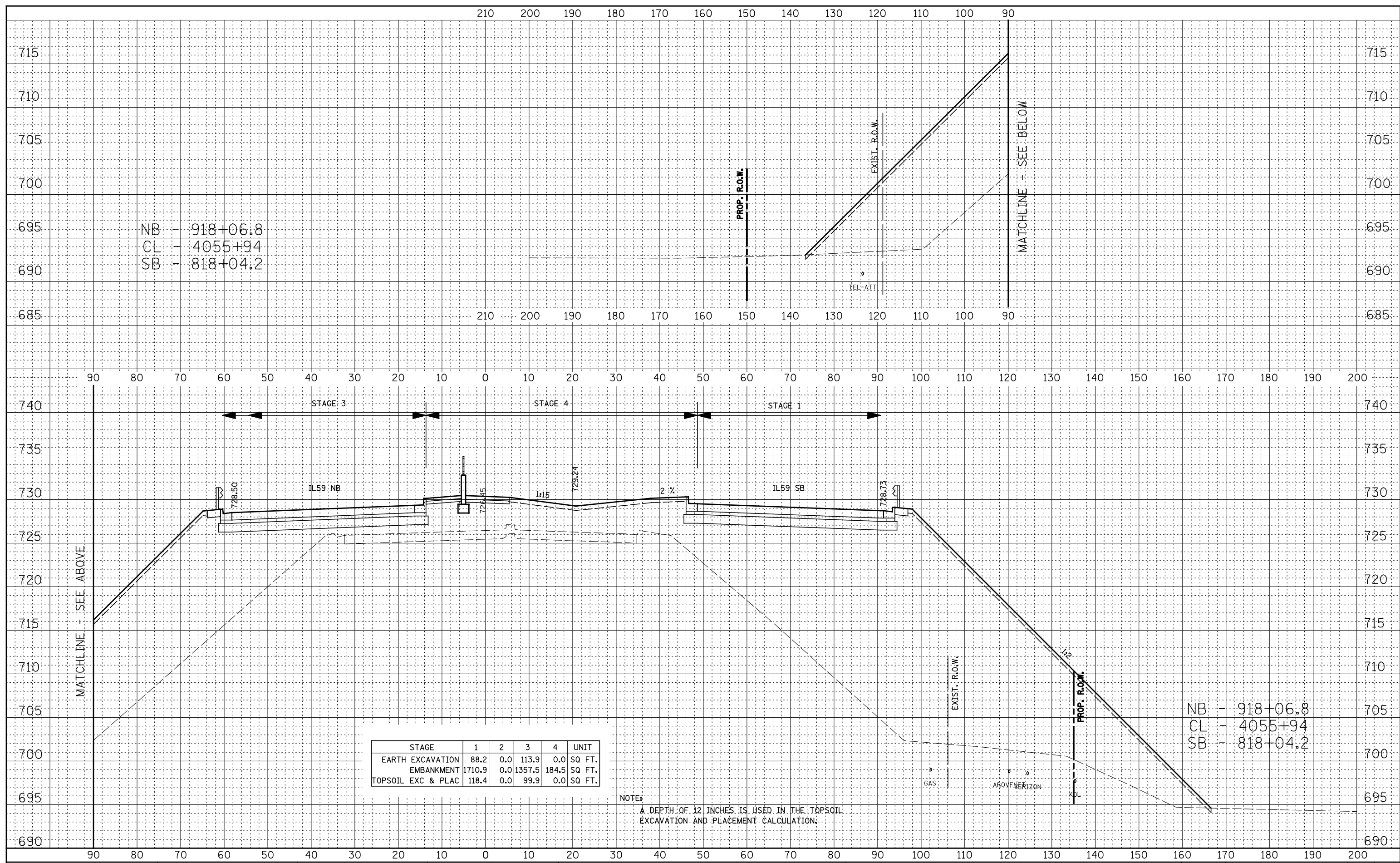


STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	0.0	71.1	139.7	0.0	SQ FT.
EMBANKMENT	1531.4	146.3	1182.0	115.4	SQ FT.
TOPSOIL EXC & PLAC	107.1	0.0	105.0	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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	AREAS CHECKED



NB - 918+06.8
 CL - 4055+94
 SB - 818+04.2

NB - 918+06.8
 CL - 4055+94
 SB - 818+04.2

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	88.2	0.0	113.9	0.0	SQ FT.
EMBANKMENT	1710.9	0.0	1357.5	184.5	SQ FT.
TOPSOIL EXC & PLAC	118.4	0.0	99.9	0.0	SQ FT.

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

FILE NAME =
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USER NAME = #USER#
 DESIGNED - RTA
 DRAWN - KES
 CHECKED - PJO
 DATE - 10/15/2012

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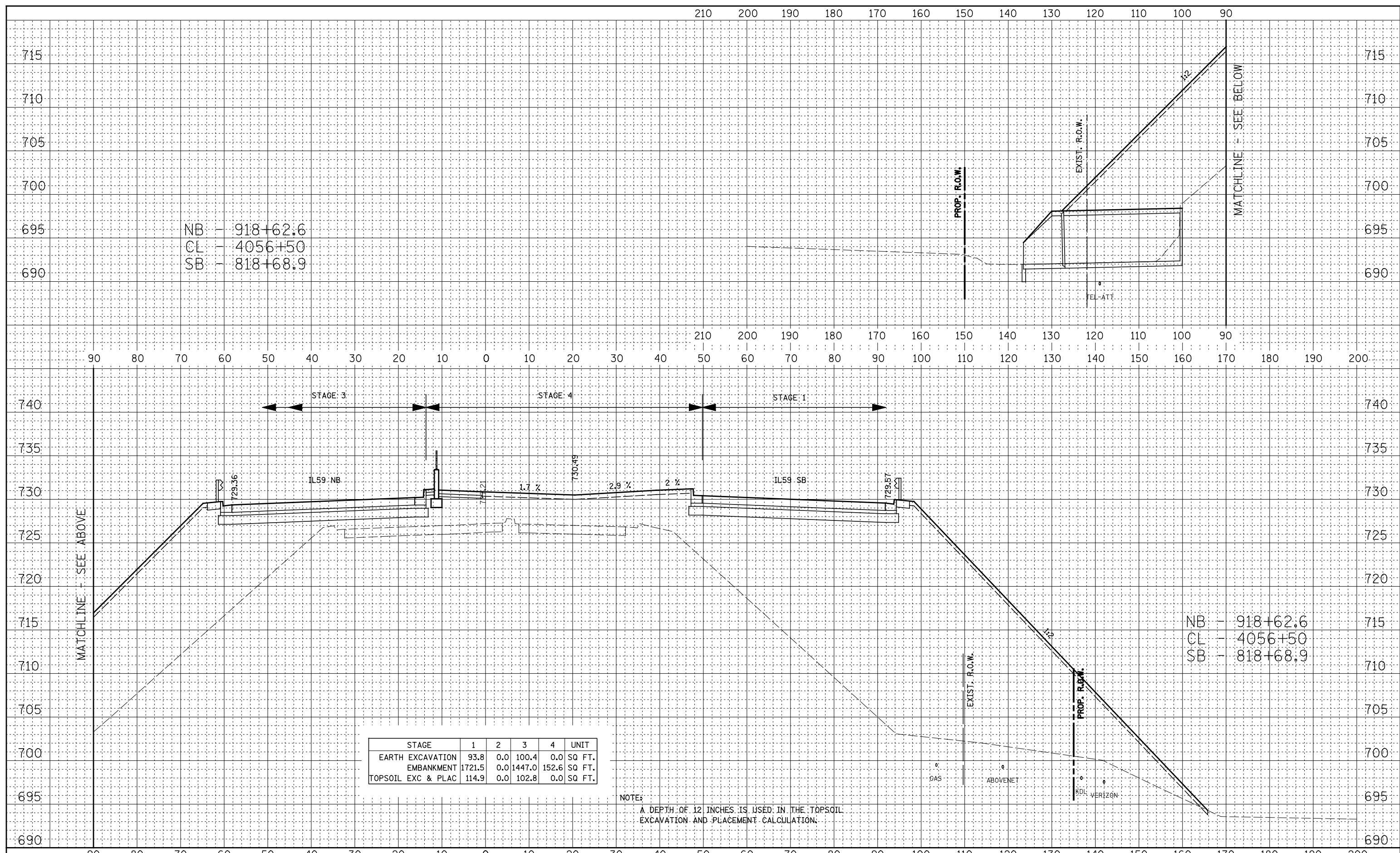
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS-SECTIONS
 ILLINOIS ROUTE 59 - STAGE 1 THRU 4**
 SCALE: SHEET NO. 13 OF 38 SHEETS STA. 4055+94 TO STA. 4055+94

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	778
CONTRACT NO. 60131				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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	AREAS CHECKED



NB - 918+62.6
 CL - 4056+50
 SB - 818+68.9

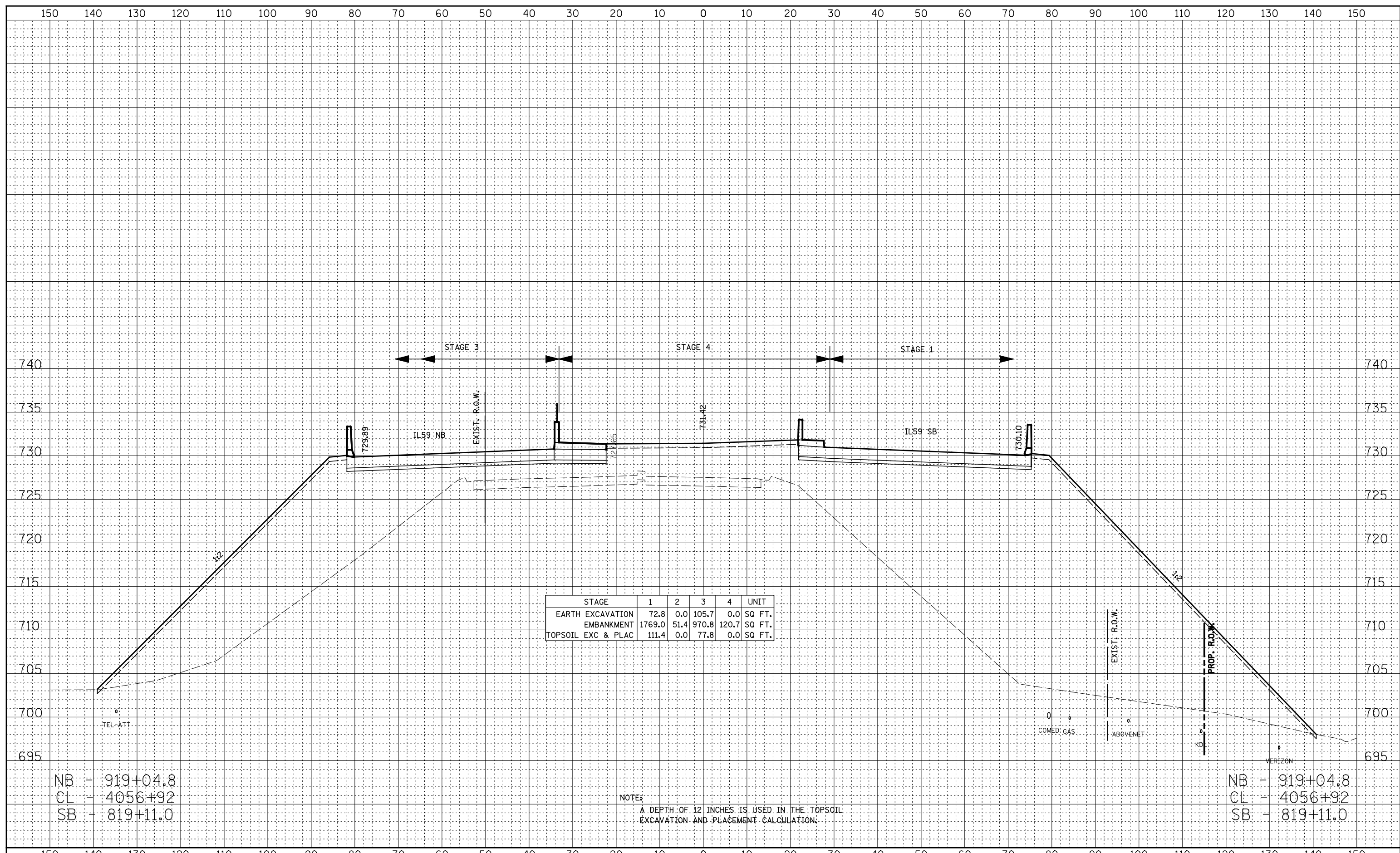
NB - 918+62.6
 CL - 4056+50
 SB - 818+68.9

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	93.8	0.0	100.4	0.0	SQ FT.
EMBANKMENT	1721.5	0.0	1447.0	152.6	SQ FT.
TOPSOIL EXC & PLAC	114.9	0.0	102.8	0.0	SQ FT.

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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ORIGINAL SURVEY	SURVEYED
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NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

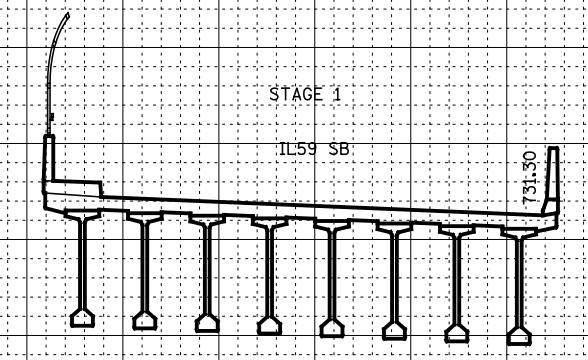
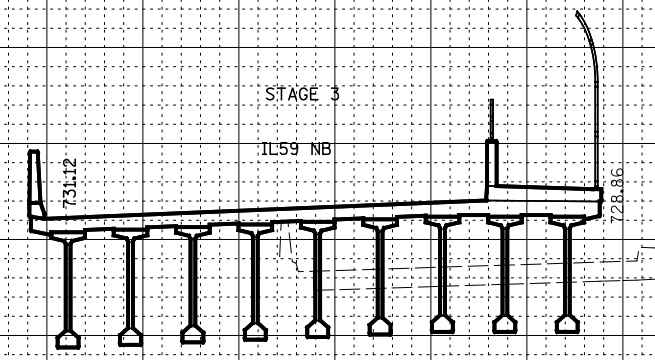
NB - 919+04.8
CL - 4056+92
SB - 819+11.0

NB - 919+04.8
CL - 4056+92
SB - 819+11.0

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

735
 730 NB - 920+62.6
 CL - 4058+50
 SB - 820+68.9

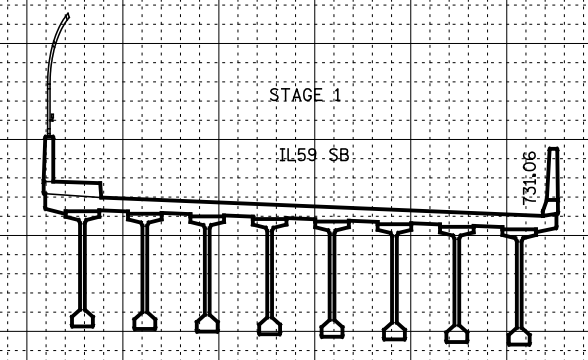
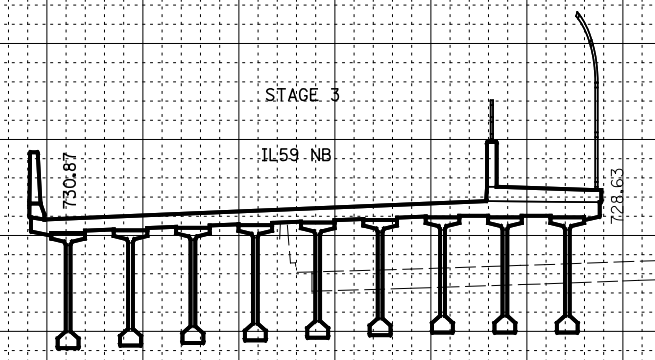


735
 730 NB - 920+62.6
 CL - 4058+50
 SB - 820+68.9

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	0.0	0.0	0.0	0.0	SQ FT.
EMBANKMENT	0.0	0.0	0.0	0.0	SQ FT.
TOPSOIL EXC & PLAC	0.0	0.0	0.0	0.0	SQ FT.

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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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735
 730
 725
 720
 715
 710 NB - 920+12.6
 CL - 4058+00
 SB - 820+18.9
 705



735
 730
 725
 720
 715
 710 NB - 920+12.6
 CL - 4058+00
 SB - 820+18.9
 705

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	0.0	0.0	0.0	0.0	SQ FT.
EMBANKMENT	0.0	0.0	0.0	0.0	SQ FT.
TOPSOIL EXC & PLAC	0.0	0.0	0.0	0.0	SQ FT.

JEL-ATT

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140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160

FILE NAME =
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USER NAME = #USER#
 PLOT SCALE = #SCALE#
 PLOT DATE = #DATE#

DESIGNED - RTA
 DRAWN - KES
 CHECKED - PJO
 DATE - 10/15/2012

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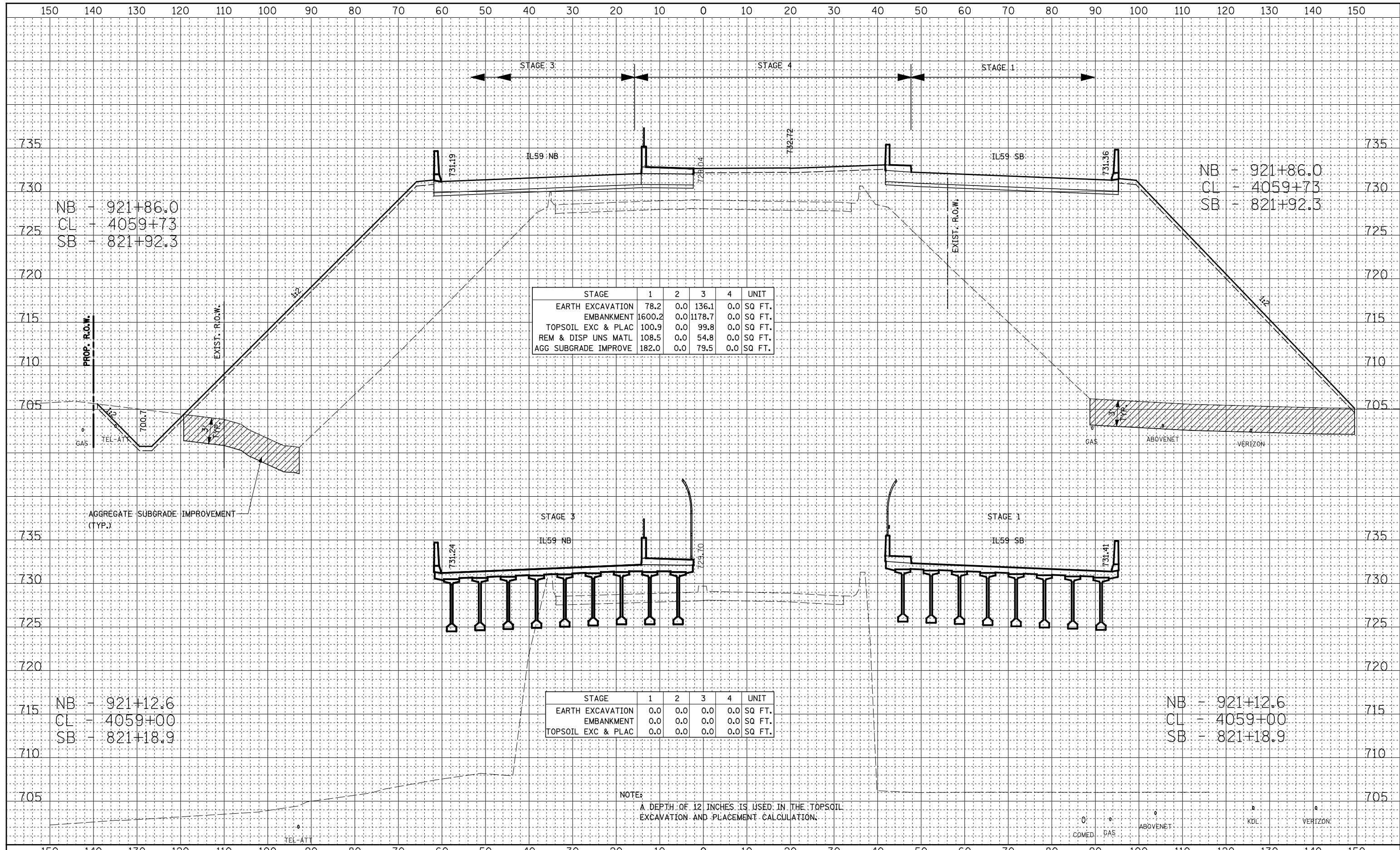
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CROSS-SECTIONS
 ILLINOIS ROUTE 59 - STAGE 1 THRU 4**
 SCALE: SHEET NO. 17 OF 38 SHEETS STA. 4058+00 TO STA. 4058+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	(112 & 113) WRS-5	DUPAGE	963	782
CONTRACT NO. 60131				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE	
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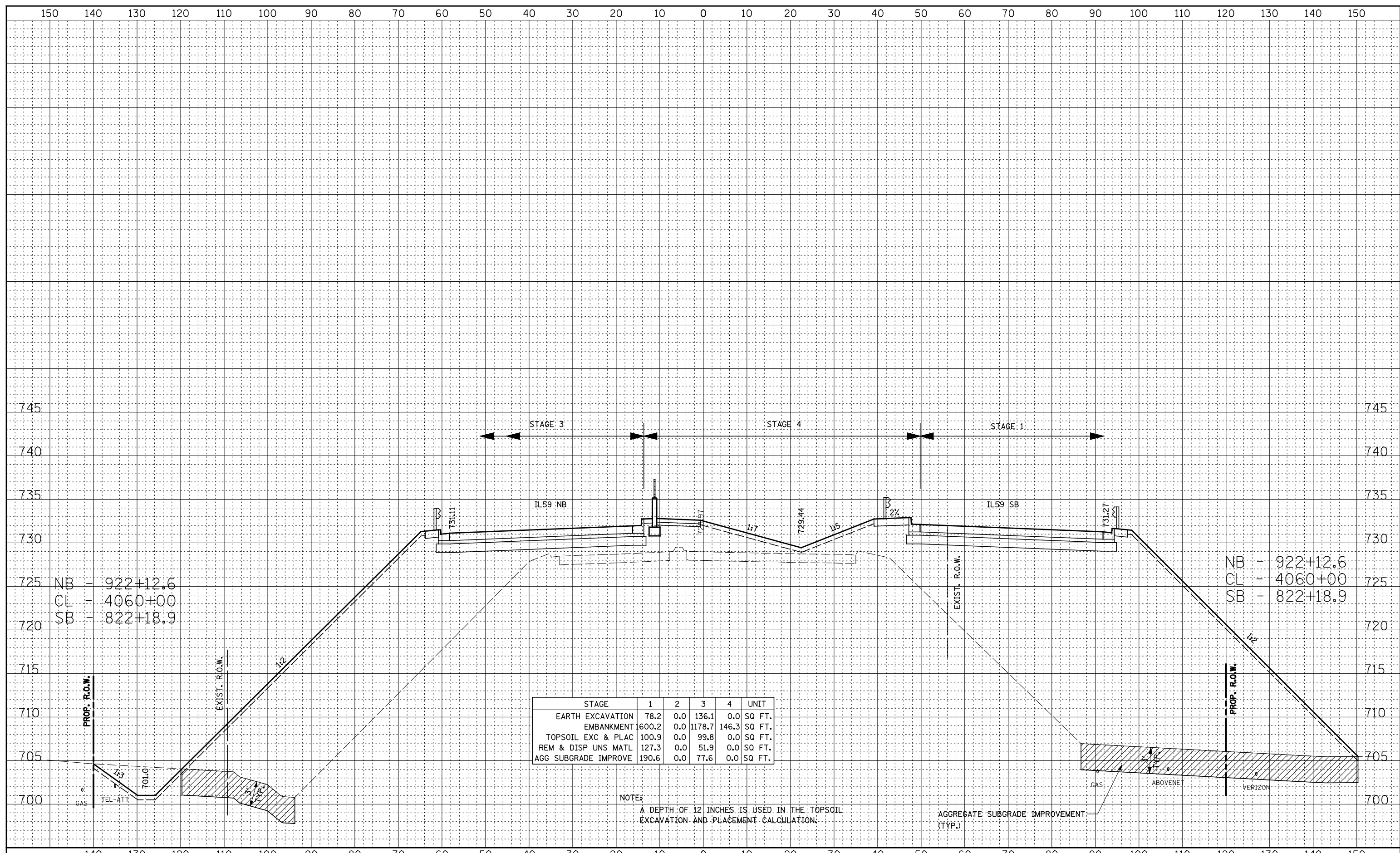
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NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

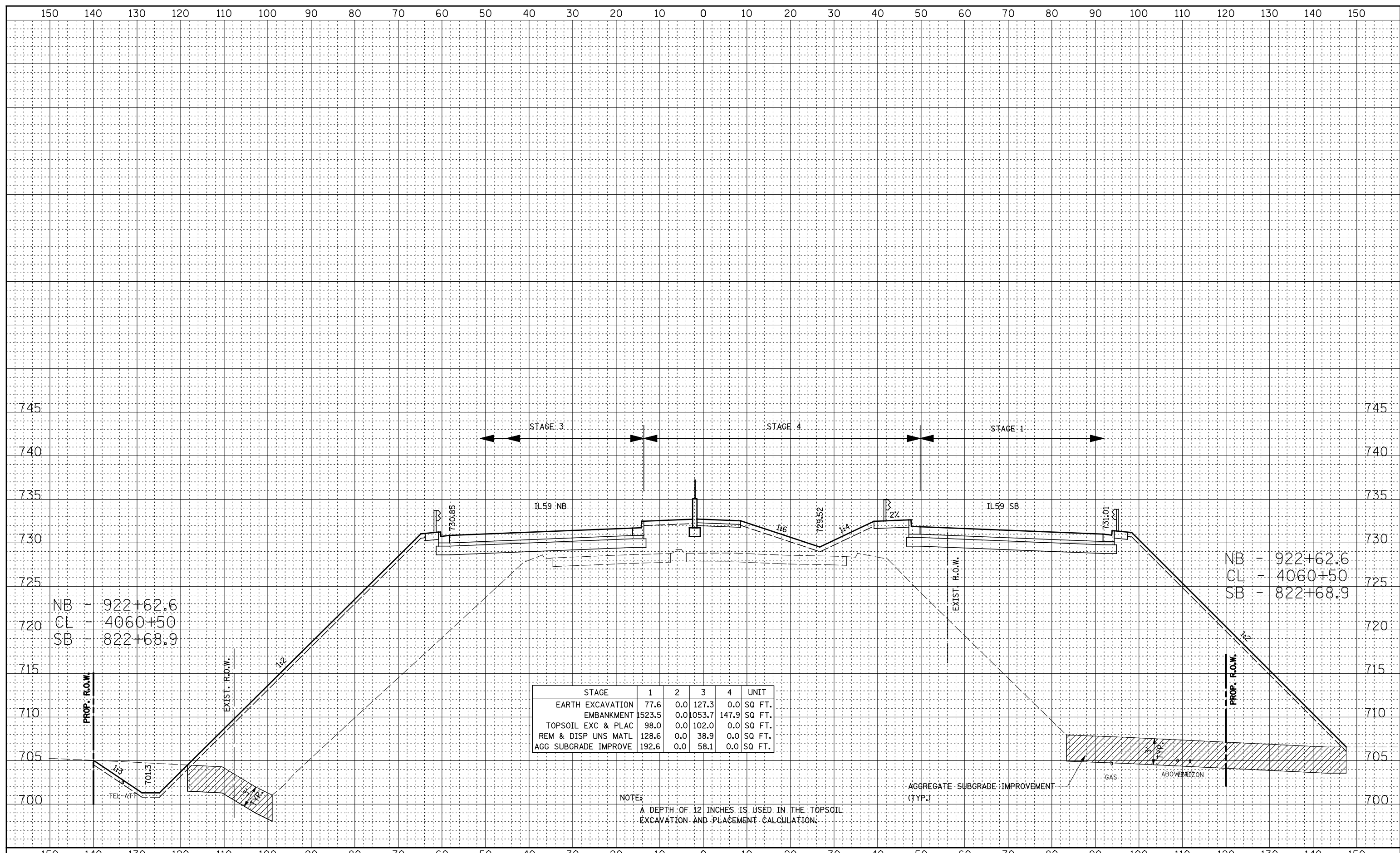
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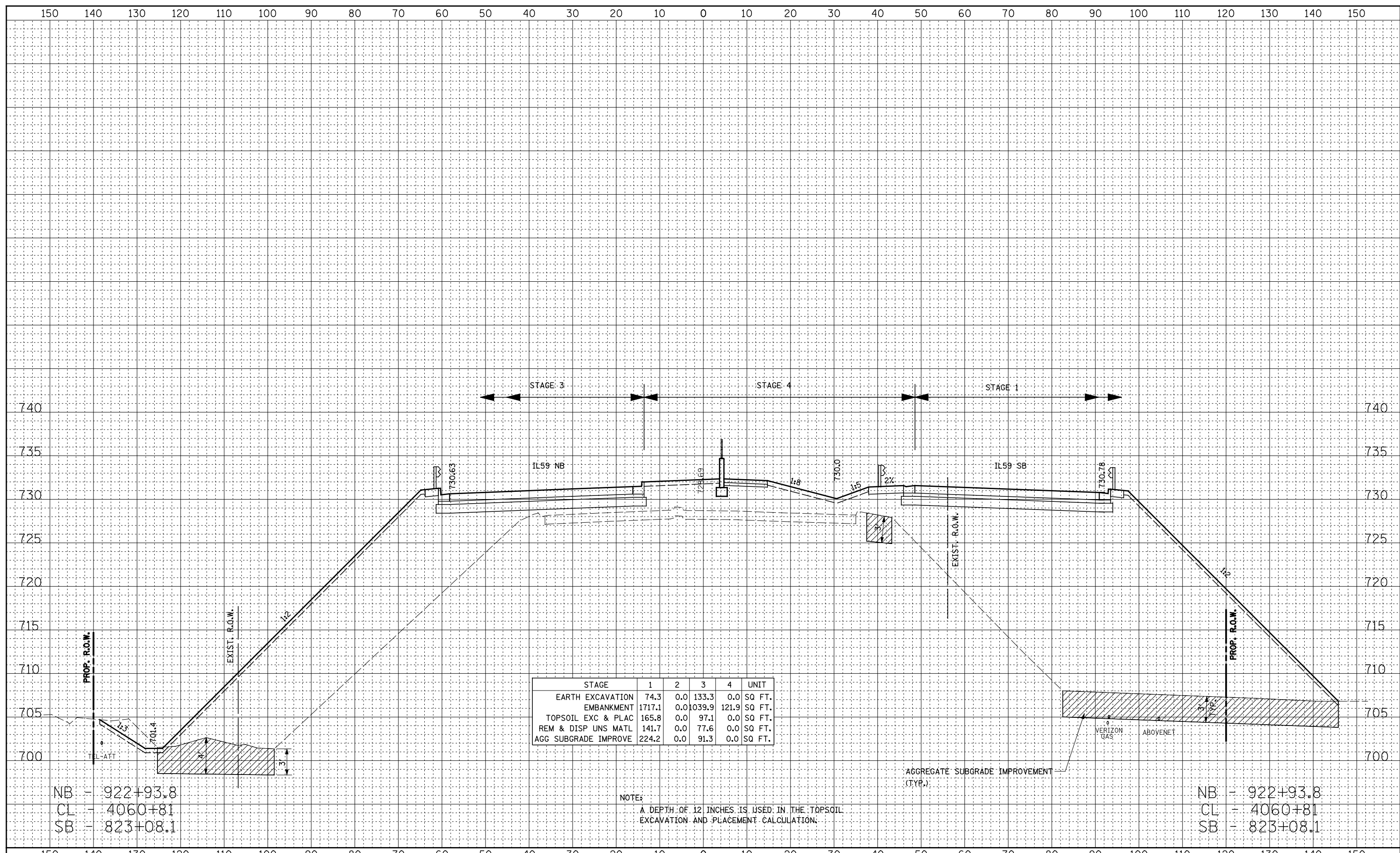


STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	77.6	0.0	127.3	0.0	SQ. FT.
EMBANKMENT	1523.5	0.0	1053.7	147.9	SQ. FT.
TOPSOIL EXC & PLAC	98.0	0.0	102.0	0.0	SQ. FT.
REM & DISP UNS MATL	128.6	0.0	38.9	0.0	SQ. FT.
AGG SUBGRADE IMPROVE	192.6	0.0	58.1	0.0	SQ. FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
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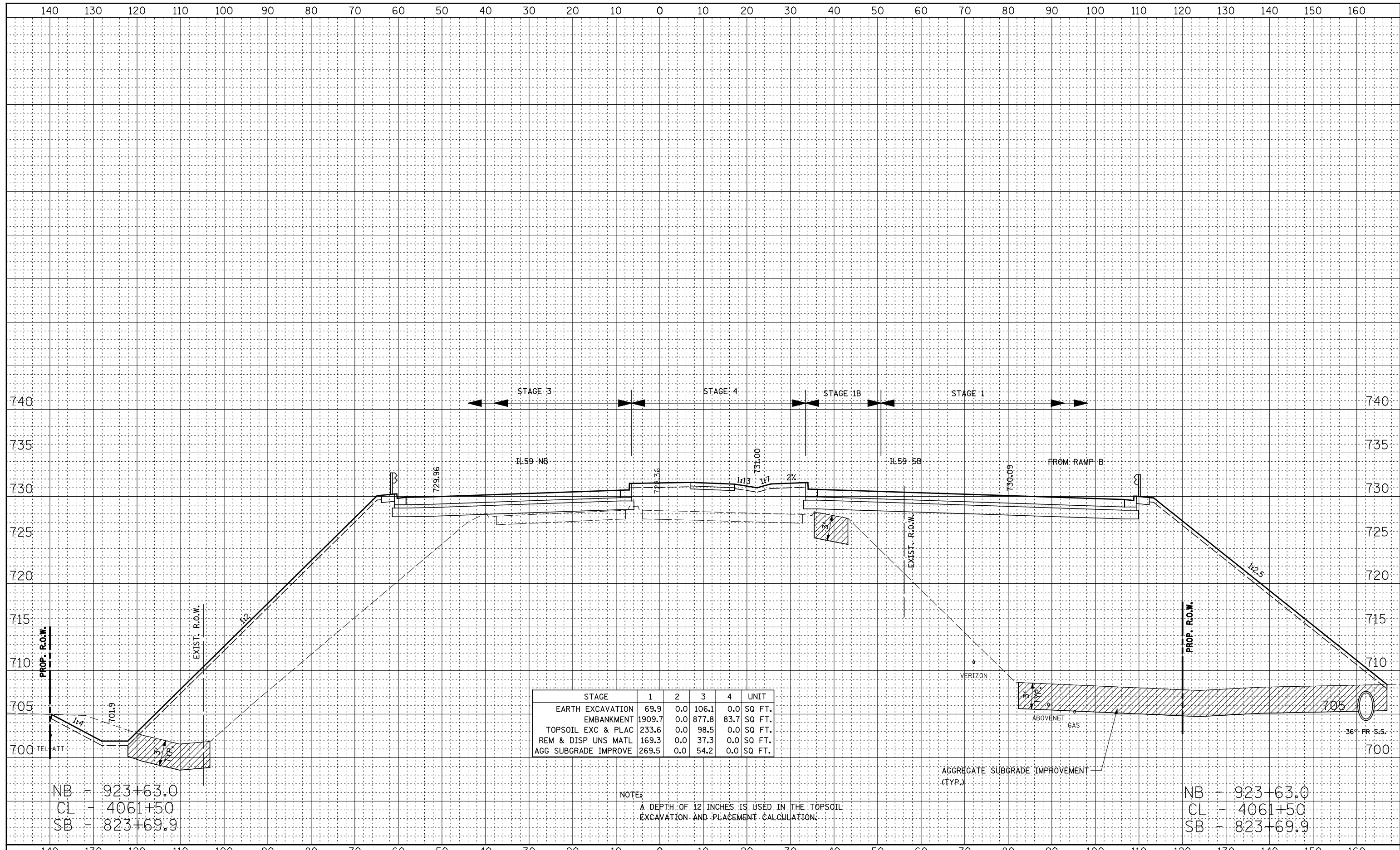
NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

NB = 922+93.8
CL = 4060+81
SB = 823+08.1

NB = 922+93.8
CL = 4060+81
SB = 823+08.1

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FINAL SURVEY	SURVEYED
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK NO.	PLOTTED
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	AREAS CHECKED



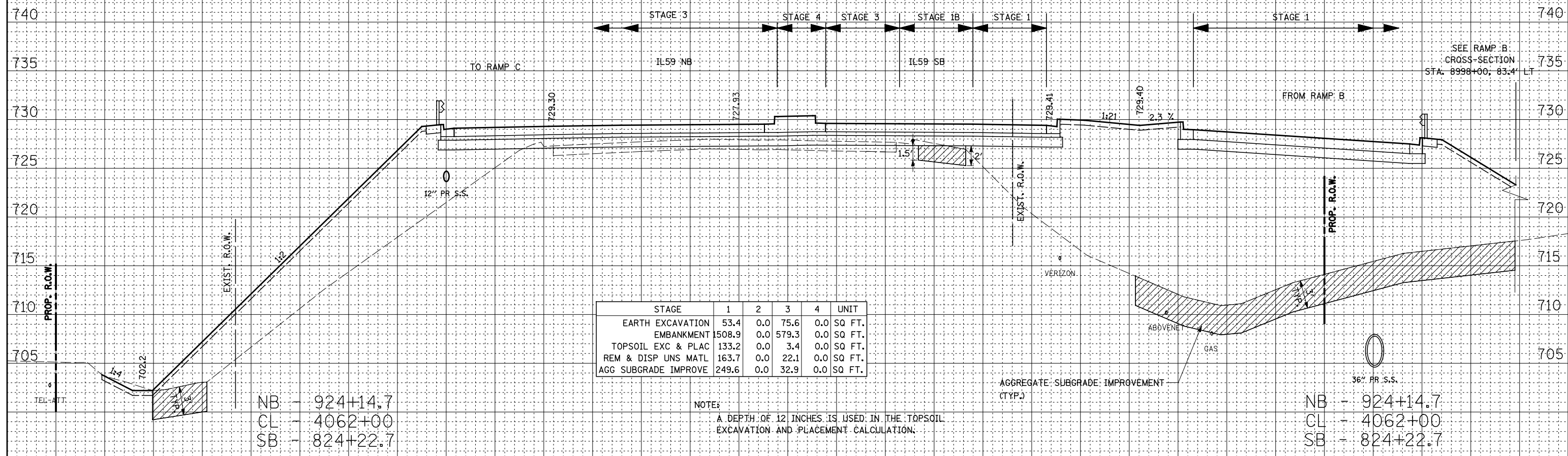
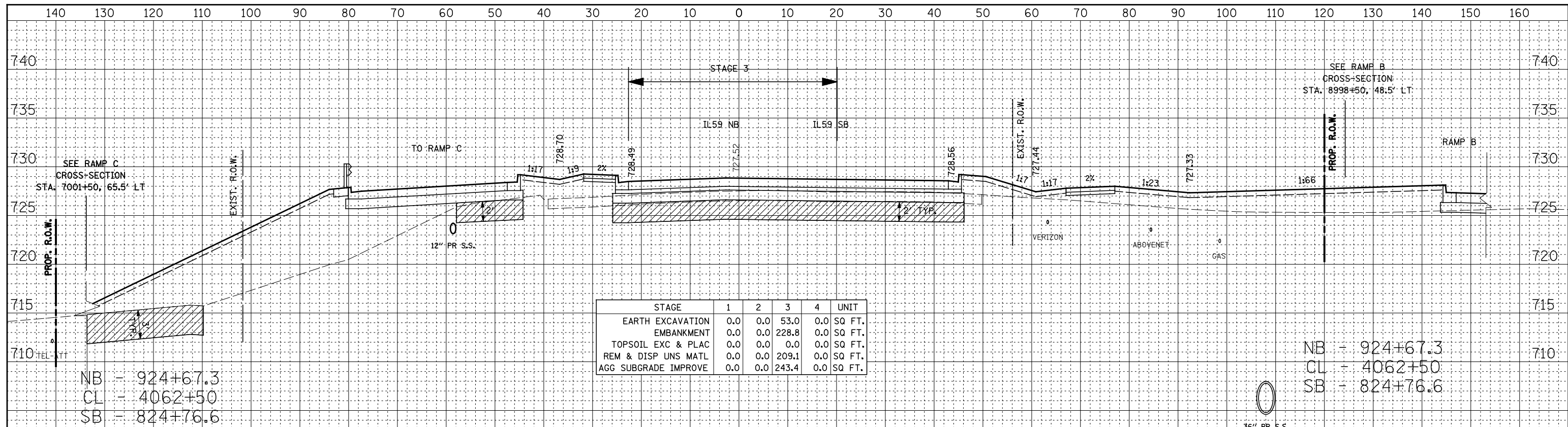
NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

NB - 923+63.0
CL - 4061+50
SB - 823+69.9

NB - 923+63.0
CL - 4061+50
SB - 823+69.9

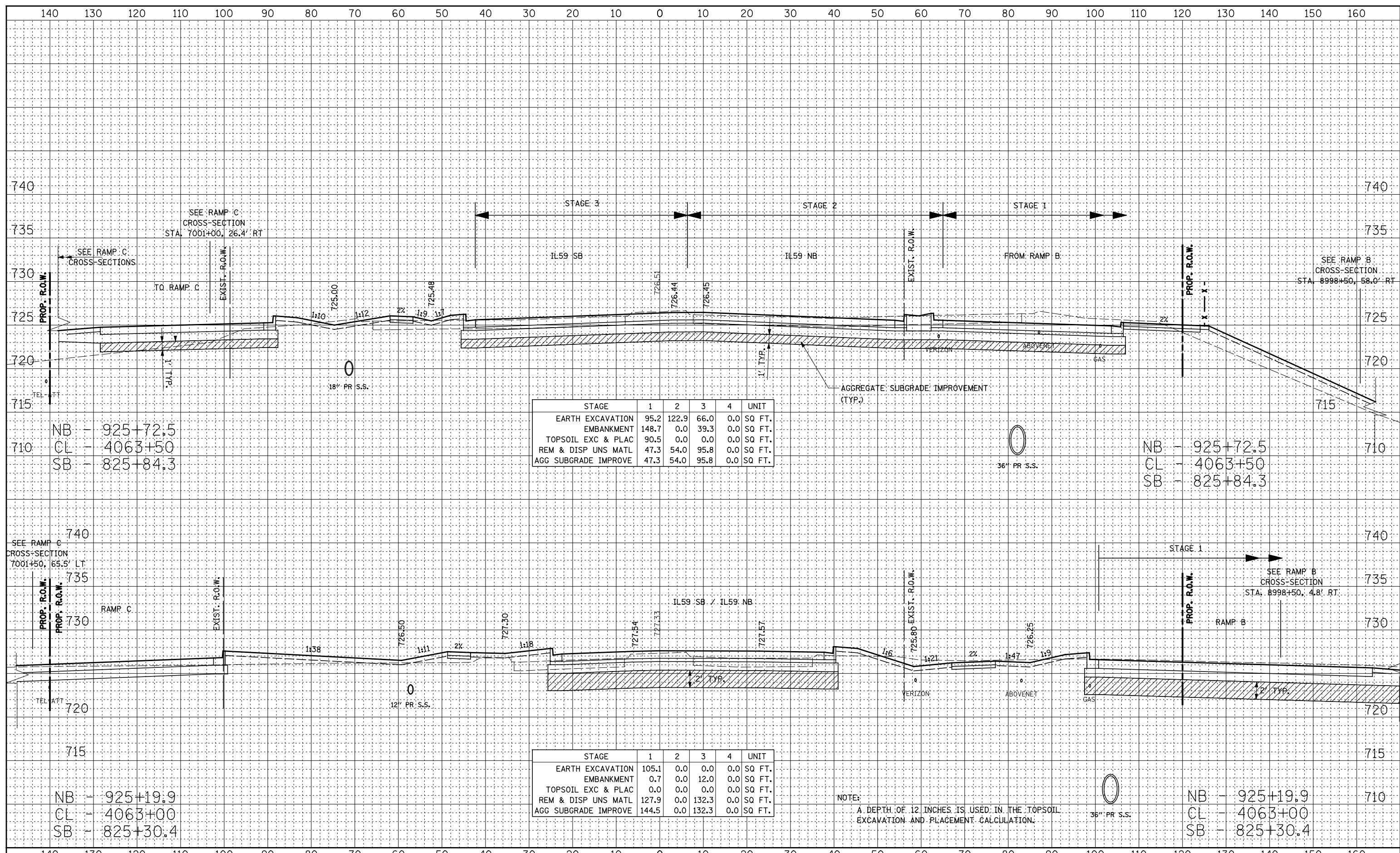
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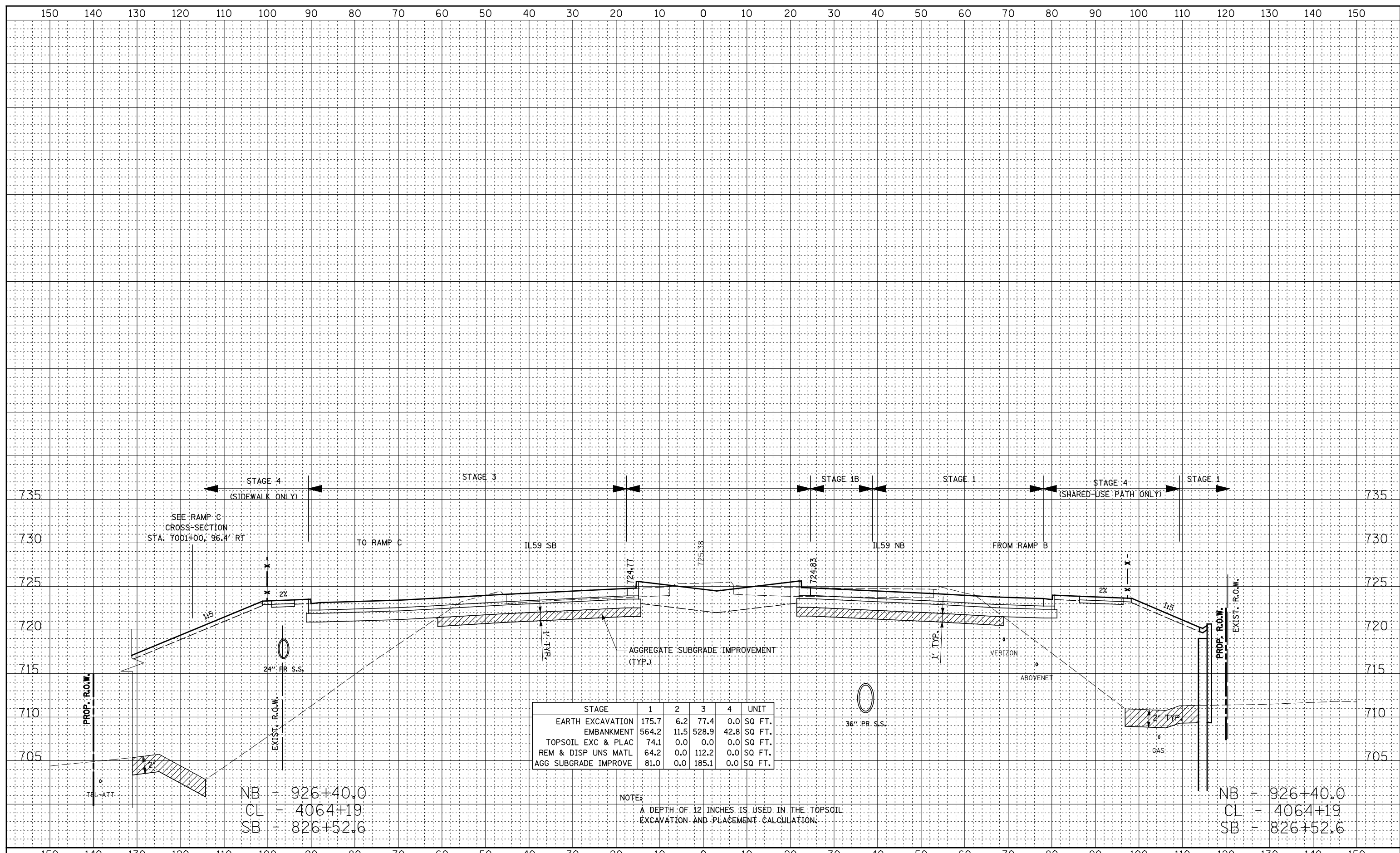
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	95.2	122.9	66.0	0.0	SQ FT.
EMBANKMENT	148.7	0.0	39.3	0.0	SQ FT.
TOPSOIL EXC & PLAC	90.5	0.0	0.0	0.0	SQ FT.
REM & DISP UNS MATL	47.3	54.0	95.8	0.0	SQ FT.
AGG SUBGRADE IMPROVE	47.3	54.0	95.8	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	105.1	0.0	0.0	0.0	SQ FT.
EMBANKMENT	0.7	0.0	12.0	0.0	SQ FT.
TOPSOIL EXC & PLAC	0.0	0.0	0.0	0.0	SQ FT.
REM & DISP UNS MATL	127.9	0.0	132.3	0.0	SQ FT.
AGG SUBGRADE IMPROVE	144.5	0.0	132.3	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
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ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED



STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	175.7	6.2	77.4	0.0	SQ FT.
EMBANKMENT	564.2	11.5	528.9	42.8	SQ FT.
TOPSOIL EXC & PLAC	74.1	0.0	0.0	0.0	SQ FT.
REM & DISP UNS MATL	64.2	0.0	112.2	0.0	SQ FT.
AGG SUBGRADE IMPROVE	81.0	0.0	185.1	0.0	SQ FT.

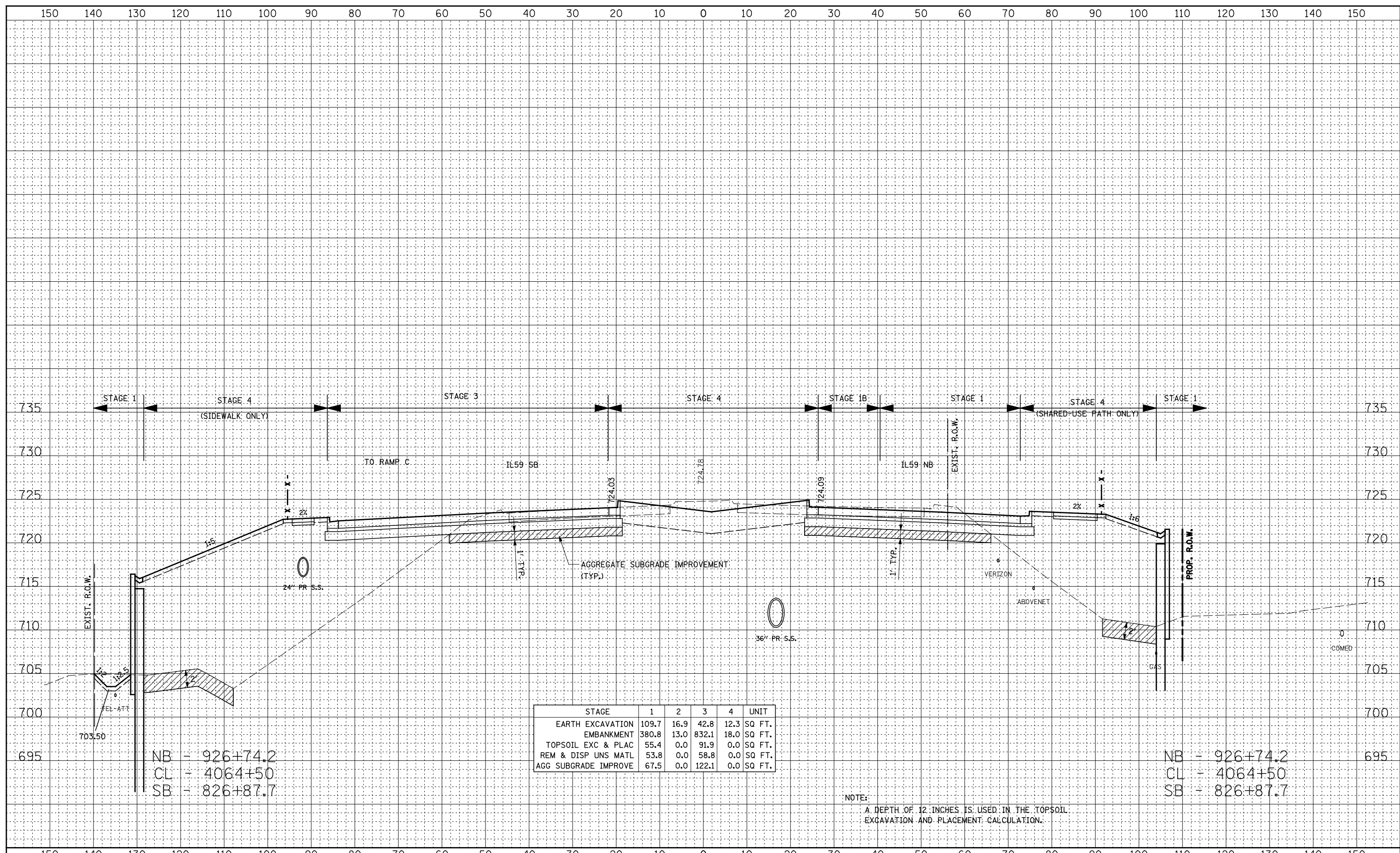
NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

NB = 926+40.0
CL = 4064+19
SB = 826+52.6

NB = 926+40.0
CL = 4064+19
SB = 826+52.6

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NOTE BOOK	PLOTTED
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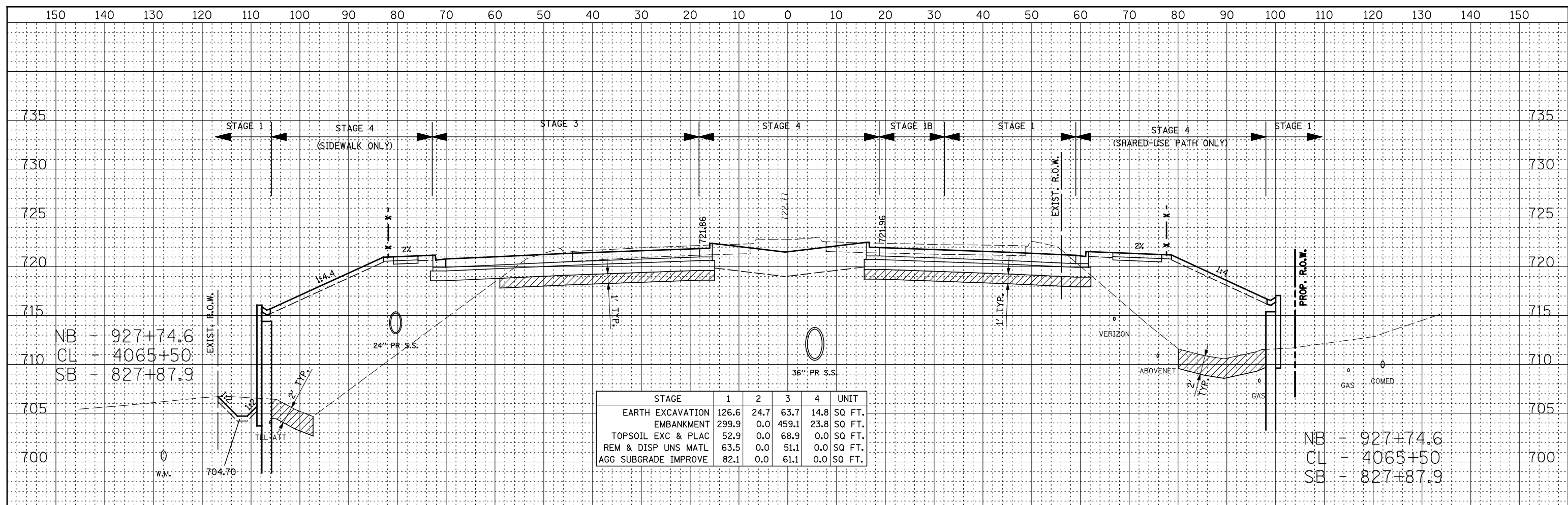
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STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	109.7	16.9	42.8	12.3	SQ FT.
EMBANKMENT	380.8	13.0	832.1	18.0	SQ FT.
TOPSOIL EXC & PLAC	55.4	0.0	91.9	0.0	SQ FT.
REM & DISP UNS MATL	53.8	0.0	58.8	0.0	SQ FT.
AGG SUBGRADE IMPROVE	67.5	0.0	122.1	0.0	SQ FT.

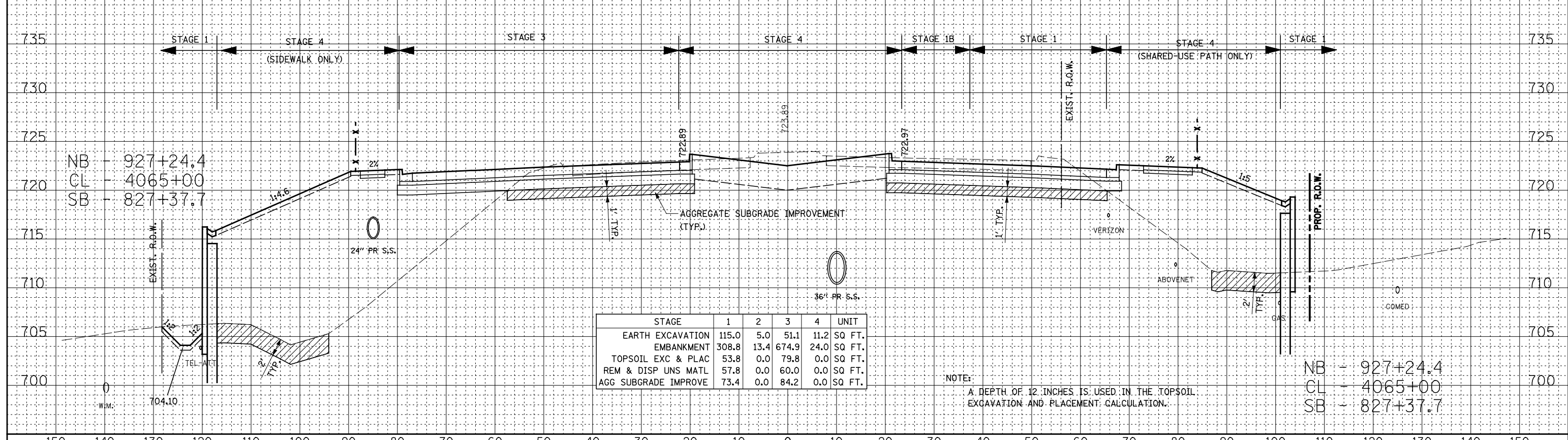
NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

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FINAL SURVEY	SURVEYED
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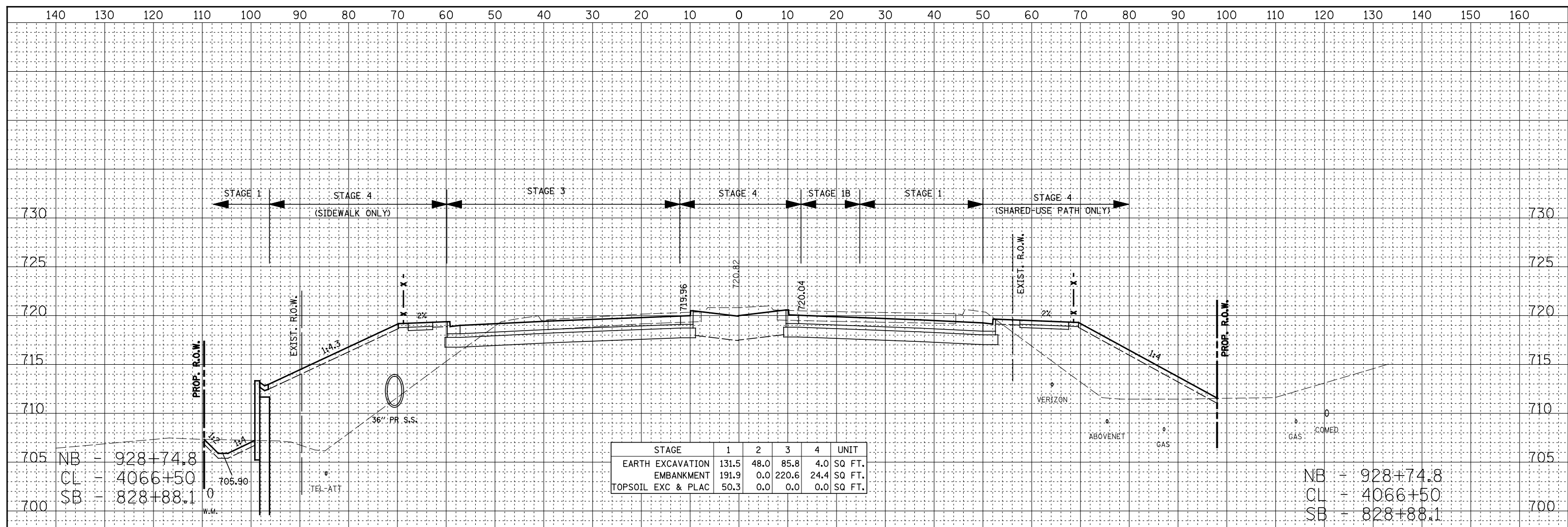
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	126.6	24.7	63.7	14.8	SQ FT.
EMBANKMENT	299.9	0.0	459.1	23.8	SQ FT.
TOPSOIL EXC & PLAC	52.9	0.0	68.9	0.0	SQ FT.
REM & DISP UNS MATL	63.5	0.0	51.1	0.0	SQ FT.
AGG SUBGRADE IMPROVE	82.1	0.0	61.1	0.0	SQ FT.

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STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	115.0	5.0	51.1	11.2	SQ FT.
EMBANKMENT	308.8	13.4	674.9	24.0	SQ FT.
TOPSOIL EXC & PLAC	53.8	0.0	79.8	0.0	SQ FT.
REM & DISP UNS MATL	57.8	0.0	60.0	0.0	SQ FT.
AGG SUBGRADE IMPROVE	73.4	0.0	84.2	0.0	SQ FT.

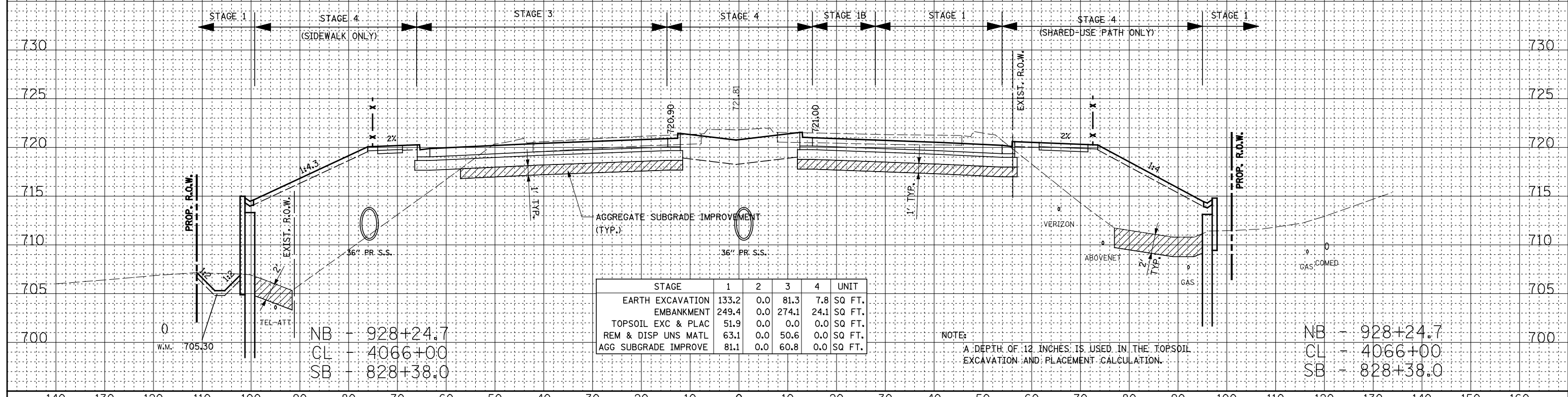
NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.



STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	131.5	48.0	85.8	4.0	SQ FT.
EMBANKMENT	191.9	0.0	220.6	24.4	SQ FT.
TOPSOIL EXC & PLAC	50.3	0.0	0.0	0.0	SQ FT.

NB = 928+74.8
 CL = 4066+50
 SB = 828+88.1

NB = 928+74.8
 CL = 4066+50
 SB = 828+88.1



STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	133.2	0.0	81.3	7.8	SQ FT.
EMBANKMENT	249.4	0.0	274.1	24.1	SQ FT.
TOPSOIL EXC & PLAC	51.9	0.0	0.0	0.0	SQ FT.
REM & DISP UNS MATL	63.1	0.0	50.6	0.0	SQ FT.
AGG SUBGRADE IMPROVE	81.1	0.0	60.8	0.0	SQ FT.

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

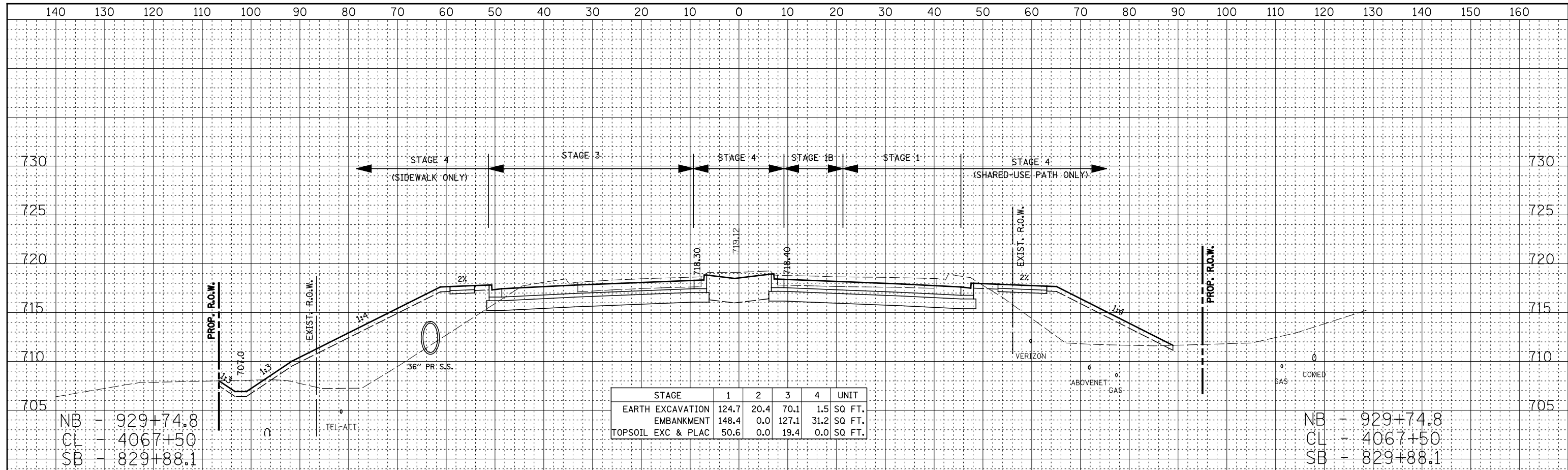
NB = 928+24.7
 CL = 4066+00
 SB = 828+38.0

NB = 928+24.7
 CL = 4066+00
 SB = 828+38.0

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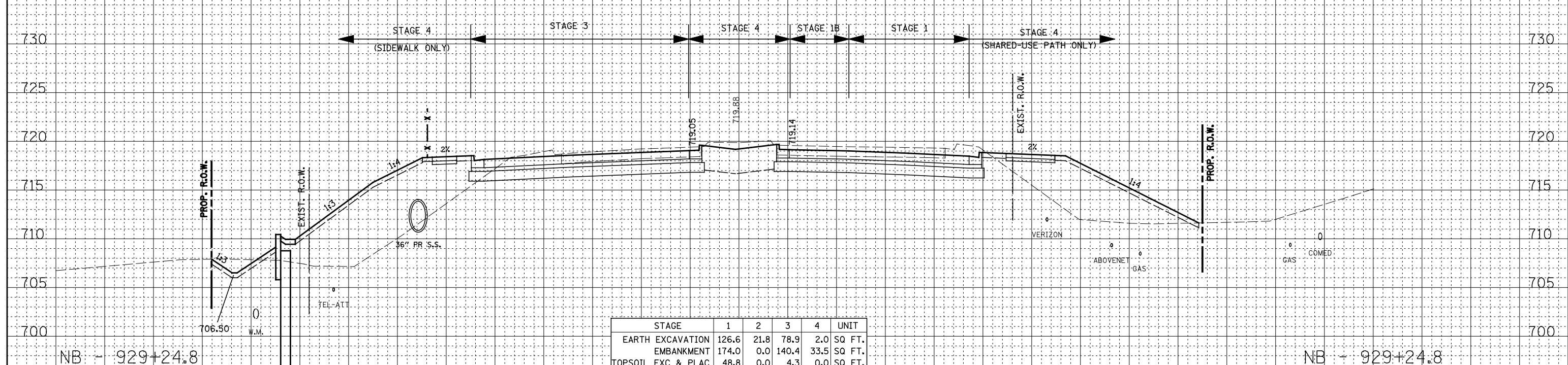


NB - 929+74.8
 CL - 4067+50
 SB - 829+88.1

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	124.7	20.4	70.1	1.5	SQ FT.
EMBANKMENT	148.4	0.0	127.1	31.2	SQ FT.
TOPSOIL EXC & PLAC	50.6	0.0	19.4	0.0	SQ FT.

NB - 929+74.8
 CL - 4067+50
 SB - 829+88.1

DATE	
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ORIGINAL SURVEY	SURVEYED
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NB - 929+24.8
 CL - 4067+00
 SB - 829+38.1

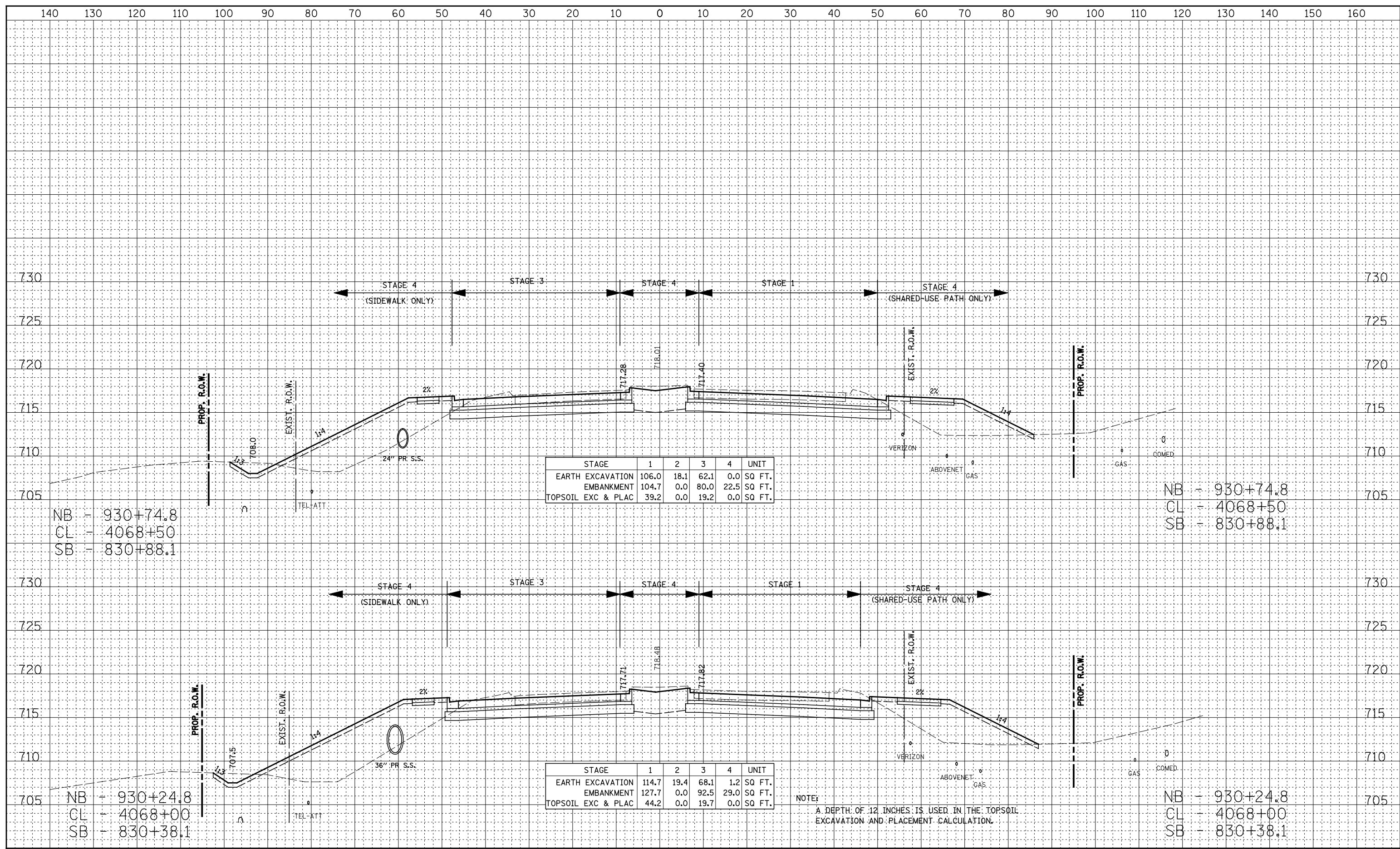
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	126.6	21.8	78.9	2.0	SQ FT.
EMBANKMENT	174.0	0.0	140.4	33.5	SQ FT.
TOPSOIL EXC & PLAC	48.8	0.0	4.3	0.0	SQ FT.

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

NB - 929+24.8
 CL - 4067+00
 SB - 829+38.1

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STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	106.0	18.1	62.1	0.0	SQ FT.
EMBANKMENT	104.7	0.0	80.0	22.5	SQ FT.
TOPSOIL EXC & PLAC	39.2	0.0	19.2	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	114.7	19.4	68.1	1.2	SQ FT.
EMBANKMENT	127.7	0.0	92.5	29.0	SQ FT.
TOPSOIL EXC & PLAC	44.2	0.0	19.7	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

NB - 930+74.8
CL - 4068+50
SB - 830+88.1

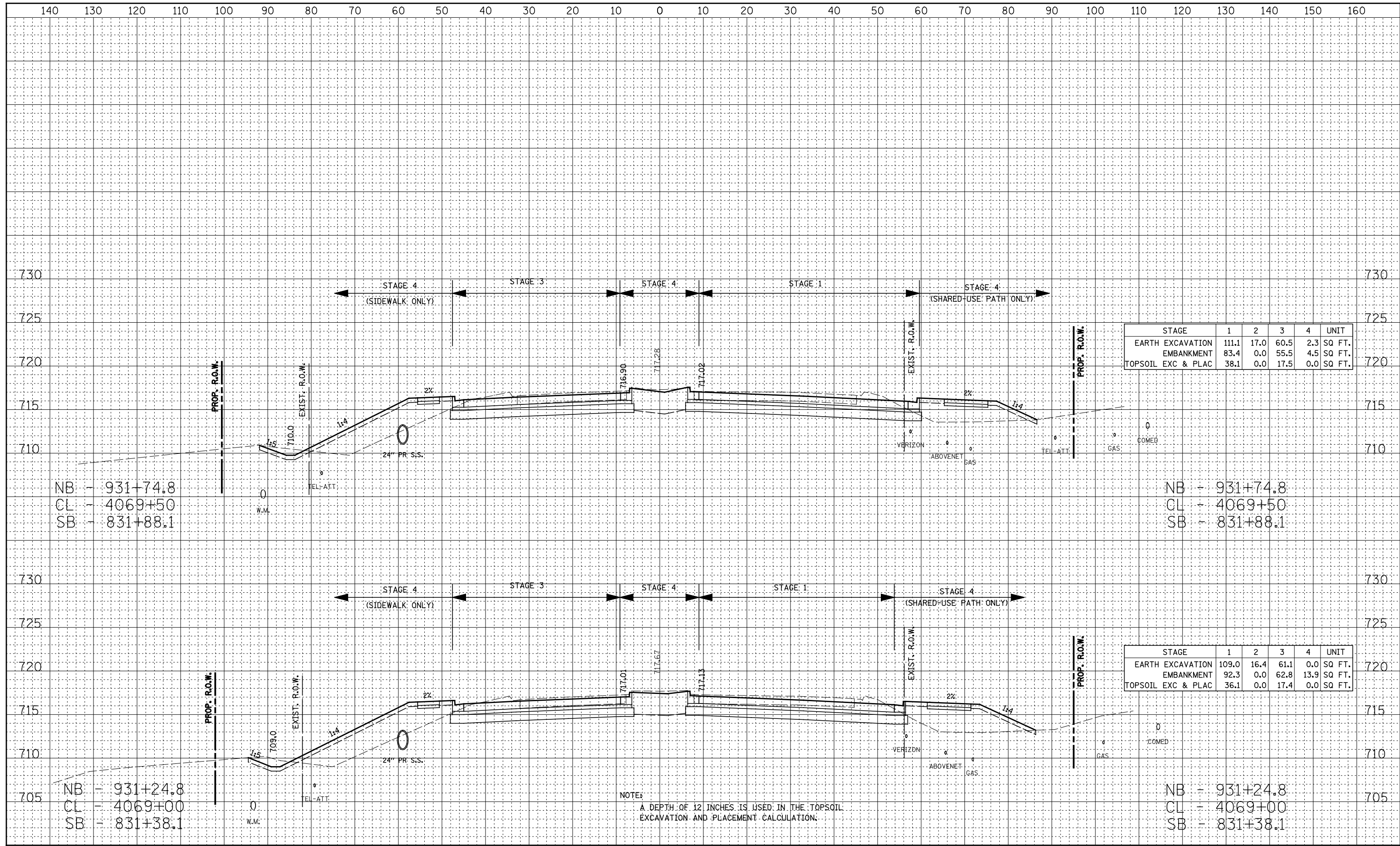
NB - 930+74.8
CL - 4068+50
SB - 830+88.1

NB - 930+24.8
CL - 4068+00
SB - 830+38.1

NB - 930+24.8
CL - 4068+00
SB - 830+38.1

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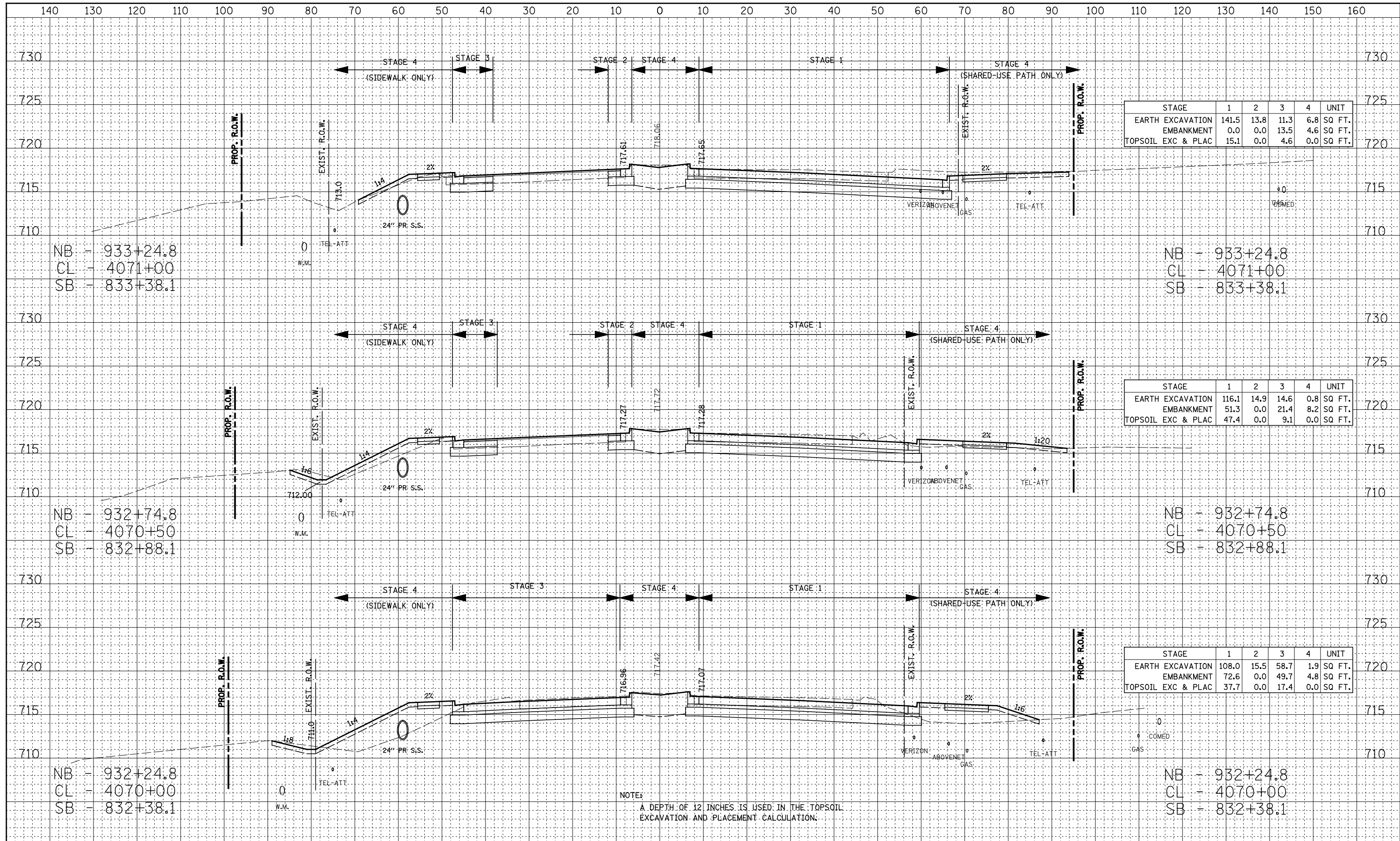
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	111.1	17.0	60.5	2.3	SQ FT.
EMBANKMENT	83.4	0.0	55.5	4.5	SQ FT.
TOPSOIL EXC & PLAC	38.1	0.0	17.5	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	109.0	16.4	61.1	0.0	SQ FT.
EMBANKMENT	92.3	0.0	62.8	13.9	SQ FT.
TOPSOIL EXC & PLAC	36.1	0.0	17.4	0.0	SQ FT.

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
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FINAL SURVEY	
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NOTE BOOK	
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STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	141.5	13.8	11.3	6.8	SQ FT.
EMBANKMENT	0.0	0.0	13.5	4.6	SQ FT.
TOPSOIL EXC & PLAC	15.1	0.0	4.6	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	116.1	14.9	14.6	0.8	SQ FT.
EMBANKMENT	51.3	0.0	21.4	8.2	SQ FT.
TOPSOIL EXC & PLAC	47.4	0.0	9.1	0.0	SQ FT.

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	108.0	15.5	58.7	1.9	SQ FT.
EMBANKMENT	72.6	0.0	49.7	4.8	SQ FT.
TOPSOIL EXC & PLAC	37.7	0.0	17.4	0.0	SQ FT.

NB - 933+24.8
CL - 4071+00
SB - 833+38.1

NB - 933+24.8
CL - 4071+00
SB - 833+38.1

NB - 932+74.8
CL - 4070+50
SB - 832+88.1

NB - 932+74.8
CL - 4070+50
SB - 832+88.1

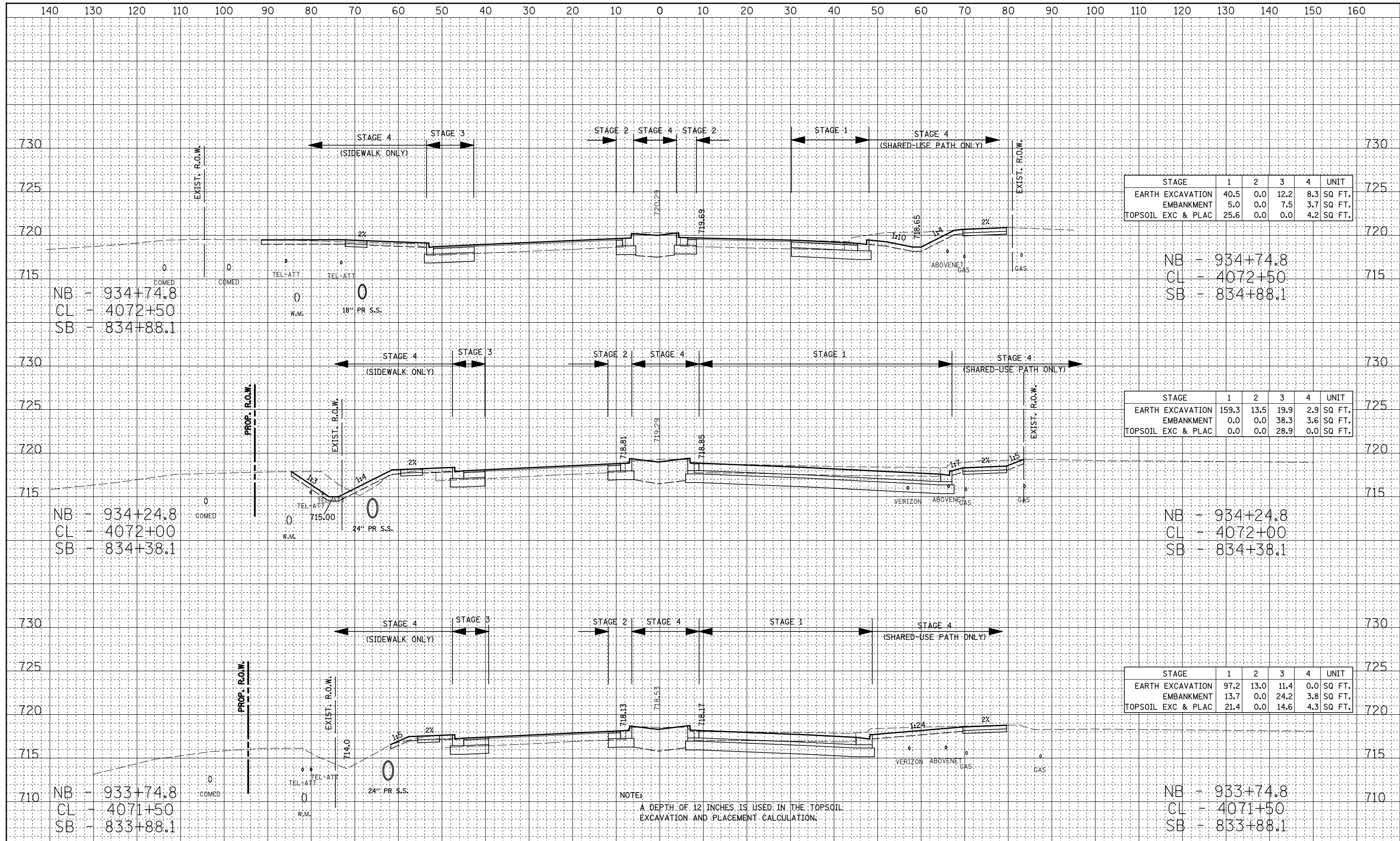
NB - 932+24.8
CL - 4070+00
SB - 832+38.1

NB - 932+24.8
CL - 4070+00
SB - 832+38.1

NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
BY	
NO.	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE
	AREAS CHECKED

DATE	
BY	
NO.	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE
	AREAS CHECKED



STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	40.5	0.0	12.2	8.3	SQ FT.
EMBANKMENT	5.0	0.0	7.5	3.7	SQ FT.
TOPSOIL EXC & PLAC	25.6	0.0	0.0	4.2	SQ FT.

NB - 934+74.8
 CL - 4072+50
 SB - 834+88.1

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	159.3	13.5	19.9	2.9	SQ FT.
EMBANKMENT	0.0	0.0	38.3	3.6	SQ FT.
TOPSOIL EXC & PLAC	0.0	0.0	28.9	0.0	SQ FT.

NB - 934+24.8
 CL - 4072+00
 SB - 834+38.1

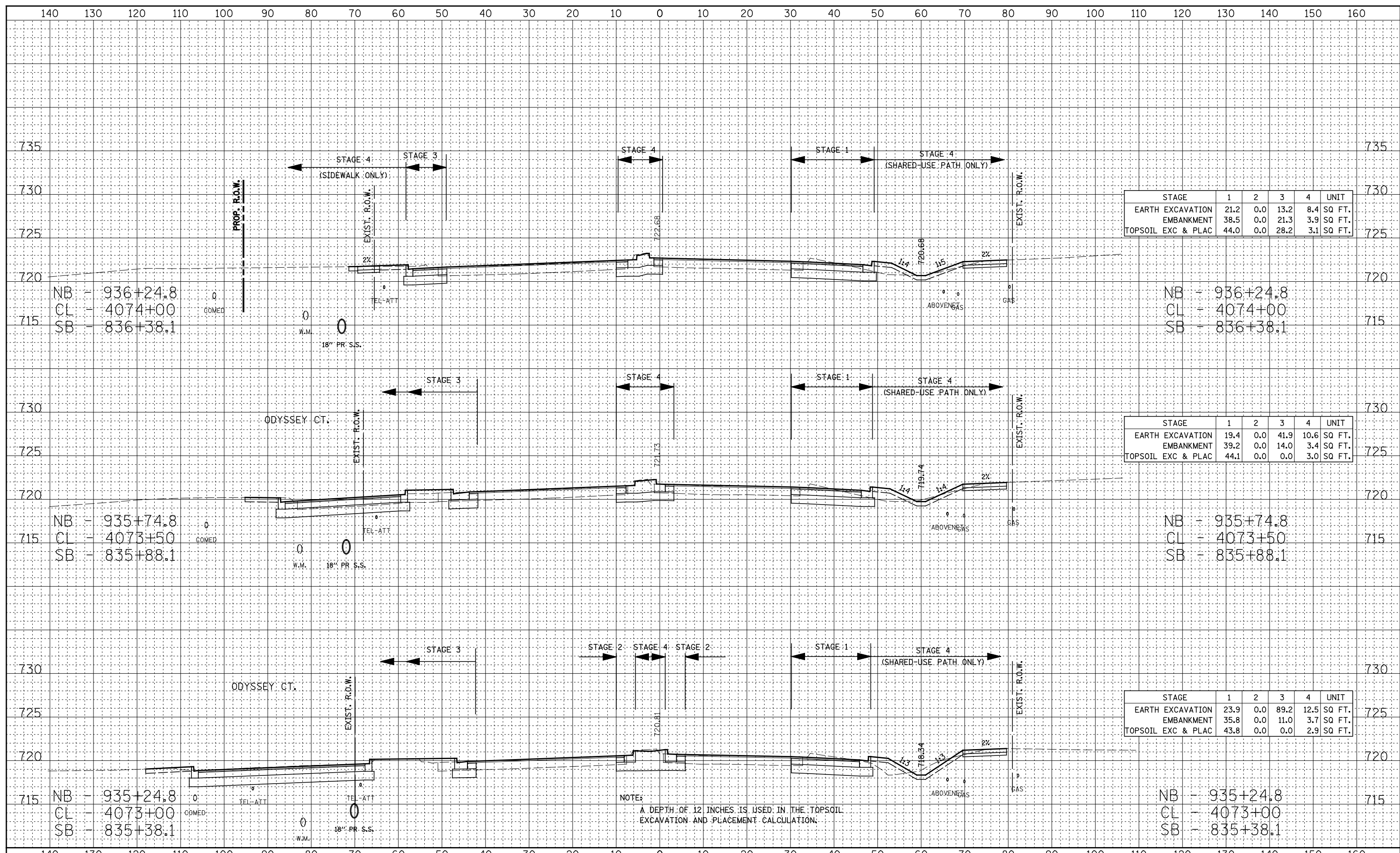
STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	97.2	13.0	11.4	0.0	SQ FT.
EMBANKMENT	13.7	0.0	24.2	3.8	SQ FT.
TOPSOIL EXC & PLAC	21.4	0.0	14.6	4.3	SQ FT.

NB - 933+74.8
 CL - 4071+50
 SB - 833+88.1

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
BY	
NO.	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE
	AREAS CHECKED

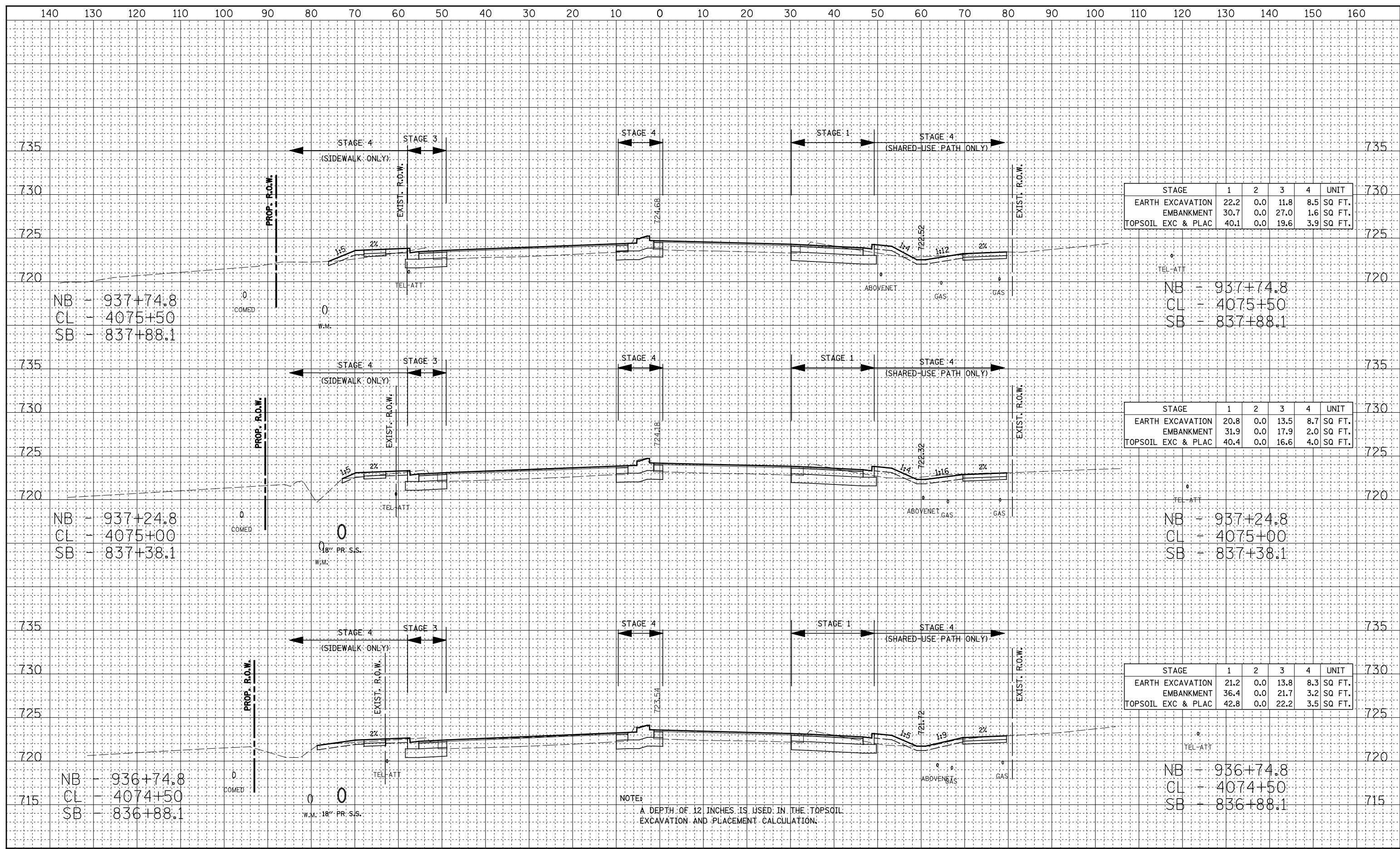
DATE	
BY	
NO.	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS CHECKED	TEMPLATE
	AREAS CHECKED



NOTE:
A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.

DATE	
BY	
FINAL SURVEY PLOTTED TEMPLATE NOTE BOOK AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY PLOTTED TEMPLATE NOTE BOOK AREAS CHECKED	
NO.	



STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	22.2	0.0	11.8	8.5	SQ FT.
EMBANKMENT	30.7	0.0	27.0	1.6	SQ FT.
TOPSOIL EXC & PLAC	40.1	0.0	19.6	3.9	SQ FT.

TEL-ATT
 NB - 937+74.8
 CL - 4075+50
 SB - 837+88.1

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	20.8	0.0	13.5	8.7	SQ FT.
EMBANKMENT	31.9	0.0	17.9	2.0	SQ FT.
TOPSOIL EXC & PLAC	40.4	0.0	16.6	4.0	SQ FT.

TEL-ATT
 NB - 937+24.8
 CL - 4075+00
 SB - 837+38.1

STAGE	1	2	3	4	UNIT
EARTH EXCAVATION	21.2	0.0	13.8	8.3	SQ FT.
EMBANKMENT	36.4	0.0	21.7	3.2	SQ FT.
TOPSOIL EXC & PLAC	42.8	0.0	22.2	3.5	SQ FT.

TEL-ATT
 NB - 936+74.8
 CL - 4074+50
 SB - 836+88.1

NOTE:
 A DEPTH OF 12 INCHES IS USED IN THE TOPSOIL EXCAVATION AND PLACEMENT CALCULATION.