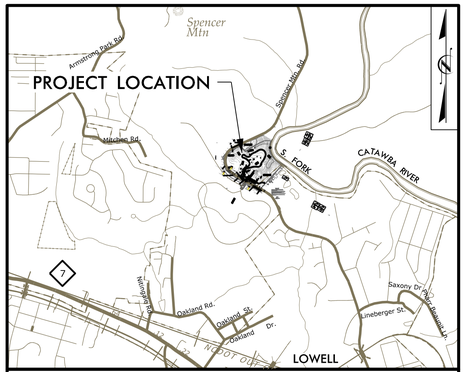


VICINITY MAP

GASTON COUNTY
NORTH CAROLINA

GEORGE POSTON PARK GREENWAY

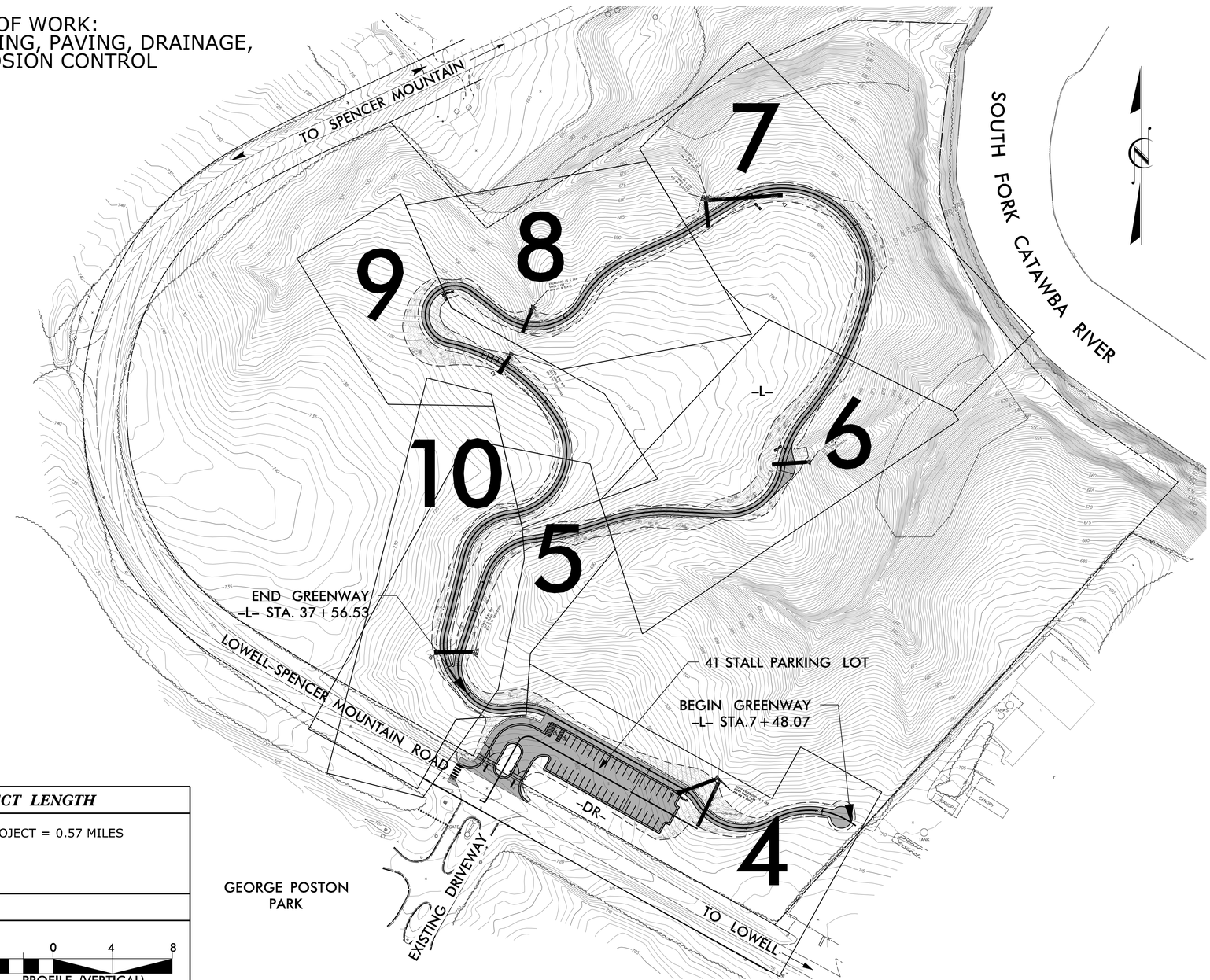
LOCATION: ALONG SPENCER MOUNTAIN RD. IN GEORGE POSTON PARK

TYPE OF WORK: GRADING, PAVING, DRAINAGE, & EROSION CONTROL

NCDOT TIP: EB-5533
WBS: 50048.3.1
FA# STPEB-1213(30)

INDEX OF SHEETS

1	TITLE
1A	PLAN SHEET SYMBOLS
1B	GENERAL NOTES
2	TYPICAL SECTIONS
2A-2B	DETAIL SHEETS
3	SUMMARY SHEET
4-10	PLAN & PROFILE SHEETS
11	SIGNAGE SHEET
12	GRADING SHEET
EC-1 - EC-10	EROSION CONTROL PLAN
X-1 - X-7	CROSS SECTIONS



DESIGN DATA	PROJECT LENGTH
DESIGN SPEED = 20 MPH LEAN ANGLE = 15 DEGRESS FUNC. CLASSIFICATION = GREENWAY	LENGTH OF PROJECT = 0.57 MILES

GRAPHIC SCALES

20 10 0 20 40 — PLANS
20 10 0 20 40 — PROFILE (HORIZONTAL)
4 0 4 8 — PROFILE (VERTICAL)

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG
5/22/15

Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.360.8750
www.stewartinc.com
STEWART

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

DATE: MAY 22, 2015

REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

1

Note: Not to Scale

**S.U.E. = Subsurface Utility Engineering*

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — TCE
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Greenway Easement — PGE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ZUTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

STEWART
Firm License No. C-0193
423 Fayetteville Street
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

DATE: MAY 22, 2015

REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

1A

NOTES

GENERAL NOTES

1 THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE JANUARY 2012 NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

2 ALL DEMOLITION SHALL BE APPROVED BY GASTON COUNTY.

3 ALL DEMOLITION AND SUBSEQUENT CONSTRUCTION TO BE IN ACCORDANCE WITH PERMITS ISSUED AND APPLICABLE STATE, COUNTY, AND LOCAL CODES. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL INSPECTIONS, CERTIFICATIONS, PERMITS, EQUIPMENT, ETC. THAT MAY BE REQUIRED.

4 WHERE ASPHALT SECTION IS REMOVED, CONTRACTOR SHALL USE A SAW CUT AT THE LIMITS OF DEMOLITION TO OBTAIN A CLEAN EDGE.

5 NO GRADING IS TO OCCUR IN THE TREE PROTECTION AREAS OR TREE CRITICAL ROOT ZONES.

6 THE CONTRACTOR MUST, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATIONS OF WASTE MATERIALS OR RUBBISH CAUSED BY HIM, HIS EMPLOYEES, OR HIS WORK. ALL DEBRIS SHALL BE REMOVED FROM THE SITE ON A DAILY BASIS.

7 RELOCATION OF EXISTING UTILITIES TO BE COORDINATED WITH THE LOCAL UTILITY PROVIDER(S).

8 EXISTING UTILITIES AND STRUCTURES SHOWN BOTH UNDERGROUND AND ABOVE ARE BASED ON THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

9 CONTRACTOR SHALL LOCATE ALL UTILITIES AND UTILITY ELEVATIONS PRIOR TO CONSTRUCTION. ALL UTILITIES TO REMAIN SHALL BE PROTECTED BY THE CONTRACTOR. ANY UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY CONTRACTOR AT HIS EXPENSE.

10 CONTRACTOR SHALL RESTORE ALL LAY DOWN AND STAGING AREAS TO ORIGINAL CONDITIONS AND TO THE SATISFACTION OF THE OWNER, PRIOR TO DEMOBILIZATION AT THE CONCLUSION OF THE PROJECT.

11 ANY EXCAVATION MUST BE FILLED IN AND TAMPED AT THE CONCLUSION OF EACH WORK PERIOD, AND EQUIPMENT AND SUPPLIES RETURNED TO THE CONSTRUCTION STAGING AREA.

12 CONSTRUCTION/SAFETY FENCING REMOVED TO FACILITATE ACCESS BY THE CONTRACTOR FOR CONSTRUCTION MUST BE REPLACED AT THE END OF EACH WORK PERIOD TO DIRECT PEDESTRIAN AND VEHICULAR TRAFFIC AWAY FROM HAZARDOUS AREAS.

13 DEMOLITION, AND SUBSEQUENT CONSTRUCTION OF STORM DRAINAGE FACILITIES SHALL BE PERFORMED IN SUCH A MANNER THAT THE OLD PIPE AND STRUCTURES ARE REMOVED AND NEW STRUCTURES AND PIPING ARE IMMEDIATELY PUT INTO SERVICE. CONTRACTOR SHALL ENSURE THAT STORM DRAINAGE DOES NOT REMAIN OUT OF SERVICE FOR LONGER THAN 12 HOURS AT A TIME. PROVISIONS SHALL BE MADE TO MAINTAIN STORM WATER DRAINAGE DURING CONSTRUCTION.

14 CONTRACTOR SHALL MAINTAIN ALL ABOVE AND BELOW GROUND STORM WATER DRAINAGE AND PATTERNS AND PIPING AS THEY CURRENTLY EXIST UNLESS NOTED OTHERWISE. ANY DISTURBANCE OF THE PATTERNS OR STRUCTURES BY THE CONTRACTOR SHALL BE CORRECTED BY THE CONTRACTOR TO CONDITION PRIOR TO DISTURBANCE. CLEAN OUT STORM WATER PIPE ONLY IF NOTED ON PLAN AND ACCORDING TO DETAIL.

15 CONTRACTOR SHALL STAKE CENTERLINE OF TRAIL ACCORDING TO PLANS AND OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE RESOLVED PRIOR TO CONSTRUCTION.

16 CONTRACTOR SHALL VERIFY ALL STATIONING FOR APPLICABILITY TO EXISTING CONDITIONS PRIOR TO CONSTRUCTION. DEVIATION FROM ALIGNMENT DUE TO LARGE TREES OR OTHER OBSTACLES ETC SHALL BE APPROVED BY GASTON COUNTY AND THE ENGINEER OF RECORD.

17 CONTRACTOR ACCESS FOR TRAIL CONSTRUCTION SHALL BE CONFIRMED BY CONTRACTOR WITH OWNER'S REPRESENTATIVE AND PROPERTY OWNER PRIOR TO CONSTRUCTION.

18 CONTRACTOR SHALL REVIEW TREE REMOVAL WITH OWNER'S REPRESENTATIVE AND OBTAIN APPROVAL PRIOR TO TREE REMOVAL. CONTRACTOR SHALL REMOVE ALL VEGETATION TO 3' BEYOND ASPHALT EDGE OF TRAIL OR WITH IN REQUIRED DRAINAGE DITCHES. TRIM UP BRANCHES OF TREES TO PROVIDE 10' VERTICAL CLEARANCE ABOVE PAVEMENT SURFACE.

19 ALL CONSTRUCTION SHALL COMPLY WITH GASTON COUNTY AND NCDOT STANDARDS.

20 THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH PROJECT AS SET FORTH IN THESE PLANS. IF DEPARTURES FROM THE SPECIFICATIONS OR DRAWINGS ARE DEEMED NECESSARY BY THE CONTRACTOR, DETAILS OF SUCH DEPARTURES AND REASONS THEREOF SHALL BE SUBMITTED TO THE OWNER IN WRITING FOR REVIEW. NO DEPARTURES FROM THE CONTRACT DOCUMENTS SHALL BE MADE WITHOUT THE WRITTEN PERMISSION OF THE OWNER.

21 TREES AND PLANTS WILL NOT BE DAMAGED OR REMOVED IN ORDER TO SERVICE AND MAINTAIN THE UTILITY, SIDEWALK, GREENWAY OR OTHER SIMILAR FEATURE

22 SUPERELEVATION TRANSITION IS SHOWN ON THE PLAN VIEW.

2012 NCDOT ROADWAY ENGLISH STD. DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N.C. DEPARTMENT OR TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 17, 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

DIVISION 2 - EARTHWORK
200.02 Method of Clearing
DIVISION 3 - PIPE CULVERTS
300.01 Method of Pipe Installation
DIVISION 6 - ASPHALT BASES AND PAVEMENTS
654.01 Pavement Repairs For Superpave Mix Types
DIVISION 8 - INCIDENTALS
840.01 Brick Catch Basin
840.02 Concrete Catch Basin
840.03 Frame, Grates, and Hood
840.14 Concrete Drop Inlet
840.15 Brick Drop Inlet
846.01 Concrete Curb, Gutter and Curb & Gutter
848.01 Concrete Sidewalk
848.05 Curb Ramp
876.02 Guide for Rip Rap at Pipe Outlets
DIVISION 9 - SIGNING
904.50 Mounting of Type D, E, and F Signs on U Channel Posts
DIVISION 11 - WORK ZONE TRAFFIC CONTROL
1101.01 Work Zone Advance Warning Signs
1101.02 Temporary Lane Closures
1101.04 Temporary Shoulder Closures
1101.11 Traffic Control Design Tables
1110.01 Stationary Work Zone Signs
1110.02 Portable Work Zone Signs
1130.01 Drum
1135.01 Cone
1150.01 Flagging Devices
1180.01 Skinny-Drum
DIVISION 12 - PAVEMENT MARKINGS, MARKERS, AND DELINEATION
1205.07 Pavement Markings for Pedestrian Crossings
1205.08 for Symbols and Word Messages
DIVISION 16 - EROSION CONTROL AND ROADSIDE DEVELOPMENT
1605.01 Temporary Silt Fence
1606.01 Special Sediment Control Fence
1607.01 Gravel Construction Entrance
1631.01 Matting Installation
1632.01 Rock Inlet Sediment Trap Type A
1632.03 Rock Inlet Sediment Trap Type C
1633.01 Temporary Rock Silt Check Type A
1635.01 Rock Pipe Inlet Sediment Trap Type A

ADDITIONAL NCDOT STANDARDS NOT ON THE LIST ABOVE MAY BE REQUIRED AS PER PLAN DETAILS AND SPECIFICATIONS.

GEORGE POSTON PARK
GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG
5/22/15

Firm License No. C-1053
423 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com
STEWART

DATE: MAY 22, 2015

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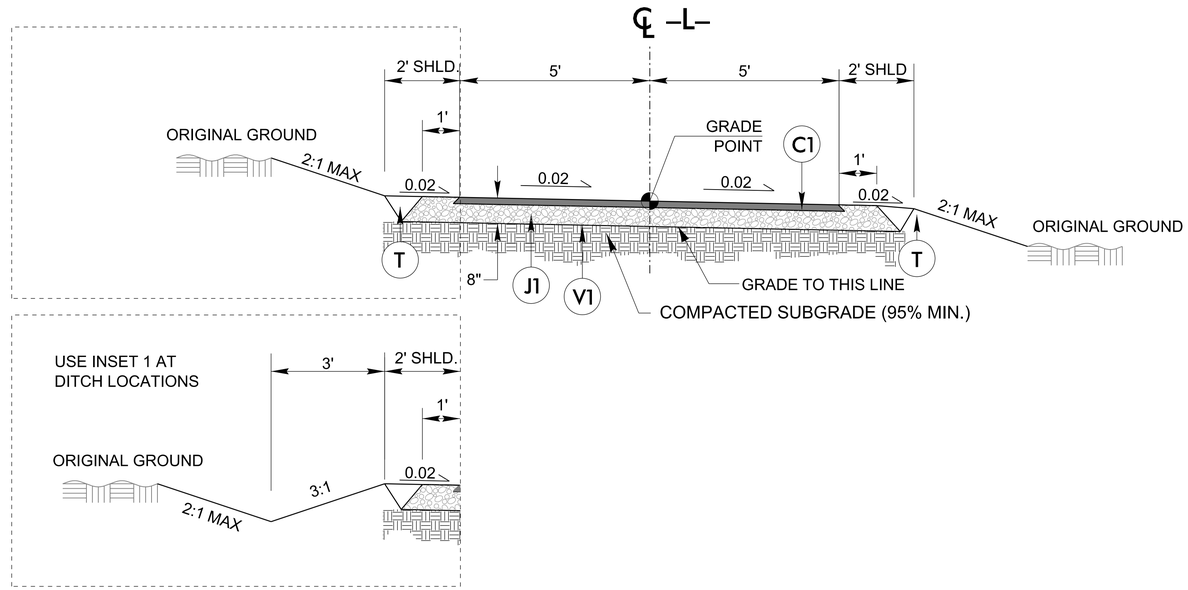
A15001.00

1B

PAVEMENT SCHEDULE

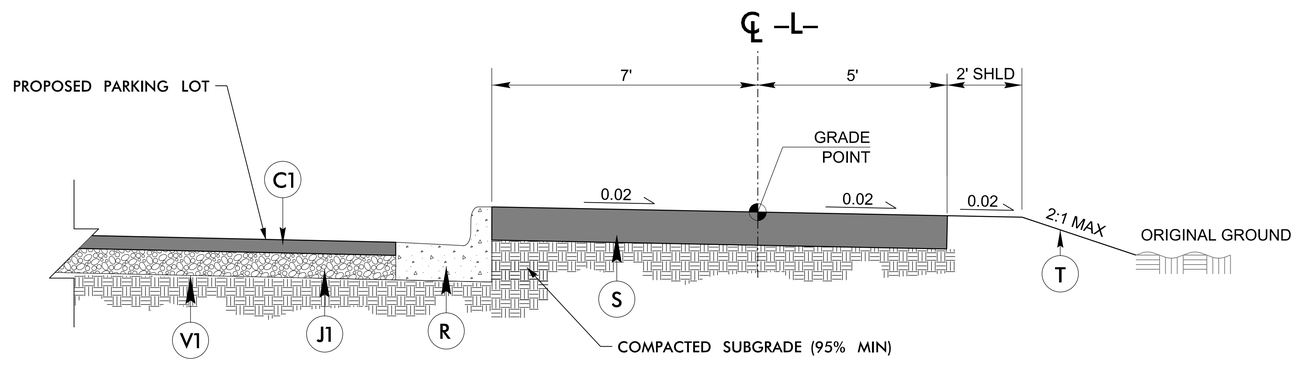
C1	PROPOSED 2″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.
J1	PROPOSED 6″ AGGREGATE BASE COURSE.
R	PROPOSED 2′-6″ CURB & GUTTER
S	PROPOSED 5″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
V1	GEOTEXTILE SEPERATOR FABRIC.



INSET 1

TYPICAL SECTION #1- 10' ASPHALT MULTI-USE PATH

CHAIN	BEGIN STATION	END STATION
-L-	STA. 7+48.07	STA. 10+05.00
-L-	STA. 12+22.00	STA. 37+56.53



TYPICAL SECTION #2- 12' CONCRETE MULTI-USE PATH & PARKING LOT

CHAIN	BEGIN STATION	END STATION
-L-	STA. 10+05.00	STA. 12+22.00

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040815 ENGINEER MATTHEW C. LIDDY 5/22/15

STEWART
Firm License No. C-1053
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T 919.380.8750
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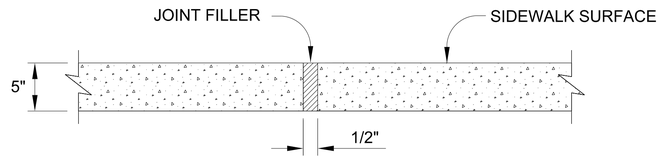
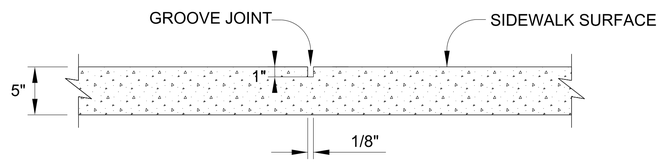


TRANSVERSE EXPANSION JOINT

NOTE:

1. TRANSVERSE EXPANSION JOINTS TO BE A MAXIMUM OF 40 FEET.



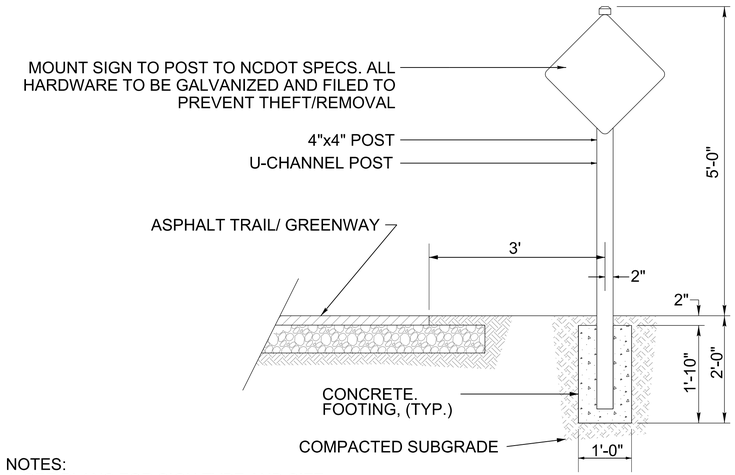
GROOVE JOINT

NOTE:

1. PLACE GROOVE JOINTS EVERY 10'.

1 CONCRETE GREENWAY JOINTS

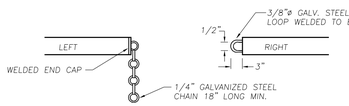
NOT TO SCALE — SOURCE: STEWART



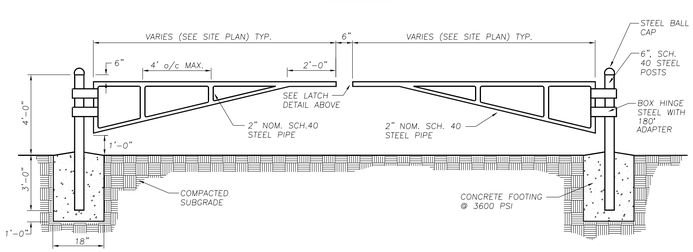
NOTES:
1. SEE PLANS FOR SIGN TYPE AND SIZE.
2. SIGNS ASSOCIATED WITH VEHICULAR TRAFFIC AND SIGNS ALONG ROADWAYS SHALL MEET NCDOT AND MUTCD SIGN REQUIREMENTS, AND BE INSTALLED PER NCDOT STANDARD DRAWING 904.50

2 GREENWAY TYPICAL SIGN INSTALLATION

NOT TO SCALE — SOURCE: STEWART



LATCH DETAIL

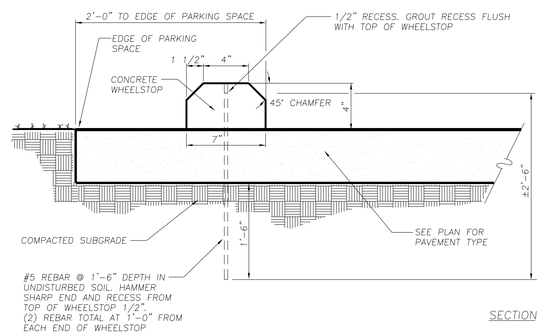


NOTES

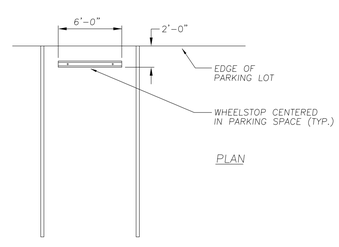
1. PROVIDE 3" O.D. KEEPER POST (2 REQUIRED). SET IN 3' DEEP X 18" DIA. CONC. FOOTING. PROVIDE 180° HINGE SWING ADAPTER TO OPEN POSITION.
2. GATES SHALL INCLUDE KEEPER POSTS TO SECURE ACCESS. KEEPER POST SHALL BE 6" SCH. 40 STEEL POST INSTALLED WITH 18"X24" FOOTING AND SHALL INCLUDE CHAIN TO SECURE GATE ARM.(ONE KEEPER POST PER ARM). KEEPER POST SHALL HAVE STEEL BALL CAP.

3 METAL GATE DETAIL

NOT TO SCALE — SOURCE: STEWART



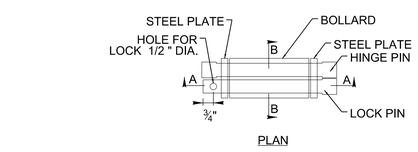
SECTION



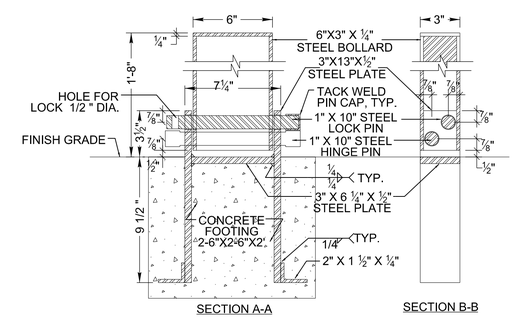
PLAN

4 CONCRETE WHEELSTOP

NOT TO SCALE — SOURCE: STEWART



PLAN



5 COLLAPSIBLE BOLLARD DETAIL

NOT TO SCALE — SOURCE: STEWART

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040615 ENGINEER MATTHEW C. LUDWIG 5/21/15

STEWART

Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T 919.380.8750
www.stewartinc.com

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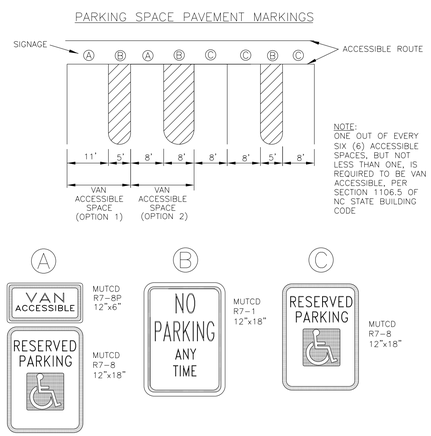
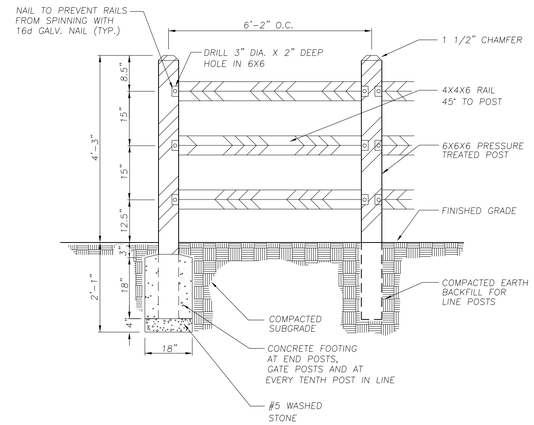


6 ACCESSIBLE PARKING SIGNAGE DETAIL

NOT TO SCALE SOURCE: STEWART



NOTES

1. ALL WOOD SHALL BE PRESSURE TREATED.
2. BACKFILL ALL POSTS AND RESTORE GRADE AT POST BASE TO ORIGINAL CONDITION. REMOVE ANY EXCESS SOIL FROM POST BASE.

7 DIAMOND RAIL FENCE

NOT TO SCALE SOURCE: STEWART

GEORGE POSTON PARK GREENWAY

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NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG

5/22/15

Firm License No. C-1051
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Suite 400
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LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	18"	24"	30"	36"	42"	48"
–L– 9+63	LT	1	2		707.0	700.0			70						
–L– 10+03	LT	3	4	716.50	710.50	704.90			56						
–L– 36+89	RT	7	8	713.50	710.75	710.0					54				
–L– 19+79	LT	9	10		685.30	682.0			48						
–L– 25+15	LT	11	12	684.25	680.50	679.50			70						
–L– 25+69	LT	13	14		685.65	685.0				26					
–L– 28+69	LT	15	16		698.0	695.0			35						
–L– 31+83	RT	17	18	711.0	708.75	708.0			25						
TOTAL									304	26	54				

STATION	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 12" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	CLASS III R.C. PIPE OR ALUMINIZED C.S. PIPE, TYPE IR OR HDPE PIPE, TYPE S OR D 12"	15"	18"	24"	30"	36"	42"	48"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.
–L– 9+63																					
–L– 10+03																					
–L– 36+89																					
–L– 19+79																					
–L– 25+15																					
–L– 25+69																					
–L– 28+69																					
–L– 31+83																					
TOTAL																					

STATION	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A: 5.0' THRU 10.0'	B: 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G			D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME & GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	G.D.I. FRAME WITH GRATE STD. 840.22	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.24	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
–L– 9+63																									
–L– 10+03	1	5	2	1	1																				
–L– 36+89	1									1	1														
–L– 19+79																									
–L– 25+15	1									1	1														
–L– 25+69																									
–L– 28+69																									
–L– 31+83	1									1	1														
TOTAL	4	5	2	1	1					3	3														

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	EMBT+%
–L– 7+40 TO –L– 9+25	36CY	749CY
–L–9+25 TO –L–13+00(INCLUDES PARKING LOT)	309CY	2532CY
–L– 13+00 TO –L– 37+56	3744CY	1445CY
TOTAL	4089CY	4726CY

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

GASTON COUNTY SEAL N.C. 1846

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

STEWART

Firm License No. C-1051 421 Fayetteville St. Suite 400 Raleigh, NC 27601 T 919.380.8750 www.stewartinc.com

DATE: MAY 22, 2015

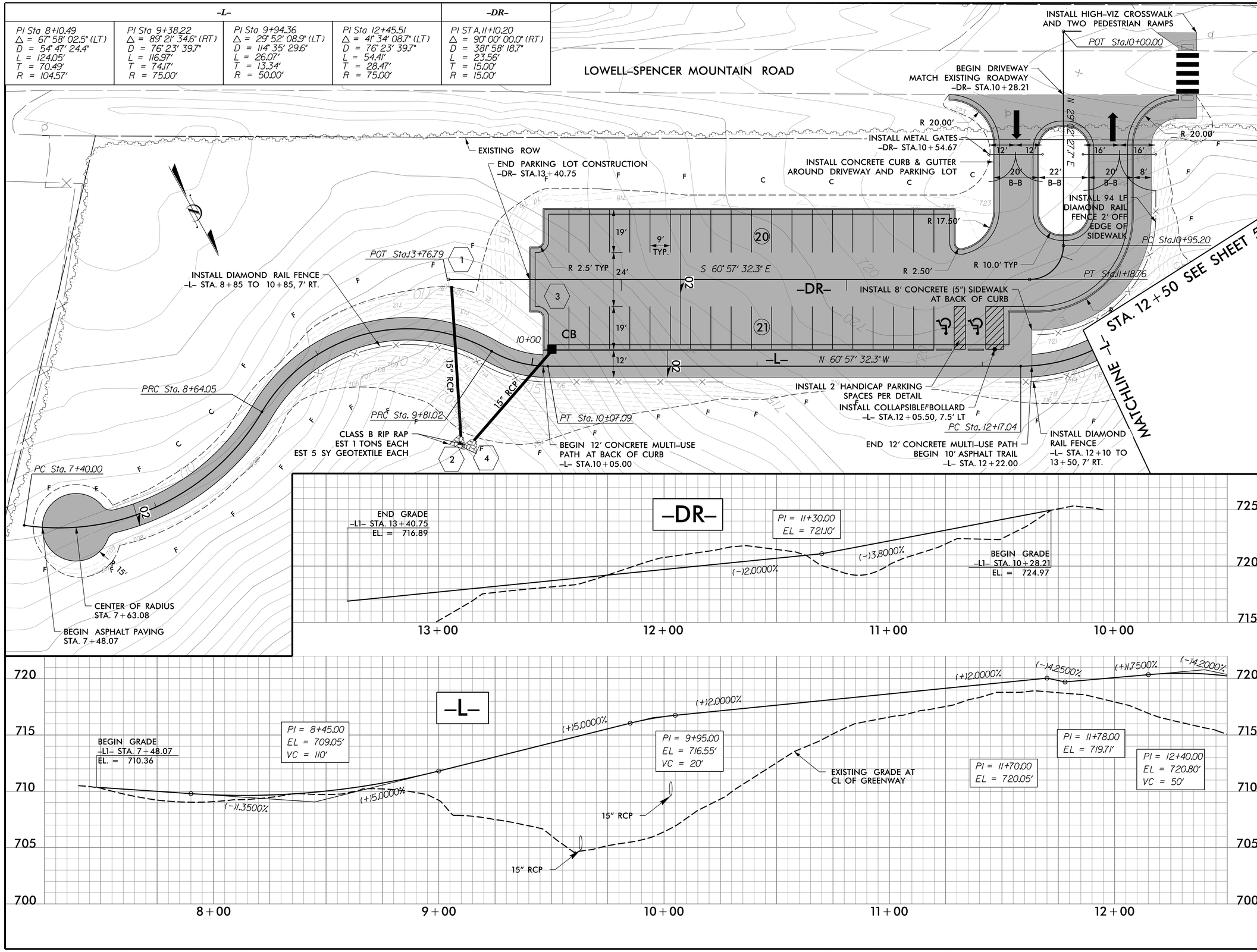
REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

3

-L-				-DR-
PI Sta 8+10.49 Δ = 67° 58' 02.5" (LT) D = 54° 47' 24.4" L = 124.05' T = 70.49' R = 104.57'	PI Sta 9+38.22 Δ = 89° 21' 34.6" (RT) D = 76° 23' 39.7" L = 116.97' T = 74.17' R = 75.00'	PI Sta 9+94.36 Δ = 29° 52' 08.9" (LT) D = 114° 35' 29.6" L = 26.07' T = 13.34' R = 50.00'	PI Sta 12+45.51 Δ = 41° 34' 08.7" (LT) D = 76° 23' 39.7" L = 54.41' T = 28.47' R = 75.00'	PI ST A.11+10.20 Δ = 90° 00' 00.0" (RT) D = 381° 58' 18.7" L = 23.56' T = 15.00' R = 15.00'



GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 040815 ENGINEER MATTHEW C. LIDDY 5/22/15

STEWART

Firm License No. C-1053
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT 2015 MAY 21

DATE: MAY 22, 2015

REVISIONS:

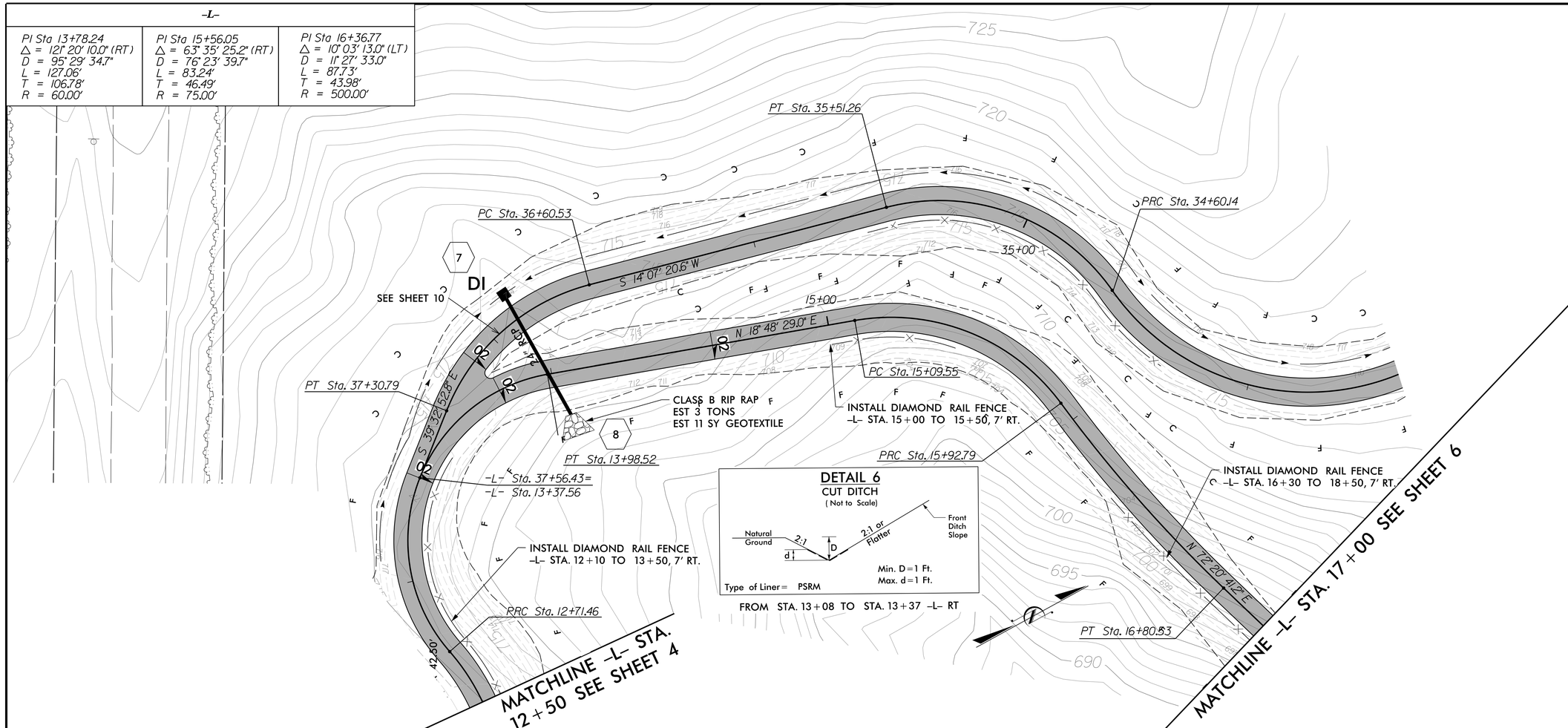
NO.	DATE

PROJECT NO.: A15001.00

SCALE: 1"=20'

4

-L-		
PI Sta 13+78.24 △ = 121° 20' 10.0" (RT) D = 95° 29' 34.7" L = 127.06' T = 106.78' R = 60.00'	PI Sta 15+56.05 △ = 63° 35' 25.2" (RT) D = 76° 23' 39.7" L = 83.24' T = 46.49' R = 75.00'	PI Sta 16+36.77 △ = 10° 03' 13.0" (LT) D = 11° 27' 33.0" L = 87.73' T = 43.98' R = 500.00'



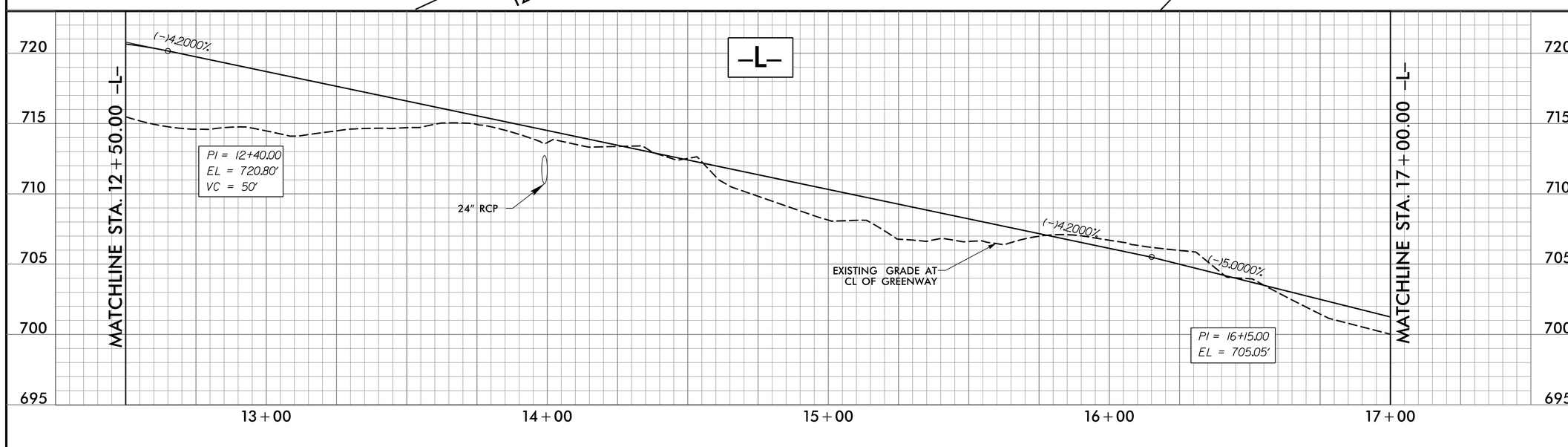
DETAIL 6
CUT DITCH
(Not to Scale)

Natural Ground — 2:1 — d — D — 2:1 or Flatter — Front Ditch Slope

Min. D = 1 Ft.
Max. d = 1 Ft.

Type of Liner = PSRM

FROM STA. 13+08 TO STA. 13+37 -L- RT



GEORGE POSTON PARK
GREENWAY

GREENWAY ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 40815 ENGINEER MATTHEW C. LUDWIG
5/22/15

STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

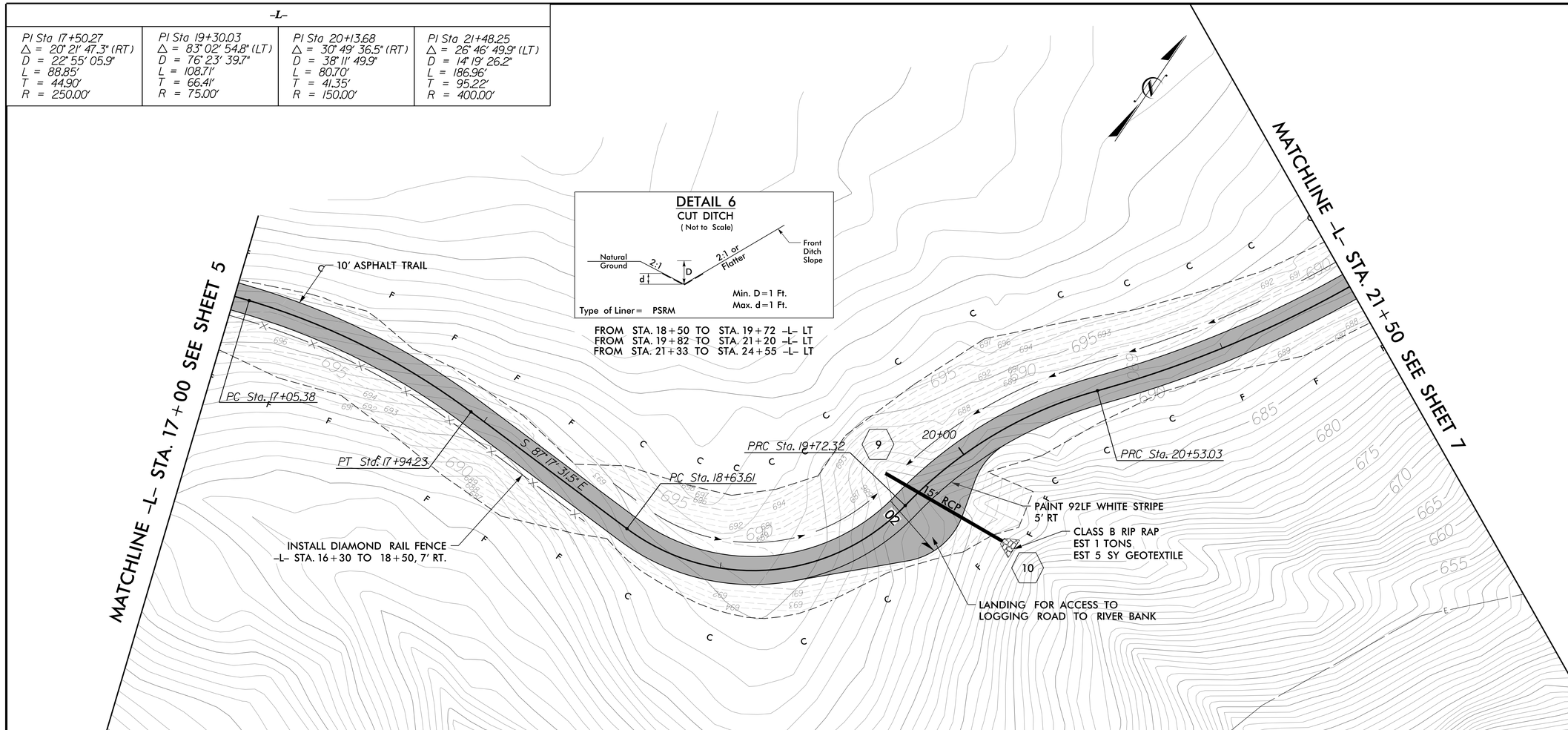
DATE: MAY 22, 2015
REVISIONS:

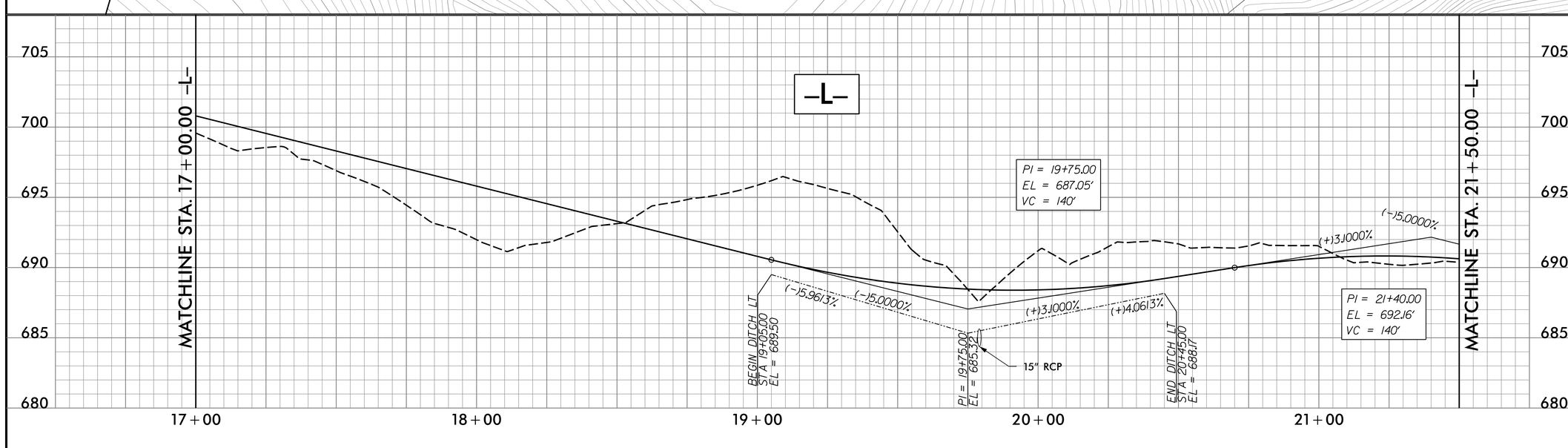
NO.	DATE

PROJECT NO.:
A15001.00
SCALE: 1"=20'

5

–L–			
PI Sta 17+50.27 Δ = 20° 21' 47.3" (RT) D = 22° 55' 05.9" L = 88.85' T = 44.90' R = 250.00'	PI Sta 19+30.03 Δ = 83° 02' 54.8" (LT) D = 76° 23' 39.7" L = 108.71' T = 66.41' R = 75.00'	PI Sta 20+13.68 Δ = 30° 49' 36.5" (RT) D = 38° 11' 49.9" L = 80.70' T = 41.35' R = 150.00'	PI Sta 21+48.25 Δ = 26° 46' 49.9" (LT) D = 14° 19' 26.2" L = 186.96' T = 95.22' R = 400.00'





GASTON COUNTY SEAL N. C. 1846

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40815 ENGINEER MATTHEW C. LUDWIG
5/21/15

STEWART
Firm License No. C-1059
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
P: 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

DATE: MAY 22, 2015

REVISIONS:

NO.	DATE

PROJECT NO.:
A15001.00

SCALE: 1"=20'

6

-L-

PI Sta 25+28.25
△ = 134° 47' 48.9" (LT)
D = 47° 44' 47.3"
L = 282.32'
T = 288.26'
R = 120.00'

MATCHLINE -L- STA. 21+50 SEE SHEET 6

MATCHLINE -L- STA.26+00 SEE SHEET 8

10' ASPHALT TRAIL

INSTALL DIAMOND RAIL FENCE
-L- STA. 25+20 TO 26+00, 7' RT.

18" RCP

CLASS B RIP RAP
EST 2 TONS
EST 7 SY GEOTEXTILE

CLASS B RIP RAP
EST 1 TONS
EST 5 SY GEOTEXTILE

PT Sta. 25+22.31

15" RCP

25+00

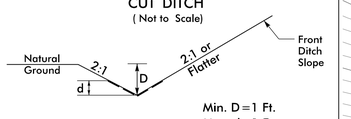
PCC Sta. 22+39.99

DI

D2

INSTALL DIAMOND RAIL FENCE
-L- STA. 22+60 TO 23+75, 7' RT.

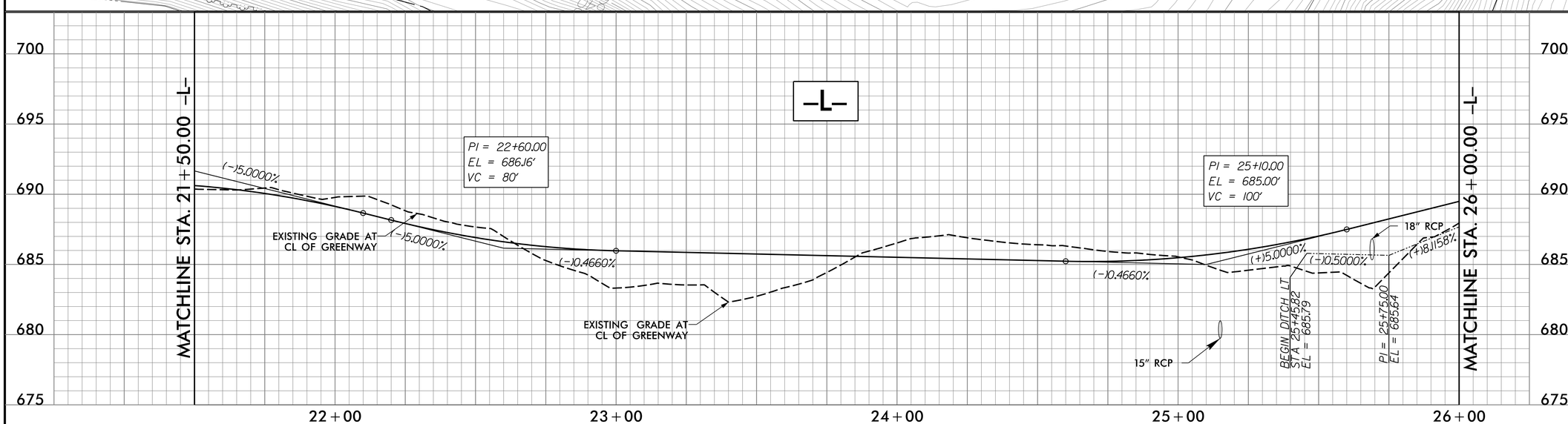
DETAIL 6
CUT DITCH
(Not to Scale)



Min. D=1 Ft.
Max. d=1 Ft.

Type of Liner= PSRM

FROM STA. 21+33 TO STA. 24+55 -L- LT
FROM STA. 24+60 TO STA. 25+44 -L- LT
FROM STA. 25+50 TO STA. 25+72 -L- LT
FROM STA. 25+75 TO STA. 28+62 -L- LT



GEORGE POSTON PARK
GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG
5/22/15

STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

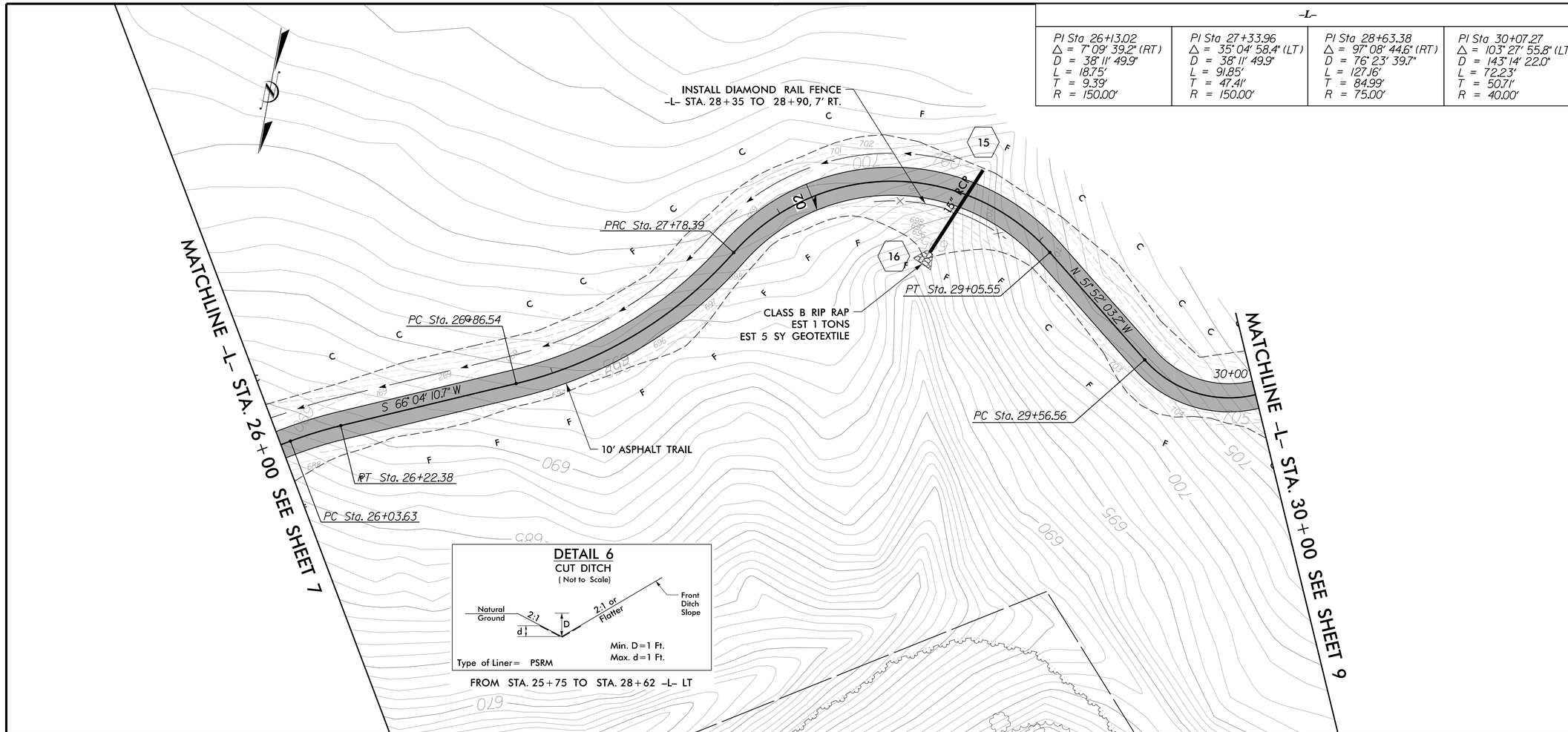
DATE: MAY 22, 2015
REVISIONS:

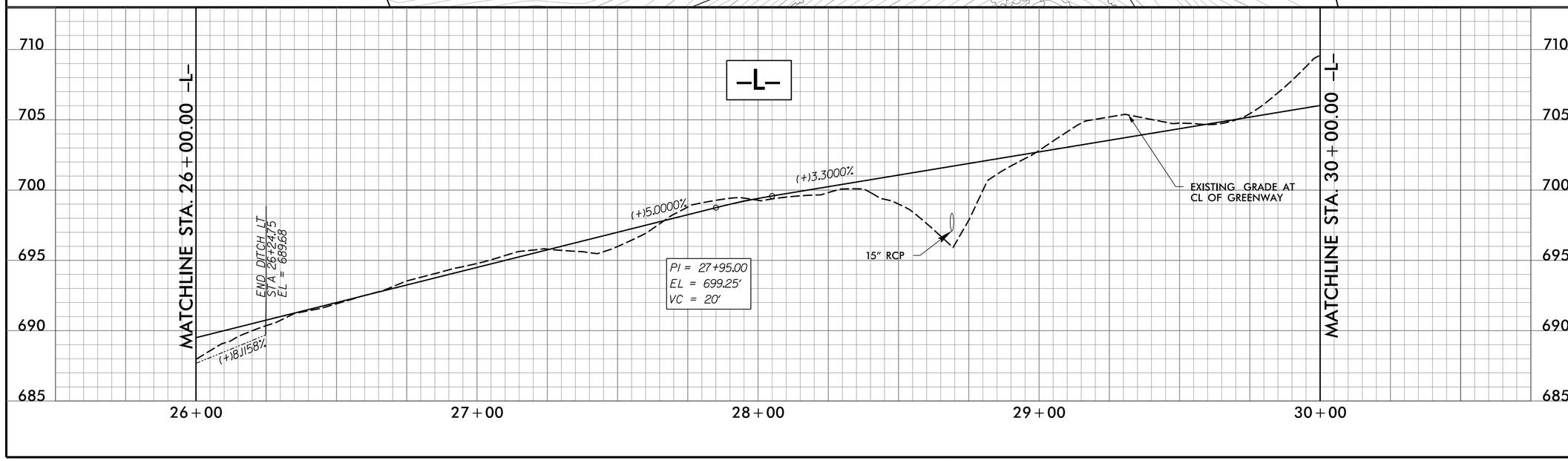
NO.	DATE

PROJECT NO.:
A15001.00

SCALE: 1"=20'

–L–			
PI Sta 26+13.02 Δ = 7° 09' 39.2" (RT) D = 38° 11' 49.9" L = 18.75' T = 9.39' R = 150.00'	PI Sta 27+33.96 Δ = 35° 04' 58.4" (LT) D = 38° 11' 49.9" L = 91.85' T = 47.41' R = 150.00'	PI Sta 28+63.38 Δ = 97° 08' 44.6" (RT) D = 76° 23' 39.7" L = 127.16' T = 84.99' R = 75.00'	PI Sta 30+07.27 Δ = 103° 27' 55.8" (LT) D = 143° 14' 22.0" L = 72.23' T = 50.71' R = 40.00'





GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG
5/22/15

STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.390.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033770 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

DATE: MAY 22, 2015

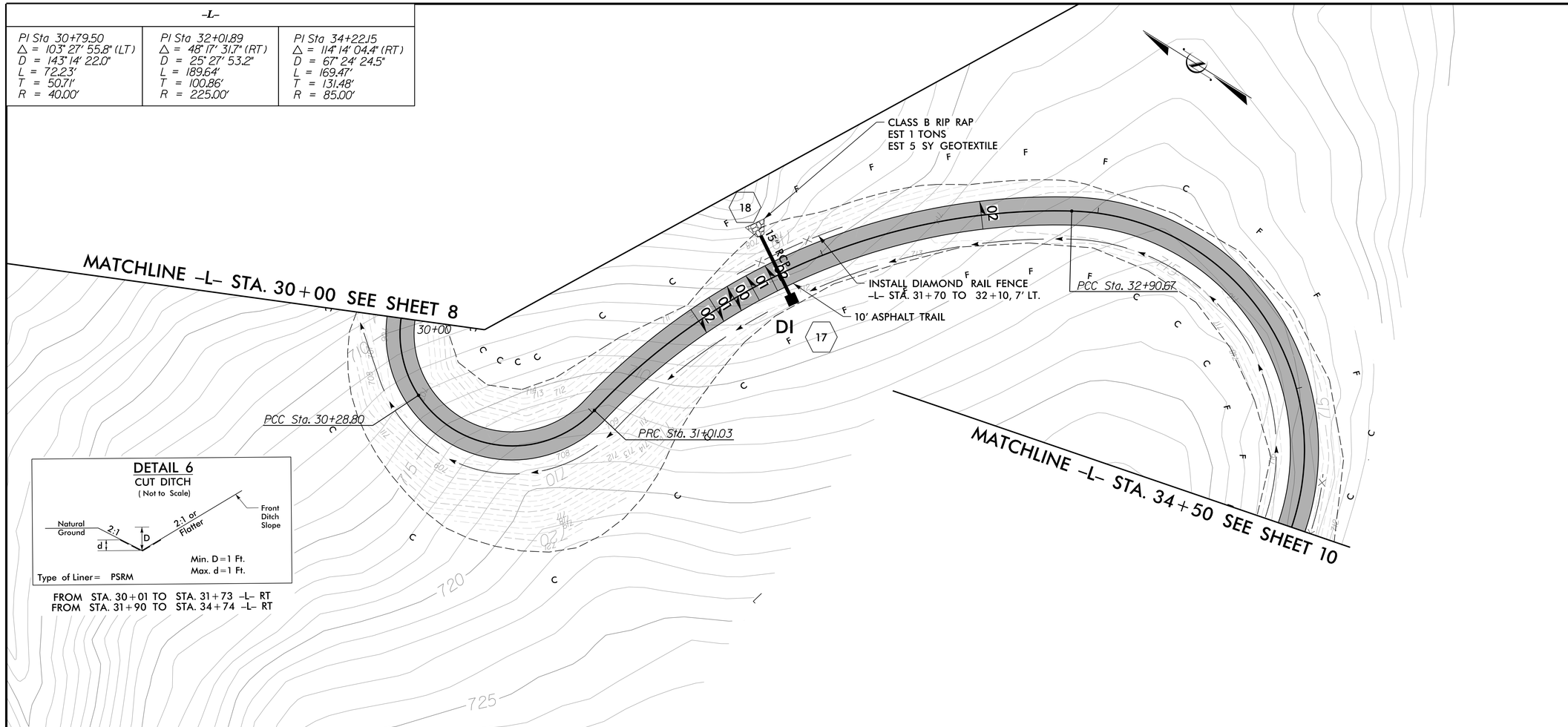
REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

SCALE: 1"=20'

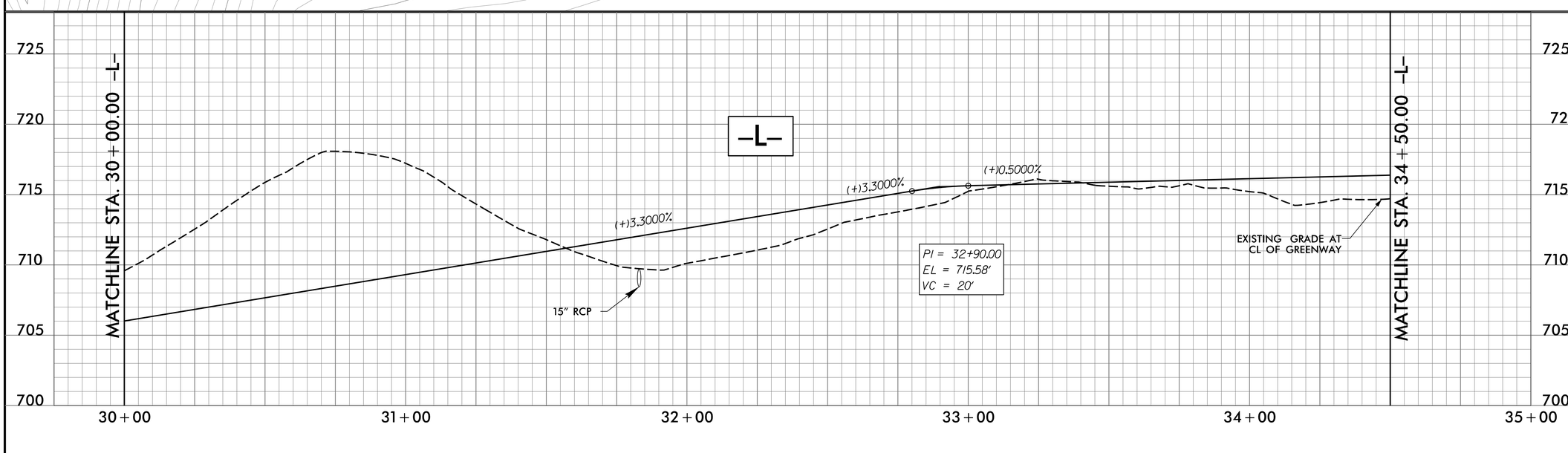
-L-		
PI Sta 30+79.50 △ = 103° 27' 55.8" (LT) D = 143° 14' 22.0" L = 72.23' T = 50.71' R = 40.00'	PI Sta 32+01.89 △ = 48° 17' 31.7" (RT) D = 25° 27' 53.2" L = 189.64' T = 100.86' R = 225.00'	PI Sta 34+22.15 △ = 114° 14' 04.4" (RT) D = 67° 24' 24.5" L = 169.47' T = 131.48' R = 85.00'



DETAIL 6
CUT DITCH
(Not to Scale)

Type of Liner= PSRM

FROM STA. 30+01 TO STA. 31+73 -L- RT
FROM STA. 31+90 TO STA. 34+74 -L- RT



GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG
5/21/15

STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033779 ENGINEER JOSEPH W. PUCKETT
2015 MAY21

DATE: MAY 22, 2015

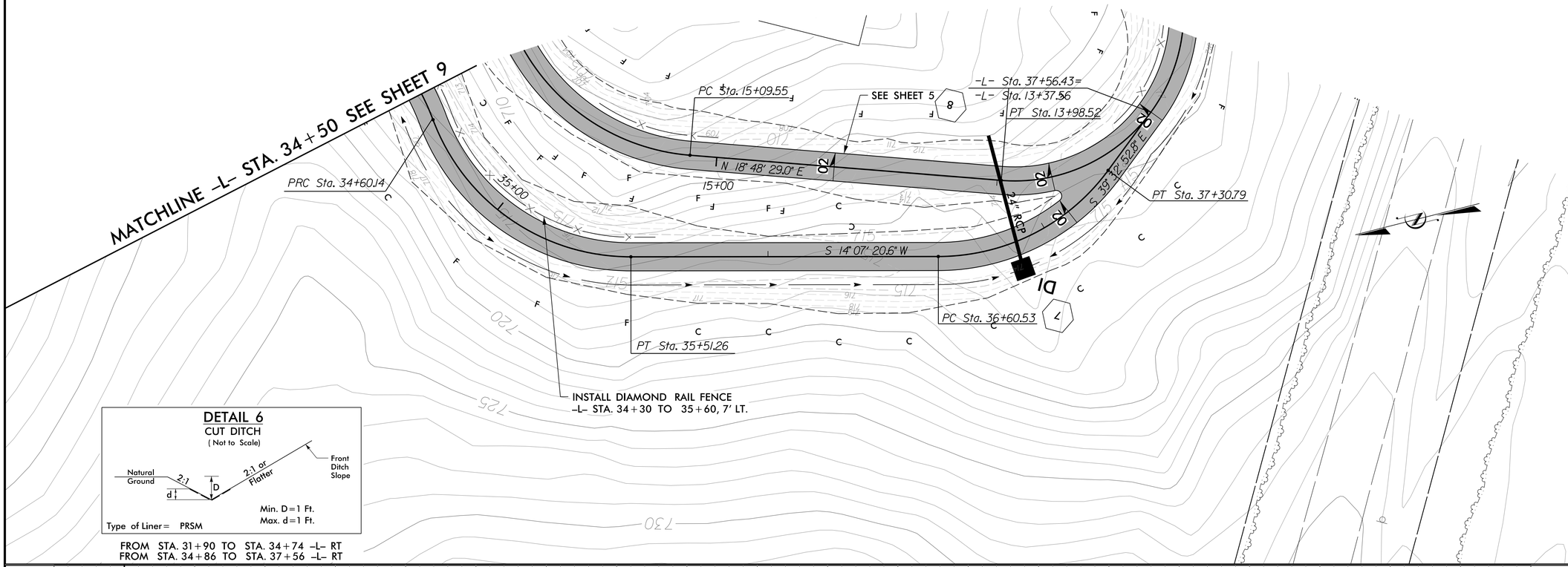
REVISIONS:

NO.	DATE

PROJECT NO.:
A15001.00

SCALE: 1"=20'

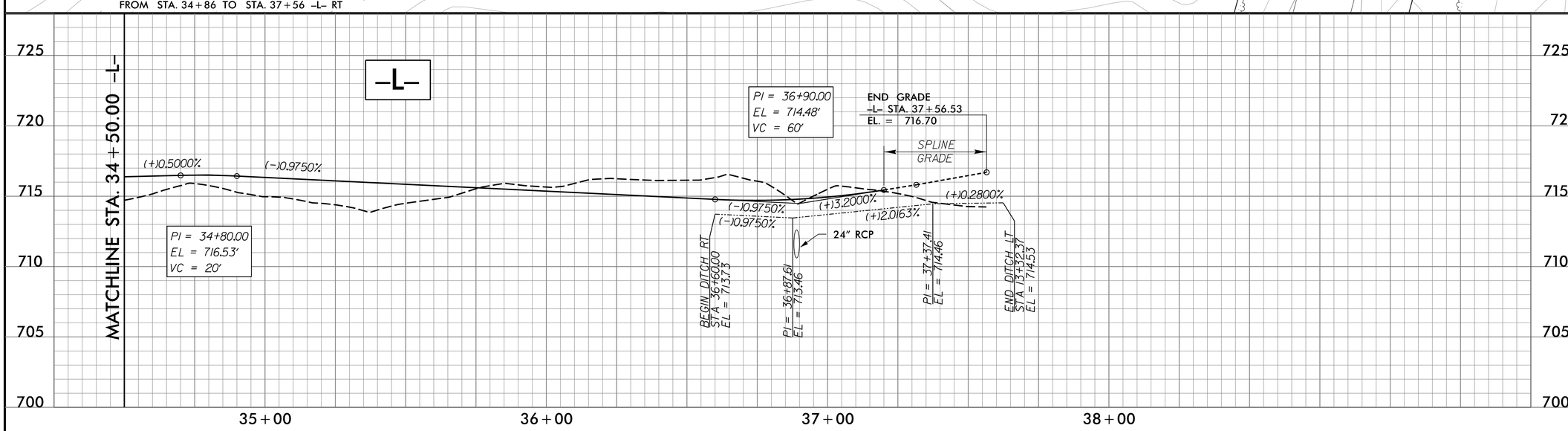
-L-	
PI Sta 35+12.27 △ = 69° 36' 20.7" (LT) D = 76° 23' 39.7" L = 91.11' T = 52.13' R = 75.00'	PI Sta 36+98.47 △ = 53° 40' 13.4" (LT) D = 76° 23' 39.7" L = 70.25' T = 37.94' R = 75.00'



DETAIL 6
CUT DITCH
(Not to Scale)

Type of Liner= PRSM

FROM STA. 31+90 TO STA. 34+74 -L- RT
FROM STA. 34+86 TO STA. 37+56 -L- RT



GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 40615 MATTHEW C. LUDWIG
5/22/15

STEWART
Firm License No. C-0151
423 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 033779 JOSEPH W. PUCHETT
2015 MAY 21

DATE: MAY 22, 2015

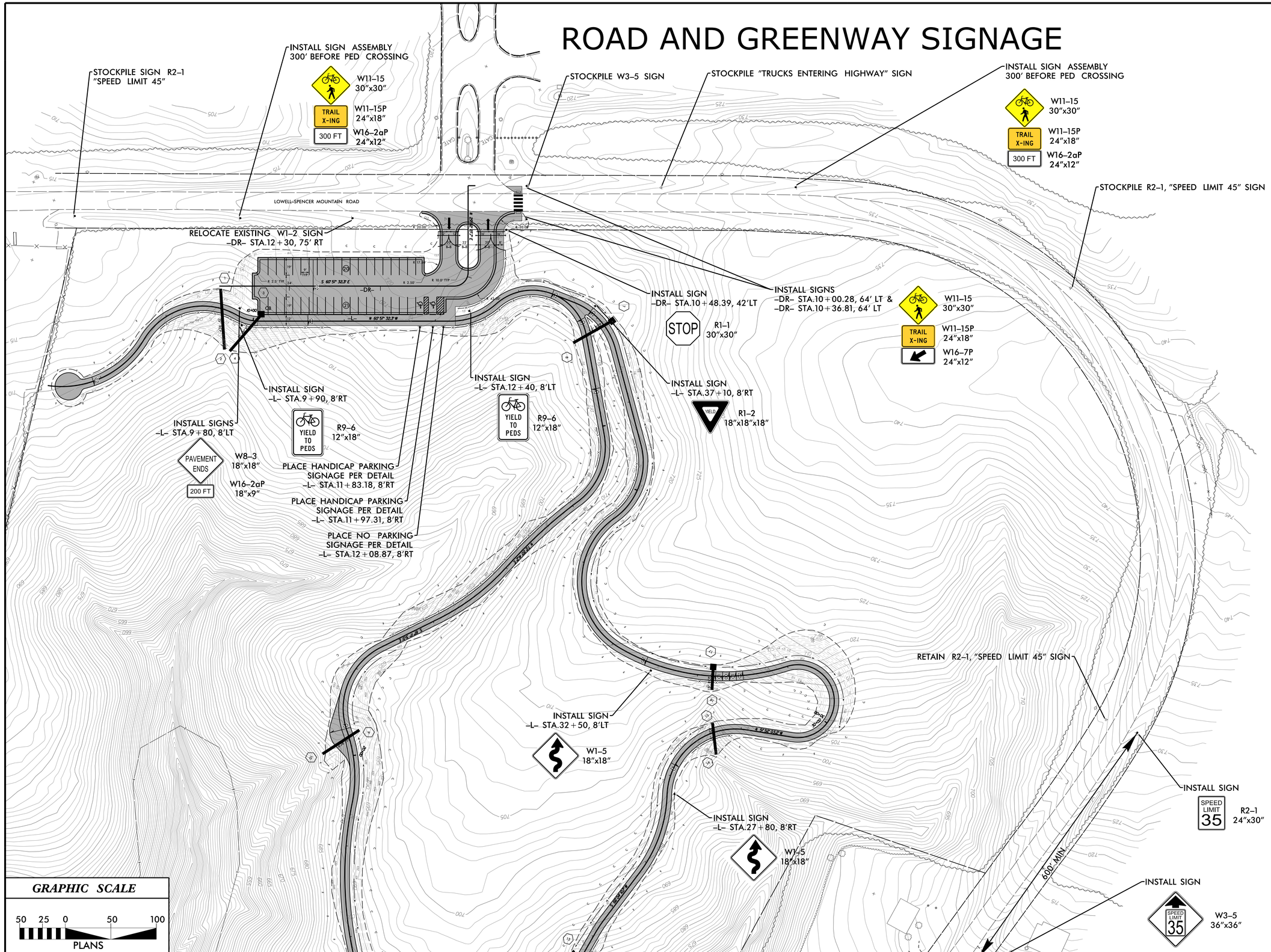
REVISIONS:

NO.	DATE

PROJECT NO.:
A15001.00

SCALE: 1"=20'

ROAD AND GREENWAY SIGNAGE



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GREENWAY ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 40615 ENGINEER MATTHEW C. LUDWIG

5/21/15

Firm License No. C-1051
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T 919.380.8750
www.stewartinc.com

STEWART

DATE: MAY 22, 2015

REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

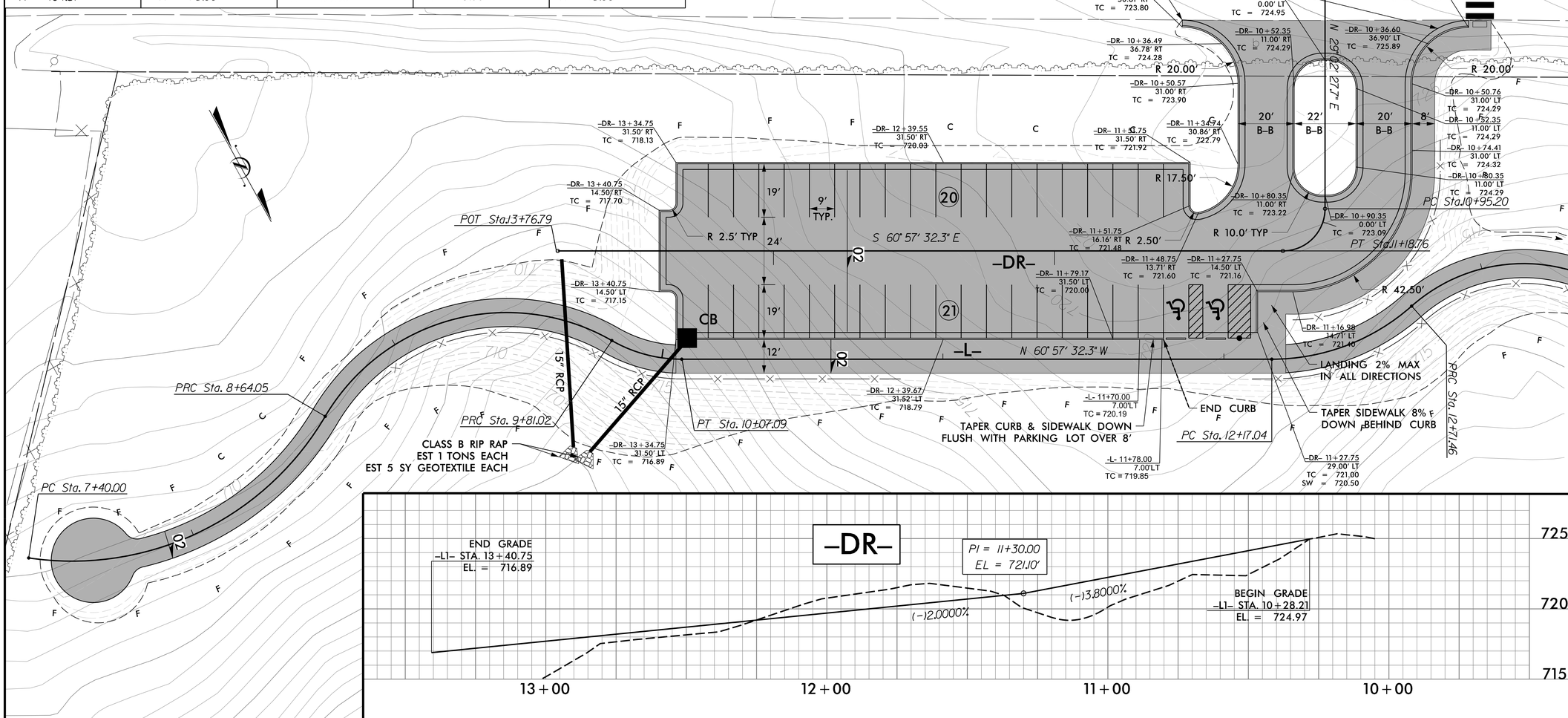
SCALE: 1"=50'

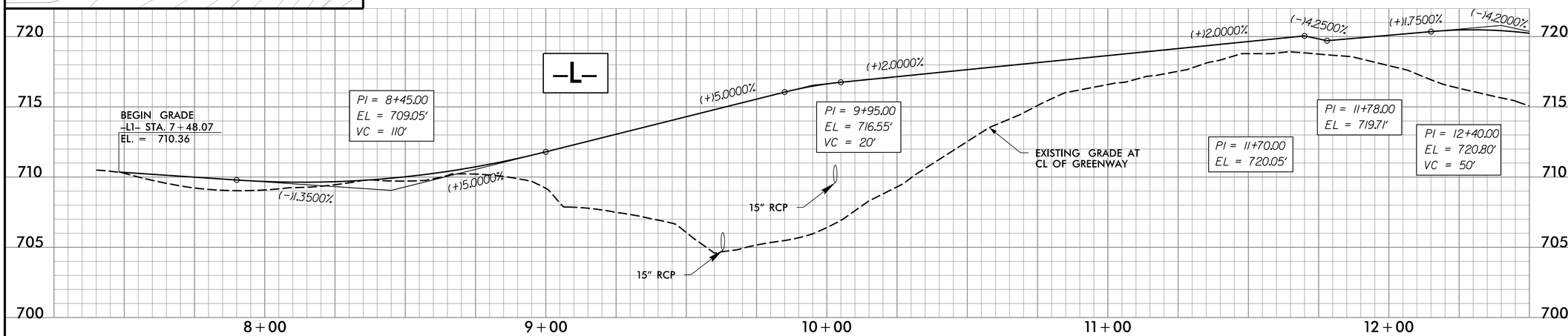
11

PARKING LOT GRADING PLAN

LOWELL–SPENCER MOUNTAIN ROAD

–L–				–DR–
PI Sta 8+10.49 △ = 67° 58' 02.5" (LT) D = 54° 47' 24.4" L = 124.05' T = 70.49' R = 104.57'	PI Sta 9+38.22 △ = 89° 21' 34.6" (RT) D = 76° 23' 39.7" L = 116.97' T = 74.17' R = 75.00'	PI Sta 9+94.36 △ = 29° 52' 08.9" (LT) D = 114° 35' 29.6" L = 26.07' T = 13.34' R = 50.00'	PI Sta 12+45.51 △ = 41° 34' 08.7" (LT) D = 76° 23' 39.7" L = 54.41' T = 28.47' R = 75.00'	PI ST A.11+10.20 △ = 90° 00' 00.0" (RT) D = 381° 58' 18.7" L = 23.56' T = 15.00' R = 15.00'





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Firm License No. C-0151
423 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com
STEWART

DATE: MAY 22, 2015

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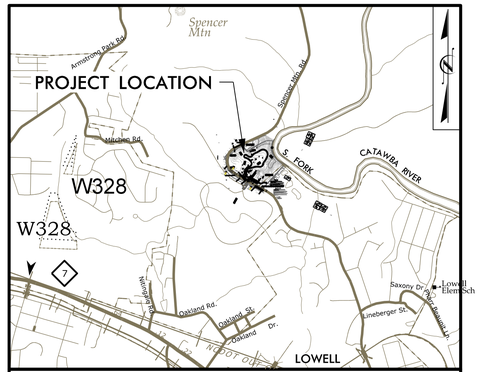
PLAN FOR PROPOSED EROSION CONTROL

GASTON COUNTY NORTH CAROLINA

GEORGE POSTON PARK GREENWAY

LOCATION: ALONG SPENCER MOUNTAIN RD. IN GEORGE POSTON PARK



VICINITY MAP

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW / CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	
	Tree Protection Fence	TPF
	Limits of Disturbance	LD

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"– Roadway Design Unit – N. C. Department of Transportation – Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1605.01	Temporary Silt Fence	1632.01	Rock Inlet Sediment Trap Type A
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1631.01	Matting Installation	1635.01	Rock Pipe Inlet Sediment Trap Type A

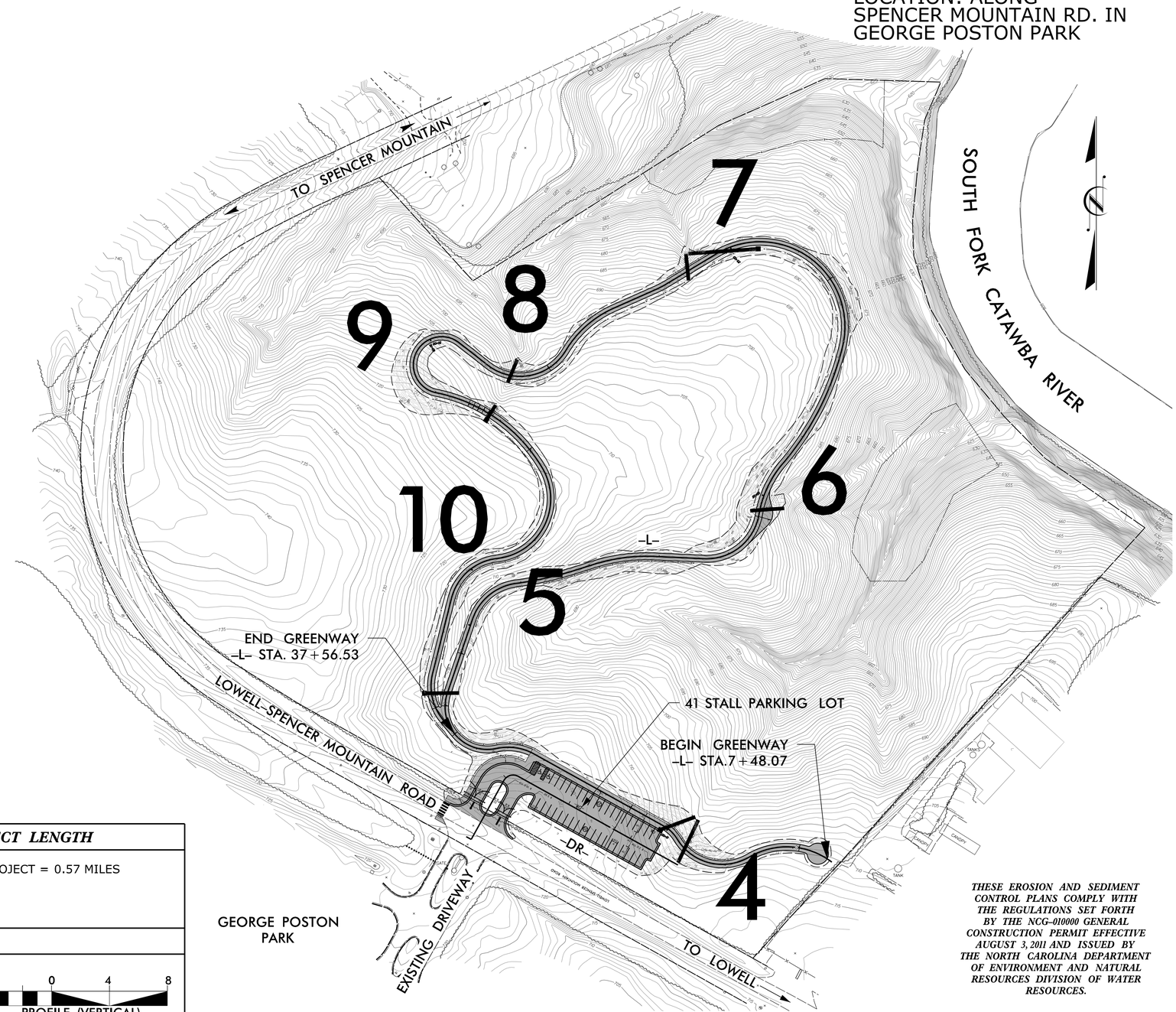
DESIGN DATA	*PROJECT LENGTH*
DESIGN SPEED = 20 MPH	LENGTH OF PROJECT = 0.57 MILES
LEAN ANGLE = 15 DEGREES	
FUNC. CLASSIFICATION = GREENWAY	

GRAPHIC SCALES

20 10 0 20 40 — PLANS

20 10 0 20 40 — PROFILE (HORIZONTAL)

4 0 4 8 — PROFILE (VERTICAL)



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

Firm License No. C-1059
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.360.8750
www.stewartinc.com
STEWART

DATE: MAY 22, 2015

REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

EC-1

NOTES

EROSION CONTROL NOTES

1 TOTAL ACREAGE OF DISTURBED AREA IS 3.35 ACRES, ACREAGE OF PERMANENT SEEDING IS 2.01. ACREAGE OF TEMPORARY SEEDING IS 3.
SEE CONTRACT DOCUMENTS FOR SEEDING SPECIFICATIONS.

2 ON-SITE BURIAL PITS ARE NOT ACCEPTABLE.

3 ANY GRADING BEYOND THE LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE STATE/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO FINE.

4 STABILIZATION IS THE BEST FORM OF EROSION CONTROL. TEMPORARY SEEDING IS NECESSARY TO ACHIEVE EROSION CONTROL IN LARGE DENUDED AREAS AND ESPECIALLY WHEN SPECIFICALLY REQUIRED AS PART OF THE CONSTRUCTION SEQUENCE SHOWN ON THE PLAN.

5 ALL GRADED SLOPES MUST BE SEEDED AND MULCHED WITHIN THE TIMEFRAME DEFINED BY THE PROJECT STABILIZATION REQUIREMENTS

6 DURING UNSUITABLE GROWING SEASONS, MULCH WILL BE USED AS A TEMPORARY COVER ON SLOPES THAT ARE 4:1 OR STEEPER, MULCH WILL BE ANCHORED.

7 ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A LOCAL REPRESENTATIVE OF THE STATE/COUNTY STORM WATER MANAGEMENT SECTION AND THE LOCAL INSPECTIONS DEPARTMENT.

8 CONSTRUCTION, MAINTENANCE, REMOVAL OF ALL EROSION CONTROL DEVICES, ALL FINES, LEGAL FEES AND RESTORATION COSTS ARE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.

9 A COPY OF THE APPROVED PLANS MUST BE ON FILE AT THE JOB SITE.

10 CONTRACTOR SHALL OBTAIN A COPY OF EACH SUBSURFACE INVESTIGATION REPORT AND FOLLOW THE RECOMMENDATIONS OR AS DIRECTED FOR GRADING, COMPLETION AND PAVEMENT DESIGN, ETC.

11 STABILIZATION FOR THIS PROJECT SHALL COMPLY WITH THE TIME FRAME GUIDELINES AS SPECIFIED BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

12 ALL LAND DISTURBING ACTIVITIES SHALL BE IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS AND DETAILS.

13 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROL DEVICES SHOWN ON THE APPROVED PLAN.

14 SLOPES SHALL BE NO STEEPER THAN 2:1, PREFERABLE FLATTER, FOR VEGETATIVE COVER.

15 THE CONTRACTOR SHALL FAITHFULLY MAINTAIN ALL SEDIMENTATION CONTROL DEVICES AND TAKE ANY PRECAUTIONARY MEASURES TO ENSURE THAT SILT DOES NOT ENTER ANY NATURAL STREAM CHANNEL LOCATED WITHIN THE SITE (IF ANY). DRAINAGE CHANNELS MUST BE CLEANED OF SEDIMENT AND STABILIZED BEFORE THE PROJECT IS RELEASED.

16 CONTRACTOR SHALL CONSTRUCT DIVERSION DITCHES AS NECESSARY TO ENSURE THAT ALL SEDIMENT IS DIRECTED INTO EROSION CONTROL MEASURES.

17 CUT AND FILL SLOPES SHALL BE STABILIZED WITHIN 14 DAYS OF ANY PHASE OF GRADING.

18 ALL STREETS ADJACENT TO THIS PROJECT MUST REMAIN CLEAN AT ALL TIMES OR A WASH STATION MAY BE REQUIRED.

19 TOPSOIL STOCKPILING SHALL OCCUR AT A SITE APPROVED BY GASTON COUNTY OR WASTED OFFSITE.

20 TO MINIMIZE DAMAGE TO EXISTING TREES, THE CONTRACTOR SHALL CUT MINIMUM 2' TRENCHES ALONG THE LIMITS OF DISTURBANCE, SO AS TO CUT, RATHER THAN TEAR THE ROOTS.

21 THE TREE PROTECTION FENCE SHALL BE MAINTAINED ON THE SITE UNTIL ALL SITE WORK IS COMPLETED AND THE FINAL SITE INSPECTION IS SCHEDULE.

MAINTENANCE REQUIREMENTS

1. EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL OR AT A MINIMUM ONCE A WEEK. IF REPAIRS ARE NEEDED THEY WILL BE DONE SO IMMEDIATELY.

2. SEDIMENT WILL BE REMOVED FROM BEHIND SILT FENCING WHEN IT BECOMES 0.5 FT DEEP OR GRATER. SILT FENCING WILL BE REPLACED AS NECESSARY TO MAINTAIN AN ADEQUATE BARRIER.

3. EROSION AND SEDIMENT CONTROL PRACTICES INCLUDING: SILT CHECKS, COIR FIBER WATTLES (WITH AND WITHOUT PAM), AND ROCK INLET SEDIMENT TRAPS WILL BE CLEANED OUT AS NECESSARY.

4. ALL SEEDED AREAS WILL BE FERTILIZED, RESEEDED AS NECESSARY, AND MULCHED ACCORDING TO THE SPECIAL PROVISIONS IN ORDER TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

SEQUENCE OF CONSTRUCTION ACTIVITIES

1 A PRECONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. A MANDATORY PRE-CONSTRUCTION MEETING WILL ALSO BE REQUIRED WITH THE LAND QUALITY SECTION OF NCDENR BEFORE LAND DISTURBING ACTIVITIES BEGIN. CALL 704-663-1699 TO SCHEDULE A MEETING.

2 INSTALL CONSTRUCTION ENTRANCES AS NEEDED AT LOCATIONS SHOWN ON PLANS. STAGING AREAS WILL NEED TO BE DISCUSSED WITH GASTON COUNTY PRIOR TO THE START OF CONSTRUCTION.

3 DETERMINE AND MARK LIMITS OF DISTURBANCE.

4 INSTALL TREE PROTECTION FENCING, WATTLES, SILT FENCE, SILT FENCE OUTLETS. SILT FENCE OUTLETS SHALL BE INSTALLED PER FIELD LOCATED LOW POINTS AND AS SHOWN ON APPROVED PLANS. HAVE TREE PROTECTION FENCING INSPECTED BY GASTON COUNTY.

5 CLEAR ONLY AS NECESSARY TO INSTALL THESE DEVICES. CALL FOR ON SITE INSPECTION BY ENVIRONMENTAL INSPECTOR TO OBTAIN APPROVAL .TAKE PRECAUTION TO AVOID CAUSING ROOT DAMAGE TO TREES JUST OUTSIDE OF THE CLEARING LIMITS. IF ROOT DAMAGE TO A TREE OUTSIDE OF THE CLEARING LIMITS IS UNAVOIDABLE, CONSULT WITH THE ENGINEER TO DETERMINE THE NEED TO REMOVE IT.

6 IF TOPSOIL IS ALLOWED TO BE STORED ON SITE, STORAGE AREAS SHALL BE CONTAINED WITHIN THE PROPOSED LIMITS OF DISTURBANCE. TOPSOIL STORAGE AREAS WILL NEED TO BE DISCUSSED WITH GASTON COUNTY PRIOR TO THE START OF CONSTRUCTION

7 BEGIN CLEARING AND GRUBBING ACTIVITIES. INSTALL AND MAINTAIN DEVICES AS NEEDED.

8 ROUGH GRADE SITE AND INSURE THAT SEDIMENT LADEN WATER IS DIRECTED TO SEDIMENT CONTROL DEVICES.

9 INSPECT AND MAINTAIN ALL EROSION CONTROL MEASURES EVERY 7 DAYS AND AFTER EACH SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) AND DOCUMENT WITH INSPECTION REPORTS.

10 AS AREAS ARE BOUGHT UP TO FINISH GRADE SPREAD TOPSOIL OVER ALL AREAS TO RECEIVE TURF OR LANDSCAPING. SEED ALL AREAS WITHIN NCDENR STABILIZATION TIMEFRAMES. PERMANENT GRASS SHALL BE INSTALLED FOR ALL AREAS AT FINAL GRADE AN IN SEASON. FERTILIZE, WATER AND RESEED AS REQUIRED TO ESTABLISH AND MAINTAIN A VIGOROUS STAND OF GRASS.

11 AFTER COMPLETION OF CONSTRUCTION AND THE SITE IS STABILIZED, REMOVE ALL ACCUMULATED SEDIMENT FROM SEDIMENT TRAPPING MEASURES AND SPREAD EVENLY ACROSS THE SITE. ALL APPLICABLE E&S CONTROL MEASURES ARE TO REMAIN AND BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED. USE NPDES TABLE FOR ESTABLISHMENT OF VEGETATION.

12 WHEN VEGETATION HAS BECOME ESTABLISHED, REMOVE TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES. COORDINATE WITH GASTON COUNTY TO SCHEDULE A STORMWATER FINAL INSPECTION.

13 CONTRACTOR IS REQUIRED TO MAINTAIN A WEEKLY WRITTEN REPORT OF SEDIMENT AND EROSION CONTROL DEVICES.

14 THE AMOUNT OF DISTURBED AREA REQUIRED TO BE TEMPORARILY STABILIZED SHALL BE THE LESSER OF 2500 LINEAR FEET OF DISTURBED AREA OR THE TIMEFRAMES DETAILED IN THE NCDENR NEW STABILIZATION TIMEFRAMES (EFFECTIVE AUG. 3, 2011).

EROSION PROVISION

1 THE CONTRACTOR SHALL BE REQUIRED TO TAKE EVERY REASONABLE PRECAUTION THROUGHOUT THE CONTRACT TO PREVENT THE EROSION OF SOIL AND THE SEDIMENTATION OF STREAMS, LAKES, RESERVOIRS, OTHER WATER IMPOUNDMENTS, GROUND SURFACES, OR OTHER PROPERTY AS REQUIRED BY THE SEDIMENT POLLUTION CONTROL ACT OF 1973 AND THE 1974 AMENDMENTS TO THE ACT.

2 FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH THE PROVISIONS OF THE EROSION CONTROL PLAN OR TO PERFORM EROSION CONTROL WORK AS DIRECTED WILL RESULT IN THE ENGINEER, INSPECTOR OR NCDENR NOTIFYING THE CONTRACTOR TO COMPLY WITH THESE PROVISIONS. IN THE EVENT THAT THE CONTRACTOR FAILS TO BEGIN SUCH REMEDIAL ACTION OR FAILS TO BEGIN EROSION CONTROL WORK WITHIN 24 HOURS AFTER RECEIPT OF SUCH NOTICE WITH ADEQUATE FORCES AND EQUIPMENT, THE ENGINEER MAY PROCEED TO HAVE THE WORK PERFORMED WITH OTHER FORCES. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR WORK PERFORMED BY OTHERS. ANY COSTS INCURRED BY THE CITY DUE TO THE FAILURE OF THE CONTRACTOR TO COMPLY WITH THESE PROVISIONS WILL BE BORNE BY THE CONTRACTOR. SUCH COSTS WILL INCLUDE CIVIL PENALTIES ASSESSED FOR SOIL EROSION AND SEDIMENTATION CONTROL VIOLATIONS.

3 ANY COSTS INCURRED BY THE COUNTY FOR WORK PERFORMED BY OTHERS AS PROVIDED ABOVE IN THE EXCESS OF THE COSTS THAT WOULD HAVE BEEN INCURRED HAD THE WORK BEEN PERFORMED BY THE CONTRACTOR WILL BE DEDUCTED FROM RETAINAGE OR OTHER MONIES DUE THE CONTRACTOR OR HIS CONTRACT.

PROTECTION

1 PROTECT SEEDED AREAS FROM DAMAGE BY BARRICADES, SIGNS, AND OTHER APPROPRIATE MEANS. MAINTAIN AND PROTECT SLOPES FROM WEATHER-DAMAGE.

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NOTES

PROJECT DESCRIPTION

THE PROJECT SITE IS LOCATED ALONG SPENCER MOUNTAIN ROAD IN GEORGE POSTON PARK. THE PROPOSED PROJECT INCLUDES THE CONSTRUCTION OF APPROXIMATELY 0.57 MILES OF NEW GREENWAY AND PARKING LOT IN THE PROPERTY ADJACENT TO THE SOUTH FORK CATAWBA RIVER. THE LIMITS OF DISTURBANCE WERE CALCULATED BASED ON CLEARING METHOD TWO AT APPROXIMATELY 3.35 ACRES FOR THIS SITE. ALL DISTURBED AREAS WILL BE STABILIZED WITH VEGETATION BY SEEDING AND MULCHING.

THE PROJECT DESIGN SHALL COMPLY WITH NORTH CAROLINA LAND QUALITY GUIDELINES AND PROCEDURES AND ALL APPLICABLE FEDERAL, STATE, AND TOWN REQUIREMENTS AND STANDARDS; IDENTIFYING ARES WHERE RIGHT-OF-WAY OR EASEMENT ACQUISITION MAY BE NECESSARY TO ACCOMMODATE THE ROADWAY WIDENING; AND PROVIDING PLANS, SPECIFICATIONS AND ESTIMATES. THE PLANS SHALL BE COMPLETED TO SHOW THE DESIGN, SITE PLANS, LANDSCAPING, DRAINAGE, EASEMENTS AND UTILITY CONFLICTS.

TEMPORARY SEEDING SCHEDULE

FERTILIZER SHALL BE THE SAME ANALYSIS AS SPECIFIED FOR PERMANENT SEEDING AND APPLIED AT THE RATE OF 400 POUNDS AND SEEDED AT THE RATE OF 50 POUNDS PER ACRE. SWEET SUDAN GRASS, GERMAN MILLET, OR BROWNTOP MILLET SHALL BE USED IN SUMMER MONTHS AND RYE GRAIN DURING THE REMAINDER OF THE YEAR. THE ENGINEER WILL DETERMINE THE EXACT DATES FOR USING EACH KIND OF SEED.

ANNOUNCEMENT OF COMBINED SELF-MONITORING AND SELF-INSPECTION FORM

THE SEDIMENTATION POLLUTION CONTROL ACT WAS AMENDED IN 2006 TO REQUIRE THAT PERSONS RESPONSIBLE FOR LAND-DISTURBING ACTIVITIES INSPECT A PROJECT AFTER EACH PHASE OF THE PROJECT TO MAKE SURE THAT THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN IS BEING FOLLOWED.

RULES DETAILING THE DOCUMENTATION OF THESE INSPECTIONS BECAME EFFECTIVE OCTOBER 1, 2010.

TO SIMPLIFY DOCUMENTATION OF SELF-INSPECTION REPORTS AND NPDES SELF-MONITORING REPORTS, A COMBINED FORM IS NOW AVAILABLE. THE NEW FORM WAS DEVELOPED TO SATISFY THE REQUIREMENTS OF THE SEDIMENTATION POLLUTION CONTROL ACT AND THE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES, NCG 010000. THE COMBINED FORM SHOULD MAKE IT EASIER TO COMPLY WITH SELF-INSPECTION REQUIREMENTS.

THE COMBINED SELF-MONITORING FORM IS AVAILABLE AS A PDF AND WORD DOCUMENT FROM THE LAND QUALITY WEB SITE,

http://portal.ncdenr.org/web/lr/erosion

IF YOU HAVE QUESTIONS, PLEASE CONTACT THE LAND QUALITY SECTION AT A DENR REGIONAL OFFICE.

SEEDBED PREPARATIONS

1. CHISEL COMPACTED AREAS AND SPREAD TOPSOIL 3 INCHES DEEP OVER ADVERSE SOIL CONDITIONS, IF AVAILABLE.
2. RIP THE ENTIRE AREA TO 6 INCH DEPTH.
3. REMOVE ALL LOOSE ROCK, ROOTS AND OTHER OBJECTIONS LEAVING SURFACES REASONABLY SMOOTH AND UNIFORM.
4. APPLY AGRICULTURAL LIME, FERTILIZER AND UNIFORMLY AND MIX WITH SOIL PER CHARTS ON SHEET EC-2B.
5. CONTINUE TILLAGE UNTIL A WELL PULVERIZED, FIRM , REASONABLY UNIFORM SEEDBED IS PREPARED 4 TO 6 INCHES DEEP.
6. SEED A FRESHLY PREPARED SEEDBED AND COVER SEED LIGHTLY WITH SEEDING EQUIPMENT OR CULTPACK AFTER SEEDING.
7. MULCH IMMEDIATELY AFTER SEEDING AND ANCHOR MULCH.
8. INSPECT ALL SEEDED AREAS AND MAKE NECESSARY REPAIRS OR RESEEDINGS WITHIN THE PLANTING SEASON, IF POSSIBLE. IF STAND SHOULD BE OVER 70% DAMAGED, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZATION AND SEEDING RATES.

SEEDING

1. ACCOMPLISH SEEDING BY MEANS OF AN APPROVED POWER-DRAWN SEED DRILL, COMBINATION CORRUGATED ROLLER-SEEDER, APPROVED HAND OPERATED MECHANICAL SEEDER, OR OTHER APPROVED METHODS TO PROVIDE EVEN DISTRIBUTION OF SEED.

2. DO NOT SEED WHEN GROUND IS EXCESSIVELY WET OR EXCESSIVELY DRY. AFTER SEEDING, ROLL AREA WITH A ROLLER, NOT LESS THAN 18 INCHES IN DIAMETER AND WEIGHING NOT MORE THAN 210 POUNDS PER FOOT OF WIDTH. UPON COMPLETION OF ROLLING, WATER AREA WITH A FINE SPRAY.

3. APPLY WATER WITH A FINE SPRAY IMMEDIATELY AFTER EACH AREA HAS BEEN MULCHED. SATURATE TO 4 INCHES OF SOIL DEPTH.

4. THE AMOUNT OF DISTURBED AREA REQUIRED TO BE TEMPORARILY STABILIZED SHALL BE THE LESSER OF 2500 LINEAR FEET OF DISTURBED AREA OR THE TIMEFRAMES DETAILED IN THE NCDENR NEW STABILIZATION TIMEFRAMES (EFFECTIVE AUG. 3, 2011).

PERMANENT SEEDING SCHEDULE

SEEDING MIXTURE RATES:

AUGUST 1 - JUNE 1		MAY 1 - SEPTEMBER 1	
LB/ACRE	TYPE	LB/ACRE	TYPE
100	TALL FESCUE	100	TALL FESCUE
15	KENTUCKY BLUEGRASS	15	KENTUCKY BLUEGRASS
30	HARD FESCUE	30	HARD FESCUE
25	RYE GRAIN	10	GERMAN OR BROWNTOP MILLET

SEEDBED PREPARATION:
APPLY LIME AND FERTILIZER ACCORDING TO SOIL TESTS, OR APPLY A MINIMUM OF 4,000 LB/ACRE GROUND AGRICULTURAL LIMESTONE AND 6,000 LB/ACRE IN CLAY SOILS, AND 500 LB/ACRE 10-20-20 FERTILIZER. A DIFFERENT ANALYSIS OF FERTILIZER MAY BE USED PROVIDED THE 1-2-2 RATIO IS MAINTAINED AND THE RATE OF APPLICATION ADJUSTED TO PROVIDE THE SAME AMOUNT OF PLANT FOOD AS A 10-20-20 ANALYSIS AND AS DIRECTED.

MULCH:
APPLY 4,000 LB/ACRE GRAIN STRAW OR EQUIVALENT COVER OF ANOTHER SUITABLE MULCH. ANCHOR STRAW BY TACKING WITH ASPHALT AT A RATE OF 400 GALLONS OF ASPHALT PER ACRE

MAINTENANCE:
REFERTILIZE IN THE SECOND YEAR UNLESS GROWTH IS FULLY ADEQUATE. MAY BE MOWED ONCE OR TWICE A YEAR, BUT MOWING IS NOT NECESSARY. THE MINIMUM MOWING HEIGHT SHALL BE 4". RESEED, FERTILIZE, AND MULCH DAMAGED AREAS IMMEDIATELY.

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

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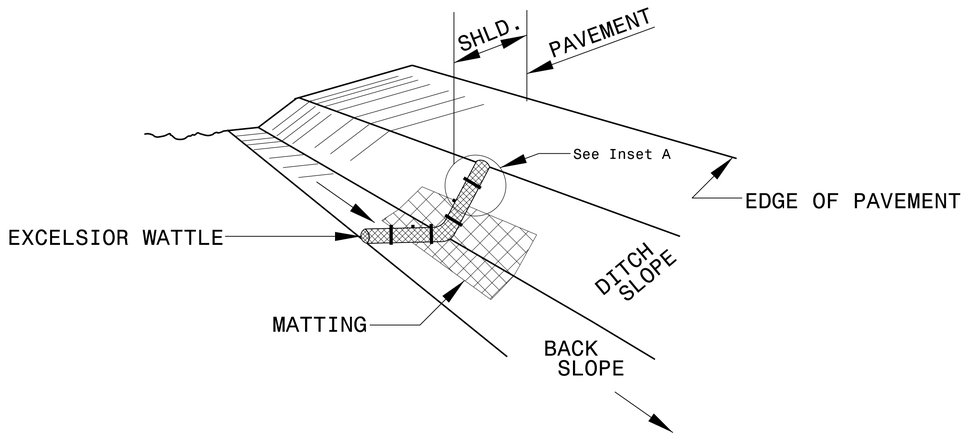
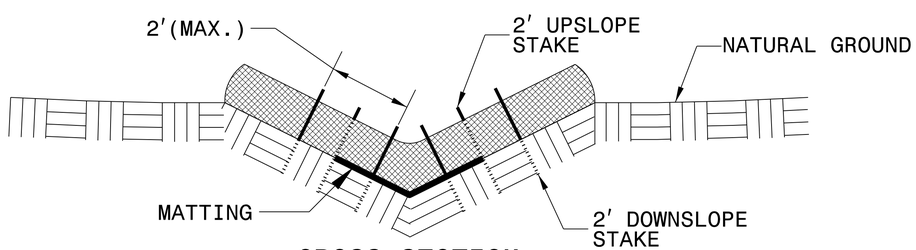
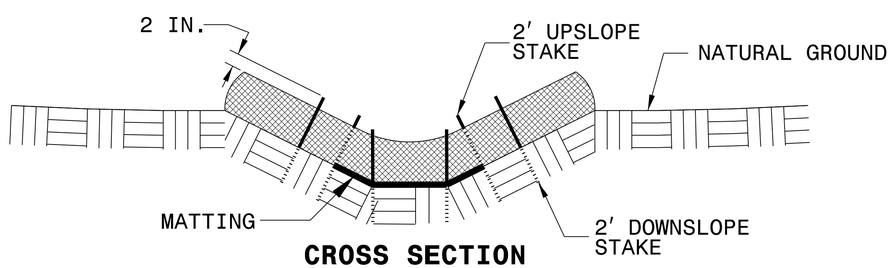
WATTLE DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

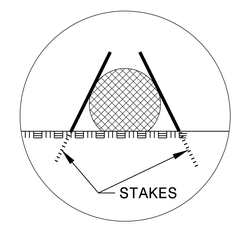
ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

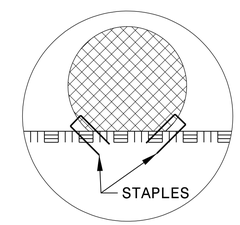
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12″ IN LENGTH.

INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

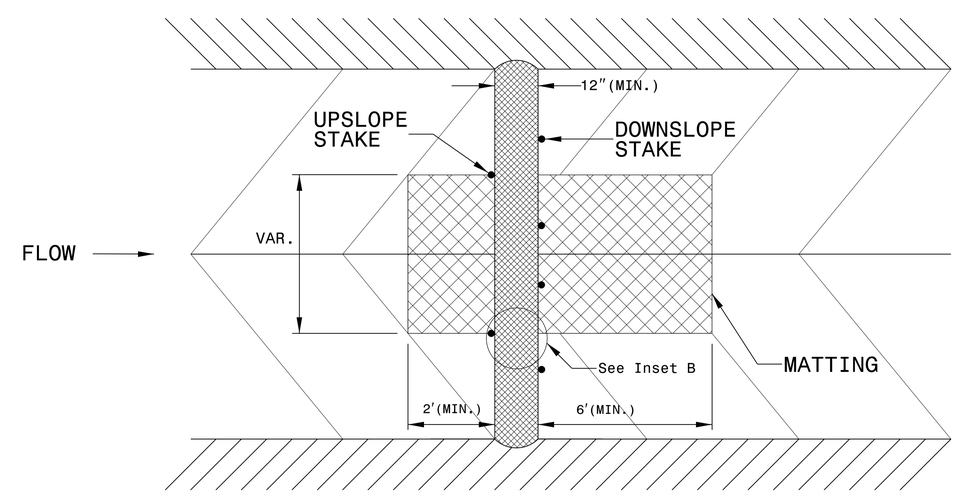
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



INSET B



TOP VIEW

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GREENWAY

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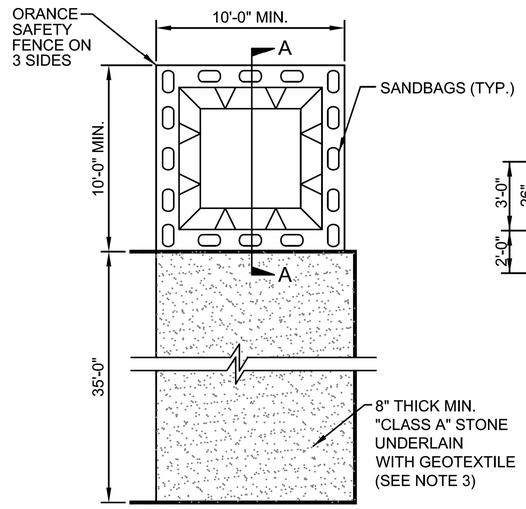
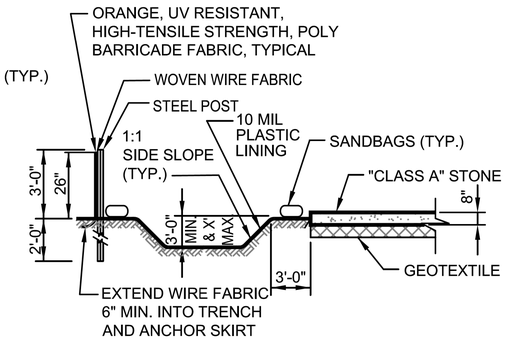
EC-2

ONSITE CONCRETE WASHOUT STRUCTURE



PLAN



SECTION A-A

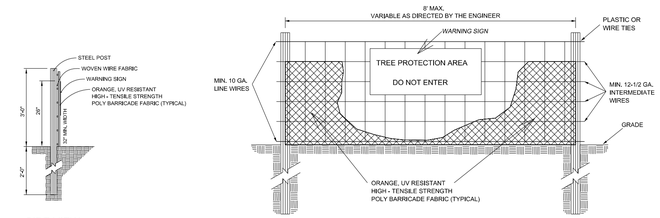
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.

3. STONE GRAVEL PAD CONSTRUCTED WITH "CLASS A" STONE OR OTHER AGGREGATE MATERIAL APPROVED BY ENGINEER.

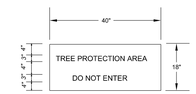
1 BELOW GRADE WASHOUT STRUCTURE

NOT TO SCALE



SIDE VIEW

FRONT VIEW

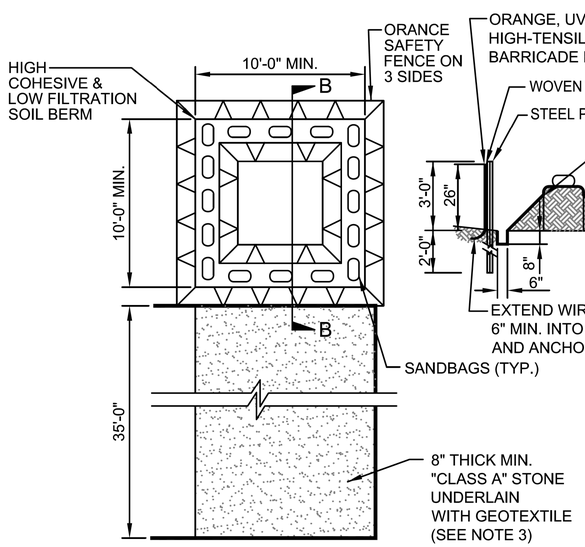


WARNING SIGN DETAIL

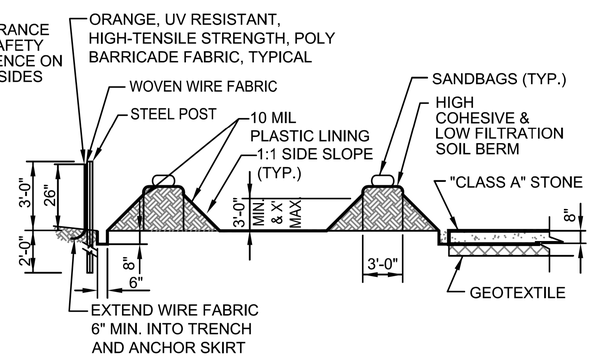
NOTES:
1. WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL.
2. LETTERS TO BE 3" HIGH MINIMUM. CLEARLY LEGIBLE AND SPACED AS DETAILED.
3. PLACE A SIGN AT EACH END OF LINEAR TREE PROTECTION AND 50' ON CENTER THEREAFTER.
4. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA.
5. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.
6. MAINTAIN TREE PROTECTION FENCE THROUGHOUT DURATION OF PROJECT.

3 TREE PROTECTION FENCE DETAIL

NOT TO SCALE



PLAN



SECTION B-B

NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.

3. STONE GRAVEL PAD CONSTRUCTED WITH "CLASS A" STONE OR OTHER AGGREGATE MATERIAL APPROVED BY ENGINEER.

2 ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	8+75	10+00	BOTH	495
4	-L-	10+00	11+00	RT	175
4-5	-L-	12+00	15+75	RT	345
4-5	-L-	12+22	13+37	LT	145
5-6	-L-	16+30	18+50	RT	304
6-7	-L-	18+50	22+50	LT	730
6	-L-	19+75	20+10	RT	29
6-7	-L-	21+00	21+75	RT	18
7	-L-	22+50	25+50	LT	213
7	-L-	22+65	23+85	RT	202
7-8	-L-	25+10	26+10	RT	120
7-8	-L-	25+50	28+70	LT	235
8	-L-	28+25	29+00	RT	70
9	-L-	30+00	31+75	RT	378
9-10	-L-	33+56	37+56	RT	345
				SUBTOTAL	3534
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					300
				TOTAL	3834
				SAY	4000

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-L-	13+08	13+37	LT	6
6	-L-	18+50	19+72	LT	24
6	-L-	19+82	21+20	LT	32
6-7	-L-	21+33	24+55	LT	67
7	-L-	24+60	25+44	LT	18
7	-L-	25+50	25+72	LT	5
7-8	-L-	25+75	28+62	LT	65
9	-L-	30+01	31+73	RT	44
9-10	-L-	31+90	34+74	RT	58
10	-L-	34+86	37+56	RT	60
				SUBTOTAL	379
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					40
				TOTAL	419
				SAY	425

GEORGE POSTON PARK GREENWAY

GREENWAY ENGINEER

STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

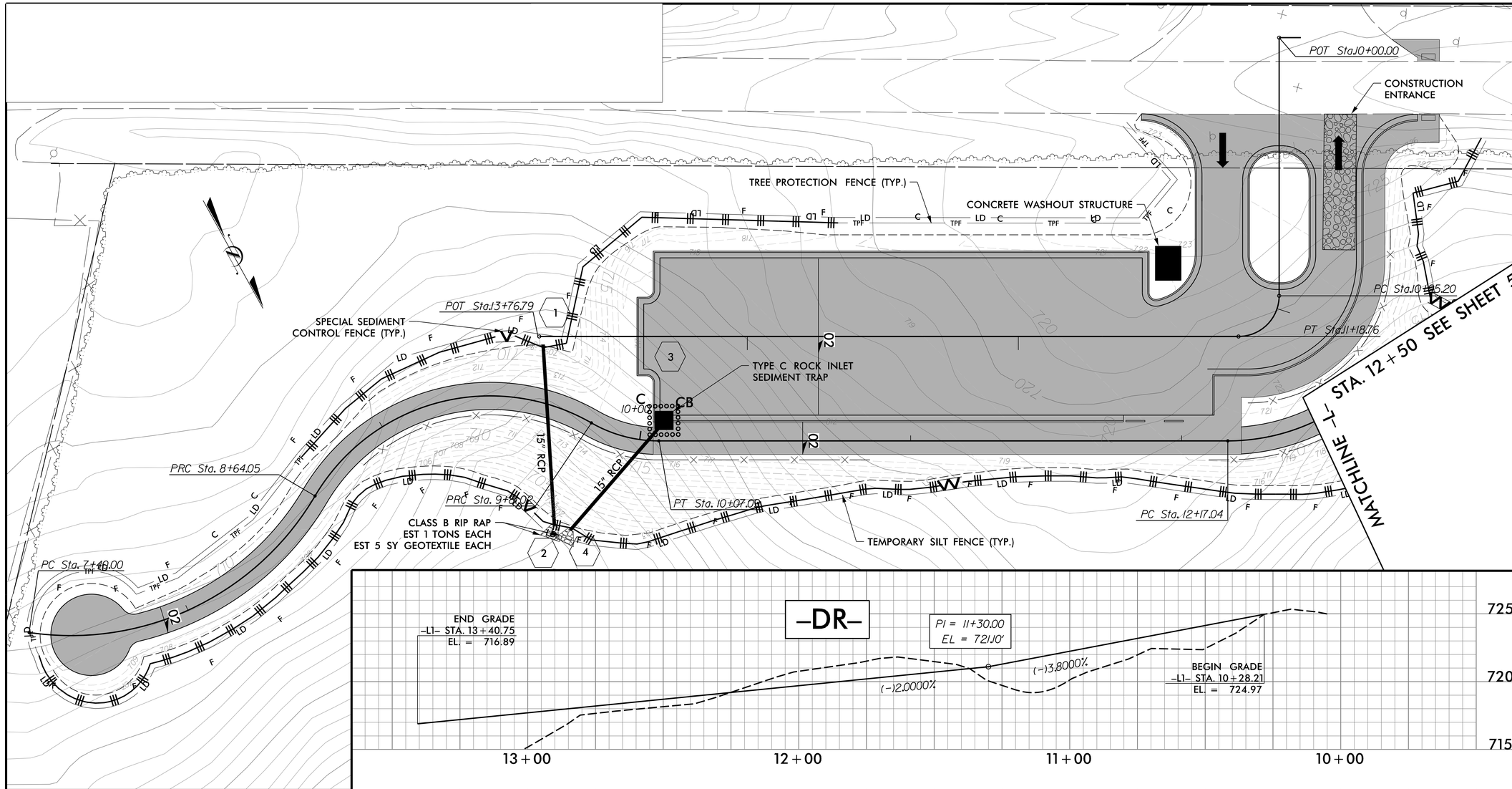
DATE: MAY 22, 2015

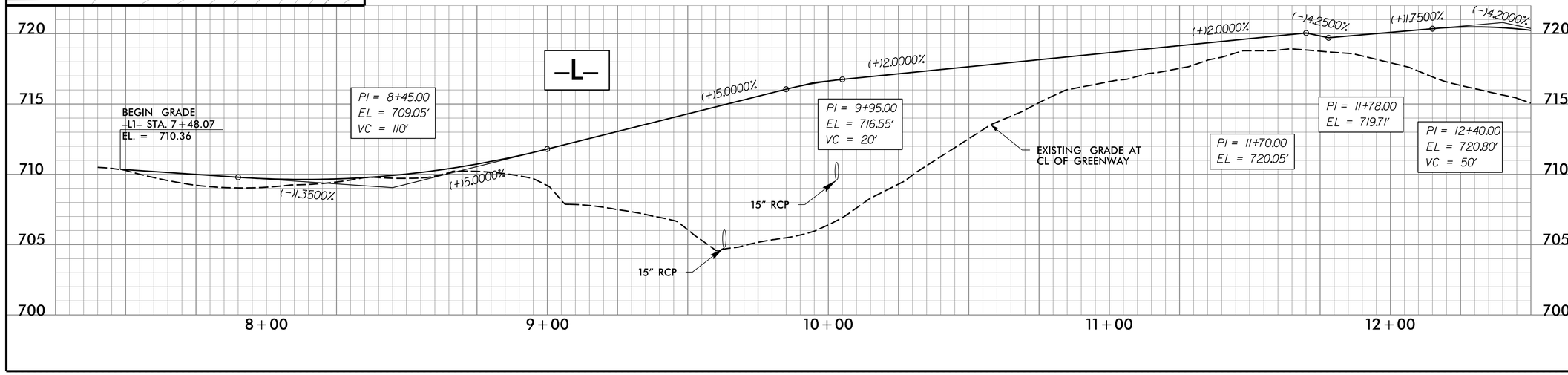
REVISIONS:

NO.	DATE

PROJECT NO.: A15001.00

EC-3





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GREENWAY

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STEWART
Firm License No. C-1053
421 Fayetteville St.
Suite 1100
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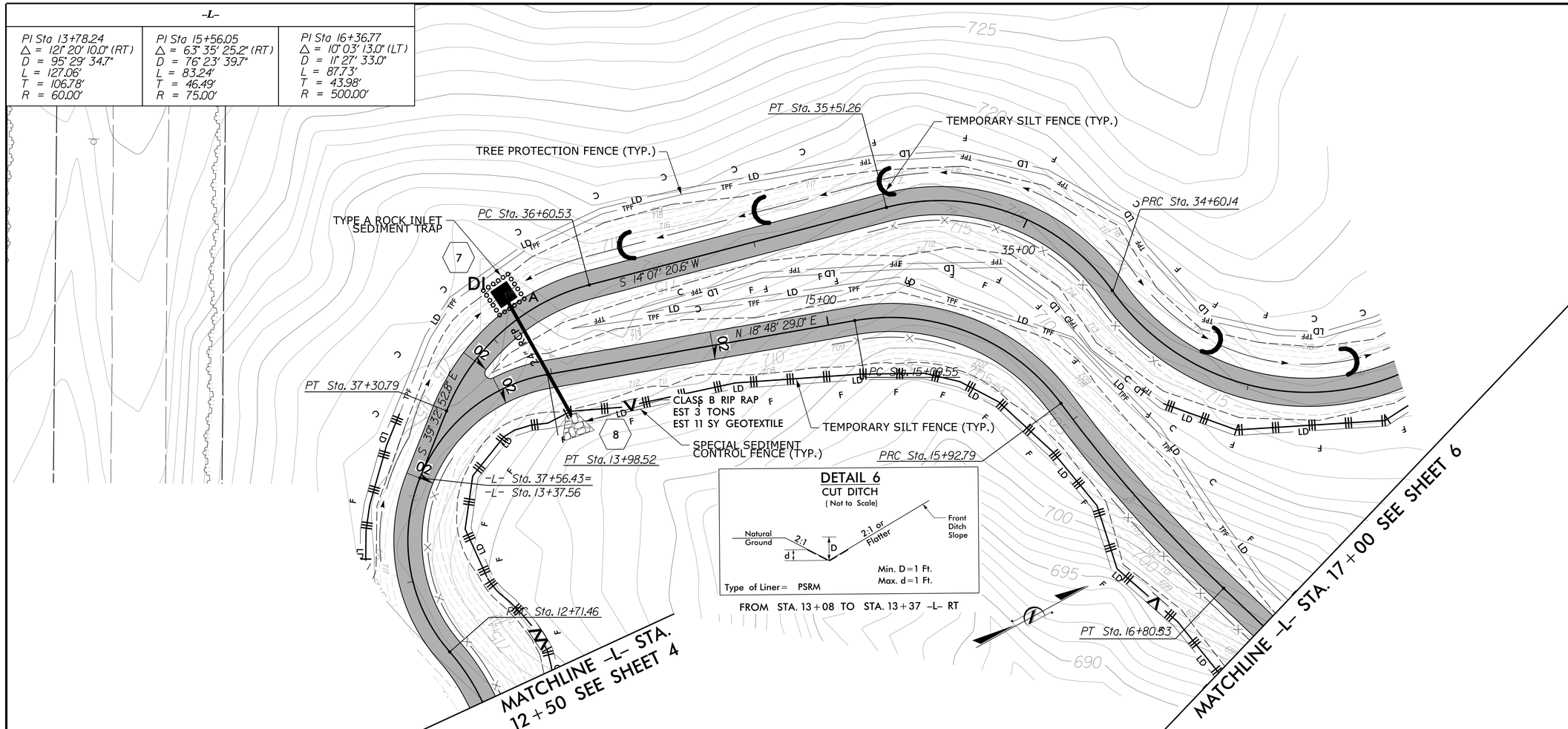
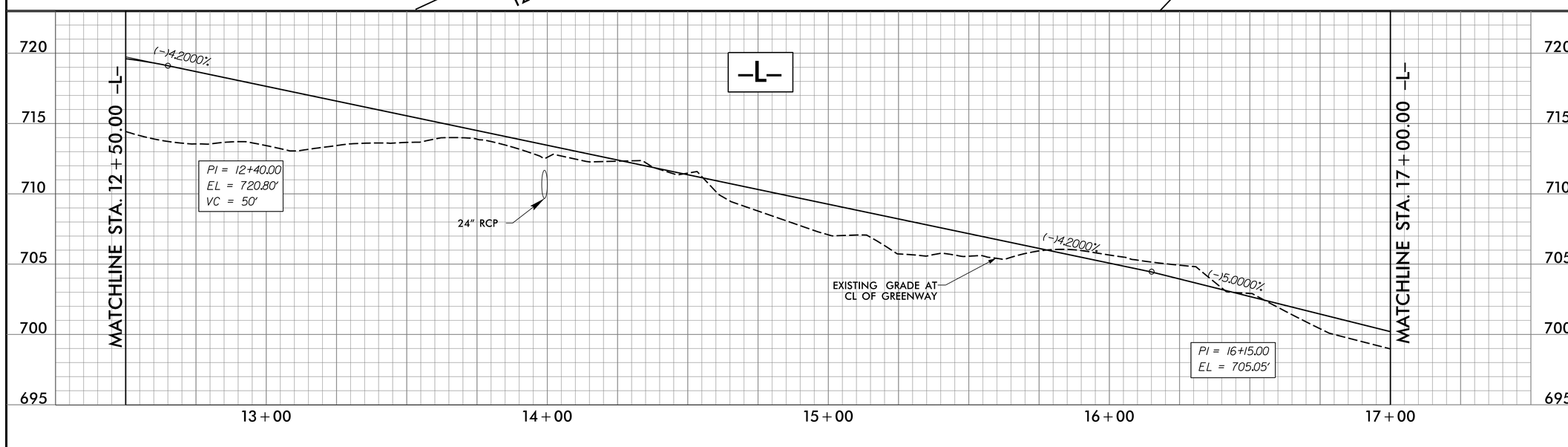
EC-4

-L-		
PI Sta 13+78.24 △ = 121° 20' 10.0" (RT) D = 95° 29' 34.7" L = 127.06' T = 106.78' R = 60.00'	PI Sta 15+56.05 △ = 63° 35' 25.2" (RT) D = 76° 23' 39.7" L = 83.24' T = 46.49' R = 75.00'	PI Sta 16+36.77 △ = 10° 03' 13.0" (LT) D = 11° 27' 33.0" L = 87.73' T = 43.98' R = 500.00'





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Firm License No. C-1051
421 Fayetteville St.
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Raleigh, NC 27601
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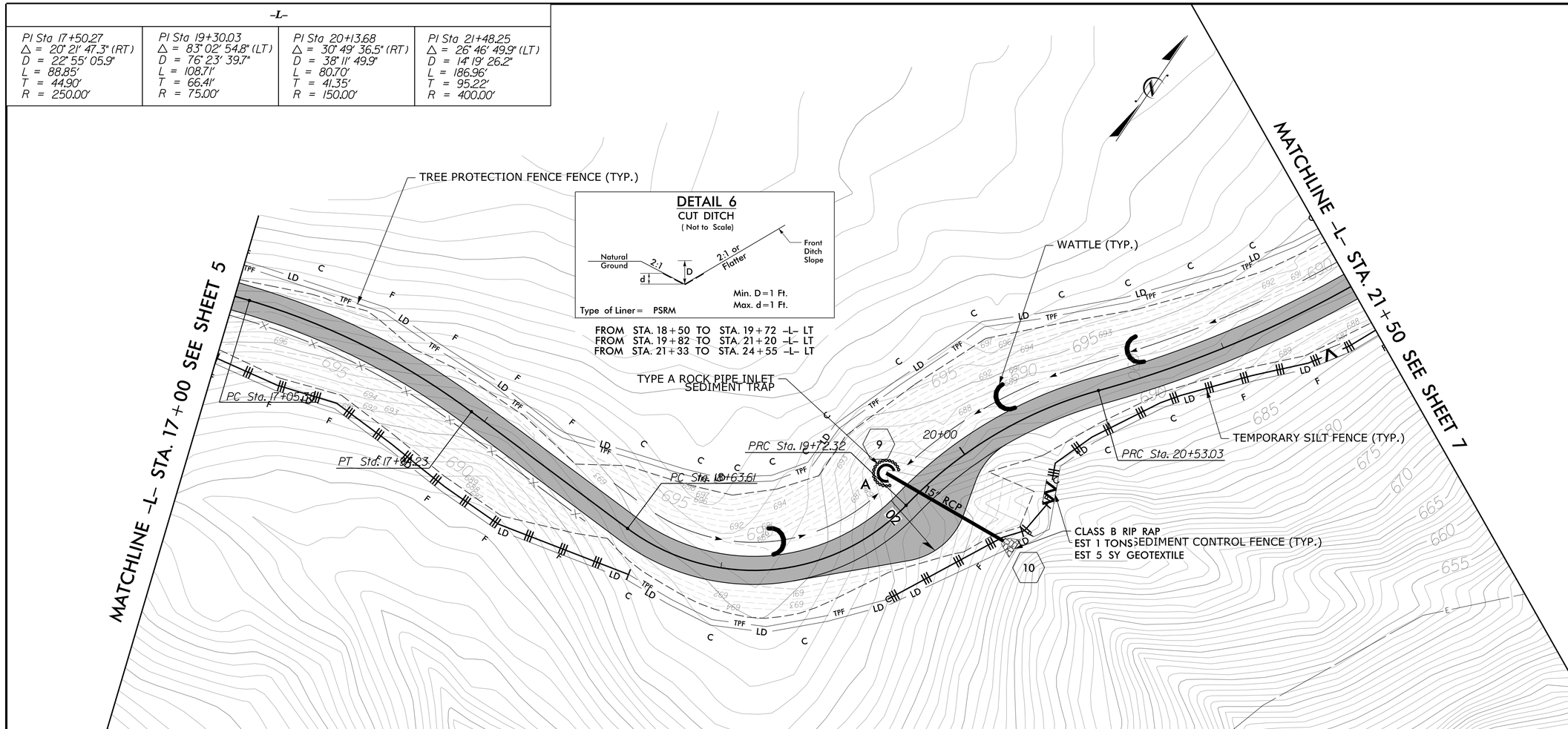
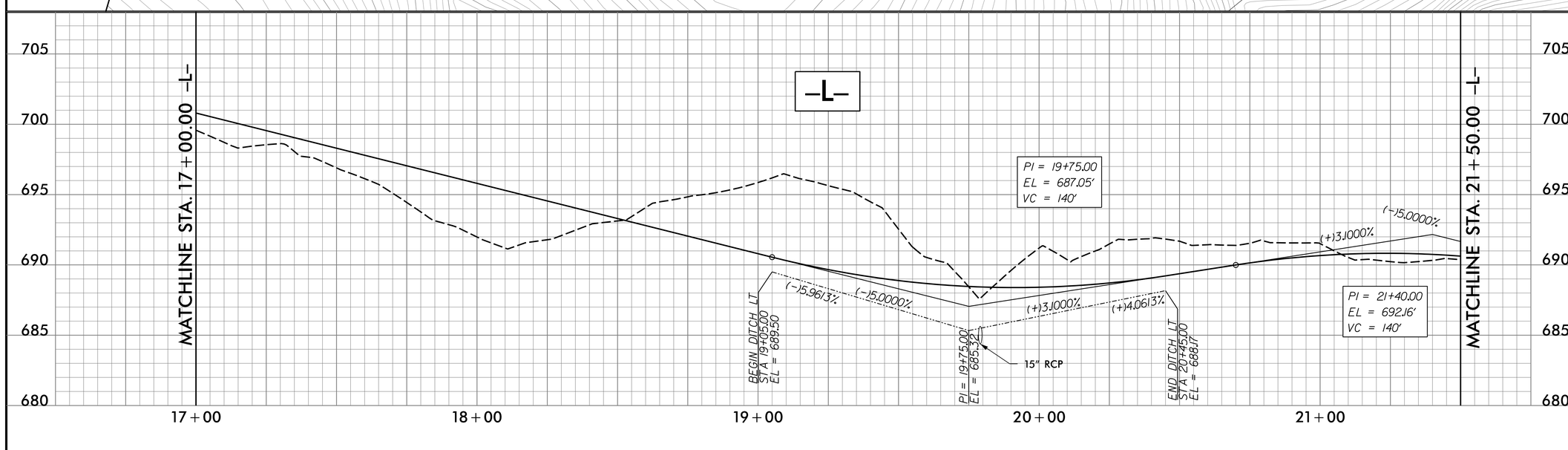
EC-5

–L–			
PI Sta 17+50.27 Δ = 20° 21' 47.3" (RT) D = 22° 55' 05.9" L = 88.85' T = 44.90' R = 250.00'	PI Sta 19+30.03 Δ = 83° 02' 54.8" (LT) D = 76° 23' 39.7" L = 108.71' T = 66.41' R = 75.00'	PI Sta 20+13.68 Δ = 30° 49' 36.5" (RT) D = 38° 11' 49.9" L = 80.70' T = 41.35' R = 150.00'	PI Sta 21+48.25 Δ = 26° 46' 49.9" (LT) D = 14° 19' 26.2" L = 186.96' T = 95.22' R = 400.00'





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GREENWAY

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STEWART

Firm License No. C-1051
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
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EC-6

-L-

PI Sta 25+28.25
△ = 134° 47' 48.9" (LT)
D = 47° 44' 47.3"
L = 282.32'
T = 288.26'
R = 120.00'

MATCHLINE -L- STA. 21+50 SEE SHEET 6

MATCHLINE -L- STA.26+00 SEE SHEET 8

TYPE A ROCK PIPE INLET
SEDIMENT TRAP

TREE PROTECTION FENCE FENCE (TYP.)

CLASS B RIP RAP
EST 2 TONS
EST 7 SY GEOTEXTILE

CLASS B RIP RAP
EST 1 TONS
EST 5 SY GEOTEXTILE

PT Sta. 25+22.31

PCC Sta. 22+39.99

WATTLE (TYP.)

18" RCP

15" RCP

25+00

DI

TEMPORARY SILT FENCE (TYP.)

SPECIAL SEDIMENT CONTROL FENCE (TYP.)

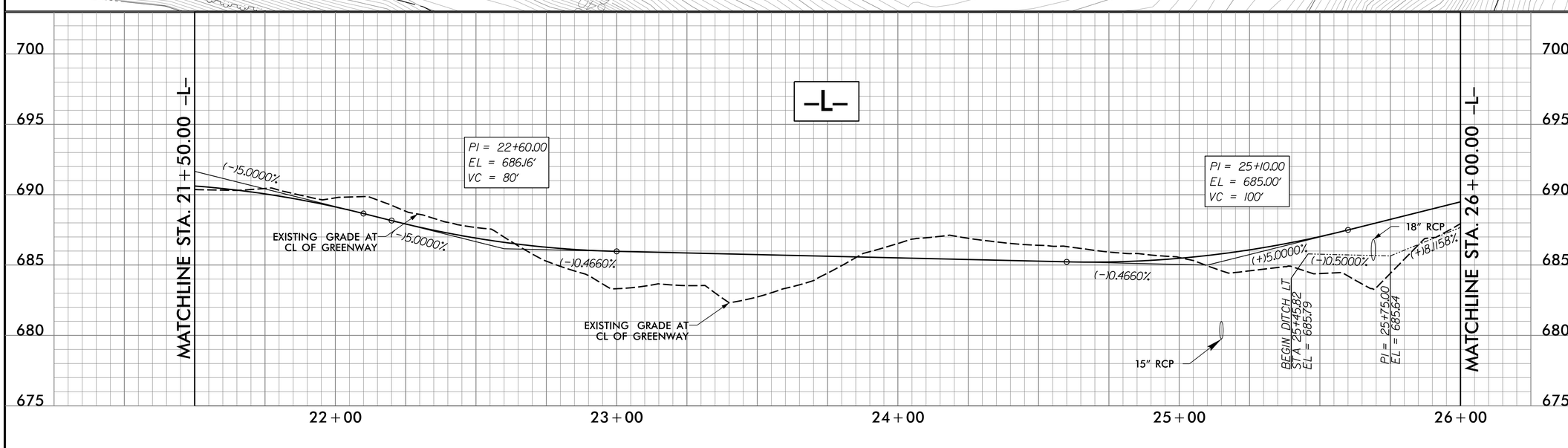
DETAIL 6
CUT DITCH
(Not to Scale)

Natural Ground
2:1
d
D
2:1 or Flatter
Front Ditch Slope

Min. D = 1 Ft.
Max. d = 1 Ft.

Type of Liner = PSRM

FROM STA. 21+33 TO STA. 24+55 -L- LT
FROM STA. 24+60 TO STA. 25+44 -L- LT
FROM STA. 25+50 TO STA. 25+72 -L- LT
FROM STA. 25+75 TO STA. 28+62 -L- LT



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GREENWAY

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STEWART
Firm License No. C-1051
421 Fayetteville St.
Suite 1100
Raleigh, NC 27601
T 919.380.8750
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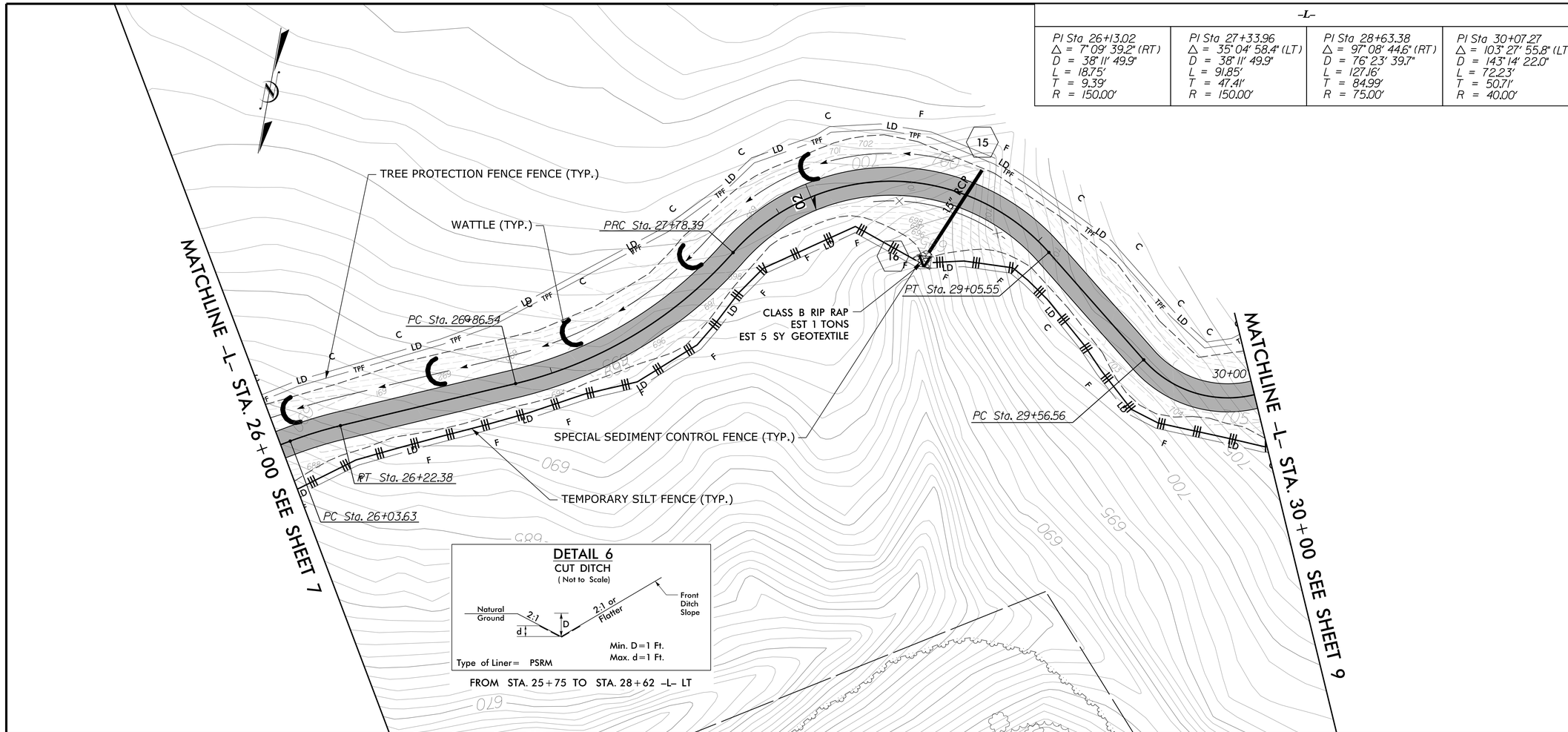
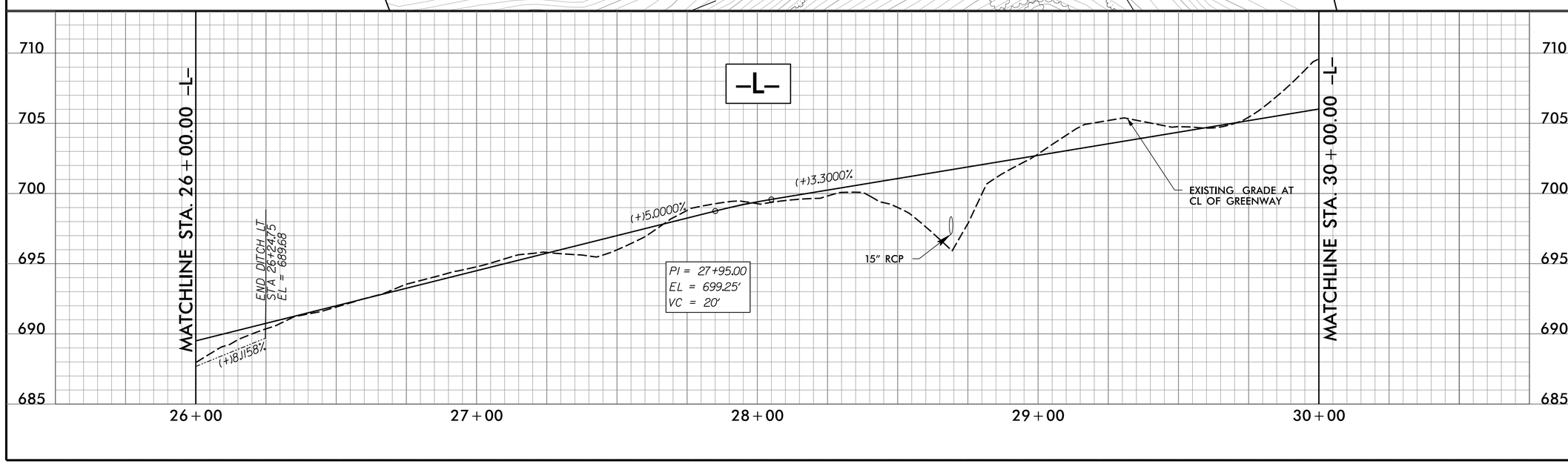
EC-7

–L–			
PI Sta 26+13.02 Δ = 7° 09' 39.2" (RT) D = 38° 11' 49.9" L = 18.75' T = 9.39' R = 150.00'	PI Sta 27+33.96 Δ = 35° 04' 58.4" (LT) D = 38° 11' 49.9" L = 91.85' T = 47.41' R = 150.00'	PI Sta 28+63.38 Δ = 97° 08' 44.6" (RT) D = 76° 23' 39.7" L = 127.16' T = 84.99' R = 75.00'	PI Sta 30+07.27 Δ = 103° 27' 55.8" (LT) D = 143° 14' 22.0" L = 72.23' T = 50.71' R = 40.00'





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GREENWAY

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Firm License No. C-1051
421 Fayetteville St.
Suite 400
Raleigh, NC 27601
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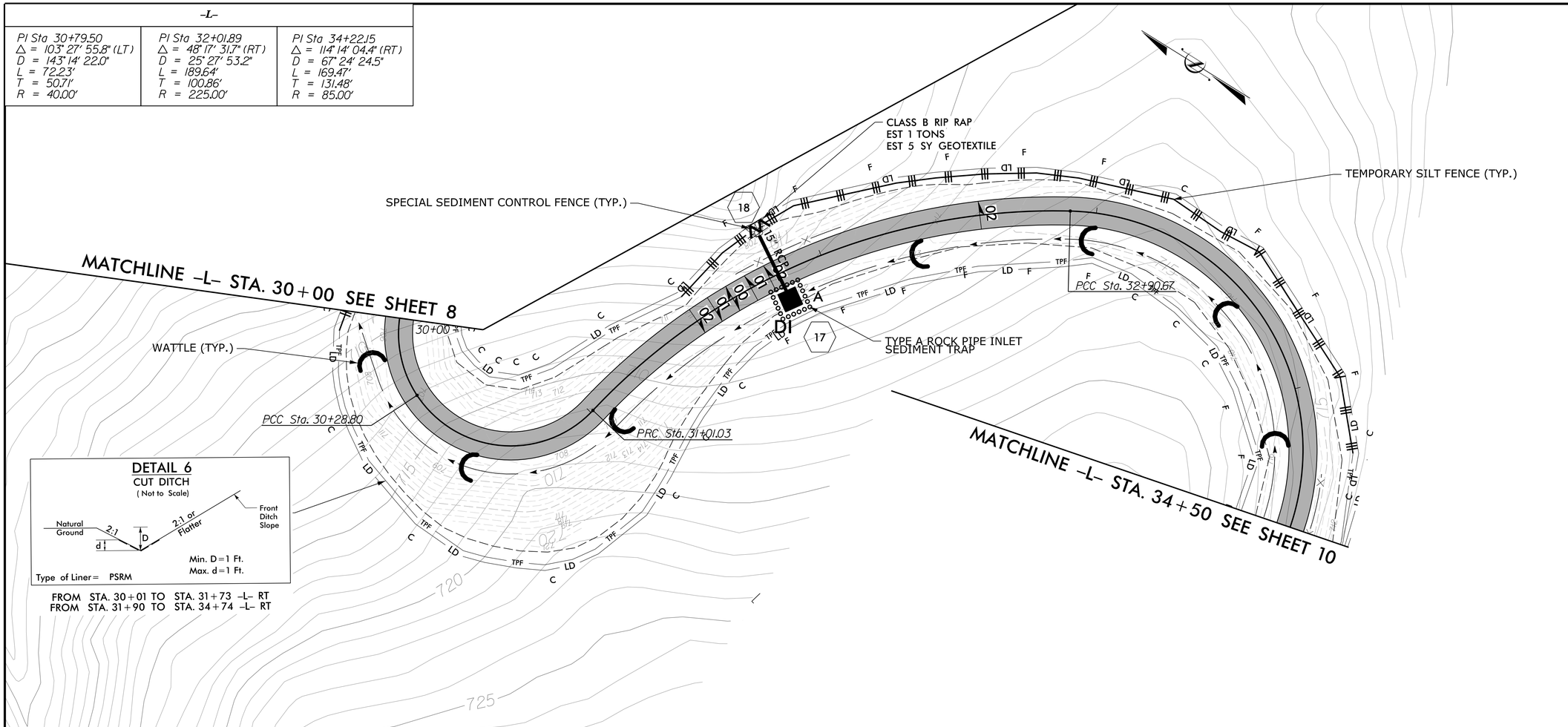
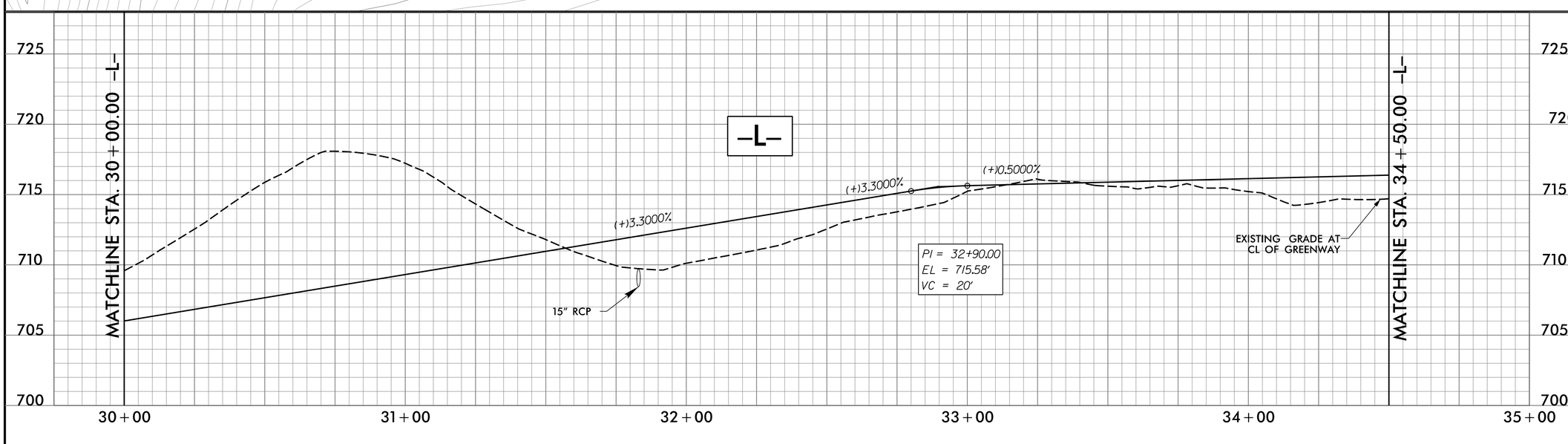
EC-8

-L-		
PI Sta 30+79.50 △ = 103° 27' 55.8" (LT) D = 143° 14' 22.0" L = 72.23' T = 50.71' R = 40.00'	PI Sta 32+01.89 △ = 48° 17' 31.7" (RT) D = 25° 27' 53.2" L = 189.64' T = 100.86' R = 225.00'	PI Sta 34+22.15 △ = 114° 14' 04.4" (RT) D = 67° 24' 24.5" L = 169.47' T = 131.48' R = 85.00'





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STEWART

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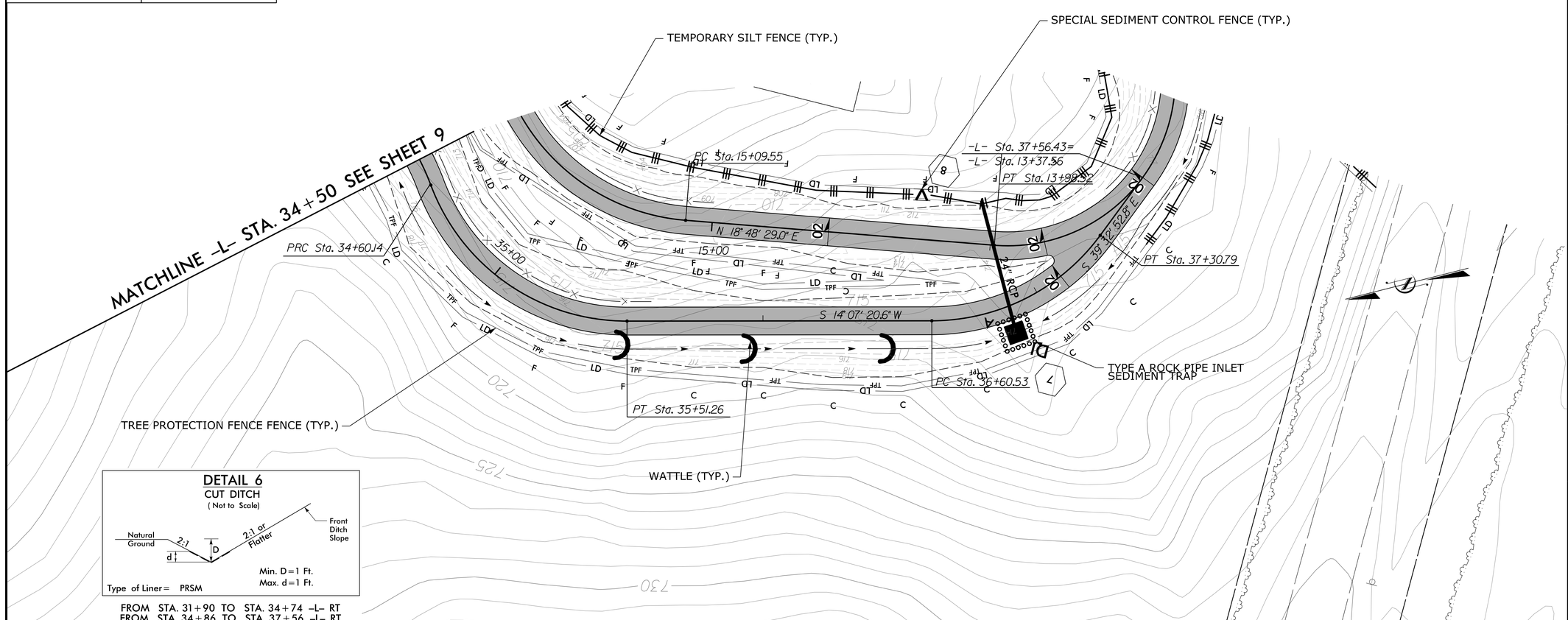
EC-9

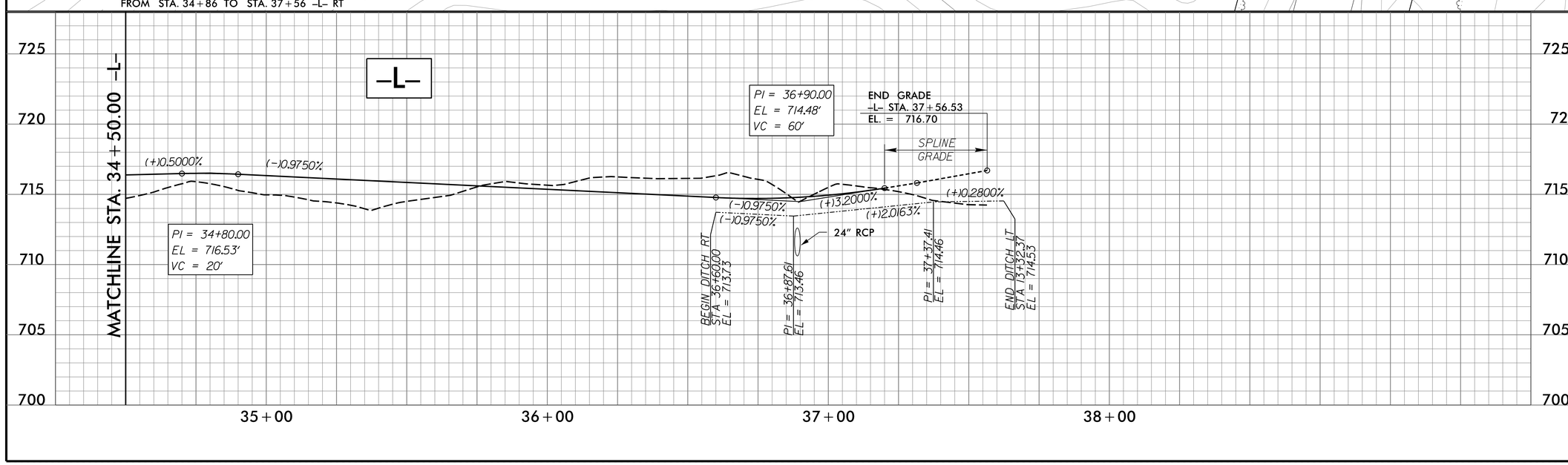
-L-	
PI Sta 35+12.27 △ = 69° 36' 20.7" (LT) D = 76° 23' 39.7" L = 91.11' T = 52.13' R = 75.00'	PI Sta 36+98.47 △ = 53° 40' 13.4" (LT) D = 76° 23' 39.7" L = 70.25' T = 37.94' R = 75.00'



DETAIL 6
CUT DITCH
(Not to Scale)

Type of Liner= PRSM

FROM STA. 31+90 TO STA. 34+74 -L- RT
FROM STA. 34+86 TO STA. 37+56 -L- RT



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GREENWAY

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Firm License No. C-1051
423 Fayetteville St.
Suite 400
Raleigh, NC 27601
T: 919.380.8750
www.stewartinc.com

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EC-10

8/23/99

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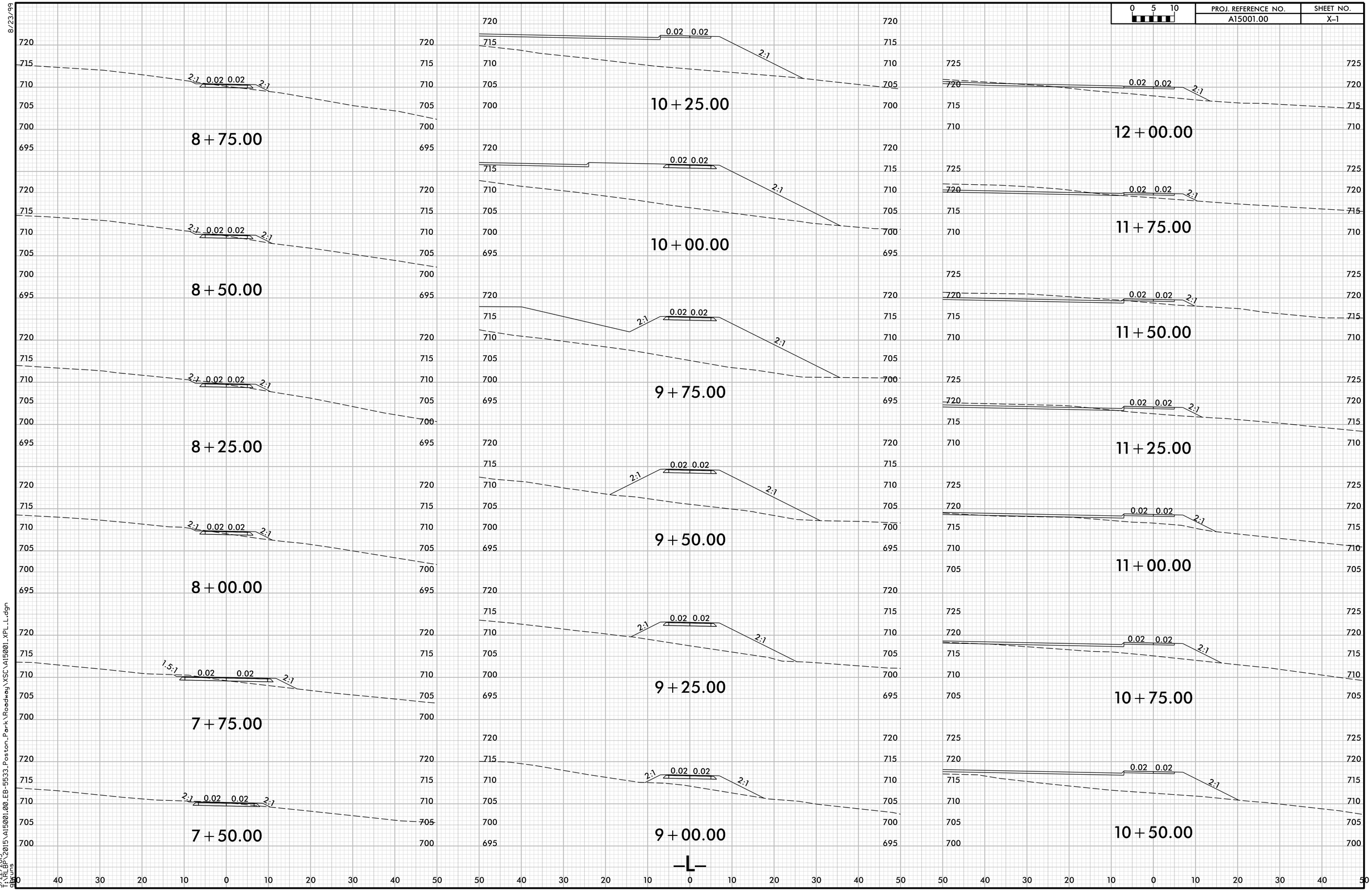

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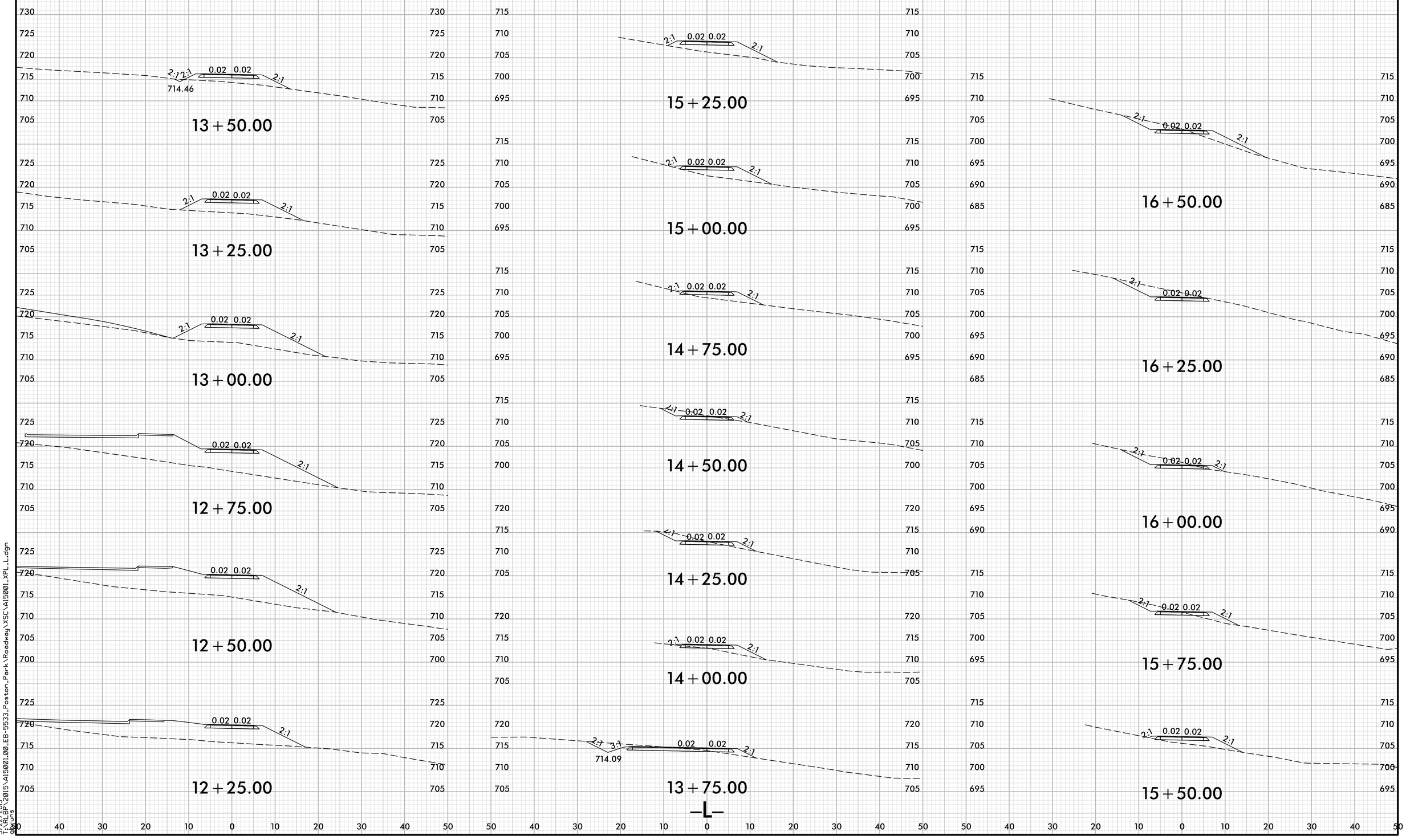

8/23/99

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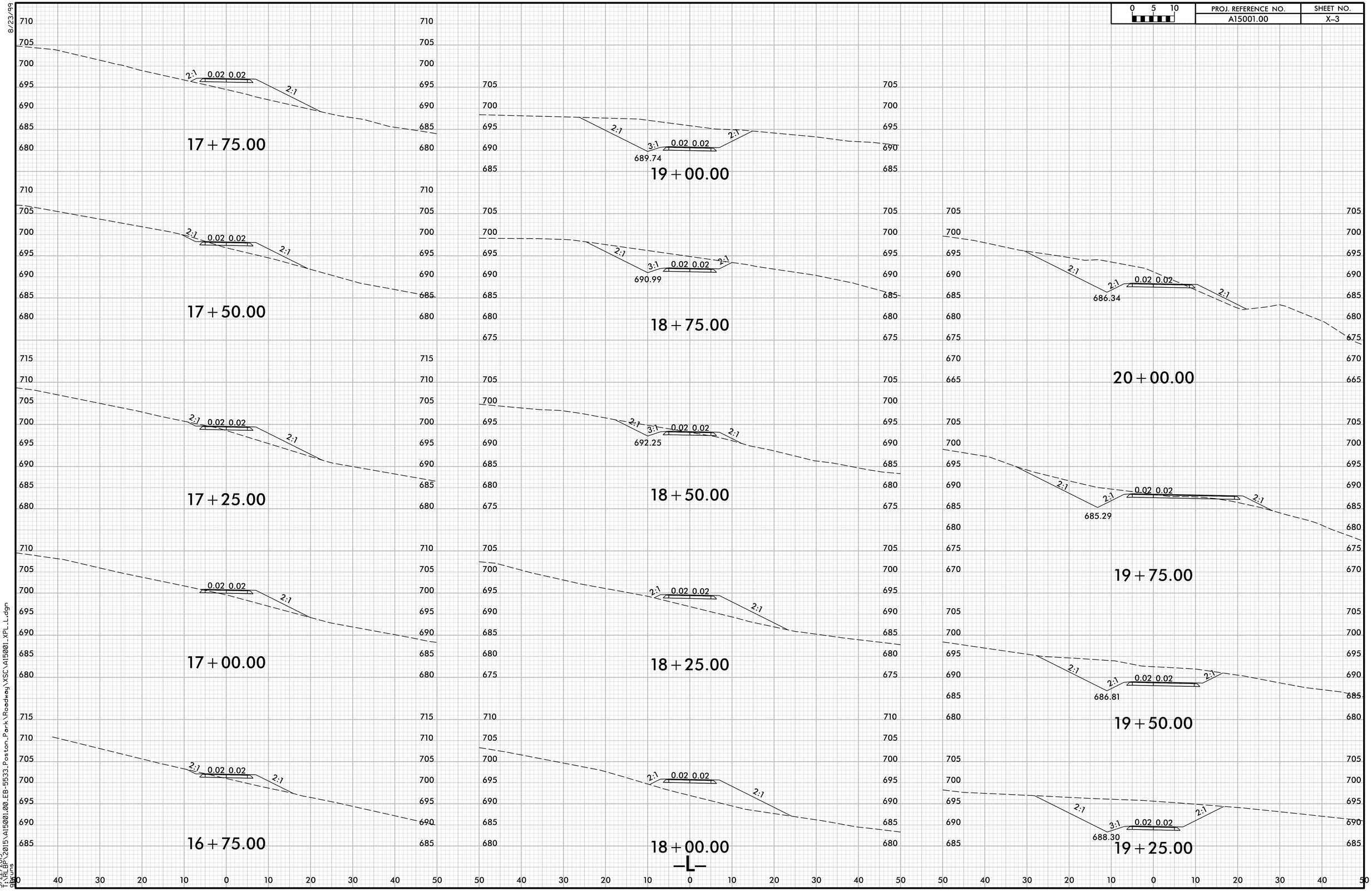

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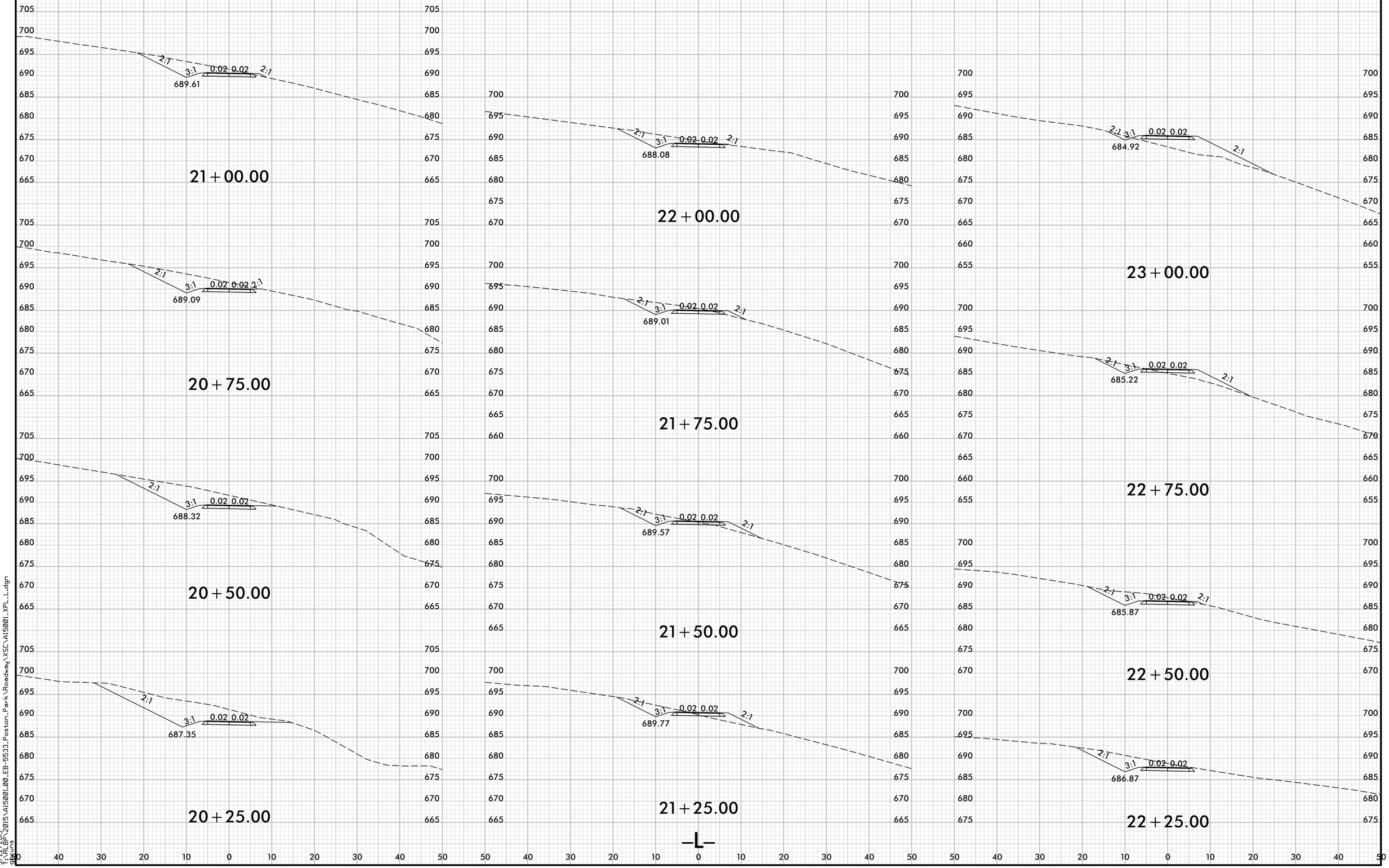

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PROJ. REFERENCE NO.	SHEET NO.
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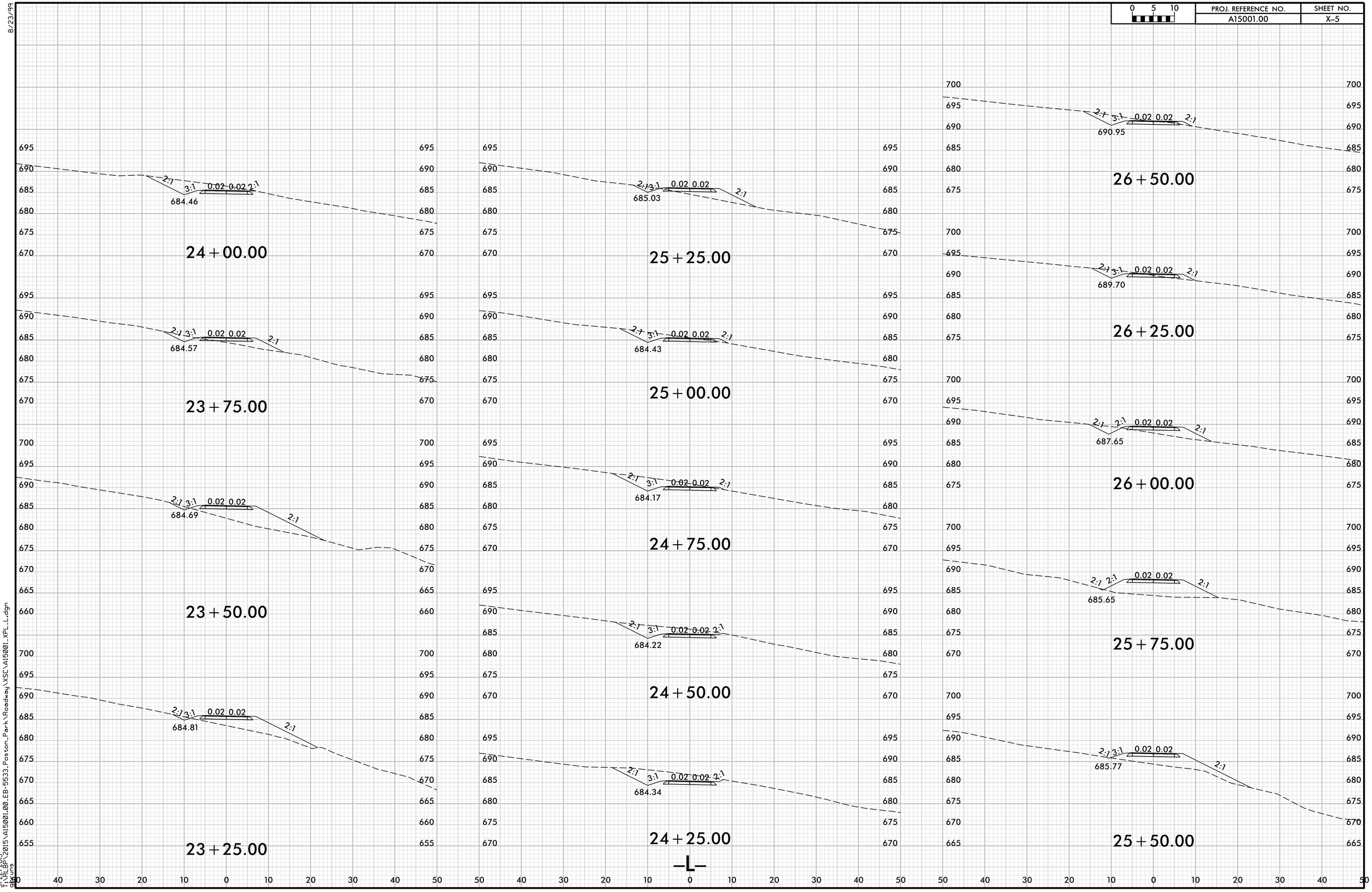
0 5 10



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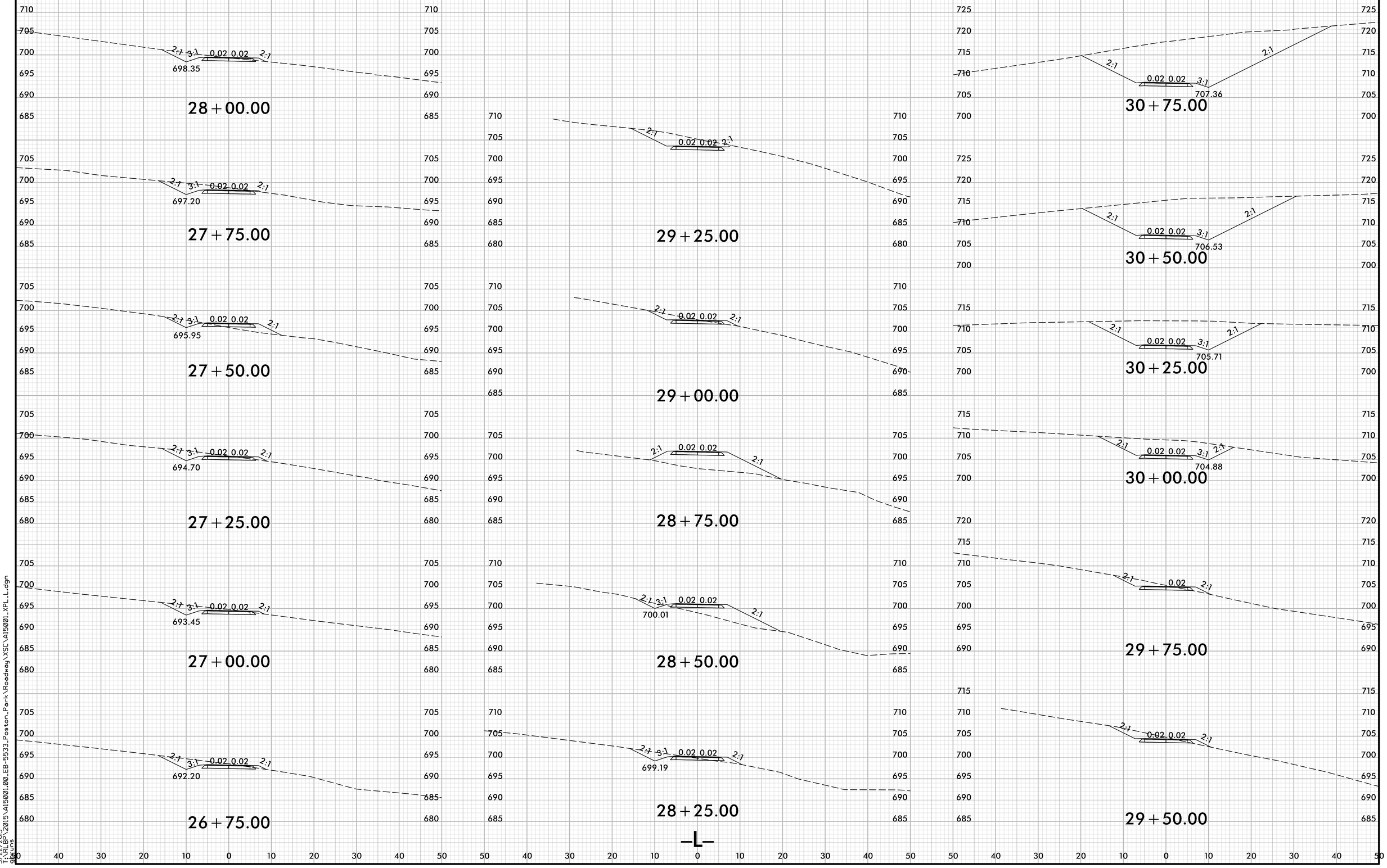

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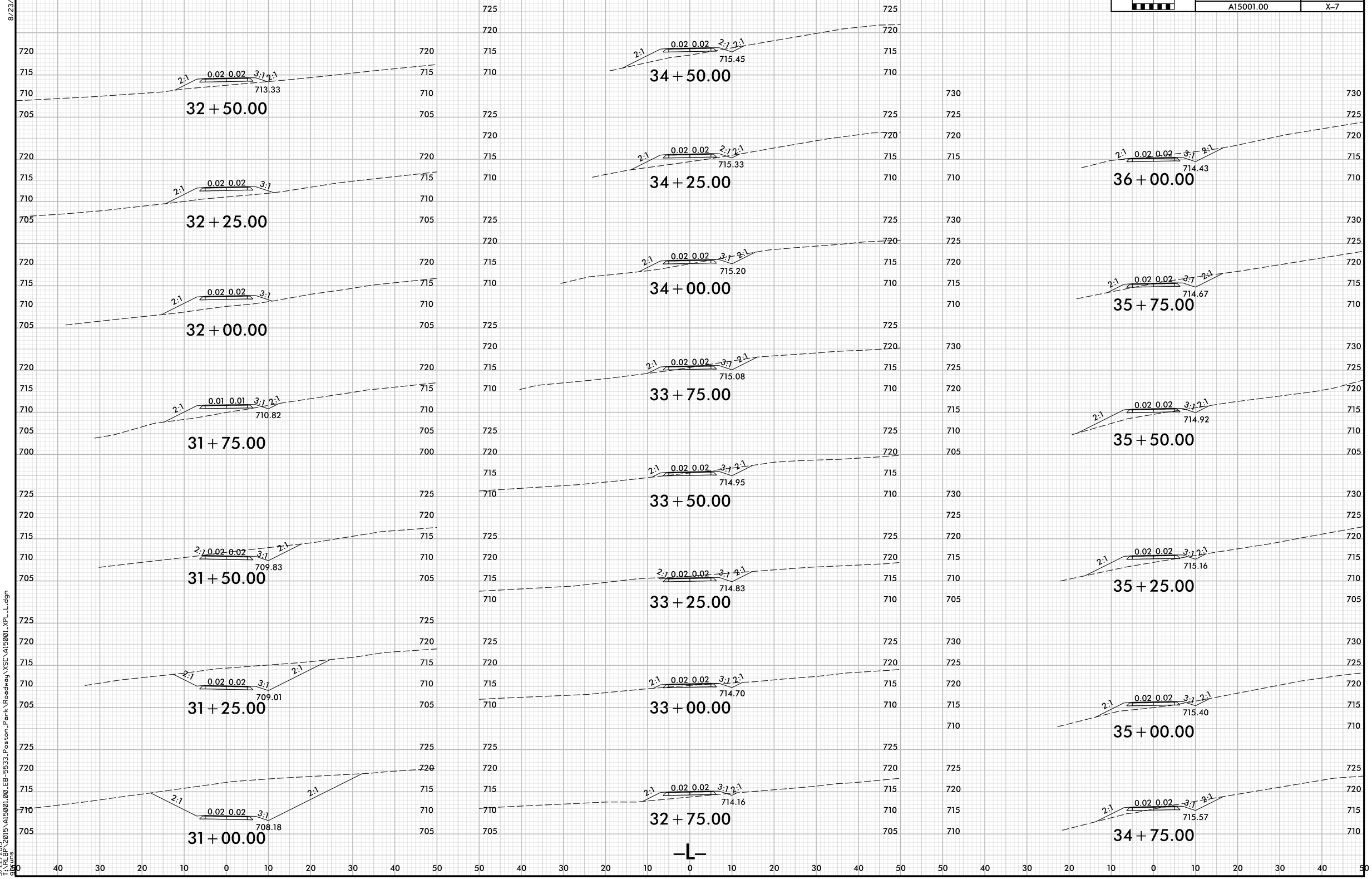

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