

LOCATION SKETCH

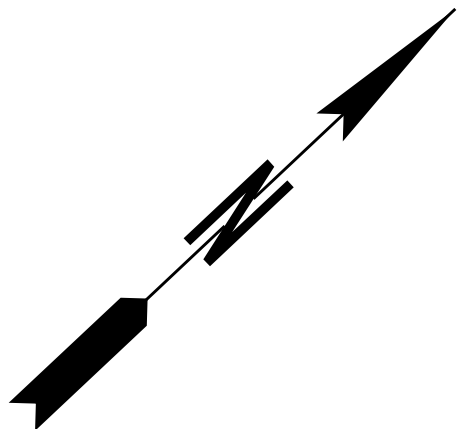
SPEED DESIGN: 40/45 MPH

PROJECT LOCATION

FORSYTH COUNTY
ENGINEERING DEPARTMENT

PLAN AND PROFILE OF PROPOSED
RONALD REAGAN BOULEVARD EXTENSION
FROM MCFARLAND PARKWAY TO MAJORS ROAD

FORSYTH COUNTY



FEDERAL ROUTE * N/A
STATE ROUTE * N/A
P.J.NO. N/A

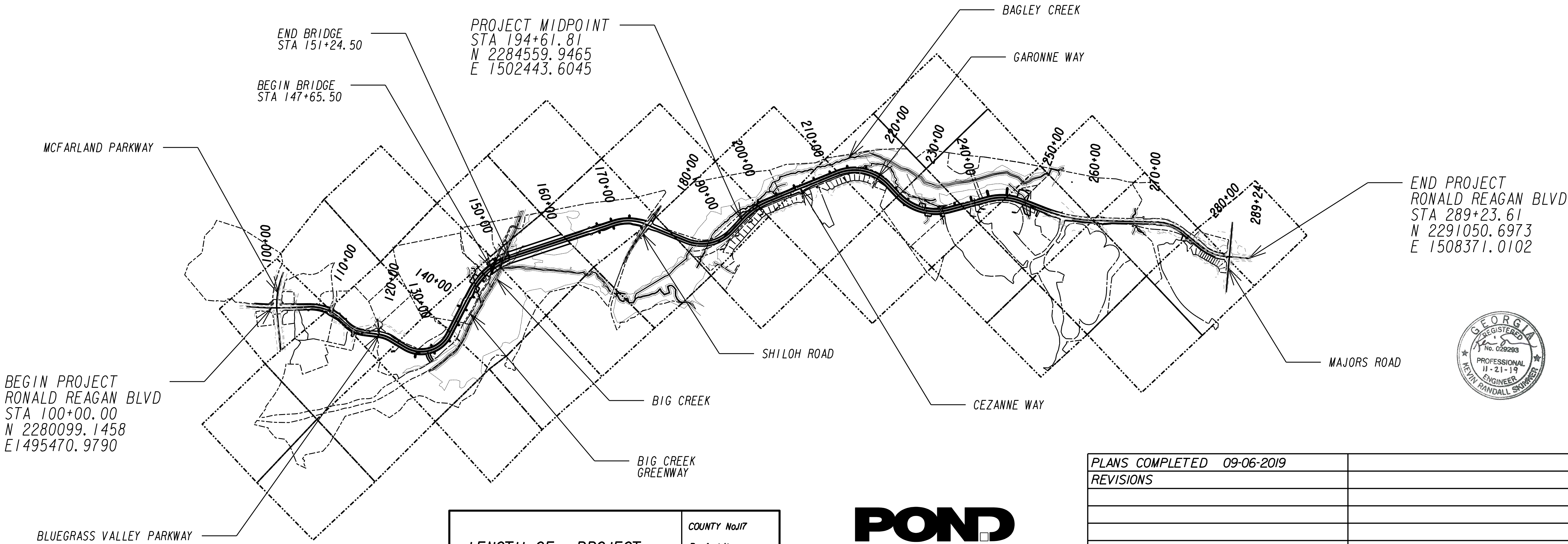
FUNCTIONAL CLASS:
URBAN MINOR ARTERIAL

THIS PROJECT IS 100% IN
FORSYTH COUNTY AND IS
100% IN CONG.DIST.NO.7.

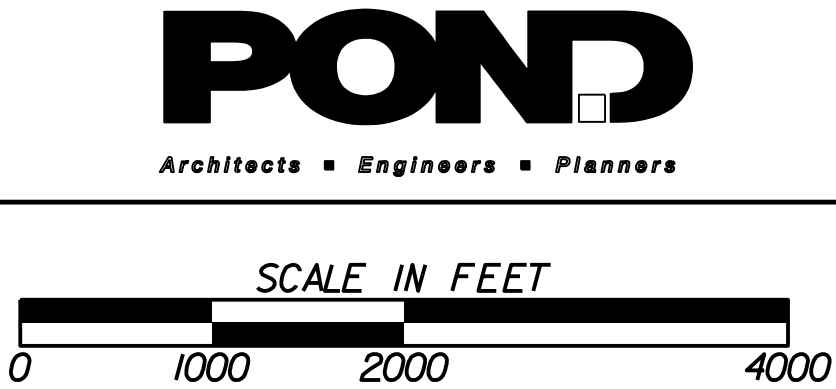
PROJECT DESIGNATION:
DESIGNED IN ENGLISH UNITS.

THIS PROJECT HAS BEEN PREPARED
USING THE HORIZONTAL GEORGIA
COORDINATE SYSTEM OF 1984 (HAD
1983/94 WEST ZONE, AND THE NORTH
AMERICAN VERTICAL DATUM (NAVD)
OF 1988.

THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY
INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON
FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE
SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND FORSYTH
COUNTY IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS
102.04, 102.05, AND 104.03 OF THE LATEST GDOT SPECIFICATIONS.



LENGTH OF PROJECT	COUNTY No. 17 Project No. N/A
	MILES
NET LENGTH OF ROADWAY	3.516
NET LENGTH OF BRIDGES	0.068
NET LENGTH OF PROJECT	3.584
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	3.584



PLANS COMPLETED 09-06-2019	
REVISIONS	

DRAWING No.
01-0001

11/21/2019

4:56:45 PM

GPL07-V8

USER: Sabla0

gp1a1border-V81-P0.1b1

M:\Forsyth County\1160001 Ronald Reagan Blvd. Extension\04_DRAWINGS\DGN\1160001_02-0001.dgn

DRAWING NO.	DESCRIPTION
1 - 0001	COVER SHEET
2 - 0001	INDEX SHEETS
3 - 0001	REVISION SUMMARY
4 - 0001-0004	GENERAL NOTES
5 - 0001-0007	TYPICAL SECTIONS
6 - 0001-0012	SUMMARY OF QUANTITIES
11 - 0001-0002	CONSTRUCTION LAYOUT
13 - 0001-0014	MAINLINE ROADWAY
15 - 0001-0013	MAINLINE PROFILE
16 - 0001-0002	CROSSROAD PROFILE
17 - 0001-0002	DRIVEWAY PROFILES
21 - 0001-0004	DRAINAGE AREA MAP
22 - 0001-0032	DRAINAGE PROFILES
23 - 0001-0115	CROSS SECTIONS
24 - 0000-0014	UTILITY PLANS
26 - 0001-0015	SIGNING AND MARKING PLANS
27 - 0001-0017	SIGNAL PLANS
31 - 0001-0005	RETAINING WALL ENVELOPES
35 - 0001-0034	BRIDGE PLANS
38 - 0001	SPECIAL CONSTRUCTION PLANS
44 - 0001-0022	WATER AND SEWER RELOCATION PLANS
50 - 0001	EROSION COVER SHEET
51 - 0001-0005	ESPC GENERAL NOTES SHEET
52 - 0001-0007	EROSION CONT. LEGEND
53 - 0001-0004	ESPCP DRAINAGE AREA MAP
54 - 0001-0042	BMP LOCATION DETAILS
55 - 0001	EC WATERSHED MAP-SITE MONITORING
	GEORGIA STANDARDS
	DATE PUBLISHED
1011A	BRICK MANHOLES
1011AP	PRECAST REINFORCED CONCRETE MANHOLE
1019A	DROP INLETS
1019AP	PRECAST DROP INLETS
1030D1	CONCRETE & METAL PIPE CULVERTS SHT 1 OF 3
1030D2	CONCRETE & METAL PIPE CULVERTS SHT 2 OF 3
1030D3	CONCRETE & METAL PIPE CULVERTS SHT 3 OF 3
1033D	CATCH BASINS (FOR USE WITH 6" OR 8" HT. CURB AND GUTTER)
1033DP	PRECAST CATCH BASINS (FOR USE WITH 6" OR 8" HT. PRECAST CURB AND GUTTER)
1033G	CATCH BASINS - (FOR USE WITH 6" MOUNTABLE CURB & GUTTER)
1033GP	PRECAST CATCH BASINS (FOR USE WITH 6" MOUNTABLE PRECAST CURB & GUTTER)
1034D	CATCH BASINS - (FOR USE WITH 6" OR 8" CURB & GUTTER IN SAGS OR LOW POINTS)
1034DP	PRECAST CATCH BASINS (FOR USE WITH 6" OR 8" CURB & PRECAST GUTTER IN SAGS OR LOW POINTS)
1034G	CATCH BASINS - FOR USE WITH CURB (6" MOUNTABLE) AND GUTTER (IN SAGS OR LOW POINTS)
1034GP	PRECAST CATCH BASINS - FOR USE WITH CURB (6" MOUNTABLE) & GUTTER (IN SAGS OR LOW POINTS)
1040	CIRCULAR BASE UNITS AND RISERS FOR CATCH BASINS AND DROP INLETS
1120	FLARED END SECTIONS FOR PIPES
1125	INLET HEADWALL - OUTLET HEADWALL
1401	PAVEMENT PATCHING DETAILS (STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACROSS EXISTING PAVEMENT)
3054	END POST AND END POST GUARDRAIL ATTACHMENT DETAILS
3901	BAR BENDING DETAILS
4000W	GUARDRAIL WARRANT GUIDES
4360	REFLECTORIZED GUARDRAIL WASHERS AND ANCHORAGE NOSE STRIPING
4380	"W" BEAM GUARDRAIL 31 IN GUARDRAIL HEIGHT
4381	POST AND OFFSET BLOCKS FOR "W" AND "T" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT
4382	GUARDRAIL CONNECTION AT BRIDGE END OR AT CONCRETE BARRIER END FOR 31 INCH HIGH GUARDRAIL
4383	GUARDRAIL ANCHORAGE TYPE 1 31 INCH GUARDRAIL HEIGHT
4384	TYPE 12 31 INCH GUARDRAIL HEIGHT

FORSYTH COUNTY

ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

REVISION DATES

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RONALD REAGAN BLVD EXTENSION

CHECKED:	DATE:	DRAWING No.
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VERIFIED:	DATE:	

DRAWING NO.	DESCRIPTION
4385	"T" BEAM GUARDRAIL CONNECTION TO 31 INCH HEIGHT "W" BEAM
4386	GUARDRAIL LOCATIONS IN MEDIANS GUARDRAIL LOCATIONS AT TURNOUTS 31 INCH GUARDRAIL HEIGHT
4387	GUARDRAIL LOCATION DETAILS FOR MULTI-LANE DIVIDED HIGHWAYS AND ROADS (WITH SHOULDERS ADJACENT TO THE ROADWAY) 31 INCH GUARDRAIL HEIGHT
4391	GUARDRAIL LOCATION (ON ROADS WITH CURB & GUTTER, HEADER CURB, OR INTEGRAL CURB) 31 INCH GUARDRAIL HEIGHT
4948B	CONCRETE SIDE BARRIER TYPES 2, 2A, 2B, AND 2C
4960	CONCRETE BARRIER - TEMPORARY (END TREATMENT OPTIONS)
4961	DETAILS OF PRECAST TEMPORARY BARRIER
4962	TEMPORARY TRAFFIC IMPACT ATTENUATOR - SAND LOADED MODULES
9003	FEDERAL AID AND STATE PROJECT MARKERS; RIGHT OF WAY MARKERS; COUNTY LINE MARKER
9017R	REINFORCED CONCRETE APPROACH SLAB WITH ASPHALT INLAY- 30 FT LENGTH (TYPICAL USE: WHERE SHOULDER IS ADJACENT TO ROADWAY AND/OR BRIDGE)
9029B	PERFORATED UNDERDRAIN
9031L	GRAVITY WALL TYPICAL SECTIONS, RAISING HEADWALL, AND TYPICAL PIPE PLUG
9031L2	GSE9031L2
9031N	CHAIN-LINK WIRE FENCE
9031S	MEDIAN DROP INLET (PRECAST OR BUILT-IN-PLACE) AND CONCRETE APRON
9031U	JUNCTION BOXES (PRECAST OR BUILT-IN-PLACE) PIPE COLLARS, PIPE ELBOW AND PIPE CURVED ALIGNMENT
9032B	CONCRETE CURB AND BUTTER, CONCRETE CURBS, CONCRETE MEDIANS
9037	TYPICAL FILL DETAIL AT END OF BRIDGE
9039	PERMANENT TIMBER TYPE BARRICADE
9100	TRAFFIC CONTROL GENERAL NOTES, STANDARD LEGEND, AND MISCELLANEOUS DETAILS
9102	TRAFFIC CONTROL DETAIL FOR LANE CLOSURE ON TWO-LANE HIGHWAY
	CONSTRUCTION DETAILS
A1	DRIVEWAYS WITH TAPERED ENTRANCES CONCRETE VALLEY GUTTERS
A2	CONCRETE VALLEY GUTTER AT STREET INTERSECTION 6
A3	CONCRETE SIDEWALK DETAILS CURB CUT (WHEELCHAIR) RAMPS
A4	DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS
D19	TEMPORARY PIPE SLOPE DRAIN WITH DRAIN INLET
D20	SILT CONTROL GATES FOR STRUCTURES TYPE - 1, 2, AND 3
D24A	TEMPORARY SILT FENCE (SHEET 1 OF 4)
D24B	TEMPORARY SILT FENCE BERM DITCH, INSTALLATION, BRUSH BARRIER (SHEET 2 OF 4)
D24C	TEMPORARY SILT FENCE J-HOOKS, INLET SEDIMENT TRAPS (SHEET 3 OF 4)
D24D	TEMPORARY SILT FENCE FABRIC CHECK DAMS (SHEET 4 OF 4)
D41	CONSTRUCTION EXIT
D42	INLET SEDIMENT TRAPS
D43	ROCK FILTER DAM
D55A	RIPRAP OUTLET PROTECTION (SHEET 1 OF 2)
D55B	RIPRAP OUTLET PROTECTION (SHEET 2 OF 2)
N1A	FOUNDATION AND POST DETAILS
N1B	FOUNDATION AND POST DETAILS
P7	PAVEMENT EDGE TREATMENT ASPHALT AND CONCRETE PAVEMENT
PRW-1	SPECIAL DETAIL PARAPET RETAINING WALL, TYPE P1, P2, AND P3
T02	DETAILS FOR TYPICAL FRAMING
T03A	TYPE 7, 8, AND 9 SQUARE TUBE POST INSTALLATION DETAIL
T03B	DETAILS OF SQUARE TUBE POST (BREAKAWAY SUPPORT)
T05C	DETAILS OF WARNING SIGNS
T11A	DETAILS OF PAVEMENT MARKING PLACEMENT ON NON-LIMITED ACCESS ROADWAY
T12A	DEATILS OF PAVEMENT MARKING ARROW LOCATION
T12B	DETAILS OF PAVEMENT MARKINGS - ARROWS
T14	DETAILS OF PAVEMENT MARKING HATCHING
T15C	DETAILS OF RAISED PAVEMENT MARKERS
T22B	DETAILS FOR BRIDGE DELINEATION ON DIVIDED HIGHWAY TWO WAY OPERATION

FORSYTH COUNTY

ENGINEERING DEPARTMENT

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REVISION DATES

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10/23/2015

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<div>PROJECT NOTES</div> <div><div><div>1. A NOTICE OF INTENT WILL BE REQUIRED FOR THIS PROJECT.</div><div>2. FILL MATERIALS SHALL CONSIST OF CLEAN SOIL FREE OF ORGANIC OR DELETERIOUS MATERIALS, ROCKS, OR BROKEN PIECES OF CONCRETE LARGER THEN 3 INCHES IN SIZE, OR ANY OTHER FOREIGN OBJECTS THAT COULD IMPEDE THE COMPACTION RESULTS. FILL MATERIALS SHALL BE SPREAD EVENLY IN 8 INCH LAYERS IN LOOSE LIFTS OVER THE FULL WIDTH OF FILL AND COMPACTED TO 95% MAXIMUM DENSITY BY THE STANDARD PROCTOR COMPACTION TEST. THE UPPER 8 INCHES OF SOIL BENEATH ALL PAVEMENTS AND BUILDING SLABS SHALL BE COMPACTED TO AT LEAST 98%.</div><div>3. GRADE TO PROVIDE POSITIVE DRAINAGE INTO STORM DRAINAGE STRUCTURES OR EXISTING DITCHES/STREAMS.</div><div>4. CONTRACTOR TO MAINTAIN ALL STORM DRAINAGE STRUCTURES DURING THE COURSE OF CONSTRUCTION.</div><div>5. ALL NON-PAYED DISTURBED AREAS SHALL BE SEEDED WITH A MATERIAL SUITABLE TO THE SEASON AND MAINTAINED UNTIL STABILIZATION.</div><div>6. ALL OPEN DRAINAGE SWALES SHALL BE GRASSED.</div><div>7. ANY DAMAGE CAUSED BY THE CONTRACTOR'S MEN OR EQUIPMENT SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND COST TO REPAIR PER OWNER'S SPECIFICATIONS AND REQUIREMENTS.</div><div>8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAULING OFF AND DISPOSING OF ANY DEBRIS TO AN APPROVED STATE LICENSED LANDFILL.</div><div>9. EXISTING TREES THAT ARE TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY INSTALLATION OF BARRIER FENCE. PAYMENT INCLUDED IN LUMP SUM GRADING ITEM.</div><div>10. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE SHORING OR OTHER APPROVED METHOD IN ORDER TO MAKE THE WORK AREA ABSOLUTELY STABLE AND SAFE.</div><div>11. ALL WORK PERFORMED BY THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS.</div><div>12. TOP OF ALL EXISTING STRUCTURES THAT ARE TO REMAIN WITHIN THE AREA REQUIRING REGRADING OR WORK SHALL BE RAISED OR LOWERED AS REQUIRED TO MEET NEW GRADES. PRIOR TO ANY ADJUSTMENT, THE CONTRACTOR SHALL COORDINATE SUCH WORK WITH THE UTILITY OWNER.</div><div>13. ALL AREAS TO RECEIVE FILL FOR EMBANKMENT SHALL BE CLEARED AND GRUBBED.</div><div>14. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE SCHEDULE AND SEQUENCE OF CONSTRUCTION ACTIVITIES PRIOR TO BEGINNING WORK.</div><div>15. ANY REFERENCE TO A CODE OR STANDARD SHALL BE UNDERSTOOD TO REFER TO THE LATEST EDITION AND/OR REVISION OF THAT CODE OR STANDARD UNLESS OTHERWISE NOTED.</div><div>16. CONTRACTOR SHALL REMOVE TRASH, DEBRIS, EXCESS CONCRETE, AND AGGREGATE MATERIAL BEFORE BACKFILLING AND FINE GRADING.</div><div>17. CONTRACTOR SHALL CONTACT ENGINEER FOR APPROVAL OF GRADES AND WORK ITEMS PRIOR TO PAVING & GRASSING OPERATIONS.</div><div>18. WHERE EXISTING CONDITIONS ARE SHOWN, THEY HAVE BEEN DERIVED FROM THE BEST AVAILABLE INFORMATION AND REPRESENT THE ENGINEER'S BEST ESTIMATE OF EXISTING CONDITIONS. DEPICTED EXISTING CONDITIONS HAVE NOT BEEN CORROBORATED BY FIELD INVESTIGATIONS IN ALL CASES. CONTRACTOR SHALL EXAMINE AREAS FOR CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED AND REPORT IN WRITING TO THE COUNTY ALL CONDITIONS CONTRARY TO THOSE SHOWN ON THE DRAWINGS OR SPECIFIED HEREIN AND ALL OTHER CONDITIONS THAT WILL AFFECT SATISFACTORY EXECUTION OF THE WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.</div><div>19. CONTRACTOR MUST PROVIDE AND USE A TRASH RECEPTACLE AT ALL WORKSITES. TRASH RECEPTACLE MUST BE EMPTIED AT LEAST ONCE A WEEK. CONTRACTOR REQUIRED TO PROVIDE AND MAINTAIN TEMPORARY TOILET FACILITIES.</div><div>20. EXCESS EXCAVATED EARTH WILL BE SPREAD WITHIN THE PATH CORRIDORS AS DIRECTED BY THE ENGINEER. ALL DISTURBED AREAS WITHIN THE PATH CORRIDOR SHALL BE GRADED AND GRASSED AS SPECIFIED.</div><div>21. STARTING WORK CONSTITUTES ACCEPTANCE OF THE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED. AFTER SUCH ACCEPTANCE THE CONTRACTOR SHALL AT HIS EXPENSE, BE RESPONSIBLE FOR CORRECTING ALL UNSATISFACTORY AND DEFECTIVE WORK RESULTING FROM SUCH UNSATISFACTORY CONDITIONS.</div><div>22. ALL DIMENSIONS AND DETAILS OF EXISTING CONDITIONS INDICATED ON THE DRAWINGS SHALL BE FIELD MEASURED AND VERIFIED BEFORE PROCEEDING. NECESSARY FIELD CHECKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.</div><div>23. THE CONTRACTOR WARRANTS THAT HIS EMPLOYEES, AGENTS AND SUBCONTRACTORS POSSESS THE EXPERIENCE, KNOWLEDGE AND CHARACTER NECESSARY TO QUALIFY THEM INDIVIDUALLY FOR THE PARTICULAR CONSTRUCTION TECHNIQUES THEY PERFORM UNDER THIS CONTRACT. THE CONTRACTOR SHALL INSURE THAT ALL CONSTRUCTION BE PERFORMED IN STRICT COMPLIANCE WITH OSHA, STATE HEALTH AND SAFETY CODES.</div><div>24. CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND EROSION. SUFFICIENT LIGHTS, SIGNS AND TRAFFIC CONTROL METHODS SHALL BE INSTALLED FOR THE PROTECTION AND SAFETY OF THE PUBLIC AND MAINTAINED AS NECESSARY THROUGHOUT THE CONSTRUCTION PROCESS OF THE PROJECT.</div><div>25. LOCATION OF ALL CONSTRUCTION ITEMS SHALL BE FIELD VERIFIED BY CONTRACTOR AND APPROVED BY ENGINEER PRIOR TO PLACEMENT.</div><div>26. ALL DRIVEWAYS, WHERE ACCESS IS ALLOWED, SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN ACCORDANCE WITH RULES AND REGULATIONS FOR CONTROL AND PROTECTION OF FORSYTH COUNTY ENGINEERING DEPARTMENT RIGHTS-OF-WAY. ALL DRIVEWAYS THAT ARE TO BE RECONSTRUCTED SHALL BE REPLACED, IN KIND, I.E., ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE, AND AGGEGATE SURFACE COURSE FOR EARTH. THE DRIVEWAY LOCATIONS INDICATED ON THE PLANS ARE FROM THE BEST AVAILABLE DATA. THE CONTRACTOR SHALL CONSTRUCT NEW DRIVEWAYS TO MATCH THE ACTUAL FIELD LOCATION OF EXISTING DRIVEWAYS WHERE THEY ARE NOT IN CONFLICT WITH THE RULES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN THE APPROVAL OF THE ENGINEER PRIOR TO MAKING ANY REVISIONS SUCH AS TO LOCATION, WIDTH AND/OR NUMBER OF DRIVES TO BE CONSTRUCTED. WHERE REQUIRED, THE DRIVES SHALL BE PAVED AS FOLLOWS: <div>ASPHALTIC AND UNPAVED DRIVES SHALL BE PAVED TO THEIR CONSTRUCTION LIMITS. RESIDENTIAL - RECYCLED ASPHALTIC CONCRETE 9.5 MM SUPERPAVE, GP 2 ONLY, INCL. BITUM MAT'L & LIME - 1-1/2 INCH; GRADED AGGREGATE BASE - 6 INCH COMMERCIAL - RECYCLED ASPHALTIC CONCRETE 12.5 MM SUPERPAVE, GP 2 ONLY, INCL. BITUM MAT'L & H. LIME - 1-1/2 INCH; RECYCLED ASPHALTIC CONCRETE 19 MM SUPERPAVE, GP 1 OR 2, INCL. BITUM MAT'L & H. LIME - 2 INCH; GRADED AGGREGATE BASE - 8 INCH CONCRETE DRIVES RESIDENTIAL - CONCRETE VALLEY GUTTER - 6 INCH; CONCRETE DRIVEWAY - 6 INCH COMMERCIAL - CONCRETE VALLEY GUTTER - 8 INCH; CONCRETE DRIVEWAY - 8 INCH</div></div><div>27. ALL DRIVEWAY RADI SHALL BE 35', UNLESS OTHERWISE NOTED.</div><div>28. THERE ARE EXISTING MONITORING WELLS IN PARCEL 14 AND ALONG BIG CREEK AT PARCEL 14. THE CONTRACTOR WILL CONTACT THE PROPERTY OWNER BEFORE CONSTRUCTION TO FIND OUT IF ANY OF THE WELLS ARE CURRENTLY BEING USED. FOR ANY WELL OR OTHER ITEMS STILL IN USE, THE CONTRACTOR WILL PROVIDE PROTECTION AND ACCESS TO THEM BEFORE, DURING, AND AFTER CONSTRUCTION.</div><div>29. ALL EXISTING PIPES ARE TO BE REMOVED OR FILL WITH FLOWABLE FILL UNLESS OTHERWISE NOTED AS "RETAIN" IN THE PLANS.</div><div>30. THE CONTRACTOR SHALL ONLY UTILIZE MANUAL HAND CLEARING AND INSTALLATION OF ORANGE BARRIER FENCE NEAR ENVIRONMENTALLY SENSITIVE AREAS PAST THE POINT OF SILT FENCE INSTALLATION AS SHOWN IN THE PLANS. MECHANIZED CLEARING OR GRUBBING WILL NOT BE ALLOWED IN THESE AREAS.</div><div>31. ALL WALLS SHALL UTILIZE AN "ASHLAR FINISH" ON FINISHED SURFACES. THE COUNTY WILL HAVE FINAL APPROVAL AND SHOULD BE CONSULTED BEFORE FINALIZE ANY WALL SURFACE.</div></div></div>											
<div>10/23/2015</div> <div>GPLN</div>			FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND</div> <div>Architects • Engineers • Planners</div>	REVISION DATES			GENERAL NOTES RONALD REAGAN BLVD EXTENSION			
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<div>GENERAL NOTES:<div>1. WHERE INDICATED, UTILITY PIPE SIZE AND MATERIAL ARE BASED ON VISUAL EVIDENCE OR RECORD PLANS.</div><div>2. EMPTY CONDUITS, OVERHEAD COMMERCIAL LIGHTING, TRAFFIC CONTROL SENSORS IN PAVING, IRRIGATION/SPRINKLER, AND OTHER PRIVATELY OWNED UTILITY LINES WERE NOT INCLUDED IN THIS PROJECT.</div><div>3. ALL FIRE HYDRANT CONNECTION MATERIAL SIZES AND TYPES ARE UNKNOWN UNLESS OTHERWISE NOTED ON THE PLANS.</div><div>4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, LATEST EDITION, AS MODIFIED BY CONTRACT DOCUMENTS.</div><div>5. THE CONTRACTOR'S ATTENTION IS CALLED TO SUB-SECTION 105.06, "COOPERATION WITH UTILITIES." UTILITY WORK COORDINATION WILL BE REQUIRED AS A PART OF THIS CONTRACT.</div><div>6. ALL BORROW AND WASTE SITES FOR THIS PROJECT SHALL BE ENVIRONMENTALLY APPROVED PRIOR TO CONSTRUCTION ACTIVITIES OCCURING IN THEM. ALL COMMAN FILL OR EXCESS MATERIAL DISPOSED OUTSIDE THE PROJECT RIGHT OF WAY SHALL BE PLACED IN EITHER A PERMITTED SOLID WASTE FACILITY, A PERMITTED INERT WASTE LANDFILL OR IN AN ENGINEERED LANDFILL. SEE SECTION 201 OF THE GDOT STANDARD SPECIFICATION AND SUPPLEMENTS THERETO FOR ADDITIONAL INFORMATION.</div><div>7. THERE IS NOT KNOWN SUITABLE PLACE TO BURY EXISTING CONSTRUCTION DEBRIS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL PROVIDE AN ENVIRONMENTALLY APPROVED SITE AS SHOWN IN GDOT SPECIFICATIONS 201 TO DISPOSE OF EXISTING CONSTRUCTION DEBRIS AT NO ADDITIONAL COST TO THE COUNTY.</div><div>8. THE CONTRACTOR SHALL ABIDE BY ALL RECOMMENDATIONS DESCRIBED IN THE SOIL SURVEY, DATED JANUARY 10, 2018.</div></div> <div>UTILITY SUMMARY:<div>ALL THE FOLLOWING UTILITY OWNERS WERE REPORTED TO HAVE FACILITIES WITHIN THE VICINITY OF THIS PROJECT.</div><div>ATLANTA LIGHT GAS (AGL) UNDERGROUND GAS</div><div>AMERICAN TELEPHONE & TELEGRAPH (ATT) TELECOMMUNICATIONS</div><div>COMCAST COMMUNICATIONS (COM) CABLE TV</div><div>FORSYTH COUNTY (FCPW) SEWER AND WATER</div><div>GEORGIA POWER COMPANY - ELECTRICAL TRANSMISSION (GPCT) ELECTRICAL</div><div>SAWNEE EMC (SEMC) ELECTRICAL</div><div>VERIZON (VERZ) TELECOMMUNICATIONS</div></div>																													
				<div>GEORGIA811 Utilities Protection Center, Inc</div> <div>Know what's below. Call before you dig.</div>																									
		FORSYTH COUNTY ENGINEERING DEPARTMENT		<div><div>POND</div><div>Architects • Engineers • Planners</div></div>																									
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Resistivity10001

Project Number: Ronald Reagan Blvd Extension

County: Forsyth County

P.I. Number:

Pipe Culvert Material Alternates

TYPE OF INSTALLATION			PIPE TYPE										
			CONCRETE	STEEL			ALLUMINUM	THERMOPLASTIC					
			REINFORCED CONCRETE AASHTO M-170	CORRUGATED STEEL ALUMINUM COATED (TYPE 2) AASHTO M-36	CORRUGATED STEEL PLAIN ZINC COATED AASHTO M-36	POLYMER COATED STEEL AASHTO M-245	CORRUGATED ALUMINUM AASHTO M-196	CORRUGATED HDPE AASHTO M-252	CORRUGATED SMOOTHED LINED HDPE TYPE "S" AASHTO M-294	CORRUGATED SMOOTH LINED POLYPROPYLENE AASHTO M-330	PVC CORRUGATED SMOOTH INTERIOR ASTM F-949	PVC Profile Wall Drain Pipe AASHTO M-304	
STORM DRAIN	NON-TRAVEL BEARING (OUTSIDE ROADBED)	INTERSTATE	X										
		NON INTERSTATE	X	X		X	X		X	X	X	X	
	TRAVEL BEARING (INSIDE ROADBED)	GRADE ≤ 10%	ADT < 1,500	X	X		X	X		X	X	X	X
			1,500 < ADT < 5,000	X	X		X	X		X	X	X	X
			5,000 < ADT < 15,000	X						X	X	X	X
			ADT > 15,000 & INTERSTATES	X									
			GRADE > 10%				X			X	X	X	X
	SIDE DRAIN		X	X	X	X	X		X	X	X	X	
PERMANENT SLOPE DRAIN			X	X	X	X		X	X	X	X		
PERFORATED UNDERDRAIN			X	X		X	X	X	X	X	X		

NOTES:

1 Allowable materials are indicated by an "X".

2 Structural, installation, fill height and backfill requirements of storm drain pipe will be in accordance with Georgia Standard 1030-D or 1030-P and the Standard Specifications

3 The Contractor shall provide additional storm sewer capacity calculations if a pipe material other than concrete is selected.

4 Pipe used under mechanically stabilized earth (MSE) walls, within MSE wall backfill, or within five feet of an MSE wall face shall be Class V Concrete Pipe.

Rev. 1-12-16

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

REVISION DATES

GENERAL NOTES

RONALD REAGAN BLVD EXTENSION

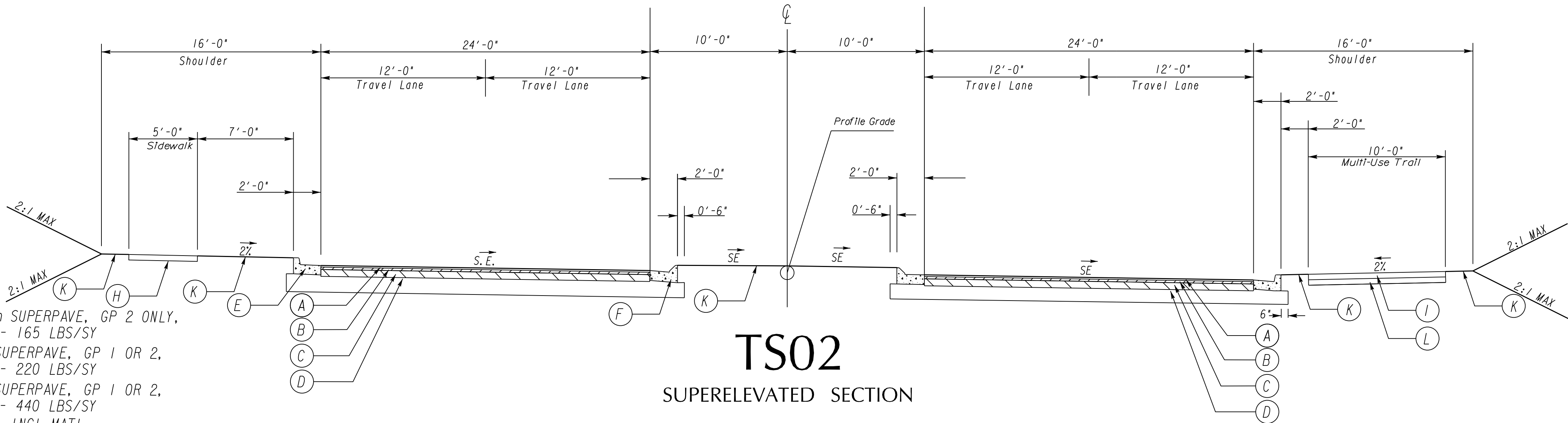
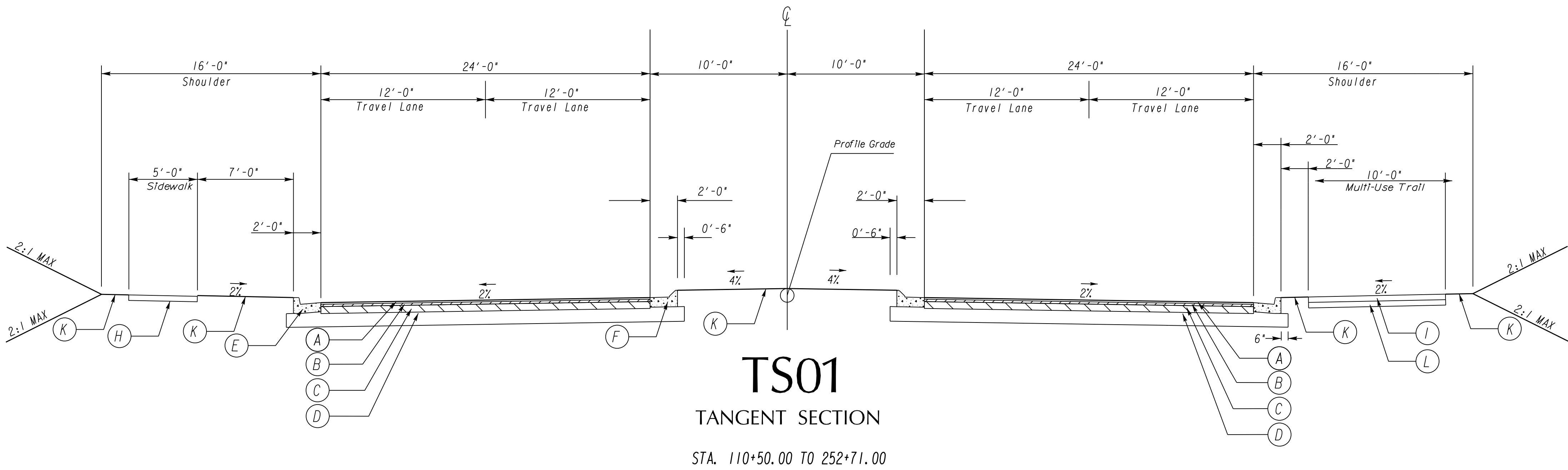
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.

04-0003

10/23/2015

GPIV



- (A) - RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME - 165 LBS/SY
- (B) - RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - 220 LBS/SY
- (C) - RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - 440 LBS/SY
- (D) - GR AGGR BASE CRS, 10 INCH, INCL MATL
- (E) - CONC. CURB AND GUTTER, 8" x 24", TYPE 2 (6 IN. HT.)
- (F) - CONC. CURB AND GUTTER, 8" x 24", TYPE 7 (6 IN. HT.)
- (G) - MILL ASPH CONC, 1.5 IN
- (H) - CONC SIDEWALK, 4 IN
- (I) - CONC SIDEWALK, 6 IN
- (J) - CONC MEDIAN
- (K) - SOD, BERMUDA
- (L) - GR AGGR BASE CRS, 6 INCH, INCL MATL

- (M) - RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME
- (N) - RECYCLED ASPH CONC PATCHING, INCL BITUM MATL & H LIME

*MEDIAN
0'-8' - CONC MEDIAN PAVING
8'+ - BERMUDA SOD

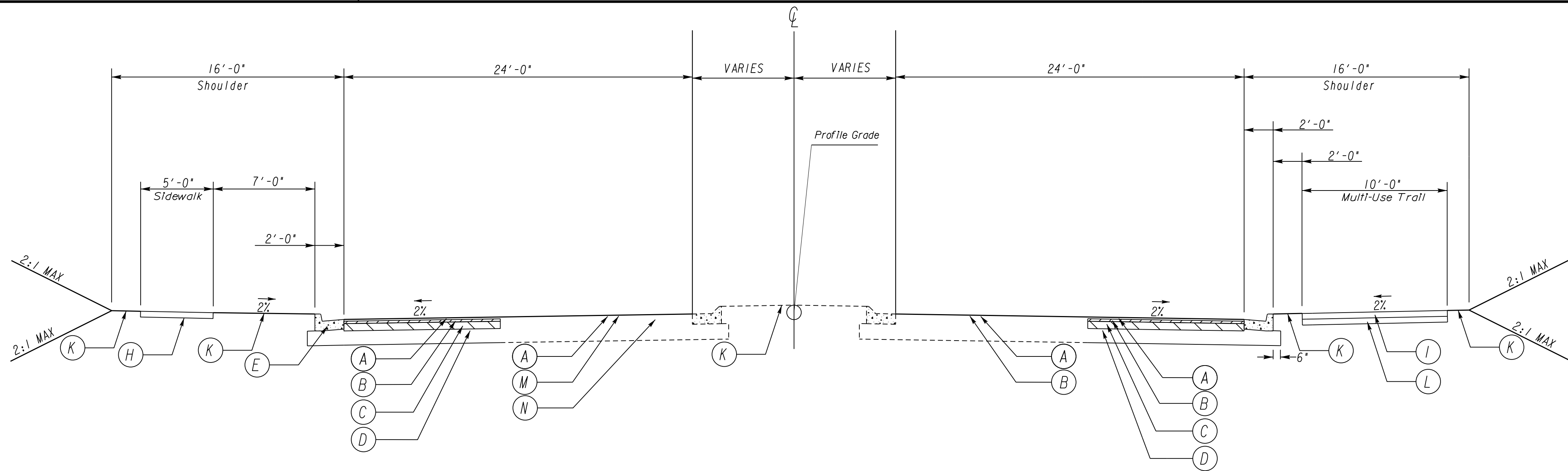
SEE ROADWAY PLANS FOR SUPERELEVATION RATES AND TRANSITIONS.

MAXIMUM SUPERELEVATION RATE IS 4.00%

NOTE: FOR METHOD OF SUPERELEVATION SEE CONSTR LAYOUT SHEETS-CURVE DATA. LOCATIONS OF NORMAL CROWN & FULL S.E. NOTED ON CONSTR LAYOUT SHEETS.

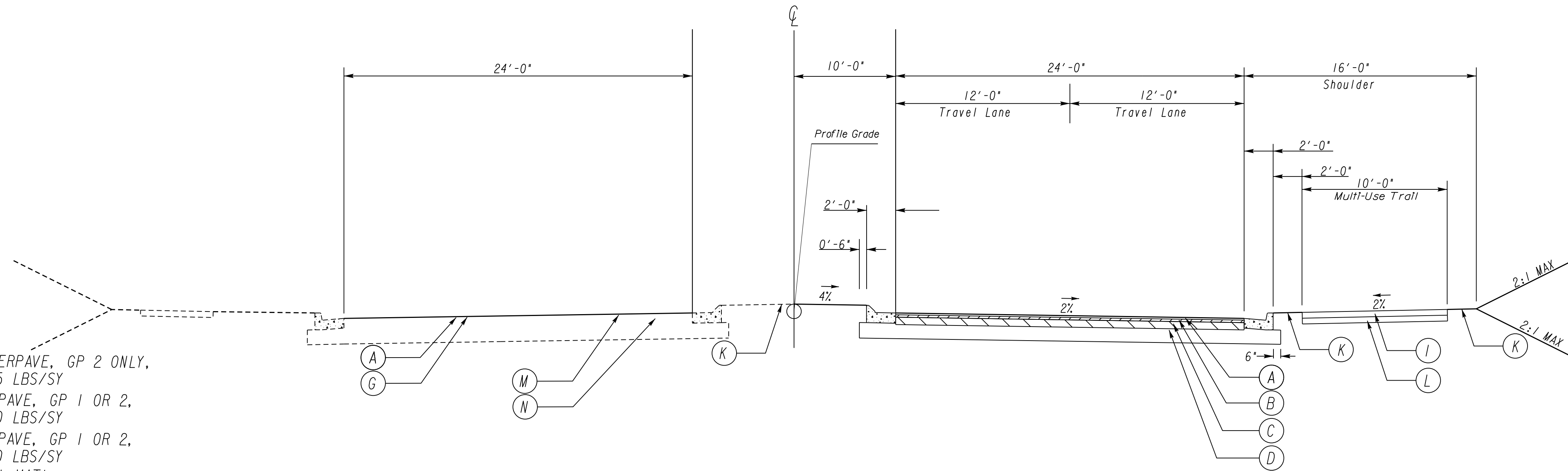
CURB & GUTTER ON HIGH SIDE OF SE TO SLOPE SAME AS PAVEMENT

SHOULDER MAY BE GRADED AWAY FROM ROADWAY TO FACILITATE THE SLOPE TIE TO EXISTING GROUND.



TS03

STA. 97+22.22 TO 104+26.91
282+50.00 TO 283+64.55 RIGHT



TS04

STA. 254+54.18 TO 283+50.00 LEFT

TS05

STA. 256+85.07 TO 282+50.00 RIGHT

- (A) - RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME - 165 LBS/SY
- (B) - RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - 220 LBS/SY
- (C) - RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME - 440 LBS/SY
- (D) - GR AGGR BASE CRS, 10 INCH, INCL MATL
- (E) - CONC. CURB AND GUTTER, 8" x 24", TYPE 2 (6 IN. HT.)
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- (K) - SOD, BERMUDA
- (L) - GR AGGR BASE CRS, 6 INCH, INCL MATL

- (M) - RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME
- (N) - RECYCLED ASPH CONC PATCHING, INCL BITUM MATL & H LIME

*MEDIAN
0'-8' - CONC MEDIAN PAVING
8'+ - BERMUDA SOD

SEE ROADWAY PLANS FOR SUPERELEVATION RATES AND TRANSITIONS.

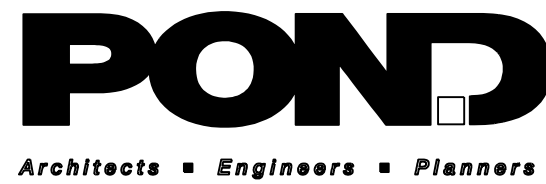
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CURB & GUTTER ON HIGH SIDE OF SE TO SLOPE SAME AS PAVEMENT

SHOULDER MAY BE GRADED AWAY FROM ROADWAY TO FACILITATE THE SLOPE TIE TO EXISTING GROUND.

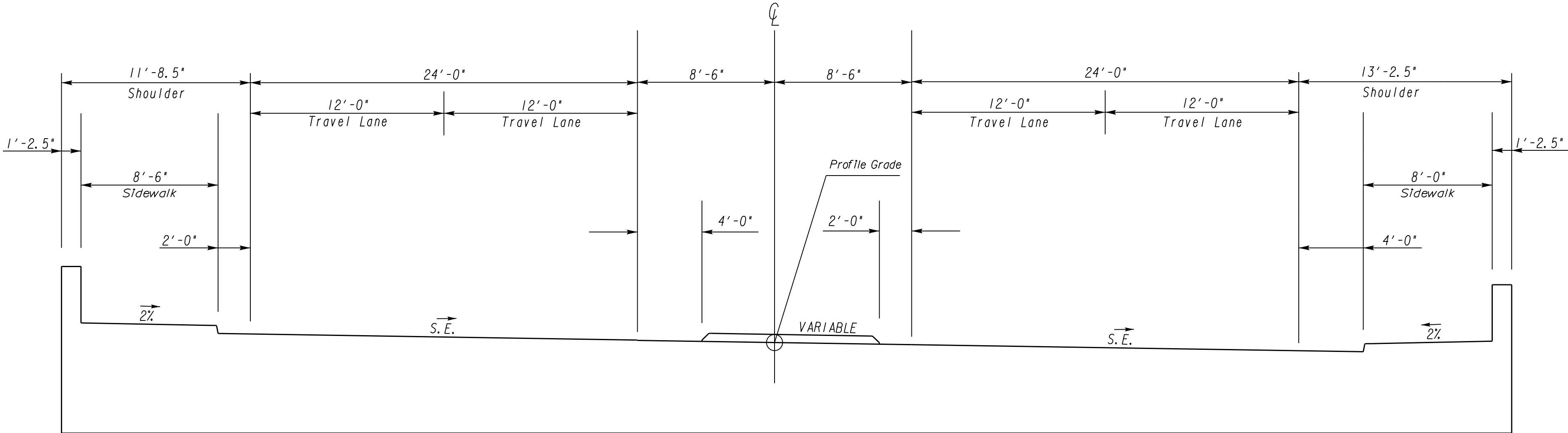
FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

TYPICAL SECTIONS
RONALD REAGAN BLVD EXTENSION

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	05-0002
CORRECTED:	DATE:	
VERIFIED:	DATE:	



TS06
BRIDGE

STA. 147+65.50 TO 151+24.50

- A

- RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY,
INCL BITUM MATL & H LIME - 165 LBS/SY

B

- RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2,
INCL BITUM MATL & H LIME - 220 LBS/SY

C

- RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2,
INCL BITUM MATL & H LIME - 440 LBS/SY

D

- GR AGGR BASE CRS, 10 INCH, INCL MATL

E

- CONC. CURB AND GUTTER, 8" x 24", TYPE 2 (6 IN. HT.)

F

- CONC. CURB AND GUTTER, 8" x 24", TYPE 7 (6 IN. HT.)

G

- MILL ASPH CONC, 1.5 IN

H

- CONC SIDEWALK, 4 IN

I

- CONC SIDEWALK, 6 IN

J

- CONC MEDIAN

K

- SOD, BERMUDA

L

- GR AGGR BASE CRS, 6 INCH, INCL MATL

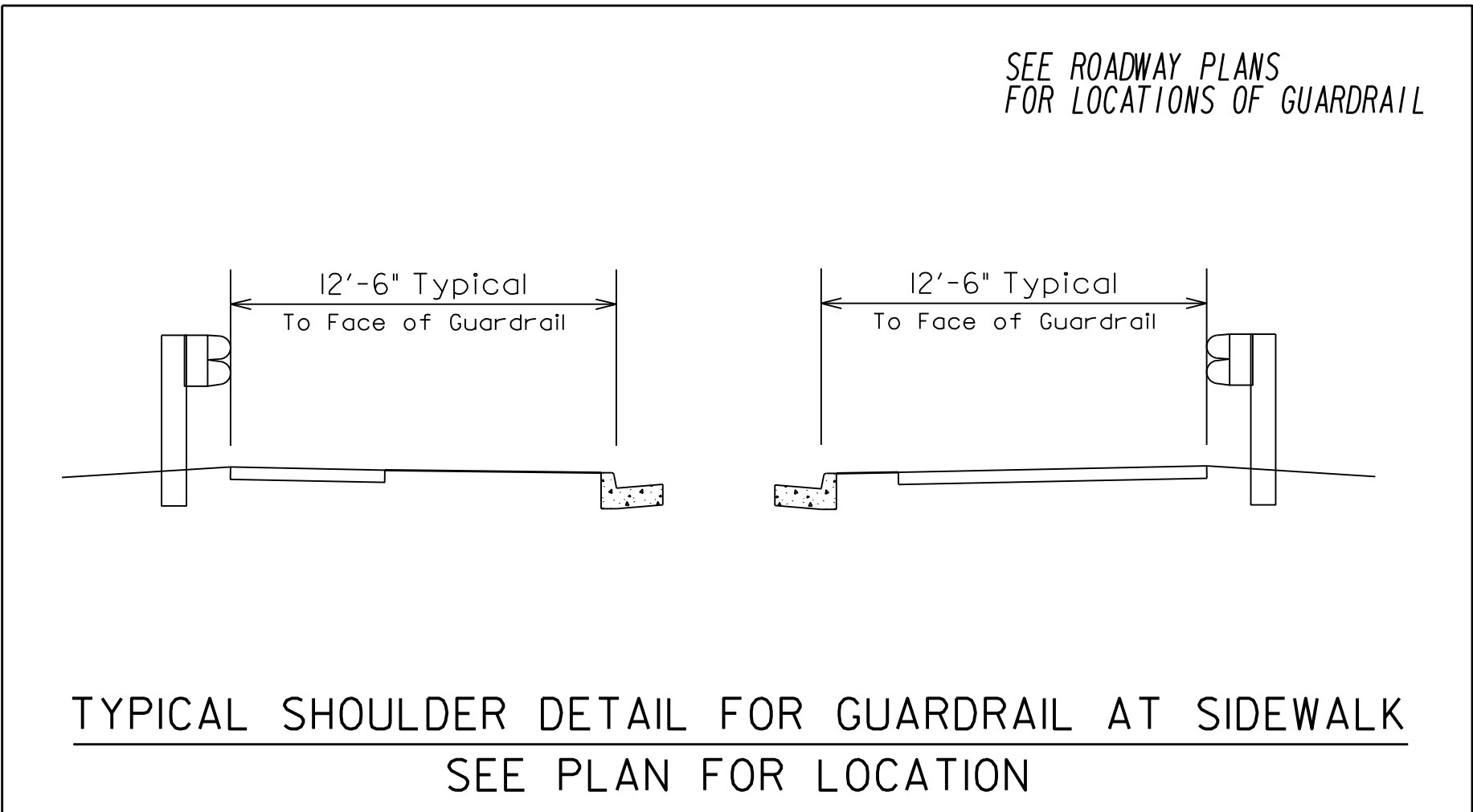
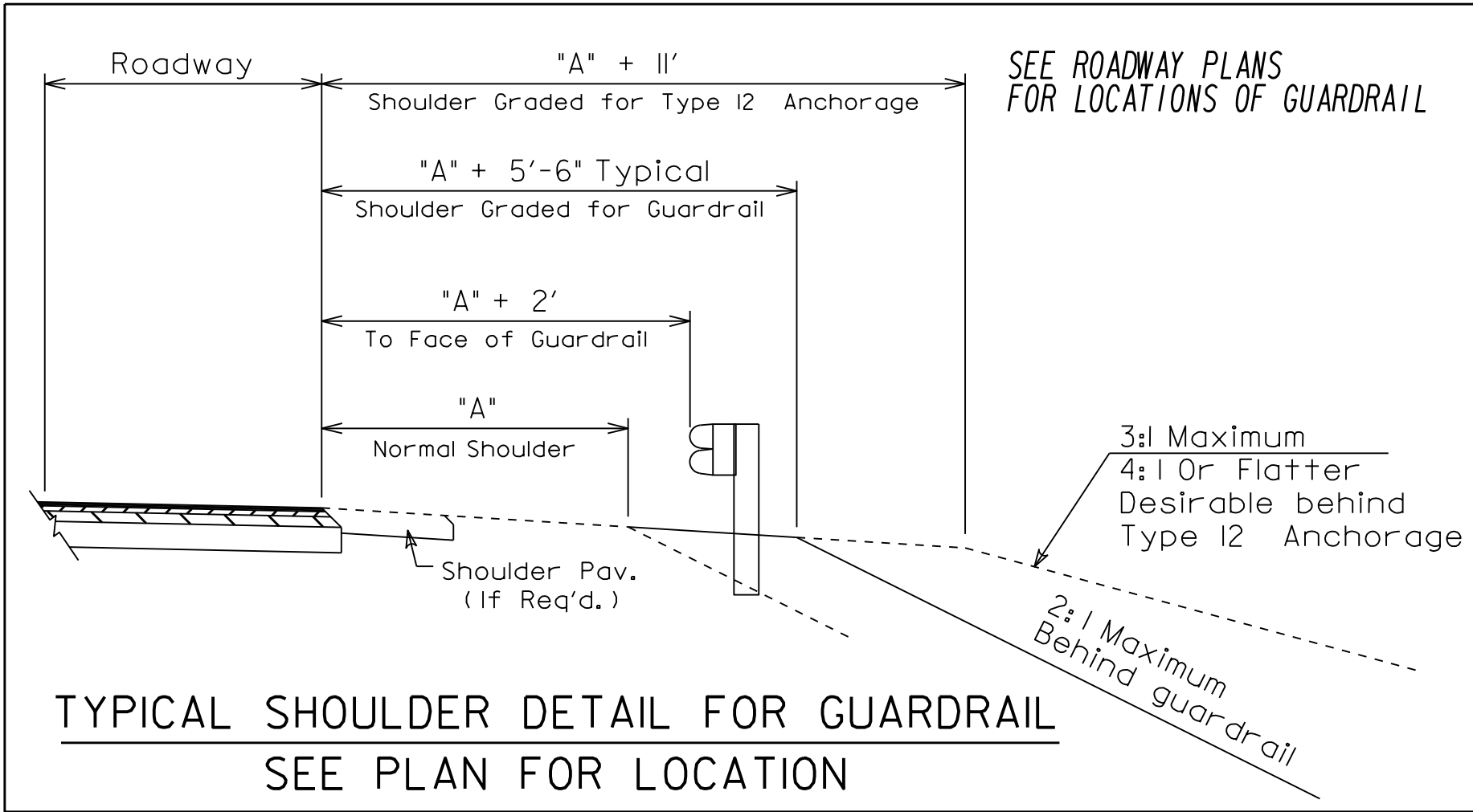
M

- RECYCLED ASPH CONC LEVELING, INCL BITUM
MATL & H LIME

N

- RECYCLED ASPH CONC PATCHING, INCL BITUM
MATL & H LIME

10/23/2015 GPLN		FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND</div> <div>Architects • Engineers • Planners</div>	REVISION DATES			TYPICAL SECTIONS			
							RONALD REAGAN BLVD EXTENSION			
							CHECKED:		DATE:	DRAWING No.
							BACKCHECKED:		DATE:	05-0003
							CORRECTED:		DATE:	
							VERIFIED:		DATE:	



- (A)

- RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2 ONLY,
INCL BITUM MATL & H LIME - 165 LBS/SY

(B)

- RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2,
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(E)

- CONC. CURB AND GUTTER, 8" x 24", TYPE 2 (6 IN. HT.)

(F)

- CONC. CURB AND GUTTER, 8" x 24", TYPE 7 (6 IN. HT.)

(G)

- MILL ASPH CONC, 1.5 IN

(H)

- CONC SIDEWALK, 4 IN

(I)

- CONC SIDEWALK, 6 IN

(J)

- CONC MEDIAN

(K)

- SOD, BERMUDA

(L)

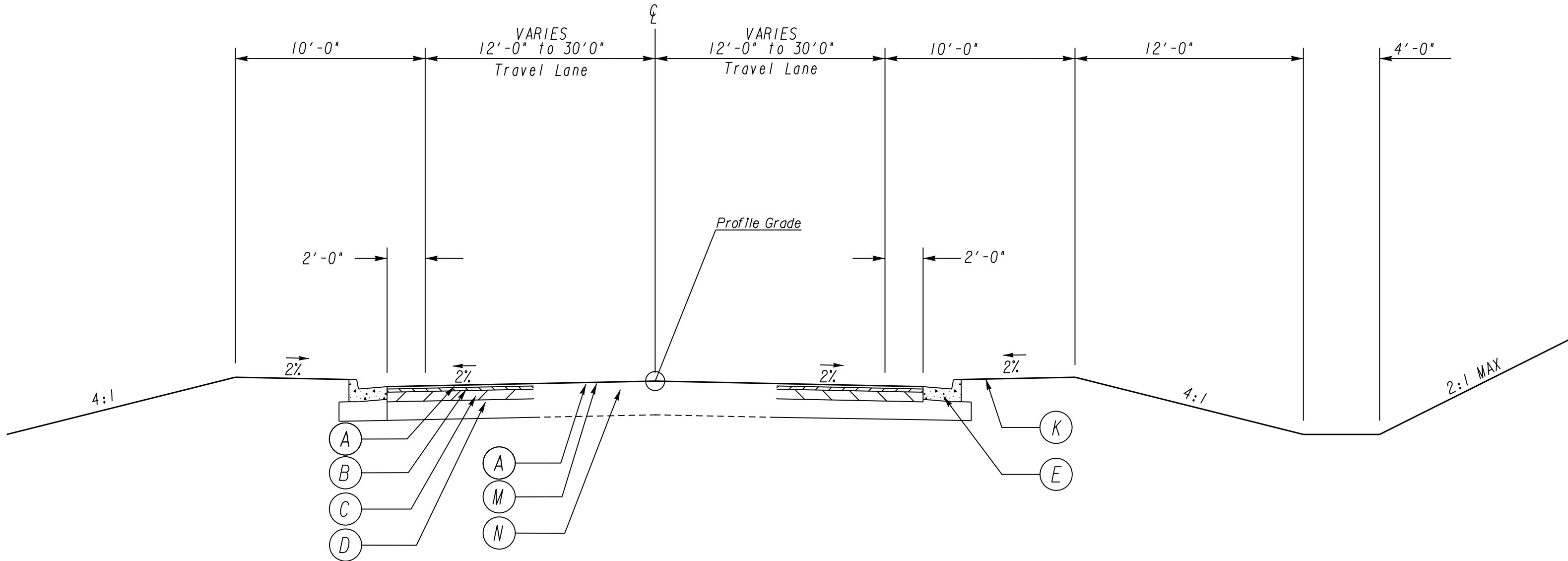
- GR AGGR BASE CRS, 6 INCH, INCL MATL

(M)

- RECYCLED ASPH CONC LEVELING, INCL BITUM
MATL & H LIME

(N)

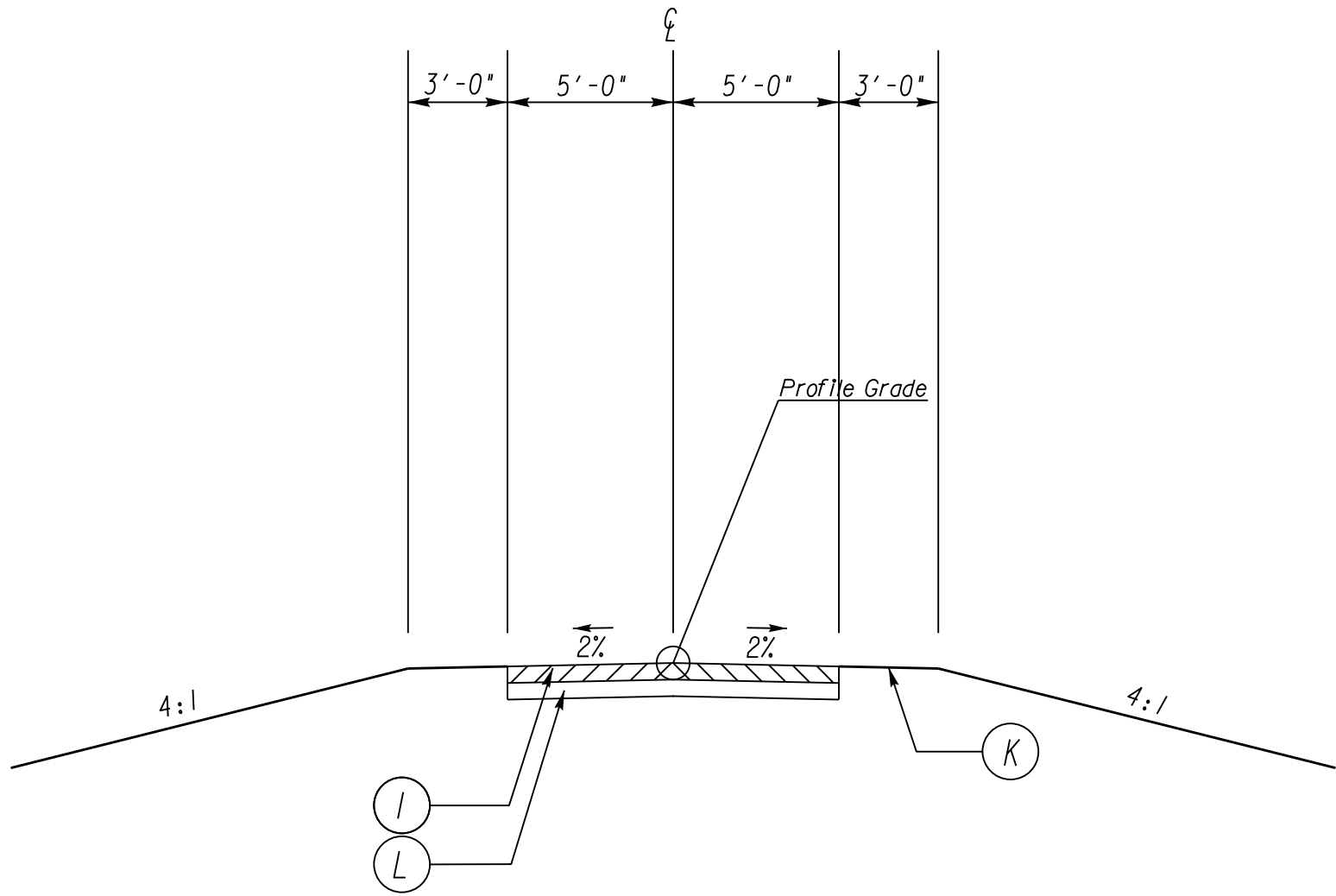
- RECYCLED ASPH CONC PATCHING, INCL BITUM
MATL & H LIME



TS07

BLUEGRASS POINTE
SHILOH ROAD

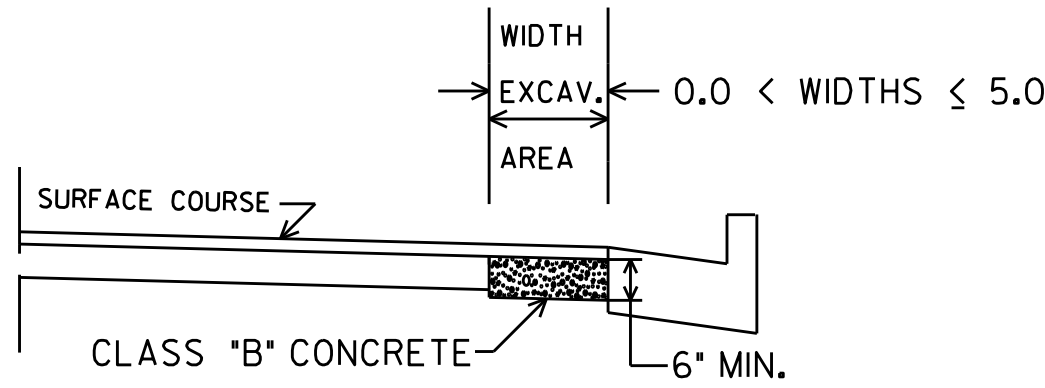
STA. 600+14.00 TO 607+10.00



TS08

BIG CREEK GREENWAY – CONNECTION

STA. 50+00.00 TO 51+95.74



NO SCALE

CLASS "B" CONCRETE BASE OR PAVEMENT WIDENING

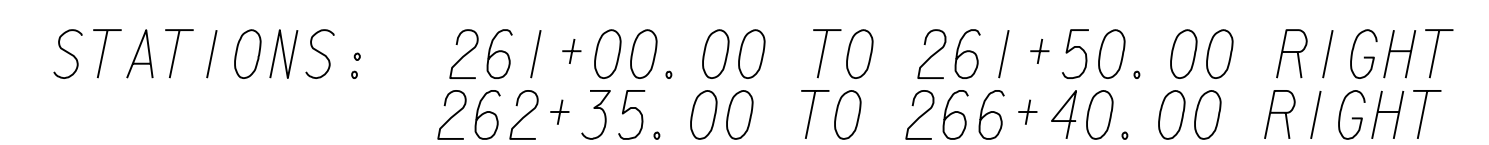
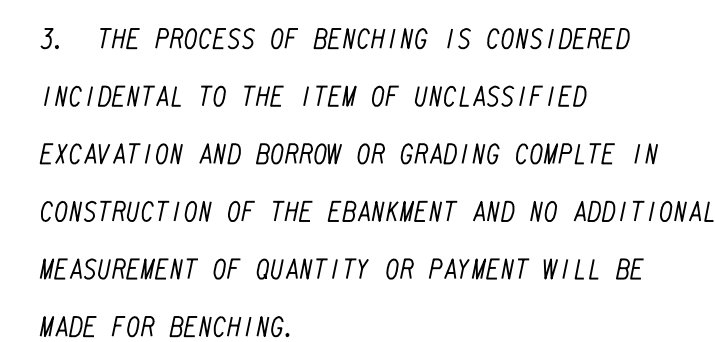
Item Code 500-9999 - Cu.Yds.

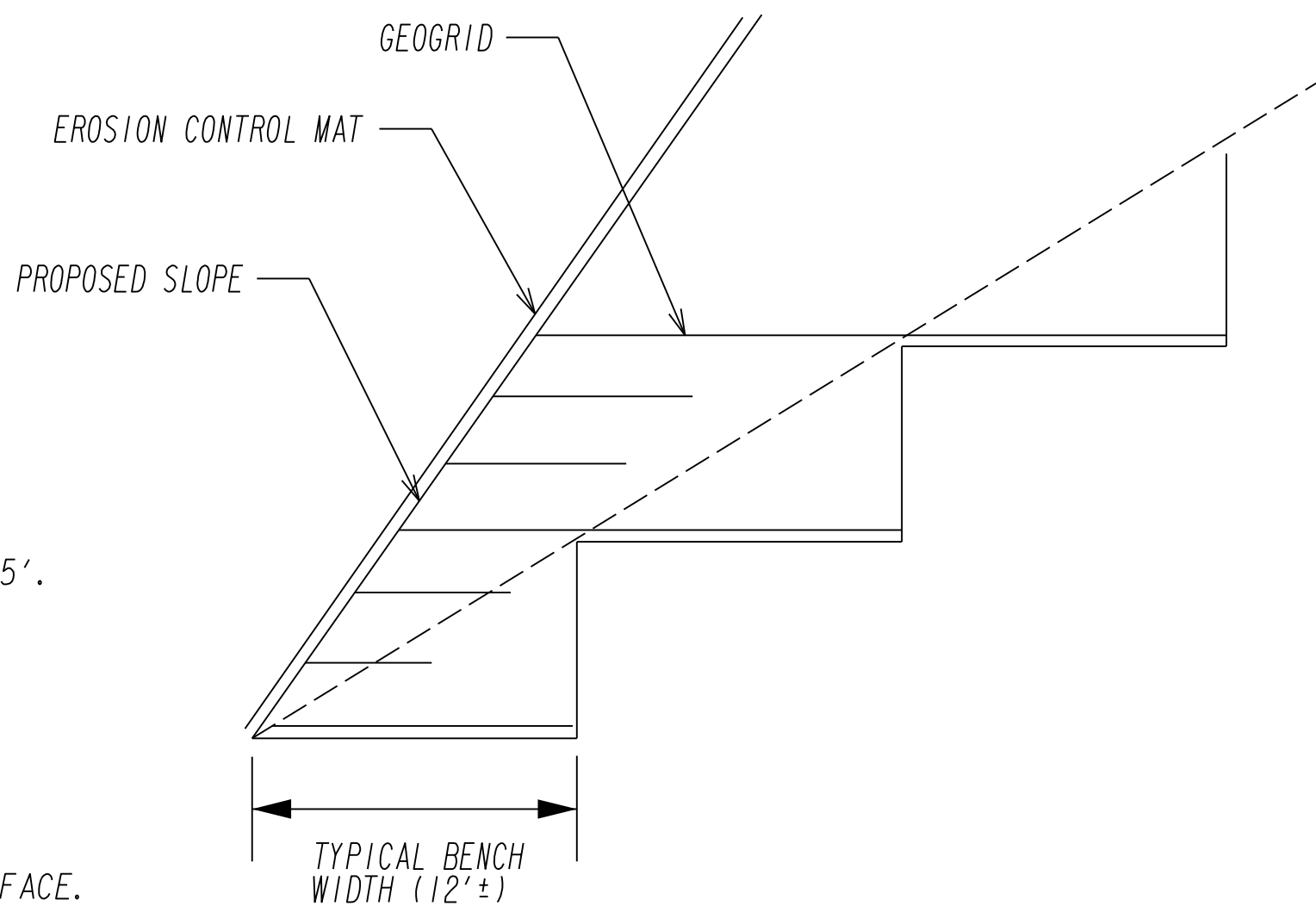
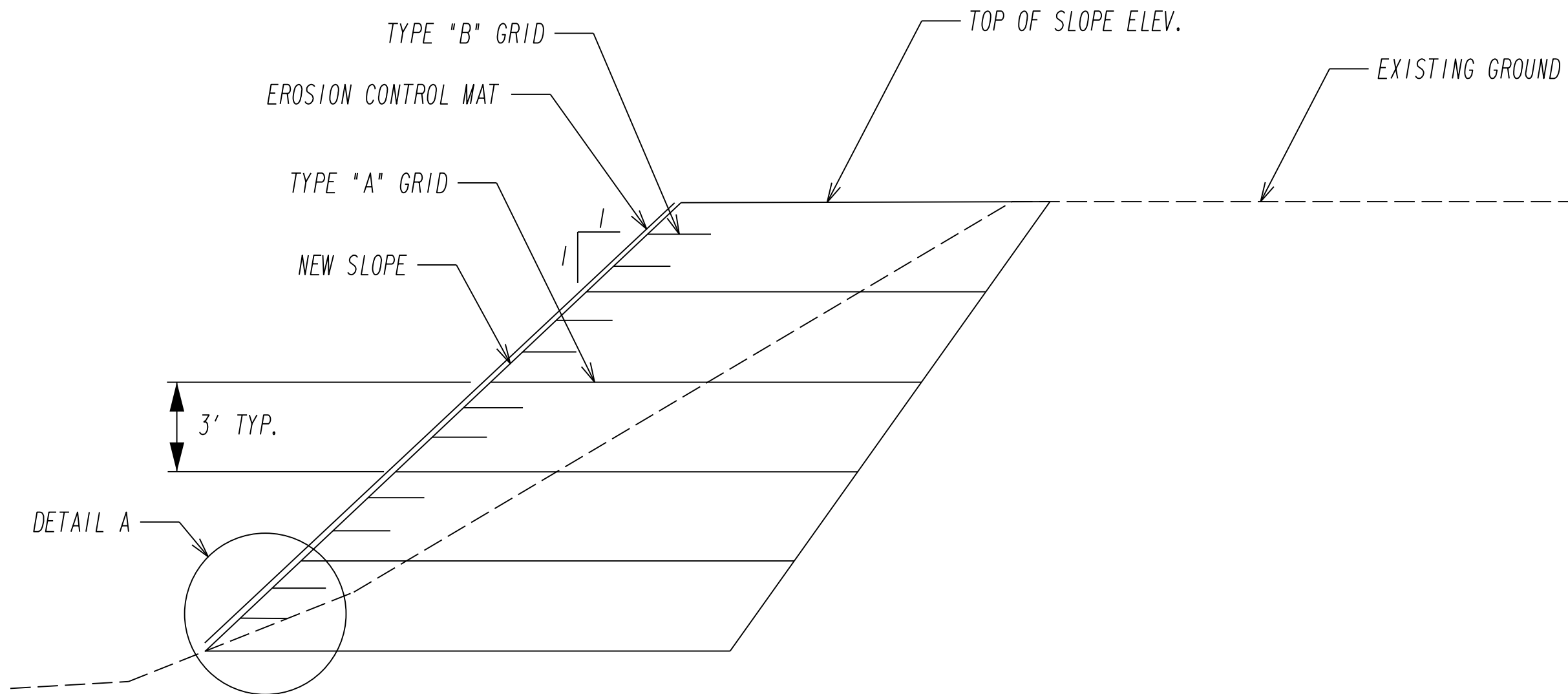
In excavated areas between the existing paving and new curb and gutter that are 5'-0" or less in width, Class "B" concrete shall be placed in lieu of the base and paving specified by the typical section. Payment will be made under "Class B Concrete Base and Pavement Widening".

In excavated areas greater than 5'-0" in width, the Contractor shall place base and paving as specified on the typical section.

See plans for details of curb and gutter construction.

CLASS "B" CONCRETE BASE OR WIDENING DETAIL





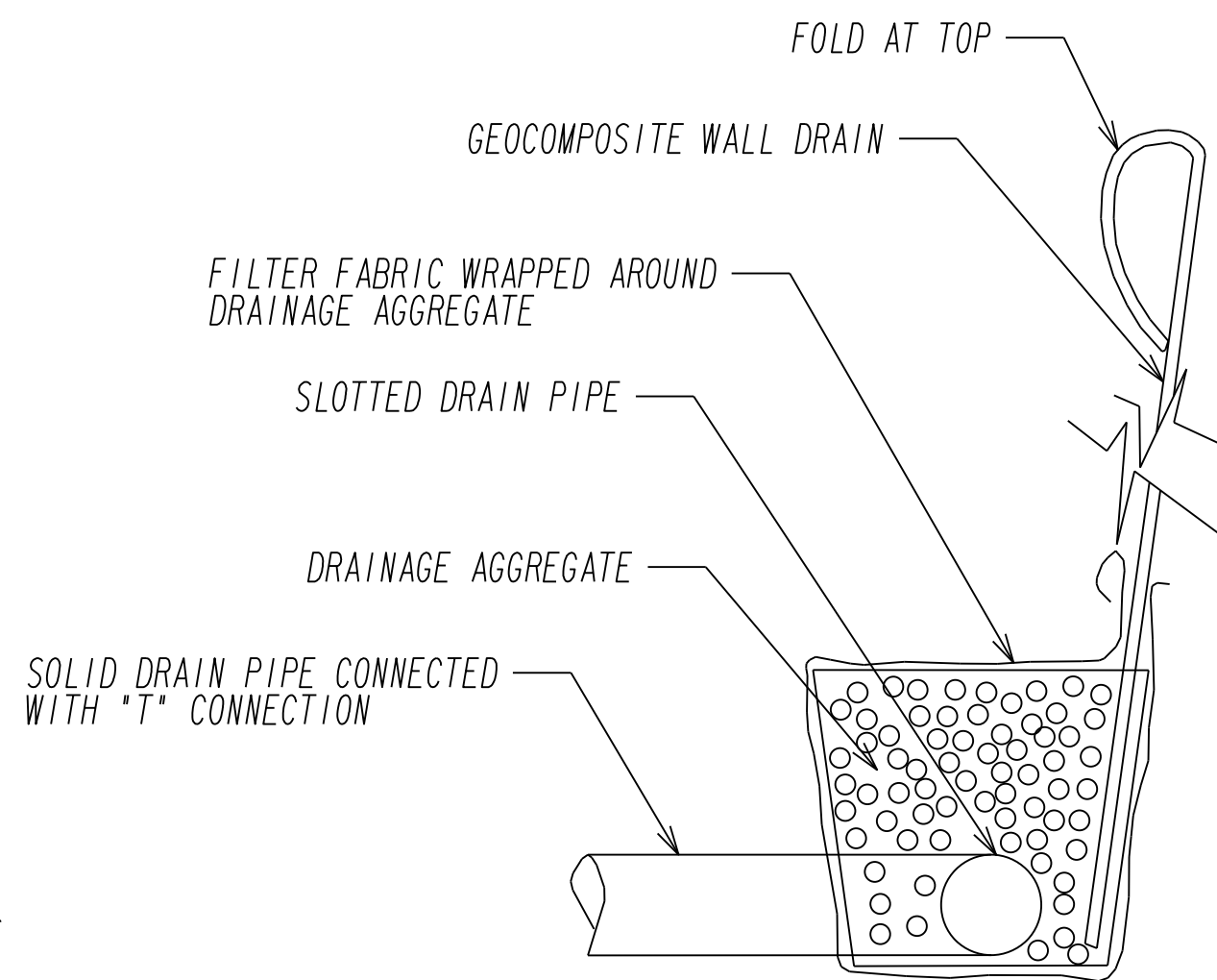
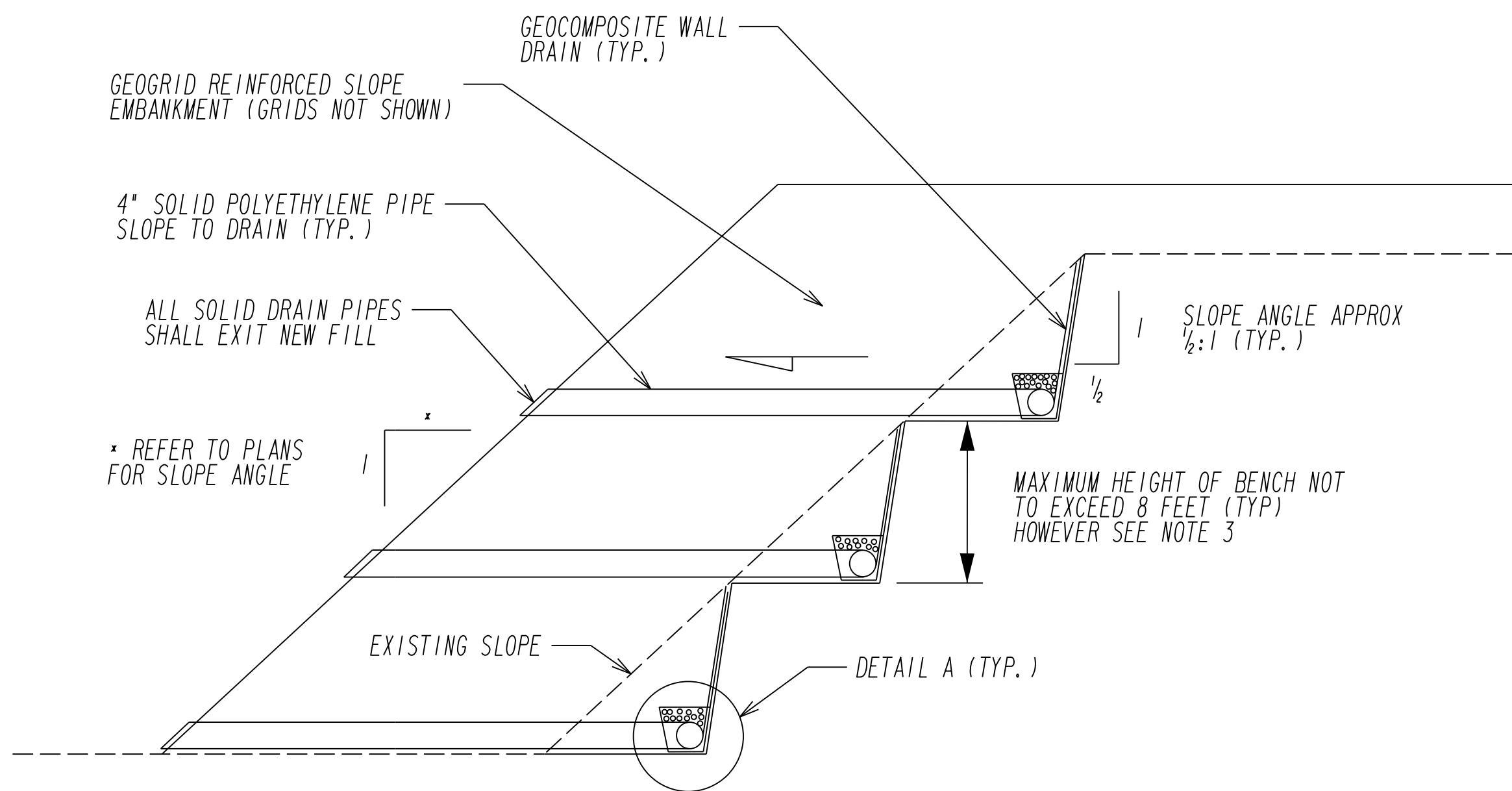
- NOTES:
1. DETAIL SHOWN IS FOR MAXIMUM REINFORCED SLOPE HEIGHT OF 15'. FOR SLOPE HEIGHTS LESS THAN 15', PROJECT THE HEIGHT DOWN FROM THE TOP OF SLOPE ELEV.
 2. TWO LAYERS OF TYPE B GRID ARE PLACED IN BETWEEN TYPE A GRIDS AS SHOWN. LENGTH OF TYPE B IS 4' MINIMUM.
 3. LENGTH OF TYPE A GRID IS 12'. GRIDS SHOULD BE PLACED IN BOTTOM OF SLOPE BENCHES AS SHOWN IN DETAIL A.
 4. PERMANENT SOIL REINFORCING MAT TO BE INSTALLED ON SLOPE FACE.

DETAIL A

SLOPE REINFORCEMENT DETAILS

SEE CROSS SECTIONS FOR LOCATIONS - TO BE USED FOR ANY SLOPE GREATER THAN 2:1

NTS



DETAIL A

- NOTES:
1. BOTTOM BENCH SHALL BE CONSTRUCTED FIRST AND SOLID DRAIN PIPES PLACED BEFORE UPPER BENCHES CONSTRUCTED.
 2. CONTRACTOR SHALL LIMIT BENCH HEIGHT AND LIMITS OF CONSTRUCTION SUCH THAT SLOPE FAILURES OR SLOUGHING OF THE EXISTING EMBANKMENT DO NOT OCCUR.
 3. SOLID DRAIN PIPES SHALL BE PLACED AT MINIMUM 200-FT INTERVALS.

GEOGRID REINFORCED SLOPE EMBANKMENT
INTERNAL DRAINAGE DETAILS

SEE CROSS SECTIONS FOR LOCATIONS - TO BE USED FOR ANY SLOPE GREATER THAN 2:1

NTS

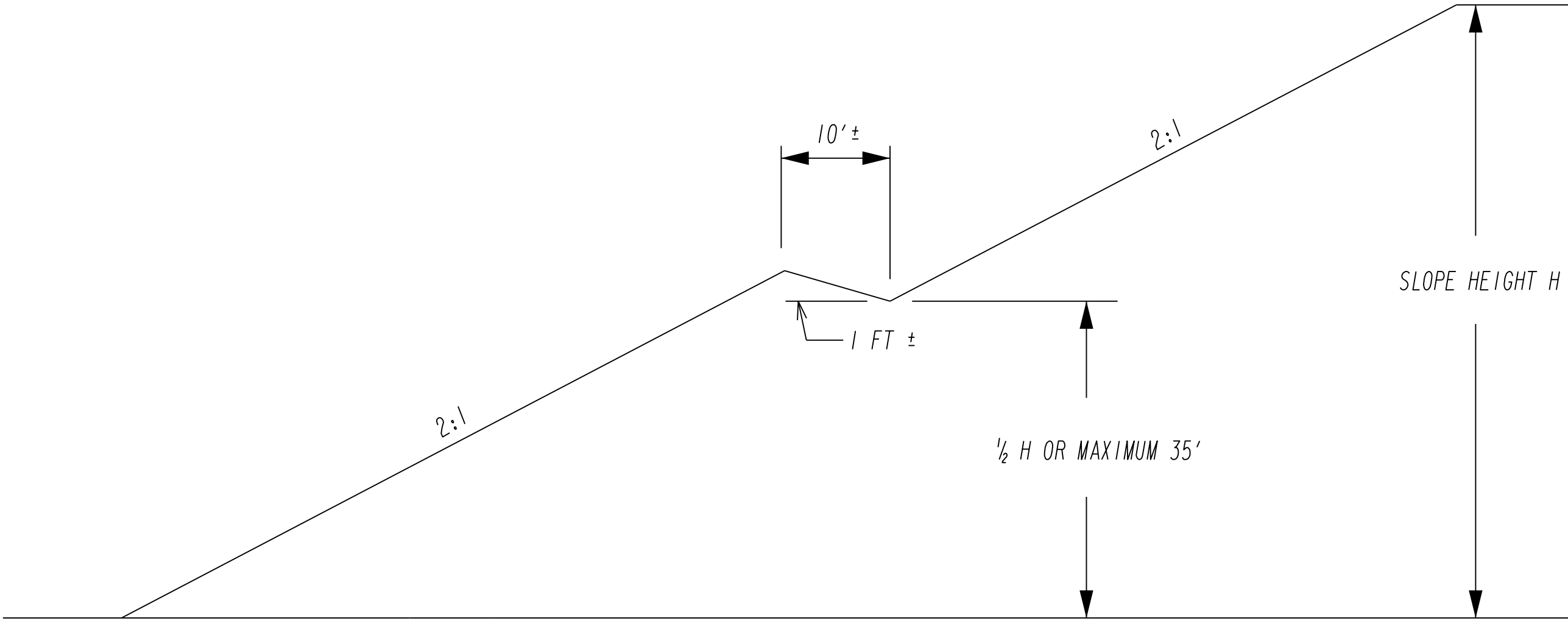
HARD ROCK WAS ENCOUNTERED AT THE FOLLOWING LOCATIONS:

LOCATION	DEPTH
STA. 148+05, 45' LT	35'
STA. 148+15, 45' RT	19'
STA. 148+90, 45' LT	32'
STA. 149+10, 45' RT	26'
STA. 149+75, 45' LT	17'
STA. 150+00, 45' RT	26'
STA. 150+75, 45' LT	16'
STA. 151+00, 45' RT	16'
STA. 151+50, 45' LT	16'
STA. 157+50, CL	11'
STA. 235+00, CL	17'
STA. 242+50, 50' LT	30'
STA. 245+00, 60' LT	16'
STA. 247+50, 60' LT	7'
STA. 249+00, 60' LT	11'
STA. 249+00, 60' RT	31'

LOW WET AREAS AND SWAMPS WERE ENCOUNTERED CONSISTING OF VERY WET/SOFT SANDY CLAYEY SILT DEPOSITS AT THE FOLLOWING LOCATIONS:

STATION TO STATION	DEPTH
185+00 +/- TO 207+00 +/-	10 +/- FEET
207+00 +/- TO 217+00 +/-	6 +/- FEET

THE CONTRACTOR SHALL CONSULT THE SOIL SURVEY AND FIELD VERIFY ALL CONDITIONS.



- NOTES:
- FOR SLOPE HEIGHTS LESS THAN 70 FT., BUT GREATER THAN 35 FT., A BERM SHOULD BE CONSTRUCTED AT APPROX. 1/4 THE SLOPE HEIGHT. FOR SLOPE HEIGHTS GREATER THAN 70 FT., CONSTRUCT A BERM EVERY 35 FT.
 - THE BERM SHOULD BE SLOPED TO DRAIN AND SHOULD BE CONNECTED TO CONCRETE FLUMES TO REMOVE WATER FROM SLOPE.
 - A DRAINAGE DITCH SHOULD BE CONSTRUCTED AT THE TOP OF CUT SLOPES WHERE WATER DRAINS TOWARDS SLOPE.

BERM DETAIL FOR CUTS OR FILLS OVER 35 FEET

SEE PLANS AND CROSS SECTIONS FOR LOCATIONS

NTS

SUMMARY OF QUANTITIES

ROADWAY QUANTITIES															
LOCATION		*GR AGGR BASE CRS. INCL MATL	RECYCLED ASPH CONC PATCHING, INCL BITUM MATL & H LIME (AS DIRECTED)	RECYCLED ASPH CONC LEVELING, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 9.5MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 19MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 25MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	BITUMINOUS TACK COAT	MILL ASPH CONC PMVT, VARIABLE DEPTH	CONC VALLEY GUTTER, 6 IN	DRIVEWAY CONCRETE, 6 IN TK	CONC CURB & GUTTER, 6 IN X 24 IN, TP 2	CONC CURB & GUTTER, 6 IN X 24 IN, TP 7	PMVT REINF FABRIC STRIPS, TP 2, 18 INCH WIDTH
	UNIT	TN	TN	TN	TN	TN	TN	TN	GL	SY	SY	SY	LF	LF	LF
ROADWAY		74742	250	1000		9940	10769	21538	10982	22583			34199	32097	1123
DRIVEWAYS		765			8	136	181		82		74	303			
TOTAL	UNIT	75507	250	1000	8	10076	10950	21538	11064	22583	74	303	34199	32097	1123

DRIVEWAY QUANTITIES								
LOCATION		GR AGGR BASE CRS. INCL MATL	RECYCLED ASPH CONC 9.5MM SUPERPAVE, GP 2 ONLY, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 12.5MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	RECYCLED ASPH CONC 19MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME	BITUMINOUS TACK COAT	DRIVEWAY CONCRETE, 6 IN TK	CONC VALLEY GUTTER, 6 IN
	TN	TN	TN	TN	TN	GL	SY	SY
104+22 RT	52		10	13	6			
106+39 RT	78		14	19	9			
107+79 LT	63		12	15	7			
110+27 LT	77		14	18	9			
110+29 RT	52		10	13	6			
111+80 LT	61		11	15	7			
113+18 LT	48		9	12	6			
120+31 RT						22	80	
166+00 RT	79		14	19	9			
166+00 RT	79		14	19	9			
228+00 RT						23	172	
233+91 RT	32	8						
234+00 LT						30	52	
261+96 RT	179		32	43	20			
SUBTOTAL	765	8	136	181	82	74	303	

FOR INFORMATION ONLY

SEE SHEETS 35-0002
FOR BRIDGE QUANTITIES

SEE SHEETS 27-005, 27-0008,
27-0011, 27-0014, 27-0017
FOR SIGNAL QUANTITIES

SEE SHEET 44-0022
FOR BASE BID WATER AND SEWER RELOCATION QUANTITIES

GEOGRID		
GEOGRID REINFORCEMENT, TP A	SY	276881
GEOGRID REINFORCEMENT, TP B	SY	165750

GUARDRAIL, 31 INCH HEIGHT		
GUARDRAIL, TP W	LF	16082
GUARDRAIL, TP T	LF	44
GUARDRAIL ANCHORAGE, TP 1	EA	12
GUARDRAIL ANCHORAGE, TP 12	EA	12

CONCRETE ITEMS		
DESCRIPTION	UNIT	QUANTITY
CONC. SIDEWALK, 4 IN	SY	10600
CONC. SIDEWALK, 6 IN	SY	21200
CLASS B CONCRETE, RETAINING WALL, ASHLAR STONE FINISH	CY	224
CLASS B CONC, RET WALL, INCL REINF STEEL, ASHLAR STONE FINISH	CY	467
CLASS A CONCRETE, TYPE P1, RETAINING WALL	LF	85
CLASS A CONCRETE, TYPE P2, RETAINING WALL	LF	62
CLASS A CONCRETE, TYPE P3, RETAINING WALL	LF	53
CONC. MEDIAN, 6 IN, INCL RED COLORED, STAMPED BRICK PATTERN	SY	1622
CLASS B CONCRETE, BASE OR PMVT WIDEN	CY	93
CONC HEADER CURB, 6 IN, TP 2	SY	110

TRAFFIC CONTROL		
TOTAL	LUMP SUM - RR BLVD EXTENSION	

TRAFFIC CONTROL SHALL INCLUDE ALL ITEMS RELATED TO CONSTRUCTION STAGING, INCLUDING BUT NOT LIMITED TO TEMPORARY PAVEMENT MARKINGS, SIGNS, BARRELS, AND TEMPORARY DRIVEWAYS. PAYMENT FOR THESE ITEMS SHALL BE INCLUDED IN THE PRICE BID FOR TRAFFIC CONTROL - LUMP SUM.

CLEARING AND GRUBBING		
TOTAL	LUMP SUM - RR BLVD EXTENSION	

EARTHWORK		
UNCLASS EXCAV	CY	80,836
BORROW EXCAV, INCL MATL	CY	1,023,095
UNDERCUT EXCAVATION	CY	133,000
ROCK ENBANKMENT	CY	133,000
FOUND BK FILL MATL, TP 11	CY	788

PLASTIC FILTER FABRIC		
TOTAL	SY	45000

REPLACE 12 FT BOARDWALK, AS DIRECTED		
TOTAL	LF	400

UNDERDRAIN PIPE INCLUDING DRAINAGE AGGREGATE, 6 IN (AS DIRECTED)		
TOTAL	2000 LF	

HANDRAIL, STAINLESS STEEL PIPE	
TOTAL	825 LF
*HANDRAIL TO BE INSTALLED ALONG ALL GRAVITY WALLS	

SOD		
BERMUDA GRASS	22617 SY	

FENCING		
FENCE, SPECIAL DESIGN	LF	100

SLOPE DRAIN (PERMANENT) AS DIRECTED*		
SLOPE DRAIN PIPE, 12 IN	LF	600
FLARED END SECTION, 12 IN, SLOPE DRAIN	EA	7
DRAIN INLET, 12 IN	EA	7
STN DUMPED RIP RAP, TP 1, 12 IN	SY	21
PLASTIC FILTER FABRIC	SY	21
*SLOPE DRAIN TO BE INSTALLED ALONG BERM DITCH, STATIONS 239+50 TO 249+00 LEFT, FOR ADDITIONAL DRAINAGE		

GEOTECHNICAL BORINGS	
TOTAL	AS DIRECTED

REINF CONC APPROACH SLAB		
TOTAL	434 SY	

SUMMARY OF QUANTITIES

CONSTRUCT AND REMOVE INLET SEDIMENT TRAP	
TOTAL	145 EA

TEMPORARY SILT FENCE TP C	
TOTAL	28505 LF

EROSION CONTROL MATS, SLOPES	
TOTAL	50077 SY

CONSTRUCT AND REMOVE RIP RAP CHECK DAMS, STONE PLAIN RIP RAP/ SAND BAGS	
TOTAL	110 EA

CONSTRUCT AND REMOVE ROCK FILTER DAMS	
TOTAL	125 EA

MAINTENANCE OF CHECK DAMS - ALL TYPES	
TOTAL	825 LF

MAINTENANCE OF INLET SEDIMENT TRAP	
TOTAL	73 EA

MAINTENANCE OF TEMPORARY SILT FENCE TP C	
TOTAL	14253 LF

CONSTRUCTION EXITS	
TOTAL	5 EA

MAINTENANCE OF CONSTRUCTION EXITS	
TOTAL	5 EA

ORANGE BARRIER FENCE	
4 FEET	16406 LF
6 FEET	7500 LF

WATER QUALITY INSPECTIONS	
TOTAL	36 MO

WATER QUALITY MONITORING AND SAMPLING	
TOTAL	10 EA

EROSION CONTROL QUANTITIES

GRASSING			AGRICULTURAL LIME	FERTILIZER MIXED GRADE	FERTILIZER NITROGEN CONTENT	MULCH
ITEM	UNIT	QUANTITY	TN	TN	LB	TN
TEMPORARY GRASSING	ACRE	20	10	8	500	621
PERMANENT GRASSING	ACRE	10	10	8	500	310
TOTALS			20	16	1000	931

SUMMARY OF QUANTITIES

SUMMARY OF DRAINAGE QUANTITIES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
STRUCTURE NUMBER	LOCATION													FLARED END SECTION 18" (STORM DRAIN)	FLARED END SECTION 24" (STORM DRAIN)	FLARED END SECTION 30" (STORM DRAIN)	FLARED END SECTION 36" (STORM DRAIN)	FLARED END SECTION 48" (STORM DRAIN)	FLARED END SECTION 60" (STORM DRAIN)	CATCH BASINS, MH, DROP INLETS																CONCRETE COLLAR GA STD 903IU	STONED DUMPED RIP RAP TP 3 18"	FILTER FABRIC	RECONSTRUCT DRAINAGE STRUCTURE	ADJUST CATCH BASIN TO GRADE	CAP EXISTING STRUCTURE	CONCRETE SPILLWAYS GA STD 9013																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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SUMMARY OF DRAINAGE QUANTITIES

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SUMMARY OF DRAINAGE QUANTITIES

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SUMMARY OF DRAINAGE QUANTITIES

FORSYTH COUNTY
ENGINEERING DEPARTMENT



SUMMARY QUANTITIES
RONALD REAGAN BLVD EXTENSION

06-0007

SUMMARY OF QUANTITIES

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STRUCTURE NUMBER	LOCATION		FEET												FEET		FLARED END SECTION 18" (STORM DRAIN)	FLARED END SECTION 24" (STORM DRAIN)	FLARED END SECTION 30" (STORM DRAIN)	FLARED END SECTION 36" (STORM DRAIN)	FLARED END SECTION 48" (STORM DRAIN)	FLARED END SECTION 60" (STORM DRAIN)	CATCH BASINS, MH, DROP INLETS																CONCRETE COLLAR GA STD 903IU	STONED DUMPED RIP RAP TP 3 18"	FILTER FABRIC	RECONSTRUCT DRAINAGE STRUCTURE	ADJUST CATCH BASIN TO GRADE	CAP EXISTING STRUCTURE	CONCRETE SPILLWAYS GA STD 9013	CONCRETE SPILLWAYS GA STD 9013																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			STORM DRAIN												SLOPE DRAIN								MEDIAN DROP INLET GA. STD. 9031/5	CATCH BASIN GA. STD. 1033D, GPI	CATCH BASIN GA. STD. 1033D, GP2	CATCH BASIN GA. STD. 1033D, GPI	CATCH BASIN GA. STD. 1033D, GP2	MANHOLE GA. STD. 1011A, TP1	MANHOLE GA. STD. 1011A, TP2	MANHOLE, ADDL DEPTH CLASS 1	MANHOLE, ADDL DEPTH CLASS 2	DROP INLET GA. STD. 1019A TYPE E																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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			HI-10	HI5-20	HI25-30	HI31-40	HI41-50	HI-10	HI5-20	HI-10	HI-10	HI-10	HI-10	HI-10	18"	24"																	EA	EA	EA	EA	EA	EA									EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA	EA

SUMMARY OF DRAINAGE QUANTITIES

[illegible]

SUMMARY OF QUANTITIES

SUMMARY OF SIGN QUANTITIES										
Station	SIGN CODE	HIGHWAY SIGNS			HIGH WAY SIGNS			SQUARE TUBE POST		
		TP 1 MATL. REFL SHEETING TP 9			TP 1 MATL, REFL SHEETING TP 11			TYPE 7	TYPE 8	TYPE 9
		SIZE	QUANTITY	SQUARE FEET	SIZE	QUANTITY	SQUARE FEET	LENGTH (FEET)	LENGTH (FEET)	LENGTH (FEET)
100+15.64 -103.08'	R560-5	18" X 24"	1	2.5	36"	1	4	13		
101+67.63 -113.29	R1-2							13		
101+71.62 06.01'	R4-7	24" X 30"		5				13		
101+78.30 -48.34'	R5-1				36" X 36"		9	13		
102+08.18 -64.30	R560-5	18" X 24"	1	3				13		
103+78.69 -50.79'	R5-1A				36" X 24"	1	6	13		
103+86.71 05.69'	R4-7	24" X 30"		5				13		
103+93.01 52.86'	R1-1				36" X 36"	1	9	13		
104+05.16 -52.01'	R1-1				36" X 36"	1	9	13		
104+11.37 06.33'	R6-2R	24" X 30"	1	5				13		
104+95.51 36.99'	R2-1	30" X 36"	1	7.5				13		
106+01.22 -39.11'	W3-3				30" X 30"	1	6.25	14		
106+54.69 04.86'	R6-2R	24" X 30"	1	5				13		
106+62.07 52.87'	R1-1				36" X 36"	1	9	13		
107+60.47 -52.12'	R1-1				36" X 36"	1	9	13		
107+73.82 37.17'	R5-1A				36" X 24"	1	6	13		
107+73.43 -05.82'	R6-2R	24" X 30"	1	5				13		
109+69.67 37.29'	R5-1				36" X 36"	1	9	13		
109+75.01 -06.00'	R4-7	24" X 30"	1					13		
110+04.49 -60.34	R1-1				36" X 36"	1	9	13		
110+08.59 62.56	R5-1				36" X 36"	1	9	13		
110+48.26 63.20'	R1-1				36" X 36"	1	9	13		
110+79.12 06.00'	R4-7	24" X 30"	1	5				13		
110+78.95 -38.11'	R1-1				36" X 36"	1	9	13		
111+62.35 -53.30'	R1-1				36" X 36"	1	9	13		
111+72.37 06.09'	R6-2R	24" X 30"	1	5				13		
112+77.12 -38.63'	R5-1A				36" X 24"	1	6	13		
112+98.42 -52.96'	R6-2R	24" X 30"	1	5				13		
113+10.98 06.28'	R6-2R	24" X 30"	1	5				13		
115+22.95 37.05'	W2-1				30" X 30"	1	6.25		14	
115+22.95 37.05'	W16-8P								15	
119+34.50 -06.00'	R4-7	24" X 30"	1	5				13		
119+38.87 37.32'	R5-1				36" X 36"	1	9	13		
119+51.38 -61.87'	R3-2	24" X 24"	1	4				13		
119+51.38 -61.87'	D3-1	12" X 66"	1	5.5				13		
119+51.38 -61.87'	D3-1	12" X 54"	1	4.5				13		
119+51.38 -61.87'	R1-1				36" X 36"	1	9	13		
120+43.26 63.97'	D3-1	12" X 66"	1	5.5				13		
120+43.26 63.97'	D3-1	12" X 54"	1	4.5				13		
120+43.26 63.97'	R3-2	24" X 24"	1	4				13		
120+43.26 63.97'	R1-1				36" X 36"	1	9	13		
120+51.56 -49.78'	R5-1				36" X 36"	1	9	13		
120+54.61 06.00'	R4-7	24" X 30"	1	5				13		
122+45.45 -49.34'	R5-1A				36" X 24"	1	6	13		
125+02.67 36.93'	W1-8L				18" X 24"	1	3	13		

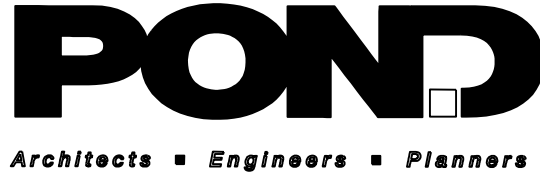
SUMMARY OF SIGN QUANTITIES										
Station	SIGN CODE	HIGHWAY SIGNS			HIGH WAY SIGNS			SQUARE TUBE POST		
		TP 1 MATL. REFL SHEETING TP 9			TP 1 MATL, REFL SHEETING TP 11			TYPE 7	TYPE 8	TYPE 9
		SIZE	QUANTITY	SQUARE FEET	SIZE	QUANTITY	SQUARE FEET	LENGTH (FEET)	LENGTH (FEET)	LENGTH (FEET)
177+08.31 55.64'	R560-5	18" X 24"	1	2.5				13		
176+87.14 50.48'	R4-7	24" X 30"	1					13		
178+97.23 40.59'	R5-1A				36" X 24"	1	6	13		
180+55.18 -39.60'	W3-3				30" X 30"	1	6.25		14	
180+55.18 -39.60'	W16-8P				8" X 18"	1	1		15	
180+61.76 36.99'	R2-1	30" X 36"	1					13		
202+96.78 36.99'	W2-2R				30" X 30"	1	6.25	13		
202+96.78 36.99'	W16-8P				8" X 24"	1			15	
202+96.78 36.99'	W16-8P				8" X 24"	1			15	
203+71.81 37.00'	R5-1A				36" X 24"	1	6	13		
205+63.65 -06.00'	R4 -7	24" X 30"	1					13		
205+68.61 49.05'	R5-1				36" X 36"	1	9	13		
206+43.17 63.89'	D3-1	8" X 36"	1					13		
206+43.17 63.89'	D3-1	8" X 24"	1					13		
206+43.17 63.89'	R1-1				36" X 36"	1	9	13		
206+83.65 06.00'	R4-7	24" X 30"	1					13		
206+87.05 -39.51'	R5-1				36" X 36"	1	9	13		
208+87.22 -39.45'	R5-1A				36" X 24"	1	6	13		
211+01.40 -39.20'	W2-2L				30" X 30"	1	6.25	13		
211+01.40 -39.20'	W16-8P				8" X 24"	1	1.333		15	
211+01.40 -39.20'	W16-8P				8" X 24"	1	1.333		15	
250+98.09 36.98'	W2-2R				30" X 30"	1	6.25	13		
250+98.09 36.98'	W16-8P				8" X 30"	1	1.67		15	
250+75.19 44.22'	R5-1A				36" X 24"	1	6	13		
254+73.41 00.00'	R4-7	24" X 30"	1					13		
254+86.62 -37.16'	R5-1				36" X 36"	1	9	13		
254+87.58 05.94'	R4-7	24" X 30"	1					13		
254+76.85 49.28'	R5-1	36" X 36"	1					13		
255+70.25 67.31'	D3-1				12" X 66"	1	5.5	13		
255+70.25 67.31'	D3-1				12" X 60"	1	5	13		
255+70.25 67.31'	R1-1				36" X 36"	1	9	13		
255+86.62 -37.16'	R5-1				36" X 36"	1	9	13		
257+84.86 -37.31'	R5-1A				36" X 24"	1	6	13		
258+65.60 37.01'	W2-1								14	
258+65.60 37.01'	W16-8P	30" X 30"	1						15	
255+99.31 36.94'	R5-1A				36" X 24"	1	6	13		
259+00.69 -37.11'	W2-2L	30" X 30"	1	6.25				13		
259+00.69 -37.11'	W16-8P	8" X 30"	1						15	
261+09.64 37.08'	R5-1				36" X 36"	1	9	13		
261+02.92 -05.67'	R4-7	24" X 30"	1	5				13		
261+56.03 -58.51'	D3-1	12" X 66"	1	5.5				13		
261+56.03 -58.51'	D3-1	12" X 48"	1	4				13		
261+56.03 -58.51'	R1-1				36" X 36"	1	9	13		
262+28.57 64.03'	D3-1	12" X 66"	1	6				13		
262+28.57 64.03'	D3-1	12" X 72"	1	5.5				13		

SUMMARY OF QUANTITIES

SUMMARY OF SIGN QUANTITIES										
Station	SIGN CODE	HIGHWAY SIGNS			HIGH WAY SIGNS			SQUARE TUBE POST		
		TP 1 MATL. REFL SHEETING TP 9			TP 1 MATL, REFL SHEETING TP 11			TYPE 7	TYPE 8	TYPE 9
		SIZE	QUANTITY	SQUARE FEET	SIZE	QUANTITY	SQUARE FEET	LENGTH (FEET)	LENGTH (FEET)	LENGTH (FEET)
124+46.70 -39.51'	W2-2L				30" X 30"	1	6.25	13		
124+46.70 -39.51'	W16-8P				8" X 30"	1	1.6		15	
125+02.67 36.93'	W1-8L				18" X 24"	1	3	13		
126+15.21 37.00'	W1-8L				18" X 24"	1	3	13		
126+30.60 39.44'	W1-8R				18" X 24"	1	3	13		
127+28.04 37.01'	W1-8L				18" X 24"	1	3	13		
127+58.96 -37.47'	W1-8R				18" X 24"	1	3	13		
128+40.74 37.01'	W1-8L				18" X 24"	1	3	13		
128+87.15 -39.32'	W1-8L				18" X 24"	1	3	13		
129+53.62 37.01'	W1-8L				18" X 24"	1	3	13		
130+15.58 -39.39'	W1-8L				18" X 24"	1	3	13		
130+66.73 37.06'	W1-8L				18" X 24"	1	3	13		
131+43.13 -39.56'	W1-8L				18" X 24"	1	3	13		
131+79.33 37.02'	W1-8L				18" X 24"	1	3	13		
132+71.29 -39.49'	W1-8L				18" X 24"	1	3	13		
132+92.37 36.93'	W1-8L				18" X 24"	1	3	13		
133+76.82 -39.20'	R2-1	30" X 36"	1	7.5				13		
133+76.70 37.00'	R2-1	30" X 36"	1	7.5				13		
138+61.29 50.84'	R5-1A				36" X 24"	1		13		
140+40.00 -06.00'	R4-7	24" X 30"	1	5				13		
140+42.40 51.55'	R5-1				36" X 36"	1	9	13		
141+58.12 -39.21'	R5-1				36" X 36"	1	9	13		
141+60.00 06.00'	R4-7	24" X 30"	1	5				13		
143+02.25 36.99'	W8-13	30" X 30"	1	6.25				13		
143+47.42 -39.27'	R5-1A				36" X 24"	1	6	13		
152+70.43 -39.41'	W8-13	30" X 30"	1	6.25				13		
165+51.59 52.26'	R5-1A	36" X 24"	1		36" X 24"	1	6	13		
167+35.85 52.26'	R5-1				36" X 36"	1	9	13		
167+39.00 -06.06'	R4-7	24" X 30"	1	5		1		13		
167+76.15 -61.36'	R1-1				36" X 36"		9	13		
168+22.17 63.49'	R1-1				36" X 36"	1	9	13		
168+58.57 -39.66'	R5-1				36" X 36"	1	9	13		
168+60.00 05.95'	R4-7	24" X 30"	1	5				13		
170+39.15 -39.45'	R5-1A				36" X 24"	1	6	13		
170+45.26 36.96'	W3-3				30" X 30"	1	6.25		14	
170+45.26 36.96'	W16-8P								15	
172+51.01 -39.54'	R2-1	30" X 36"	1	7.5				13		
173+38.59 41.73'	R5-1A				36" X 24"	1	6	13		
175+37.81 57.34'	R560-5	18" X 24"	1	2.5				13		
175+44.53 61.91	R5-1				36" X 36"	1	9	13		
175+49.73 67.42'	R1-2				48"	1	5	13		
175+67.14 50.41'	R4-7	24" X 30"	1	5				13		
176+90.58 71.48'	R1-2				48"	1	5	13		
176+94.31 63.77'	R5-1				36" X 36"	1		13		

SUMMARY OF SIGN QUANTITIES										
Station	SIGN CODE	HIGHWAY SIGNS			HIGH WAY SIGNS			SQUARE TUBE POST		
		TP 1 MATL. REFL SHEETING TP 9			TP 1 MATL, REFL SHEETING TP 11			TYPE 7	TYPE 8	TYPE 9
		SIZE	QUANTITY	SQUARE FEET	SIZE	QUANTITY	SQUARE FEET	LENGTH (FEET)	LENGTH (FEET)	LENGTH (FEET)
262+28.57 64.03'	R1-1				36" X 36"	1	9	13		
262+44.20 05.50'	R4-7	24" X 30"	1	5				13		
262+50.52 -48.90'	R4-7	24" X 30"	1	5				13		
264+38.33 -39.26'	R5-1A				36" X 24"	1	6	13		
265+97.01 36.95'	R5-1A				36" X 24"	1	6	13		
265+97.01 36.95'	W16-8P				8" X 42"	1	2.333		15	
266+11.39 -37.34'	W2-1				30" X 30"	1	6.25	13		
266+11.39 -37.34'	W16-8P				15" X 54"	1	5.63		15	
269+17.70 37.06'	R5-1A				36" X 24"	1	6	13		
270+63.08 -05.87'	R4-7	24" X 30"	1	5				13		
270+65.87 37.06'	R5-1				36" X 36"	1	9	13		
271+01.47 -67.17'	R1-1				36" X 36"	1	9	13		
271+01.47 -67.17'	D3-1	12" X 72"	1	6				13		
271+01.47 -67.17'	D3-1	12" X 66"	1	5.5				13		
271+80.67 -50.91'	R1-1				36" X 36"	1	9	13		
271+83.33 06.00'	R5-1				36" X 36"	1	9	13		
273+83.70 -42.49'	R4-7	24" X 30"	1	5				13		
276+01.29 -38.82'	R5-1A				36" X 24"	1	6	13		
276+01.29 -38.82'	W16-8P				8" X 42"	1	2.333		15	
278+06.25 65.48'	R1-1				36" X 36"	1	9	13		
278+13.45 -06.21'	R6-2R	24" X 30"	1	5				13		
280+89.50 37.08'	W3-3				30" X 30"	1	6.25	13		
283+02.34 37.02'	R5-1A				36" X 24"	1	6	13		
283+24.88 37.38'	R2-1	30" X 30"	1	6.25				13		
285+10.45 46.63'	R5-1				36" X 36"	1	9	13		
285+25.10 -08.01'	R4-7	24" X 30"	1	5				13		
285+25.33 48.38'	R1-2				48"	1	5	13		
SHILOH ROAD								13		
601+50.15 24.50'	W3-3				30" X 30"	1	6.25		14	
601+50.15 24.50'	W16-8P				36" X 8"	1	2		15	
603+29.87 34.52'	R560-5	18" X 24"	1	3				13		
604+83.78 35.09'	R560-5	18" X 24"	1	3				13		
606+75.33 25.19'	W3-3				30" X 30"	1	6.25		14	
606+75.33 25.19'	W16-8P				36" X 8"	1	2		15	
GRAND TOTAL				247			618	1899	324	

FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

SUMMARY QUANTITIES

RONALD REAGAN BLVD EXTENSION

CHECKED:		DATE:		DRAWING No. 06-0011
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

SUMMARY OF QUANTITIES

REINFORCED CONCRETE BRIDGE CULVERTS																
STATION	BARRELS	SKEW	LENGTH	SIZE	GA. STD. FOR WINGWALLS AND PARAPETS	DESIGN FOR BARREL	CHANNEL EXCAV.	FOUND. BACKFILL MATERIAL	CLASS "A" CONCRETE		BAR REINF. STEEL		CONCRETE APRONS STD. 2332		CONCRETE VEINS D-48	
			LIN FT.	FTXFT			CU YDS.	CU YDS.	CU YDS.		LBS.		CLASS "A" CONCRETE	BAR REINF. STEEL	CLASS "A" CONCRETE	BAR REINF. STEEL
									BARREL	WW&PAR	BARREL	WW&PAR	CU YDS.	LBS.	CU YDS.	LBS.
230+50	DOUBLE	48	155	6x3	2331	2325-1		101	145	10.89	18724	228				
233+48	SINGLE	79	131	6x3	2331	2401-2D		51	71	2.7	11121	610				

SPECIAL DESIGN CULVERTS				
143+65	DOUBLE 11x8	50° SKEW	185 LF	1 LS
247+72	DOUBLE 10 x 6	42° SKEW	431 LF	1 LS
186+72	DOUBLE 72x11 ARCH	62° SKEW	184 LF	1 LS

EQUALIZATION PIPES				
STATION	SIZE	LENGTH	FOUND. BACKFILL MATERIAL	OUTLET HEADWALLS GA STD. 1125 CLASS "A" CONC. INCL. REINFORCED STEEL
153+00	DOUBLE 48 INCH	130 LF	58 CY	18 CY

THERMOPLASTIC TRAFFIC STRIPE		
DESCRIPTION	UNIT	QUANTITY
		THERMOPLASTIC
5" SOLID WHITE	LIN FT	46262
8" SOLID WHITE	LIN FT	20173
5" SKIP WHITE	GROSS LIN FT	36562
24" SOLID WHITE	LIN FT	1596
5" SOLID YELLOW	LIN FT	35597

ARROWS (EACH)	
DESCRIPTION	QUANTITY
	THERMOPLASTIC
TYPE 2	40
TYPE 6	33
TYPE 7	6
TYPE 1	4

THERMOPLASTIC TRAFFIC STRIPE, YELLOW (SY)
138 SY

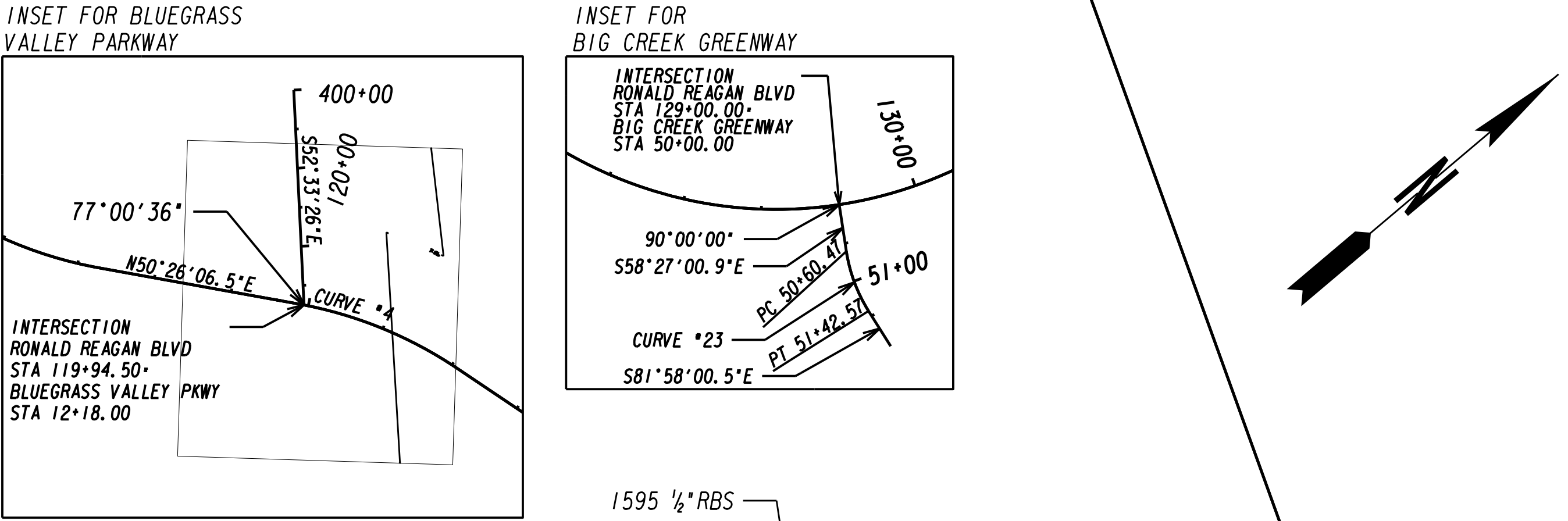
THERMOPLASTIC TRAFFIC STRIPE, WHITE (SY)
277 SY

RAISED PAVEMENT MARKERS TP 1
200 EA

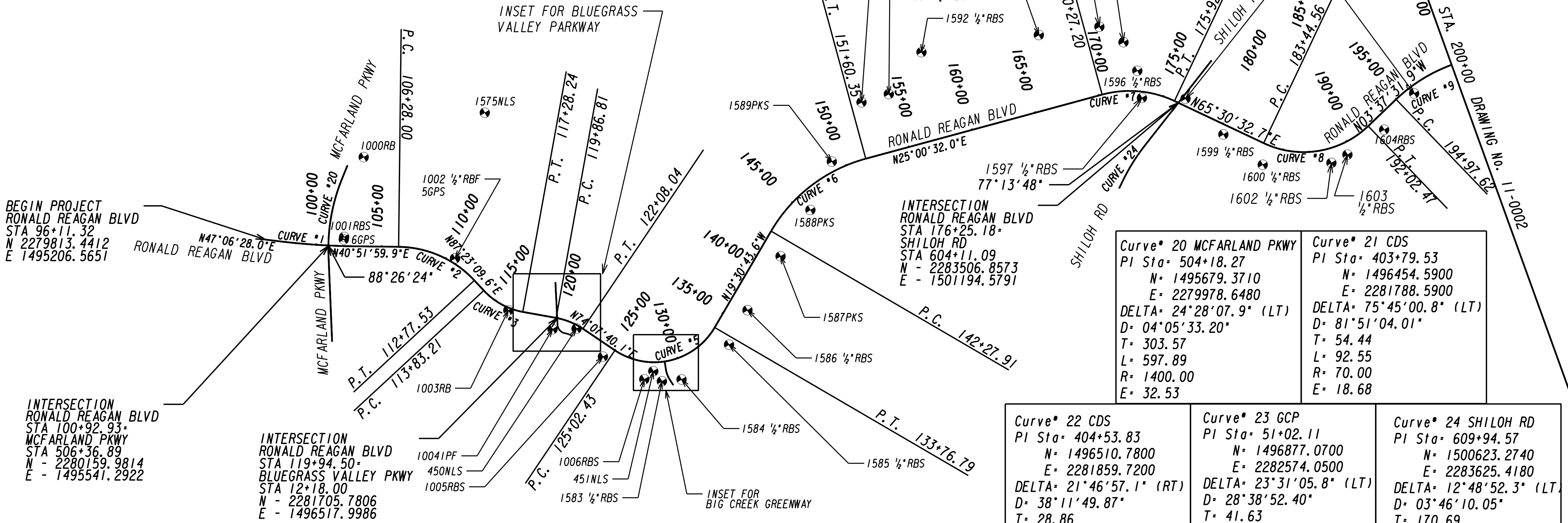
RAISED PAVEMENT MARKERS TP 3
1300 EA

SUPERELEVATION TABLE *2 RR BLVD				SUPERELEVATION TABLE *3 RR BLVD				SUPERELEVATION TABLE *4 RR BLVD				SUPERELEVATION TABLE *5 RR BLVD			
STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION
STA 105+17.00	0.0%	-2.0%	ZCS	STA 113+39.00	0.0%	0.0%	ZCS	STA 118+55.00	-1.0%	-1.0%	ZCS	STA 123+70.00	-1.0%	-1.0%	ENC
STA 106+00.00	2.0%	-2.0%	RC	STA 114+08.00	-2.0%	2.0%	RC	STA 118+90.00	0.0%	-1.0%	ZCS	STA 124+06.00	-1.0%	0.0%	ZCS
STA 106+83.00	4.0%	-4.0%	BFSE	STA 114+54.00	-4.0%	4.0%	BFSE	STA 119+63.00	2.0%	-2.0%	RC	STA 124+78.00	-2.0%	2.0%	RC
STA 111+69.00	4.0%	-4.0%	EFSE	STA 116+82.00	-4.0%	4.0%	EFSE	STA 120+53.00	4.0%	-4.0%	BFSE	STA 125+51.00	-4.0%	4.0%	BFSE
STA 112+53.00	2.0%	-2.0%	RC	STA 117+51.00	-2.0%	2.0%	RC	STA 121+60.00	4.0%	-4.0%	EFSE	STA 133+29.00	-4.0%	4.0%	EFSE
STA 113+36.00	0.0%	0.0%	ZCS	STA 118+21.00	-1.0%	0.0%	ZCS	STA 122+32.00	2.0%	-2.0%	RC	STA 134+01.00	-2.0%	2.0%	RC
				STA 118+55.00	-1.0%	-1.0%	ZCS	STA 123+05.00	-1.0%	0.0%	ZCS	STA 134+73.00	-2.0%	0.0%	ZCS
								STA 123+41.00	-1.0%	-1.0%	ZCS	STA 135+46.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *6 RR BLVD				SUPERELEVATION TABLE *7 RR BLVD				SUPERELEVATION TABLE *8 RR BLVD				SUPERELEVATION TABLE *9 RR BLVD			
STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION	STATION	LT	RT	DESCRIPTION
STA 140+57.00	-2.0%	-2.0%	ENC	STA 168+46.00	-2.0%	-2.0%	ENC	STA 181+63.00	-2.0%	-2.0%	ENC	STA 193+65.00	-1.0%	-1.0%	ZCS
STA 141+35.00	0.0%	-2.0%	ZCS	STA 169+24.00	0.0%	-2.0%	ZCS	STA 182+41.00	-2.0%	0.0%	ZCS	STA 194+04.00	0.0%	-1.0%	ZCS
STA 142+12.00	2.0%	-2.0%	RC	STA 170+01.00	2.0%	-2.0%	RC	STA 183+19.00	-2.0%	2.0%	RC	STA 194+82.00	2.0%	-2.0%	RC
STA 142+75.00	3.6%	-3.6%	BFSE	STA 170+79.00	4.0%	-4.0%	BFSE	STA 183+96.00	-4.0%	4.0%	BFSE	STA 195+44.00	3.6%	-3.6%	BFSE
STA 151+14.00	3.6%	-3.6%	EFSE	STA 175+41.00	4.0%	-4.0%	EFSE	STA 191+51.00	-4.0%	4.0%	EFSE	STA 199+72.00	3.6%	-3.6%	EFSE
STA 151+76.00	2.0%	-2.0%	RC	STA 176+19.00	2.0%	-2.0%	RC	STA 176+28.00	-2.0%	2.0%	RC	STA 200+34.00	2.0%	-2.0%	RC
STA 152+54.00	0.0%	-2.0%	ZCS	STA 176+75.00	2.0%	-2.0%	RC	STA 193+06.00	-1.0%	0.0%	ZCS	STA 201+12.00	0.0%	-2.0%	ZCS
STA 153+31.00	-2.0%	-2.0%	NC	STA 177+53.00	0.0%	-2.0%	ZCS	STA 193+45.00	-1.0%	-1.0%	ZCS	STA 201+89.00	-2.0%	-2.0%	NC
				STA 178+31.00	-2.0%	-2.0%	NC								

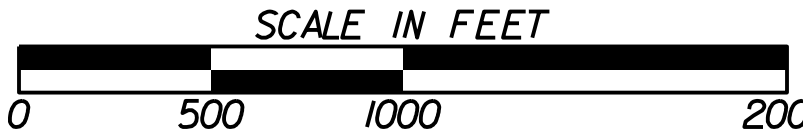
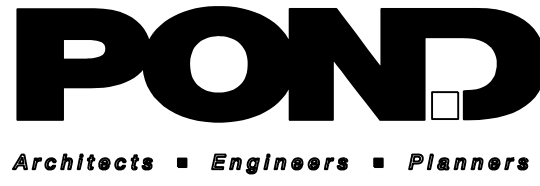


SURVEY CONTROL POINTS			
POINT	EASTING	NORTHING	ELEVATION
1575NLS	1497107.8774	2280152.7815	1064.82
1000RBF	1496184.1519	2279816.3409	1065.73
1001RBF	1495677.4293	2280185.3047	1045.38
6GPs	1495663.2890	2280197.4050	1045.01
5GPs	1496217.8140	2280854.9030	1038.94
1002 1/2 RBF	1496217.6926	2280855.4073	1039.01
1003	1496271.4536	2281421.0215	1031.90
1004	1496436.9512	2281747.5437	1043.53
450NLS	1496579.3285	2281862.0108	1028.81
1005	1496594.9366	2282155.2463	1036.42
1006	1496723.9950	2282491.1526	1004.68
451NLS	1496816.4193	2282488.0372	1013.48
1583 1/2 RBS	1496816.5450	2282589.1603	1013.30
1584 1/2 RBS	1496940.1625	2282675.3415	999.69
1585 1/2 RBS	1497388.0415	2282705.7191	999.51
1586 1/2 RBS	1497664.9457	2282595.6746	1001.27
1587PKS	1498123.0735	2282444.3934	1002.18
1588PKS	1498524.9469	2282321.2862	1002.15
1589PKS	1498887.8117	2282144.9093	1002.83
1590PKS	1499352.5190	2281945.2413	1002.15
1591 1/2 RBS	1499552.5715	2282031.5054	1006.80
1592 1/2 RBS	1499948.2890	2281948.1404	1012.33
1593 1/2 RBS	1500716.3033	2282425.7798	1014.30
1594 1/2 RBS	1501109.4971	2282675.0632	1020.28
1595 1/2 RBS	1501173.7902	2282884.0703	1034.07
1596 1/2 RBS	1501113.3736	2283118.3794	1046.17
1597 1/2 RBS	1501006.8581	2283298.9041	1060.89
1598 1/2 RBS	1501257.0674	2283517.9206	1066.26
1599 1/2 RBS	1501301.0567	2283912.6060	1043.60
1600 1/2 RBS	1501381.1969	2284282.7481	1011.85
1602 1/2 RBS	1501789.6729	2284610.2165	1013.32
1603 1/2 RBS	1501923.9762	2284640.8540	1014.20
1604RBS	1502260.5374	2284676.0113	1046.63
1605RBS	1502613.7839	2284612.1165	1031.64



Curve* 1 RR BLVD PI Sta= 100+07.35 N= 1495476.1110 E= 2280103.5860 DELTA= 06°14'28.0" (LT) D= 01°05'43.88" T= 285.13 L= 569.69 R= 5230.00 E= 7.77 e= 2.00%	Curve* 2 RR BLVD PI Sta= 109+71.87 N= 1496205.94 E= 2280735.04 DELTA= 46°31'09.7" (RT) D= 07°09'43.10" T= 343.87 L= 649.53 R= 800.00 E= 70.77 e= 4.00%	Curve* 3 RR BLVD PI Sta= 115+61.97 N= 1496234.59 E= 2281362.69 DELTA= 36°57'03.1" (LT) D= 10°42'34.17" T= 178.75 L= 345.03 R= 535.00 E= 29.07 e= 4.00%	Curve* 4 RR BLVD PI Sta= 120+99.03 N= 1496584.62 E= 2281786.33 DELTA= 23°41'33.5" (RT) D= 10°42'34.17" T= 112.22 L= 221.23 R= 535.00 E= 11.64 e= 4.00%	Curve* 5 RR BLVD PI Sta= 130+72.55 N= 1496851.75 E= 2282725.81 DELTA= 93°38'23.6" (LT) D= 10°42'34.17" T= 570.11 L= 874.36 R= 535.00 E= 246.83 e= 4.00%	Curve* 6 RR BLVD PI Sta= 147+19.10 N= 1498654.34 E= 2282087.06 DELTA= 44°31'15.6" (RT) D= 04°46'28.73" T= 491.19 L= 932.45 R= 1200.00 E= 96.64 e= 3.60%	Curve* 7 RR BLVD PI Sta= 173+22.34 N= 1501058.76 E= 2283208.71 DELTA= 40°30'00.7" (RT) D= 07°09'43.10" T= 570.11 L= 874.36 R= 535.00 E= 246.83 e= 4.00%	Curve* 8 RR BLVD PI Sta= 188+34.45 N= 1501695.88 E= 2284607.32 DELTA= 69°08'04.6" (LT) D= 08°03'30.52" T= 489.89 L= 857.91 R= 711.00 E= 152.43 e= 4.00%	Curve* 9 RR BLVD PI Sta= 197+62.12 N= 1502743.31 E= 2284540.96 DELTA= 24°51'34.7" (RT) D= 04°46'28.73" T= 264.49 L= 520.66 R= 1200.00 E= 28.80 e= 3.60%
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FORSYTH COUNTY
ENGINEERING DEPARTMENT

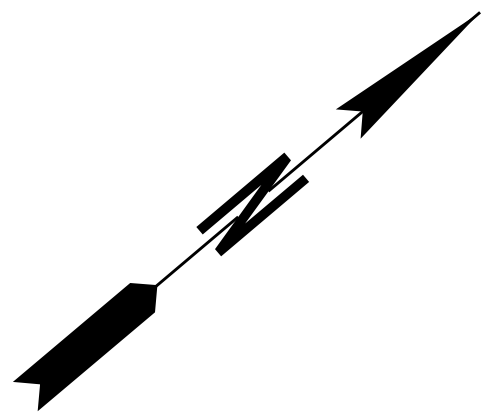


REVISION DATES

CONSTRUCTION LAYOUT
RONALD REAGAN BLVD EXTENSION

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	11-0001
CORRECTED:	DATE:	
VERIFIED:	DATE:	

Curve* 9 RR BLVD PI Sta= 197+62.12 N= 1502743.31 E= 2284540.96 DELTA= 24°51'34.7" (RT) D= 04°46'28.73" T= 264.49 L= 520.66 R= 1200.00 E= 28.80 e= 3.60%	Curve* 10 RR BLVD PI Sta= 219+33.73 N= 1504702.47 E= 2285302.21 DELTA= 68°45'57.2" (RT) D= 07°09'43.10" T= 547.42 L= 960.15 R= 800.00 E= 169.37 e= 4.00%	Curve* 11 RR BLVD PI Sta= 231+31.15 N= 1504702.47 E= 2286634.31 DELTA= 61°38'57.4" (LT) D= 06°21'58.31" T= 537.03 L= 968.38 R= 900.00 E= 148.05 e= 4.00%	Curve* 12 RR BLVD PI Sta= 245+61.54 N= 1506054.30 E= 2287363.74 DELTA= 36°23'47.5" (RT) D= 06°21'58.31" T= 295.87 L= 571.72 R= 900.00 E= 47.39 e= 4.00%	Curve* 13 RR BLVD PI Sta= 256+29.99 N= 1506551.9730 E= 2288418.8320 DELTA= 19°58'01.4" (LT) D= 02°17'30.59" T= 440.08 L= 871.23 R= 2500.00 E= 38.44 e= 2.60%
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SUPERELEVATION TABLE *9 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 193+65.00	-1.0%	-1.0%	
STA 194+04.00	0.0%	-1.0%	ZCS
STA 194+82.00	2.0%	-2.0%	RC
STA 195+44.00	3.6%	-3.6%	BFSE
STA 199+72.00	3.6%	-3.6%	EFSE
STA 200+34.00	2.0%	-2.0%	RC
STA 201+12.00	0.0%	-2.0%	ZCS
STA 201+89.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *10 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 211+27.00	-2.0%	-2.0%	ENC
STA 212+05.00	0.0%	-2.0%	ZCS
STA 212+82.00	2.0%	-2.0%	RC
STA 213+60.00	4.0%	-4.0%	BFSE
STA 222+17.00	4.0%	-4.0%	EFSE
STA 222+94.00	2.0%	-2.0%	RC
STA 223+72.00	0.0%	0.0%	ZCS

SUPERELEVATION TABLE *11 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 224+12.00	0.0%	0.0%	ZCS
STA 224+90.00	-2.0%	2.0%	RC
STA 225+68.00	-4.0%	4.0%	BFSE
STA 234+33.00	-4.0%	4.0%	EFSE
STA 235+10.00	-2.0%	2.0%	RC
STA 235+88.00	-2.0%	0.0%	ZCS
STA 236+66.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *12 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 240+06.00	-2.0%	-2.0%	ENC
STA 240+84.00	0.0%	-2.0%	ZCS
STA 241+62.00	2.0%	-2.0%	RC
STA 242+39.00	4.0%	-4.0%	BFSE
STA 247+07.00	4.0%	-4.0%	EFSE
STA 247+85.00	2.0%	-2.0%	RC
STA 248+63.00	0.0%	-2.0%	ZCS
STA 249+41.00	-2.0%	-2.0%	NC

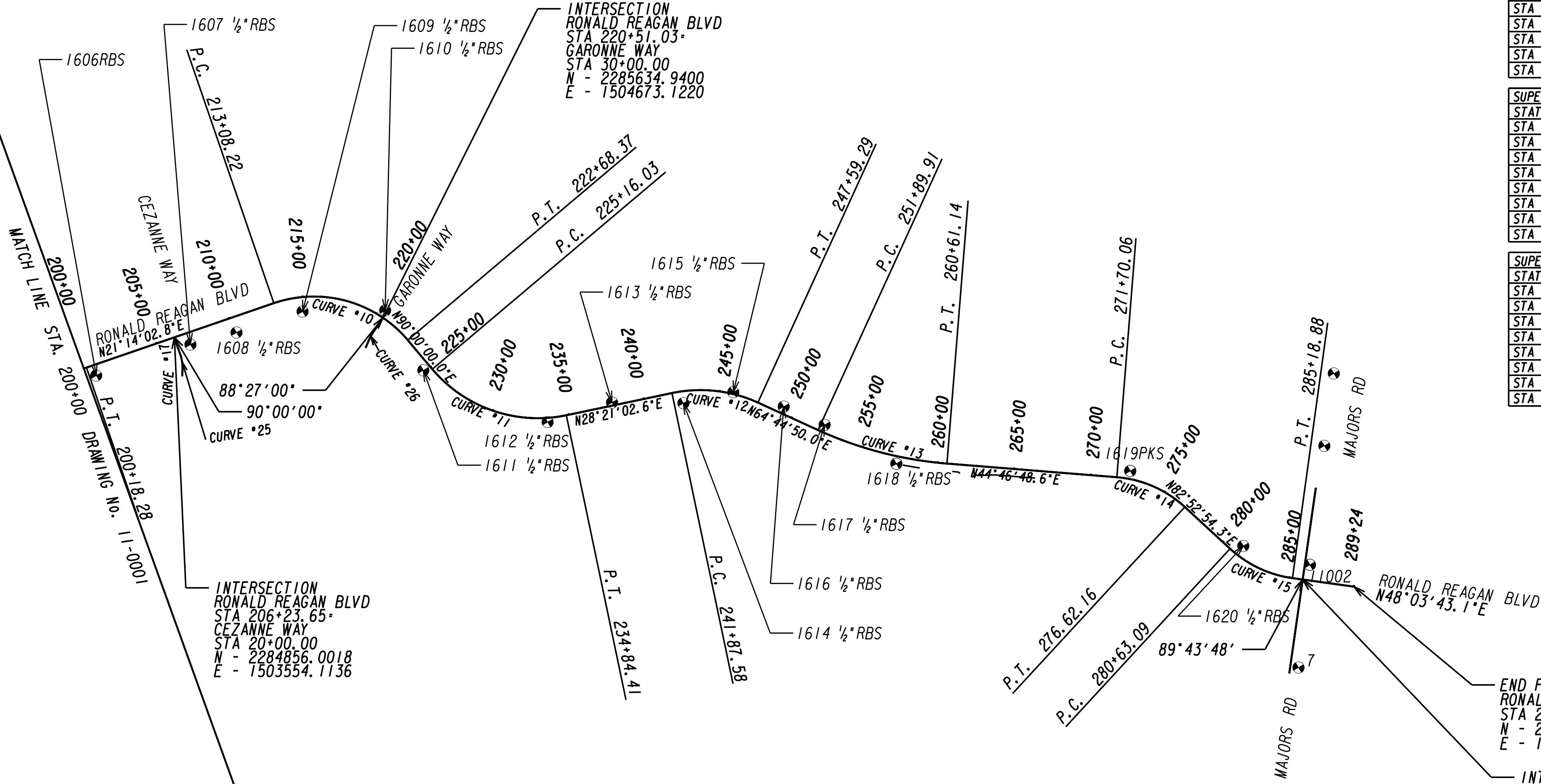
SUPERELEVATION TABLE *13 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 250+45.00	-2.0%	-2.0%	ENC
STA 251+23.00	-2.0%	0.0%	ZCS
STA 252+00.00	-2.0%	2.0%	RC
STA 252+24.00	-2.6%	2.6%	BFSE
STA 260+27.00	-2.6%	2.6%	EFSE
STA 260+51.00	-2.0%	2.0%	RC
STA 261+29.00	-2.0%	0.0%	ZCS
STA 262+06.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *14 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 269+89.00	-2.0%	-2.0%	ENC
STA 270+66.00	0.0%	-2.0%	ZCS
STA 271+44.00	2.0%	-2.0%	RC
STA 272+22.00	4.0%	-4.0%	BFSE
STA 276+10.00	4.0%	-4.0%	EFSE
STA 276+88.00	2.0%	-2.0%	RC
STA 277+66.00	0.0%	-2.0%	ZCS
STA 278+44.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *15 RR BLVD			
STATION	LT	RT	DESCRIPTION
STA 278+82.00	-2.0%	-2.0%	ENC
STA 279+59.00	-2.0%	0.0%	ZCS
STA 280+37.00	-2.0%	2.0%	RC
STA 281+15.00	-4.0%	4.0%	BFSE
STA 284+67.00	-4.0%	4.0%	EFSE
STA 285+45.00	-2.0%	2.0%	RC
STA 286+23.00	-2.0%	0.0%	ZCS
STA 287+00.00	-2.0%	-2.0%	NC

SUPERELEVATION TABLE *17 CEZANNE WAY			
STATION	LT	RT	DESCRIPTION
			ENC
			ZCS
			RC
			BFSE
			EFSE
			RC
			ZCS
			NC

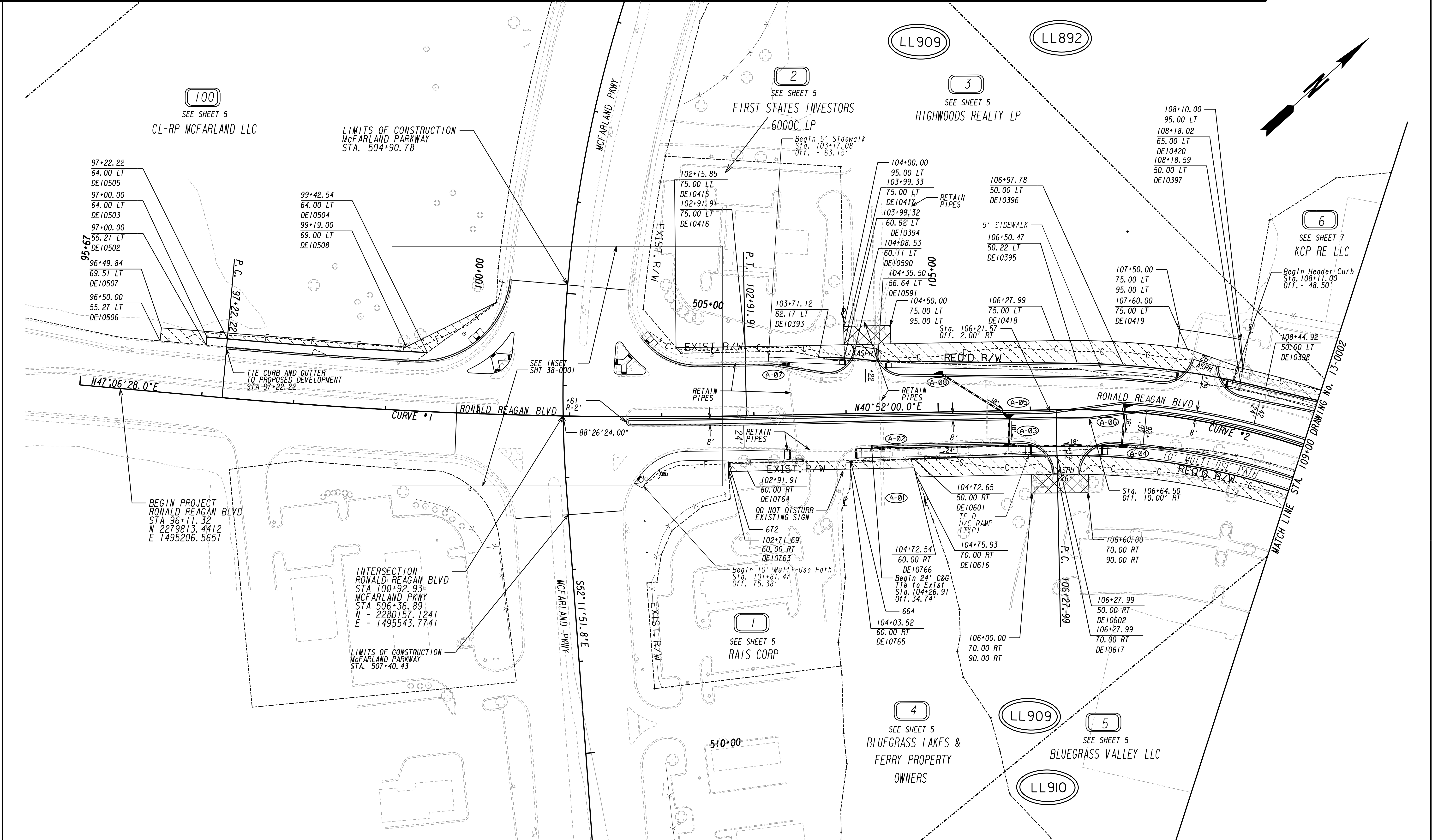
SUPERELEVATION TABLE *18 GARONNE WAY			
STATION	LT	RT	DESCRIPTION
			ENC
			ZCS
			RC
			BFSE
			EFSE
			RC
			ZCS
			NC



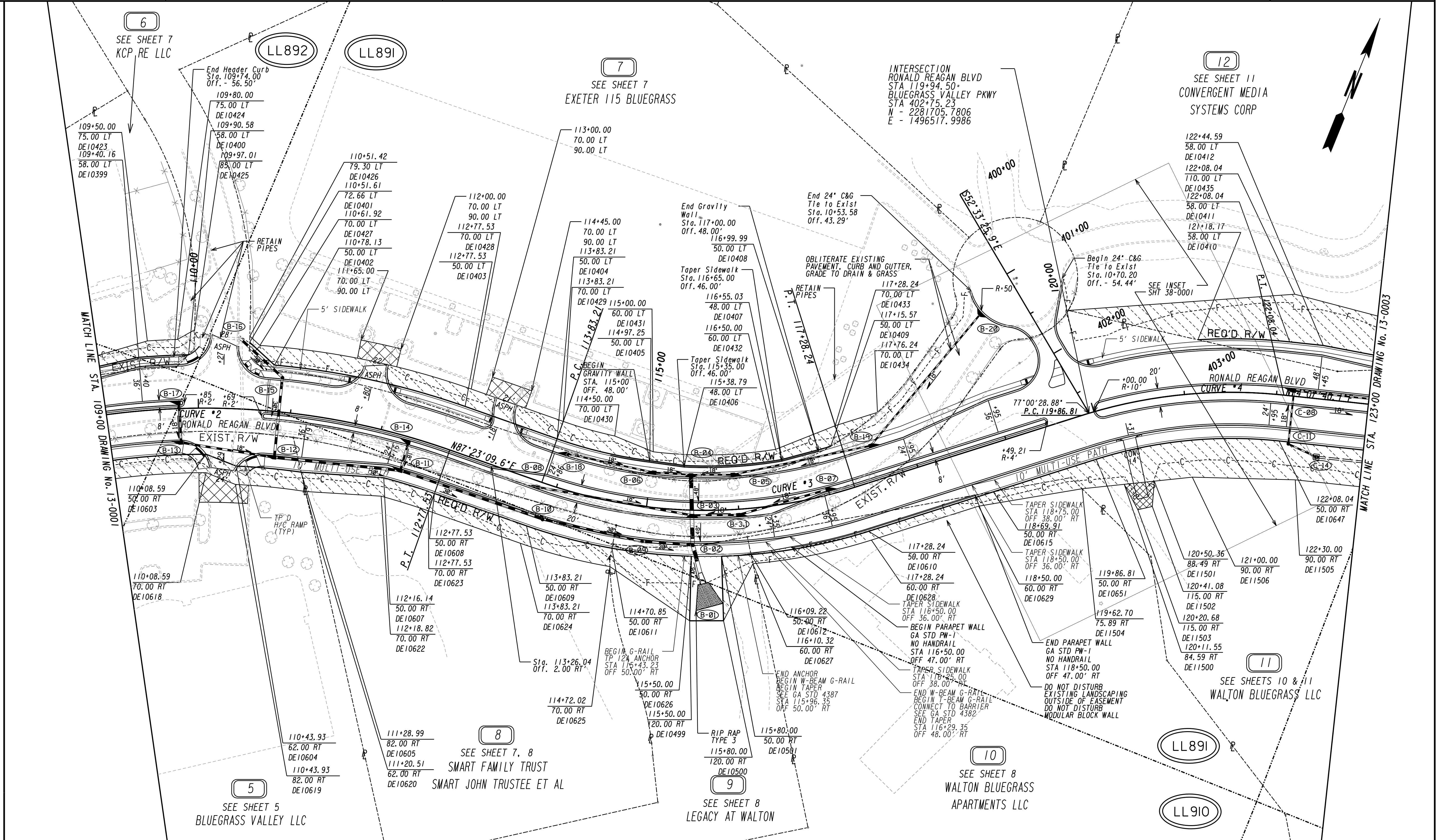
Curve* 14 RR BLVD PI Sta= 274+25.60 N= 1507832.8580 E= 2289689.9260 DELTA= 38°06'05.7" (RT) D= 07°44'33.62" T= 255.54 L= 492.10 R= 740.00 E= 42.88 e= 4.00%	Curve* 15 RR BLVD PI Sta= 282+98.27 N= 1507943.3480 E= 2290574.6960 DELTA= 34°49'11.2" (LT) D= 07°38'21.97" T= 235.18 L= 455.79 R= 750.00 E= 36.01 e= 4.00%	Curve* 25 CEZANNE WAY PI Sta= 21+68.34 N= 1503493.1460 E= 2285012.9090 DELTA= 21°07'37.1" (RT) D= 22°55'05.92" T= 46.62 L= 92.18 R= 250.00 E= 4.31	Curve* 26 GARONNE WAY PI Sta= 31+43.63 N= 1504534.7650 E= 2285673.4830 DELTA= 11°25'13.0" (LT) D= 14°19'26.20" T= 40.00 L= 79.73 R= 400.00 E= 1.99
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SURVEY CONTROL POINTS			
POINT	EASTING	NORTHING	ELEVATION
1606RBS	1503005.2121	2284717.2751	1028.36
1607 1/2 RBS	1503603.5925	2284959.1329	1029.48
1608 1/2 RBS	1503883.3150	2285092.9336	1044.00
1609 1/2 RBS	1504299.8761	2285266.1857	1052.42
1610 1/2 RBS	1504715.0012	2285607.3561	1092.32
1611 1/2 RBS	1504653.3493	2286065.5024	1043.09
1612 1/2 RBS	1505053.6213	2286845.1938	1034.91
1613 1/2 RBS	1505455.8838	2287018.4014	1040.90
1614 1/2 RBS	1505807.9704	2287321.5451	1086.94
1615 1/2 RBS	1506102.0509	2287476.5738	1059.93
1616 1/2 RBS	1506292.2137	2287759.8745	1056.64
1617 1/2 RBS	1506419.1029	2288022.4415	1111.10
1618 1/2 RBS	1506612.1932	2288517.6195	1118.15
1619PKS	1507744.7447	2289535.5889	1080.26
1620 1/2 RBS	1507991.5955	2290383.3077	1124.19
7	1507754.9990	2291219.8190	1160.94
11002	1508243.4113	2290756.8750	1148.93

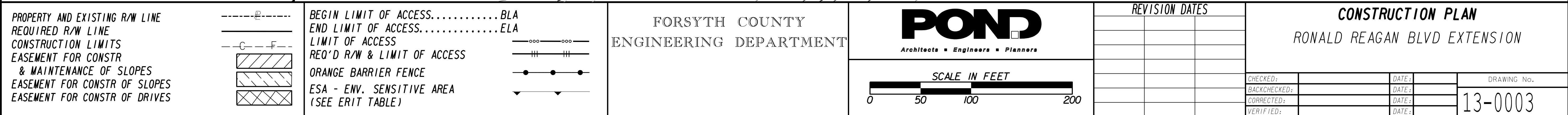
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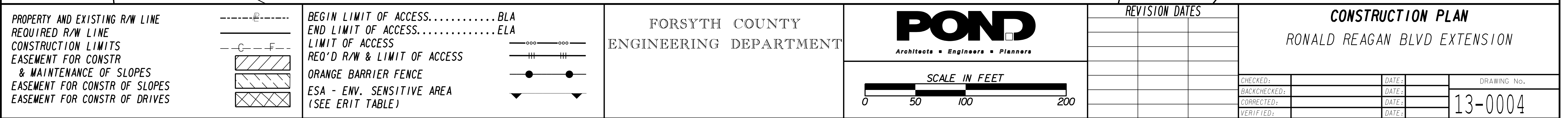


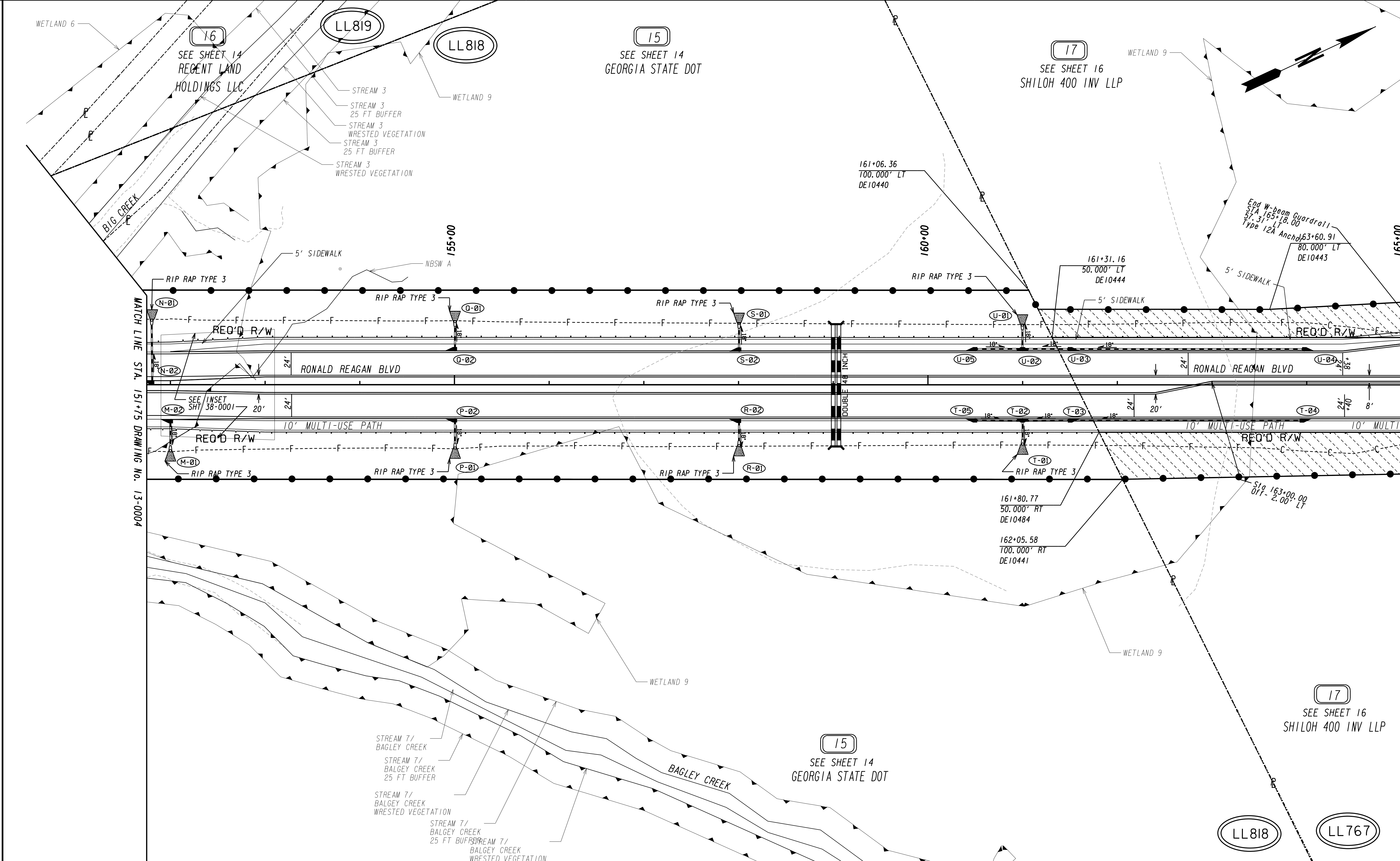
PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT		REVISION DATES <table><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr><tr><td> </td><td> </td></tr></table>											CONSTRUCTION PLAN RONALD REAGAN BLVD EXTENSION	
CHECKED: BACKCHECKED: CORRECTED: VERIFIED:	DATE: DATE: DATE: DATE:																
				SCALE IN FEET 		DRAWING No. 13-0001											



<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div><div>---P---</div><div>---C---</div><div>---F---</div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	<div>FORSYTH COUNTY</div> <div>ENGINEERING DEPARTMENT</div>	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div><div>SCALE IN FEET</div><div><div>0</div><div>50</div><div>100</div><div>200</div></div></div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																	<div>CONSTRUCTION PLAN</div> <div>RONALD REAGAN BLVD EXTENSION</div>
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

---P---

---C---

---F---

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

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FORSYTH COUNTY
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POND

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SCALE IN FEET

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REVISION DATES

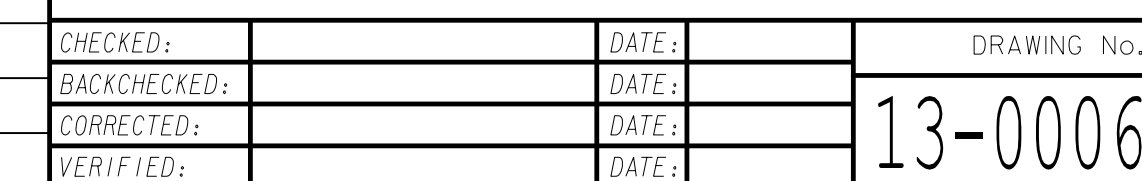
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RONALD REAGAN BLVD EXTENSION

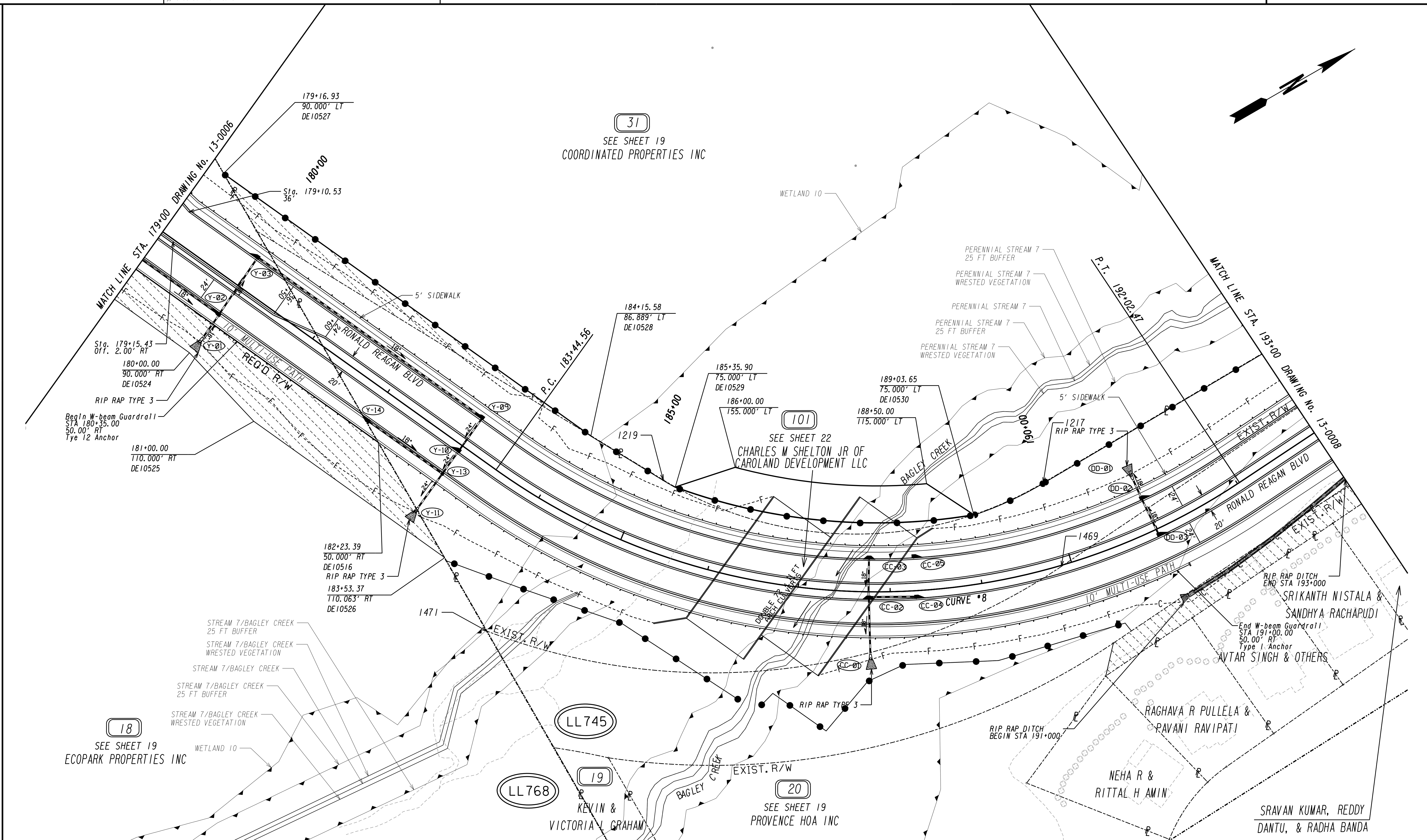
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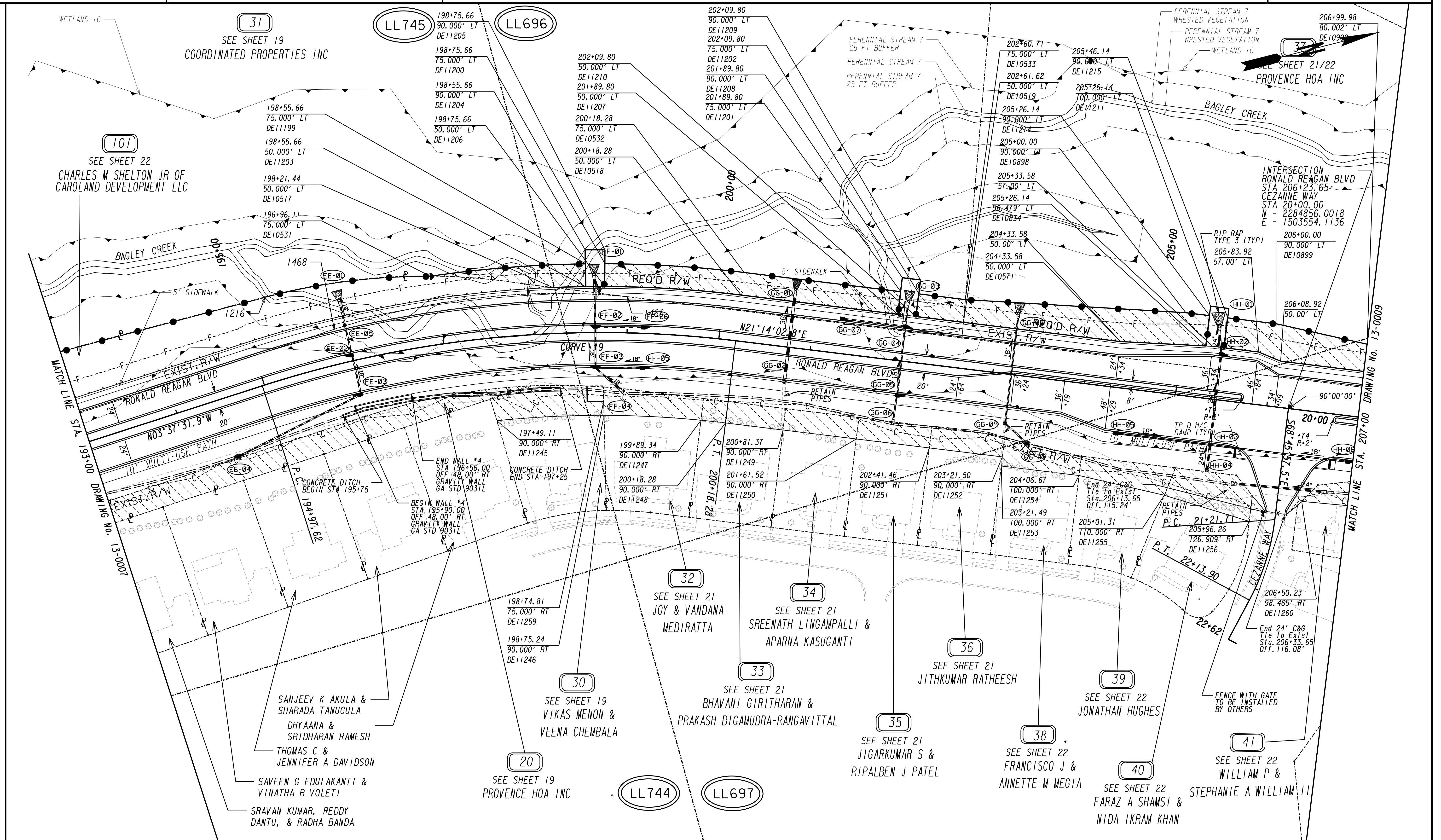
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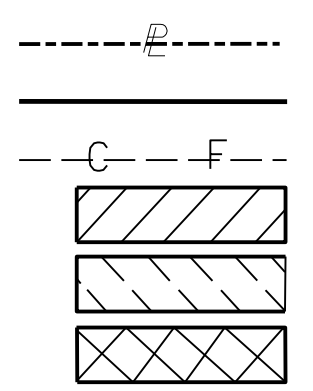
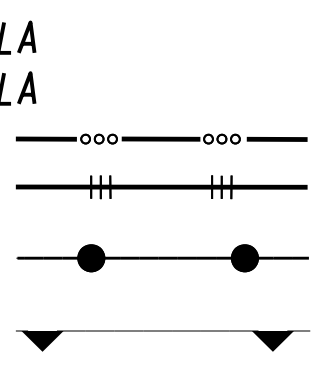

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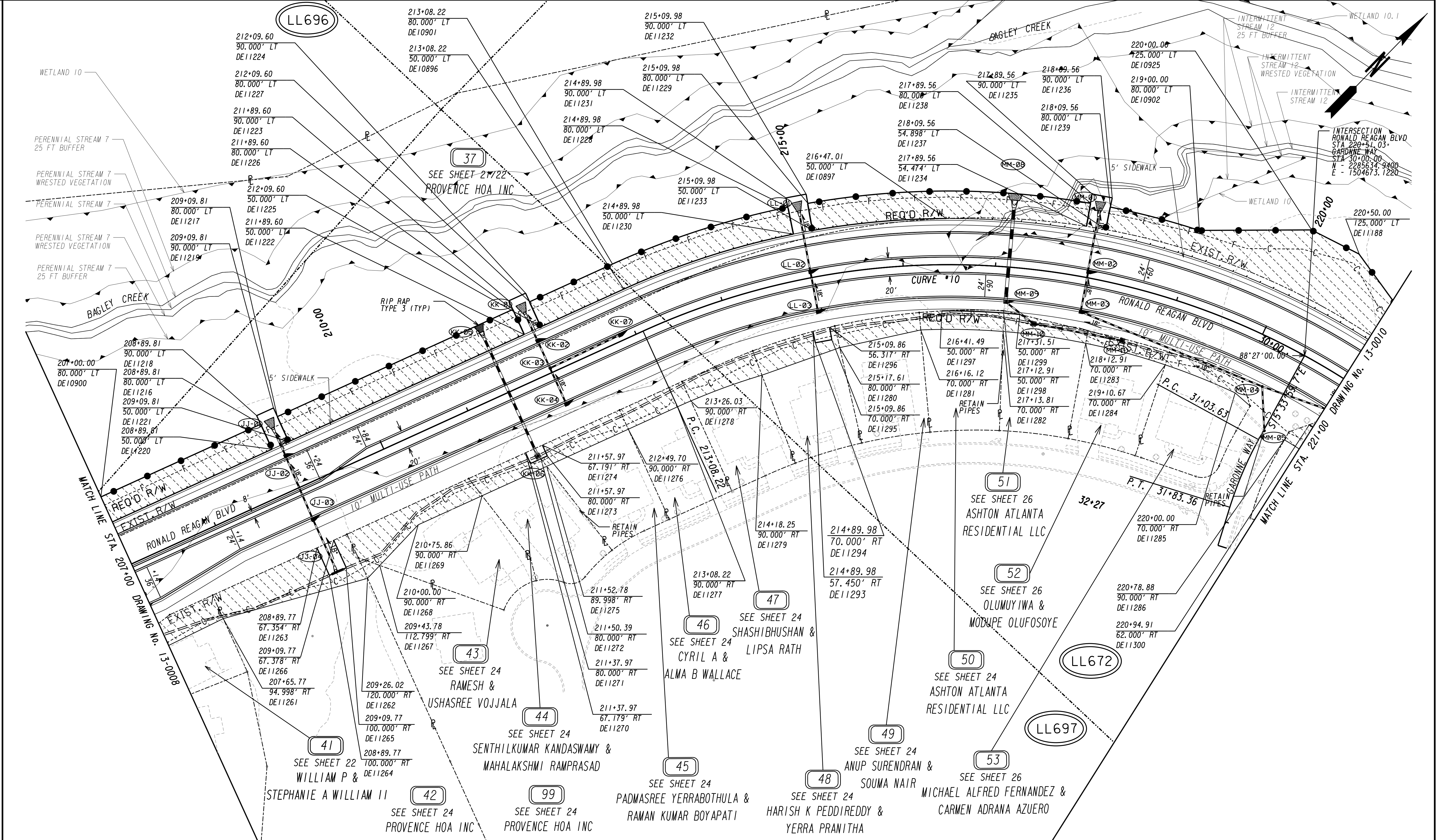




PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div><div>POND</div><div>Architects • Engineers • Planners</div></div><div><div>SCALE IN FEET</div><div><div>0</div><div>50</div><div>100</div><div>200</div></div></div></div>	REVISION DATES		CONSTRUCTION PLAN RONALD REAGAN BLVD EXTENSION					
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						CORRECTED:		DATE:					
						VERIFIED:		DATE:					



PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)		FORSYTH COUNTY ENGINEERING DEPARTMENT	 Architects • Engineers • Planners	REVISION DATES	CONSTRUCTION PLAN RONALD REAGAN BLVD EXTENSION			
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							CORRECTED:	DATE:		
							VERIFIED:	DATE:		



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

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SCALE IN FEET

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REVISION DATES

CONSTRUCTION PLAN
RONALD REAGAN BLVD EXTENSION

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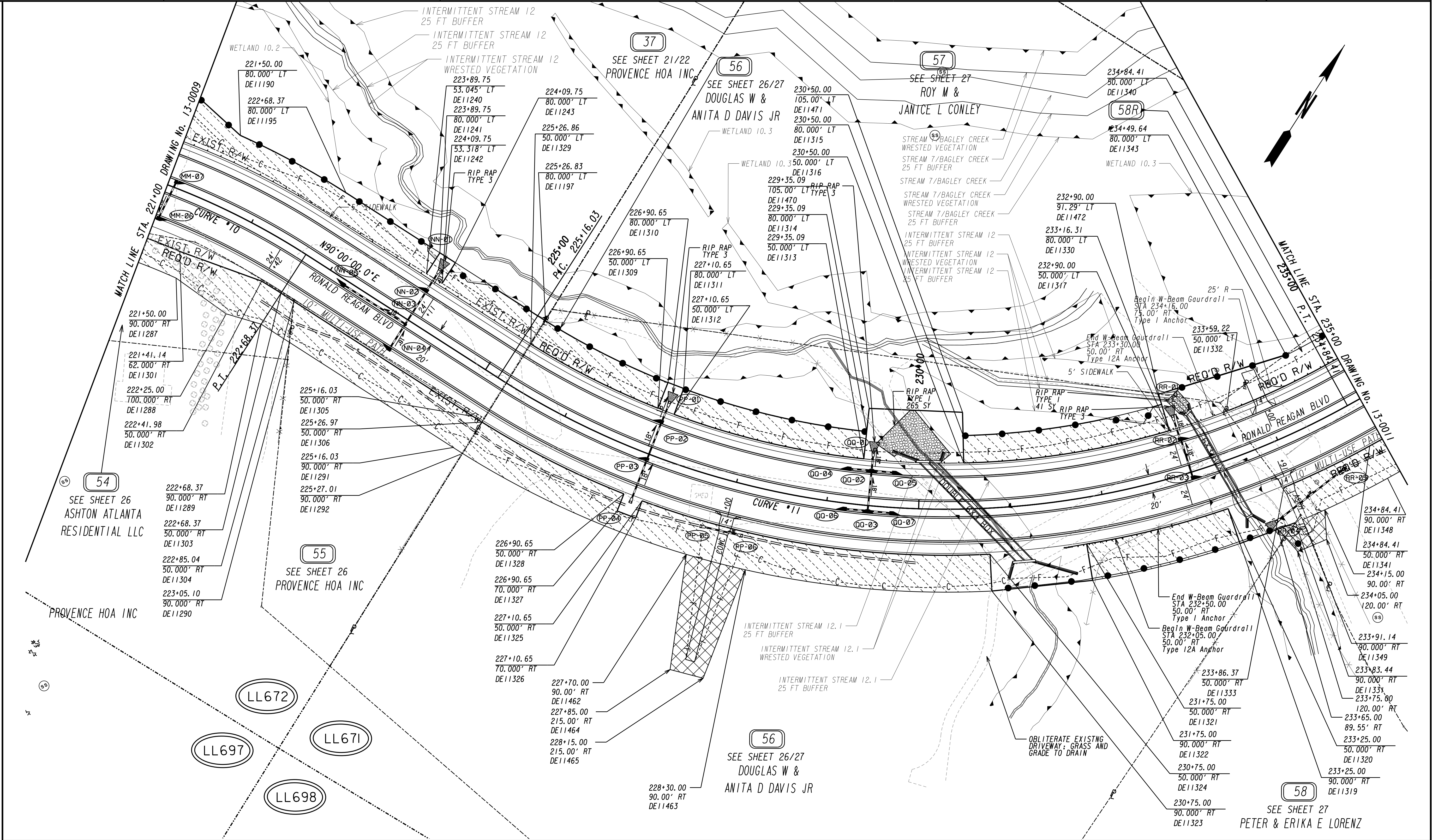
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13-0009



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

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SCALE IN FEET

0

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200

REVISION DATES

CONSTRUCTION PLAN
RONALD REAGAN BLVD EXTENSION

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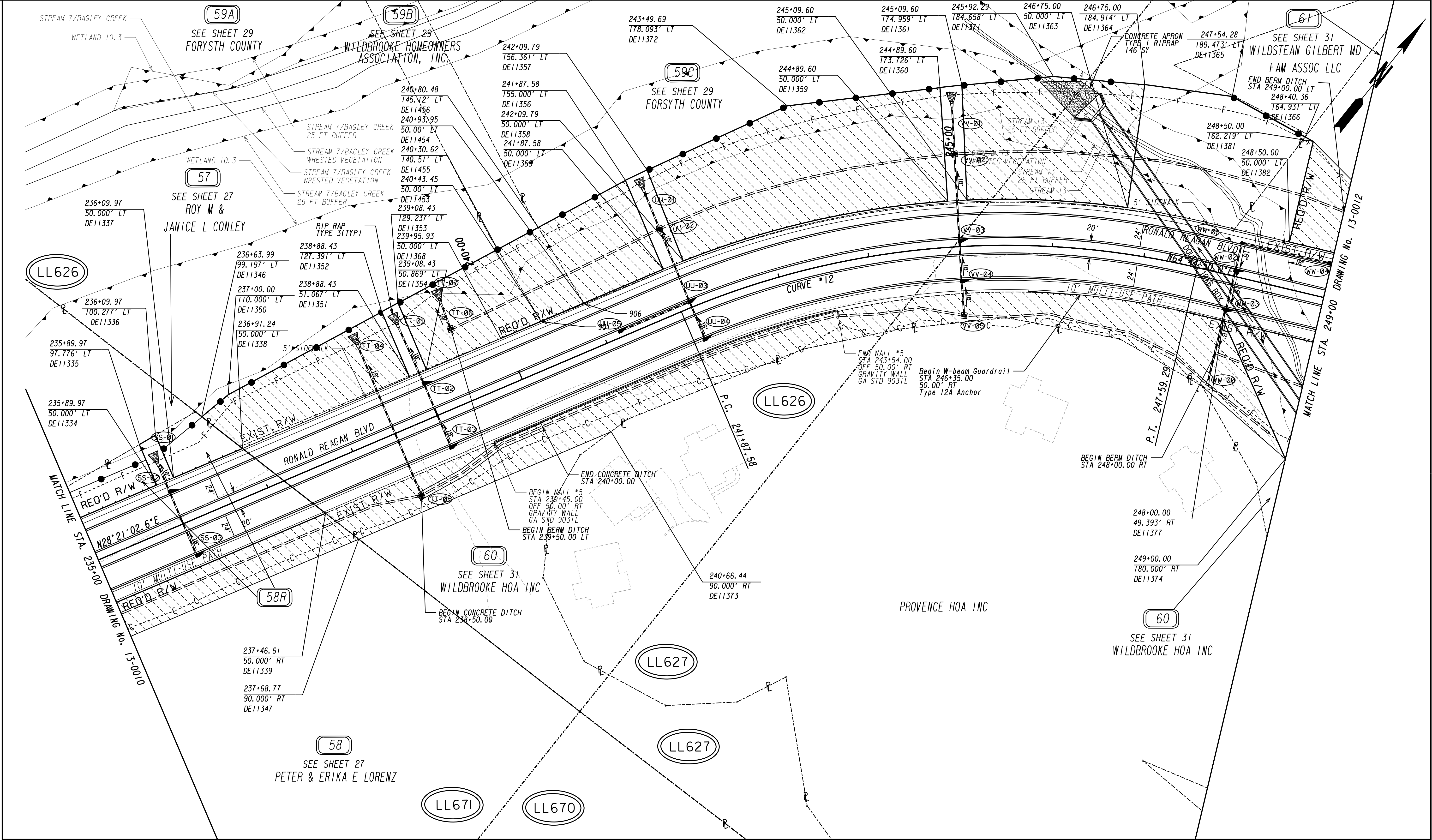
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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100

200

REVISION DATES

CONSTRUCTION PLAN
RONALD REAGAN BLVD EXTENSION

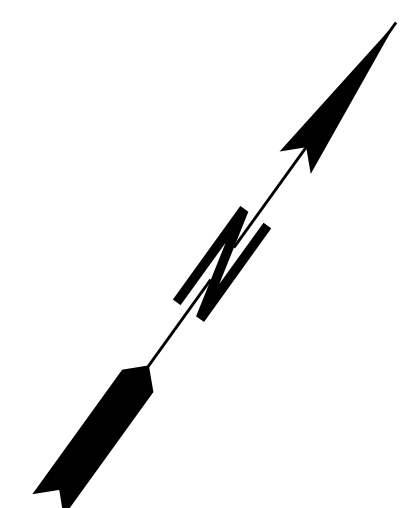
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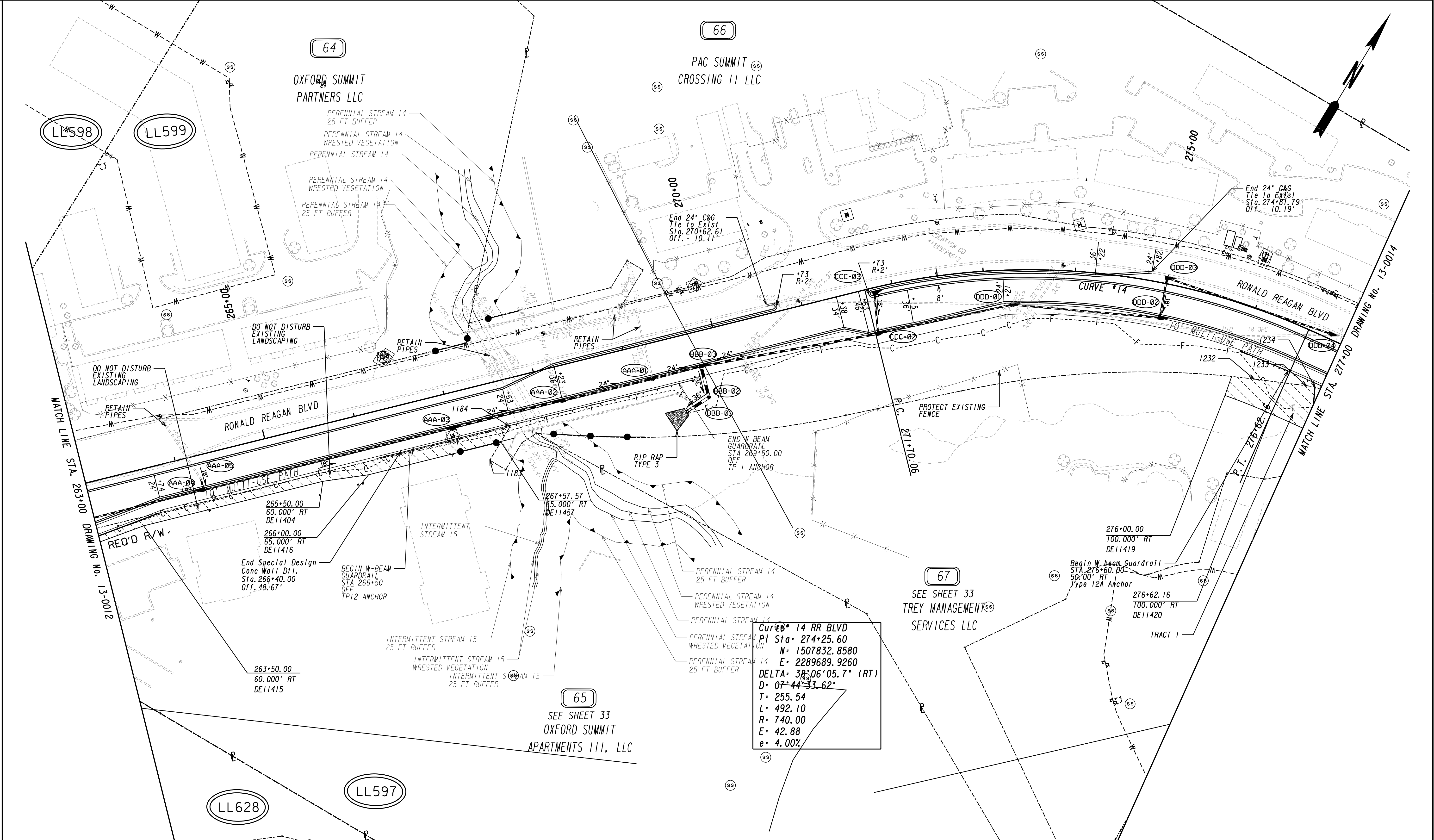
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13-0011

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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

---P---

---C---

---F---

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

0 50 100 200

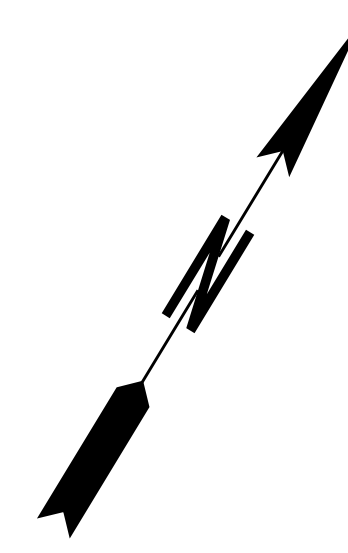
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CONSTRUCTION PLAN
RONALD REAGAN BLVD EXTENSION

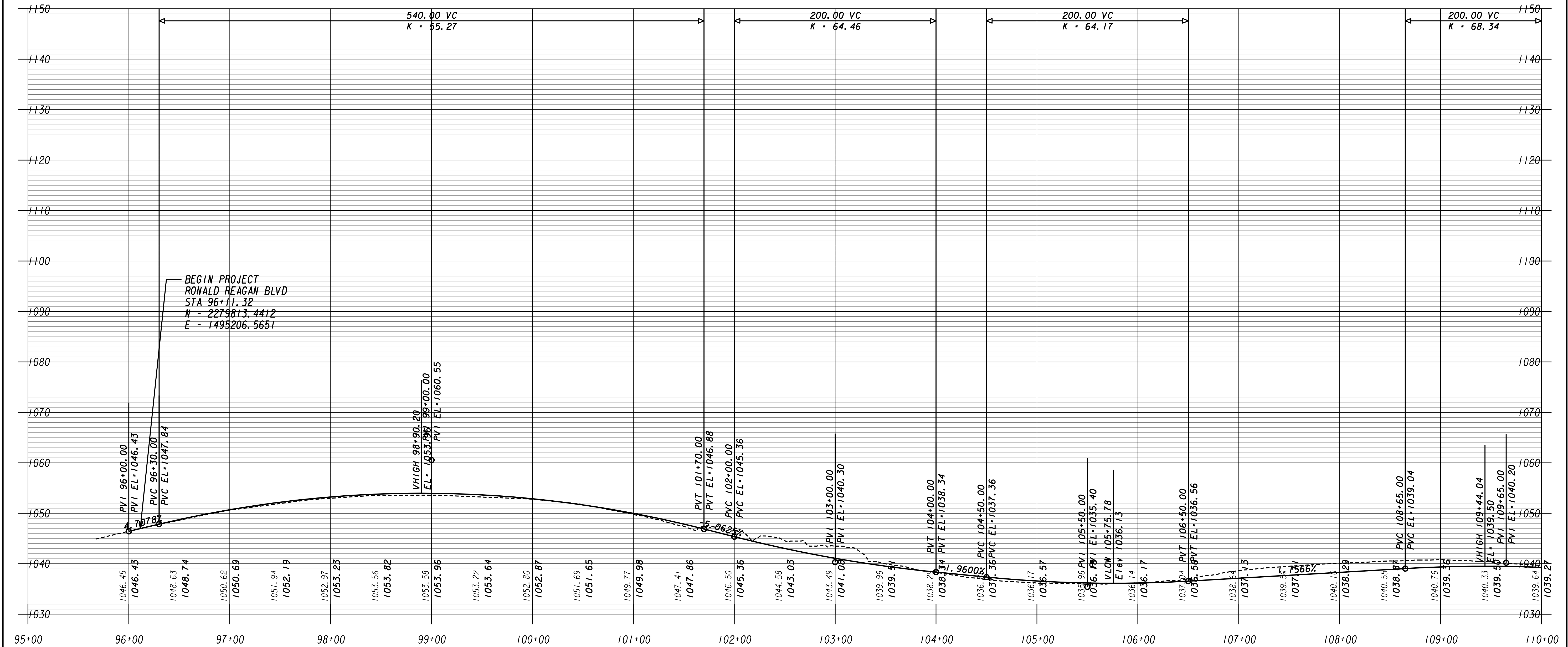
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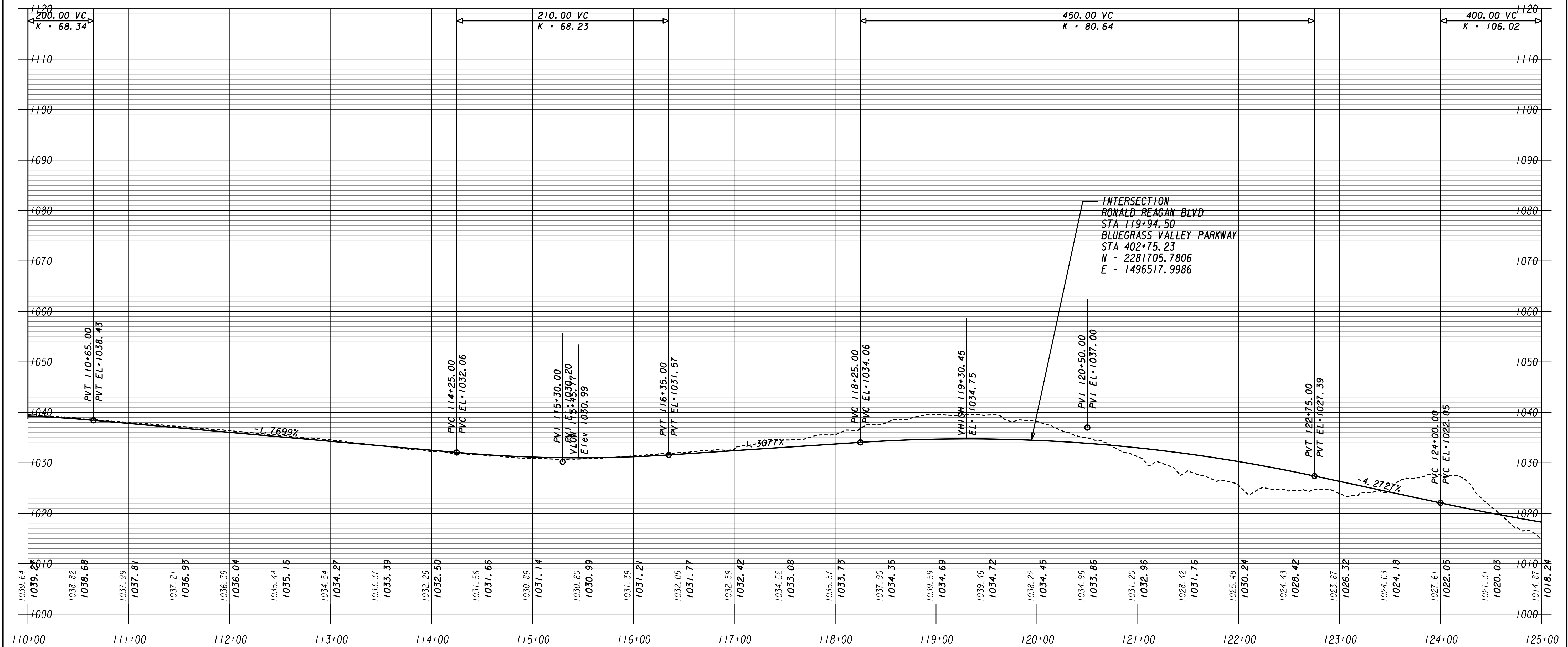
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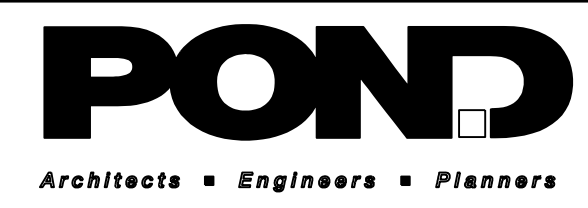


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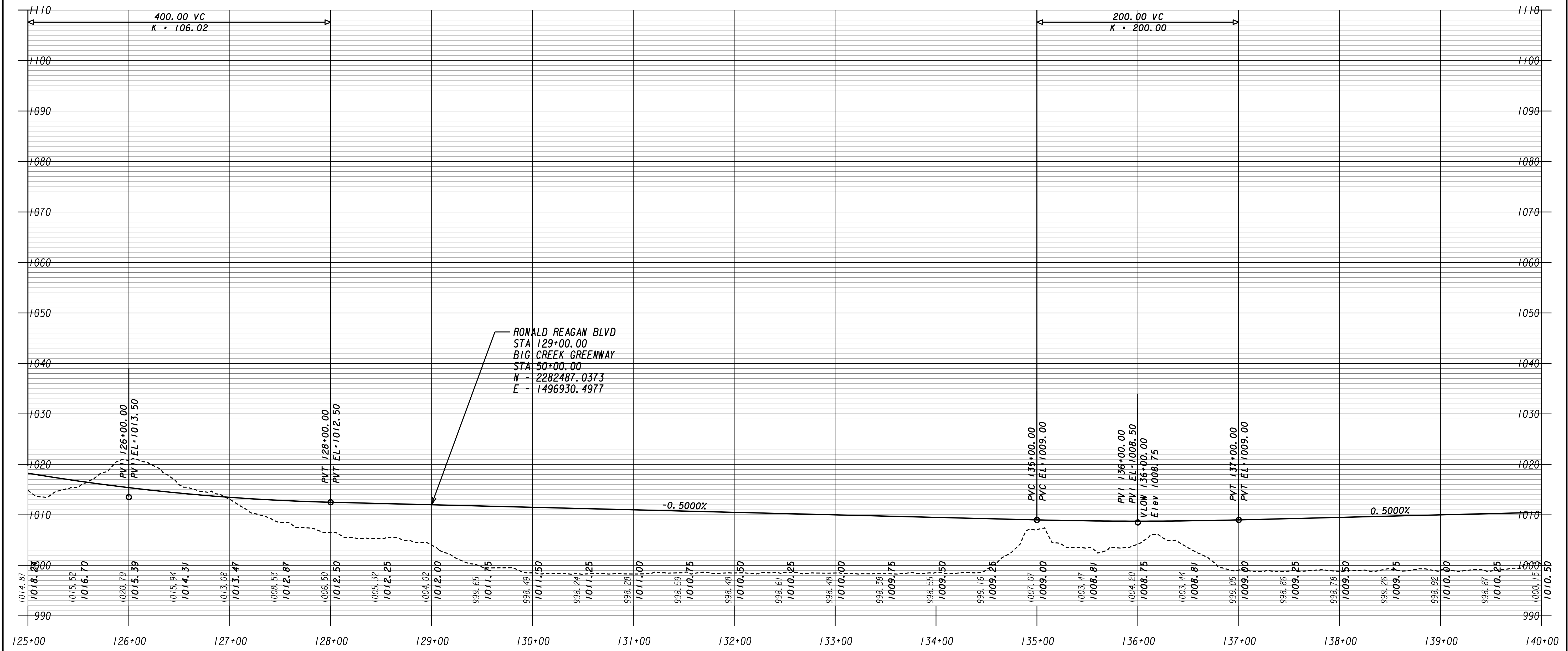
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ENGINEERING DEPARTMENT



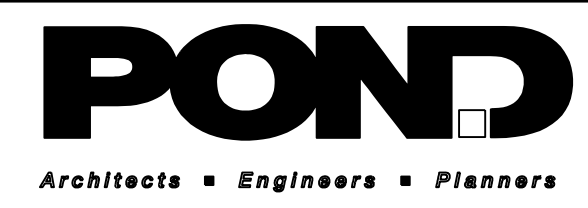
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MAINLINE PROFILE
RONALD REAGAN BLVD EXTENSION

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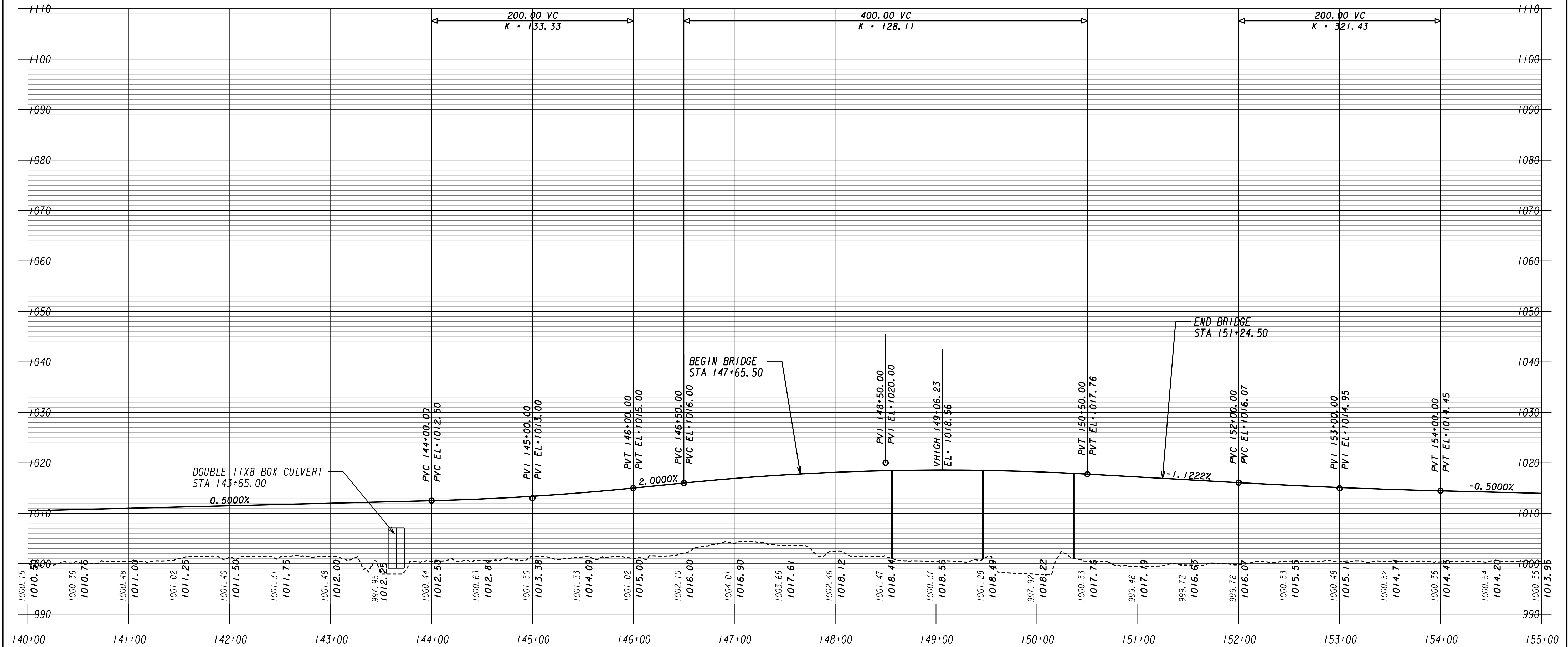
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ENGINEERING DEPARTMENT

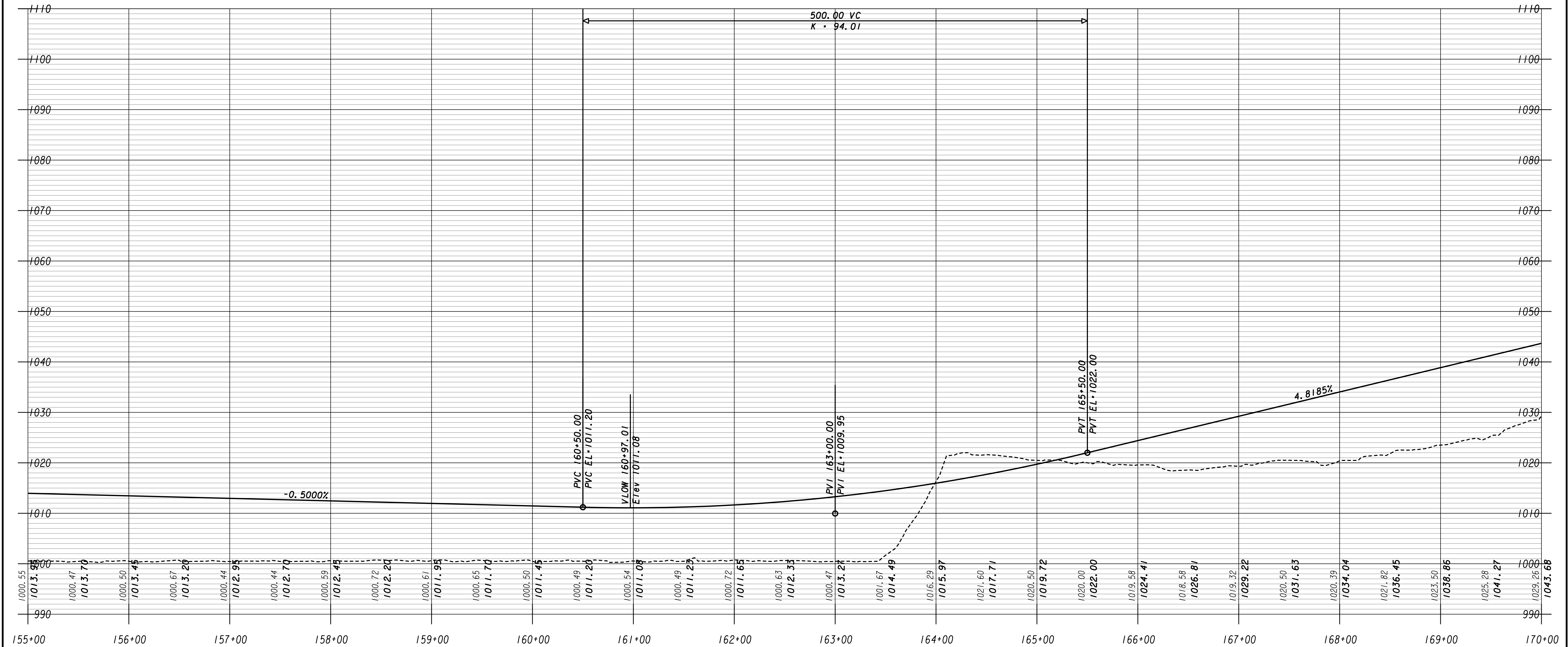


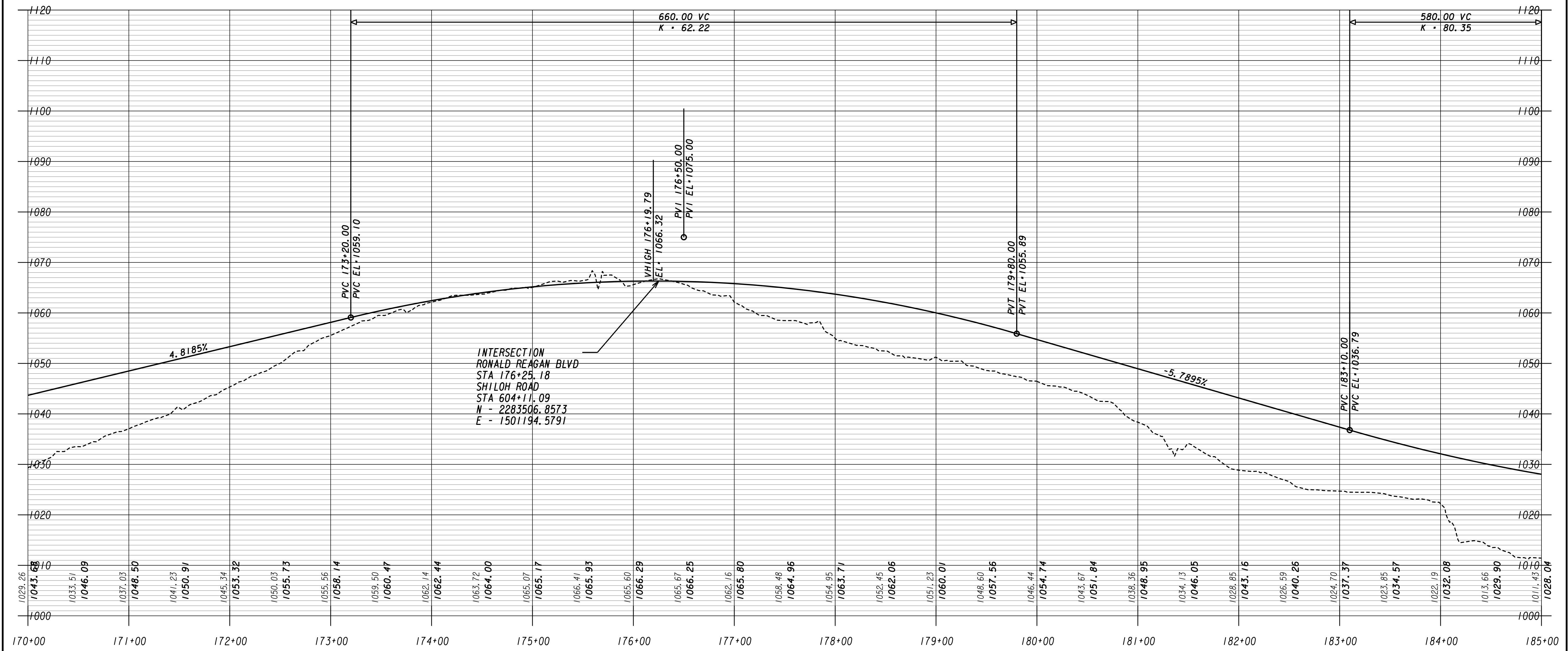
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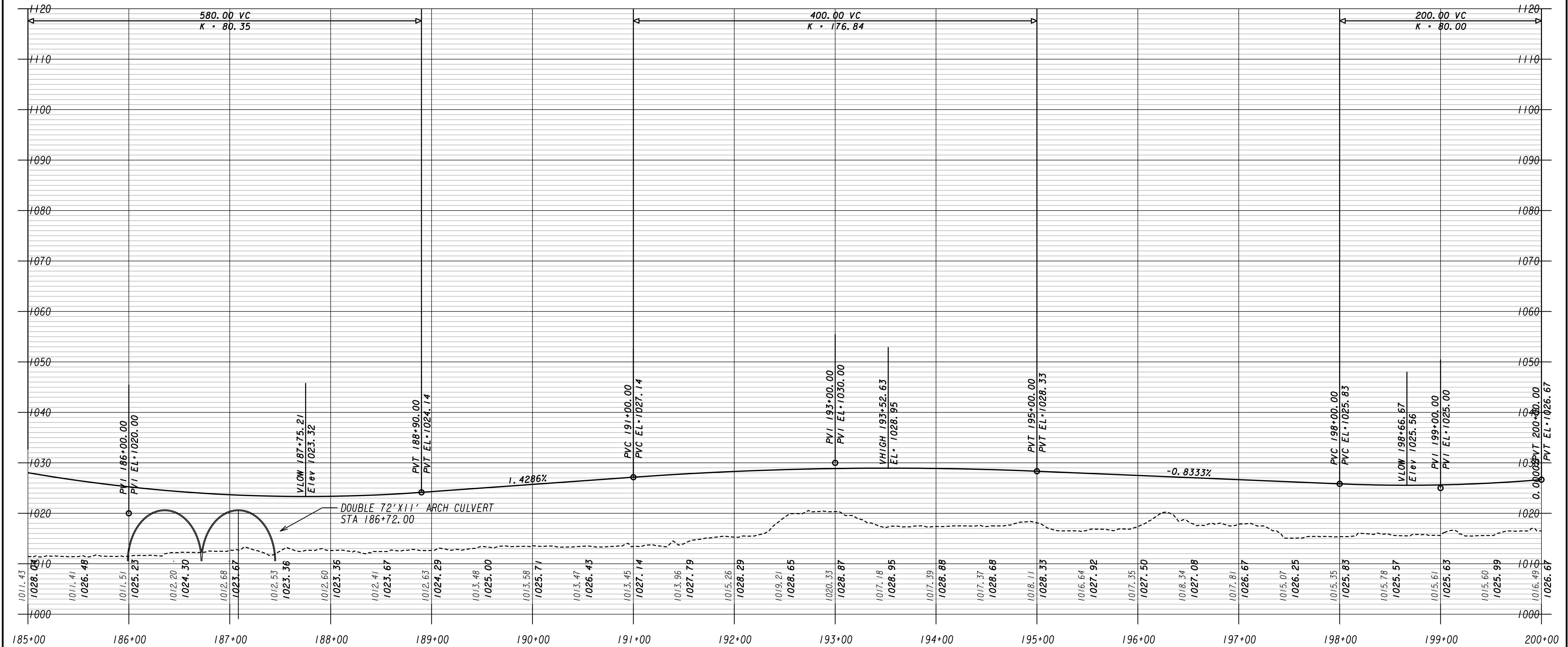
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RONALD REAGAN BLVD EXTENSION

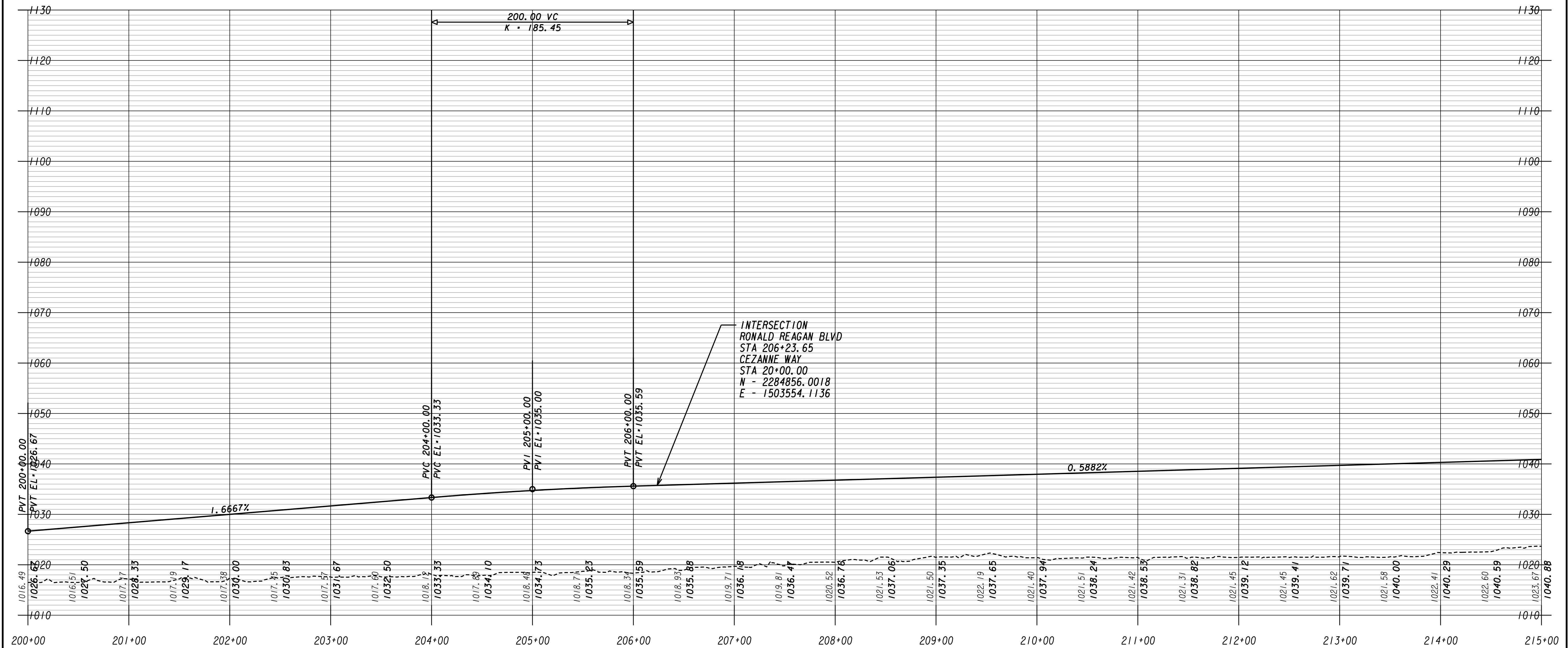
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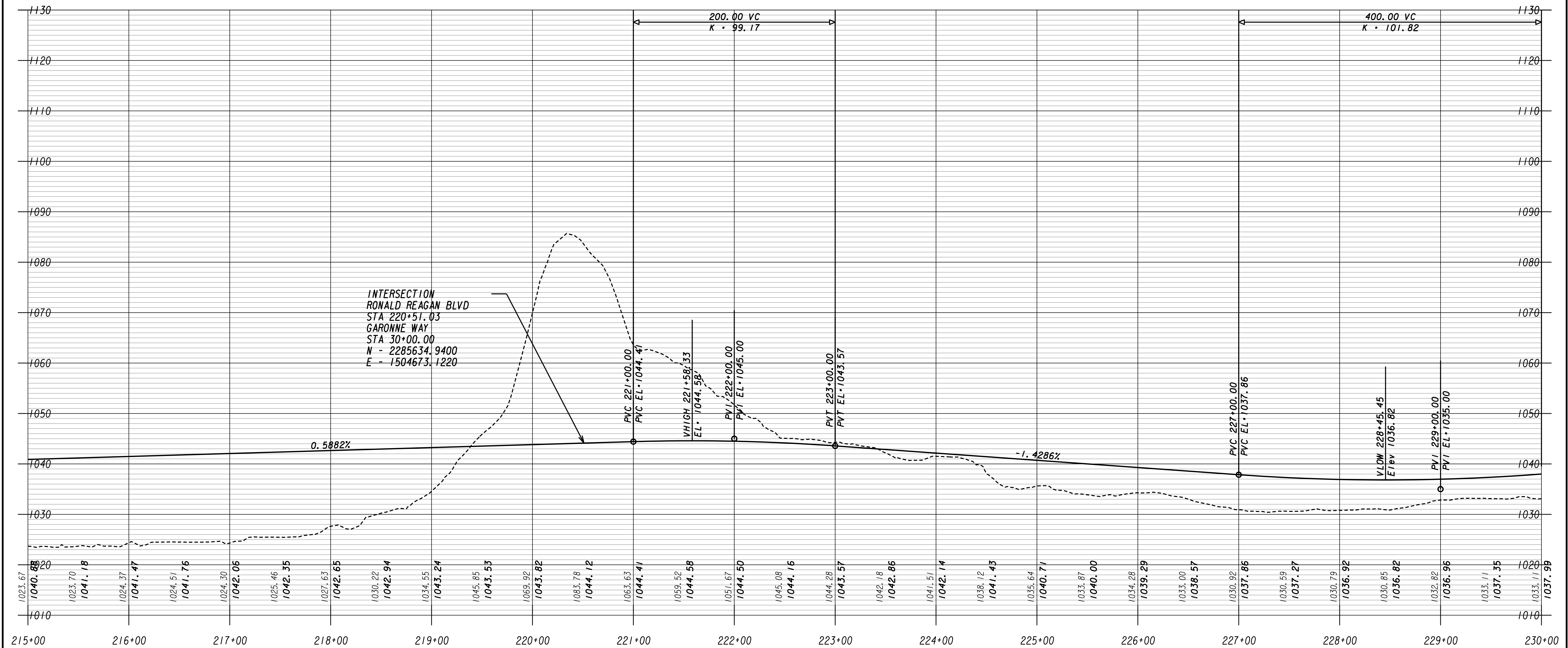


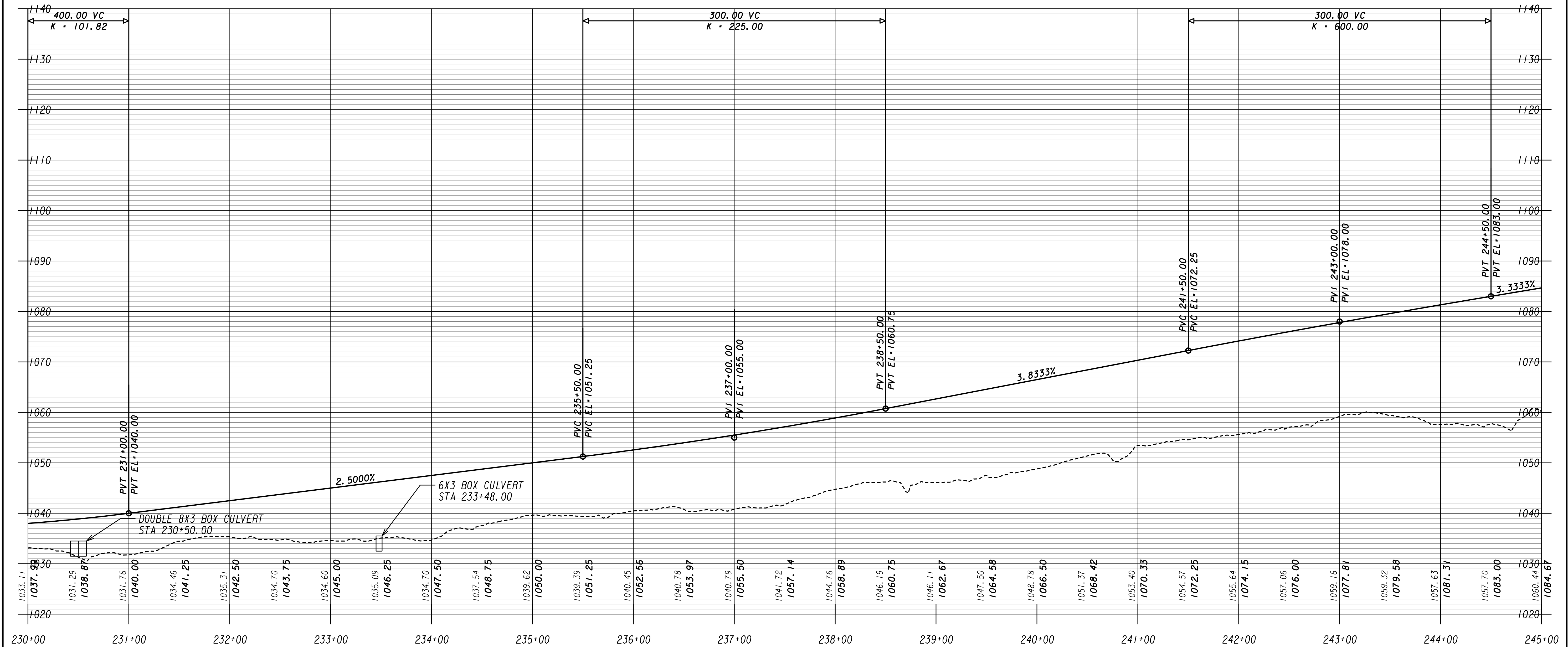


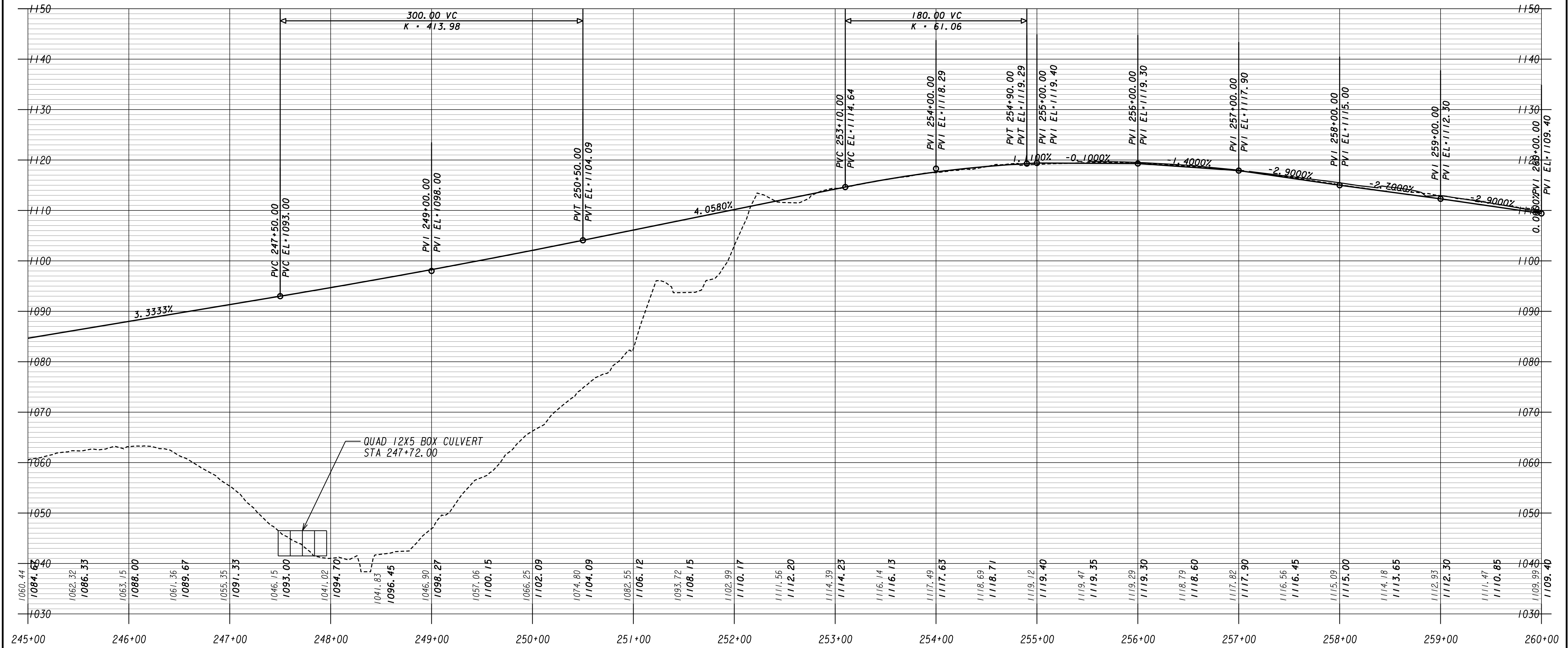












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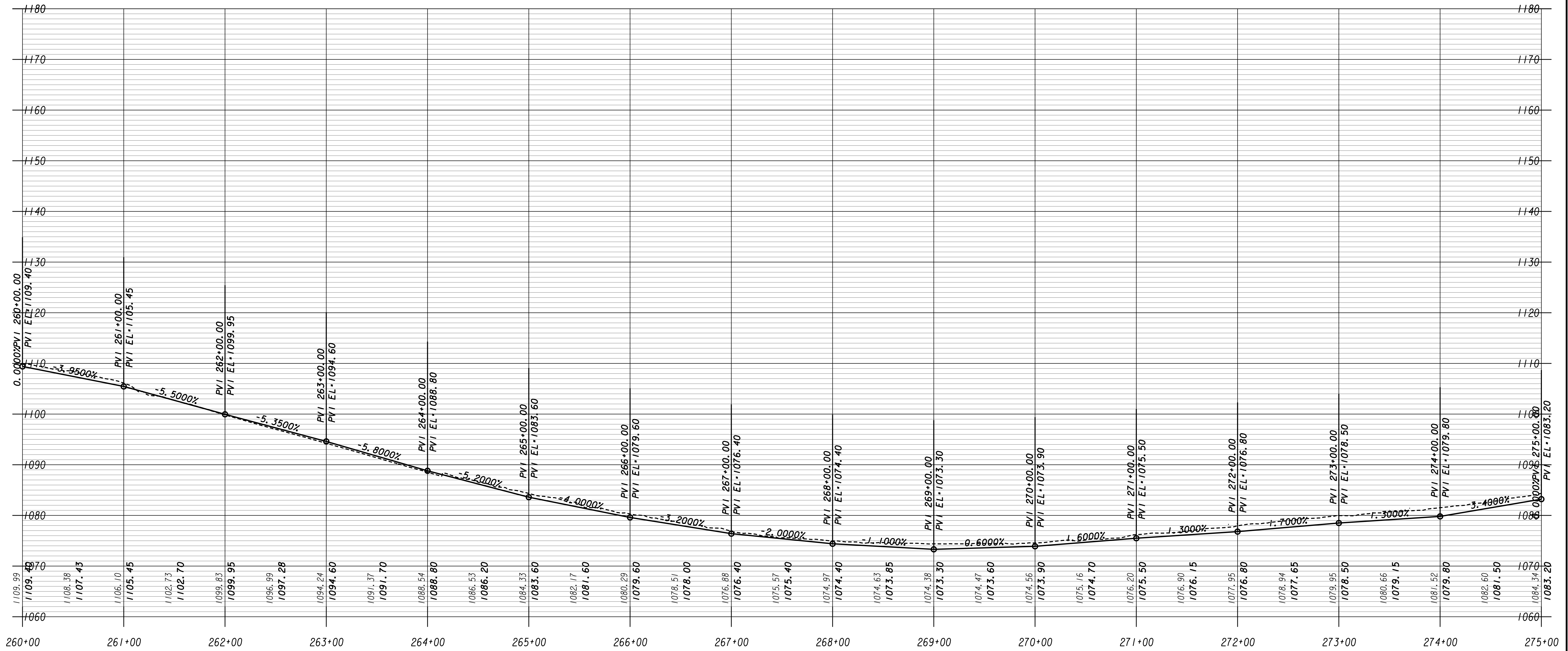
FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND
Architects • Engineers • Planners

REVISION DATES		

MAINLINE PROFILE RONALD REAGAN BLVD EXTENSION			
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15-0011



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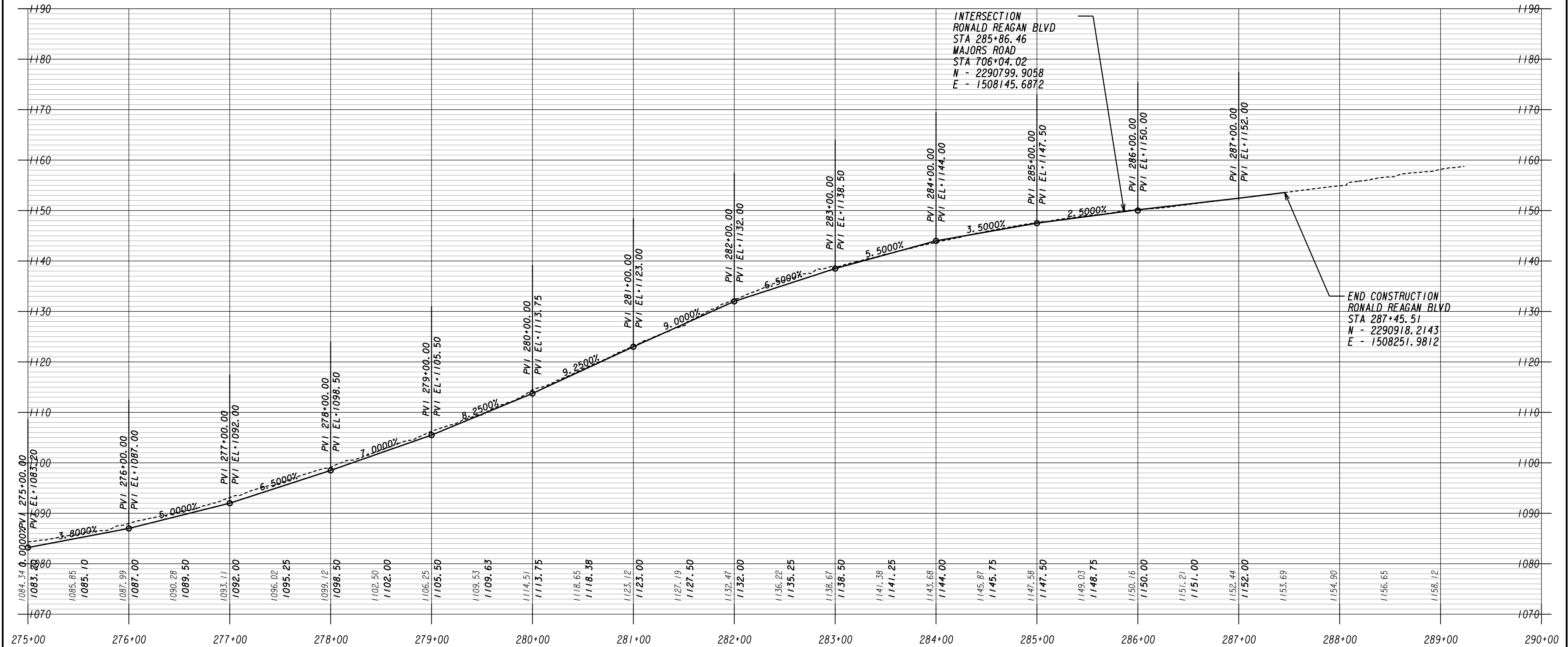
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ENGINEERING DEPARTMENT

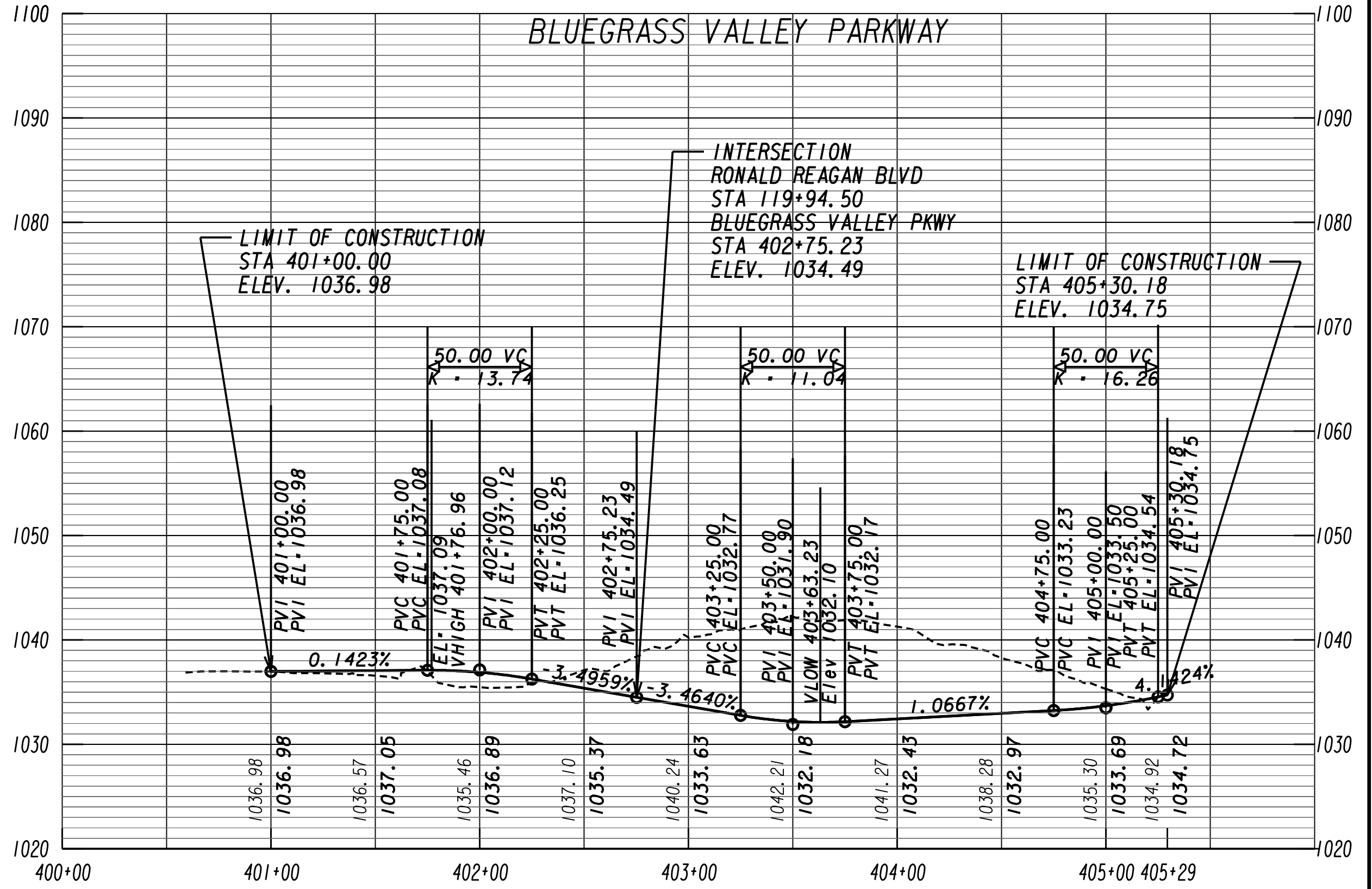
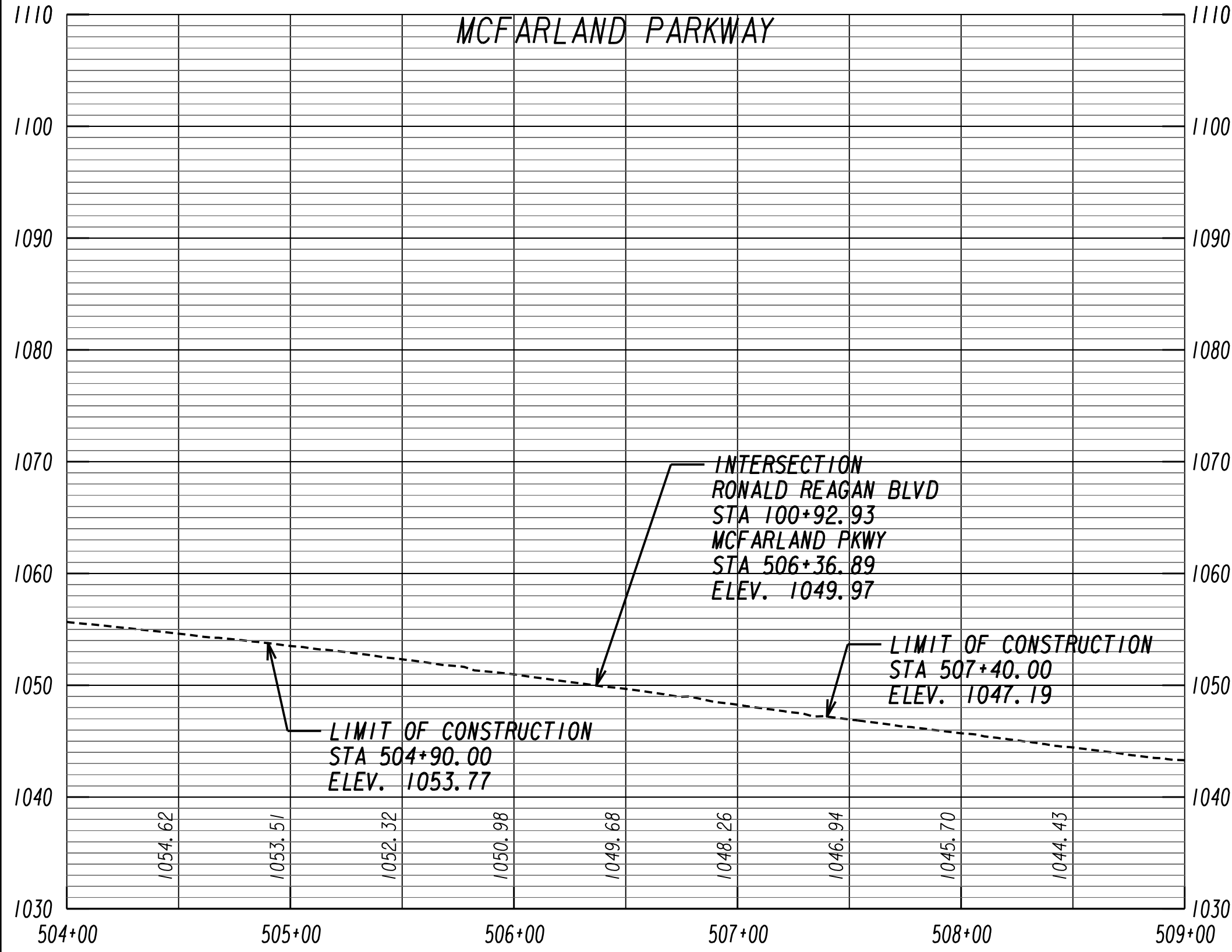
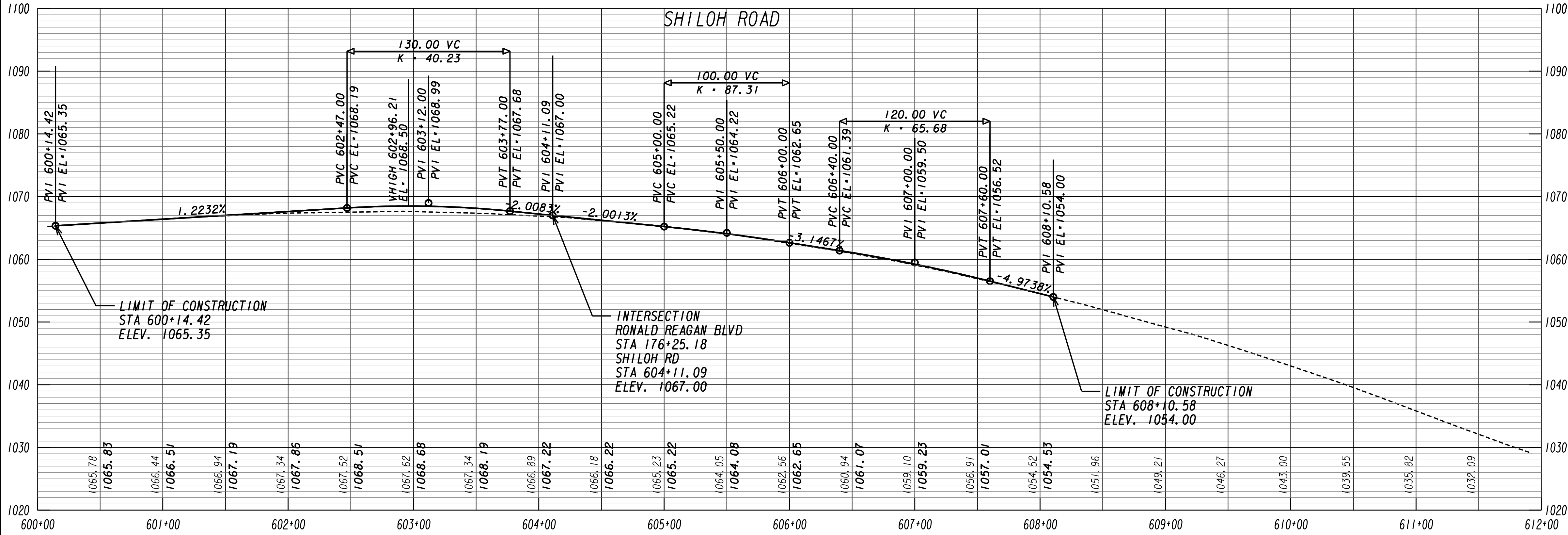
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Architects • Engineers • Planners

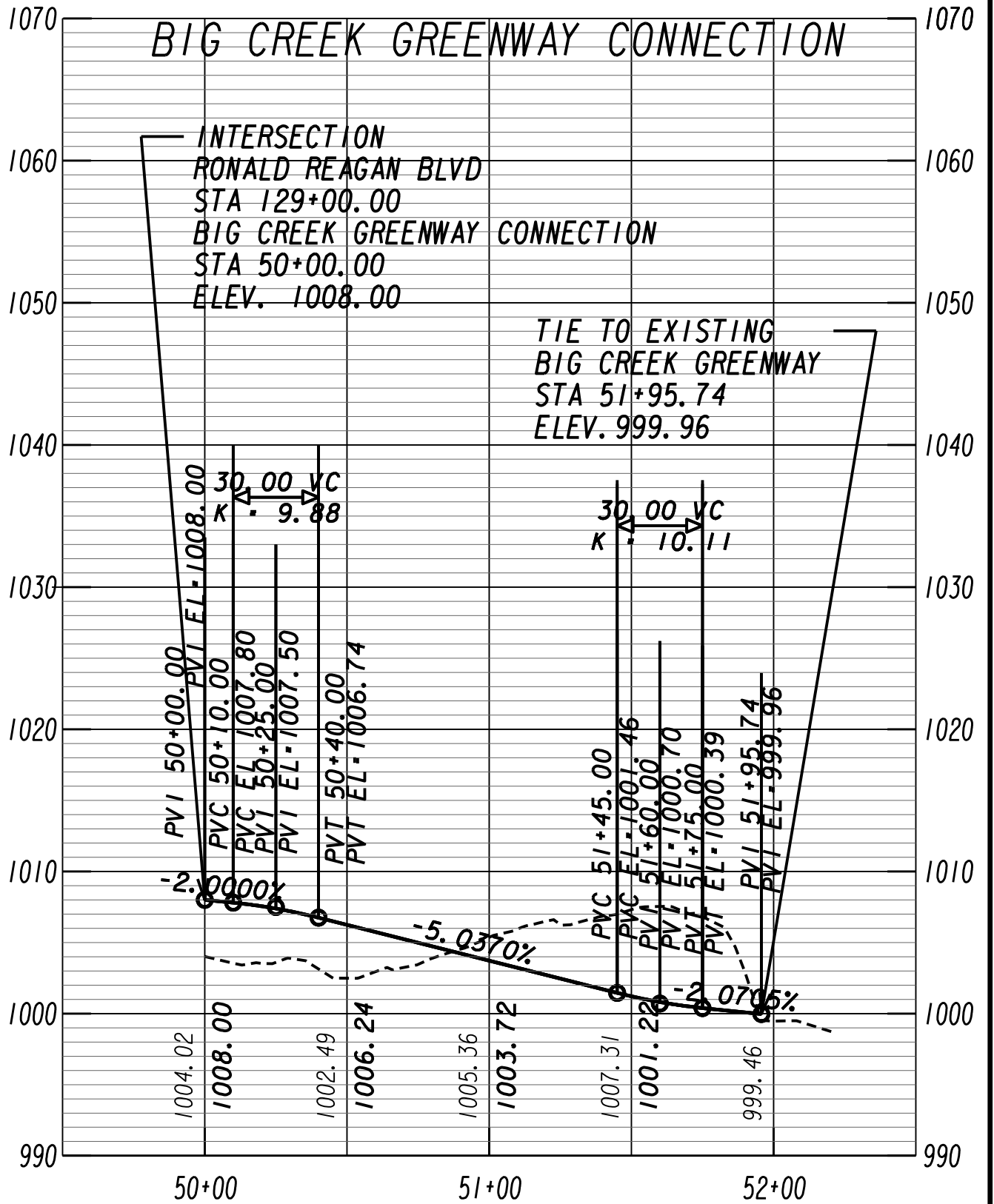
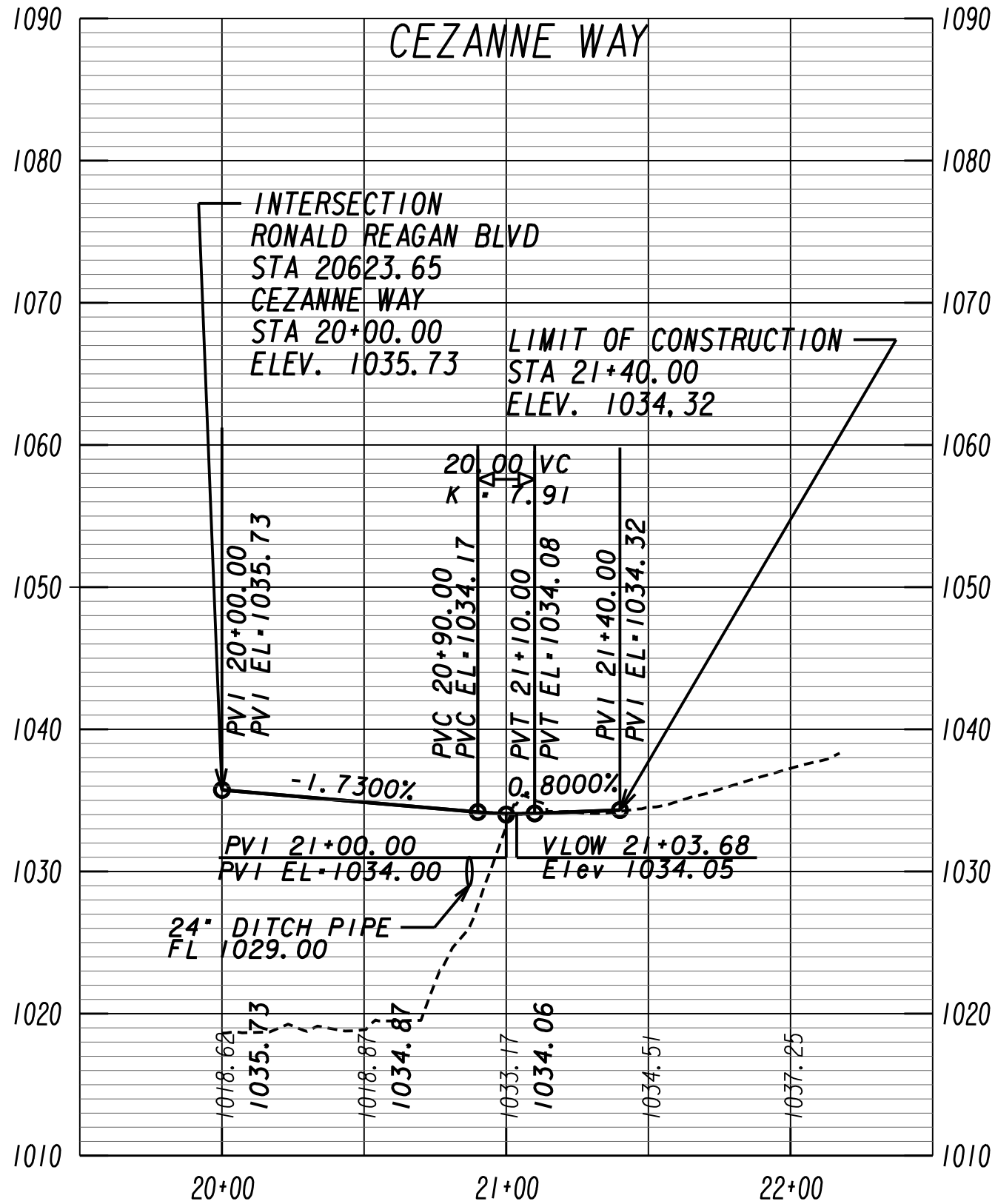
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FORSYTH COUNTY
ENGINEERING DEPARTMENT

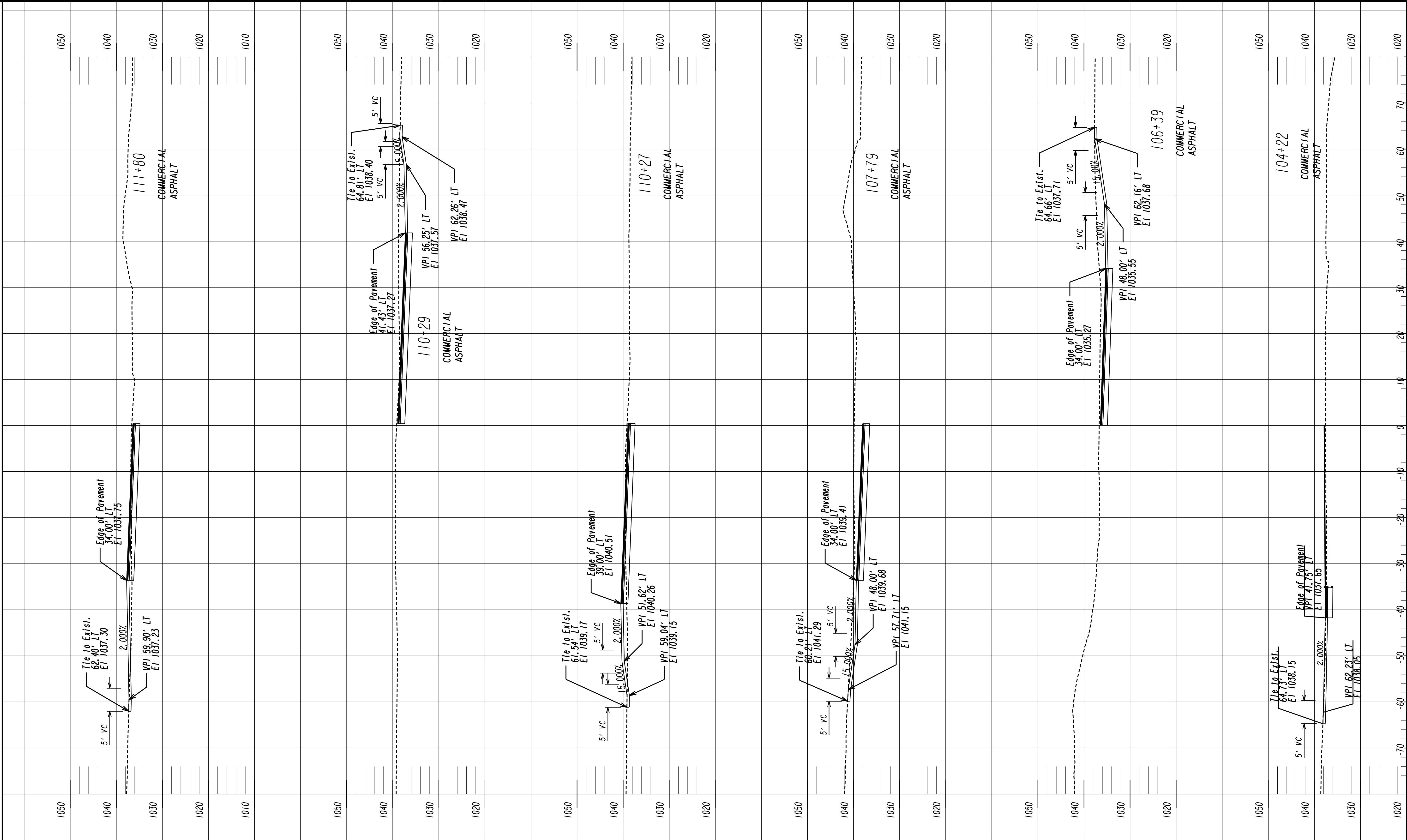


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SCALE 1 inch = 20 feet Horz.

REVISION DATES

CROSSROAD PROFILE
CEZANNE WAY
& BIG CREEK GREENWAY CONNECTION

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FORSYTH COUNTY
ENGINEERING DEPARTMENT

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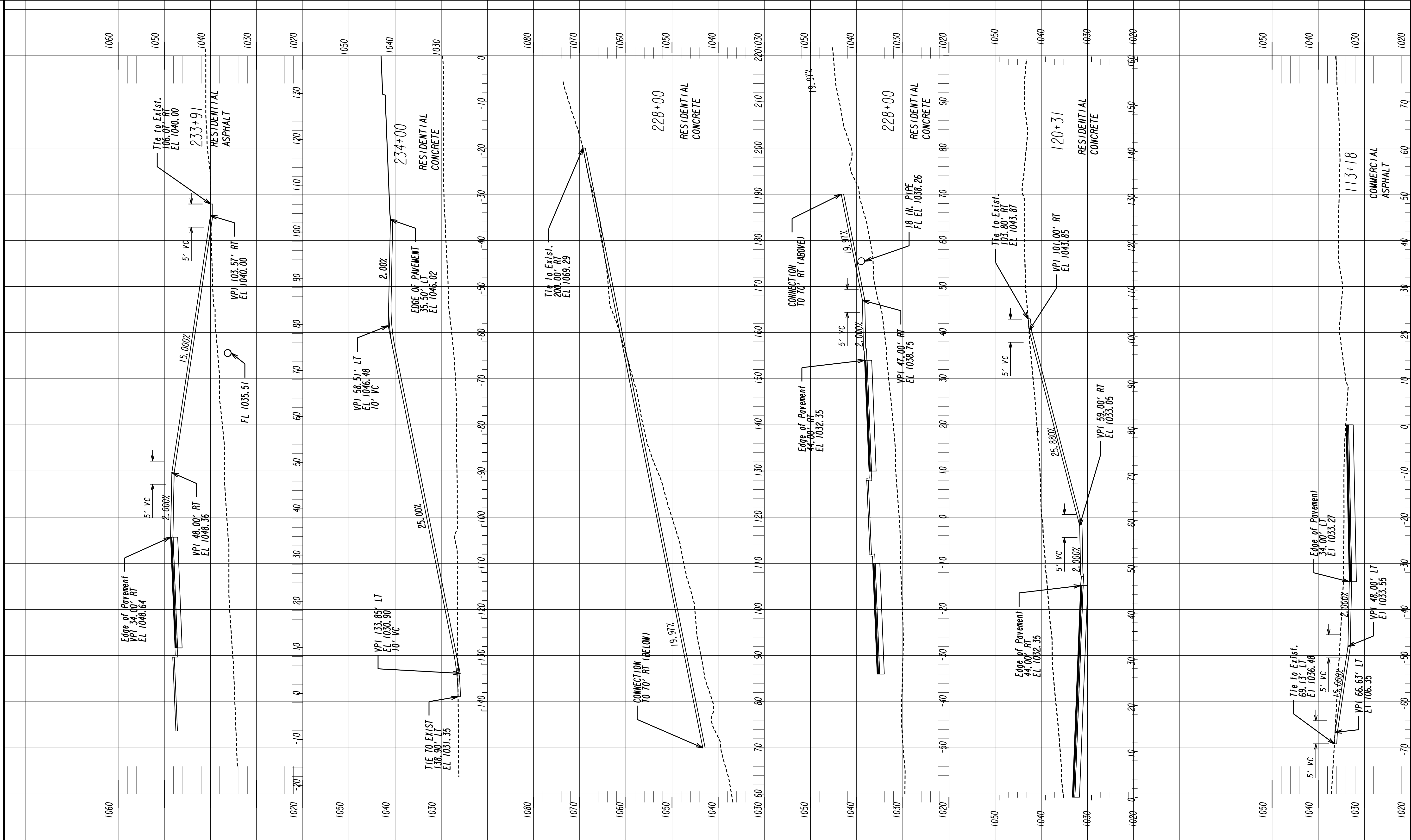
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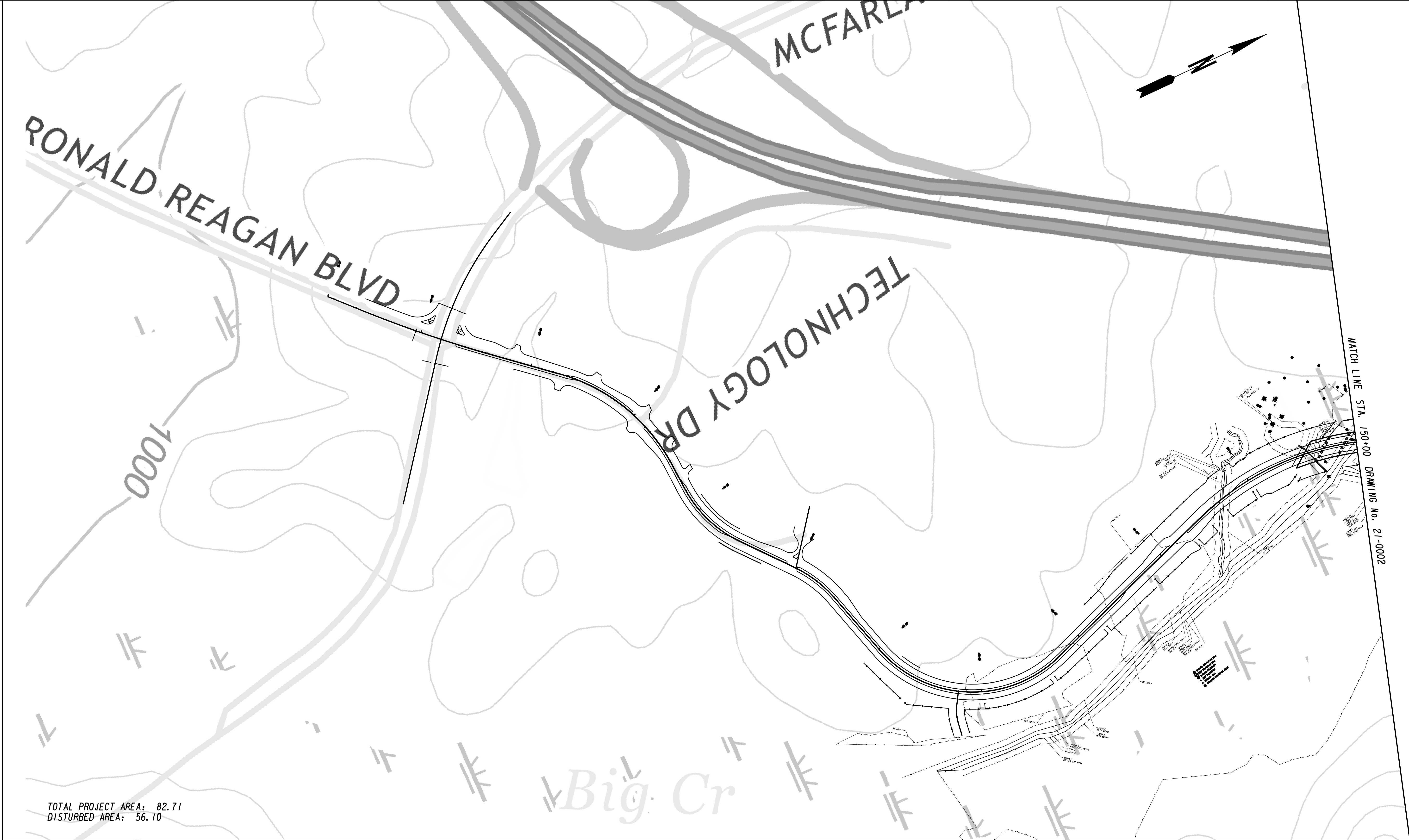
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DRIVEWAY PROFILES
RONALD REAGAN BLVD EXTENSION

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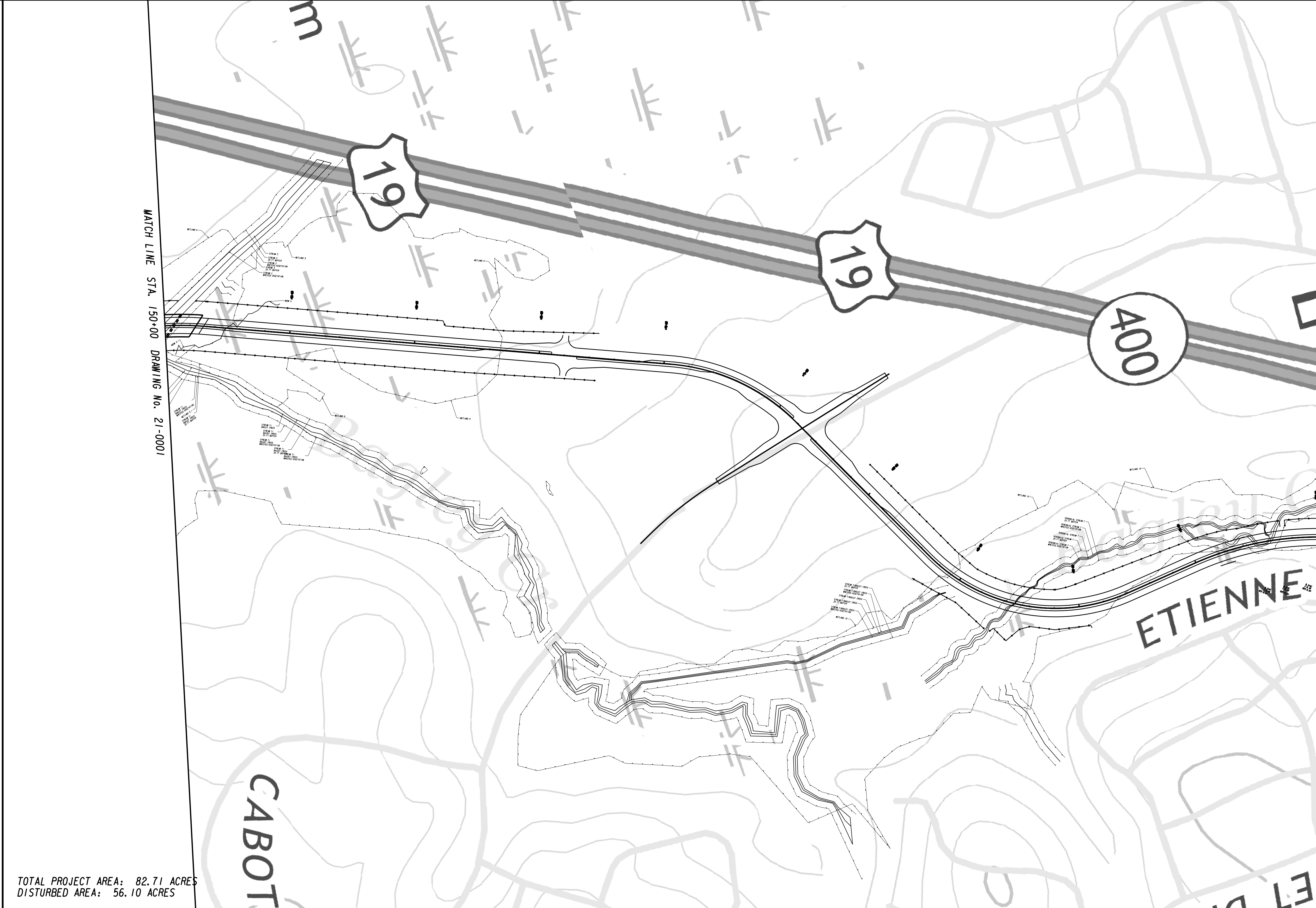
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TOTAL PROJECT AREA: 82.71
DISTURBED AREA: 56.10

<p>PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES</p>	<p>-----@----- -C-F- </p>	<p>BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)</p>	<p>---000---000--- ---III---III--- ●●● ▼▼▼</p>	<p>FORSYTH COUNTY ENGINEERING DEPARTMENT</p>	<p>POND Architects • Engineers • Planners</p>	<p>SCALE IN FEET 0 200 400 800</p>	<table><tr><th colspan="3">REVISION DATES</th></tr><tr><td></td><td></td><td></td></tr></table>	REVISION DATES						<p>DRAINAGE AREA MAP RONALD REAGAN BLVD EXTENSION</p>											
								REVISION DATES																	
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TOTAL PROJECT AREA: 82.71 ACRES
DISTURBED AREA: 56.10 ACRES

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND
Architects • Engineers • Planners

SCALE IN FEET
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REVISION DATES

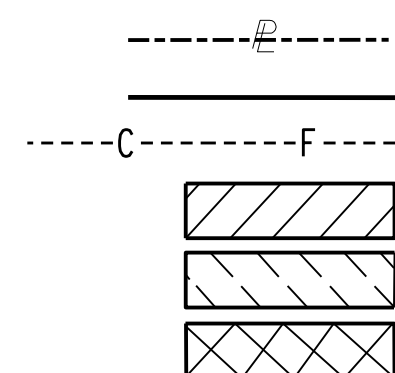
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DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

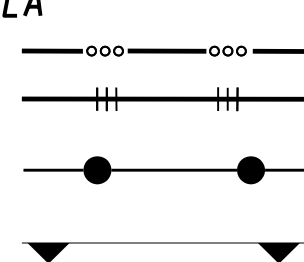
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....	BLA
END LIMIT OF ACCESS.....	ELA
LIMIT OF ACCESS	—
REQ'D R/W & LIMIT OF ACCESS	—
ORANGE BARRIER FENCE	—
ESA - ENV. SENSITIVE AREA	▼
(SEE ERIT TABLE)	



FORSYTH COUNTY
ENGINEERING DEPARTMENT



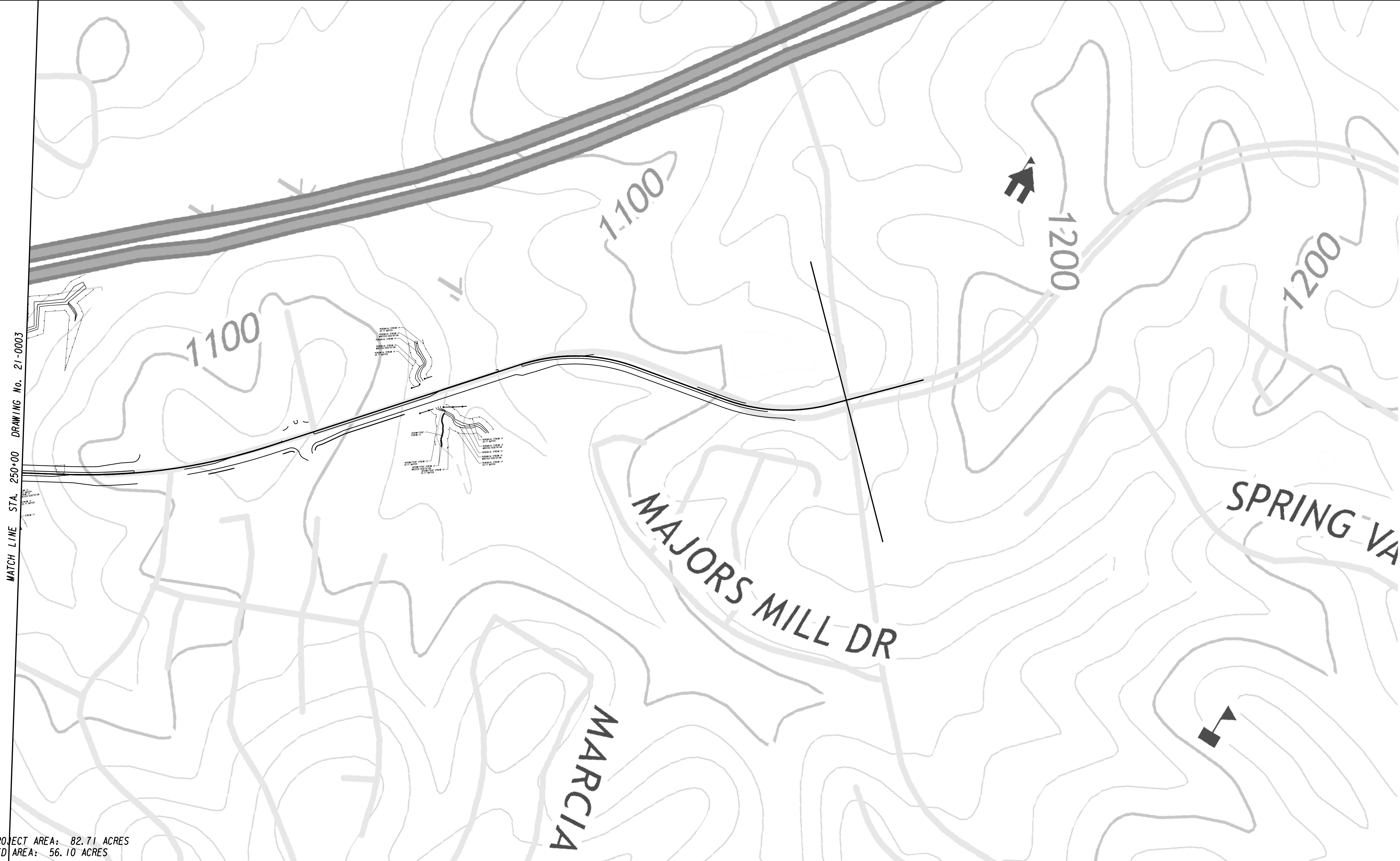
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REVISION DATES

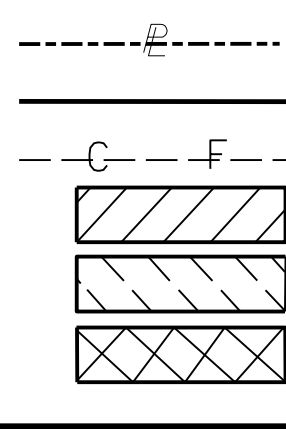
DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

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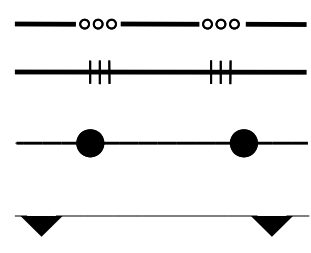


TOTAL PROJECT AREA: 82.71 ACRES
DISTURBED AREA: 56.10 ACRES

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)



FORSYTH COUNTY
ENGINEERING DEPARTMENT

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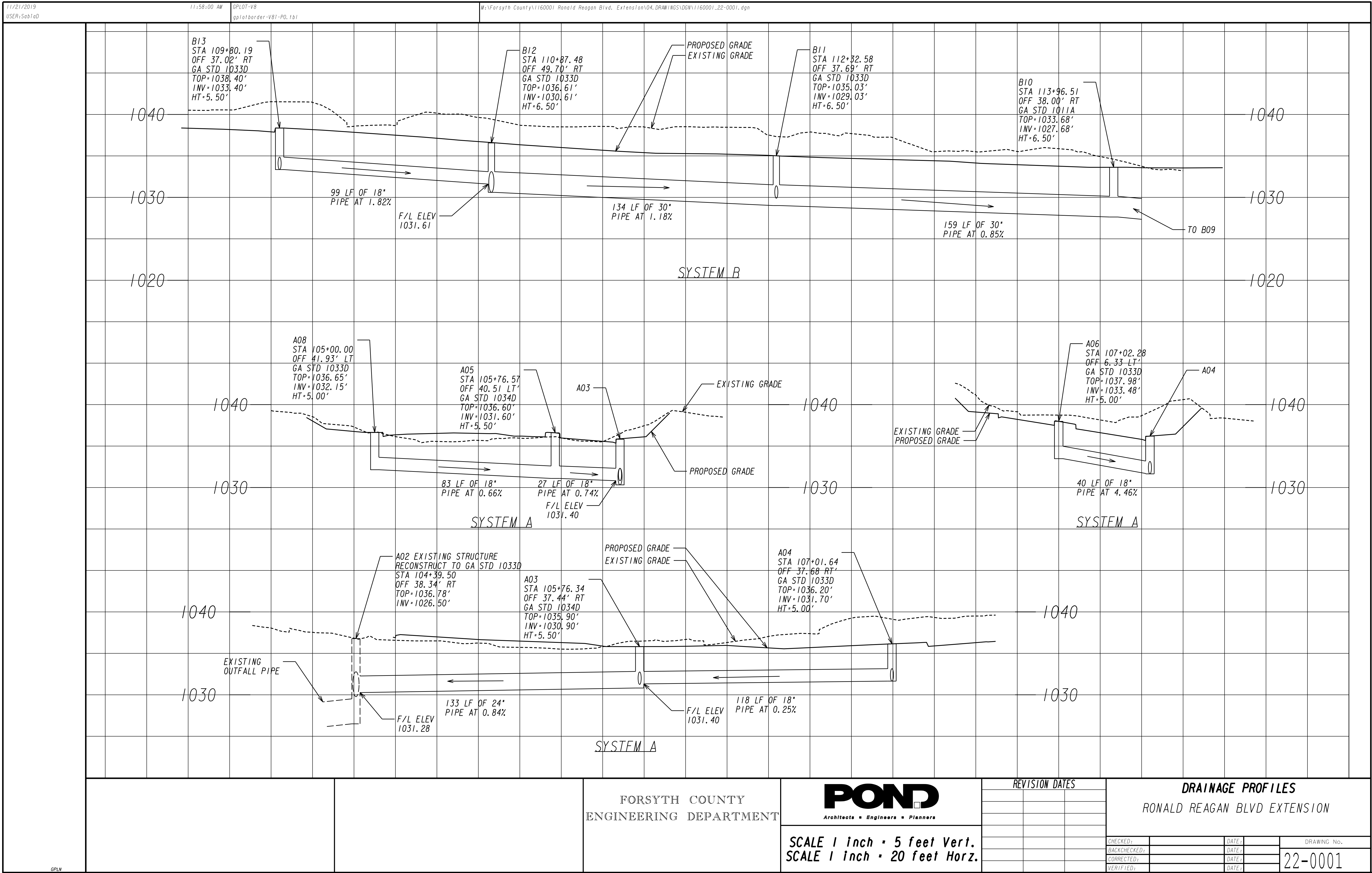
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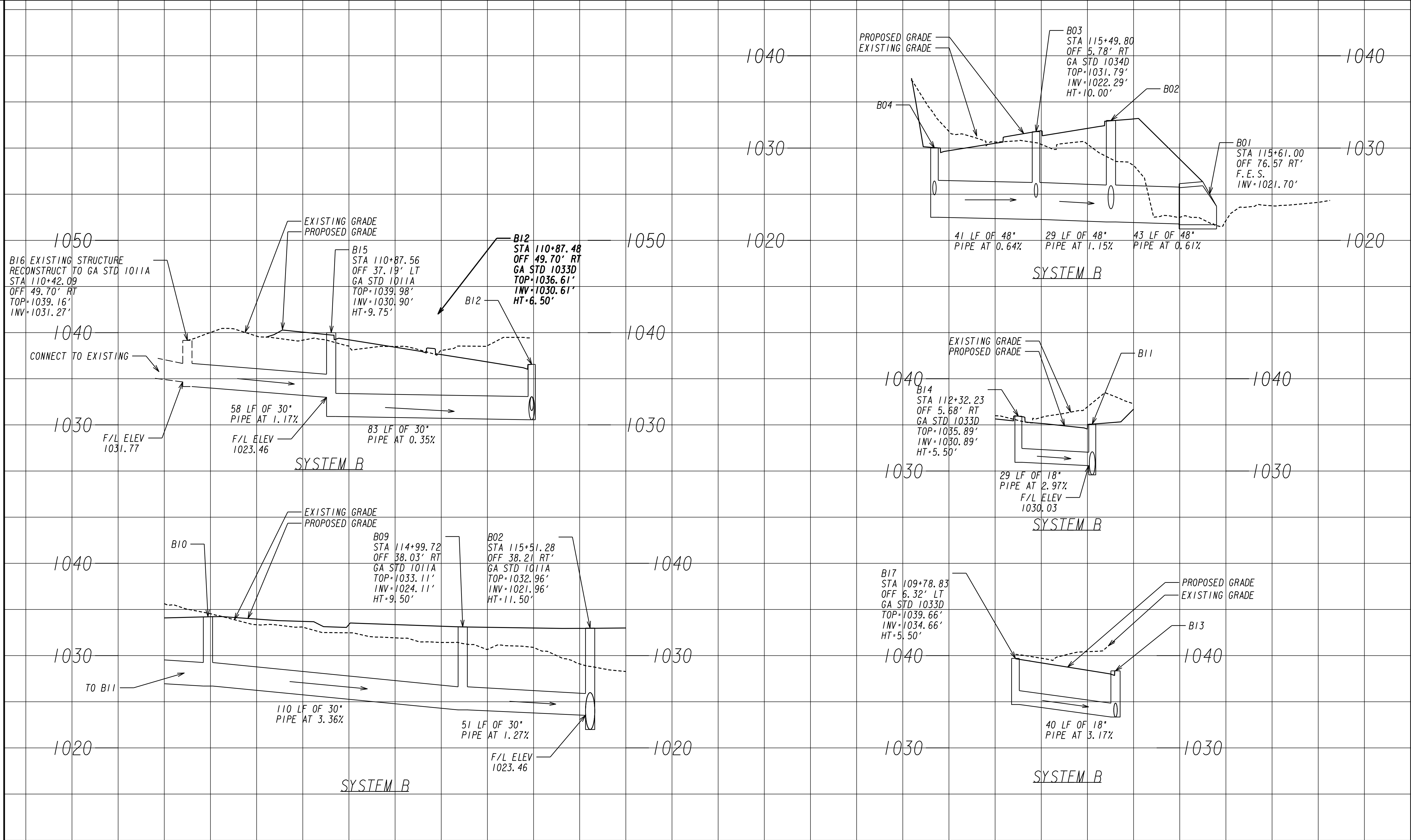
REVISION DATES		

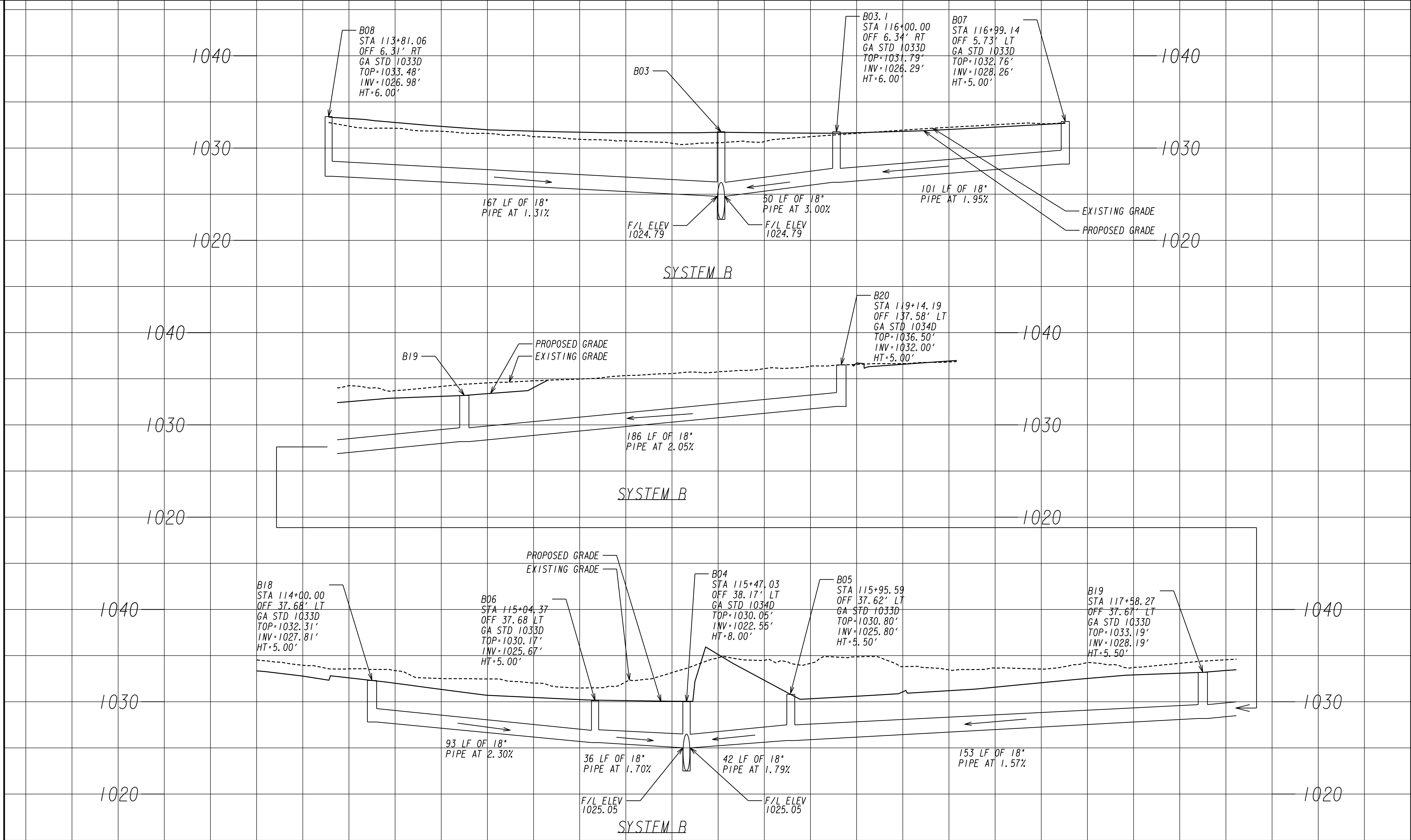
DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

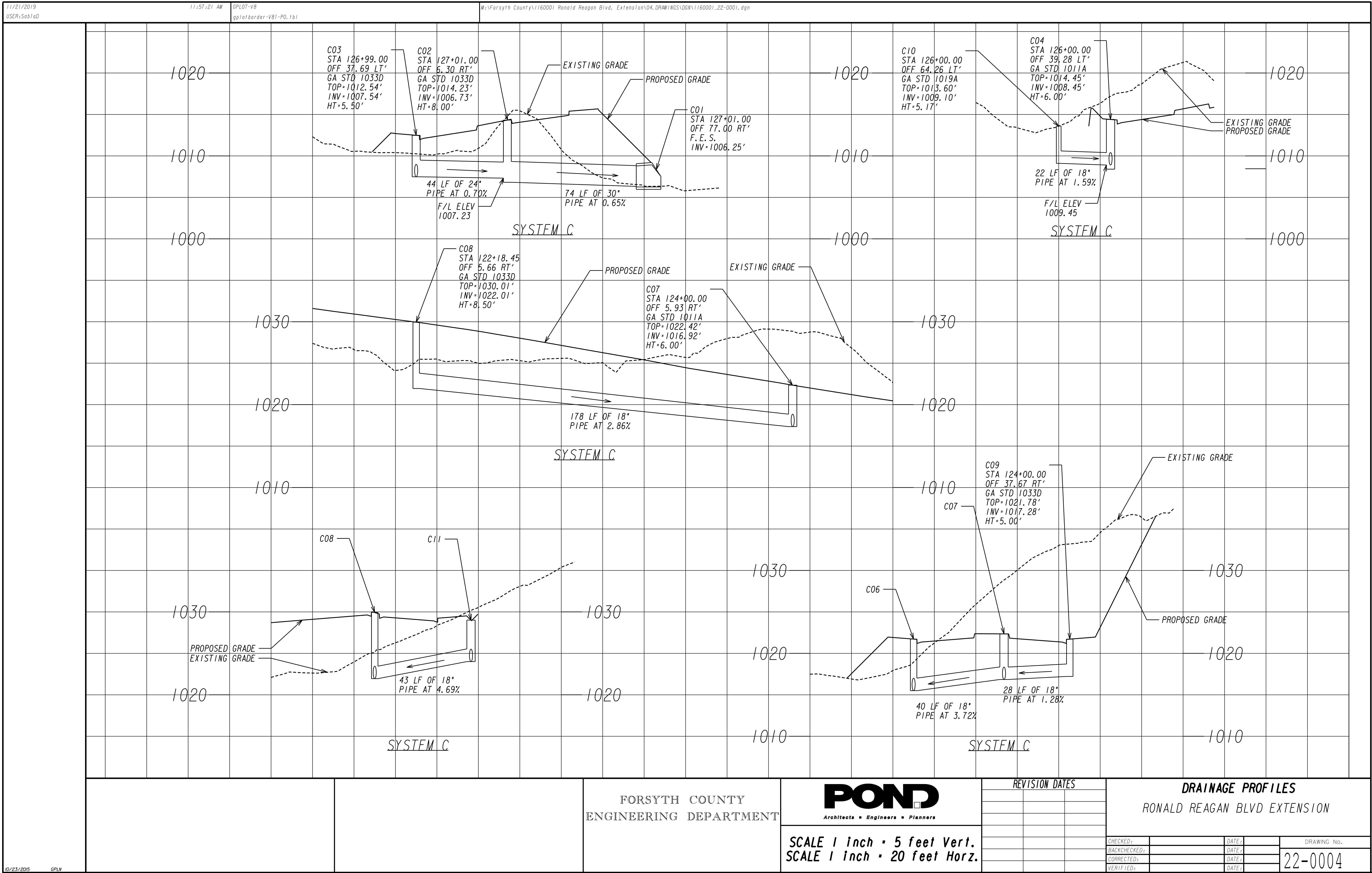
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DRAWING No.
21-0004









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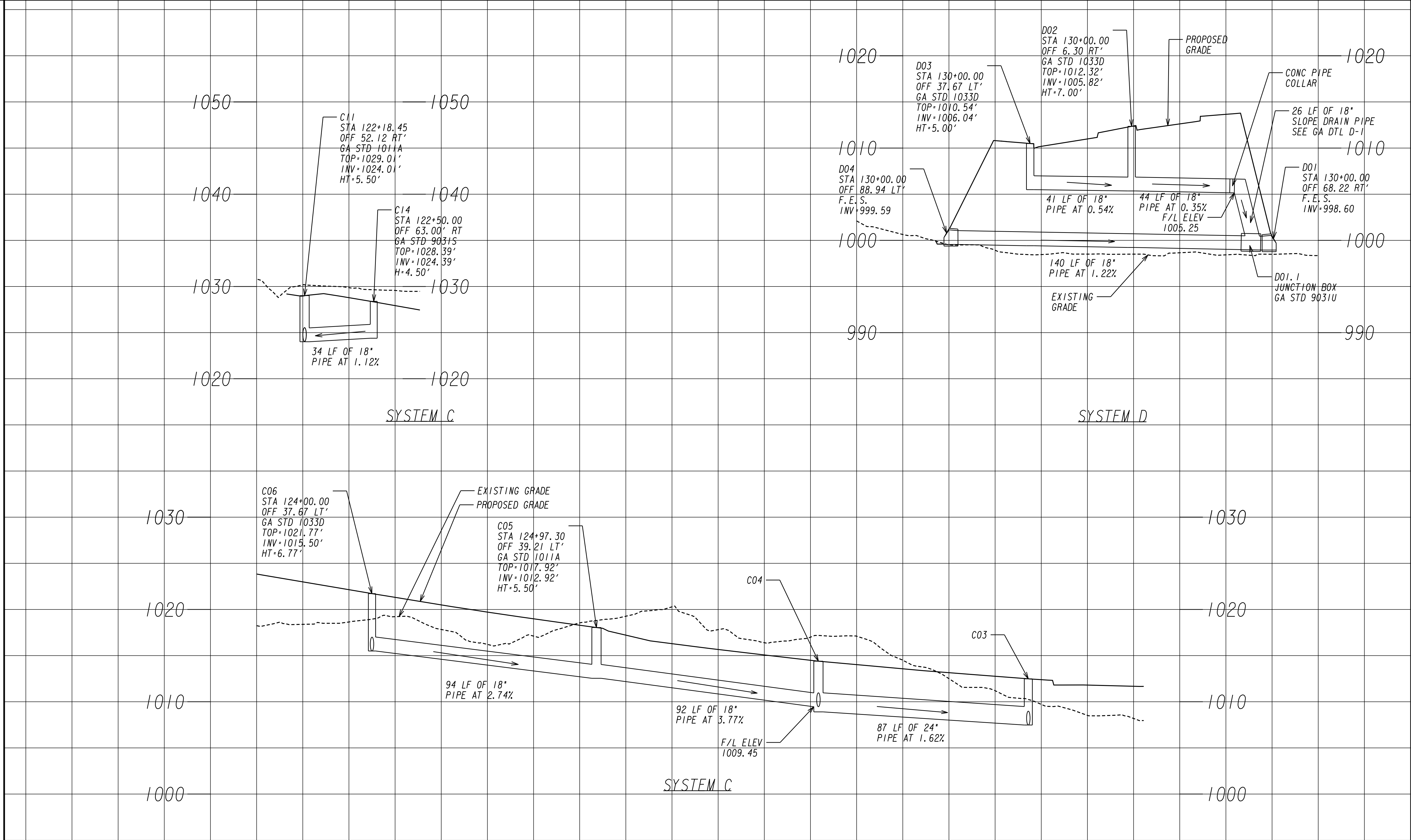
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SCALE 1 inch = 20 feet Horz.

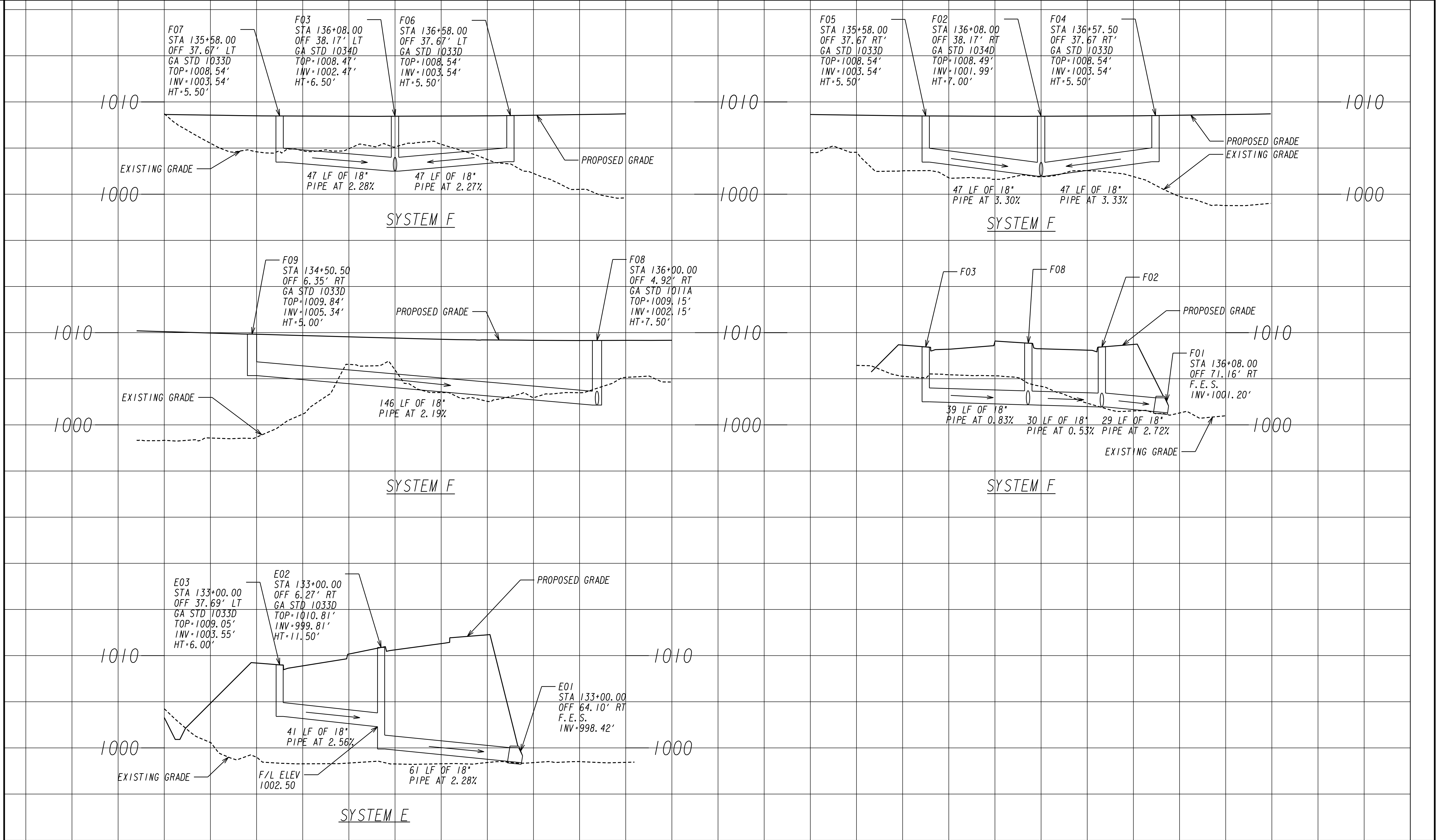
REVISION DATES	

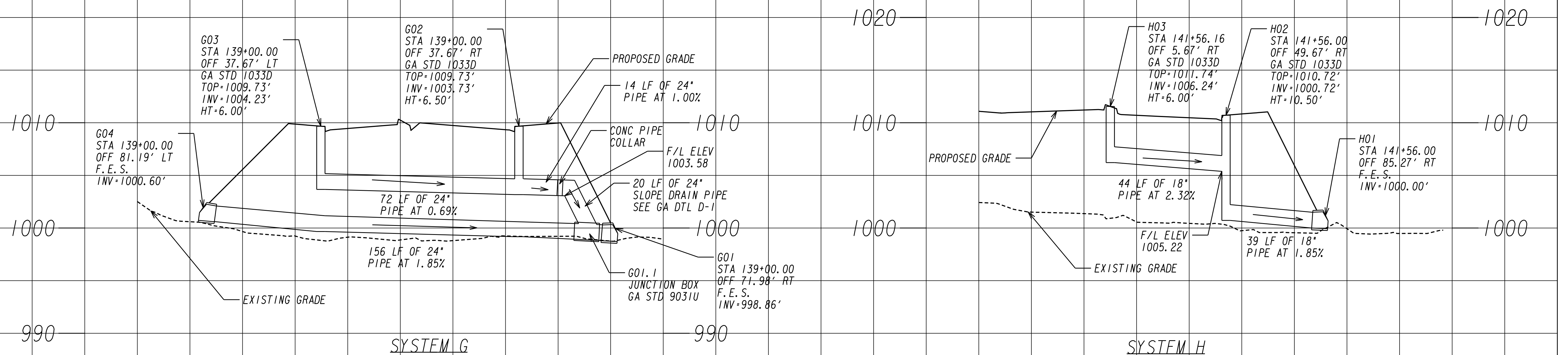
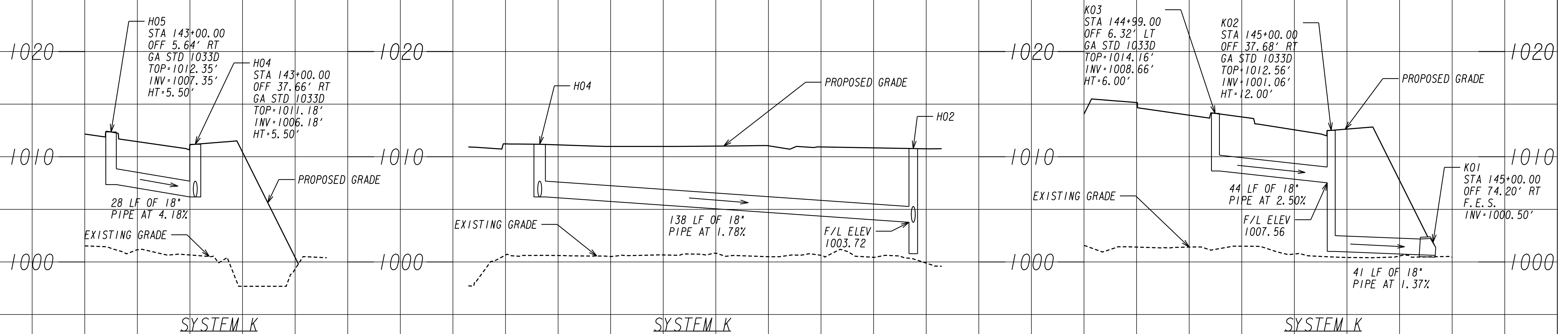
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DRAWING No.
22-0004

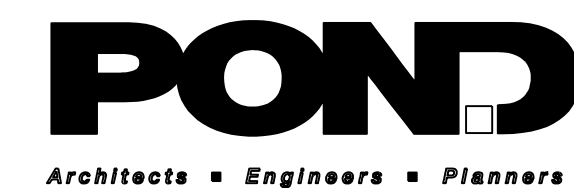
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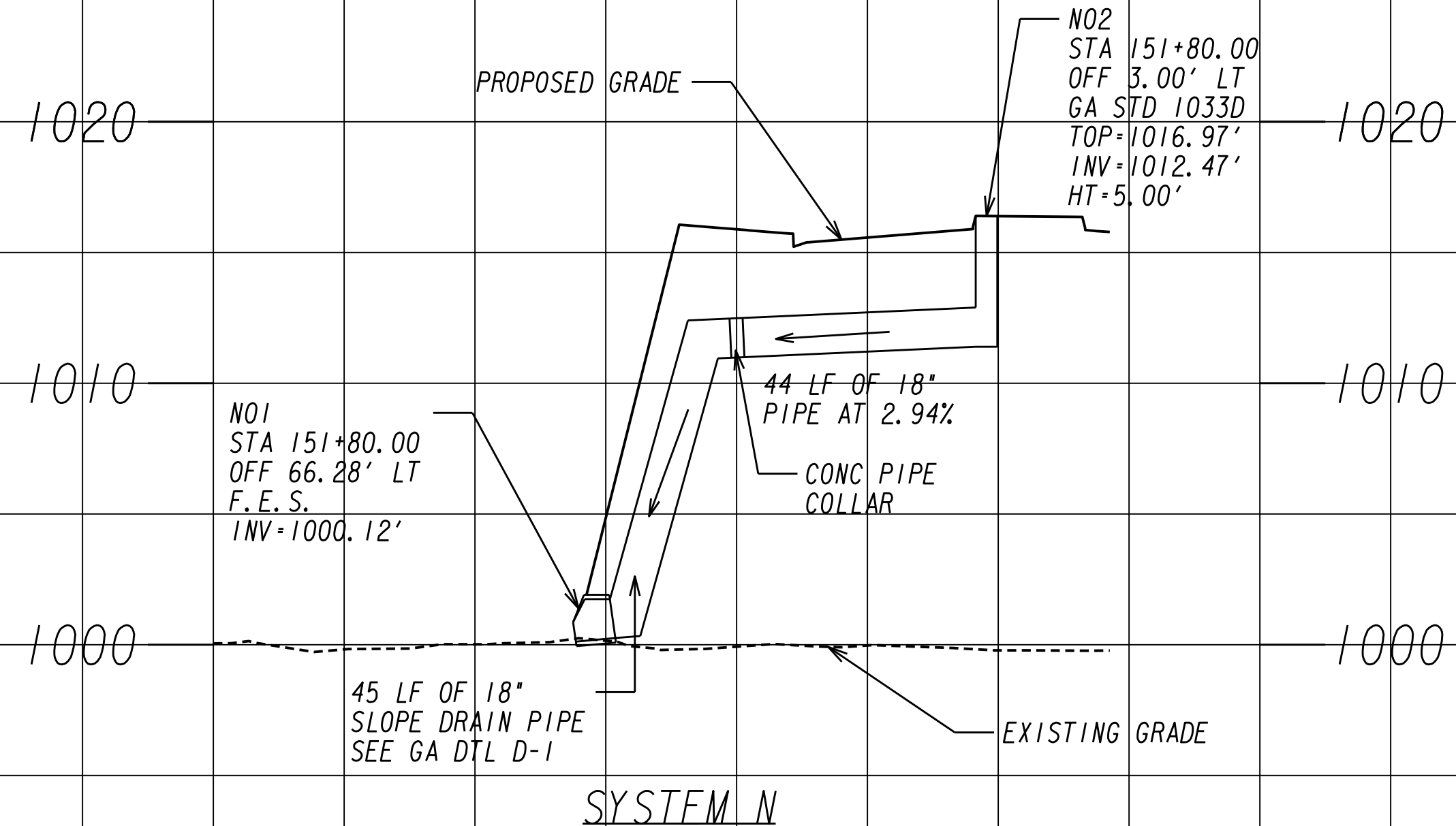
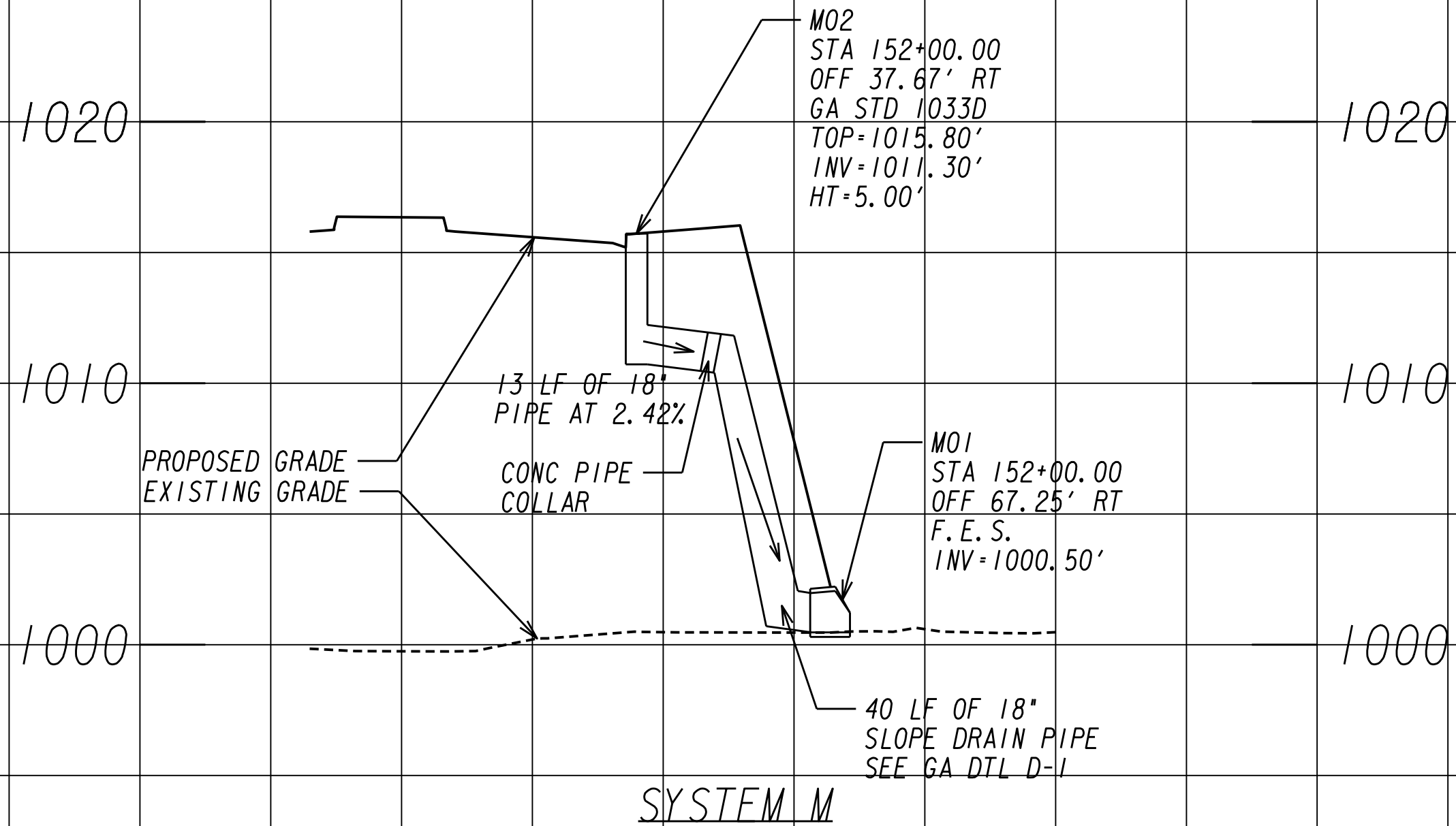
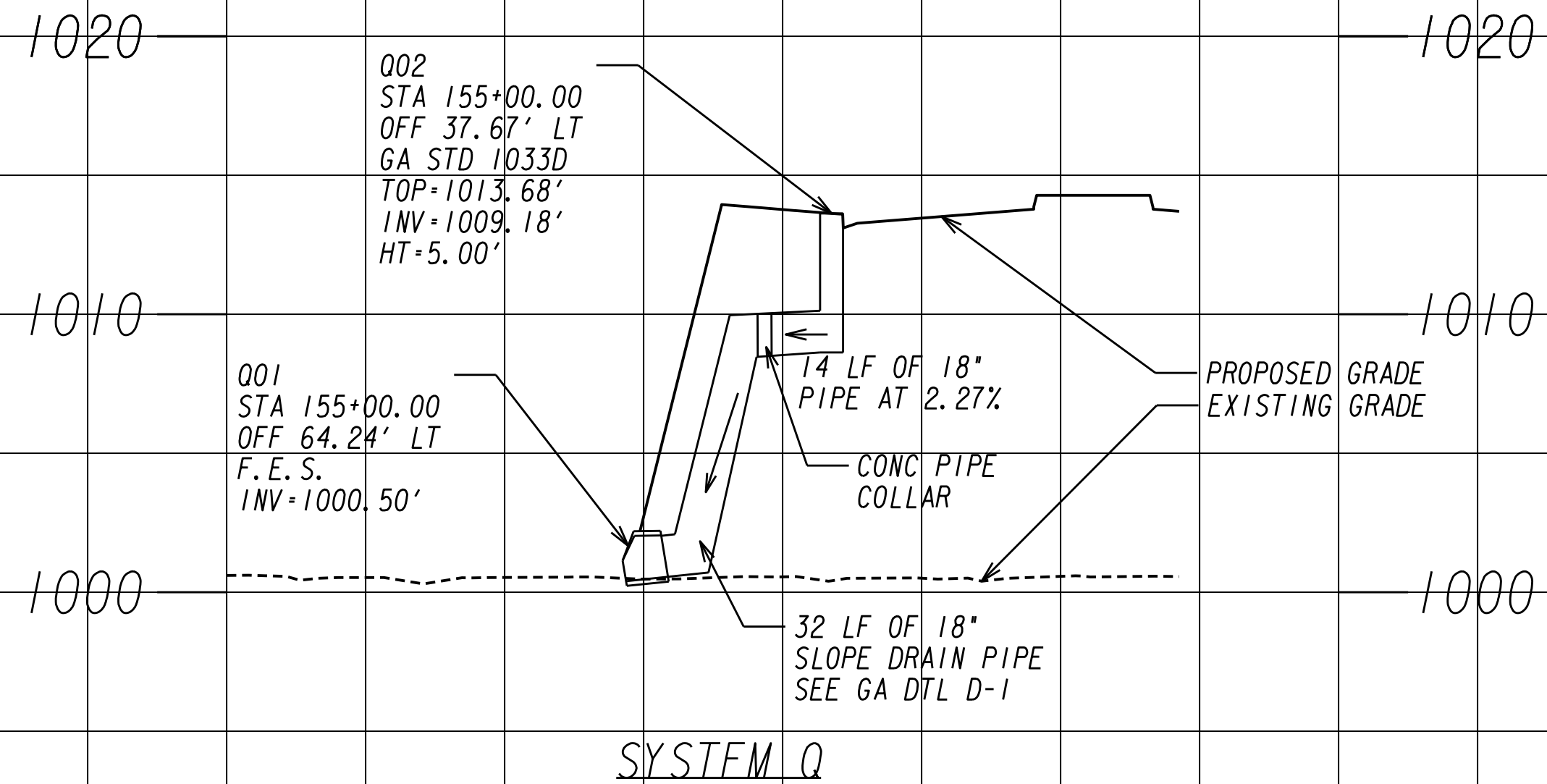
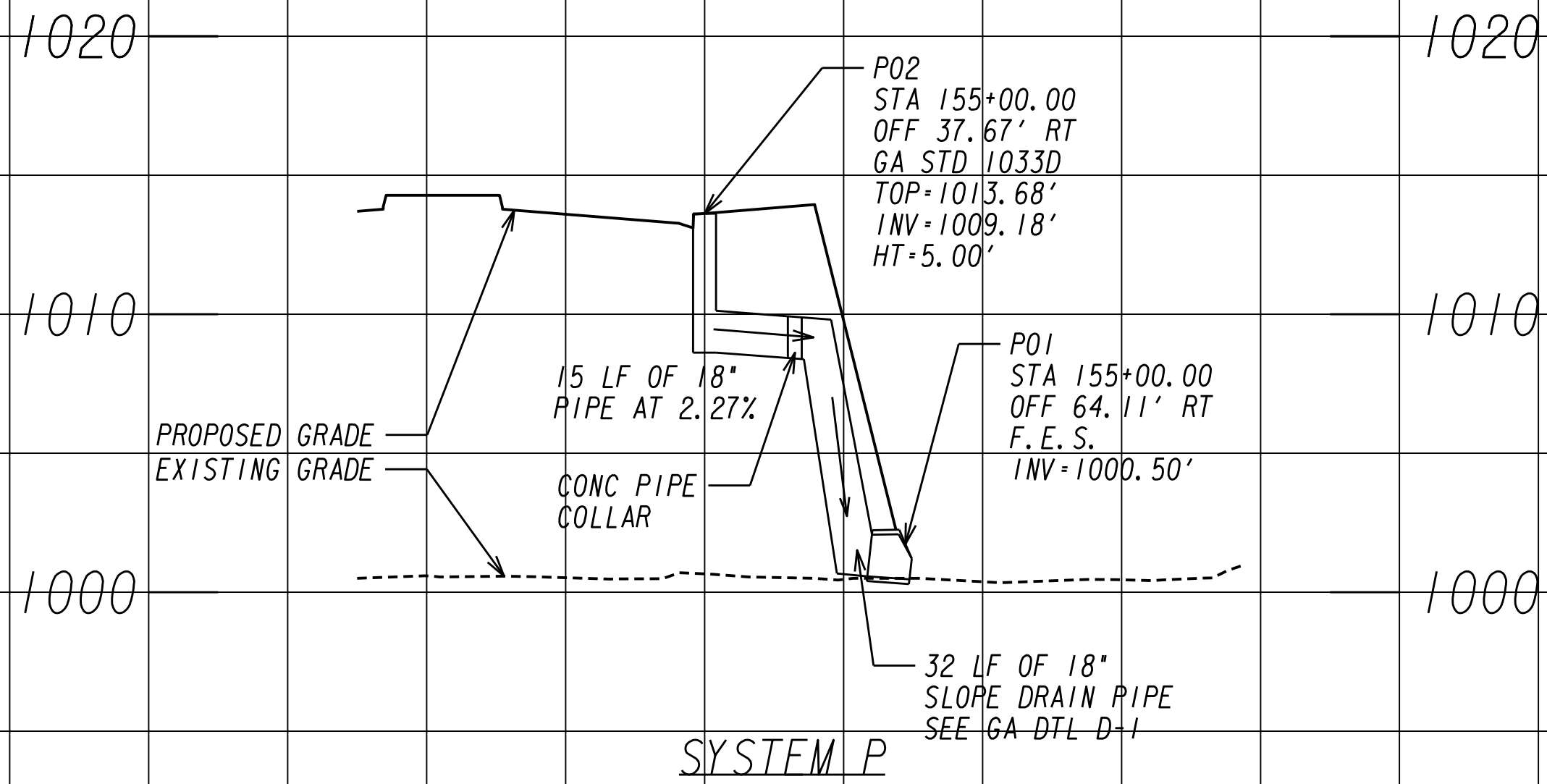


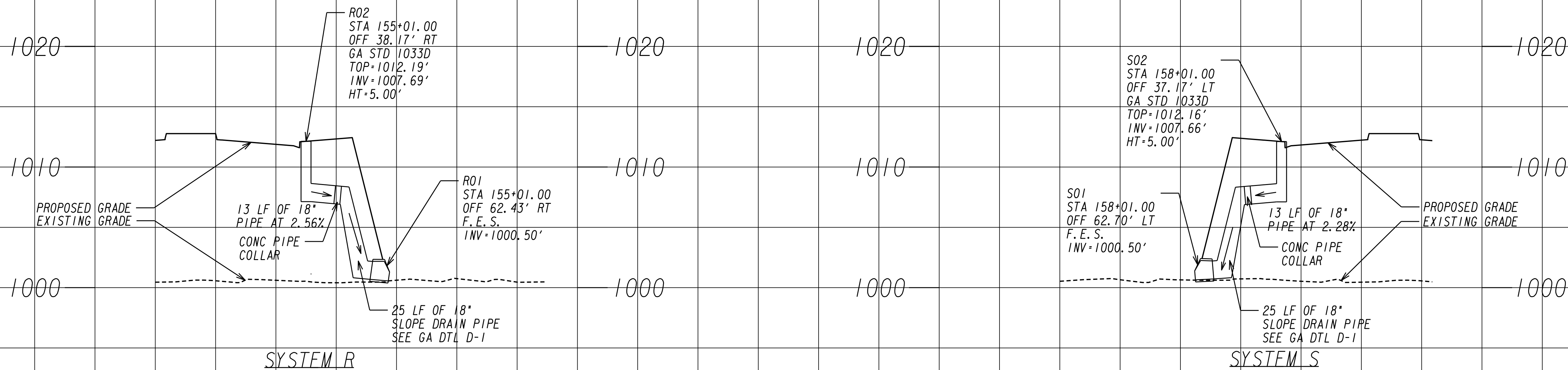
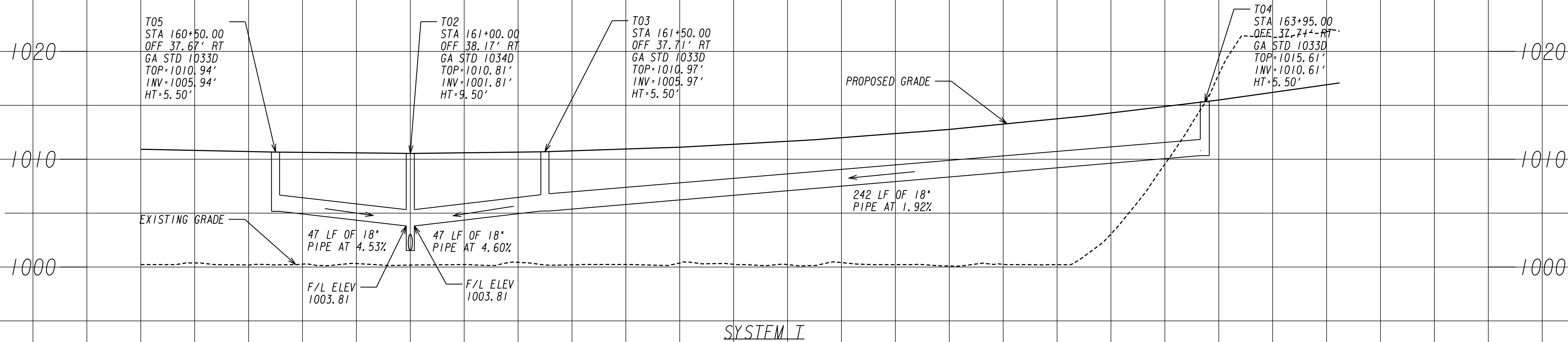
SCALE 1 inch = 5 feet Vert.
SCALE 1 inch = 20 feet Horz.

REVISION DATES

DRAINAGE PROFILES
RONALD REAGAN BLVD EXTENSION

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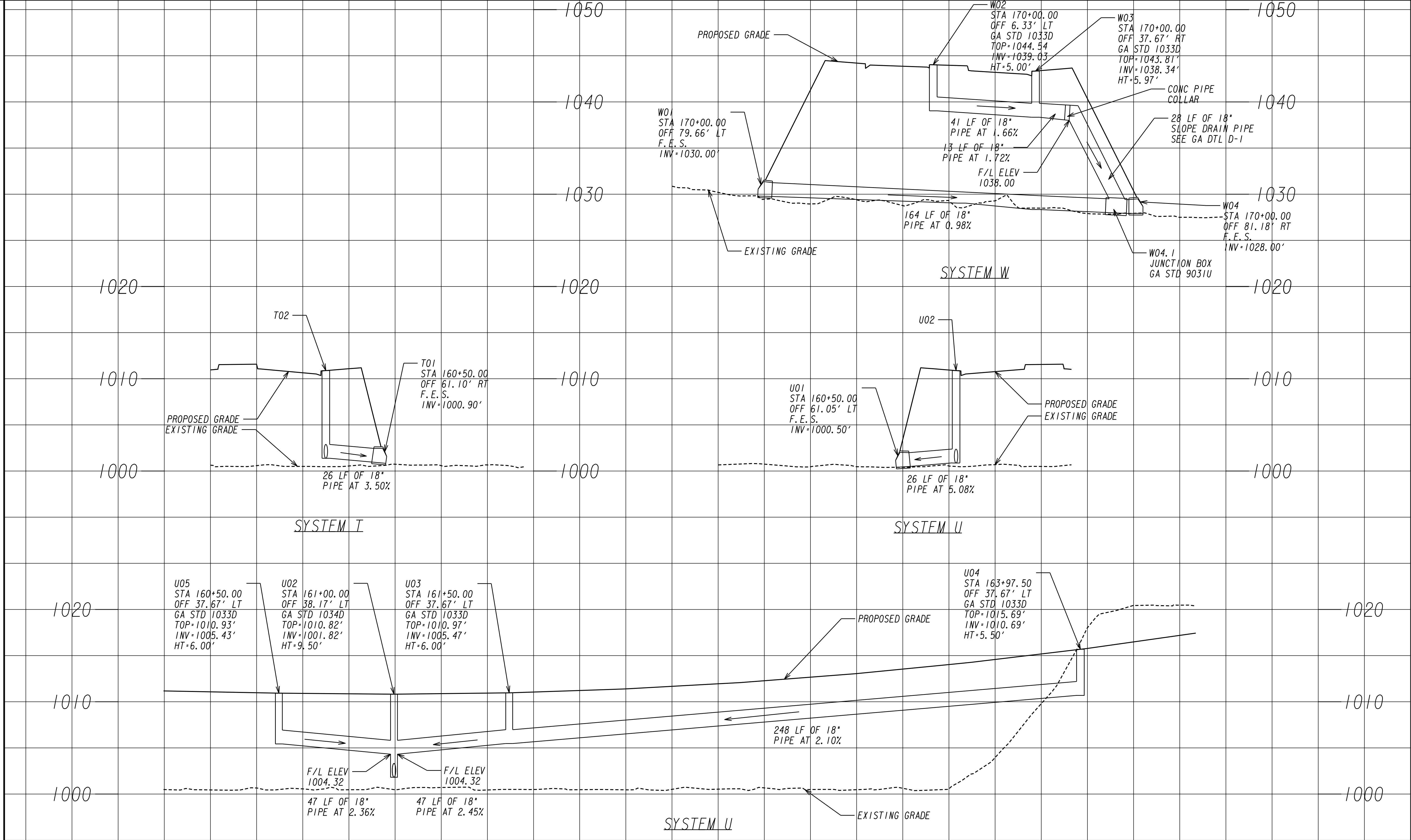


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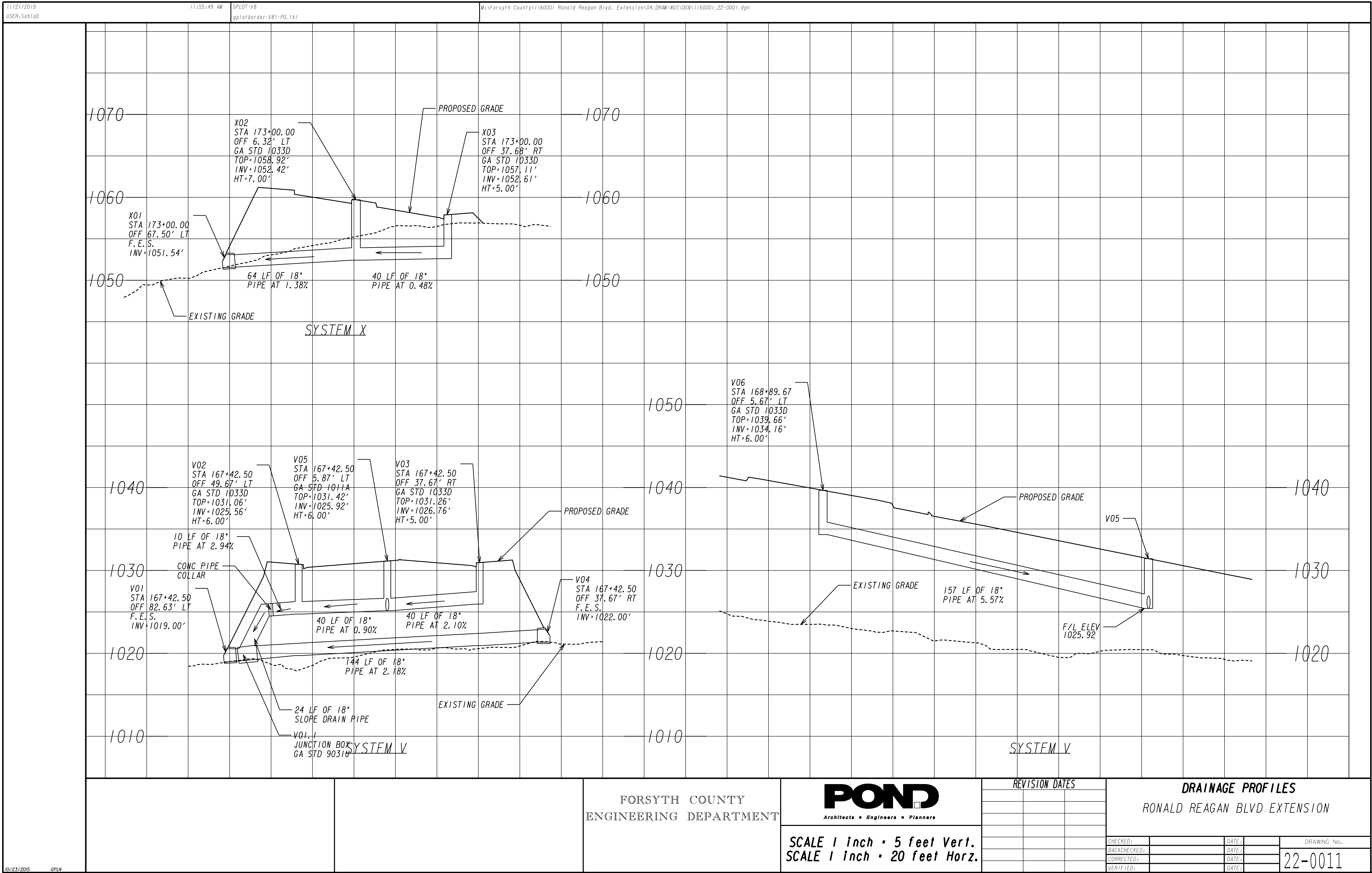
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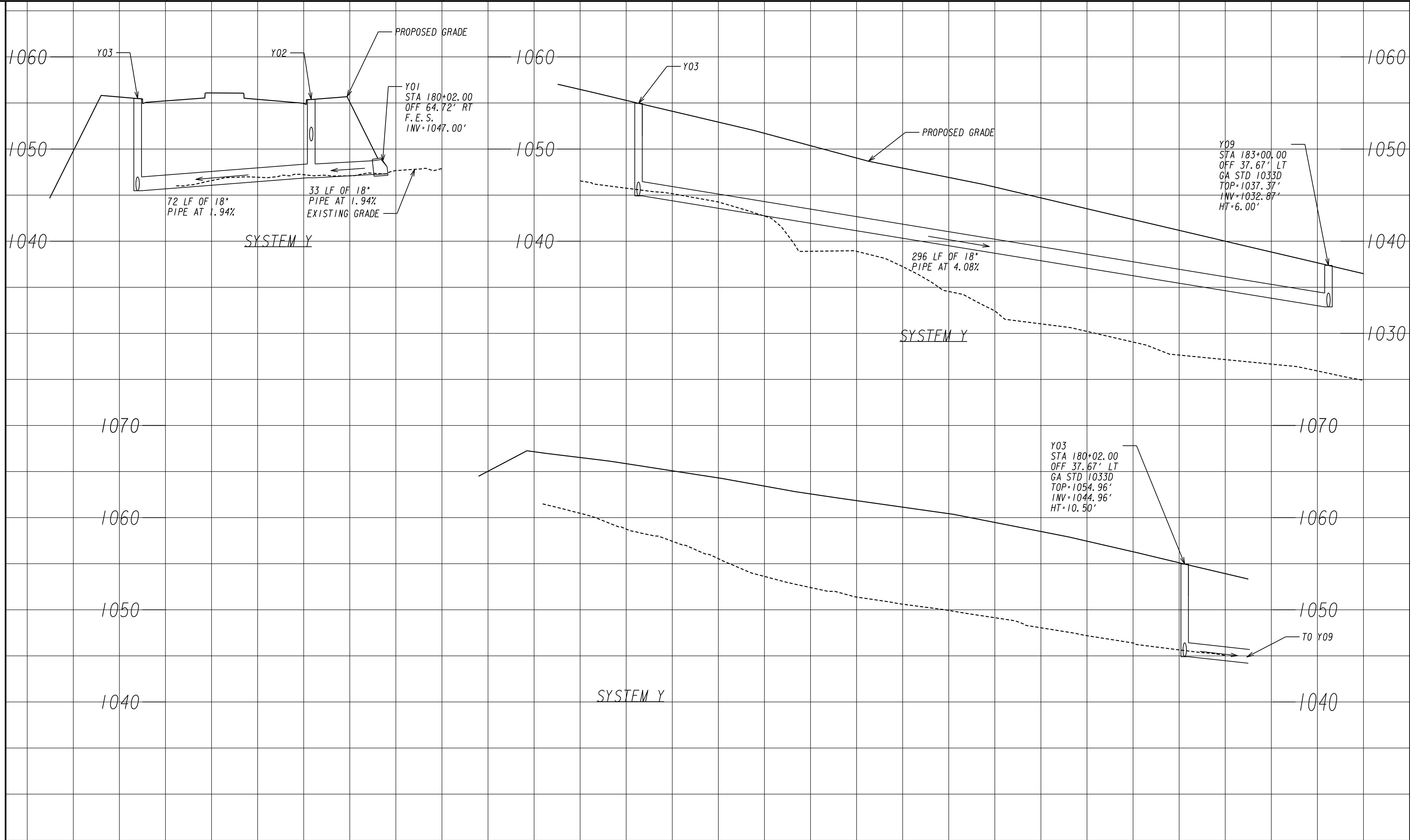
DRAINAGE PROFILES
RONALD REAGAN BLVD EXTENSION

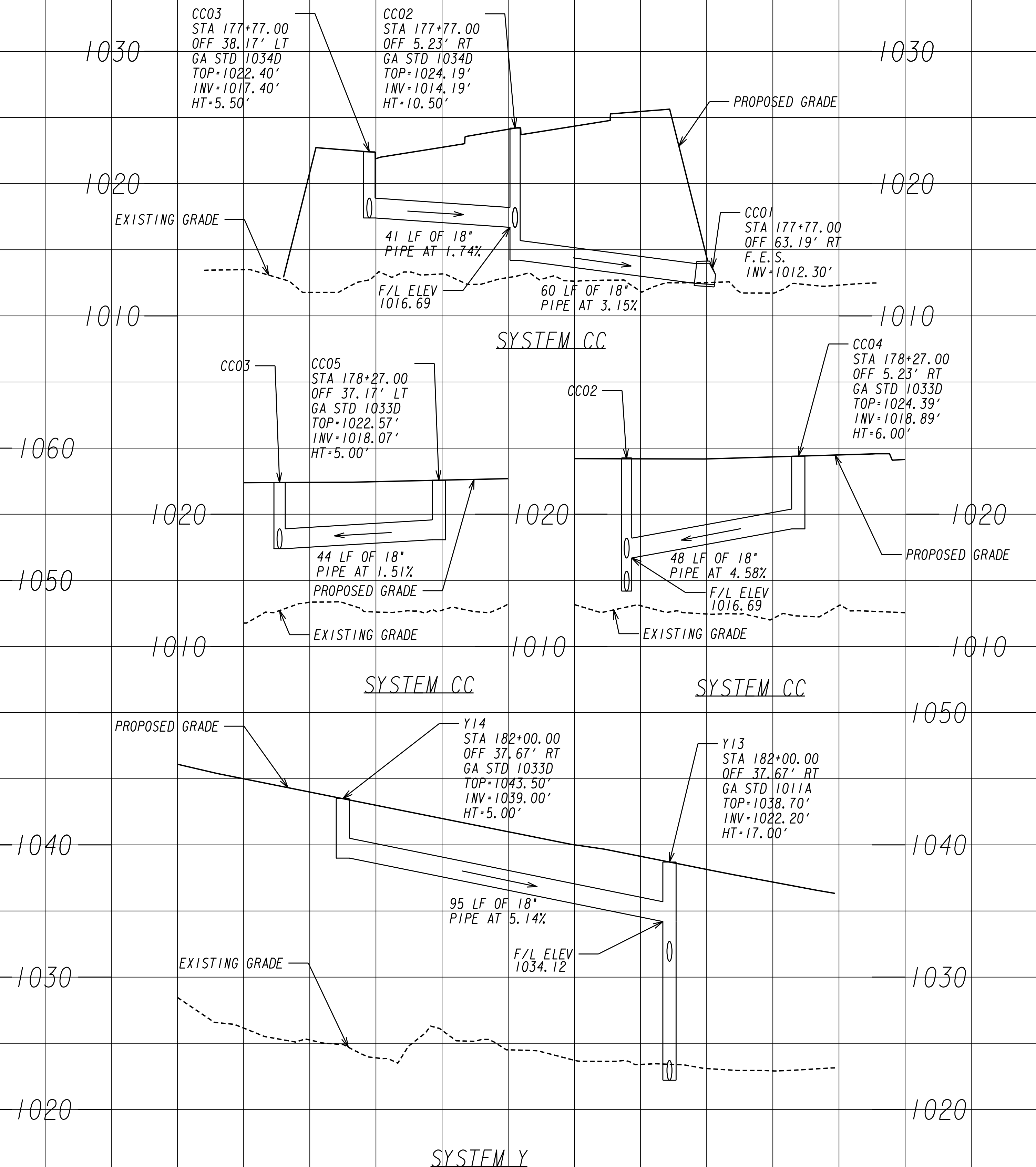
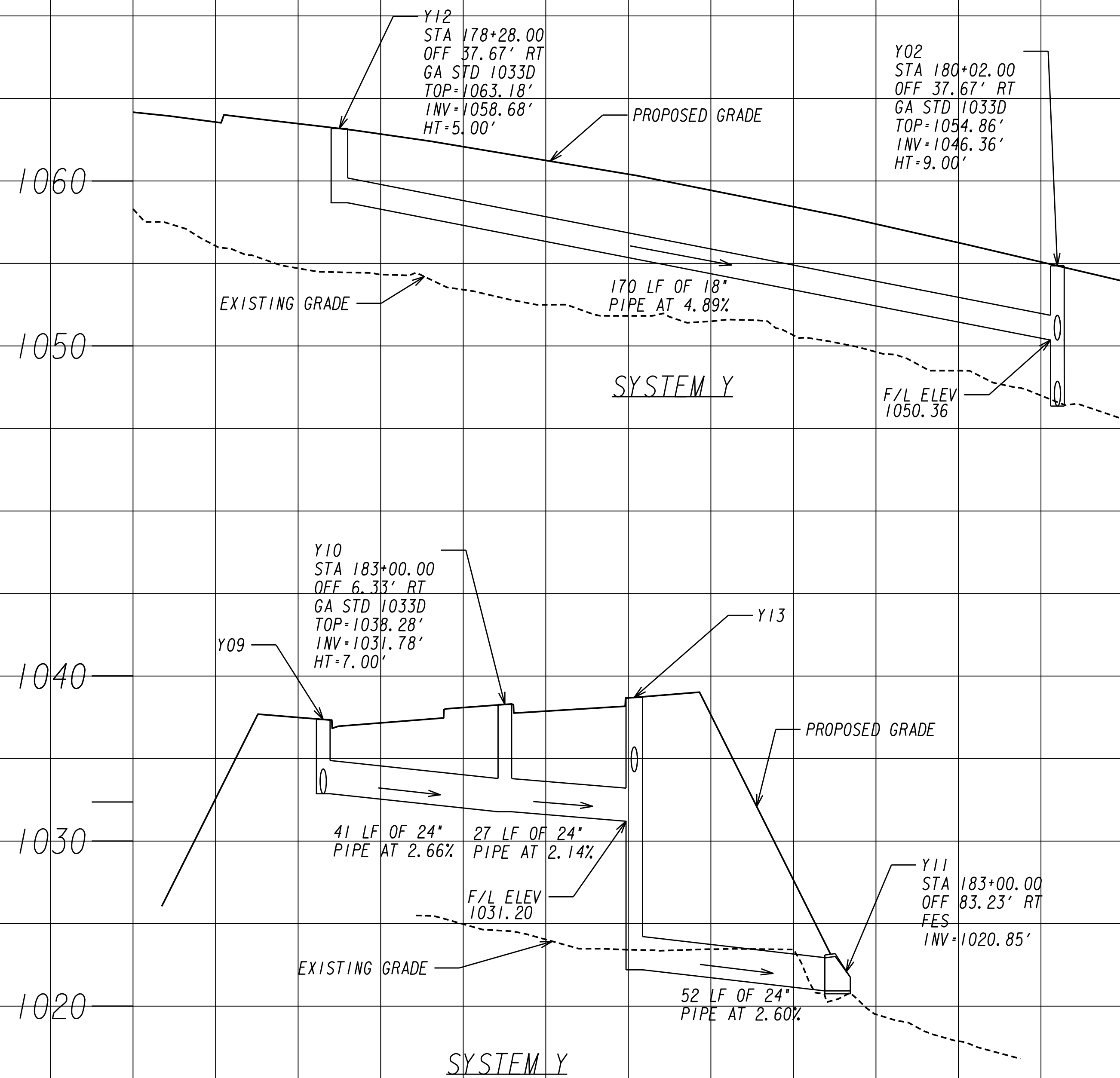
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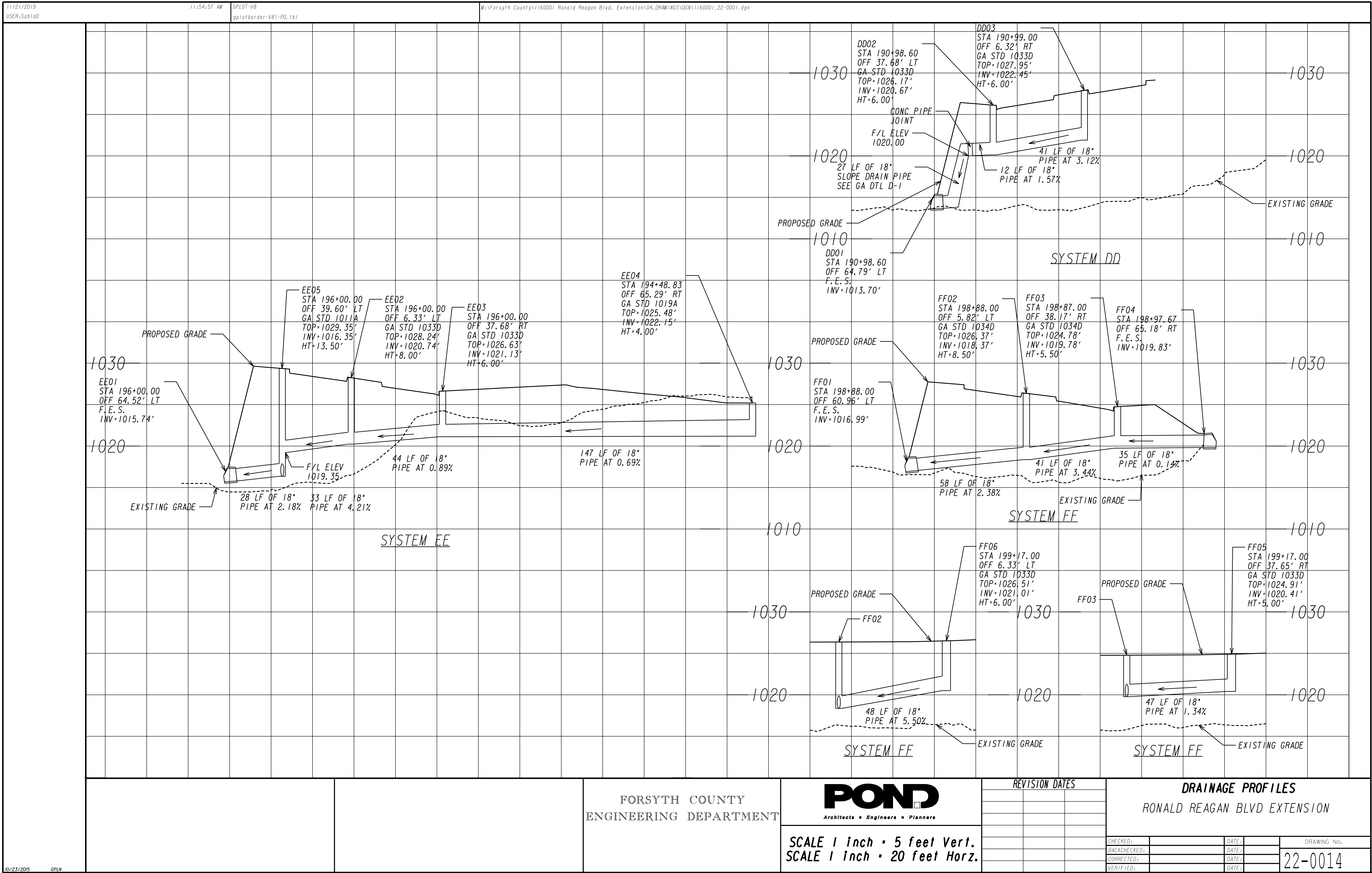


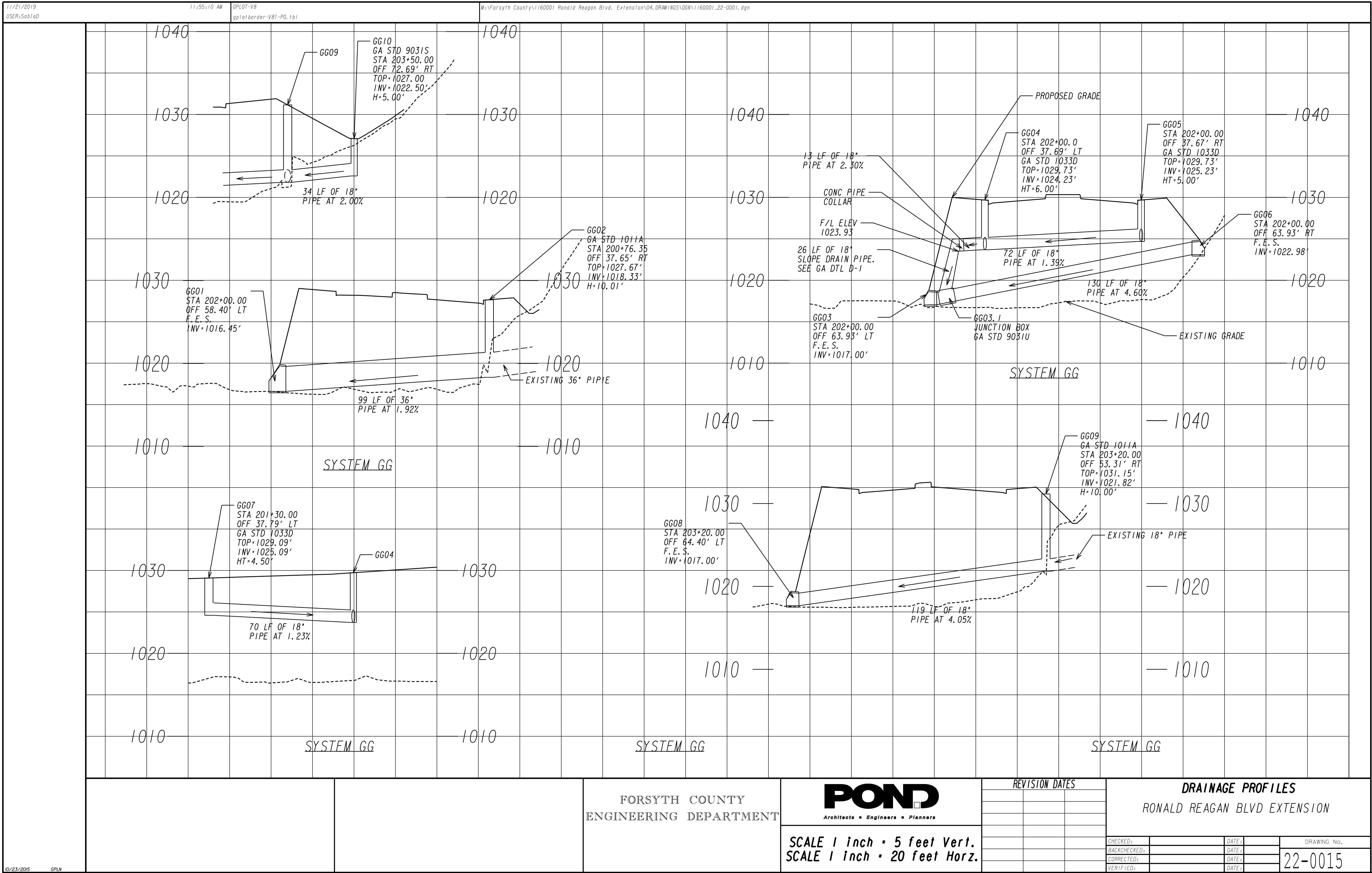
10/23/2015 GPLN	FORSYTH COUNTY ENGINEERING DEPARTMENT	POND Architects • Engineers • Planners	REVISION DATES		DRAINAGE PROFILES RONALD REAGAN BLVD EXTENSION			
SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.			CHECKED:		DATE:		DRAWING No.	
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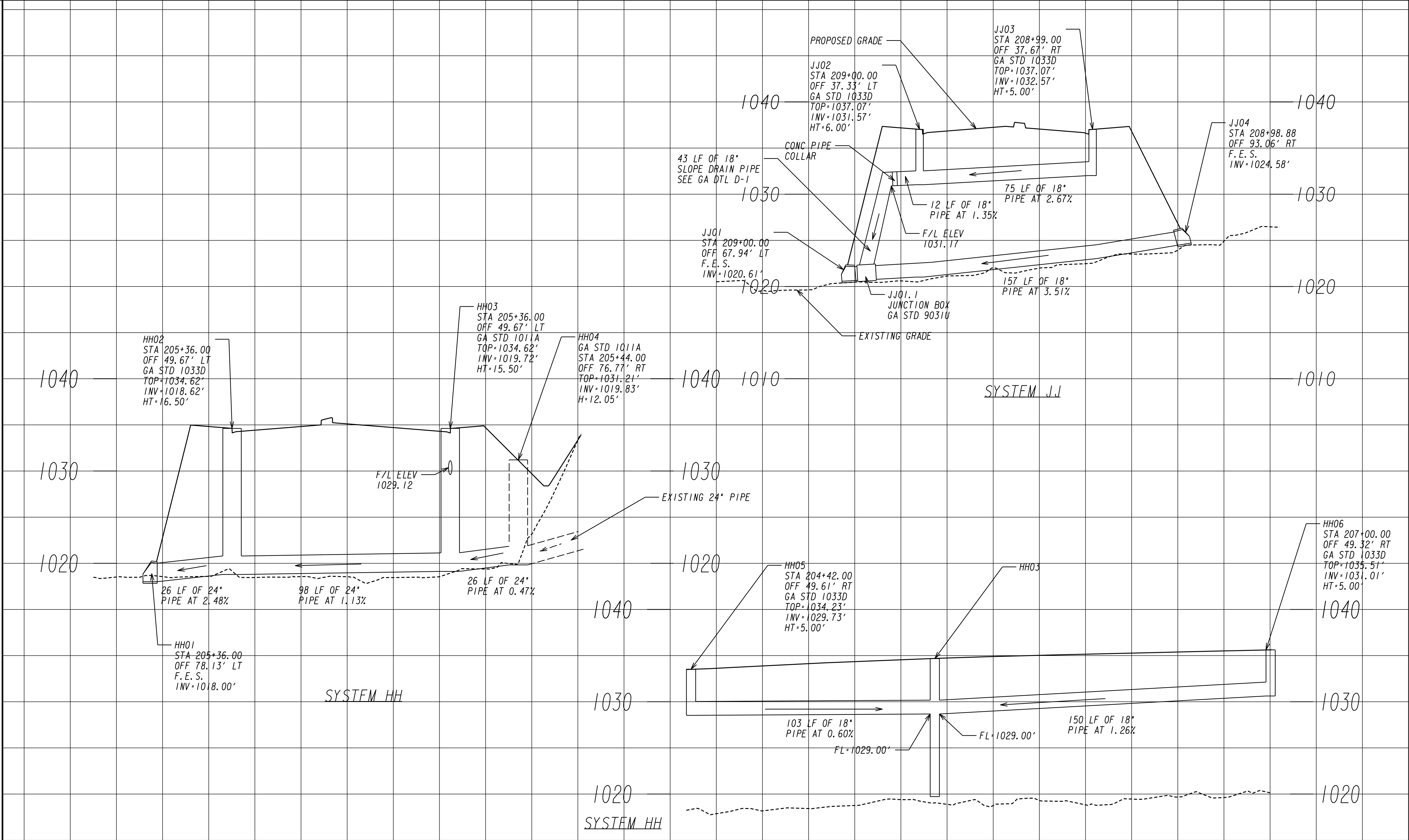




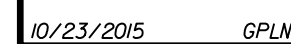


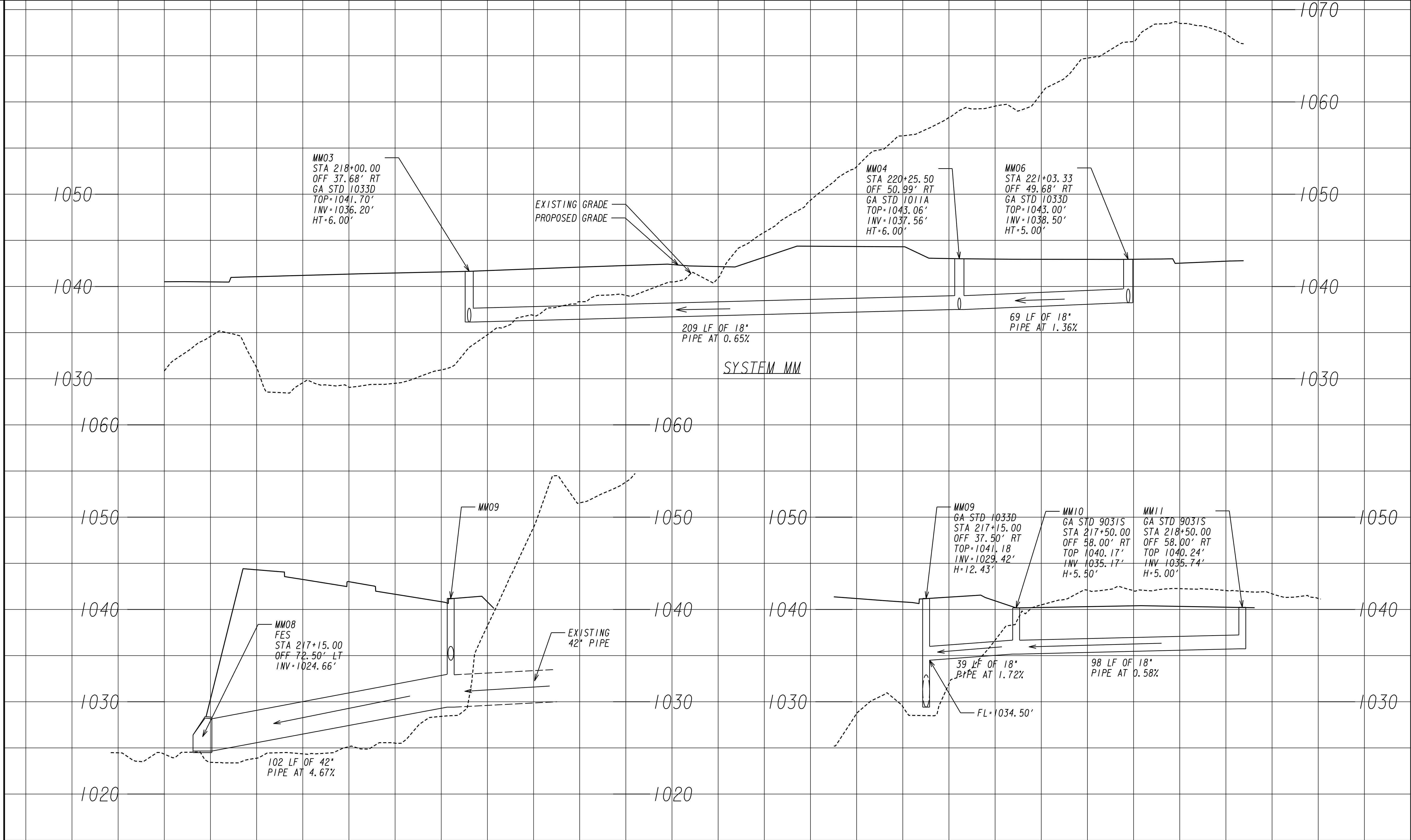


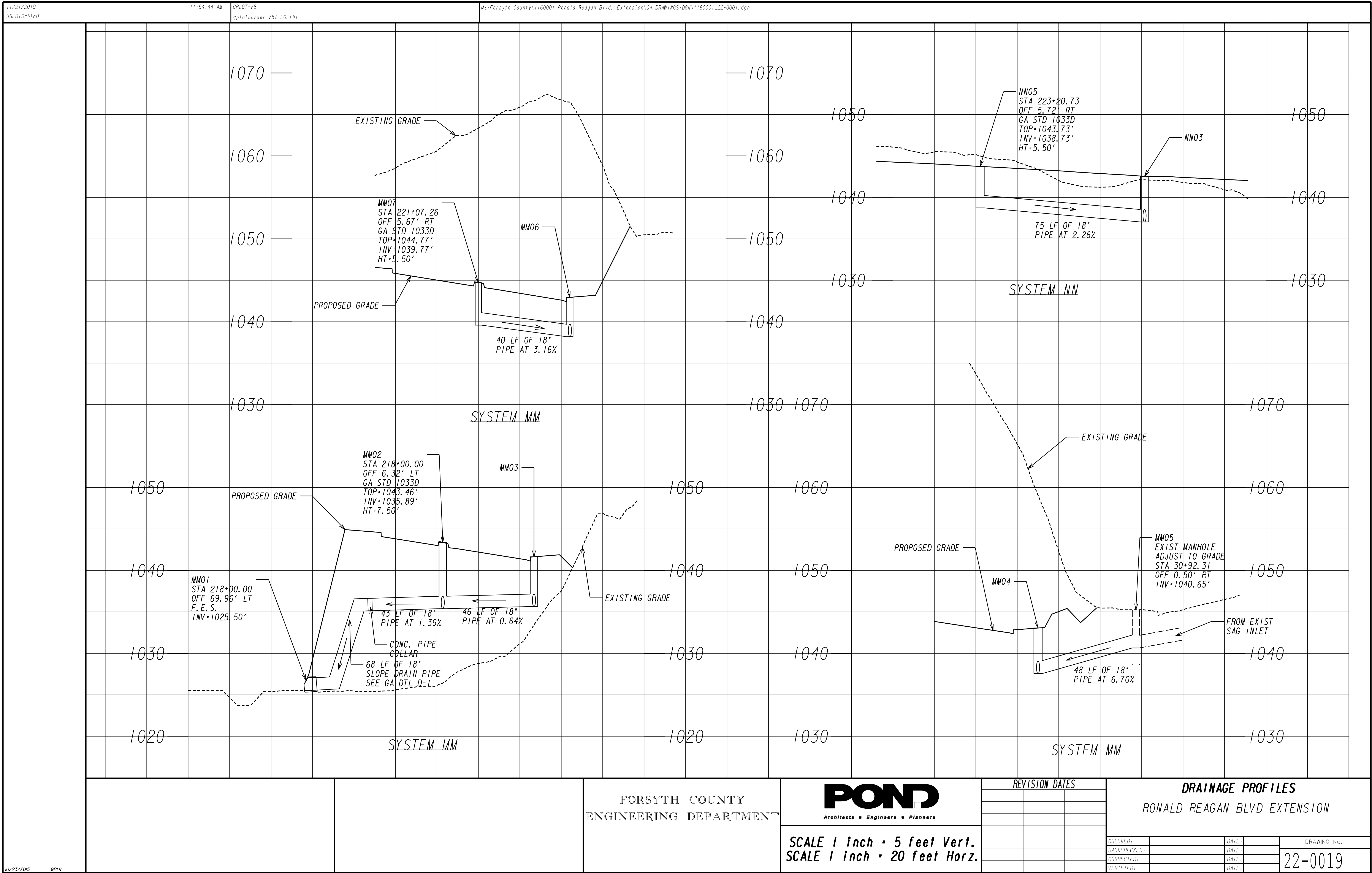




10/23/2015 GPLN	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND Architects • Engineers • Planners</div> <div>SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.</div>	REVISION DATES		DRAINAGE PROFILES RONALD REAGAN BLVD EXTENSION			
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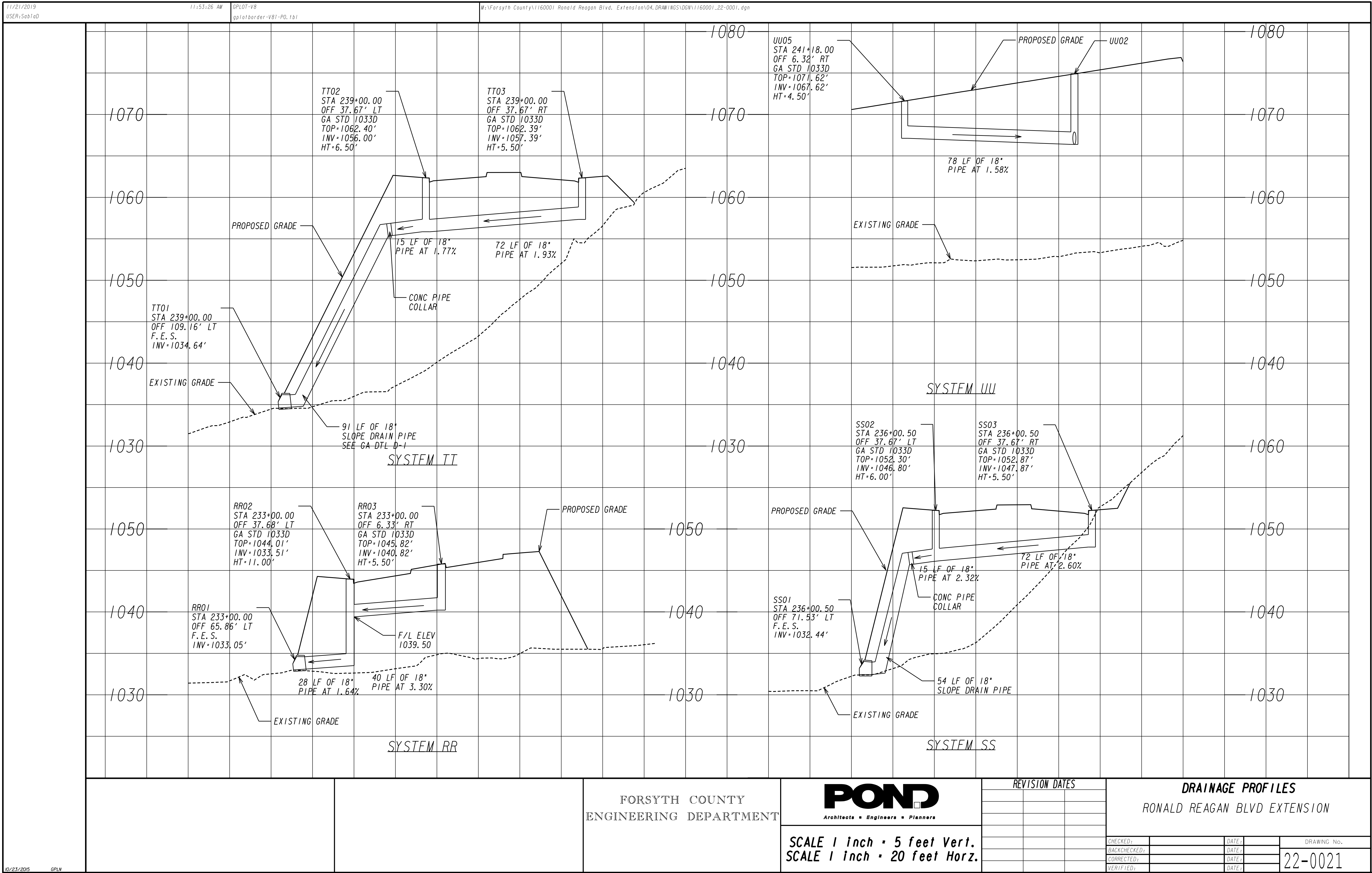






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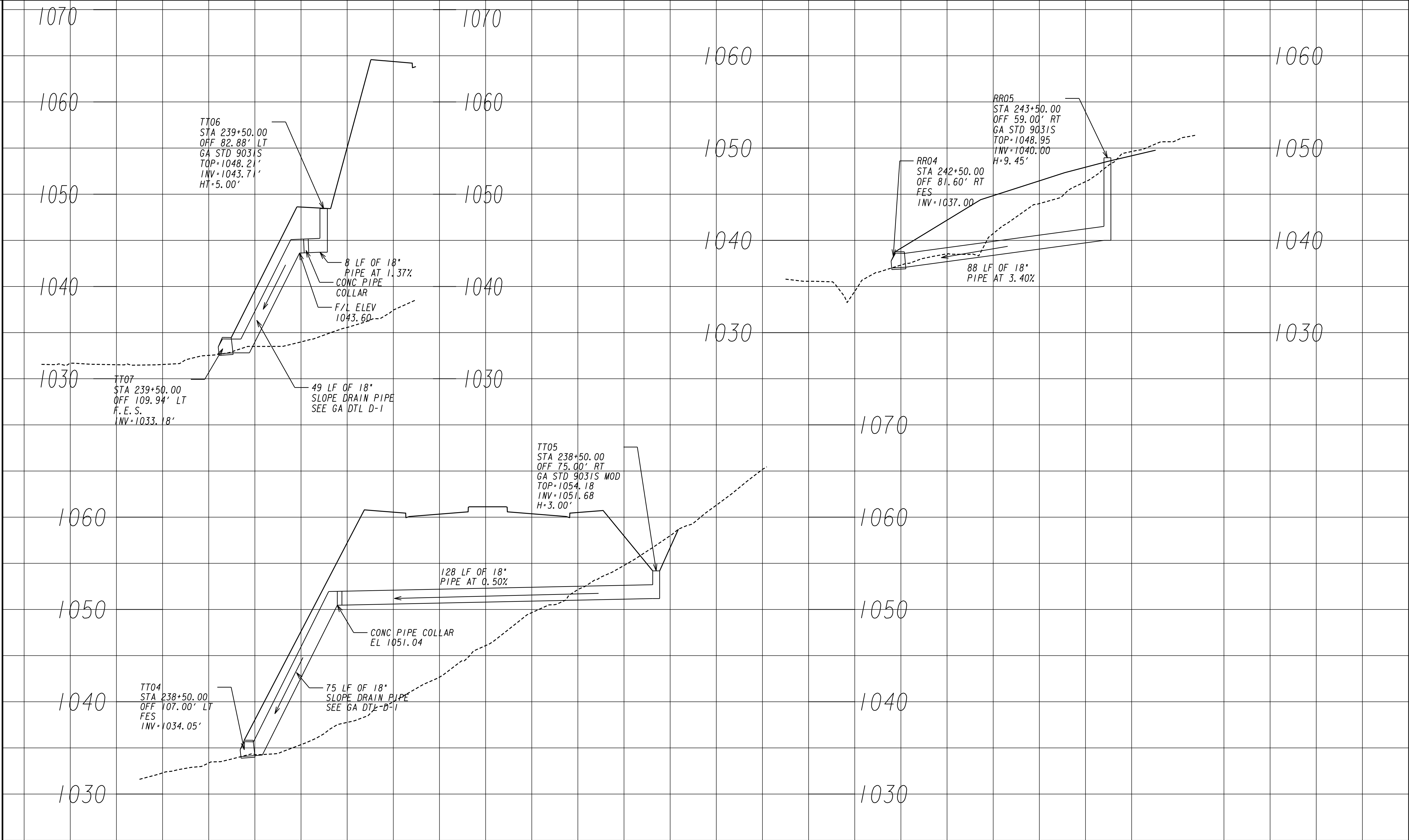
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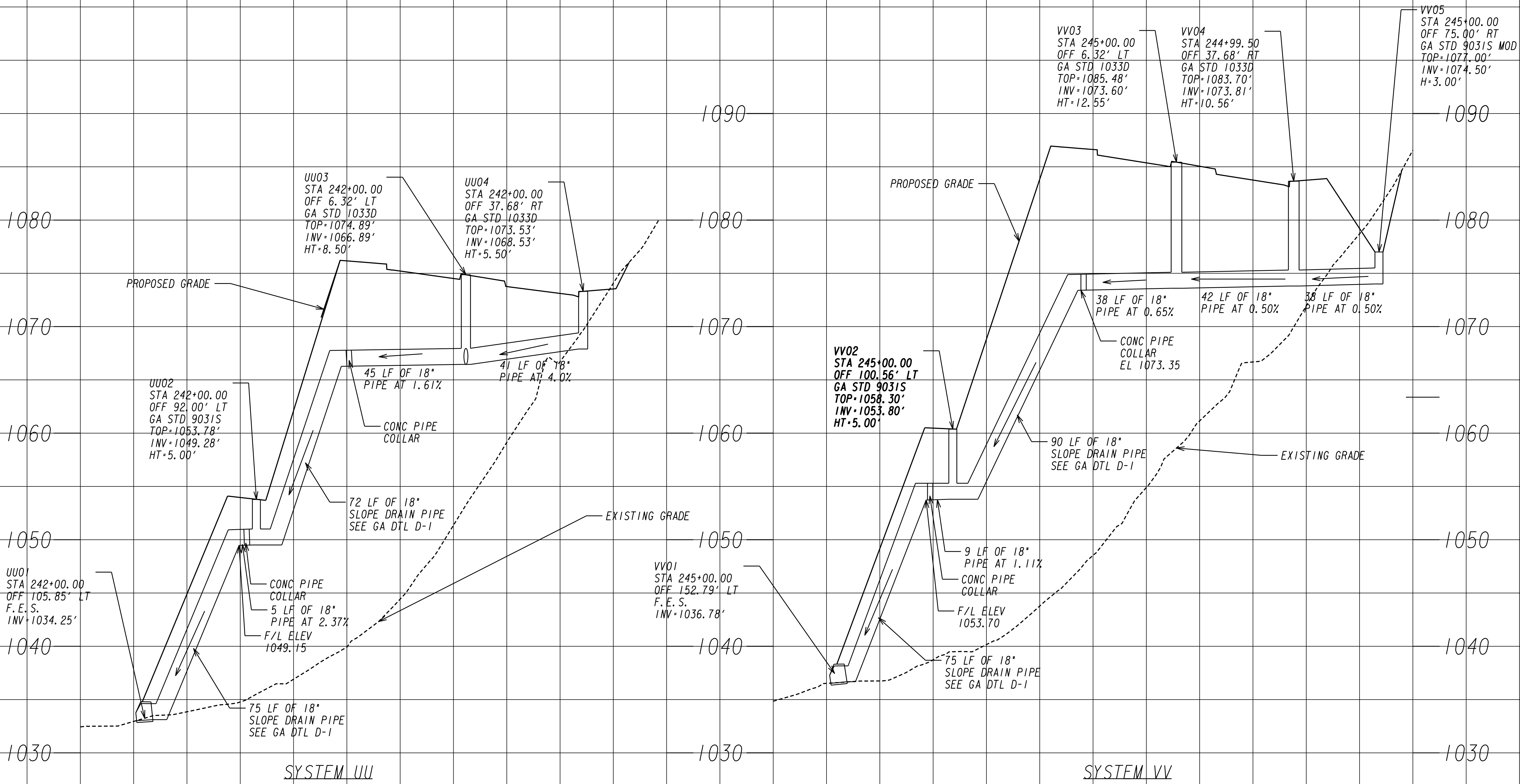
DRAINAGE PROFILES
RONALD REAGAN BLVD EXTENSION

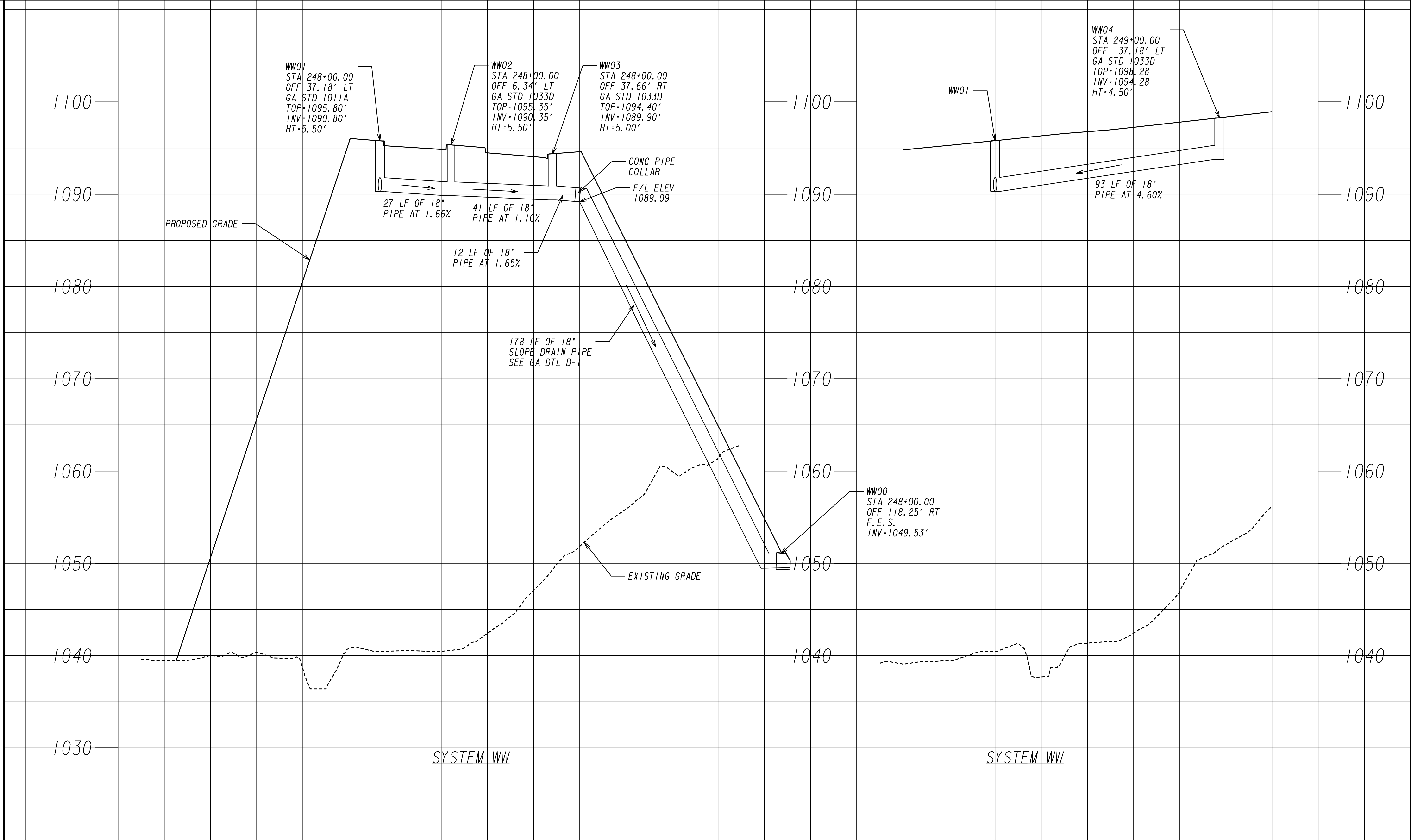
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DRAWING No.
22-0021

10/23/2015
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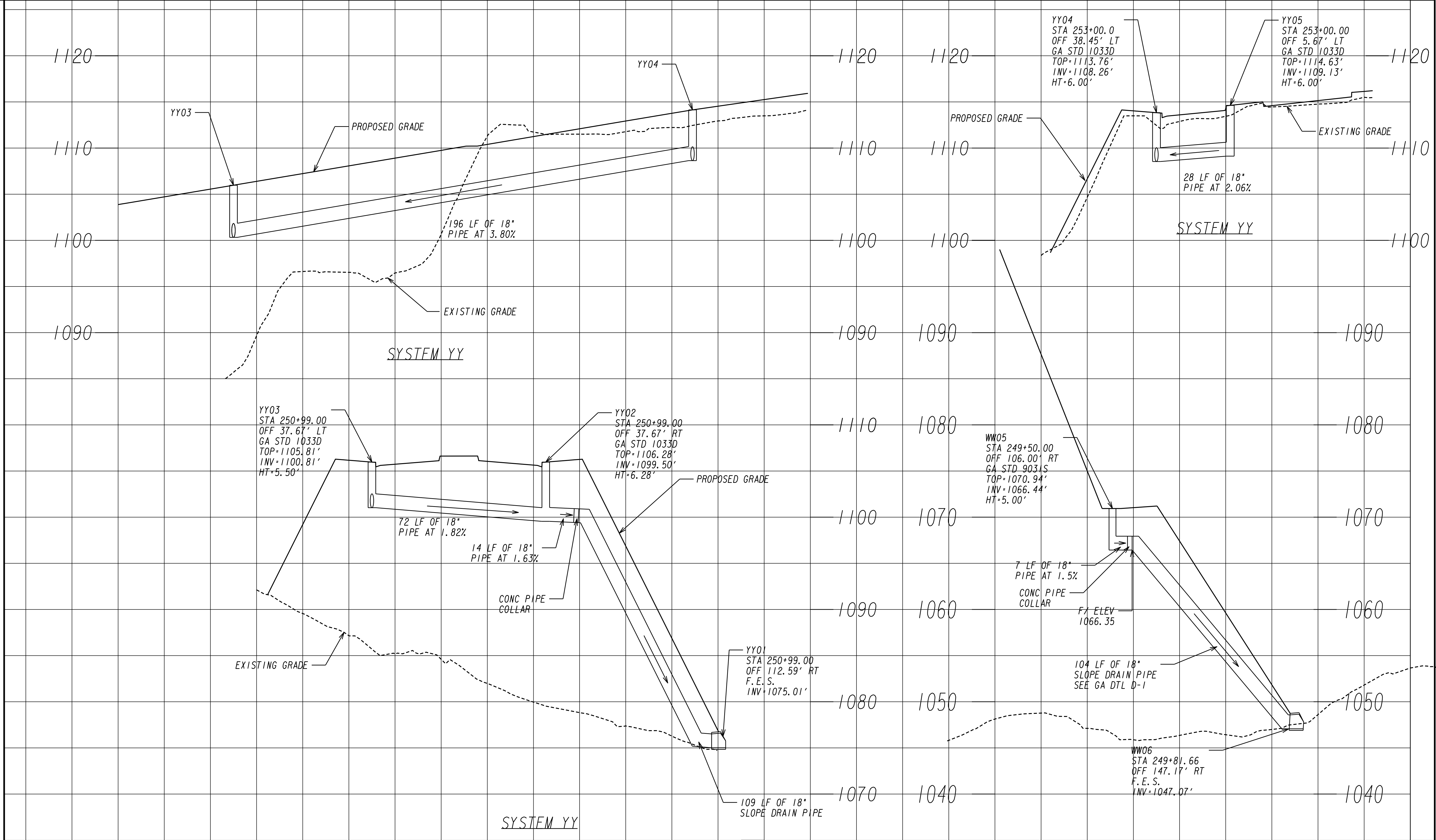
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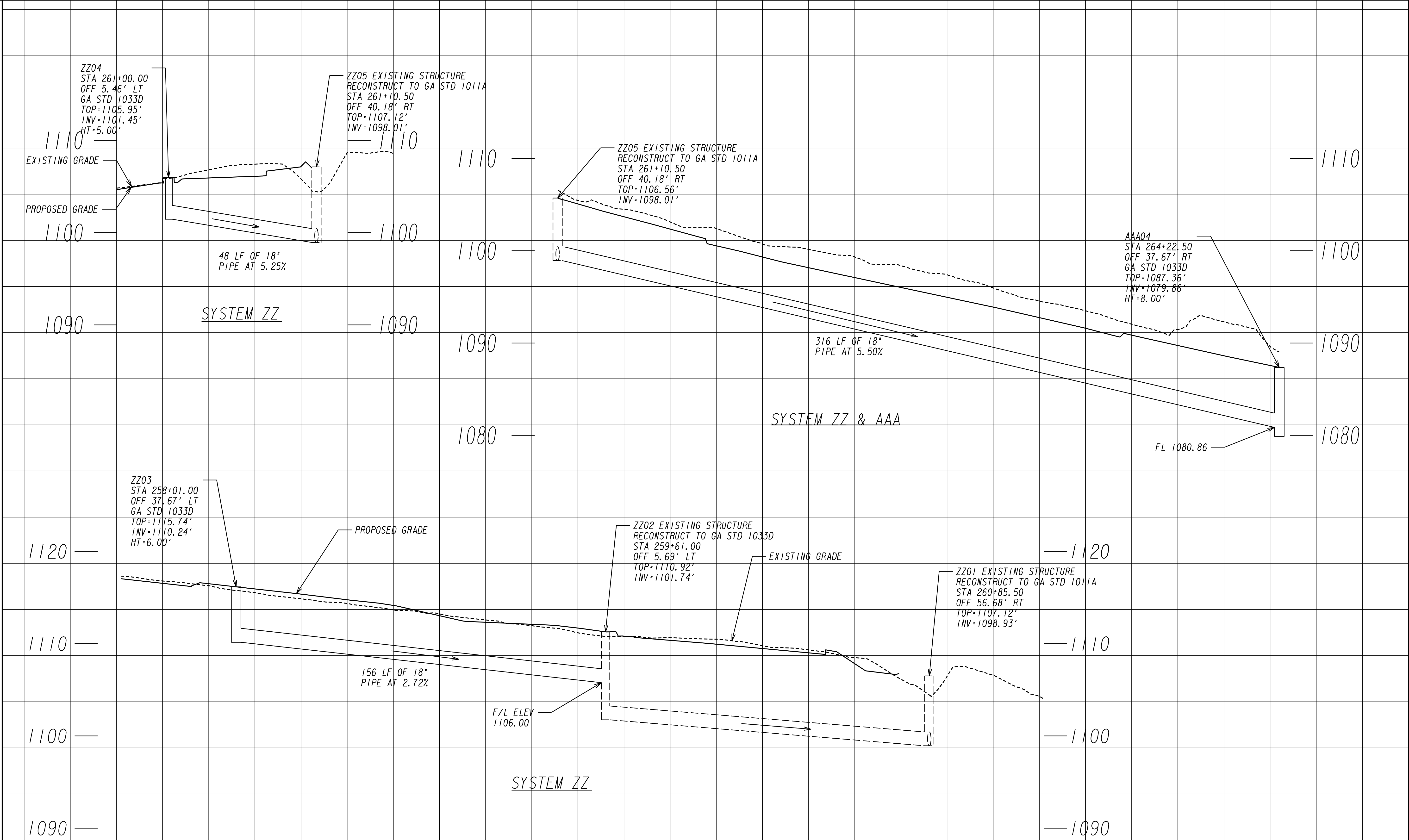
REVISION DATES

DRAINAGE PROFILES
RONALD REAGAN BLVD EXTENSION

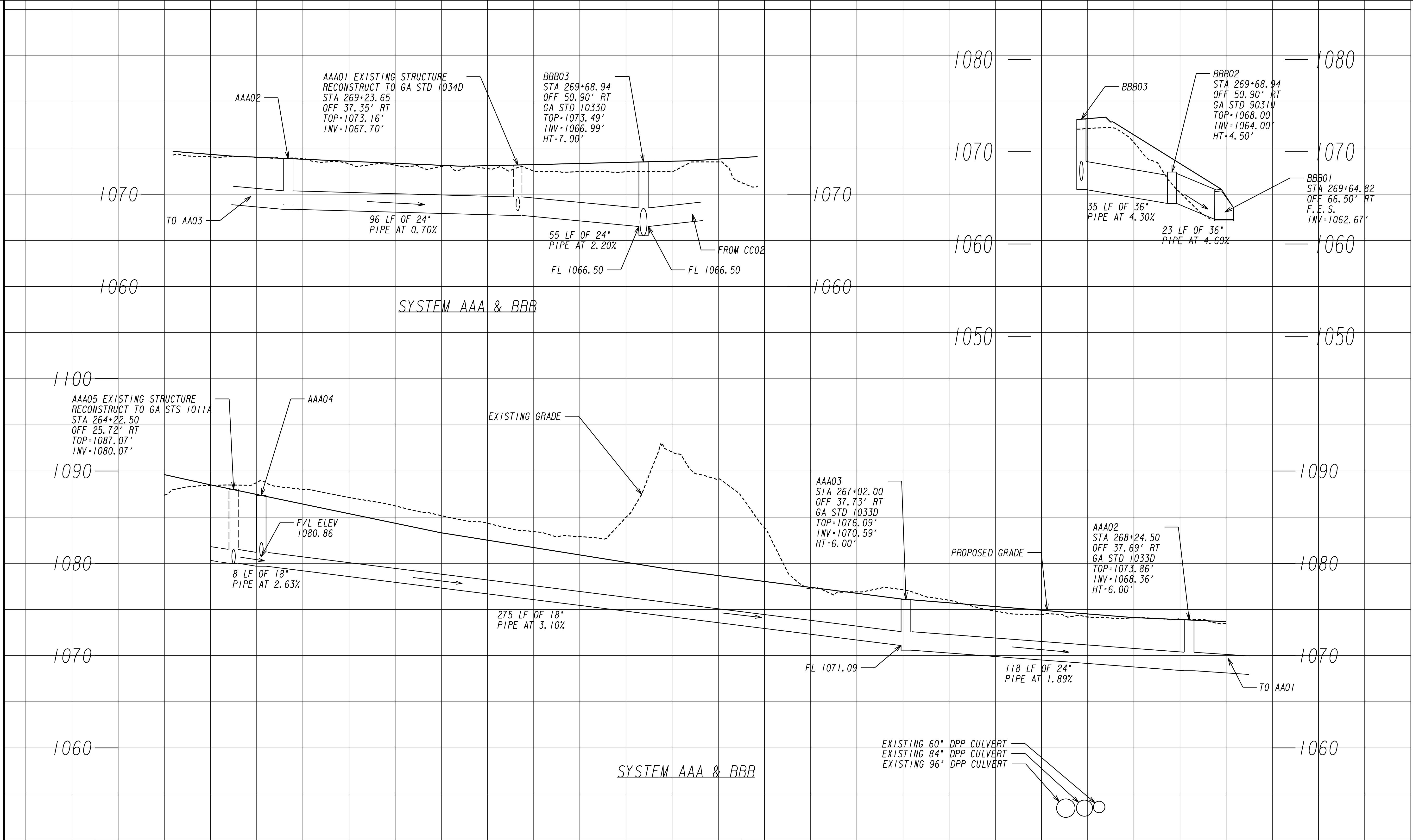
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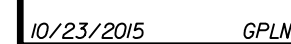
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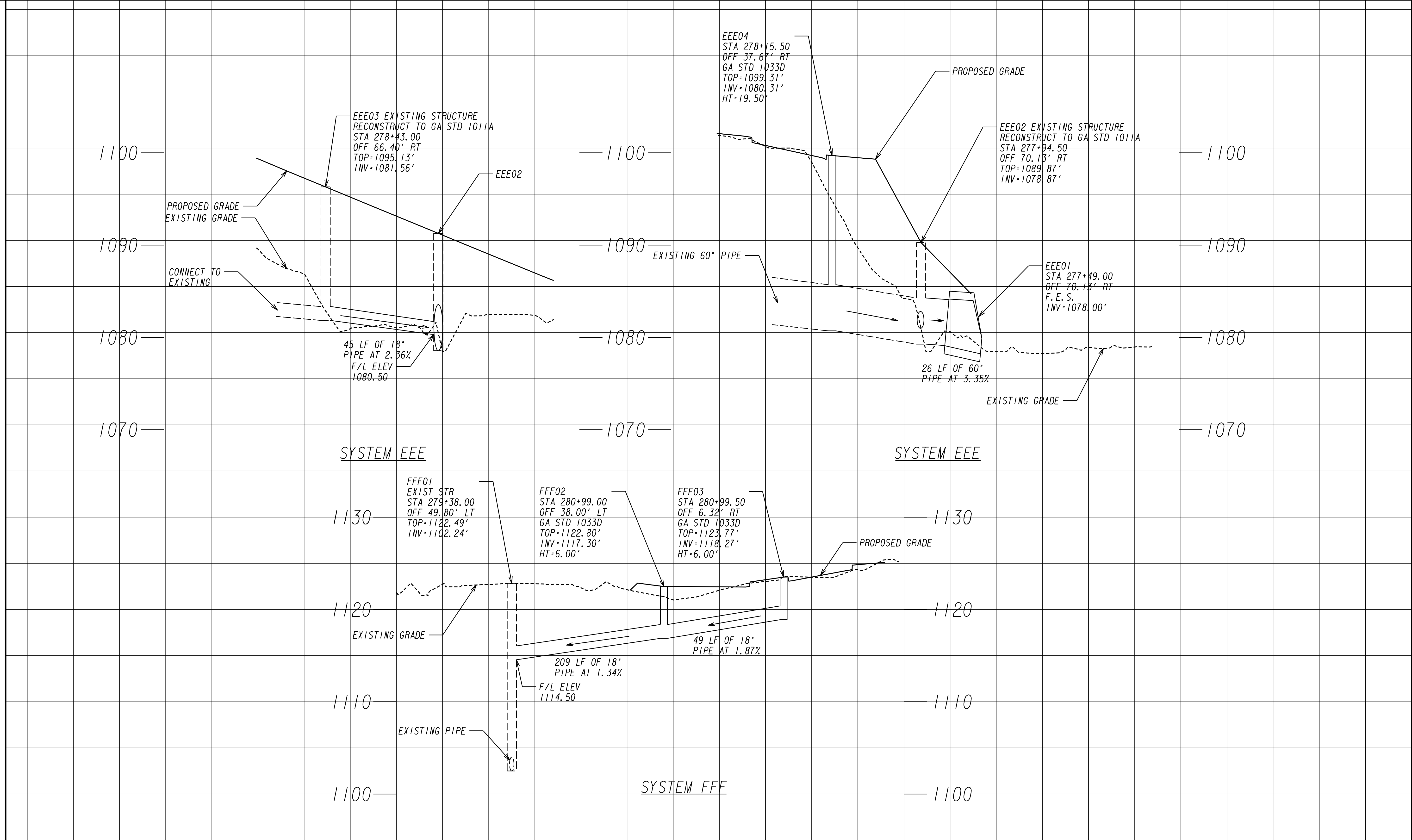


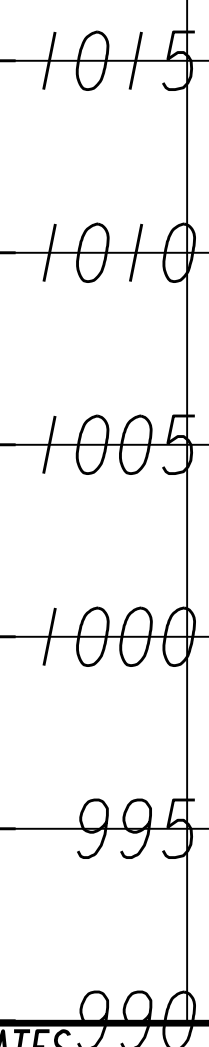


10/23/2015 GPLN	FORSYTH COUNTY ENGINEERING DEPARTMENT	POND Architects • Engineers • Planners	REVISION DATES		DRAINAGE PROFILES RONALD REAGAN BLVD EXTENSION				
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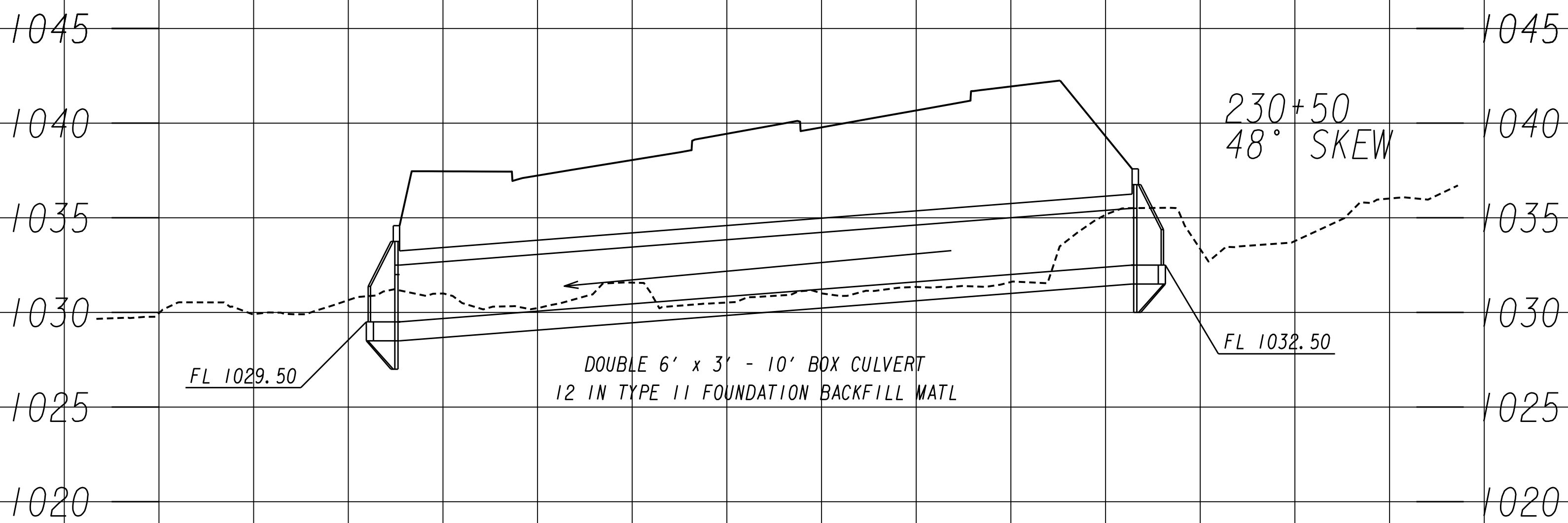
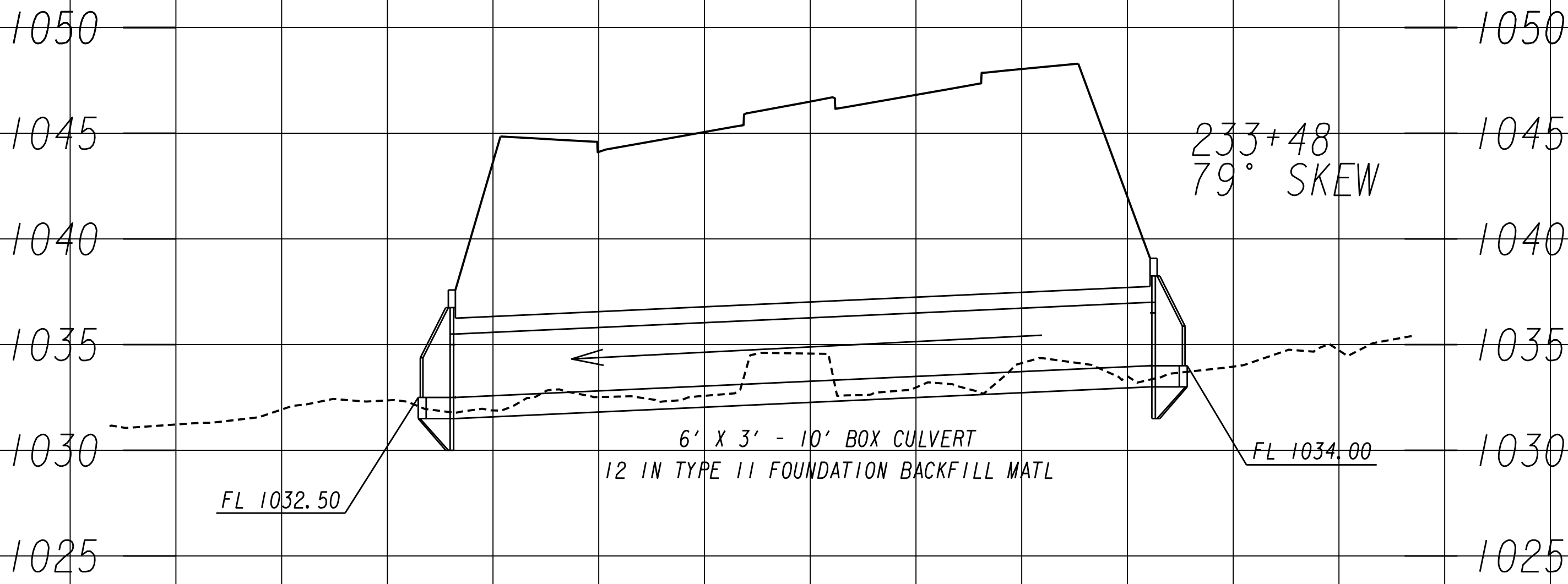




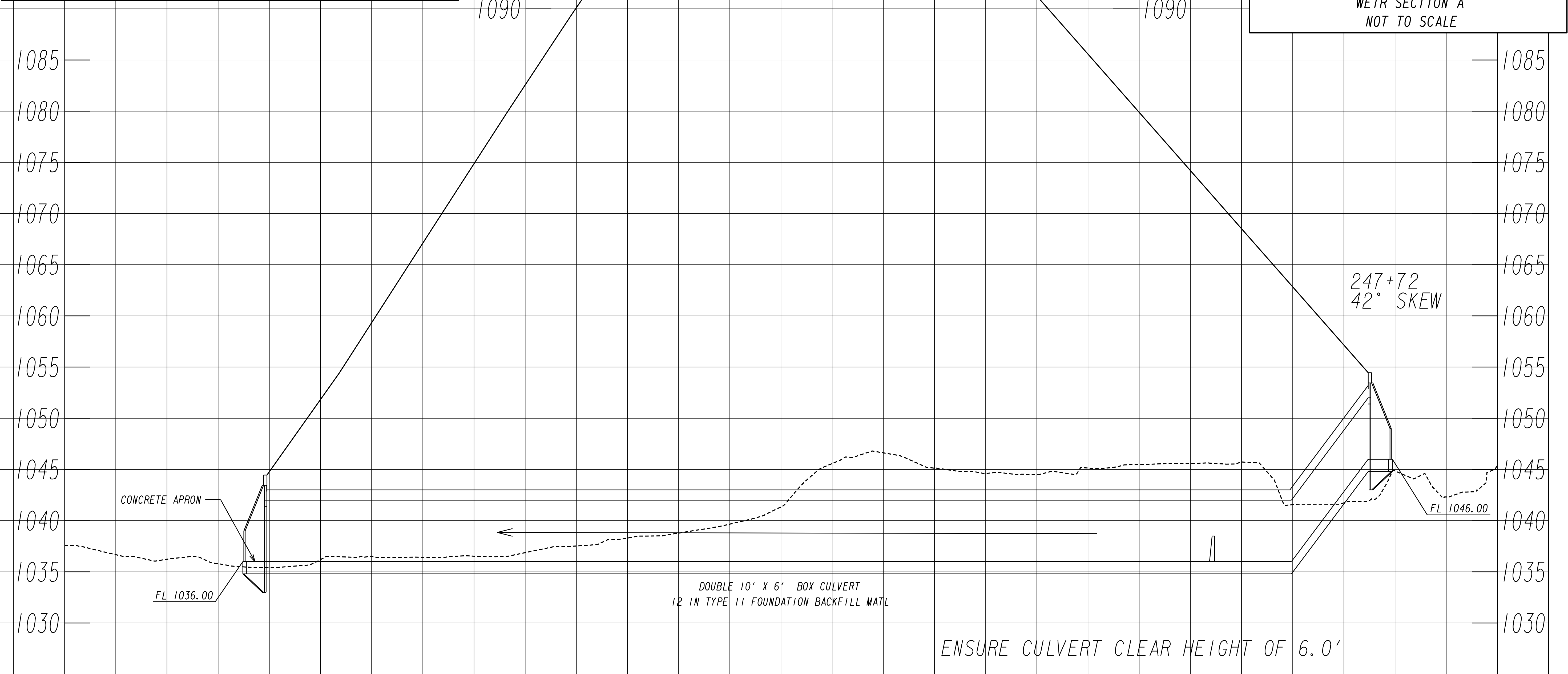
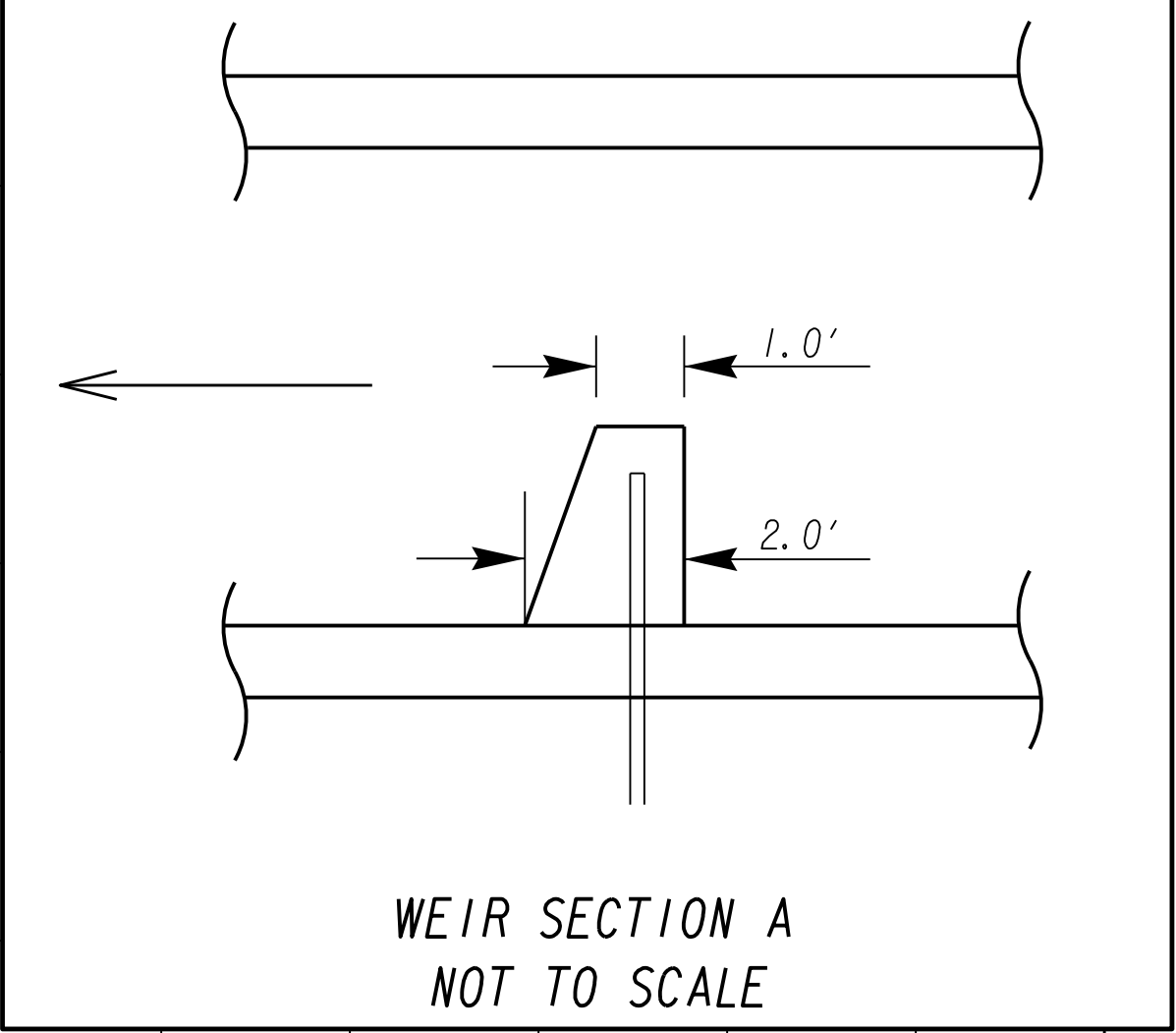
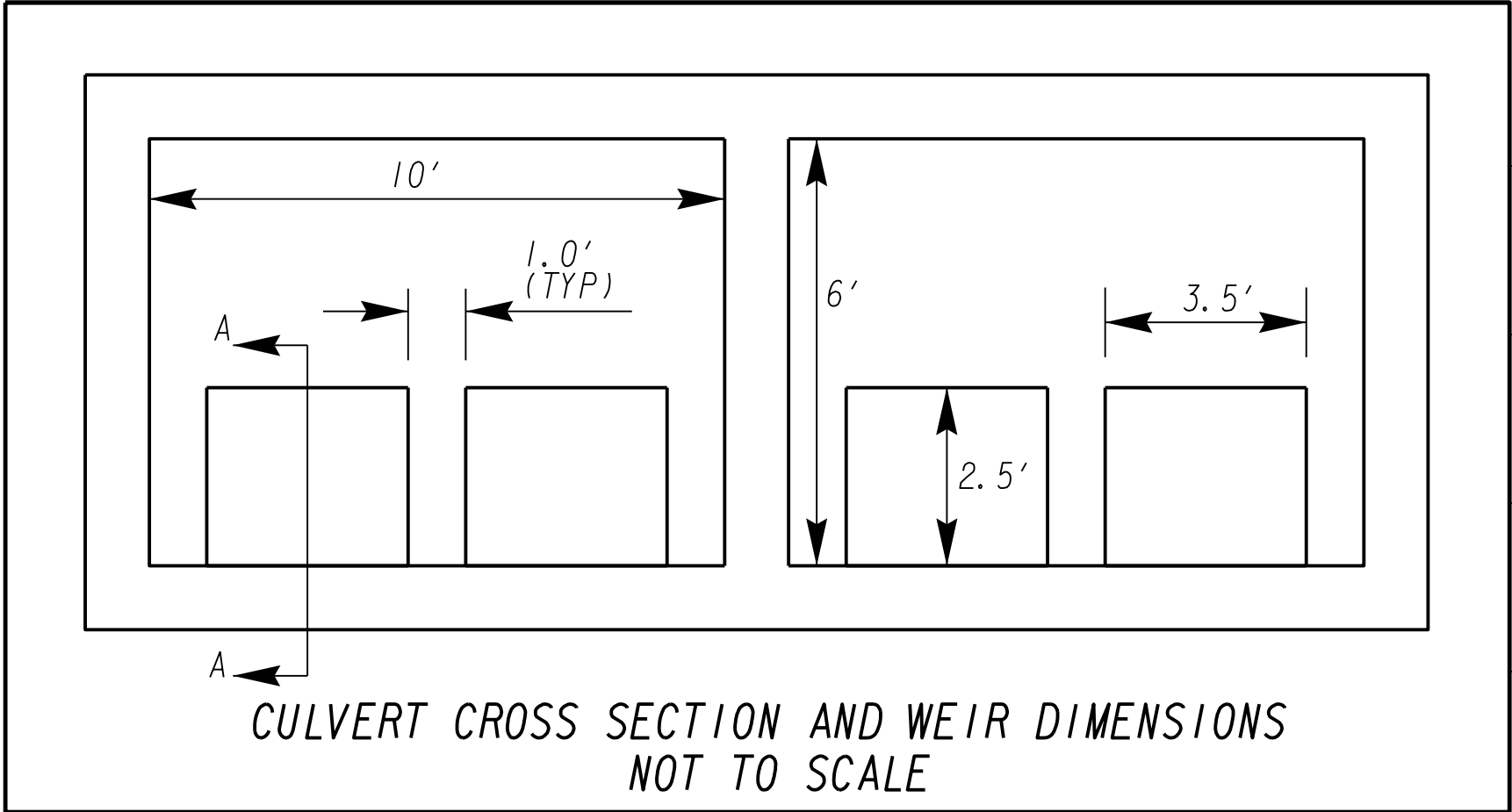
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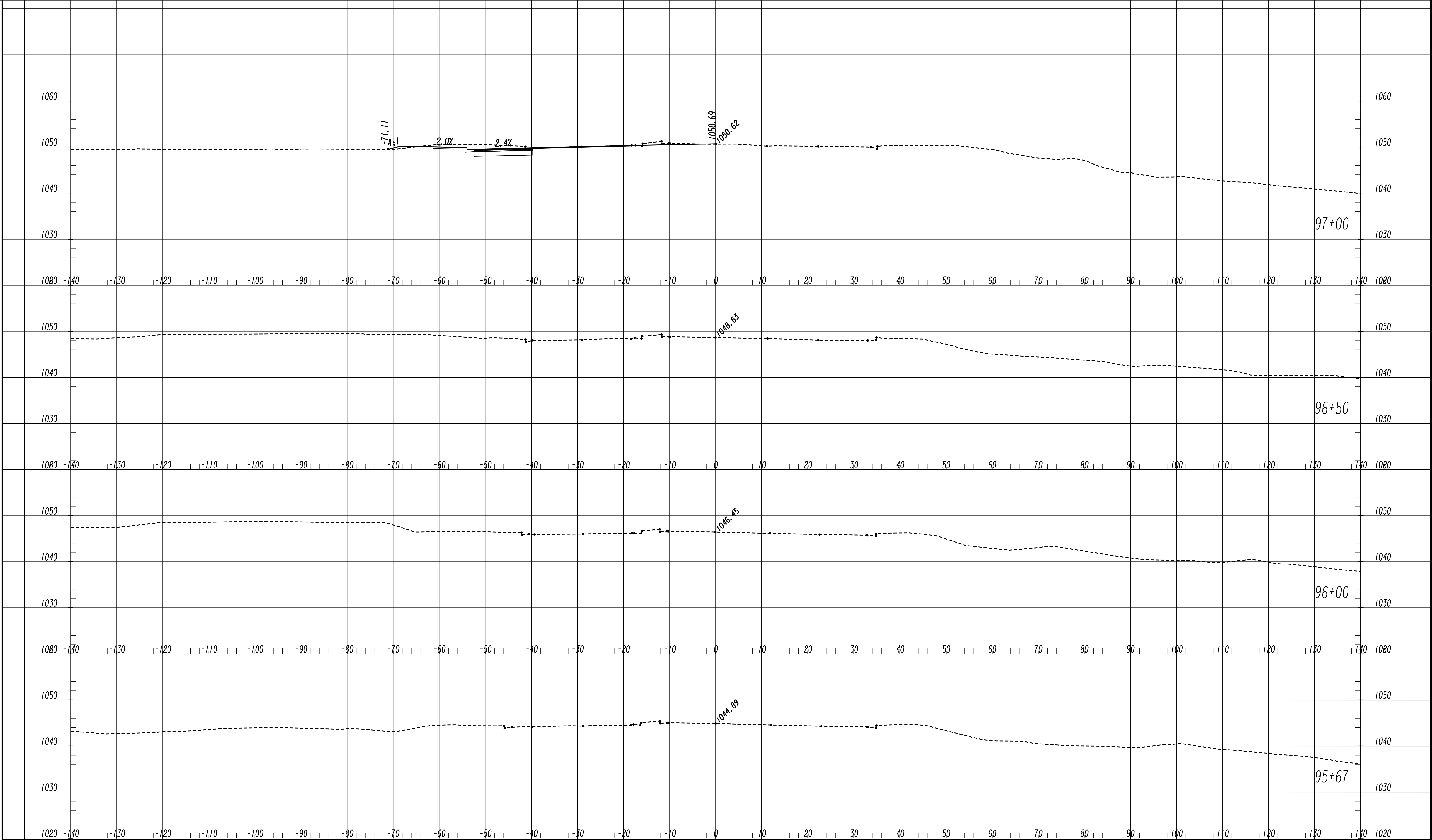
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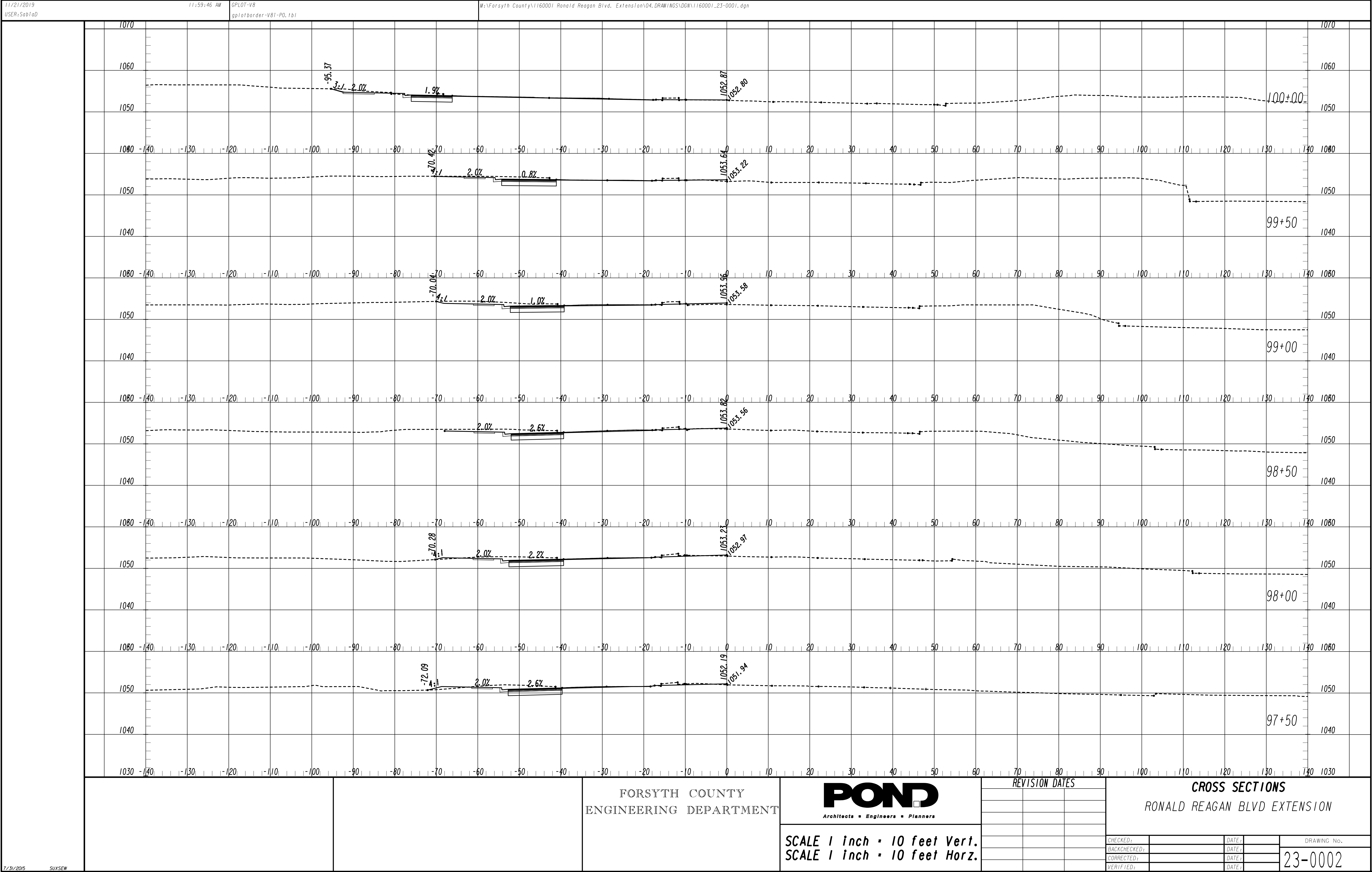
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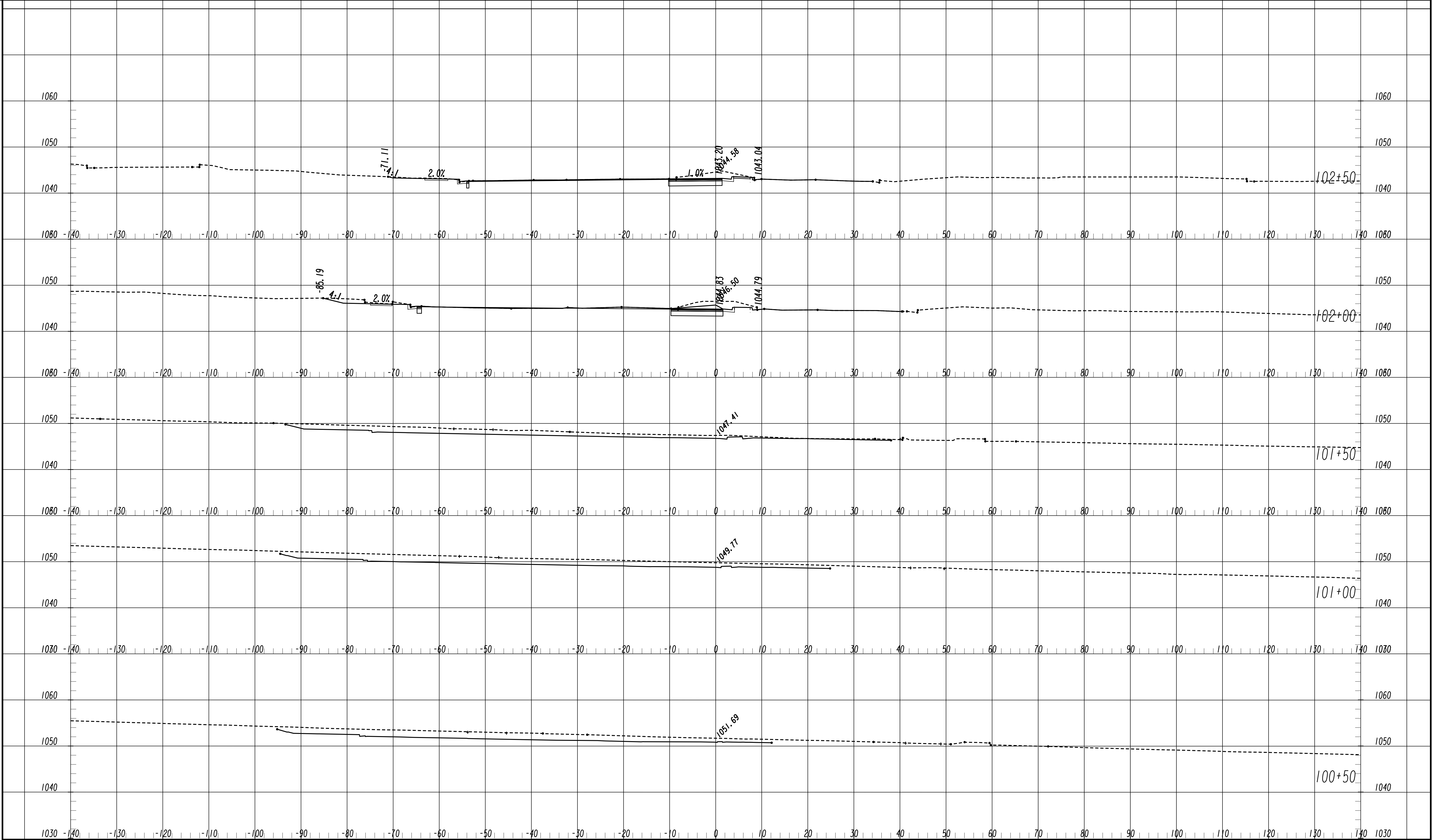


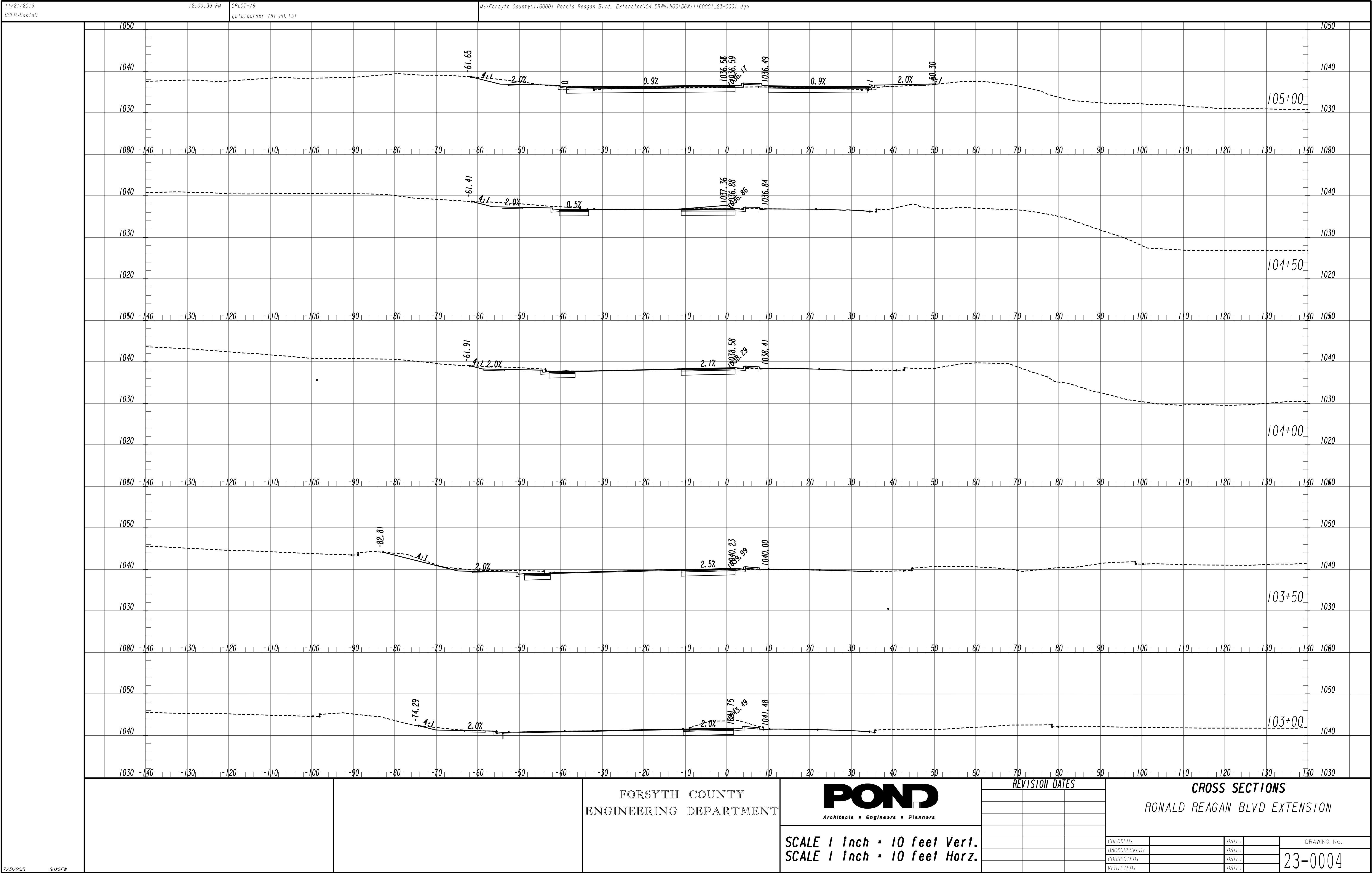
10/23/2015 GPLM		FORSYTH COUNTY ENGINEERING DEPARTMENT	POND Architects • Engineers • Planners	REVISION DATES			DRAINAGE PROFILES RONALD REAGAN BLVD EXTENSION			
SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.				CHECKED:		DATE:		DRAWING No.		
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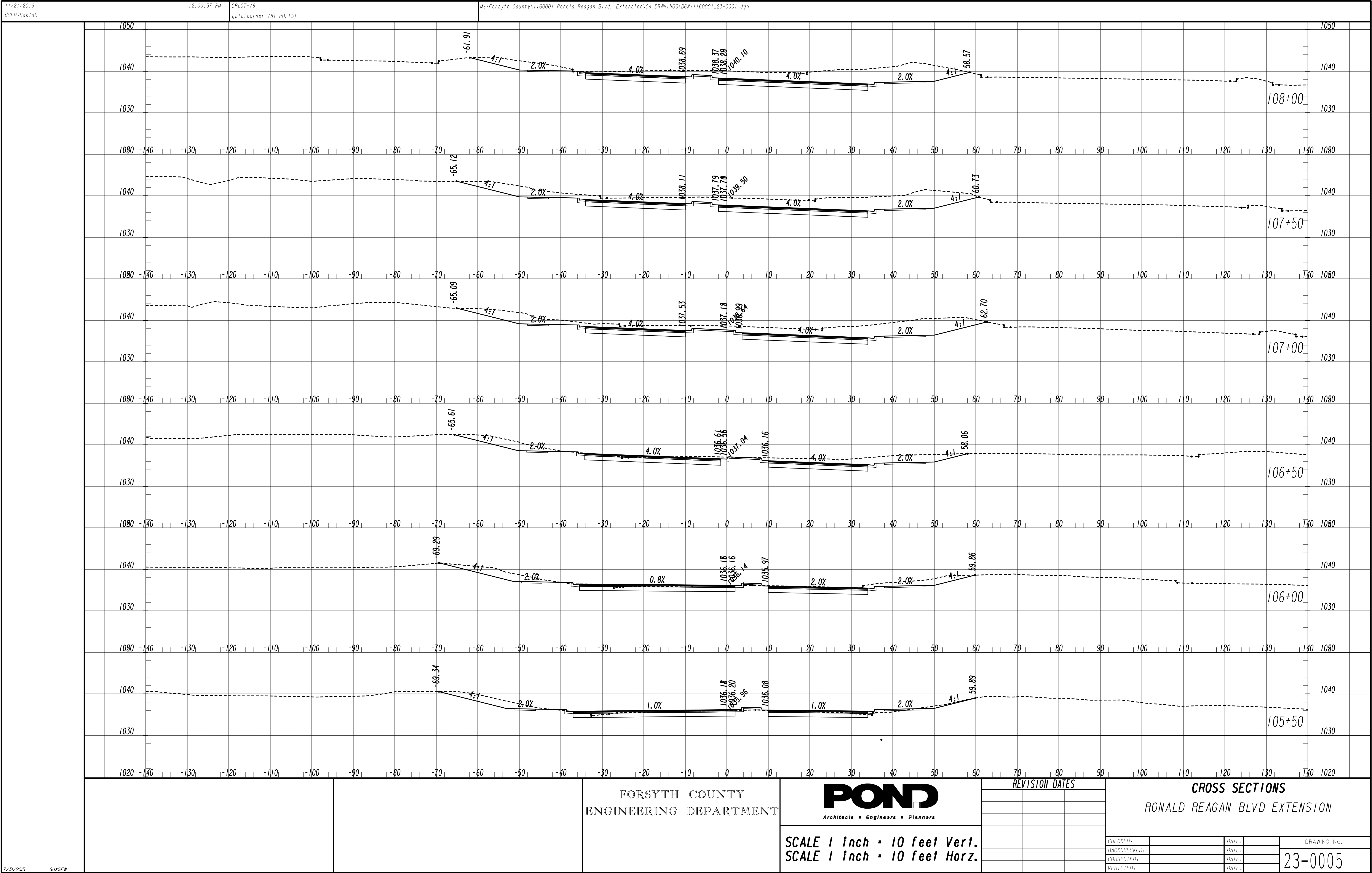


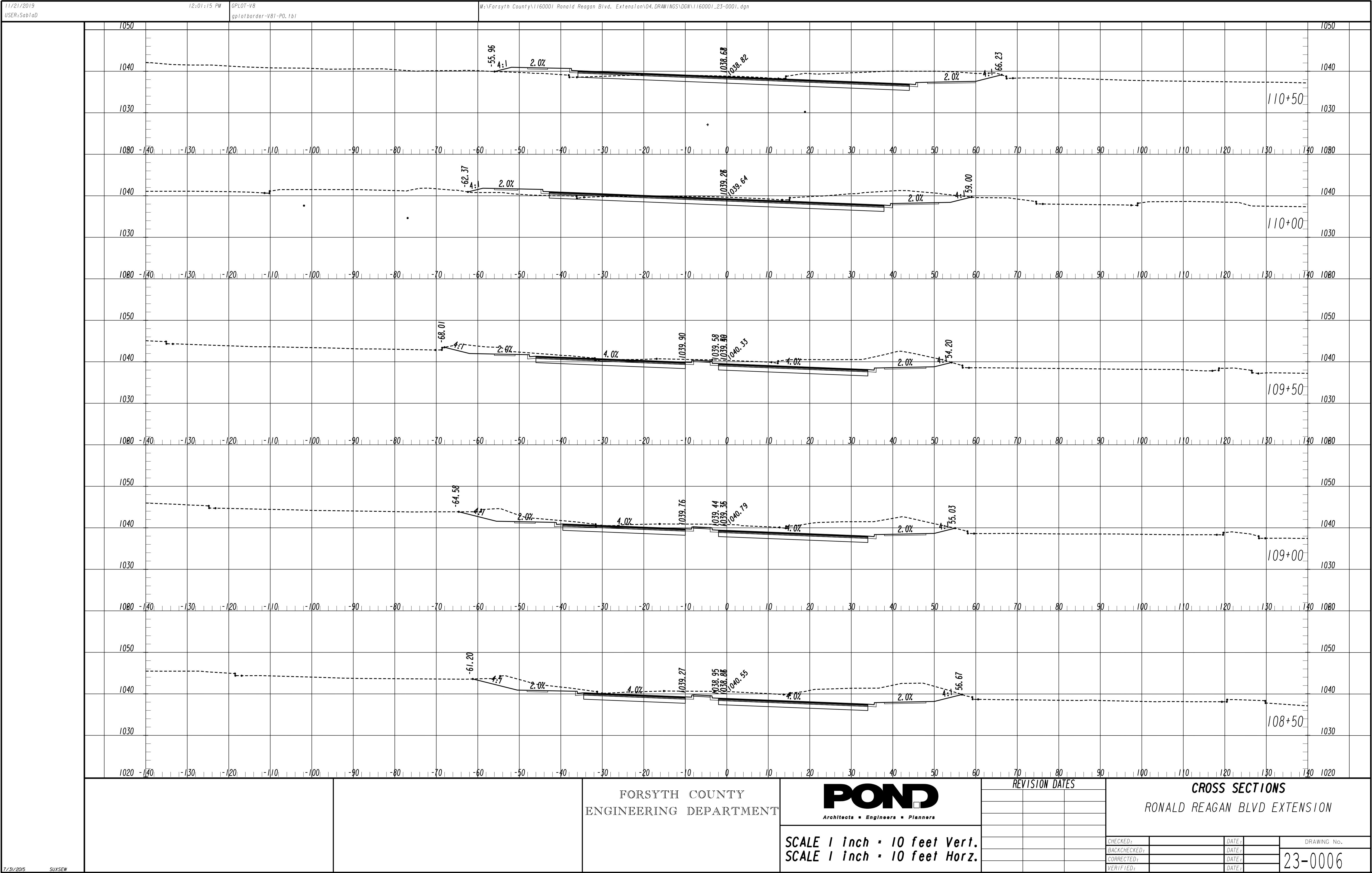


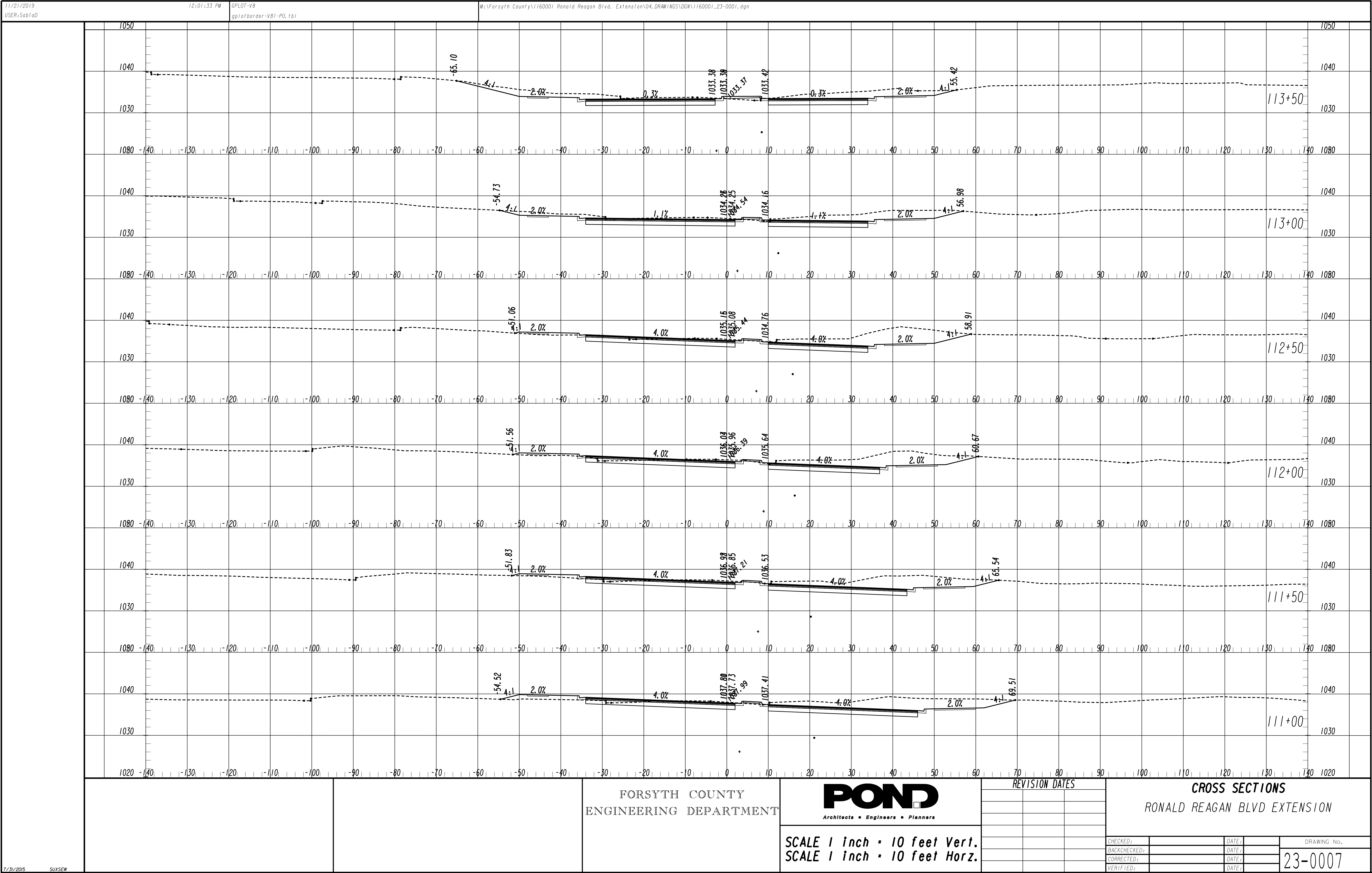


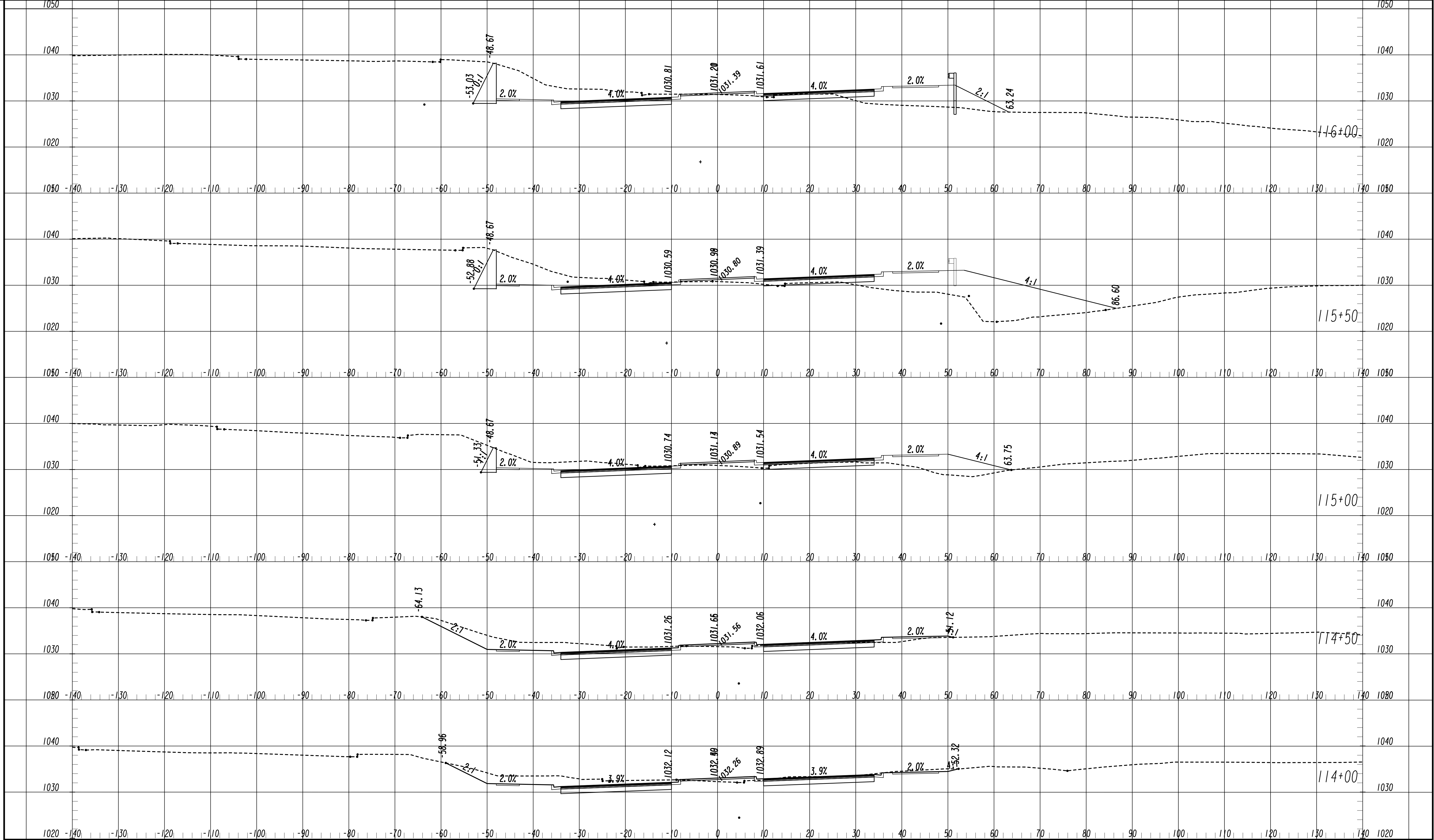














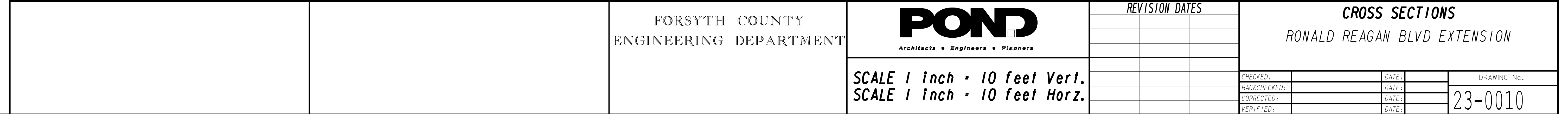
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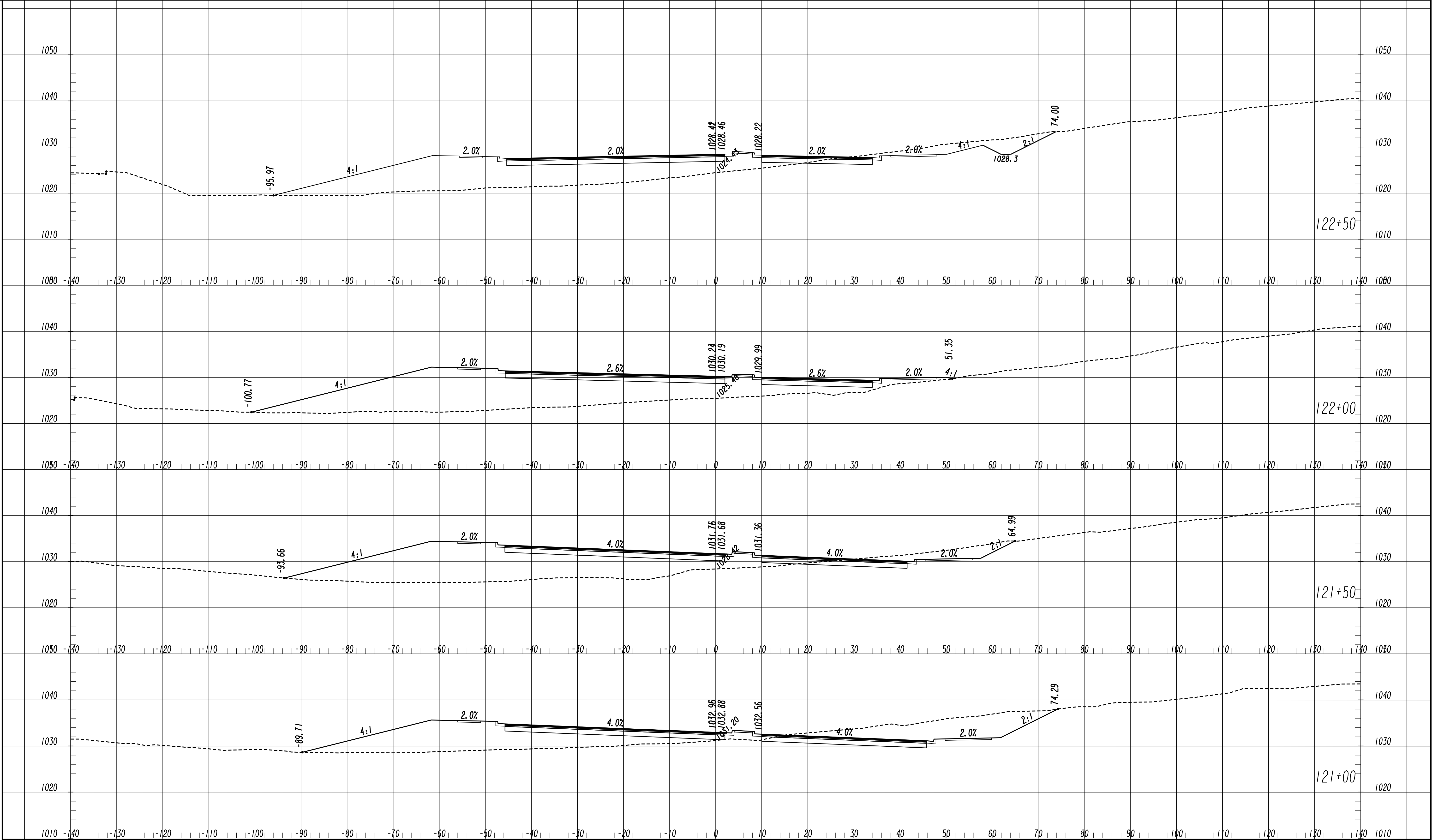
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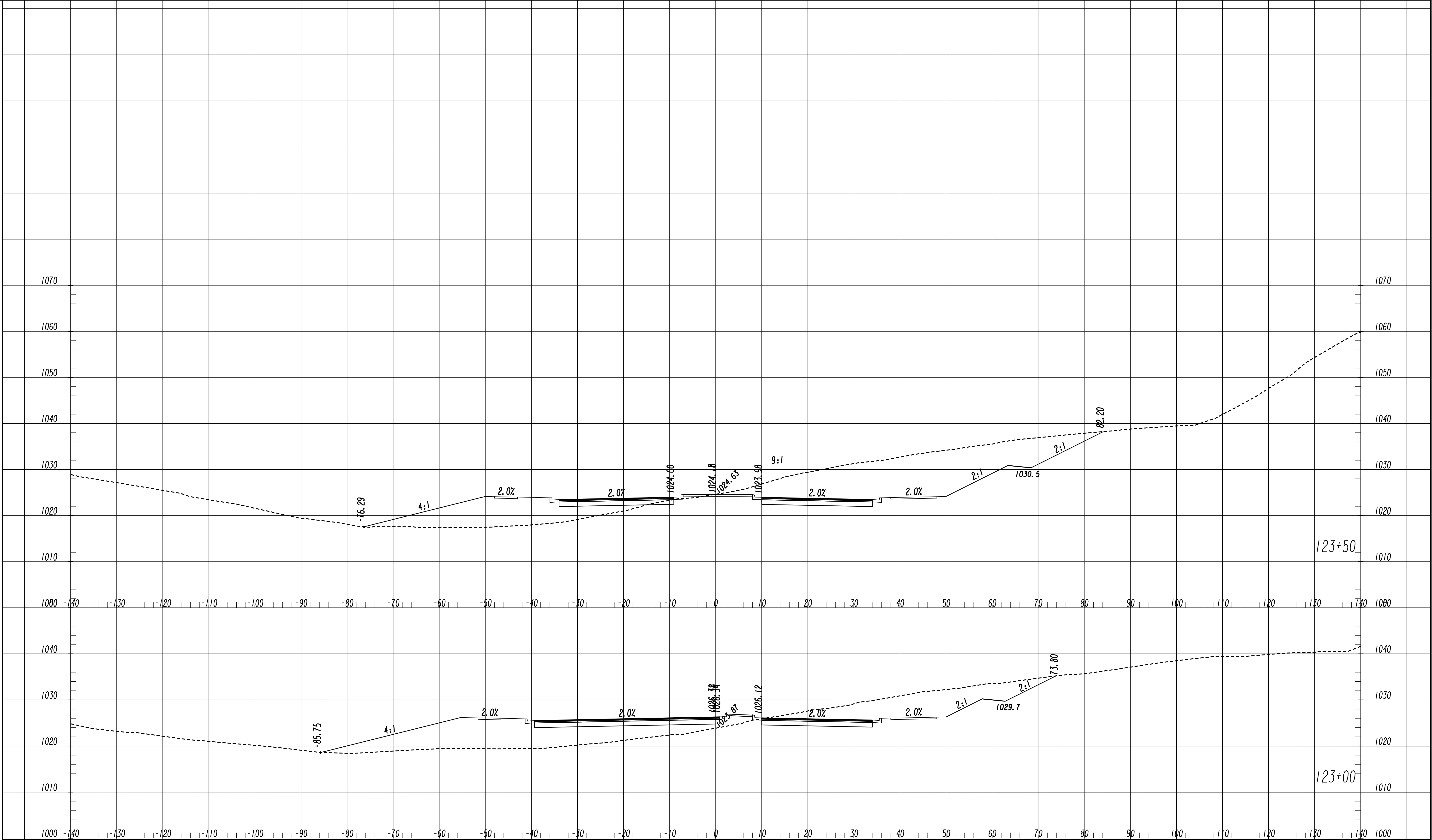
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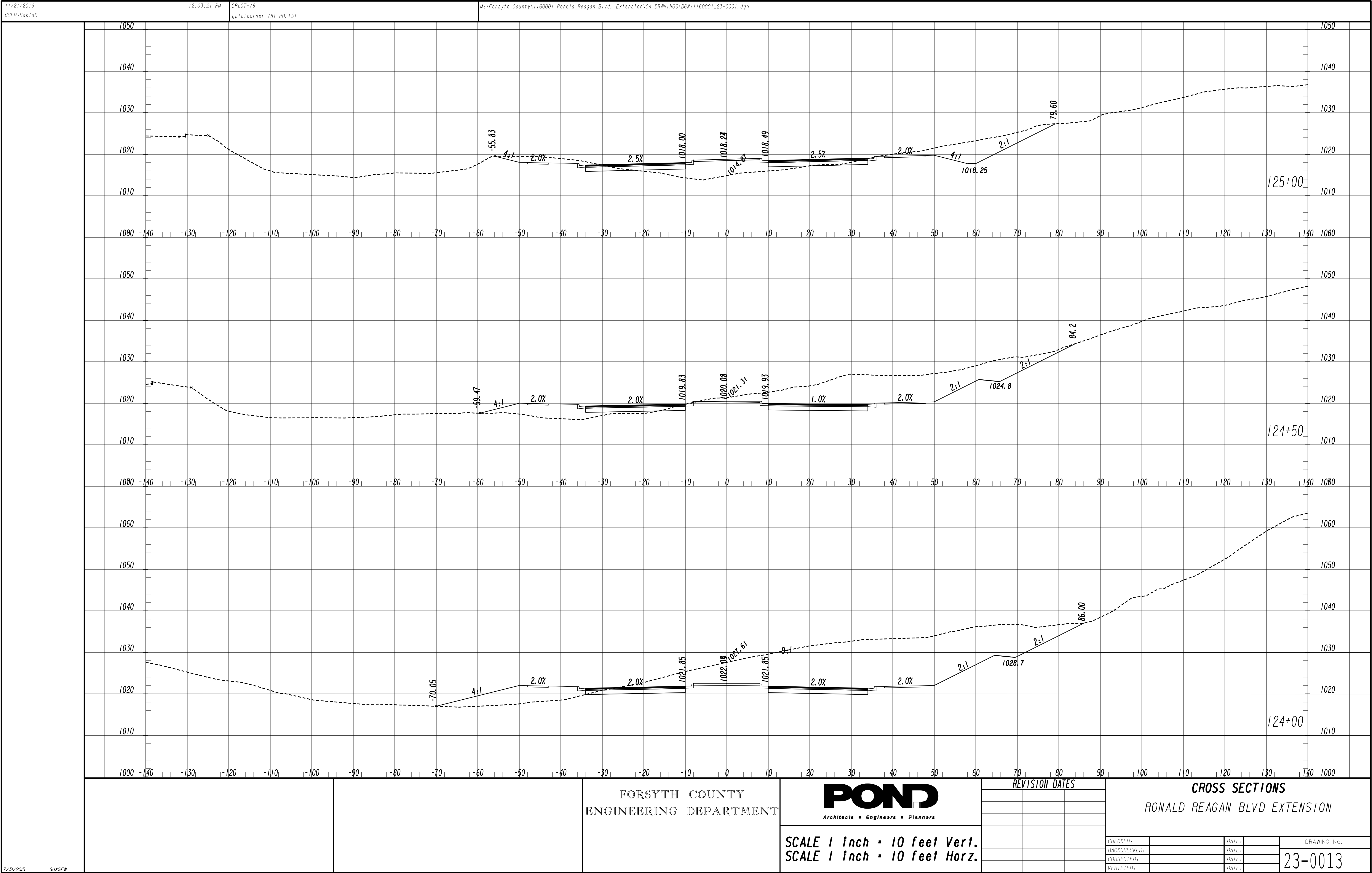
RONALD REAGAN BLVD EXTENSION

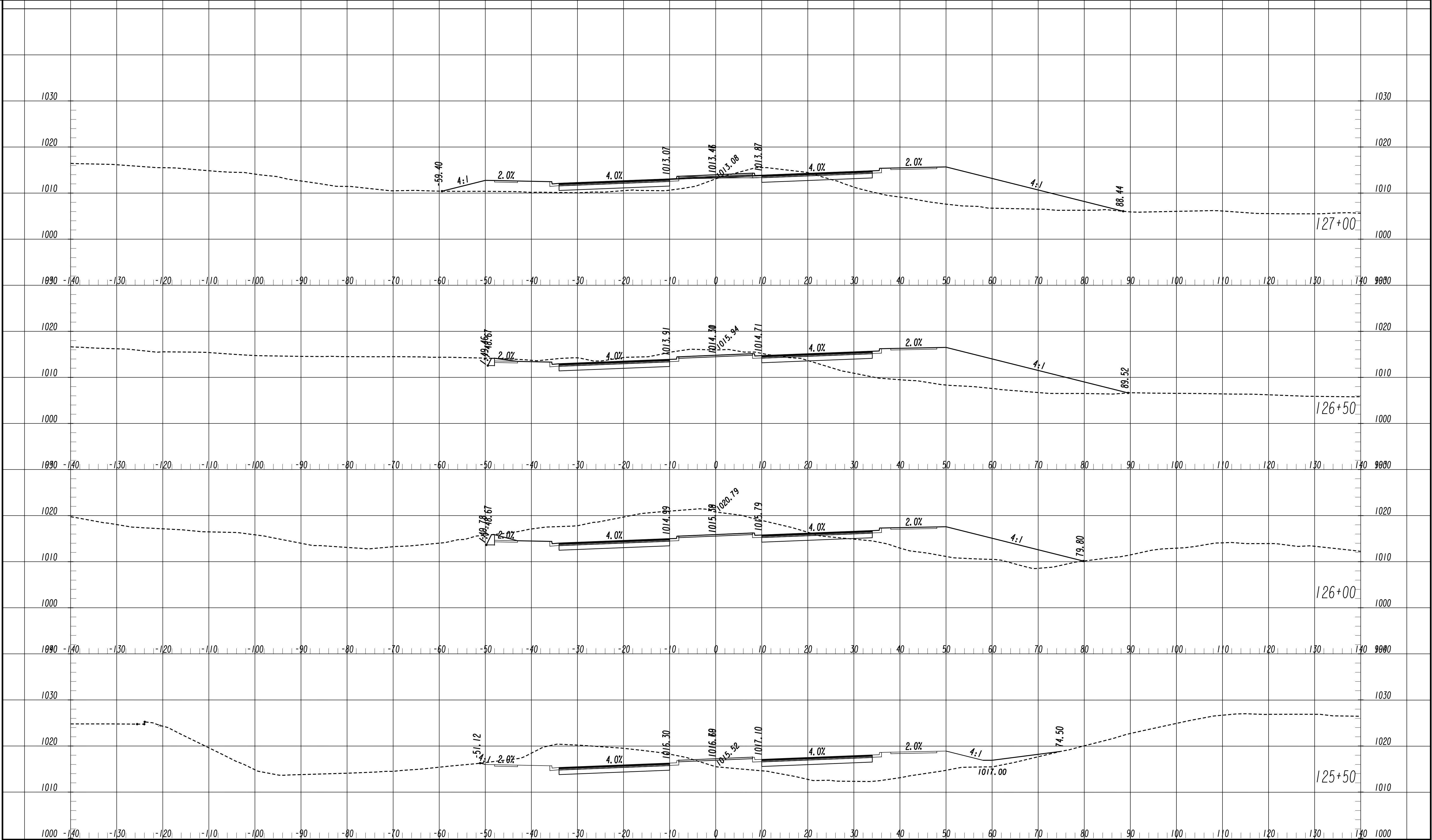
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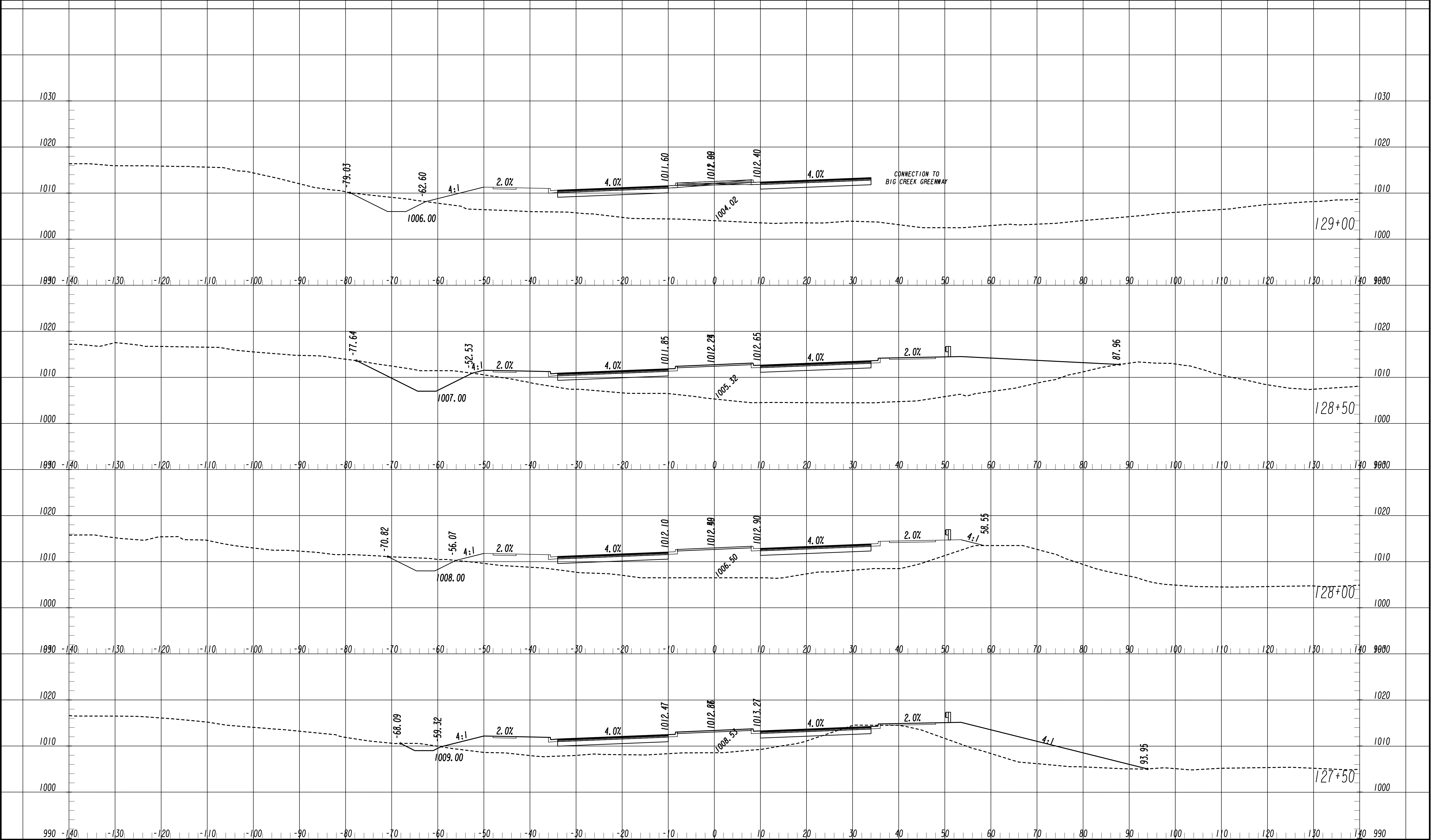


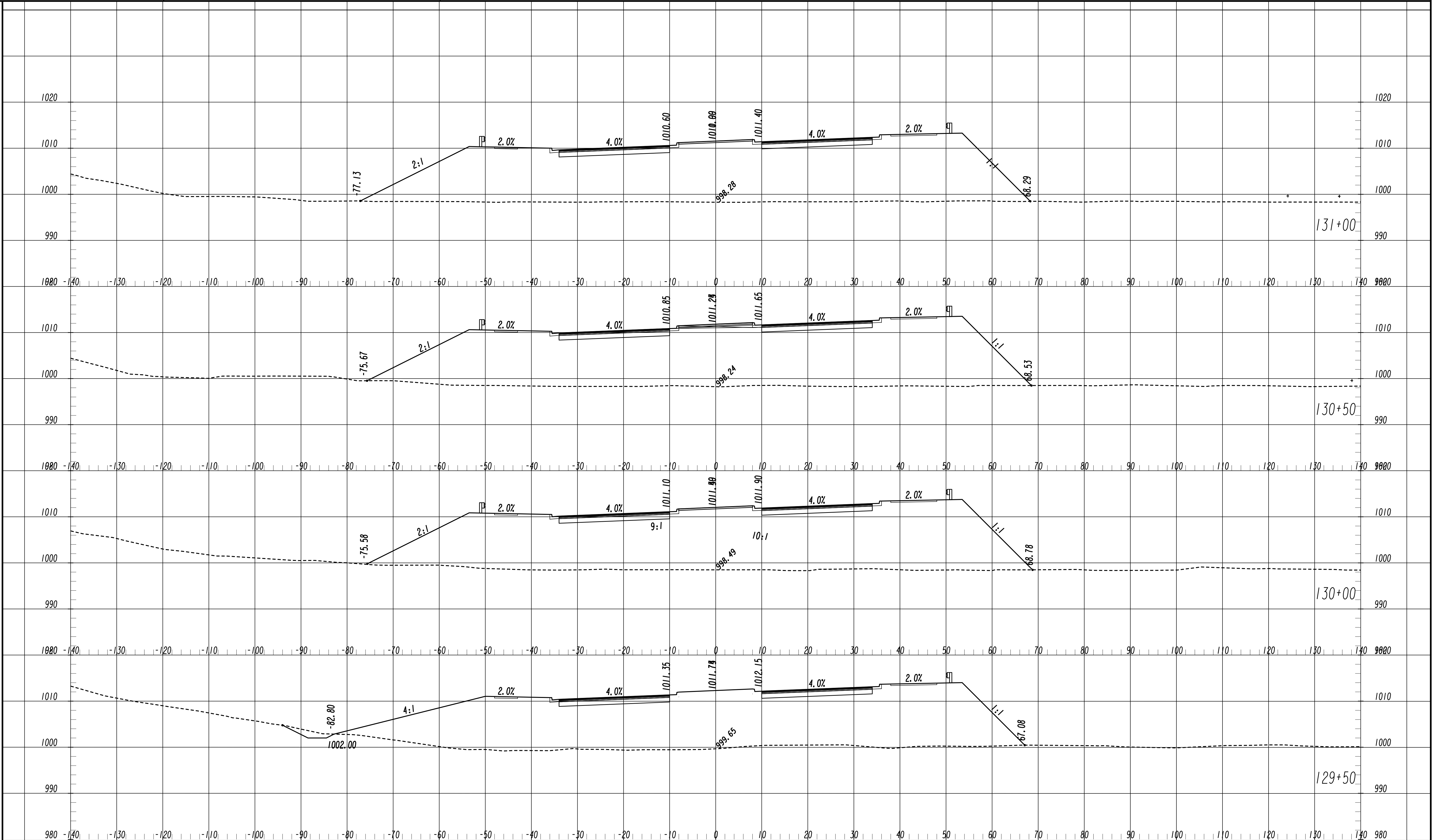










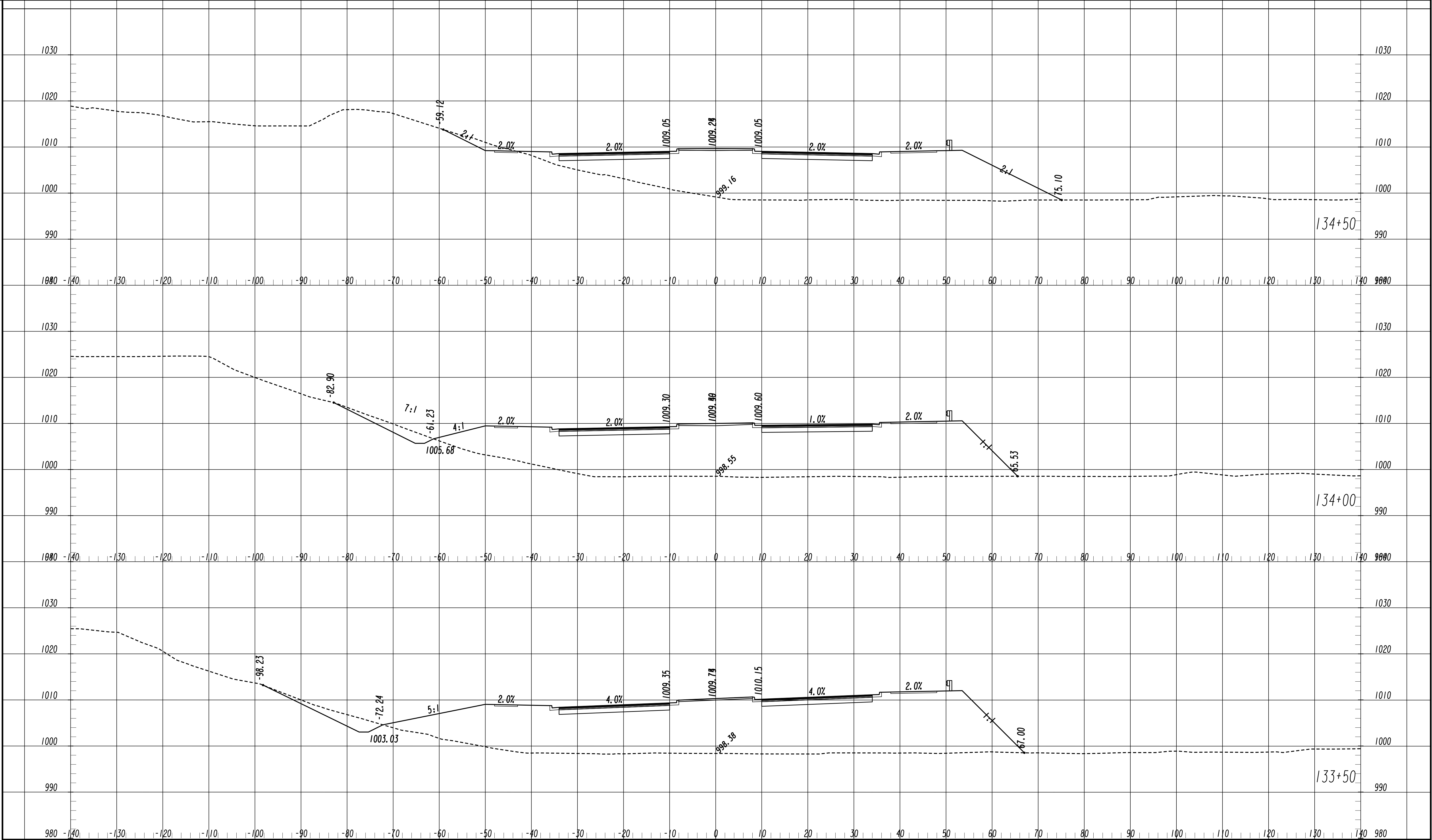


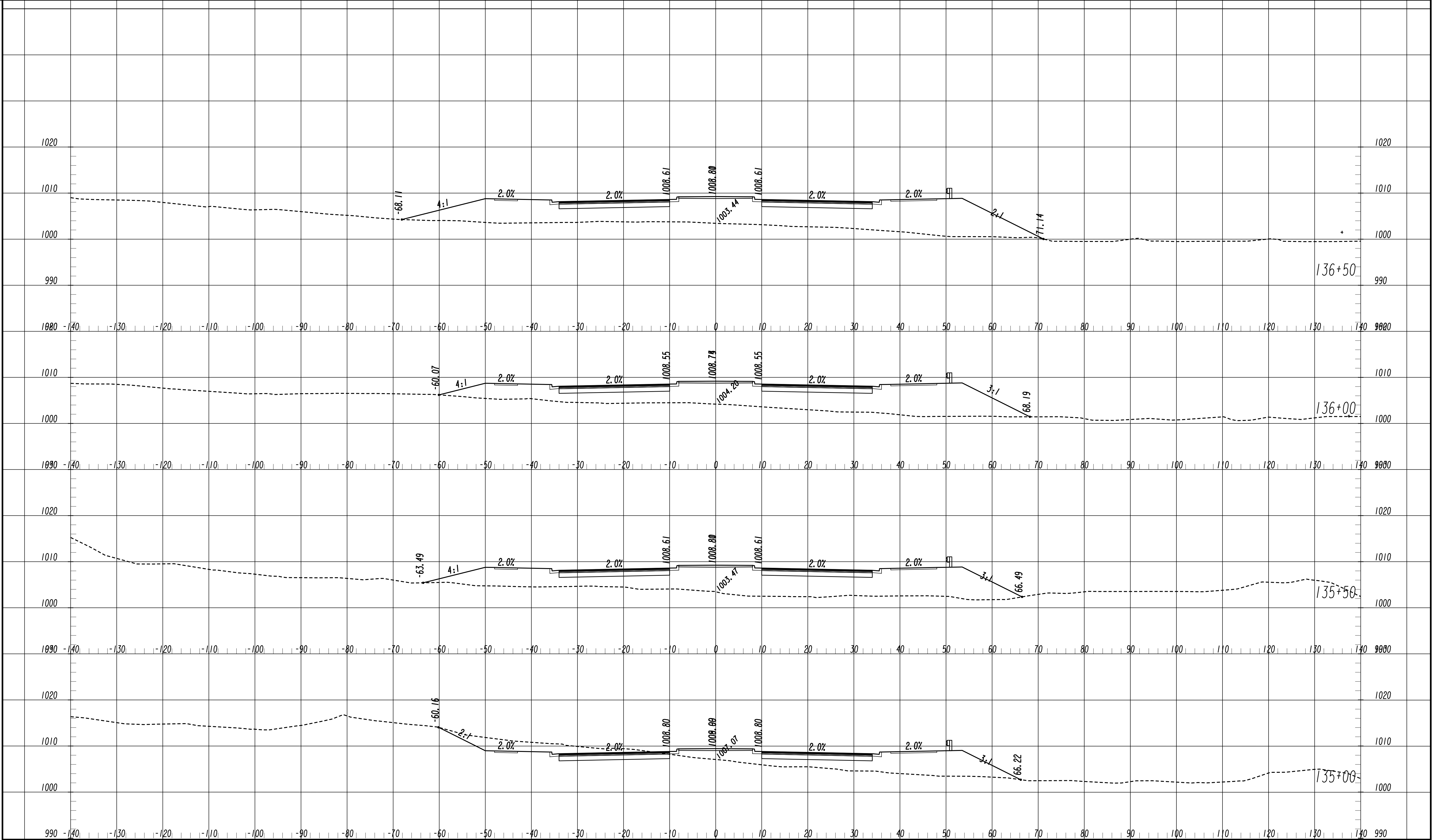


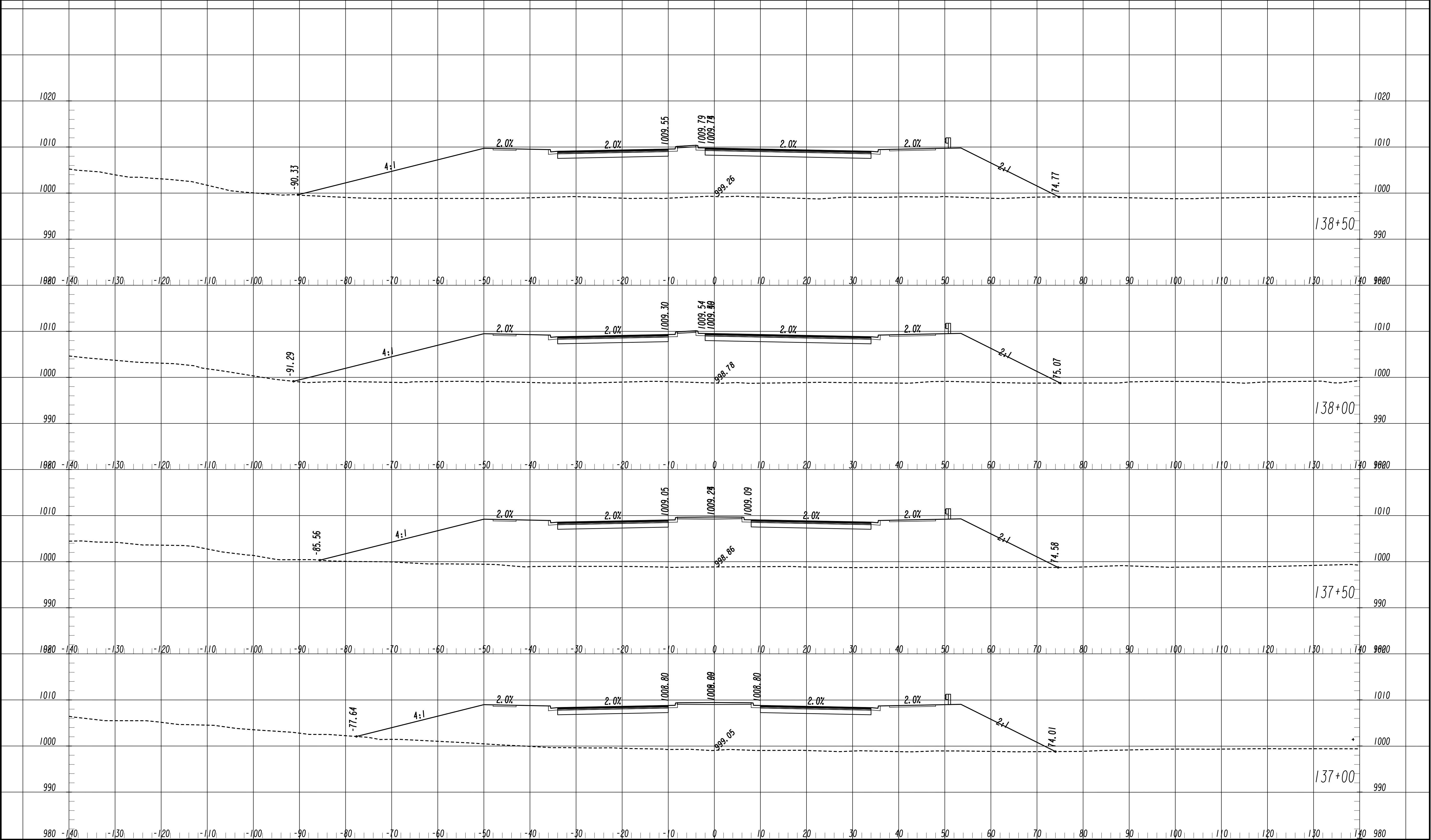
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REVISION DATES				

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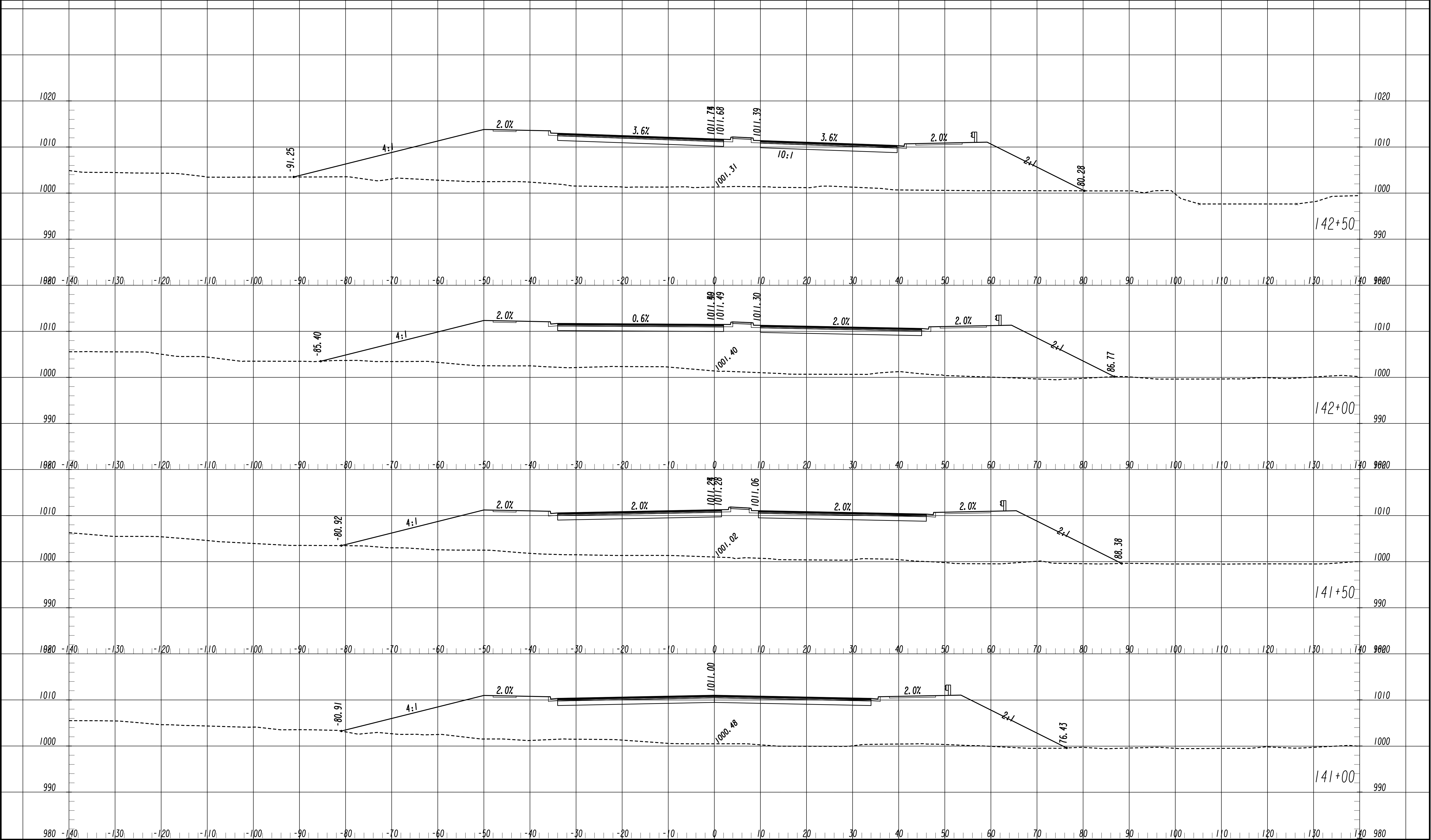
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REVISION DATES					

CROSS SECTIONS

RONALD REAGAN BLVD EXTENSION

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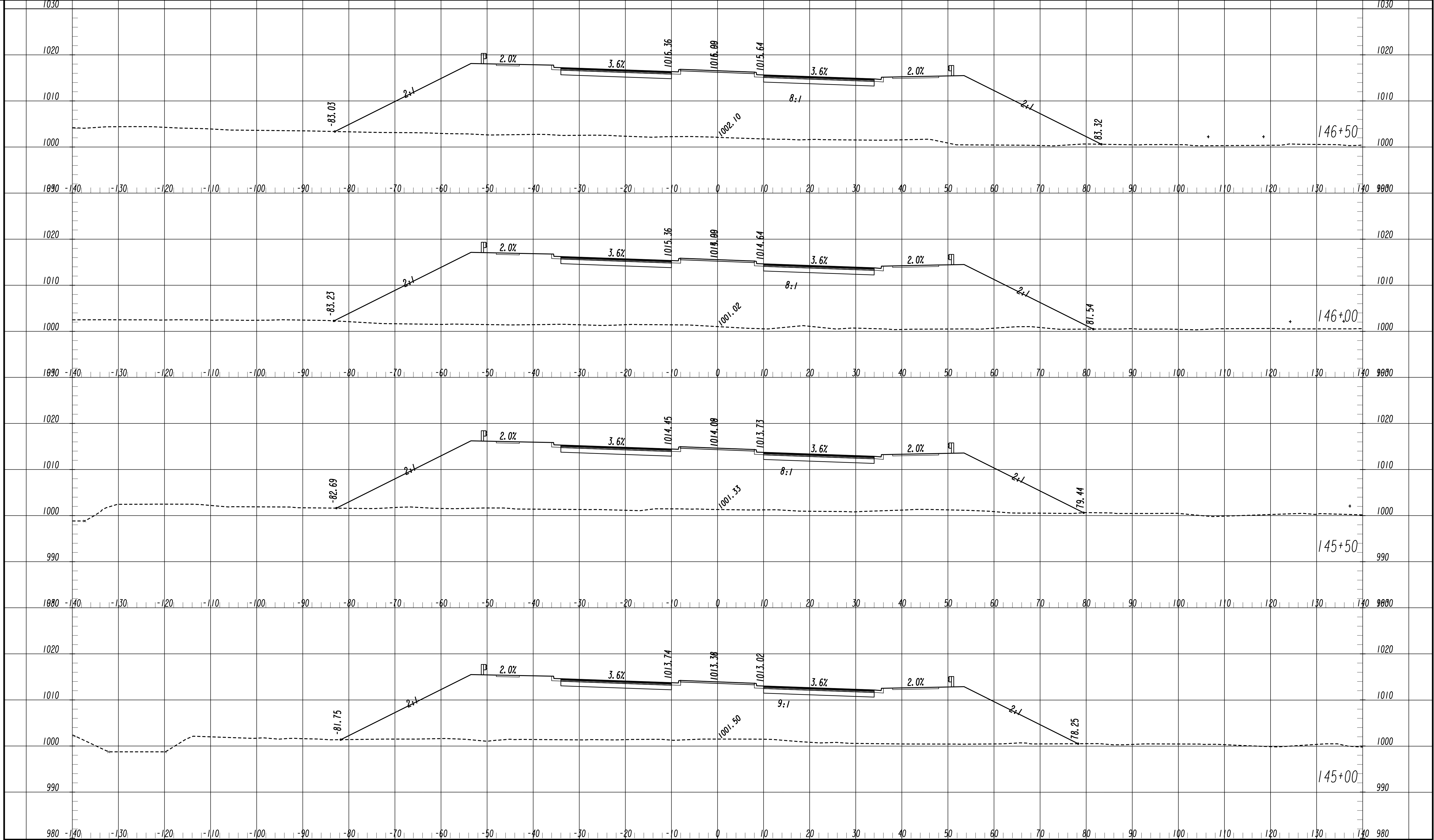
POND
Architects ■ Engineers ■ Planners

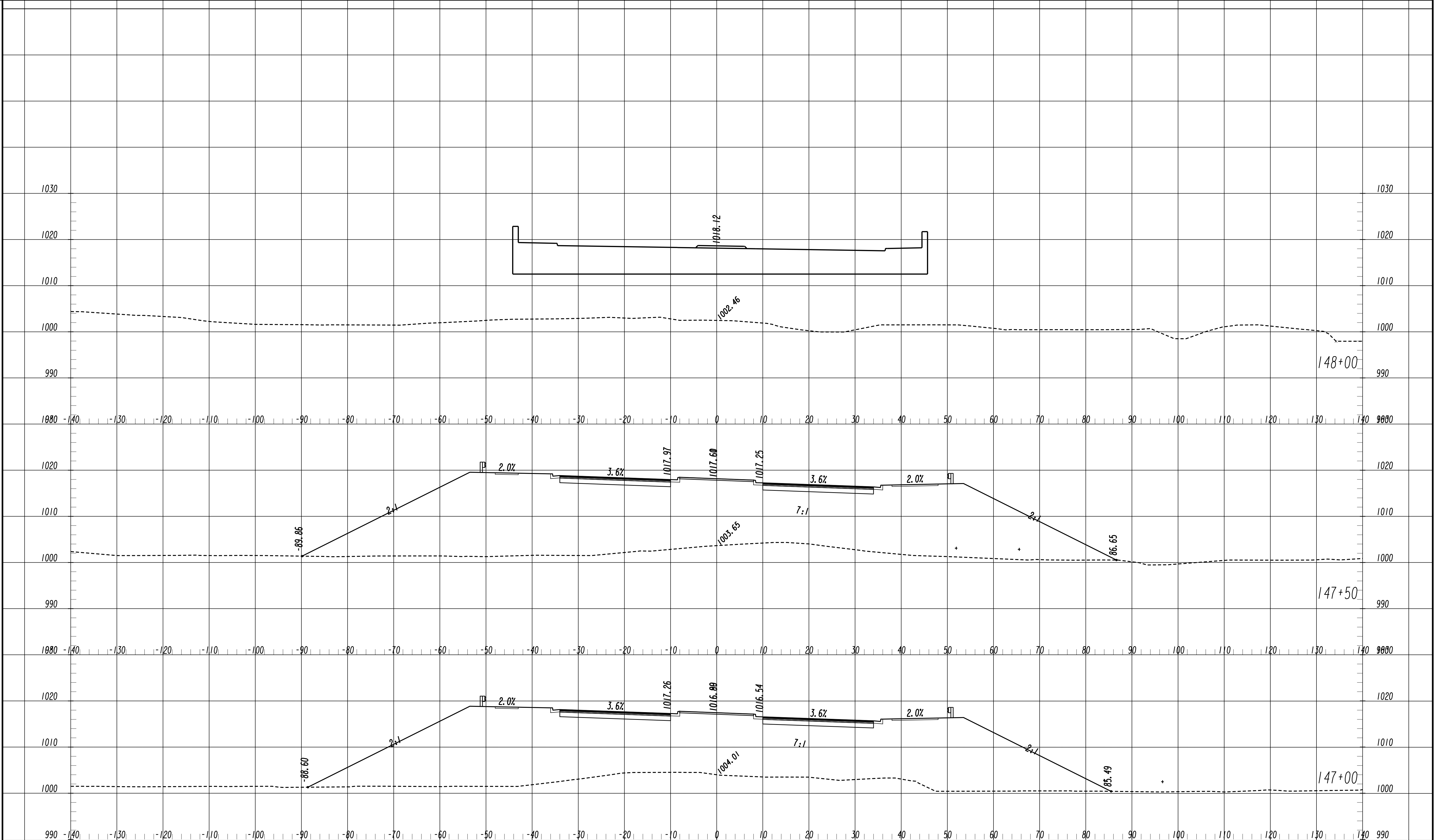
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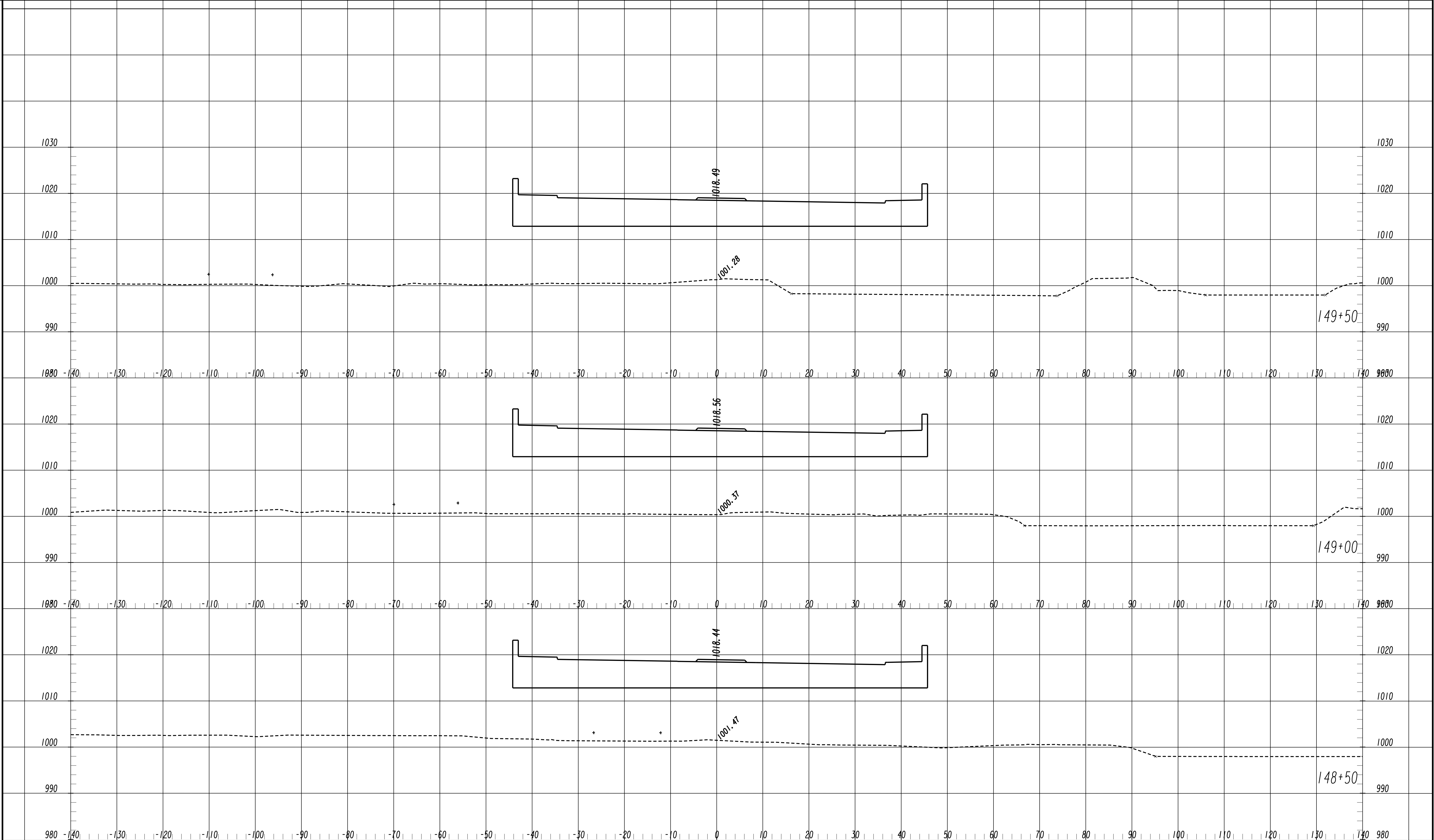
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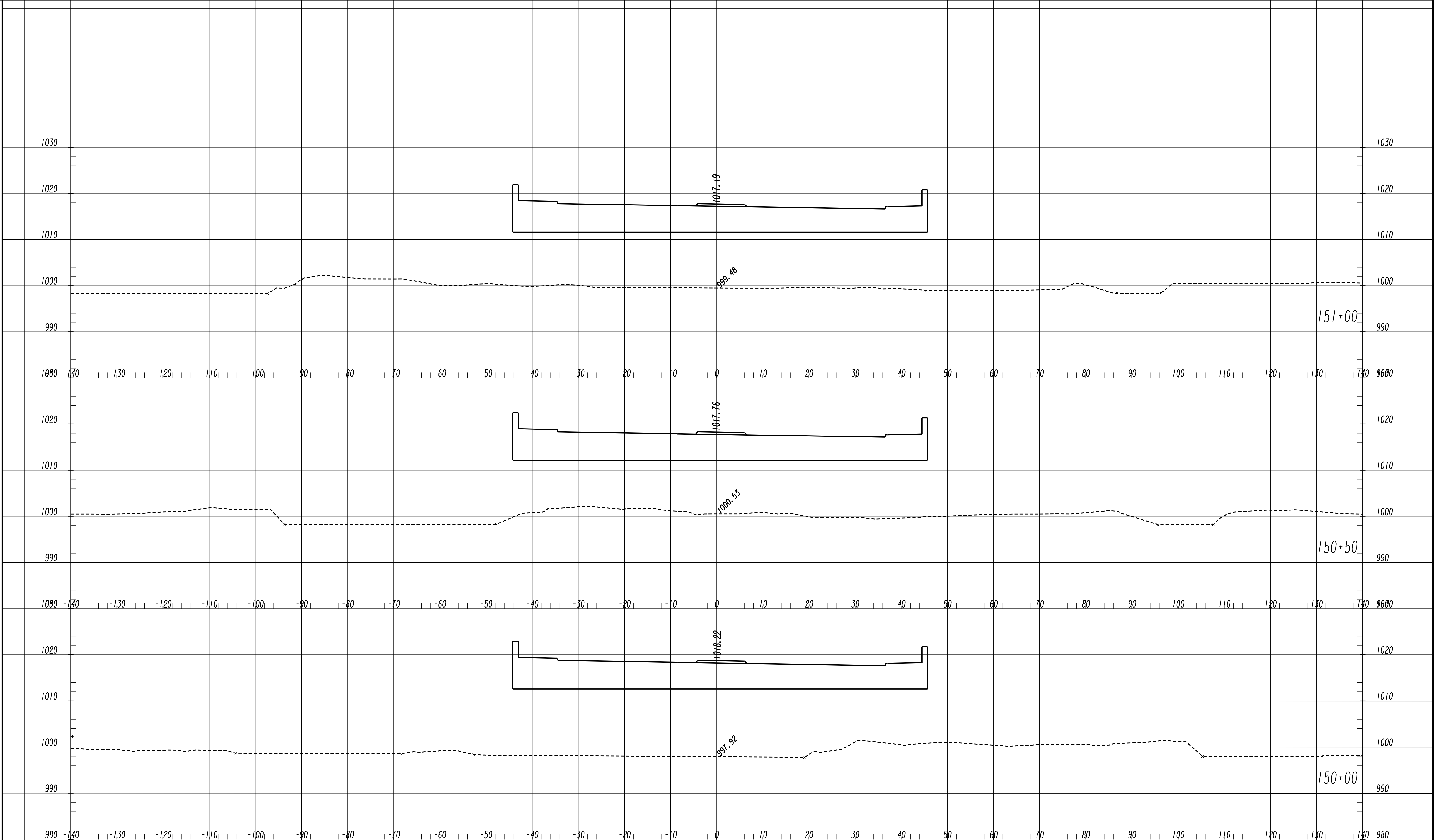
RONALD REAGAN BLVD EXTENSION

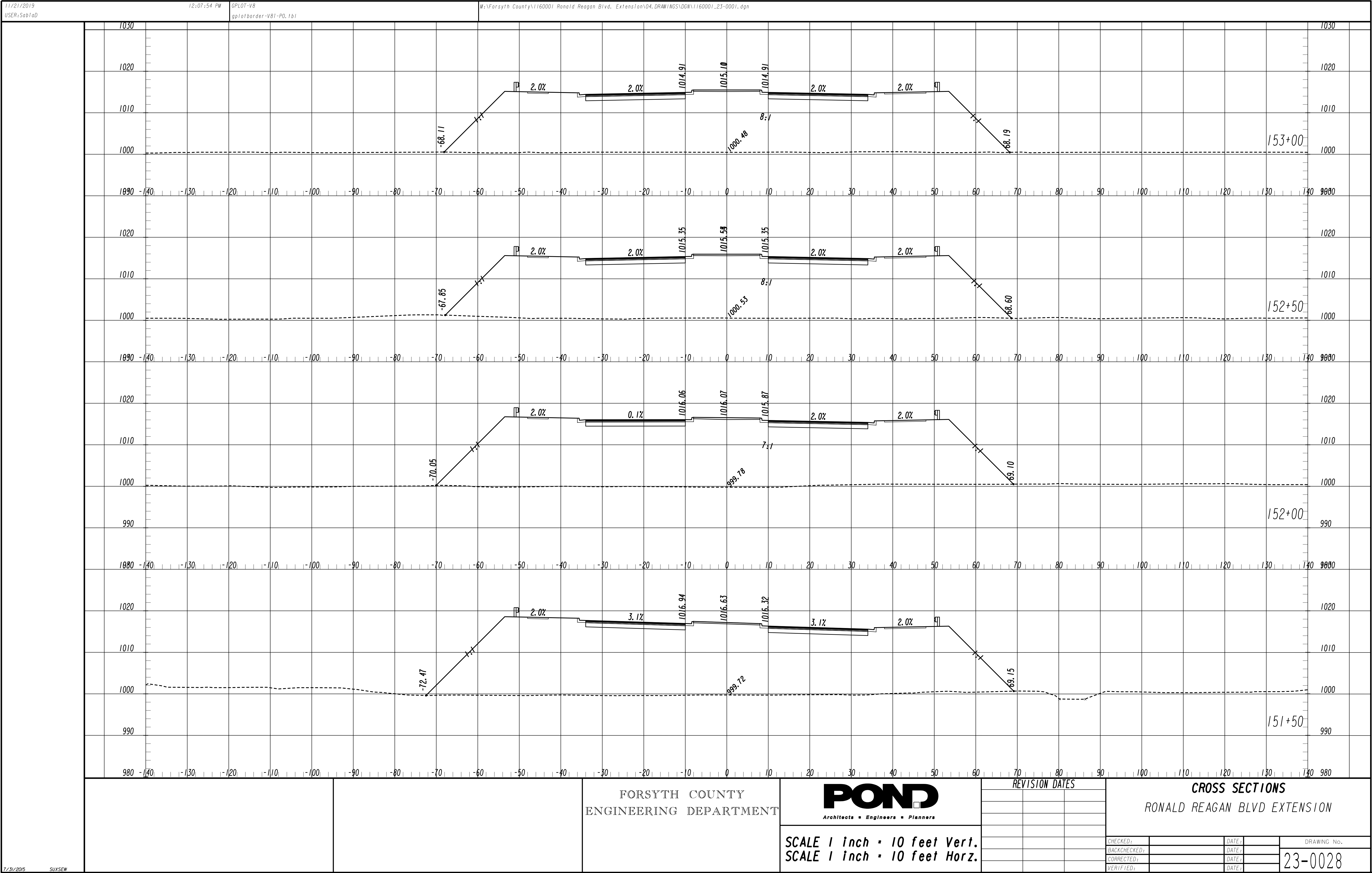
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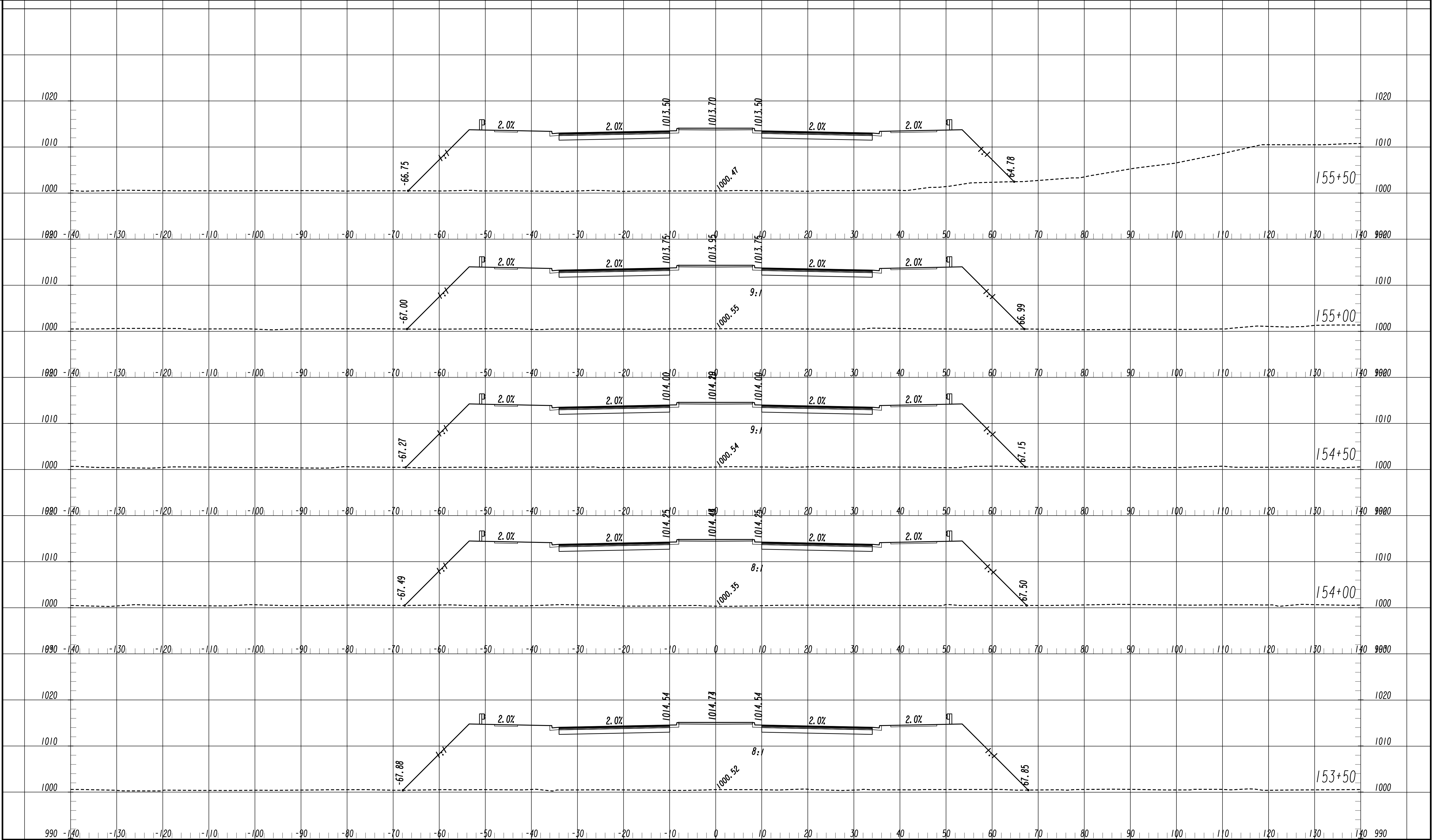


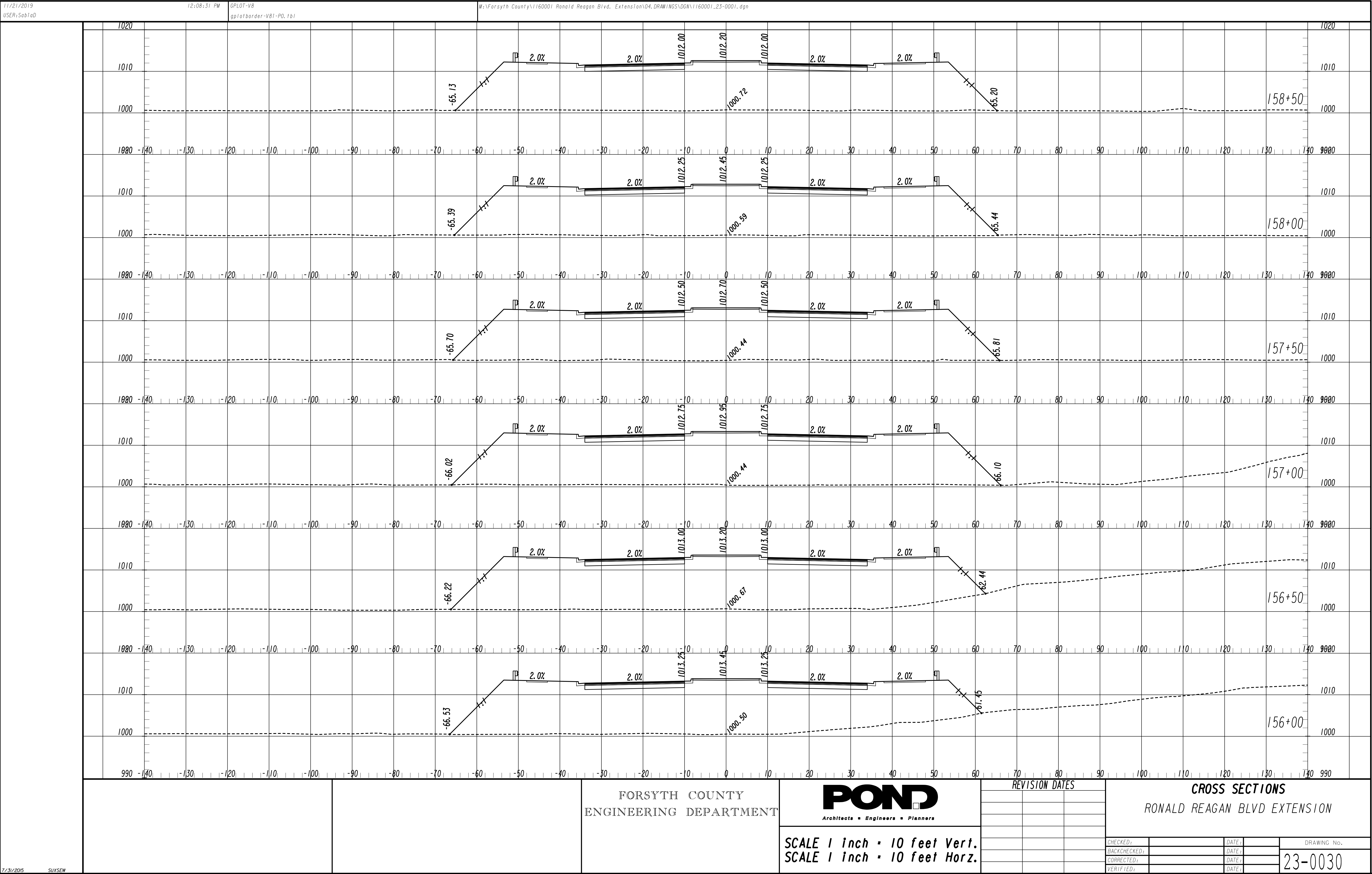


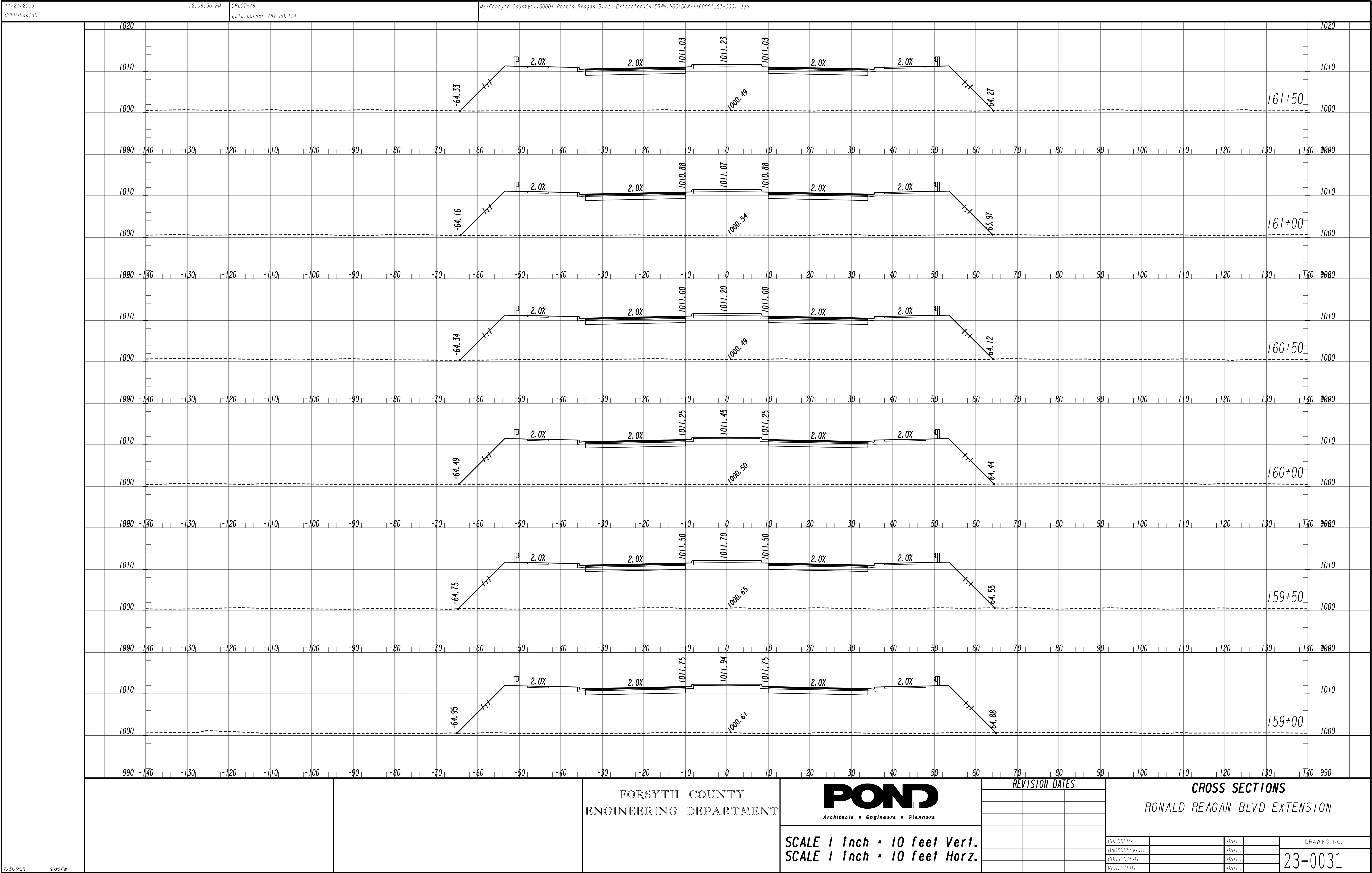


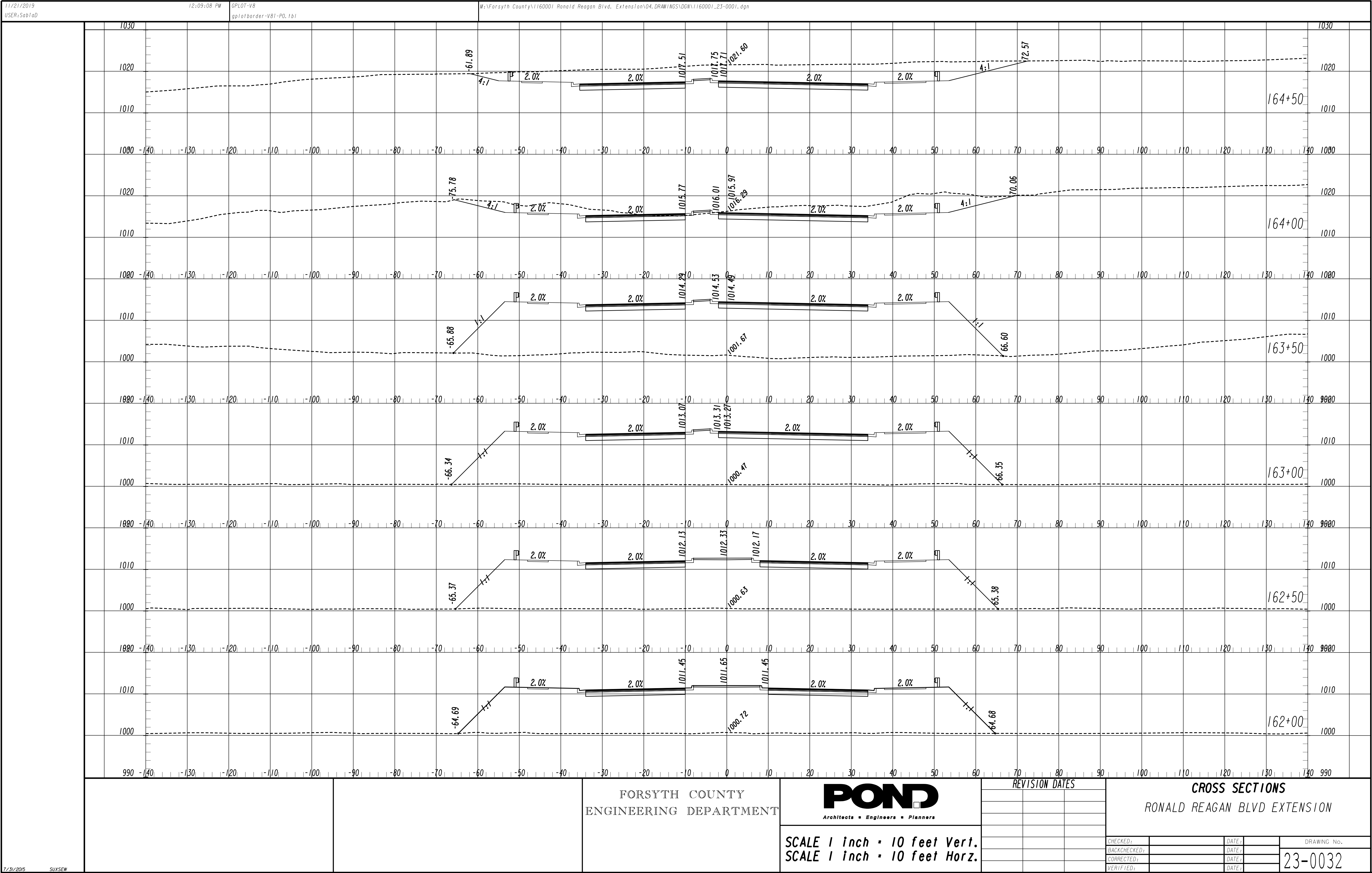


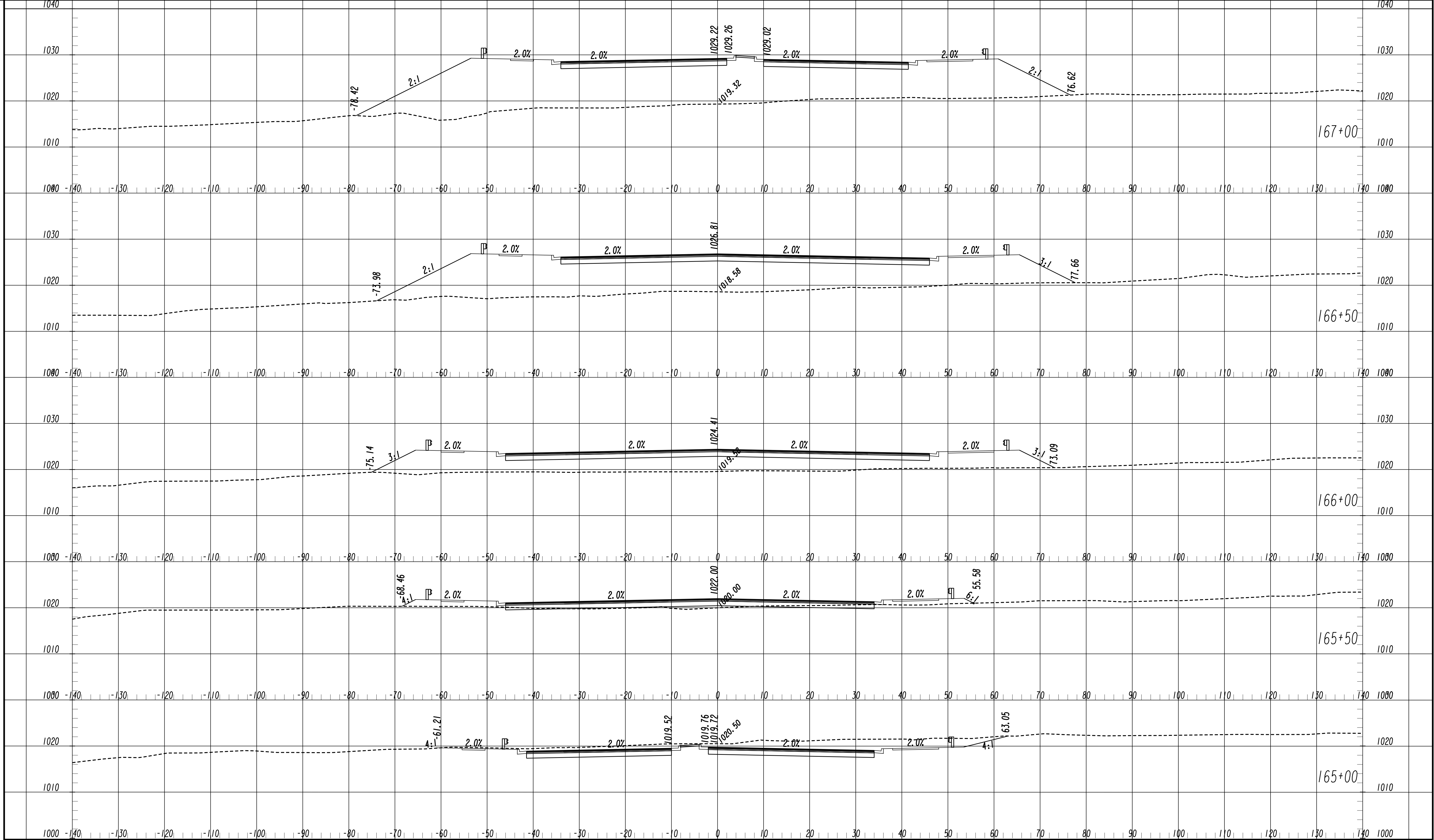


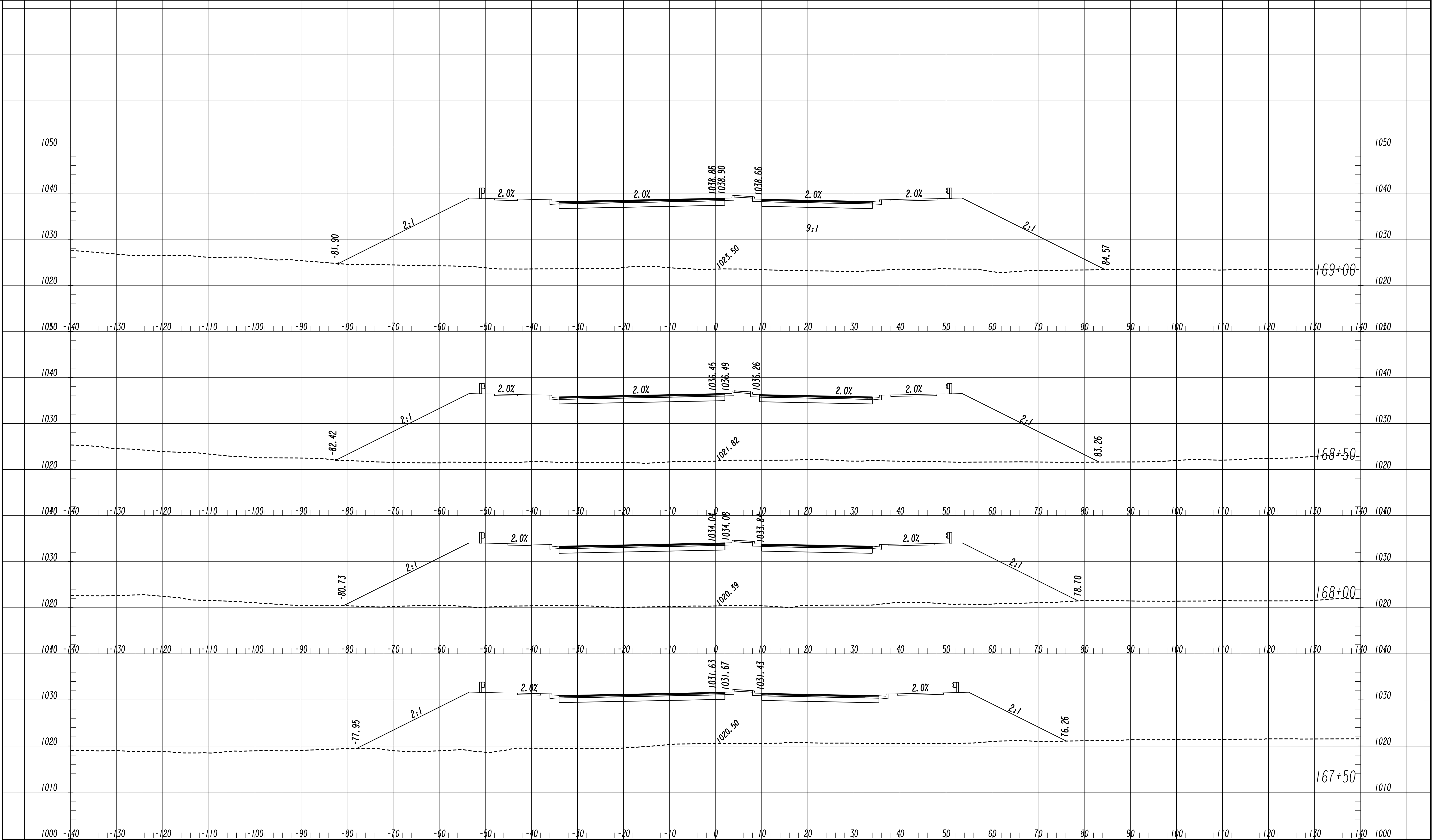














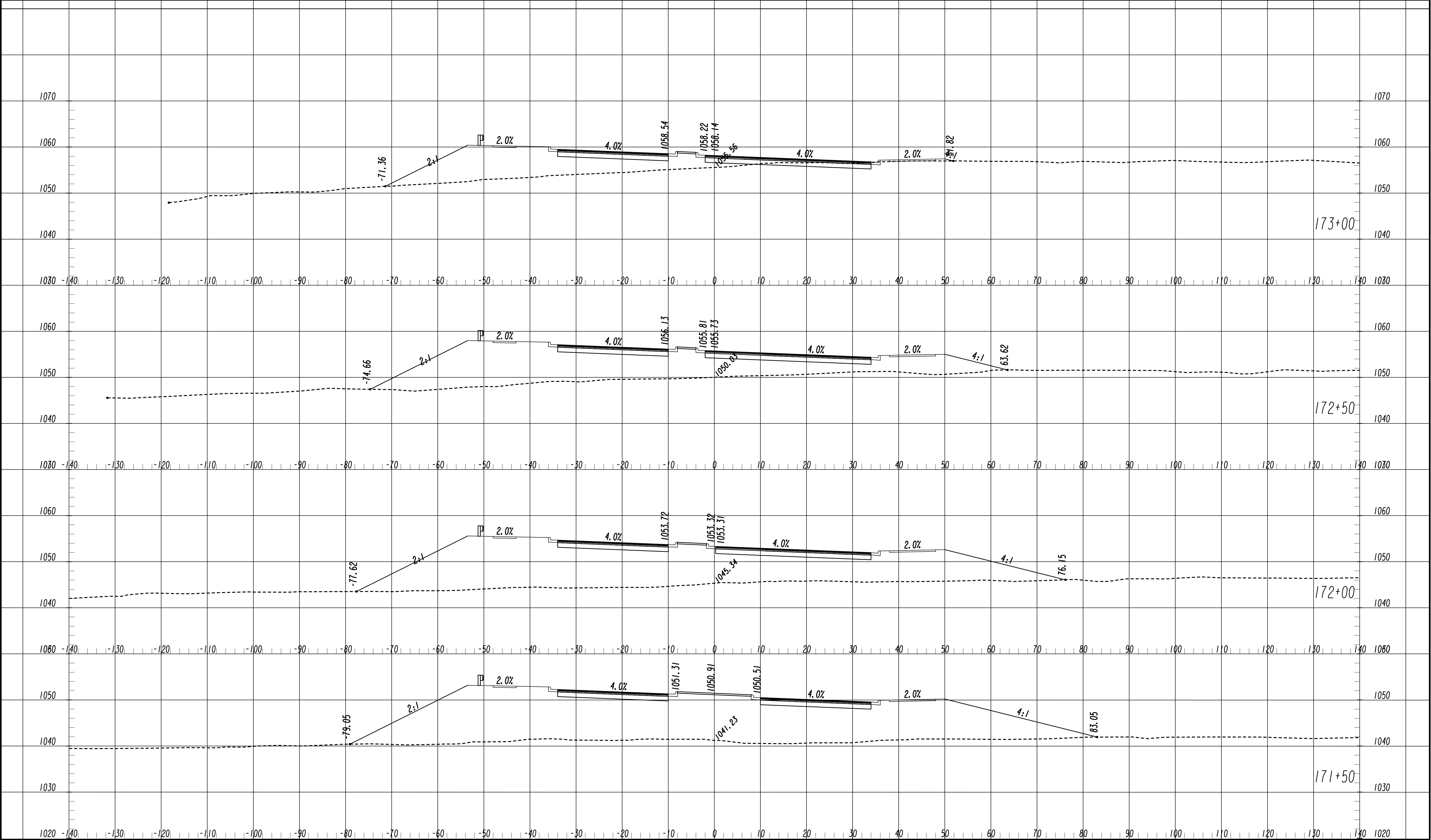
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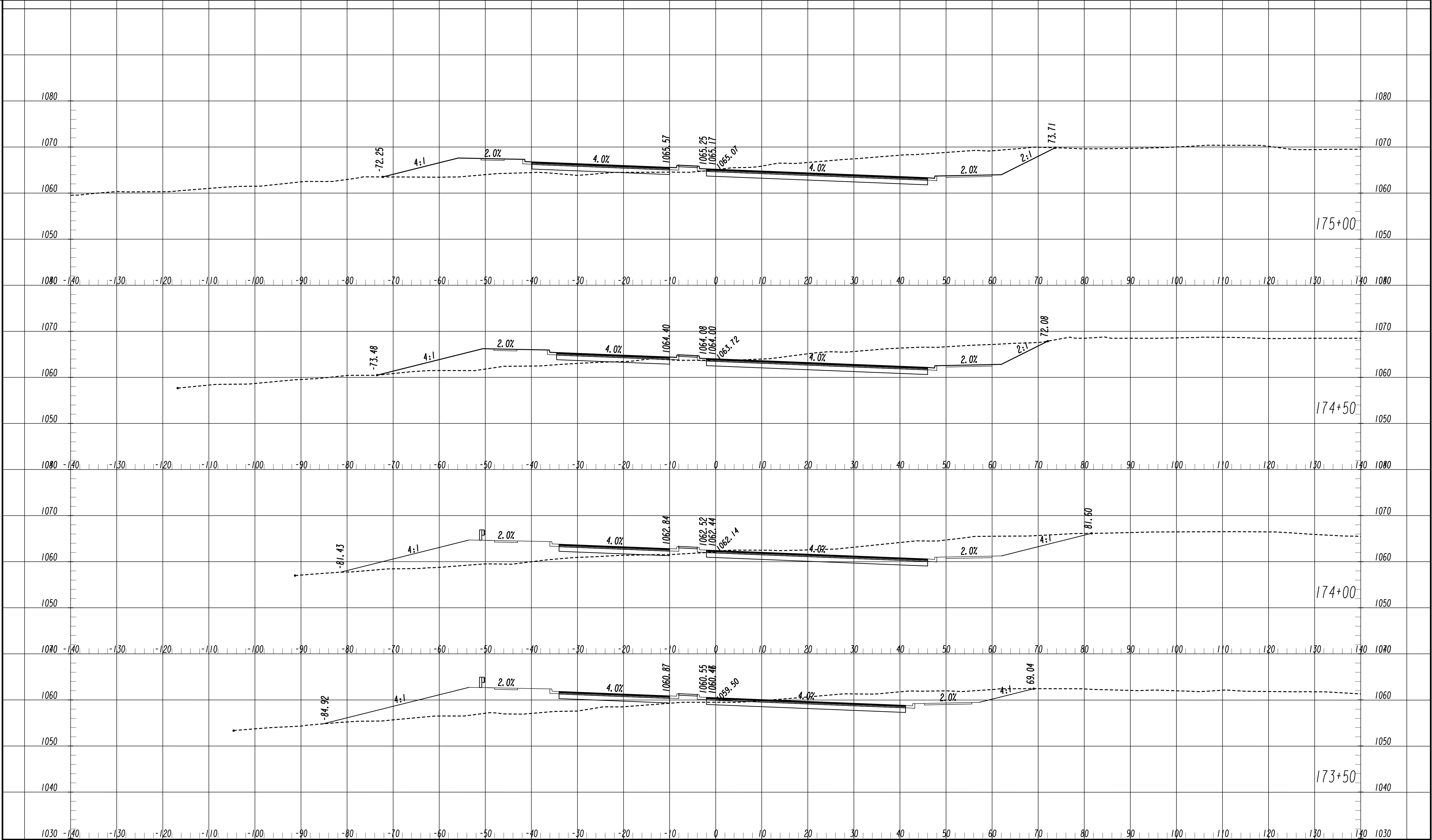
REVISION DATES

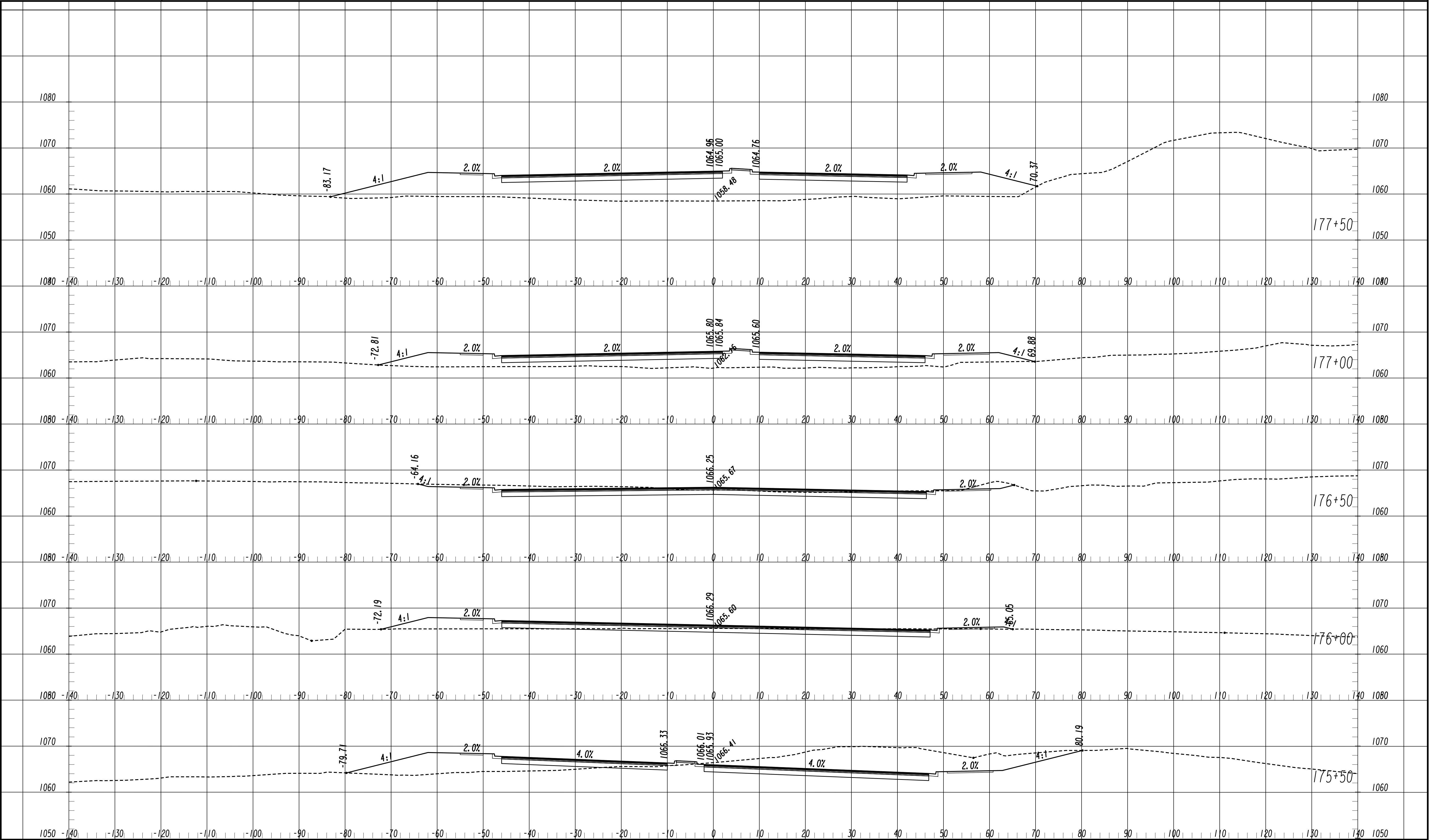
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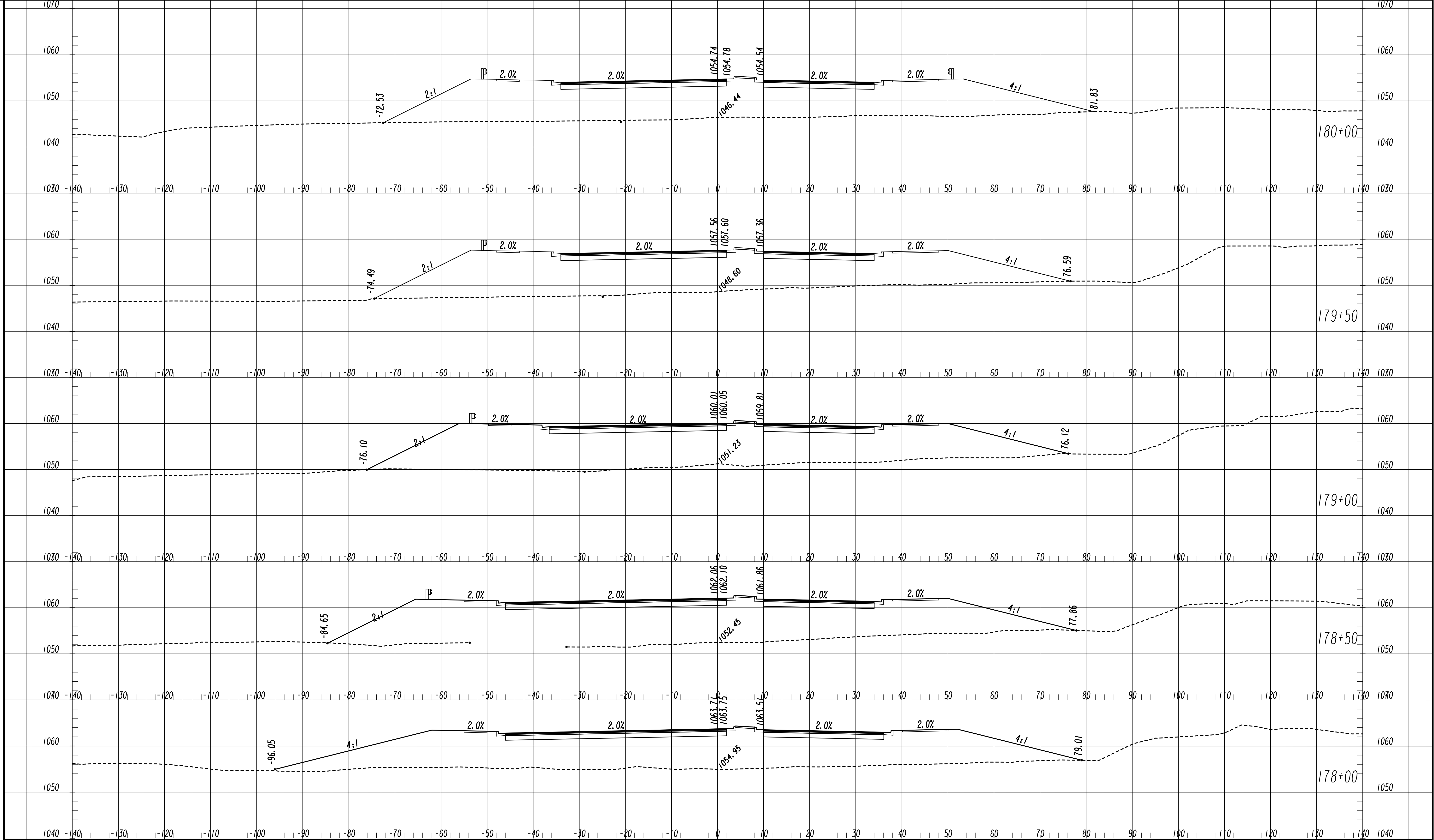
RONALD REAGAN BLVD EXTENSION

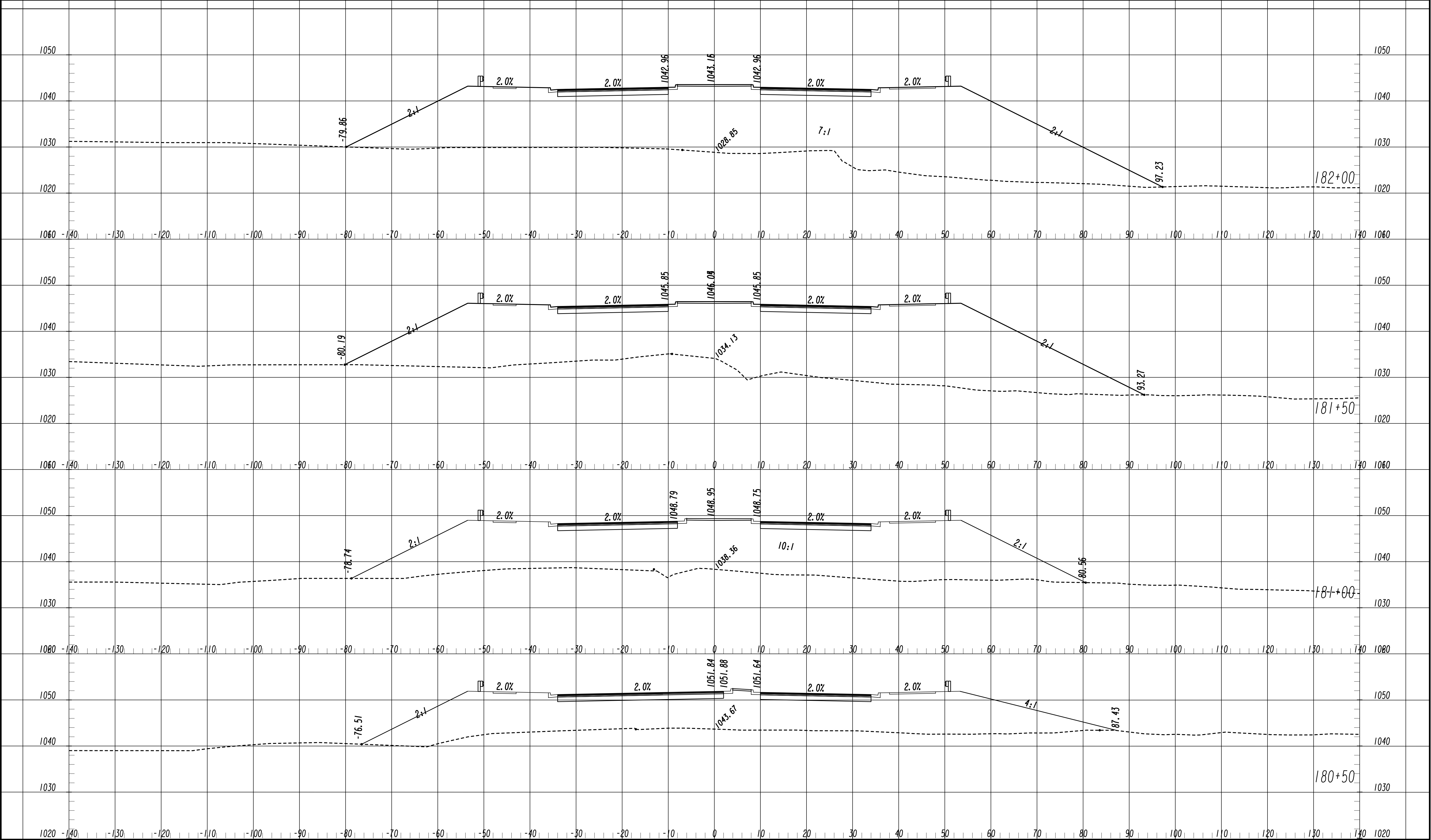
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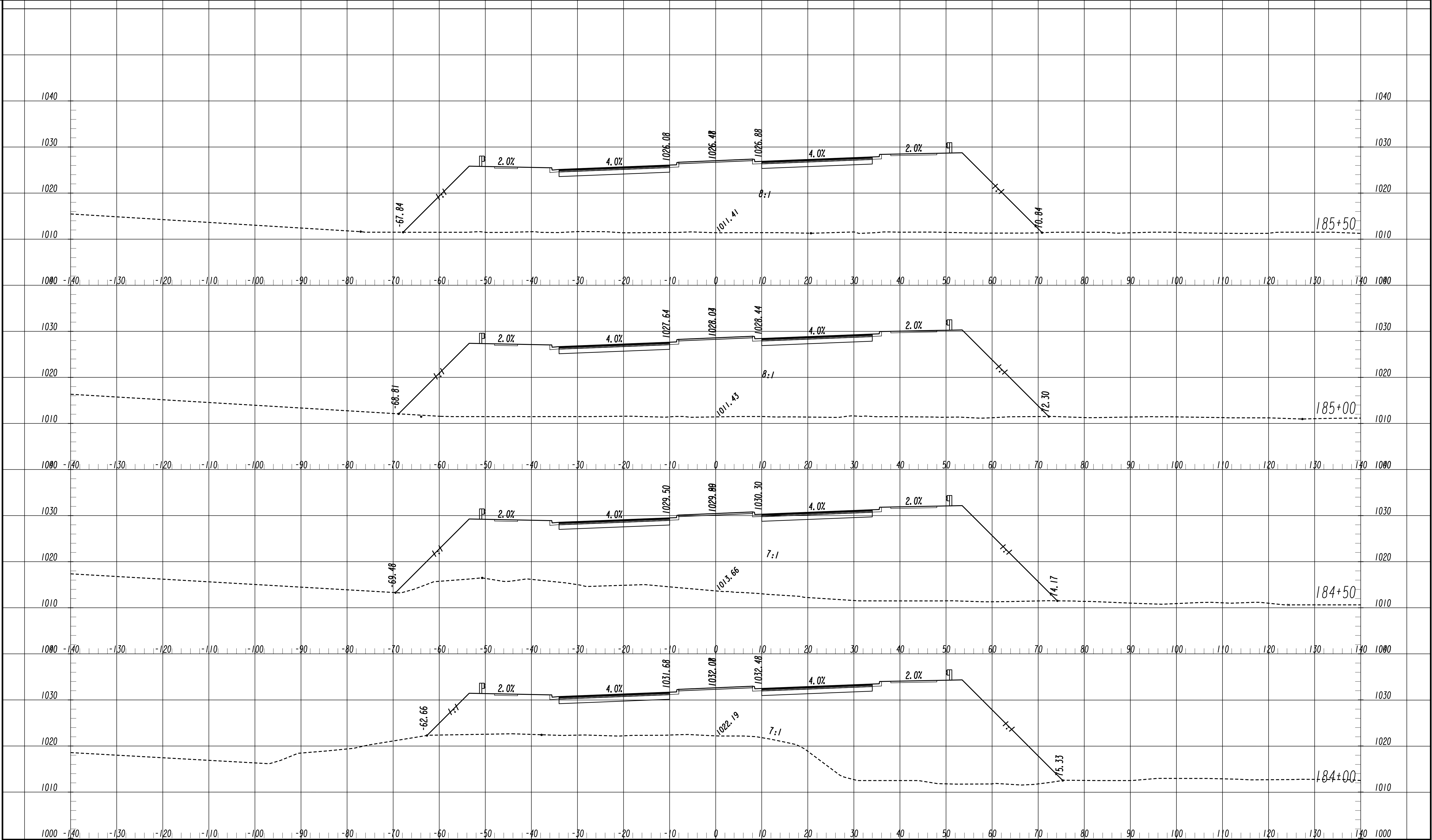
POND
Architects ■ Engineers ■ Planners

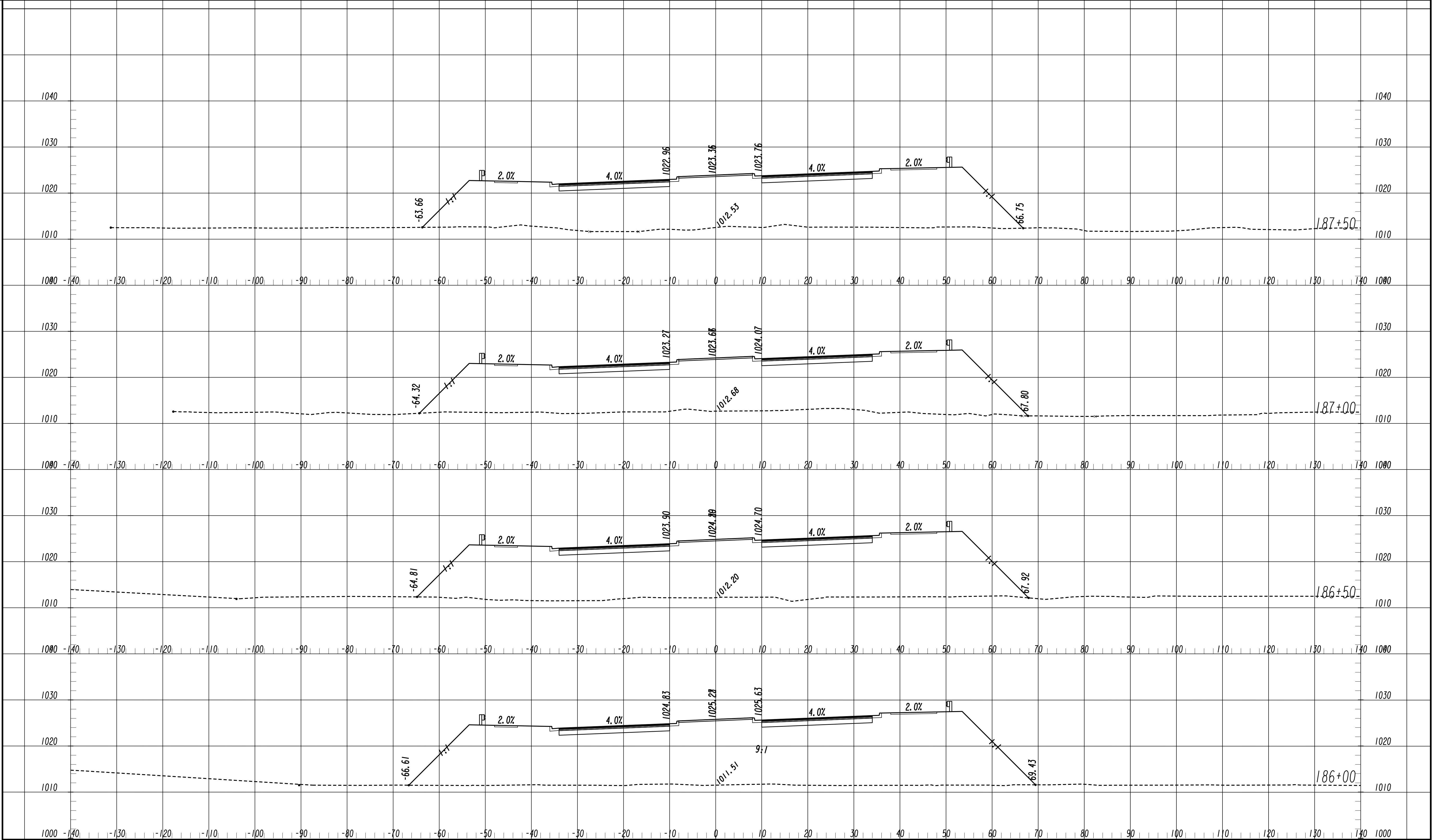
70			90	
REVISION DATES				

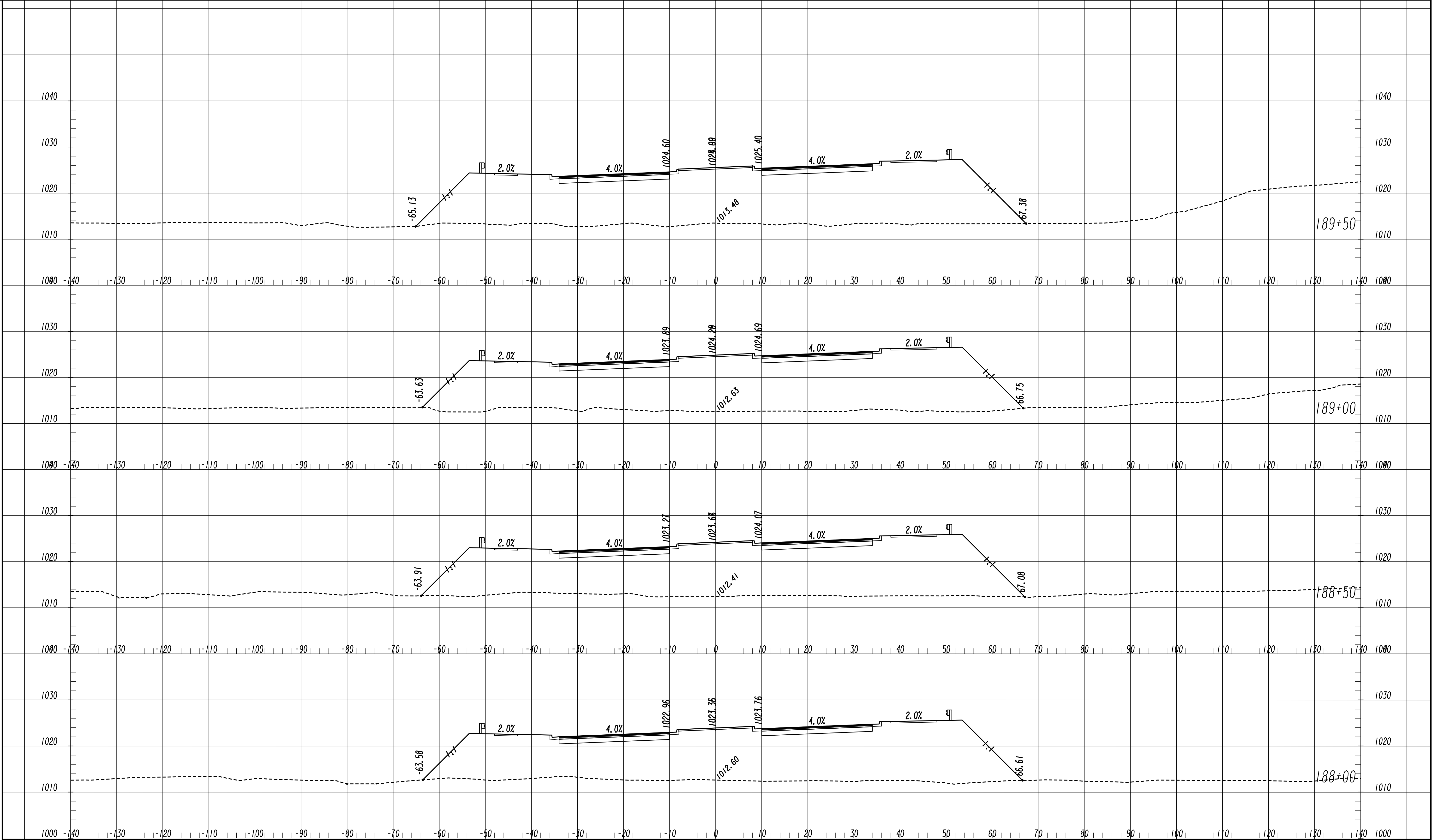
CROSS SECTIONS

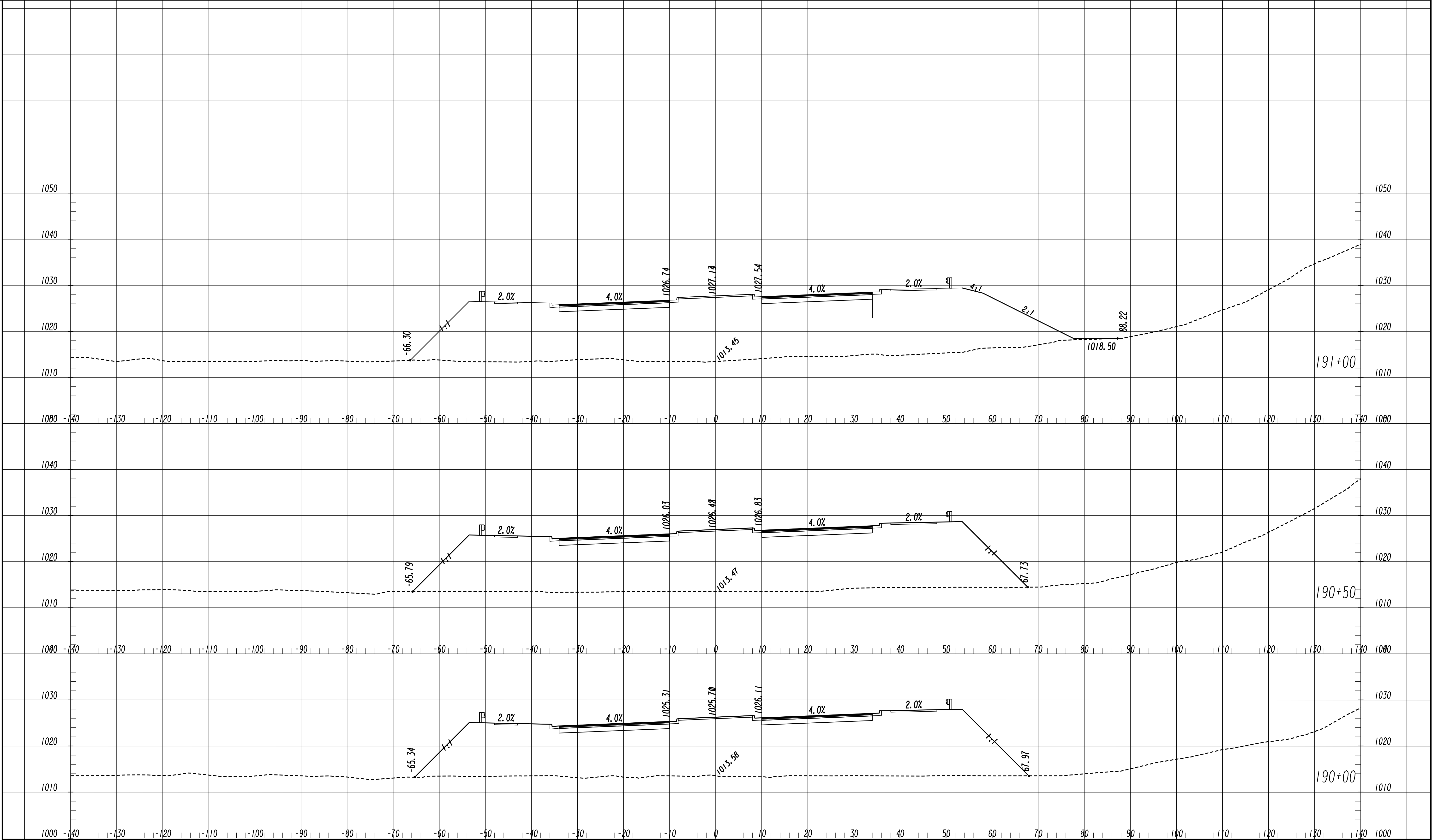
RONALD REAGAN BLVD EXTENSION

CHECKED:		DATE:		DRAWING No. 23-0041
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CORRECTED:		DATE:		
VERIFIED:		DATE:		









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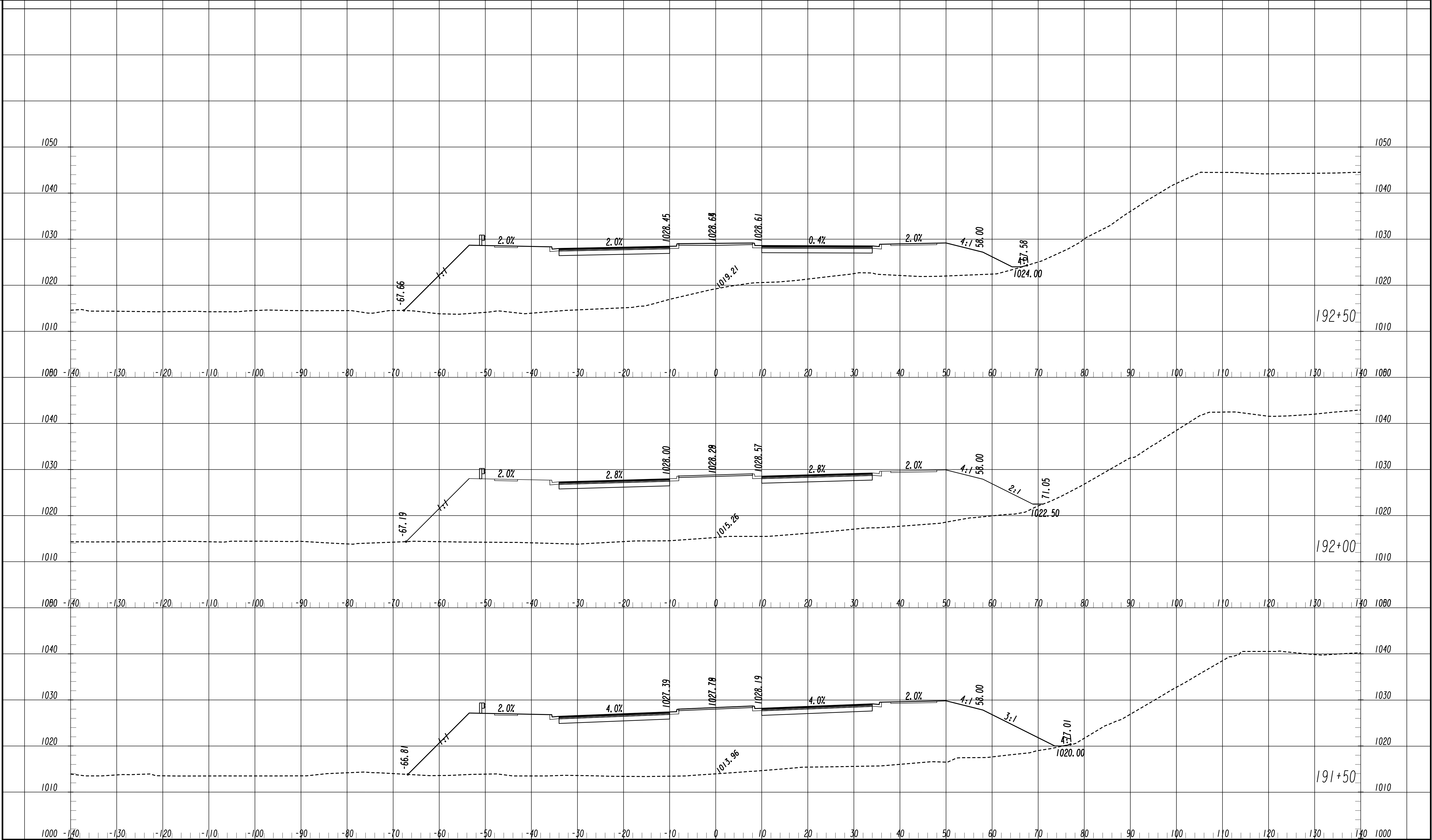


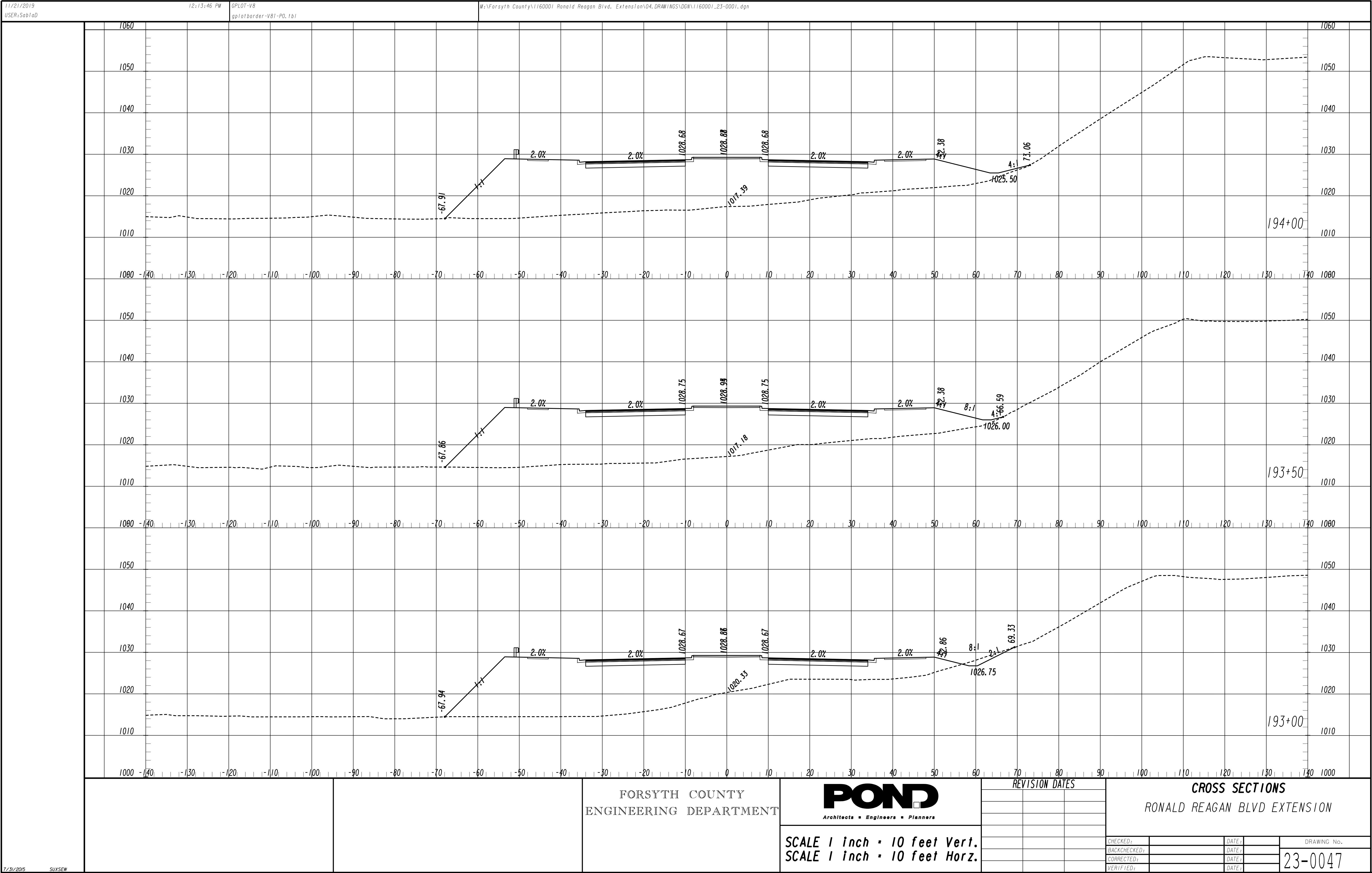
SCALE 1 inch = 10 feet Vert.
SCALE 1 inch = 10 feet Horz.

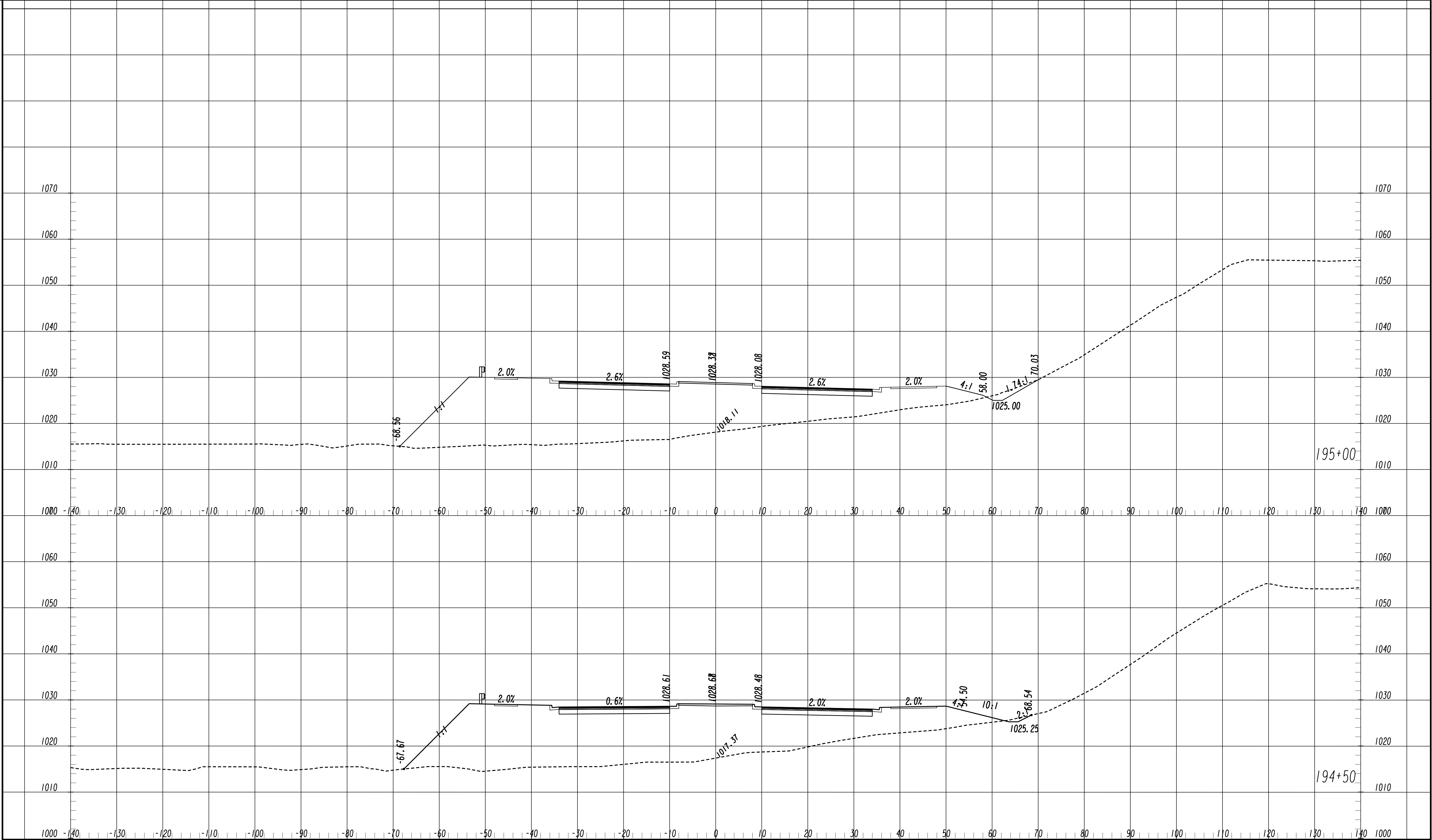
REVISION DATES

CROSS SECTIONS
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CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		23-0045









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70				90	
REVISION DATES					

CROSS SECTIONS

RONALD REAGAN BLVD EXTENSION

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CORRECTED:		DATE:		
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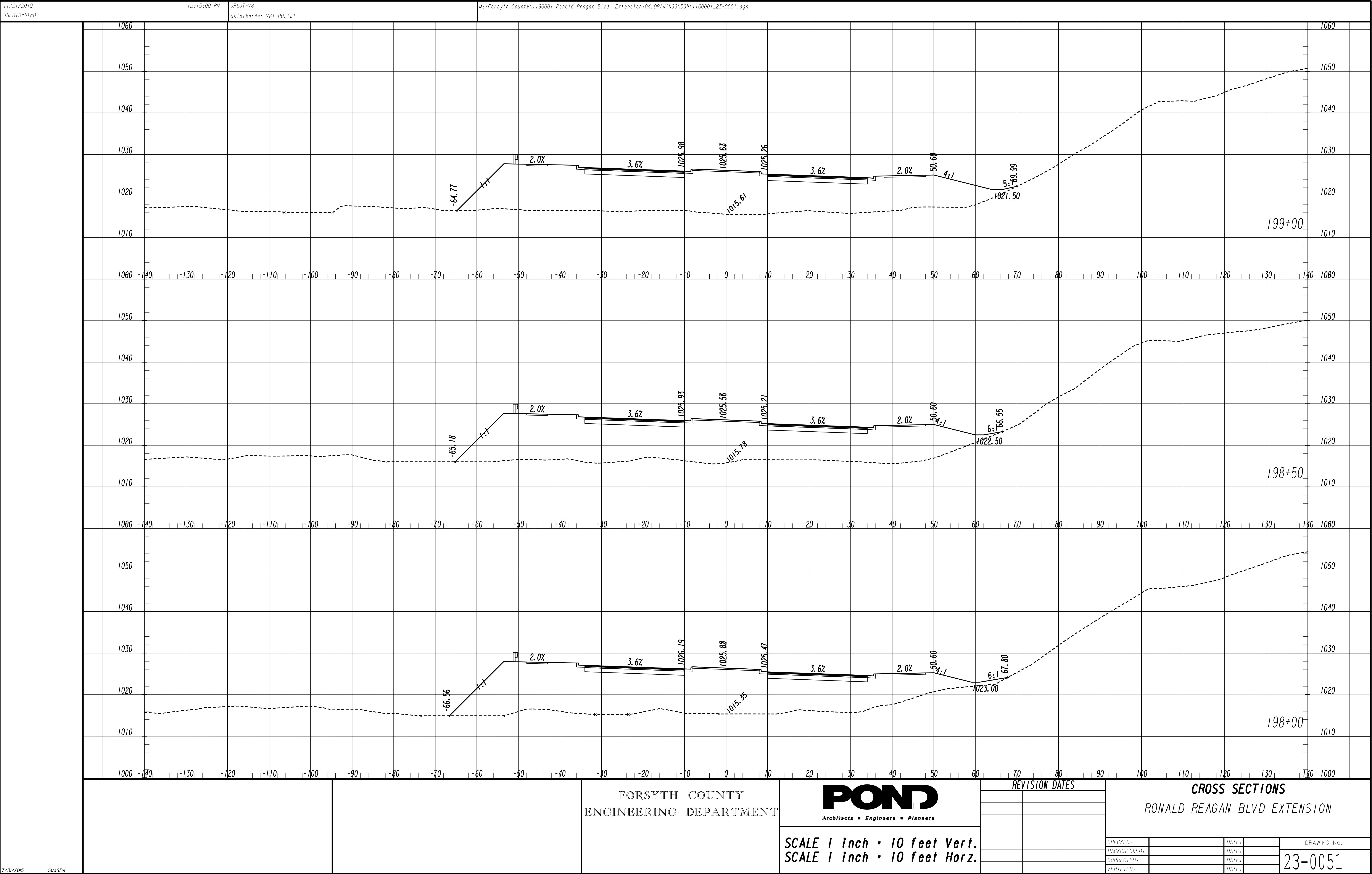
POND
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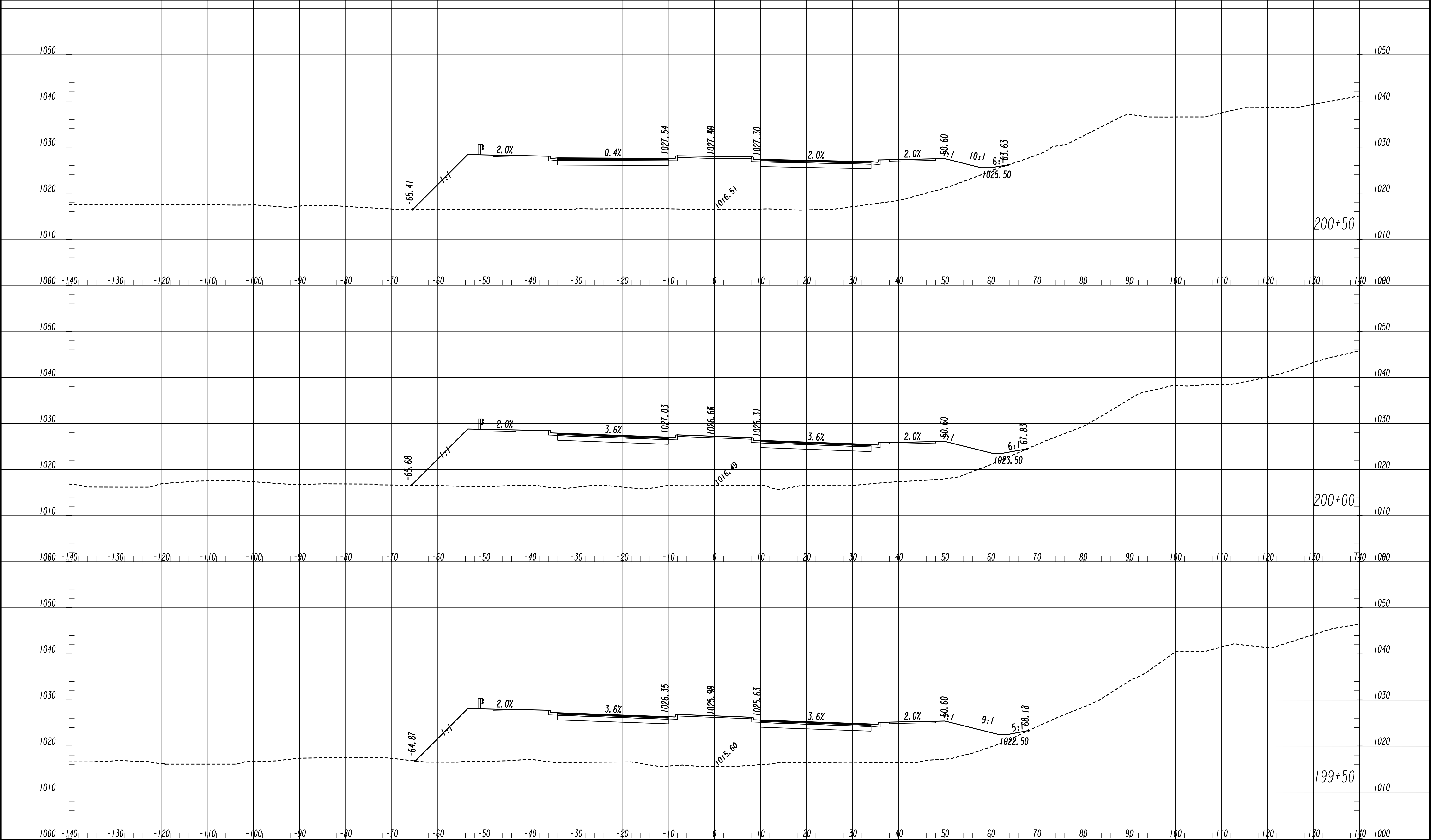
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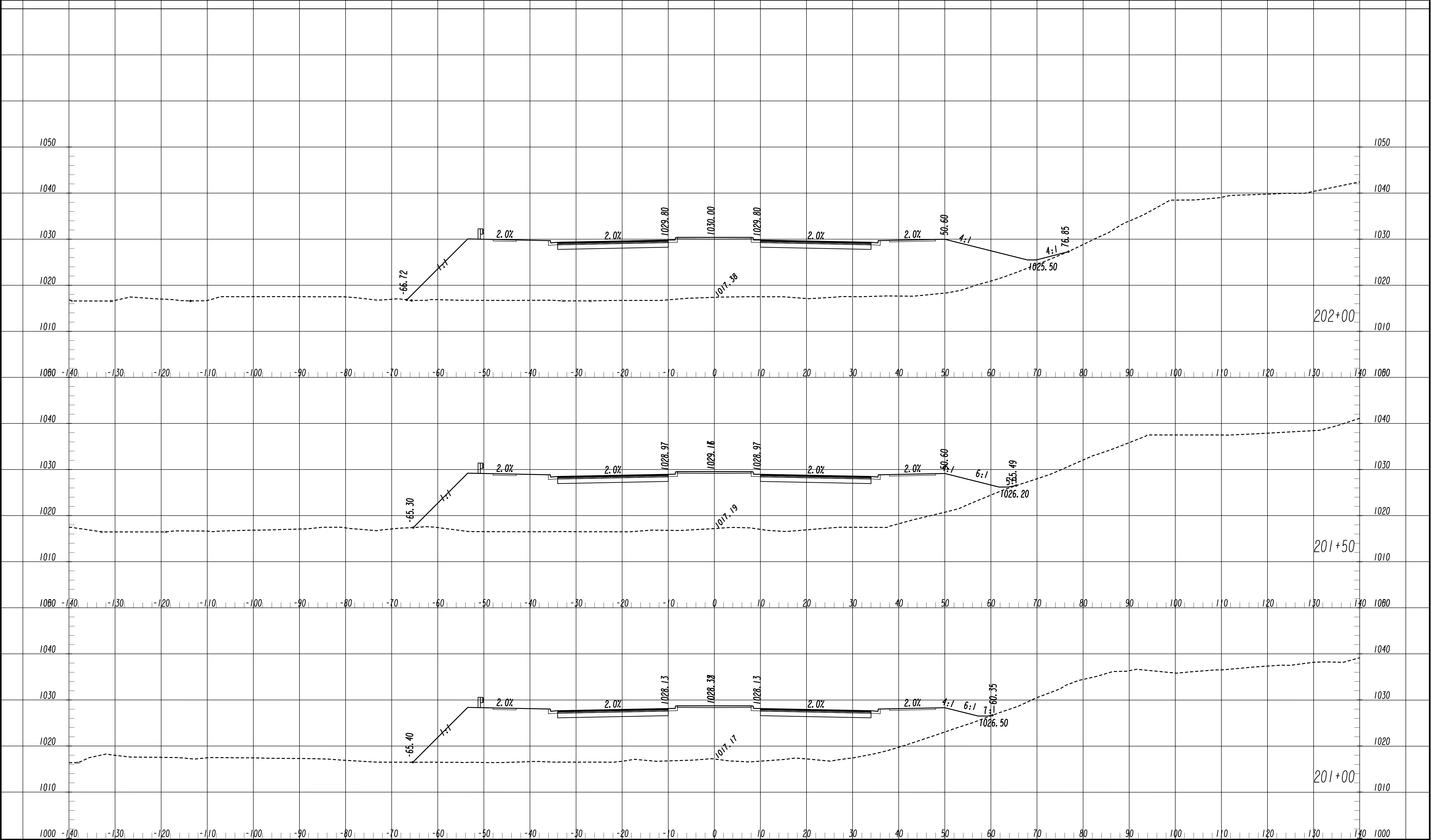
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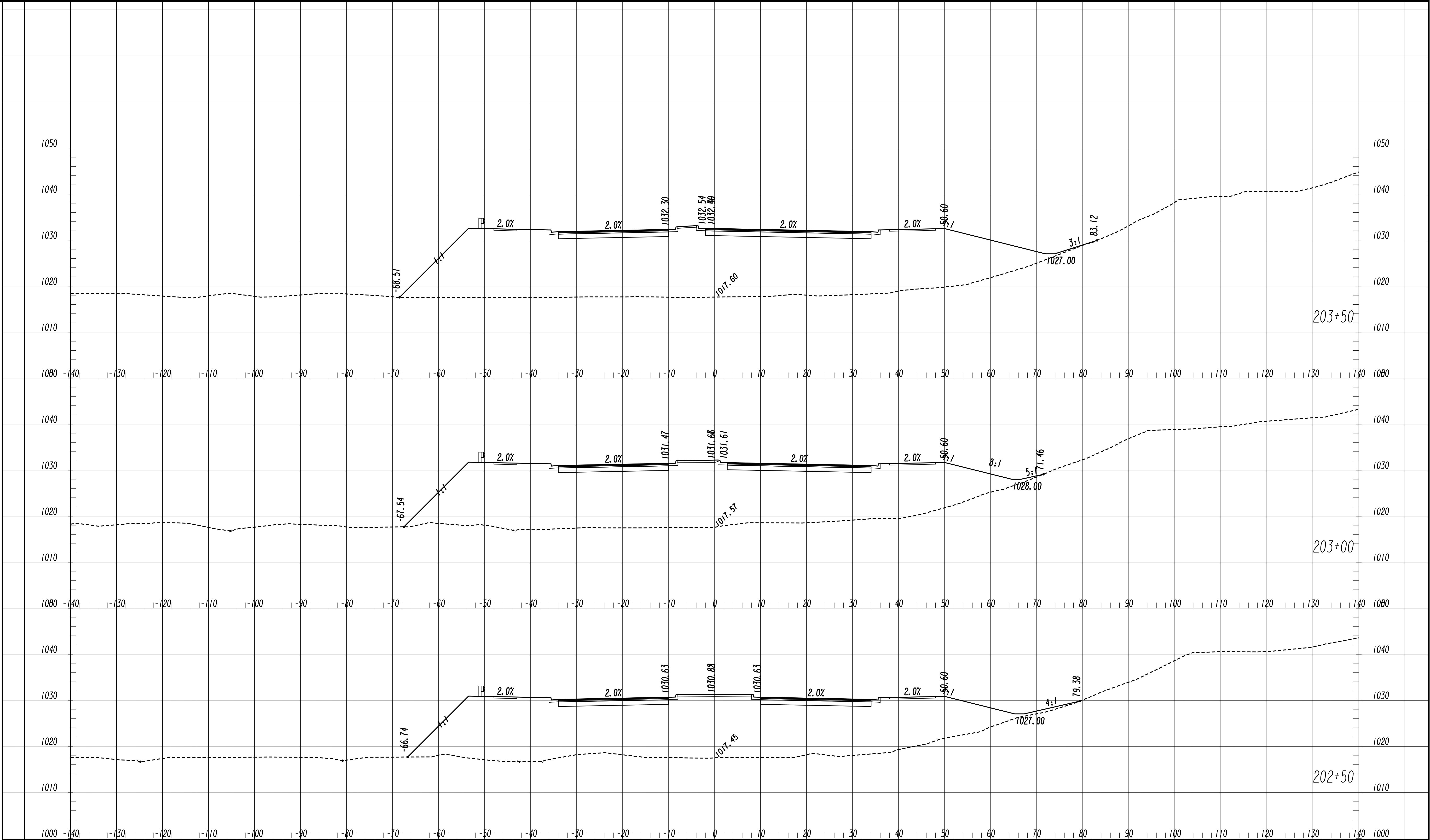
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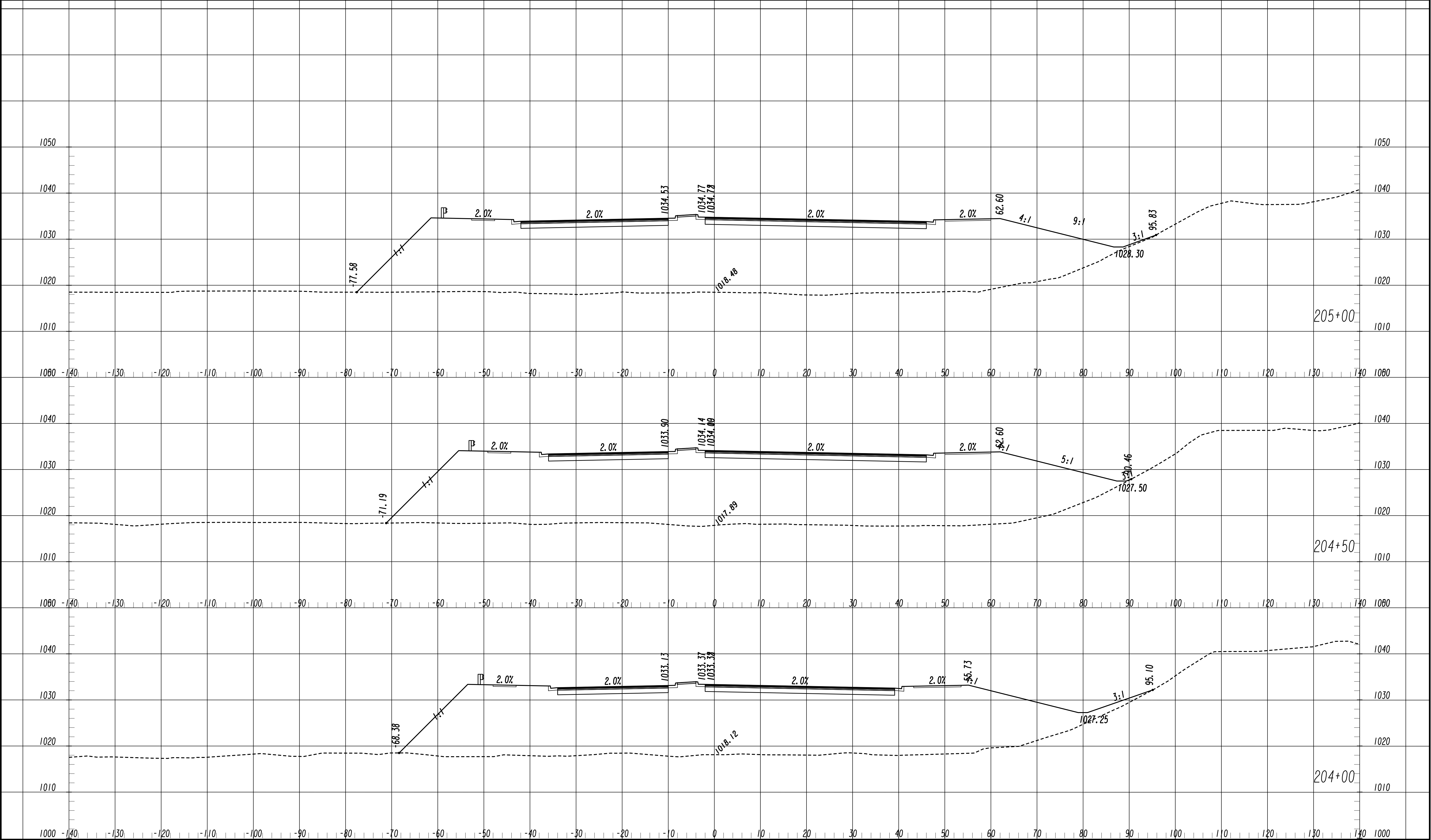
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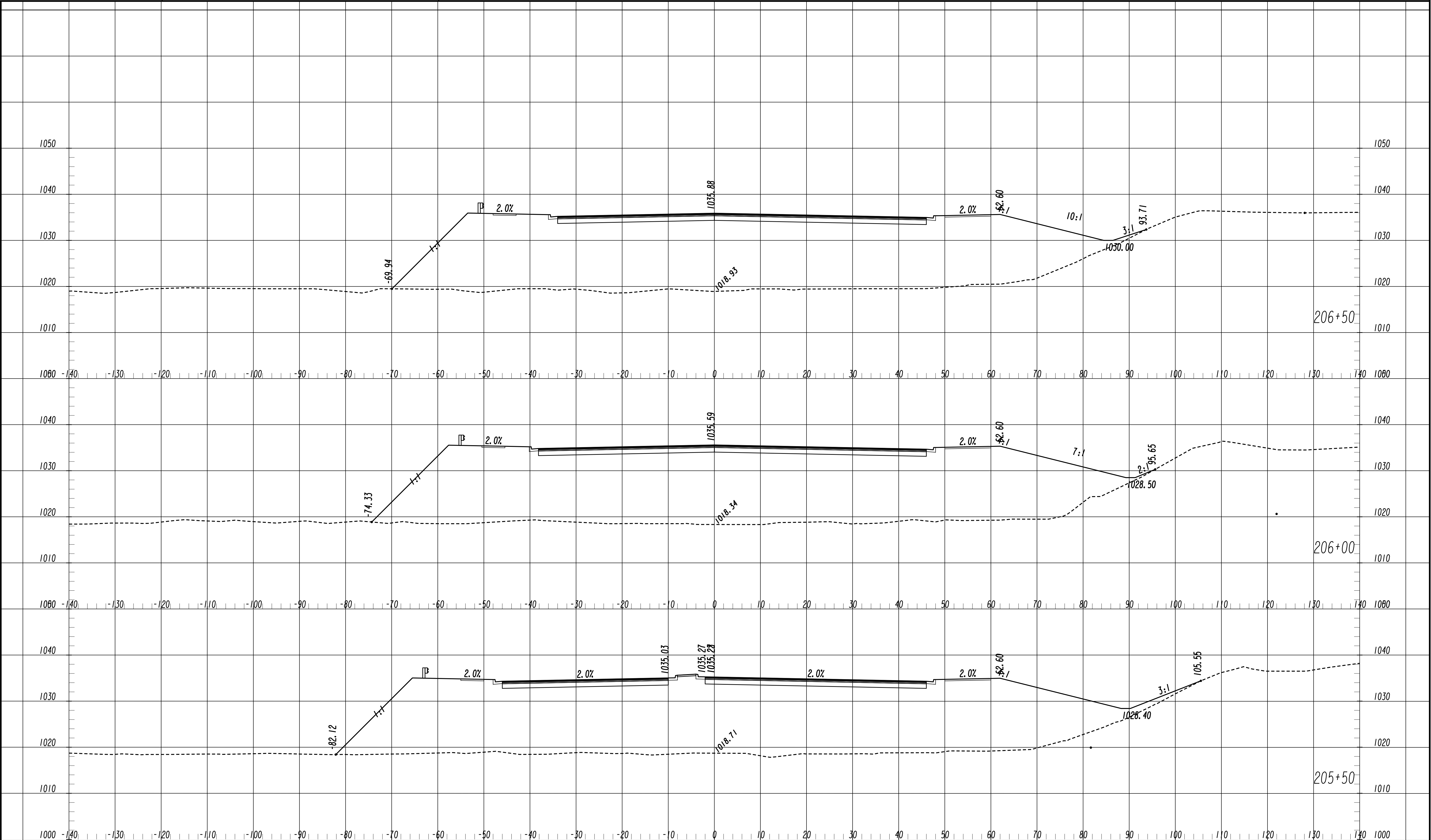


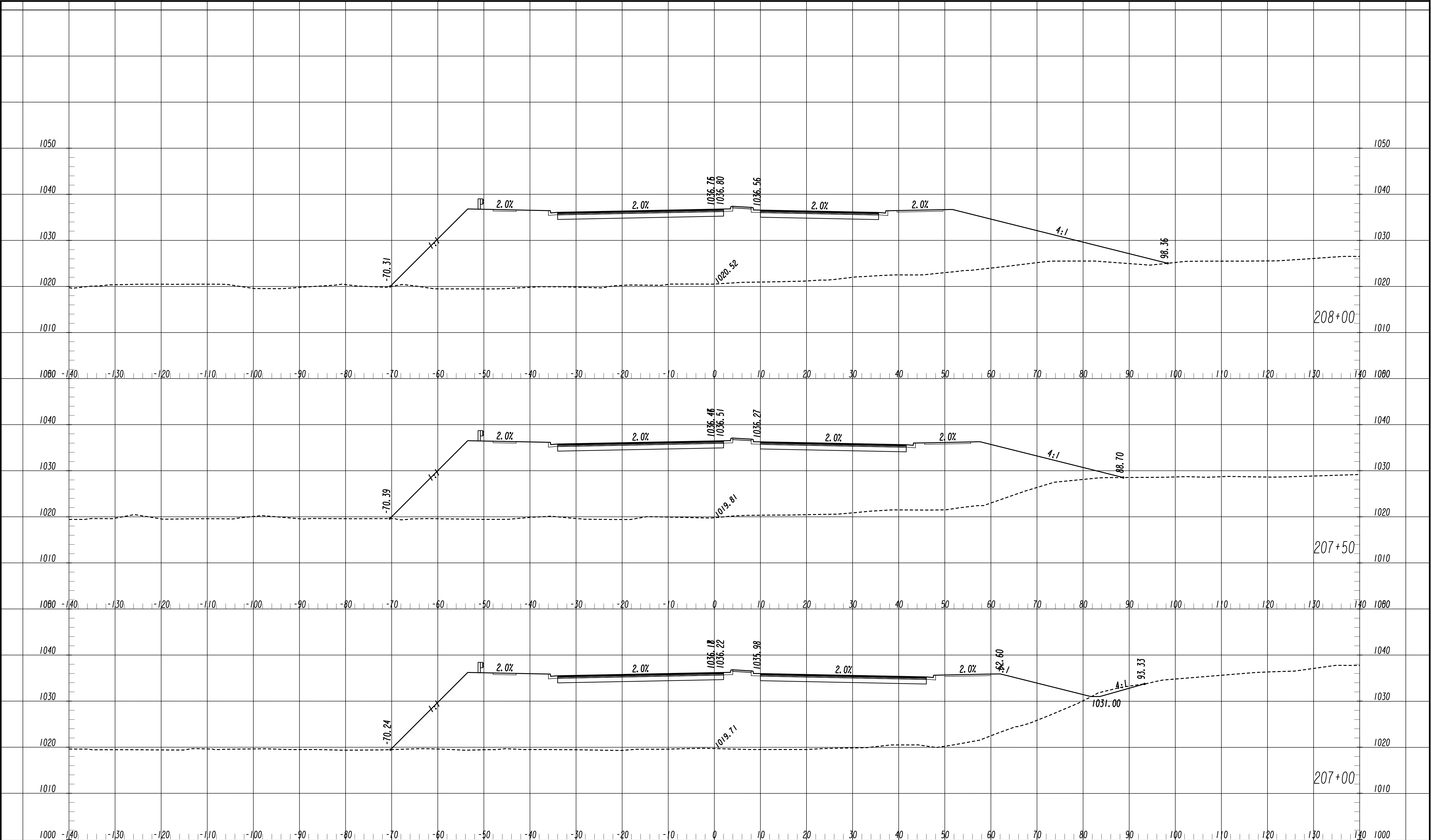


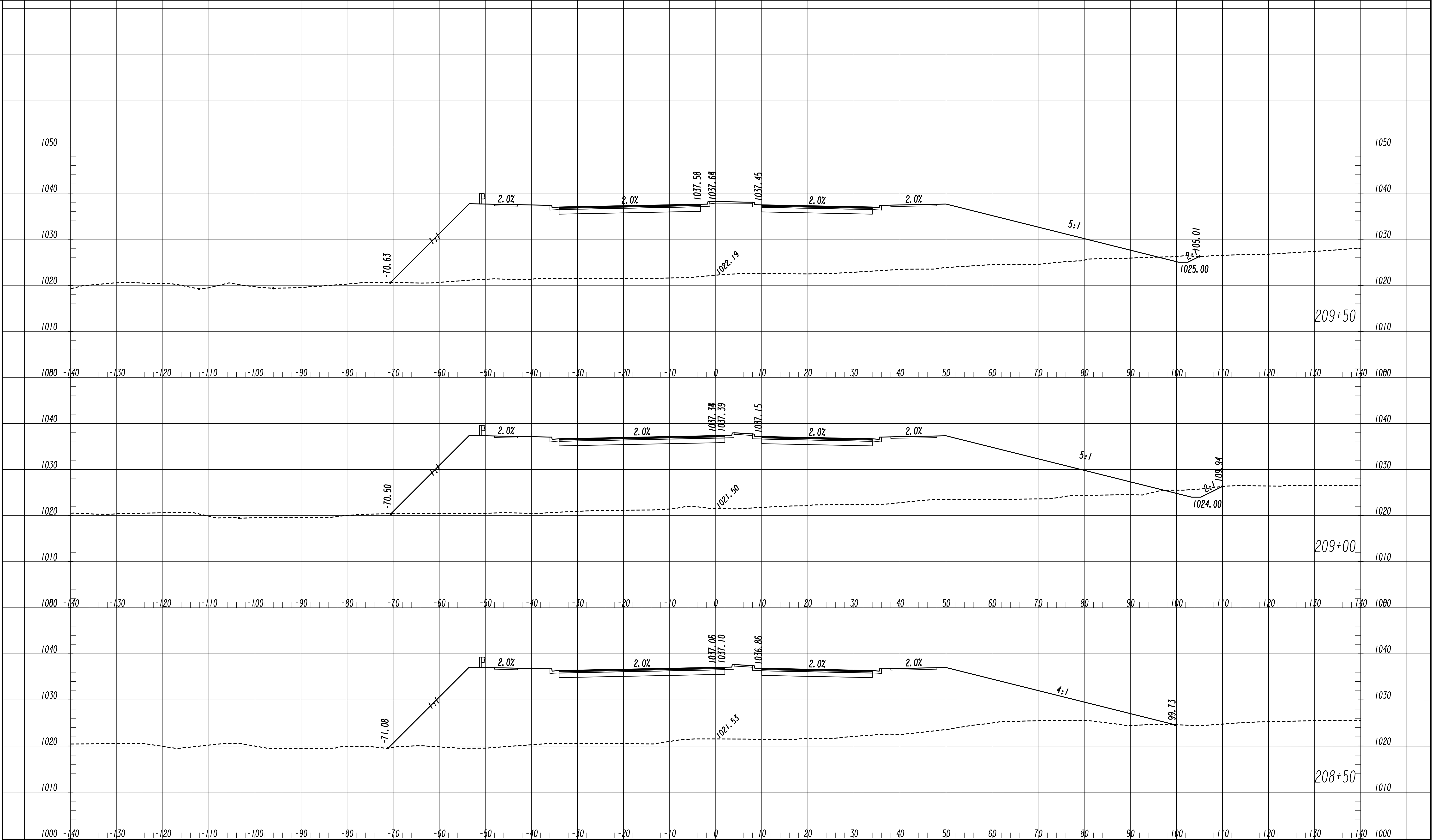


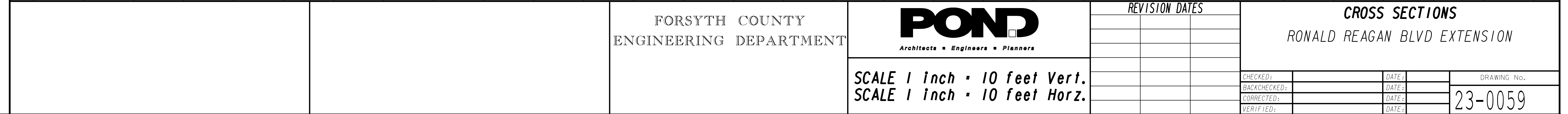












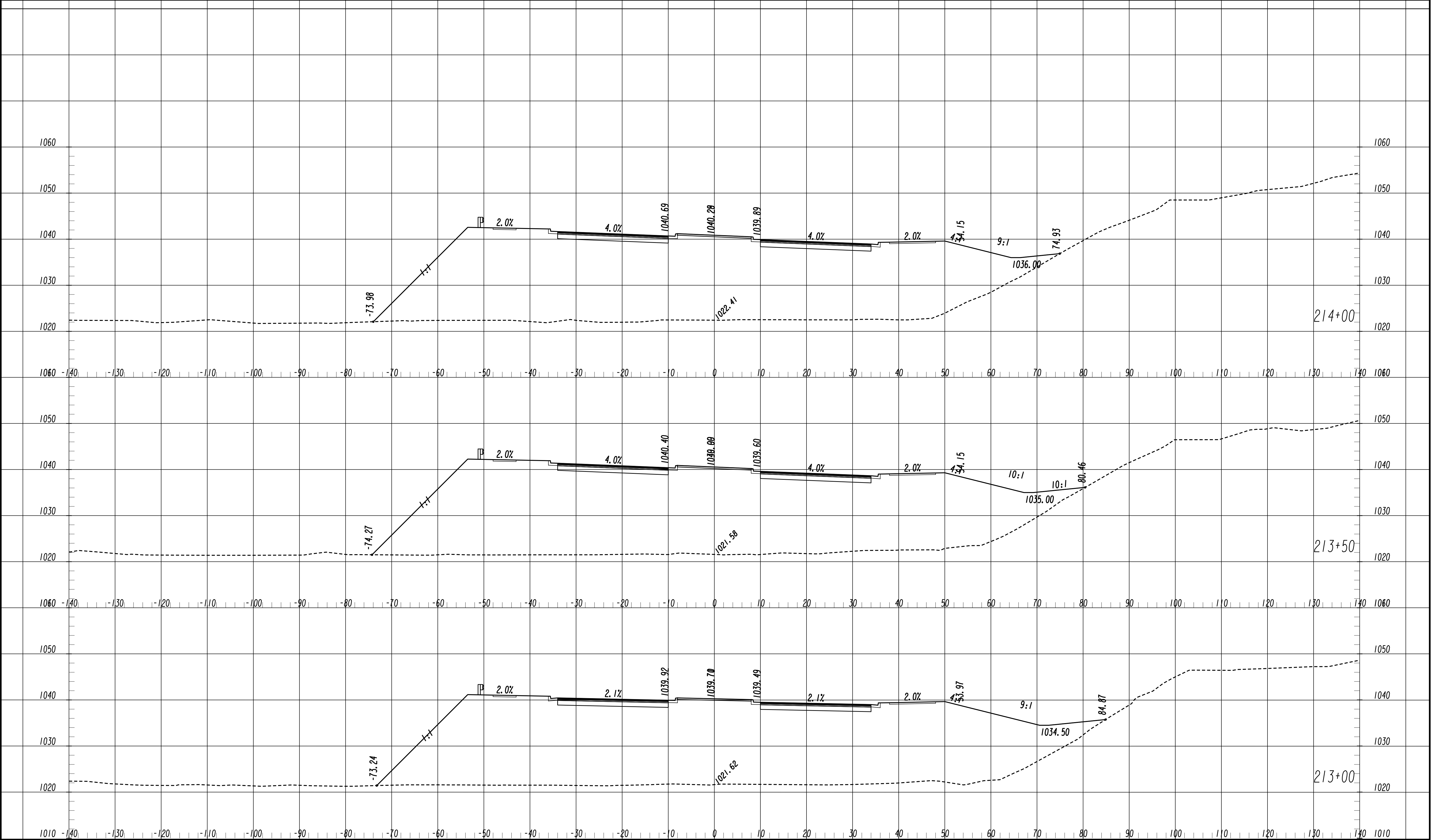


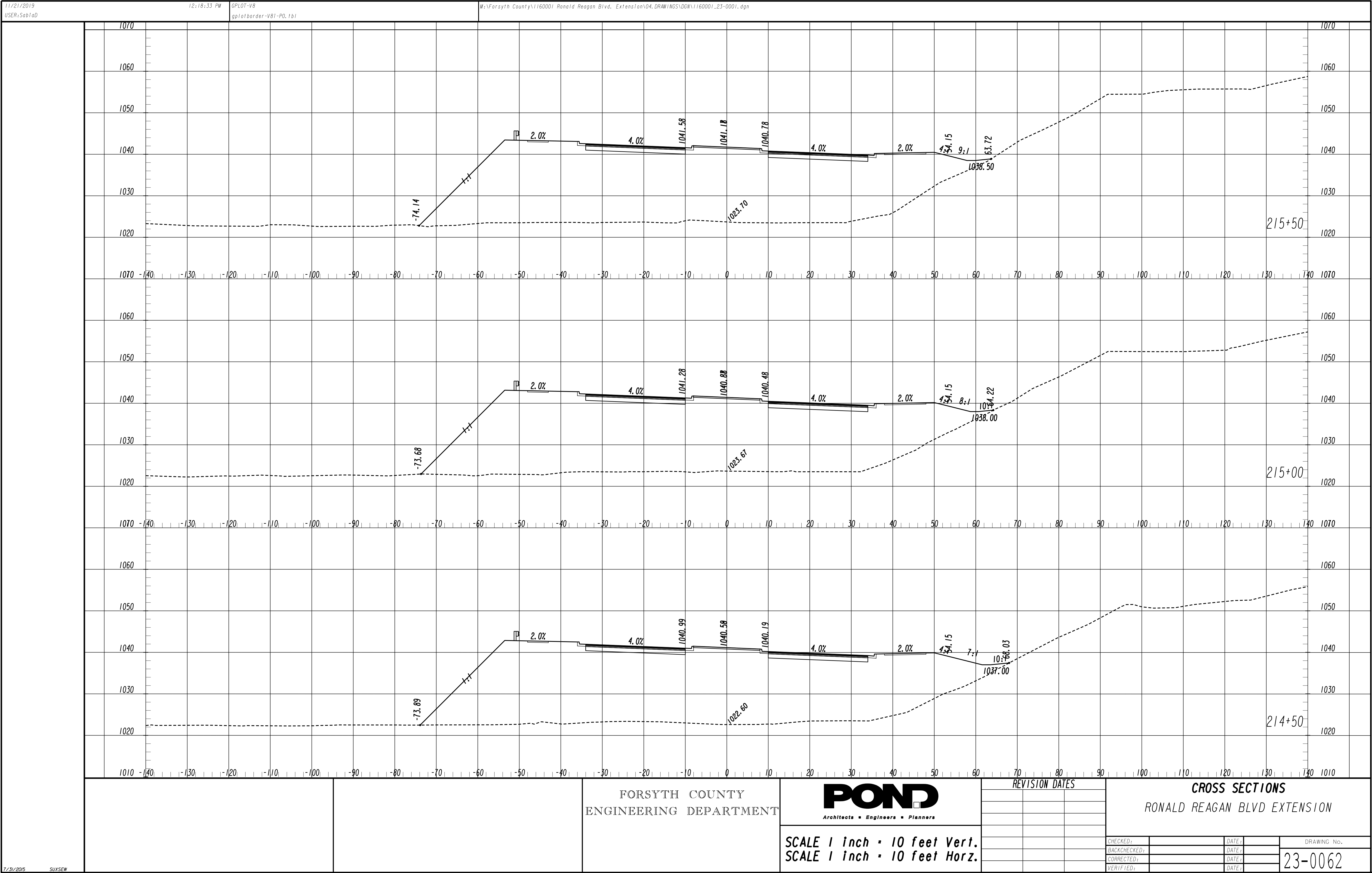
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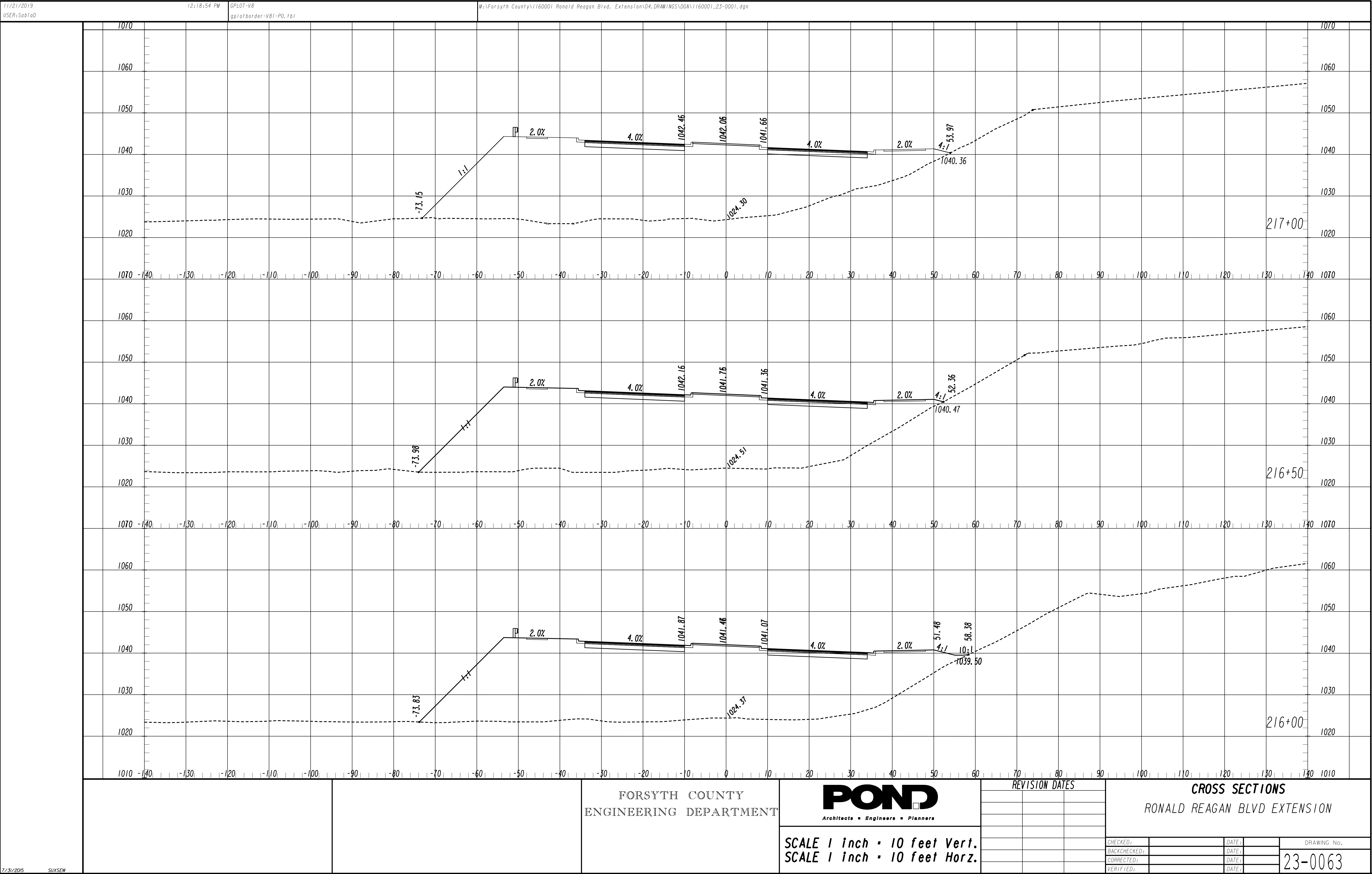
REVISION DATES

CROSS SECTIONS
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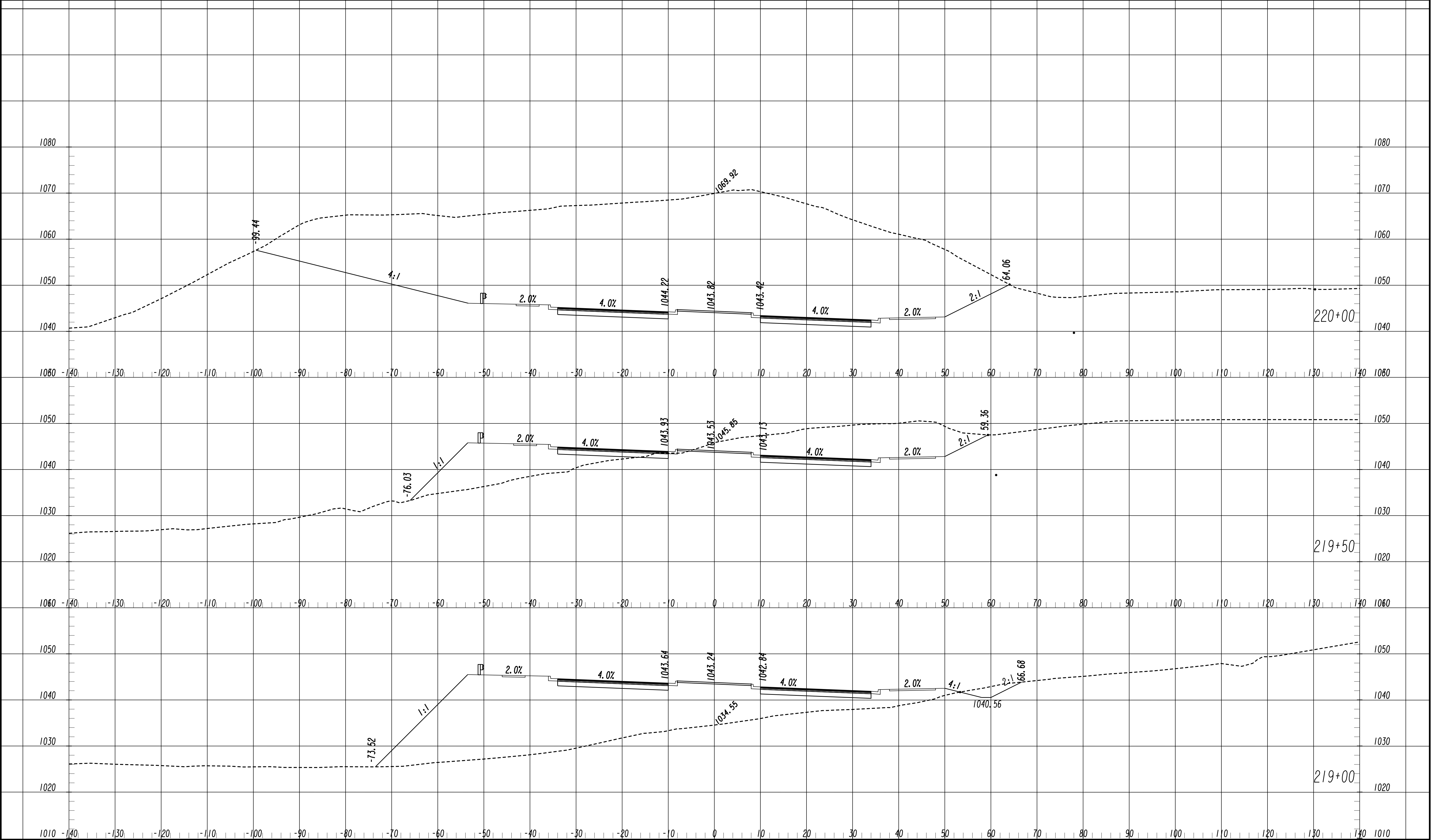
POND
Architects ■ Engineers ■ Planners

70			90	
REVISION DATES				

CROSS SECTIONS

RONALD REAGAN BLVD EXTENSION

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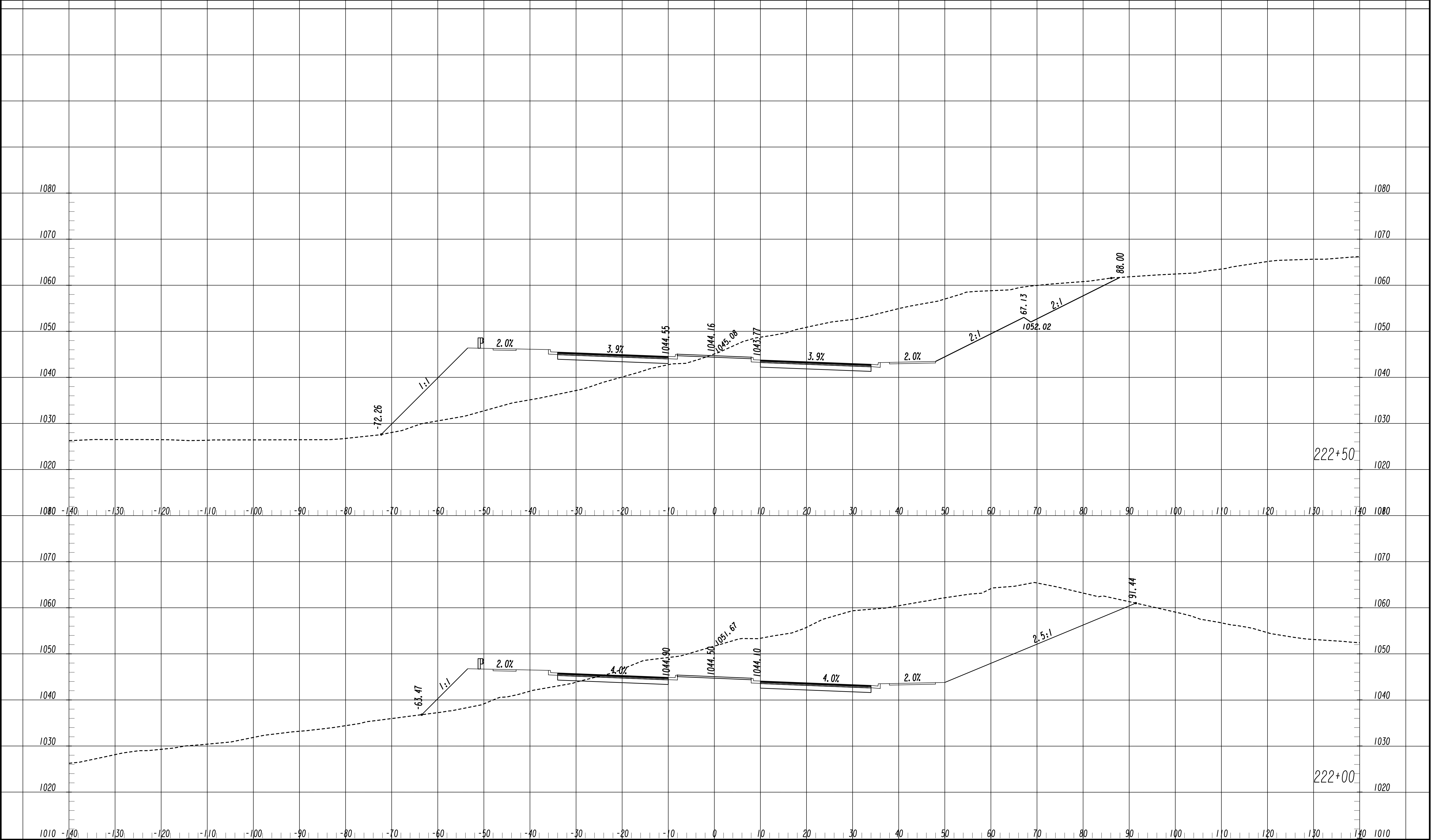
POND
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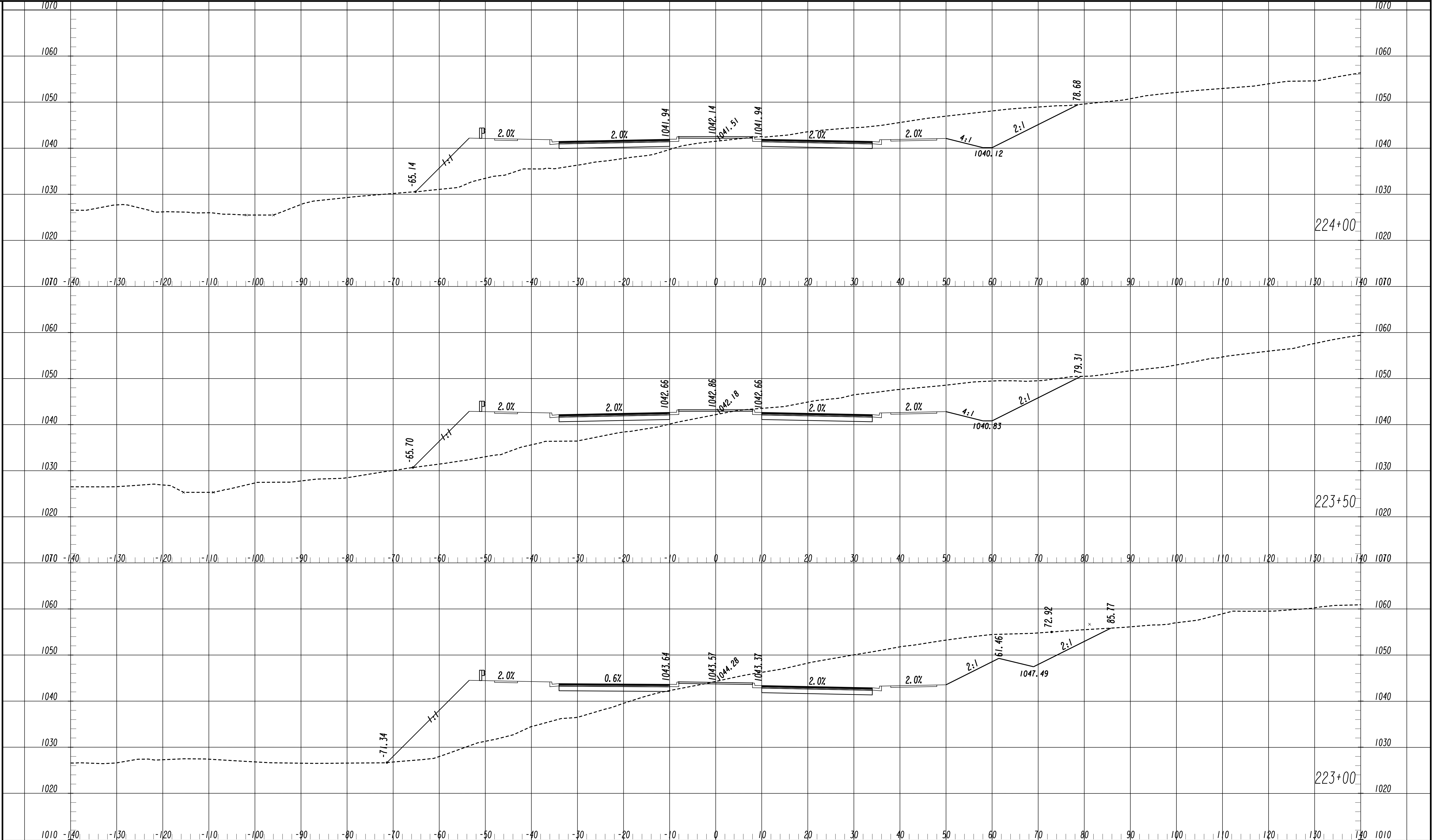
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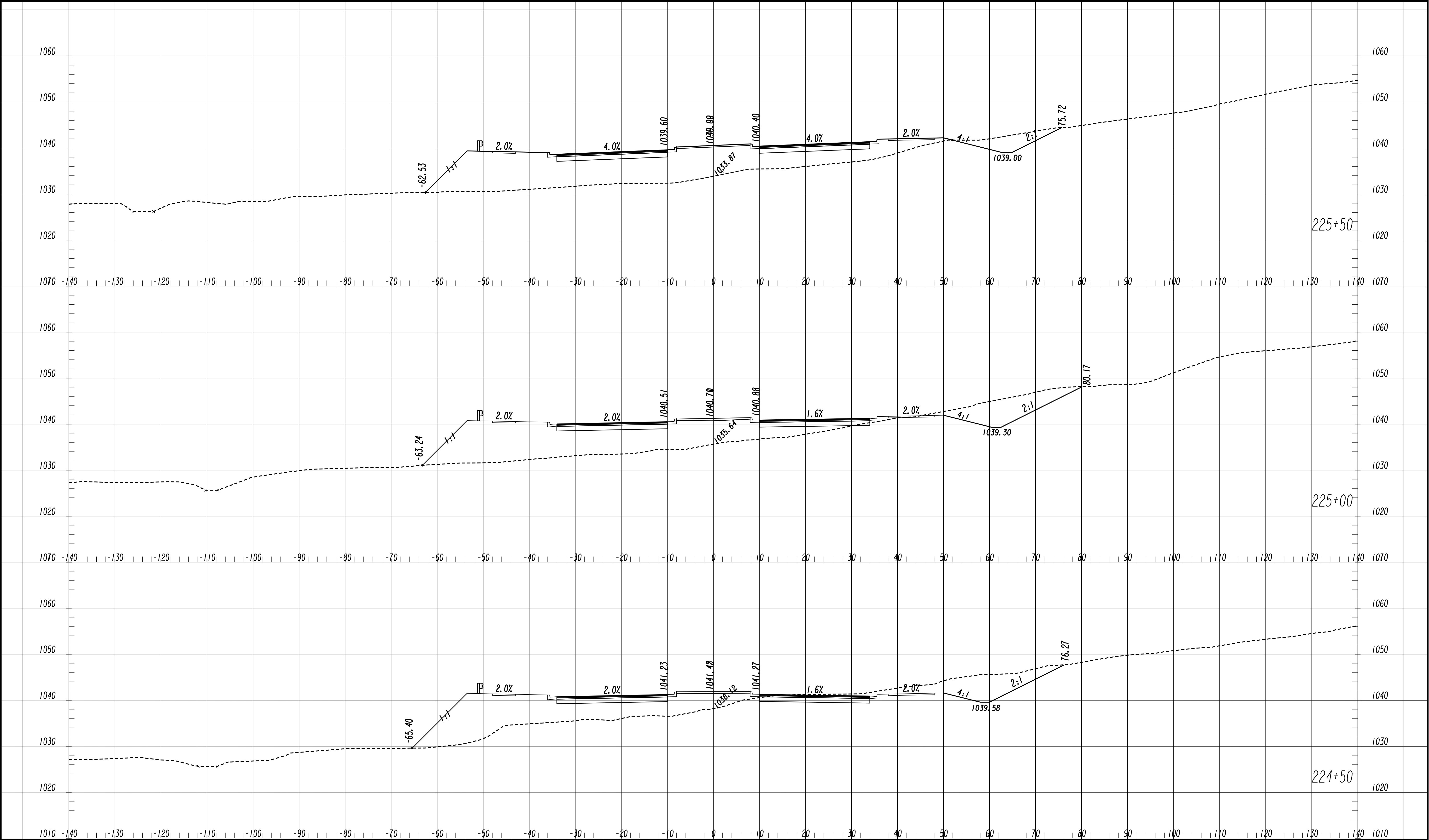
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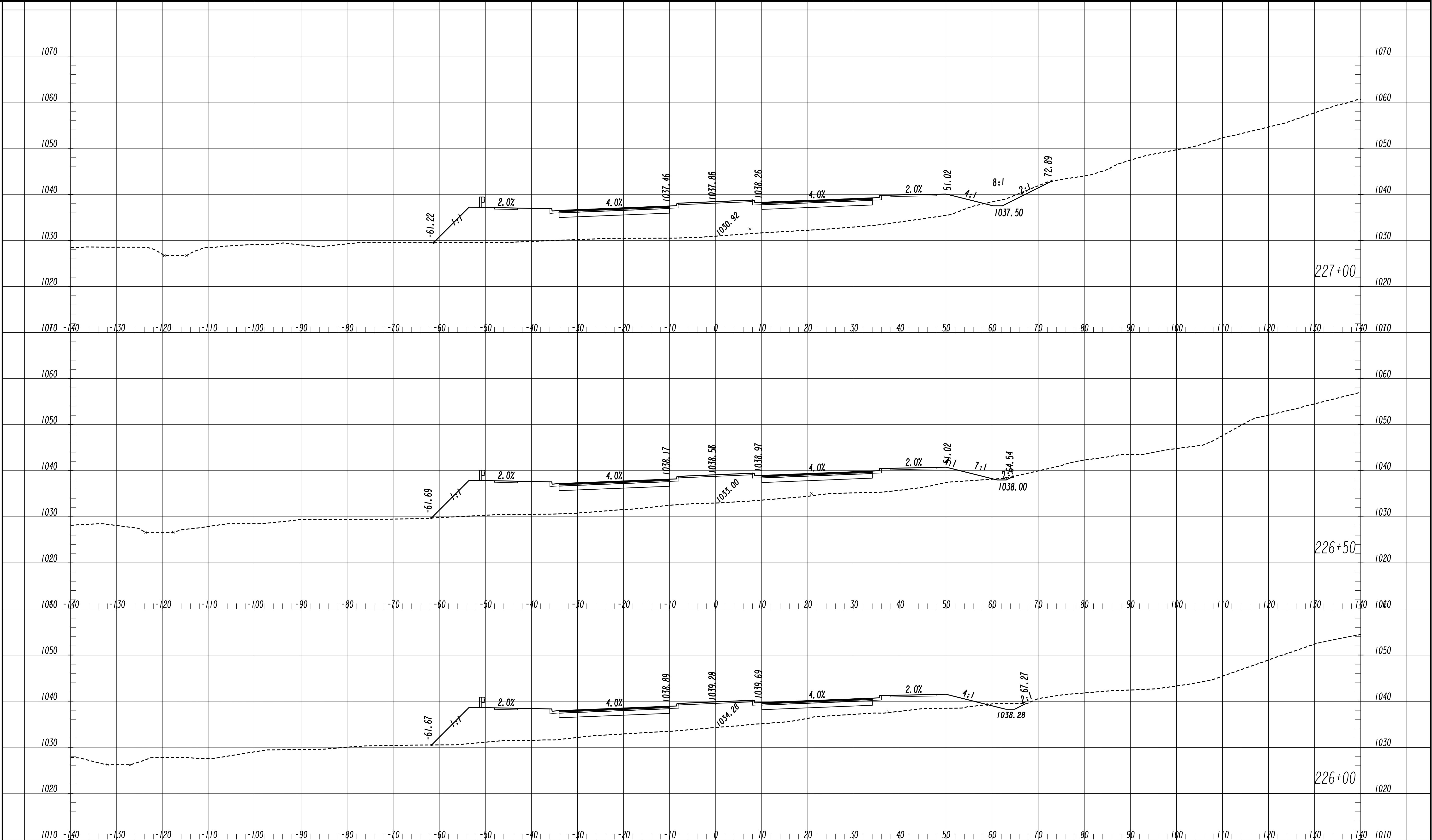
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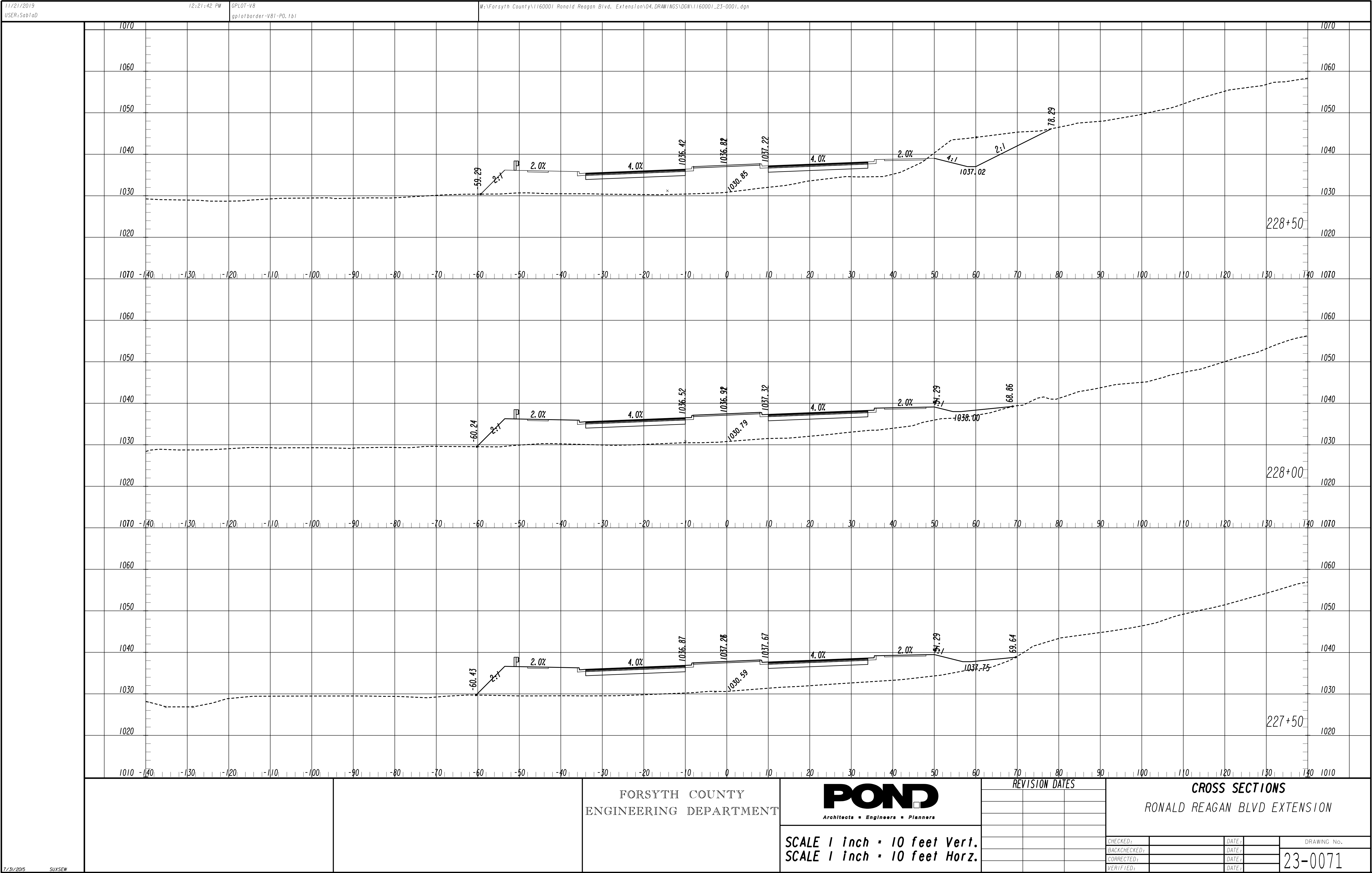
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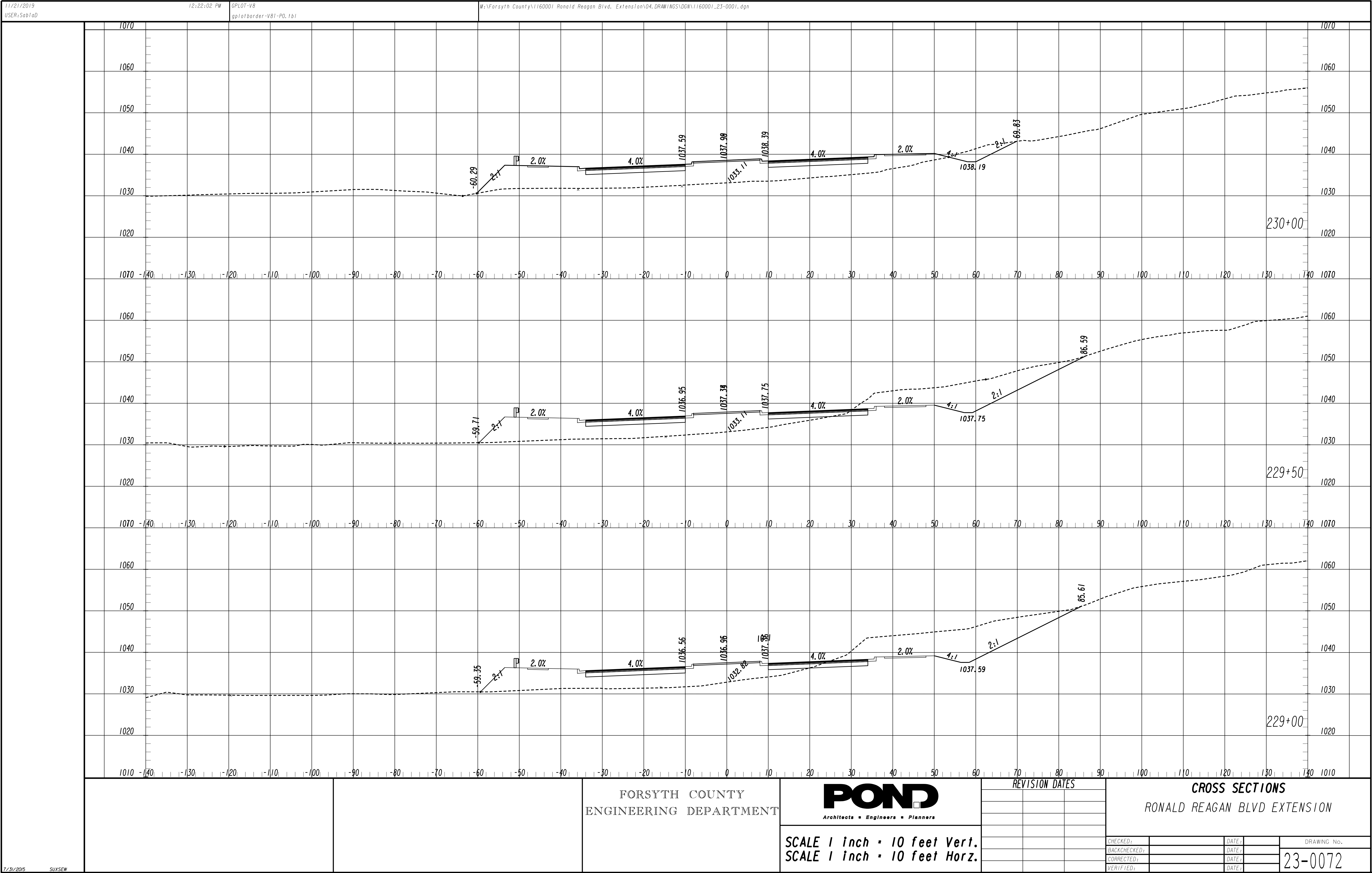


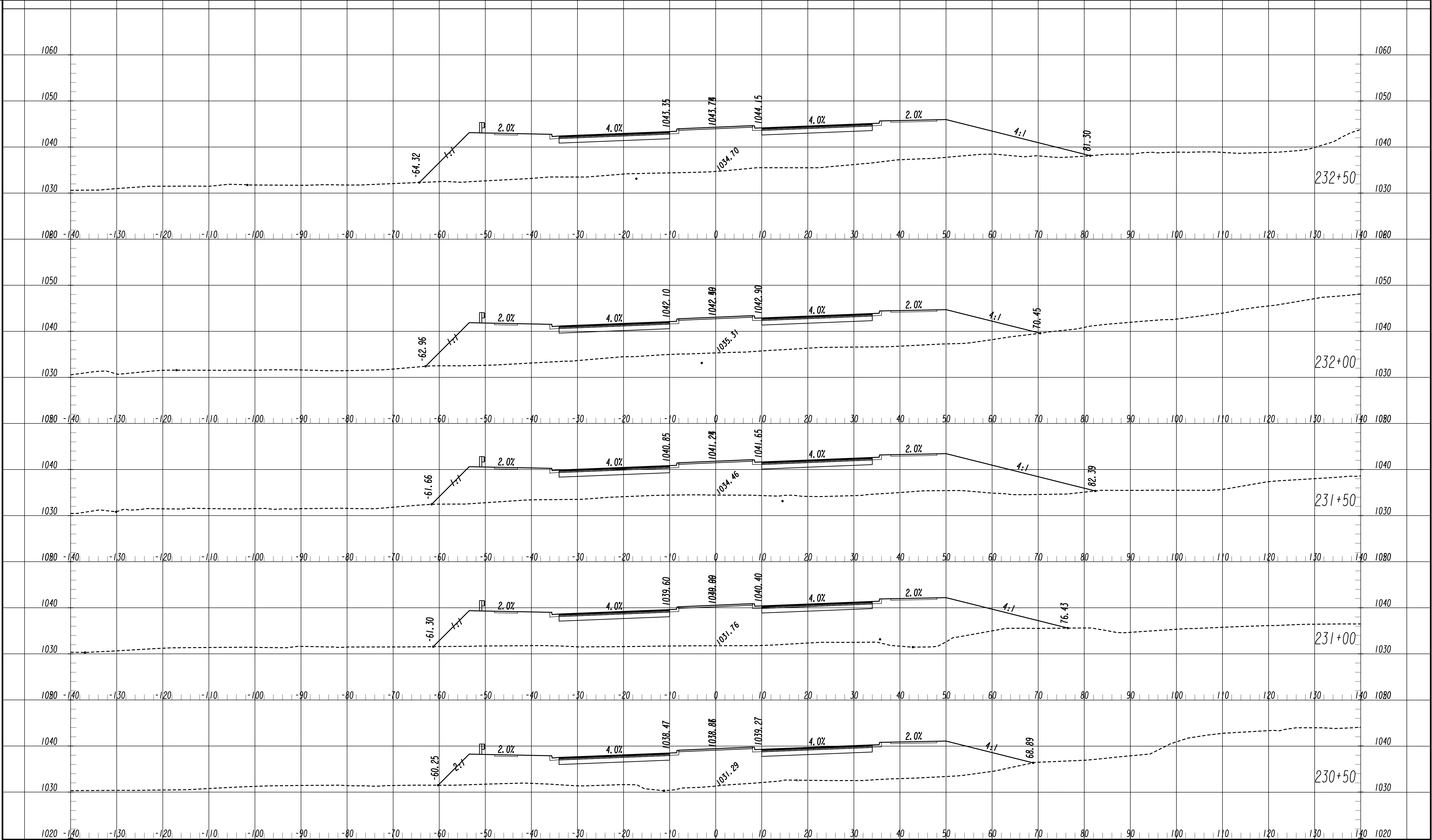














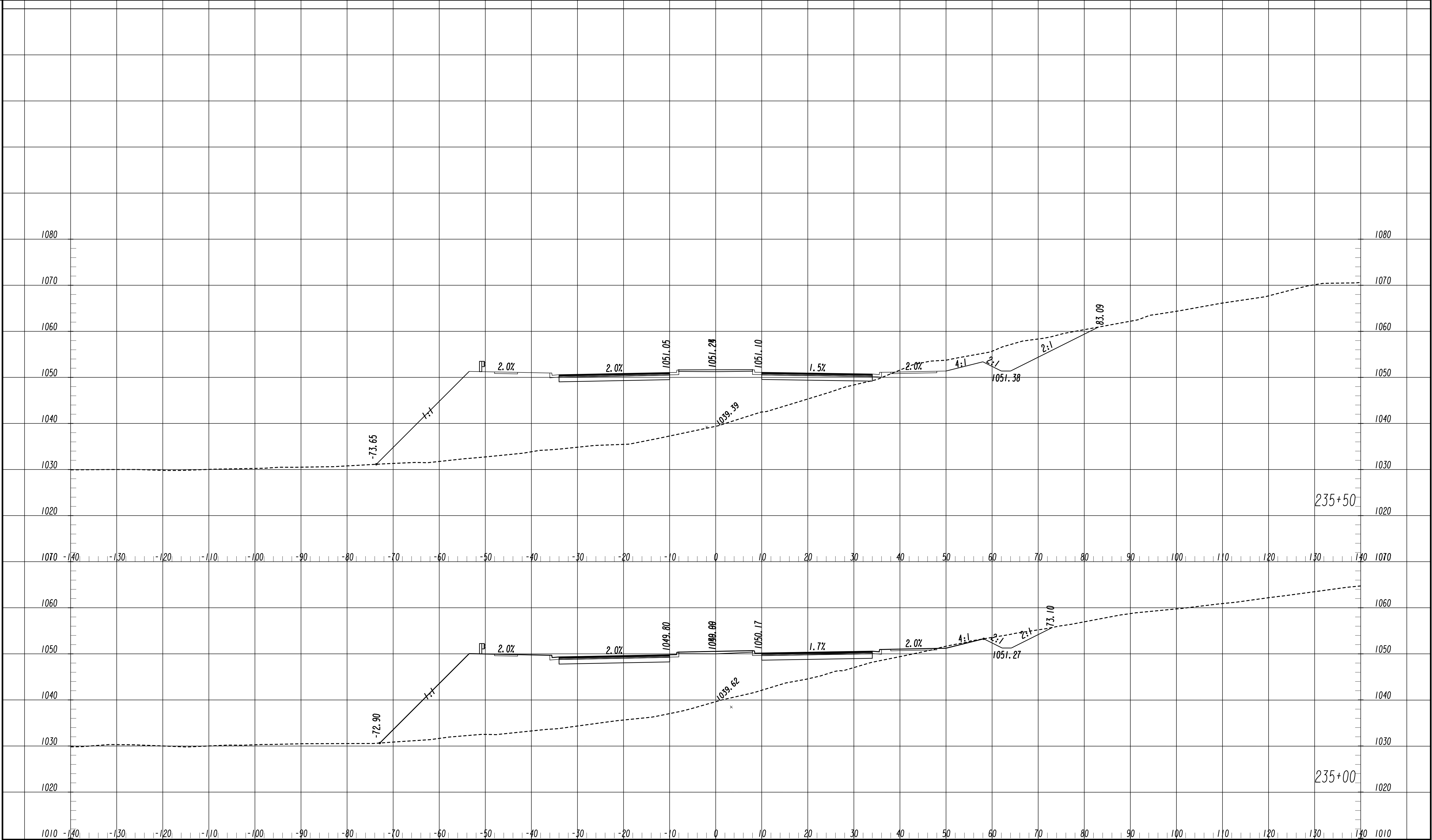
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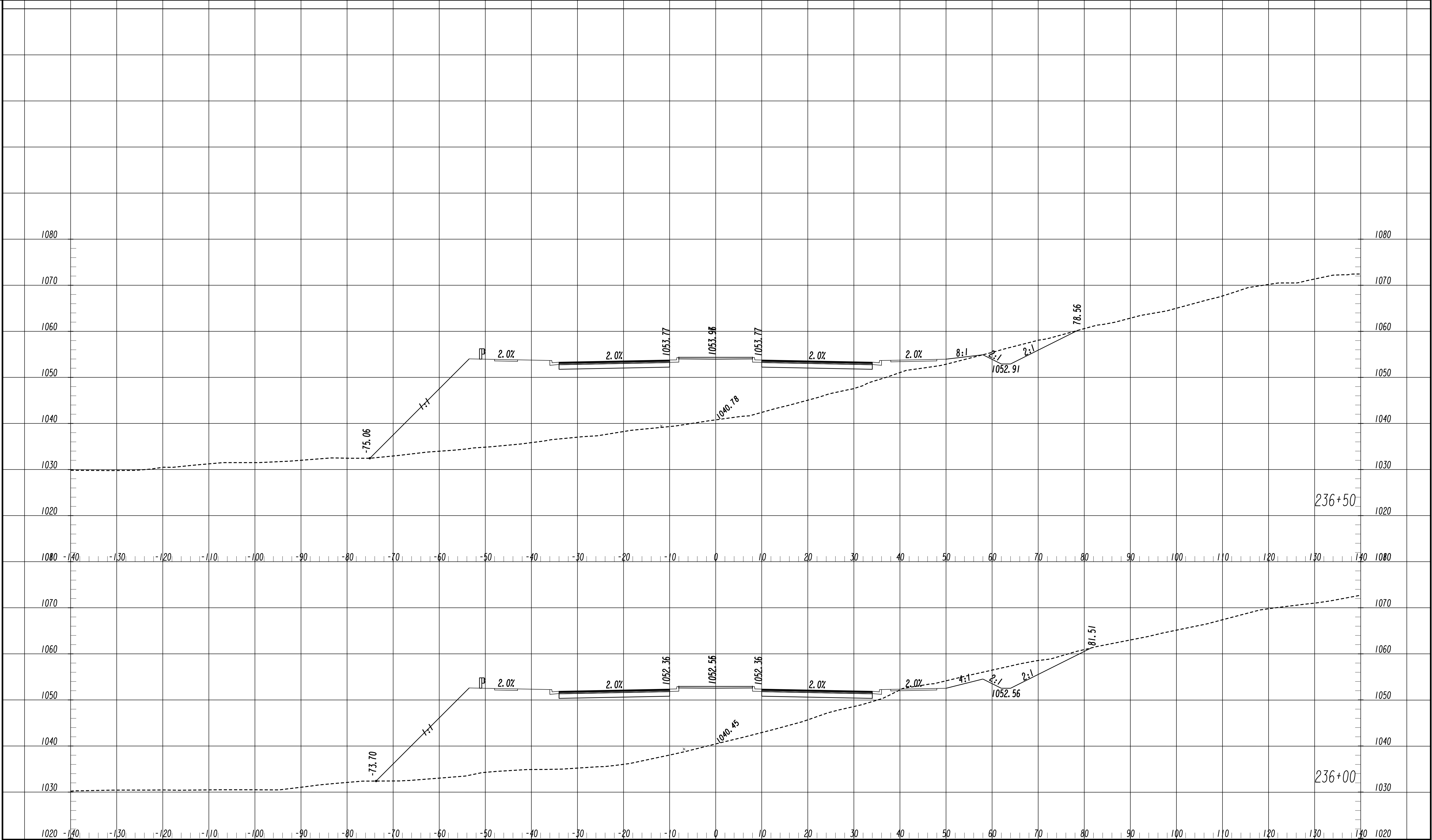
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REVISION DATES				

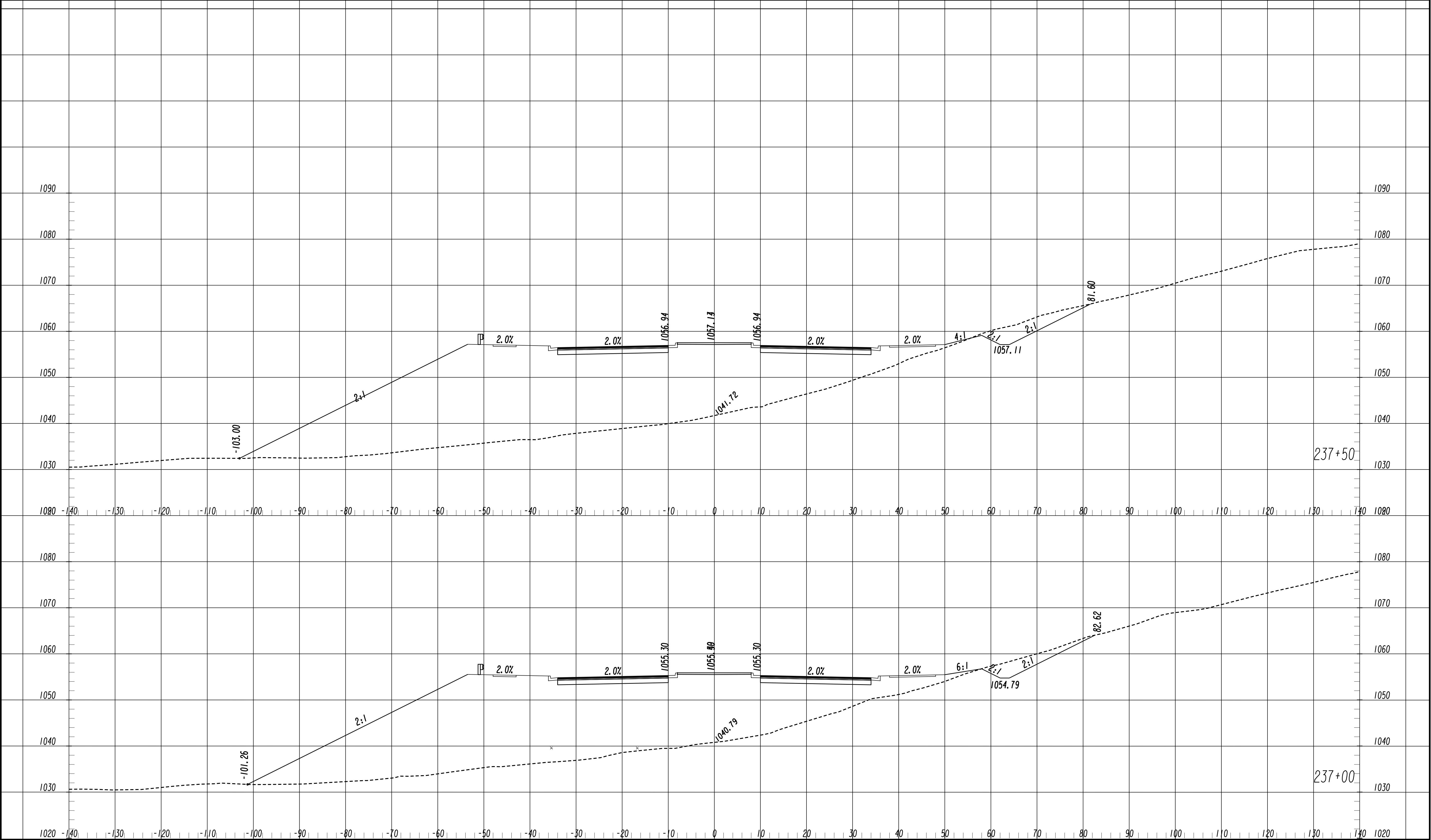
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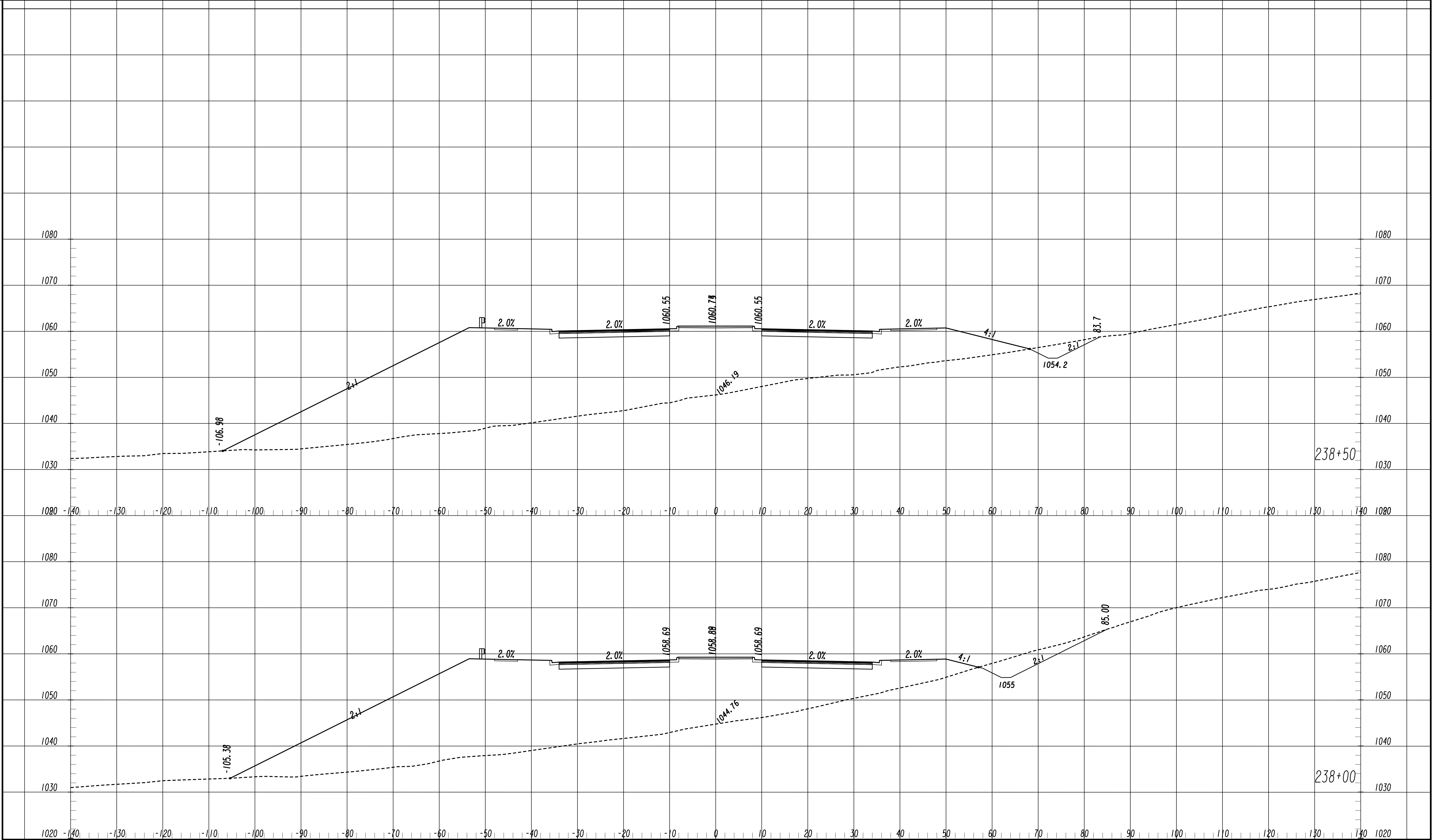
RONALD REAGAN BLVD EXTENSION

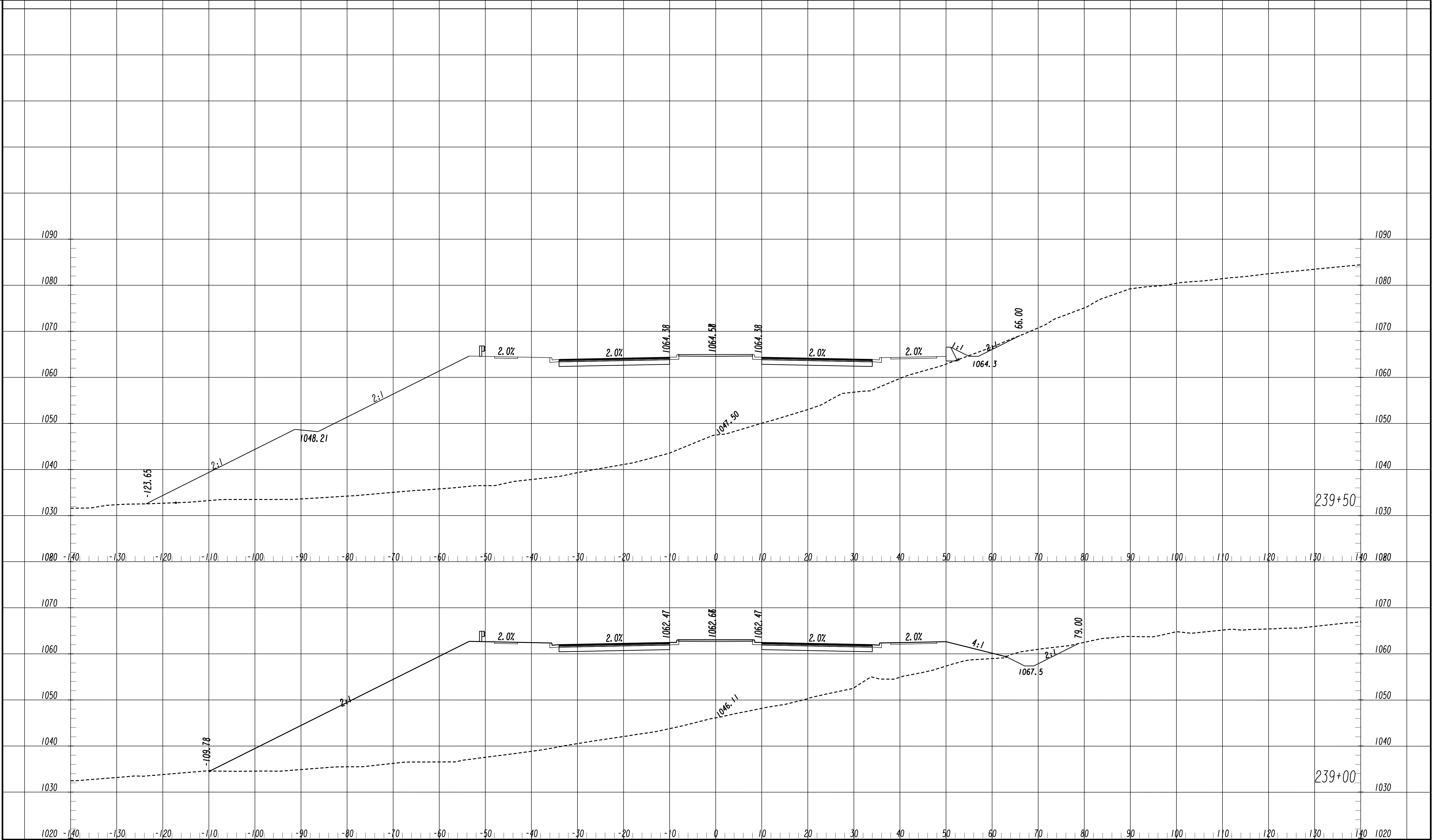
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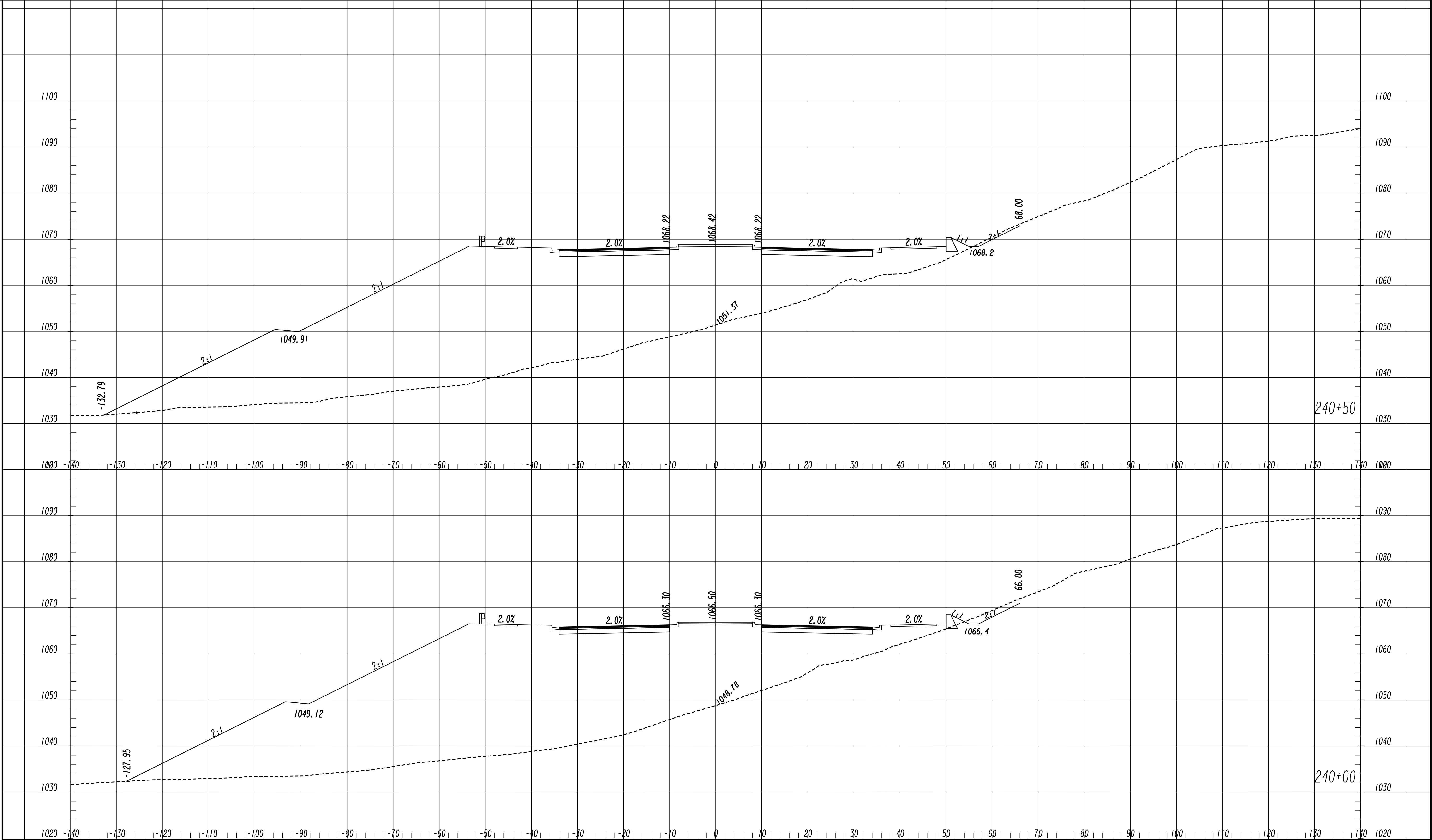


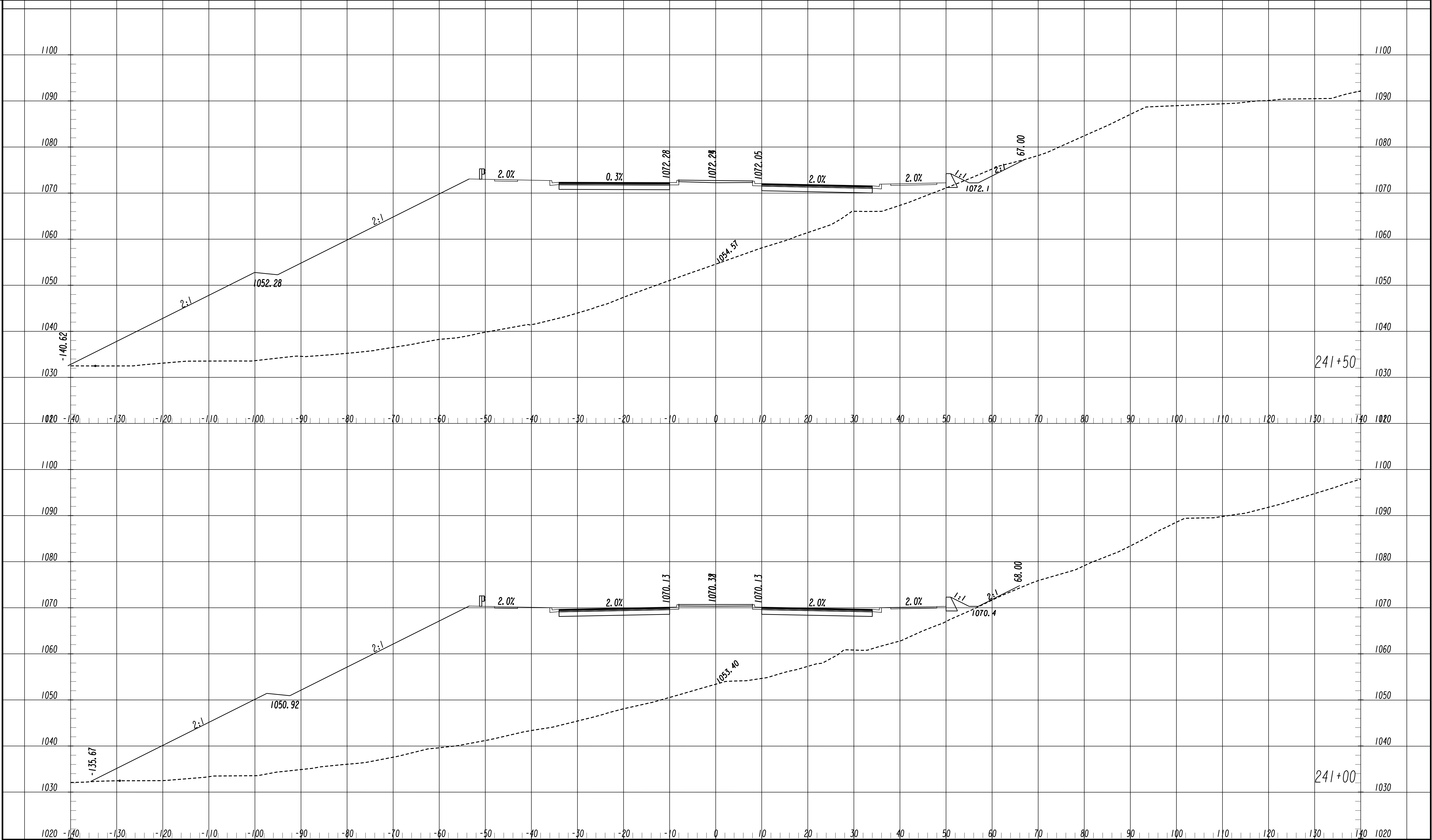


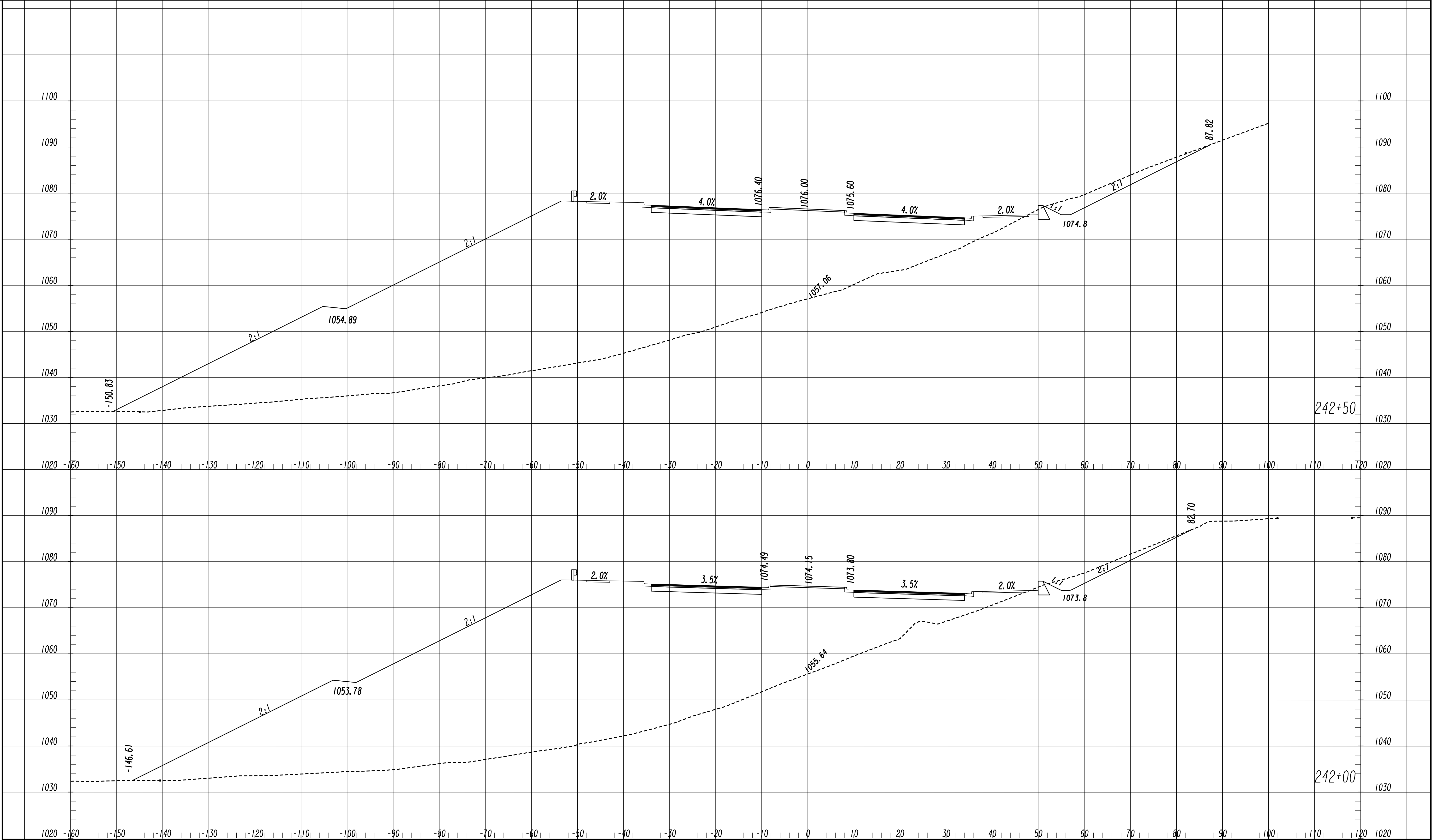


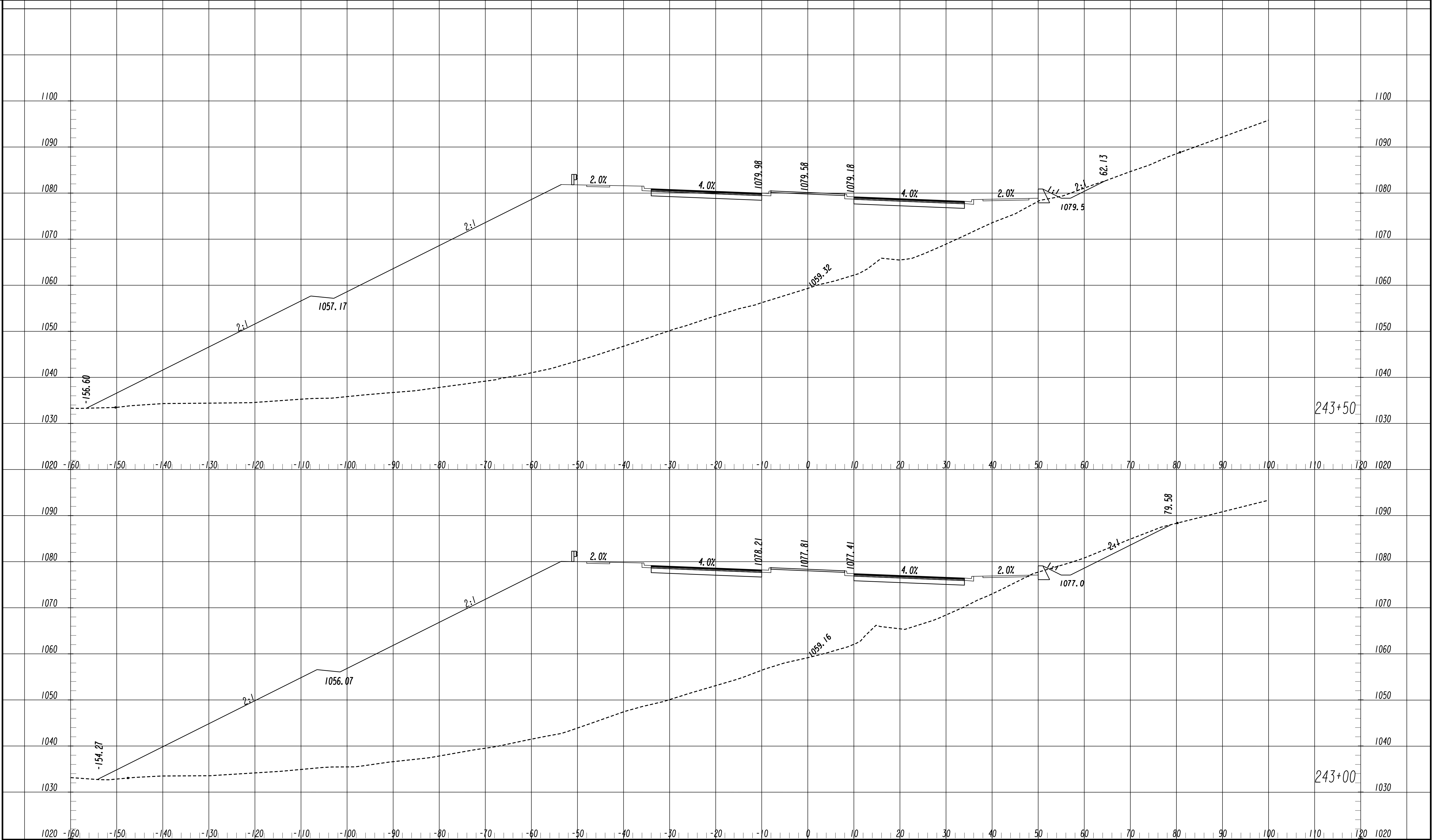


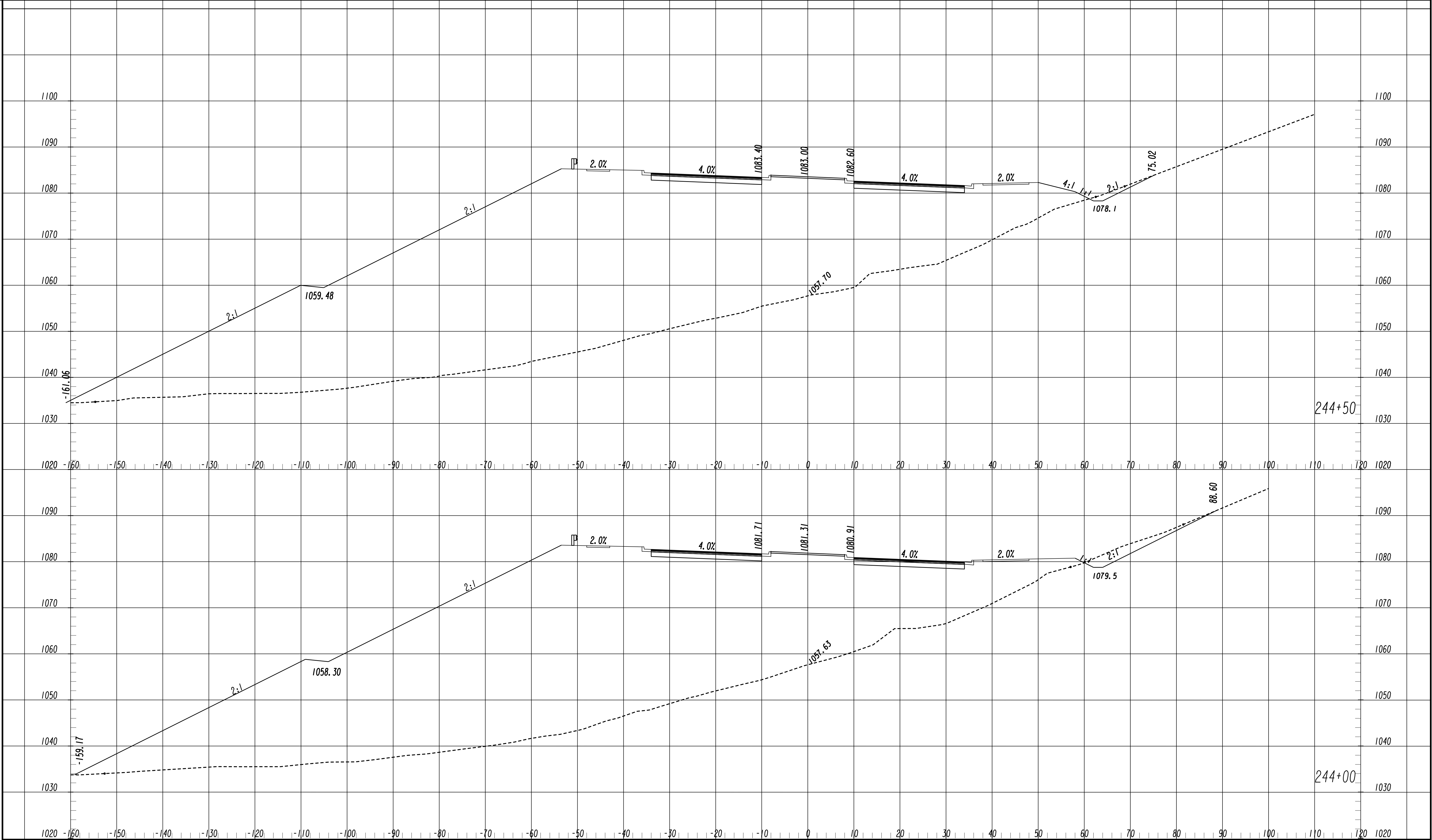


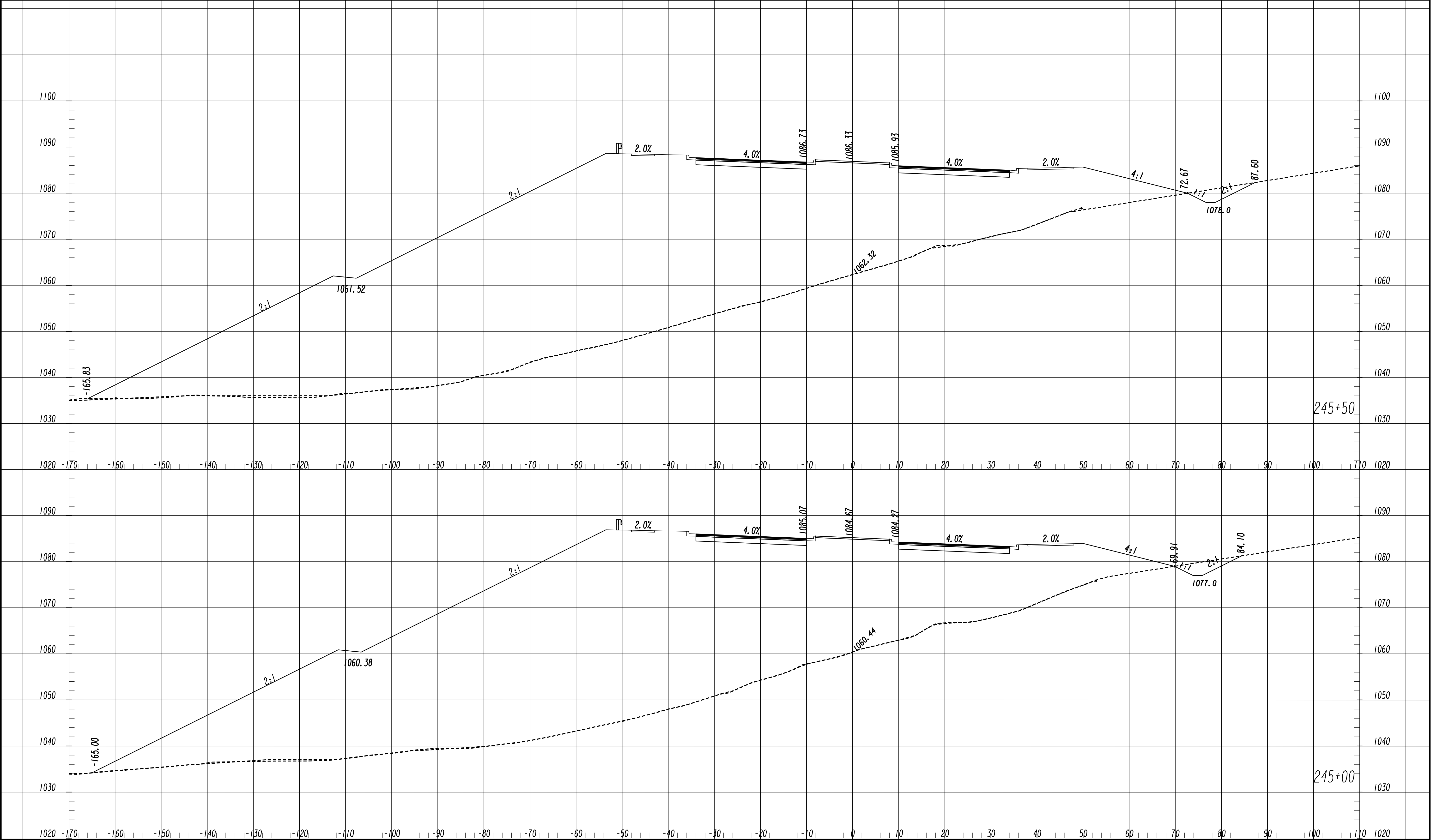


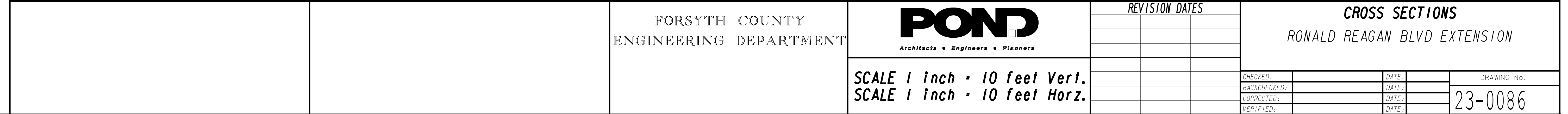


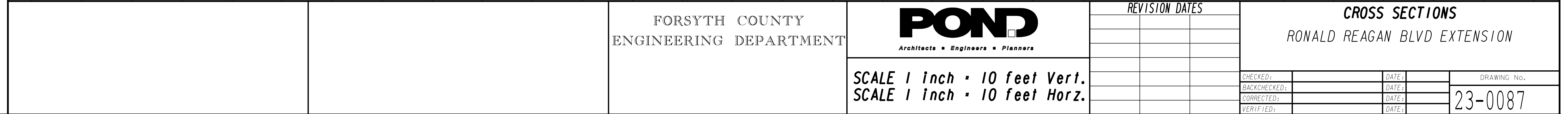


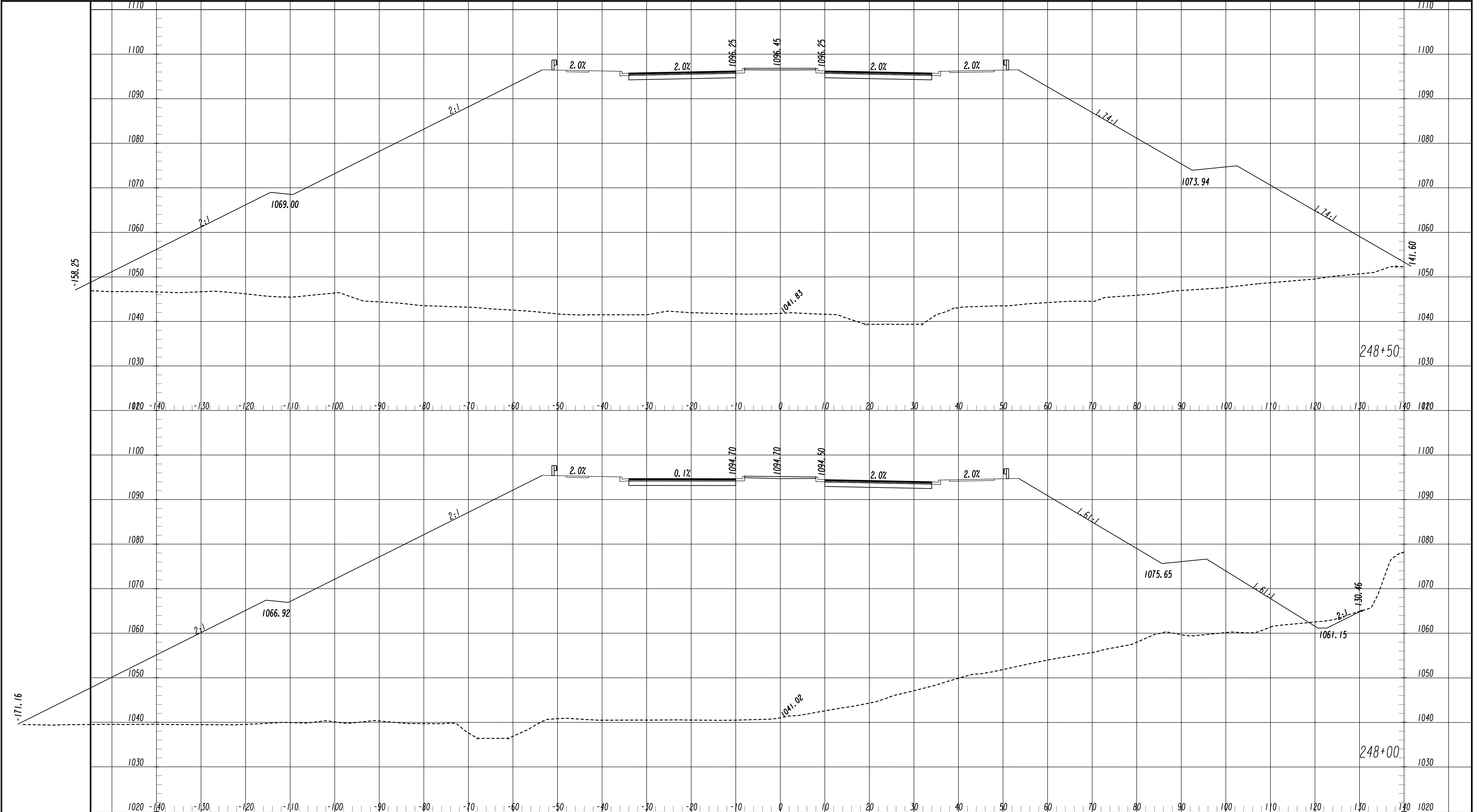


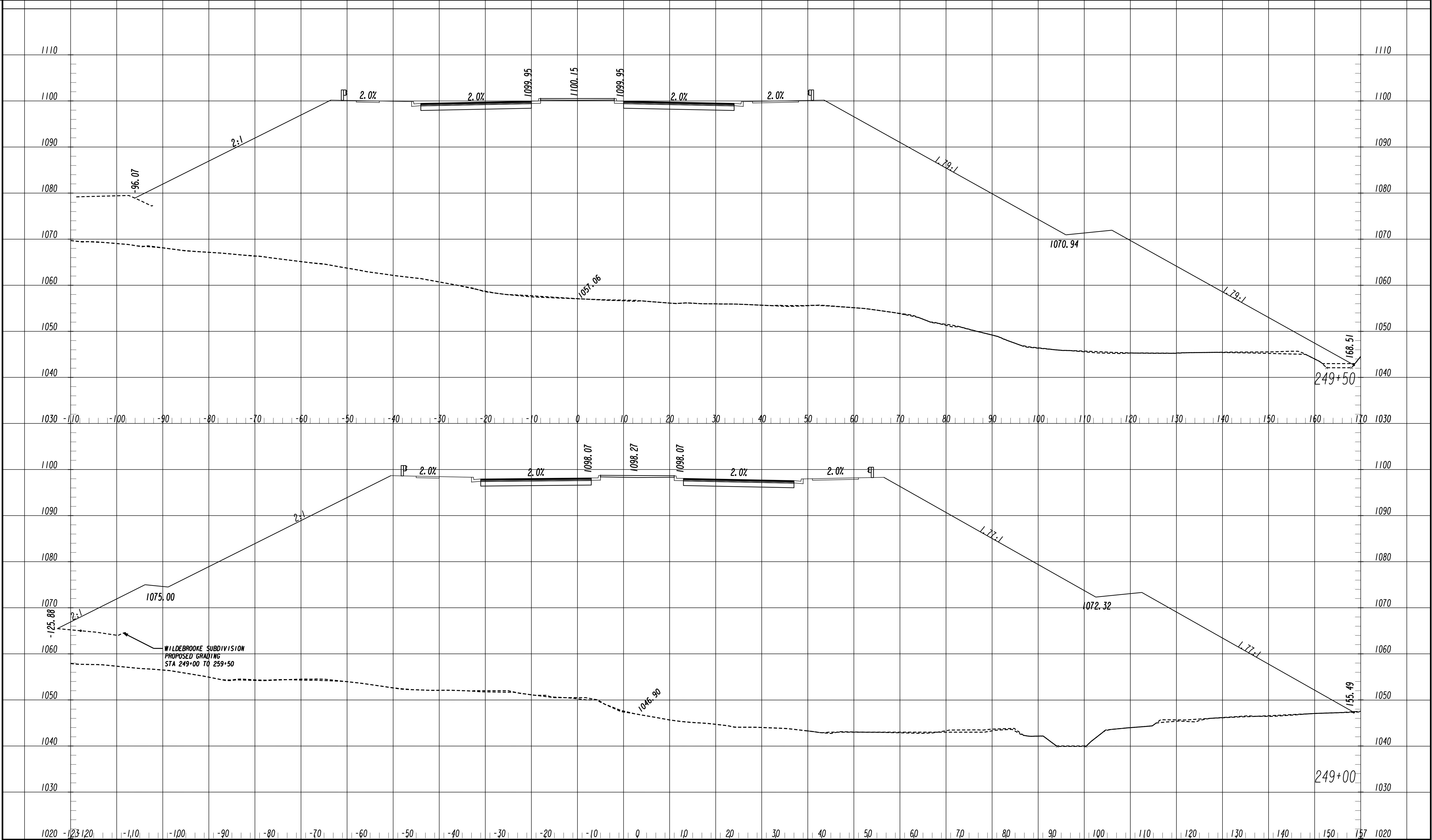


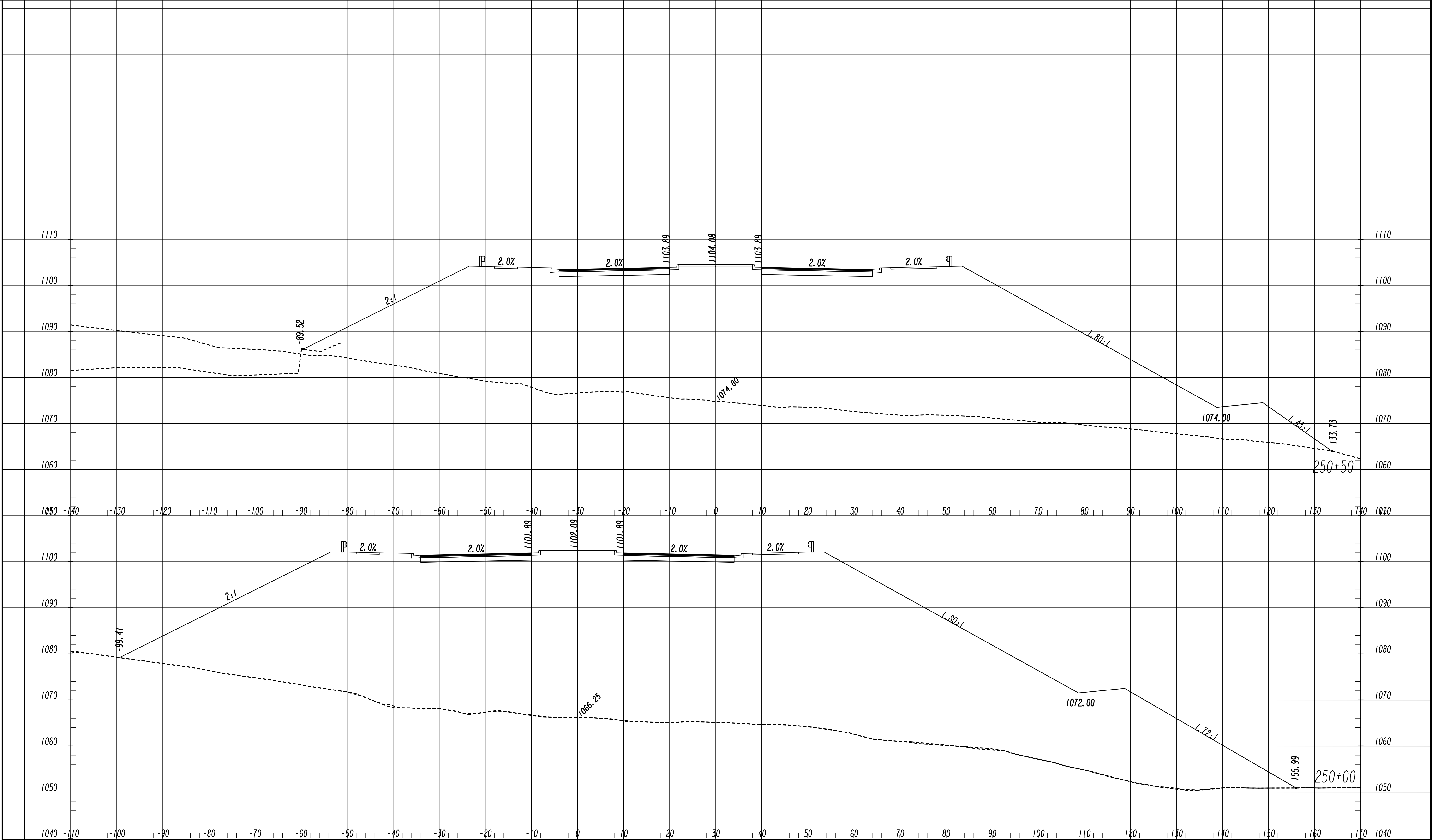


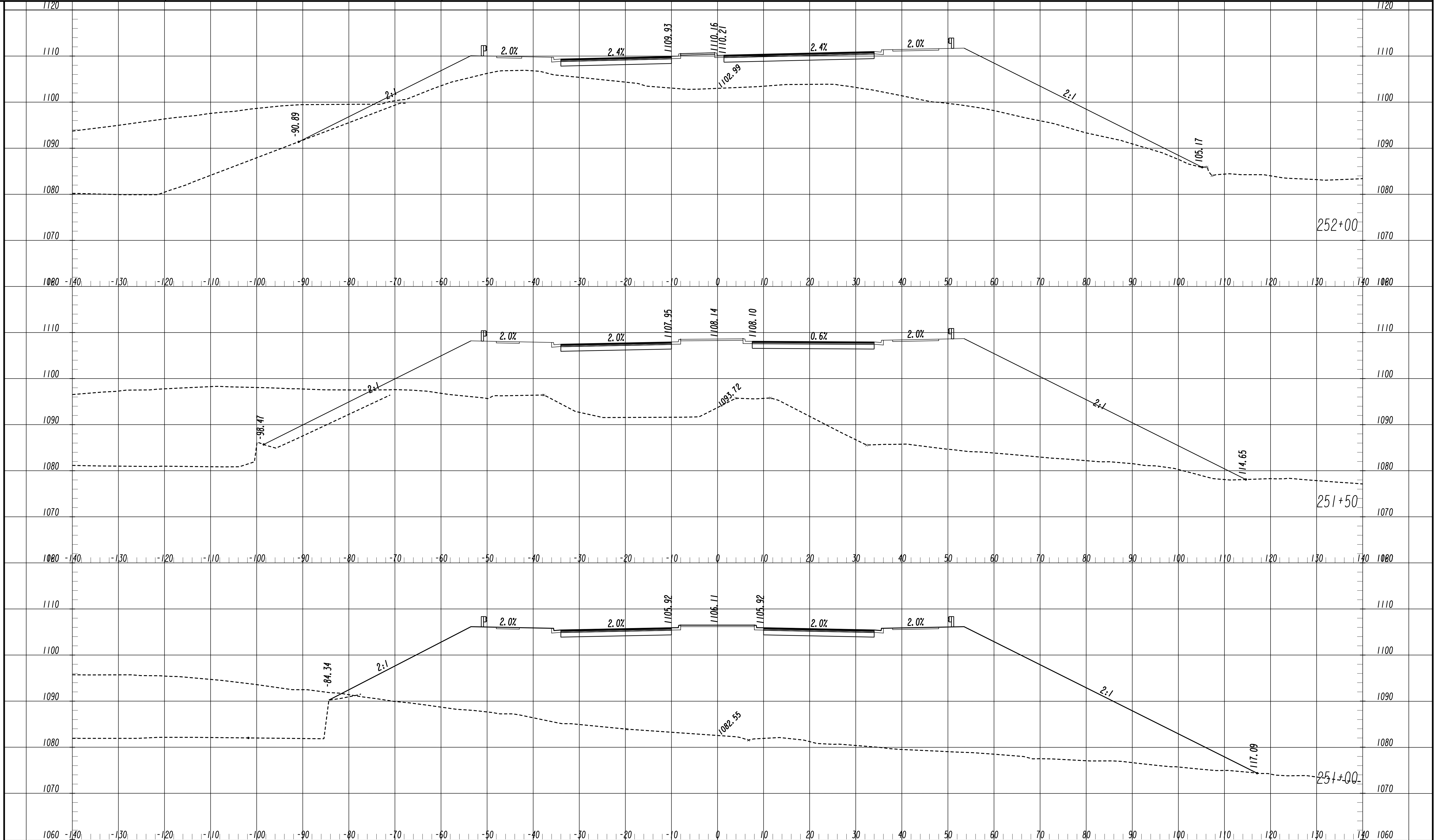


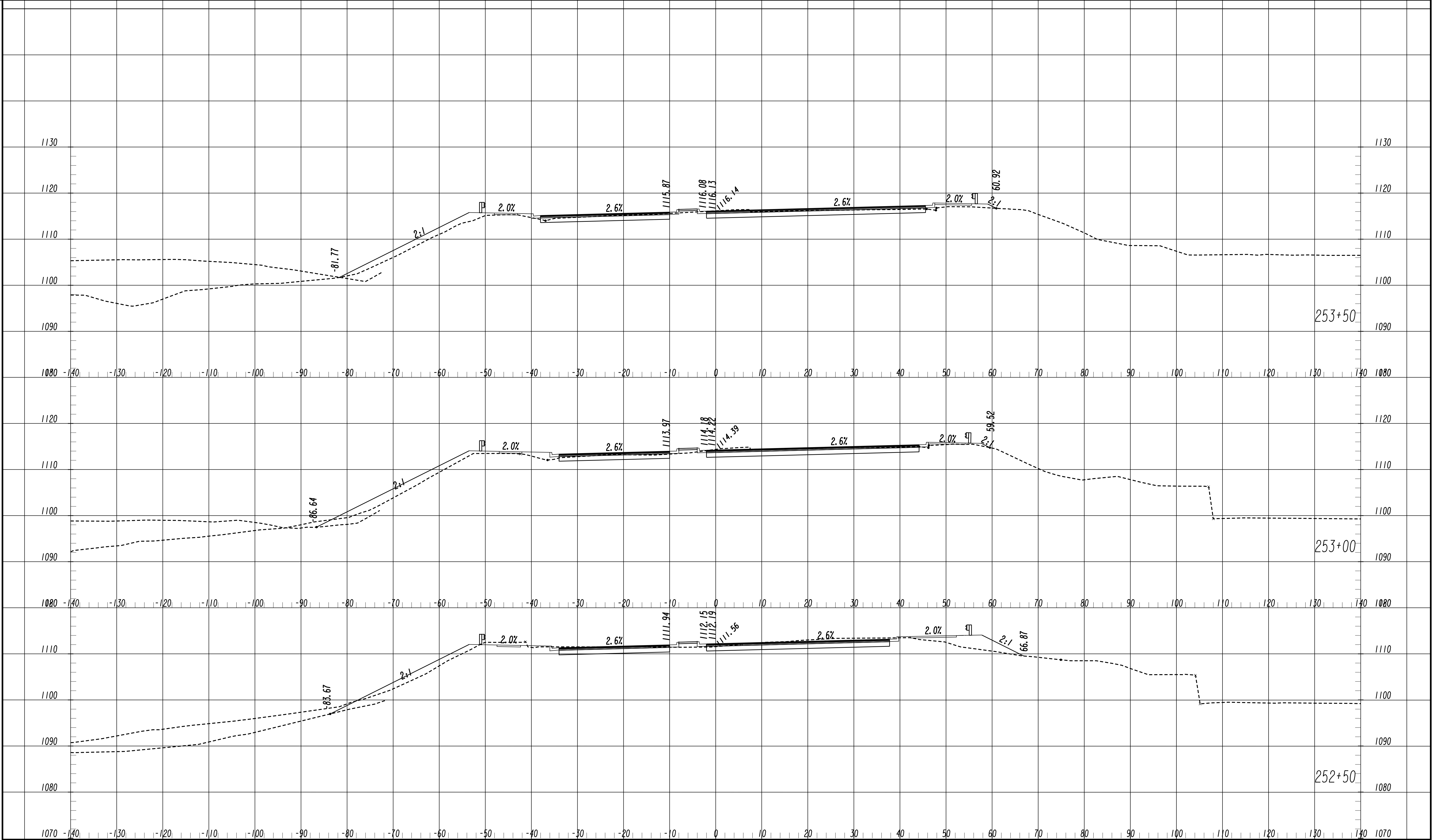


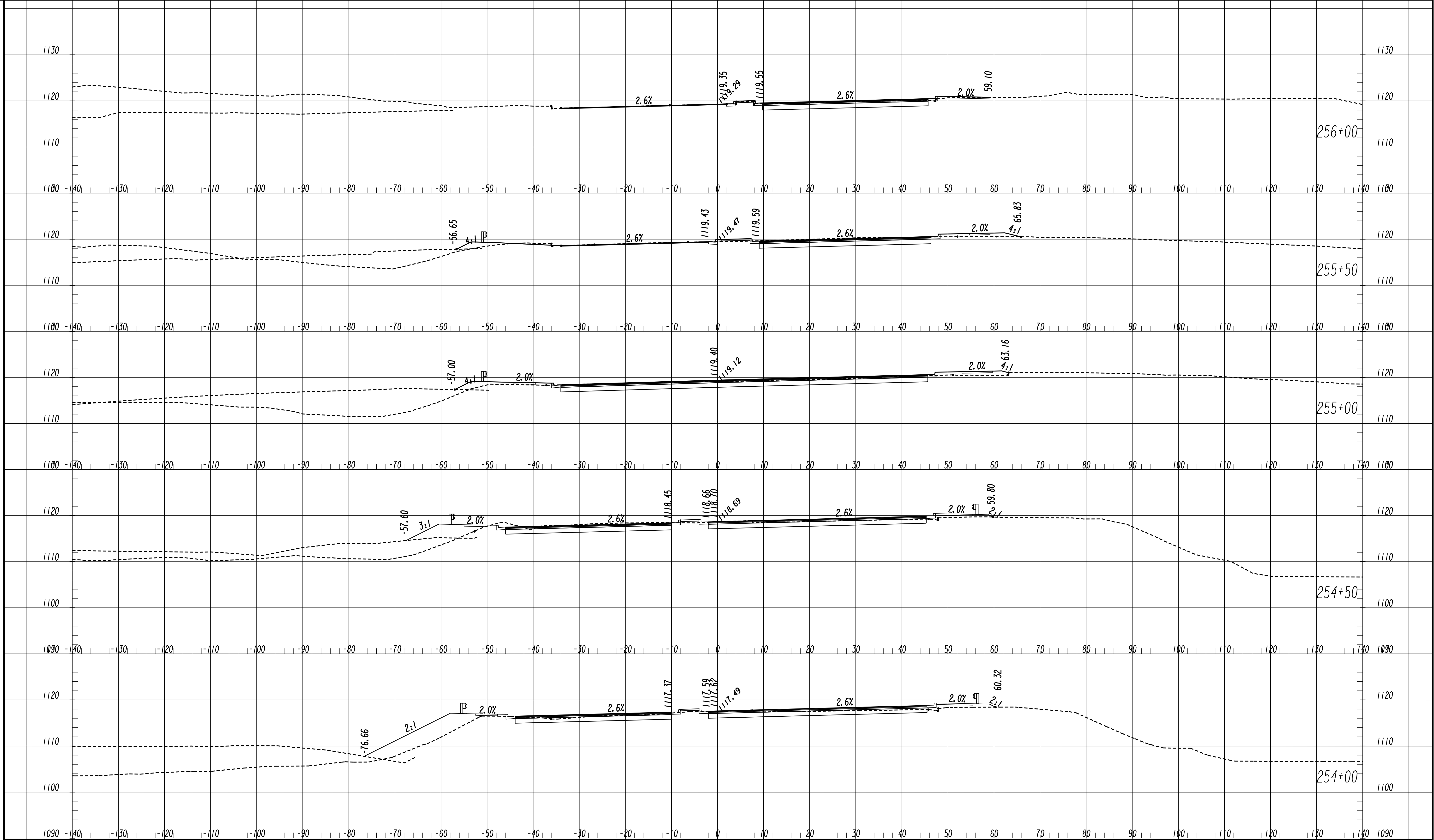


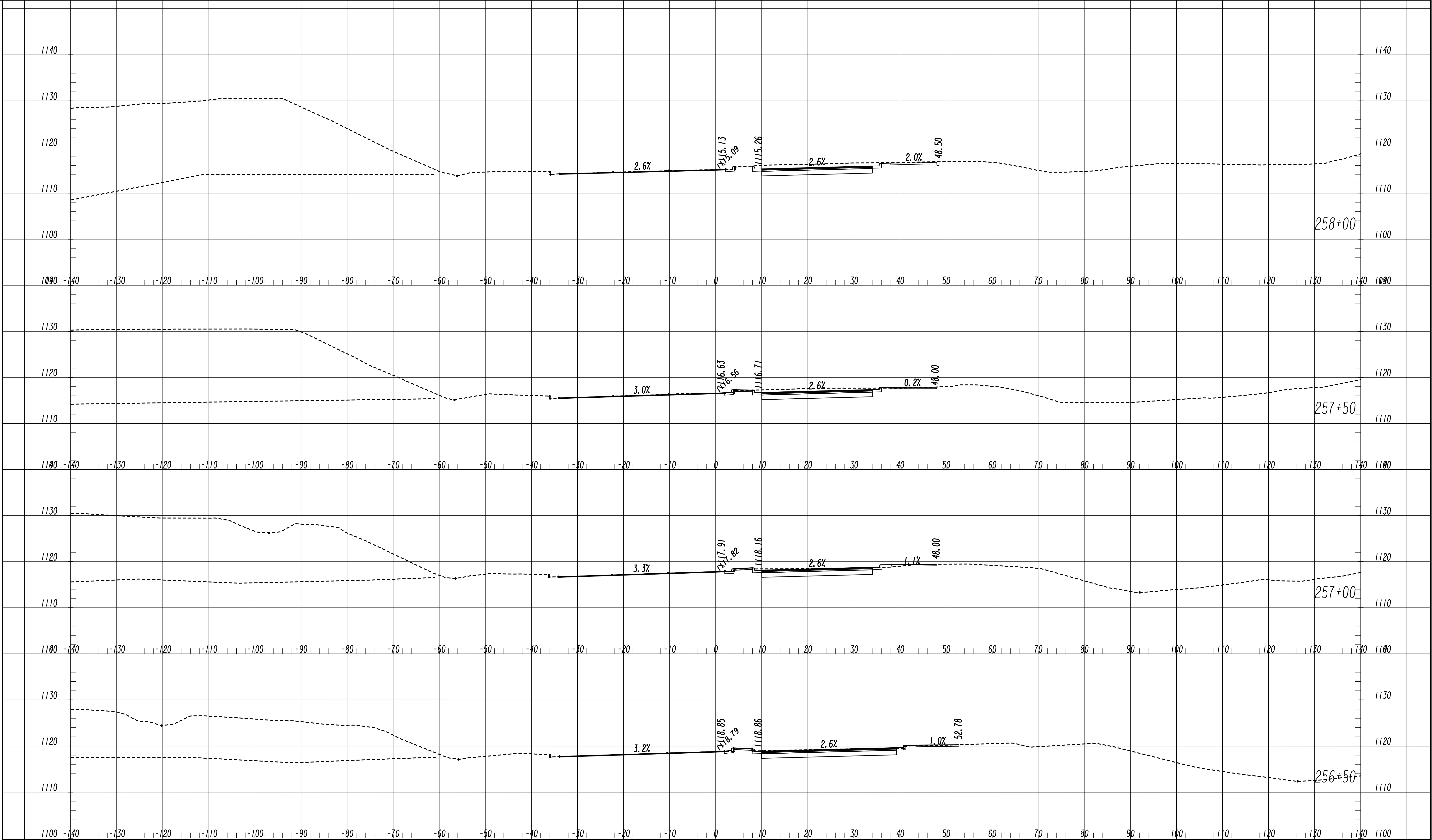


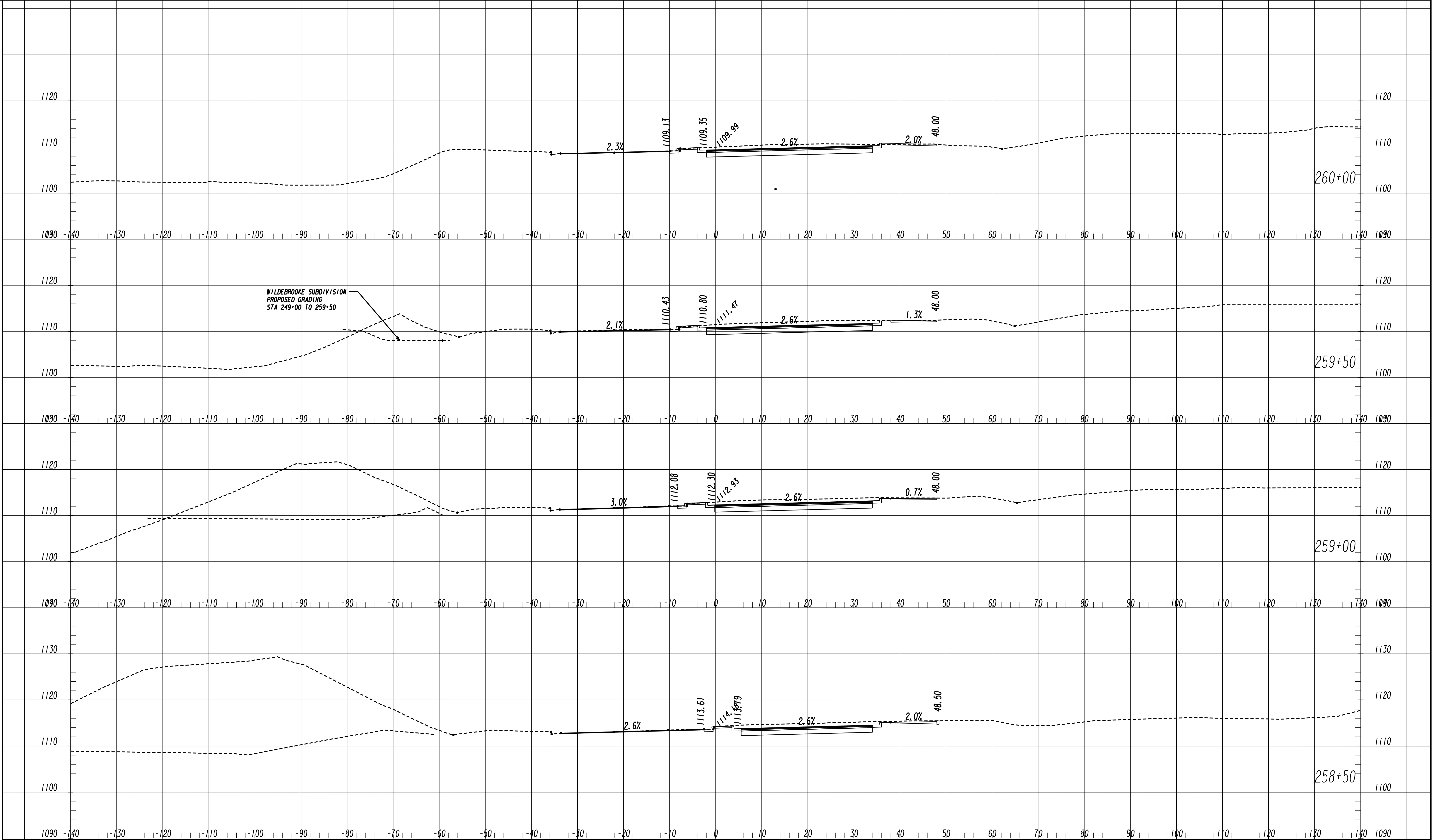


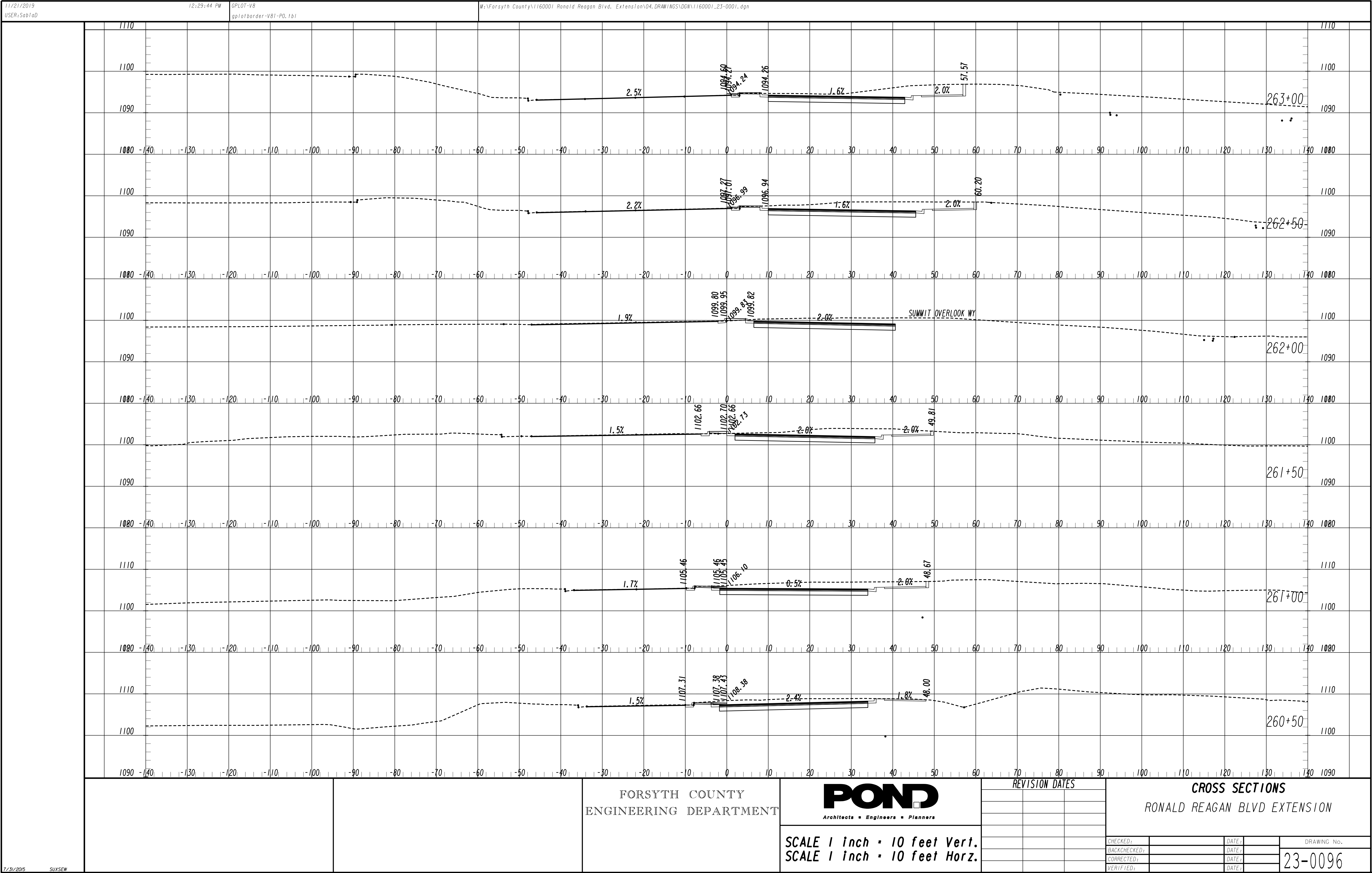


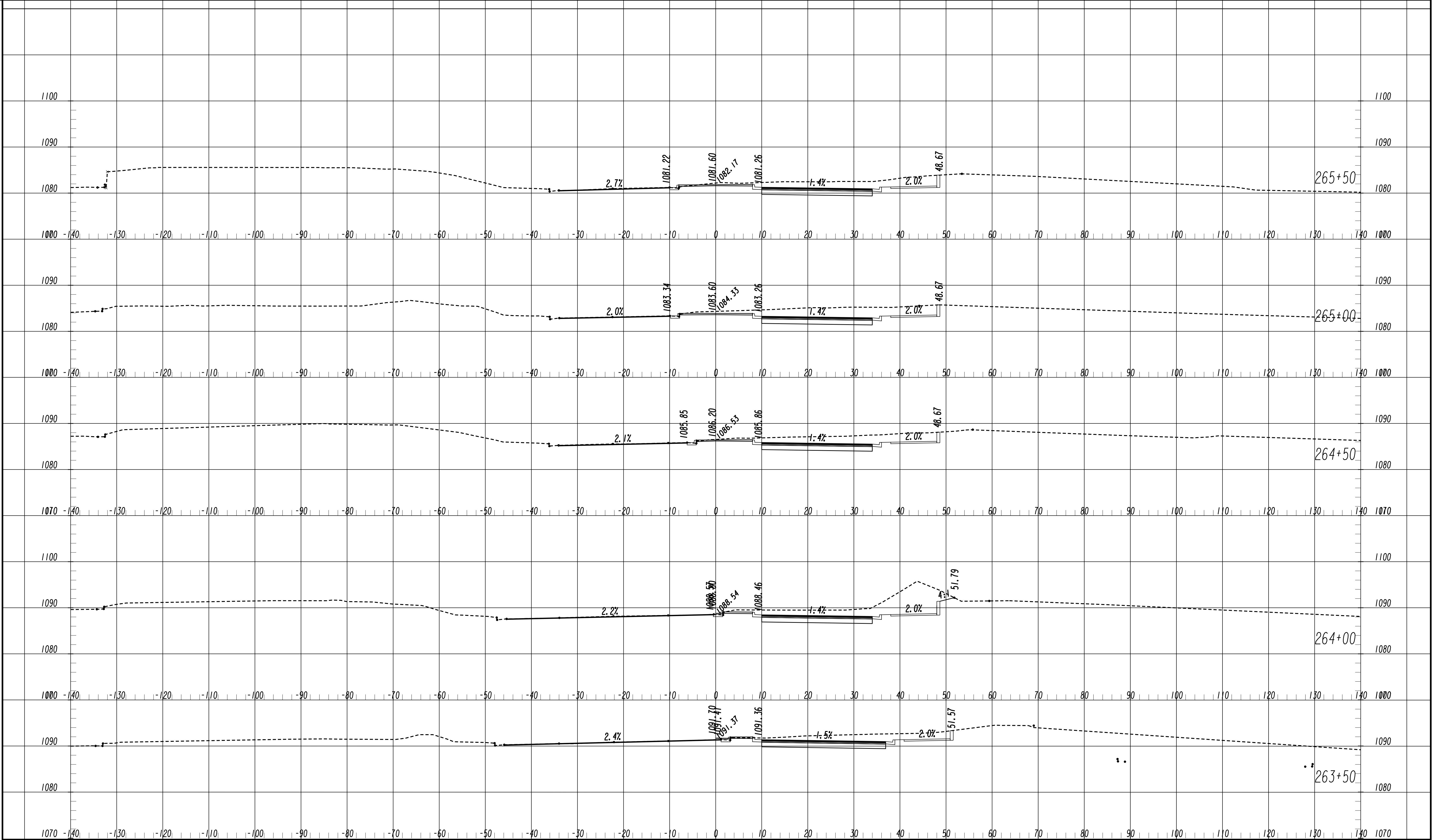


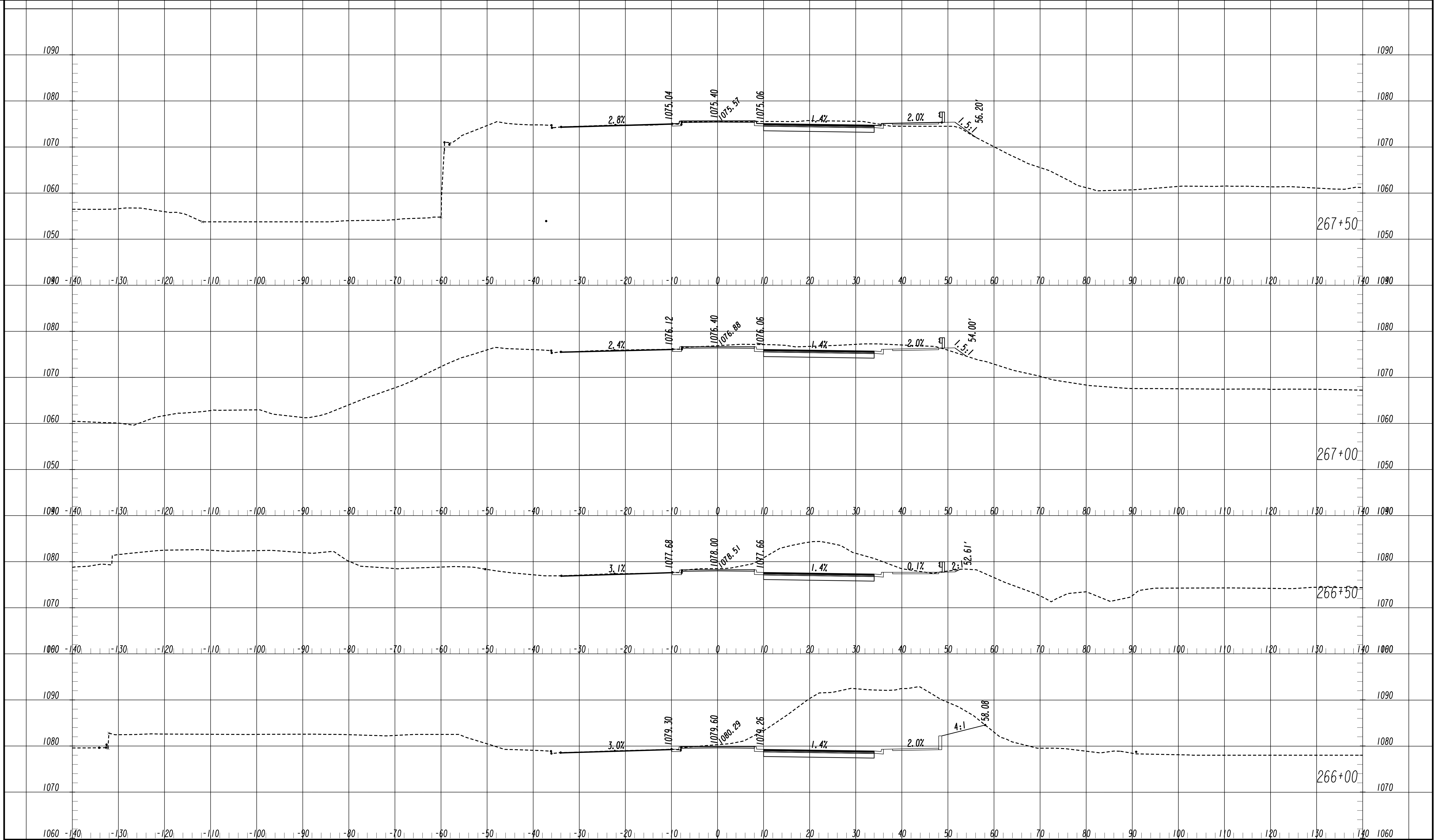


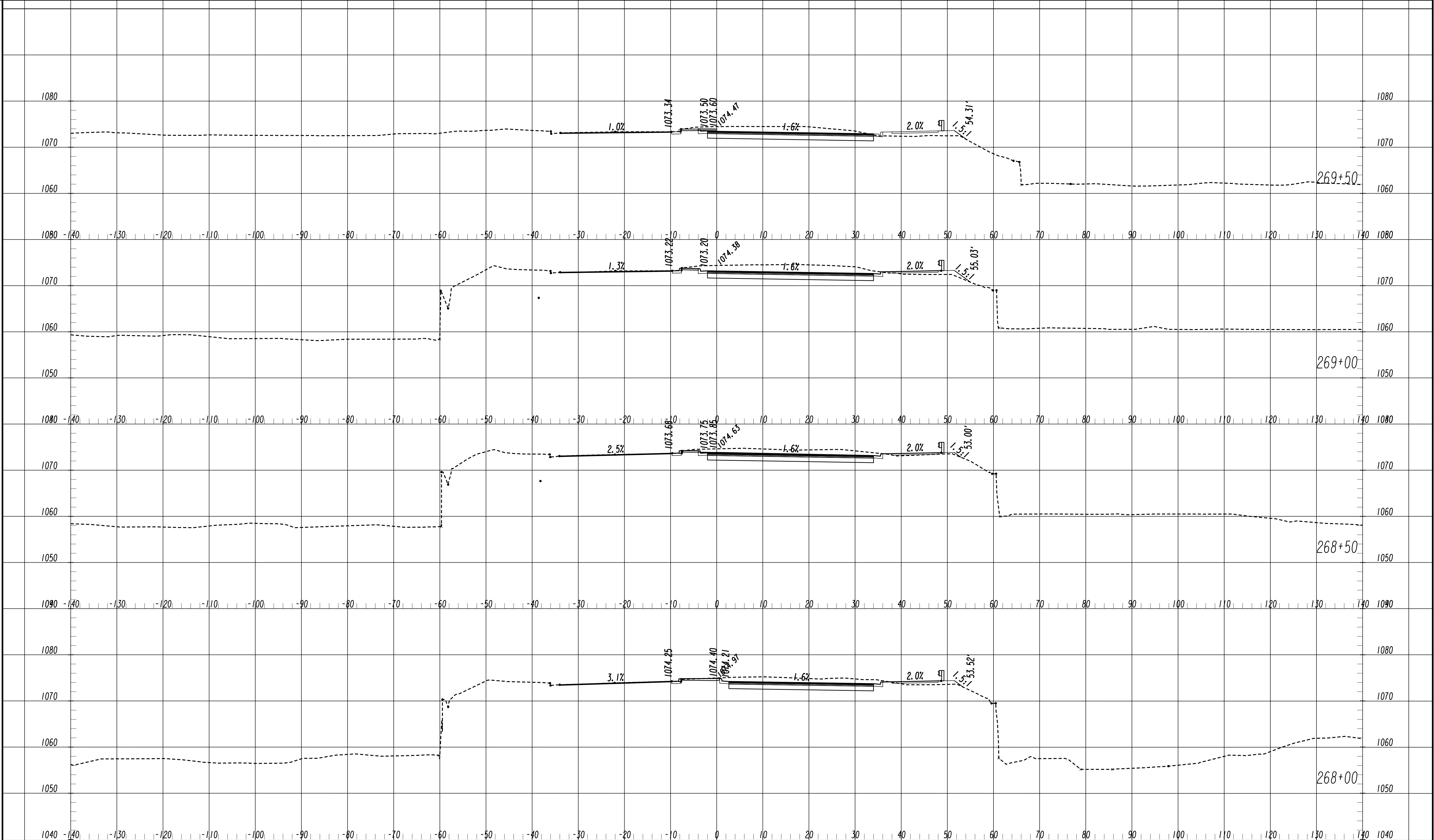


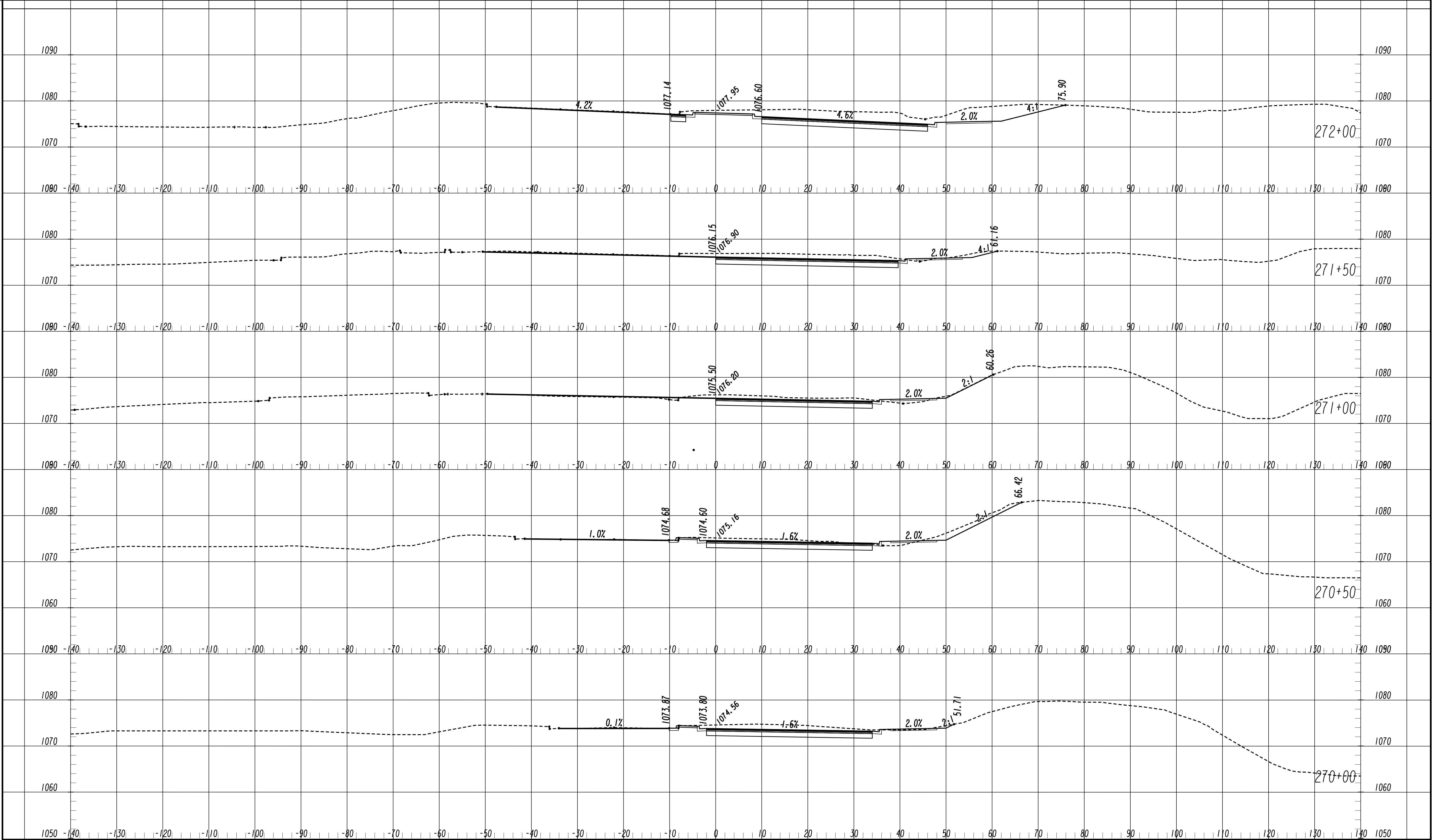














FORSYTH COUNTY
ENGINEERING DEPARTMENT

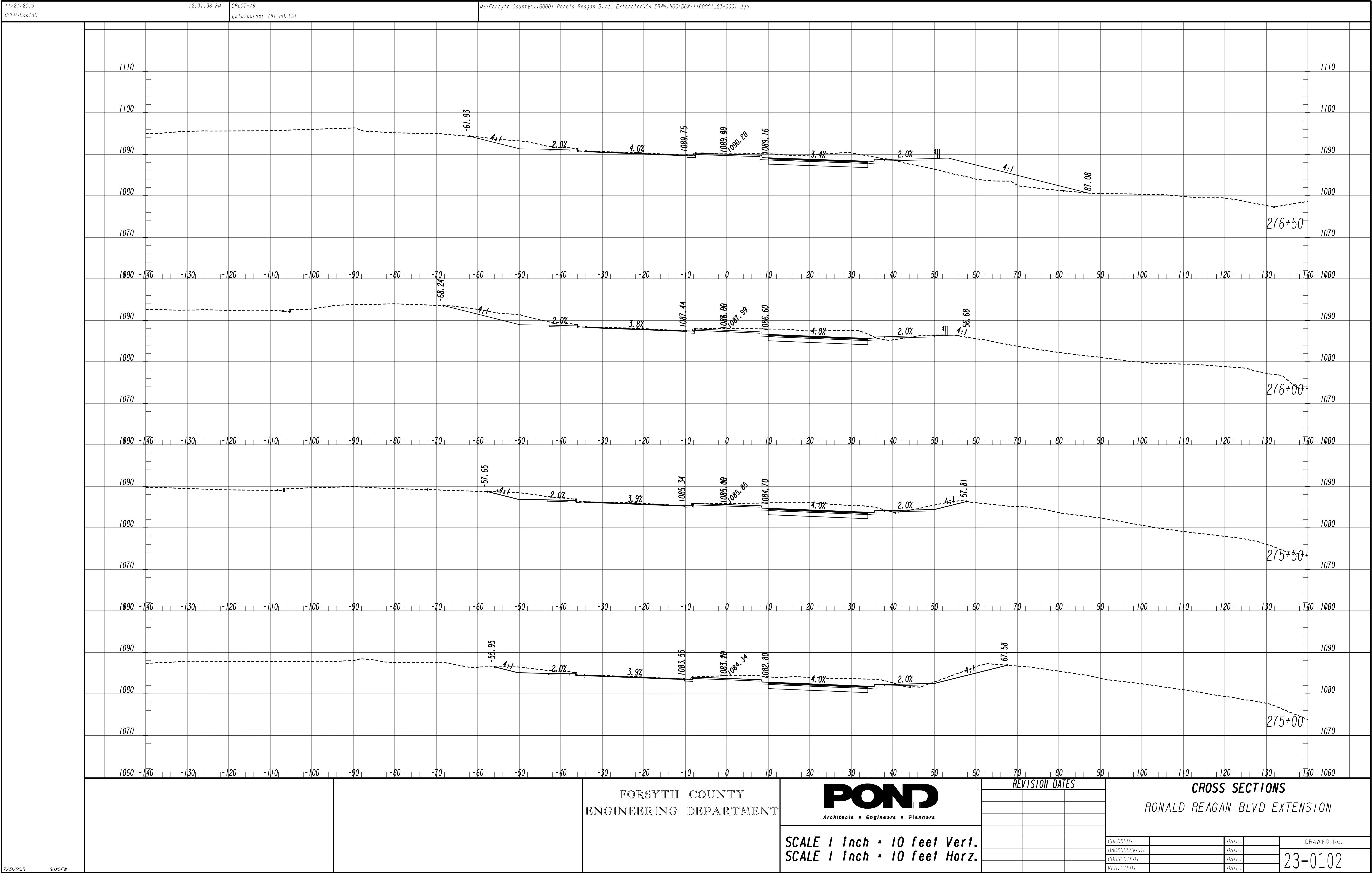


SCALE 1 inch = 10 feet Vert.
SCALE 1 inch = 10 feet Horz.

REVISION DATES

CROSS SECTIONS
RONALD REAGAN BLVD EXTENSION

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		23-0101
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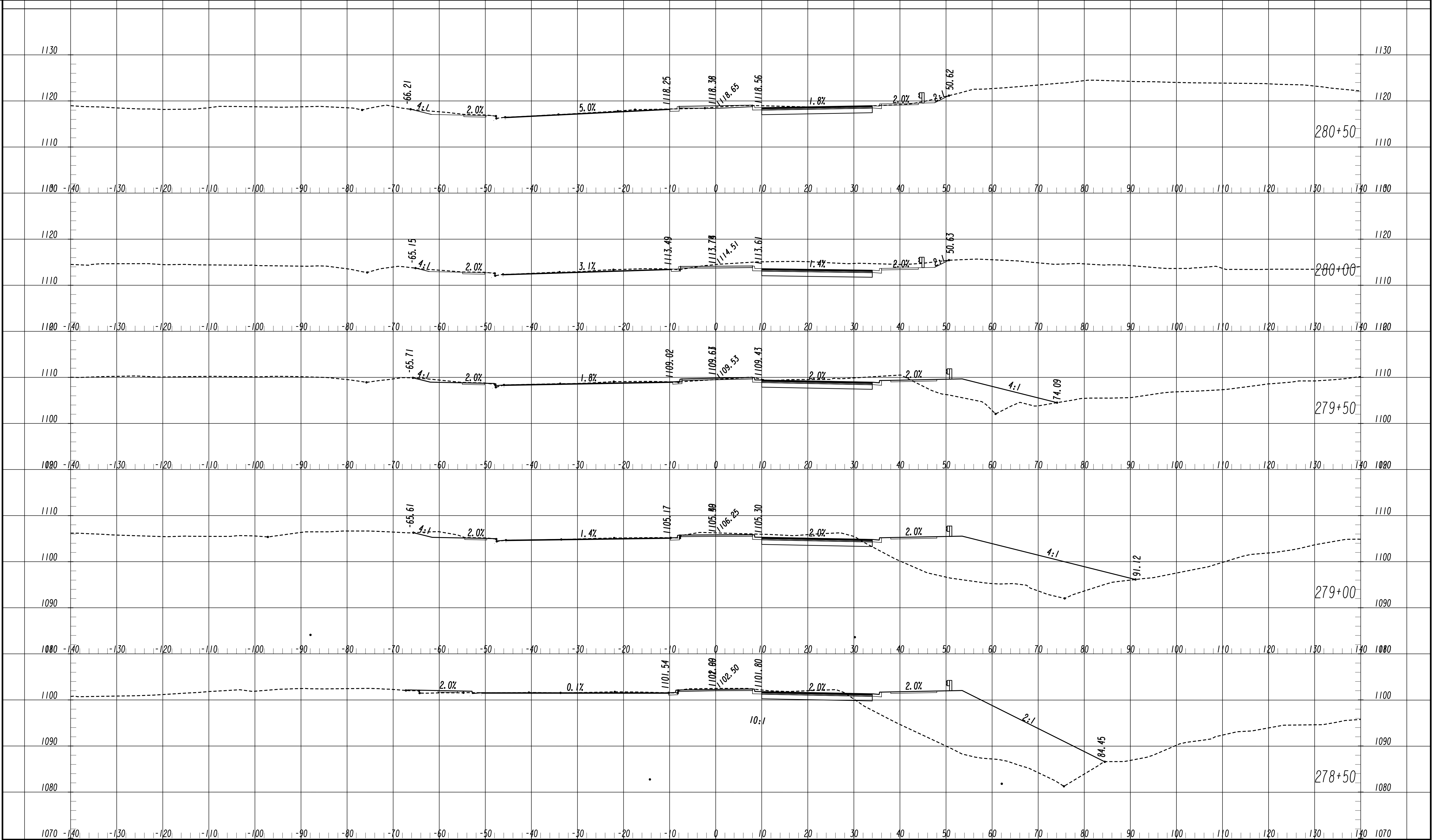
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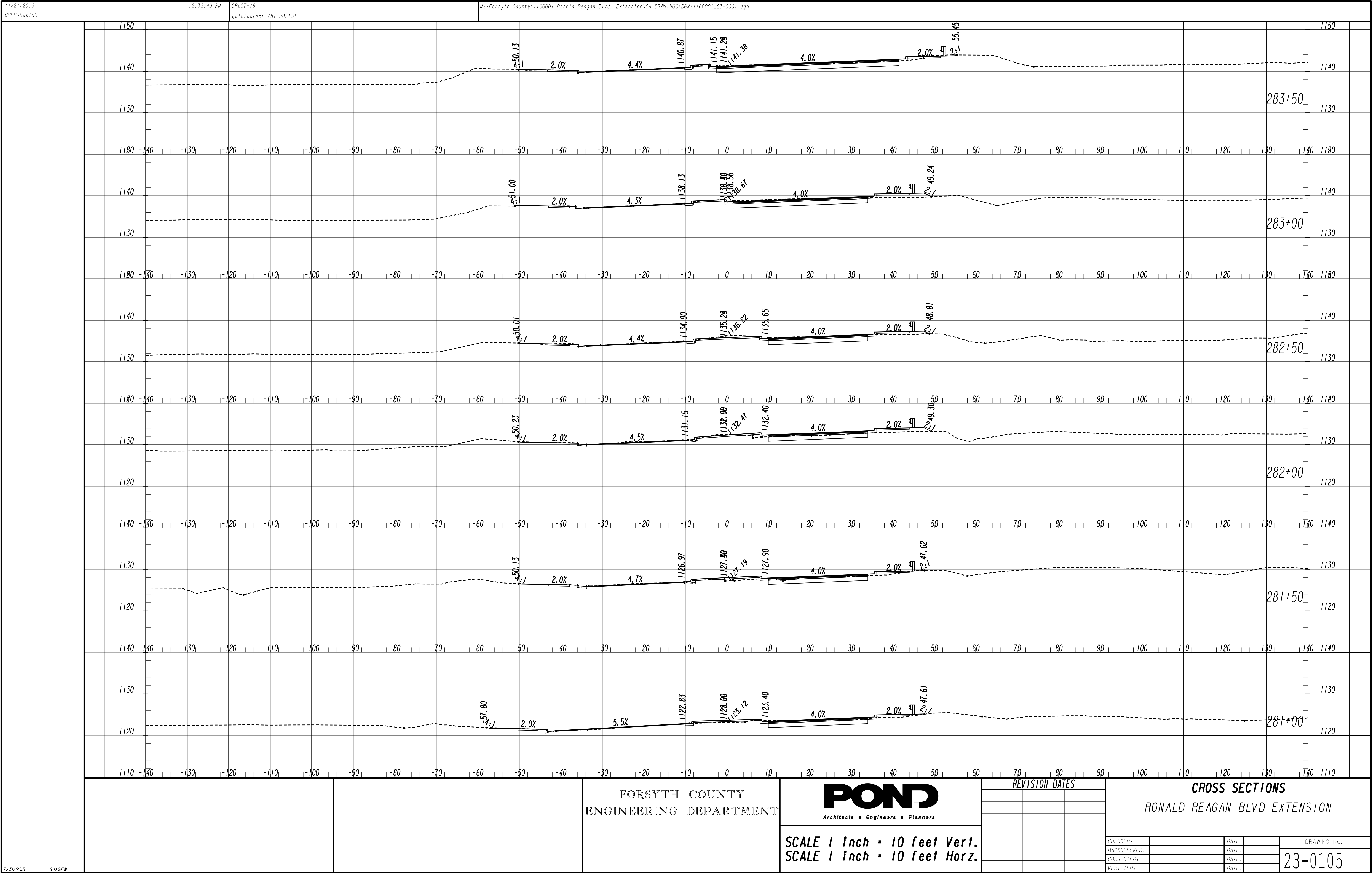
70			90	
REVISION DATES				

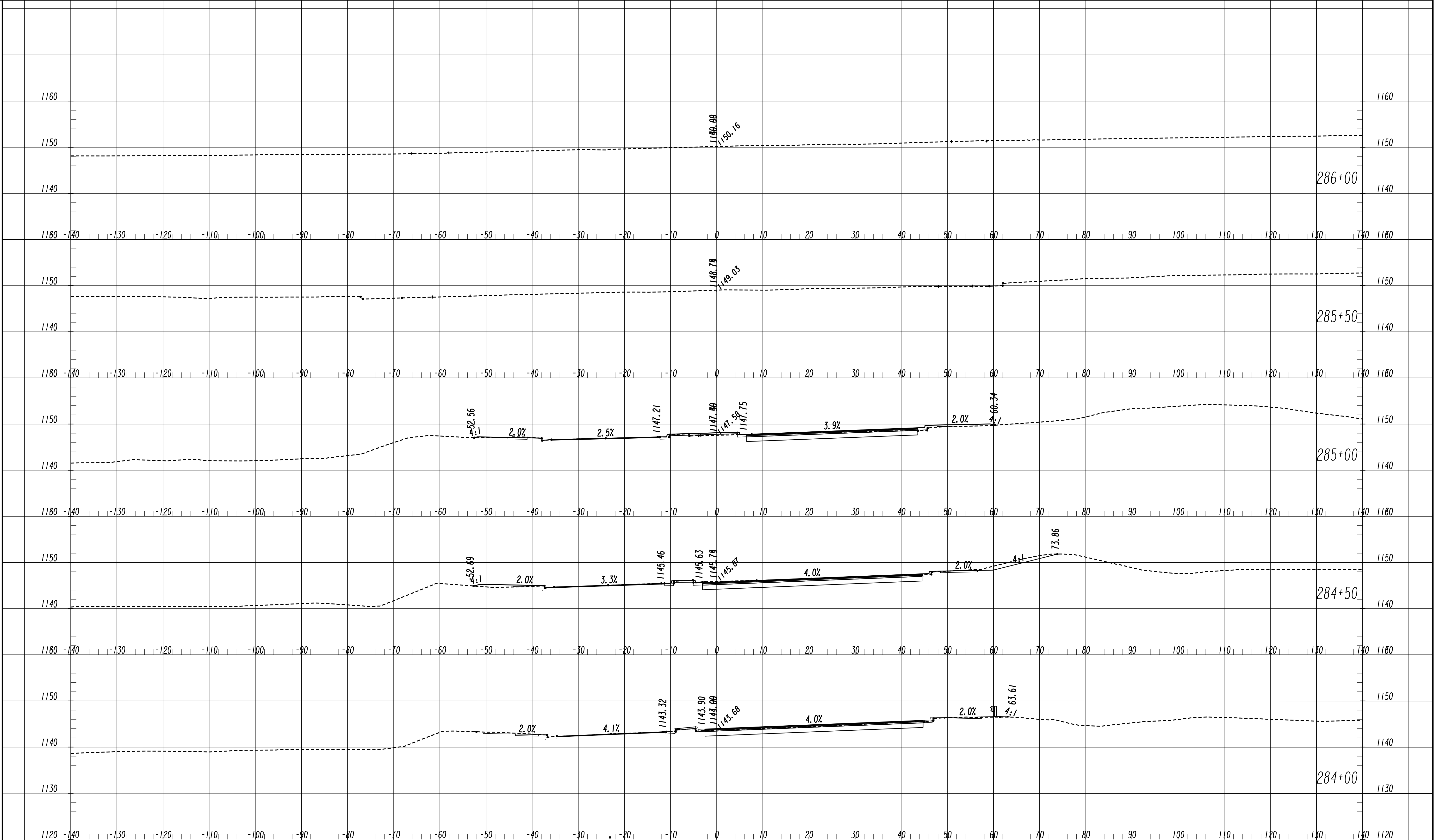
CROSS SECTIONS

RONALD REAGAN BLVD EXTENSION

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VERIFIED:		DATE:		



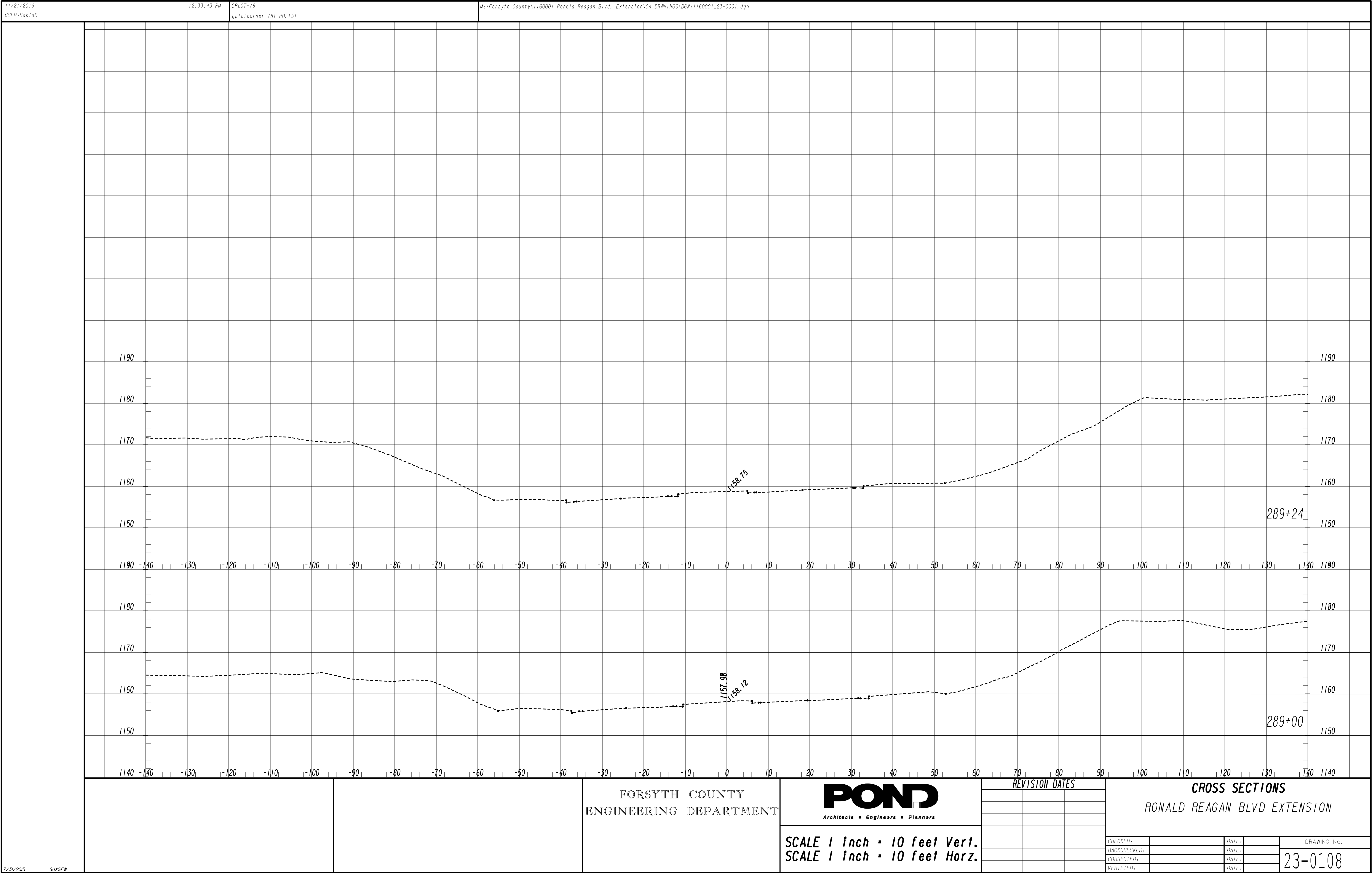


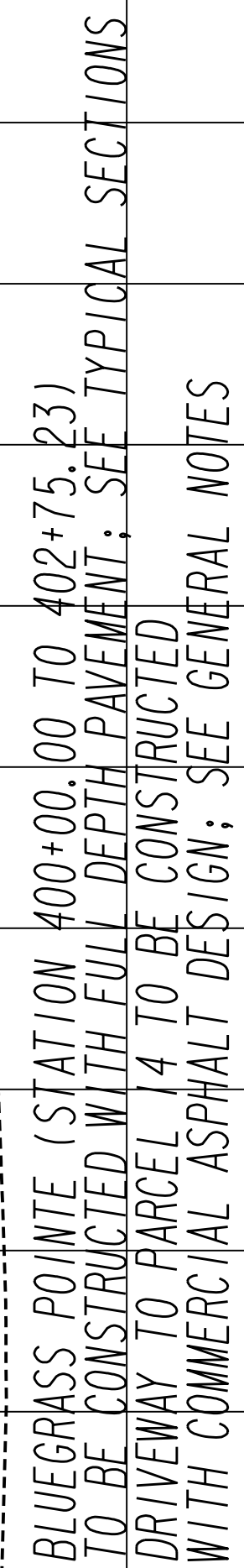


7/31/2015 SUXSEW		FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND Architects • Engineers • Planners</div>	REVISION DATES		CROSS SECTIONS RONALD REAGAN BLVD EXTENSION			
			SCALE 1 inch = 10 feet Vert. SCALE 1 inch = 10 feet Horz.			CHECKED: BACKCHECKED: CORRECTED: VERIFIED:	DATE: DATE: DATE: DATE:	DRAWING No. 23-0106	

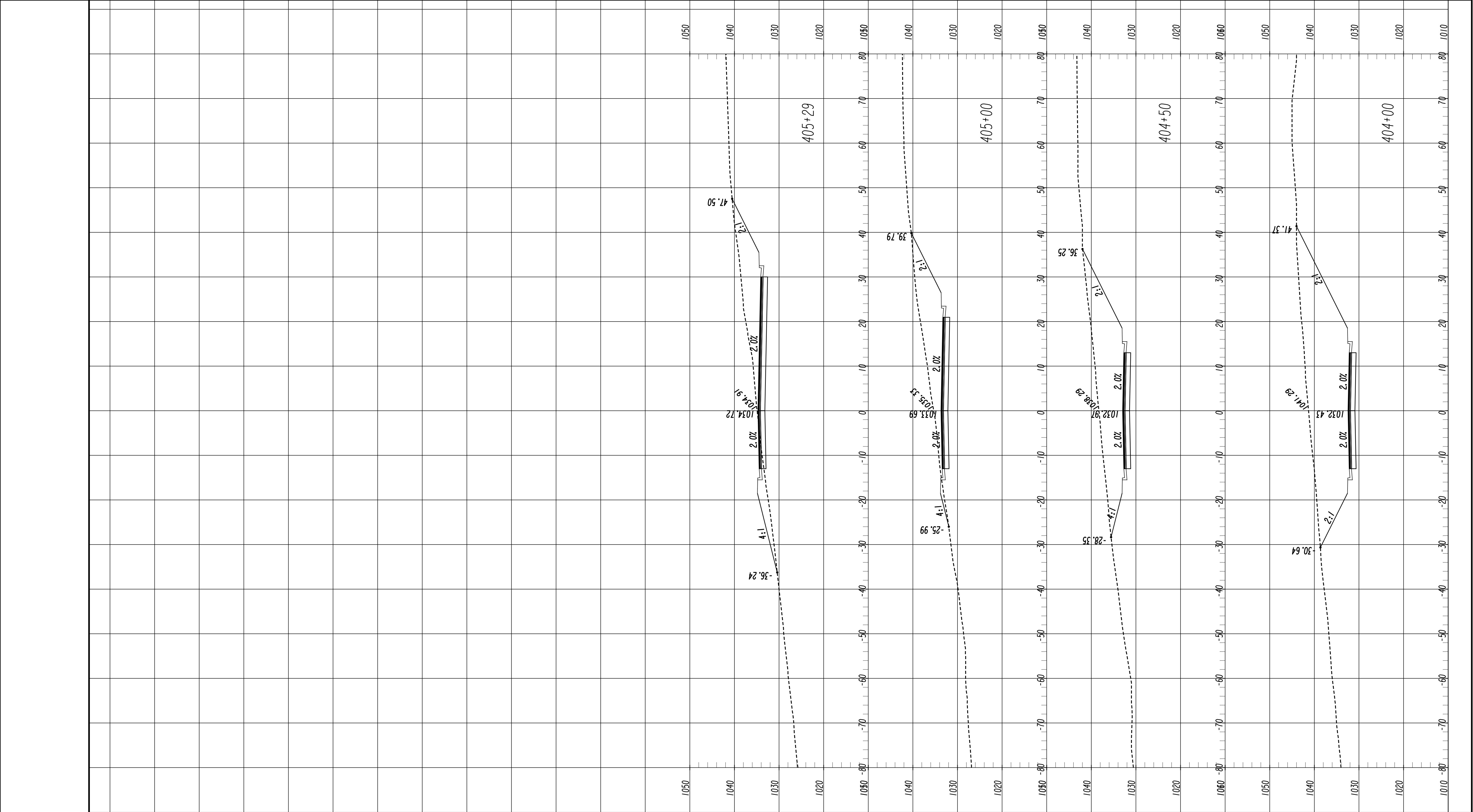


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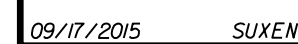




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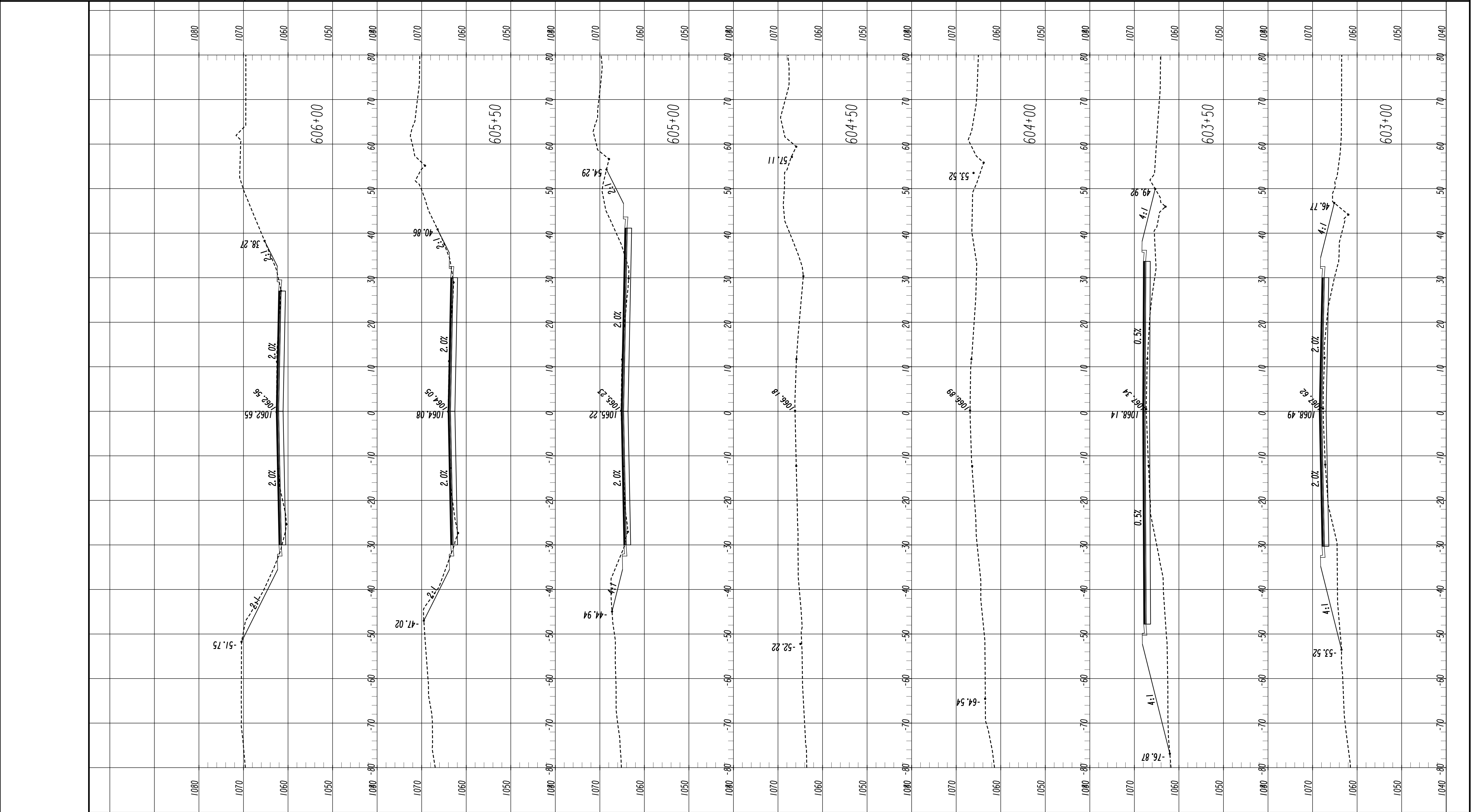
09/17/2015 SUXEN		FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND Architects • Engineers • Planners</div> <div>SCALE 1 inch = 10 feet Vert. SCALE 1 inch = 10 feet Horz.</div>	REVISION DATES			CROSS SECTIONS BLUEGRASS VALLEY PKWY			
				CHECKED: _____	DATE: _____	DRAWING No.				
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CHECKED:		DATE:		DRAWING No. 23-0111
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FORSYTH COUNTY
ENGINEERING DEPARTMENT

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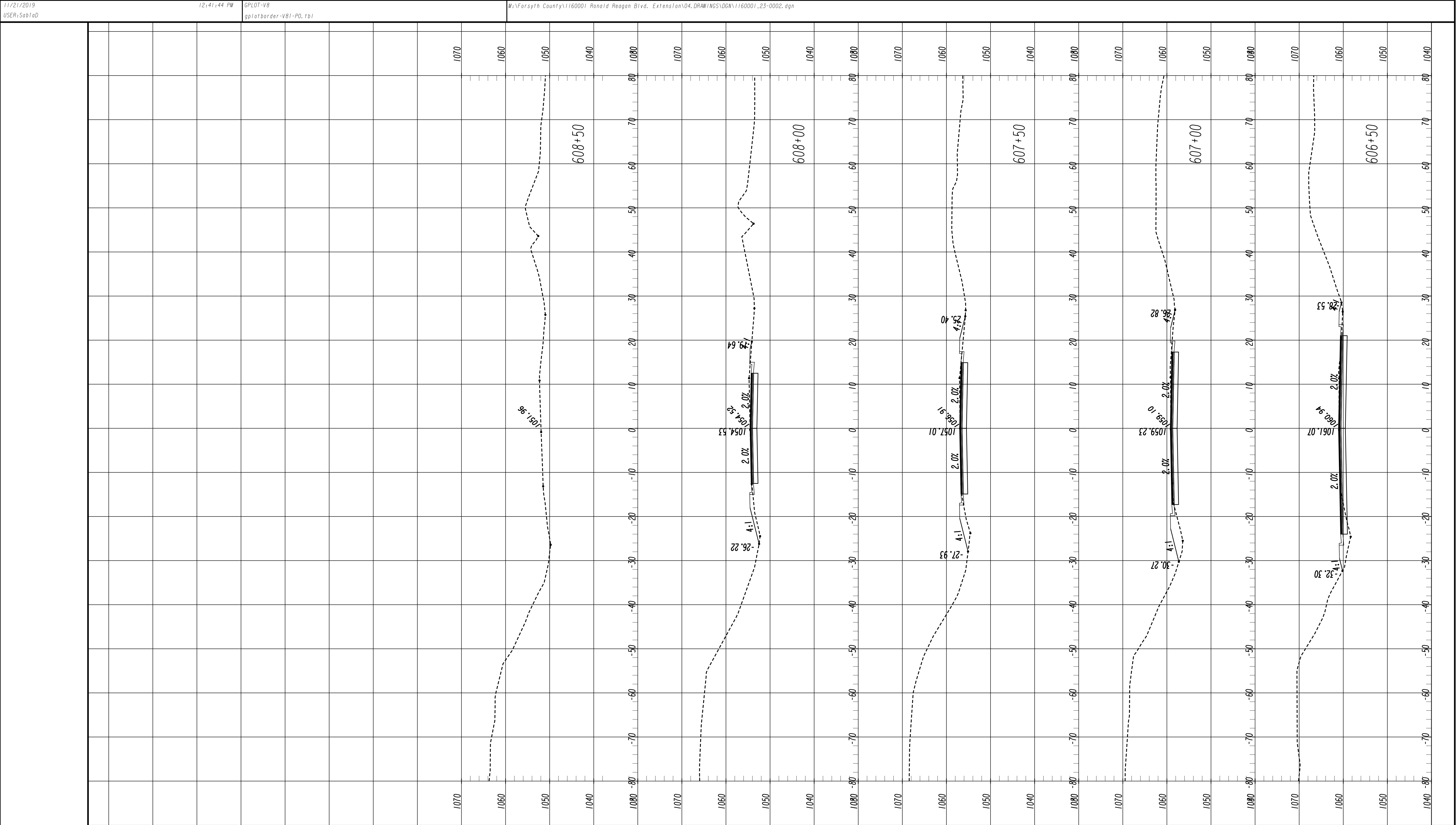
SCALE 1 inch = 10 feet Vert.
SCALE 1 inch = 10 feet Horz.

REVISION DATES

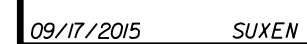
CROSS SECTIONS
SHILOH RD

CHECKED:		DATE:	
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DRAWING No.
23-0112



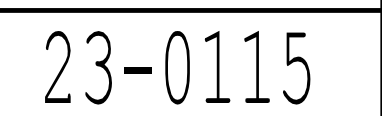
09/17/2015 SUXEN		FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND Architects • Engineers • Planners</div>	REVISION DATES			CROSS SECTIONS SHILOH RD				
SCALE 1 inch = 10 feet Vert. SCALE 1 inch = 10 feet Horz.							CHECKED: _____ BACKCHECKED: _____ CORRECTED: _____ VERIFIED: _____	DATE: _____ DATE: _____ DATE: _____ DATE: _____	DRAWING No. 23-0113		



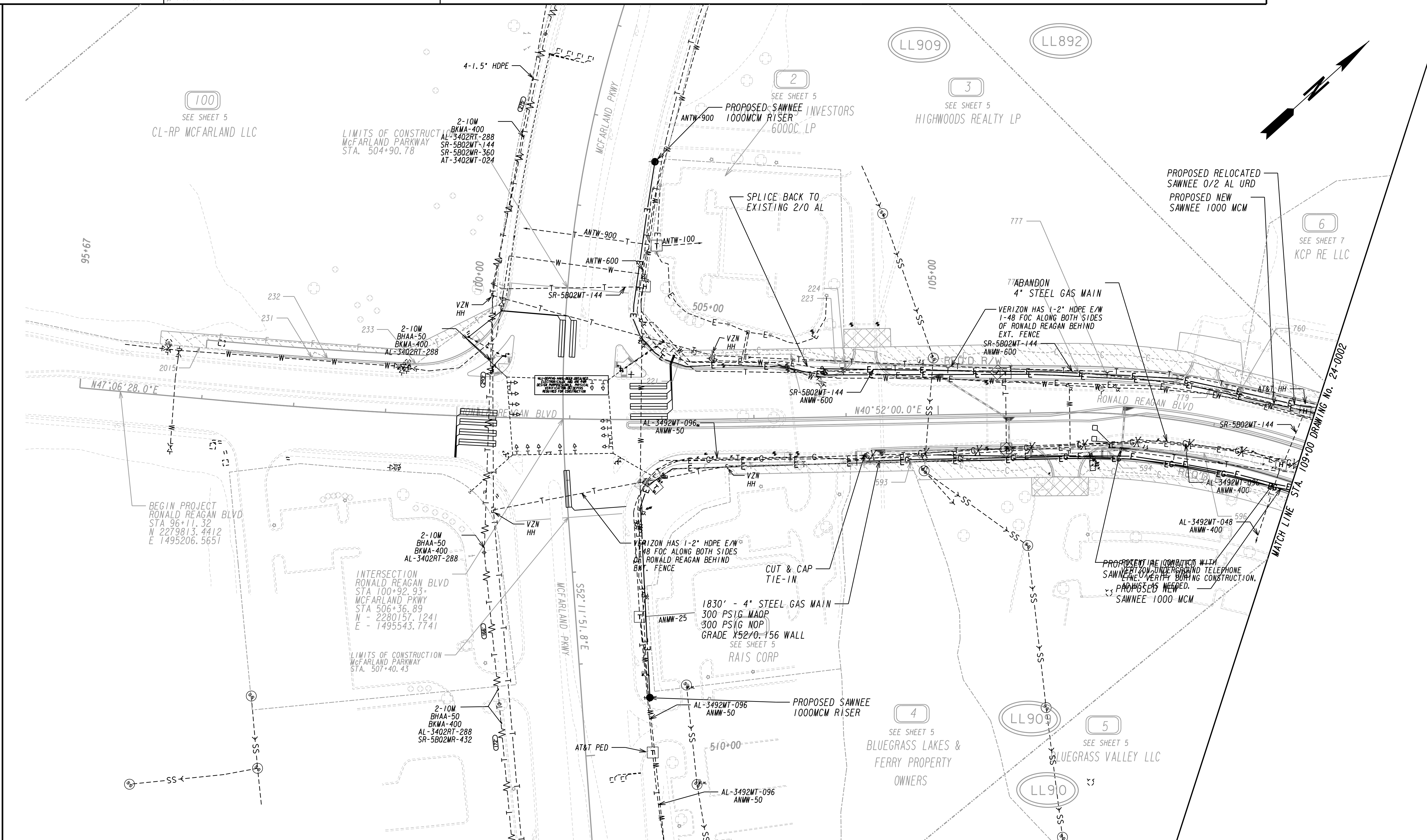
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REVISION DATES	
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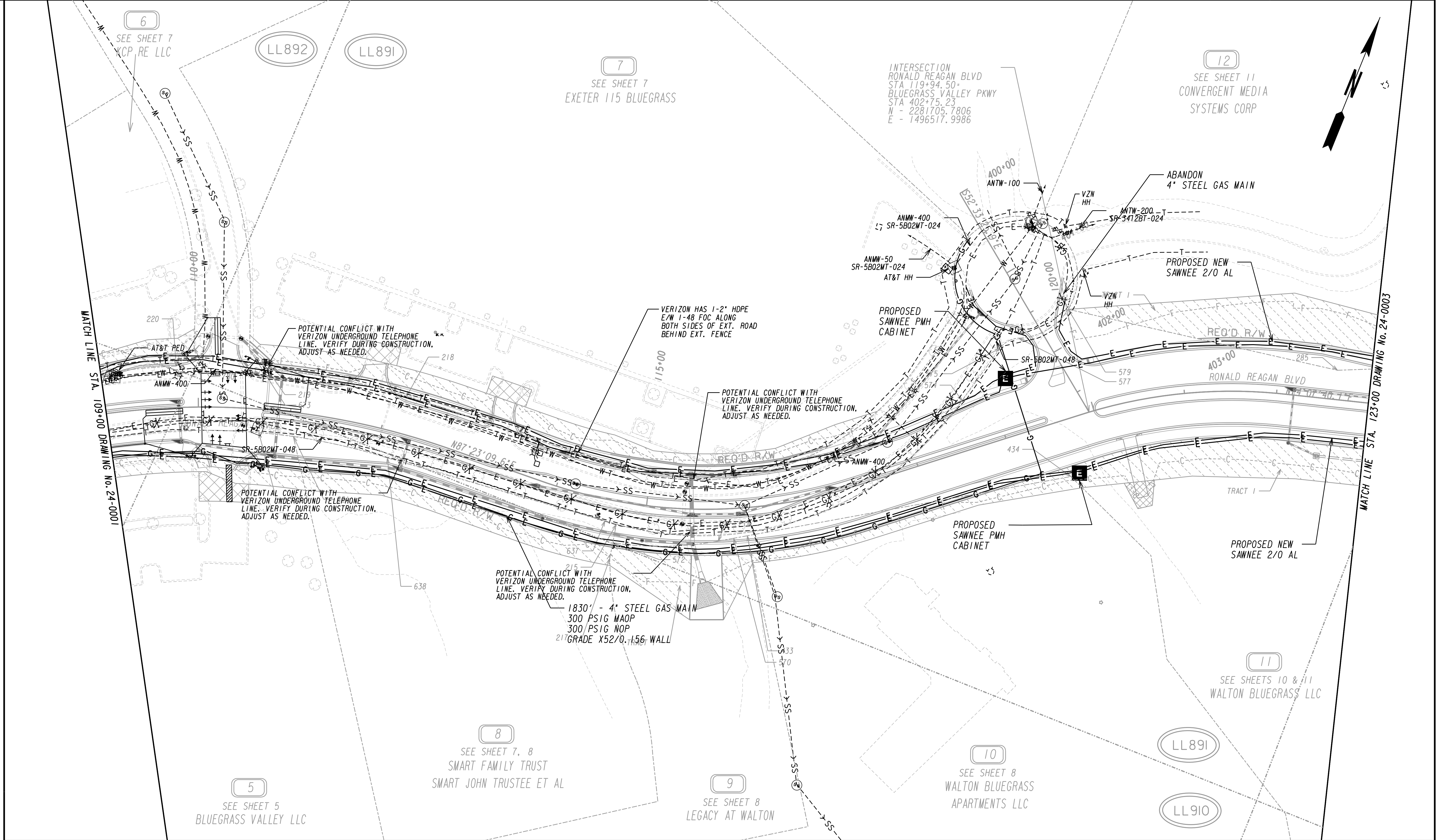
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OVERHEAD ELECTRICAL	UTILITY LINECODES				UTILITY SYMBOLS						
	EXISTING	TO BE REMOVED	PROPOSED	TYPE OF UTILITY	EXISTING	PROPOSED	TEMPORARY	EXISTING	PROPOSED	TEMPORARY	
				ELECTRIC							
				ELECTRIC/TELECOMMUNICATIONS							
				ELECTRIC/CABLE TV							
				ELECTRIC/TRAFFIC CONTROL							
				ELECTRIC/TELECOMMUNICATIONS/CABLE TV							
				ELECTRIC/TELECOMMUNICATIONS/CABLE TV/TRAFFIC CONTROL							
				CABLE TV							
				CABLE TV/TRAFFIC CONTROL	MISCELLANEOUS						
UNDERGROUND ELECTRICAL				TELECOMMUNICATIONS				 LOS TH EOI S ID C123 A01 C123 HOC			
				TELECOMMUNICATIONS/TRAFFIC CONTROL							
				TELECOMMUNICATIONS/CABLE TV							
				TELECOMMUNICATIONS/CABLE TV/TRAFFIC CONTROL							
				CABLE TV							
				CABLE TV/TRAFFIC CONTROL				ABBREVIATIONS LEGEND			
				TRAFFIC CONTROL							
				ELECTRIC (OL-D)							
				ELECTRIC (OL-C)							
				ELECTRIC (OL-B)							
UNDERGROUND WATER				TELECOMMUNICATIONS (OL-D)				AATUR ABANDONED ACCORDING TO UTILITY RECORDS AATFO ABANDONED ACCORDING TO FILED OBSERVATION ACP ASBESTOS CONCRETE PIPE ARV AIR RELEASE VALVE CIP CAST IRON PIPE COND CONDUIT DIP DUCTILE IRON PIPE FO FIBER OPTIC FDC FIRE DEPARTMENT CONNECTION GALV GALVANIZED PIPE HDPE HIGH DENSITY POLYETHYLENE HP HIGH PRESSURE MP MEDIUM PRESSURE NURIA NO UTILITY RECORD INFORMATION AVAILABLE OVHD OVERHEAD PE POLYETHYLENE PIPE PLAS PLASTIC PIPE PR PAIR PVC POLYVINYL CHLORIDE PIPE RCP REINFORCED CONCRETE PIPE RIP RETIRED IN PLACE STL STEEL PIPE STR STRAND SVC SERVICE, UNKNOWN SIZE/TYPE TEL TELECOMMUNICATIONS			
				TELECOMMUNICATIONS (OL-C)							
				TELECOMMUNICATIONS (OL-B)							
				CABLE TV (OL-D)							
				CABLE TV (OL-C)							
				CABLE TV (OL-B)							
				WATER (OL-D)							
				WATER (OL-C)							
				WATER (OL-B)							
				WATER FOR LABELED PIPE SIZES (OL-D)							
UNDERGROUND SANITARY SEWER				TELECOMMUNICATIONS FOR LABELED PIPE SIZES (OL-C)				QUALITY LEVELS AND DEFINITIONS			
				TELECOMMUNICATIONS FOR LABELED PIPE SIZES (OL-B)							
				NON-POTABLE WATER (OL-D)							
				NON-POTABLE WATER (OL-C)							
				NON-POTABLE WATER (OL-B)							
				NON-POTABLE WATER FOR LABELED PIPE SIZES (OL-D)	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS						
				NON-POTABLE WATER FOR LABELED PIPE SIZES (OL-C)							
				NON-POTABLE WATER FOR LABELED PIPE SIZES (OL-B)							
				STEAM (OL-D)							
				STEAM (OL-C)							
UNDERGROUND GAS				STEAM (OL-B)				FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS			
				STEAM FOR LABELED PIPE SIZES (OL-C)							
				STEAM FOR LABELED PIPE SIZES (OL-B)							
				SANITARY SEWER WITH FLOW DIRECTION (OL-D)							
				SANITARY SEWER WITH FLOW DIRECTION (OL-C)							
				SANITARY SEWER WITH FLOW DIRECTION (OL-B)							
				SANITARY SEWER FOR LABELED PIPE SIZES (OL-D)							
				SANITARY SEWER FOR LABELED PIPE SIZES (OL-C)							
				SANITARY SEWER FOR LABELED PIPE SIZES (OL-B)							
				SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (OL-D)							
UNDERGROUND PETROLEUM				SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (OL-C)				FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS			
				SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION (OL-B)							
				GAS (OL-D)							
				GAS (OL-C)	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS						
				GAS (OL-B)							
				GAS FOR LABELED PIPE SIZES (OL-D)							
				GAS FOR LABELED PIPE SIZES (OL-C)							
				GAS FOR LABELED PIPE SIZES (OL-B)							
	UNDERGROUND TRAFFIC CONTROL				PETROLEUM (OL-D)	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS					
					PETROLEUM (OL-C)						
				PETROLEUM (OL-B)							
				PETROLEUM FOR LABELED PIPE SIZES (OL-D)							
				PETROLEUM FOR LABELED PIPE SIZES (OL-C)							
				PETROLEUM FOR LABELED PIPE SIZES (OL-B)							
				TRAFFIC CONTROL (OL-D)							
				TRAFFIC CONTROL (OL-C)							
				TRAFFIC CONTROL (OL-B)							
				UNKNOWN UTILITY FOUND IN SUE INVESTIGATION (OL-B)							
UNDERGROUND TRAFFIC SIGNAL				TRAFFIC CONTROL (OL-D)	FOR PROPOSED/TEMPORARY TRAFFIC CONTROL INFORMATION REFER TO TRAFFIC SIGNAL PLANS						
				TRAFFIC CONTROL (OL-C)							
				TRAFFIC CONTROL (OL-B)							
				UNKNOWN UTILITY FOUND IN SUE INVESTIGATION (OL-B)							
				TRAFFIC CONTROL (OL-D)							
				TRAFFIC CONTROL (OL-C)							
				TRAFFIC CONTROL (OL-B)							
				UNKNOWN UTILITY FOUND IN SUE INVESTIGATION (OL-B)							
FORSYTH COUNTY ENGINEERING DEPARTMENT						REVISION DATES			UTILITY PLANS RONALD REAGAN BLVD EXTENSION		



<p>PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES</p>		<p>BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)</p>		<p>FORSYTH COUNTY ENGINEERING DEPARTMENT</p>		<p>POND Architects • Engineers • Planners</p>		<p>REVISION DATES</p>		<p>UTILITY PLANS RONALD REAGAN BLVD EXTENSION</p>			
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

SCALE IN FEET

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REVISION DATES

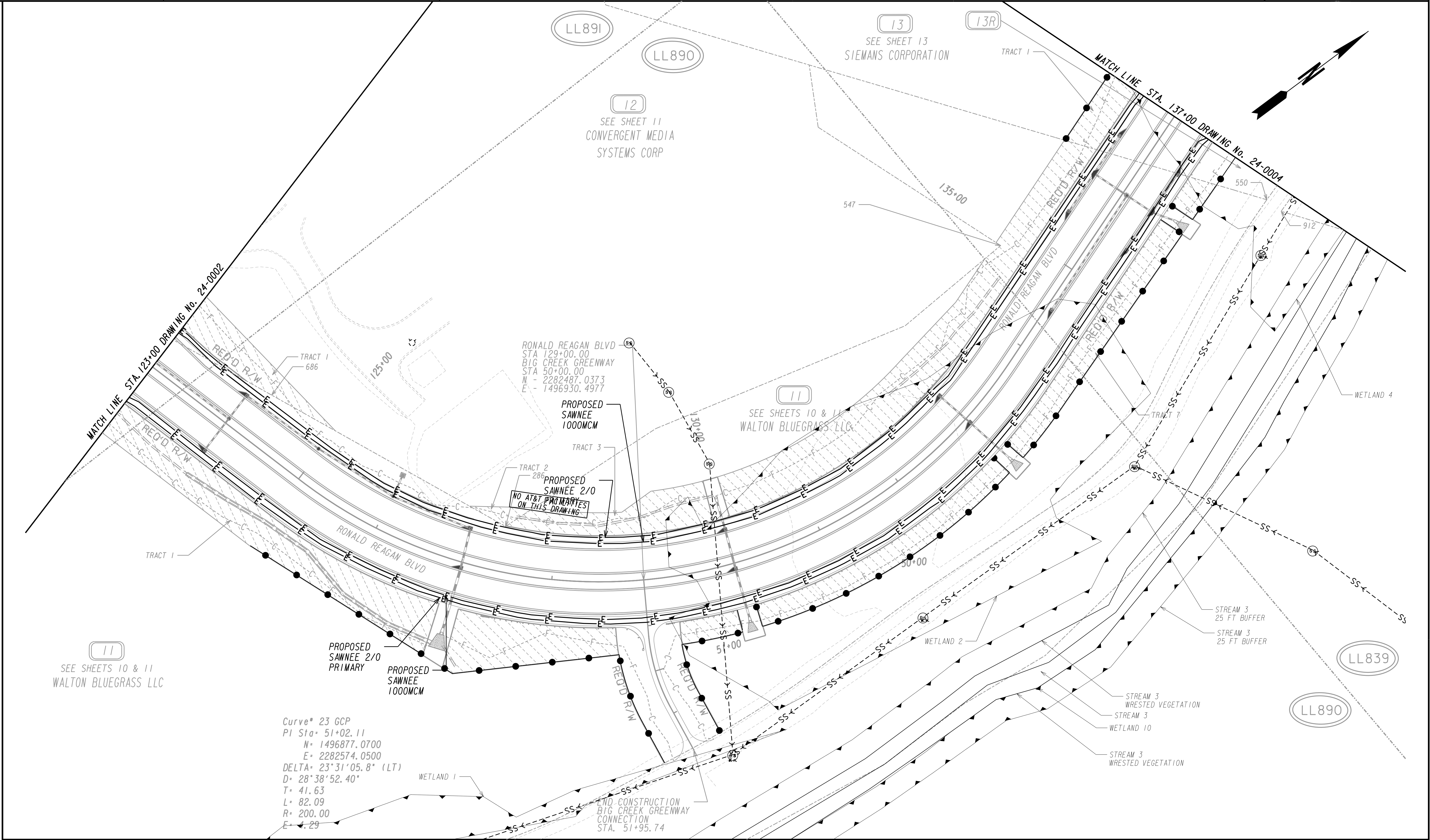
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RONALD REAGAN BLVD EXTENSION

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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

Architects • Engineers • Planners

SCALE IN FEET

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REVISION DATES

UTILITY PLANS
RONALD REAGAN BLVD EXTENSION

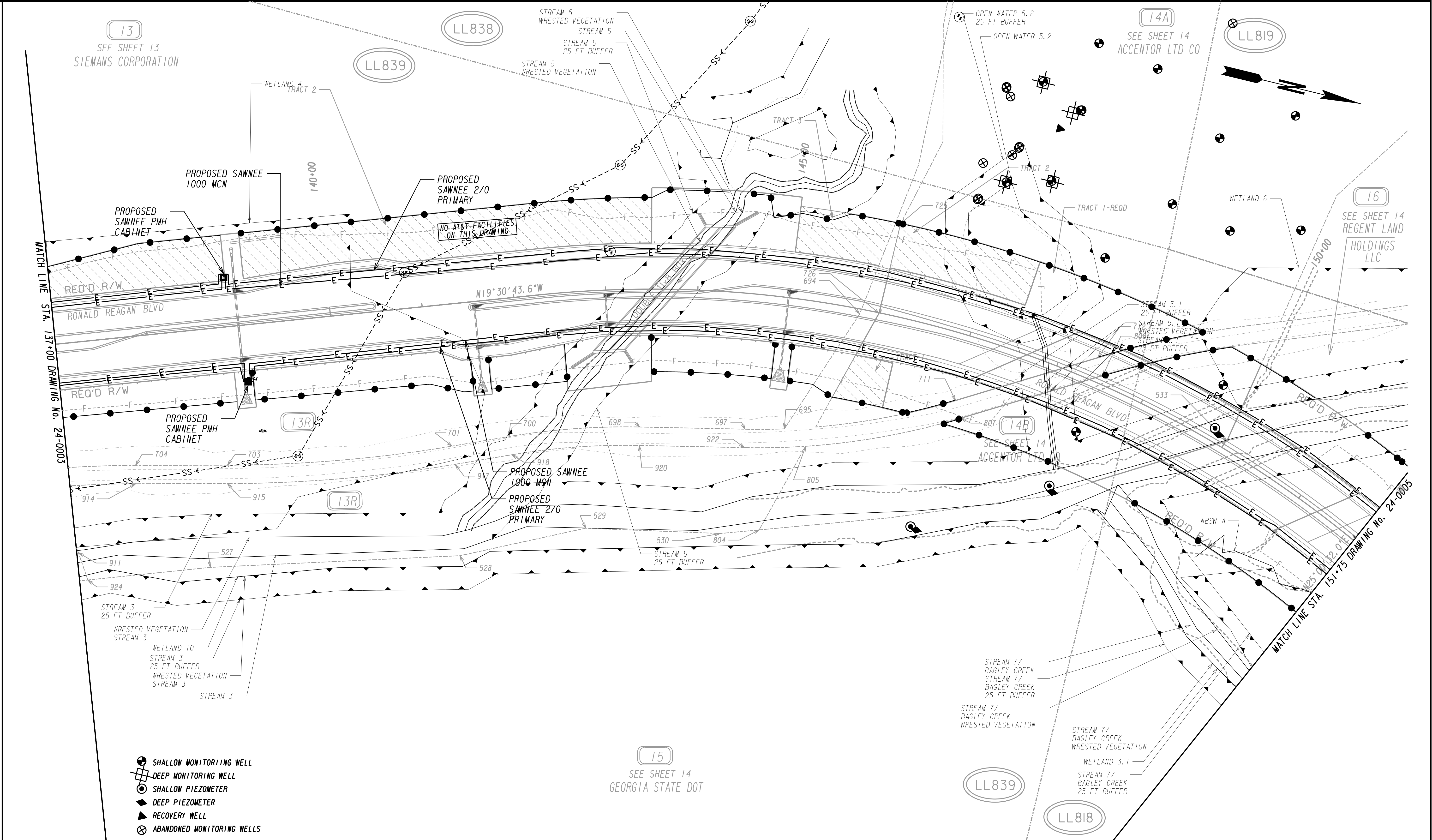
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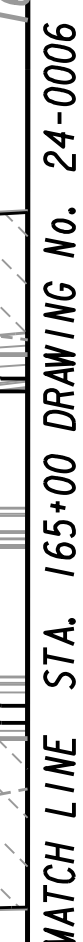
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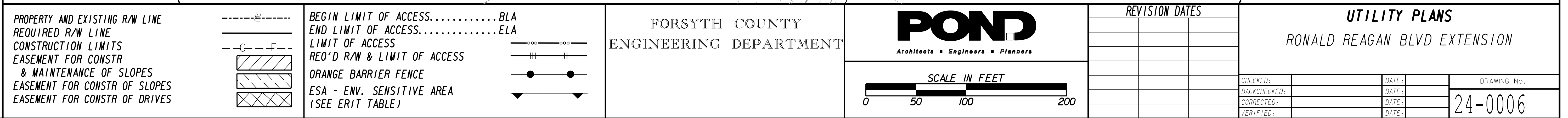


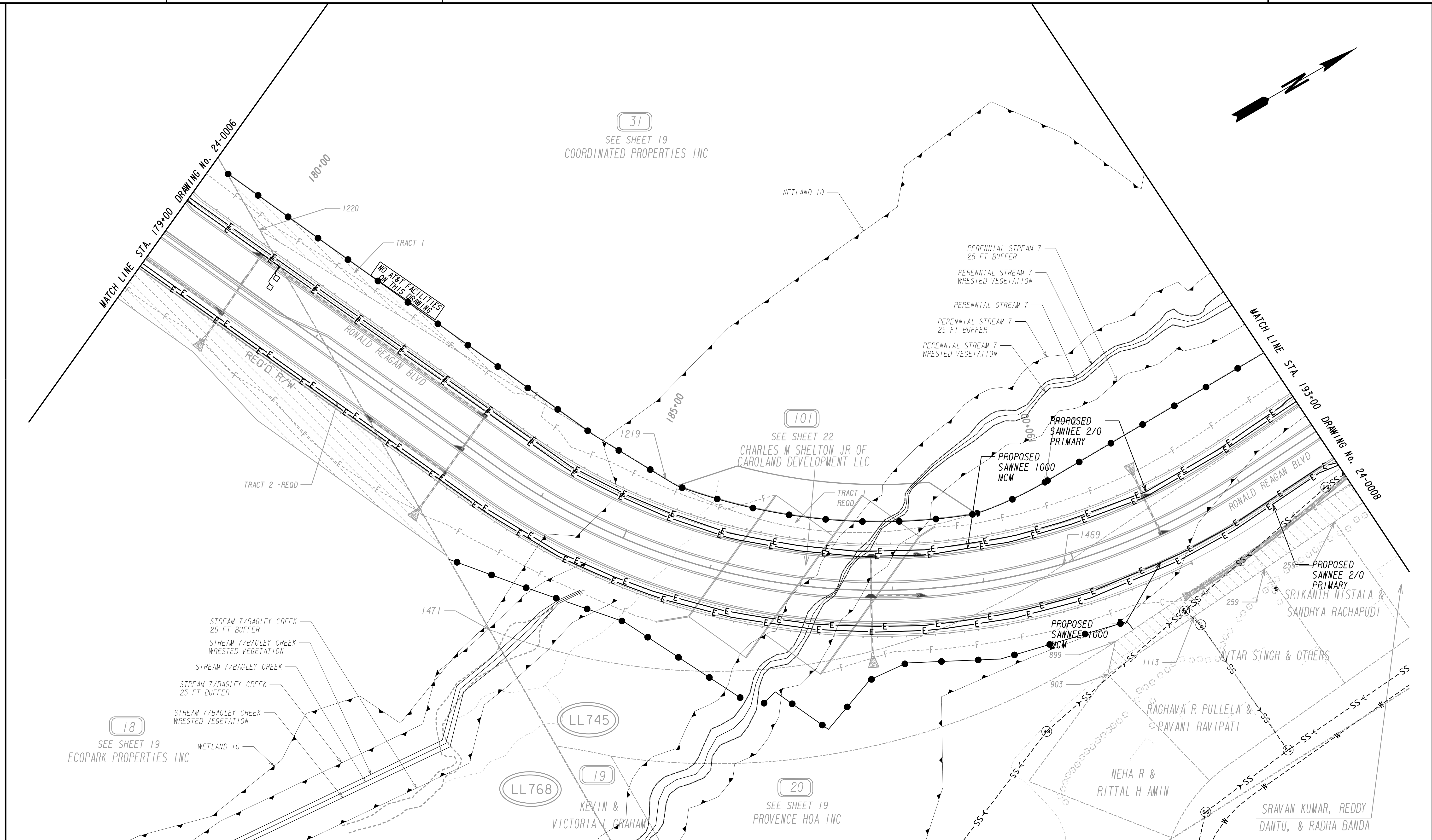
- SHALLOW MONITORING WELL
- ⊠ DEEP MONITORING WELL
- SHALLOW PIEZOMETER
- ◆ DEEP PIEZOMETER
- ▲ RECOVERY WELL
- ⊗ ABANDONED MONITORING WELLS

PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div>---@---</div><div>---C---F---</div><div><div></div></div><div><div></div></div><div><div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div>SCALE IN FEET 0 50 100 200</div>	REVISION DATES <table><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table>																										UTILITY PLANS RONALD REAGAN BLVD EXTENSION			
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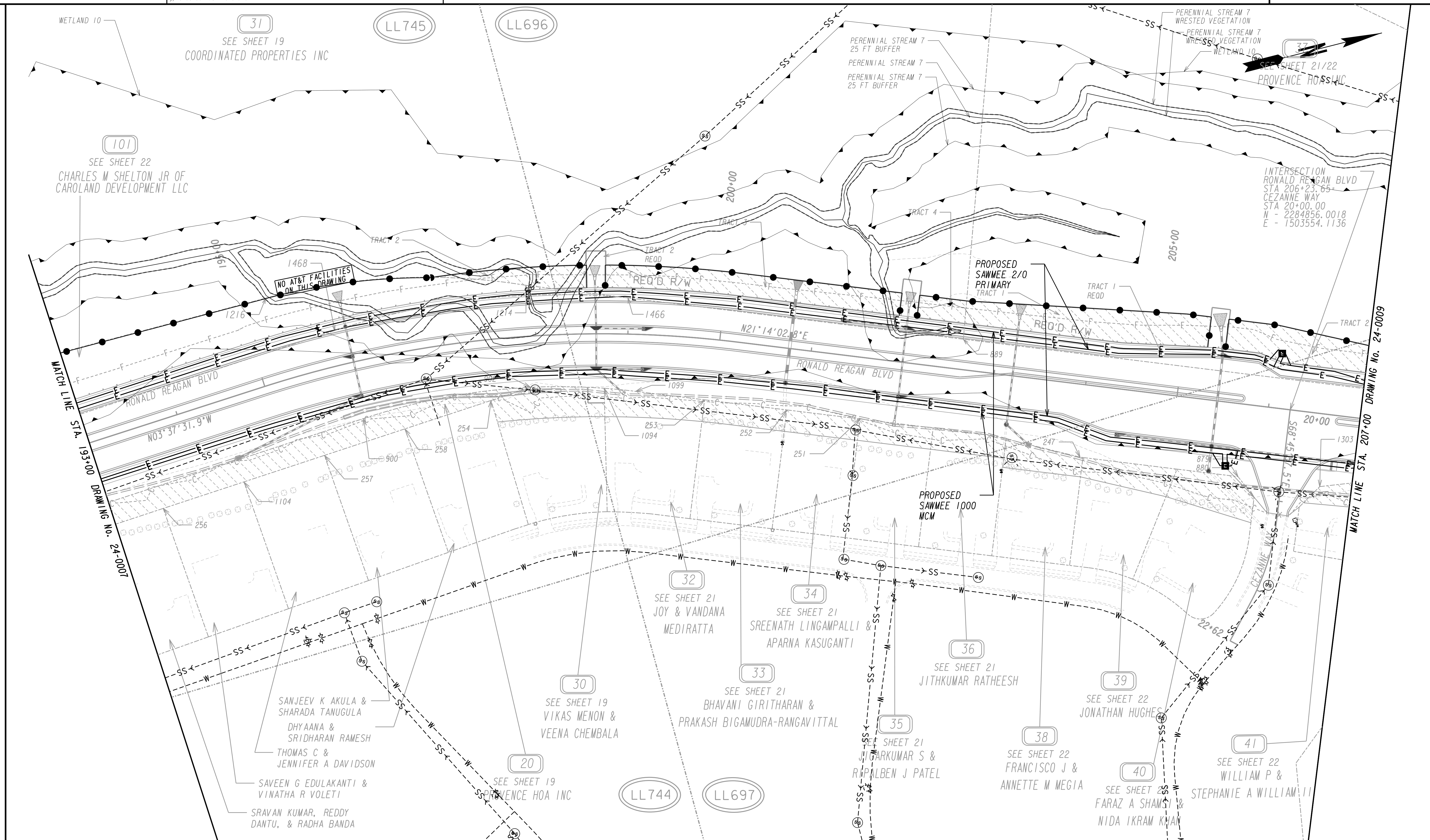




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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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END LIMIT OF ACCESS.....ELA
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ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

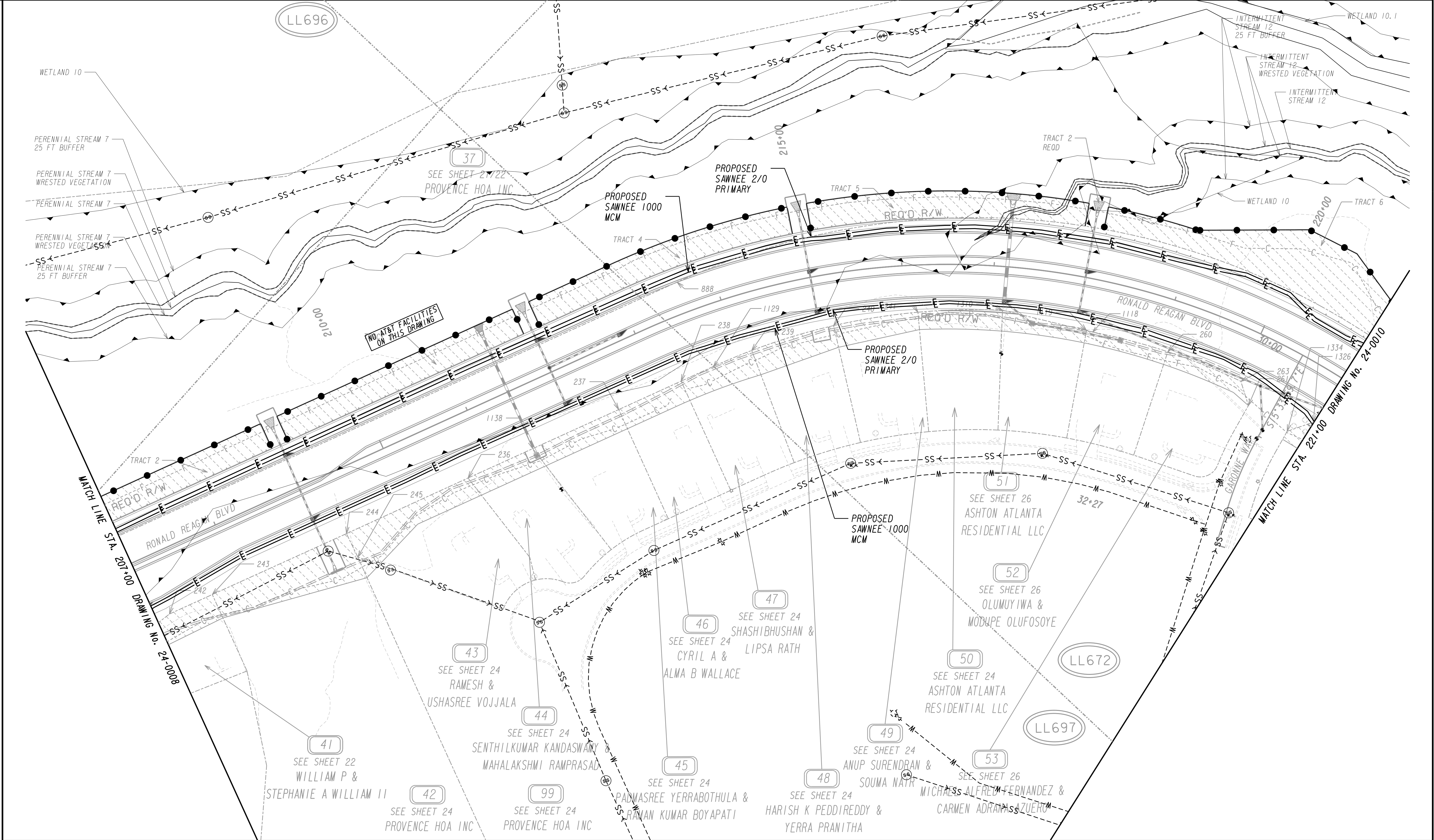
FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND
Architects • Engineers • Planners

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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
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(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

Architects • Engineers • Planners

SCALE IN FEET

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REVISION DATES

UTILITY PLANS
RONALD REAGAN BLVD EXTENSION

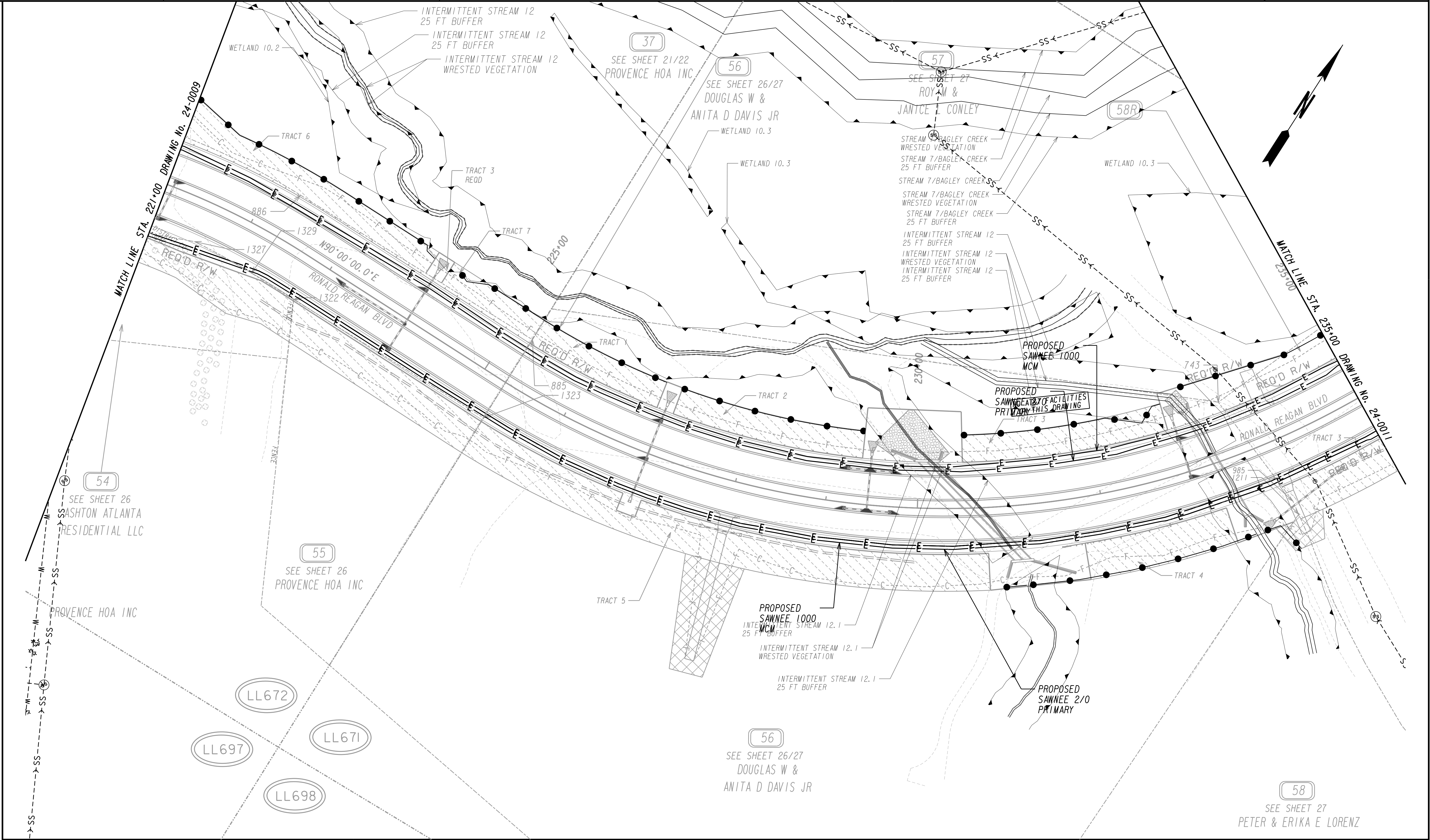
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PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR

& MAINTENANCE OF SLOPES

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

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LIMIT OF ACCESS

REQ'D R/W & LIMIT OF ACCESS

ORANGE BARRIER FENCE

ESA - ENV. SENSITIVE AREA

(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

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SCALE IN FEET

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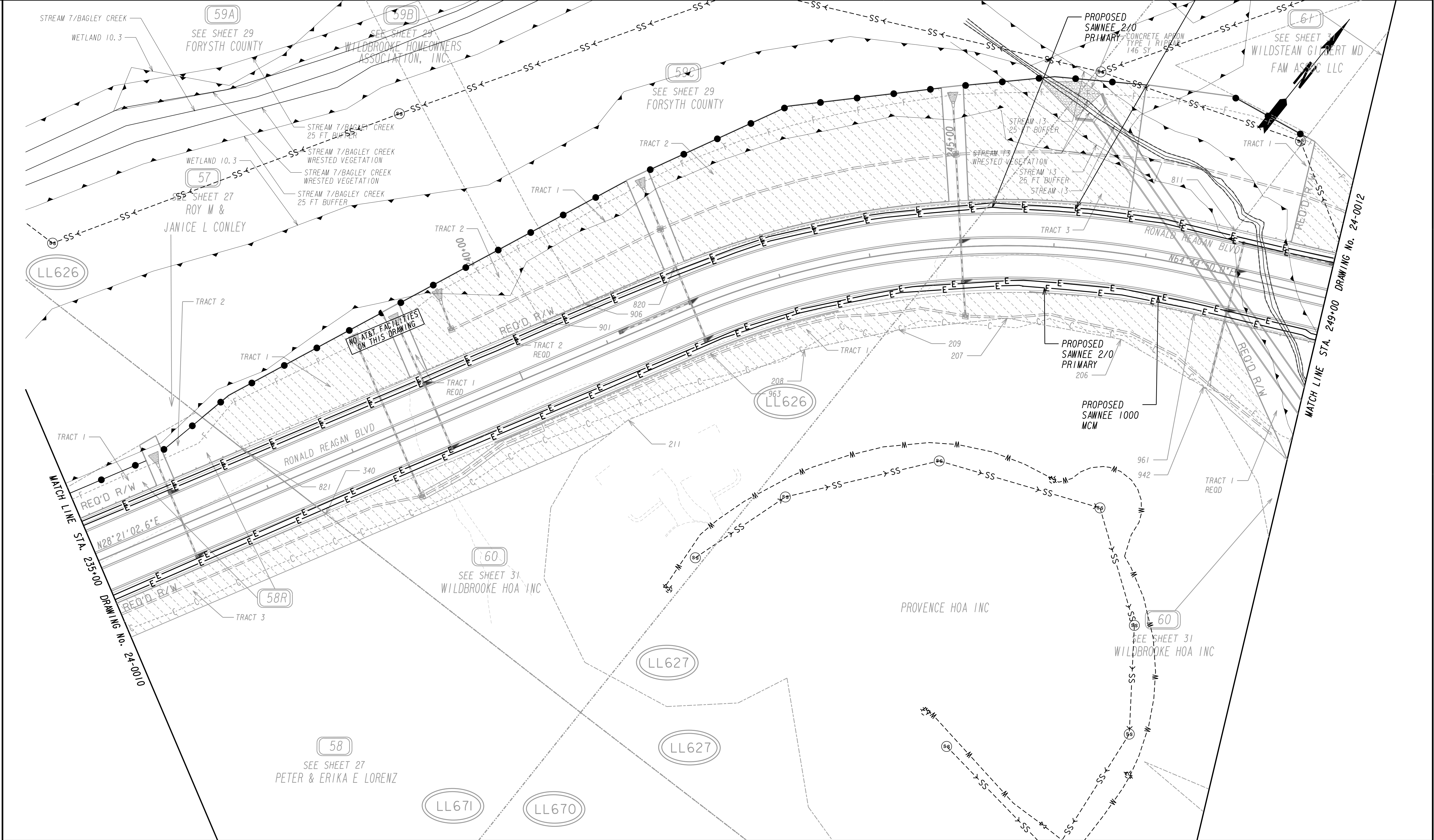
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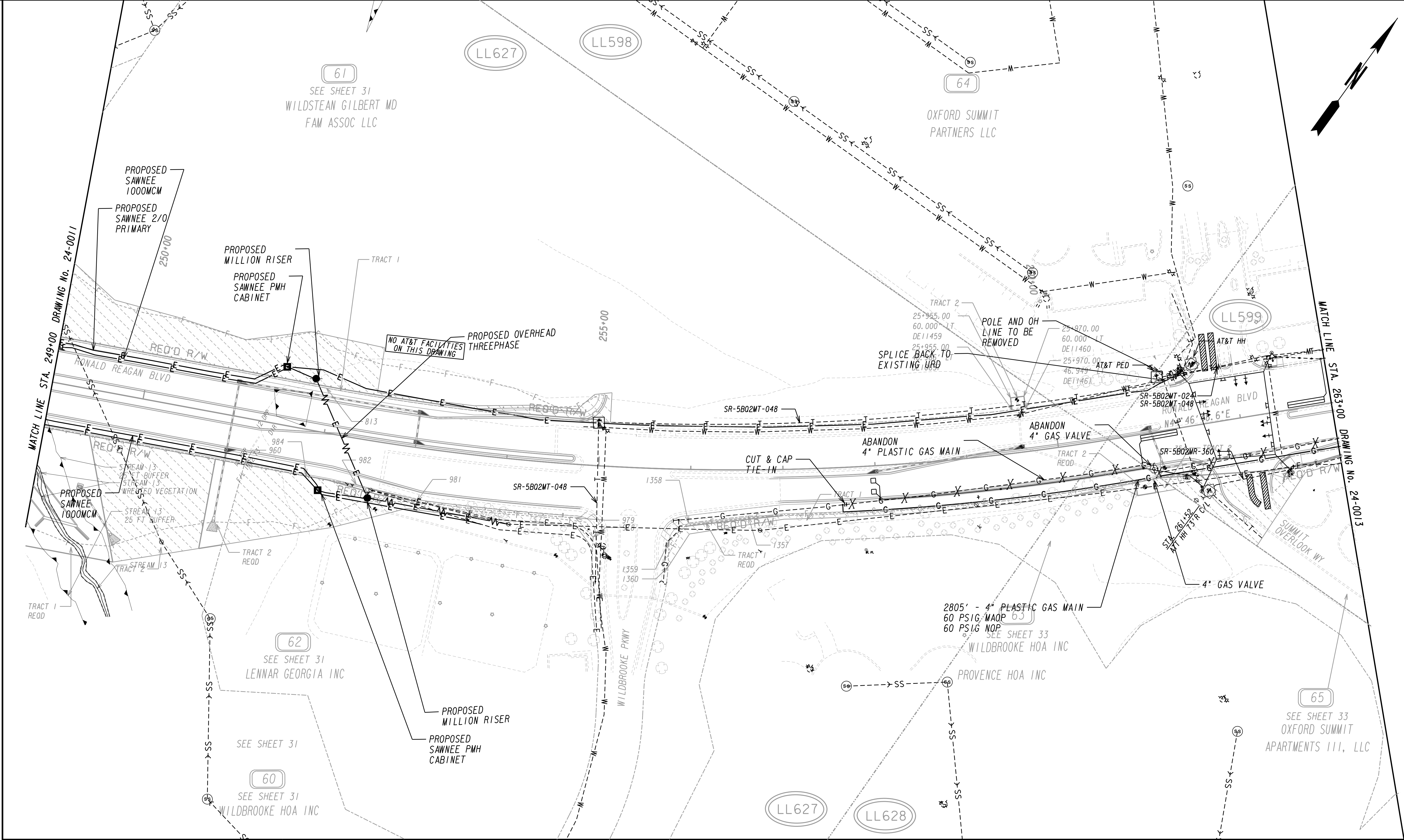
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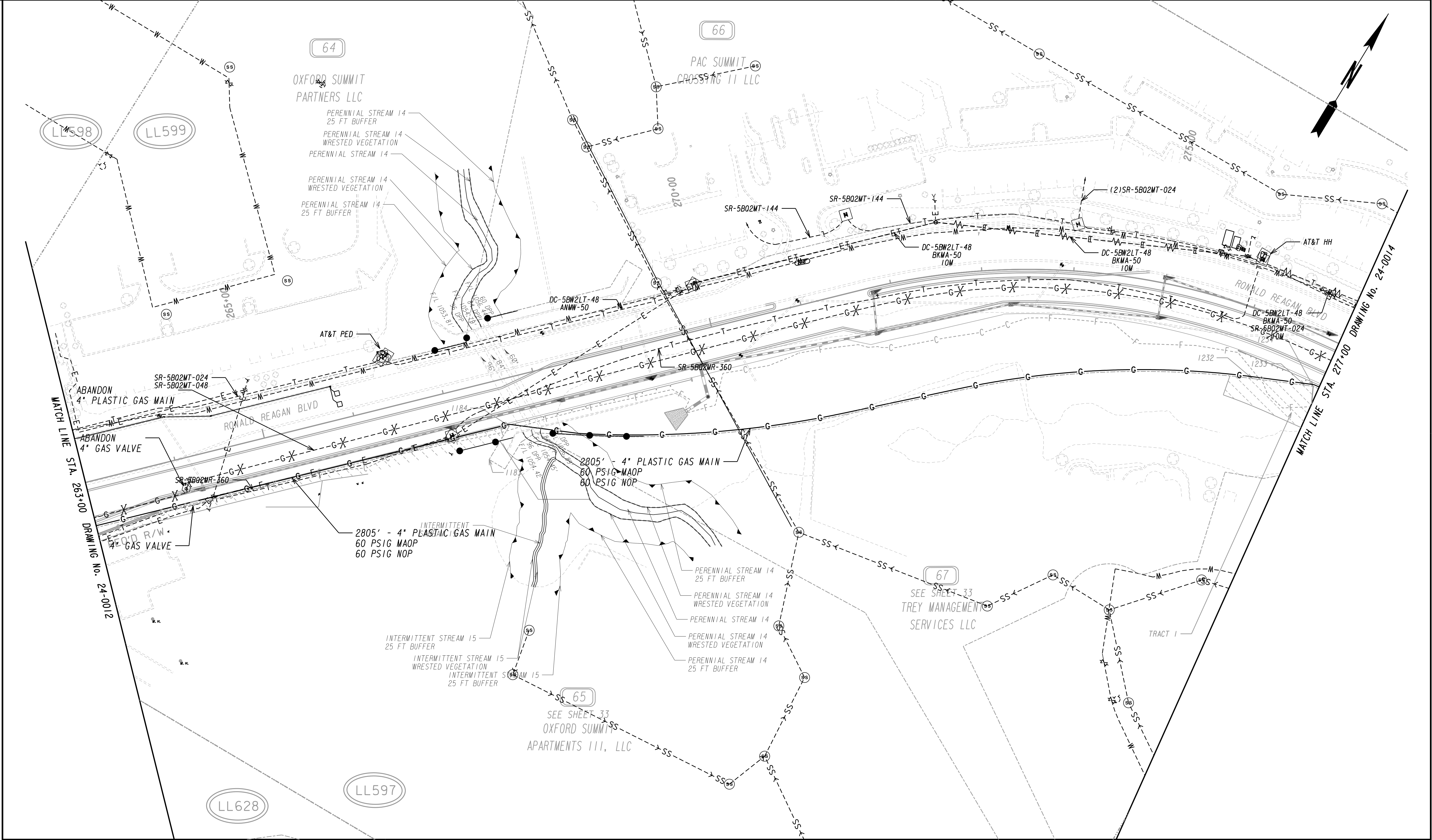
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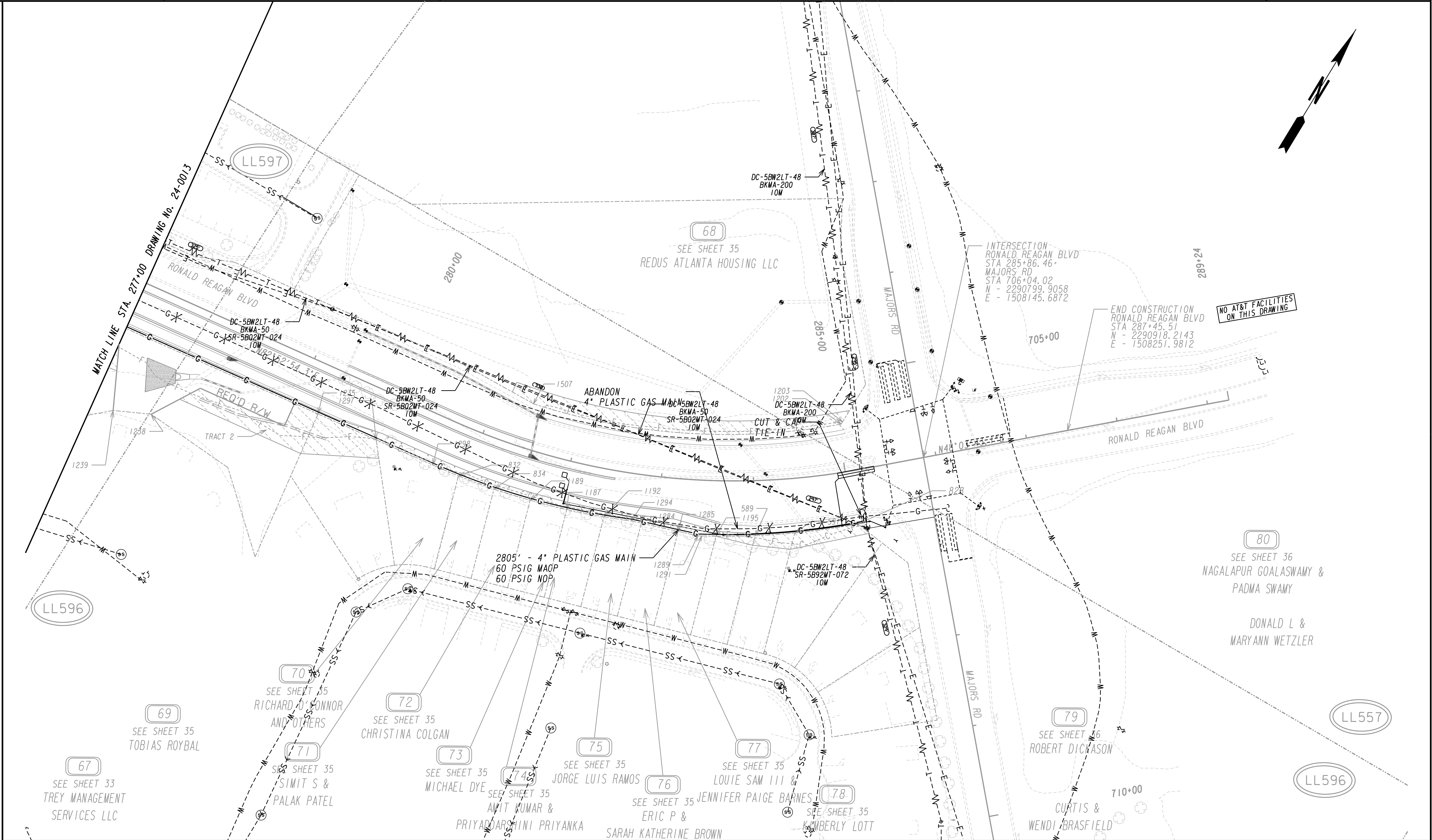
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									RONALD REAGAN BLVD EXTENSION				
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
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& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
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ORANGE BARRIER FENCE
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FORSYTH COUNTY
ENGINEERING DEPARTMENT

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SCALE IN FEET

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REVISION DATES

UTILITY PLANS
RONALD REAGAN BLVD EXTENSION

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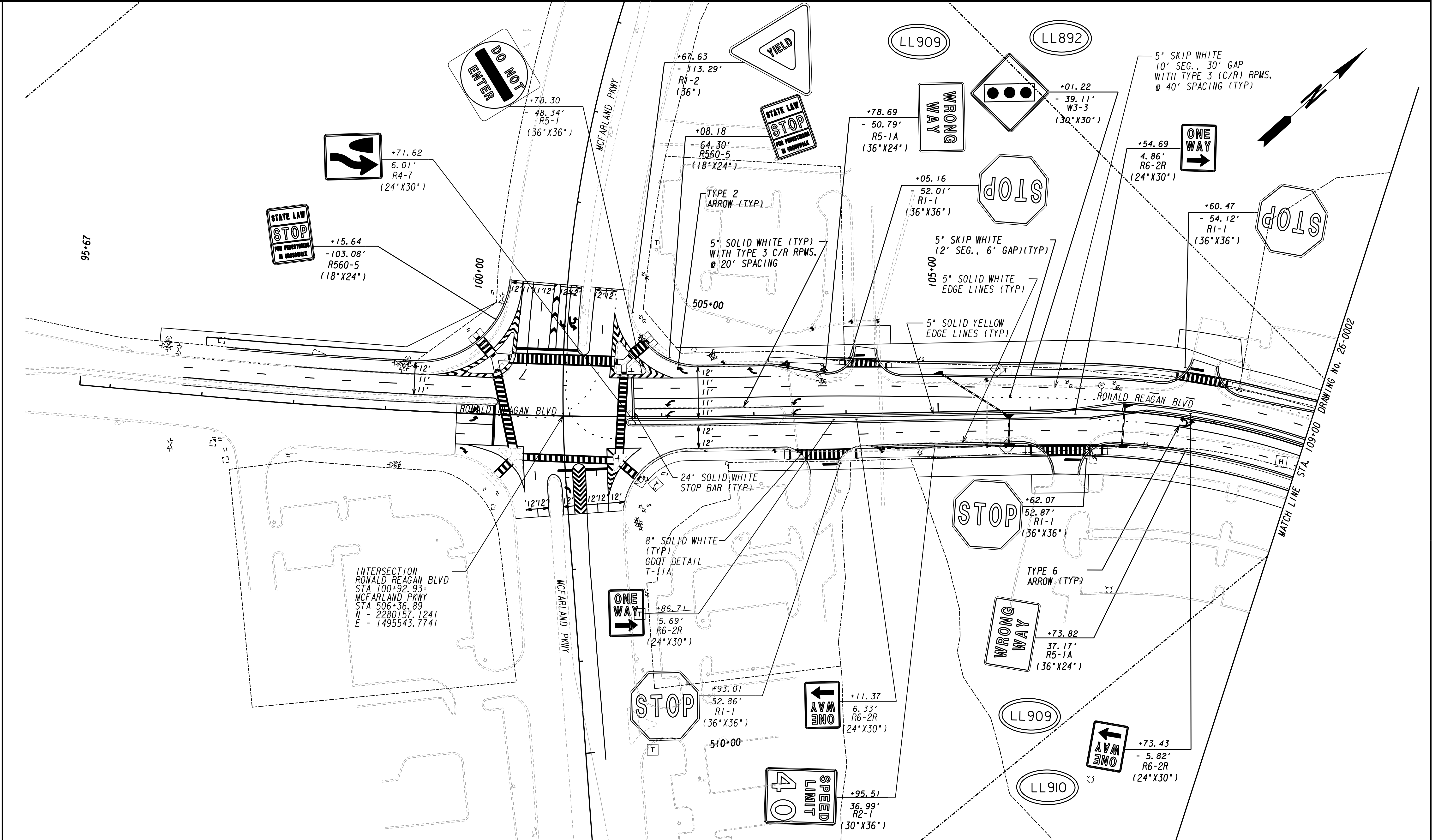
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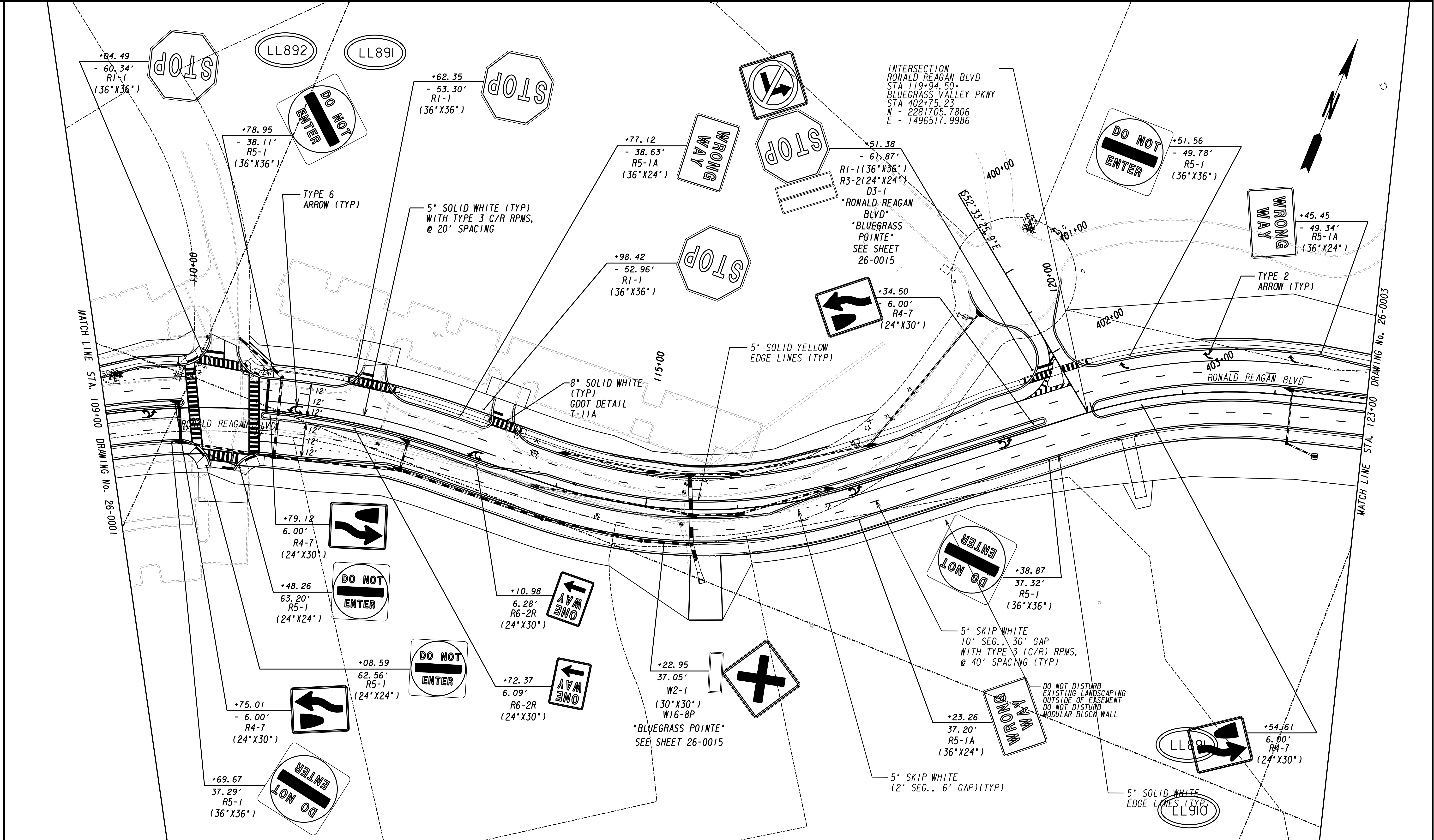
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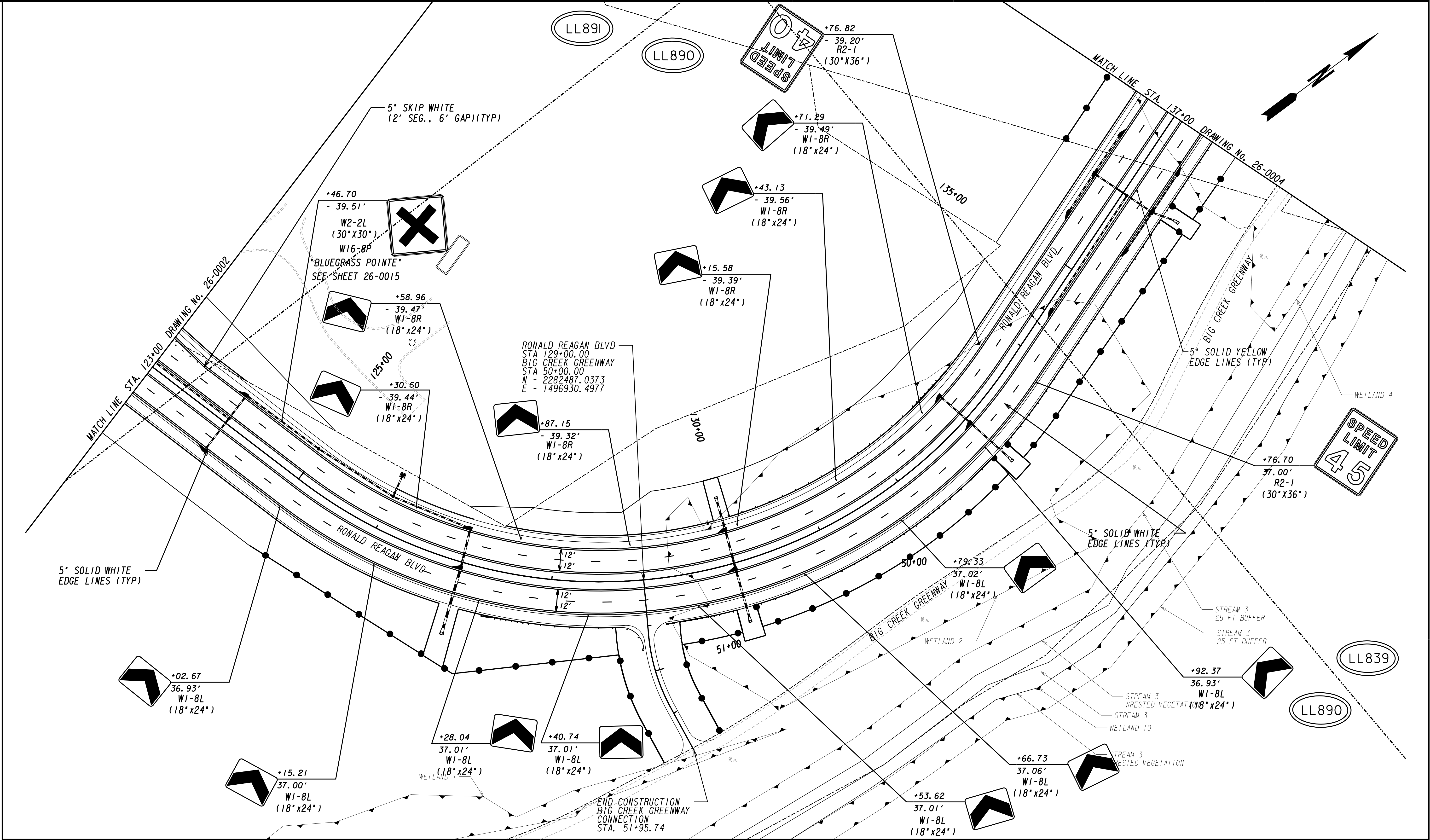
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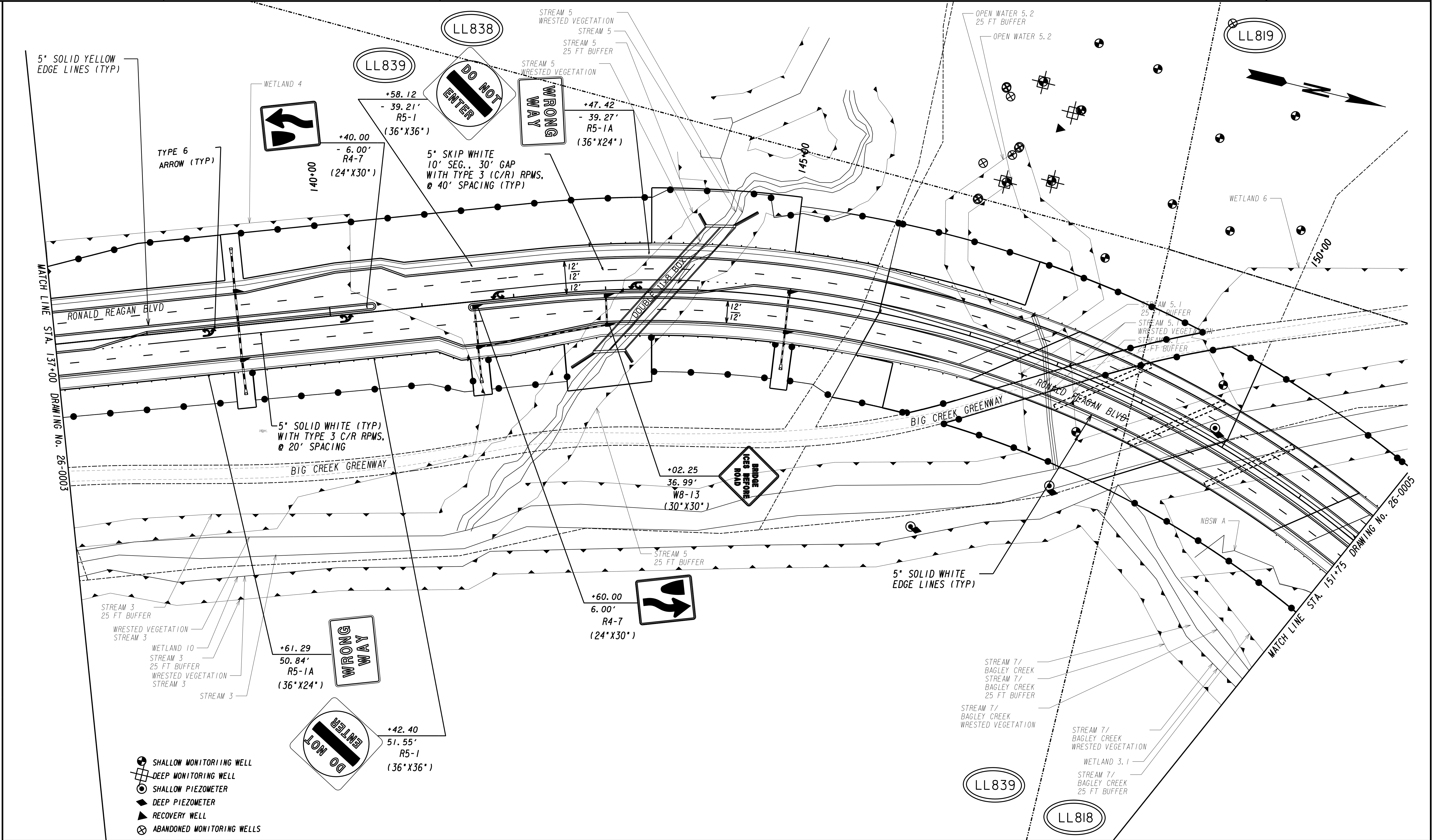
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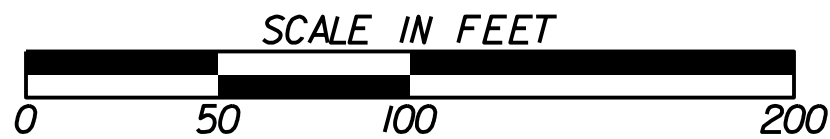






- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- SHALLOW PIEZOMETER
- DEEP PIEZOMETER
- RECOVERY WELL
- ABANDONED MONITORING WELLS

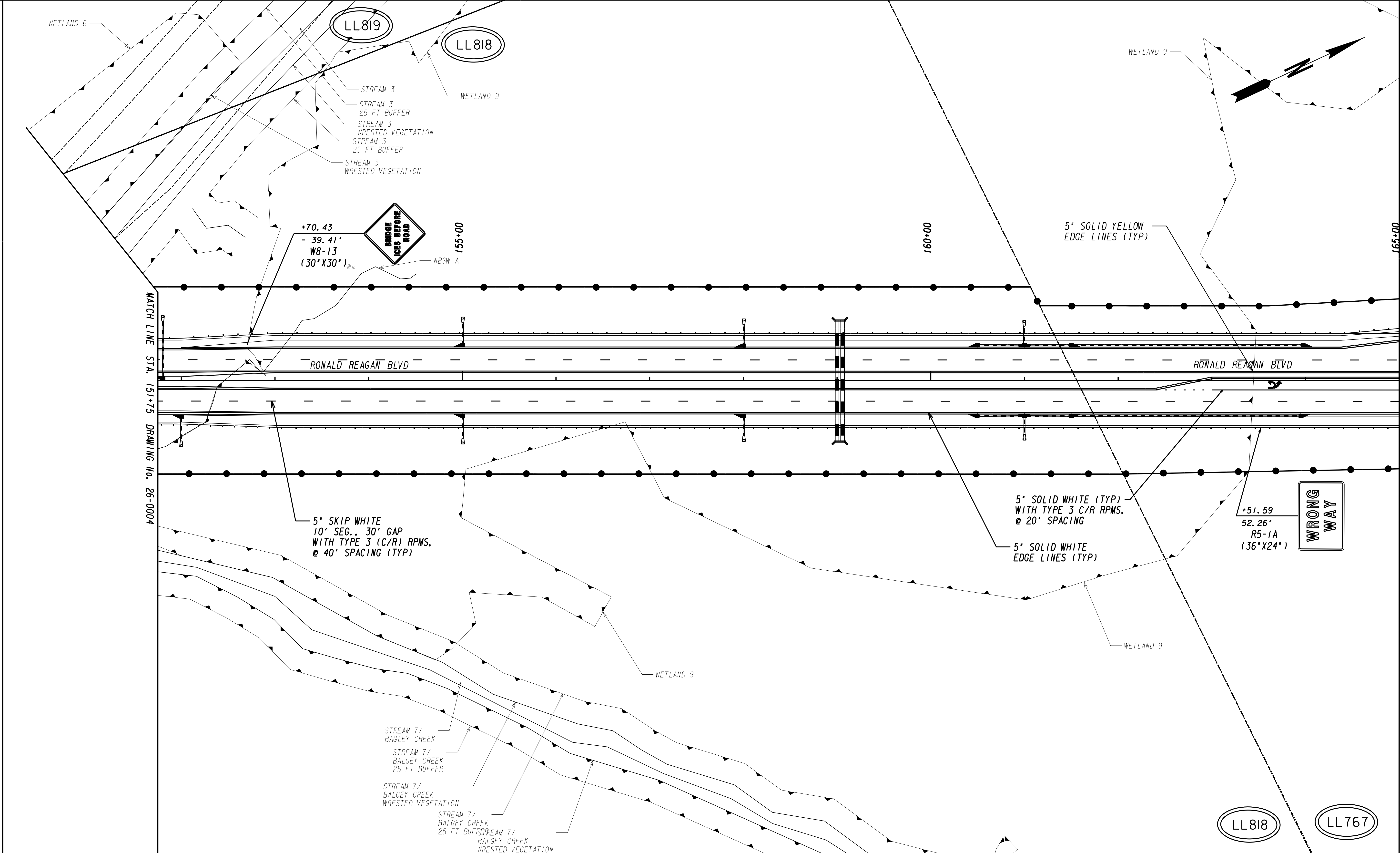
FORSYTH COUNTY
ENGINEERING DEPARTMENT

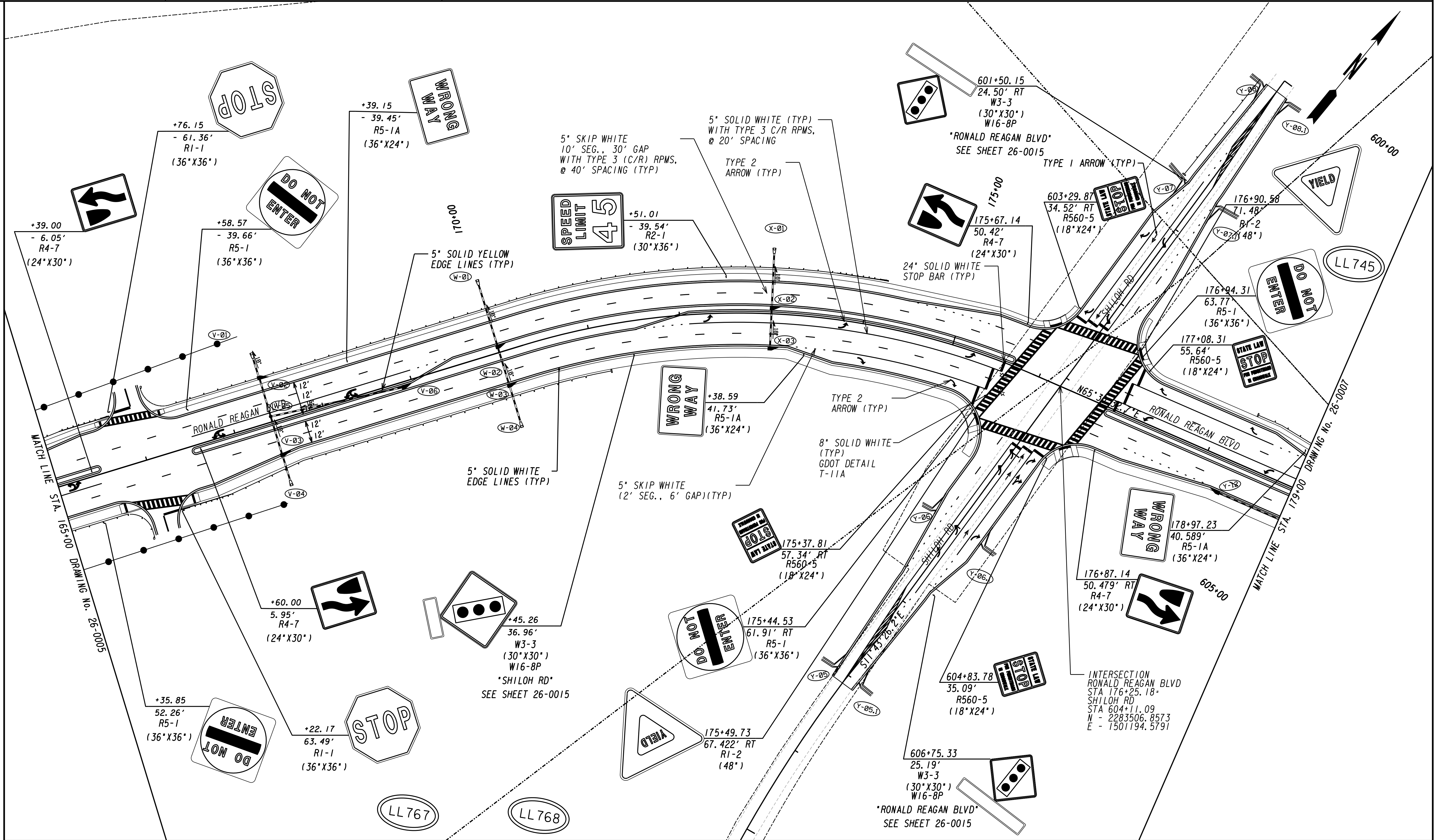


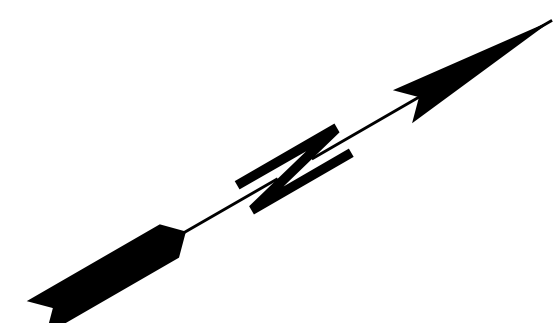
REVISION DATES

SIGNING AND MARKING PLANS
RONALD REAGAN BLVD EXTENSION

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CORRECTED:		DATE:		
VERIFIED:		DATE:		



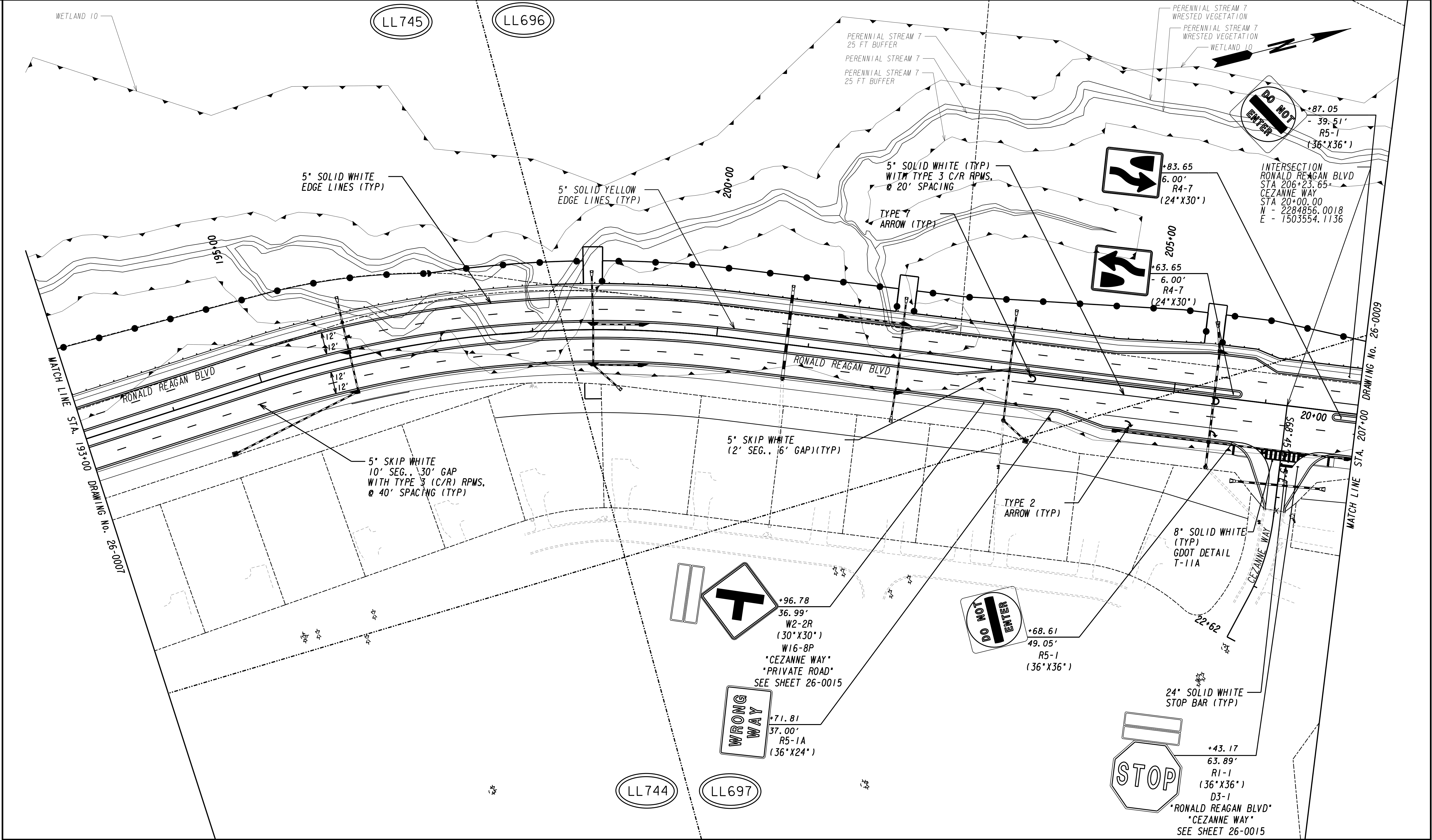


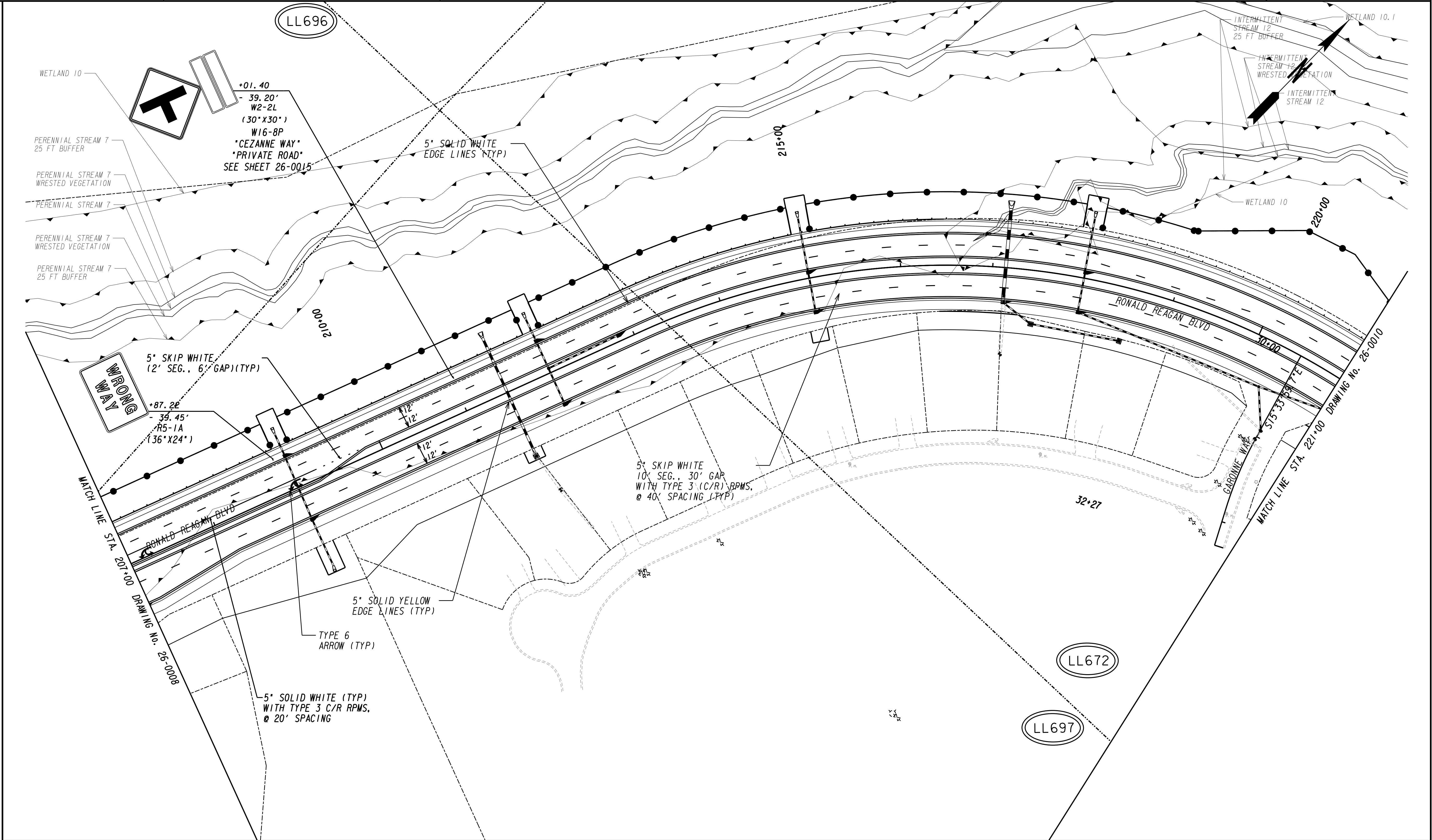


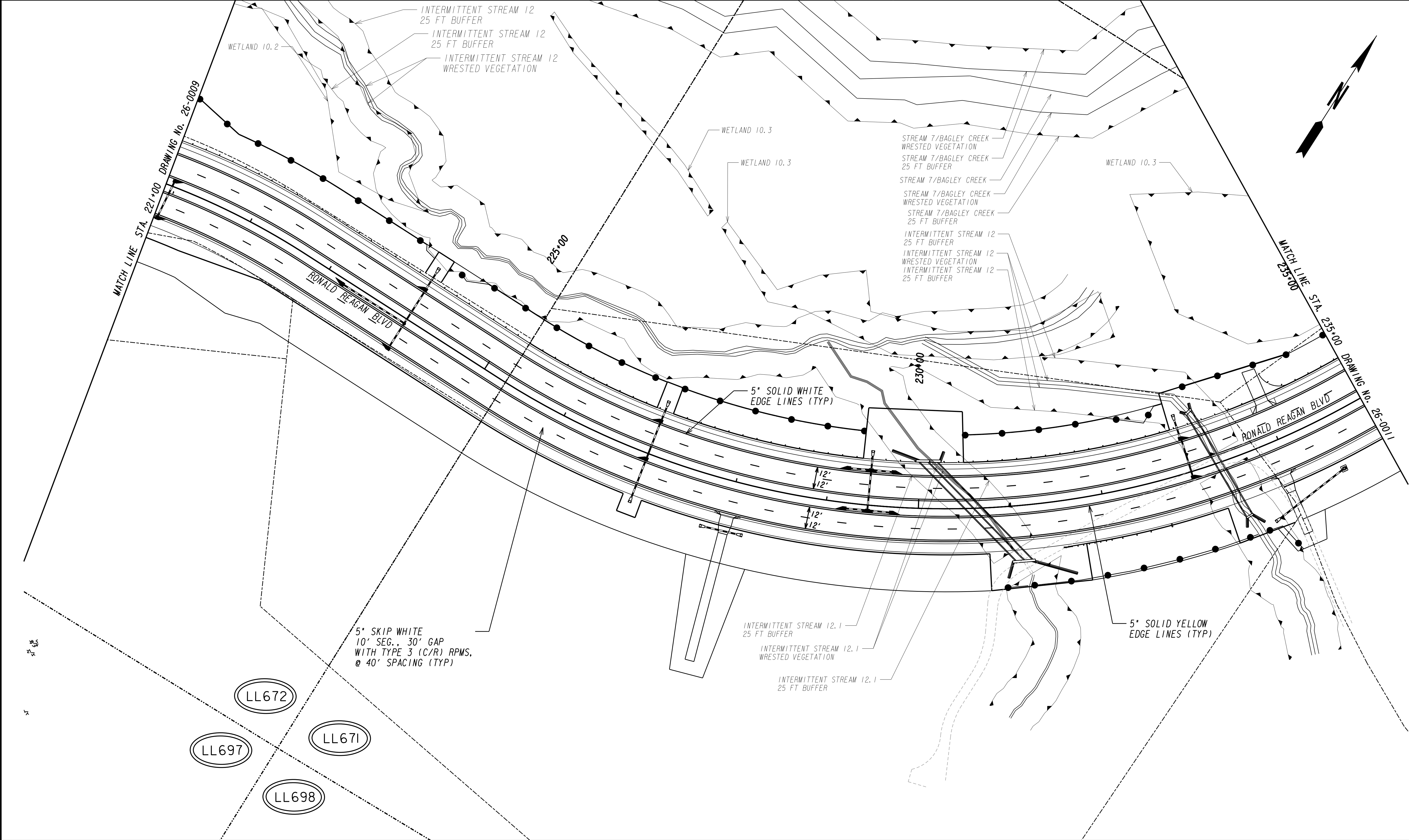
POND
Architects ■ Engineers ■ Planners

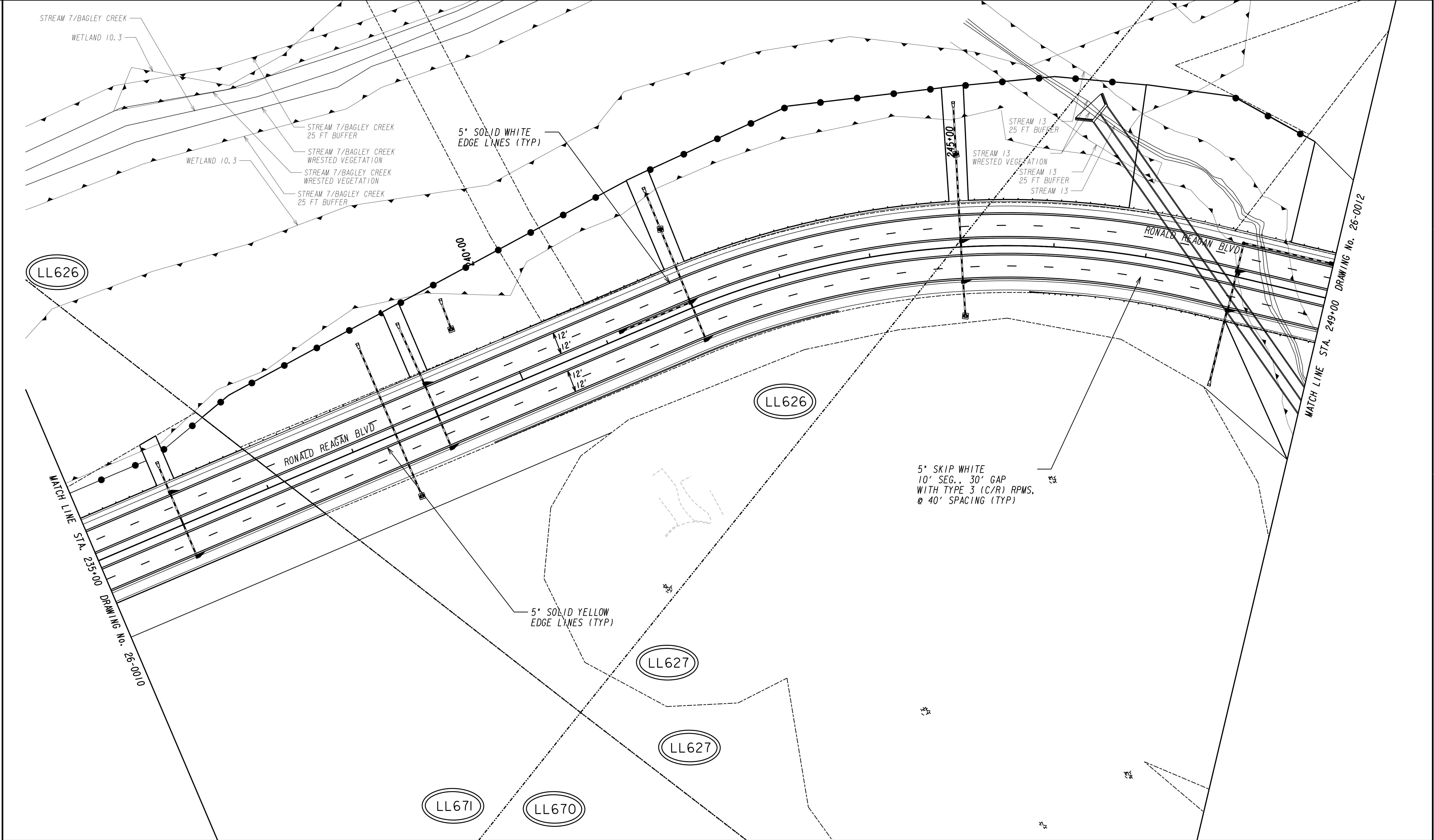
SIGNING AND MARKING PLANS
RONALD REAGAN BLVD EXTENSION

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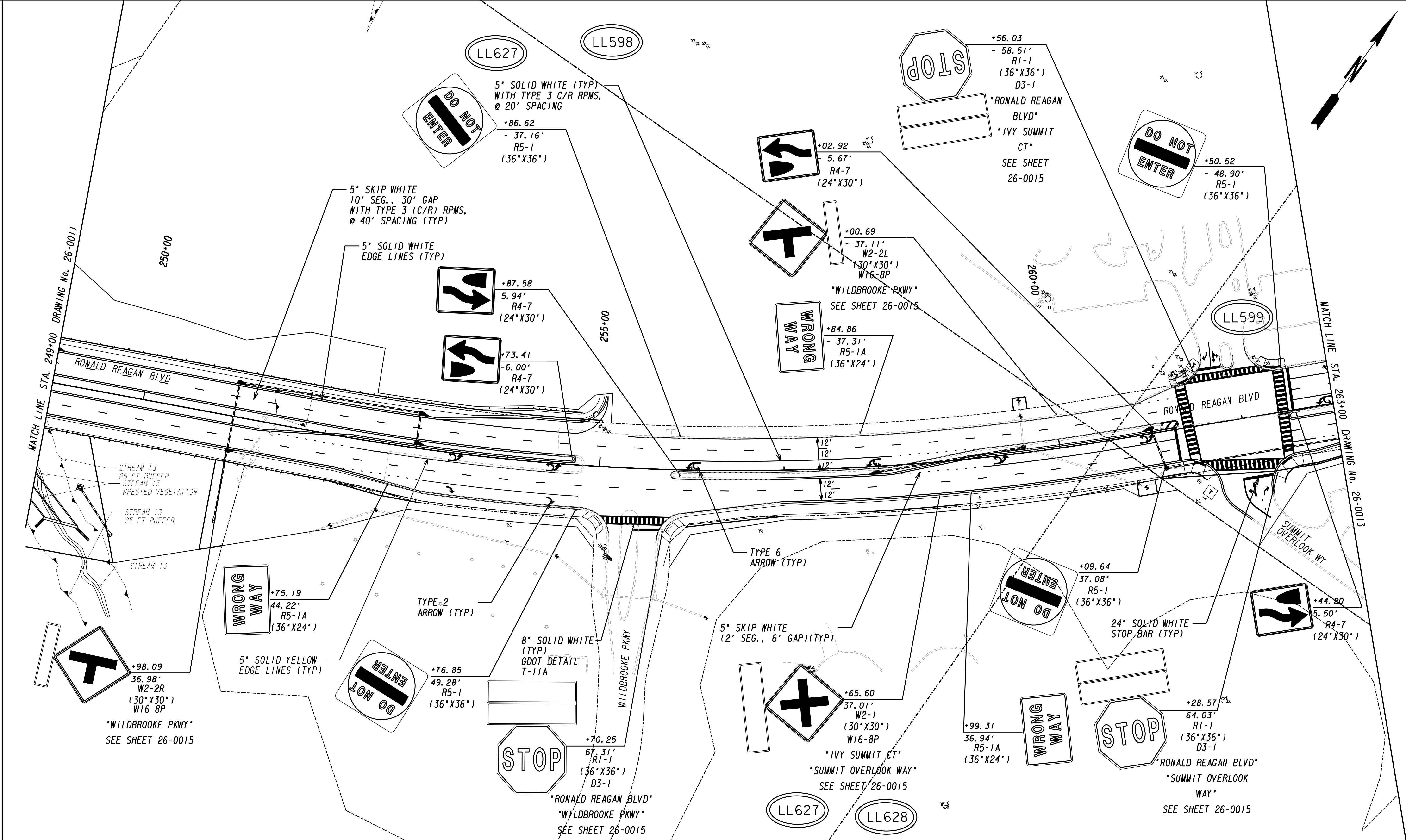


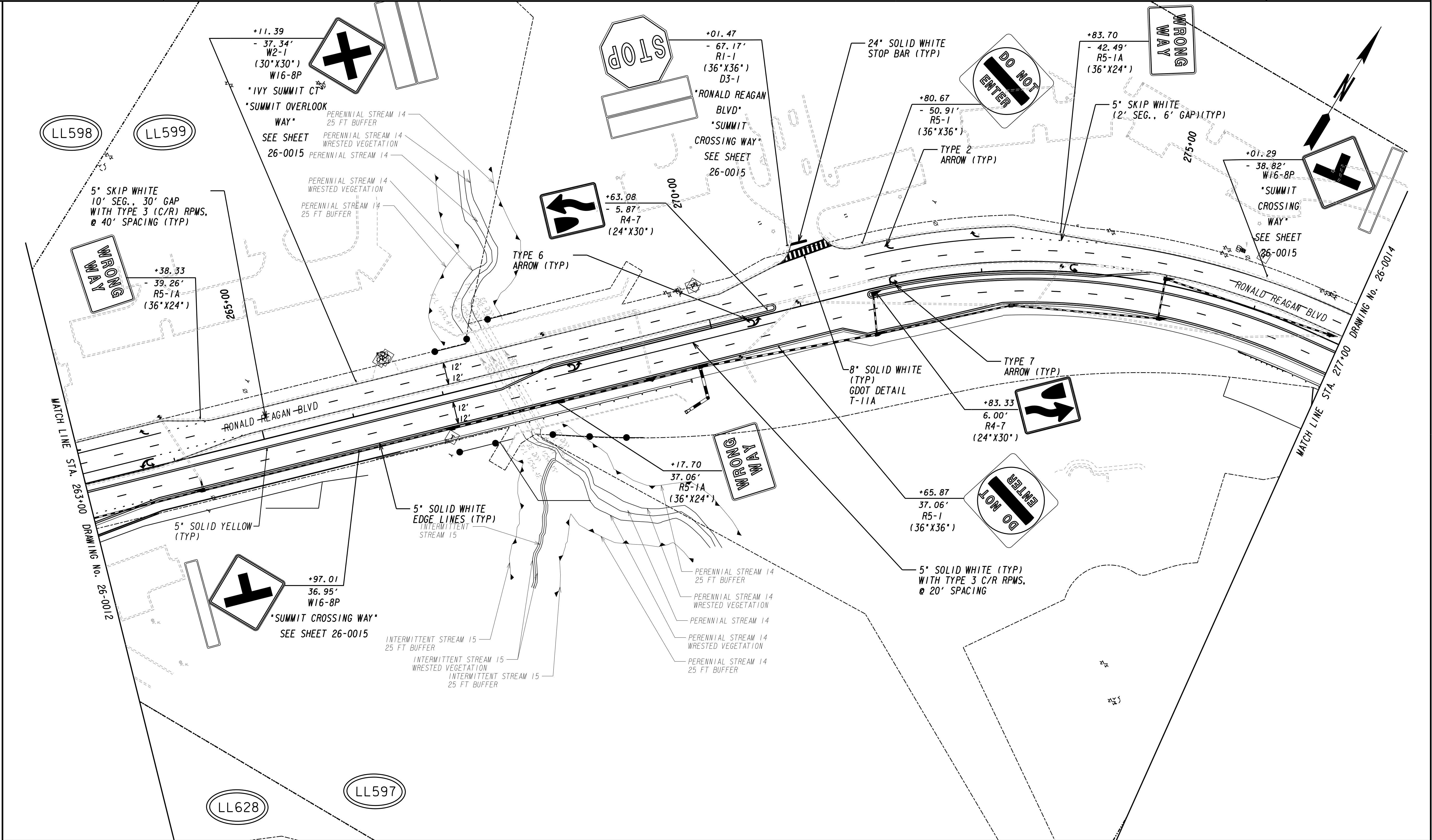






10/23/2015 GPLN		FORSYTH COUNTY ENGINEERING DEPARTMENT	<div>POND Architects • Engineers • Planners</div> <div>SCALE IN FEET 0 50 100 200</div>	REVISION DATES			SIGNING AND MARKING PLANS RONALD REAGAN BLVD EXTENSION				
				CHECKED:		DATE:		DRAWING No.			
				BACKCHECKED:		DATE:		26-0011			
				CORRECTED:		DATE:					
				VERIFIED:		DATE:					





10/23/2015

GPLN

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

0

50

100

200

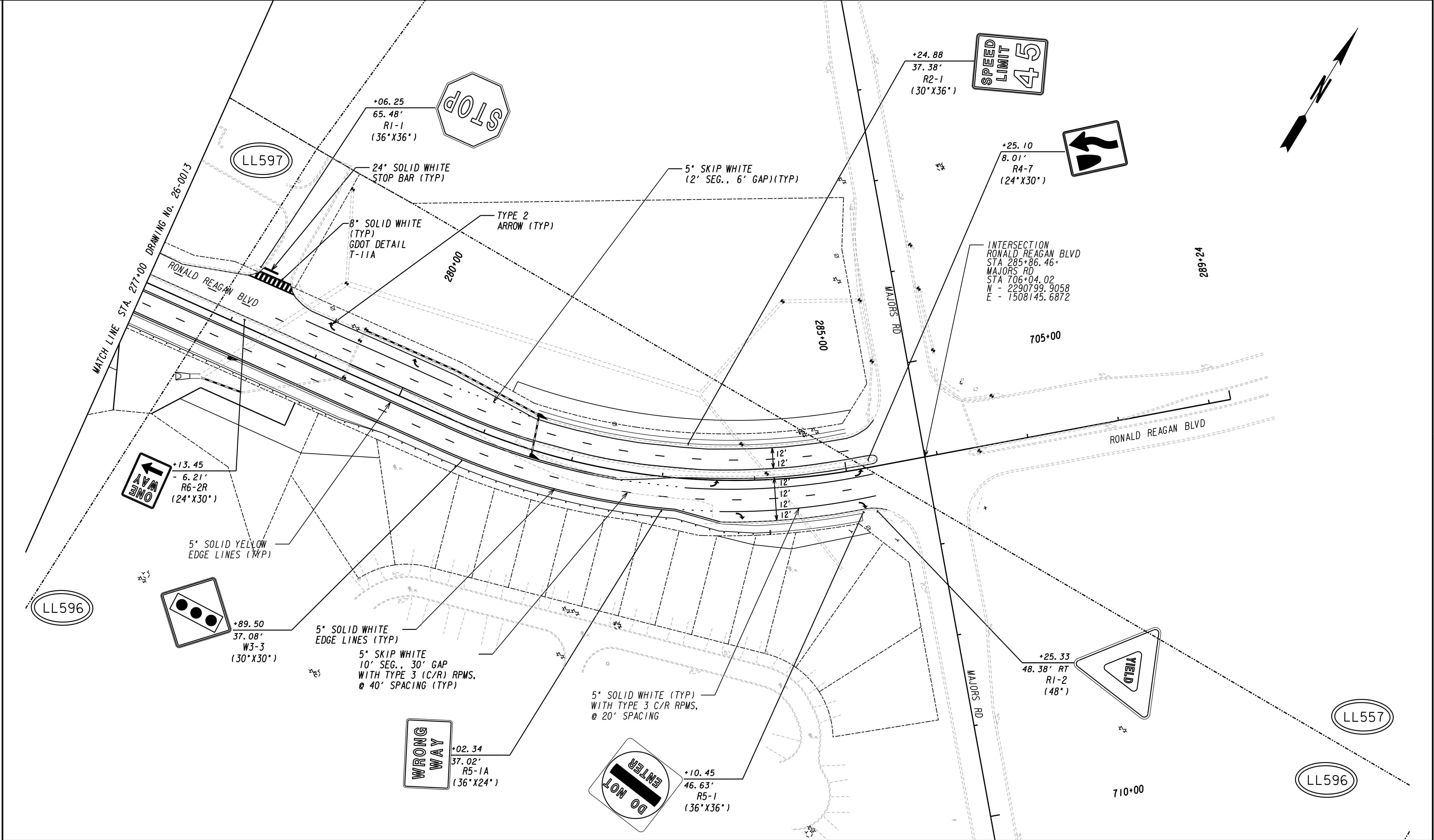
REVISION DATES

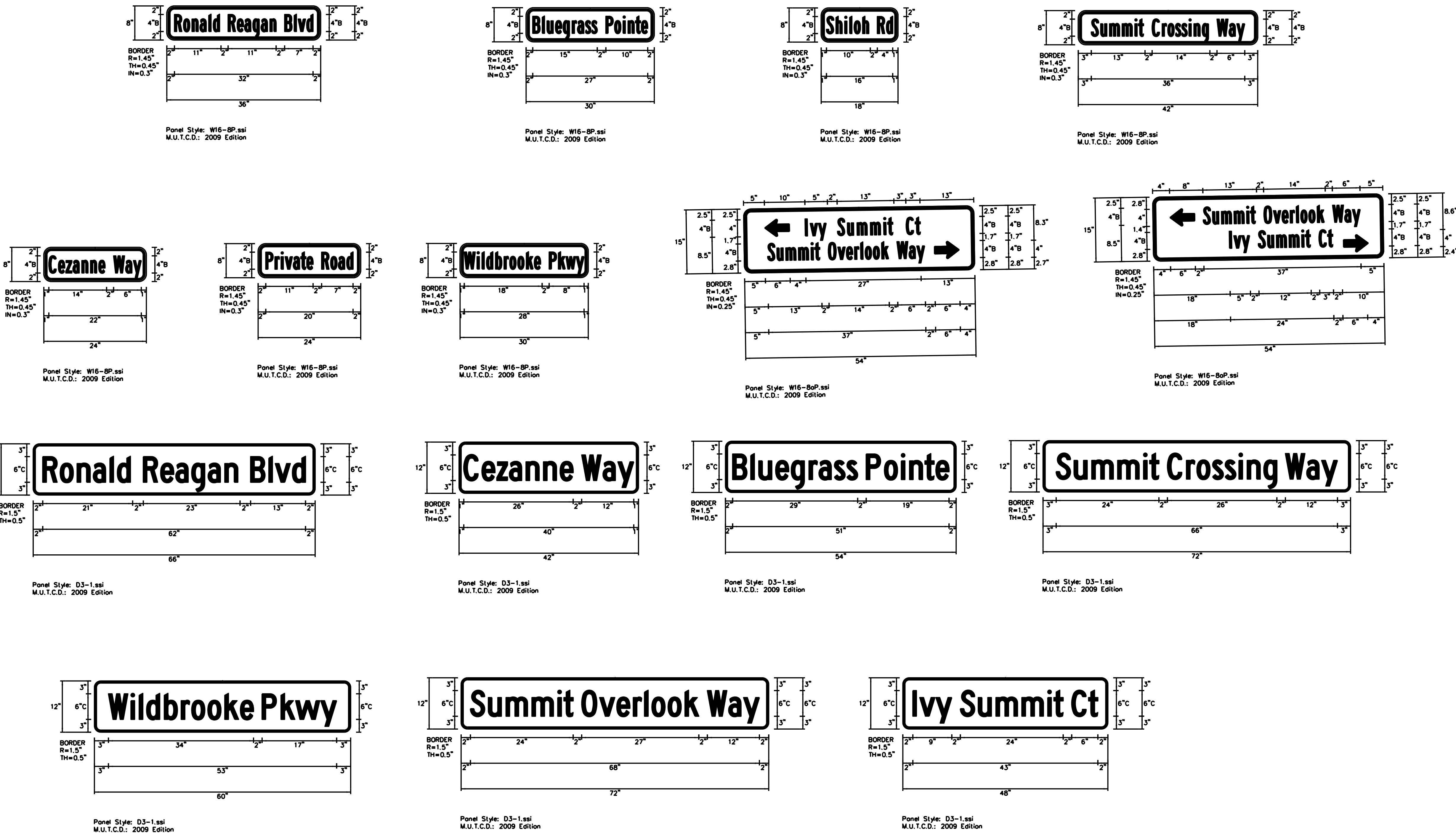
SIGNING AND MARKING PLANS
RONALD REAGAN BLVD EXTENSION

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
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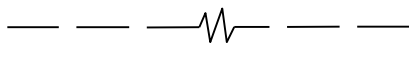
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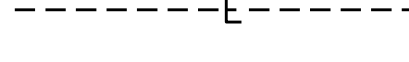
EXISTING UTILITIES

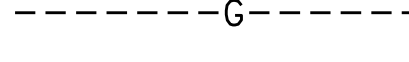
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EXISTING GUY WIRE
- 


EX.OH ELECTRIC
- 

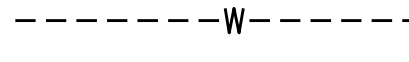
EX POWER POLE
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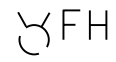
EX TRANSFORMER
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EX.UG ELECTRIC
- 


EX GAS LINE
- 

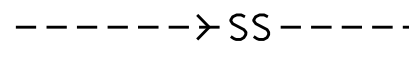
EX GAS METER
- 


EX GAS VALVE
- 


EX WATER LINE
- 

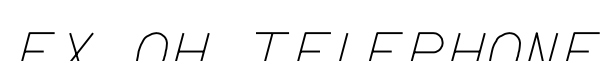
EX FIRE HYDRANT
- 


EX WATER METER
- 

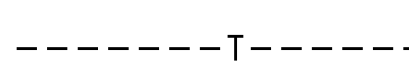
EX WATER VALVE
- 


EX SANITARY SEWER
- 


EX SS MANHOLE
- 


EX TELEPHONE MH
- 


EX OH TELEPHONE
- 

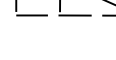
EX TELEPHONE POLE
- 


EX UG TELEPHONE
- 

EX OH CABLE TV
- 

EX UG CABLE TV
- 


EX STORM DRAIN
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EX CATCH BASIN
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
EX DROP INLET
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
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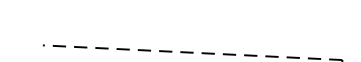
EXISTING SIGNAL


- 


CONTROLLER CABINET
- 

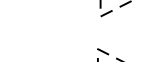
STRAIN POLE
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
TIMBER POLE
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
DOWN GUY
- 


MAST ARM
- 

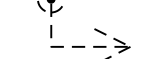
STREET LIGHT
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
3 SECTION HEAD
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
5 SECTION HEAD
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OVERHEAD SIGN
- 

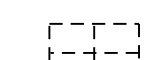
PEDESTAL POLE
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
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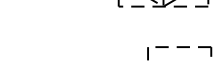
CURB CUT RAMP
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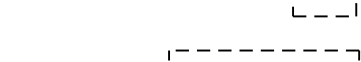
PULLBOX,TP 1
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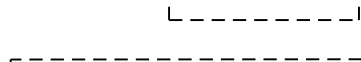
PULLBOX,TP 2
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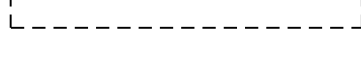
PULLBOX,TP 4
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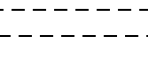
PULLBOX,TP 5
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
6x6 CALL LOOP
- 

6x18 CALL LOOP
- 

6x40 PRESENCE LOOP (DIPOLE)
- 


6x40 PRESENCE LOOP (QUADRUPOLE)
- 


CONDUIT
- 


RAILROAD CONTROLLER
- 


SIGN POST


PROPOSED SIGNAL


- 


CONTROLLER CABINET
- 


STRAIN POLE
- 

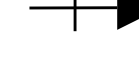
TIMBER POLE
- 


DOWN GUY
- 


MAST ARM
- 

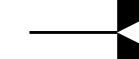
STREET LIGHT
- 


3 SECTION HEAD
- 


3 SECTION HEAD W/ BACKPLATE
- 


4 SECTION HEAD
- 


4 SECTION HEAD W/ BACKPLATE
- 


5 SECTION HEAD
- 


5 SECTION HEAD W/ BACKPLATE
- 


OVERHEAD STREET NAME SIGN
- 


OVERHEAD SIGN
- 

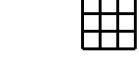
PEDESTAL POLE
- 


PED SIGNAL HEAD
- 


CURB CUT RAMP
- 

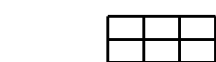
PULLBOX,TP 2
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PULLBOX,TP 3
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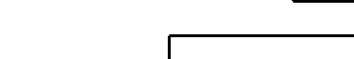
PULLBOX,TP 4
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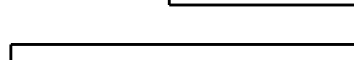
PULLBOX,TP 6
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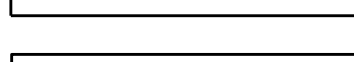
PULLBOX,TP 7
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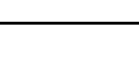
6x6 PULSE LOOP
- 


6x18 CALL LOOP
- 


6x40 PRESENCE LOOP (DIPOLE)
- 


6x40 PRESENCE LOOP (QUADRUPOLE)
- 


CONDUIT (BORED)
- 


CONDUIT (TRENCHED)
- 


RAILROAD CONTROLLER
- 

SIGN POST
- 

ELECTRICAL SERVICE POINT
- 

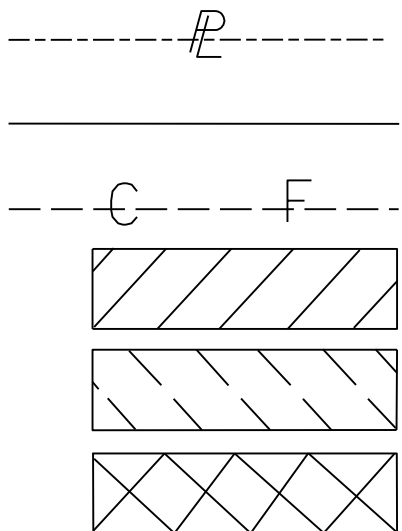
RADAR DETECTION DEVICE
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MAGNETOMETER DETECTION DEVICE
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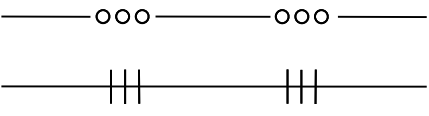
VIDEO DETECTION DEVICE
- 

VIRTUAL DETECTION ZONE (RADAR,VIDEO,ETC.)

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS



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CORRECTED:		DATE:		
VERIFIED:		DATE:		

TRAFFIC SIGNAL GENERAL NOTES

1. THE COMPLETE SIGNAL INSTALLATION SHALL CONFORM TO ALL APPROPRIATE PARTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION.
2. SIGNAL HEADS SHALL BE ERECTED TO PROVIDE AT LEAST 17 FEET BUT NO MORE THAN 19 FEET CLEARANCE FROM BOTTOM OF SIGNAL HEADS TO TOP OF ROAD SURFACE AND A MINIMUM OF 8 FEET MEASURED HORIZONATALLY BETWEEN CENTERS OF SIGNAL FACES.
3. SHIELDED CABLE WILL BE USED FOR DETECTOR RUNS AS SHOWN ON THE DETAIL SHEET. DETECTORS SHALL HAVE SEPERATE LEAD-INS TO THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL LOCATE UNDERGROUND UTILITIES IN VICINITY OF NEW TRAFFIC SIGNAL POLES PRIOR TO ORDERING. AT THE DICRETION OF THE ENGINEER, MINOR SHIFTS (UP TO 5 FEET, MAXIMUM) IN LOCATION OF NEW SIGNAL POLES ARE ACCEPTABLE TO AVOID UNDERGROUND UTILITIES. MINIMUM CLEARANCES FROM EDGE OF PAVEMENT SHALL BE MAINTAINED. PLACEMENT OF THE SIGNAL HEADS SHALL BE RETAINED AS SHOWN ON THE PLANS.
5. THE CONTRACTOR SHALL MAINTAIN EXISTING TRAFFIC SIGNALS DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN EXISTING VEHICLE DETECTION AND BE RESPONSIBLE FOR ALL TRAFFIC SIGNAL AND/OR CONTROL SYSTEM ADJUSTMENTS, INCLUDING TEMPORARY SUPPORT POLE LOCATION(S) REQUIRED BY THE PROJECT DURING THE INTERIM PERIOD THROUGH INSTALLATION OF NEW SIGNAL EQUIPMENT. AT NO TIME SHALL THE CONTRACTOR CAUSE ANY PART OF THE SIGNAL OPERATION TO BE INOPERABLE.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL NEW GUYS ON EXISTING UTILITY TIMBER POLES WHEN ATTACHING SPAN WIRE OR INTERCONNECT CABLE TO THE POLES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. INSTALLATION IS TO BE CHECKED AND ACCEPTED BY THE FORSYTH COUNTY SIGNAL ENGINEER PRIOR TO FINAL ACCEPTANCE.
8. WHEN REMOVED, EXISTING EQUIPMENT SHALL BE DELIVERED AND UNLOADED BY THE CONTRACTOR TO THE FORSYTH COUNTY SIGNAL SHOP. THE CONTRACTOR SHALL PROVIDE 48 HOURS ADVANCED NOTICE. CONTACT THE FORSYTH COUNTY SIGNAL ENGINEER AT (678) 776-2967.
9. FOR STRAIN POLE FOUNDATION SIZE AND REINFORCEMENT, SEE STRAIN POLE AND MAST ARM POLE FOUNDATION SHEET.
10. MATERIAL CERTIFICATION IS REQUIRED PRIOR TO BEGINNING ANY SIGNAL INSTALLATION WORK. THE CONTRACTOR SHALL FOLLOW PROCEDURES OUTLINED IN GDOT SPECIFICATIONS.
11. ALL EXISTING STOP BARS, WORDS, ARROWS AND CROSSWALKS THAT ARE NOT REMOVED OR RELOCATED SHALL BE REPLACED IN ACCORDANCE WITH CURRENT GDOT STANDARDS.
12. PROPOSED SIGNAL SUPPORT WIRE ATTACHMENT HEIGHTS ON POLES ARE PROVIDED AS GENERAL GUIDELINES TO INSTALLER, ACTUAL ATTACHMENT HEIGHTS SHALL BE FIELD DETERMINED BY INSTALLER TO PROVIDE REQUIRED SIGNAL HEAD MOUNTING HEIGHTS AND CLEARANCE FROM EXISTING UTILITIES.
13. SAWCUTS AND REMOVAL OF ALL CONCRETE ASSOCIATED WITH CURB CUT RAMPS SHALL BE INCLUDED IN THE SIDEWALK PAY ITEM.
14. THE CONTRACTOR SHALL REPLACE IN KIND AND SIZE, AT NO SEPERATE EXPENSE TO THE COUNTY, ANY BARRIER WALL, FENCE, DITCH PAVING, CURBING, SIDEWALK, GUTTER, SLOPE PAVEMENT, SIGNS, GAURDRAILS, LANDSCAPING, GRASSINGS, UTILITY SERVICE LINES, STORM DRAIN PIPES, MASONRY WALLS AND PAVING THAT IS REMOVED, DAMAGED OR DESTROYED DUE TO CONTRACTOR'S ACTIVITIES.

15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MEASURES TO ENSURE COMPLIANCE TO ALL STATE AND FEDERAL LAWS AND GUIDELINES. THE COST SHALL BE CONSIDERED INCIDENTAL AND BE INCLUDED IN THE OVERALL BID PRICE. NO ADDITIONAL PAYMENTS SHALL BE MADE TO THE CONTRACTOR FOR EROSION CONTROL.
16. ALL TRAFFIC MARKINGS, SYMBOLS OR STRIPING TO BE REMOVED AND/OR REPLACED SHALL BE PAID FOR IN THE TRAFFIC CONTROL LUMP SUM ITEM.
17. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH MODIFYING AND ESTABLISHING NEW POWER AND COMMUNICATIONS SERVICES FOR TRAFFIC SIGNALS, DETECTION SYSTEMS AND/OR CCTV CAMERAS ON THIS PROJECT. IF A UTILITY TRANSFORMER IS REQUIRED FOR TRAFFIC SIGNAL EQUIPMENT, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INCLUDE THE COST, AS PART OF THEIR BID PRICE, FOR THAT TRAFFIC SIGNAL INSTALLATION, IF THE RESPECTIVE UTILITY REQUIRES PAYMENT FOR INSTALLATION.
18. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL MONTHLY POWER AND COMMUNICATION SERVICE TO THE TRAFFIC SIGNAL INSTALLATION AND SUPPORT DEVICES, UNTIL THE NEW TRAFFIC SIGNAL INSTALLATION HAS SATISFACTORALLY COMPLETED A TEST PERIOD, 30 DAYS, OF UNINTERRUPTED OPERATION. THE CONTRACTOR WILL COMPLETE A TRANSFER OF UTILITY COST TO FORSYTH COUNTY DEPARTMENT OF ENGINEERING (THE MAINTAINING AGENCY).



Know what's below.
Call before you dig.

FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

SIGNAL PLANS

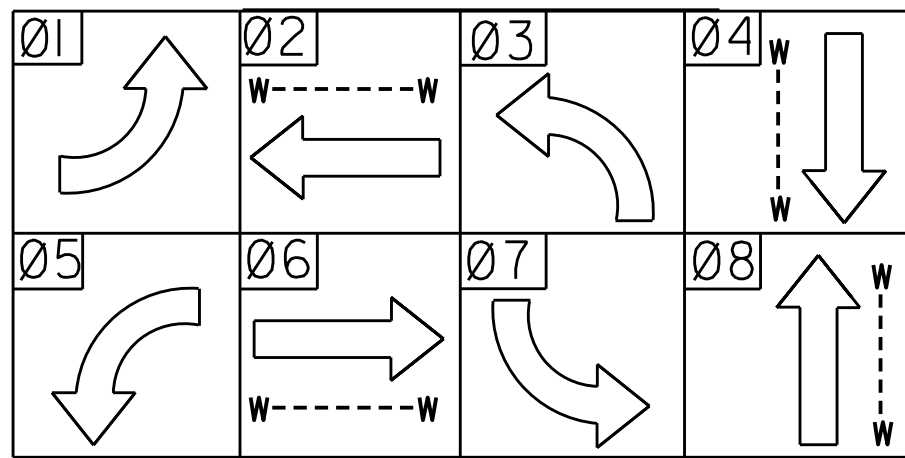
RONALD REAGAN BLVD EXTENSION

GENERAL NOTES

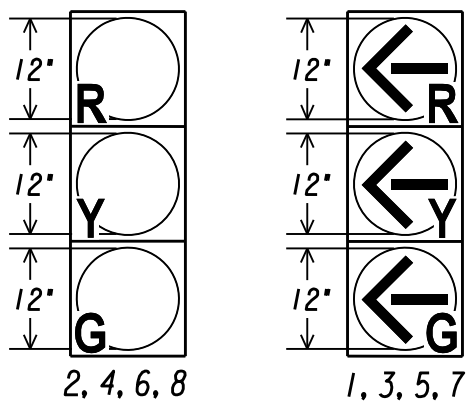
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BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

27-0002

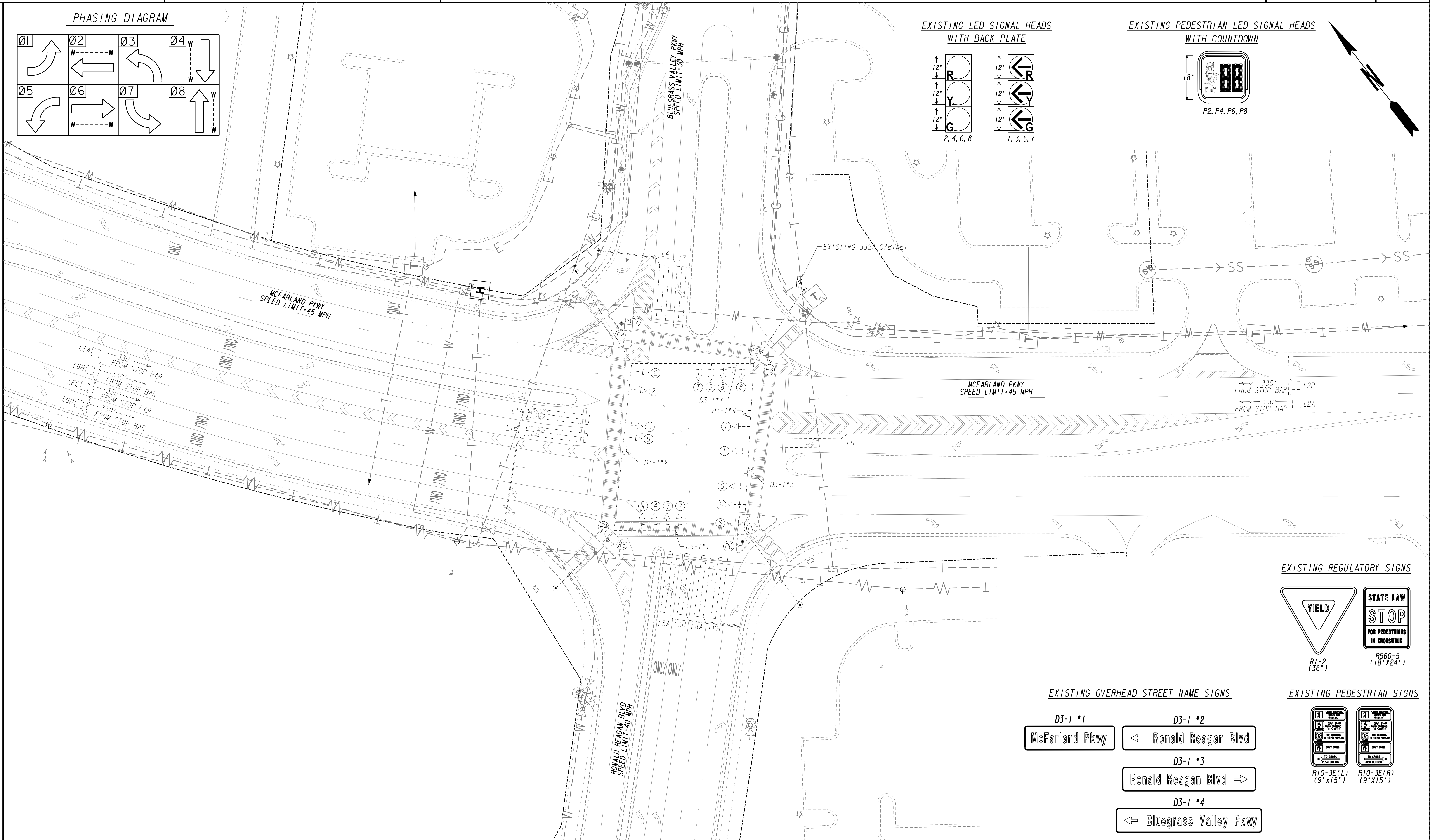
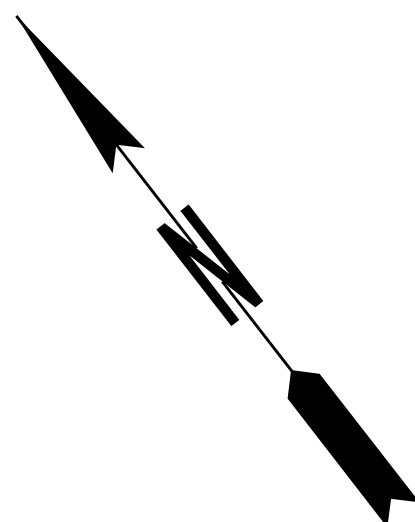
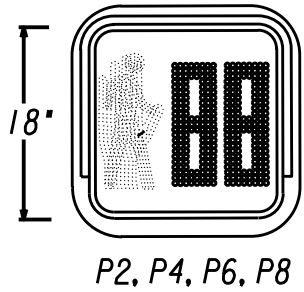
PHASING DIAGRAM



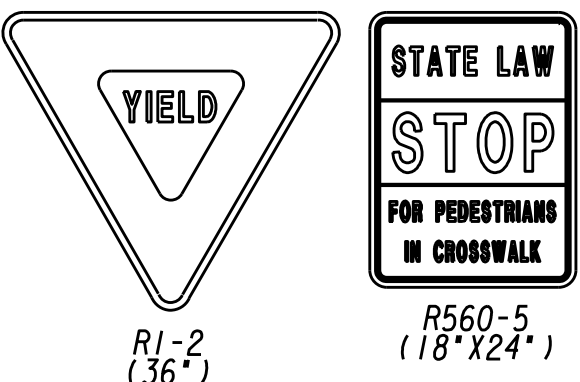
EXISTING LED SIGNAL HEADS
WITH BACK PLATE



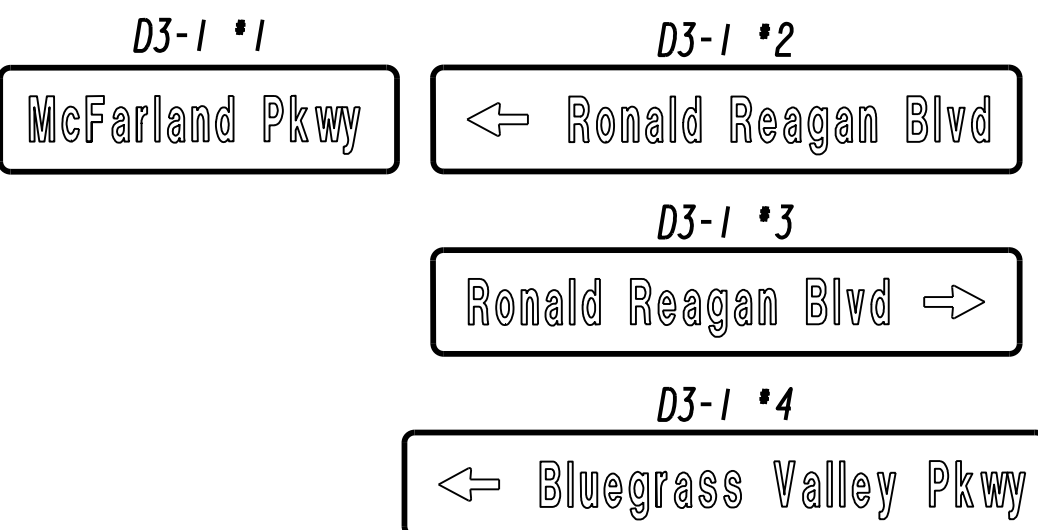
EXISTING PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN



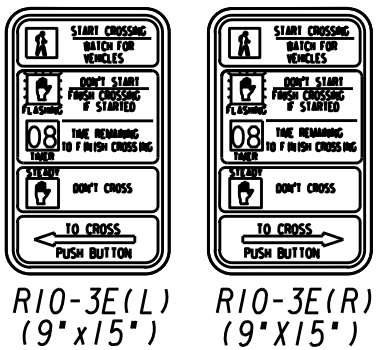
EXISTING REGULATORY SIGNS



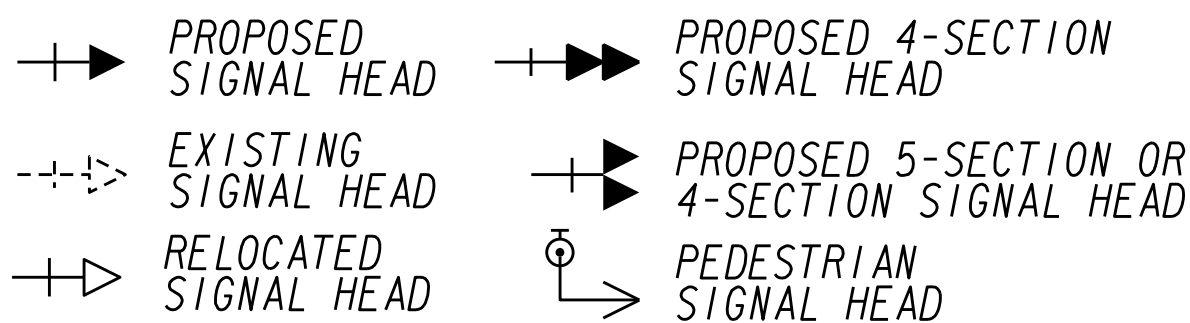
EXISTING OVERHEAD STREET NAME SIGNS



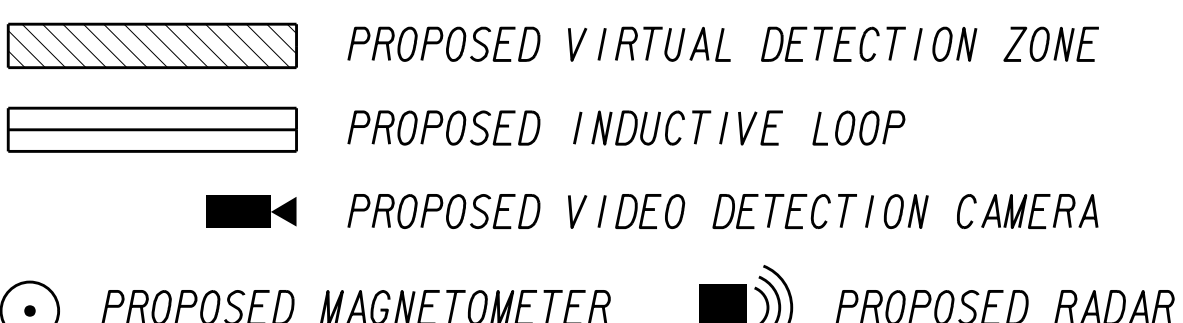
EXISTING PEDESTRIAN SIGNS



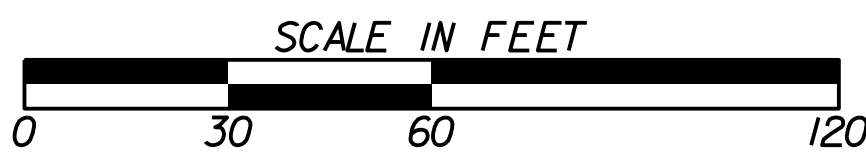
SIGNAL LEGEND



DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

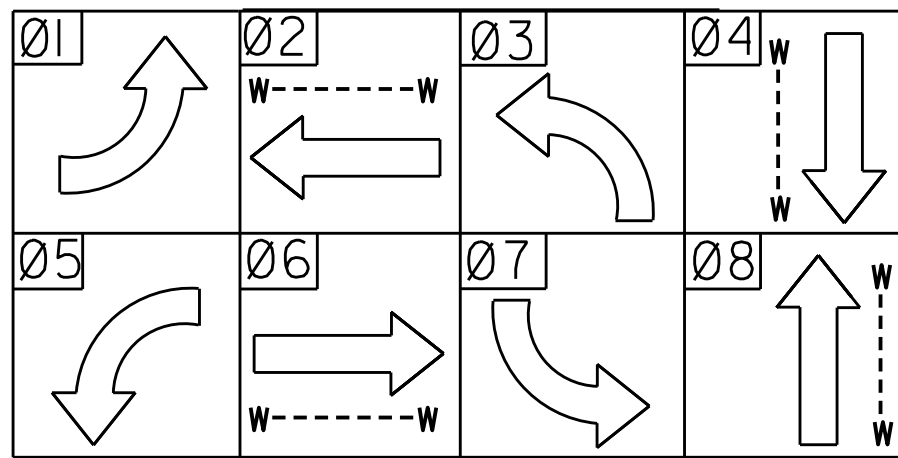
SIGNAL PLANS

EXISTING CONDITIONS

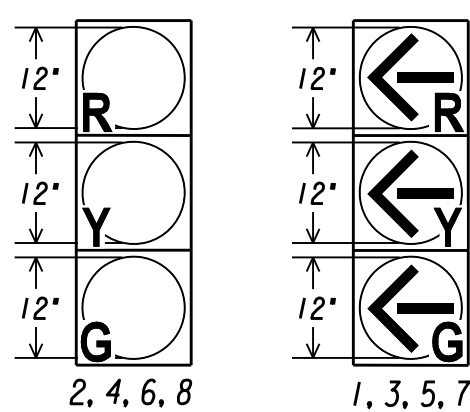
RONALD REAGAN BLVD AT MCFARLAND PKWY

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	27-0003
VERIFIED:	DATE:	

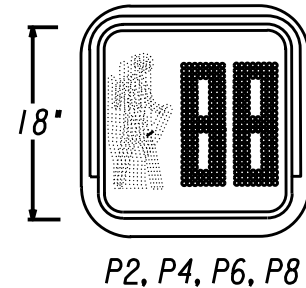
PHASING DIAGRAM



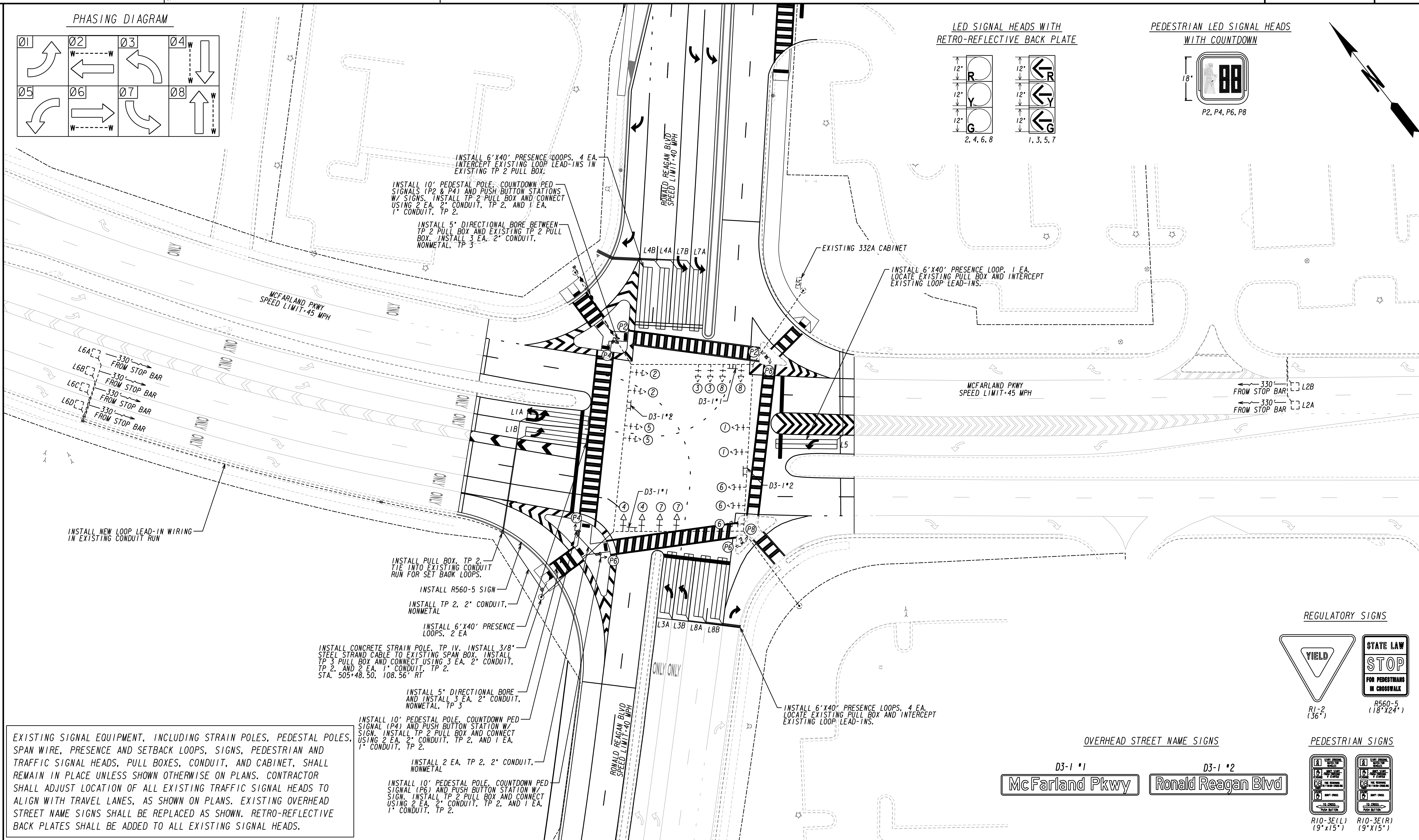
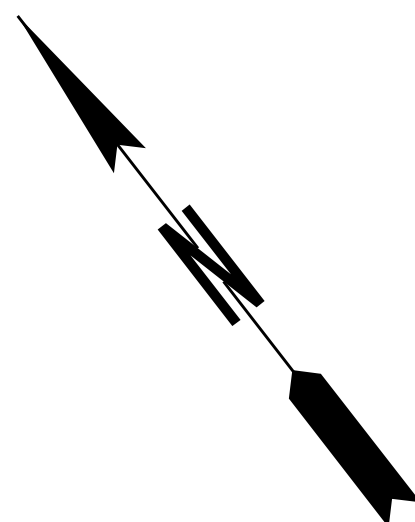
LED SIGNAL HEADS WITH
RETRO-REFLECTIVE BACK PLATE



PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN

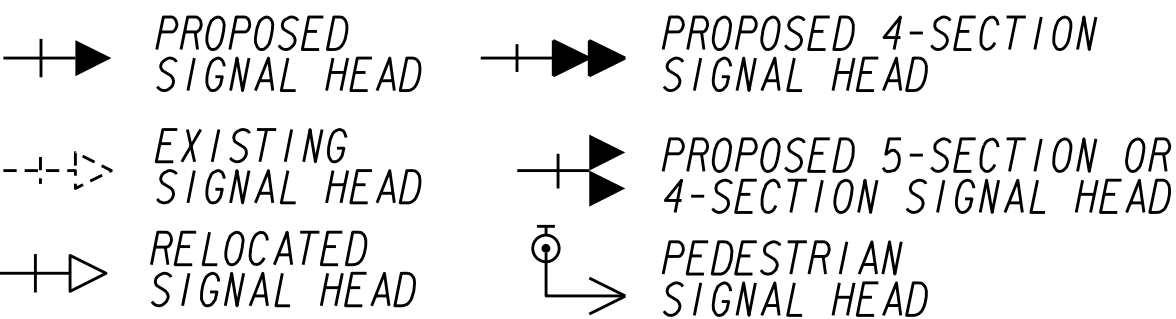


P2, P4, P6, P8

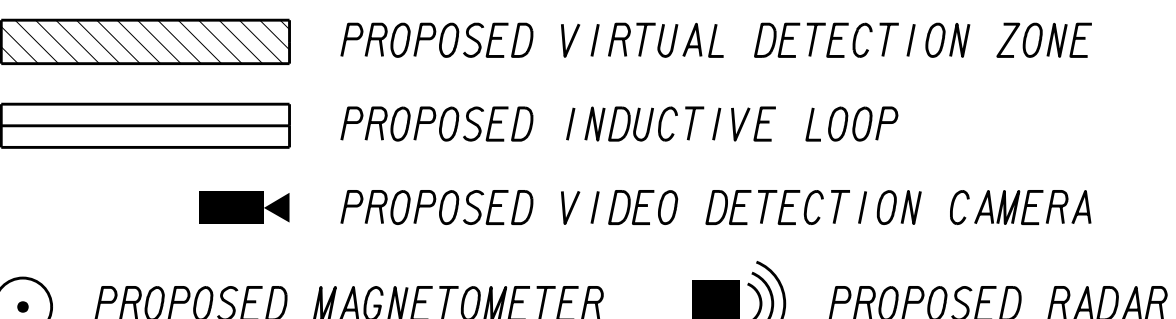


EXISTING SIGNAL EQUIPMENT, INCLUDING STRAIN POLES, PEDESTAL POLES, SPAN WIRE, PRESENCE AND SETBACK LOOPS, SIGNS, PEDESTRIAN AND TRAFFIC SIGNAL HEADS, PULL BOXES, CONDUIT, AND CABINET, SHALL REMAIN IN PLACE UNLESS SHOWN OTHERWISE ON PLANS. CONTRACTOR SHALL ADJUST LOCATION OF ALL EXISTING TRAFFIC SIGNAL HEADS TO ALIGN WITH TRAVEL LANES, AS SHOWN ON PLANS. EXISTING OVERHEAD STREET NAME SIGNS SHALL BE REPLACED AS SHOWN. RETRO-REFLECTIVE BACK PLATES SHALL BE ADDED TO ALL EXISTING SIGNAL HEADS.

SIGNAL LEGEND

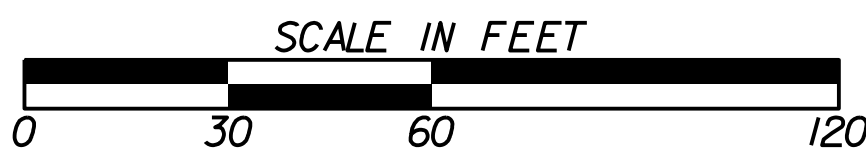


DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND



REVISION DATES

D3-1 *1
McFarland Pkwy

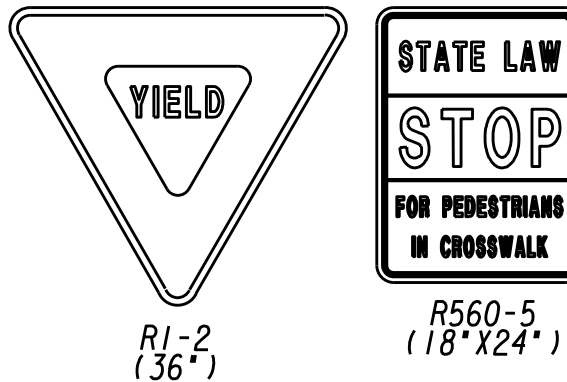
D3-1 *2
Ronald Reagan Blvd

SIGNAL PLANS

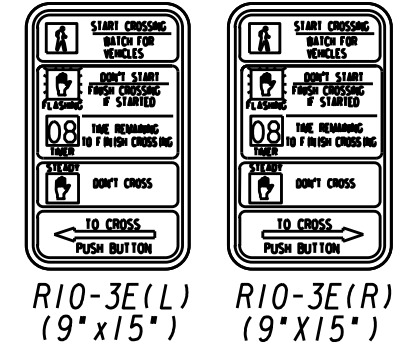
TRAFFIC SIGNAL INSTALLATION NO. 1
RONALD REAGAN BLVD AT MCFARLAND PKWY

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	27-0004
CORRECTED:	DATE:	
VERIFIED:	DATE:	

REGULATORY SIGNS



PEDESTRIAN SIGNS



LIST OF MATERIALS

LIST OF MATERIALS IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL MATERIALS AND QUANTITIES REQUIRED FOR INSTALLATION.

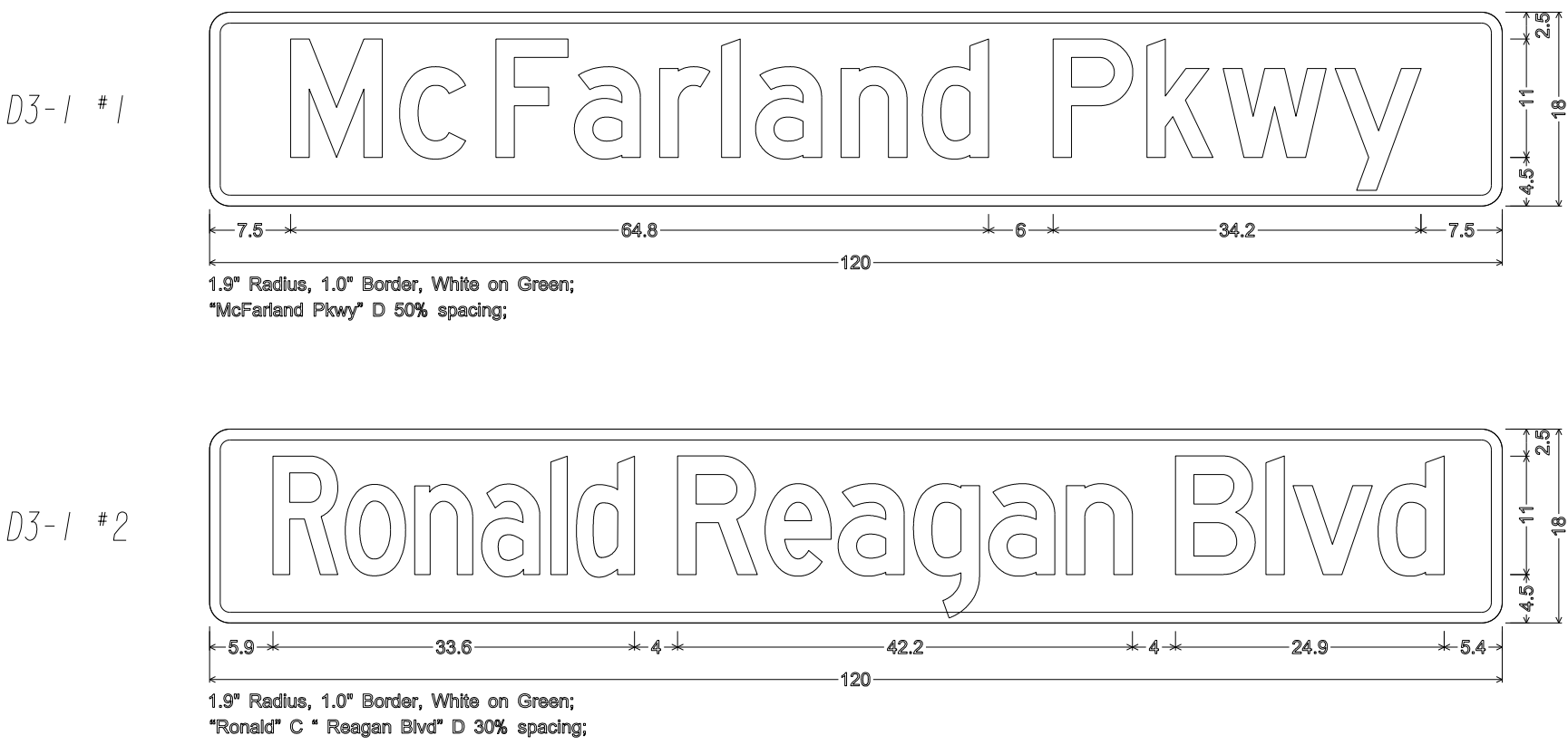
MATERIALS	UNIT	QUANTITY
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)		
A. 3 PAIR 18 AWG	REEL	2
SIGNAL CABLE (14AWG)		
A. 7 CONDUCTOR, PER 1000 FT	REEL	2
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	5
1-SECTION, 16"x18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP (9" HIGH NUMBER & 12" SYMBOLS)	EA	4
PEDESTRIAN PUSH BUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"x15", R10-3E, (LEFT OR RIGHT, COUNTDOWN		
1. 9"x15", R10-3EL, COUNTDOWN	EA	2
2. 9"x15", R10-3ER, COUNTDOWN	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, ONE-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	1
10' PEDESTAL POLE & SQUARE BASE	EA	3
PULL BOX, PB-2	EA	4
PULL BOX, PB-3	EA	1
LOOP SAW CUT	LF	2750
CONDUIT, 1"	LF	55
CONDUIT, 2"	LF	95
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 1	LUMP SUM	LUMP SUM
615-1100	DIRECTIONAL BORE PIPE - 5 IN.	LF	100
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	59
639-2002	STEEL WIRE STRAND CABLE 3 /8 IN	LF	95
639-5000	PRESTRESSED CONC STRAIN POLE, TP IV	EA	1
682-6233	CONDUIT, NONMETAL, TP 3, 2 IN	LF	330

RONALD REAGAN BLVD AT MCFARLAND PKWY

D3-1 OVERHEAD STREET NAME SIGN DETAILS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH						DC 150	DC 150	DC 150
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1A	L2A			L3A	L4A						Ø2 PED	Ø6 PED	FLASH SENSE
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION	L1B	L2B			L3B	L4B						Ø4 PED	Ø8 PED	STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH								
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6A			L7A	L8A								
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION		L6B			L7B	L8B								
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12

FORSYTH COUNTY
ENGINEERING DEPARTMENT

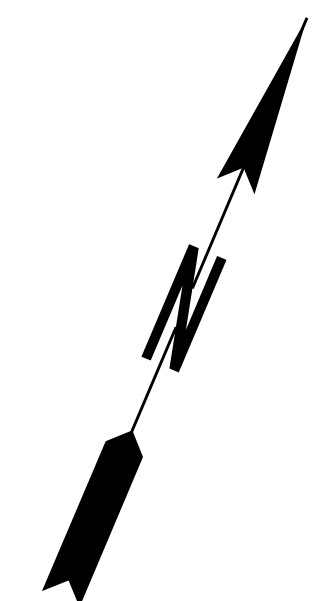


REVISION DATES






SIGNAL PLANS

RONALD REAGAN BLVD EXTENSION
SUMMARY OF QUANTITIES

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		27-0005
CORRECTED:		DATE:		
VERIFIED:		DATE:		



DETECTION LEGEND

	PROPOSED VIRTUAL DETECTION ZONE
	PROPOSED INDUCTIVE LOOP
	PROPOSED VIDEO DETECTION CAMERA
	PROPOSED MAGNETOMETER
	PROPOSED RADAR

POND

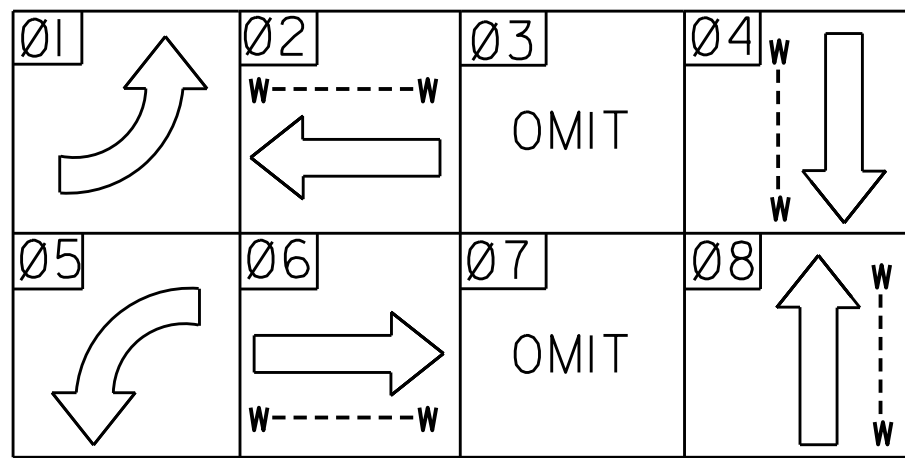
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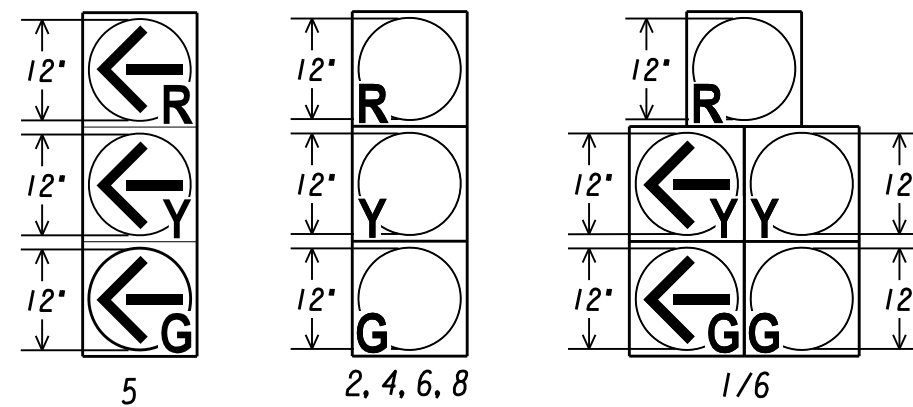
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<i>SIGNAL PLANS</i>			
<i>EXISTING CONDITIONS</i>			
<i>RONALD REAGAN BLVD AT TECHNOLOGY LN</i>			
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	
			DRAWING No.
			27-0006

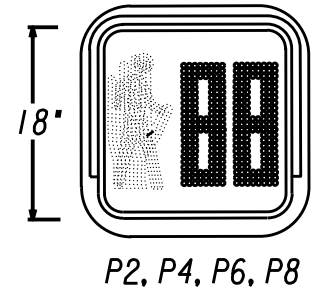
PHASING DIAGRAM



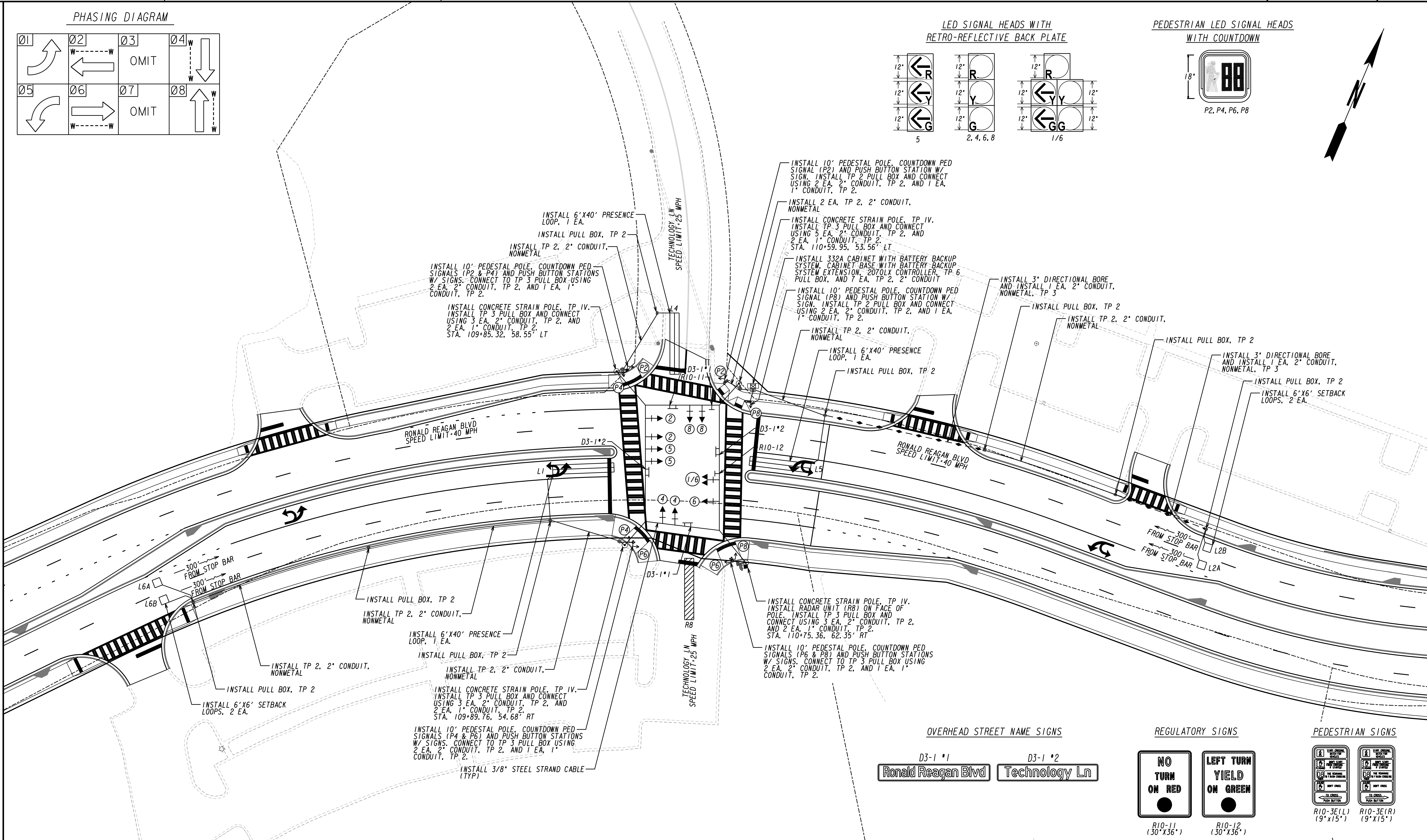
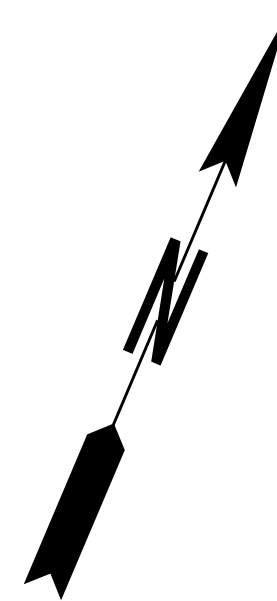
LED SIGNAL HEADS WITH
RETRO-REFLECTIVE BACK PLATE



PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN



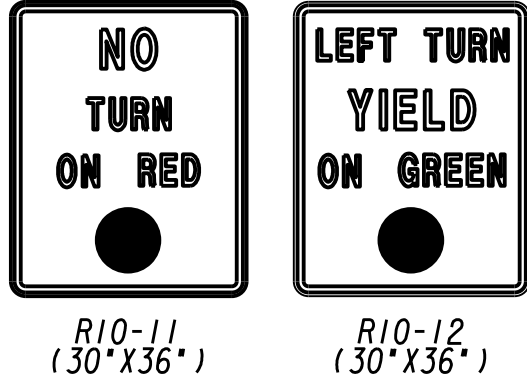
P2, P4, P6, P8



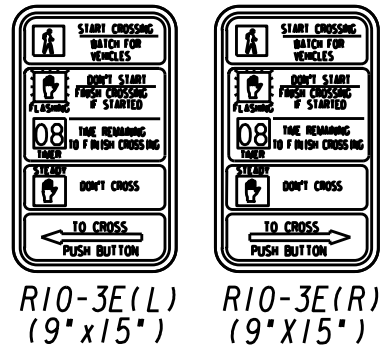
OVERHEAD STREET NAME SIGNS



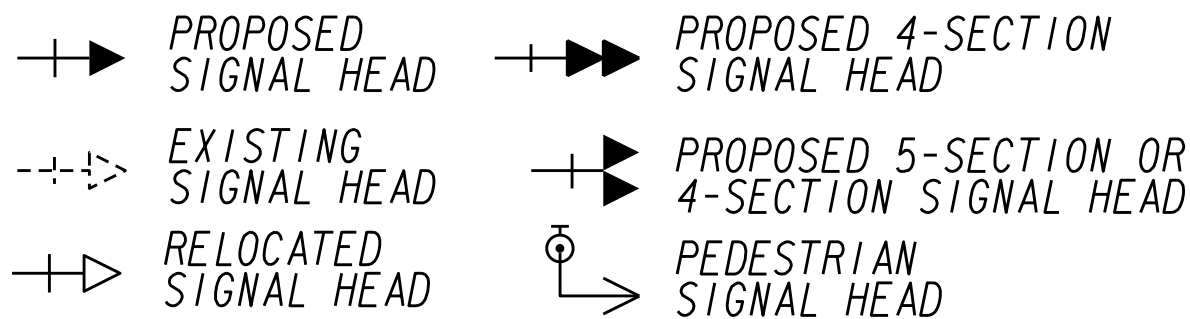
REGULATORY SIGNS



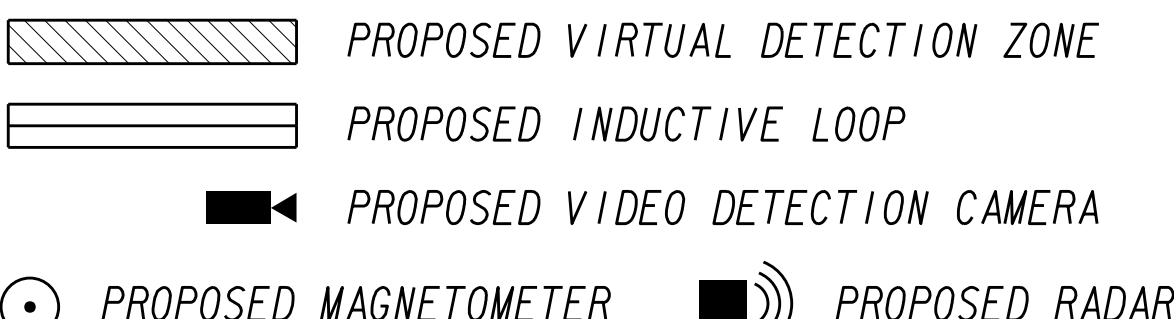
PEDESTRIAN SIGNS



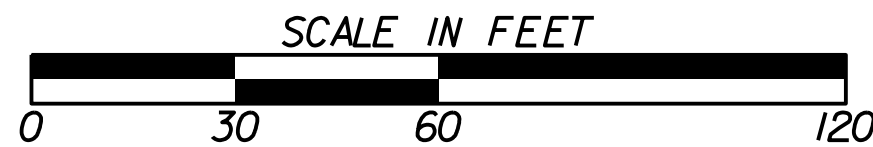
SIGNAL LEGEND



DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

SIGNAL PLANS

TRAFFIC SIGNAL INSTALLATION NO. 2
RONALD REAGAN BLVD AT TECHNOLOGY LN

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	27-0007
CORRECTED:	DATE:	
VERIFIED:	DATE:	

LIST OF MATERIALS

LIST OF MATERIALS IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL MATERIALS AND QUANTITIES REQUIRED FOR INSTALLATION.

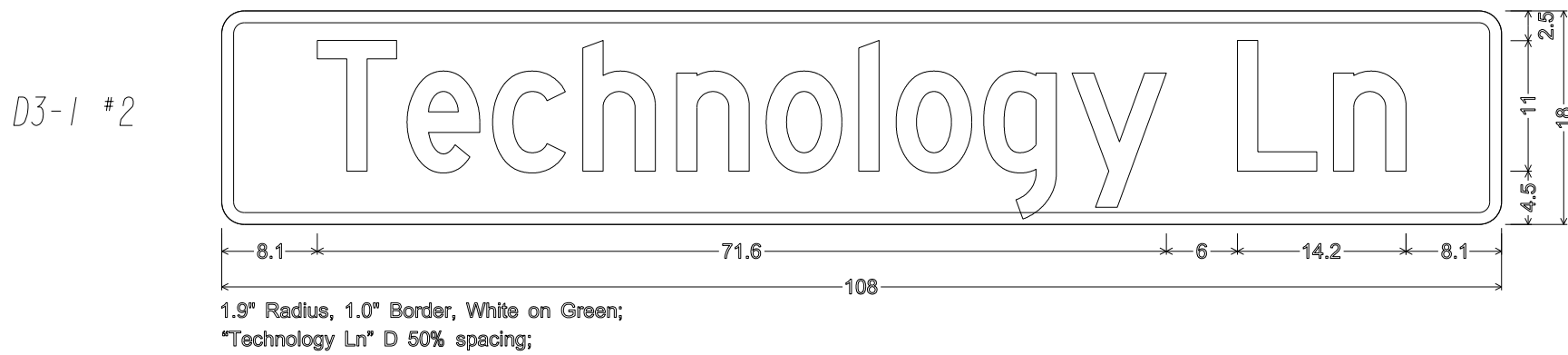
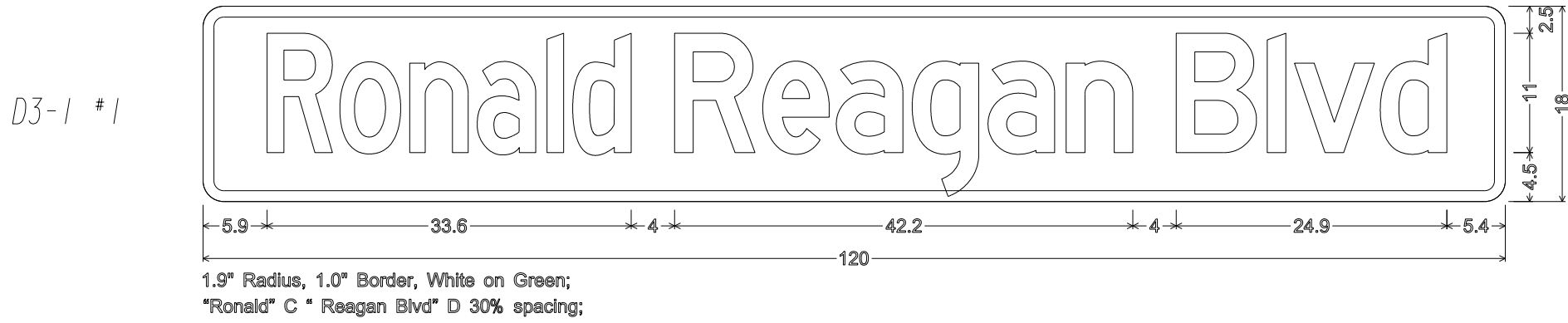
MATERIALS	UNIT	QUANTITY
CABINET CONTROLLER ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070LX	EA	1
E. CABINET ASSEMBLY, MODEL 332	EA	1
F. SWITCH PACK (LOAD SWITCH)	EA	10
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	5
L. 2010 SIGNAL MONITOR, TYPE B (ETHERNET)	EA	1
BATTERY BACKUP SYSTEM - EXTERNAL MOUNTED (PER GDOT SPEC)	EA	1
332 PREFABRICATED CONTROLLER CABINET BASE W/ BBS EXTENTION	EA	1
PC642-200 (OR EQUIVALENT), SURGE PROTECTOR	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)		
A. 3 PAIR 18 AWG	REEL	2
SIGNAL CABLE (14AWG)		
A. 7 CONDUCTOR, PER 1000 FT	REEL	2
B. 10 CONDUCTOR, PER 1000 FT	REEL	1
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	2
3-SECTION, 12' SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	9
5-SECTION, (CLUSTER) 12' SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	1
1-SECTION, 16"x18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP (9" HIGH NUMBER & 12" SYMBOLS)	EA	8
PEDESTRIAN PUSH BUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"x15", R10-3E, (L)EFT OR (R)IGHT, COUNTDOWN		
1. 9"x15", R10-3EL, COUNTDOWN	EA	4
2. 9"x15", R10-3ER, COUNTDOWN	EA	4
BACKPLATE FOR ONE-WAY, 3 SECTION, 12' SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	9
BACKPLATE FOR ONE-WAY, 5 SECTION, (CLUSTER) 12' SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	1
HARDWARE FOR SPAN WIRE MOUNTING	EA	10
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, ONE-WAY BRACKET ASSEMBLY	EA	2
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	3
10' PEDESTAL POLE & SQUARE BASE	EA	5
PULL BOX, PB-2	EA	10
PULL BOX, PB-3	EA	4
PULL BOX, PB-6	EA	1
LOOP SAW CUT	LF	850
CONDUIT, 1"	LF	80
CONDUIT, 2"	LF	685
R10-11, NO TURN ON RED SIGN	EA	1
R10-12, LEFT TURN YIELD ON GREEN SIGN	EA	2
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 2	LUMP SUM	LUMP SUM
615-1100	DIRECTIONAL BORE PIPE - 3 IN.	LF	175
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	56
639-2002	STEEL WIRE STRAND CABLE 3 /8 IN	LF	350
639-5000	PRESTRESSED CONC STRAIN POLE, TP IV	EA	4
682-6233	CONDUIT, NONMETAL, TP 3, 2 IN	LF	175
682-8525	ELECTRICAL POWER SERVICE ASSEMBLY (UNDERGROUND SERVICE POINT)	EA	1
937-6000	MICROWAVE RADAR DETECTION ASSEMBLY	EA	1
937-8020	TESTING - MICROWAVE DETECTION SYSTEM	LUMP SUM	LUMP SUM
937-8520	TRAINING - MICROWAVE DETECTION SYSTEM	LUMP SUM	LUMP SUM

RONALD REAGAN BLVD AT TECHNOLOGY LN

D3-1 OVERHEAD STREET NAME SIGN DETAILS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
------	---	---	---	---	---	---	---	---	---	----	----	----	----	----

UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH				2-CH						DC 150	DC 150	DC 150
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1	L2A				L4						Ø2 PED	Ø6 PED	FLASH SENSE
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION		L2B										Ø4 PED	Ø8 PED	STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH												
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6A				R8								
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION		L6B												
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

REVISION DATES

SIGNAL PLANS

RONALD REAGAN BLVD EXTENSION
SUMMARY OF QUANTITIES

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

27-0008



+

→

PROPOSED
SIGNAL HEAD

+

→

EXISTING
SIGNAL HEAD

+

→

RELOCATED
SIGNAL HEAD

+

→

PROPOSED 4-SECTION
SIGNAL HEAD

+

→

PROPOSED 5-SECTION OR
4-SECTION SIGNAL HEAD

⊕

→

PEDESTRIAN
SIGNAL HEAD

PROPOSED VIRTUAL DETECTION ZONE

PROPOSED INDUCTIVE LOOP

PROPOSED VIDEO DETECTION CAMERA

⊙

PROPOSED MAGNETOMETER

PROPOSED RADAR

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

SCALE IN FEET

0

30

60

120

REVISION DATES

SIGNAL PLANS

EXISTING CONDITIONS

RONALD REAGAN BLVD AT SHILOH RD

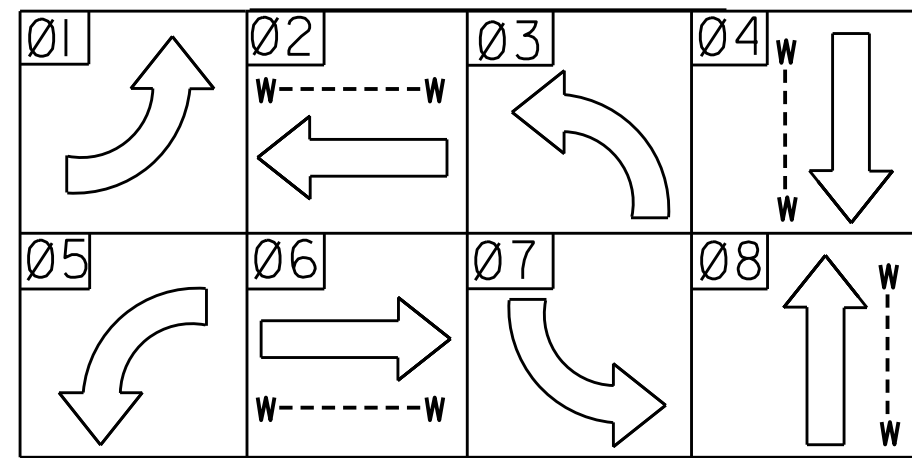
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27-0009

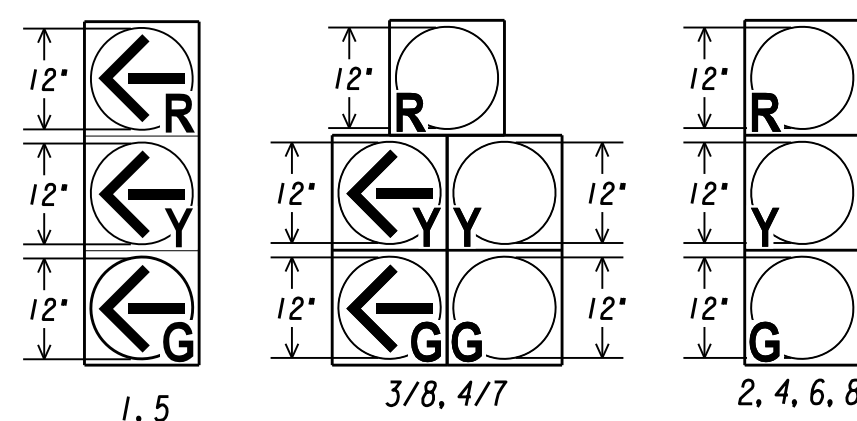
10/23/2015

GPLN

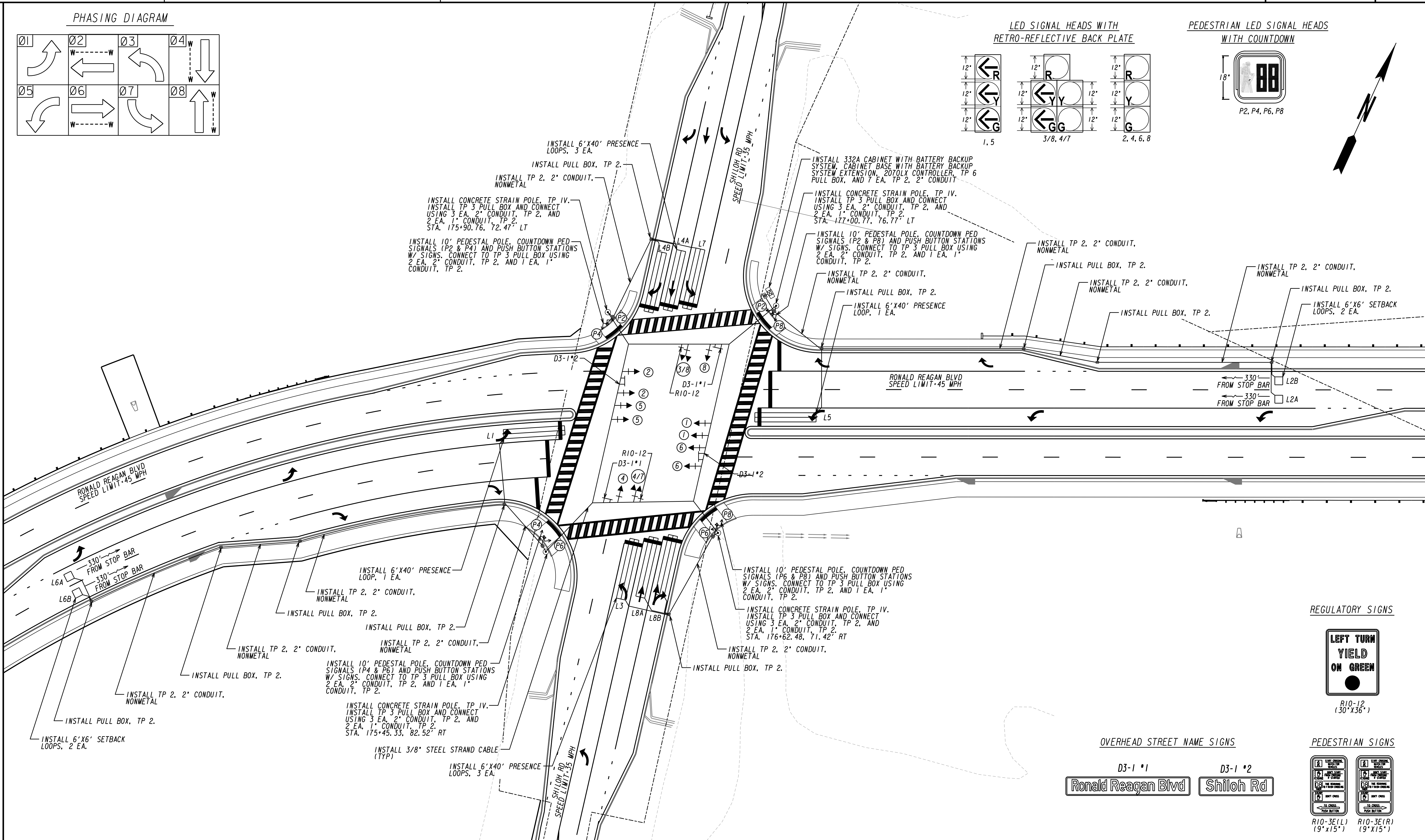
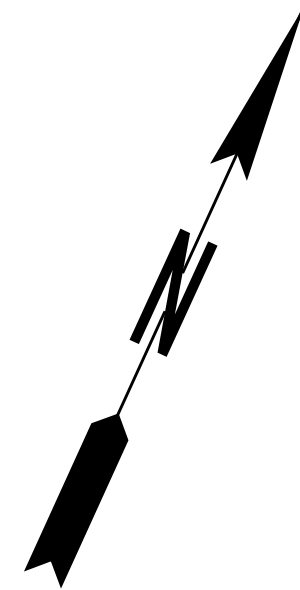
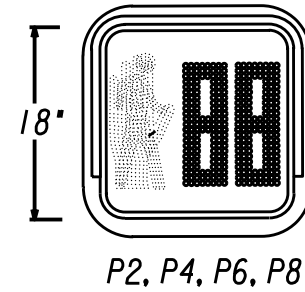
PHASING DIAGRAM



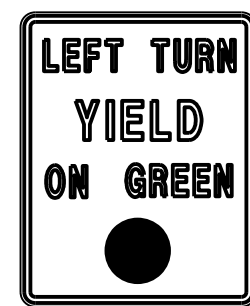
LED SIGNAL HEADS WITH
RETRO-REFLECTIVE BACK PLATE



PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN



REGULATORY SIGNS

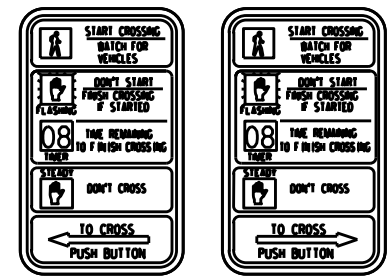


R10-12
(30"x36")

OVERHEAD STREET NAME SIGNS

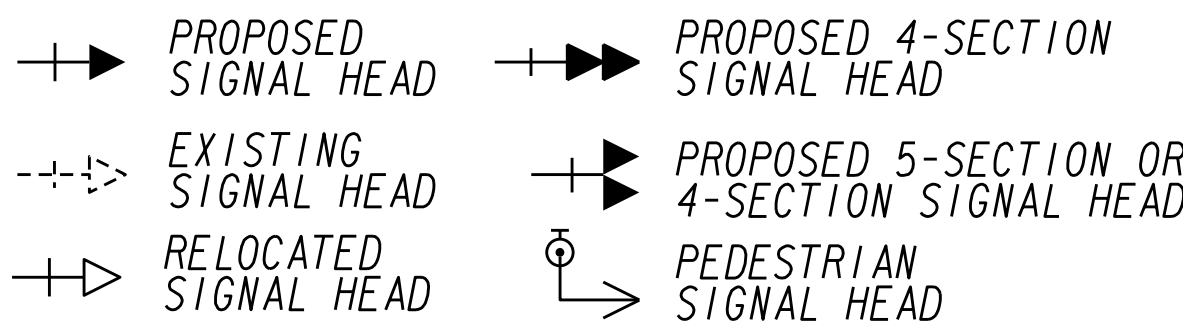


PEDESTRIAN SIGNS

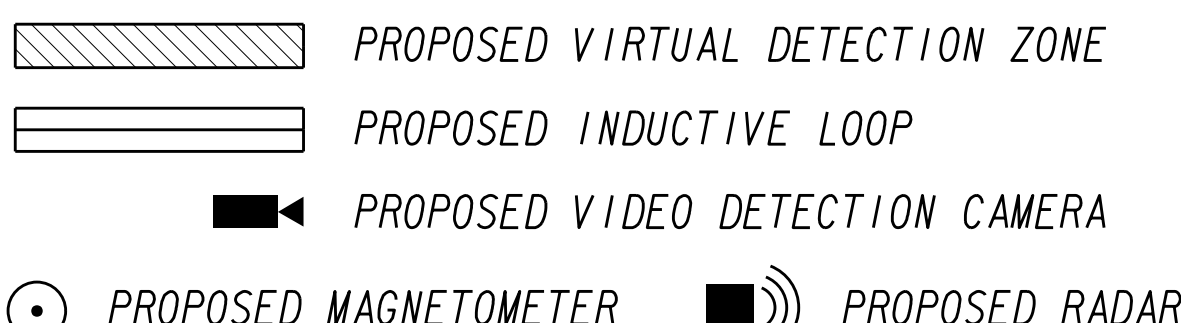


R10-3E(L)
(9'x15")
R10-3E(R)
(9'x15")

SIGNAL LEGEND

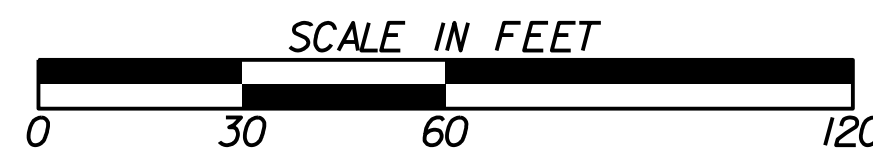


DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND



REVISION DATES

NO.	DATE	DESCRIPTION

SIGNAL PLANS

TRAFFIC SIGNAL INSTALLATION NO. 3
RONALD REAGAN BLVD AT SHILOH RD

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	27-0010
CORRECTED:	DATE:	
VERIFIED:	DATE:	

LIST OF MATERIALS

LIST OF MATERIALS IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL MATERIALS AND QUANTITIES REQUIRED FOR INSTALLATION.

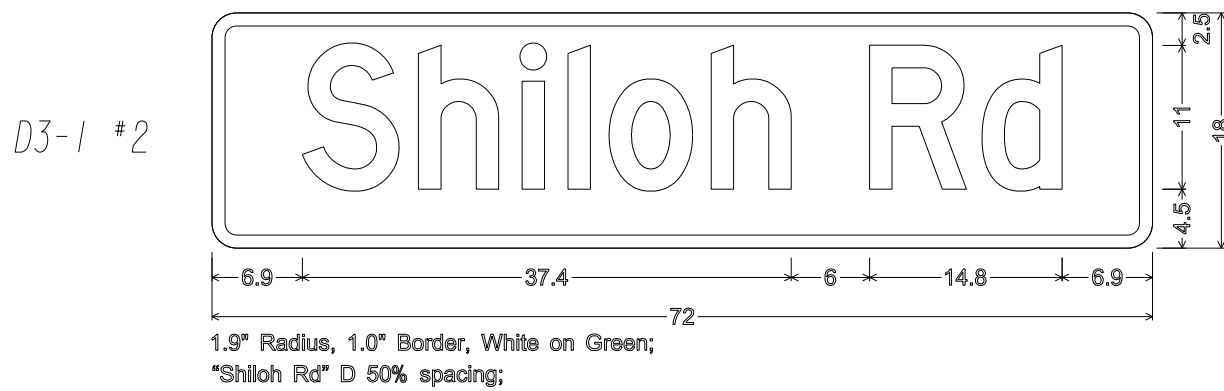
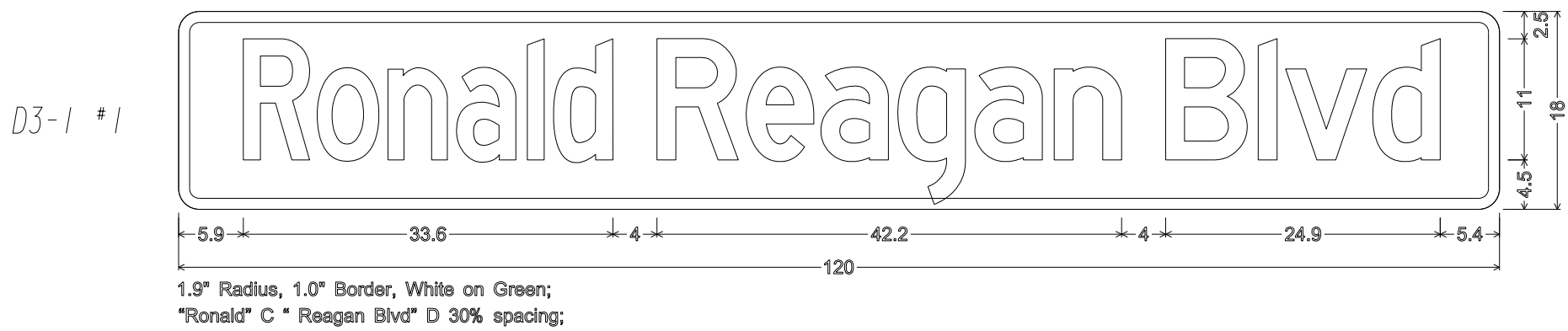
MATERIALS	UNIT	QUANTITY
CABINET CONTROLLER ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070LX	EA	1
E. CABINET ASSEMBLY, MODEL 332	EA	1
F. SWITCH PACK (LOAD SWITCH)	EA	12
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	8
L. 2010 SIGNAL MONITOR, TYPE B (ETHERNET)	EA	1
BATTERY BACKUP SYSTEM - EXTERNAL MOUNTED (PER GDOT SPEC)	EA	1
332 PREFABRICATED CONTROLLER CABINET BASE W/ BBS EXTENTION	EA	1
PC642-200 (OR EQUIVALENT), SURGE PROTECTOR	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)		
A. 3 PAIR 18 AWG	REEL	4
SIGNAL CABLE (14AWG)		
A. 7 CONDUCTOR, PER 1000 FT	REEL	3
B. 10 CONDUCTOR, PER 1000 FT	REEL	1
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	4
3-SECTION, 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	10
5-SECTION, (CLUSTER) 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	2
1-SECTION, 16"x18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP (9" HIGH NUMBER & 12" SYMBOLS)	EA	8
PEDESTRIAN PUSH BUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"x15", R10-3E, (L)EFT OR (R)IGHT, COUNTDOWN		
1. 9"x15", R10-3EL, COUNTDOWN	EA	4
2. 9"x15", R10-3ER, COUNTDOWN	EA	4
BACKPLATE FOR ONE-WAY, 3 SECTION, 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	10
BACKPLATE FOR ONE-WAY, 5 SECTION, (CLUSTER) 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	2
HARDWARE FOR SPAN WIRE MOUNTING	EA	12
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	4
10" PEDESTAL POLE & SQUARE BASE	EA	4
PULL BOX, PB-2	EA	10
PULL BOX, PB-3	EA	4
PULL BOX, PB-6	EA	1
LOOP SAW CUT	LF	1900
CONDUIT, 1"	LF	90
CONDUIT, 2"	LF	975
R10-12, LEFT TURN YIELD ON GREEN SIGN	EA	2
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 3	LUMP SUM	LUMP SUM
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	48
639-2002	STEEL WIRE STRAND CABLE 3 /8 IN	LF	525
639-5000	PRESTRESSED CONC STRAIN POLE, TP 1V	EA	4
682-8525	ELECTRICAL POWER SERVICE ASSEMBLY (UNDERGROUND SERVICE POINT)	EA	1

RONALD REAGAN BLVD AT SHILOH RD

D3-1 OVERHEAD STREET NAME SIGN DETAILS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH						DC 150	DC 150	DC 150
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1	L2A			L3	L4A						Ø2 PED	Ø6 PED	FLASH SENSE
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION		L2B				L4B						Ø4 PED	Ø8 PED	STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH								
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6A			L7	L8A								
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION		L6B				L8B								
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12

FORSYTH COUNTY
ENGINEERING DEPARTMENT

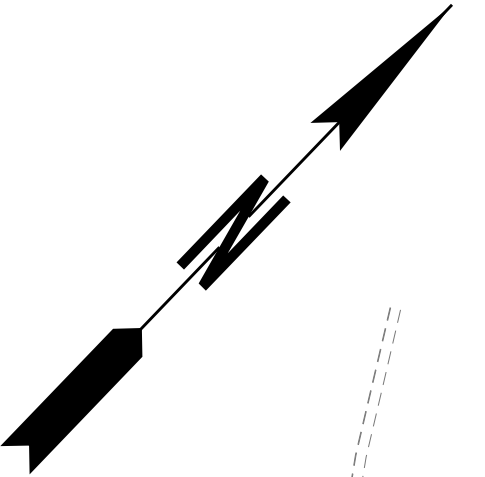


REVISION DATES

SIGNAL PLANS

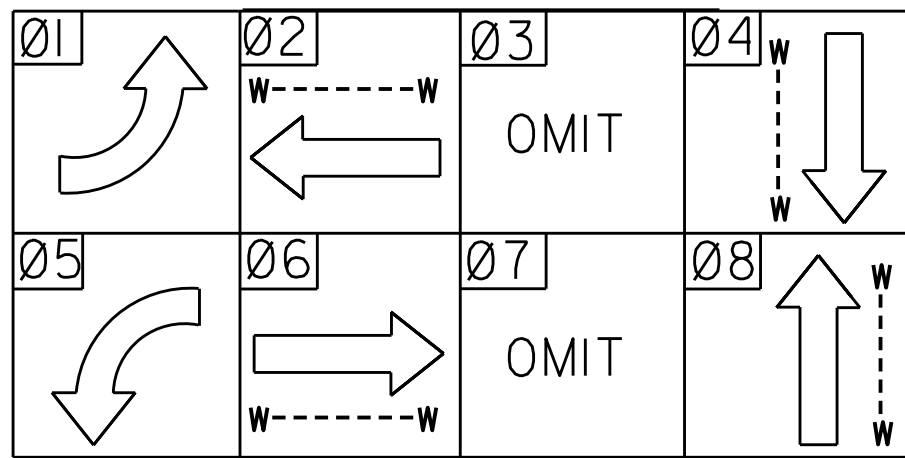
RONALD REAGEN BLVD EXTENSION
SUMMARY OF QUANTITIES

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BACKCHECKED:		DATE:		27-0011
CORRECTED:		DATE:		
VERIFIED:		DATE:		

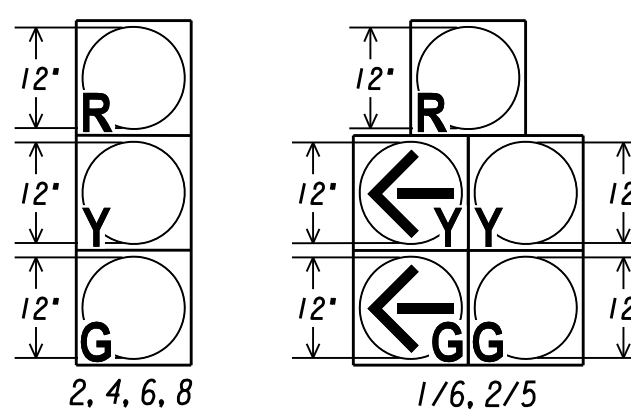


<h2 style="margin: 0;">SIGNAL PLANS</h2> <h3 style="margin: 0;">EXISTING CONDITIONS</h3> <p style="margin: 0;">RONALD REAGAN BLVD AT IVY SUMMIT CT/SUMMIT OVERLOOK WY</p>			
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	
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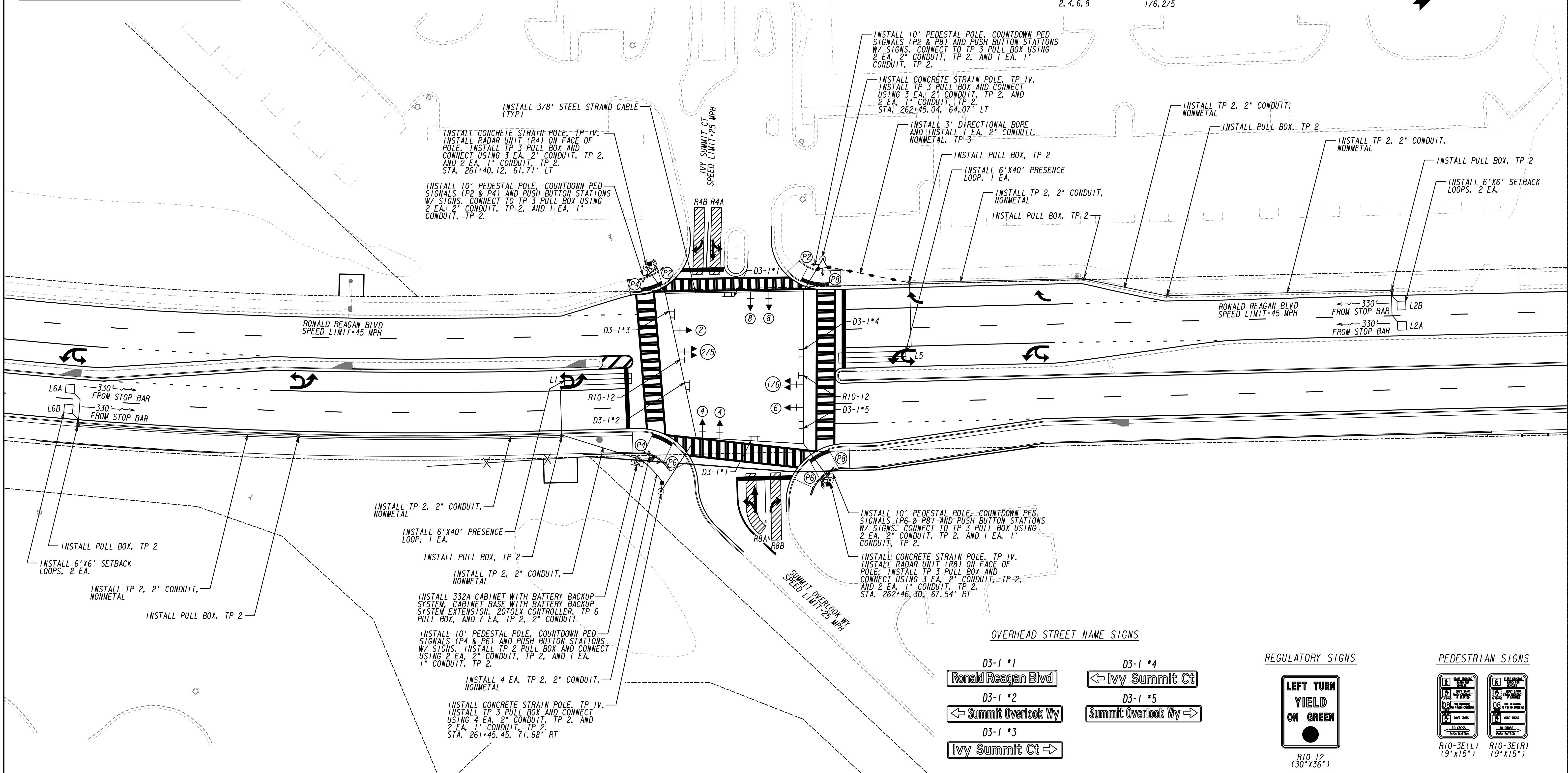
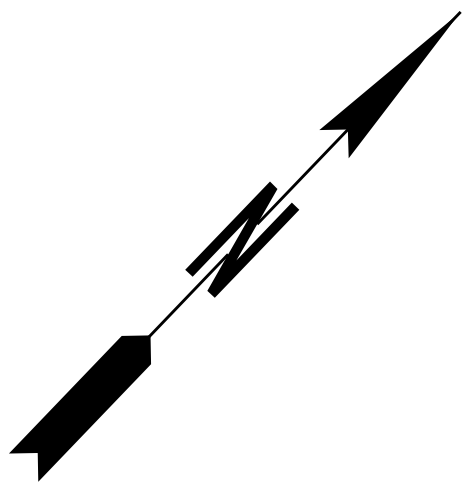
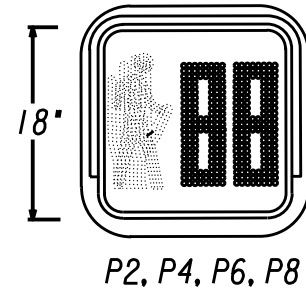
PHASING DIAGRAM



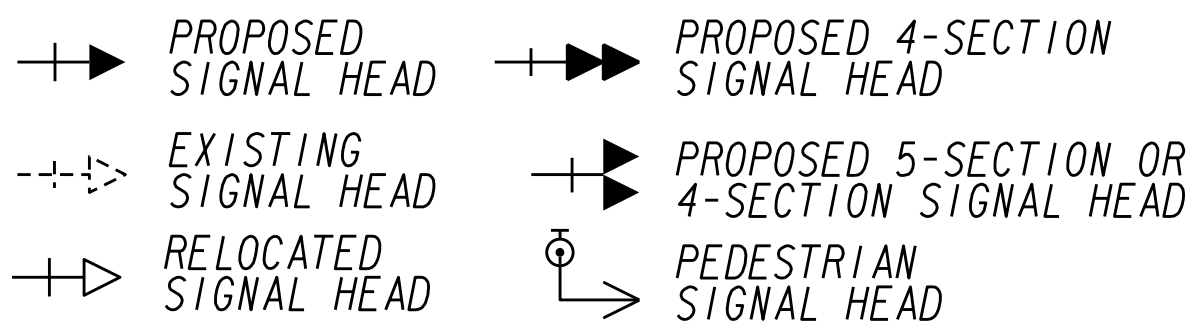
LED SIGNAL HEADS WITH
RETRO-REFLECTIVE BACK PLATE



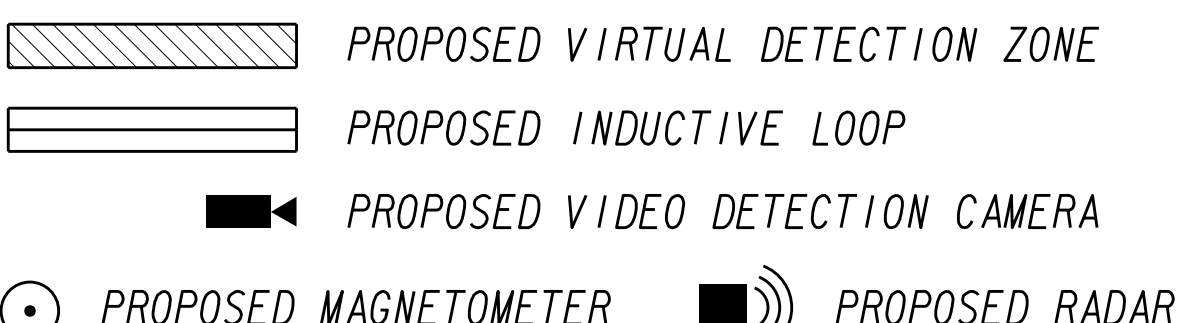
PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN



SIGNAL LEGEND

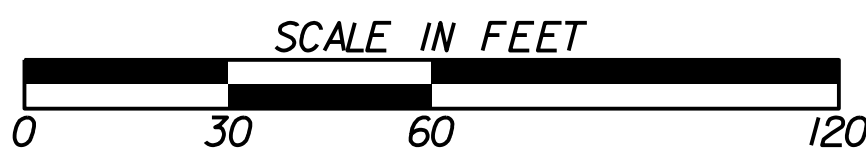


DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND



REVISION DATES

NO.	DATE	DESCRIPTION

SIGNAL PLANS

TRAFFIC SIGNAL INSTALLATION NO. 4
RONALD REAGAN BLVD AT IVY SUMMIT CT/SUMMIT OVERLOOK WY

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	27-0013
CORRECTED:	DATE:	
VERIFIED:	DATE:	

LIST OF MATERIALS

LIST OF MATERIALS IS FOR INFORMATION PURPOSES ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL MATERIALS AND QUANTITIES REQUIRED FOR INSTALLATION.

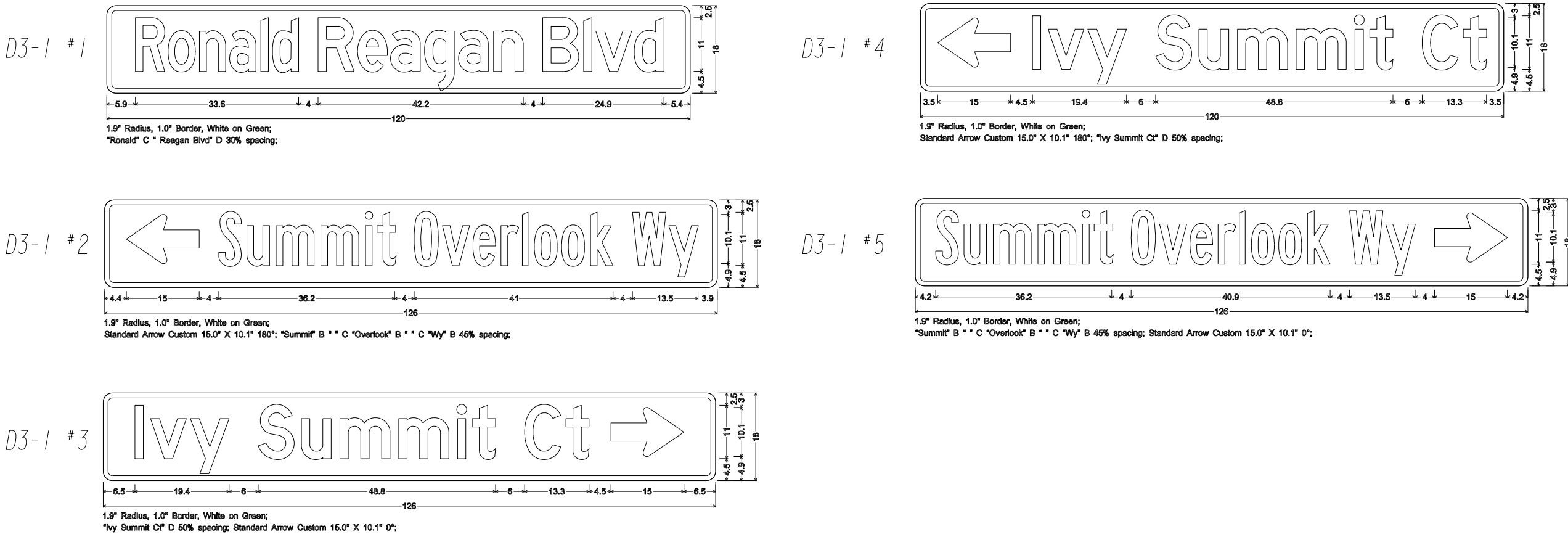
MATERIALS	UNIT	QUANTITY
CABINET CONTROLLER ASSEMBLIES		
A. CONTROLLER UNIT, MODEL 2070LX	EA	1
E. CABINET ASSEMBLY, MODEL 332	EA	1
F. SWITCH PACK (LOAD SWITCH)	EA	10
G. DC ISOLATOR	EA	3
H. LOOP DETECTOR, 2-CHANNEL	EA	4
L. 2010 SIGNAL MONITOR, TYPE B (ETHERNET)	EA	1
BATTERY BACKUP SYSTEM - EXTERNAL MOUNTED (PER GDOT SPEC)	EA	1
332 PREFABRICATED CONTROLLER CABINET BASE W/ BBS EXTENTION	EA	1
PC642-200 (OR EQUIVALENT), SURGE PROTECTOR	EA	1
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)		
A. 3 PAIR 18 AWG	REEL	3
SIGNAL CABLE (14AWG)		
A. 7 CONDUCTOR, PER 1000 FT	REEL	3
B. 10 CONDUCTOR, PER 1000 FT	REEL	1
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	2
3-SECTION, 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	6
5-SECTION, (CLUSTER) 12" SIGNAL HEAD LED-, YELLOW HOUSING W/BLACK FRONT, PLASTIC	EA	2
1-SECTION, 16"x18" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, FULL HAND/MAN OVERLAP (9" HIGH NUMBER & 12" SYMBOLS)	EA	8
PEDESTRIAN PUSH BUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"x15", R10-3E, (L)EFT OR (R)IGHT, COUNTDOWN		
1. 9"x15", R10-3EL, COUNTDOWN	EA	4
2. 9"x15", R10-3ER, COUNTDOWN	EA	4
BACKPLATE FOR ONE-WAY, 3 SECTION, 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	6
BACKPLATE FOR ONE-WAY, 5 SECTION, (CLUSTER) 12" SIGNAL HEAD, ABS PLASTIC, BLACK W/ RETROREFLECTIVE STRIP	EA	2
HARDWARE FOR SPAN WIRE MOUNTING	EA	8
HARDWARE FOR PEDESTAL POLE, TOP POST MOUNTING, TWO-WAY BRACKET ASSEMBLY	EA	4
10" PEDESTAL POLE & SQUARE BASE	EA	4
PULL BOX, PB-2	EA	8
PULL BOX, PB-3	EA	4
PULL BOX, PB-6	EA	1
LOOP SAW CUT	LF	625
CONDUIT, 1"	LF	80
CONDUIT, 2"	LF	850
R10-12, LEFT TURN YIELD ON GREEN SIGN	EA	2
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 4	LUMP SUM	LUMP SUM
615-1100	DIRECTIONAL BORE PIPE - 3 IN.	LF	50
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	90
639-2002	STEEL WIRE STRAND CABLE 3 /8 IN	LF	375
639-5000	PRESTRESSED CONC STRAIN POLE, TP IV	EA	4
682-6233	CONDUIT, NONMETAL, TP 3, 2 IN	LF	175
682-8525	ELECTRICAL POWER SERVICE ASSEMBLY (UNDERGROUND SERVICE POINT)	EA	1
937-6000	MICROWAVE RADAR DETECTION ASSEMBLY	EA	2
937-8020	TESTING - MICROWAVE DETECTION SYSTEM	LUMP SUM	LUMP SUM
937-8520	TRAINING - MICROWAVE DETECTION SYSTEM	LUMP SUM	LUMP SUM

RONALD REAGAN BLVD AT IVY SUMMIT CT/SUMMIT OVERLOOK WY

D3-1 OVERHEAD STREET NAME SIGN DETAILS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

CHANNEL 1	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH				WR						DC 150	DC 150	DC 150
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1	L2A				R4A						Ø2 PED	Ø6 PED	FLASH SENSE
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION		L2B				R4B						Ø4 PED	Ø8 PED	STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C

LOWER INPUT FILE

CHANNEL 1	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
	CARD	2-CH	2-CH				WR								
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6A				R8A								
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION		L6B				R8B								
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12

FORSYTH COUNTY
ENGINEERING DEPARTMENT



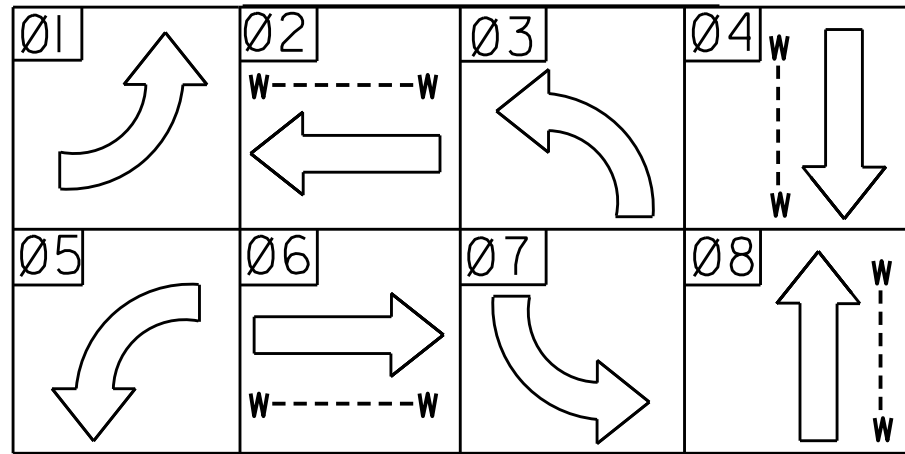
REVISION DATES

SIGNAL PLANS

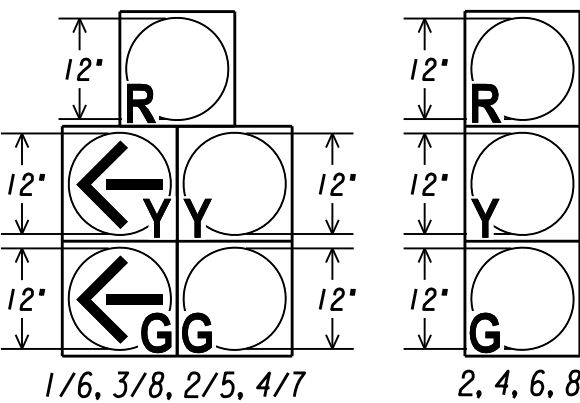
RONALD REAGAN BLVD EXTENSION
SUMMARY OF QUANTITIES

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BACKCHECKED:		DATE:		27-0014
CORRECTED:		DATE:		
VERIFIED:		DATE:		

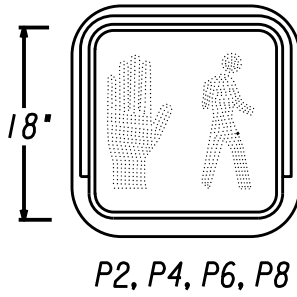
PHASING DIAGRAM



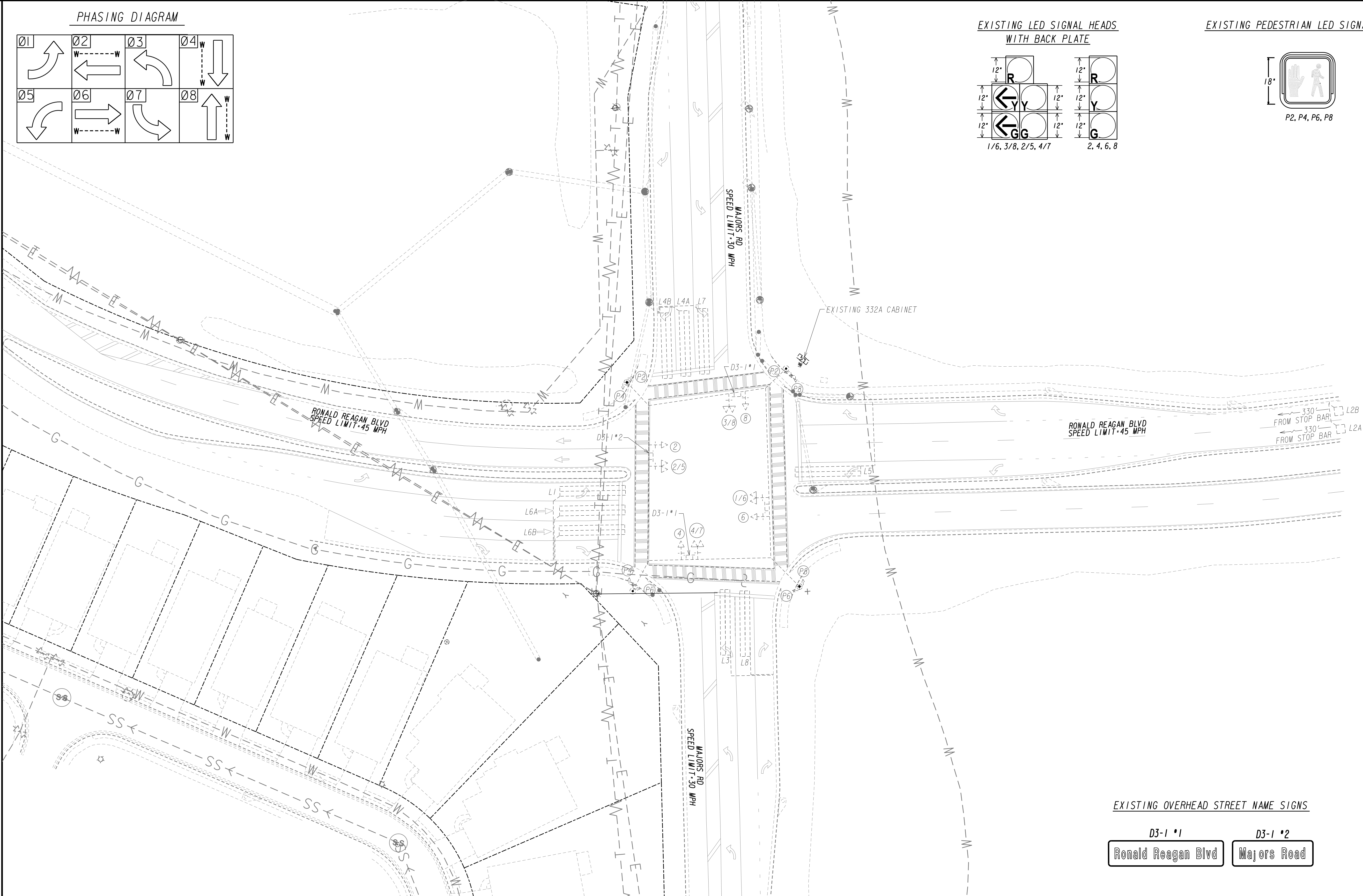
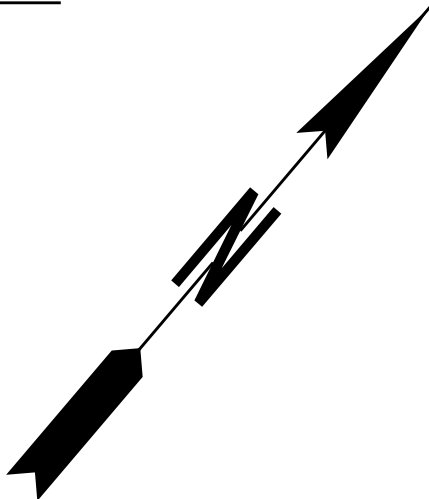
EXISTING LED SIGNAL HEADS
WITH BACK PLATE



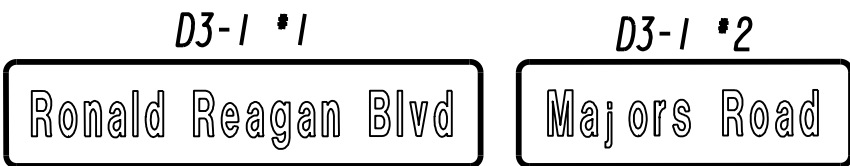
EXISTING PEDESTRIAN LED SIGNAL HEADS



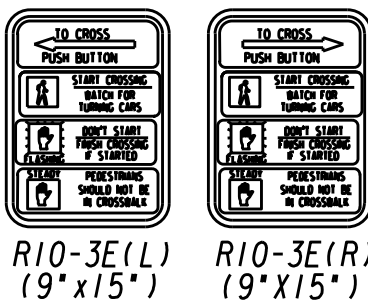
P2, P4, P6, P8



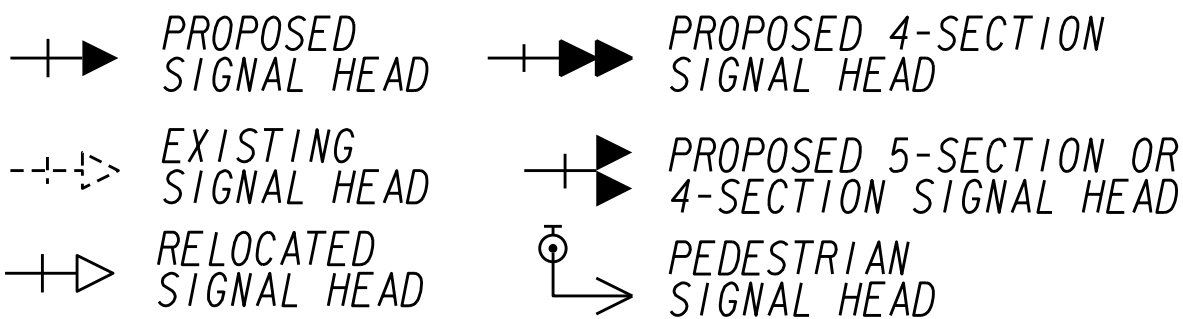
EXISTING OVERHEAD STREET NAME SIGNS



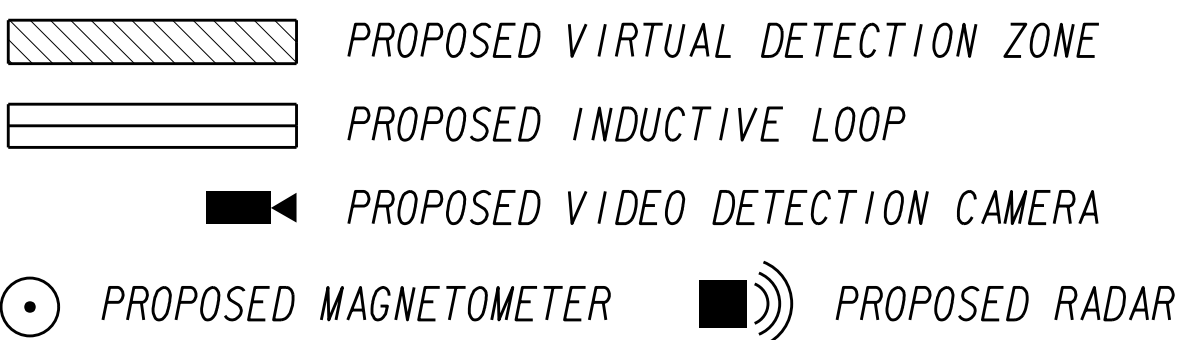
EXISTING PEDESTRIAN SIGNS



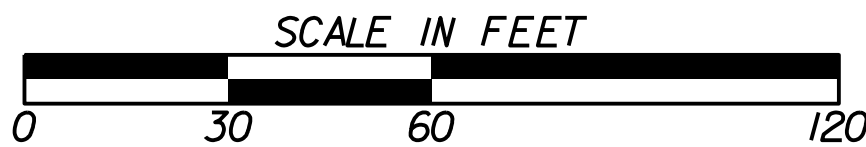
SIGNAL LEGEND



DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

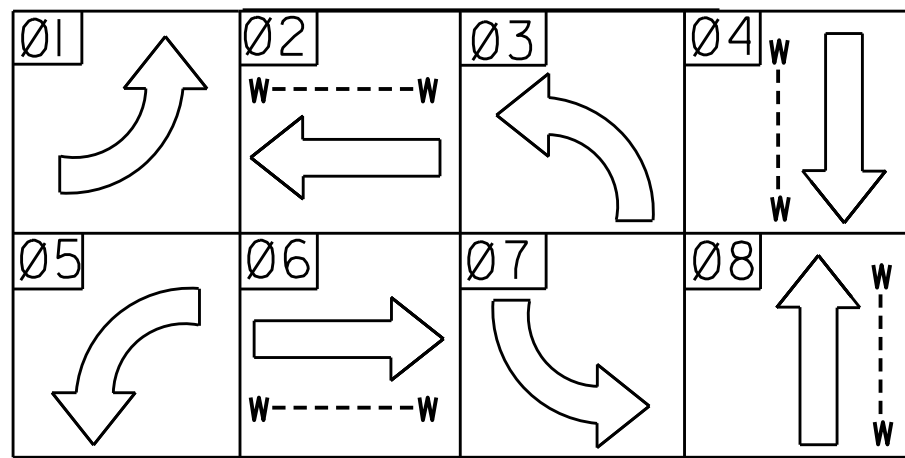
SIGNAL PLANS

EXISTING CONDITIONS
RONALD REAGAN BLVD AT MAJORS RD

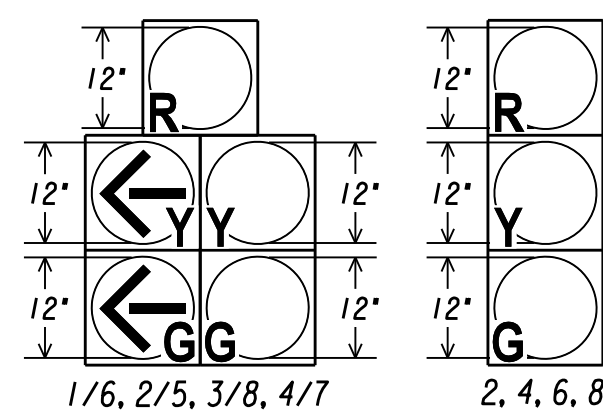
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BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

27-0015

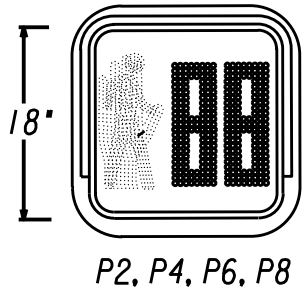
PHASING DIAGRAM



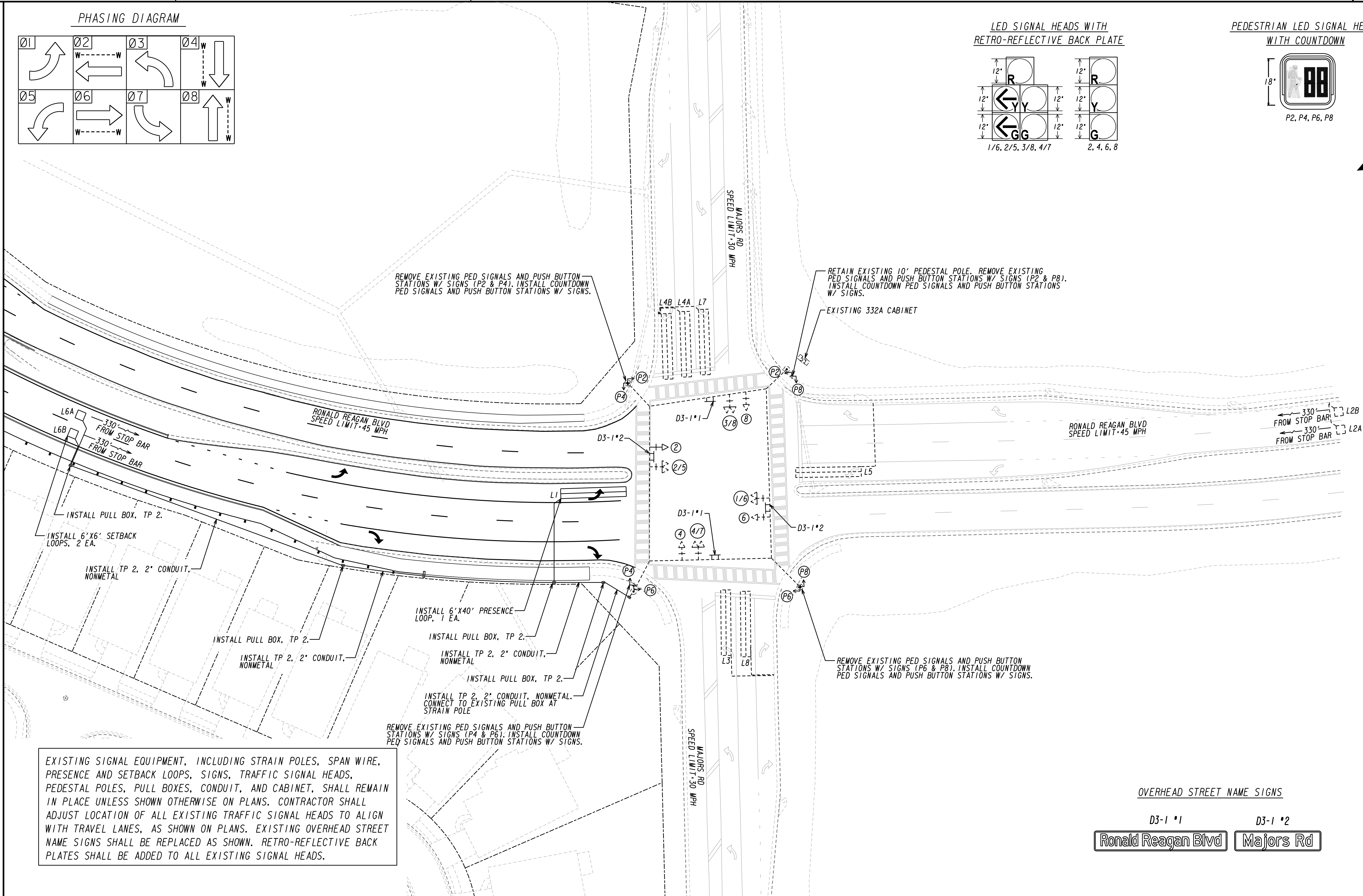
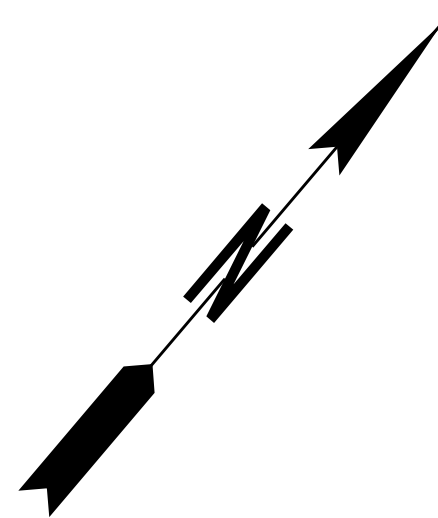
LED SIGNAL HEADS WITH
RETRO-REFLECTIVE BACK PLATE



PEDESTRIAN LED SIGNAL HEADS
WITH COUNTDOWN



P2, P4, P6, P8

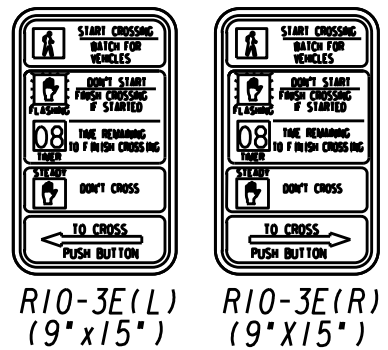


EXISTING SIGNAL EQUIPMENT, INCLUDING STRAIN POLES, SPAN WIRE, PRESENCE AND SETBACK LOOPS, SIGNS, TRAFFIC SIGNAL HEADS, PEDESTAL POLES, PULL BOXES, CONDUIT, AND CABINET, SHALL REMAIN IN PLACE UNLESS SHOWN OTHERWISE ON PLANS. CONTRACTOR SHALL ADJUST LOCATION OF ALL EXISTING TRAFFIC SIGNAL HEADS TO ALIGN WITH TRAVEL LANES, AS SHOWN ON PLANS. EXISTING OVERHEAD STREET NAME SIGNS SHALL BE REPLACED AS SHOWN. RETRO-REFLECTIVE BACK PLATES SHALL BE ADDED TO ALL EXISTING SIGNAL HEADS.

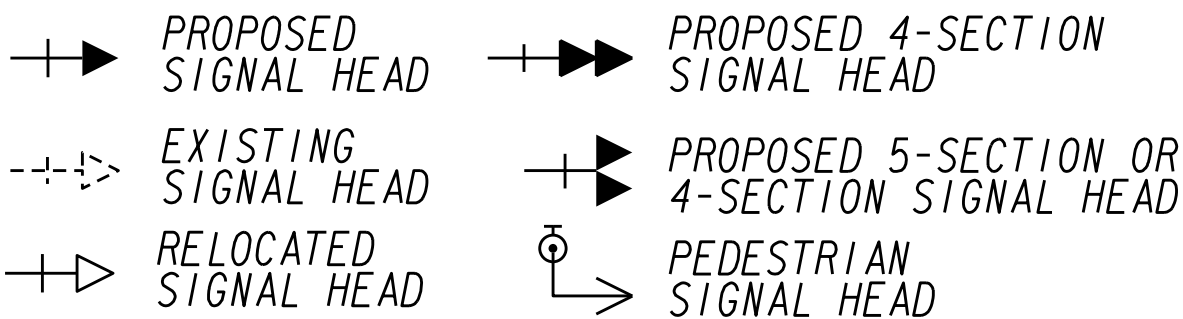
OVERHEAD STREET NAME SIGNS



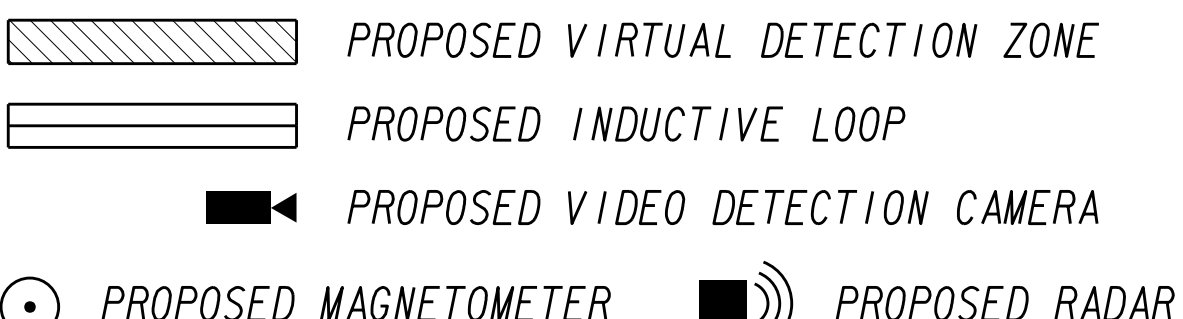
PEDESTRIAN SIGNS



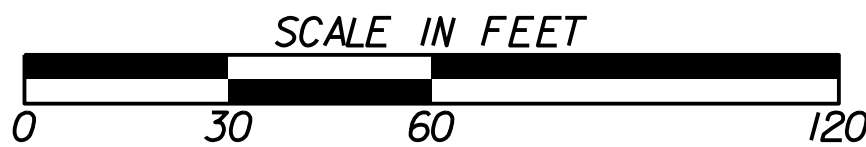
SIGNAL LEGEND



DETECTION LEGEND



FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

SIGNAL PLANS

TRAFFIC SIGNAL INSTALLATION NO. 5
RONALD REAGAN BLVD AT MAJORS RD

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	27-0016
VERIFIED:	DATE:	

LIST OF MATERIALS

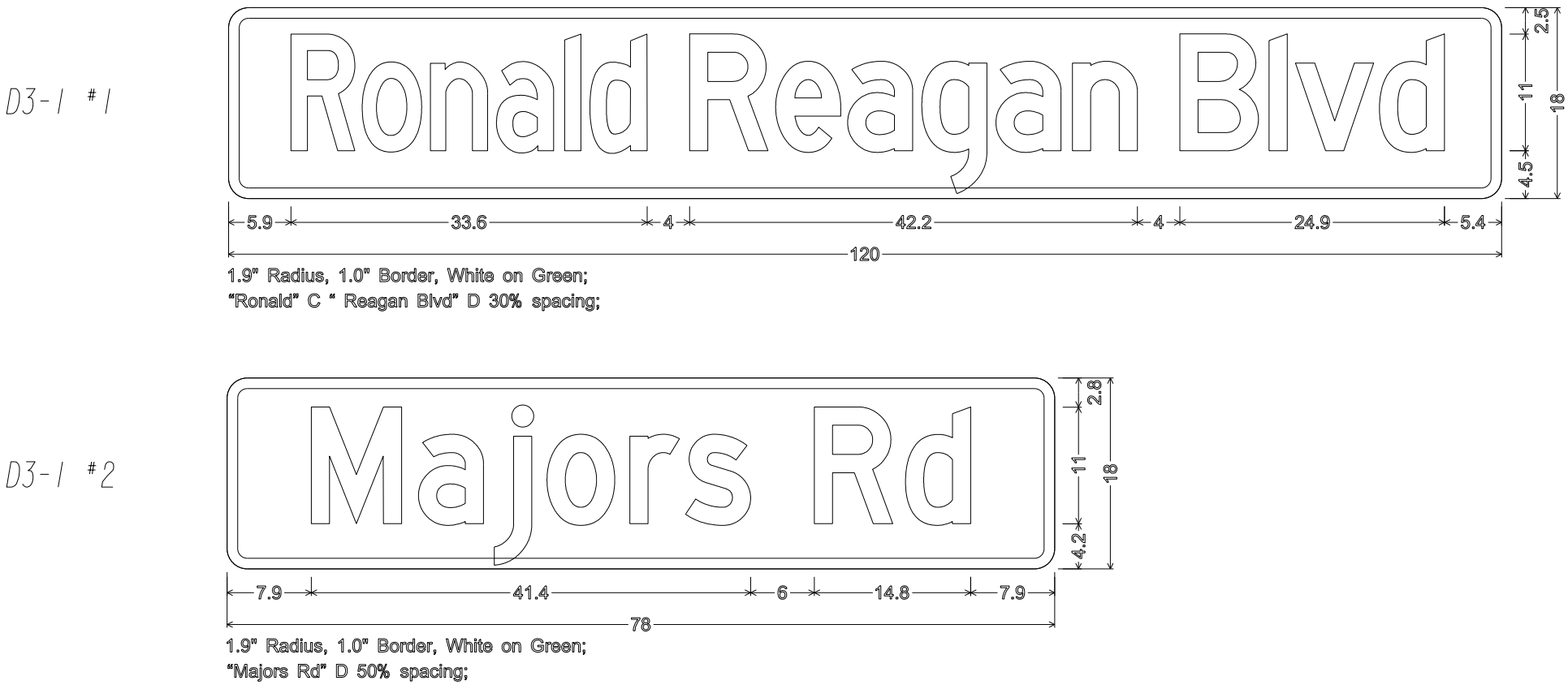
MATERIALS	UNIT	QUANTITY
LOOP/PED LEAD-IN WIRE (SHIELDED, TWISTED/1000 FT)		
A. 3 PAIR 18 AWG	REEL	2
LOOP DETECTOR WIRE (14 AWG, STRANDED/1000 FT)	REEL	2
PEDESTRIAN PUSH BUTTON STATIONS, W/ BUTTONS AND SIGNS: 9"x15", R10-3E, (L)EFT OR (R)IGHT, COUNTDOWN		
1. 9"x15", R10-3EL, COUNTDOWN	EA	4
2. 9"x15", R10-3ER, COUNTDOWN	EA	4
PULL BOX, PB-2	EA	10
LOOP SAW CUT	LF	850
CONDUIT, 1"	LF	80
CONDUIT, 2"	LF	685
MISC. MATL. TO COMPLETE INSTALLATION	LUMP	LUMP

PAY ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
647-1000	TRAFFIC SIGNAL INSTALLATION NO. 5	LUMP SUM	LUMP SUM
636-1041	HIGHWAY SIGNS, TP 2 MATL, REFL SHEETING, TP 9	SF	56

RONALD REAGAN BLVD AT MAJORS RD

D3-1 OVERHEAD STREET NAME SIGN DETAILS



332 CABINET INPUT ASSIGNMENT

SLOT	1	2	3	4	5	6	7	8	9	10	11	12	13	14
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UPPER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH						DC 150	DC 150	DC 150
	C1 PIN	56	39	63	47	58	41	65	49	60		80	67	68	81
	FUNCTION	L1	L2A			L3	L4A						Ø2 PED	Ø6 PED	FLASH SENSE
	FIELD TERM	TB2 1,2	TB2 5,6	TB2 9,10	TB4 1,2	TB4 5,6	TB4 9,10	TB6 1,2	TB6 5,6	TB6 9,10			TB8 4,6	TB8 7,9	N/C

CHANNEL 2	C1 PIN	56	43	76	47	58	45	78	49	62		53	69	70	82
	FUNCTION		L2B				L4B						Ø4 PED	Ø8 PED	STOP TIME
	FIELD TERM	TB2 3,4	TB2 7,8	TB2 11,12	TB4 3,4	TB4 7,8	TB4 11,12	TB6 3,4	TB6 7,8	TB6 11,12			TB8 5,6	TB8 8,9	N/C

LOWER INPUT FILE

	TYPE	DET	DET	DET	DET	DET	DET	DET	DET	DET	TBA	TBA	DC	DC	DC
CHANNEL 1	CARD	2-CH	2-CH			2-CH	2-CH								
	C1 PIN	55	40	64	48	57	42	66	50	59		54	71	72	51
	FUNCTION	L5	L6A			L7	L8								
	FIELD TERM	TB3 1,2	TB3 5,6	TB3 9,10	TB5 1,2	TB5 5,6	TB5 9,10	TB7 1,2	TB7 5,6	TB7 9,10			TB9 4,6	TB9 7,9	TB9 10,12

CHANNEL 2	C1 PIN	55	44	77	48	57	46	79	50	61		75	73	74	52
	FUNCTION		L6B												
	FIELD TERM	TB3 3,4	TB3 7,8	TB3 11,12	TB5 3,4	TB5 7,8	TB5 11,12	TB7 3,4	TB7 7,8	TB7 11,12			TB9 5,6	TB9 8,9	TB9 11,12

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

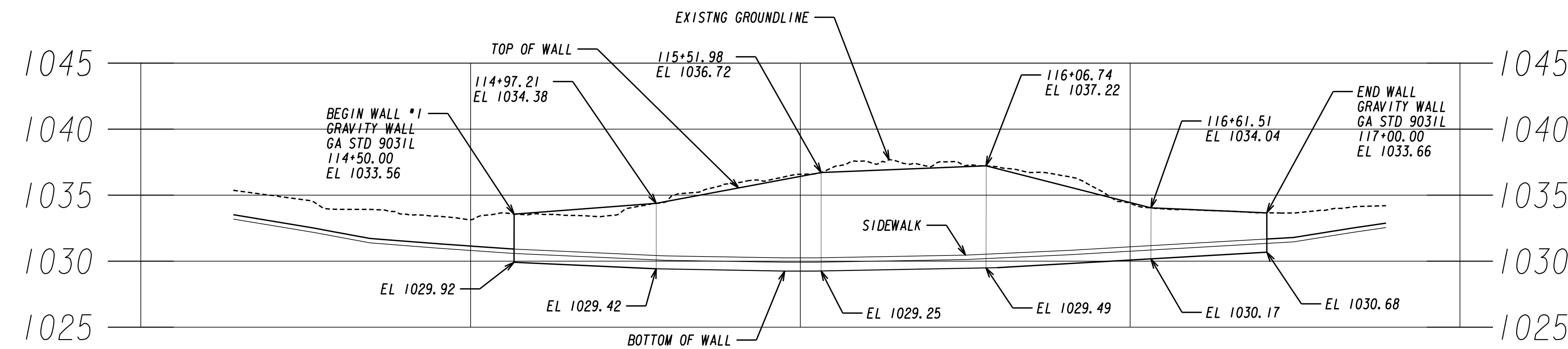
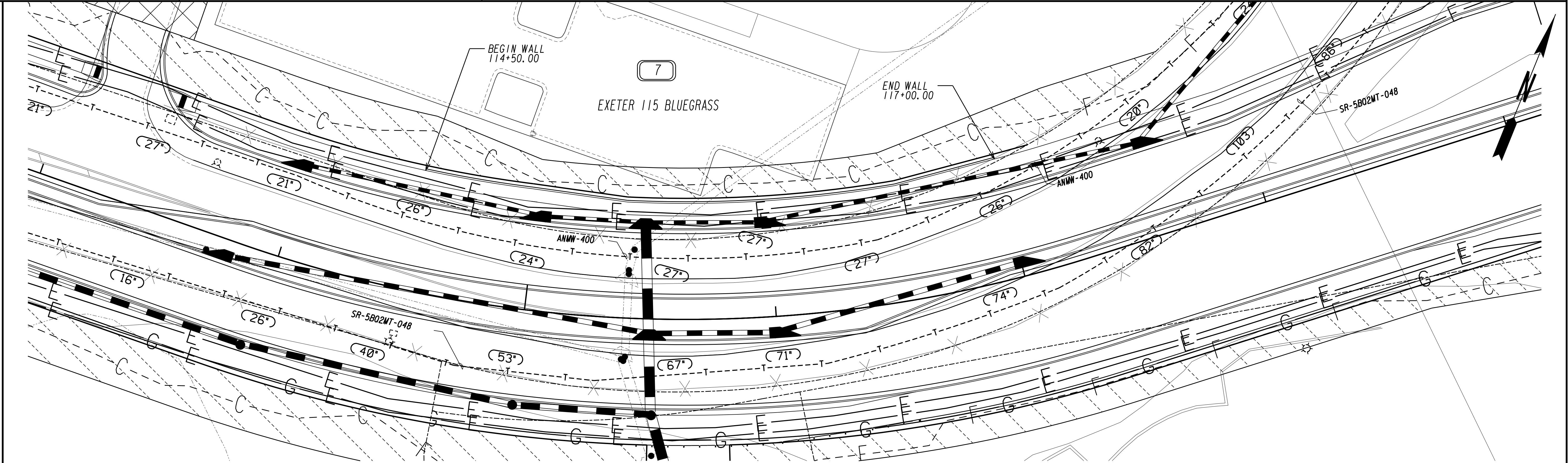
REVISION DATES

SIGNAL PLANS

RONALD REAGAN BLVD EXTENSION
SUMMARY OF QUANTITIES

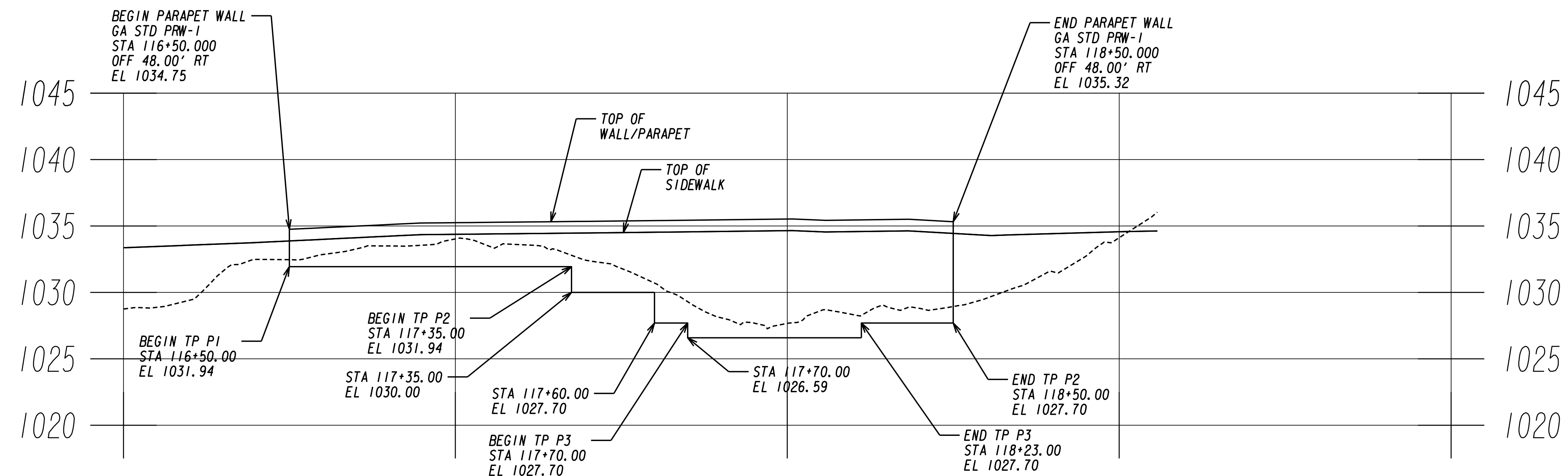
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VERIFIED:		DATE:		

27-0017



GRAVITY WALL, GA STD. 9031L INCLUDING STAINLESS STEEL PIPE HANDRAIL
WALL #1 PROFILE

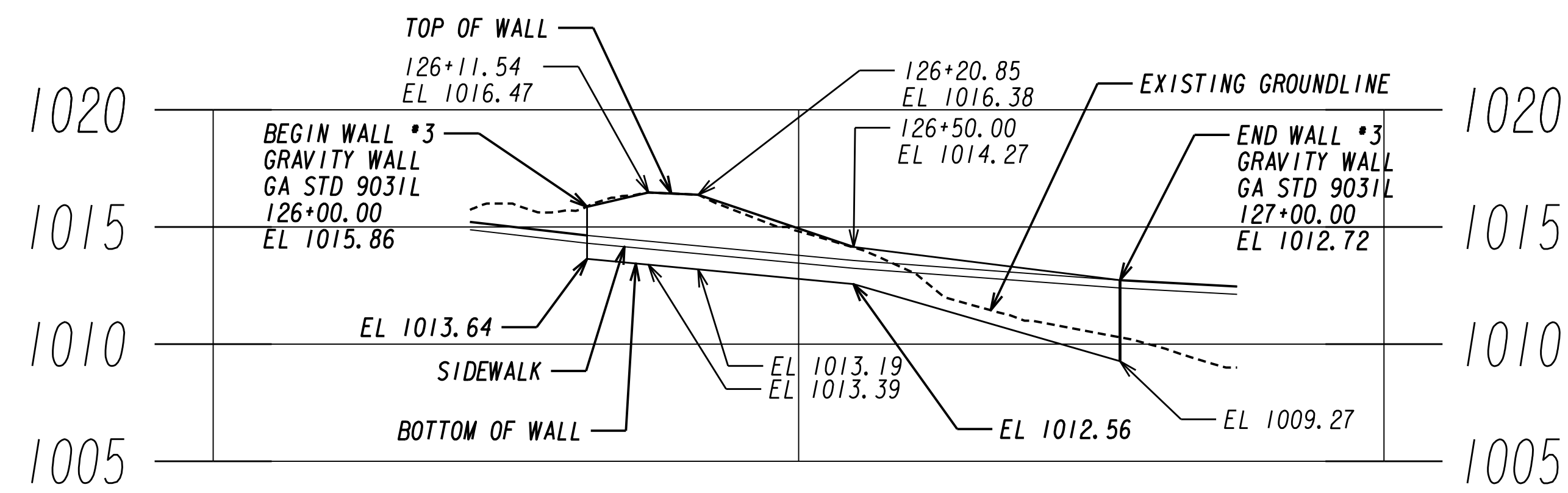
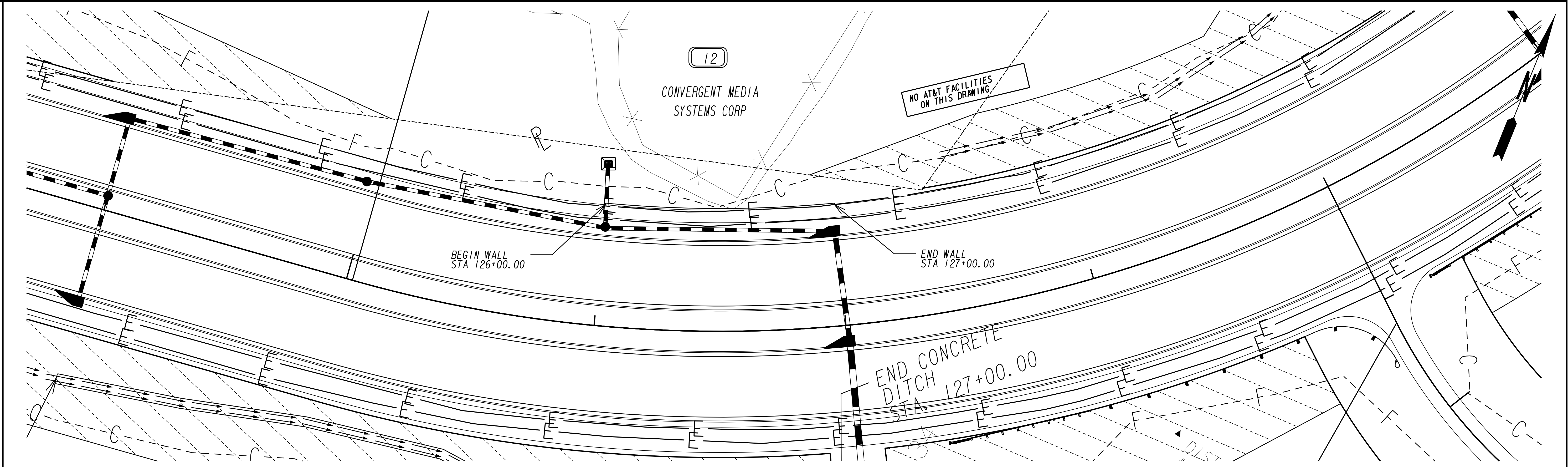
PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT	 Architects • Engineers • Planners	REVISION DATES	RETAINING WALL ENVELOPES RONALD REAGAN BLVD EXTENSION			
						SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.	CHECKED: _____ DATE: _____ BACKCHECKED: _____ DATE: _____ CORRECTED: _____ DATE: _____ VERIFIED: _____ DATE: _____	DRAWING No. 31-0001	



GRAVITY WALL, GA STD. 9031L INCLUDING STAINLESS STEEL PIPE. HANDRAIL
WALL #2 PROFILE

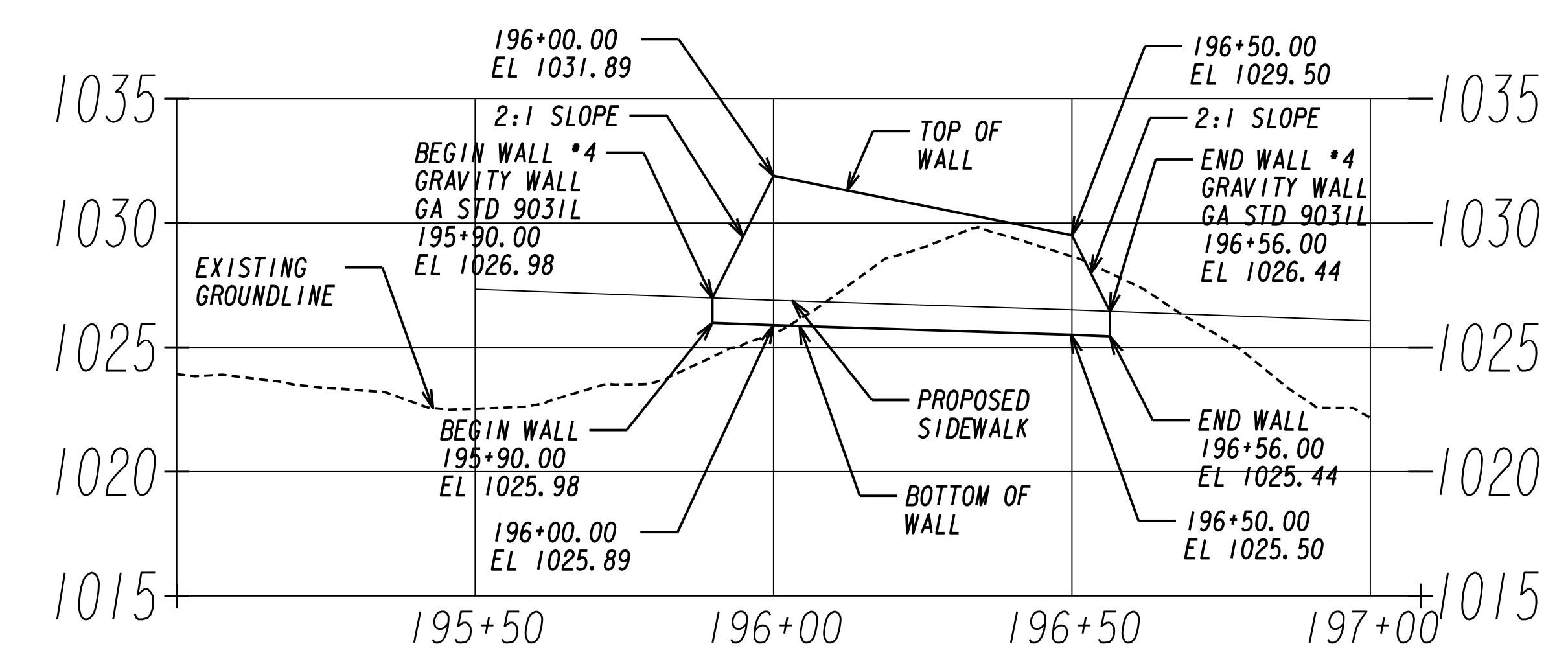
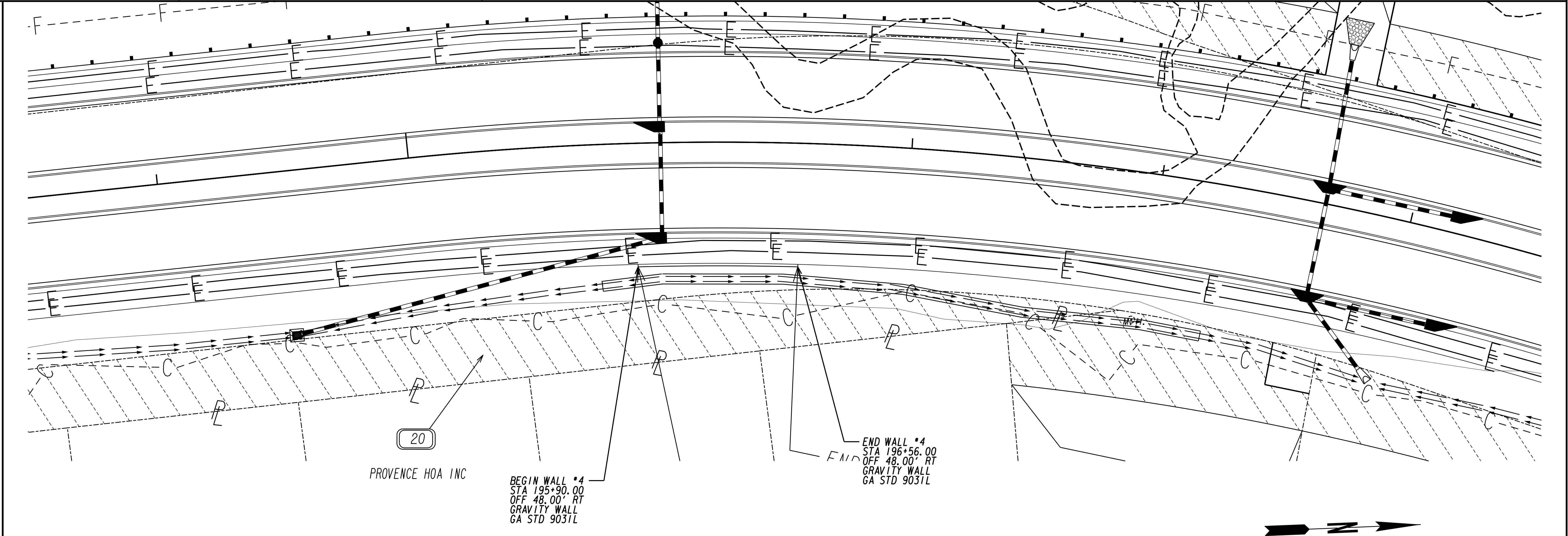
POND
Architects ■ Engineers ■ Planners

CHECKED:		DATE:		DRAWING No. 31-0002
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		



GRAVITY WALL, GA STD. 9031L INCLUDING STAINLESS STEEL PIPE HANDRAIL
WALL #3 PROFILE

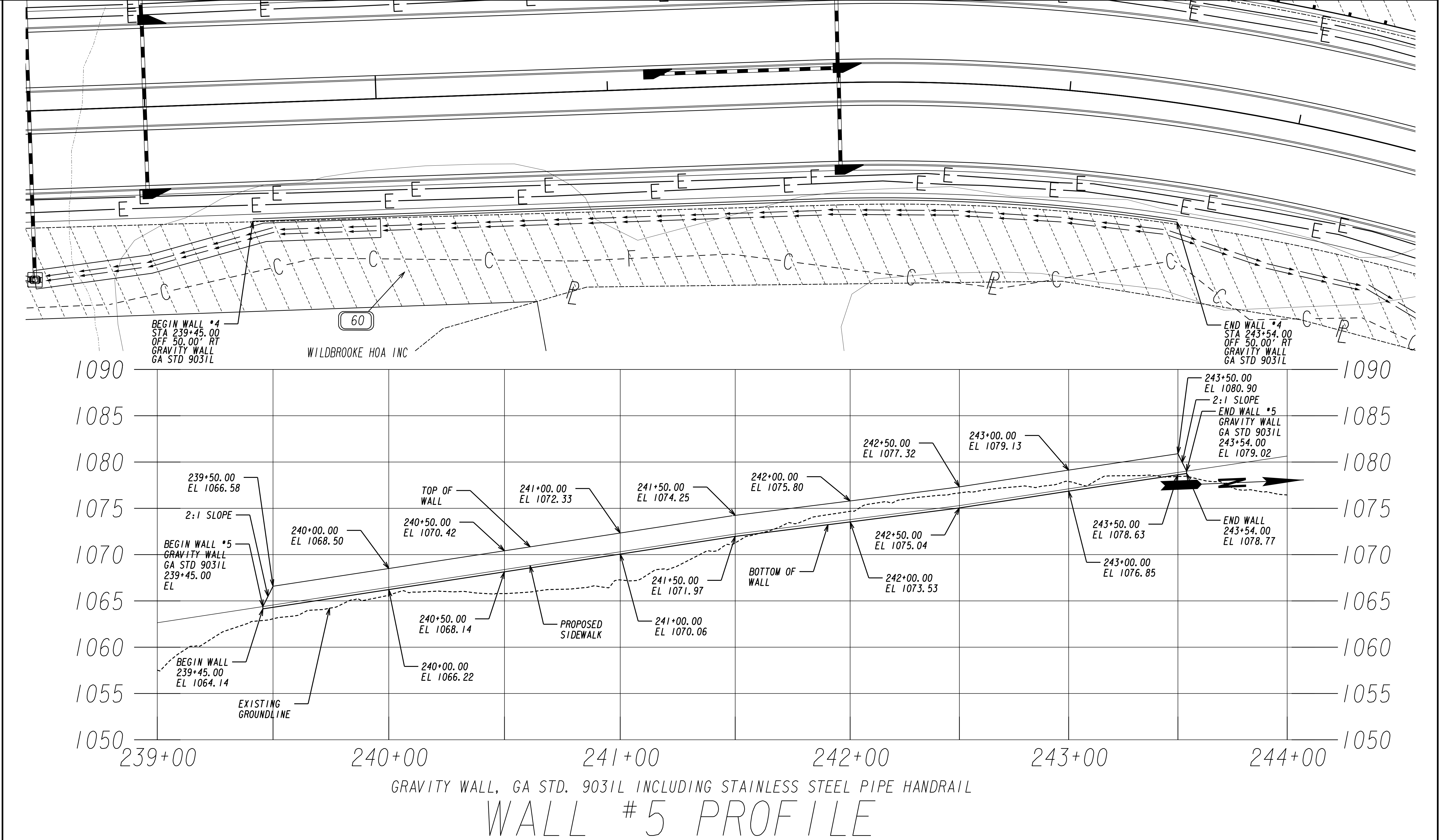
PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div>-----P-----</div><div>-----C-----F-----</div><div><div></div><div></div><div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	<div><div>---o---o---o---</div><div>III III</div><div>● ●</div><div>▼ ▼</div></div>	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div>SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.</div>	REVISION DATES	RETAINING WALL ENVELOPES RONALD REAGAN BLVD EXTENSION			
							CHECKED:	DATE:	DRAWING No.	
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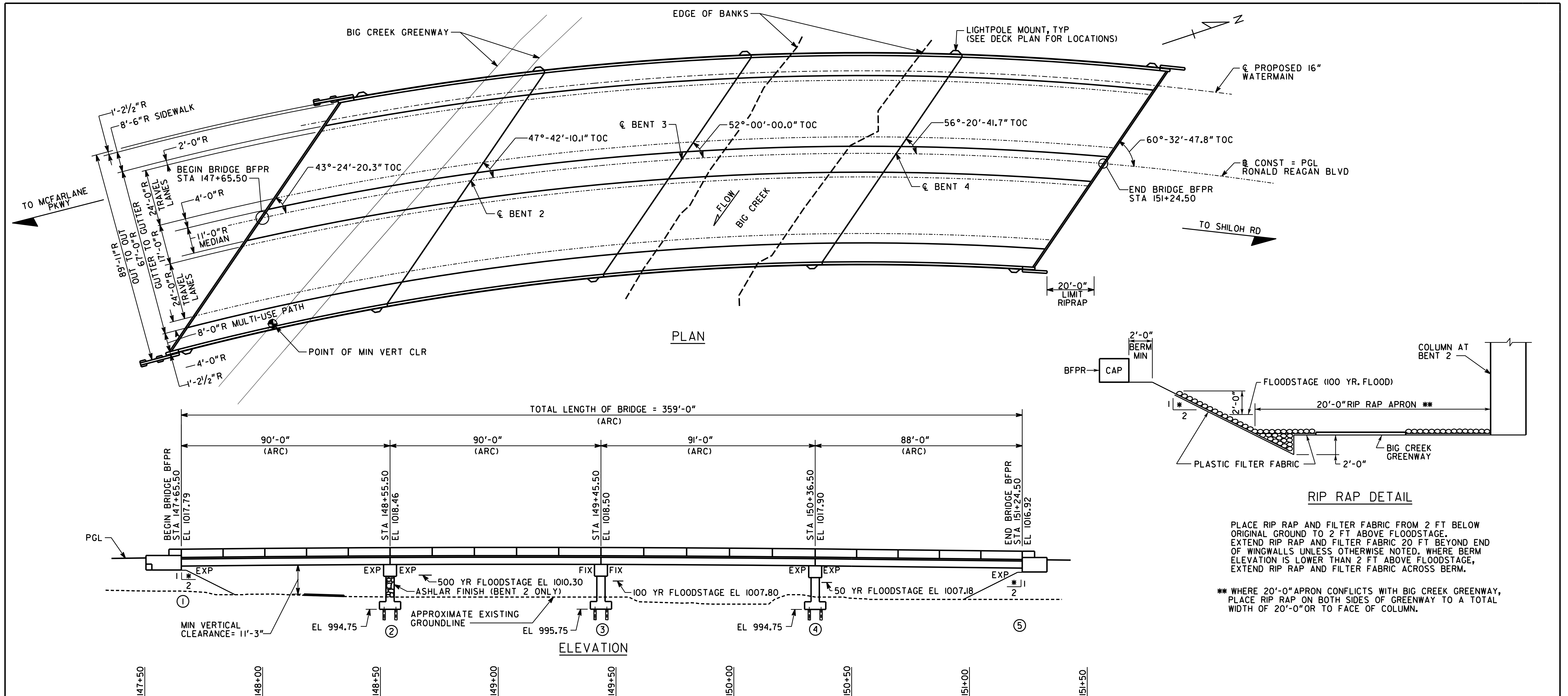
GRAVITY WALL, GA STD. 9031L INCLUDING STAINLESS STEEL PIPE HANDRAIL

WALL #4 PROFILE

PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	<div><div></div></div> <div><div></div></div> <div><div></div></div> <div><div></div></div>
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div><div>-----E-----</div><div>-----</div><div>-----G-----F-----</div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	<div><div><div>.....</div><div>III</div><div>III</div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div><div><div><div></div><div></div></div></div></div></div>	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div><div>POND</div><div>Architects • Engineers • Planners</div></div><div>SCALE 1 inch = 5 feet Vert. SCALE 1 inch = 20 feet Horz.</div></div>	REVISION DATES		RETAINING WALL ENVELOPES									
												CHECKED:		DATE:		DRAWING No.	
												BACKCHECKED:		DATE:			
												CORRECTED:		DATE:			
												VERIFIED:		DATE:		31-0005	



BRIDGE CONSISTS OF

2 - 90'-0" FLORIDA I-BEAM, 36 IN, PSC BEAM SPANS ----- SPECIAL DESIGN
1 - 91'-0" FLORIDA I-BEAM, 36 IN, PSC BEAM SPANS ----- SPECIAL DESIGN
1 - 88'-0" FLORIDA I-BEAM, 36 IN, PSC BEAM SPANS ----- SPECIAL DESIGN
2 - STEEL H PILE END BENTS ----- SPECIAL DESIGN
3 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN
4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)
(L = 6'-9"; W = 1'-1"; H = 3'-6")
(L = 4'-3"; W = 1'-1"; H = 3'-6")
(L = 4'-0"; W = 1'-1"; H = 3'-6")
(L = 5'-6"; W = 1'-1"; H = 3'-6")
BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)

DRAINAGE DATA

DRAINAGE AREA -----	42.3 SQ MILES			
FLOOD FREQUENCY	DISCHARGE THRU BRIDGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER
50 YEAR	6915 CFS	3.3 FPS	2,085 SQ FT	0.91 FT
100 YEAR	7849 CFS	3.5 FPS	2,275 SQ FT	0.94 FT
500 YEAR	11904 CFS	3.8 FPS	3,113 SQ FT	1.00 FT

PROPOSED UTILITIES

16" WATERMAIN----- FORSYTH COUNTY WATER AUTHORITY

DESIGN DATA

SPECIFICATIONS ----- AASHTO 17TH EDITION, 2002
(DESIGNED FOR SEISMIC PERFORMANCE CATEGORY A)
TYPICAL HS20-44 AND/OR MILITARY LOADING ----- IMPACT ALLOWED
FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT
CONCRETE: SUPERSTRUCTURE ----- CLASS AA, $f_c = 3,500$ PSI
BARRIER ----- CLASS AA, $f_c = 3,500$ PSI
PSC BEAMS ----- CLASS AAA, $f_c =$ SEE BEAM SHEETS
PSC BEAM ALLOWABLE TENSION ----- SEE BEAM SHEETS
SUBSTRUCTURE ----- CLASS AA, $f_c = 3,500$ PSI
REINFORCEMENT STEEL: ----- GRADE 60, $f_y = 60,000$ PSI
PRETENSIONING STRANDS: ----- $f_s = 270,000$ PSI
STEEL H-PILES: ----- GRADE 50, $f_y = 50,000$ PSI


GENERAL NOTES

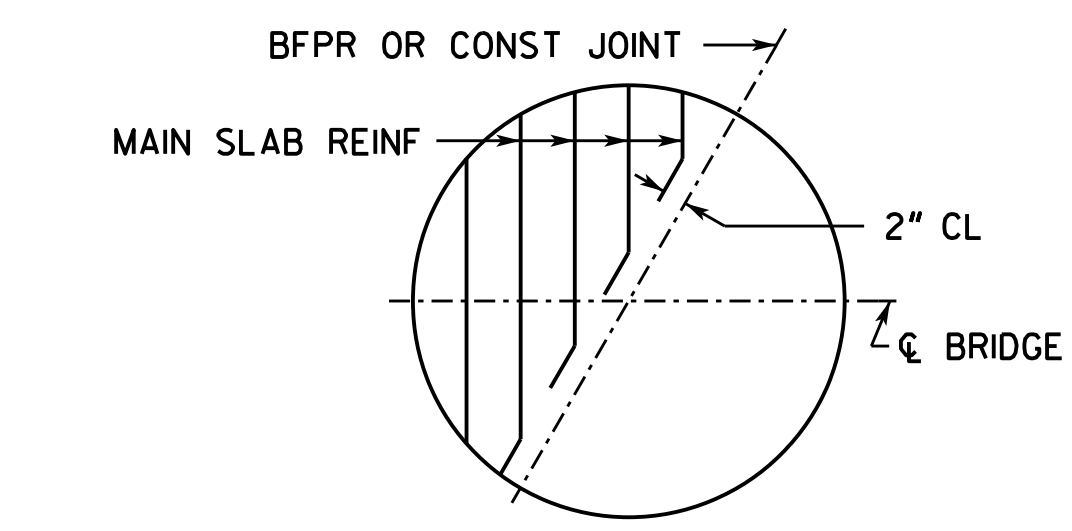
SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION, AND 2016 SUPPLEMENTAL SPECIFICATIONS, AS MODIFIED BY CONTRACT DOCUMENTS.
REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.
CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.
PROTECTIVE PLATFORMS - PROVIDE PROTECTIVE PLATFORMS AT THIS SITE, SEE SECTION 510 OF THE GEORGIA DOT SPECIFICATIONS. MAINTAIN A MINIMUM VERTICAL CLEARANCE OF 10'-0" ABOVE BIG CREEK GREENWAY.
TEMPORARY SHORING - INCLUDE THE COST OF TEMPORARY SHORING AS NECESSARY FOR BRIDGE CONSTRUCTION IN THE OVERALL BID SUBMITTED.
WAITING PERIOD - DO NOT BEGIN WORK AT BENTS 1 AND 5 UNTIL THE COMPLETED END FILLS HAVE BEEN IN PLACE FOR AN ESTIMATED PERIOD OF 60 DAYS.
PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.
STEEL H-PILES - USE STEEL FOR H-PILES THAT MEETS THE REQUIREMENTS OF ASTM A 709 GR 50.
PILE LENGTHS - ERRATIC PILE LENGTHS CAN BE EXPECTED.
PILOT HOLES - DRILL A 24" DIAMETER PILOT HOLE TO A MINIMUM ELEVATION OF 977 AT BENT 2RT, 969 AT BENT 3 RT, 979 AT BENT 3 LT, 969 AT BENT 4 RT, AND 979 AT BENT 4 LT FOR EACH PILE. FILL WITH CLASS A CONCRETE TO TOP OF ROCK.
PILE POINTS - REINFORCE ALL PILE TIPS AT BENTS 1, 2LT AND 5 IN ACCORDANCE WITH SECTIONS 520 AND 855 OF THE GEORGIA DOT SPECIFICATIONS.
DRIVING DATA PILES - ONE DRIVING DATA PILE SHALL BE REQUIRED AT EACH OF BENTS 1 AND 4.
SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.
STANDARD PLAN MODIFICATION - MODIFY THE APPROACH SLAB STANDARD TO INCREASE THE 3/4" EXPANSION JOINT SHOWN BETWEEN THE APPROACH SLAB AND THE BACK FACE PAVING REST AND END POST TO 1". SEE ROADWAY PLANS FOR APPROACH SLAB PAYMENT.
STANDARD PLAN MODIFICATION - MODIFY THE ENDPOST STANDARD TO INCREASE THE NUMBER OF P401 AND P701 BARS TO PROVIDE 12 OF EACH BAR IN THE 6'- 9" ENDPOST AND 10 OF EACH BAR IN THE 5'- 6" ENDPOST.
GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS. DO NOT GROOVE UNDER SIDEWALK. DO NOT GROOVE UNDER RAISED MEDIAN.
RIDING QUALITY - THE FINISHED BRIDGE DECK AND APPROACH SLABS SHALL MEET THE RIDE QUALITY REQUIREMENTS AS SPECIFIED IN SUB-SECTION 500.3.06.E OF THE GEORGIA DOT SPECIFICATIONS FOR STATE ROUTES WITH FOUR LANES OR MORE.
EXTERIOR BEAM BRACING - THE CONTRACTOR SHALL PROVIDE BRACING BETWEEN EXTERIOR BEAM AND THE FIRST INTERIOR BEAM UNTIL THE DECK HAS BEEN POURED AND THE OVERHANG FORMS REMOVED. ALL COST FOR DESIGNING, PROVIDING, INSTALLING AND REMOVING BRACING SHALL BE INCLUDED IN PRICE BID FOR LUMP - SUPERSTRUCTURE CONCRETE.
WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.
PROTECTION OF EXISTING GREENWAY - THE CONTRACTOR SHALL TAKE CARE TO PROTECT THE EXISTING BIG CREEK GREENWAY DURING CONSTRUCTION. PROTECTIVE MATS MAY BE REQUIRED. DAMAGE TO THE GREENWAY SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER. ALL COSTS TO PROTECT AND/OR REPAIR GREENWAY SHALL BE INCLUDED IN OVERALL BID SUBMITTED.
UTILITY CASING - ENCASE WATER MAIN WITHIN THE LIMITS OF THE APPROACH SLAB IN CLASS A CONCRETE PIPE EXTENDING FROM THE BACK FACE OF THE BRIDGE ENDWALL TO THE BEGINING OF THE APPROACH SLAB. THE PIPE SHALL BE SUPPLIED AND PLACED BY THE CONTRACTOR DURING CONSTRUCTION.
WATER MAIN HANGERS - PIPE ROLL ASSEMBLIES, STEEL BRACKETS, PLATES, BOLTS, AND ALL OTHER COMPONENTS OF HANGER SUPPORT ASSEMBLIES SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR. INCLUDE THE COST IN THE OVERALL BID SUBMITTED.
INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS ALL CONDUIT AND JUNCTION BOXES FOR FUTURE LIGHTING, WATER MAIN ASSEMBLIES, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

SUMMARY OF QUANTITIES

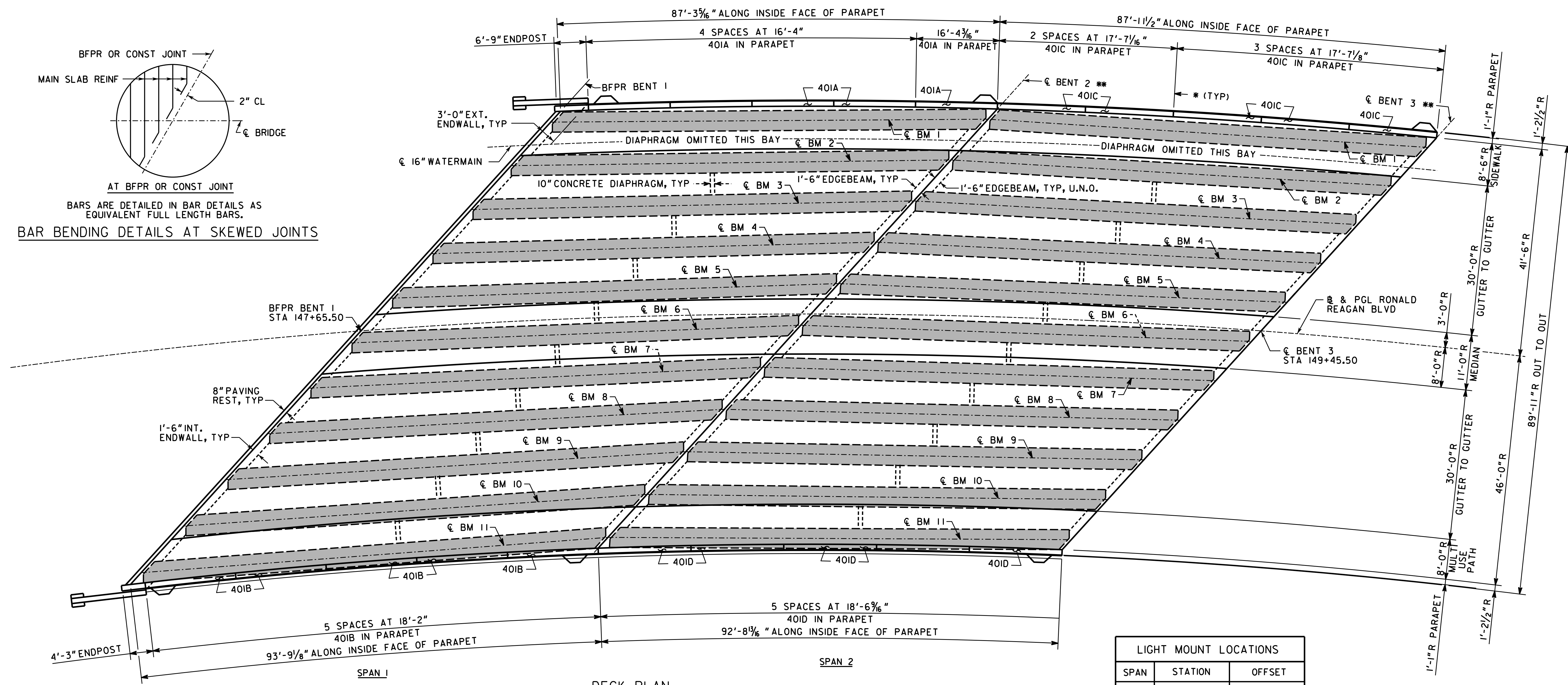
PAY ITEM NUMBER	QUANTITY	UNIT	PAY ITEM
211-0300	285	CY	BRIDGE EXCAVATION, STREAM CROSSING
500-0100	2242	SY	GROOVED CONCRETE
500-1006	LUMP	LS	SUPERSTR CONCRETE, CL AA, BR NO - 1 (1391)
500-3002	554	CY	CLASS AA CONCRETE
507-9240	3857	LF	PSC BEAMS, SPCL DESIGN, "FLORIDA I-BEAM, 36 IN"
511-1000	83919	LB	BAR REINF STEEL
511-3000	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 1 (260832)
520-0573	26	EA	H-PILE POINTS, HP 14 X 73
520-0597	8	EA	H-PILE POINTS, HP 14 X 117
520-1147	970	LF	PILING IN PLACE, STEEL H, HP 14 X 73
520-1179	1084	LF	PILING IN PLACE, STEEL H, HP 14 X 117
520-5000	822	LF	PILOT HOLES
603-2024	3227	SY	STN DUMPED RIP RAP, TP 1, 24 IN
603-7000	3227	SY	PLASTIC FILTER FABRIC

BRIDGE NO. 1

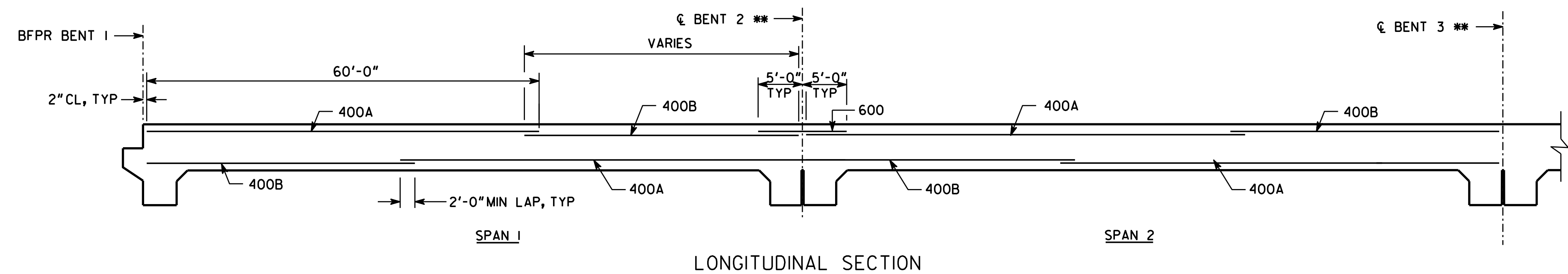
		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING			
GENERAL NOTES RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY			
FORSYTH COUNTY			
NO SCALE		MARCH 2019	
DESIGNED TAC	CHECKED SWW	REVIEWED DLC/SKG	
DRAWN TAC/SJA/PDL	DESIGN GROUP SKG	APPROVED WMD	



AT BFPR OR CONST JOINT
BARS ARE DETAILED IN BAR DETAILS AS
EQUIVALENT FULL LENGTH BARS.
BAR BENDING DETAILS AT SKEWED JOINTS



LIGHT MOUNT LOCATIONS		
SPAN	STATION	OFFSET
1	147+20.48	47.2083' RT
1	148+15.97	42.7083' LT
1	148+06.37	47.2083' RT
1	148+89.10	42.7083' LT
2	149+02.98	47.2083' RT
2	149+73.98	42.7083' LT




- NOTES
- SEE FRAMING PLAN FOR LOCATION OF DIAPHRAGMS, SKEW ANGLES, ETC.
 - MAINTAIN 2" CLEARANCE TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
 - REINFORCING QUANTITY FOR BARS 600 INCLUDED IN SPAN 2, 3 AND 4.
 - R DIMENSIONS ARE RADIAL TO R RONALD REAGAN BLVD.
 - * C 1" EXPANSION JT IN PARAPET, C CONST JT IN SIDEWALK AND MEDIAN, TYP.
 - ** C CONST JT IN SLAB, 1" EXPANSION JOINT PARAPET, SIDEWALK, AND MEDIAN.

SUPERSTRUCTURE QUANTITIES		
ITEM	SPAN 1	SPAN 2
LUMP- SUPERSTR. CONCRETE, CY., CLASS "AA"	359.8	343.4
LUMP- SUPERSTR. REINF. STEEL, LBS.	66,800	63,695

DRAWING NO.
35-0003
BRIDGE SHEET
3 OF 28

BRIDGE NO. 1



MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

DATE

REVISIONS

BY

FORSYTH COUNTY

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

DECK PLAN SPANS 1 AND 2

RONALD REAGAN BLVD

OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE: 1" = 10'-0"

MARCH 2019

DESIGNED TAC

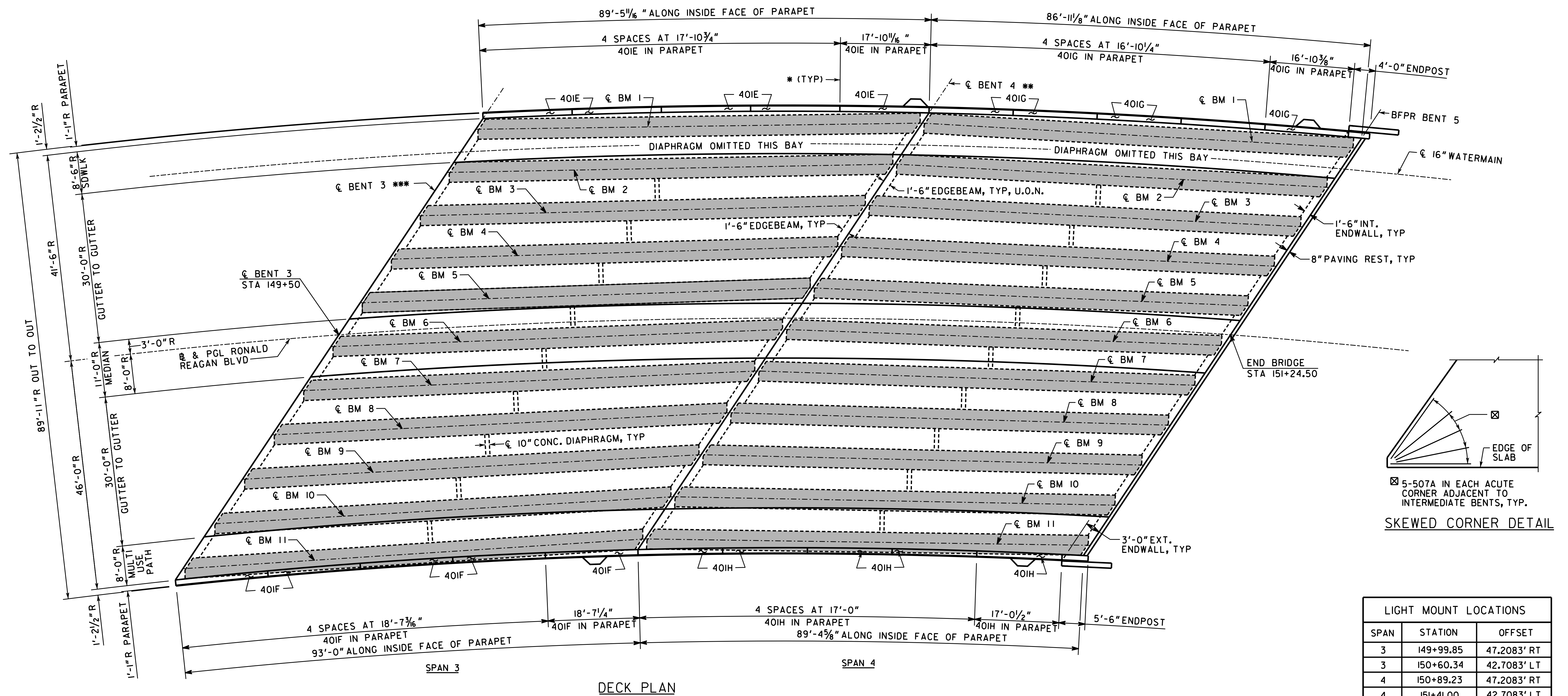
CHECKED SWW

REVIEWED DLC/SKG

DRAWN TAC/SJA/PDL

DESIGN GROUP SKG

APPROVED WMD



LIGHT MOUNT LOCATIONS		
SPAN	STATION	OFFSET
3	I49+99.85	47.2083' RT
3	I50+60.34	42.7083' LT
4	I50+89.23	47.2083' RT
4	I51+41.00	42.7083' LT

SUPERSTRUCTURE QUANTITIES		
ITEM	SPAN 3	SPAN 4
LUMP- SUPERSTR. CONCRETE, CY., CLASS "AA"	344.6	343.2
LUMP- SUPERSTR. REINF. STEEL, LBS.	64,049	66,288

NOTES

- SEE FRAMING PLAN FOR LOCATION OF DIAPHRAGMS, SKEW ANGLES, ETC.
- MAINTAIN 2" CLEARANCE TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE.
- REINFORCING QUANTITY FOR BARS 600 INCLUDED IN SPAN 2, 3, AND 4.
- R DIMENSIONS ARE RADIAL TO THE RONALD REAGAN BLVD.
- * CL 1" EXPANSION JT IN PARAPET, CL CONST JT IN SIDEWALK AND MEDIAN, TYP.
- ** CL CONST JT IN SLAB, 1" EXPANSION JOINT PARAPET, SIDEWALK, AND MEDIAN.

LONGITUDINAL SECTION

BRIDGE NO. 1



MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

DECK PLAN SPANS 3 AND 4
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE: 1" = 10'-0"

MARCH 2019

DRAWING NO.
35-0004

BRIDGE SHEET
4 OF 28

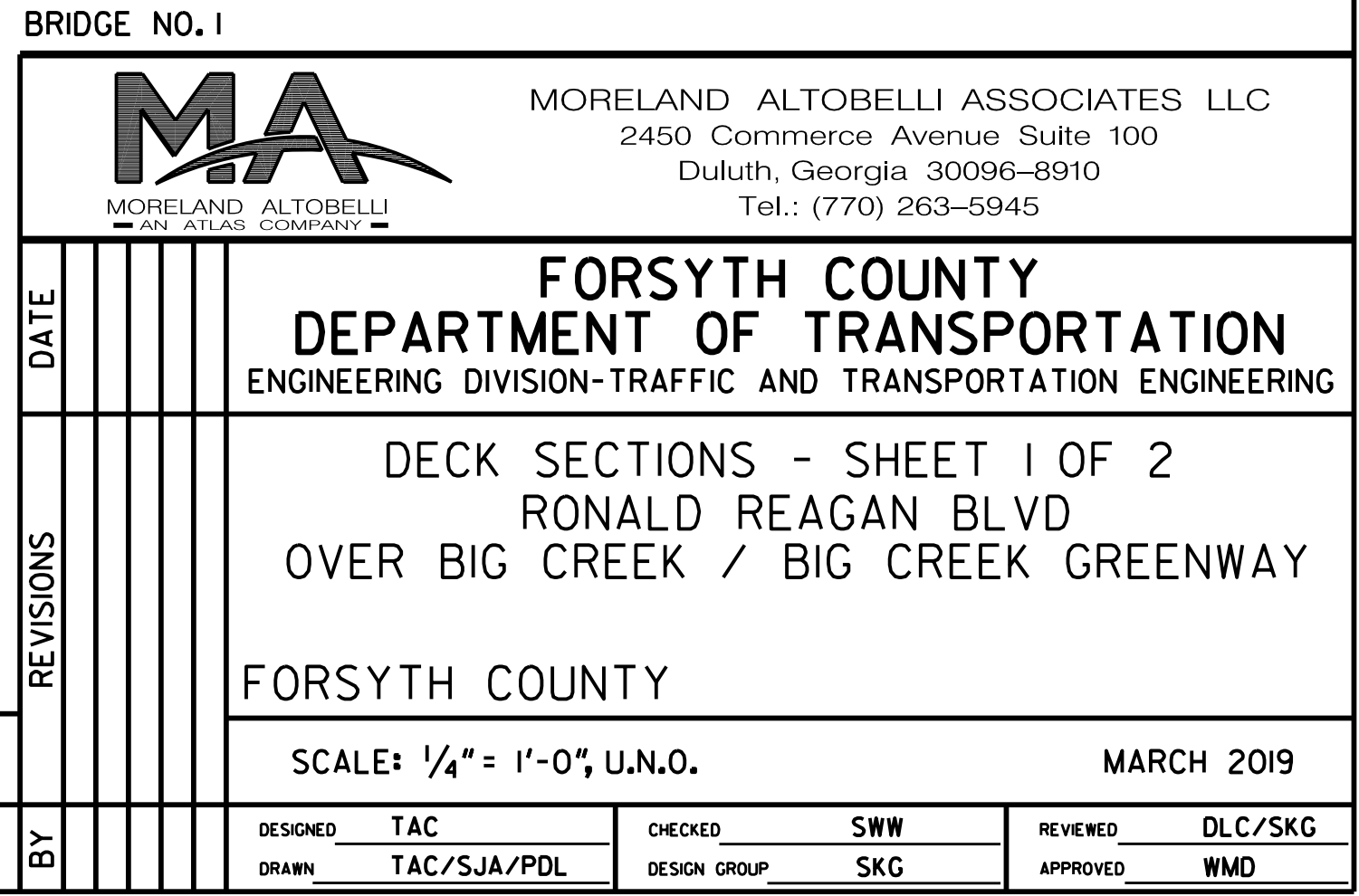
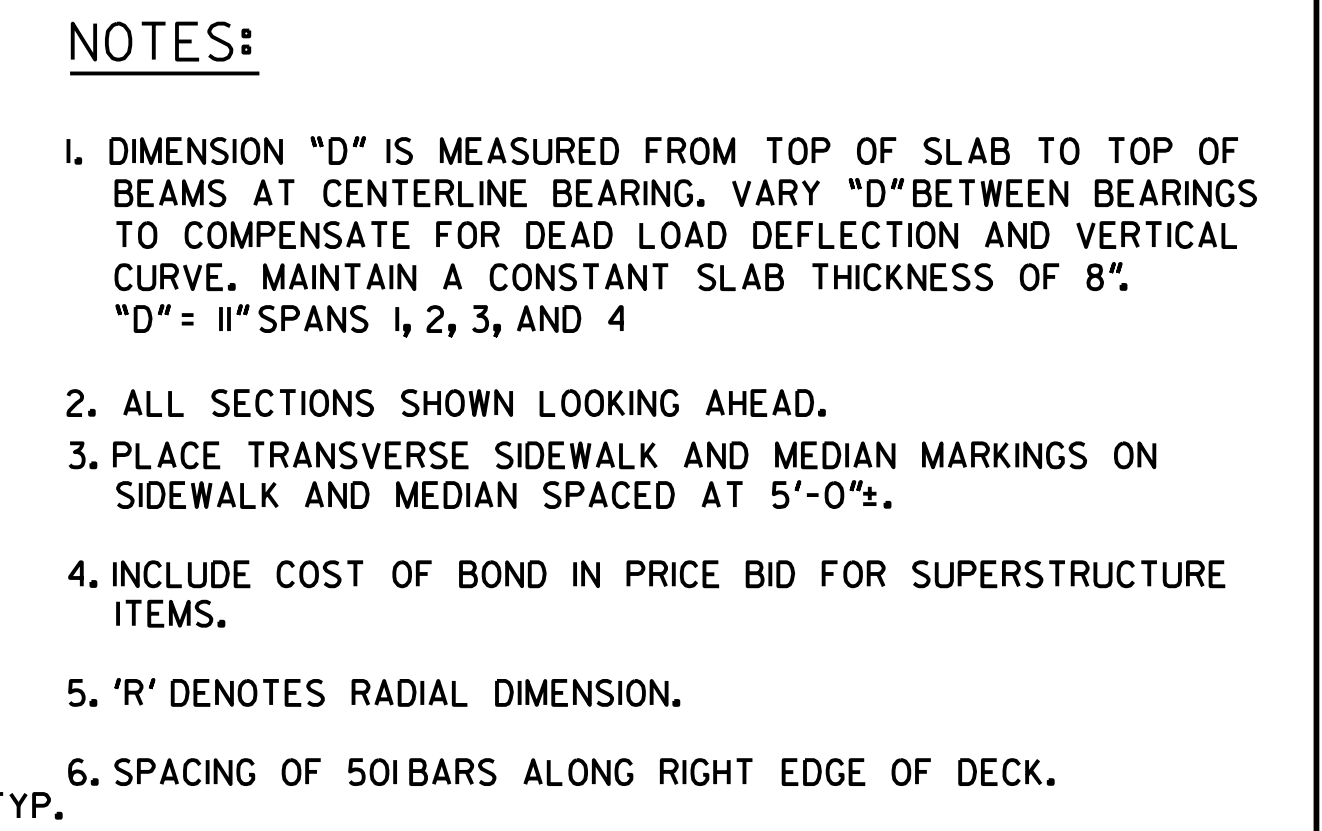
DESIGNED	TAC
DRAWN	TAC/SJA/PDL

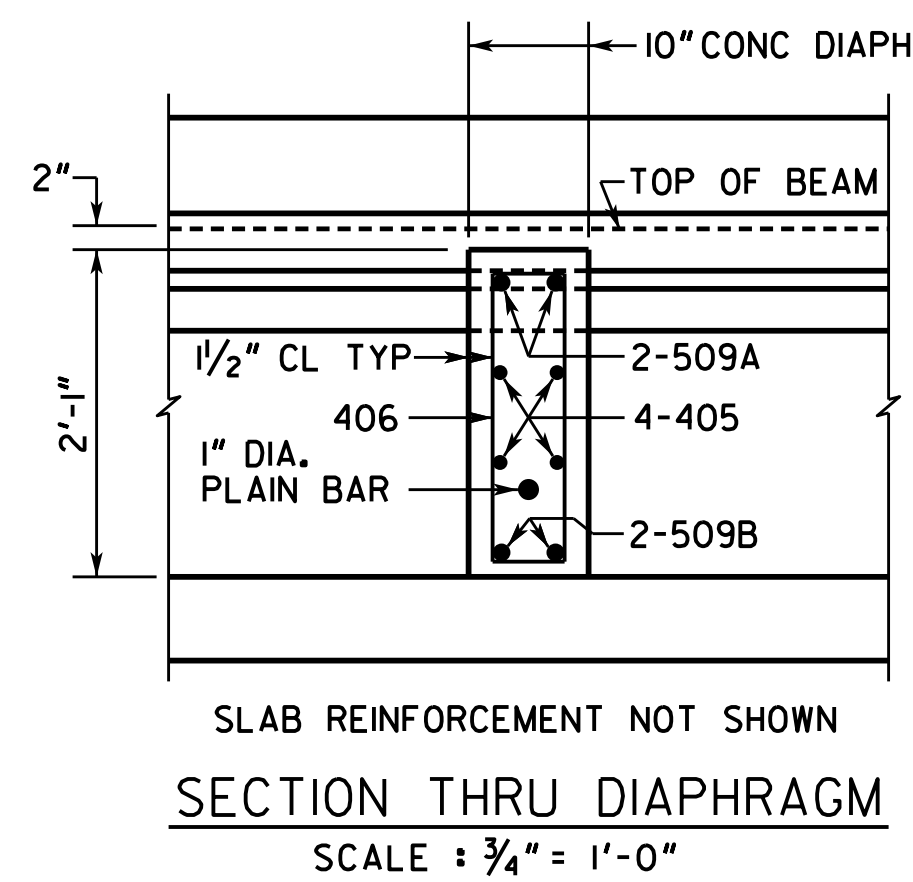
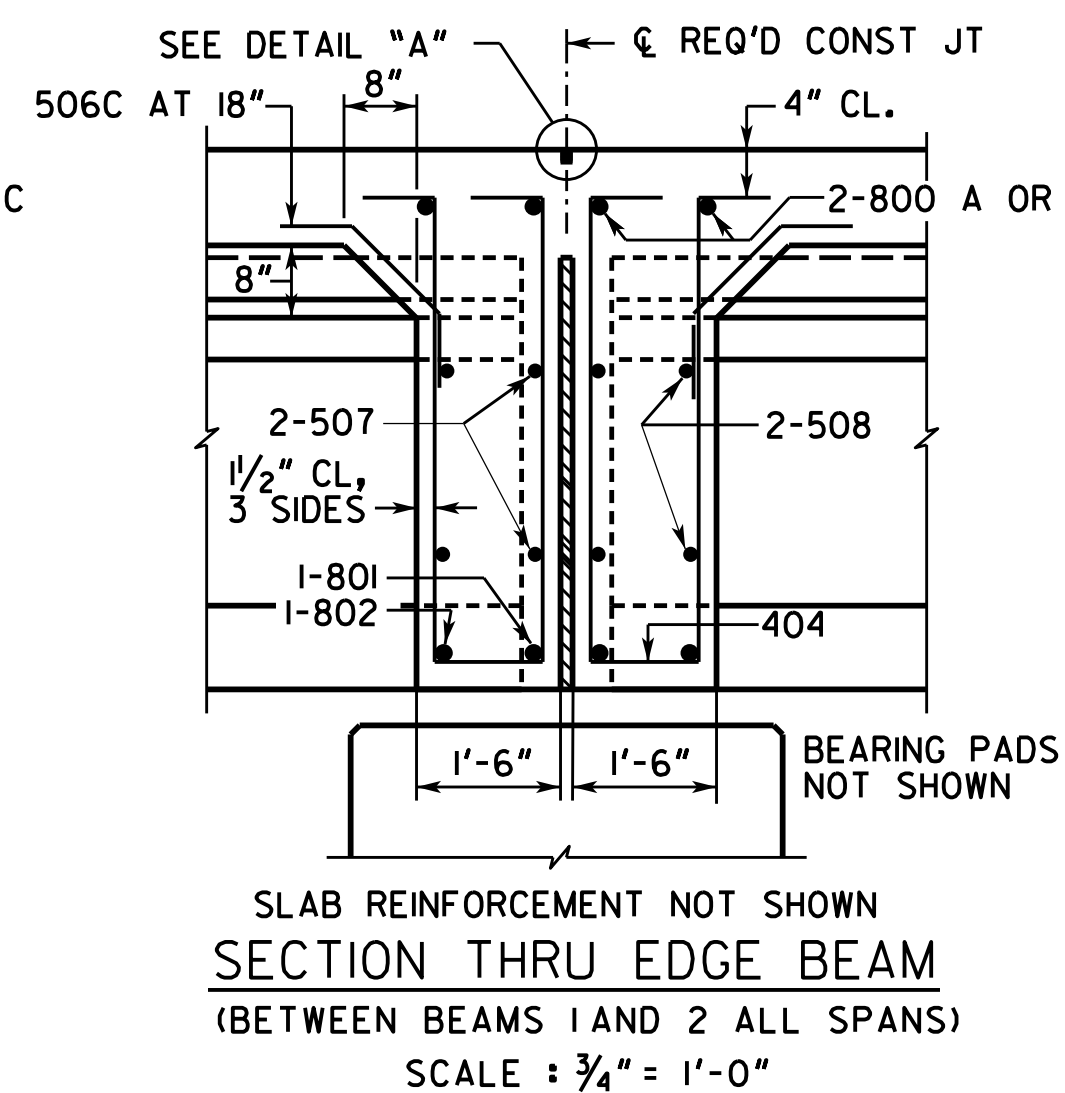
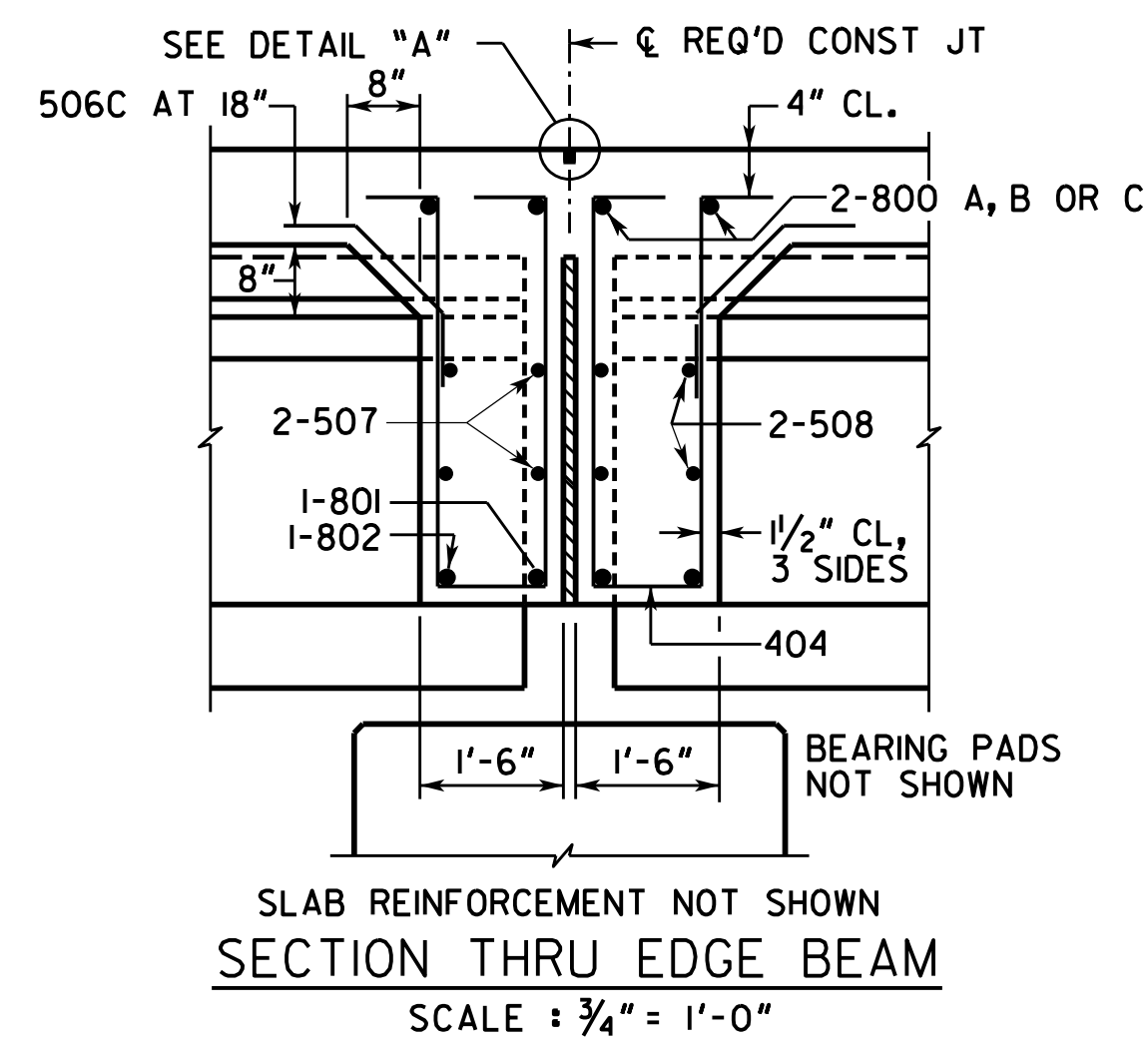
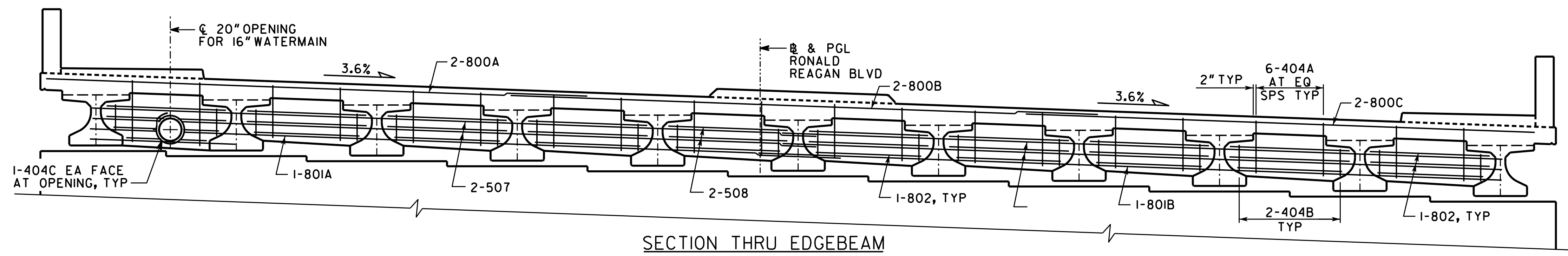
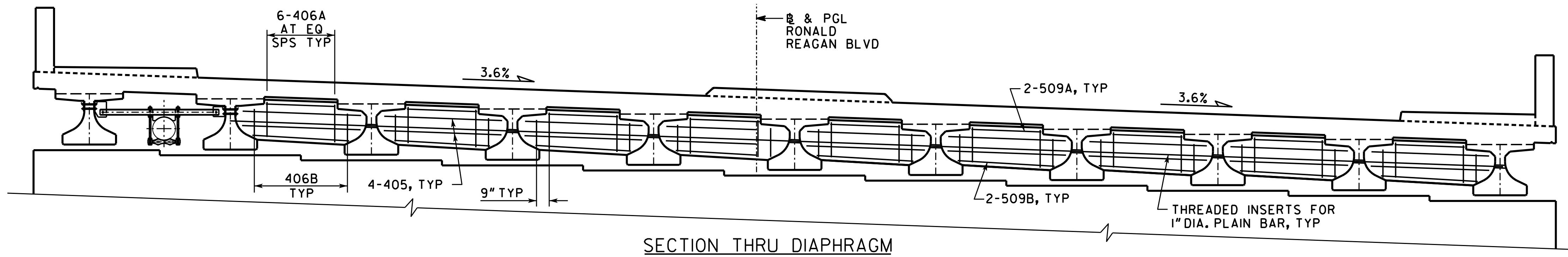
CHECKED	SWW
DESIGN GROUP	SKG

REVIEWED DLC/SKG
APPROVED WMD

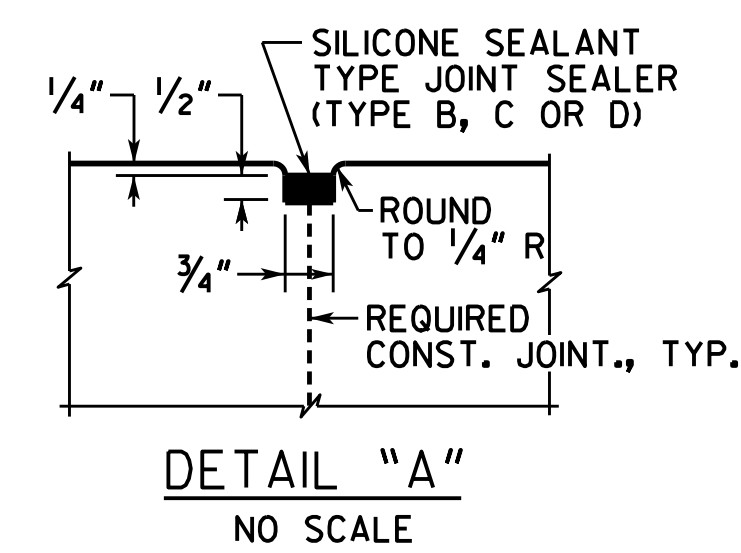
SDG

1 INCH WHEN PRINTED FULL SIZE





BAR NO.	MIN. SPLICE
4	1'-9"
5	2'-2"
6	2'-9"
7	3'-9"
8	4'-11"
9	6'-2"



BRIDGE NO. 1

MA
MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

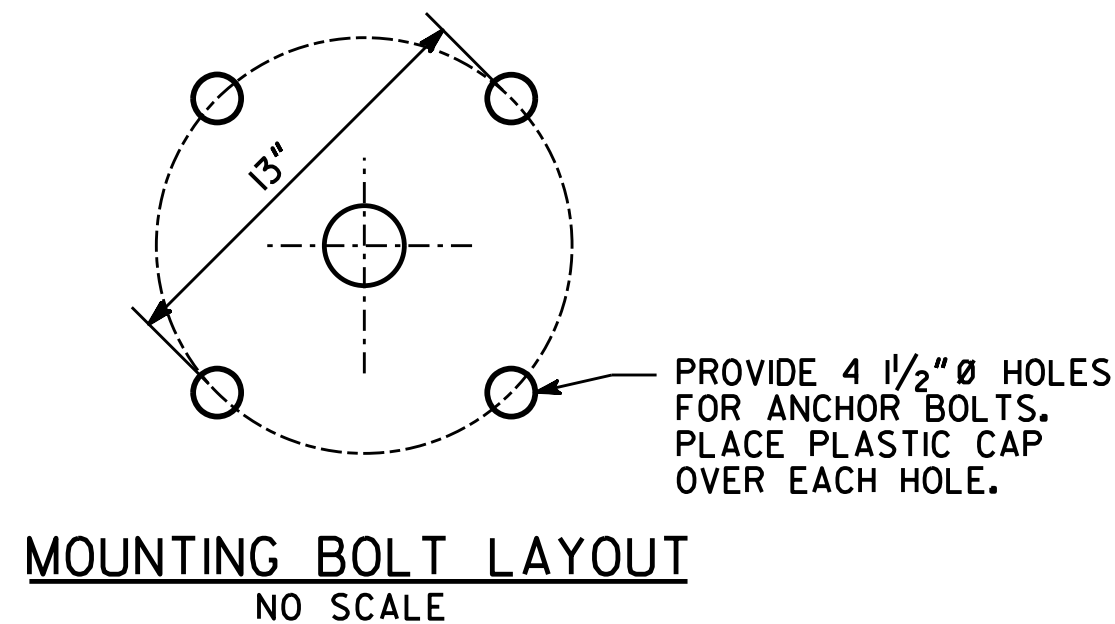
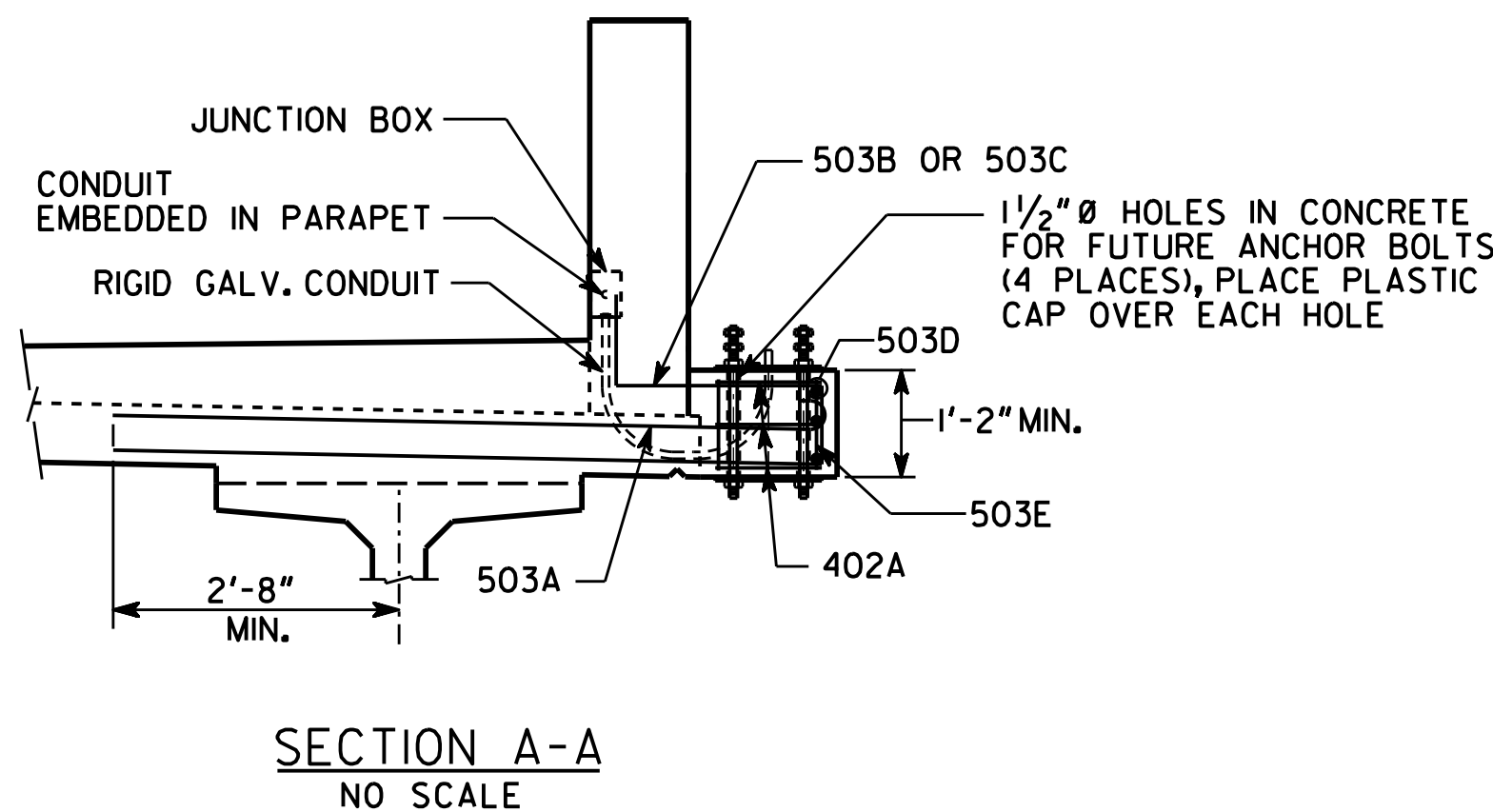
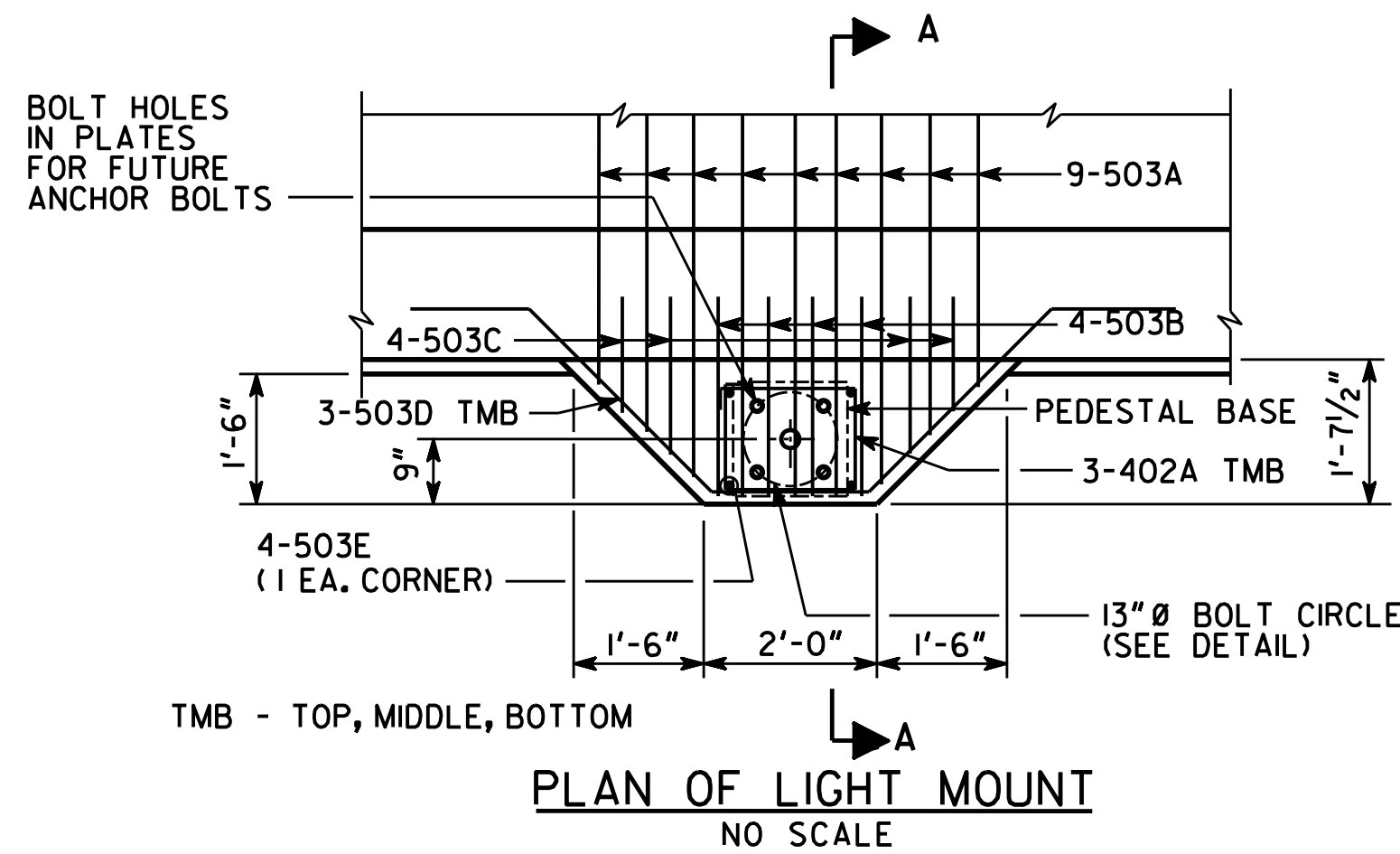
FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

DECK SECTIONS - SHEET 2 OF 2
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

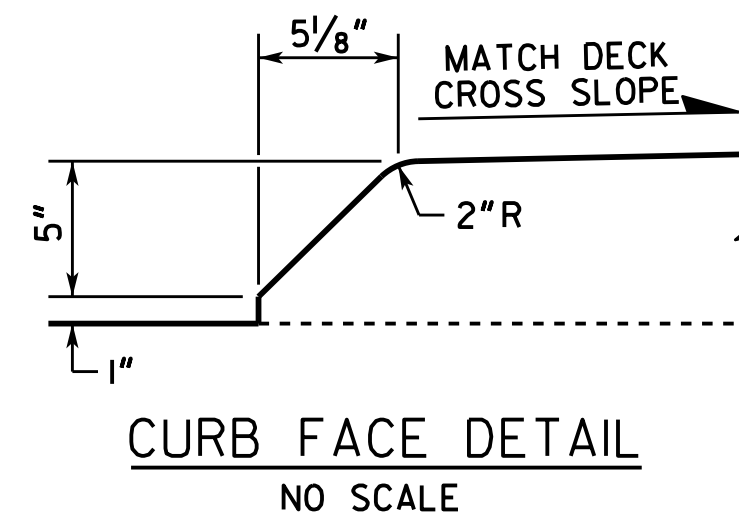
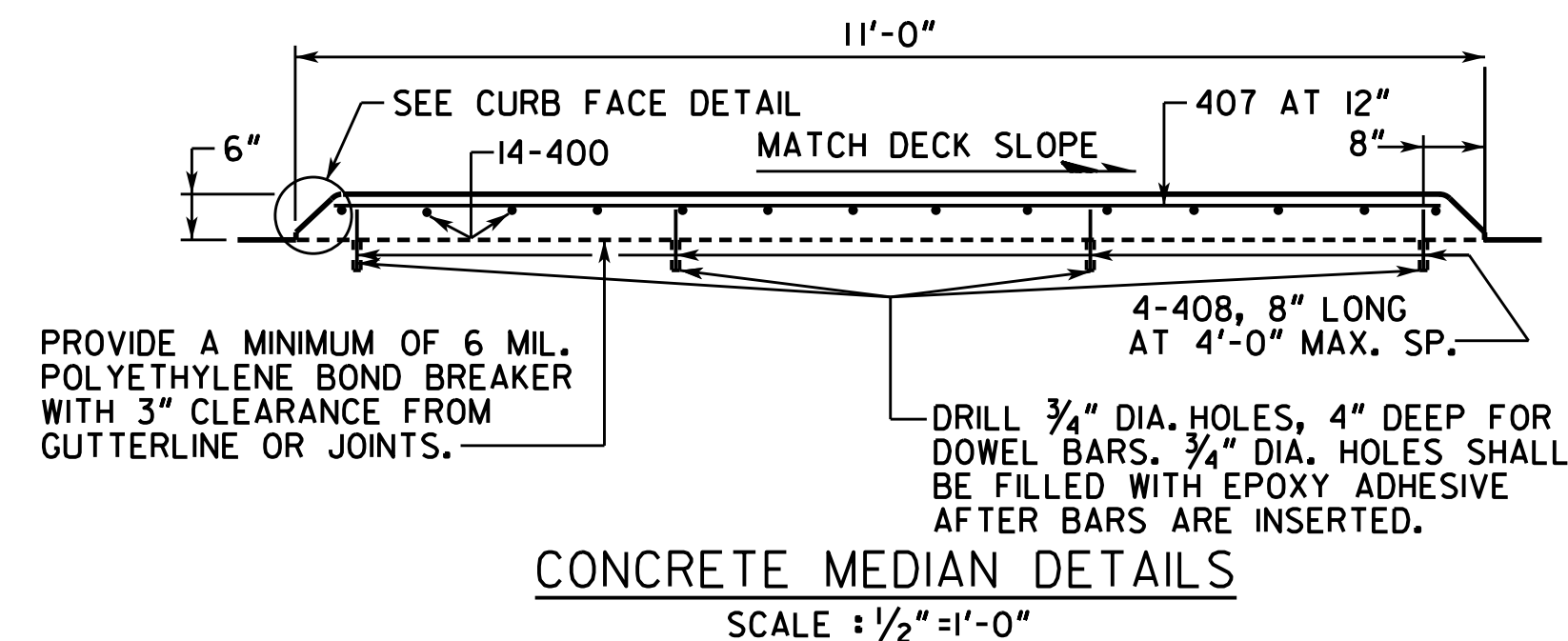
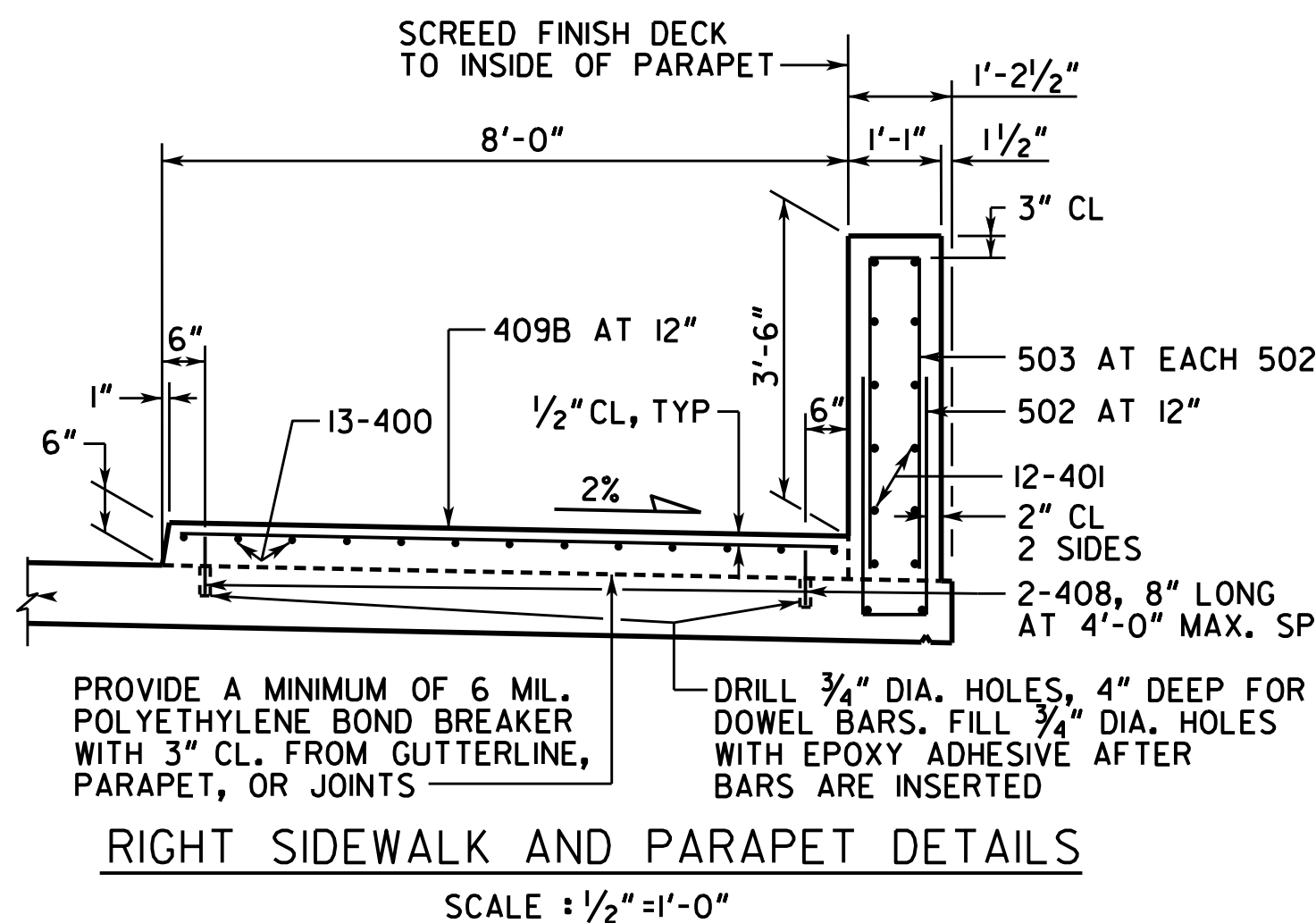
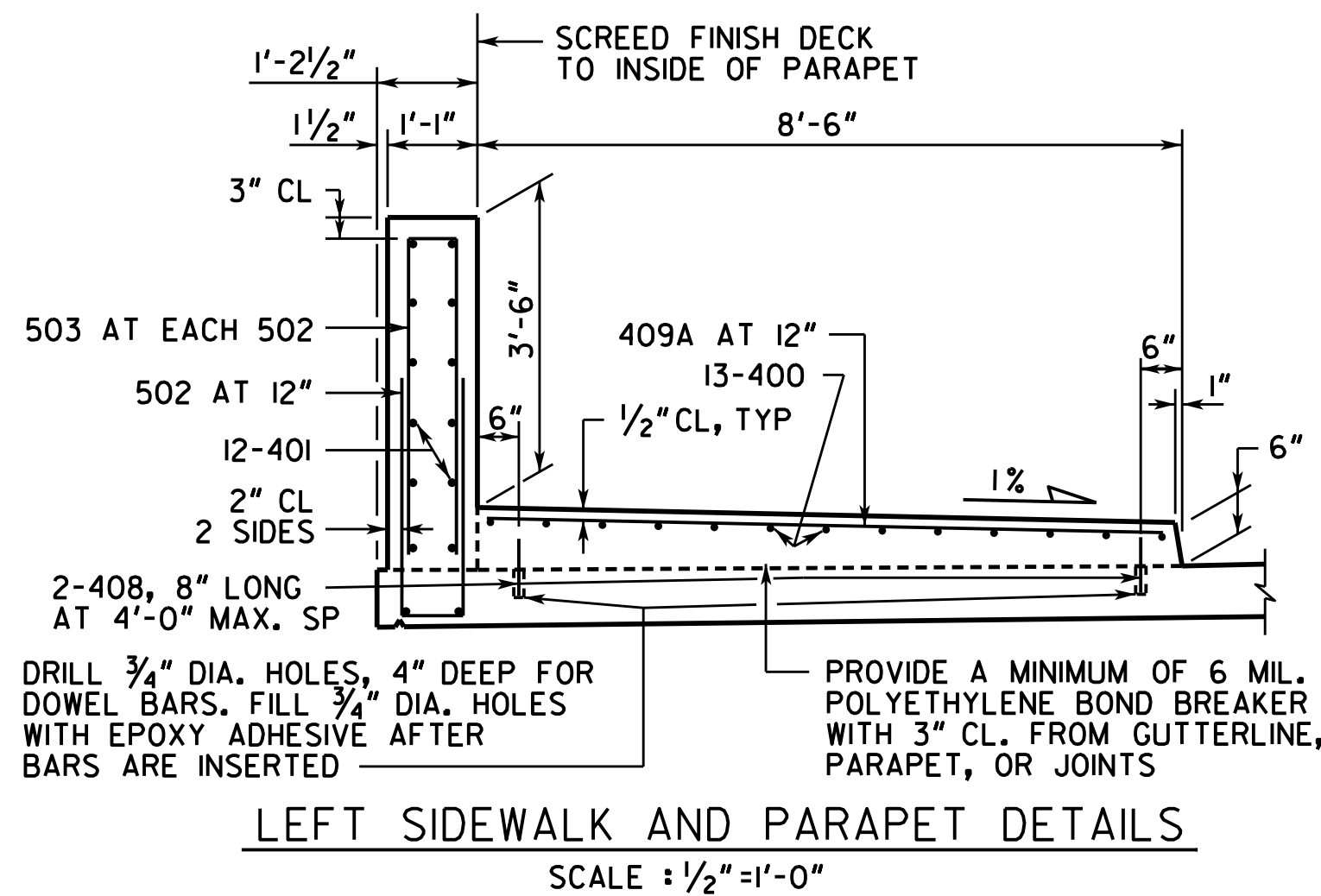
SCALE: 1/4" = 1'-0", U.N.O. MARCH 2019

DRAWING NO. 35-0006	DESIGNED TAC	CHECKED SWW	REVIEWED DLC/SKG
BRIDGE SHEET 6 OF 28	DRAWN TAC/SJA/PDL	DESIGN GROUP SKG	APPROVED WMD




LIGHTING SYSTEM NOTES:

1. CONDUIT EXPANSION JOINT SHALL BE PROVIDED AT EACH BRIDGE EXPANSION JOINT.
2. ALL EMBEDDED CONDUIT, EXCEPT AT PARAPET JOINTS, SHALL HAVE 2 INCH MINIMUM COVER.
3. ANCHOR BOLTS, NUTS AND ATTACHMENT PLATES SHALL BE FURNISHED AND INSTALLED WITH FUTURE LIGHTING.
4. MAINTAIN 2" CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.



BRIDGE NO. 1

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		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
SUPERSTRUCTURE DETAILS RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY		FORSYTH COUNTY	
		SCALE: 1/2" = 1'-0", U.N.O.	
DRAWING NO. 35-0007	BRIDGE SHEET 7 OF 28	DESIGNED TAC DRAWN TAC/SJA/PDL	CHECKED SWW DESIGN GROUP SKG
		REVIEWED DLC/SKG APPROVED WMD	MARCH 2019



3/4" NC THREADED ROD

2 - 3/4" HEX NUTS

1/4"

TO BACK C4 X 5.4 BACK

TOP & BOTTOM 1/4" X 2" X 3" PLATE WITH 7/8" Ø UNO AT WATER MAIN 1/2" X 3" PLATE, W/ 7/8" Ø HOLE

SECTION B-B



PLATE "E"

1. ALL FERROUS METAL COMPONENTS IN THE HANGER ASSEMBLY SHALL BE GALVANIZED IN ACCORDANCE WITH SUB-SECTION 858-2-02.B OF THE GEORGIA DOT SPECIFICATIONS PRIOR TO INSTALLATION.
2. STEEL SHALL BE A-709, GR. 36.
3. THE CONTRACTOR SHALL SEAL ALL VOIDS IN OPENINGS IN ENDWALLS.
4. SLOTS MAYBE USED IN CHANNELS AT PLATE "A" TO FACILITATE ERECTION.

BRIDGE NO. 1



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ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

WATER MAIN SUPPORT DETAILS
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

NO SCALE

MARCH 2019

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

VIEWED _____ DLC/SKG
APPROVED _____ WMD

DRAWING NO.
3E-0008

BRIDGE SHEET
8 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

VIEWED _____ DLC/SKG
APPROVED _____ WMD

\$FILEL\$

\$USERS\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

GN\$



SPAN_1

1. ALL DIMENSIONS ARE IN FEET AND MEASURED ALONG ϕ BEAM BETWEEN BENTS AND DIAPHRAGMS OR ALONG ϕ DIAPHRAGMS BETWEEN ϕ BEAMS.
2. IN ALL SPANS, ALL BEAMS ARE CHORDS SPACED AT 8'-4" STAYING AT ϕ BEAM 6. ϕ BEAM 6 IS OFFSET 2'-3" RIGHT OF PGL RANDOL REAGAN BLVD.
3. T.O.C= TANGENT OF CURVE.

α_1	47°-19'-10.3"	θ_1	51°-22'-29.7"
α_2	46°-57'-35.9"	θ_2	51°-03'-49.3"
α_3	46°-35'-36.1"	θ_3	50°-44'-48.5"
α_4	46°-13'-09.7"	θ_4	50°-25'-26.7"
α_5	45°-50'-15.9"	θ_5	50°-05'-43.2"
α_6	45°-26'-53.8"	θ_6	49°-45'-37.2"
α_7	45°-03'-02.1"	θ_7	49°-25'-08.1"
α_8	44°-38'-39.8"	θ_8	49°-04'-15.1"
α_9	44°-13'-45.7"	θ_9	48°-42'-57.4"
α_{10}	43°-48'-21.8"	θ_{10}	48°-21'-14.0"
α_{11}	43°-24'-22.0"	θ_{11}	47°-59'-04.2"



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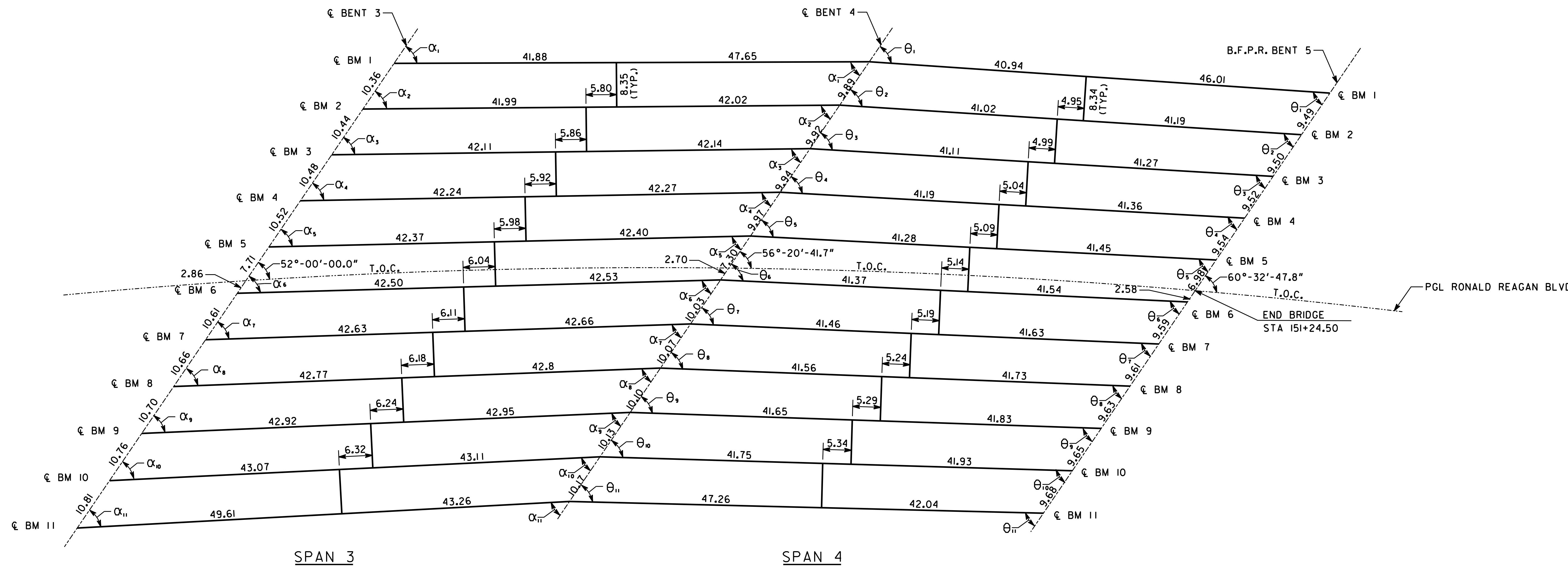
FRAMING PLAN - SPANS 1 AND 2
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE: 1" = 10'-0"

MARCH 2019

BY						DESIGNED	TAC	CHECKED	SWW	REVIEWED	DLC/SKG
						DRAWN	TAC/SJA/PDL	DESIGN GROUP	SKG	APPROVED	WMD



FRAMING PLAN

NOTES:

1. ALL DIMENSIONS ARE IN FEET AND MEASURED ALONG ϕ BEAM BETWEEN BENTS AND DIAPHRAGMS OR ALONG ϕ DIAPHRAGMS BETWEEN ϕ BEAMS.
2. ALL BEAMS ARE CHORDS THAT ARE OFFSET 8'-6" FROM ϕ BEAM 6. ϕ BEAM 6 IS OFFSET 2'-3" RIGHT OF PGL RONALD REAGAN BLVD.
3. T.O.C= TANGENT OF CURVE.

TABLE OF ANGLES			
α_1	55°-28'-47.9"	θ_1	59°-33'-36.4"
α_2	55°-12'-44.2"	θ_2	59°-19'-53.6"
α_3	54°-56'-24.0"	θ_3	59°-05'-57.5"
α_4	54°-39'-47.0"	θ_4	58°-51'-47.9"
α_5	54°-22'-52.6"	θ_5	58°-37'-24.2"
α_6	54°-05'-40.4"	θ_6	58°-22'-46.3"
α_7	53°-48'-09.8"	θ_7	58°-07'-53.7"
α_8	53°-30'-20.2"	θ_8	57°-52'-45.9"
α_9	53°-12'-11.2"	θ_9	57°-37'-22.6"
α_{10}	52°-53'-42.1"	θ_{10}	57°-21'-43.4"
α_{11}	52°-34'-52.2"	θ_{11}	57°-05'-47.7"

BRIDGE NO. 1

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Duluth, Georgia 30096-8910

Tel.: (770) 263-5945

FORSYTH COUNTY

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

FRAMING PLAN - SPANS 3 AND 4

RONALD REAGAN BLVD

OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : 1" = 10'-0"

MARCH 2019

DRAWING NO.

35-0010

BRIDGE SHEET

10 OF 28

DESIGNED

TAC

CHECKED

SWW

REVIEWED

DLC/SKG

DRAWN

TAC/SJA/PDL

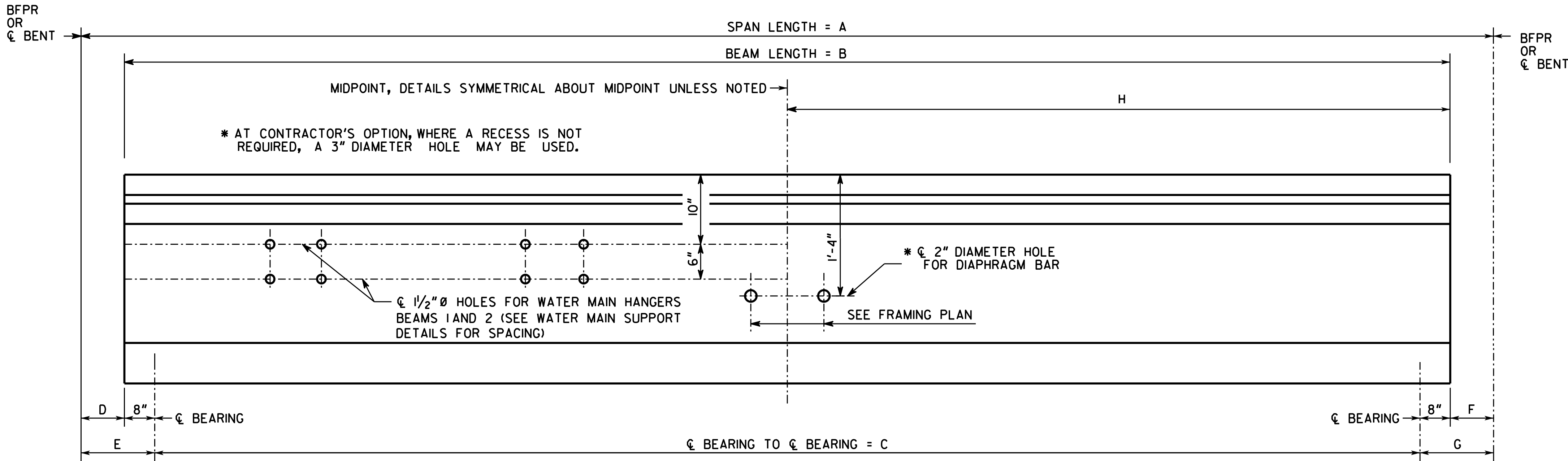
DESIGN GROUP

SKG

APPROVED

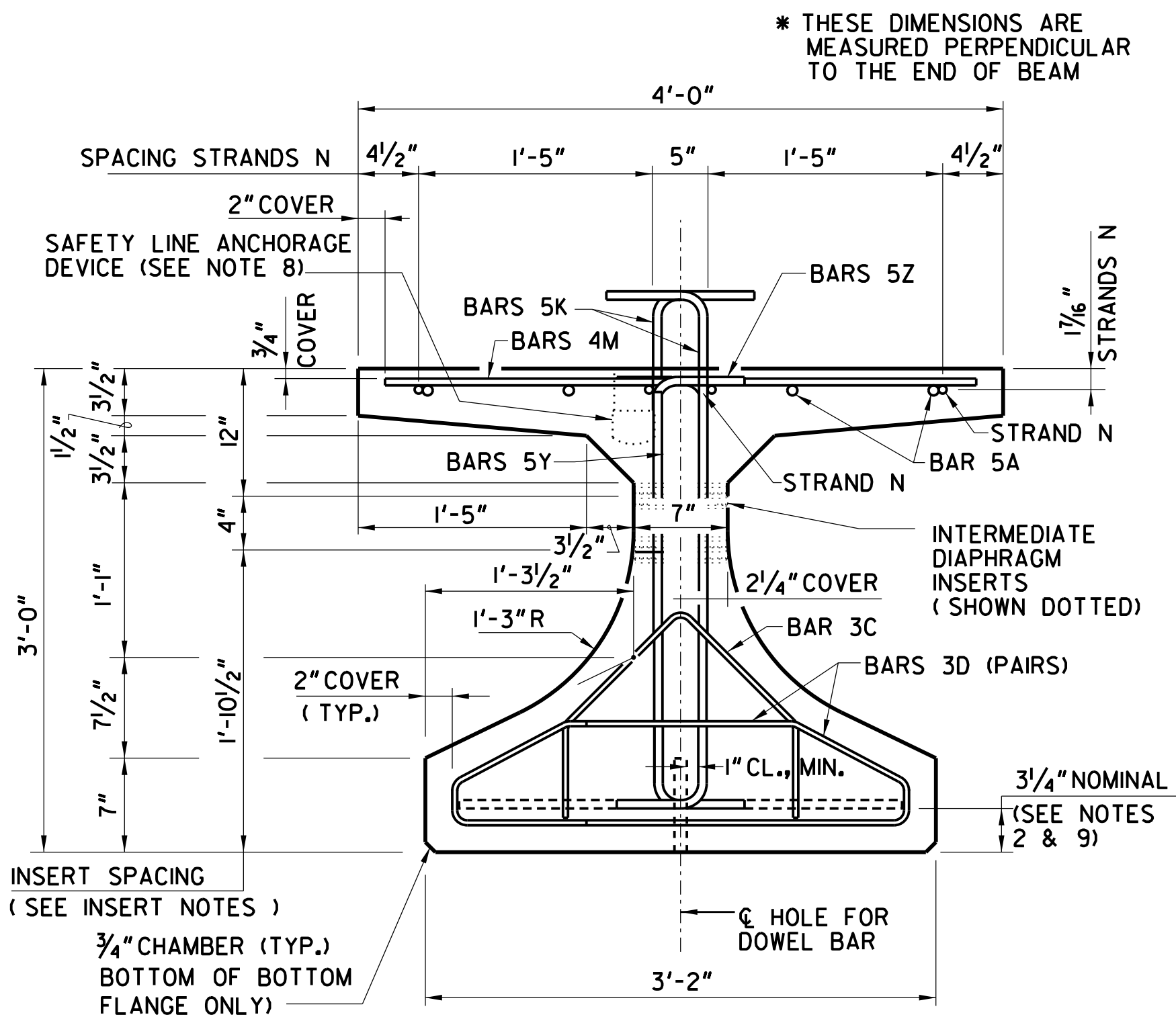
WMD

CONVENTIONAL REINFORCING BAR BENDING DETAILS				
BILL OF REINFORCING STEEL				
MARK	NOTE NUMBERS	SIZE	NUMBER REQUIRED	LENGTH (NOTE 2)
A	—	5	8	16'-0"
CI	9, 10 & 11	3	20 (END 1)	VARIES
C2	9, 10 & 11	3	20 (END 2)	VARIES
DI	9, 10, 11 & 14	3	22 (END 1)	VARIES
D2	9, 10, 11 & 14	3	22 (END 2)	VARIES
D3	9 & 14	3	SEE TABLE	4'-3"
K	2, 9, 11 & 13	5	SEE TABLE	4'-2"
MI	9 & 10	4	15 (END 1)	VARIES
M2	9 & 10	4	15 (END 2)	VARIES
M3	9	4	SEE TABLE	3'-8"
N	3 & 4	3/8" Ø STRAND	4	DIM. L
Y	9 & 11	5	12	2'-6"
Z	2, 9, 11 & 13	5	10	3'-8"
BENDING DIAGRAMS (SEE NOTE 2)				

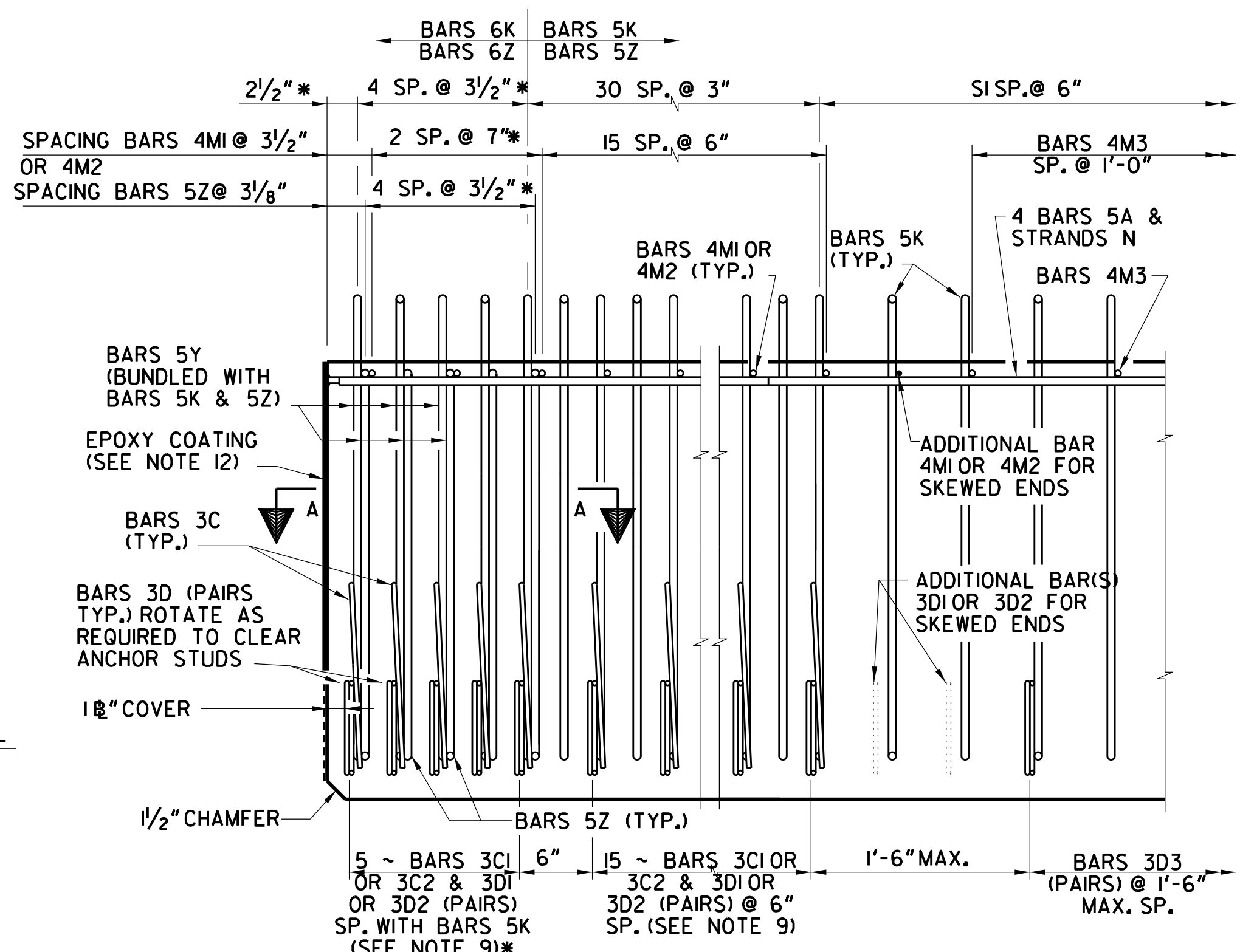


ELEVATION

BEAM NO.	SPAN 1		SPAN 2		SPAN 3		SPAN 4	
	Δ_{nc}	Δ_c	Δ_{nc}	Δ_c	Δ_{nc}	Δ_c	Δ_{nc}	Δ_c
BEAMS 1-4	1 3/4"	3/16"	1 5/8"	3/16"	1 5/8"	3/16"	1 11/16"	3/16"
BEAMS 5-7	1 7/8"	3/16"	1 5/8"	3/16"	2 1/16"	3/16"	1 3/4"	3/16"
BEAMS 8-11	2 1/8"	3/16"	2 1/16"	3/16"	2 1/8"	1/4"	1 7/8"	3/16"




END VIEW



ELEVATION AT END OF BEAM
(FLANGES NOT SHOWN FOR CLARITY)
(END 1 SHOWN, END 2 SIMILAR)

BRIDGE NO. 1



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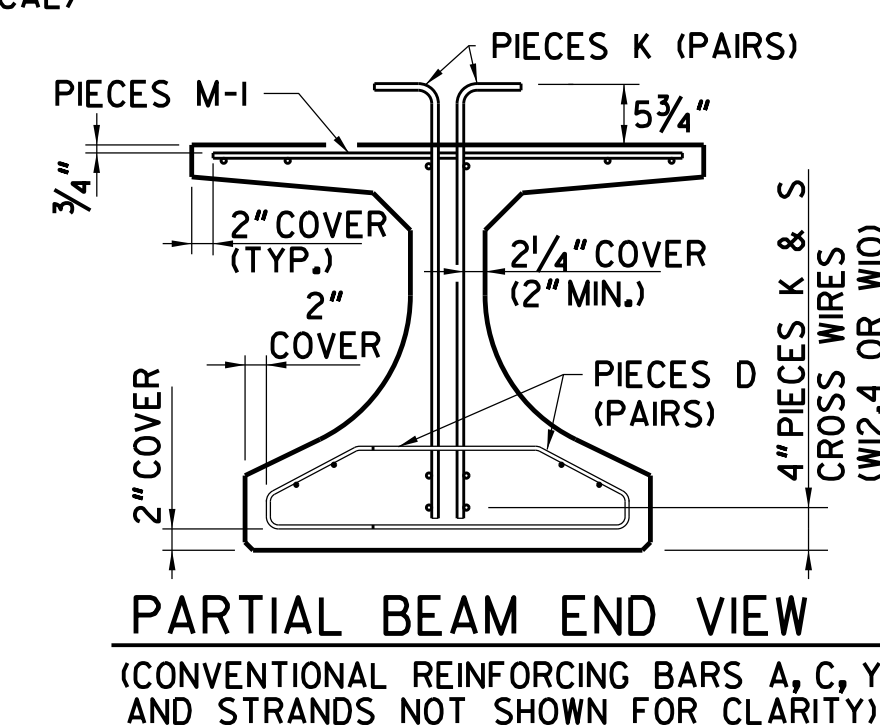
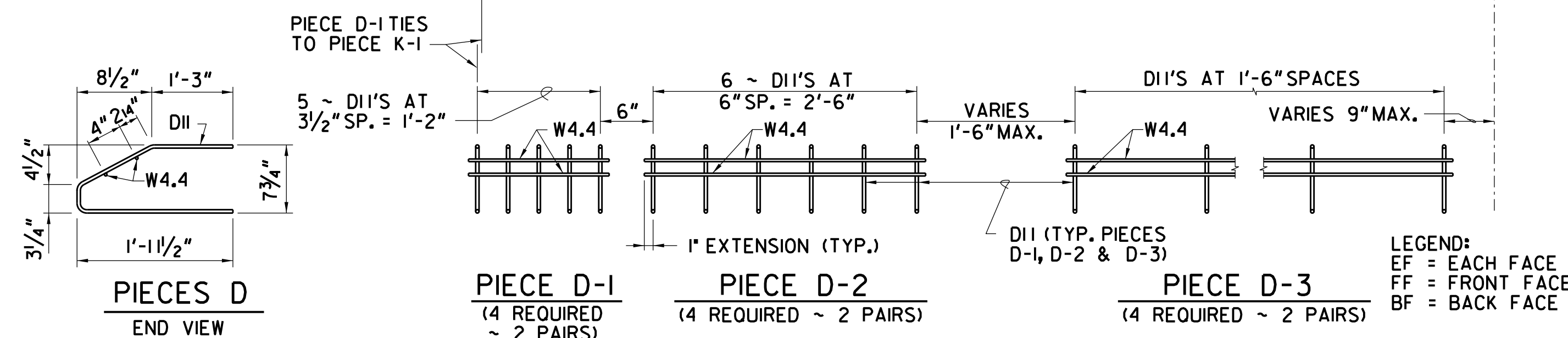
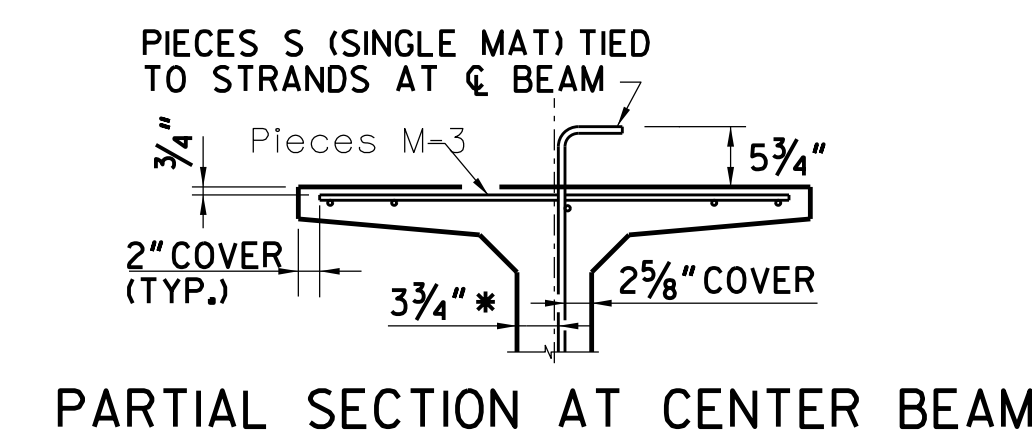
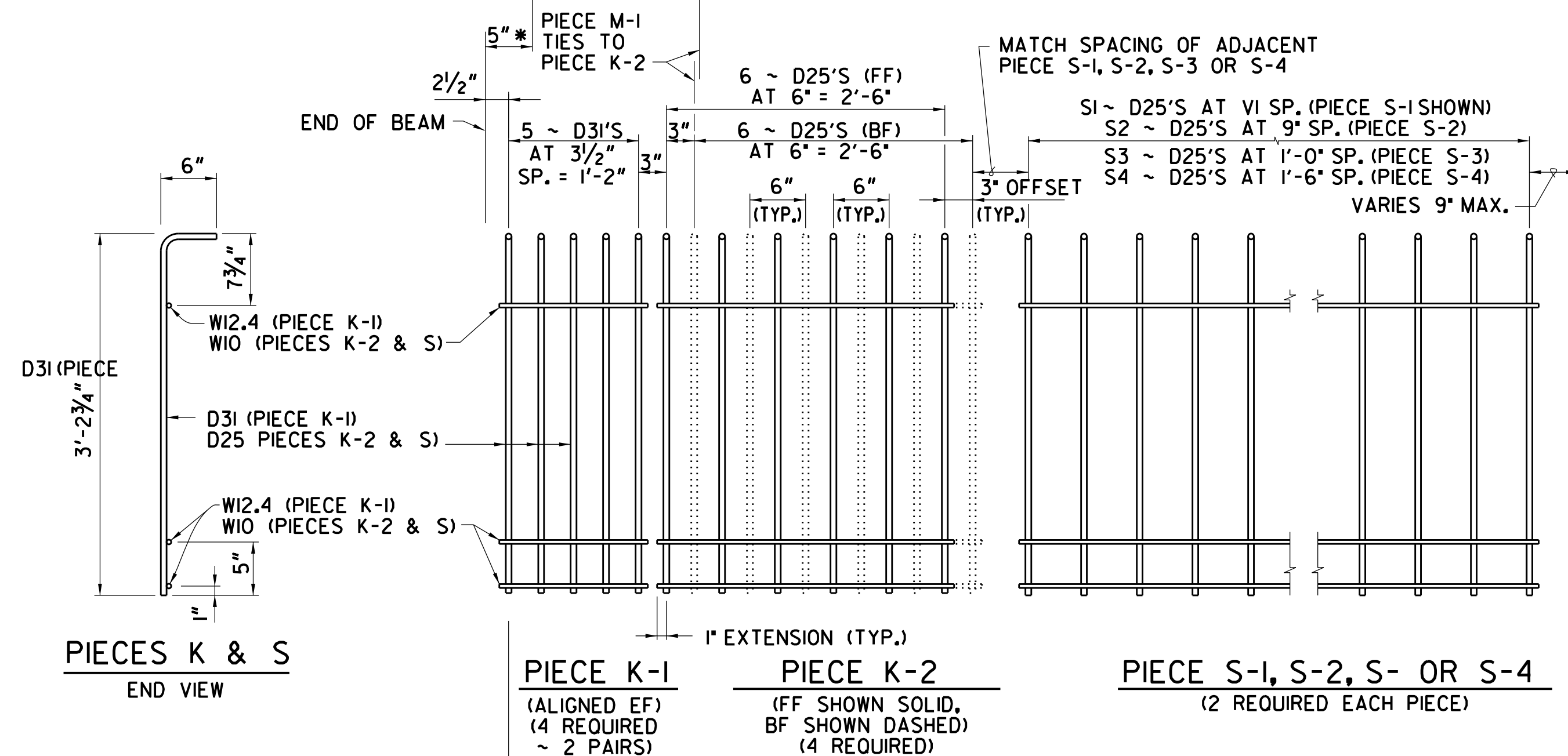
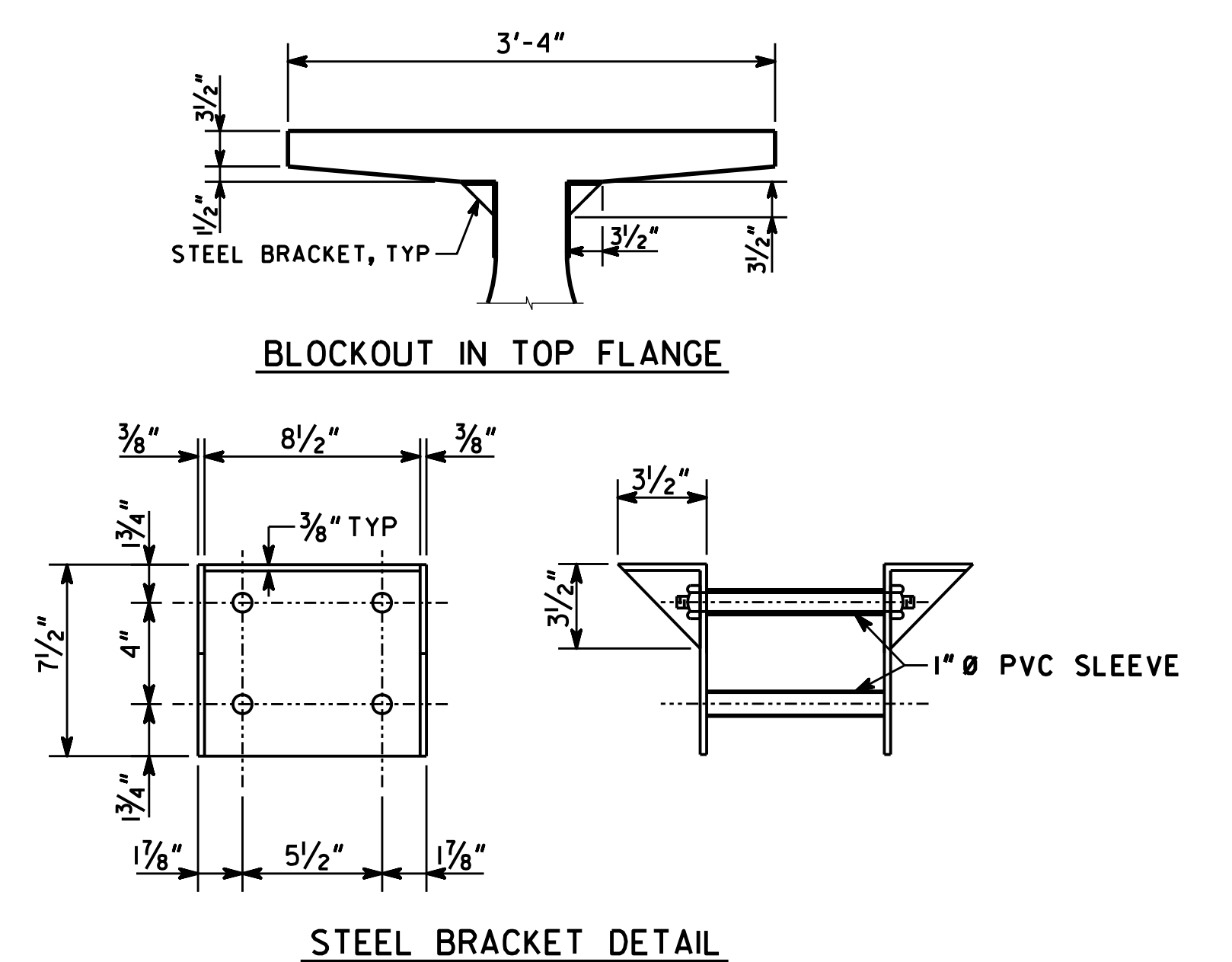
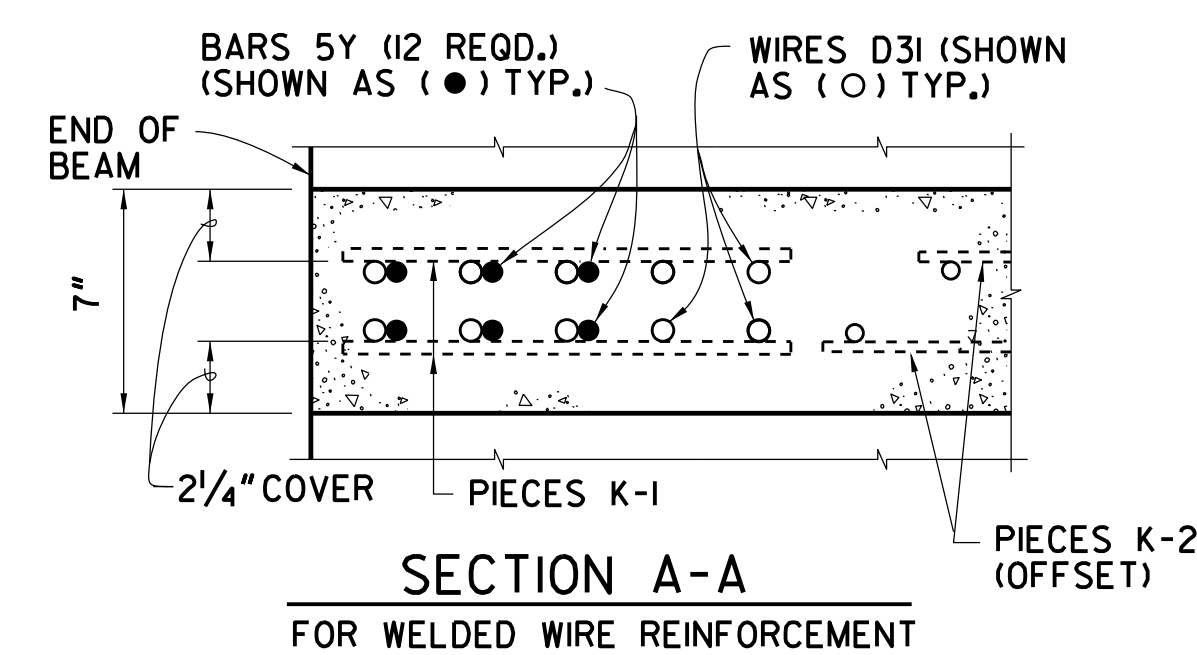
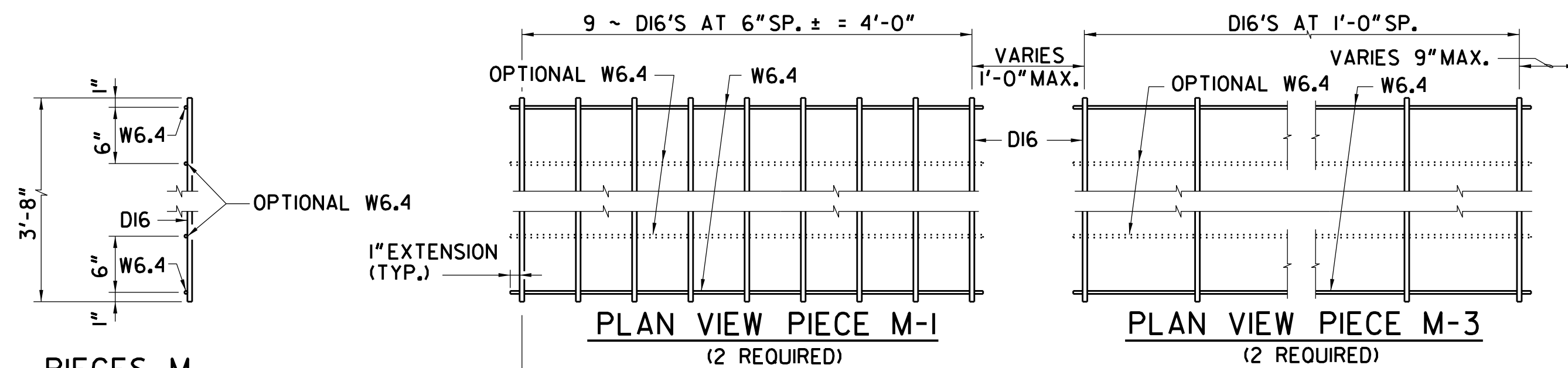
FLORIDA 36" I-BEAM DETAILS - SHEET 1
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : NONE

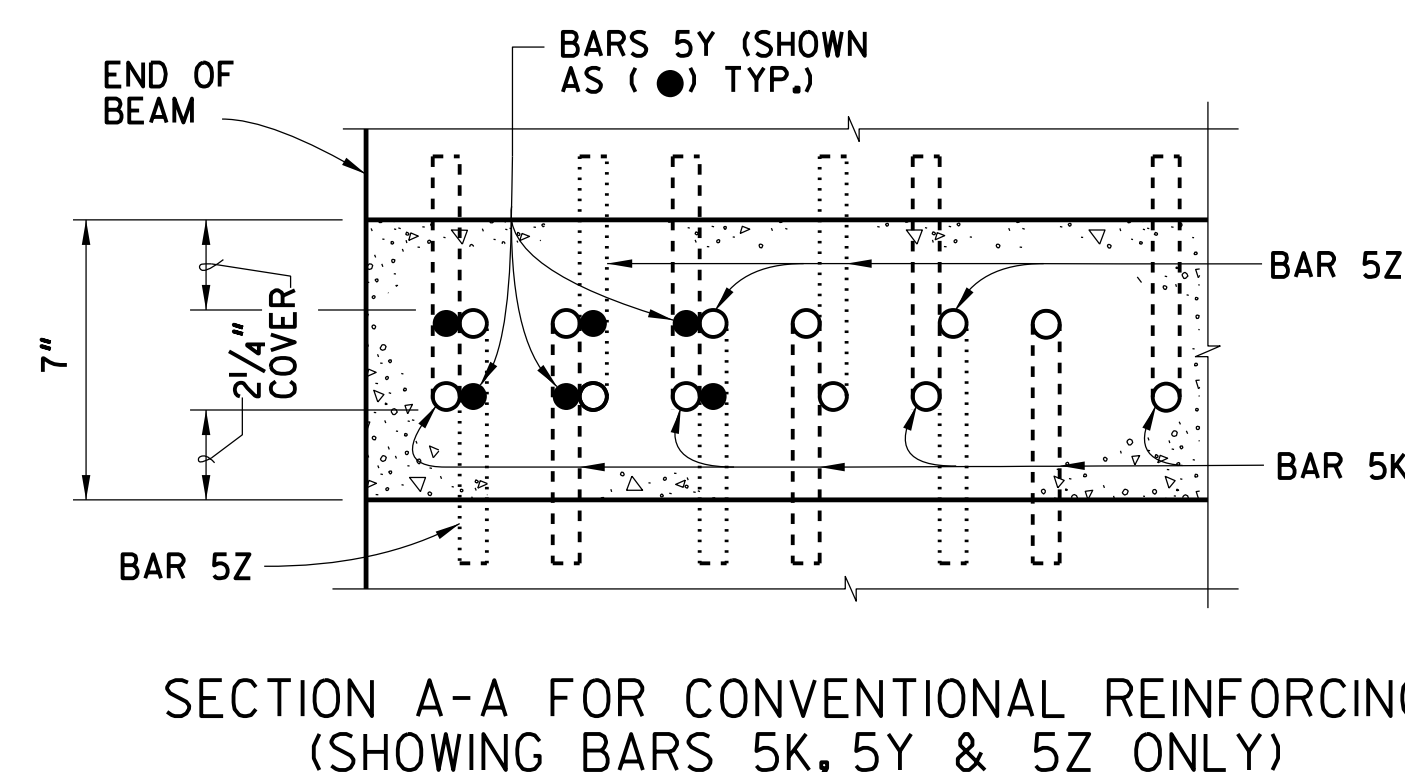
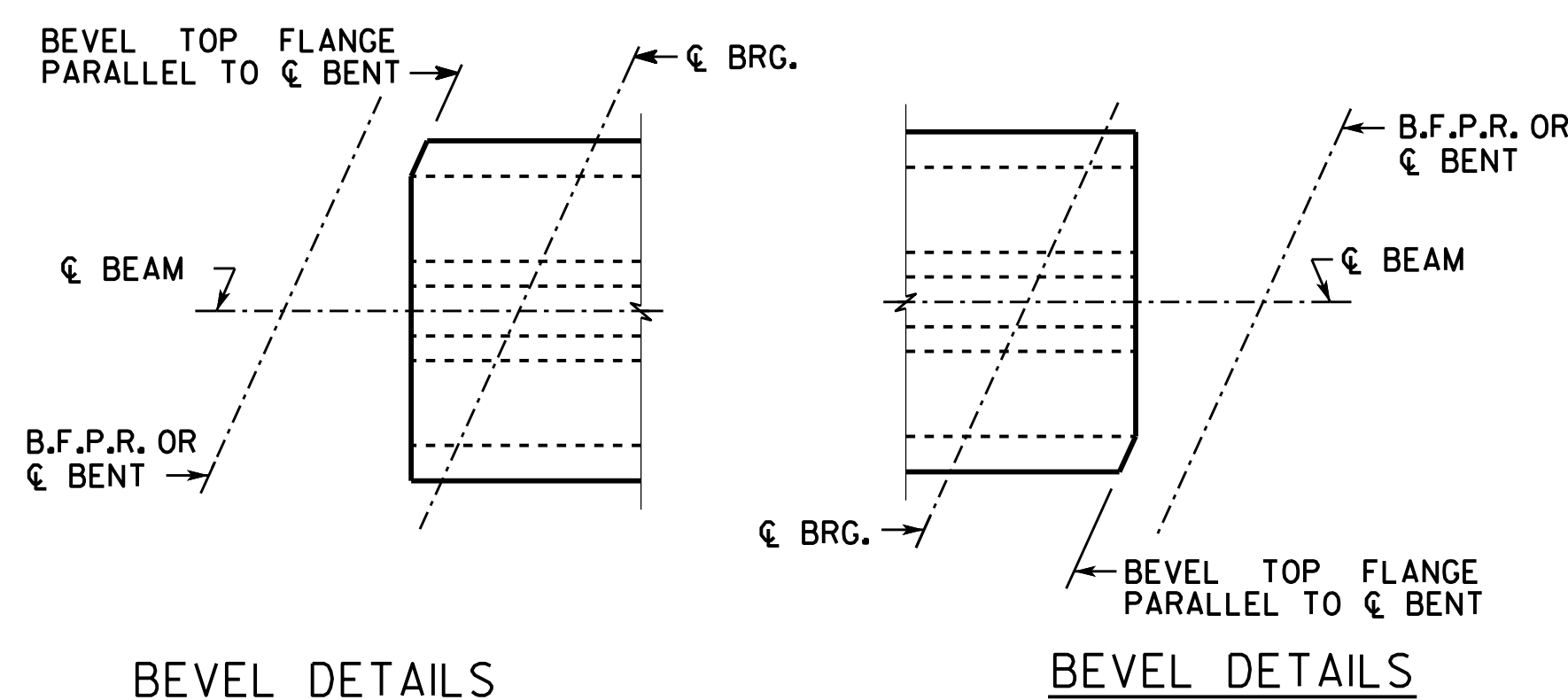
MARCH 2019

DESIGNED	TAC	CHECKED	SWW	REVIEWED	DLC/SKG
DRAWN	TAC/SJA/PDL	DESIGN GROUP	SKG	APPROVED	WMD



● DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).
TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.
AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.
GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.2 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS



NOTES :

- SEE FLORIDA 36" I-BEAM DETAILS - SHEET 3 FOR REPLACEMENT DETAILS AND VARIABLES IN STRUCTURES PLANS FOR VARIABLES S1, S2, S3, S4 AND VI.
- PLACE CONVENTIONAL REINFORCEMENT BARS 5A AND 3C AS SHOWN ON SHEET 1. PLACE ADDITIONAL BARS 5Y AS SHOWN IN SECTION A-A FOR WELDED WIRE REINFORCEMENT. BARS 5Z WILL NOT BE USED WITH THE WWR OPTION.
- PIECES MAY BE FABRICATED IN MULTIPLE LENGTH SECTIONS.

BRIDGE NO. 1

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		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
FLORIDA 36" I-BEAM DETAILS - SHEET 2 RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY		FORSYTH COUNTY	
SCALE : NONE		MARCH 2019	
DRAWING NO. 35-0012	BRIDGE SHEET 12 OF 28	DESIGNED TAC DRAWN TAC/SJA/PDL	CHECKED SWW DESIGN GROUP SKG
		REVIEWED DLC/SKG APPROVED WMD	

FLORIDA I-BEAM TABLE OF BEAM VARIABLES														
LOCATION		BEAM DIMENSION *								REINF. STEEL				
SPAN NO.	BEAM NO.									NO. OF SPACES				
		DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	DIM. G	DIM. H	S1	S2	S3	S4	
1	1	87'-4 ⁹ / ₈ "	84'-9 ⁹ / ₈ "	83'-5 ³ / ₈ "	1'-4 ¹ / ₂ "	2'-0 ¹ / ₂ "	1'-2 ⁷ / ₈ "	1'-10 ¹ / ₈ "	42'-4 ⁹ / ₈ "	9	11	11	9	
1	2	87'-10 ¹ / ₈ "	85'-3 ¹ / ₂ "	83'-11 ¹ / ₂ "	1'-4 ⁵ / ₈ "	2'-0 ⁵ / ₈ "	1'-2 ³ / ₈ "	1'-10 ³ / ₈ "	42'-7 ³ / ₄ "	9	11	11	9	
1	3	88'-5 ¹ / ₈ "	85'-9 ³ / ₈ "	84'-5 ¹ / ₈ "	1'-4 ³ / ₄ "	2'-0 ³ / ₄ "	1'-2 ¹ / ₈ "	1'-10 ¹ / ₈ "	42'-10 ³ / ₄ "	9	11	11	9	
1	4	88'-11 ¹ / ₈ "	86'-3 ³ / ₈ "	84'-11 ³ / ₈ "	1'-4 ⁵ / ₈ "	2'-0 ⁵ / ₈ "	1'-2 ⁷ / ₈ "	1'-10 ⁷ / ₈ "	43'-1 ⁵ / ₈ "	10	10	12	9	
1	5	89'-6 ³ / ₈ "	86'-10 ¹ / ₈ "	85'-6 ¹ / ₈ "	1'-5 ¹ / ₈ "	2'-1 ¹ / ₈ "	1'-3"	1'-11'	43'-5 ¹ / ₄ "	10	10	12	9	
1	6	90'-1 ¹ / ₈ "	87'-5 ³ / ₈ "	86'-1 ¹ / ₈ "	1'-5 ¹ / ₄ "	2'-1 ¹ / ₄ "	1'-3 ¹ / ₈ "	1'-11 ¹ / ₈ "	43'-8 ³ / ₈ "	10	10	12	9	
1	7	90'-9 ³ / ₈ "	88'-0 ⁷ / ₈ "	86'-8 ¹ / ₈ "	1'-5 ¹ / ₈ "	2'-1 ¹ / ₈ "	1'-3 ³ / ₈ "	1'-11 ³ / ₈ "	44'-0 ³ / ₈ "	11	9	10	11	
1	8	91'-5"	88'-7 ⁷ / ₈ "	87'-3 ⁷ / ₈ "	1'-5 ³ / ₈ "	2'-1 ³ / ₈ "	1'-3 ¹ / ₂ "	1'-11 ¹ / ₂ "	44'-3 ³ / ₈ "	11	9	10	11	
1	9	92'-1 ¹ / ₈ "	89'-3 ³ / ₈ "	87'-11 ³ / ₈ "	1'-5 ³ / ₈ "	2'-1 ³ / ₈ "	1'-3 ³ / ₈ "	1'-11 ³ / ₈ "	44'-7 ³ / ₈ "	12	10	11	10	
1	10	92'-9 ³ / ₈ "	89'-11 ³ / ₄ "	88'-7 ³ / ₄ "	1'-6"	2'-2"	1'-3 ³ / ₈ "	1'-11 ³ / ₈ "	44'-11 ³ / ₈ "	12	10	11	10	
1	11	93'-6 ¹ / ₂ "	90'-8 ³ / ₈ "	89'-3 ³ / ₈ "	1'-6 ³ / ₈ "	2'-2 ³ / ₈ "	1'-4"	2'-0"	45'-4 ¹ / ₈ "	12	10	11	10	
2	1	88'-0 ¹ / ₈ "	85'-10 ³ / ₈ "	84'-6 ³ / ₈ "	1'-1 ¹ / ₈ "	1'-9 ¹ / ₈ "	1'-1 ¹ / ₈ "	1'-9 ¹ / ₈ "	42'-11 ¹ / ₈ "	9	11	10	10	
2	2	88'-5 ¹ / ₈ "	86'-2 ⁵ / ₈ "	84'-10 ³ / ₈ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	43'-1 ⁵ / ₈ "	9	11	10	10	
2	3	88'-9 ³ / ₈ "	86'-7 ³ / ₈ "	85'-3 ³ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	43'-3 ³ / ₈ "	9	11	10	10	
2	4	89'-2 ³ / ₄ "	86'-1 ¹ / ₈ "	85'-7 ⁵ / ₈ "	1'-1 ⁷ / ₈ "	1'-9 ⁷ / ₈ "	1'-1 ⁷ / ₈ "	1'-9 ⁷ / ₈ "	43'-6"	9	11	10	10	
2	5	89'-7 ⁷ / ₈ "	87'-4 ⁷ / ₈ "	86'-7 ⁷ / ₈ "	1'-1 ¹ / ₂ "	1'-9 ¹ / ₂ "	1'-1 ¹ / ₂ "	1'-9 ¹ / ₂ "	43'-8 ¹ / ₈ "	10	10	11	10	
2	6	90'-1 ³ / ₈ "	87'-9 ⁵ / ₈ "	86'-5 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	43'-11"	10	10	11	10	
2	7	90'-6 ¹ / ₈ "	88'-3 ¹ / ₄ "	86'-11 ¹ / ₄ "	1'-1 ³ / ₄ "	1'-9 ³ / ₄ "	1'-1 ³ / ₄ "	1'-9 ³ / ₄ "	44'-1 ⁵ / ₈ "	10	10	11	10	
2	8	91'-0 ³ / ₈ "	88'-8 ³ / ₄ "	87'-4 ³ / ₄ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	44'-4 ³ / ₈ "	10	10	11	10	
2	9	91'-6 ³ / ₈ "	89'-2 ¹ / ₈ "	87'-10 ¹ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	44'-7 ³ / ₈ "	9	11	10	11	
2	10	92'-0 ¹ / ₂ "	89'-8 ³ / ₈ "	88'-4 ¹ / ₈ "	1'-2 ¹ / ₈ "	1'-10 ¹ / ₈ "	1'-2 ¹ / ₈ "	1'-10 ¹ / ₈ "	44'-10 ¹ / ₈ "	9	11	10	11	
2	11	92'-6 ¹ / ₈ "	90'-2 ¹ / ₈ "	88'-10 ¹ / ₈ "	1'-2 ³ / ₈ "	1'-10 ³ / ₈ "	1'-2 ³ / ₈ "	1'-10 ³ / ₈ "	45'-1 ¹ / ₄ "	9	11	10	11	
3	1	89'-6 ³ / ₈ "	87'-6 ¹ / ₄ "	86'-2 ¹ / ₄ "	1'-0"	1'-8"	1'-0"	1'-8"	43'-9 ¹ / ₈ "	10	9	10	11	
3	2	89'-9 ³ / ₈ "	87'-9 ⁵ / ₈ "	86'-5 ⁵ / ₈ "	1'-0 ¹ / ₈ "	1'-8 ¹ / ₈ "	1'-0 ¹ / ₈ "	1'-8 ¹ / ₈ "	43'-10 ³ / ₈ "	10	9	10	11	
3	3	90'-1 ³ / ₈ "	88'-1 ¹ / ₈ "	86'-9 ¹ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	44'-0 ¹ / ₂ "	10	9	10	11	
3	4	90'-5 ¹ / ₈ "	88'-4 ⁵ / ₈ "	87'-5 ³ / ₈ "	1'-0 ¹ / ₄ "	1'-8 ¹ / ₄ "	1'-0 ¹ / ₄ "	1'-8 ¹ / ₄ "	44'-2 ⁵ / ₈ "	10	10	10	11	
3	5	90'-8 ¹ / ₈ "	88'-8 ³ / ₈ "	87'-4 ³ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	44'-4 ¹ / ₈ "	10	10	10	11	
3	6	91'-0 ³ / ₈ "	89'-0 ¹ / ₈ "	87'-8 ¹ / ₈ "	1'-0 ⁵ / ₈ "	1'-8 ⁵ / ₈ "	1'-0 ⁵ / ₈ "	1'-8 ⁵ / ₈ "	44'-6 ¹ / ₈ "	10	10	10	11	
3	7	91'-4 ¹ / ₈ "	89'-4"	88'-0"	1'-0 ⁷ / ₈ "	1'-8 ⁷ / ₈ "	1'-0 ⁷ / ₈ "	1'-8 ⁷ / ₈ "	44'-8"	10	10	10	11	
3	8	91'-9 ¹ / ₈ "	89'-8"	88'-4"	1'-0 ¹ / ₂ "	1'-8 ¹ / ₂ "	1'-0 ¹ / ₂ "	1'-8 ¹ / ₂ "	44'-10"	10	10	10	11	
3	9	92'-1 ³ / ₈ "	90'-0 ³ / ₈ "	88'-8 ³ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	1'-0 ³ / ₈ "	1'-8 ³ / ₈ "	45'-0 ¹ / ₈ "	10	10	12	10	
3	10	92'-5 ¹ / ₈ "	90'-4 ¹ / ₂ "	89'-1 ¹ / ₂ "	1'-0 ¹ / ₈ "	1'-8 ¹ / ₈ "	1'-0 ¹ / ₈ "	1'-8 ¹ / ₈ "	45'-2 ¹ / ₄ "	10	10	12	10	
3	11	92'-10 ¹ / ₂ "	90'-8 ⁵ / ₈ "	89'-4 ⁵ / ₈ "	1'-0 ³ / ₄ "	1'-8 ³ / ₄ "	1'-0 ³ / ₄ "	1'-8 ³ / ₄ "	45'-4 ¹ / ₂ "	10	10	12	10	
4	1	86'-11 ¹ / ₂ "	84'-11 ¹ / ₂ "	83'-7 ¹ / ₂ "	0'-11 ¹ / ₈ "	1'-7 ¹ / ₈ "	1'-0 ⁷ / ₈ "	1'-8 ⁷ / ₈ "	42'-5 ³ / ₄ "	11	9	10	10	
4	2	87'-1 ⁵ / ₈ "	85'-1 ¹ / ₈ "	83'-9 ¹ / ₈ "	0'-11 ³ / ₈ "	1'-7 ³ / ₈ "	1'-0 ⁵ / ₈ "	1'-8 ⁵ / ₈ "	42'-6 ⁵ / ₈ "	11	9	10	10	
4	3	87'-4 ¹ / ₂ "	85'-4 ¹ / ₄ "	84'-1 ¹ / ₄ "	0'-11 ¹ / ₄ "	1'-7 ¹ / ₄ "	1'-1"	1'-9"	42'-8 ¹ / ₈ "	11	9	10	10	
4	4	87'-7 ¹ / ₈ "	85'-6 ³ / ₈ "	84'-2 ³ / ₈ "	0'-11 ³ / ₄ "	1'-7 ¹ / ₄ "	1'-1"	1'-9"	42'-9 ³ / ₈ "	11	9	10	10	
4	5	87'-9 ³ / ₄ "	85'-9 ³ / ₈ "	84'-5 ³ / ₈ "	0'-11 ⁵ / ₈ "	1'-7 ⁵ / ₈ "	1'-1 ¹ / ₈ "	1'-9 ¹ / ₈ "	42'-10 ¹ / ₈ "	11	9	10	10	
4	6	88'-0 ¹ / ₂ "	86'-0"	84'-8"	0'-11 ³ / ₈ "	1'-7 ³ / ₈ "	1'-1 ¹ / ₈ "	1'-9 ¹ / ₈ "	43'-0"	11	9	10	10	
4	7	88'-3 ³ / ₈ "	86'-2 ³ / ₄ "	84'-10 ³ / ₄ "	0'-11 ¹ / ₈ "	1'-7 ¹ / ₈ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	43'-1 ³ / ₈ "	11	9	10	10	
4	8	88'-6 ¹ / ₄ "	86'-5 ¹ / ₂ "	85'-1 ¹ / ₂ "	0'-11 ¹ / ₂ "	1'-7 ¹ / ₂ "	1'-1 ¹ / ₄ "	1'-9 ¹ / ₄ "	43'-2 ³ / ₄ "	11	10	10	10	
4	9	88'-9 ¹ / ₄ "	86'-8 ¹ / ₈ "	85'-4 ¹ / ₈ "	0'-11 ³ / ₈ "	1'-7 ³ / ₈ "	1'-1 ³ / ₈ "	1'-9 ³ / ₈ "	43'-4 ¹ / ₈ "	11	10	10	10	
4	10	89'-0 ³ / ₈ "	86'-11 ³ / ₈ "	85'-7 ³ / ₈ "	0'-11 ⁵ / ₈ "	1'-7 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	43'-5 ¹ / ₈ "	11	10	10	10	
4	11	89'-3 ³ / ₈ "	87'-2 ¹ / ₈ "	85'-10 ¹ / ₈ "	0'-11 ⁵ / ₈ "	1'-7 ⁵ / ₈ "	1'-1 ⁵ / ₈ "	1'-9 ⁵ / ₈ "	43'-7 ¹ / ₄ "	11	10	10	10	

DIMENSION NOTES :

* ALL LONGITUDINAL BEAM DIMENSIONS SHOWN ON THIS SHEET WITH A SINGLE ASTERISK (*) ARE MEASURED ALONG CENTERLINE OF BEAM.

*** END BEAM BEARING DIMENSIONS "D,E,F, & G" ARE MEASURED ALONG THE CENTERLINE OF BEAM.

NOTES :

1. ALL BAR DIMENSIONS ARE OUT TO OUT.

2. PLACE ONE (1) BAR 5K OR 5Z AT EACH LOCATION AS DETAILED ALTERNATING THE DIRECTION OF THE ENDS FOR EACH BAR.

3. STRANDS N SHALL BE 0.6" DIA LOW-RELAXATION (A = 0.217 SQ IN) STRANDS, STRESSED TO 10,000 LBS., EACH.

4. EPOXY COAT ENDS OF BEAMS, INCLUDING CHIPPED AND CHAMFER SURFACES, WITH TWO LAYERS OF TYPE IV EPOXY MORTAR AS PER SECTION 886 OF THE GEORGIA DOT SPECIFICATIONS WITHIN 7 DAYS OF DETENSIONING, PREPARE CONCRETE SURFACE AND APPLY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE FINISH THICKNESS OF THE EPOXY COATING MUST BE A MINIMUM OF 1/16".

5. UNLESS OTHERWISE NOTED, THE MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE 2".

6. AT CONTRACTOR'S OPTION, WELDED DEFORMED WIRE REINFORCEMENT MAY BE USED IN LIEU OF BARS 3D, 5K, 4M AND 5Z AS SHOWN ON BEAM SHEETS 1 AND 2. WELDED DEFORMED WIRE REINFORCEMENT SHALL CONFORM TO AASHTO M221, WITH A MINIMUM YIELD STRENGTH OF 75 KSI.

7. SAFETY LINE ANCHORAGE DEVICES OR SLEEVES ARE REQUIRED AND PERMITTED IN THE TOP FLANGE ONLY TO ACCOMMODATE FALL PROTECTION SYSTEMS USED DURING CONSTRUCTION. SEE SHOP DRAWINGS FOR DETAILS AND SPACING OF ANY REQUIRED EMBEDMENTS.

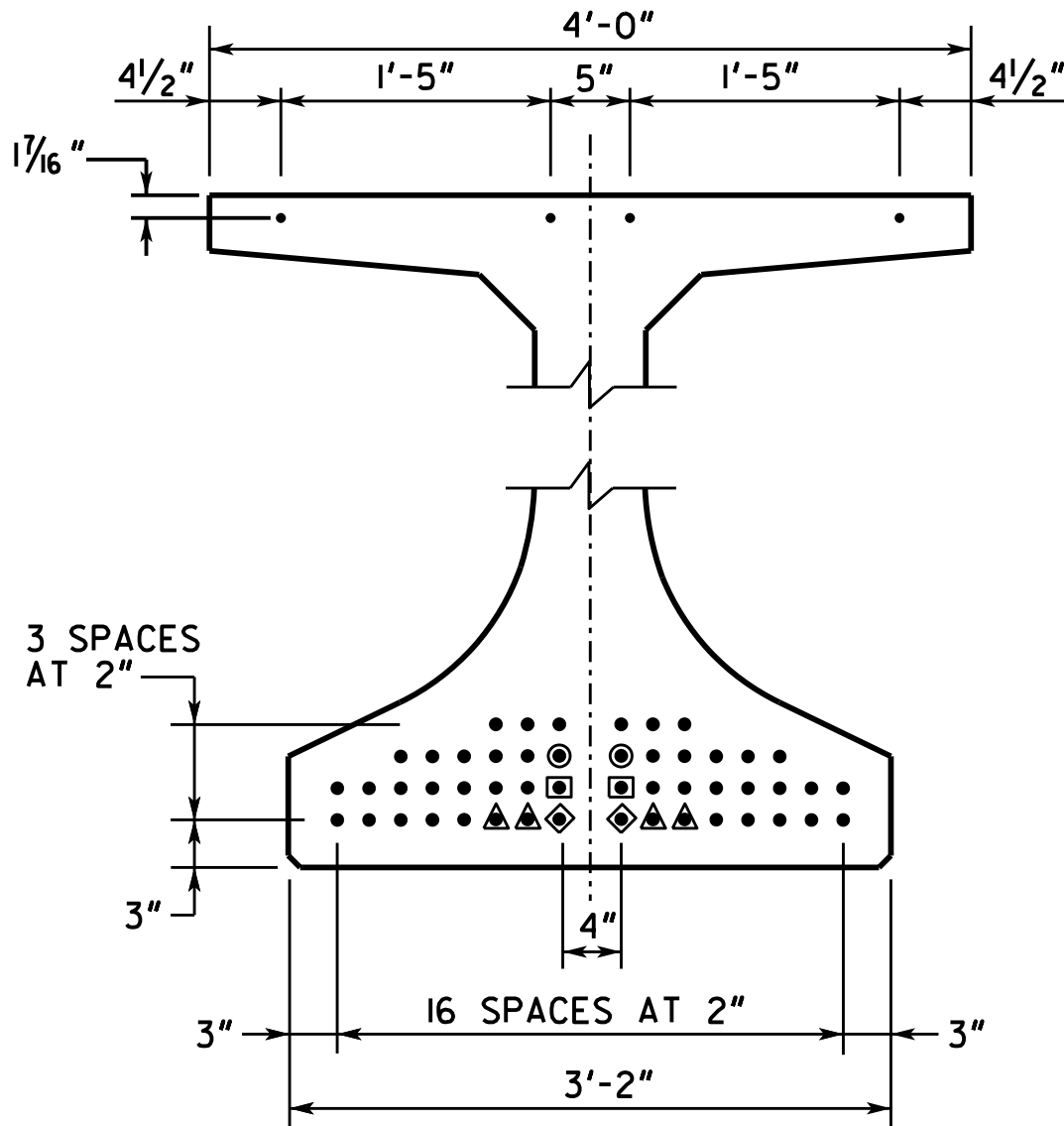
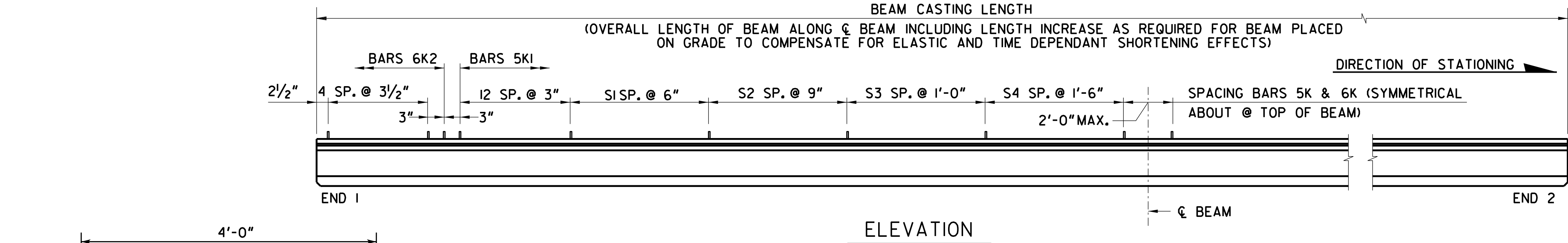
8. PLACEMENT OF BARS 3C1, 3D1, AND 4M1 CORRESPOND TO END 1, AND BARS 3C2, 3D2 AND 4M2 CORRESPOND TO END 2. END 1 AND END 2 ARE SHOWN ON BEAM "ELEVATION".

9. BARS 5K AND 5Z SHALL BE PLACED AND TIED TO THE FULLY BONDED STRANDS IN THE BOTTOM OR CENTER ROW (SEE "STRAND PATTERN "ON THIS SHEET). AT THE CONTRACTOR'S OPTION THE LENGTH OF THE BOTTOM LEGS OF BARS 5K AND 5Z MAY BE EXTENDED TO FACILITATE TYING TO THE EXTERIOR STRANDS. FOR WELDED DEFORMED WIRE REINFORCEMENT, SUPPLEMENTAL TRANSVERSE #4 BARS ARE PERMITTED TO SUPPORT PIECES K AND S UNDER CROSS WIRES ON THE BOTTOM ROW OF STRANDS.

10. AT CONTRACTOR'S OPTION, BARS 3D1, 3D2 AND 3D3 MAY BE FABRICATED AS A SINGLE BAR WITH A 1'-0" MINIMUM LAP SPLICE OF THE TOP LEGS, OR THE LENGTH OF THE BOTTOM LEGS MAY BE EXTENDED TO FACILITATE TYING TO THE EXTERIOR STRANDS.

11. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 4'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.

12. CHAMFER EDGES OF BEAMS 1/2" OR 3/4".




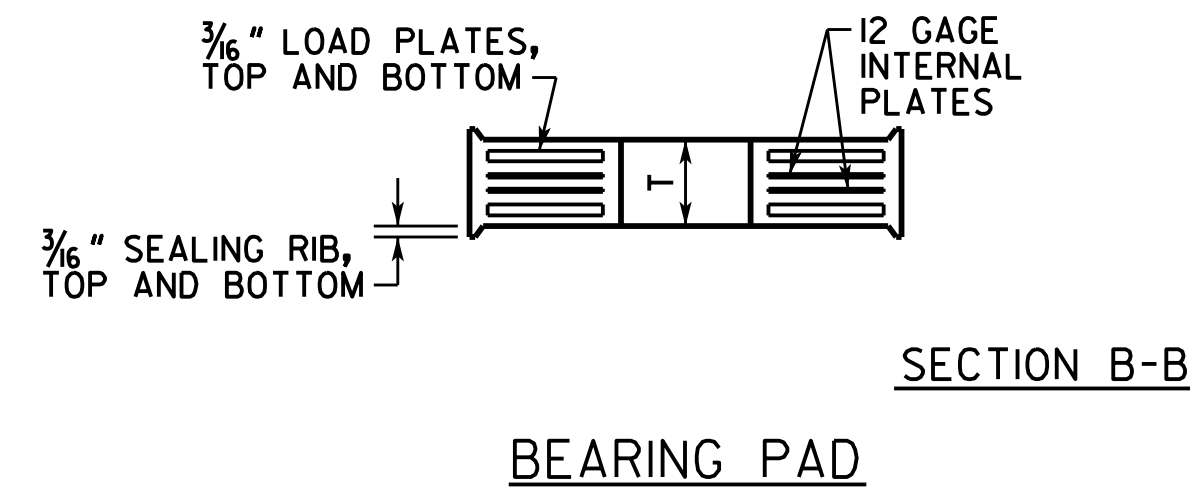
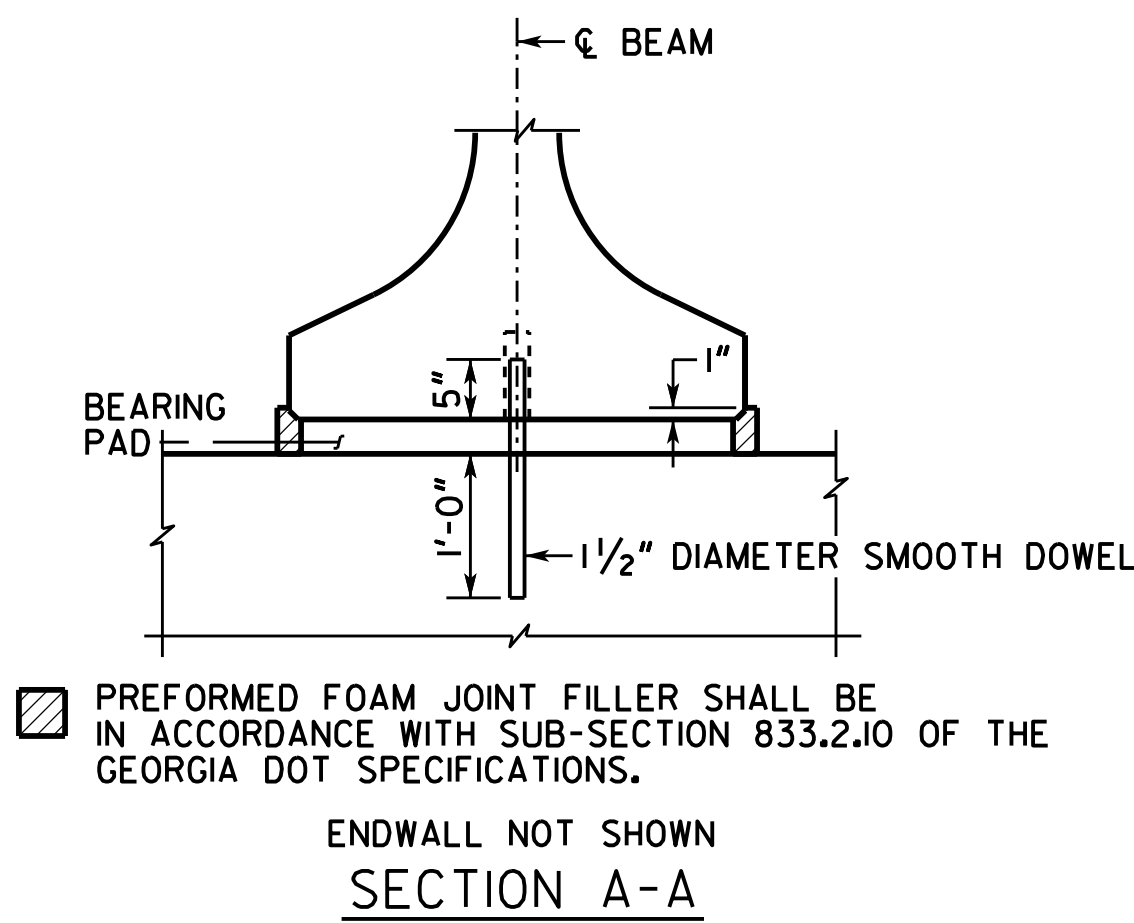
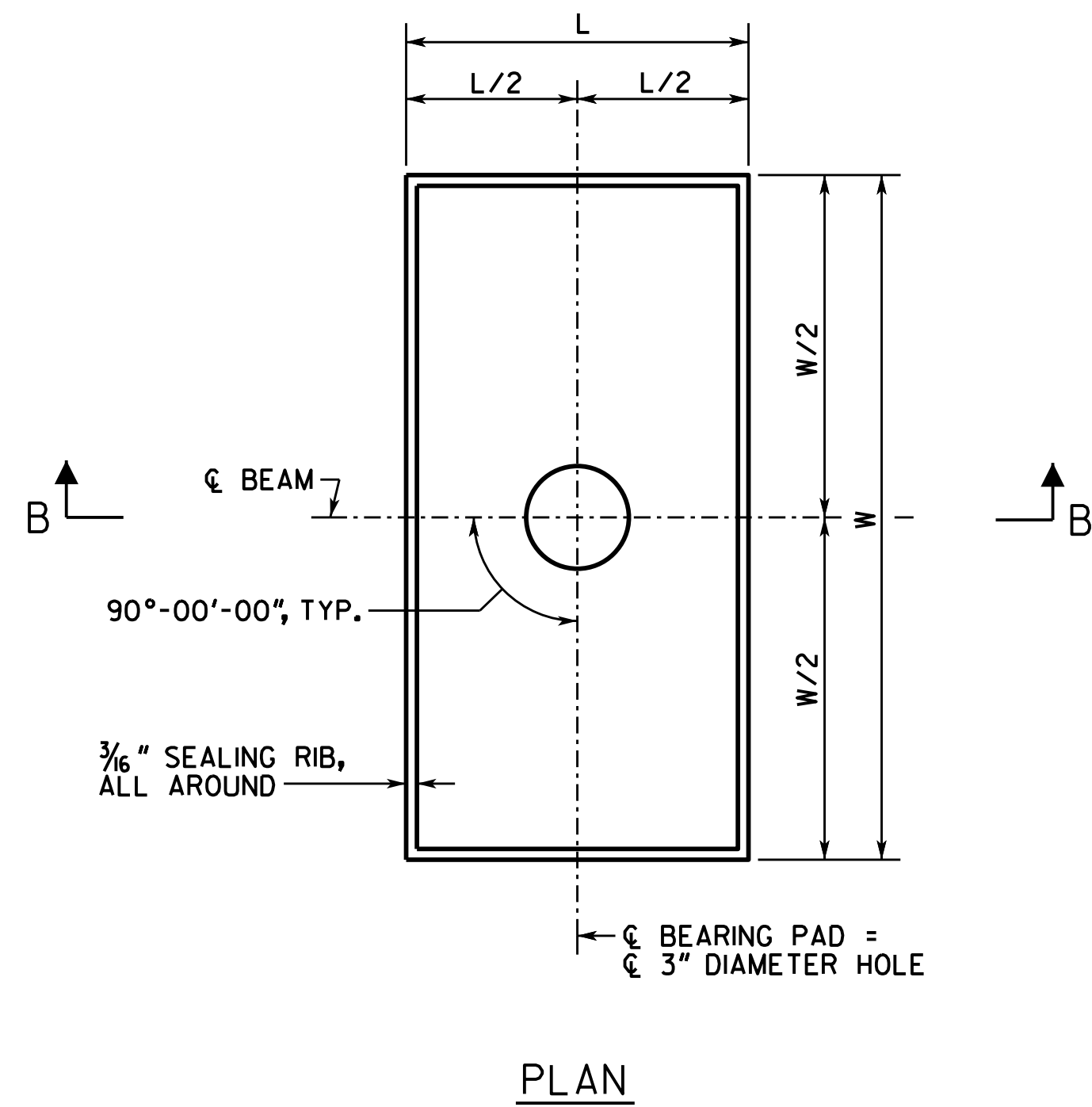
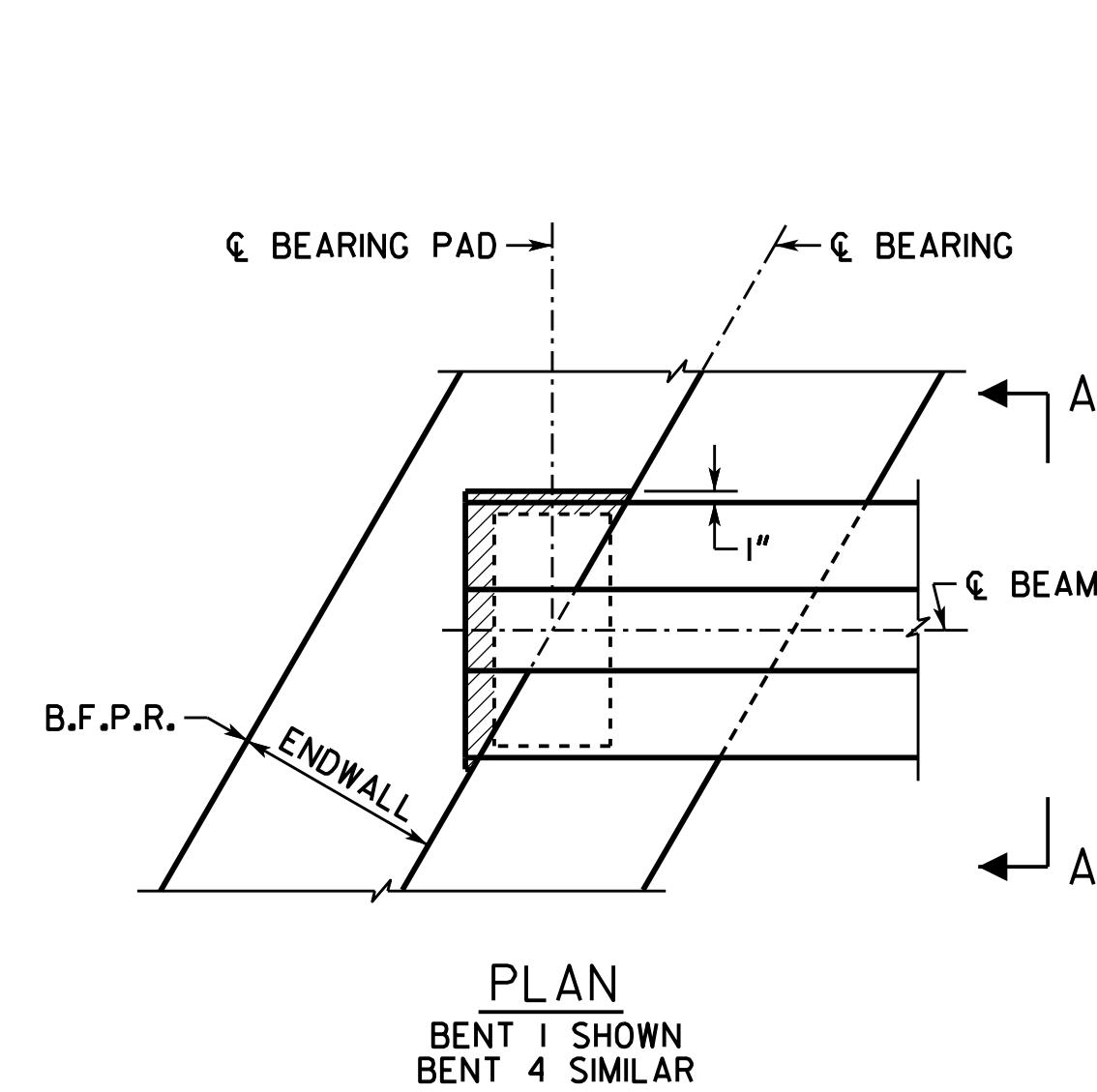
DEBONDING DATA IS AS FOLLOWS:

- = FULLY BONDED STRAND
- ⊙ = STRANDS DEBONDED 4'-0" FROM END OF BEAM
- ⊠ = STRANDS DEBONDED 10'-0" FROM END OF BEAM
- △ = STRANDS DEBONDED 20'-0" FROM END OF BEAM
- ◇ = STRANDS DEBONDED 30'-0" FROM END OF BEAM

ON BEAMS WITH SKEWED ENDS, THE DEBONDED LENGTH SHALL BE MEASURED ALONG THE SHIELDED STRAND.

BRIDGE NO. 1

		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue, Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945			
		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING			
DATE				FLORIDA 36" I-BEAM DETAILS - SHEET 3 RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY	




NOTES

1. BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 14.7.6 METHOD A AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18, BEARING DEVICES.
2. 1 1/2" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.
3. BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.
4. 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.
5. BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.
6. 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.
7. NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.
8. USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.
9. BEVELED SHIM PLATES SHALL BE ASTM A 709 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.
10. PLACE THE BEVELED SHIM PLATES ON TOP OF THE BEARING PADS.

BENT	BEAM	BEARING PADS							
		W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DESIGN LOADS (KIPS)		
							DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD
1	"ALL"	30	11	2 5/8"	3	1/2"	114	54	168
2	"ALL"	30	11	2 5/8"	3	1/2"	114	54	168
3	"ALL"	30	11	2 5/8"	3	0	114	54	168
4	"ALL"	30	11	2 5/8"	3	1/4"	114	54	168
5	"ALL"	30	11	2 5/8"	3	1/2"	114	54	168

BRIDGE NO. 1

		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
DATE REVISIONS	BY	BEARING DETAILS RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY	
		FORSYTH COUNTY	
DRAWING NO. 35-0014		SCALE : NONE	
BRIDGE SHEET 14 OF 28		MARCH 2019	
DESIGNED TAC DRAWN TAC/SJA/PDL		CHECKED SWW DESIGN GROUP SKG	
REVIEWED DLC/SKG APPROVED WMD			

\$FILEL\$

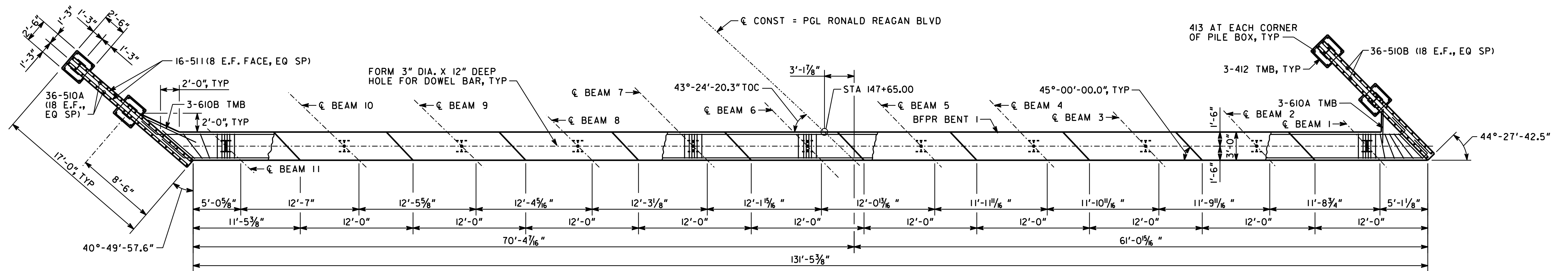
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DATE\$\$\$

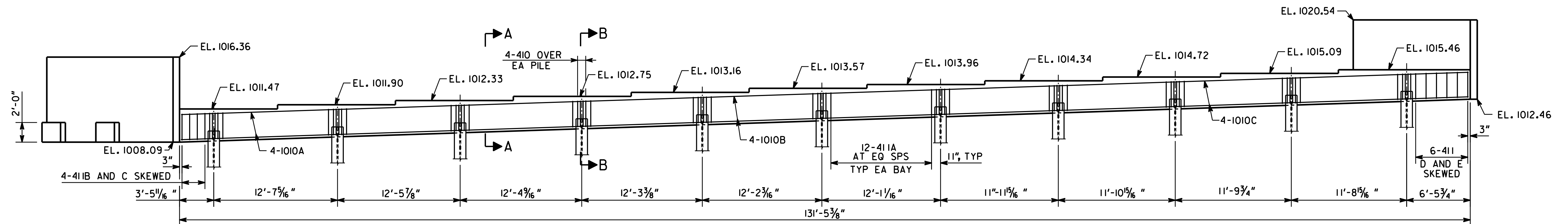
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1 INCH WHEN PRINTED FULL SIZE

SIGNS



PLAN

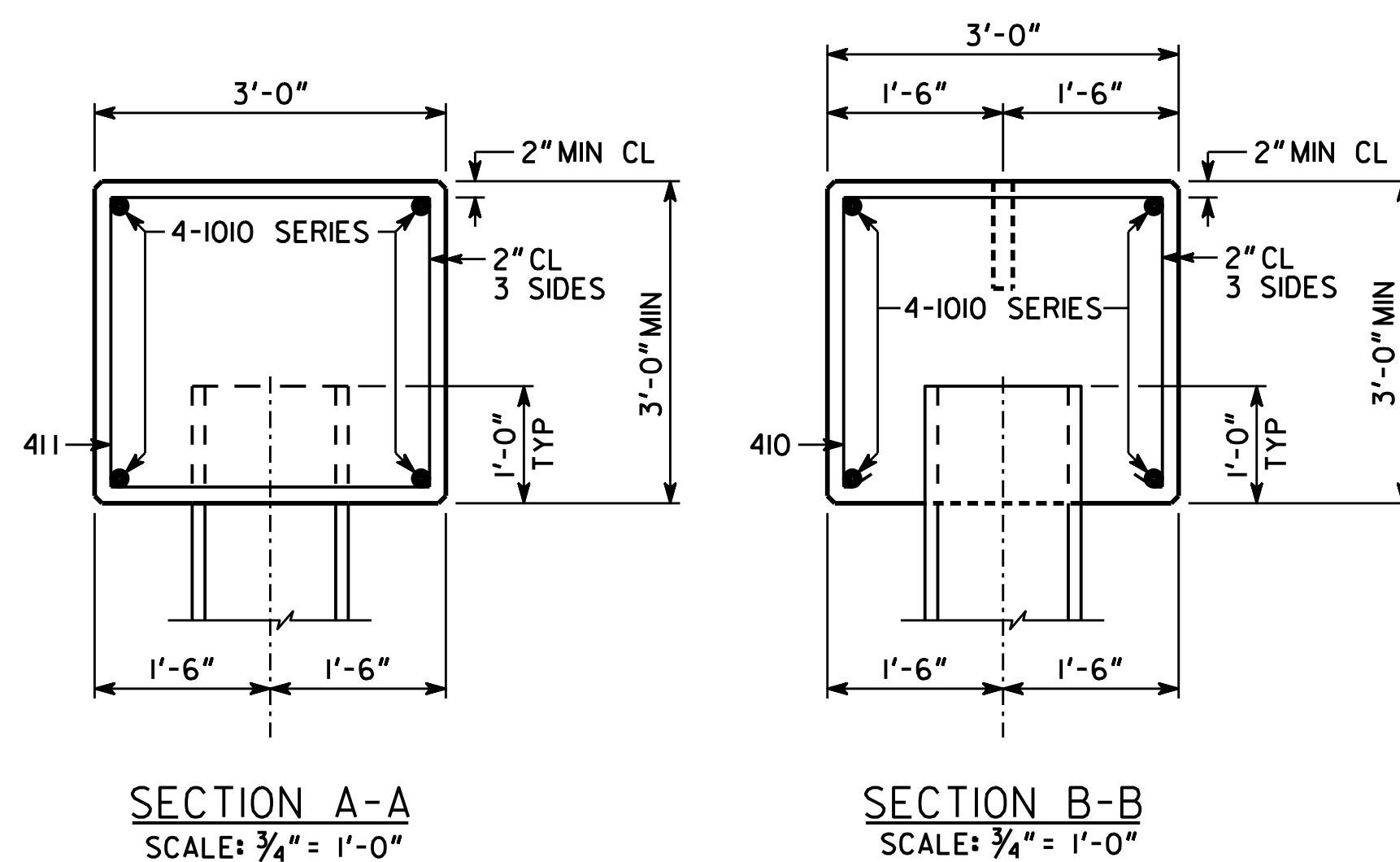


ELEVATION
(LOOKING BACK)

ALL PILES SHALL BE STEEL H, HP 14 X 73, GR. 50.

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 107 TONS AFTER A MINIMUM TIP ELEVATION OF 976 IS ACHIEVED.



SECTION A-A
SCALE: 3/4" = 1'-0"


SECTION B-B
SCALE: 3/4" = 1'-0"

NOTES:

- POUR WINGWALLS MONOLITHICALLY WITH CAP.
- WINGWALL PILES NOT SHOWN IN ELEVATION VIEW.
- SEE GA STD 9037 FOR DRAINAGE DETAILS AT END BENTS.
- LAP SPLICE NO. 10 BARS 8'-5" MIN.

SUBSTRUCTURE QUANTITIES	
ITEM	QTY
CU YD CLASS "AA" CONCRETE	57.3
LB BAR REINF STEEL	5,457

BRIDGE NO. 1

		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
DATE: _____ REVISIONS: _____ BY: _____		END BENT 1 RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY FORSYTH COUNTY SCALE: 3/8" = 1'-0", U.N.O. MARCH 2019	
DRAWING NO. 35-0015 BRIDGE SHEET 15 OF 28		DESIGNED: TAC DRAWN: TAC/SJA/PDL	CHECKED: SWW DESIGN GROUP: SKG
		REVIEWED: DLC/SKG APPROVED: WMD	

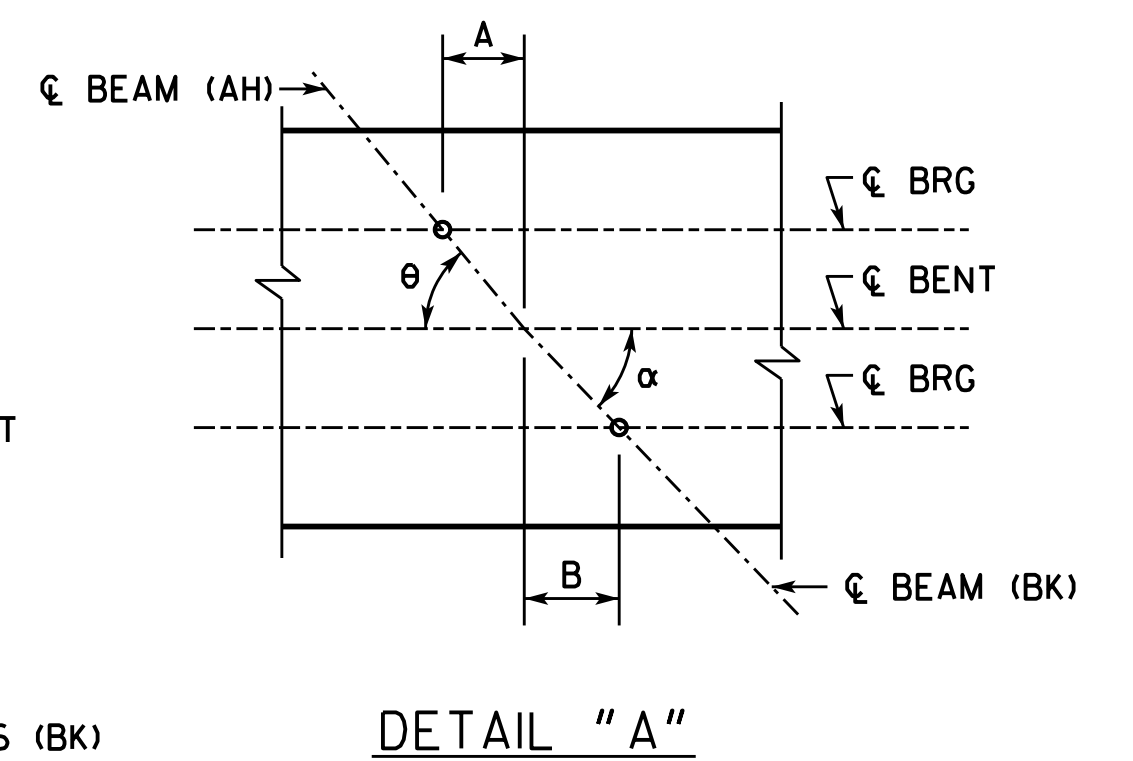
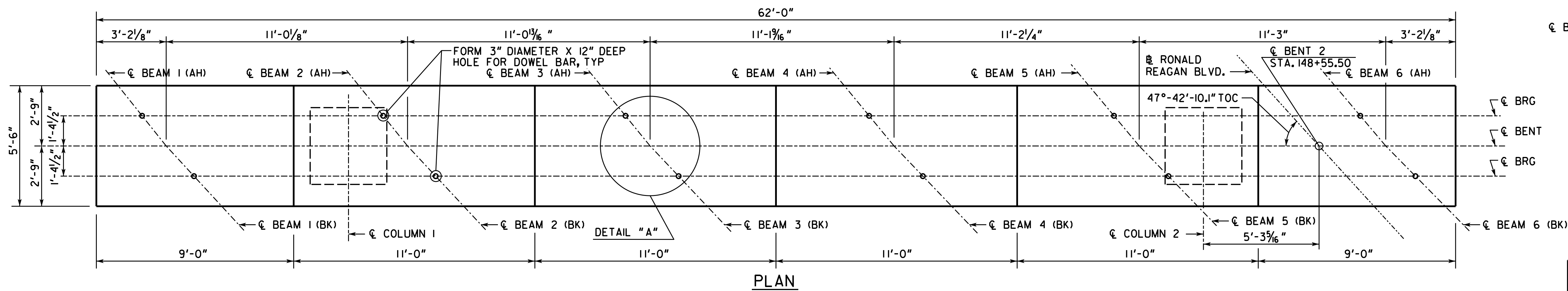
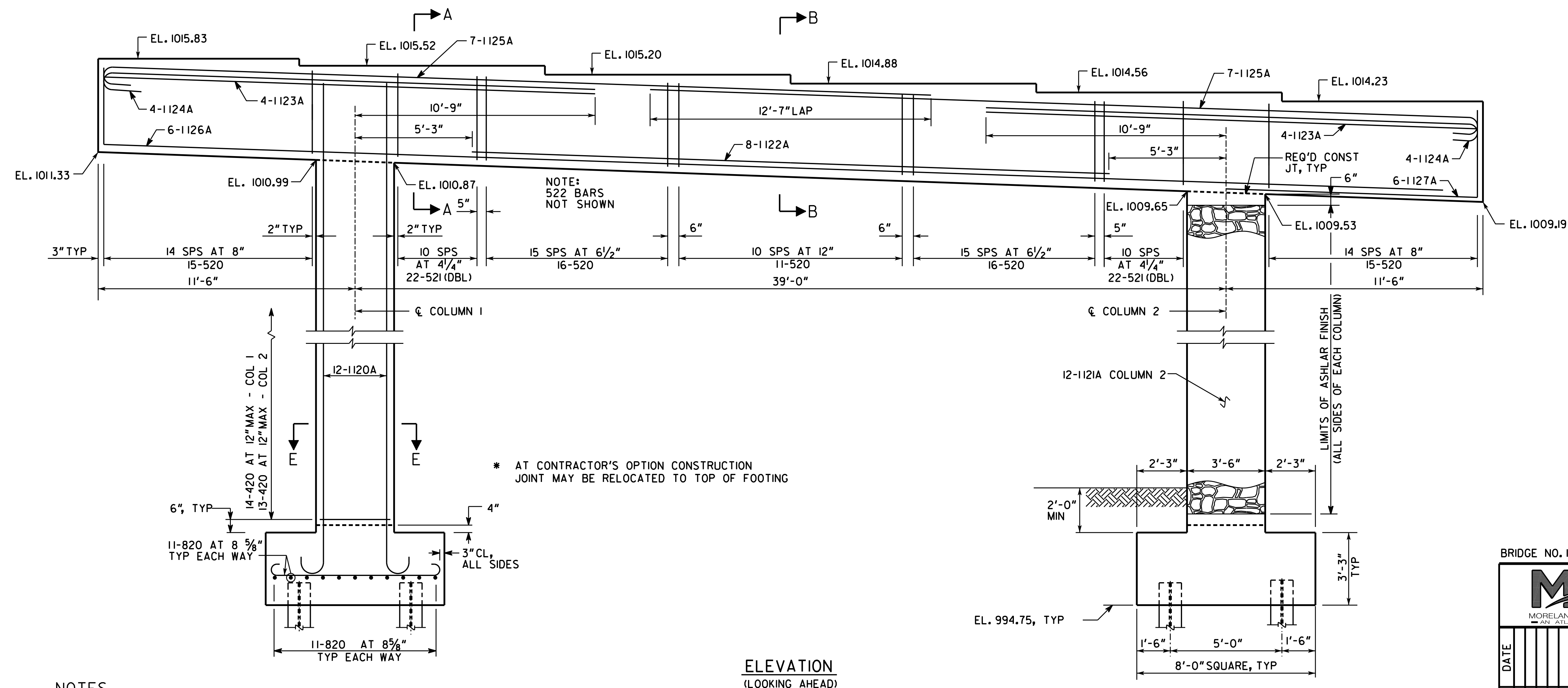


TABLE OF DIMENSIONS & ANGLES				
BEAM	A	ANGLE θ	B	ANGLE α
1	13 $\frac{3}{16}$ "	51°-22'-29.7"	15 $\frac{3}{16}$ "	47°-19'-10.3"
2	13 $\frac{5}{16}$ "	51°-03'-49.3"	15 $\frac{3}{16}$ "	46°-57'-35.9"
3	13 $\frac{1}{2}$ "	50°-44'-48.5"	15 $\frac{5}{8}$ "	46°-35'-36.1"
4	13 $\frac{5}{8}$ "	50°-25'-26.7"	15 $\frac{3}{16}$ "	46°-13'-09.7"
5	13 $\frac{13}{16}$ "	50°-05'-43.2"	16"	45°-50'-15.9"
6	13 $\frac{15}{16}$ "	49°-45'-37.2"	16 $\frac{1}{4}$ "	45°-26'-53.8"



ALL PILES SHALL BE STEEL H HP 14 X 117

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 134 TONS AFTER A MINIMUM TIP ELEVATION OF 973 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES

ITEM	BENT 2 LT
CY CLASS "AA" CONCRETE	86.8
LB BAR REINF STEEL	15,216

NOTES

- BENT CAP IS SYMMETRICAL ABOUT ϕ CAP
- FOR SECTION A-A, B-B, E-E, AND PILE LAYOUT SEE BENT 2 DETAILS
- AT CONTRACTOR'S OPTION, MECHANICAL COUPLERS MAY BE SUBSTITUTED FOR LAP SPLICE, AT NO ADDITIONAL COST. COUPLERS MUST DEVELOP MIN. 1259
- ASHLAR FINISH SHALL BE SPEC FORMLINERS (PATTERN NO. 1502), CUSTOM ROCK FORMLINER (PATTERN NO. 1214), OR APPROVED EQUAL.
- THE COST TO PROVIDE ASHLAR FINISH INCLUDING MATERIALS AND LABOR SHALL BE INCLUDED IN PRICE BID FOR "CLASS AA CONCRETE"

ELEVATION (LOOKING AHEAD)

BRIDGE NO. 1



MORELAND ALTABELLI ASSOCIATES, LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

BENT 2 LEFT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE: $\frac{3}{8}$ " = 1'-0"

MARCH 2019

DRAWING NO.
35-0016

BRIDGE SHEET
16 OF 28

DESIGNED: TAC
DRAWN: TAC/SJA/PDL

CHECKED: SWW
DESIGN GROUP: SKG

REVIEWED: DLC/SKG
APPROVED: WMD

\$FILEL\$

\$USER\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

\$DGN\$

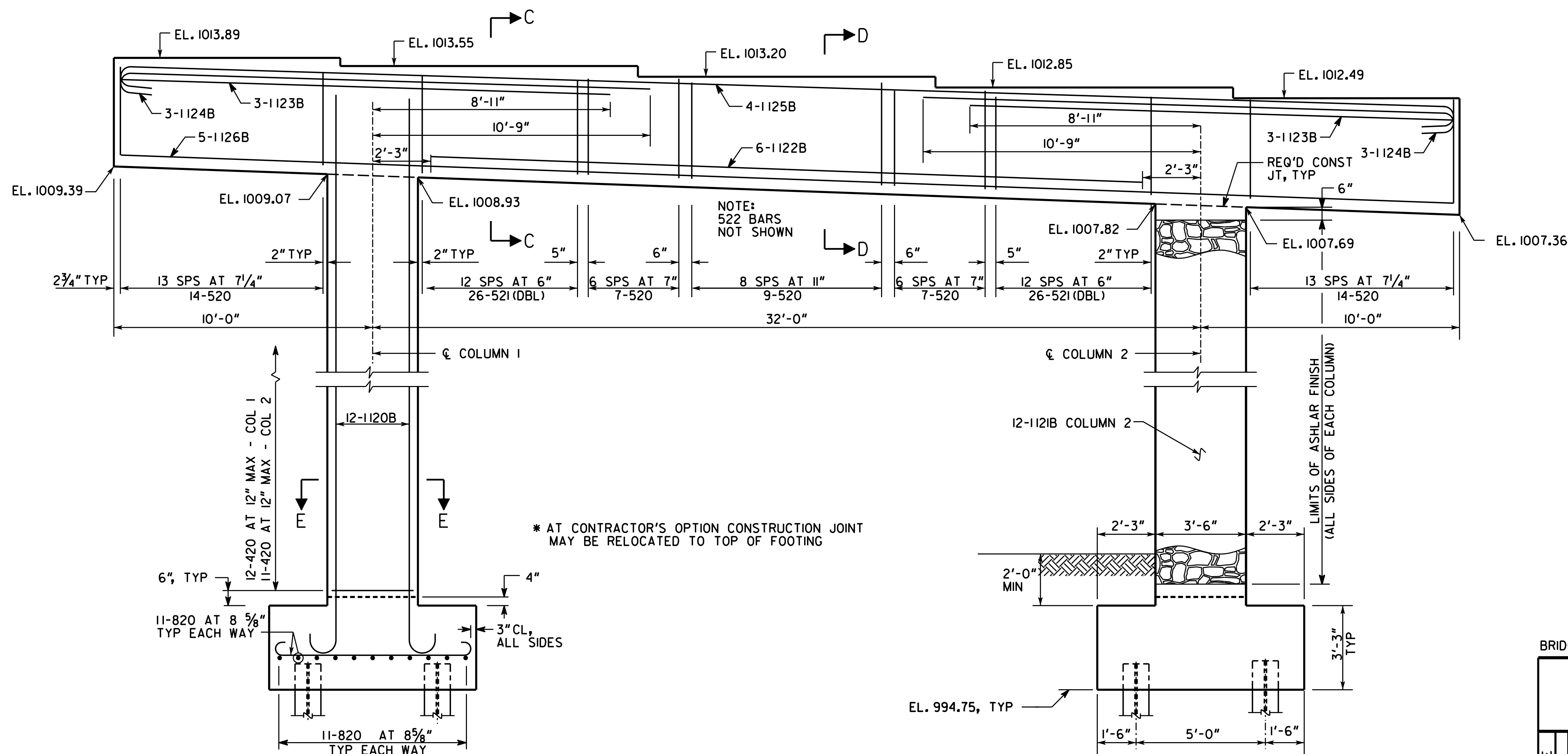
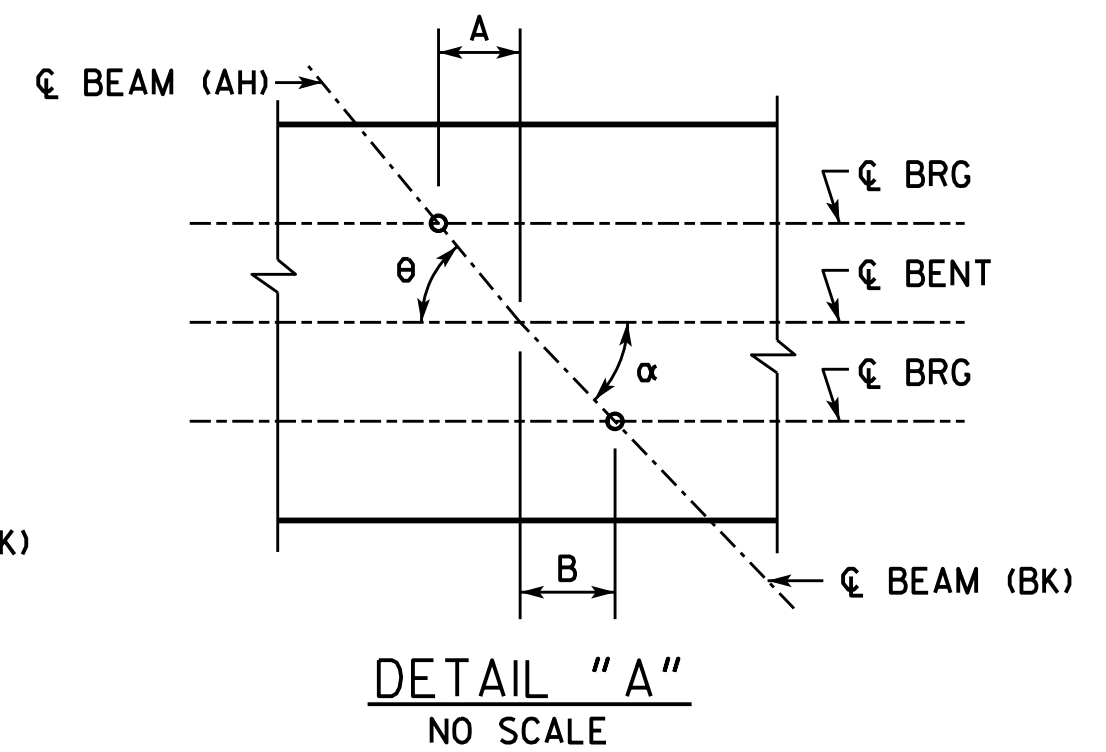
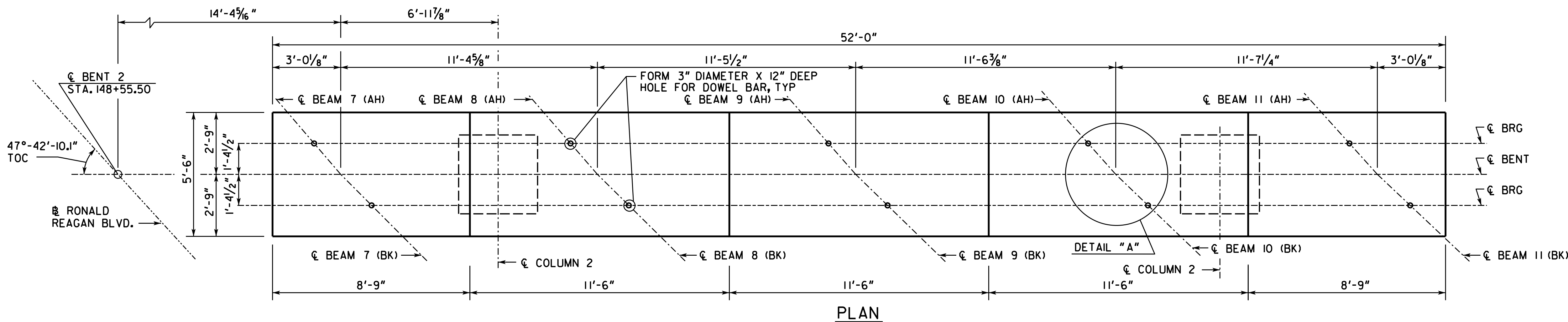


TABLE OF DIMENSIONS & ANGLES				
BEAM	A	ANGLE θ	B	ANGLE α
7	14 1/8"	49°-25'-08.1"	16 1/2"	45°-03'-02.1"
8	14 5/16"	49°-04'-15.1"	16 11/16"	44°-38'-39.8"
9	14 1/2"	48°-42'-57.4"	16 5/16"	44°-13'-45.7"
10	14 11/16"	48°-21'-14.0"	17 3/16"	43°-48'-18.5"
11	14 7/8"	47°-59'-04.2"	17 1/16"	43°-22'-16.9"

ALL PILES SHALL BE STEEL H HP 14 X 117

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 134 TONS AFTER A MINIMUM TIP ELEVATION OF 981 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 2 RT
CY CLASS "AA" CONCRETE	75.8
LB BAR REINF STEEL	11,045

NOTES

- BENT CAP IS SYMMETRICAL ABOUT ϕ CAP
- FOR SECTION C-C, D-D, E-E, AND PILE LAYOUT SEE BENT 2 DETAILS
- ASHLAR FINISH SHALL BE SPEC FORMLINERS (PATTERN NO. 1502), CUSTOM ROCK FORMLINER (PATTERN NO. 1214), OR APPROVED EQUAL.
- THE COST TO PROVIDE ASHLAR FINISH INCLUDING MATERIALS AND LABOR SHALL BE INCLUDED IN PRICE BID FOR "CLASS AA CONCRETE"

ELEVATION (LOOKING AHEAD)

BRIDGE NO. 1



MORELAND ALTABELLI ASSOCIATES, LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

BENT 2 RIGHT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : $\frac{3}{8}" = 1'-0"$

MARCH 2019

DRAWING NO.
35-0017

BRIDGE SHEET
17 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

REVIEWED DLC/SKG
APPROVED WMD

\$FILEL\$

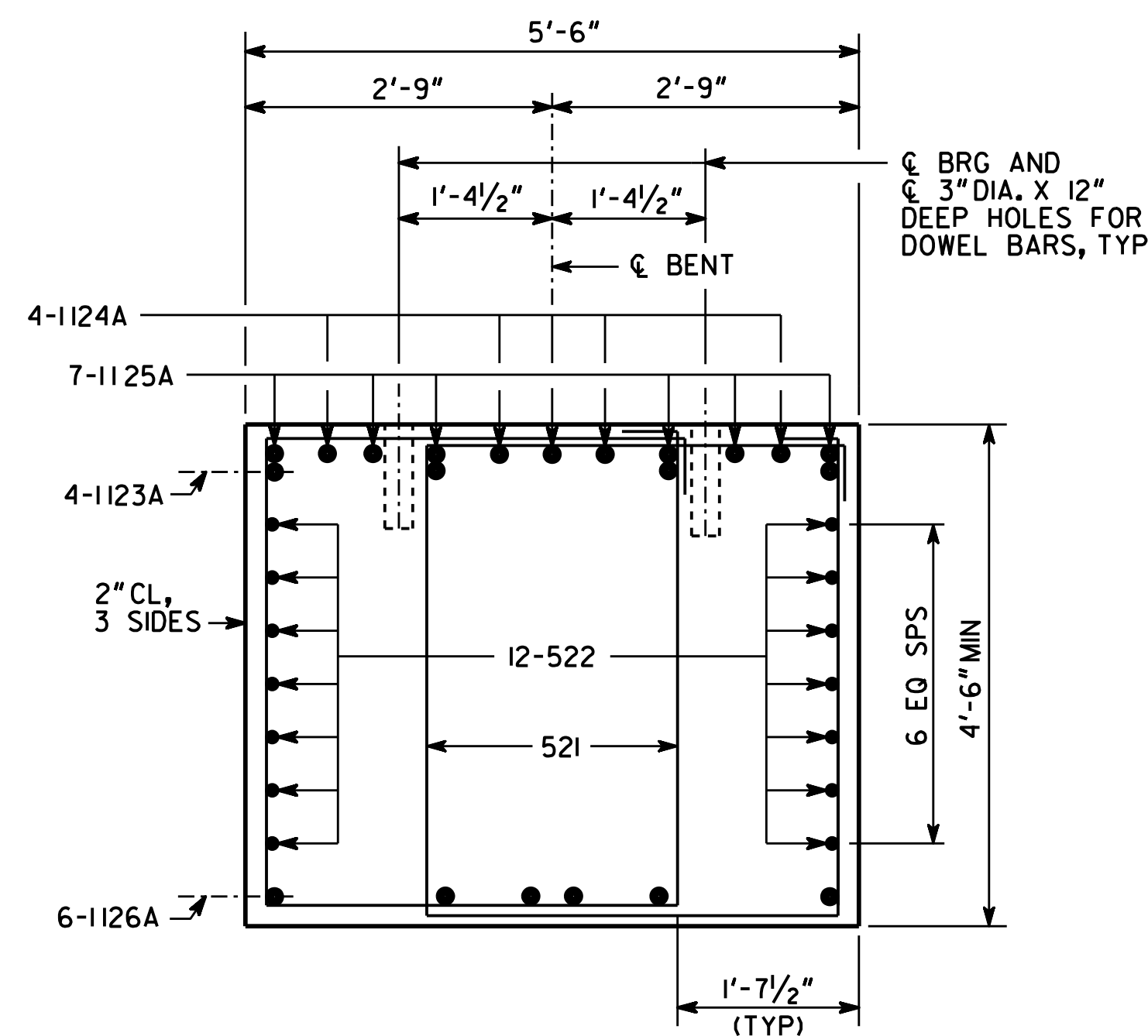
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DATE\$\$\$

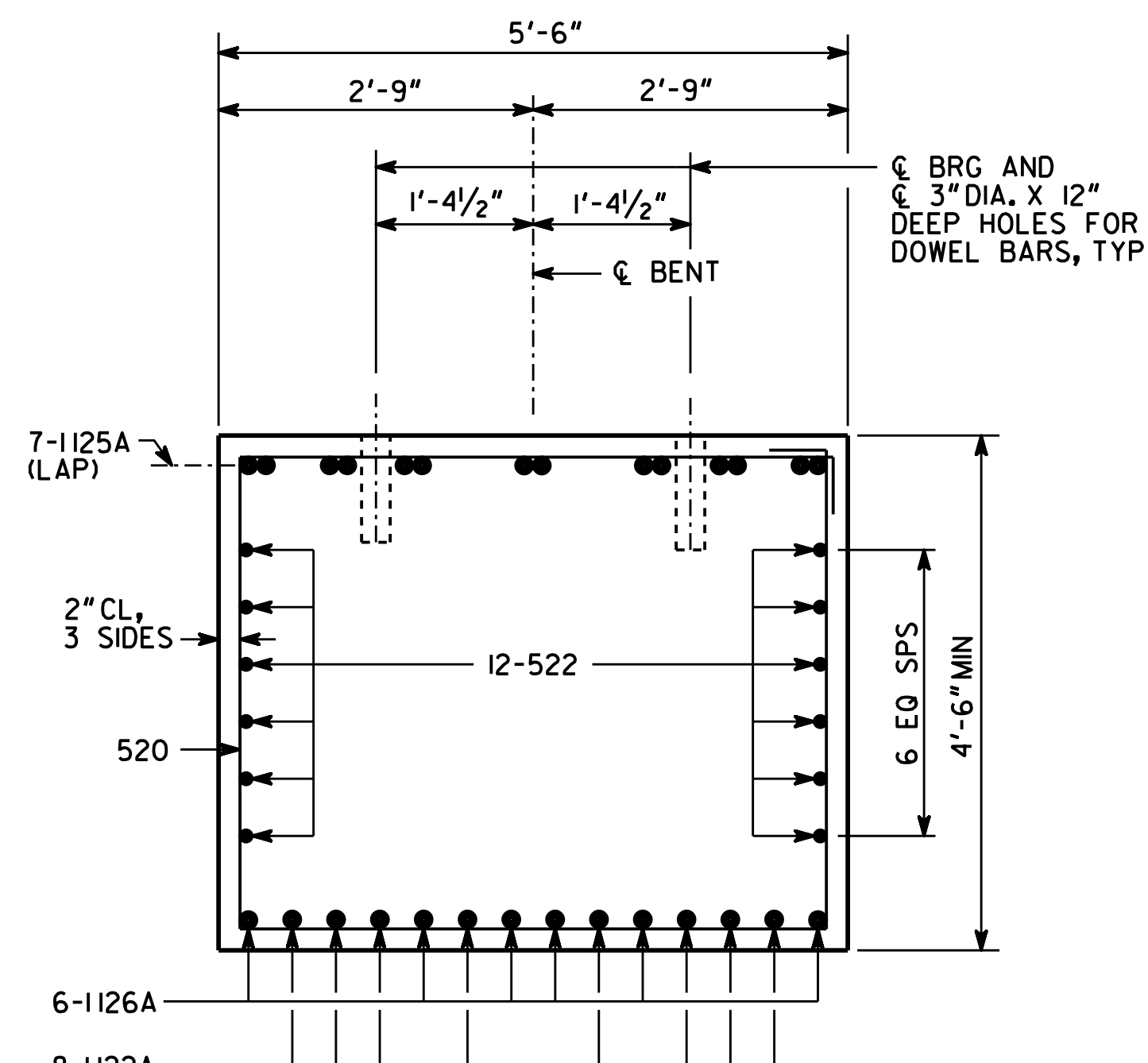
TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

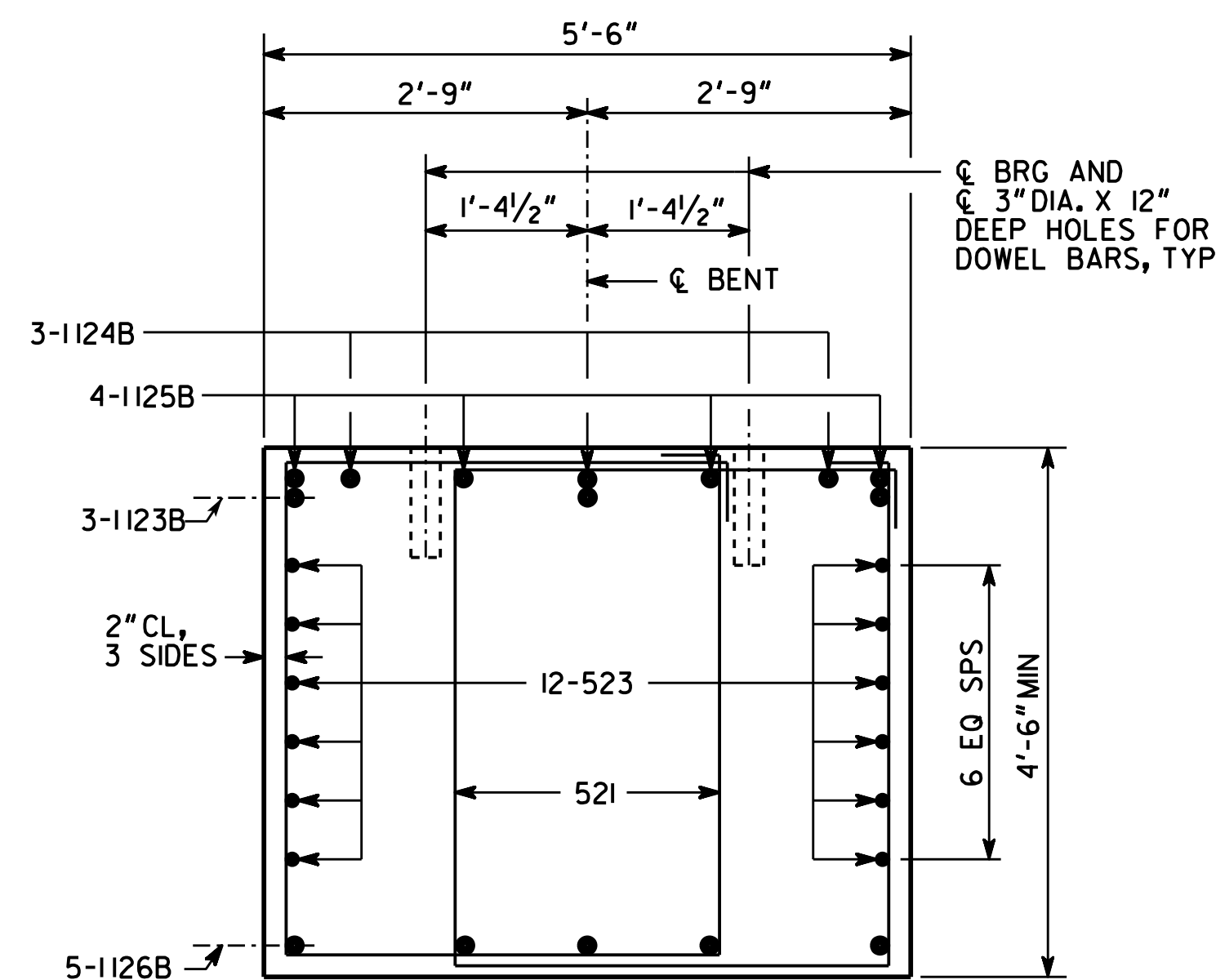
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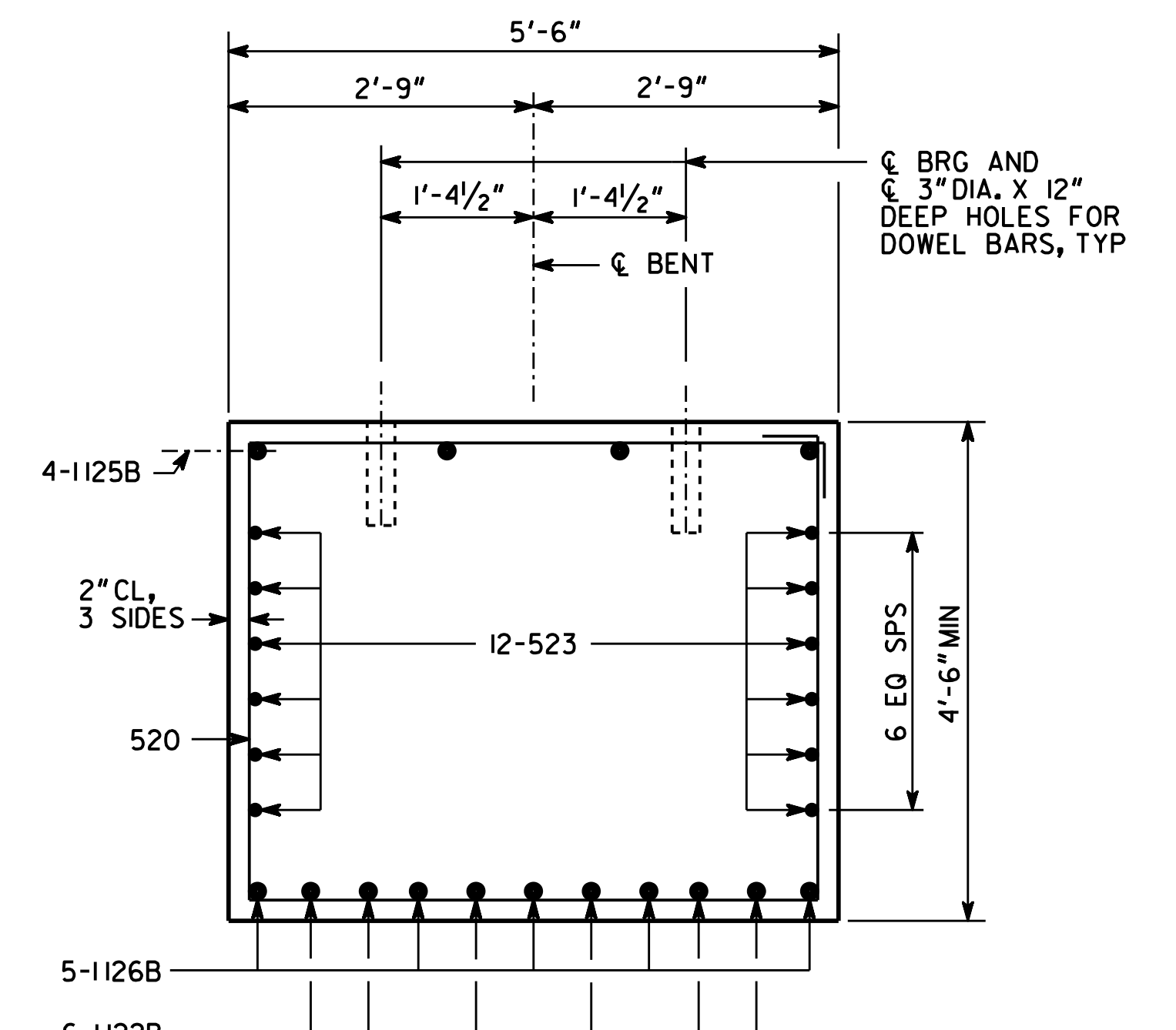
SECTION A-A



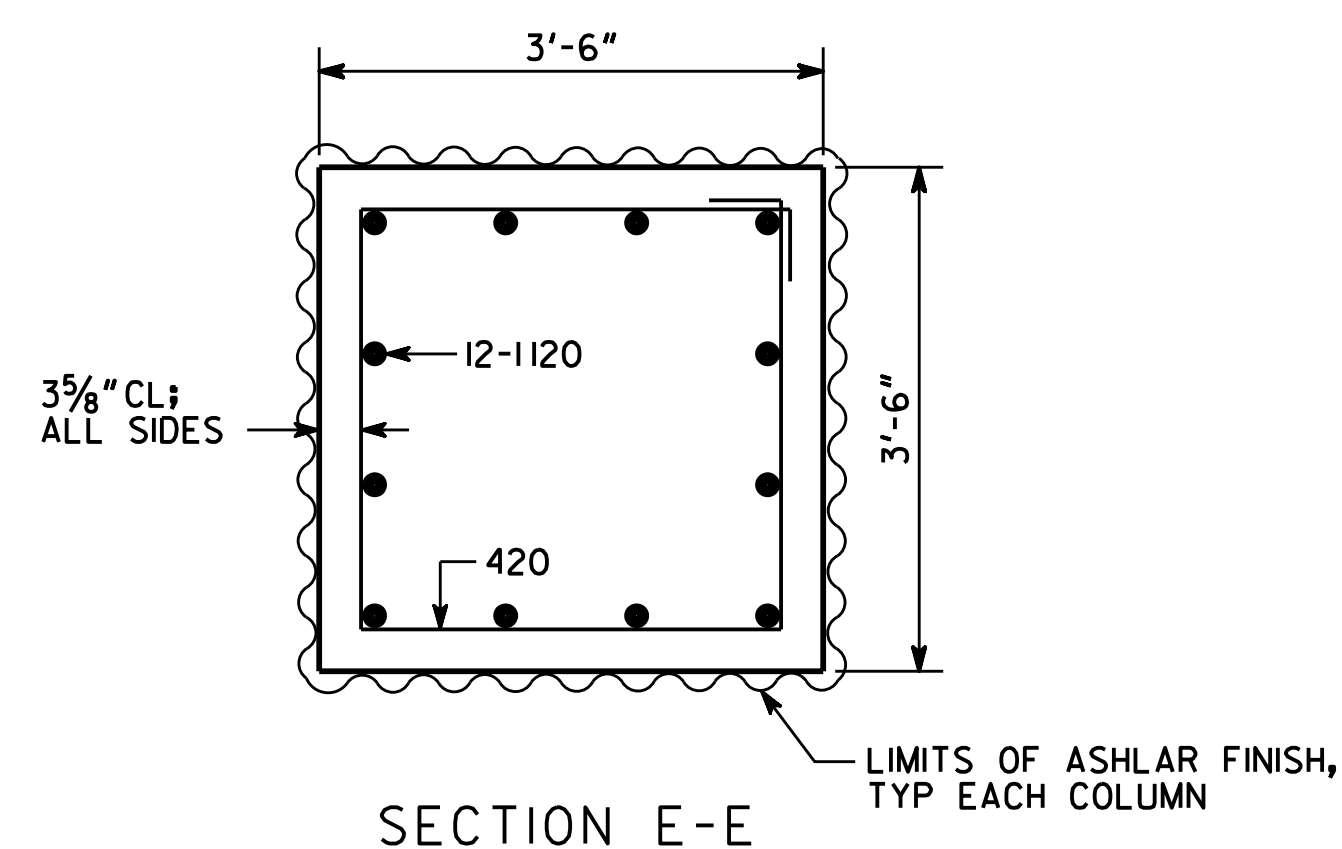
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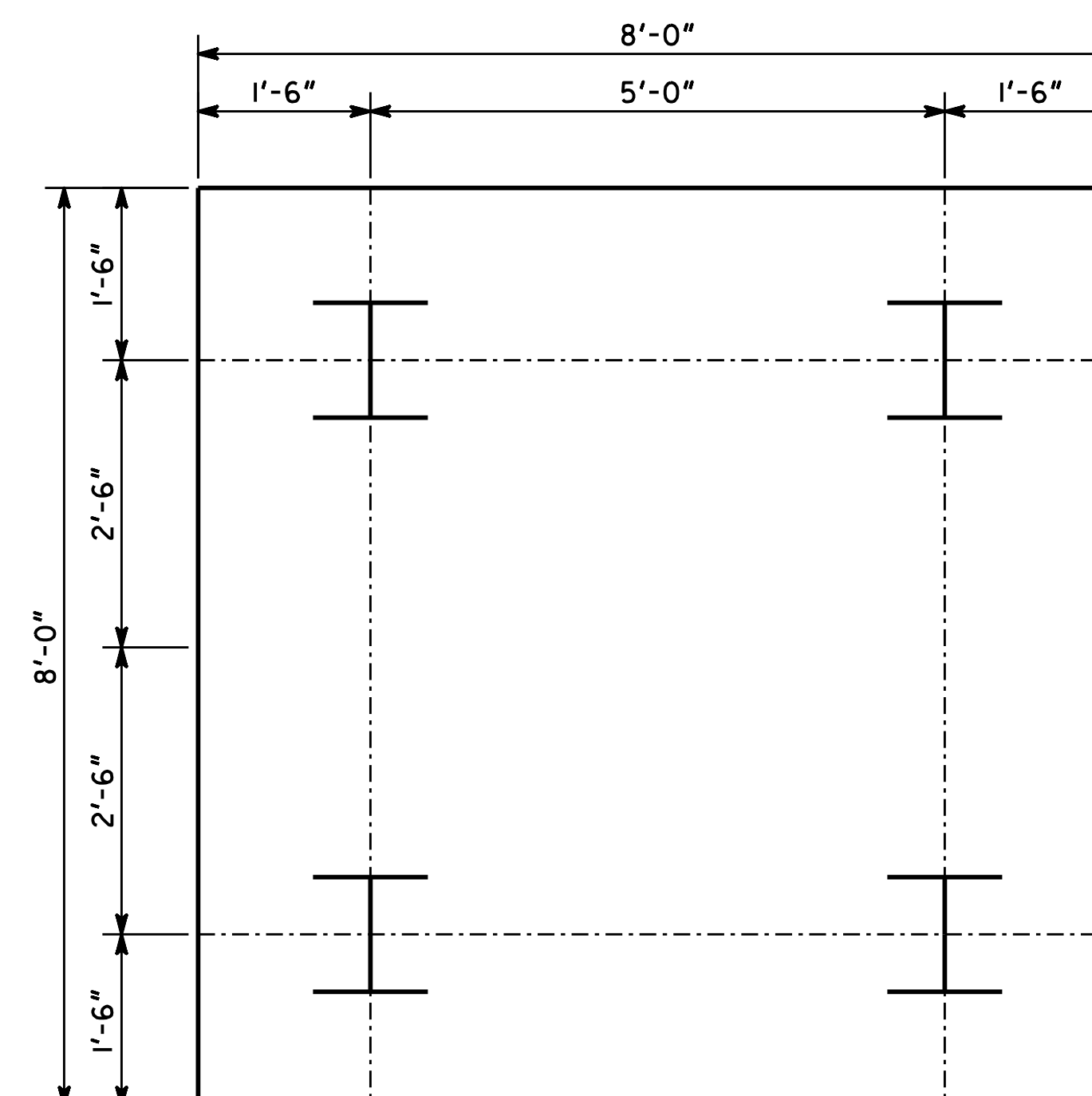
SECTION C-C



SECTION D-D




SECTION E-E



PILE LAYOUT
SCALE : 3/4" = 1'-0"

BRIDGE NO. 1

		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue, Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
BENT 2 DETAILS RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY		FORSYTH COUNTY	
SCALE : 3/4" = 1'-0", U.O.N.		MARCH 2019	
DESIGNED	TAC	CHECKED	SWW
DRAWN	TAC/SJA/PDL	DESIGN GROUP	SKG
REVIEWED	DLC/SKG	APPROVED	WMD

DRAWING NO.
35-0018
BRIDGE SHEET
18 OF 28

\$FILEL\$

\$USER\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

\$DGN\$

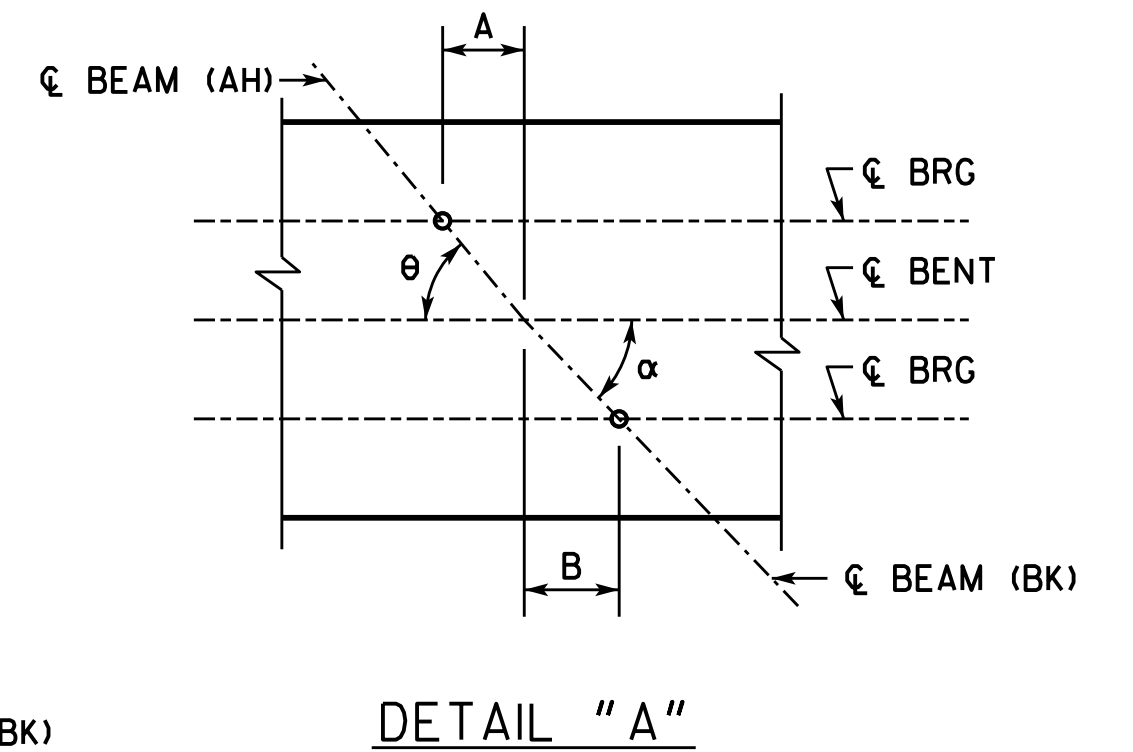
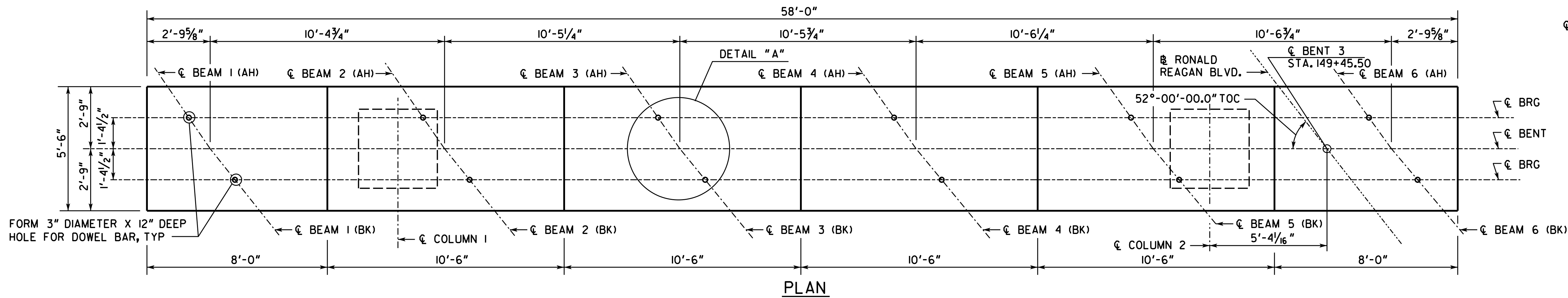


TABLE OF DIMENSIONS & ANGLES				
BEAM	A	ANGLE θ	B	ANGLE α
1	11 ³ / ₈ "	55°-28'-47.9"	13 ³ / ₈ "	51°-22'-29.7"
2	11 ⁷ / ₁₆ "	55°-12'-44.2"	13 ³ / ₈ "	51°-03'-49.3"
3	11 ⁹ / ₁₆ "	54°-56'-24.0"	13 ¹ / ₂ "	50°-44'-48.5"
4	11 ¹ / ₁₆ "	54°-39'-47.0"	13 ⁵ / ₈ "	50°-25'-26.7"
5	11 ³ / ₈ "	54°-22'-52.6"	13 ¹ / ₈ "	50°-05'-43.2"
6	11 ⁵ / ₈ "	54°-05'-40.4"	13 ⁵ / ₈ "	49°-45'-37.2"

NOTES

MAINTAIN 2" CLEAR ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED

BENT CAP IS SYMMETRICAL ABOUT CL CAP

FOR SECTION A-A, B-B, E-E, AND PILE LAYOUT SEE BENT 2 DETAILS

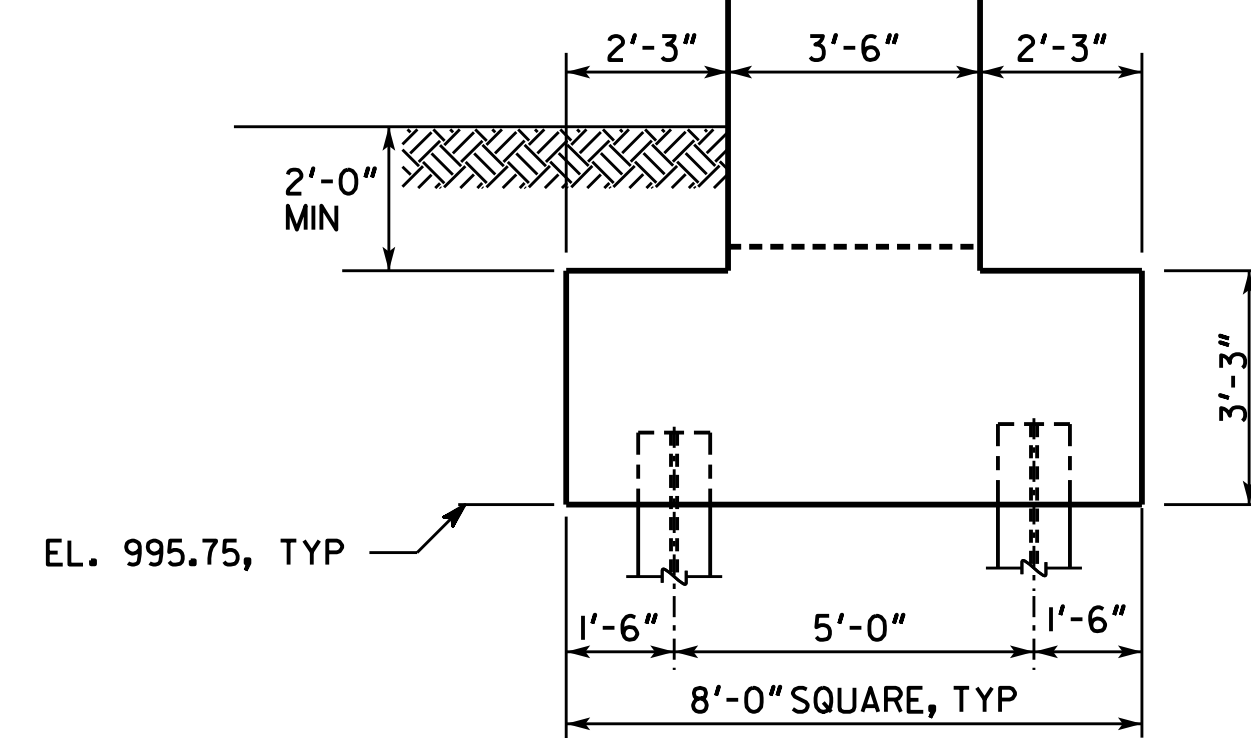
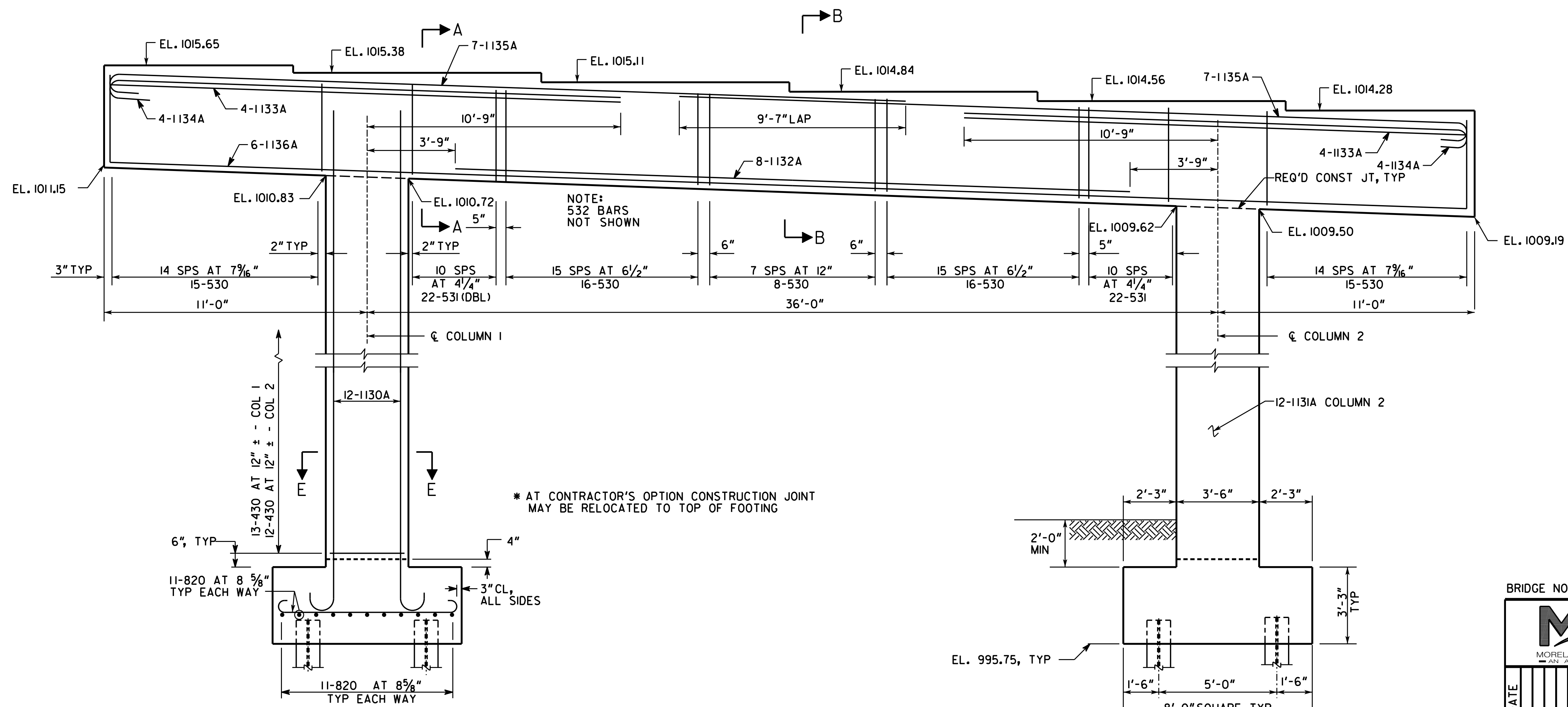
ALL PILES SHALL BE STEEL H HP 14 X 117

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 134 TONS AFTER A MINIMUM TIP ELEVATION OF 986 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES

ITEM	BENT 3 LT
CY CLASS "AA" CONCRETE	82.2
LB BAR REINF STEEL	14,343



BRIDGE NO. 1



MORELAND ALTABELLI ASSOCIATES LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

BENT 3 LEFT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

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

MARCH 2019

DRAWING NO.
35-0019

BRIDGE SHEET
19 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

REVIEWED DLC/SKG
APPROVED WMD

\$FILEL\$

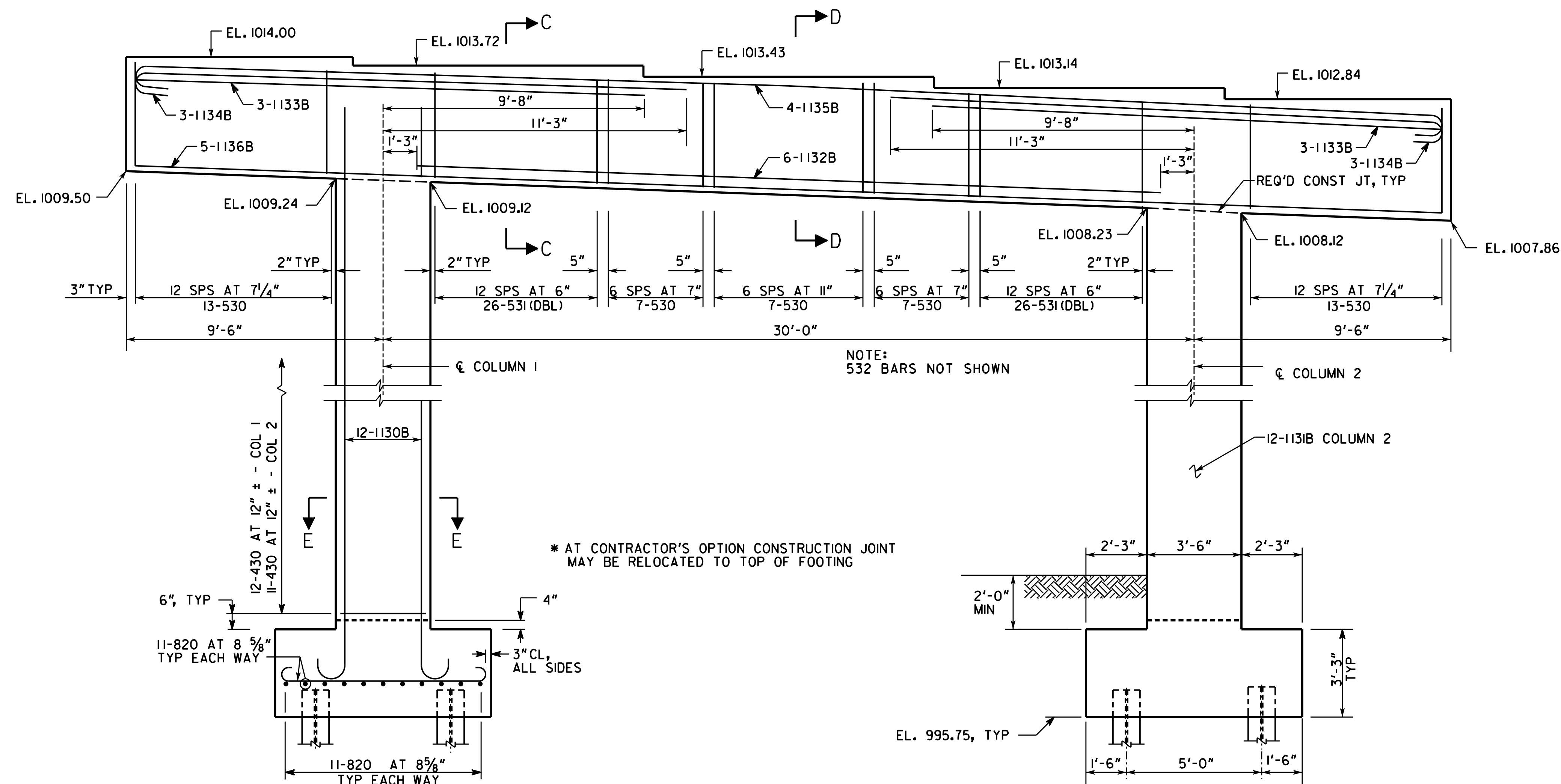
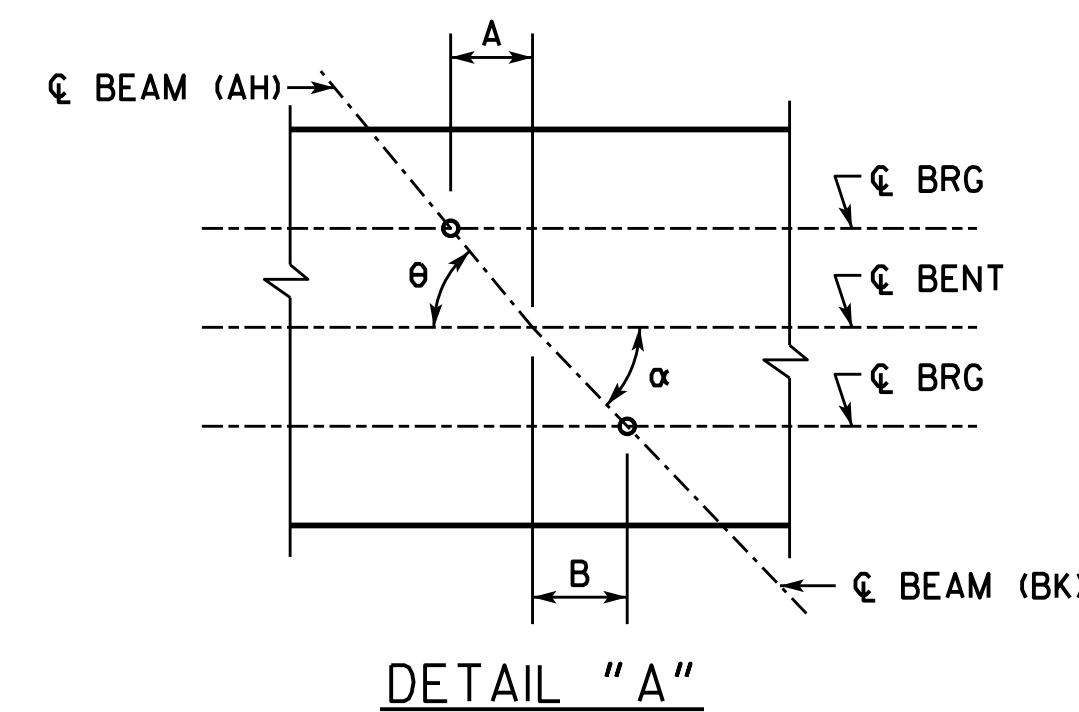
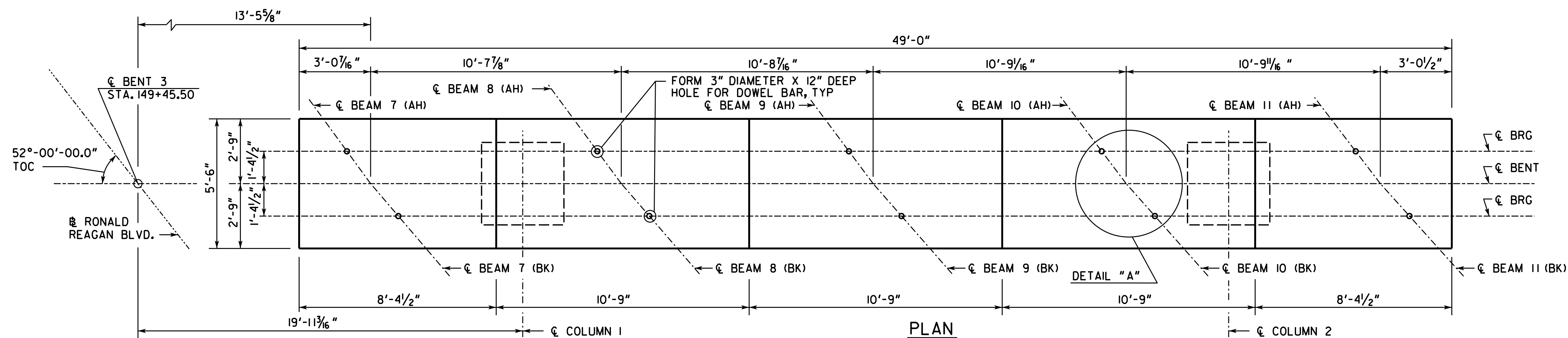
\$USER\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

\$SIGNS



ELEVATION
(LOOKING AHEAD)

TABLE OF DIMENSIONS & ANGLES				
BEAM	A	ANGLE θ	B	ANGLE α
7	12 1/16"	53°-48'-09.8"	14 1/8"	49°-25'-08.1"
8	12 3/16"	53°-30'-20.2"	14 5/16"	49°-04'-15.1"
9	12 5/16"	53°-12'-11.2"	14 1/2"	48°-42'-57.4"
10	12 1/2"	52°-53'-42.1"	14 1/16"	48°-21'-14.0"
11	12 5/8"	52°-34'-52.2"	14 7/8"	47°-59'-04.2"

NOTES

MAINTAIN 2" CLEAR ON ALL REINFORCEMENT
UNLESS OTHERWISE NOTED

BENT CAP IS SYMMETRICAL ABOUT ϵ CAP

FOR SECTION C-C, D-D, E-E, AND PILE LAYOUT
SEE BENT 2 DETAILS

ALL PILES SHALL BE STEEL H HP 14 X 117

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING
RESISTANCE OF 134 TONS AFTER A MINIMUM
TIP ELEVATION OF 978 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 3 RT
CY CLASS "AA" CONCRETE	71.5
LB BAR REINF STEEL	10,676

BRIDGE NO. 1



MORELAND ALTABELLI ASSOCIATES LLC
2450 Commerce Avenue, Suite 100
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Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

BENT 3 RIGHT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

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

MARCH 2019

DRAWING NO.
35-0020

BRIDGE SHEET
20 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

REVIEWED DLC/SKG
APPROVED WMD

\$FILEL\$

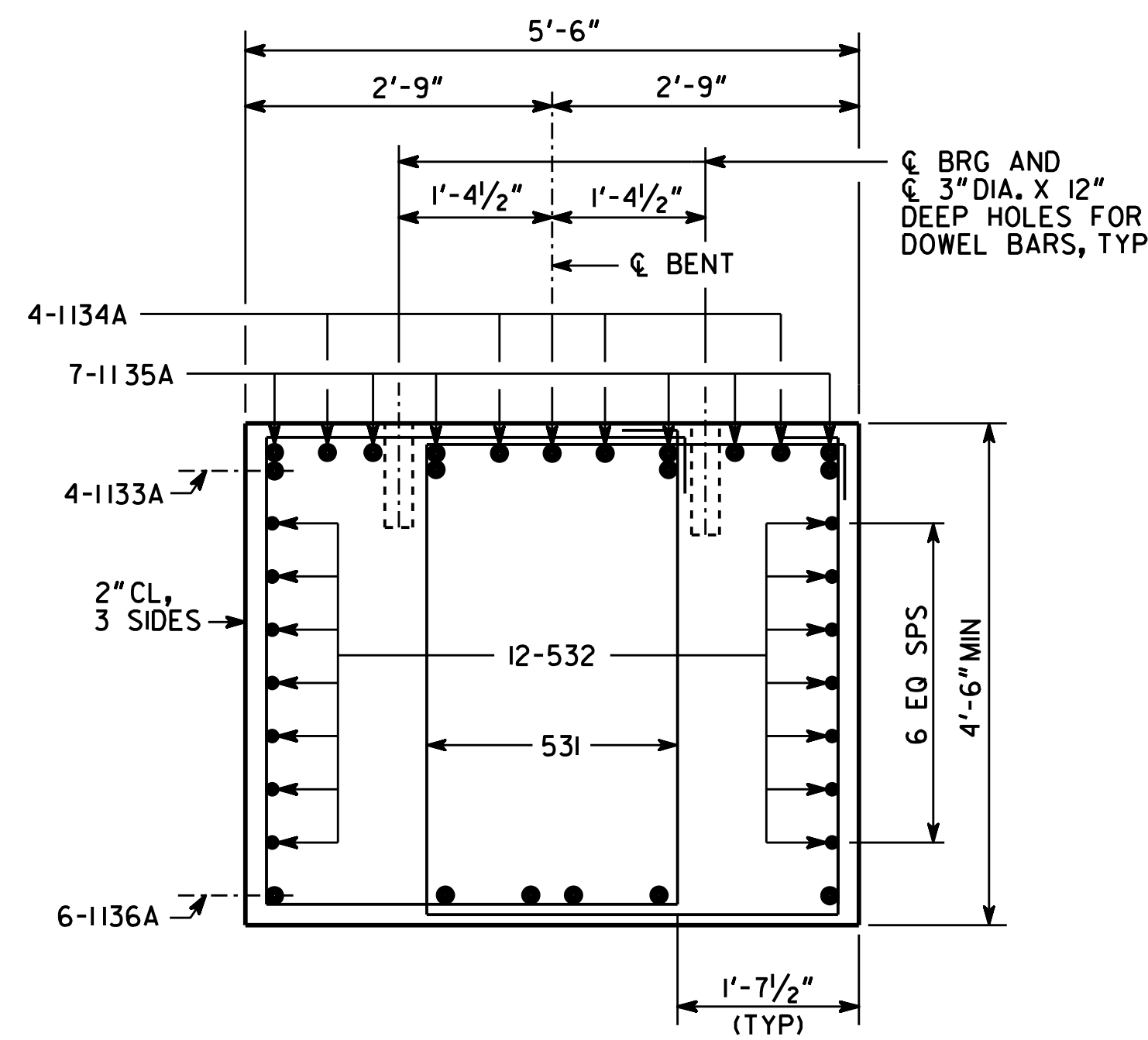
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DATE\$\$\$

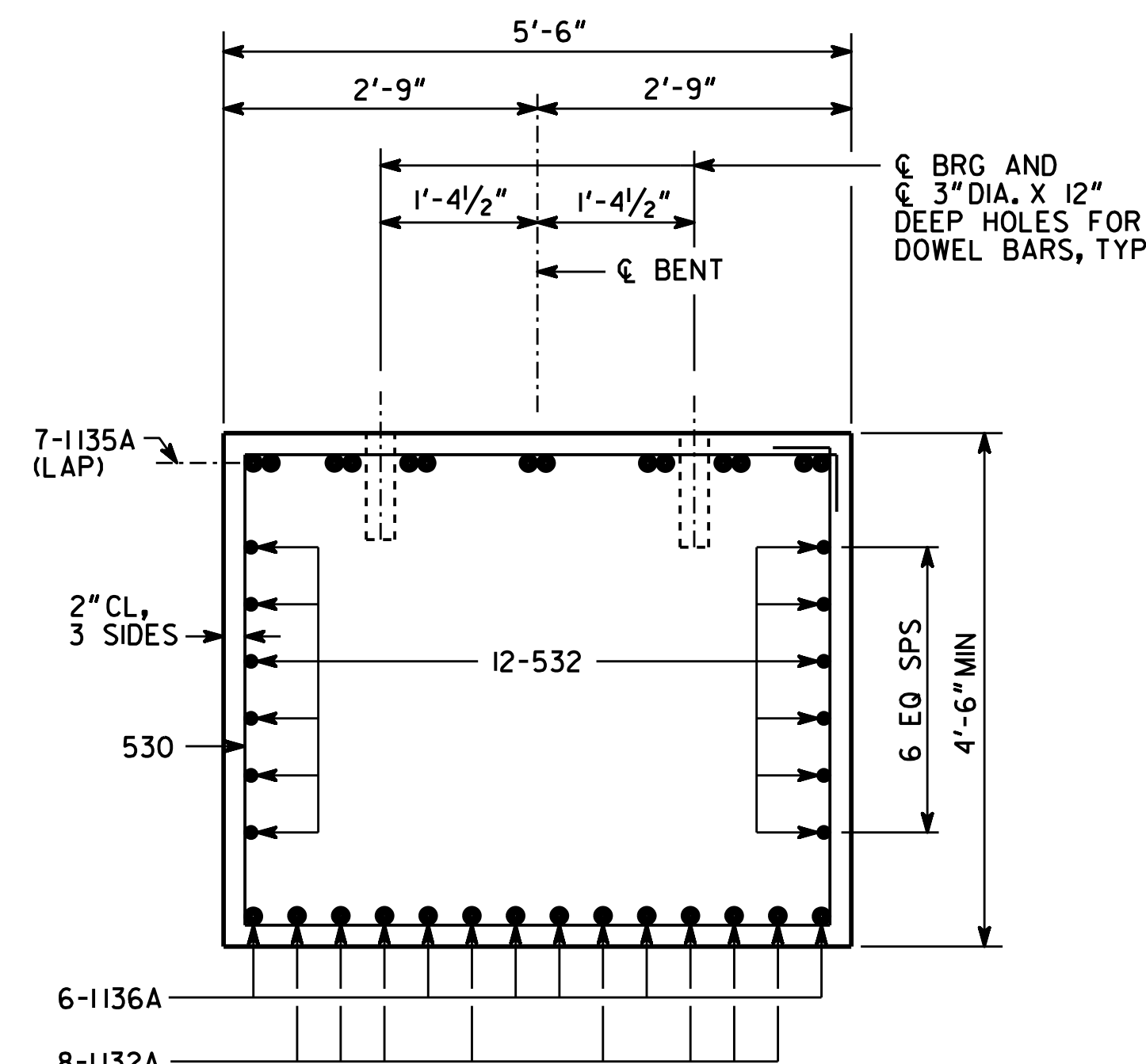
TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

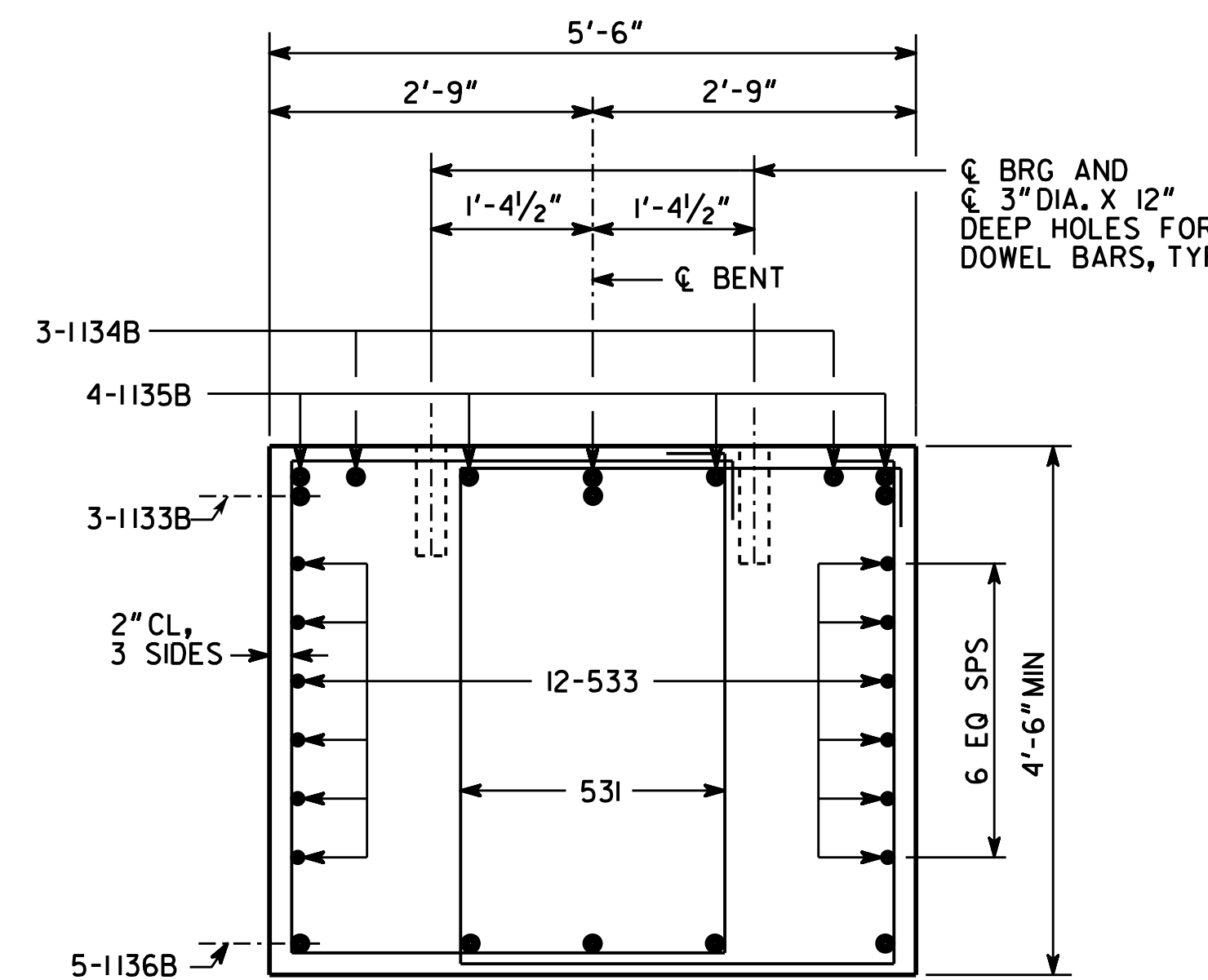
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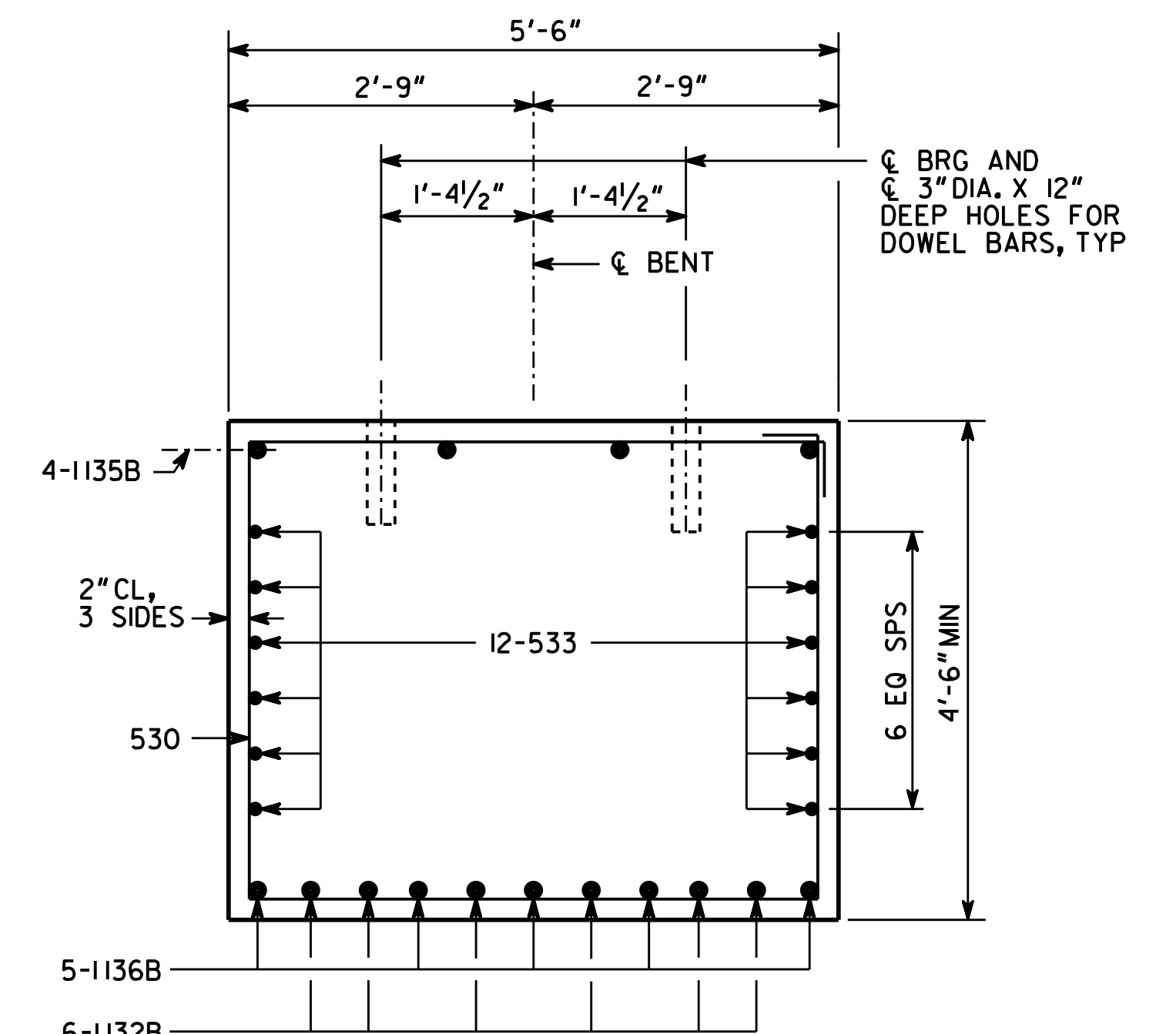
SECTION A-A



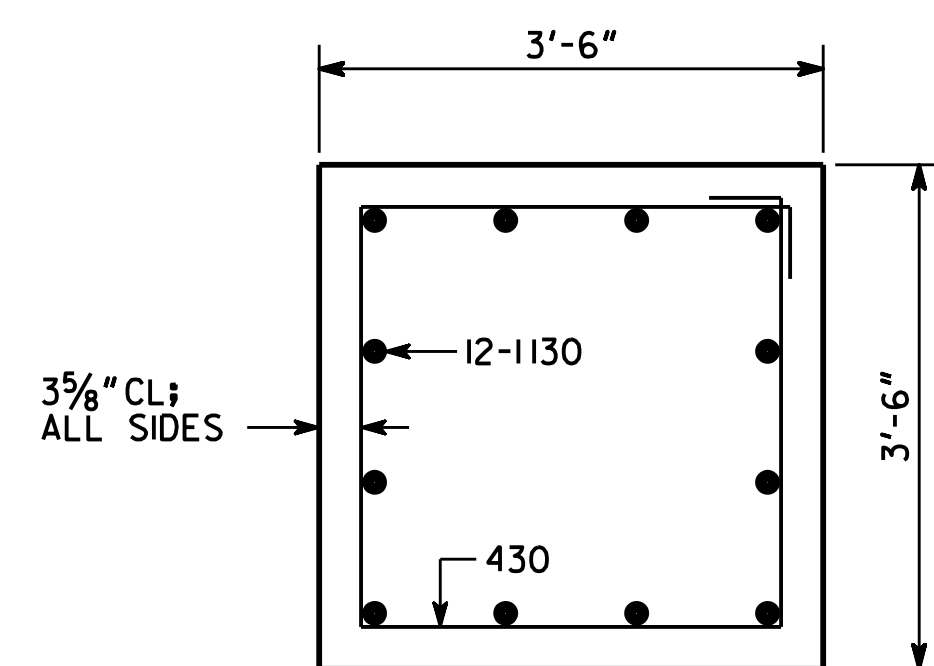
SECTION B-B



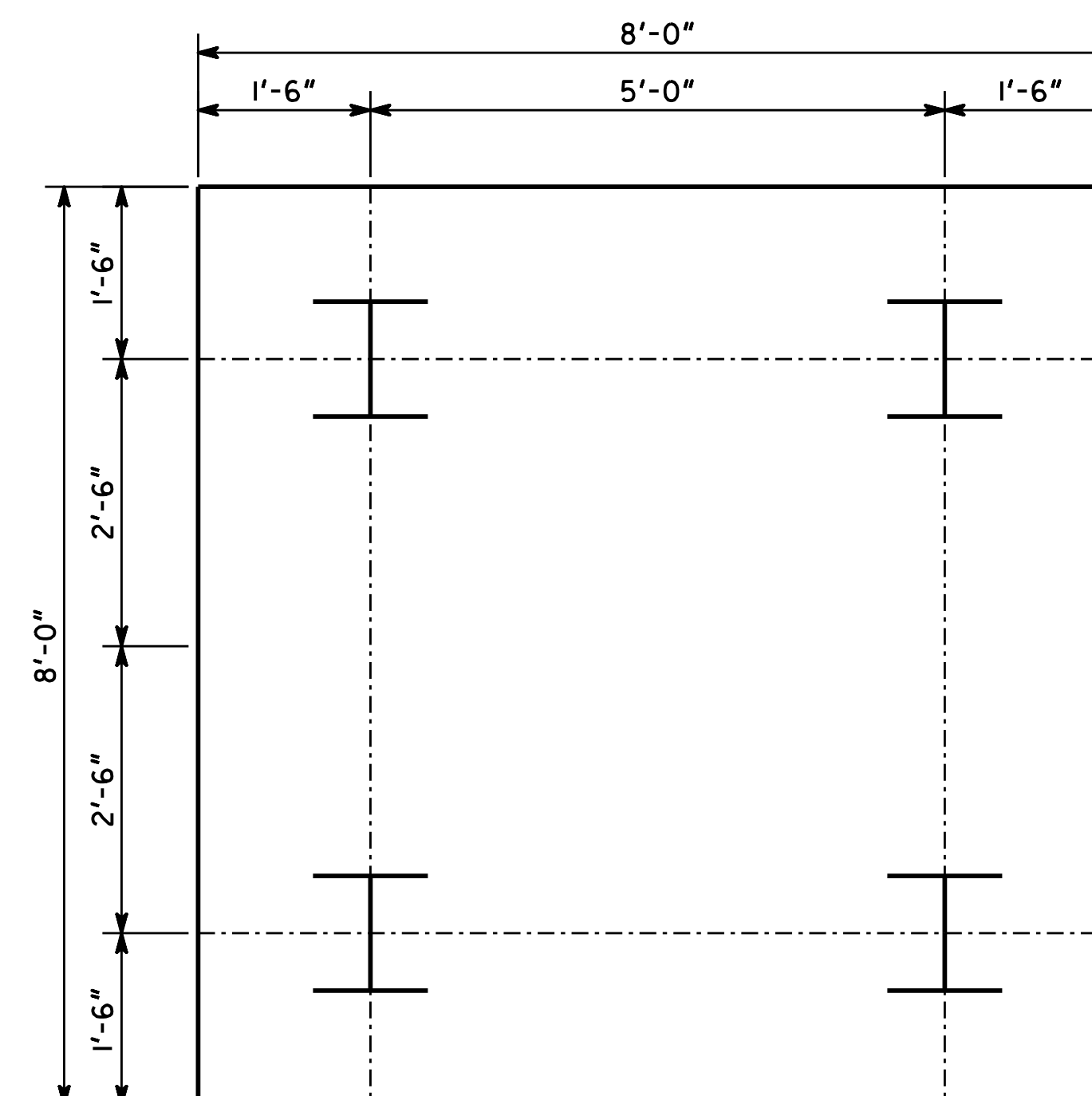
SECTION C-C



SECTION D-D




SECTION E-E



PILE LAYOUT
SCALE : 3/4" = 1'-0"

BRIDGE NO. 1

		MORELAND ALTABELLI ASSOCIATES LLC 2450 Commerce Avenue, Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING		BENT 3 DETAILS RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY	
FORSYTH COUNTY		SCALE : 3/4" = 1'-0", U.O.N.	
MARCH 2019		DESIGNED TAC CHECKED SWW DRAWN TAC/SJA/PDL DESIGN GROUP SKG	
REVIEWED DLC/SKG APPROVED WMD			

DRAWING NO.
35-0021

BRIDGE SHEET
21 OF 28

\$FILEL\$

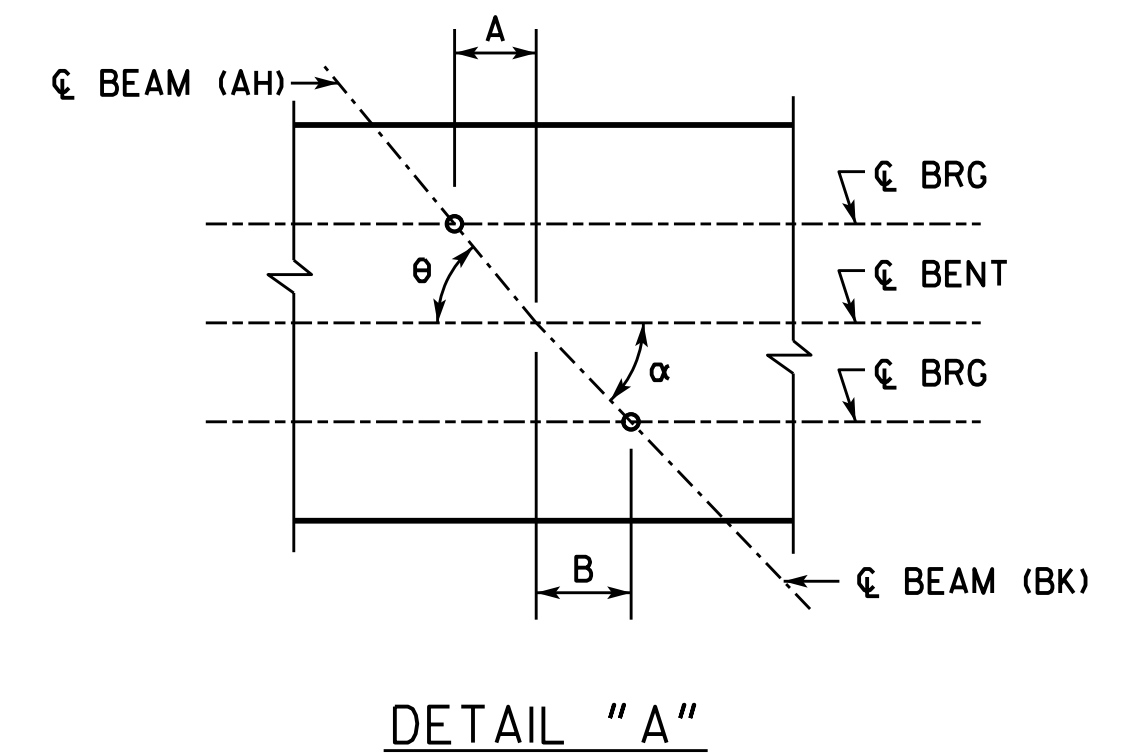
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DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

\$DGN\$

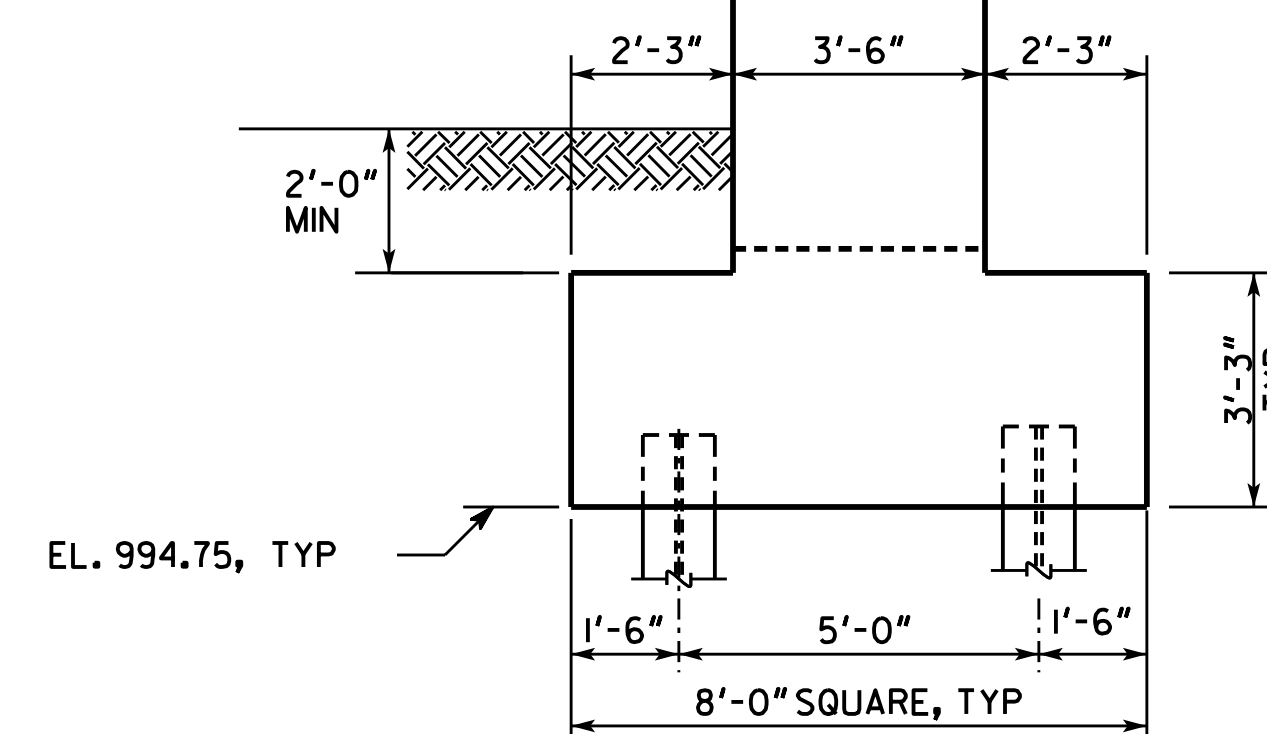


BEAM	A	ANGLE θ	B	ANGLE α
1	9 $\frac{1}{16}$ "	59°-33'-36.4"	11 $\frac{3}{8}$ "	55°-28'-47.9"
2	9 $\frac{3}{4}$ "	59°-19'-53.6"	11 $\frac{1}{16}$ "	55°-12'-44.2"
3	9 $\frac{7}{8}$ "	59°-05'-57.5"	11 $\frac{9}{16}$ "	54°-56'-24.0"
4	9 $\frac{5}{16}$ "	58°-51'-47.9"	11 $\frac{1}{16}$ "	54°-39'-47.0"
5	10 $\frac{1}{16}$ "	58°-37'-24.2"	11 $\frac{3}{16}$ "	54°-22'-52.6"
6	10 $\frac{1}{8}$ "	58°-22'-46.3"	11 $\frac{5}{16}$ "	54°-05'-40.4"

FOR SECTION A-A, B-B, E-E, AND PILE LAYOUT
SEE BENT 2 DETAILS

ALL PILES SHALL BE DRIVEN TO A DRIVING
RESISTANCE OF 134 TONS AFTER A MINIMUM
TIP ELEVATION OF 984 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 4 LT
CY CLASS "AA" CONCRETE	79.7
LB BAR REINF STEEL	13,462



ELEVATION
(LOOKING AHEAD)



MA
MORELAND ALTOBELLI
ANALYTICAL CONSULTING

MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

**FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING**

BENT 4 LEFT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : $\frac{3}{8}" = 1'-0"$

MARCH 2019

DESIGNED	TAC	CHECKED	SWW	REVIEWED	DLC/SKG
DRAWN	TAC/SJA/PDL	DESIGN GROUP	SKG	APPROVED	WMD

DRAWING NO.
35-0022

BRIDGE SHEET
22 OF 28

BY					
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DESIGNED	TAC
DRAWN	TAC/SJA/PDL

REVIEWED	DLC/SKG
APPROVED	WMD

\$FILEL\$

\$USERS\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

GN\$

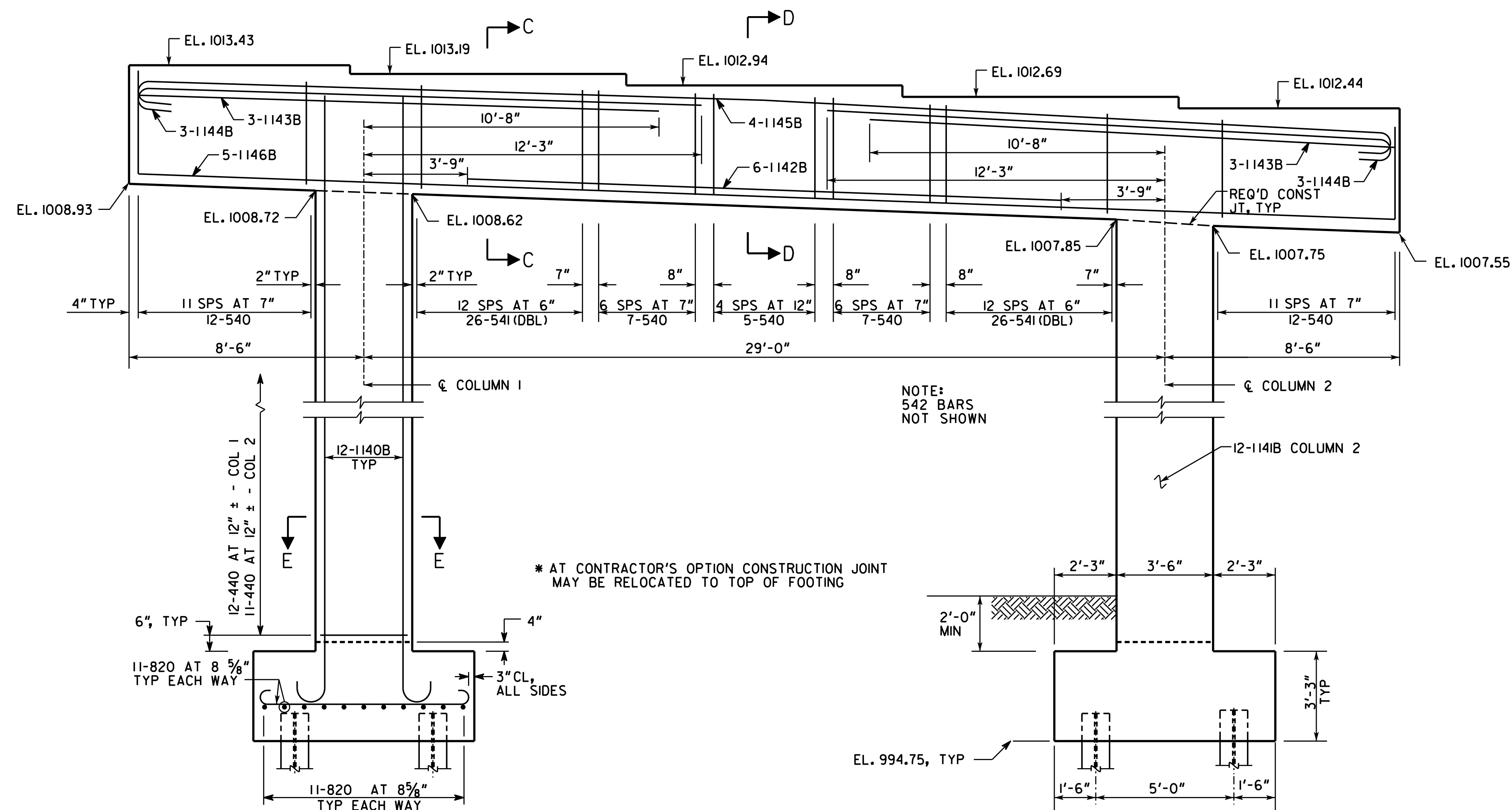
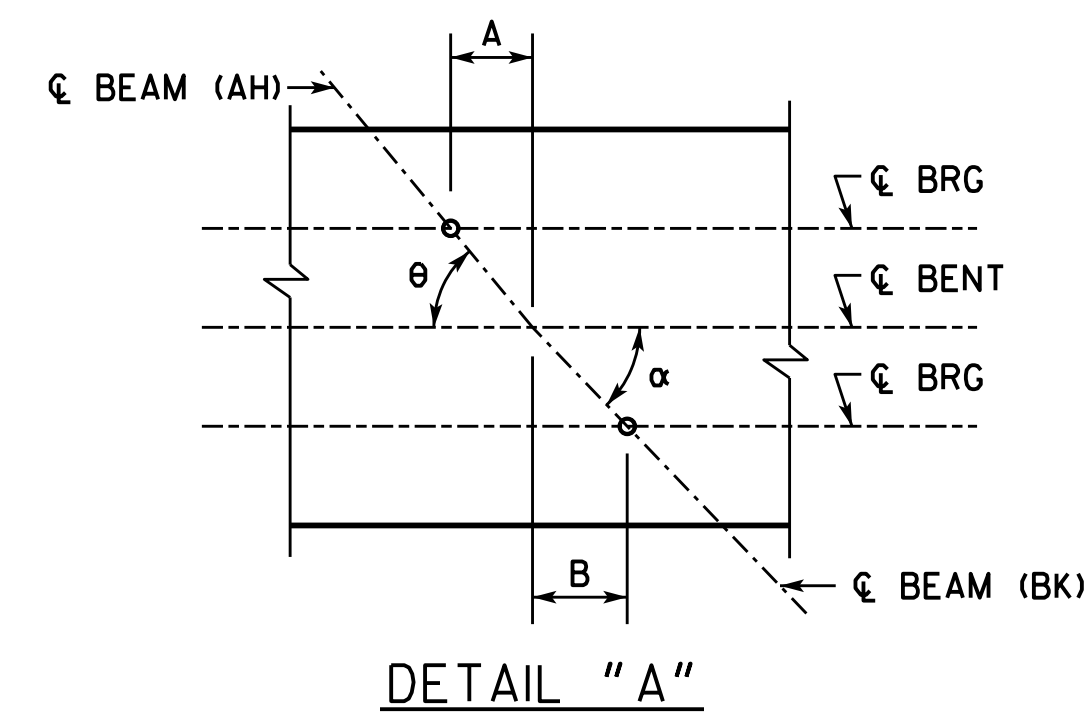
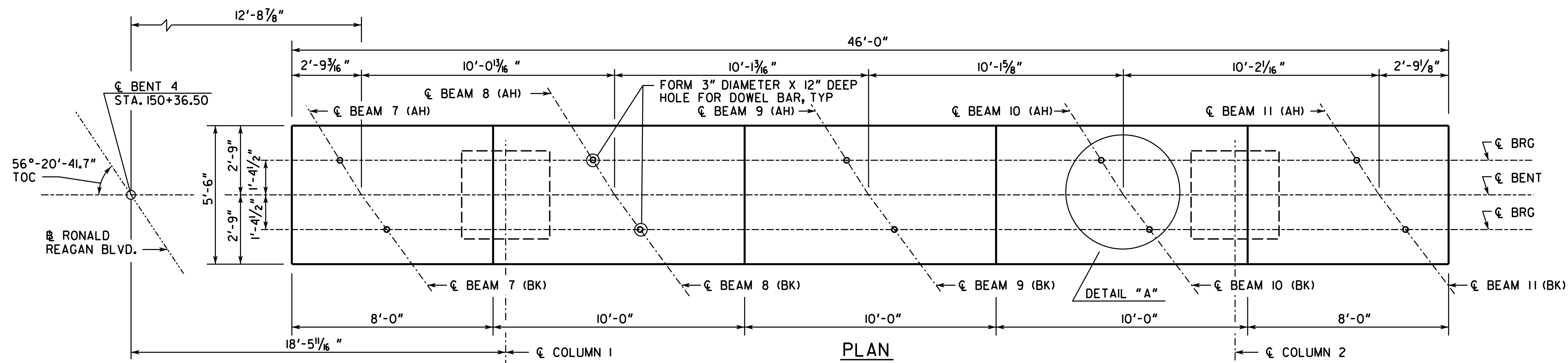


TABLE OF DIMENSIONS & ANGLES				
BEAM	A	ANGLE θ	B	ANGLE α
7	10 1/4"	58°-07'-53.7"	12 1/16"	53°-48'-09.8"
8	10 3/8"	57°-52'-45.9"	12 3/16"	53°-30'-20.2"
9	10 1/6"	57°-37'-22.6"	12 5/16"	53°-12'-11.2"
10	10 3/16"	57°-21'-43.4"	12 1/2"	52°-53'-42.1"
11	10 11/16"	57°-05'-47.7"	12 5/8"	52°-34'-52.2"

NOTES

MAINTAIN 2" CLEAR ON ALL REINFORCEMENT
UNLESS OTHERWISE NOTED

BENT CAP IS SYMMETRICAL ABOUT ϵ CAP

FOR SECTION C-C, D-D, E-E, AND PILE LAYOUT
SEE BENT 2 DETAILS

ALL PILES SHALL BE STEEL H HP 14 X 117

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING
RESISTANCE OF 134 TONS AFTER A MINIMUM
TIP ELEVATION OF 978 IS ACHIEVED.

SUBSTRUCTURE QUANTITIES

ITEM	BENT 4 RT
CY CLASS "AA" CONCRETE	68.7
LB BAR REINF STEEL	10,266

BRIDGE NO. 1



MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

BENT 4 RIGHT
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

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

MARCH 2019

DRAWING NO.
35-0023

BRIDGE SHEET
23 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

REVIEWED DLC/SKG
APPROVED WMD

\$FILEL\$

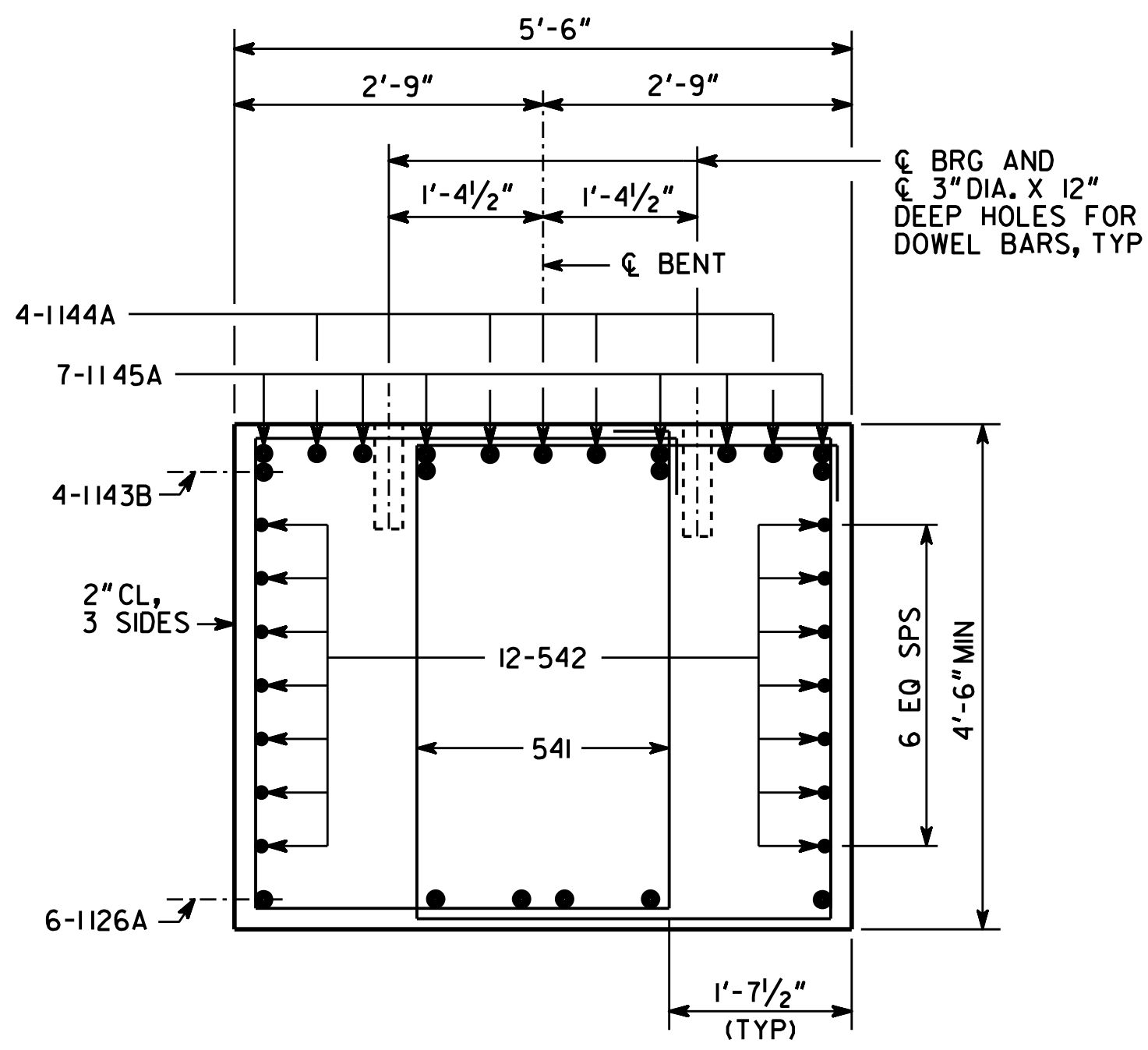
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DATE\$\$\$

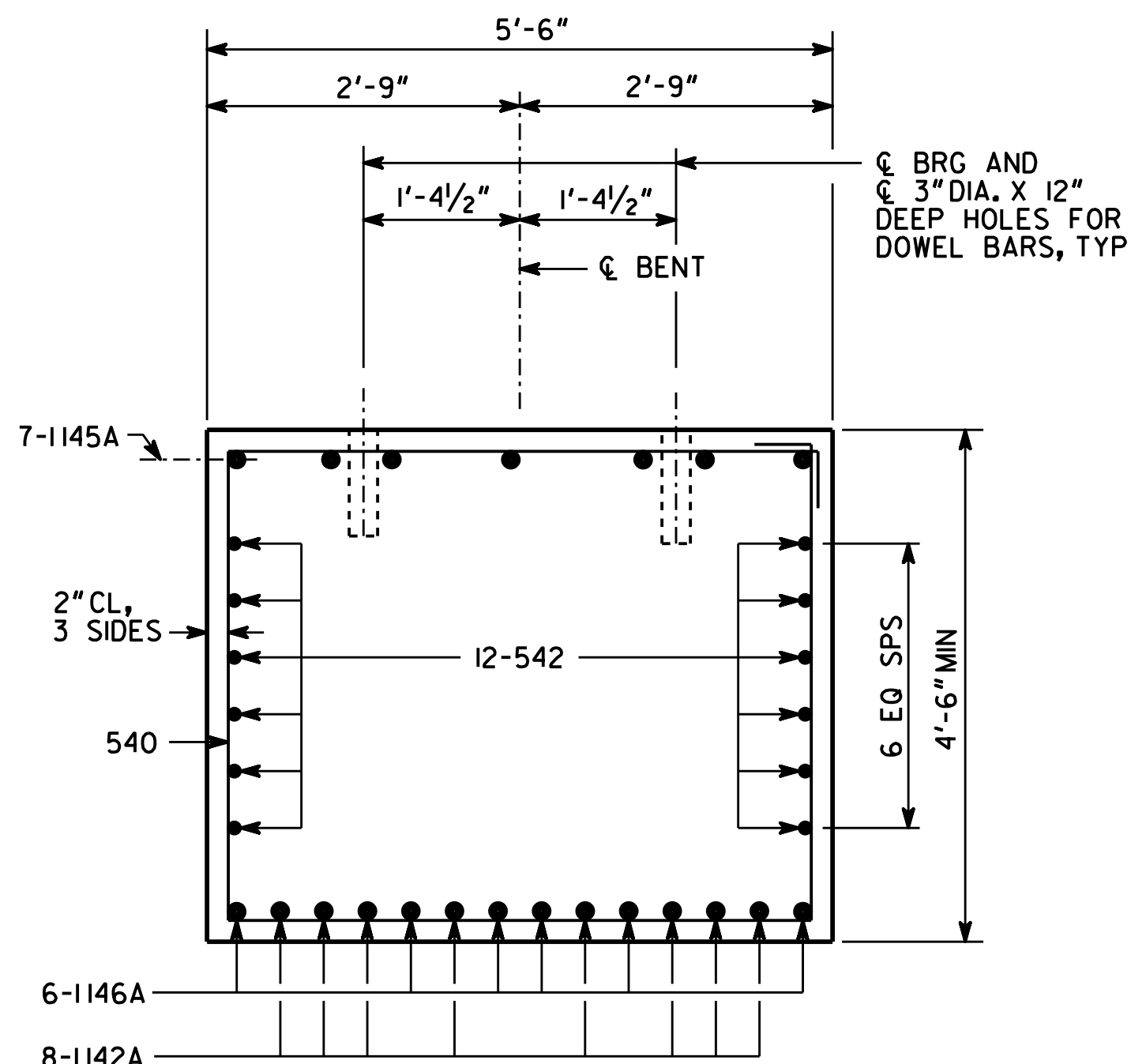
TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

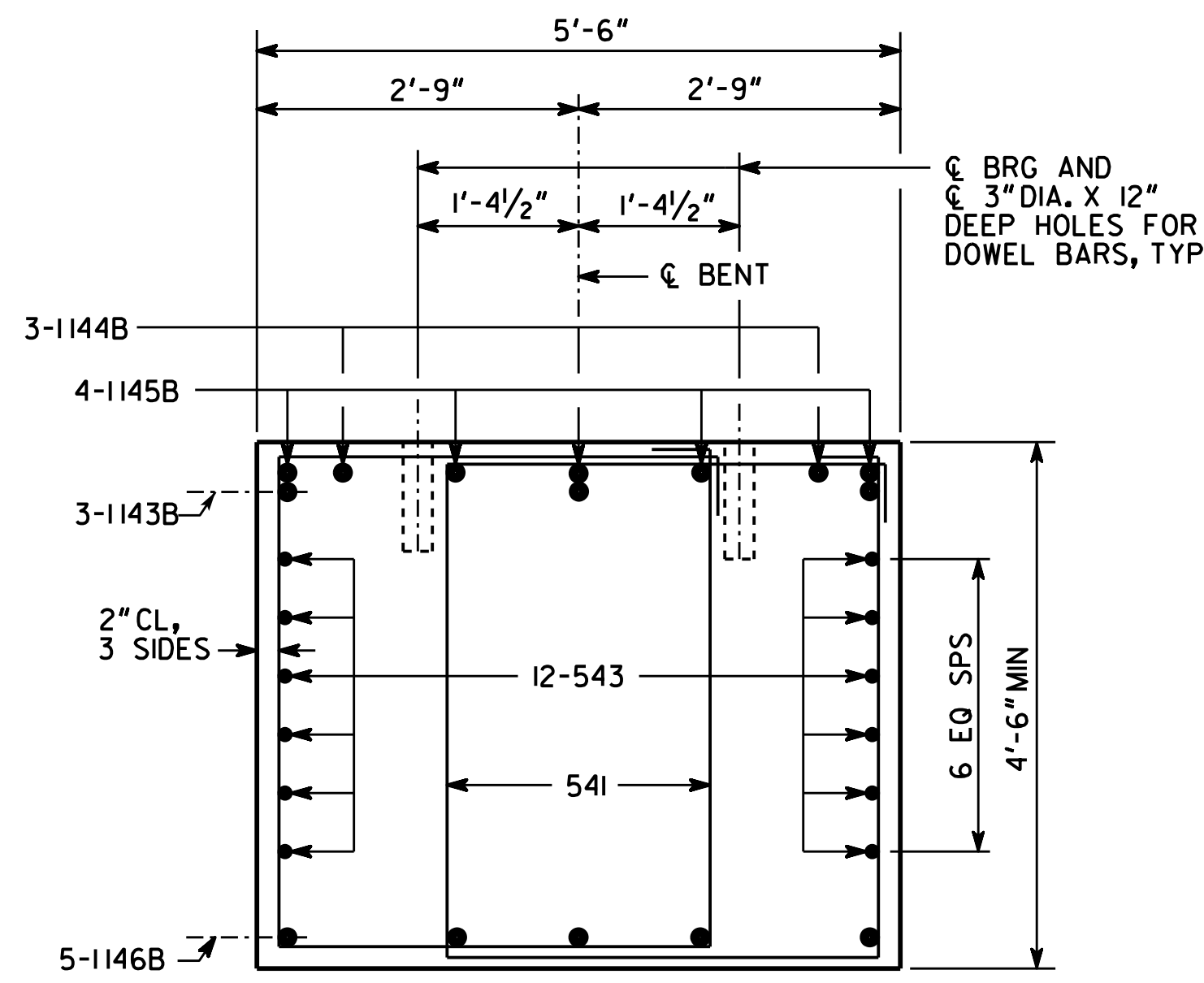
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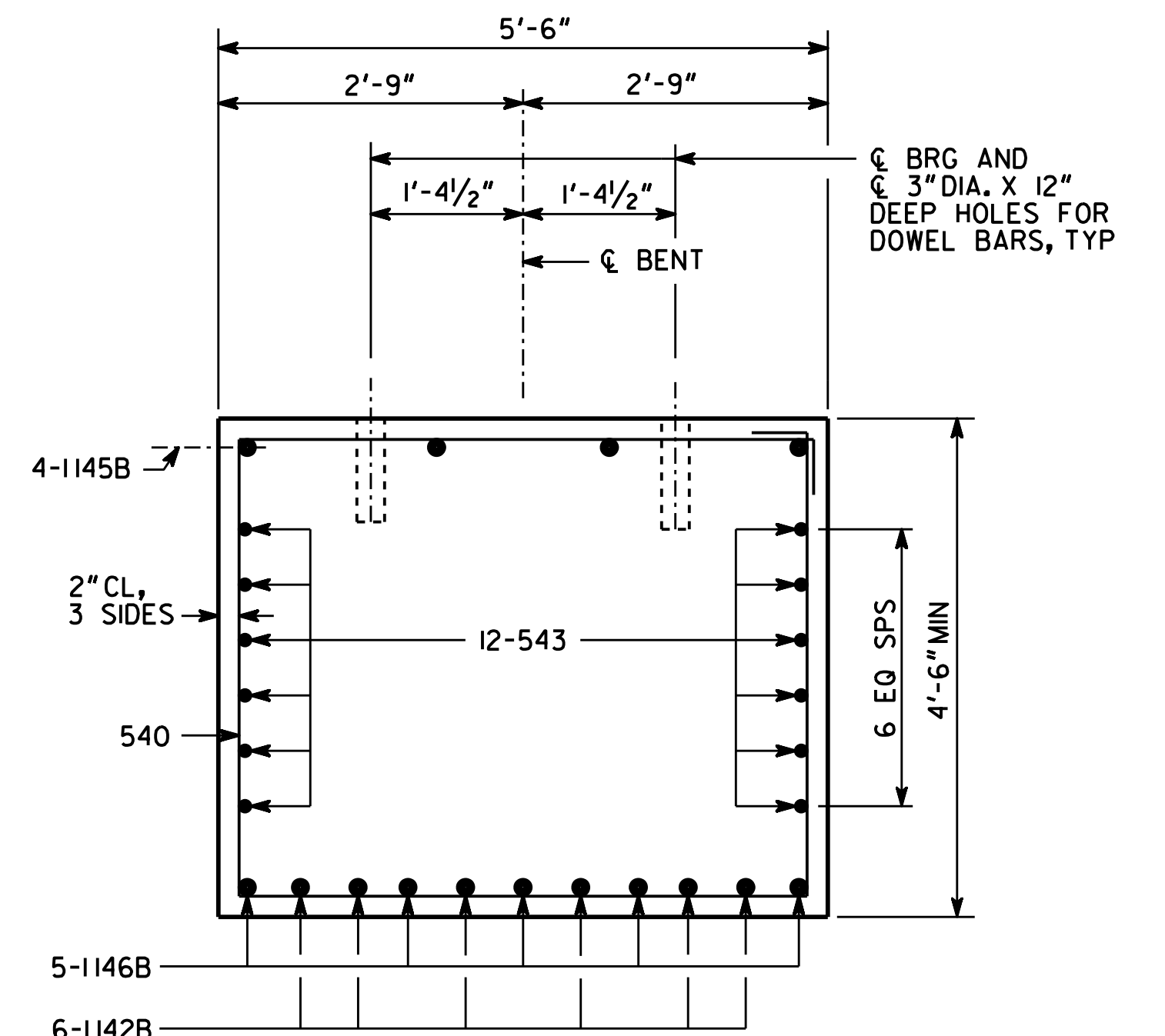
SECTION A-A



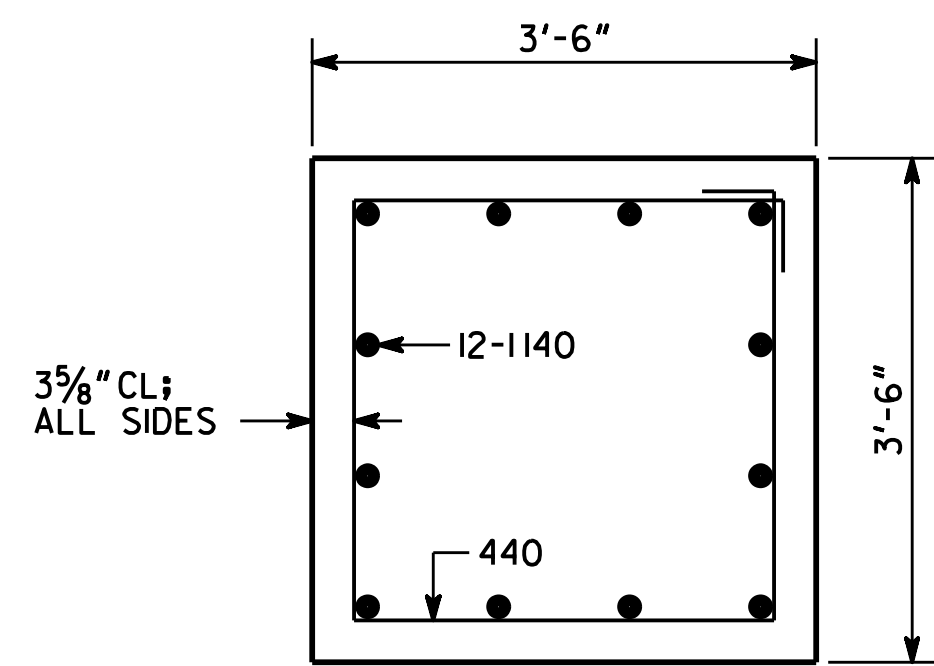
SECTION B-B



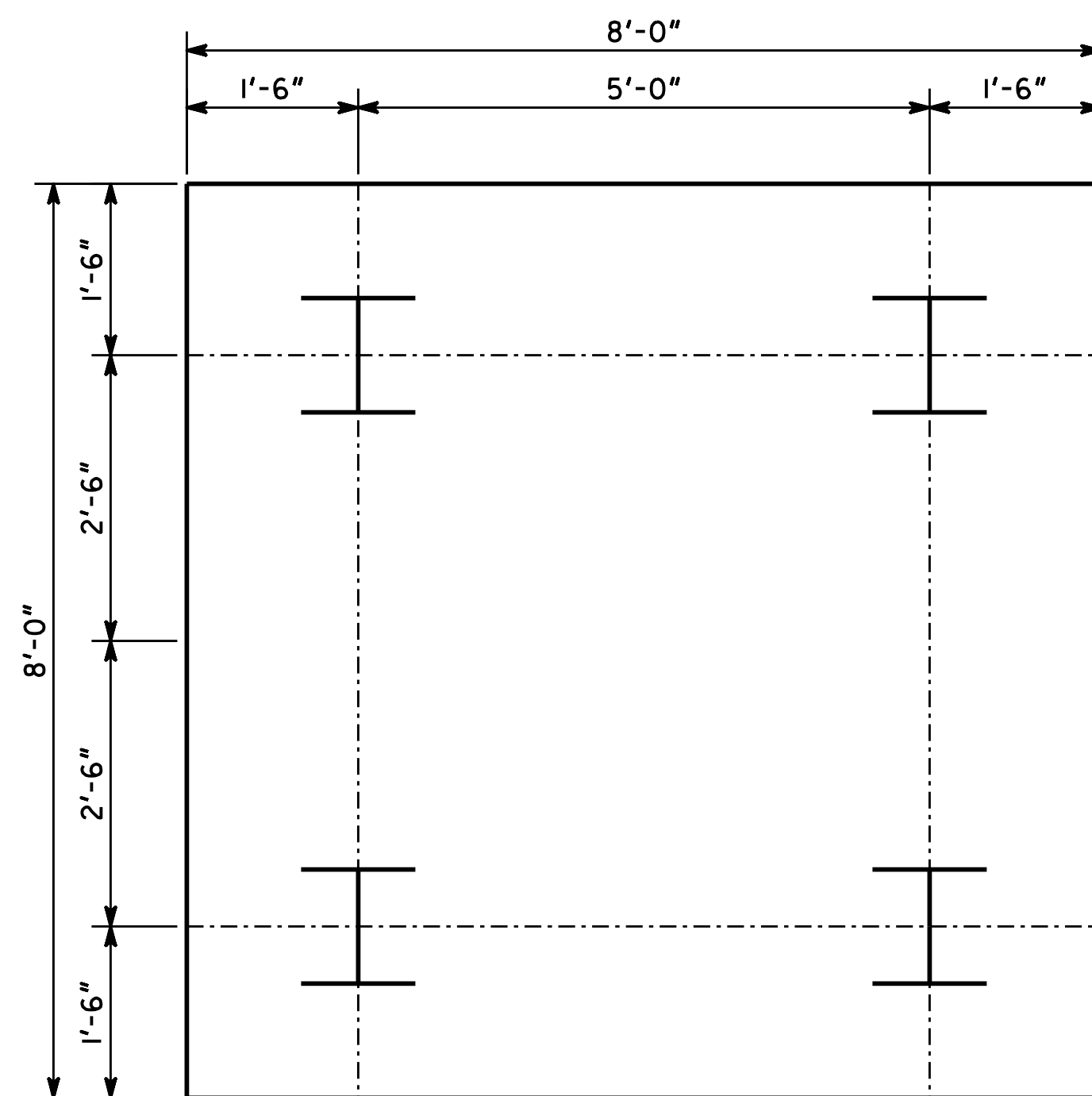
SECTION C-C



SECTION D-D




SECTION E-E



PILE LAYOUT
SCALE : 3/4" = 1'-0"

BRIDGE NO. 1

		MORELAND ALTOBELLI ASSOCIATES LLC 2450 Commerce Avenue, Suite 100 Duluth, Georgia 30096-8910 Tel.: (770) 263-5945	
		FORSYTH COUNTY DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING	
BENT 4 DETAILS RONALD REAGAN BLVD OVER BIG CREEK / BIG CREEK GREENWAY		FORSYTH COUNTY	
SCALE : 3/4" = 1'-0", U.O.N.		MARCH 2019	
DESIGNED	TAC	CHECKED	SWW
DRAWN	TAC/SJA/PDL	DESIGN GROUP	SKG
REVIEWED	DLC/SKG	APPROVED	WMD

DRAWING NO.
35-0024
BRIDGE SHEET
24 OF 28

\$FILEL\$

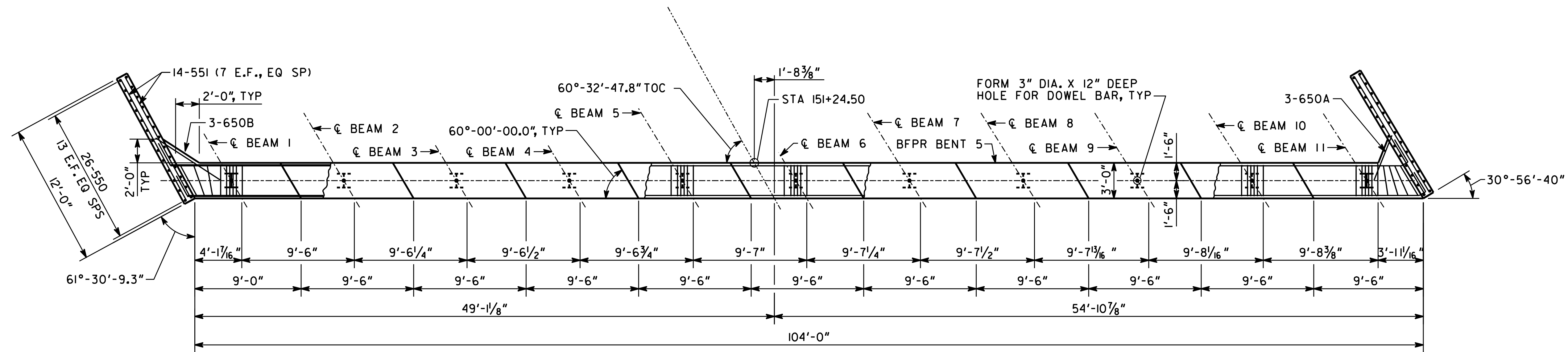
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DATE\$\$\$

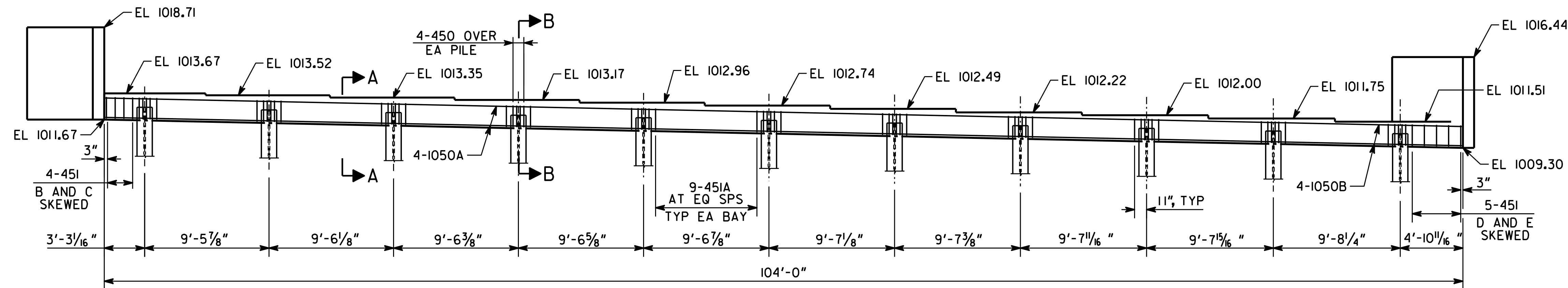
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1 INCH WHEN PRINTED FULL SIZE

\$DGN\$



PLAN

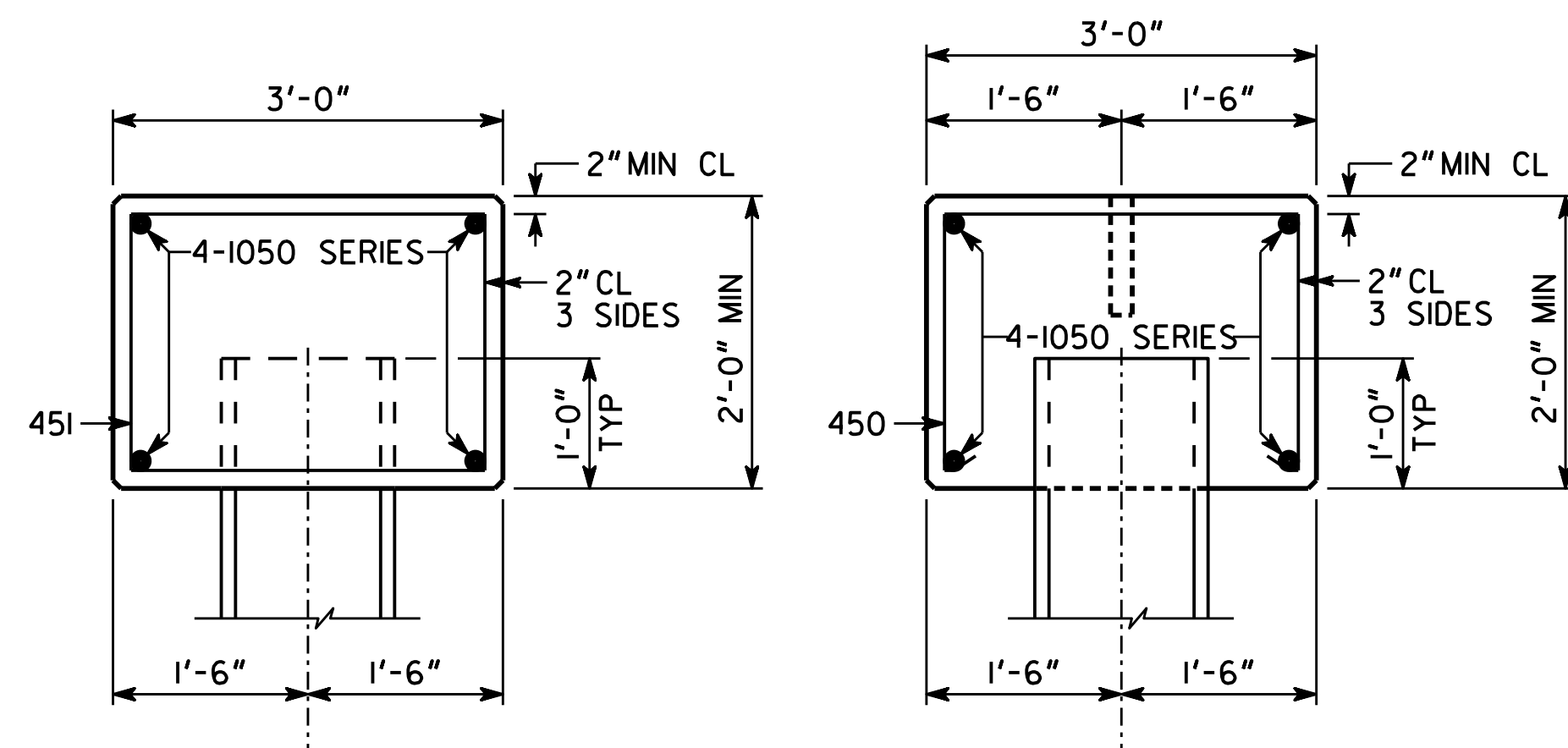


ELEVATION
(LOOKING AHEAD)

ALL PILES SHALL BE STEEL H, HP 14 X 73, GR. 50.

PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 101 TONS AFTER A MINIMUM TIP ELEVATION OF 984 IS ACHIEVED.



SECTION A-A
SCALE: 3/4" = 1'-0"

SECTION B-B
SCALE: 3/4" = 1'-0"

NOTES:

- POUR WINGWALLS MONOLITHICALLY WITH CAP.
- WINGWALL PILES NOT SHOWN IN ELEVATION VIEW.
- SEE GA STD 9037 FOR DRAINAGE DETAILS AT END BENTS.
- LAP SPLICE NO. 10 BARS 8'-5" MIN.

SUBSTRUCTURE QUANTITIES	
ITEM	QTY
CU YD CLASS "AA" CONCRETE	31.8
LB BAR REINF STEEL	3,454

BRIDGE NO. 1



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Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY
DEPARTMENT OF TRANSPORTATION
ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

END BENT 5
RONALD REAGAN BLVD
OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : 3/8" = 1'-0", U.N.O.

MARCH 2019

DRAWING NO.
35-0025

BRIDGE SHEET
25 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

CHECKED SWW
DESIGN GROUP SKG

REVIEWED DLC/SKG
APPROVED WMD

\$FILEL\$

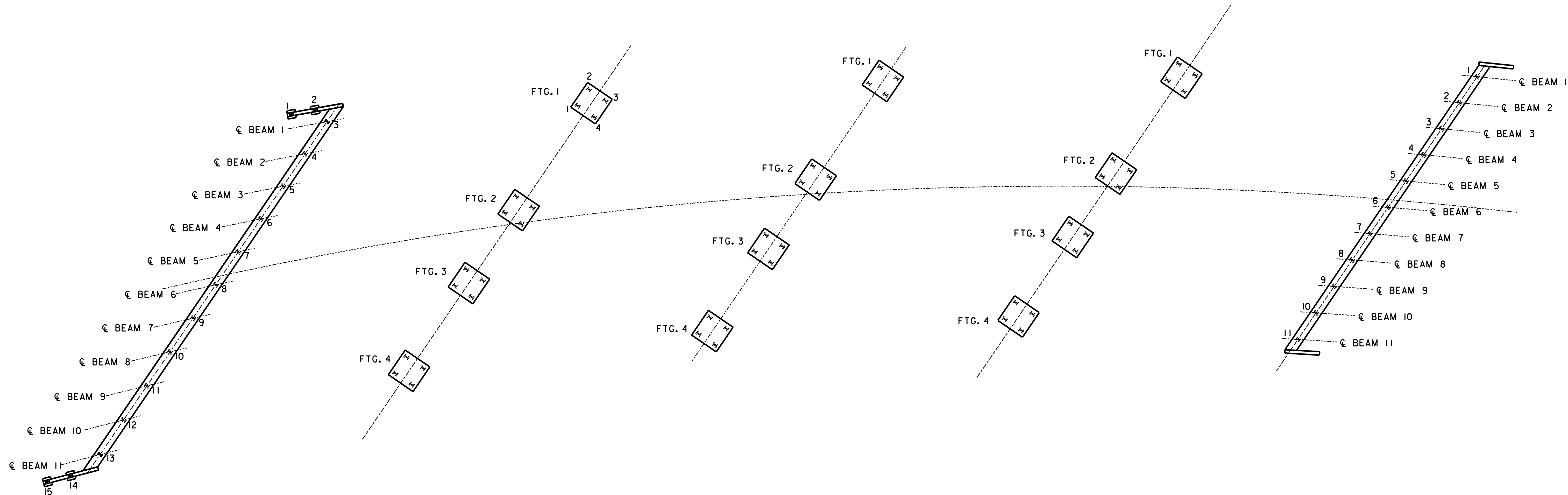
\$USER\$

DATE\$\$\$

TIME\$\$\$

1 INCH WHEN PRINTED FULL SIZE

\$SIGNS



NOTE :
THIS AS-BUILT INFORMATION SHEET IS TO BE FILLED IN BY THE PROJECT ENGINEER AND FORWARDED TO THE BRIDGE DESIGN OFFICE AFTER INSTALLATION OF ALL PILES AND FOOTINGS FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

AS-BUILT FOUNDATION INFORMATION BENT 1		
PILE LOCATION	PILE NO.	PILE TIP ELEVATION
LT WINGWALL	1	
LT WINGWALL	2	
BEAM 1	3	
BEAM 2	4	
BEAM 3	5	
BEAM 4	6	
BEAM 5	7	
BEAM 6	8	
BEAM 7	9	
BEAM 8	10	
BEAM 9	11	
BEAM 10	12	
BEAM 11	13	
RT WINGWALL	14	
RT WINGWALL	15	

AS-BUILT FOUNDATION INFORMATION - BENT 2					
FOOTING NO.	BOTTOM OF FTG. ELEVATION	PILE NO. & PILE TIP ELEVATION			
		1	2	3	4
1					
2					
3					
4					
AS-BUILT FOUNDATION INFORMATION - BENT 3					
FOOTING NO.	BOTTOM OF FTG. ELEVATION	PILE NO. & PILE TIP ELEVATION			
		1	2	3	4
1					
2					
3					
4					
AS-BUILT FOUNDATION INFORMATION - BENT 4					
FOOTING NO.	BOTTOM OF FTG. ELEVATION	PILE NO. & PILE TIP ELEVATION			
		1	2	3	4
1					
2					
3					
4					

AS-BUILT FOUNDATION INFORMATION BENT 5		
PILE LOCATION	PILE NO.	PILE TIP ELEVATION
BEAM 1	1	
BEAM 2	2	
BEAM 3	3	
BEAM 4	4	
BEAM 5	5	
BEAM 6	6	
BEAM 7	7	
BEAM 8	8	
BEAM 9	9	
BEAM 10	10	
BEAM 11	11	

PROJECT ENGINEER
()

DATE

(AREA CODE) TELEPHONE NUMBER

BRIDGE NO. 1

MA

MORELAND ALTOBELLI ASSOCIATES LLC
2450 Commerce Avenue Suite 100
Duluth, Georgia 30096-8910
Tel.: (770) 263-5945

FORSYTH COUNTY

DEPARTMENT OF TRANSPORTATION

ENGINEERING DIVISION-TRAFFIC AND TRANSPORTATION ENGINEERING

AS-BUILT FOUNDATION

RONALD REAGAN BLVD

OVER BIG CREEK / BIG CREEK GREENWAY

FORSYTH COUNTY

SCALE : 1" = 15'-0"

MARCH 2019

DRAWING NO.
35-0026

BRIDGE SHEET
26 OF 28

DESIGNED TAC
DRAWN TAC/SJA/PDL

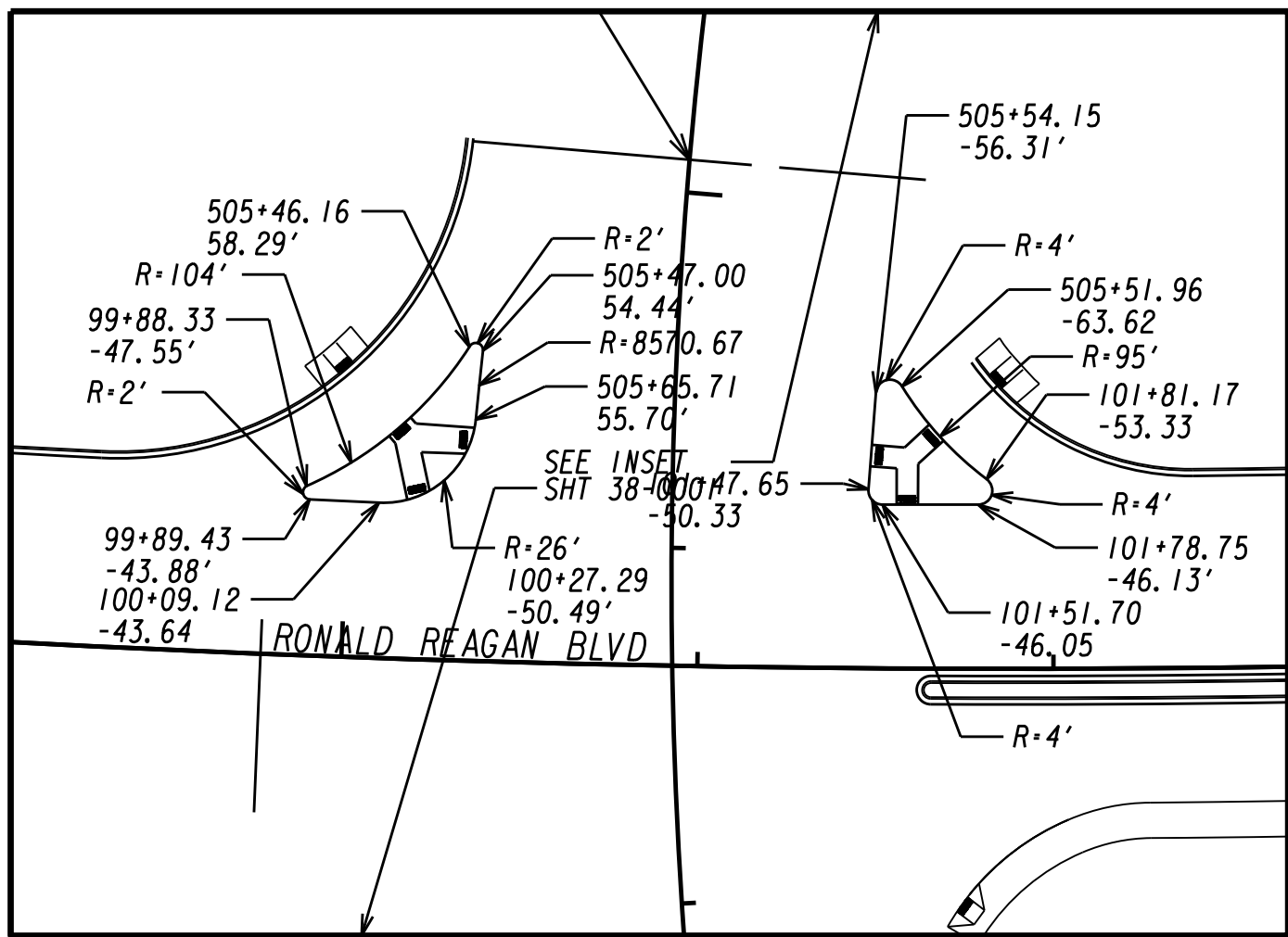
CHECKED SWW
DESIGN GROUP SKG

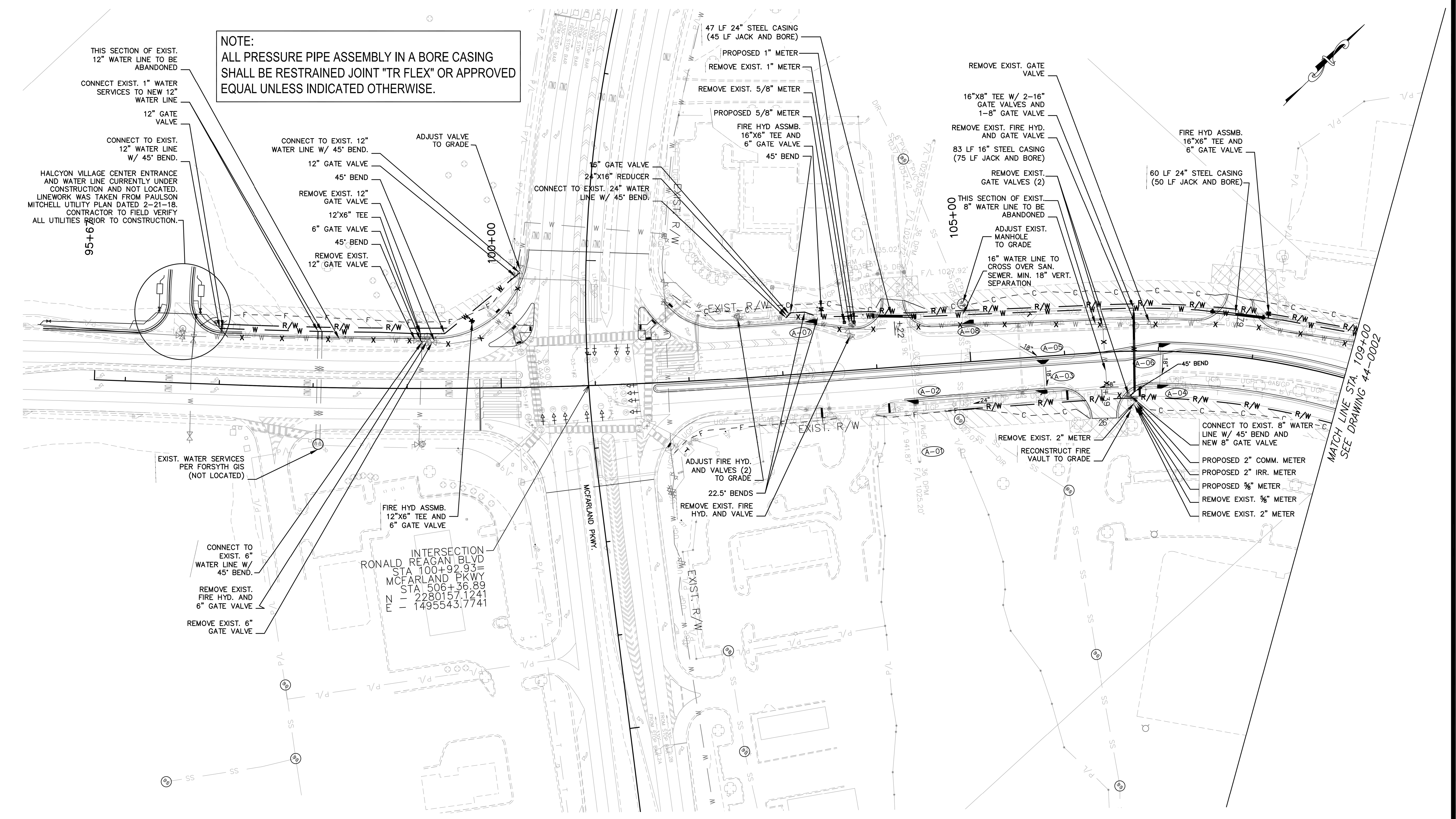
REVIEWED DLC/SKG
APPROVED WMD

LOCATION																	N	θ	LOCATION																	N	θ
NO. OF LOC.	MARK	LENGTH		NO. BARS REQ'D	T Y P E	AG	B		C		D		E		F				H		J		K														
FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.														
SPAN 1	I	400A	60- 0	225	I																																
		400B	VARY	225	I																																
		401A	16- 0	60	I																																
		401B	17-10	60	I																																
		403	45- 3	12	I																																
		403C	6- 1	12	25	4	4	1- 6	1- 2																												
		404A	7- 7	60	31	4	4	1- 2	2-10	2-10																											
		404B	3- 0	20	31	4	4	1- 2	1- 1																												
		404C	6- 3	4	33			1- 0	0-10																												
		405	7- 5	40	I																																
		406A	5- 3	60	25	4	4	0- 6	1- 9	1- 9																											
		406B	3-11	20	25	4	4	0- 6	1- 1																												
		407	9- 8	91	I																																
		408	0- 8	192	I																																
		409A	8- 0	91	I																																
		409B	7- 5	91																																	
		500A	47-11	356	3			45- 9	2- 2																												
		500B	7- 7	356	3			5- 5	2- 2																												
		501	45-11	356	I																																
		502	8- 1	182	2			0- 9	3- 8	3- 8																											
		503	7- 3	182	2			0- 9	3- 3	3- 3																											
		503A	8- 9	36	9	I		8- 2																													
		503B	12- 0	16	40			8- 2	2- 0	0-10	1- 0	0- 0																									
		503C	VARY	16	40			VARY	VARY	0-10	1- 0	0- 0																									
		503D	9- 9	12	16	6	6	1-10	2- 1	2- 1	1- 0	1- 0																									
		503E	0-10	16		I																															
		504	5- 9	88	46			2-10	1-10	0- 2	0- 8	0- 8																									
		505	44- 6	3	I																																
		506A	2- 8	90	7			1- 2	0- 9	0- 9																											
		506B	4-11	90	3			3- 9	1- 2																												
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		507	60- 0	4	I																																
		507A	8- 0	10	I																																
		508	10- 3	20	I																																
		509A	4- 0	20	I																																
		509B	4-10	20	I																																
		800A	43- 3	2	I																																
		800B	43- 3	2	I																																
		800C	43- 3	2	I																																
		801A	60- 0	I	I																																
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		802	10- 3	20	I																																
		900	22- 5	32	16	6	6	5- 9	0- 6	0- 6	7- 7 1/2	7- 7 1/2																									
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SPAN 2	I	400A	60- 0	225	I																																
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		401D	18- 2	60	I																																
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		404C	6- 3	4	33			1- 0	0-10																												
		405	7- 5	40	I																																
		406A	5- 3	60	25	4	4	0- 6	1- 9	1- 9																											
		406B	3-11	20	25	4	4	0- 6	1- 1																												
		407	12- 9	91	I																																
		408	0- 8	192	I																																
		409A	8- 0	91	I																																
		409B	7- 5	91																																	
		500A	47-11	352	3			45- 9	2- 2																												
		500B	7- 7	352	3																																

LOCATION	NO. OF LOC.	MARK	LENGTH FT. IN.	NO. BARS REQ'D.	T Y P E	AG	B	C	D	E	F	H	J	K	N	θ	LOCATION	NO. OF LOC.	MARK	LENGTH FT. IN.	NO. BARS REQ'D.	T Y P E	AG	B	C	D	E	F	H	J	K	N	θ
		800A	43- 3	2	I														53I	17- 4	44	25	4	4	4- 0	4- 2							
		800B	43- 3	2	I														532	57- 8	14	I											
		800C	43- 3	2	I																												
		801A	60- 0	I	I														830	9- 4	44	10	I	I	7- 6								
		801B	60- 0	I	I																												
		802	10- 3	20	I																												
		900	22- 5	32	16	6	6	5- 9	0- 6	0- 6	7- 7 1/2	7- 7 1/2																					
		900B	20- 9	8	16	6	6	5- 9	0- 6	0- 6	7- 7 1/2	6- 0																					
END BENT 1	I																																
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		411B	12- 1	3	25	4	4	3- 0	2- 8																								
		411C	13- 9	3	25	4	4	3-10	2- 8																								
		411D	11- 5	2	25	4	4	2- 8	2- 8																								
		411E	13- 1	3	25	4	4	3- 6	2- 8																								
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		413	1-10	16	I																												
		510A	7- 6	36	I																												
		510B	7- 9	36																													
		511	16- 8	40	I																												
		610A	4- 0	3	I																												
		610B	6- 0	3	I	I																											
		1010A	50- 2	4	4			48- 2	2- 0																								
		1010B	52- 1	4	I																												
		1010C	50- 8	4	6			48- 2	0- 6	2- 0	0- 0																						
BENT 2LT	I																																
		420	12- 4	25	25	4	4	2-10 3/4	2-10 3/4																								
		520	19- 8	73	25	4	4	5- 2	4- 2																								
		521	17- 8	44	25	4	4	4- 2	4- 2																								
		522	60- 0	14	I																												
		820	9- 4	44	10	I	I	7- 6																									
		1120A	20- 6	12	9	I		18-11																									
		1121A	19- 2	12	9	I		17- 7																									
		1122A	28- 6	8	I																												
		1123A	22- 1	8	I																												
		1124A	23- 8	8	9	I		22- 1																									
		1125A	37- 3	14	9	I		35- 8																									
		1126A	60- 0	6	I																												
		1127A	11- 4	6	I																												
BENT 2RT	I																																
		420	12- 4	25	25	4	4	2-10 3/4	2-10 3/4																								
		520	19- 8	51	25	4	4	5- 2	4- 2																								
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		1124B	22- 0	6	9	I		20- 5																									
		1125B	54- 7	4	10	I	I	51- 5																									
		1126B	51- 5	5	I																												
BENT 3LT	I																																
		430	12- 4	25	25	4	4	2-10 3/4	2-10 3/4																								
		530	19- 8	70	25	4	4	5- 2	4- 2																								

LOCATION	NO. OF LOC.	MARK	LENGTH		NO. BARS REQ'D.	T Y P E	AG	B		C	D		E		F		H		J	K	N	θ
			FT.	IN.				FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.				
		1143B	18-10	6	I																	
		1144B	22- 0	6	9	I	20- 5															
		1145B	48- 6	4	10	I	45- 4															
		1146B	45- 4	5	I																	
END BENT 5	I																					
		450	6- 9	44	32	5	5	2- 8	1- 8													
		451A	9- 5	90	25	4	4	2- 8	1- 8													
		451B	9- 7	2	25	4	4	2- 9	1- 8													
		451C	10- 1	2	25	4	4	3- 0	1- 8													
		451D	9- 9	2	25	4	4	2-10	1- 8													
		451E	10- 3	2	25	4	4	3- 1	1- 8													
		550	6- 7	44	I																	
		551	10- 2	28	I																	
		650A	4- 2	3	I																	
		650B	3- 0	3	I	I																
		1050A	58- 0	4	4			56- 0	2- 0												62	
		1050B	58- 6	4	6			56- 0	0- 6	2- 0	0- 0										31	00





PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS

END LIMIT OF ACCESS

LIMIT OF ACCESS

PROPOSED WATER

PROPOSED SANITARY SEWER

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER

MA

MORELAND ALTABELLI
ASSOCIATES, LLC

327 Dahlonega Street, Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5507

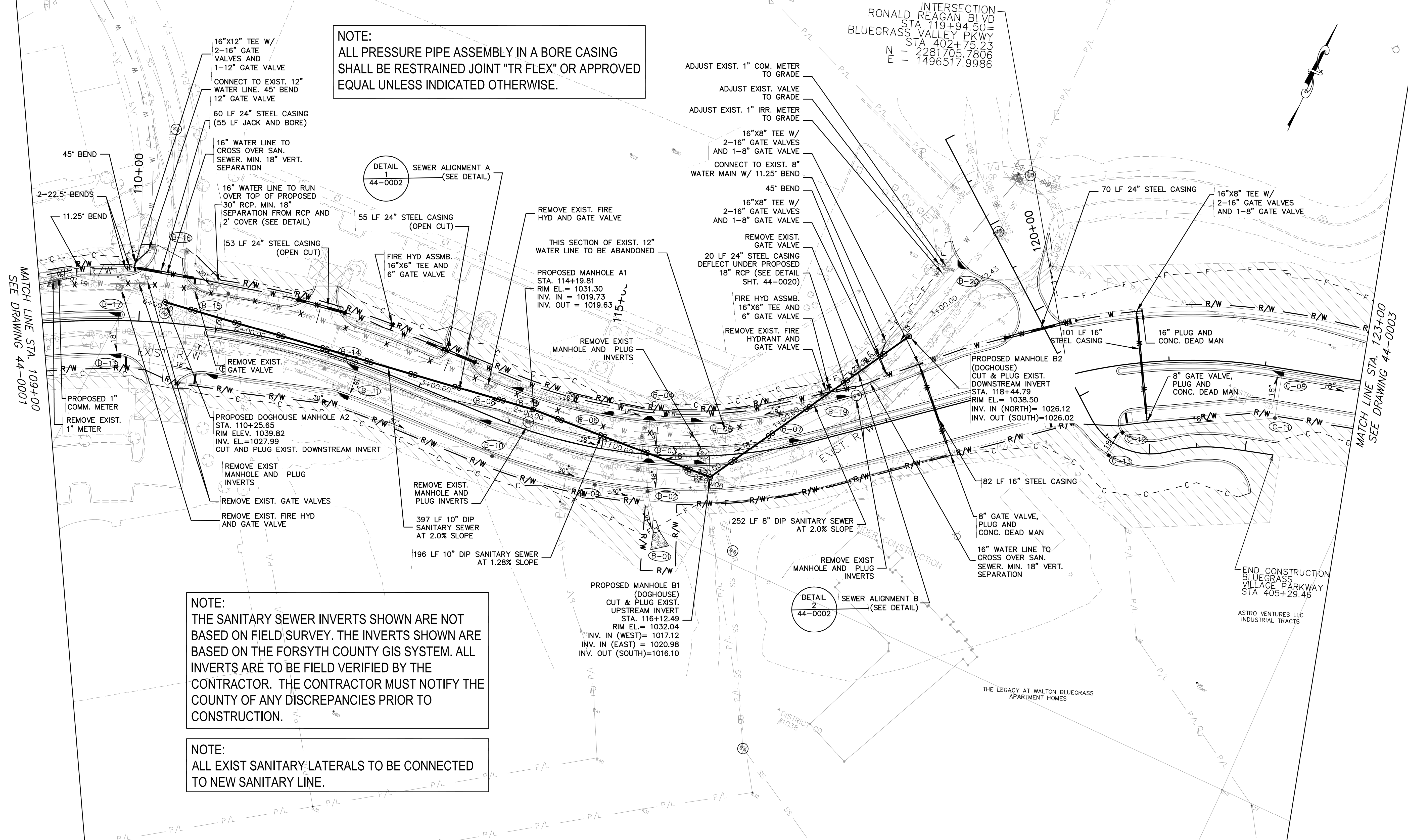
REVISION DATES

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID

44-0001

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NOTE:
ALL PRESSURE PIPE ASSEMBLY IN A BORE CASING
SHALL BE RESTRAINED JOINT "TR FLEX" OR APPROVED
EQUAL UNLESS INDICATED OTHERWISE.

NOTE:
THE SANITARY SEWER INVERTS SHOWN ARE NOT
BASED ON FIELD SURVEY. THE INVERTS SHOWN ARE
BASED ON THE FORSYTH COUNTY GIS SYSTEM. ALL
INVERTS ARE TO BE FIELD VERIFIED BY THE
CONTRACTOR. THE CONTRACTOR MUST NOTIFY THE
COUNTY OF ANY DISCREPANCIES PRIOR TO
CONSTRUCTION.

NOTE:
ALL EXIST SANITARY LATERALS TO BE CONNECTED
TO NEW SANITARY LINE.

PROPERTY AND EXISTING R/W LINE	---
REQUIRED R/W LINE	---
CONSTRUCTION LIMITS	---C---C---F---F---
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	

BEGIN LIMIT OF ACCESSBLA
END LIMIT OF ACCESSELA
LIMIT OF ACCESS	
PROPOSED WATER	—W—W—
PROPOSED SANITARY SEWER	—SS—SS—

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER

MORELAND ALTOBELLI
—AN ATLAS COMPANY—

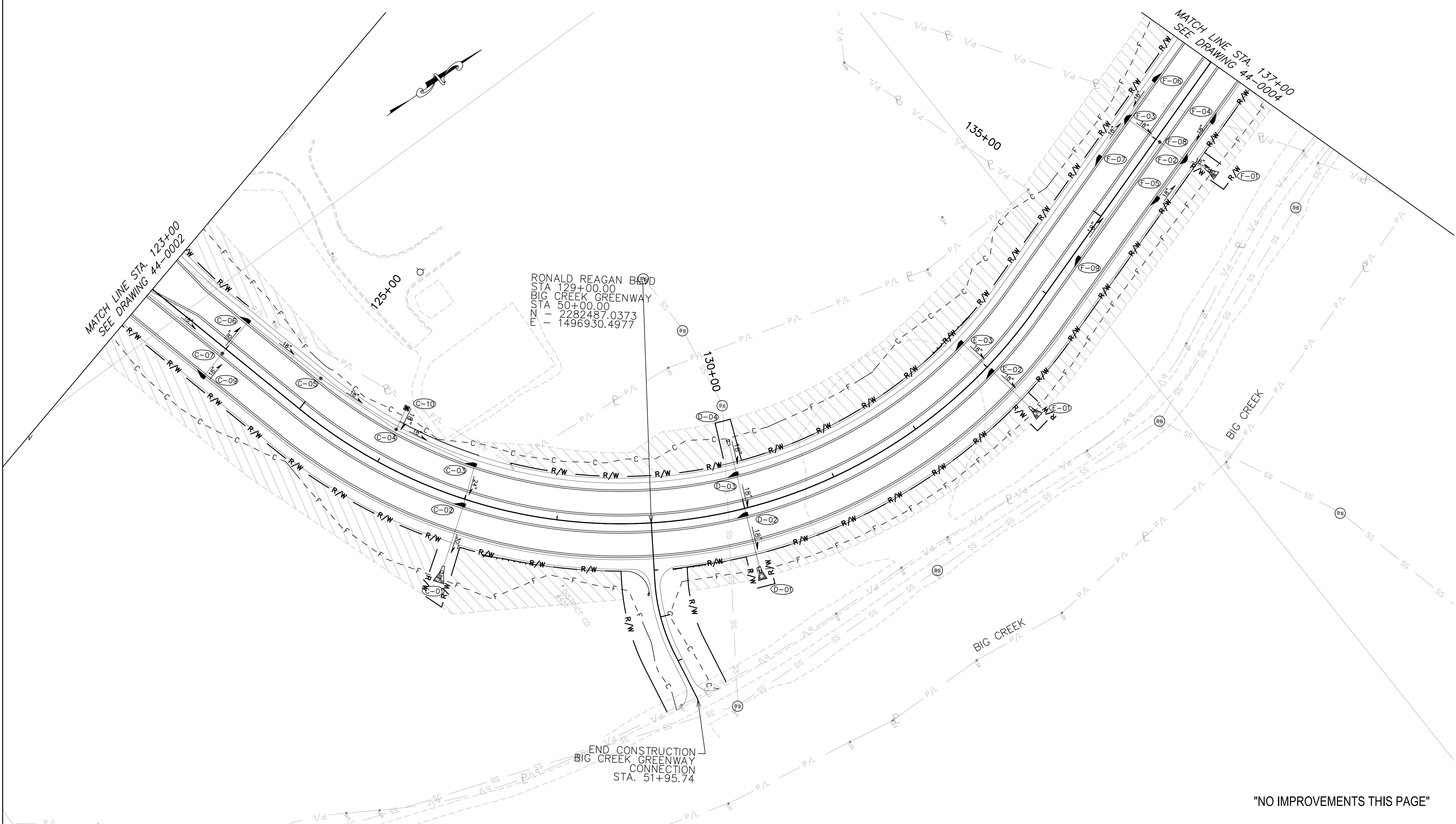
**Moreland Altobelli
Associates, LLC**

327 Dahlonega Street, Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5507

SCALE IN FEET

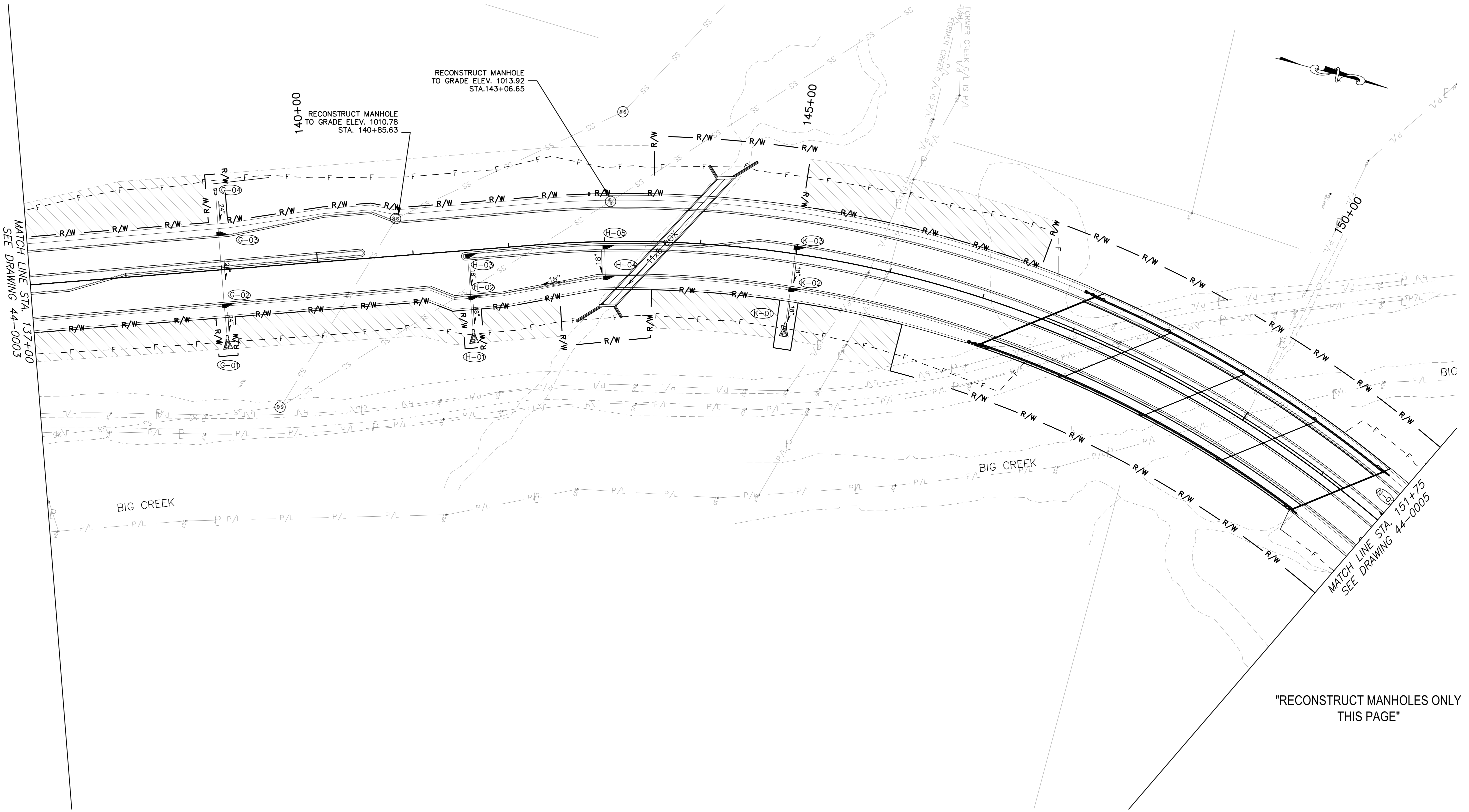
REVISION DATES			

RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS	
BID	



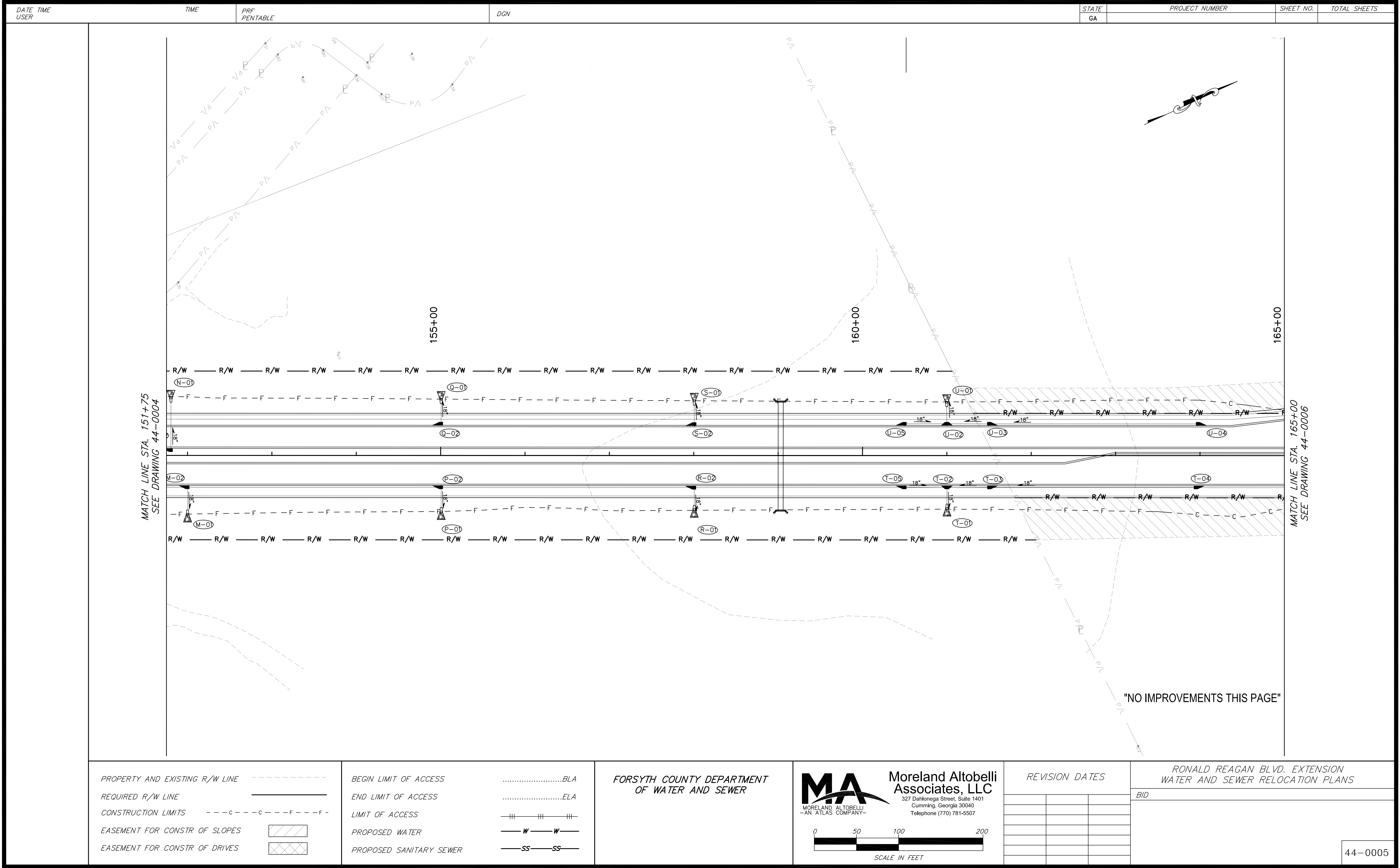
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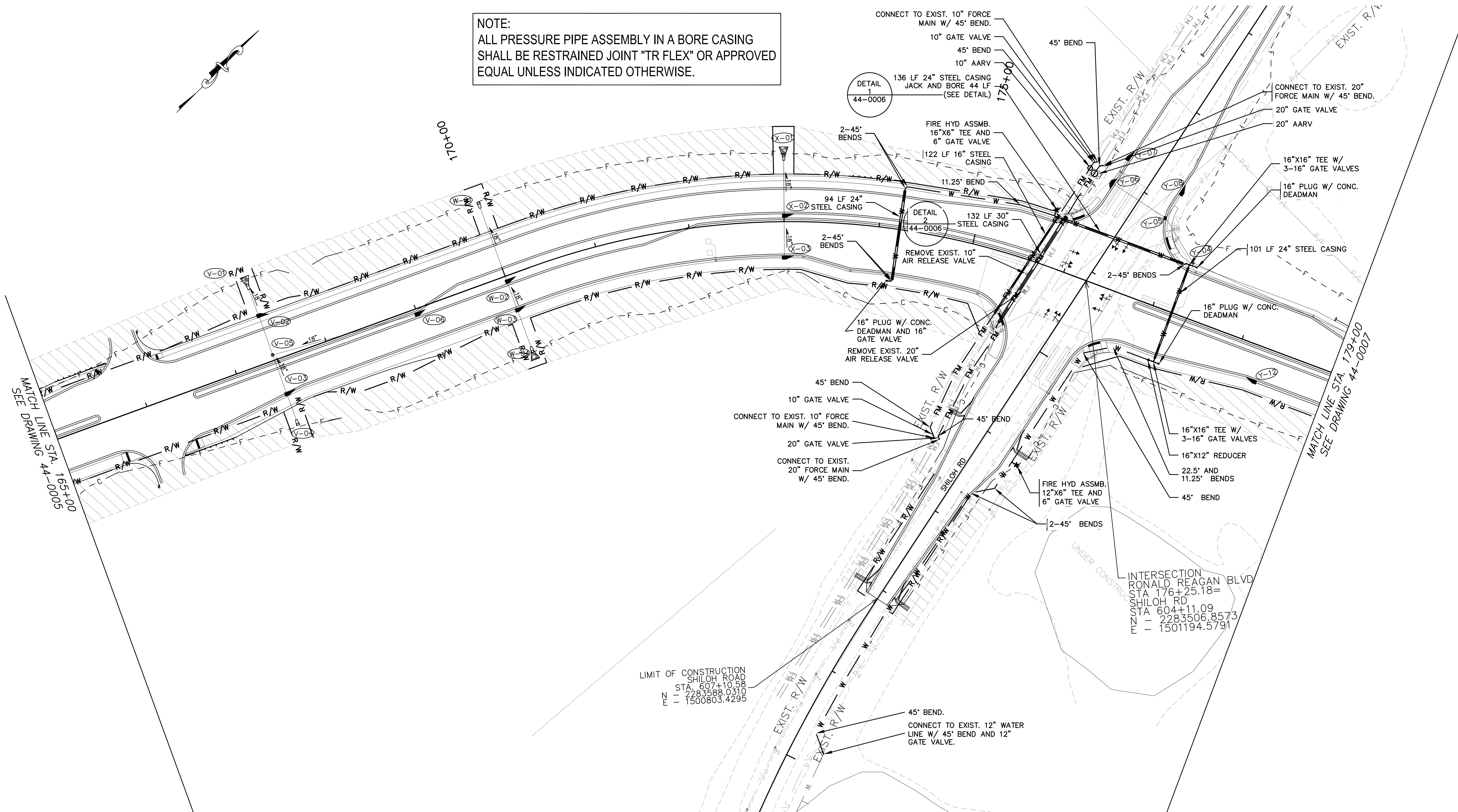
<p>PROPERTY AND EXISTING R/W LINE</p> <p>REQUIRED R/W LINE</p> <p>CONSTRUCTION LIMITS</p> <p>EASEMENT FOR CONSTR OF SLOPES</p> <p>EASEMENT FOR CONSTR OF DRIVES</p>	<p>BEGIN LIMIT OF ACCESS</p> <p>END LIMIT OF ACCESS</p> <p>LIMIT OF ACCESS</p> <p>PROPOSED WATER</p> <p>PROPOSED SANITARY SEWER</p>	<p>FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER</p>	<p>MA MORELAND ALTABELLI -AN ATLAS COMPANY-</p> <p>Moreland Altobelli Associates, LLC 327 Dahlonega Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</p> <p>0 50 100 200 SCALE IN FEET</p>	<p>REVISION DATES</p> <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																									<p>RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS</p> <p>BID</p>	<p>44-0003</p>



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<p>PROPERTY AND EXISTING R/W LINE</p> <p>REQUIRED R/W LINE</p> <p>CONSTRUCTION LIMITS</p> <p>EASEMENT FOR CONSTR OF SLOPES</p> <p>EASEMENT FOR CONSTR OF DRIVES</p>	<p>BEGIN LIMIT OF ACCESS</p> <p>END LIMIT OF ACCESS</p> <p>LIMIT OF ACCESS</p> <p>PROPOSED WATER</p> <p>PROPOSED SANITARY SEWER</p>	<p>FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER</p>	<p>MA MORELAND ALTOBELLI -AN ATLAS COMPANY-</p> <p>Moreland Altobelli Associates, LLC 327 Dahlonga Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</p> <p>0 50 100 200 SCALE IN FEET</p>	<p>REVISION DATES</p> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																						<p>RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS</p> <p>BID</p>	<p>44-0004</p>





PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS

END LIMIT OF ACCESS

LIMIT OF ACCESS

PROPOSED WATER

PROPOSED SANITARY SEWER

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER

MA

MORELAND ALTABELLI
ASSOCIATES, LLC

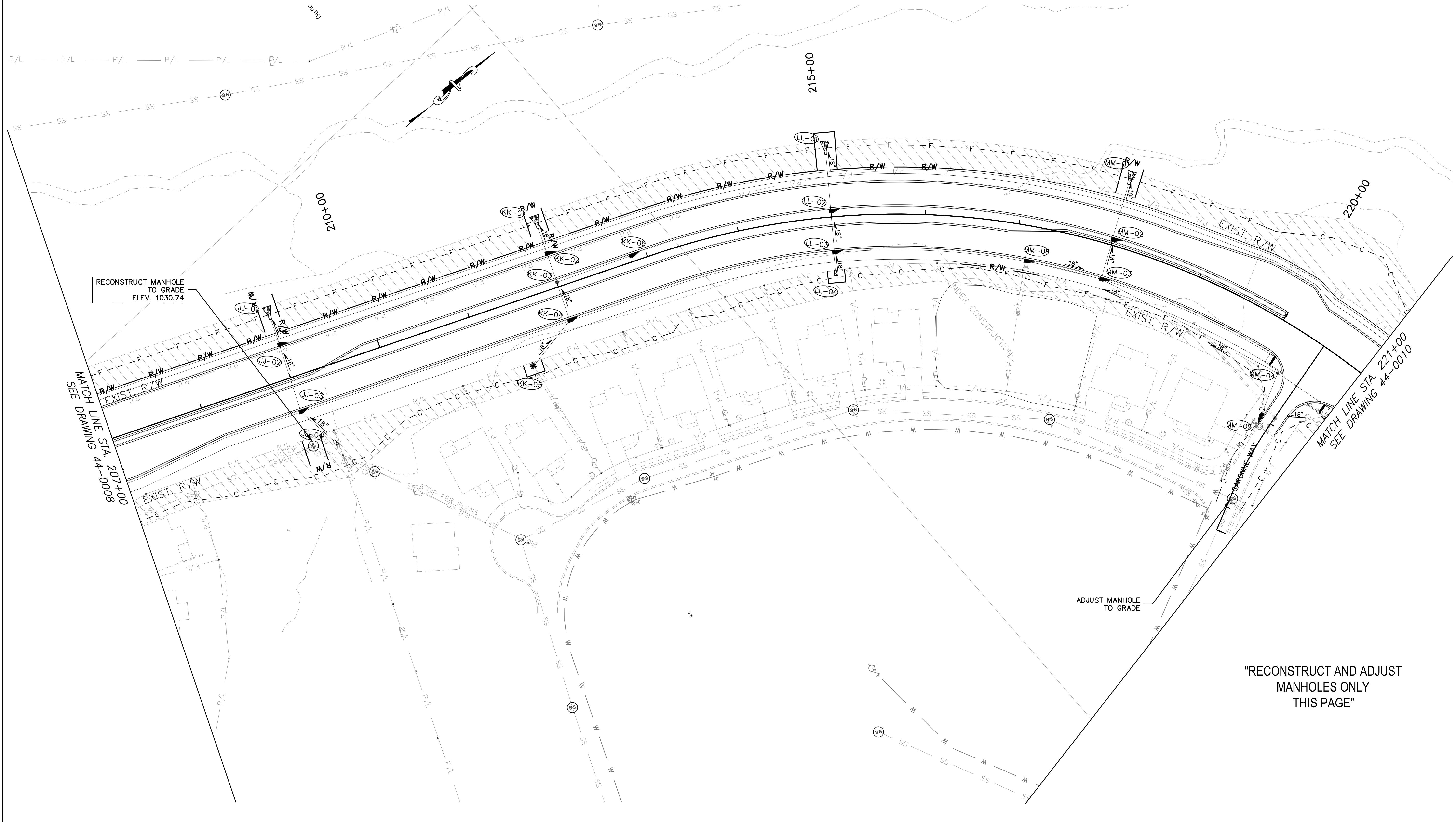
327 Dahlonega Street, Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5507

REVISION DATES

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS


BID

44-0006

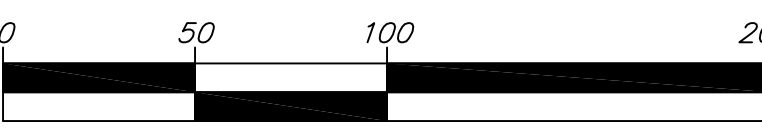


PROPERTY AND EXISTING R/W LINE	-----BLA
REQUIRED R/W LINE	-----ELA
CONSTRUCTION LIMITS	---C---C---F---F---
EASEMENT FOR CONSTR OF SLOPES	
EASEMENT FOR CONSTR OF DRIVES	
BEGIN LIMIT OF ACCESS	-----BLA
END LIMIT OF ACCESS	-----ELA
LIMIT OF ACCESS	---C---C---F---F---
PROPOSED WATER	---W---W---
PROPOSED SANITARY SEWER	---SS---SS---

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER



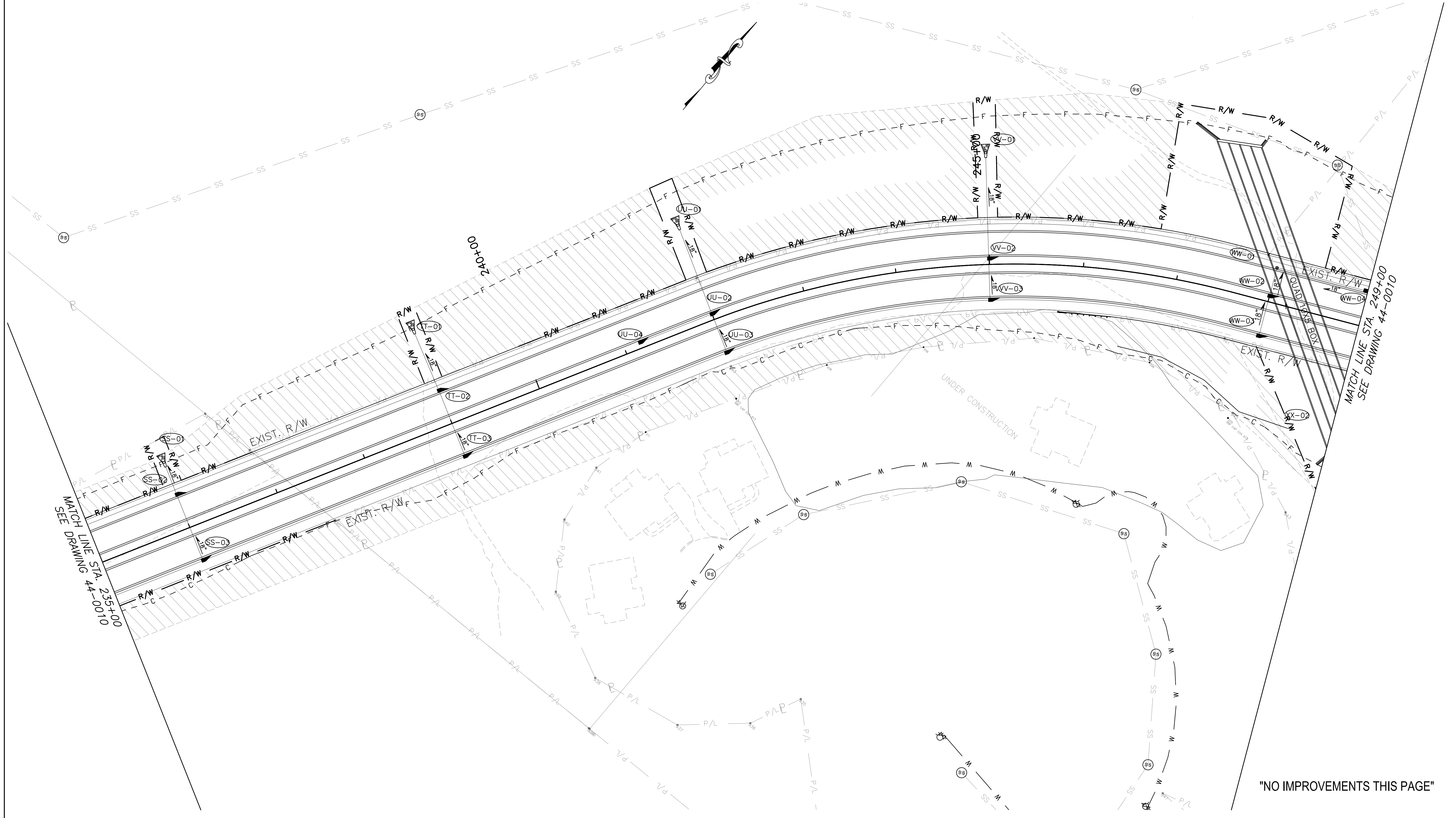
**Moreland Altobelli
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327 Dahlonega Street, Suite 1401
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Telephone (770) 781-5507



0 50 100 200
SCALE IN FEET

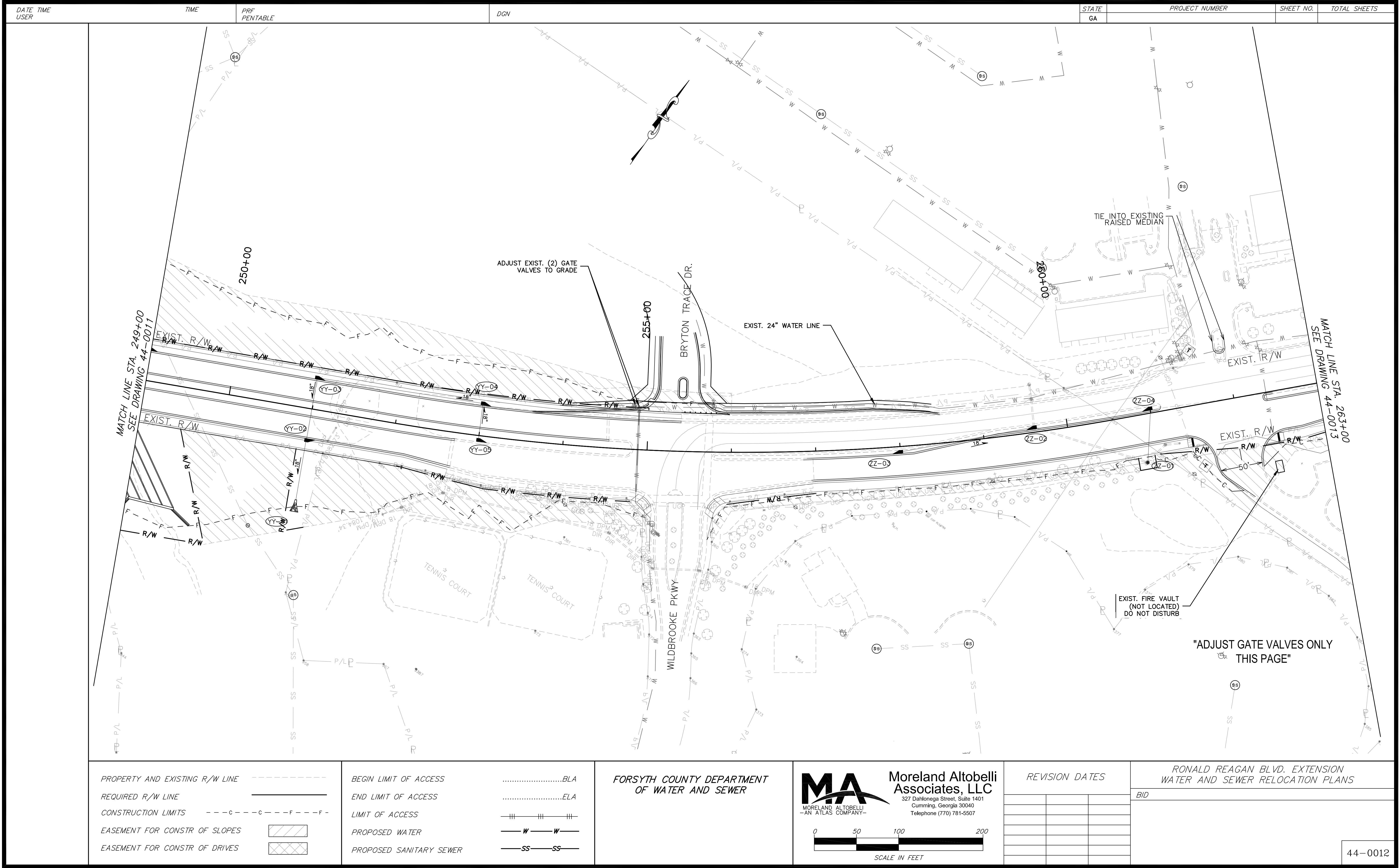
REVISION DATES			

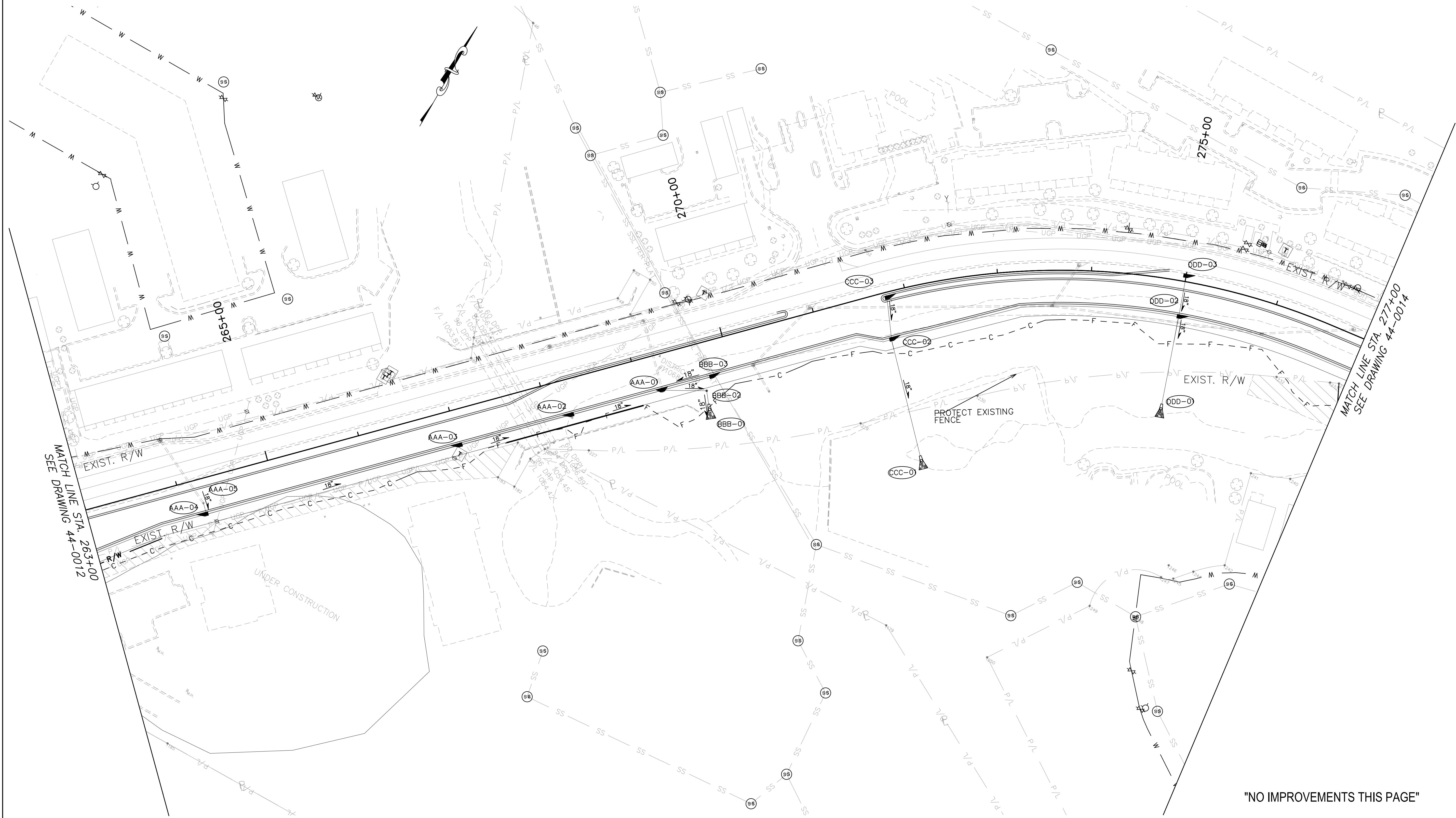
RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS	
BID	



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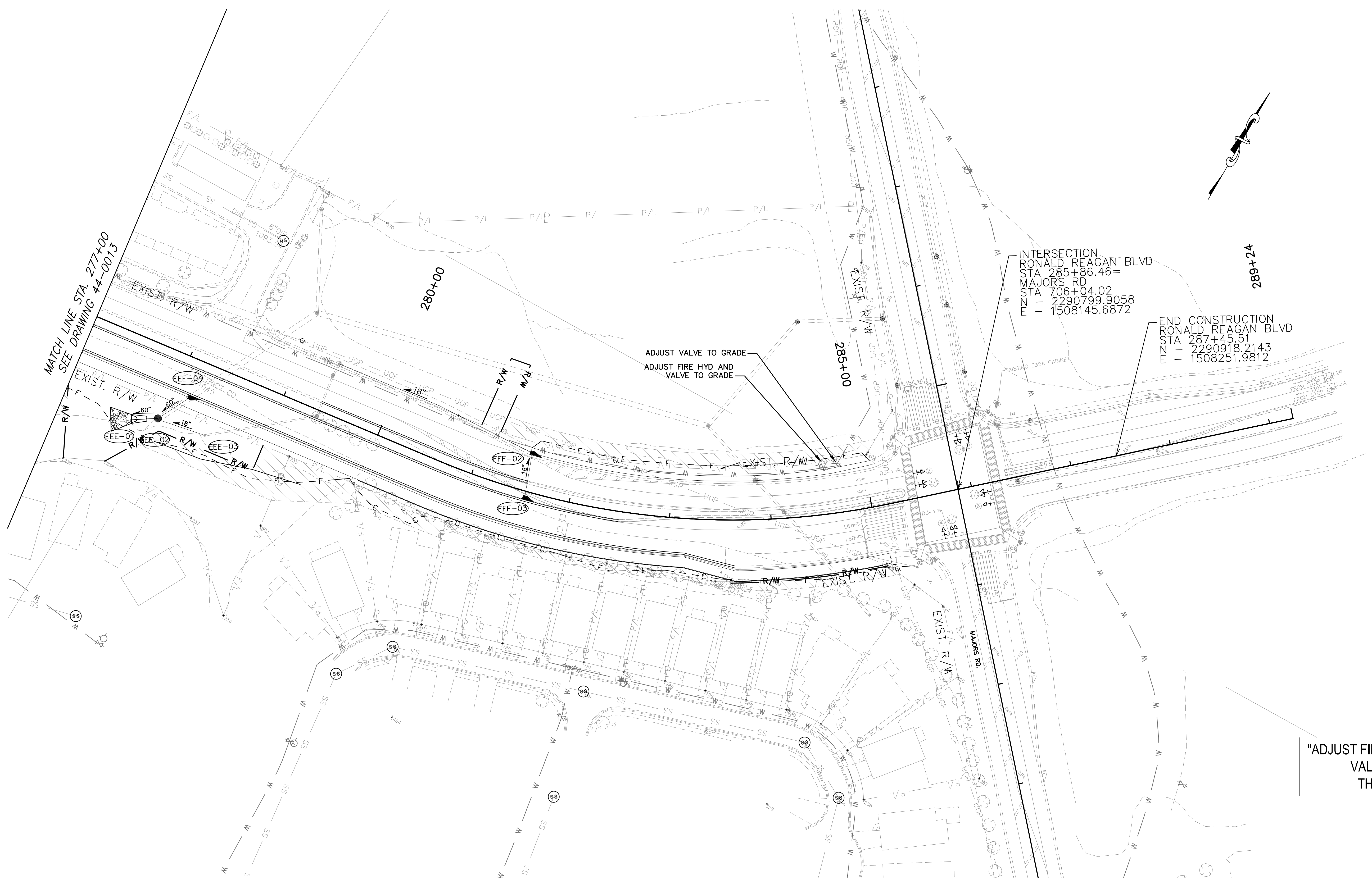
<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div>BEGIN LIMIT OF ACCESS</div> <div>END LIMIT OF ACCESS</div> <div>LIMIT OF ACCESS</div> <div>PROPOSED WATER</div> <div>PROPOSED SANITARY SEWER</div>	<div>FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER</div>	<div><div>MA</div><div>MORELAND ALTABELLI -AN ATLAS COMPANY-</div></div> <div><div>Moreland Altobelli Associates, LLC</div><div>327 Dahlonega Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</div></div> <div><div>0</div><div>50</div><div>100</div><div>200</div></div> <div>SCALE IN FEET</div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																			<div>RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS</div> <div>BID</div>	<div>44-0011</div>



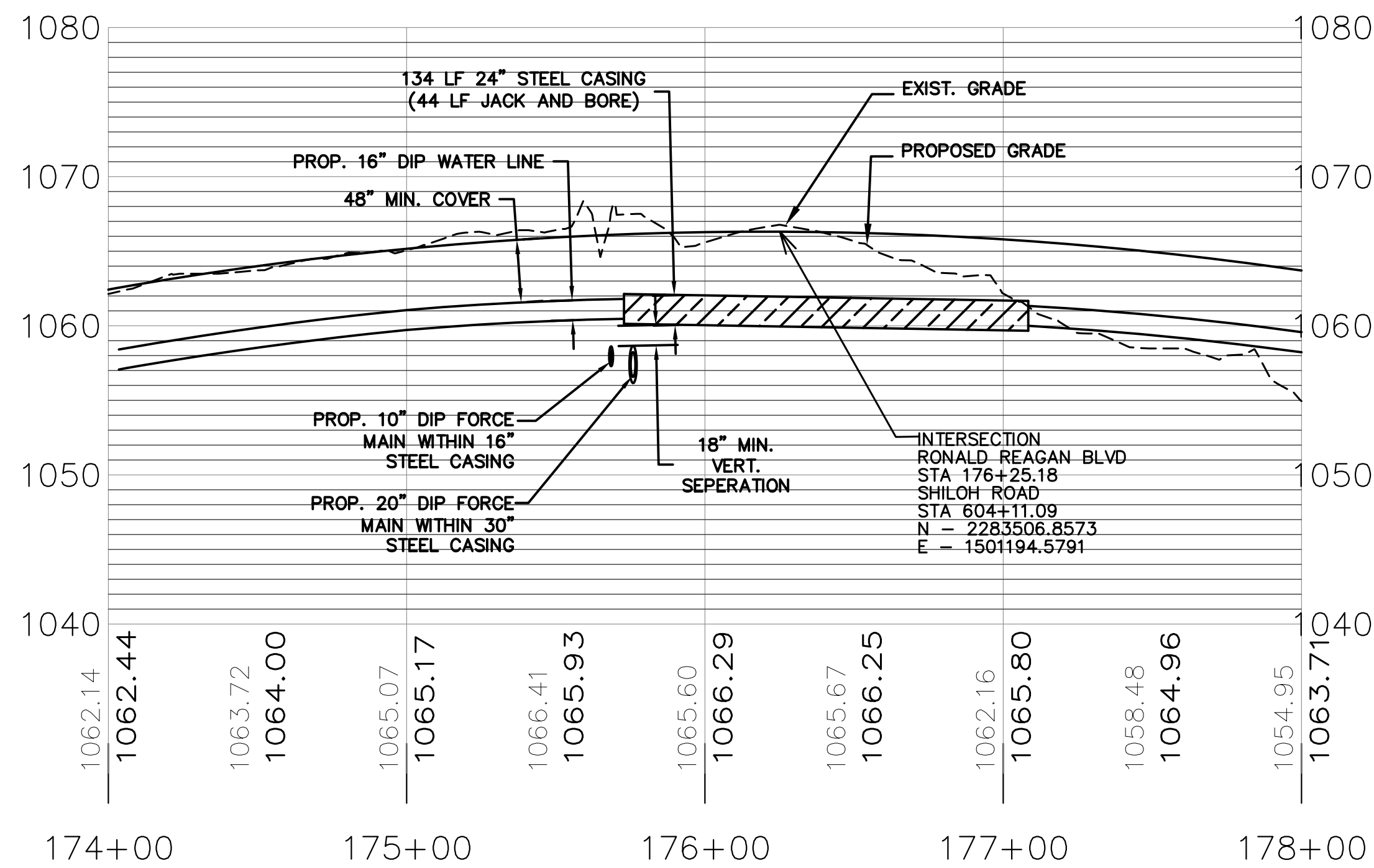


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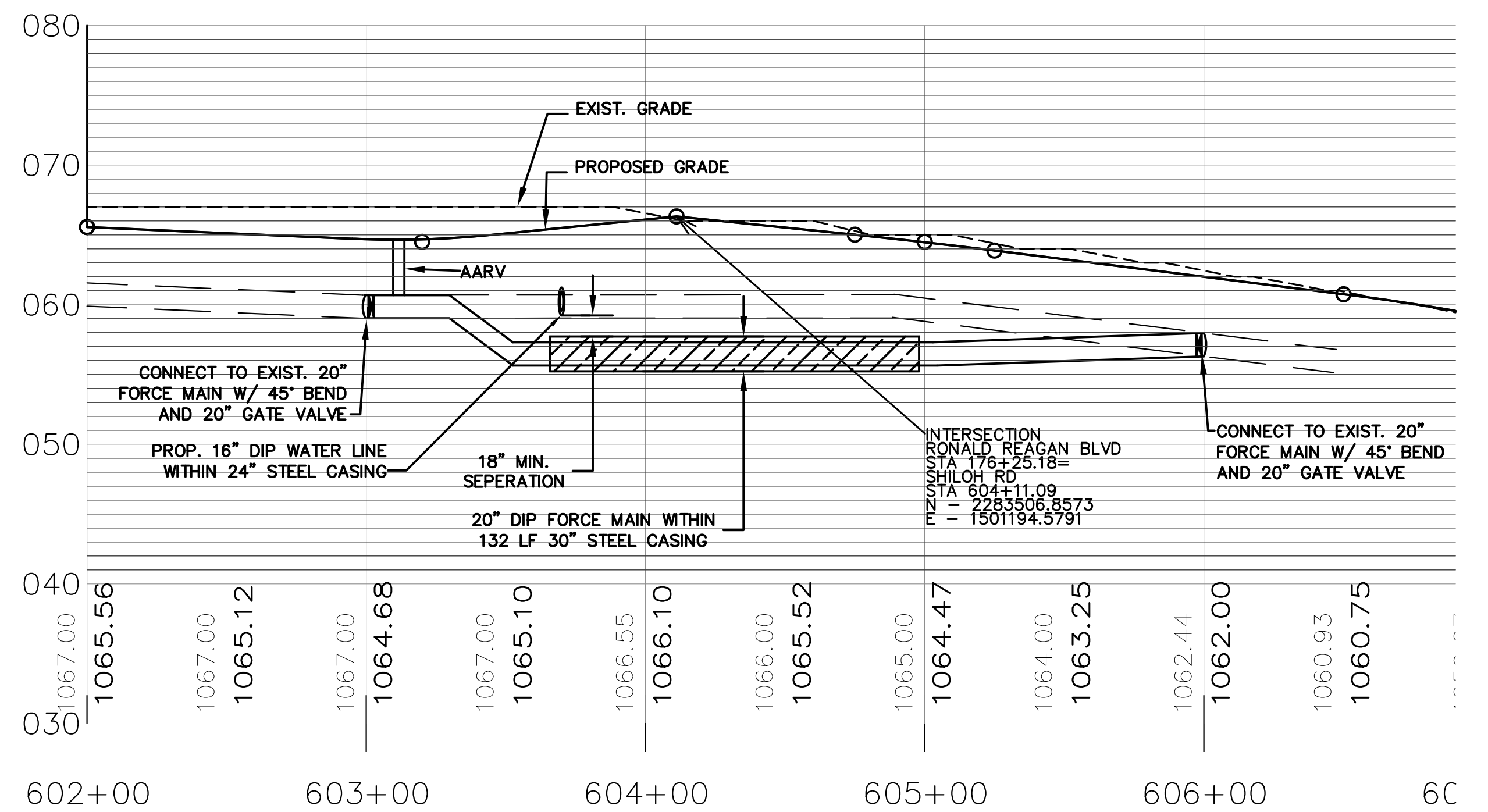
<p>PROPERTY AND EXISTING R/W LINE</p> <p>REQUIRED R/W LINE</p> <p>CONSTRUCTION LIMITS</p> <p>EASEMENT FOR CONSTR OF SLOPES</p> <p>EASEMENT FOR CONSTR OF DRIVES</p>	<p>BEGIN LIMIT OF ACCESS</p> <p>END LIMIT OF ACCESS</p> <p>LIMIT OF ACCESS</p> <p>PROPOSED WATER</p> <p>PROPOSED SANITARY SEWER</p>	<p>FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER</p>	<p>MA MORELAND ALTABELLI -AN ATLAS COMPANY-</p> <p>Moreland Altobelli Associates, LLC 327 Dahlonega Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</p> <p>0 50 100 200 SCALE IN FEET</p>	<p>REVISION DATES</p> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																			<p>RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS</p> <p>BID</p>	<p>44-0013</p>



<p>PROPERTY AND EXISTING R/W LINE</p> <p>REQUIRED R/W LINE</p> <p>CONSTRUCTION LIMITS</p> <p>EASEMENT FOR CONSTR OF SLOPES</p> <p>EASEMENT FOR CONSTR OF DRIVES</p>	<p>BEGIN LIMIT OF ACCESS</p> <p>END LIMIT OF ACCESS</p> <p>LIMIT OF ACCESS</p> <p>PROPOSED WATER</p> <p>PROPOSED SANITARY SEWER</p>	<p>FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER</p>	<p>MA MORELAND ALTABELLI — AN ATLAS COMPANY —</p> <p>Moreland Altobelli Associates, LLC 327 Dahlonga Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</p>	<p>REVISION DATES</p> <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																													<p>RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS</p> <p>BID</p>	<p>44-0014</p>



DETAIL 1
44-0006
RONALD REAGAN BLVD. AT SHILOH RD.
WATER MAIN/FORCE MAIN X-ING
SCALE: 1"=40' HORZ.
1"=5' VERT.



DETAIL 2
44-0006
SHILOH RD. AT RONALD REAGAN BLVD.
WATER MAIN/FORCE MAIN X-ING
SCALE: 1"=40' HORZ.
1"=5' VERT.

ALSO SEE DETAILS ON
SHT. 44-0020

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS
END LIMIT OF ACCESS
LIMIT OF ACCESS
PROPOSED WATER
PROPOSED SANITARY SEWER

.....BLA
.....ELA
---|---|---|
---W---W---
---SS---SS---

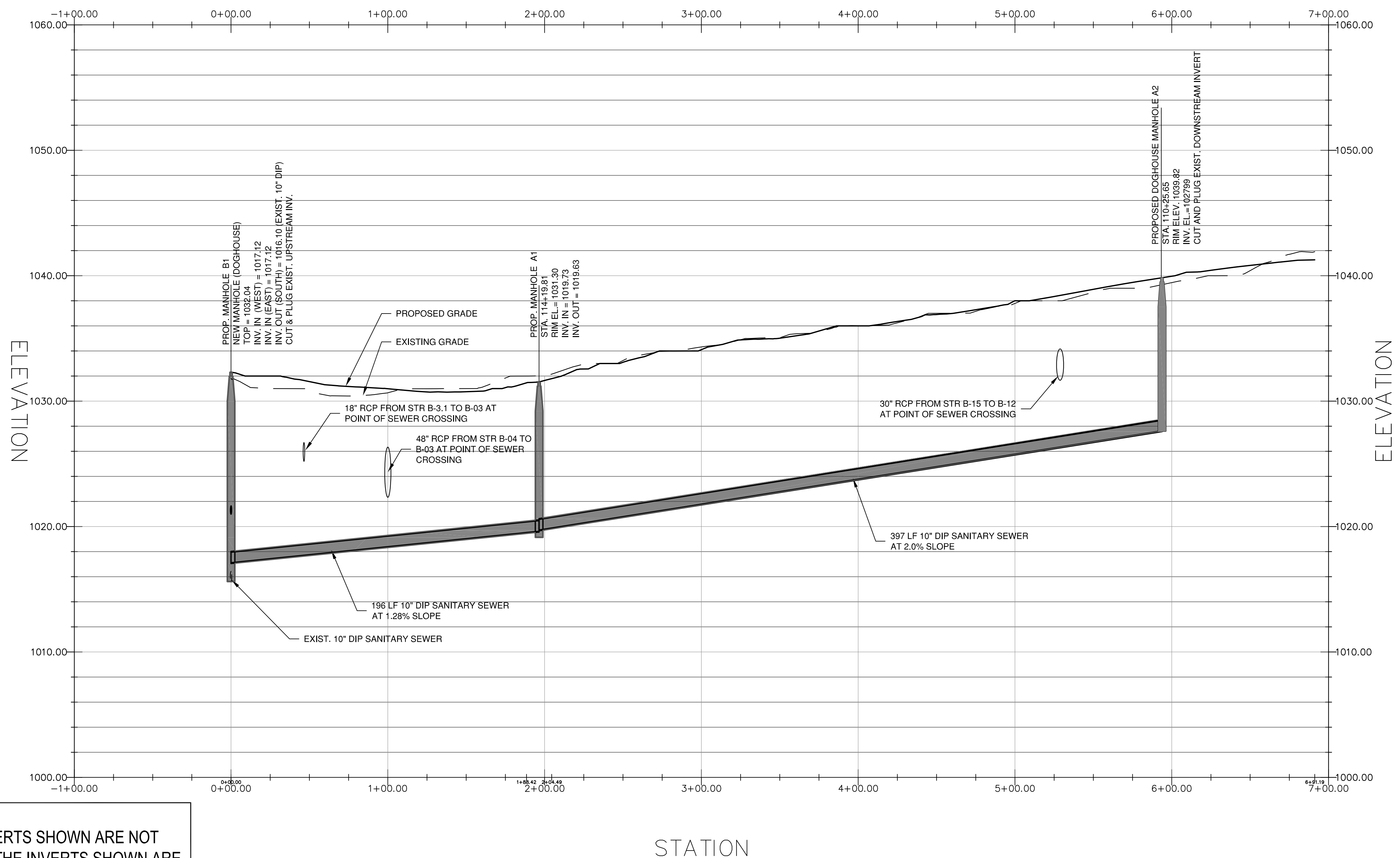
FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER

MA
MORELAND ALTOBELLI
-AN ATLAS COMPANY-
327 Dahlonega Street, Suite 1401
Cumming, Georgia 30040
Telephone (770) 781-5507

REVISION DATES

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID



NOTE:
THE SANITARY SEWER INVERTS SHOWN ARE NOT BASED ON FIELD SURVEY. THE INVERTS SHOWN ARE BASED ON THE FORSYTH COUNTY GIS SYSTEM. ALL INVERTS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR MUST NOTIFY THE COUNTY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

DETAIL 1
44-0002
RONALD REAGAN BLVD. SEWER ALIGNMENT A
SCALE: 1"=40' HORZ.
1"=5' VERT.

PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS

END LIMIT OF ACCESS

LIMIT OF ACCESS

PROPOSED WATER

PROPOSED SANITARY SEWER

FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER

MA

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REVISION DATES

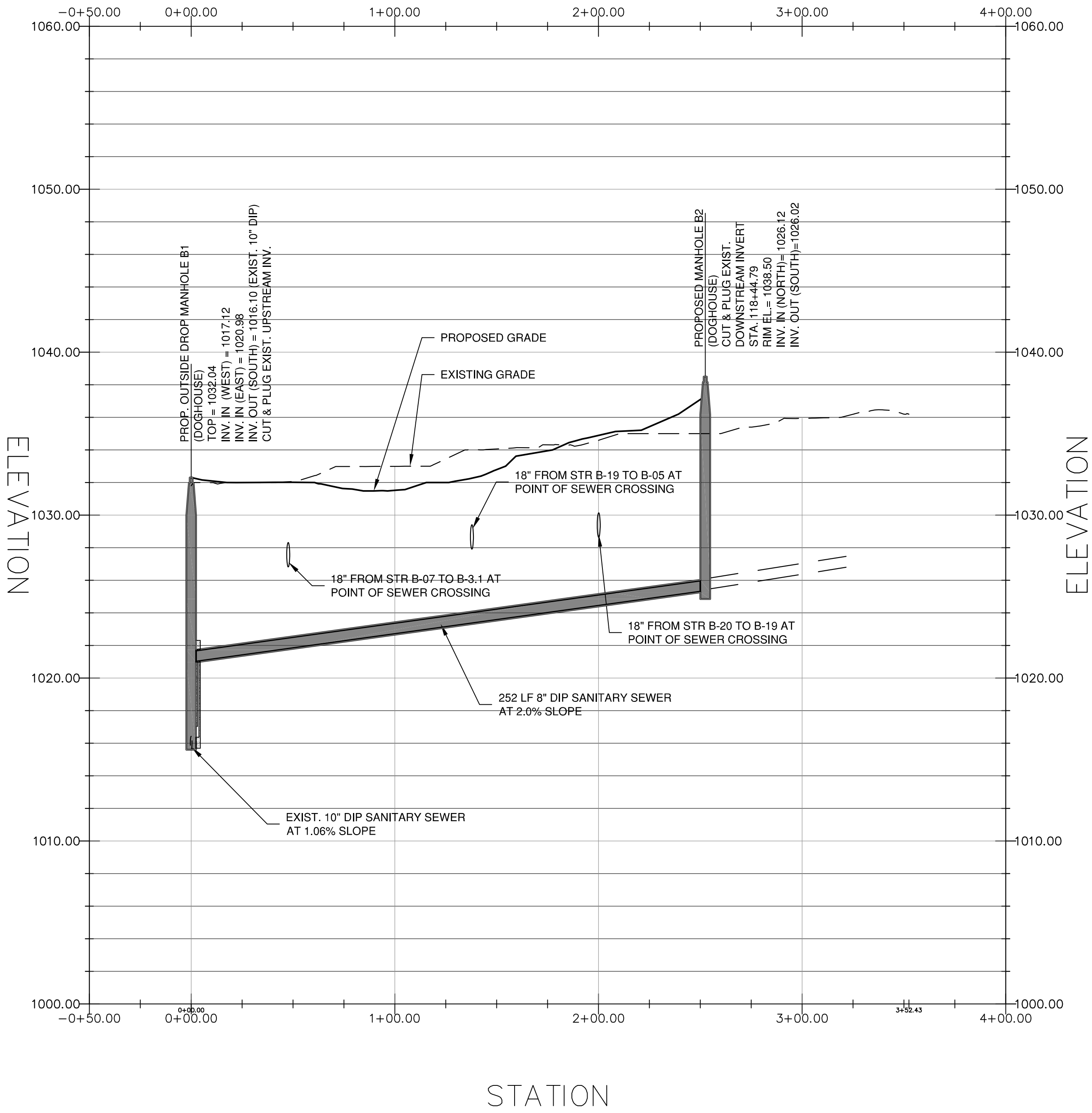
RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID

44-0016

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NOTE:
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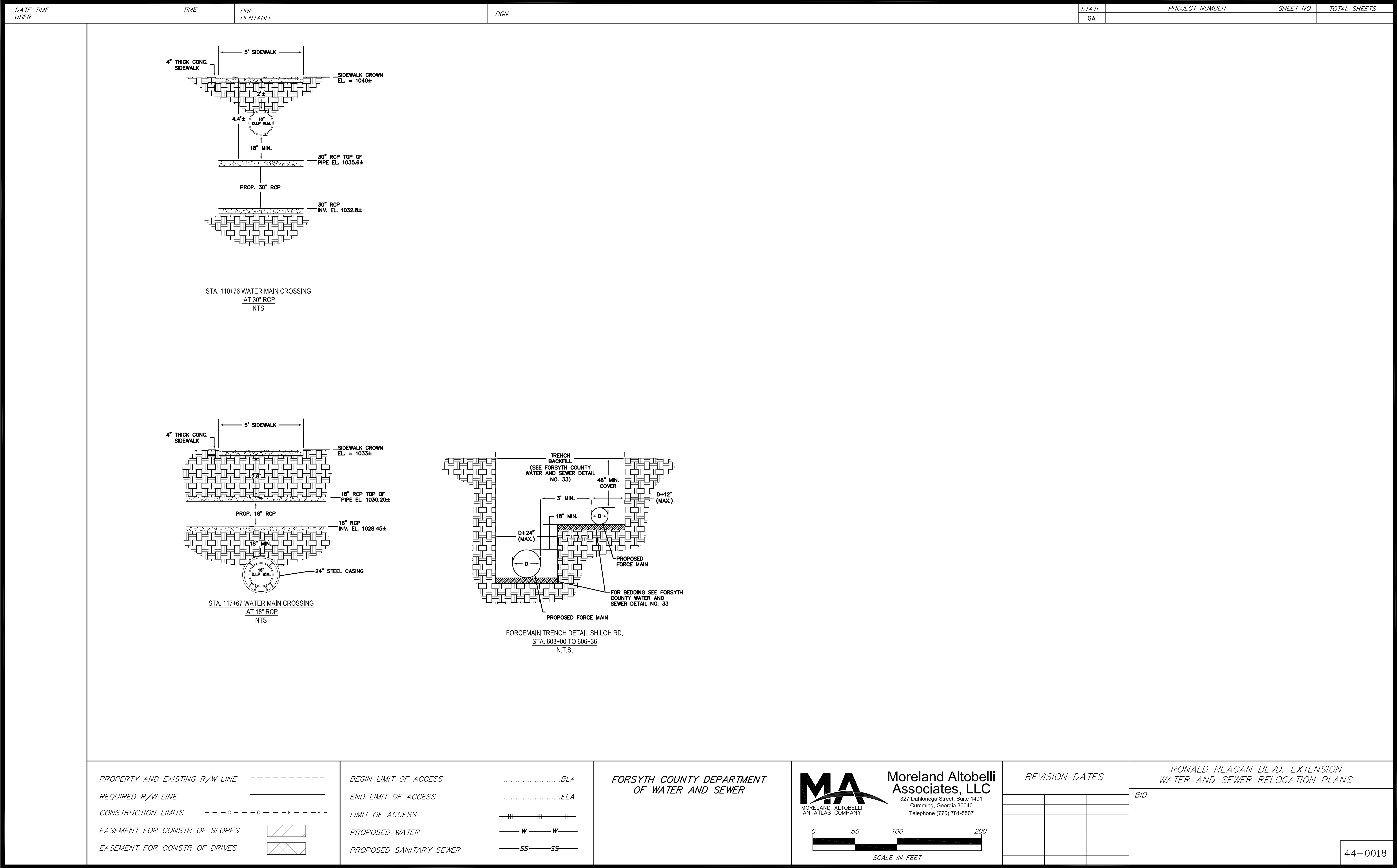


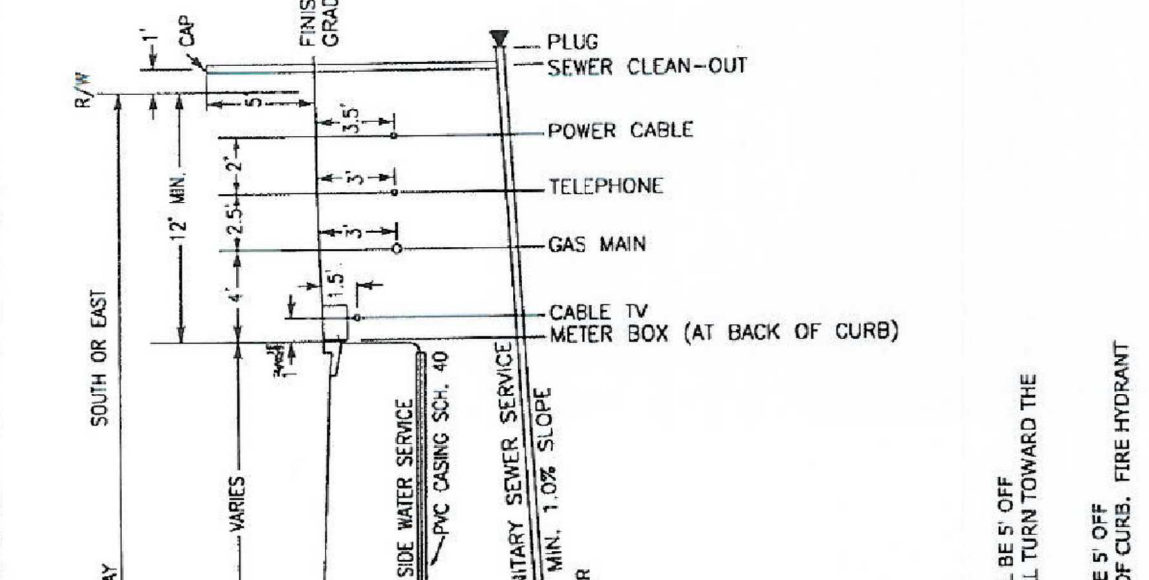
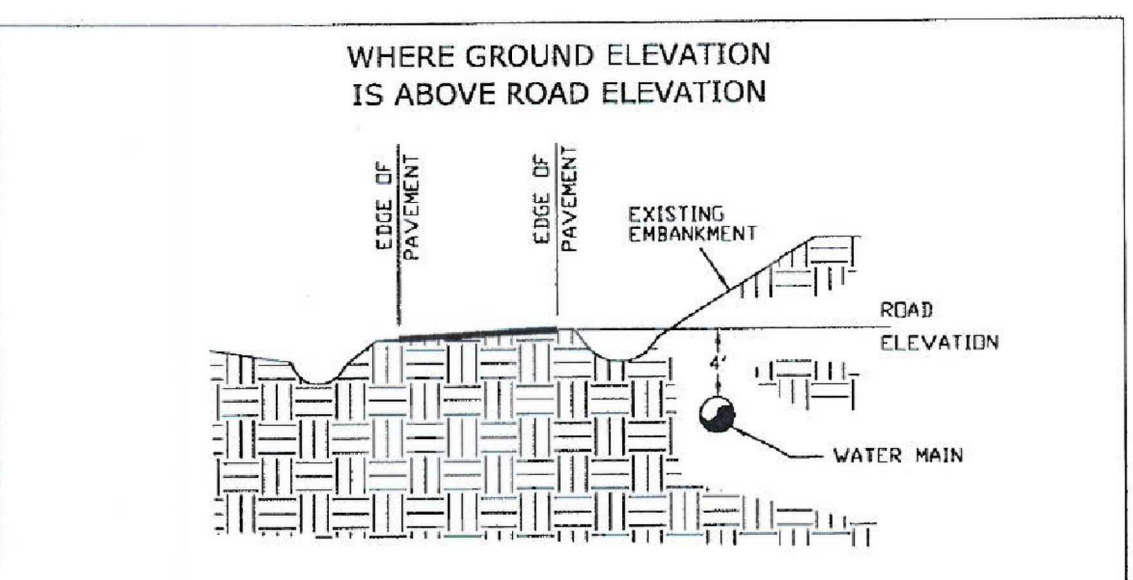
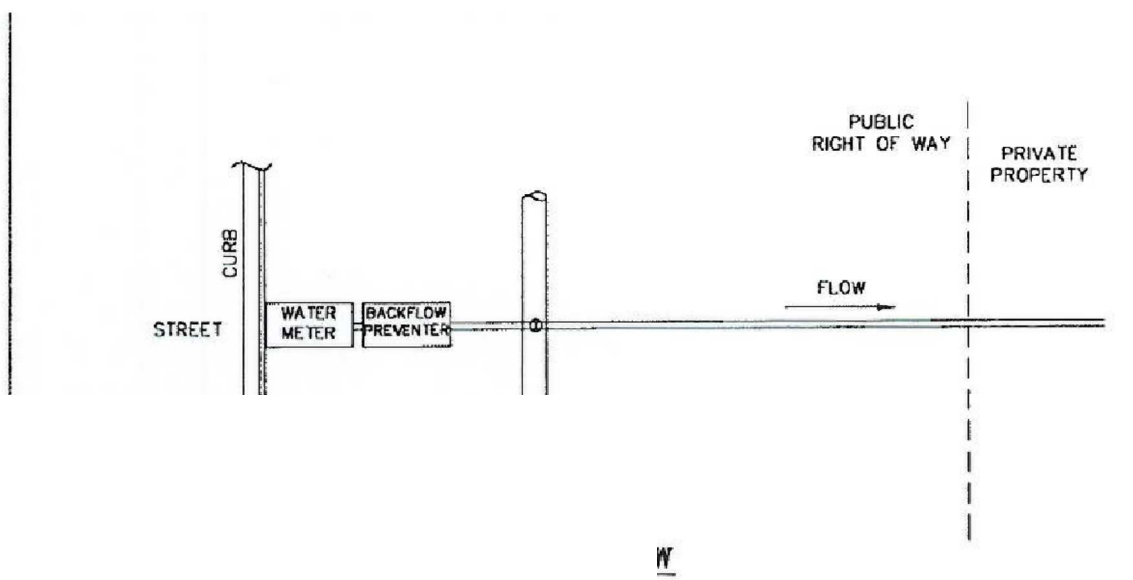
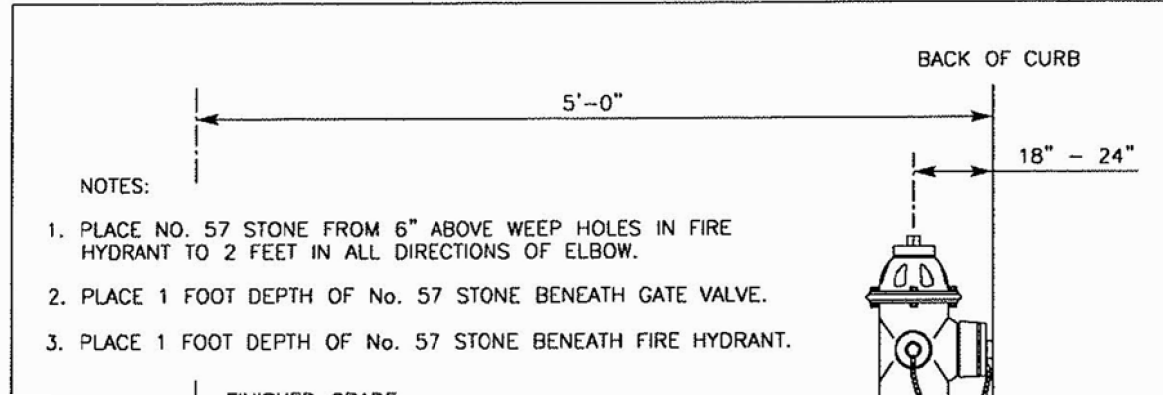
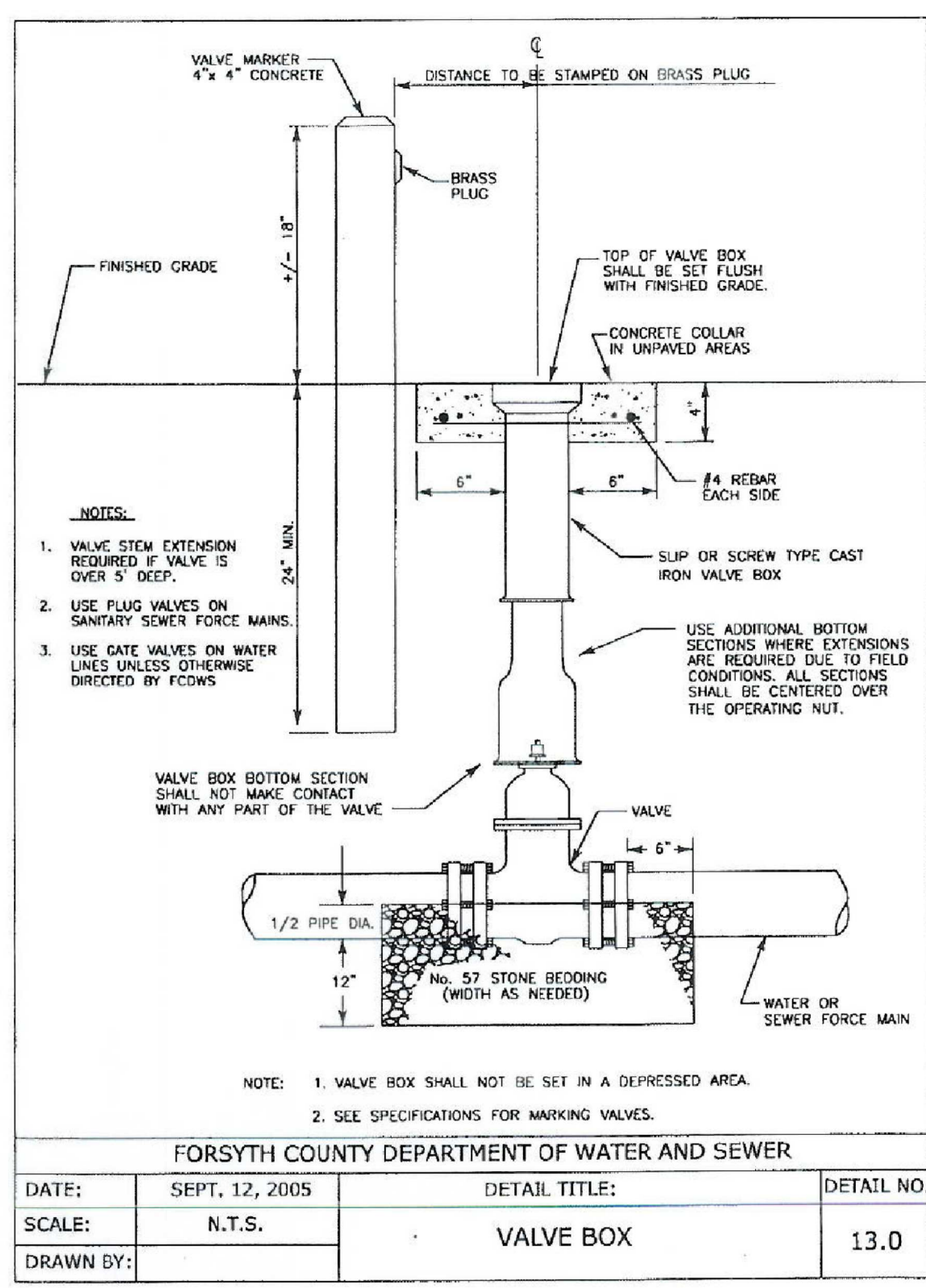
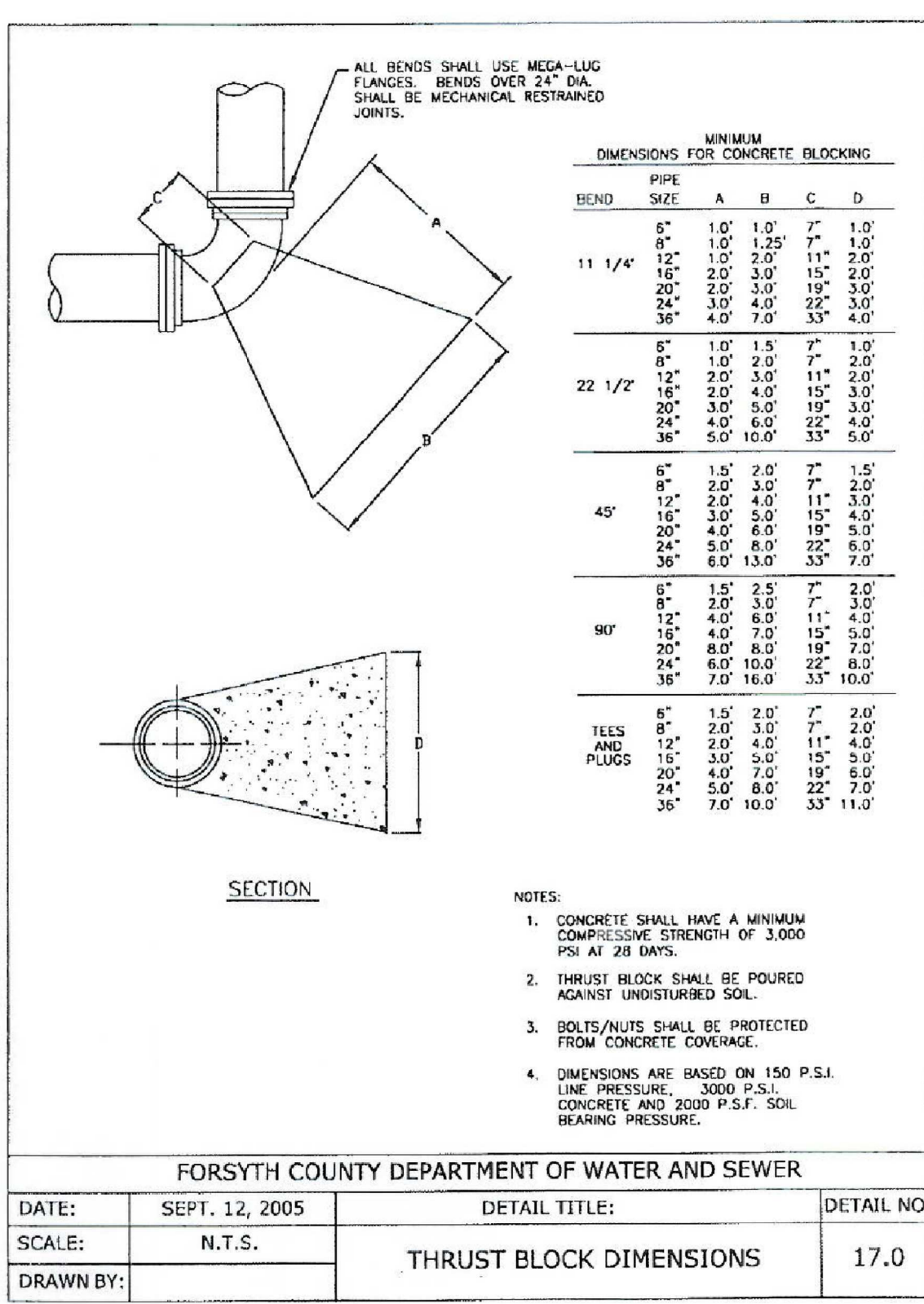
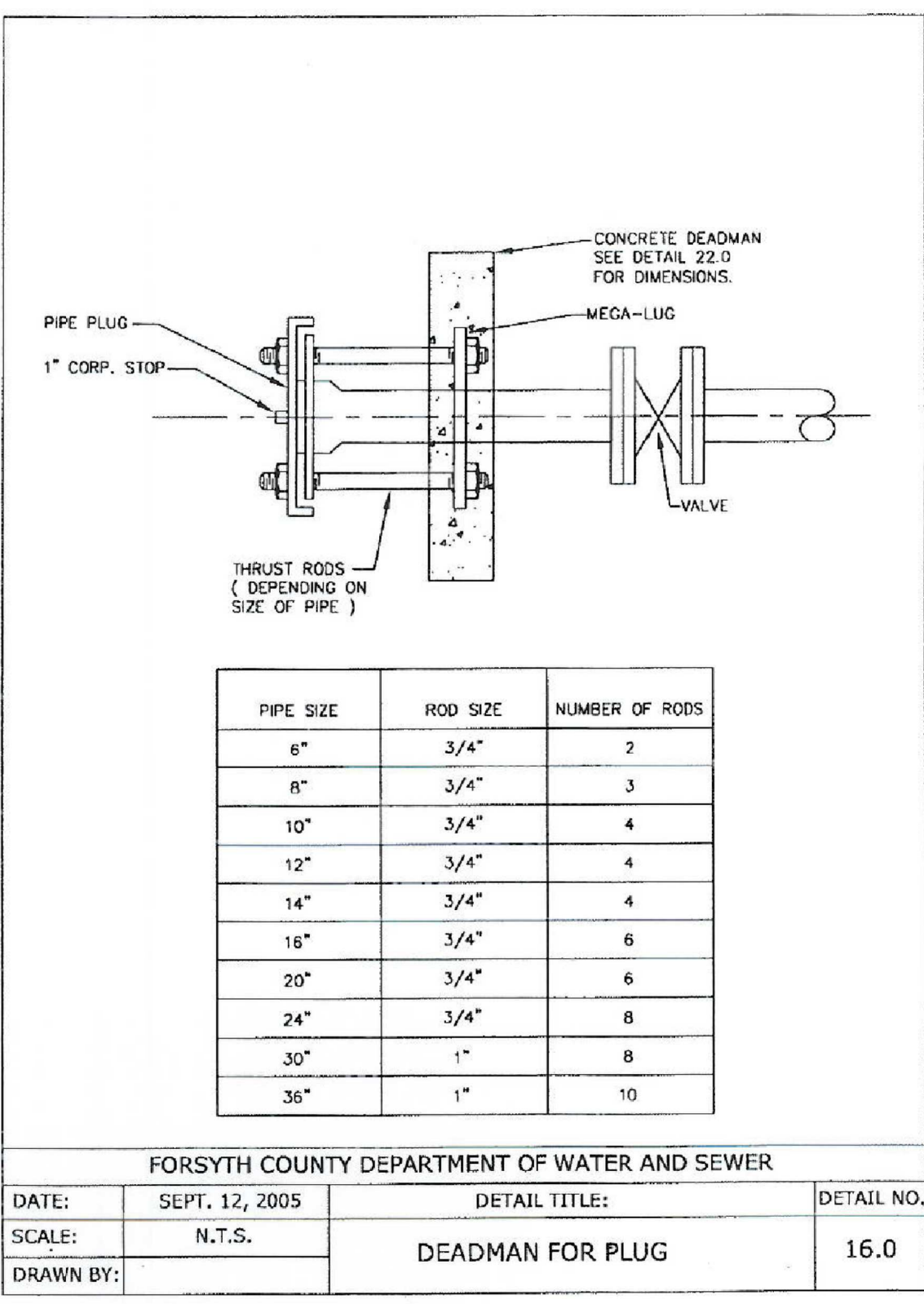
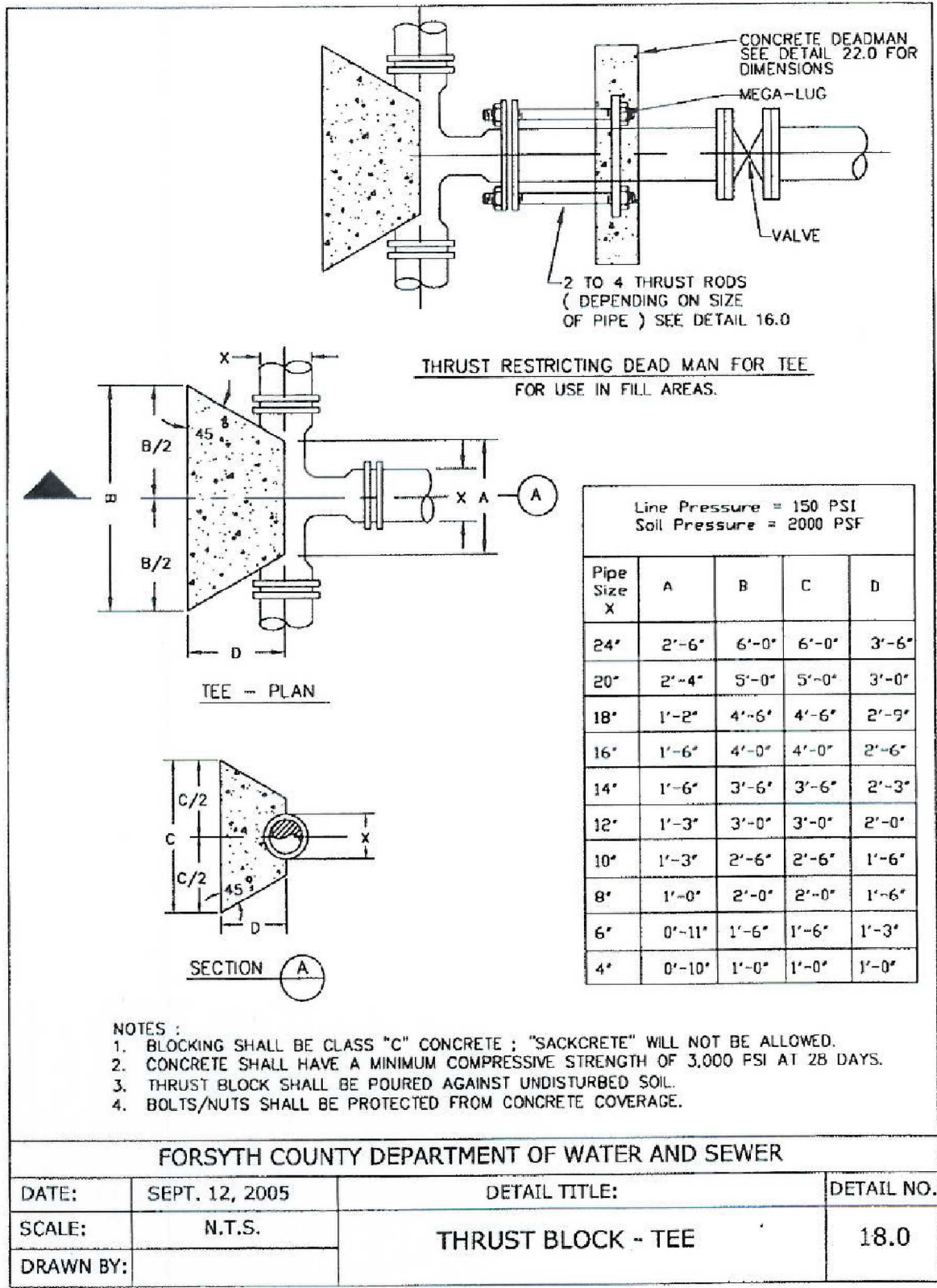
DETAIL 2
44-0002

RONALD REAGAN BLVD. SEWER ALIGNMENT B

SCALE: 1"=40' HORZ.
1"=5' VERT.

PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	BEGIN LIMIT OF ACCESS END LIMIT OF ACCESS LIMIT OF ACCESS PROPOSED WATER PROPOSED SANITARY SEWER	FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER	<div>MA MORELAND ALTOBELLI -AN ATLAS COMPANY-</div> <div>Moreland Altobelli Associates, LLC 327 Dahlonga Street, Suite 1401 Cumming, Georgia 30040 Telephone (770) 781-5507</div>	REVISION DATES	RONALD REAGAN BLVD. EXTENSION WATER AND SEWER RELOCATION PLANS
					BID
					44-0017





PROPERTY AND EXISTING R/W LINE -----

REQUIRED R/W LINE -----

CONSTRUCTION LIMITS - - - C - - - F - - - F -

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESSBLA

END LIMIT OF ACCESSELA

LIMIT OF ACCESS

PROPOSED WATER

PROPOSED SANITARY SEWER

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER

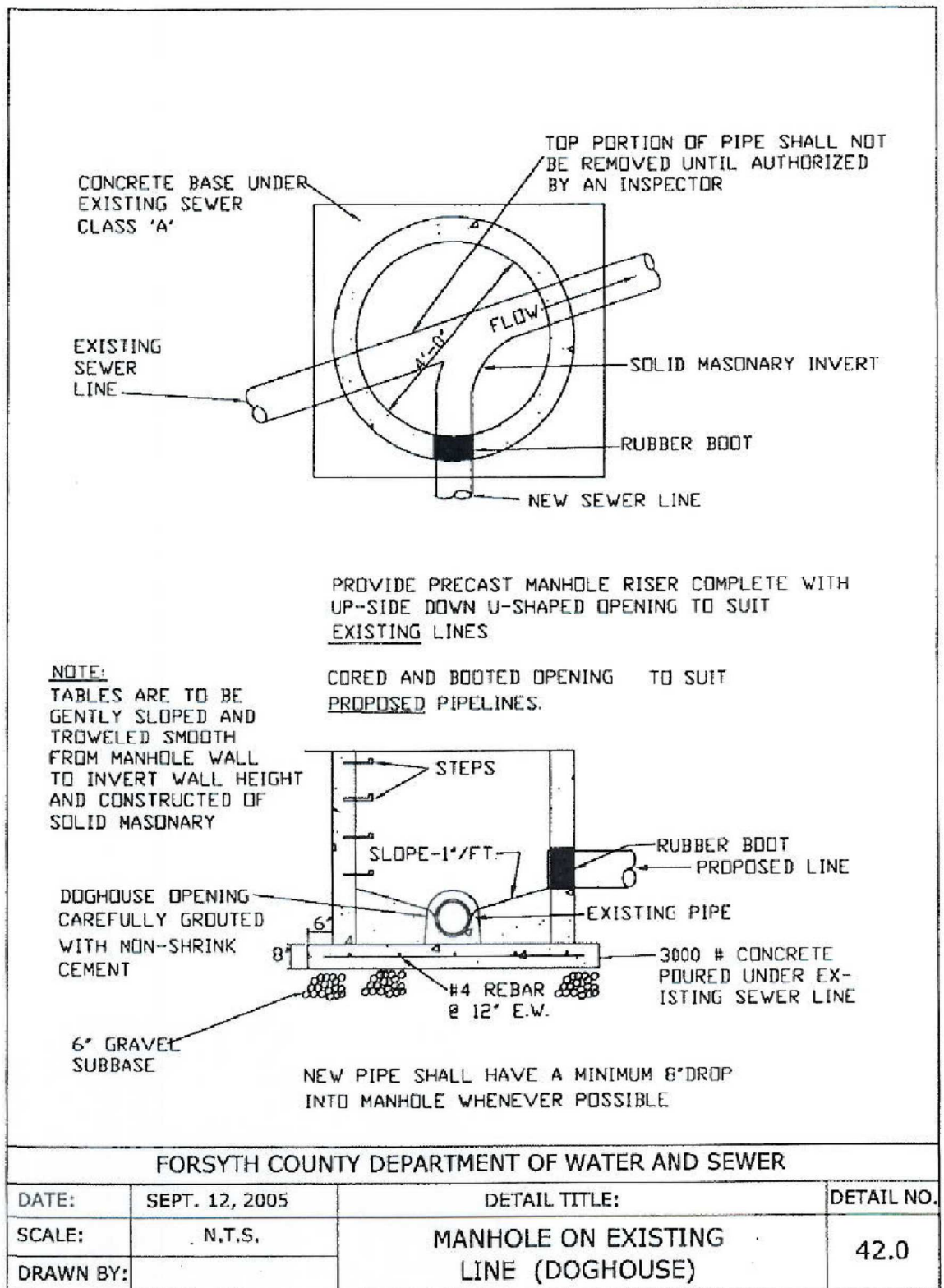
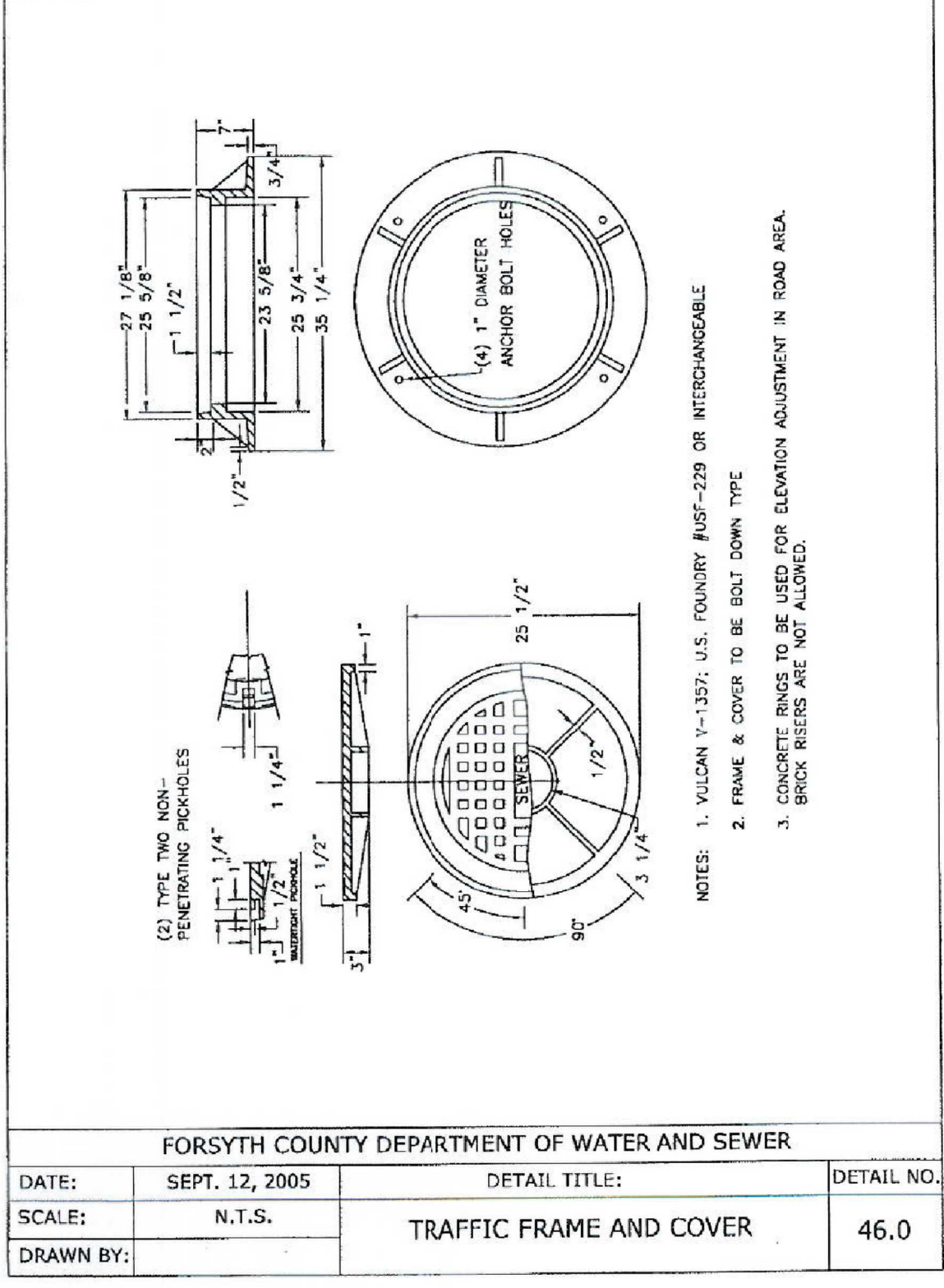
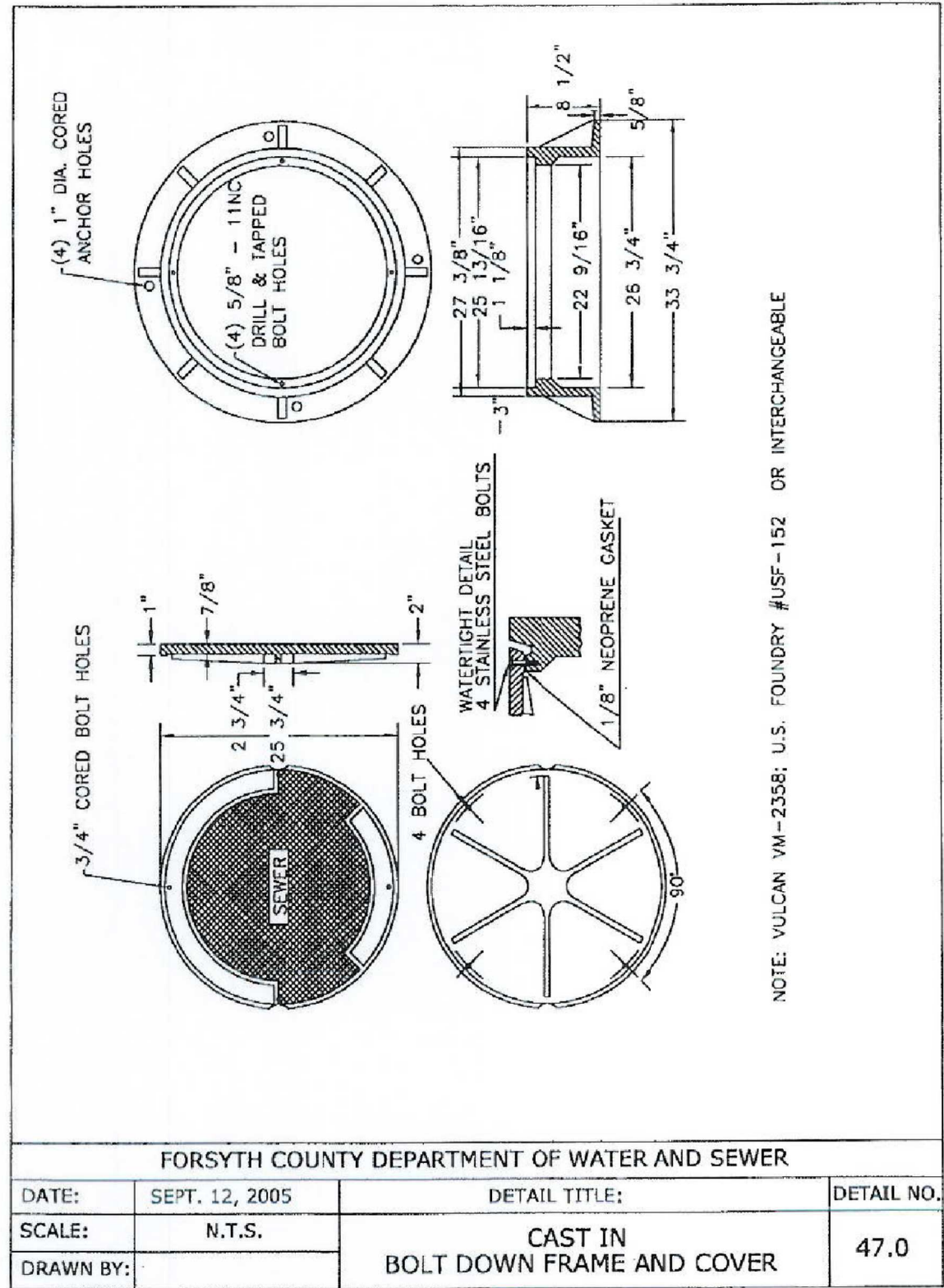
MA
MORELAND ALTABELLI
-AN ATLAS COMPANY-

**Moreland Altobelli
Associates, LLC**
327 Dahlonga Street, Suite 1401
Cumming, Georgia 30040
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REVISION DATES

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID



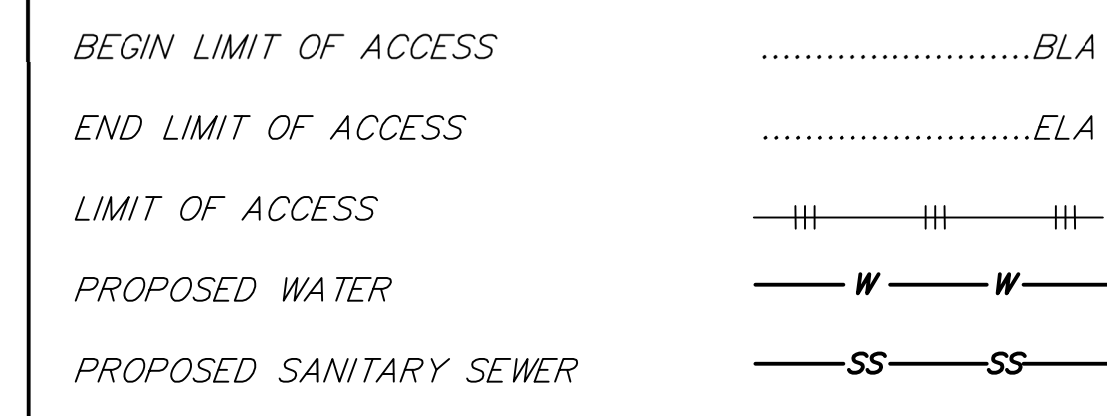
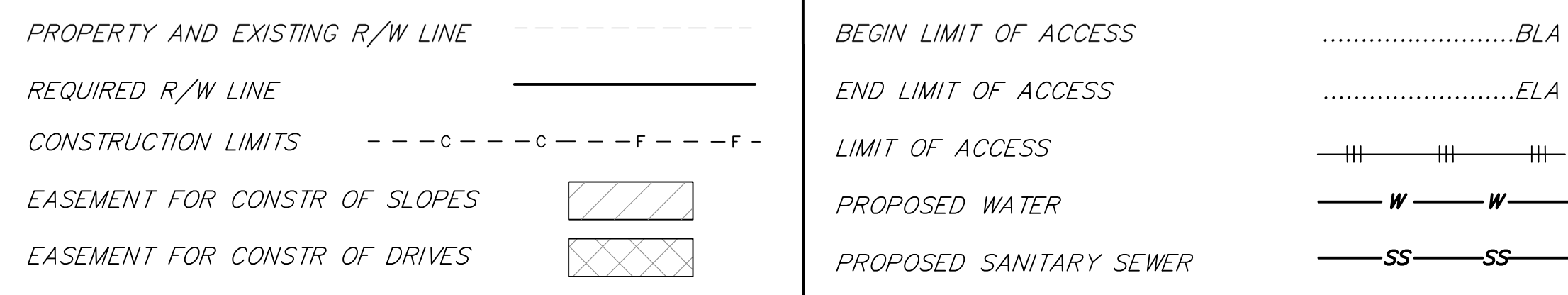
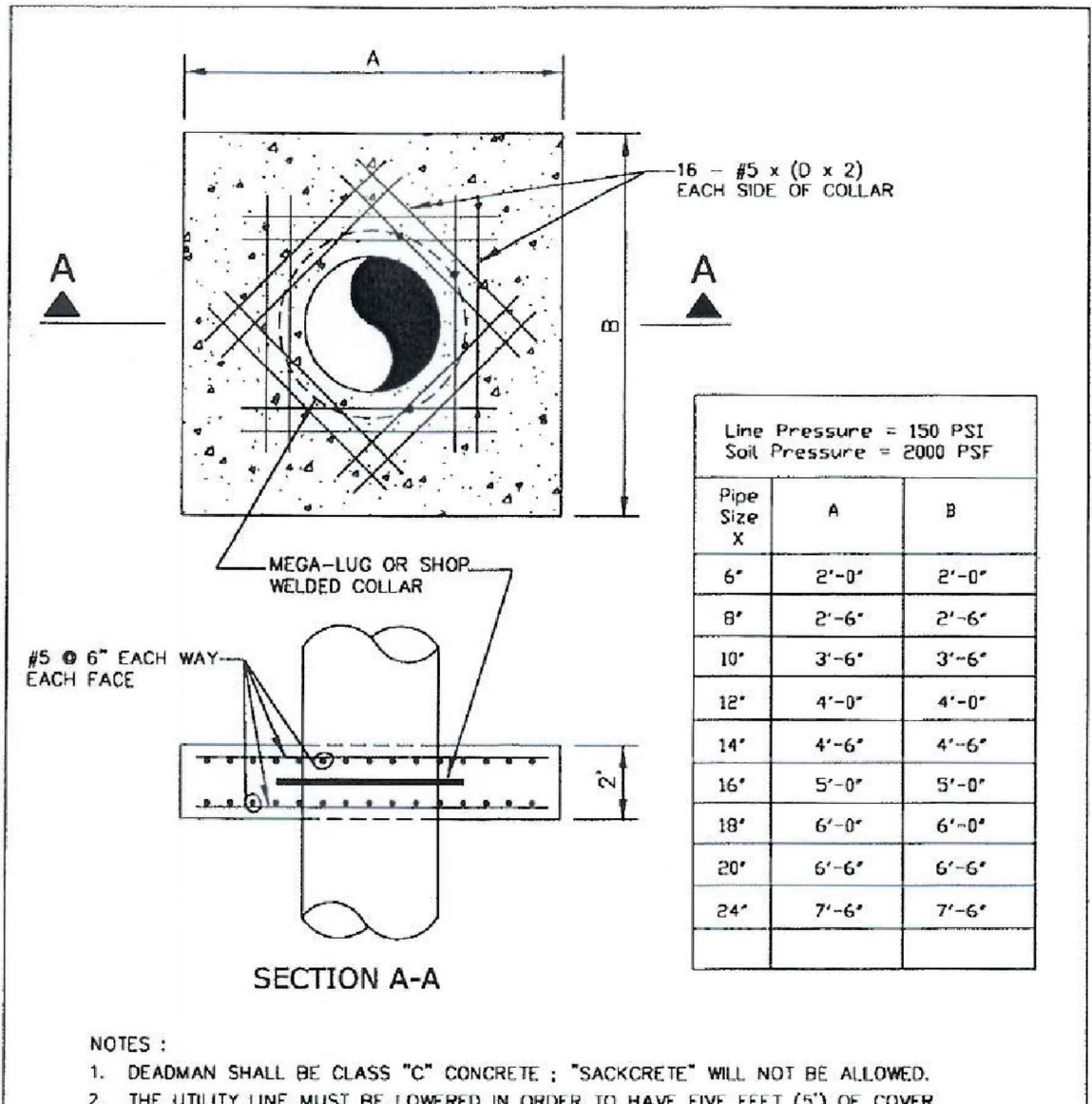
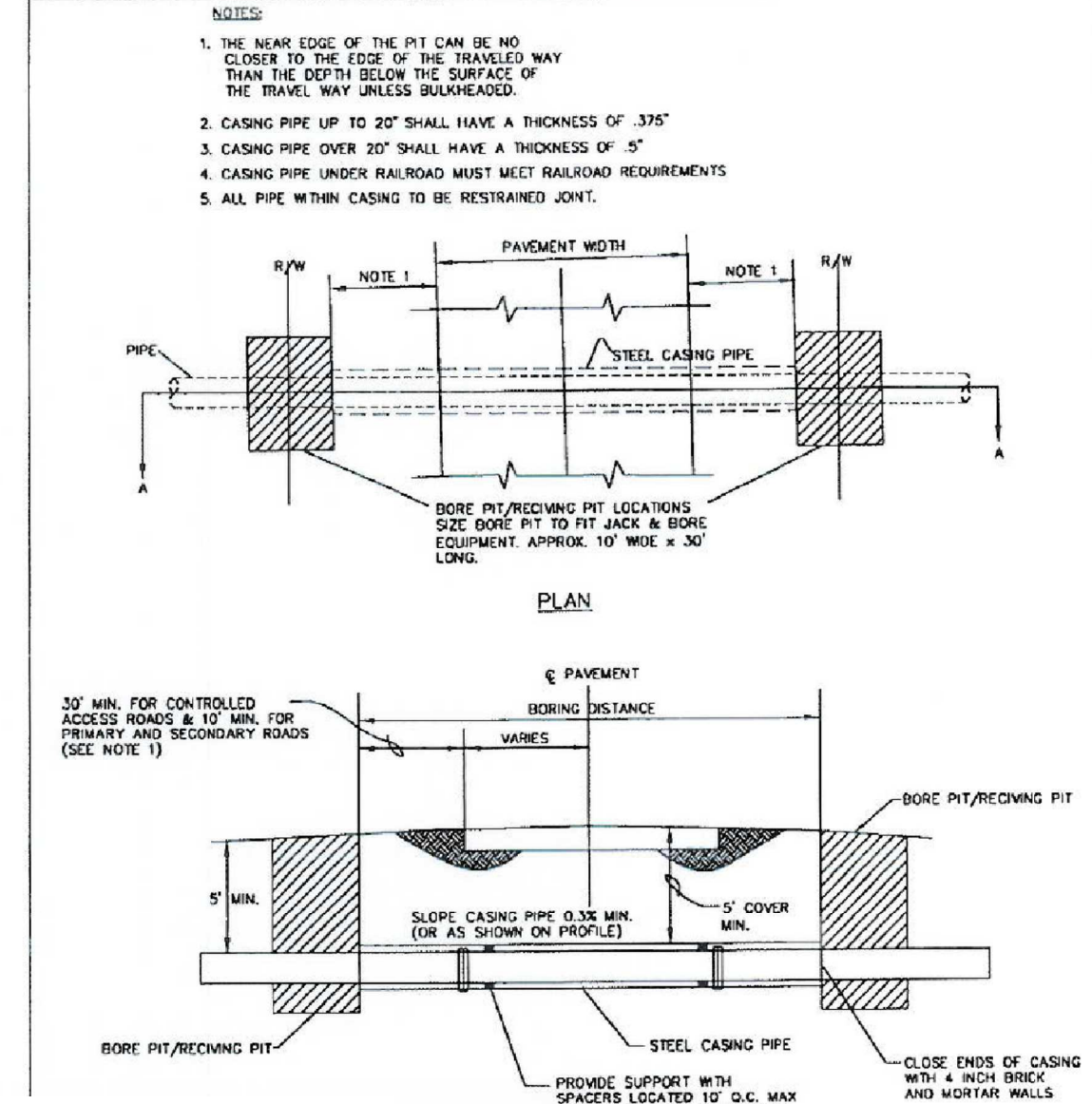
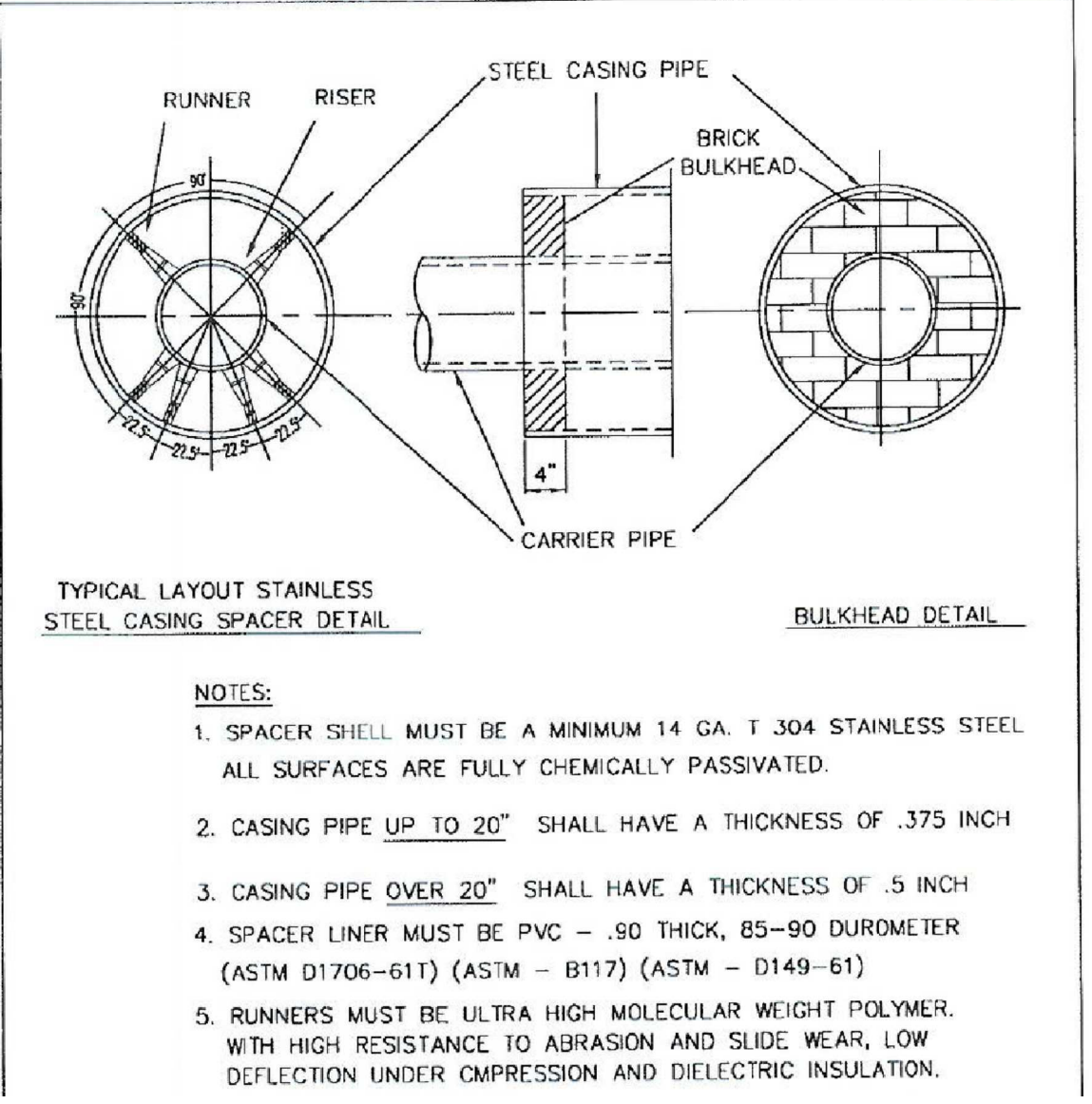
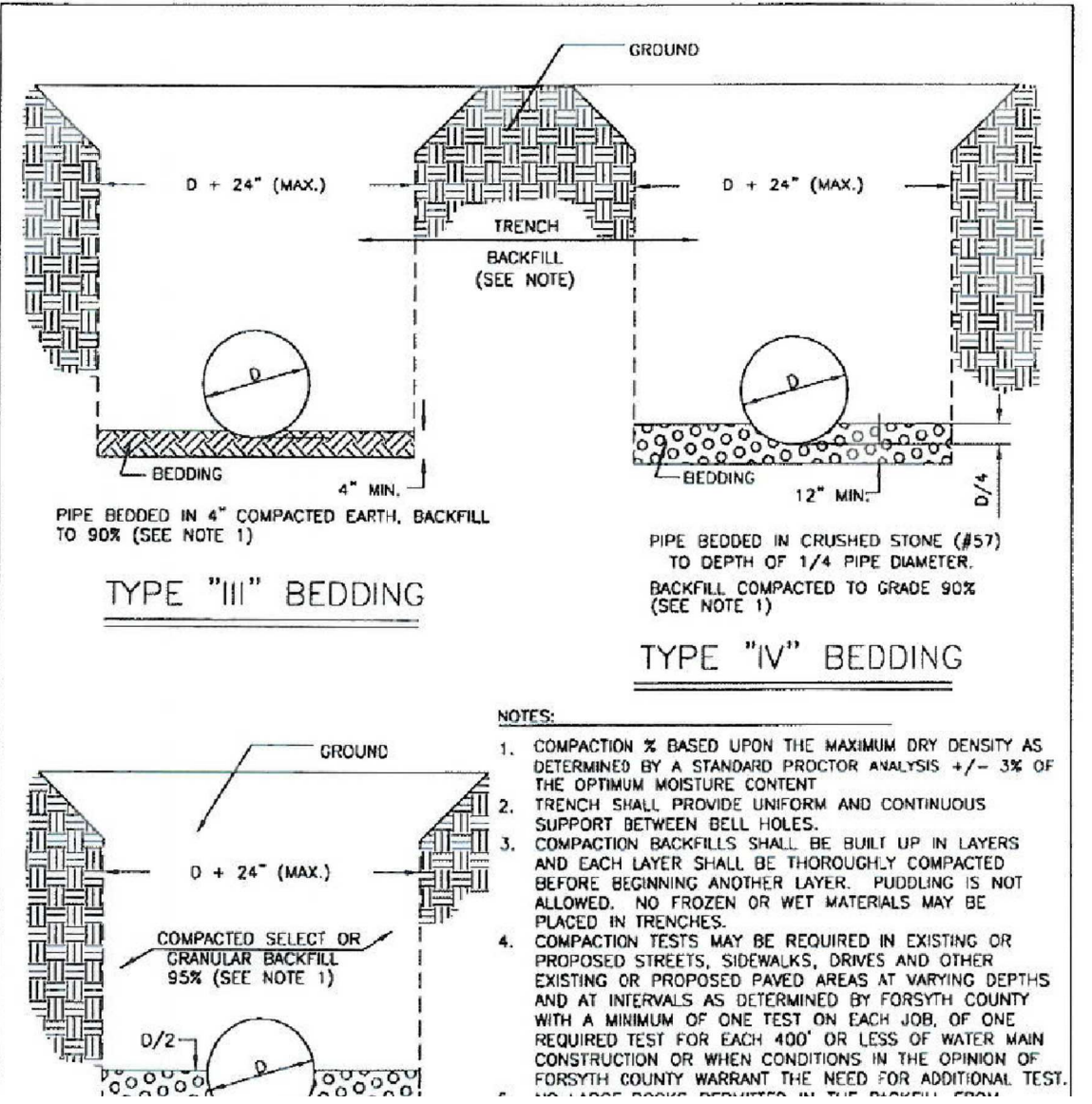
DUCTILE IRON PIPE DEPTH

SIZE INCHES	PRESSURE CLASS P.S.I.	LAYING CONDITIONS		
		MAXIMUM DEPTH OF COVER IN FEET		
		TYPE III	TYPE IV	TYPE V
6	350	37	47	65
8	350	25	34	50
10	350	19	28	45
12	350	19	28	44
14	250	15	23	36
	300	17	26	42
	350	19	27	44
16	250	15	24	34
	300	17	26	39
	350	20	28	44
18	250	14	22	31
	300	17	26	36
	350	19	28	41
20	250	14	22	30
	300	17	26	35
	350	19	28	38
24	200	12	17	25
	250	15	20	29
	300	17	24	32
	350	19	28	37

AWWA M41 TABLE 4 - 6

FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER

DATE:	SEPT. 12, 2005	DETAIL TITLE:	DETAIL NO.
SCALE:	N.T.S.	MAXIMUM TRENCH DEPTHS, D.I.P.	34.0
DRAWN BY:			



FORSYTH COUNTY DEPARTMENT OF WATER AND SEWER

MA

MORELAND ALTABELLI
-AN ATLAS COMPANY-

Moreland Altobelli Associates, LLC

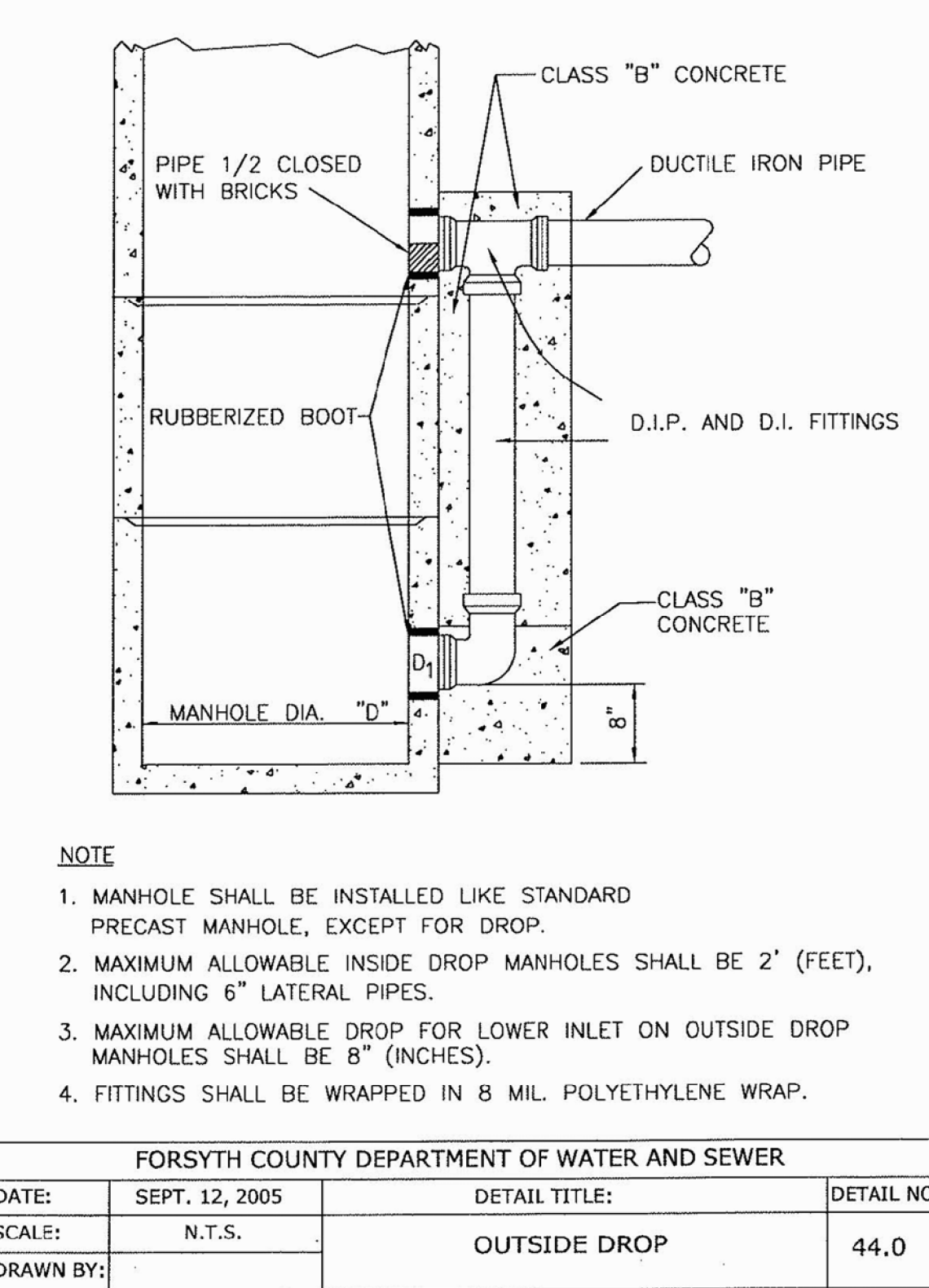
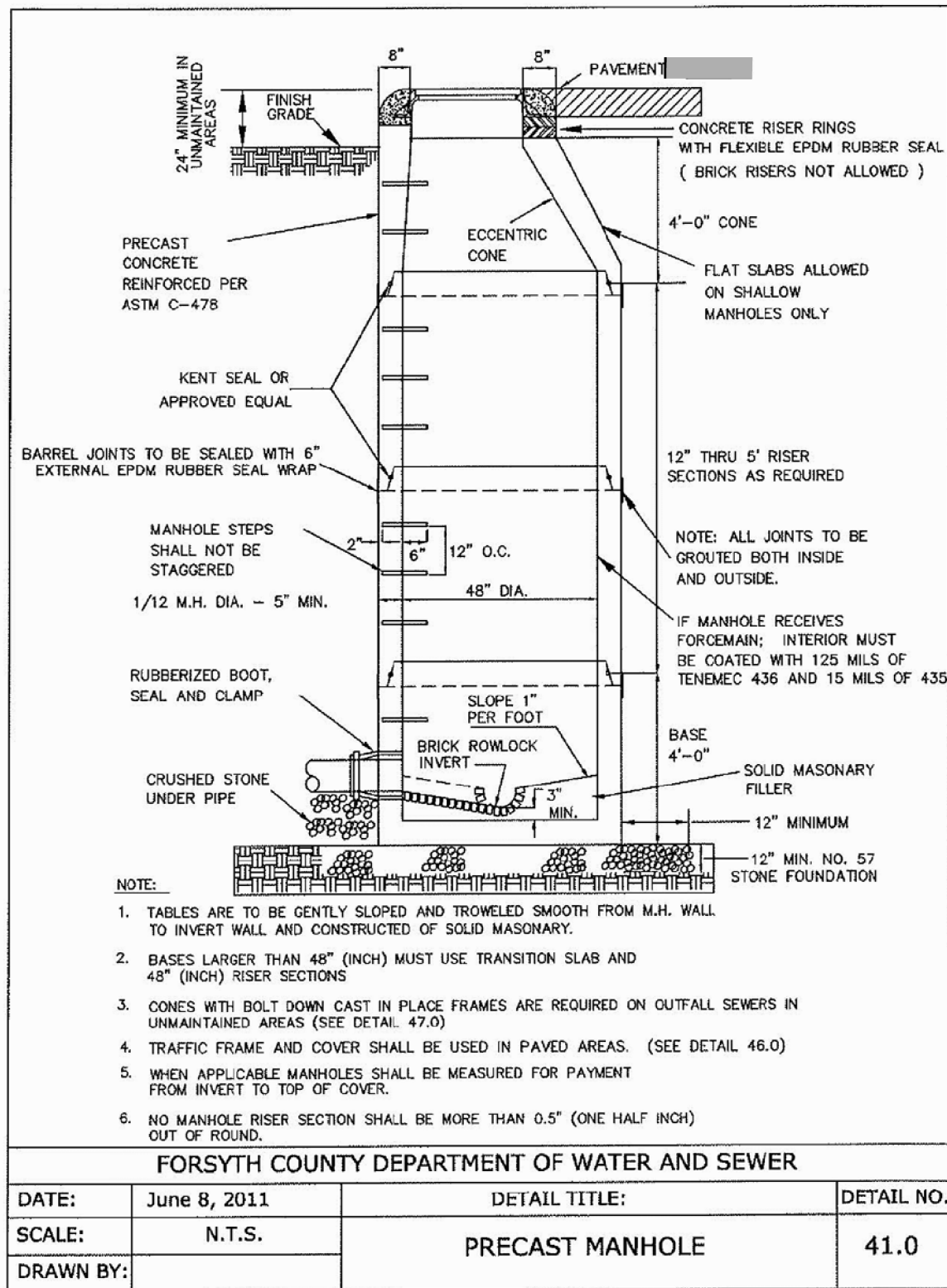
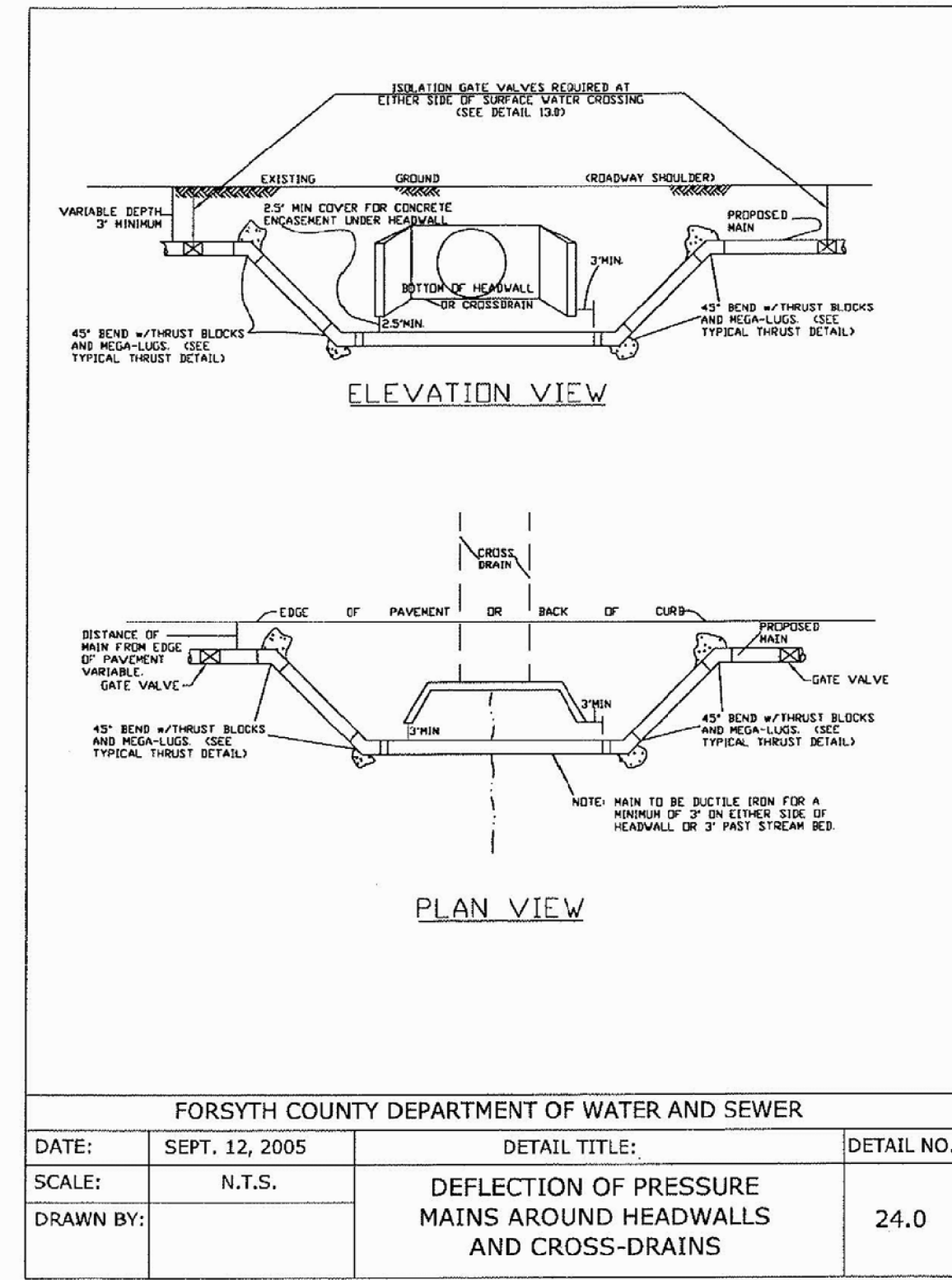
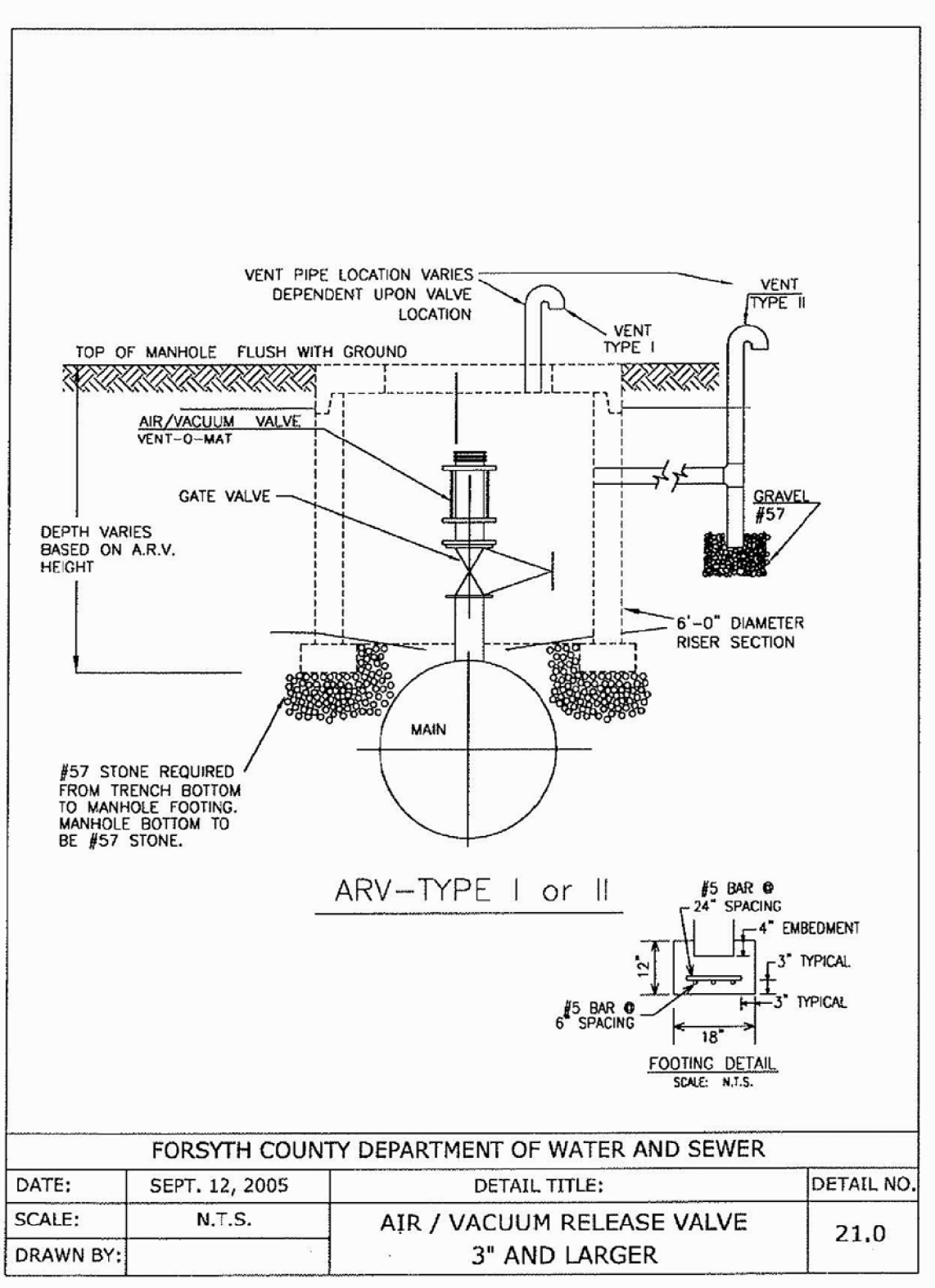
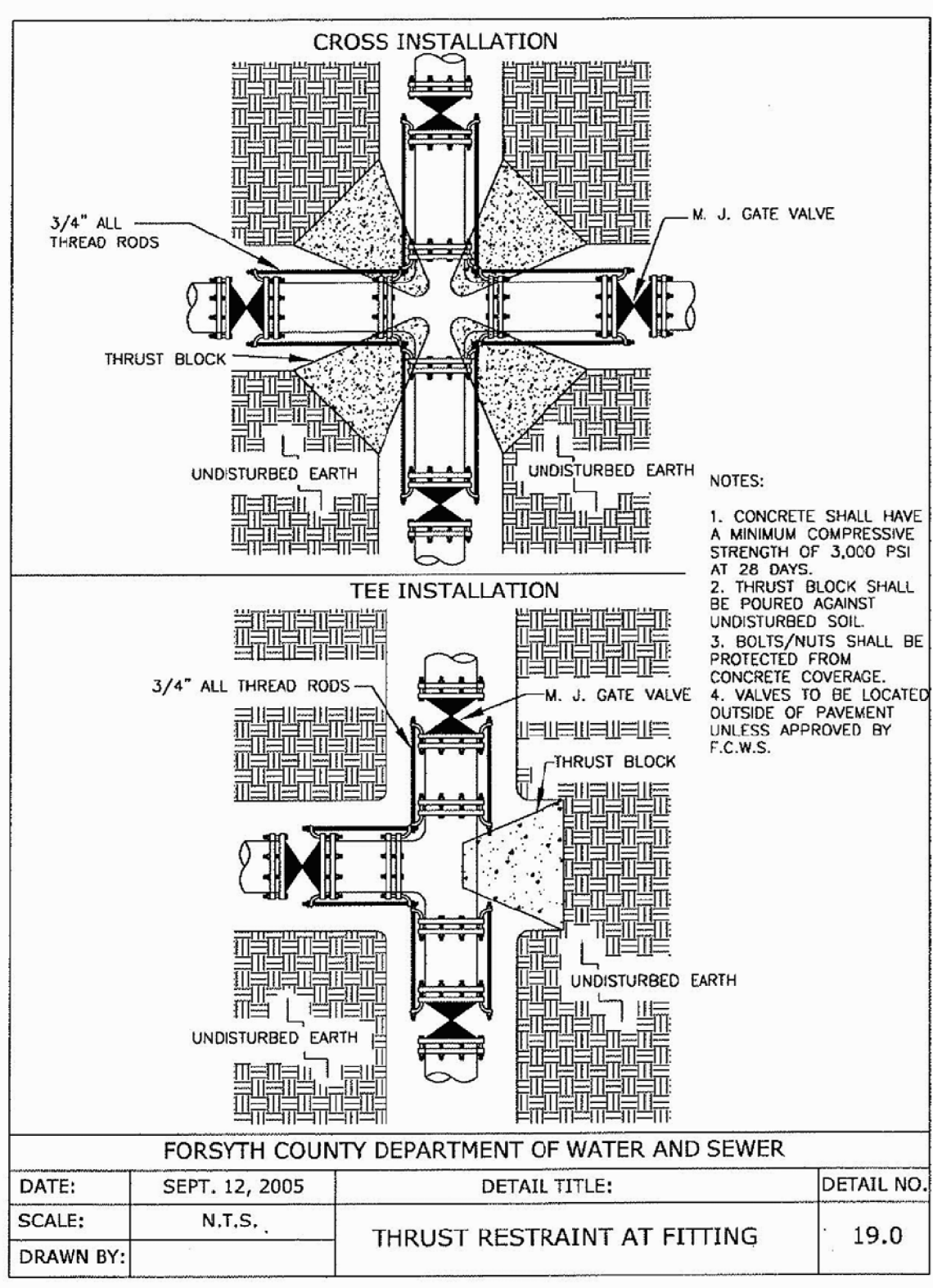
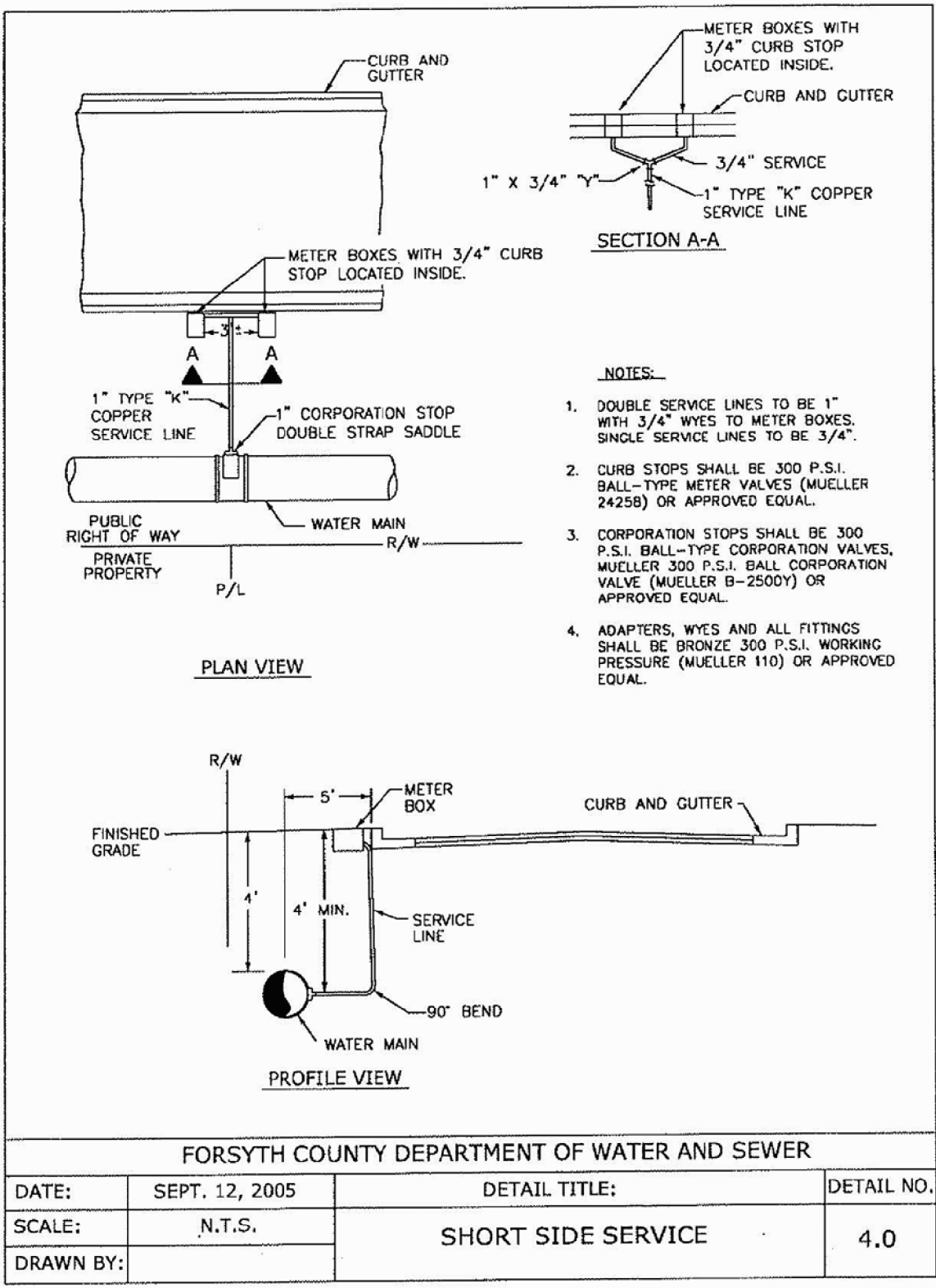
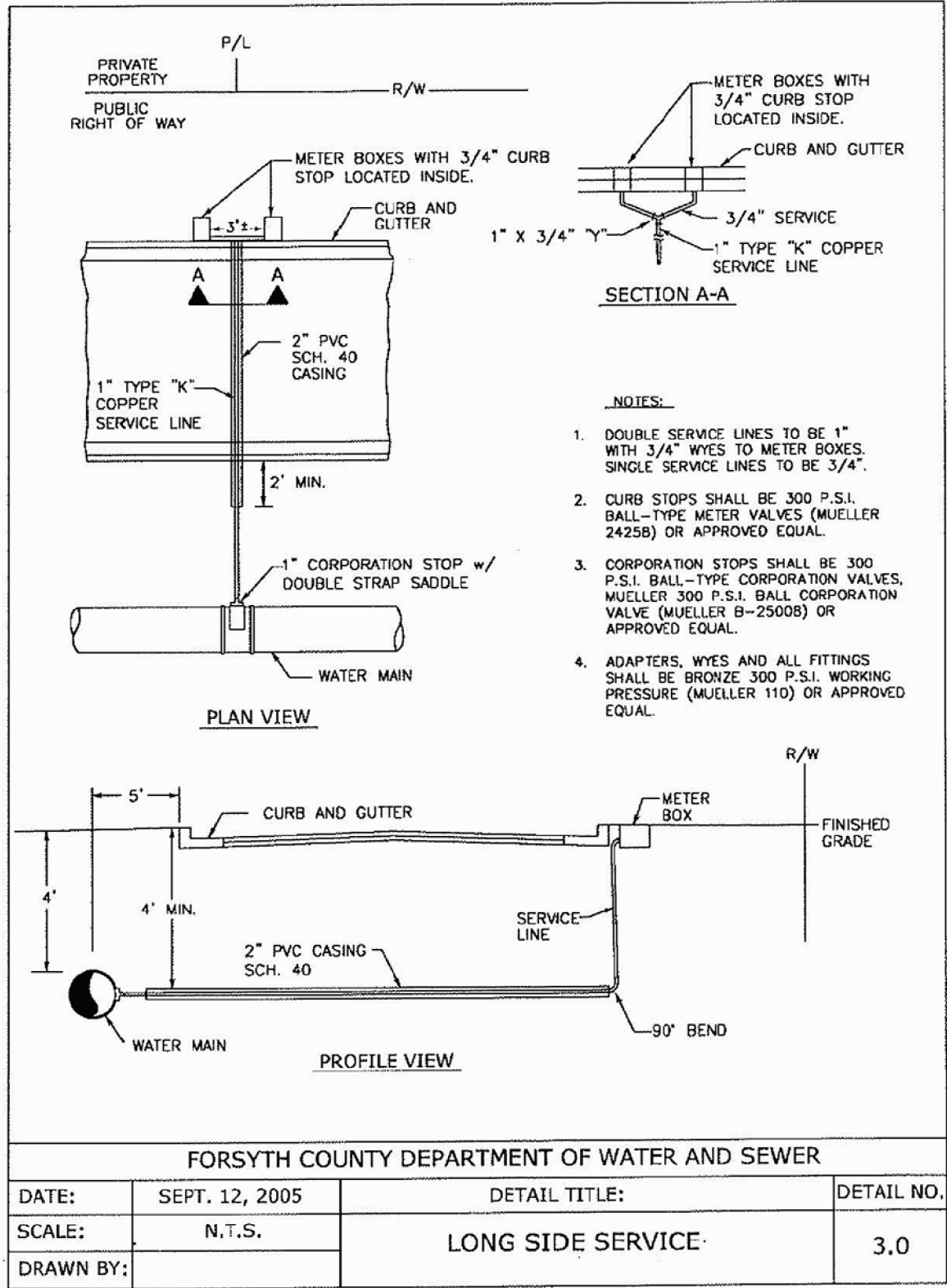
327 Dahonega Street, Suite 1401
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Telephone (770) 781-5507

REVISION DATES	

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID

44-0020



PROPERTY AND EXISTING R/W LINE -----

REQUIRED R/W LINE -----

CONSTRUCTION LIMITS - - - C - - - F - - - F -

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESSBLA

END LIMIT OF ACCESSELA

LIMIT OF ACCESS

PROPOSED WATER

PROPOSED SANITARY SEWER

FORSYTH COUNTY DEPARTMENT
OF WATER AND SEWER



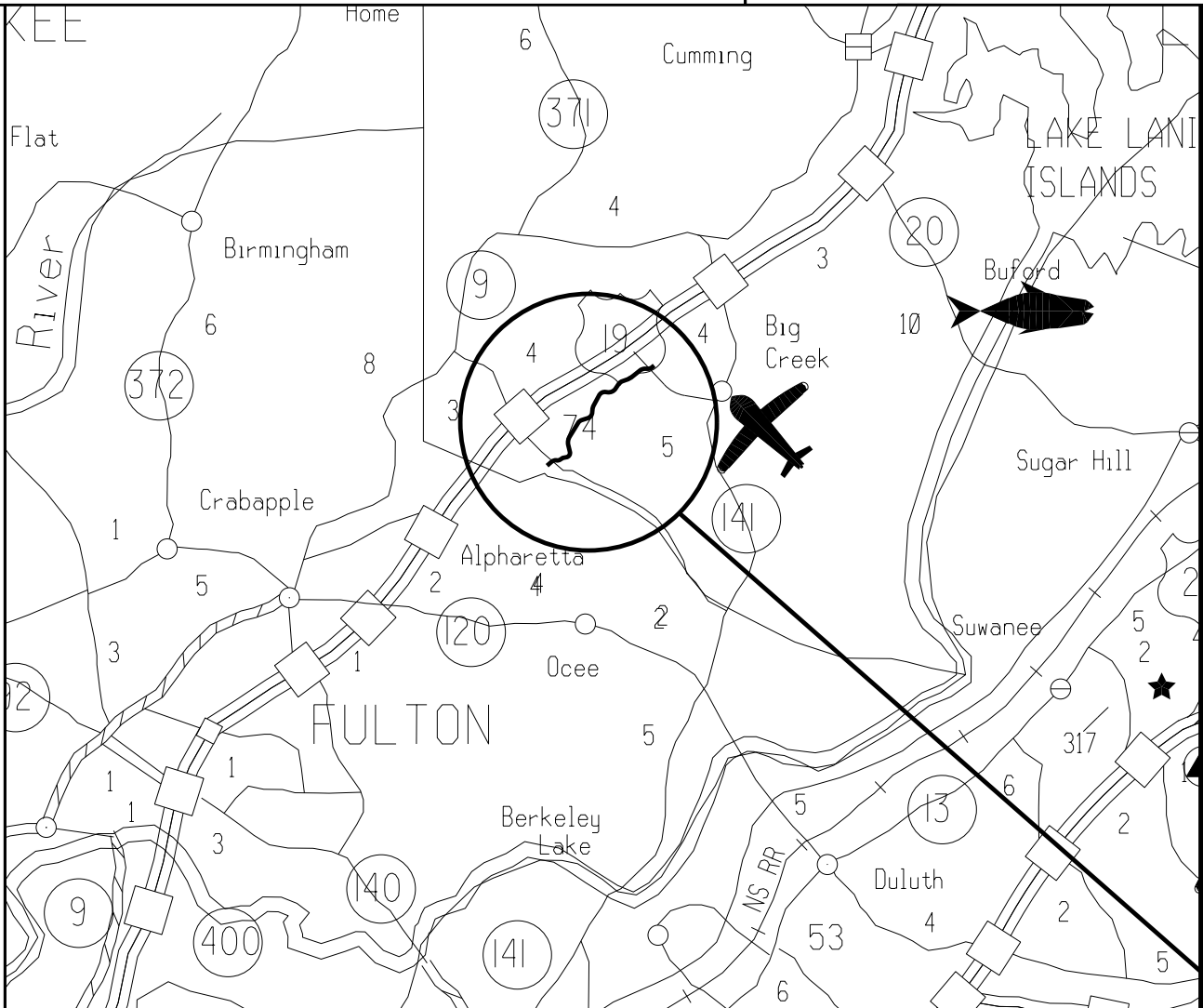
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REVISION DATES

RONALD REAGAN BLVD. EXTENSION
WATER AND SEWER RELOCATION PLANS

BID

[illegible]



LOCATION SKETCH

"I certify that this Erosion, Sedimentation and Pollution Control Plan has been prepared in accordance with Part IV, of the General NPDES Permit No. GARI000002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for an appropriate and comprehensive system of best management practices required by the Georgia Water Quality Control Act and the document "Manual for Erosion and Sediment Control in Georgia" (Manual) published by the State Soil and Water Conservation Commission as of January 1st of the year in which the land disturbing activity was permitted, provides for the sampling of the receiving water(s) or the sampling of the storm water outfalls and that the designed system of best management practices and sampling methods is expected to meet the requirements contained in the General NPDES Permit No. GARI000002."

"I certify that the permittee's Erosion, Sedimentation and Pollution Control Plan provides for the monitoring of: (a) all perennial and intermittent streams and other water bodies shown on the USGS topographic map and all other field verified perennial and intermittent streams and other water bodies, of (b) where any such specific identified perennial or intermittent stream and other water body is not proposed to be sampled, I have determined in my professional judgement, utilizing the factors required in the General NPDES Permit No. GARI000002, that the increase in the turbidity of each specific identified sampled receiving water will be representative of the increase in the turbidity of a specific identified un-sampled receiving water."

"I certify under penalty of law that this plan was prepared after a site visit to the location described herein by myself or my authorized agent, under my supervision."

BEGIN PROJECT
RONALD REAGAN BLVD
STA 100+00.00
N 2280099.1458
E 1495470.9790

PRIMARY PERMITTEE

FORSYTH COUNTY ENGINEERING DEPARTMENT
110 East Main Street, Suite 120
Cumming, Georgia 30040
Phone: (770) 781-2165
Email:

24 HOUR CONTACT:

Name _____

Street Address _____

City, State Zip _____

Phone Number _____

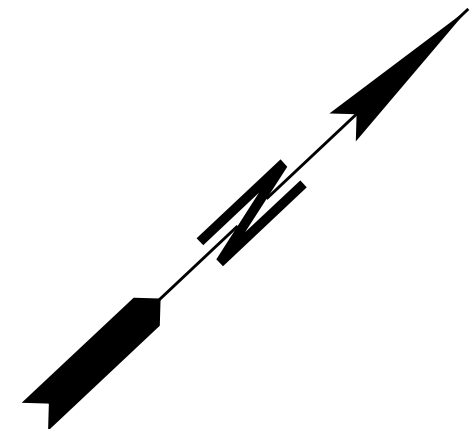
Email Address _____

Contractor shall complete the information in this box.

FORSYTH COUNTY ENGINEERING DEPARTMENT

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN RONALD REAGAN BOULEVARD EXTENSION FROM MCFARLAND PARKWAY TO MAJORS ROAD

FORSYTH COUNTY



BEGIN-POINT COORDINATES

Longitude: 34.1110°

Latitude: -84.2211°

MID-POINT COORDINATES

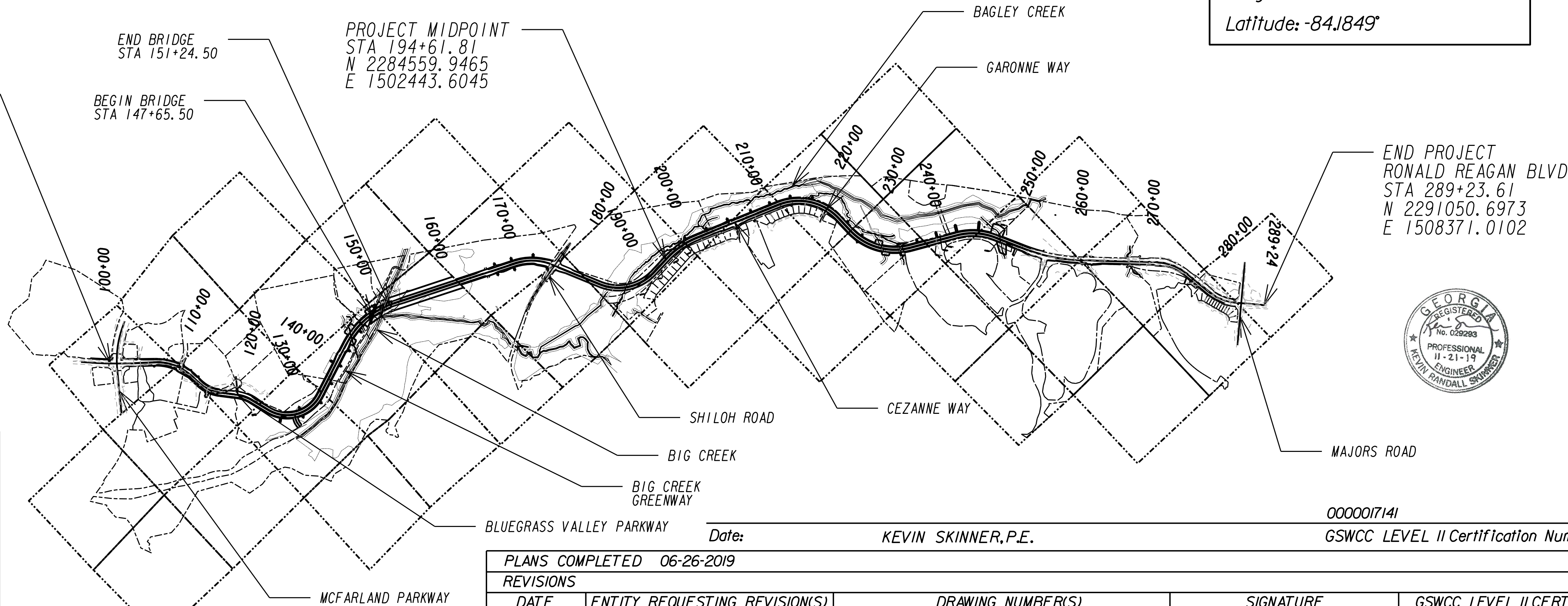
Longitude: 34.1302°

Latitude: -84.2063°

END-POINT COORDINATES

Longitude: 34.1464°

Latitude: -84.1849°



SCALE IN FEET
0 1000 2000 4000



0000017141
Date: KEVIN SKINNER, P.E.
GSWCC LEVEL II Certification Number

PLANS COMPLETED 06-26-2019				
REVISIONS				
DATE	ENTITY REQUESTING REVISION(S)	DRAWING NUMBER(S)	SIGNATURE	GSWCC LEVEL II CERT.*
- -				
- -				
- -				
- -				
- -				
- -				

DRAWING No.
50-0001

SEDIMENT STORAGE

The site has a total disturbed area of 56.10 acres. The following table summarizes the required and available sediment storage for every outfall on this project. The Contractor shall provide and maintain the storage volumes for the BMP's specified in this table.

To prevent runoff from bypassing inlet sediment traps, a temporary sump shall be installed around all inlet sediment traps that are not located in a low point or an excavated sump. Construct temporary sumps in accordance with Construction Detail D-24C. Temporary sumps shall be installed in a manner that ensures stormwater does not bypass the inlet. The Contractor may substitute alternate temporary containment berm designs to the Project Engineer for approval.

TEMPORARY SEDIMENT BASIN DETAILS

There are no suitable locations to place sediment basins within the project corridor. The project corridor is surrounded by wetlands and streams, and is located within a FEMA flood zone.

USE OF ALTERNATIVE AND/OR ADDITIONAL BMPS:

No alternative or additional BMPs will be used on this project.

DISCHARGES INTO OR WITHIN ONE LINEAR MILE UPSTREAM OF AND WITHIN THE SAME WATERSHED AS ANY PORTION OF A BIOTA IMPAIRED STREAM SEGMENT

All outfalls are either located further than 1 linear mile upstream or outside of the watershed of an impaired stream segment that has been listed for criteria violated, "Bio F" (impaired fish community) and/or "Bio M" (impaired macro invertebrate community), within Category 4a, 4b or 5, and the potential cause is either "NP" (nonpoint source) or "UR" (urban runoff).

CHANNEL PROTECTION

All channels may be stabilized exclusively with permanent grassing except as noted otherwise in the table below.

LOCATION	TOTAL DRAINAGE AREA (acres)	DISTURBED AREA (acres)	REQUIRED SEDIMENT STORAGE VOLUME (yd3)	TOTAL STORAGE VOLUME PROVIDED (yd3)	SEDIMENT BASINS		CHECK DAM (1.2 yd3/each)		INLET SEDIMENT TRAPS (1.2 yd3/each)		SILT GATES (1.2 yd3/each)		SILT FENCE (0.30 yd3/ft)	
					BASIN #	TOTAL VOLUME (yd3)	# OF DEVICES	TOTAL VOLUME (yd3)	# OF DEVICES	TOTAL VOLUME (yd3)	# OF DEVICES	TOTAL VOLUME (yd3)	LENGTH OF FENCE (ft)	TOTAL VOLUME (yd3)
A01	6.532	0.5908	39.58	249.00			0	0.00	25	30.00		0.00	730	219.00
B01	9.163	1.8763	125.71	280.20			0	0.00	19	22.80		0.00	858	257.40
C01	3.384	2.5254	169.20	443.40			1	1.20	6	7.20		0.00	1450	435.00
D01	0.701	0.7231	48.45	351.00			7	8.40	2	2.40		0.00	1134	340.20
E01	0.757	0.7552	50.60	77.40			0	0.00	2	2.40		0.00	250	75.00
F01	1.264	1.3443	90.07	718.20			4	4.80	7	8.40		0.00	2350	705.00
G01	0.653	0.6366	42.65	78.60			1	1.20	2	2.40		0.00	250	75.00
H01	0.885	0.9224	61.80	333.90			0	0.00	4	4.80		0.00	1097	329.10
K01	0.969	0.9223	61.79	734.70			0	0.00	2	2.40		0.00	2441	732.30
M01	0.301	0.2732	18.30	64.20			0	0.00	1	1.20		0.00	210	63.00
N01	0.368	0.3619	24.25	85.20			0	0.00	1	1.20		0.00	280	84.00
P01	0.376	0.3753	25.15	203.40			0	0.00	1	1.20		0.00	674	202.20
Q01	0.407	0.4074	27.30	200.40			0	0.00	1	1.20		0.00	664	199.20
R01	0.428	0.4199	28.13	198.60			0	0.00	1	1.20		0.00	658	197.40
S01	0.364	0.3547	23.76	200.40			0	0.00	1	1.20		0.00	664	199.20
T01	1.339	1.3734	92.02	355.80			0	0.00	4	4.80		0.00	1170	351.00
U01	1.127	1.1861	79.47	375.60			0	0.00	4	4.80		0.00	1236	370.80
V01	0.719	0.7729	51.78	300.60			0	0.00	4	4.80		0.00	986	295.80
W01	0.687	0.739	49.51	662.70			0	0.00	3	3.60		0.00	2197	659.10
X01	0.922	0.951	63.72	246.90			0	0.00	2	2.40		0.00	815	244.50
Y11	2.024	1.9364	129.74	1033.80			2	2.40	2	2.40		0.00	3430	1029.00
CC01	2.005	2.138	143.25	949.80			0	0.00	9	10.80		0.00	3130	939.00
DD01	1.068	0.6088	40.79	223.80			0	0.00	4	4.80		0.00	730	219.00
EE01	1.728	0.7556	50.63	419.40			11	13.20	2	2.40		0.00	1346	403.80
FF01	2.052	1.5497	103.83	199.80			13	15.60	4	4.80		0.00	598	179.40
GG01	OFFSITE	0.00	0.00	4.80			0	0.00	4	4.80		0.00	0	0.00
GG03	1.071	0.9408	63.03	124.20			6	7.20	0	0.00		0.00	390	117.00
GG08	1.421	0.2295	15.38	14.40			9	10.80	3	3.60		0.00	0	0.00
HH01	1.154	1.2143	81.36	316.20			0	0.00	1	1.20		0.00	1050	315.00
JJ01	1.116	0.9576	64.16	238.50			6	7.20	6	7.20		0.00	747	224.10
KK05	1.382	0.1919	12.86	14.40			12	14.40	0	0.00		0.00	0	0.

10/23/2015 Rev. 06/01/2018 GPLN					REVISION DATES			ESPCP GENERAL NOTES			
								RONALD REAGAN BLVD EXTENSION			
											CHECKED:
						BACKCHECKED:		DATE:		51-0003	
						CORRECTED:		DATE:			
						VERIFIED:		DATE:			

STATE-WATER BUFFER IMPACTS

State-water buffers, as defined by O.C.G.A. 12-7-1, (are/are not) impacted by this project.

Non-exempt activities shall not be conducted within the 25- or 50-foot undisturbed stream buffers as measured from the point wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits.

Name or Number of Stream or Other Water Body Type	Location of Buffered Streams and State Waters**			Stream Type (Warm/Cold Water)*	Buffer Variance Required? (Yes/No)
	Roadway Alignment	Begin Station and Offset	End Station and Offset		
Stream 3	Ronald Reagan Blvd	STA 148+76, 46' RT STA 149+66, 44' LT	STA 150+14, 46' RT STA 151+25, 72' LT	Warm	Yes
The contractor is allowed to construct the roadway and bridge as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Stream 5	Ronald Reagan Blvd	STA 142+32, 85' RT STA 143+91, 82' LT	STA 143+33, 79' RT STA 144+66, 88' LT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Streasm 5.1	Ronald Reagan Blvd	STA 147+78,46' RT	STA 148+41, 46' RT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Open Water 5.2	Ronald Reagan Blvd	STA 146+51, 83' LT	STA 147+95, 44' LT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Stream 7	Ronald Reagan Blvd	STA 184+49, 74' RT STA 186+50, 83' RT STA 187+75, 97' LT STA 195+12, 69' LT STA 201+42, 66' LT	STA 185+13, 73' RT STA 187+24, 90' RT STA 188+29, 60' LT STA 199+23, 64' LT STA 202+59, 67' LT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Stream 12	Ronald Reagan Blvd	STA 216+87, 73' LT STA 232+68, 65' LT STA 233+20, 79' RT	STA 217+92, 73' LT STA 233+47, 67' LT STA 233+77, 94' RT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Stream 12.1	Ronald Reagan Blvd	STA 229+66, 60' LT STA 230+89, 79' RT	STA 230+43, 62' LT STA 231+41, 81' RT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					
Stream 13	Ronald Reagan Blvd	STA 245+68, 162' LT STA 249+05, 160' RT	STA 246+57, 165' LT STA 249+90, 164' RT	Warm	Yes
The contractor is allowed to construct the roadway as shown in the plans. The contractor must place double row of Type S Silt Fence (with baled straw in between) along the construction limits adjacent to the stream.					

Unless noted otherwise, utility companies will be submitting the required permits/variances in conjunction with the impacts caused by their activities. If utility impacts are covered by the Department's stream buffer variance, this shall be noted in the buffer-variance-required column.

* Warm water streams have a 25-foot minimum buffer as measured from the wrested vegetation. Cold Water streams have a 50-foot buffer as measured from the wrested vegetation.
**Locations are approximate, a detailed location of stream buffers and authorized work areas are shown on the individual BMP sheets

RIPRAP OUTLET PROTECTION (continued on next page)

Structure #, Outfall ID#, or Station and Offset	Pipe Diameter Do (ft)	Q ₂₅ (ft ³ /s)	V ₂₅ (ft/s)	Tailwater Condition (TW<0.5 Do TW>0.5 Do)	Width at Drainage Structure W1=3Do (ft)	Apron Length La (ft)	Downstream Width W2=Do+La (ft)	Average Stone Diameter d ₅₀ (ft)	Apron Thickness D (ft)	Riprap Type (Type 3 or Type 1)	Quantity (yd ²)
A01	3.0	39.9	12.88	TW<0.5 Do	9.00	20	23.00	0.60	0.90	Type 1	36
B01	4.0	56.7	8.91	TW<0.5 Do	12.00	26	30.00	0.90	1.35	Type 1	61
C01	2.5	20.6	7.01	TW<0.5 Do	7.50	16	18.50	0.50	0.75	Type 1	23
D01	1.5	4.3	11.67	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
E01	1.5	4.5	4.98	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
F01	1.5	7.8	7.67	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
G01	1.5	3.6	7.34	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
H01	1.5	5.5	9.37	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
J01	1.5	6.9	8.99	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
K01	1.5	5.7	5.58	TW<0.5 Do	4.50	13	14.50	0.30	0.45	Type 3	15
M01	1.5	1.8	7.53	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
N01	1.5	2.2	6.84	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
P01	1.5	2.2	6.81	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
Q01	1.5	2.4	13.51	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
R01	1.5	2.5	15.44	TW<0.5 Do	4.50	10	11.50	0.50	0.75	Type 3	9
S01	1.5	2.1	15.87	TW<0.5 Do	4.50	10	11.50	0.50	0.75	Type 3	9
T01	1.5	8.2	14.65	TW<0.5 Do	4.50	10	11.50	0.50	0.75	Type 3	9
U01	1.5	7.0	15.64	TW<0.5 Do	4.50	10	11.50	0.50	0.75	Type 3	9
V01	1.5	4.5	6.75	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
Y01	1.5	10.5	10.1	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
CC01	1.5	12.4	10.78	TW<0.5 Do	4.50	10	11.50	0.40	0.60	Type 3	9
DD01	1.5	6.6	9.41	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
EE01	1.5	10.7	9.47	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
FF01	1.5	12.7	10.18	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
GG01	3.0	OFFSITE		TW<0.5 Do	9.00	20	23.00	0.60	0.90	Type 1	36
GG03	1.5	6.6	10.95	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
GG08	1.5	8.4	11.17	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
HH01	2.0	7.1	8.2	TW<0.5 Do	6.00	13	15.00	0.30	0.45	Type 3	15
JJ01	1.5	6.9	8.99	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
KK05	2.5	3.9	5.57	TW<0.5 Do	7.50	16	18.50	0.50	0.75	Type 1	23
KK01	1.5	4.7	5.93	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
LL01	1.5	5.3	14.2	TW<0.5 Do	4.50	10	11.50	0.70	1.05	Type 3	9
MM08	3.5	OFFSITE		TW<0.5 Do	10.50	22	25.50	0.30	0.45	Type 1	44
MM01	1.5	6.8	17.38	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
NN01	1.5	3.5	7.97	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
PP01	1.5	7.3	13.17	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
QQ01	1.5	9.5	13.18	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
RR01	1.5	4.4	6.85	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
SS01	1.5	4.8	4.99	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
TT01	1.5	4.4	5.65	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
UU01	1.5	4.9	8.09	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
VV01	1.5	4.7	2.67	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
WW02	1.5	4.6	4.25	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
YY01	1.5	7.6	7.05	TW<0.5 Do	4.50	10	11.50	0.30	0.45	Type 3	9
BBB01	3.0	33.0	16.43	TW<0.5 Do	9.00	20	23.00	0.60	0.90	Type 1	36
EEE01	5.0	57.4	16.28	TW<0.5 Do	15.00	32	37.00	1.00	1.50	Type 1	92

[illegible]

*25 year data is not available, therefore 50 year data has been used for sizing

There are no sediment basins proposed for this project.

As the primary permittee, the Department must retain the design professional who prepared the ESDP, or an alternative design professional approved by EPD in writing, to inspect the installation of the initial sediment storage requirements and perimeter control BMPs within 7 days of installation over the entire infrastructure project. Alternatively, for linear infrastructure projects, the permittee must retain either of these personnel to inspect the initial sediment storage requirements and perimeter control BMPs for the initial segment, as defined by Part IV.A.5. of the current GARI00002 Permit, within 7 days of installation and all sediment basins within the entire linear infrastructure project within 7 days of installation. The inspecting design professional shall report the results to the primary permittee within 7 days, and the permittee must correct all deficiencies within 2 business days of receipt of the inspection report, unless on-site weather conditions are such that more time is required. Additionally, the Department's Construction Project Engineer will be responsible for all subsequent 7 day inspections for all new BMP installations.

All other inspections shall be documented on the appropriate Department inspection forms. See Standard Specification (or Special Provision) 167 and other contract documents for inspection and reporting requirements. These inspections shall continue until the Notice of Termination (NOT) is submitted.

Whenever the Department finds that a BMP has failed or is deficient beyond routine maintenance and has resulted in sediment deposition into waters of the State, the Contractor shall take reasonable steps to address the condition, including cleaning up any contaminated surfaces so the material will not discharge in subsequent storm events. When the repair does not require a new or replacement BMP or significant repair, the BMP failure or deficiency must be corrected by the end of the next business day. When a new or replacement BMP or significant repair is required, the BMP or significant repair must be operational by no later than 7 days from the time of discovery. If the repair time within 7 days is infeasible, the Contractor and the Department shall schedule the BMP repair to be operational as soon as practical after the 7 day time frame.

Failure to perform inspections as required by the contract documents and the NPDES permit shall result in the cessation of all construction activities with the exception of Traffic Control and Erosion Control. Continued failure to perform inspections shall result in non-refundable deductions as specified in the contract documents.

See Special Provision 167 and other contract documents for the inspecting and sampling procedures. Sampling locations are provided in the Sampling Location table herein.

The Department will retain all records related to the implementation of this ESPCP in accordance with Part IV.F of the General Permit GARI00002.

Representative sampling may be utilized on this project as explained here. The individual outfall drainage basins along the project corridor have been carefully evaluated and compared on the basis of four characteristics: the type of construction activity, the disturbed acreage, the average slope about the outfall, and the soil erosion index 0-10, 10 being the most erodible soil. The construction activity types are new road on fill, new road in cut, road widening, and maintenance/safety. The disturbed area classes are less than or equal to 1 acre, greater than 1 acre to less than 2 acres, and equal to or greater than 2 acres. The average outfall slope is mild if it is equal to or less than 0.03, and steep if it is greater than 0.03. The soil erosion index is low if it is less than or equal to 5 and high if it is greater than 5. After evaluation of these characteristics as presented in the project's drainage area map, hydrology and hydraulic studies, construction plans, geotechnical soil survey, and erosion sedimentation and pollution control plans, the Department has determined that the representative sampling scheme shown below is valid for the duration of the project. The table shows the groups of similar outfall drainage basins.

The increase in turbidity at the specified locations in the table below will be representative of the alternate outfall drainage basins when similar outfall drainage basins exist. Approved primary and alternate representative sampled features are identified in the table below.

Note: The Total site area is 82.71 acres.										Representative Sampling Scheme				
SAMPLING INFORMATION										OUTFALL CHARACTERISTICS				
Primary Monitored Feature	Location (Station and Offset)	Name of Receiving Water	Applicable Construction Stage for Sampling	Sampling Type (Outfall or Receiving water)	Drainage Area for Receiving Water (mi ²)	Total Project Size (acres)	Warm or Cold Water Stream	Appendix B NTU Value (Outfall Sampling only)	Location Description	Construction Activity	Disturbed Area (acres)	Exit Slope	Soil Erosion Index	Represented Outfall Drainage Basins
T01	160+50, 61.1' RT	Stream 3	All	Outfall	42.3	82.71	Warm	100	Flared End Section	New Location - Fill	1 - 2	Mild	Low	U01, FF01, HH01, QQ01
Y11	183+00, 83.23' RT	Stream 7	All	Outfall	5.8	82.71	Warm	50	Flared End Section	New Location - Fill	1 - 2	Steep	Low	B01, F01
MM01	218+00, 73' LT	Stream 12	All	Outfall	0.2	82.71	Warm	50	Flared End Section	New Location - Fill	0 - 1	Steep	Low	V01, W01, X01, NN01, PP01, SS01, TT01, YY01, G01
BBB01	269+65, 66.5' RT	Stream 14	All	Outfall	0.9	82.71	Warm	50	Flared End Section	New Location - Fill	> 2	Steep	Low	CC01, C01
A01	104+38, 102.31' LT	Stream 3	All	Outfall	42.3	82.71	Warm	100	Flared End Section	New Location - Fill	0 - 1	Mild	Low	N/A
K01	145+00, 74.2' RT	Stream 3	All	Outfall	42.3	82.71	Warm	100	Flared End Section	New Location - Fill	0 - 1	Mild	Low	R01, S01, DD01, EE01, GG01, GG03, GG08, JJ01, KK05, KK01, LL01, MM08, RR01, UU01, VV01, WW00, EEE01, D01, E01, H01, M01, N01, P01, Q01

The primary sampled features specified should be used as the initial sampling locations. An alternate sampled feature may be used if additional sampling is required or to replace a primary sampled feature that is no longer located within the active phase of construction.

NTS

RONALD REAGAN BLVD EXTENSION

REVISION DATES		ESPCP GENERAL NOTES	
		RONALD REAGAN BLVD EXTENSION	
		CHECKED: _____	DRAWING No. _____
		BACKCHECKED: _____	DATE: _____
		CORRECTED: _____	DATE: _____
		VERIFIED: _____	DATE: _____
			51-0005

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EC-L1sheets 1-71.dgn

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
	ORANGE BARRIER FENCE		ORANGE BARRIER FENCE DELINEATES ENVIRONMENTALLY SENSITIVE AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, OR PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.
	LINE CODE ORANGE BARRIER FENCE		
ESA	ENVIRONMENTALLY SENSITIVE AREA		AN ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESAs INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, HISTORIC SITES, ARCHAEOLOGICAL SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.
	LINE CODE ESA-25' (OR 50') STREAM BUFFER, ETC.		
Bf	BUFFER ZONE		A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. WHEN NECESSARY, BUFFER ZONES ARE TO BE PROTECTED BY ORANGE BARRIER FENCE.
	SYMBOL 		
Ds1	MULCH		THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING. MULCHING REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND/OR THE PROJECT ENGINEER.
	SECTION 163	SYMBOL 	
Ds2	TEMPORARY GRASSING		THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON. IT IS TYPICALLY USED TO CONTROL EROSION IN AREAS LONGER THAN MULCHING IS EXPECTED TO LAST. TEMPORARY GRASSING SHOULD BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATIONS. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
	SECTION 163,700	SYMBOL 	

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ds3	PERMANENT GRASSING		THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON. PERMANENT VEGETATION SHALL BE USED ON ALL PROJECTS ACCORDING TO THE STANDARD SPECIFICATION. THE BMP SYMBOL FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
	SECTION 700	SYMBOL 	
Ds4	SODDING		THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS. THE BMP PATTERN FOR APPLICABLE AREAS AND/OR A NOTE SHALL BE INCLUDED ON APPLICABLE SHEETS IN SECTION 54.
	CONSTRUCTION DETAIL D-54 SECTION 700,890	PATTERN 	
Fl-Co	FLOCCULANTS COAGULANTS		FLOCCULANTS AND COAGULANTS ARE USED TO SETTLE SUSPENDED SEDIMENT, HEAVY METALS, AND HYDROCARBONS (TSS) IN SLOW MOVING RUNOFF FROM CONSTRUCTION SITES FOR WATER CLARIFICATION. ANIONIC POLYACRYLAMIDES (PAM) MAY BE USED IN CONJUNCTION WITH BMPs WITHIN CHANNELS UPSTREAM OF A POST-CONSTRUCTION POND, TEMPORARY SEDIMENT BASIN, OR TEMPORARY SEDIMENT TRAP. FLOCCULANTS SHALL NOT BE USED DOWNSTREAM OF AFOREMENTIONED BMPs! FLOCCULANTS/COAGULANTS ARE TO BE SHOWN ON PLANS WITH APPLICABLE BMP IF NEEDED. PAYMENT FOR PAM AS A FLOCCULANT WILL BE INCLUDED IN THE PRICE FOR THE INSTALLATION AND/OR MAINTENANCE OF THE BMP IT IS USED IN CONJUNCTION WITH. NO SEPARATE PAYMENT WILL BE MADE.
	SECTION 163,700, 895	SYMBOL 	
Sb	STREAMBANK STABILIZATION		STREAMBANK STABILIZATION IS THE USE OF READILY AVAILABLE NATIVE PLANT MATERIALS TO MAINTAIN AND ENHANCE STREAMBANKS, OR TO PREVENT, OR RESTORE AND REPAIR SMALL STREAMBANK EROSION PROBLEMS. STREAMBANK STABILIZATION AREAS SHOULD BE SHOWN ON THE PLANS WHEN APPLICABLE TO THE PROJECT. REFER TO THE PROJECT'S STREAM AND STREAM BUFFER MITIGATION PLANS FOR PLANT SPECIES, LOCATIONS, AND OTHER PLANTING DETAILS.
	SECTION 702	PATTERN 	

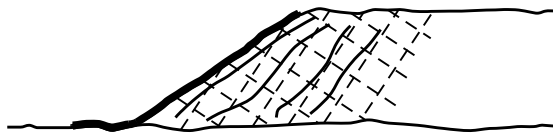
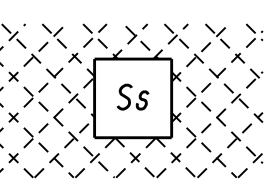
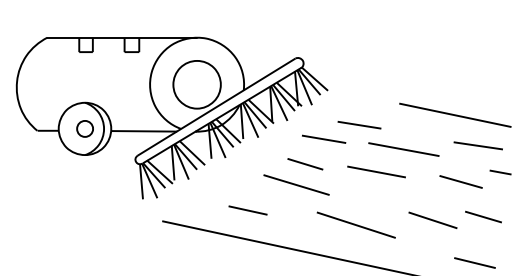
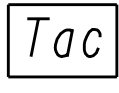
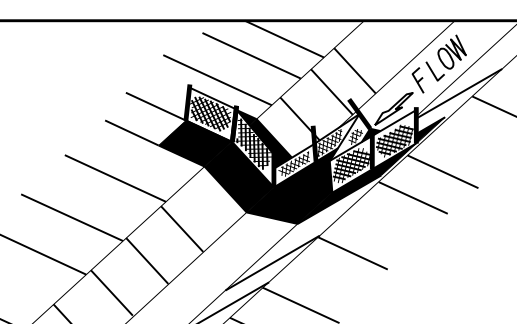

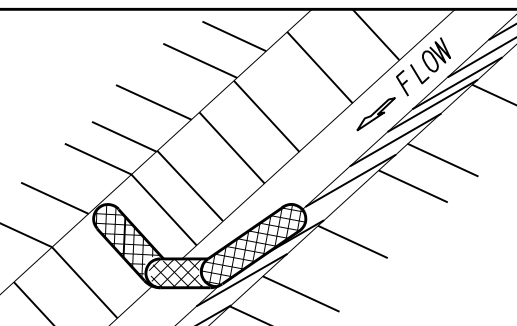

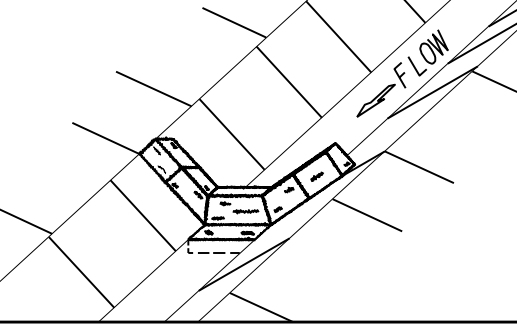
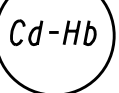
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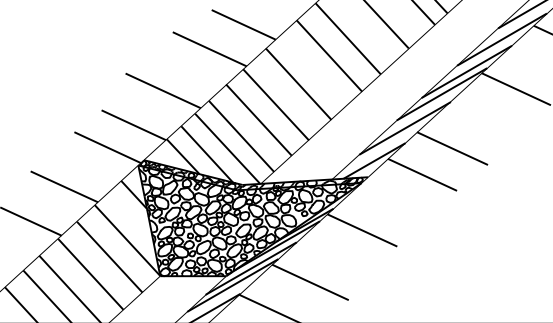

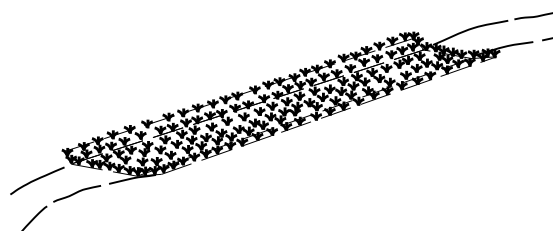
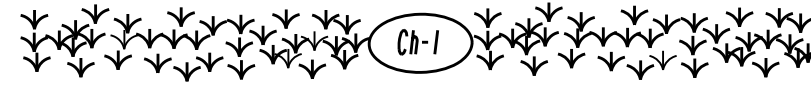
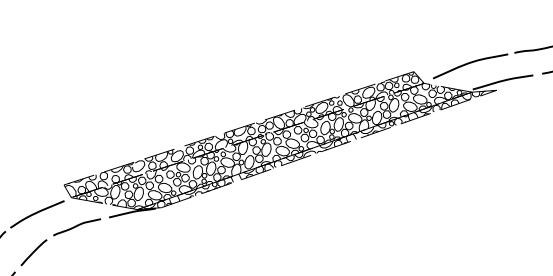
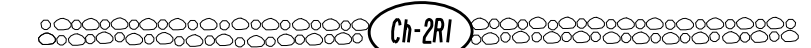
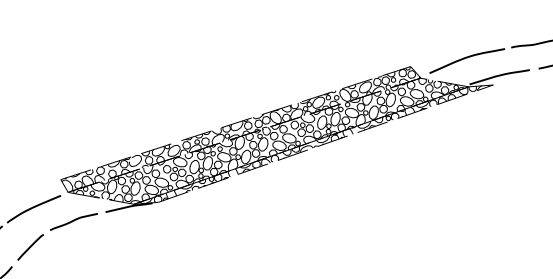
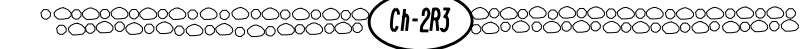
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REVISION DATES		
3/2/2017		

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UNIFORM CODE SHEET			
SHEET 1 OF 7			
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BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

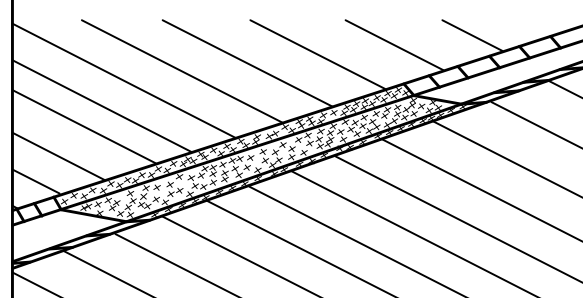
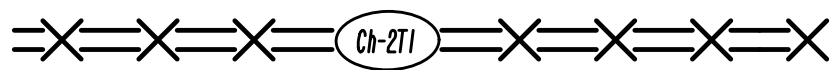
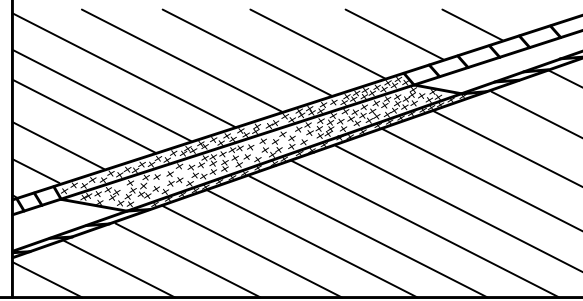
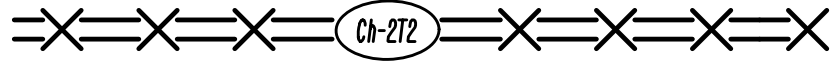
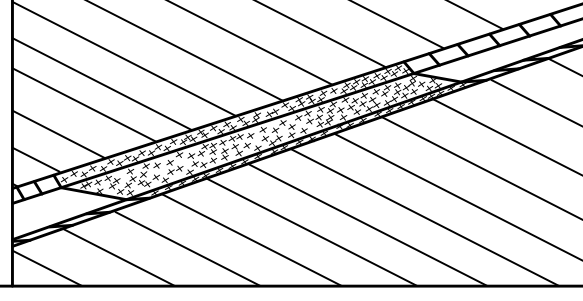
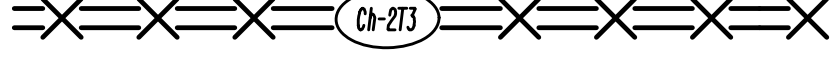
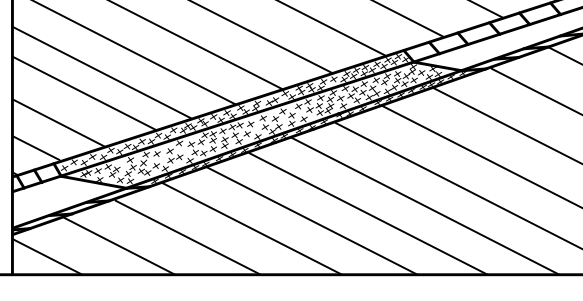
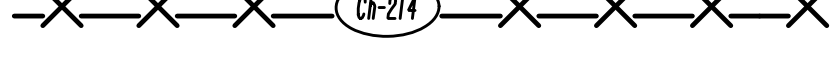
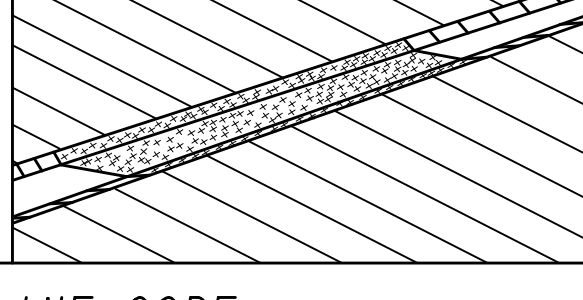
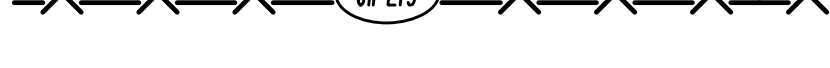
52-0001

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Ss	SLOPE STABILIZATION CONSTRUCTION DETAIL D-35 SECTION 716		SLOPE STABILIZATION (EROSION CONTROL MATTING) IS A PROTECTIVE COVERING USED TO PREVENT EROSION AND ESTABLISH TEMPORARY OR PERMANENT VEGETATION ON STEEP SLOPES, SHORE LINES, OR CHANNELS. SLOPE STABILIZATION MAY BE A ROLLED EROSION CONTROL PRODUCT (RECP) OR A HYDRAULIC EROSION CONTROL PRODUCT (HECP). SLOPE STABILIZATION SHALL BE USED ON ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50 FEET OF ALL CROSS DRAINS AND CULVERTS. NOTE: ONLY COCONUT FIBER BLANKET OR WOOD FIBER BLANKET SHALL BE USED AS SLOPE STABILIZATION WITHIN BUFFERED AREAS.
		PATTERN 	
Tac	TACKIFIERS SECTION 163, 700, 895		TACKIFIERS HYDRATE IN WATER AND READILY BLEND WITH OTHER SLURRY MATERIALS AND ARE USED TO TIE-DOWN FOR SOIL, COMPOST, SEED, STRAW, HAY OR MULCH. TACKIFIERS REQUIREMENTS, SUCH AS ANIONIC POLYACRYLAMIDES (PAM) ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS. PAM IS TYPICALLY USED BY THE CONTRACTOR FOR TEMPORARY OR PERMANENT GRASSING. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR CRITERIA.
		SYMBOL  POLYACRYLAMIDE	
Cd-F	FABRIC CHECK DAM CONSTRUCTION DETAIL D-24D SECTION 171		A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, OVERFLOW WEIR, AND TURF REINFORCEMENT MATTING (TRM) SPLASHPAD PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24D FOR ADDITIONAL INFORMATION AND SPACING REQUIREMENTS. THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS AND WITHIN THE CLEAR ZONE. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
		SYMBOL 	
Cd-Fs	COMPOST FILTER SOCK CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A COMPOST FILTER SOCK CHECK DAM IS COMPOSED OF A PHOTODEGRADABLE OR BIODEGRADABLE KNITTED MESH MATERIAL CONTAINING A WEED FREE FILLER MATERIAL DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THEY SHALL BE PROPERLY STAKED FOR DITCH APPLICATIONS. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR MATERIAL SPECIFICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
		SYMBOL 	
Cd-Hb	BALED STRAW CHECK DAM CONSTRUCTION DETAIL D-52 SECTION 163		A BALE STRAW CHECK DAM IS COMPOSED OF BALES PREFERABLY BOUND WITH WIRE OR NYLON INSTEAD OF TWINE. BALES SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING ADJACENT BALES. THE DOWNSTREAM ROW OF BALES SHALL BE PLACED IN A TRENCH TO ALLOW THE TOP OF THE BALE'S LONG, WIDE SIDE TO BE LEVEL WITH THE GROUND AS A NON-ERODIBLE SPLASH PAD. PROPER STAKING IS ALSO REQUIRED FOR DITCH APPLICATIONS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
		SYMBOL 	

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Cd-S	STONE CHECK DAM OR SANDBAG CHECK DAM CONSTRUCTION DETAIL D-56 SECTION 163.603		STONE CHECK DAMS ARE CONSTRUCTED OF TYPE-3 RIP-RAP WITH GEOTEXTILE UNDERLINER. STONE CHECK DAMS ARE PREFERRED IN ROADWAY DITCHES OUTSIDE THE CLEAR ZONE. CONSIDERATION SHOULD BE GIVEN TO USING OTHER APPROPRIATE CHECK DAMS AND/OR BMPs WITHIN THE CLEAR ZONE. SANDBAG CHECK DAMS ARE RECOMMENDED IN CONCRETE LINED CHANNELS FOR TEMPORARY VELOCITY CONTROL ONLY. ENSURE DISCHARGE POINT IS PROPERLY STABILIZED AND INCLUDE APPROPRIATE BMPs FOR SEDIMENT STORAGE UPSTREAM AND/OR DOWNSTREAM OF CONCRETE LINED CHANNELS. IF THIS ITEM IS USED IN AN AREA WITH FLOWS GREATER THAN 2.0-CFS OR WITHOUT A SEDIMENT BASIN, A MINIMUM OF ONE ROCK FILTER DAM SHALL BE USED AT THE DOWNSTREAM DISCHARGE POINT.
		SYMBOL 	
Ch-1	VEGETATED CHANNEL STABILIZATION SECTION 700		A NEW OR EXISTING CHANNEL MAY BE LINED WITH PERMANENT VEGETATION ONLY FOR VELOCITIES UP TO 5.0 fps. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT CHANNEL LINING DESIGN PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.
		LINE CODE 	
Ch-2R1	CHANNEL STABILIZATION RIP-RAP, TYPE 1 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
		LINE CODE 	
Ch-2R3	CHANNEL STABILIZATION RIP-RAP, TYPE 3 CONSTRUCTION DETAIL D-49 SECTION 603		THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP-RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP-RAP SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. "Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
		LINE CODE 	

NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

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		CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION	
		Ch-2T1	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-2 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.	
			LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.	
						
		Ch-2T2	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-4 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.	
			LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.	
						
		Ch-2T3	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-6 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.	
			LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.	
						
		Ch-2T4	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-8 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.	
			LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.	
						
		Ch-2T5	TURF REINFORCEMENT MAT (TRM) CONSTRUCTION DETAIL D-35 SECTION 711		THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN CONJUNCTION WITH PERMANENT VEGETATION IN CHANNELS TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES 0-10 psf. THE TRM SHALL PROTECT THE CHANNEL FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT CHANNEL LINING PROGRAM.	
			LINE CODE		"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS AND IN THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.	
						

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CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dc-B	STREAM DIVERSION CHANNEL GEOTEXTILE ONLY SECTION 163		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 2.5 - 9.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
	LINE CODE 		
Dc-C	STREAM DIVERSION CHANNEL RIP-RAP & GEOTEXTILE SECTION 163		A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIP-RAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sd1-S PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS ACCEPTABLE FOR VELOCITIES BETWEEN 9.0 - 13.0 fps. THE DRAINAGE AREA SHALL BE NOT GREATER THAN 1 SQUARE MILE. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE.
	LINE CODE 		
D1-1	DIVERSION BERM CONSTRUCTION DETAIL D-47 SECTION 205		A NON-DESIGNED TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE, ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF, PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET, DOWN DRAINS *Dn1*OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS.
	LINE CODE 		
D1-2	DIVERSION CHANNEL SECTION 205		A DESIGNED TEMPORARY OR PERMANENT CHANNEL WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO DIVERT OFFSITE RUNOFF AWAY FROM DISTURBED AREAS WITHIN THE PROJECT AREA. CHANNEL FOR OFFSITE RUNOFF SHALL BE STABILIZED WITH APPROPRIATE CHANNEL STABILIZATION. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA. A DIVERSION CHANNEL DETAIL MUST ALSO BE PROVIDED IN THE ESPCP. RUNOFF FROM DISTURBED AREAS WITHIN THE PROJECT AREA SHALL NOT BE ALLOWED TO CONVERGE WITH OFFSITE RUNOFF WITHIN THIS DIVERSION.
	LINE CODE 		
Dn1	TEMPORARY DOWNDRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL D-19 SECTION 163		A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED AT INTERVALS OF 350 FEET ON 0% - 2% GRADES, 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE TYPICAL PIPE SIZE IS A CORRUGATED 10". THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'. THE OUTLET AREA SHALL BE STABILIZED FOR VELOCITY DISSIPATION AND EROSION CONTROL.
	LINE CODE 		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Dn2-A	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441		A CONCRETE FLUME TYPE "A" IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OTHER CRITERIA).
	LINE CODE 		
Dn2-B	PERMANENT DOWNDRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL D-9 SECTION 441		A CONCRETE FLUME TYPE "B" IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFELY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25-YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		
Dn2-1	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP1, 9017J TP1, DETAIL D-26 TP1 SECTION 576,577		CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS, ON A GRADE, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		
Dn2-2	PERMANENT DOWNDRAIN STRUCTURE GA. STD 9013 TP2, 9017J TP2, DETAIL D-26 TP2 SECTION 576,577		CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA).
	LINE CODE 		

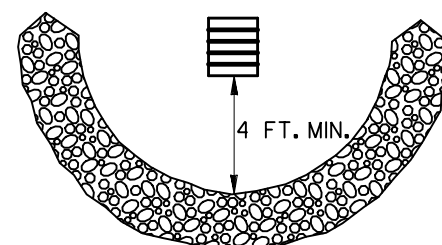

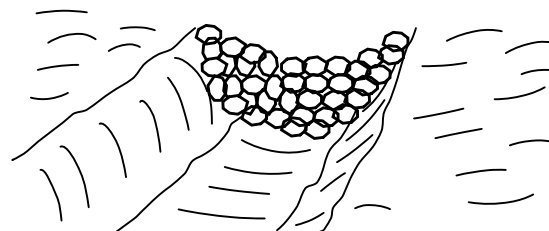

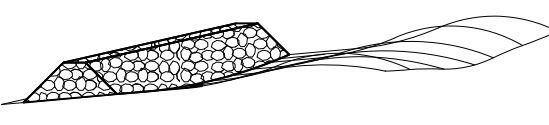

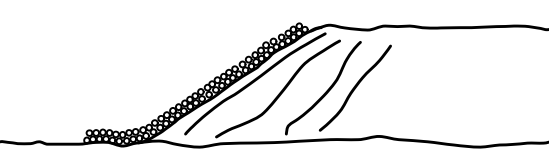

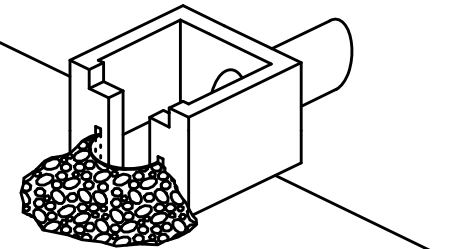

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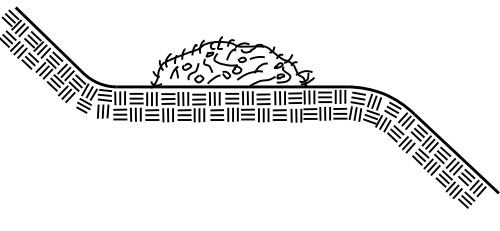
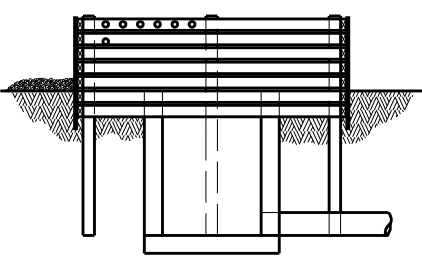

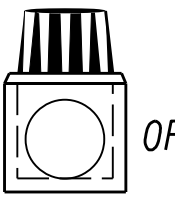
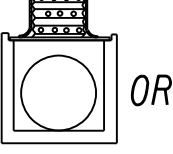
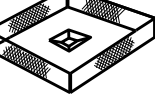
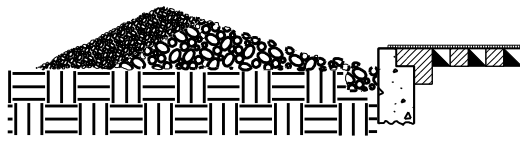
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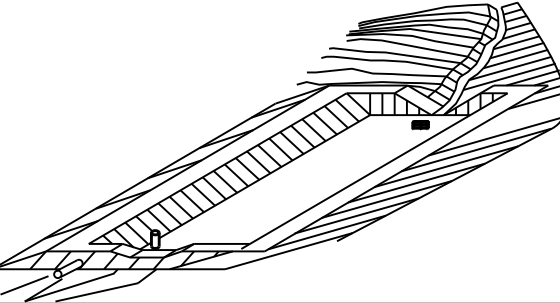
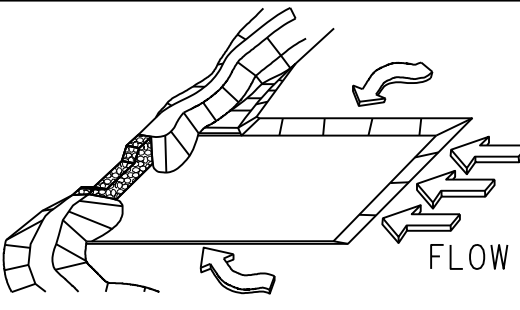
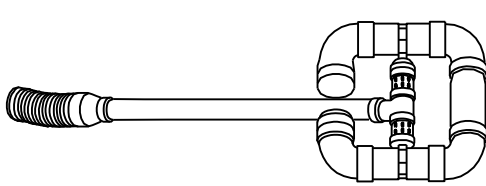
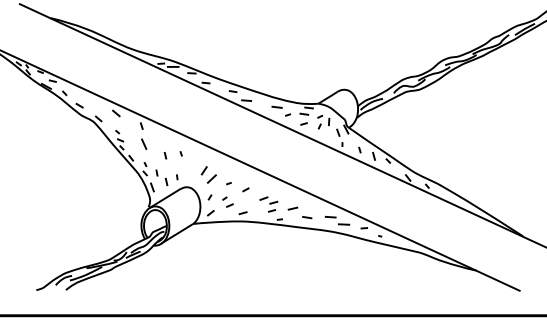
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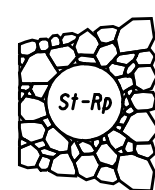

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3/2/2017 cbo1rd		11:10:19 AM gp1ot-v8 gp1otborder-V81-P0.1b1	EC-L1sheets 1-71.dgn					
		CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION			
			FILTER RING CONSTRUCTION DETAIL D-46 SECTION 163		A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS AND POST-CONSTRUCTION POND OUTLETS. IT REDUCES RUNOFF VELOCITY AND HELPS PREVENT SEDIMENT FROM LEAVING SITE PRIOR TO PERMANENT STABILIZATION OF THE DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION ON USAGE.			
		SYMBOL						
		CODE	ROCK FILTER DAM CONSTRUCTION DETAIL D-43 SECTION 163,603		ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP-RAP FACED WITH *57 STONE ON THE UPSTREAM SIDE. THEY ARE PLACED ACROSS DRAINAGeways WHICH DRAIN 50 ACRES OR LESS. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING ROCK FILTER DAMS. THE DAM SHOULD NOT BE HIGHER THAN THE CHANNEL BANKS. ROCK FILTER DAMS SHOULD BE USED IN DITCHES PRIOR TO DISCHARGING INTO STREAMS, WETLANDS, OPEN-WATERS, OR OTHER ESAs.			
			SYMBOL					
		CODE	STONE FILTER BERM CONSTRUCTION DETAIL D-50 SECTION 163,603		STONE FILTER BERMS ARE CONSTRUCTED SIMILAR TO ROCK FILTER DAMS FOR A LINEAR APPLICATION. THEY ARE CONSTRUCTED OF TYPE-3 STONE RIP-RAP FACED WITH *57 STONE ON THE UPSTREAM SIDE. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE FILTER BERMS. STONE FILTER BERMS ARE IDEAL ALONG THE PERIMETER FOR SHEET FLOW AND/OR SHALLOW CONCENTRATED FLOW TO A COMMON LOW AREA WHERE PERIMETER SILT FENCE ALONE MAY BE INSUFFICIENT, THERE IS NO WELL-DEFINED CHANNEL FOR A STANDARD ROCK FILTER DAM, AND/OR CONSTRUCTING A ROCK OUTLET TEMPORARY SEDIMENT TRAP IS NOT APPLICABLE.			
			LINE CODE					
		CODE	RIP-RAP SECTION 603		RIP-RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND BRIDGE END ROLLS. RIP-RAP TYPE-1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS. RIP-RAP MAY ALSO BE USED AT DRAINAGE STRUCTURE OUTLETS WITHIN THE RIGHT-OF-WAY. HOWEVER, APPROPRIATE OUTLET PROTECTION SHOULD BE PROVIDED AT OUTFALLS. REFER TO STORM DRAIN OUTLET PROTECTION FOR ADDITIONAL INFORMATION ON USING RIP-RAP AT OUTFALLS.			
			PATTERN					
		CODE	RETROFITTING PERFORATED HALF-ROUND PIPE CONSTRUCTION DETAIL D-44 SECTION 163		A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.			
			SYMBOL					
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CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd1-BB	SEDIMENT BARRIER BRUSH BARRIER CONSTRUCTION DETAIL D-24B SECTION 201		THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES ONLY DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT-OF-WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS.
	LINE CODE * * * Sd1-BB * * *		TYPICALLY NOT SHOWN ON PLANS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPARATE PAYMENT SHALL BE MADE.
Sd2-B	INLET SEDIMENT TRAP (BAFFLE BOX) CONSTRUCTION DETAIL D-42 SECTION 163		BAFFLE BOX INLET SEDIMENT TRAP USED FOR INLETS RECEIVING HIGH FLOW RATE AND/OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES 7 cfs AND GREATER.
	SYMBOL Sd2-B		
Sd2-Bg	INLET SEDIMENT TRAP (BLOCK & GRAVEL) CONSTRUCTION DETAIL D-42 SECTION 163		BLOCK AND GRAVEL DROP INLET PROTECTION USED FOR WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 5 - 7 cfs.
	SYMBOL Sd2-Bg		
Sd2-F	INLET SEDIMENT TRAP (FILTER FABRIC) CONSTRUCTION DETAIL D-24C SECTION 163	 OR  OR  (a) (b) (c)	(a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN. (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5%.
	SYMBOL Sd2-F		THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOW RATES THAT RANGE FROM 0 - 4 cfs.
Sd2-G	INLET SEDIMENT TRAP (GRAVEL) CONSTRUCTION DETAIL D42 SECTION 163		GRAVEL DROP INLET PROTECTION USED WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING FLOW RATES THAT RANGE FROM 3 - 5 cfs.
	SYMBOL Sd2-G		

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
Sd3	TEMPORARY SEDIMENT BASIN CONSTRUCTION DETAIL D-22A, D-22B SECTION 163		A BASIN CREATED BY EXCAVATING AN AREA, DAMMING CONCENTRATED FLOW, OR A COMBINATION OF BOTH. THE BASIN IS DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DRAINAGE AREA. THE DRAINAGE AREA SHOULD NOT EXCEED 150 ACRES. BASINS TYPICALLY CONSISTS OF A DAM, PRINCIPAL SPILLWAY, AND AN EMERGENCY SPILLWAY. A FLOATING SURFACE SKIMMER SHALL BE REQUIRED AS PART OF THE PRINCIPAL SPILLWAY UNLESS INFEASIBLE. SUFFICIENT RIGHT-OF-WAY OR EASEMENT IS NEEDED FOR BASIN CONSTRUCTION AND MAINTENANCE ACCESS.
	SYMBOL Sd3		SEDIMENT BASINS SHALL BE CONSIDERED ON ALL PROJECTS, BUT MAY NOT BE PRACTICAL. BASINS SHOULD BE LOCATED TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND UTILITIES. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sd4-C	ROCK OUTLET TEMPORARY SEDIMENT TRAP CONSTRUCTION DETAIL D-53 SECTION 163		TEMPORARY POND WITH ROCK OUTLET DESIGNED TO STORE 67 CUBIC YARDS OF SEDIMENT PER DRAINAGE AREA. DRAINAGE AREA SHALL NOT EXCEED 5 ACRES. DISTINGUISHED FROM TEMPORARY SEDIMENT BASIN BY LACK OF PRINCIPAL SPILLWAY. MAXIMUM POND DEPTH FROM BOTTOM OF POND TO EMERGENCY SPILLWAY IS 4 FEET.
	SYMBOL Sd4-C		A TEMPORARY SEDIMENT BASIN SHALL BE EVALUATED PRIOR TO CONSIDERING A TEMPORARY SEDIMENT TRAP. A TEMPORARY SEDIMENT TRAP IS IDEAL FOR SMALL AREAS WITH NO UNUSUAL DRAINAGE FEATURES AND EFFECTIVE AGAINST COARSE SEDIMENT, BUT NOT AGAINST SILT OR CLAY PARTICLES THAT REMAIN SUSPENDED. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR DESIGN CRITERIA.
Sk	FLOATING SURFACE SKIMMER CONSTRUCTION DETAIL D-22A, D-22B SECTION 163		A BUOYANT DEVICE THAT DRAINS WATER FROM THE SURFACE OF A TEMPORARY SEDIMENT BASIN AT A CONTROLLED FLOW RATE. THE INLET/ORIFICE SIZE IS DESIGNED TO DRAIN THE BASIN WITHIN 24 - 48 HOURS. THE SKIMMER INFORMATION SHALL BE PROVIDED IN CONJUNCTION WITH THE SEDIMENT BASIN INFORMATION IN PLANS. IF A SKIMMER IS INFEASIBLE, THE DESIGNER SHALL PROVIDE A WRITTEN JUSTIFICATION IN THE PLANS.
	SYMBOL Sk		SKIMMERS ARE ATTACHED TO A RISER WITHOUT PERFORATIONS AND ACTS AS THE PRIMARY SPILLWAY. THE SKIMMER BMP SYMBOL SHALL BE SHOWN IN CONJUNCTION WITH THE TEMPORARY SEDIMENT BASIN BMP SYMBOL WHEN APPLICABLE. REFER TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" FOR ADDITIONAL INFORMATION.
Sr	TEMPORARY STREAM CROSSING SECTION 107		A TEMPORARY STRUCTURE INSTALLED ACROSS A FLOWING STREAM OR WATERCOURSE FOR USE BY CONSTRUCTION EQUIPMENT. THIS BMP PROVIDES A MEANS TO CROSS STREAMS OR WATERCOURSES WITHOUT MOVING SEDIMENT INTO STREAMS, DAMAGING THE STREAM BED OR CHANNEL, OR CAUSING FLOODING. THIS BMP SHOULD NOT BE USED ON STREAMS WITH DRAINAGE AREAS GREATER THAN ONE SQUARE MILE, UNLESS SPECIFICALLY DESIGNED TO ACCOMMODATE THE ADDITIONAL DRAINAGE AREA BY THE DESIGN PROFESSIONAL. A CERTIFICATION STATEMENT AND SIGNATURE SHALL ACCOMPANY THE DESIGN.
	SYMBOL Sr		THIS BMP SHALL BE DESIGNED ACCORDING TO THE LATEST EDITION OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA". FOR CONTRACTOR'S USE ONLY!

- NOTE:
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
 - FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

CODE	PRACTICE STD OR DETAIL SPEC. SECT.	DETAIL	DESCRIPTION
<div>St</div>	STORM DRAIN OUTLET PROTECTION GA. STD. 1125 & 2332		A PIPE OR BOX CULVERT OUTLET HEADWALL WITH AN APRON AND DISSIPATOR BLOCKS IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. IT IS USED ON THE OUTLET OF ALL BOX CULVERTS AND ON 48" AND LARGER PIPES. MAY BE USED ON INLET FOR FLOWING STREAMS. USE ON SMALL PIPES WHEN OUTLET VELOCITY OF THE 25-YEAR STORM IS 12 fps AND GREATER.
	SYMBOL <div>St</div>		
<div>St-Rp</div>	STORM DRAIN OUTLET PROTECTION (RIP-RAP) CONSTRUCTION DETAIL D-55 SECTION 603		RIP-RAP OUTLET PROTECTION IS USED TO REDUCE VELOCITY AT THE OUTLET OF A PIPE, CHANNEL, OR STRUCTURE PRIOR TO ENTERING AN EXISTING STREAM OR PUBLICLY MAINTAINED DRAINAGE SYSTEM. THE MINIMUM DESIGN OF RIP-RAP OUTLET PROTECTION SHALL BE THE 25-YEAR STORM PEAK FLOW, BUT LARGER STORMS ARE RECOMMENDED. TYPE-1 RIP-RAP AT A DEPTH OF 36" AND PLACED ON FILTER FABRIC IS PREFERRED FOR ALL d50 <= 1.2 FEET. TYPE-3 RIP-RAP AT A DEPTH OF 18" AND PLACED ON FILTER FABRIC MAY BE USED FOR d50 <= 0.7 FEET.
	PATTERN <div>FLAT AREA</div>  OR  <div>WELL-DEFINED CHANNEL</div>		REFER TO THE LATEST EDITION OF THE 'MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA' FOR REQUIRED DESIGN DIMENSIONS AND OTHER INFORMATION TO BE INCLUDED IN THE PLANS.
<div>Su</div>	SURFACE ROUGHENING SERRATED SLOPES CONSTRUCTION DETAIL S-7 SECTION 205		PROVIDING A ROUGH SOIL SURFACE WITH HORIZONTAL DEPRESSIONS, BY OPERATING A CLEATED DOZER ON THE SLOPE IN A VERTICAL DIRECTION. CREATING SERRATED SLOPES IN THE GRADING PROCESS TO CONSTRUCT BENCHES WILL REDUCE RUNOFF VELOCITY AND INCREASE INFILTRATION OF WATER. IN MOST CASES THIS BMP IS NOT REQUIRED TO BE SHOWN ON THE PLANS, BUT REQUIRED TO BE COMPLETED BY THE CONTRACTOR UNDER ALL PROJECTS. IF SERRATED SLOPES ARE SPECIFIED BY THE SOIL SURVEY, THEN THIS BMP SHALL BE SHOWN ON THE PLANS WHERE SERRATED SLOPES ARE TO BE USED.
	LINE CODE 		
<div>Tc-F</div>	TURBIDITY CURTAIN FLOATING CONSTRUCTION DETAIL D-51 SECTION 170		A FLOATING TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAI N WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs.
	LINE CODE 		IT MAY ALSO BE REFERRED TO AS A FLOATING BOOM, SILT BARRIER, OR SILT CURTAIN.
<div>Tc-S</div>	TURBIDITY CURTAIN STAKED CONSTRUCTION DETAIL D-51 SECTION 170		A STAKED TURBIDITY CURTAIN IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY ALLOWING IT TO DROP OUT OF SUSPENSION AND REMAI N WITHIN THE CONSTRUCTION AREA. IT IS TYPICALLY USED IN SHALLOW INUNDATED AREAS. IT MAY BE USED TO PROTECT A SMALL STREAM BEING REALIGNED OR RESTORED. IN THIS CASE, CURTAIN SHOULD EXTEND TO BOTTOM OF STREAMBED. THE HEIGHT SHOULD BE LIMITED TO 5 FEET UNLES S DIRECTED AND EXTEND 2 FEET ABOVE NORMAL WATER ELEVATION. IT SHOU LD BE USED AS DIRECTED BY THE ENGINEER. THIS BMP IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED PERIMETER BMPs.
	LINE CODE 		IT MAY BE REFERRED TO AS A SILT BARRIER OR SILT CURTAIN.

<i>CODE</i>	<i>PRACTICE STD OR DETAIL SPEC. SECT.</i>	<i>DETAIL</i>	<i>DESCRIPTION</i>

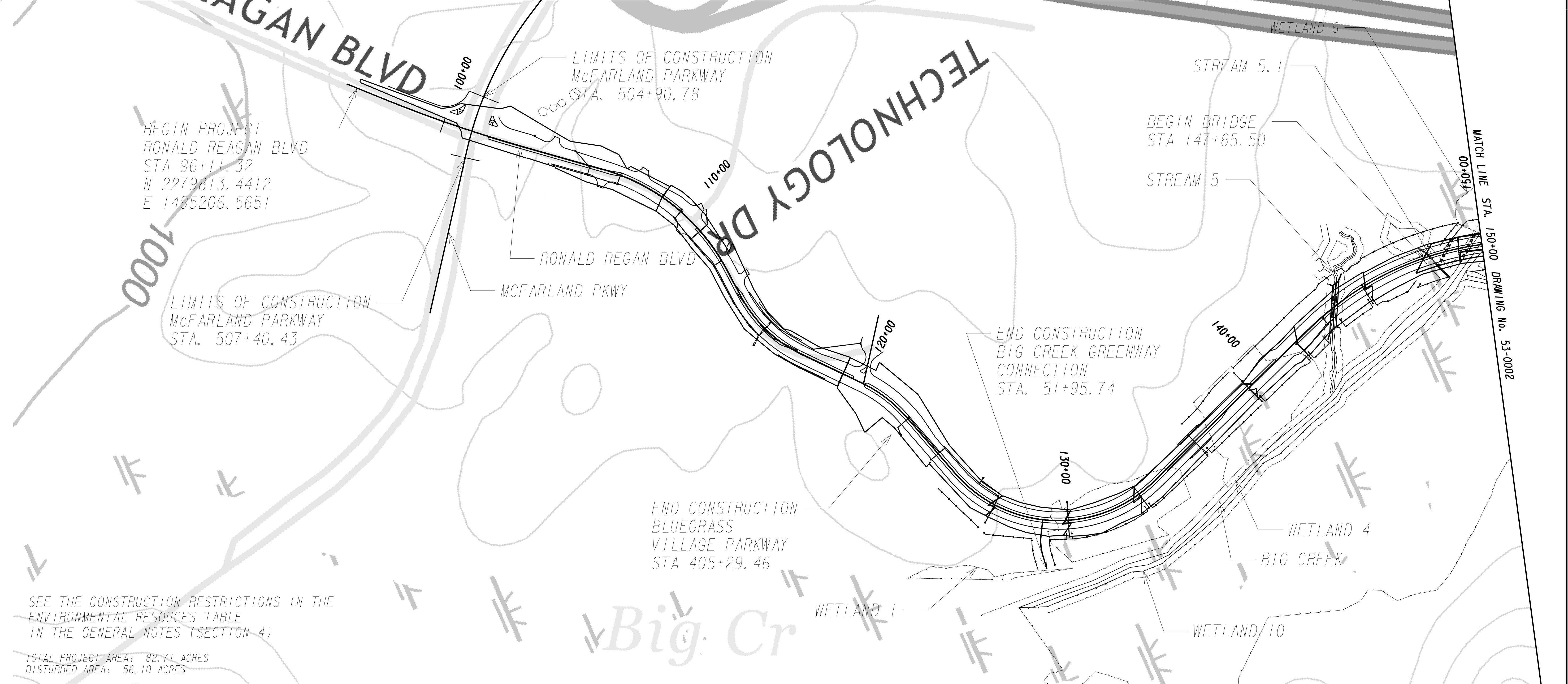
NOTE:

1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs), REFER TO THE LATEST EDITION OF THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION'S, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

NO SCALE

REVISION DATES			EROSION CONTROL LEGEND UNIFORM CODE SHEET SHEET 7 OF 7				
3/2/2017							
			CHECKED:	D. EAGLETON	DATE:	01/01/16	DRAWING No. 52-0007
			BACKCHECKED:		DATE:		
			CORRECTED:		DATE:		
			VERIFIED:		DATE:		

OUTLET	STATION	OFFSET	SIDE	TYPE	PIPE SIZE (inch)	SLOPE (FT/FT)	DRNG AREA (acre)	DIST AREA (acre)	PRE					POST				
									C-VALUE	Q50 CFS	Q100 CFS	V50 FT/S	V100 FT/S	C-VALUE	Q50 CFS	Q100 CFS	V50 FT/S	V100 FT/S
A01	104+38.14	102.31	RT	FES	36	0.018	6.532	0.5908	0.95	42.32	46.66	10.92	11.17	0.95	44.16	48.52	13.22	13.54
B01	115+61.00	76.57	RT	FES	48	0.04	9.163	1.8763	0.85	53.12	58.57	9.85	10.1	0.95	63.00	69.46	9.14	9.35
C01	127+01.00	77	RT	FES	30	0.032	3.384	2.5254	0.75	17.31	19.09	N/A	N/A	0.95	22.72	24.84	7.16	7.30
D01	130+00.00	68.22	RT	FES	18	0.03	0.701	0.7231	0.20	0.96	1.05	N/A	N/A	0.95	4.82	5.32	5.11	5.23
E01	133+00.00	64.1	RT	FES	18	0.008	0.757	0.7552	0.20	1.03	1.14	N/A	N/A	0.95	4.95	5.45	7.89	8.10
F01	136+08.00	71.16	RT	FES	18	0.075	1.264	1.3443	0.20	1.72	1.90	N/A	N/A	0.95	8.70	9.59	9.62	9.85
G01	139+00.00	71.98	RT	FES	24	0.04	0.653	0.6366	0.20	0.89	0.98	N/A	N/A	0.95	4.00	4.41	5.74	5.88
H01	141+56.00	85.27	RT	FES	18	0.006	0.885	0.9224	0.20	1.21	1.33	N/A	N/A	0.95	6.08	6.71	7.74	7.91
K01	145+00.00	74.2	RT	FES	18	0.013	0.969	0.9223	0.20	1.32	1.46	N/A	N/A	0.95	6.33	6.98	7.02	7.19



SEE THE CONSTRUCTION RESTRICTIONS IN THE ENVIRONMENTAL RESOURCES TABLE IN THE GENERAL NOTES (SECTION 4)

TOTAL PROJECT AREA: 82.71 ACRES
DISTURBED AREA: 56.10 ACRES

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

-----@-----

-----C-----F-----

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

0

200

400

800

REVISION DATES

EROSION CONTROL DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

CHECKED:

DATE:

BACKCHECKED:

DATE:

CORRECTED:

DATE:

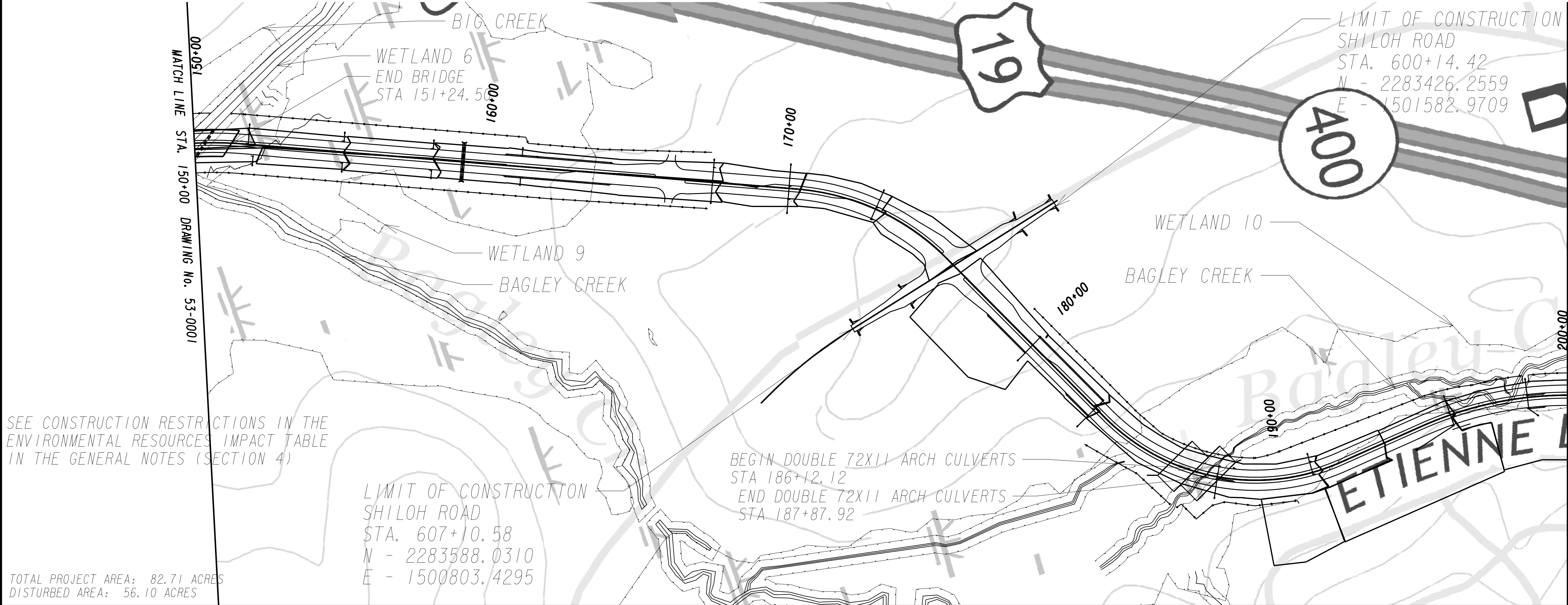
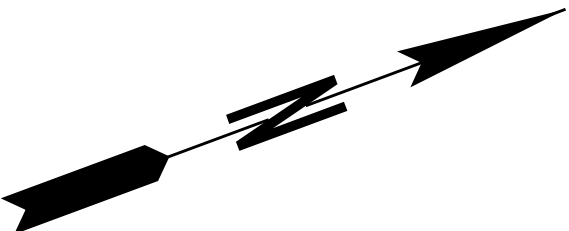
VERIFIED:

DATE:

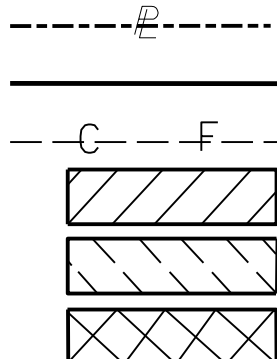
DRAWING No.
53-0001

10/23/2015 GPLN

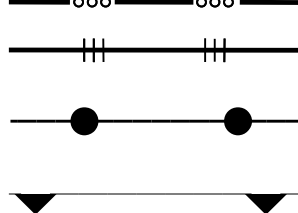
OUTLET	STATION	OFFSET	SIDE	TYPE	PIPE SIZE (inch)	SLOPE (FT/FT)	DRNG AREA (acre)	DIST AREA (acre)	PRE					POST				
										Q50	Q100	V50	V100		Q50	Q100	V50	V100
									C-VALUE	CFS	CFS	FT/S	FT/S	C-VALUE	CFS	CFS	FT/S	FT/S
M01	152+00.00	67.25	RT	FES	18	0.006	0.301	0.2732	0.20	0.41	0.45	N/A	N/A	0.95	1.97	2.17	15.93	16.45
N01	151+80.00	66.28	LT	FES	18	0.016	0.368	0.3619	0.20	0.50	0.55	N/A	N/A	0.95	2.40	2.65	13.94	14.35
P01	155+00.00	64.11	RT	FES	18	0.015	0.376	0.3753	0.20	0.51	0.57	N/A	N/A	0.95	2.45	2.71	15.91	16.39
Q01	155+00.00	64.24	LT	FES	18	<0.005	0.407	0.4074	0.20	0.56	0.61	N/A	N/A	0.95	2.66	2.93	16.35	16.83
R01	155+01.00	62.43	RT	FES	18	<0.005	0.428	0.4199	0.20	0.58	0.64	N/A	N/A	0.95	2.79	3.08	16.13	16.61
S01	158+01.00	62.7	LT	FES	18	<0.005	0.364	0.3547	0.20	0.50	0.55	N/A	N/A	0.95	2.38	2.62	15.11	15.55
T01	160+50.00	61.1	RT	FES	18	<0.005	1.339	1.3734	0.20	1.83	2.01	N/A	N/A	0.95	8.98	9.80	10.93	11.18
U01	160+50.00	61.05	LT	FES	18	<0.005	1.127	1.1861	0.20	1.54	1.70	N/A	N/A	0.95	7.72	8.46	11.99	12.28
V01	167+42.50	82.63	LT	FES	18	0.077	0.719	0.7729	0.20	0.98	1.08	N/A	N/A	0.95	4.94	5.43	7.59	7.75
W01	170+00.00	81.18	RT	FES	18	0.064	0.687	0.739	0.20	0.94	1.03	N/A	N/A	0.95	4.69	5.13	6.19	6.34
X01	173+00.00	67.5	LT	FES	18	0.071	0.922	0.951	0.20	1.26	1.39	N/A	N/A	0.95	6.02	6.46	6.90	7.02
Y11	183+00.00	83.23	RT	FES	18	0.058	2.024	1.9364	0.65	8.97	9.89	N/A	N/A	0.95	11.49	12.49	10.36	10.59
CC01	177+77.00	63.19	RT	FES	18	0.052	2.005	2.138	0.20	2.73	3.02	N/A	N/A	0.95	13.79	15.20	11.01	11.20
DD01	190+98.60	64.79	LT	FES	18	0.02	1.068	0.6088	0.20	1.46	1.61	N/A	N/A	0.95	7.35	8.10	9.67	9.92
EE01	196+00.00	64.52	LT	FES	18	0.015	1.728	0.7556	0.20	2.36	2.60	N/A	N/A	0.95	11.87	13.09	9.68	9.85
FF01	198+88.00	60.96	LT	FES	18	0.029	2.052	1.5497	0.20	2.80	3.09	N/A	N/A	0.95	14.10	15.55	10.36	10.48



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES



BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)



FORSYTH COUNTY
ENGINEERING DEPARTMENT



REVISION DATES

EROSION CONTROL DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		53-0002



OUTLET	STATION	OFFSET	SIDE	TYPE	PIPE SIZE (inch)	SLOPE (FT/FT)	DRNG AREA (acre)	DIST AREA (acre)	PRE					POST				
										Q50	Q100	V50	V100		Q50	Q100	V50	V100
									C-VALUE	CFS	CFS	FT/S	FT/S	C-VALUE	CFS	CFS	FT/S	FT/S
GG01	200+75.00	58.4	LT	FES	36	0.017	OFFSITE	0.00	0.20	N/A	N/A	N/A	N/A	0.95	N/A	N/A	N/A	N/A
GG03	202+00.00	63.93	LT	FES	18	0.019	1.071	0.9408	0.20	1.46	1.61	N/A	N/A	0.95	7.36	8.11	11.27	11.57
GG08	203+15.00	64.4	LT	FES	18	0.015	1.421	0.2295	0.20	1.94	2.14	N/A	N/A	0.95	9.28	10.23	11.49	11.78
HH01	205+36.00	78.13	LT	FES	24	< 0.005	1.154	1.2143	0.20	1.57	1.74	N/A	N/A	0.95	7.93	8.75	8.44	8.67
JJ01	209+00.00	67.94	LT	FES	18	< 0.005	1.116	0.9576	0.20	1.52	1.68	N/A	N/A	0.95	7.67	8.46	9.24	9.47
KK05	210+50.00	72	LT	FES	30	< 0.005	1.382	0.1919	0.20	1.89	2.08	N/A	N/A	0.95	4.28	4.72	5.74	5.91
KK01	211+00.00	72	LT	FES	18	< 0.005	0.765	0.7717	0.20	1.04	1.15	N/A	N/A	0.95	5.25	5.79	6.09	6.24
LL01	215+00.00	69.31	LT	FES	18	< 0.005	0.859	0.673	0.20	1.17	1.29	N/A	N/A	0.95	5.90	6.51	16.67	17.15
MM08	217+15.00	73	LT	FES	42	0.017	OFFSITE	0.0992	0.20	N/A	N/A	N/A	N/A	0.95	N/A	N/A	N/A	N/A
MM01	218+00.00	73	LT	FES	18	0.067	1.095	0.9637	0.20	1.49	1.65	N/A	N/A	0.95	7.52	8.29	17.90	18.41
NN01	224+00.00	61.89	LT	FES	18	0.128	0.567	0.6063	0.20	0.77	0.85	N/A	N/A	0.95	3.90	4.30	8.22	8.45
PP01	227+00.00	57.04	LT	FES	18	0.067	1.18	0.8345	0.20	1.61	1.77	N/A	N/A	0.95	8.11	8.94	13.57	13.93
QQ01	229+41.00	55.98	LT	FES	18	0.016	1.526	1.5644	0.20	2.08	2.30	N/A	N/A	0.95	10.49	11.57	13.54	13.90
RR01	223+00.00	65.86	LT	FES	18	0.028	0.704	0.7259	0.20	0.96	1.06	N/A	N/A	0.95	4.84	5.34	7.04	7.23
SS01	236+00.00	71.53	LT	FES	18	0.062	0.779	0.725	0.20	1.06	1.17	N/A	N/A	0.95	5.36	5.89	5.11	5.22
TT01	239+00.00	109.16	LT	FES	18	0.074	0.703	0.646	0.20	0.96	1.06	N/A	N/A	0.95	4.80	5.24	5.80	5.93
UU01	242+00.00	105.85	LT	FES	18	-0.007	0.784	0.8105	0.20	1.07	1.18	N/A	N/A	0.95	5.39	5.93	8.32	8.53
VV01	245+00.00	116.79	LT	FES	18	-0.093	0.761	0.7998	0.20	1.04	1.14	N/A	N/A	0.95	5.23	5.72	2.96	3.24
WW00	248+00.00	118.25	RT	FES	18	N/A	0.741	0.7382	0.20	1.01	1.11	N/A	N/A	0.95	5.10	5.61	4.35	4.43

TOTAL PROJECT AREA: 82.71 ACRES
DISTURBED AREA: 56.10 ACRES

SEE THE CONSTRUCTION RESTRICTIONS IN THE
ENVIRONMENTAL RESOURCES IMPACT TABLE
IN THE GENRAL NOTES (SECTION 4)

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

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FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

0

200

400

800

REVISION DATES

EROSION CONTROL DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

CHECKED:

BACKCHECKED:

CORRECTED:

VERIFIED:

DATE:

DATE:

DATE:

DATE:

DRAWING No.

53-0003

10/23/2015 GPLN



TOTAL PROJECT AREA: 82.71 ACRES
DISTURBED AREA: 56.10 ACRES

OUTLET	STATION	OFFSET	SIDE	TYPE	PIPE SIZE (inch)	SLOPE (FT/FT)	DRNG AREA (acre)	DIST AREA (acre)	PRE					POST				
										Q50	Q100	V50	V100		Q50	Q100	V50	V100
									C-VALUE	CFS	CFS	FT/S	FT/S	C-VALUE	CFS	CFS	FT/S	FT/S
YY01	250+99.00	112.59	RT	FES	18	0.046	1.229	0.855	0.75	6.29	6.93	N/A	N/A	0.95	8.44	9.26	7.21	7.34
BBB01	269+64.82	66.5	RT	FES	36	0.0415	5.334	3.937	0.75	27.28	30.08	N/A	N/A	0.95	36.46	39.98	16.91	17.34
EEE01	227+49.00	70.13	RT	FES	60	0.0284375	9.283	0.7463	0.85	53.81	59.34	17.31	17.79	0.95	63.70	70.08	16.78	17.25

PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
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(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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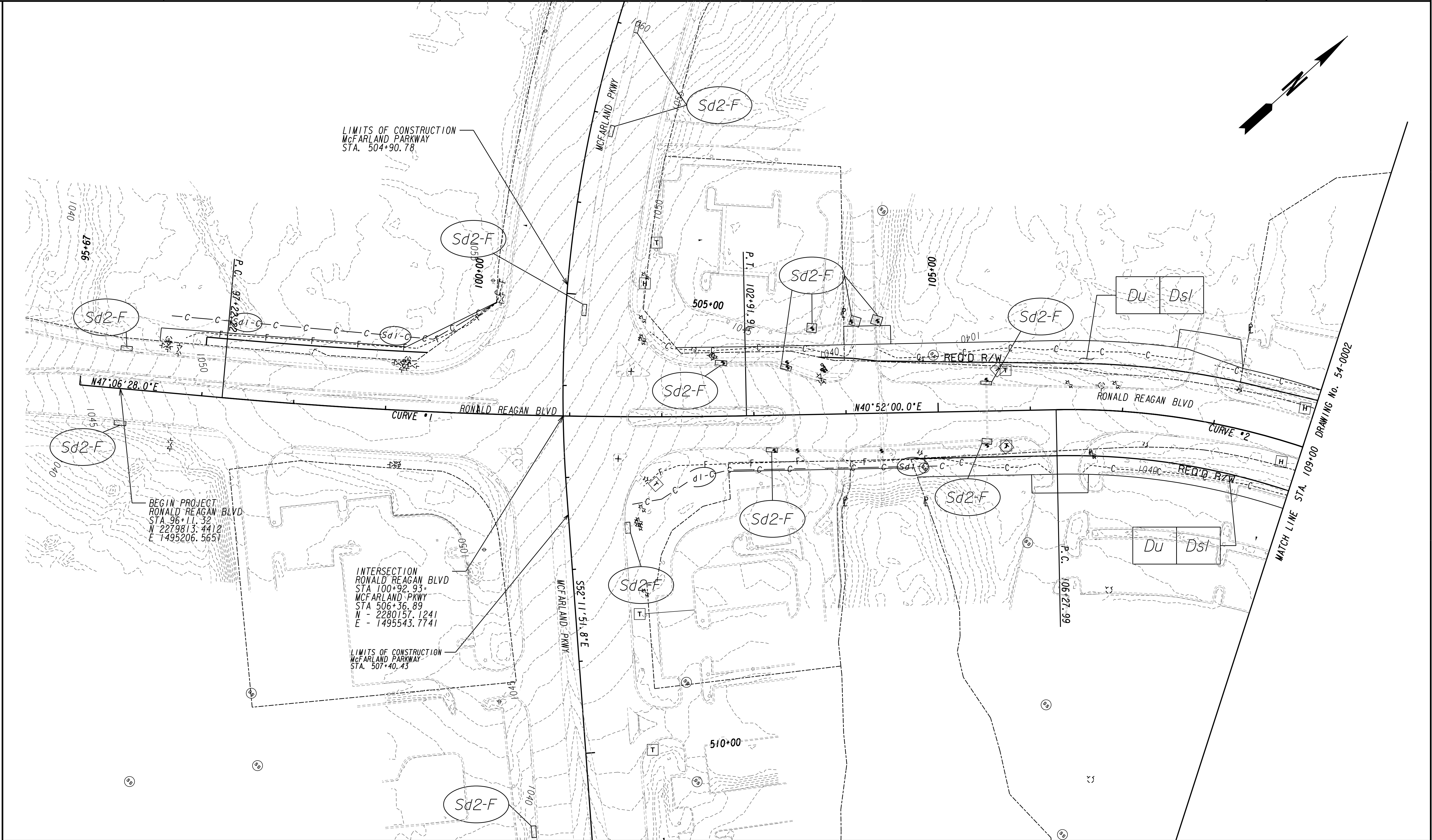
REVISION DATES

EROSION CONTROL DRAINAGE AREA MAP
RONALD REAGAN BLVD EXTENSION

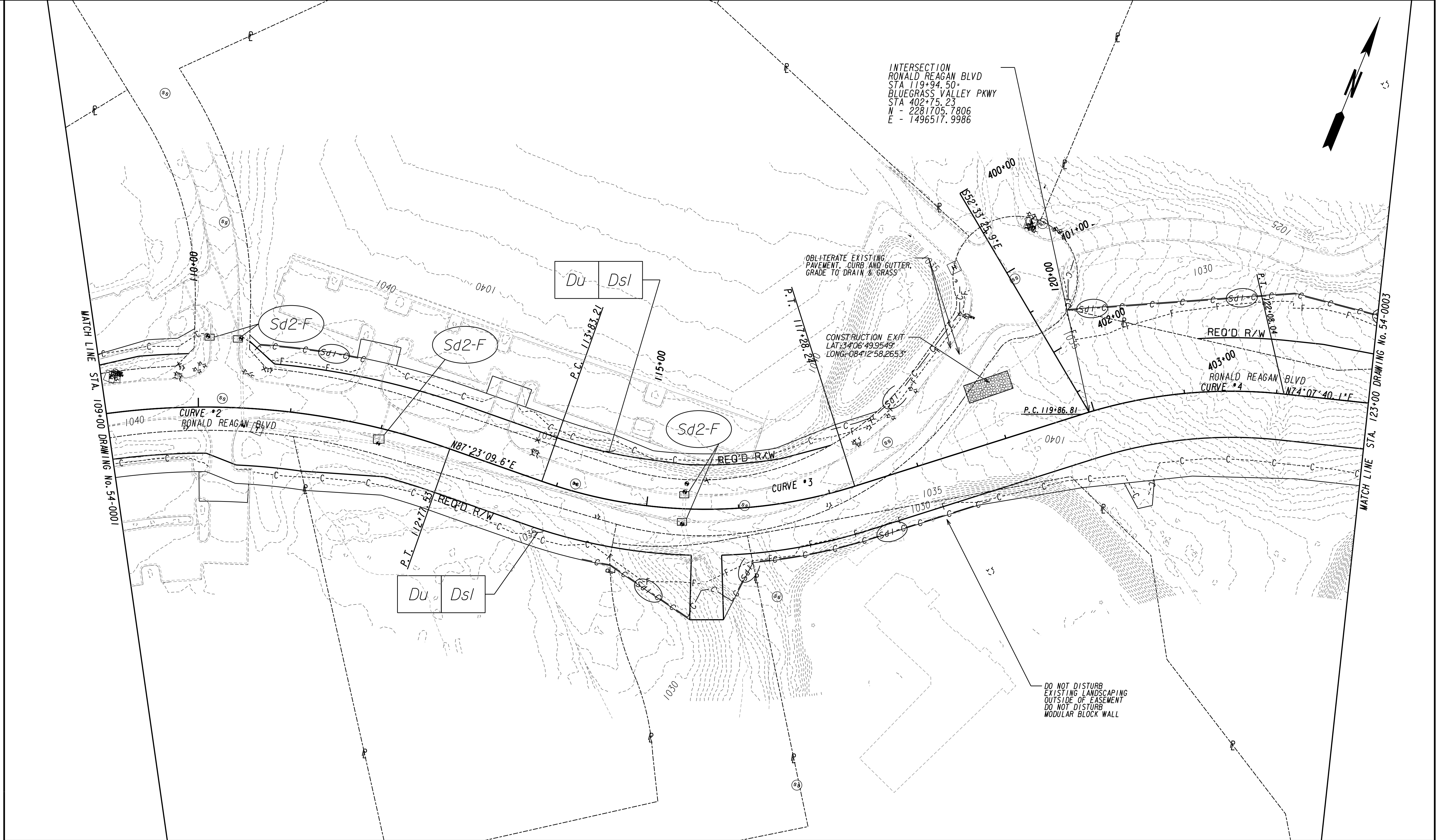
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DRAWING No.
53-0004

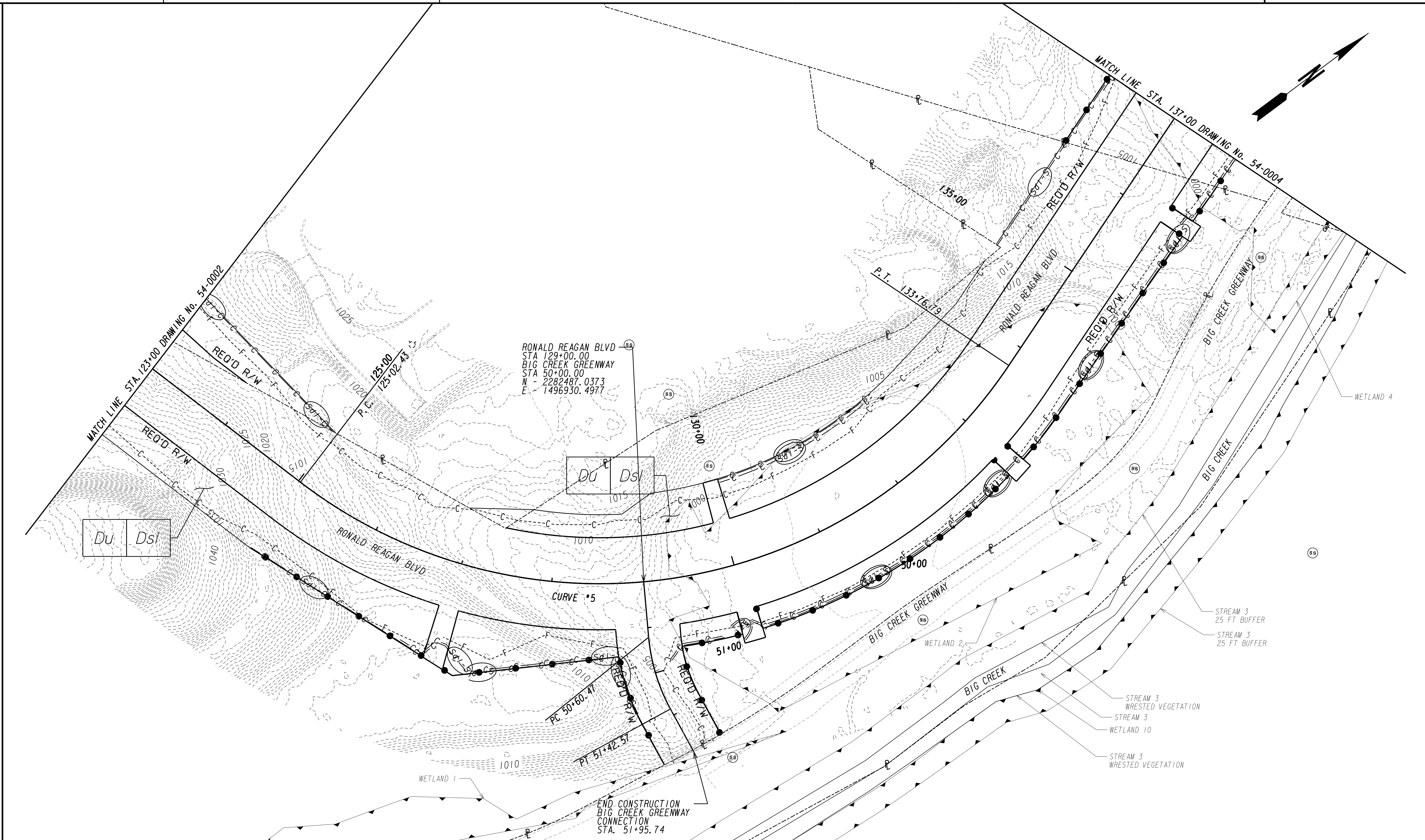
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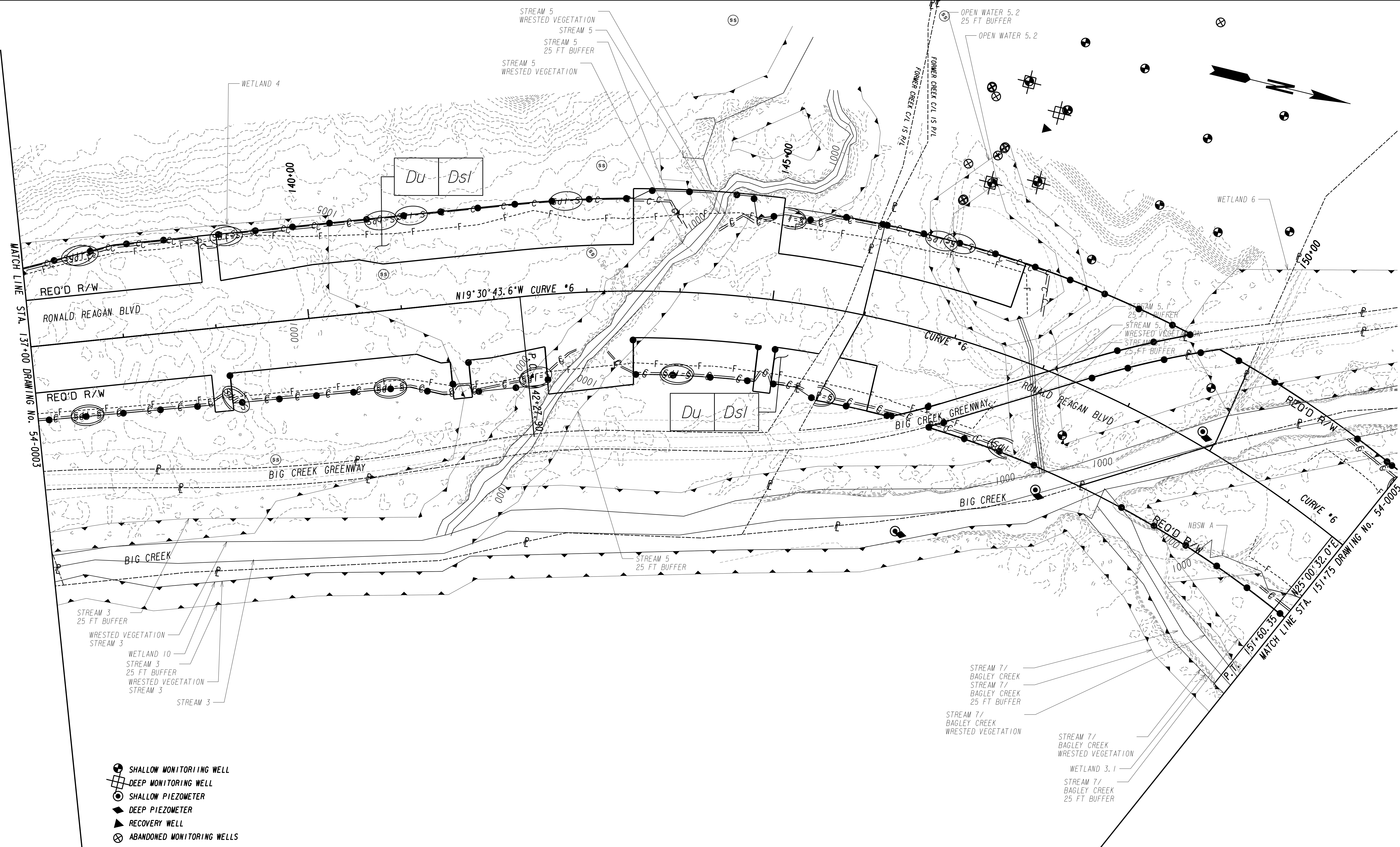
PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)		FORSYTH COUNTY ENGINEERING DEPARTMENT		SCALE IN FEET 0 50 100 200	REVISION DATES		BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I													
									<table><tr><td>CHECKED:</td><td></td><td>DATE:</td><td></td><td rowspan="4">DRAWING No. 54-0001</td></tr><tr><td>BACKCHECKED:</td><td></td><td>DATE:</td><td></td></tr><tr><td>CORRECTED:</td><td></td><td>DATE:</td><td></td></tr><tr><td>VERIFIED:</td><td></td><td>DATE:</td><td></td></tr></table>				CHECKED:		DATE:		DRAWING No. 54-0001	BACKCHECKED:		DATE:		CORRECTED:
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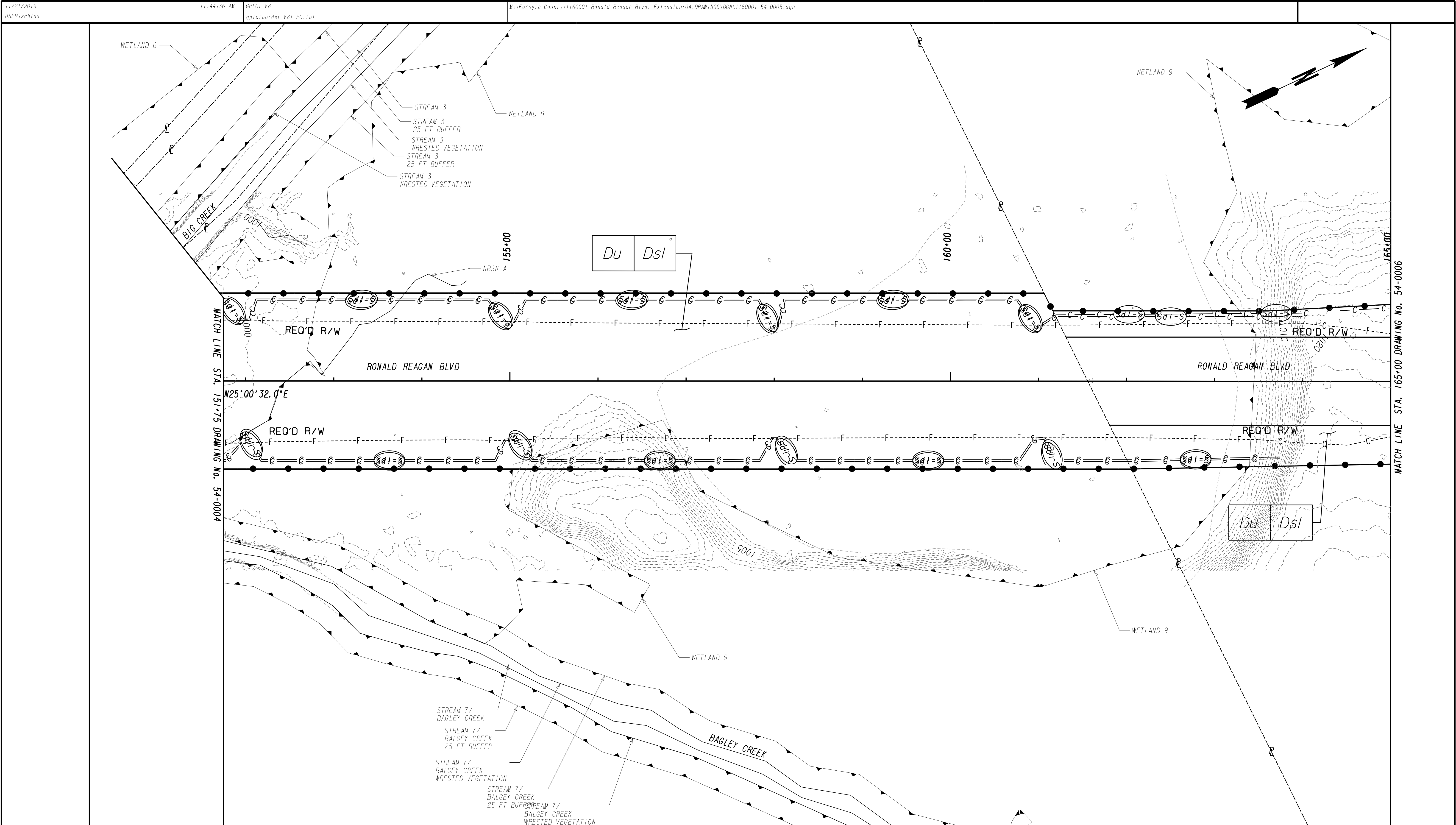
<div>PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES</div>	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)</div>	<div><div></div><div></div><div></div><div></div><div></div></div>	<div>FORSYTH COUNTY ENGINEERING DEPARTMENT</div>	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div><div>SCALE IN FEET</div><div><div>0</div><div>50</div><div>100</div><div>200</div></div></div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																			<div>BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I</div> <table><tr><td>CHECKED:</td><td>DATE:</td><td rowspan="4">DRAWING No. <div>54-0002</div></td></tr><tr><td>BACKCHECKED:</td><td>DATE:</td></tr><tr><td>CORRECTED:</td><td>DATE:</td></tr><tr><td>VERIFIED:</td><td>DATE:</td></tr></table>	CHECKED:	DATE:	DRAWING No. <div>54-0002</div>	BACKCHECKED:	DATE:	CORRECTED:	DATE:	VERIFIED:	DATE:
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT	 Architects • Engineers • Planners SCALE IN FEET 0 50 100 200	REVISION DATES	BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I			
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						BACKCHECKED:	DATE:		
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						VERIFIED:	DATE:		



<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div>FORSYTH COUNTY</div> <div>ENGINEERING DEPARTMENT</div>	<div><div>POND</div></div> <div>Architects • Engineers • Planners</div>	<div>SCALE IN FEET</div> <div><div>0</div><div>50</div><div>100</div><div>200</div></div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																					<div>BMP LOCATION DETAILS</div> <div>RONALD REAGAN BLVD EXTENSION</div> <div>PHASE I</div>		
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PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

---P---

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[Hatched Box]

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[Hatched Box]

BEGIN LIMIT OF ACCESS.....BLA

END LIMIT OF ACCESS.....ELA

LIMIT OF ACCESS

REQ'D R/W & LIMIT OF ACCESS

ORANGE BARRIER FENCE

ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)

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FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

0 50 100 200

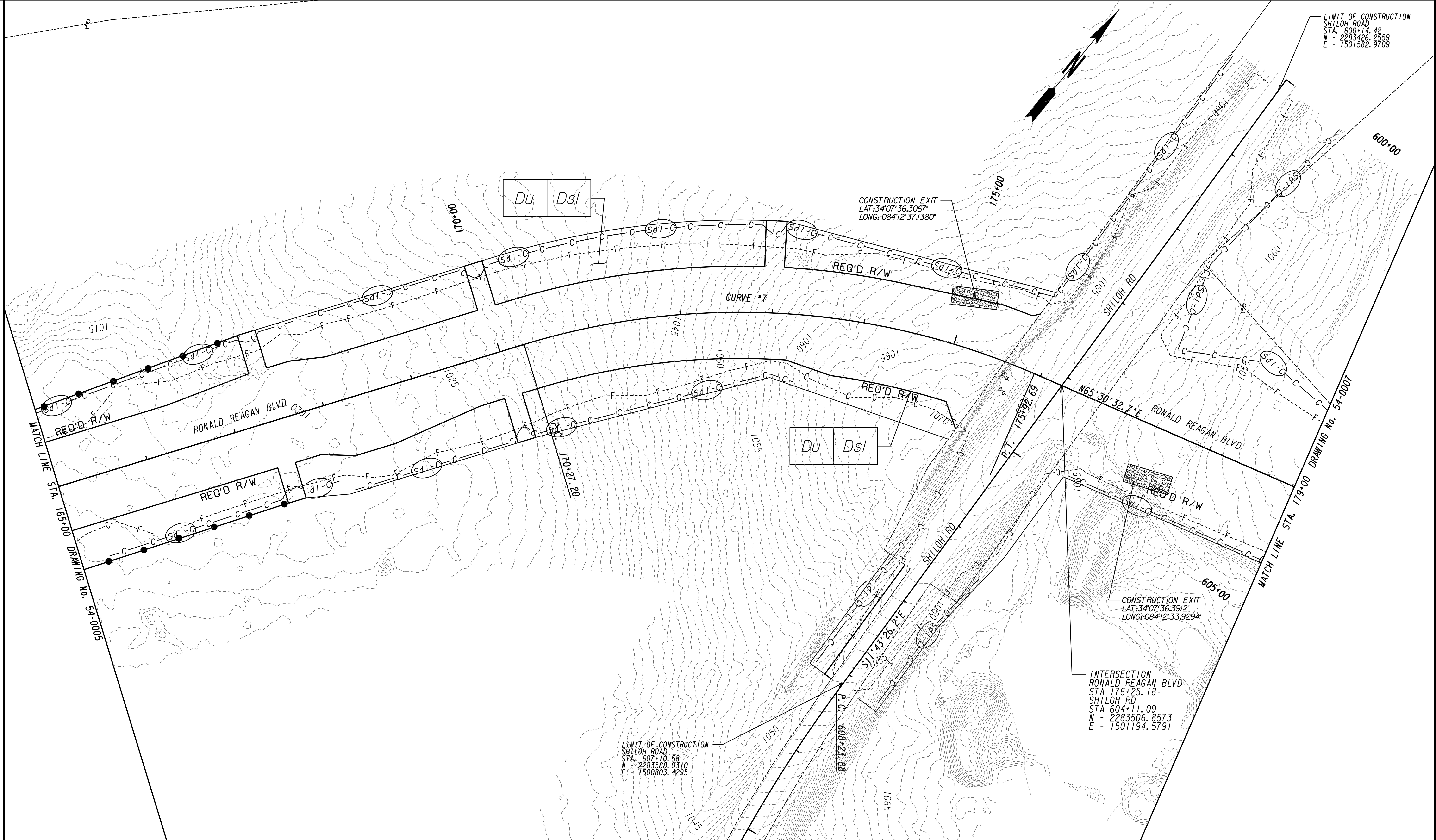
REVISION DATES		

BMP LOCATION DETAILS

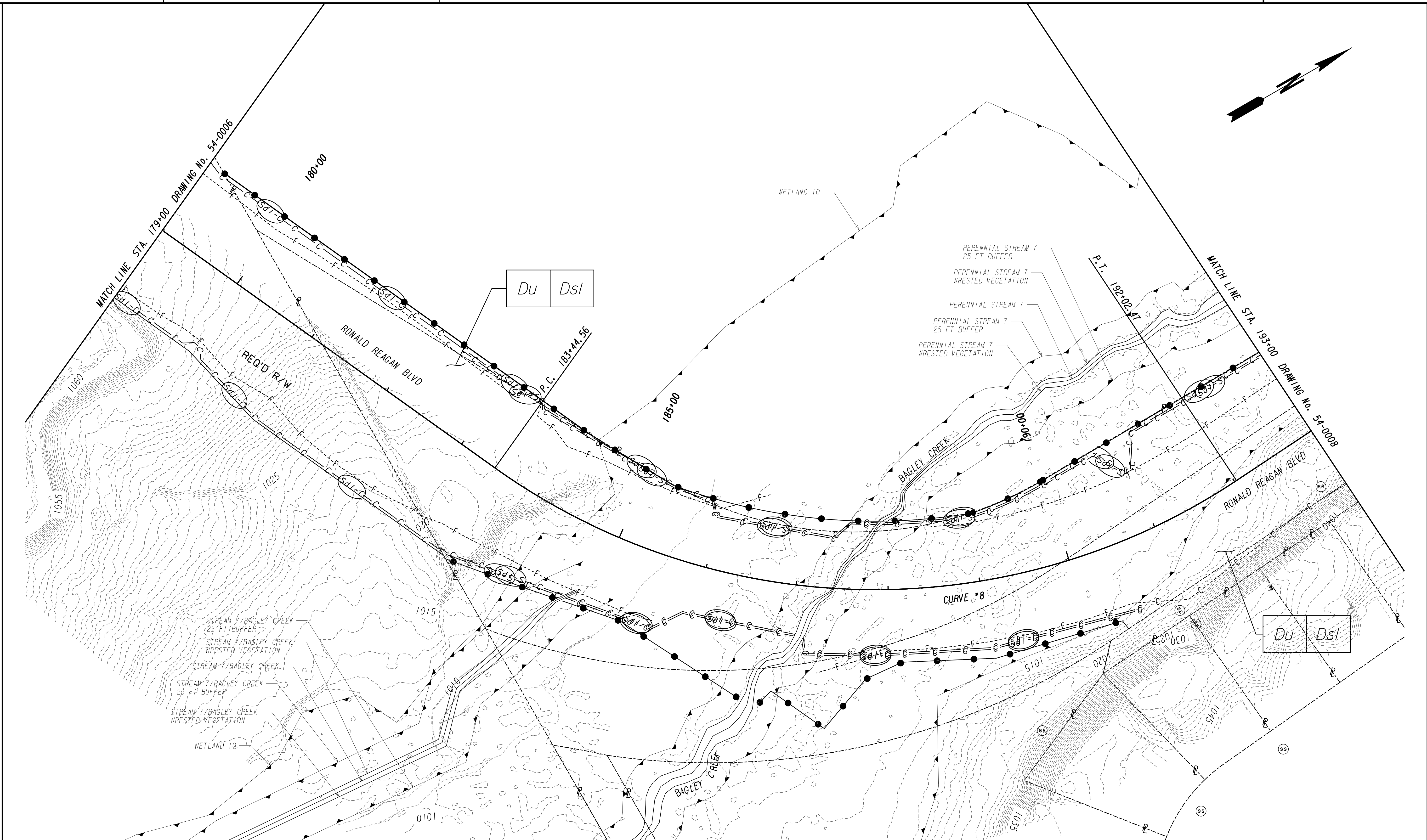
RONALD REAGAN BLVD EXTENSION

PHASE I

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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT		REVISION DATES <table><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td></tr></table>																			BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I
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PROPERTY AND EXISTING R/W LINE	---
REQUIRED R/W LINE	---
CONSTRUCTION LIMITS	---
EASEMENT FOR CONSTR	---
& MAINTENANCE OF SLOPES	---
EASEMENT FOR CONSTR OF SLOPES	---
EASEMENT FOR CONSTR OF DRIVES	---

BEGIN LIMIT OF ACCESS.....BLA	---
END LIMIT OF ACCESS.....ELA	---
LIMIT OF ACCESS	---
REQ'D R/W & LIMIT OF ACCESS	---
ORANGE BARRIER FENCE	---
ESA - ENV. SENSITIVE AREA	---
(SEE ERIT TABLE)	---

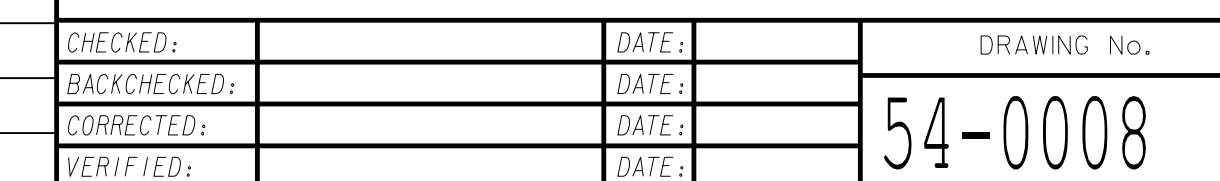
FORSYTH COUNTY
ENGINEERING DEPARTMENT

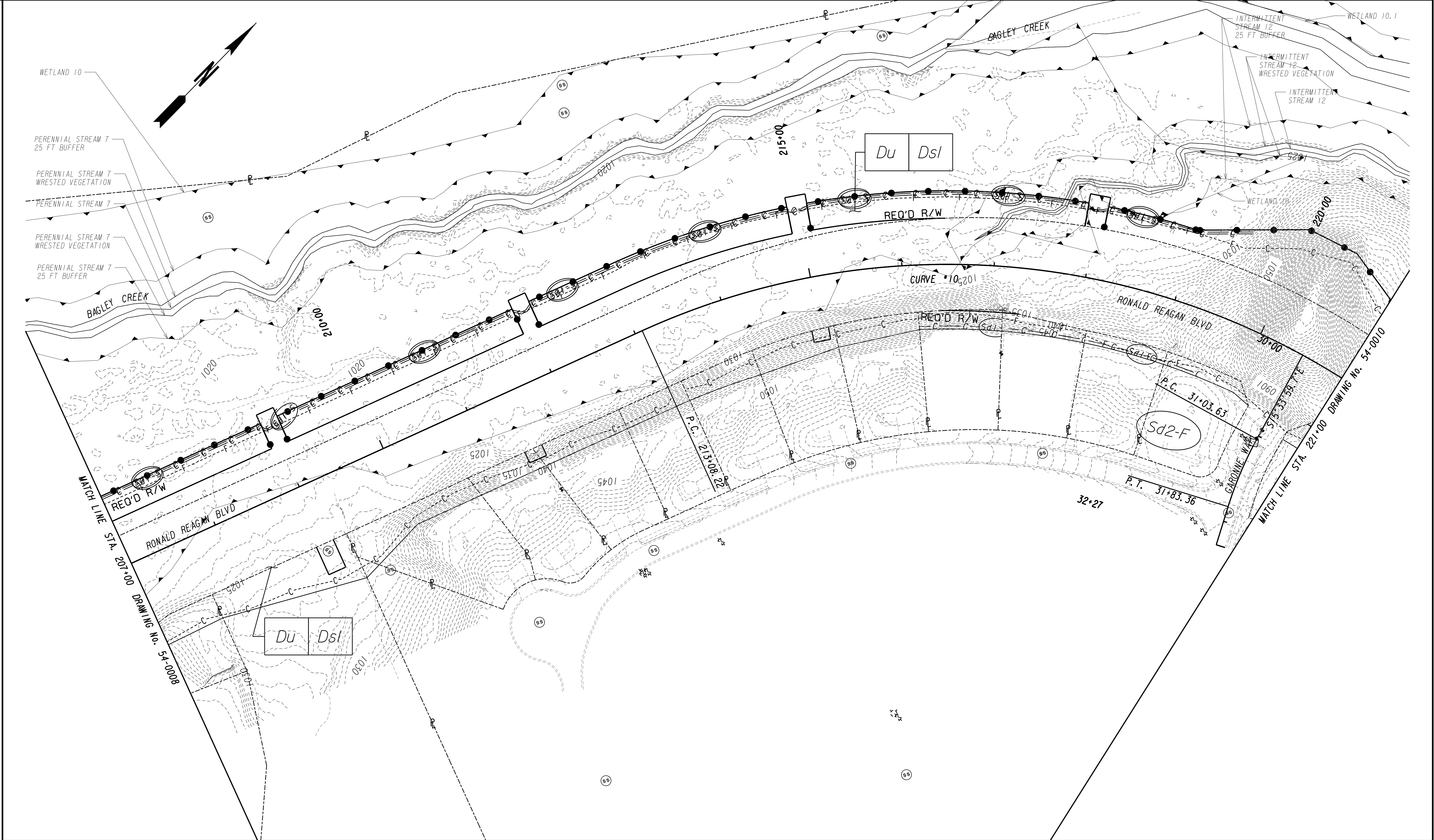
POND
Architects • Engineers • Planners

SCALE IN FEET
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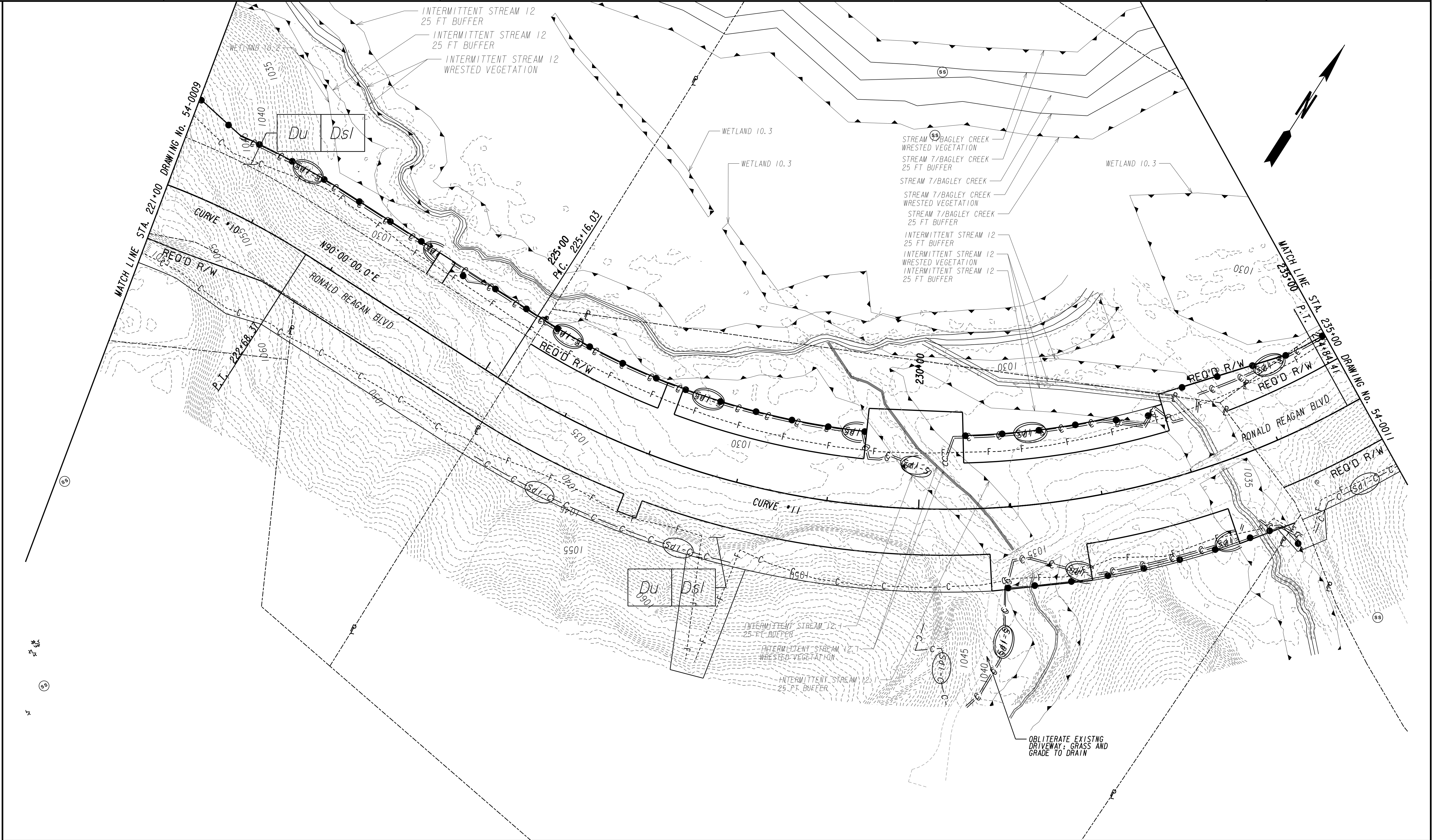
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BMP LOCATION DETAILS			
RONALD REAGAN BLVD EXTENSION			
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	 ---P--- ---C---F--- 	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	 ---III--- ---III--- ---III--- ---III--- ---III---	FORSYTH COUNTY ENGINEERING DEPARTMENT	 Architects • Engineers • Planners		REVISION DATES <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I		
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
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EASEMENT FOR CONSTR OF SLOPES
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ORANGE BARRIER FENCE
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(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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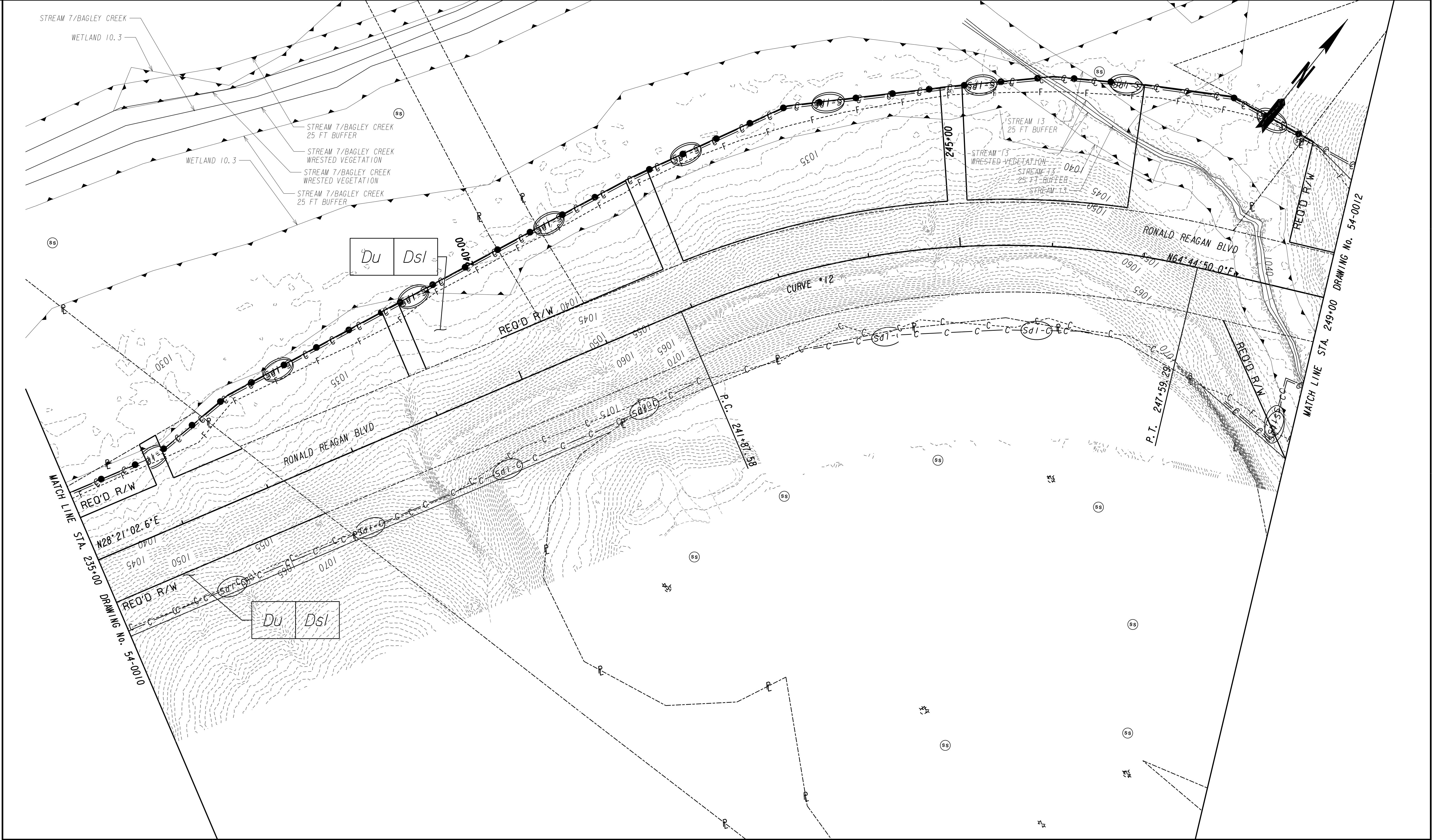
REVISION DATES

BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE I

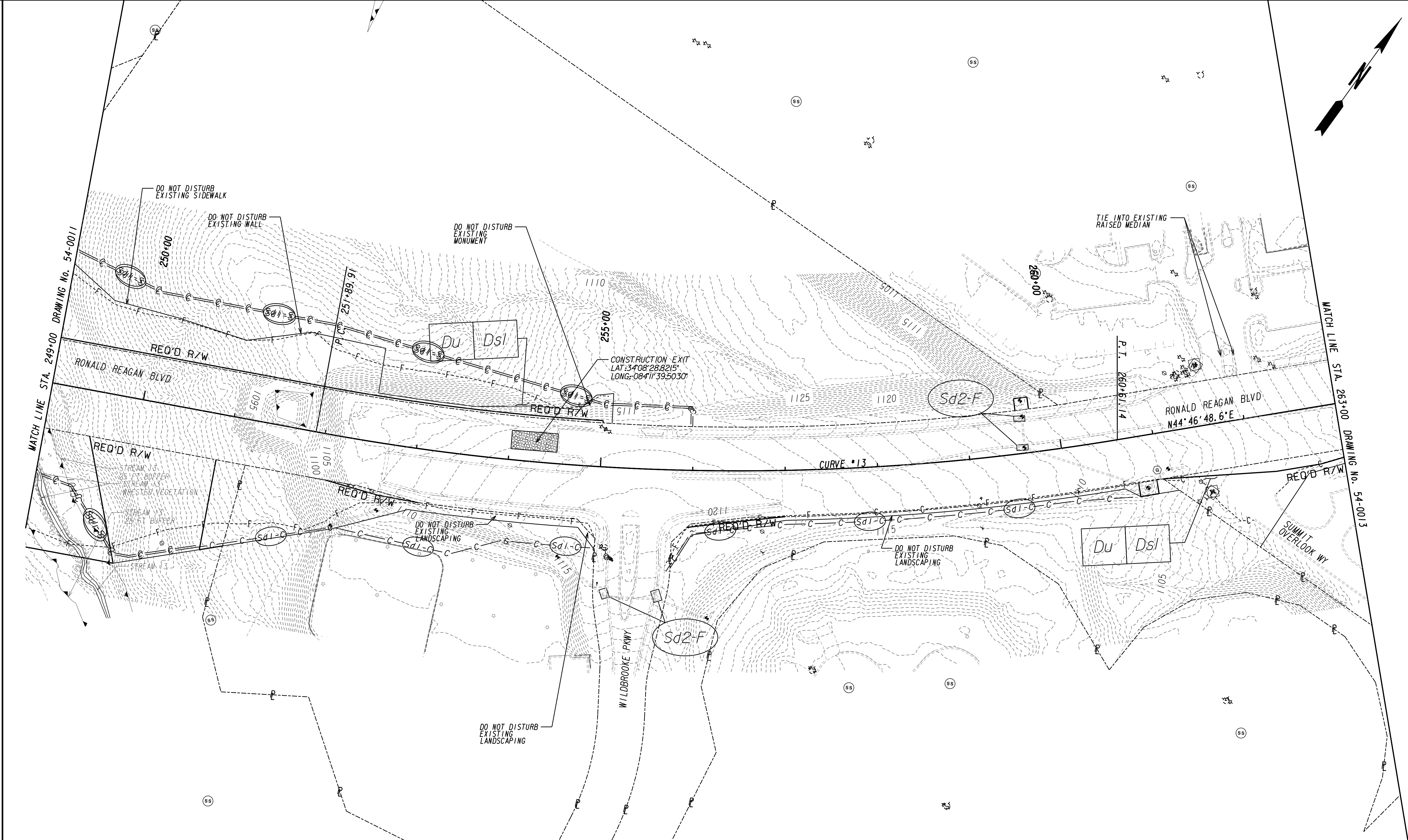
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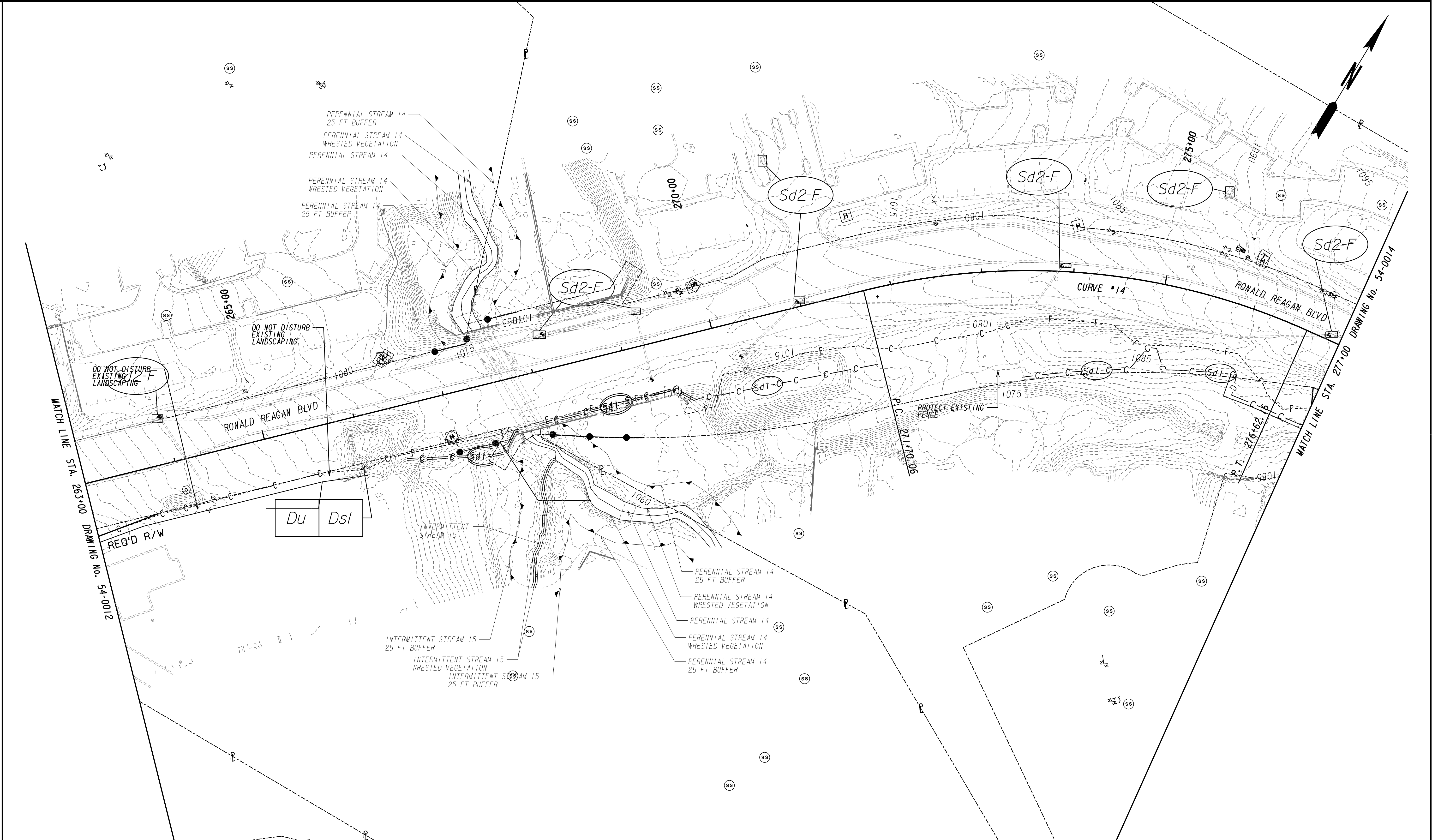
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<div>PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES</div>	<div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)</div>	<div>FORSYTH COUNTY ENGINEERING DEPARTMENT</div>	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div>SCALE IN FEET 0 50 100 200</div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																<div>BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I</div> <table><tr><td>CHECKED:</td><td>DATE:</td><td rowspan="4">DRAWING No. 54-0011</td></tr><tr><td>BACKCHECKED:</td><td>DATE:</td></tr><tr><td>CORRECTED:</td><td>DATE:</td></tr><tr><td>VERIFIED:</td><td>DATE:</td></tr></table>	CHECKED:	DATE:	DRAWING No. 54-0011	BACKCHECKED:	DATE:	CORRECTED:	DATE:	VERIFIED:	DATE:
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							<div>RONALD REAGAN BLVD EXTENSION PHASE I</div>		<div>CHECKED: DATE: DRAWING No. BACKCHECKED: DATE: CORRECTED: DATE: VERIFIED: DATE:</div>	



PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
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EASEMENT FOR CONSTR OF SLOPES
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ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

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SCALE IN FEET

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REVISION DATES

BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE I

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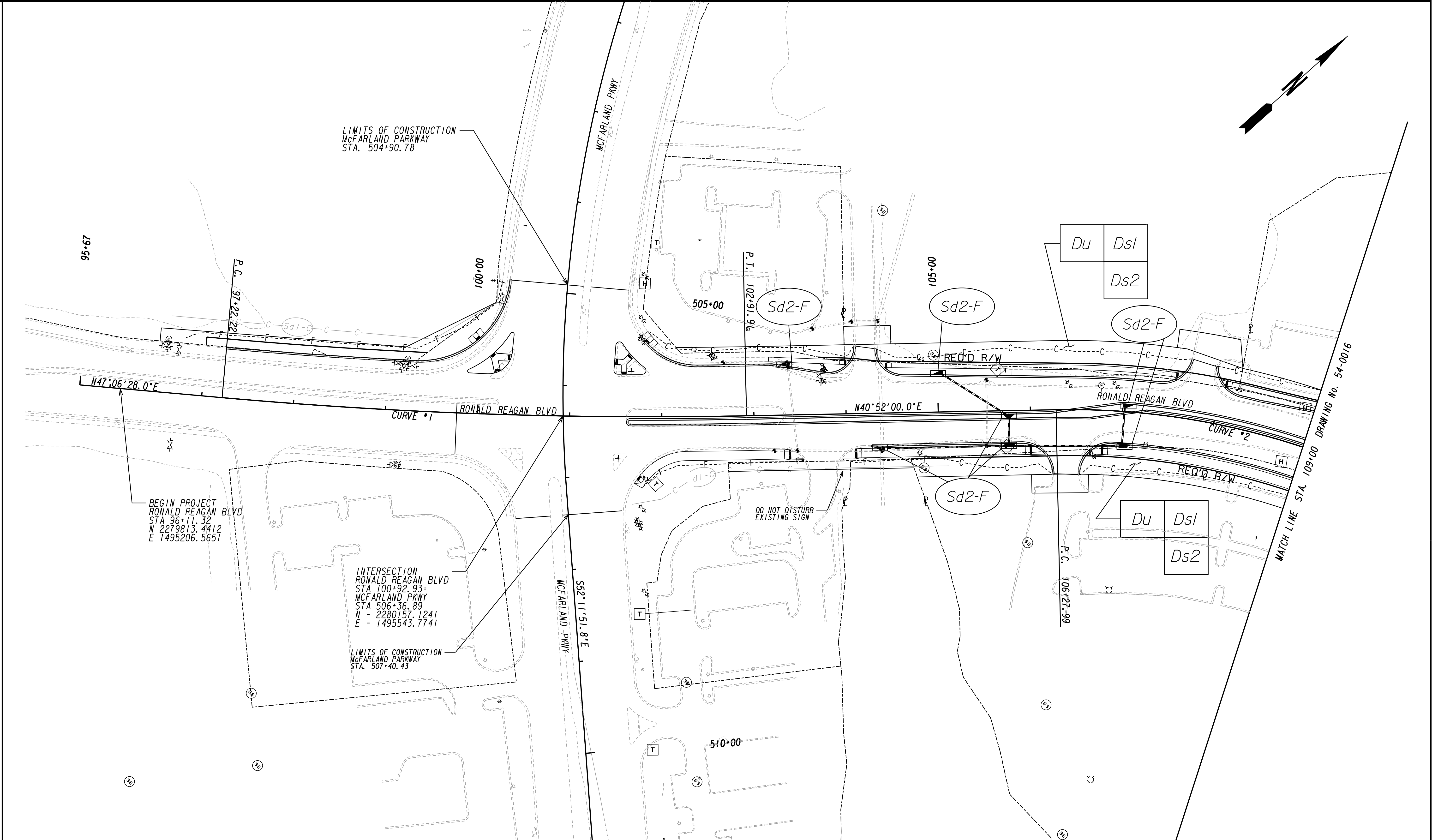
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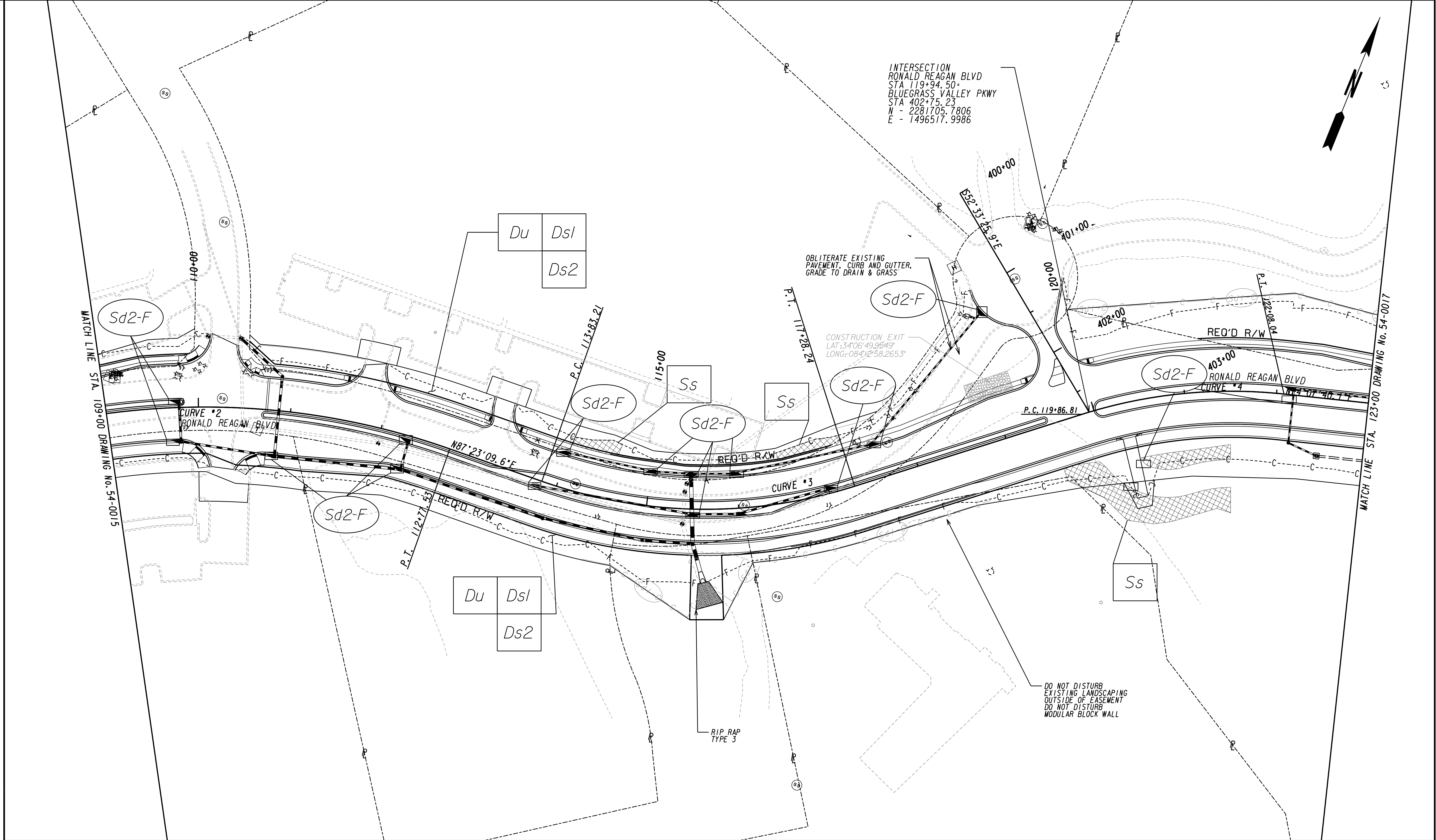


PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT		REVISION DATES			BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE I				
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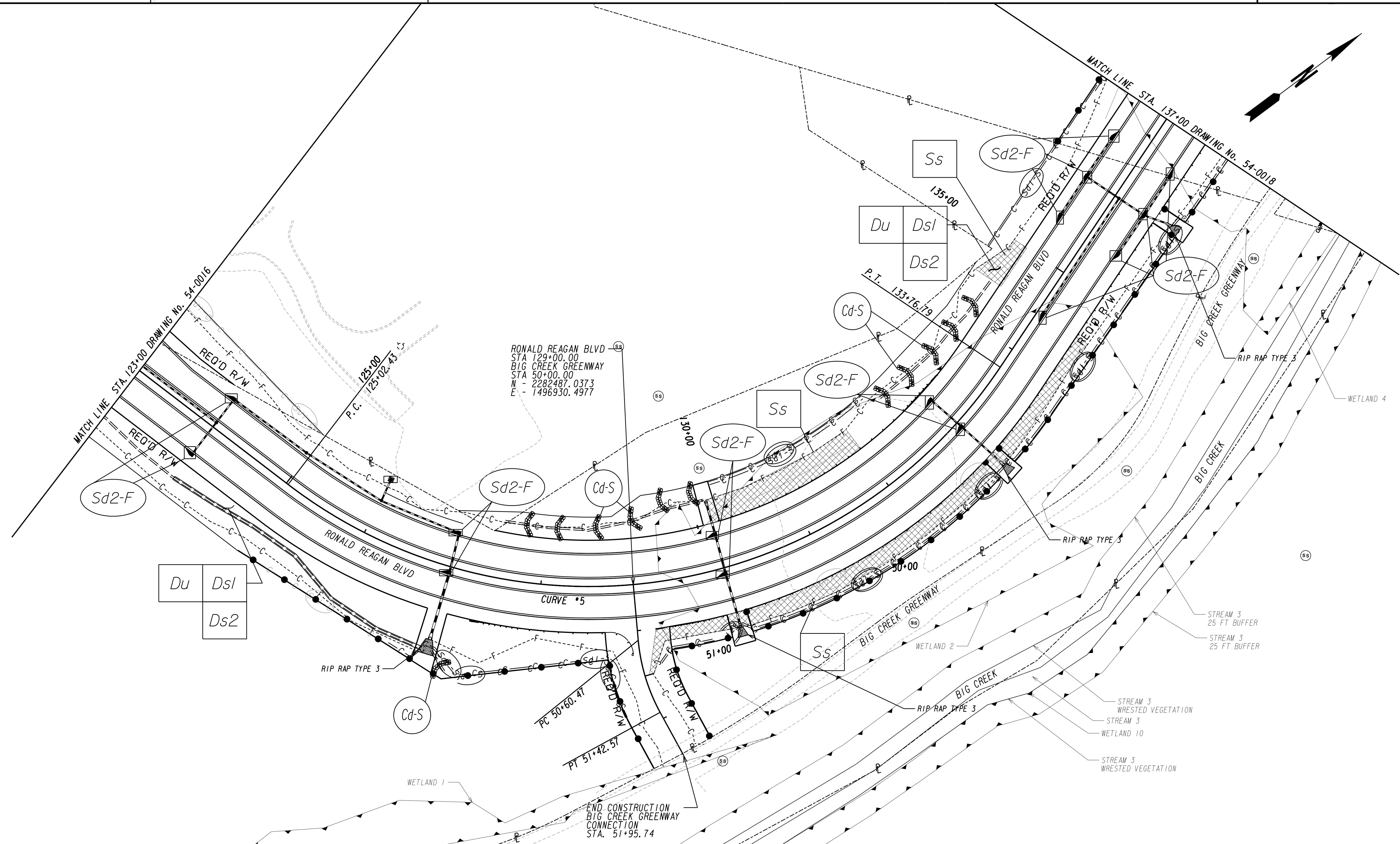
10/23/2015
GPLN



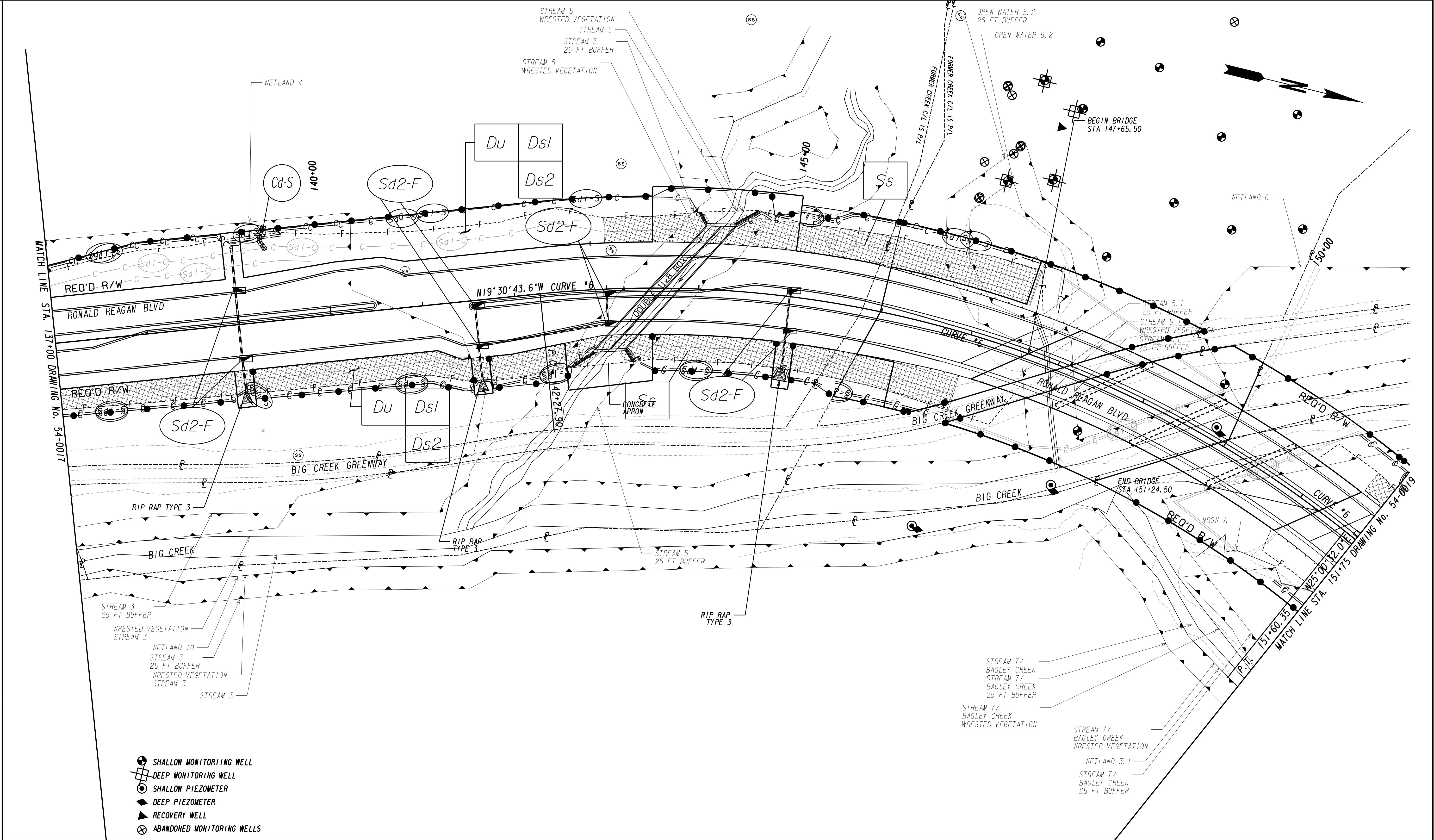
<div>PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES</div> <div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)</div> <div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div><div><div><div></div></div><div><div></div></div><div><div></div></div><div><div></div></div></div></div>
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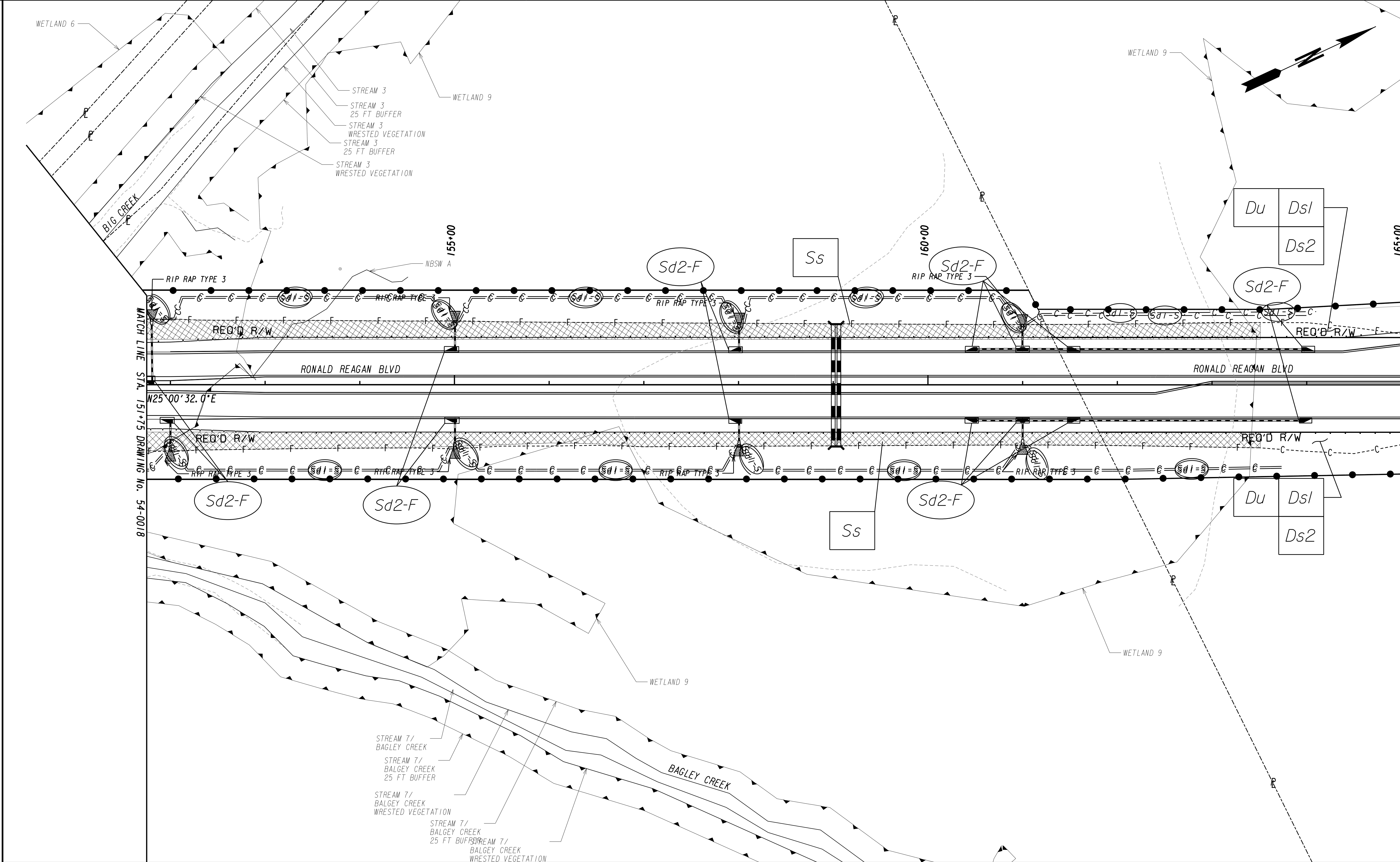
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	-----@-----	BEGIN LIMIT OF ACCESS.....BLA	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div>POND</div><div>Architects ■ Engineers ■ Planners</div></div> <div>SCALE IN FEET 050100200</div>	REVISION DATES		BMP LOCATION DETAILS				
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	---C---F---	LIMIT OF ACCESS					PHASE 2				
		REQ'D R/W & LIMIT OF ACCESS									
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<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div><div>---P---</div></div> <div><div>---C---</div></div> <div><div>---F---</div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div>FORSYTH COUNTY</div> <div>ENGINEERING DEPARTMENT</div>	<div><div>POND</div></div> <div>Architects • Engineers • Planners</div>	<div>SCALE IN FEET</div> <div><div>0</div><div>50</div><div>100</div><div>200</div></div>	REVISION DATES		BMP LOCATION DETAILS			
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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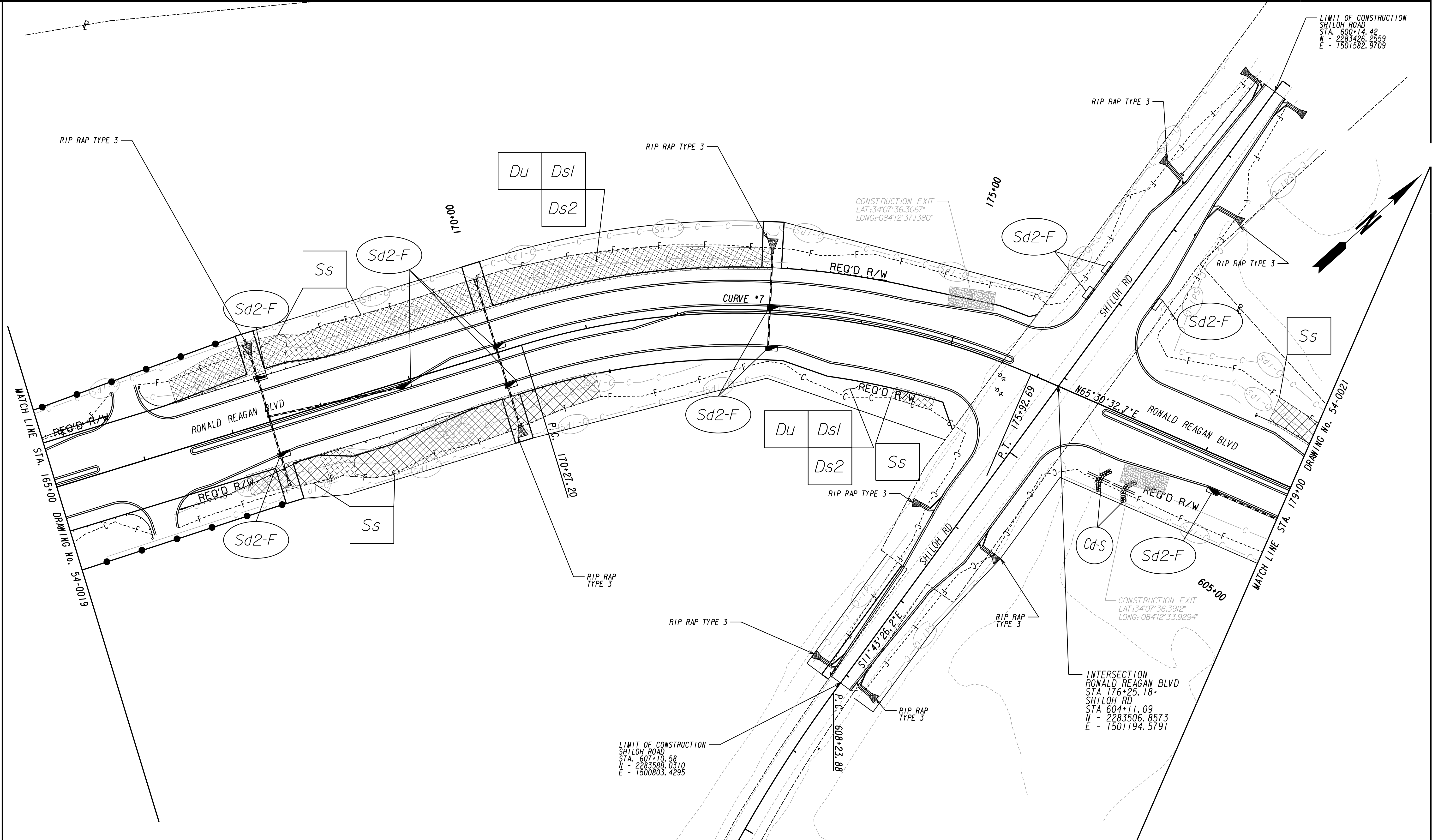
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BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE 2

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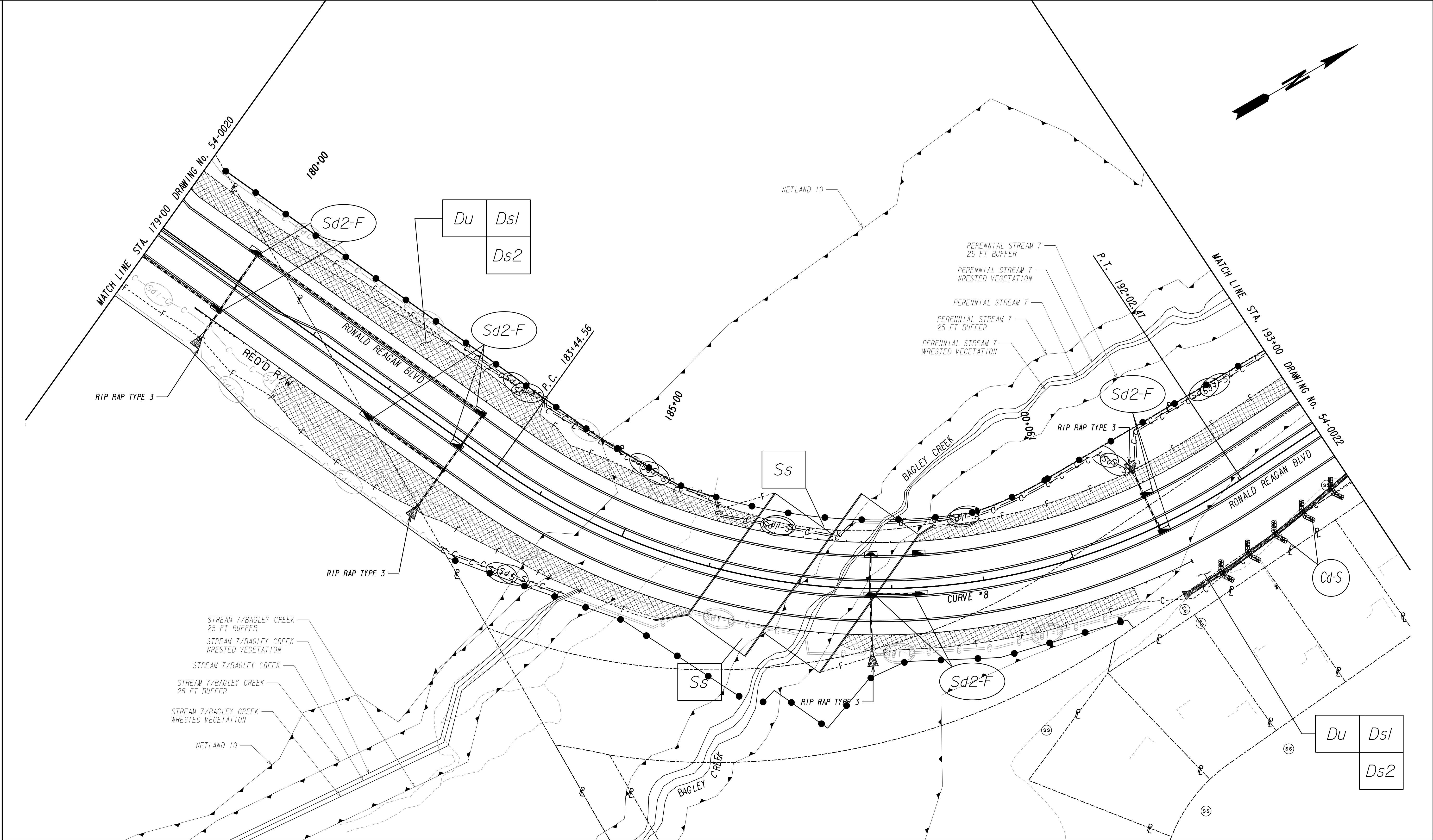
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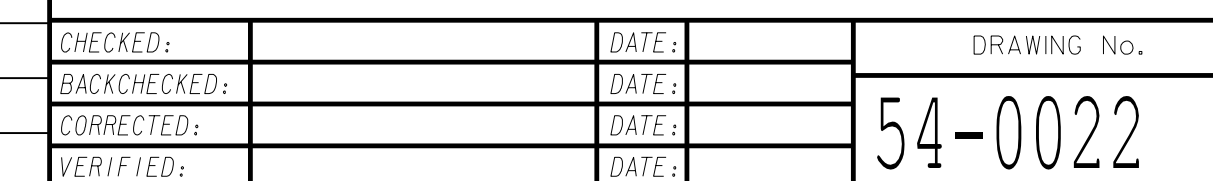


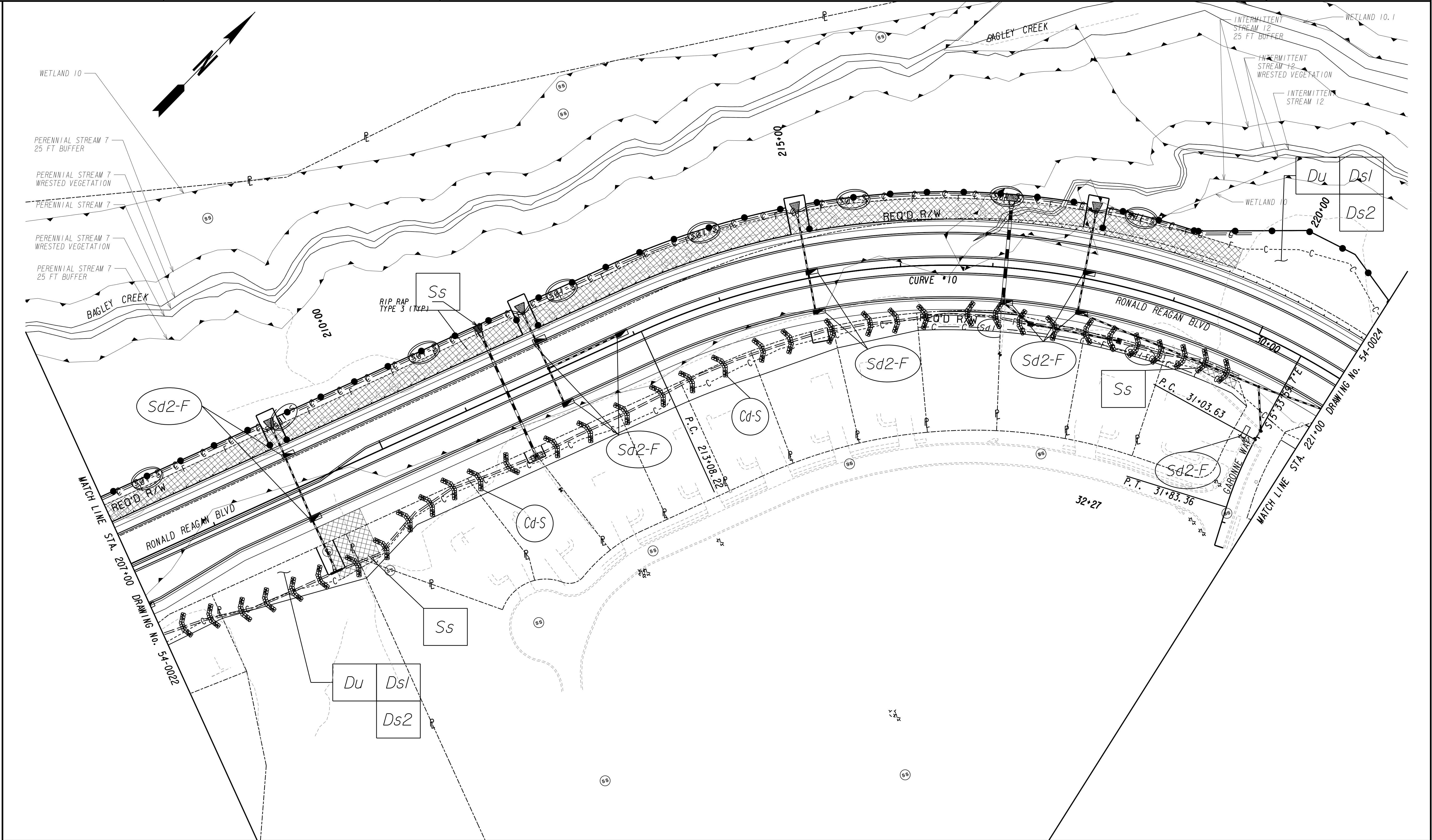
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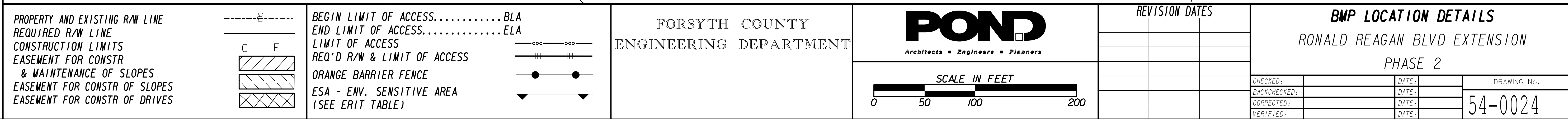


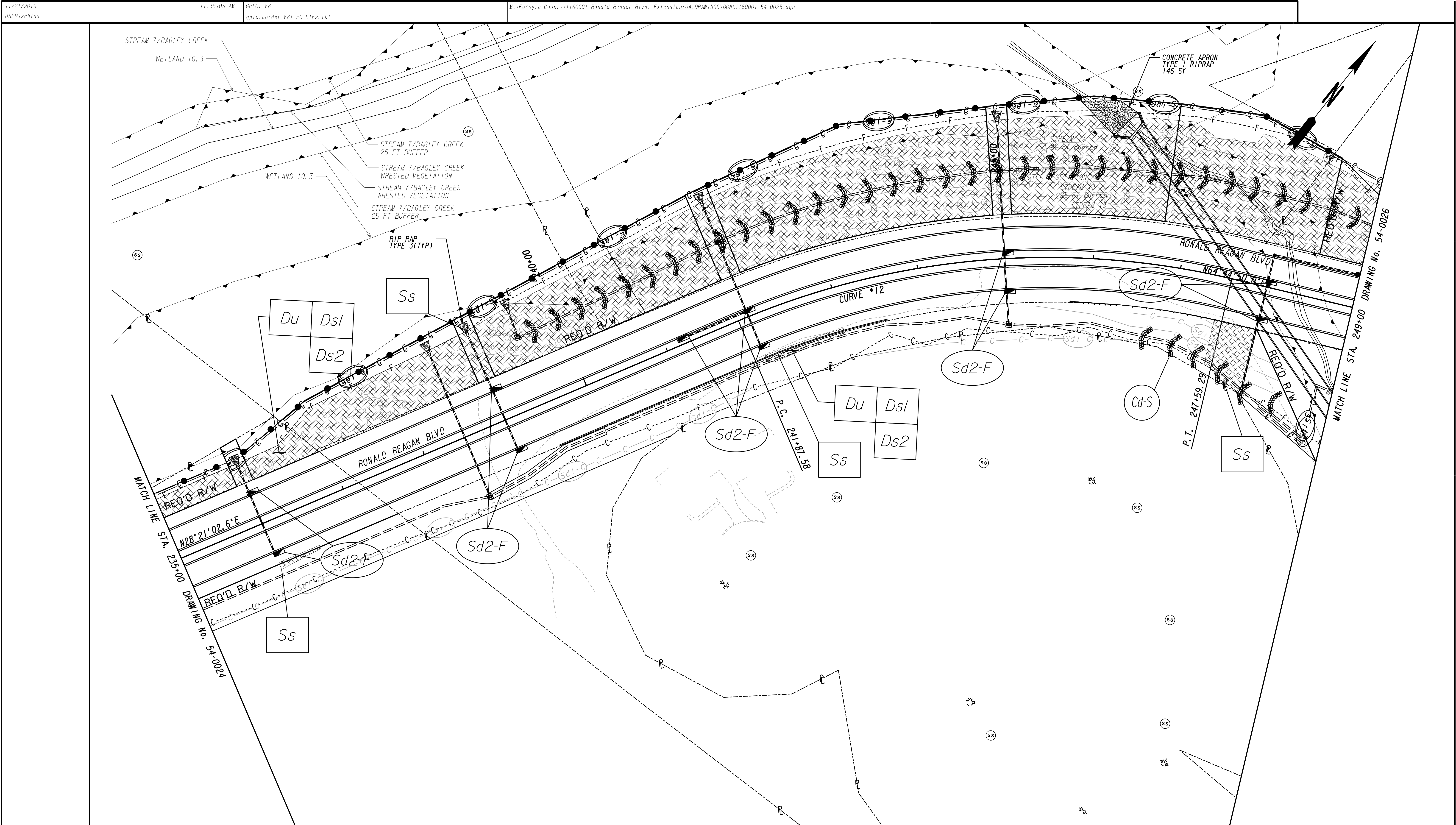
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)		FORSYTH COUNTY ENGINEERING DEPARTMENT		SCALE IN FEET 0 50 100 200	REVISION DATES	BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE 2			
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

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---C---F---
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[Hatched Box]
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BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

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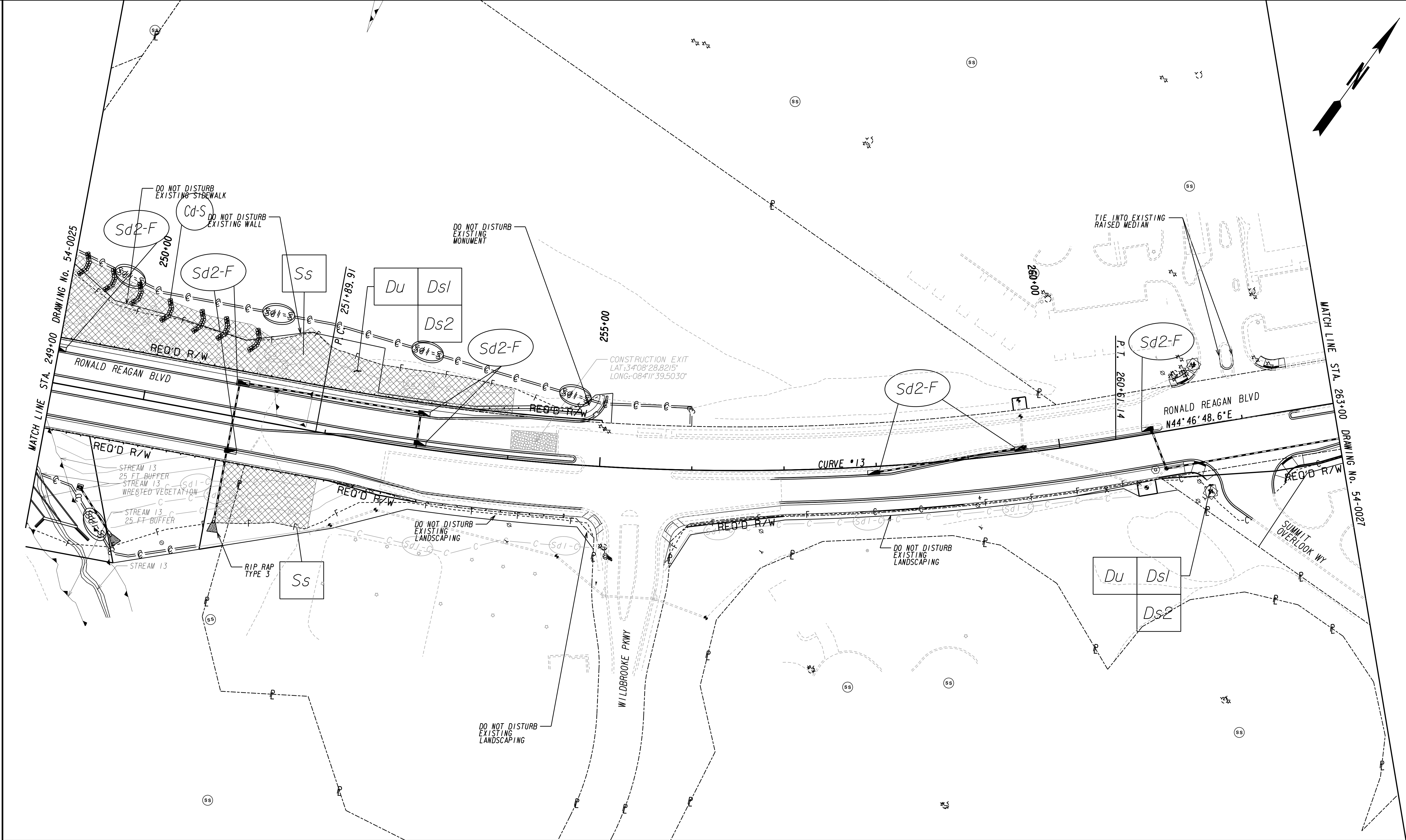
FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND
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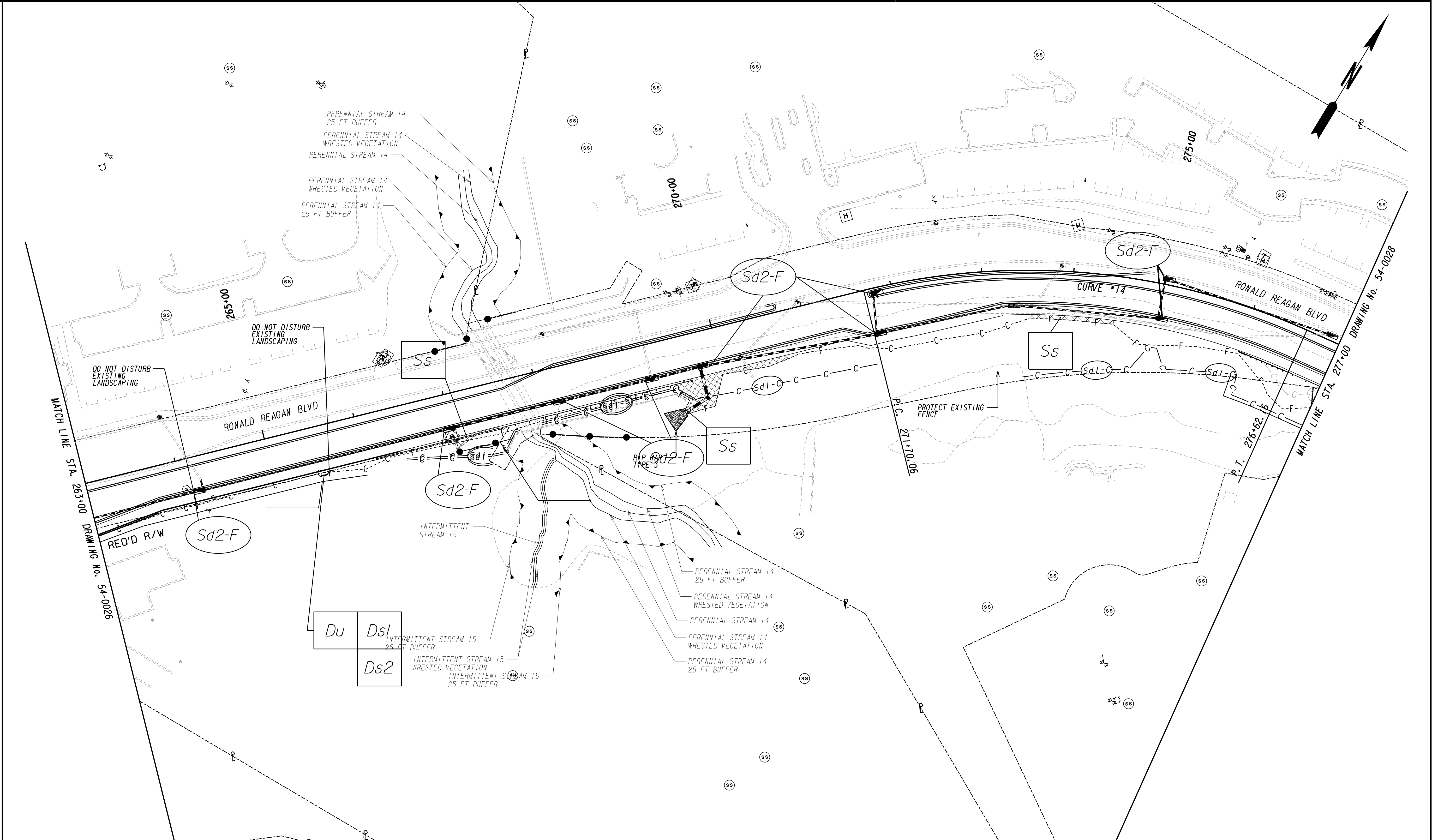
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<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div> <div><div><div></div></div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div>FORSYTH COUNTY</div> <div>ENGINEERING DEPARTMENT</div>	<div><div>POND</div><div>Architects • Engineers • Planners</div></div> <div><div>SCALE IN FEET</div><div><div>0</div><div>50</div><div>100</div><div>200</div></div></div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table>																					<div>BMP LOCATION DETAILS</div> <div>RONALD REAGAN BLVD EXTENSION</div> <div>PHASE 2</div> <table><tr><td>CHECKED:</td><td>DATE:</td><td>DRAWING No.</td></tr><tr><td>BACKCHECKED:</td><td>DATE:</td><td rowspan="3">54-0026</td></tr><tr><td>CORRECTED:</td><td>DATE:</td></tr><tr><td>VERIFIED:</td><td>DATE:</td></tr></table>			CHECKED:	DATE:	DRAWING No.	BACKCHECKED:	DATE:	54-0026	CORRECTED:	DATE:	VERIFIED:	DATE:
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
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BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

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SCALE IN FEET

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REVISION DATES

BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE 2

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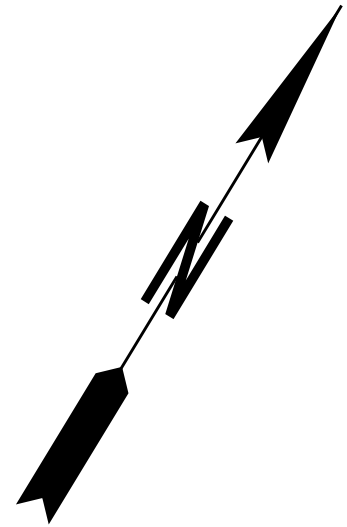
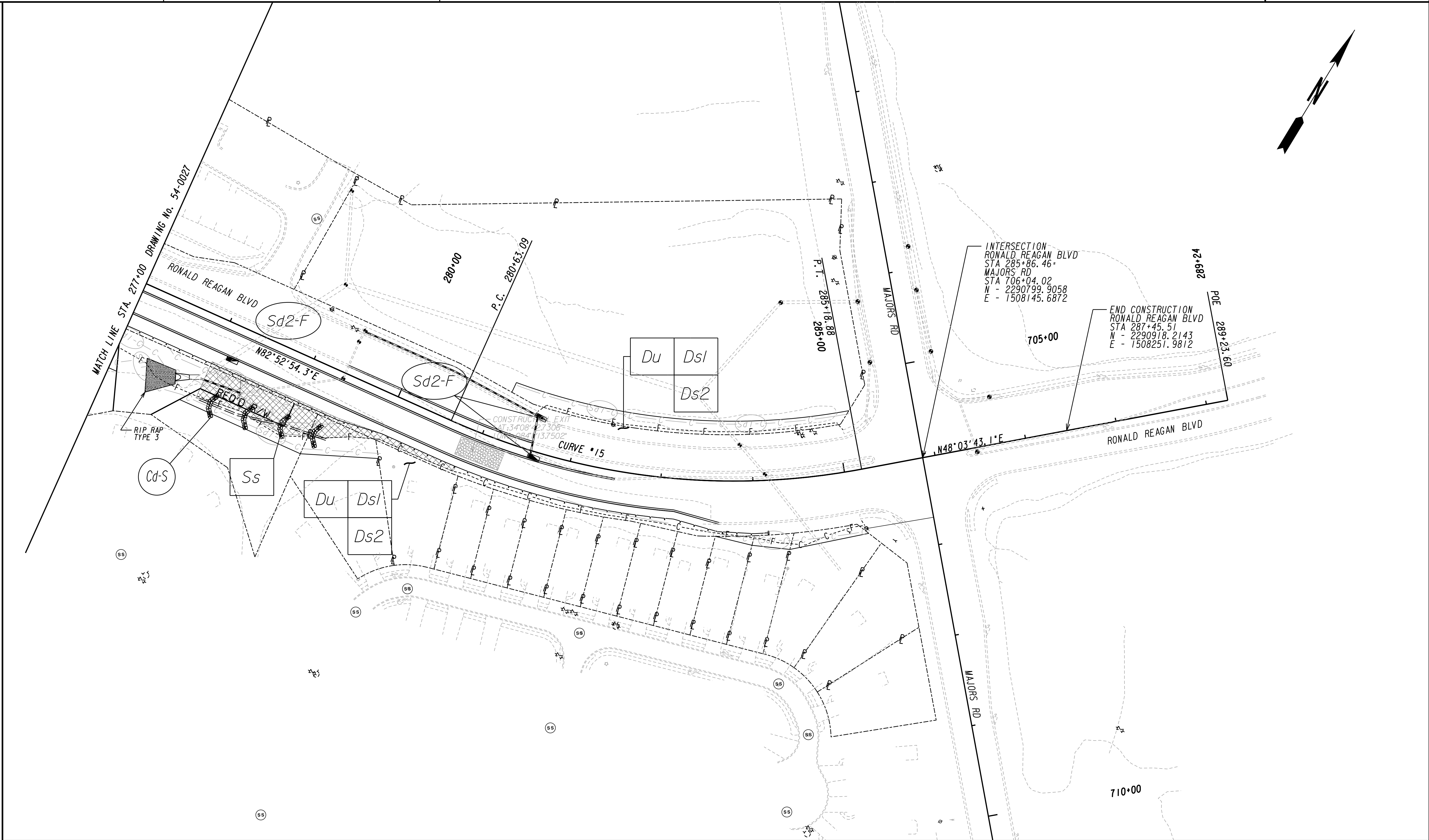
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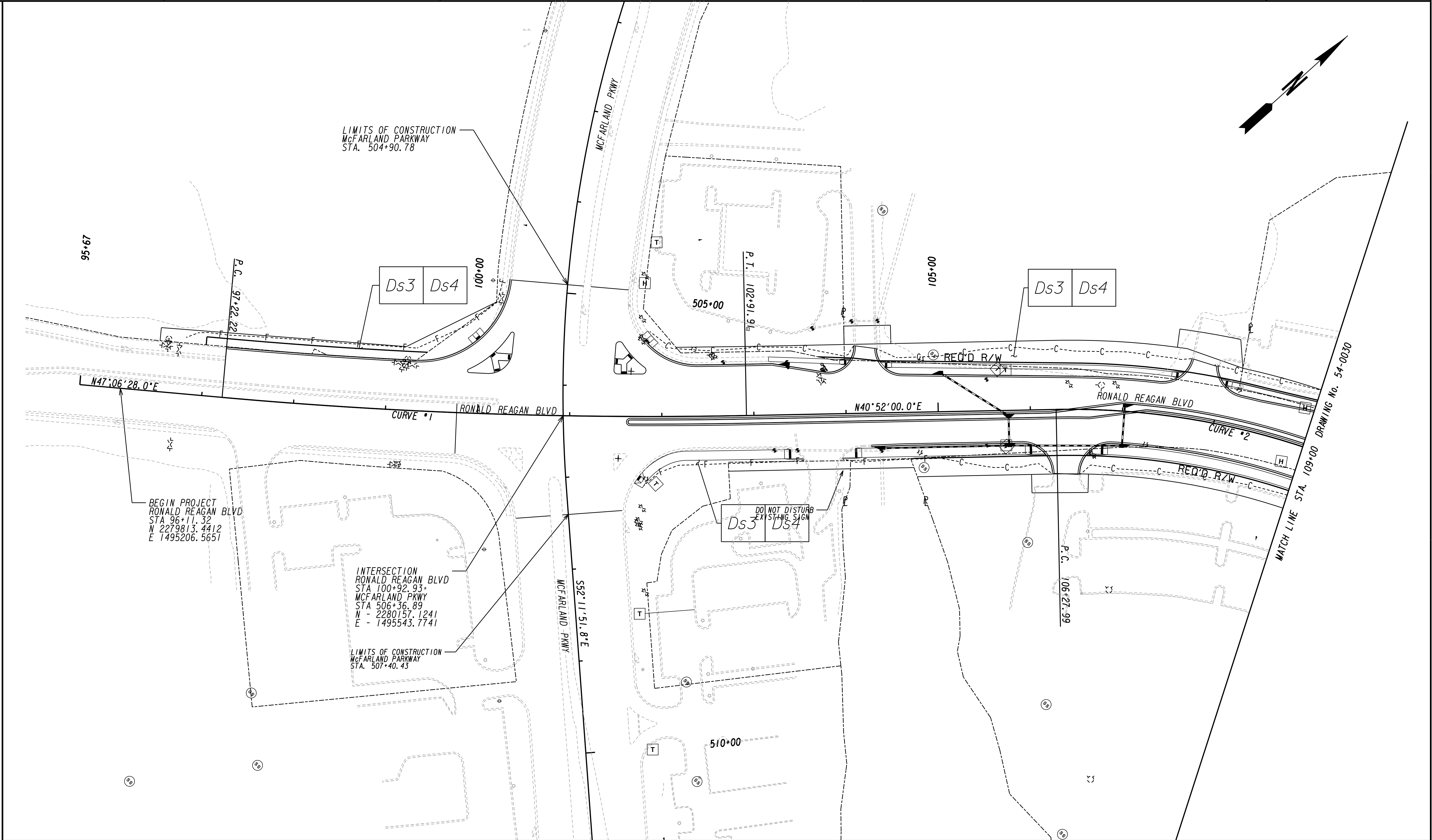
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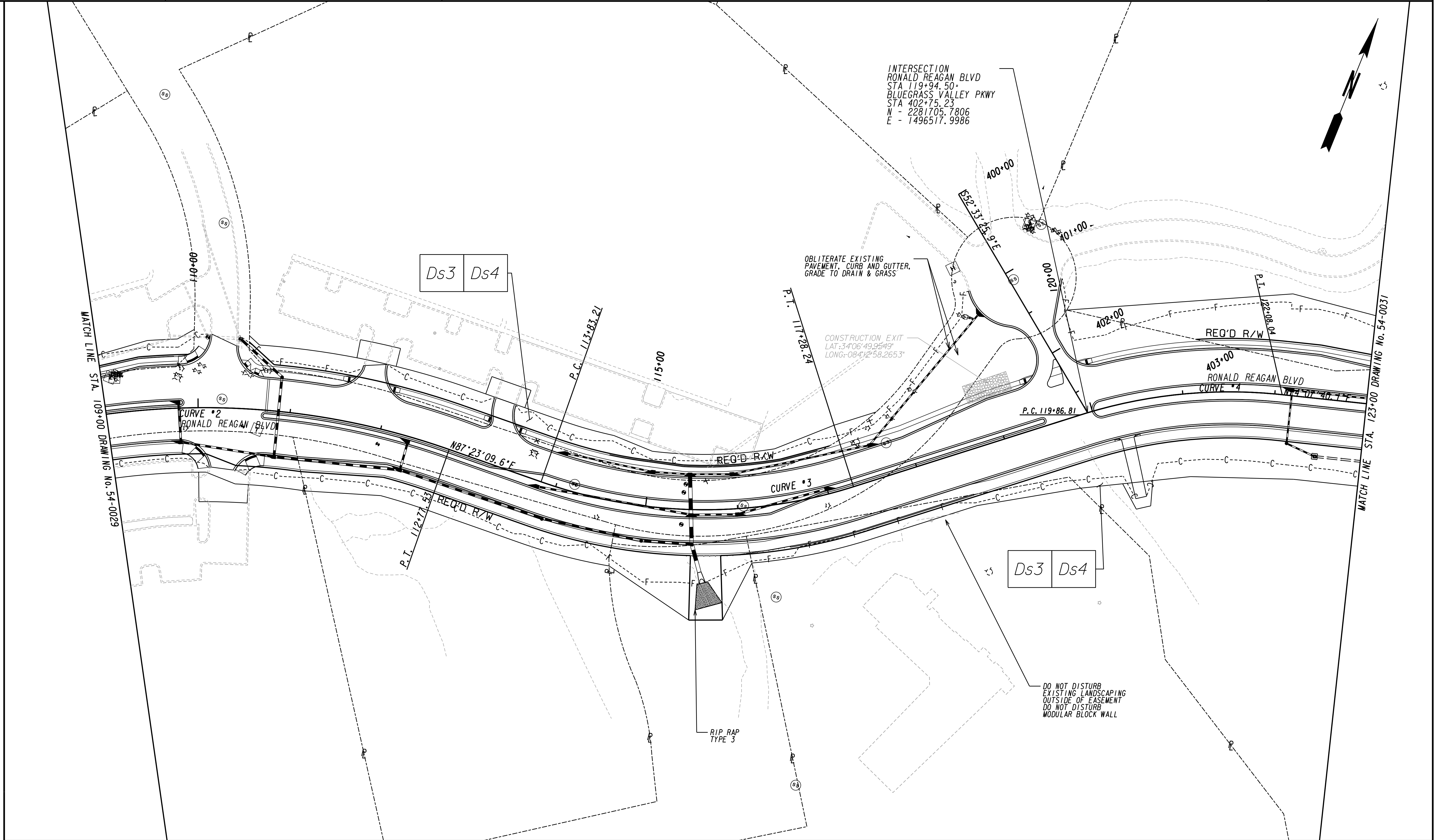
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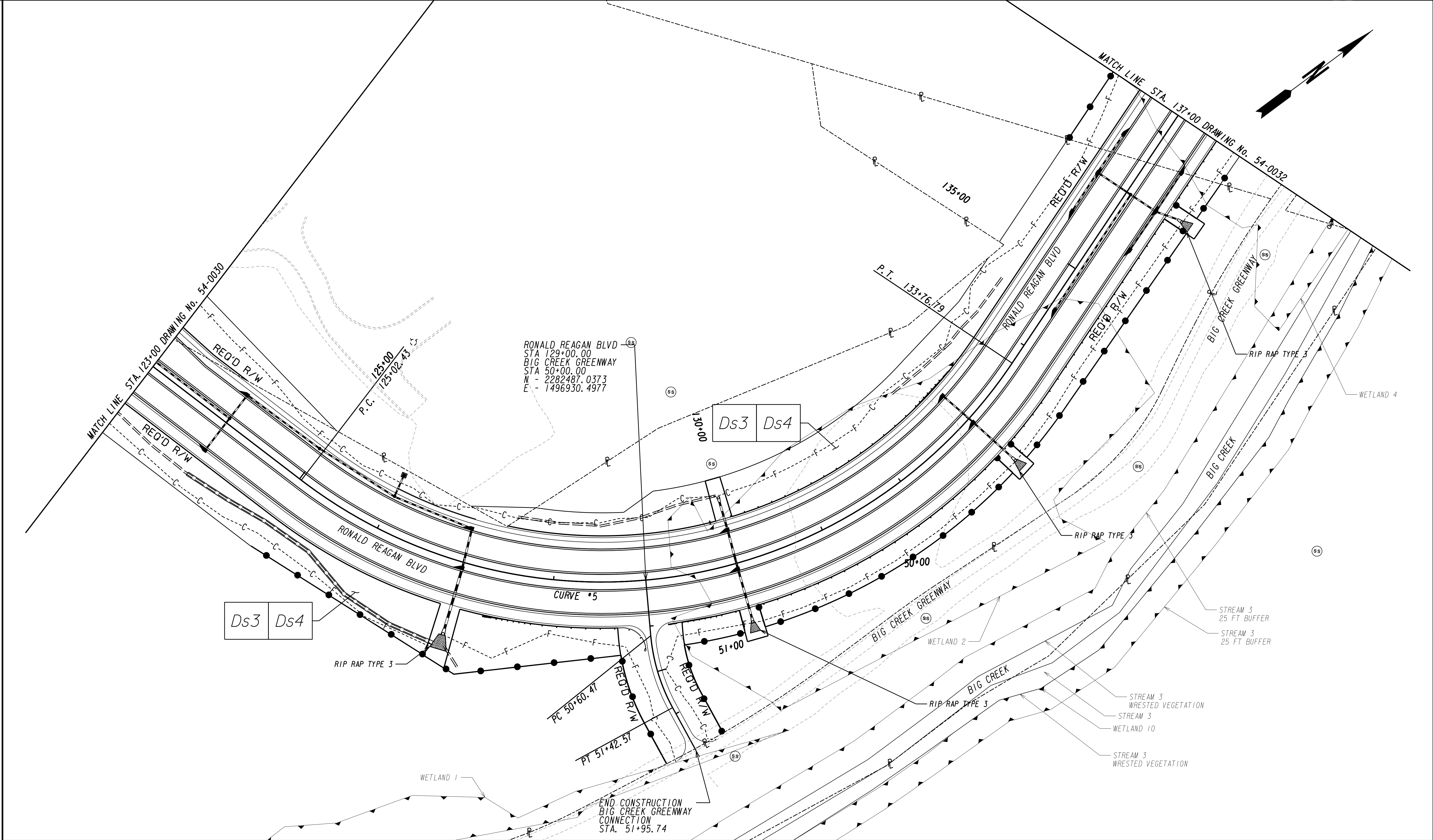
PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	<div><div><div>-----E-----</div><div>-----</div><div>-----C-----F-----</div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div></div></div>	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div><div><div>POND</div><div>Architects • Engineers • Planners</div></div><div><div>SCALE IN FEET</div><div><div>0</div><div>50</div><div>100</div><div>200</div></div></div></div>	REVISION DATES	BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE 2			
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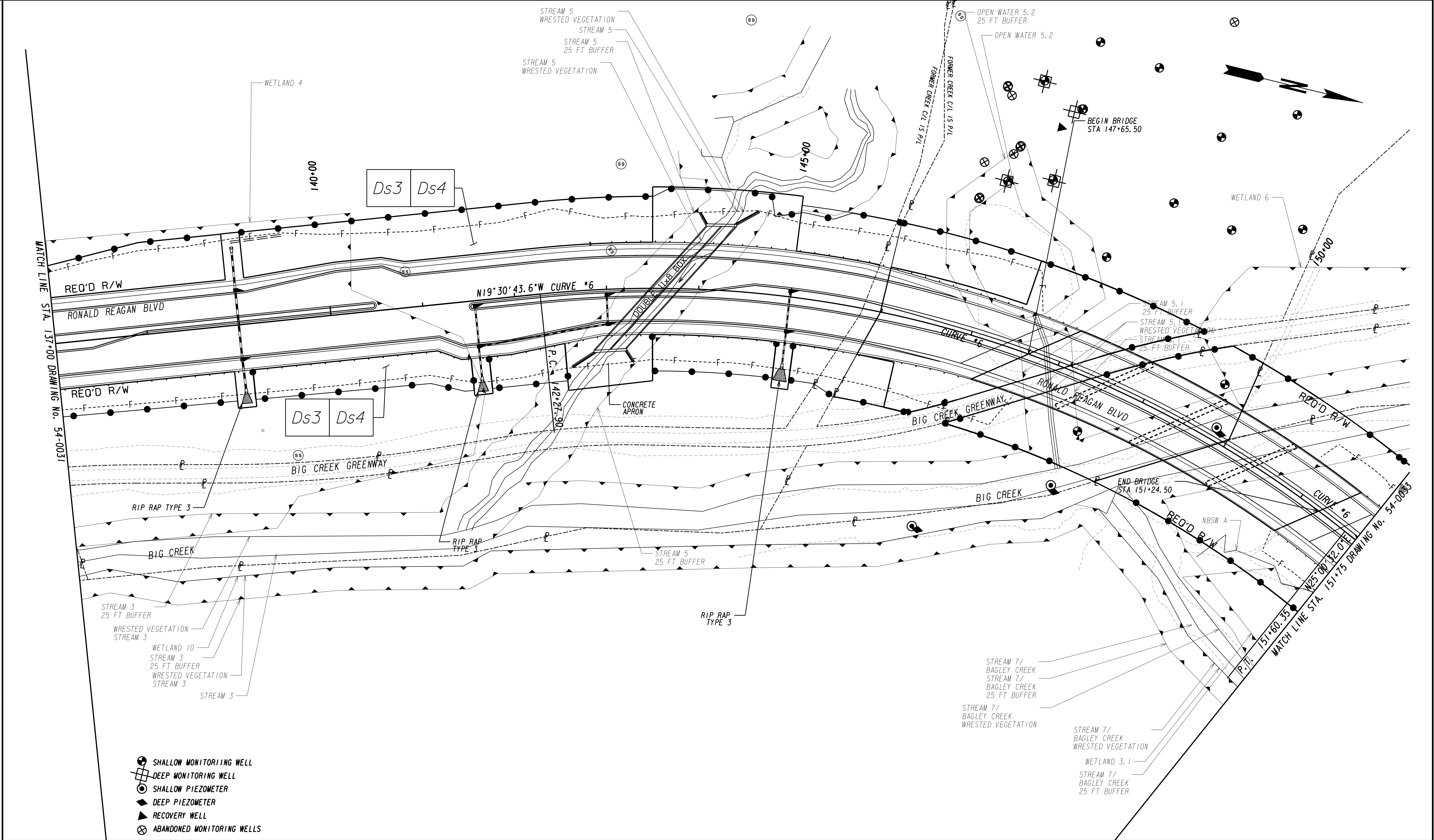
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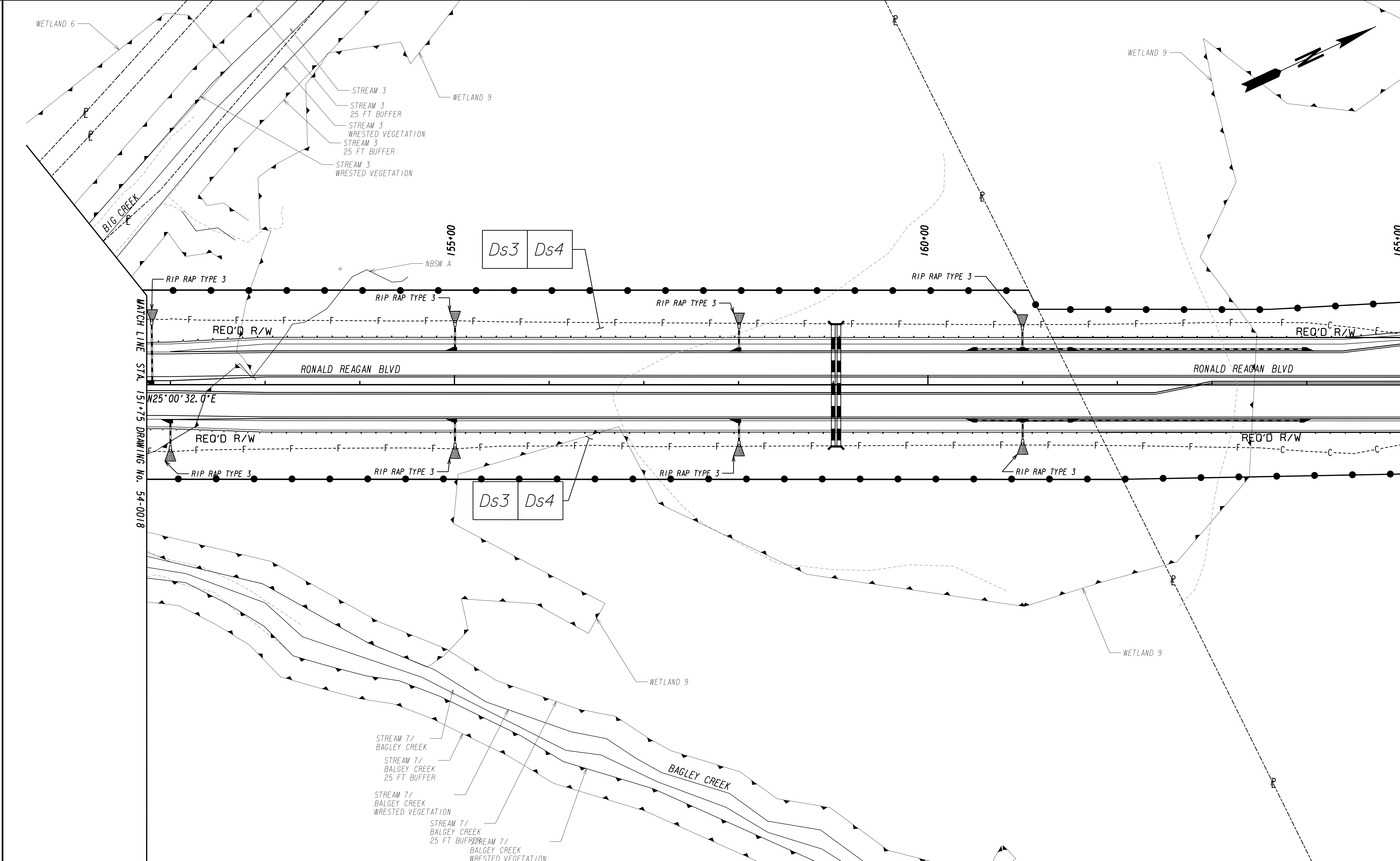
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<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div>FORSYTH COUNTY</div> <div>ENGINEERING DEPARTMENT</div>	<div></div> <div>Architects • Engineers • Planners</div>	<div>SCALE IN FEET</div> <div></div>	<div>REVISION DATES</div> <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table>																					<div>BMP LOCATION DETAILS</div> <div>RONALD REAGAN BLVD EXTENSION</div> <div>PHASE 3</div>		
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PROPERTY AND EXISTING R/W LINE

REQUIRED R/W LINE

CONSTRUCTION LIMITS

EASEMENT FOR CONSTR

& MAINTENANCE OF SLOPES

EASEMENT FOR CONSTR OF SLOPES

EASEMENT FOR CONSTR OF DRIVES

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BEGIN LIMIT OF ACCESS.....BLA

END LIMIT OF ACCESS.....ELA

LIMIT OF ACCESS

REQ'D R/W & LIMIT OF ACCESS

ORANGE BARRIER FENCE

ESA - ENV. SENSITIVE AREA

(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

Architects • Engineers • Planners

SCALE IN FEET

REVISION DATES

NO.	DATE	DESCRIPTION

BMP LOCATION DETAILS

RONALD REAGAN BLVD EXTENSION

PHASE 3

CHECKED:

DATE:

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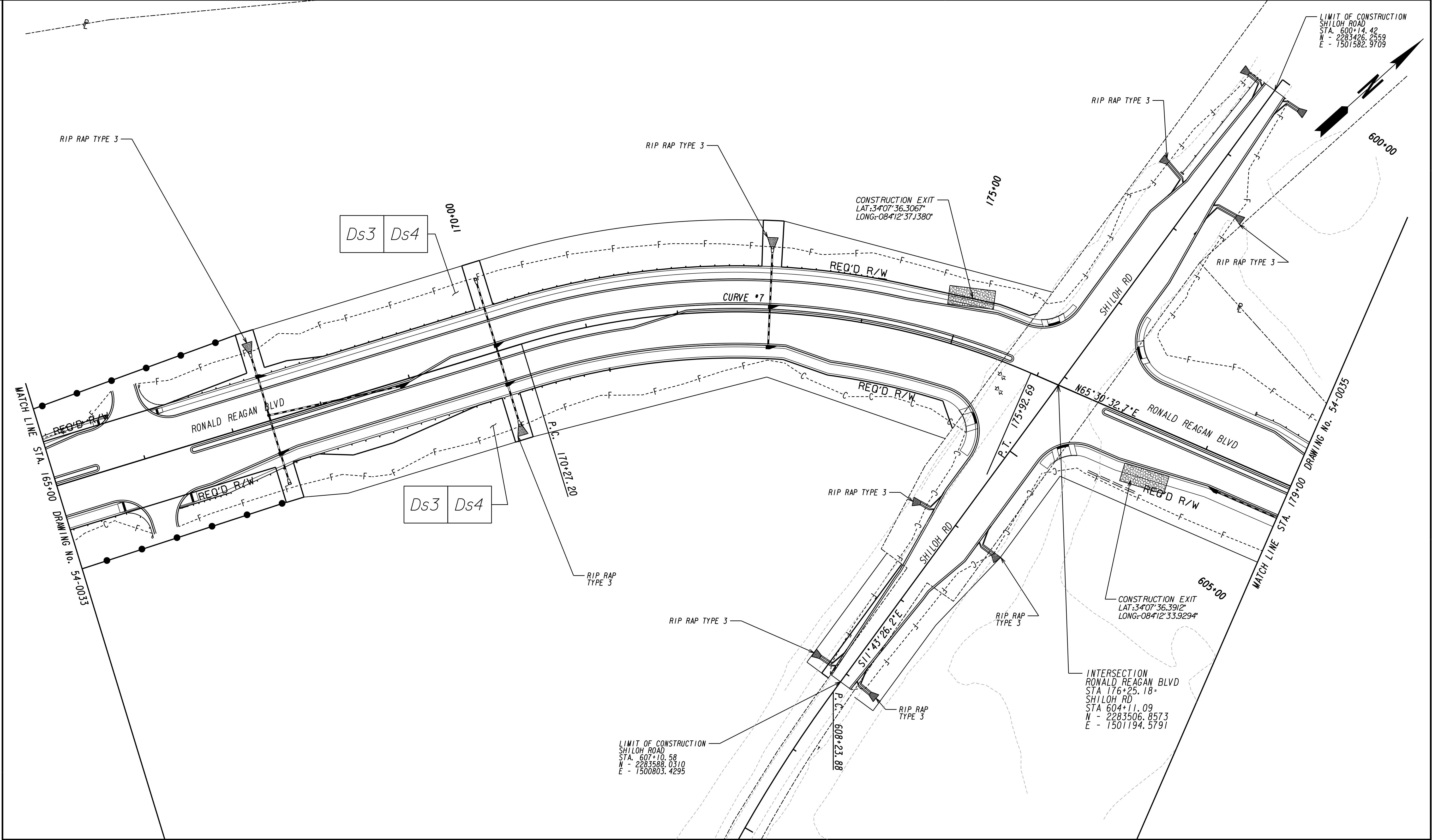
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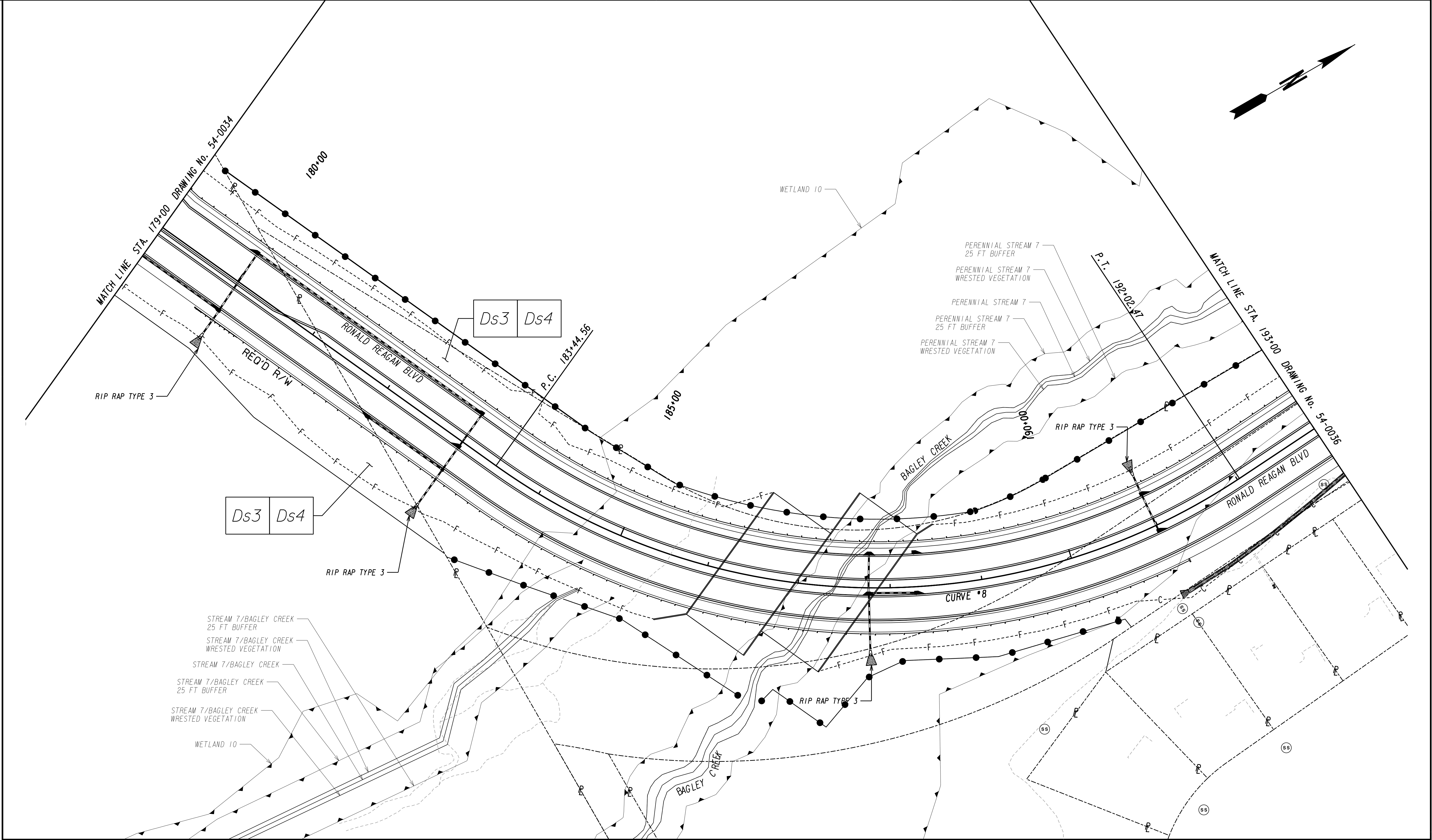
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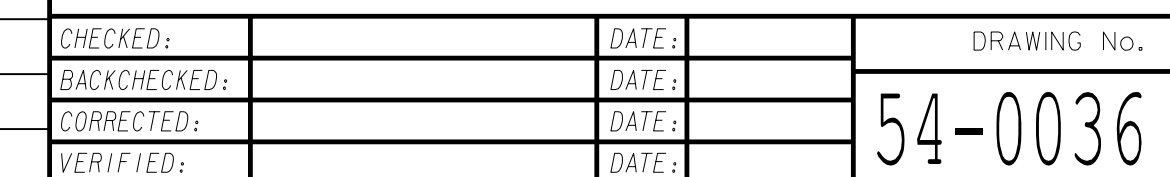
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54-0033

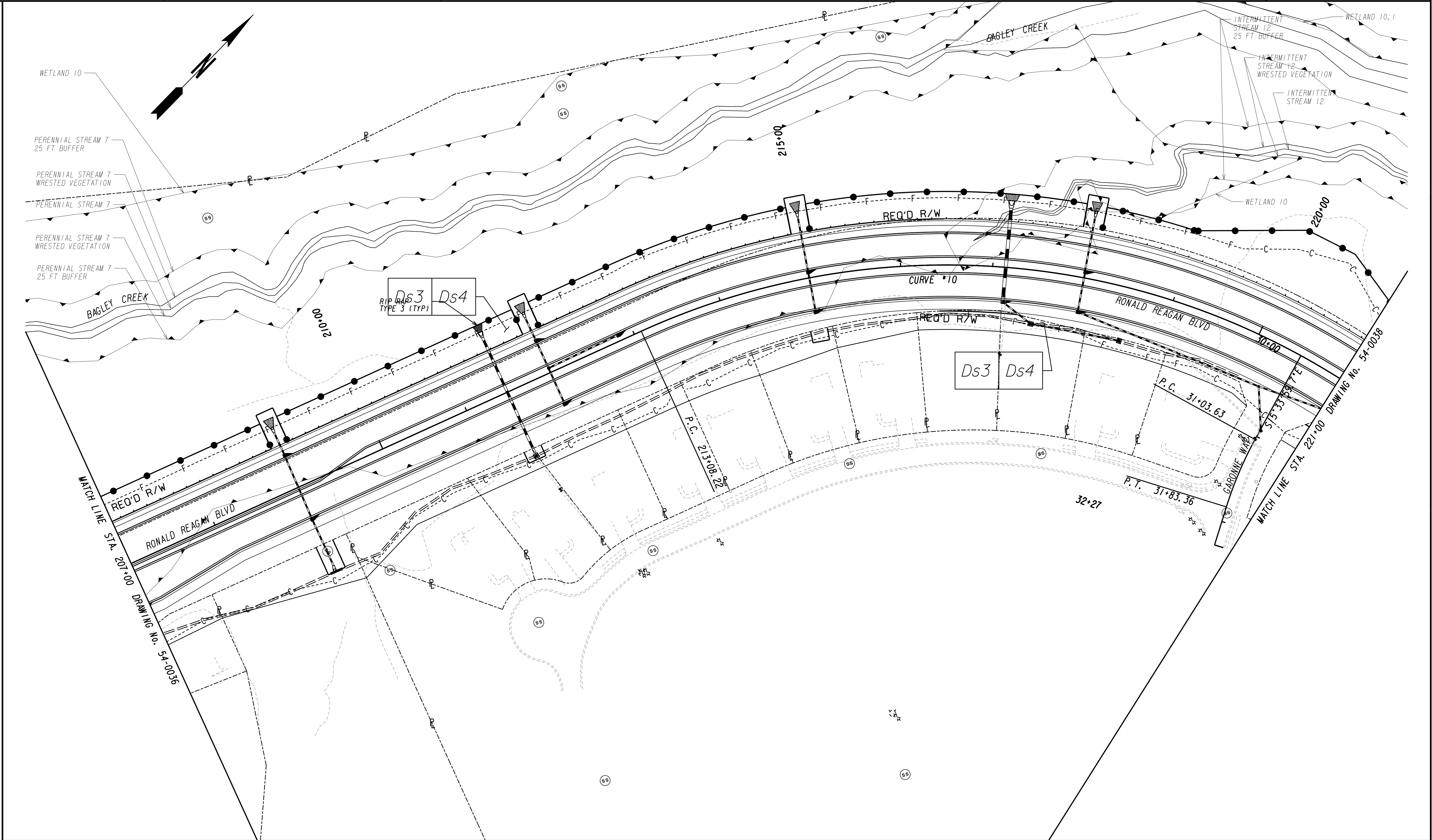


<div>PROPERTY AND EXISTING R/W LINE</div> <div>REQUIRED R/W LINE</div> <div>CONSTRUCTION LIMITS</div> <div>EASEMENT FOR CONSTR</div> <div>& MAINTENANCE OF SLOPES</div> <div>EASEMENT FOR CONSTR OF SLOPES</div> <div>EASEMENT FOR CONSTR OF DRIVES</div>	<div></div>	<div>BEGIN LIMIT OF ACCESS.....BLA</div> <div>END LIMIT OF ACCESS.....ELA</div> <div>LIMIT OF ACCESS</div> <div>REQ'D R/W & LIMIT OF ACCESS</div> <div>ORANGE BARRIER FENCE</div> <div>ESA - ENV. SENSITIVE AREA</div> <div>(SEE ERIT TABLE)</div>	<div></div>	FORSYTH COUNTY ENGINEERING DEPARTMENT	<div></div> <div>SCALE IN FEET</div> <div></div>	REVISION DATES			BMP LOCATION DETAILS		
									RONALD REAGAN BLVD EXTENSION		
									PHASE 3		
						CHECKED:	DATE:	DRAWING No.	54-0034		
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES	 -----P----- -----C-----F----- 	BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	 ----- ----- ----- ----- -----	FORSYTH COUNTY ENGINEERING DEPARTMENT	 Architects • Engineers • Planners	SCALE IN FEET 0 50 100 200	<table><tr><th colspan="3">REVISION DATES</th></tr><tr><td></td><td></td><td></td></tr></table>	REVISION DATES						BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE 3		
								REVISION DATES								
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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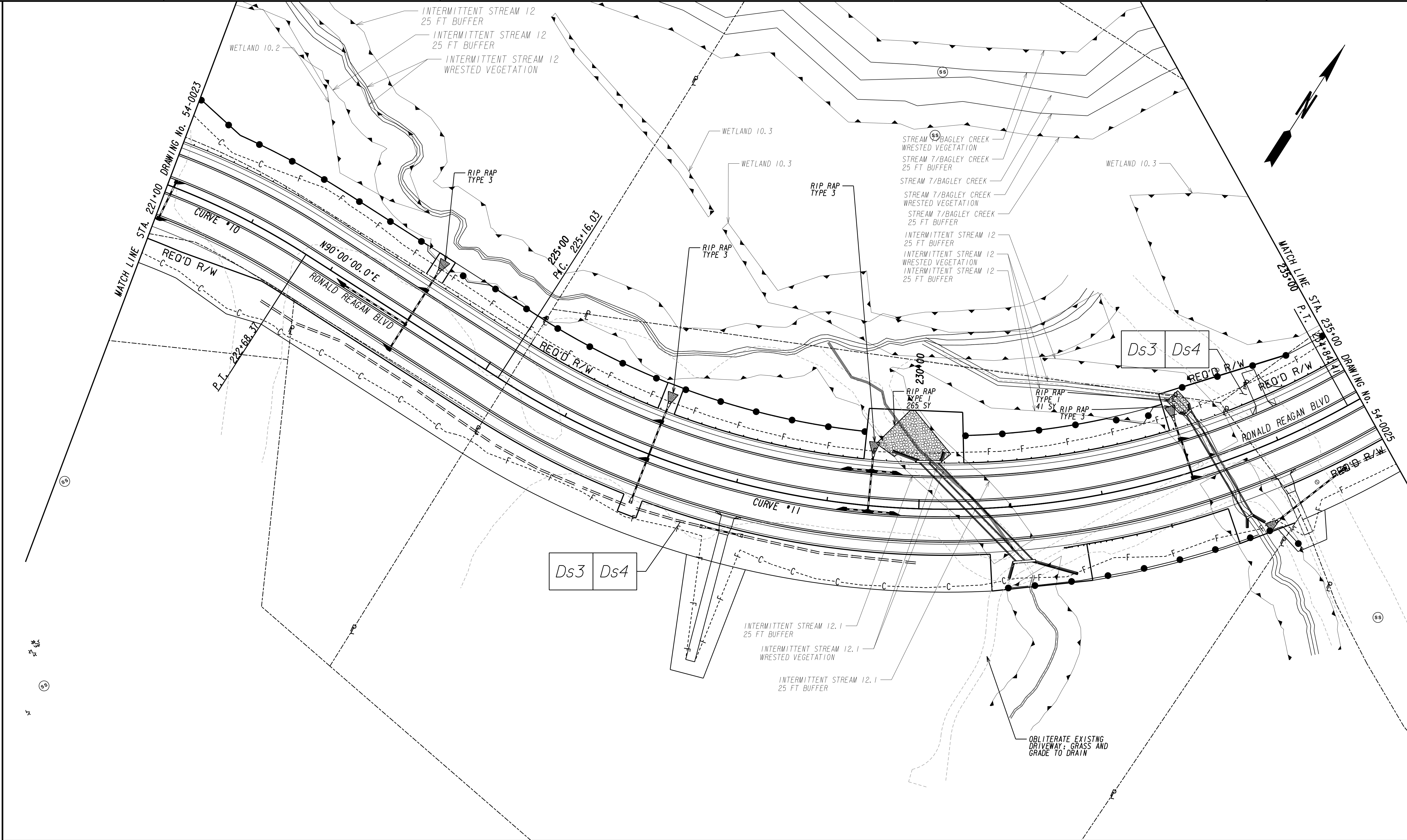
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REVISION DATES

BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE 3

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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

SCALE IN FEET

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REVISION DATES

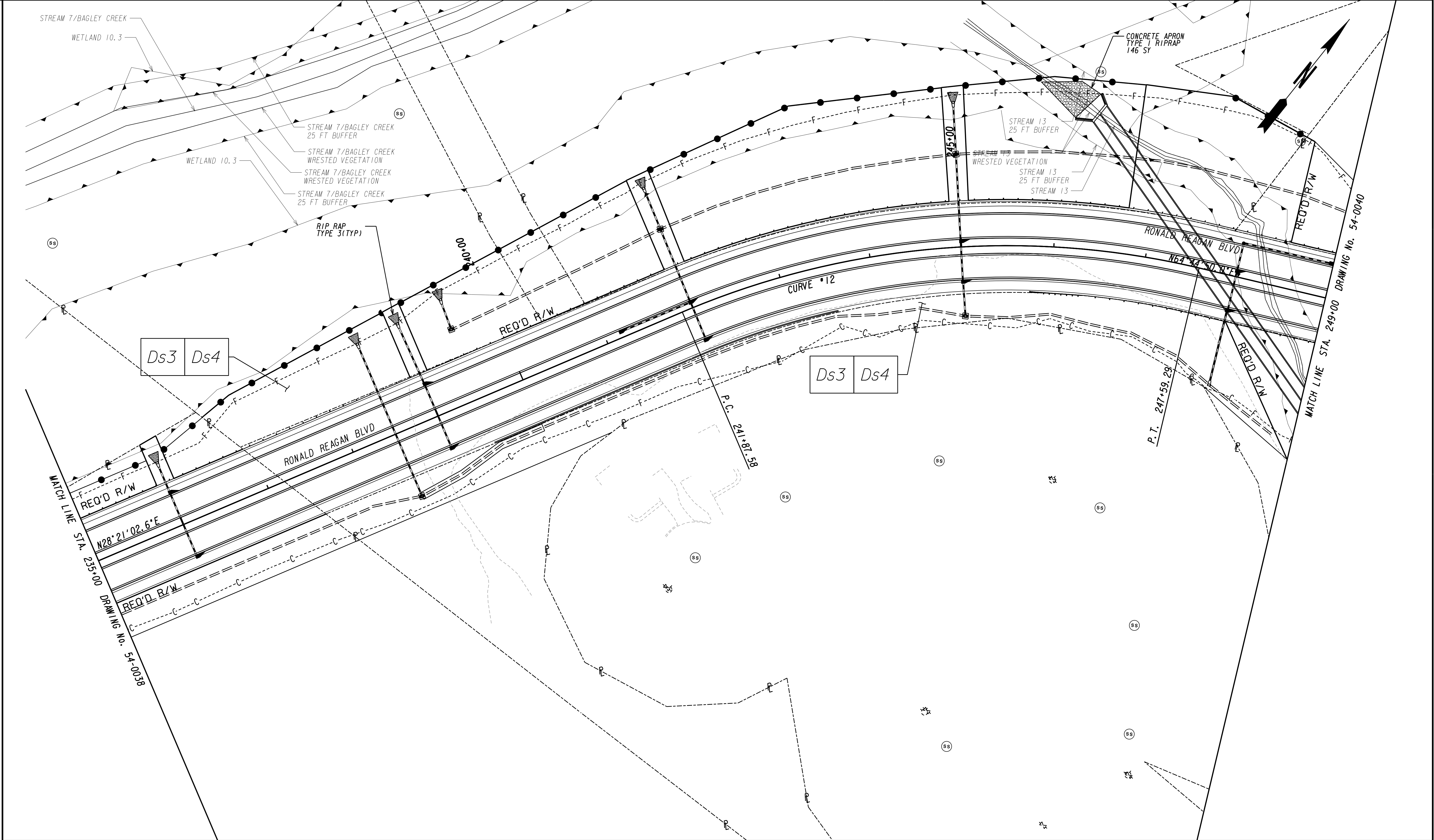
BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE 3

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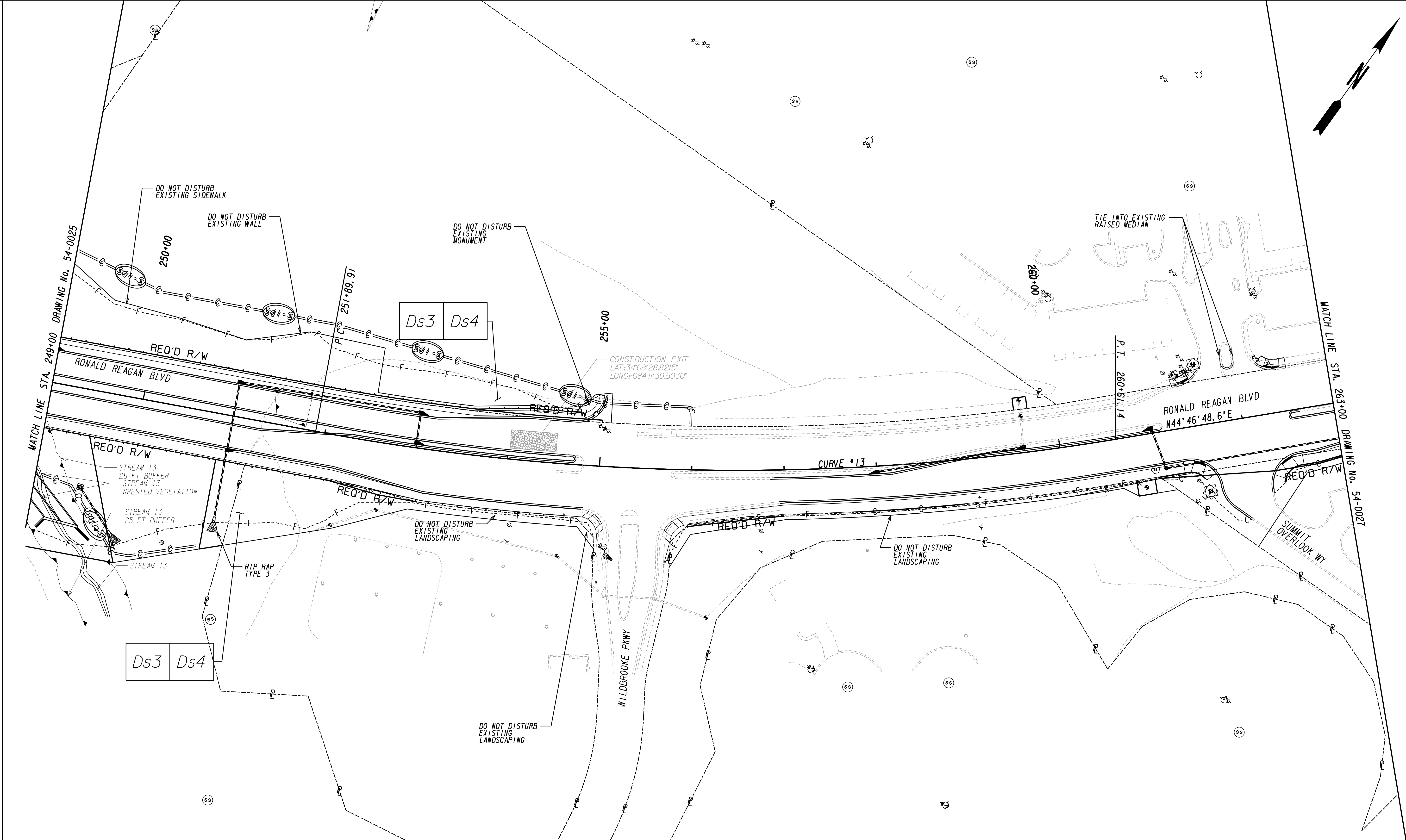
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT		SCALE IN FEET 0 50 100 200	<table><tr><th colspan="3">REVISION DATES</th></tr><tr><td></td><td></td><td></td></tr></table>	REVISION DATES						BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE 3							
							REVISION DATES													
						<table><tr><td>CHECKED:</td><td>DATE:</td><td></td></tr><tr><td>BACKCHECKED:</td><td>DATE:</td><td></td></tr><tr><td>CORRECTED:</td><td>DATE:</td><td></td></tr><tr><td>VERIFIED:</td><td>DATE:</td><td></td></tr></table>	CHECKED:	DATE:		BACKCHECKED:	DATE:		CORRECTED:	DATE:		VERIFIED:	DATE:		DRAWING No. 54-0039	
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PROPERTY AND EXISTING R/W LINE
REQUIRED R/W LINE
CONSTRUCTION LIMITS
EASEMENT FOR CONSTR
& MAINTENANCE OF SLOPES
EASEMENT FOR CONSTR OF SLOPES
EASEMENT FOR CONSTR OF DRIVES

BEGIN LIMIT OF ACCESS.....BLA
END LIMIT OF ACCESS.....ELA
LIMIT OF ACCESS
REQ'D R/W & LIMIT OF ACCESS
ORANGE BARRIER FENCE
ESA - ENV. SENSITIVE AREA
(SEE ERIT TABLE)

FORSYTH COUNTY
ENGINEERING DEPARTMENT

POND

Architects • Engineers • Planners

SCALE IN FEET

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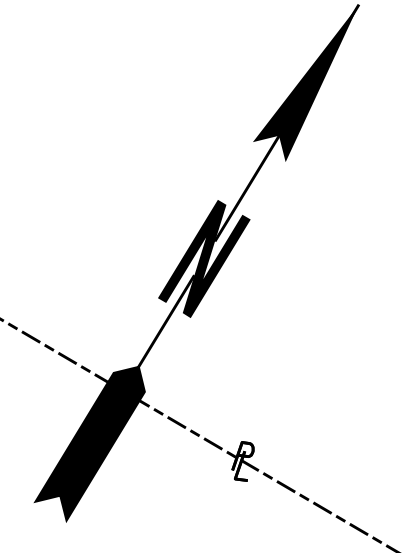
REVISION DATES

BMP LOCATION DETAILS
RONALD REAGAN BLVD EXTENSION
PHASE 3

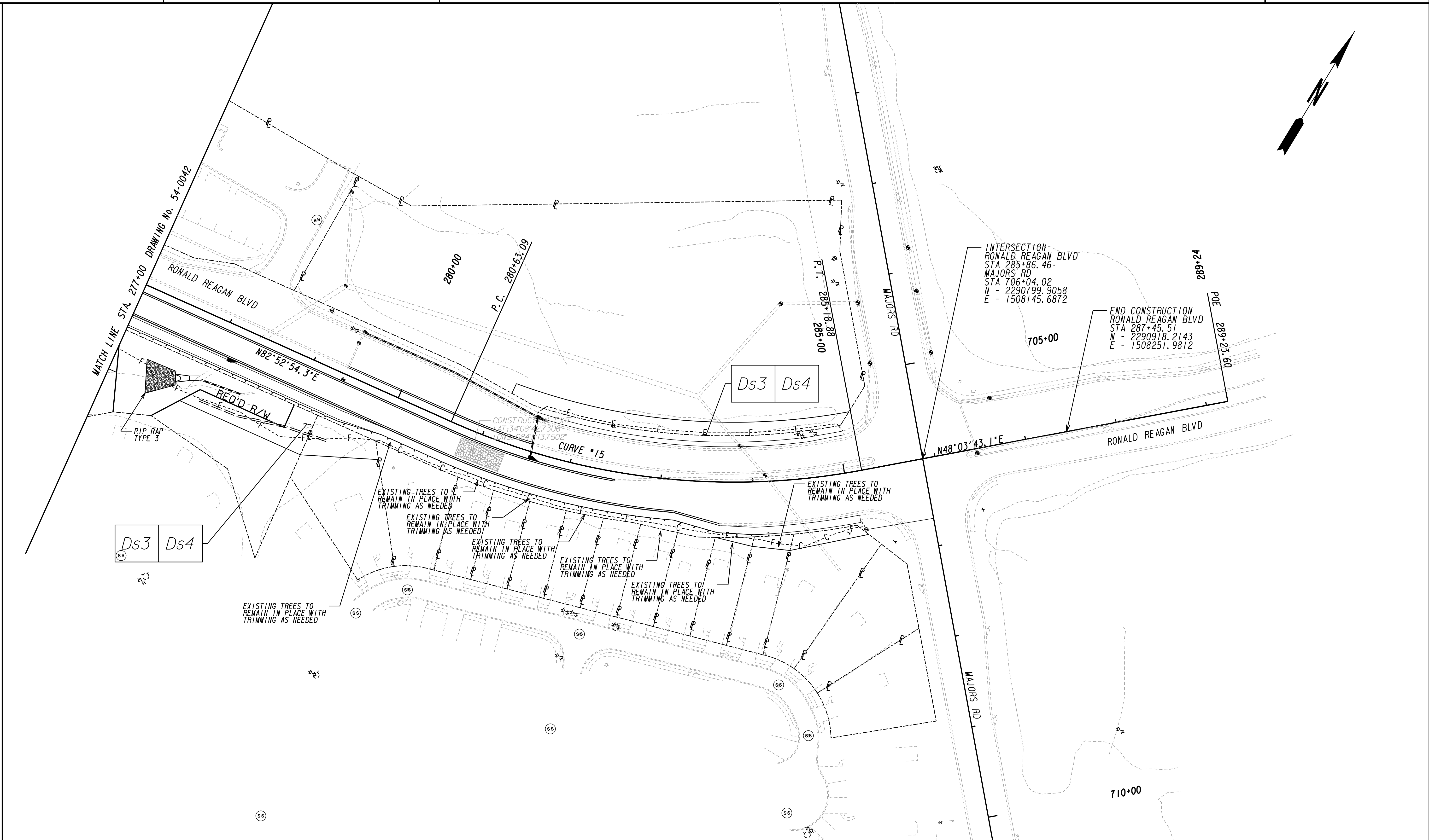
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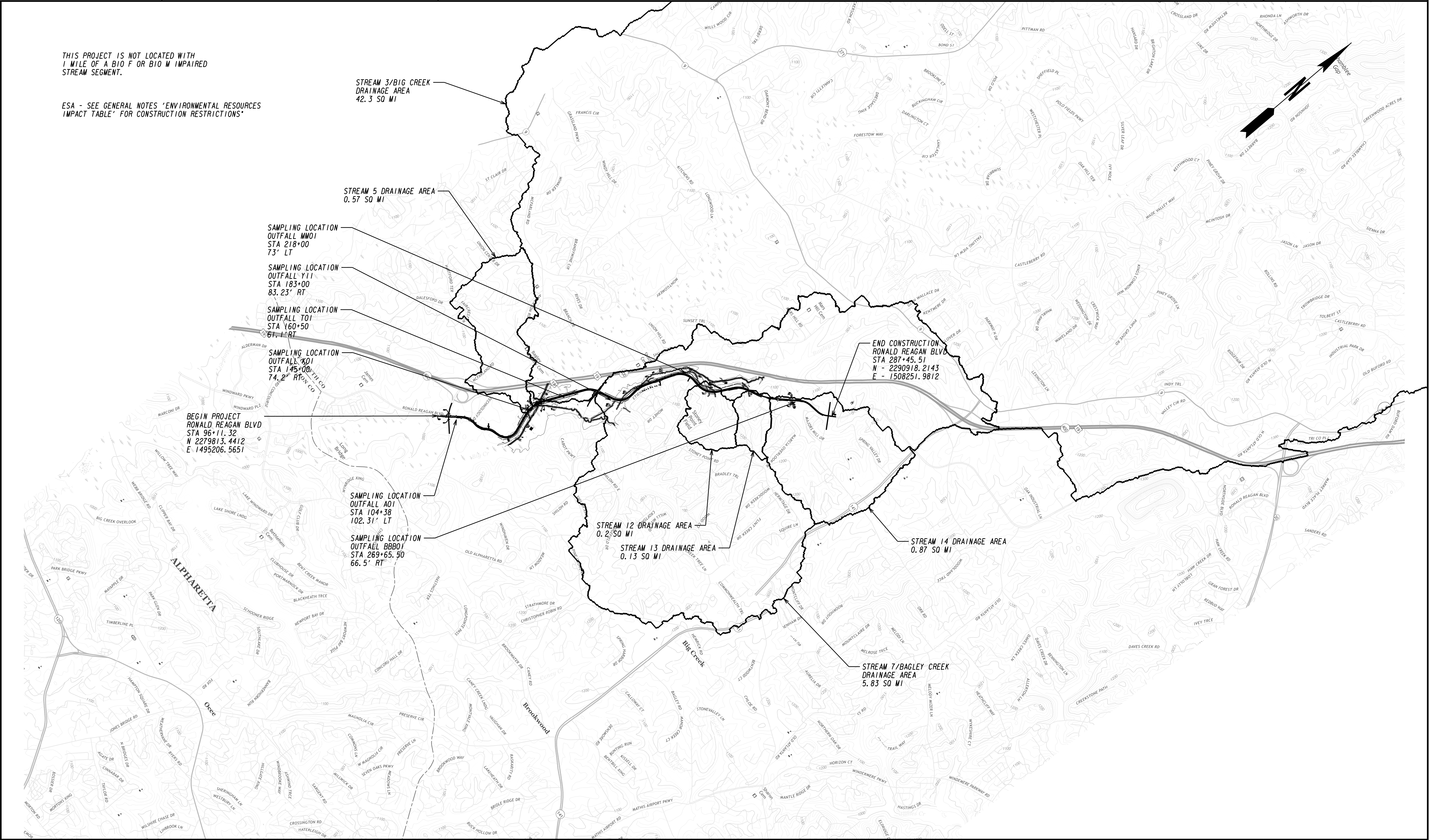
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PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA END LIMIT OF ACCESS.....ELA LIMIT OF ACCESS REQ'D R/W & LIMIT OF ACCESS ORANGE BARRIER FENCE ESA - ENV. SENSITIVE AREA (SEE ERIT TABLE)	FORSYTH COUNTY ENGINEERING DEPARTMENT	 	REVISION DATES	BMP LOCATION DETAILS RONALD REAGAN BLVD EXTENSION PHASE 3			
						CHECKED:	DATE:	DRAWING No.	54-0042
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THIS PROJECT IS NOT LOCATED WITH
1 MILE OF A BIO F OR BIO M IMPAIRED
STREAM SEGMENT.

ESA - SEE GENERAL NOTES 'ENVIRONMENTAL RESOURCES
IMPACT TABLE' FOR CONSTRUCTION RESTRICTIONS'



PROPERTY AND EXISTING R/W LINE REQUIRED R/W LINE CONSTRUCTION LIMITS EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES EASEMENT FOR CONSTR OF SLOPES EASEMENT FOR CONSTR OF DRIVES		BEGIN LIMIT OF ACCESS.....BLA		FORSYTH COUNTY ENGINEERING DEPARTMENT		REVISION DATES			WATERSHED MAP SITE MONITORING PLAN RONALD REAGAN BLVD EXTENSION				
		END LIMIT OF ACCESS.....ELA											
		LIMIT OF ACCESS							CHECKED:		DATE:		DRAWING No. 55-0001
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ORANGE BARRIER FENCE					CORRECTED:		DATE:						
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