

DEPARTMENT OF TRANSPORTATION

TUS-TOWPATH TRAIL

FAIRFIELD TOWNSHIP
TUSCARAWAS COUNTY

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FEDERAL PROJECT NUMBER

E200006

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

CONSTRUCTION OF APPROXIMATELY 2 MILES OF 10' WIDE, LIMESTONE SURFACE, PEDESTRIAN/BICYCLE TRAIL FROM JUST SOUTH OF DOVER DAM TO OLD ZOARVILLE ROAD (TR-390). THE TRAIL WILL BE CONSTRUCTED ALONG THE TUSCARAWAS RIVER ON A FORMER RAILROAD LINE. WORK ITEMS INCLUDE LIMESTONE TRAIL, SAFETY RAIL, AND DRAINAGE.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	6.86 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.25 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	7.11 ACRES

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

A detailed topographic map of the Fairfield area in Ohio. The map shows the proposed route for the Cincinnati-Hilliary Expressway (Route 212) as a thick black line. Key features include:

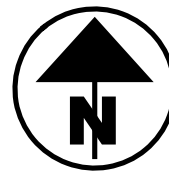
- Major Roads:** I-75 (Route 800) running north-south, I-476 (Route 416) running east-west, and various local roads like Middle Run, Reeds Run, and Browns Run.
- Towns and Locations:** Hilliard, Columbus, Fairfield, Mount Tabor, and Johnson.
- Topography:** Contour lines indicating elevation, with labels such as 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500, 1550, 1600, 1650, 1700, 1750, 1800, 1850, 1900, 1950, 2000, 2050, 2100, 2150, 2200, 2250, 2300, 2350, 2400, 2450, 2500, 2550, 2600, 2650, 2700, 2750, 2800, 2850, 2900, 2950, 3000, 3050, 3100, 3150, 3200, 3250, 3300, 3350, 3400, 3450, 3500, 3550, 3600, 3650, 3700, 3750, 3800, 3850, 3900, 3950, 4000, 4050, 4100, 4150, 4200, 4250, 4300, 4350, 4400, 4450, 4500, 4550, 4600, 4650, 4700, 4750, 4800, 4850, 4900, 4950, 5000, 5050, 5100, 5150, 5200, 5250, 5300, 5350, 5400, 5450, 5500, 5550, 5600, 5650, 5700, 5750, 5800, 5850, 5900, 5950, 6000, 6050, 6100, 6150, 6200, 6250, 6300, 6350, 6400, 6450, 6500, 6550, 6600, 6650, 6700, 6750, 6800, 6850, 6900, 6950, 7000, 7050, 7100, 7150, 7200, 7250, 7300, 7350, 7400, 7450, 7500, 7550, 7600, 7650, 7700, 7750, 7800, 7850, 7900, 7950, 8000, 8050, 8100, 8150, 8200, 8250, 8300, 8350, 8400, 8450, 8500, 8550, 8600, 8650, 8700, 8750, 8800, 8850, 8900, 8950, 9000, 9050, 9100, 9150, 9200, 9250, 9300, 9350, 9400, 9450, 9500, 9550, 9600, 9650, 9700, 9750, 9800, 9850, 9900, 9950, 10000.
- Other Features:** A grid of latitude and longitude lines, a scale bar, and a north arrow.

END PROJECT
STA. 219+40

BEGIN PROJECT
STA. 120+50

LOCATION MAP

LATITUDE: N40°34'01" LONGITUDE: W81°24'08



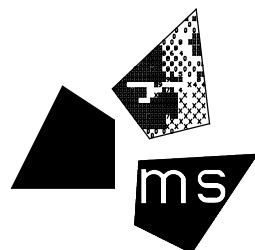
PORTION TO BE IMPROVED	
INTERSTATE HIGHWAY	
FEDERAL ROUTES	
STATE ROUTES	
COUNTY & TOWNSHIP ROADS	
OTHER ROADS	

DESIGN EXCEPTIONS

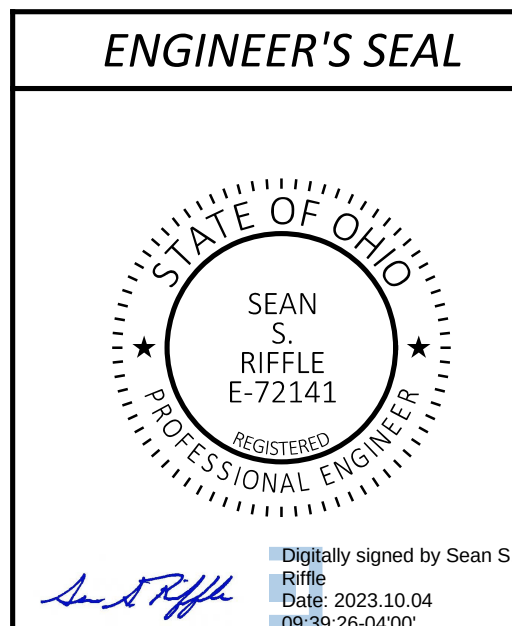
NONE

ADA DESIGN WAIVERS

NONE



PLAN PREPARED BY:
ms consultants, inc.
ENGINEERS, ARCHITECTS & PLANNERS
ONE CASCADE PLAZA, SUITE 1450
AKRON, OHIO 44308
PHONE (330) 258-9921



STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
CB-2-2A	1-20-23					800-2023 See Proposal	
DM-1.1	7-17-20					832	7-21-23
DM-1.2	7-16-21					902	7-19-19
DM-4.3	1-15-16						
DM-4.4	1-15-16						
HW-2.1	7-15-22						
HW-2.2	7-20-18						
MH-3	7-21-23						
RM-5.1	7-18-14						
RM-5.2	7-21-23						

TITLE SHEET

DESIGN AGENCY

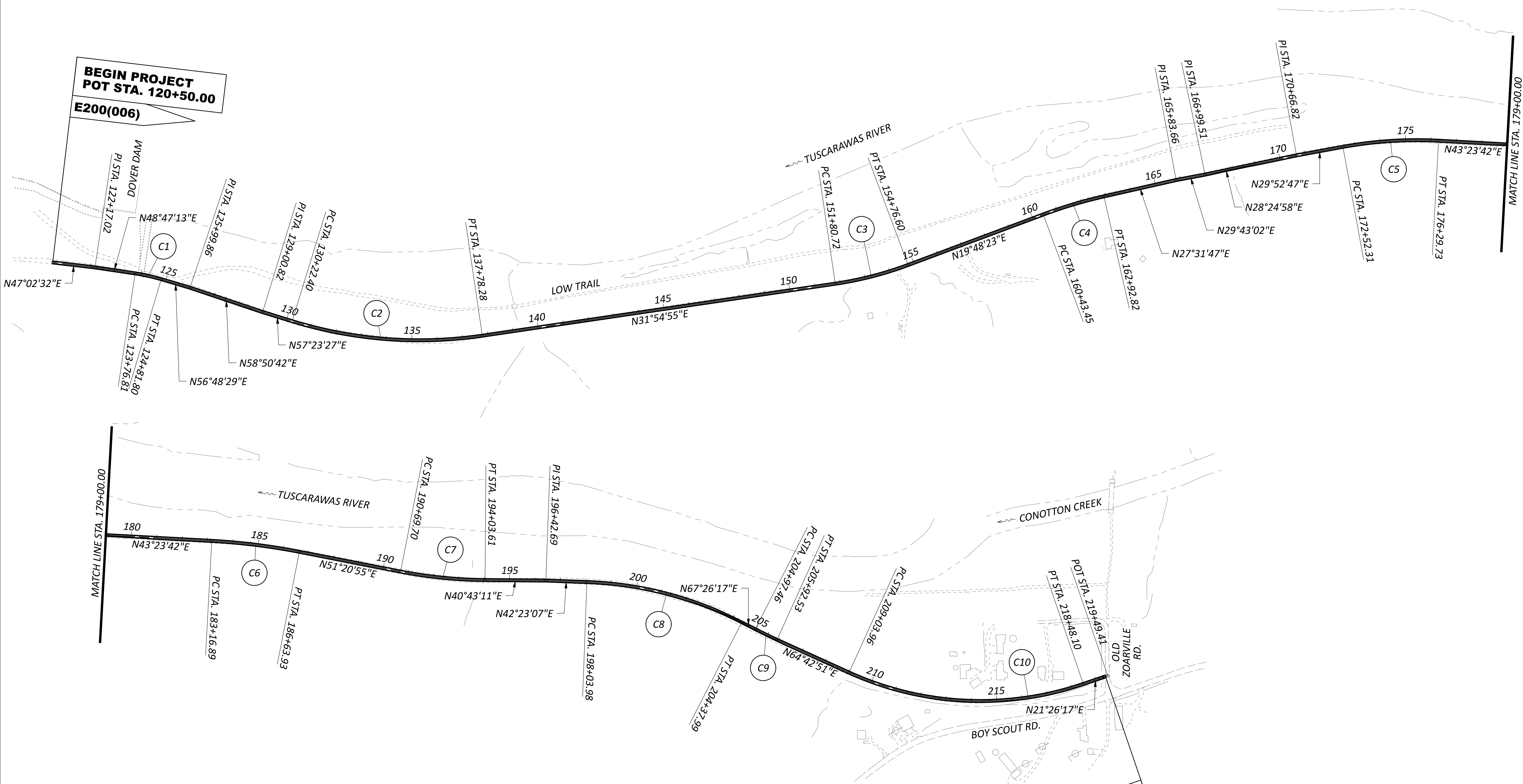


DESIGNER
KMC

REVIEWER
SSR 02/08/23

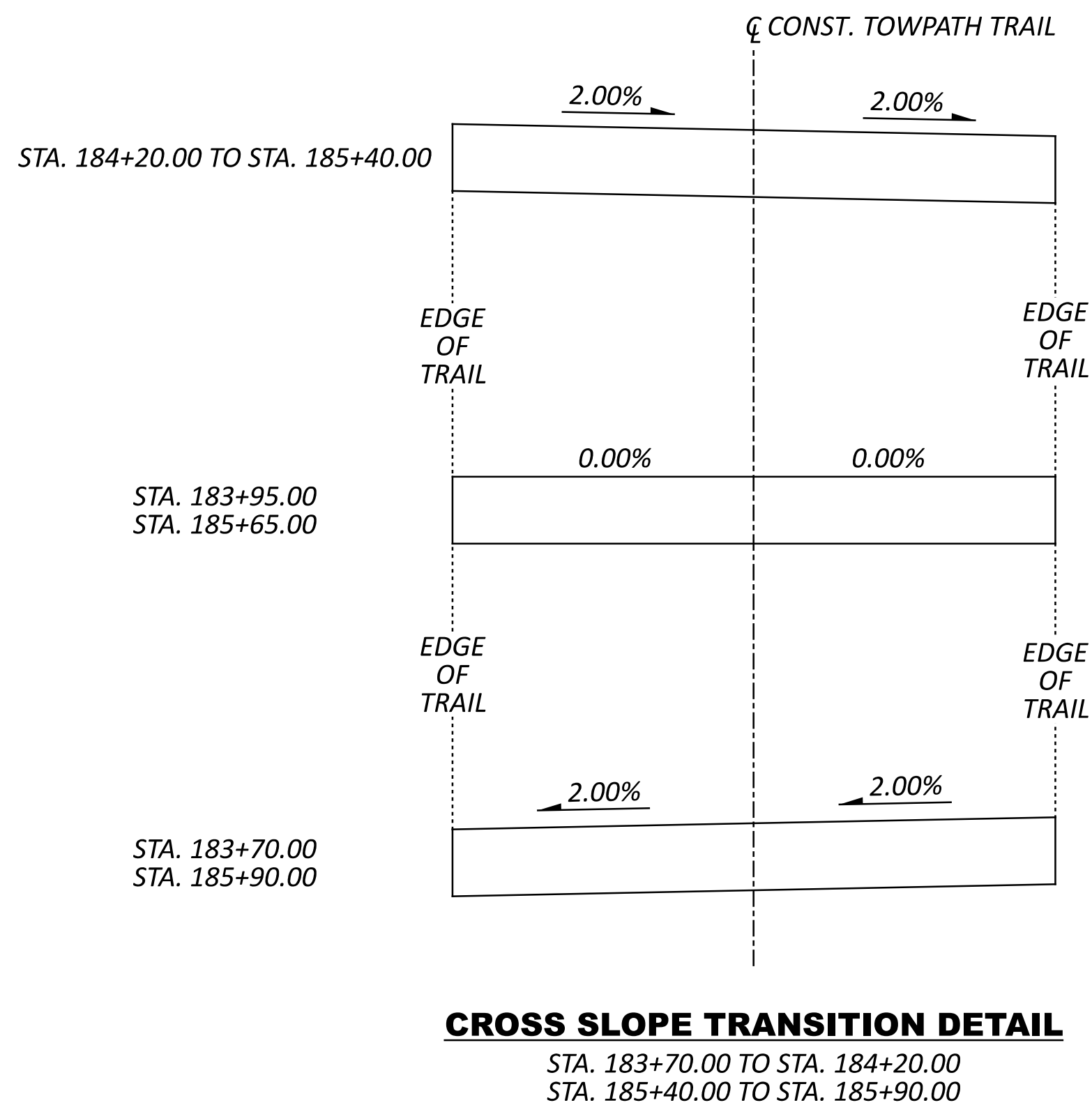
PROJECT ID
111280

SHEET	TOTAL
1	57

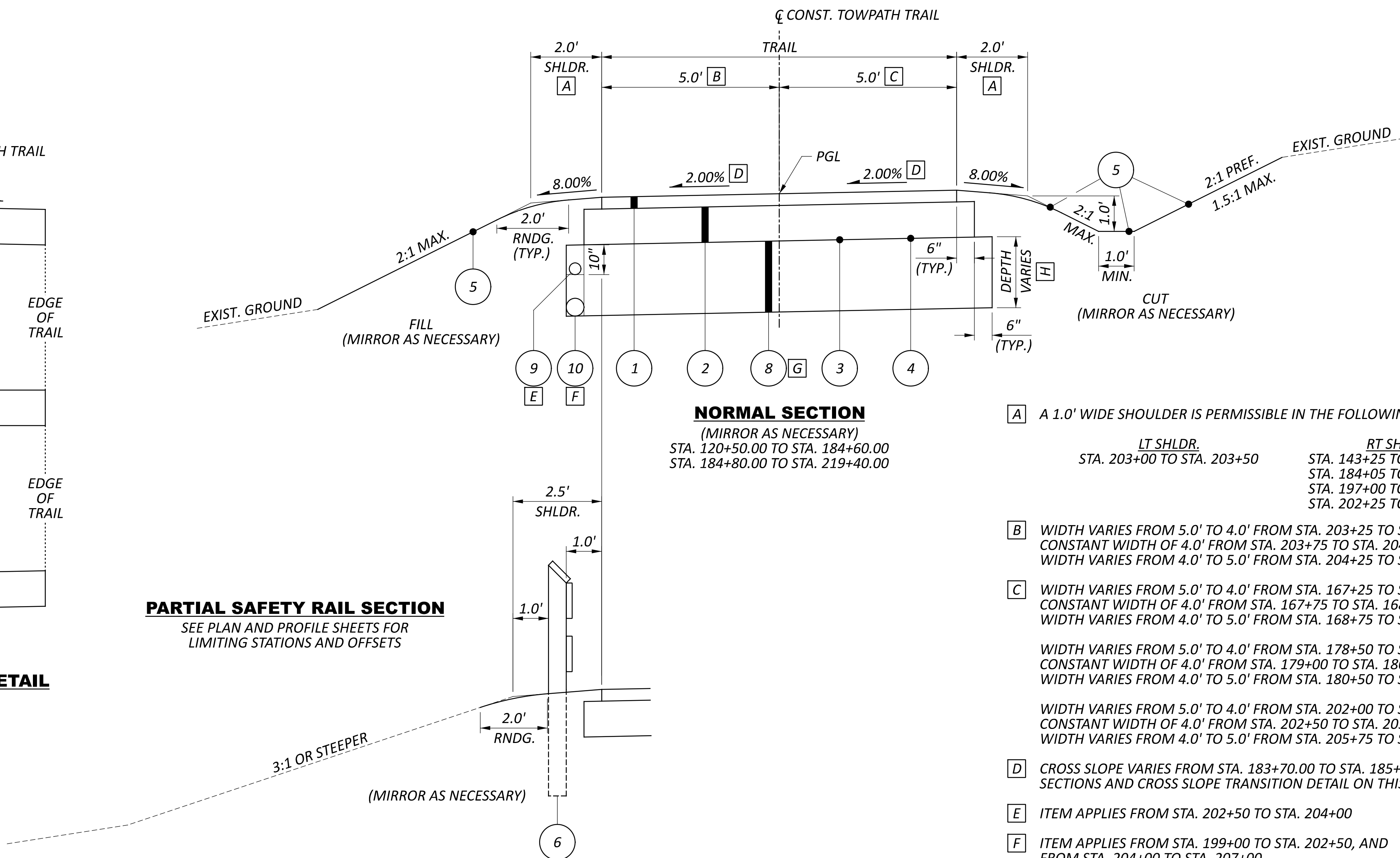


C1 CURVE DATA P.I. = STA. 124+29.39 $\Delta = 08^{\circ}01'16''$ RT Dc = 07°38'22" R = 750.00' T = 52.58' L = 105' E = 1.84'	C2 CURVE DATA P.I. = STA. 134+06.69 $\Delta = 25^{\circ}28'32''$ LT Dc = 03°22'13" R = 1,700.00' T = 384.29' L = 756' E = 42.89'	C3 CURVE DATA P.I. = STA. 153+29.21 $\Delta = 12^{\circ}06'32''$ LT Dc = 04°05'33" R = 1,400.00' T = 148.49' L = 296' E = 7.85'	C4 CURVE DATA P.I. = STA. 161+68.32 $\Delta = 07^{\circ}43'24''$ RT Dc = 03°05'49" R = 1,850.00' T = 124.88' L = 249' E = 4.21'	C5 CURVE DATA P.I. = STA. 174+41.90 $\Delta = 13^{\circ}30'55''$ RT Dc = 03°34'52" R = 1,600.00' T = 189.29' L = 377' E = 11.19'
C6 CURVE DATA P.I. = STA. 184+90.69 $\Delta = 07^{\circ}57'13''$ RT Dc = 02°17'31" R = 2,500.00' T = 173.8' L = 334' E = 6.03'	C7 CURVE DATA P.I. = STA. 192+37.13 $\Delta = 10^{\circ}37'43''$ LT Dc = 03°10'59" R = 1,800.00' T = 167.44' L = 634' E = 7.77'	C8 CURVE DATA P.I. = STA. 201+26.13 $\Delta = 25^{\circ}03'10''$ RT Dc = 03°57'05" R = 1,450.00' T = 322.16' L = 634' E = 35.36'	C9 CURVE DATA P.I. = STA. 205+45.00 $\Delta = 02^{\circ}43'26''$ LT Dc = 02°51'53" R = 2,000.00' T = 47.55' L = 95' E = 0.57'	C10 CURVE DATA P.I. = STA. 213+99.83 $\Delta = 43^{\circ}16'35''$ LT Dc = 04°35'01" R = 1,250.00' T = 495.87' L = 944' E = 94.76'

NOTES:
1. THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.
2. REFER TO THE SURVEYING PARAMETERS NOTE IN THE GENERAL NOTES FOR PROJECT CONTROL INFORMATION.



PARTIAL SAFETY RAIL SECTION
SEE PLAN AND PROFILE SHEETS FOR
LIMITING STATIONS AND OFFSETS



[A] A 1.0' WIDE SHOULDER IS PERMISSIBLE IN THE FOLLOWING STATION RANGES:

LT SHLDR.	RT SHLDR.
STA. 203+00 TO STA. 203+50	STA. 143+25 TO STA. 144+00
	STA. 184+05 TO STA. 184+45
	STA. 197+00 TO STA. 198+40
	STA. 202+25 TO STA. 204+25

[B] WIDTH VARIES FROM 5.0' TO 4.0' FROM STA. 203+25 TO STA. 203+75
CONSTANT WIDTH OF 4.0' FROM STA. 203+75 TO STA. 204+25
WIDTH VARIES FROM 4.0' TO 5.0' FROM STA. 204+25 TO STA. 204+75

[C] WIDTH VARIES FROM 5.0' TO 4.0' FROM STA. 167+25 TO STA. 167+75
CONSTANT WIDTH OF 4.0' FROM STA. 167+75 TO STA. 168+75
WIDTH VARIES FROM 4.0' TO 5.0' FROM STA. 168+75 TO STA. 169+25

WIDTH VARIES FROM 5.0' TO 4.0' FROM STA. 178+50 TO STA. 179+00
CONSTANT WIDTH OF 4.0' FROM STA. 179+00 TO STA. 180+50
WIDTH VARIES FROM 4.0' TO 5.0' FROM STA. 180+50 TO STA. 181+00

WIDTH VARIES FROM 5.0' TO 4.0' FROM STA. 202+00 TO STA. 202+50
CONSTANT WIDTH OF 4.0' FROM STA. 202+50 TO STA. 205+75
WIDTH VARIES FROM 4.0' TO 5.0' FROM STA. 205+75 TO STA. 206+25

[D] CROSS SLOPE VARIES FROM STA. 183+70.00 TO STA. 185+90.00 SEE CROSS SECTIONS AND CROSS SLOPE TRANSITION DETAIL ON THIS SHEET.

[E] ITEM APPLIES FROM STA. 202+50 TO STA. 204+00

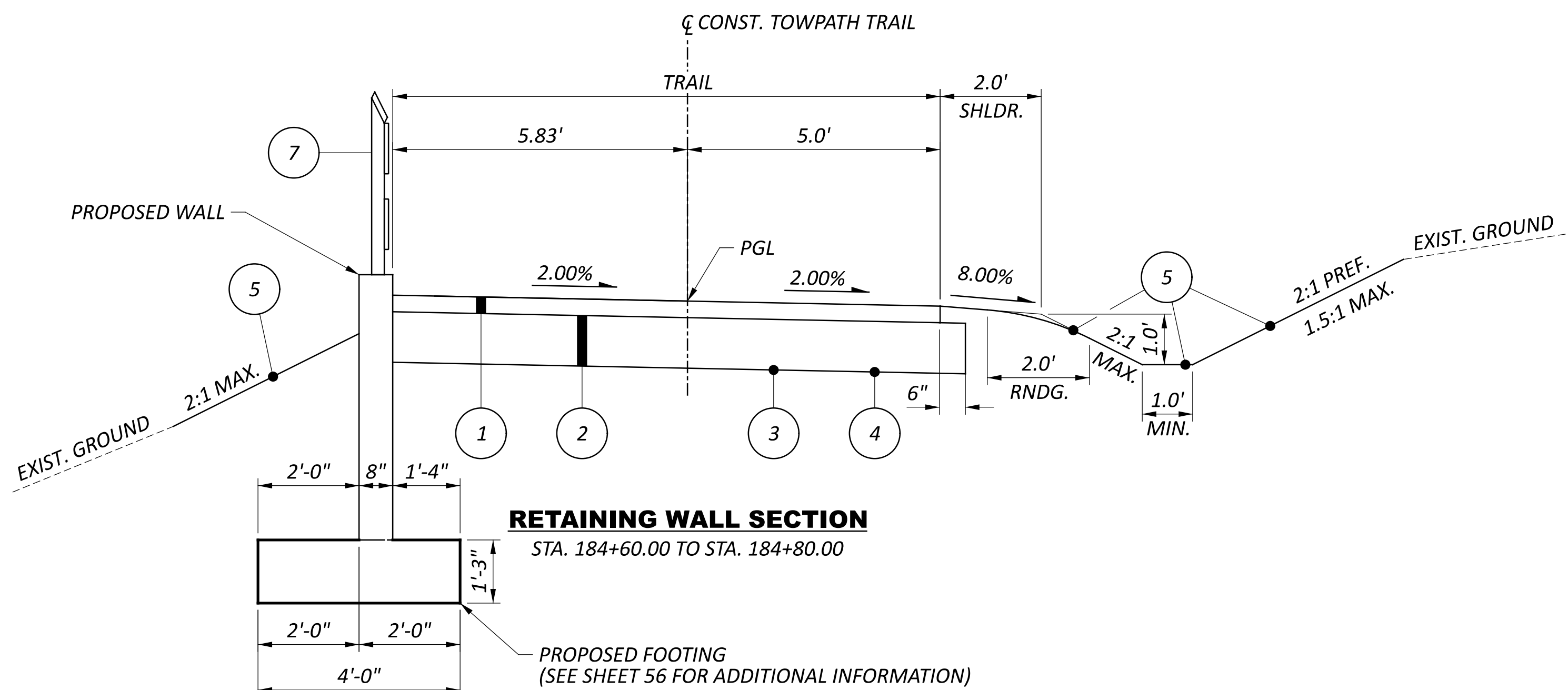
[F] ITEM APPLIES FROM STA. 199+00 TO STA. 202+50, AND FROM STA. 204+00 TO STA. 207+00

[G] ITEM APPLIES FROM STA. 199+00 TO STA. 206+00

[H] 1.5' DEPTH FROM STA. 199+00 TO STA. 201+50
2.0' DEPTH FROM STA. 201+50 TO STA. 205+50
1.0' DEPTH FROM STA. 205+50 TO STA. 206+00

LEGEND

- | | |
|----|--|
| 1 | ITEM SPECIAL - 2" LIMESTONE SCREENINGS |
| 2 | ITEM 304 - 6" AGGREGATE BASE |
| 3 | ITEM 204 - GEOTEXTILE FABRIC |
| 4 | ITEM 204 - SUBGRADE COMPACTION |
| 5 | ITEM 659 - SEEDING AND MULCHING |
| 6 | ITEM 607 - FENCE MISC.: WOOD FENCE (A) (PER ODOT SCD RM-5.2) |
| 7 | ITEM 607 - FENCE MISC.: WOOD FENCE (B) |
| 8 | ITEM 204 - EXCAVATION OF SUBGRADE
ITEM 203 - EMBANKMENT |
| 9 | ITEM 605 - 4" BASE PIPE UNDERDRAINS |
| 10 | ITEM 605 - 6" SHALLOW PIPE UNDERDRAINS |



GENERAL

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS AND FOR SAFETY CONDITIONS AT THE PROJECT SITE.

THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES TO THE PROJECT WORK LIMITS SHOWN ON THE DRAWINGS. AREAS BEYOND THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED INCLUDING THE STOCKPILE OF ANY MATERIALS OR CONSTRUCTION TRAFFIC.

THE CONTRACTOR SHALL KEEP ALL STREETS, LANES, AND PARKING AREAS ADJACENT TO THE PROJECT AREA CLEAN AND FREE FROM ANY DEBRIS, MUD AND/OR OTHER CONSTRUCTION EQUIPMENT AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL REMOVE ANY DEBRIS AND MUD FROM PUBLIC STREETS, TRAILS OR PARKING LOTS AT THE END OF EACH WORK DAY OR AS DIRECTED BY THE ENGINEER, CAMP TUSCAZOAR, AND & TUSCARAWAS COUNTY.

THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND THE TUSCARAWAS COUNTY PARKS DEPARTMENT IF SUSPECTED HAZARDOUS MATERIAL, MATERIALS THAT MAY CREATE A HEALTH RISK, ARCHEOLOGICAL ARTIFACTS OR BONES ARE DISCOVERED ON SITE. IN THE EVENT ANY PREVIOUSLY UNKNOWN HISTORIC OR ARCHAEOLOGICAL SITES OR HUMAN REMAINS ARE UNCOVERED DURING PROJECT CONSTRUCTION, THE CONTRACTOR MUST CEASE ALL WORK IN IMMEDIATELY AND CONTACT LOCAL, STATE AND COUNTY LAW ENFORCEMENT OFFICES (ONLY CONTACT LAW ENFORCEMENT ON FINDING OF HUMAN REMAINS), THE ARMY CORPS AT 304-399-5210 AND OHIO STATE HISTORIC PRESERVATION OFFICE AT 614-298-2000.

THE ZONE AE FLOOD HAZARD AREA FOR THE TUSCARAWAS RIVER WITHIN THE PROJECT LIMITS IS ELEVATION 909.2. IDLE EQUIPMENT, PETROCHEMICALS AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED IN THE FLOODPLAIN OR NEAR ANY DRAINAGE WAYS, DITCHES OR STREAMS THAT COULD CONVEY SUCH MATERIALS TO THE TUSCARAWAS RIVER. REFUELING OF EQUIPMENT SHALL NOT OCCUR IN THE FLOODPLAIN OR NEAR ANY DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT AND CLEANUP PLAN SHALL BE GENERATED PRIOR TO THE START OF THE PROJECT.

PROJECT NOTIFICATION

THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, THE TUSCARAWAS COUNTY PARK DEPARTMENT, AND CAMP TUSCAZOAR FOR A PRE-CONSTRUCTION MEETING PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER, THE TUSCARAWAS COUNTY PARK DEPARTMENT, AND CAMP TUSCAZOAR AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY.

ODOT DISTRICT 11 ENGINEERING
2201 REISER AVE. SE
NEW PHILADELPHIA, OH 44663
MR. DANIEL J. LORENZ, PE - LPA MANAGER
330-308-7875

TUSCARAWAS COUNTY PARK DEPT.
125 EAST HIGH AVE.
NEW PHILADELPHIA, OH 44663
MR. JESSE ROTHACHER - PARK MANAGER
330-365-3278

CAMP TUSCAZOAR FOUNDATION
PO BOX 308
ZOARVILLE, OH 44656
MR. KEN KOCAREK - SECRETARY/DIRECTOR
330-859-2288

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 8:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

RED HILL DEVELOPMENT
3596 STATE ROUTE 39 NW
DOVER, OHIO 44622
800-501-0002
330-340-9571
ATTN: ART BAKER

PIEDMONT GAS CO.
159 STONECREEK ROAD NW
NEW PHILADELPHIA, OHIO 44633
330-340-1003
ATTN: DAN DINGLER

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

THE EXISTING GAS LINE OWNED BY RED HILL DEVELOPMENT HAS BEEN FLAGGED IN THE FIELD, AND LEVEL A TEST HOLE INFORMATION HAS BEEN OBTAINED. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE AREA OF THE EXISTING GAS LINE. CAREFULLY EXPOSE THE GAS WHERE INDICATED ON THE PLANS PRIOR TO BEGINNING WORK. IF THE GAS LINE IS HIT AND THE COATING IS DAMAGED, THE CONTRACTOR SHALL NOTIFY RED HILL DEVELOPMENT IMMEDIATELY. IF THERE IS A CONFLICT WITH THE GAS LINE AND THE PROPOSED CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT RED HILL DEVELOPMENT, THE ENGINEER AND THE TUSCARAWAS COUNTY PARK DEPARTMENT.

ITEM 202 - GATE REMOVED, AS PER PLAN

THE EXISTING GATE AT THE BEGINNING OF THE PROJECT NEAR STATION 120+55 SHALL BE LEFT IN PLACE UNTIL THE NEW BOLLARDS ARE INSTALLED. CONTRACTOR SHALL REMOVE THE EXISTING GATE, STORE, AND RETURN TO THE US ARMY CORPS OF ENGINEERS AS DIRECTED.

CLEARING AND GRUBBING

CONSTRUCTION OF THE TRAIL IMPROVEMENTS OCCUR WITHIN A HEAVILY WOODED AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE STAKING OF CLEARING LIMITS AND PERFORMING ALL CLEARING AND GRUBBING ACTIVITIES. STRIP TOPSOIL AND ORGANIC MATERIAL WITHIN ALL TRAIL LIMITS AND ALL FILL AREAS. INDIVIDUAL TREES AND STUMPS FOR REMOVAL HAVE NOT BEEN MARKED. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

CARE SHALL BE TAKEN NOT TO GIRDLE OR SCUFF TREE TRUNKS OR DAMAGE ANY STANDING TREES THAT ARE TO REMAIN.

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT (MYOTIS SODALIS) AND THE FEDERALLY THREATENED NORTHERN LONG-EARED BAT (MYOTIS SEPTENTRIONALIS) AND MAY IMPACT SUMMER ROOSTING HABITAT FOR THIS SPECIES. THEREFORE, ANY UNAVOIDABLE CUTTING OF ANY TREES >3 INCHES IN DIATMETER WILL BE PERFORMED ONLY BETWEEN OCTOBER 1 AND MARCH 31.

TREE CUTTING COMPLETION DATE

ALL TREES >3 INCHES IN DIAMETER SHALL BE CUT PRIOR TO APRIL 1, 2024. THE REMOVAL OF DOWNED TREES CAN TAKE PLACE ON OR AFTER APRIL 1, 2024 AS PART OF THE REMAINING CLEARING AND GRUBBING WORK. TREE CUTTING IS TO BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING.

REMOVAL MISC.: EXISTING RAILROAD TIES

EXISTING RAILROAD TIES WILL BE ENCOUNTERED THROUGHOUT THE PROPOSED TRAIL ALIGNMENT. RAILROAD TIES THAT HAVE PREVIOUSLY BEEN REMOVED FROM THE EXISITNG RAIL BED HAVE BEEN PLACED INTO PILES ALONGSIDE THE EXISTING TRAIL. THERE ARE ALSO RAILROAD TIES STILL EMBEDDED ALONG THE PROPOSED TRAIL ALIGNMENT.

RAILROAD TIES THAT HAVE BEEN PLACED IN PILES ALONG THE SIDE OF THE PROPOSED TRAIL ALIGNMENT SHALL BE REMOVED BY THE CONTRACTOR. ANY EMBEDDED RAILROAD TIES THAT WILL CONFLICT WITH EXCAVATION, SUBGRADE COMPACTION, AND PLACEMENT OF THE PROPOSED 204 & 304 MATERIALS SHALL BE REMOVED BY THE CONTRACTOR. BACKFILL ANY CAVITIES CREATED BY THE REMOVAL ACCORDING TO ODOT CMS 202.02, EXCEPT WHEN THE CAVITY LIES WITHIN THE SUBSEQUENT EXCAVATION OR OTHER WORK.

THE REMOVAL AND APPROPRIATE DISPOSAL OF THE EXSTING RAILROAD TIES ENCOUNTERED ALONG THE PROPOSED TRAIL ALIGNMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

ALL COSTS INCLUDING THE REMOVAL, HAULING, AND DISPOSAL OF THE EXISTING RAILROAD TIES WILL BE PAID FOR UNDER THE LUMP SUM CONTRACT BID PRICE FOR:

ITEM 202 - REMOVAL MISC.: EXISTING RAILROAD TIES

ITEM 607 - FENCE MISC.: WOOD FENCE (A)

WOOD BIKEWAY RAILING SHALL BE INSTALLED AT THE LOCATIONS SPECIFIED IN THE PLANS, AND SHALL BE CONSTRUCTED AND PAID FOR AS PER ODOT SCD RM-5.2. ADDITIONAL POSTS AND RAILING SEGMENTS SHALL BE PROVIDED ON HORIZONTAL CURVES SO THAT THE FACE OF THE BIKEWAY RAILING IS A MINIMUM OF 1 FOOT OFFSET FROM THE EDGE OF TRAIL. ANY DEVIATION FROM THE BIKEWAY RAILING LOCATIONS SPECIFIED IN THE PLANS, DUE TO LARGE TREES, TREE ROOTS, GAS LINE, OR OTHER OBSTRUCTIONS, SHALL BE TO THE SATISFACTION OF THE OWNER AND ENGINEER.

ITEM 607 - FENCE MISC.: WOOD FENCE (B)

FURNISH WOOD BIKEWAY RAILING AS PER ODOT SCD RM-5.2, HOWEVER THE POSTS SHALL BE 3'-0" LONG WITH THE BOTTOM OF THE POSTS ATTACHED TO THE TOP OF THE RETAINING WALL USING SIMPSON ADJUSTABLE POST BASE ABW66Z OR APPROVED EQUAL. PAYMENT FOR THE WOOD BIKEWAY RAILING, INCLUDING ALL MATERIALS, LABOR, AND EQUIPMENT FOR THE INSTALLATION SHALL BE PAID FOR AT THE UNIT BID PRICE PER LINEAR FOOT FOR:

ITEM 607 - FENCE MISC.: WOOD FENCE (B)

THE POST BASES, INCLUDING ALL MATERIAL, LABOR, AND EQUIPMENT FOR INSTALLATION SHALL BE INCLUDED WITH THE UNIT BID PRICE FOR: ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WINGALL NOT INCLUDING FOOTING, AS PER PLAN.

ITEM SPECIAL - BOLLARD

PROVIDE STEEL BOLLARDS AT THE LOCATIONS SPECIFIED BELOW ACCORDING TO ODOT SCD RM-5.1.

STATION	REMOVABLE (EACH)	PERMANENT (EACH)
120+60	2	2
219+30	1	2

SPACE BOLLARDS 5 FEET APART ON-CENTER. THE MIDDLE BOLLARD(S) SHALL BE REMOVABLE AND THE BOLLARDS ON EACH END SHALL BE PERMANENT.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM SPECIAL - BOLLARD 7 EACH

THE UNIT PRICE BID FOR THIS ITEM SHALL INCLUDE ALL MATERIALS, HARDWARE, AND LABOR NECESSARY TO PERFORM THE INSTALLATION.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	1,149 CU. YD.
659, SEEDING AND MULCHING	12,907 SQ. YD.
659, REPAIR SEEDING AND MULCHING	645 SQ. YD.
659, INTER-SEEDING	645 SQ. YD.
659, COMMERCIAL FERTILIZER	1.8 TON
659, LIME	2.7 ACRES
659, WATER	71 M. GAL.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT- OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 602 - CONCRETE MASONRY, AS PER PLAN

FURNISH AND INSTALL A HALF-HEIGHT CONCRETE HEADWALL AS PER SCD HW-2.1 OR HW-2.2, EXCEPT THE VERTICAL "H" DIMENSION SHALL BE AS INDICATED ON THE PLANS.

ITEM SPECIAL - 2" LIMESTONE SCREENINGS

THE TOP SURFACE OF THE TRAIL SHALL BE 2" OF: ITEM SPECIAL - LIMESTONE SCREENINGS. THE MATERIAL SHALL BE A NO. 9 CRUSHED LIMESTONE MIXED WITH LIMESTONE SCREENS.

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

111280

SHEET

TOTAL

4 57

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET THIS SHEET FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS DATA COLLECTION PER 502.2.E OF SURVEY MANUAL
MONUMENT TYPE: PROJECT CONTROL MONUMENT TYPE B
VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: 12B

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLANE, NORTH ZONE
COMBINED SCALE FACTOR: 1.00000000
ORIGIN OF COORDINATE SYSTEM: EASTING (X) 0, NORTHING (Y) 0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE ITEM 659, SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS. AREAS DESIGNATED AS VEGETATED FILTER STRIPS WHICH CONSIST OF EXISTING VEGETATION, AND ARE OTHERWISE LEFT UNDISTURBED DO NOT REQUIRE PLACEMENT OF ITEM 659 AND ITEM 670.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

TRAIL CLOSURES AND CONSTRUCTION ACCESS

THE SECTION OF TRAIL BETWEEN THE NORTHERN AND SOUTHERN PROJECT LIMITS SHALL BE CLOSED TO PEDESTRIANS AT ALL TIMES. THE CONTRACTOR SHALL ERECT TRAIL CLOSURE SIGNS AND TEMPORARY CONSTRUCTION FENCE AT THE FOLLOWING LOCATIONS:

- AT THE SOUTHERN PROJECT LIMIT, ON THE SOUTH SIDE OF THE EXISTING GATE, AT APPROXIMATE STATION 120+00.

- WHERE THE KAYAK/CANOE PORTAGE ROUTES INTERSECT THE EXISTING TRAIL AT APPROXIMATE STATIONS 123+00 AND 126+00.

- WHERE THE EXISTING TRAIL MEETS OLD ZOARVILLE ROAD AT THE NORTHERN PROJECT LIMIT.



THE TEMPORARY CONSTRUCTION FENCE SHALL HAVE A MINIMUM HEIGHT OF 4'-0" AND SHALL BE INSTALLED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. THE FENCE SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION BY THE CONTRACTOR.

THE CONTRACTOR SHALL ERECT ADVANCED WARNING OF TRAIL CLOSURE SIGNS AT THE FOLLOWING LOCATIONS:

- APPROXIMATELY 2-MILES SOUTH OF THE "BEGIN PROJECT" STATION, WHERE THE EXISTING TRAIL MEETS SR-416 (NORTH BROADWAY ST.).



- AT THE INTERSECTION OF SR-212 AND SR-800 WHERE THE EXISTING TRAIL MEETS SR-800.



CONSTRUCTION ACCESS FROM THE NORTH IS AT OLD ZOARVILLE ROAD. THE CONTRACTOR SHALL NOT PARK IDLE EQUIPMENT OR STORE CONSTRUCTION MATERIALS WITHIN THE OLD ZOARVILLE ROAD OR BOY SCOUT ROAD RIGHT-OF-WAY. DO NOT PERMANENTLY BLOCK OLD ZOARVILLE ROAD OR BOY SCOUT ROAD FOR ANY REASON. THE CONTRACTOR SHALL ERECT TEMPORARY WARNING SIGNS ALONG OLD ZOARVILLE ROAD AND BOY SCOUT ROAD IF TEMPORARILY UTILIZING THESE ROADWAYS TO UNLOAD EQUIPMENT OR MATERIALS. THE CONTRACTOR SHALL PROVIDE FLAGGERS AS NEEDED TO SAFELY MAINTAIN TWO-WAY TRAFFIC ON ALL ROADWAYS AT ALL TIMES.

THE CONTRACTOR MAY ACCESS THE PROJECT SITE FROM THE SOUTH THROUGH CAMP TUSCAZOAR ONLY WITH PRIOR APPROVAL FROM THE TUSCARAWAS COUNTY PARK DEPARTMENT, AND CAMP TUSCAZOAR. THE CONTRACTOR SHALL COORDINATE WITH THESE AGENCIES A MINIMUM OF SEVEN DAYS IN PRIOR TO THE DESIRED ACCESS DATE. TEMPORARY CLOSURE SHALL SIGNS SHALL BE ERECTED AT THE EXPENSE OF THE CONTRACTOR AS REQUESTED BY THE AGENCIES.

THE CONTRACTOR MAY ACCESS THE PROJECT SITE FROM THE SOUTH AT SR-416 (NORTH BROADWAY ST.) ONLY WITH PRIOR APPROVAL FROM THE TUSCARAWAS COUNTY PARK DEPARTMENT, AND THE USACE. THE CONTRACTOR SHALL COORDINATE WITH THESE AGENCIES A MINIMUM OF SEVEN DAYS IN PRIOR TO THE DESIRED ACCESS DATE. TEMPORARY CLOSURE SHALL SIGNS SHALL BE ERECTED AT THE EXPENSE OF THE CONTRACTOR AS REQUESTED BY THE AGENCIES.

TRAIL CLOSURES AND CONSTRUCTION ACCESS (CONTINUED)

ALL WORK, INCLUDING COORDINATION, SITE VISITS, MEETINGS, LABOR, EQUIPMENT, MATERIALS AND INSTALLATIONS FOR CONSTRUCTION ACCESS, SIGNAGE, AND CONSTRUCTION FENCE WILL BE PAID AT THE UNIT BID PRICE FOR:

ITEM 614 - MAINTAINING TRAFFIC.

ENVIROMENTAL COMMITMENTS

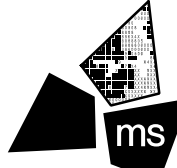
ENSURE IMPACTS TO THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT ARE AVOIDED AND MINIMIZED. DO NOT REMOVE TREES FROM APRIL 1 THROUGH SEPTEMBER 30. PERFORM ALL NECESSARY TREE REMOVAL FROM OCTOBER 1 THROUGH MARCH 31. DEMARCAT E CLEARING LIMITS IN THE FIELD TO AVOID ANY UNAUTHORIZED TREE CLEARING. FOR THE PURPOSES OF THIS COMMITMENT, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

WATERS OF THE US:

WATERS OF THE US HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL EXERCISE CAUTION TO ENSURE THAT NO IMPACTS OCCUR TO WATERS OF THE US. NO TEMPORARY OR PERMANENT FILL OF ANY TYPE MAY BE PLACED IN ANY STREAM OR WETLAND AS PART OF THIS PROJECT. ANY ACTIVITIES OCCURRING IN STREAMS OR WETLANDS WOULD REQUIRE PERMITS FROM THE US ARMY CORPS OF ENGINEERS AND/OR THE OHIO EPA.

ANY OTHER SITE PROPOSED BY THE CONTRACTOR FOR OFF PROJECT ANCILLARY CONSTRUCTION (STAGING AREAS, WASTE LOCATIONS, AND/OR BORROW LOCATIONS) MUST MEET THE REQUIREMENTS OF CMS 105.16.

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

111280

SHEET

5

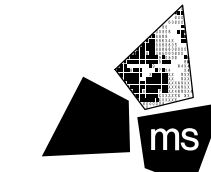
TOTAL

57

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				4	5	7	8	9	56		OFFICE CALCS		01/ENH/28						
				LS		34							LS	201	11000	LS		ROADWAY	4
						1							34	202	35100	34	FT	PIPE REMOVED, 24" AND UNDER	
													1	202	75251	1	EACH	GATE REMOVED, AS PER PLAN	4
				LS									LS	202	98000	LS		REMOVAL MISC.:EXISTING RAILROAD TIES	4
											3,205		3,205	203	10000	3,205	CY	EXCAVATION	
											1,113		1,113	203	20000	1,113	CY	EMBANKMENT	
											11,997		11,997	204	10000	11,997	SY	SUBGRADE COMPACTION	
											480		480	204	13000	480	CY	EXCAVATION OF SUBGRADE	
											11,997		11,997	204	50000	11,997	SY	GEOTEXTILE FABRIC	
						3,438							3,438	607	98000	3,438	FT	FENCE, MISC.: WOOD FENCE (A)	4
						20							20	607	98000	20	FT	FENCE, MISC.: WOOD FENCE (B)	4
				7									7	SPECIAL	69050600	7	EACH	BOLLARD	4
																		EROSION CONTROL	
						8							8	601	32200	8	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
				2									2	659	00100	2	EACH	SOIL ANALYSIS TEST	
				1,149		284							1,433	659	00300	1,433	CY	TOPSOIL	
				12,907									12,907	659	10000	12,907	SY	SEEDING AND MULCHING	
				645									645	659	14000	645	SY	REPAIR SEEDING AND MULCHING	
				645									645	659	15000	645	SY	INTER-SEEDING	
				1.8									1.8	659	20000	1.8	TON	COMMERCIAL FERTILIZER	
				2.7									2.7	659	31000	2.7	ACRE	LIME	
				71									71	659	35000	71	MGAL	WATER	
						1,494							1,494	670	00500	1,494	SY	SLOPE EROSION PROTECTION	
						1,888							1,888	670	00720	1,888	SY	DITCH EROSION PROTECTION MAT, TYPE B	
								LS					LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
								LS					LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
								LS					LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
								40,000					40,000	832	30000	40,000	EACH	EROSION CONTROL	
																		DRAINAGE	
								2.22					2.22	602	20000	2.22	CY	CONCRETE MASONRY	
								0.11					0.11	602	20001	0.11	CY	CONCRETE MASONRY, AS PER PLAN	4
								130					130	605	06000	130	FT	4" BASE PIPE UNDERDRAINS	
								628					628	605	11100	628	FT	6" SHALLOW PIPE UNDERDRAINS	
								20					20	611	00410	20	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	
								20					20	611	00510	20	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
								150					150	611	04600	150	FT	12" CONDUIT, TYPE C	
								152					152	611	04900	152	FT	12" CONDUIT, TYPE D	
								368					368	611	06100	368	FT	15" CONDUIT, TYPE C	
								32					32	611	06400	32	FT	15" CONDUIT, TYPE D	
								8					8	611	98450	8	EACH	CATCH BASIN, NO. 2-2A	
								1					1	611	99574	1	EACH	MANHOLE, NO. 3	
											2,000		2,000	304	20000	2,000	CY	PAVEMENT	
											606		606	SPECIAL	69098700	606	CY	AGGREGATE BASE 2" LIMESTONE SCREENINGS	4
									29				29	503	21101	29	CY	RETAINING WALLS	
									685				685	509	10000	685	LB	UNCLASSIFIED EXCAVATION, AS PER PLAN	56
									3				3	511	46011	3	CY	EPOXY COATED STEEL REINFORCEMENT	
									4				4	511	46510	4	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN	56
																		CLASS QC1 CONCRETE, FOOTING	
									6				6	512	10100	6	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
									6				6	518	21200	6	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
									20				20	518	40000	20	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
									12				12	518	40010	12	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
					LS								LS	614	11000	LS		INCIDENTALS	
													LS	623	10000	LS		MAINTAINING TRAFFIC	5
													LS	624	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

111280

SHEET

TOTAL

6

57

REF. NO.	SHEET NO.	STATION		SIDE	202	202		607	607		601		659		670	670							
					PIPE REMOVED, 24" AND UNDER	GATE REMOVED, AS PER PLAN		FENCE, MISC.: WOOD FENCE (A)	FENCE, MISC.: WOOD FENCE (B)		ROCK CHANNEL PROTECTION, TYPE C WITH FILTER		TOPSOIL		SLOPE EROSION PROTECTION	DITCH EROSION PROTECTION MAT, TYPE B							
		FROM	TO		FT	EACH		FT	FT		CY		CY		SY	SY							
R1	10	120+60		LT/RT																			
R2	12	133+53		LT/RT	34	1																	
F1	13 & 14	138+58	140+47	LT				195															
F2	16 & 17	150+83	156+17	LT				539															
F3	16	151+53	152+92	RT				146															
F4	16 & 17	154+98	157+02	RT				210															
F5	19	165+67	168+92	LT				331															
F6	19	167+55	168+94	RT				140															
F7	21 & 22	177+33	181+92	LT				465															
F8	21 & 22	178+96	180+59	RT				165															
F9	22	183+96	184+60	LT				65															
F10	22	184+60	184+80	LT					20														
F11	22 & 23	184+80	187+57	LT				280															
F12	23 - 25	189+93	195+17	LT				528															
F13	24	193+06	194+19	RT				114															
F14	27 & 28	208+53	210+17	LT				170															
F15	27	208+55	209+44	RT				90															
E1	10 &11	124+50	127+47	RT													247						
E2	11	126+08	127+45	LT									13				115						
E3	11	127+47		LT							1												
E4	11 &12	127+49	133+40	LT									54				491						
E5	12	133+53		LT							2												
E6	12 &13	133+64	138+50	LT									21		191								
E7	15 & 16	148+05	151+00	LT									28		235								
E8	18	161+50		LT							3												
E9	19 & 20	168+75	170+80	LT									18		150								
E10	20	171+32	173+00	LT									15				141						
E11	20	174+51		LT							1												
E12	22 & 23	184+25	185+98	RT													144						
E13	23	186+02	186+15	RT													11						
E14	23 & 24	187+40	190+48	LT									37		337								
E15	24	190+50		LT							1												
E16	24	191+15	192+50	LT									10		106								
E17	24 & 25	194+25	195+75	LT									8		83								
E18	26	201+35	202+48	LT													95						
E19	26	201+00	202+48	RT													123						
E20	26	202+52	202+98	LT													39						
E21	26	202+52	202+98	RT													39						
E22	26	203+02	203+98	LT													81						
E23	26	203+02	203+98	RT													80						
E24	26	204+02	204+28	LT													22						
E25	27	207+35	209+25	LT									20		176								
E26	27 & 28	209+75	210+75	LT									9		78								
E27	28	212+00	213+50	LT									8		52								
E28	28 & 29	214+50	217+64	LT									30				260						
E29	29	217+83	219+40	LT									13		86								
TOTALS CARRIED TO GENERAL SUMMARY					34	1		3438	20		8		284		1494	1888							

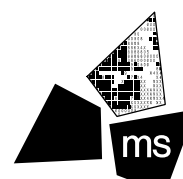
TUS-TOWPATH TRAIL

MODEL: Sheet PAPER:SIZE: 34x22 (in.) DATE: 9/27/2023 TIME: 1:58:10 PM USER: KCoVilve
\\msconsultants.com\\files\\Production\\02\\60\\06875 - TUSC Co Township Trail Ex\\11280\\400-Engineering\\Roadway\\Sheets\\111280_GS002.dgn

[illegible]

DRAINAGE ESTIMATED QUANTITIES

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

11280

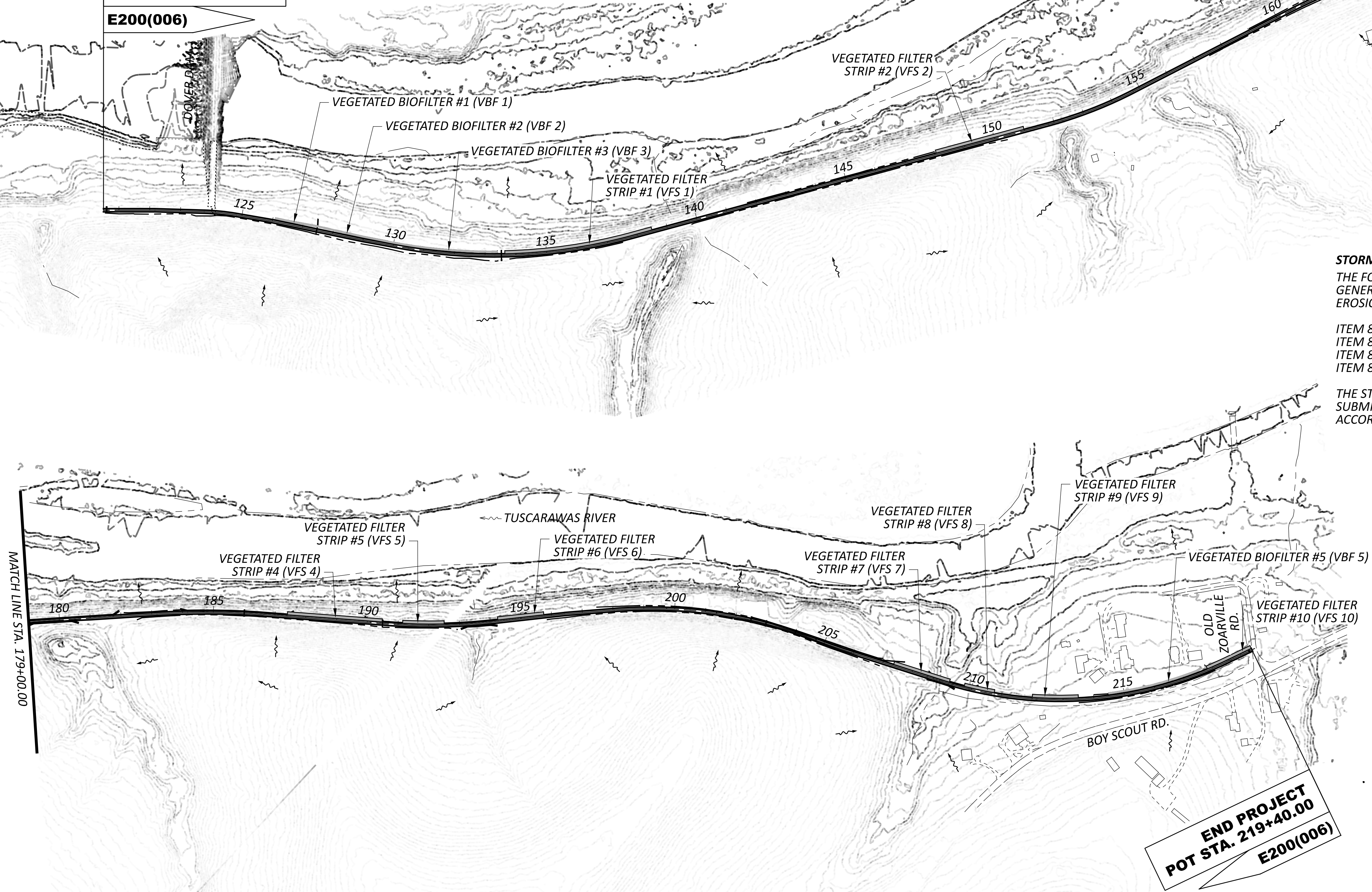
SHEET	TOTAL
-------	-------

8 | 5

BMP TYPE	LATITUDE/LONGITUDE				BMP WIDTH	EDA TREATMENT CREDIT
	BEGIN		END		(FEET)	(ACRES)
VEGETATED BIOFILTER #1 (VBF 1)	40.557139°	-81.411013°	40.557338°	-81.410586°	4	0.08
VEGETATED BIOFILTER #2 (VBF 2)	40.557338°	-81.410586°	40.557687°	-81.409799°	4	0.16
VEGETATED BIOFILTER #3 (VBF 3)	40.557687°	-81.409799°	40.558244°	-81.408836°	4	0.17
VEGETATED BIOFILTER #4 (VBF 4)	40.567218°	-81.402077°	40.567614°	-81.401762°	4	0.09
VEGETATED BIOFILTER #5 (VBF 5)	40.574832°	-81.390425°	40.575552°	-81.389826°	4	0.16
VEGETATED FILTER STRIP #1 (VFS 1)	40.558283°	-81.408758°	40.559318°	-81.407674°	10	0.15
VEGETATED FILTER STRIP #2 (VFS 2)	40.561528°	-81.405824°	40.562211°	-81.405254°	10	0.12
VEGETATED FILTER STRIP #3 (VFS 3)	40.566597°	-81.402517°	40.567089°	-81.402158°	10	0.08
VEGETATED FILTER STRIP #4 (VFS 4)	40.570442°	-81.398147°	40.570961°	-81.397272°	10	0.14
VEGETATED FILTER STRIP #5 (VFS 5)	40.571077°	-81.397086°	40.571324°	-81.396727°	10	0.05
VEGETATED FILTER STRIP #6 (VFS 6)	40.571666°	-81.396288°	40.571975°	-81.395931°	10	0.05
VEGETATED FILTER STRIP #7 (VFS 7)	40.573742°	-81.392516°	40.573960°	-81.391895°	10	0.08
VEGETATED FILTER STRIP #8 (VFS 8)	40.574023°	-81.391736°	40.574161°	-81.391427°	10	0.04
VEGETATED FILTER STRIP #9 (VFS 9)	40.574352°	-81.391057°	40.574626°	-81.390657°	10	0.05
VEGETATED FILTER STRIP #10 (VFS 10)	40.575586°	-81.38977°	40.575980°	-81.389537°	10	0.06
BEGIN PROJECT POT STA. 120+50.00				TREATMENT PROVIDED		1.48
				TREATMENT REQUIRED*		1.37
				*CALCULATED PER L&D VOL. 2, SEC. 1115.7		

BEGIN PROJECT
POT STA. 120+50.00

E200(006)



PROJECT DATA			
TOTAL AREA (RIGHT- OF-WAY)	NA	RUNOFF COEFFICIENT FOR PRE CONSTRUCTION SITE	0.35
PROJECT EARTH DISTURBED AREA	6.86 AC.	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.35
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	0.25 AC.	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS AND VEGETATED FILTER STRIPS ARE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS.	
NOTICE OF INTENT EARTH DISTURBED AREA	7.11 AC.		
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	0 AC.	IMMEDIATE RECEIVING WATERS	TUSCARAWAS RIVER
IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE	0 AC.	SUBSEQUENT RECEIVING WATERS	MUSKINGUM RIVER

STORM WATER POLLUTION PREVENTION PLAN

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR STORM WATER POLLUTION PREVENTION AND EROSION CONTROL:

ITEM 832 - STORM WATER POLLUTION PREVENTION PLAN
ITEM 832 - STORM WATER POLLUTION PREVENTION INSPECTIONS
ITEM 832 - STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE
ITEM 832 - EROSION CONTROL

LUMP SUM
LUMP SUM
LUMP SUM
40,000 EACH

THE STORM WATER POLLUTION PREVENTION PLAN SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR TO THE OEPA PRIOR TO CONSTRUCTION IN ACCORDANCE WITH CURRENT ODOT AND OEPA REGULATIONS.

PROJECT DESCRIPTION

CONSTRUCTION OF APPROXIMATELY 2 MILES OF 10' WIDE, LIMESTONE SURFACE, PEDESTRIAN/BICYCLE TRAIL FROM JUST SOUTH OF DOVER DAM TO OLD ZOARVILLE ROAD (TR-390). THE TRAIL WILL BE CONSTRUCTED ALONG THE TUSCARAWAS RIVER ON AN ABANDONED RAILROAD BED. WORK ITEMS INCLUDE LIMESTONE TRAIL, SAFETY RAIL, AND DRAINAGE.

USGS MAP: DOVER, OHIO

LONGITUDE: N40°34'01"***
LATITUDE: W81°24'08"***

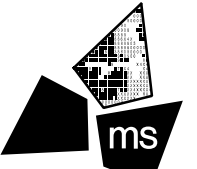
*LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

HORIZONTAL SCALE IN FEET

0 100 200 400

PROJECT SITE PLAN

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

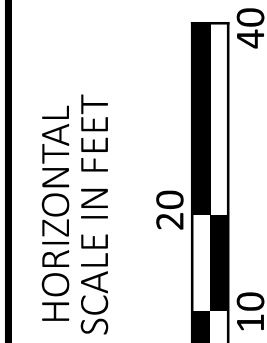
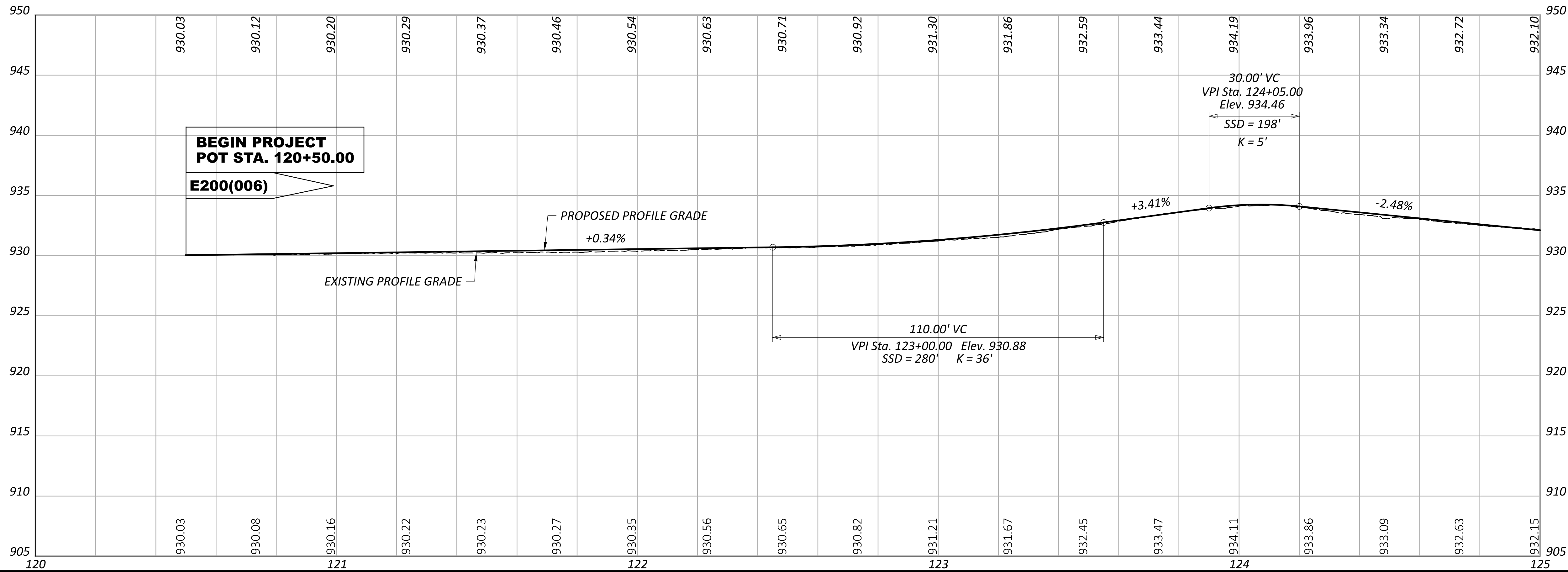
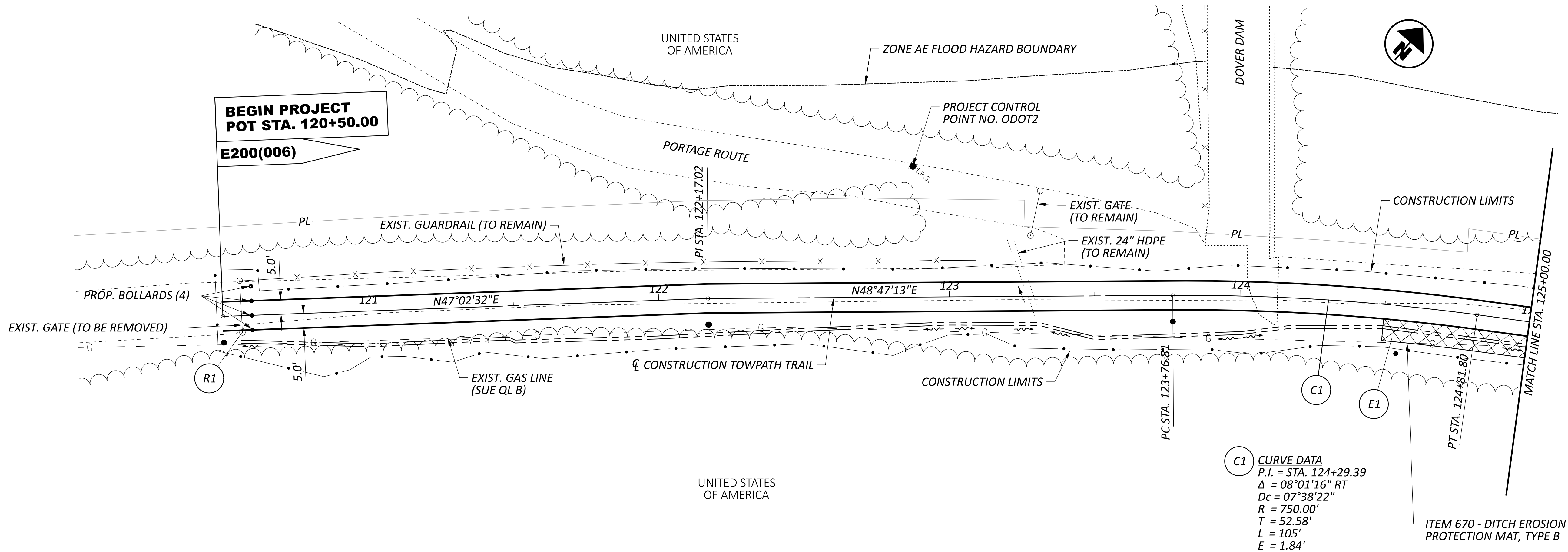
111280

SHEET

9

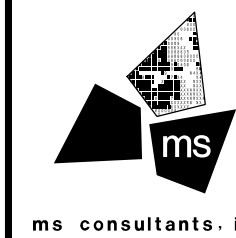
TOTAL

57



PLAN AND PROFILE
STA. 120+00 TO 125+00

DESIGN AGENCY

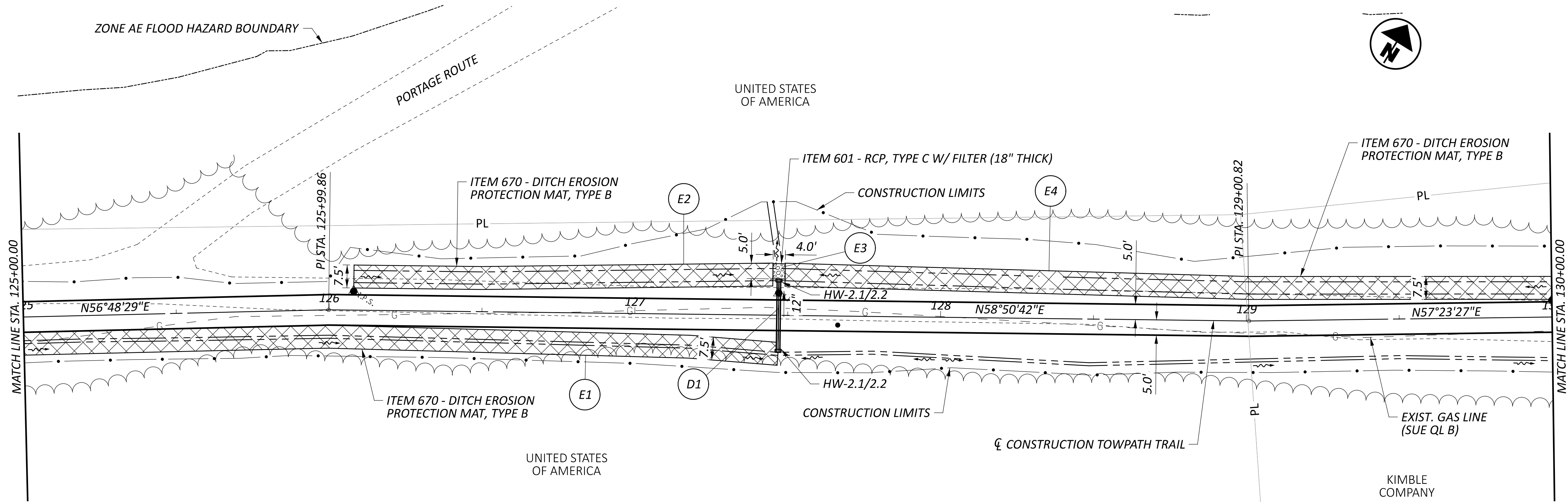


DESIGNER
KMC

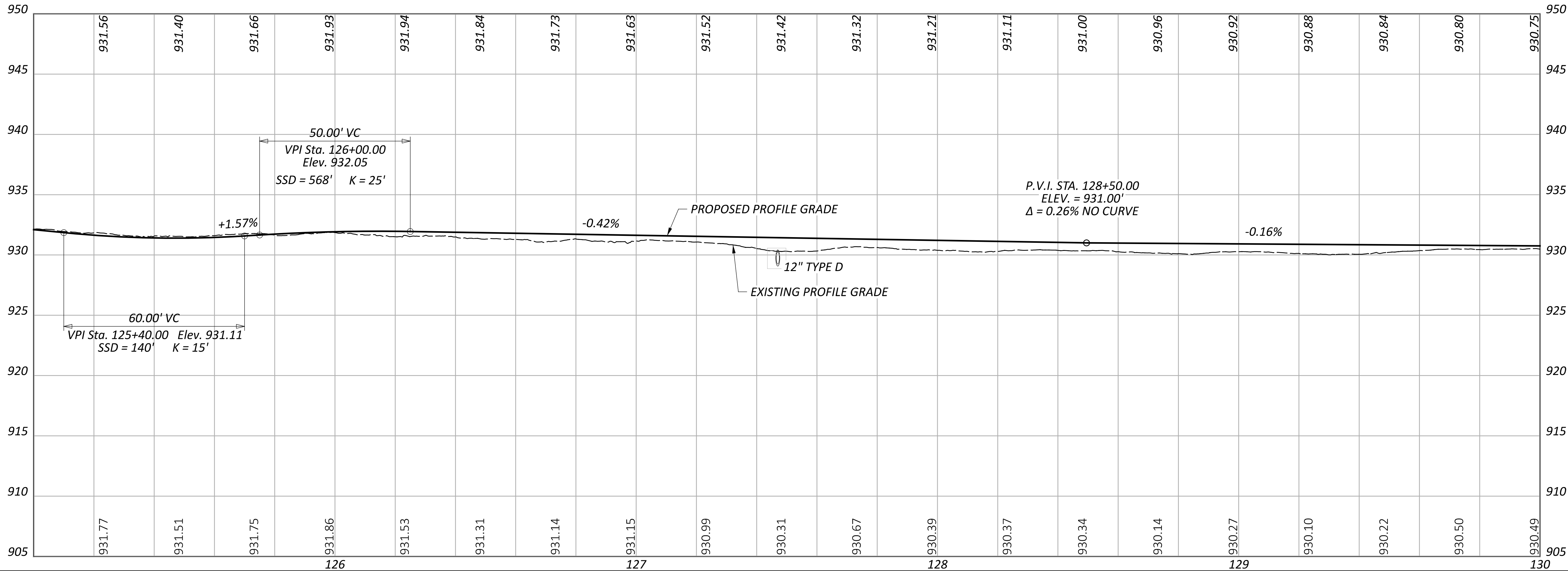
REVIEWER
SSR 02/08/23

PROJECT ID
111280

SHEET TOTAL
10 57



FOR CULVERT DETAILS, SEE SHEET NO. 53



PLAN AND PROFILE
STA. 125+00 TO 130+00



DESIGN AGENCY



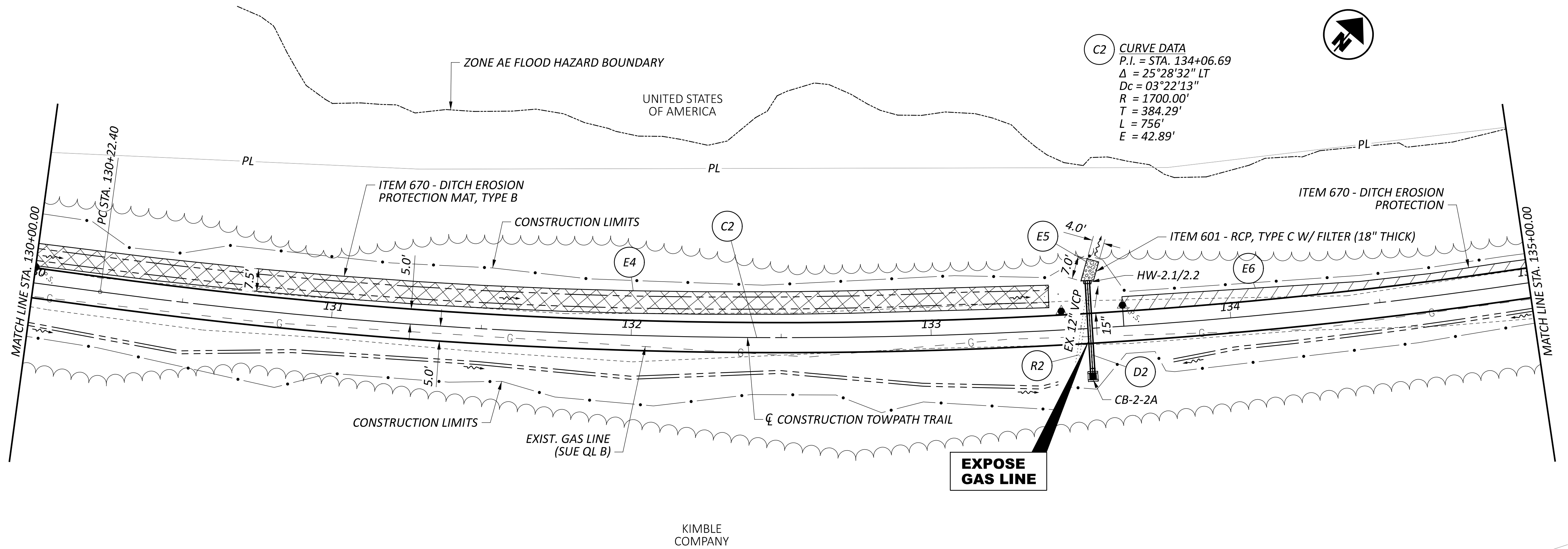
DESIGNER
KMC

REVIEWER
SSR 02/08/23

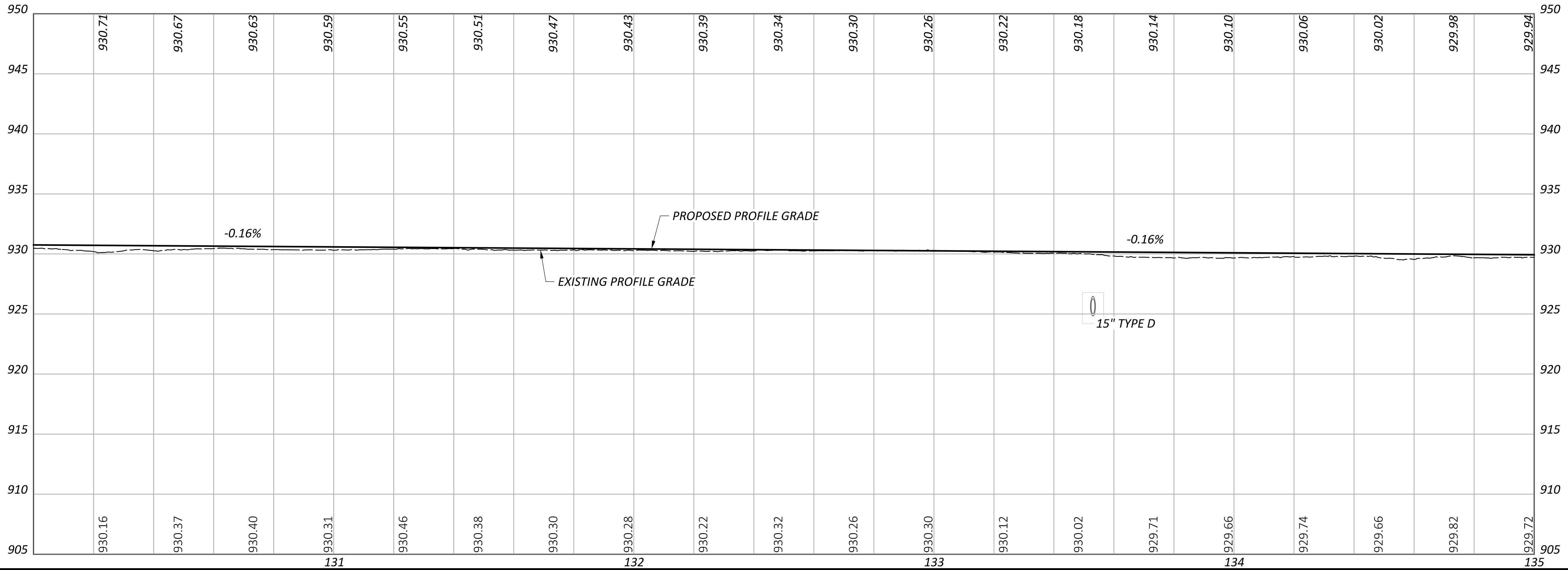
PROJECT ID
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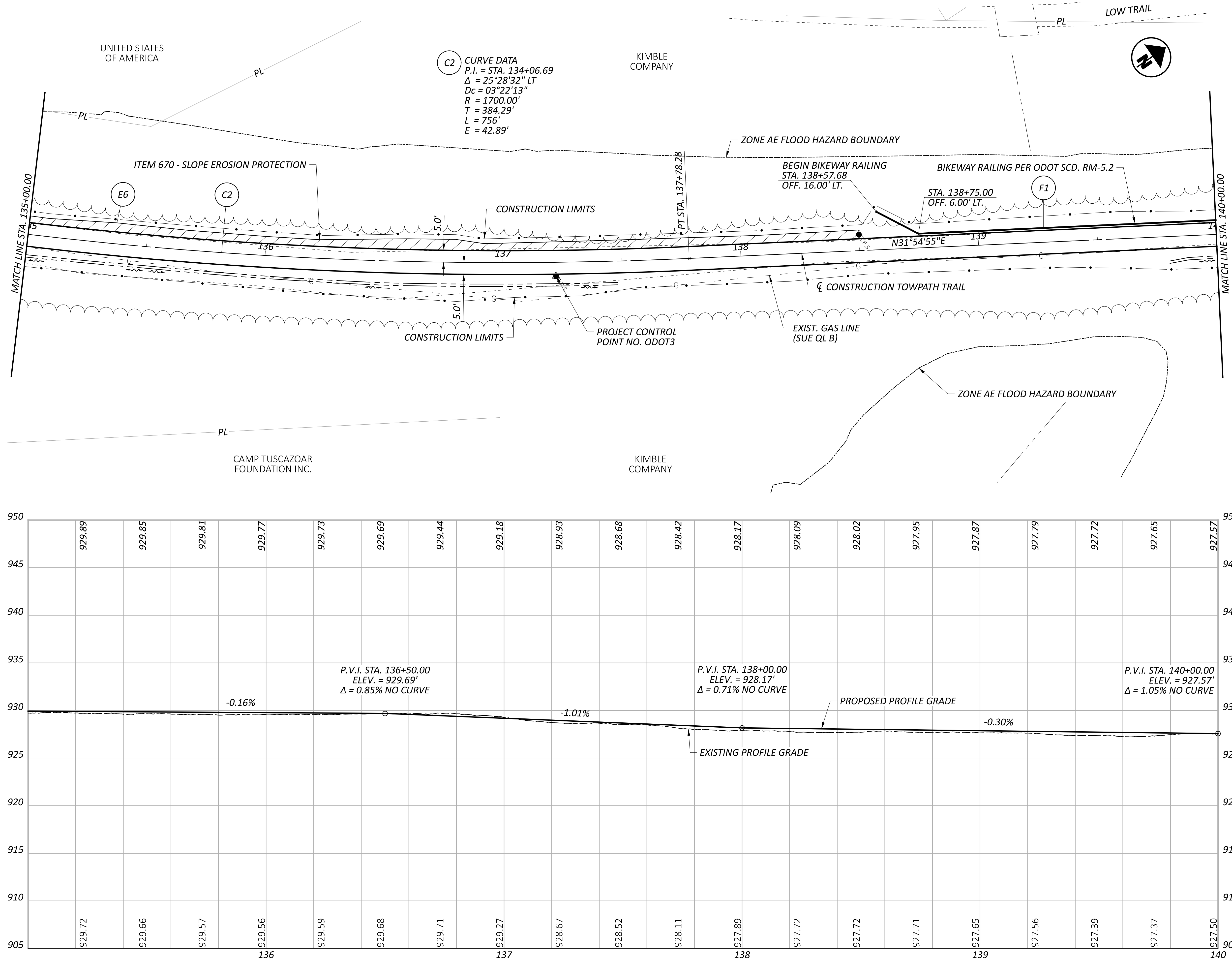
SHEET
11

TOTAL
57



FOR CULVERT DETAILS, SEE SHEET NO. 53





PLAN AND PROFILE
STA. 135+00 TO 140+00



DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

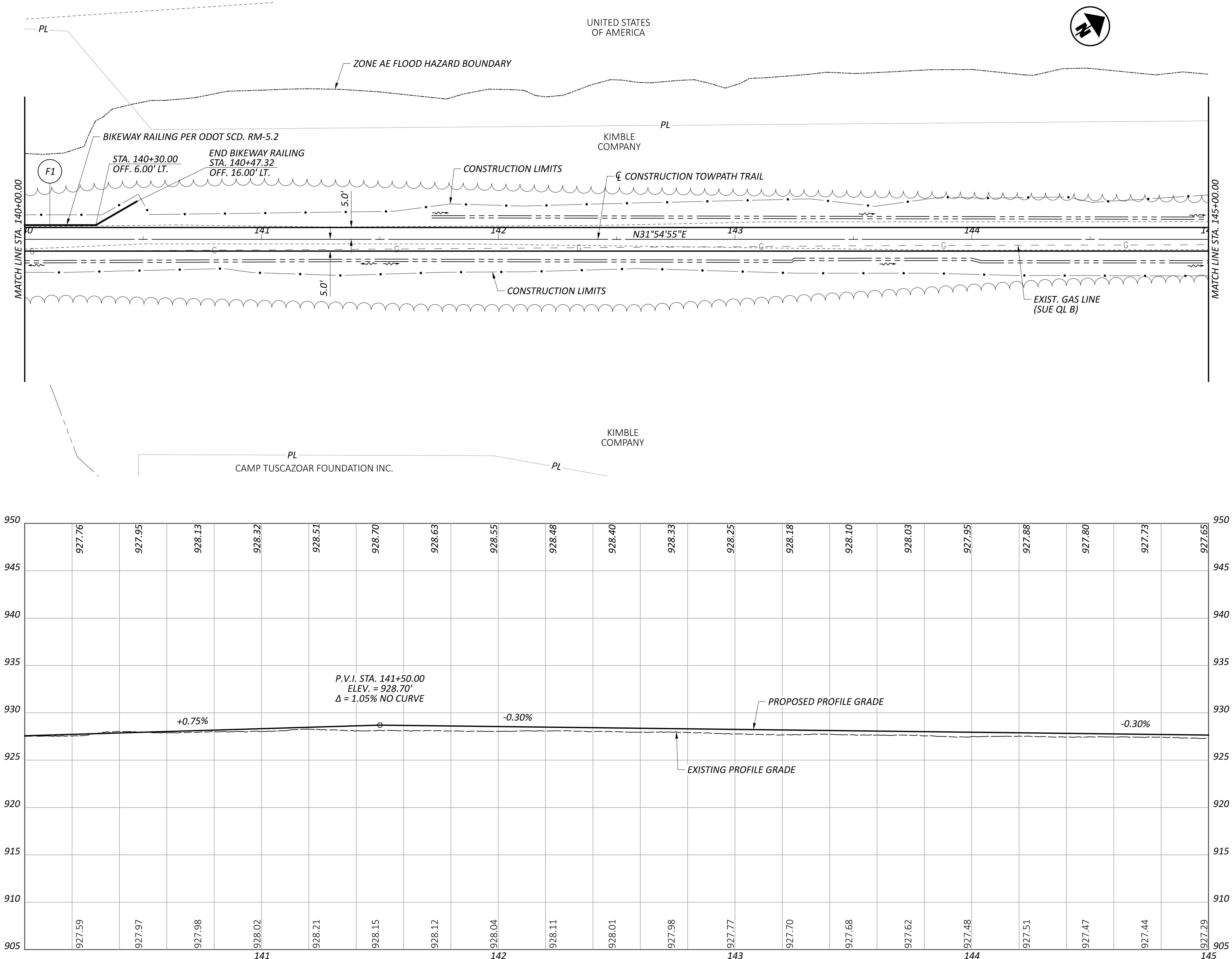
111280

SHEET

13

TOTAL

57



HORIZONTAL SCALE IN FEET

0 10 20 40

PLAN AND PROFILE

STA. 140+00 TO 145+00

DESIGN AGENCY

ms consultants, inc.

DESIGNER

KMC

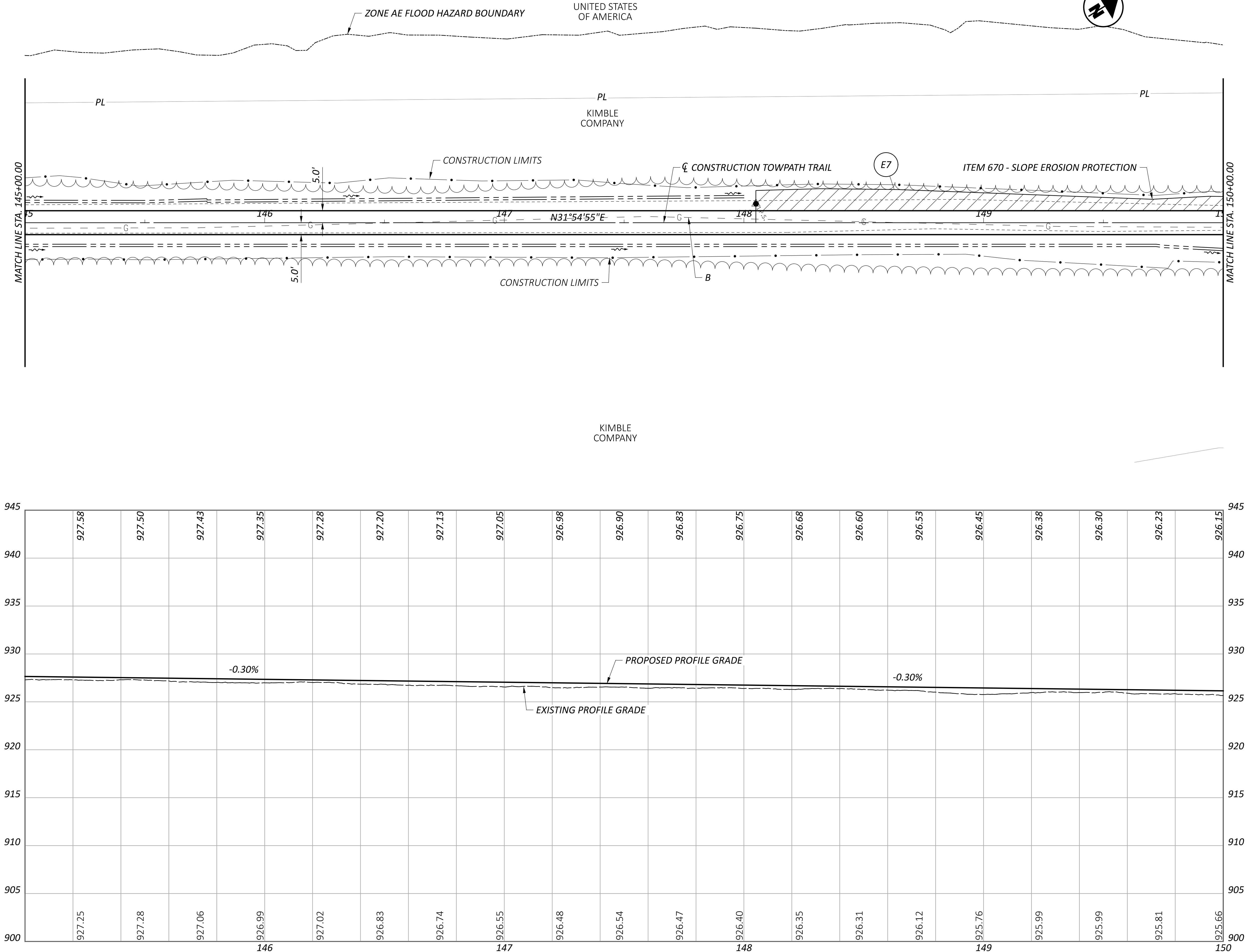
REVIEWER

SSR 02/08/23

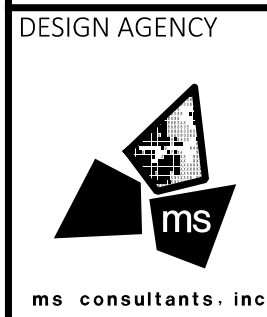
PROJECT ID

111280

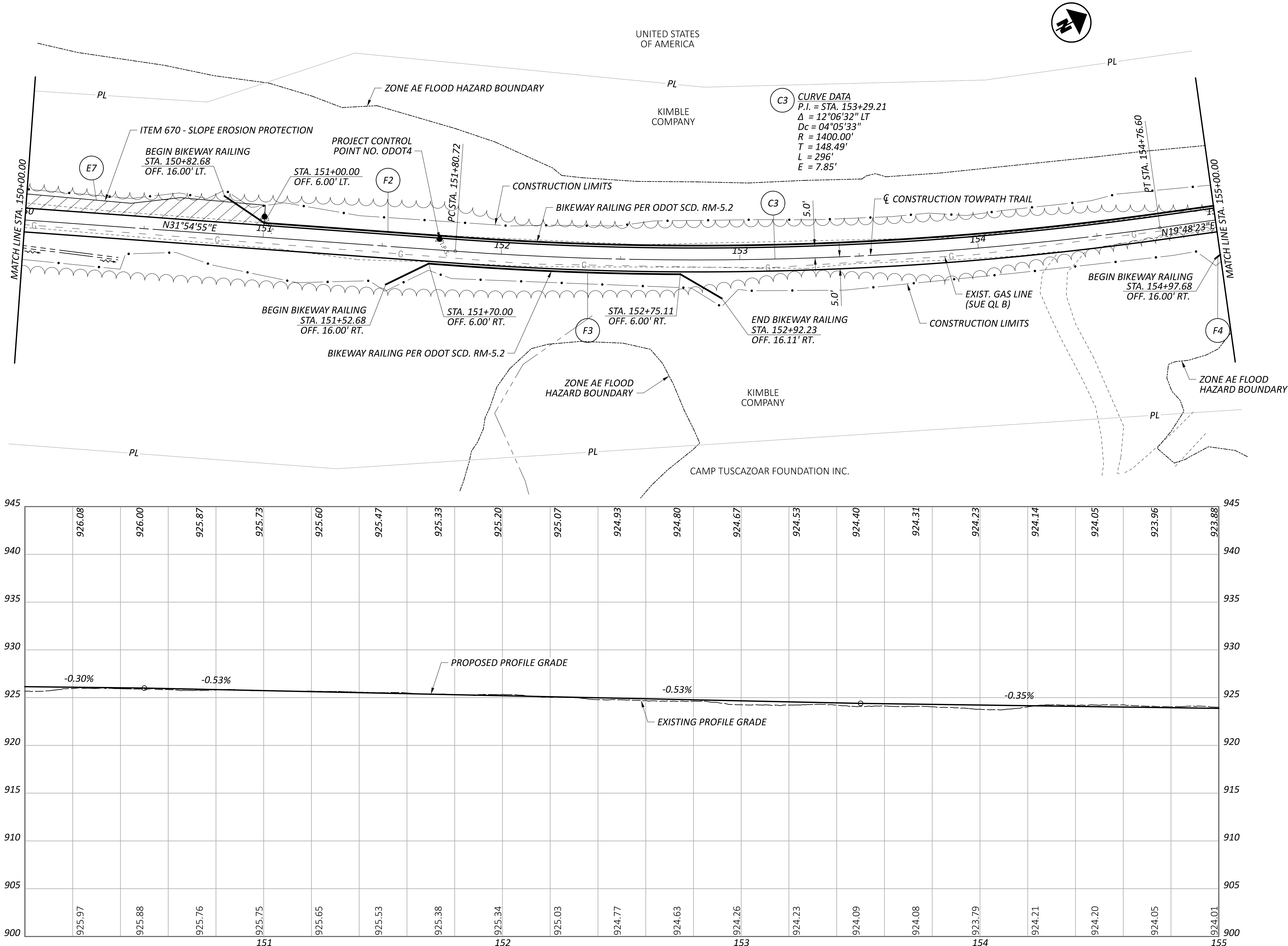
SHEET	TOTAL
14	57

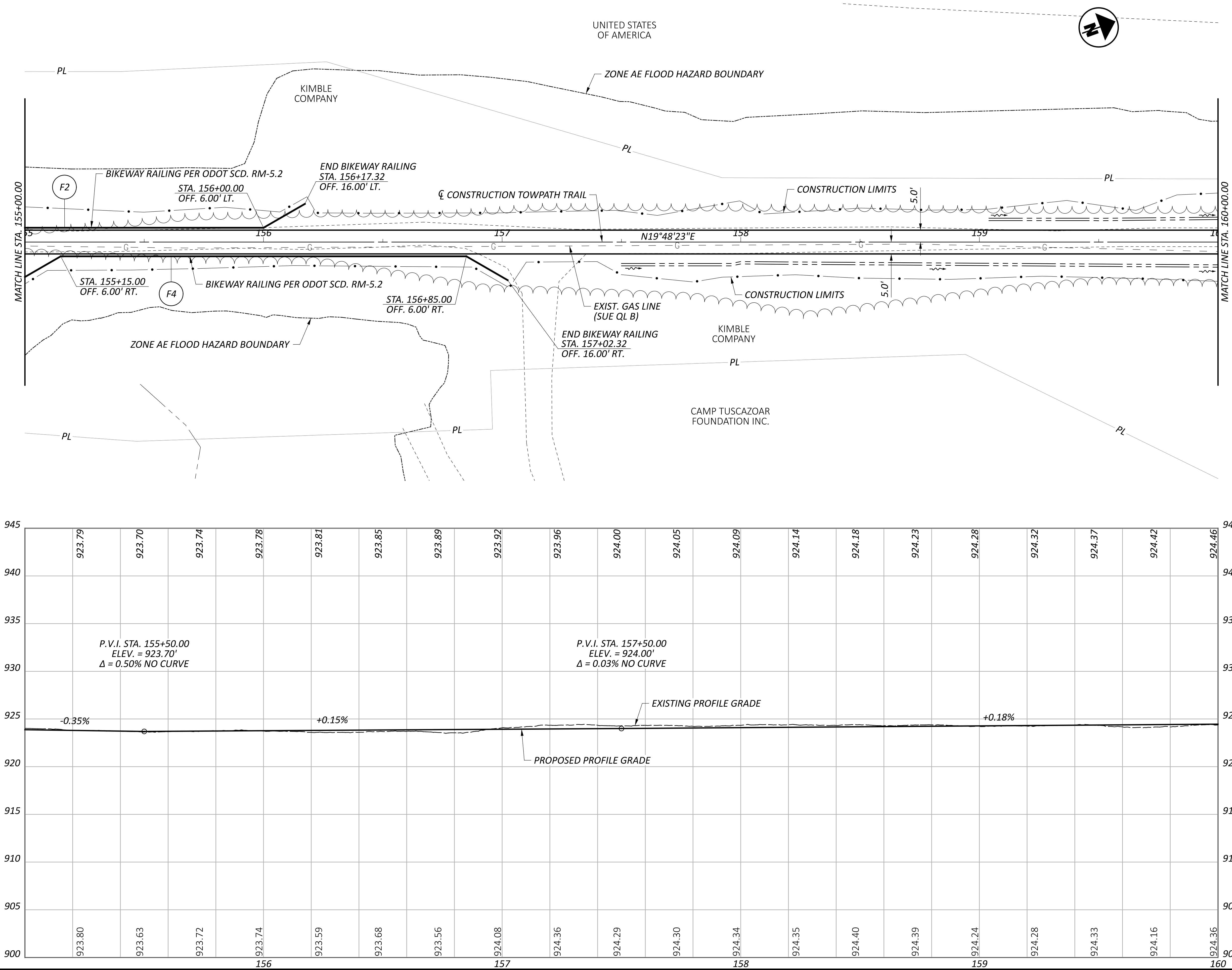


PLAN AND PROFILE
STA. 145+00 TO 150+00



DESIGNER	KMC
REVIEWER	SSR 02/08/23
PROJECT ID	111280
SHEET	TOTAL
15	57





PLAN AND PROFILE
STA. 155+00 TO 160+00



DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

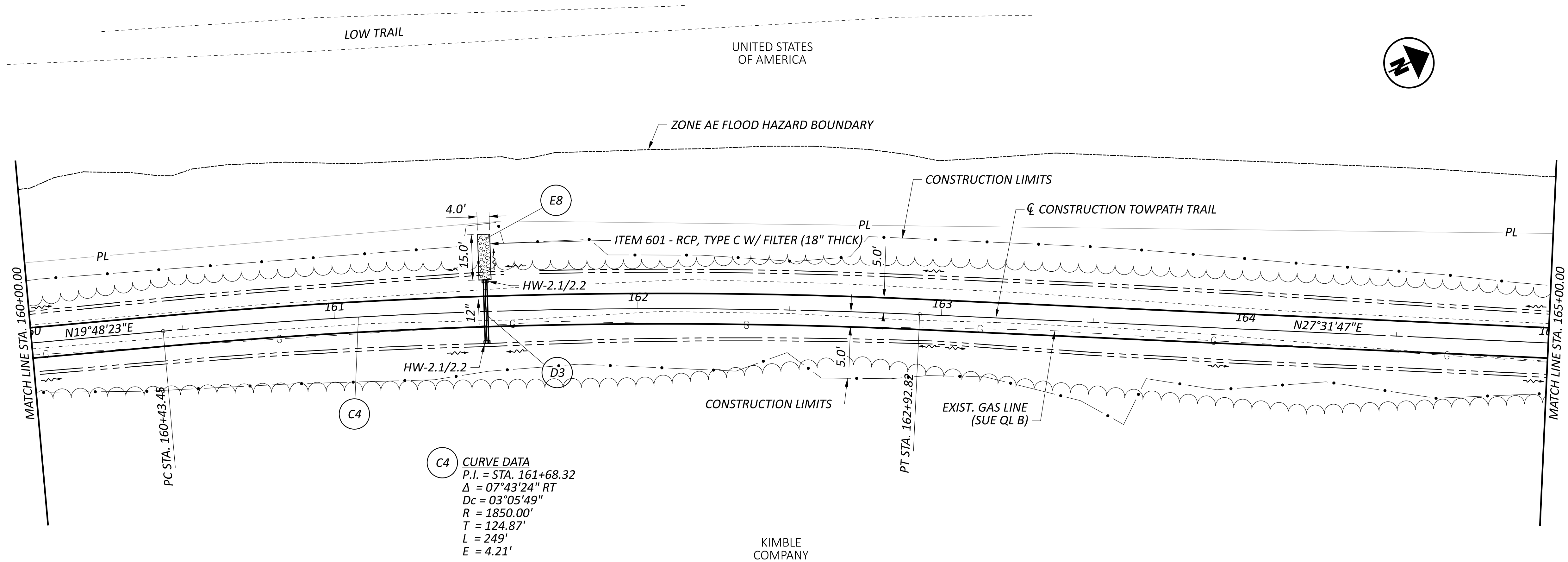
111280

SHEET

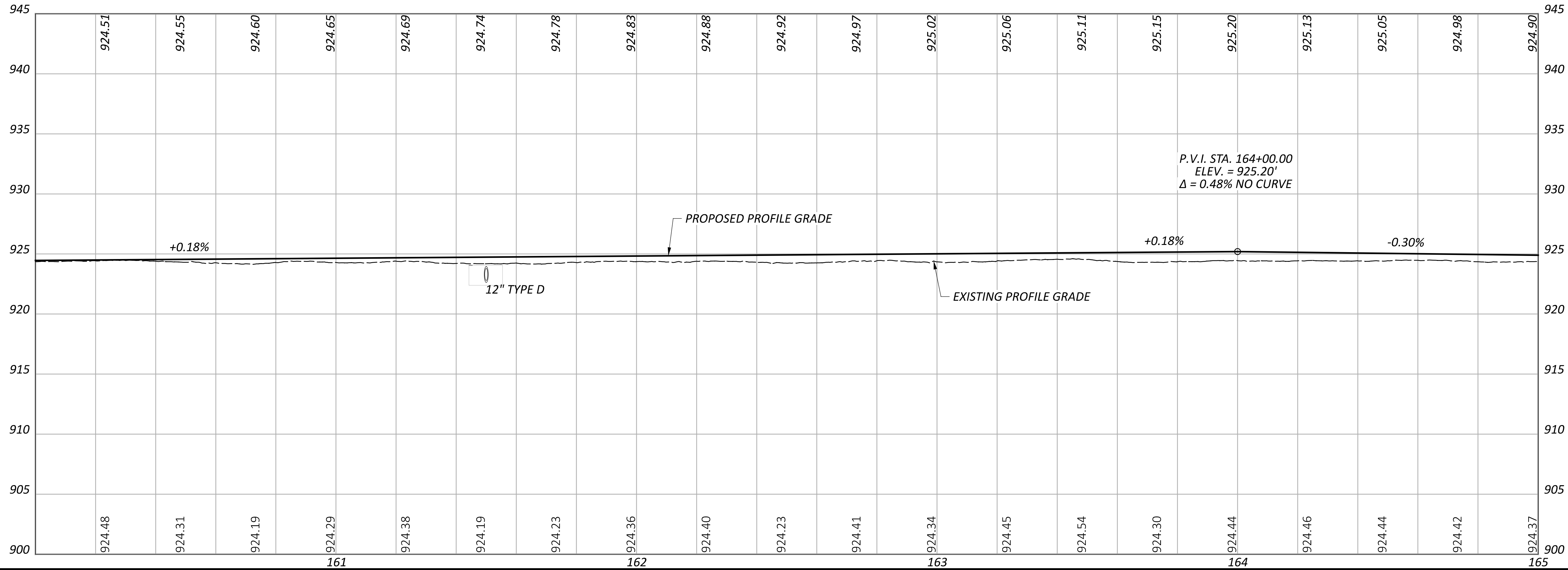
17

TOTAL

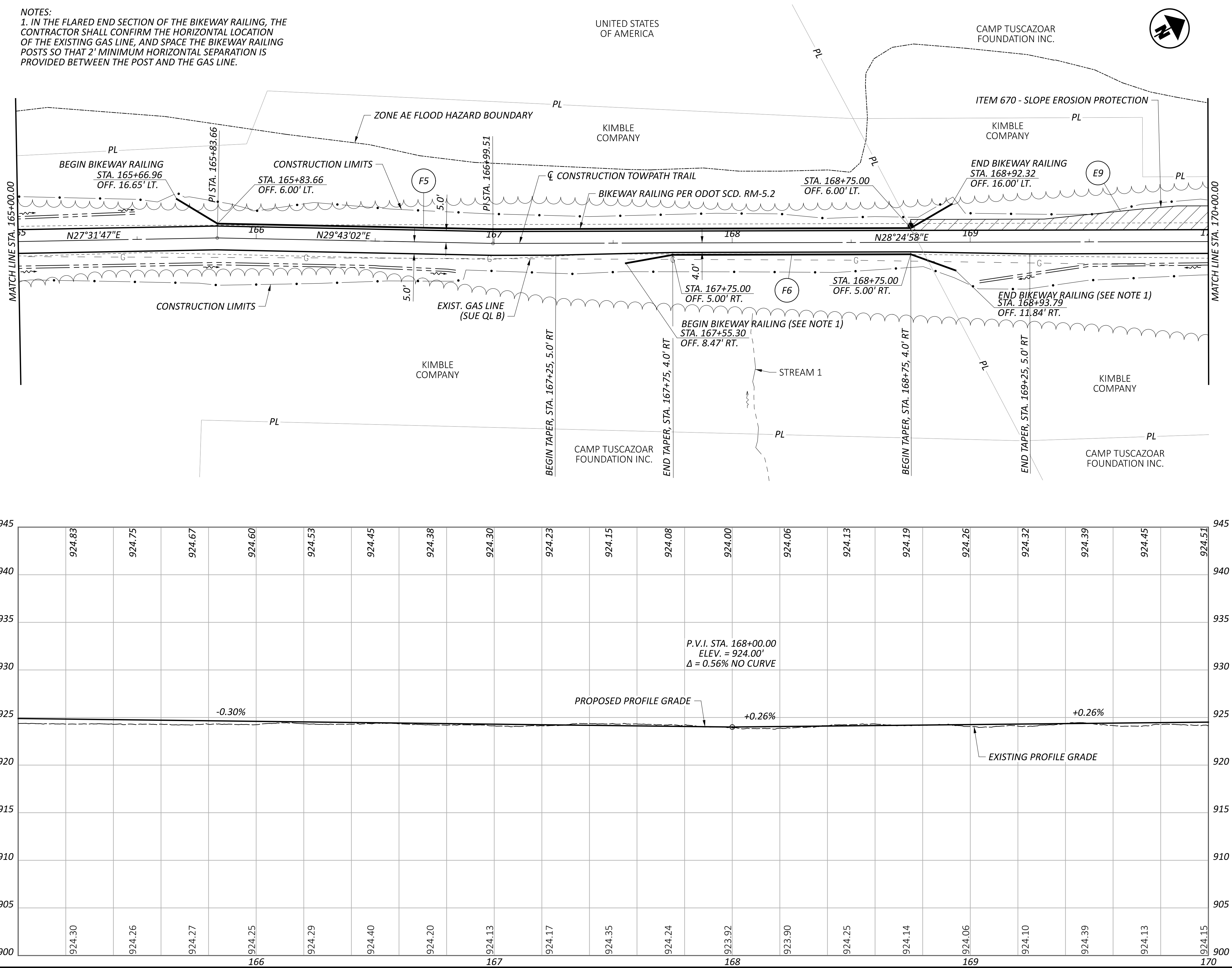
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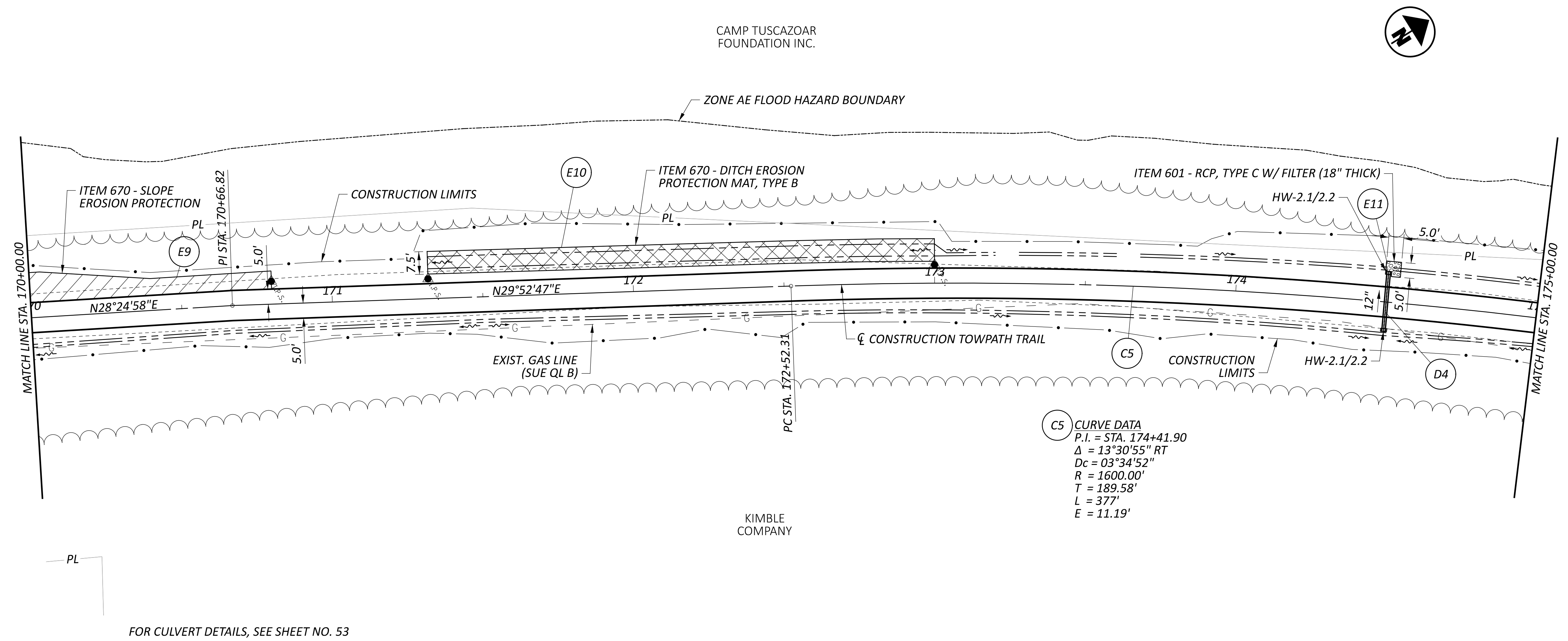


FOR CULVERT DETAILS, SEE SHEET NO. 53



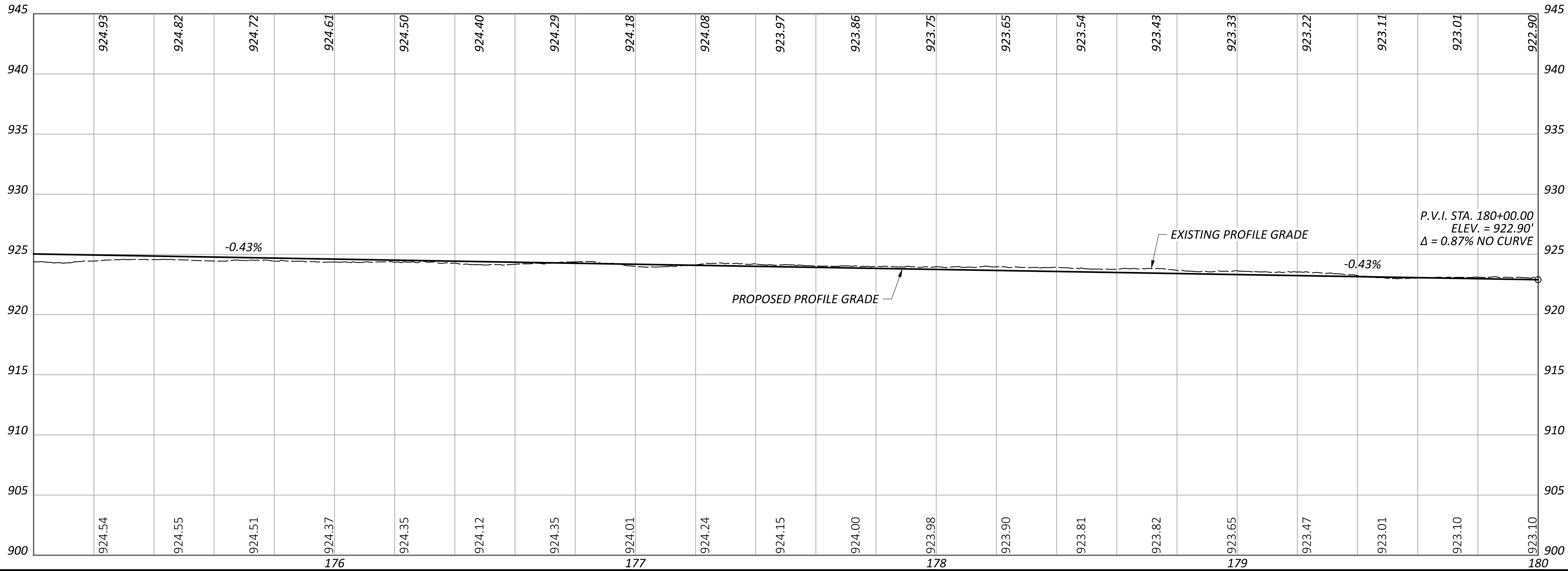
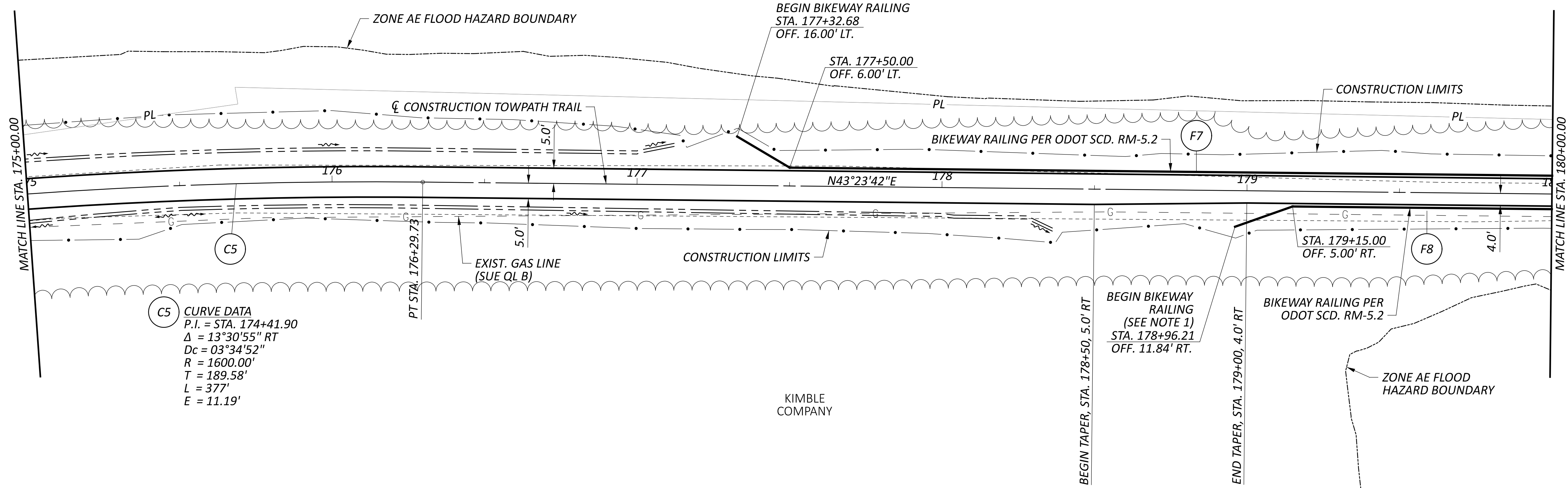
NOTES:
1. IN THE FLARED END SECTION OF THE BIKEWAY RAILING, THE CONTRACTOR SHALL CONFIRM THE HORIZONTAL LOCATION OF THE EXISTING GAS LINE, AND SPACE THE BIKEWAY RAILING POSTS SO THAT 2' MINIMUM HORIZONTAL SEPARATION IS PROVIDED BETWEEN THE POST AND THE GAS LINE.





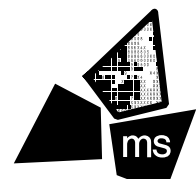
NOTES:
1. IN THE FLARED END SECTION OF THE BIKEWAY RAILING, THE CONTRACTOR SHALL CONFIRM THE HORIZONTAL LOCATION OF THE EXISTING GAS LINE, AND SPACE THE BIKEWAY RAILING POSTS SO THAT 2' MINIMUM HORIZONTAL SEPARATION IS PROVIDED BETWEEN THE POST AND THE GAS LINE.

CAMP TUSCAZOAR
FOUNDATION INC.



PLAN AND PROFILE
STA. 175+00 TO 180+00

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

111280

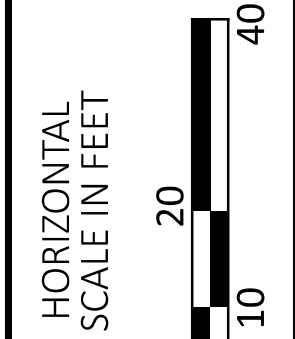
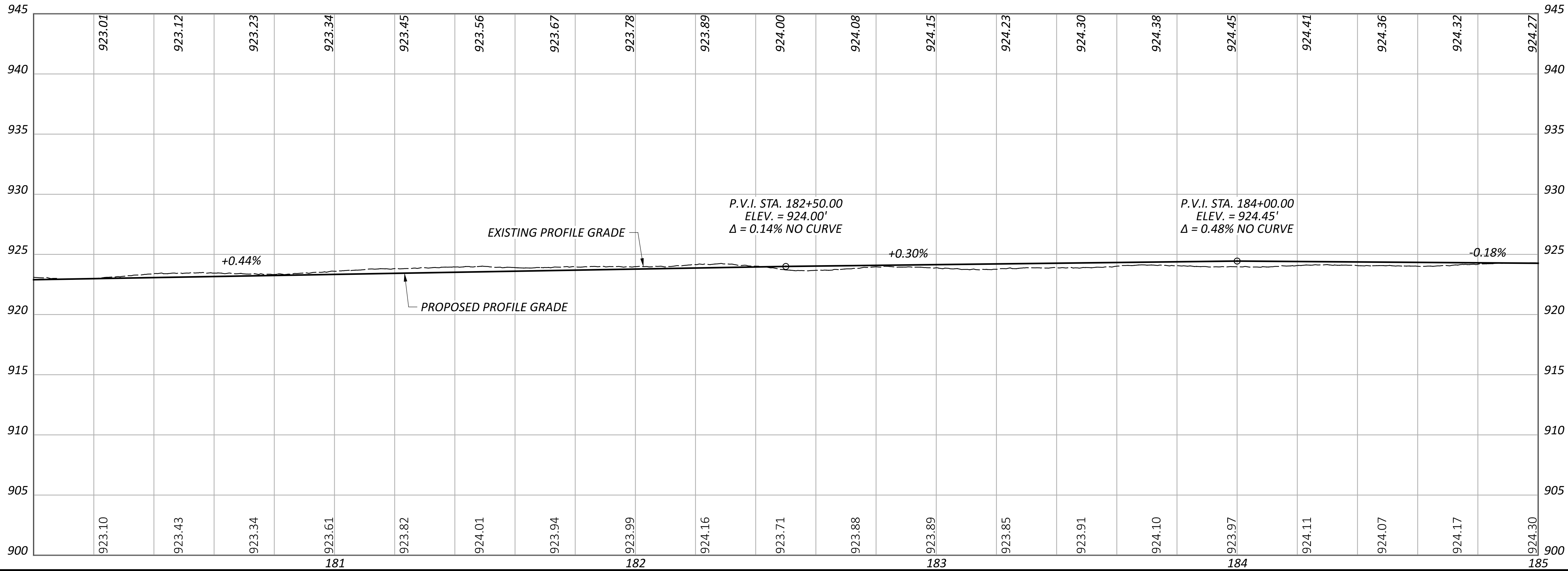
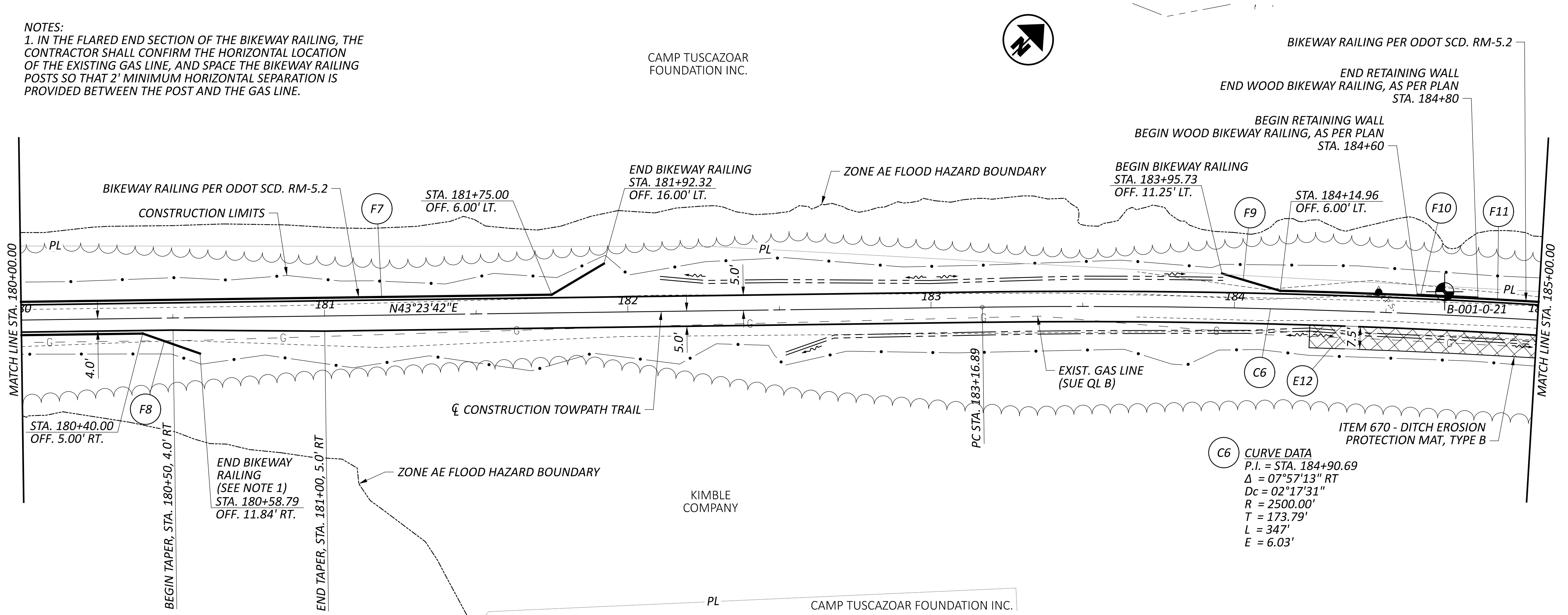
SHEET

21

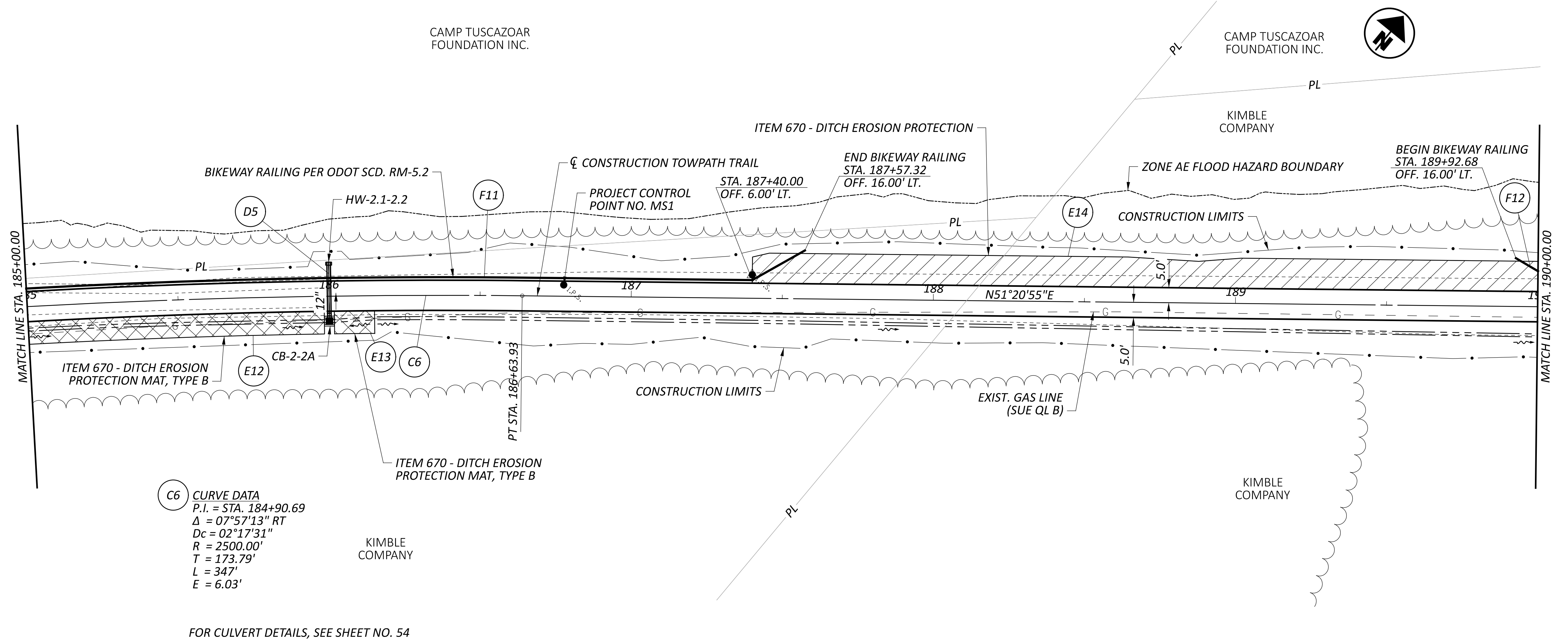
TOTAL

57

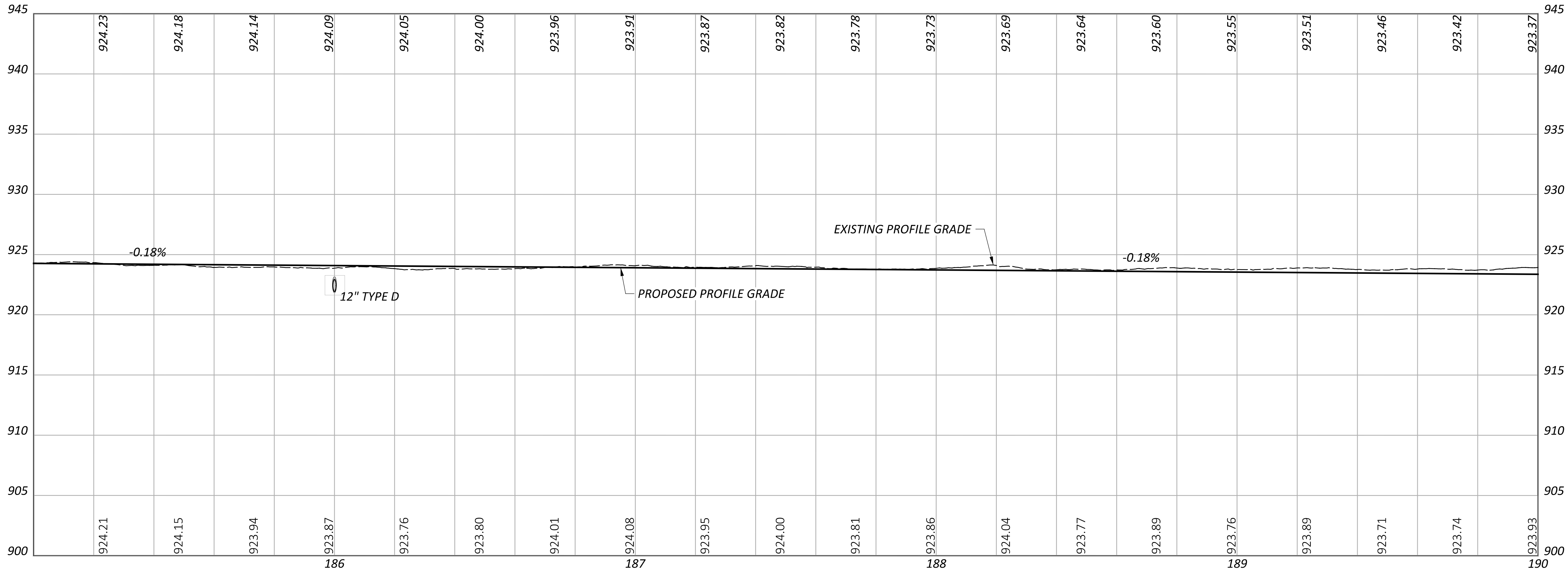
NOTES:
1. IN THE FLARED END SECTION OF THE BIKEWAY RAILING, THE CONTRACTOR SHALL CONFIRM THE HORIZONTAL LOCATION OF THE EXISTING GAS LINE, AND SPACE THE BIKEWAY RAILING POSTS SO THAT 2' MINIMUM HORIZONTAL SEPARATION IS PROVIDED BETWEEN THE POST AND THE GAS LINE.



PLAN AND PROFILE
STA. 180+00 TO 185+00



FOR CULVERT DETAILS, SEE SHEET NO. 54



PLAN AND PROFILE
STA. 185+00 TO 190+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

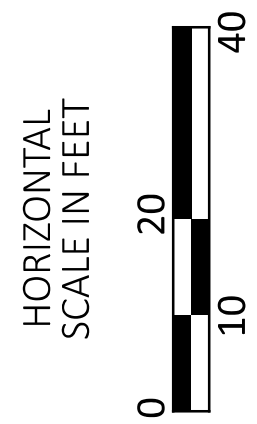
111280

SHEET

23

TOTAL

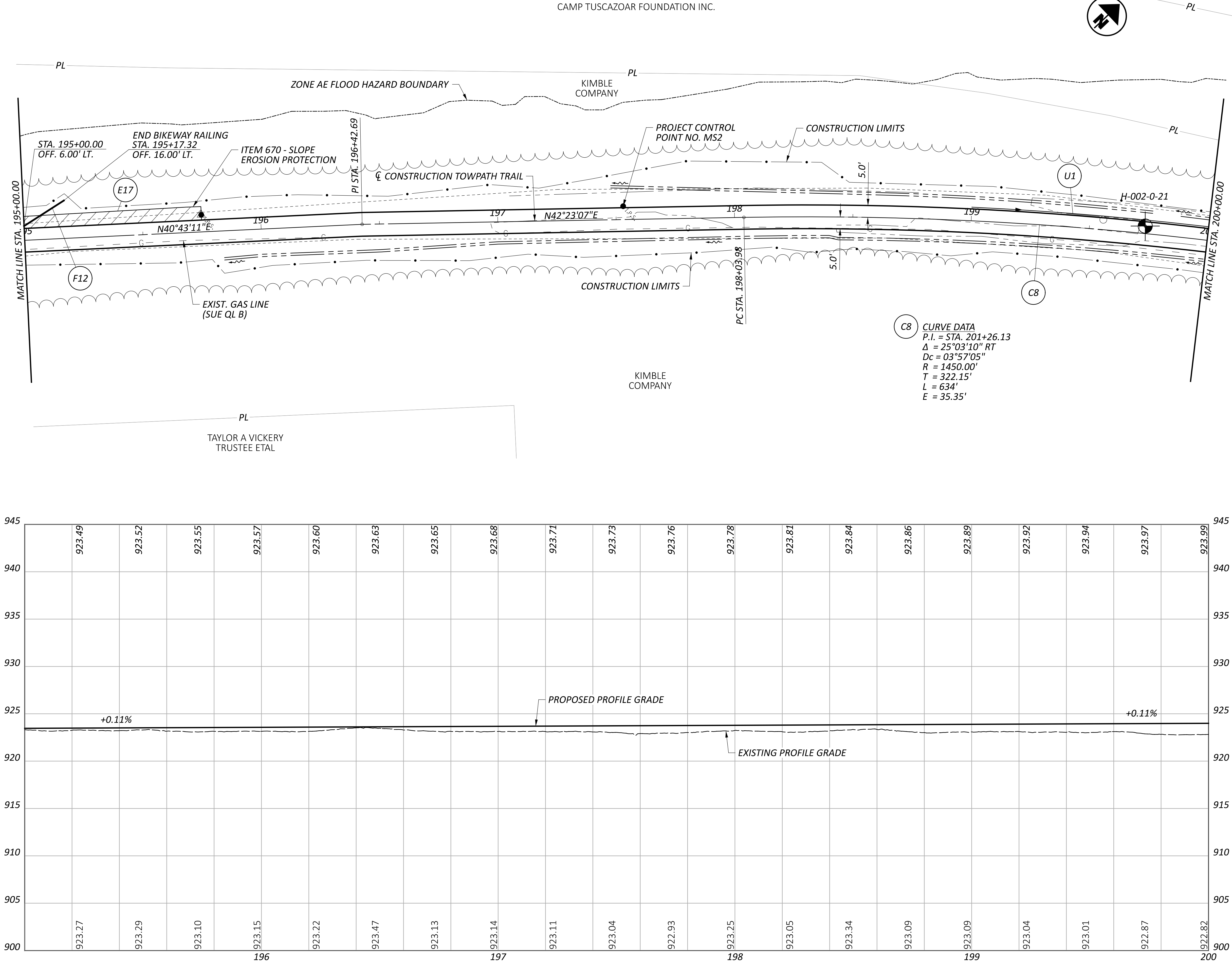
57



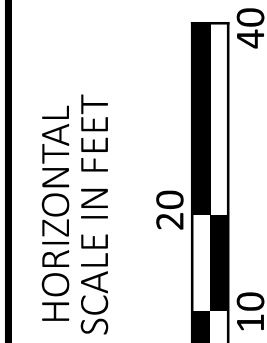
DESIGN AGENCY

ms consultants, inc.

DESIGNER
KMC
REVIEWER
SSR 02/08/23
PROJECT ID
111280
SHEET
24
TOTAL
57



PLAN AND PROFILE
STA. 195+00 TO 200+00



DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

111280

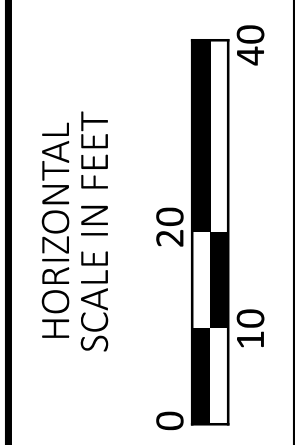
SHEET

25

TOTAL

57

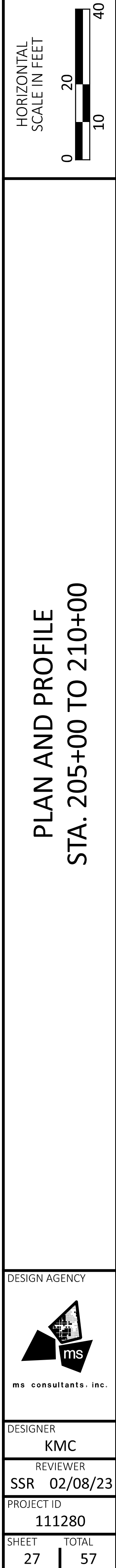
MODEL: CLP_TRAIL - Trail Plan View-16 PAPER SIZE: 34x22 (in.) DATE: 9/27/2023 TIME: 1:59:43 PM USER: KCoville
\\msconsultants.com\files\Production\02\6016875 - TUSC Co Towpath Trail Ext\111280\400-Engineering\Roadway\Sheets\111280 GP017.dgn

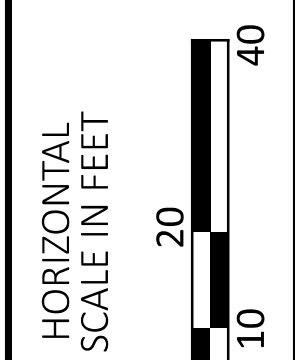
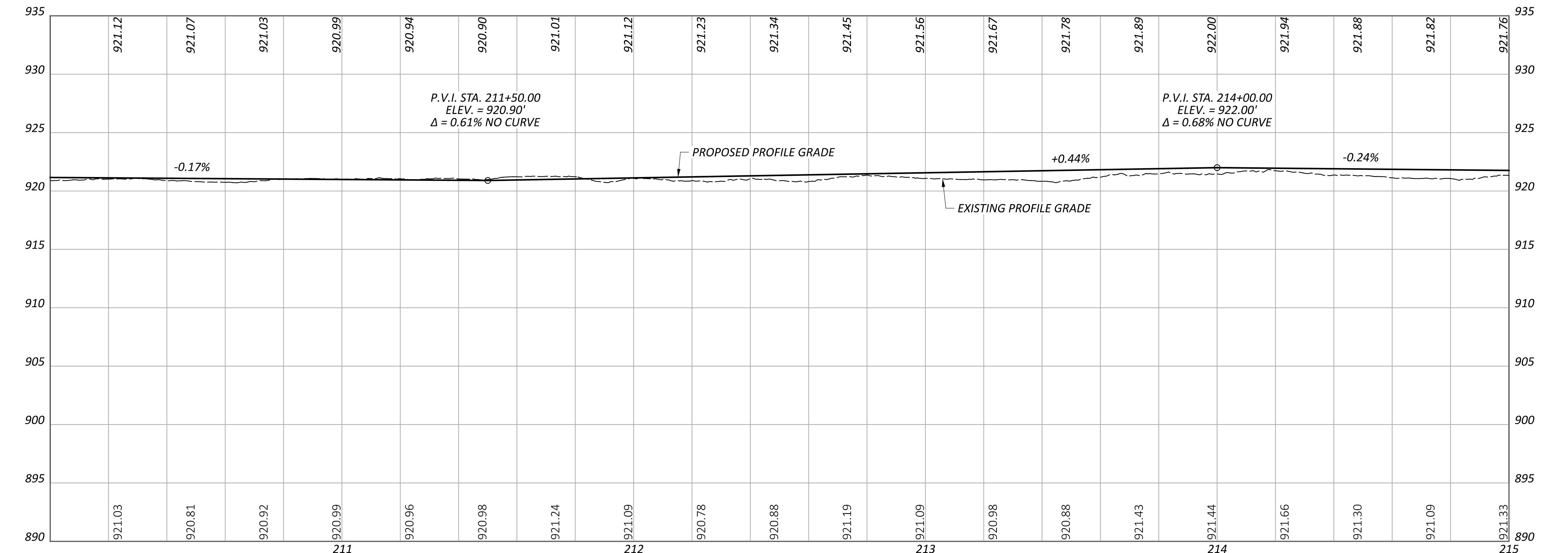
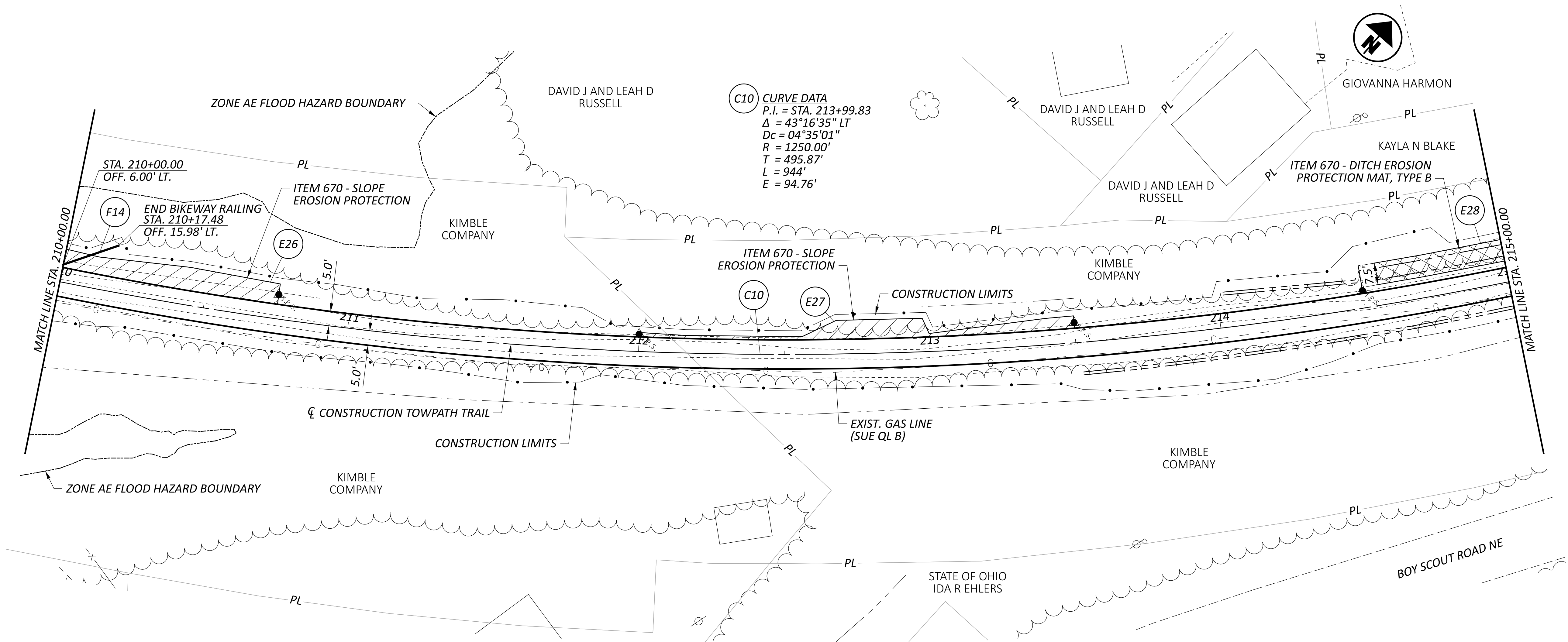


DESIGN AGENCY

ms consultants, inc.

DESIGNER	
KMC	
REVIEWER	
SSR 02/08/23	
PROJECT ID	
111280	
SHEET	TOTAL
26	57

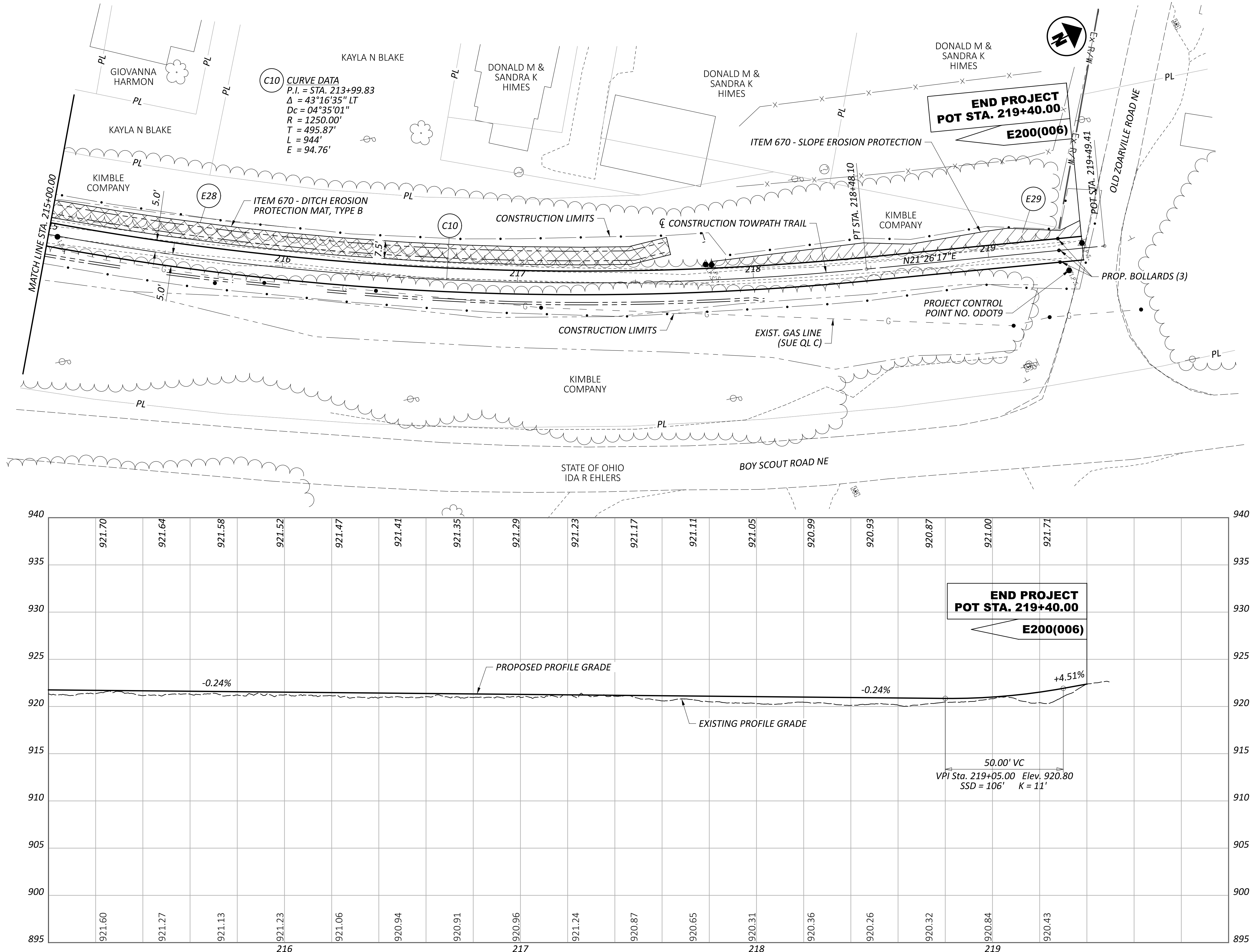


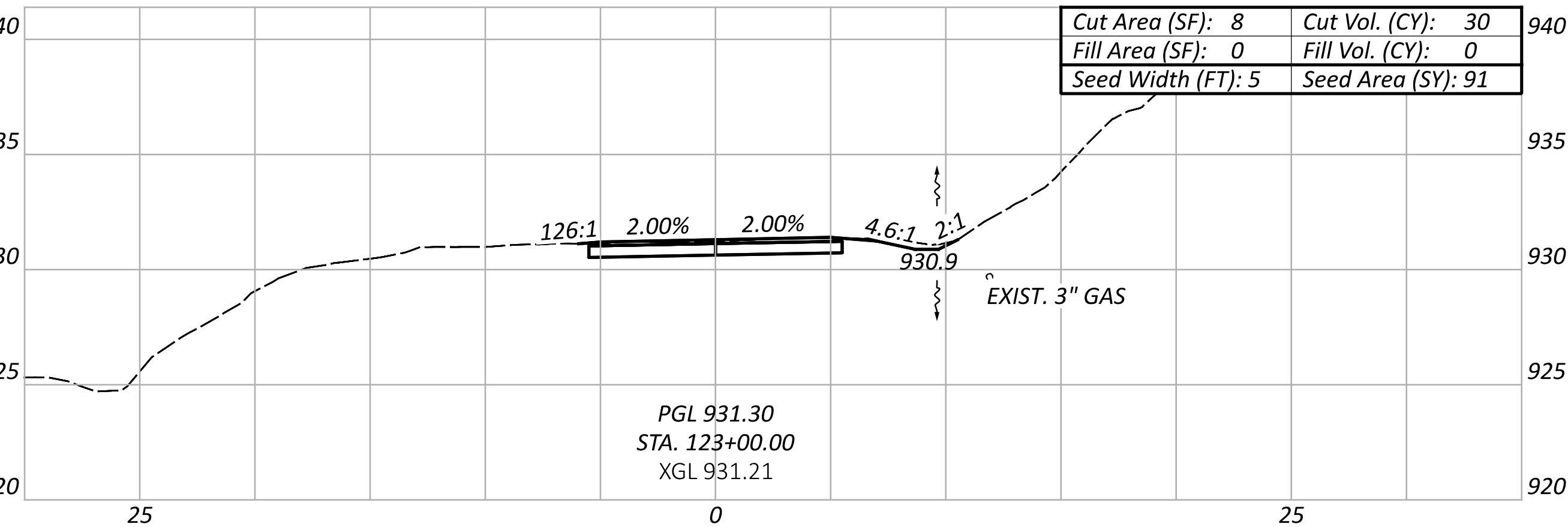
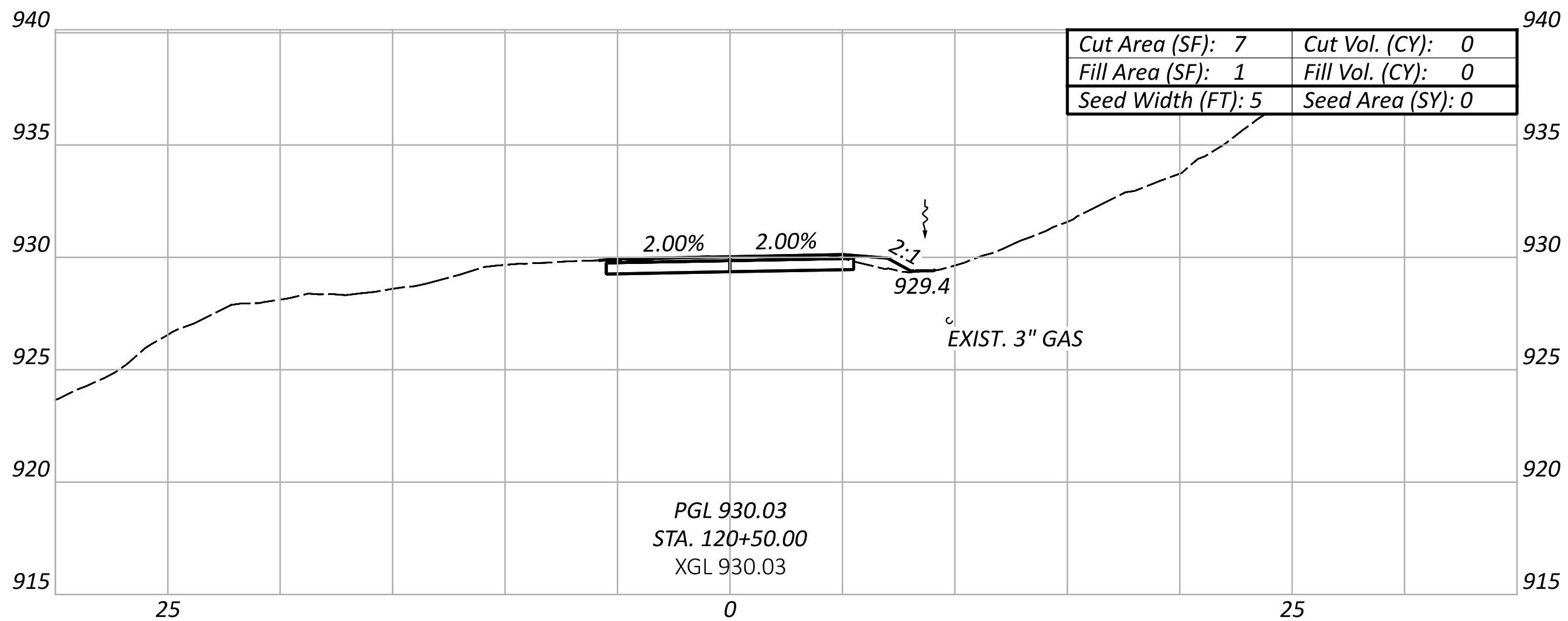
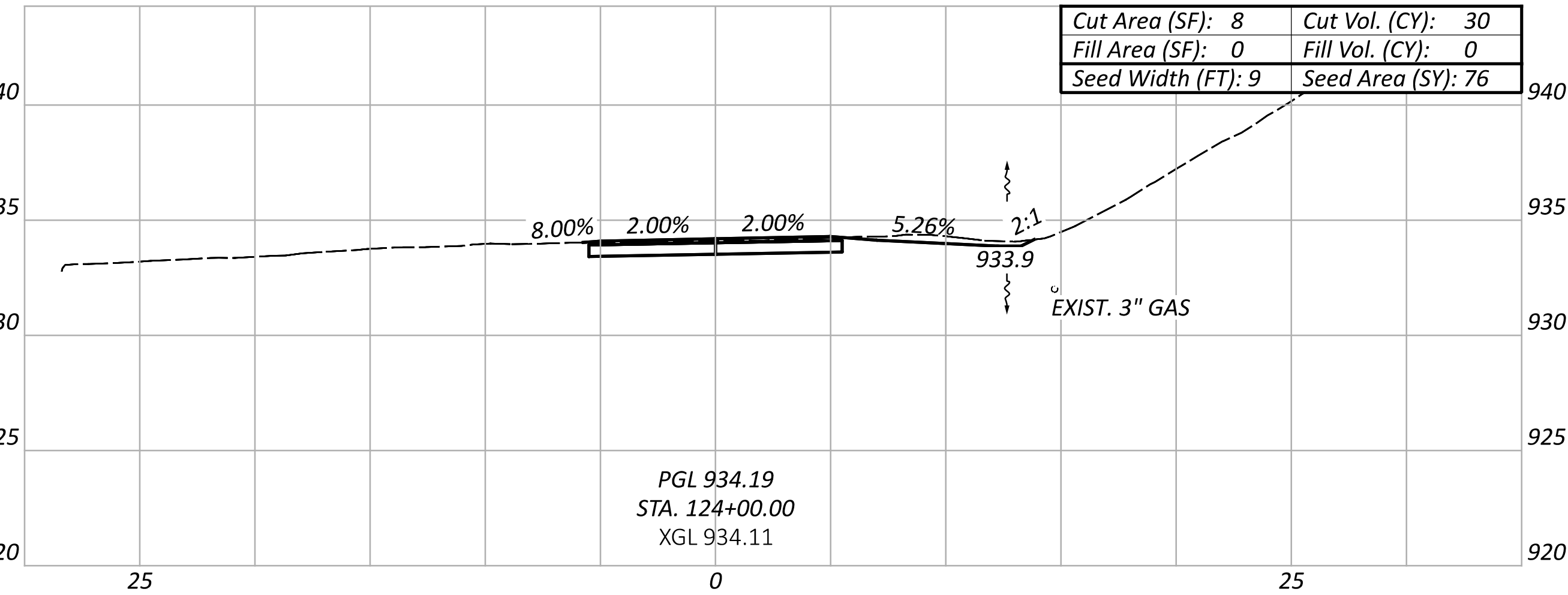
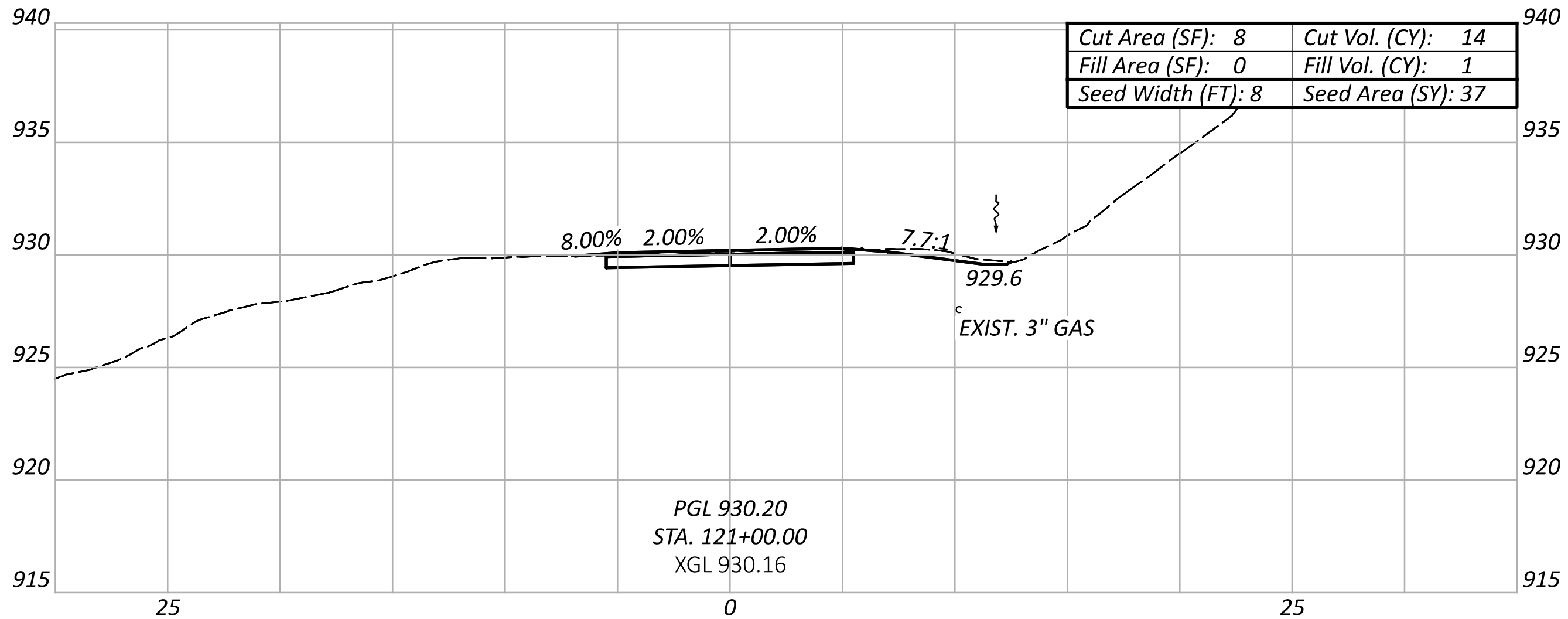
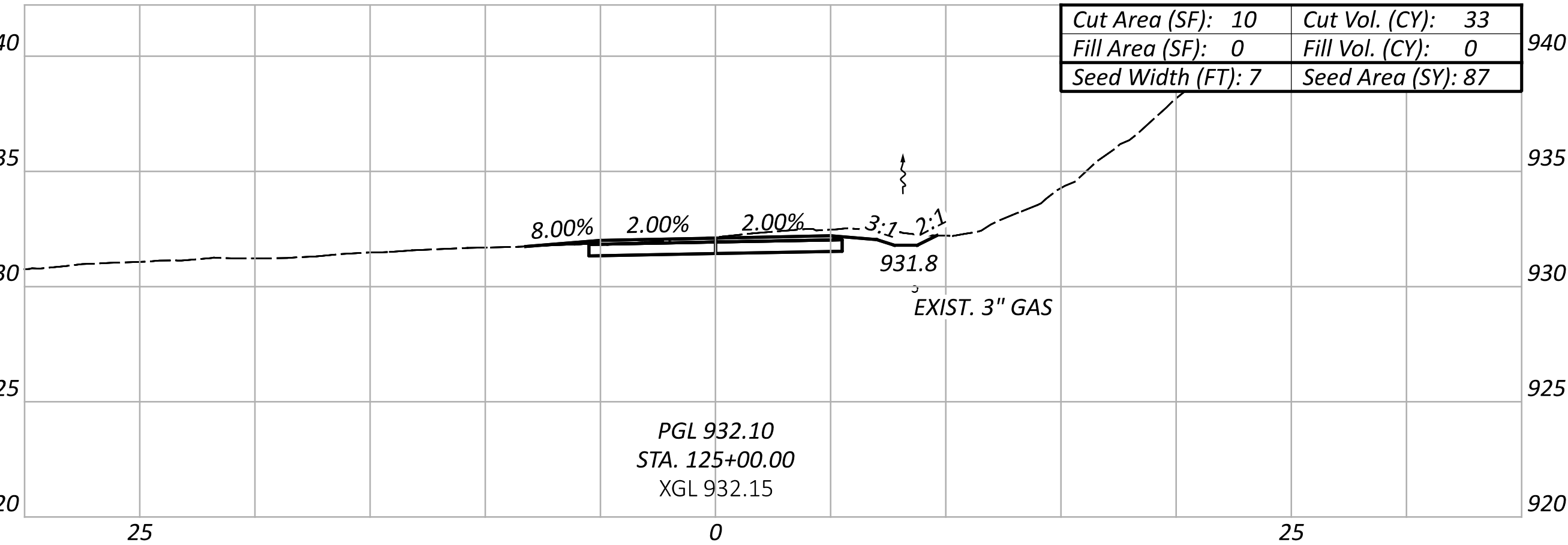
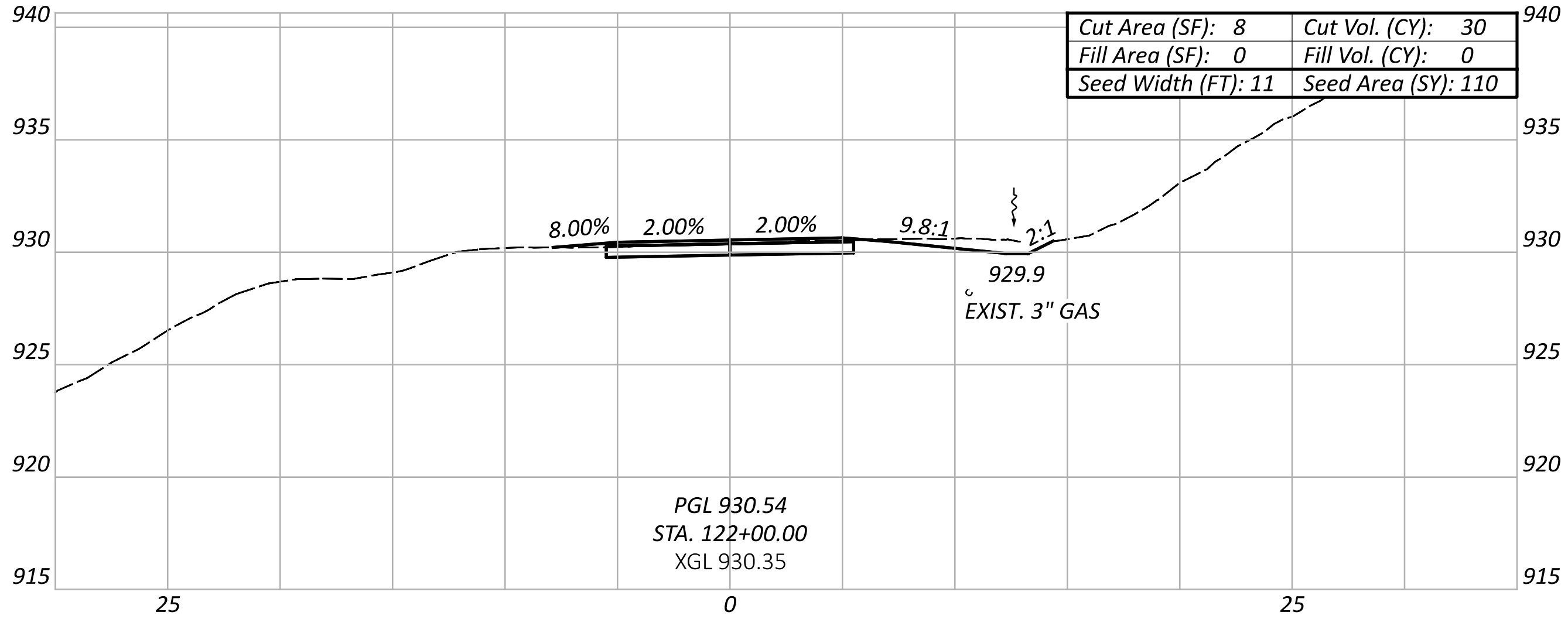


PLAN AND PROFILE
STA. 210+00 TO 215+00



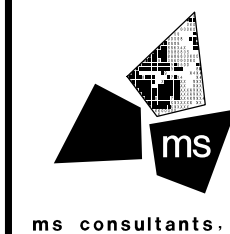
DESIGNER	KMC
REVIEWER	SSR 02/08/23
PROJECT ID	111280
SHEET	28
TOTAL	57





CROSS SECTIONS
STA. 120+50 TO STA. 125+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

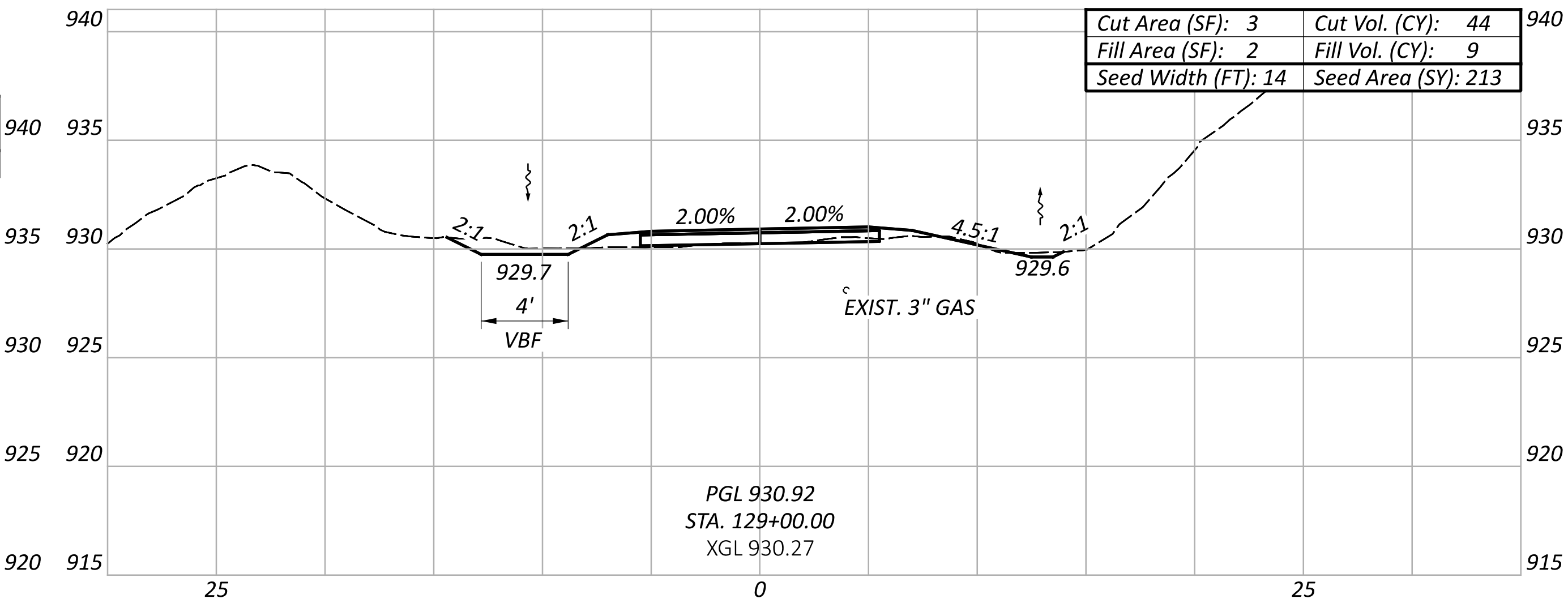
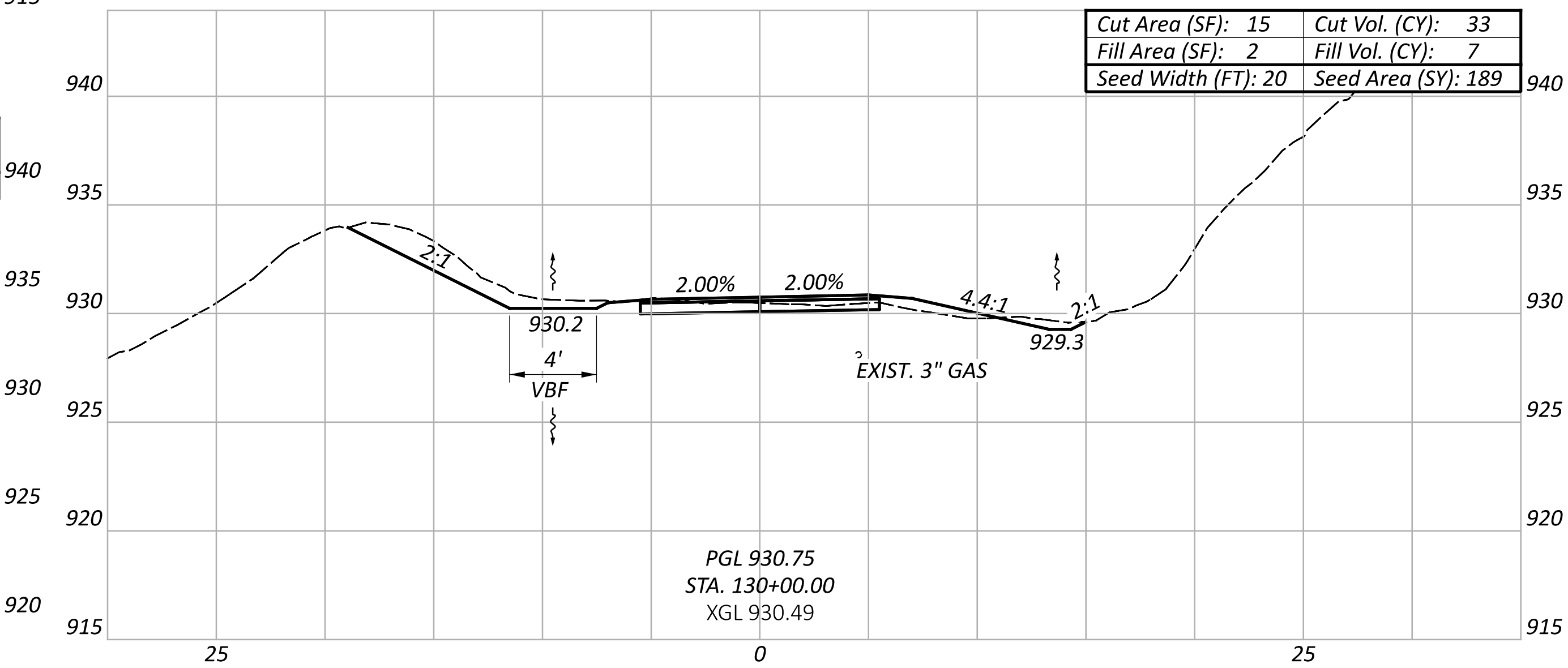
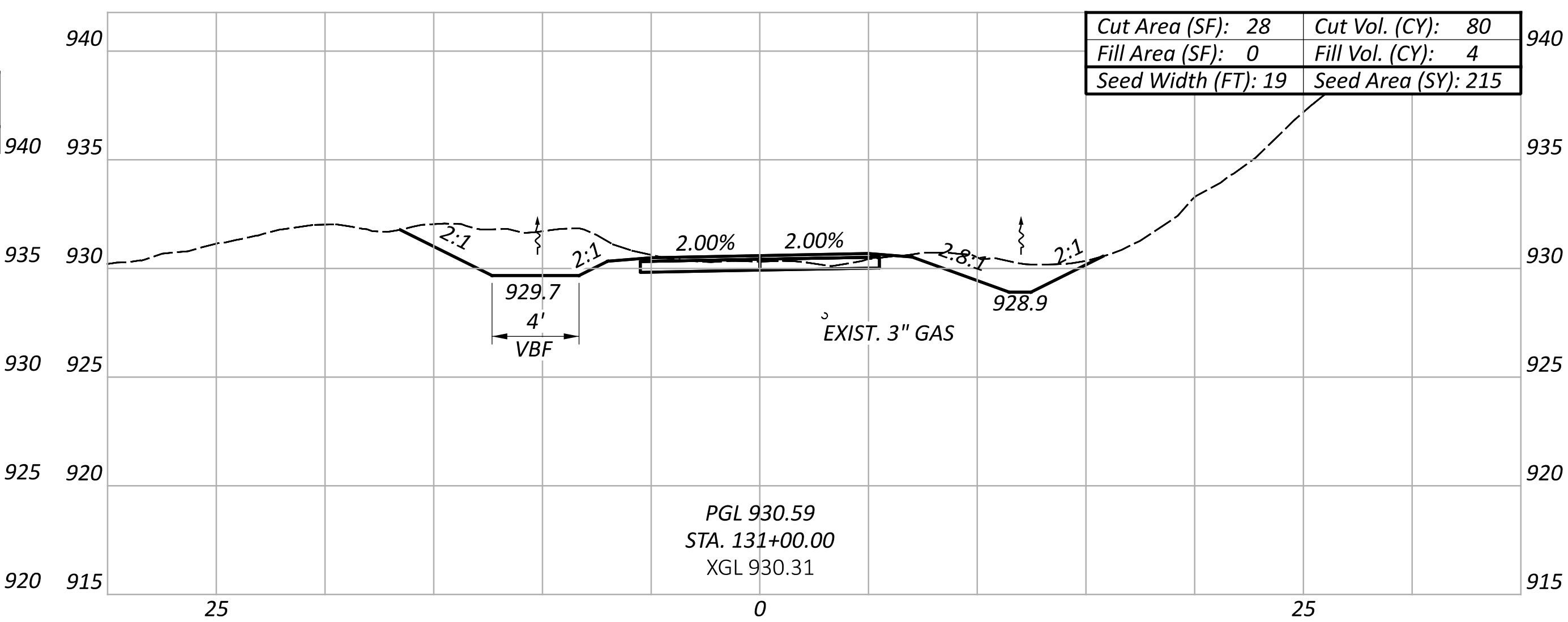
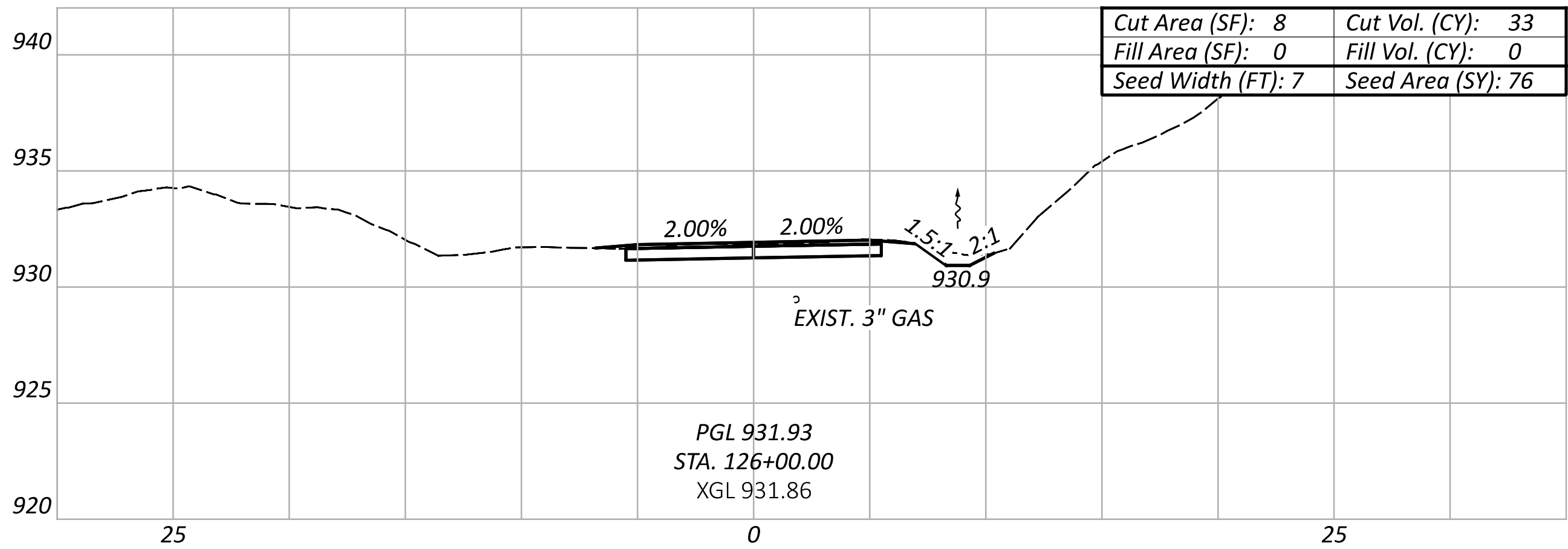
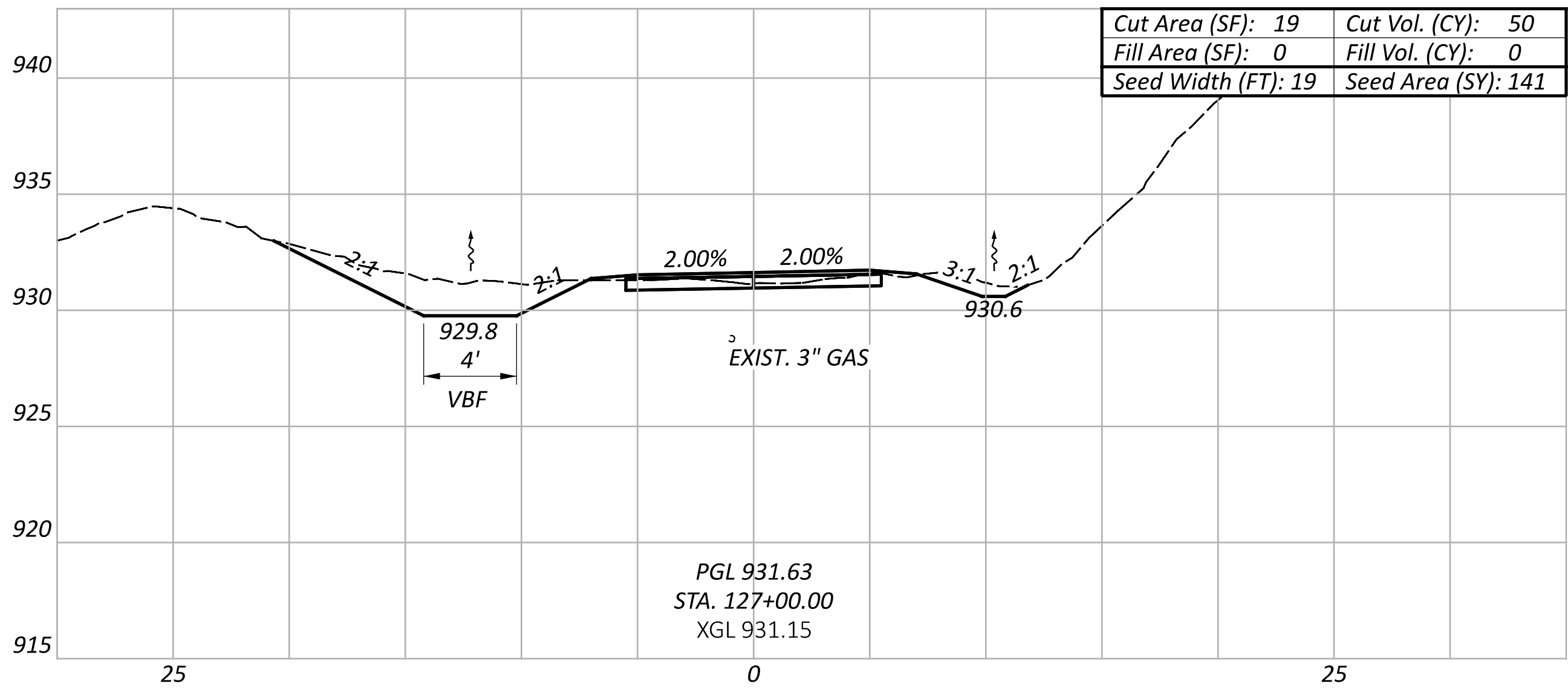
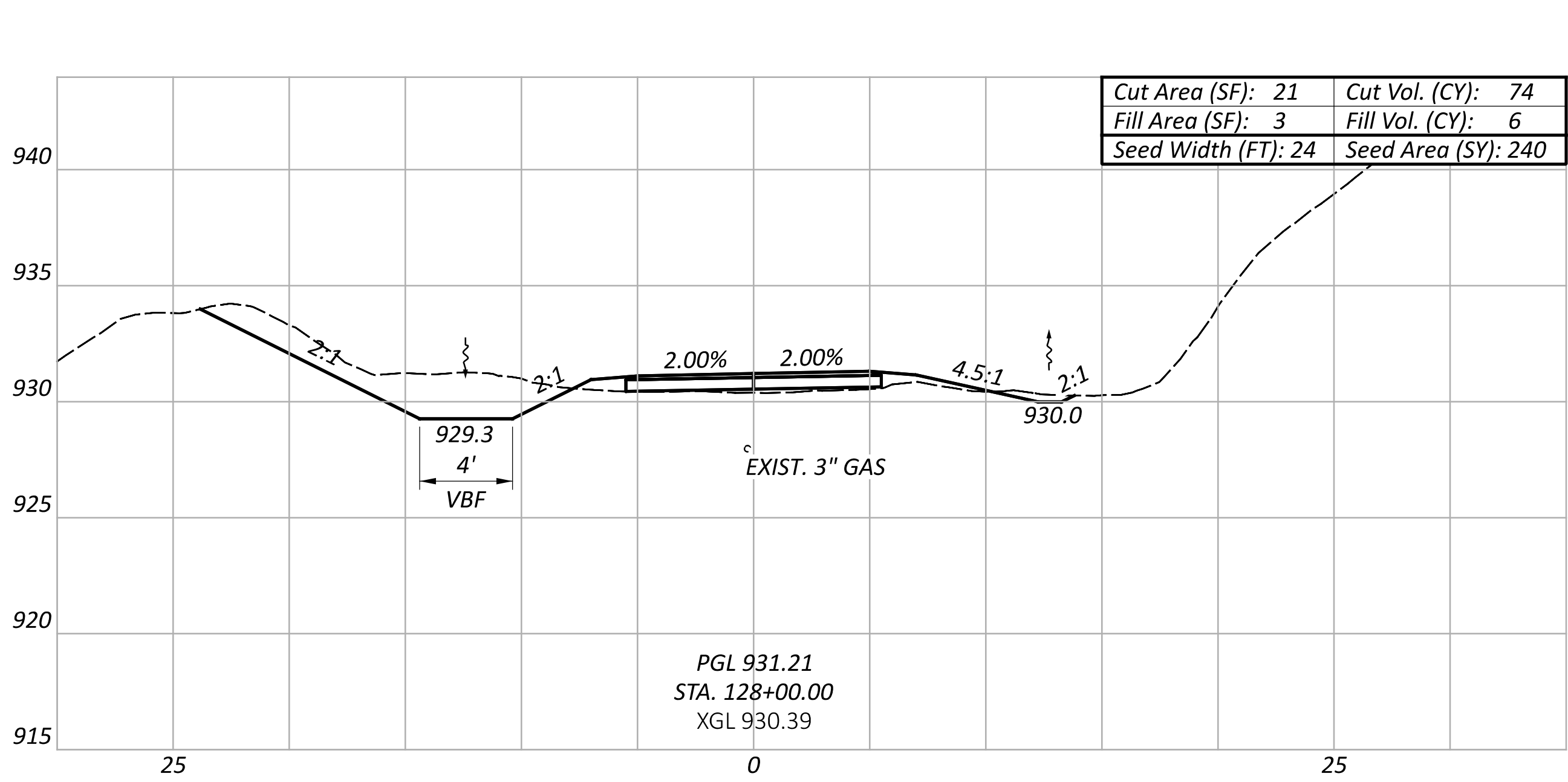
111280

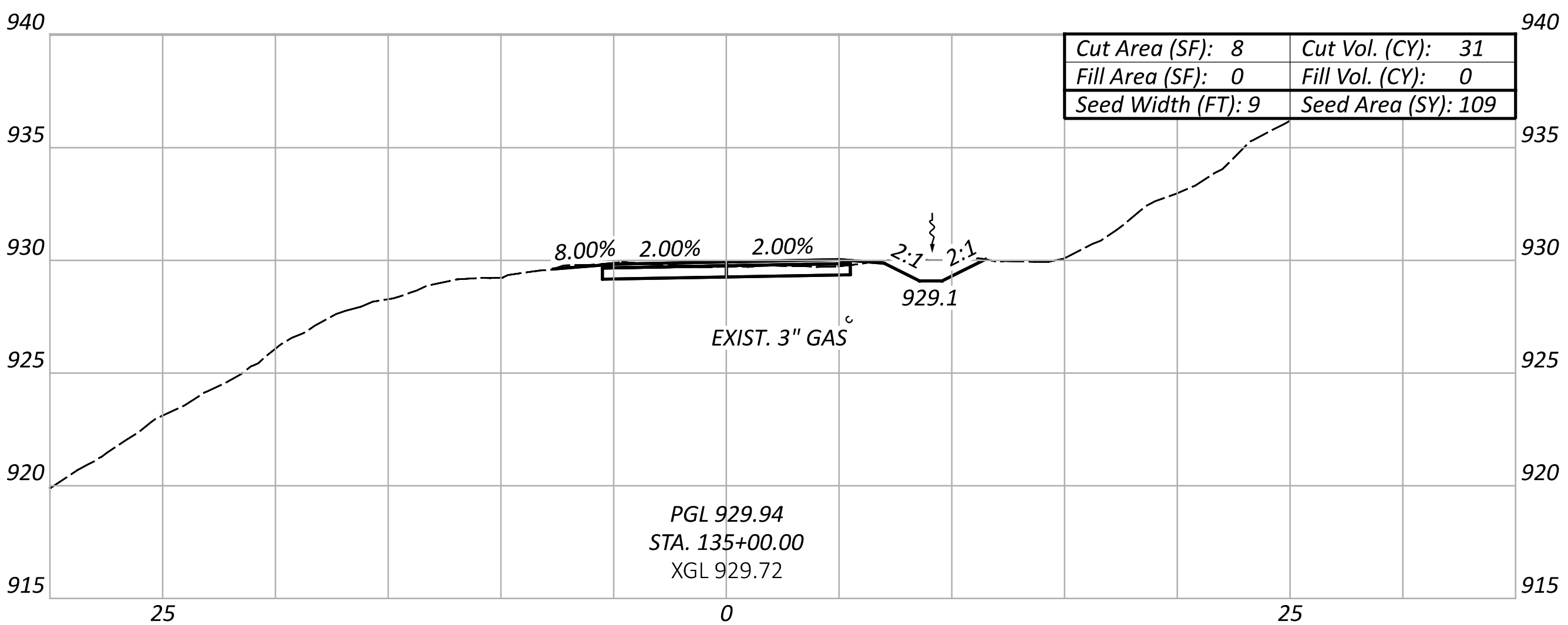
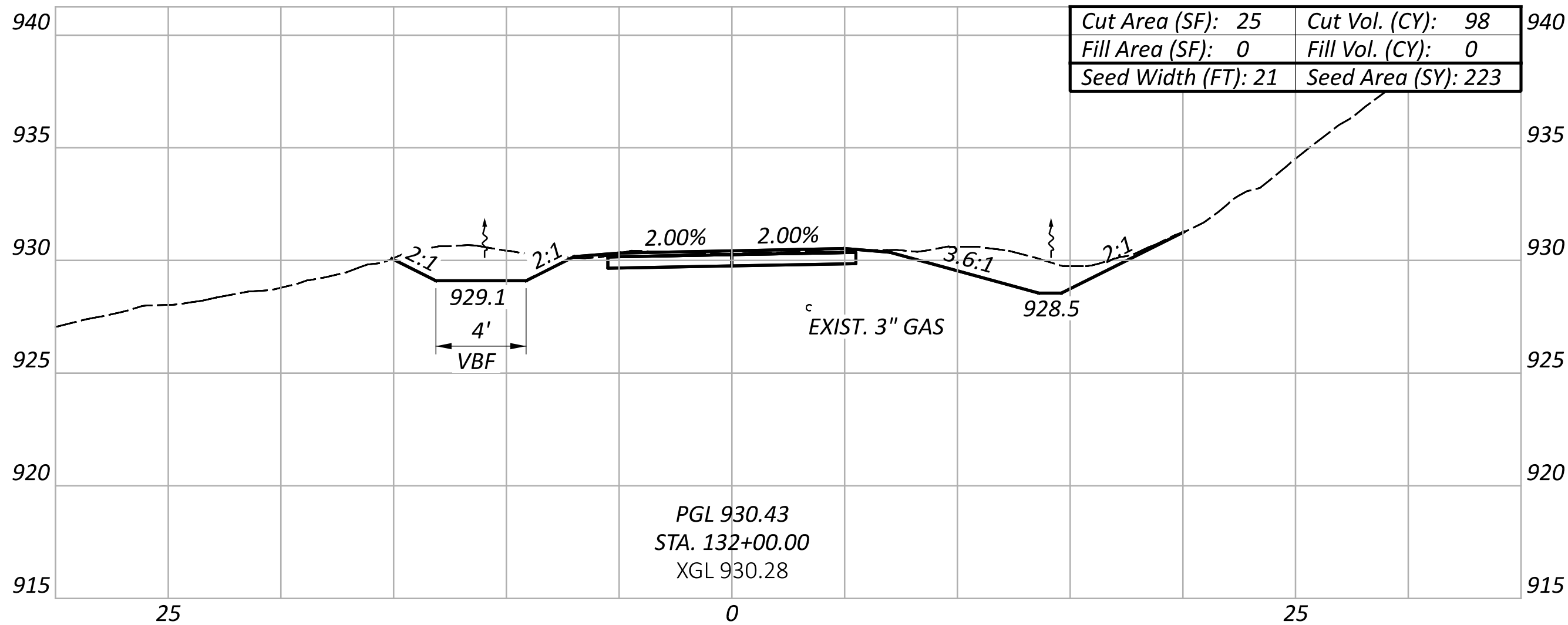
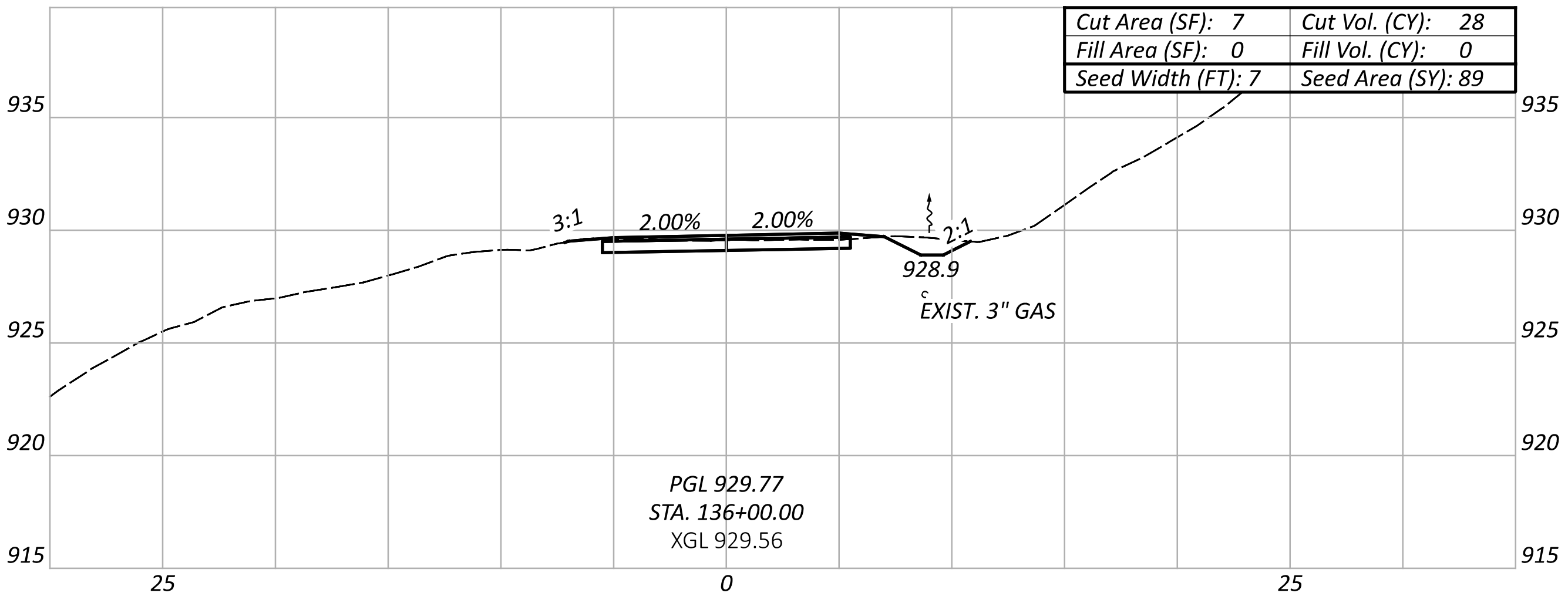
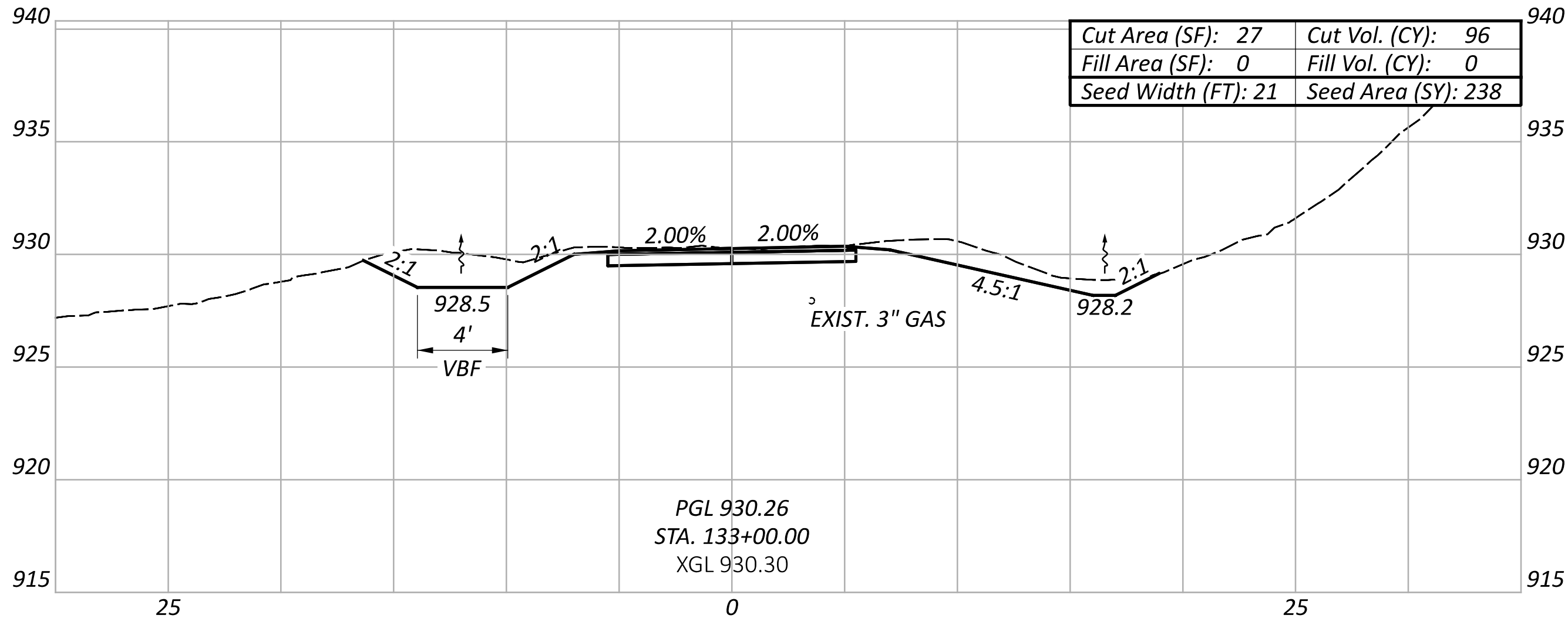
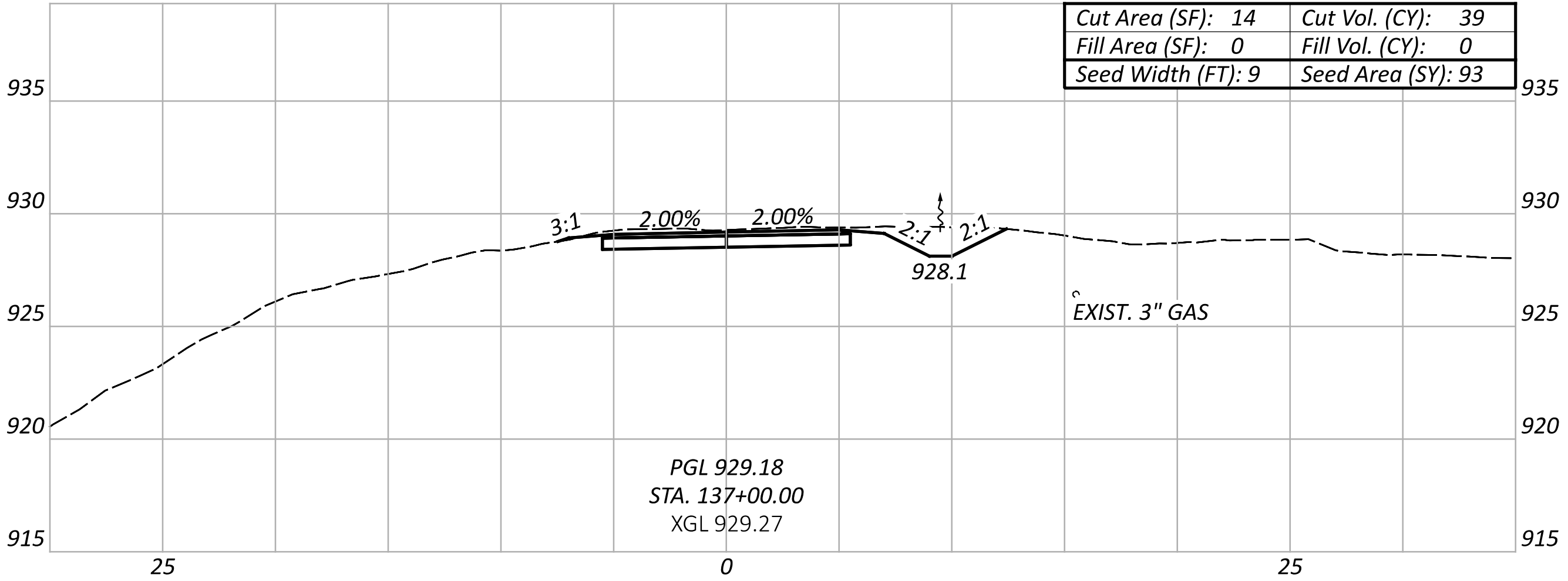
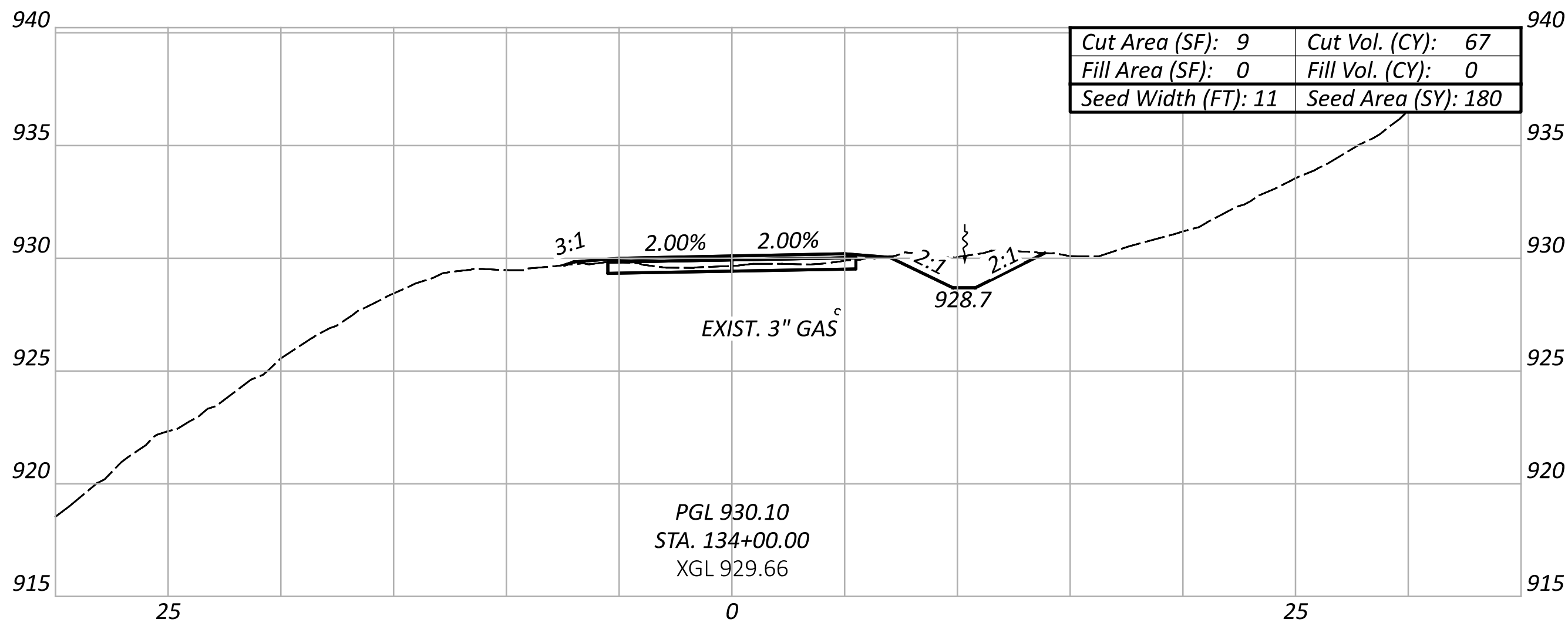
SHEET

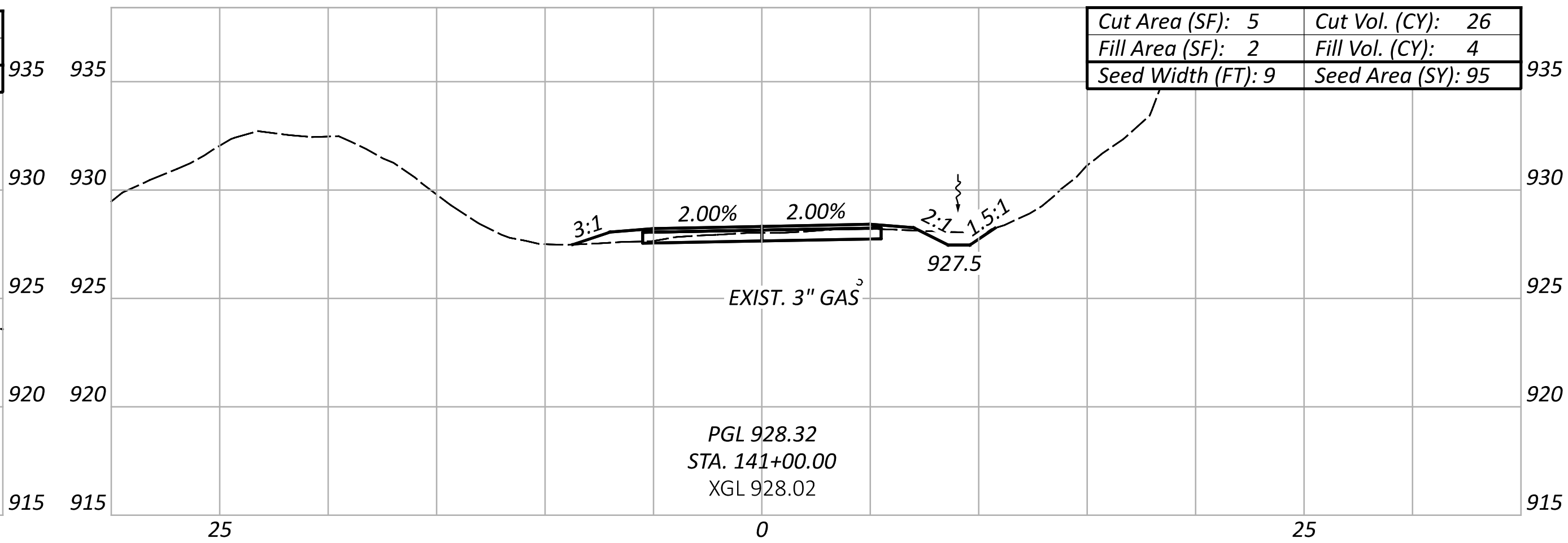
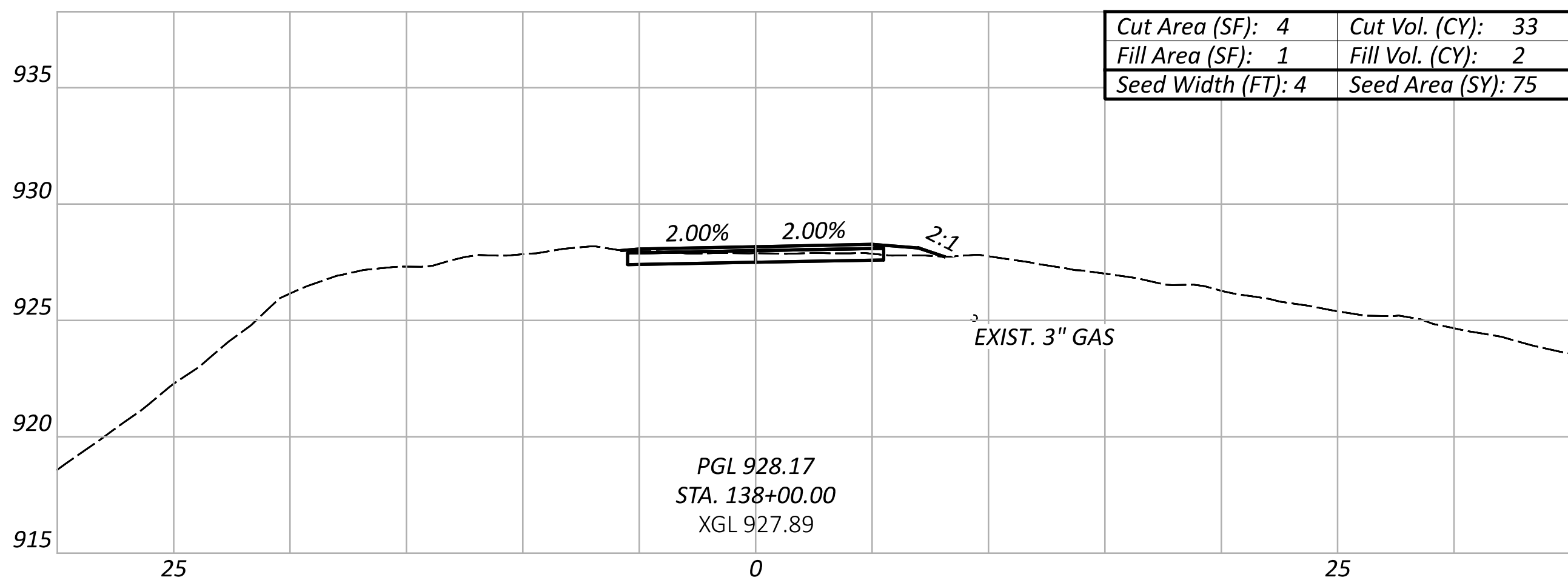
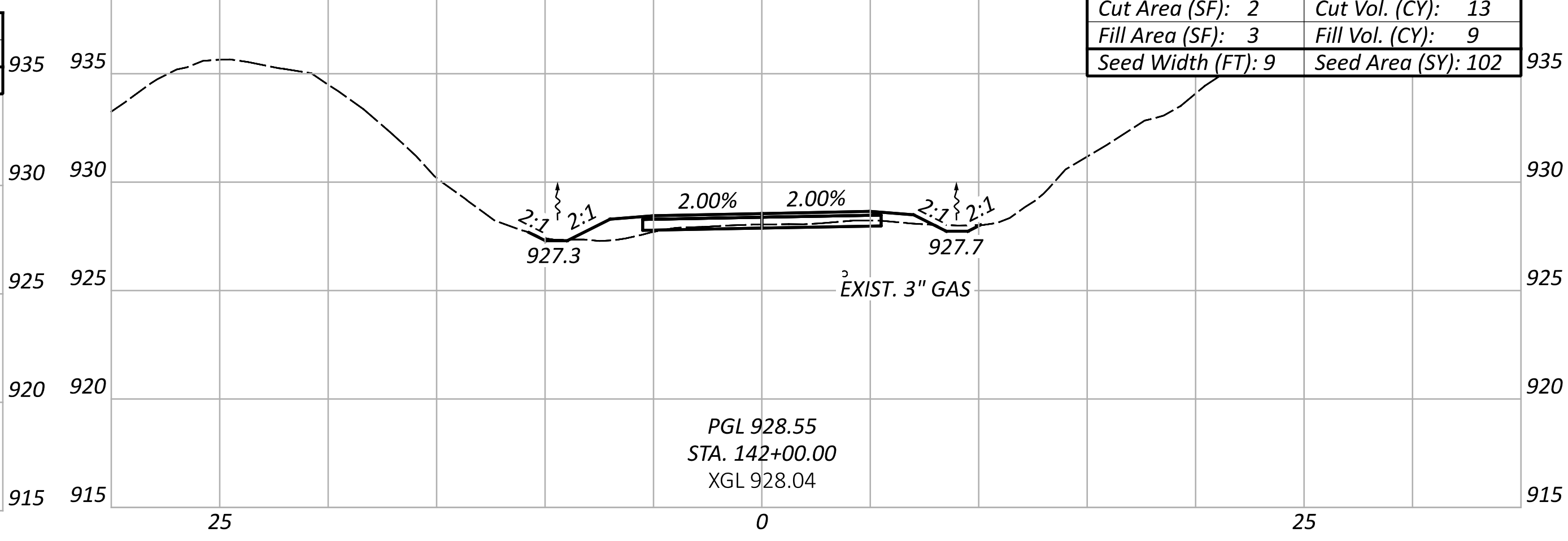
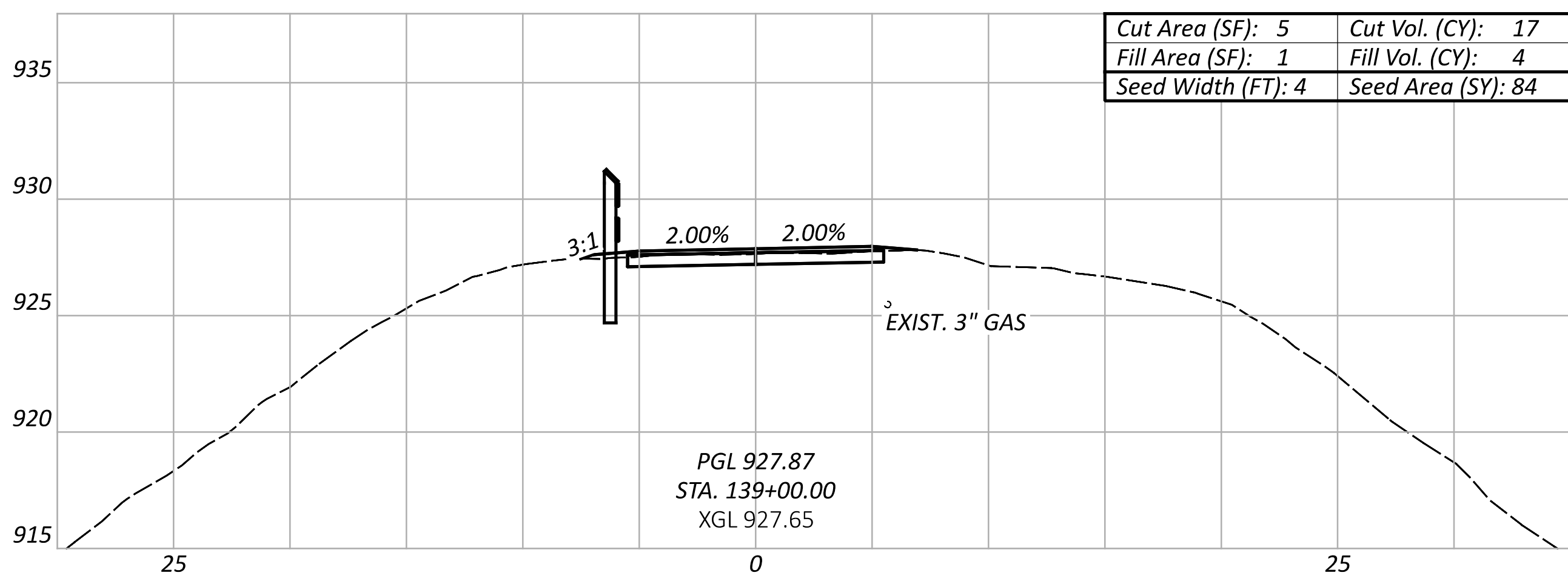
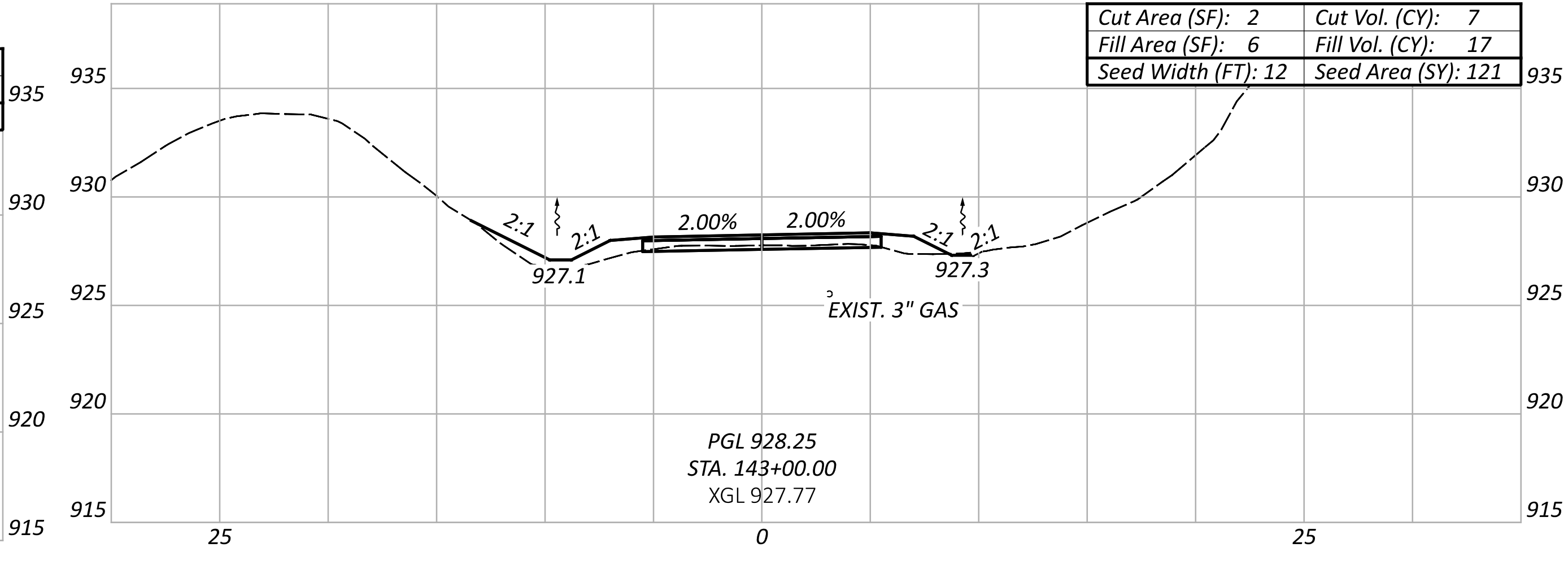
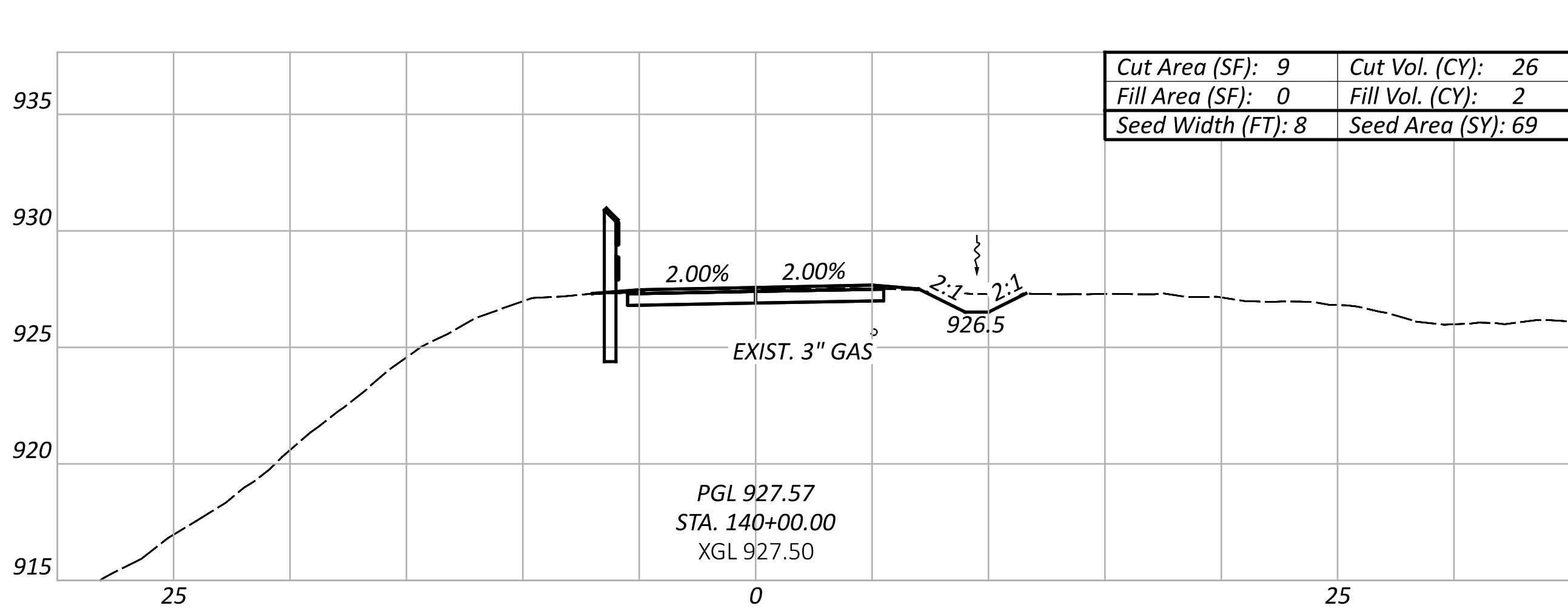
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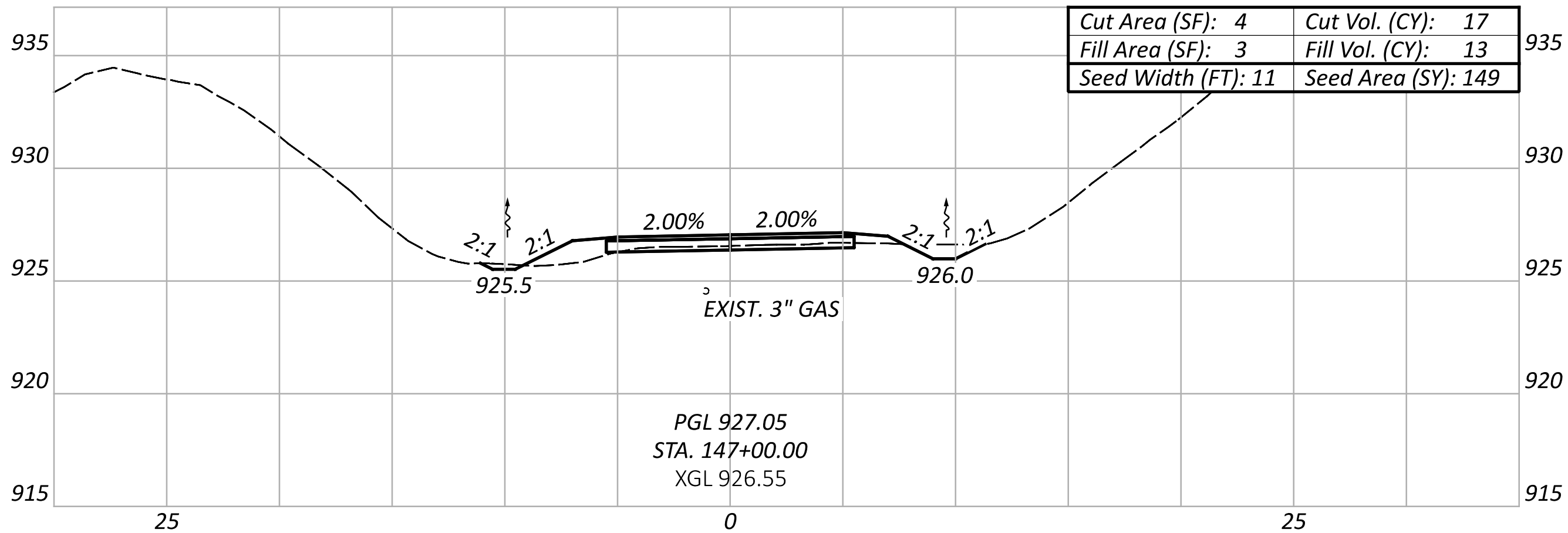
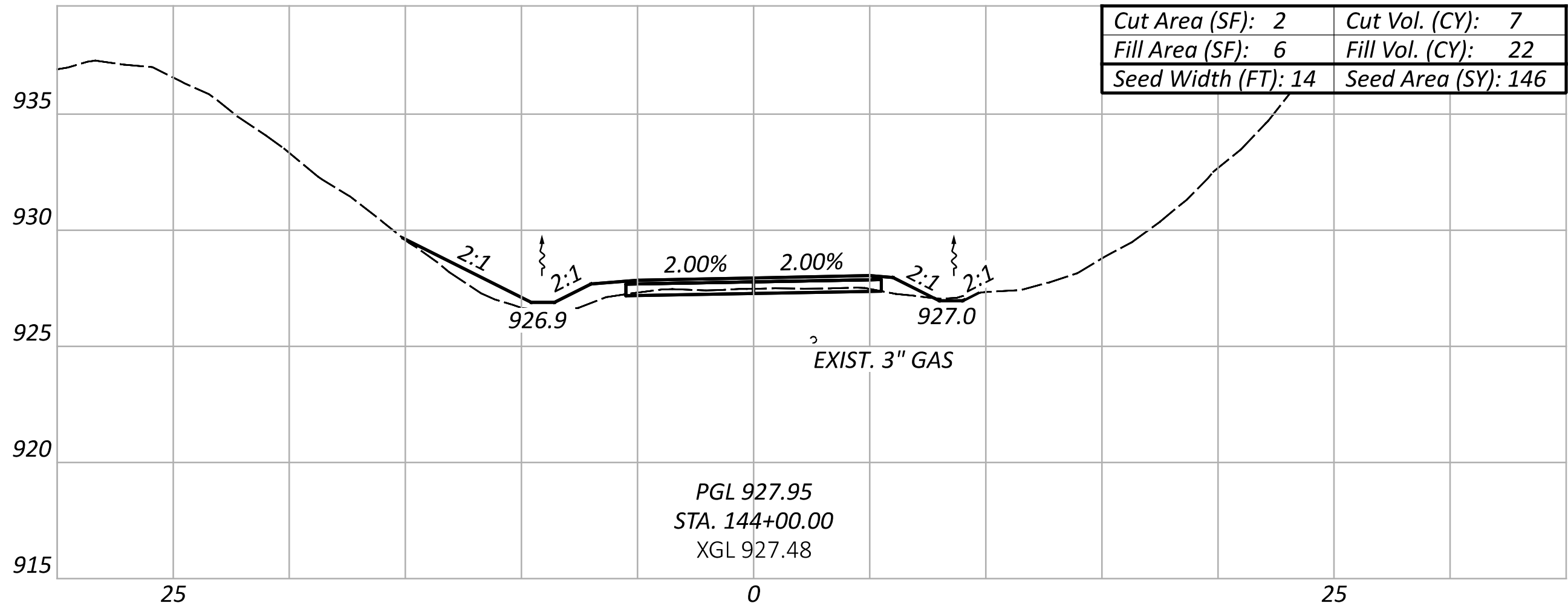
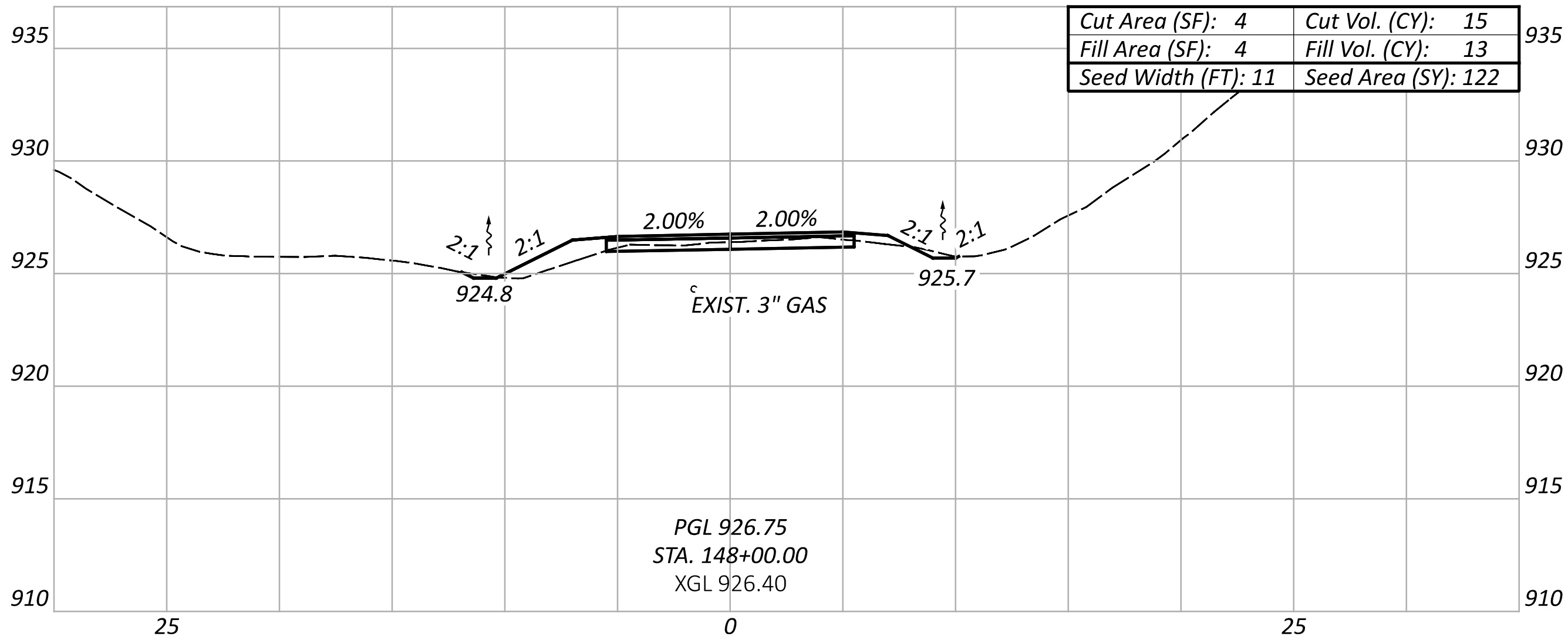
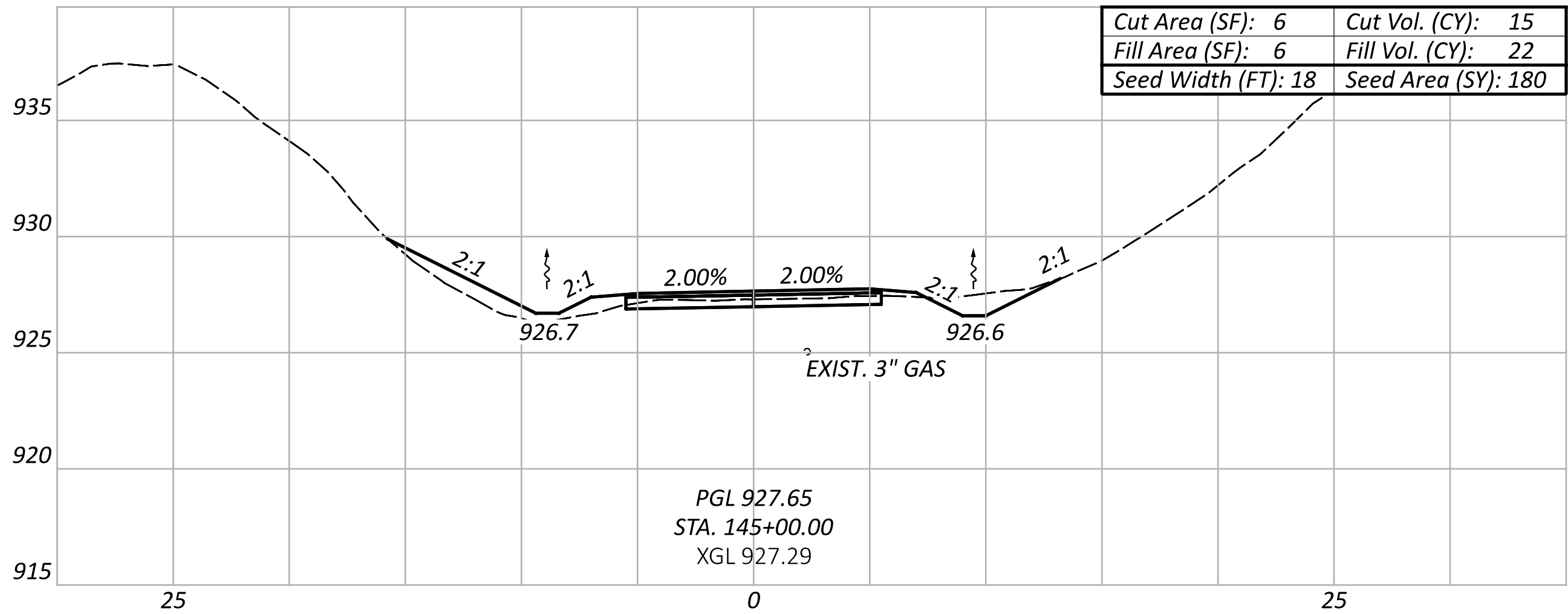
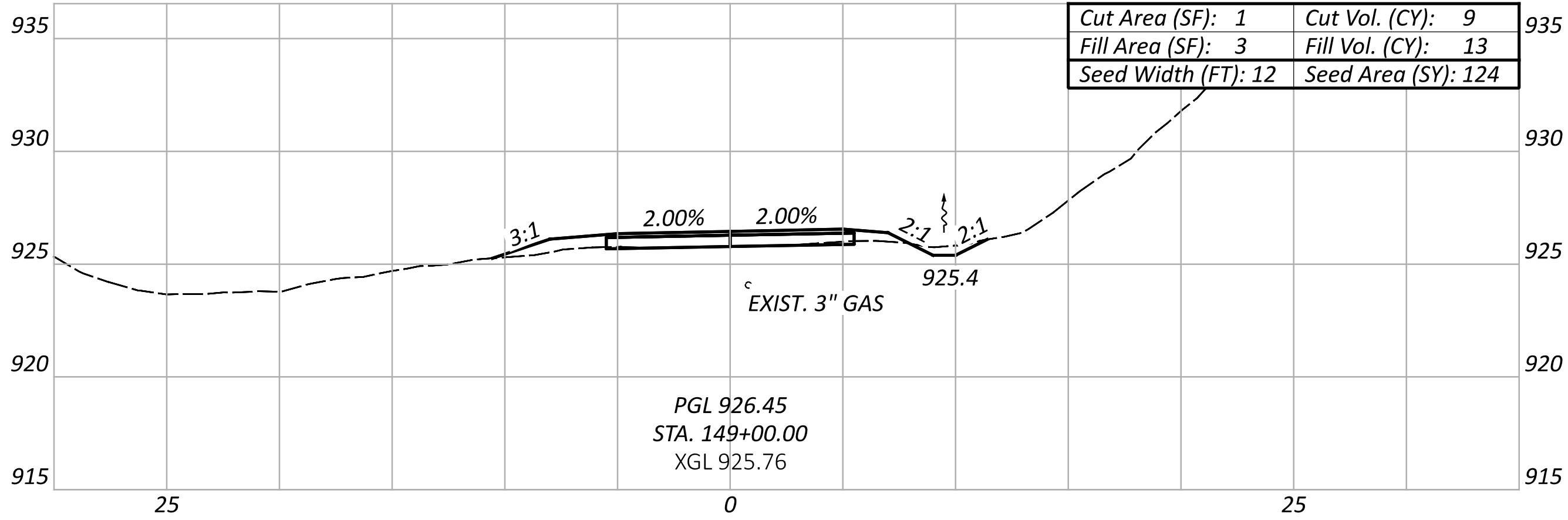
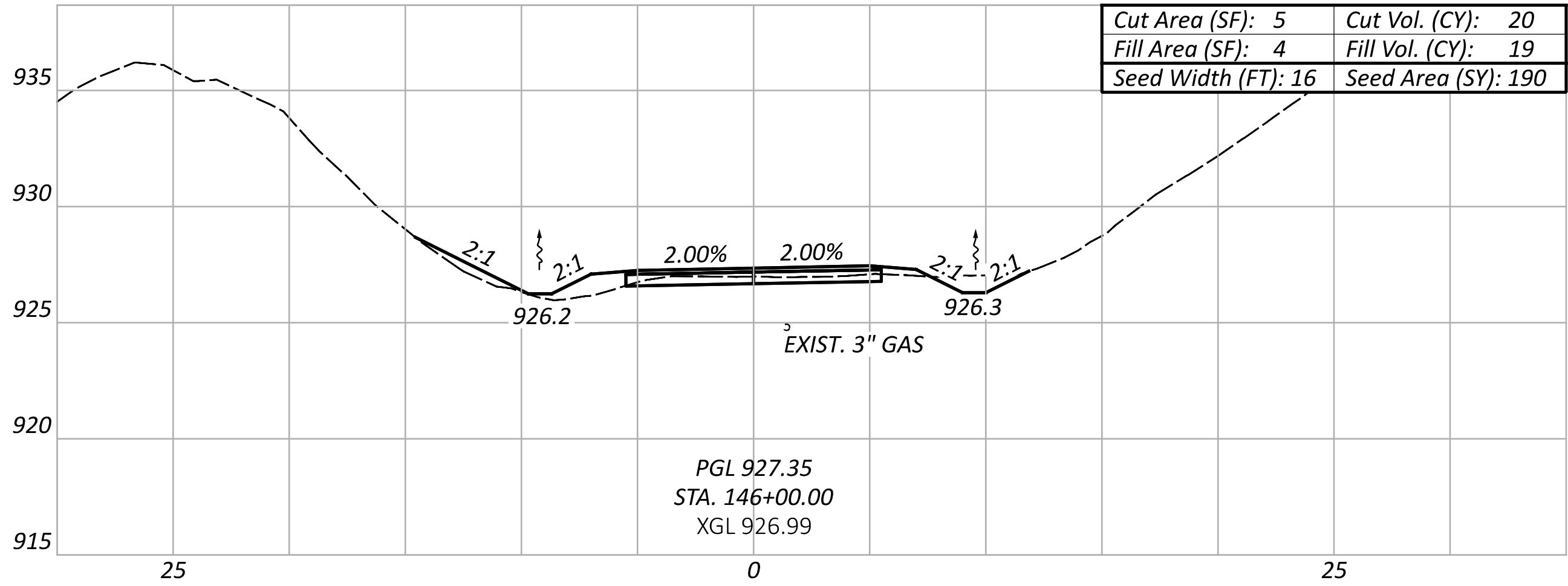
TOTAL

57









CROSS SECTIONS
STA. 144+00 TO STA. 149+00

DESIGN AGENCY



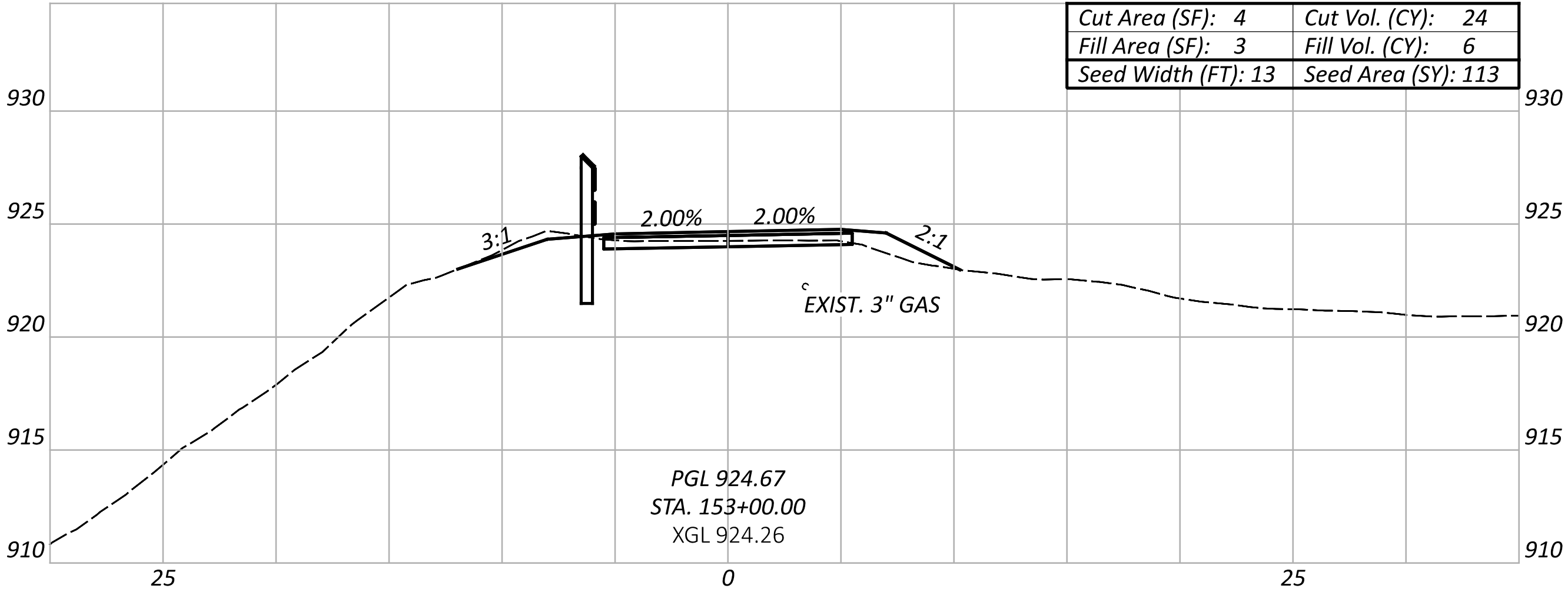
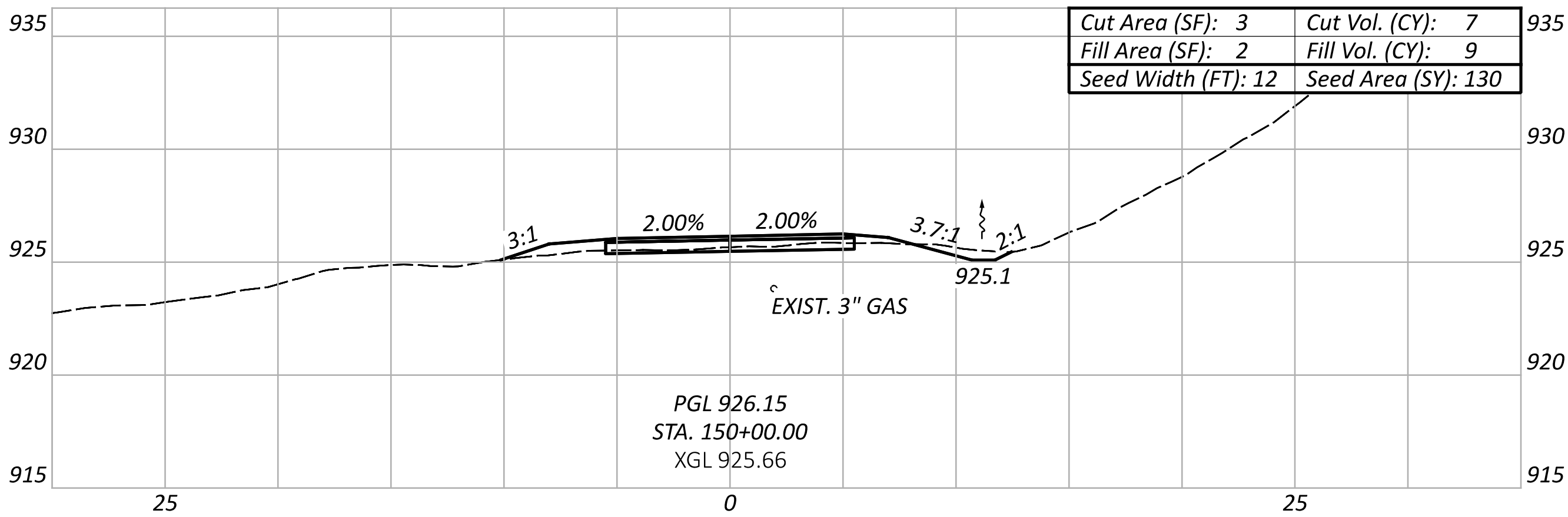
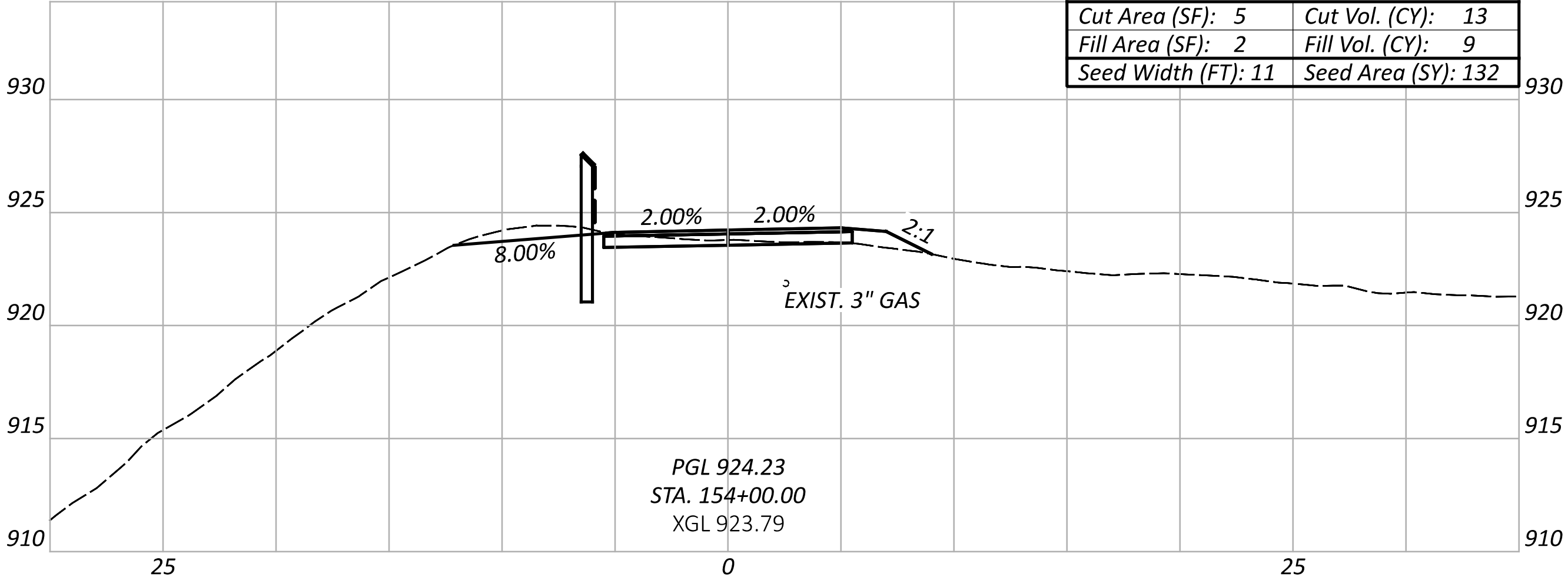
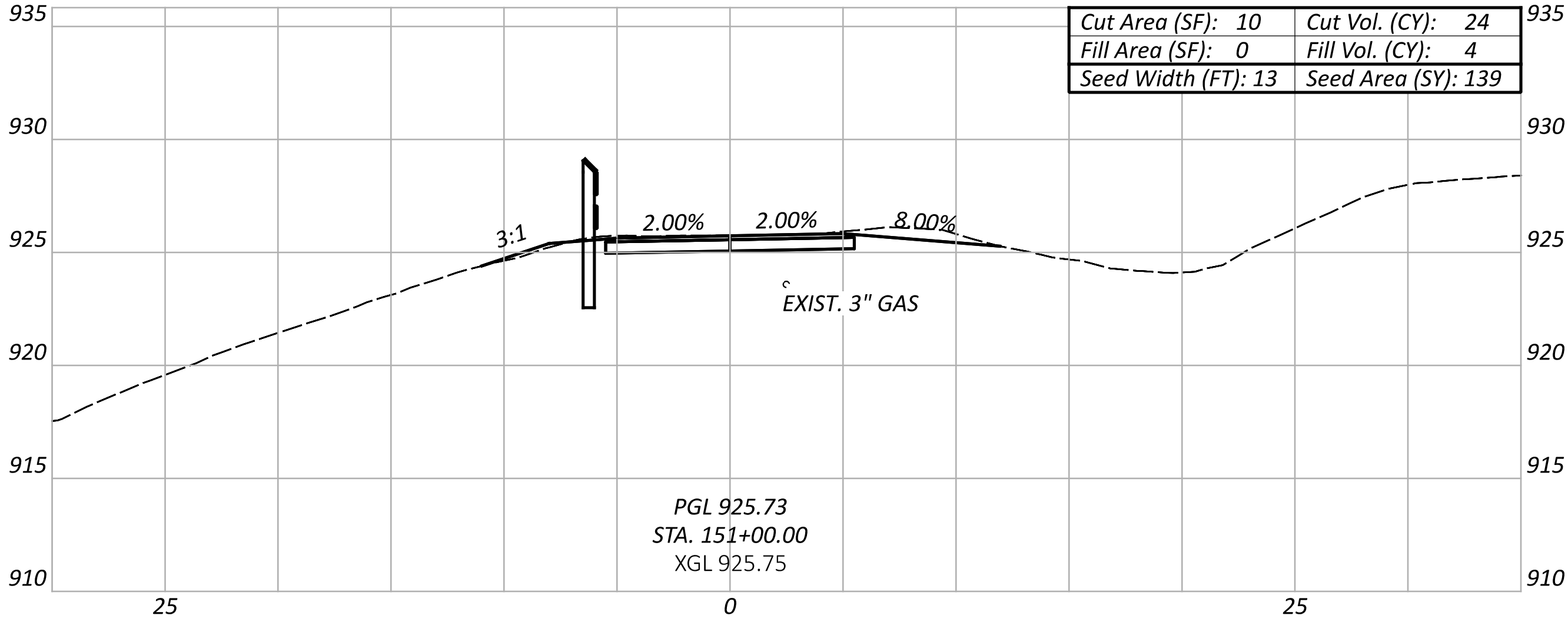
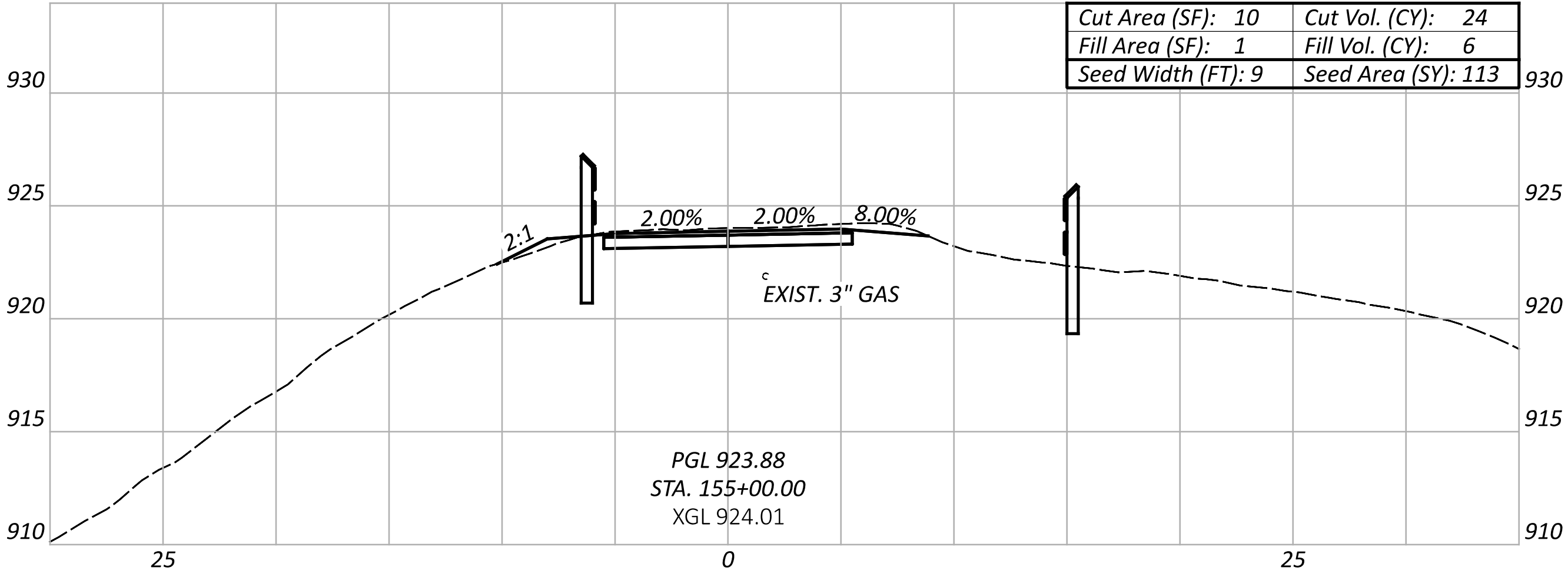
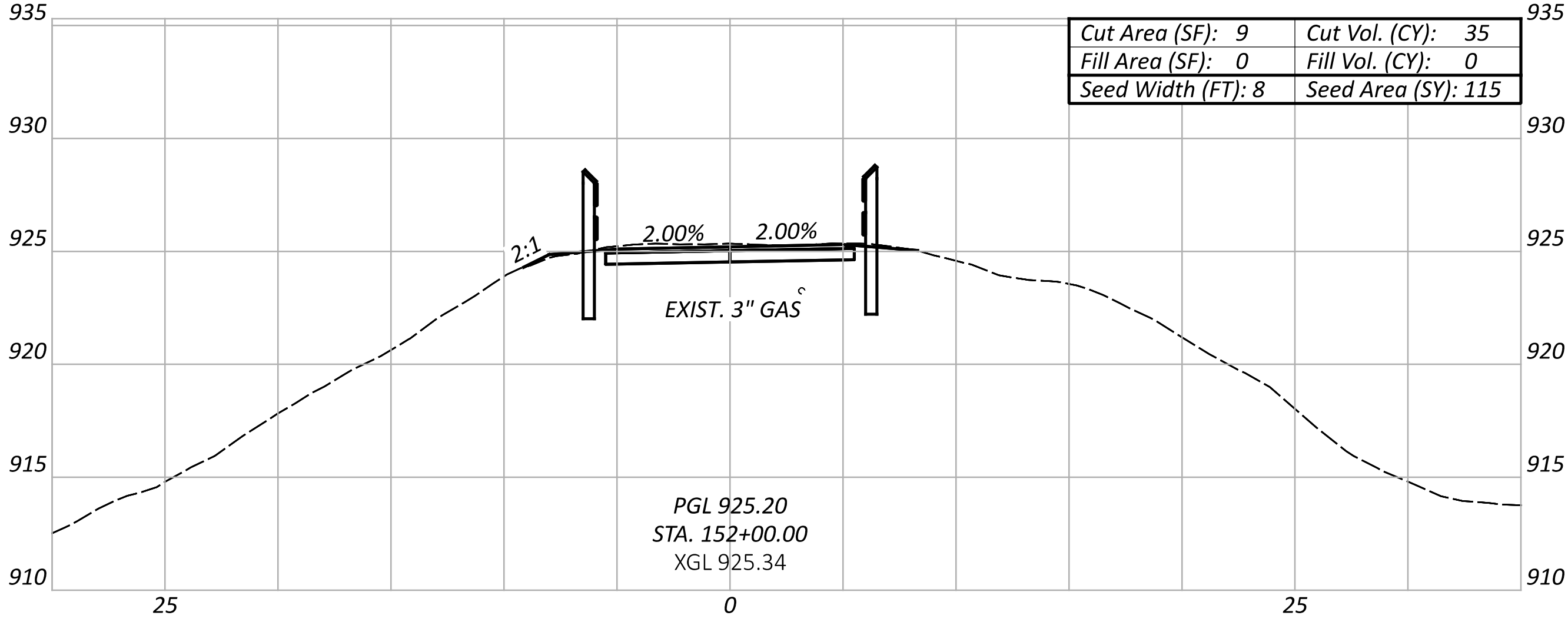
DESIGNER
KMC

REVIEWER
SSR 02/08/23

PROJECT ID
111280

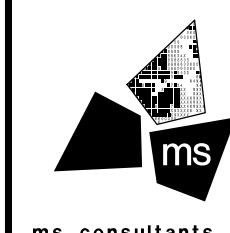
SHEET
34

TOTAL
57



CROSS SECTIONS
STA. 150+00 TO STA. 155+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

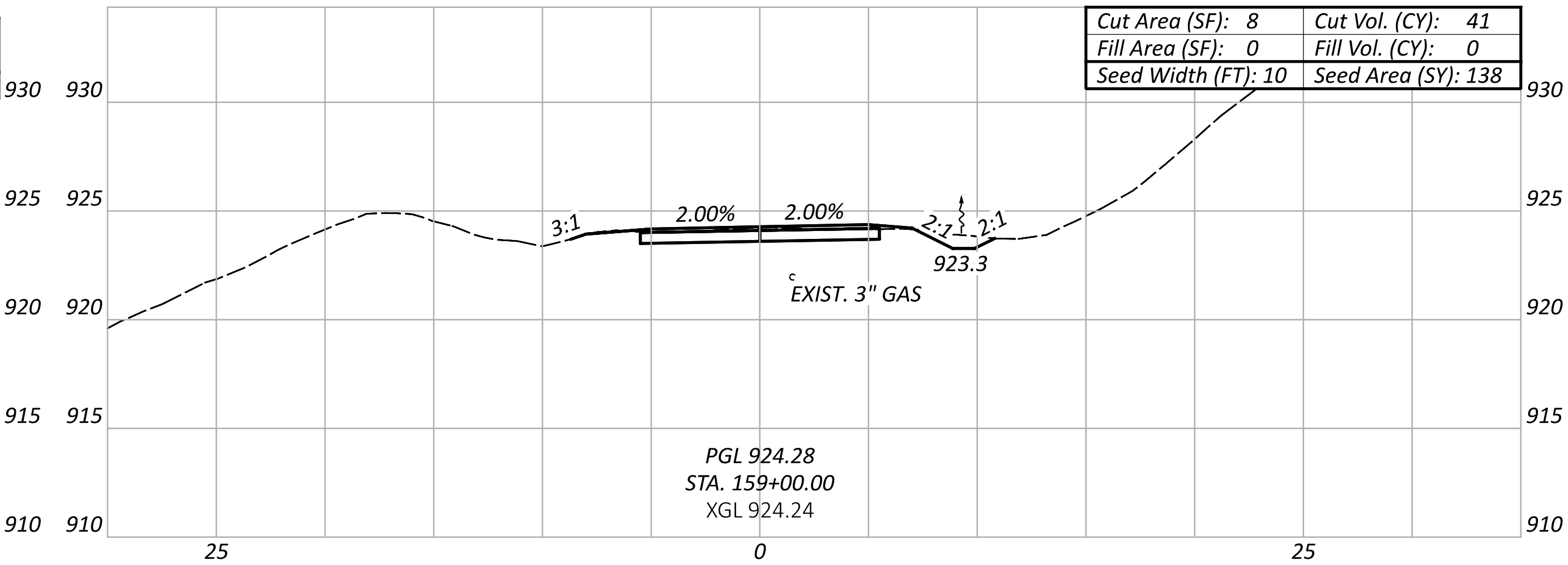
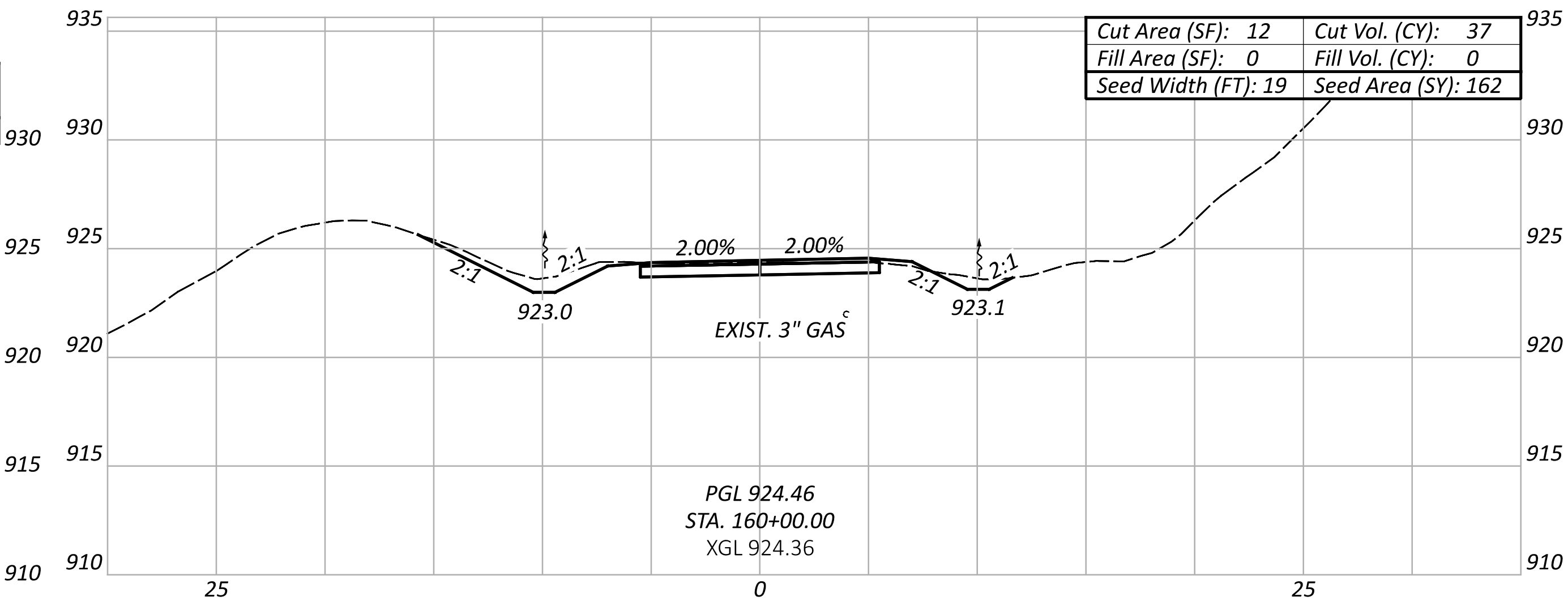
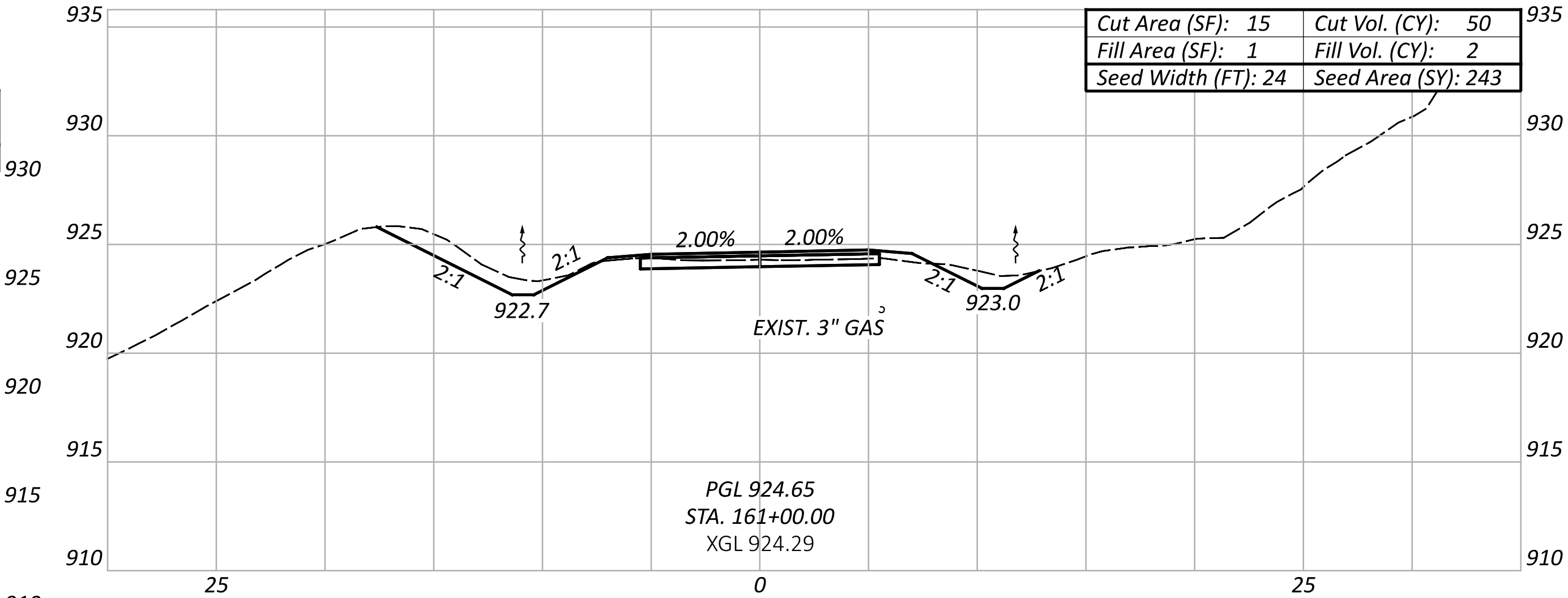
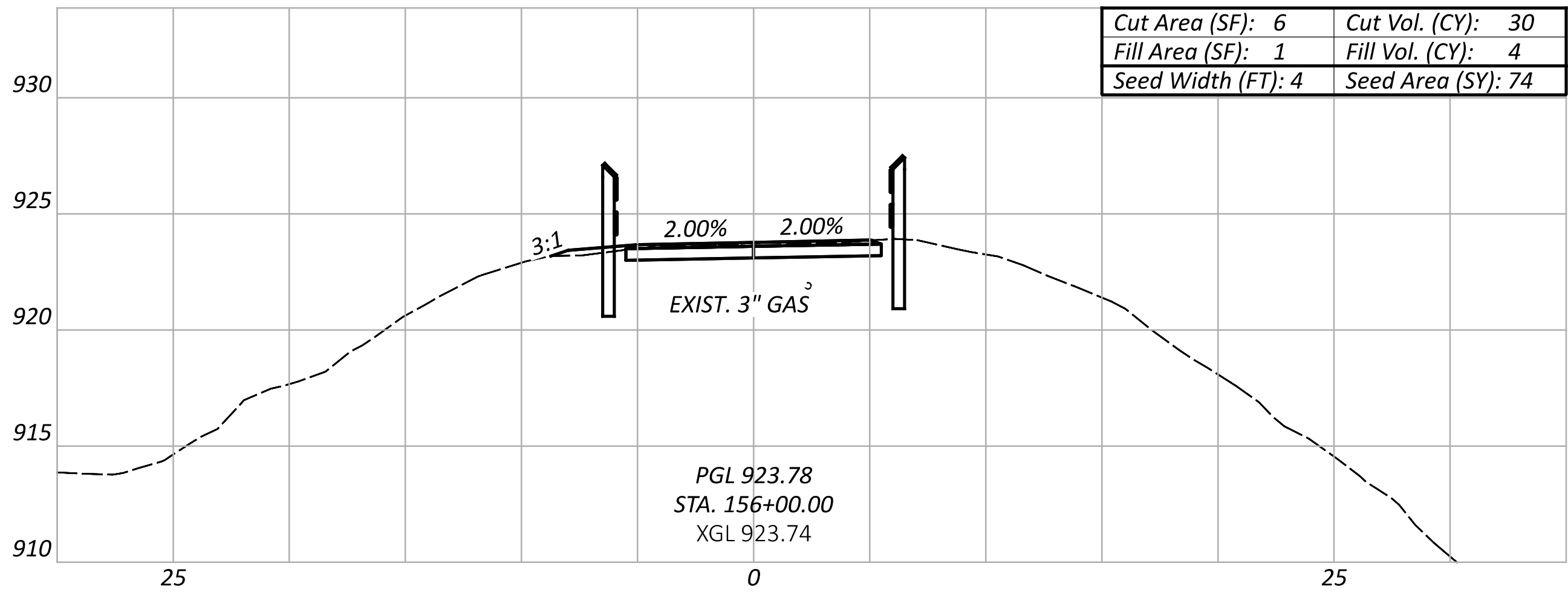
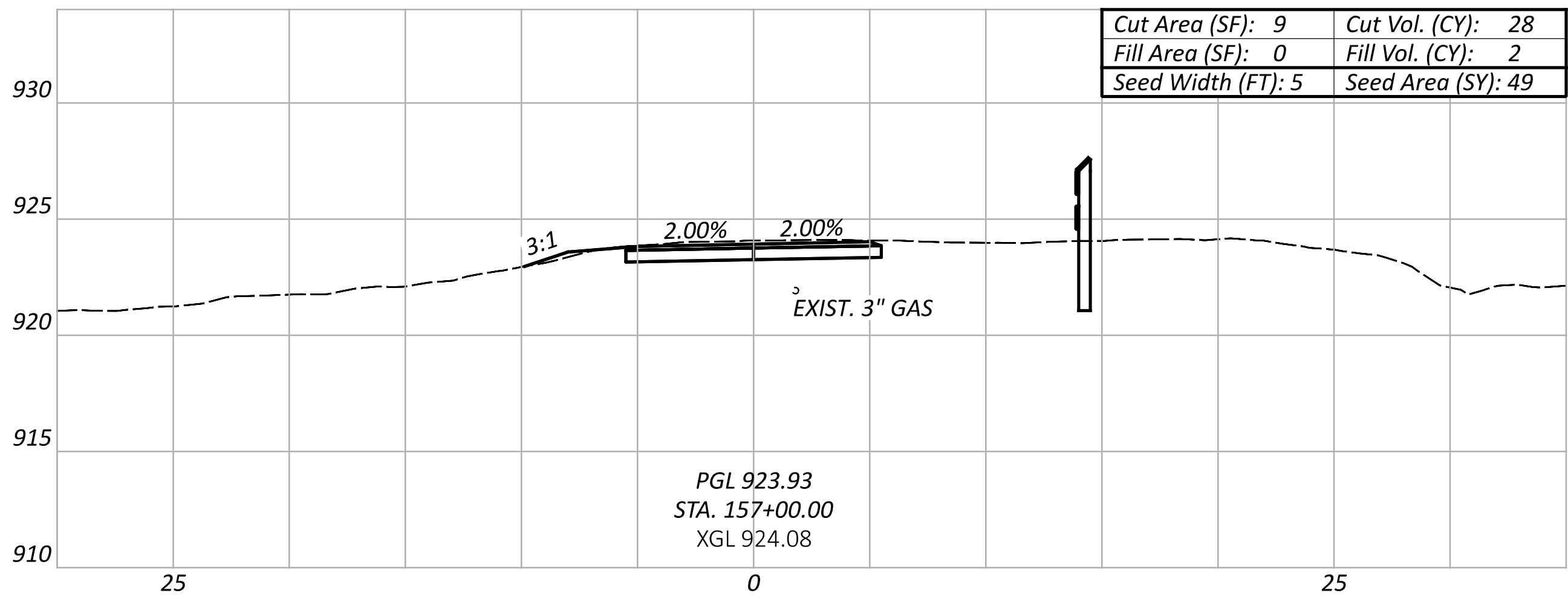
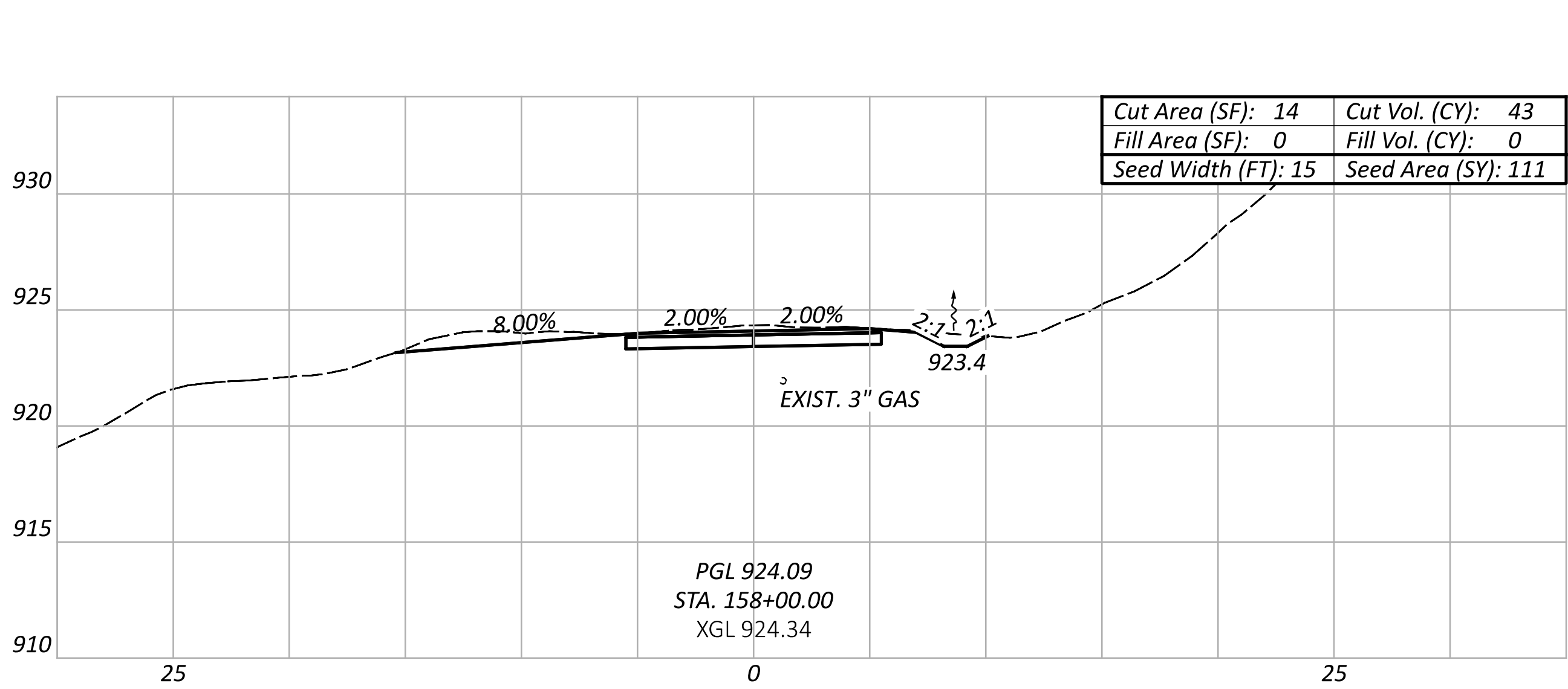
111280

SHEET

35

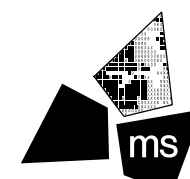
TOTAL

57



CROSS SECTIONS
STA. 156+00 TO STA. 161+00

DESIGN AGENCY



ms consultants, inc.

DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

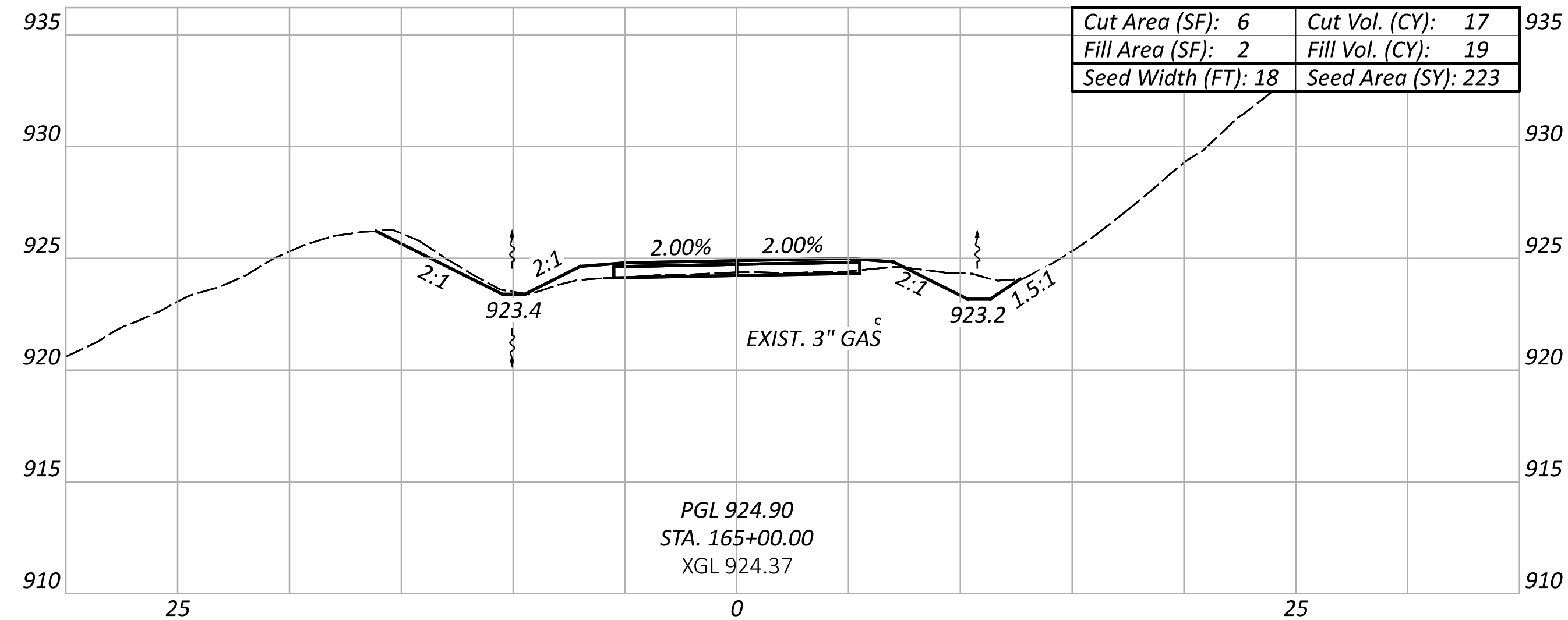
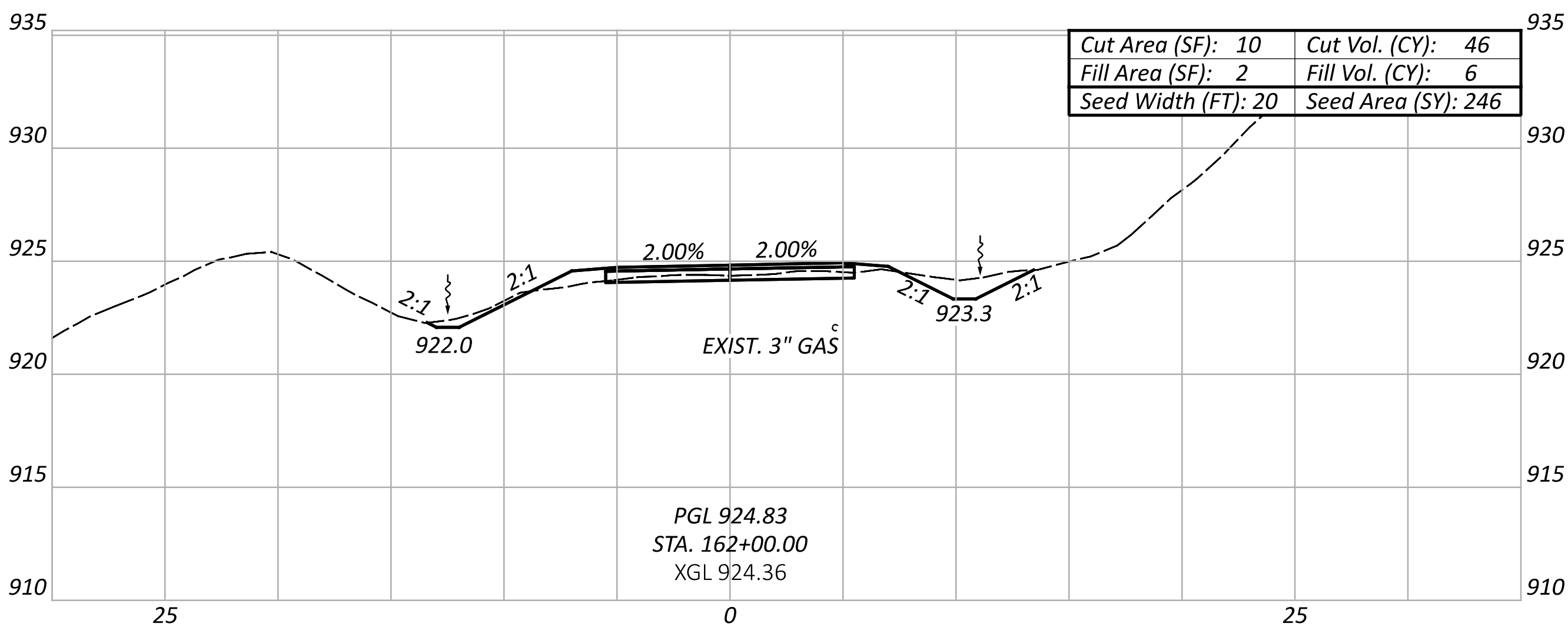
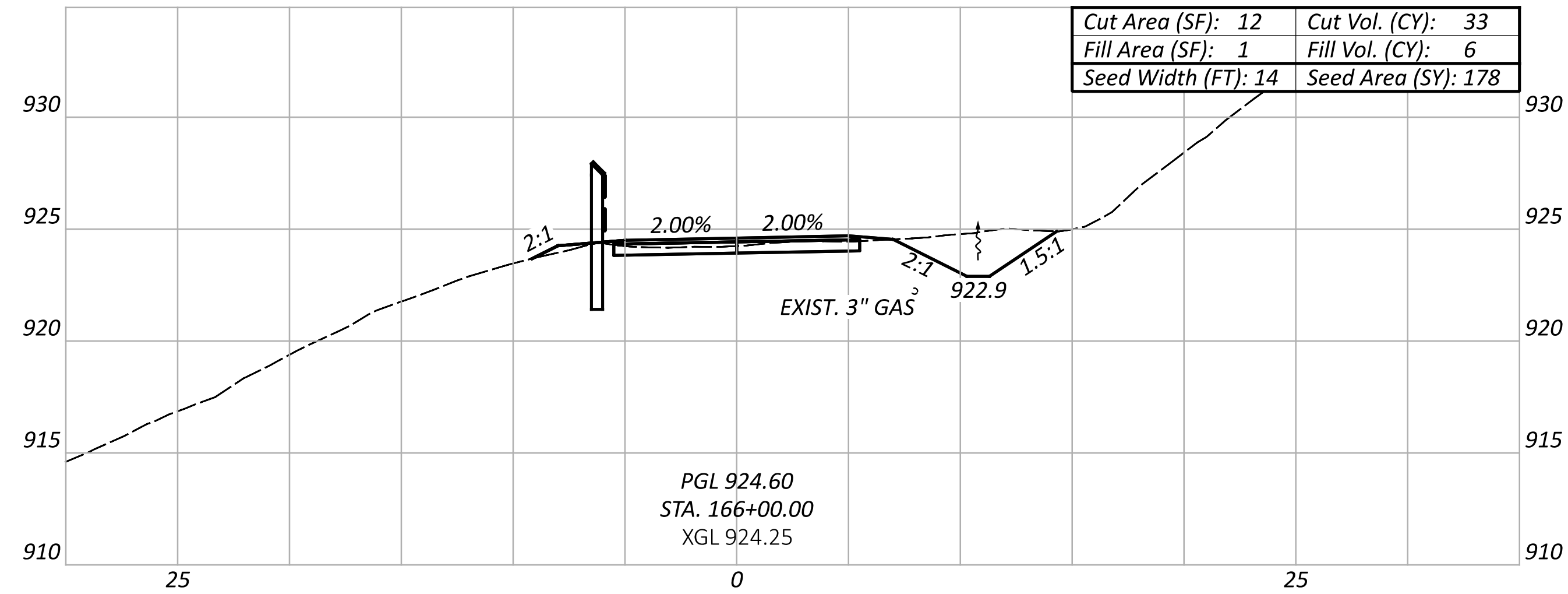
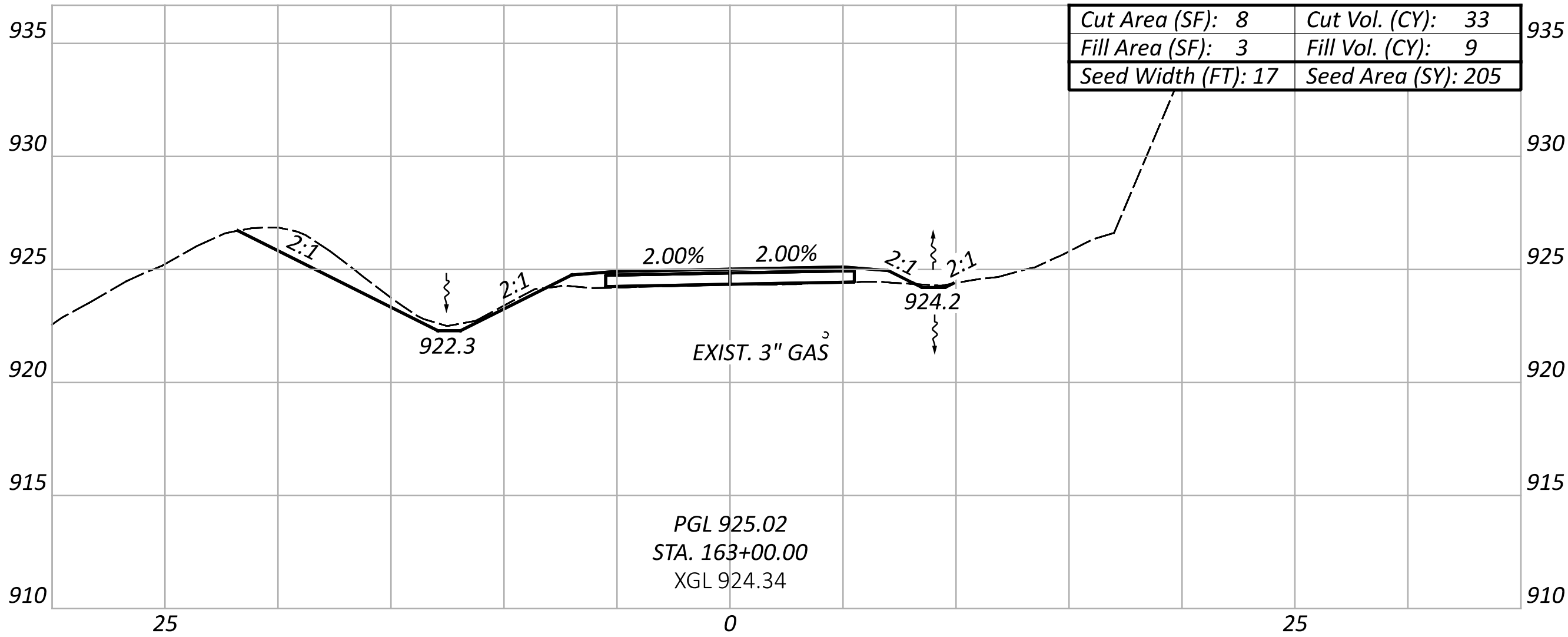
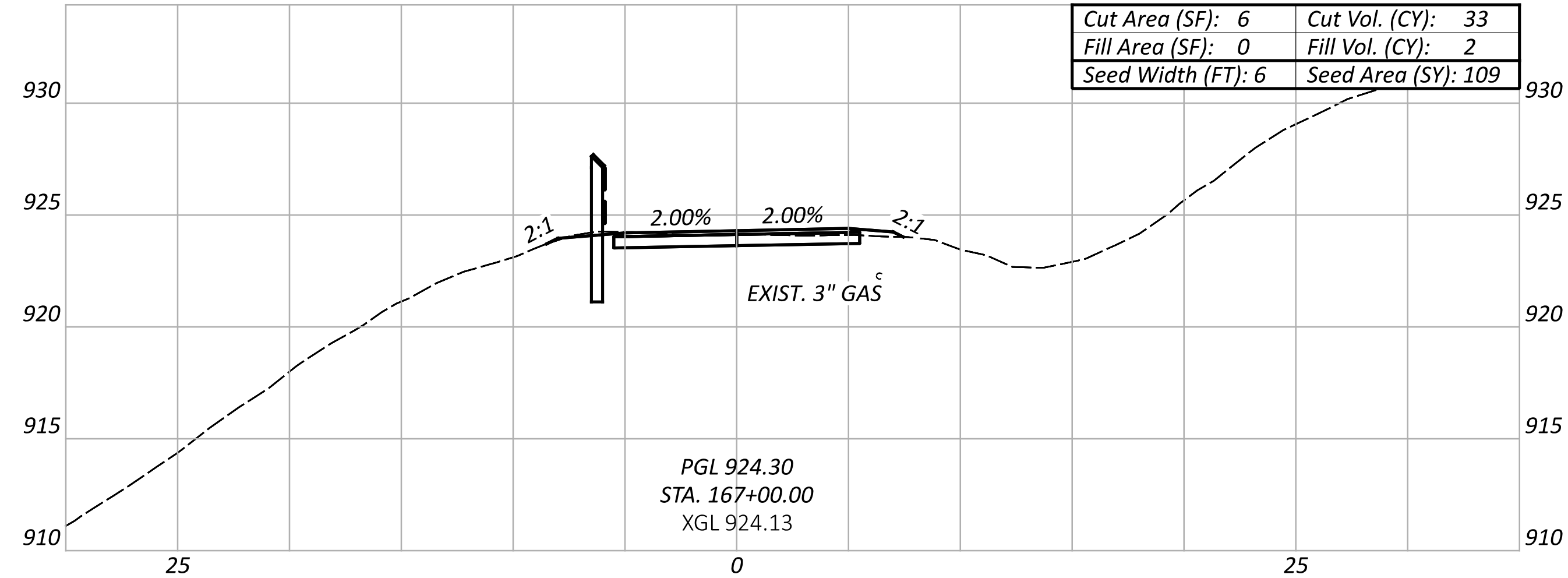
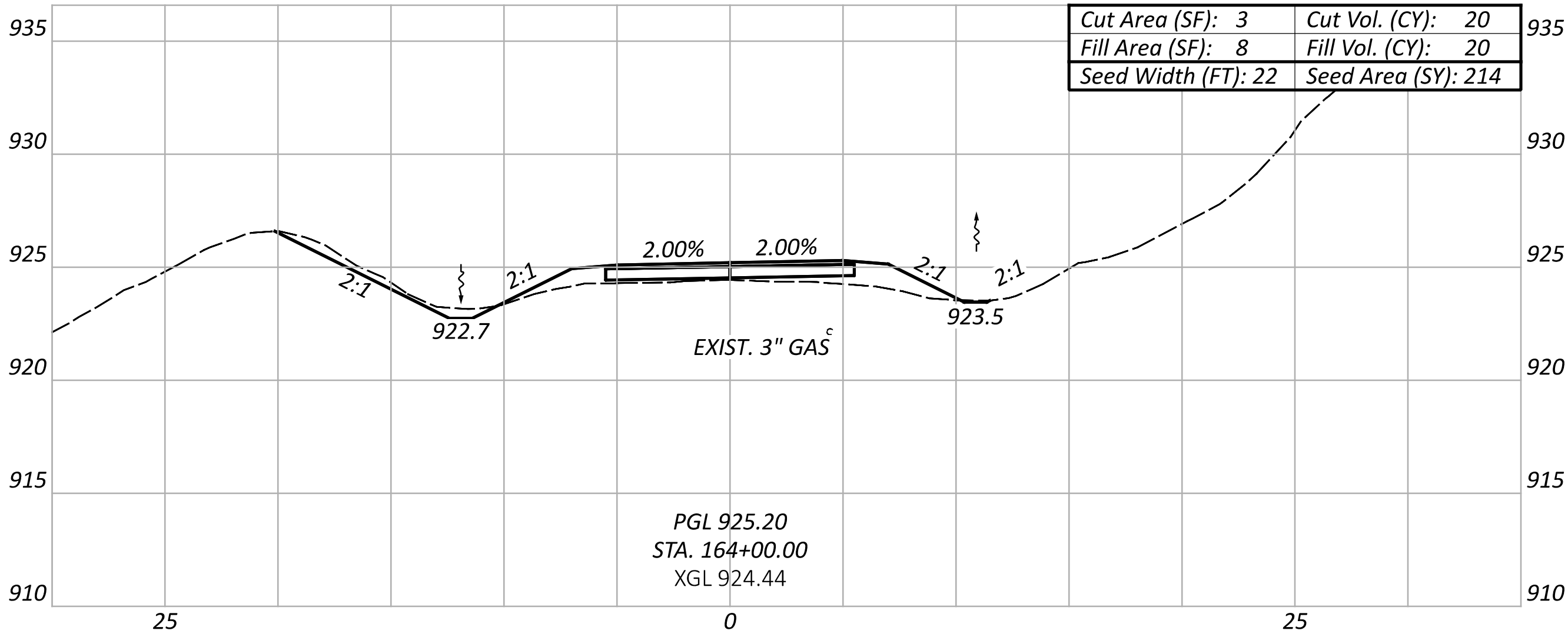
111280

SHEET

36

TOTAL

57



CROSS SECTIONS
STA. 162+00 TO STA. 167+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

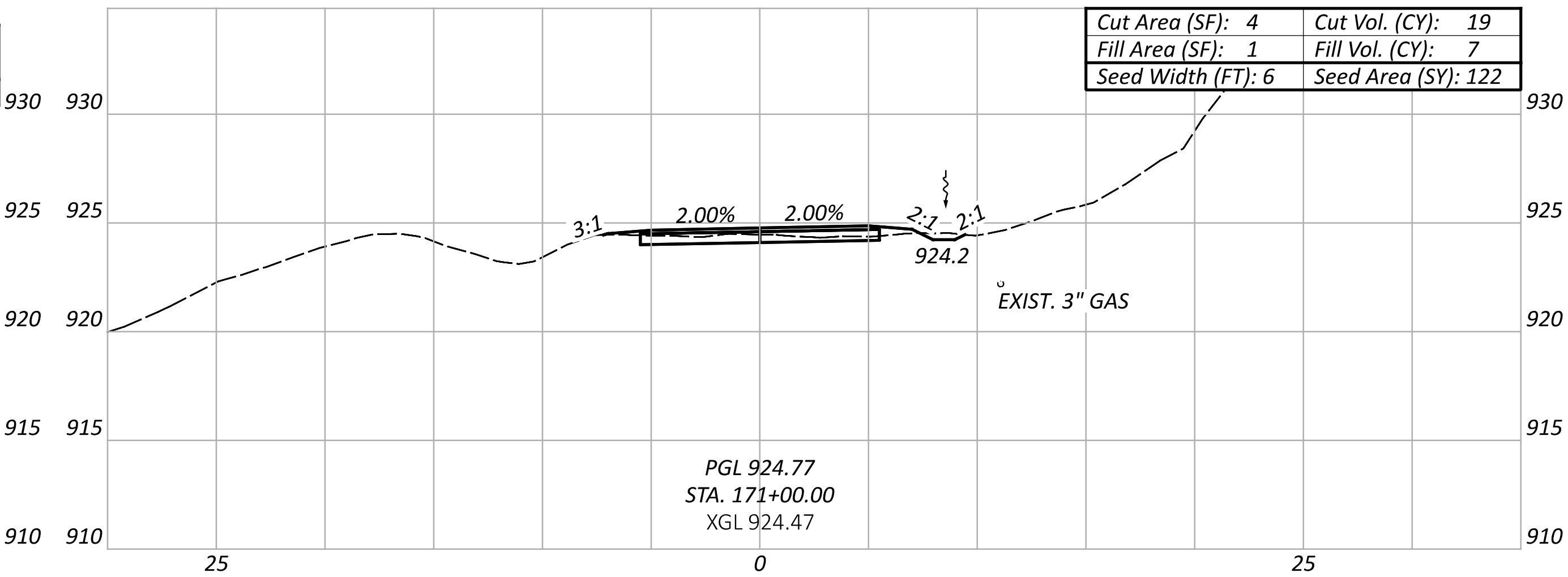
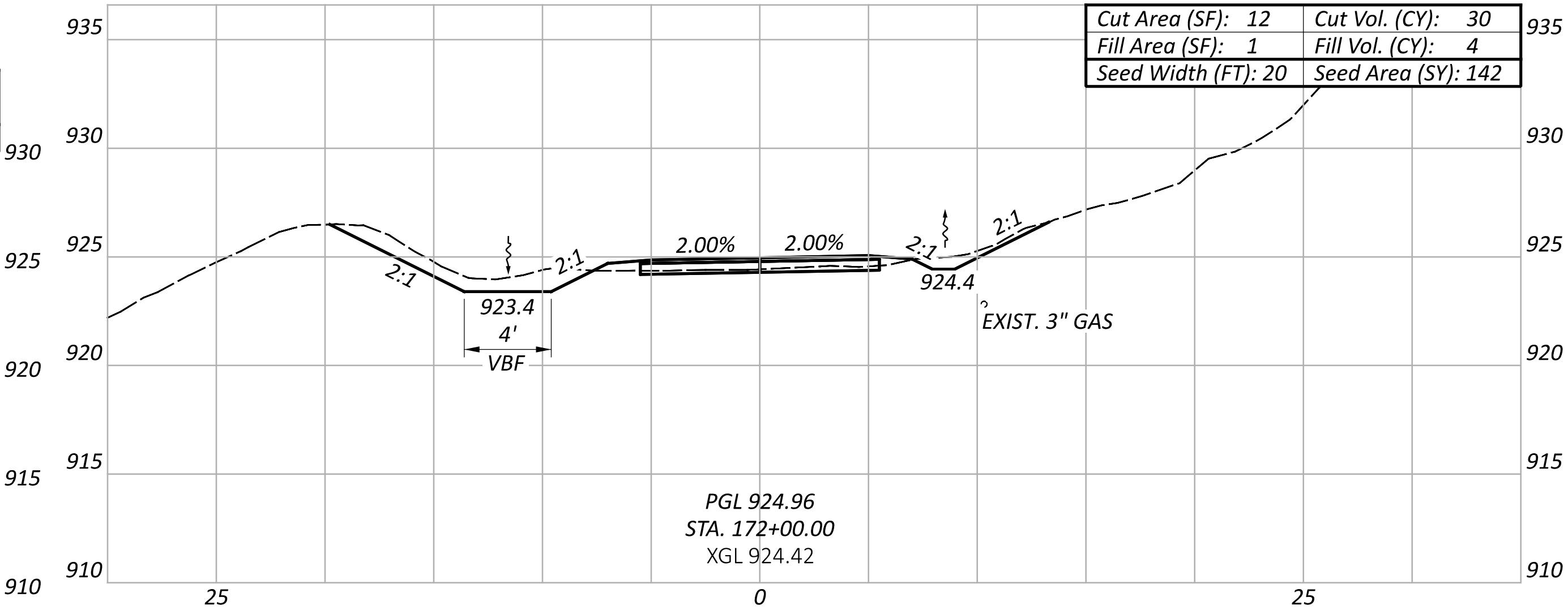
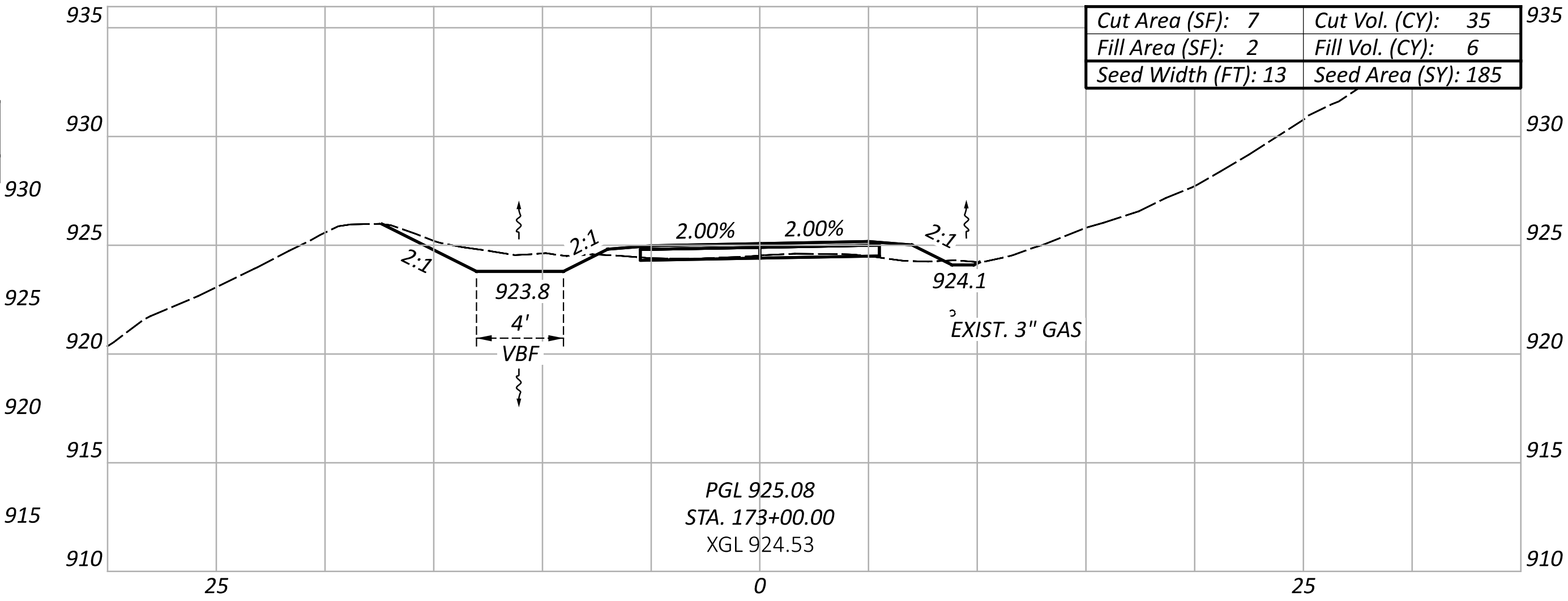
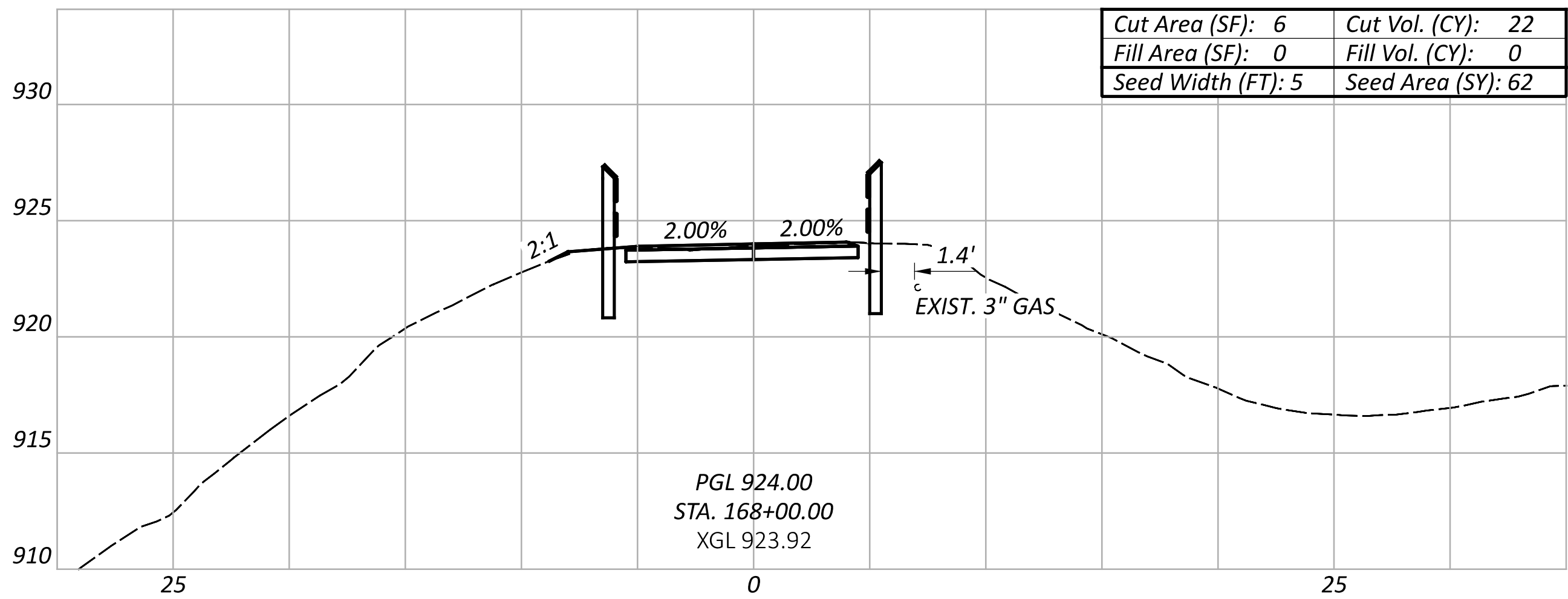
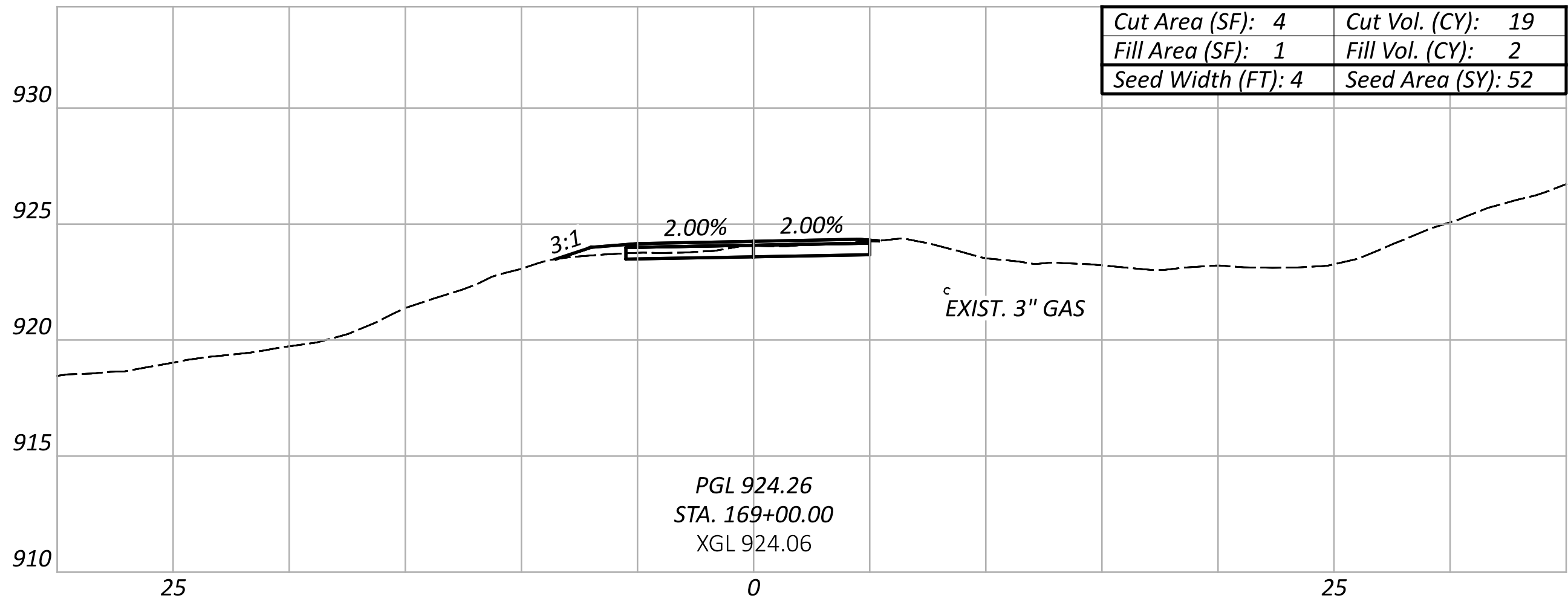
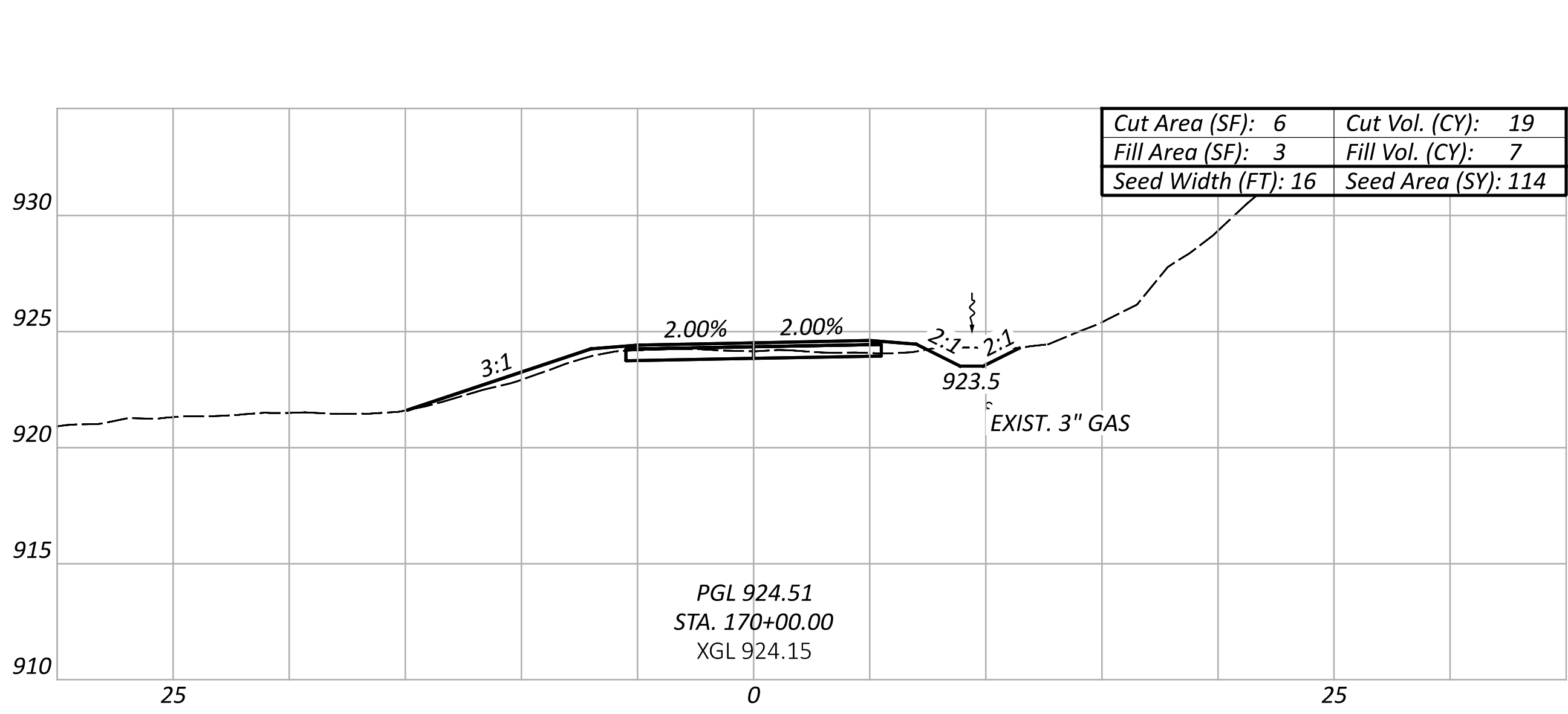
111280

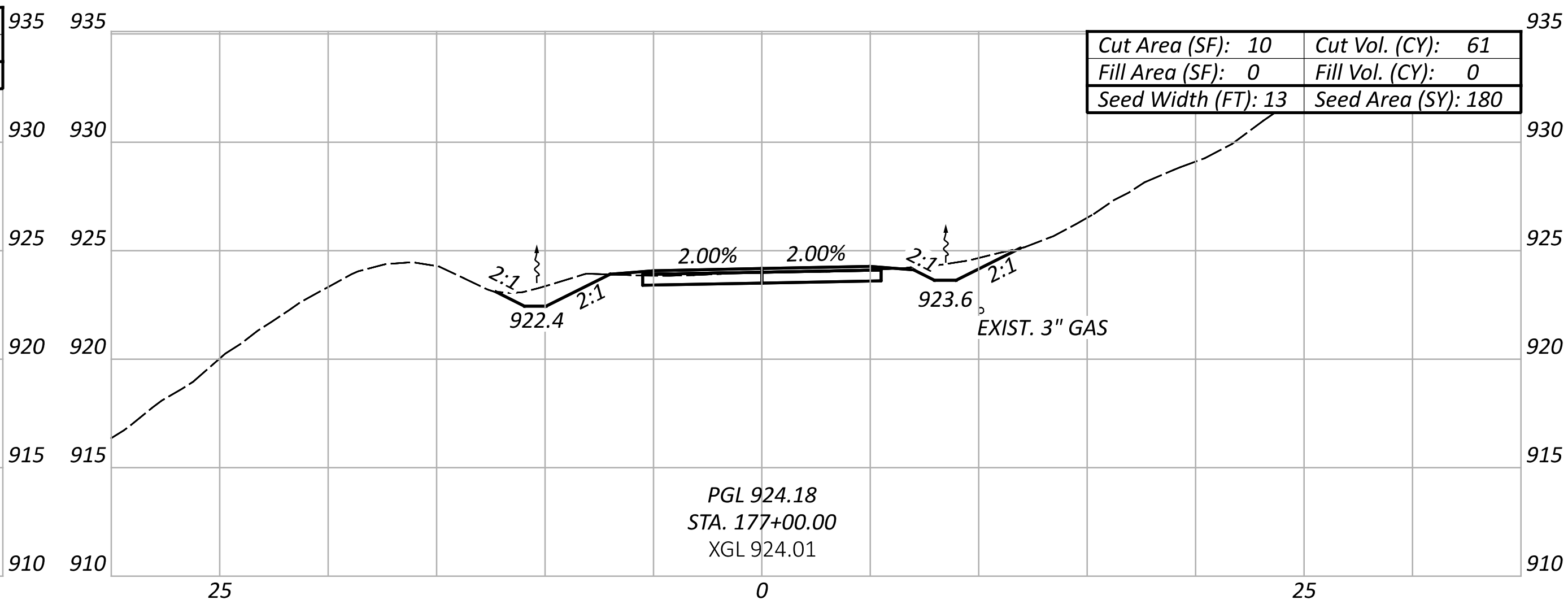
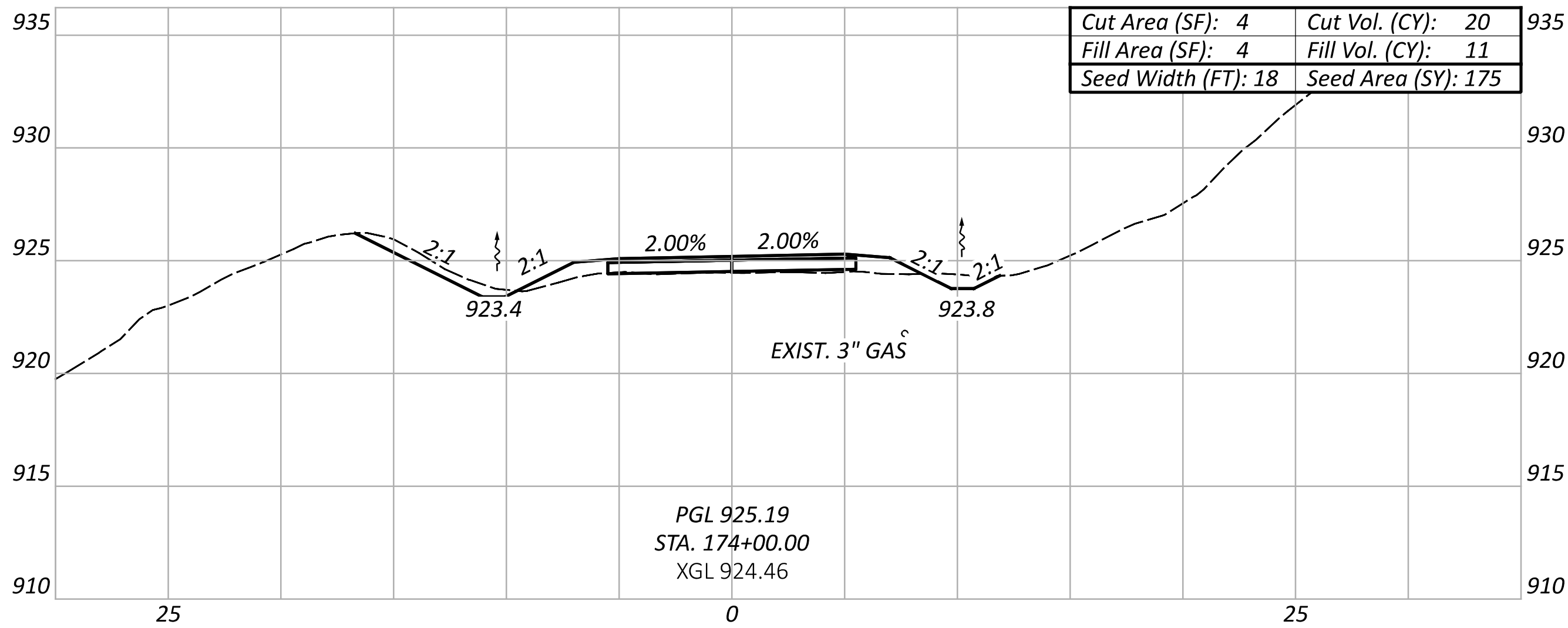
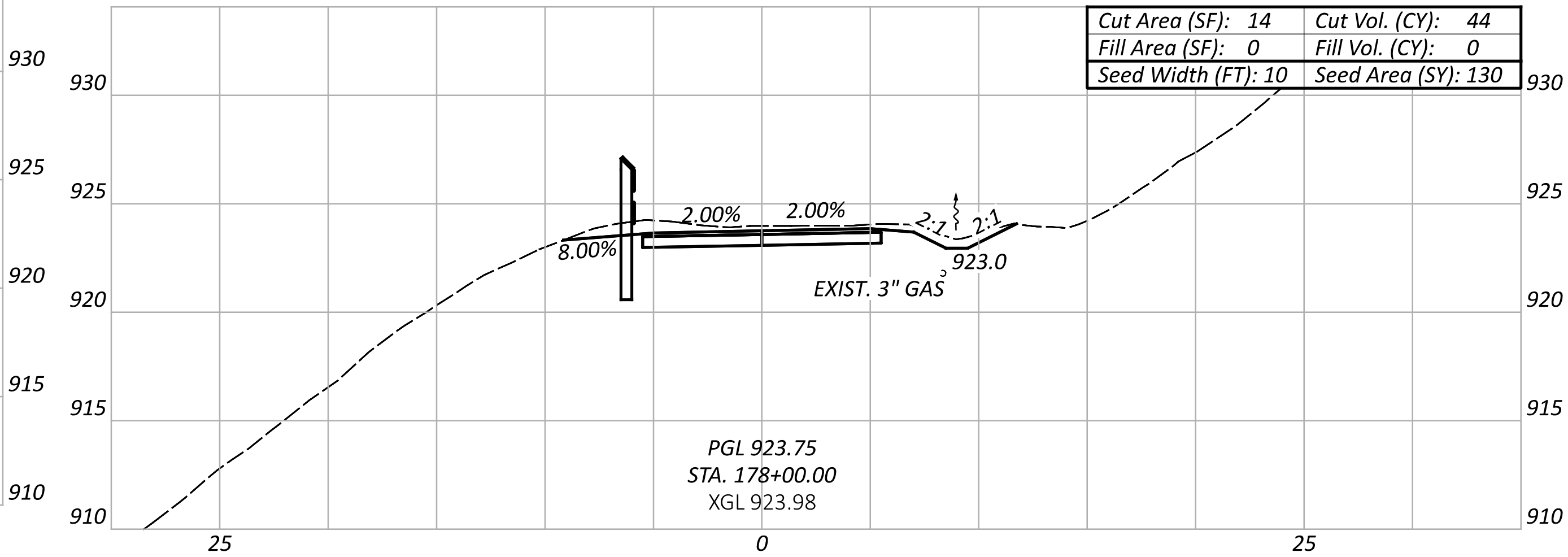
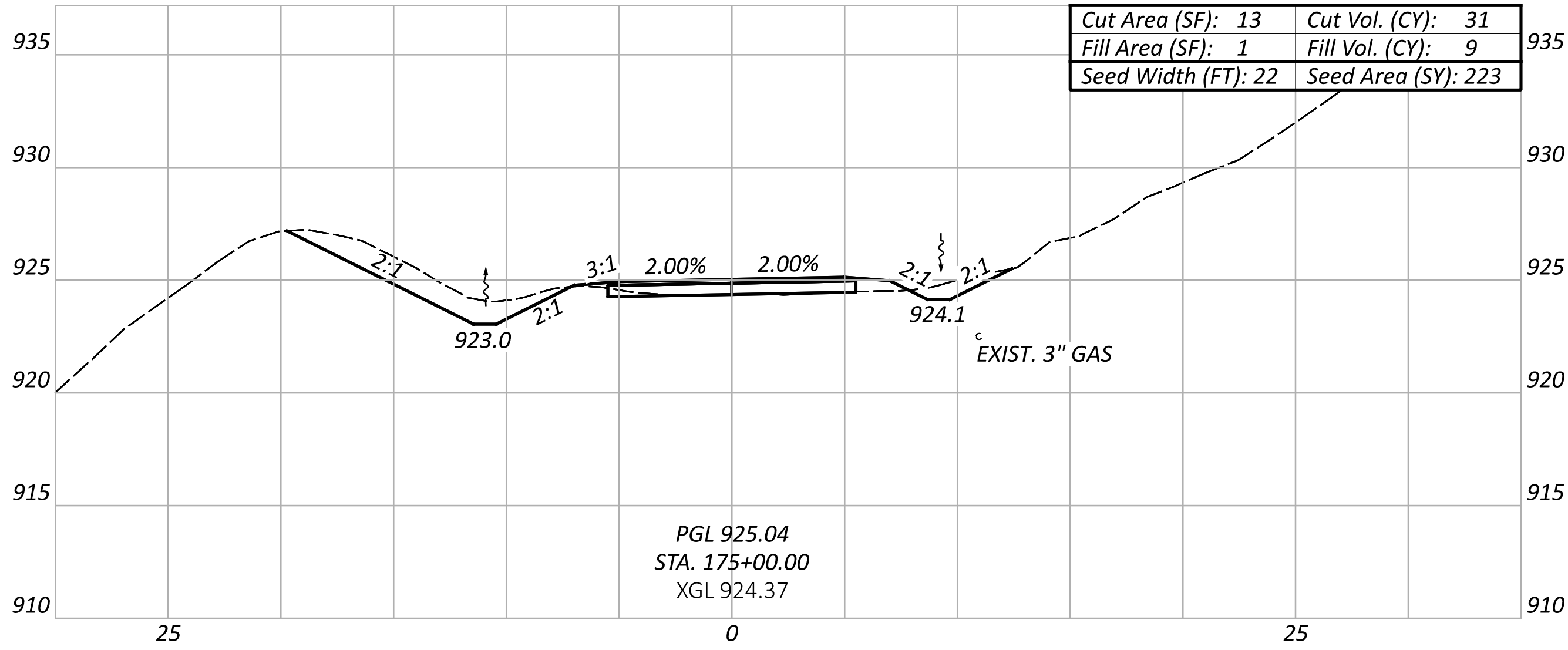
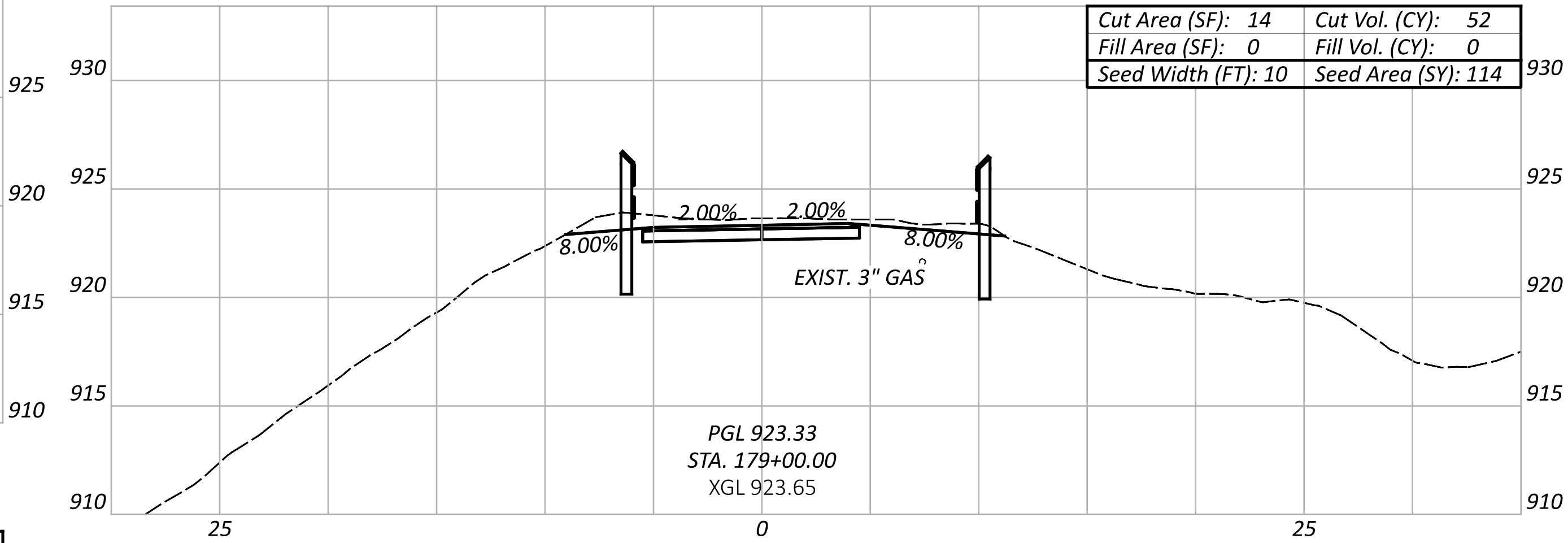
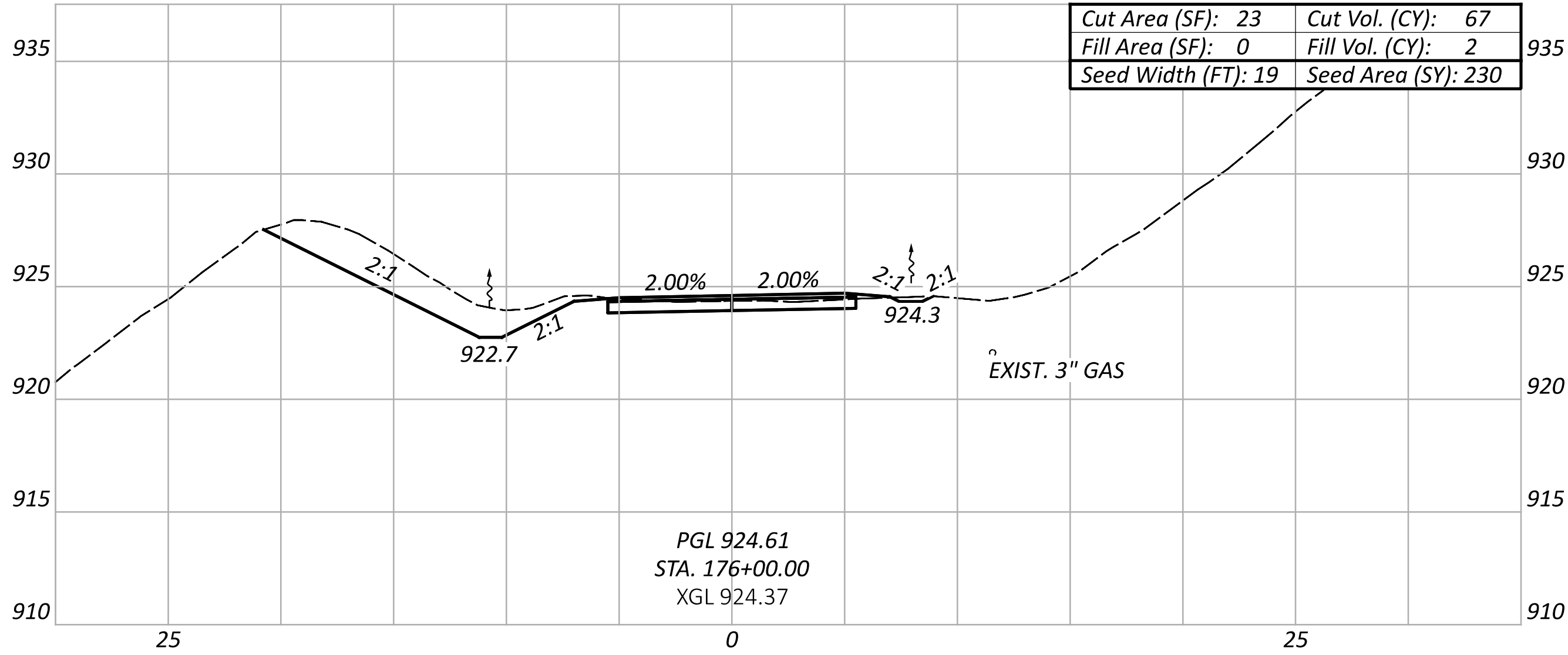
SHEET

37

TOTAL

57





CROSS SECTIONS
STA. 174+00 TO STA. 179+00

DESIGN AGENCY

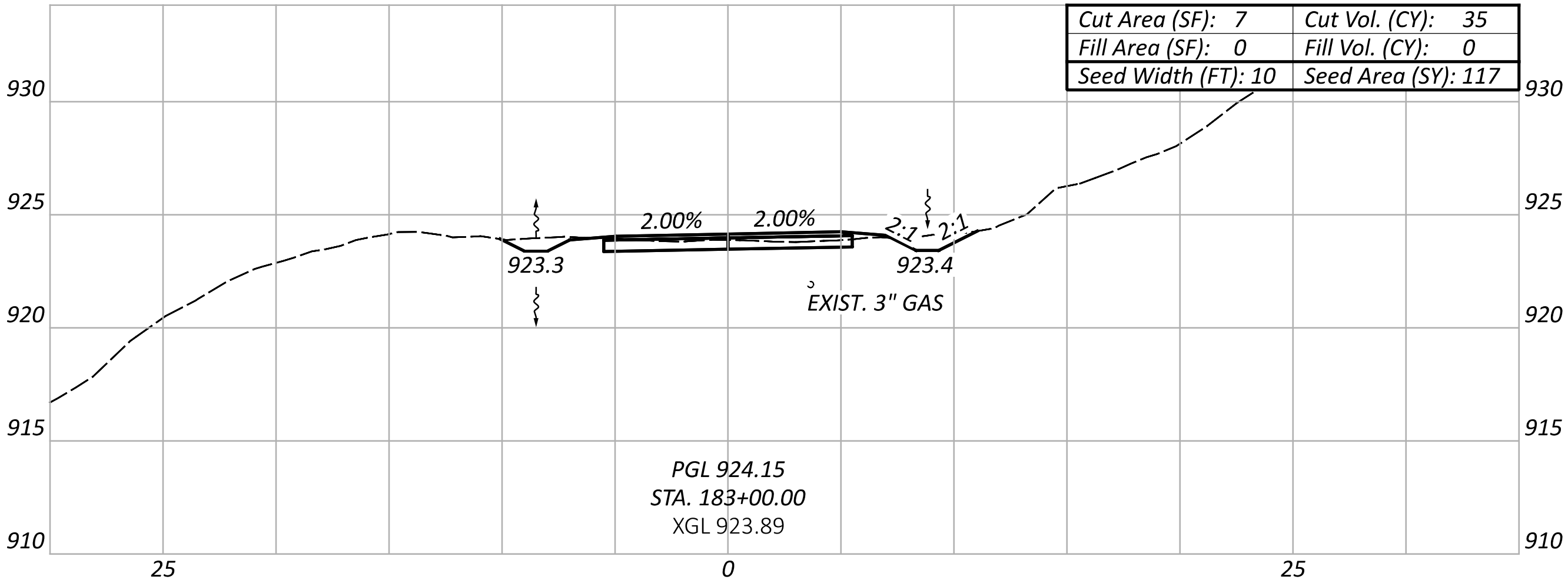
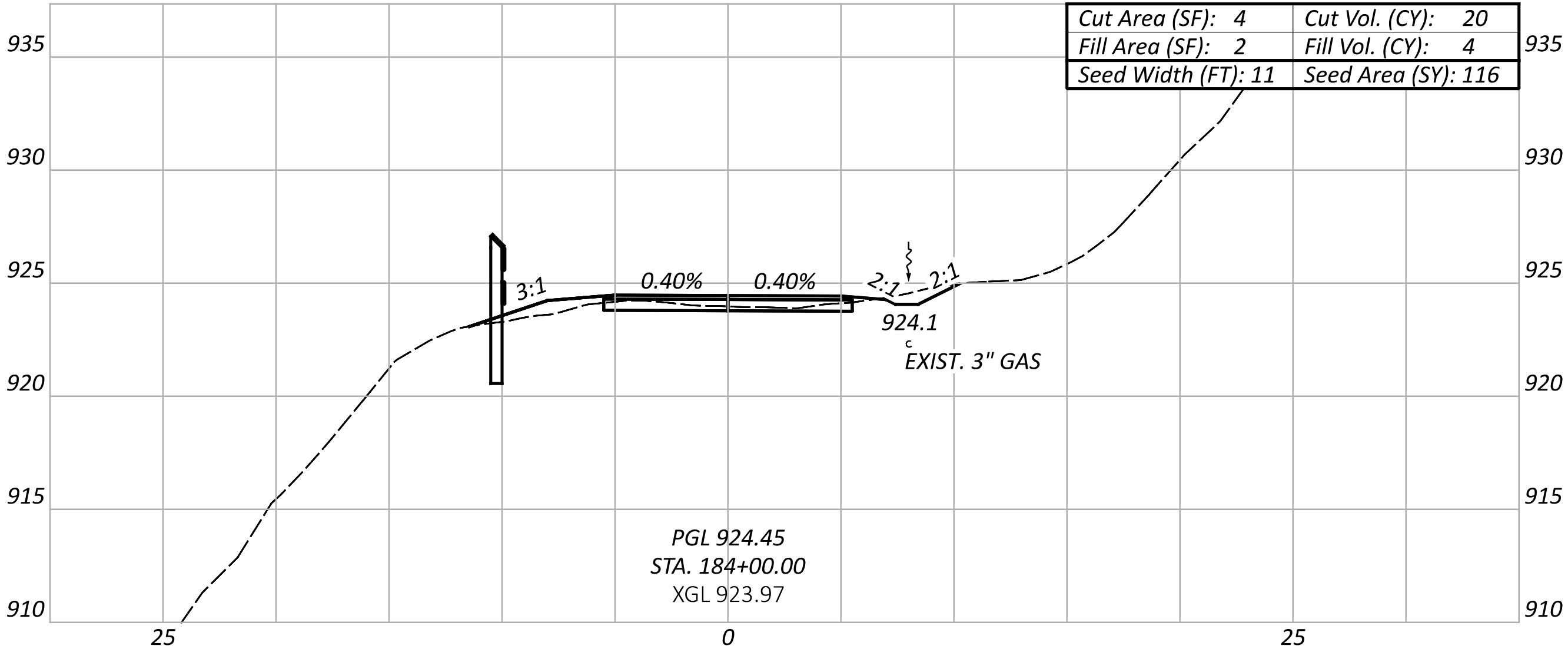
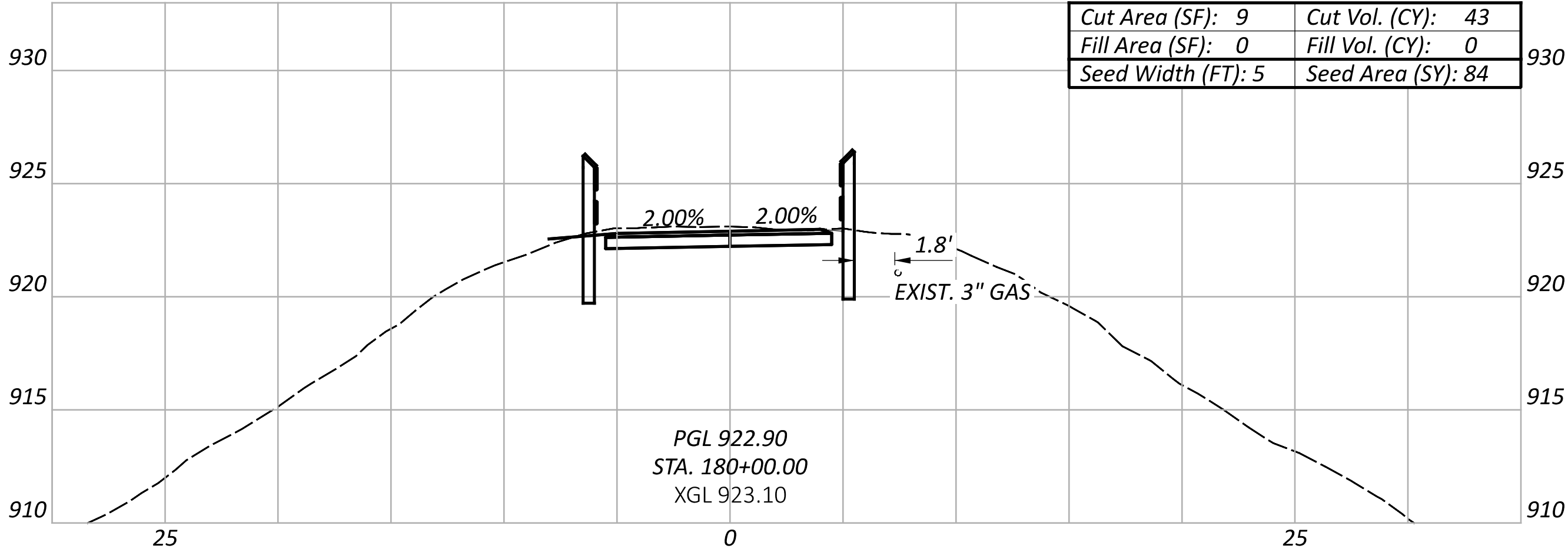
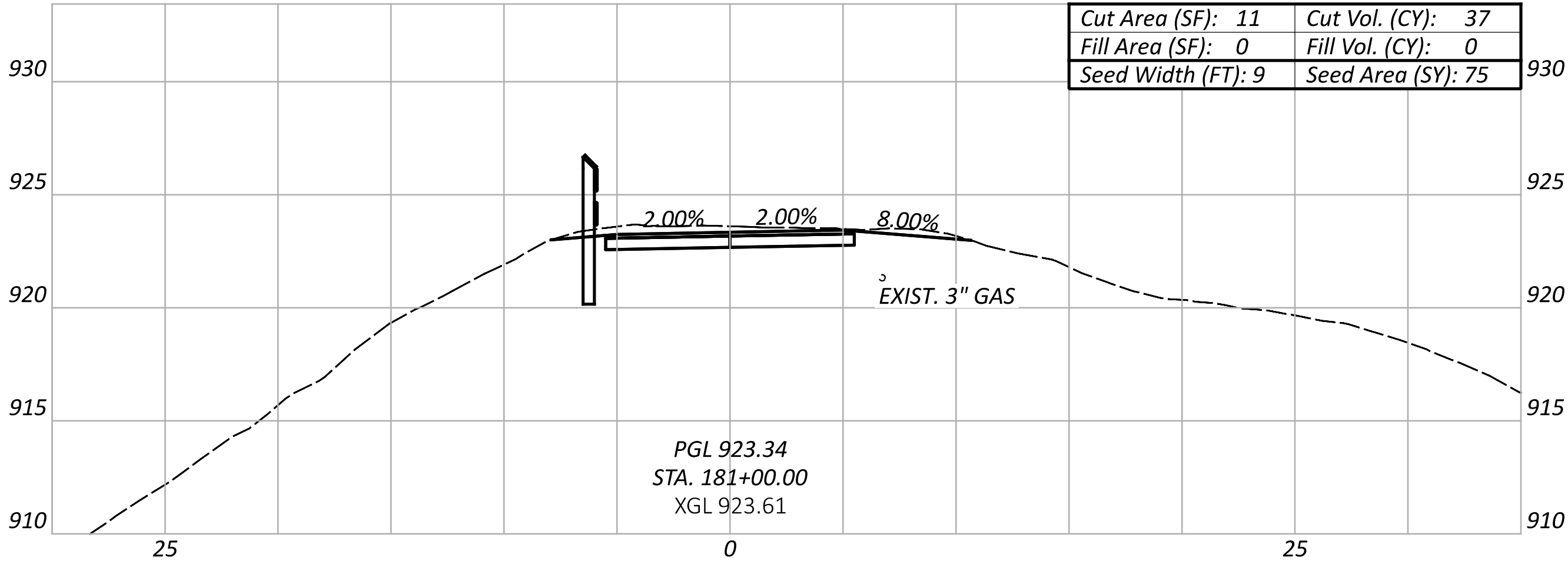
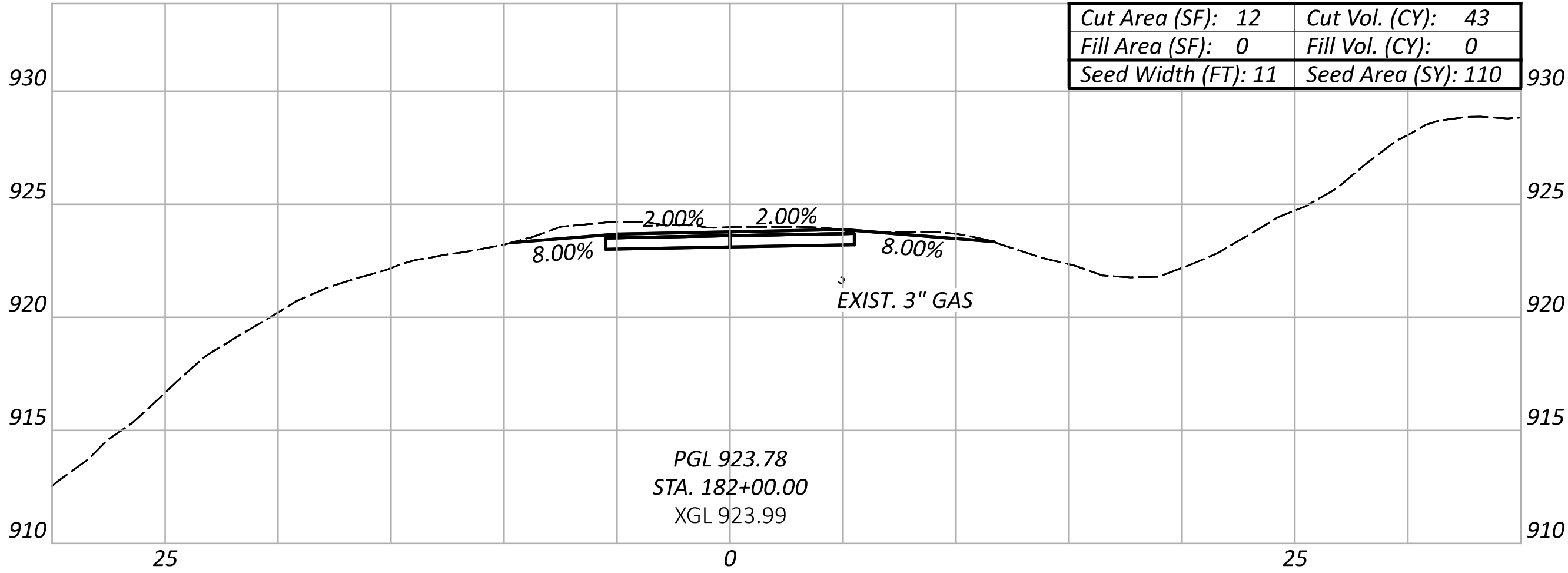


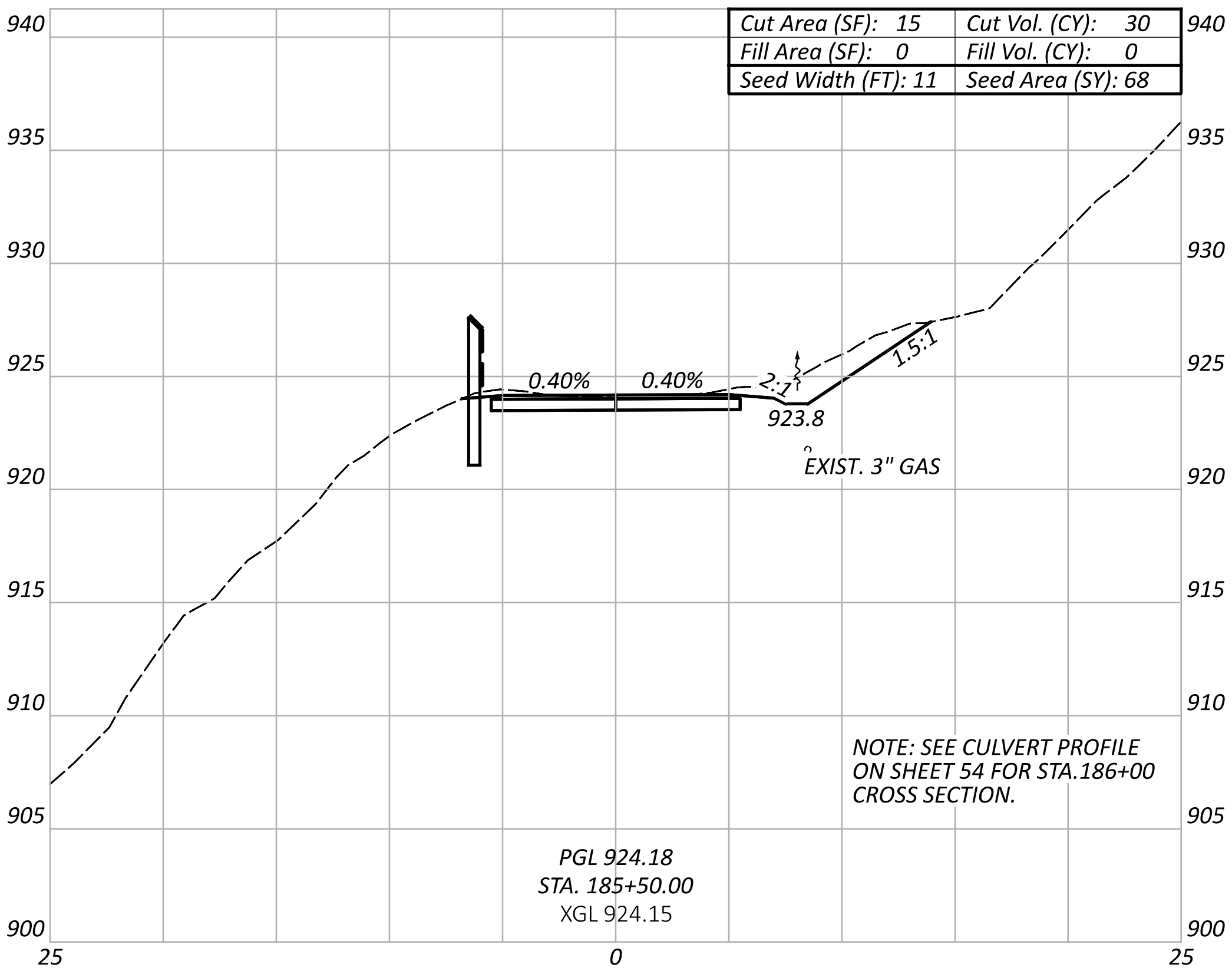
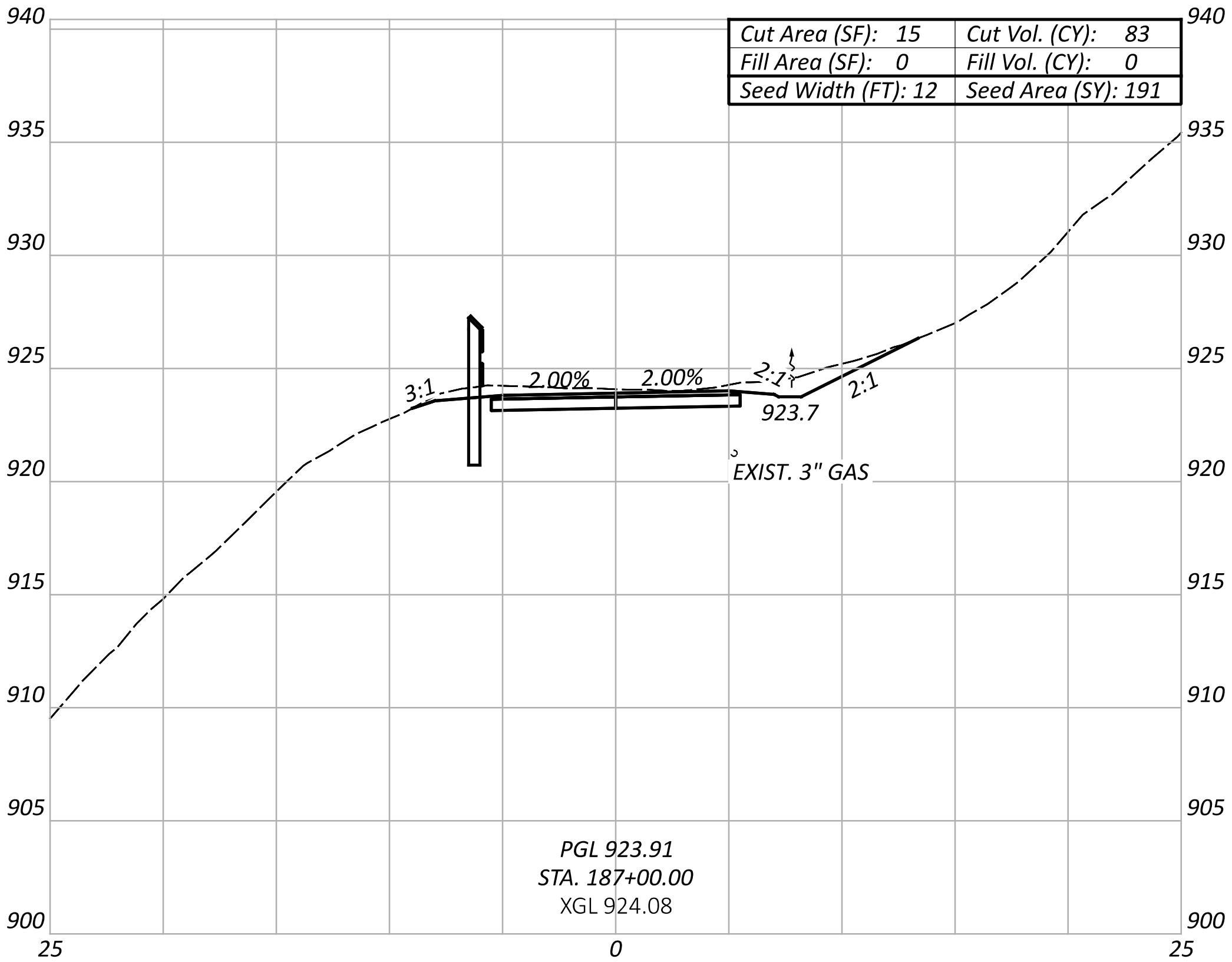
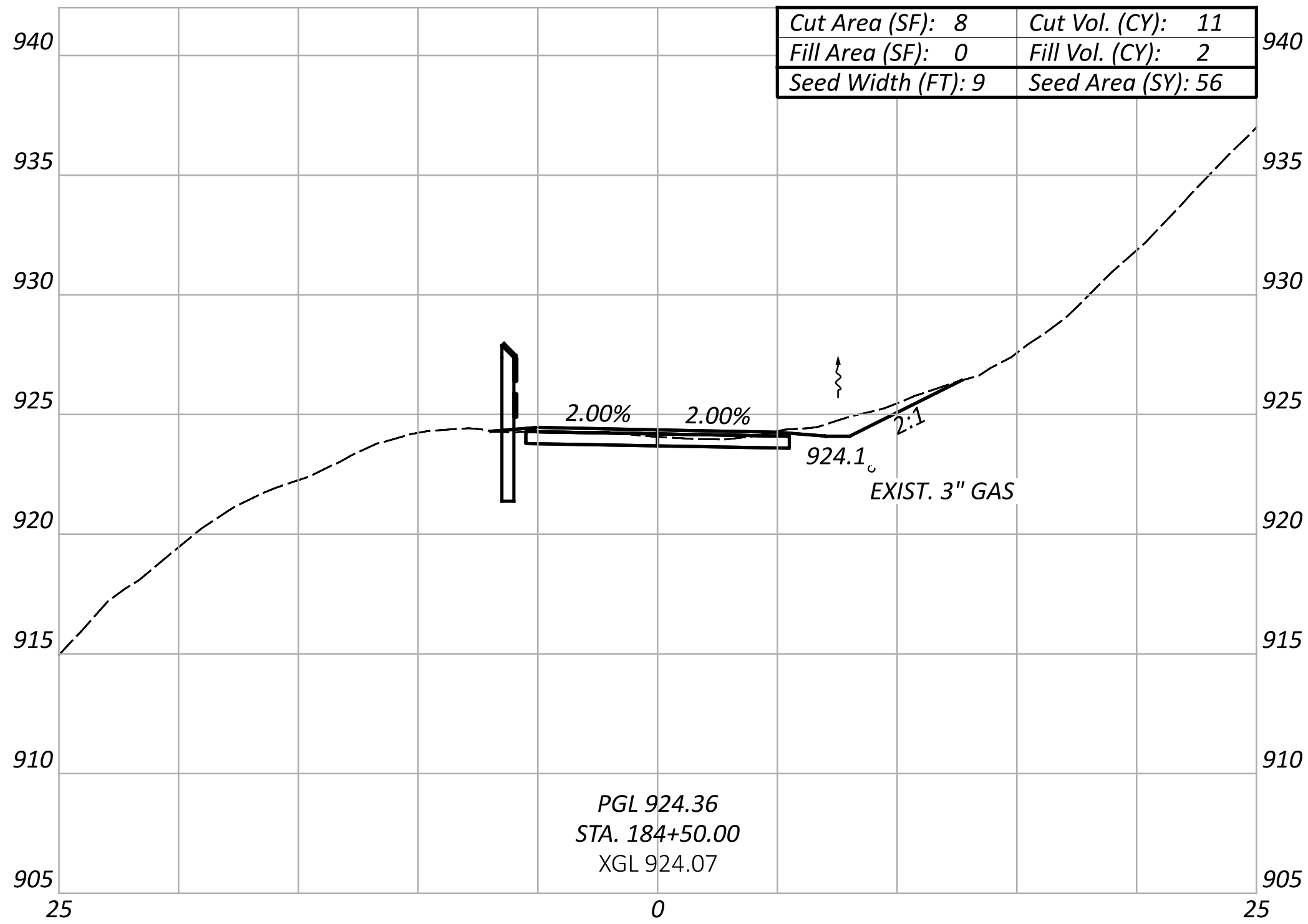
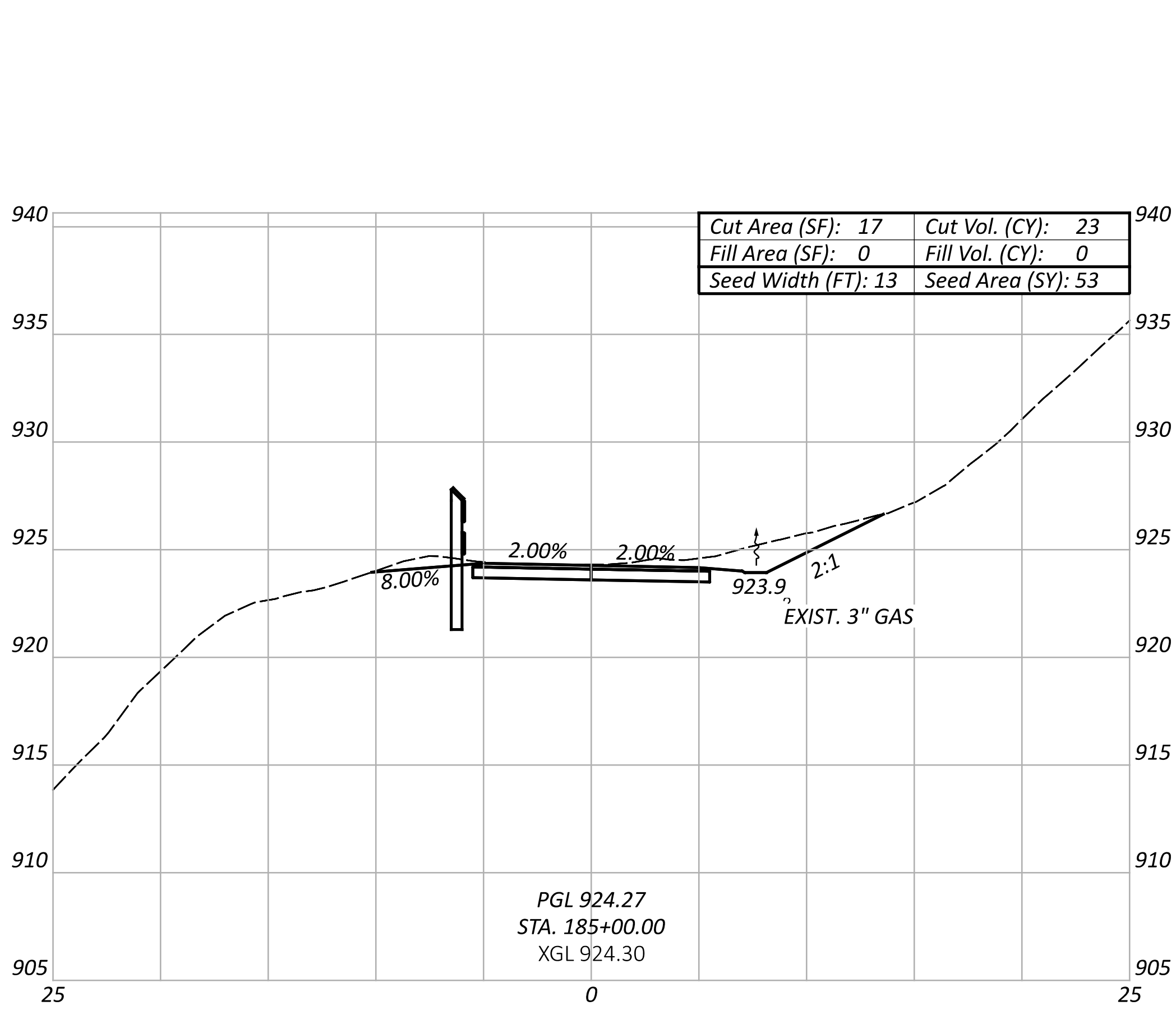
DESIGNER
KMC

REVIEWER
SSR 02/08/23

PROJECT ID
111280

SHEET TOTAL
39 57





NOTE: SEE CULVERT PROFILE
ON SHEET 54 FOR STA.186+00
CROSS SECTION.

CROSS SECTIONS
STA. 184+50 TO STA. 187+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

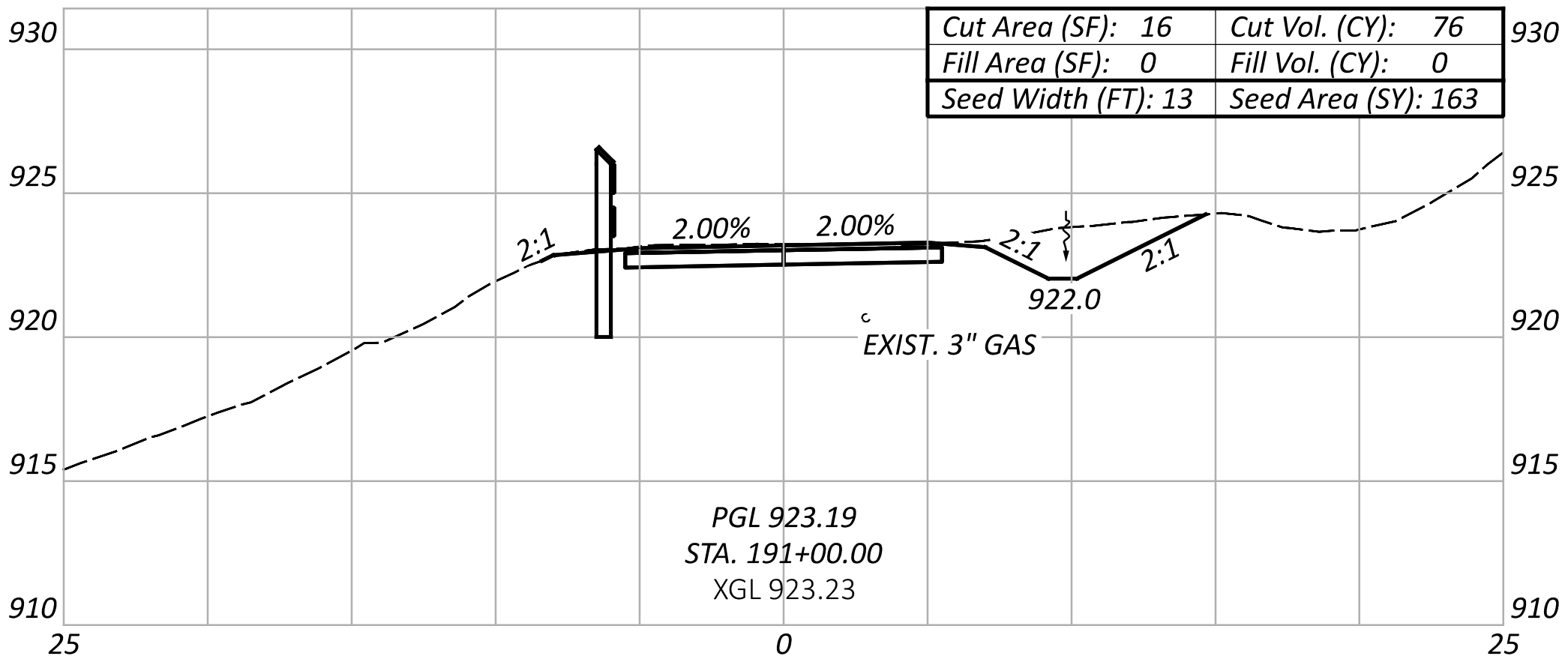
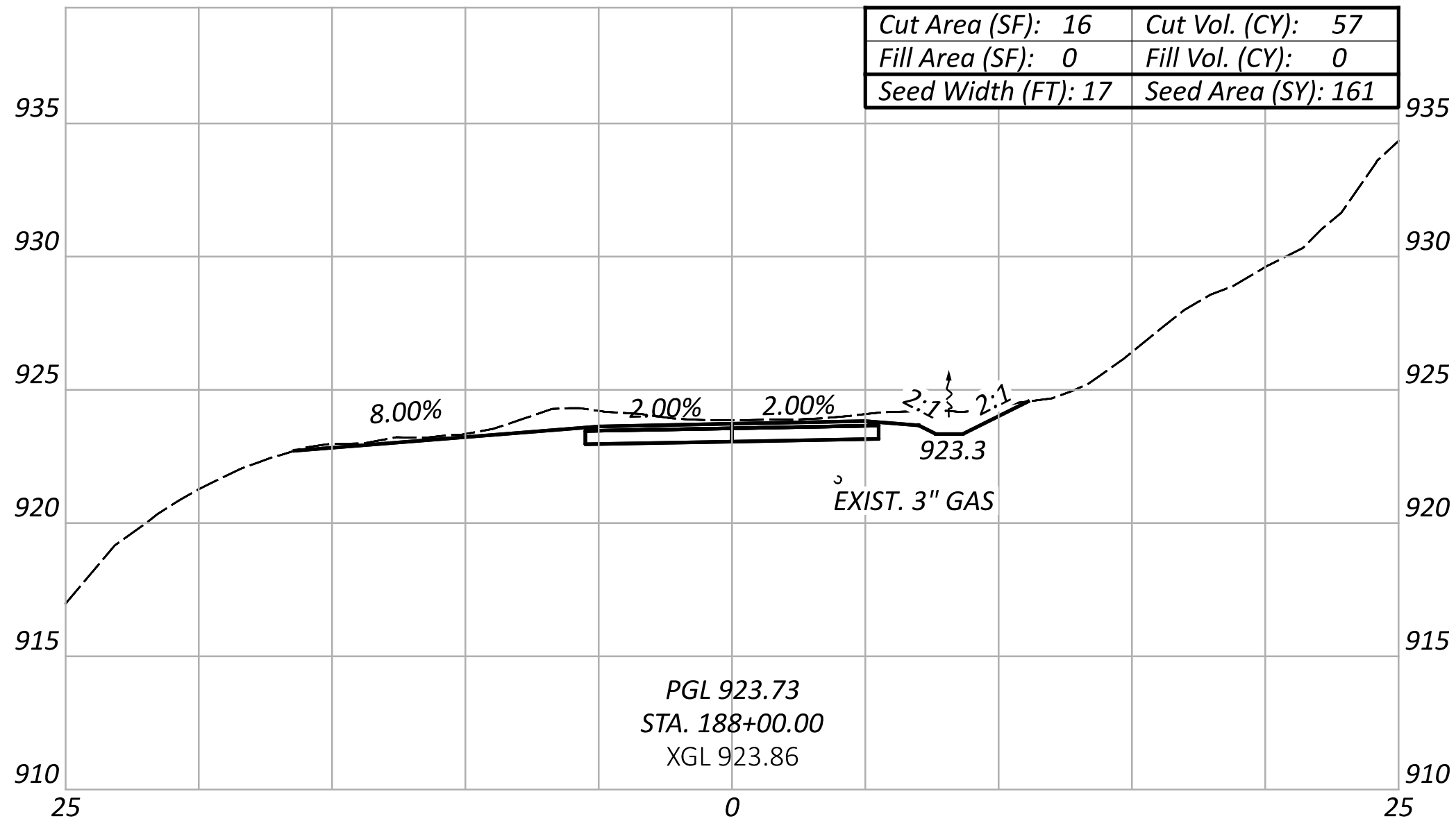
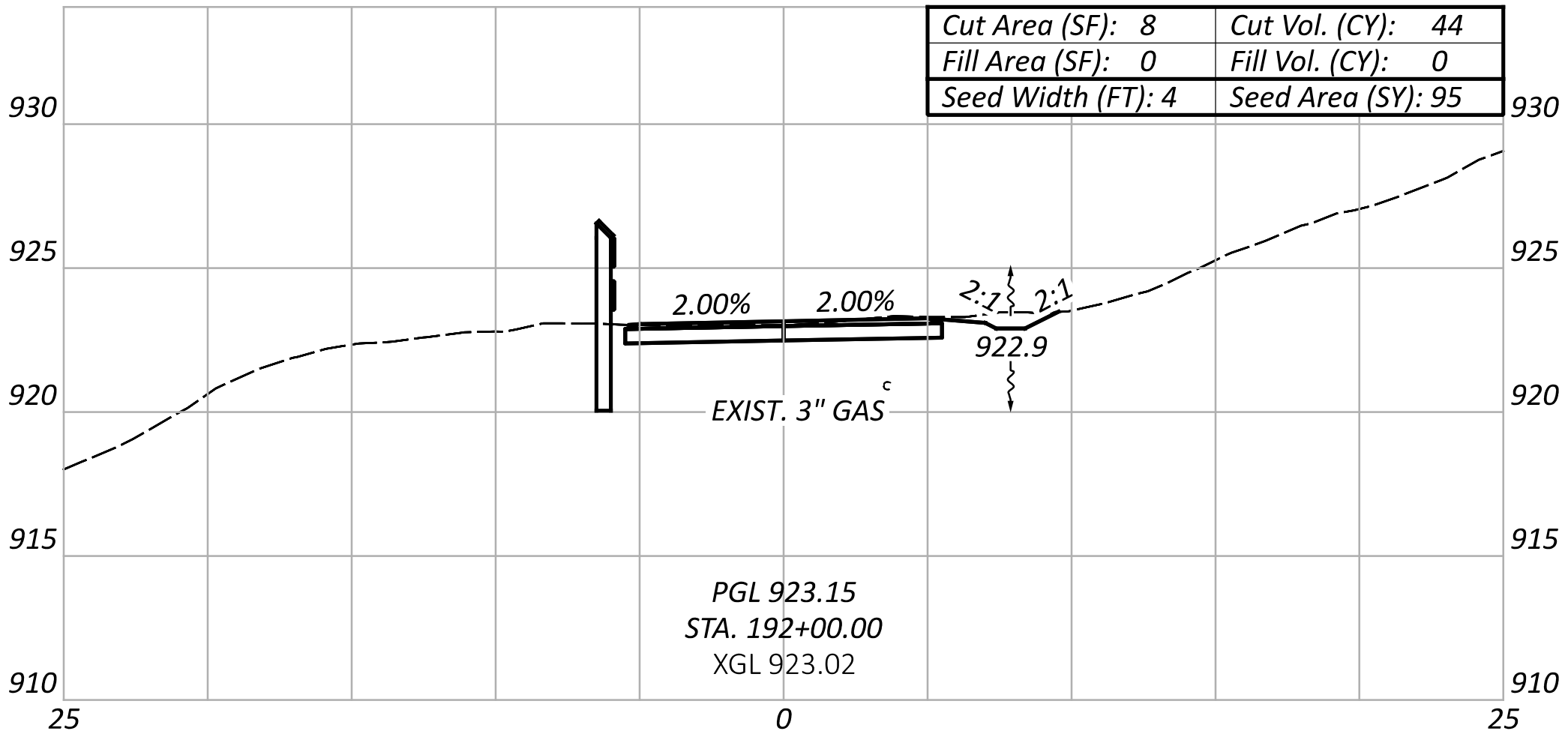
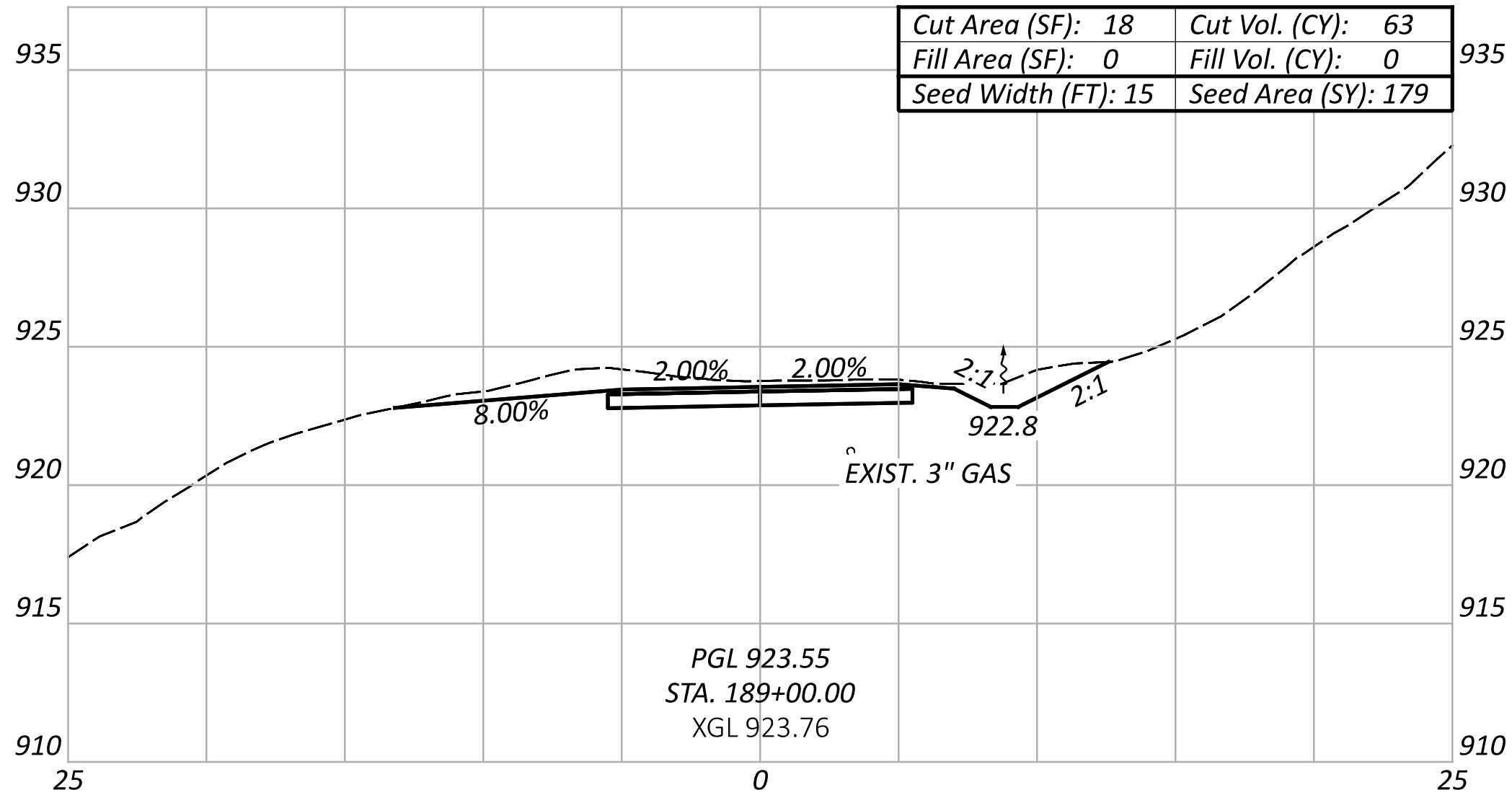
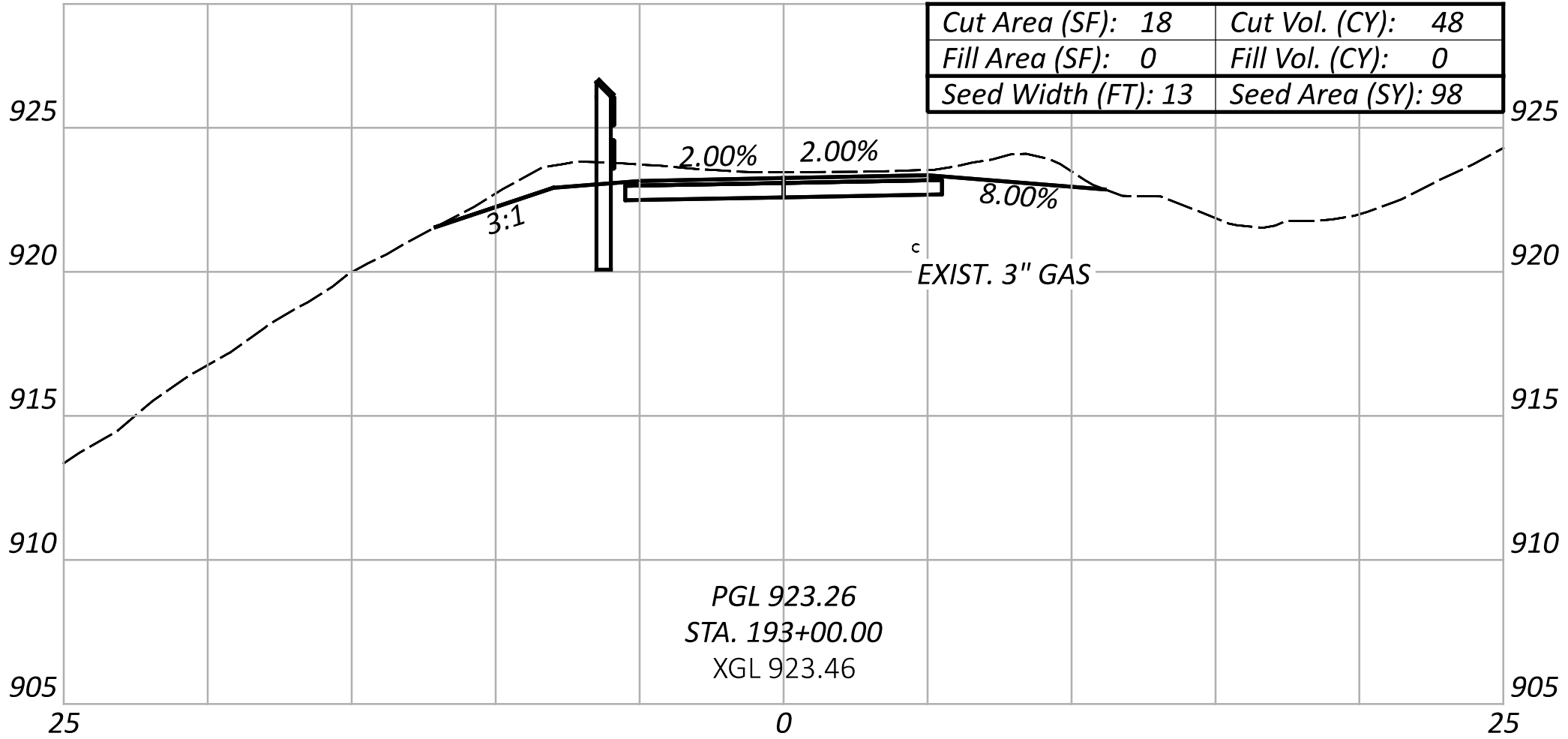
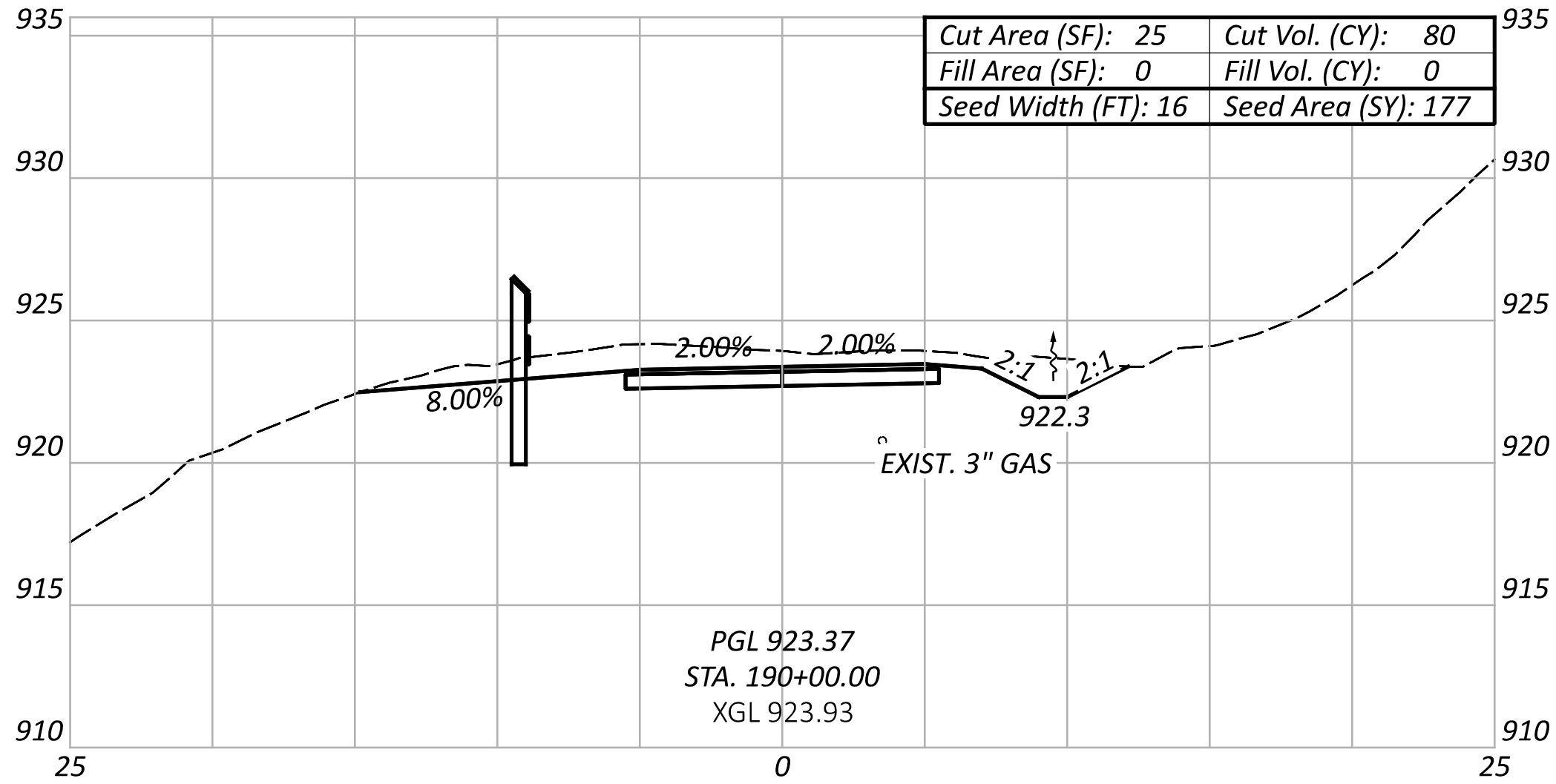
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SHEET

41

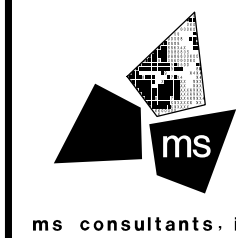
TOTAL

57



CROSS SECTIONS
STA. 188+00 TO STA. 193+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

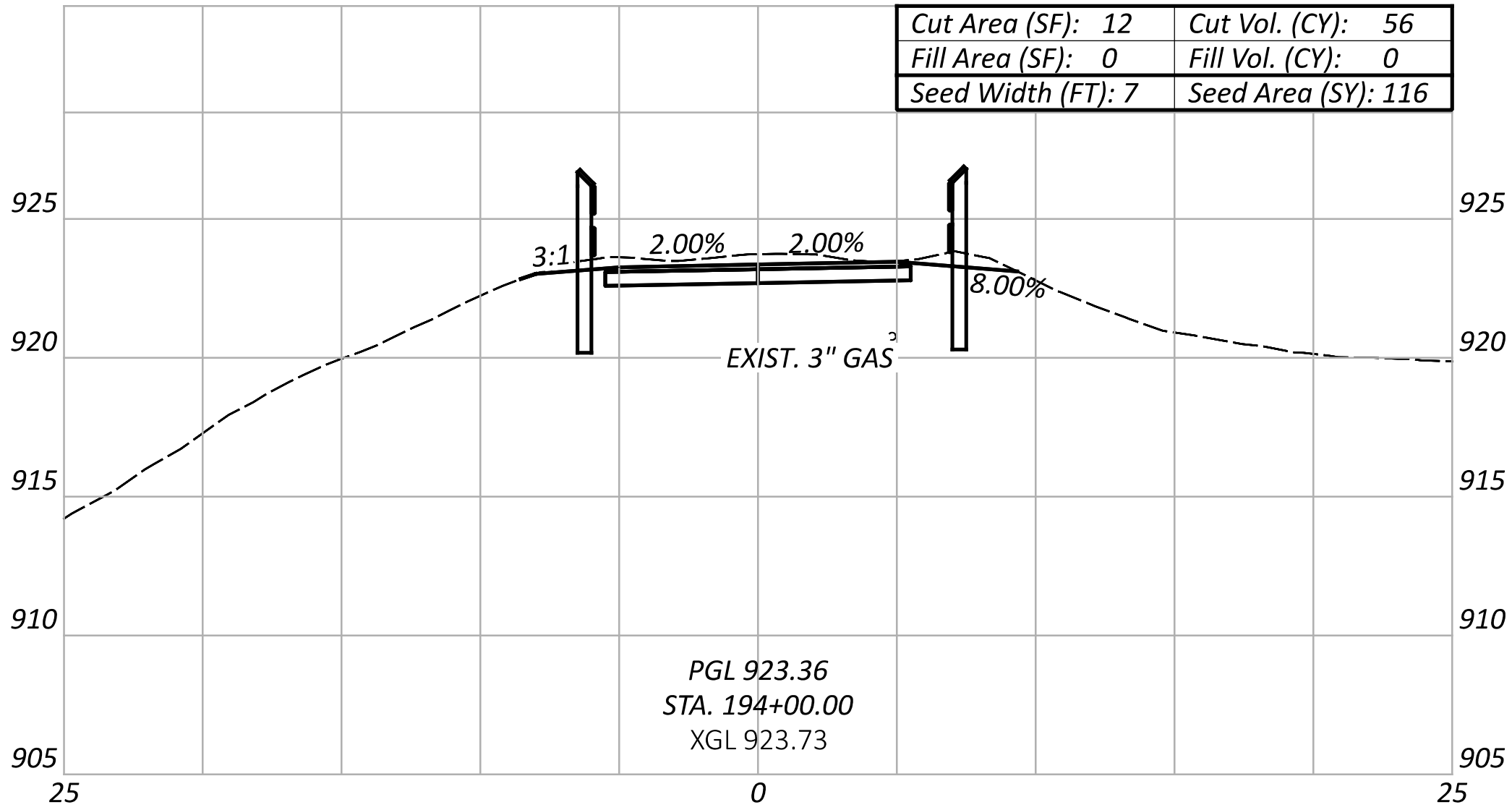
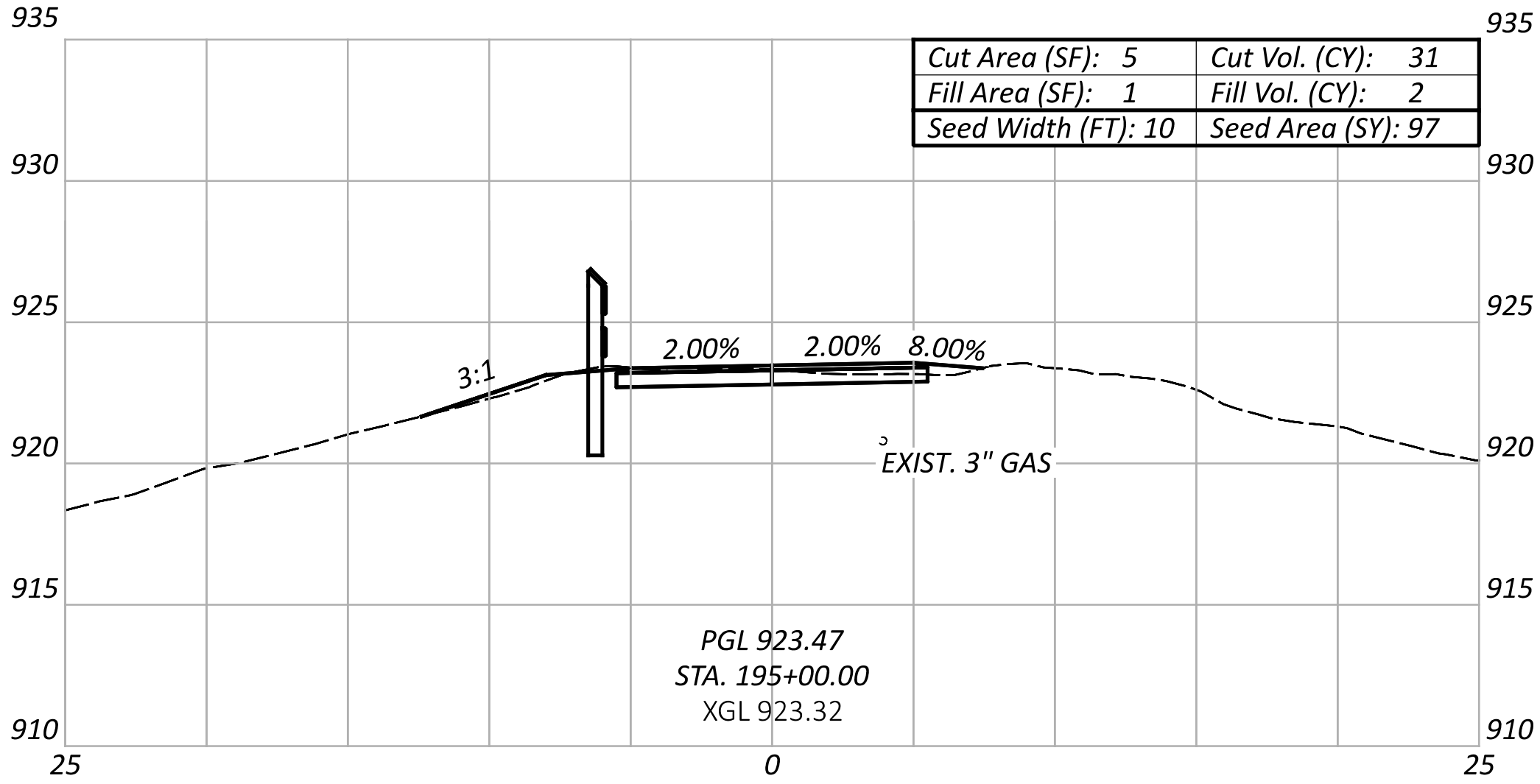
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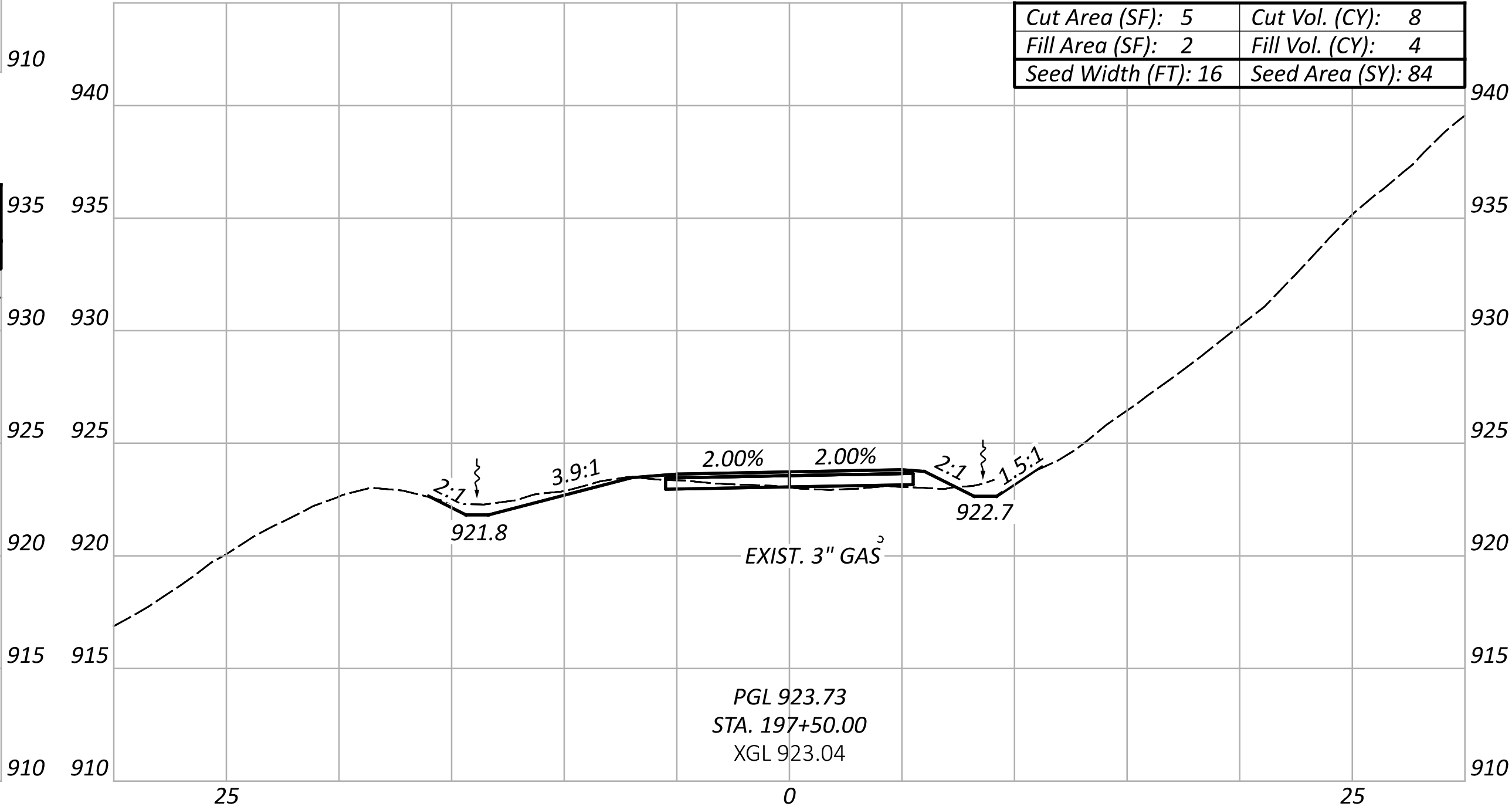
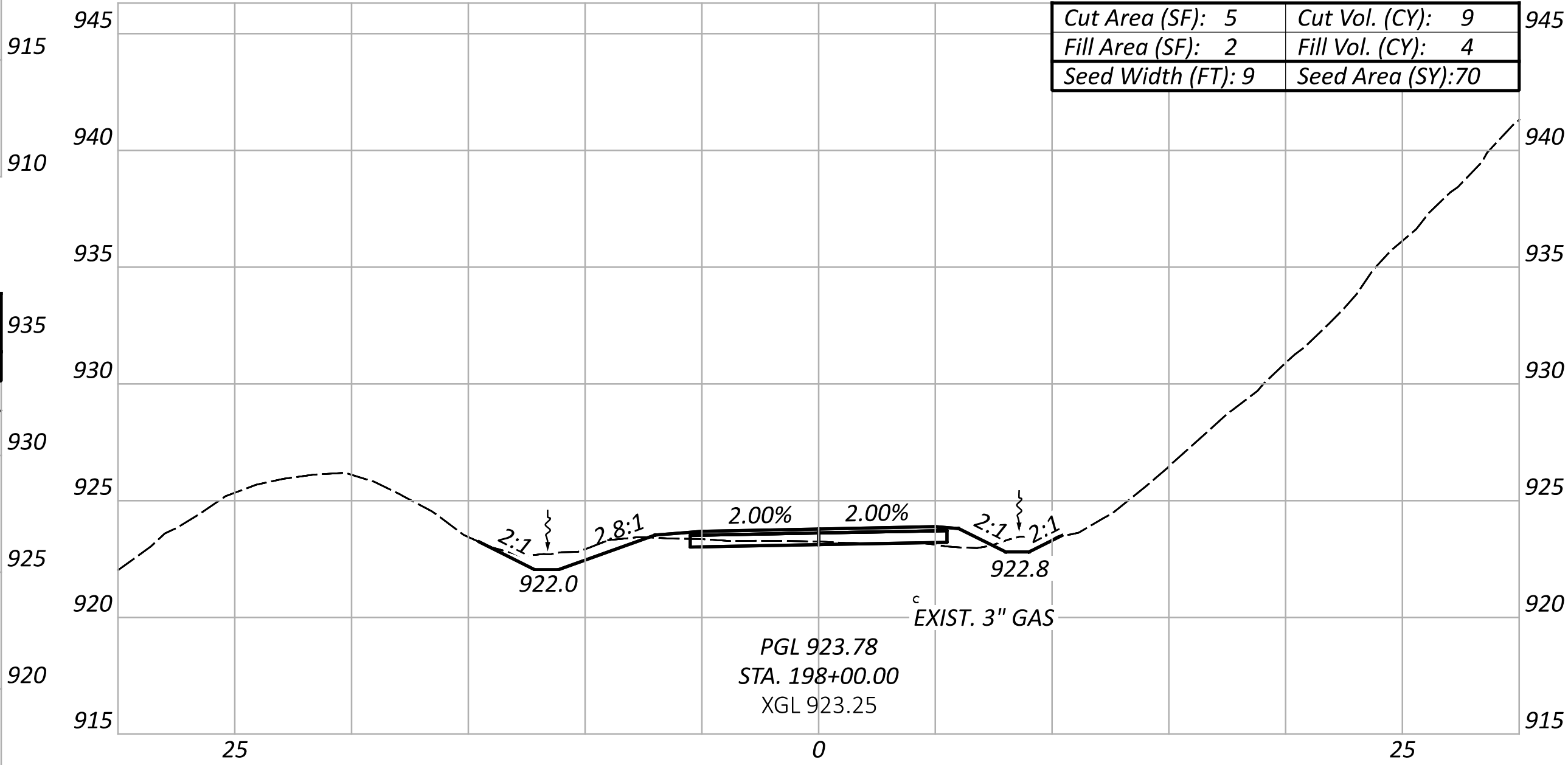
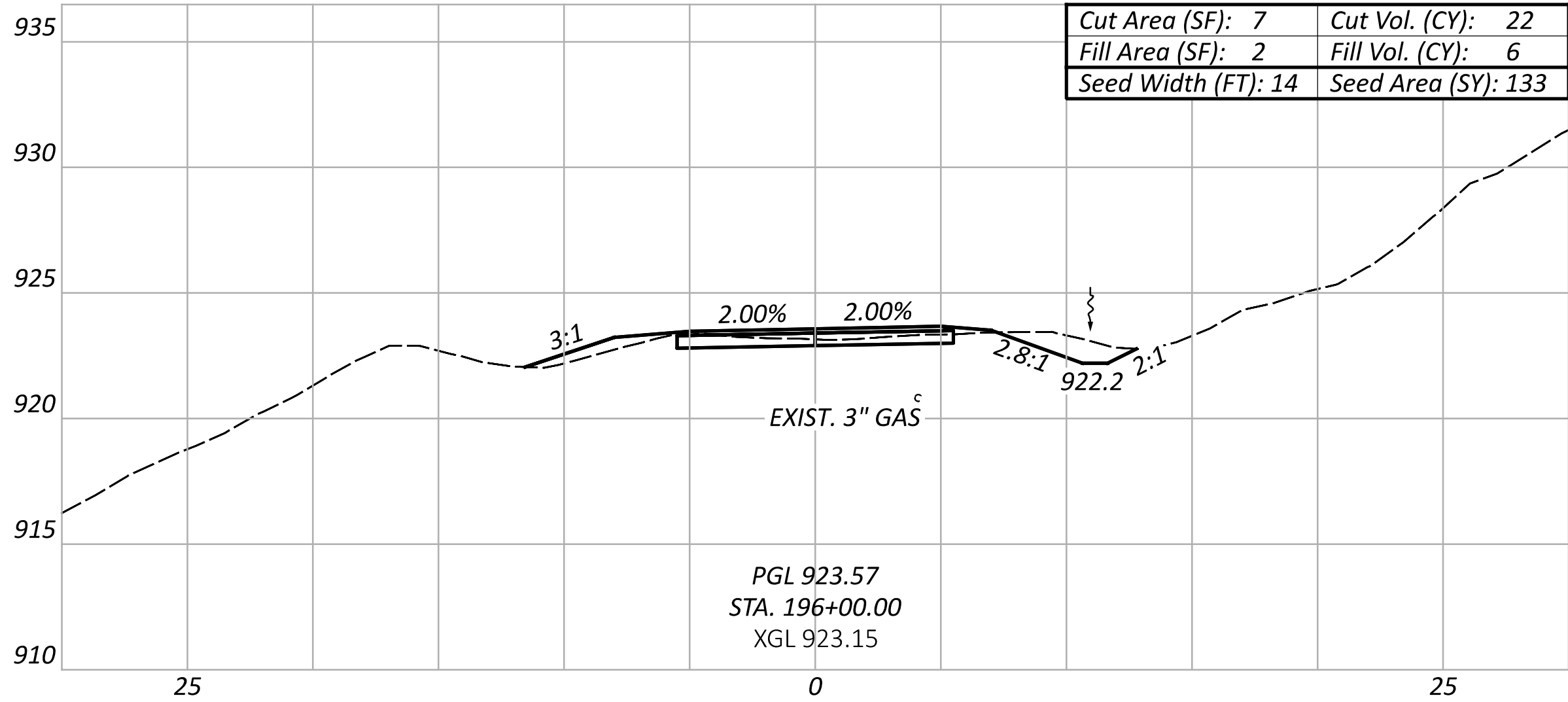
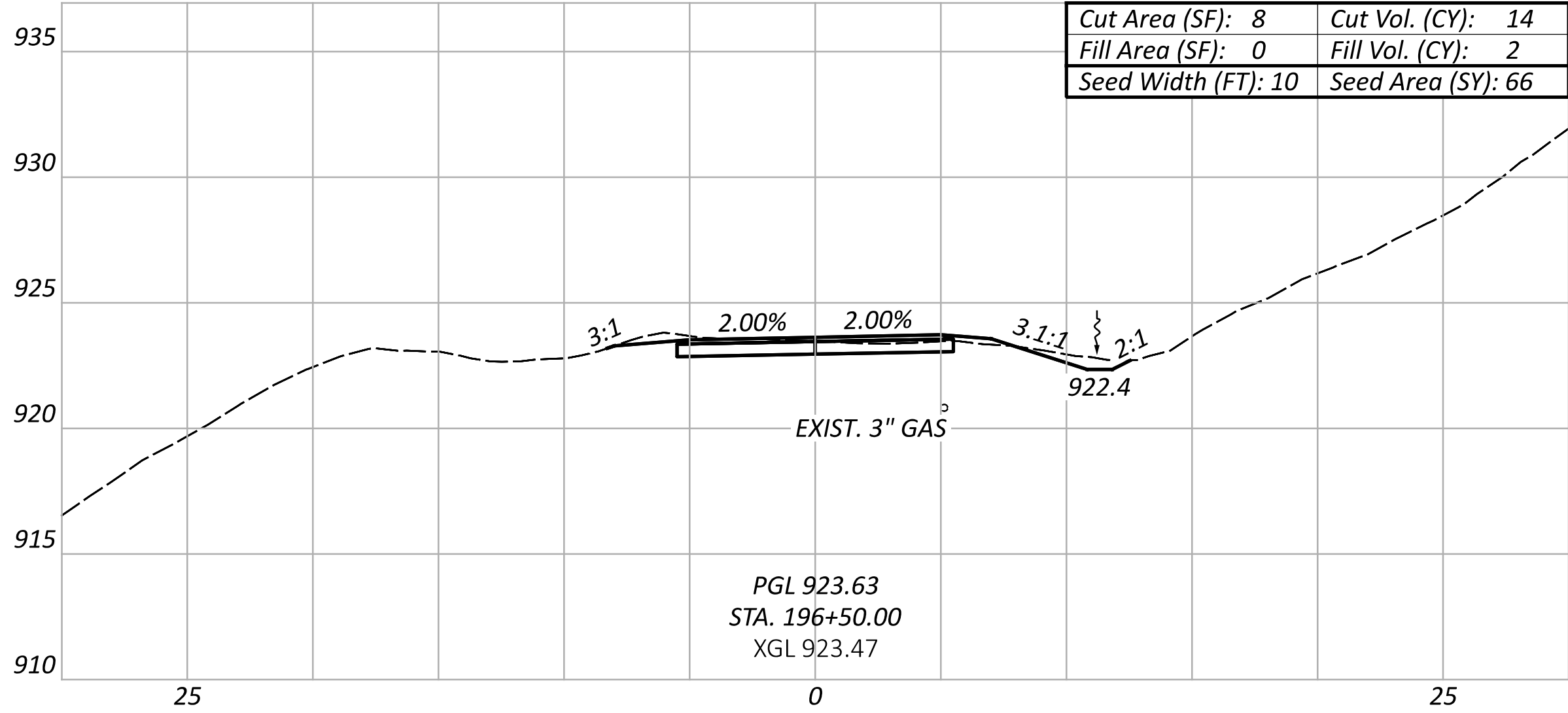
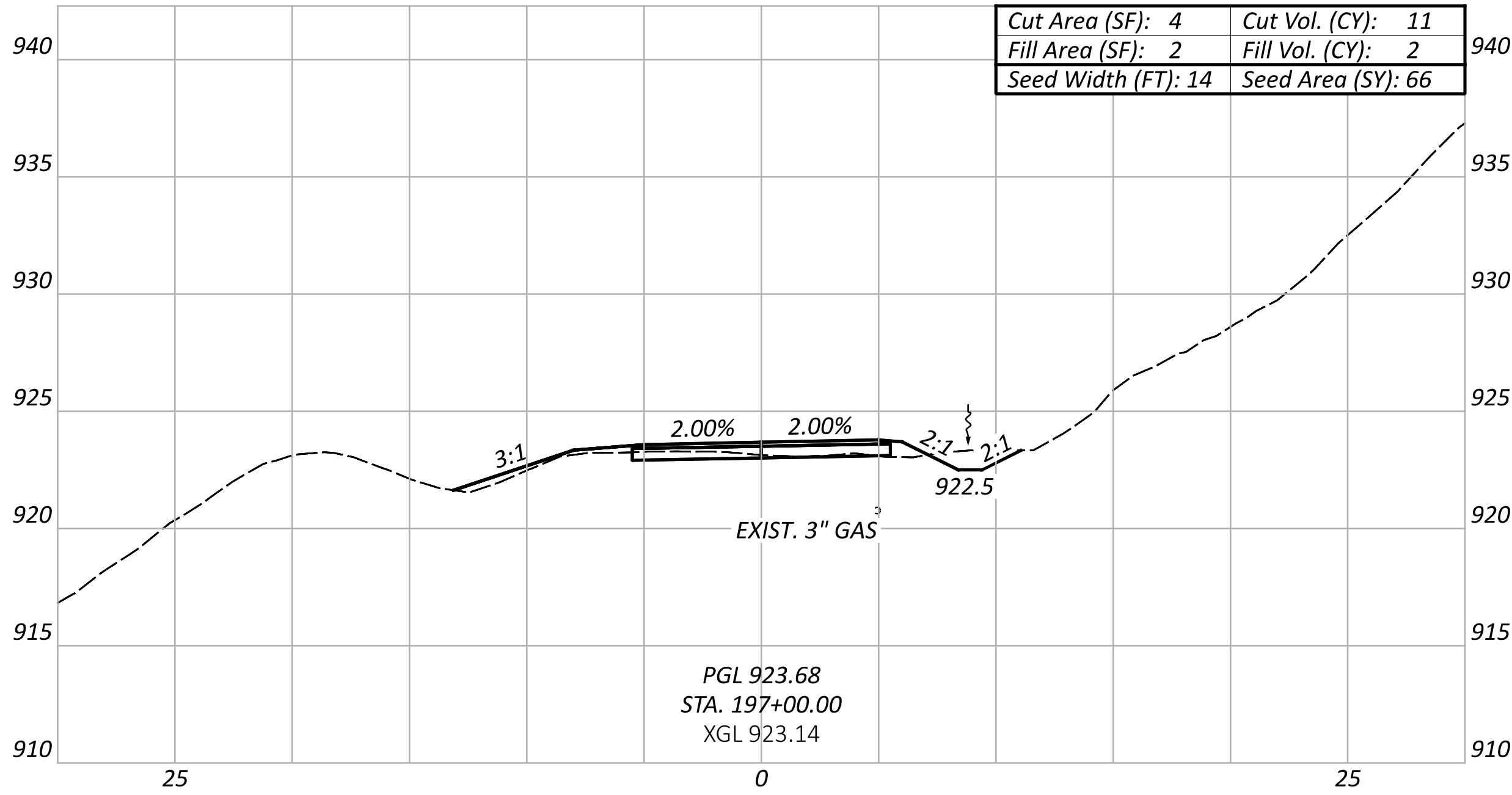
SHEET

42

TOTAL

57





CROSS SECTIONS
STA. 196+00 TO STA. 198+00

DESIGN AGENCY



DESIGNER

KMC

REVIEWER

SSR 02/08/23

PROJECT ID

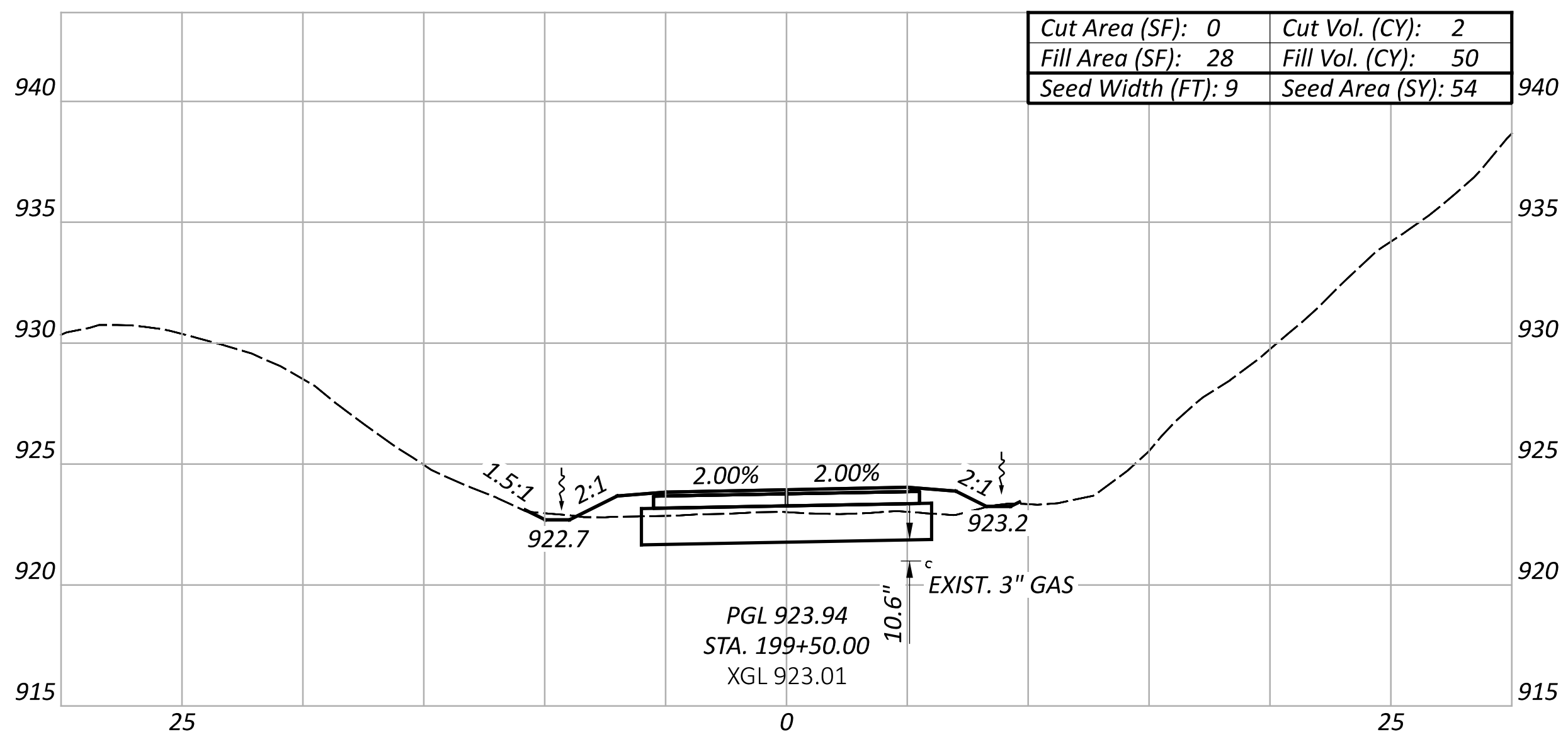
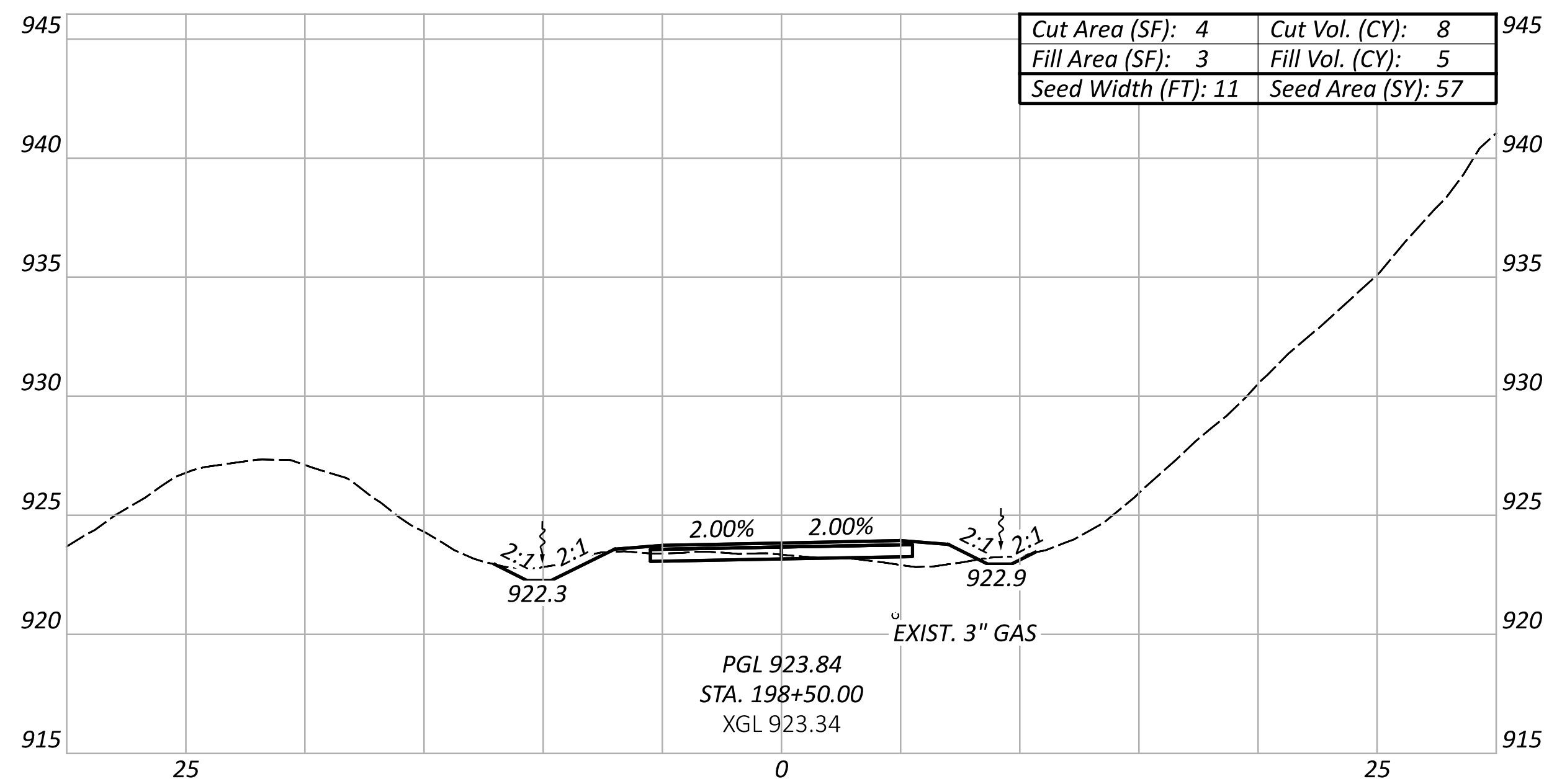
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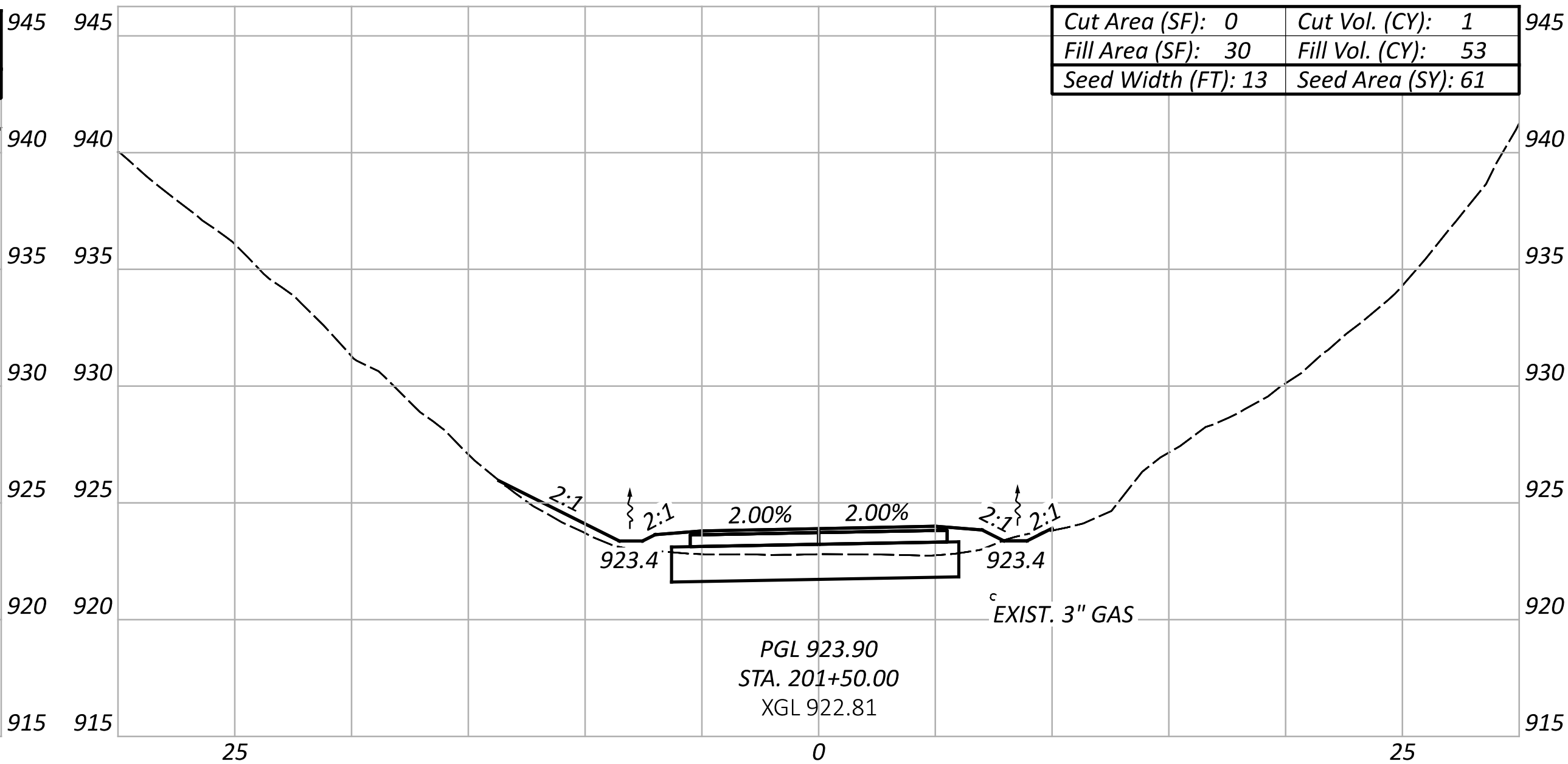
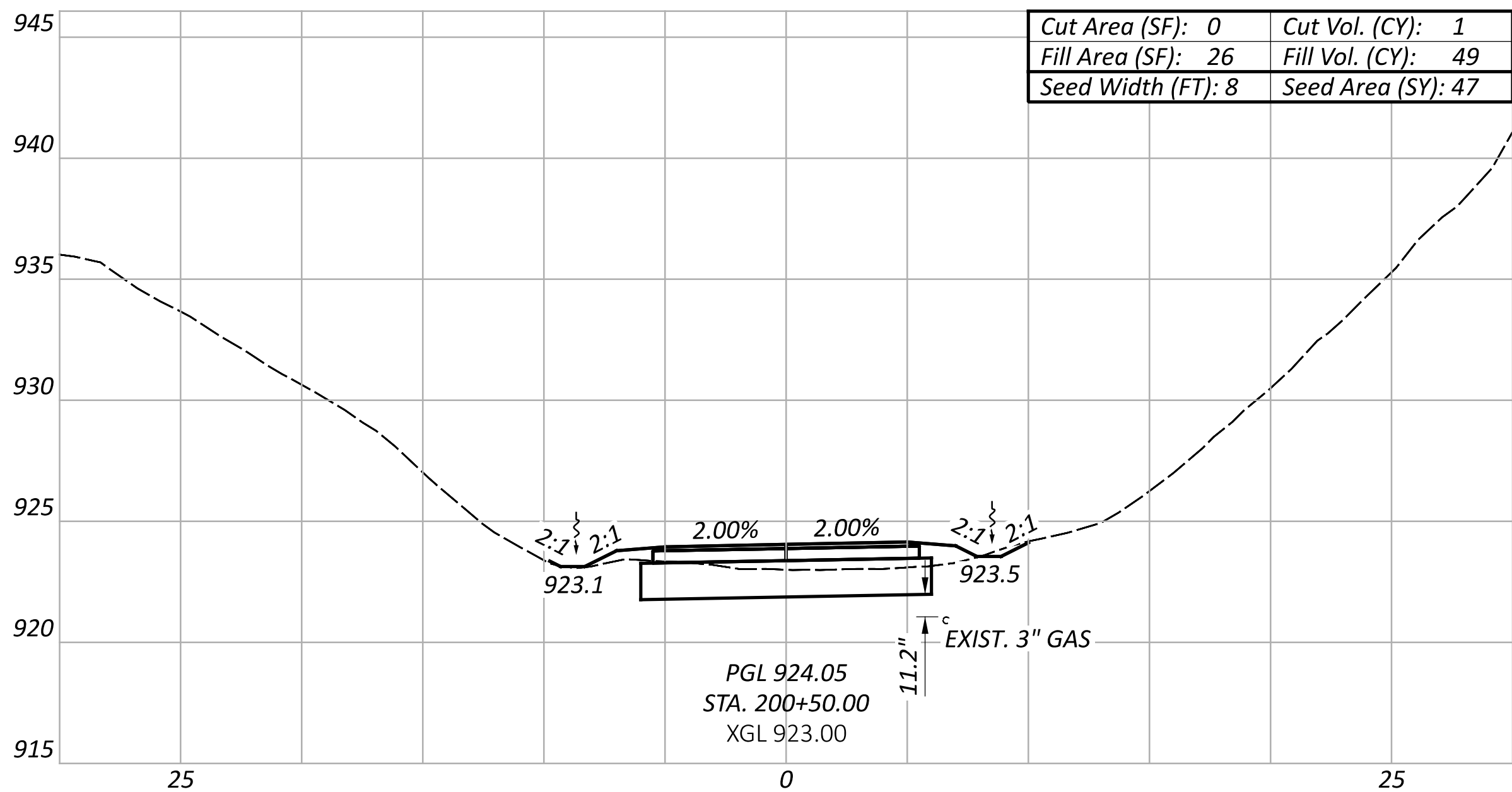
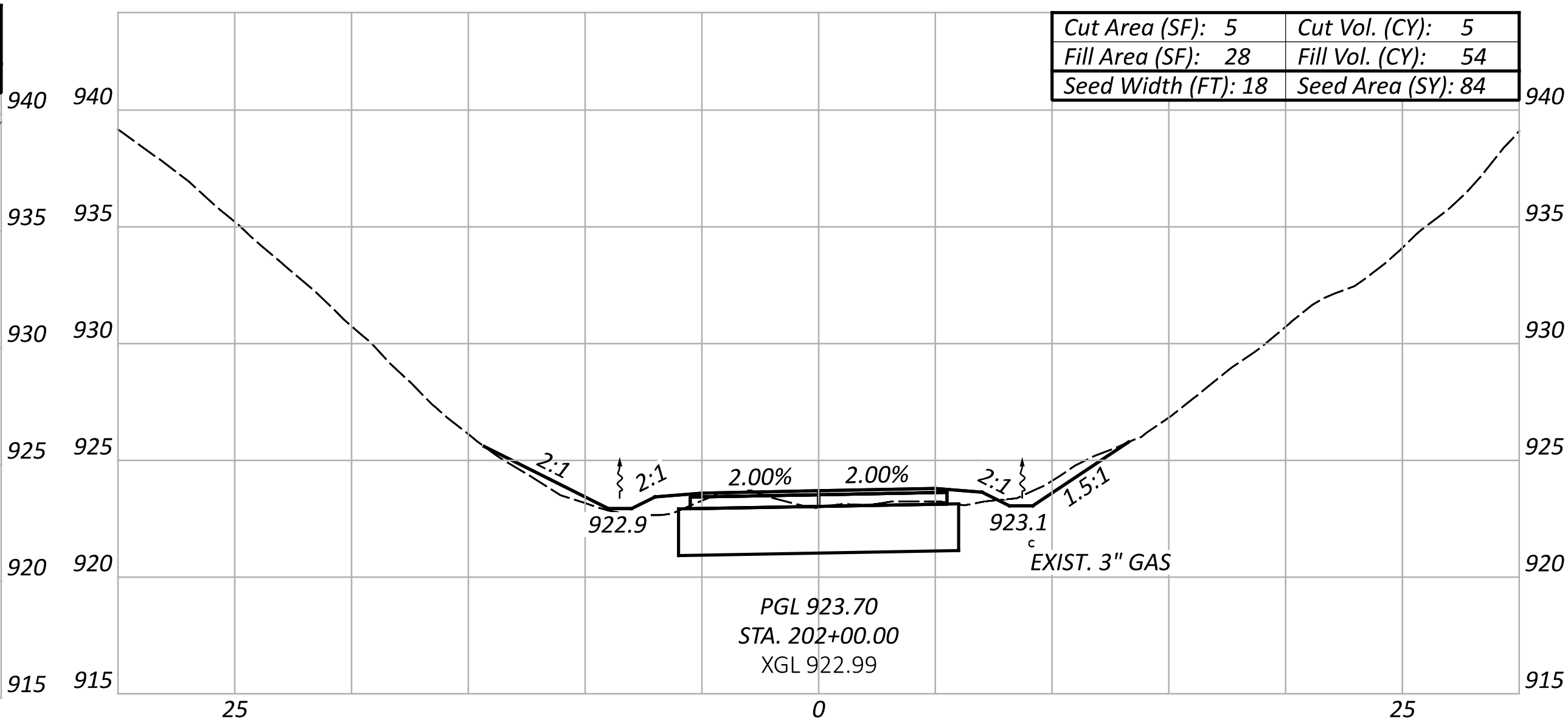
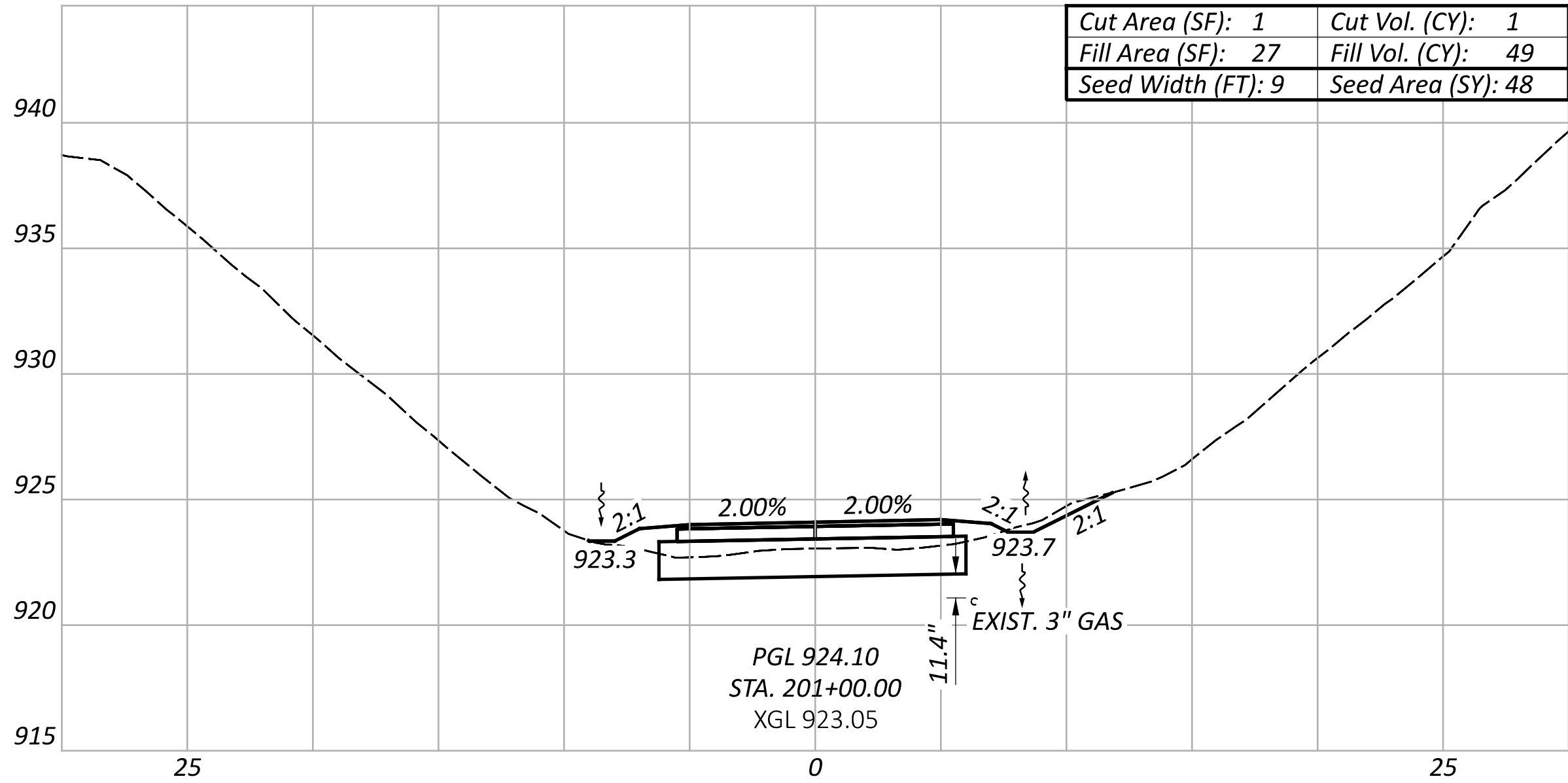
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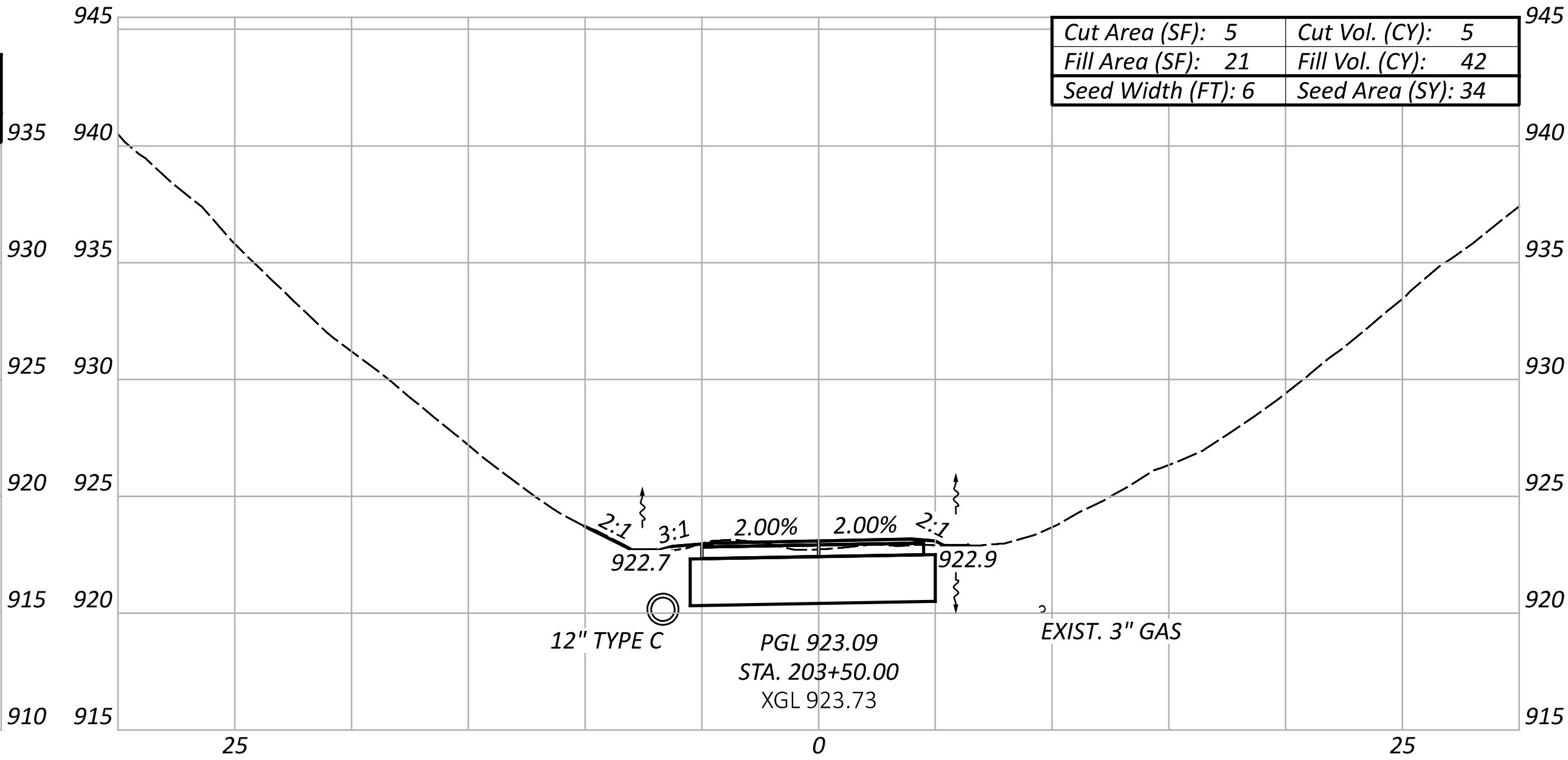
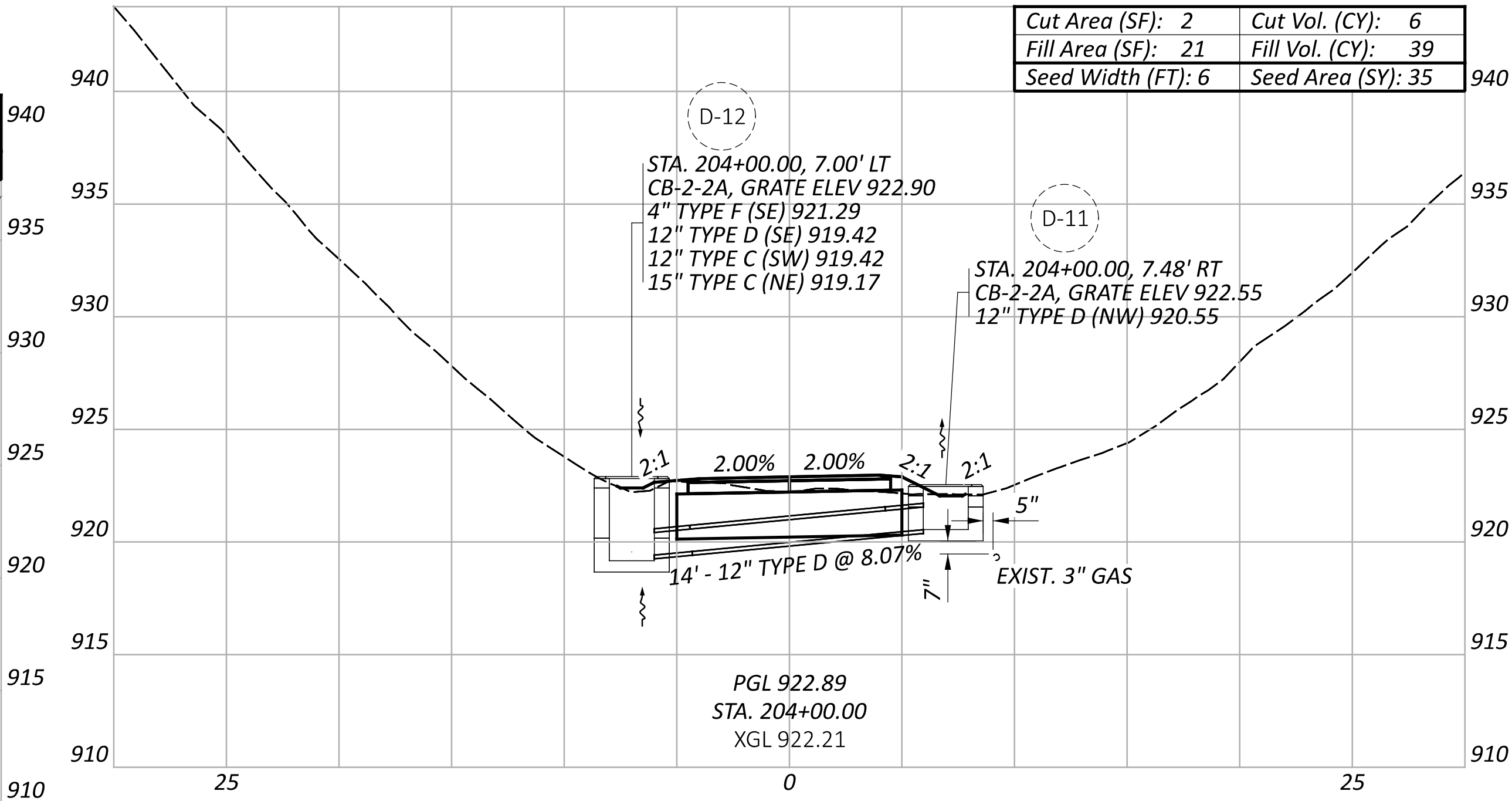
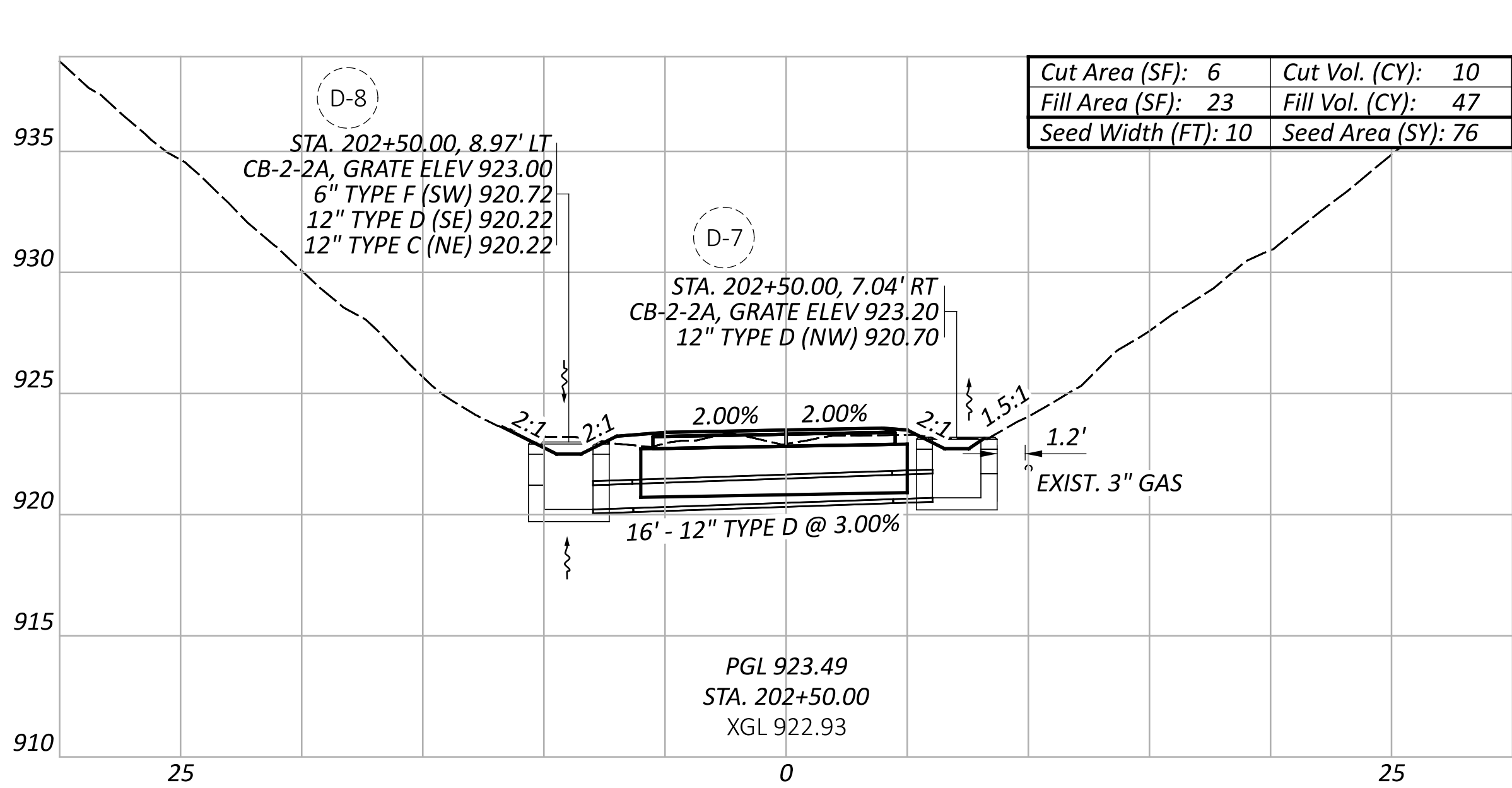
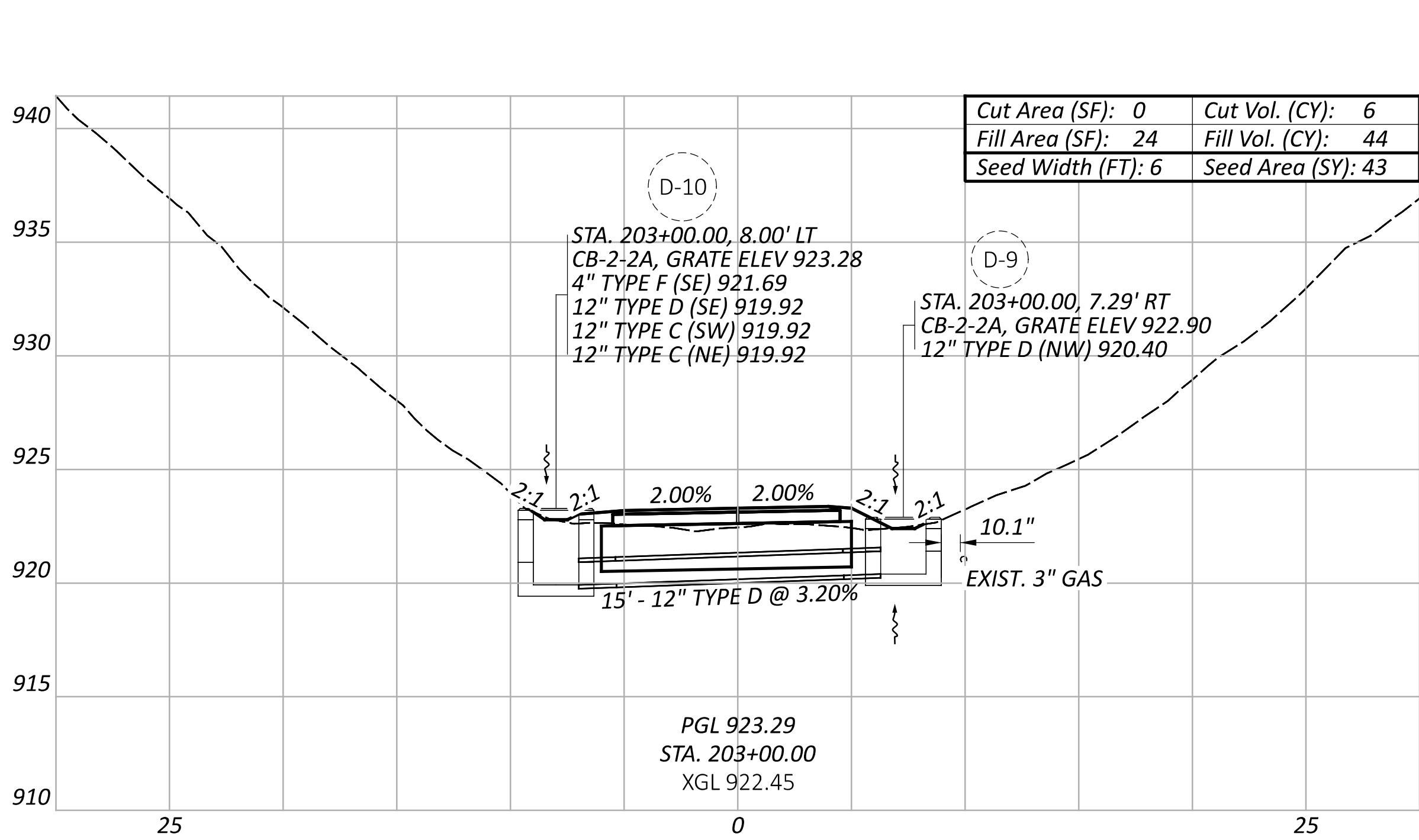
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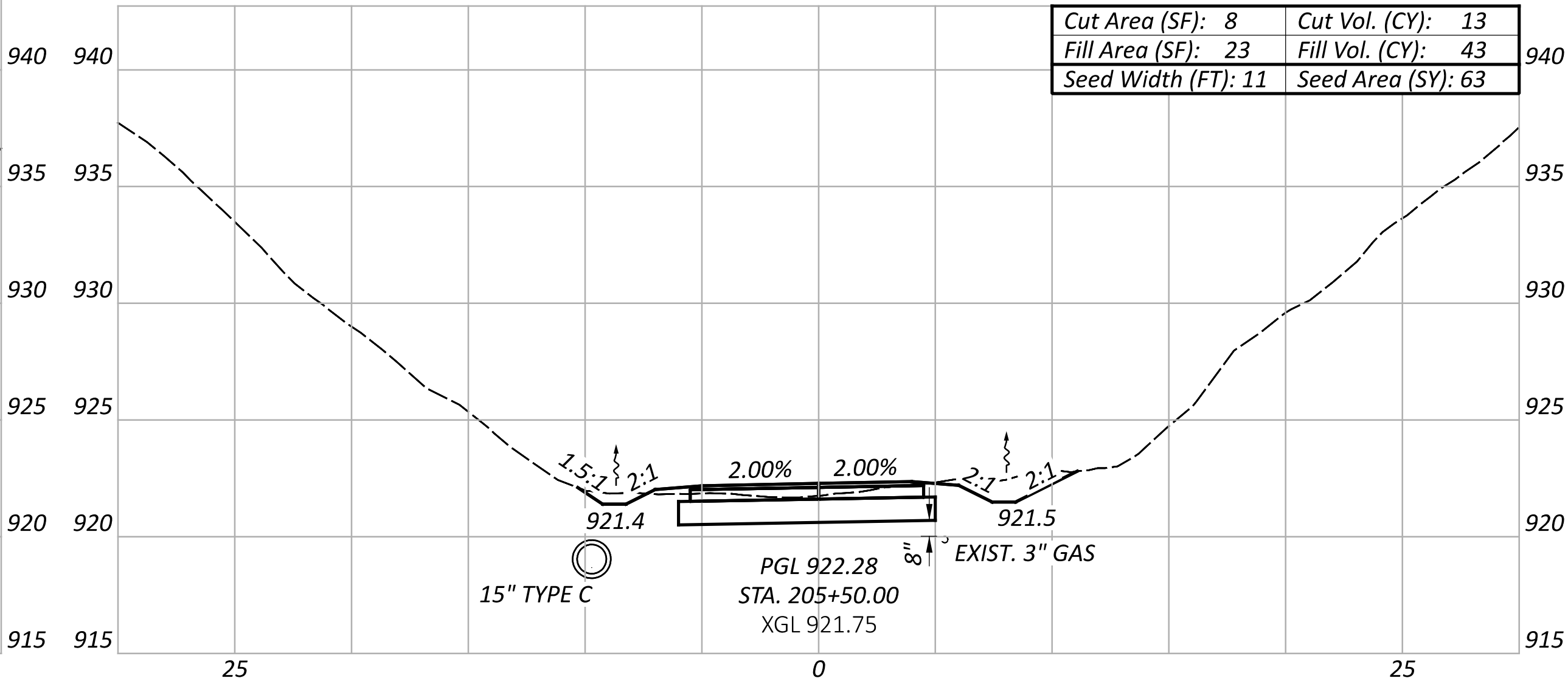
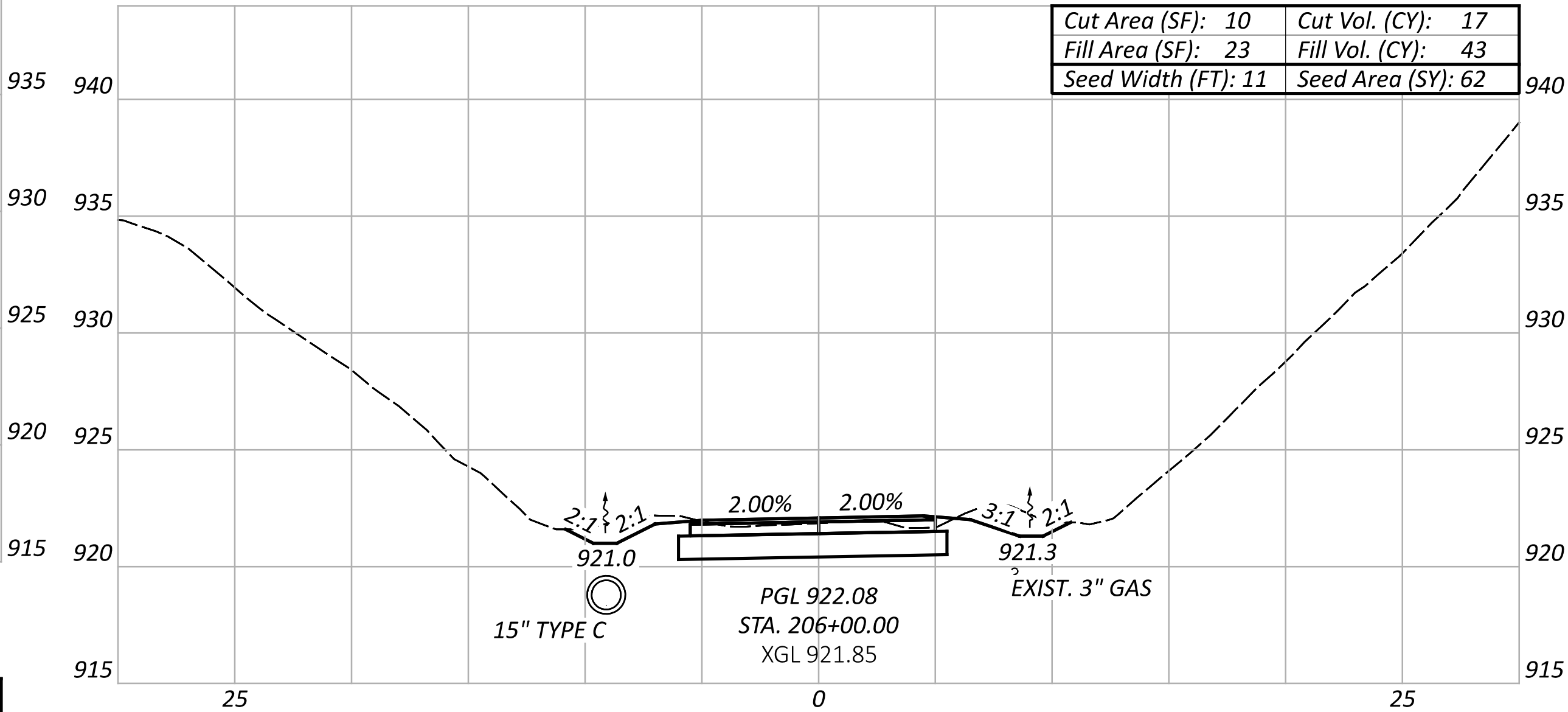
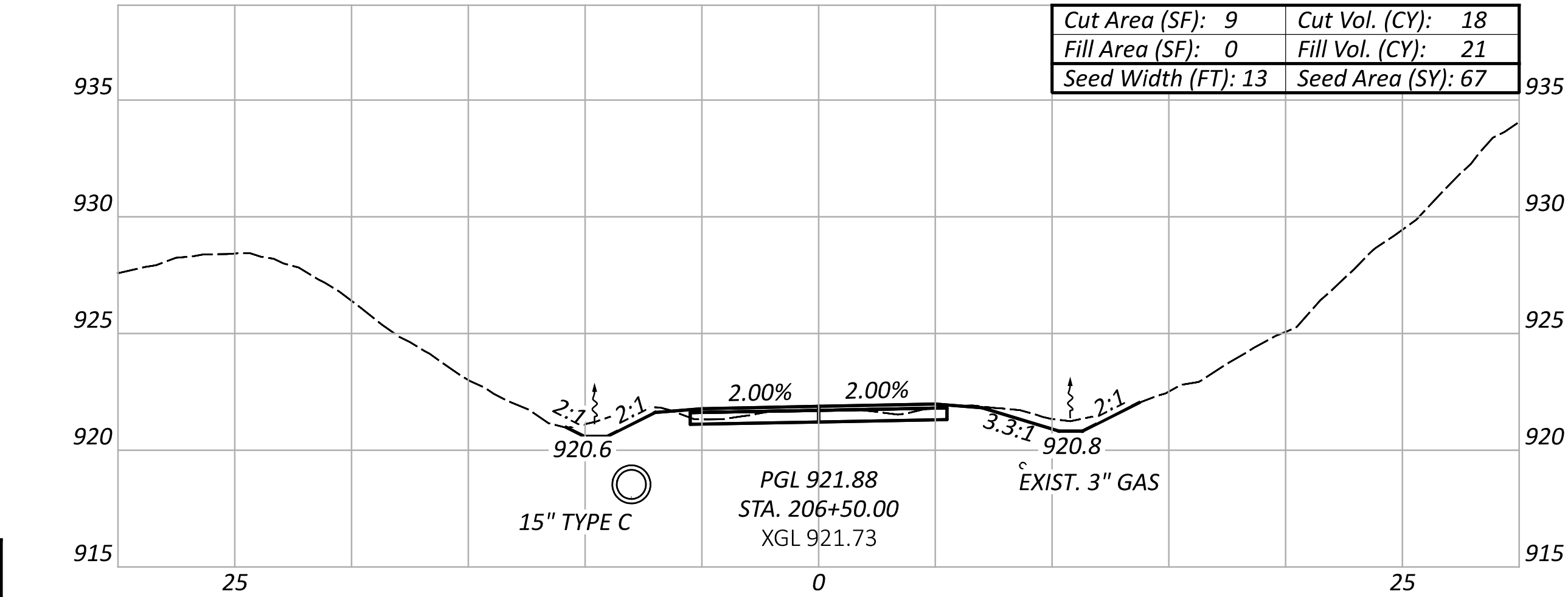
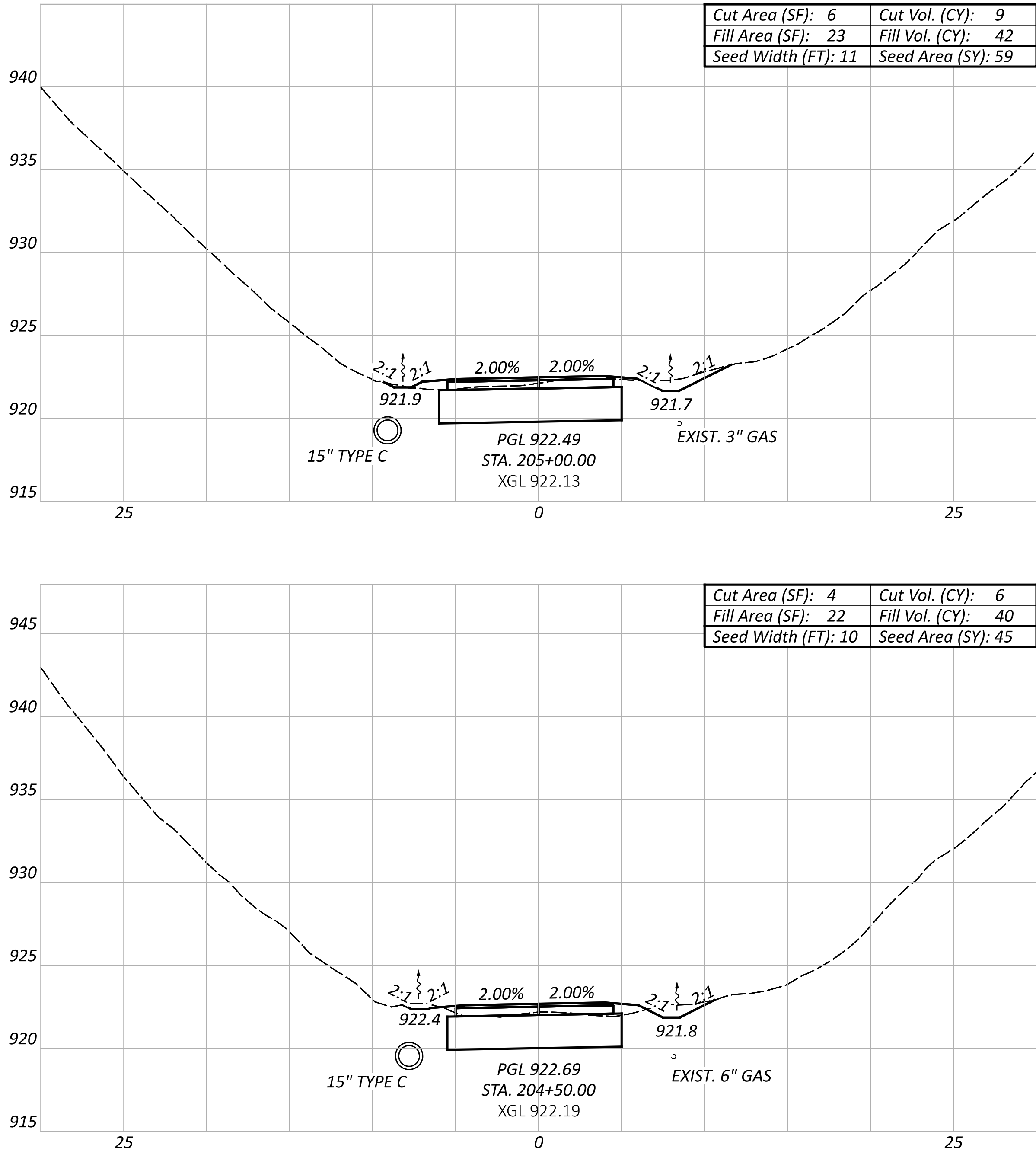
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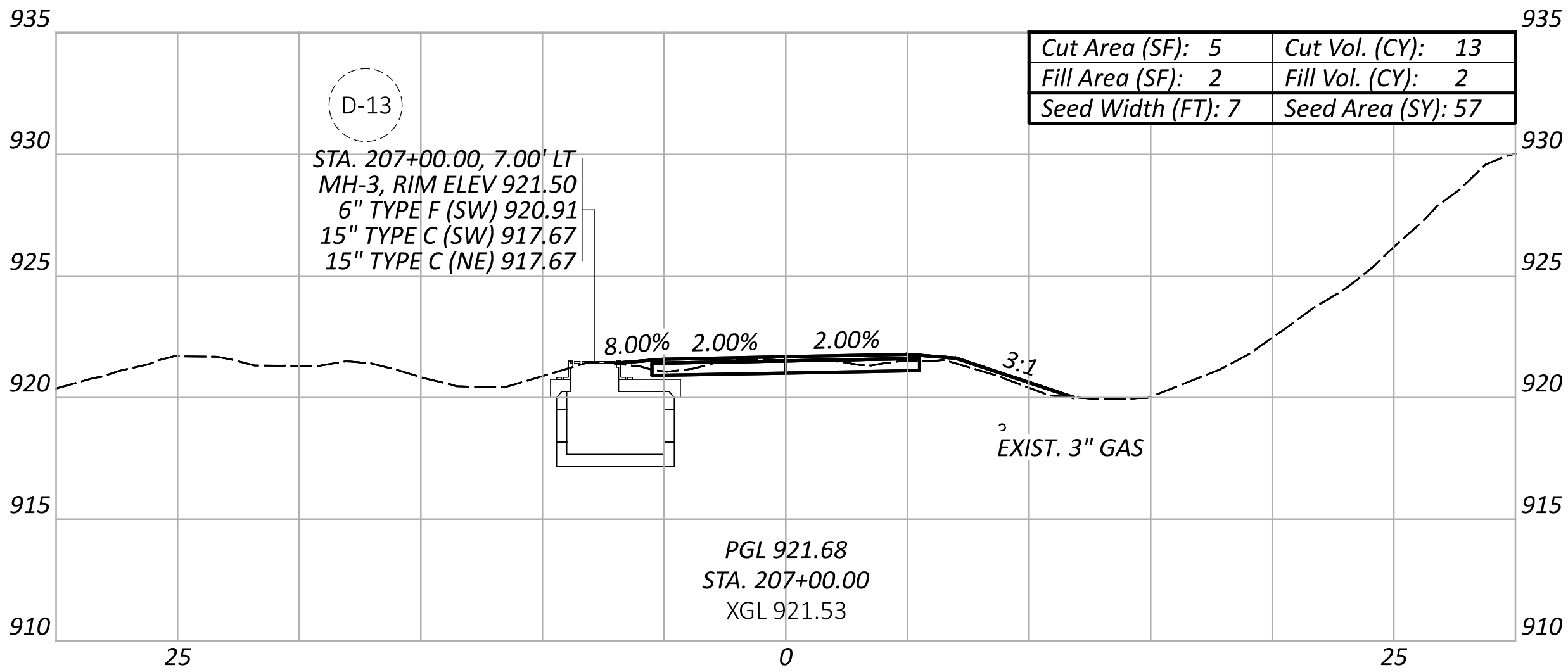
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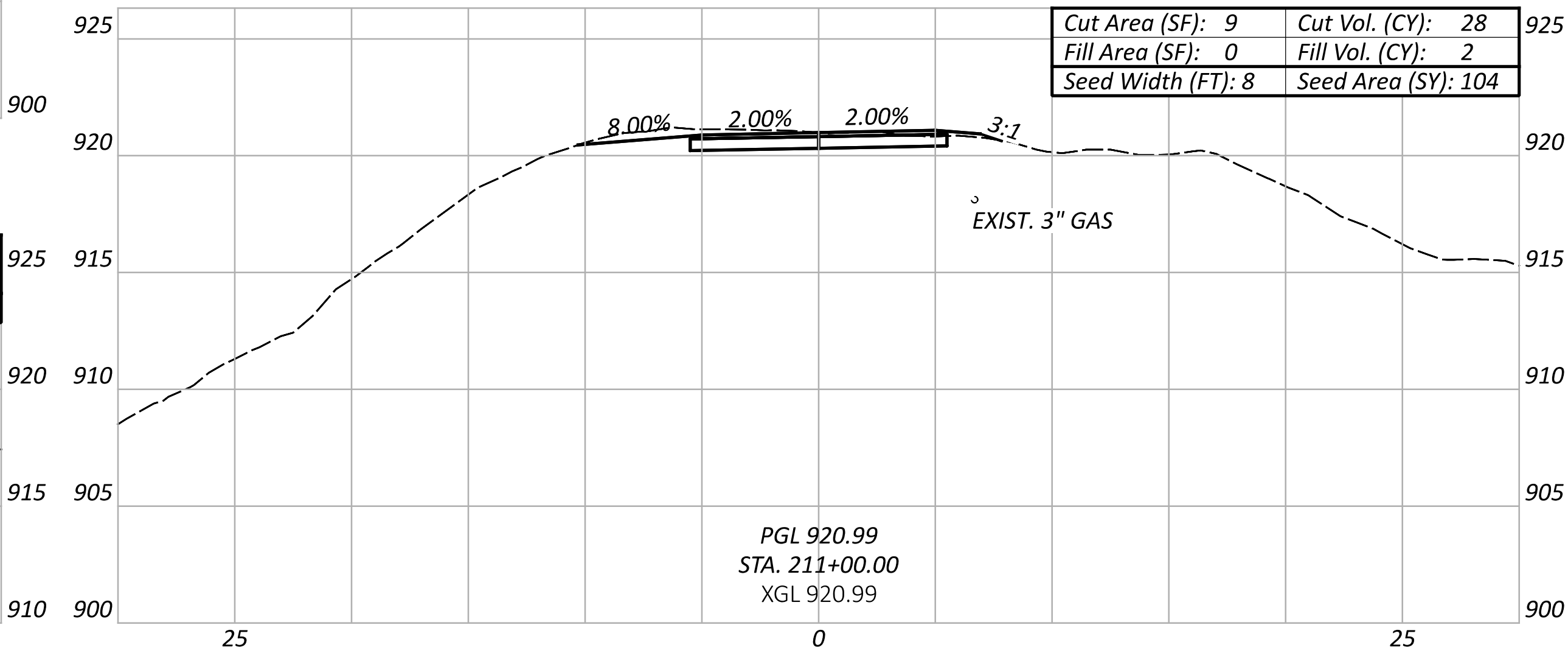
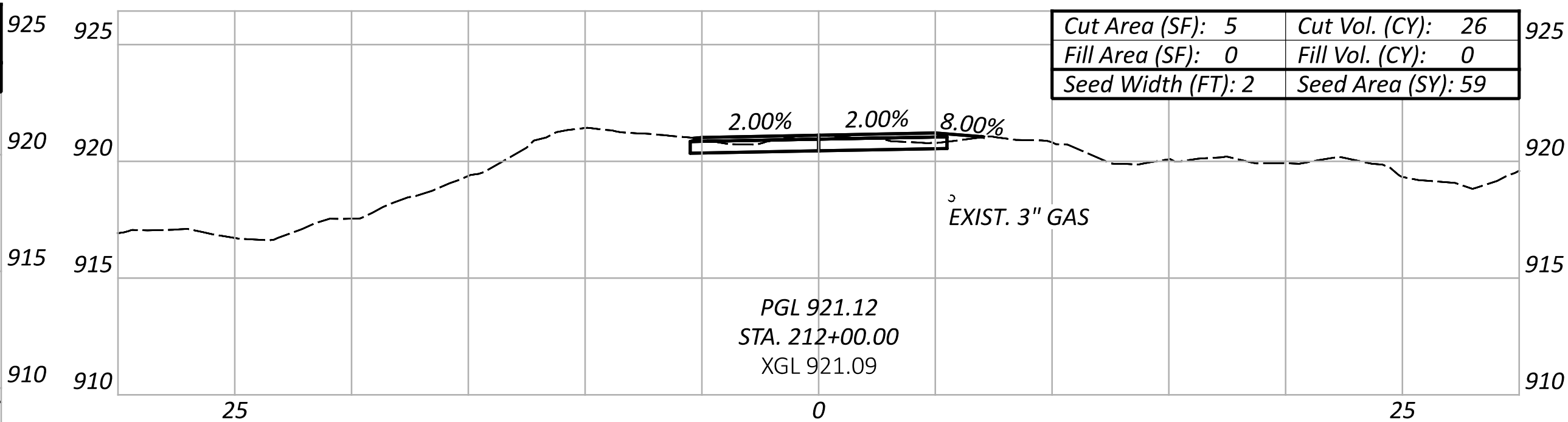
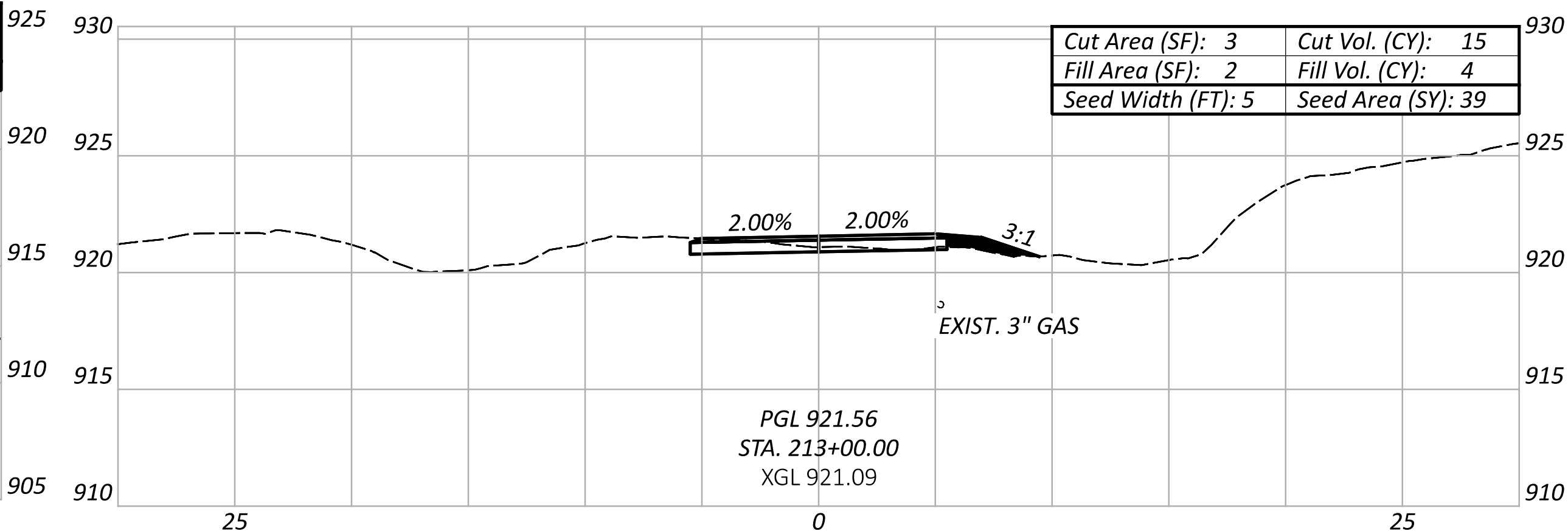
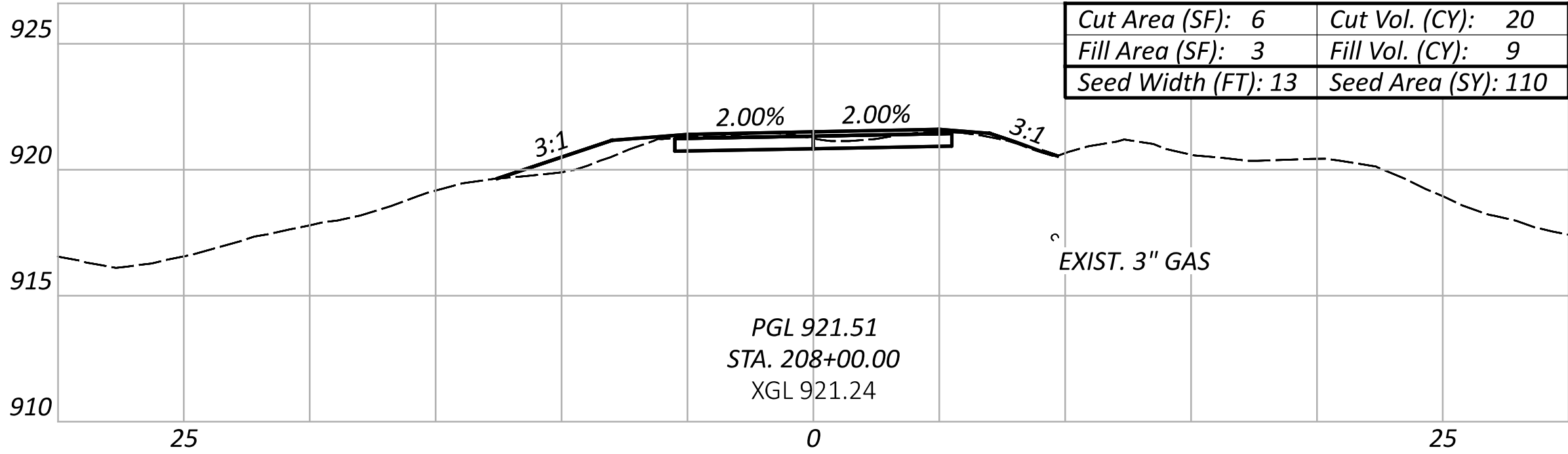
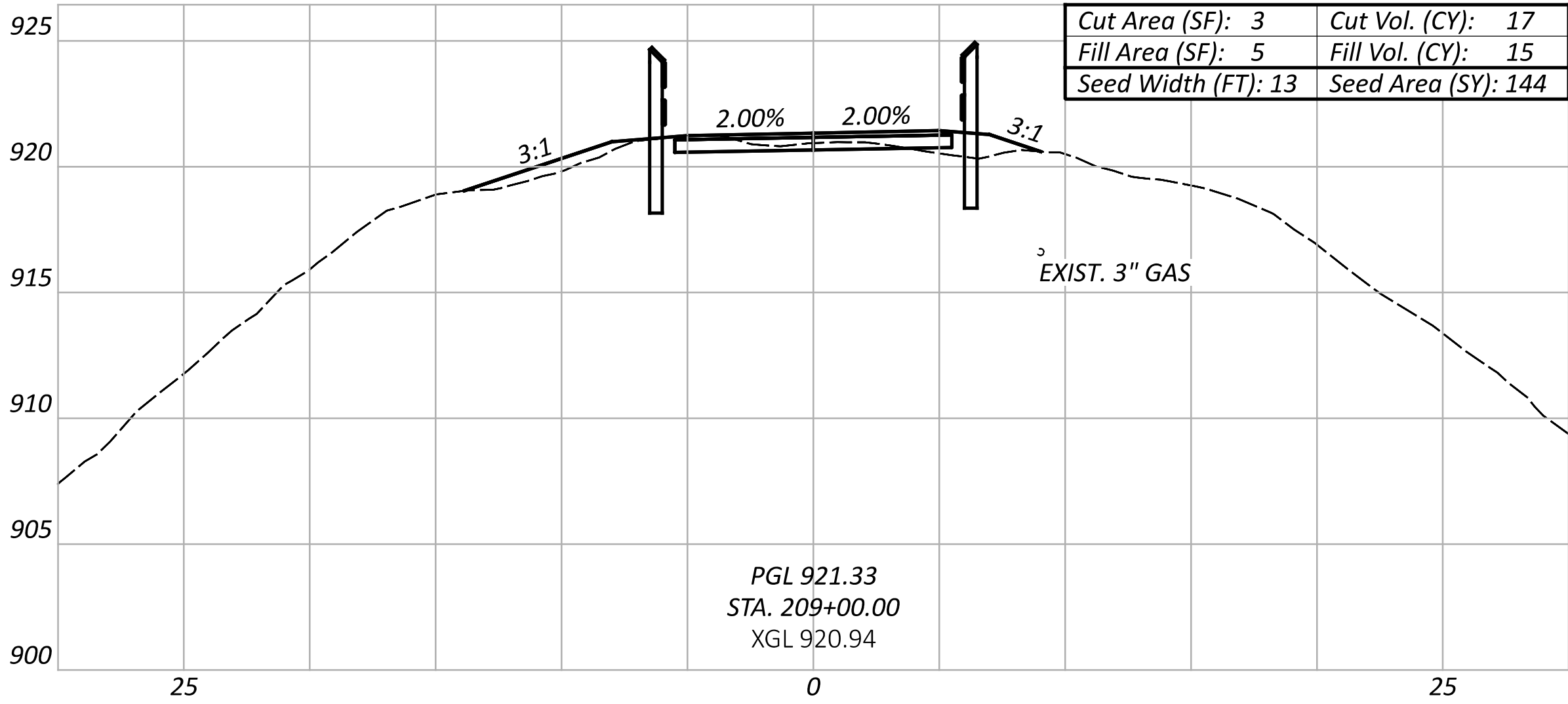
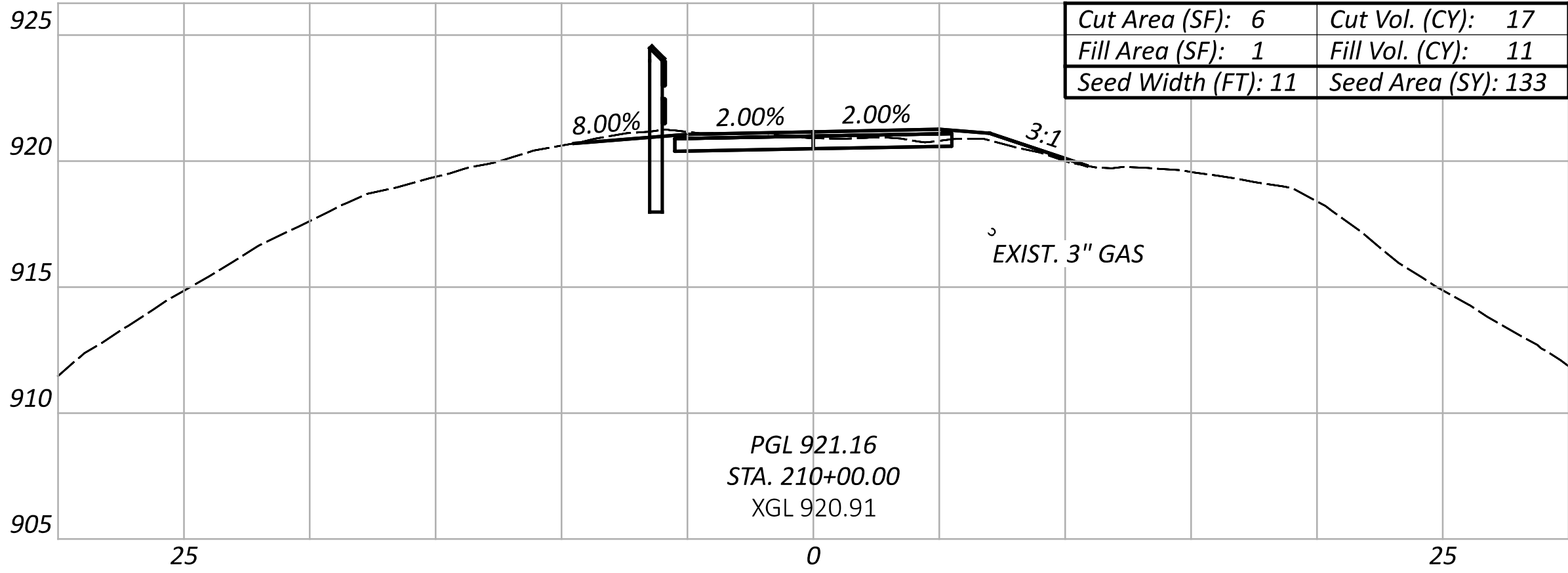


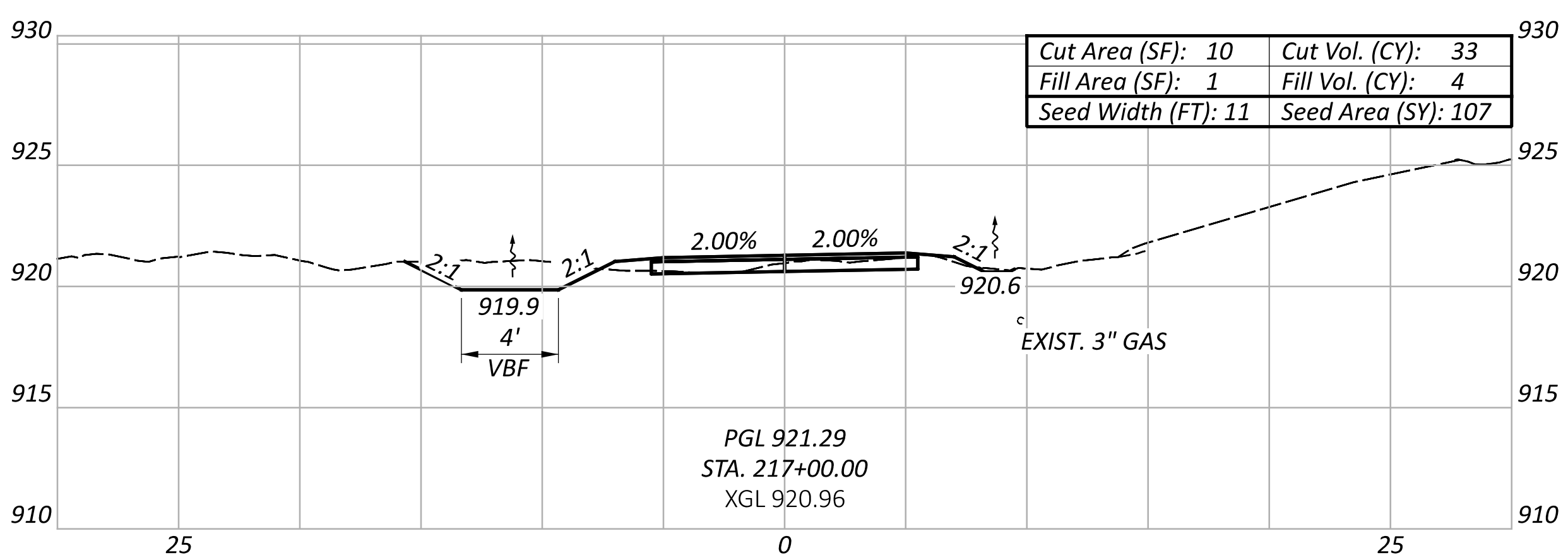
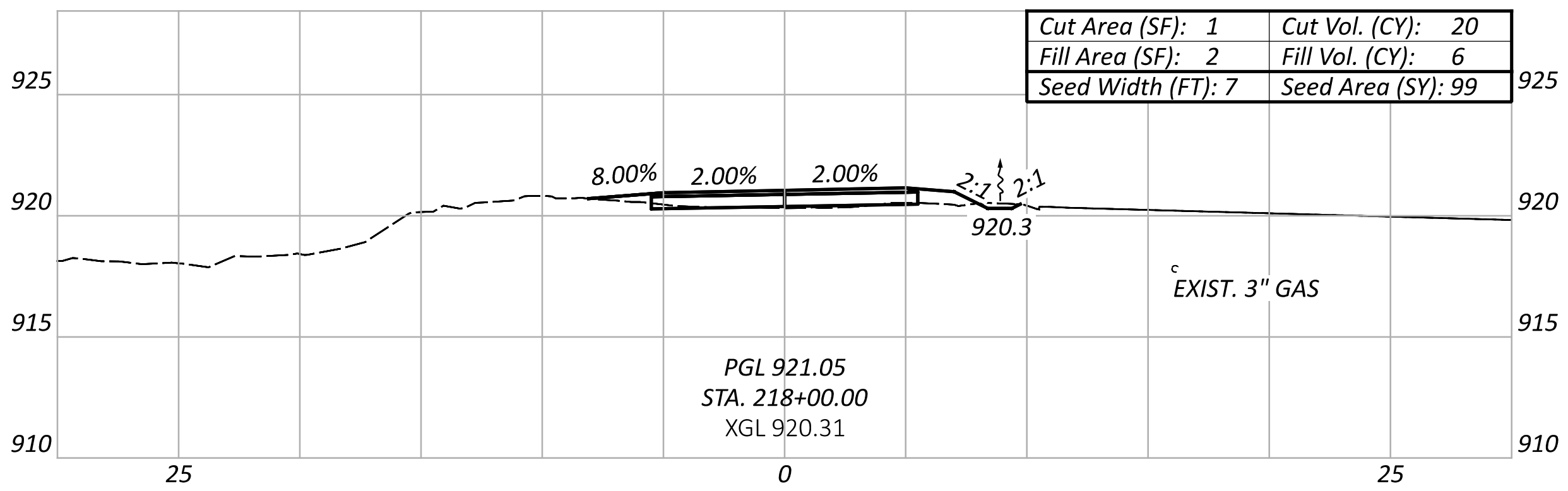
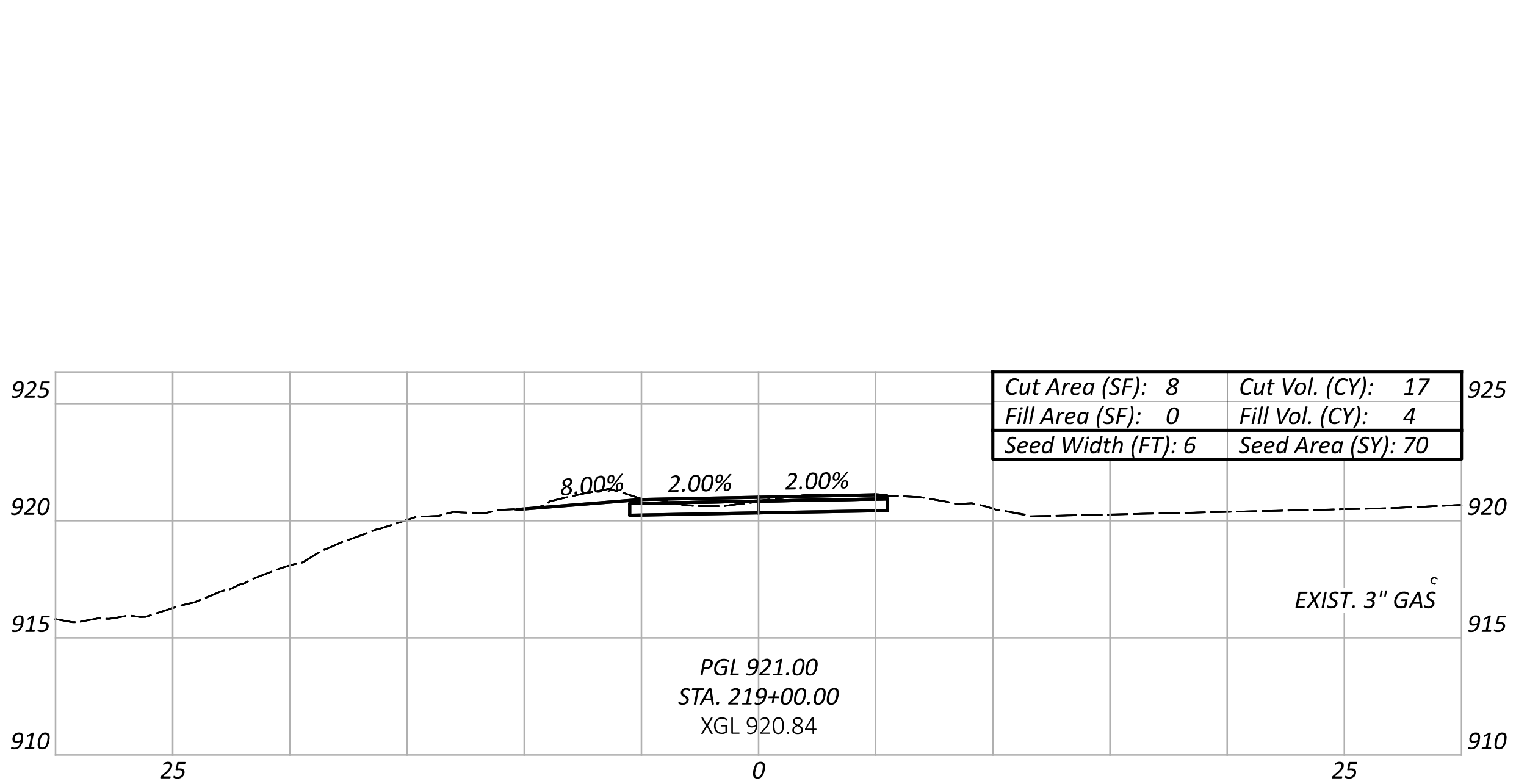
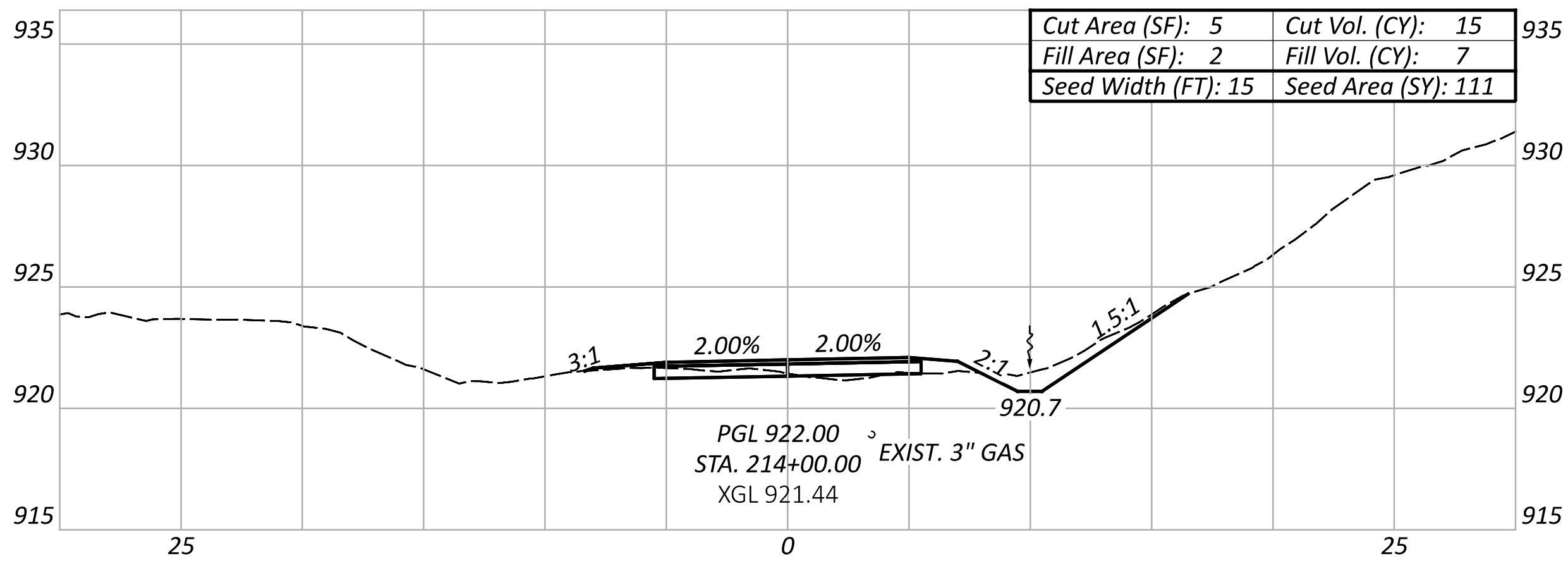
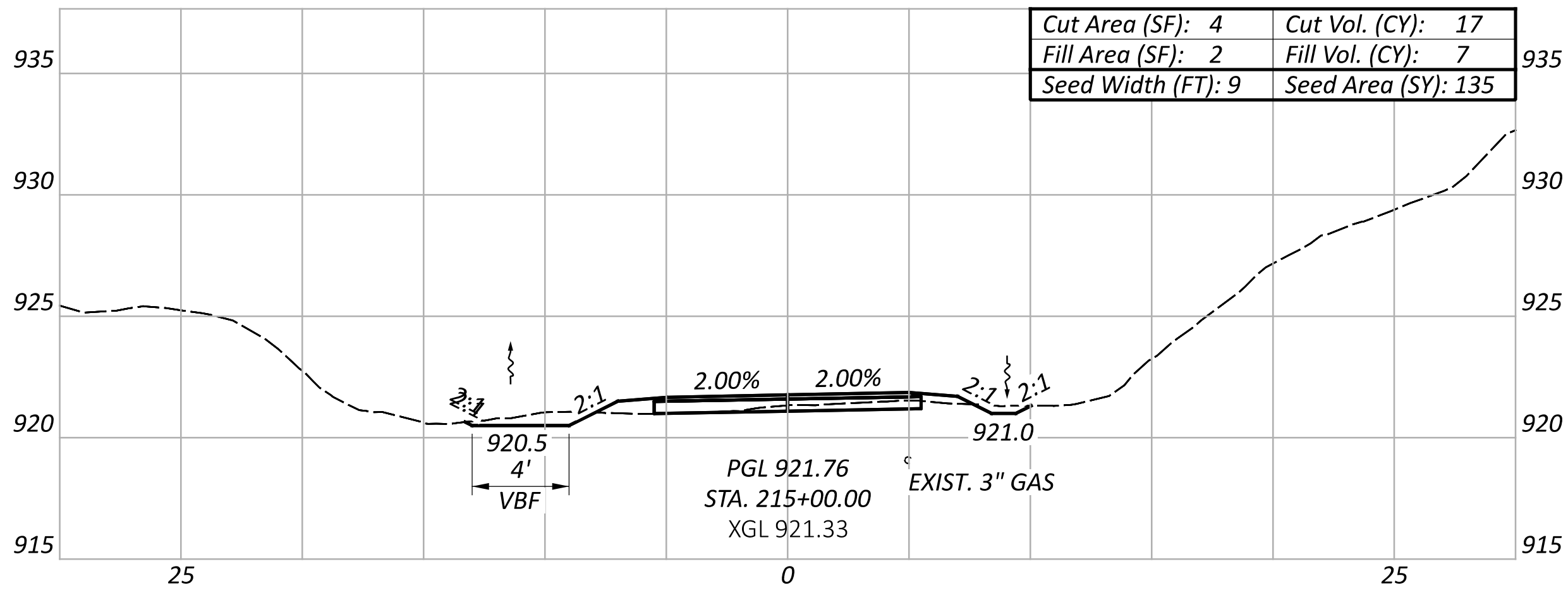
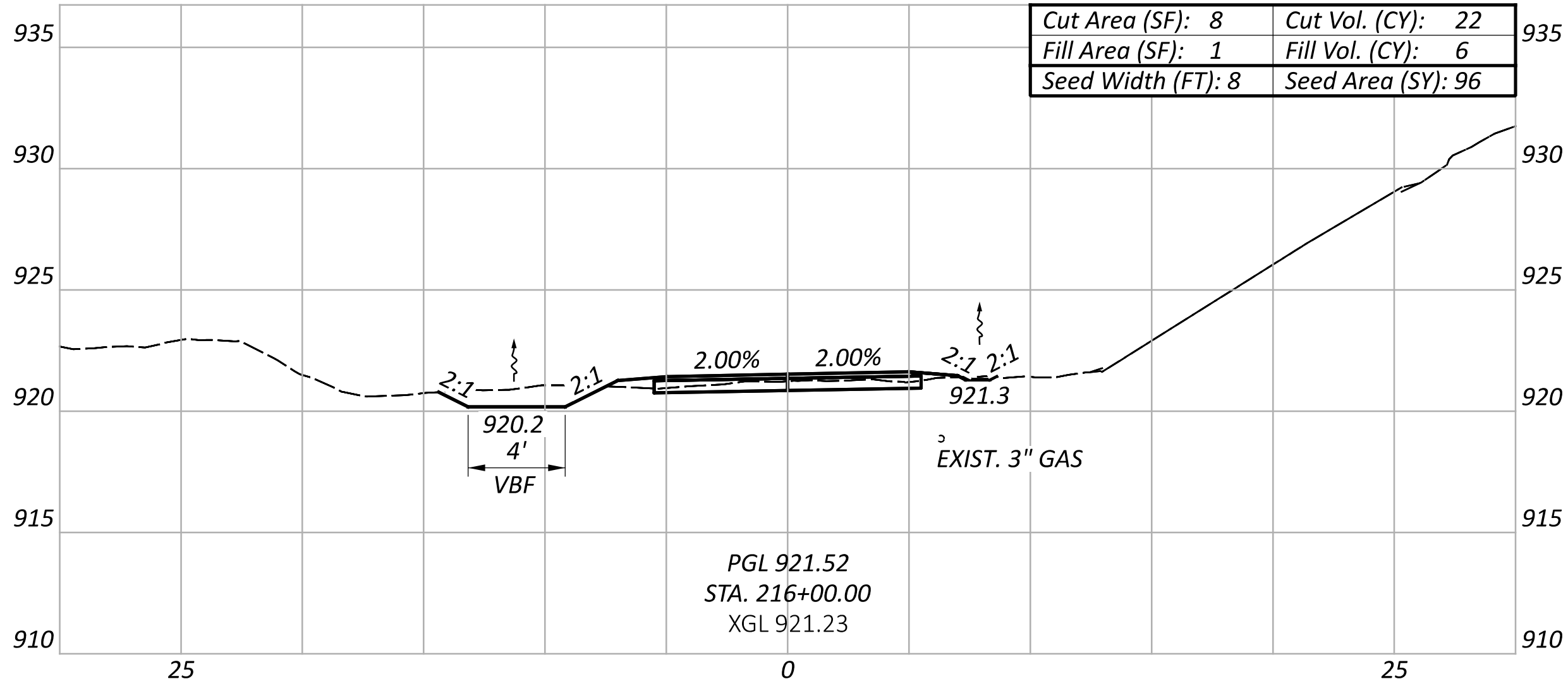


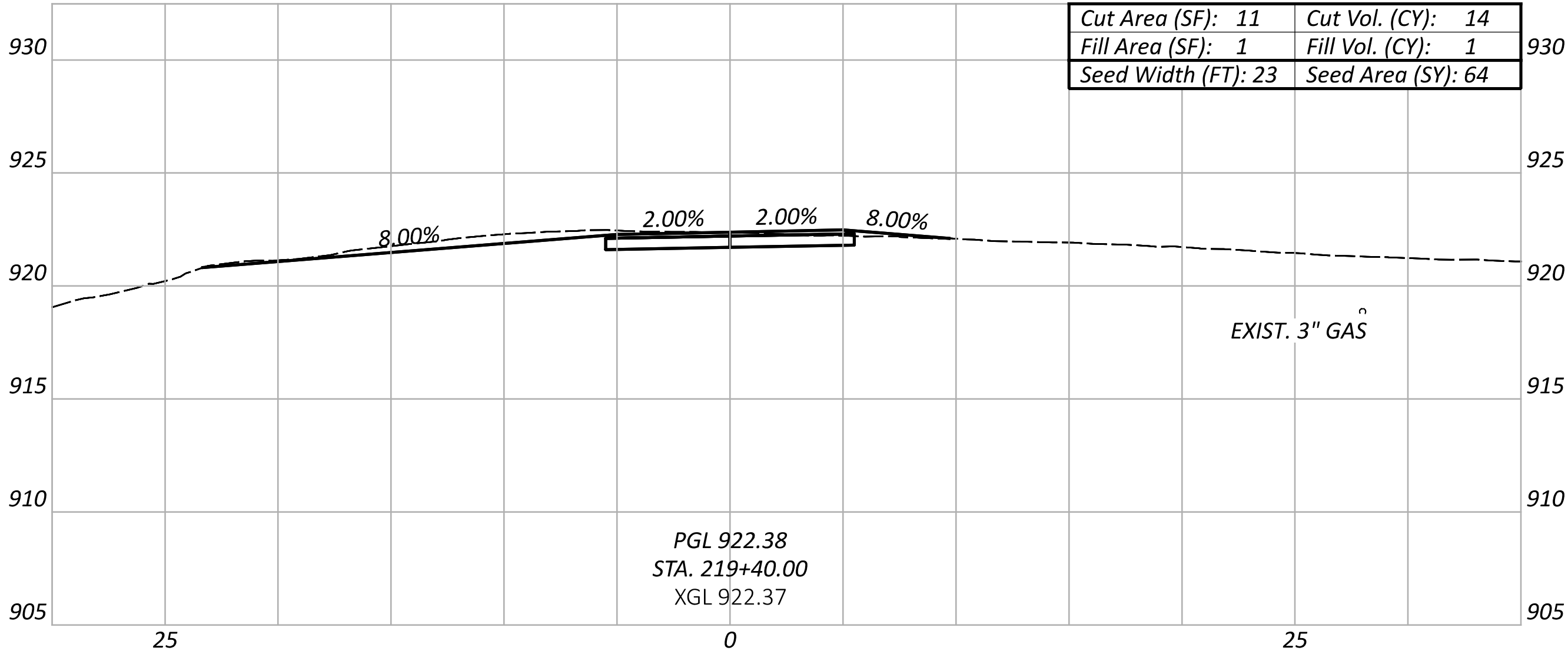


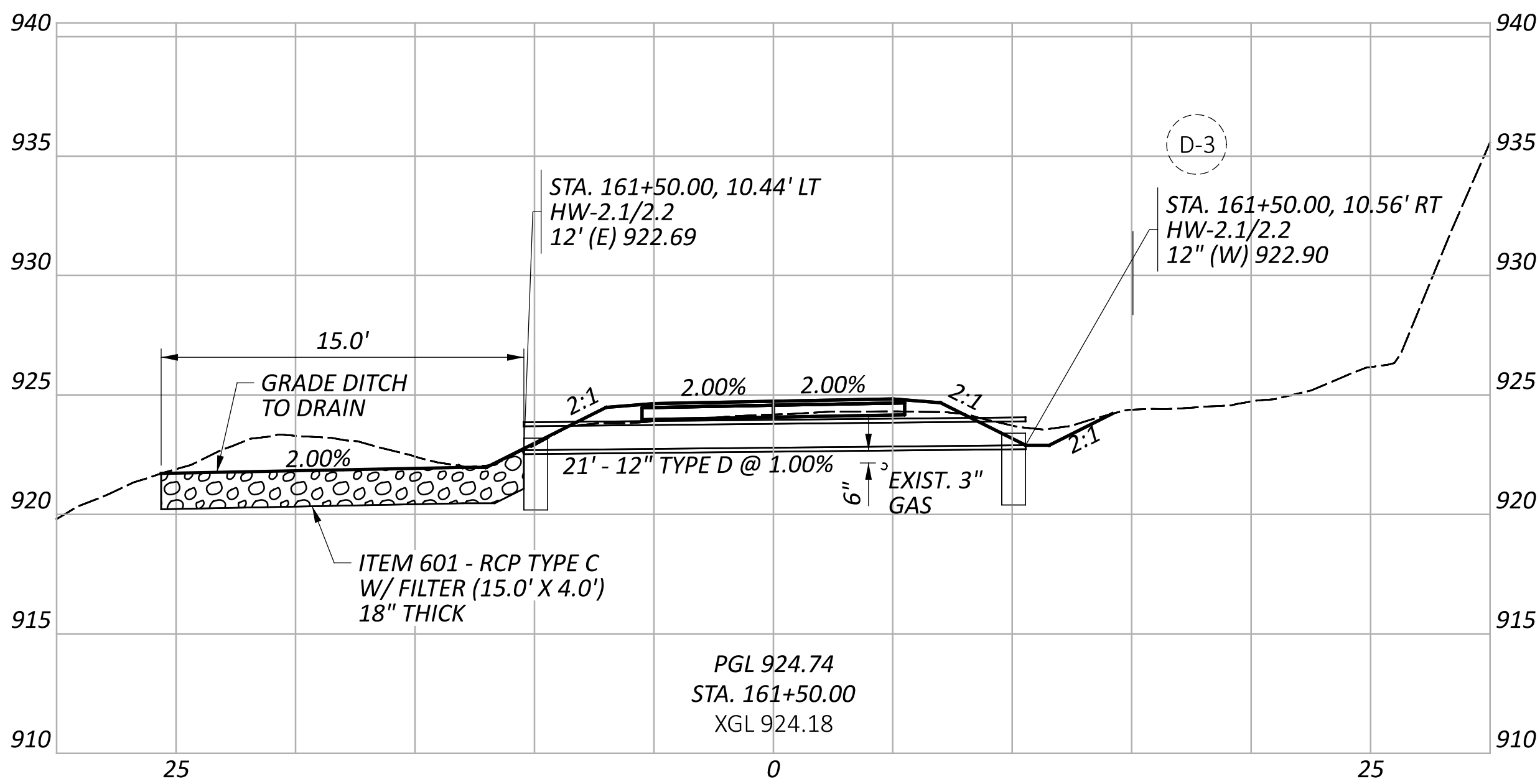
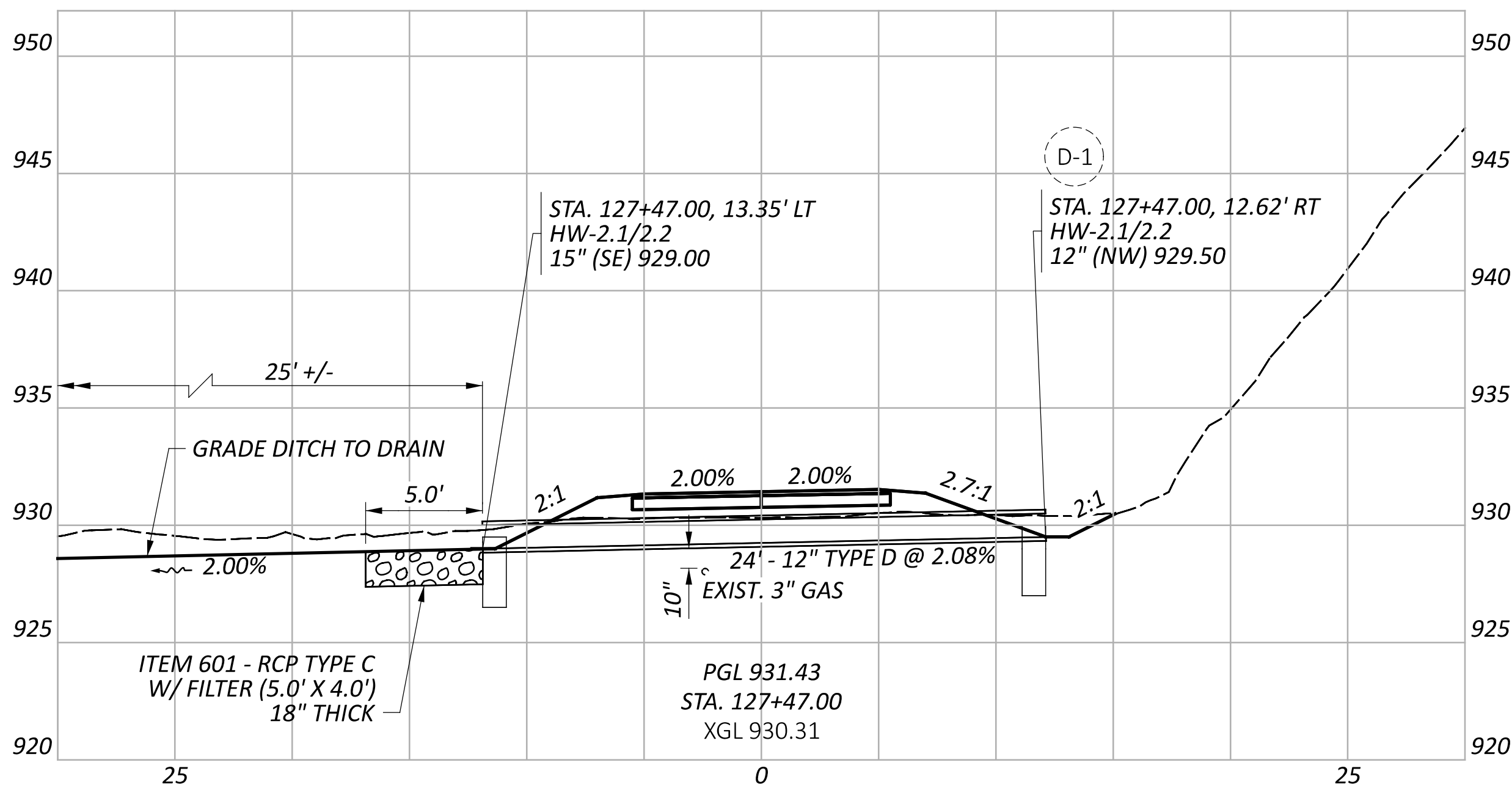
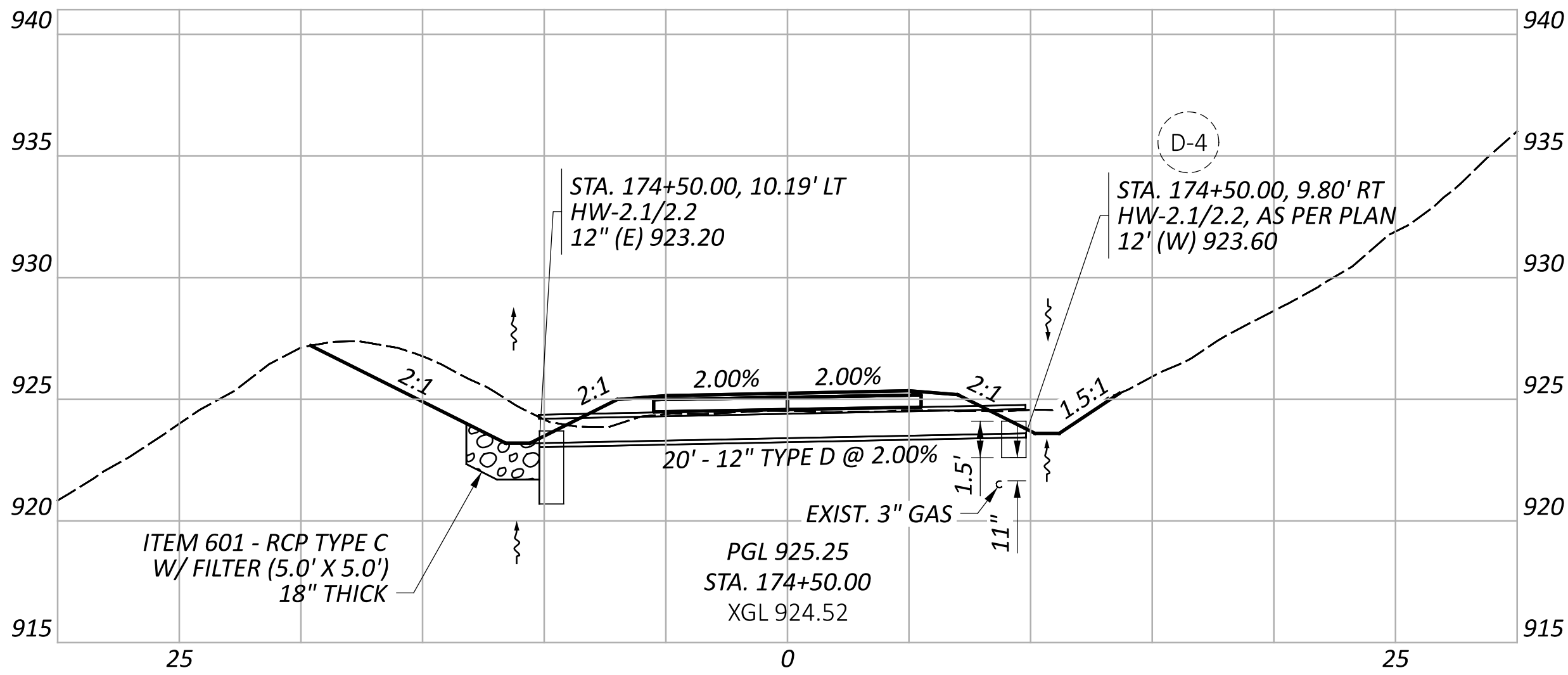
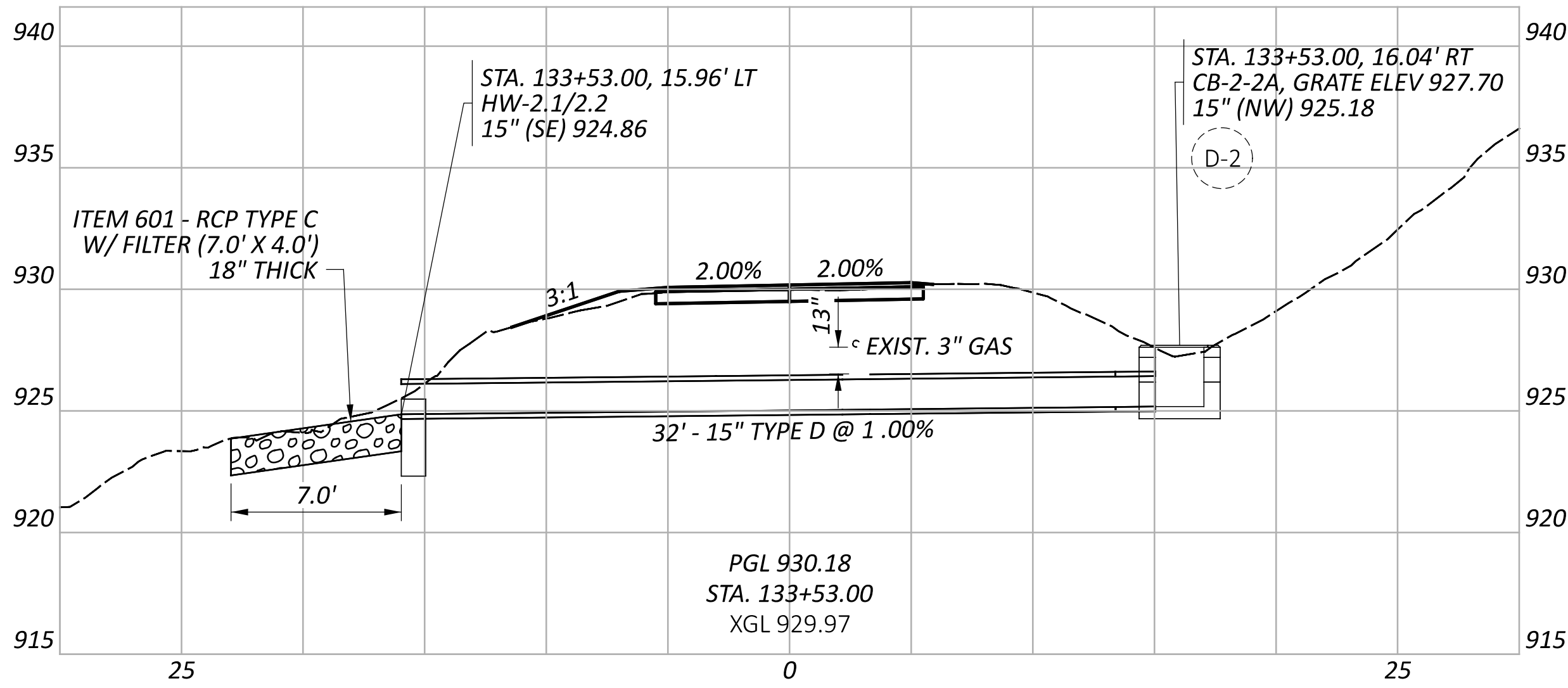


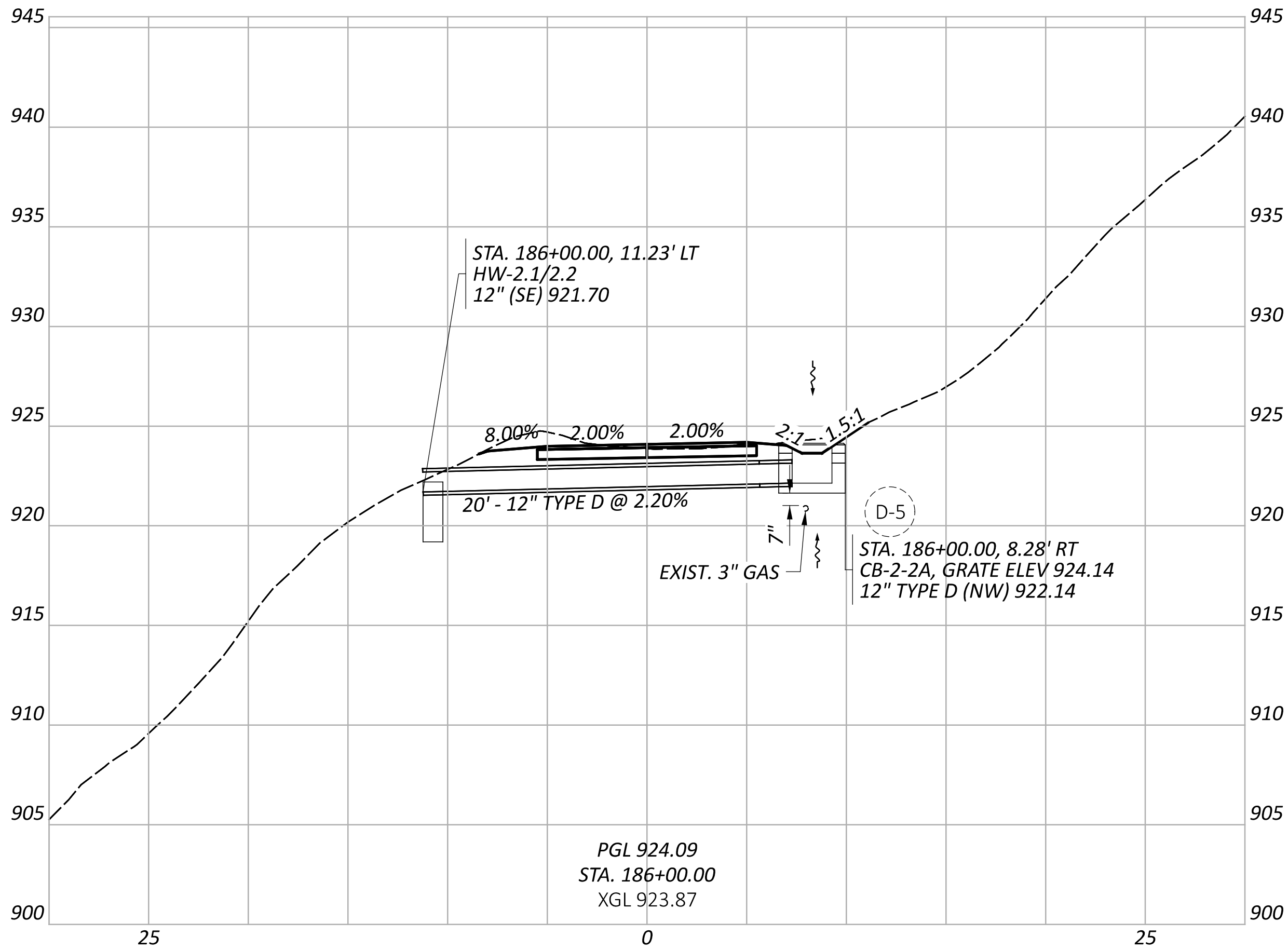
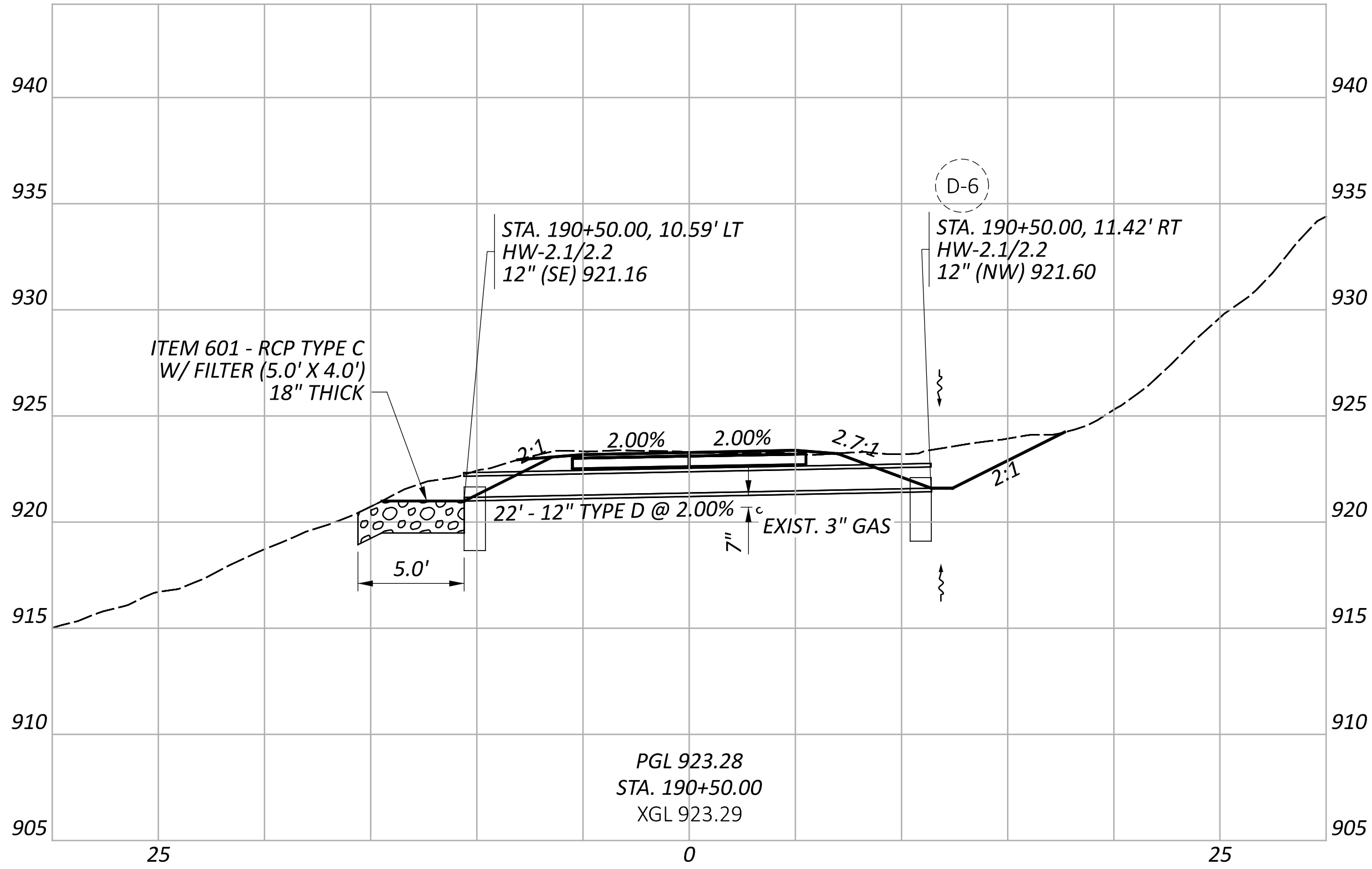


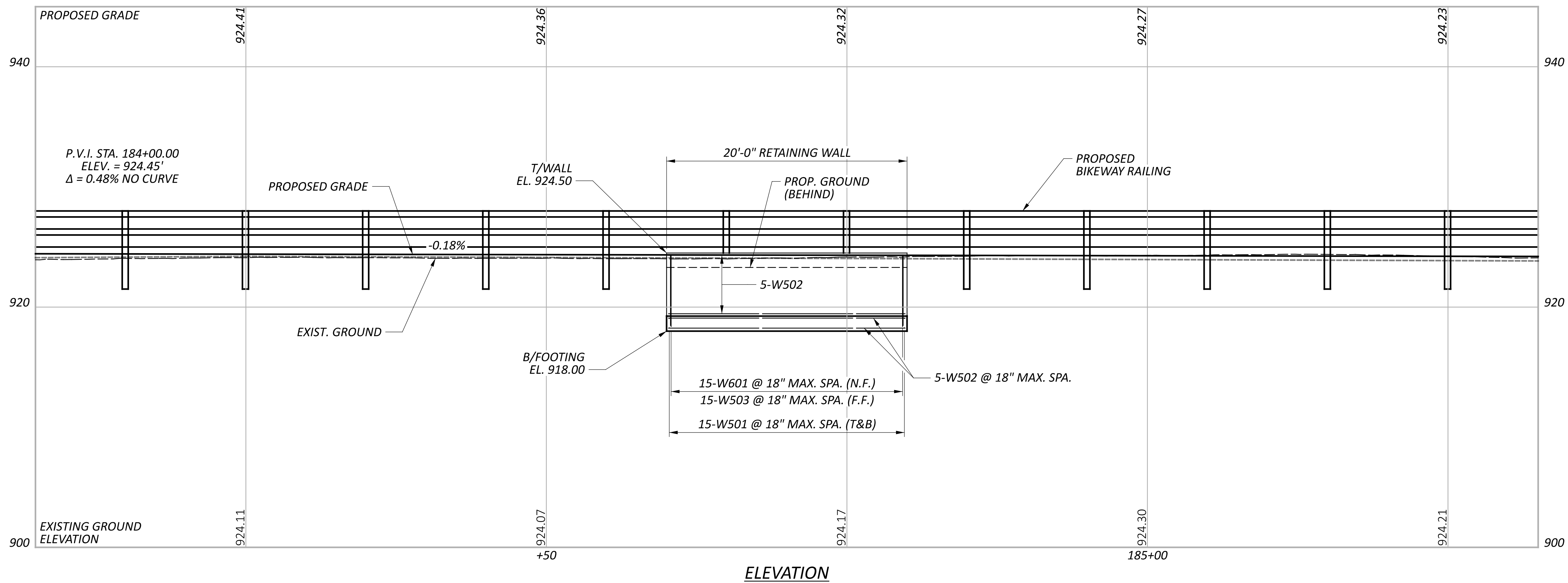
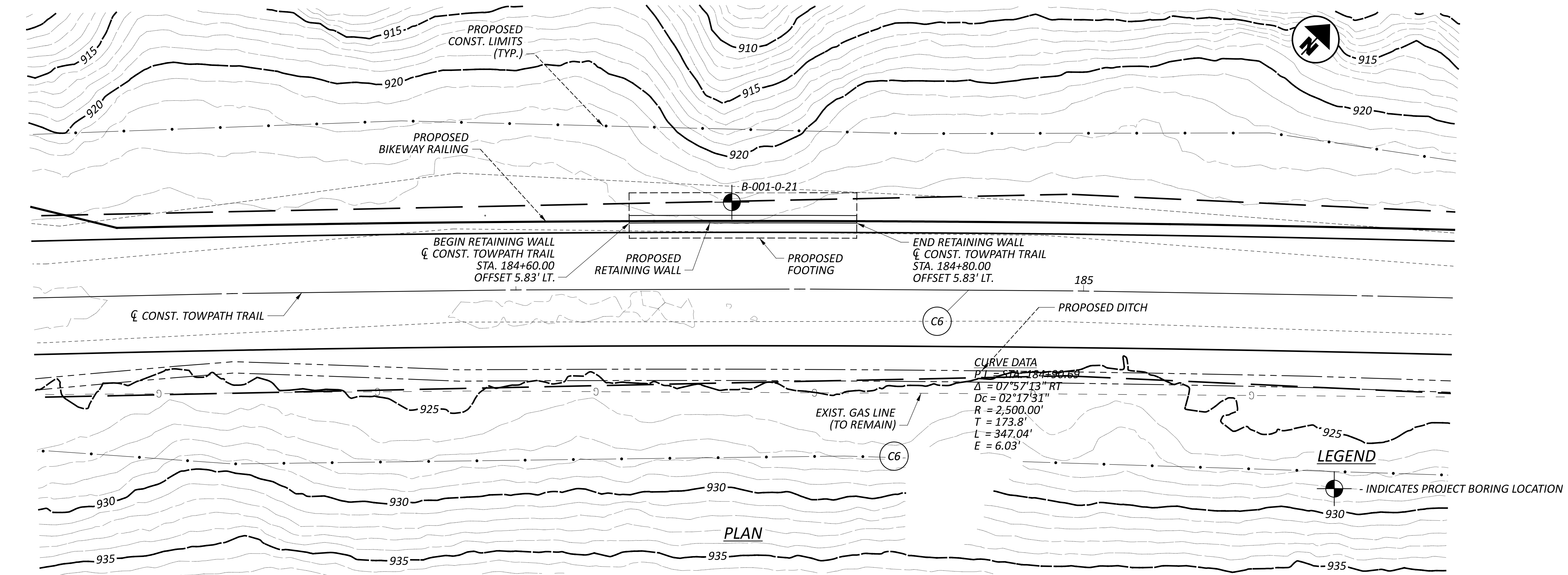






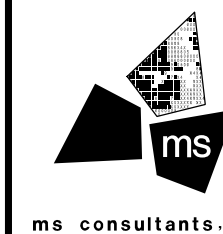




HORIZONTAL
SCALE IN FEET
0 2.5 5 10

WALL PLAN AND ELEVATION

DESIGN AGENCY



DESIGNER

JSP

REVIEWER

WER 02/08/23

PROJECT ID

111280

SHEET

TOTAL

55 57

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING ODOT STANDARD DRAWING(S):

RM-5.2 REVISED 01-20-23

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS800-2019 SEE PROPOSAL

DESIGN SPECIFICATIONS

THE STRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDITION, 2020, INCLUDING ANY/ALL CURRENT INTERIM REVISIONS; AND THE ODOT BRIDGE DESIGN MANUAL, 2020, INCLUDING CURRENT INTERIM REVISIONS.

DESIGN DATA

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

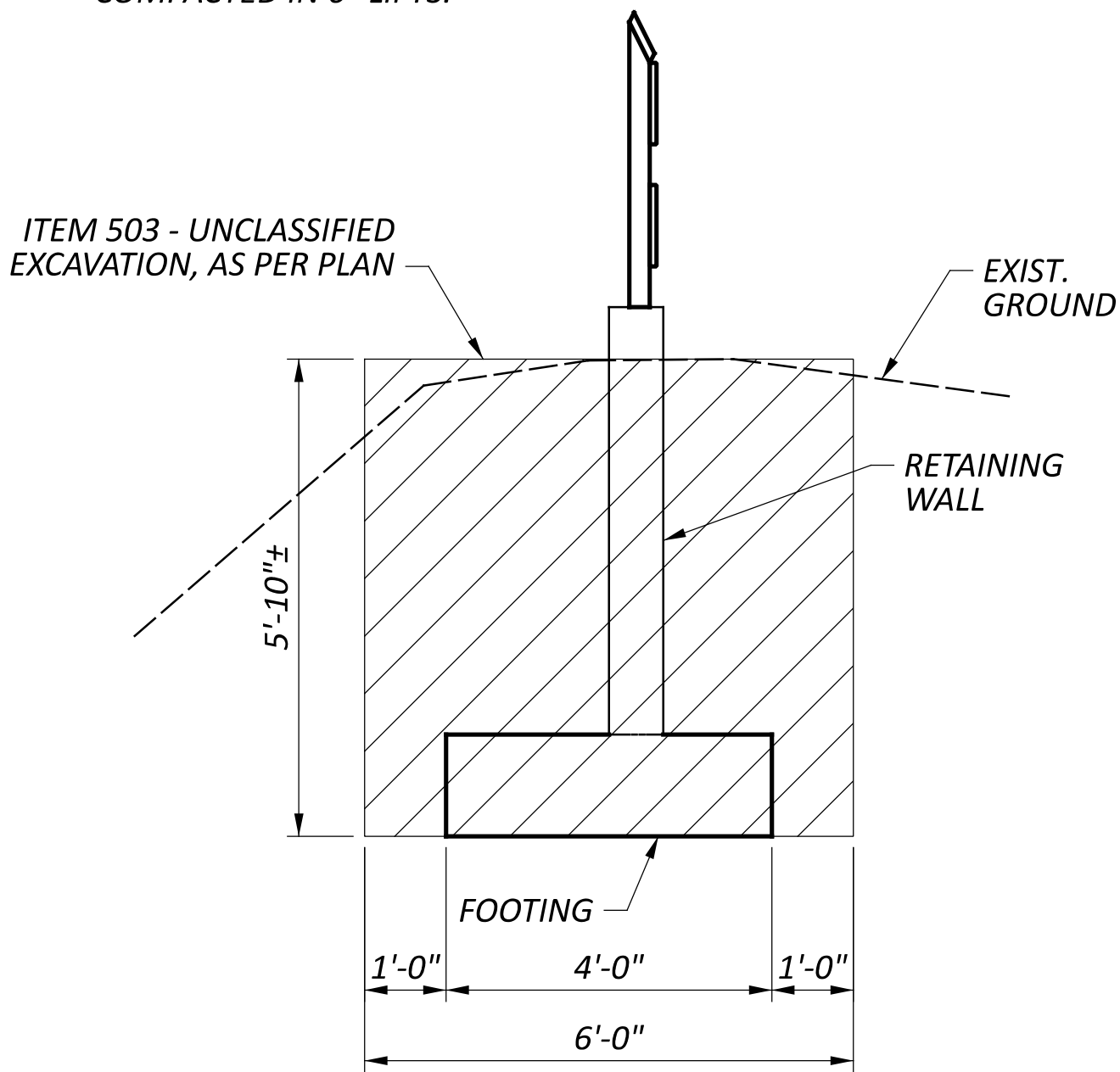
FOUNDATION BEARING RESISTANCE

STA. 184+60.00 TO STA. 184+80.00
FOOTINGS LOCATED BETWEEN THE ABOVE STATIONING, AS DESIGNED, PRODUCE A MAXIMUM SERVICE LIMIT STATE BEARING PRESSURE OF 1.7 KIPS PER SQUARE FOOT AND A MAXIMUM STRENGTH LIMIT STATE BEARING PRESSURE OF 2.3 KIPS PER SQUARE FOOT. THE FACTORED BEARING RESISTANCE IS 4.2 KIPS PER SQUARE FOOT.

SEE STRUCTURE FOUNDATION AND SUBGRADE EXPLORATION REPORT DATED JUNE 23, 2022 FOR ADDITIONAL GEOTECHNICAL INFORMATION AND SOIL BORINGS.

ITEM 503 - UNCLASSIFIED EXCAVATION, AS PER PLAN

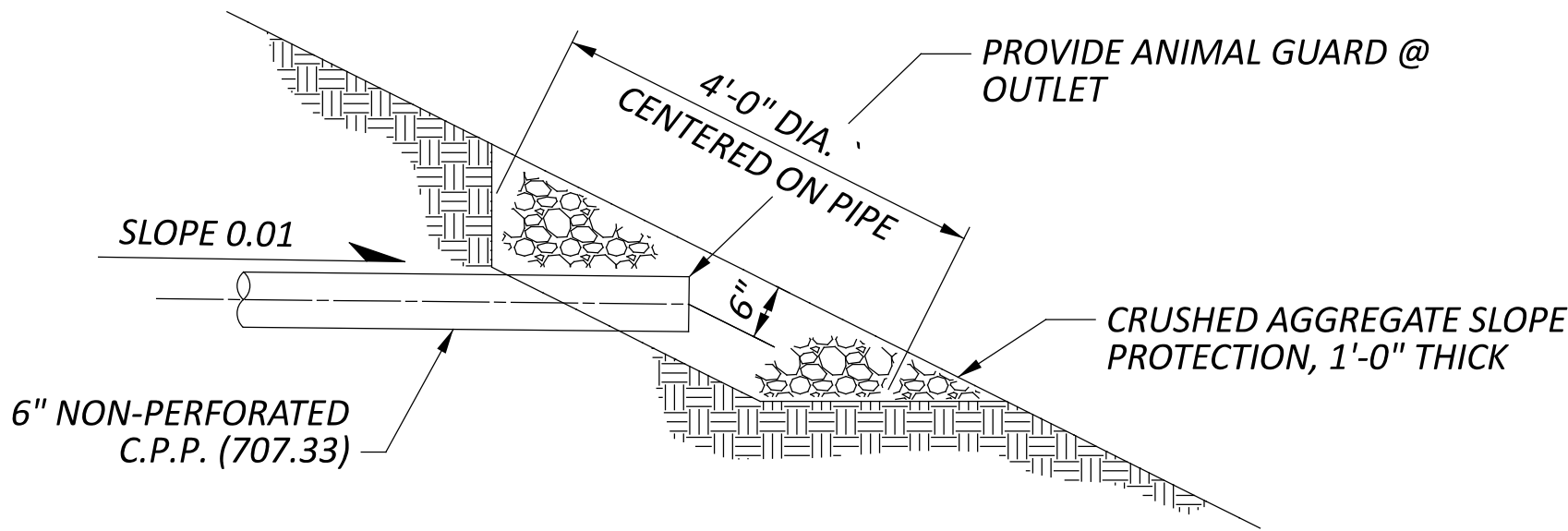
UNCLASSIFIED EXCAVATION SHALL BE IN ACCORDANCE WITH CMS ITEM 503, THE BACKFILL MATERIAL SHALL BE PLACED AND COMPACTED IN 6" LIFTS.



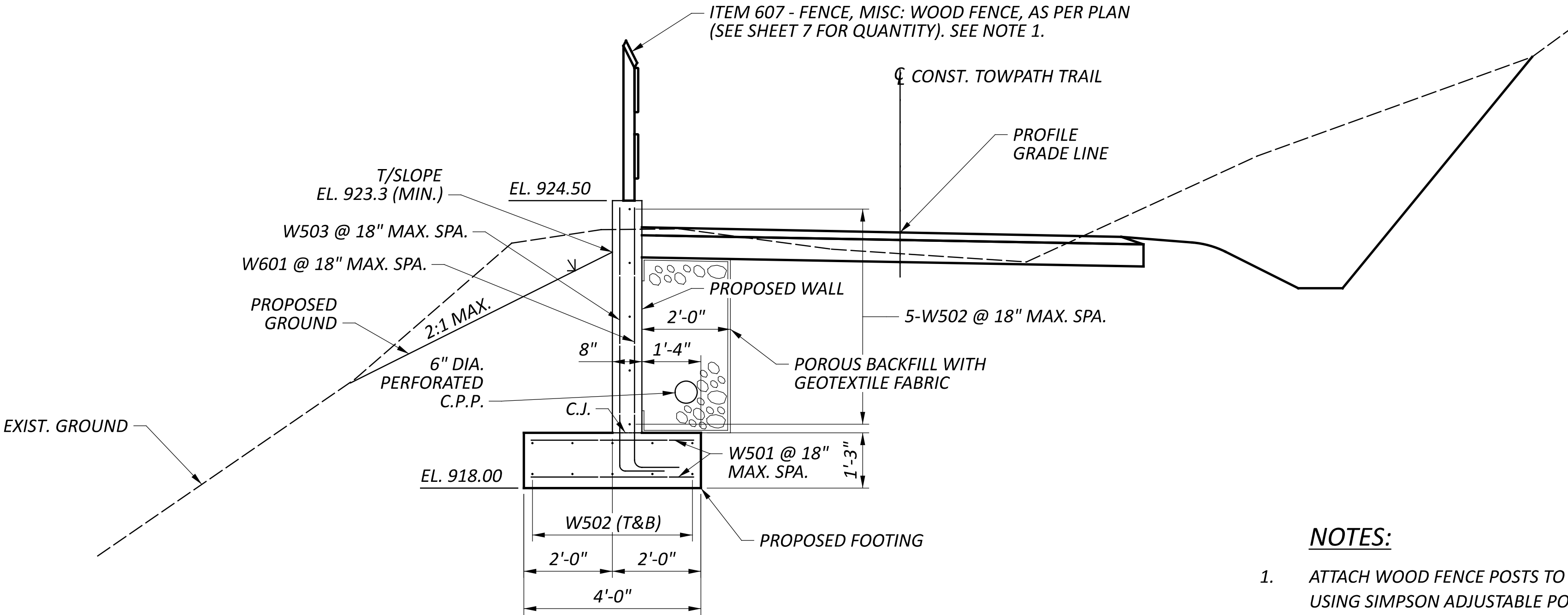
LIMITS OF EXCAVATION
TOTAL LENGTH = 22'-0"

By: JSP 11/3/2022
Checked: LAW 12/22/2022

TUS-TOWPATH TRAIL - RETAINING WALL ESTIMATED QUANTITIES					
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION	SHEET REF.
503	21101	29	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN	56
509	10000	685	LB	EPOXY COATED STEEL REINFORCEMENT	
511	46011	3	CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN	56
511	46510	4	CY	CLASS QC1 CONCRETE, FOOTING	
512	10100	6	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
518	21200	6	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
518	40000	20	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
518	40010	12	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	



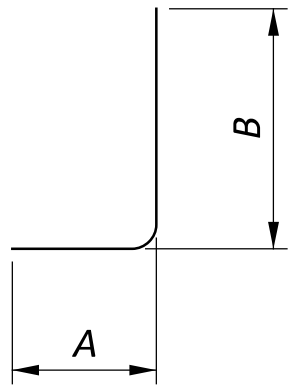
END TREATMENT OF 6" ϕ NON-PERFORATED CORRUGATED PLASTIC PIPE



WALL TYPICAL SECTION
SEE RETAINING WALL SECTION ON SHEET 3 FOR ADDITIONAL INFORMATION

NOTES:

- ATTACH WOOD FENCE POSTS TO TOP OF RETAINING WALL USING SIMPSON ADJUSTABLE POST BASE ABW66Z OR APPROVED EQUAL. INCLUDE POST BASE WITH ITEM 511 - CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING, AS PER PLAN FOR PAYMENT.



TYPE-1

MARK	NUMBER	LENGTH	WEIGHT	TYPE	DIMENSIONS					
					A	B	C	D	E	INC.
RETAINING WALL BARS										
W501	30	3'-8"	115	ST						
W502	15	19'-8"	308	ST						
W503	15	6'-11"	108	1	6'-0"	1'-0"				
W601	15	6'-10"	154	1	6'-0"	1'-0"				
		TOTAL =	685							

- NOTES:**
- BAR SIZE: THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR DIGITS ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, A W601 IS A #6 BAR. BAR DIMENSIONS SHOWN ARE OUT TO OUT UNLESS OTHERWISE INDICATED. R INDICATES INSIDE RADIUS, UNLESS OTHERWISE NOTED. "STD." WRITTEN IN PLACE OF A DIMENSION INDICATES A STANDARD BEND AT THE END OF THE BAR.
 - ALL REINFORCING STEEL SHALL BE EPOXY COATED.