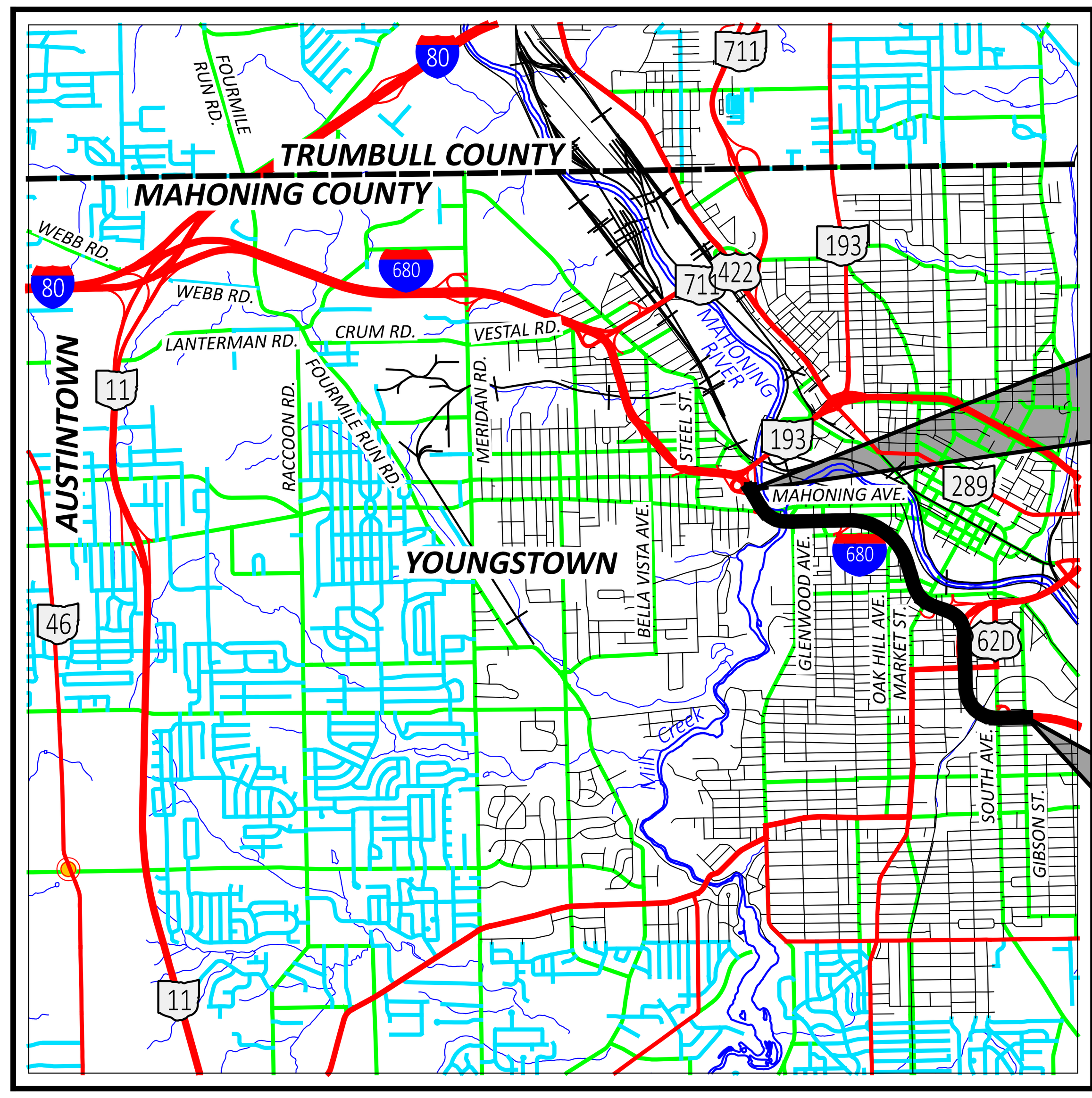
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MAH-680-4.58
PART 1

CITY OF YOUNGSTOWN
MAHONING COUNTY

FOR PART 2 SEE MAH-680-4.58



BEGIN PROJECT
STA. 950+65.76
S.L.M 4.58

END PROJECT
STA. 1097+25.00
S.L.M 7.37

LOCATION MAP

LATITUDE: 41°07'35" N LONGITUDE: 80°44'50" W

N

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

DESIGN DESIGNATION
SEE SHEET P.2

DESIGN EXCEPTIONS
SEE SHEET P.2

ADA DESIGN WAIVERS
NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

INDEX OF SHEETS:

TITLE SHEET	*P.1*	*CROSS SECTIONS (SIDE ROADS, RAMPS, ETC.)*	*P.289 - P.292*
DESIGN DESIGNATION DATA	*P.2*	*SUPERELEVATION TABLES*	*P.293 - P.307*
SCHEMATIC PLAN	*P.3 - P.7*	*INTERSECTION, RAMP, AND TERMINAL DETAILS*	*P.308 - P.370*
TYPICAL SECTIONS	*P.8 - P.44*	*BARRIER DETAILS*	*P.371 - P.376, P.376A*
GENERAL NOTES	*P.45 - P.51*	*STORM SEWER PROFILES*	*P.377 - P.394*
MAINTENANCE OF TRAFFIC	*P.52 - P.155, 74A*	*UNDERDRAIN DETAILS*	*P.395 - P.417*
GENERAL SUMMARY	*P.156 - P.161, P161A*	*DRAINAGE DETAILS*	*P.418 - P.419*
SUBSUMMARIES	*P.162 - P.196, (P.182 NOT USED)*	*TRAFFIC CONTROL*	*P.420 - P.466*
PROJECT SITE PLAN	*P.197 - P.200*	*LIGHTING*	*P.467 - P.485*
PLAN AND PROFILE (MAINLINE)	*P.201 - P.229*	*STRUCTURES (OVER 20 FOOT SPAN)*	*P.486 - P.550, (P.541 NOT USED)*
PLAN AND PROFILE (SIDE ROADS, RAMPS, ETC.)	*P.230 - P.263*	*FENCE PLANS*	*P.551 - P.573*
CROSS SECTIONS (MAINLINE)	*P.264 - P.288*	*GEOTECHNICAL PROFILE*	*P.574 - P.655*

R3 01-13-2026, SUPPLEMENTAL SPECIFICATIONS 813 AND 913 ADDED

STANDARD CONSTRUCTION DRAWINGS										*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*	
BP-2.1	1/21/22	I-2A	7/19/24	GSD-1-19	7/19/24	ITS-14.50	7/18/25	MT-105.10	1/17/20	800-2023	7/18/25	ASBESTOS REPORT	
BP-2.2	1/15/21	I-3D	7/19/24	HW-2.1	7/15/22			MT-110.10	7/19/13	807	1/17/25	(SFN 5003350)	5/6/25
BP-3.1	1/19/24			HW-2.2	7/20/18	MT-95.30	7/18/25			809	7/18/25	ASBESTOS REPORT	
BP-4.1	7/19/13	MGS-1.1	1/17/25	SBR-1-20	7/19/24	MT-95.31	7/18/25	TC-12.31	4/15/22	813	7/21/23	(SFN 5006864)	5/6/25
BP-5.1	1/17/25	MGS-2.1	1/17/25	SBR-2-20	7/19/24	MT-95.32	7/18/25	TC-15.116	1/19/24	825	7/19/24	ASBESTOS REPORT	
BP-6.1	7/19/13	MGS-3.1	1/19/18	VPF-1-24	1/17/25	MT-95.40	7/18/25	TC-21.11	7/16/21	831	4/21/23	(SFN 5006872)	1/9/25
BP-7.1	1/17/25	MGS-3.2	1/18/13			MT-95.45	7/21/23	TC-21.21	1/20/23	832	7/18/25		
BP-9.1	1/18/19	MGS-4.2	1/17/25	HL-10.11	7/21/23	MT-95.70	7/21/23	TC-21.50	1/17/25	836	1/19/24		
		MGS-4.3	1/18/13	HL-10.12	7/21/23	MT-95.71	7/21/23	TC-22.20	1/17/14	850	7/21/23		
CB-2-2A, 2B, 2C	7/19/24	MGS-5.2	7/15/16	HL-10.13	1/20/23	MT-95.72	7/19/24	TC-41.10	7/19/13	902	7/19/19		
CB-3	7/19/24	MGS-5.3	7/15/16	HL-10.31	7/15/22	MT-95.73	7/19/24	TC-41.20	10/18/13	905	1/17/25		
CB-3A	7/19/24	MGS-6.1	1/19/18	HL-20.11	7/21/23	MT-97.10	7/18/25	TC-41.30	4/21/23	909	7/18/25		
CB-4	7/19/24			HL-20.13	1/17/25	MT-98.10	1/17/20	TC-41.40	10/18/13	913	4/16/21		
CB-4A, 5A, 8A	7/19/24	MH-3	7/19/24	HL-20.14	4/17/20	MT-98.29	1/17/20	TC-41.50	10/18/13				
CB-6	7/19/24			HL-20.21	1/17/25	MT-98.30	7/18/25	TC-42.10	10/18/13				
CB-8	7/19/24	RM-1.1	1/20/23	HL-30.11	7/21/23	MT-99.20	4/19/19	TC-42.20	10/18/13				
		RM-3.1	7/20/18	HL-30.21	4/17/20	MT-99.30	1/17/20	TC-51.11	1/15/16				
DM-1.1	1/17/25	RM-4.3	1/17/25	HL-30.22	1/17/25	MT-101.60	1/17/25	TC-51.12	1/15/16				
DM-1.2	1/17/25	RM-4.4	1/17/25	HL-30.31	1/17/25	MT-101.70	7/19/24	TC-52.10	10/18/13				
DM-3.1	1/18/13	RM-4.5	1/17/25	HL-30.41	1/17/25	MT-101.75	7/21/23	TC-52.20	1/15/21				
DM-4.3	1/15/16	RM-4.6	7/19/24	HL-40.20	1/17/25	MT-101.80	1/17/20	TC-61.10	4/21/23				
DM-4.4	1/15/16			HL-60.11	7/21/17	MT-101.90	7/17/20	TC-65.11	1/17/25				
F-1.1	7/19/13	A-1-20	7/19/24	HL-60.21	7/20/18	MT-102.10	7/21/23	TC-71.10	4/21/23				
F-3.1	7/19/13	AS-1-15	1/20/23	HL-60.31	7/19/24	MT-102.30	10/16/15	TC-72.20	1/17/25				
F-3.3	7/19/13	AS-2-15	7/21/23	ITS-14.10	1/17/25	MT-103.10	7/18/25	TC-73.20	1/17/25				
F-3.4	7/19/13	EXJ-4-87	1/19/24	ITS-14.11	7/18/25	MT-104.10	1/19/24	TC-74.10	7/21/23				

PLAN PREPARED BY:
ms consultants, inc.
ENGINEERS, ARCHITECTS & PLANNERS
333 E. FEDERAL STREET
YOUNGSTOWN, OHIO 44503
PHONE (330) 744-5321

TF ASSOCIATES
2LMN

ENGINEER'S SEAL	ENGINEER'S SEAL
LIGHTING 2LMN	TRAFFIC CONTROL THOMAS FOK AND ASSOCIATES, INC.
STATE OF OHIO EMILIE M. WORLEY E-71927 REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO STEPHEN D. LETTIERI E-64079 REGISTERED PROFESSIONAL ENGINEER

ENGINEER'S SEAL	ENGINEER'S SEAL
BRIDGE MAH-00680-04.886 ms consultants, inc.	ms consultants, inc.
STATE OF OHIO WILLIAM EARL RUGGLES E-69834 REGISTERED PROFESSIONAL ENGINEER	STATE OF OHIO CHARLES NASH PE-91557 REGISTERED PROFESSIONAL ENGINEER

FEDERAL PROJECT NUMBER
E250327

RAILROAD INVOLVEMENT
NONE

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF FULL DEPTH PAVEMENT REPLACEMENT OF MAHONING I.R. 680 FROM THE S.R. 193 INTERCHANGE (SLM-4.58) TO SOUTH OF THE SOUTH AVENUE INTERCHANGE (SLM-7.37), ALL INTERCHANGE RAMPS WITHIN THE CORRIDOR WILL BE RECONSTRUCTED, INCLUDING RAMPS TO AND FROM S.R. 193 AND U.S. 62/S.R. 7. INCLUDES BRIDGE WORK TO MAH-680-4.886 (SFN 5006872). THIS PROJECT ALSO INCLUDES THE REMOVAL OF THE MAHONING AVENUE ENTRANCE RAMP TO I.R. 680 SOUTHBOUND.

ADDITIONAL WORK INCLUDES GUARDRAIL AND CONCRETE BARRIER REPLACEMENT, ROADWAY DRAINAGE IMPROVEMENTS, SIDEWALK, CURB RAMPS, SIGNING, LIGHTING AND PAVEMENT MARKINGS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*204.55 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*1.00 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*205.55 ACRES*

NOTE: EARTH DISTURBED AREAS (EDA) REFLECT THE OVERALL TOTAL OF PROJECTS MAH-680.00 (PID 113321) AND MAH-680-4.58 (PID 121474). BMP DESIGN REFLECTED IN EACH CONSTRUCTION PLAN IS BASED ON THE EDA OF THE COMBINED PROJECTS.

LIMITED ACCESS
THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

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.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT FOR THE SIDE ROADS AS DESCRIBED ON SHEET P.52 AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Arthur G. Noirot Jr., P.E.
District 04 Deputy Director

Pamela Boratyn
Director, Department of Transportation

TITLE SHEET

DESIGN AGENCY	ms consultants, inc.
DESIGNER	MSN
REVIEWER	CMN 08/29/25
PROJECT ID	121474
SHEET	P.1
TOTAL	655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/14/2026 TIME: 9:26:02 AM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_PenC.tbl USER: mneider@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.00.205
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_GT001.dgn

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

ITEM 619 FIELD OFFICE, TYPE C, AS PER PLAN

THIS WORK CONSISTS OF PROVIDING, MAINTAINING, AND SUBSEQUENTLY REMOVING A FIELD OFFICE FOR THE EXCLUSIVE USE OF THE DEPARTMENT FOR THE DURATION OF THE CONTRACT AT A LOCATION APPROVED BY THE ENGINEER.

FURNISH A COMPLETELY FUNCTIONAL FIELD OFFICE OF THE TYPE SPECIFIED IN THE CONTRACT PRIOR TO BEGINNING WORK.

THE FIELD OFFICE WILL BE A SUITE TYPE OFFICE (NO TRAILER OR MODULAR OFFICE) WITH A MINIMUM OF 2,500 SQUARE FEET AND AT GROUND LEVEL WITH A MINIMUM CEILING HEIGHT OF EIGHT (8) FEET. PROVIDE TWO (2) OUTSIDE DOORS, LOCKABLE VANDAL PROOF CYLINDER TYPE DEAD BOLTS AND LOCKABLE WINDOWS. THE FLOOR SPACE WILL BE DIVIDED INTO A RESTROOM, ONE GENERAL OFFICE AREA (MINIMUM 400 SQUARE FEET), NOT LESS THAN THREE INDIVIDUAL OFFICES (MINIMUM 300 SQUARE FEET EACH), AND ONE CONFERENCE ROOM (MINIMUM 500 SQUARE FEET), AS DEEMED NECESSARY BY THE ENGINEER.

FURNISH EACH FIELD OFFICE WITH A MEANS FOR MAINTAINING ROOM TEMPERATURE BETWEEN 68°F AND 80°F.

FURNISH ELECTRIC SERVICE FOR EACH FIELD OFFICE.

FURNISH NEAT, SANITARY, ENCLOSED TOILET ACCOMMODATIONS CONNECTED TO AN EXISTING SANITARY SEWER LINE FOR THE USE OF THE OCCUPANTS OF THE FIELD OFFICE, MEETING APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. FURNISH ASSOCIATED LAVATORY AND SANITARY SUPPLIES. POTABLE HOT AND COLD RUNNING WATER WILL BE PROVIDED IN THE RESTROOM FOR SANITARY PURPOSES.

FURNISH TRASH COLLECTION SERVICE / DUMPSTER.
FURNISH PROFESSIONAL, BONDED AND INSURED JANITORIAL SERVICE WITH A WEEKLY CLEANING OF THE ENTIRE OFFICE TO INCLUDE THE RESTROOM FACILITIES FOR THE DURATION OF THE PROJECT.

FURNISH BOTTLED DRINKING WATER SERVICE WITH A HOT AND COLD DISPENSER AND ASSOCIATED SUPPLIES.

PROVIDE A LOCKABLE WOOD OR METAL STORAGE BOX OF SUFFICIENT SIZE TO STORE A NUCLEAR DENSITY GAUGE AND AN ELECTRICAL CONNECTION FOR THE GAUGE. THE STORAGE BOX MUST BE AT LEAST 15 FEET FROM ANY OCCUPIED WORK AREA.

PROVIDE A BROADBAND INTERNET CONNECTION CAPABLE OF MINIMUM DOWNLOAD SPEEDS GREATER THAN 100 MBPS, UPLOAD SPEEDS GREATER THAN 30 MBPS, AND THE NETWORK LATENCY LESS THAN 50 MILLISECONDS. WHEN MULTIPLE BROADBAND SERVICES ARE AVAILABLE, THE FOLLOWING IS THE PREFERRED ORDER: CABLE, DSL, CELLULAR, AND WIRELESS RADIO. SATELLITE COMMUNICATION IS NOT COMPATIBLE WITH ODOT VPN CONNECTION AND WILL NOT BE ACCEPTED. SUPPLY ALL WIRING, ROUTERS, MODEMS (CAPABLE TO BE CONFIGURED IN BRIDGE MODE), SOFTWARE, AND INCIDENTALS NECESSARY TO CONNECT SIX (6) PERSONAL COMPUTERS, WEBCAM, TELEVISION AND MULTI-FUNCTION COPIER AT SEPARATE LOCATIONS, DESIGNATED BY THE PROJECT ENGINEER, THROUGHOUT THE OFFICE, TO THE SYSTEM.

PROVIDE THE FOLLOWING OFFICE FURNITURE AND EQUIPMENT:
1. ONE (1) TELEPHONE LINE WITH VOICEMAIL CAPABILITY AND ONE (1) PHONE WITH SPEAKER PHONE FOR CONFERENCE ROOM
2. ONE (1) CONFERENCE ROOM WEBCAM WITH SPEAKER FOR THE CONFERENCE ROOM WITH THE FOLLOWING SPECIFICATIONS:
   a. RESOLUTION: 1080p
   b. FRAME RATE: 30fps
   c. AUDIO: 8-mic
   d. PAN/TILT/ZOOM: AUTO, DIGITAL
   e. FIELD OF VIEW: 360 degrees
   f. COMPATIBLE WITH MICROSOFT TEAMS
   g. ALL ACCESSORIES NECESSARY TO OPERATE

3. ONE MULTI -FUNCTION COLOR COPIER THAT IS SET UP FOR SCANNING, PRINTING, AND COPYING WITH THE FOLLOWING SPECIFICATIONS:
   a. COLOR PRINT/COPY/SCAN
   b. COPY/PRINT SPEED: 30 PPM (LETTER), 15 PPM (LEGAL), 15 PPM (LEDGER), OR HIGHER
   c. DUPLEX PRINTING
   d. AUTOMATIC DOCUMENT FEEDER WITH 50 SHEET DUPLEXING DOCUMENT FEEDER
   e. COPIER MEMORY: 1 GB
   f. INSTALLED HDD: 40 GB
   g. DATA ENCRYPTION AND HDD ERASE SUPPORT INCLUDED WITH MACHINE
   h. INTERNAL STAPLER
   i. PAPER CAPACITY: 250 SHEET X 2 TRAYS, 50 SHEET BYPASS TRAY
   j. NETWORK INTERFACE: ETHERNET PORT 10/100 BASE-TX, 1000 BASE-TX
   k. COLOR SCANNING WITH THE FOLLOWING REQUIREMENTS:
      i. RESOLUTION: UP TO 600 X 600 DPI
      ii. SCAN AREA UP TO 11-1/2" X 17-1/2"
      iii. SCANNING PROTOCOL SUPPORT - TCP/IP, SMTP, SMB, FTP, POP3, NCP
      iv. FILE SCAN TYPES SUPPORTED: SINGLE PAGE TIFF, JPEG, PDF, MULTI -PAGE TIFF, PDF, AND OCR PDF
      v. SCANNING SUPPORT FOR SCAN-TO-EMAIL, HDD, SMB (FOLDER), URL, AND TWAIN
   l. NETWORK PROTOCOL SUPPORT FOR TCP/IP
   m. SUPPORT KERBEROS AUTHENTICATION
   n. SUPPORT TLS 1.2
   o. SUPPORT SNMPv3
   p. SUPPORTS AT LEAST THE BELOW WEB ENCRYPTION CIPHERS:
      i. AES256-GCM-SHA384
      ii. AES256-SHA256
      iii. AES256-SHA
      iv. AES128-GCM-SHA256
      v. AES128-SHA256
      vi. AES128-SHA
   q. SUPPORTS FIPS 140 COMPLIANCE LIBRARY
   r. CLIENT AND SERVER PRINT DRIVER SUPPORT FOR PCL PRINT DRIVERS
   s. SERVER OPERATING SYSTEM SUPPORT FOR WINDOWS SERVER 2016 AND LATER (32 BIT/64BIT)
   t. CLIENT PRINT DRIVER SUPPORT FOR WINDOWS 10 AND LATER (BOTH PCL/ (32 BIT/64 BIT))
   u. MINIMUM PRINT/COPY RESOLUTION OF 600 X 600 DPI
   v. PREFERRED PRINT UNIT: ONE OF THE FOLLOWING MFC MACHINES/SERIES:
      i. M776dn - #T3U55A
      ii. Flow M776z - #3WT91A
      iii. Flow M776zs - #T3U56A
   w. PROVIDE THE COPIER WITH ALL NECESSARY TONER, PAPER, AND MISCELLANEOUS SUPPLIES NECESSARY FOR ITS PROPER FUNCTION, AND A SERVICE CONTRACT WITH RESPONSE TIME OF 24 HOURS OR LESS FOR MAINTENANCE AND SUPPLIES OF THE COPY MACHINE.
4. EIGHT (8) DESK AND CHAIR SETS.
5. TEN (10) STACKABLE/FOLDABLE CHAIRS (CONFERENCE ROOM).
6. FOUR (4) WORKTABLES, 30" X 60"
7. FOUR (4) WORKTABLES, 30" X 72"
8. TWO (2), 4-DRAWER, LOCKABLE, LEGAL SIZE METAL FILING CABINETS.
9. THREE (3), 2-DRAWER, LOCKABLE, LEGAL SIZE METAL FILING CABINETS.
10. TWO (2) PORTABLE, TYPE 2-A:10-B:C, FIVE POUND SIZE FIRE EXTINGUISHERS.
11. THREE (3) PLAN RACKS, EACH CAPABLE OF HANDLING THE BREAKDOWN OF 22 X 34 INCH SIZED PLANS INTO TEN SECTIONS.
12. TWENTY (20) ALL-WEATHER PARKING SPACES.
13. EIGHT (8) 24-OUART WASTE BASKETS WITH APPROPRIATELY SIZED TRASH BAGS.

14. ONE (1) NEW LED TELEVISION (WALL MOUNTED IN CONFERENCE ROOM) WITH THE FOLLOWING SPECIFICATIONS:
   a. DIAGONAL SCREEN SIZE - 55"
   b. NATIVE RESOLUTION 4K(2160p)
   c. HDMI PORTS 3
   d. VIDEO INTERFACES - COMPOSITE, HDMI, USB
   e. ALL ACCESSORIES NECESSARY TO OPERATE
   f. ALL HARDWARE NECESSARY TO HANG TELEVISION ON THE WALL

EXPENSES FOR THE OPERATION OF THE FIELD OFFICE TO INCLUDE BUT NOT BE LIMITED TO ELECTRICAL SERVICE, HEATING/COOLING, RUNNING SERVICE, SEWER SERVICE, TELEPHONE SERVICE, JANITORIAL SERVICE, BOTTLED WATER SERVICE, HIGH SPEED ONLINE SERVICE, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL ALSO PROVIDE ALL NECESSARY SUPPLIES AND MAINTENANCE FOR ALL EQUIPMENT THAT THE CONTRACTOR IS REQUIRED TO FURNISH.

THE CONTRACTOR WILL RETAIN RESPONSIBILITY FOR RISK OF LOSS OR DAMAGE TO SAID FIELD OFFICE, FURNISHINGS, AND EQUIPMENT WHILE THE OFFICE IS IN USE FOR THIS CONTRACT.

THE FIELD OFFICE WILL BE APPROVED IN ADVANCE BY THE ENGINEER AND FULLY OPERATIONAL WITHIN 30 DAYS AFTER THE SIGNING AND EXECUTION OF THE CONTRACT OR PRIOR TO THE START OF ANY CONSTRUCTION WORK, WHICHEVER COMES FIRST.

THE DEPARTMENT WILL MEASURE FIELD OFFICE, TYPE C, AS PER PLAN BY THE NUMBER OF MONTHS THE OFFICE IS MAINTAINED. A PARTIAL MONTH AT THE END OF THE PROJECT WILL BE PAID AS A FULL MONTH.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOLLOWS:

ITEM	UNIT	DESCRIPTION
619	28 MONTH	FIELD OFFICE, TYPE C, AS PER PLAN

01-13-2026, QUANTITY REVISED R3

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

ITEM SPECIAL - AS-BUILT CONSTRUCTION PLANS

PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION PLANS. THE FORMAL AS-BUILT CONSTRUCTION PLANS SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION PLANS SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION PLANS.

THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL AS-BUILT CONSTRUCTION PLANS. THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION PLANS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE AS-BUILT CONSTRUCTION PLANS IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM.

TWO COPIES OF THE AS-BUILT CONSTRUCTION PLANS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION PLANS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 2:35:59 PM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: mwelder@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.00.205
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_GN002.dgn

DESIGN AGENCY
ms consultants. inc.

DESIGNER DWH
REVIEWER CMN 08/29/25
PROJECT ID 121474
SHEET P.46 TOTAL 655

DRAINAGE (CONTINUED)

DRAINAGE DISCHARGE CONTINUANCE

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT OR SWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER.

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN PER STANDARD CONSTRUCTION DRAWING DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT, AS PER PLAN.

FURNISH AN EROSION CONTROL PAD AS SHOWN IN STANDARD CONSTRUCTION DRAWING DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE.

DOCUMENTATION

PROVIDE WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT, AS PER PLAN

DRAINAGE DISCHARGE CONTINUANCE REMOVAL

THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB, RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC.: CONDUIT.

DRAINAGE DISCHARGE CONTINUANCE (CONTINUED)

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN.

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC.: INSPECTION WELL.

CONDUIT MATERIAL TYPES

THE FOLLOWING CONDUIT MATERIAL TYPES ARE PERMITTED: 707.33, 707.41 NONPERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47 AND 707.51.

PAY ITEMS

EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 611, INSPECTION WELL	2 EACH
ITEM 611, CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	10 FT.
ITEM 611, CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	5 FT.
ITEM 202, REMOVAL MISC.: CONDUIT	15 FT.
ITEM 202, REMOVAL MISC.: INSPECTION WELL	2 EACH
ITEM 203, EMBANKMENT, AS PER PLAN	19 CU.YD.

PIPE CONNECTIONS TO CORRUGATED METAL STRUCTURES

PROVIDE CONNECTIONS OF PROPOSED LONGITUDINAL DRAINAGE TO CORRUGATED METAL STRUCTURES BY MEANS OF A SHOP FABRICATED OR FIELD WELDED STUB ON THE STRUCTURE. FURNISH A STUB MEETING THE REQUIREMENTS OF 707 WITH A MINIMUM LENGTH OF 2 FEET AND A MINIMUM WALL THICKNESS OF 0.064 INCHES.

THE LOCATION AND ELEVATION OF THE STUB ARE TO BE CONSIDERED APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER TO AVOID CUTTING THROUGH JOINTS IN THE STRUCTURE.

THOROUGHLY CLEAN AND REGALVANIZE OR OTHERWISE SUITABLY REPAIR THE FIELD WELDED JOINT, IF USED. MEET WELDING REQUIREMENTS OF 513.21.

PROVIDE A MASONRY COLLAR PER STANDARD CONSTRUCTION DRAWING DM-1.1, TO CONNECT THE LONGITUDINAL DRAINAGE TO THE STUB, WHEN PIPE OTHER THAN CORRUGATED METAL IS USED FOR THE LONGITUDINAL DRAINAGE.

PAYMENT FOR CUTTING INTO THE STRUCTURE AND PROVIDING THE CONNECTION DESCRIBED, IS INCLUDED IN THE CONTRACT PRICE FOR ITEM 611 OR 522.

ITEM 202 - MANHOLE ABANDONED, AS PER PLAN

THE CONTRACTOR SHALL ABANDON EXISTING MANHOLES WHERE INDICATED ON THE PLANS. STRUCTURES SHALL BE REMOVED TO A MINIMUM DEPTH OF 2 FEET BELOW THE FINISHED SUBGRADE. DO NOT DAMAGE PIPES THAT ARE TO REMAIN. CONNECT EXISTING PIPES WITH NEW PIPE THROUGH THE STRUCTURES. AFTER CONNECTING THE EXISTING PIPES AND REMOVING THE WALLS TO THE REQUIRED DEPTH, BACKFILL THE REMAINING CAVITIES ACCORDING TO 202.2. CAREFULLY HAND TAMP BACKFILL UNDER AND AROUND THE CONNECTING PIPE ACCORDING TO 202.2

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

TEMPORARY DRAINAGE ITEMS

TEMPORARY DRAINAGE ITEMS LABELED ON THE MAINTENANCE OF TRAFFIC PLAN ARE ITEMIZED ON THE MOT PLANS AND CARRIED TO THE GENERAL SUMMARY.

ITEM 611 - 12" CONDUIT, TYPE F, AS PER PLAN, 707.33

INCLUDED WITH THIS ITEM IS THE TEE/CLEANOUT THAT IS SHOWN ON THE PIPE PROFILE. THE TEE/CLEANOUT WILL BE THE SAME MATERIAL AS THE CONDUIT AND INCLUDE A CAP THAT IS FLUSH WITH THE GROUNDLINE.

ITEM 611 - 18" CONDUIT, TYPE F, AS PER PLAN, 707.33

INCLUDED WITH THIS ITEM IS THE TEE/CLEANOUT THAT IS SHOWN ON THE PIPE PROFILE. THE TEE/CLEANOUT WILL BE THE SAME MATERIAL AS THE CONDUIT AND INCLUDE A CAP THAT IS FLUSH WITH THE GROUNDLINE.

ITEM 620 - DELINEATOR, POST GROUND MOUNTED, AS PER PLAN

A GROUND POST MOUNTED DELINEATOR SHALL BE PLACED AT THE OUTLET OF THE UNDERDRAINS WHERE THE OUTLET IS NOT TO A DRAINAGE STRUCTURE (MANHOLE, CATCH BASIN, INLET, ETC.). THE COLOR OF THE REFLECTIVE SHEETING SHALL BE BLUE.

ITEM 202 - INLET ABANDONED, AS PER PLAN

THE CONTRACTOR SHALL ABANDON EXISTING INLETS WHERE INDICATED IN THE PLANS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING INLET GRATE. THE CONTRACTOR SHALL REMOVE THE UPPER INLET BOX PORTION AND THE EXISTING BARRIER TO CONSTRUCTION JOINT LIMITS. THE CONTRACTOR SHALL SEAL THE EXISTING PIPE TO BE ABANDONED PER ITEM 202. THE CONTRACTOR SHALL BACKFILL THE CAVITY WITH LOW STRENGTH MORTAR (LSM) BACKFILL PER ITEM 613, AND REPLACE THE UPPER BOX PORTION OF THE INLET WITH QC1P CONCRETE. THE CONTRACTOR SHALL REPLACE THE REMOVED BARRIER WITH PROPOSED BARRIER.

ITEM 611 - CONDUIT, MISC.: 33" TYPE C

THE CONTRACTOR SHALL INSTALL 33" TYPE C STORM PIPE CONFORMING TO 706.02 - REINFORCED CONCRETE CIRCULAR PIPE

ITEM 611 - MANHOLE No. 3, BOLTED DOWN, AS PER PLAN

WHEN SPECIFIED, BOLTED DOWN MANHOLE COVERS SHALL BE PROVIDED AND THEIR COSTS SHALL BE INCLUDED IN THE PERTINENT 611 ITEM DESIGNATED, "BOLTED DOWN".

MATERIALS FURNISHED SHALL BE:

FOUR (4) EQUALLY SPACED HALF-INCH (1/2") STAINLESS STEEL HEX CAP SCREWS CONFORMING TO ASTM F-593, ALLOY GROUP 1

COUNTERSINKS, HOLES, THREADING, AND PLACEMENT SHALL BE DONE IN ACCORDANCE WITH THE CASTING MANUFACTURERS RECOMMENDATIONS AND METHODS.

ENSURE THE MANHOLE FRAME AND COVER ARE POSITIONED AS SHOWN IN THE PLANS AND THE LID IS PLACED OUTSIDE OF THE TRAVEL LANES.

EROSION CONTROL

R3 01-13-2026, QUANTITIES REVISED

SEEDING AND MULCHING

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

ITEM 659, SOIL ANALYSIS TEST	3	EACH
ITEM 659, TOPSOIL	25,442	CY
ITEM 659, SEEDING AND MULCHING	184,386	SY
ITEM 659, REPAIR SEEDING AND MULCHING	11,460	SY
ITEM 659, INTER-SEEDING	11,460	SY
ITEM 659, COMMERCIAL FERTILIZER	31.96	TONS
ITEM 659, LIME	47.36	ACRES
ITEM 659, WATER	1269	MGAL
ITEM 659, MOWING	515.71	MSF

APPLY SEEDING AND MULCHING 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.

WATER QUALITY

POST CONSTRUCTION STORM WATER TREATMENT

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

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE ITEM 660 SODDING 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 IS TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

GENERAL NOTES

DESIGN AGENCY
ms consultants, inc.

DESIGNER DWH
REVIEWER CMN 08/29/25
PROJECT ID 121474
SHEET P.50 TOTAL 655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 3:24:49 PM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: mnelder@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.00.205
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ITEM 614 - MAINTAINING TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

1. A MINIMUM OF ONE ELEVEN FOOT LANE IN EACH DIRECTION SHALL BE MAINTAINED ON THE EXISTING, TEMPORARY OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.

2. THE CONTRACTOR SHALL INFORM THE DISTRICT OFFICE (330) 786-2208, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.

3. LANE RESTRICTIONS OR LANE REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.

4. TRUCK MOUNTED ATTENUATORS (TMA'S) SHALL BE USED AS SHOWN IN THE STANDARD CONSTRUCTION DRAWINGS.

5. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS TWO (2) MILES RURAL OR ONE [1] MILE URBAN.

6. FOR ROUTES NOT ON THE PERMITTED LANE CLOSURE CHART, ONLY DURING OFF-PEAK PERIODS (ie ANY PERIOD OTHER THAN 6-8AM AND 3-6PM) SHALL THE CONTRACTOR INSTALL AND SUBSEQUENTLY RESET ALL TRAFFIC CONTROL NECESSARY FOR THE WORK ZONE FOR EACH CONSTRUCTION PHASE.

7. A QUANTITY OF 500 CU. YDS. OF ITEM 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

8. PRIOR TO OPENING TO TRAFFIC EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION. ALL TRANSVERSE JOINTS SHALL EXTEND ACROSS THE FULL LANE AND SHOULDER WIDTH AND EACH LANE SHALL BE FREE FROM UNEVEN LONGITUDINAL JOINTS. THE CONTRACTOR SHALL PROVIDE ASPHALT WEDGES FOR TRANSVERSE JOINTS WHEREVER THERE ARE PAVEMENT ELEVATION DIFFERENCES.

9. THE CONTRACTOR SHALL INSTALL, MAINTAIN AND SUBSEQUENTLY REMOVE WORK ZONE MARKING SIGNS AND THEIR SUPPORTS WITHIN THE WORK LIMITS. THESE SIGNS INCLUDE "NO EDGE LINES", "DO NOT PASS" AND "PASS WITH CARE". ALL OTHER SIGNS WILL BE INCIDENTAL TO THE LUMP SUM PAY ITEM 614 MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED IN THE PLANS. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGNS HAS BEEN INCLUDED IN THE PLANS AS PER CMS 614.04.

10. THE CONTRACTOR SHALL SET A WORK ZONE AT THE REQUEST OF THE ENGINEER TO ALLOW THE LAYOUT OF THE PARTIAL/FULL DEPTH PAVEMENT REPAIR AREAS. THIS WORK IS INCIDENTAL TO ITEM 614 MAINTAINING TRAFFIC.

11. TO ENSURE THAT WEIGHTED CHANNELIZERS WILL NOT BE BLOWN OVER OR DESPLACED BY WIND AND MOVING TRAFFIC, ALL WEIGHTED CHANNELIZERS UTILIZED ON INTERSTATES AND FREEWAYS SHALL BE FROM MANUFACTURERS ON THE OHIO DEPARTMENT OF TRANSPORTATION, OFFICE OF MATERIAL MANAGEMENT'S QUALIFIED PRODUCTS LIST (QPL) WHICH UTILIZE A MINIMUM OF A 30 POUND BALLAST.

TIME LIMITATIONS AND DISINCENTIVES

INTERIM CONSTRUCTION DATES AND THE ASSOCIATED DISINCENTIVE VALUE FOR EACH MAJOR CONSTRUCTION PHASE AND TEMPORARY TRAFFIC PATTERNS ARE LISTED HEREIN.

MAINTAINING TRAFFIC (SB TRAFFIC CROSSOVER)
DURING PHASE 1A - STEP 2, I-680 SB TRAFFIC MAY BE CROSSED OVER ON TO THE EXISTING NB PAVEMENT AND ALL SB RAMPS CLOSED WITHIN THE LIMITS ESTABLISHED BY THIS PHASE. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF $27,400 PER CALENDAR DAY FOR EACH DAY SB TRAFFIC REMAINS IN THE CROSSOVER CONDITION BEYOND OCTOBER 31, 2026.

MAINTAINING TRAFFIC (NB CLOSURE)
I-680 NB AND ALL NB RAMPS WITHIN THE LIMITS OF THE CLOSURE ESTABLISHED IN PHASES 1A - STEP 2 AND 1B - STEP 1 MAY BE CLOSED. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE OF $20,000 PER CALENDAR DAY FOR EACH DAY I-680 NB AND THE ASSOCIATED RAMPS REMAIN CLOSED BEYOND JUNE 18, 2027.

R3 01-13-2026, REVISED DISINCENTIVE AMOUNT

ROAD OR RAMP CLOSURE	CLOSURE PERMITTED DURING PHASE	CLOSURE DISINCENTIVE ($ PER CALENDAR DAY) OUTSIDE OF PERMITTED PHASE
MARSHALL ST. TO I-680 NB (RAMP G)	PHASES 1A-1B	$2,000
E. WOODLAND AVE. TO I-680 NB (RAMP N)	PHASES 1A-1B	$5,000
U.S. 62/S.R. 7 TO I-680 NB (RAMP BY)	PHASES 1A-1B	$3,000
SILLIMAN ST. TO I-680 SB (RAMP C)	PHASE 1A	$400
S.R. 193 TO I-680 SB (RAMP C)	PHASE 1A	$10,000
EDWARDS ST. TO I-680 SB (RAMP H)	PHASE 1A	$1,000
I-680 SB TO U.S. 62 EB/S.R. 7 NB (RAMP BX)	PHASE 1A	$3,000
I-680 SB RAMP TO EDWARDS ST. (RAMP F)	PHASE 1A	$8,000
I-680 SB RAMP TO MARKET ST. (RAMP K)	PHASE 1A	$5,000
I-680 NB TO U.S. 62/S.R. 7 (RAMP NB)	PHASE 2A	$9,000
I-680 NB TO SOUTH AVE. (RAMP D)	PHASE 2A	$7,000
SOUTH AVE. TO I-680 NB (RAMP B)	PHASE 2A	$1,000
POWERSDALE AVE. TO I-680 NB (RAMP F)	PHASE 2A	$200
I-680 SB TO SOUTH AVE (RAMP A)	PHASE 2B	$8,000
SOUTH AVE. TO I-680 SB (RAMP C)	PHASE 2B	$1,700
U.S. 62/S.R. 7 TO I-680 SB (RAMP SB)	PHASE 2B	$24,000

DETOUR NOTIFICATION

THE CONTRACTOR SHALL ADVISE THE ODOT PROJECT ENGINEER AND THE CITY OF YOUNGSTOWN EIGHTEEN (18) DAYS IN ADVANCE OF WHEN THE DETOUR ROUTE SHOULD BE IN EFFECT. ALL WORK ZONE DEVICES REQUIRED SHALL BE FURNISHED, ERECTED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. PAYMENT FOR ALL WORK ASSOCIATED WITH THE DETOUR SHALL BE INCLUDED UNDER THE LUMP SUM BID FOR ITEM 614, DETOUR SIGNING.

LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS

DURING MAINTENANCE OF TRAFFIC PHASE 1A THROUGH PHASE 2C, TRAFFIC SHALL BE PERMITTED TO REMAIN IN THE CONDITIONS PROPOSED BY THE DETOUR PLANS AND THE MAINTENANCE OF TRAFFIC PLANS DURING HOLIDAYS AND SPECIAL EVENTS. IF WORK IS PERFORMED DURING A HOLIDAY OR SPECIAL EVENT PERIOD, THE CONTRACTOR SHALL ENSURE THAT CONSTRUCTION VEHICLE TRAFFIC DOES NOT IMPEDE THE FLOW OF VEHICULAR TRAFFIC DURING THE HOLIDAY OR SPECIAL EVENT PERIODS AS LISTED BELOW:

NEW YEAR'S (OBSERVED)
MEMORIAL DAY
FOUTH OF JULY (OBSERVED)
GEN./REG. ELECTION DAY (NOV)
THANKSGIVING
CHRISTMAS (OBSERVED)
LABOR DAY

DURING ALL PRE-PHASE WORK AND PHASE 3 WORK, THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR SPECIAL EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR SPECIAL EVENT	TIME ALL LANED MUST BE OPEN TO TRAFFIC
SUNDAY	12:00N FRI. THROUGH 6:00AM MON.
MONDAY	12:00N FRI. THROUGH 6:00AM TUE.
TUESDAY	12:00N MON. THROUGH 6:00AM WED.
TUESDAY (GEN./REG. ELECTION)	5:00AM TUE. THROUGH 12:00AM WED.
WEDNESDAY	12:00N TUE. THROUGH 6:00AM THUR.
THURSDAY	12:00N WED. THROUGH 6:00AM FRI.
THURSDAY (THANKSGIVING ONLY)	6:00AM WED. THROUGH 6:00AM MON.
FRIDAY	12:00N THUR. THROUGH 6:00AM MON.
SATURDAY	12:00N FRI. THROUGH 6:00AM MON.

DURING THE SAME PERIODS, MAINTAIN PEDESTRIAN ACCESS IF PEDESTRIAN ACCESS WAS PRESENT PRIOR TO CONSTRUCTION.

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

NOTICE OF CLOSURE SIGN

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	≥ 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	≤ 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT (330-786-2208) RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

LANE CLOSURE/REDUCTION REQUIRED

LENGTH OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AS PER THE PERMITTED LANE CLOSURE CHART. THE PERMITTED LANE CLOSURE CHART USED FOR THIS PROJECT SHALL BE THE MOST CURRENT CHART AVAILABLE ON THE DATE THIS PROJECT SELLS.

THE CHART CAN BE FOUND AT:
https://www.transportation.ohio.gov/working/data-tools/resources/permitted-lane-closure

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THE REQUIREMENTS IN THE CHART, THE CONTRACTOR SHALL BE ASSESSED DISINCENTIVES IN THE AMOUNT OF $2,500 PER HOUR OR PORTION THEREOF THAT THE LANE REDUCTION REMAINS BEYOND THE SPECIFIED LIMIT.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE.

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
ms consultants. inc.

DESIGNER KJF
REVIEWER KWR 06/02/25
PROJECT ID 121474
SHEET P.52 TOTAL 655

MAH-680-4.58

SEQUENCE OF CONSTRUCTION

PHASE 1 (SHEETS P.80-P.114)

PHASE 1A - STEP 1

1. SHIFT I-680 NB & SB LANES AS SHOWN IN THE PLANS TO REMOVE THE EXISTING MEDIAN BARRIER AND INSTALL TEMPORARY PAVEMENT FOR THE CROSSOVERS AT THE NORTH AND SOUTH ENDS OF PHASE 1A.

PHASE 1A - STEP 2

SOUTHBOUND RAMPS CLOSED:
- SILLIMAN ST. TO I-680 SB (RAMP C)
- S.R. 193 TO I-680 SB (RAMP C)
- MAHONING AVE. TO I-680 SB (RAMP E)
- I-680 SB TO GLENWOOD/MAHONING AVE. (RAMP F)
- GLENWOOD/MAHONING AVE. TO I-680 SB (RAMP H)
- I-680 SB TO MARKET ST. SB (RAMP K)
- I-680 SB TO MARKET ST. NB (RAMP M)
- I-680 SB TO U.S. 62 EB /S.R. 7 NB (RAMP BX)

NORTHBOUND RAMPS CLOSED:
- I-680 NB TO S.R. 193 (RAMP B-3)
- I-680 NB TO SALT SPRINGS RD. (RAMP D)
- MARSHALL ST. TO I-680 NB (RAMP G)
- I-680 NB TO GLENWOOD/MAHONING AVE. (RAMP J)
- MARKET ST. TO I-680 NB (RAMP L)
- WOODLAND AVE. TO I-680 NB (RAMP N)
- U.S. 62 WB/S.R. 7 SB TO I-680 NB (RAMP BY)

1. CLOSE AND DETOUR NORTHBOUND I-680 USING U.S. 62, U.S. 422, AND S.R. 193.

2. CROSS THE TWO SOUTHBOUND LANES OF I-680 OVER TO THE NORTHBOUND LANES JUST SOUTH OF THE S.R. 193 INTERCHANGE.

3. CONSTRUCT THE I-680 SB LANES AND PROPOSED MEDIAN BARRIER. CONSTRUCT ALL SB EXIT AND ENTRANCE RAMPS. CONSTRUCT ALL PROPOSED PAVEMENT UP THROUGH THE INTERMEDIATE COURSE.

PHASE 1B - STEP 1

NORTHBOUND RAMPS CLOSED:
- I-680 NB TO S.R. 193 (RAMP B-3)
- I-680 NB TO SALT SPRINGS RD. (RAMP D)
- MARSHALL ST. TO I-680 NB (RAMP G)
- I-680 NB TO GLENWOOD/MAHONING AVE. (RAMP J)
- MARKET ST. TO I-680 NB (RAMP L)
- WOODLAND AVE. TO I-680 NB (RAMP N)
- U.S. 62 WB/S.R. 7 SB TO WOODLAND AVE. (RAMP CA)
- U.S. 62 WB/S.R. 7 SB TO I-680 NB (RAMP BY)

1. MAINTAIN I-680 NB CLOSURE AND DETOUR FROM PHASE 1A.

2. MAINTAIN I-680 SB TRAFFIC ON THE RECENTLY CONSTRUCTED SB LANES.

3. CONSTRUCT I-680 NB BETWEEN S.R. 193 AND U.S. 62 INCLUDING ALL NB EXIT AND ENTRANCE RAMPS. RAMP CA CONSTRUCTION WILL BEGIN AT STA. 14+00 IN ORDER TO MAINTAIN 2 LANES ON RAMP SB. CONSTRUCT ALL PROPOSED PAVEMENT UP THROUGH THE INTERMEDIATE COURSE. LEAVE A GAP IN THE PROPOSED BARRIER BETWEEN STA. 1034+50 AND STA. 1037+50 FOR FUTURE CROSSOVER USE.

WINTER SHUTDOWN SEASON 1

DURING THE WINTER MONTHS AFTER THE FIRST CONSTRUCTION SEASON, KEEP ALL TRAFFIC IN THE PHASE 1B - STEP 1 CONFIGURATION. CONTINUE WORK ON MAH-680-04.886 STRUCTURE.

PHASE 1B - STEP 1

1. TRAFFIC SHALL BE MAINTAINED ON I-680 AS SHOWN IN PHASE 1B - STEP 1.

2. ONCE THE WORK TO I-680 NB IS COMPLETE AND READY TO OPEN, REDUCE U.S. 62 WB/S.R. 7 SB TO ONE LANE IN ORDER TO CONSTRUCT THE REMAINING PORTION OF RAMP CA THAT WAS NOT BUILT IN PHASE 1B - STEP 1. ONCE WORK IS COMPLETE IN THIS AREA, OPEN UP TO TRAFFIC AND MOVE TO PHASE 2A - STEP 1.

PHASE 2 (SHEETS P.115-P.155)

PHASE 2A - STEP 1

1. SHIFT I-680 NB & SB LANES AS SHOWN IN THE PLANS TO REMOVE THE EXISTING MEDIAN BARRIER AND INSTALL TEMPORARY PAVEMENT FOR THE CROSSOVERS AT THE NORTH AND SOUTH END OF PHASE 2.

PHASE 2A - STEP 2

NORTHBOUND RAMPS CLOSED:
- I-680 NB TO U.S. 62/S.R. 7 (RAMP NB)
- SOUTH AVE. TO I-680 NB (RAMP B)
- I-680 NB TO SOUTH AVE. (RAMP D)
- POWERSDALE AVE. TO I-680 NB (RAMP F)

1. CROSS ONE NB I-680 LANE OVER TO THE SB I-680 PAVEMENT WHILE MAINTAINING THE OTHER NB I-680 LANE ON THE NB I-680 PAVEMENT.

2. CONSTRUCT THE OUTSIDE LANE(S) OF THE I-680 NB AND ALL NB ENTRANCE/EXIT RAMPS BETWEEN U.S. 62 AND THE END OF THE PROJECT. CONSTRUCT ALL PROPOSED PAVEMENT UP THROUGH THE INTERMEDIATE COURSE.

PHASE 2B

SOUTHBOUND RAMPS CLOSED:
- U.S. 62 WB/S.R. 7 SB TO I-680 SB (RAMP SB)
- I-680 SB TO SOUTH AVE. (RAMP A)
- SOUTH AVE. TO I-680 SB (RAMP C)

1. CROSS ONE SB I-680 LANE OVER TO THE NB I-680 PAVEMENT WHILE MAINTAINING THE OTHER SB I-680 LANE ON THE SB I-680 PAVEMENT.

2. CONSTRUCT THE OUTSIDE LANE(S) OF THE I-680 SB PAVEMENT BETWEEN U.S. 62 AND THE END OF THE PROJECT. CONSTRUCT ALL PROPOSED PAVEMENT UP THROUGH THE INTERMEDIATE COURSE.

PHASE 2C

1. SHIFT I-680 NB AND I-680 SB LANES TO THE OUTSIDE AND CONSTRUCT THE INSIDE LANES AND MEDIAN BARRIER FOR I-680. CONSTRUCT ALL PROPOSED PAVEMENT UP THROUGH THE INTERMEDIATE COURSE.

2. REBUILD THE MEDIAN BARRIER AT THE CROSSOVER LOCATIONS.

3. PHASE 2C WORK SHALL HAVE AN INTERIM COMPLETION DATE OF 10/31/2027.

INTERIM COMPLETION DATE

ALL LANES AND RAMPS SHALL BE OPEN TO UNRESTRICTED TRAFFIC NO LATER THAN 10/31/2027. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $10,000/DAY FOR EACH DAY THAT RAMPS OR LANES REMAIN RESTRICTED BEYOND THE INTERIM COMPLETION DATE.

R3 01-13-2026, ADDED INTERIM COMPLETION DATE

PHASE 3 (NO SHEETS PROVIDED)

CONSTRUCT THE FINAL SURFACE COURSE, INCLUDING MILL AND OVERLAY FOR ALL THE RAMPS, FOR THE ENTIRE PROJECT AND INSTALL ALL FINAL PAVEMENT MARKINGS AND TRAFFIC CONTROL DEVICES UTILIZING ALLOWABLE LANE CLOSURES IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE SCHEDULE (PLCS).

DRUM REQUIREMENTS

IN ADDITION TO THE REQUIREMENTS OF THE PLANS, SPECIFICATION AND PROPOSAL, DRUMS FURNISHED BY THE CONTRACTOR SHALL BE NEW AND UNUSED AT THE TIME OF ARRIVAL ON THE PROJECT. ANY DRUMS BROUGHT ON THE PROJECT, WHICH HAVE PREVIOUSLY BEEN USED ELSEWHERE, WILL NOT BE ACCEPTED.

PAYMENT FOR DRUMS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR MAINTAINING TRAFFIC UNLESS SEPARATELY ITEMIZED.

METHOD OF PAYMENT

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - WATER	160 M. GAL.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
ms consultants, inc.

DESIGNER KJF

REVIEWER KWR 06/02/25

PROJECT ID 121474

SHEET P.53 TOTAL 655

MAH-680-4.58

SHEET NUMBER																	PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
P.45	P.47	P.48	P.49	P.50	P.74A	P.163	P.166	P.167	P.168	P.169	P.170	P.171	P.195	P.196	P.292		CALC	01/IMS		EXT	TOTAL			
																						ROADWAY	
LS																		LS	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	P.45
	27										147,232	68,455						215,714	202	23000	215,714	SY	PAVEMENT REMOVED	
											467							467	202	23500	467	SY	WEARING COURSE REMOVED	
							5,660											5,660	202	30000	5,660	SF	WALK REMOVED	
						28	284											312	202	30600	312	SY	CONCRETE MEDIAN REMOVED	
		350				13,775	1,894											16,019	202	30700	16,019	FT	CONCRETE BARRIER REMOVED	
						977	7,096											8,073	202	32000	8,073	FT	CURB REMOVED	
								3,994	4,120	2,750								10,864	202	35100	10,864	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
								471	602	77								1,150	202	35200	1,150	FT	PIPE REMOVED, OVER 24" DIAMETER	
						10,871	14,288											25,159	202	38000	25,159	FT	GUARDRAIL REMOVED	
						1												1	202	47800	1	EACH	IMPACT ATTENUATOR REMOVED	
								13	11	2								26	202	58000	26	EACH	MANHOLE REMOVED	
								14	20	30								64	202	58100	64	EACH	CATCH BASIN REMOVED	
								16	17	8								41	202	58200	41	EACH	INLET REMOVED	
					3													3	202	58400	3	EACH	INLET ABANDONED	
					1			2	2									5	202	58401	5	EACH	INLET ABANDONED, AS PER PLAN	P.50
									1									1	202	58701	1	EACH	MANHOLE ABANDONED, AS PER PLAN	P.50
								176	139									315	SPECIAL	20270000	315	FT	FILL AND PLUG EXISTING CONDUIT	P.49
													21,010	10,831				31,841	202	75000	31,841	FT	FENCE REMOVED	
				2														2	202	98100	2	EACH	REMOVAL MISC.: INSPECTION WELL	P.50
				15														15	202	98200	15	FT	REMOVAL MISC.: CONDUIT	P.50
	47		7,140												35,422			42,609	203	10000	42,609	CY	EXCAVATION	
	560														11,102			11,662	203	20000	11,662	CY	EMBANKMENT	
				19														19	203	20001	19	CY	EMBANKMENT, AS PER PLAN	P.50
													R3	01-13-2026, QUANTITIES REVISED			72,634	72,634	204	10000	72,634	SY	SUBGRADE COMPACTION	

GENERAL SUMMARY

DESIGN AGENCY

ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.156 TOTAL 655

MAH-680-4.58

SHEET NUMBER															PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.47	P.49	P.50	P.51	P.178	P.179	P.180	P.181		P.192	P.193	P.194	P.197			01/IMS						
																				EROSION CONTROL	
	8								80						88	601	21050	88	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT	
										142					142	601	32000	142	CY	ROCK CHANNEL PROTECTION, TYPE A WITH FILTER	
25											161				186	601	32100	186	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
				5	3										8	601	32200	8	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
		3													3	659	00100	3	EACH	SOIL ANALYSIS TEST	
		25,442								R3 01-13-2026, QUANTITIES REVISED					25,442	659	00300	25,442	CY	TOPSOIL	
1,670	43,147	184,386													229,203	659	10000	229,203	SY	SEEDING AND MULCHING	
		11,460													11,460	659	14000	11,460	SY	REPAIR SEEDING AND MULCHING	
		11,460													11,460	659	15000	11,460	SY	INTER-SEEDING	
		31.96													31.96	659	20000	31.96	TON	COMMERCIAL FERTILIZER	
		47.36													47.36	659	31000	47.36	ACRE	LIME	
		1,269													1,269	659	35000	1,269	MGAL	WATER	
		515.71													515.71	659	40000	515.71	MSF	MOWING	
												10,836			10,836	660	25000	10,836	SY	SODDING STAKED	
										6,001	3,353	4,518			13,872	670	00720	13,872	SY	DITCH EROSION PROTECTION MAT, TYPE B	
															LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
															LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
															LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
															350,000	832	30000	350,000	EACH	EROSION CONTROL	
										1,540					1,540	836	10000	1,540	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1	
																				ENVIRONMENTAL / REMEDIATION	
			210												210	SPECIAL	69065016	210	TON	WORK INVOLVING PETROLEUM CONTAMINATED SOIL	P.51
			100												100	SPECIAL	69065022	100	GAL	WORK INVOLVING NON-REGULATED WATER	P.51
			100												100	SPECIAL	69065024	100	GAL	WORK INVOLVING REGULATED WATER	P.51
																				DRAINAGE	
				1.5	1.5	0.3	0.6								3.9	602	20000	3.9	CY	CONCRETE MASONRY	
									80,824						80,824	605	11110	80,824	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	25														25	605	13300	25	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
									47,144						47,144	605	14020	47,144	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
	300								2,756						3,056	611	01500	3,056	FT	6" CONDUIT, TYPE F	
				49		51	209								309	611	04400	309	FT	12" CONDUIT, TYPE B	
						48	17								65	611	04400	65	FT	12" CONDUIT, TYPE B, 706.02	
							9								9	611	04400	9	FT	12" CONDUIT, TYPE B, 707.45	
				14		32									46	611	04600	46	FT	12" CONDUIT, TYPE C	
				46											46	611	05201	46	FT	12" CONDUIT, TYPE F, AS PER PLAN, 707.33	P.50
				2,140	2,192	965	1,059								6,356	611	05900	6,356	FT	15" CONDUIT, TYPE B	
				495	638	369	387								1,889	611	06100	1,889	FT	15" CONDUIT, TYPE C	
					9	9									18	611	06100	18	FT	15" CONDUIT, TYPE C, 706.02	
					5										5	611	06100	5	FT	15" CONDUIT, TYPE C,706.08	
						43									43	611	06100	43	FT	15" CONDUIT, TYPE C, 707.33	
				198	286	610	130								1,224	611	07400	1,224	FT	18" CONDUIT, TYPE B	
							14								14	611	07400	14	FT	18" CONDUIT, TYPE B, 706.02	
				65											65	611	07600	65	FT	18" CONDUIT, TYPE C	
				31	133		53								217	611	08201	217	FT	18" CONDUIT, TYPE F, AS PER PLAN, 707.33	P.50
				1,064	348	826	36								2,274	611	10400	2,274	FT	24" CONDUIT, TYPE B	
				144	143										287	611	10600	287	FT	24" CONDUIT, TYPE C	
					10										10	611	11900	10	FT	27" CONDUIT, TYPE B	
				99											99	611	13400	99	FT	30" CONDUIT, TYPE B	
					485										485	611	16400	485	FT	36" CONDUIT, TYPE B	
				318											318	611	96600	318	FT	CONDUIT, BORED OR JACKED, 30" TYPE B	
		10													10	611	97400	10	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	P.50
		5													5	611	97400	5	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	P.50
				5											5	611	97400	5	FT	CONDUIT, MISC.:33" TYPE C, 706.02	P.50
						1									1	611	98150	1	EACH	CATCH BASIN, NO. 3	
				1	3	6	11								21	611	98180	21	EACH	CATCH BASIN, NO. 3A	

GENERAL SUMMARY

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.158 | TOTAL 655

MAH-680-4.58

SHEET NUMBER																	PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
P.47	P.48	P.49	P.50	P.74A	P.172	P.175	P.178	P.179	P.180	P.181	P.192	P.318				CALC	01/IMS		EXT	TOTAL			
																						DRAINAGE (CONT.)	
							1										1	611	98230	1	EACH	CATCH BASIN, NO. 4	
								1	2	5							8	611	98370	8	EACH	CATCH BASIN, NO. 6	
							8	10	7	8							33	611	98410	33	EACH	CATCH BASIN, NO. 8	
							1	1									2	611	98434	2	EACH	CATCH BASIN, NO. 8A	
									4								4	611	98840	4	EACH	INLET, NO. 2-A-6	
									4								4	611	98840	4	EACH	INLET, NO. 2-A-6	
				1													1	611	99110	1	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1	
							15	14	5								34	611	99111	34	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE C1, AS PER PLAN	P.49
							1			4							5	611	99114	5	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D	
							2	3	2								7	611	99574	7	EACH	MANHOLE, NO. 3	
							15	15	8								38	611	99575	38	EACH	MANHOLE, NO. 3, AS PER PLAN, BOLTED DOWN	P.50
		4									40						44	611	99710	44	EACH	PRECAST REINFORCED CONCRETE OUTLET	
			2														2	611	99720	2	EACH	INSPECTION WELL	
																						PAVEMENT	
281																	281	251	01020	281	SY	PARTIAL DEPTH PAVEMENT REPAIR (442)	
281																	281	253	01000	281	SY	PAVEMENT REPAIR	
																1,121	1,121	254	01000	1,121	SY	PAVEMENT PLANING, ASPHALT CONCRETE, (1.5")	
5																48,181	48,186	302	56000	48,186	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
52												2				37,750	37,804	304	20000	37,804	CY	AGGREGATE BASE	
2																38,248	38,250	407	20000	38,250	GAL	NON-TRACKING TACK COAT	
																50	50	409	30000	50	FT	SAWING AND SEALING ASPHALT CONCRETE PAVEMENT JOINTS	
					496	604							R3	01-13-2026	QUANTITIES REVISED		1,100	441	70800	1,100	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1,	P.49
																						(449), (UNDER GUARDRAIL)	
																10,363	10,363	442	10080	10,363	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)	
																8,643	8,643	442	10300	8,643	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
2																47	49	442	22100	49	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449)	
2	10																12	442	22300	12	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (449)	
																4,093	4,093	452	14010	4,093	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	

GENERAL SUMMARY

DESIGN AGENCY

ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.159 | TOTAL 655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 9:17:23 AM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: mnelder@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.00.205
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_GG004.dgn

SHEET NUMBER																PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
P.48	P.173	P.177	P.428	P.467	P.468	P.469	P.470	P.471	P.472	P.473	P.474					01/IMS		EXT	TOTAL			
																					PAVEMENT (CONT.)	
	367	276														643	609	24510	643	FT	CURB, TYPE 4-C	
		6,388														6,388	609	26000	6,388	FT	CURB, TYPE 6	
		369														369	609	72000	369	SY	CONCRETE MEDIAN	
																9.73	618	40600	9.73	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
																					LIGHTING	
					66	56	32									154	625	00450	154	EACH	CONNECTION, FUSED PULL APART	
					33	28	16									77	625	00460	77	EACH	CONNECTION, UNFUSED PULL APART	
					24	24	3									51	625	00470	51	EACH	CONNECTION, UNFUSED BOLTED	
					33	54	27									114	625	00480	114	EACH	CONNECTION, UNFUSED PERMANENT	
					33	28	16									77	625	10494	77	EACH	LIGHT POLE, LOW MAST, 50'	
2																2	625	10503	2	EACH	LIGHT POLE (INSTALLATION ONLY), AS PER PLAN	P.54
					1	3										4	625	12200	4	EACH	LIGHT TOWER, BBB100	
					10	8	11									29	625	14200	29	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
2					23	20	5									50	625	14306	50	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP	
					1	3										4	625	15200	4	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP	
							2									2	625	18000	2	EACH	BRACKET ARM, 10'	
								24,612	20,631	4,356						49,599	625	23200	49,599	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
168					5,940	5,040	3,150									14,298	625	23400	14,298	FT	NO. 10 AWG POLE AND BRACKET CABLE	
								1,938	2,464	2,221						6,623	625	24320	6,623	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
																1,370	625	25400	1,370	FT	CONDUIT, 2", 725.04	
								5,762	4,805	1,247						11,814	625	25408	11,814	FT	CONDUIT, 2", 725.051	
								1,782	951	125						2,858	625	25500	2,858	FT	CONDUIT, 3", 725.04	
					R3			85	332							417	625	25906	417	FT	CONDUIT, JACKED OR DRILLED, 725.051, 3" R3	
								444	162							606	625	25911	606	FT	CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN	P.467
					3	9										12	625	26262	12	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), 447-480W, TYPE V, 69K-72K LUMENS	P.467
					10	8	11									29	625	26272	29	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), 330-381W, TYPE III, 40K-45K LUMENS	P.467
					23	20	7									50	625	26272	50	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), 308-330W, TYPE V, 49K-51K LUMENS	P.467
2																2	625	27561	2	EACH	LUMINAIRE, INSTALLATION ONLY, AS PER PLAN	P.54
								2,745	3,245	2,256						8,931	625	29000	8,931	FT	TRENCH	
					1											1	625	29900	1	EACH	JUNCTION BOX	
					6	8	2									16	625	29930	16	EACH	MEDIAN JUNCTION BOX	
					9	15	8									32	625	30700	32	EACH	PULL BOX, 725.08, 18"	
					2	4										6	625	30706	6	EACH	PULL BOX, 725.08, 24"	
											15					15	625	31510	15	EACH	PULL BOX REMOVED	
			25		35	34	16									110	625	32000	110	EACH	GROUND ROD	
								1								1	625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM	
					2	2										4	625	34001	4	EACH	POWER SERVICE, AS PER PLAN	P.467
					2	2										4	625	34450	4	EACH	CONTROL CENTER CABINET, COMPLETE	
								2,745	3,245	2,256						8,246	625	36011	8,246	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	P.467
					3											3	625	39520	3	EACH	PULL BOX CLEANED	
				LS												LS	SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	P.467
				10												10	SPECIAL	62540010	10	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	P.467
											8					8	625	75350	8	EACH	LIGHT TOWER REMOVED	
											82					82	625	75400	82	EACH	LIGHT POLE REMOVED	
2																2	625	75410	2	EACH	LIGHT POLE REMOVED FOR REUSE	
											82					82	625	75500	82	EACH	LIGHT POLE FOUNDATION REMOVED	
											8					8	625	75540	8	EACH	LIGHT TOWER FOUNDATION REMOVED	
1																1	625	75800	1	EACH	DISCONNECT CIRCUIT	
				4												4	625	76000	4	EACH	ARC FLASH CALCULATIONS AND LABEL, CONTROL CENTERS GW, WA, DA & GA	
							2									2	632	70200	2	EACH	CONDUIT RISER, 1" DIAMETER	
							2									2	632	89300	2	EACH	WOOD POLE	
																34	809	00530	34	EACH	ITS JUNCTION BOX, 17x24x6 INCHES	
																11	809	01900	11	EACH	ITS PULL BOX WITH PAD AND STANDARD LID ASSEMBLY, 32" WIDE, TYPE 1	
																12,810	809	23900	12,810	FT	CONDUIT, 2" DIAMETER, HDPE	

R3 01-13-2026, QUANTITIES AND DESCRIPTIONS REVISED, SHEET REFERENCE NO'S. ADDED

GENERAL SUMMARY

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN
REVIEWER CMN 08/29/25
PROJECT ID 121474
SHEET P.160 TOTAL 655

MAH-680-4.58

SHEET NUMBER																PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
P.46	P.52	P.53	P.54	P.55	P.56	P.57	P.58	P.74	P.438							01/IMS						
																					TRAFFIC CONTROL (CONT.)	
									30							30	850	10010	30	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
									8,201							8,201	850	10110	8,201	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (ASPHALT)	
									14,471							14,471	850	10130	14,471	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (ASPHALT)	
									3							3	850	20010	3	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
									707							707	850	20110	707	FT	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)	
									472							472	850	20130	472	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)	
																					STRUCTURE OVER 20 FOOT SPAN (MAH-680-04.886)	P.491
																					MAINTENANCE OF TRAFFIC	
						550										550	614	11110	550	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
						1,933		14,186								16,119	614	11630	16,119	FT	INCREASED BARRIER DELINEATION	
								30								30	614	12380	30	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL)	
	LS															LS	614	12420	LS		DETOUR SIGNING	
				75												75	614	12484	75	EACH	WORK ZONE INCREASED PENALTIES SIGN	
			50													50	614	12500	50	EACH	REPLACEMENT SIGN	
			100													100	614	12600	100	EACH	REPLACEMENT DRUM	
				1												1	614	12756	1	EACH	WORK ZONE CROSSOVER LIGHTING SYSTEM	
								10,257								10,257	614	12801	10,257	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	P.56
	500															500	614	13000	500	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
						1,123		5,600								6,723	614	13310	6,723	EACH	BARRIER REFLECTOR, TYPE 1, ONE-WAY	
						292										292	614	13312	292	EACH	BARRIER REFLECTOR, TYPE 2, ONE-WAY	
						570		1,503								2,073	614	13350	2,073	EACH	OBJECT MARKER, ONE WAY	
								705								705	614	13360	705	EACH	OBJECT MARKER, TWO WAY	
							50,000									50,000	614	18000	50,000	EACH	MAINTAINING TRAFFIC, MISC.: BRIDGE DECK AND PAVEMENT PATCHING	P.58
							50,000									50,000	614	18000	50,000	EACH	MAINTAINING TRAFFIC, MISC.: SAFETY REPAIRS	P.58
					72											72	614	18601	72	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	P.56
								7.99								7.99	614	20056	7.99	MILE	WORK ZONE LANE LINE, CLASS I, 6", 807 PAINT	
								6.37								6.37	614	20366	6.37	MILE	WORK ZONE LANE LINE, CLASS I, 6", 648	
								34.83								34.83	614	22056	34.83	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 807 PAINT	
								13.92								13.92	614	22336	13.92	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 648	
								45,803								45,803	614	23110	45,803	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 807 PAINT	
								10,702								10,702	614	23150	10,702	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 648	
								10,322								10,322	614	24102	10,322	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 807 PAINT	
								5,859								5,859	614	24142	5,859	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 648	
								123								123	614	25120	123	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 648	
								106								106	614	26120	106	FT	WORK ZONE STOP LINE, CLASS I, 648	
								203								203	614	27010	203	FT	WORK ZONE CROSSWALK LINE, CLASS I, 12"	
								12								12	614	30120	12	EACH	WORK ZONE ARROW, CLASS I, 648	
								9								9	614	30121	9	EACH	WORK ZONE ARROW, CLASS I, 648, AS PER PLAN	P.54
						LS										LS	615	10000	LS		ROADS FOR MAINTAINING TRAFFIC	
								8,557								8,557	615	20001	8,557	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	P.57
							1,000									1,000	615	25001	1,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 1	P.58
							1,000									1,000	615	25001	1,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 2	P.58
							1,000									1,000	615	25001	1,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 3	P.58
							1,000									1,000	615	25001	1,000	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B, AS PER PLAN, TYPE 4	P.58
		160														160	616	10000	160	MGAL	WATER	
								17,590								17,590	622	41011	17,590	FT	PORTABLE BARRIER, 50", AS PER PLAN, A	P.54
								1,053								1,053	622	41011	1,053	FT	PORTABLE BARRIER, 50", AS PER PLAN, B	P.54
								36,883								36,883	622	41100	36,883	FT	PORTABLE BARRIER, UNANCHORED	
				36												36	808	18700	36	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
																					INCIDENTALS	
																LS	108	10000	LS		CPM PROGRESS SCHEDULE	
																LS	614	11000	LS		MAINTAINING TRAFFIC	
28													R3	01-13-2026	QUANTITY REVISED	28	619	16021	28	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	P.46
																LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																LS	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY

ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

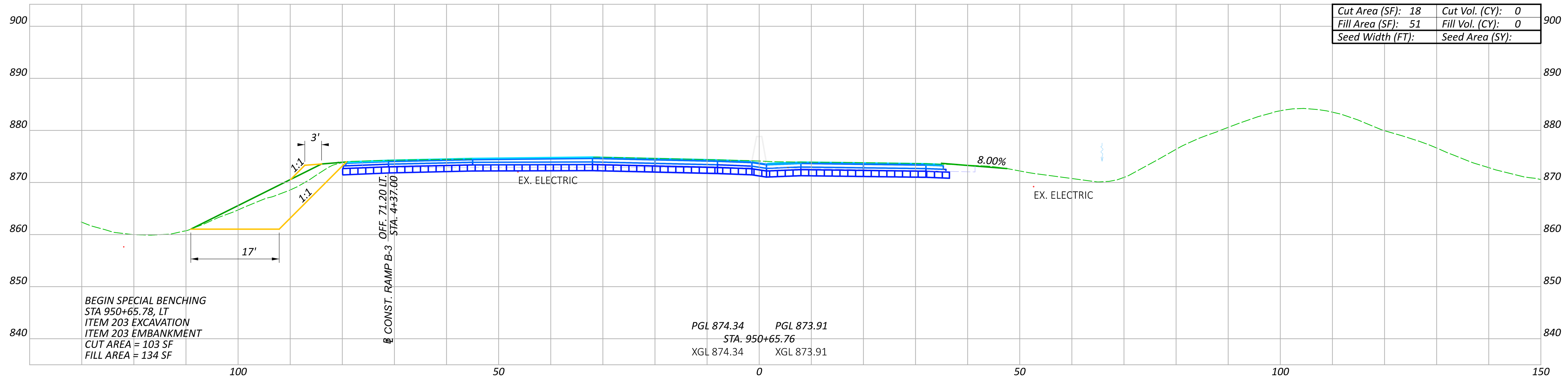
SHEET P.161A TOTAL 655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/13/2026 TIME: 3:20:14 PM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: mnelder@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.00.205
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_GG007.dgn

CROSS SECTIONS - I.R. 680
STA. 948+00.00 TO STA. 953+00.00

LEGEND: ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



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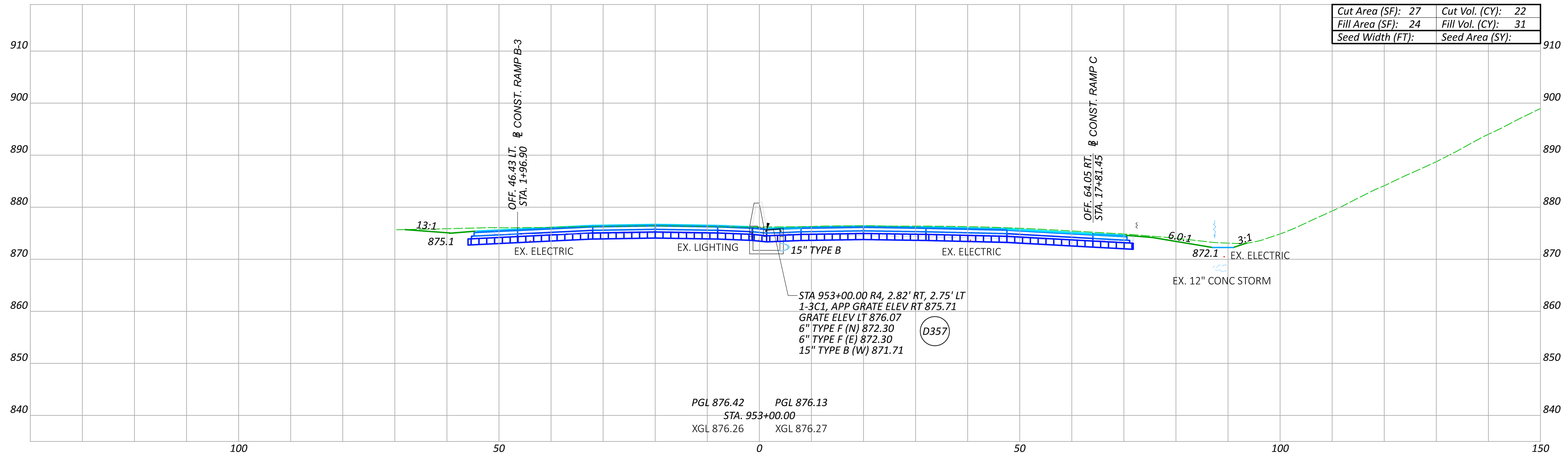
Fill Area (SF): 51	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



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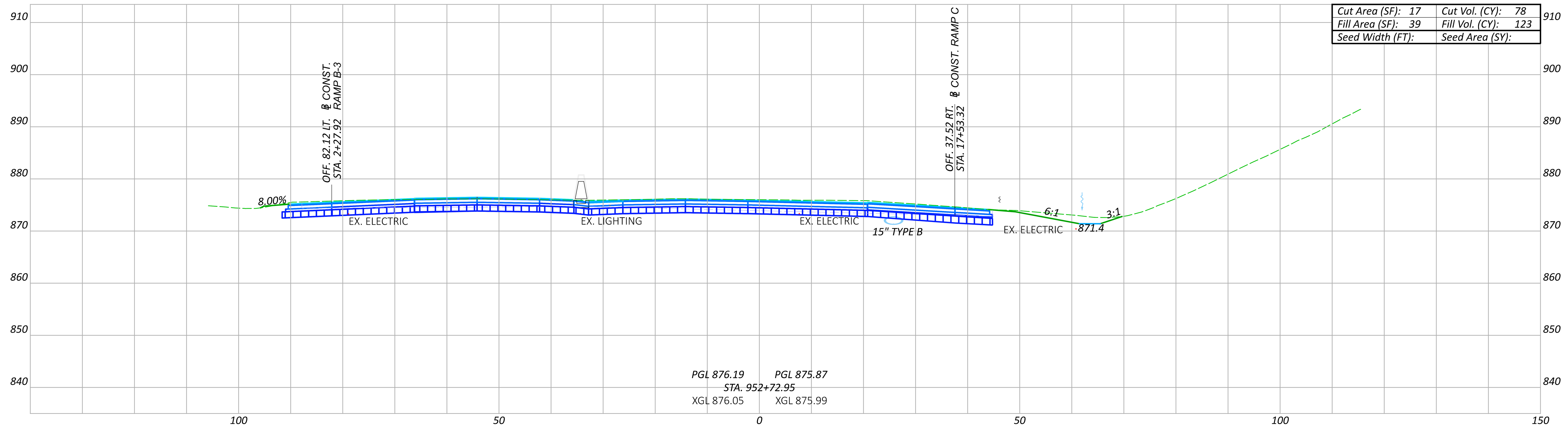
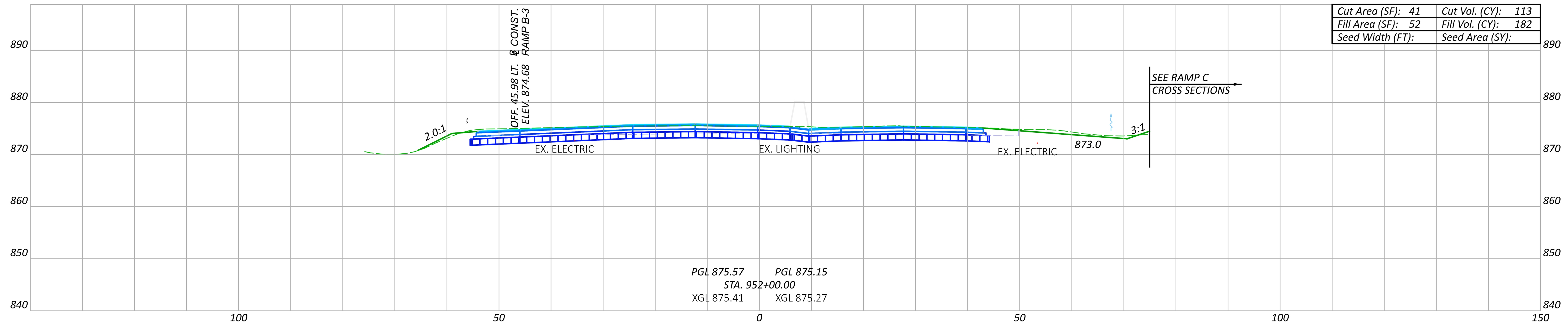
Fill Area (SF): 24	Fill Vol. (CY): 31
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 17	Cut Vol. (CY): 78
Fill Area (SF): 39	Fill Vol. (CY): 123
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 41	Cut Vol. (CY): 113
Fill Area (SF): 52	Fill Vol. (CY): 182
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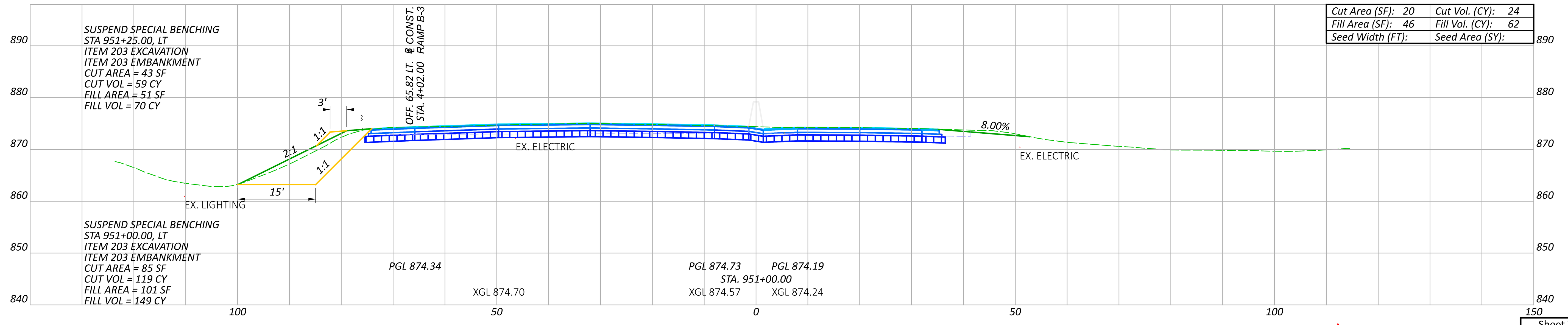

Cut Area (SF): 20	Cut Vol. (CY): 24
Fill Area (SF): 46	Fill Vol. (CY): 62
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	237	398

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

PROJECT ID: 121474

SHEET: P.264 TOTAL: 655

MAH-680-4.58

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_XS003.dgn

CROSS SECTIONS - I.R. 680
STA. 953+59.55 TO STA. 958+00.00

LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

STA. 955+00.00

Cut Area (SF): 15	Cut Vol. (CY): 47
Fill Area (SF): 33	Fill Vol. (CY): 122
Seed Width (FT):	Seed Area (SY):

STA. 954+00.00

Cut Area (SF): 10	Cut Vol. (CY): 19
Fill Area (SF): 33	Fill Vol. (CY): 46
Seed Width (FT):	Seed Area (SY):

STA. 953+59.55

Cut Area (SF): 15	Cut Vol. (CY): 46
Fill Area (SF): 29	Fill Vol. (CY): 58
Seed Width (FT):	Seed Area (SY):

STA. 958+00.00

Cut Area (SF): 40	Cut Vol. (CY): 146
Fill Area (SF): 141	Fill Vol. (CY): 386
Seed Width (FT):	Seed Area (SY):

STA. 957+00.00

Cut Area (SF): 39	Cut Vol. (CY): 129
Fill Area (SF): 68	Fill Vol. (CY): 227
Seed Width (FT):	Seed Area (SY):

STA. 956+00.00

Cut Area (SF): 30	Cut Vol. (CY): 84
Fill Area (SF): 55	Fill Vol. (CY): 163
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals

Seeding	Cut	Fill
	471	1002

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

PROJECT ID: 121474

SHEET: P.265 TOTAL: 655

MAH-680-4.58

CROSS SECTIONS - I.R. 680
STA. 959+00.00 TO STA. 968+77.60

MAH-680-4.58

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	847	492

DESIGN AGENCY: ms consultants, inc.
DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474
SHEET: P.266
TOTAL: 655

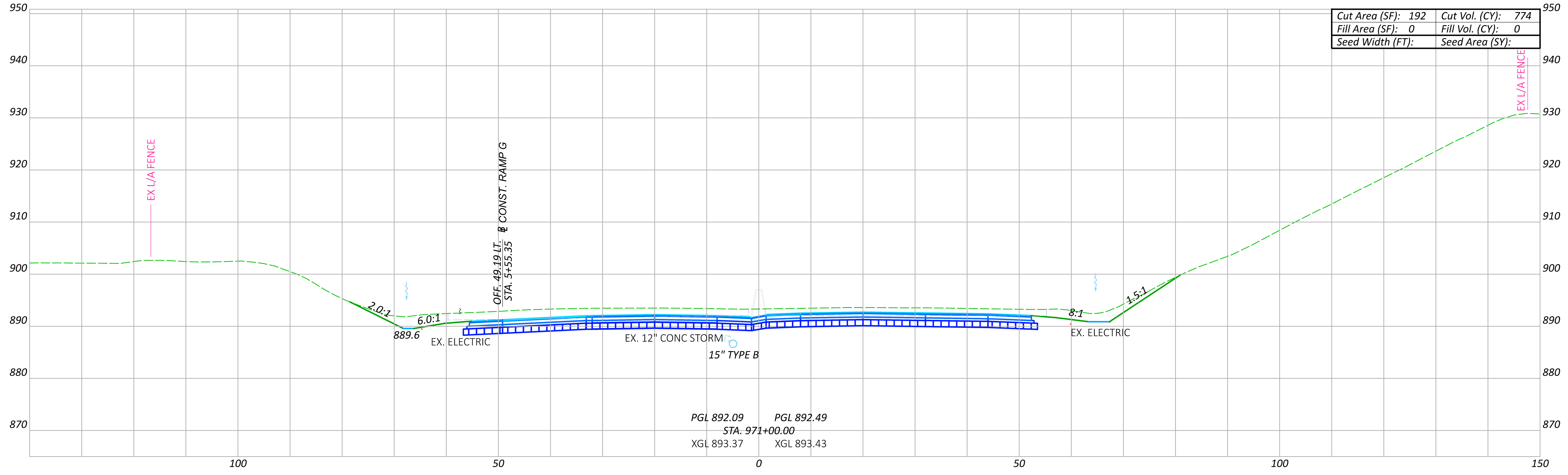
CROSS SECTIONS - I.R. 680
STA. 969+00.00 TO STA. 973+00.00

MAH-680-4.58

LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

Cut Area (SF): 192	Cut Vol. (CY): 774
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 226	Cut Vol. (CY): 701
Fill Area (SF): 0	Fill Vol. (CY): 0
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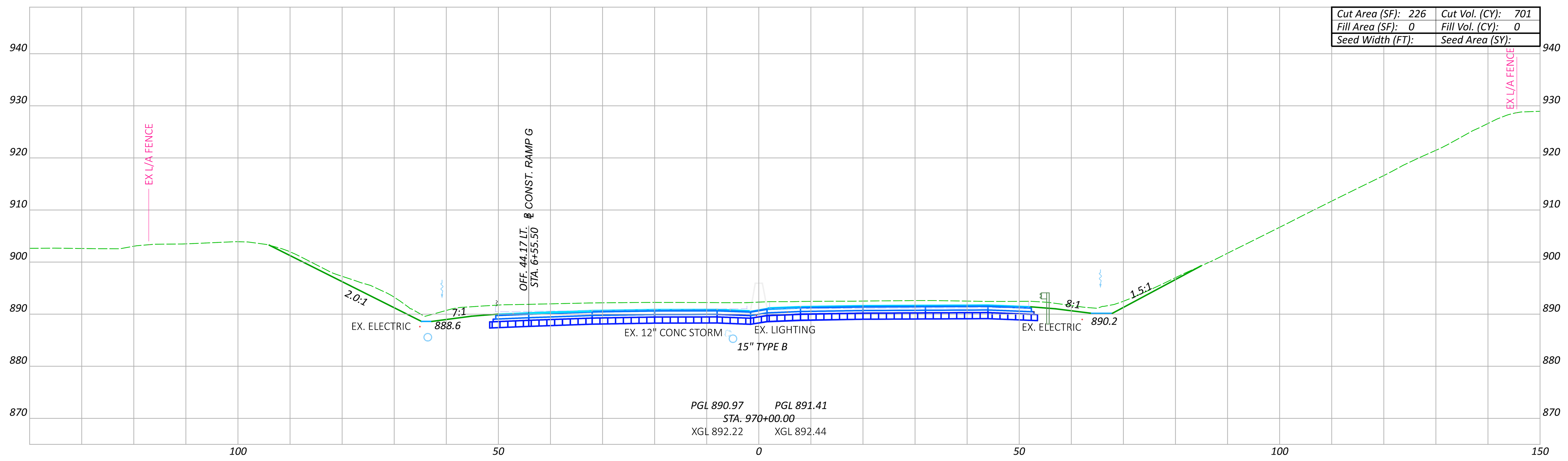
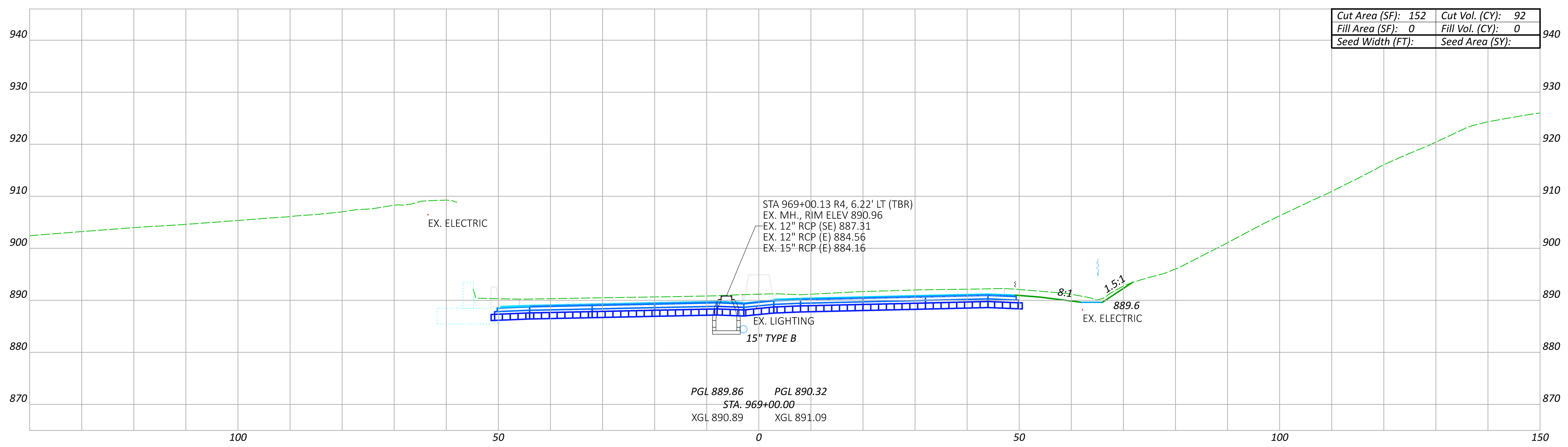


Cut Area (SF): 152	Cut Vol. (CY): 92
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 224	Cut Vol. (CY): 811
Fill Area (SF): 0	Fill Vol. (CY): 0
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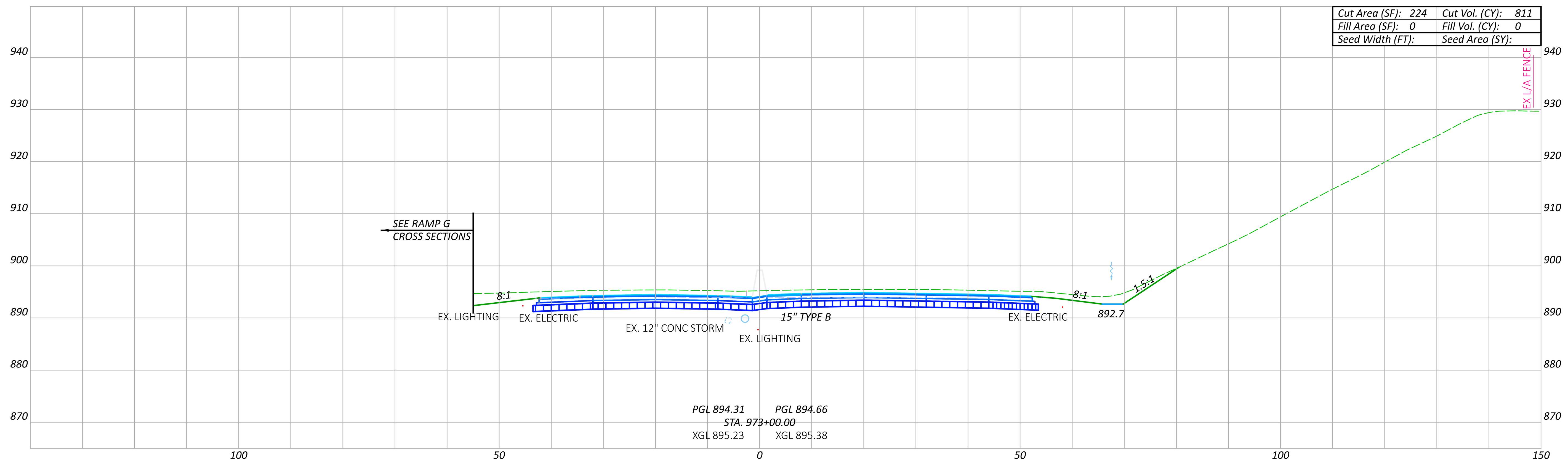

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Fill Area (SF): 0	Fill Vol. (CY): 0
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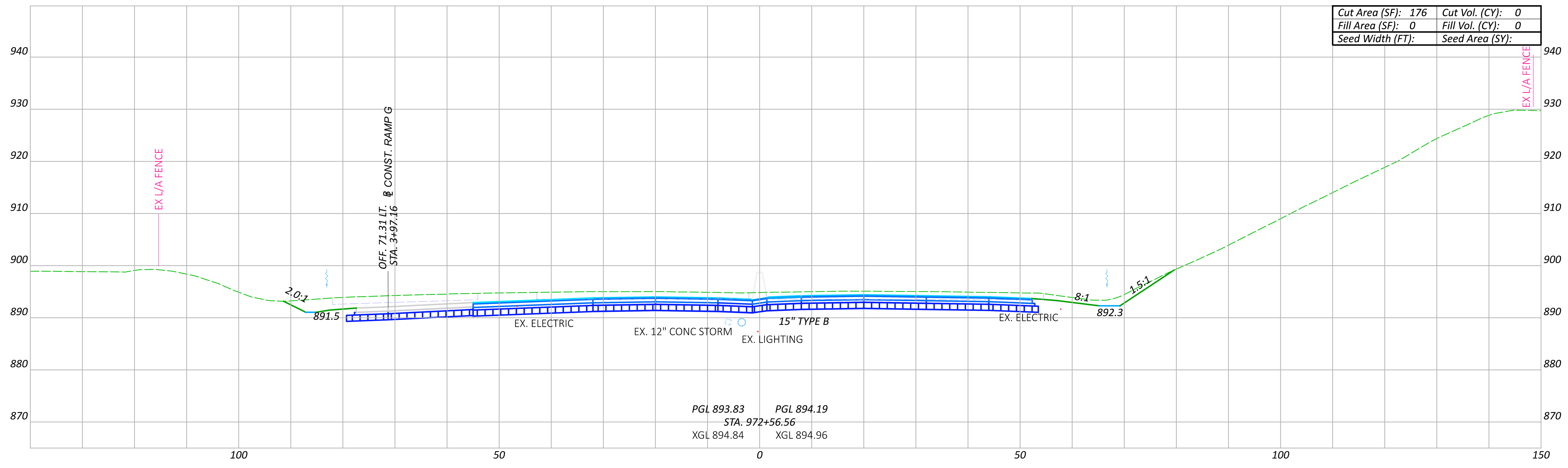

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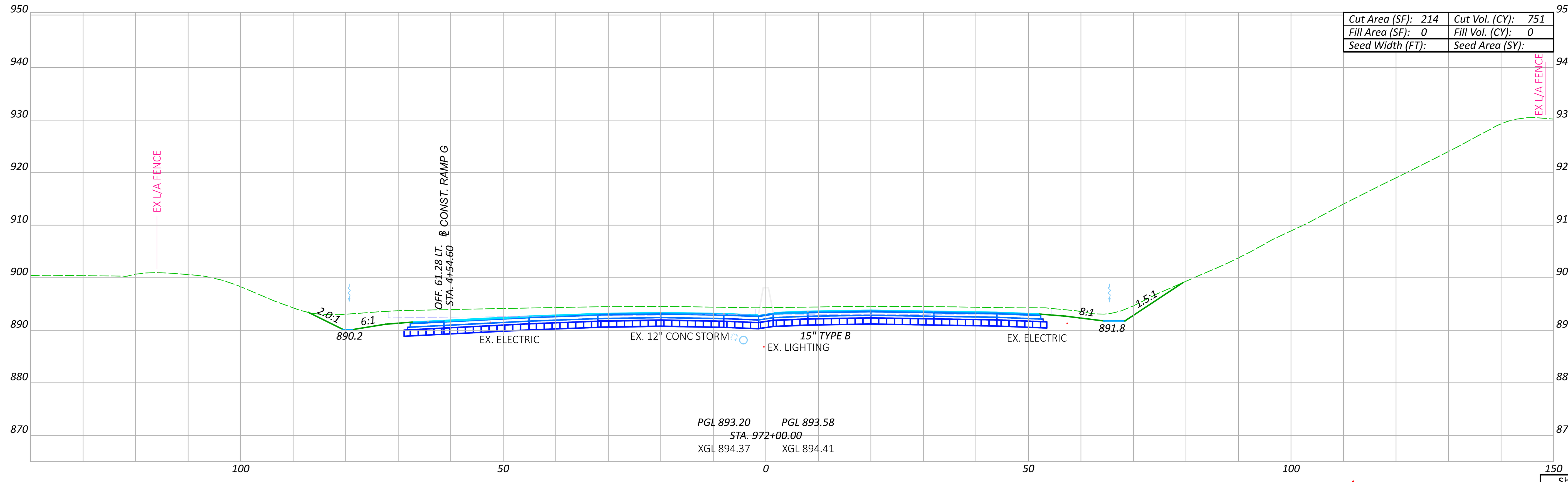


R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	3129	1

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

PROJECT ID: 121474

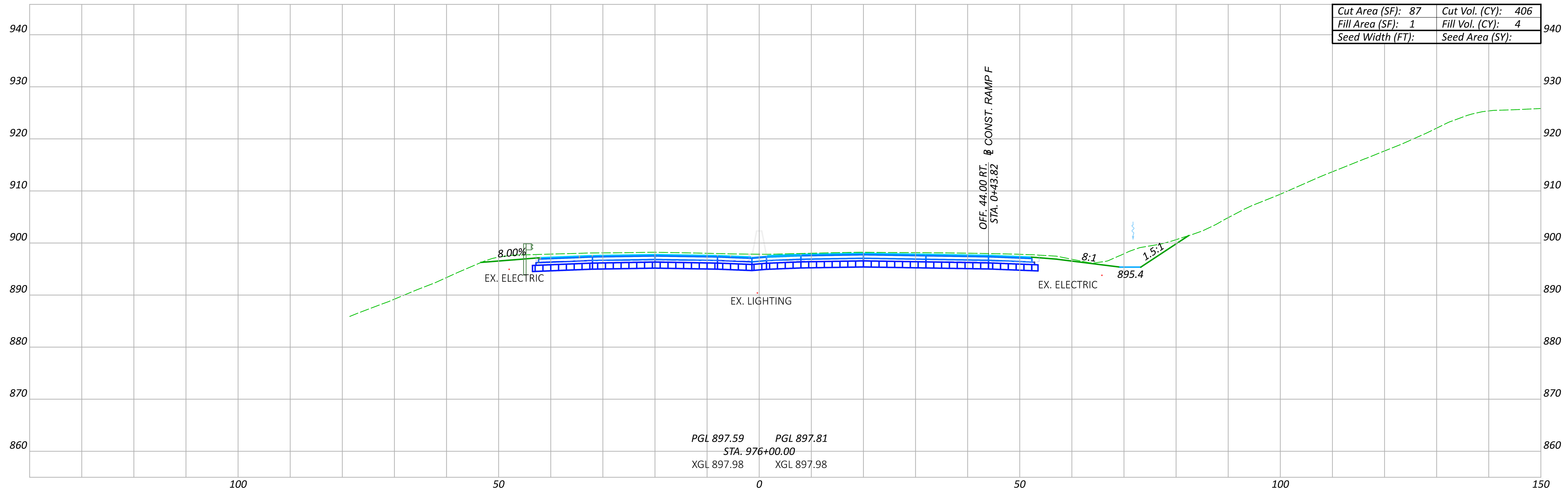
SHEET: P.267 | TOTAL: 655

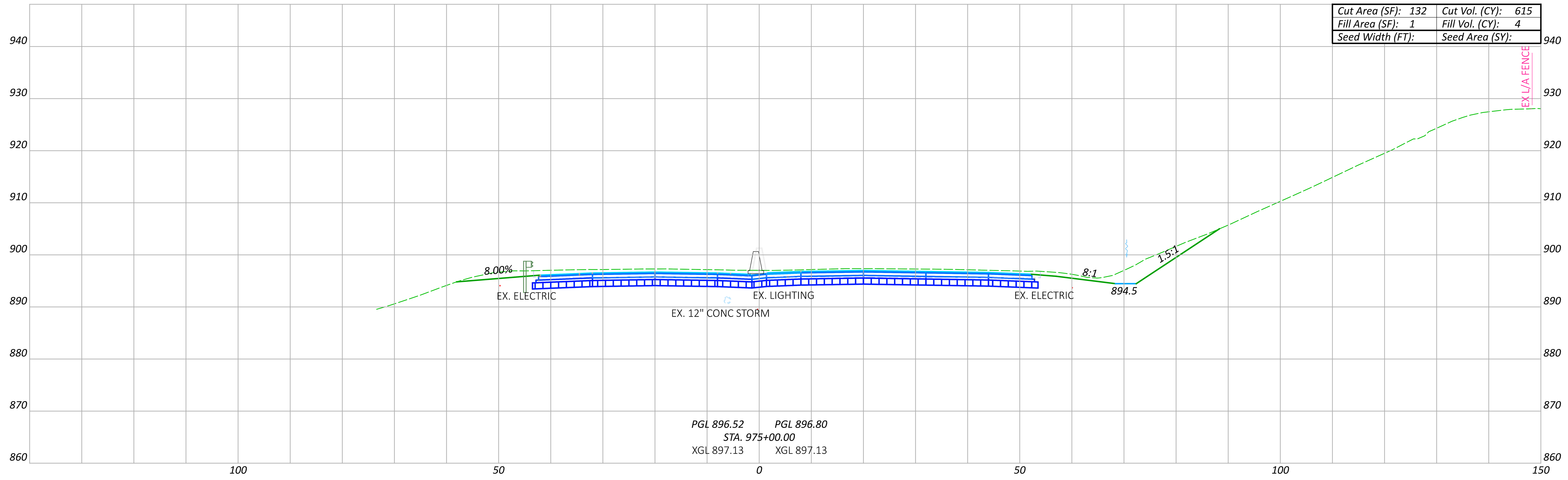
CROSS SECTIONS - I.R. 680
STA. 974+00.00 TO STA. 978+94.15

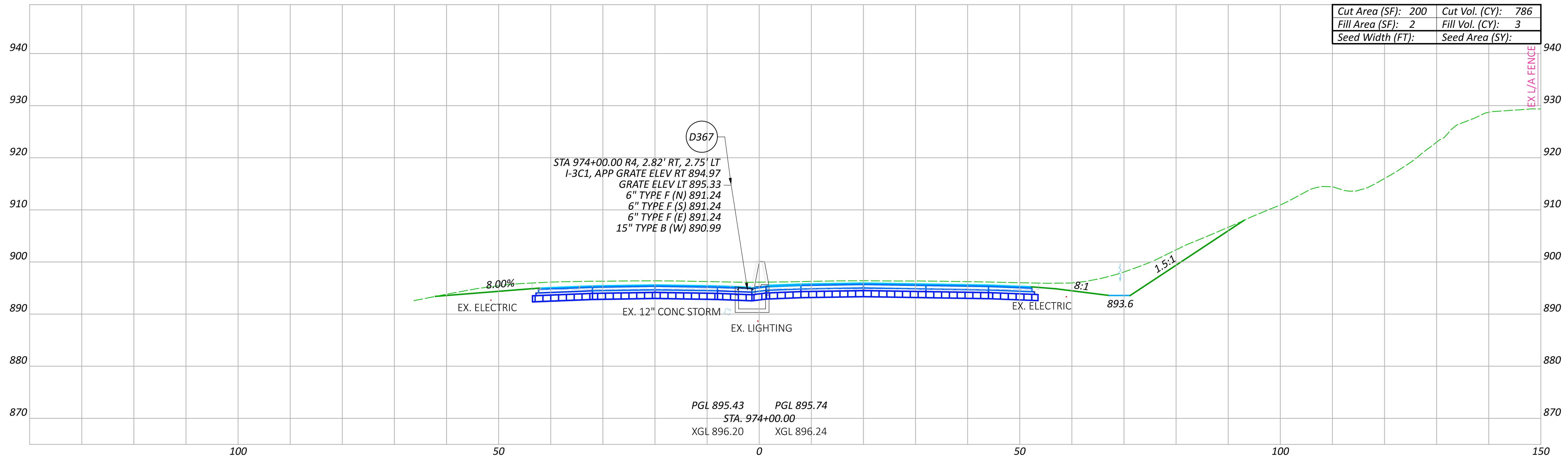
MAH-680-4.58

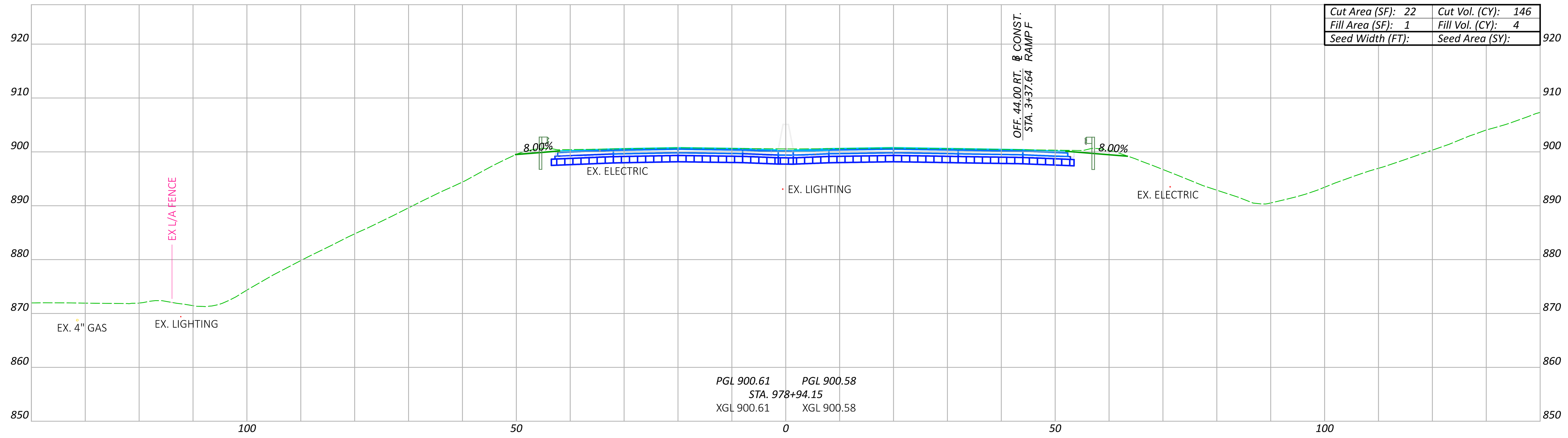
LEGEND:

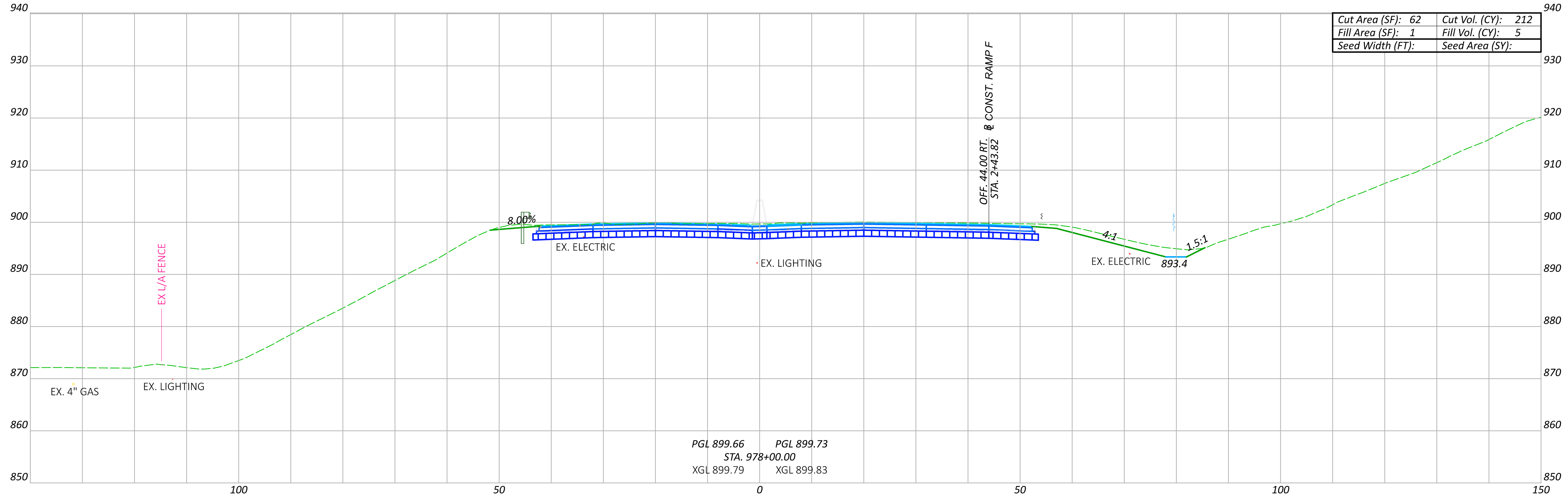
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

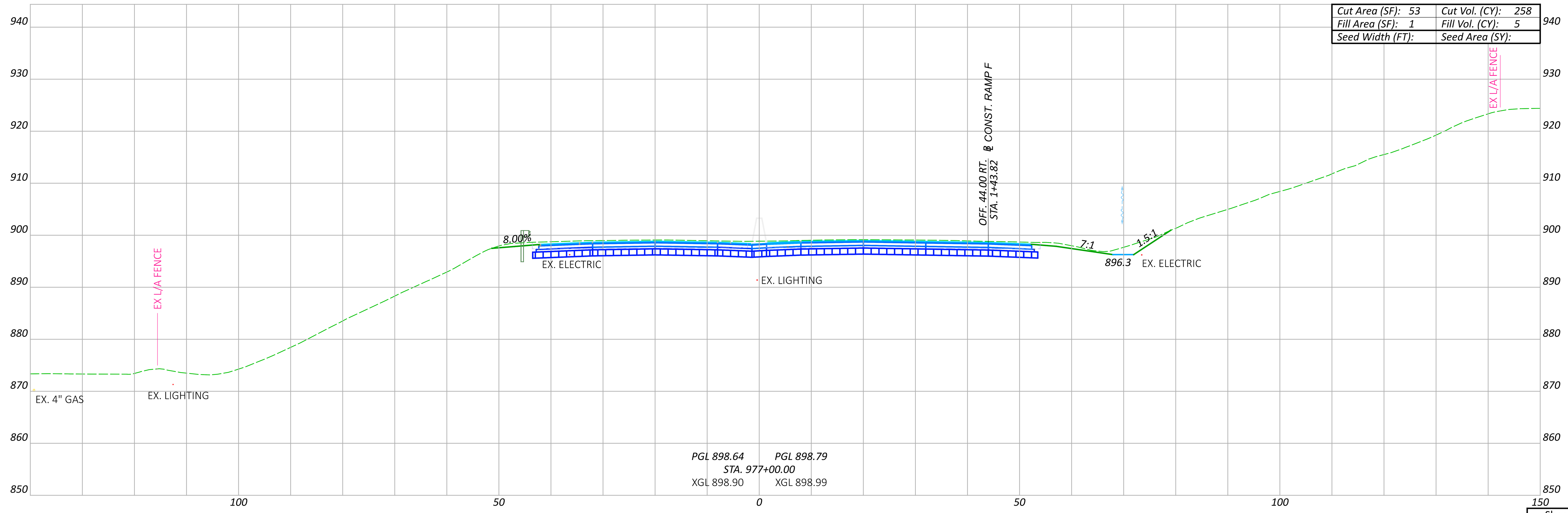












R3 01-13-2026, QUANTITIES REVISED

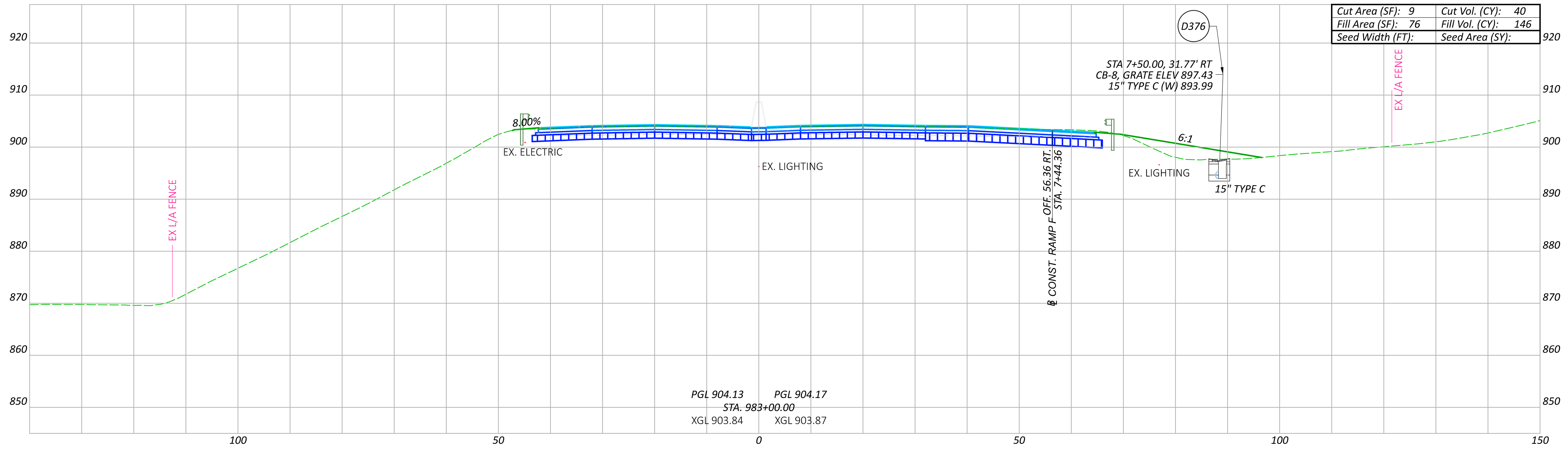
Sheet Totals		
Seeding	Cut	Fill
	2423	25

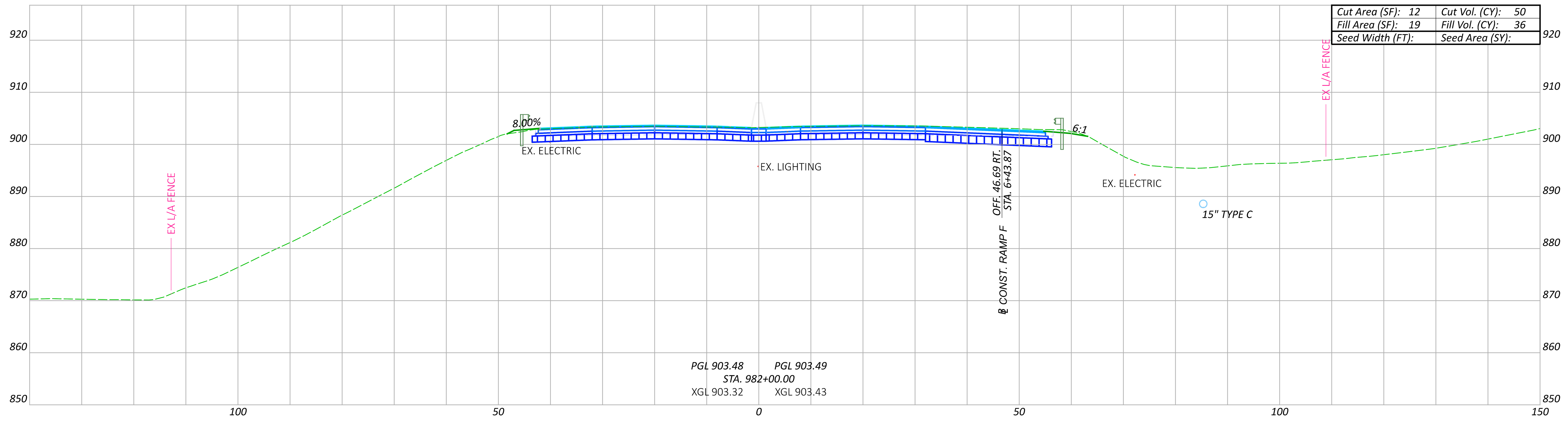
DESIGN AGENCY
ms consultants, inc.

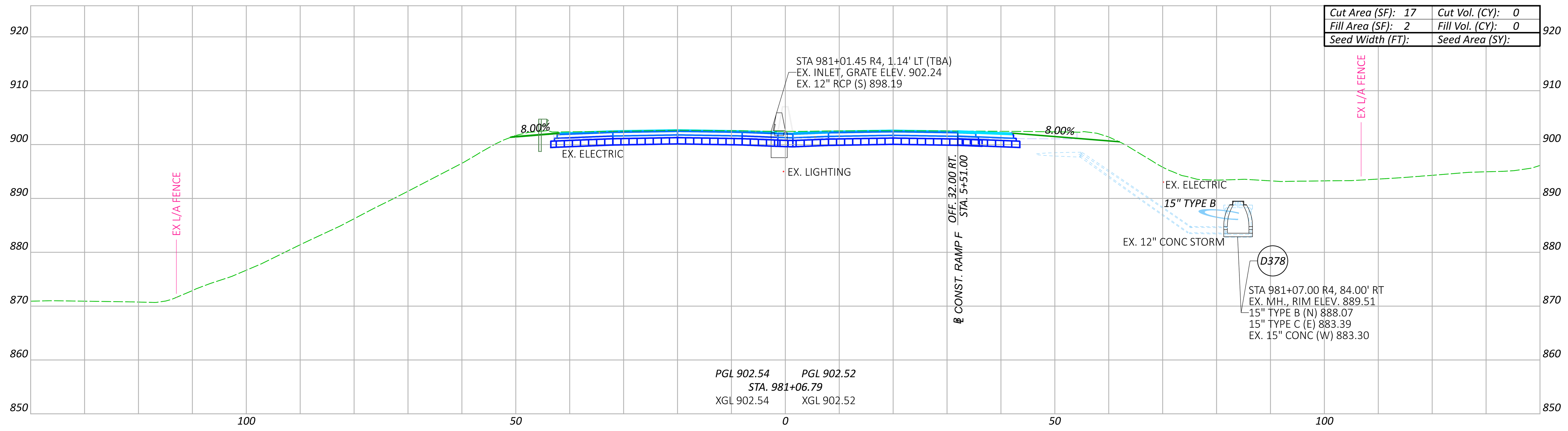
DESIGNER	MSN
REVIEWER	CMN 08/29/25
PROJECT ID	121474
SHEET	P.268
TOTAL	655

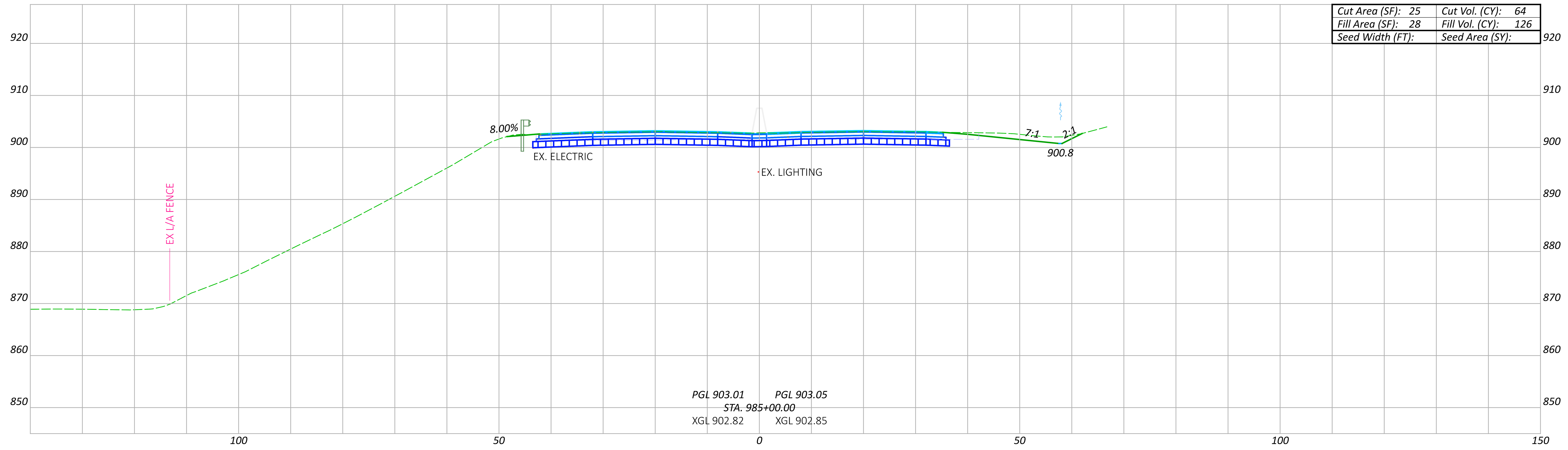
LEGEND:

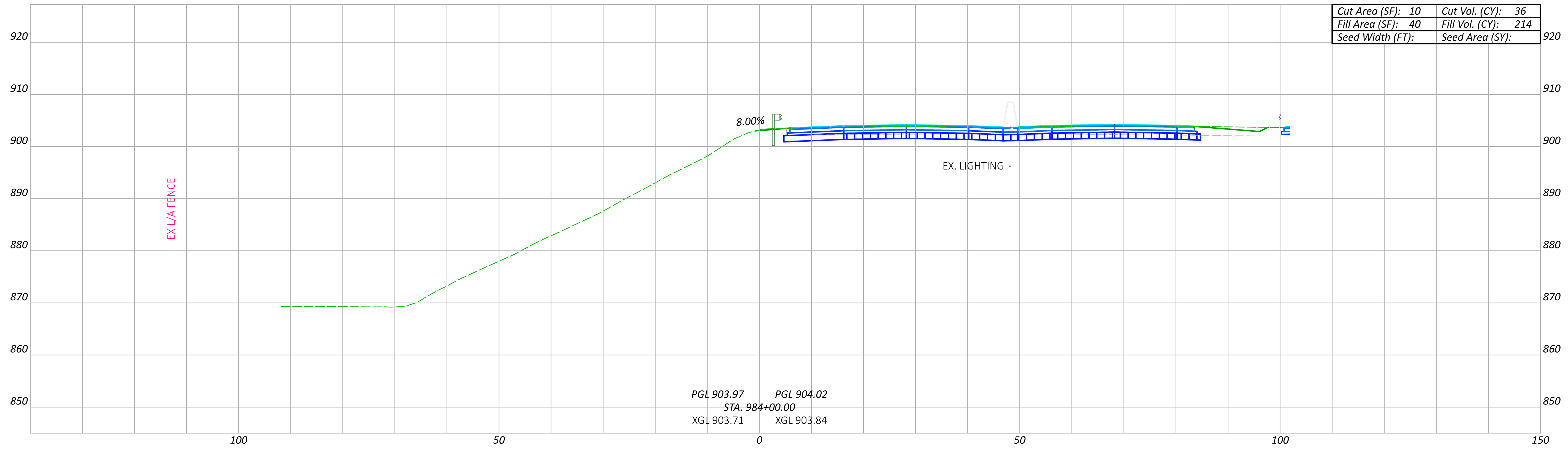
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

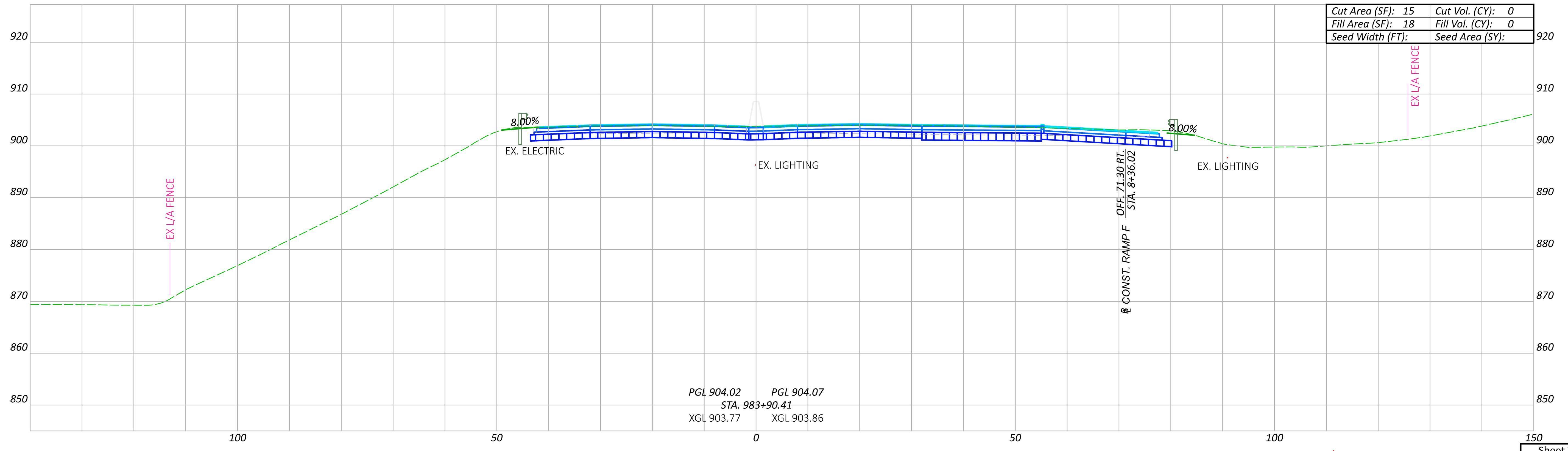












CROSS SECTIONS - I.R. 680
STA. 981+06.79 TO STA. 985+00.00

MAH-680-4.58

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	190	552

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

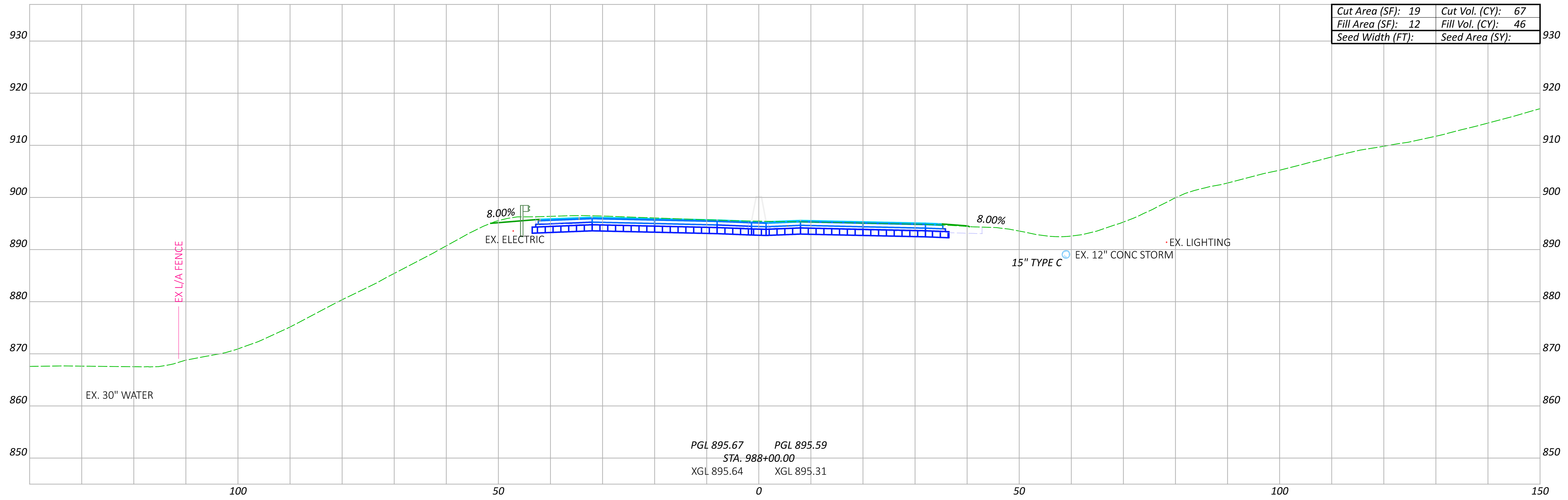
PROJECT ID: 121474

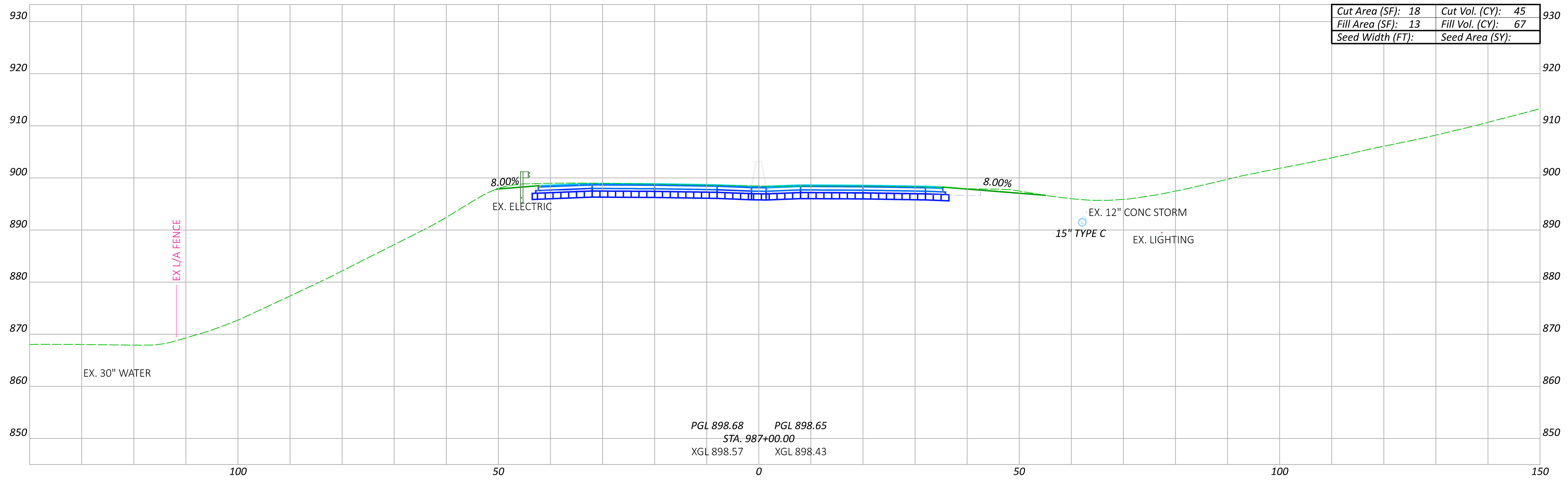
SHEET: P.269 TOTAL: 655

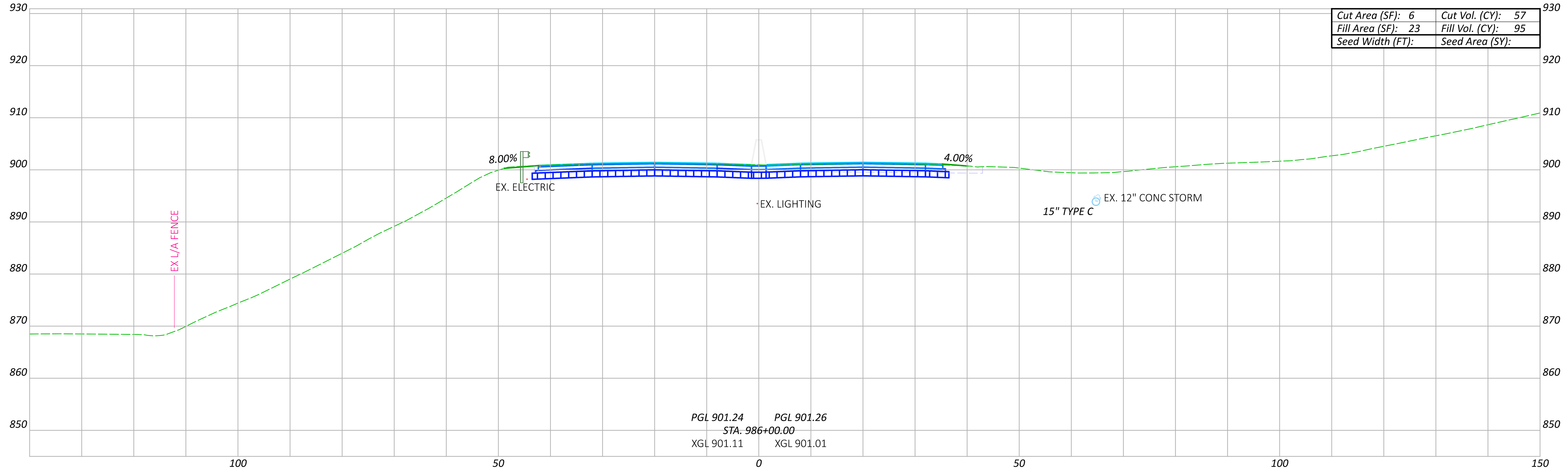
CROSS SECTIONS - I.R. 680
STA. 986+00.00 TO STA. 991+00.00

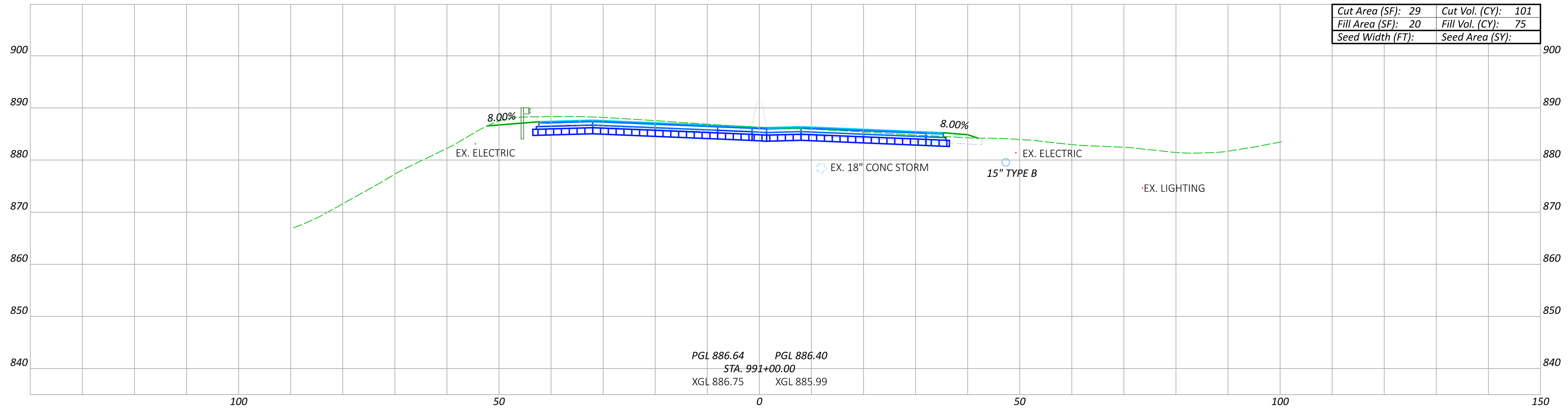
LEGEND:

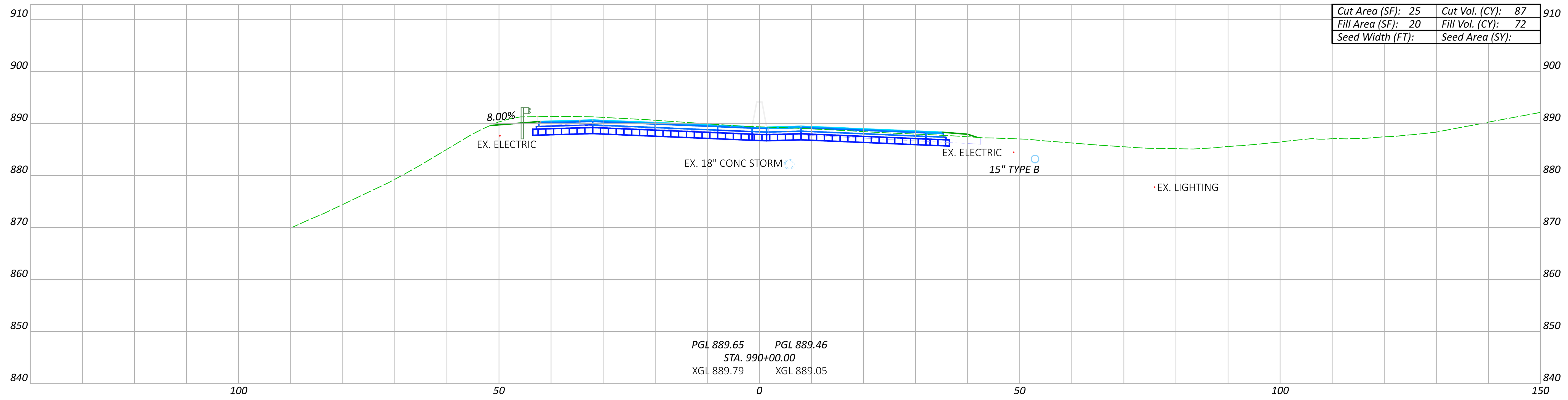
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

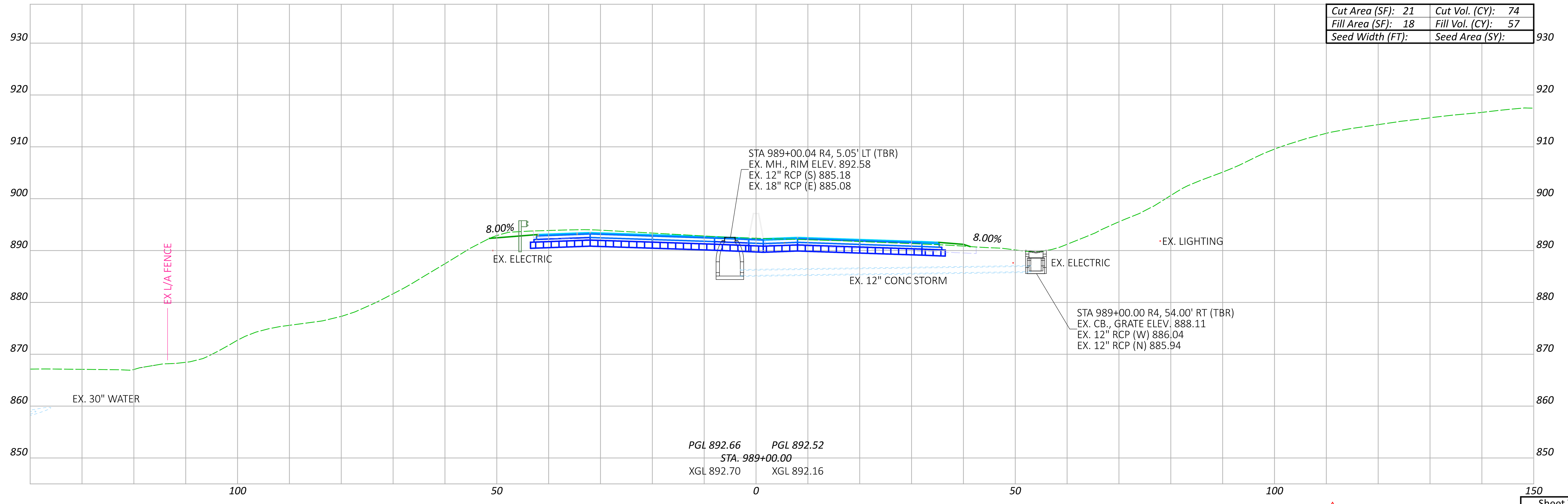












R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	431	412

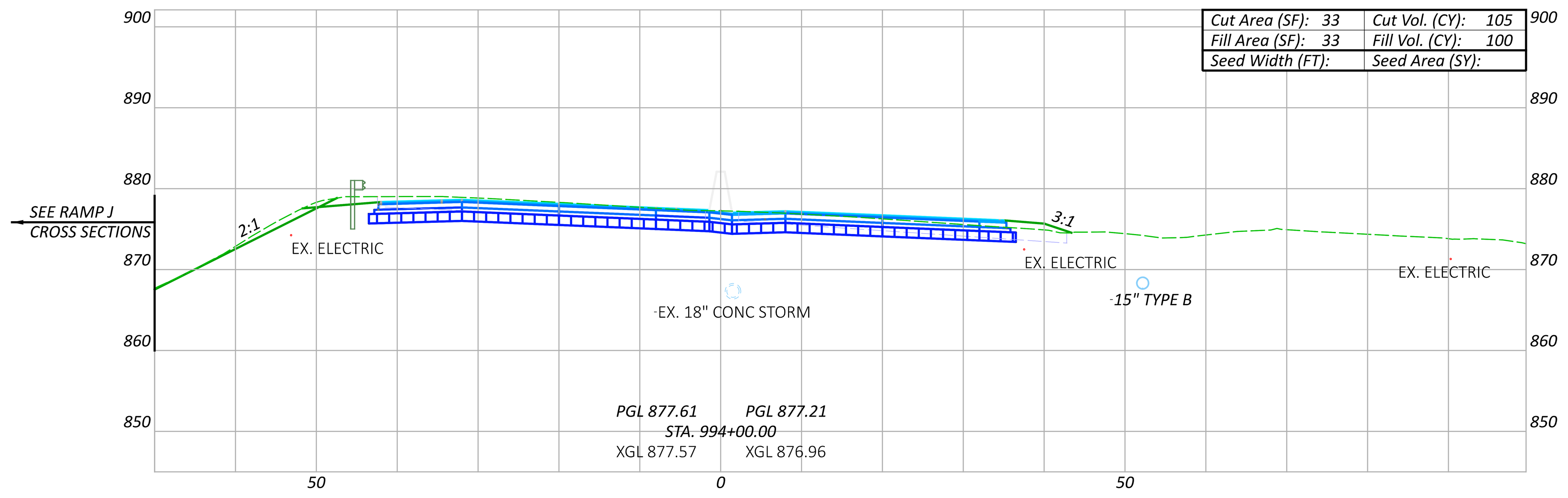
DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474

CROSS SECTIONS - I.R. 680
STA. 992+00.00 TO STA. 996+00.00

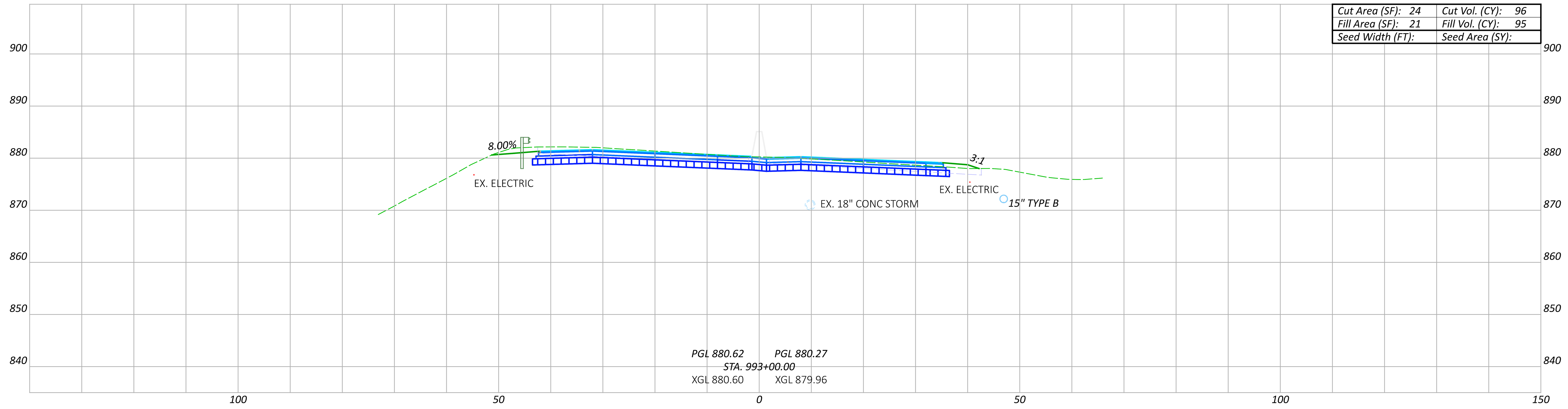
MAH-680-4.58

LEGEND:

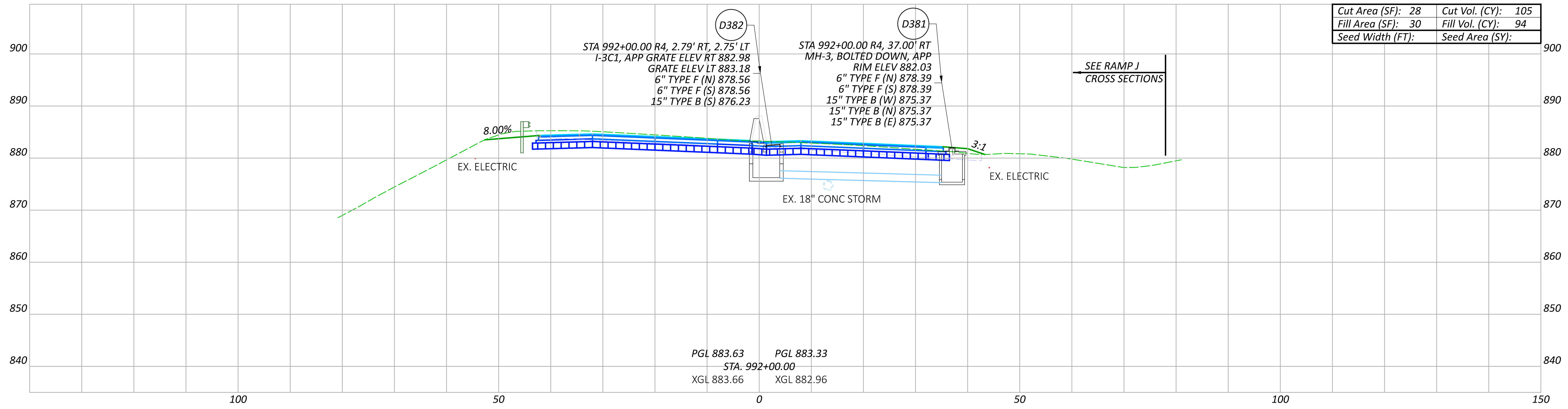
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



Cut Area (SF): 33	Cut Vol. (CY): 105
Fill Area (SF): 33	Fill Vol. (CY): 100
Seed Width (FT):	Seed Area (SY):

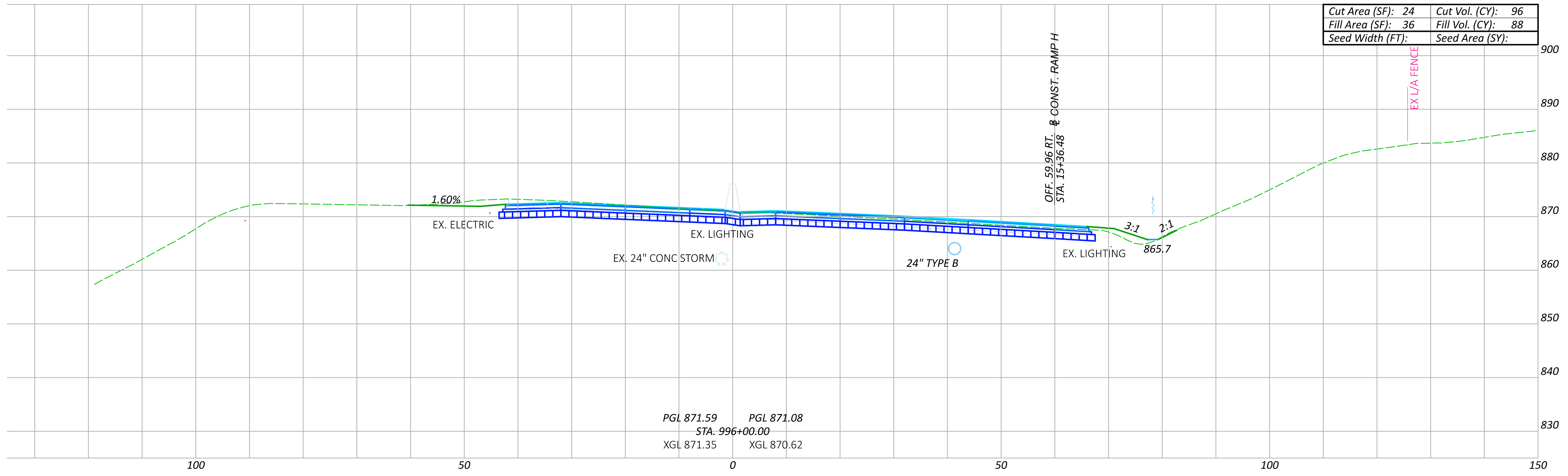


Cut Area (SF): 24	Cut Vol. (CY): 96
Fill Area (SF): 21	Fill Vol. (CY): 95
Seed Width (FT):	Seed Area (SY):

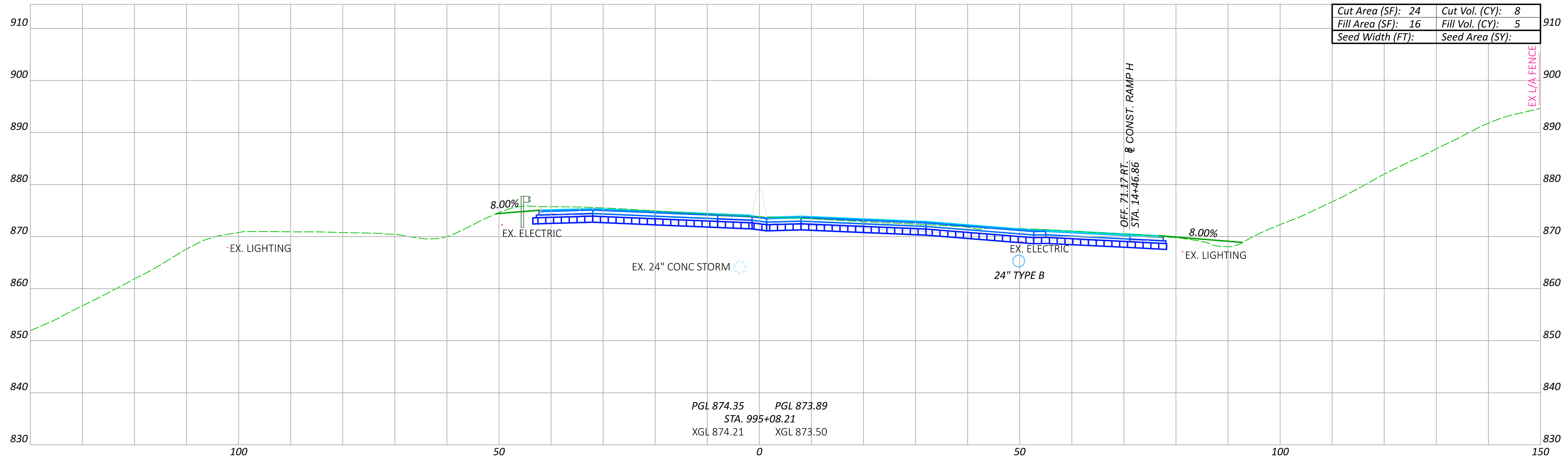


D382
STA 992+00.00 R4, 2.79' RT, 2.75' LT
I-3C1, APP GRATE ELEV RT 882.98
GRATE ELEV LT 883.18
6" TYPE F (N) 878.56
6" TYPE F (S) 878.56
15" TYPE B (S) 876.23
D381
STA 992+00.00 R4, 37.00' RT
MH-3, BOLTED DOWN, APP
RIM ELEV 882.03
6" TYPE F (N) 878.39
6" TYPE F (S) 878.39
15" TYPE B (W) 875.37
15" TYPE B (N) 875.37
15" TYPE B (E) 875.37
SEE RAMP J CROSS SECTIONS
8.00%
EX. ELECTRIC
3:1
EX. ELECTRIC
EX. 18" CONC STORM
PGL 883.63 PGL 883.33
STA. 992+00.00
XGL 883.66 XGL 882.96

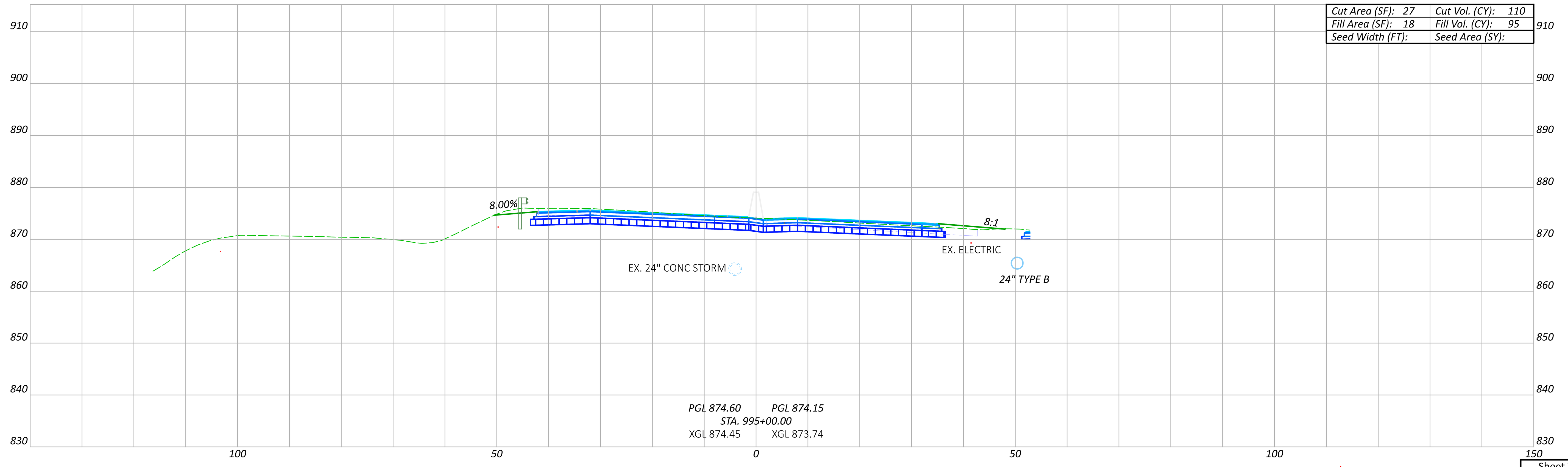
Cut Area (SF): 28	Cut Vol. (CY): 105
Fill Area (SF): 30	Fill Vol. (CY): 94
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 24	Cut Vol. (CY): 96
Fill Area (SF): 36	Fill Vol. (CY): 88
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 24	Cut Vol. (CY): 8
Fill Area (SF): 16	Fill Vol. (CY): 5
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 27	Cut Vol. (CY): 110
Fill Area (SF): 18	Fill Vol. (CY): 95
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	506	477

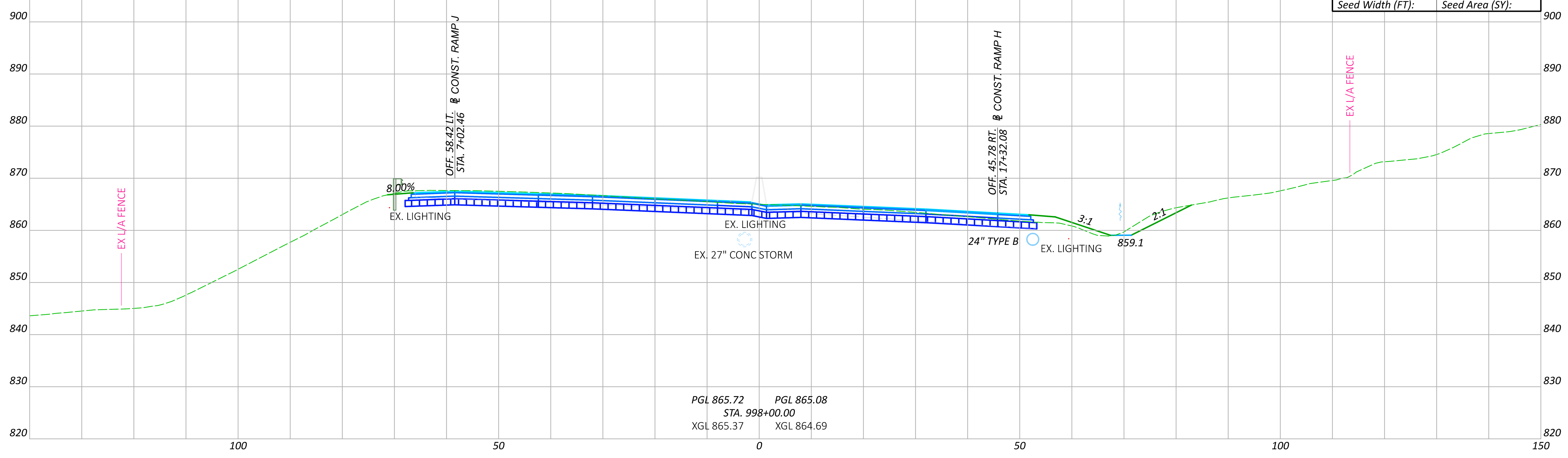
DESIGN AGENCY	ms consultants, inc.
DESIGNER	MSN
REVIEWER	CMN 08/29/25
PROJECT ID	121474
SHEET	P.271
TOTAL	655

CROSS SECTIONS - I.R. 680
STA. 996+65.56 TO STA. 1001+00.00

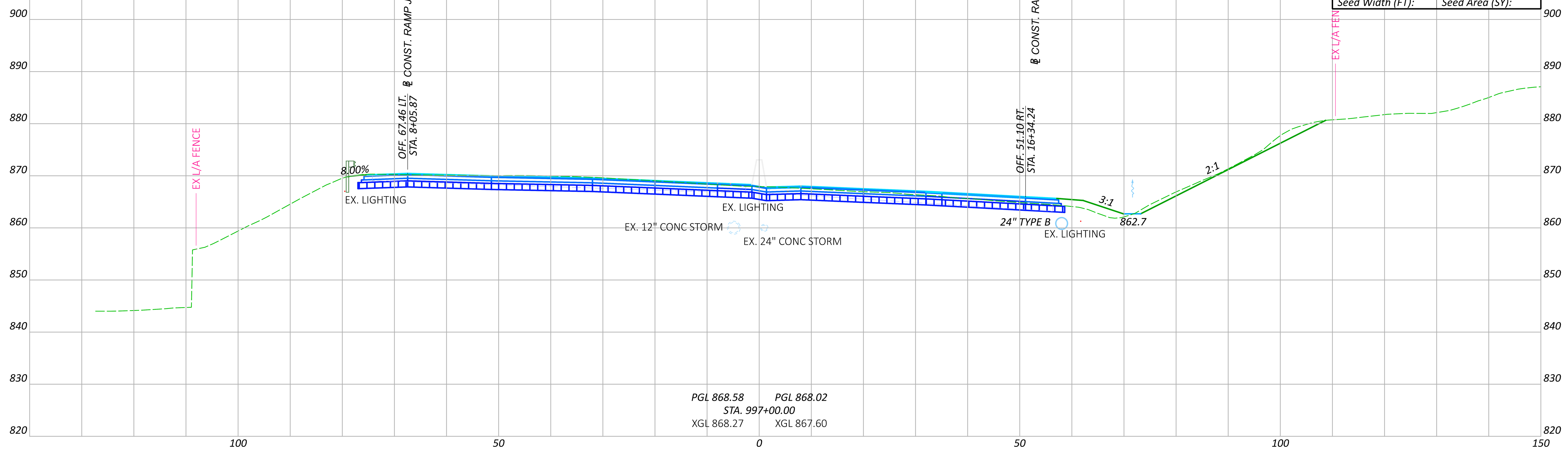
LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

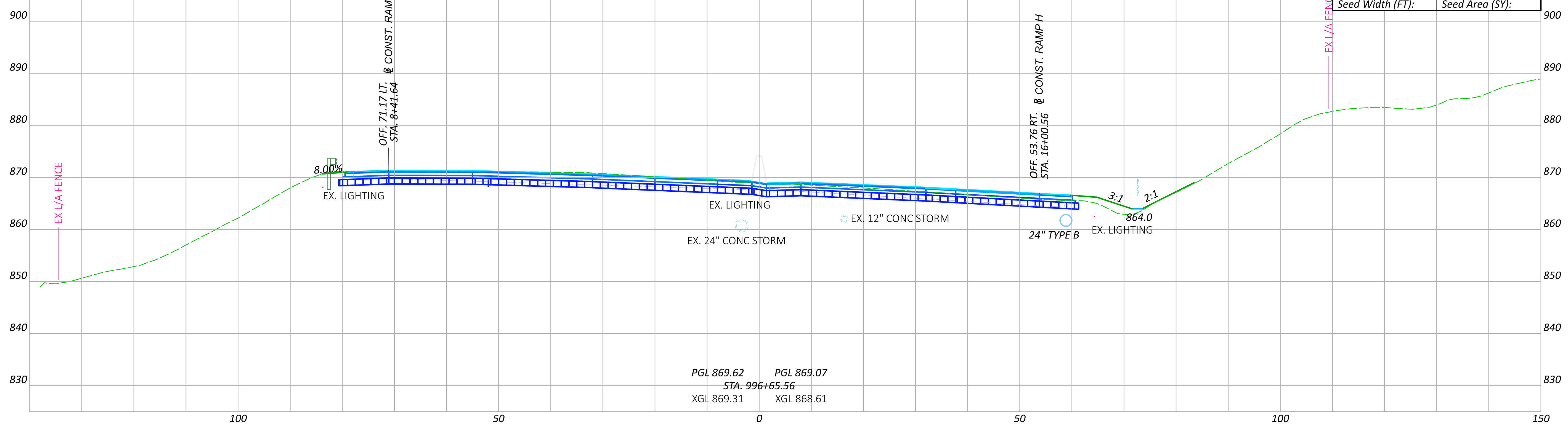
Cut Area (SF): 28	Cut Vol. (CY): 117
Fill Area (SF): 64	Fill Vol. (CY): 246
Seed Width (FT):	Seed Area (SY):



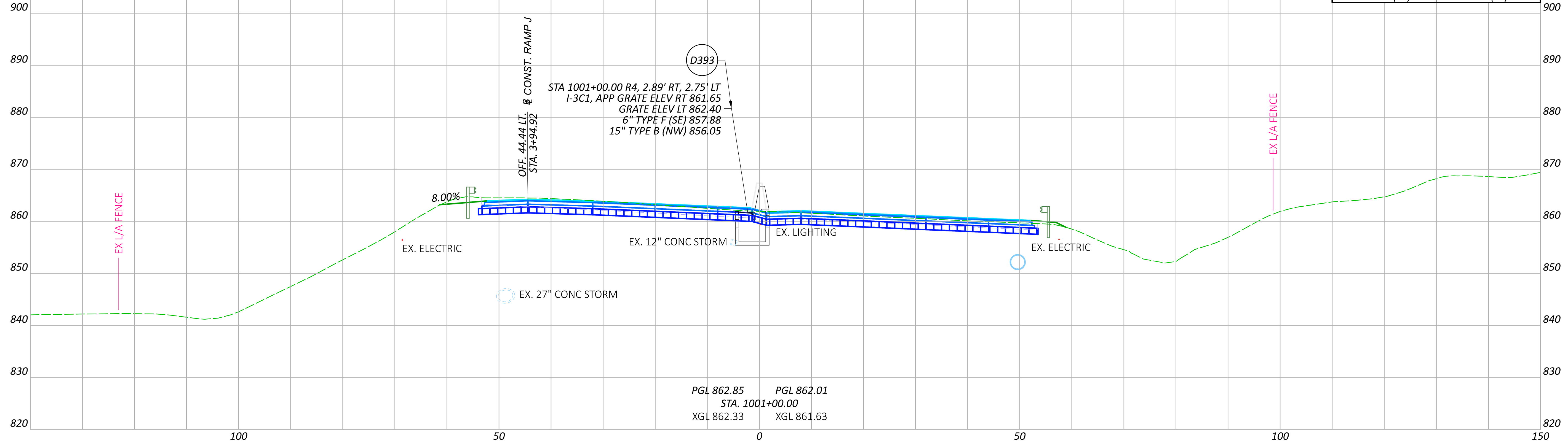
Cut Area (SF): 35	Cut Vol. (CY): 29
Fill Area (SF): 69	Fill Vol. (CY): 102
Seed Width (FT):	Seed Area (SY):



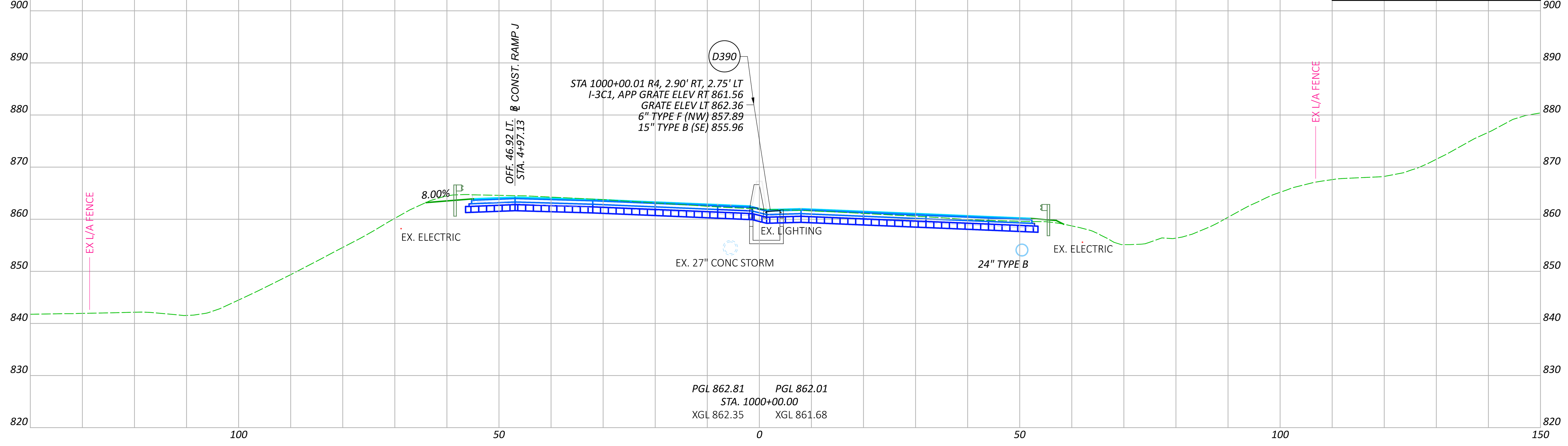
Cut Area (SF): 11	Cut Vol. (CY): 43
Fill Area (SF): 92	Fill Vol. (CY): 155
Seed Width (FT):	Seed Area (SY):



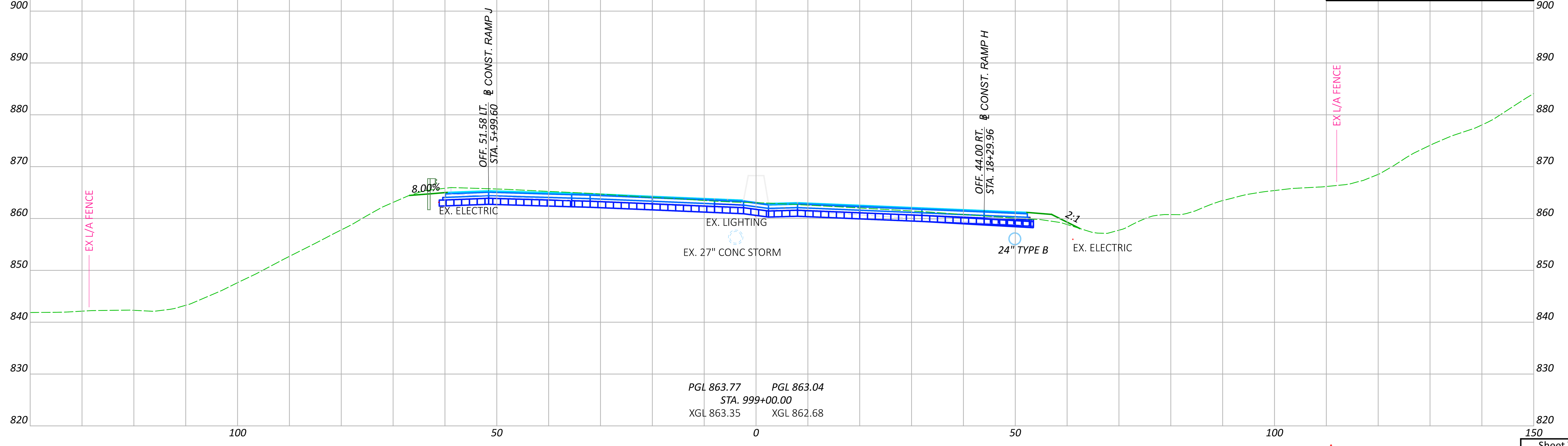
Cut Area (SF): 15	Cut Vol. (CY): 64
Fill Area (SF): 28	Fill Vol. (CY): 92
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 20	Cut Vol. (CY): 81
Fill Area (SF): 22	Fill Vol. (CY): 117
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 24	Cut Vol. (CY): 98
Fill Area (SF): 41	Fill Vol. (CY): 195
Seed Width (FT):	Seed Area (SY):



R3 01-13-2026, QUANTITIES REVISED

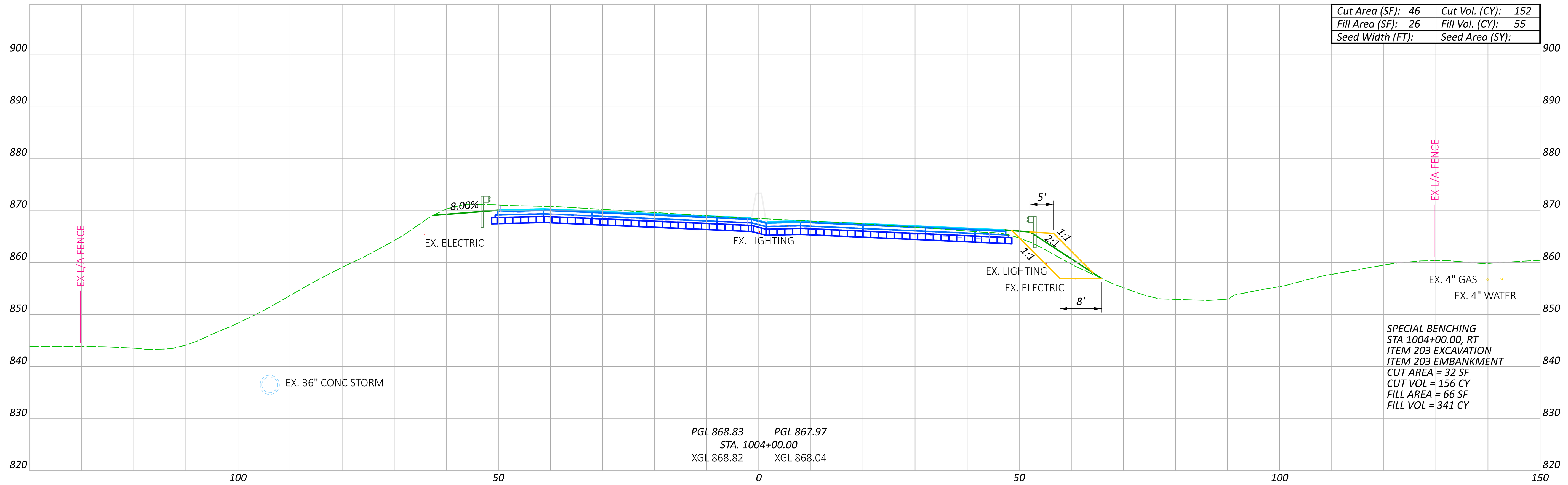
Sheet Totals		
Seeding	Cut	Fill
	432	907

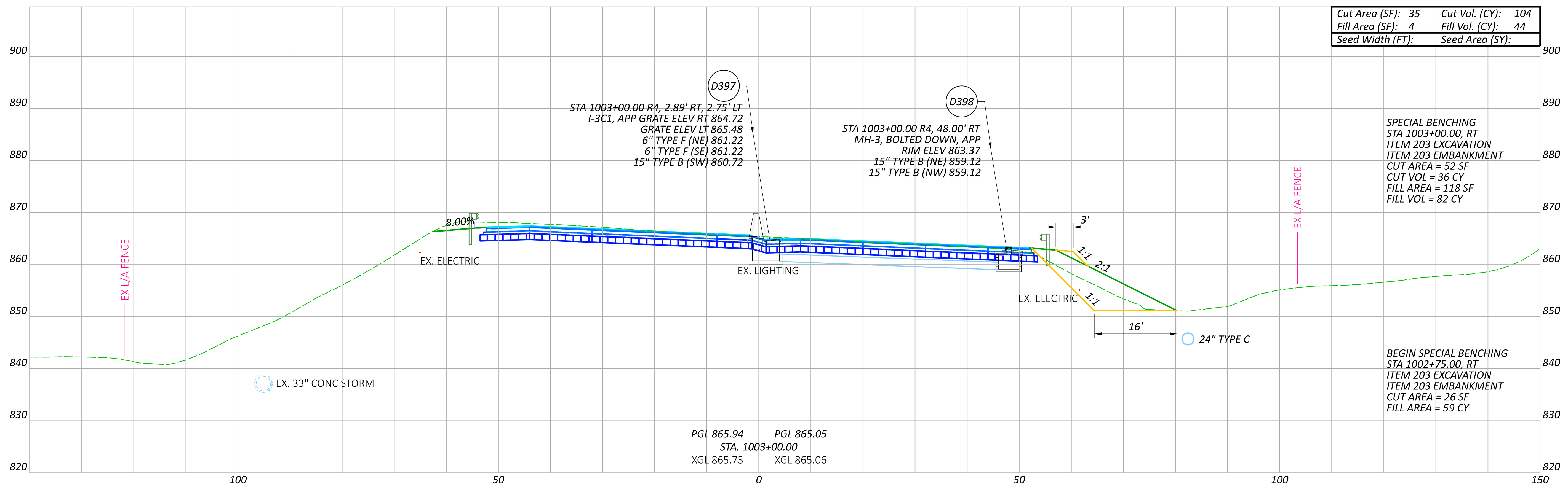
DESIGN AGENCY	ms consultants, inc.
DESIGNER	MSN
REVIEWER	CMN 08/29/25
PROJECT ID	121474
SHEET	P.272
TOTAL	655

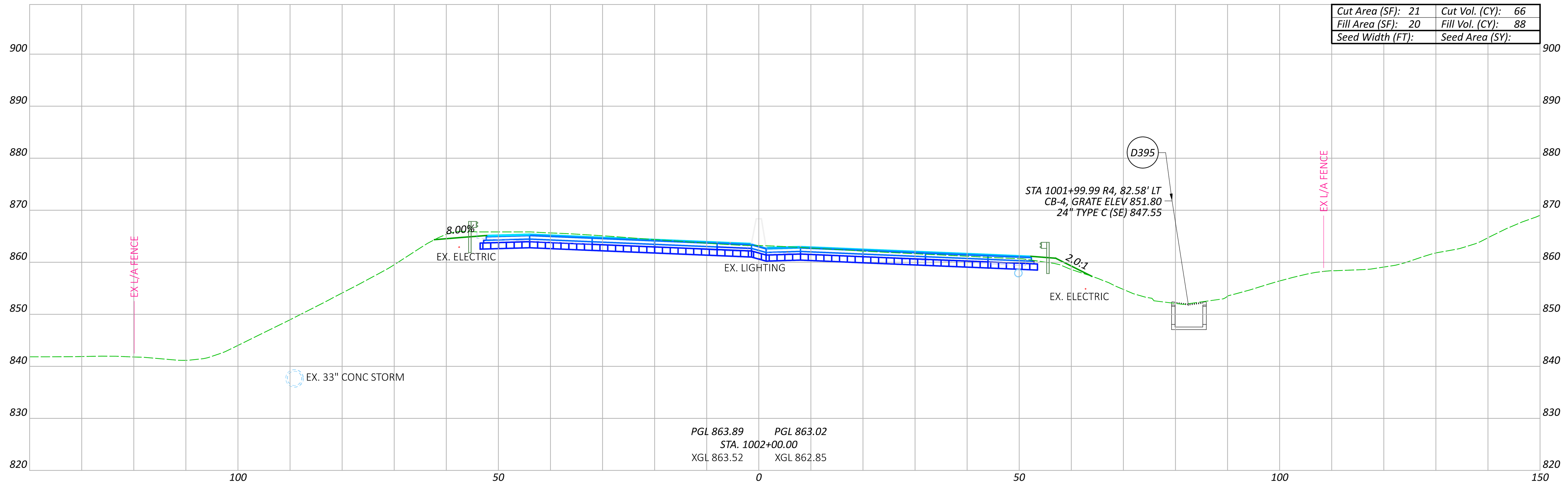
MAH-680-4.58

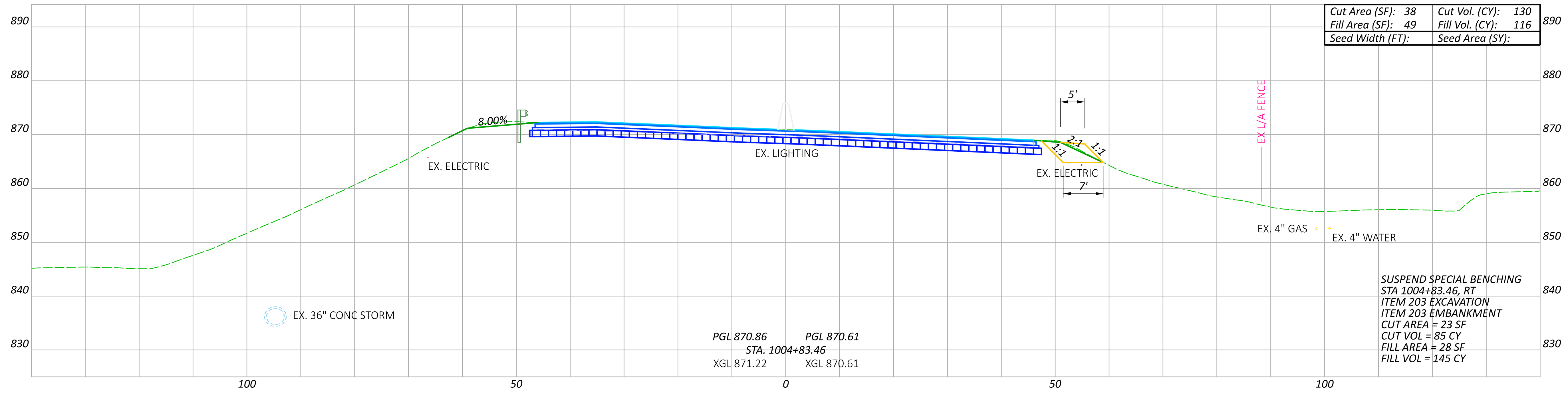
LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH









R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	452	303

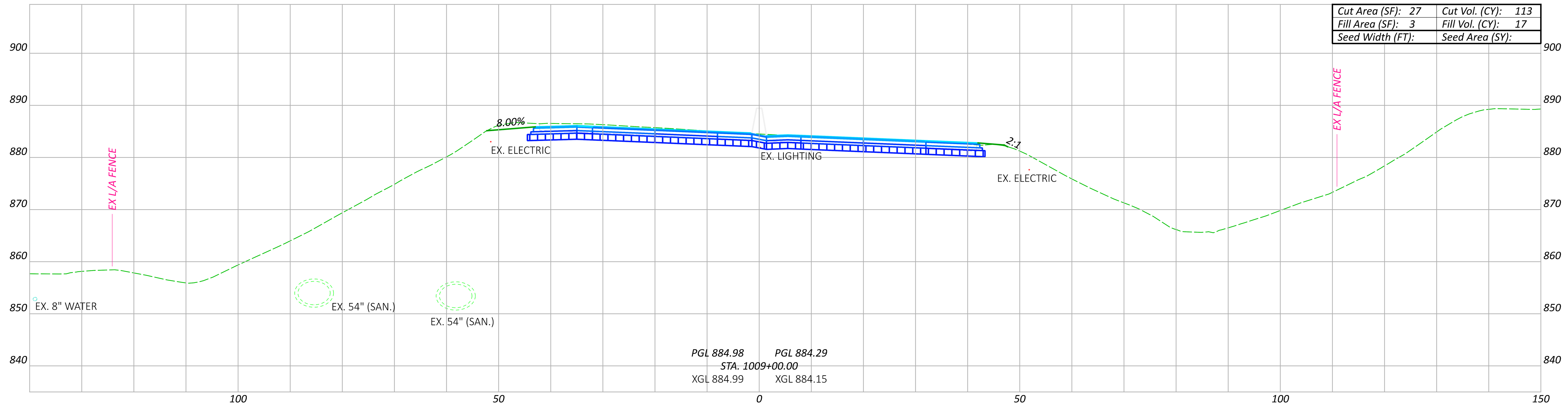
CROSS SECTIONS - I.R. 680
STA. 1002+00.00 TO STA. 1004+83.46

DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474
SHEET: P.273
TOTAL: 655

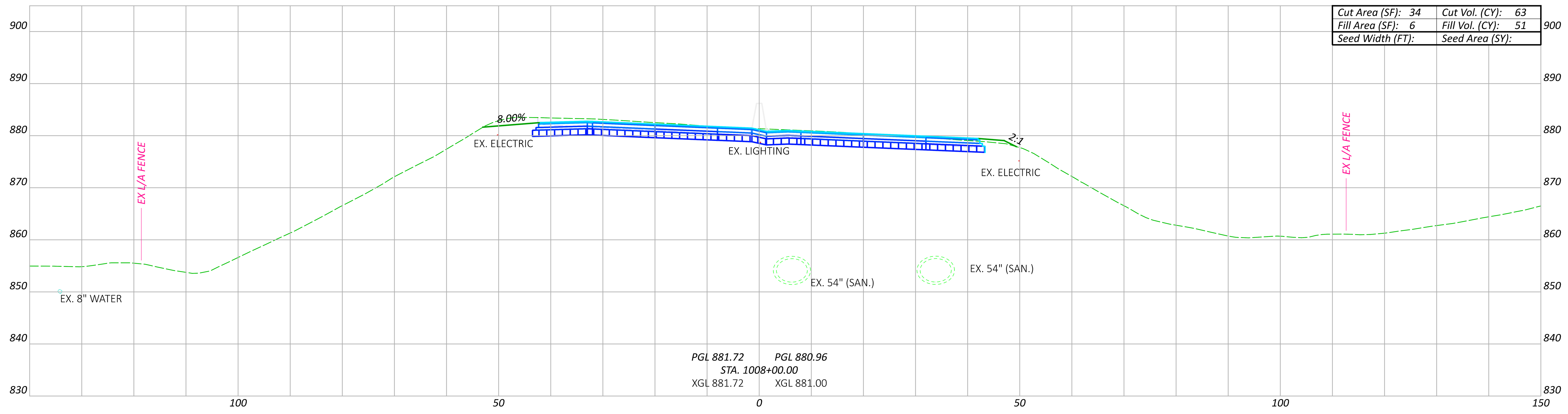
MAH-680-4.58

LEGEND:

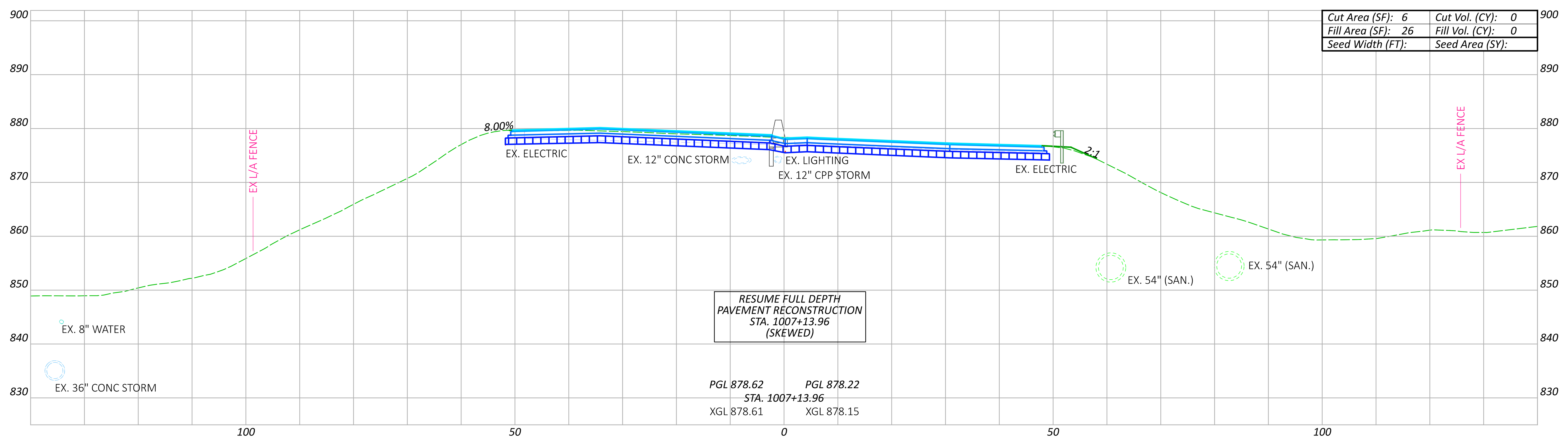
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



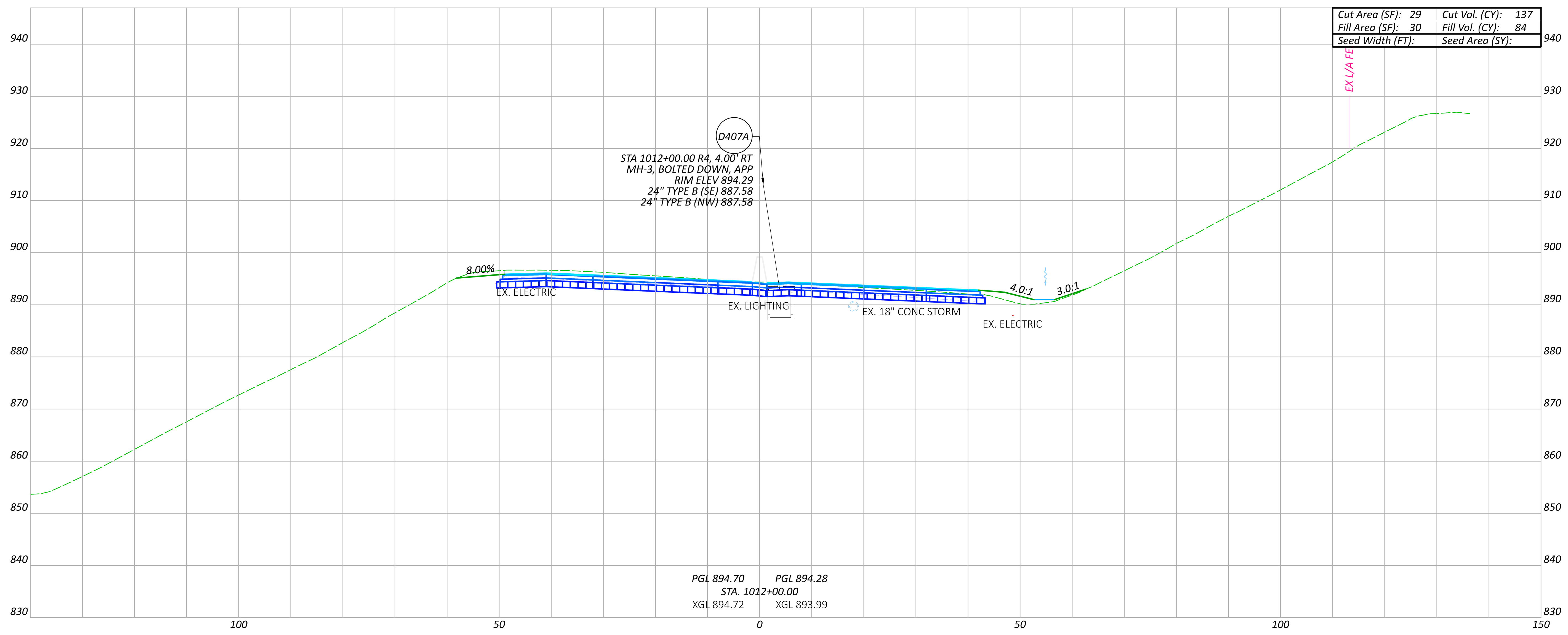
Cut Area (SF): 27	Cut Vol. (CY): 113
Fill Area (SF): 3	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):



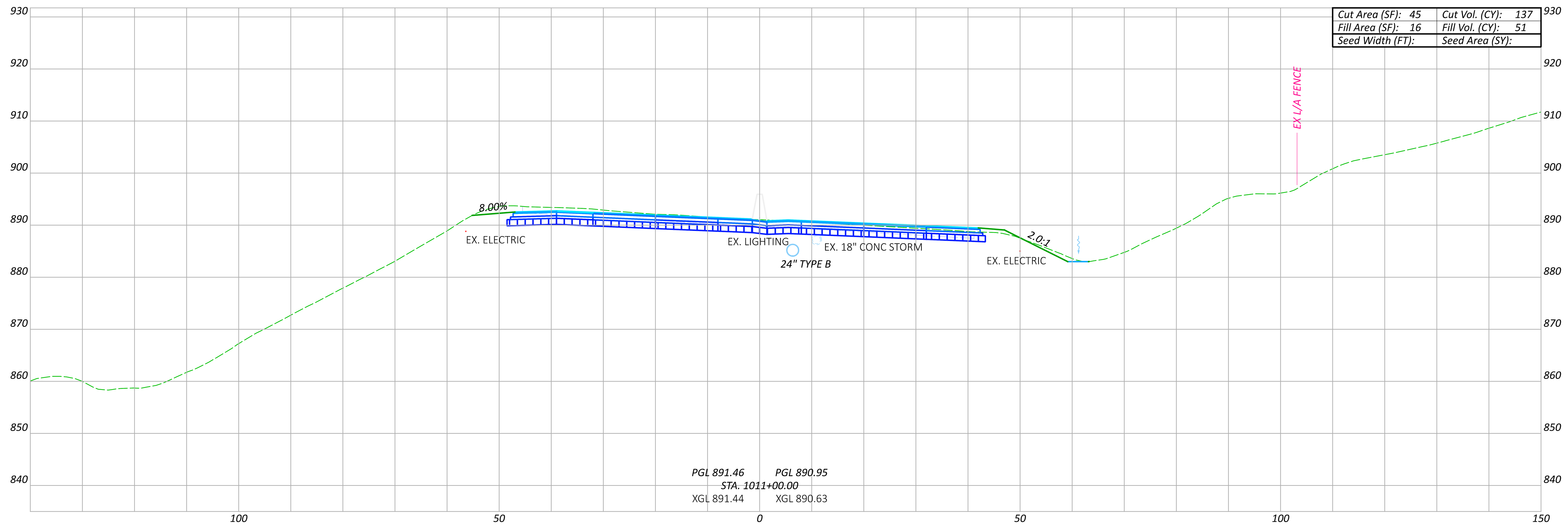
Cut Area (SF): 34	Cut Vol. (CY): 63
Fill Area (SF): 6	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



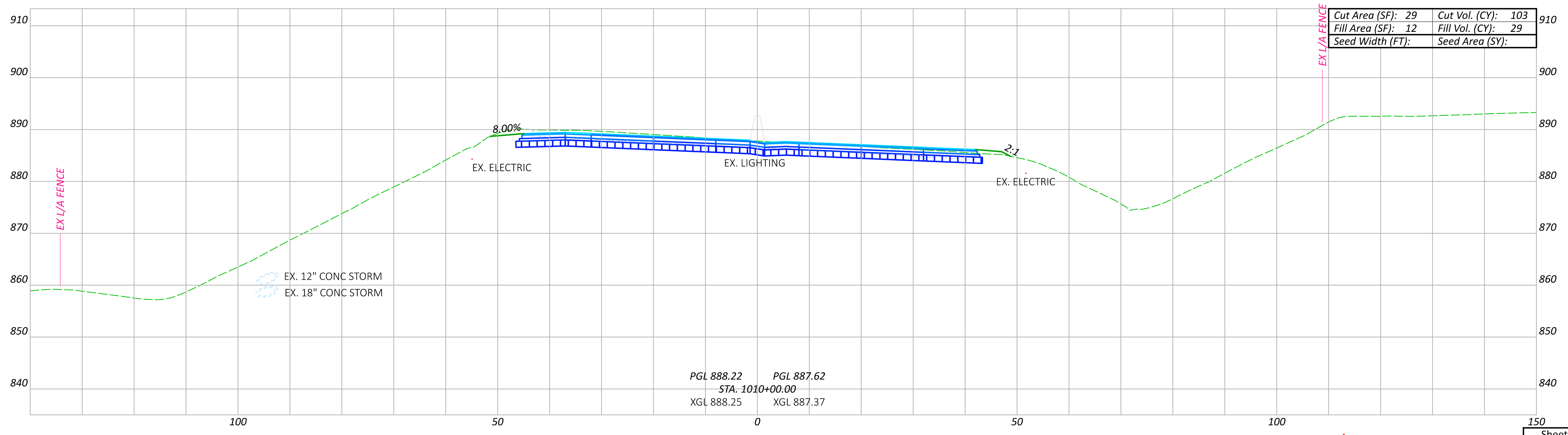
Cut Area (SF): 6	Cut Vol. (CY): 0
Fill Area (SF): 26	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 29	Cut Vol. (CY): 137
Fill Area (SF): 30	Fill Vol. (CY): 84
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 137
Fill Area (SF): 16	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 29	Cut Vol. (CY): 103
Fill Area (SF): 12	Fill Vol. (CY): 29
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - I.R. 680
STA. 1007+13.96 TO STA. 1012+00.00

MAH-680-4.58

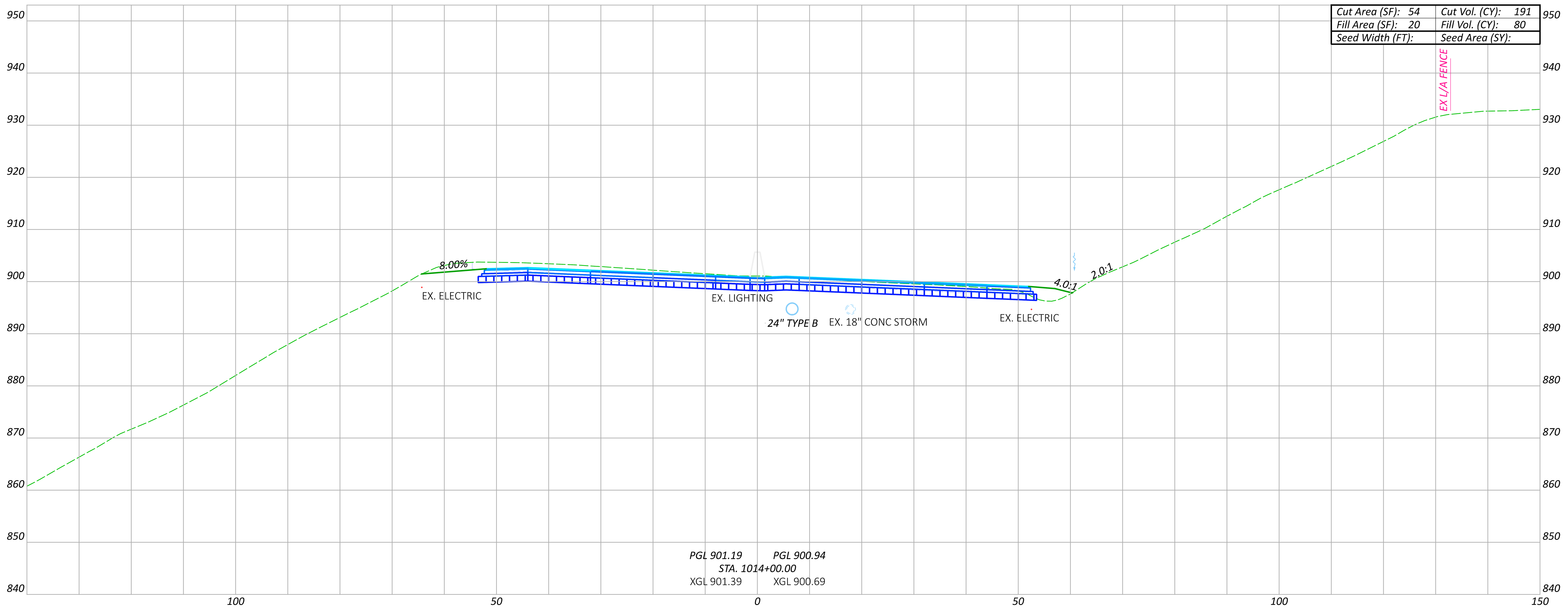
R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	553	232

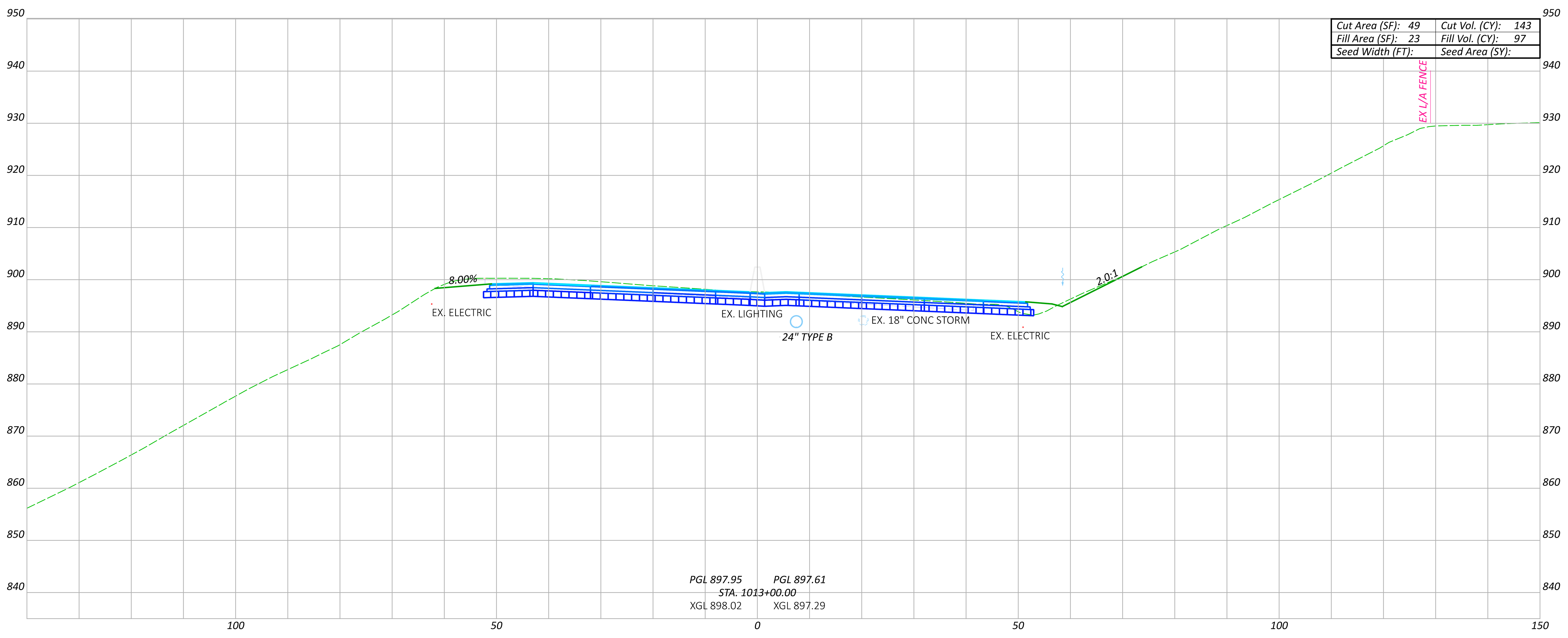
DESIGN AGENCY: ms consultants, inc.
DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474
SHEET: P.274 TOTAL: 655

LEGEND:

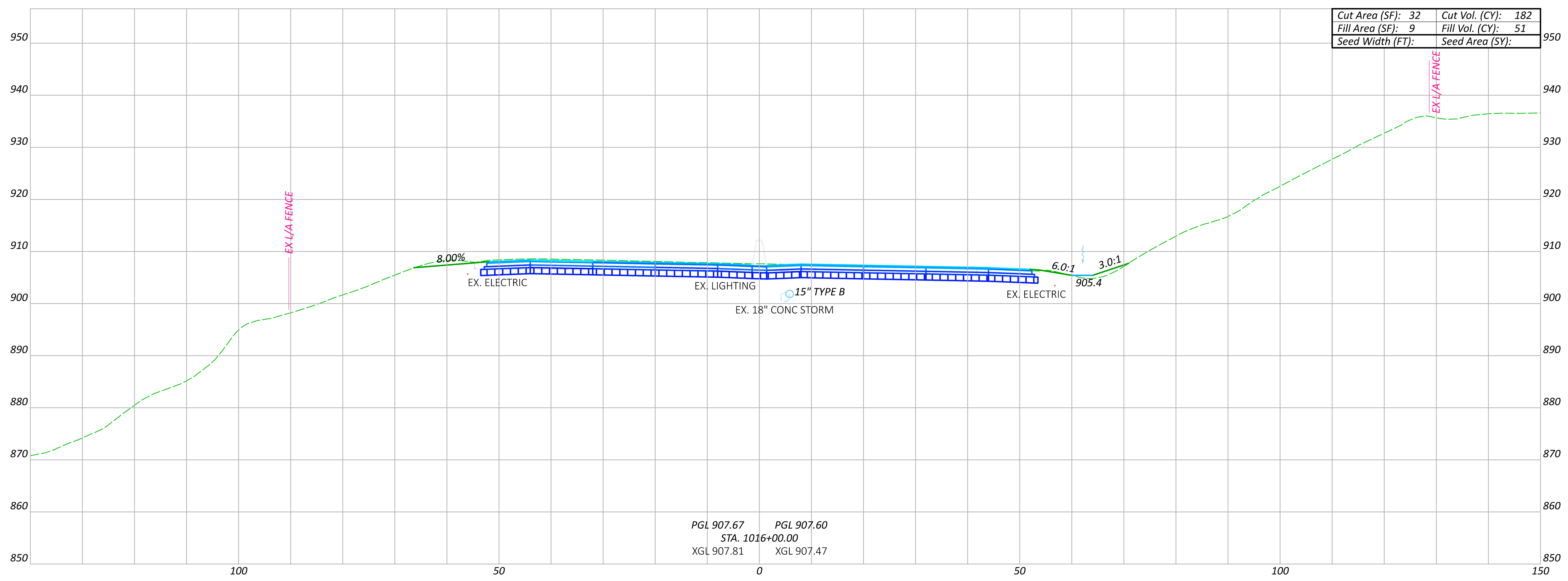
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



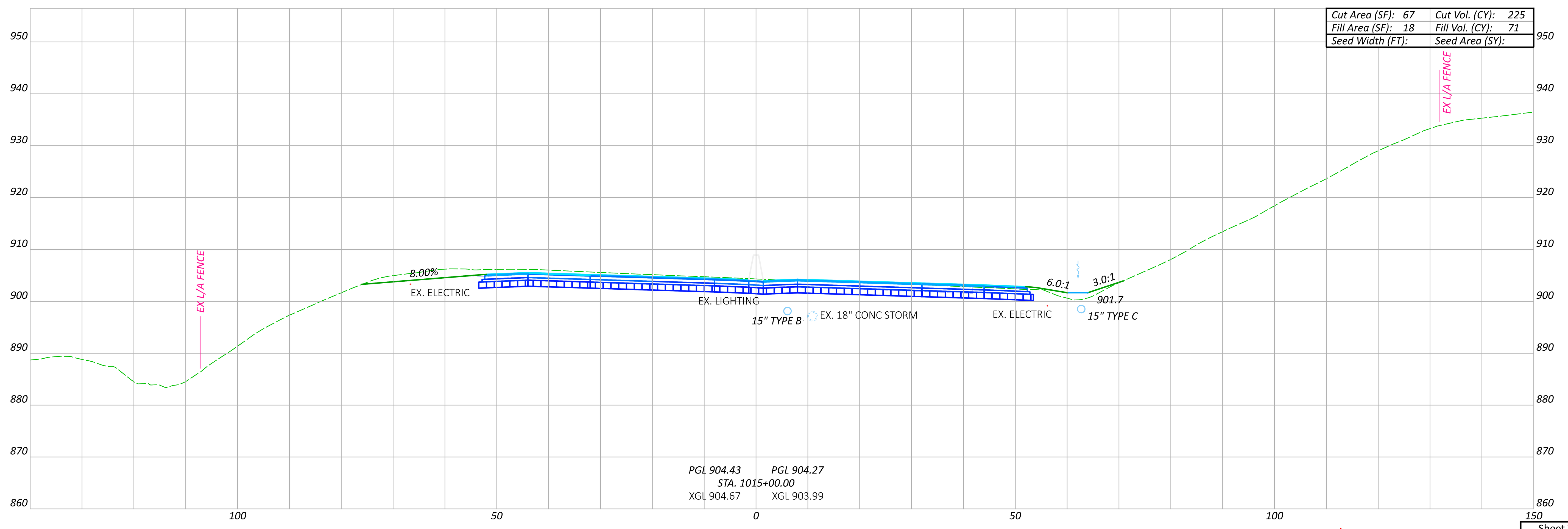
Cut Area (SF): 54	Cut Vol. (CY): 191
Fill Area (SF): 20	Fill Vol. (CY): 80
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 49	Cut Vol. (CY): 143
Fill Area (SF): 23	Fill Vol. (CY): 97
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 32	Cut Vol. (CY): 182
Fill Area (SF): 9	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 67	Cut Vol. (CY): 225
Fill Area (SF): 18	Fill Vol. (CY): 71
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	741	299

CROSS SECTIONS - I.R. 680
STA. 1013+00.00 TO STA. 1016+00.00

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

PROJECT ID: 121474

SHEET: P.275 TOTAL: 655

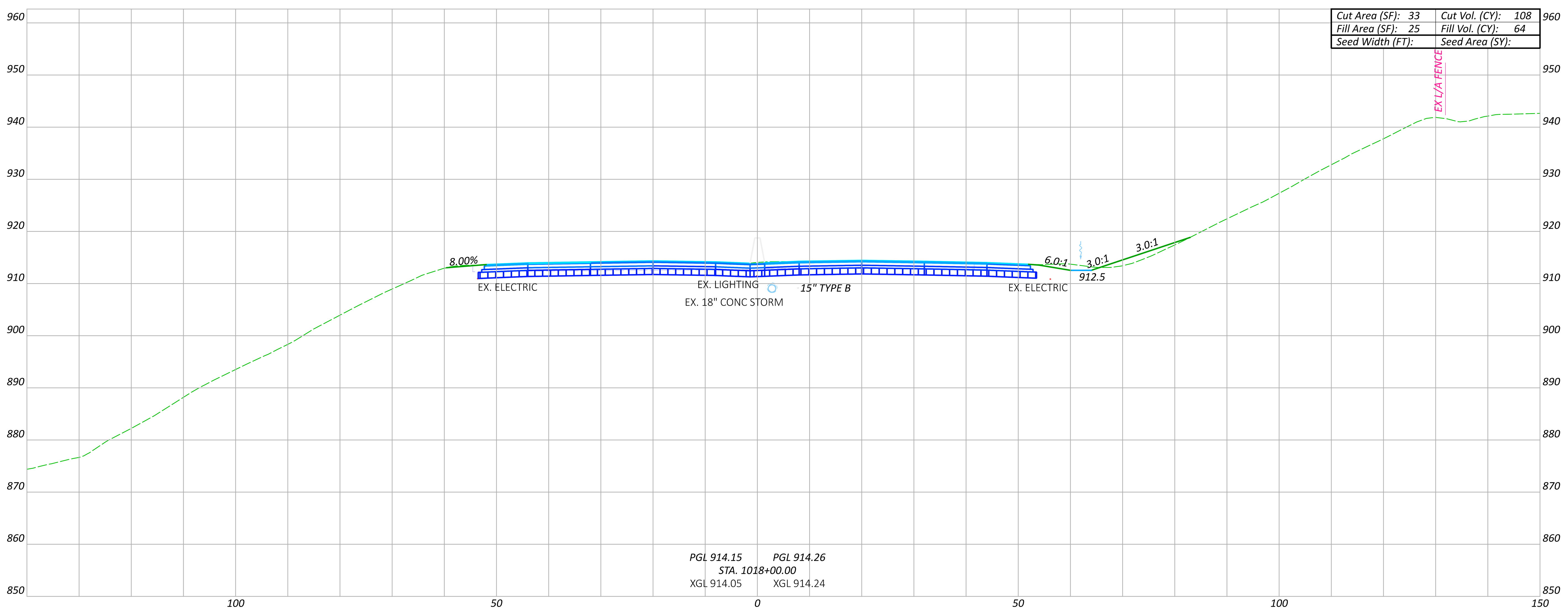
MAH-680-4.58

CROSS SECTIONS - I.R. 680
STA. 1017+00.00 TO STA. 1021+00.00

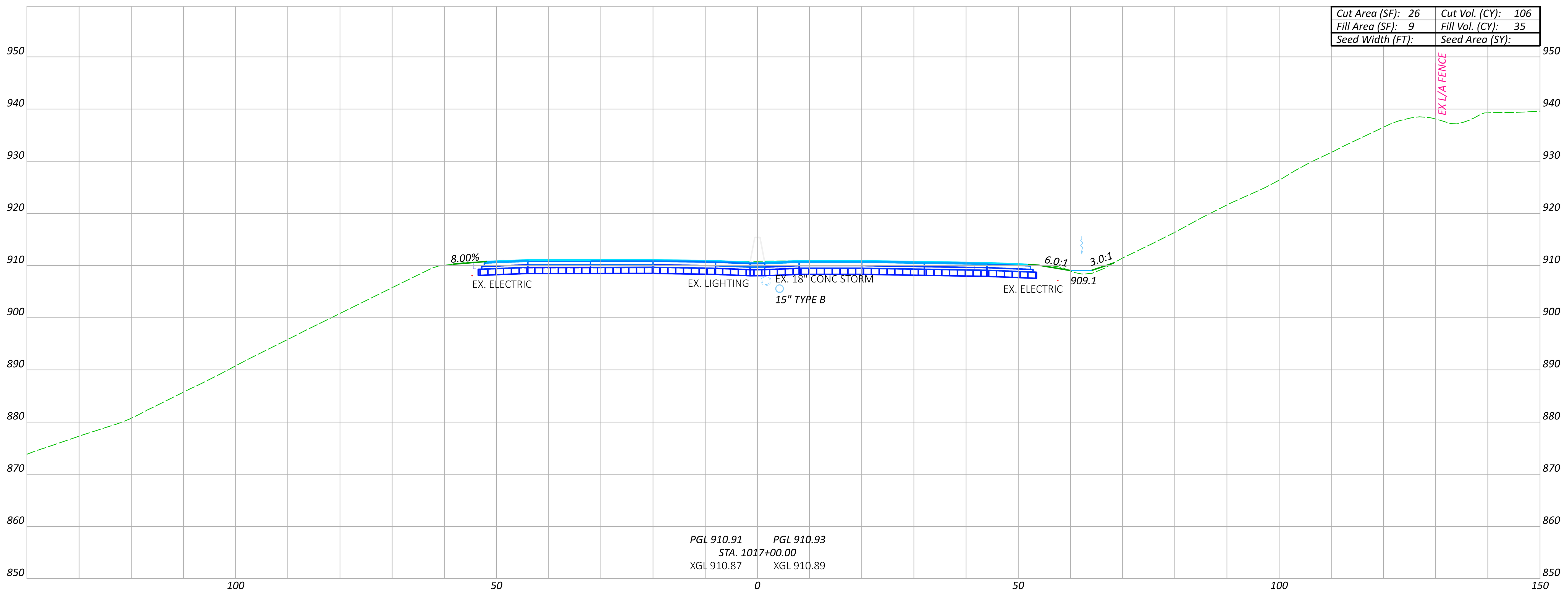
MAH-680-4.58

LEGEND:

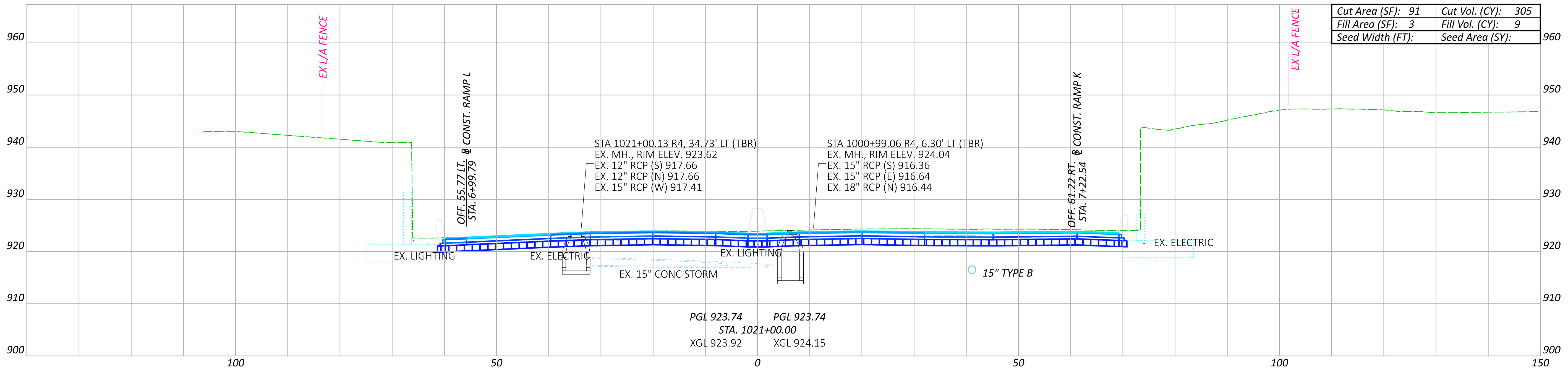
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



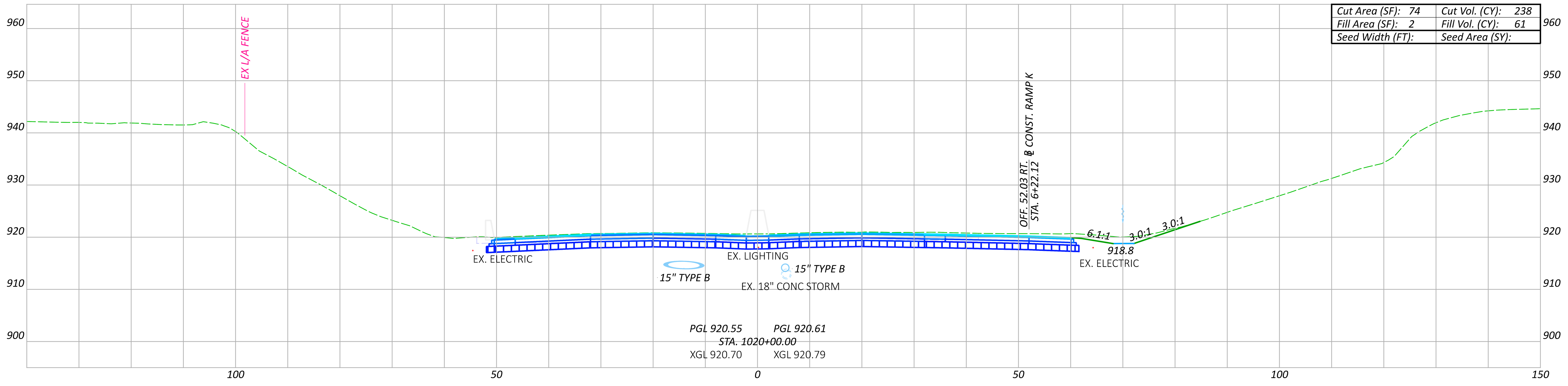
Cut Area (SF):	33	Cut Vol. (CY):	108
Fill Area (SF):	25	Fill Vol. (CY):	64
Seed Width (FT):		Seed Area (SY):	



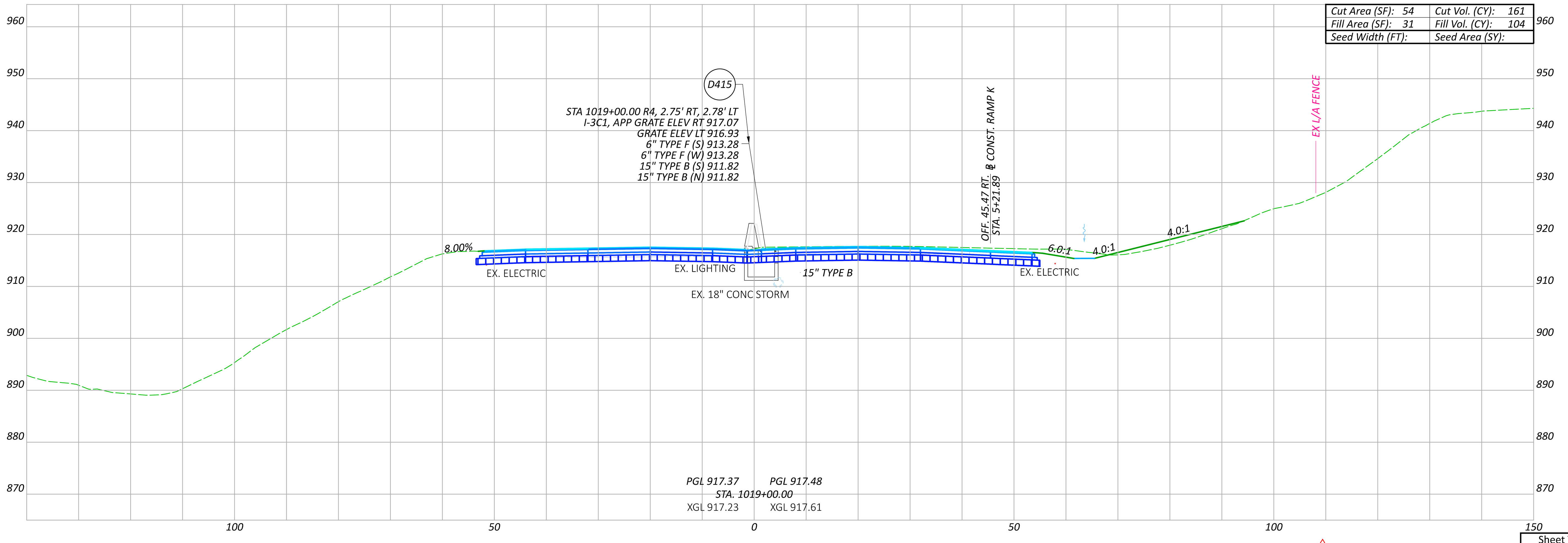
Cut Area (SF):	26	Cut Vol. (CY):	106
Fill Area (SF):	9	Fill Vol. (CY):	35
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	91	Cut Vol. (CY):	305
Fill Area (SF):	3	Fill Vol. (CY):	9
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	74	Cut Vol. (CY):	238
Fill Area (SF):	2	Fill Vol. (CY):	61
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	54	Cut Vol. (CY):	161
Fill Area (SF):	31	Fill Vol. (CY):	104
Seed Width (FT):		Seed Area (SY):	

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	918	273

DESIGN AGENCY

ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

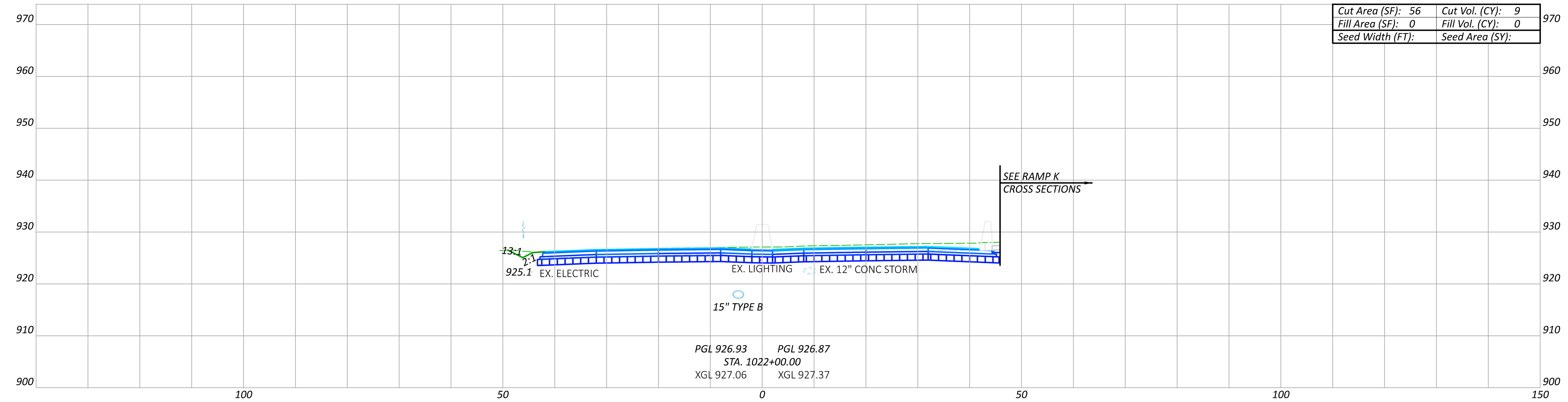
SHEET P.276 TOTAL 655

CROSS SECTIONS - I.R. 680
STA. 1021+75.00 TO STA. 1025+00.00

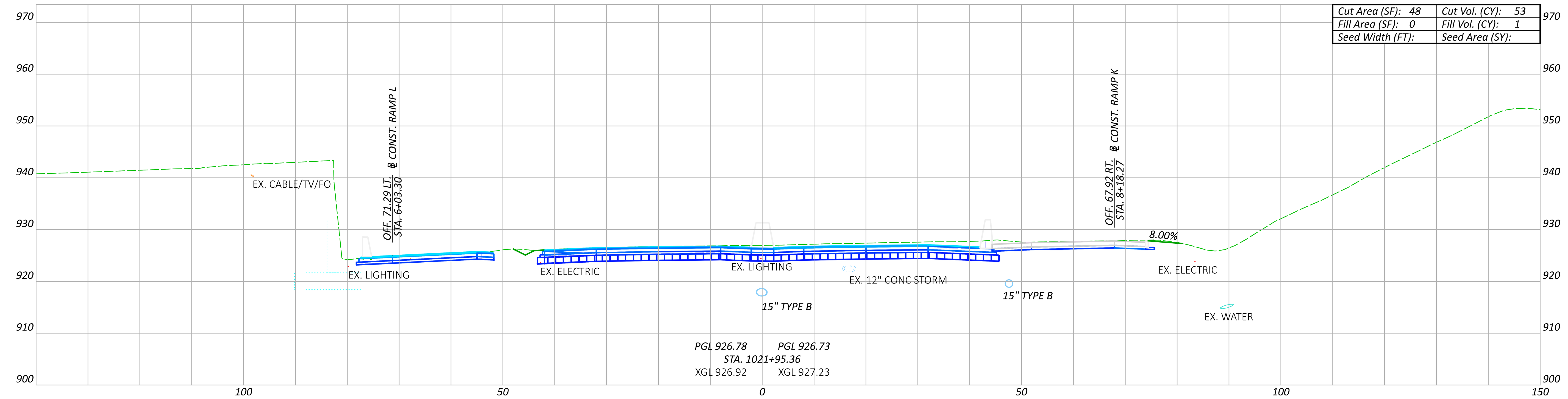
MAH-680-4.58

LEGEND:

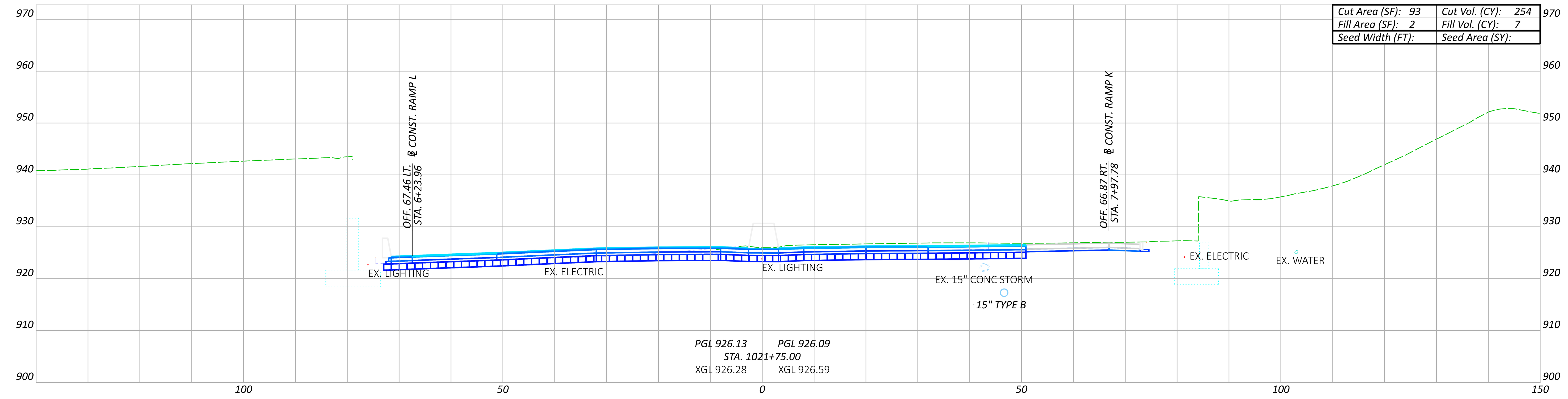
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



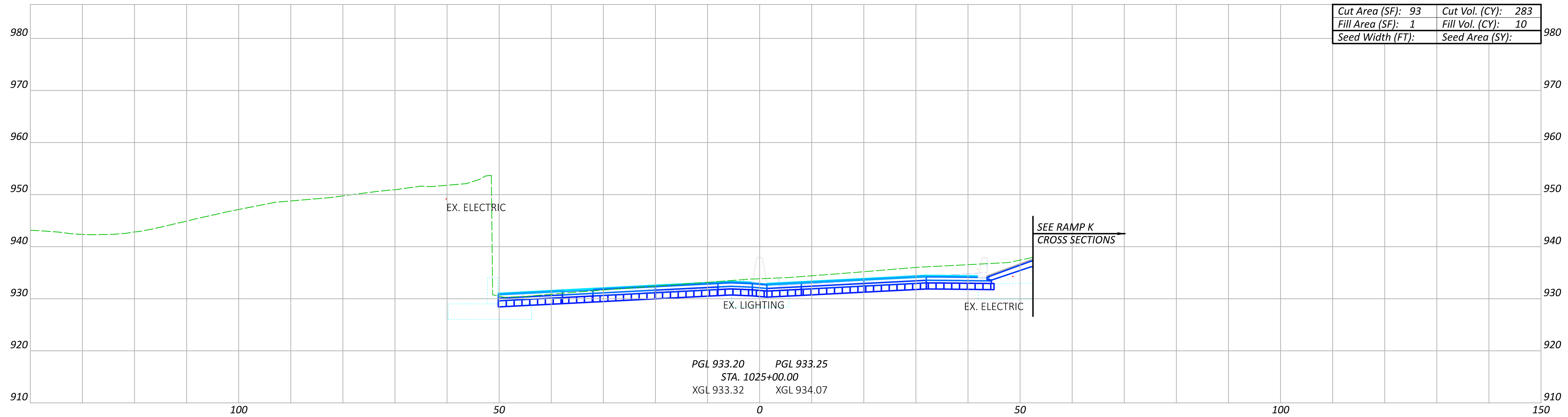
Cut Area (SF): 56	Cut Vol. (CY): 9
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



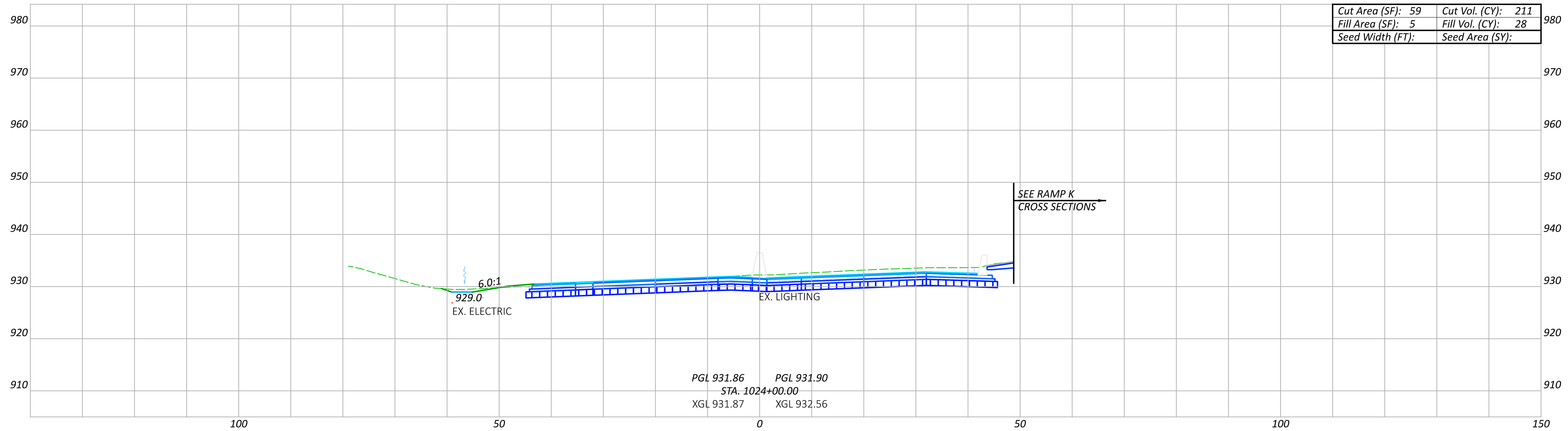
Cut Area (SF): 48	Cut Vol. (CY): 53
Fill Area (SF): 0	Fill Vol. (CY): 1
Seed Width (FT):	Seed Area (SY):



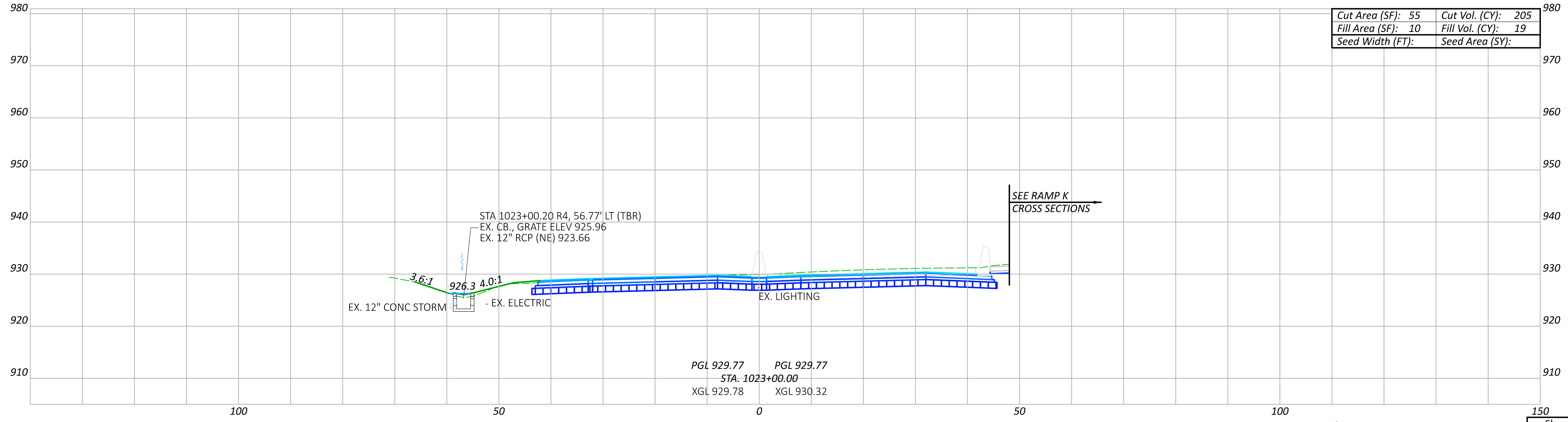
Cut Area (SF): 93	Cut Vol. (CY): 254
Fill Area (SF): 2	Fill Vol. (CY): 7
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 93	Cut Vol. (CY): 283
Fill Area (SF): 1	Fill Vol. (CY): 10
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 59	Cut Vol. (CY): 211
Fill Area (SF): 5	Fill Vol. (CY): 28
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 55	Cut Vol. (CY): 205
Fill Area (SF): 10	Fill Vol. (CY): 19
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1015	65

DESIGN AGENCY
ms consultants, inc.

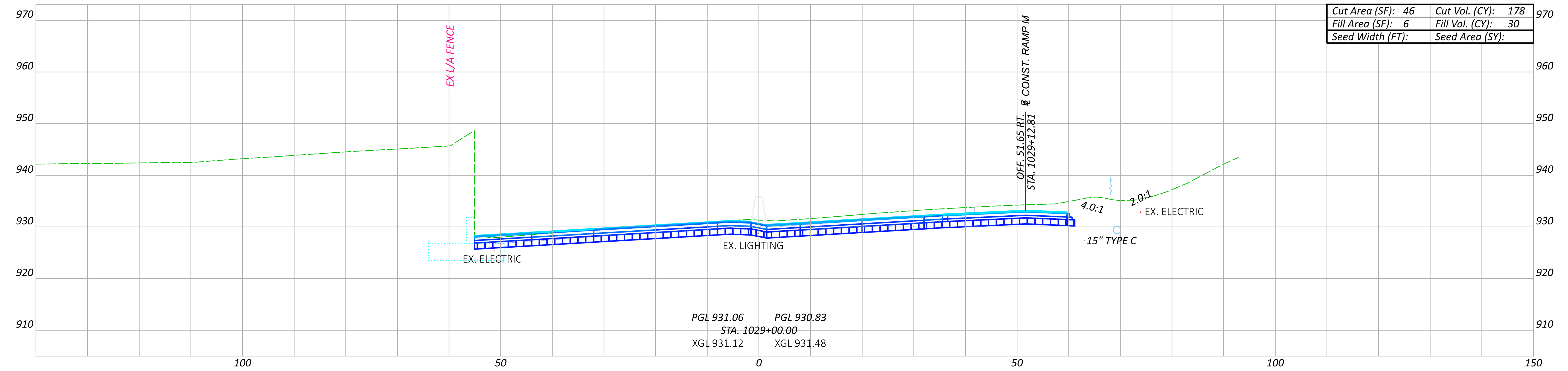
DESIGNER MSN

REVIEWER CMN 08/29/25

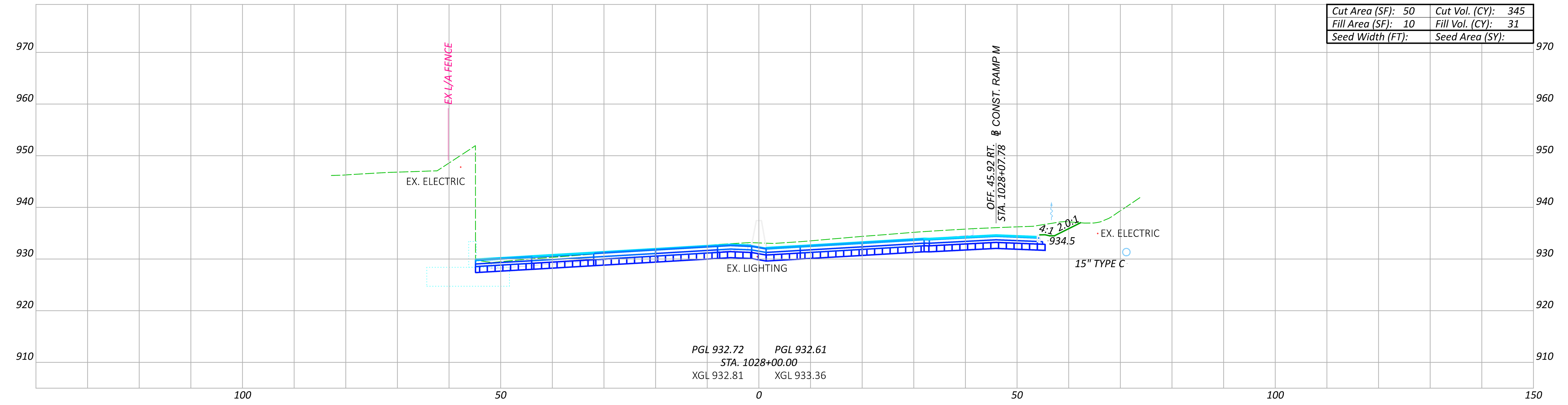
PROJECT ID 121474

SHEET P.277 TOTAL 655

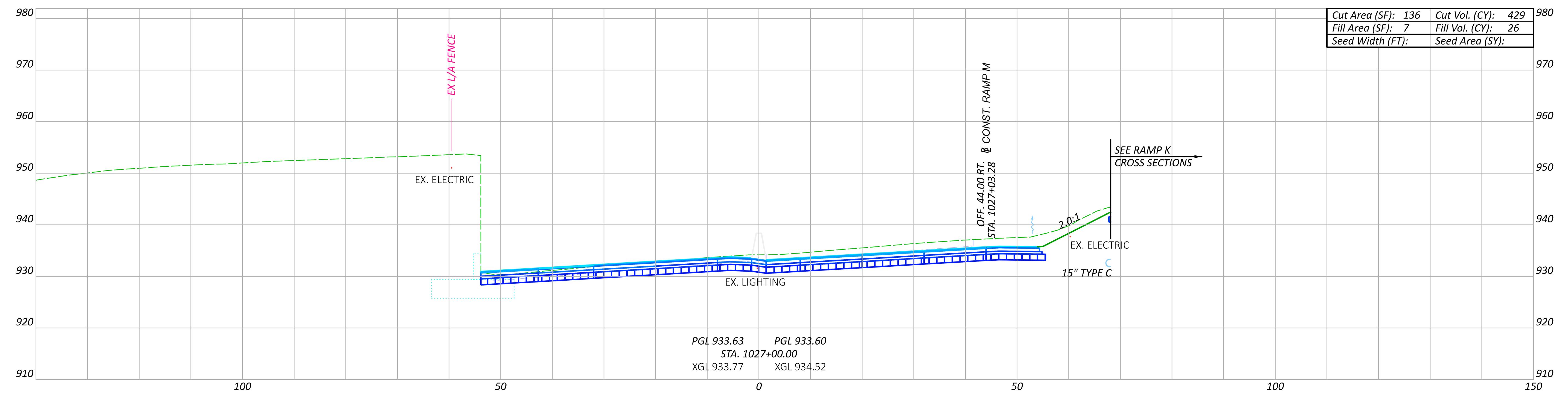
Cut Area (SF): 46	Cut Vol. (CY): 178
Fill Area (SF): 6	Fill Vol. (CY): 30
Seed Width (FT):	Seed Area (SY):



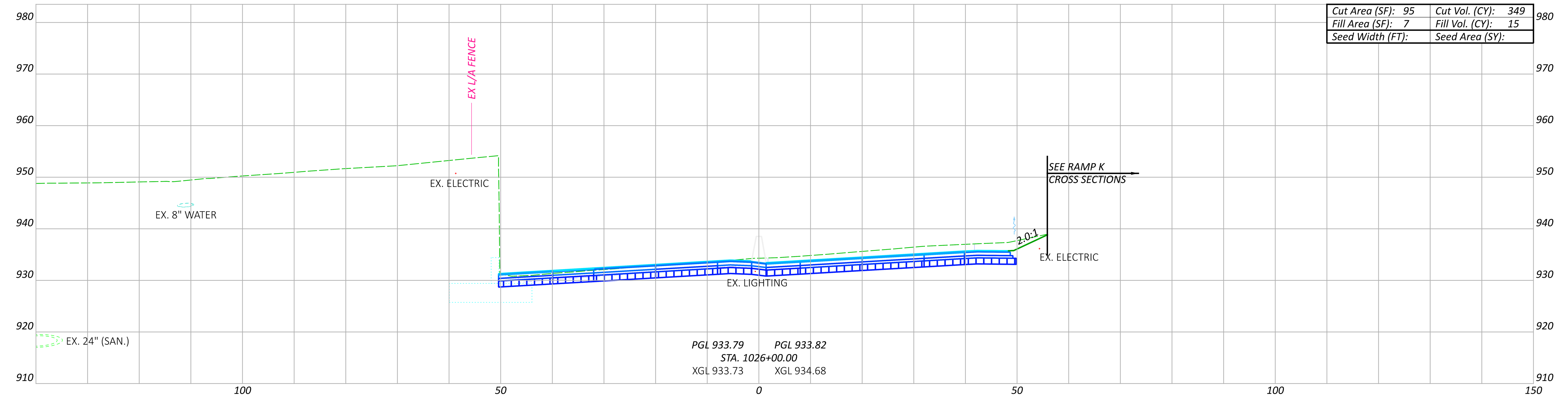
Cut Area (SF): 50	Cut Vol. (CY): 345
Fill Area (SF): 10	Fill Vol. (CY): 31
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 136	Cut Vol. (CY): 429
Fill Area (SF): 7	Fill Vol. (CY): 26
Seed Width (FT):	Seed Area (SY):



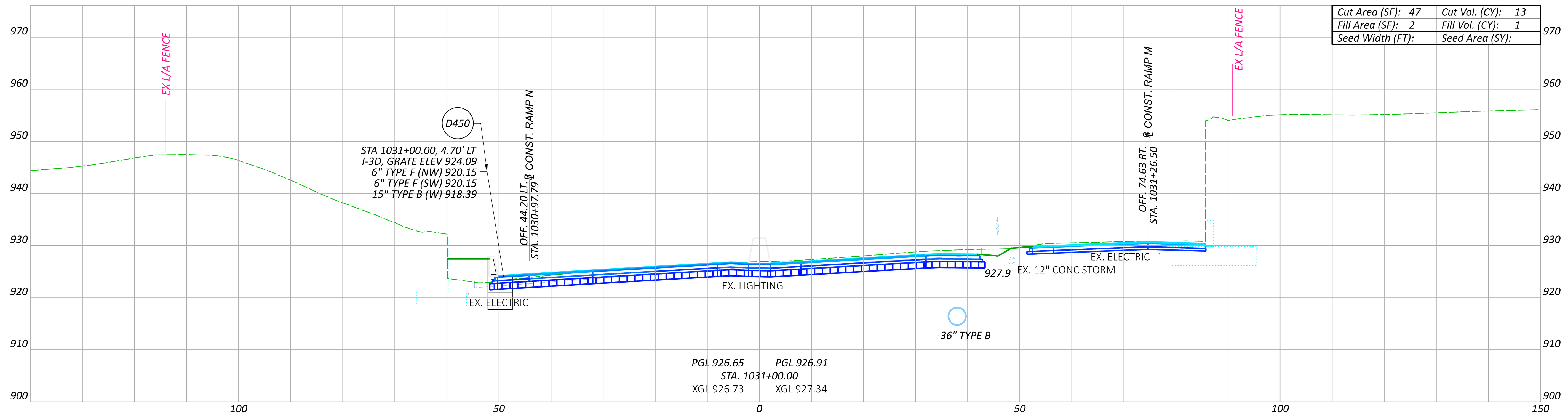
Cut Area (SF): 95	Cut Vol. (CY): 349
Fill Area (SF): 7	Fill Vol. (CY): 15
Seed Width (FT):	Seed Area (SY):



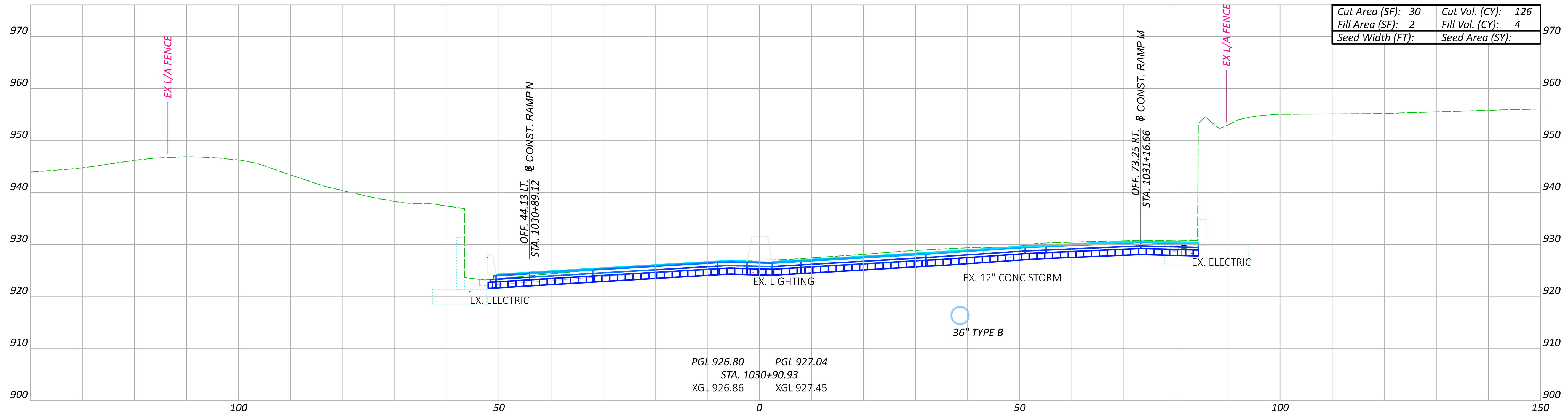
LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

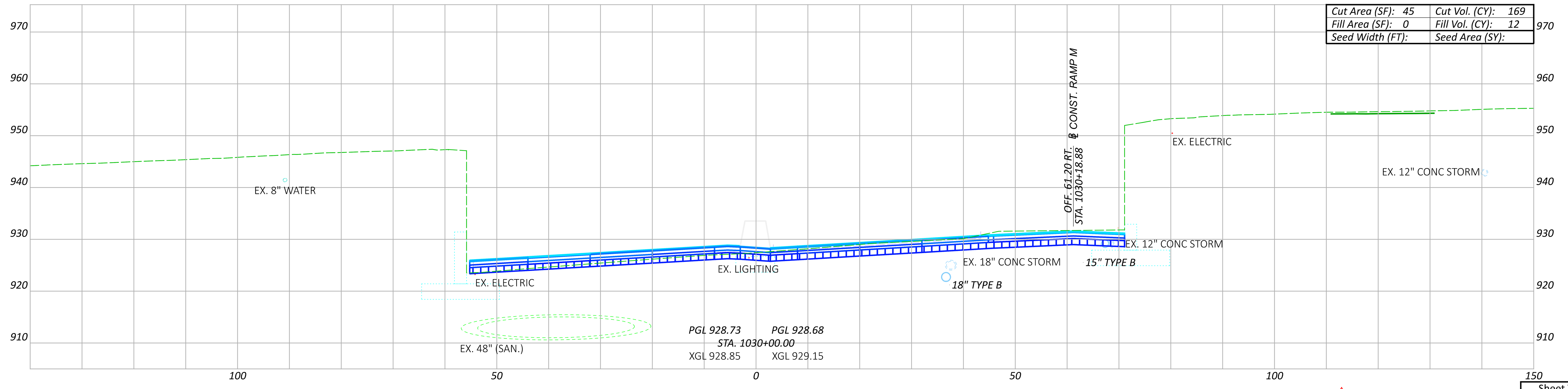
Cut Area (SF): 47	Cut Vol. (CY): 13
Fill Area (SF): 2	Fill Vol. (CY): 1
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 30	Cut Vol. (CY): 126
Fill Area (SF): 2	Fill Vol. (CY): 4
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 169
Fill Area (SF): 0	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1609	119

CROSS SECTIONS - I.R. 680
STA. 1026+00.00 TO STA. 1031+00.00

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

PROJECT ID: 121474

SHEET: P.278 TOTAL: 655

MAH-680-4.58

MODEL: CLP_I680 - 1026+00.00 R4 [Sheet] PAPERSIZE: 66x34 (in.) DATE: 1/12/2026 TIME: 4:41:55 PM PLTDRV: OHDOT_PDF_E+.pltcfg PENTBL: OHDOT_PenC.tbl USER: DHall@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.02.25
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_XS004.dgn

CROSS SECTIONS - I.R. 680
STA. 1032+00.00 TO STA. 1038+00.00

MAH-680-4.58

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1677	60

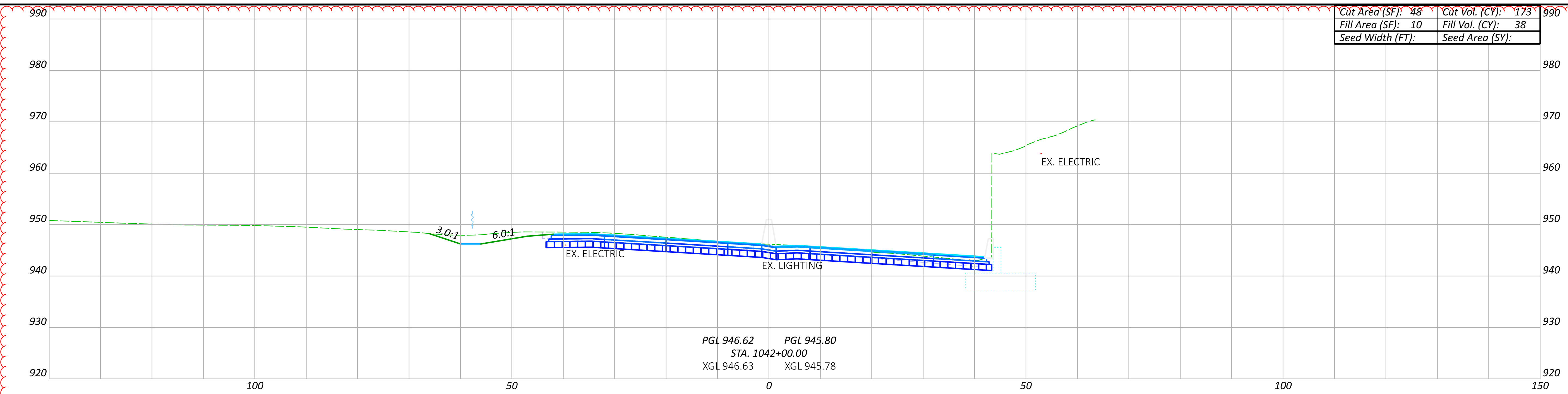
DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

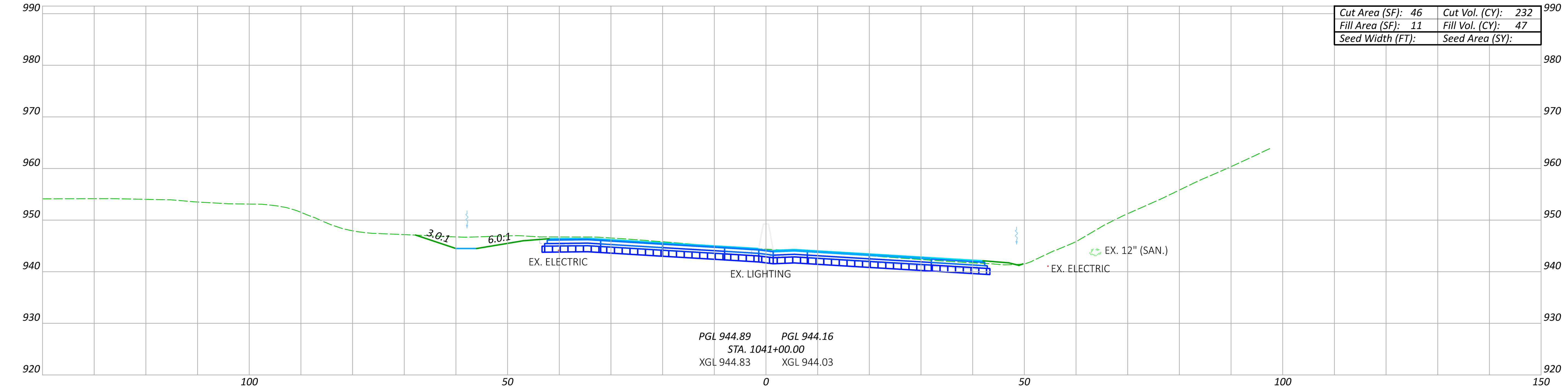
REVIEWER: CMN 08/29/25

PROJECT ID: 121474

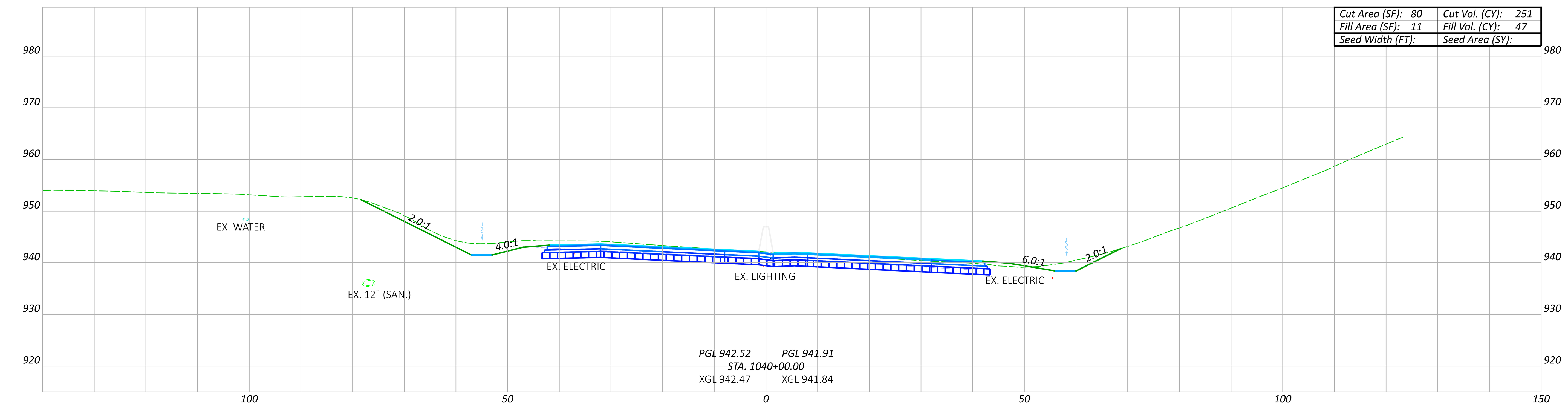
SHEET: P.279 TOTAL: 655



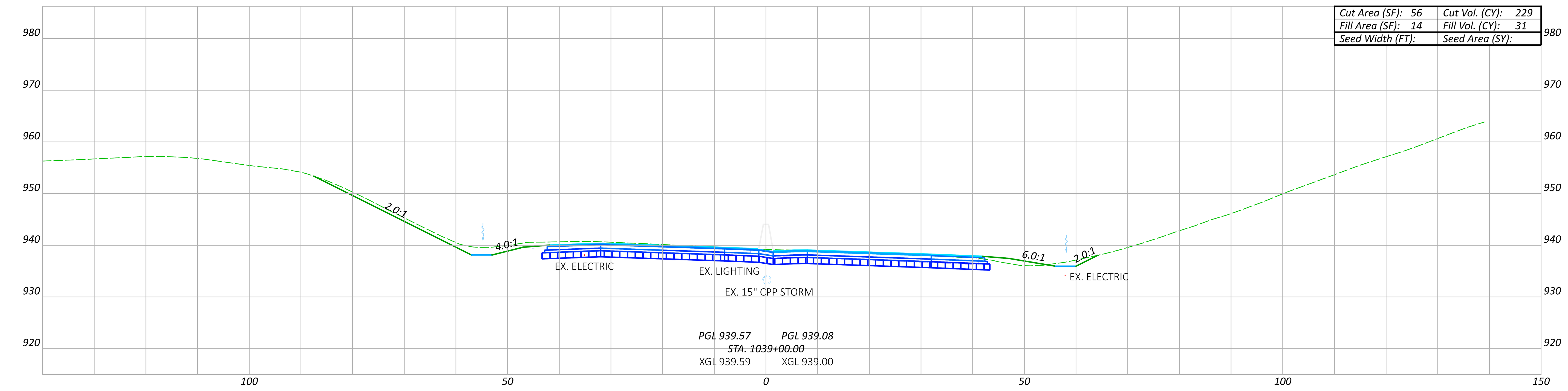
Cut Area (SF): 48	Cut Vol. (CY): 173
Fill Area (SF): 10	Fill Vol. (CY): 38
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 46	Cut Vol. (CY): 232
Fill Area (SF): 11	Fill Vol. (CY): 47
Seed Width (FT):	Seed Area (SY):



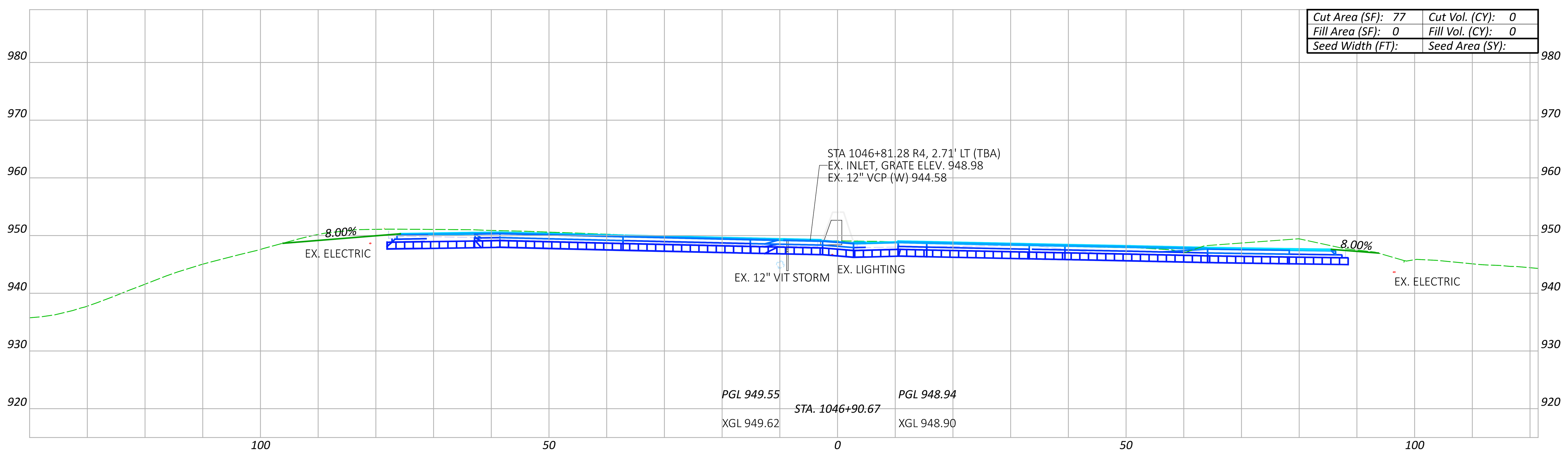
Cut Area (SF): 80	Cut Vol. (CY): 251
Fill Area (SF): 11	Fill Vol. (CY): 47
Seed Width (FT):	Seed Area (SY):



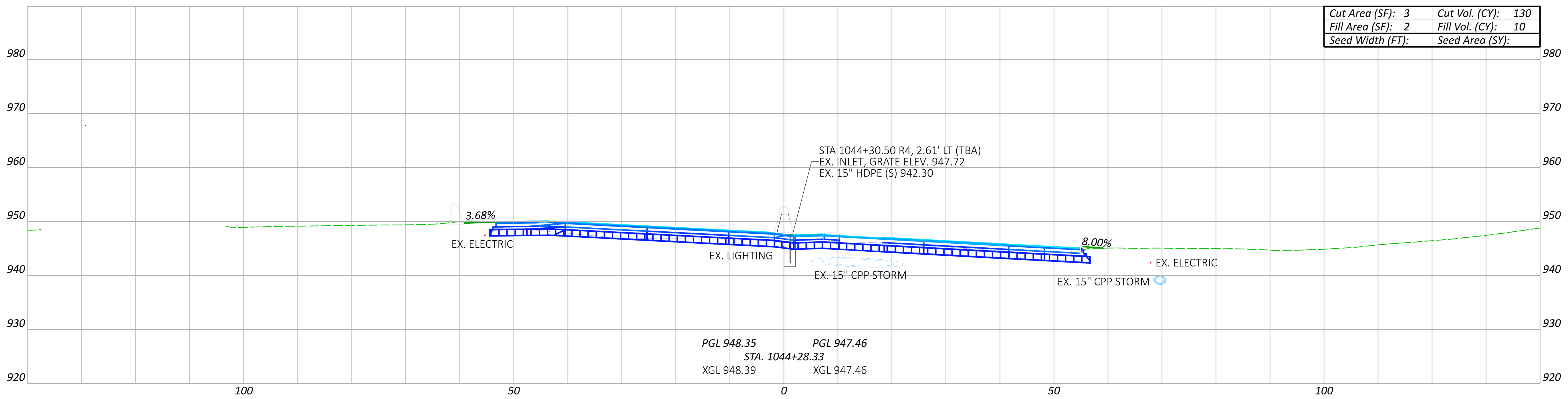
Cut Area (SF): 56	Cut Vol. (CY): 229
Fill Area (SF): 14	Fill Vol. (CY): 31
Seed Width (FT):	Seed Area (SY):

LEGEND:

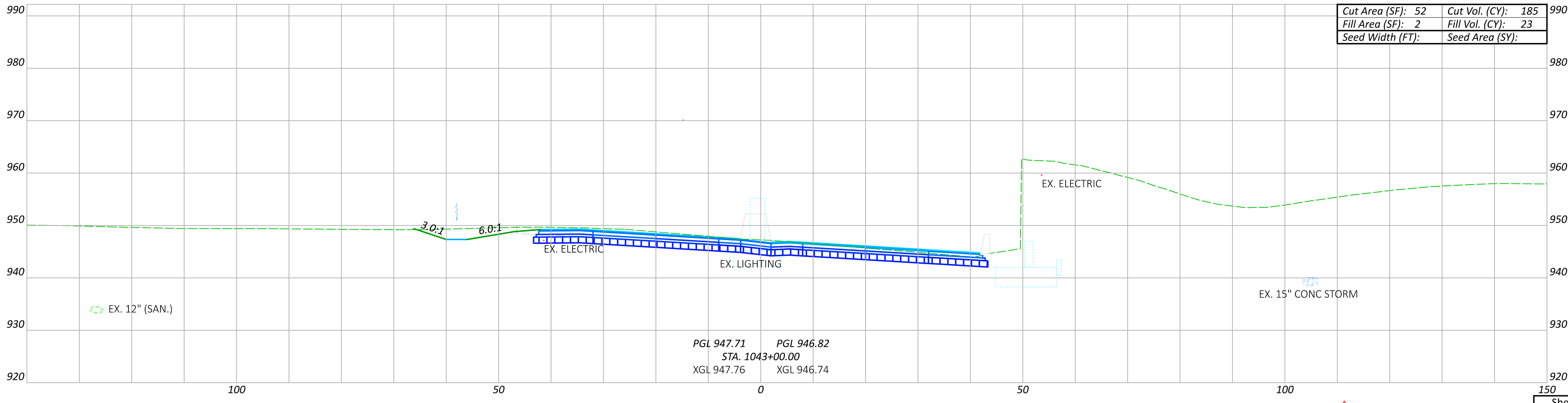
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



Cut Area (SF): 77	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 3	Cut Vol. (CY): 130
Fill Area (SF): 2	Fill Vol. (CY): 10
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 52	Cut Vol. (CY): 185
Fill Area (SF): 2	Fill Vol. (CY): 23
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

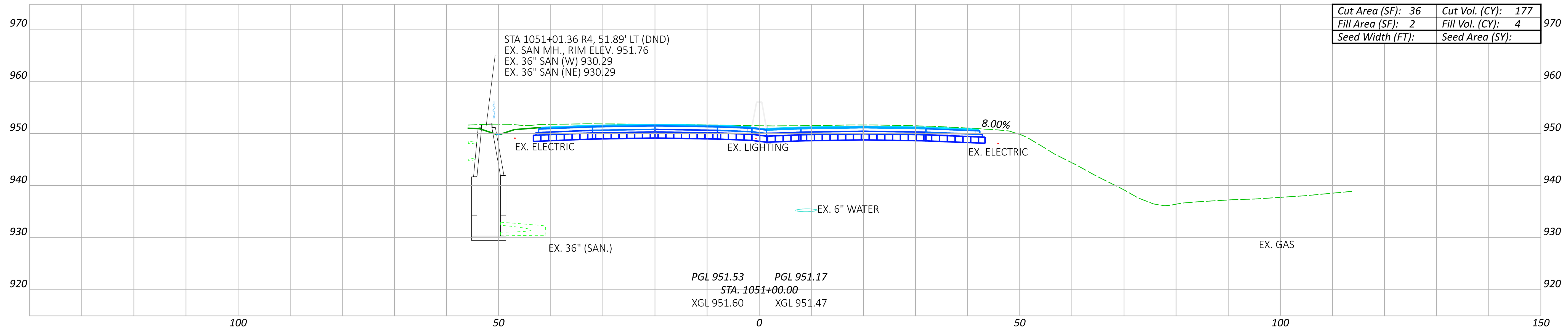
Sheet Totals		
Seeding	Cut	Fill
	1200	189

CROSS SECTIONS - I.R. 680
STA. 1039+00.00 TO STA. 1046+90.67

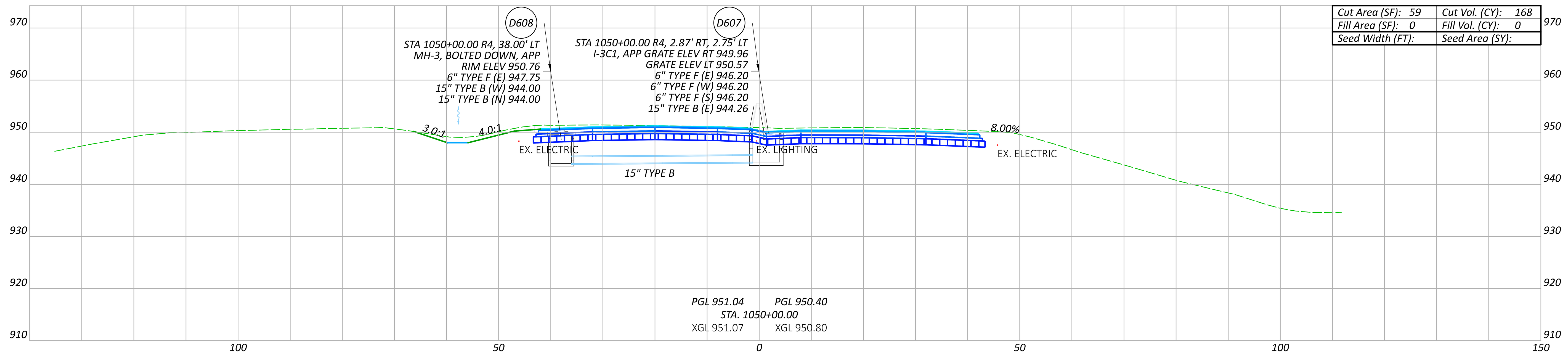
DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN
REVIEWER CMN 08/29/25
PROJECT ID 121474
SHEET P.280 TOTAL 655

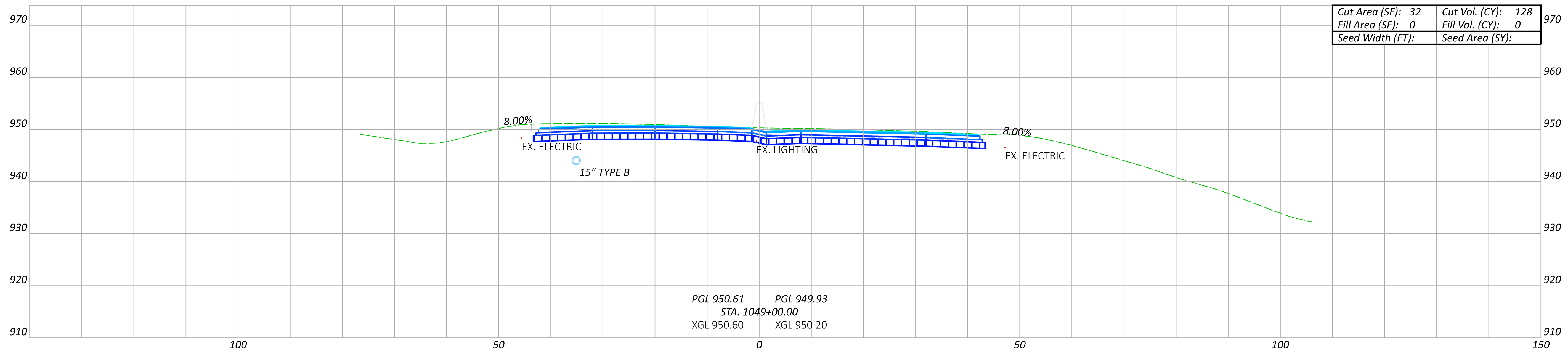
MAH-680-4.58



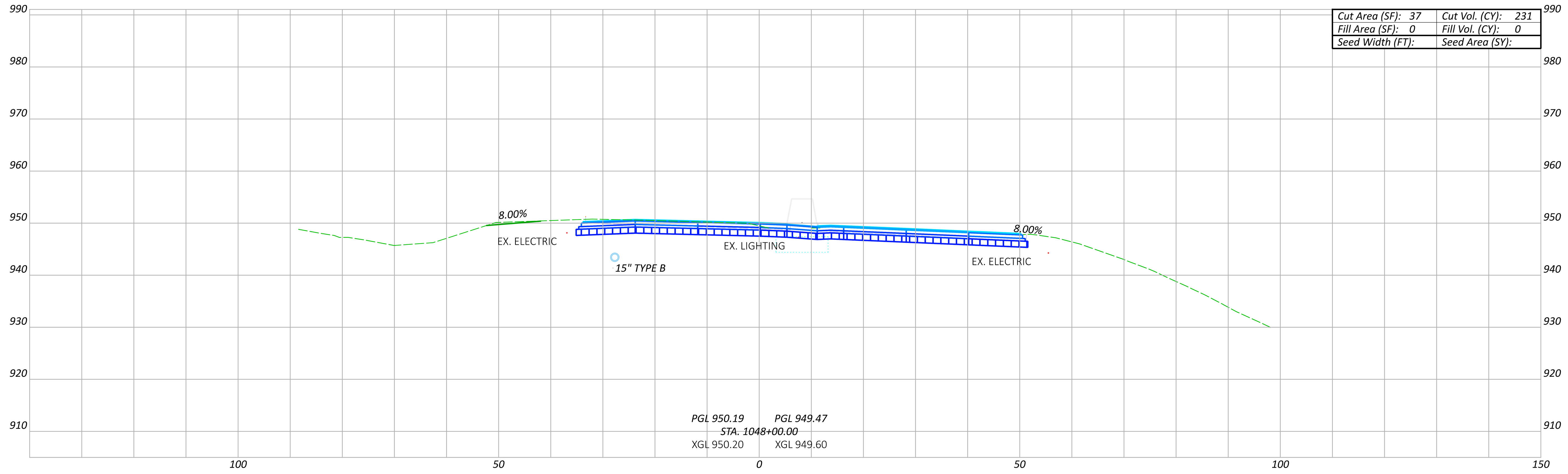
Cut Area (SF):	36	Cut Vol. (CY):	177
Fill Area (SF):	2	Fill Vol. (CY):	4
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	59	Cut Vol. (CY):	168
Fill Area (SF):	0	Fill Vol. (CY):	0
Seed Width (FT):		Seed Area (SY):	



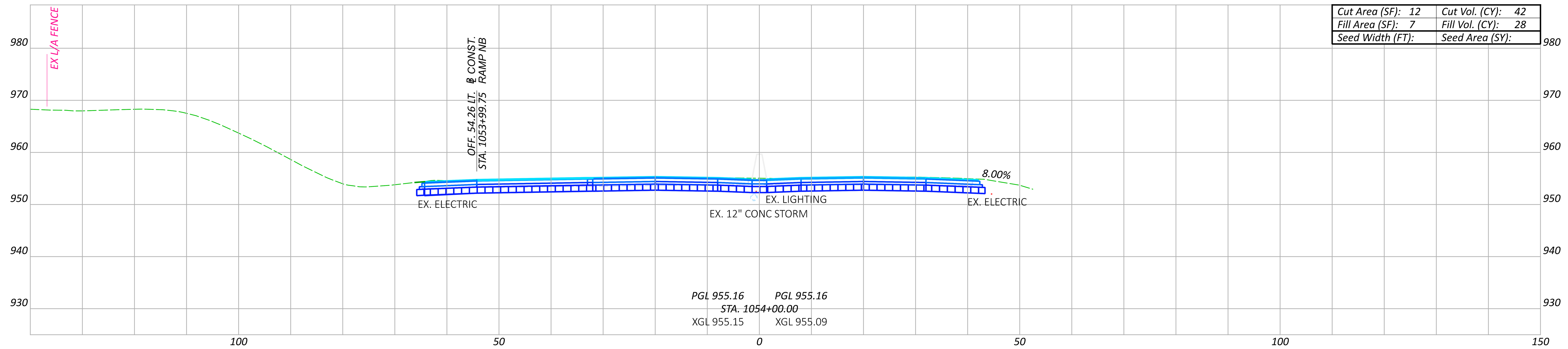
Cut Area (SF):	32	Cut Vol. (CY):	128
Fill Area (SF):	0	Fill Vol. (CY):	0
Seed Width (FT):		Seed Area (SY):	



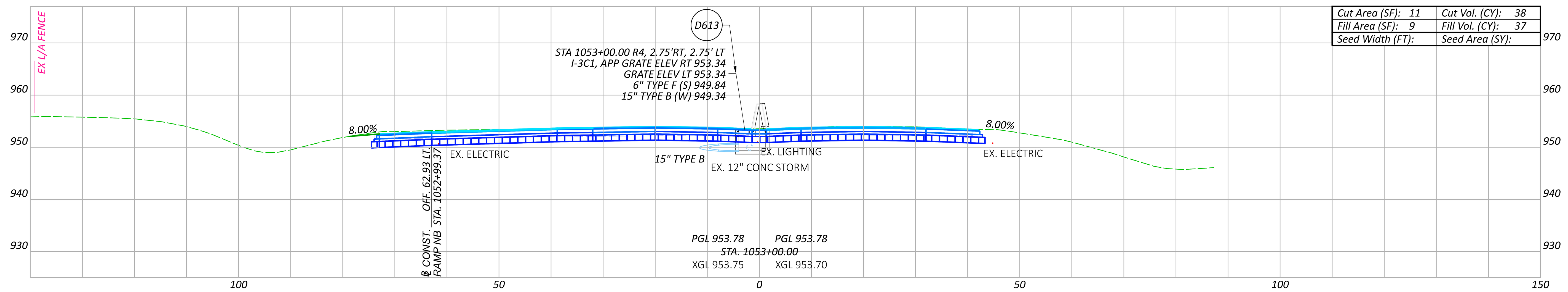
Cut Area (SF):	37	Cut Vol. (CY):	231
Fill Area (SF):	0	Fill Vol. (CY):	0
Seed Width (FT):		Seed Area (SY):	

LEGEND:

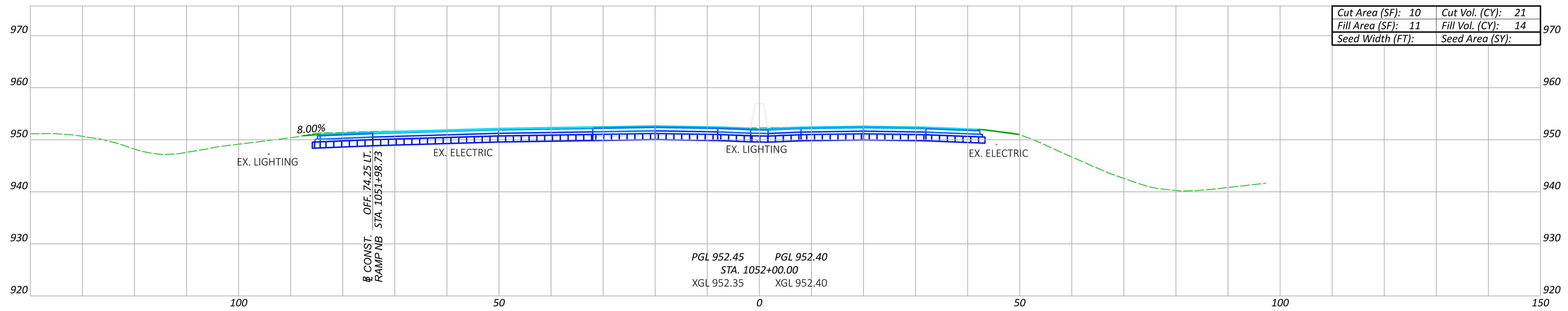
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



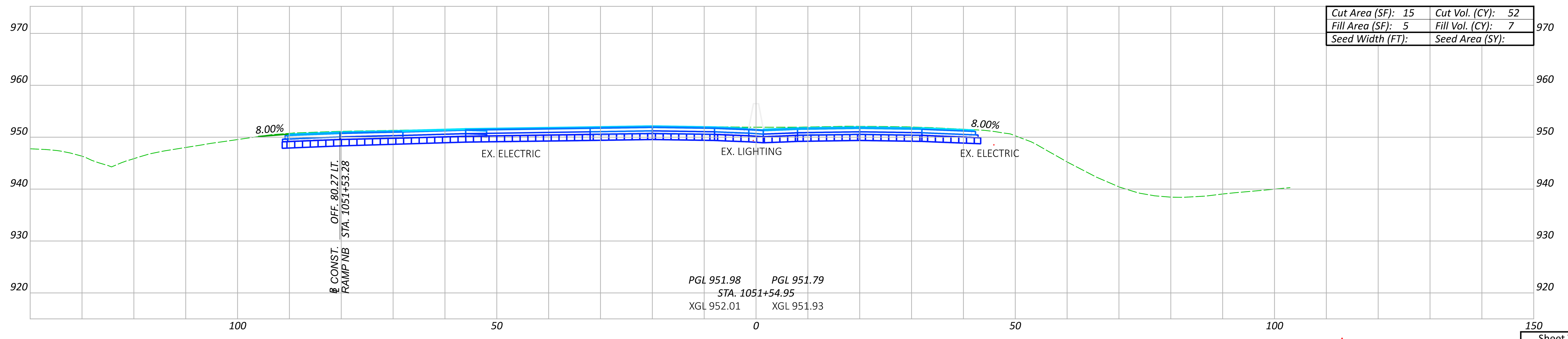
Cut Area (SF):	12	Cut Vol. (CY):	42
Fill Area (SF):	7	Fill Vol. (CY):	28
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	11	Cut Vol. (CY):	38
Fill Area (SF):	9	Fill Vol. (CY):	37
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	10	Cut Vol. (CY):	21
Fill Area (SF):	11	Fill Vol. (CY):	14
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	15	Cut Vol. (CY):	52
Fill Area (SF):	5	Fill Vol. (CY):	7
Seed Width (FT):		Seed Area (SY):	

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	857	90

CROSS SECTIONS - I.R. 680
STA. 1048+00.00 TO STA. 1054+00.00

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

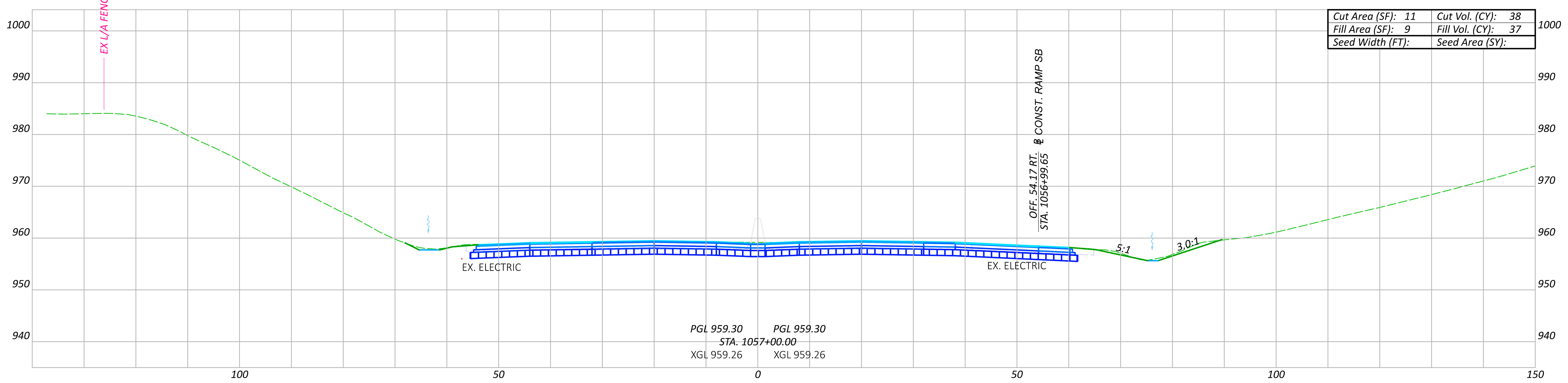
SHEET P.281 TOTAL 655

MAH-680-4.58

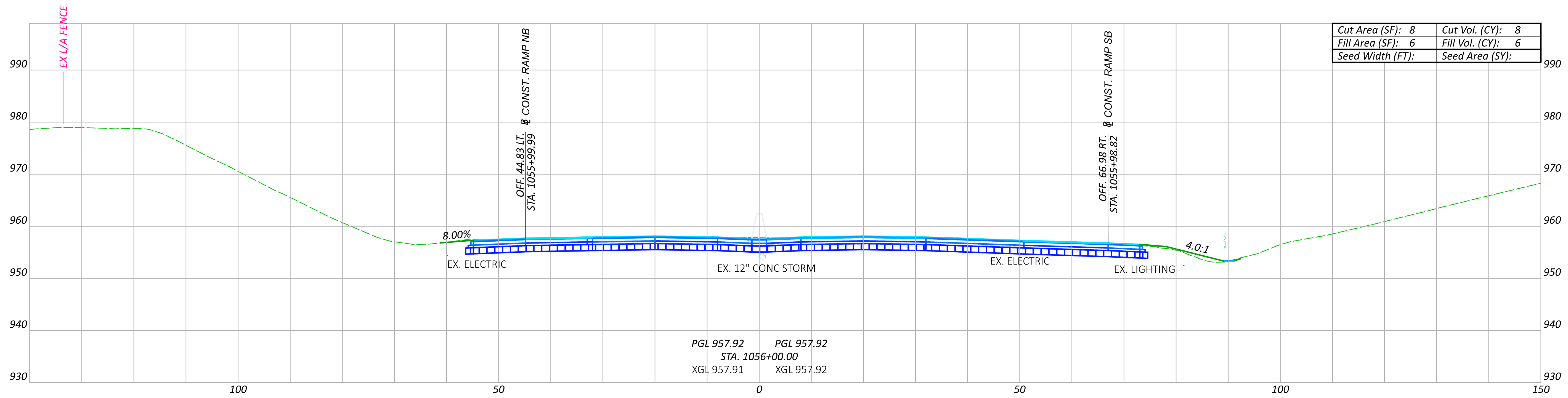
MAH-680-4.58

LEGEND:

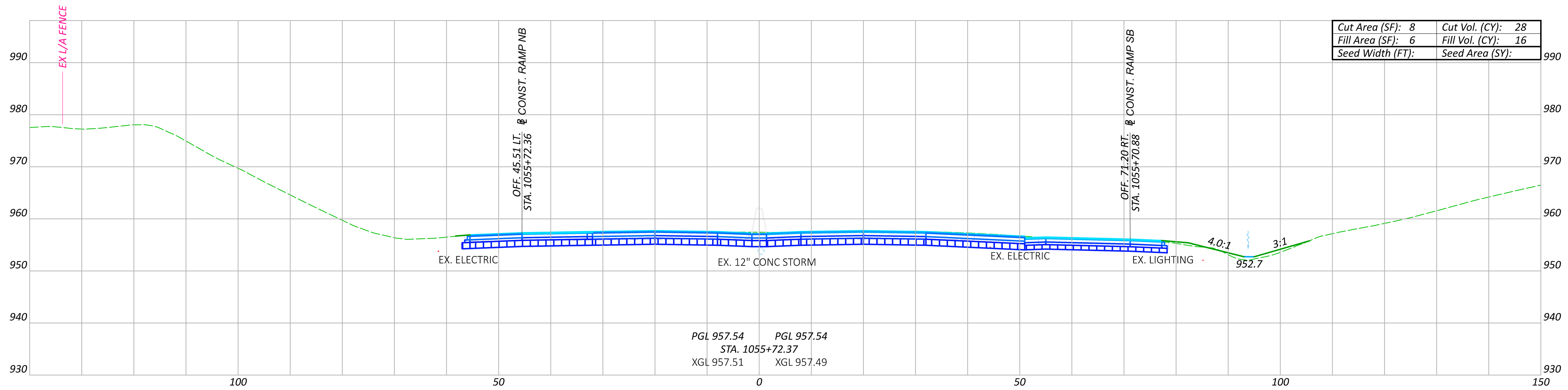
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH



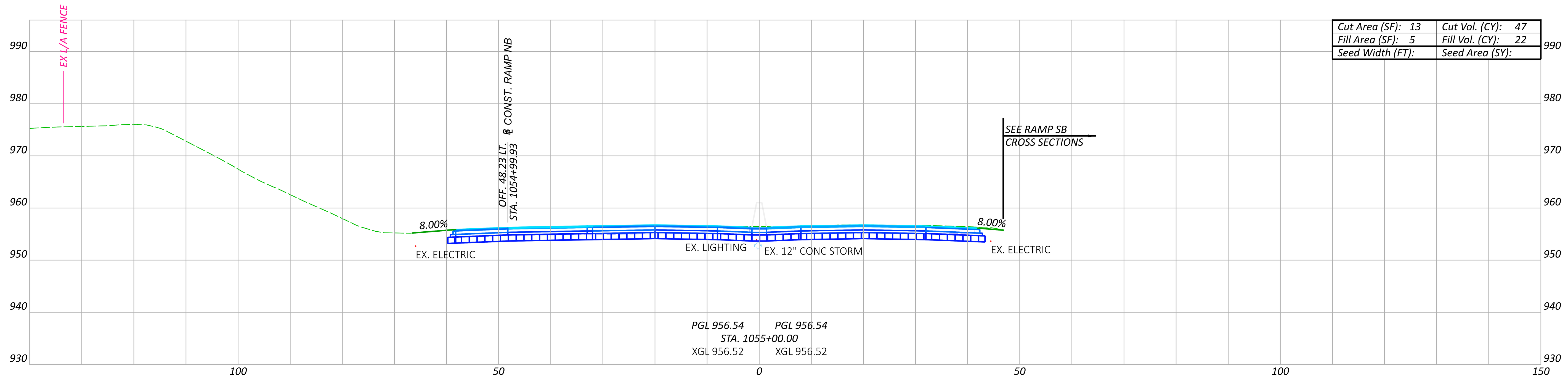
Cut Area (SF): 11	Cut Vol. (CY): 38
Fill Area (SF): 9	Fill Vol. (CY): 37
Seed Width (FT):	Seed Area (SY):



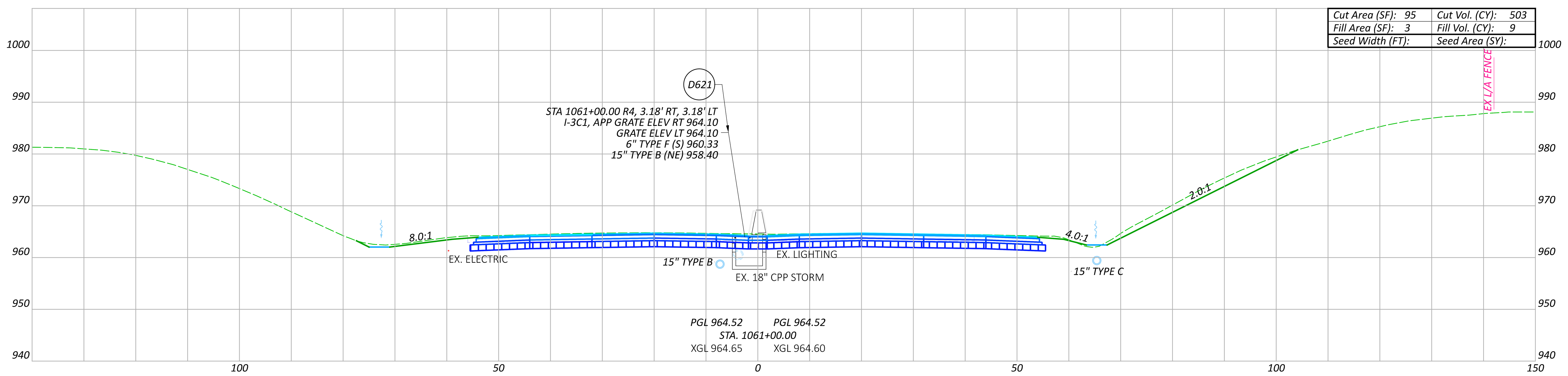
Cut Area (SF): 8	Cut Vol. (CY): 8
Fill Area (SF): 6	Fill Vol. (CY): 6
Seed Width (FT):	Seed Area (SY):



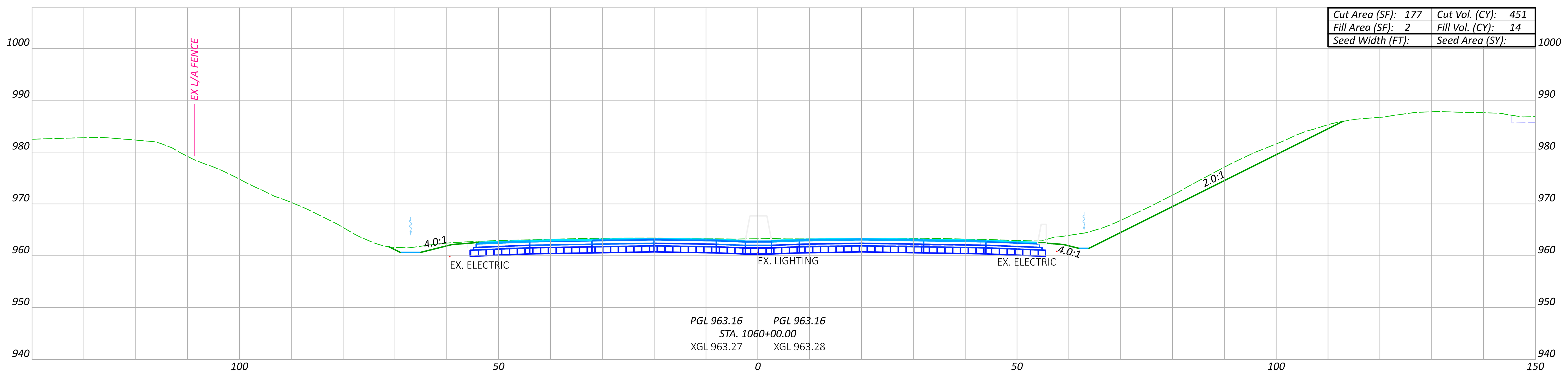
Cut Area (SF): 8	Cut Vol. (CY): 28
Fill Area (SF): 6	Fill Vol. (CY): 16
Seed Width (FT):	Seed Area (SY):



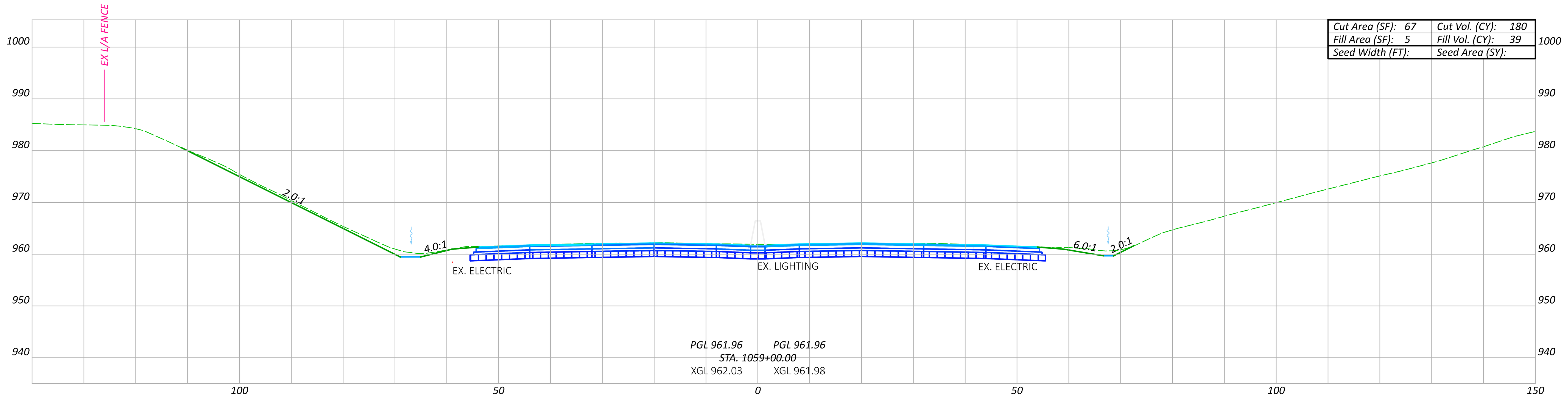
Cut Area (SF): 13	Cut Vol. (CY): 47
Fill Area (SF): 5	Fill Vol. (CY): 22
Seed Width (FT):	Seed Area (SY):



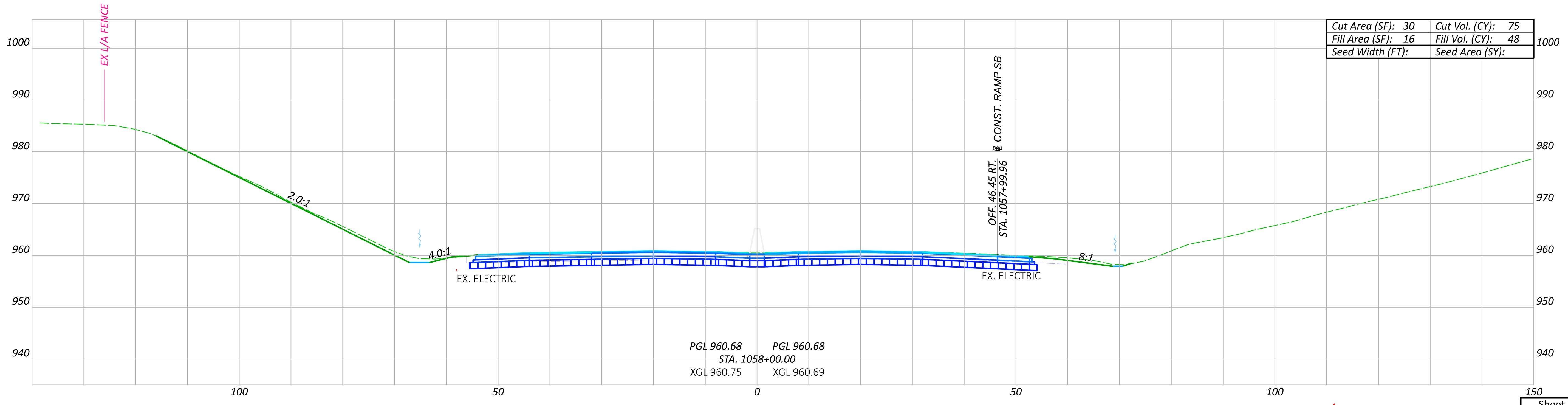
Cut Area (SF): 95	Cut Vol. (CY): 503
Fill Area (SF): 3	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 177	Cut Vol. (CY): 451
Fill Area (SF): 2	Fill Vol. (CY): 14
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 67	Cut Vol. (CY): 180
Fill Area (SF): 5	Fill Vol. (CY): 39
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 30	Cut Vol. (CY): 75
Fill Area (SF): 16	Fill Vol. (CY): 48
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1326	184

CROSS SECTIONS - I.R. 680
STA. 1055+00.00 TO STA. 1061+00.00

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.282 TOTAL 655

LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	2249	179

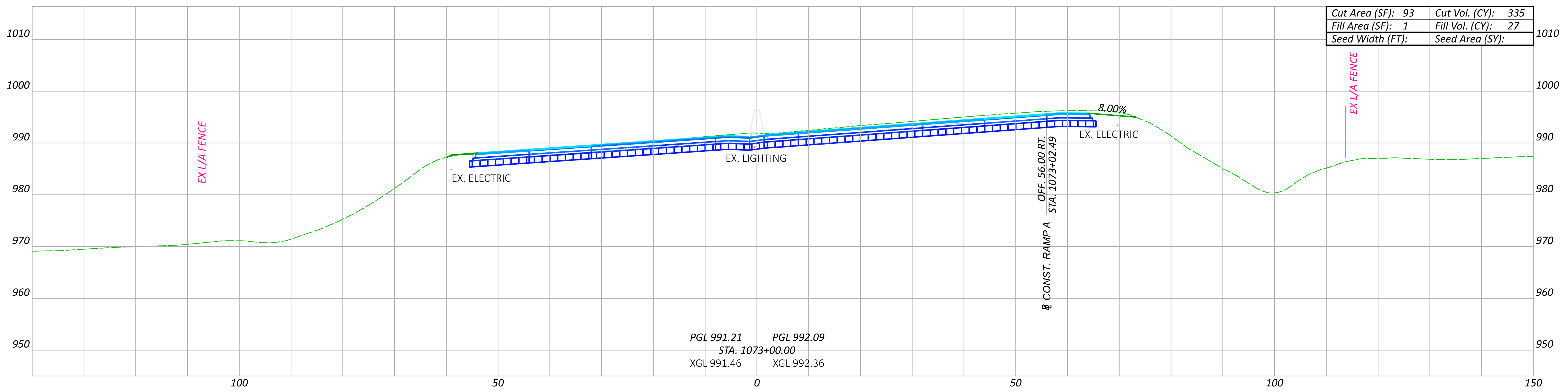
CROSS SECTIONS - I.R. 680
STA. 1062+00.00 TO STA. 1069+00.00

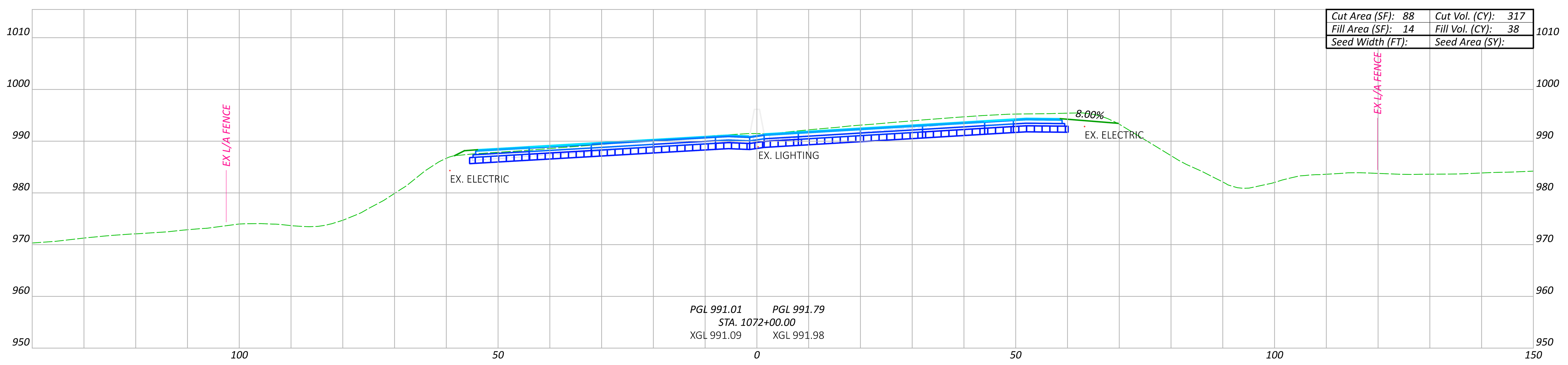
DESIGN AGENCY: ms consultants, inc.
DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474
SHEET: P.283 TOTAL: 655

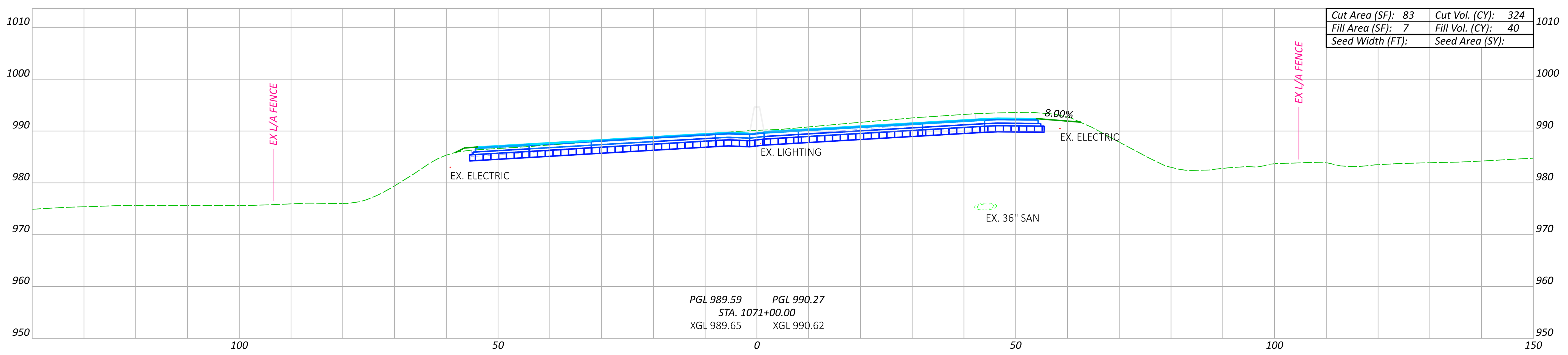
MAH-680-4.58

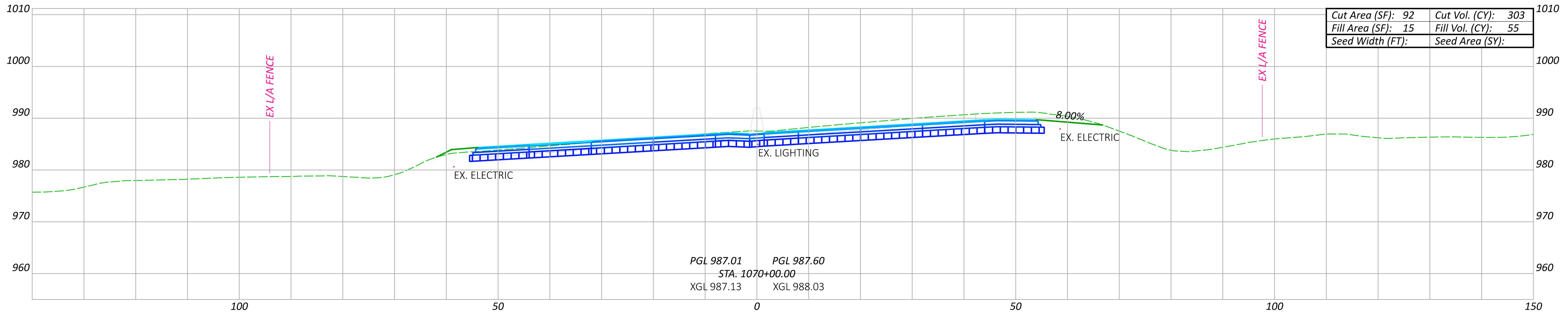
LEGEND:

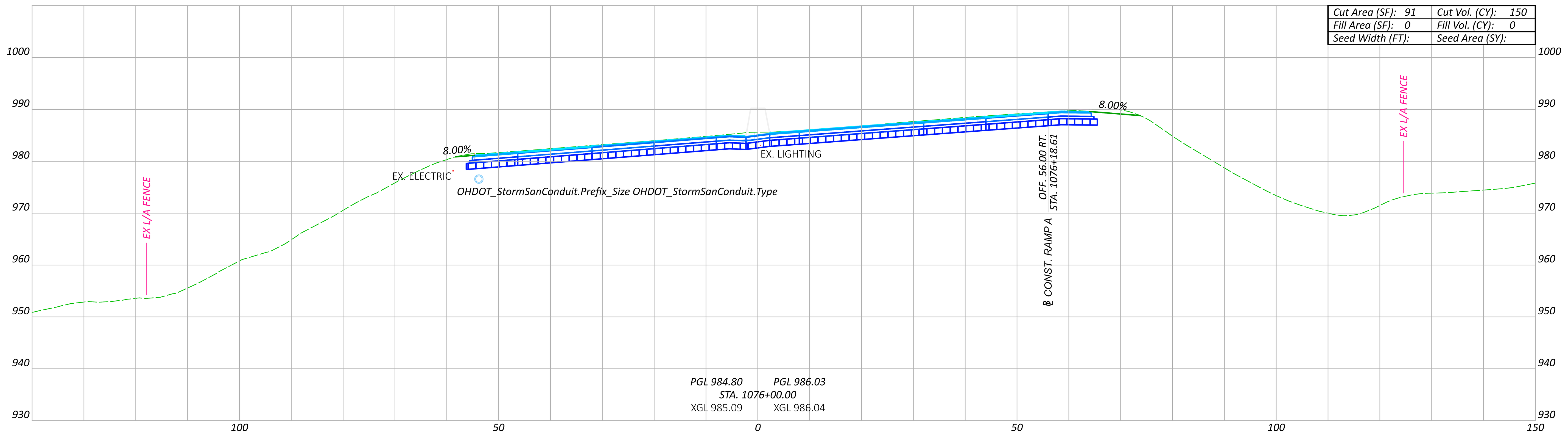
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

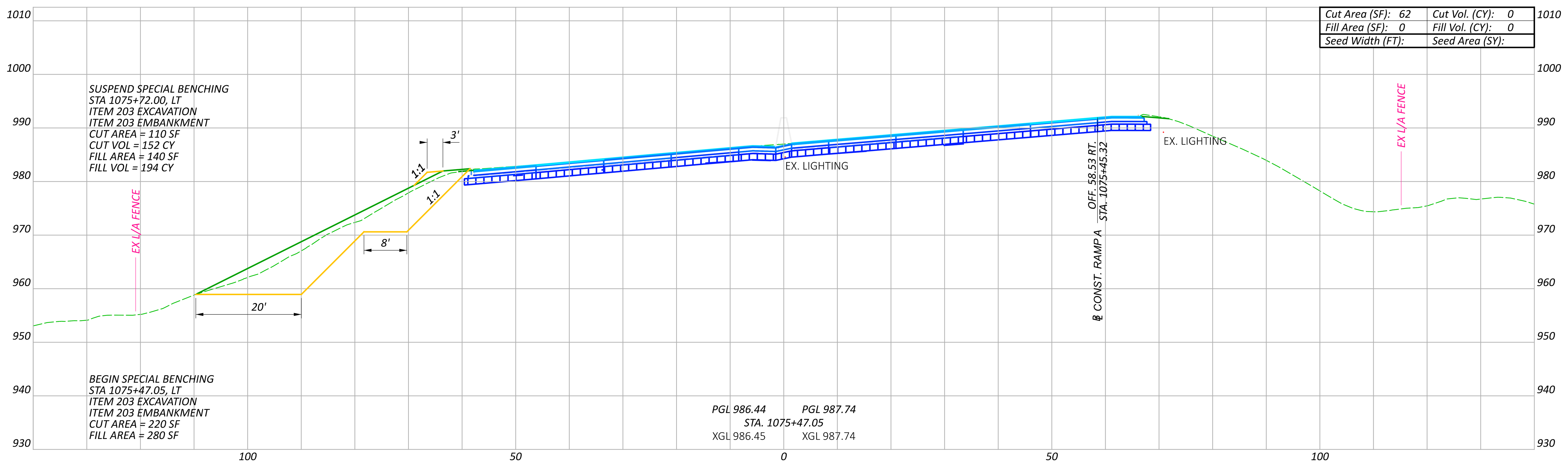


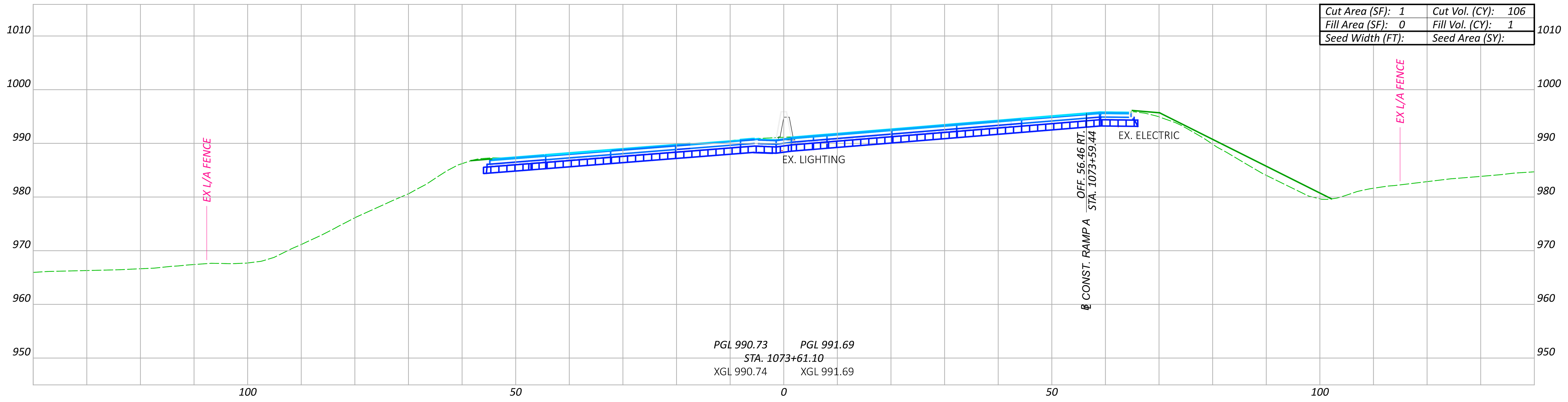












R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1535	161

CROSS SECTIONS - I.R. 680
STA. 1070+00.00 TO STA. 1076+00.00

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.284 TOTAL 655

MAH-680-4.58

CROSS SECTIONS - I.R. 680
STA. 1076+82.34 TO STA. 1082+00.00

MAH-680-4.58

Sheet Totals		
Seeding	Cut	Fill
	2028	129

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN
REVIEWER: CMN 08/29/25
PROJECT ID: 121474
SHEET: P.285 TOTAL: 655

MAH-680-4.58

LEGEND:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	3836	255

CROSS SECTIONS - I.R. 680

STA. 1083+00.00 TO STA. 1089+00.00

DESIGN AGENCY

ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

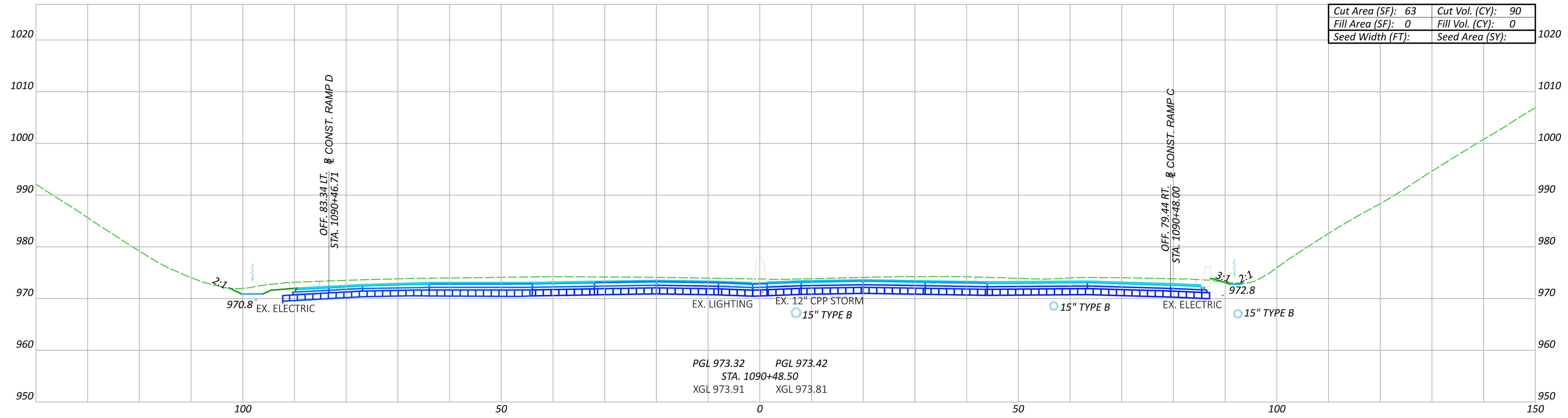
PROJECT ID 121474

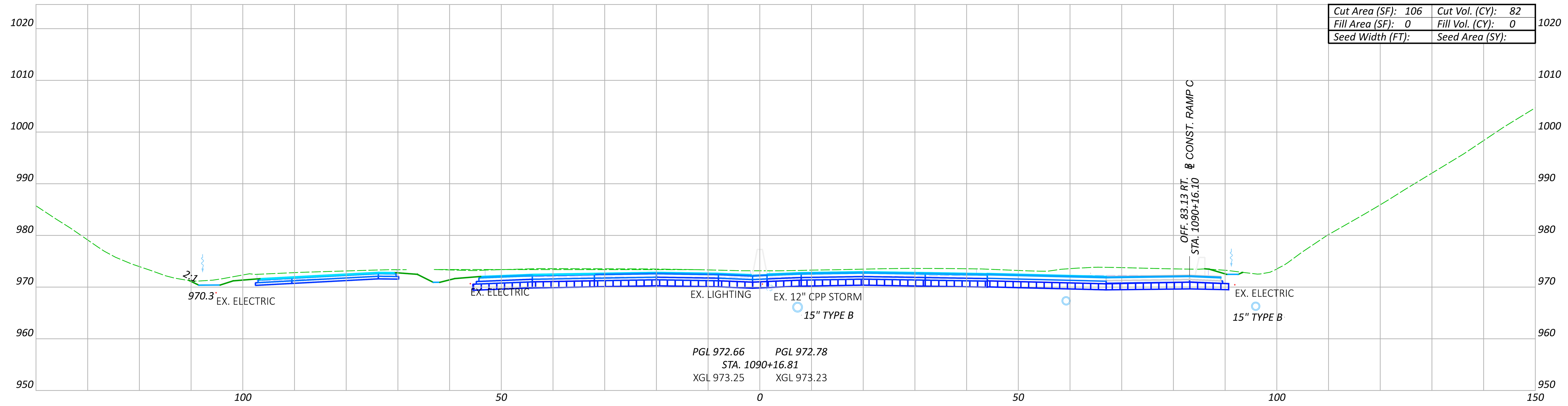
SHEET P.286 TOTAL 655

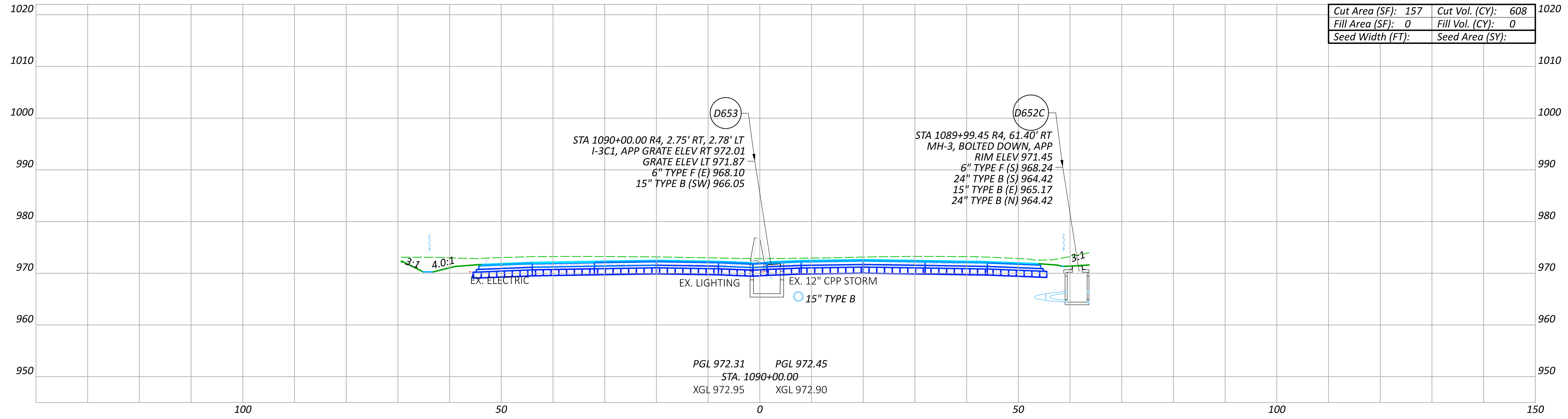
MAH-680-4.58

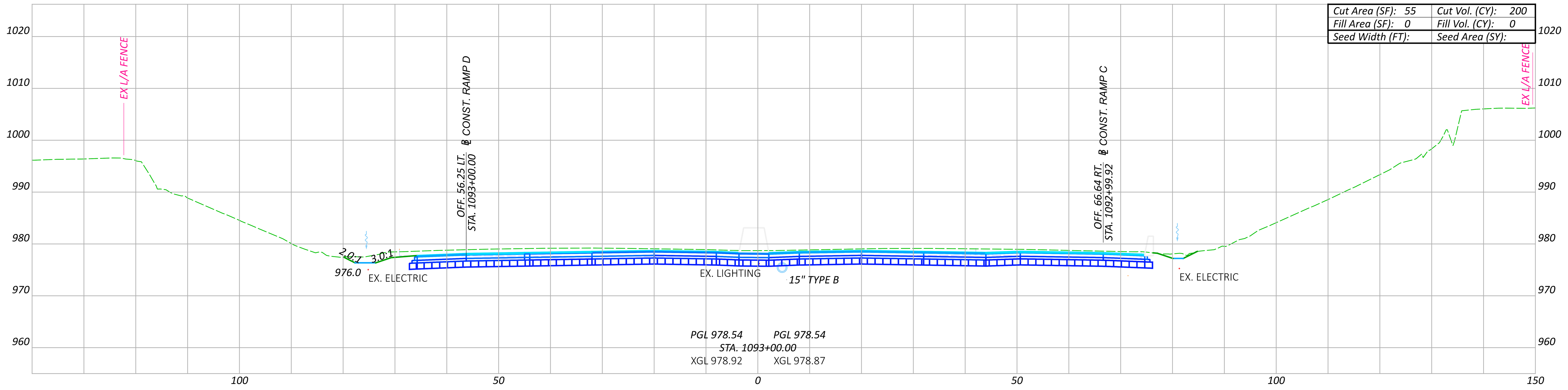
LEGEND:

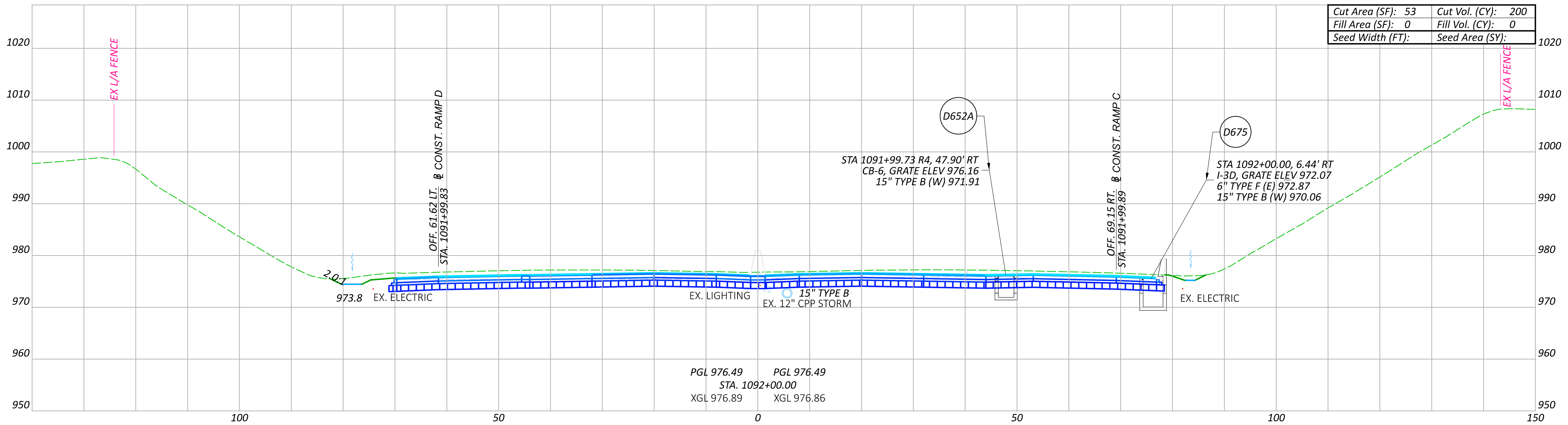
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

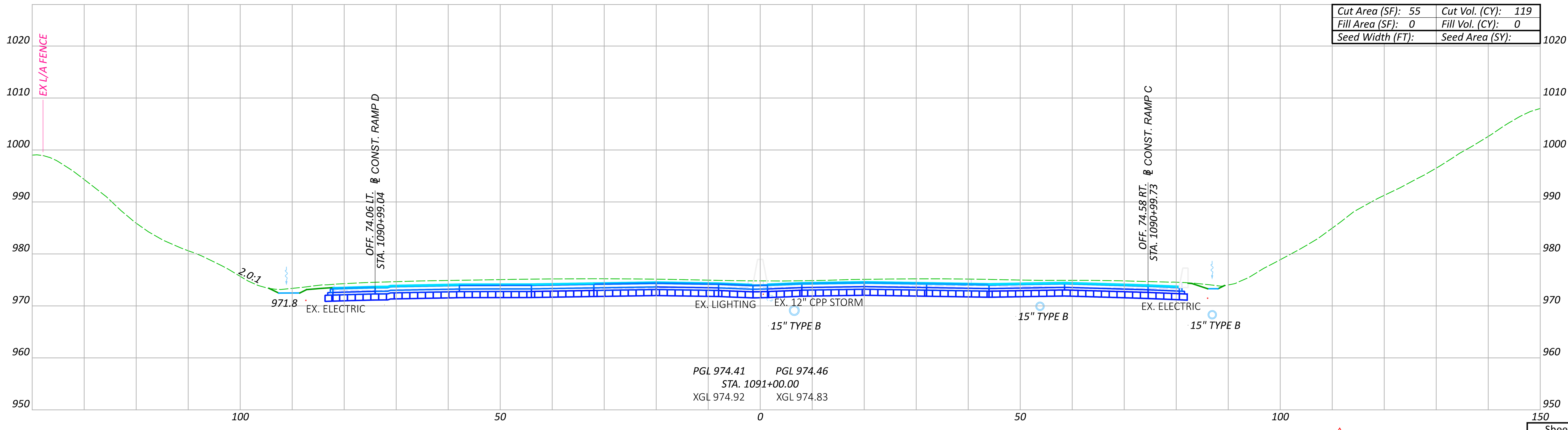












R3 01-13-2026, QUANTITIES REVISED

Sheet Totals

Seeding	Cut	Fill
1299	0	

CROSS SECTIONS - I.R. 680
STA. 1090+00.00 TO STA. 1093+00.00

DESIGN AGENCY: ms consultants, inc.

DESIGNER: MSN

REVIEWER: CMN 08/29/25

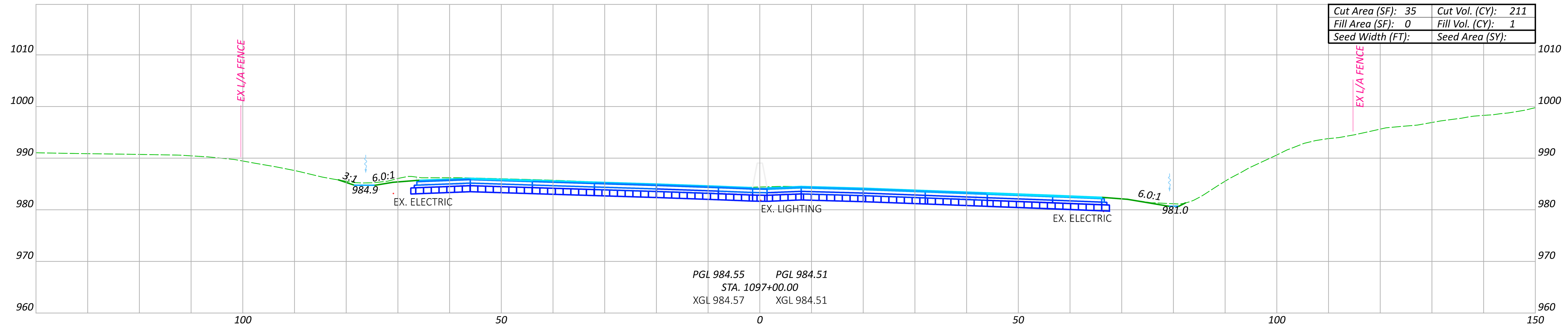
PROJECT ID: 121474

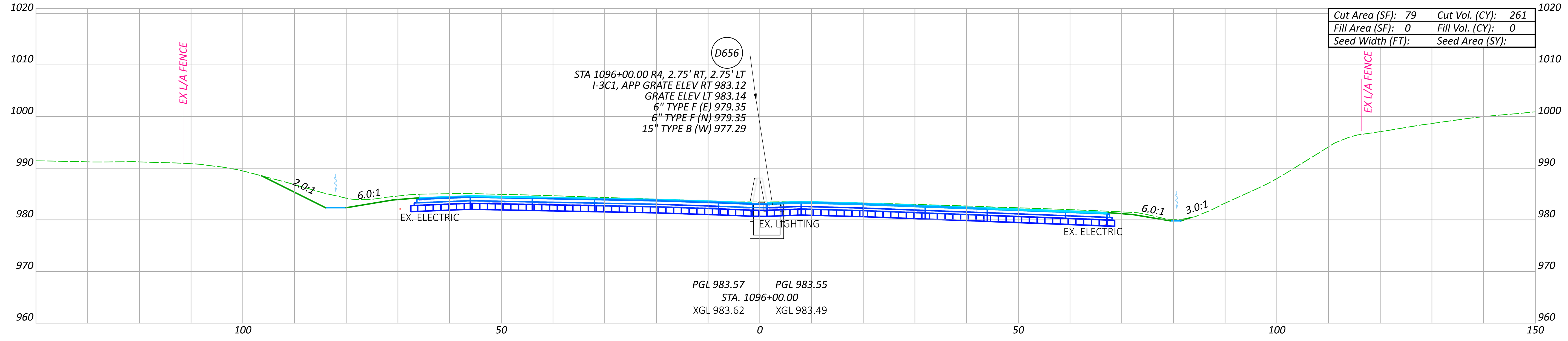
SHEET: P.287 TOTAL: 655

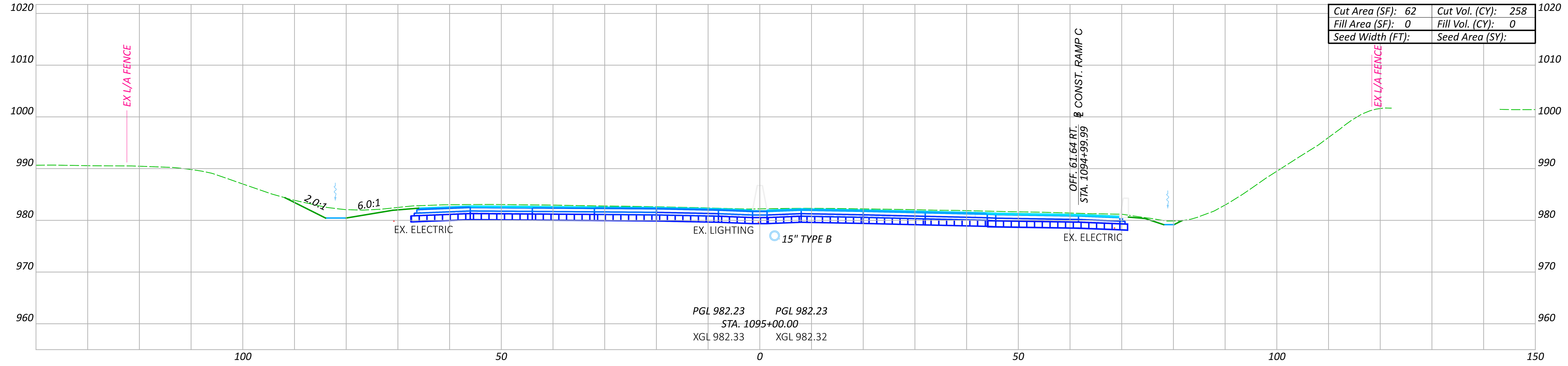
LEGEND:

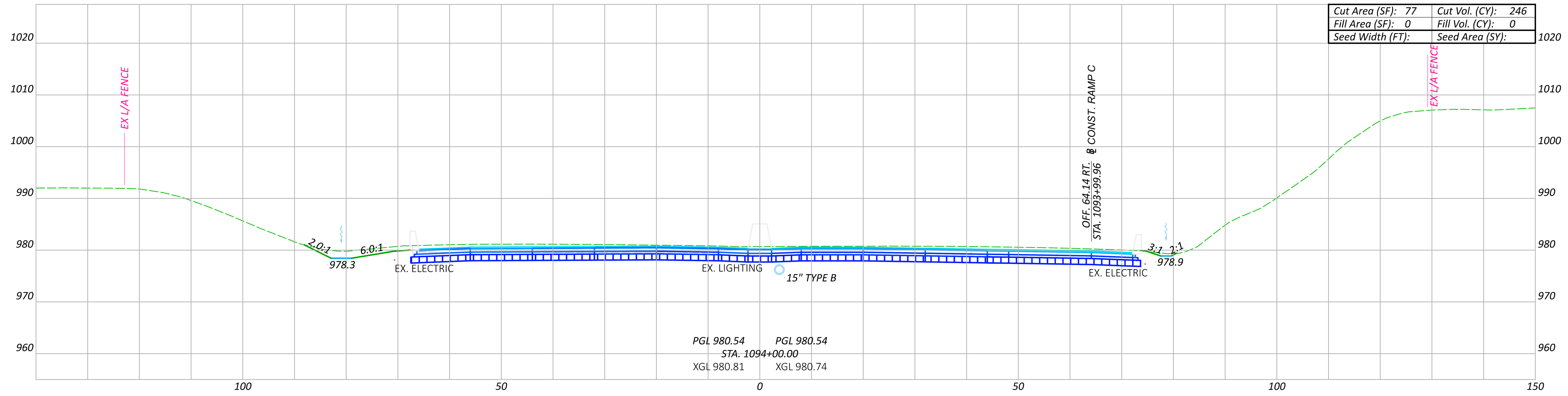
ITEM 206 - CEMENT STABILIZED SUBGRADE, 14" DEPTH

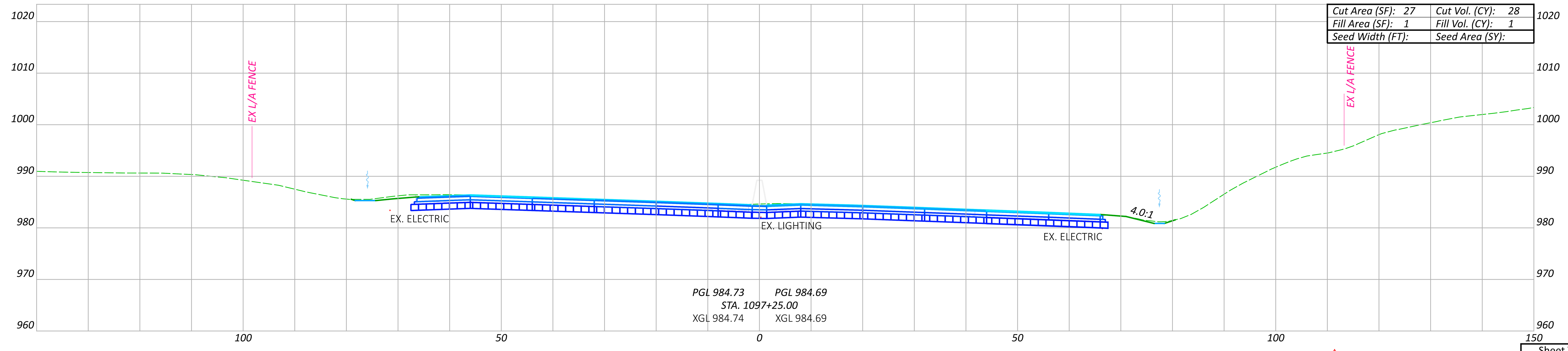
I.R. 680	TOTALS CARRIED TO CROSS SECTION SHEET P.292
ITEM 203 - EXCAVATION	= 30,965 C.Y.
ITEM 203 - EMBANKMENT	= 6,806 C.Y.
SPECIAL EMBANKMENT	
ITEM 203 - EXCAVATION	= 3,070 C.Y.
ITEM 203 - EMBANKMENT	= 4,193 C.Y.











R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1004	2

CROSS SECTIONS - I.R. 680
STA. 1094+00.00 TO STA. 1097+24.61

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

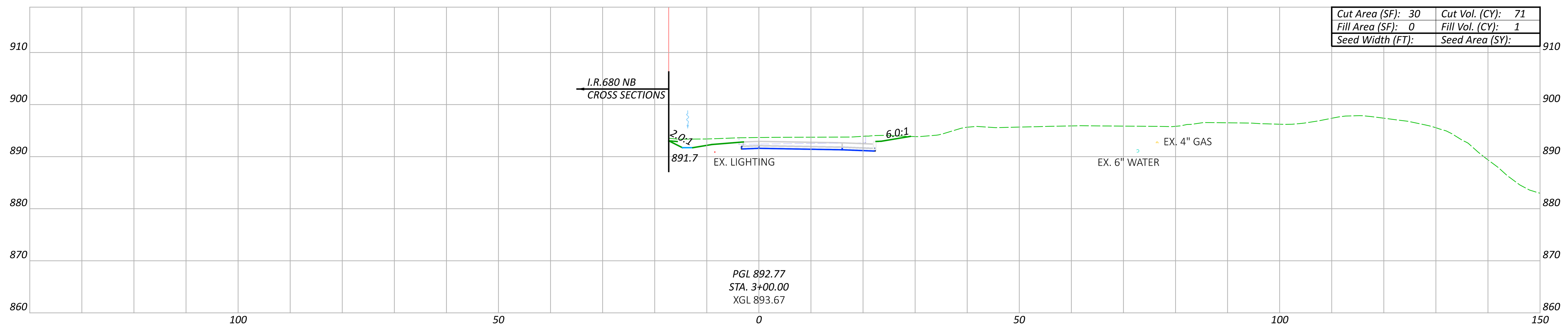
SHEET P.288 TOTAL 655

MAH-680-4.58

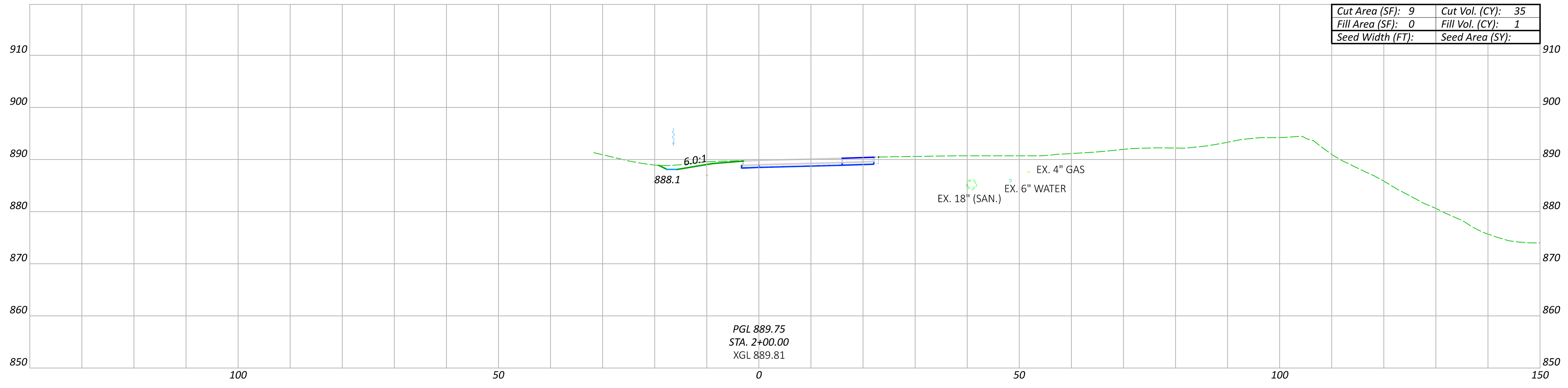
CROSS SECTIONS - MARSHALL ST. RAMP G
STA. 0+08.11 TO STA. 3+23.72

MAH-680-4.58

MODEL: BLP_RG - 0+08.11 [Sheet] PAPERSIZE: 66x34 (in.) DATE: 1/12/2026 TIME: 4:43:42 PM PLTDRV: OHDOT_PDF_E+.pltcfg PENTBL: OHDOT_PenC.tbl USER: DHall@msconsultants.com WORKSPACE: OHDOTCEv02 WORKSET: 121474 PRODUCT: OpenRoadsDesigner 24.00.02.25
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\402-Engineering_MSConsultants\Roadway\Sheets\121474_XS326.dgn



Cut Area (SF): 30	Cut Vol. (CY): 71
Fill Area (SF): 0	Fill Vol. (CY): 1
Seed Width (FT):	Seed Area (SY):



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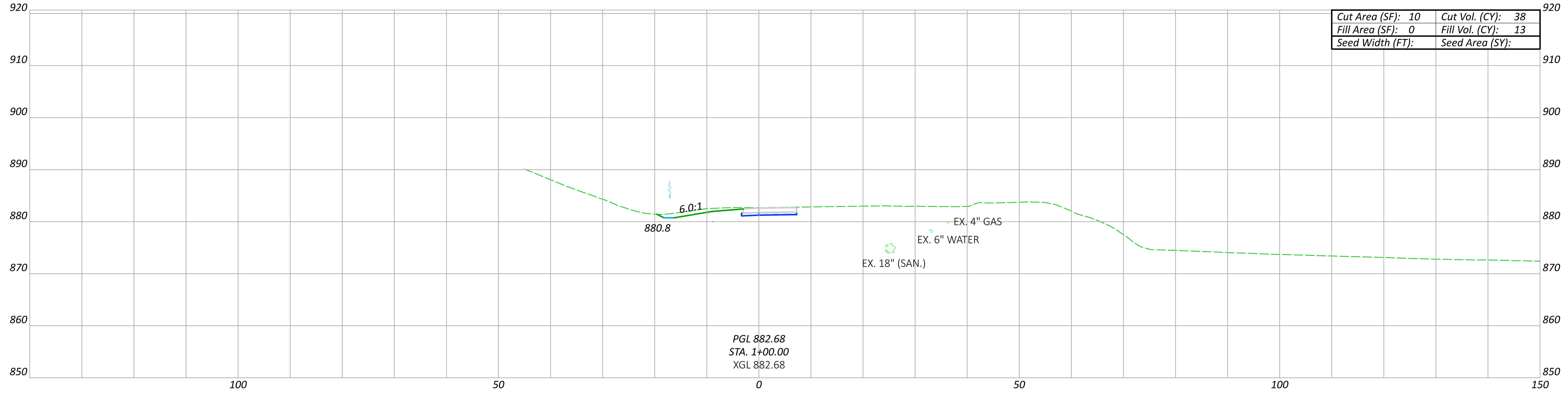

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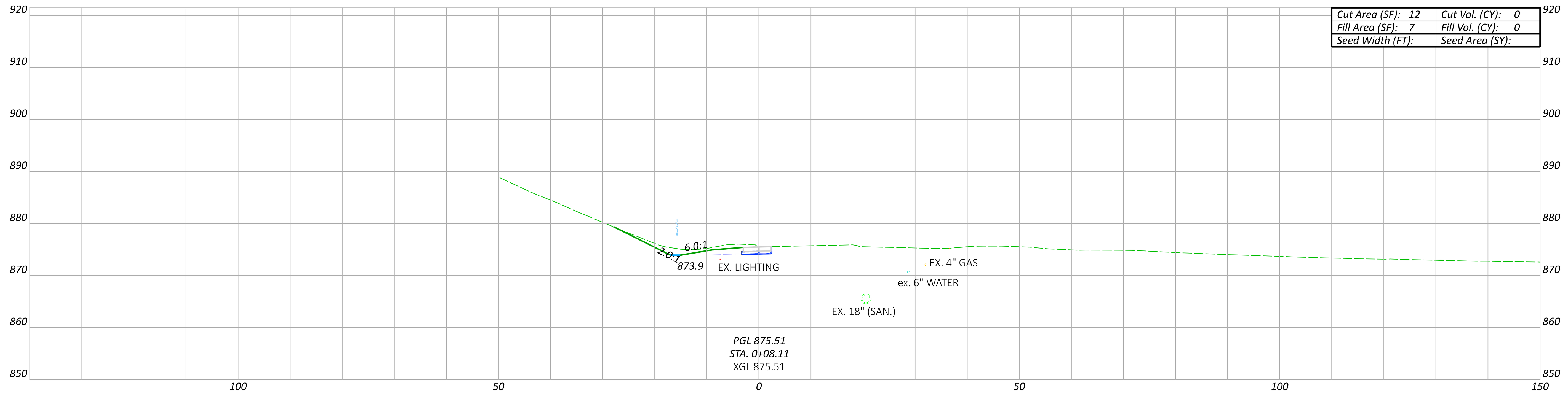

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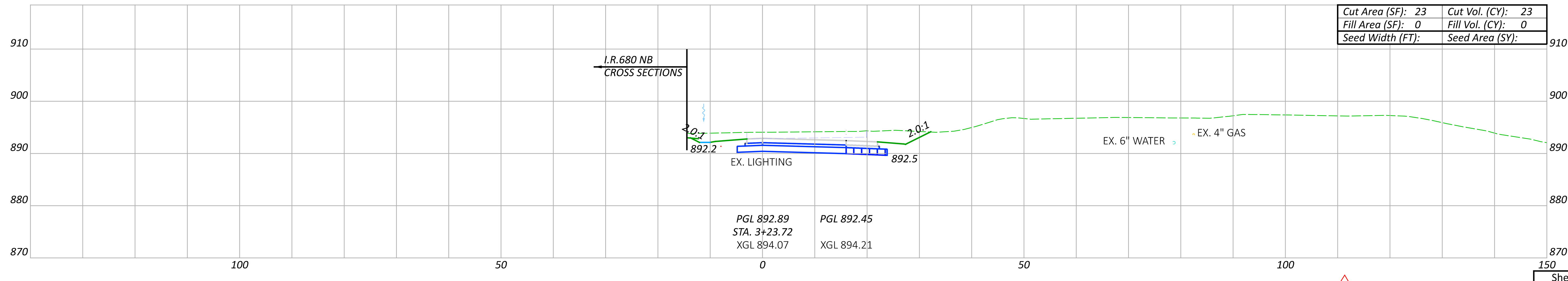

Cut Area (SF): 23	Cut Vol. (CY): 23
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	167	15

DESIGN AGENCY
ms consultants, inc.

DESIGNER	MSN
REVIEWER	CMN 08/29/25
PROJECT ID	121474
SHEET	P.289
TOTAL	655

MAH-680-4.58

CROSS SECTIONS - MARSHALL ST. RAMP G
STA. 4+00.00

MARSHALL ST. RAMP G	TOTALS CARRIED TO CROSS SECTION SHEET P.292
ITEM 203 - EXCAVATION	= 309 C.Y.
ITEM 203 - EMBANKMENT	= 15 C.Y.

Cut Area (SF): 78	Cut Vol. (CY): 142
Fill Area (SF): 0	Fill Vol. (CY): 0
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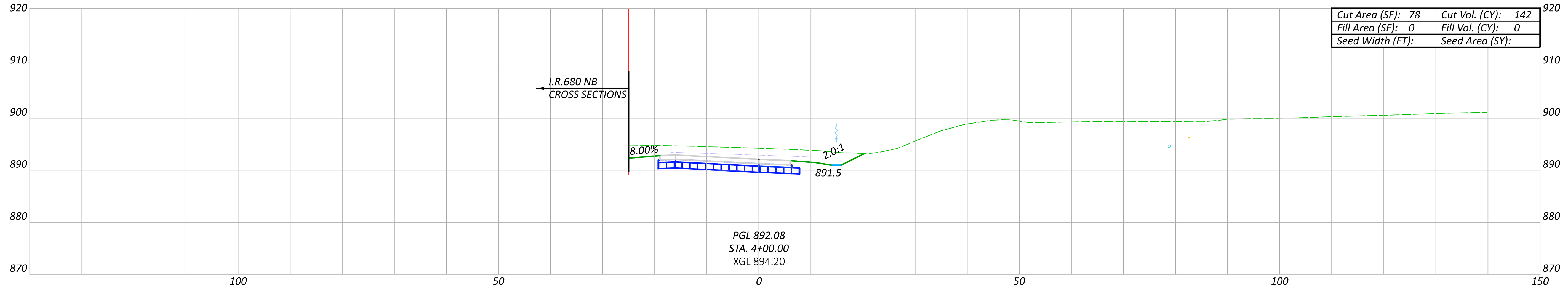


R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	142	0

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

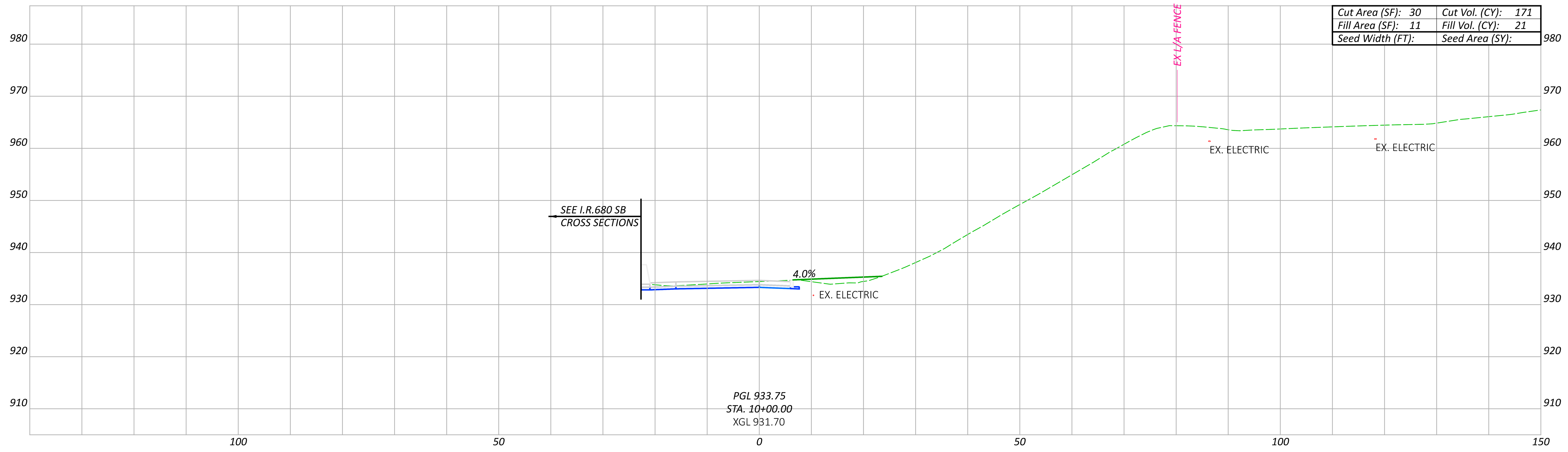
REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.290 TOTAL 655

CROSS SECTIONS - RAMP K AT MARKET ST.
STA. 8+00.00 TO STA. 13+00.00

MAH-680-4.58



Cut Area (SF): 30	Cut Vol. (CY): 171
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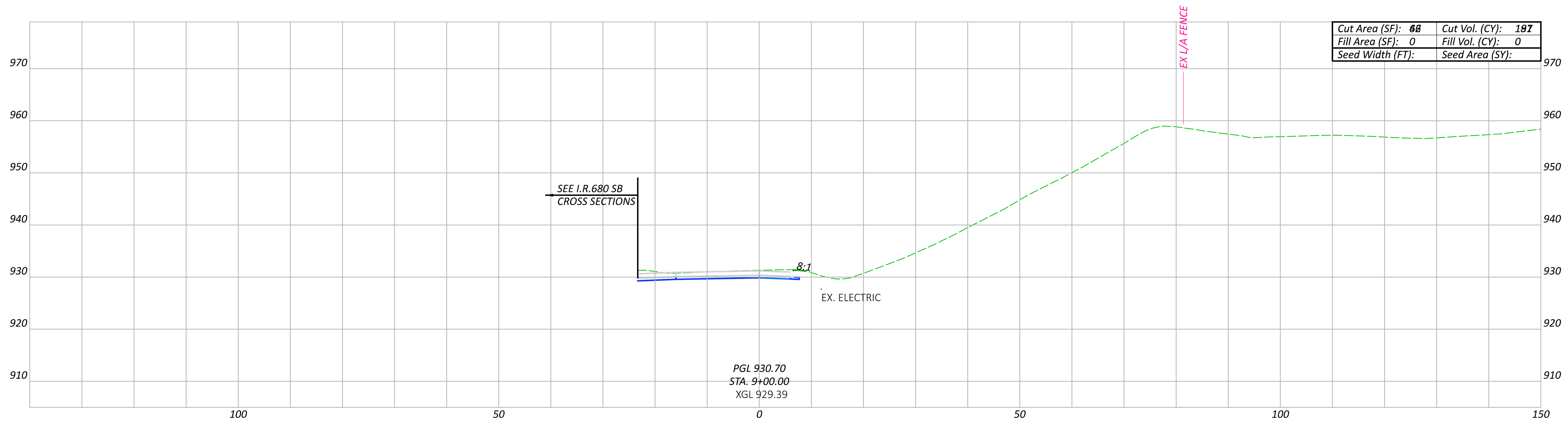

Cut Area (SF): [illegible]	Cut Vol. (CY): [illegible]
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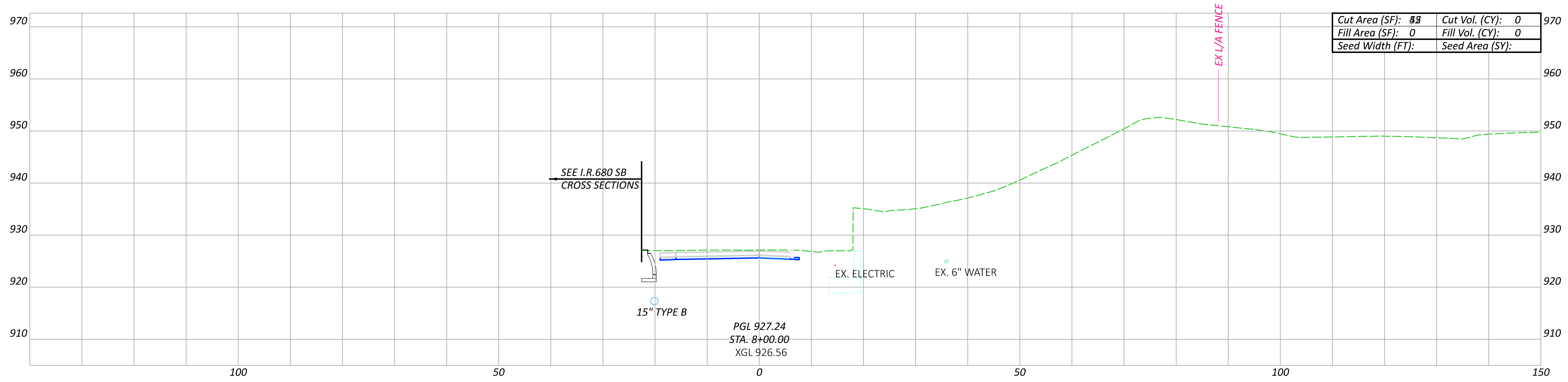
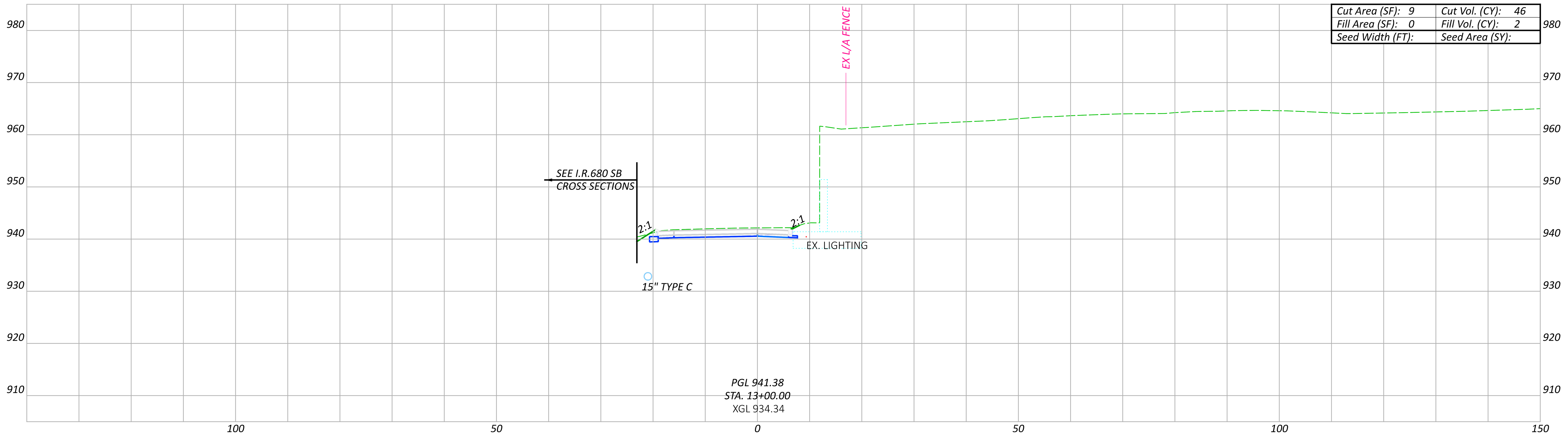


Cut Area (SF): [illegible]	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 9	Cut Vol. (CY): 46
Fill Area (SF): 0	Fill Vol. (CY): 2
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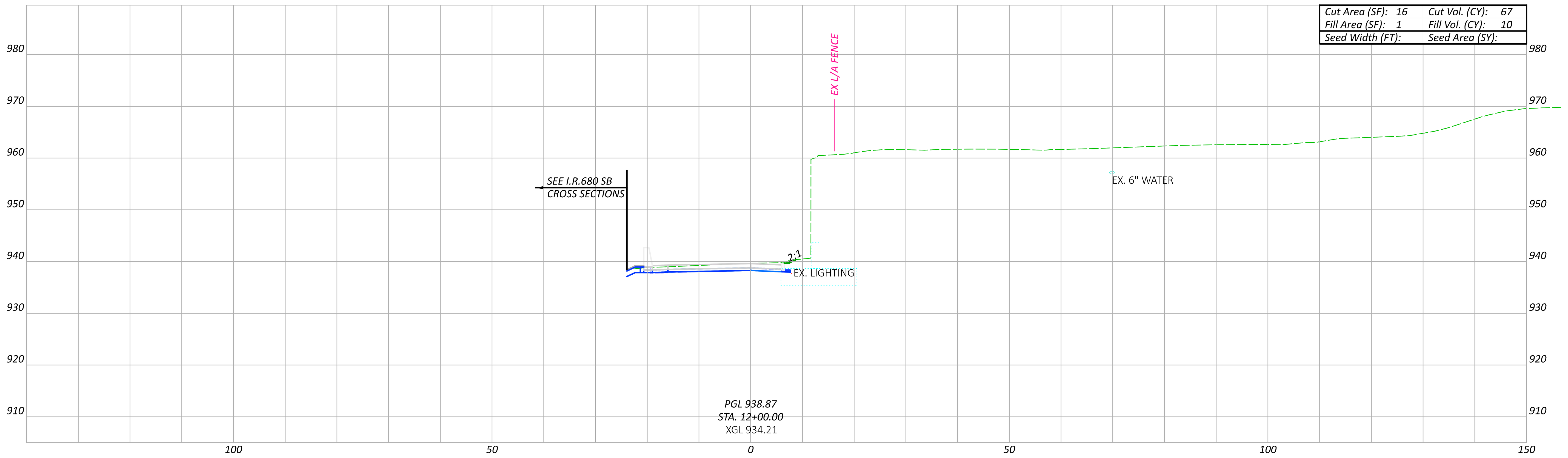

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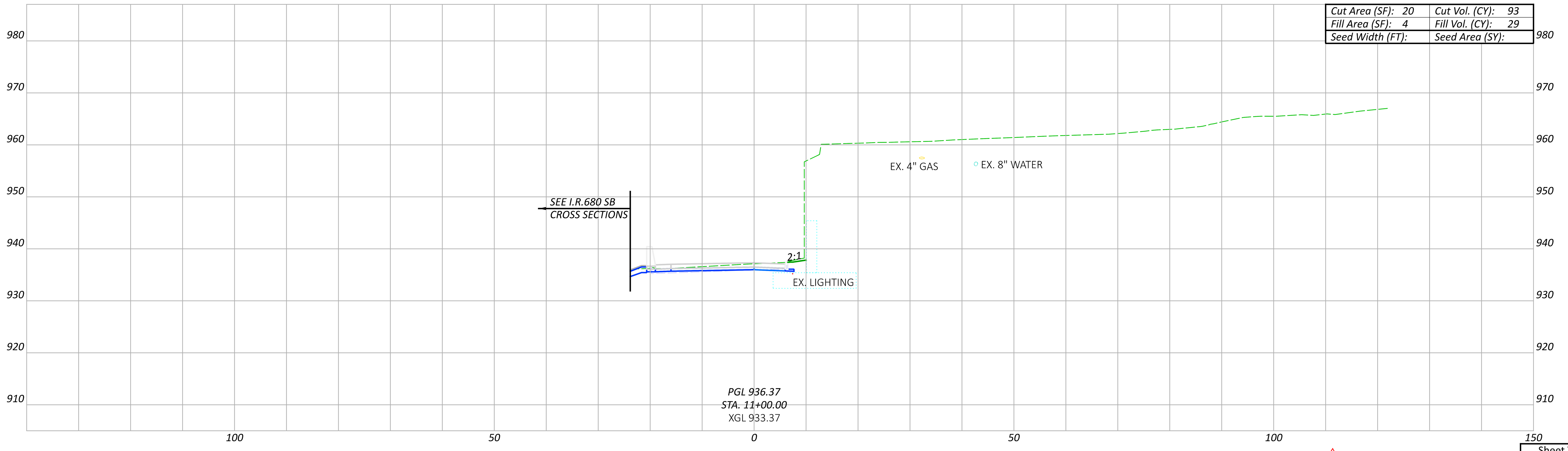


Cut Area (SF): 20	Cut Vol. (CY): 93
Fill Area (SF): 4	Fill Vol. (CY): 29
Seed Width (FT):	Seed Area (SY):

R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	574	62

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

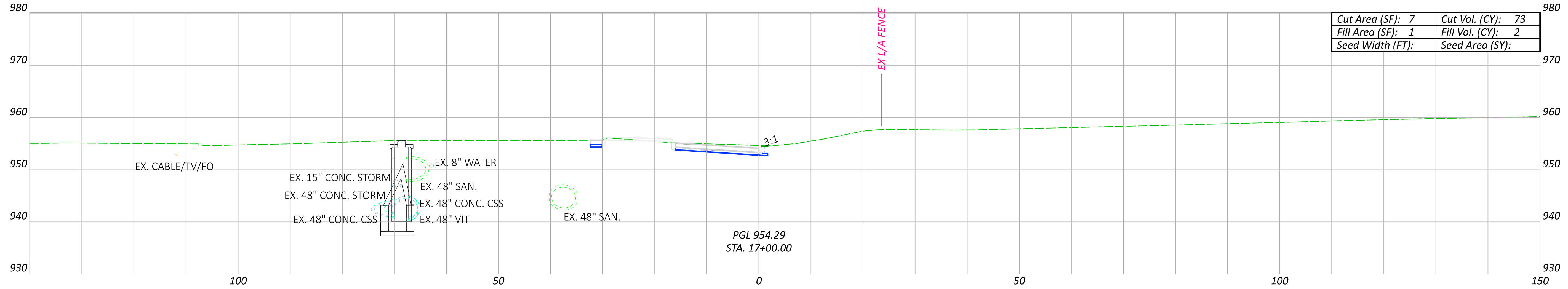
PROJECT ID 121474

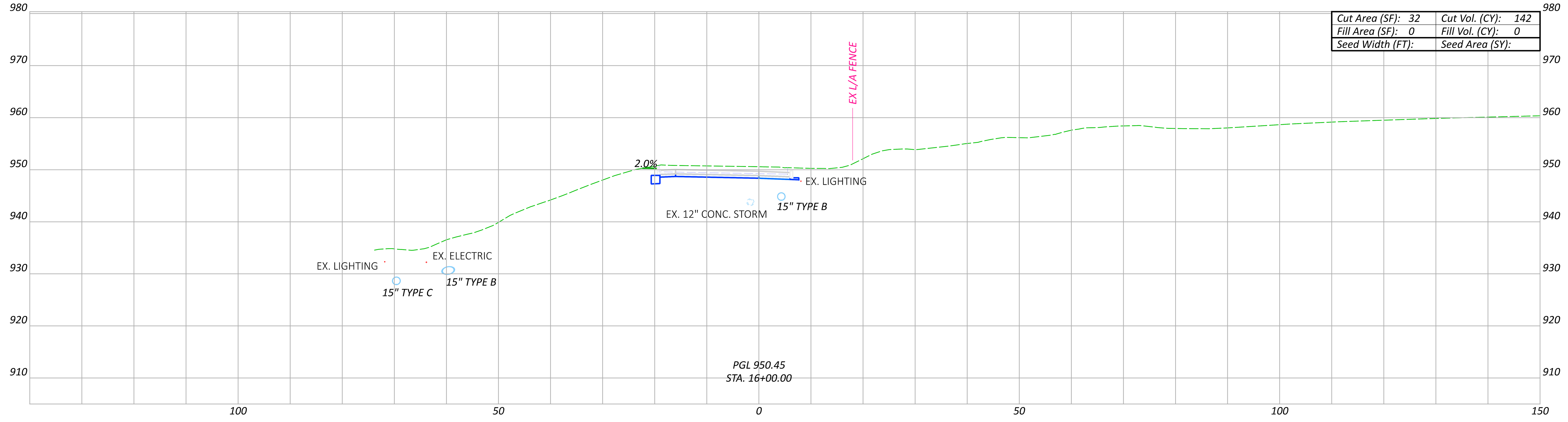
SHEET P.291 TOTAL 655

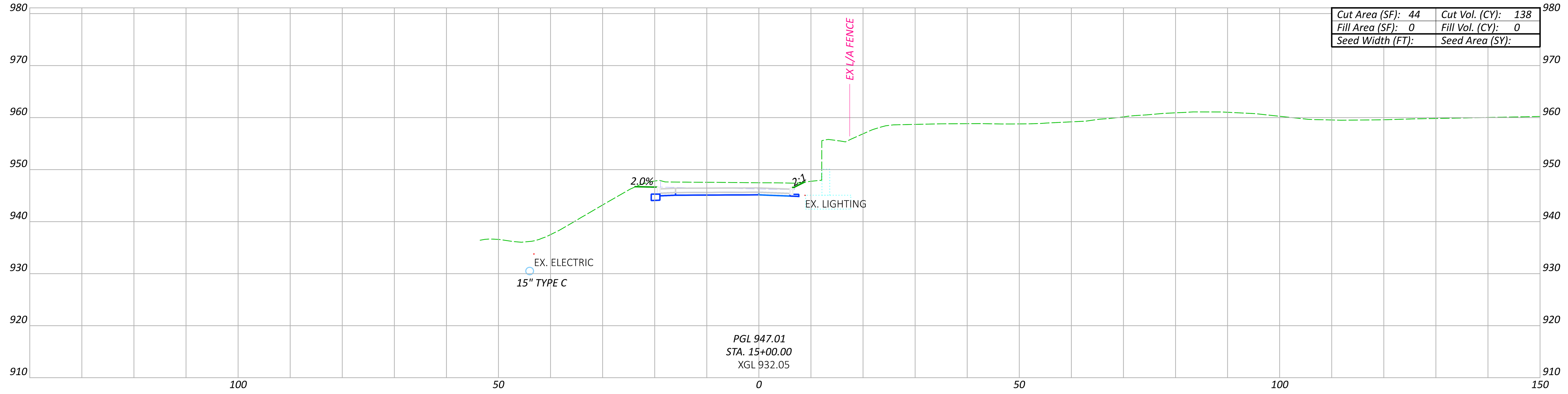
CROSS SECTIONS - RAMP K AT MARKET ST.
STA. 14+00.00 TO STA. 19+10.58

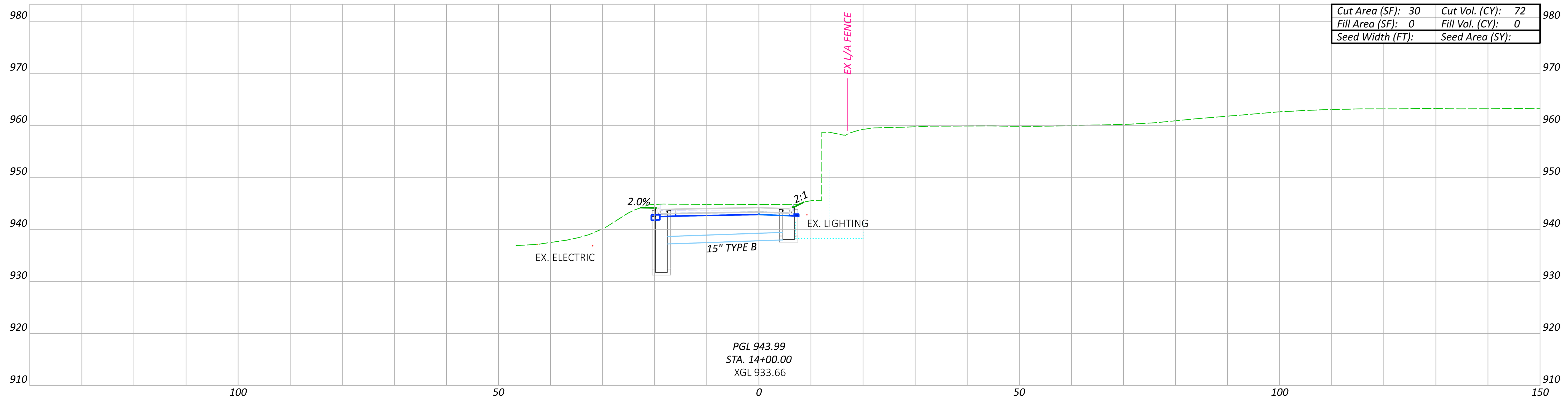
MAH-680-4.58

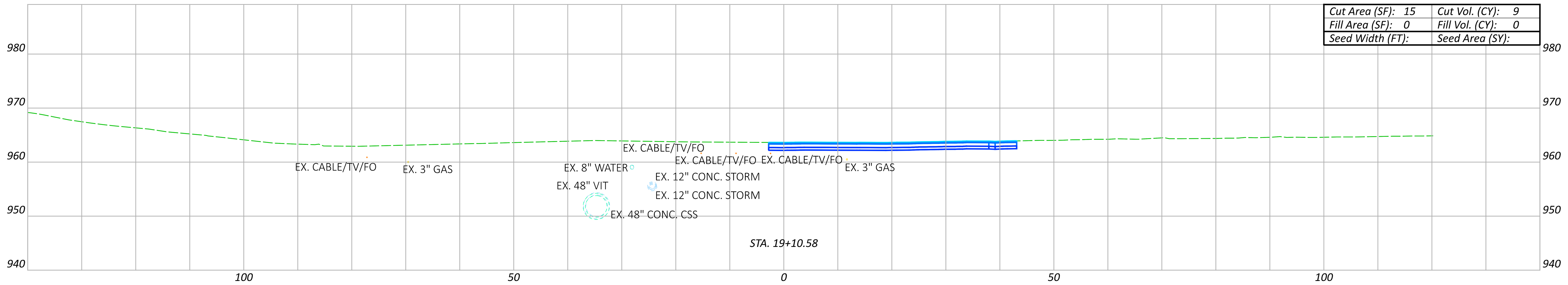
TOTALS	I.R. 680	MARSHALL ST. RAMP G	MARKET ST. RAMP K	SUB-TOTALS
ITEM 203 - EXCAVATION ITEM 203 - EMBANKMENT	= 30.965 C.Y. = 6806 C.Y.	= 1309 C.Y. = 15 C.Y.	= 1,078 C.Y. = 88 C.Y.	= 32352 C.Y. = 6909 C.Y.
SPECIAL EMBANKMENT ITEM 203 - EXCAVATION ITEM 203 - EMBANKMENT	= 3,070 C.Y. = 4,193 C.Y.	= 0 C.Y. = 0 C.Y.	= 0 C.Y. = 0 C.Y.	= 3,070 C.Y. = 4,193 C.Y.
GRAND TOTALS CARRIED TO THE GENERAL SUMMARY		ITEM 203 - EXCAVATION = 35,422 C.Y. ITEM 203 - EMBANKMENT = 11,102 C.Y.		

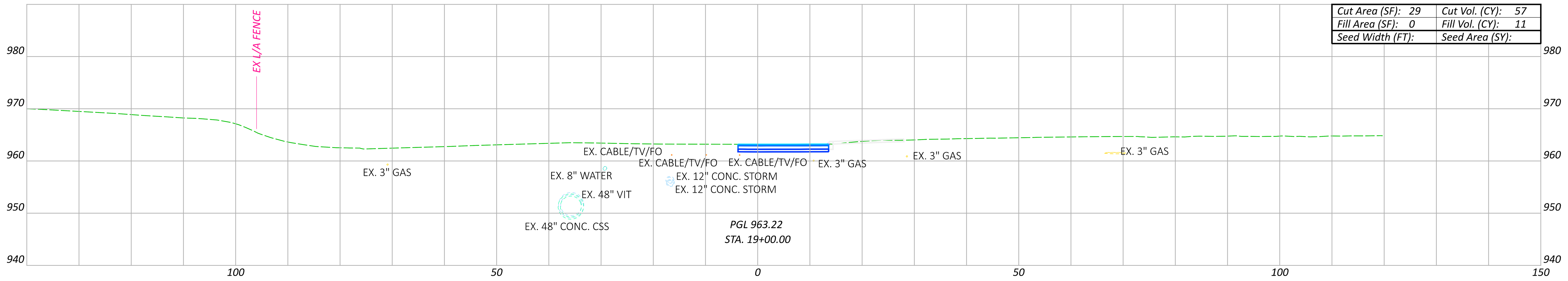


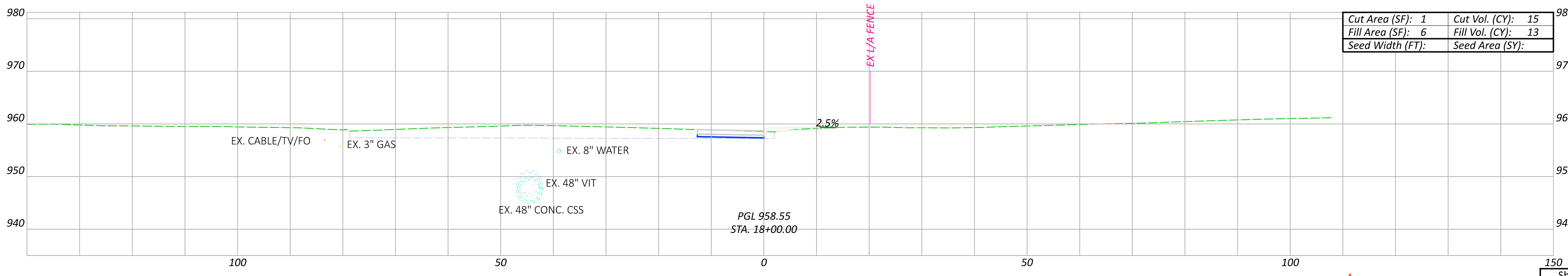












R3 01-13-2026, QUANTITIES REVISED

Sheet Totals		
Seeding	Cut	Fill
	1070	4

DESIGN AGENCY
ms consultants, inc.

DESIGNER MSN

REVIEWER CMN 08/29/25

PROJECT ID 121474

SHEET P.292 | TOTAL 655

625, PULL BOX CLEANED

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY RESTORED. MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "PULL BOX CLEANED" FOR EACH PULL BOX CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

625, CONDUIT CLEANED AND CABLES REMOVED, AS PER PLAN

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD AND DEBRIS SO THAT NEW CABLE CAN BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. MATERIALS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR FOR PROPER DISPOSAL OFF OF THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER C&MS ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LIGHT POLE ANCHOR BOLTS ON STRUCTURES

WHEN A LIGHT POLE IS MOUNTED ON A PILASTER ON A BRIDGE PARAPET OR ON A RETAINING WALL, THE REQUIRED ANCHOR BOLTS MAY DIFFER IN LENGTH AND/OR SHAPE FROM THOSE REQUIRED WHEN THE POLE IS MOUNTED ON A CAST-IN-PLACE DRILLED SHAFT FOUNDATION. THE COST DIFFERENTIAL FOR FURNISHING SUCH BOLTS IS INCLUDED HEREIN.

IN ADDITION, THERE IS NO FOUNDATION CONSTRUCTION ITEM IN WHICH TO INCLUDE THE SETTING OF THE ANCHOR BOLTS. THUS, THE SETTING OF THE ANCHOR BOLTS INTO THE PILASTER IS ALSO PART OF THIS WORK.

PAYMENT WILL BE MADE AT EACH SUCH POLE LOCATION AT THE UNIT PRICE BID FOR EACH C&MS ITEM 625, "LIGHT POLE ANCHOR BOLTS ON STRUCTURE" AND SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING THE SET OF ANCHOR BOLTS REQUIRED.

UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN

UNDERGROUND WARNING/MARKING TAPE SHALL BE IN ACCORDANCE WITH CMS 725.22 EXCEPT THE TAPE SHALL NOT BE FURNISHED WITH TRACER WIRE AND THE REQUIRED MINIMUM BREAK STRENGTH SHALL BE WAIVED.

625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING SHALL APPLY.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

OHIO EDISON (DISTRIBUTION)
76 S. MAIN STREET
AKRON, OHIO 44308
ATTN: TIMOTHY MARKULIN
tmarkulin@firstenergycorp.com
PH: 330-810-5299

POWER SERVICE: 480 VOLT, 3-WIRE, SINGLE PHASE, GROUNDED NEUTRAL. THIS PROJECT HAS BEEN DESIGNED ON THE BASIS OF 5% VOLTAGE DROP WITH A MAXIMUM UNIFORMITY RATIO OF 4.0 TO 1.0 FOR CONVENTIONAL UNITS AND 3.0 TO 1.0 FOR HIGH MAST UNITS.

ALL POWER SERVICES SHALL BE METERED. THE METER BASE MOUNTING HEIGHT SHALL BE NO MORE THAN FIVE (5) FEET HIGH TO THE CENTER OF THE METER BASE FROM THE GROUND. A NON-FUSED DISCONNECT SHALL BE INSTALLED ON THE POWER SIDE OF THE METER BASE. THE CONTRACTOR SHALL SUPPLY THE NECESSARY METER BASES AND DISCONNECTS.

THE CONTRACTOR SHALL PAY ALL ELECTRICAL ENERGY CHARGES FOR NEW POWER SERVICES ESTABLISHED BY THIS PROJECT. UPON COMPLETION OF THIS PROJECT AND AFTER WRITTEN AUTHORIZATION FROM THE DISTRICT CONSTRUCTION ENGINEER, POWER SERVICE ELECTRICAL ENERGY ACCOUNTS SHALL BE TRANSFERRED TO THE MAINTAINING AGENCY. THIS SHALL INCLUDE NEW POWER SERVICE ESTABLISHED BY THIS PROJECT AS WELL AS REASSIGNMENT OF EXISTING SERVICE DUE TO WORK PERFORMED BY THIS PROJECT. IF POWER SERVICE IS TRANSFERRED PRIOR TO RECEIVING THE WRITTEN AUTHORIZATION, A DISINCENTIVE OF $100 PER DAY SHALL BE ASSESSED FOR EACH CALENDAR DAY OF NON-COMPLIANCE.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH CMS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS, AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH C&MS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON CIRCUIT GW CONSTRUCTED BY THIS PROJECT THAT CONNECTS TO EXISTING LIGHTS, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

LUMINAIRE, BY TYPE

THE LUMINAIRES SHALL BE ON THE APPPROVED MATERIALS LIST, THE FINISH SHALL BE GREY, AND THE LUMENS ARE AS FOLLOWS:

LOW MAST: 40,000 - 45,000 LUMENS

LOW MAST MEDIAN MOUNTED: 49,000 - 51,000

HIGH MAST 69,000 - 72,000

R3 1-13-26
LIGHTING CHANGES TO ADD NOTE FOR LUMINAIRE CLARIFICATION

SPECIAL, MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND WHICH ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWNED UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT FOUR SETS OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA.

SPECIAL, MAINTAIN EXISTING LIGHTING, CONT

IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

WHEN THE PROJECT BEGINS AND THE CONTRACTOR HAS TAKEN OVER MAINTENANCE OF THE EXISTING FACILITIES, THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED LAYOUTS AND LOCATIONS OF THE EXISTING AND PROPOSED ELECTRICAL CIRCUITS AND RELATED ITEMS WITHIN THE PROJECT LIMITS. THE CONTRACTOR SHALL LOCATE AND MARK ALL UNDERGROUND ELECTRICAL CIRCUITS (INCLUDING TRAFFIC LOOPS AND LOOP LEAD-INS) FOR THE DURATION OF THE PROJECT.

THE MAINTAINING AGENCY WILL PAY FOR ELECTRICAL ENERGY CONSUMED BY EXISTING POWER SERVICES AND BY PROPOSED PERMANENT POWER SERVICES AFTER ACCEPTANCE OF THE LIGHTING WORK. THE CONTRACTOR WILL PAY FOR ELECTRICAL ENERGY, INSTALLATION, REMOVAL AND MAINTENANCE OF ANY TEMPORARY POWER SERVICES.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT PRICE BID FOR ITEM SPECIAL "REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING LIGHTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT.

ITEM SPECIAL MAINTAIN EXISTING LIGHTING - 1 LUMP SUM
ITEM SPECIAL REPLACEMENT OF EXISTING LIGHTING UNIT - 10 EACH

ITEM 625 ARC FLASH CALCULATIONS AND LABEL

THE CONTRACTOR SHALL SATISFY THE REQUIREMENTS OF ODOT SUPPLEMENTAL SPECIFICATION 825 FOR THE CONTROL CENTERS. THE CONTRACTOR MAY BE ABLE TO OBTAIN LABELS FOR THE ODOT MAINTAINED INSTALLATIONS FROM THE ODOT SIGN SHOP, 1606 WEST BROAD ST., COLUMBUS, OH 43223, FOR NON-ODOT MAINTAINED INSTALLATIONS THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE LABEL MADE FROM "ENGINEER GRADE" SIGN SHEETING OR AN EQUIVALENT LABEL MATERIAL.

THE ODOT OFFICE OF ROADWAY ENGINEERING AND THE DISTRICT OFFICE HAVE AN EXCEL SPREADSHEET AVAILABLE UPON REQUEST, TO ASSIST WITH MAKING AND DOCUMENTING THE REQUIRED CALCULATIONS.

METHOD OF MEASUREMENT SHALL BE AS PER 825.06. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 625 ARC FLASH CALCULATION AND LABEL - 4 EACH

LIGHTING NOTES

DESIGN AGENCY 2LMN
DESIGNER ANL
REVIEWER EMW 06/2/25
PROJECT ID 121474
SHEET P.467 TOTAL 655

MAH-680-4.58

R3 1-13-26
LIGHTING CHANGES TO ADD WATTAGE AND LUMENS

REF NO.	SHEET NO.	STATION	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 CONNECTION, UNFUSED BOLTED EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, LOW MAST, 50' EACH	625 LIGHT TOWER, BBB100 EACH	625 LIGHT POLE FOUNDATION, 24" X 10' DEEP EACH	625 MEDIAN LIGHT POLE FOUNDATION, 10' DEEP EACH	625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP EACH	625 NO. 10 AWG POLE AND BRACKET CABLE FT	625 LUMINAIRE, HIGH MAST, SOLID STATE (LED),447-480W, TYPE V, 69K-72K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED),330-381W, TYPE III, 40K-45K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED), 308-330W, TYPE V, 49K-51K LUMENS EACH	625 JUNCTION BOX EACH	625 MEDIAN JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX, 725.08, 24" EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 CONTROL CENTER CABINET, COMPLETE EACH	625 PULL BOX CLEANED EACH
EX-PB-1	475	8+43.07																					1
EX-PB-2	475	8+44.47																					1
PB-GW-01	475	951+77.10																					1
GW-1-01	475	952+57.47	0	0			0			0		0			0					0			
GW-1-02	475	955+24.51	0	0			0			0		0			0					0			
GW-1-03	475	957+84.62	0	0			0			0		0			0					0			
GW-1-04	475	959+79.27	2	1			1			1		180			1					1			
PB-GW-02	475	961+81.76			3	3											1						
GW-1-05	475	961+74.82	2	1			1			1		180			1					1			
PB-GW-03	475	961+83.11																1					
GW-1-06	476	964+73.40	2	1			1		1			180		1						1			
PB-GW-04	476	966+96.16			3											1							
GW-1-07	476	967+72.59	2	1			1		1			180		1						1			
PB-GW-05	476	969+74.47				3													1				
PB-GW-06	476	969+74.99			3												1						
PB-GW-07	476	969+75.15																1					
CC-GW	476	969+93.66																			1	1	
GW-2-01	476	970+73.68	2	1			1			1		180			1					1			
GW-2-02	476	973+50.59	2	1			1			1		180			1					1			
PB-GW-08	476	947+45.47			3	3											1						
PB-GW-09	476	2+12.93				3												1					
GW-2-04	476	1+79.39	2	1			1		1			180		1						1			
GW-2-03	476	976+28.30	2	1			1			1		180			1					1			
GW-2-05	476	978+83.39	2	1			1			1		180			1					1			
GW-2-06	476	981+90.21	2	1			1			1		180			1					1			
PB-GW-10	476	983+41.34			3	3											1						
PB-GW-11	476	7+89.65				3												1					
GW-2-07	476	11+21.59	2	1			1		1			180		1						1			
PB-GW-12	476	13+91.66				3												1					
GW-2-08	476	15+37.52	2	1			1		1			180		1						1			
PB-GW-13	476	3+42.57				3												1					
GW-2-09	476	4+80.18	2	1			1		1			180		1						1			
GW-2-10	476	7+84.52	2	1			1		1			180		1						1			
GW-2-11	476	10+83.01	2	1			1		1			180		1						1			
GW-2-12	476	984+20.17	2	1			1			1		180			1					1			
GW-2-13	476	986+19.89	2	1			1			1		180			1					1			
GW-2-14	476	988+29.96	2	1			1			1		180			1					1			
GW-2-15	476	990+37.10	2	1			1			1		180			1					1			
WA-1-01	476	14+87.12	2	1			1		1			180		1						1			
PB-WA-01	477	12+87.32				3	0											1					
WA-1-02	477	11+27.52	2	1			1		1			180		1						1			
PB-WA-02	477	992+36.51			3		0										1						
WA-1-04	477	994+69.77	2	1			1			1		180			1					1			
WA-1-05	477	997+02.47	2	1			1			1		180			1					1			
WA-1-06	477	999+50.30	2	1			1			1		180			1					1			
WA-1-07	477	1002+06.20	2	1			1			1		180			1					1			
WA-1-08	477	1004+77.15	2	1			1			1		180			1					1			
WA-1-09	477	1007+31.94	2	1			1			1		180			1					1			
WA-1-10	477	1009+92.28	2	1			1			1		180			1					1			
WA-1-11	477	1012+39.76	2	1			1			1		180			1					1			
WA-1-12	477	1014+63.58	2	1			1			1		180			1					1			
WA-1-13	477	1016+62.79	2	1			1			1		180			1					1			
WA-1-14	477	1018+61.49	2	1			1			1		180			1					1			
WA-1-15	478	1021+06.78	2	1			1			1		180			1					1			
PB-WA-03	478	1023+86.04			3	3											1						
PB-WA-04	478	1023+86.04																	1				
CC-WA	478	10+44.03																			1	1	
PB-WA-05	478	1023+84.35				3												1					
WA-2-12	478	1024+41.17						1			1		3							6			
PB-WA-06	478	1026+90.91			3													1					
TOTALS CARRIED TO GENERAL SUMMARY			66	33	24	33	33	1	10	23	1	5940	3	10	23	1	6	9	2	39	2	2	3

R3 1-15-26
LIGHTING CHANGES TO ADD REFLECT 3 LUMINAIRES IN HIGH MAST LIGHTS

LIGHTING SUBSUMMARY (1 OF 7)

DESIGN AGENCY 2LMN
DESIGNER ANL
REVIEWER EMW 06/2/25
PROJECT ID 121474
SHEET P.468 TOTAL 655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/15/2026 TIME: 9:14:02 AM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: WORKSPACE: pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\405-Engineering_2LMN\Lighting\Sheets\121474_LS001.dgn

R3 1-13-26
LIGHTING CHANGES TO ADD
WATTAGE AND LUMENS

REF NO.	SHEET NO.	STATION	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 CONNECTION, UNFUSED BOLTED EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, LOW MAST, 50' EACH	625 LIGHT TOWER, BBB100 EACH	625 LIGHT POLE FOUNDATION, 24" X 10' DEEP EACH	625 MEDIAN LIGHT POLE FOUNDATION, 10' DEEP EACH	625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP EACH	625 NO. 10 AWG POLE AND BRACKET CABLE FT	625 LUMINAIRE, HIGH MAST, SOLID STATE (LED),447-480W, TYPE V, 69K-72K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED),330-381W, TYPE III, 40K-45K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED), 308-330W, TYPE V, 49K-51K LUMENS EACH	625 JUNCTION BOX EACH	625 MEDIAN JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX, 725.08, 24" EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 CONTROL CENTER CABINET, COMPLETE EACH	625 PULL BOX CLEANED EACH
PB-WA-07	478	1029+70.76			3	3											1						
PB-WA-08	478	1029+70.76				3												1					
WA-2-11	478	1029+71.25						1			1		3								6		
WA-2-10	478	1032+55.32	2	1			1			1		180			1						1		
PB-WA-09	478	1034+77.70			3	3											1						
PB-WA-10	478	1034+77.70																1					
PB-WA-11	478	4+17.67				3												1					
PB-WA-12	478	1035+21.60																1					
PB-WA-13	478	1035+29.64				3												1					
WA-2-09	478	2+92.66	2	1			1		1			180		1							1		
WA-2-08	478	1036+44.75	2	1			1		1			180		1							1		
WA-2-07	478	1039+22.98	2	1			1		1			180		1							1		
WA-2-06	478	1035+45.56	2	1			1			1		180			1						1		
PB-WA-14	478	1036+88.11			3	3											1						
PB-WA-15	478	1036+88.11																1					
PB-WA-16	478	1036+80.52																1					
PB-WA-17	478	1036+93.01				3												1					
WA-2-05	478	1037+35.73	2	1			1		1			180		1							1		
WA-2-04	478	1039+68.70	2	1			1		1			180		1							1		
WA-2-03	478	1038+36.75	2	1			1			1		180			1						1		
WA-2-02	478	1041+18.25	2	1			1			1		180			1						1		
WA-2-01	478	1044+18.75	2	1			1			1		180			1						1		
DA-1-01	478	1047+03.74	2	1			1			1		180			1						1		
DA-1-02	479	1049+19.97	2	1			1			1		180			1						1		
DA-1-03	479	1051+30.92	2	1			1			1		180			1						1		
DA-1-04	479	1053+28.94	2	1			1			1		180			1						1		
DA-1-05	479	1055+78.04	2	1			1			1		180			1						1		
DA-1-06	479	1058+77.72	2	1			1			1		180			1						1		
DA-1-07	479	1061+52.48	2	1			1			1		180			1						1		
DA-1-08	479	1063+76.32	2	1			1			1		180			1						1		
DA-1-09	479	1066+16.51	2	1			1			1		180			1						1		
DA-1-10	479	1068+51.58	2	1			1			1		180			1						1		
DA-1-11	479	1071+05.23	2	1			1			1		180			1						1		
DA-1-12	479	1073+16.72	2	1			1			1		180			1						1		
PB-DA-04	479	1073+31.70			3												1						
PB-DA-03	479	1073+31.70																1					
CC-DA	479	1074+61.84																			1	1	
PB-DA-01	479	1075+29.58																	1				
PB-DA-02	479	1075+44.59				3												1					
PB-DA-05	479	1075+50.00			3												1						
DA-1-13	479	1075+54.95	2	1			1			1		180			1						1		
DA-1-14	479	1076+77.09	2	1			1			1		180			1						1		
GA-1-01	480	1079+13.79	2	1			1			1		180			1						1		
PB-GA-01	480	1082+13.40			3	3											1						
PB-GA-02	480	1082+13.39				3												1					
GA-1-02	480	1082+26.00						1			1		3								6		
PB-GA-03	480	1085+13.40			3												1						
PB-GA-04	480	1085+13.37				3												1					
GA-1-03	480	1086+69.82						1			1		3								6		
PB-GA-05	480	1089+37.56				3												1					
PB-GA-06	480	1089+39.94				3												1					
GA-1-04	480	1089+61.19	2	1			1		1			180		1							1		
GA-1-05	480	1092+46.47	2	1			1		1			180		1							1		
PB-GA-07	480	1093+72.84				6													1				
PB-GA-08	480	1093+69.83																	1				
CC-GA	480	1093+57.02																			1	1	
GA-1-06	480	1095+05.26	2	1			1		1			180		1							1		
PB-GA-13	480	1095+20.36				6													1				
PB-GA-12	480	1095+21.06			3												1						
PB-GA-11	480	1095+21.06				3												1					
TOTALS CARRIED TO GENERAL SUMMARY			56	28	24	54	28	3	8	20	3	5040	9	8	20		8	15	4	46	2	2	

R3 1-15-26
LIGHTING CHANGES TO ADD
REFLECT 3 LUMINAIRES IN
HIGH MAST LIGHTS

LIGHTING SUBSUMMARY (2 OF 7)

DESIGN AGENCY 2LMN
DESIGNER ANL
REVIEWER EMW 06/2/25
PROJECT ID 121474
SHEET P.469 TOTAL 655

MAH-680-4.58

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/15/2026 TIME: 9:14:07 AM PLTDRV: OHDOT_PDF_Color_E+.pltcfg PENTBL: OHDOT_Pen.tbl USER: WORKSPACE: pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 04\Mahoning\121474\405-Engineering_2LMN\Lighting\Sheets\121474_LS002.dgn

R3 1-13-26
LIGHTING CHANGES TO ADD WATTAGE AND LUMENS

REF NO.	SHEET NO.	STATION	625 CONNECTION, FUSED PULL APART EACH	625 CONNECTION, UNFUSED PULL APART EACH	625 CONNECTION, UNFUSED BOLTED EACH	625 CONNECTION, UNFUSED PERMANENT EACH	625 LIGHT POLE, LOW MAST, 50' EACH	625 LIGHT TOWER, BBB100 EACH	625 LIGHT POLE FOUNDATION, 24" X 10' DEEP EACH	625 MEDIAN LIGHT POLE FOUNDATION, 10' DEEP EACH	625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP EACH	625 NO. 10 AWG POLE AND BRACKET CABLE FT	625 LUMINAIRE, HIGH MAST, SOLID STATE (LED),447-480W, TYPE V, 69K-72K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED),330-381W, TYPE III, 40K-45K LUMENS EACH	625 LUMINAIRE, LOW MAST, SOLID STATE (LED), 308-330W, TYPE V, 49K-51K LUMENS EACH	625 JUNCTION BOX EACH	625 MEDIAN JUNCTION BOX EACH	625 PULL BOX, 725.08, 18" EACH	625 PULL BOX, 725.08, 24" EACH	625 GROUND ROD EACH	625 POWER SERVICE, AS PER PLAN EACH	625 CONTROL CENTER CABINET, COMPLETE EACH	625 PULL BOX CLEANED EACH	625 BRACKET ARM, 10' EACH	632 CONDUIT RISER, 1" DIAMETER EACH	632 WOOD POLE EACH
GA-1-11	480	1094+38.47	2	1			1		1			180		1						1						
GA-1-10	480	1091+28.89	2	1			1		1			180		1						1						
GA-1-09	480	1088+30.17	2	1			1		1			180		1						1						
PB-GA-10	480	1086+02.45				3												1								
GA-1-08	480	1089+33.94	2	1			1		1			180		1						1						
PB-GA-09	480	1089+63.20				3												1								
GA-1-07	480	1092+05.83	2	1			1		1			180		1						1						
GA-2-01	480	1097+21.91	2	1			1	0		1		180			1					1						
GA-2-02	480	1099+54.89	2	1			1			1		180			1					1						
GA-2-03	480	1102+22.73	2	1			1			1		180			1					1						
GA-2-04	480	1104+92.97	2	1			1			1		180			1					1						
PB-GA-14	480	1105+82.89			3	3											1									
PB-GA-15	480	735+90.31																1								
PB-GA-16	480	735+85.31				3												1								
GA-2-05	480	737+34.54	2	1			1		1			180		1						1						
GA-2-06	481	1107+67.57	2	1			1			1		180			1					1						
GA-2-07	481	734+36.09	2	1			1		1			180		1						1						
GA-2-08	481	731+33.87	2	1			1		1			180		1						1						
GA-2-09	481	728+17.35	2	1			1		1			180		1						1						
GA-2-10	481	724+99.96	2	1			1		1			180		1						1						
GA-2-11	481	722+61.27	2	1			1		1			180		1						1						
PB-GW-A	475	952+46.95				3												1								
PB-GW-B	475	952+35.55				3												1								
PB-GW-C	475	951+75.95				3												1								
PB-GW-D	475	958+14.15				3												1								
PB-GW-E	475	958+13.70				3											1									
GW-1-01	475	952+85.64										135			1									1	1	1
GW-1-02	475	957+90.40										135			1									1	1	1
TOTALS CARRIED TO GENERAL SUMMARY			32	16	3	27	16		11	5		3150		11	7		2	8		16				2	2	2

LIGHTING SUBSUMMARY (3 OF 7)

DESIGN AGENCY 2LMN
DESIGNER ANL
REVIEWER EMW 06/2/25
PROJECT ID 121474
SHEET P.470 TOTAL 655

MAH-680-4.58