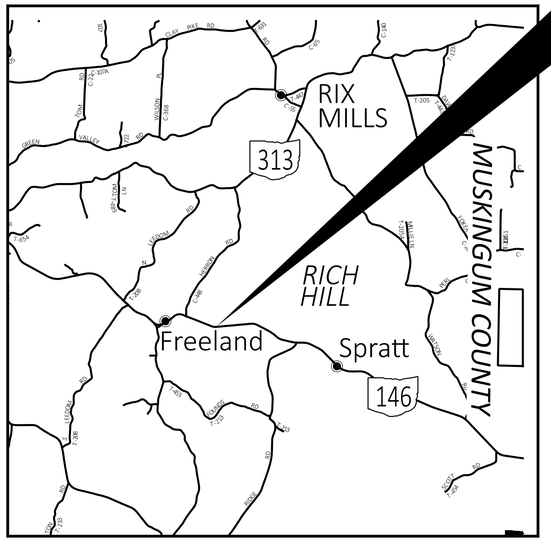


LOCATION MAP

LATITUDE: 39°48'11" LONGITUDE: -81°53'24"

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

DESIGN DESIGNATION

CURRENT ADT (2023)	*410*
DESIGN YEAR ADT (2043)	*610*
DESIGN HOURLY VOLUME (2043)	*72*
DIRECTIONAL DISTRIBUTION	*55%*
TRUCKS (24 HOUR B&C)	*3%*
DESIGN SPEED	*55*
LEGAL SPEED	*55*

DESIGN FUNCTIONAL CLASSIFICATION:
RURAL MINOR COLLECTOR

NHS PROJECT — *NO*

DESIGN EXCEPTIONS

NONE

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)

PLAN PREPARED BY:
ODOT DISTRICT 5 PLANNING AND ENGINEERING
9600 JACKSONTOWN ROAD
JACKSONTOWN, OH 43030

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

MUS-146-29.36

RICH HILL TOWNSHIP

MUSKINGUM COUNTY

INDEX OF SHEETS:

FEDERAL PROJECT NUMBER

E230586

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REHABILITATION OF ROCK SLOPE AND IMPROVEMENT OF ROADSIDE DITCH

EARTH DISTURBED AREAS (MAINTENANCE PROJECT)

PROJECT EARTH DISTURBED AREA:	*1.7 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*1.5 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*N/A*

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 REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 7.

DISTRICT DEPUTY DIRECTOR

Jason L. Sturgeon, P.E.
05

DIRECTOR, DEPARTMENT OF TRANSPORTATION

Jack Marchbanks, PhD
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS							*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*
BP-3.1	*1/19/24*	*MT-101.60*	*4/21/23*				*800-2023*	*7/19/24*	
BP-3.2	*1/18/19*	*MT-105.10*	*1/17/20*				*832*	*7/19/24*	
							902	*7/19/19*	
DM-1.1	*7/17/20*	*TC-41.20*	*10/18/13*						
DM-4.2	*7/20/12*	*TC-65.10*	*1/17/14*						
DM-4.3	*1/15/16*	*TC-65.11*	*1/19/24*						
DM-4.4	*1/15/16*								
F-3.3	*7/19/13*								
F-3.4	*7/19/13*								
RM-1.1	*1/20/23*								
HW-2.1	*7/15/22*								
MT-97.10	*4/19/19*								

ENGINEER'S SEAL
ROADWAY

STATE OF OHIO
GAVEN PATRIC MOTSCHENBACHER
E-90891
REGISTERED PROFESSIONAL ENGINEER

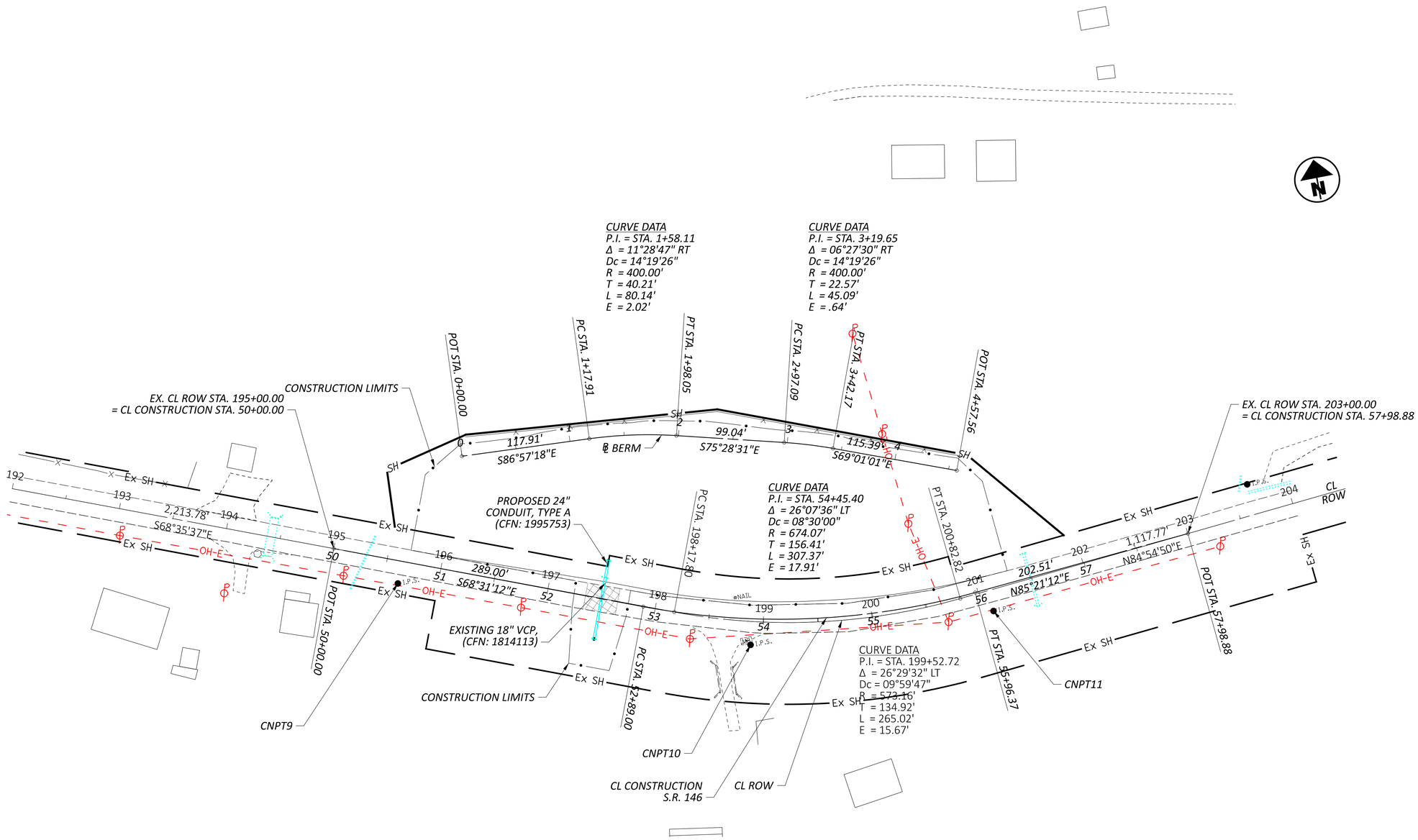
Digitally signed by gmotsche
Date: 2024.08.20 10:44:18-04'00'

TITLE SHEET

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.1 TOTAL 46

MUS-146-29.36



HORIZONTAL SCALE IN FEET
0 25 50 100

SCHEMATIC PLAN
MUS-146-29.36

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.2 TOTAL 46

MUS-146-29.36

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TABLE OF CONTROL POINTS

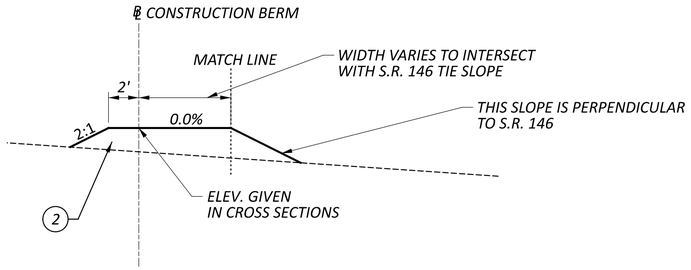
POINT ID	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
CNPT9	195+63.72	20.72' RT.	685674.877	2174809.1060	802.27	IRON PIN SET
CNPT10	198+89.63	21.49' RT.	685558.640	2175116.2800	806.41	IRON PIN SET
CNPT11	201+09.02	19.37' RT.	685547.177	2175341.0490	808.10	IRON PIN SET
MN10	195+70.93	28.83' RT.	685664.698	2174812.861	-	IRON PIN DISCOVERED
SV596	201+95.34	17.17' RT.	685557.024	2175426.834	-	IRON PIN DISCOVERED

TABLE OF ROW MONUMENTS

POINT ID	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
RW1	195+51.28	30.00' LT.	685726.605	2174816.127	-	IRON PIN SET
RW2	195+34.66	80.00' LT.	685779.255	2174818.816	-	IRON PIN SET
RW3	196+00.00	125.00' LT.	685797.303	2174896.073	-	IRON PIN SET
RW4	198+25.00	190.00' LT.	685776.599	2175127.064	-	IRON PIN SET
RW5	201+25.00	125.00' LT.	685692.400	2175344.166	-	IRON PIN SET
RW6	201+90.00	29.78' LT.	685603.317	2175417.350	-	IRON PIN SET

RELATIONSHIP OF ℄ BERM TO ℄ CONSTRUCTION S.R. 146

℄ BERM POINT TYPE	℄ STA.	℄ STA.	O.S. TO ℄
BEGIN ALIGNMENT	0+00.00	51+10.00	105.00'
PI	1+58.11	52+50.00	155.00'
PI	3+19.65	54+50.00	160.00'
END ALIGNMENT	4+57.56	56+10.00	112.40'

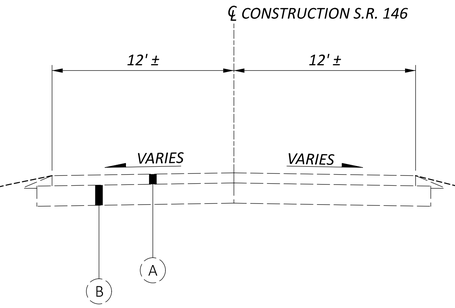


PROPOSED TYPICAL SECTION - BERM

STA. 0+00.00 - STA. 4+57.56

NOTE:

℄ BERM IS NOT PARELLEL TO ℄ CONSTRUCTION S.R. 146



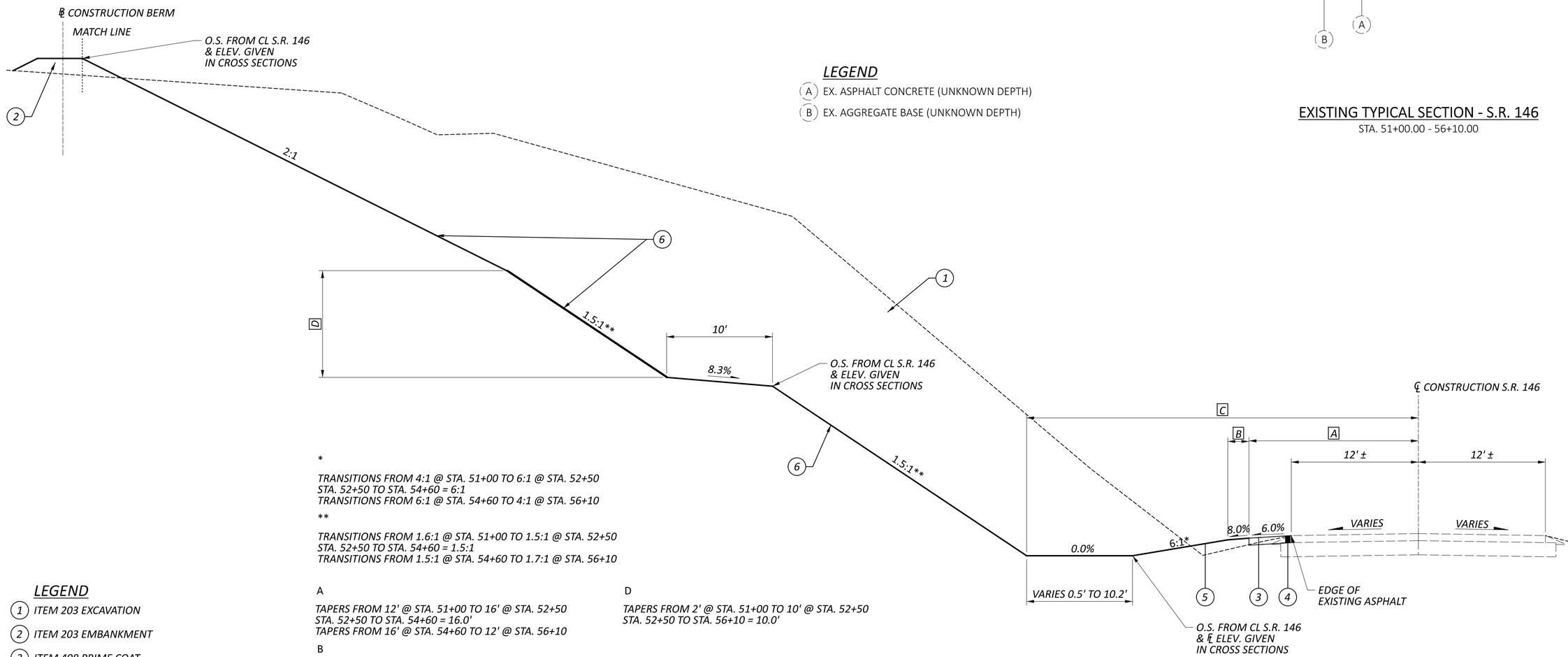
EXISTING TYPICAL SECTION - S.R. 146

STA. 51+00.00 - 56+10.00

LEGEND

(A) EX. ASPHALT CONCRETE (UNKNOWN DEPTH)

(B) EX. AGGREGATE BASE (UNKNOWN DEPTH)



*

TRANSITIONS FROM 4:1 @ STA. 51+00 TO 6:1 @ STA. 52+50
STA. 52+50 TO STA. 54+60 = 6:1
TRANSITIONS FROM 6:1 @ STA. 54+60 TO 4:1 @ STA. 56+10

**

TRANSITIONS FROM 1.6:1 @ STA. 51+00 TO 1.5:1 @ STA. 52+50
STA. 52+50 TO STA. 54+60 = 1.5:1
TRANSITIONS FROM 1.5:1 @ STA. 54+60 TO 1.7:1 @ STA. 56+10

LEGEND

1. ITEM 203 EXCAVATION
2. ITEM 203 EMBANKMENT
3. ITEM 408 PRIME COAT
4. ITEM 617 COMPACTED AGGREGATE, AS PER PLAN (4")
5. ITEM 659 SEEDING AND MULCHING, CLASS 3C (SKIP EXPOSED ROCK FACE)
6. ITEM 671 EROSION CONTROL MAT, TYPE G

A

TAPERS FROM 12' @ STA. 51+00 TO 16' @ STA. 52+50
STA. 52+50 TO STA. 54+60 = 16.0'
TAPERS FROM 16' @ STA. 54+60 TO 12' @ STA. 56+10

B

TAPERS FROM 0' @ STA. 51+00 TO 2' @ STA. 52+50
STA. 52+50 TO STA. 54+60 = 2.0'
TAPERS FROM 2' @ STA. 54+60 TO 0' @ STA. 56+10

C

TAPERS FROM 16.5' @ STA. 51+00 TO 43' @ STA. 52+50
STA. 52+50 TO STA. 54+60 = 43.0'
TAPERS FROM 43' @ STA. 54+60 TO 22' @ STA. 56+10

D

TAPERS FROM 2' @ STA. 51+00 TO 10' @ STA. 52+50
STA. 52+50 TO STA. 56+10 = 10.0'

PROPOSED TYPICAL SECTION - S.R. 146

STA. 51+00.00 - 56+10.00 (AGG. SHOULDER & LT. GRADING)

GRADING TYPICAL SECTIONS

DESIGN AGENCY

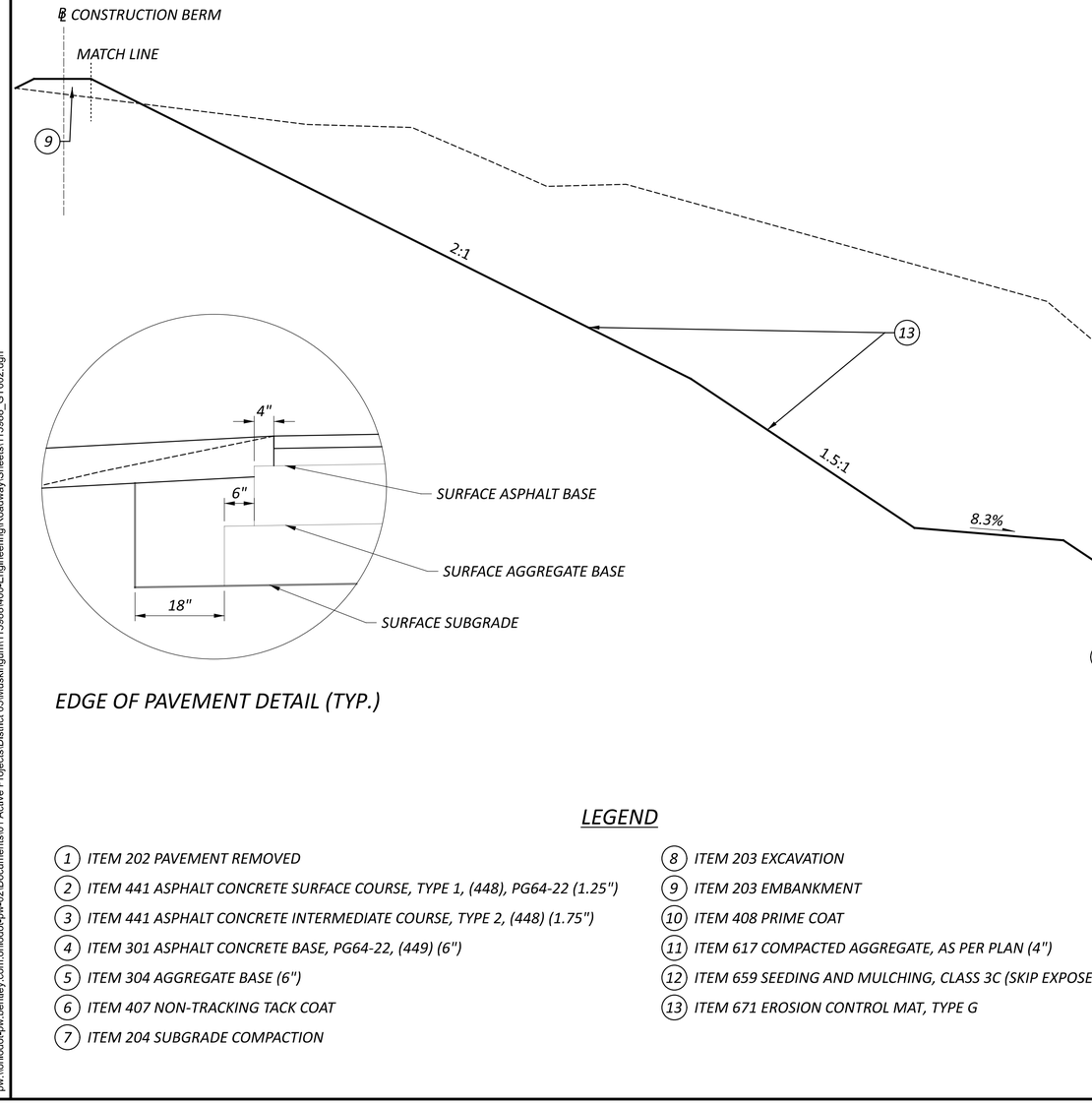
DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.3 TOTAL 46

MUS-146-29.36



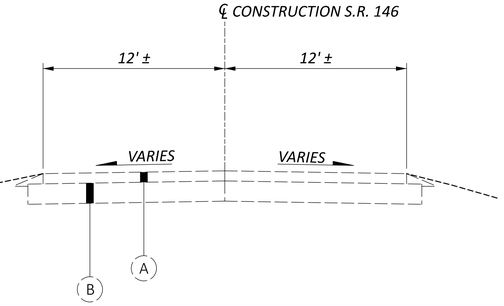
PROPOSED TYPICAL SECTION - S.R. 146

STA. 52+35.00 - 52+65.00 (FULL DEPTH PAVEMENT REPLACEMENT & RT. GRADING)

EDGE OF PAVEMENT DETAIL (TYP.)

LEGEND

1. ITEM 202 PAVEMENT REMOVED
2. ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (1.25")
3. ITEM 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (1.75")
4. ITEM 301 ASPHALT CONCRETE BASE, PG64-22, (449) (6")
5. ITEM 304 AGGREGATE BASE (6")
6. ITEM 407 NON-TRACKING TACK COAT
7. ITEM 204 SUBGRADE COMPACTION
8. ITEM 203 EXCAVATION
9. ITEM 203 EMBANKMENT
10. ITEM 408 PRIME COAT
11. ITEM 617 COMPACTED AGGREGATE, AS PER PLAN (4")
12. ITEM 659 SEEDING AND MULCHING, CLASS 3C (SKIP EXPOSED ROCK FACE)
13. ITEM 671 EROSION CONTROL MAT, TYPE G



LEGEND

(A) EX. ASPHALT CONCRETE (UNKNOWN DEPTH)
(B) EX. AGGREGATE BASE (UNKNOWN DEPTH)

EXISTING TYPICAL SECTION - S.R. 146

STA. 52+35.00 - 52+65.00

PAVEMENT TYPICAL SECTIONS

DESIGN AGENCY

DESIGNER: GPM
REVIEWER: CMY
PROJECT ID: 115988
SHEET: P.4 | TOTAL: 46

MUS-146-29.36

ROUNDING

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

UNDERGROUND UTILITIES

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

UTILITIES

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

Guernsey-Muskingum Electric Cooperative, Inc.
17 South Liberty Street
New Concord, Ohio 43762
Attn: Blake West
740-826-7970
bwest@gmenergy.com

Windstream Communications
776 Hopewell Dr.
Heath, Ohio 43056
Attn: Troy Kenily
740-562-7685
Troy.Kenily@windstream.com

AT&T Ohio
160 North Sixth Street
Zanesville, Ohio 43701
Attn: Barret Tamasovich
740-454-3552
BT2178@att.com

Aspire Energy
300 Tracy Bridge Rd.
Orrville, Ohio 44667
Attn: Tracy McVay
330-933-7578
tmcvay@aspireenergyco.com

WORK LIMITS

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

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS "DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

BORROW AND WASTE AREAS

THE CONTRACTOR SHALL COMPLY WITH CMS SECTION 107.10 FOR ALL BORROW AND WASTE AREAS ASSOCIATED WITH THE PROJECT.

EARTHWORK

ITEM 203, EXCAVATION (22814 CY)
22808 CY (SHEET 26) + 6 CY (SHEET 31) = 22814 CY

ITEM 203, EMBANKEMNT (1582 CY)
449 CY (SHEET 26) + 1112 CY (SHEET 30) + 21 CY (SHEET 31) = 1582 CY

SEEDING AND MULCHING

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

ITEM 659, SEEDING AND MULCHING, CLASS 3C (8586 SY)
7043 SY (SHEET 26) + 1343 SY (SHEET 30) + 200 SY (SHEET 31) = 8586 SY

ITEM 659, COMMERCIAL FERTILIZER (1.16 TON)
1 TON PER 7,410 SY OF PERMANENT SEEDED AREA

ITEM 659, LIME ACRES (1.77 ACRE)
8586 / 4840 = 1.77 ACRE

ITEM 659, WATER (47 M. GAL)
8586 X 0.0054 M. GAL / SY = 47 M. GAL

ITEM 671 EROSION CONTROL MAT, TYPE G (5406 SY)
5406 SY (SHEET 26) =5406 SY

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

ITEM 617, COMPACTED AGGREGATE, AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE. ALL QUALITY REQUIREMENTS EXCEPT SHALE SHALL BE WAIVED. OTHER GRADATION REQUIREMENTS SHALL BE AS SPECIFIED EXCEPT THE INDEX SHALL BE WAIVED. IF SO PERMITTED, THE CONTRACTOR MAY USE RECYCLED ASPHALT CONCRETE PAVEMENT (RACP MEETING REQUIREMENTS OF 716.02) IN LIEU OF LIMESTONE.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

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

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

COORDINATE SYSTEM:	OHIO STATE PLANE, SOUTH ZONE
HORIZONTAL REFERENCE DATUM:	NAD83 (2011)
ELLIPSOID:	GRS80
GRID TO GROUND MULTIPLIER (1/CSF):	1.00000000
ORIGIN OF CSF:	(0,0)
VERTICAL REFERENCE DATUM:	NAVD88
GEOID MODEL:	GEOID 18
UNITS:	US SURVEY FEET (SFT)
ORIGINAL SURVEY SUBDIVISION:	
TOWNSHIP:	
QUARTER SECTION/SECTION/ LOT:	

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

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY (SEE RIGHT-OF-WAY PLAN MUS-146-29.36 FOR MORE INFORMATION). SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING ROW MONUMENTS.

ITEM 623 RIGHT-OF-WAY MONUMENT, TYPE B (6 EACH)

ITEM 623 PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT (LS)

ITEM 623 POST CONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT (LS)

ITEM 408, PRIME COAT, AS PER PLAN

THE CONTRACTOR SHALL APPLY ONE COAT OF MC-70 (AS PER CMS 702) AT A RATE OF 0.40 GAL/SY TO THE COMPLETED AGGREGATE SHOULDER. TO REDUCE AGGREGATE LOSS, THE PRIME COAT SHALL BE APPLIED WITHIN SEVEN (7) DAYS AFTER PLACEMENT OF THE AGGREGATE SHOULER OR LIQUIDATED DAMAGES PER CMS 108.07 WILL BE ASSESSED. THE CONTRACTOR SHALL PROVIDE A SHIELD TO PREVENT THE SPRAYING OR DRIFTING OF LIQUID BITUMINOUS MATERIAL ONTO THE EDGE OF PAVEMENT OR EDGE LINE. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO 107.10 OF THE SPECIFICATIONS.

ITEM 407, NON-TRACKING TACK COAT

THE RATE OF APPLICATION OF THE ITEM 407, NON-TRACKING TACK COAT SHALL BE PER CMS TABLE 407.06-1 AND SUBJECT TO ADJUSTMENT AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.06 GAL/SY FOR TACK COAT UNDER THE SURFACE COURSE AND 0.06 GAL/SY UNDER THE INTERMEDIATE COURSE. (FOR ESTIMATING PURPOSES ONLY).

FENCE DETAILS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY. FENCE TERMINALS SHALL BE TYPE D IN ACCORDANCE WITH SCD. F-3.3.

ITEM 607, FENCE, TYPE 47 450 FT

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE DEPARTMENT:

THE CONTRACTOR SHALL PROVIDE AS- BUILT DATA FOR THE SPECIFIED COMPLETED CONSTRUCTION ITEMS IN OHIO STATE PLANE COORDINATES (GRID). THE CONSTRUCTION ITEMS SHALL BE LOCATED AS PER THE SURVEY FEATURE CODE LIST FOUND ON THE OHIO DEPARTMENT OF TRANSPORTATION OFFICE OF CADD & MAPPING SERVICES WEBSITE. AFTER ALL INFORMATION HAS BEEN COLLECTED, AN EMAIL CONTAINING A COMMA DELIMITED ASCII FILE AND A SURVEYOR'S CERTIFICATION SHALL BE DELIVERED TO:

Cody.Gierhart@dot.ohio.gov (D5 GIS COORDINATOR) AND
Audrey.Seals@dot.ohio.gov (D5 CONSTRUCTION AREA ENGINEER)

THE ASCII FILE SHALL INCLUDE A HEADER CONTAINING:

NAME OF SURVEYOR
DATE(S) OF COLLECTION
HORIZONTAL DATUM (I.E. NAD83 (2011), OHIO SPCS NORTH OR SOUTH)
VERTICAL DATUM (I.E. NAVD 88, GEOID12A)
METHOD OF COLLECTION (I.E. OHIO VRS, GPS RTK, TOTAL STATION, ETC.)

THE ASCII FILE SHALL BE IN TABLE FORM AS FOLLOWS:

PT. NO./NORTHING/EASTING/ELEVATION/FEATURE CODE/DESCRIPTION

BELOW IS A LIST OF THE ITEMS THE CONTRACTOR SHALL PROVIDE FOR THIS PROJECT:
-CULVERT INVERT AT INLET AND OUTLET

THE ABOVE ITEMS SHALL BE COLLECTED USING SURVEY GRADE EQUIPMENT MEETING THE REQUIREMENTS OF SECTION 400 IN THE ODOT SURVEY & MAPPING SPECIFICATIONS MANUAL.

ALL COSTS ASSOCIATED WITH OBTAINING THE INFORMATION LISTED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN.

THE FOLLOWING QUANTITY HAS BEEN INLCUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK DESCRIBED ABOVE:

ITEM 623, CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN (LS)

ITEM 690, SPECIAL - MISC.: ROADWAY PRESERVATION

PRESERVE THE EXISTING PAVEMENT AND GUARDRAIL. VIDEO DOCUMENT THE ROADWAY AND GUARDRAIL CONDITIONS PRIOR TO STARTING THE EXCAVATION OF SLOPE AND REMOVAL OF WASTE MATERIALS. SUBMIT PROTECTION PLAN FOR THE PROJECT ENGINEER'S FILES.

REPAIR ANY DAMAGE TO THE ROADWAY AND GUARDRAIL DURING CONSTRUCTION AT NO ADDITIONAL COSTS TO THE STATE. UNLESS ITEMIZED SEPARATELY, INCLUDE ALL LABOR, MATERIALS, AND TOOLS NECESSARY FOR PROTECTION OF EXISTING ROADWAY PAVEMENT.

ITEM 690 SPECIAL, ROADWAY PRESERVATION LUMP SUM

GENERAL NOTES

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.5 TOTAL 46

MUS-146-29.36

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pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_GN001.dgn

ITEM 614, MAINTAINING TRAFFIC

NORMAL TRAFFIC - MAINTAINING ONE LANE IN EACH DIRECTION-SHALL BE MAINTAINED (EXCEPT THE DURATION OF THE CLOSURE WHEN TRAFFIC IS DETOURED, FOR TREE REMOVAL, FOR FINAL SURFACING, AND FOR STRIPING) AS PER THE DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTIONS OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS LATEST REVISION. IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY.

BEFORE WORK BEGINS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS A DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. THIS PERSON OR PERSONS SHALL BE RESPONSIBLE FOR REPLACING NECESSARY TRAFFIC CONTROL DEVICES IMMEDIATELY, AS PER 614.03.

S.R. 146 MAY BE CLOSED TO TRAFFIC UNDER CONDITIONS STATED IN THE CRITICAL WORK NOTE.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL DEVICES REQURED BY THESE PLANS SHALL BE PROVIDED WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

THIS PROJECT WILL BE CONSIDERED OPEN TO NORMAL TRAFFIC ONCE ALL EXCAVATION, AGGREGATE SHOULDER, GRADED DITCH, INSTALLATION OF PROPOSED CULVERT, AND PAVEMENT TO INTERMEDIATE COURSE HAS BEEN COMPLETED.

THE PLANS INDICATE THE MINIMUM SIGNAGE WHICH MUST BE INSTALLED AND/OR MAINTAINED DURING CONSTRUCTION.

EXISTING SIGNS OR CONTRACTOR SUPPLIED SIGNS SHALL BE USED TO MAINTAIN TRAFFIC DURING CONSTRUCTION.

THE ENGINEER SHALL RECORD INSTALLATION AND REMOVAL OF PROPOSED SIGNS, COVERED OR REMOVED, AND UNCOVERED OR REERECTED SIGNS IN THE PROJECT DIARY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 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 DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLANS.

THE FOLLOWING QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

ITEM 614, MAINTAINING TRAFFIC (LS)

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS 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
Lane Closures & Restrictions	>= 2 weeks	14 calendar days prior to closure
	< 2 weeks	5 business days prior to closure
Start of Construction & Traffic Pattern Changes	N/A	14 calendar days prior to implementation

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

ITEM 614, MAINTAINING TRAFFIC (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. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

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 RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

ITEM 614, MAINTAINING TRAFFIC (SIGNS AND BARRICADES)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES.

ITEM 614, MAINTAINING TRAFFIC (ROAD CLOSED SIGN)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES AND LIGHTS, AS DETAILED IN SCD MT-101.60 DURING PERIODS IN WHICH THE AFFECTED ROAD IS CLOSED TO TRAFFIC.

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 (1 MGAL)

CRITICAL WORK

IF THE CRITICAL WORK IS NOT COMPLETED WITHIN THE CALENDAR DAYS DESIGNATED THE CONTRACTOR WILL BE SUBJECT TO A DISINCENTIVE OF $1000.00 PER DAY. ALL OTHER WORK IS TO BE COMPLETED BY THE PROPOSAL COMPLETION DATE.

CRITICAL WORK TABLE: MUS-146-29.36

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DIS-INCENTIVE ($ PER DAY)
EXCAVATION, AGG. SHOULDER, GRADED DITCH, INSTALLATION OF CULVERT, PAVEMENT TO INTERMEDIATE COURSE, & OPENING S.R. 146 TO NORMAL TRAFFIC	SIXTY (60) CALENDAR DAYS	$1000 PER DAY

TREE REMOVAL MAY BE COMPLETED AS WORK BEYOND THE SHOULDER OR AS A FLAGGING OPERATION PRIOR TO ROADWAY CLOSURE.

THE FINAL COMPLETION DATE FOR THE PROJECT WILL BE AS LISTED IN THE PROPOSAL.

THE FINAL SURFACE COURSE AND THE STRIPING CAN BE PERFORMED AS A FLAGGING OPERATION.

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL DETOUR ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE". THIS DETOUR ROUTE IS SHOWN ON SHEET 6. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RIDGES, BUMPS, DUST, AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING QUANTITIES ARE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 407, NON-TRACKING TACK COAT (24 GAL)

ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC (10 CY)

ITEM 617, COMPACTED AGGREGATE, AS PER PLAN (10 CY)

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS, PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN (8 SNMT)

(ASSUMING 4 SIGNS FOR 2 MONTHS.)

MAINTAINING DRIVES

DRIVES SHALL BE MAINTAINED AT ALL TIMES. ANY WORK THAT WILL REQUIRE A DRIVE TO BE INACCESSIBLE SHALL BE COORDINATED WITH THE HOMEOWNER BY THE CONTRACTOR.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY

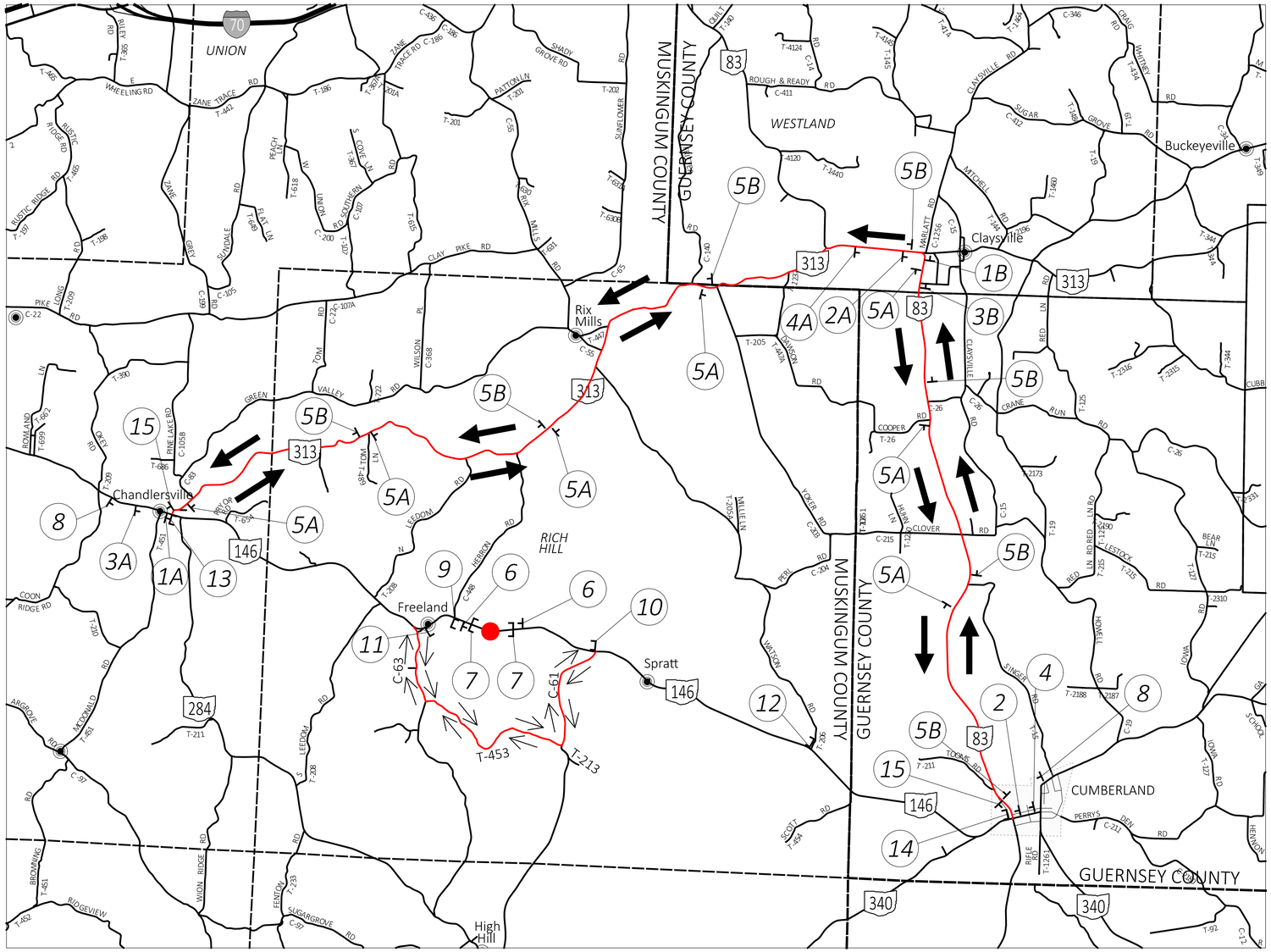
DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.6 TOTAL 46

MUS-146-29.36



STATE DETOUR ROUTE

WB: S.R. 83 TO S.R. 313
EB: S.R. 313 TO S.R. 83

LOCAL DETOUR ROUTE

WB: C-61 TO T-453 TO C-63
EB: C-63 TO T-453 TO C-61

1/4 1/2 1 2

SCALES IN MILES

LEGEND

- LOCAL DETOUR ROUTE
- STATE DETOUR ROUTE
- PROJECT LOCATION

N

1
DETOUR
M4-8-24
146
M1-5-24-3
M6-1-21

2
DETOUR
M4-8-24
146
M1-5-24-3
M6-1-21

3
DETOUR
M4-8-24
146
M1-5-24-3
M5-1-21

4
DETOUR
M4-8-24
146
M1-5-24-3
M5-1-21

5
DETOUR
M4-8-24
146
M1-5-24-3
M6-3-21

6
ROAD WILL BE CLOSED MMM/DD FOR XX DAYS
INFO: XXX-XXX-XXXX
W20-H13-60

7
ROAD CLOSED
R11-2-48
(ON TYPE III BARRICADES)

8
DETOUR AHEAD
W20-2-36

9
ROAD CLOSED
0.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

10
ROAD CLOSED
1.0 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

11
ROAD CLOSED
1.3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

12
ROAD CLOSED
3.5 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

13
ROAD CLOSED
3.8 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

14
ROAD CLOSED
6.1 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3a-60
(ON TYPE III BARRICADE)

15
END DETOUR
M4-8A-24

DETOUR
M4-10L-48

A
EAST
M3-2-24

DETOUR
M4-10R-48

B
WEST
M3-4-24

FOR MAINTENANCE OF TRAFFIC NOTES, SEE SHEET 6

MOT DETOUR MAP

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.7 TOTAL 46

MUS-146-29.36

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SHEET NUM.				PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	9	31	01/STR/66						
									ROADWAY	
				LS	201	11000	LS		CLEARING AND GRUBBING	
			2	2	202	20010	2	EACH	HEADWALL REMOVED	
		81		81	202	23000	81	SY	PAVEMENT REMOVED	
			48	48	202	35100	48	FT	PIPE REMOVED, 24" AND UNDER	
22,814				22,814	203	10000	22,814	CY	EXCAVATION	
1,582				1,582	203	20000	1,582	CY	EMBANKMENT	
450				450	607	15000	450	FT	FENCE, TYPE 47	
									EROSION CONTROL	
			2	2	601	32200	2	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
8,586				8,586	659	00540	8,586	SY	SEEDING AND MULCHING, CLASS 3C	
1.16				1.16	659	20000	1.16	TON	COMMERCIAL FERTILIZER	
1.77				1.77	659	31000	1.77	ACRE	LIME	
47				47	659	35000	47	MGAL	WATER	
5,406				5,406	671	15060	5,406	SY	EROSION CONTROL MAT, TYPE G	
				30,000	832	30000	30,000	EACH	EROSION CONTROL	
									DRAINAGE	
			0.92	0.92	602	20000	0.92	CY	CONCRETE MASONRY	
			74	74	611	10200	74	FT	24" CONDUIT, TYPE A 707.01 METALLIC COATED (ALUMINIZED), 706.02, OR 707.33	
									PAVEMENT	
		97		97	204	10000	97	SY	SUBGRADE COMPACTION	
		14		14	301	56000	14	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
		15		15	304	20000	15	CY	AGGREGATE BASE	
	24	10		34	407	20000	34	GAL	NON-TRACKING TACK COAT	
		54		54	408	10001	54	GAL	PRIME COAT, AS PER PLAN	5
		3		3	441	50000	3	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		4		4	441	50300	4	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
	10	18		28	617	10101	28	CY	COMPACTED AGGREGATE, AS PER PLAN	5
									TRAFFIC CONTROL	
		2		2	621	00100	2	EACH	RPM	
		2		2	621	54000	2	EACH	RAISED PAVEMENT MARKER REMOVED	
		0.01		0.01	642	00104	0.01	MILE	EDGE LINE, 6", TYPE 1	
		0.01		0.01	642	00300	0.01	MILE	CENTER LINE, TYPE 1	
									MAINTENANCE OF TRAFFIC	
	10			10	614	13000	10	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	6
				LS	614	12420	LS		DETOUR SIGNING	
	8			8	614	18601	8	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	6
	1			1	616	10000	1	MGAL	WATER	
									INCIDENTALS	
	LS			LS	614	11000	LS		MAINTAINING TRAFFIC	
LS				LS	623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	5
6				6	623	40520	6	EACH	RIGHT-OF-WAY MONUMENT, TYPE B	
LS				LS	623	50000	LS		PRECONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
LS				LS	623	51000	LS		POST CONSTRUCTION SURVEY MONUMENT VERIFICATION AND REPORT	
				LS	624	10000	LS		MOBILIZATION	
LS				LS	SPECIAL	69098400	LS		ROADWAY PRESERVATION	5

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.8 TOTAL 46

MUS-146-29.36

FULL DEPTH PAVEMENT CALCULATIONS

LIMITS:
STA. 52+35.00 TO STA. 52+65.00 (= 30.00 FT)
STA. 51+00.00 TO STA. 56+10.00 (= 610.00 FT) (ONLY APPLIES TO COMPACTED AGG. AND PRIME COAT)

ITEM 202, PAVEMENT REMOVED
731.1 SF = 81 SY*

ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22
731.1 SF X 1.25" = 3 CY*

ITEM 407, NON-TRACKING TACK COAT (APPLIED TO NEW INTERMEDIATE COURSE)
731.1 SF X 0.06 GAL PER SY = 5 GAL*

ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
731.1 SF X 1.75" = 4 CY*

ITEM 407, NON-TRACKING TACK COAT (APPLIED TO NEW ASPHALT BASE COURSE)
751.1 SF X 0.06 GAL PER SY = 5 GAL*

ITEM 301, ASPHALT CONCRETE BASE, PG64-22 (449)
751.1 SF X 6" = 14 CY*

ITEM 304, AGGREGATE BASE
781.1 SF X 6" = 15 CY*

ITEM 204, SUBGRADE COMPACTION
871.2 SF = 97 SY*

ITEM 408, PRIME COAT, AS PER PLAN
1201.8 SF (LT.) X 0.40 GAL PER SY = 54 GAL*

ITEM 617, COMPACTED AGGREGATE, AS PER PLAN
[(210 Ft. x 4 Ft.) +(300 Ft. x 2 Ft.)] X 4" = 18 CY

**CADD-GENERATED AREA*

ESTIMATED PAVEMENT QUANTITIES

ITEM	ITEM EXT	UNIT	TOTAL	ITEM DESCRIPTION
202	23000	SY	81	PAVEMENT REMOVED
204	10000	SY	97	SUBGRADE COMPACTION
301	56000	CY	14	ASPHALT CONCRETE BASE, PG64-22 (449)
304	20000	CY	15	AGGREGATE BASE
407	20000	GAL	10	NON-TRACKING TACK COAT
408	10001	GAL	54	PRIME COAT, AS PER PLAN
441	50000	CY	3	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22
441	50300	CY	4	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
617	10101	CY	18	COMPACTED AGGREGATE, AS PER PLAN

QUANTITIES CARRIED TO GENERAL SUMMARY

ESTIMATED PAVEMENT MARKING QUANTITIES

ITEM	ITEM EXT	UNIT	TOTAL	ITEM DESCRIPTION
621	00100	EACH	2	RPM 2 WAY (YELLOW/YELLOW)
621	54000	EACH	2	RAISED PAVEMENT MARKER REMOVED
642	00104	MILE	0.01	EDGE LINE, 6", TYPE 1
642	00300	MILE	0.01	CENTER LINE, TYPE 1

QUANTITIES CARRIED TO GENERAL SUMMARY

PAVEMENT DATA TABLE

PROP. E/P	LANE WIDTH (LT)	PAVEMENT SLOPE (LT)	STATION CL S.R. 146	PAVEMENT SLOPE (RT)	LANE WIDTH (RT)	PROP E/P.
805.44	11.97	-1.47	52+35.00	-1.01	12.42	805.49
805.51	12.15	-2.29	52+50.00	-0.46	12.22	805.79
805.70	12.32	-3.08	52+65.00	0.10	12.02	806.09

PAVEMENT & PAVEMENT MARKING CALCS & TABLE - S.R. 146

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.9 TOTAL 46

MUS-146-29.36

LEGEND

FULL DEPTH MAINLINE PAVEMENT

TYPE 47 FENCE
(PLACE 2 FT. INSIDE PROPOSED ROW)

TYPE 47 FENCE START
STA. 51+00.00
123.10' LT.

117.91'
S86°57'18"E

℄ BERM

B-001-0-21

STA. 52+50.00
86.6' LT.

STA. 51+00.00
60.3' LT.

PROPOSED
BENCH LINES

CONSTRUCTION LIMITS

STA. 51+00.00
50.3' LT.

PROPOSED
DITCH LINES

END TAPER (LT.)
STA. 52+50.00

STA. 51+00.00
16.5' LT.

150' DITCH TAPER

STA. 52+50.00
43.0' LT.

150' SHOULDER TAPER

EX. EDGE ASPHALT

CL CONST.
S.R. 146

289.00'
S68°31'12"E

℄ CONSTRUCTION
S.R. 146 STA. 52+49.92

PC STA. 50+00.00

BEGIN WORK (LT.)
STA. 50+75.00

BEGIN PROJECT (LT.)
STA. 51+00.00

PC STA. 52+69.00

MATCH LINE STA. 53+00.00

CONSTRUCTION LIMITS

STREAM

STREAM

Ex SH

OH-E

OH-CTV

T.P.S.

BEGIN FULL DEPTH
MAINLINE PAVE.

END FULL DEPTH
MAINLINE PAVE.

+35.00
805.61

+50.00
805.85

+65.00
806.08

℄ CONSTRUCTION S.R. 146
EX. GRADE

PR. 24", TYPE A X 74'

EX. 18" VCP
(TO BE REMOVED)

48	49	50	51	52	53
802.72	803.11	803.49	803.85	804.19	804.52	804.83	805.03	805.24	805.46	805.85	806.24	806.62

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - S.R. 146
STA. 50+00.00 - STA. 53+00.00

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.10 TOTAL 46

MUS-146-29.36

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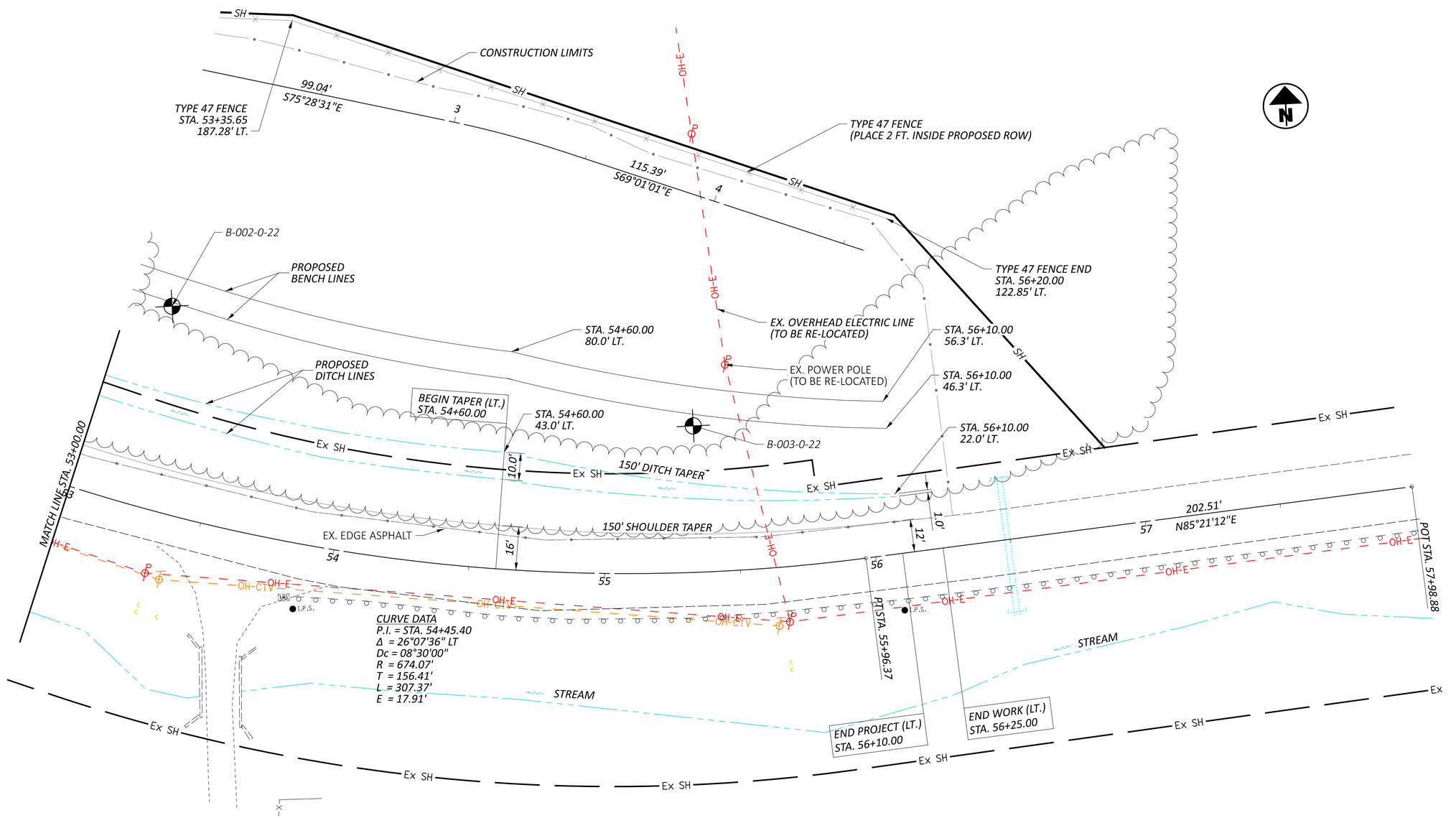

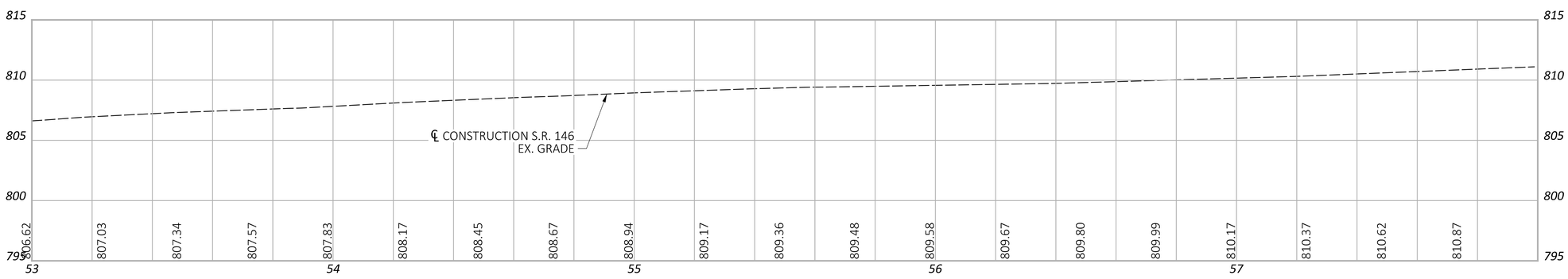

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - S.R. 146
STA. 53+00.00 - STA. 57+98.88

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.11 TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:41 AM USER: gmotsche
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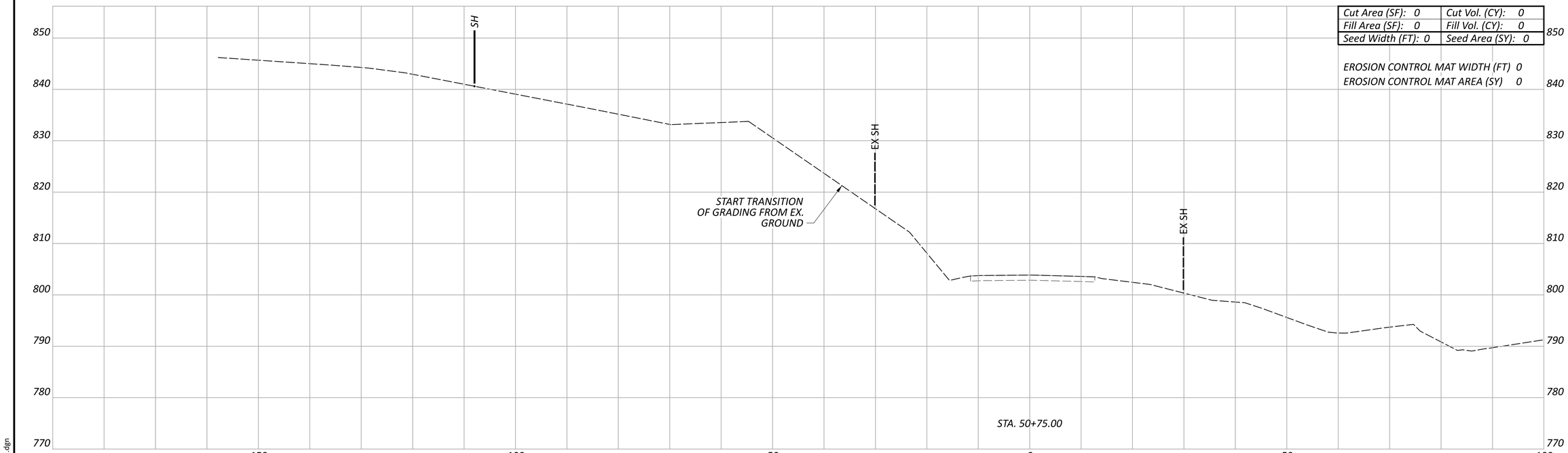
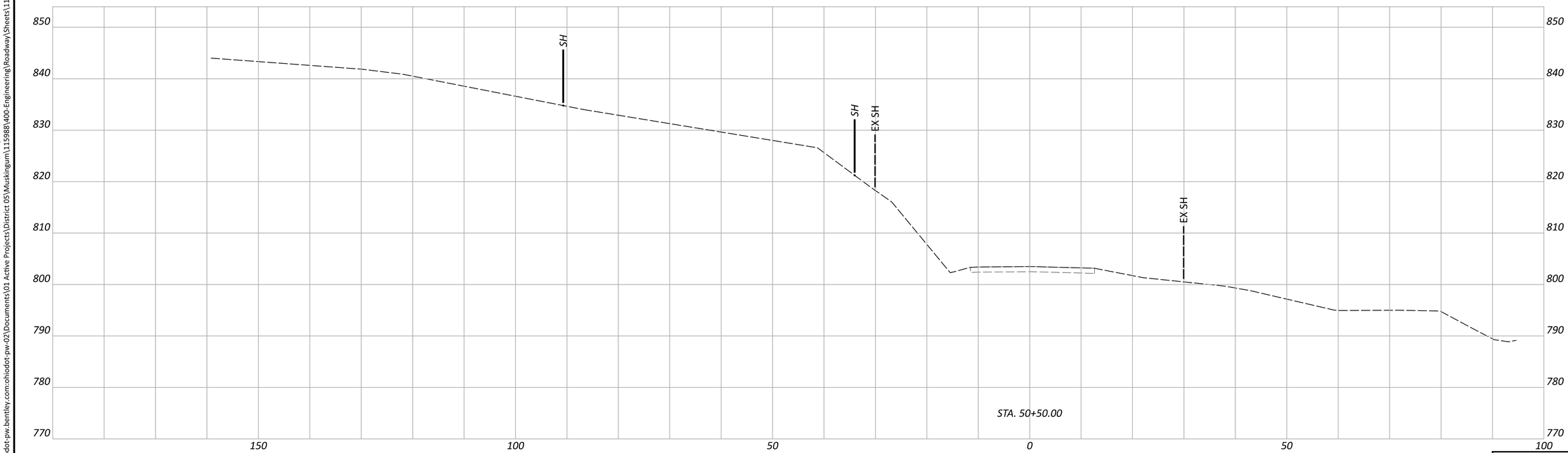


Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT): 0	Seed Area (SY): 0

EROSION CONTROL MAT WIDTH (FT) 0
EROSION CONTROL MAT AREA (SY) 0



CROSS SECTIONS - S.R. 146
STA. 50+50 - STA. 50+75

MUS-146-29.36

MODEL: Pr. CL - 50+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:48 AM USER: gmotsche
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Sheet Totals		
Seeding	Cut	Fill
0	0	0

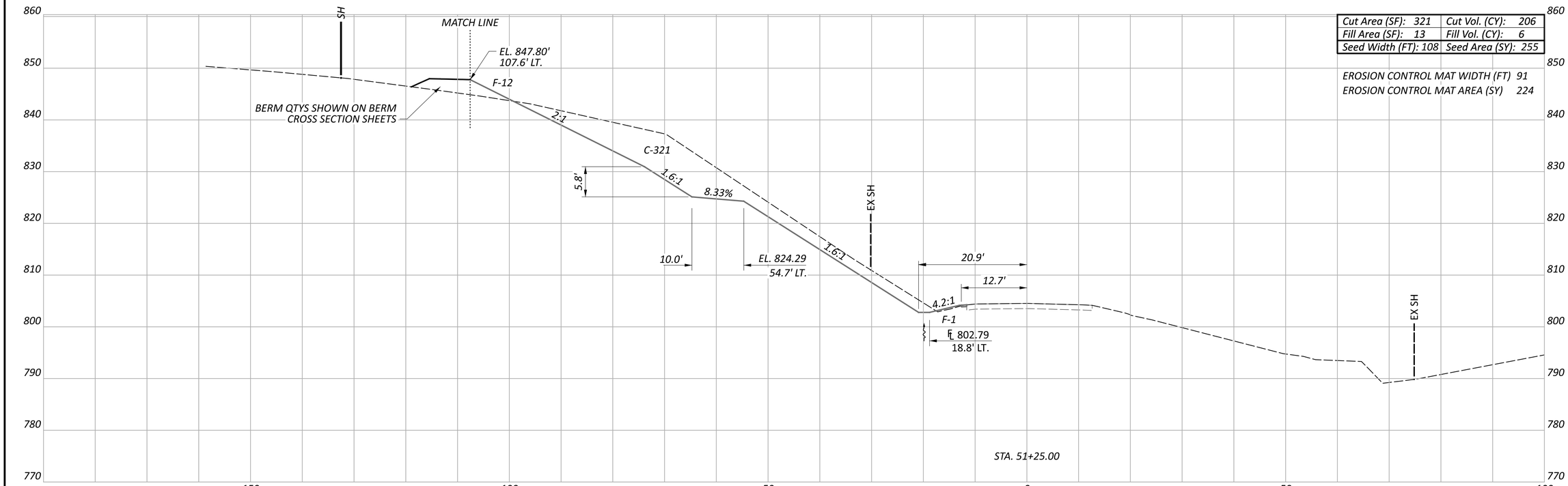
DESIGN AGENCY

DESIGNER
GPM

REVIEWER
CMY

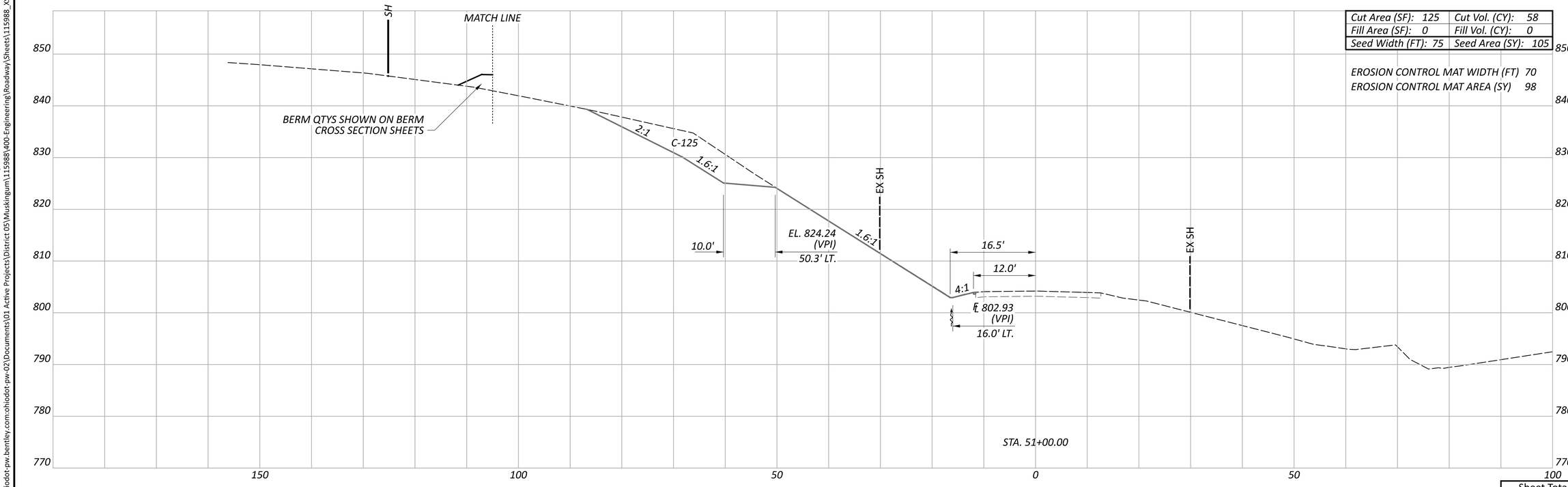
PROJECT ID
115988

SHEET	TOTAL
P.12	46



Cut Area (SF): 321	Cut Vol. (CY): 206
Fill Area (SF): 13	Fill Vol. (CY): 6
Seed Width (FT): 108	Seed Area (SY): 255

EROSION CONTROL MAT WIDTH (FT) 91
EROSION CONTROL MAT AREA (SY) 224



Cut Area (SF): 125	Cut Vol. (CY): 58
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT): 75	Seed Area (SY): 105

EROSION CONTROL MAT WIDTH (FT) 70
EROSION CONTROL MAT AREA (SY) 98

Sheet Totals		
Seeding	Cut	Fill
360	264	6

CROSS SECTIONS - S.R. 146
STA. 51+00 - STA. 51+25

DESIGN AGENCY

DESIGNER GPM

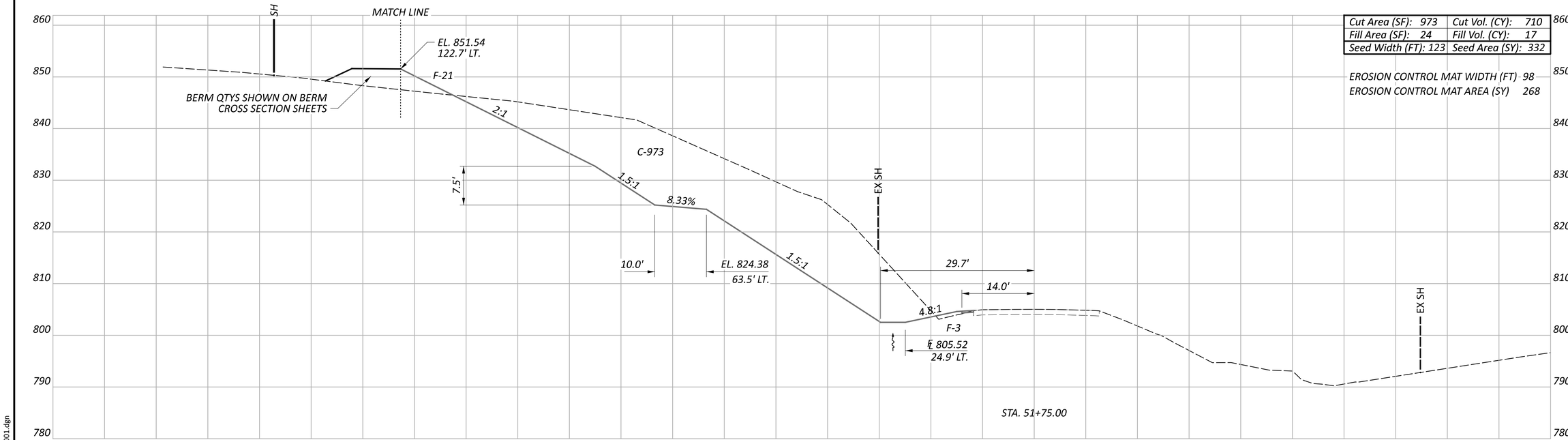
REVIEWER CMY

PROJECT ID 115988

SHEET P.13 TOTAL 46

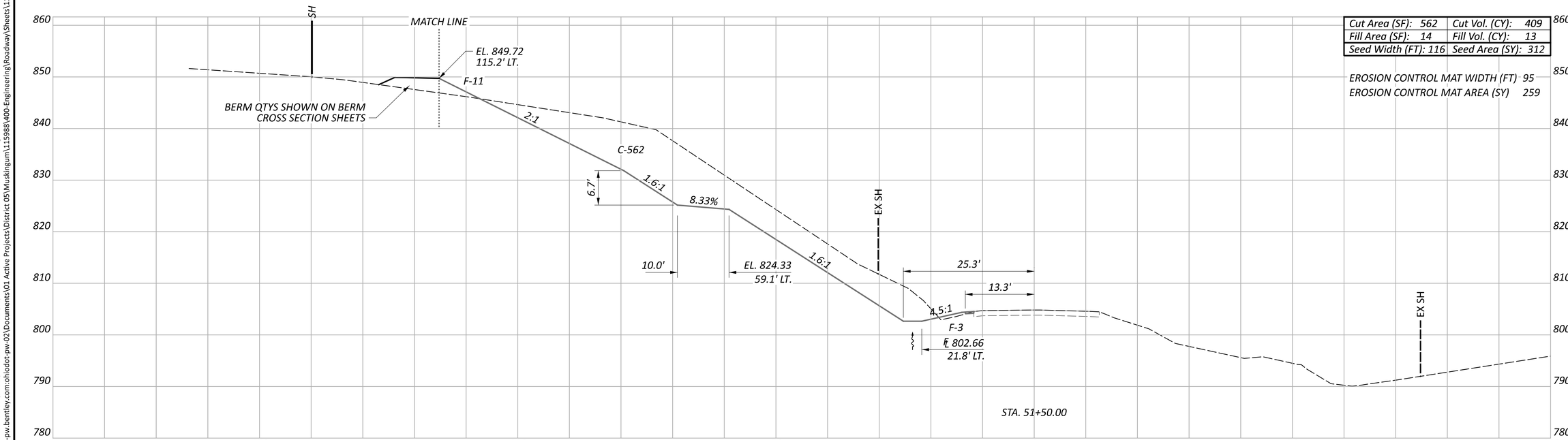
MUS-146-29.36

MODEL: Pr. CL - 51+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:49 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn



Cut Area (SF): 973	Cut Vol. (CY): 710
Fill Area (SF): 24	Fill Vol. (CY): 17
Seed Width (FT): 123	Seed Area (SY): 332

EROSION CONTROL MAT WIDTH (FT) 98
EROSION CONTROL MAT AREA (SY) 268



Cut Area (SF): 562	Cut Vol. (CY): 409
Fill Area (SF): 14	Fill Vol. (CY): 13
Seed Width (FT): 116	Seed Area (SY): 312

EROSION CONTROL MAT WIDTH (FT) 95
EROSION CONTROL MAT AREA (SY) 259

Sheet Totals		
Seeding	Cut	Fill
644	1119	30

CROSS SECTIONS - S.R. 146
STA. 51+50 - STA. 51+75

DESIGN AGENCY

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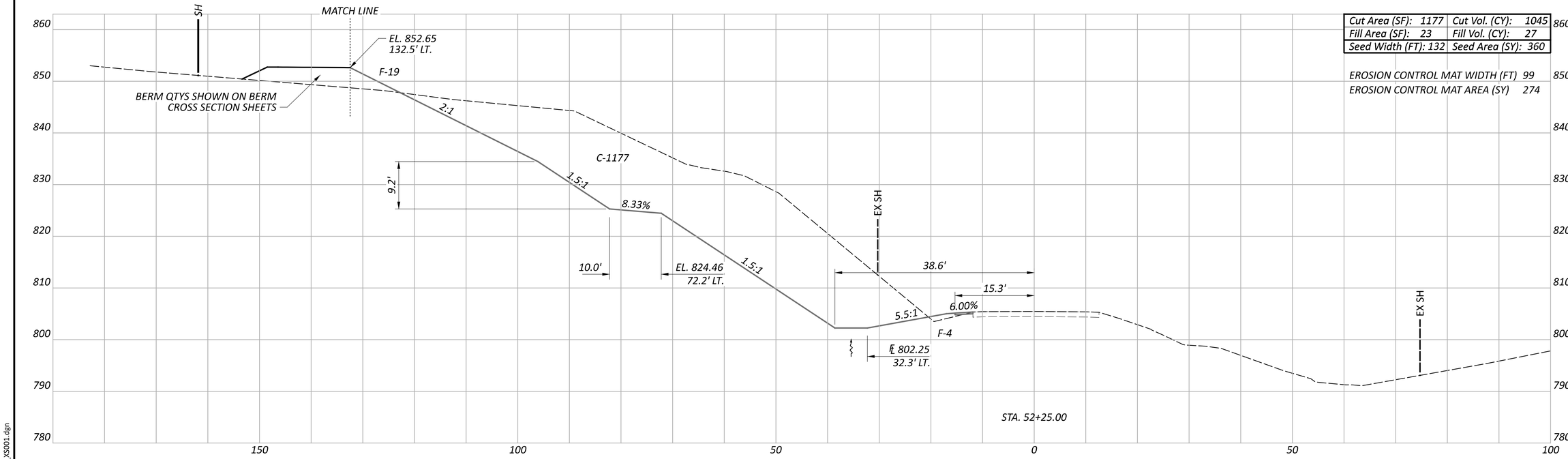
PROJECT ID 115988

SHEET P.14 TOTAL 46

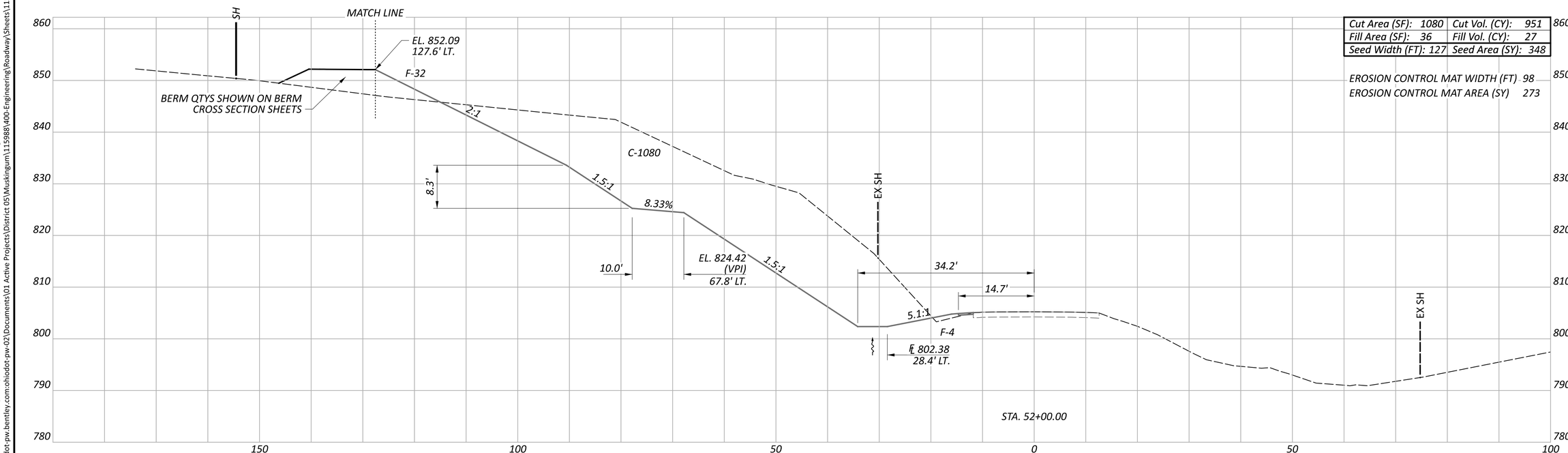
MUS-146-29.36

MODEL: Pr_CL - 51+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:50 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn



Cut Area (SF): 1177	Cut Vol. (CY): 1045
Fill Area (SF): 23	Fill Vol. (CY): 27
Seed Width (FT): 132	Seed Area (SY): 360

EROSION CONTROL MAT WIDTH (FT) 99
EROSION CONTROL MAT AREA (SY) 274



Cut Area (SF): 1080	Cut Vol. (CY): 951
Fill Area (SF): 36	Fill Vol. (CY): 27
Seed Width (FT): 127	Seed Area (SY): 348

EROSION CONTROL MAT WIDTH (FT) 98
EROSION CONTROL MAT AREA (SY) 273

Sheet Totals		
Seeding	Cut	Fill
708	1996	54

CROSS SECTIONS - S.R. 146
STA. 52+00 - STA. 52+25

DESIGN AGENCY

DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.15 TOTAL 46

MUS-146-29.36

MODEL: Pr: CL - 52+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:51 AM USER: gmotsche
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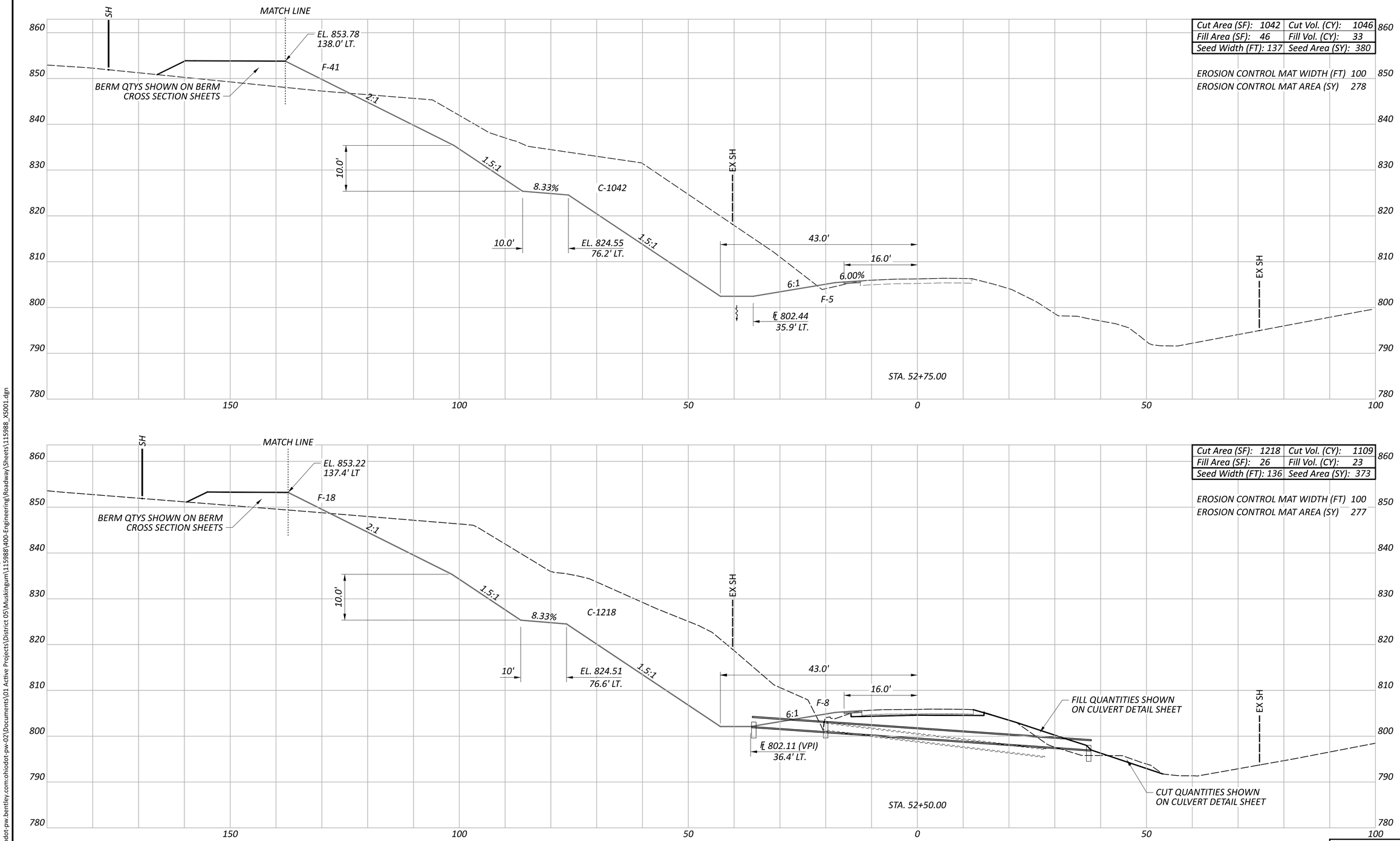


CROSS SECTIONS - S.R. 146
STA. 52+50 - STA. 52+75

Sheet Totals		
Seeding	Cut	Fill
753	2155	56

DESIGN AGENCY

DESIGNER
GPM

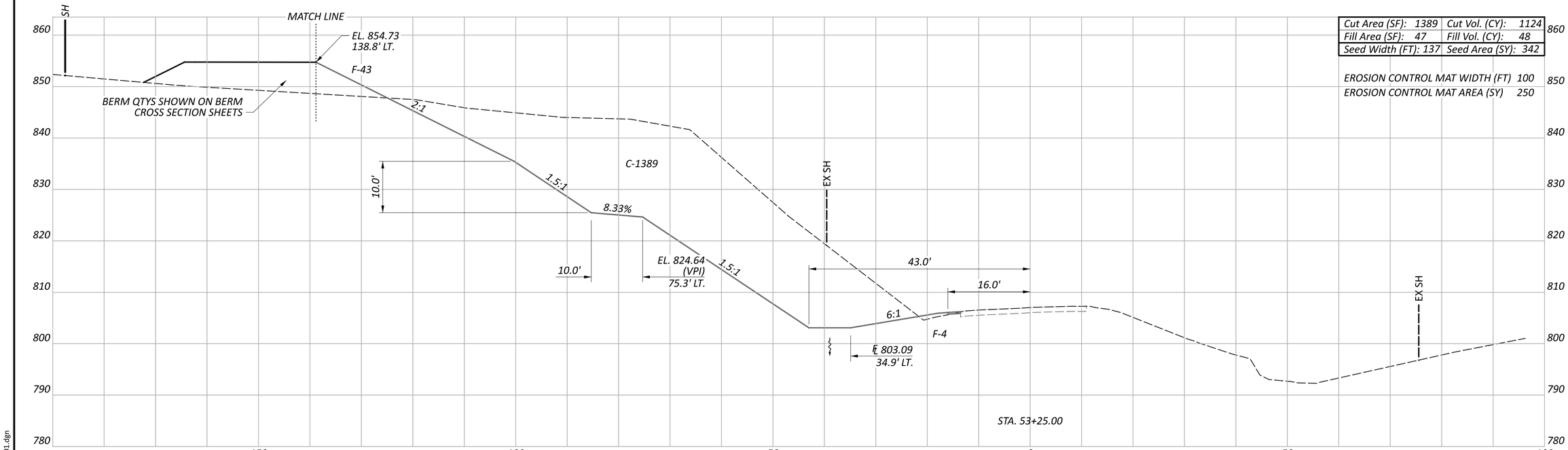
REVIEWER
CMY

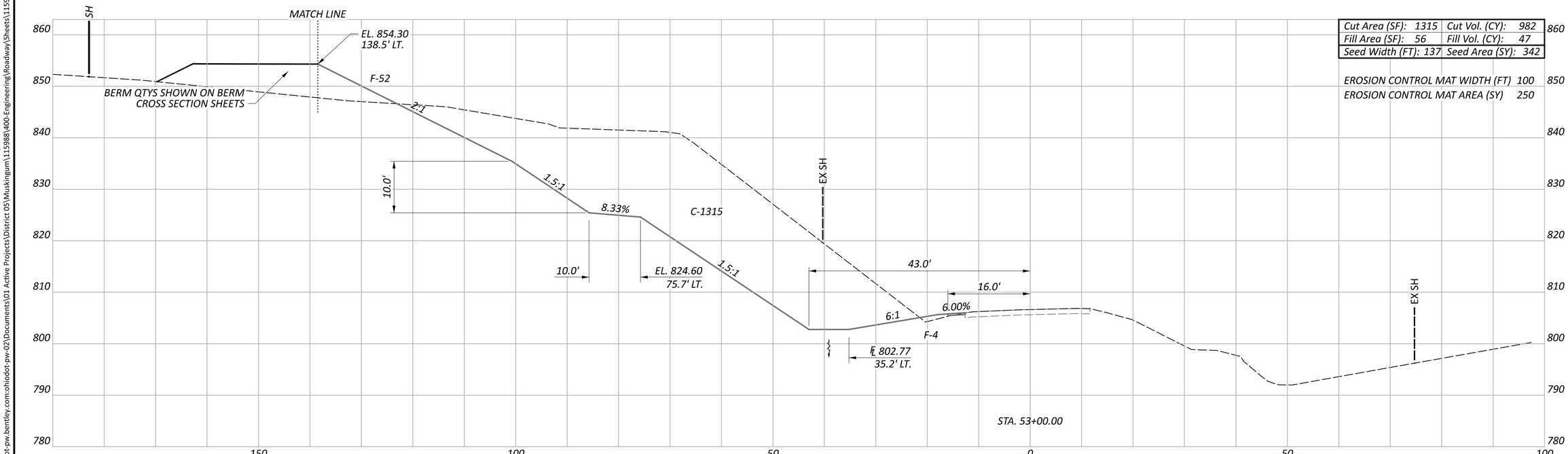
PROJECT ID
115988

SHEET P.16 | TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - 52+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:52 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn





CROSS SECTIONS - S.R. 146
STA. 53+00 - STA. 53+25

Sheet Totals		
Seeding	Cut	Fill
684	2106	95

DESIGN AGENCY

DESIGNER GPM

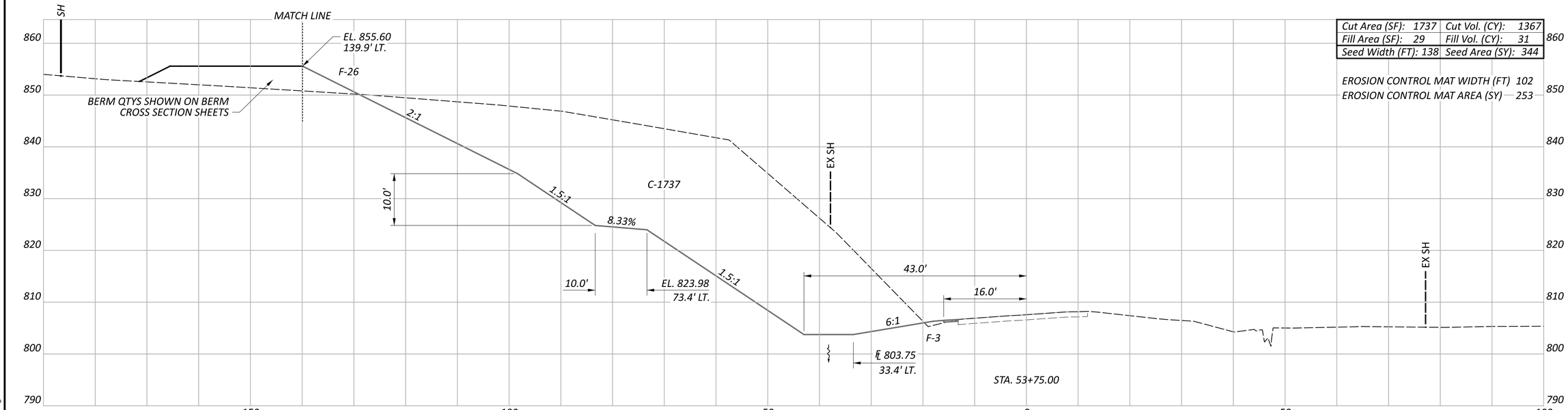
REVIEWER CMY

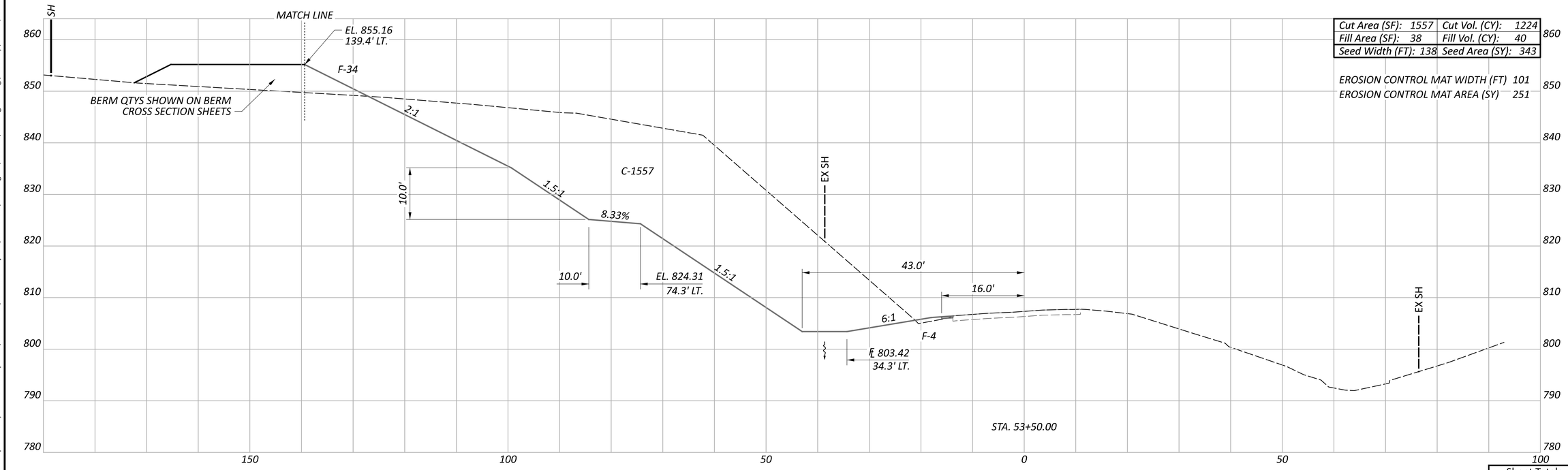
PROJECT ID 115988

SHEET P.17 TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - 53+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:53 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\V400-Engineering\Roadway\Sheets\115988_XS001.dgn





CROSS SECTIONS - S.R. 146
STA. 53+75 - STA. 54+00

Sheet Totals		
Seeding	Cut	Fill
687	2591	71

DESIGN AGENCY

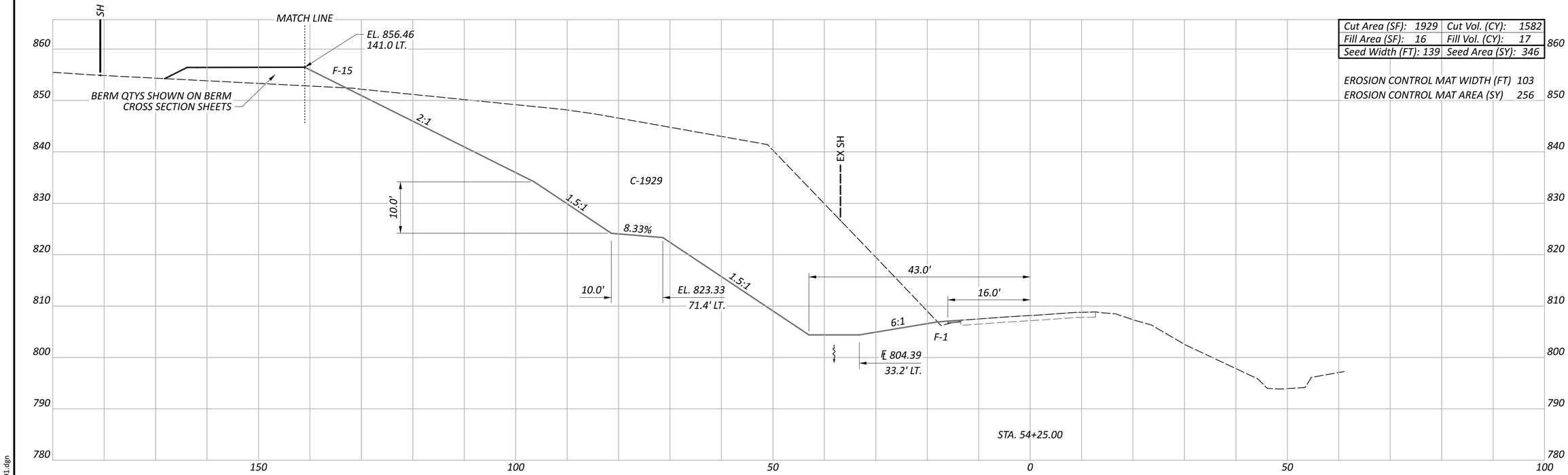
DESIGNER GPM

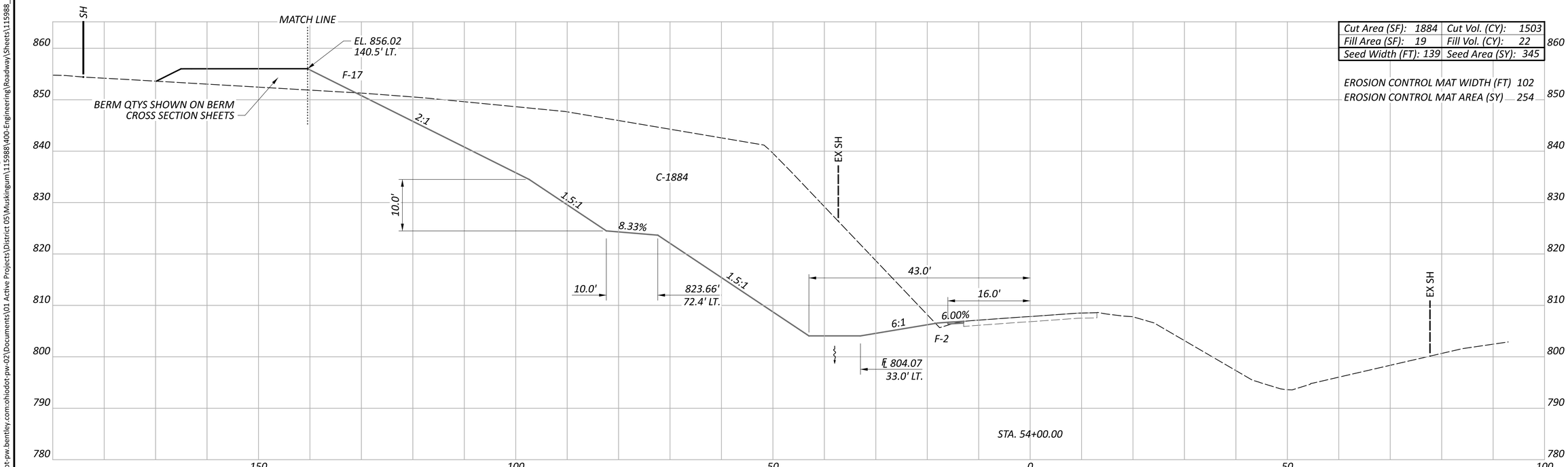
REVIEWER CMY

PROJECT ID 115988

SHEET P.18 TOTAL 46

MUS-146-29.36





CROSS SECTIONS - S.R. 146
STA. 54+00 - STA. 54+25

Sheet Totals		
Seeding	Cut	Fill
691	3085	39

DESIGN AGENCY

DESIGNER GPM

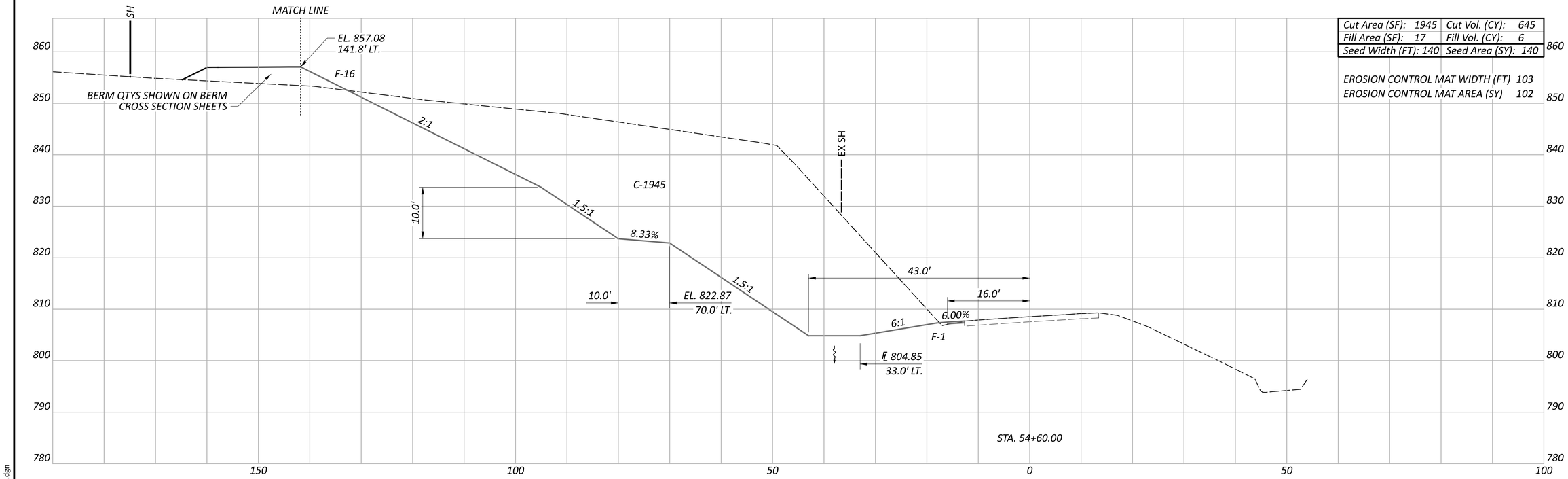
REVIEWER CMY

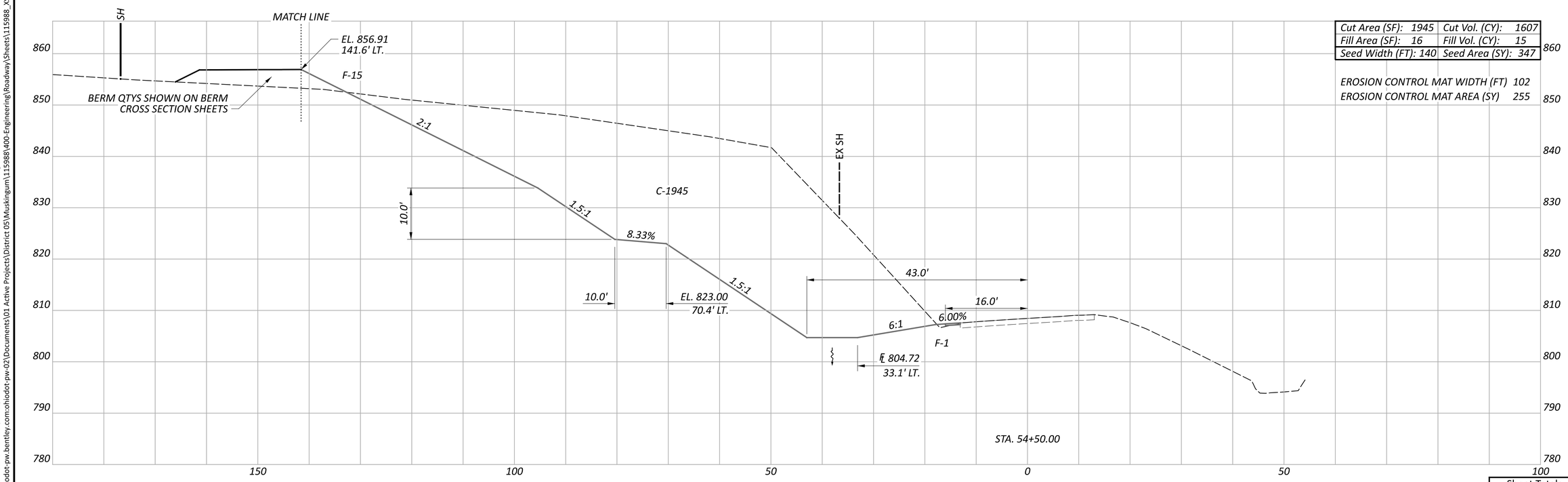
PROJECT ID 115988

SHEET P.19 TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - 54+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:55 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\V400-Engineering\Roadway\Sheets\115988_XS001.dgn





CROSS SECTIONS - S.R. 146
STA. 54+50 - STA. 54+60

Sheet Totals		
Seeding	Cut	Fill
487	2252	21

DESIGN AGENCY

DESIGNER GPM

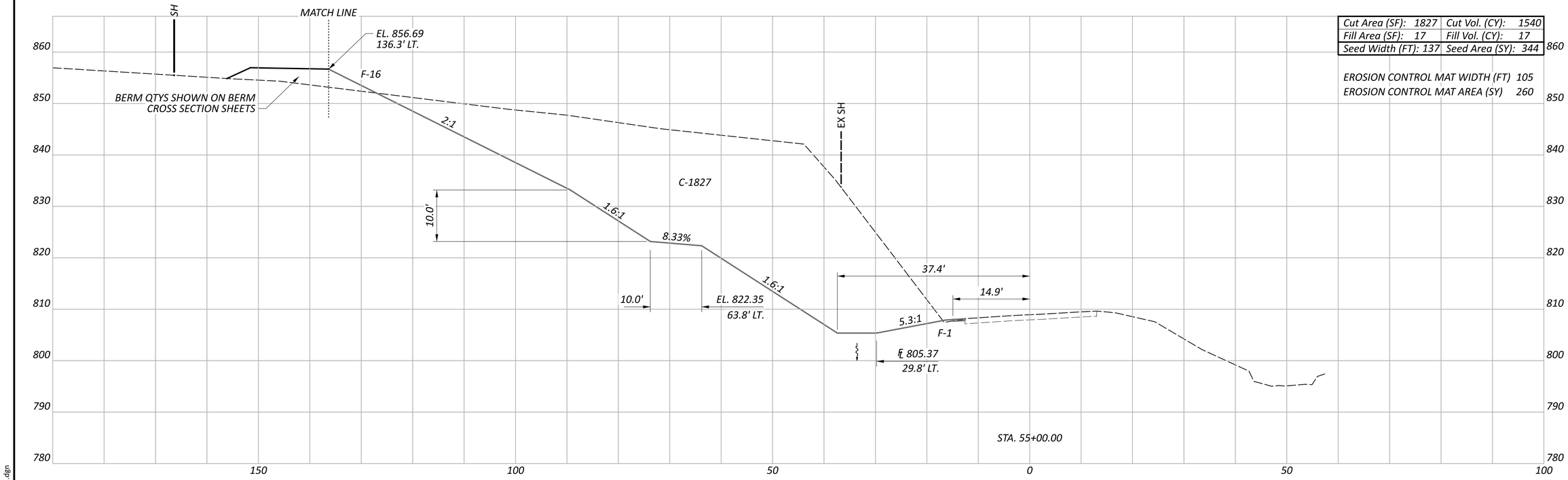
REVIEWER CMY

PROJECT ID 115988

SHEET P.20 TOTAL 46

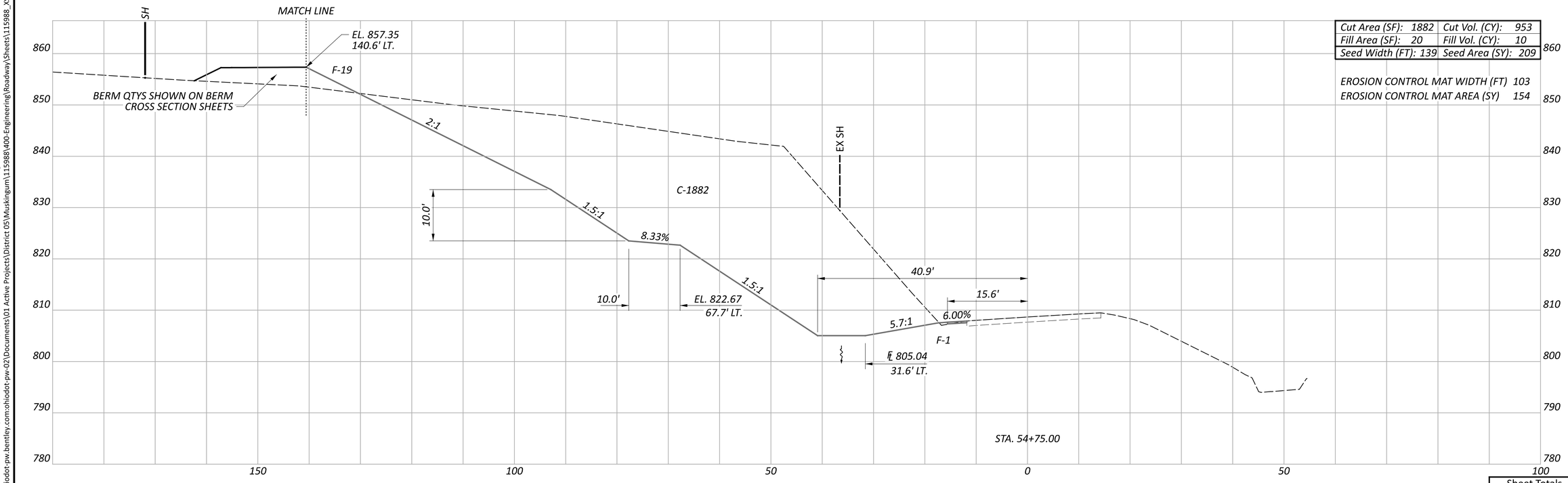
MUS-146-29.36

MODEL: Pr. CL - 54+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:56 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn



Cut Area (SF):	1827	Cut Vol. (CY):	1540
Fill Area (SF):	17	Fill Vol. (CY):	17
Seed Width (FT):	137	Seed Area (SY):	344

EROSION CONTROL MAT WIDTH (FT) 105
EROSION CONTROL MAT AREA (SY) 260



Cut Area (SF):	1882	Cut Vol. (CY):	953
Fill Area (SF):	20	Fill Vol. (CY):	10
Seed Width (FT):	139	Seed Area (SY):	209

EROSION CONTROL MAT WIDTH (FT) 103
EROSION CONTROL MAT AREA (SY) 154

CROSS SECTIONS - S.R. 146
STA. 54+75 - STA. 55+00

Sheet Totals		
Seeding	Cut	Fill
553	2493	27

DESIGN AGENCY

DESIGNER GPM

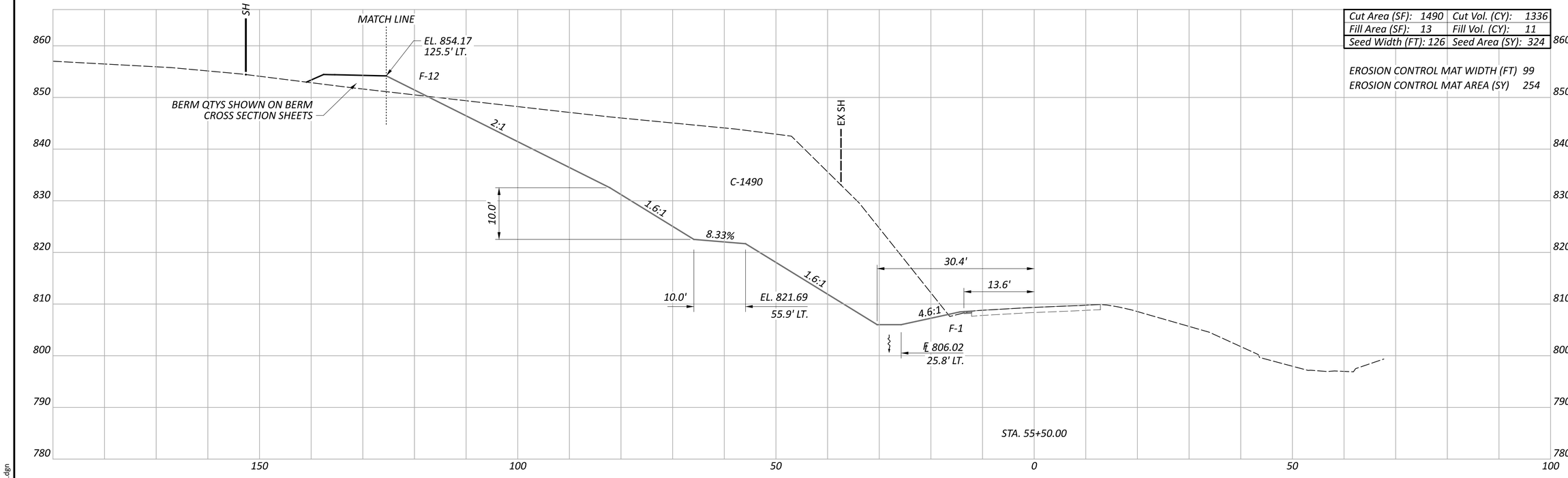
REVIEWER CMY

PROJECT ID 115988

SHEET P.21 TOTAL 46

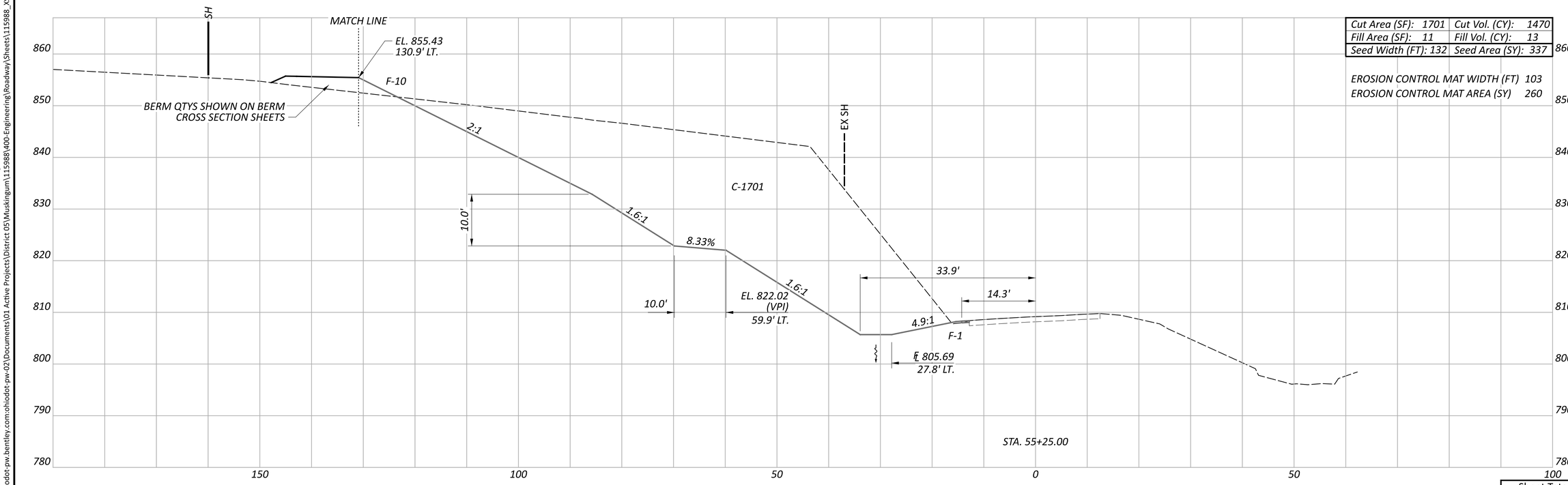
MUS-146-29.36

MODEL: Pr. CL - 54+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:57 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn



Cut Area (SF):	1490	Cut Vol. (CY):	1336
Fill Area (SF):	13	Fill Vol. (CY):	11
Seed Width (FT):	126	Seed Area (SY):	324

EROSION CONTROL MAT WIDTH (FT) 99
EROSION CONTROL MAT AREA (SY) 254



Cut Area (SF):	1701	Cut Vol. (CY):	1470
Fill Area (SF):	11	Fill Vol. (CY):	13
Seed Width (FT):	132	Seed Area (SY):	337

EROSION CONTROL MAT WIDTH (FT) 103
EROSION CONTROL MAT AREA (SY) 260

CROSS SECTIONS - S.R. 146
STA. 55+25 - STA. 55+50

Sheet Totals		
Seeding	Cut	Fill
661	2806	24

DESIGN AGENCY

DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.22 TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - 55+25.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:57 AM USER: gmotsche
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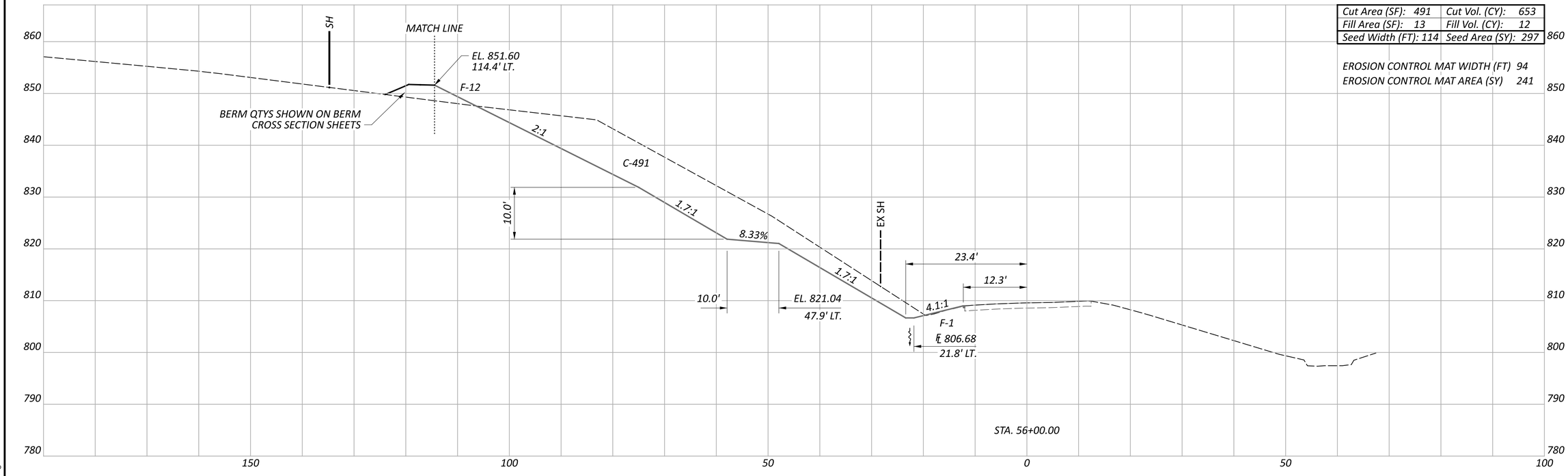
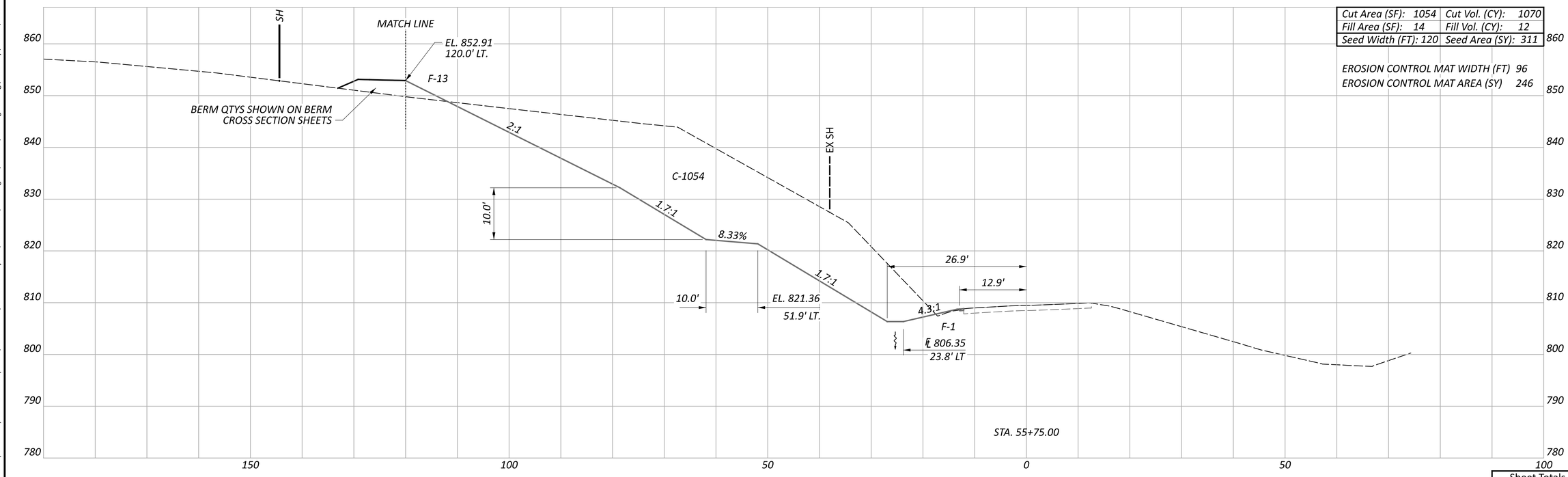


Cut Area (SF): 491	Cut Vol. (CY): 653
Fill Area (SF): 13	Fill Vol. (CY): 12
Seed Width (FT): 114	Seed Area (SY): 297

EROSION CONTROL MAT WIDTH (FT) 94
EROSION CONTROL MAT AREA (SY) 241



Cut Area (SF): 1054	Cut Vol. (CY): 1070
Fill Area (SF): 14	Fill Vol. (CY): 12
Seed Width (FT): 120	Seed Area (SY): 311

EROSION CONTROL MAT WIDTH (FT) 96
EROSION CONTROL MAT AREA (SY) 246

Sheet Totals		
Seeding	Cut	Fill
608	1723	24

CROSS SECTIONS - S.R. 146
STA. 55+75 - STA. 56+00

DESIGN AGENCY

DESIGNER GPM

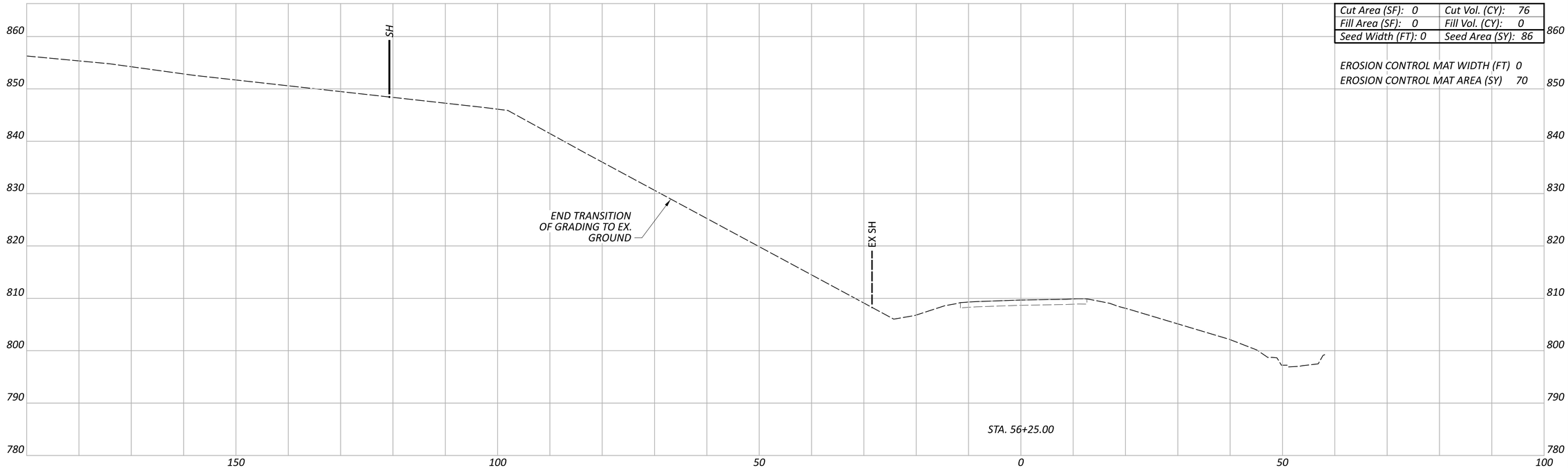
REVIEWER CMY

PROJECT ID 115988

SHEET P.23 TOTAL 46

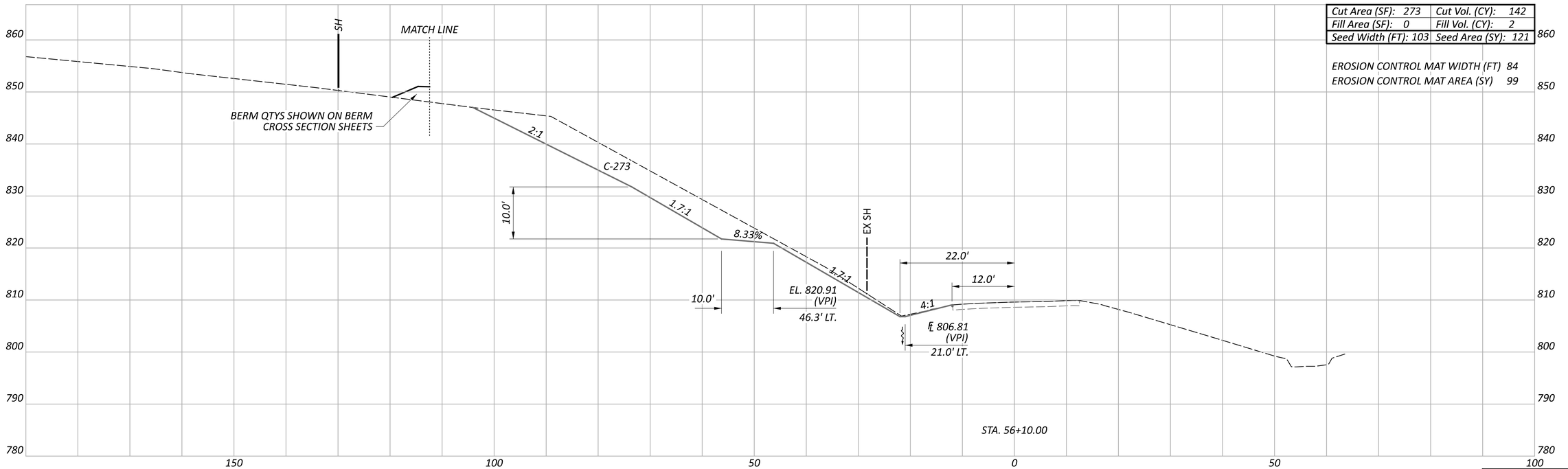
MUS-146-29.36

MODEL: Pr. CL - 55+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:58 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn



Cut Area (SF): 0	Cut Vol. (CY): 76
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT): 0	Seed Area (SY): 86

EROSION CONTROL MAT WIDTH (FT) 0
EROSION CONTROL MAT AREA (SY) 70



Cut Area (SF): 273	Cut Vol. (CY): 142
Fill Area (SF): 0	Fill Vol. (CY): 2
Seed Width (FT): 103	Seed Area (SY): 121

EROSION CONTROL MAT WIDTH (FT) 84
EROSION CONTROL MAT AREA (SY) 99

Sheet Totals		
Seeding	Cut	Fill
207	218	2

CROSS SECTIONS - S.R. 146
STA. 56+10 - STA. 56+25

DESIGN AGENCY

DESIGNER GPM

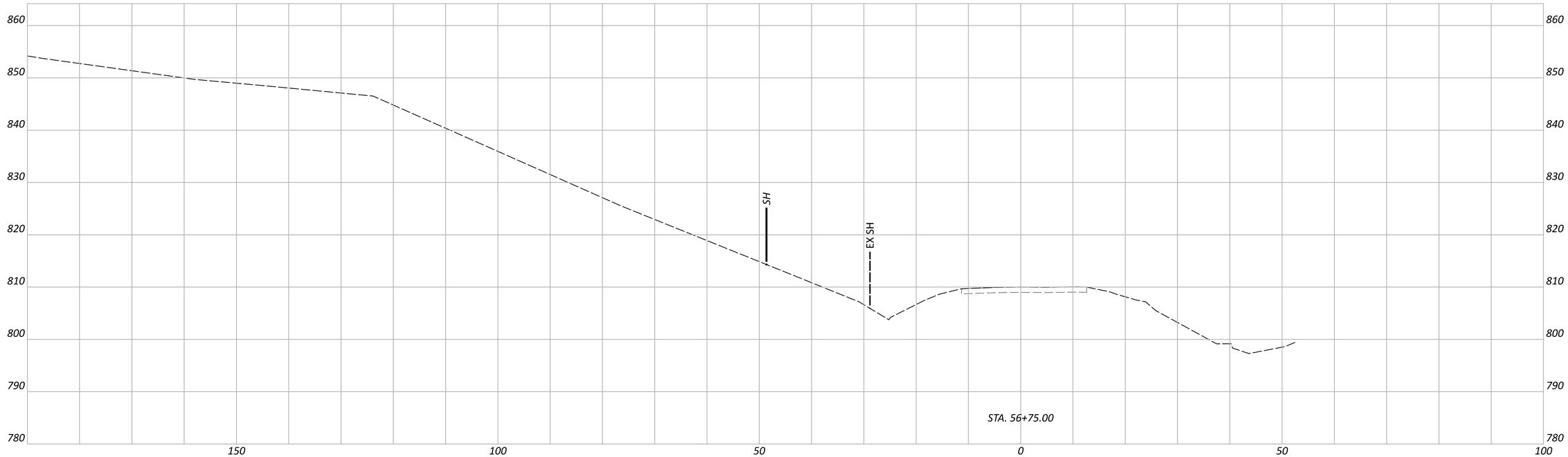
REVIEWER CMY

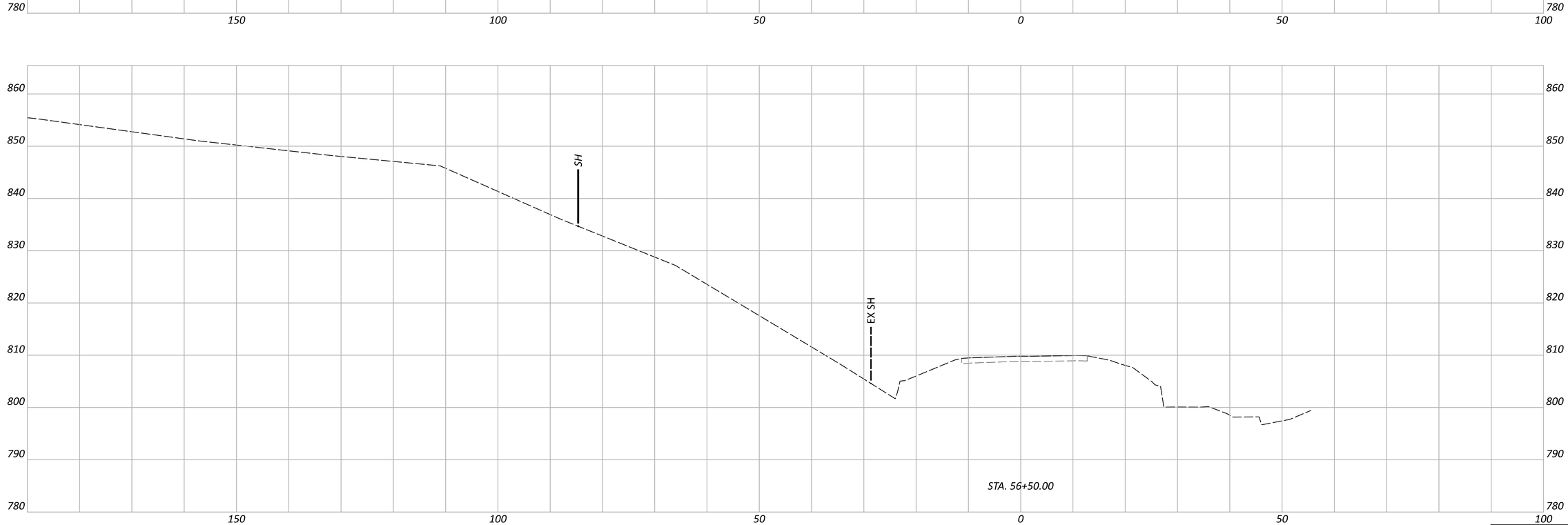
PROJECT ID 115988

SHEET P.24 TOTAL 46

MUS-146-29.36

MODEL: Pr. CL - 56+10.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:35:59 AM USER: gmotsche
pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 05\Muskingum\115988\400-Engineering\Roadway\Sheets\115988_XS001.dgn





CROSS SECTIONS - S.R. 146
STA. 56+50 - STA. 56+75

MUS-146-29.36

MODEL: Pr. CL - 56+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:36:00 AM USER: gmotsche
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Sheet Totals		
Seeding	Cut	Fill
0	0	0

DESIGN AGENCY

DESIGNER
GPM

REVIEWER
CMY

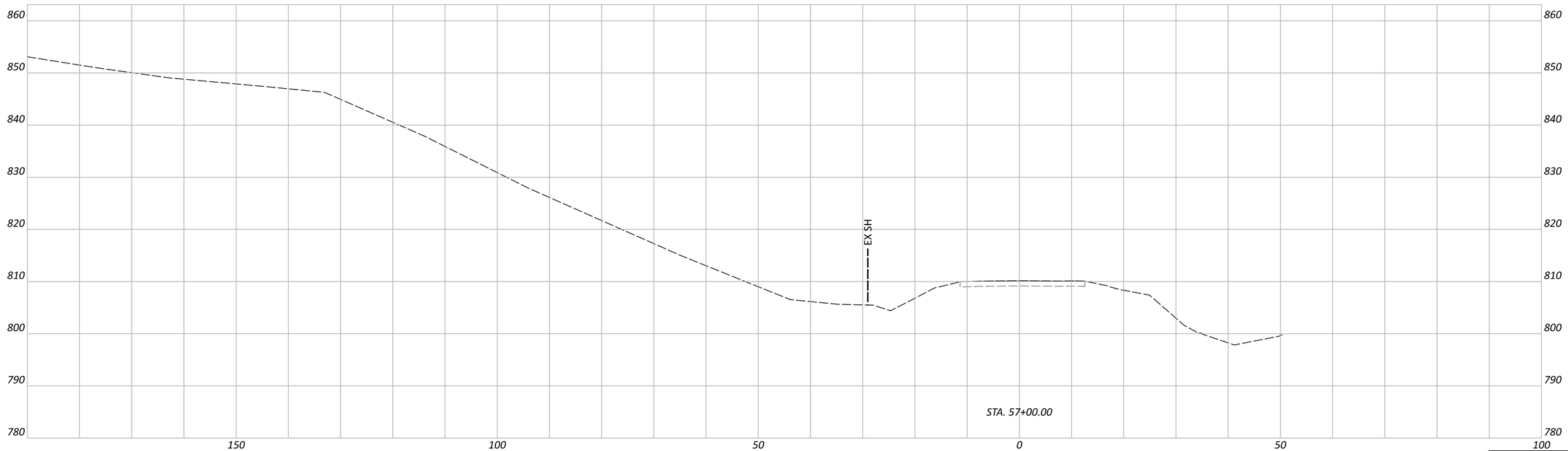
PROJECT ID
115988

SHEET P.25 | TOTAL 46

EARTHWORK CORRECTIONS DUE TO ROADWAY CURVATURE											
STA.	CENTROID GRADING (FT)	CURVE RADIUS (FT)	CORRECTED RADIUS (FT)	ALIGNMENT FACTOR	CORRECTED ARC LENTH (FT)	CUT AREA (SF)	MAT WIDTH (FT)	SEEDING WIDTH (FT)	CORRECTED CUT VOLUME (CY)	CORRECTED MAT AREA (SY)	CORRECTED SEED AREA (SY)
52+75	69.0	674.07	-	-	-	1046	100	137	-	-	-
53+00	69.2	674.07	604.97	0.8975	22.44	1315	100	137	982	250	342
53+25	69.3	674.07	604.82	0.8973	22.43	1389	100	137	1124	250	342
53+50	69.6	674.07	604.62	0.8970	22.42	1557	101	138	1224	251	343
53+75	69.8	674.07	604.37	0.8966	22.41	1737	102	138	1367	253	344
54+00	70.0	674.07	604.17	0.8963	22.41	1884	102	139	1503	254	345
54+25	70.3	674.07	603.92	0.8959	22.40	1929	103	139	1582	256	346
54+50	70.5	674.07	603.67	0.8956	22.39	1945	102	140	1607	255	347
54+60	70.6	674.07	603.52	0.8953	8.95	1945	103	140	645	102	140
54+75	70.0	674.07	603.77	0.8957	13.44	1882	103	139	953	154	209
55+00	68.9	674.07	604.62	0.8970	22.42	1827	105	137	1540	260	344
55+25	66.3	674.07	606.47	0.8997	22.49	1701	103	132	1470	260	337
55+50	63.3	674.07	609.27	0.9039	22.60	1490	99	126	1336	254	324
55+75	60.3	674.07	612.27	0.9083	22.71	1054	96	120	1070	246	311
56+00	57.3	674.07	615.27	0.9128	22.82	491	94	114	653	241	297

EARTHWORK TOTALS				
SHEET	CUT (CY)	FILL (CY)	MAT (SY)	SEEDING (SY)
13	264	6	322	360
14	1119	30	527	644
15	1996	54	547	708
16	2155	56	555	753
17	2106	95	500	684
18	2591	71	504	687
19	3085	39	510	691
20	2252	21	357	487
21	2493	27	414	553
22	2806	24	514	661
23	1723	24	487	608
24	218	2	169	207
TOTALS	22808	449	5406	7043

QUANTITIES CARRIED TO SHEET 5



Sheet Totals		
Seeding	Cut	Fill
0	0	0

CROSS SECTIONS - S.R. 146
STA. 57+00

DESIGN AGENCY

DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.26 TOTAL 46

MUS-146-29.36

MODEL: Pr: CL - 57+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:36:01 AM USER: gmotsche
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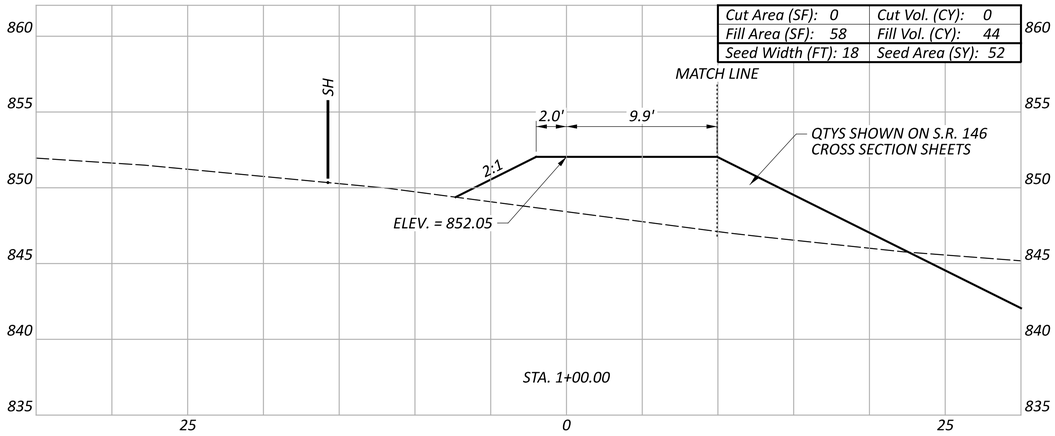

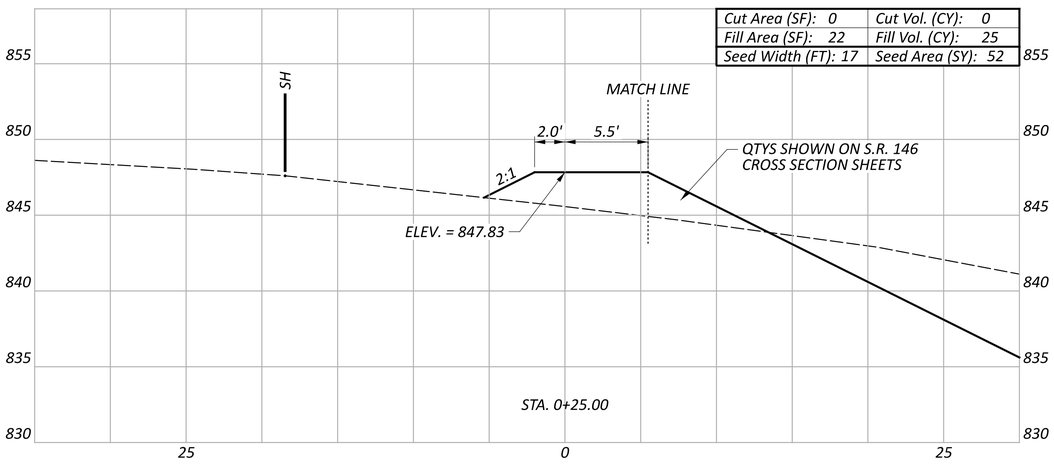

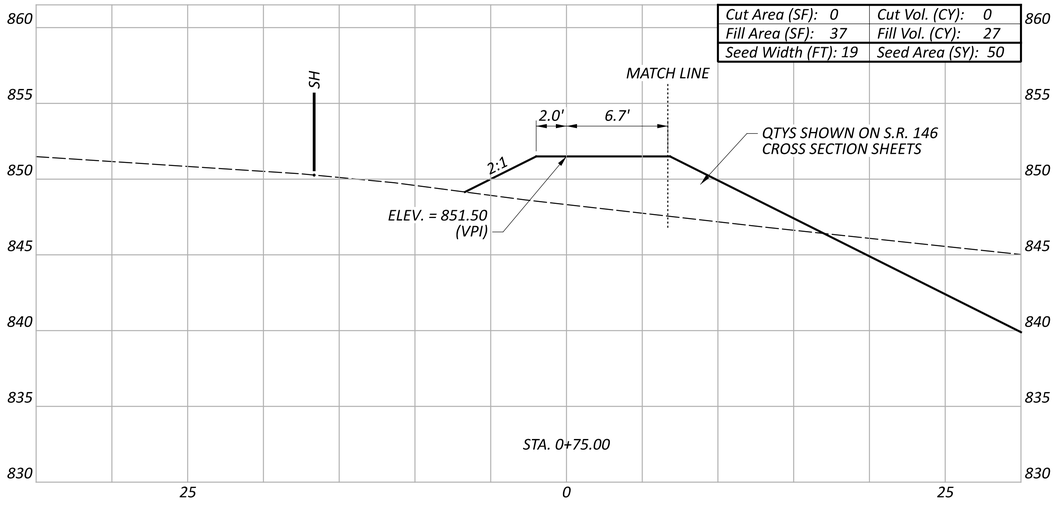

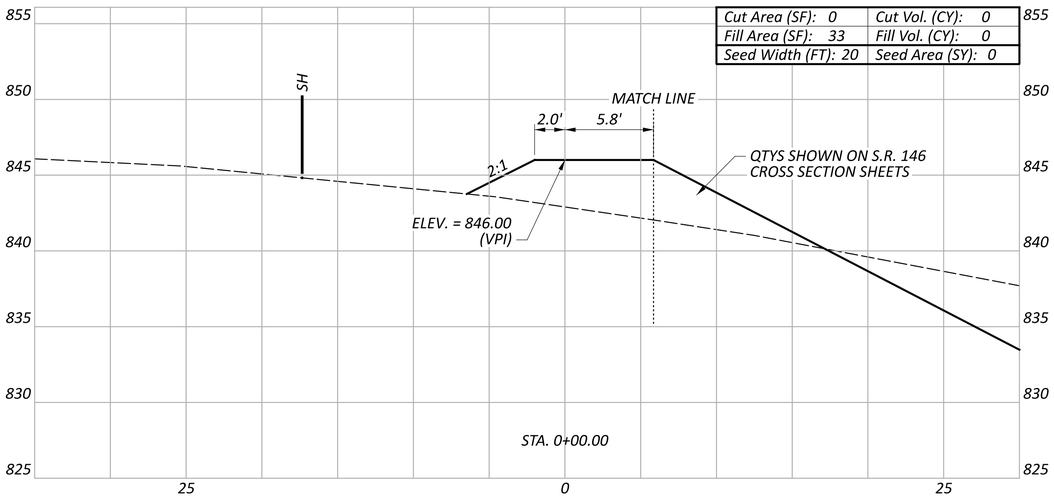

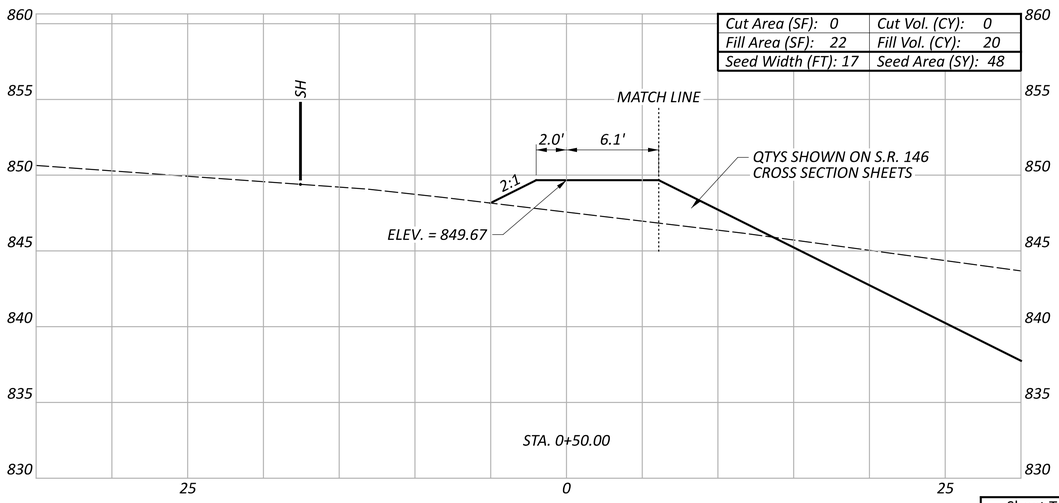

CROSS SECTIONS - PROPOSED BERM
STA. 0+00 - STA. 1+00

MUS-146-29.36

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DESIGN AGENCY

DESIGNER: GPM

REVIEWER: CMY

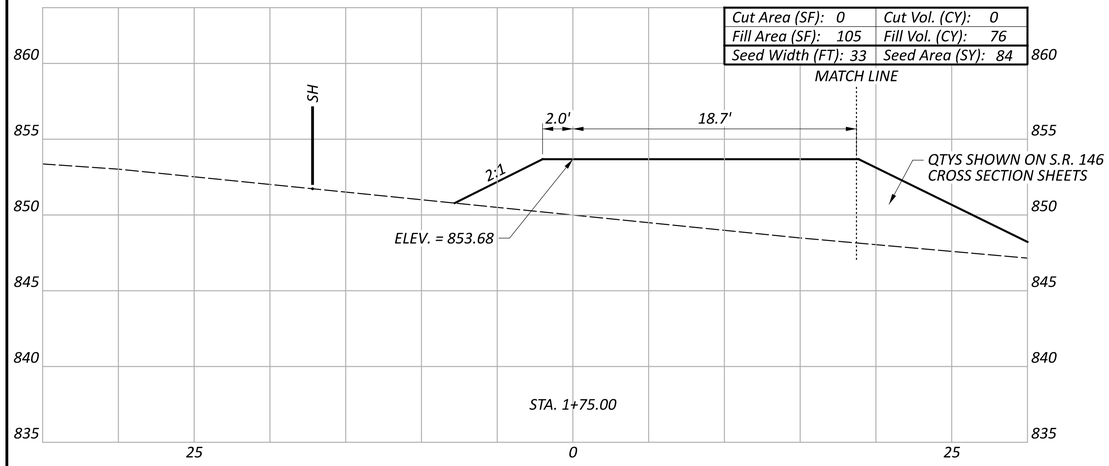
PROJECT ID: 115988

SHEET: P.27 TOTAL: 46

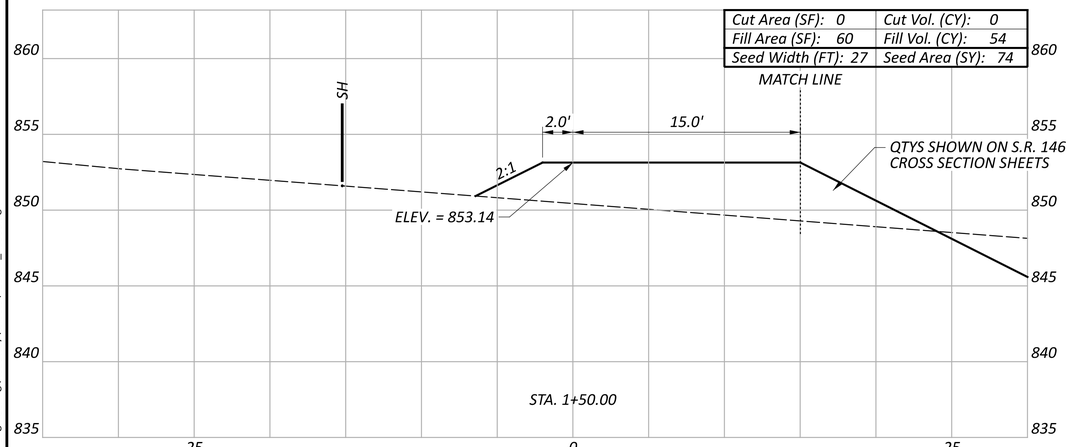
Sheet Totals		
Seeding	Cut	Fill
202	0	116

CROSS SECTIONS - PROPOSED BERM
STA. 1+25 - STA. 2+50

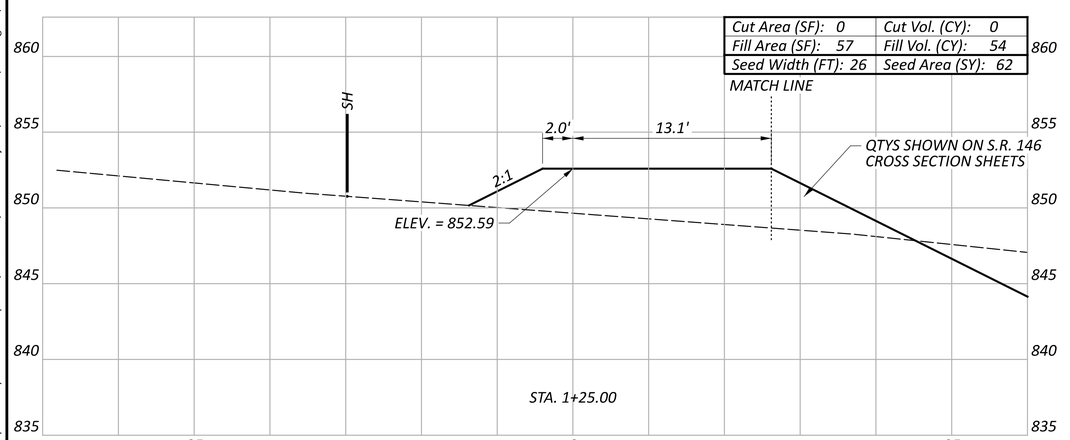
Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 105	Fill Vol. (CY): 76
Seed Width (FT): 33	Seed Area (SY): 84



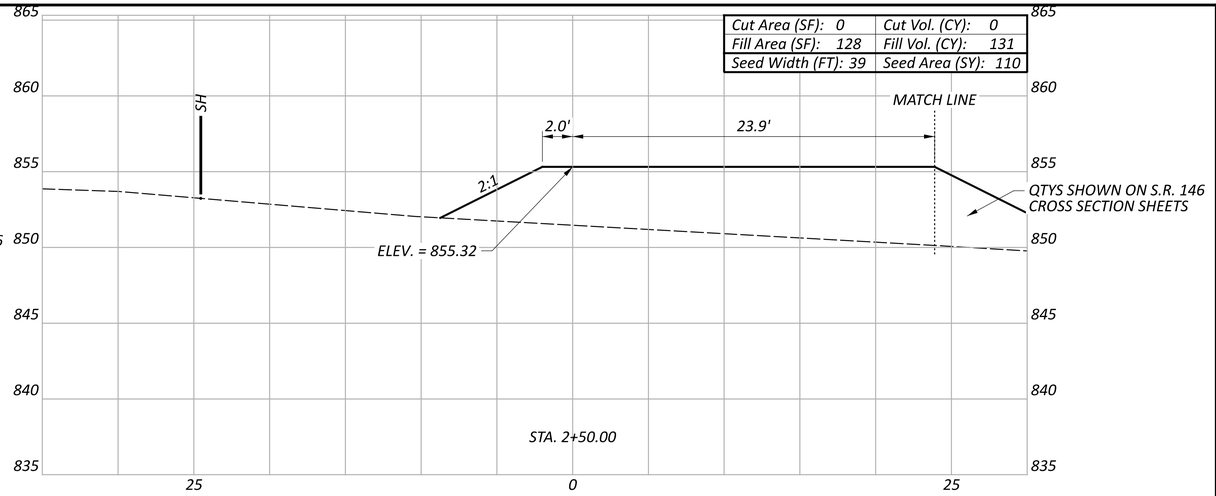
Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 60	Fill Vol. (CY): 54
Seed Width (FT): 27	Seed Area (SY): 74



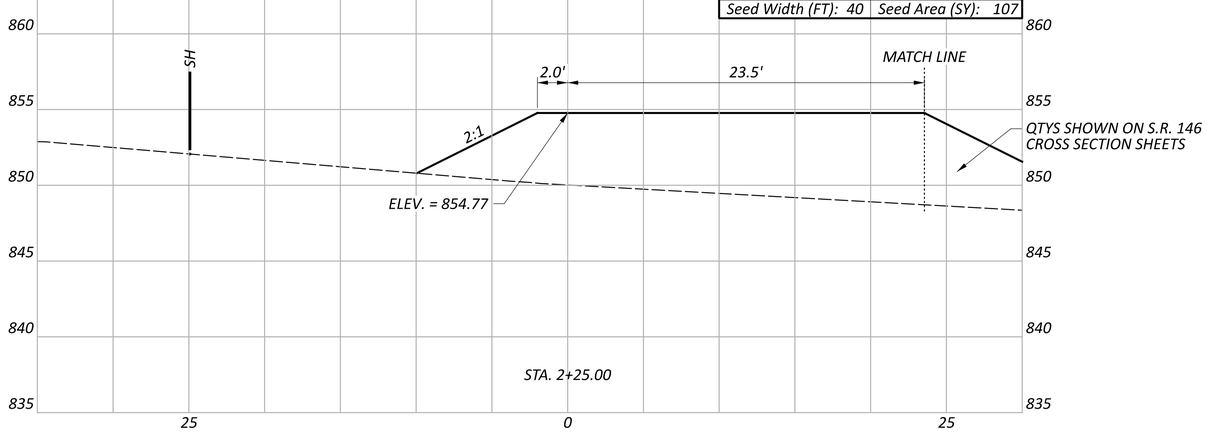
Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 57	Fill Vol. (CY): 54
Seed Width (FT): 26	Seed Area (SY): 62



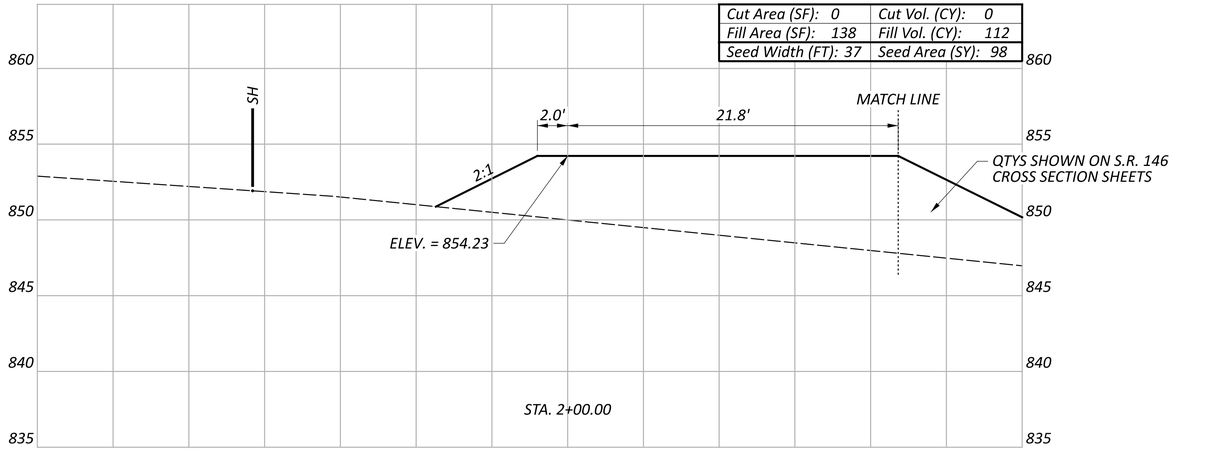
Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 128	Fill Vol. (CY): 131
Seed Width (FT): 39	Seed Area (SY): 110



Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 155	Fill Vol. (CY): 136
Seed Width (FT): 40	Seed Area (SY): 107



Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 138	Fill Vol. (CY): 112
Seed Width (FT): 37	Seed Area (SY): 98



Sheet Totals		
Seeding	Cut	Fill
535	0	563

DESIGN AGENCY

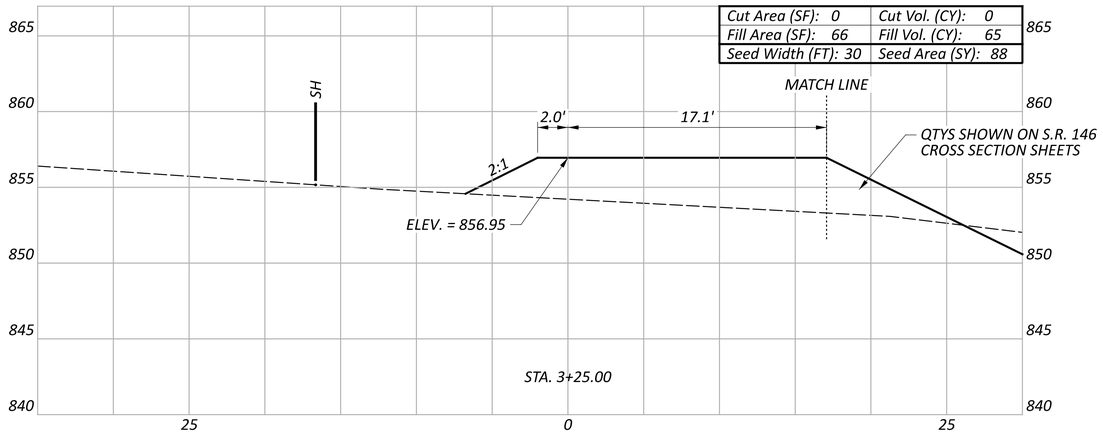
DESIGNER GPM

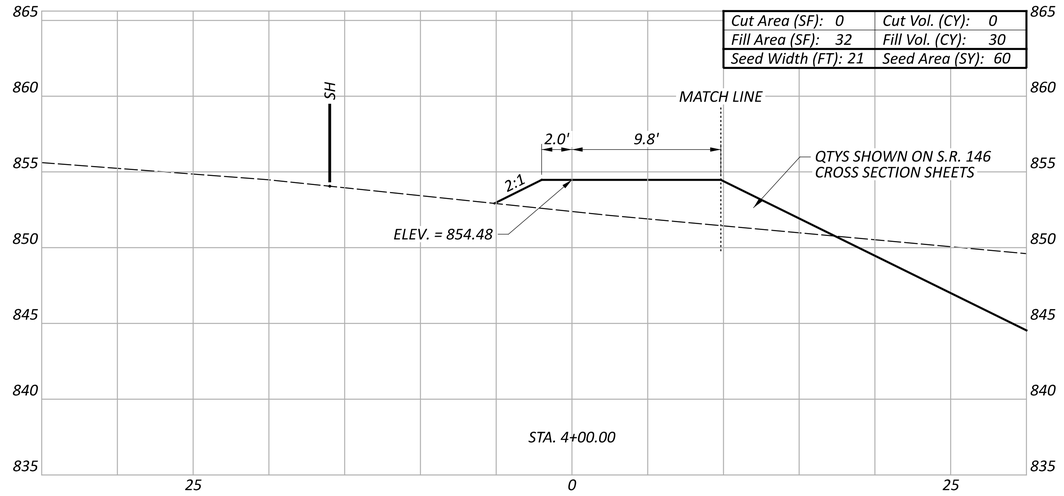
REVIEWER CMY

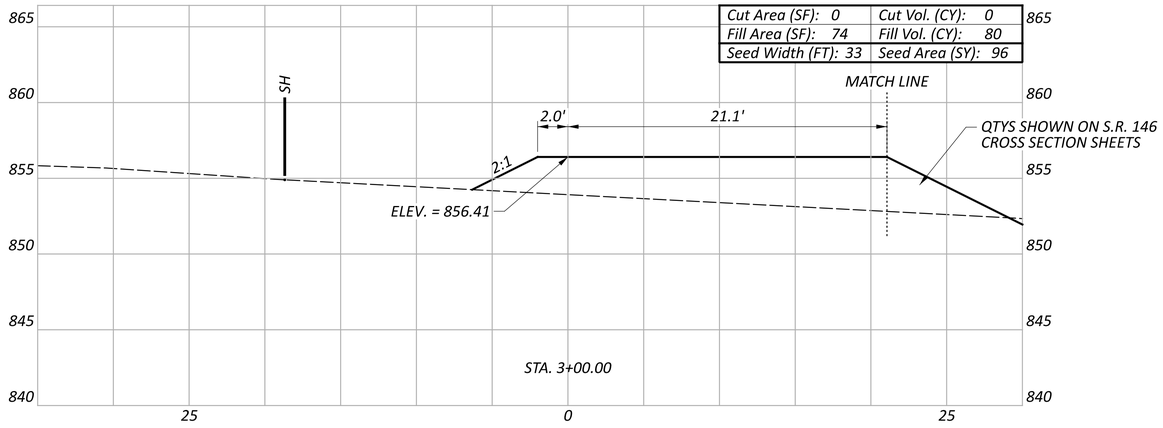
PROJECT ID 115988

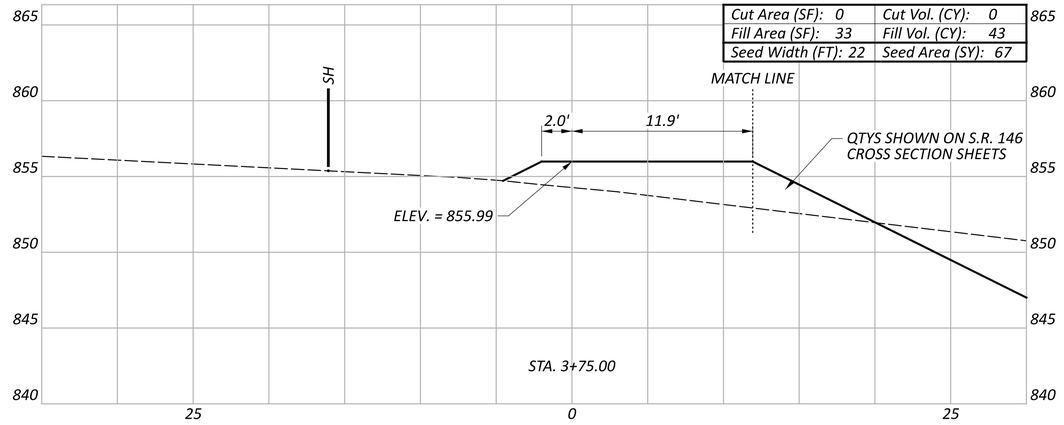
SHEET P.28 TOTAL 46

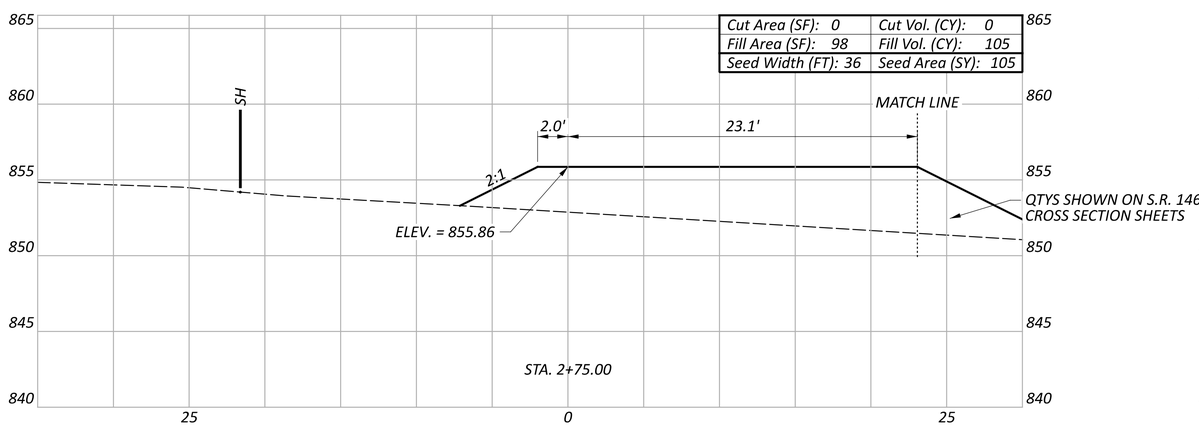
MUS-146-29.36

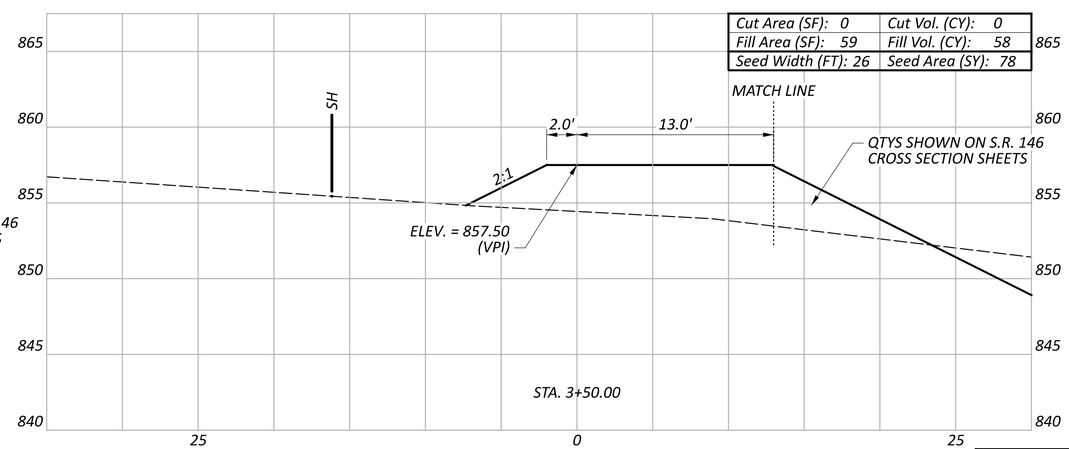












Sheet Totals		
Seeding	Cut	Fill
494	0	381

CROSS SECTIONS - PROPOSED BERM
STA. 2+75 - STA. 4+00

DESIGN AGENCY

DESIGNER GPM

REVIEWER CMY

PROJECT ID 115988

SHEET P.29 TOTAL 46

MUS-146-29.36

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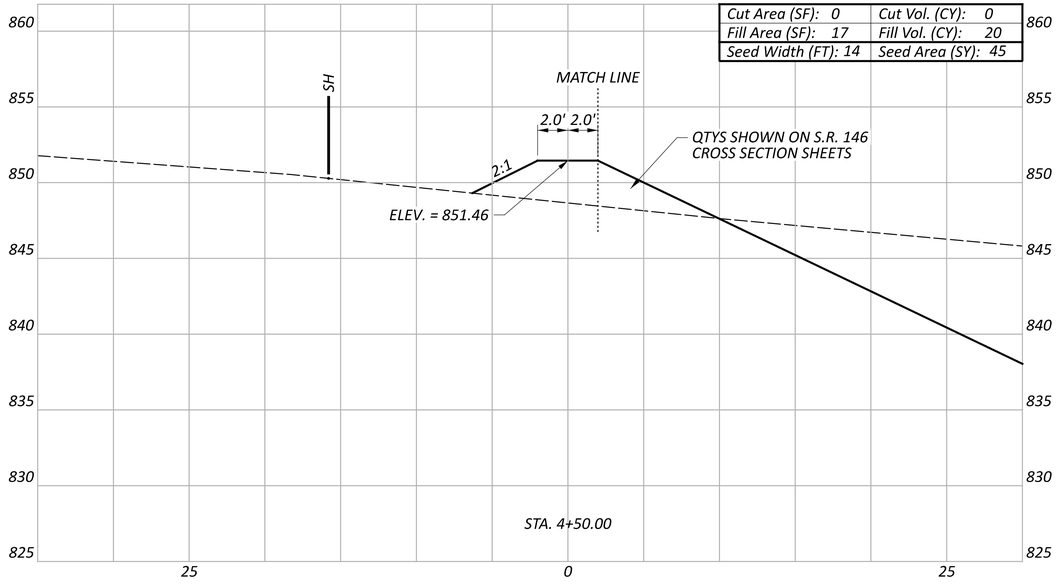
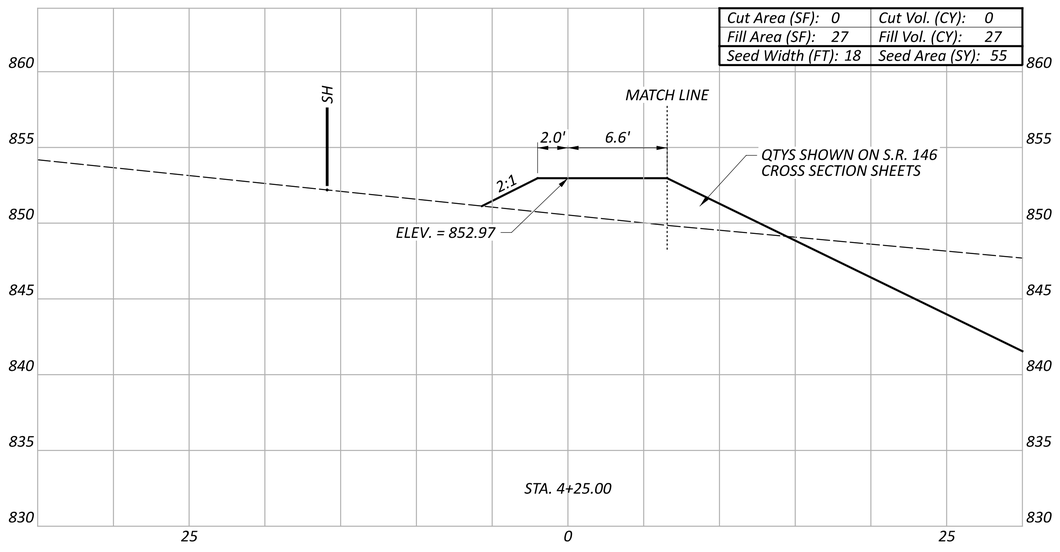
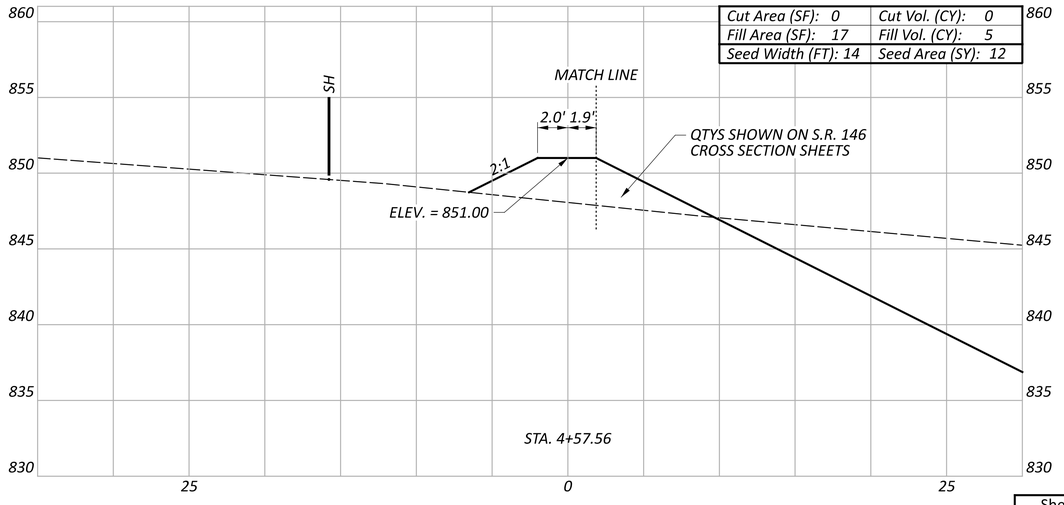




EARTHWORK TOTALS			
SHEET	CUT (CY)	FILL (CY)	SEEDING (SY)
25	0	116	202
26	0	563	535
27	0	381	494
28	0	52	112
TOTALS	0	1112	1343

QUANTITIES CARRIED TO SHEET 5



Sheet Totals		
Seeding	Cut	Fill
112	0	52

CROSS SECTIONS - PROPOSED BERM
STA. 4+25 - STA. 4+57.56

DESIGN AGENCY

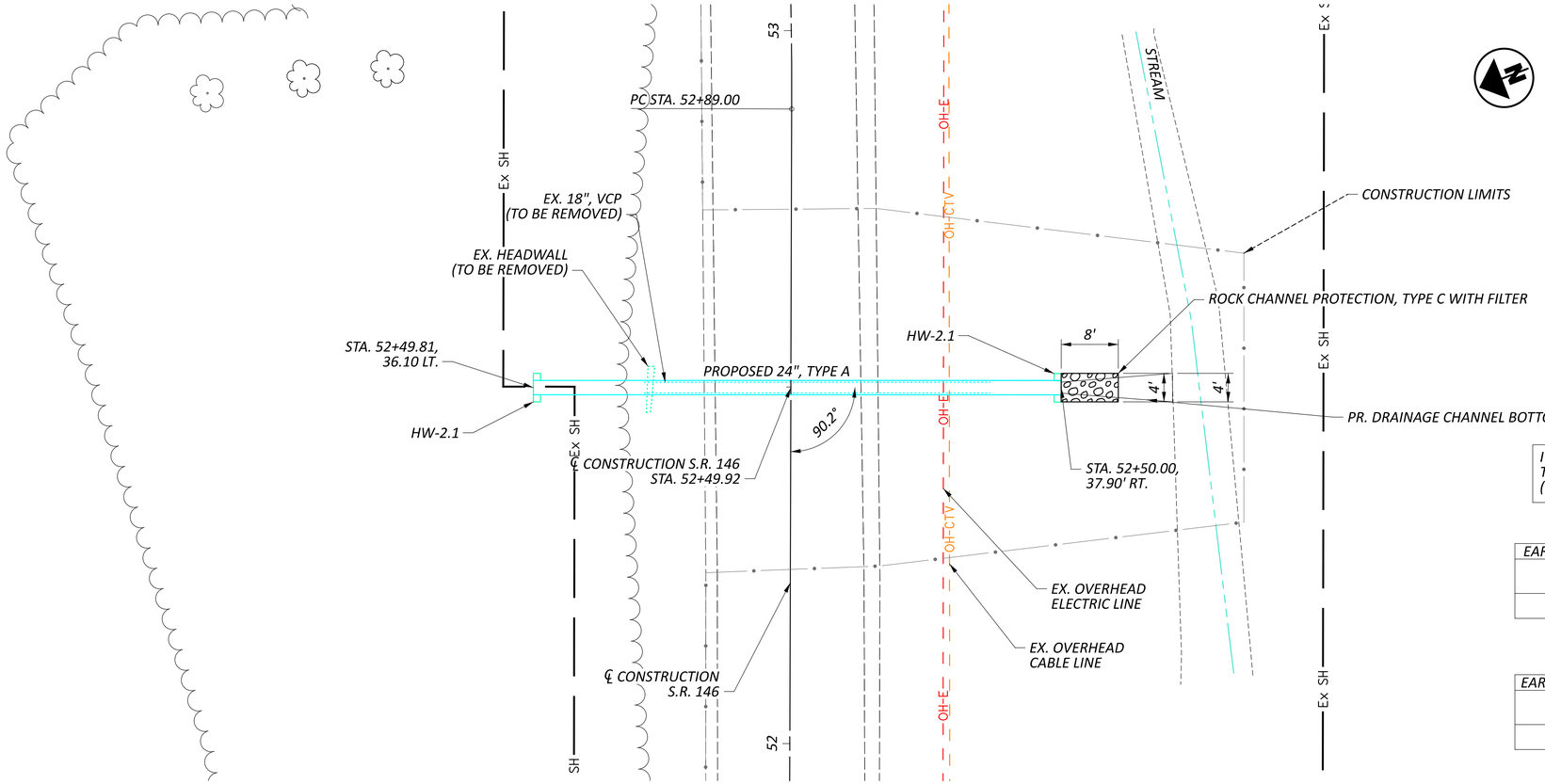
DESIGNER
GPM

REVIEWER
CMY

PROJECT ID
115988

SHEET P.30 TOTAL 46

MUS-146-29.36



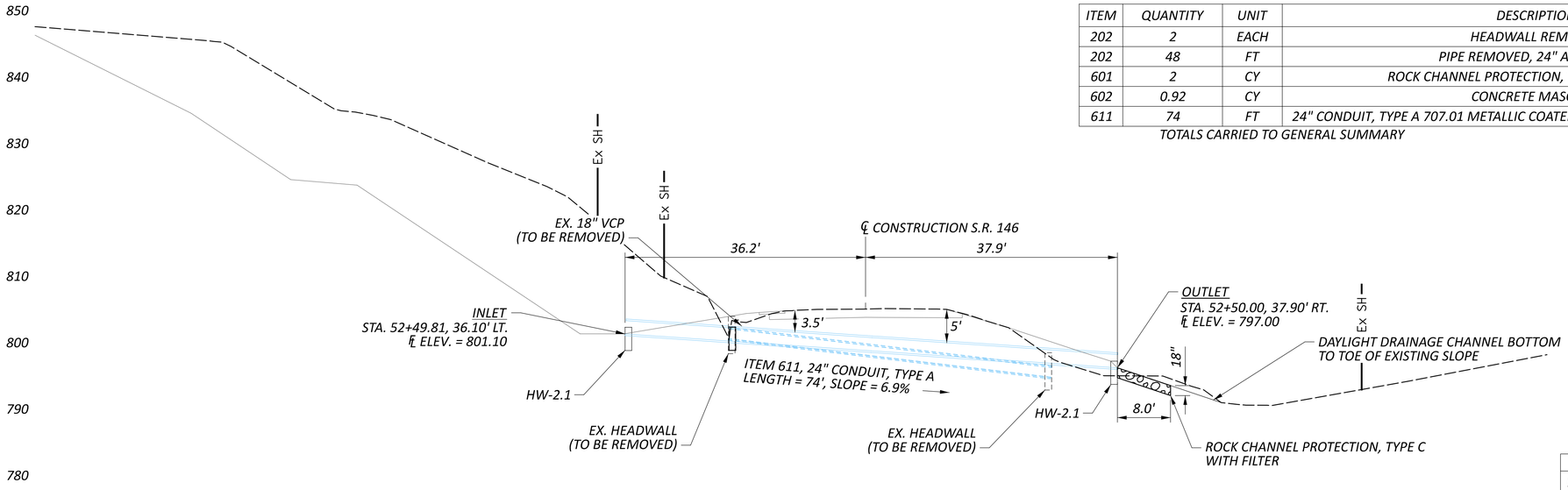
ITEM 601, ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
(6' X 4' X 1.5')/27 = 2 CY

EARTHWORK TOTALS FOR DRAINAGE CHANNEL			
SHEET	CUT (CY)	FILL (CY)	SEEDING (SY)
31	6	3	100

QUANTITIES CARRIED TO SHEET 5
QTY'S ARE CADD GENERATED

EARTHWORK TOTALS FOR FORESLOPE GRADING			
SHEET	CUT (CY)	FILL (CY)	SEEDING (SY)
31	0	18	100

QUANTITIES CARRIED TO SHEET 5
QTY'S ARE CADD GENERATED



ITEM	QUANTITY	UNIT	DESCRIPTION
202	2	EACH	HEADWALL REMOVED
202	48	FT	PIPE REMOVED, 24" AND UNDER
601	2	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
602	0.92	CY	CONCRETE MASONRY
611	74	FT	24" CONDUIT, TYPE A 707.01 METALLIC COATED (ALUMINIZED), 706.02, OR 707.33

TOTALS CARRIED TO GENERAL SUMMARY

EXISTING STRUCTURE
CFN: 1814113
TYPE: VITRIFIED CLAY PIPE
DIAMETER: 18"
LENGTH: 48'
SKEW: 90.2°
LAT: 39.880111
LONG: -81.764222

PROPOSED STRUCTURE
CFN: 1995753
TYPE: A
DIAMETER: 24"
LENGTH: 64'
SKEW: 90.2°
LAT: 39.880111
LONG: -81.764222

HYDRAULIC DATA	
DRAINAGE AREA = 2.0 ACRE	
DESIGN SERVICE LIFE = 75 YEARS	
HW(10) = 802.70	HW(100)= 804.30
V(10) = 13.0 FT/S	V(100) = 3.3 FT/S
Q(10) = 8.2 CFS	Q(100) = 10.5 CFS

HORIZONTAL SCALE IN FEET
0 5 10 20

CULVERT DETAIL SHEET - STA. 52+49.92
S.R. - 146

DESIGN AGENCY

DESIGNER GPM
REVIEWER CMY
PROJECT ID 115988
SHEET P.31 TOTAL 46

MUS-146-29.36

MODEL: SC1_1 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/20/2024 TIME: 10:36:21 AM USER: gmotsche
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