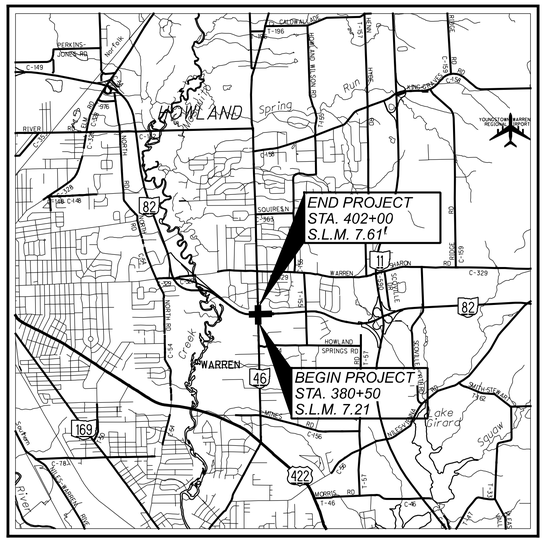
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

TRU-46/82 DDI

HOWLAND TOWNSHIP

TRUMBULL COUNTY


HOWLAND
Spring Run
END PROJECT
STA. 402+00
S.L.M. 7.61
BEGIN PROJECT
STA. 380+50
S.L.M. 7.21
WARREN
Mosquito Creek
Lake Girard
82
46
169
422
11
C-329
C-156
C-149
C-148
C-69
C-46
C-54
C-78
T-196
T-151
T-46
T-78
T-149
T-329
T-156
T-69
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T-148
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T-156
T-69
T-54
T-148
T-46
T-196

PAVING UNDER GUARDRAIL

THIS OPERATION SHALL INCLUDE PREPARATION OF THE GRADED SHOULDER USING ITEM 209, LINEAR GRADING, AS PER PLAN AND PAVING UNDER THE GUARDRAIL USING 441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN.

ITEM 209, LINEAR GRADING, AS PER PLAN SHALL CONSIST OF EXCAVATING TOPSOIL, AND PLACING GRANULAR MATERIAL.

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN 105.17.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 703.16 PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 209, LINEAR GRADING, AS PER PLAN.

PAVING UNDER GUARDRAIL SHALL CONSIST OF PLACING ITEM 441 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

METHOD A:

1. SET GUARDRAIL POSTS
2. PLACE ITEM 441

METHOD B:

1. PLACE ITEM 441
2. BORE ASPHALT AT POST LOCATIONS (MAY BE OMITTED IF STEEL POSTS ARE USED)
3. SET GUARDRAIL POSTS
4. PATCH AROUND POSTS. THE MATERIALS USED FOR PATCHING SHALL BE AN ASPHALT CONCRETE APPROVED BY THE ENGINEER. PATCHED AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH THE EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 441, ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1 (449), (UNDER GUARDRAIL), AS PER PLAN.

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 25 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT UNLESS SHOWN OTHERWISE ON THE ASPHALT CONCRETE CALCULATIONS SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

ITEM SPECIAL – SURVEY CONTROL VERIFICATION

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1) IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL

   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

2) IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL

   a. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   b. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDE IN THE PLAN
   c. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", AND ADJACENT TO THE SAFETY EDGE, OR AS DIRECTED BY THE ENGINEER, RECYCLED ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS THE GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 440.05. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 2 WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

SIEVE	TOTAL PERCENT PASSING
1- 1/2 "	100
3/4 "	50-100
NO. 4	35-70
NO. 30	9-33
NO. 200	0-13

ITEM 442 - ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M

THE REQUIREMENTS OF 442 AND 448 WILL APPLY; DEVIATIONS FROM THESE ARE AS FOLLOWS:

THE PERCENTAGE OF RECLAIMED MATERIAL PROPOSED FOR USE WILL BE INCLUDED IN THE MIX DESIGN PROCESS TO ESTABLISH THE JOB MIX FORMULA (JMF) IN ACCORDANCE WITH 440.05.

MATERIALS:	THE MATERIALS WILL BE:
AGGREGATES	703.05*

*THE VIRGIN COARSE AGGREGATE PORTION OF THE MIXTURE WILL CONTAIN 50% AIR COOLED BLAST FURNACE SLAG (ACBFS) AND MEET THE REQUIREMENTS OF 703.05.

USE AN NDES OF 50, AN NMAX OF 75 AND THE COMBINATION OF NEW AGGREGATES, NEW ASPHALT BINDER, AND RECLAIMED MATERIAL SHALL BE AS REQUIRED TO PRODUCE A COMPOSITION CONTAINING A MINIMUM OF 6.0% NEW ASPHALT BINDER RESULTING IN A MINIMUM TOTAL BINDER OF 6.5%.

703.05 DO NOT USE ANY FINE OR COARSE AGGREGATE WITH A 'SR' OR 'SRH' DESIGNATION ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

ITEM 611 – MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 623 – MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES OR 623.05 FOR MONUMENT ASSEMBLY BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (48" DIAMETER FOR STORM AND SANITARY MANHOLE CASTINGS, 24"-28" FOR MONUMENT ASSEMBLY BOXES, AND 2' IN DIAMETER LARGER THAN THE CASTING DIAMETER FOR ANY CASTINGS THAT ARE LARGER THAN STANDARD MANHOLES SUCH AS TELECOMMUNICATION MANHOLE CASTINGS) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6" MAXIMUM ON CENTER AND A MINIMUM OF 3.5" CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

VEGETATED BIOFILTER

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

ENDANGERED SPECIES HABITAT - INDIANA BAT/NORTHERN LONG-EARED BAT

THE PROJECT SITE 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 AT THIS LOCATION 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. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

STREAM AVOIDANCE

UNDER NO CIRCUMSTANCES SHALL ANY EQUIPMENT (LIFT, SCAFFOLDING, BACKHOE, EARTH MOVING EQUIPMENT, ETC.) AND/OR MATERIALS ENTER AN UNNAMED TRIBUTARY TO MOSQUITO CREEK. NO FILL MATERIAL (INCLUDING TEMPORARY FILLS SUCH AS WORK PADS, COFFERDAMS, ETC.) SHALL BE PLACED BELOW THE IDENTIFIED ORDINARY HIGH WATER MARK (OHWM) OF AN UNNAMED TRIBUTARY TO MOSQUITO CREEK DEPICTED IN THE PROJECT PLANS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ALL DEMOLITION DEBRIS, CONSTRUCTION MATERIALS, WASTE MATERIALS, WATER CHEMICALS OR OTHER SUBSTANCES USED TO CONSTRUCT THE PROJECT FROM ENTERING AN UNNAMED TRIBUTARY TO MOSQUITO CREEK.

WETLANDS AVOIDANCE

NO EXCAVATION, GRADING, OR FILLING OPERATIONS SHALL BE PERFORMED IN THE WETLANDS DELINEATED BEYOND THE PROJECT CONSTRUCTION LIMITS AND DEPICTED IN THE PROJECT PLANS. THE CONTRACTOR SHALL ALSO TAKE ALL PRECAUTIONS NECESSARY TO PREVENT ANY INCIDENTAL DISCHARGES INTO THESE WETLANDS. TO PREVENT ANY INCIDENTAL DISCHARGES, A FILTER FABRIC FENCE AND TEMPORARY CONSTRUCTION FENCE PER SUPPLEMENTAL SPECIFICATION 832, SHALL BE INSTALLED, MAINTAINING A ONE-FOOT BUFFER BETWEEN THE FENCE AND THE WETLAND BOUNDARIES, WHEN PRACTICABLE, PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, INCLUDING ANY NECESSARY CLEARING AND GRUBBING ACTIVITIES, AND BE MAINTAINED BY THE CONTRACTOR THROUGHOUT PROJECT CONSTRUCTION. IF DEBRIS ENTER WETLANDS UNAUTHORIZED FOR IMPACT DURING CONSTRUCTION, THE CONTRACTOR SHALL REMOVE THE DEBRIS IMMEDIATELY UTILIZING EQUIPMENT STAGED OUTSIDE THE BOUNDARY OF THE WETLANDS. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR STORE EQUIPMENT (LIFT, SCAFFOLDING, BACKHOE, EARTH MOVING EQUIPMENT,ETC.) AND/OR MATERIALS IN ANY WETLANDS, ETC. ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS SECTION 107.10 (PROTECTION AND RESTORATION OF PROPERTY) PROHIBIT THE CONTRACTOR FROM CREATING STAGING AREAS NEAR STREAMS AND/OR WETLANDS. TO PREVENT ALL DEMOLITION DEBRIS, CONSTRUCTION MATERIALS, WASTE MATERIALS, WATER CHEMICALS OR OTHER SUBSTANCES USED TO CONSTRUCT THE PROJECT FROM ENTERING AN UNNAMED TRIBUTARY TO MOSQUITO CREEK.

GENERAL NOTES

DESIGN AGENCY

HDR

DESIGNER TJS

REVIEWER MJL 08/19/21

PROJECT ID 108547

SHEET 34 TOTAL 704

ITEM 622 - PORTABLE BARRIER, UNANCHORED

DURING THE PLACEMENT OF THE PORTABLE BARRIER ON SR 82 ONLY, TRAFFIC WILL BE PROHIBITED FROM OCCUPYING THE TRAVEL LANE ADJACENT TO THE BARRIER. THE BARRIER WILL BE PLACED AT NIGHT PER THE WORK HOUR RESTRICTION NOTE AND IN ACCORDANCE WITH THE PERMITTED LANE CLOSURE MAP. THE CLOSURE OF THE ADJACENT LANE WILL BE PER THE STANDARD DRAWING MT-95.30.

THE CONTRACTOR WILL SUBMIT A PLAN TO THE ENGINEER FOR APPROVAL SEVEN (7) DAYS IN ADVANCE OF THE PLANNED LANE CLOSURE. WORK WILL NOT BEGIN UNTIL APPROVAL OF THE PLANS HAS BEEN GRANTED.

ALL COSTS INVOLVED IN PLACING THE PORTABLE CONCRETE BARRIER WILL BE INCLUDED IN THE CONTRACT PRICE BID FOR ITEM 622 PORTABLE BARRIER, UNANCHORED.

TIME LIMITATION, TRAFFIC ON A MILLED SURFACE

THE MAXIMUM ALLOWABLE TIME FOR TRAFFIC TO BE PLACED ON A MILLED SURFACE SHALL BE 7 DAYS CONSECUTIVE CALENDAR DAYS. SHOULD THE CONTRACTOR FAIL TO MEET THIS REQUIREMENT, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE IN THE AMOUNT OF $3,000 PER DAY THAT THE TRAFFIC IS PLACED ON A MILLED SURFACE BEYOND THE SPECIFIED LIMIT.

DROPOFFS

THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND SIDE STREET APPROACHES/DRIVEWAYS GREATER THAN 1.25 INCH. THE CONTRACTOR SHALL PLACE A 12:1 ASPHALT WEDGE FOR ALL RESULTING ELEVATION DIFFERENCES GREATER THAN 1.25 INCH PRIOR TO OPENING TO TRAFFIC. THE PAVING OF INTERSECTION APPROACHES AND DRIVEWAYS SHALL BE PERFORMED WITHIN 7 DAYS OF MAINLINE SURFACE COURSE BEING APPLIED AND A DROPOFF BEING CREATED BETWEEN THE NEW SURFACE COURSE AND THE MILLED/EXISTING SIDE ROAD OR DRIVEWAY SURFACE. THE CONTRACTOR MAY ELECT TO PLACE A 12:1 ASPHALT WEDGE IN LIEU OF COMPLETING THE PAVING, HOWEVER THE ASPHALT CONCRETE USED FOR THE WEDGE SHALL BE CONSIDERED INCIDENTAL TO ITEM 614 – MAINTAINING TRAFFIC AND SHALL INCLUDE THE REMOVAL OF THE WEDGE BEFORE THE INTERSECTION/DRIVEWAY IS PAVED.

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 200 M. GAL.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

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 PRIOR TO CLOSURE	14 CALENDAR DAYS
	> 12 HOURS & < 2 WEEKS PRIOR TO CLOSURE	7 CALENDAR DAYS
	<= 12 HOURS PRIOR TO CLOSURE	2 BUSINESS DAYS

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 (TIME LIMITATION ON A DETOUR)

RAMPS MAY BE CLOSED FOR SHORT DURATIONS IN ACCORDANCE WITH THE RAMP CLOSURES TABLE AND DETOUR SHEETS $MD0001 - $MD0005. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE RAMP CLOSURES TABLE FOR EACH CALENDAR DAY THE RAMP REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED AMOUNT.

RAMP CLOSURES TABLE

RAMP	PERMITTED WEEKEND CLOSURE	PERMITTED WEEKDAY NIGHTTIME CLOSURE	DISINCENTIVE AMOUNTS PER DAY
A	FRIDAY 8PM - MONDAY 6AM	N/A	$36,700
B		10PM-6AM	$21,500
C		N/A	$45,100
D		N/A	$39,500
MARKET STREET		N/A	$4,600

ITEM 614, MAINTAINING TRAFFIC (SR 46 CLOSURE)

DURING DEMOLITION OF EXISTING SR 82 BRIDGE, SR 46 MAY BE CLOSED FOR SHORT DURATIONS IN ACCORDANCE WITH THE SR 46 CLOSURE TABLE BELOW. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE SR 46 CLOSURE TABLE FOR EACH HOUR THAT SR 46 REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED PERIOD.

SR 46 CLOSURE TABLE

PERMITTED NIGHTTIME CLOSURE		DISINCENTIVE AMOUNT PER MINUTE PER LANE
MONDAY - FRIDAY	10 PM - 5 AM	$355

ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER, OR OVERLAPPING A PAIR OF CROSSOVERS. THE SYSTEM SHALL BE AS SHOWN ON TRAFFIC SCD MT-100.00. THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.06, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES WHICH ARE NOT PROTECTED BY GUARDRAIL OR PORTABLE BARRIER SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, AND SHOULD BE LOCATED AT LEAST 30 FEET (PREFERABLY 40 FEET) FROM THE EDGE OF PAVEMENT WHEN POSSIBLE. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM 2 EA

ASPHALT PAVING LIMITATION

THE CONTRACTOR SHALL NOT ANTICIPATE OR SCHEDULE PLACING ASPHALT (ASPHALT SURFACE COURSE, ASPHALT INTERMEDIATE COURSE, ASPHALT CONCRETE BASE, ETC.) BETWEEN NOVEMBER 1 AND APRIL 1 WHEN SUBMITTING THEIR INITIAL BAR CHART PROGRESS SCHEDULE TO THE DISTRICT CONSTRUCTION ENGINEER (DCE) AS SPECIFIED IN CMS SECTION 108.02A. THIS LIMITATION SHALL ALSO INCLUDE INITIAL BASE LINE SCHEDULES AND ALL UPDATES IF A CPM SCHEDULE IS REQUIRED.

LANE VALUE CONTRACTING TABLE

ALL EXISTING LANES OF TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXSITING PAVEMENT, ITEM 615 TEMPORARY PAVEMENT, AND THE PROPOSED PAVEMENT. THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE AS DESIGNATED IN THE LANE VALUE CONTRACT TABLE FOR EACH UNIT OF TIME A LANE/SHOULDER IS CLOSED BY THE CONTRACTOR'S ACTION WHILE NOT OTHERWISE PERMITTED BY THE LANE VALUE CONTRACT TABLE.

LANE VALUE CONTRACT TABLE

SECTION (SLM)	SEASON	EXISTING NUMBER OF LANES PER DIRECTION	LANE CLOSURES ARE NOT PERMITTED: LANE REDUCTION	MON TO FRI	SAT	SUN	DISINCENTIVE AMOUNTS PER MINUTE PER LANE
ELM RD/SR5 (14.08) TO SR46 (16.80) [EAST]	SUMMER	2	2 TO 1	7AM-8AM 2PM-6PM	NO RESTRICTION	NO RESTRICTION	$235
	SPRING/FALL						
	WINTER			3PM-6PM			
ELM RD/SR5 (14.08) TO SR46 (16.80) [WEST]	SUMMER	2	2 TO 1	7AM-8AM 2PM-7PM	NO RESTRICTIONS	NO RESTRICTIONS	$235
	SPRING/FALL			7AM-9AM 2PM-6PM			
	WINTER			7AM-8AM 3PM-6PM			
ALL SHOULDER CLOSURES WILL FOLLOW THE TIME OF DAY AND DURATIONS GIVEN FOR A SINGLE LANE CLOSURE							

ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING, MAINTAINING, AND SUBSEQUENTLY REMOVING A 50-INCH PORTABLE BARRIER AT THE LOCATIONS SHOWN ON THE PLANS. FOR DETAILS, SEE SCD RM-4.1.

PORTABLE STEEL BARRIER IS AN APPROVED ALTERNATIVE TO PORTABLE CONCRETE BARRIER. FOR INFORMATION ON APPROVED VENDORS, SEE THE APPROVED PRODUCTS LIST MAINTAINED BY THE OFFICE OF ROADWAY ENGINEERING.

PORTABLE BARRIER, 32 INCHES HIGH WITH AN 18-INCH MINIMUM HEIGHT GLARE SCREEN MAY BE USED AT THE OPTION OF THE CONTRACTOR. THE GLARE SCREEN SHALL BE CONSTRUCTED USING ONE OF THE SCREENS PROVIDED ON THE APPROVED LIST, AVAILABLE ON THE OFFICE OF ROADWAY ENGINEERING WEBSITE.

PADDLE OR INTERMITTENT TYPE GLARE SCREENS SHALL BE DESIGNED USING A 20 DEGREE CUT-OFF ANGLE BASED ON TANGENT ALIGNMENT. THAT SPACING SHALL BE USED THROUGHOUT THE BARRIER LENGTH WITHOUT REGARD TO BARRIER CURVATURE.

THE GLARE SCREEN SYSTEM SHALL BE SECURELY FASTENED TO THE 32-INCH PORTABLE BARRIER USING THE HARDWARE AND PROCEDURES SPECIFIED BY THE MANUFACTURER.

FOR DIRECTIONS ON HOW TO INSTALL THE GLARE SCREEN AND THE BARRIER, SEE THE MANUFACTURER'S INSTRUCTIONS.

PAYMENT SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO PERFORM THE WORK AND SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 622, PORTABLE BARRIER, 50", AS PER PLAN.

PHASING RESTRICTIONS

FROM NOVEMBER 1 THROUGH JANUARY 3, TRAFFIC SHALL BE MAINTAINED PER THE PHASING SHEETS 107 THROUGH 118. NO ADDITIONAL LANE CLOSURES SHALL BE PERMITTED DURING THIS TIME FRAME FOR WORK ON SR 46. FAILURE TO COMPLY WITH THIS RESTRICTION SHALL RESULT IN A DISINCENTIVE PENALTY OF $4000/DAY THAT LANE CLOSURES EXIST BEYOND WHAT IS SHOWN ON THE STRUCTURE PHASING SHEETS. TRAFFIC SHALL BE PLACED IN THE SR 46 STAGE 2 PREPHASE PATTERN BY NOVEMBER 1, 2024. TRAFFIC SHALL NOT BE SHIFTED INTO SR 46 STAGE 2 PHASE 1 PATTERN UNTIL APRIL 1, 2025 WITHOUT APPROVAL OF THE ENGINEER. FAILURE TO MEET THESE REQUIREMENTS SHALL RESULT IN A DISINCENTIVE PENALTY OF $4000/DAY.

MAINTENANCE OF TRAFFIC NOTES

DESIGN AGENCY
HDR

DESIGNER REM
REVIEWER KF 08/19/21
PROJECT ID 108547
SHEET 38 TOTAL 704

TRU-46/82 DDI

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 3:54:56 PM USER: TSCHOEN
pw:\\pwhdruseas01:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\MOT\Sheets\MOT Notes Sheet - 3

SHEET NUM.														PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
			31	32	292	293	294	295	309A	311	454	628	673	01/SAF/21	03/NHS/04	04/S>2/04	05/S>2/43						
																						ROADWAY	
			LS											LS				201	11000	LS		CLEARING AND GRUBBING	
									36,300					36,300				202	23000	36,300	SY	PAVEMENT REMOVED	
									156					156				202	23500	156	SY	WEARING COURSE REMOVED	
								554						554				202	30700	554	FT	CONCRETE BARRIER REMOVED	
					3,028									3,028				202	32000	3,028	FT	CURB REMOVED	
					120									120				202	32500	120	FT	CURB AND GUTTER REMOVED	
					1,301					1,619					466	1,153	1,301	202	35100	2,920	FT	PIPE REMOVED, 24" AND UNDER	
										345						345		202	35200	345	FT	PIPE REMOVED, OVER 24"	
					2,257			1,238						3,495				202	38000	3,495	FT	GUARDRAIL REMOVED	
					1									1				202	53100	1	EACH	MAILBOX REMOVED	
										10					2	8		202	58000	10	EACH	MANHOLE REMOVED	
										20					4	16		202	58100	20	EACH	CATCH BASIN REMOVED	
										142						142		SPECIAL	20270000	142	FT	FILL AND PLUG EXISTING CONDUIT, 12"	35
										546						546		SPECIAL	20270000	546	FT	FILL AND PLUG EXISTING CONDUIT, 15"	35
										102						102		SPECIAL	20270000	102	FT	FILL AND PLUG EXISTING CONDUIT, 18"	35
										167						167		SPECIAL	20270000	167	FT	FILL AND PLUG EXISTING CONDUIT, 21"	35
					1,411									1,411				202	75000	1,411	FT	FENCE REMOVED	
					8												8	202	75610	8	EACH	VALVE BOX REMOVED	
					2									2				202	98100	2	EACH	REMOVAL MISC.: BRICK LOCATION SIGNS	35
					4									4				202	98100	4	EACH	REMOVAL MISC.: COMMERCIAL SIGNS	35
				52										52				202	98100	52	EACH	REMOVAL MISC.: BARRIER REFLECTOR	32
					67									67				202	98200	67	FT	REMOVAL MISC.: BLOCK WALL	35
											29,517			29,517				203	10000	29,517	CY	EXCAVATION	
											26,942			26,942				203	20000	26,942	CY	EMBANKMENT	
									44,392					44,392				204	10000	44,392	SY	SUBGRADE COMPACTION	
				150					3,842					3,992				204	13000	3,992	CY	EXCAVATION OF SUBGRADE	
				150					3,842					3,992				204	30020	3,992	CY	GRANULAR MATERIAL, TYPE C	
									28					28				204	45000	28	HOUR	PROOF ROLLING	
				450					20,272					20,722				204	50000	20,722	SY	GEOTEXTILE FABRIC	
				3										3				209	15000	3	STA	RESHAPING UNDER GUARDRAIL	
				25										25				209	60200	25	STA	LINEAR GRADING	
									32					32				209	60201	32	STA	LINEAR GRADING, AS PER PLAN	34
												LS		LS				602	98000	LS		MASONRY, MISC.: BLOCK WALL WITH SIGN	628
						2,715		1,050						3,765				606	15050	3,765	FT	GUARDRAIL, TYPE MGS	
						37.5								37.5				606	15150	37.5	FT	GUARDRAIL, TYPE MGS HALF POST SPACING	
						3		1						4				606	26150	4	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
						4		1						5				606	26550	5	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
						1		2						3				606	35002	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
								2						2				606	35102	2	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
													478	478				607	15000	478	FT	FENCE, TYPE 47	
													2,640	2,640				607	23001	2,640	FT	FENCE, TYPE CLT, AS PER PLAN	673
													3,118	3,118				607	70000	3,118	FT	FENCELINE SEEDING AND MULCHING	
									18,878					18,878				608	10000	18,878	SF	4" CONCRETE WALK	
						2,032								2,032				608	52000	2,032	SF	CURB RAMP	
								534						534				622	10060	534	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B	
							1,038							1,038				622	10160	1,038	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
							5							5				622	25000	5	EACH	CONCRETE BARRIER END SECTION, TYPE D	
							1							1				622	25050	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
														1				623	39501	1	EACH	MONUMENT ASSEMBLY ADJUSTED TO GRADE, AS PER PLAN	34
														1				623	40000	1	EACH	MONUMENT ASSEMBLY REMOVED AND RESET	
													6	6				625	32000	6	EACH	GROUND ROD	
					5									5				SPECIAL	69050350	5	EACH	MAILBOX REMOVED AND RESET	35
														LS				SPECIAL	69091000	LS		AS-BUILT CONSTRUCTION PLANS	35
				1										1				SPECIAL	69098000	1	EACH	VERTICAL CLEARANCE	32

GENERAL SUMMARY

TRU-46/82 DDI

MODEL: General Summary 1 PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 5:05:11 PM USER: TSCHOEN
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DESIGN AGENCY

HDR

DESIGNER TJS

REVIEWER KF 07/15/22

PROJECT ID 108547

SHEET 286 TOTAL 704

SHEET NUM.									PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
292	294	295	309A	534	535	613	614	615	01/SAF/21	05/S>2/43						
															PAVEMENT	
			4,254						4,254		252	01500	4,254	FT	FULL DEPTH PAVEMENT SAWING	
			33,921						33,921		254	01000	33,921	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"	
			5,535						5,535		302	56000	5,535	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
			8,616						8,616		304	20000	8,616	CY	AGGREGATE BASE	
			6,930						6,930		407	20000	6,930	GAL	NON-TRACKING TACK COAT	
			48						48		408	10001	48	GAL	PRIME COAT, AS PER PLAN	34
			80						80		441	70500	80	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)	
			76						76		441	70600	76	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (DRIVEWAYS)	
			71						71		441	70801	71	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	34
			1,384						1,384		442	10100	1,384	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
			2,598						2,598		442	20001	2,598	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M	34
			32						32		452	10010	32	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
			4,452						4,452		452	12010	4,452	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
			3,955						3,955		452	14010	3,955	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
	118								118		609	12000	118	FT	COMBINATION CURB AND GUTTER, TYPE 2	
		21							21		609	24510	21	FT	CURB, TYPE 4-C	
	6,321								6,321		609	26000	6,321	FT	CURB, TYPE 6	
			1,948						1,948		609	54001	1,948	SY	6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, CLASS QC1P	33
			67						67		617	10101	67	CY	COMPACTED AGGREGATE, AS PER PLAN	34
			1,834						1,834		SPECIAL	69012050	1,834	SY	REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS	33
			2,028						2,028		SPECIAL	69098300	2,028	SY	ARTIFICIAL TURF	32
															WATER WORK	
					21					21	638	00201	21	FT	4" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS, AS PER PLAN	535
					103					103	638	00701	103	FT	6" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS, AS PER PLAN	535
					1,122					1,122	638	01901	1,122	FT	10" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 52, MECHANICAL JOINTS AND FITTINGS, AS PER PLAN	535
					10					10	638	05401	10	FT	1" POLYETHYLENE SERVICE BRANCH, AS PER PLAN	535
					229					229	638	05600	229	FT	2" POLYETHYLENE SERVICE BRANCH, AS PER PLAN	535
					2					2	638	07701	2	EACH	4" GATE VALVE AND VALVE BOX, AS PER PLAN	536
					6					6	638	07801	6	EACH	6" GATE VALVE AND VALVE BOX, AS PER PLAN	536
					8					8	638	08601	8	EACH	10" INSERTING VALVE AND VALVE BOX, AS PER PLAN	536
					10					10	638	09521	10	EACH	10" X 10" TAPPING SLEEVE, VALVE AND VALVE BOX, AS PER PLAN	536
					4					4	638	10201	4	EACH	6" FIRE HYDRANT, AS PER PLAN	535
3										3	638	10480	3	EACH	FIRE HYDRANT REMOVED	
					6					6	638	10800	6	EACH	VALVE BOX ADJUSTED TO GRADE	
					8					8	638	98000	8	EACH	WATER WORK, MISC.: 2" CURB STOP AND 4 ¼" ROADWAY CURB BOX	535
					9					9	638	98000	9	EACH	WATER WORK, MISC.:10" MECHANICAL JOINTS CAP WITH CONCRETE MASONRY UNITS	535
					5					5	638	98000	5	EACH	WATER WORK, MISC.: 2" STAINLESS STEEL DOUBLE BAND TAPPING SLEEVE WITH GATE VALVE AND BOX	535
															SANITARY SEWER	
				28						28	611	00900	28	FT	6" CONDUIT, TYPE B	
	7									7	611	99654	7	EACH	MANHOLE ADJUSTED TO GRADE	
	2									2	611	99655	2	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	34
	1									1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE	
															LIGHTING	
						28	22	20	70		625	00450	70	EACH	CONNECTION, FUSED PULL APART	
							2		2		625	00460	2	EACH	CONNECTION, UNFUSED PULL APART	
						33	48	15	96		625	00480	96	EACH	CONNECTION, UNFUSED PERMANENT	
						5	3	1	9		625	10490	9	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT15B40	
							2		2		625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT15BB30	
						2			2		625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT15BB40	
						5	4	3	12		625	10490	12	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT18B40	
						1			1		625	10490	1	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT20B30	
						1	1	5	7		625	10490	7	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT20B40	
								1	1		625	10490	1	EACH	LIGHT POLE, CONVENTIONAL, DESIGN AT20B45	
						14	10	10	34		625	14100	34	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
							2		2		625	18200	2	EACH	BRACKET ARM, 15'	
						2,154	2,805	255	5,214		625	23200	5,214	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
						152			152		625	23300	152	FT	NO. 2 AWG 2400 VOLT DISTRIBUTION CABLE	
						2,535	2,091	1,782	6,408		625	23400	6,408	FT	NO. 10 AWG POLE AND BRACKET CABLE	
						3,222	1,866	3,799	8,887		625	24320	8,887	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	

GENERAL SUMMARY

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REVIEWER KF 07/15/22

PROJECT ID 108547

SHEET 288 TOTAL 704

TRU-46/82 DDI

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
32	40	41	293	294	295	543	546	550	613	614	615	01/SAF/21	02/NHS/11						
																		LIGHTING (CONT.)	
									542	775	65	1,382		625	25500	1,382	FT	CONDUIT, 3", 725.04	
											352		352	625	25600	352	FT	CONDUIT, 4", 725.04	
									114			114		625	25802	114	FT	CONDUIT, CONCRETE ENCASED, 3", 725.05	
										2		2		625	26253	2	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE II, 15300-16700 LM, 120V	612
									14	9	9	32		625	26253	32	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE II, 15300-16700 LM, 240V	612
									2	3	1	6		625	26253	6	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III, 15300-16700 LM, 240V	612
											4	4		625	27503	4	EACH	LUMINAIRE, UNDERPASS, SOLID STATE (LED), AS PER PLAN, TYPE III, 2900-4200 LM, 240V	612
									3,501	2,020	3,729	9,250		625	29000	9,250	FT	TRENCH	
											2		2	625	29920	2	EACH	STRUCTURE JUNCTION BOX	
									5	5	5	15		625	30700	15	EACH	PULL BOX, 725.08, 18"	
									2	5	2	7	2	625	30706	9	EACH	PULL BOX, 725.08, 24"	
									17	10	10	37		625	32000	37	EACH	GROUND ROD	
										2		2		625	32001	2	EACH	GROUND ROD, AS PER PLAN	612
											2		2	625	33000	2	EACH	STRUCTURE GROUNDING SYSTEM	
									1			1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	612
									3,501	2,020	3,729	9,250		625	36011	9,250	FT	UNDERGROUND WARNING/MARKING TAPE, AS PER PLAN	612
											1	1		625	37100	1	EACH	SERVICE TO UNDERPASS LIGHTING	
									1			1		625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL, PWR SVR - NLS	612
																		TRAFFIC CONTROL	
	150							106				256		621	00100	256	EACH	RPM	
	150					105						255		621	54000	255	EACH	RAISED PAVEMENT MARKER REMOVED	
							8					8		625	32000	8	EACH	GROUND ROD, TC-21.21	
38				12	10							60		626	00102	60	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	
28			39		20							87		626	00110	87	EACH	BARRIER REFLECTOR, TYPE 2 (ONE-WAY)	
							642.5					642.5		630	03100	642.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							49.5					49.5		630	04100	49.5	FT	GROUND MOUNTED SUPPORT, NO. 4 POST	
							181					181		630	06500	181	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	
							76					76		630	07600	76	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	
							12					12		630	08600	12	EACH	SIGN POST REFLECTOR	
							6					6		630	09000	6	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION	
							3					3		630	72320	3	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	
							4					4		630	72410	4	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 1	
							1					1		630	72430	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 3	
							1					1		630	72540	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 12	
							667.2					667.2		630	80100	667.2	SF	SIGN, FLAT SHEET	
							1,286.1					1,286.1		630	80200	1,286.1	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
							10					10		630	84510	10	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, TC-21.11	
							102					102		630	84900	102	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
							10					10		630	85100	10	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
							91					91		630	86002	91	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
							15					15		630	87400	15	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	
							3					3		630	89702	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL	
		4						3.17				7.17		646	10010	7.17	MILE	EDGE LINE, 6"	
		1.5						0.9				2.4		646	10110	2.4	MILE	LANE LINE, 6"	
		0.25						0.96				1.21		646	10200	1.21	MILE	CENTER LINE	
		500						2,644				3,144		646	10310	3,144	FT	CHANNELIZING LINE, 12"	
								207				207		646	10400	207	FT	STOP LINE	
								230				230		646	10510	230	FT	CROSSWALK LINE, 12"	
								138				138		646	10600	138	FT	TRANSVERSE/DIAGONAL LINE	
								58				58		646	20300	58	EACH	LANE ARROW	
								3				3		646	20320	3	EACH	WRONG WAY ARROW	
								4				4		646	20350	4	EACH	LANE REDUCTION ARROW	
								1,755				1,755		646	20504	1,755	FT	DOTTED LINE, 6"	

GENERAL SUMMARY

DESIGN AGENCY

DESIGNER TJS

REVIEWER KF 07/15/22

PROJECT ID 108547

SHEET 289 TOTAL 704

TRU-46/82 DDI

PAVEMENT SUBSUMMARY

STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	204 SUBGRADE COMPACTION	204 PROOF ROLLING	204 EXCAVATION OF SUBGRADE, 12"	204 GRANULAR MATERIAL, TYPE C, 12"	204 GEOTEXTILE FABRIC	302 ASPHALT CONCRETE BASE, PG64-22, (449), 7"	304 AGGREGATE BASE, 6"	304 AGGREGATE BASE, 16"	407 NON-TRACKING TACK COAT (0.06/SY)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, 1.5"	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), 1.75"	609 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, CLASS QC1P	690 SPECIAL - ARTIFICIAL TURF					
					FT	FT	SY	SY	SY	HOUR	CY	CY	SY	CY	CY	CY	GAL	CY	CY	SY	SY					
SR 46 NORTHBOUND (CONT.)																										
182+90.16		183+79.59		LT/RT	89.43	57.78		574.11						111.63			68.89	23.92	27.91							
				LT/RT	89.43	59.01		586.33							97.72											
				LT/RT	89.43	59.44		590.67	590.67	0.30																
SR 46 SOUTHBOUND																										
281+50.00		282+00.00		LT/RT	50.00	39.00	216.67							42.13			26.00	9.03	10.53							
				LT/RT	50.00	40.00	222.22								37.04											
				LT/RT	50.00	41.00	227.78		227.78	0.11																
282+00.00		283+05.47		LT/RT	105.47	36.00	421.88							82.03			50.63	17.58	20.51							
				LT/RT	105.47	37.00	433.60								72.27											
				LT/RT	105.47	38.00	445.32		445.32	0.22																
283+05.47		283+73.51		LT/RT	68.04	50.59		382.44						74.36			45.89	15.94	18.59							
				LT/RT	68.04	52.18		394.44							65.74											
				LT/RT	68.04	52.70		398.44	398.44	0.20																
SOUTH CROSS OVER																										
183+79.59		185+82.88		LT/RT	203.29			1784.11									107.05	74.34								
283+73.51		285+81.12		LT/RT	207.61																					
				LT/RT				1797.22									107.83		87.36							
				LT/RT				1799.44						349.89												
				LT/RT				1830.89							305.15											
				LT/RT				1838.00	1838.00	0.92																
184+50.00		185+82.88		LT/RT	132.88			1417.11			472.37	472.37	2892.89													
284+50.00		285+81.12		LT/RT	131.12																					
SOUTH MEDIAN ISLAND																										
380+50.50		383+67.84		LT/RT	317.34	8.93		314.89	314.89	0.16						139.95				314.89						
RAMP A SPLITTER ISLAND				LT				94.56												94.56						
				LT				219.00													219.00					
				LT				360.11	360.11	0.18						160.05										
RAMP B SPLITTER ISLAND				RT				182.22												182.22						
				RT				745.33													745.33					
				RT				927.44	927.44	0.46						412.20										
CENTRAL MEDIAN ISLAND				LT/RT				376.78												376.78						
				LT/RT				615.22	615.22	0.31						273.43										
SR 46 NORTHBOUND																										
185+82.88		187+29.95		LT/RT	147.07	58.01		948.00									56.88	39.50								
				LT/RT	147.07	59.22		967.78									58.07		47.04							
				LT/RT	147.07	60.53		989.11						192.33												
				LT/RT	147.07	61.58		1006.22							167.70											
				LT/RT	147.07	62.22		1016.67	1016.67	0.51	338.89	338.89	2066.02													
SR 46 SOUTHBOUND																										
285+81.12		287+29.85		LT/RT	148.73	39.97		660.56									39.63	27.52								
				LT/RT	148.73	42.08		695.44									41.73		33.81							
				LT/RT	148.73	42.41		700.78						136.26												
				LT/RT	148.73	43.32		715.89							119.31											
				LT/RT	148.73	43.77		723.33	723.33	0.36	241.11	241.11	1479.72													
SUBTOTALS									7457.87	3.73	1052.37	1052.37	6438.62	988.64	864.93	985.63	602.60	207.82	245.76	968.44	964.33					
TOTALS CARRIED TO SHEET 310									7458	4	1053	1053	6439	989	865	986	603	208	246	969	965					

DESIGN AGENCY

HDR

DESIGNER VLE

REVIEWER MJL 06/29/22

PROJECT ID 108547

SHEET 297 TOTAL 704

TRU-46/82 DDI

MODEL: SR 46 1B PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 4:39:52 PM USER: TSCHOEN
pw:\\pwhdruseas01:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Pavement Subsummary

PAVEMENT SUBSUMMARY

STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	204 SUBGRADE COMPACTION	204 PROOF ROLLING	204 EXCAVATION OF SUBGRADE, 12"	204 GRANULAR MATERIAL, TYPE C, 12"	204 GEOTEXTILE FABRIC	302 ASPHALT CONCRETE BASE, PG64-22, (449), 7"	304 AGGREGATE BASE, 6"	304 AGGREGATE BASE, 16"	407 NON-TRACKING TACK COAT (0.06/SY)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, 1.5"	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), 1.75"	609 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, CLASS QC1P	690 SPECIAL - ARTIFICIAL TURF
					FT	FT	SY	SY	SY	HOUR	CY	CY	SY	CY	CY	CY	GAL	CY	CY	SY	SY
NORTH CROSS OVER																						
187+29.95		189+15.55		LT/RT	185.60			1307.44									78.45	54.48				
287+29.85		289+17.02		LT/RT	187.17																	
				LT/RT				1320.89									79.25		64.21			
				LT/RT				1322.89						257.23								
				LT/RT				1348.00							224.67							
				LT/RT				1349.89	1349.89	0.67												
187+29.95		188+00.00		LT/RT	70.05			691.78			230.59	230.59	1414.71									
287+29.85		288+00.00		LT/RT	70.15																	
RAMP C SPLITTER ISLAND				RT				118.11												118.11		
				RT				222.56													222.56	
				RT				393.89	393.89	0.20						175.06						
RAMP D SPLITTER ISLAND				LT				639.00												639.00		
				LT				839.67													839.67	
				LT				1110.44	1110.44	0.56						493.53						
SR 46 SOUTHBOUND																						
289+17.02		290+00.81		LT/RT	83.79			432.00						84.00			51.84	18.00	21.00			
				LT/RT	83.79			445.44							74.24							
				LT/RT	83.79			449.00	449.00	0.22												
290+00.81		290+28.08		LT/RT	27.27	44.55	134.99							26.25			16.20	5.62	6.56			
				LT/RT	27.27	46.05	139.53								23.26							
				LT/RT	27.27	46.55	141.05		141.05	0.07												
290+28.08		291+10.00		LT/RT	81.92	48.63	442.64							86.07			53.12	18.44	21.52			
				LT/RT	81.92	49.63	451.74								75.29							
				LT/RT	81.92	50.13	456.29		456.29	0.23												
291+10.00		291+60.00		LT/RT	50.00	38.63	214.61							41.73			25.75	8.94	10.43			
				LT/RT	50.00	39.63	220.17								36.69							
				LT/RT	50.00	40.13	222.94		222.94	0.11												
291+60.00		293+32.42		LT/RT	172.42	29.74	569.75							110.79			68.37	23.74	27.70			
				LT/RT	172.42	30.74	588.91								98.15							
				LT/RT	172.42	31.24	598.49		598.49	0.30												
SR 46 NORTHBOUND																						
189+15.55		189+61.18		LT/RT	45.63	50.54		256.22						49.82			30.75	10.68	12.46			
				LT/RT	45.63	52.58		266.56							44.43							
				LT/RT	45.63	53.28		270.11	270.11	0.14												
189+61.18		189+80.63		LT/RT	19.45	34.46	74.47							14.48			8.94	3.10	3.62			
				LT/RT	19.45	35.96	77.71								12.95							
				LT/RT	19.45	36.46	78.79		78.79	0.04												
189+80.63		190+27.13		LT/RT	46.50	33.49	173.03							33.65			20.76	7.21	8.41			
				LT/RT	46.50	34.99	180.78								30.13							
				LT/RT	46.50	35.49	183.37		183.37	0.09												
190+27.13		190+93.97		LT/RT	66.84	44.56	330.93							64.35			39.71	13.79	16.09			
				LT/RT	66.84	45.56	338.36								56.39							
				LT/RT	66.84	46.06	342.07		342.07	0.17												
190+93.97		192+47.76		LT/RT	153.79	39.71	678.56							131.94			81.43	28.27	32.99			
				LT/RT	153.79	40.71	695.64								115.94							
				LT/RT	153.79	41.21	704.19		704.19	0.35												
192+47.76		193+30.91		LT/RT	83.15	38.61	356.71							69.36			42.81	14.86	17.34			
				LT/RT	83.15	39.61	365.95								60.99							
				LT/RT	83.15	40.11	370.57		370.57	0.19												
NORTH MEDIAN ISLAND																						
389+00.95		390+03.44		LT/RT	102.49	19.46		221.56	221.56	0.11						98.47				221.56		
SUBTOTALS									6892.65	3.45	230.59	230.59	1414.71	969.66	853.13	767.06	597.37	207.14	242.32	978.67	1062.22	
TOTALS CARRIED TO SHEET 310									6893	4	231	231	1415	970	854	768	598	208	243	979	1063	

TRU-46/82 DDI

MODEL: SR 46 2 PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 4:39:53 PM USER: TSCHOEN
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DESIGN AGENCY

DESIGNER VLE

REVIEWER MJL 06/29/22

PROJECT ID 108547

SHEET 298 TOTAL 704

SHEET	202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	204 SUBGRADE COMPACTION SY	204 PROOF ROLLING HOUR	204 EXCAVATION OF SUBGRADE, 12" CY	204 EXCAVATION OF SUBGRADE, 24" CY	204 GRANULAR MATERIAL, TYPE C, 12" CY	204 GRANULAR MATERIAL, TYPE C, 24" CY	204 GEOTEXTILE FABRIC SY	209 LINEAR GRADING, AS PER PLAN STA	252 FULL DEPTH PAVEMENT SAWING FT	254 PAVEMENT PLANING, ASPHALT CONCRETE, 1.5" SY	302 ASPHALT CONCRETE BASE, PG64-22, (449), 7"	304 AGGREGATE BASE, 6" CY	304 AGGREGATE BASE, 8" CY	304 AGGREGATE BASE, 9.25" CY	304 AGGREGATE BASE, 16" CY	407 NON-TRACKING TACK COAT (0.06/SY) GAL	407 NON-TRACKING TACK COAT (0.09/SY) GAL	408 PRIME COAT, AS PER PLAN (0.04/SY) GAL	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), 1.25" CY	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS), 2" CY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS), 1.75" CY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), 1.5" CY	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, 1.5" CY	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446), 1.75" CY	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P SY	452 8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P SY	452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P SY	452 4" CONCRETE WALK SF	609 6" CONCRETE TRAFFIC ISLAND, AS PER PLAN, CLASS QC1P SY	617 COMPACTED AGGREGATE, AS PER PLAN, 2" CY	690 SPECIAL - REINFORCED MESH FOR TRANSVERSE AND/OR LONGITUDINAL JOINTS AND CRACKS SY	690 SPECIAL - ARTIFICIAL TURF SY
296			2,864	2							897	3,081	504	464				504	278						239	130							445	
297			7,458	4	1,053		1,053		6,439				989	865			986	603							208	246					969			965
298			6,893	4	231		231		1,415				970	854			768	598							208	243					979			1,063
299			4,959	3	727		727		4,542				921	809				563							196	229								
300			1,188	1							1,303	1,738	202	184				120	157						114	49							703	
301			1,685	1							1,191	28,287	289	259		10		158	2,546						1,239	70							686	
302			2,468	2						20			59	124	347			130			55	25	76	45	13	15	32	227		18,878				
303																				46												64		
304	31,529	156																							7									
305			2,661	2	684		684		4,211		31	90		426					9						4			570	1,906					
306			3,587	2							26		382	581				224							76	94		1,362						
307			2,523	2		1,147		1,147	3,665		25			399														2,293						
308			4,018	3							552		335	691				205							71	83			2,049					
309	4,771		4,088	2						12	229	725	871	849				509	326	2				26	223	225						3		
SUBTOTAL	36,300	156	44,392	28	2,695	1,147	2,695	1,147	20,272	32	4,254	33,921	5,535	6,505	347	10	1,754	3,614	3,316	48	55	25	76	71	2,598	1,384	32	4,452	3,955	18,878	1,948	67	1,834	2,028
TOTALS CARRIED TO GENERAL SUMMARY	36,300	156	44,392	28	3,842		3,842		20,272	32	4,254	33,921	5,535	8,616				6,930		48	80		76	71	2,598	1,384	32	4,452	3,955	18,878	1,948	67	1,834	2,028

PAVEMENT SUBSUMMARY

DESIGN AGENCY

DESIGNER VLE

REVIEWER MJL 06/29/22

PROJECT ID 108547

SHEET 310 TOTAL 704

TRU-46/82 DDI

MODEL: Summary - GS029A PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 4:39:54 PM USER: TSCHOEN
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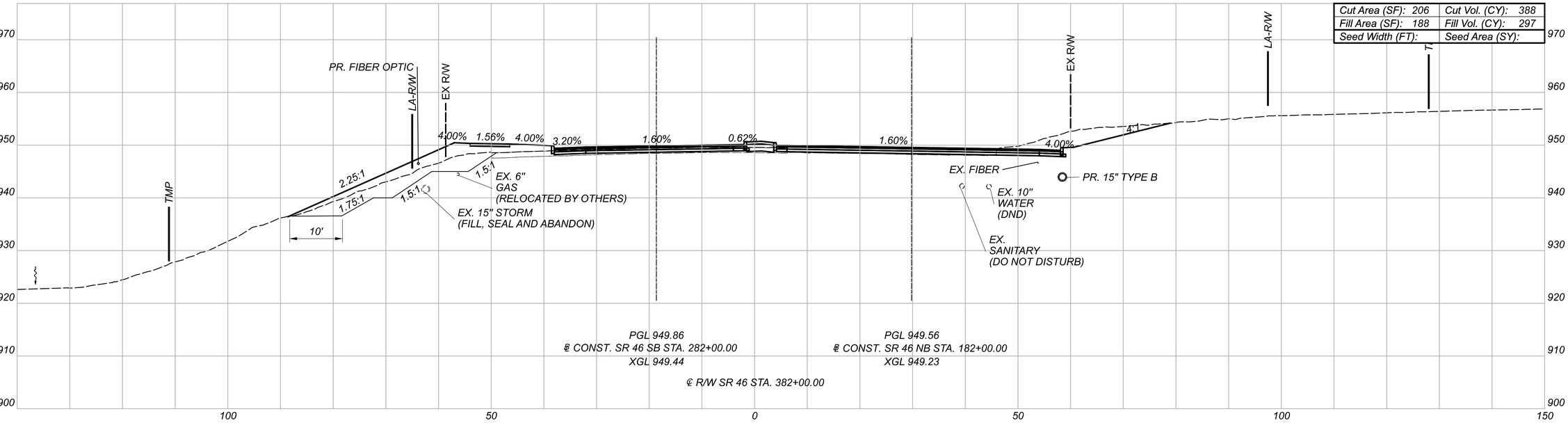

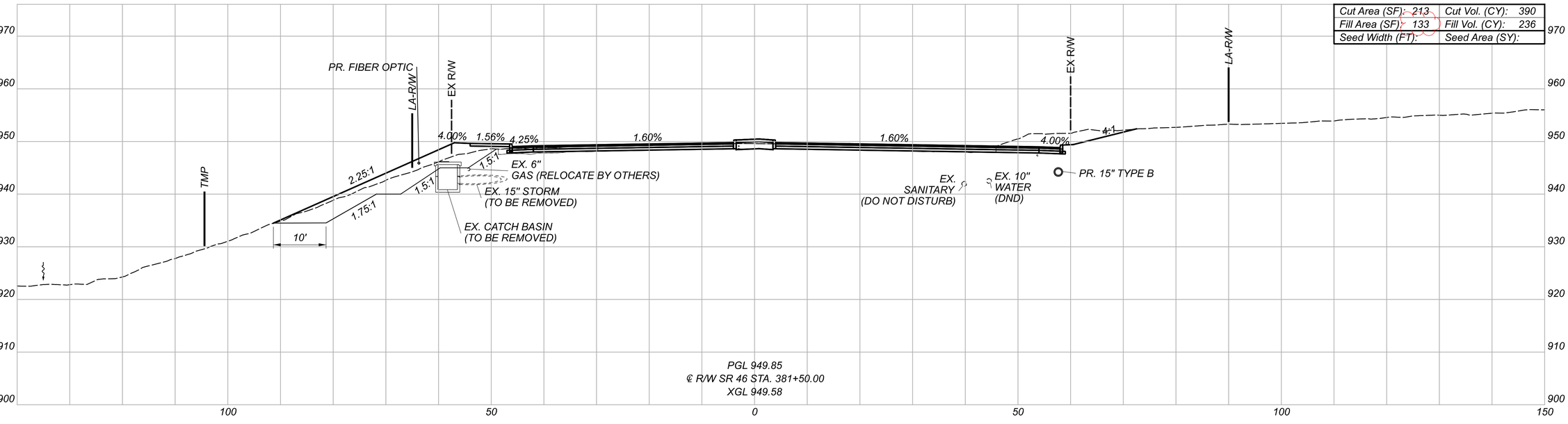

CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 381+50.00 TO STA. 382+00.00

TRU-46/82 DDI

Sheet Totals		
Seeding	Cut	Fill
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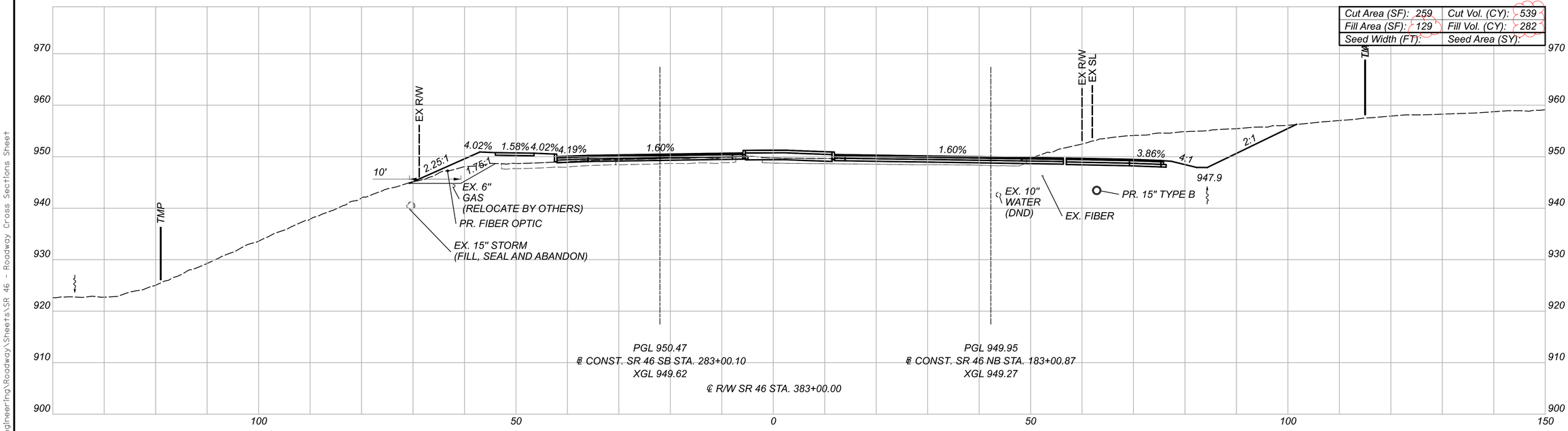
DESIGN AGENCY

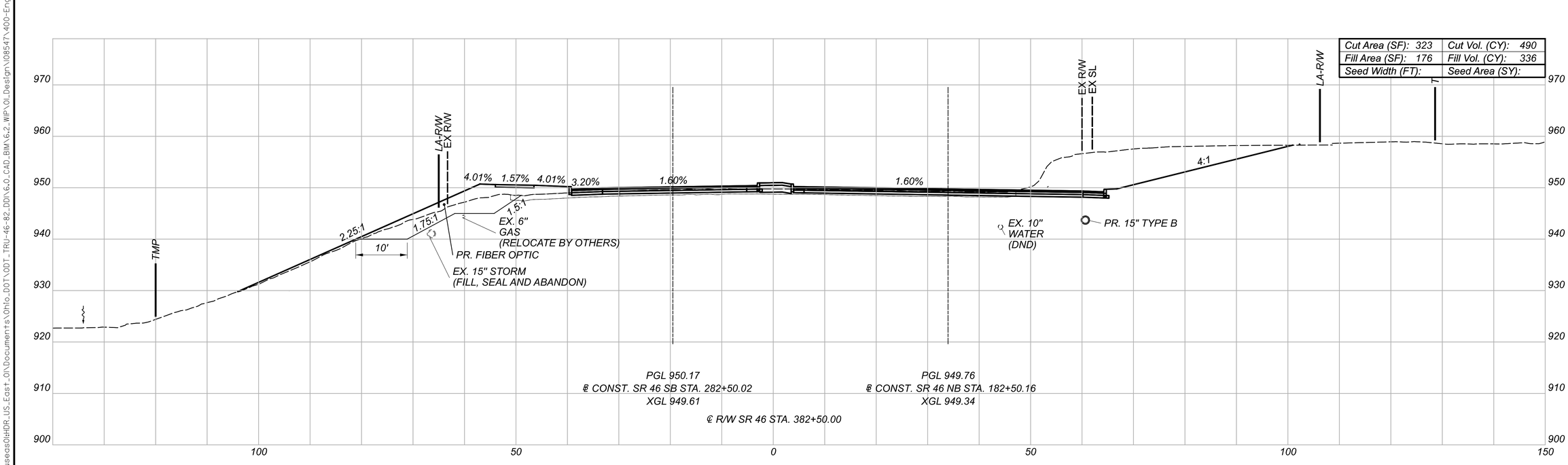
DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 373 TOTAL 704





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TRU-46/82 DDI

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Sheet Totals		
Seeding	Cut	Fill
-	1029	618

DESIGN AGENCY

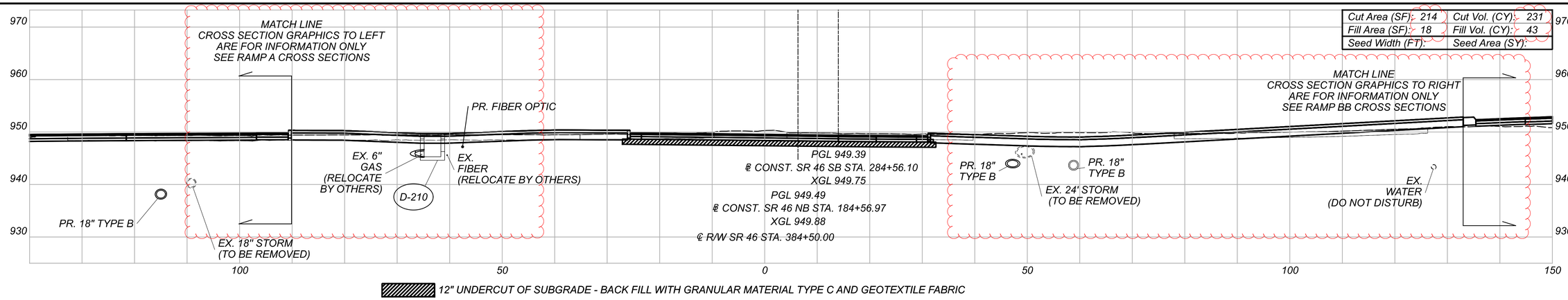
HDR

DESIGNER
MJL

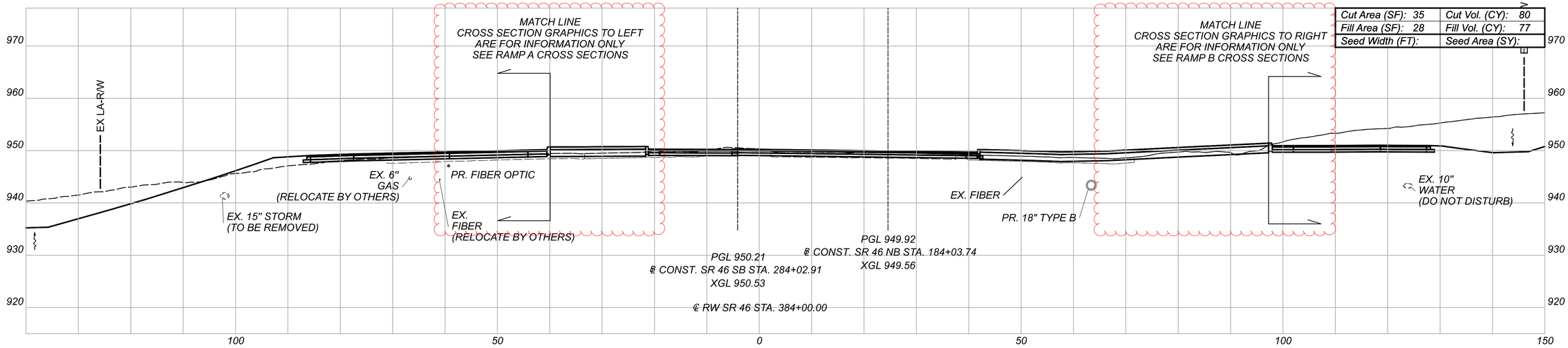
REVIEWER
JMB 08/19/21

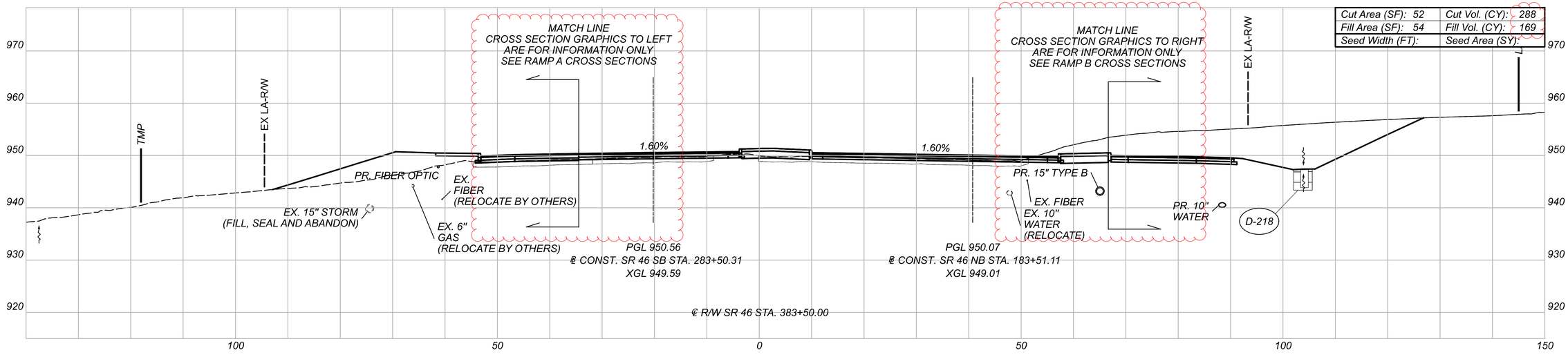
PROJECT ID
108547

SHEET 374 TOTAL 704



12" UNDERCUT OF SUBGRADE - BACK FILL WITH GRANULAR MATERIAL TYPE C AND GEOTEXTILE FABRIC





CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 383+50.00 TO STA. 384+50.00

TRU-46/82 DDI

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DESIGN AGENCY

DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill		
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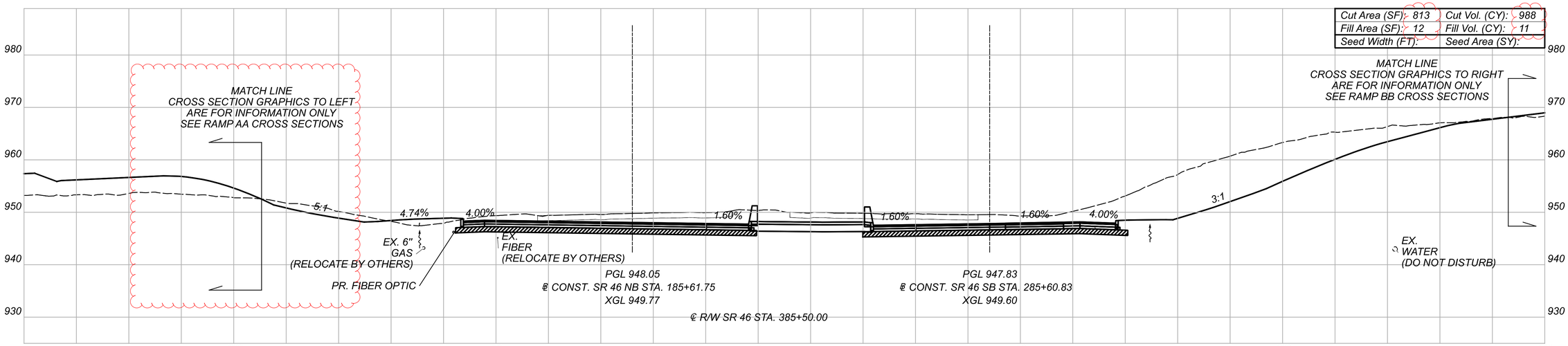

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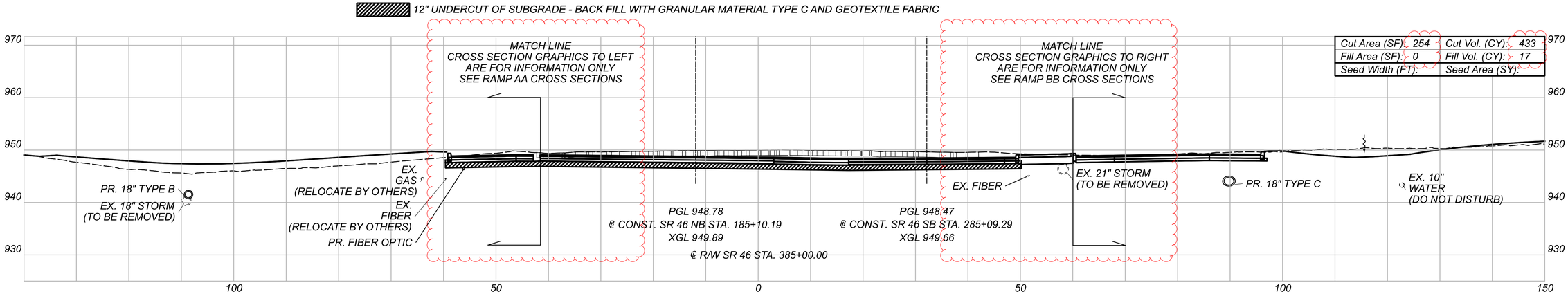
Fill Area (SF):	12	Fill Vol. (CY):	11
Seed Width (FT):		Seed Area (SY):	

12" UNDERCUT OF SUBGRADE - BACK FILL WITH GRANULAR MATERIAL TYPE C AND GEOTEXTILE FABRIC



Cut Area (SF):	254	Cut Vol. (CY):	433
Fill Area (SF):	0	Fill Vol. (CY):	17
Seed Width (FT):		Seed Area (SY):	

12" UNDERCUT OF SUBGRADE - BACK FILL WITH GRANULAR MATERIAL TYPE C AND GEOTEXTILE FABRIC

CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 385+00.00 TO STA. 385+50.00

TRU-46/82 DDI

Sheet Totals		
Seeding	Cut	Fill
-	1421	28

DESIGN AGENCY

DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 376 TOTAL 704

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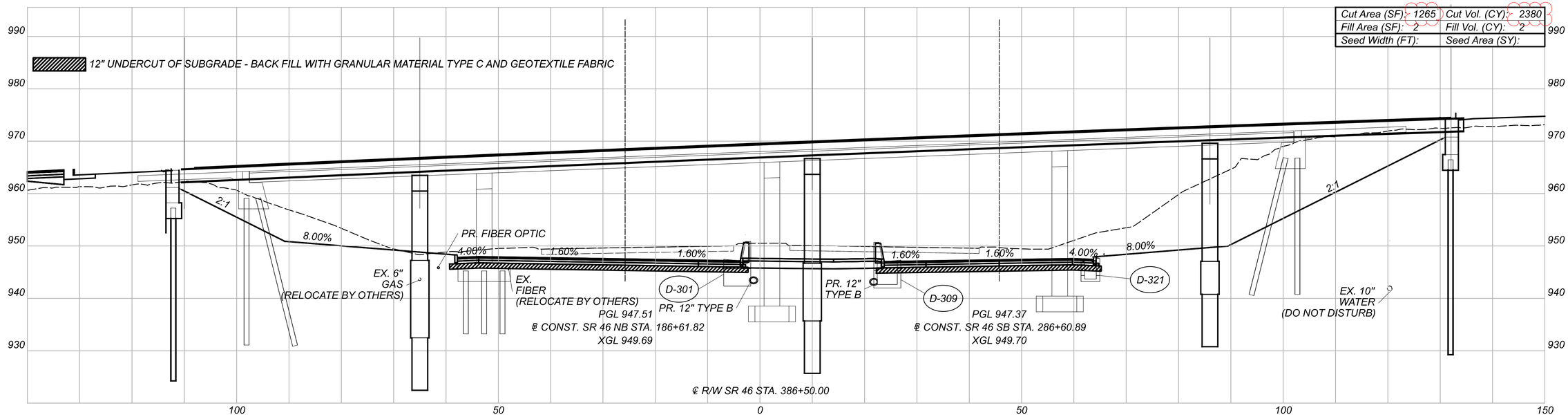
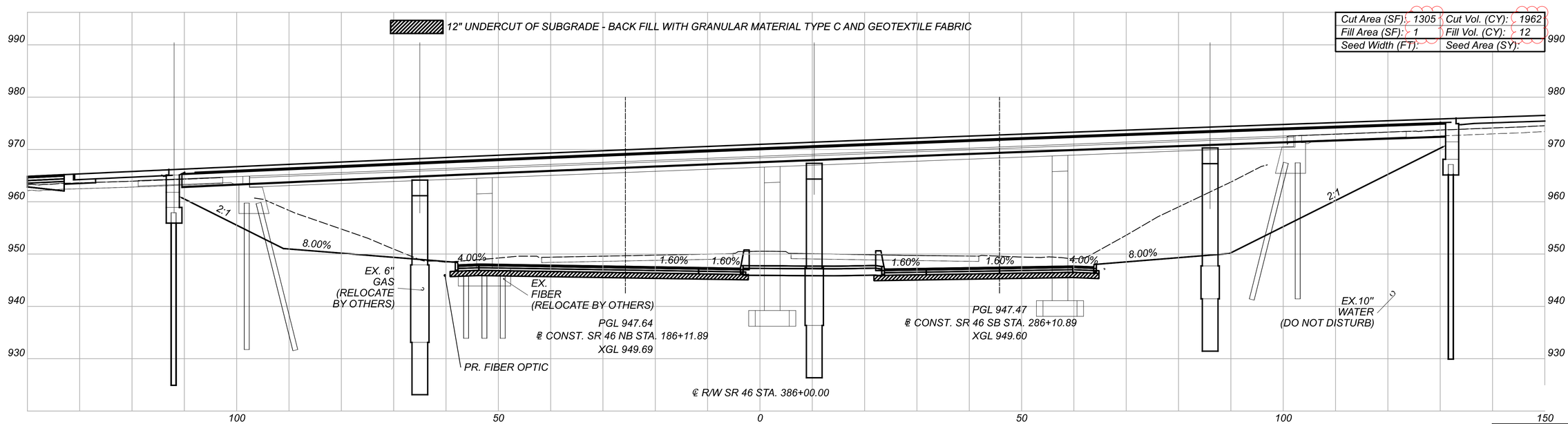
TRU-46/82 DDI

CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 386+00.00 TO STA. 386+50.00





DESIGN AGENCY

HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	377
TOTAL	704

Sheet Totals

Seeding	Cut	Fill
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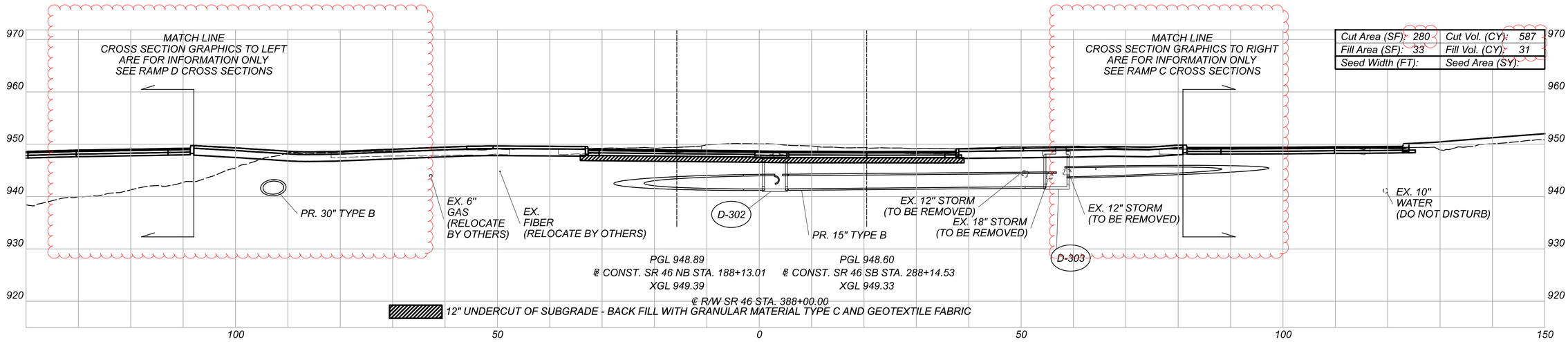

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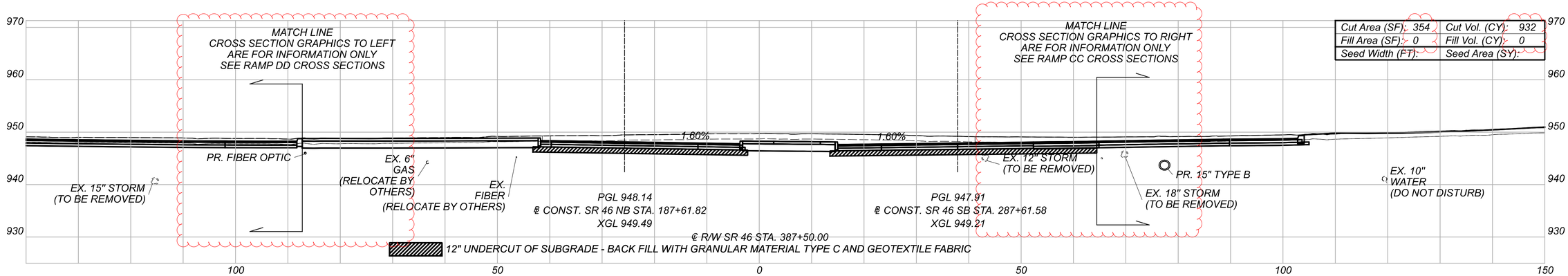
Fill Area (SF): 33	Fill Vol. (CY): 31
Seed Width (FT):	Seed Area (SY):



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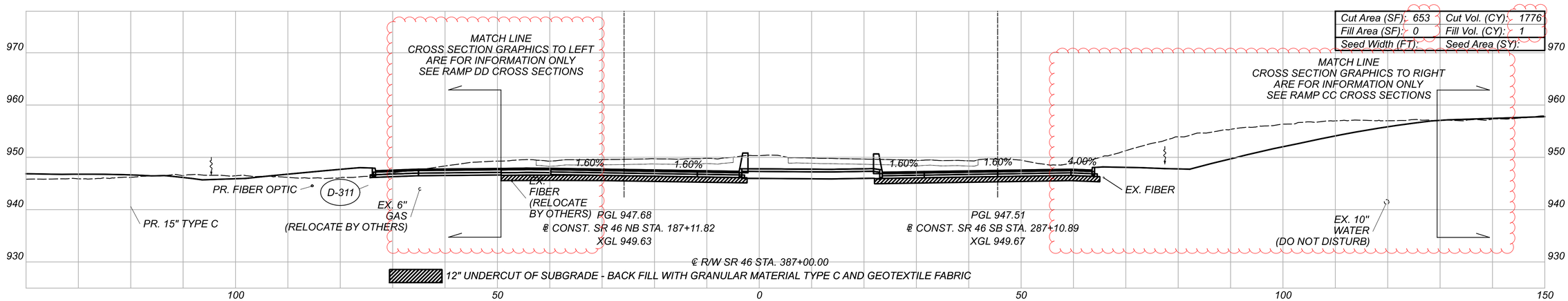
Seed Width (FT):	Seed Area (SY):



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Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 387+00.00 TO STA. 388+00.00

TRU-46/82 DDI

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DESIGN AGENCY

HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	378
TOTAL	704

Sheet Totals		
Seeding	Cut	Fill
-	3295	32

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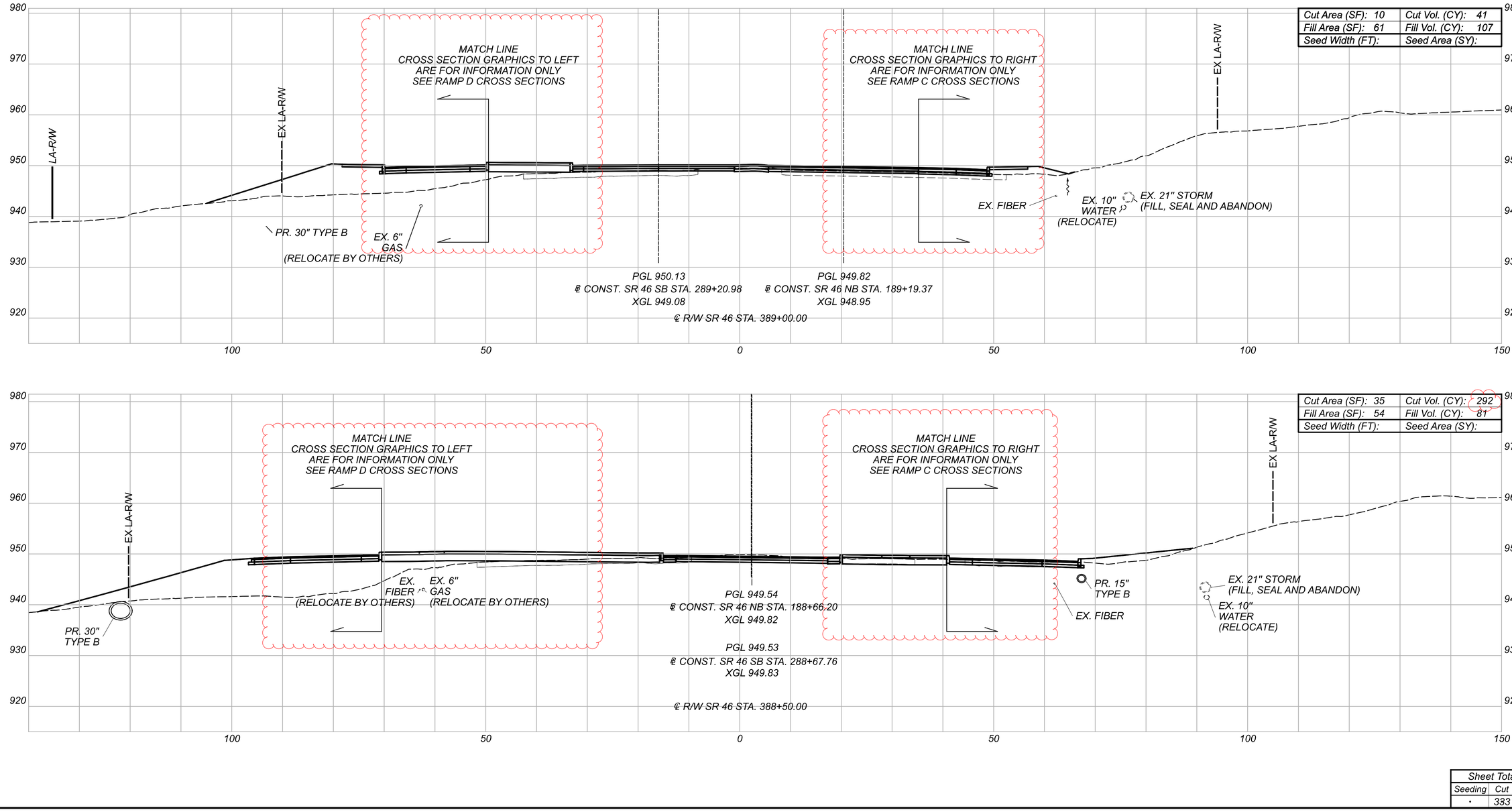


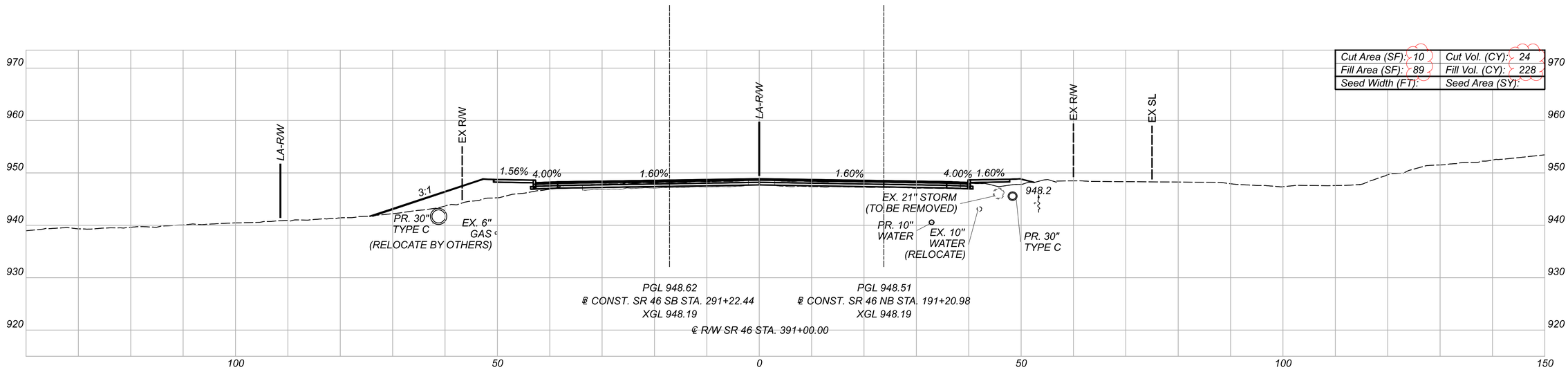
CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 388+50.00 TO STA. 389+00.00

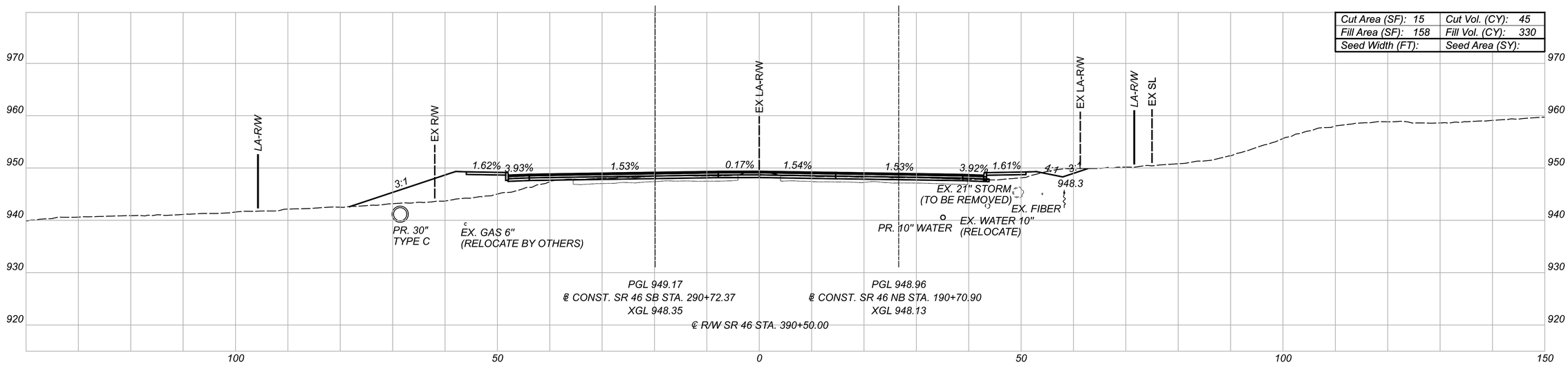
DESIGN AGENCY

HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	379
TOTAL	704

Sheet Totals		
Seeding	Cut	Fill
-	333	187





CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 390+50.00 TO STA. 391+00.00

TRU-46/82 DDI

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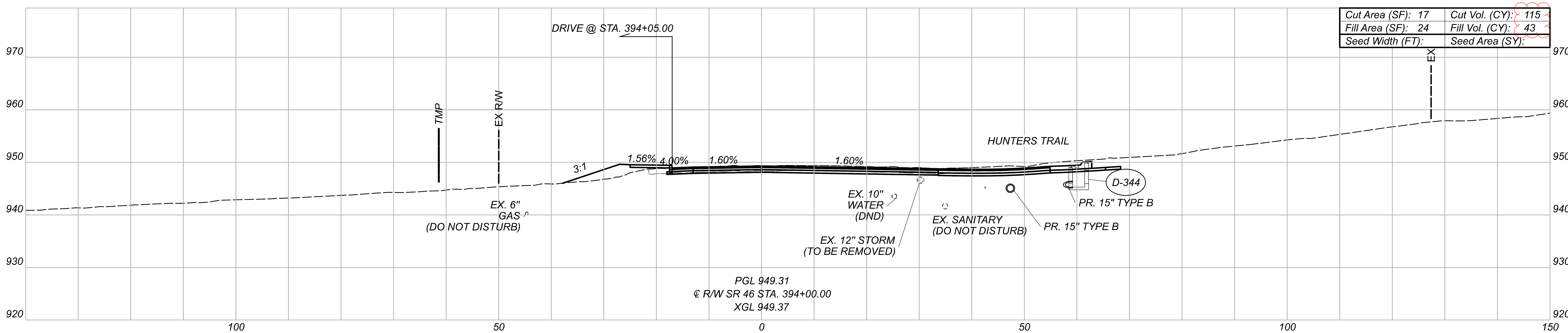
DESIGN AGENCY

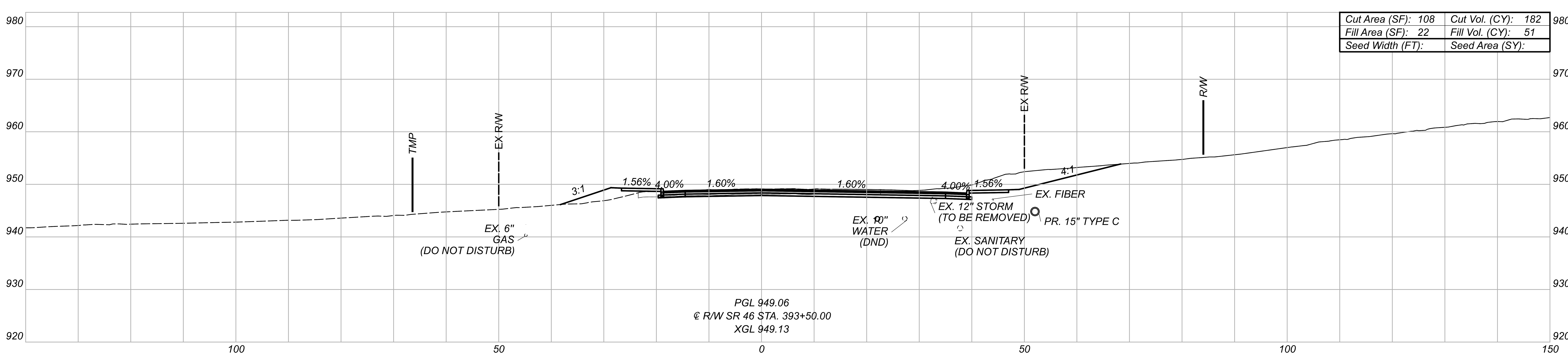
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	381
TOTAL	704

Sheet Totals		
Seeding	Cut	Fill
-	69	558



Cut Area (SF): 17	Cut Vol. (CY): 115
Fill Area (SF): 24	Fill Vol. (CY): 43
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 108	Cut Vol. (CY): 182
Fill Area (SF): 22	Fill Vol. (CY): 51
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 393+50.00 TO STA. 394+00.00

Sheet Totals		
Seeding	Cut	Fill
-	297	94

DESIGN AGENCY: HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	384
TOTAL	704

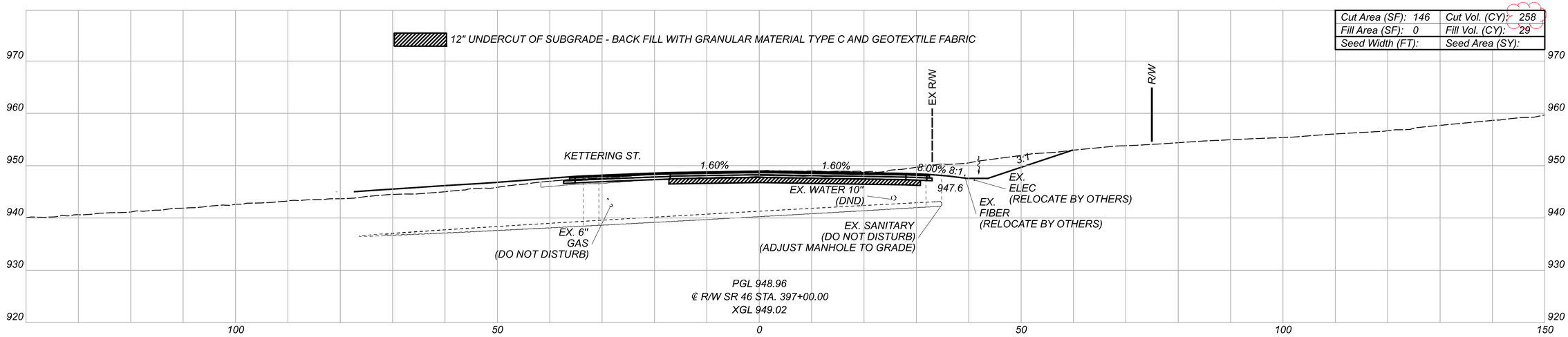
TRU-46/82 DDI

MODEL: CLX_SR46 - 393+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 9:41:12 AM USER: TSCHOEN
pw:\\pwhdruseas01:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\SR 46 - Roadway Cross Sections Sheet

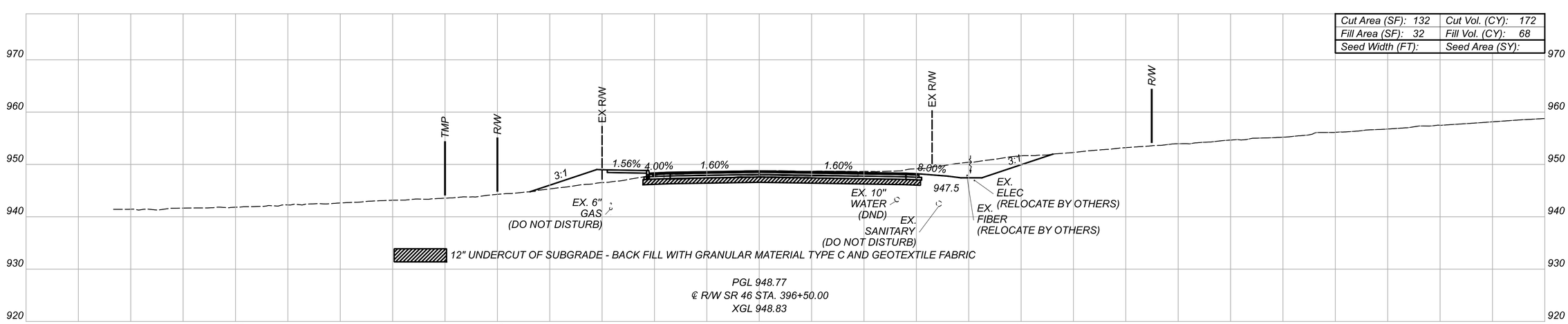
TRU-46/82 DDI

12" UNDERCUT OF SUBGRADE - BACK FILL WITH GRANULAR MATERIAL TYPE C AND GEOTEXTILE FABRIC

Cut Area (SF): 146	Cut Vol. (CY): 258
Fill Area (SF): 0	Fill Vol. (CY): 29
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 132	Cut Vol. (CY): 172
Fill Area (SF): 32	Fill Vol. (CY): 68
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 396+50.00 TO STA. 397+00.00

DESIGN AGENCY

DESIGNER: MJL

REVIEWER: JMB 08/19/21

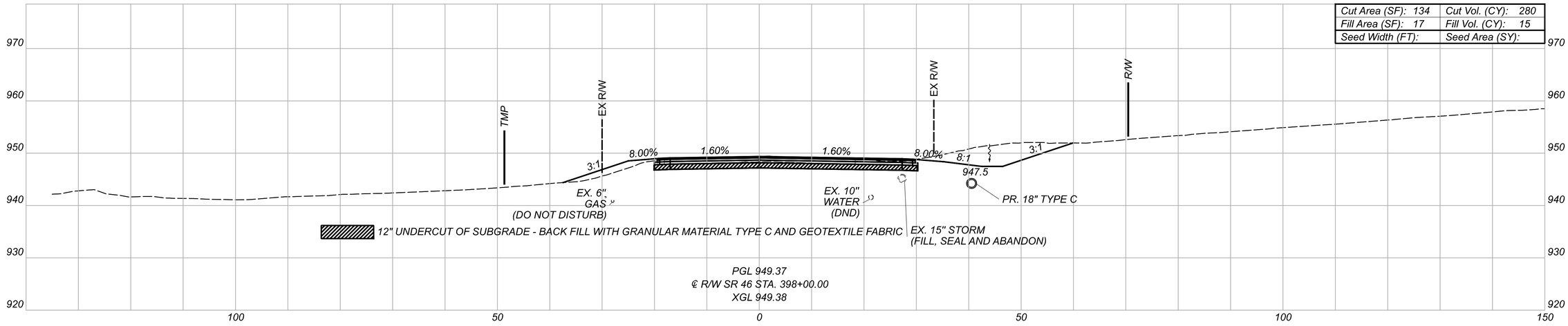
PROJECT ID: 108547

Sheet Totals		
Seeding	Cut	Fill
-	430	98

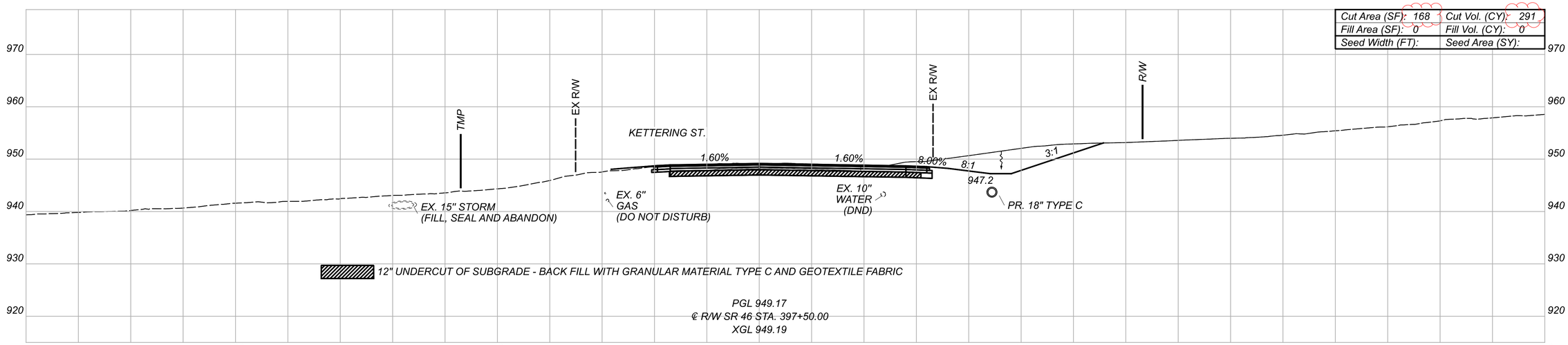
SHEET: 387 TOTAL: 704

TRU-46/82 DDI

Cut Area (SF): 134	Cut Vol. (CY): 280
Fill Area (SF): 17	Fill Vol. (CY): 15
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 168	Cut Vol. (CY): 291
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS - CENTERLINE R/W & CONST. SR 46
STA. 397+50.00 TO STA. 398+00.00

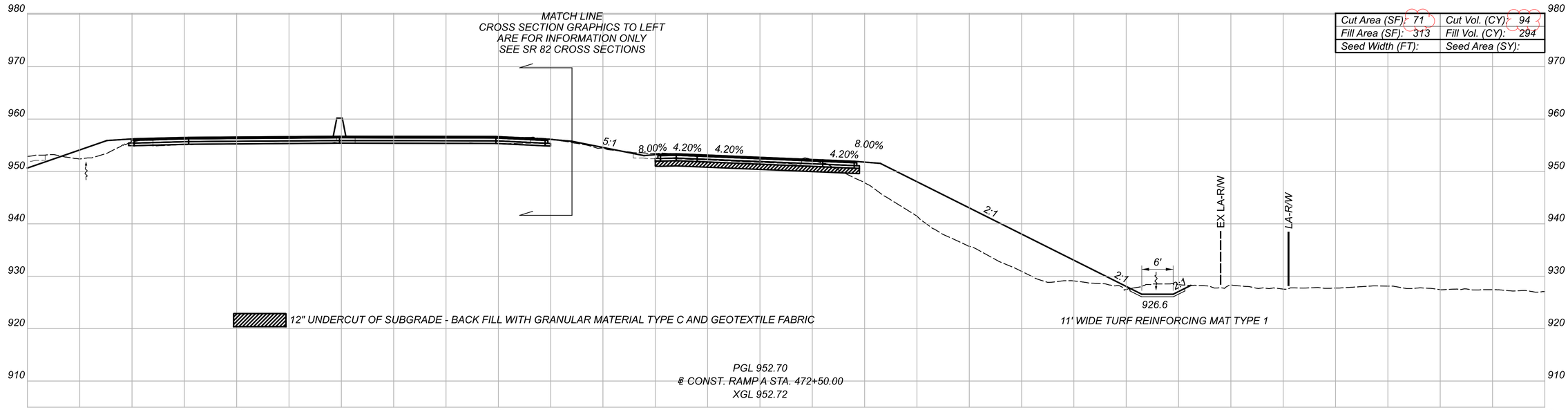
DESIGN AGENCY

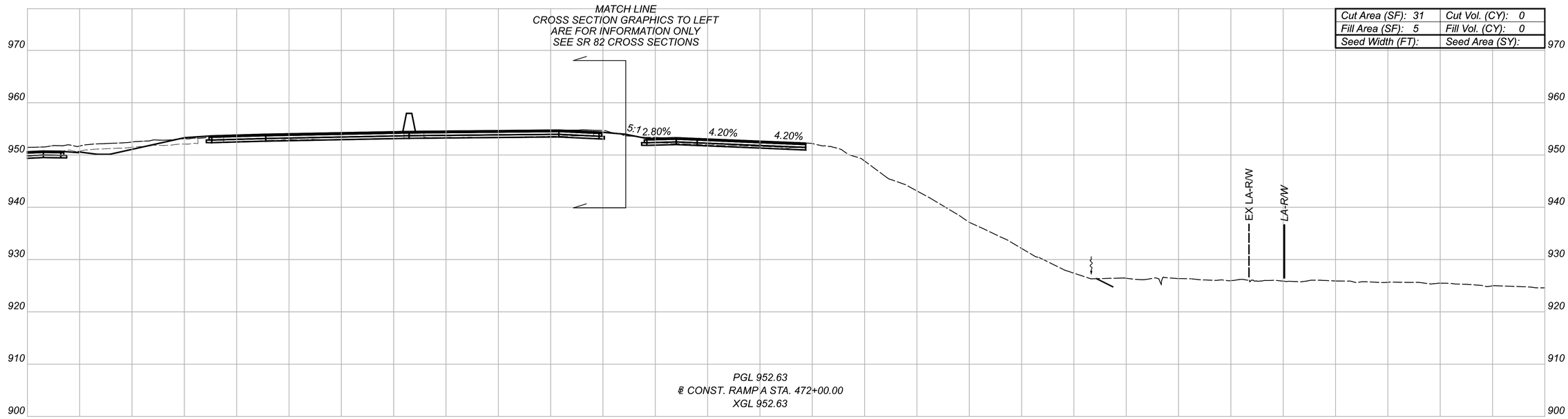
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547

Sheet Totals		
Seeding	Cut	Fill
-	571	15

SHEET	TOTAL
388	704





CROSS SECTIONS - BASELINE CONST. RAMP A
STA. 472+00.00 TO STA. 472+50.00

DESIGN AGENCY

DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 404 TOTAL 704

Sheet Totals		
Seeding	Cut	Fill
-	94	294

TRU-46/82 DDI

MODEL: BLP_R82A - 472+00.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 10:26:45 AM USER: TSCHOEN
pw:\\pwhdrusea50.bentley.com:pwhdrusea50HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp A - Roadway Cross Sections Sheet

TRU-46/82 DDI

MODEL: BLP_R82A - 473+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 10:26:47 AM USER: TSCHOEN
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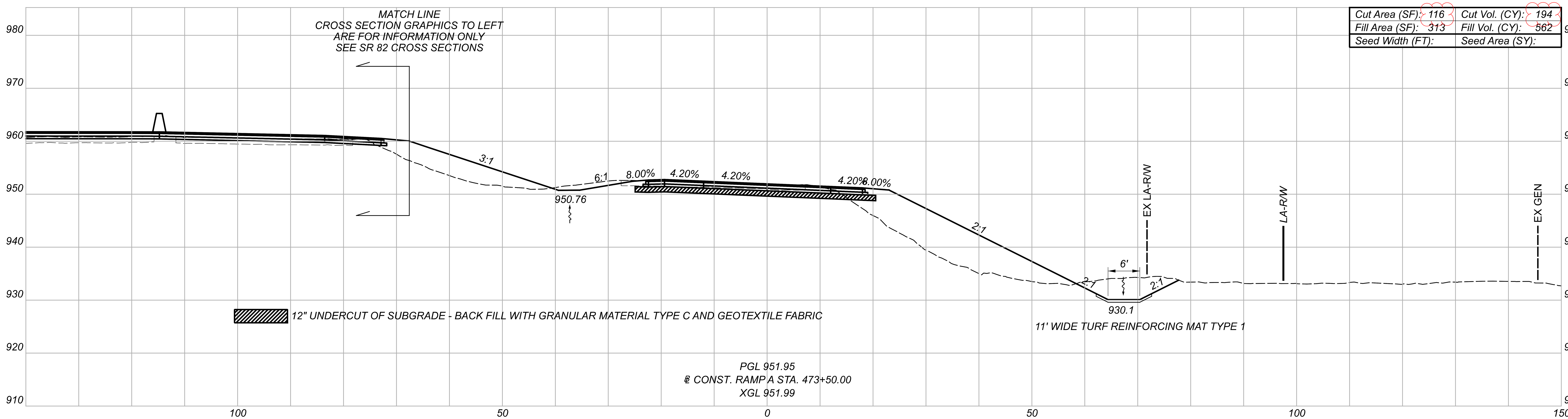
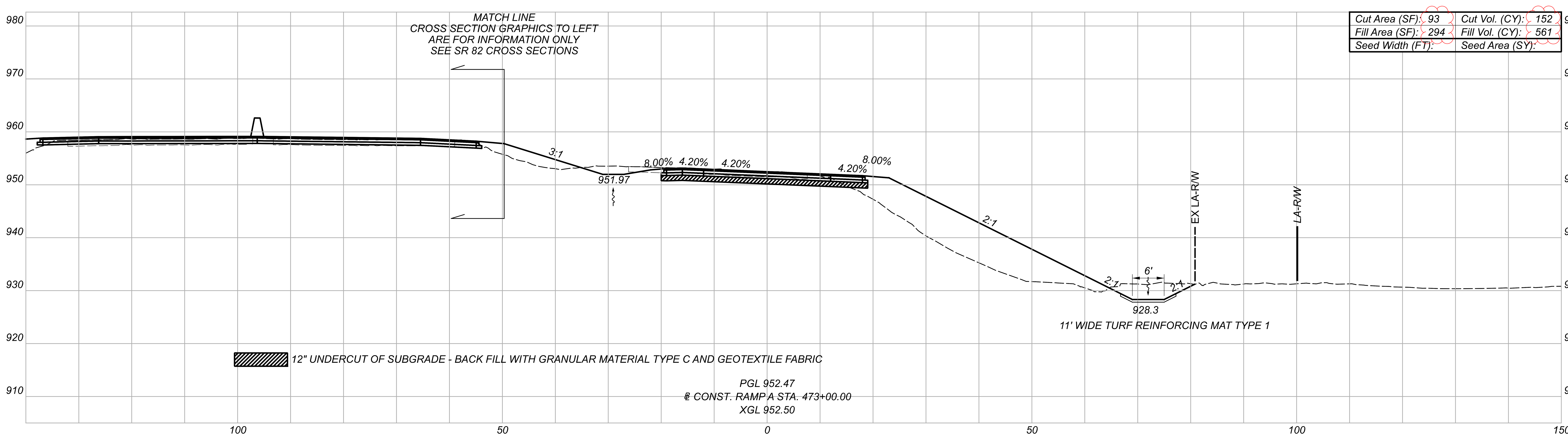
CROSS SECTIONS - BASELINE CONST. RAMP A
STA. 473+00.00 TO STA. 473+50.00



Cut Area (SF):	116	Cut Vol. (CY):	194
Fill Area (SF):	313	Fill Vol. (CY):	562
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	93	Cut Vol. (CY):	152
Fill Area (SF):	294	Fill Vol. (CY):	561
Seed Width (FT):		Seed Area (SY):	

Sheet Totals		
Seeding	Cut	Fill
·	345	1123

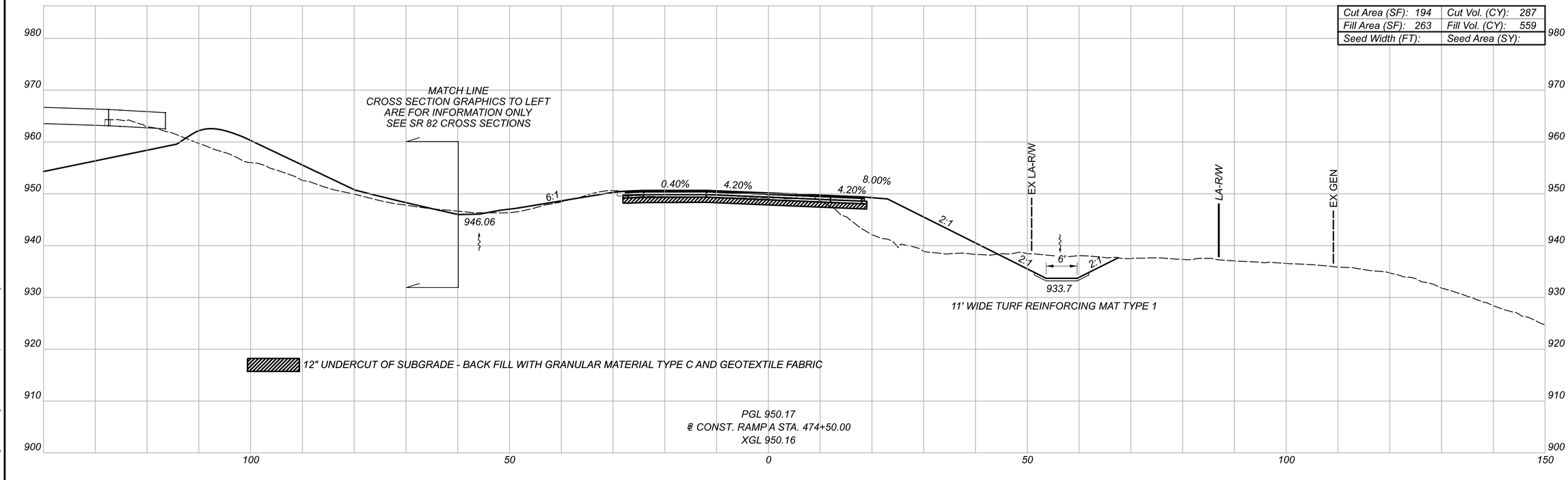
DESIGN AGENCY
HDR

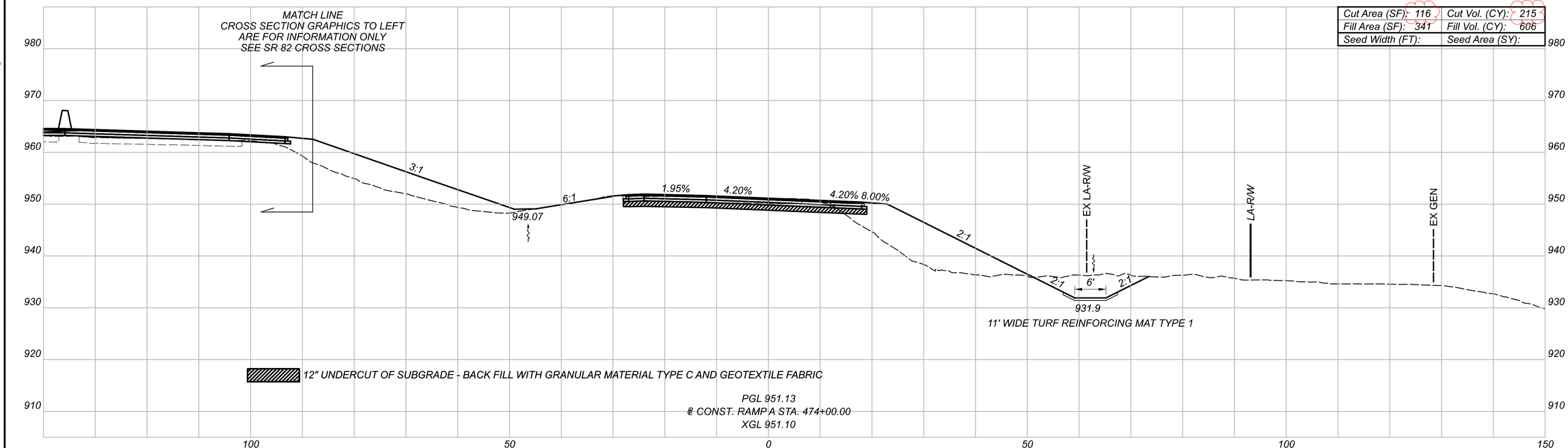
DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

SHEET 405 | TOTAL 704





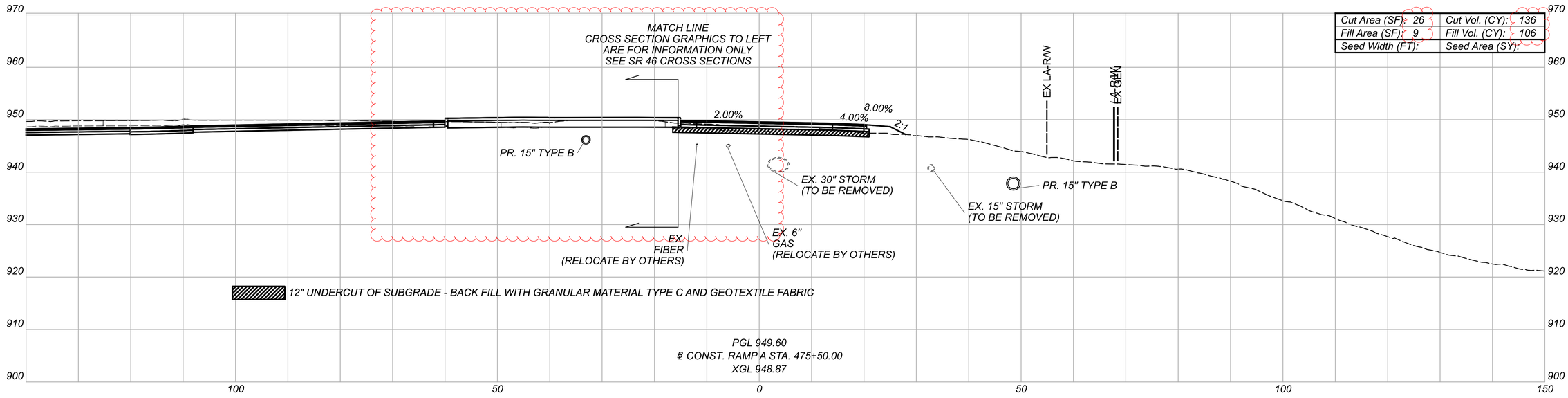
CROSS SECTIONS - BASELINE CONST. RAMP A STA. 474+00.00 TO STA. 474+50.00

DESIGN AGENCY

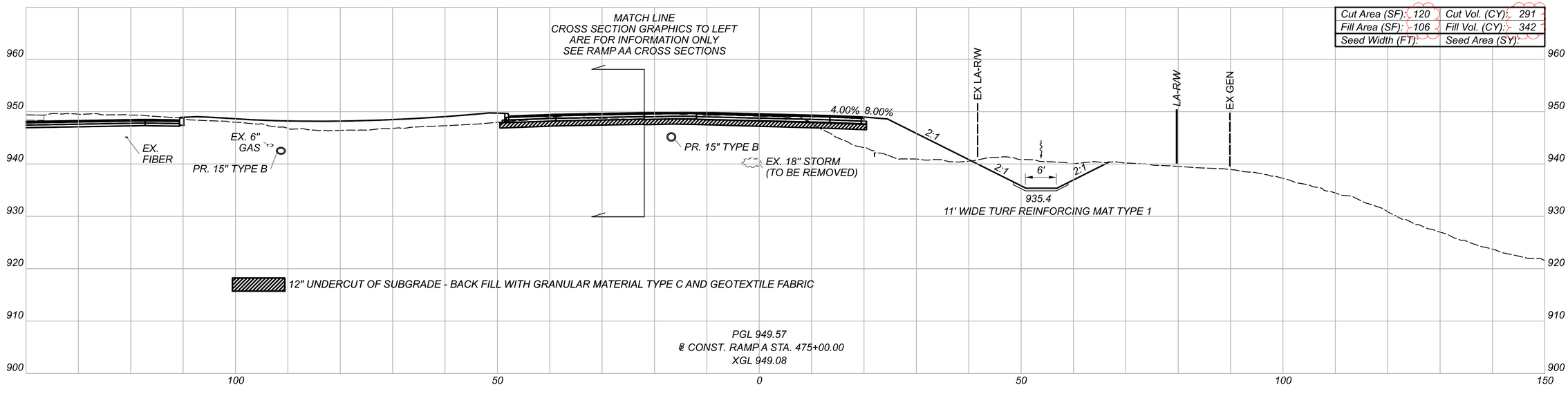
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	406
TOTAL	704

Sheet Totals		
Seeding	Cut	Fill
-	501	1165



Cut Area (SF): 26	Cut Vol. (CY): 136
Fill Area (SF): 9	Fill Vol. (CY): 106
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 120	Cut Vol. (CY): 291
Fill Area (SF): 106	Fill Vol. (CY): 342
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
-	426	449

CROSS SECTIONS - BASELINE CONST. RAMP A STA. 475+00.00 TO STA. 475+50.00

DESIGN AGENCY

DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 407 TOTAL 704

TRU-46/82 DDI

MODEL: BLP_R82A - 475+00.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 10:37:45 AM USER: TSCHOEN
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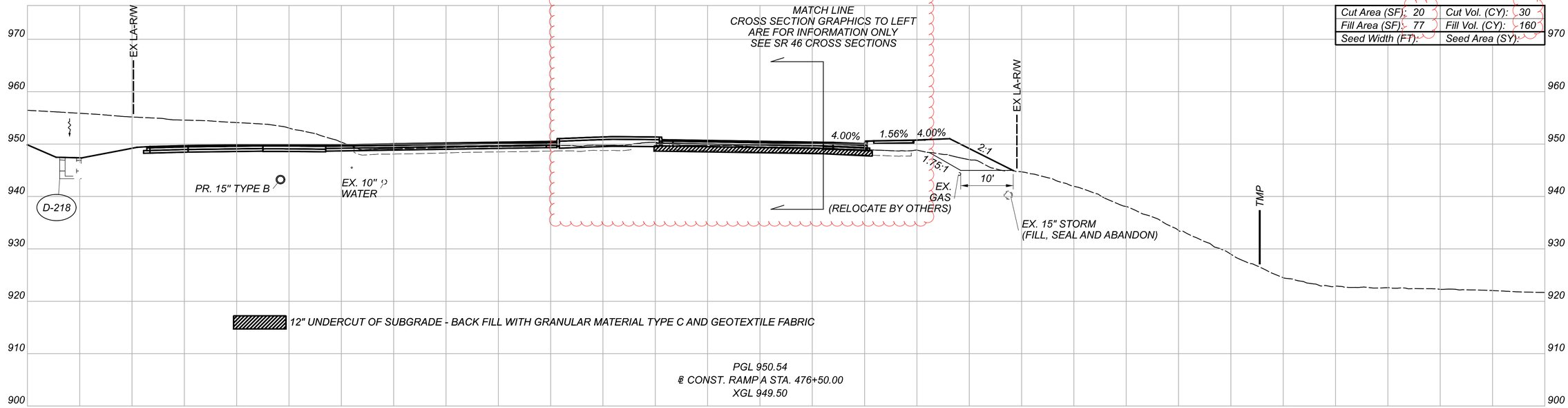

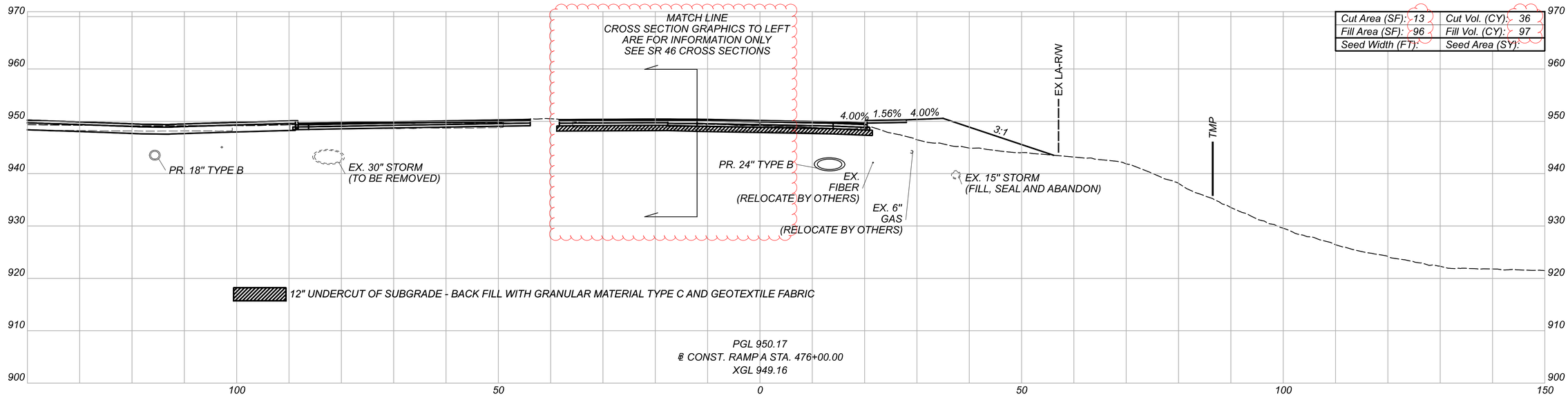

CROSS SECTIONS - BASELINE CONST. RAMP A
STA. 476+00.00 TO STA. 476+50.00

TRU-46/82 DDI

MODEL: BLP_R82A - 476+00.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 5/4/2023 TIME: 10:26:53 AM USER: TSCHOEN
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Sheet Totals		
Seeding	Cut	Fill
-	66	257

DESIGN AGENCY

HDR

DESIGNER: MJL

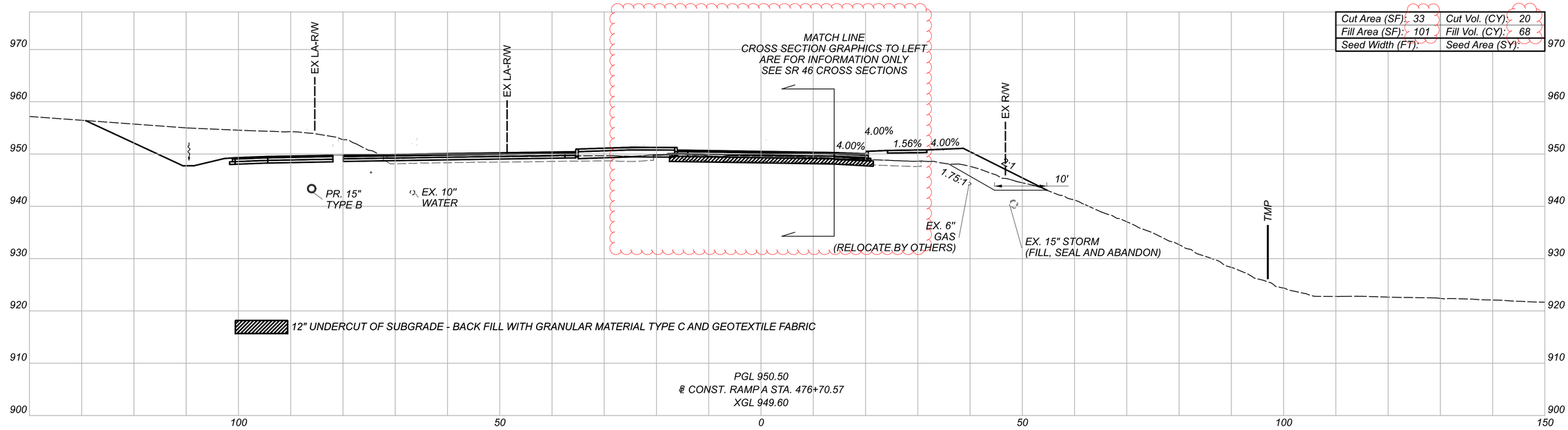
REVIEWER: JMB 08/19/21

PROJECT ID: 108547

SHEET: 408 TOTAL: 704

TRU-46/82 DDI

CROSS SECTIONS - BASELINE CONST. RAMP A
STA. 476+71.05



DESIGN AGENCY

HDR

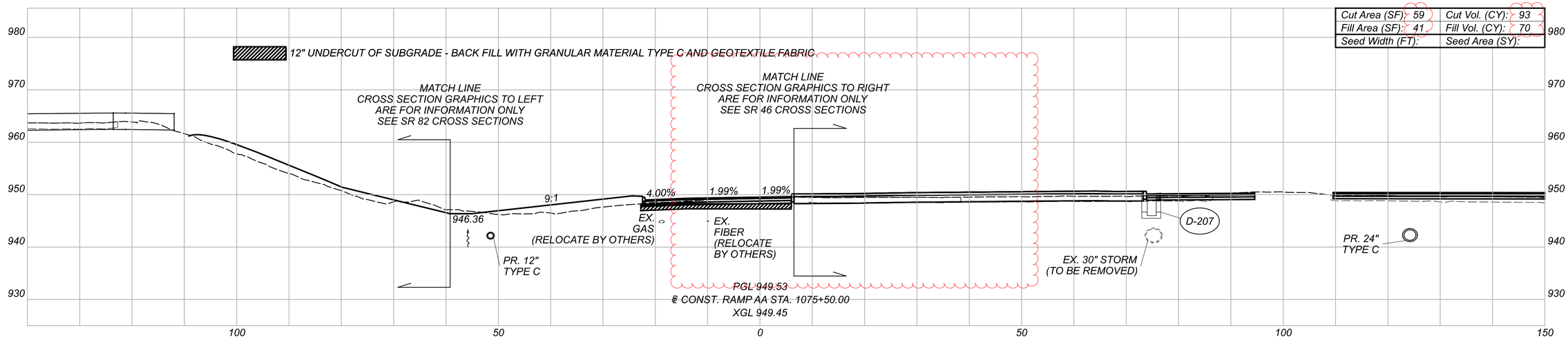
DESIGNER
MJL

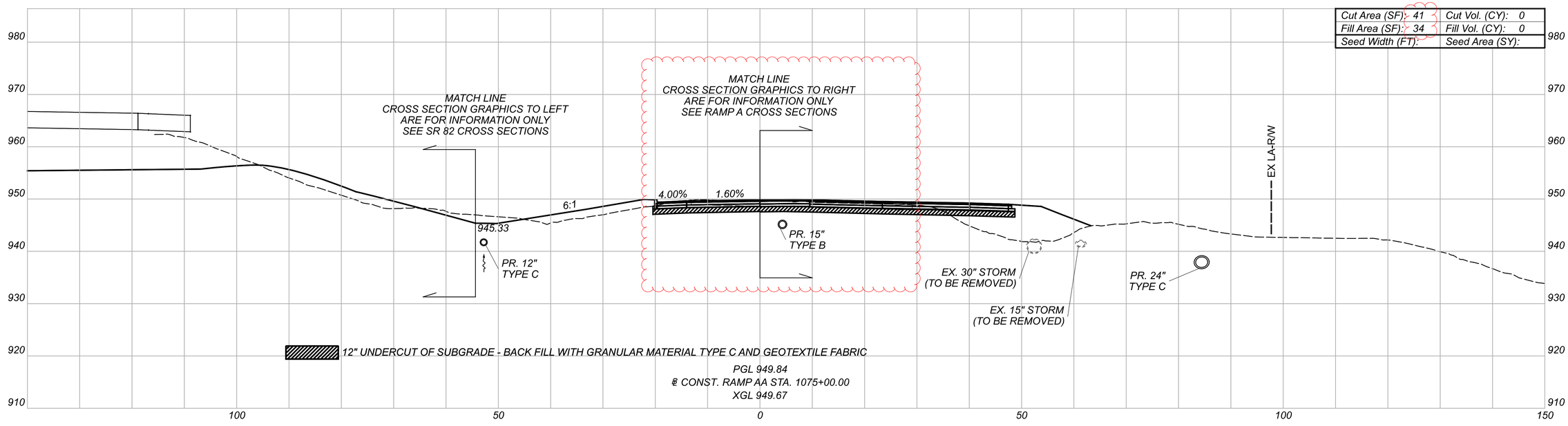
REVIEWER
JMB 08/19/21

PROJECT ID
108547

Sheet Totals		
Seeding	Cut	Fill
-	20	68

SHEET 409 TOTAL 704





CROSS SECTIONS - BASELINE CONST. RAMP AA STA. 1075+00.00 TO STA. 1075+50.00

TRU-46/82 DDI

DESIGN AGENCY

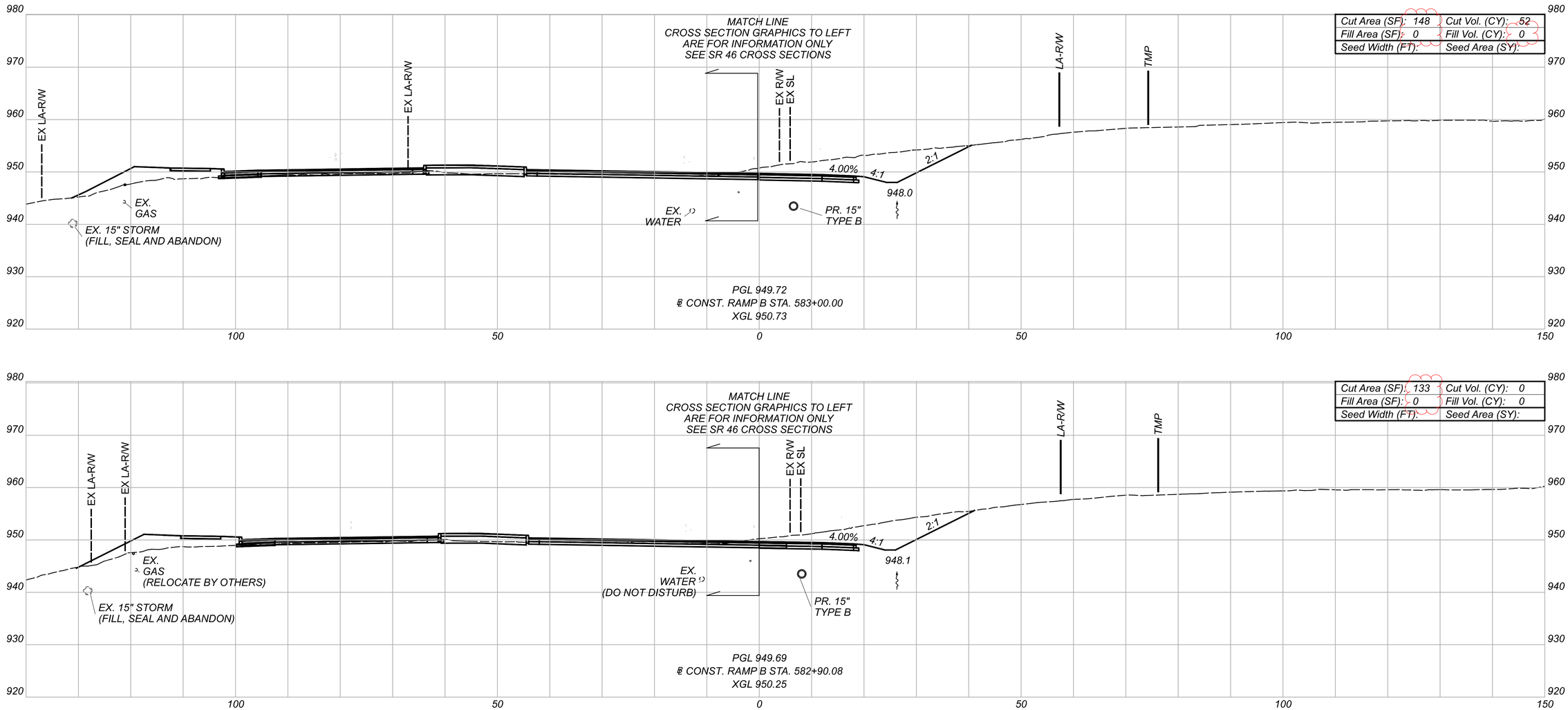
DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 410 TOTAL 704

Sheet Totals		
Seeding	Cut	Fill
-	93	70



CROSS SECTIONS - BASELINE CONST. RAMP B
STA. 582+90.08 TO STA. 583+00.00

DESIGN AGENCY

DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

SHEET 411 TOTAL 704

Sheet Totals

Seeding	Cut	Fill
-	52	0

TRU-46/82 DDI

MODEL: BLP_R82B - 582+90.08 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 12:08:21 PM USER: TSCHOEN
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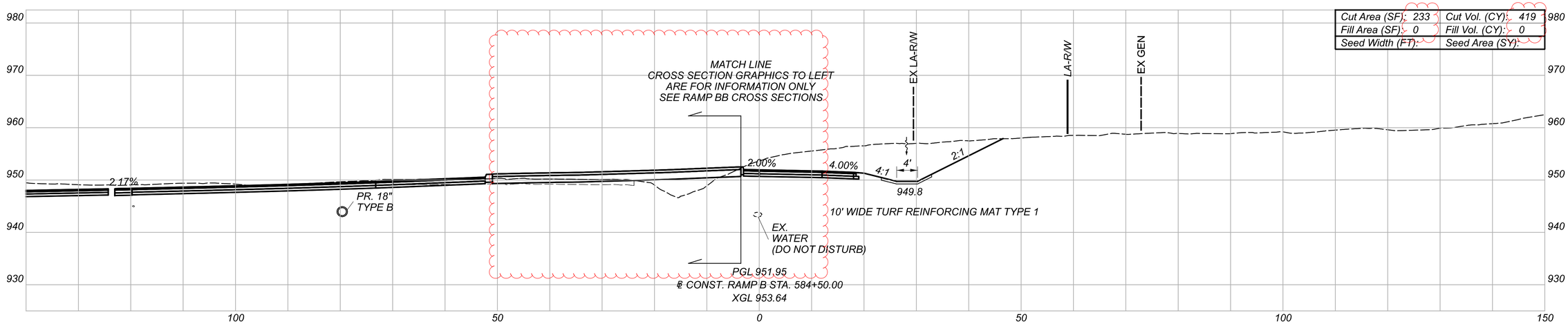
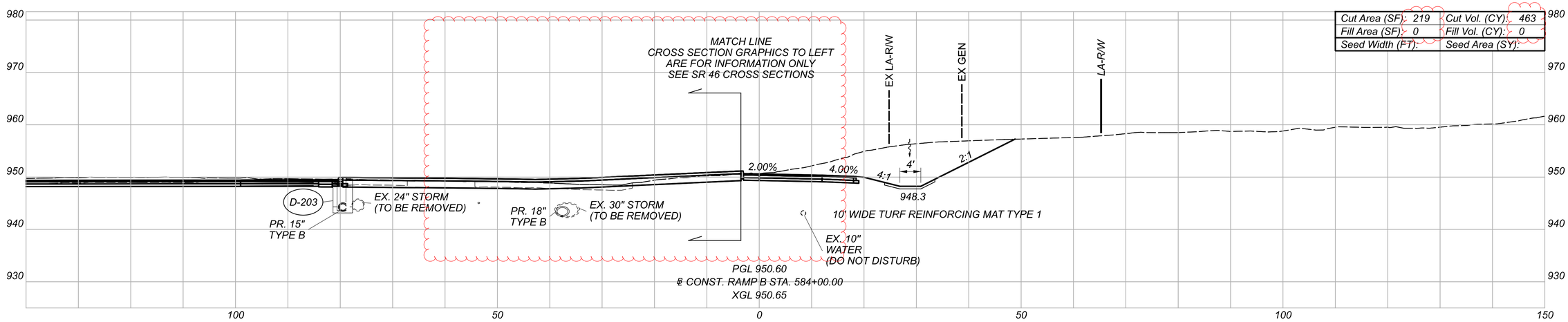
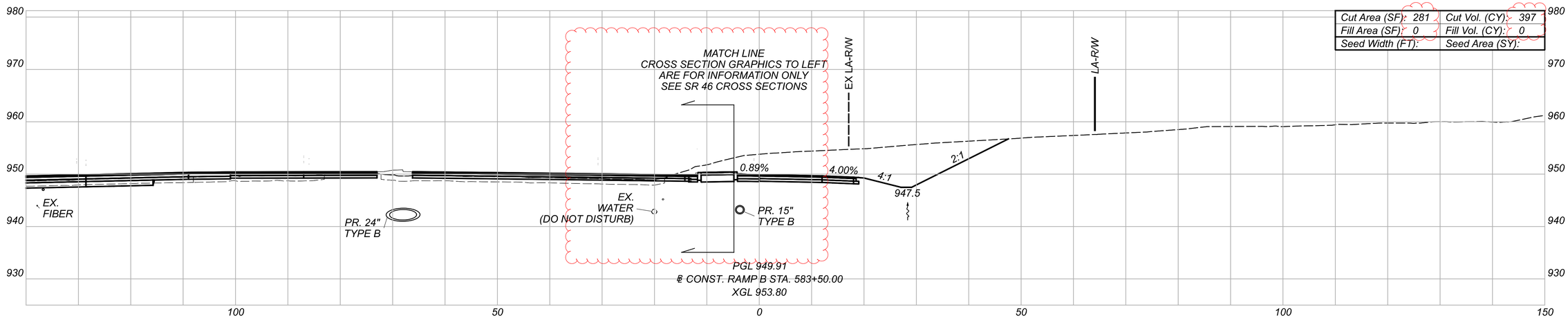






CROSS SECTIONS - BASELINE CONST. RAMP B
STA. 583+50.00 TO STA. 584+50.00

DESIGN AGENCY

DESIGNER MJL

REVIEWER JMB 08/19/21

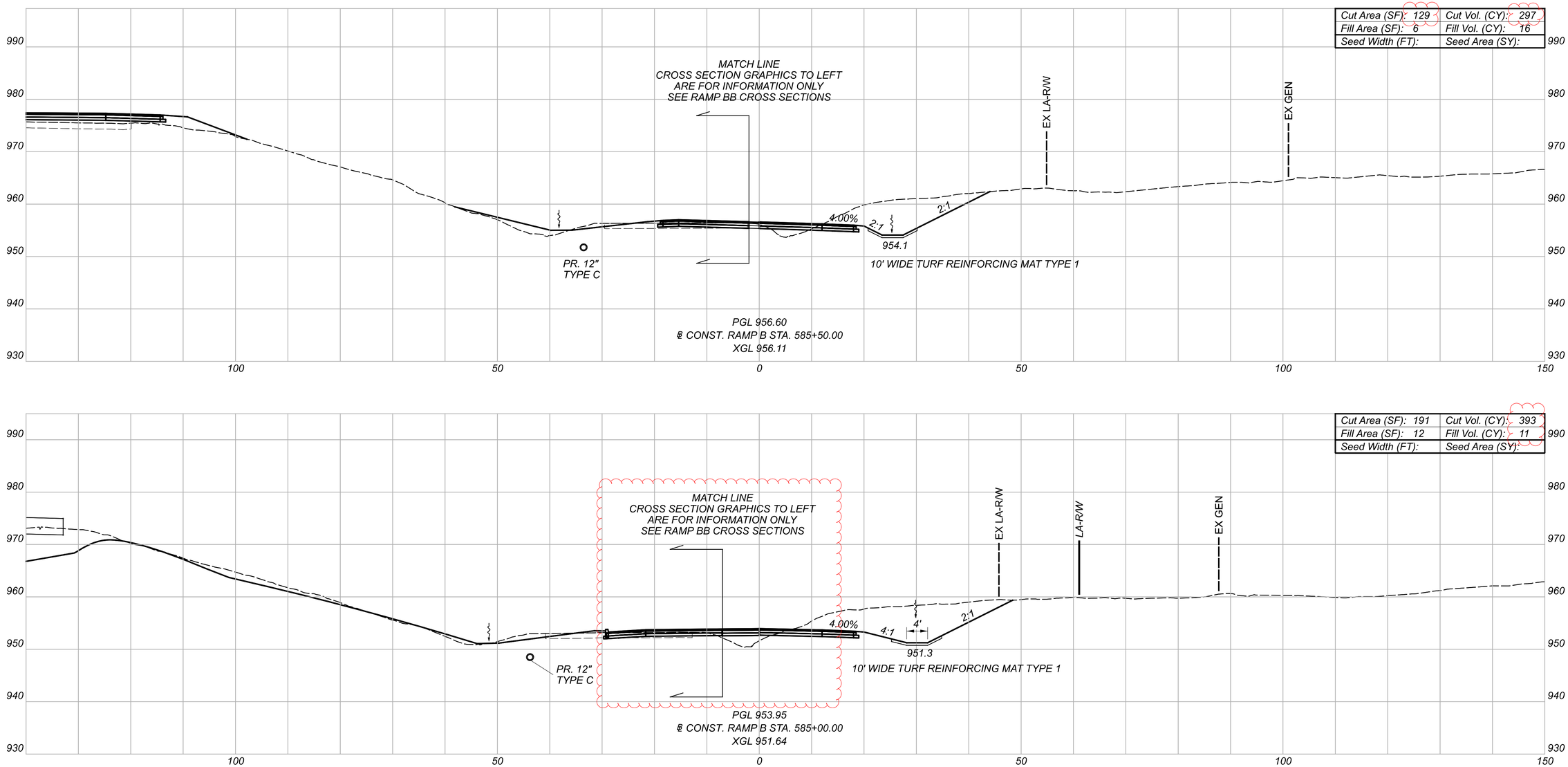
PROJECT ID 108547

SHEET 412 TOTAL 704

Sheet Totals		
Seeding	Cut	Fill
-	1278	0

TRU-46/82 DDI

MODEL: BLP_R82B - 583+50.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 5/4/2023 TIME: 12:08:23 PM USER: TSCHOEN
pw:\\pwhdrusea01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp B - Roadway Cross Sections Sheet



CROSS SECTIONS - BASELINE CONST. RAMP B
STA. 585+00.00 TO STA. 585+50.00

TRU-46/82 DDI

DESIGN AGENCY

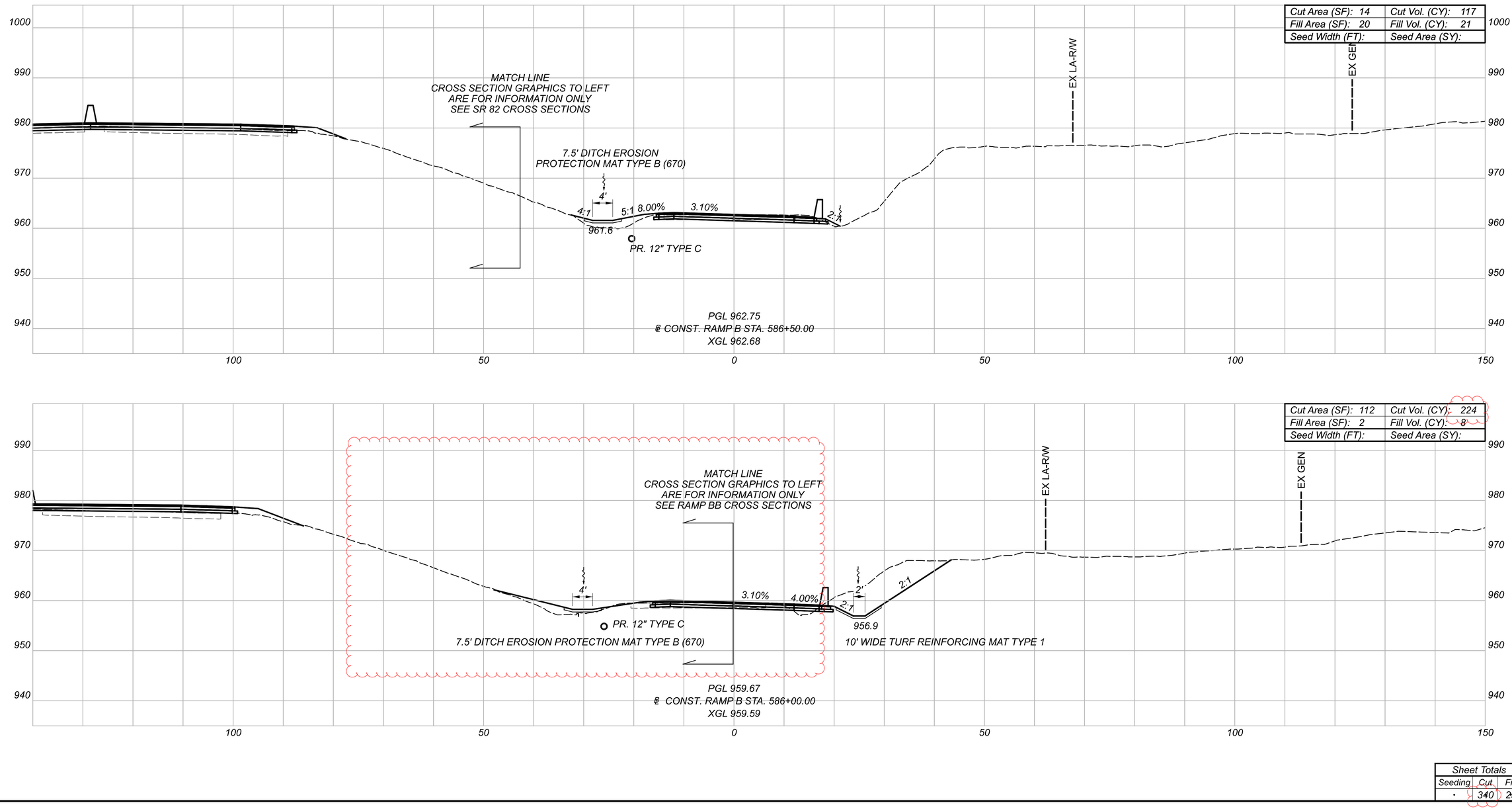
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	413
TOTAL	704

Sheet Totals

Seeding	Cut	Fill
-	690	27

TRU-46/82 DDI



CROSS SECTIONS - BASELINE CONST. RAMP B STA. 586+00.00 TO STA. 586+50.00

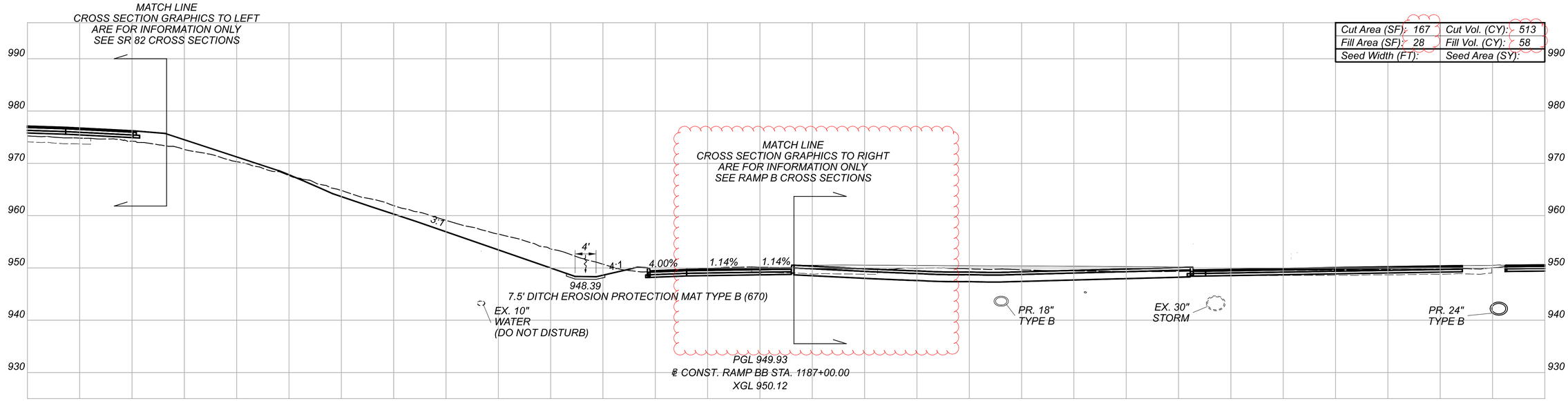
DESIGN AGENCY

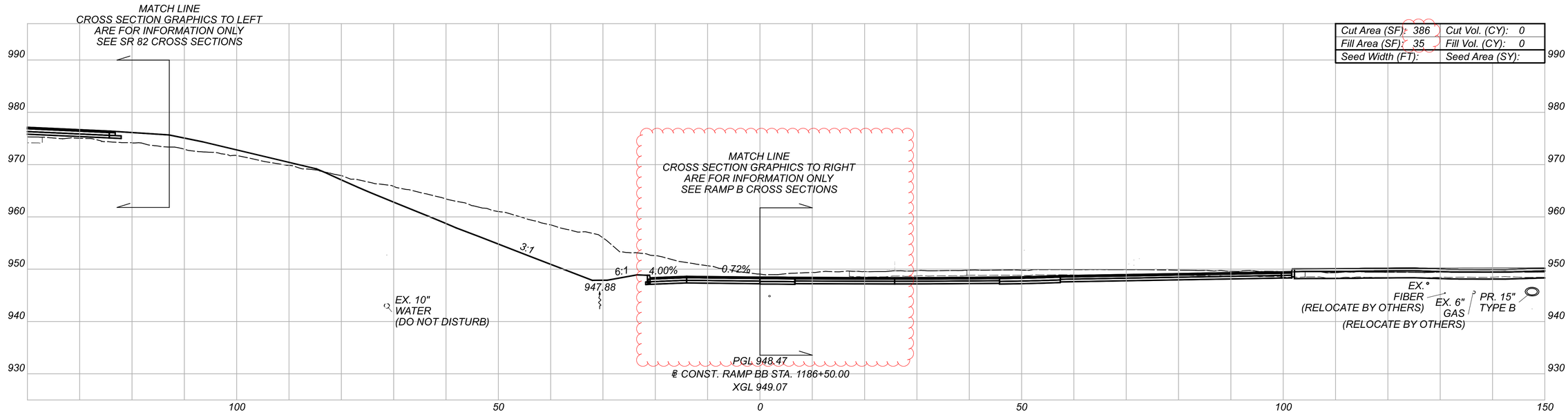
DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill	414	704
-	340	29		





CROSS SECTIONS - BASELINE CONST. RAMP BB
STA. 1186+50.00 TO STA. 1187+00.00

TRU-46/82 DDI

MODEL: BLP_R82BB - 1186+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 12:09:15 PM USER: TSCHOEN
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DESIGN AGENCY

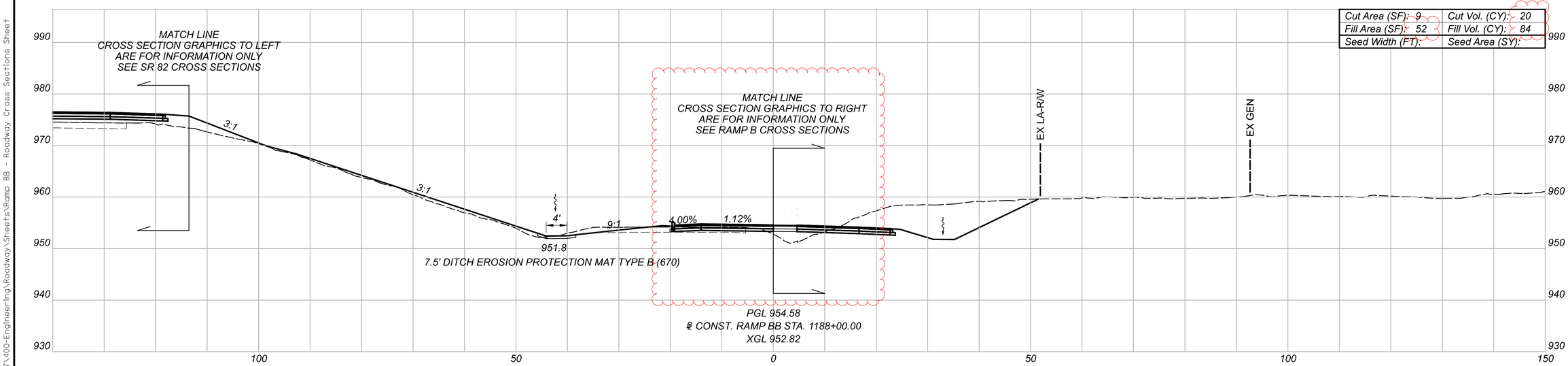
DESIGNER: MJL

REVIEWER: JMB 08/19/21

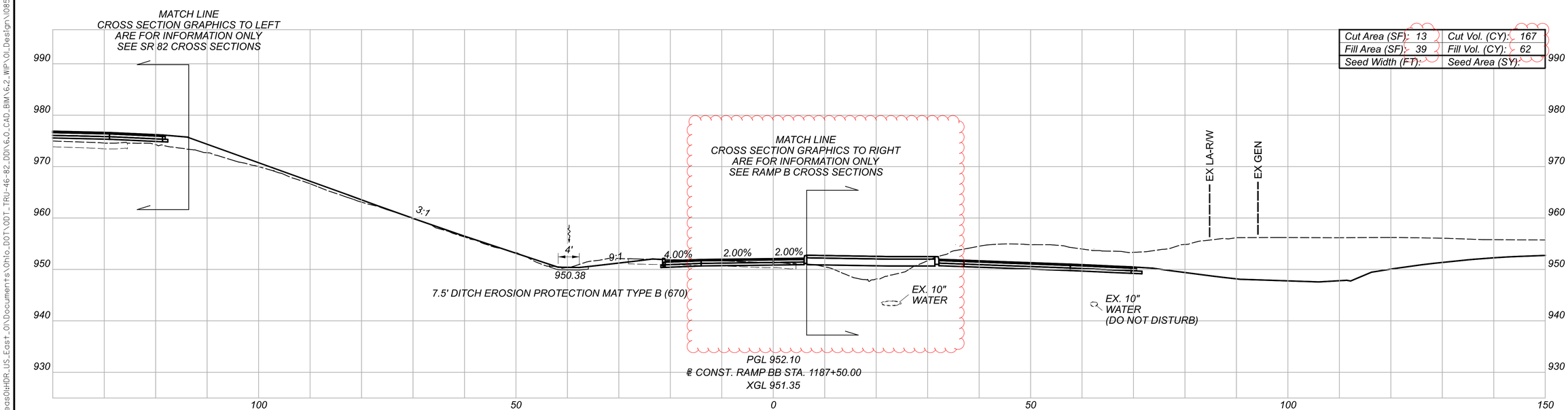
PROJECT ID: 108547

Sheet Totals		
Seeding	Cut	Fill
-	513	58

SHEET: 425 TOTAL: 704



Cut Area (SF):	9	Cut Vol. (CY):	20
Fill Area (SF):	52	Fill Vol. (CY):	84
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	13	Cut Vol. (CY):	167
Fill Area (SF):	39	Fill Vol. (CY):	62
Seed Width (FT):		Seed Area (SY):	

CROSS SECTIONS - BASELINE CONST. RAMP BB
STA. 1187+50.00 TO STA. 1188+00.00

DESIGN AGENCY

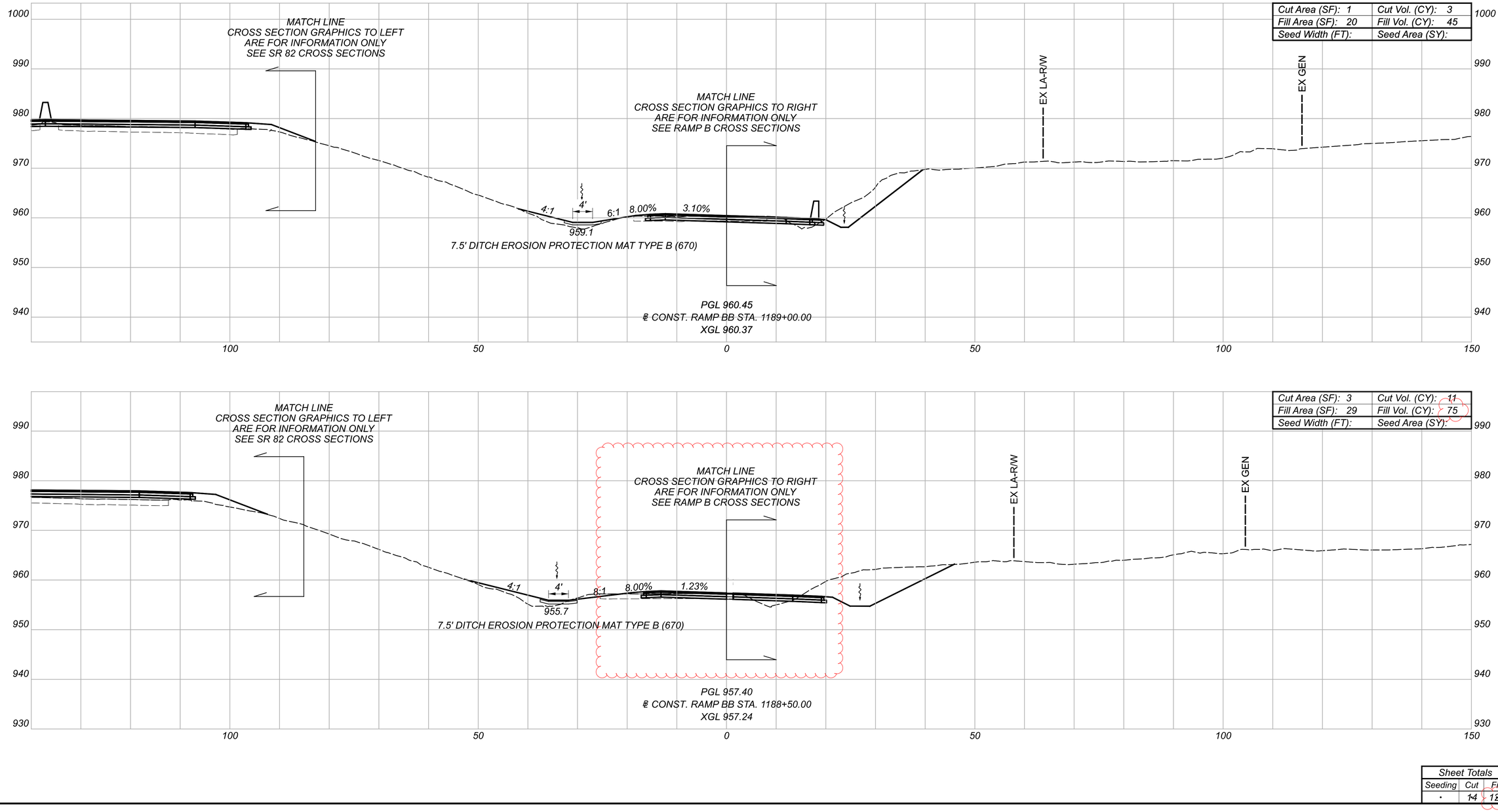
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	426
TOTAL	704

Sheet Totals		
Seeding	Cut	Fill
-	187	146

TRU-46/82 DDI

MODEL: BLP_R82BB - Il87+50.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 12:09:8 PM USER: TSCHOEN
pw:\\pwhdrusea0ihHDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp BB - Roadway Cross Sections Sheet



TRU-46/82 DDI

CROSS SECTIONS - BASELINE CONST. RAMP BB
STA. 1188+50.00 TO STA. 1189+00.00

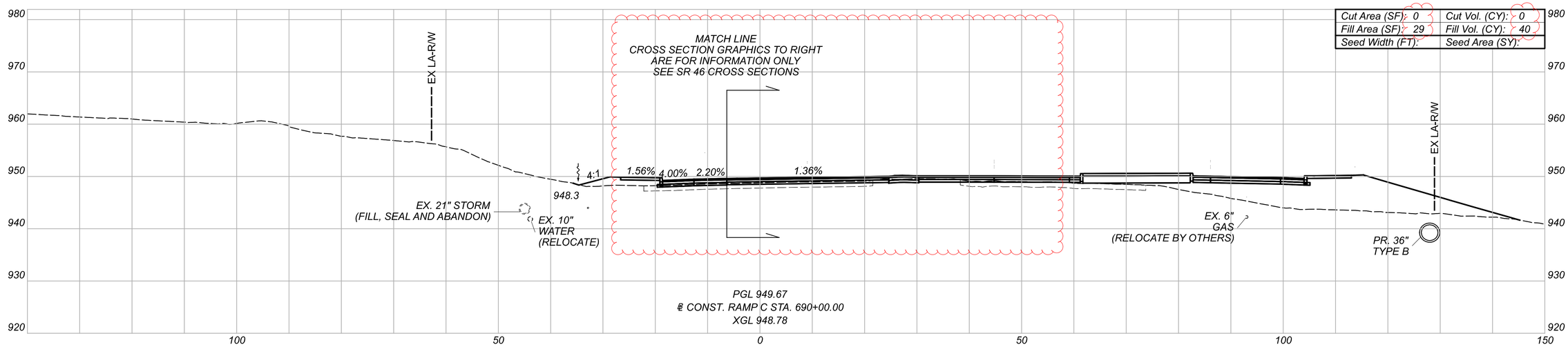
DESIGN AGENCY

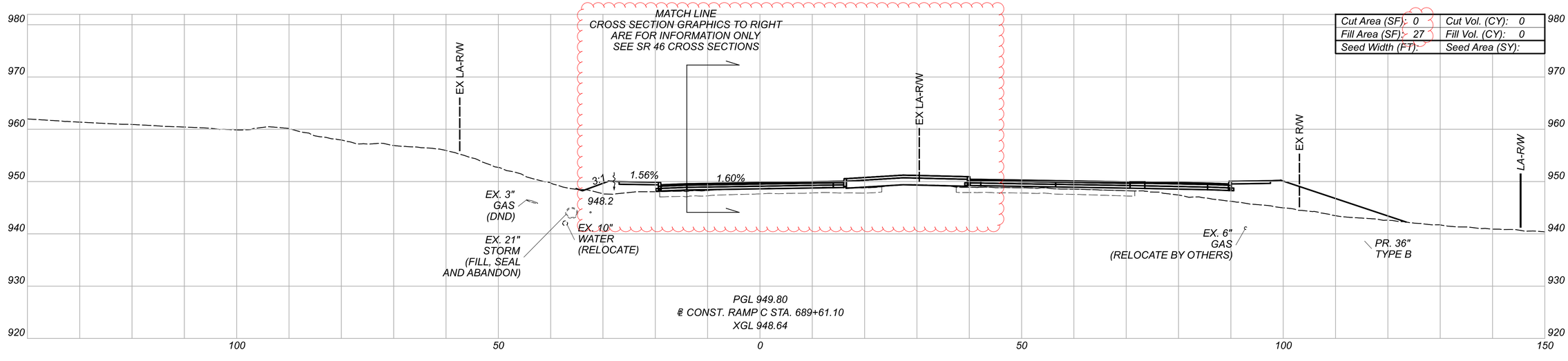
DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill	427	704
-	14	120		





CROSS SECTIONS - BASELINE CONST. RAMP C STA. 689+61.10 TO STA. 690+00.00

TRU-46/82 DDI

DESIGN AGENCY

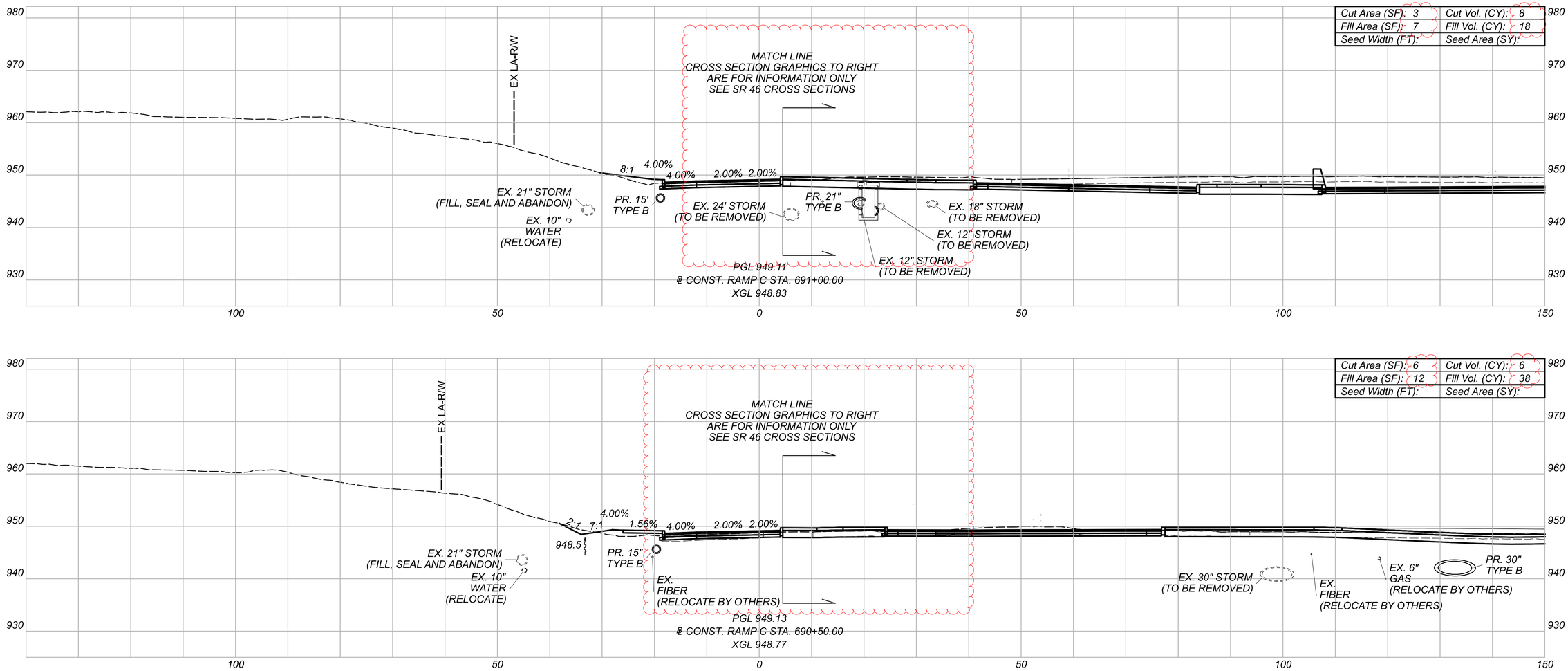
DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill	429	704
-	0	40		

MODEL: BLP_R82C - 689+61.10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 11:35:45 PM USER: TSCHOEN
pw:\\pwhdruseas01.HDR_US_East_ON:Documents\Ohio_DOT\ODT_TRU-46-82_DD\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp C - Roadway Cross Sections Sheet



TRU-46/82 DDI

CROSS SECTIONS - BASELINE CONST. RAMP C
STA. 690+50.00 TO STA. 691+00.00

DESIGN AGENCY

HDR

DESIGNER
MJL

REVIEWER
JMB 08/19/21

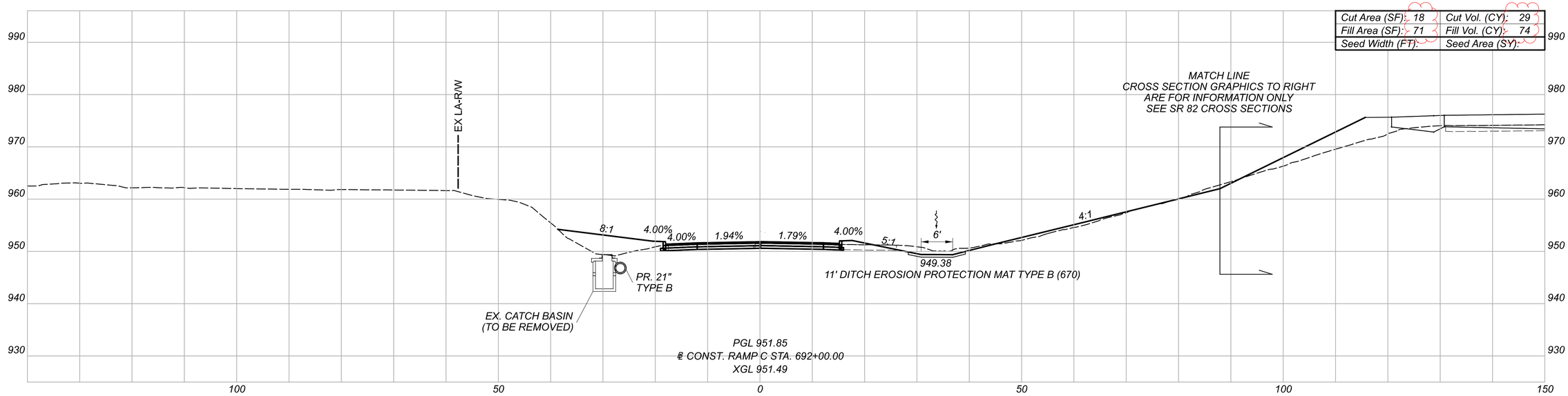
PROJECT ID
108547

Sheet Totals		
Seeding	Cut	Fill
-	14	56

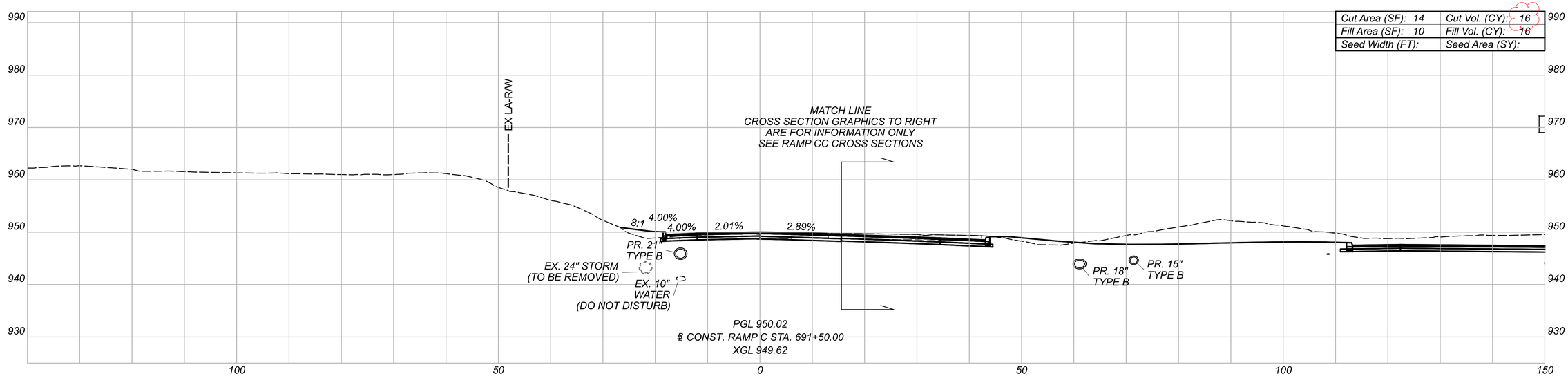
SHEET 430 TOTAL 704

MODEL: BLP_R82C - 691+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 1:35:51 PM USER: TSCHOEN
pw:\\pwhdrusea01.HDR.US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp C - Roadway Cross Sections Sheet

Cut Area (SF): 18	Cut Vol. (CY): 29
Fill Area (SF): 71	Fill Vol. (CY): 74
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 14	Cut Vol. (CY): 16
Fill Area (SF): 10	Fill Vol. (CY): 16
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS - BASELINE CONST. RAMP C STA. 691+50.00 TO STA. 692+00.00

DESIGN AGENCY

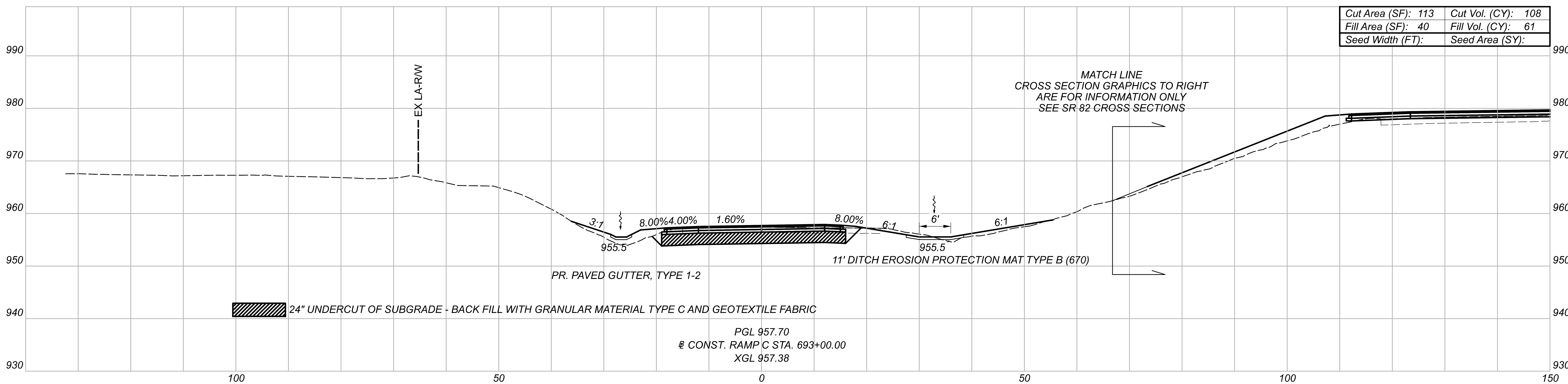
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	431
TOTAL	704

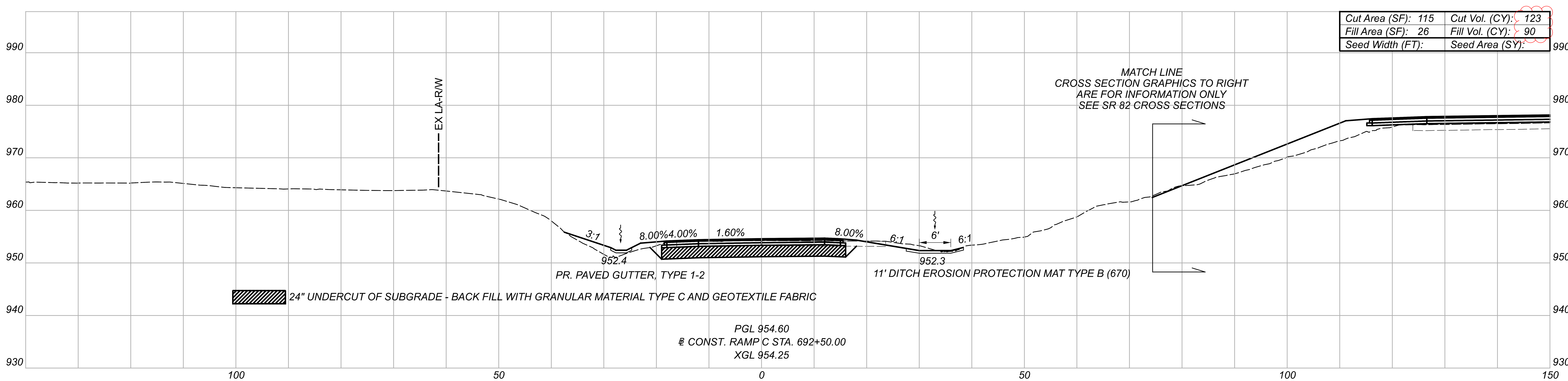
Sheet Totals		
Seeding	Cut	Fill
-	45	90

CROSS SECTIONS - BASELINE CONST. RAMP C
STA. 692+50.00 TO STA. 693+00.00

Cut Area (SF): 113	Cut Vol. (CY): 108
Fill Area (SF): 40	Fill Vol. (CY): 61
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 115	Cut Vol. (CY): 123
Fill Area (SF): 26	Fill Vol. (CY): 90
Seed Width (FT):	Seed Area (SY):



Sheet Totals		
Seeding	Cut	Fill
-	334	151

TRU-46/82 DDI

MODEL: BLP_R82C - 692+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 1:35:53 PM USER: TSCHOEN
pw:\\pwhdruseas01:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp C - Roadway Cross Sections Sheet

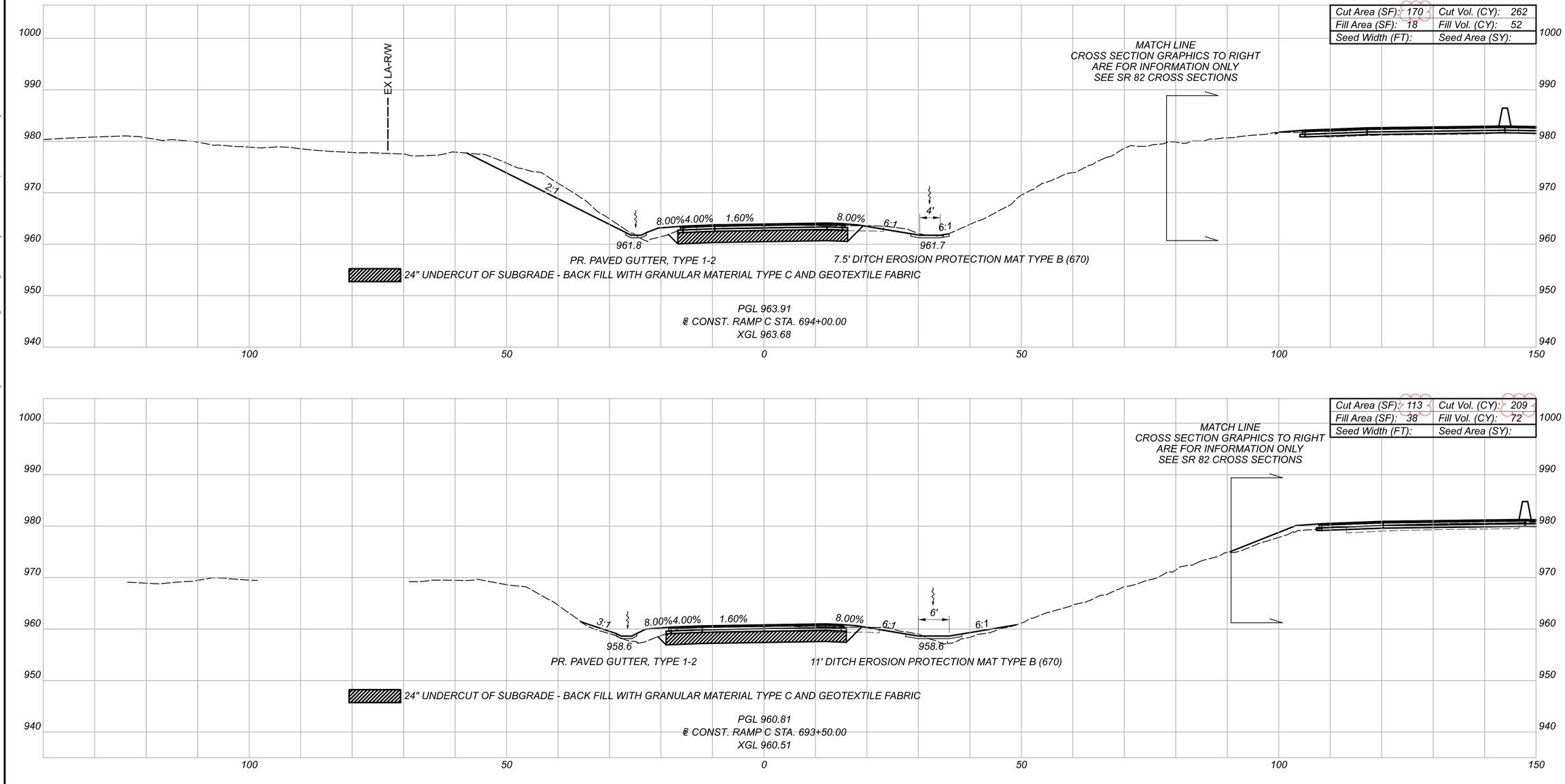
DESIGN AGENCY
HDR

DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

SHEET 432 | TOTAL 704



CROSS SECTIONS - BASELINE CONST. RAMP C STA. 693+50.00 TO STA. 694+00.00

TRU-46/82 DDI

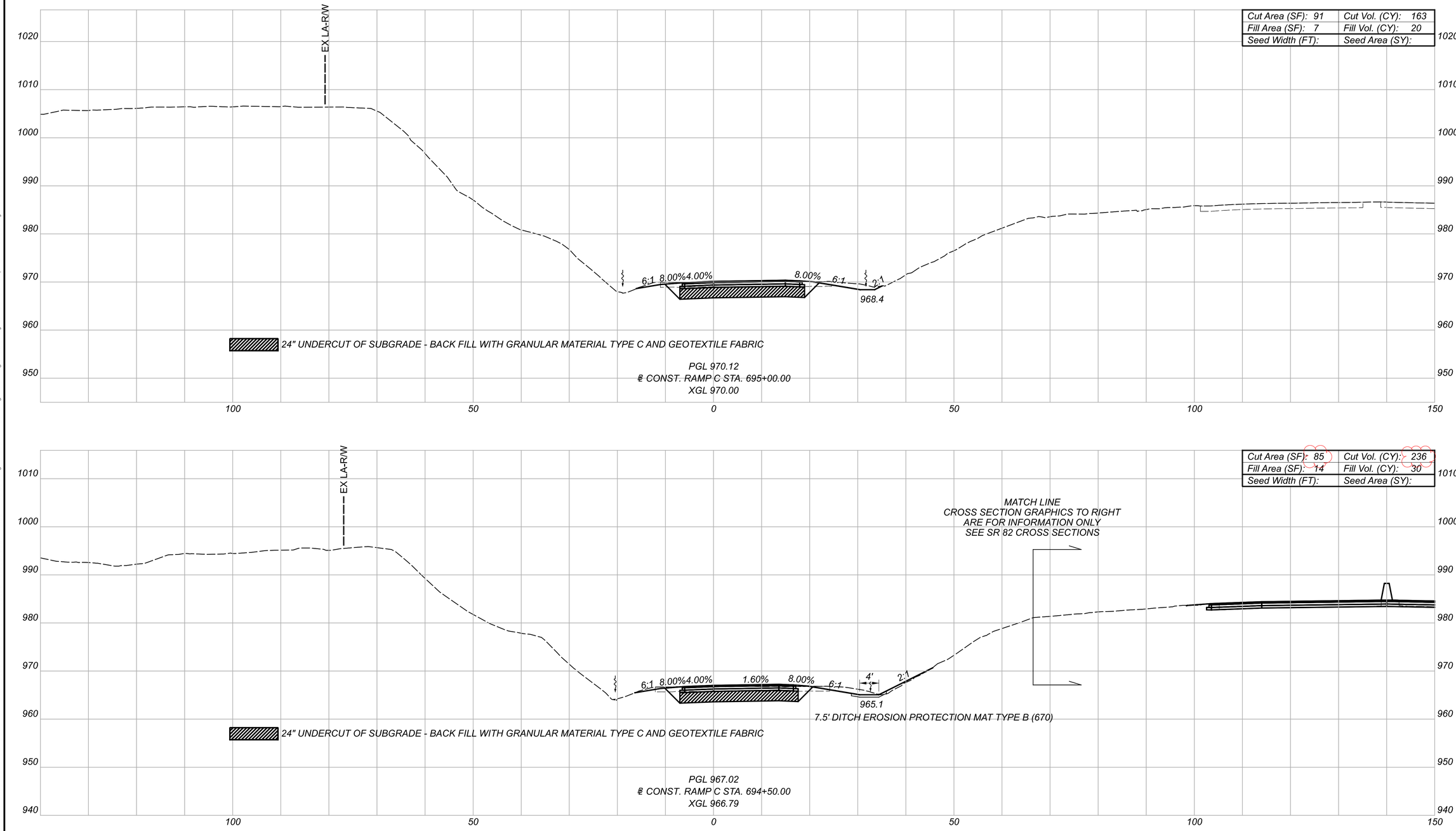
Sheet Totals		
Seeding	Cut	Fill
-	471	124

DESIGN AGENCY

HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547
SHEET	433
TOTAL	704

MODEL: BLP_R82C - 693+50.00 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 1:35:55 PM USER: TSCHOEN
pw:\\pwhdrusea01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp C - Roadway Cross Sections Sheet



CROSS SECTIONS - BASELINE CONST. RAMP C STA. 694+50.00 TO STA. 695+00.00

Sheet Totals		
Seeding	Cut	Fill
-	399	50

DESIGN AGENCY

HDR

DESIGNER
MJL

REVIEWER
JMB 08/19/21

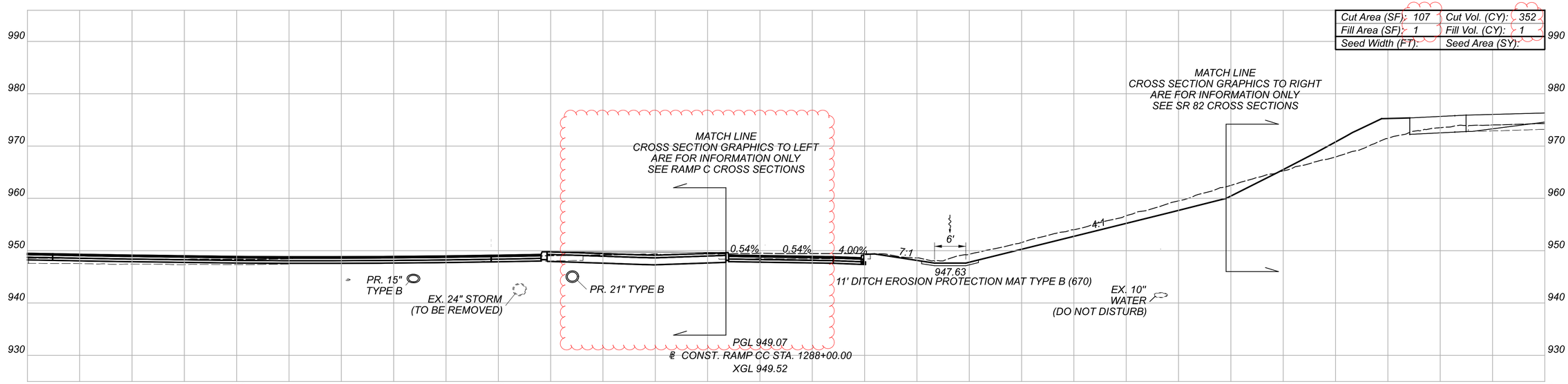
PROJECT ID
108547

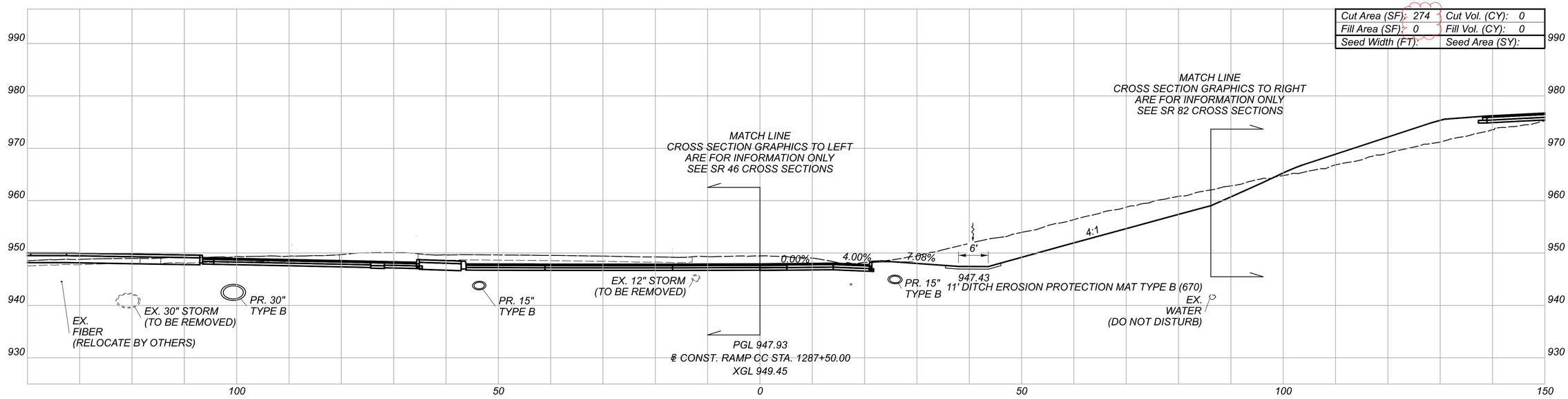
SHEET 434 | TOTAL 704

TRU-46/82 DDI

MODEL: BLP_R82C - 694+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 1:35:57 PM USER: TSCHOEN
pw:\\pwhdruseas01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp C - Roadway Cross Sections Sheet

TRU-46/82 DDI





CROSS SECTIONS - BASELINE CONST. RAMP CC
STA. 1287+50.00 TO STA. 1288+00.00

DESIGN AGENCY

DESIGNER
MJL

REVIEWER
JMB 08/19/21

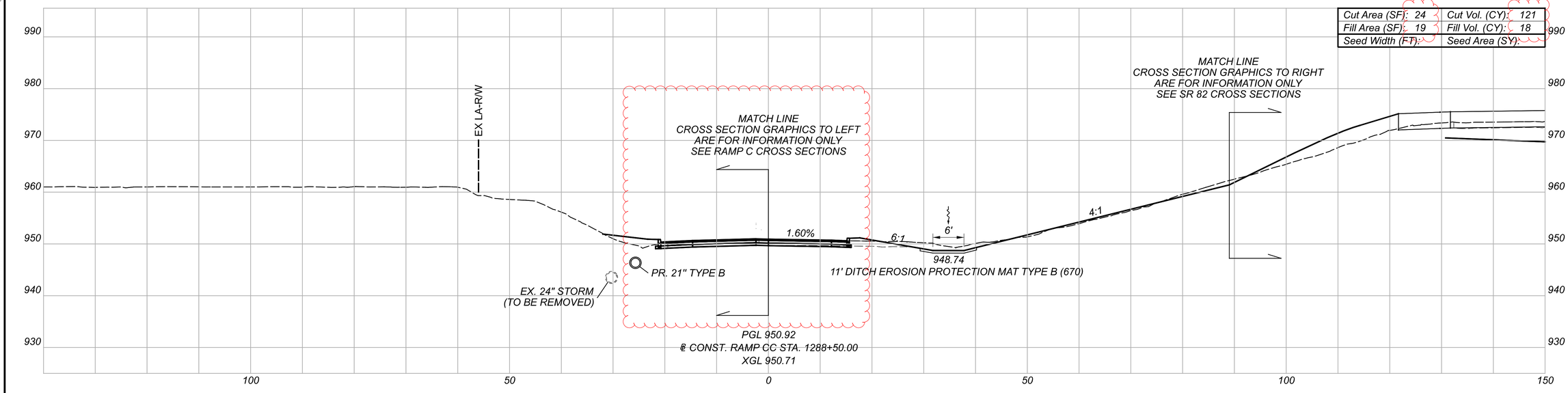
PROJECT ID
108547

Sheet Totals		
Seeding	Cut	Fill
-	352	1

SHEET	TOTAL
438	704

TRU-46/82 DDI

MODEL: BLP_R82CC - I288+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 1:36:16 PM USER: TSCHOEN
pw:\\pwhdruseas01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp CC - Roadway Cross Sections Sheet



Cut Area (SF):	24	Cut Vol. (CY):	121
Fill Area (SF):	19	Fill Vol. (CY):	18
Seed Width (FT):		Seed Area (SY):	

CROSS SECTIONS - BASELINE CONST. RAMP CC
STA. 1288+50.00 TO STA. 1288+00.00

DESIGN AGENCY

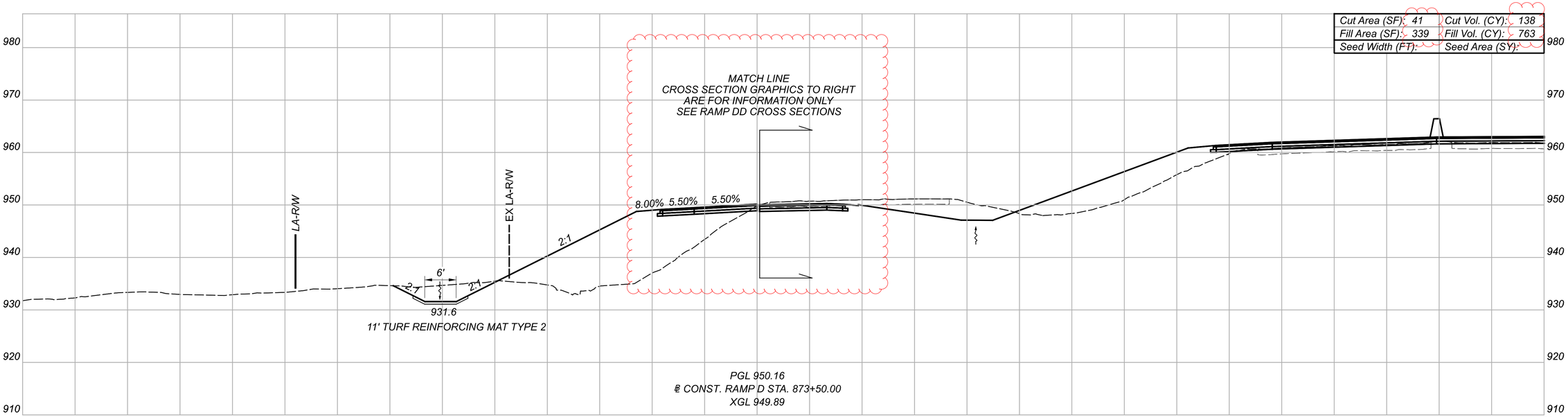
DESIGNER
MJL

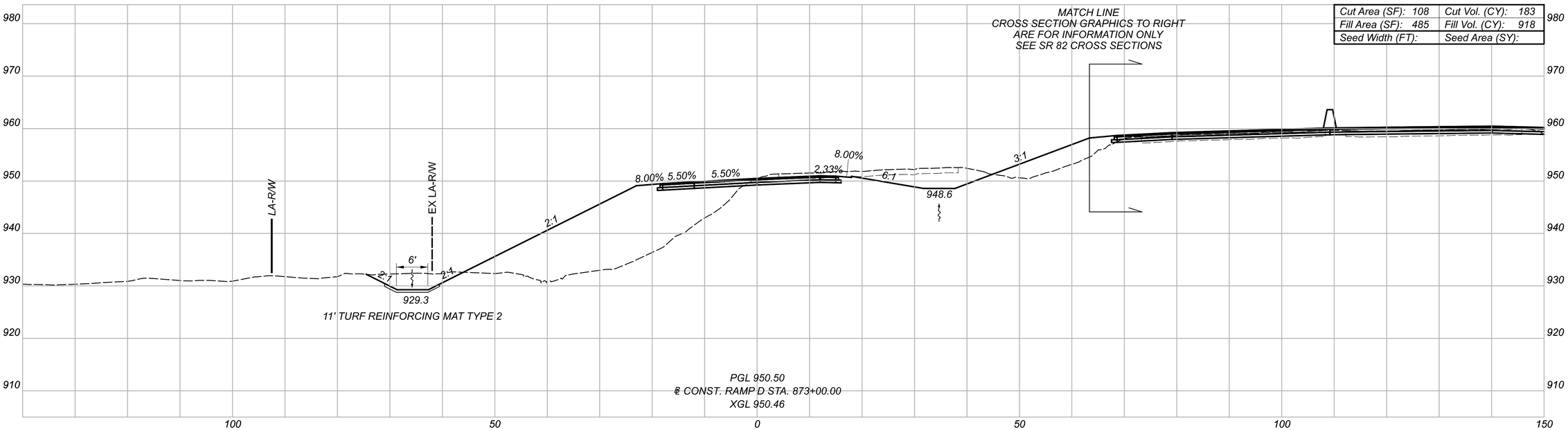
REVIEWER
JMB 08/19/21

PROJECT ID
108547

Sheet Totals		
Seeding	Cut	Fill
-	121	18

SHEET 439 TOTAL 704





CROSS SECTIONS - BASELINE CONST. RAMP D
STA. 873+00.00 TO STA. 873+50.00

TRU-46/82 DDI

Sheet Totals		
Seeding	Cut	Fill
-	321	1681

DESIGN AGENCY

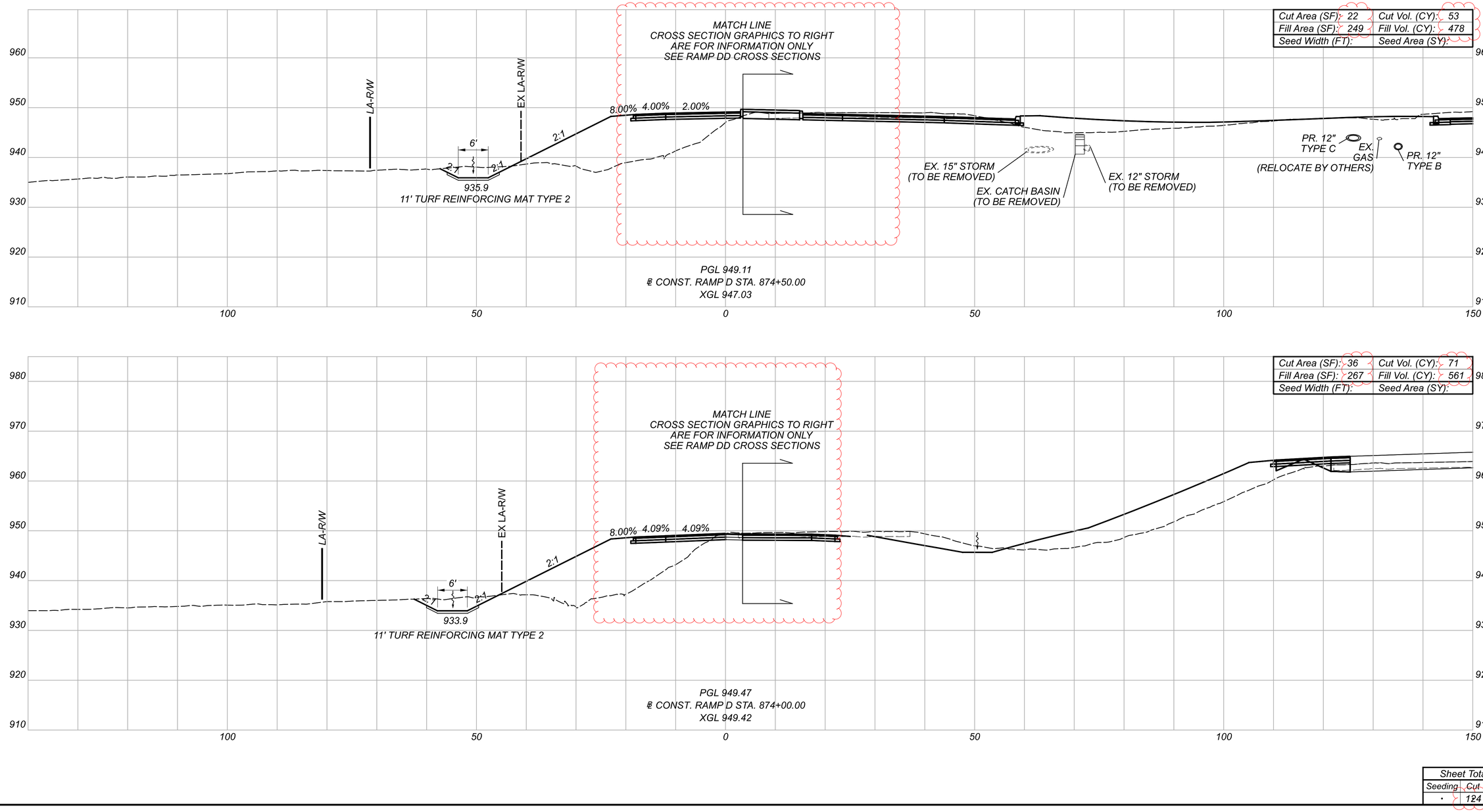
DESIGNER MJL

REVIEWER JMB 08/19/21

PROJECT ID 108547

SHEET 448 TOTAL 704

MODEL: BLP_R82D - 873+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 2:53:04 PM USER: TSCHOEN
pw:\\pwhdruseas0iHDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp D - Roadway Cross Sections Sheet



Cut Area (SF):	22	Cut Vol. (CY):	53
Fill Area (SF):	249	Fill Vol. (CY):	478
Seed Width (FT):		Seed Area (SY):	

Cut Area (SF):	36	Cut Vol. (CY):	71
Fill Area (SF):	267	Fill Vol. (CY):	561
Seed Width (FT):		Seed Area (SY):	

Sheet Totals		
Seeding	Cut	Fill
-	124	1039

CROSS SECTIONS - BASELINE CONST. RAMP D
STA. 874+00.00 TO STA. 874+50.00

DESIGN AGENCY

DESIGNER MJL

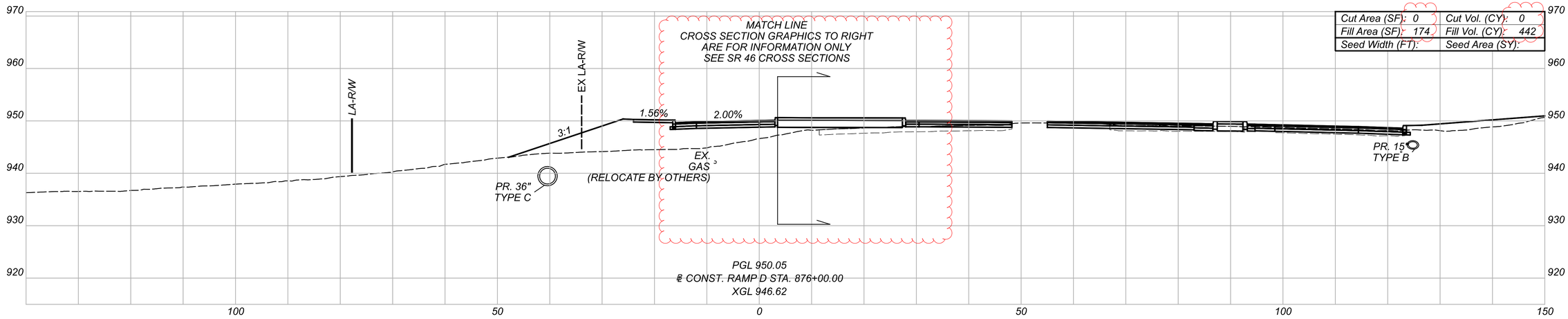
REVIEWER JMB 08/19/21

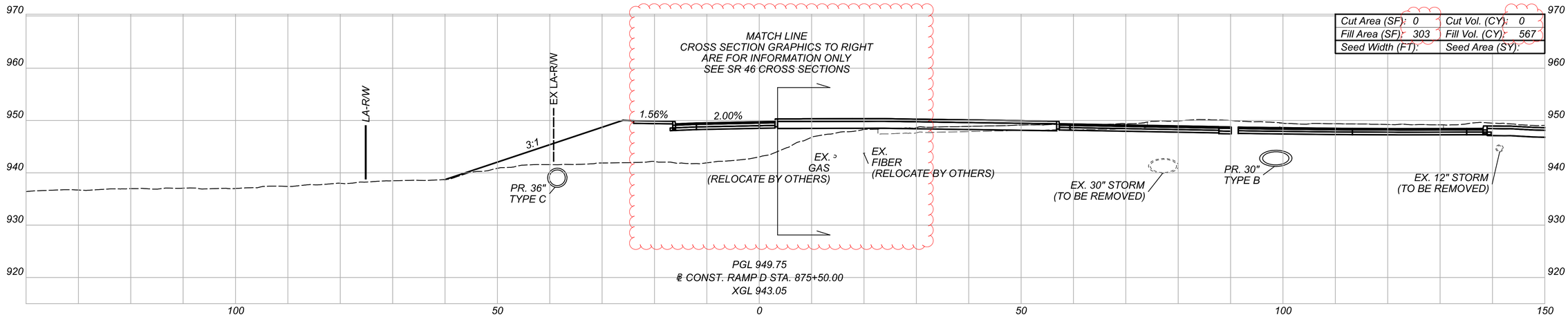
PROJECT ID 108547

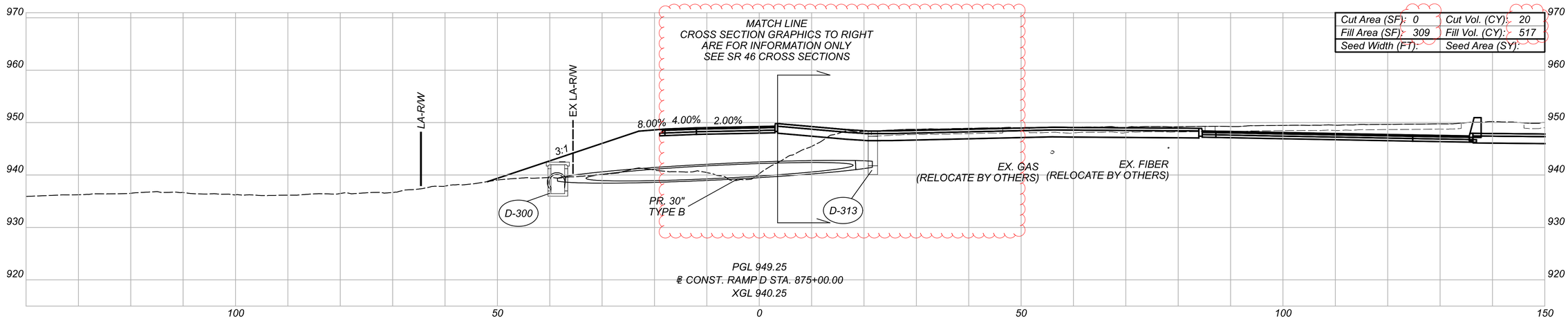
SHEET 449 TOTAL 704

TRU-46/82 DDI

MODEL: BLP_R82D - 874+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 2:53:10 PM USER: TSCHOEN
pw:\\pwhdrusea50:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp D - Roadway Cross Sections Sheet







CROSS SECTIONS - BASELINE CONST. RAMP D
STA. 875+00.00 TO STA. 876+00.00

TRU-46/82 DDI

MODEL: BLP_R82D - 875+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 2:53:18 PM USER: TSCHOEN
pw:\\pwhdruseast01.bentley.com:HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Roadway\Sheets\Ramp D - Roadway Cross Sections Sheet

DESIGN AGENCY

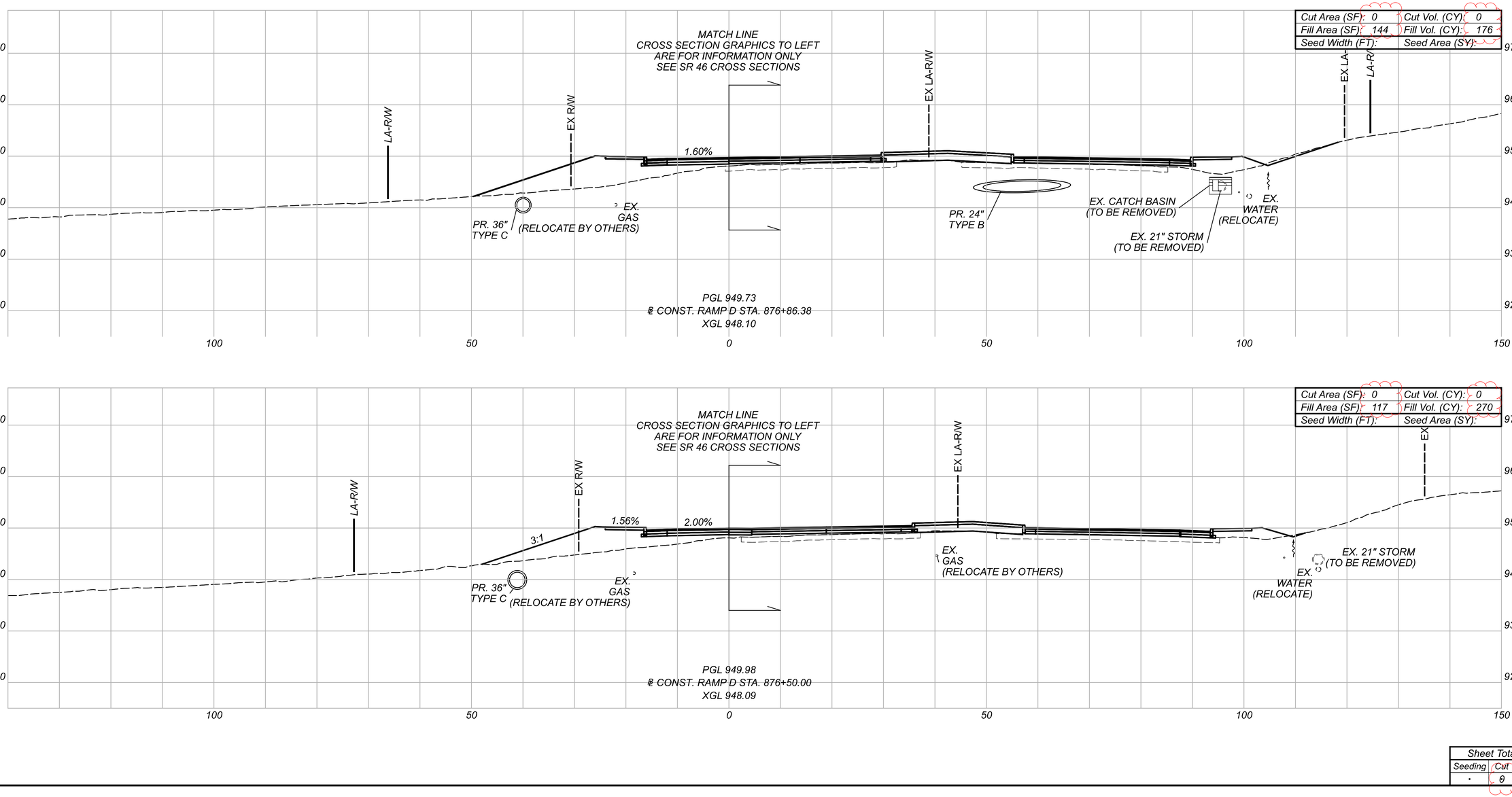
DESIGNER: MJL

REVIEWER: JMB 08/19/21

PROJECT ID: 108547

SHEET: 450 TOTAL: 704

Sheet Totals		
Seeding	Cut	Fill
-	20	1525



TRU-46/82 DDI

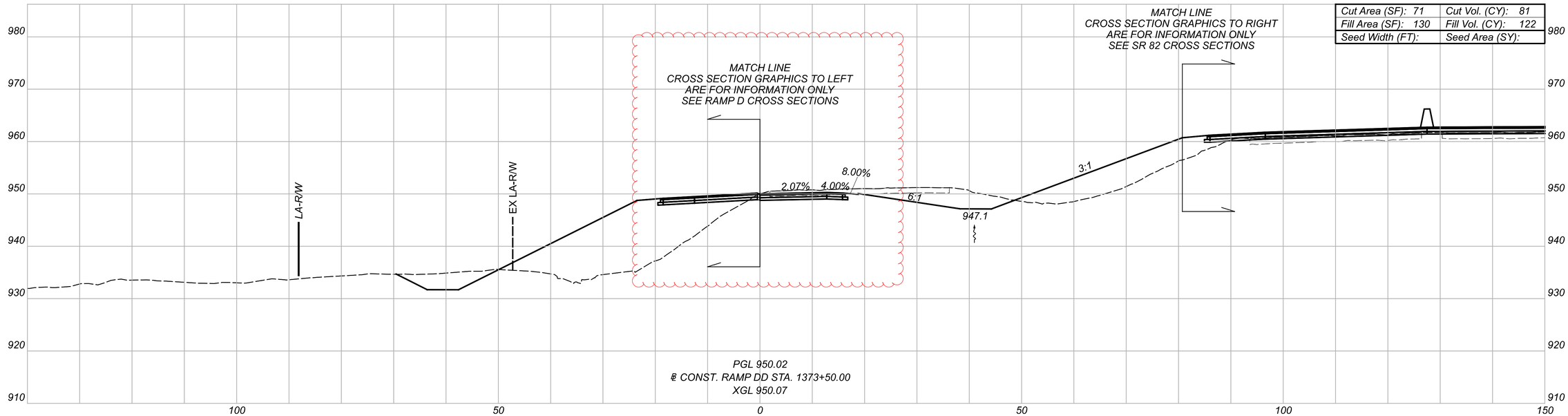
CROSS SECTIONS - BASELINE CONST. RAMP D STA. 876+50.00 TO STA. 876+86.38

DESIGN AGENCY

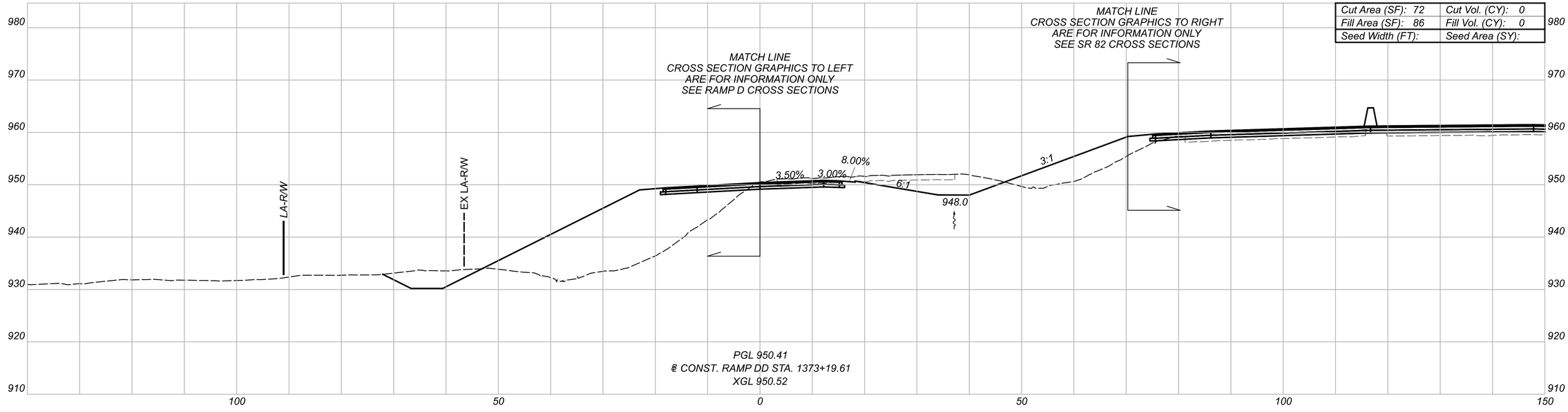
HDR

DESIGNER	MJL
REVIEWER	JMB 08/19/21
PROJECT ID	108547

Sheet Totals			SHEET	TOTAL
Seeding	Cut	Fill	451	704
-	0	446		



Cut Area (SF): 71	Cut Vol. (CY): 81
Fill Area (SF): 130	Fill Vol. (CY): 122
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 72	Cut Vol. (CY): 0
Fill Area (SF): 86	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

TRU-46/82 DDI

CROSS SECTIONS - BASELINE CONST. RAMP DD STA. 1373+19.61 TO STA. 1373+50.00

DESIGN AGENCY

HDR

DESIGNER MJL

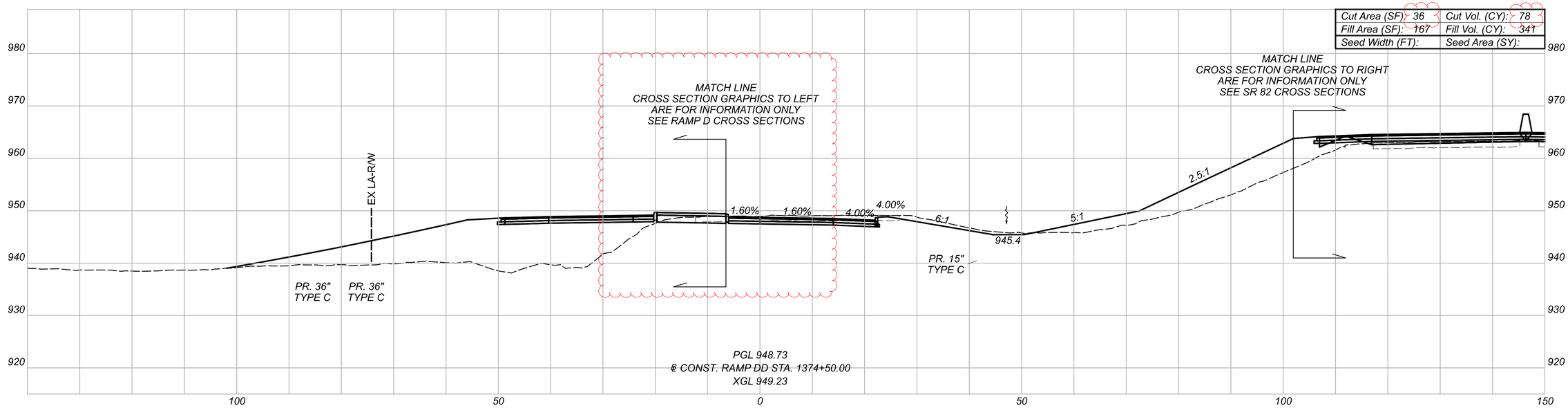
REVIEWER JMB 08/19/21

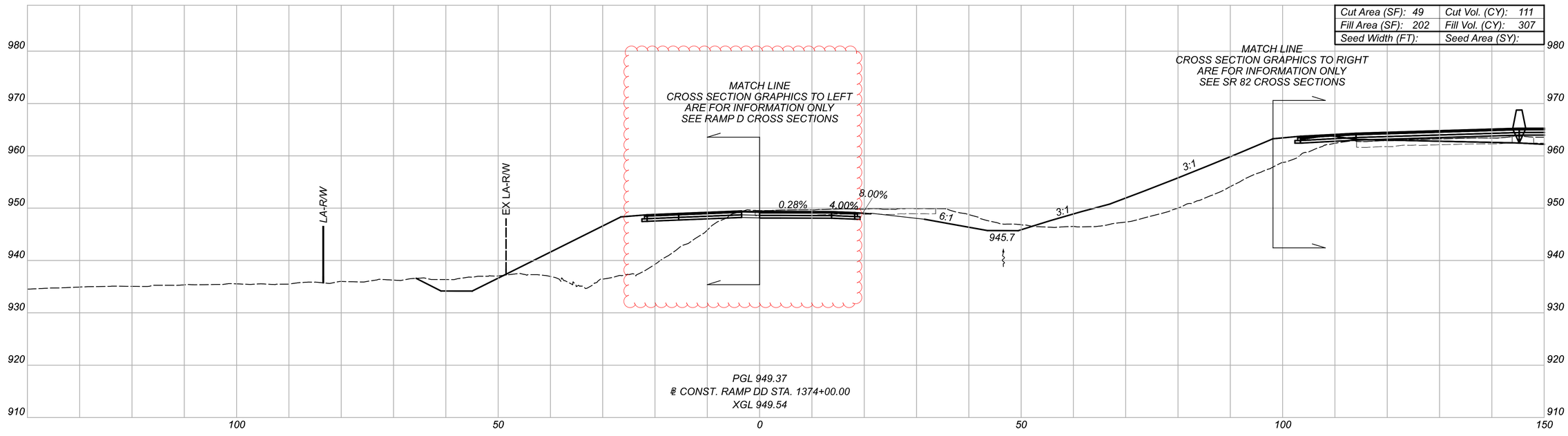
PROJECT ID 108547

SHEET 452 TOTAL 704

Sheet Totals		
Seeding	Cut	Fill
-	81	122

TRU-46/82 DDI





CROSS SECTIONS - BASELINE CONST. RAMP DD
SHEET SUB-TITLESTA. 1374+00.00 TO STA. 1374+50.00

DESIGN AGENCY

DESIGNER
MJL

REVIEWER
JMB 08/19/21

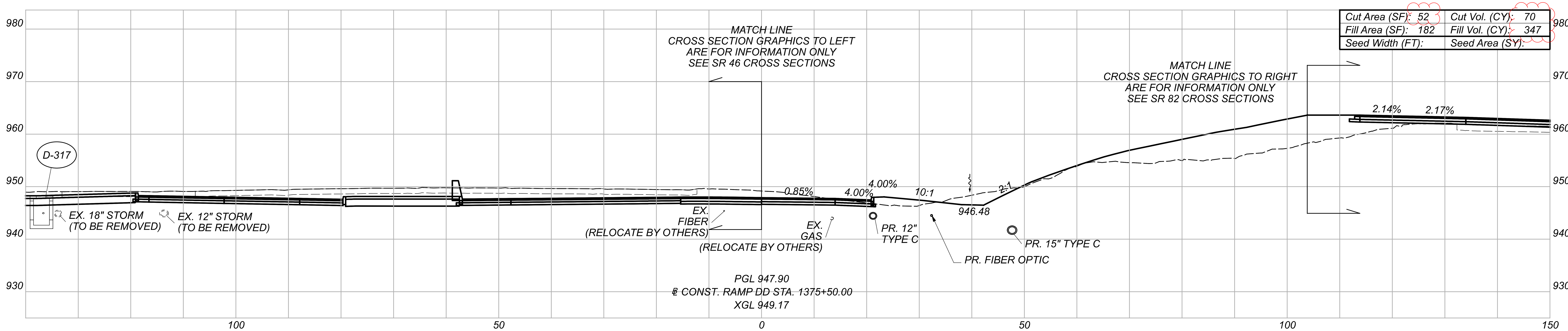
PROJECT ID
108547

Sheet Totals		
Seeding	Cut	Fill
-	189	649

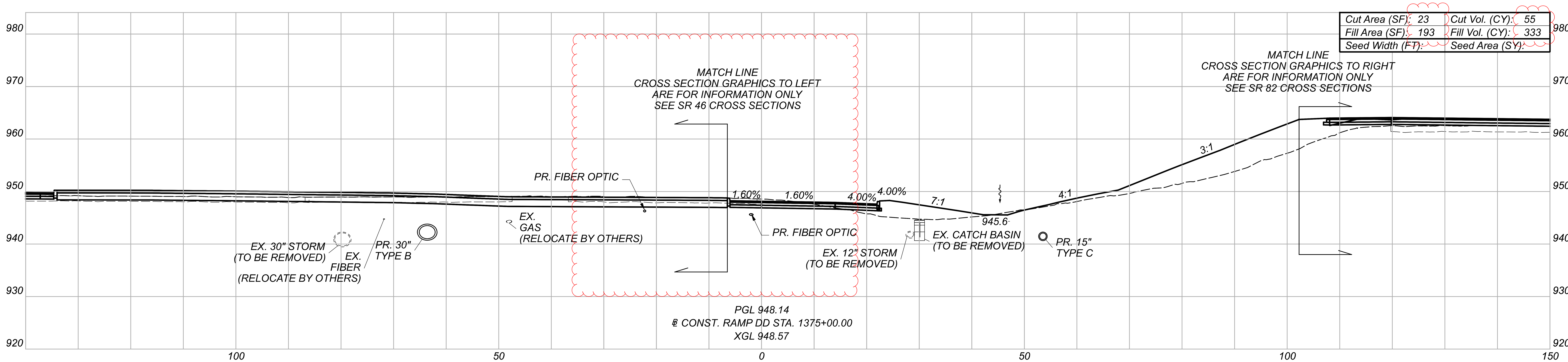
SHEET	TOTAL
453	704

CROSS SECTIONS - BASELINE CONST. RAMP DD
STA. 1375+00.00 TO STA. 1375+50.00

Cut Area (SF):	52	Cut Vol. (CY):	70
Fill Area (SF):	182	Fill Vol. (CY):	347
Seed Width (FT):		Seed Area (SY):	



Cut Area (SF):	23	Cut Vol. (CY):	55
Fill Area (SF):	193	Fill Vol. (CY):	333
Seed Width (FT):		Seed Area (SY):	



EARTHWORK TOTALS CARRIED TO GENERAL SUMMARY

Project Totals		Sheet Totals		
Cut	Fill	Seeding	Cut	Fill
29517	26942	-	125	680

DESIGN AGENCY
HDR

DESIGNER
MJL

REVIEWER
JMB 08/19/21

PROJECT ID
108547

SHEET	TOTAL
454	704

TRU-46/82 DDI

MODEL: BLP_R82DD - 1375+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 5/4/2023 TIME: 2:58:52 PM USER: TSCHOEN
pw:\\pwhdr-useast01HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\08547\400-Engineering\Roadway\Sheets\Ramp DD - Roadway Cross Sections Sheet

SIGNING SUBSUMMARY

TRU-46/82 DDI

MODEL: TS002 PAPERSIZE: 34x22 (in.) DATE: 5/3/2023 TIME: 1:53:38 PM USER: TSCHOEN
pw:\\pwhdrusea01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI\6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Traffic\Sheets\Signing & Pavement Marking Subsummary

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST FT	630 GROUND MOUNTED SUPPORT, NO. 4 POST FT	630 SIGN POST REFLECTOR EACH	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9 FT	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12 FT	630 SIGN, FLAT SHEET SF	630 SIGN, GROUND MOUNTED EXTRUSHEET SF	625 GROUND ROD TC-21.21 EACH	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6 EACH	630 OVERHEAD SIGN SUPPORT, TC-15.116, DESIGN 1 EACH	630 OVERHEAD SIGN SUPPORT TC-15.116 DESIGN 3 EACH	630 BREAKAWAY STRUCTURAL BEAM CONNECTION EACH	630 OVERHEAD SIGN SUPPORT TC-16.22 DESIGN 12 EACH	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION TC-21.11 EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION EACH	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL EACH	630	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL EACH	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL EACH
						W H																					
		RAMP CC	1288+42	LT	REMOVAL																2		1			
562		RAMP C	693+37	RT	REMOVAL																1		2			
			693+37	LT	REMOVAL																1		2			
			695+26	LT	REMOVAL																1		2			
			696+75	RT	REMOVAL																1		2			
			697+75	LT	REMOVAL																1		1			
563		RAMP D	873+16	RT	REMOVAL																1		1			
			873+59	RT	REMOVAL																1		1			
			874+20	RT	REMOVAL																1		1			
			874+54	RT	REMOVAL																1		1			
564	S-1	SR 46	375+37	LT	R3-9b-24	24 X 36	15.5/15.5					6.0														
				LT	I-H2b	24 X 18						3.0														
	S-2		378+74	RT	LEVEL 3	150 X 90					19.0/19.0		93.8													
565	S-3	SR 46	379+43	LT	R2-1-30	30 X 36	14.0					7.5														
	OSS-4		380+75	RT/LT	R3-9a-30 (X2)	30 X 36						15.0		1		1				2						
					R3-9cP-30	30 X 12						2.5														
					R3-9dP-30	30 X 12						2.5														
					LEVEL 3	120 X 84							70.0													
					LEVEL 3	192 X 84							112.0													
					LEVEL 3	120 X 102							85.0													
	S-5		381+50	LT	R3-H8cb-48	48 X 30	13.5/13.5					10.0														
	S-6		382+52	LT	M1-5-24	24 X 24	14.0					4.0														
				LT	M3-3-24	24 X 12						2.0														
	S-7		383+52	RT	LEVEL 3	60 X 84				18.0/18.0			35.0													
	S-8		383+65	RT	R3-4-36	36 X 36	14.0		1			9.0														
					R4-7-24	24 X 30						5.0														
	S-9		384+94	RT	LEVEL 3	96 X 84				18.0/18.0			56.0													
	S-10		385+26	RT	R4-8-24	24 X 30	13.5		1			5.0														
566	OSS-11	SR 46	385+32	LT	LEVEL 3	120 X 84							70.0	1	1					1						
	S-12		385+75	RT/LT	I-H25b-12	12 X 12	12.0					1.0														
	S-13		386+55	RT	I-H25b-12	12 X 12	12.0					1.0														
	S-14		387+15	LT	LEVEL 3	60 X 84				18.0/18.0			35.0													
	OSS-15		386+91	RT	LEVEL 3	120 X 102							85.0	1	1					1						
	S-16		387+76	RT	R4-8-24	24 X 30	13.5		1			5.0														
567	S-17	SR 46	389+08	RT	R3-4-36	36 X 36	14.0		1			9.0														
					R4-7-24	24 X 30						5.0														
	S-18		386+54	LT	LEVEL 3	60 X 84				18.0/18.0			35.0													
	S-19		389+24	LT	W11-2-36	36 X 36		16.5				9.0						1								
					W16-9P-24	24 X 12						2.0														
	OSS-20		389+82	LT	LEVEL 3	120 X 96							80.0	1		1				2						
					LEVEL 3	96 X 84							56.0													
	OSS-21		391+42	LT	R3-9a-30 (X2)	30 X 36						15.0														
					R3-9cP-30	30 X 12						2.5		1		1			1	1						
					R3-9dP-30	30 X 12						2.5														
	S-22		390+90	LT	R3-H8cb-48	48 X 30	13.5/13.5					10.0														
	S-23		390+00	RT	M3-1-24	24 X 12						2.0														
					M1-5-24	24 X 24						4.0														
	S-24		391+00	RT	W4-2R-48	48 X 48	15.0/15.0					16.0														
	OSS-25		392+13	RT	W9-H4R-144	144 X 60						60.0		1		1				1						
	S-26		393+00	RT	R2-1-30	30 X 36	14.0					7.5														
568	S-27	SR 46	393+61	LT	LEVEL 3	150 X 90					19.0/19.0		93.8													
	S-28		394+43	LT	R1-1-30	30 X 30	13.5					6.3														
	S-29		395+90	RT	R3-H8ca-48	48 X 30						10.0		1	1											
	S-30		397+40	RT	R3-9b-24	24 X 36	14.0					6.0														
569	S-68	SR 46	395+40	LT	R3-H8ba-30	30 X 30	13.5					6.3														
	S-31		402+50	RT	R2-1-24	24 X 30	13.5					5.0														
	S-32		402+51	LT	R3-9b-24	24 X 36	14.0					6.0														
571	S-33	SR 46	408+50	RT	R3-9b-24	24 X 36	14.0					6.0														
	S-34		413+82	LT	R3-9b-24	24 X 36	14.0					6.0														
TOTALS CARRIED TO SHEET			546				332.5	16.5	4	144	76	274.6	906.6	7	3	4	0	1	1	8	11	0	14		0	0

DESIGN AGENCY

HDR

DESIGNER
CTS

REVIEWER
JMB 08/20/21

PROJECT ID
108547

SHEET 545 | TOTAL 704

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 GROUND MOUNTED SUPPORT, NO. 4 POST	630 SIGN POST REFLECTOR	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9	630 GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12	630 SIGN, FLAT SHEET	630 SIGN, GROUND MOUNTED EXTRUSHEET	625 GROUND ROD TC-21.21	630 OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	630 OVERHEAD SIGN SUPPORT, TC-15.116, DESIGN 1	630 OVERHEAD SIGN SUPPORT TC-15.116 DESIGN 3	630 BREAKAWAY STRUCTURAL BEAM CONNECTION	630 OVERHEAD SIGN SUPPORT TC-16.22 DESIGN 12	630 RIGID OVERHEAD SIGN SUPPORT FOUNDATION TC-21.11	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	630	630 REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL
							FT	FT	EACH	FT	FT	SF	SF	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		EACH	EACH
571	S-69	SR 46	406+17	RT	R3-H8ba-30	30 X 30	13.5					6.3															
	S-70		409+17	LT	R3-H8ba-30	30 X 30	13.5					6.3															
574	OSS-35	SR 82	769+73	RT/LT	LEVEL 1	174 X 156							188.5	1			1			2							
					W13-2	36 X 48						12.0															
					LEVEL 1	192 X 132							176.0														
					R5-2	36 X 36						9.0															
					E1-5a	72 X 30						15.0	15.0														
	S-36		771+39	LT	W4-3R-48	48 X 48	13.0/13.0					16.0															
575	S-37	SR 82	774+68	RT	OM-3R-12	12 X 36	16.0					3.0															
					I-H25b-12	12 X 12						1.0															
	S-38		777+18	RT	OM-3R-12	12 X 36	16.0					3.0															
					I-H25b-12	12 X 12						1.0															
579	S-39	RAMP A	473+07	LT	R5-1a-42	42 X 30	16.0/16.0		1			8.8															
					R5-1a-42	42 X 30						8.8															
	S-40		473+07	RT	R5-1a-42	42 X 30	16.0/16.0		1			8.8															
					R5-1a-42	42 X 30						8.8															
	S-41		474+78	LT	R3-H8cd-48	48 X 30	13.5/13.5					10.0															
	S-42		474+82	RT	R3-H8cd-48	48 X 30	13.5/13.5					10.0															
	S-43		475+77	LT	R5-1-36	36 X 36	14.0		1			9.0															
	S-44		474+72	RT	R5-10b-30	30 X 18	12.5					3.8															
	S-45		475+19	LT	M3-1-36	36 X 18				17.5/17.5		4.5															
					M3-3-36	36 X 18						4.5															
					M1-5-36	36 X 36						9.0															
					M1-5-36	36 X 36						9.0															
					M6-2-30	30 X 21						4.4															
					M6-2-30	30 X 21						4.4															
	S-46		473+49	RT	D10-H5a	30 X 30	13.5					6.3															
	S-47	RAMP AA	384+74	RT	R5-1-36	36 X 36	14.0		1			9.0															
580	S-48	RAMP B	584+12	RT	R5-10b-30	30 X 18	12.5					3.8															
	S-49		1187+00	LT	R5-10b-30	30 X 18	12.5					3.8															
	S-50		584+55	RT	W4-2R-36	36 X 36	14.0					9.0															
582	S-51	RAMP C	387+56	RT	R5-1-36	36 X 36	14.0		1			9.0															
	S-52		388+64	RT	R5-1-36	36 X 36	14.0		1			9.0															
	S-53		691+09	LT	R5-10b-30	30 X 18	12.5					3.8															
	S-54		691+72	RT	R5-10b-30	30 X 18	12.5					3.8															
	S-55		691+38	RT	M6-2-30	30 X 21				17.5/17.5		4.4															
					M6-2-30	30 X 21						4.4															
					M1-5-36	36 X 36						9.0															
					M1-5-36	36 X 36						9.0															
					M3-1-36	36 X 18						4.5															
					M3-3-36	36 X 18						4.5															
583	S-56	RAMP C	693+89	RT	R3-H8bd-36	36 X 30	13.5					7.5															
	S-57		693+90	LT	R3-H8bd-36	36 X 30	13.5					7.5															
	S-58		693+05	RT	R5-1a-42	42 X 30	16.0		1			8.8															
					R5-1a-42	42 X 30						8.8															
	S-59			LT	R5-1a-42	42 X 30	16.0		1			8.8															
					R5-1a-42	42 X 30						8.8															
	S-60		696+75	RT	M1-5-36	36 X 36				17.5/17.5		9.0															
					M6-4-30	30 X 21						4.4															
					D1-H17a-108	108 X 36						27.0															
	S-61		697+70	RT	D10-H5a-30	30 X 30	13.5					6.3															
585	S-62	RAMP D	873+75	LT	W4-2R-36	36 X 36	14.0					9.0															
	S-63	RAMP DD	1374+79	LT	R5-10b-30	30 X 18	12.5					3.8															
	S-64	RAMP D	873+75	LT	R5-10b-30	30 X 18	12.5					3.8															
	S-65		875+55	RT	W11-2-36	36 X 36		16.5				9.0						1									
					W16-7PL-24	24 X 12						2.0															
	S-66		875+55	LT	W11-2-36	36 X 36		16.5				9.0						1									
					W16-7PL-24	24 X 12						2.0															
SUBTOTAL THIS SHEET							271.0	33	8	105	0	392.6	379.5	1	0	0	1	2	0	2	0	0	0		0	0
SUBTOTAL SHEET 544							39.0	0	0	0	0	0.0	0	0	0	0	0	3	0	0	91	10	77		15	3
SUBTOTAL SHEET 545							332.5	16.5	4	76	76	274.6	906.6	7	3	4	0	1	1	8	11	0	14		0	0
TOTALS CARRIED TO GENERAL SUMMARY							642.5	49.5	12	181	76	667.2	1286.1	8	3	4	1	6	1	10	102	10	91		15	3

TRU-46/82 DDI

MODEL: TS003 PAPERSIZE: 34x22 (in.) DATE: 5/3/2023 TIME: 1:53:39 PM USER: TSCHOEN
pw:\\pwhdruseas01.HDR_US_East_01\Documents\Ohio_DOT\ODT_TRU-46-82_DDI6.0_CAD_BIM\6.2_WIP\01_Design\108547\400-Engineering\Traffic\Sheets\Signing & Pavement Marking Subsummary

SIGNING SUBSUMMARY

DESIGN AGENCY

DESIGNER CTS

REVIEWER JMB 08/20/21

PROJECT ID 108547

SHEET 546 TOTAL 704