

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. ALL OTHER SLOPED EMBANKMENT AREAS SHALL BE BENCHED AS SET FORTH IN 203.05. NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF 203.05.

FOR EXCAVATION AND EMBANKMENT QUANTITIES FROM CROSS-SECTIONS, SEE TABLE BELOW:

	ITEM 203 EXCAVATION	ITEM 203 EMBANKMENT
PLAN SPLIT 02/NHS/PV	4,877 CY	14,655 (+1,603) = 16,258 CY
PLAN SPLIT 03/S<2/PV	6,180 CY	11,492 CY
TOTALS	11,057 CY	27,750 CY

QUANTITIES CARRIED TO THE GENERAL SUMMARY

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS AS PER ITEM 659:

SEEDING CARRIED FROM SHEETS 109 & 274 26,701 SQ YD

PLAN SPLIT 02/NHS/PV
ITEM 659 SEEDING AND MULCHING, CLASS 2 15,298 (+1,000) =
16,298 SQ YD

PLAN SPLIT 03/S<2/PV
ITEM 659 SEEDING AND MULCHING, CLASS 2 10,403 SQ YD

ITEM 659 COMMERCIAL FERTILIZER 3.6 TON

PLAN SPLIT 02/NHS/PV
1 TON PER 7,410 SQ. YD. OF THE PERMANENT SEEDED AREA
16,298 SQ.YD. ÷ 7,410 = 2.2 TON

PLAN SPLIT 03/S<2/PV
1 TON PER 7,410 SQ. YD. OF THE PERMANENT SEEDED AREA
10,403 SQ.YD. ÷ 7,410 = 1.4 TON

ITEM 659 LIME 5.5 ACRES

PLAN SPLIT 02/NHS/PV
16,298 SQ.YD. ÷ 4,840 = 3.4 ACRES

PLAN SPLIT 03/S<2/PV
10,403 SQ.YD. ÷ 4,840 = 2.1 ACRES

ITEM 659 WATER 144.2 M GAL.

PLAN SPLIT 02/NHS/PV
0.0054 M. GAL PER SQ. YD. OF THE PERMANENT SEEDED AREA
16,298 SQ.YD. x 0.0054 = 88.0 M GAL.

PLAN SPLIT 03/S<2/PV
0.0054 M. GAL PER SQ. YD. OF THE PERMANENT SEEDED AREA
10,403 SQ.YD. x 0.0054 = 56.2 M GAL.

ITEM 659 MOWING 721.0 MSF

PLAN SPLIT 02/NHS/PV
16,298 SQ.YD. x 0.009 = 146.7 MSF x 3 MOWINGS = 440.1 MSF

PLAN SPLIT 03/S<2/PV
10,403 SQ.YD. x 0.009 = 93.6 MSF x 3 MOWINGS = 280.9 MSF

QUANTITIES CARRIED TO GENERAL SUMMARY

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

ITEM 659 REPAIR SEEDING AND MULCHING 1,335.1 SQ. YD.

PLAN SPLIT 02/NHS/PV
5% OF THE PERMANENT SEEDED AREA
.05 x 16,298 SQ.YD. = 814.9 SQ. YD.

PLAN SPLIT 03/S<2/PV
5% OF THE PERMANENT SEEDED AREA
.05 x 10,403 SQ.YD. = 520.2 SQ. YD.

ITEM 659 INTER-SEEDING 1,335.1 SQ. YD.

PLAN SPLIT 02/NHS/PV
5% OF THE PERMANENT SEEDED AREA
.05 x 16,298 SQ.YD. = 814.9 SQ. YD.

PLAN SPLIT 03/S<2/PV
5% OF THE PERMANENT SEEDED AREA
.05 x 10,403 SQ.YD. = 520.2 SQ. YD.

ITEM 659 COMMERCIAL FERTILIZER 0.8 TON

PLAN SPLIT 02/NHS/PV
1 TON PER 29,940 SQ. YD. OF THE PERMANENT SEEDED AREA
16,298 SQ.YD. ÷ 29,940 = 0.5 TON

PLAN SPLIT 03/S<2/PV
1 TON PER 29,940 SQ. YD. OF THE PERMANENT SEEDED AREA
10,403 SQ.YD. ÷ 29,940 = 0.3 TON

ITEM 659 WATER 23.1 M. GAL.

PLAN SPLIT 02/NHS/PV
0.00216 M. GAL. PER 40% OF THE SEEDED AREA
16,298 SQ.YD. x 0.40 x 0.00216 = 14.1 M. GAL.

PLAN SPLIT 03/S<2/PV
0.00216 M. GAL. PER 40% OF THE SEEDED AREA
10,403 SQ.YD. x 0.40 x 0.00216 = 9.0 M. GAL.

QUANTITIES CARRIED TO GENERAL SUMMARY

FOR TOPSOIL FURNISHED AND PLACED QUANTITY FROM CROSS-SECTIONS, SEE BELOW:

TOPSOIL FURNISHED AND PLACED CARRIED FROM SHEET 109

PLAN SPLIT 02/NHS/PV
ITEM 653 TOPSOIL FURNISHED AND PLACED 1,308 CY
QUANTITY CARRIED TO THE GENERAL SUMMARY

FOR SLOPE EROSION PROTECTION FROM CROSS-SECTIONS, SEE BELOW:

SLOPE EROSION PROTECTION CARRIED FROM SHEET 109

PLAN SPLIT 02/NHS/PV
ITEM 670 SLOPE EROSION PROTECTION 11,415 SY
QUANTITY CARRIED TO THE GENERAL SUMMARY

DUST CONTROL

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

ITEM 616, WATER 155.2 M. GAL

PLAN SPLIT 02/NHS/PV
0.004 M. GAL. PER CU. YD. OF THE TOTAL EARTHWORK
4,877 + 16,258 = 21,135 CU. YD. (TOTAL)
21,135 x 0.004 = 84.5 M. GAL.

PLAN SPLIT 03/S<2/PV
0.004 M. GAL. PER CU. YD. OF THE TOTAL EARTHWORK
6,180 + 11,492 = 17,672 CU. YD. (TOTAL)
17,672 x 0.004 = 70.7 M. GAL.

QUANTITY CARRIED TO GENERAL SUMMARY

ITEM 206 CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP

THE FOLLOWING QUANTITIES HAVE BEEN PROVIDED TO BE USED AS PER ITEM 206 AT THE DIRECTION OF THE PROJECT ENGINEER. THE ENTIRE PROJECT WILL BE CEMENT STABILIZED UNLESS DETAILED OTHERWISE.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO PERFORM THE STABILIZATION OF THE SUBGRADE AS PER ITEM 206.

PLAN SPLIT: 02/NHS/PV

ITEM 206 CEMENT STABILIZED SUBGRADE, 12" DEEP 13,537 SY
(FROM SHEET 86)

CALCULATION:

CEMENT @ 51.8 LBS./S.Y.
13,537 S.Y. x 51.8 LBS. = 701,217 LBS. ÷ 2,000 = 351 TON

PROOF ROLLING @ 1 HR/3000 SY
13,537 SY ÷ 3000 SY = 4.5 HR USE 5 HR

ITEM 206 CEMENT 351 TON
ITEM 206 CURING COAT 13,537 SQ.YD.
ITEM 204 PROOF ROLLING 5 HR

QUANTITIES CARRIED TO THE GENERAL SUMMARY

PLAN SPLIT: 03/S<2/PV

ITEM 206 CEMENT STABILIZED SUBGRADE, 12" DEEP 7,058 SY
(FROM SHEET 86)

CALCULATION:

CEMENT @ 51.8 LBS./S.Y.
7,058 S.Y. x 51.8 LBS. = 365,604 LBS. ÷ 2,000 = 183 TON

PROOF ROLLING @ 1 HR/3000 SY
7,058 SY ÷ 3000 SY = 2.4 HR USE 3 HR

ITEM 206 CEMENT 183 TON
ITEM 206 CURING COAT 7,058 SQ.YD.
ITEM 204 PROOF ROLLING 3 HR

QUANTITIES CARRIED TO THE GENERAL SUMMARY

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

- SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
- EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05. IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.
- COMPACT THE SUBGRADE ACCORDING TO 204.03.
- APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.
- EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.
- PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.
- FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

ITEM 204 EXCAVATION OF SUBGRADE 425 CY

(STA. 103+65.69 - STA. 105+50.00 RAMP G - SEE CROSS-SECTIONS FOR INFORMATION)

ITEM 607 FENCE, SNOW

TEMPORARY ORANGE SNOW FENCE PLASTIC/NYLON SHALL BE PLACED FOR THE PROTECTION OF PEDESTRIAN TRAFFIC. THE FENCE WILL BE INSTALLED AND SECURELY FASTENED TO WOOD OR METAL POST AT NO MORE THAN 6 FOOT SPACING. THE FENCE SHALL BE NOMINALLY 42" HIGH AND AT THE TOP SHALL NOT SAG BELOW 30". THE FENCE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE FENCE IS IN GOOD CONDITION AND PROPERLY PLACED AND MAINTAINED FOR THE DURATION OF THE WORK ADJACENT TO THE PUBLIC USE MULT-USE PATH.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY TO PERFORM THE WORK AS DESCRIBED ABOVE.

S.R. 661 STA. 375+55 TO STA. 380+50
S.R. 661 STA. 381+00 TO STA. 382+50
RIVER ROAD STA. 25+00 TO STA. 26+00

ITEM 607 FENCE, SNOW 745 FT.

CALCULATED
HC
CHECKED
HC

GENERAL NOTES

LIC-37 / 661-
16.59 / 0.00

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241\GN002.dgn_Sheet 2/4/2020 3:26:48 PM hgilber1

POST CONSTRUCTION STORM WATER TREATMENT

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

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIP(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670, SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM SPECIAL - FILL AND PLUG EXISTING CONDUIT

THIS ITEM SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING 12 IN DIAMETER CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH ITEM 613, SAND OR OTHER MATERIAL APPROVED BY THE ENGINEER. BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED ON THE PLANS. THE BULKHEADS SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES. THE FILL MATERIAL SHALL BE PUMPED INTO PLACE, OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER, SO THAT, AFTER SETTLEMENT, AT LEAST 90 PERCENT OF THE CROSS-SECTIONAL AREA OF THE CONDUIT, FOR ITS ENTIRE LENGTH, SHALL BE FILLED. THE LENGTH OF FILLED AND PLUGGED CONDUIT TO BE PAID FOR SHALL BE THE ACTUAL NUMBER OF FEET (MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS) FILLED AND PLUGGED AS DESCRIBED ABOVE. IN LIEU OF FILLING AND PLUGGING THE EXISTING CONDUIT, THE PIPE MAY BE CRUSHED AND BACKFILLED IN ACCORDANCE WITH THE PROVISIONS OF 203, OR IT MAY BE REMOVED. THE LENGTH, MEASURED AS PROVIDED ABOVE, SHALL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR, ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT.

CATCH BASINS, AS PER PLAN

THE CATCH BASINS, INLETS AND MANHOLES SHALL BE PRECAST OR CAST IN PLACE CONCRETE.

- CATCH BASIN, NO. 3, AS PER PLAN
- CATCH BASIN, NO. 3A, AS PER PLAN
- INLET No. 3, FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN
- CATCH BASIN, NO. 5, AS PER PLAN

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

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

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

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

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

DRAINAGE DISCHARGE CONTINUANCE

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

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

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

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

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

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

DOCUMENTATION

THE CONTRACTOR SHALL FURNISH WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT).

THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE _ FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT AS PER PLAN.

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

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

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

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

CONDUIT MATERIAL TYPES THE FOLLOWING CONDUIT MATERIAL TYPES MAY BE USED: 707.33, 707.41 NONPERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, AND 707.52 SDR35.

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

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

- ITEM 611, 1 EACH INSPECTION WELL
- ITEM 611, 10 FT. CONDUIT, MISC TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE
- ITEM 611, 10 FT. CONDUIT, MISC TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE
- ITEM 611, 10 FT. CONDUIT, MISC TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE
- ITEM 611, 10 FT. CONDUIT, MISC TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE
- ITEM 202, 10 FT. REMOVAL MISC CONDUIT
- ITEM 202, 1 EACH REMOVAL MISC INSPECTION WELL
- ITEM 203, 5 CY EMBANKMENT AS PER PLAN

ITEM 202 REMOVAL MISC.: CONCRETE DITCH LINING

THE ITEM LISTED ABOVE SHALL BE REMOVED BY THE CONTRACTOR AS PER CMS 202. ALL ITEMS SHALL BE COMPLETELY REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AS PER CMS 202.

ITEM 613 LOW STRENGTH MORTAR BACKFILL

A ESTIMATED QUANTITY FOR LOW STRENGTH MORTAR BACKFILL HAS BEEN INCLUDED IN THE PLANS TO BE USED AS DIRECTED AND APPROVED BY THE PROJECT ENGINEER.

- ITEM 613 LOW STRENGTH MORTAR BACKFILL 30 CY

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. 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.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:30 PM AND 7 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

IN ADDITION, LIMIT THE OPERATION OF HEAVY EQUIPMENT AND OTHER NOISY PROCEDURES TO DAYLIGHT HOURS WHENEVER POSSIBLE. MAINTAIN EFFECTIVE MUFFLERS ON EQUIPMENT. LOCATE EQUIPMENT AND VEHICLE STAGING AREAS AS FAR FROM NOISE SENSITIVE AREAS AS POSSIBLE. LIMIT UNNECESSARY IDLING OF EQUIPMENT.

OEPA NOTIFICATION OF DEMOLITION AND RENOVATION

ASBESTOS SURVEYS FOR THE LIC-661-0.02 BRIDGE SCHEDULED FOR DEMOLITION WORK WERE CONDUCTED BY A CERTIFIED ASBESTOS HAZARD EVALUATION SPECIALIST. A COPY OF THE ASBESTOS SURVEY REPORT FOR THE BRIDGE HAS BEEN INCLUDED IN THE PLAN PACKAGE FOR THIS PROJECT. THE ASBESTOS SURVEY REPORT IDENTIFIED THE PRESENCE OF ANY ASBESTOS CONTAINING MATERIALS IN THE CAULKING AROUND THE ALUMINUM TUBULAR RAIL MOUNTING BRACKETS. BASED ON THE ASBESTOS INSPECTION AND LABORATORY ANALYSIS APPROXIMATELY 24 SQUARE FEET OF CATEGORY II NON-FRIABLE ASBESTOS IS PRESENT ON THE BRIDGE. THE REMOVAL AND DISPOSAL OF THE ASBESTOS CONTAINING MATERIAL MUST COMPLY WITH THE OHIO ADMINISTRATIVE CODE (OAC) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHA) STANDARD FOR ASBESTOS.

A COPY OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA) NOTIFICATION OF DEMOLITION AND RENOVATION FORM, PARTIALLY COMPLETED BY THE ASBESTOS HAZARD EVALUATION SPECIALIST, HAS BEEN INCLUDED AT THE END OF THE ASBESTOS SURVEY REPORT. THE CONTRACTOR SHALL COMPLETE AND SIGN THE FORMS AND SUBMIT IT TO:

ASBESTOS PROGRAM
OHIO EPA, DAPC
PO BOX 1049
COLUMBUS OH 43216-1049

AT LEAST 10 WORKING DAYS PRIOR TO THE START OF ANY DEMOLITION WORK. THE CONTRACTOR SHALL PROVIDE A COPY OF THE COMPLETED AND SIGNED FORMS TO THE ENGINEER. INFORMATION REQUIRED ON THE FORMS SHALL INCLUDE AT A MINIMUM: 1) THE ODOT PROJECT NUMBER, 2) THE CONTRACTORS NAME, ADDRESS AND TELEPHONE NUMBER, 3) THE SCHEDULED DATES FOR THE START AND COMPLETION OF BRIDGE DEMOLITIONS.

BASIS FOR PAYMENT: THE CONTRACTOR SHALL FURNISH ALL FEES, LABOR, AND MATERIAL NECESSARY TO COMPLETE AND SUBMIT THE OEPA NOTIFICATION FORMS. PAYMENTS FOR THIS WORK SHALL BE INCIDENTAL TO THE ITEM 202 STRUCTURE REMOVAL ITEM(S) IN THE PLAN.

I:\ProjectData\LIC\9241\Design\Roadway\Sheet\9241\GN005.dgn_Sheet 2/5/2020 7:48:08 AM ngilberl

CALCULATED
HG
CHECKED
HG

GENERAL NOTES

LIC-37 / 661-
16.59 / 0.00

20
341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_G0001.dgn Sheet 2/4/2020 3:56:59 PM hgilberl

SHEET NUM.												PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
16	17	19	20	77	78	79	87	167	274	338	340	01/NHS/B R	02/NHS/P V	03/S<2/O T	04/NHS/O T							
ROADWAY																						
LS													LS	LS			201	11000	LS		CLEARING AND GRUBBING	
					14,229		136						11,186	3,179			202	23000	14,365	SY	PAVEMENT REMOVED	
							592							592			202	23010	592	SY	PAVEMENT REMOVED, ASPHALT	
									134				134				202	23500	134	SY	WEARING COURSE REMOVED	
				64									64				202	30700	64	FT	CONCRETE BARRIER REMOVED	
				4,900									4,066	834			202	38000	4,900	FT	GUARDRAIL REMOVED	
				8										8			202	53100	8	EACH	MAILBOX REMOVED	
				5									4	1			202	58100	5	EACH	CATCH BASIN REMOVED	
				163									105	58			SPECIAL	20270000	163	FT	FILL AND PLUG EXISTING CONDUIT	20
													1,250				202	75000	1,250	FT	FENCE REMOVED	
				LS										LS			202	98000	LS		REMOVAL MISC.: TWO SHEDS PLUS MISCELLANEOUS VEHICLES/ EQUIPMENT (2108 LANCASTER RD.)	18
				LS										LS			202	98000	LS		REMOVAL MISC.: WOOD FENCING (1844 LANCASTER RD.)	18
				LS										LS			202	98000	LS		REMOVAL MISC.: WOOD SIGN (1844 LANCASTER RD.)	18
				LS										LS			202	98000	LS		REMOVAL MISC.: SIGN INCLUDING LIGHTS (1919 LANCASTER RD.)	18
				3										3			202	98100	3	EACH	REMOVAL MISC.: BOLLARDS (1956 LANCASTER RD.)	18
				1										1			202	98100	1	EACH	REMOVAL MISC.: INSPECTION WELL	20
				10										10			202	98200	10	FT	REMOVAL MISC.: CONDUIT	20
				112										112			202	98300	112	SY	REMOVAL MISC.: CONCRETE DITCH LINING	20
	11,057												4,877	6,180			203	10000	11,057	CY	EXCAVATION	
	26,147												16,258	11,492			203	20000	27,750	CY	EMBANKMENT	20
				5										5			203	20001	5	CY	EMBANKMENT, AS PER PLAN	20
													2				SPECIAL	20365000	2	EACH	SETTLEMENT PLATFORM	19
							931						473	931			204	10000	1,404	SY	SUBGRADE COMPACTION	
	425												425				204	13000	425	CY	EXCAVATION OF SUBGRADE	
	8												5	3			204	45000	8	TON	PROOF ROLLING	
	534												351	183			206	10500	534	TON	CEMENT	
	20,595												13,537	7,058			206	11000	20,595	SY	CURING COAT	
	20,595												13,537	7,058			206	15010	20,595	SY	CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP	
														565			512	10050	565	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
													2,750	12.5			606	15050	2,762.5	FT	GUARDRAIL, TYPE MGS	
													4	1			606	26150	5	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)	
													5				606	26500	5	EACH	ANCHOR ASSEMBLY, TYPE T	
													4	1			606	35002	5	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
													2	1			606	35102	3	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 2	
													2				606	60028	2	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL), 60 MPH, 24" WIDE	
													1,645				607	23000	1,645	FT	FENCE, TYPE CLT	
	745													745			607	30000	745	FT	FENCE, SNOW	
													1,645				607	70000	1,645	FT	FENCELINE SEEDING AND MULCHING	
													482				608	10000	482	SF	4" CONCRETE WALK	
													165				622	10061	165	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE B, AS PER PLAN	18
														450			622	10161	450	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN A	167
														28			622	10161	28	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D, AS PER PLAN B	273
													2				622	24841	2	EACH	CONCRETE BARRIER END SECTION, TYPE B, AS PER PLAN	18
														2			622	25011	2	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN A	167
														4			622	25011	4	EACH	CONCRETE BARRIER END SECTION, TYPE D, REINFORCED, AS PER PLAN B	273
														16			623	40500	16	EACH	REFERENCE MONUMENT	
	1,308												1,308				653	10000	1,308	CY	TOPSOIL FURNISHED AND PLACED	
														8			SPECIAL	69050100	8	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	19
														3			SPECIAL	69050600	3	EACH	BOLLARD	18
														64			SPECIAL	69098200	64	SF	DETECTABLE WARNING	18
													LS	LS			878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	

GENERAL SUMMARY

**LIC-37 / 661-
16.59 / 0.00**

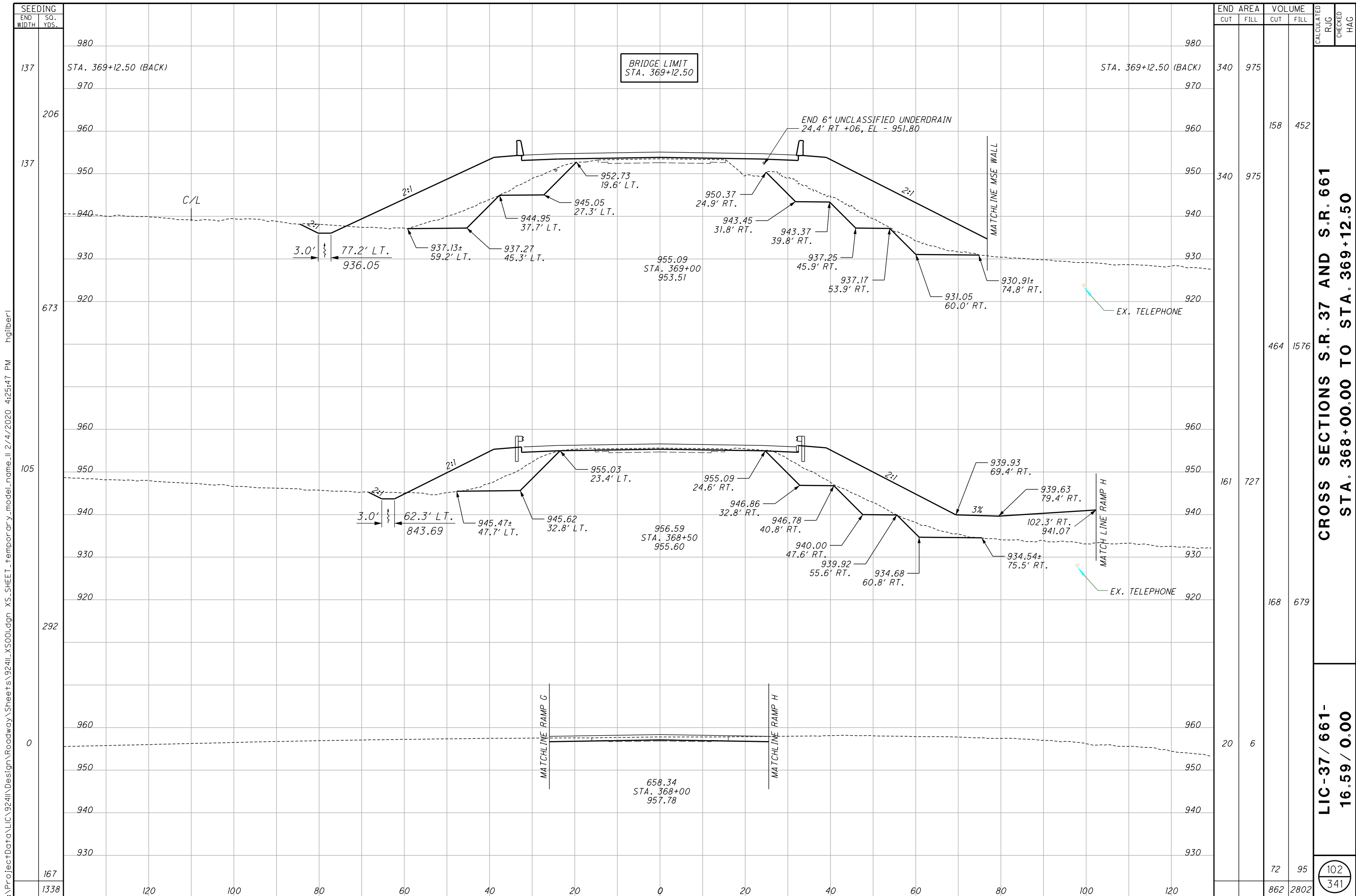
I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_G0003.dgn_Sheet 2/5/2020 7:53:09 AM hgilber1

SHEET NUM.				PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
20	181	182	274	01/NHS/B R	02/NHS/P V	03/S<2/O T	04/NHS/O T						
											DRAINAGE		
	0.84	0.21				0.84	0.21	602	20000	1.05	CY	CONCRETE MASONRY	
	6,369	2,853				6,369	2,853	605	11100	9,222	FT	6" SHALLOW PIPE UNDERDRAINS	
	294	100				294	100	605	13300	394	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
	174	54				174	54	611	00510	228	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
	112	11				112	11	611	00900	123	FT	6" CONDUIT, TYPE B	
		50					50	611	01500	50	FT	6" CONDUIT, TYPE F	
		74					74	611	04600	74	FT	12" CONDUIT, TYPE C	
	204					204		611	05200	204	FT	12" CONDUIT, TYPE F, 707.05 TYPE C OR 707.21	
10							10	611	97400	10	FT	CONDUIT, MISC.: TYPE B FOR DRAINAGE DISCHARGE CONTINUANCE	20
10							10	611	97400	10	FT	CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	20
10							10	611	97400	10	FT	CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE	20
10							10	611	97400	10	FT	CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	20
		2					2	611	98151	2	EACH	CATCH BASIN, NO. 3, AS PER PLAN	20
		2					2	611	98181	2	EACH	CATCH BASIN, NO. 3A, AS PER PLAN	20
	4					4		611	98301	4	EACH	CATCH BASIN, NO. 5, AS PER PLAN	20
			4			4		611	99115	4	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D, AS PER PLAN	20
	6	4				6	4	611	99710	10	EACH	PRECAST REINFORCED CONCRETE OUTLET	
1							1	611	99720	1	EACH	INSPECTION WELL	
30							30	613	41200	30	CY	LOW STRENGTH MORTAR BACKFILL	

GENERAL SUMMARY

LIC-37 / 661-
16.59 / 0.00

CALCULATED
BRH
CHECKED
HAG



I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241L_X500.dgn XS_SHEET_Temporary_model_name_11 2/4/2020 4:25:47 PM hgliberl

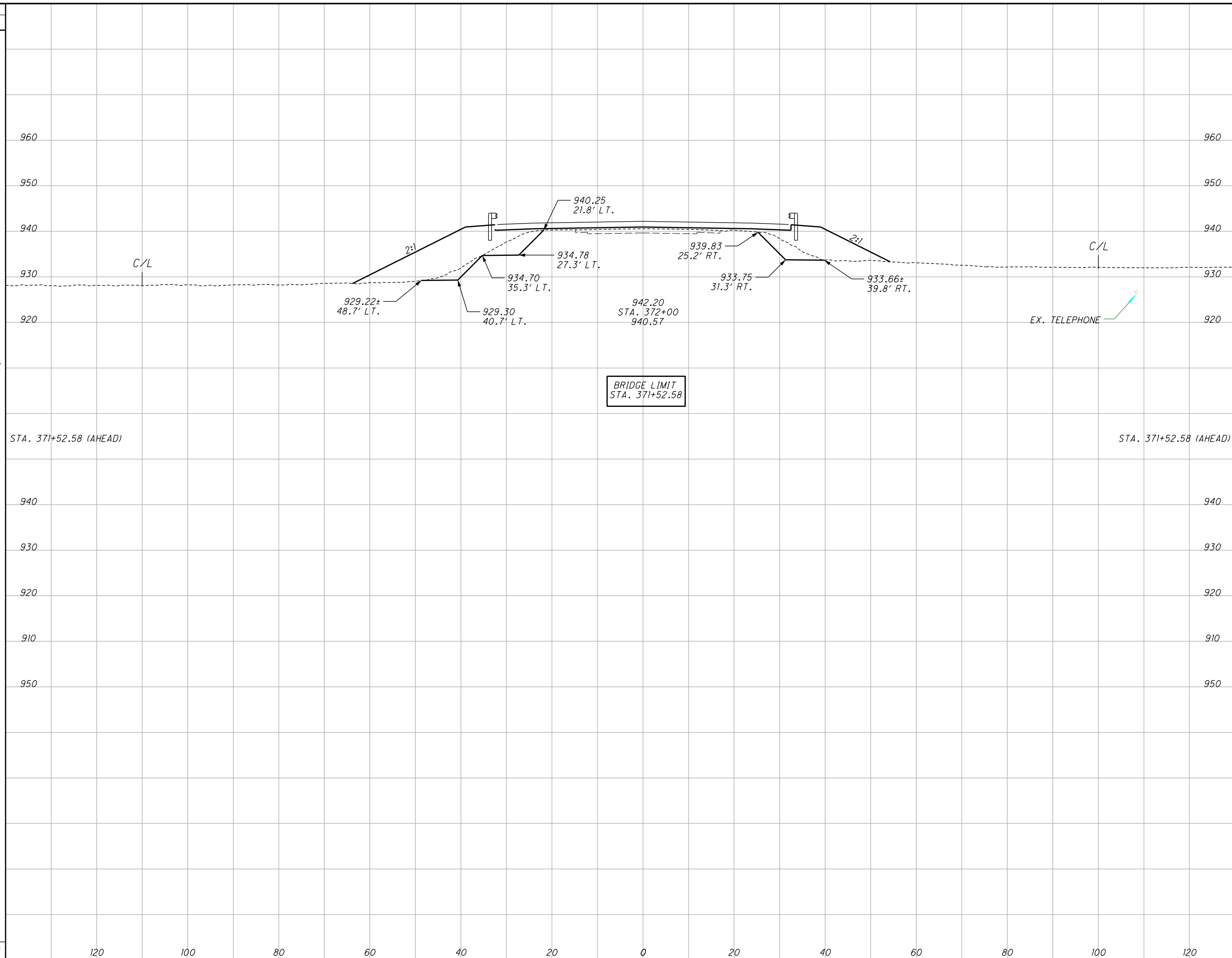
**CROSS SECTIONS S.R. 37 AND S.R. 661
STA. 368+00.00 TO STA. 369+12.50**

**LIC-37 / 661-
16.59 / 0.00**

102
341

END STA.	AREA		VOLUME		CALCULATED	CHECKED	HAG
	CUT	FILL	CUT	FILL			
980							
970							
960	340	975			158	452	
950	340	975					
940							
930							
920					464	1576	
960							
950	161	727					
940							
930							
920					168	679	
960							
950							
940							
930							
960	20	6					
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							
920							
960							
950							
940							
930							

SEEDING
 END SO.
 WIDTH YDS.
 81
 528
 109
 528



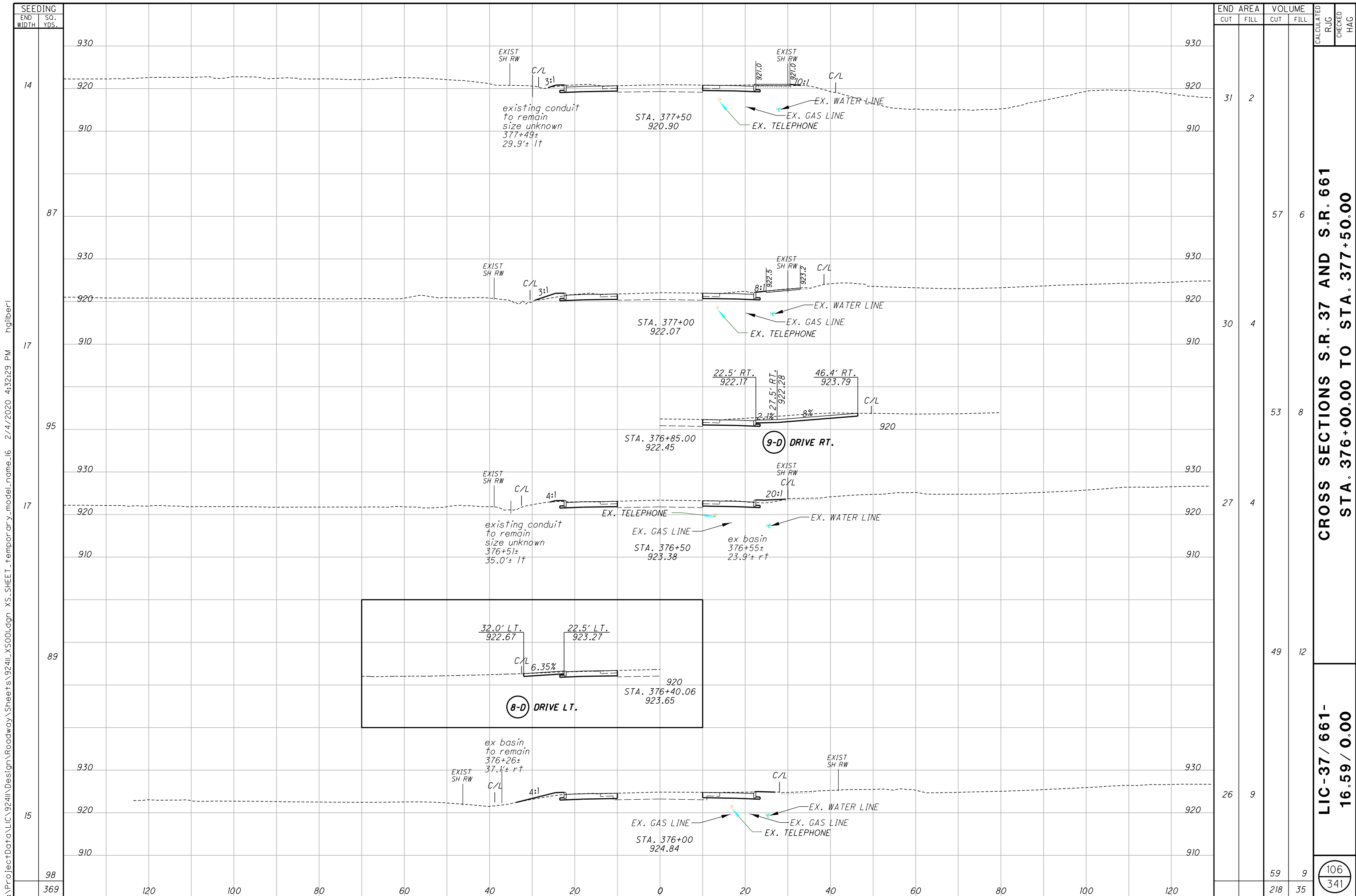
END AREA		VOLUME		CALCULATED R/JG	CHECKED HAG
CUT	FILL	CUT	FILL		
73	353	228	990		
186	774				
		228	990		

**CROSS SECTIONS S.R. 37 AND S.R. 661
 STA. 371+52.58 TO STA. 372+00.00**

**LIC-37 / 661-
 16.59 / 0.00**

103
 341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X500.dgn XS_SHEET_Temporary_model_name.13 2/4/2020 4:29:58 PM hgilber1



SEEDING	
END WIDTH	SO. YDS.
14	930
14	920
14	910
87	930
87	920
87	910
17	930
17	920
17	910
95	930
95	920
95	910
17	930
17	920
17	910
89	930
89	920
89	910
15	930
15	920
15	910
98	930
98	920
98	910
369	930
369	920
369	910

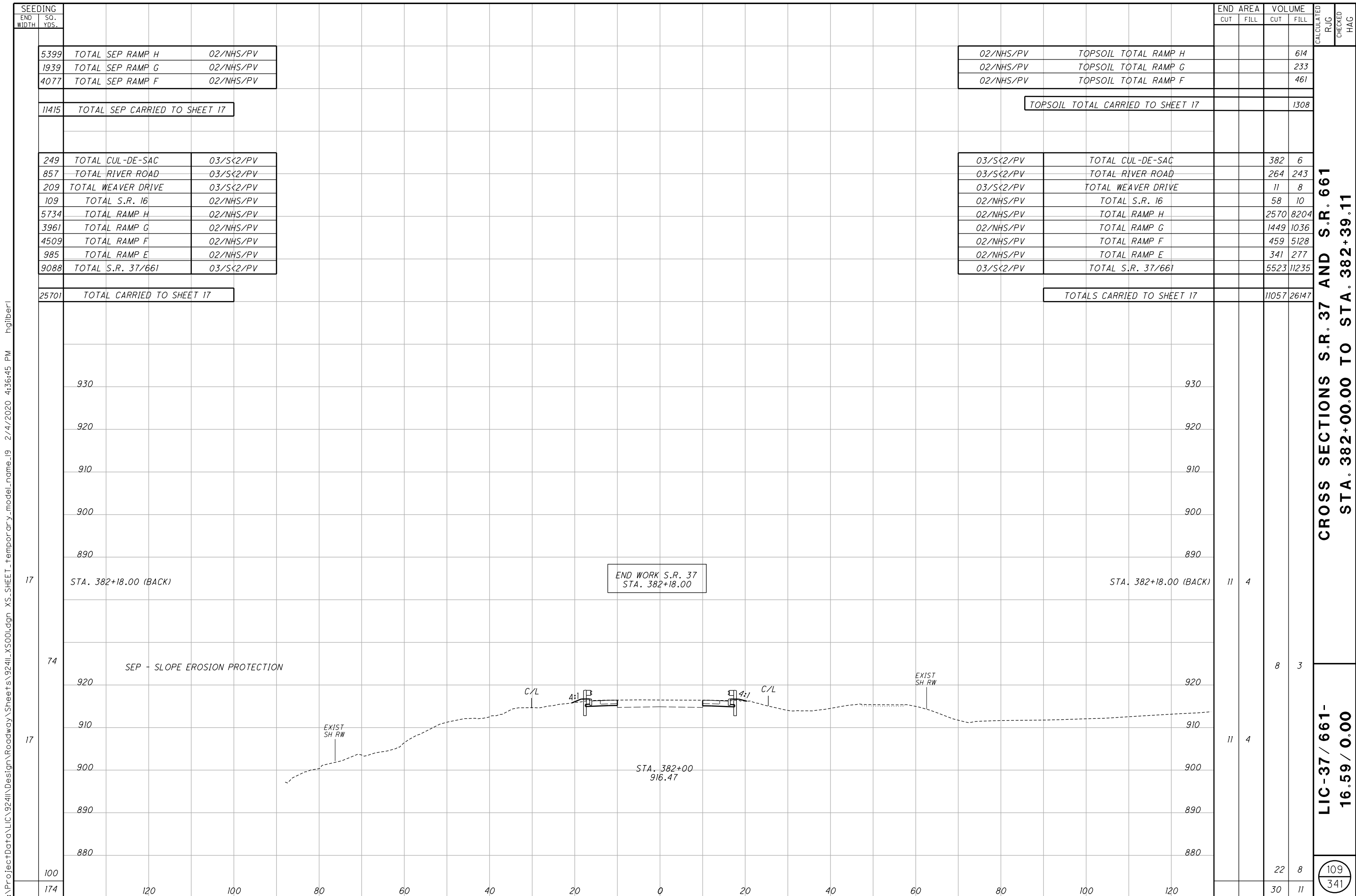
END AREA		VOLUME		CALCULATED R/JG	CHECKED HAG
CUT	FILL	CUT	FILL		
31	2				
		57	6		
		30	4		
		53	8		
		27	4		
		49	12		
		26	9		
		59	9		
		218	35		

**CROSS SECTIONS S.R. 37 AND S.R. 661
 STA. 376+00.00 TO STA. 377+50.00**

**LIC-37 / 661-
 16.59 / 0.00**

106
 341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241L_X500.dgn XS_SHEET_Temporary_model_name.l6 2/4/2020 4:32:29 PM ngilber1



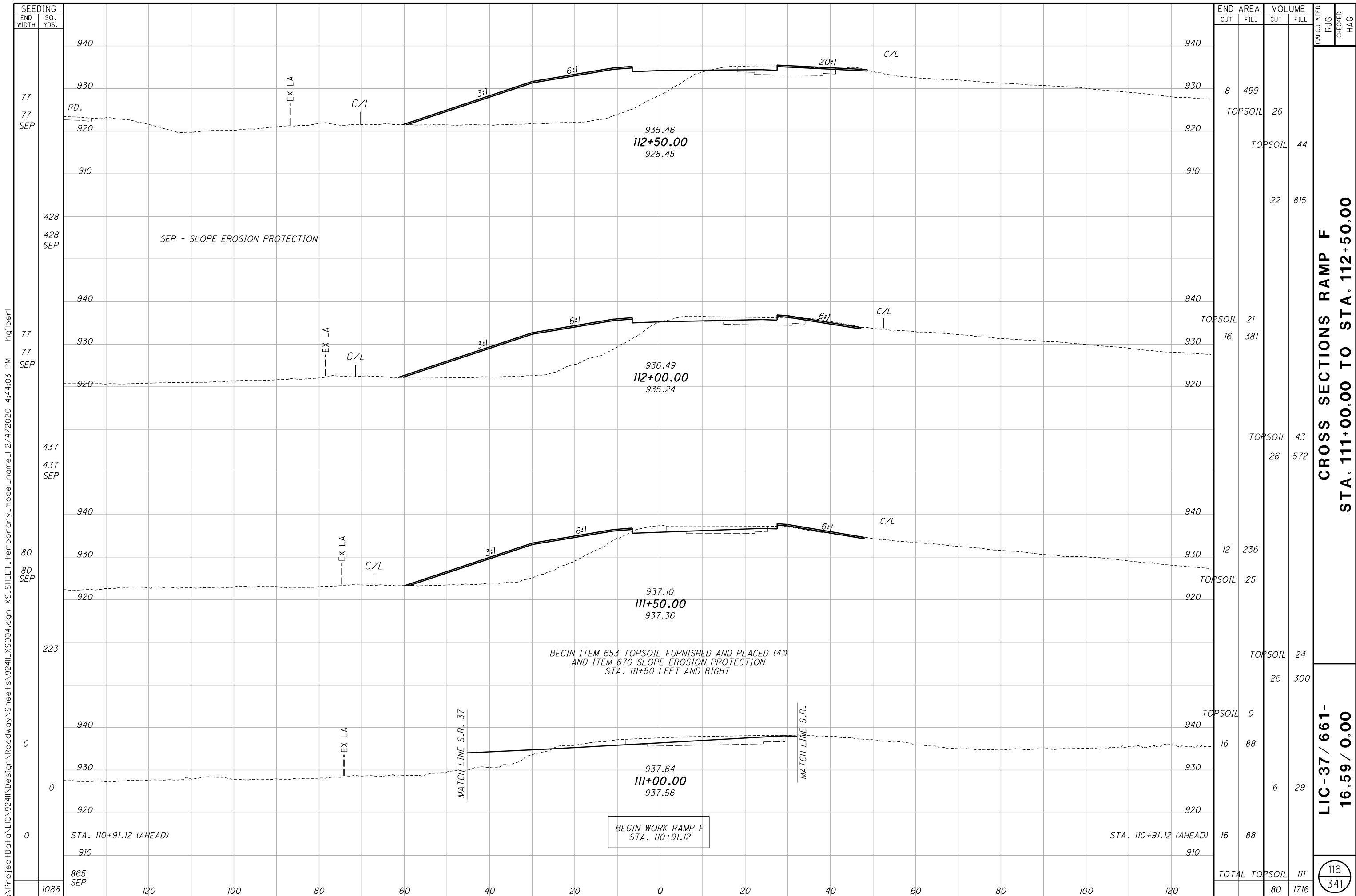
I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X500.dgn XS_SHEET_Temporary_model_name.19 2/4/2020 4:36:45 PM hgliber1

SEEDING		SO. YDS.	END WIDTH
END WIDTH	SO. YDS.		
5399	TOTAL SEP RAMP H	02/NHS/PV	
1939	TOTAL SEP RAMP G	02/NHS/PV	
4077	TOTAL SEP RAMP F	02/NHS/PV	
11415	TOTAL SEP CARRIED TO SHEET 17		
249	TOTAL CUL-DE-SAC	03/S<2/PV	
857	TOTAL RIVER ROAD	03/S<2/PV	
209	TOTAL WEAVER DRIVE	03/S<2/PV	
109	TOTAL S.R. 16	02/NHS/PV	
5734	TOTAL RAMP H	02/NHS/PV	
3961	TOTAL RAMP G	02/NHS/PV	
4509	TOTAL RAMP F	02/NHS/PV	
985	TOTAL RAMP E	02/NHS/PV	
9088	TOTAL S.R. 37/661	03/S<2/PV	
25701	TOTAL CARRIED TO SHEET 17		

END AREA		VOLUME		CALCULATED R/JG	CHECKED HAG
CUT	FILL	CUT	FILL		
02/NHS/PV	TOPSOIL TOTAL RAMP H			614	
02/NHS/PV	TOPSOIL TOTAL RAMP G			233	
02/NHS/PV	TOPSOIL TOTAL RAMP F			461	
TOPSOIL TOTAL CARRIED TO SHEET 17				1308	
03/S<2/PV	TOTAL CUL-DE-SAC			382	6
03/S<2/PV	TOTAL RIVER ROAD			264	243
03/S<2/PV	TOTAL WEAVER DRIVE			11	8
02/NHS/PV	TOTAL S.R. 16			58	10
02/NHS/PV	TOTAL RAMP H			2570	8204
02/NHS/PV	TOTAL RAMP G			1449	1036
02/NHS/PV	TOTAL RAMP F			459	5128
02/NHS/PV	TOTAL RAMP E			341	277
03/S<2/PV	TOTAL S.R. 37/661			5523	11235
TOTALS CARRIED TO SHEET 17				11057	26147

CROSS SECTIONS S.R. 37 AND S.R. 661 - STA. 382+00.00 TO STA. 382+39.11
LIC-37 / 661 - 16.59 / 0.00

109
 341



I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X5004.dgn XS_SHEET_temporary_model_name_1 2/4/2020 4:44:03 PM hgilber1

SEP - SLOPE EROSION PROTECTION

BEGIN ITEM 653 TOPSOIL FURNISHED AND PLACED (4")
 AND ITEM 670 SLOPE EROSION PROTECTION
 STA. 111+50 LEFT AND RIGHT

BEGIN WORK RAMP F
 STA. 110+91.12

MATCH LINE S.R. 37

MATCH LINE S.R.

RD.

STA. 110+91.12 (AHEAD)

STA. 110+91.12 (AHEAD)

935.46
 112+50.00
 928.45

936.49
 112+00.00
 935.24

937.10
 111+50.00
 937.36

937.64
 111+00.00
 937.56

EX LA

C/L

EX LA

C/L

EX LA

C/L

EX LA

3:1
 6:1
 20:1

C/L

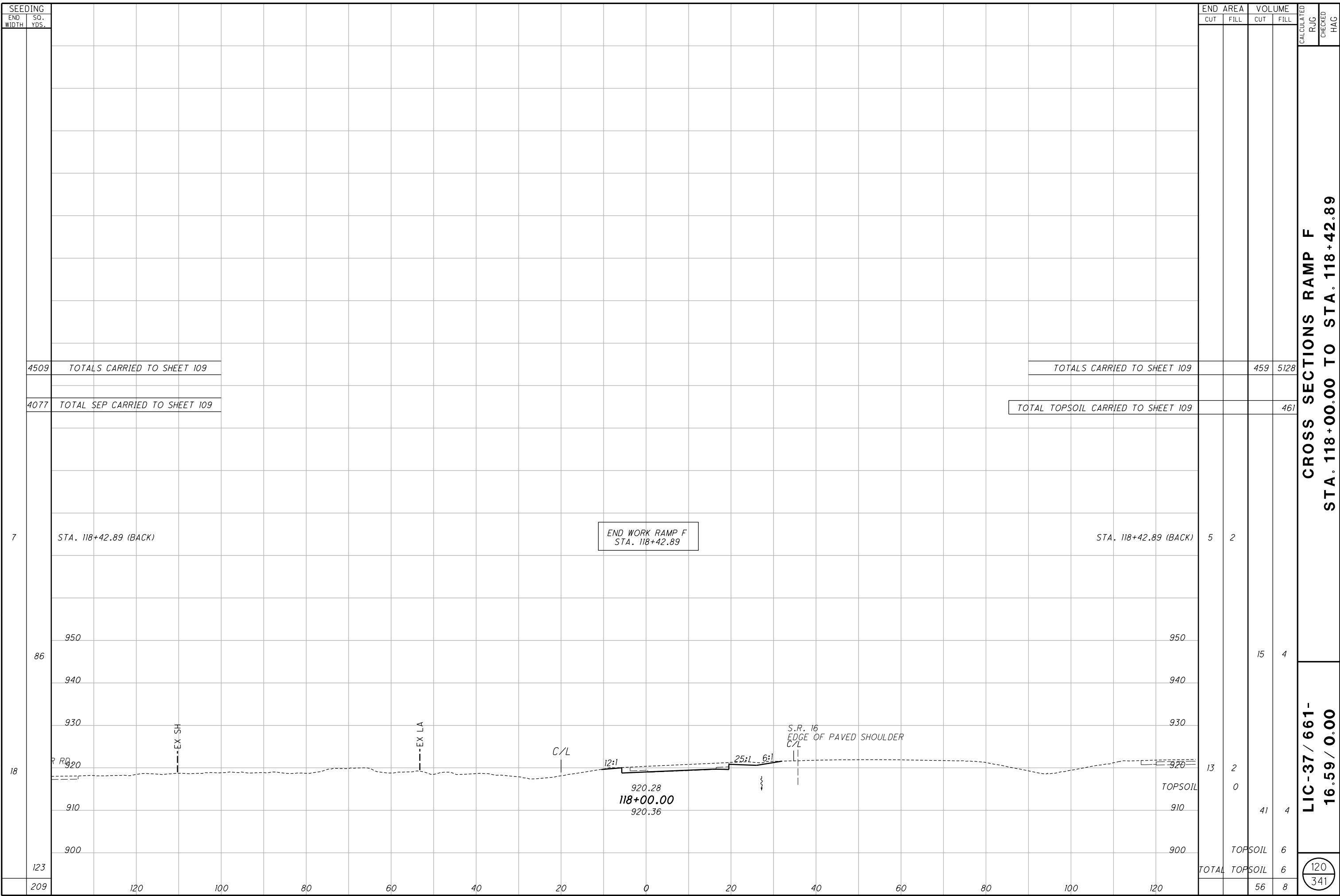
C/L

C/L

940
930
920
910
940
930
920
940
930
920
940
930
920
940
930
920
940
930
920
910

CALCULATED
 CHECKED
 R/JG
 HAG

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X5004.dgn XS_SHEET_temporary_model_name_5 2/4/2020 4:46:29 PM hgilbert



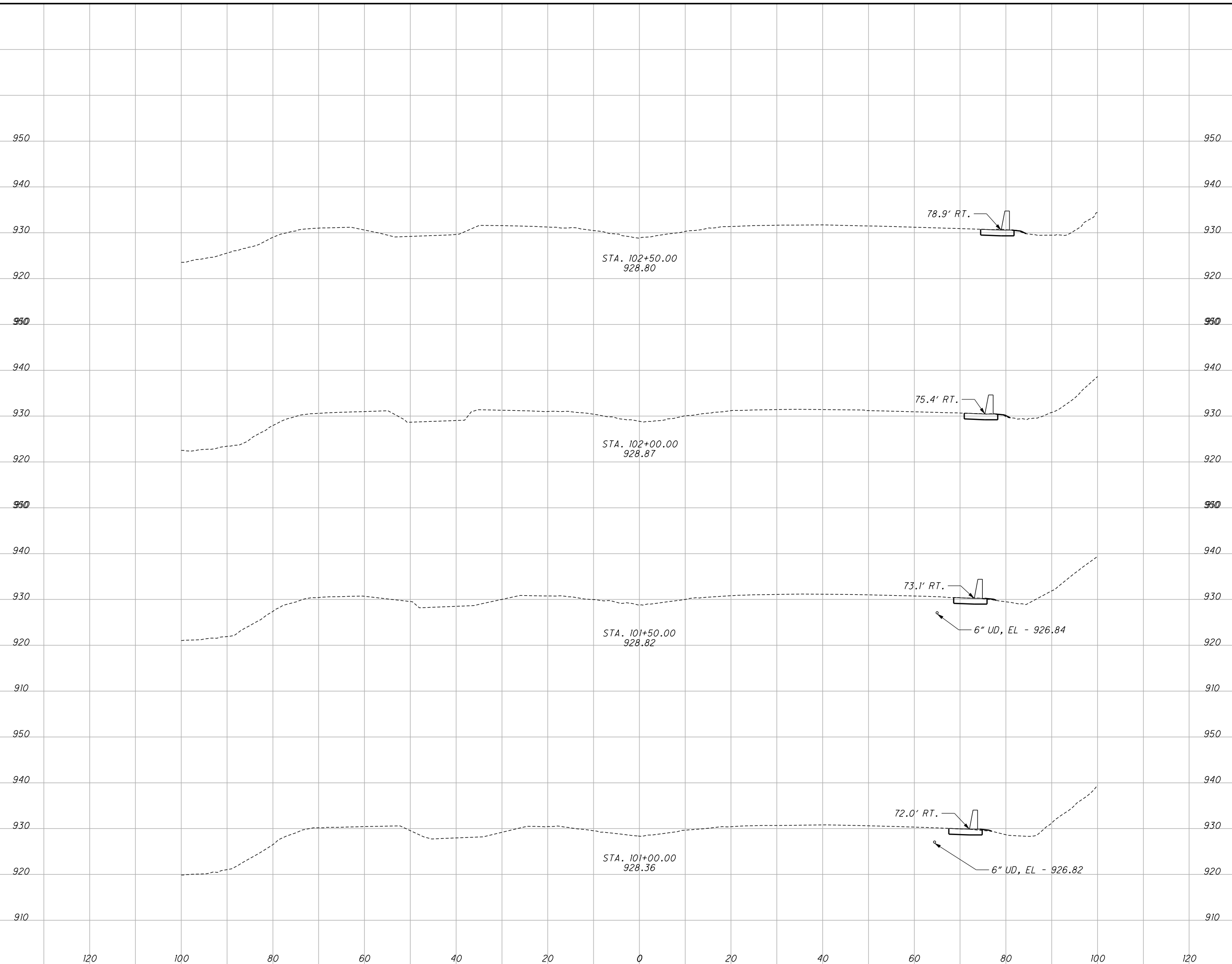
CROSS SECTIONS RAMP F
STA. 118+00.00 TO STA. 118+42.89

LIC-37 / 661-
16.59 / 0.00

120
 341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_XS002.dgn XS_SHEET_temporary_model_name_2 2/4/2020 4:50:15 PM hglberl

SEEDING	
END WIDTH	SO. YDS.
2	12
2	12
2	12
2	17
53	



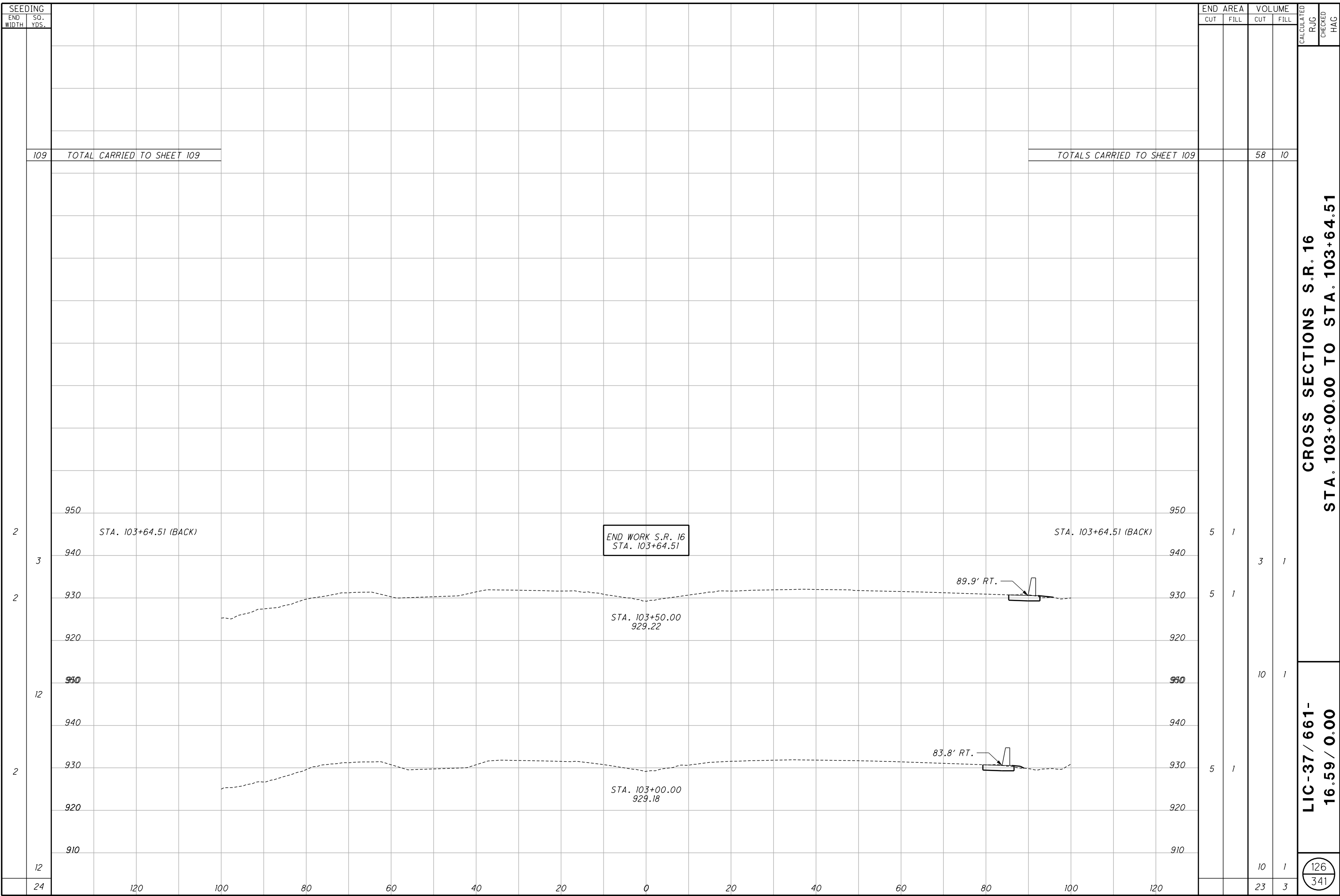
END AREA		VOLUME		CALCULATED R/JG	CHECKED HAG
CUT	FILL	CUT	FILL		
5	1	10	2		
5	1	10	2		
5	1	5	1		
0	0	5	1		
		30	6		

CROSS SECTIONS S.R. 16
STA. 101+00.00 TO STA. 102+50.00

LIC-37 / 661-
16.59 / 0.00

125
341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X5002.dgn XS_SHEET_temporary_model_name_3 2/4/2020 4:51:56 PM hglberl



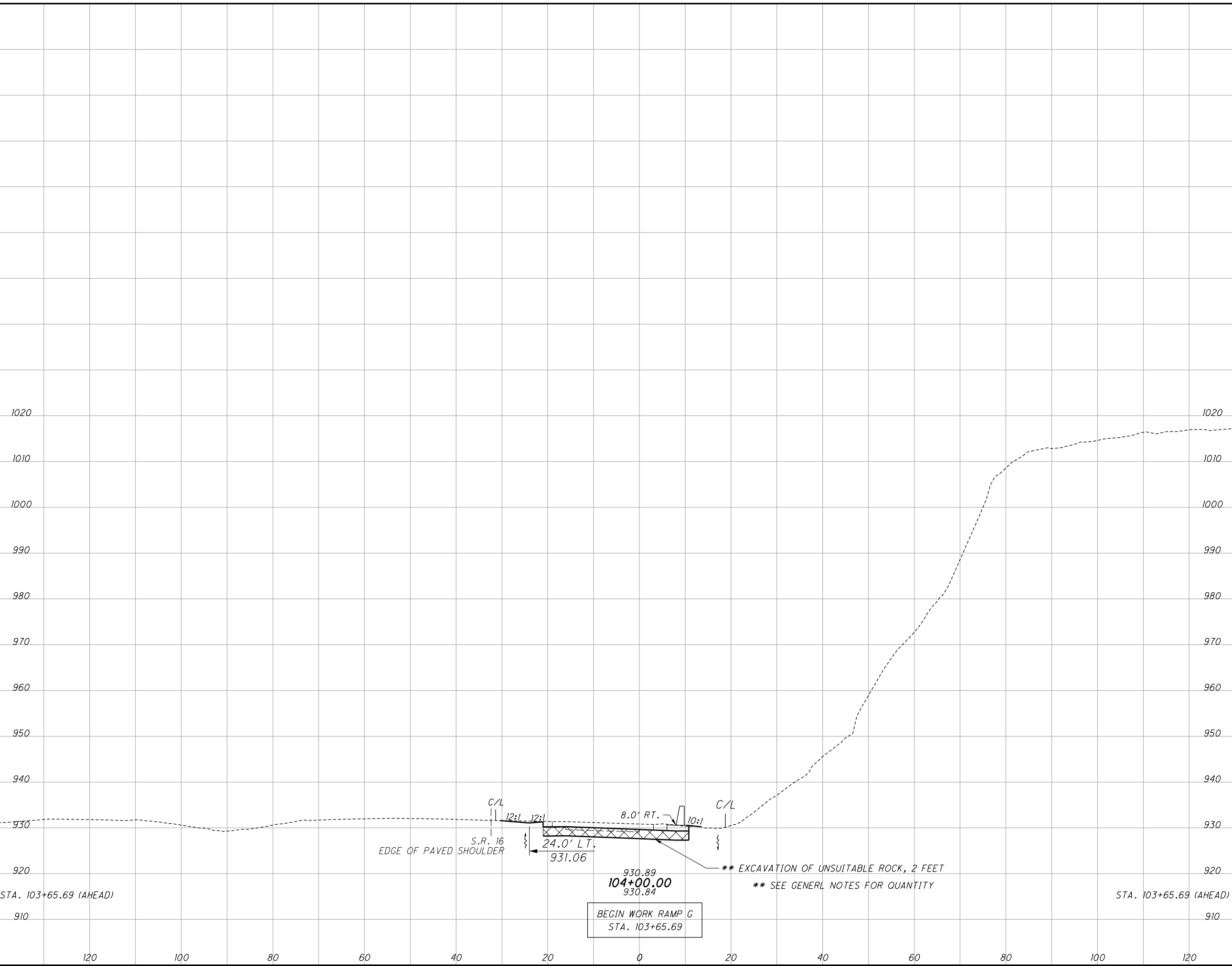
CROSS SECTIONS S.R. 16
STA. 103+00.00 TO STA. 103+64.51

LIC-37 / 661-
16.59 / 0.00

126
341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241L_X5005.dgn XS_SHEET_temporary_model_name_1 2/4/2020 4:54:32 PM hgilberl

SEEDING	
END WIDTH	SO. YDS.
16	61
16	61
61	61

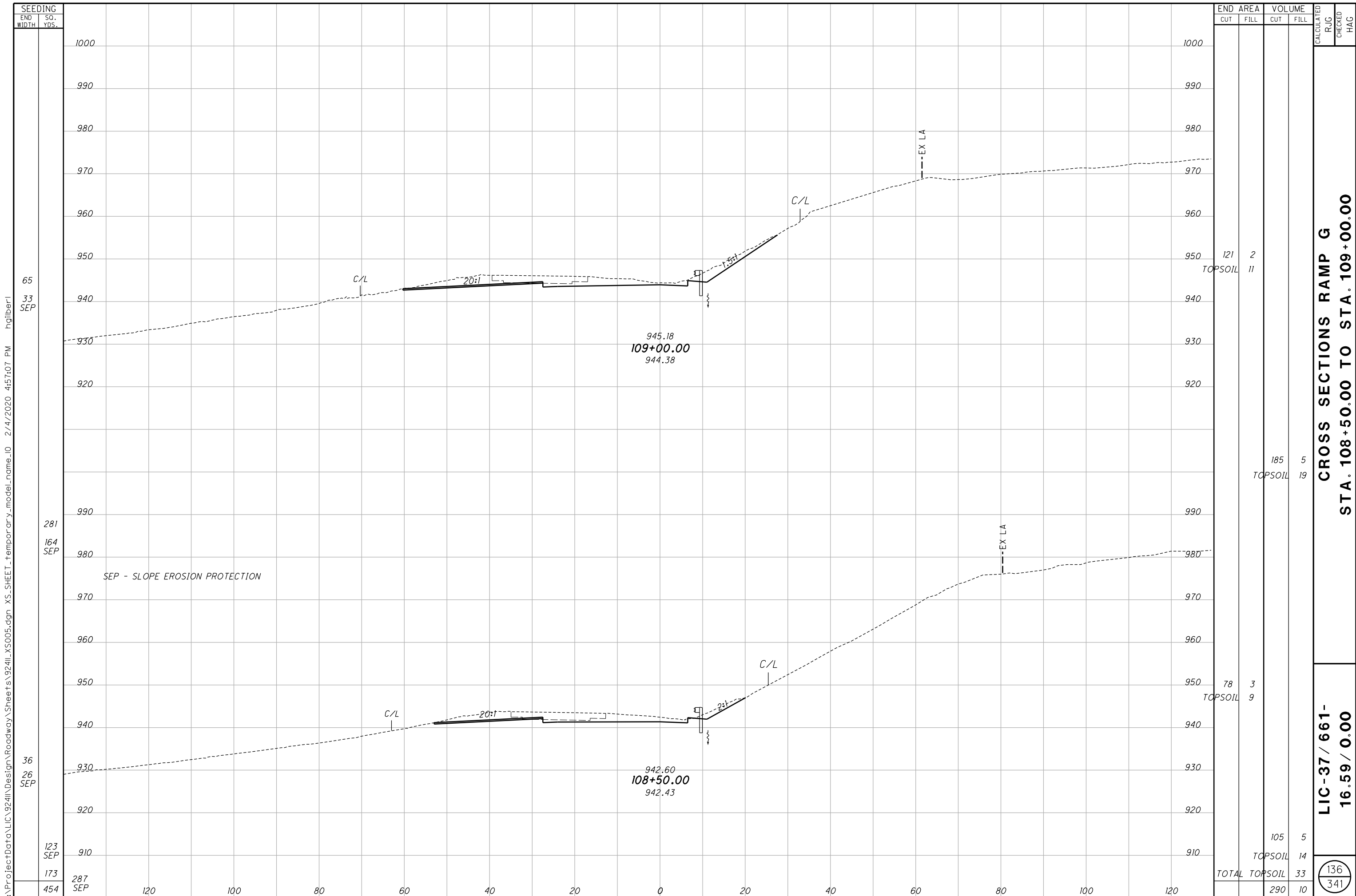


END AREA		VOLUME	
CUT	FILL	CUT	FILL
12	69	15	87
11	68		
		15	87

CROSS SECTIONS RAMP G
STA. 103+65.69 TO STA. 104+00.00

LIC-37 / 661-
16.59 / 0.00

127
341



SEEDING
 END SO. WIDTH YDS.
 65 33 SEP
 281 164 SEP
 36 26 SEP
 123 SEP
 173 287 SEP
 454

END AREA		VOLUME		CALCULATED		
CUT	FILL	CUT	FILL	R/JG	CHECKED	HAG
121	2	185	5			
TOPSOIL		TOPSOIL				
78	3	105	5			
TOPSOIL		TOPSOIL				
TOTAL TOPSOIL		TOTAL TOPSOIL				
		290	10			

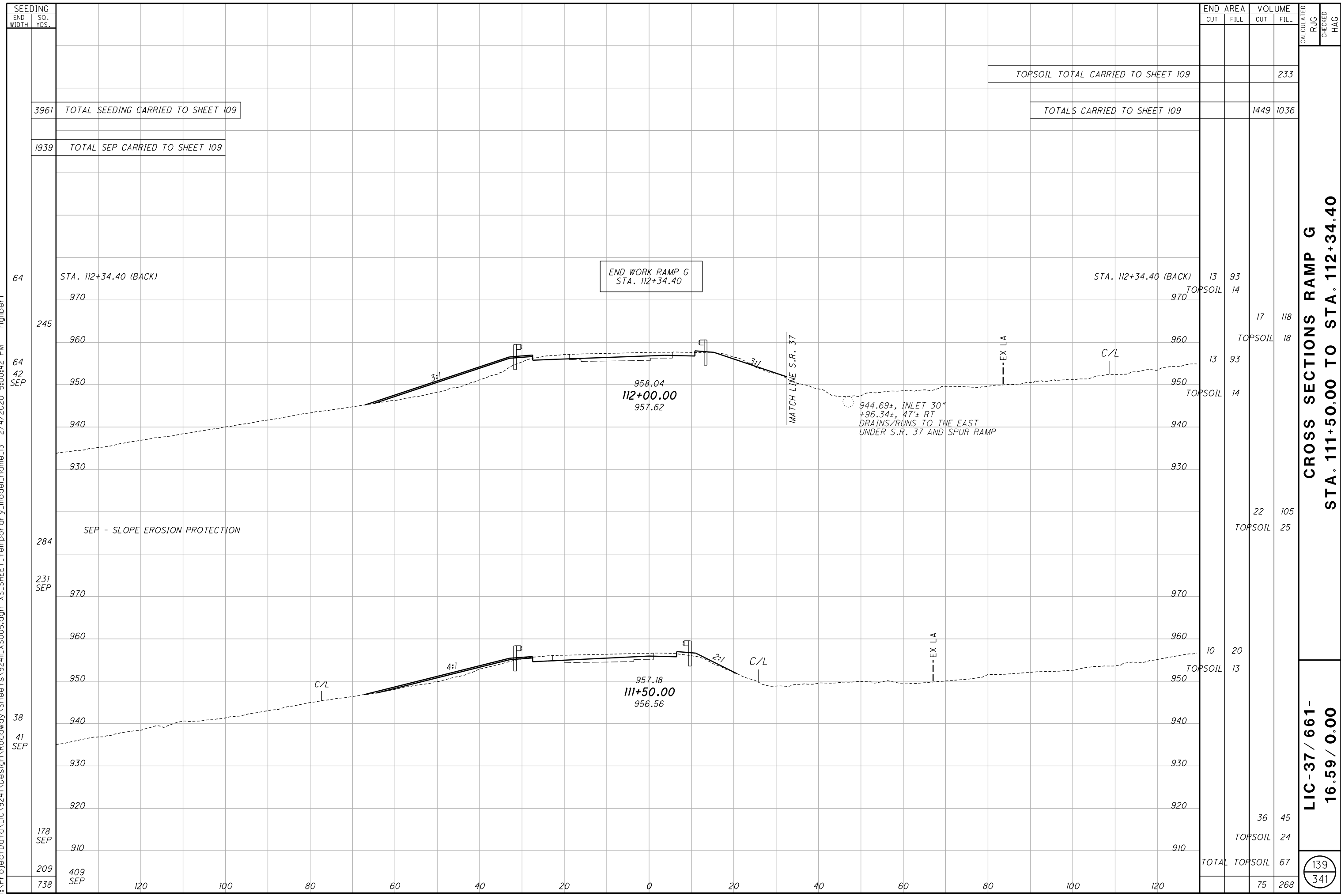
CROSS SECTIONS RAMP G
STA. 108+50.00 TO STA. 109+00.00

LIC-37 / 661-
16.59 / 0.00

136
 341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241L_X5005.dgn XS_SHEET_temporary_model_name_10 2/4/2020 4:57:07 PM hgilberl

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X5005.dgn XS_SHEET_temporary_model_name_13 2/4/2020 5:09:42 PM hgliber1



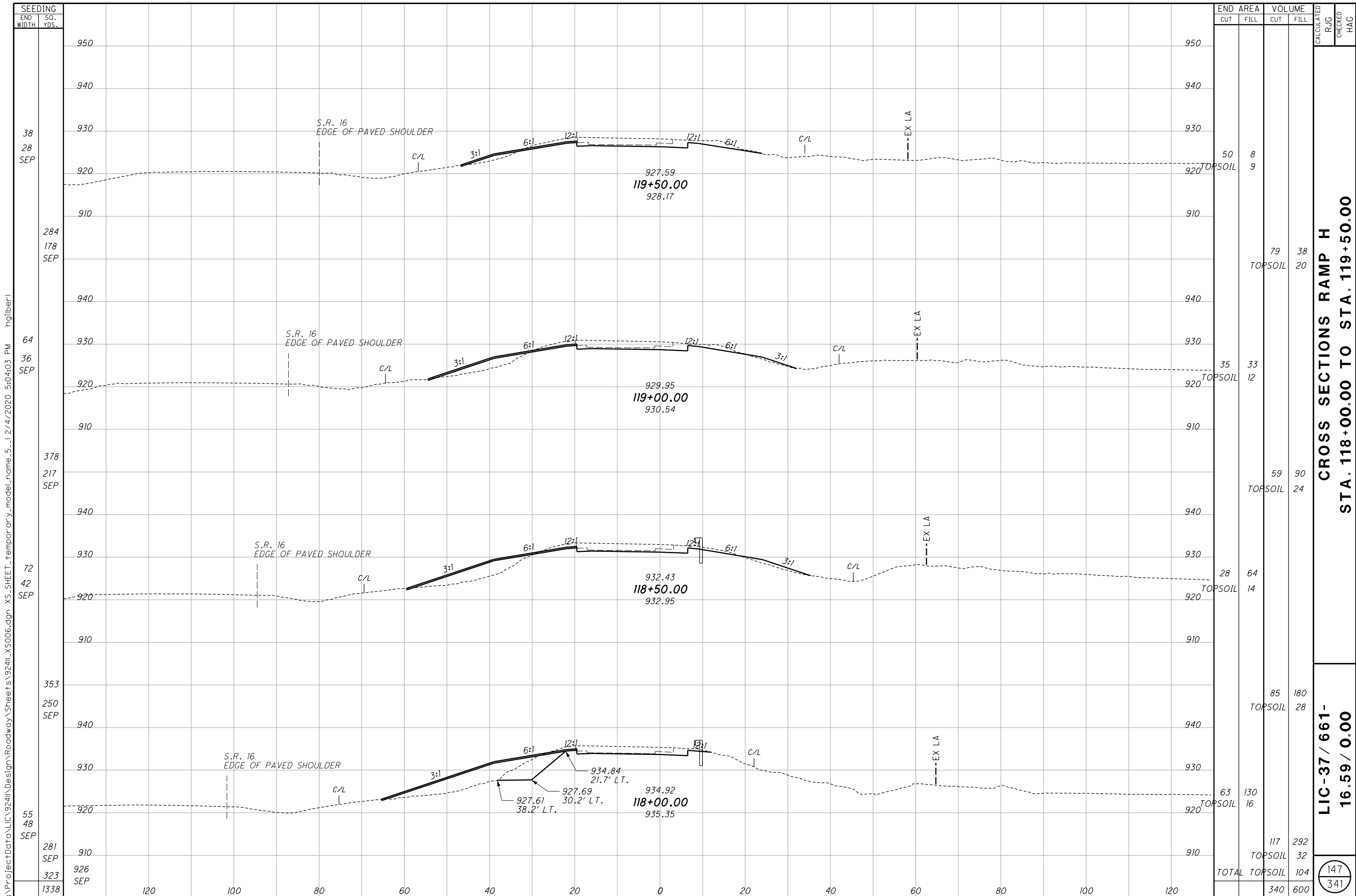
SEEDING		END AREA		VOLUME		CALCULATED RUG	CHECKED HAG
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL		
3961	TOTAL SEEDING CARRIED TO SHEET 109						233
1939	TOTAL SEP CARRIED TO SHEET 109						1449 1036

CROSS SECTIONS RAMP G
STA. 111+50.00 TO STA. 112+34.40

LIC-37 / 661-
16.59 / 0.00

139
341

STA.	END WIDTH	SO. YDS.	END AREA		VOLUME		CALCULATED RUG	CHECKED HAG
			CUT	FILL	CUT	FILL		
64	64	245	13	93	17	118		
					18			
64	42	284	13	93	14			
					22	105		
38	41	231	10	20	13			
					36	45		
178	178	209			24			
					67			
738	738	120			75	268		

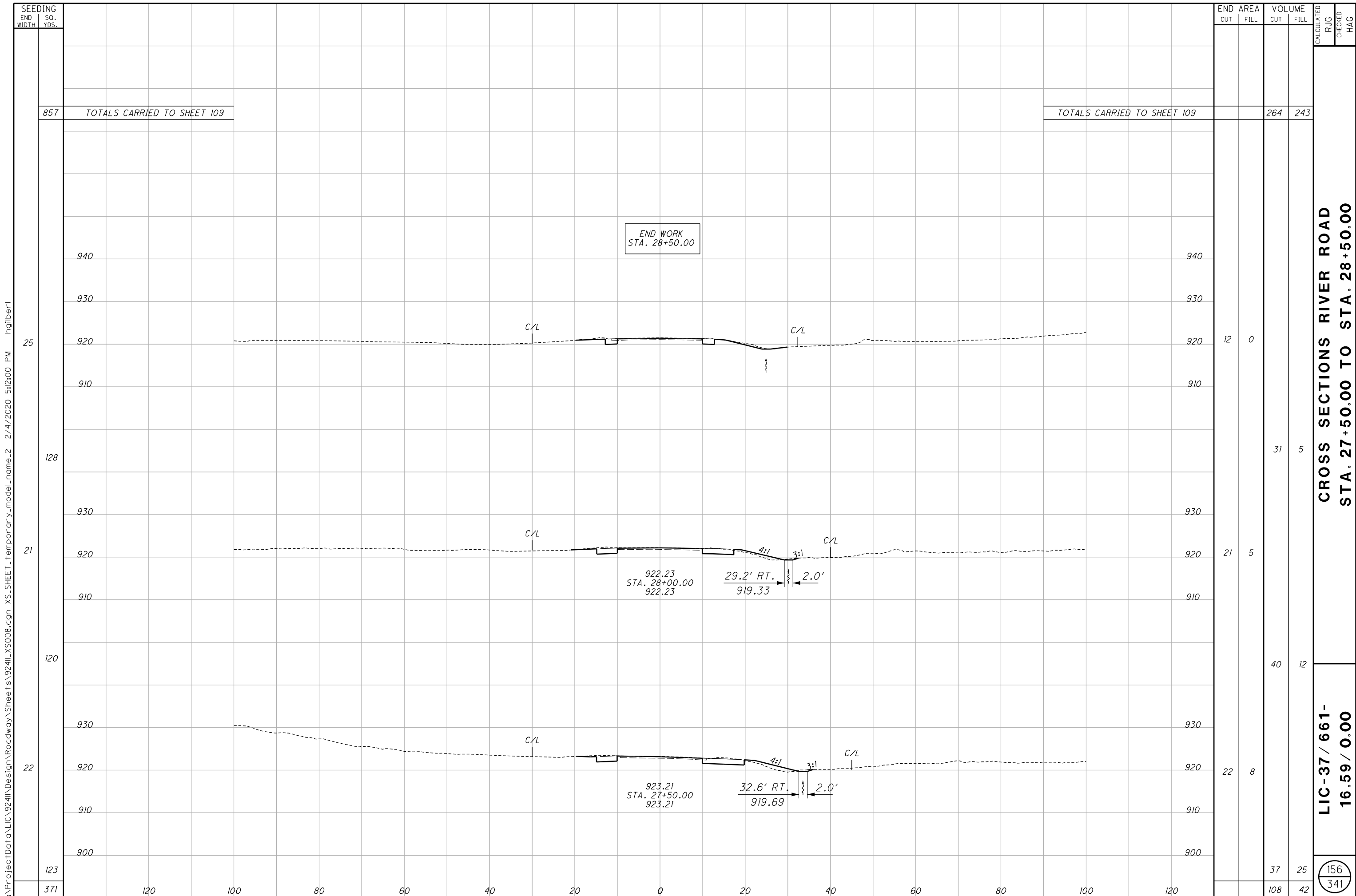


CROSS SECTIONS RAMP H
STA. 118+00.00 TO STA. 119+50.00

LIC-37 / 661-
16.59 / 0.00

147
 341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241_X5006.dgn XS_SHEET_temporary_model_name_5_1_2/4/2020 5:04:03 PM hgilber1



SEEDING	
END WIDTH	SO. YDS.
857	TOTALS CARRIED TO SHEET 109
123	
371	

END AREA		VOLUME		CALCULATED R/JG	CHECKED HAG
CUT	FILL	CUT	FILL		
12	0	31	5		
21	5	40	12		
22	8	37	25		
		108	42		

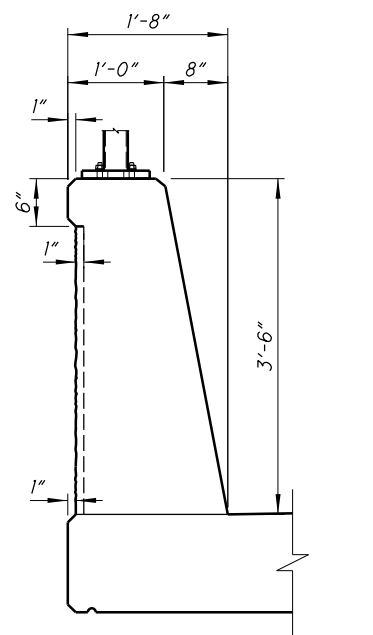
**CROSS SECTIONS RIVER ROAD
STA. 27+50.00 TO STA. 28+50.00**

**LIC-37 / 661-
16.59 / 0.00**

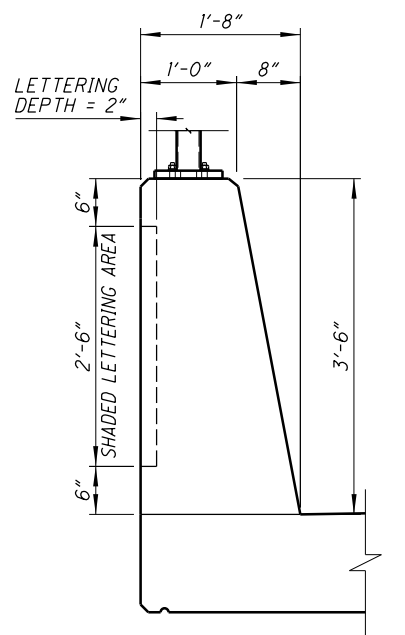
156
341

I:\ProjectData\LIC\9241\Design\Roadway\Sheets\9241L_X5008.dgn XS_SHEET_temporary_model_name_2 2/4/2020 5:2:00 PM hgilber1

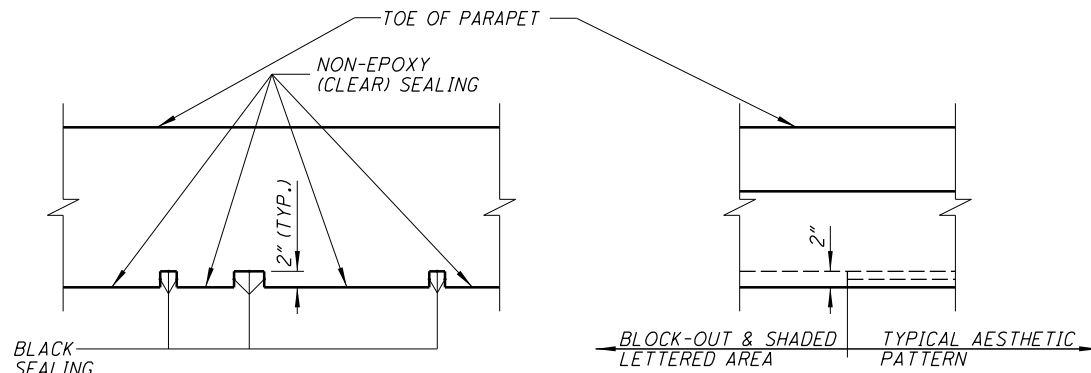
I:\ProjectData\LIC\9241\Design\Structures\661_0003_Sheets\661_0003_S400.dgn 9-Lettering Details 2/4/2020 4:02:19 PM cshonk



SECTION A-A
(STD. PARAPET SECTION)
(20 SCALE)



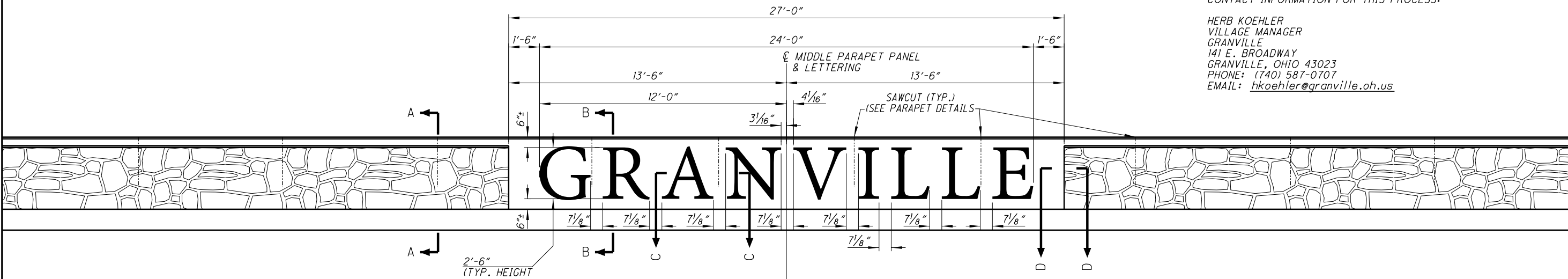
SECTION B-B
(LETTERED SECTION)
(20 SCALE)



SECTION C-C
DEPRESSED LETTER DETAIL
(20 SCALE)

SECTION D-D
THICKENED PARAPET DETAIL
(20 SCALE)

GRANVILLE - ("ADOBE DEVANAGARI" FONT)

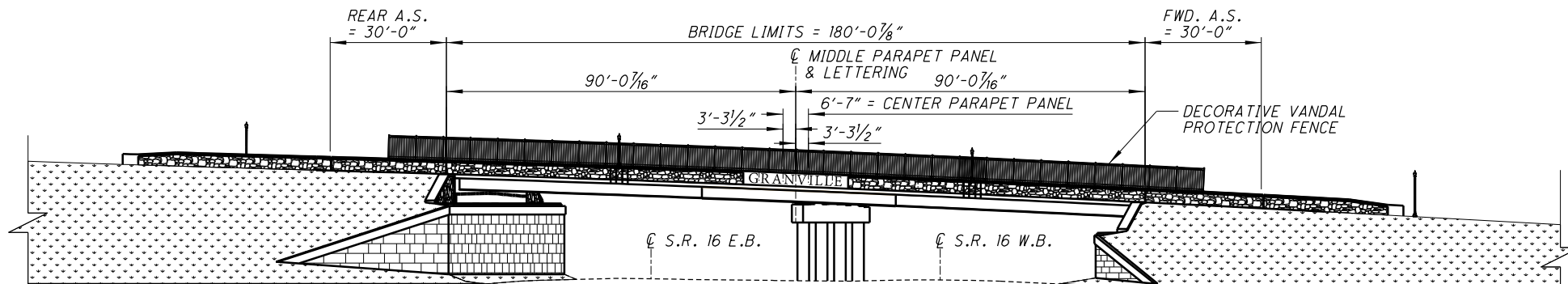


PARAPET LETTERING DETAILS

BRIDGE NO. LIC-661-0003
OVER S.R. 16

CAST LETTERING SHALL BE LAID OUT/PROJECTED AS "ADOBE DEVANAGARI" TYPE FONT WITH A SINGLE SPACE SEPARATING EACH LETTER.

TYPICAL LETTERING DETAILS
(8 SCALE) - DECORATIVE FENCE NOT SHOWN FOR CLARITY



ELEVATION OF S.R. 661 BRIDGE
(LOOKING WEST EAST MIRRORED)

NOTE:

ALL ADDITIONAL COSTS ASSOCIATED WITH THE LETTERING, SYMBOLS, PROVIDING AND DIFFERING TYPES AND COLORS OF CONCRETE SEALING IS TO BE INCLUDED WITH ITEM 511 - CLASS QC SCC CONCRETE WITH QC/OA, BRIDGE DECK (PARAPET), AS PER PLAN FOR PAYMENT. LOCATION OF SAWCUT JOINTS SHALL BE SO AS TO AVOID INTERSECTING DEPRESSED LETTERING. LETTERS SHALL BE CAST INTO PARAPET CONCRETE AT AN EMBEDMENT DEPTH OF 2 INCHES. THE MATERIAL USED TO FORM THE LETTERS INTO THE CONCRETE SHALL BE APPROVED BY THE ENGINEER. THE SPECIFICATIONS OF ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), SHALL BE USED TO APPLY FEDERAL COLOR NUMBER FS-595C-17038 (BLACK) TO THE DEPRESSED SURFACES OF THE LETTERS. LASTLY, ALL REMAINING PARAPET SURFACES SHALL BE SEALED, AS DETAILED IN THE PLAN, WITH ITEM 512 - SEALING OF CONCRETE SURFACES (NON-EPOXY), CLEAR SEALER. THE CONTRACTOR SHALL CREATE A MOCKUP TEST POUR OF THE PROPOSED LETTERING, AND SEALING PATTERN USING APPROVED FORMLINERS AND SEALING MATERIAL.

THE MOCKUP SHALL BE APPROVED BY THE DISTRICT 5 BRIDGE SECTION. IF THE TEST PANELS DO NOT MEET THE APPROVAL OF THE DISTRICT 5 BRIDGE SECTION, THE RESULTS MAY BE GROUNDS TO REJECT THE PROPOSED PANEL SURFACE CHOSEN. THE MOCKUP WILL BE PROVIDED REPEATEDLY, AS NECESSARY, UNTIL APPROVAL IS GRANTED. A MINIMUM OF ONE FULL SCALE LETTER WITH FLUSH FRAMING MOCKUP SHALL BE PROVIDED. THE MOCK-UPS SHALL HAVE THE SAME ARCHITECTURAL RELIEF, THICKNESS, PATTERN, AND COLOR/ SEALANT INTENDED TO BE USED ON THE PROJECT. THE MOCKUP SHALL BE OF THE SAME CEMENT, AGGREGATE SOURCE, AND CONCRETE SEALANT THAT WILL BE USED TO CONSTRUCT THE PROJECT. AFTER APPROVAL THE CONCRETE MOCKUP SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

IN ADDITION TO THE DISTRICT 5 BRIDGE SECTION, A GRANVILLE REPRESENTATIVE SHALL BE PRESENT FOR SPOT CONSULTATION WITH THE DISTRICT 5 BRIDGE SECTION. USE THE FOLLOWING CONTACT INFORMATION FOR THIS PROCESS:

HERB KOEHLER
VILLAGE MANAGER
GRANVILLE
141 E. BROADWAY
GRANVILLE, OHIO 43023
PHONE: (740) 587-0707
EMAIL: hkoehler@granville.oh.us

LIC-37-661-16.59 / 0.00
PID No. 92411

47/65

316
341

DESIGN AGENCY
OHIO DEPARTMENT OF
TRANSPORTATION, DISTRICT 5

DATE
MM/DD/YY
STRUCTURE FILE NUMBER
4506333

REVIEWED
CPS
DESIGNED
CPS
CHECKED
TAG