

CITY OF RAYMORE

100 Municipal Circle · Raymore, MO. 64083
Phone · 816-892-3045 · Fax · 816-892-3093



ADDENDUM NO. 1

Johnston Drive Extension
Project #18-243-201

All plan holders are hereby notified and agree by signature below, that the bid includes consideration of the following changes, amendments, and/or clarifications and costs associated with these changes and are included in the bid.

Addendum No. 1 - Addition of Plan Set

Any other questions regarding this proposal shall be submitted to Kim Quade, CPPB by e-mail at kquade@raymore.com or by phone at (816) 892-3045. There will be no questions allowed after February 2, 2018 at 5 p.m.

I hereby certify that the above have been considered and associated costs have been included in this bid.

Company Name: _____

By: _____

Title: _____

Address: _____

City, State, Zip: _____

Date: _____ Phone: _____

Signature of Bidder: _____

ADDENDUM MUST BE SUBMITTED WITH BID

JOHNSTON DRIVE EXTENSION

FOR THE CITY OF RAYMORE,
CASS COUNTY, MISSOURI

12/20/2017

UTILITY CONTACTS

WATER & SEWER
RAYMORE PUBLIC WORKS
1021 S MADISON STREET
RAYMORE, MISSOURI 64029
(816) 331-2377

ELECTRICITY
KANSAS CITY POWER & LIGHT
(816) 471-5275

GAS
MISSOURI GAS ENERGY (MGE)
3205 SOUTHEAST CLOVER DRIVE
LEE'S SUMMIT, MISSOURI 64082
(800) 582-1234

TELEPHONE
AT&T
(816) 325-5615/(816) 275-1640

CABLE TELEVISION
COMCAST CABLE
816-795-2259

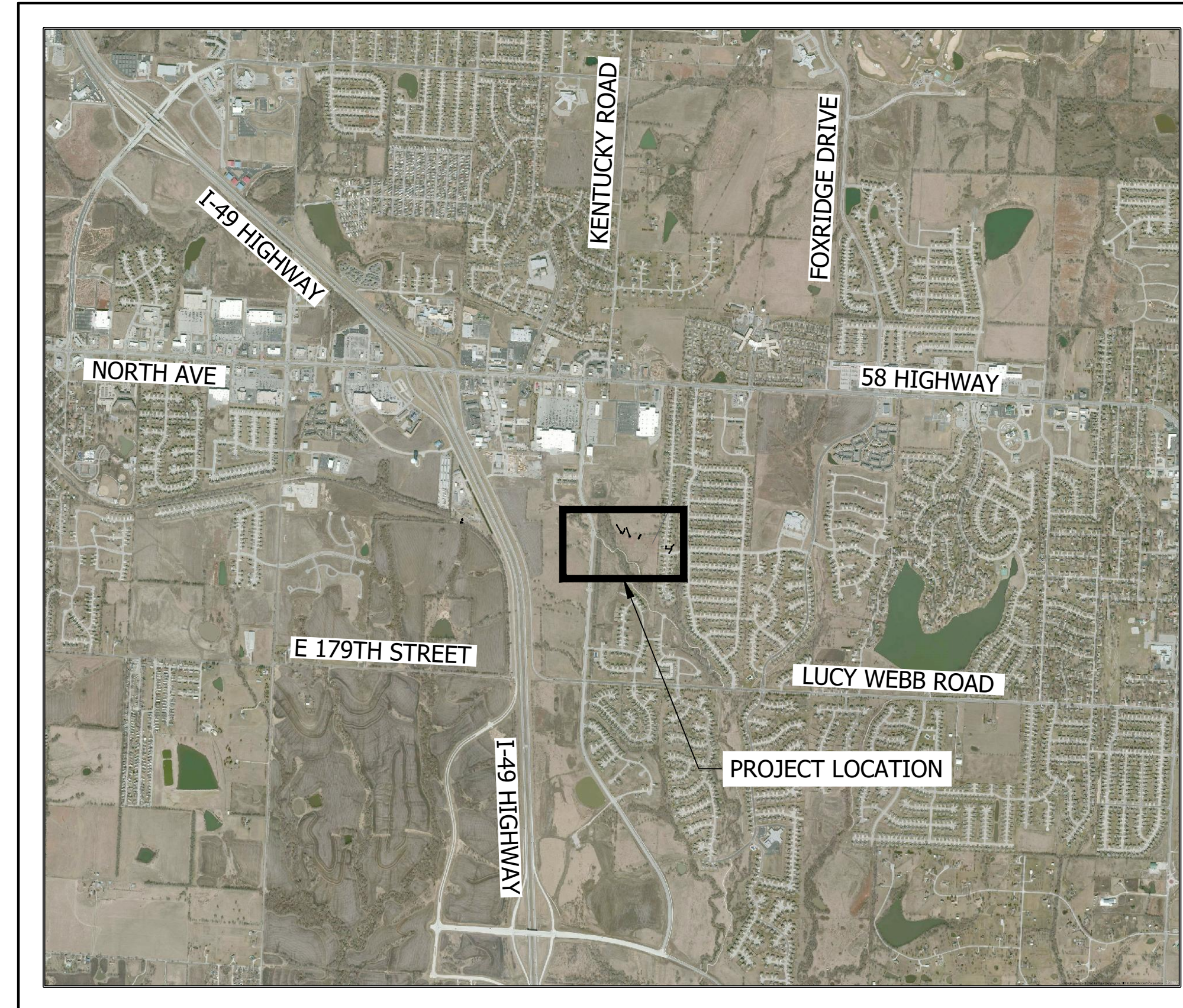
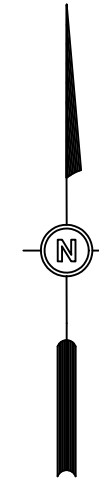
EMERGENCY:

RAYMORE POLICE
911 OR (816) 331-0530

SOUTH METROPOLITAN FIRE PROTECTION DISTRICT
911 OR (816) 331-3008

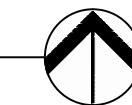
MODOT
600 NE COLBERN ROAD
LEE'S SUMMIT, MO 64086
(816) 607-2187

MISSOURI ONE CALL
(800) DIG-RITE



VICINITY MAP

SCALE: 1"=2000'

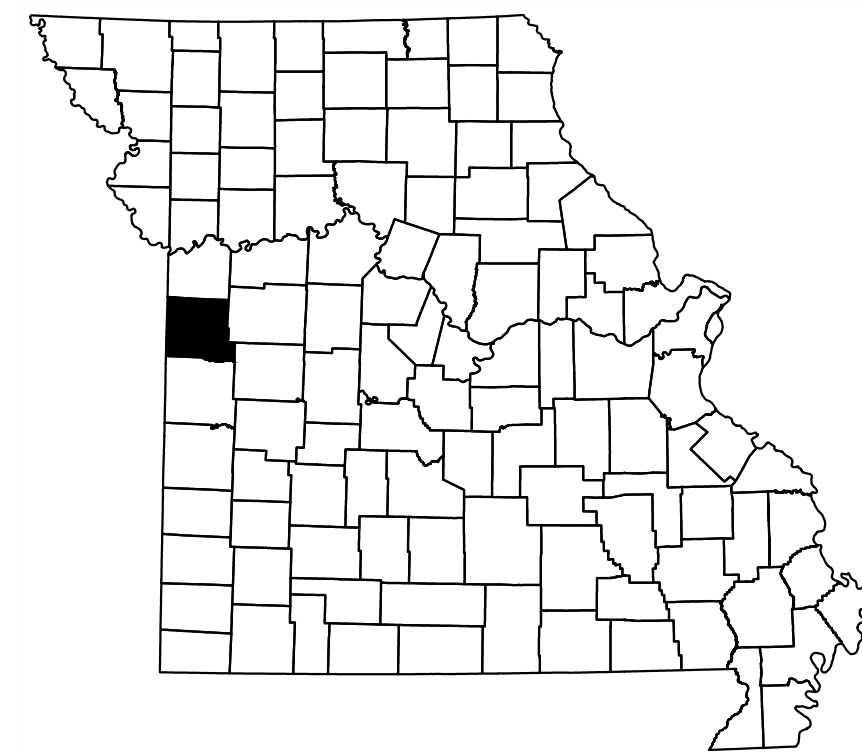
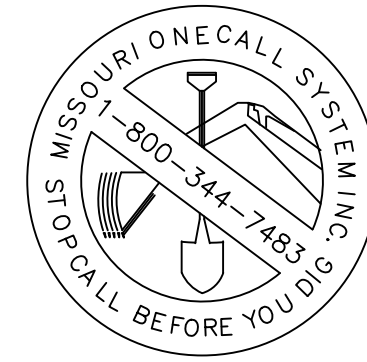


LEGEND

	PROPOSED WATER MAIN		UTILITY POLE
	ABANDON WATER MAIN		DECIDUOUS TREE
	EXISTING WATER MAIN		EVERGREEN TREE
	OVERHEAD ELECTRIC		TREE STUMP
	UNDERGROUND TELEPHONE		WATER METER
	GAS		FIRE HYDRANT
	SANITARY SEWER FORCE MAIN		WATER VALVE
	SANITARY SEWER MAIN		SURVEY CONTROL POINTS
	STORM SEWER		
	CHAINLINK/ BARBED WIRE FENCE		
	WOOD FENCE		
	EXISTING MINOR CONTOURS		
	EXISTING MAJOR CONTOURS		
	PROPERTY BOUNDARIES		
	PROPOSED GRAVEL		
	PROPOSED ASPHALT PAVEMENT		
	PROPOSED CONCRETE PAVEMENT		
	DIRECTIONAL BORE		
	MAILBOX		
	TELEPHONE PEDESTAL		
	GUY WIRE		
	SIGN		
	AIR CONDITIONER		

CONTRACTOR SHALL VERIFY IN THE FIELD AT THE TIME OF CONSTRUCTION.

FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 1-800-344-7483 1-(800) DIG-RITE. STATE LAW REQUIRES TWO DAYS ADVANCE NOTICE.



Cass County, Missouri

PREPARED & SUBMITTED BY:

Bartlett & West

JIM E. ROSS, PE

APPROVAL:

APPROVED BY: GREG ROKOS
CITY OF RAYMORE, MO

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DESIGN STANDARDS & DATA

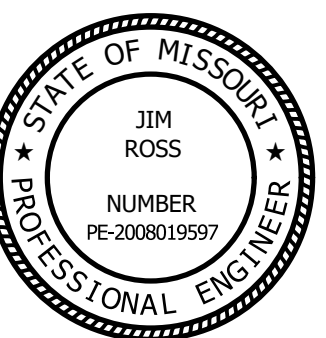
- CITY OF RAYMORE
- ALL PROPOSED IMPROVEMENTS ARE OUTSIDE THE LIMITS OF ALL FLOOD HAZARDS. SEE FEMA MAPS
- AMERICAN PUBLIC WORKS ASSOCIATION (AWPA).

PROJECT GENERAL NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN PUBLIC WORKS ASSOCIATION - KANSAS CITY METROPOLITAN CHAPTER (KCAPWA) SPECIFICATIONS, THE CITY OF RAYMORE STANDARD MODIFICATIONS OF THE KCAPWA SPECIFICATIONS, AND THE JOB SPECIAL PROVISIONS.

Bartlett & West
228 NW EXECUTIVE WAY - LEE'S SUMMIT MO 64083
PHONE 816-525-3562 - FAX 816-525-9041
CERTIFICATE OF AUTHORITY NO. 000167
EXPIRES 12/31/2018

TITLE SHEET
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	1
SHEET NO:	1 of 24

GENERAL NOTES

- THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL APPLICABLE STANDARDS AND SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF RAYMORE, MISSOURI IN CURRENT USAGE AND THE KC METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION AS ADOPTED AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES.
- CONSTRUCTION OF THE IMPROVEMENTS SHOWN OR IMPLIED BY THIS SET OF PLANS SHALL NOT BE INITIATED OR ANY PART THEREOF UNDERTAKEN UNTIL THE CITY IS NOTIFIED OF SUCH INTENT AND ALL REQUIRED AND PROPERLY EXECUTED BONDS AND CONTRACT AGREEMENTS ARE RECEIVED AND APPROVED BY SAME.
- NO WORK SHALL COMMENCE ON THOSE AREAS DESIGNATED AS EASEMENTS UNTIL THE AUTHORITY HAS BEEN GRANTED BY THE CITY. IT IS INTENDED THAT ALL EASEMENTS WILL BE IN PLACE PRIOR TO CONSTRUCTION. VERIFICATION MUST BE GIVEN PRIOR TO WORK ON THOSE PROPERTIES.
- THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS AND ONE (1) COPY OF THE APPROPRIATE CONSTRUCTION SPECIFICATIONS AND PROJECT MANUAL AT THE JOB SITE AT ALL TIMES. IT IS ADVISABLE THAT THE CONTRACTOR BECOME FAMILIAR WITH THE CITY REQUIREMENTS AND STANDARDS IN THE EVENT THAT THERE IS A DISCREPANCY BETWEEN THIS APPROVED PLAN AND THE CITY REQUIREMENTS. ADVISE THE CITY'S REPRESENTATIVE OF ANY DISCREPANCY PRIOR TO BIDDING OR WORKING ON THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK. THE CITY HAS NO PERMITS REQUIRED BY THE CONTRACTOR OTHER THAN A BUSINESS LICENSE.
- THE ACCURACY AND ADEQUACY OF THE ALIGNMENTS, DIMENSIONS, AND ELEVATIONS SHALL BE CONFIRMED BY THE CONTRACTOR AT THE JOB SITE. IF THE CONTRACTOR FINDS ANY DIMENSIONS TO BE IN ERROR OR IN QUESTION, THE CITY'S REPRESENTATIVE SHALL BE PROMPTLY CONTACTED FOR CLARIFICATION PRIOR TO THE CONTINUATION OF THE WORK. THE ENGINEERING AND GEOLOGICAL DATA SHOWN ON THESE PLANS ARE FROM STUDIES MADE IN THE FIELD AND REPRESENTS THE BEST INFORMATION AVAILABLE AT THE TIME OF TESTING.
- NOTIFY THE CITY'S REPRESENTATIVE AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK. FOR CONSTRUCTION UNDER DRIVEWAYS AND STREETS, CONTRACTOR SHALL NOTIFY RESIDENTS OF CONSTRUCTION ACTIVITIES WELL IN ADVANCE OF THE WORK, AND SHALL PROVIDE AND MAINTAIN A TEMPORARY SURFACE FOR ACCESS UNTIL PERMANENT RESTORATION IS COMPLETED.
- THE CONTRACTOR SHALL DEVELOP AND IMPLEMENT PROPER TRAFFIC CONTROL IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD (MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES).
- DURING CONSTRUCTION, ACCESS SHALL BE MAINTAINED FOR EMERGENCY VEHICLES AND LOCAL TRAFFIC. CONTRACTOR SHALL NOTIFY THE CITY 72 HOURS PRIOR TO ANY STREET CLOSURES OR BLOCKAGES TO ALLOW THE CITY ADEQUATE TIME TO NOTIFY THE FIRE, POLICE AND AMBULANCE DEPARTMENTS, SCHOOLS, SCHOOL BUS COMPANIES, AND POST OFFICE OF THE UPCOMING WORK. CLOSURES AND TRAFFIC PLANS ARE SUBJECT TO APPROVAL OF THE CITY'S REPRESENTATIVE.
- PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY 1-800-DIG-RITE OF MISSOURI AND ALL THOSE UTILITY COMPANIES WHICH HAVE FACILITIES IN THE VICINITY 72 HOURS PRIOR TO THE CONSTRUCTION TO BE PERFORMED. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR UNDERGROUND UTILITY LINES, WHETHER SHOWN ON THESE PLANS OR NOT, PRIOR TO ANY EXCAVATION. ALL EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE TAKEN FROM UTILITY COMPANY INFORMATION OR AS OBSERVED AT THE SURFACE AND ARE APPROXIMATE ONLY. THE CONTRACTOR, PRIOR TO CONSTRUCTION, SHALL VERIFY THE LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES. THE REPAIR OF ANY DAMAGE TO SAID UTILITIES SHALL BE AT THE COST TO THE CONTRACTOR. ANY UTILITIES FOUND TO BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION, SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CITY'S REPRESENTATIVE. THE NAMES AND TELEPHONE NUMBERS OF UTILITY COMPANIES ARE ON THE TITLE SHEET.
- ALL UTILITIES SHALL BE KEPT IN SERVICE AND PROTECTED DURING CONSTRUCTION OPERATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL EXISTING UTILITIES, AND NOTIFY THE CITY'S REPRESENTATIVE OF ANY CONFLICTS IMMEDIATELY. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR CONTACTING ALL UTILITIES PRIOR TO ANY EXCAVATION. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- NOTIFICATION MUST BE GIVEN TO PROPERTY OWNERS OF SERVICE OR ACCESS INTERRUPTION. SERVICES SHALL BE RE-ESTABLISHED WITHIN 6 HOURS OF DISCONNECTION. RESIDENTS SHALL BE NOTIFIED IN WRITING WITHIN 48 HOURS OF SERVICE BEING DISCONNECTED.
- CONTRACTOR SHALL POTHOLE ALL UTILITIES WHERE THERE MAY BE CONFLICTS AND WILL PROVIDE THE CITY FIELD NOTES WITH ELEVATIONS OF OTHER UTILITIES AS FOUND.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPORTING LATERALLY AND/OR BRACING/PROTECTING UTILITIES AS APPLICABLE.
- CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL LAWS, CODES, AND ORDINANCES. OPEN BURNING OF DEBRIS SHALL NOT BE PERMITTED.
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SITE EROSION CONTROL IN ACCORDANCE WITH THE CRITERIA SET FORTH BY THE STATE OF MISSOURI AND THE CITY OF RAYMORE AND/OR AS NOTED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY EROSION CONTROL SHALL BE INSTALLED PER THE SPECIFICATIONS, OR AS WARRANTED AND DETERMINED IN THE FIELD BY THE CITY'S REPRESENTATIVE. EROSION CONTROLS MUST BE IN PLACE PRIOR TO ANY SITE WORK AND MUST BE MAINTAINED CONTINUOUSLY THROUGHOUT THE PROJECT.
- DRIVEWAYS, SIDEWALKS, FENCES AND OTHER AREAS INSIDE AND OUTSIDE THE CONSTRUCTION LIMITS DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THAT EXISTED BEFORE DAMAGE OCCURRED AT THE CONTRACTOR'S EXPENSE. ALL DAMAGED INFRASTRUCTURE SHALL BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR ADJUSTMENTS NOT NOTED IN THE PLAN NOTATION AND CALLOUTS.
- EXISTING TREES NOT DESIGNATED FOR REMOVAL SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION. TREES DAMAGED DURING CONSTRUCTION SHALL BE PRUNED AND WOUNDS PROTECTED AS APPROVED BY THE CITY'S REPRESENTATIVE. TREES NOT TO BE REMOVED BEFORE NOVEMBER 1ST OR AFTER APRIL 1ST AS TO NOT HINDER THE INDIANA BAT HABITAT.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE EARTHWORK TYPE AND QUANTITIES THEREOF. NO CLASSIFICATION OF EXCAVATED MATERIALS WILL BE MADE. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING THE AMOUNT OF ROCK EXCAVATION, IF ANY, TO BE INCLUDED IN HIS BID. EXCAVATION WORK SHALL INCLUDE THE REMOVAL AND SUBSEQUENT HANDLING OF ALL MATERIALS EXCAVATED OR OTHERWISE REMOVED IN PERFORMANCE OF THE WORK, REGARDLESS OF THE TYPE, CHARACTER, COMPOSITION, OR CONDITION THEREOF. ALL FILL AND BACKFILL MATERIAL SHALL BE FREE FROM ORGANIC MATTER WITH ALL UNDESIRABLE MATERIAL REMOVED.
- NO EXPLOSIVES ALLOWED.
- ALL CONTRACTOR STOCKPILING, STAGING AND EMPLOYEE PARKING SHALL BE CONFINED TO LOCATIONS COORDINATED WITH THE CITY OR PRIVATE PROPERTY OWNER. IF THE CONTRACTOR BELIEVES THAT HE REQUIRES MORE WORKING ROOM THAN IS PROVIDED IN THE PERMANENT EASEMENT OR RIGHT-OF-WAY, THE CONTRACTOR, AT HIS EXPENSE, MAY OBTAIN AGREEMENTS WITH PROPERTY OWNERS FOR ADDITIONAL TEMPORARY ACCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GAINING ANY TEMPORARY ACCESS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL PROVIDE OWNER AND CITY WITH COPIES OF ANY AGREEMENTS REACHED FOR SAID ACCESS.
- THE TOP 6" OF ALL FILL OUTSIDE OF PAVED AREAS SHALL BE TOP SOIL, AND SHALL BE APPROVED BY THE CITY'S REPRESENTATIVE PRIOR TO SOD OR SEED INSTALLATION. ALL BACKFILL SHALL BE TAMPED AND ORGANIC TOP SOIL PLACED THEREAFTER FOLLOWED BY SEEDING OR SOD AS REQUIRED BY THE SPECIFICATIONS. NO EXTRA PAYMENT WILL BE MADE FOR IMPORTED FILL MATERIAL REQUIRED TO CONSTRUCT FILLS TO LINES AND GRADES INDICATED ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SEEDING, FERTILIZING, AND EROSION CONTROL
- GROUNDWATER SEEPAGE MAY BE ENCOUNTERED. IF WATER SEEPAGE IS ENCOUNTERED DURING EXCAVATION, USE OF TEMPORARY DEWATERING TECHNIQUES MAY BE NECESSARY AT NO ADDITIONAL COST TO THE CITY.
- THE CONTRACTOR SHALL NOT BE ALLOWED TO WORK SUNDAY. HOLIDAYS AND SATURDAY WORK SHALL BE APPROVED BY THE CITY'S REPRESENTATIVE.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE SAFETY OF THE CONSTRUCTION WORKERS AND THE PUBLIC. THIS RESPONSIBILITY WILL NOT BE LIMITED TO NORMAL WORKING HOURS.
- ALL BENCHMARKS, CONTROL POINTS, PROPERTY MARKERS, AND RIGHT-OF-WAY MONUMENTS DISTURBED OR DESTROYED SHALL BE RESET BY A MISSOURI REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL RESTORE ALL DISTURBED GRASSY AREAS WITH SEED PER SPECIFICATIONS. CONTRACTOR SHALL FERTILIZE AND WATER AS NECESSARY UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- CONCRETE FOR DRIVEWAY SIDEWALK AND/OR STREET REPLACEMENTS SHALL MATCH THE STANDARD DETAILS AS SHOWN. SLOPES SHALL MEET ACCESSIBILITY STANDARDS.
- ALL CONSTRUCTION MUST BE ADA COMPLIANT. NON ADA COMPLIANT CONSTRUCTION MUST BE REMOVED AND REPLACED AT THE CONTRACTOR'S EXPENSE.
- LANDINGS SHALL HAVE A MAXIMUM OF 2% CROSS SLOPE IN BOTH DIRECTIONS AND SHALL BE INSTALLED AT TOP OF RAMPS UNLESS OTHERWISE NOTED.
- BACKFILL OF REINFORCED CONCRETE PIPE SHALL BE 1 INCH CLEAN ROCK OR SOIL COMPACTED TO 90 PERCENT OF STANDARD PROCTOR DENSITY.

STAKING AND TESTING

- ALL CONSTRUCTION STAKING AND TESTING WILL BE AT THE CONTRACTORS EXPENSE.
- CONTRACTOR SHALL GIVE CITY'S REPRESENTATIVE 48 HOURS NOTICE BEFORE REQUESTING THEIR PRESENCE FOR OBSERVATION OR TESTING.
- THE HIRING OF A TESTING LAB AND THE COST OF FIELD TESTING WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- A MINIMUM OF FOUR COMPACTION TESTS WILL BE TAKEN DETERMINE COMPLIANCE WITHIN ROADWAYS AND MEANS AND METHODS USED BY THE CONTRACTOR. TEST LOCATIONS WILL BE DETERMINED BY THE OWNER.
- AT THE OWNER'S DISCRETION, ADDITIONAL PROCTOR TEST MAY BE REQUIRED TO DETERMINE THE ADEQUACY OF SPECIFIED COMPACTION LIMITS.

Bartlett & West
 228 NW EXECUTIVE WAY - LEETS SUMMIT MO 64063
 PHONE 816.526.3562 - FAX 816.526.9041
 CERTIFICATE OF AUTHORITY NO. 000167
 MISSOURI PROFESSIONAL ENGINEER

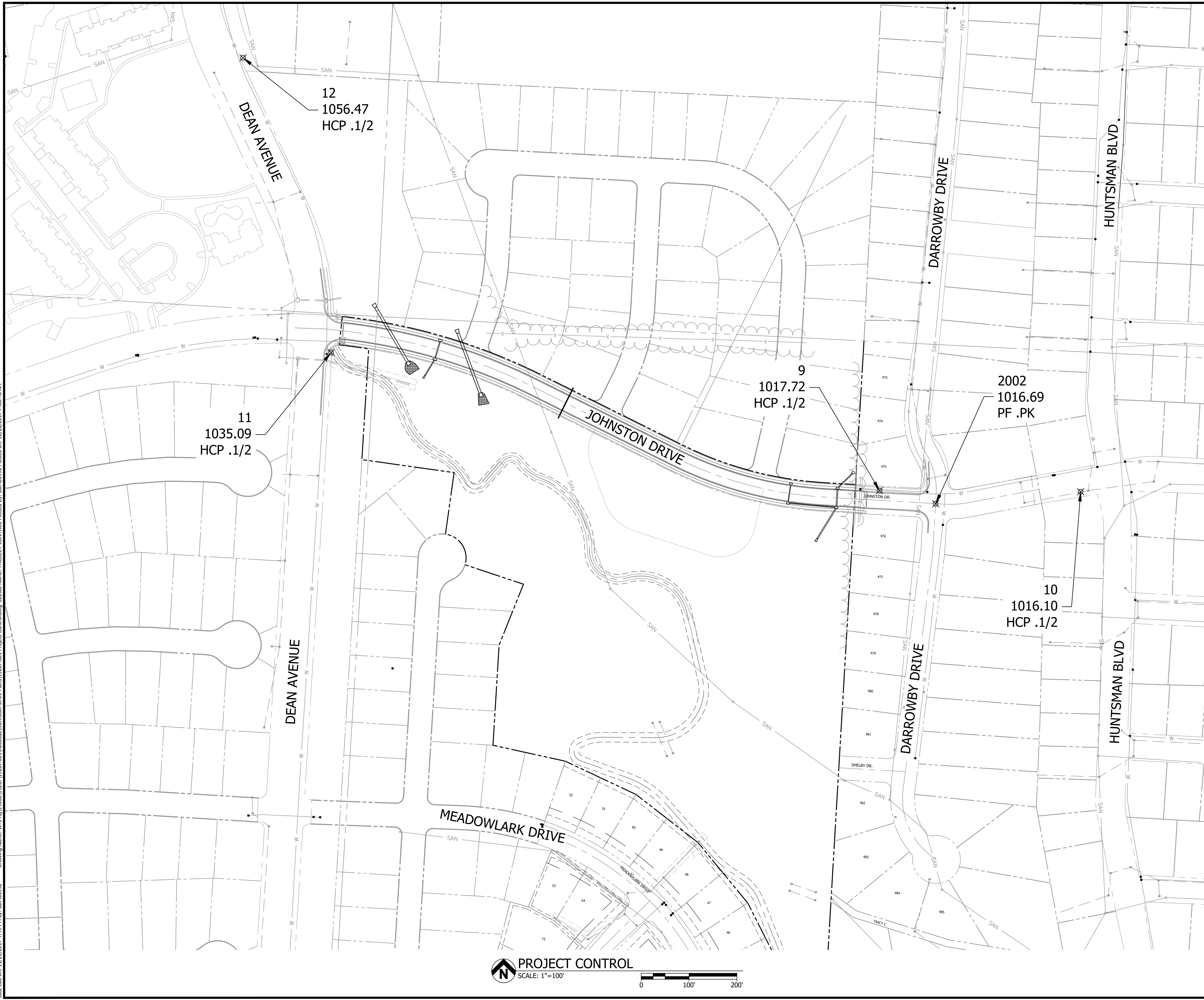
GENERAL NOTES
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	2
SHEET NO:	2 of 24

Last edit on: Dec 22, 2017 by: BDM00992 Drawing Name: V:\Proj\19000119267\19267.001\AutoCAD\Johnston Drive Plans\19267.001 Title Sheet And General Notes.dwg Layout Name: GENERAL NOTES Plotted By: BDM00992 Plotted on: 12/26/2017 7:07:39 AM

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GENERAL PROJECT INFORMATION	
PROJECT:	MISSOURI STATE PLANE COORDINATES, WEST ZONE, US FOOT
SCALE FACTOR:	0.999897096 / 1.000102915
HORIZONTAL DATUM:	NAD 83
VERTICAL DATUM:	NAVD 88

HORIZONTAL CONTROL	
HCP-9	1/2" IRON BAR WITH CAP, NORTH SIDE OF JOHNSTON DRIVE N=960441.307 E=2791787.645 ELEV=1017.72
HCP-10	1/2" IRON BAR WITH CAP, SOUTH SIDE OF JOHNSTON DRIVE N=960439.008 E=2792207.900 ELEV=1016.10
HCP-11	1/2" IRON BAR WITH CAP, EAST SIDE DEAN AVENUE N=960730.024 E=2790641.166 ELEV=1035.09
HCP-12	1/2" IRON BAR WITH CAP, EAST SIDE OF DEAN AVENUE N=961346.082 E=2790457.470 ELEV=1056.47

BENCHMARK INFORMATION	
BM-3	STATION H256, USC & GS BRASS DISC STAMPED H256, 1963, ON 3" STEEL PIPE ELEV.=1075.45
BM-2002	PK NAIL AT INTERSECTION OF JOHNSTON DRIVE & DARROWBY DRIVE ELEV.= 1016.70

DATE	DESCRIPTION

Bartlett & West


228 NW EXECUTIVE WAY - LEE'S SUMMIT MO 64063
PHONE 816.526.5852 - FAX 816.526.9041
CERTIFICATE OF PROFESSIONAL ENGINEERING
www.bartlettandwest.com

PROJECT CONTROL

JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

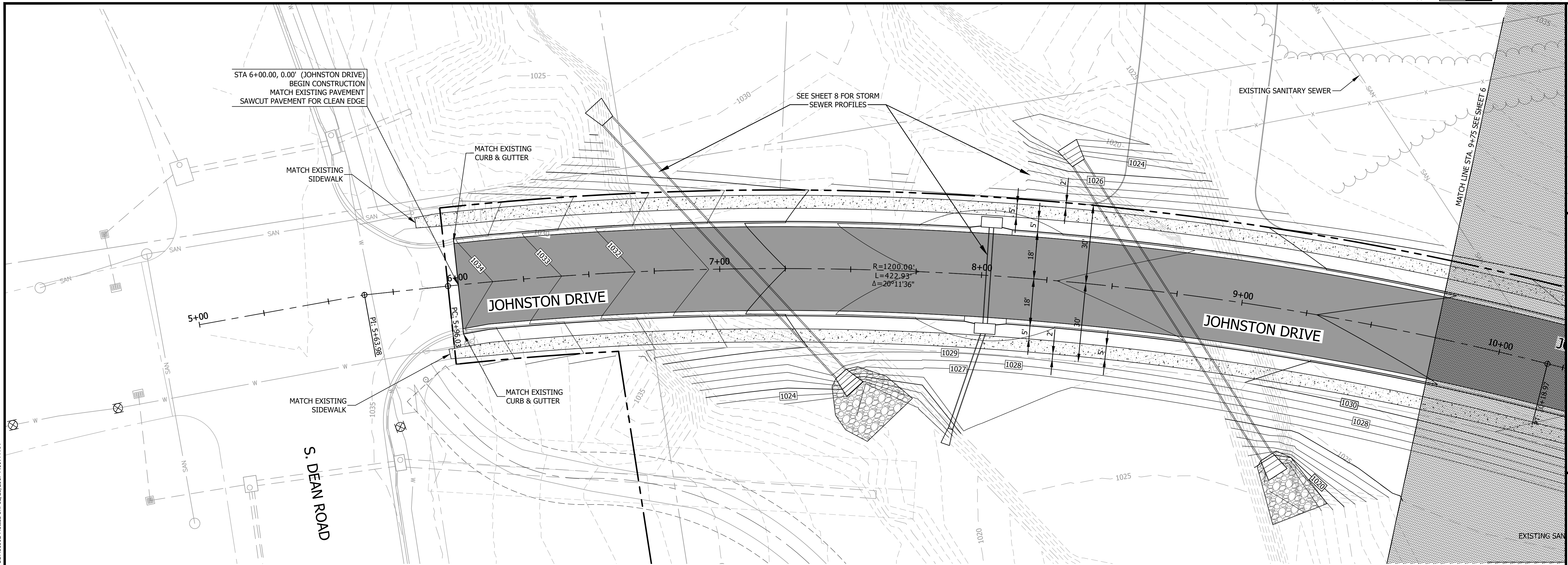
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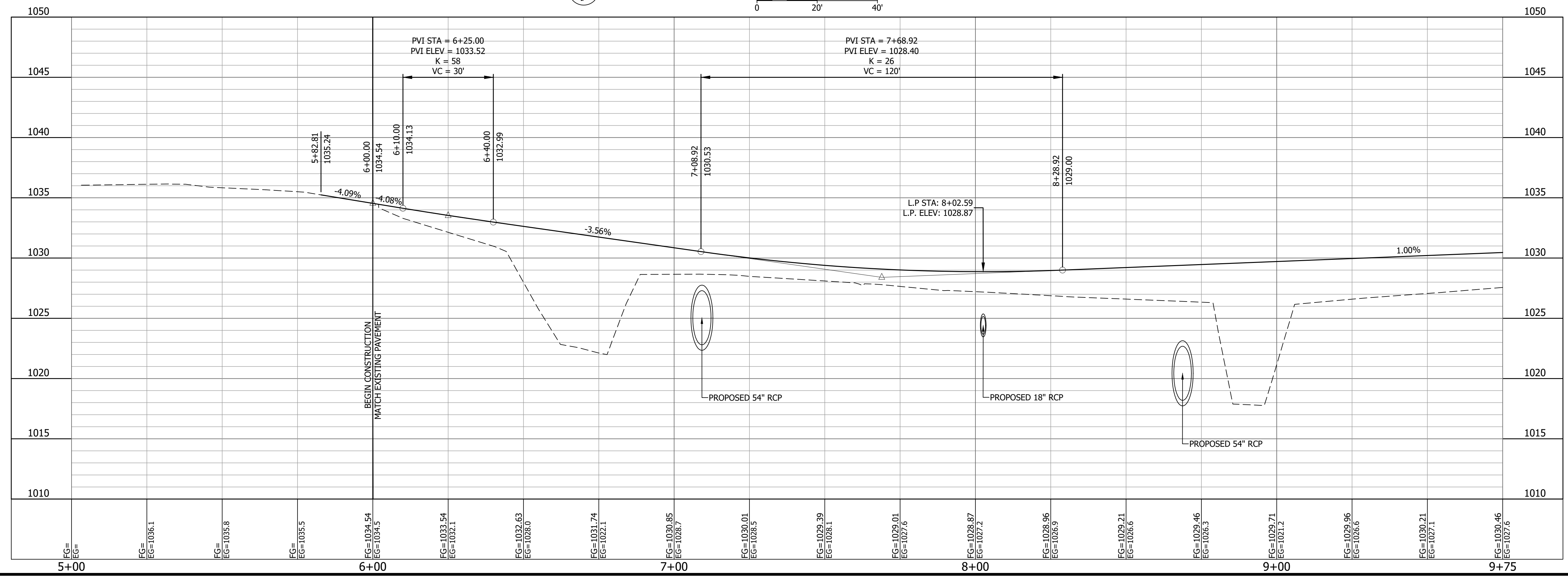
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DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	4
SHEET NO:	4 of 24

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STA 5+00 TO 9+50
SCALE: HORZ-1"=20' VERT-1"=5'



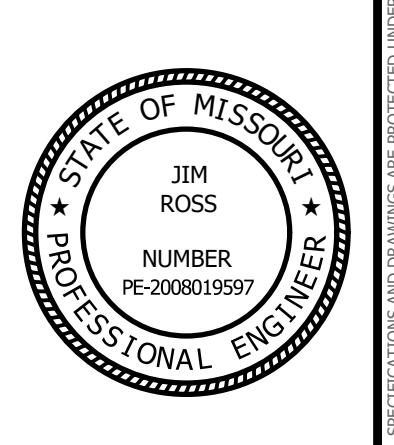
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Bartlett & West

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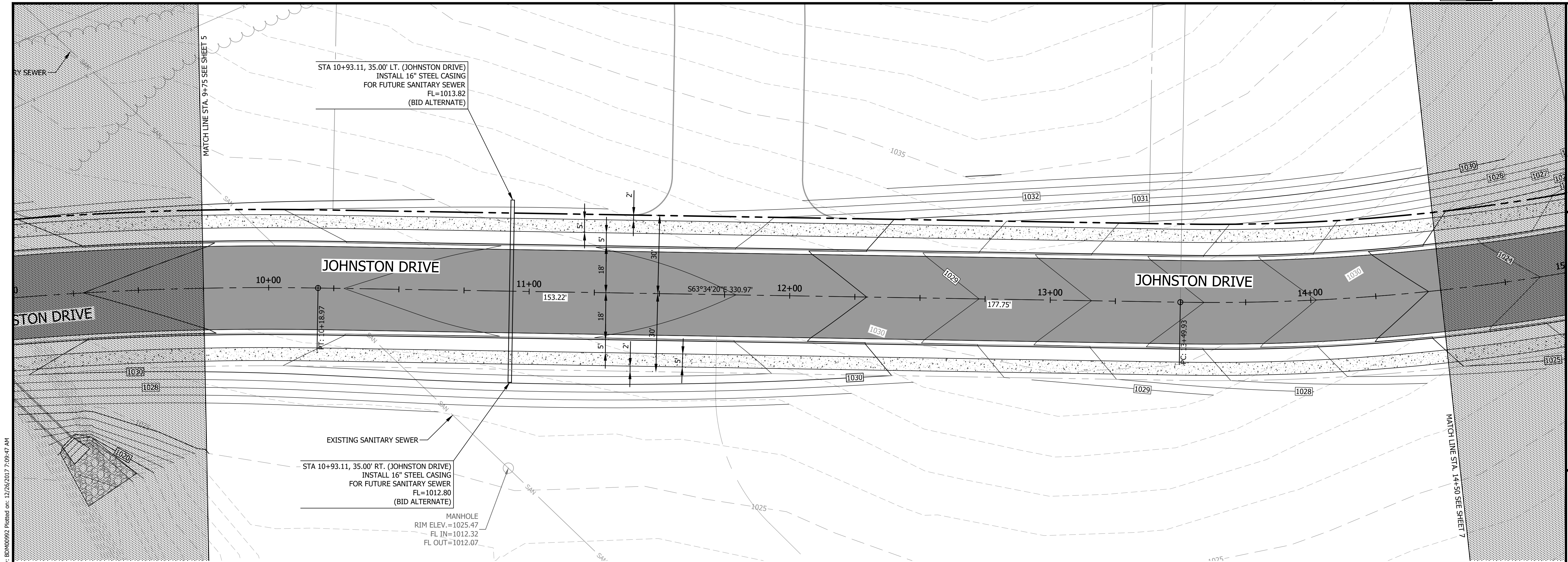
STREET PLAN & PROFILE
STA 5+00 TO 9+50

JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

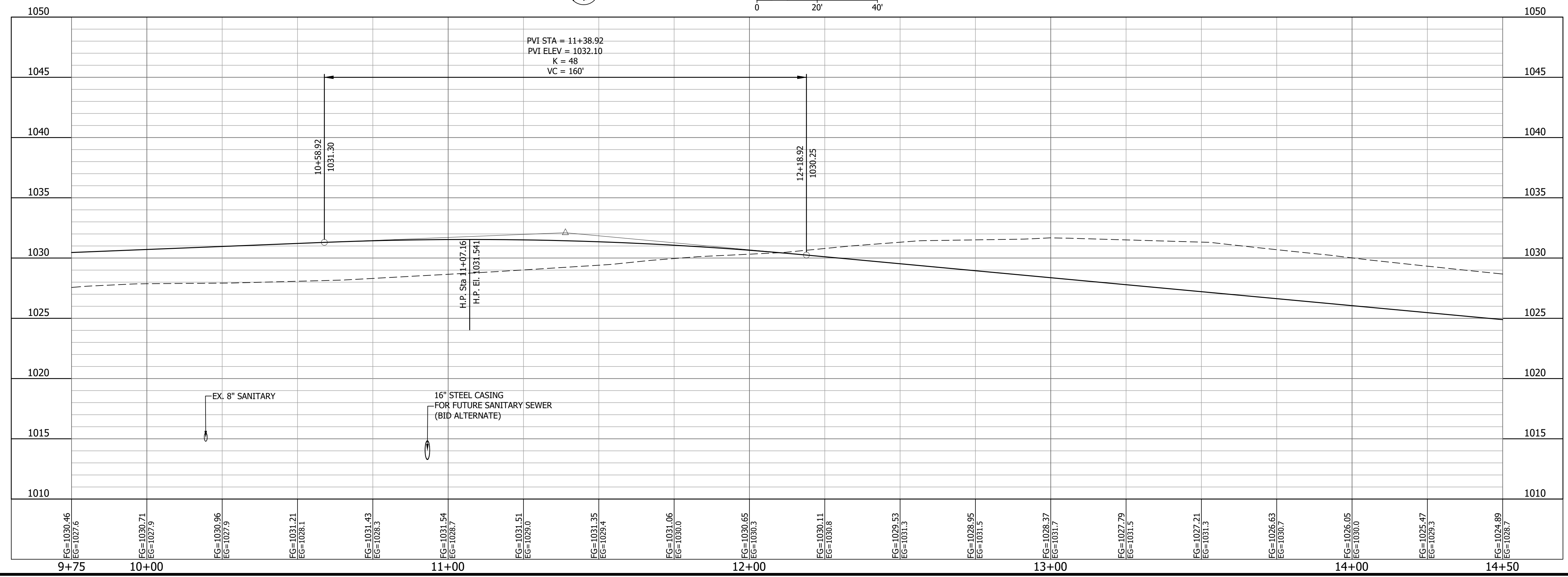


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SHEET NO.:	5 of 24

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STA 9+50 TO 14+50
SCALE: HORZ-1"=20' VERT-1"=5'

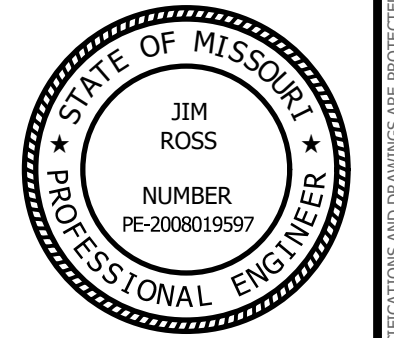


Bartlett & West

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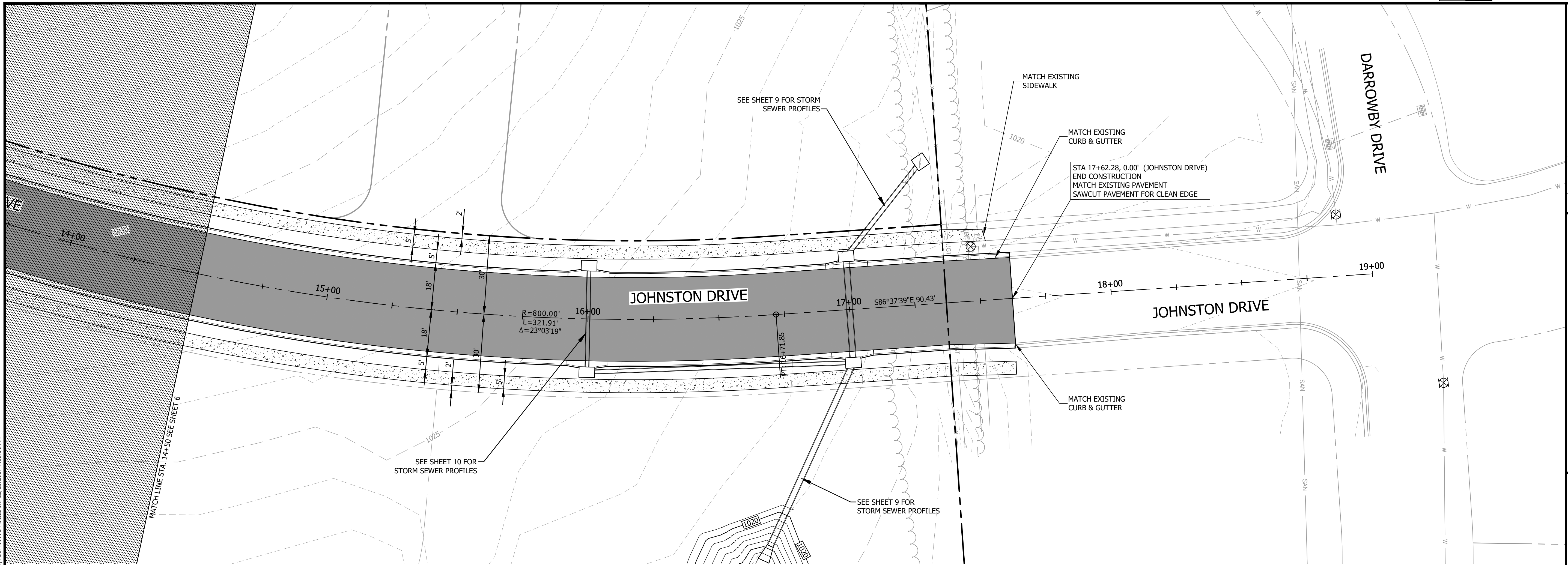
STREET PLAN & PROFILE
STA 9+50 TO 14+50

JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

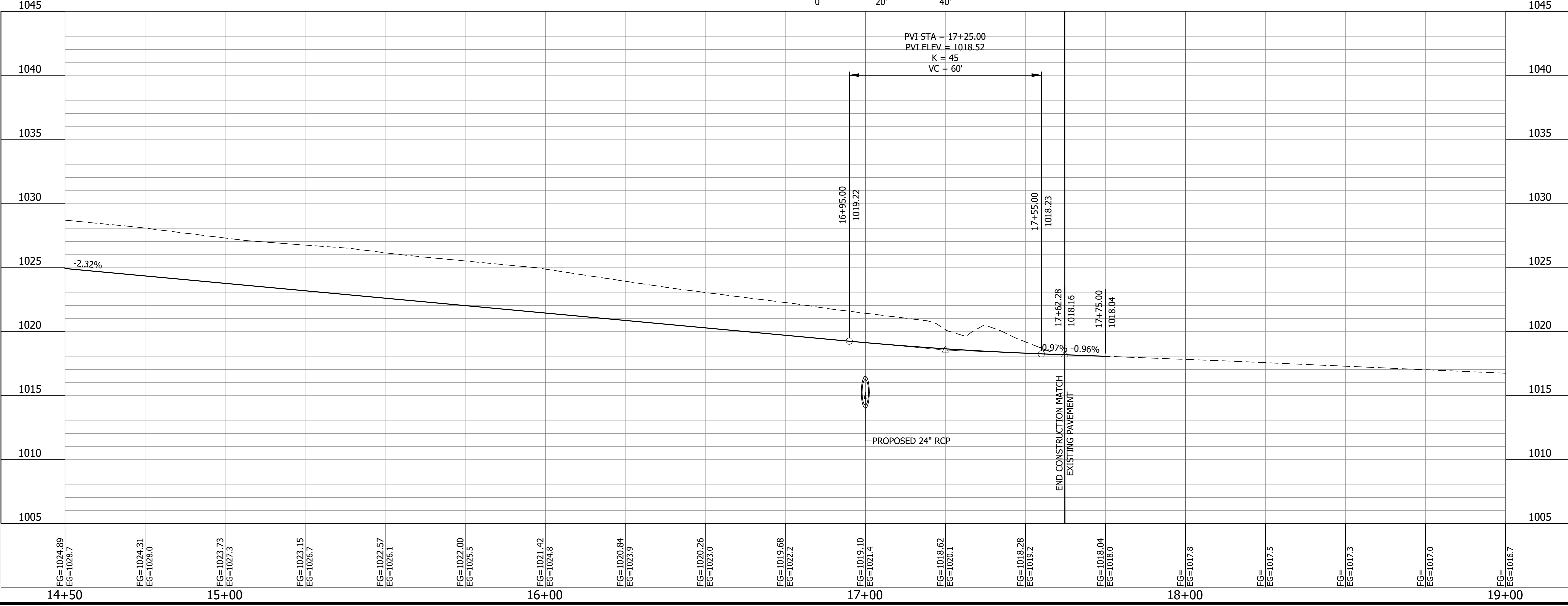


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Last edit on: Dec 26, 2017 by: BDM00992 Drawing Name: W:\Proj\190001\19267\001\AutoCad\Johnston Drive Plans\19267.001\PlanProfile_ Streets.dwg Layout Name: STA 9+50 to 14+50 Plotted By: BDM00992 Plotted on: 12/26/2017 7:09:47 AM



STA 14+50 TO 19+00
SCALE: HORIZ-1"=20' VERT-1"=5'

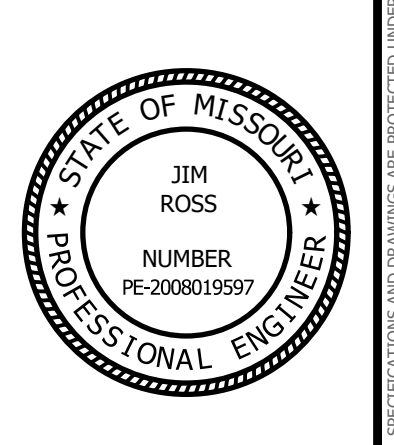


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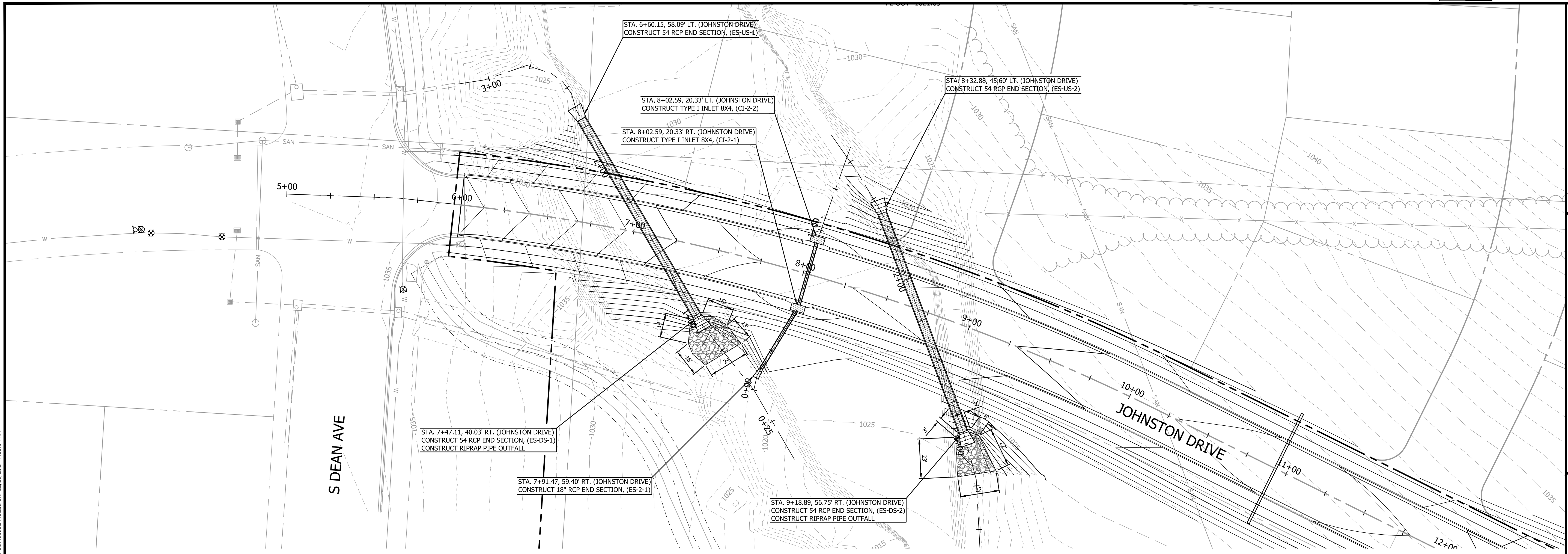
#	DATE	DESCRIPTION

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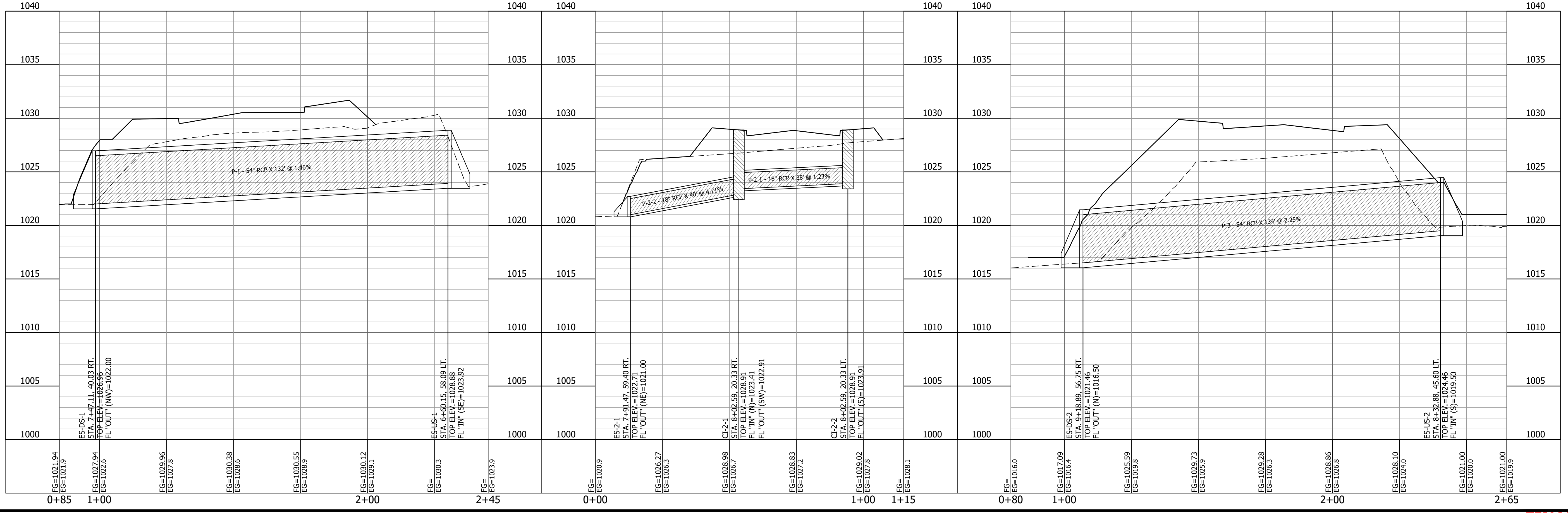
**STREET PLAN & PROFILE
STA 14+50 TO 19+00**
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



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DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	7
SHEET NO:	7 of 24



STORM LINE 1, 2 AND 3
 PLAN VIEW SCALE: 1"=30'
 PROFILE VIEW SCALE: 1"=20' HORIZ. 1"=5' VERT.

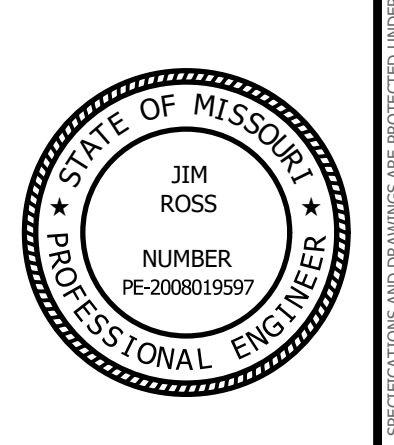


Last edit on: Dec 26, 2017 by: BDM00992 Drawing Name: W:\Proj\190001\19267\001\AutoCad\Johnston Drive Plans\19267_001_PlanProfile_Storm_Sewer.dwg Layout Name: LINES 1, 2 AND 3 Plotted by: BDM00992 Plotted on: 12/26/2017 7:11:04 AM

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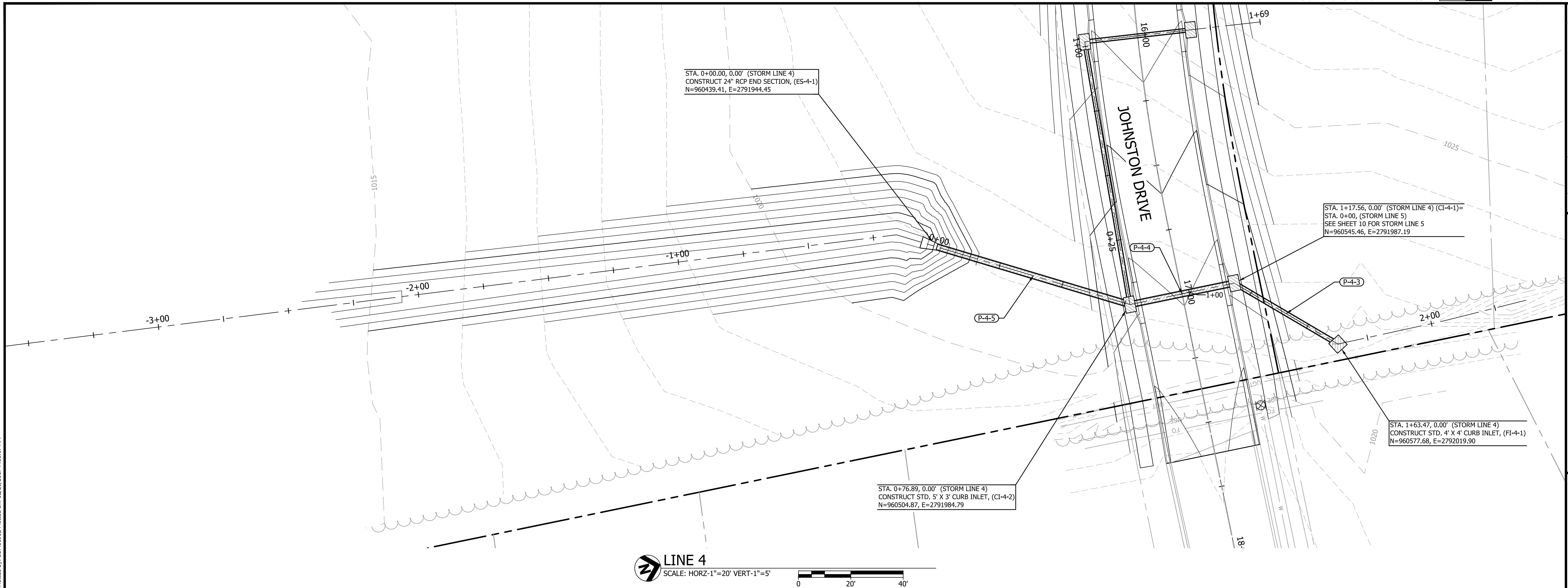
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STORM PLAN & PROFILE
LINES 1, 2 AND 3
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI

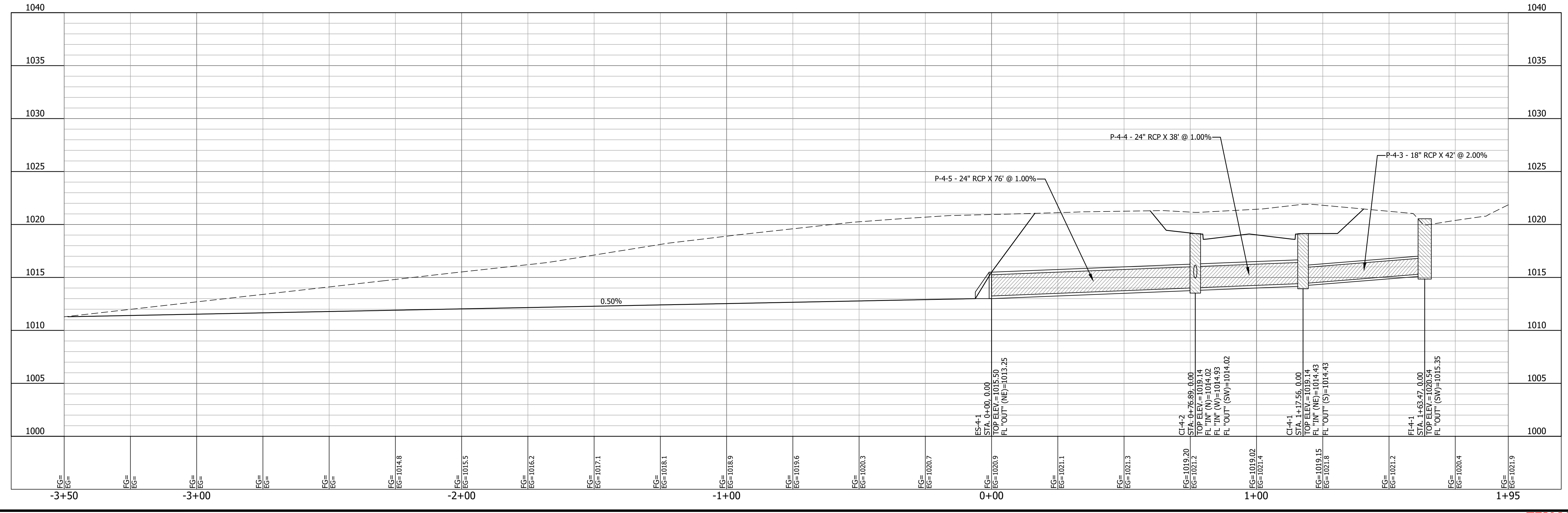


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APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	8
SHEET NO:	8 of 24

Last edit on: Dec 26, 2017 by: BDM00992 Drawing Name: W:\Proj\190001\19267\001\AutoCad\Johnston Drive Plans\19267_001_PlanProfile_S Storm_Sewer.dwg Layout Name: STORM LINE 4 Plotted on: 12/26/2017 7:11:07 AM



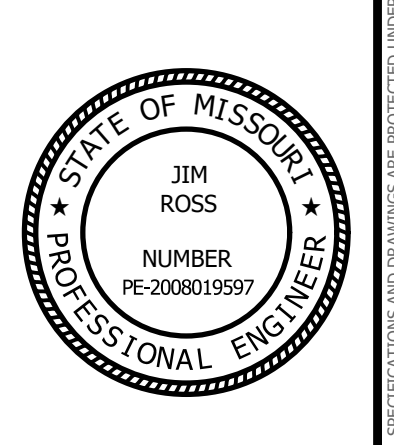
LINE 4
SCALE: HORZ-1"=20' VERT-1"=5'
0 20' 40'



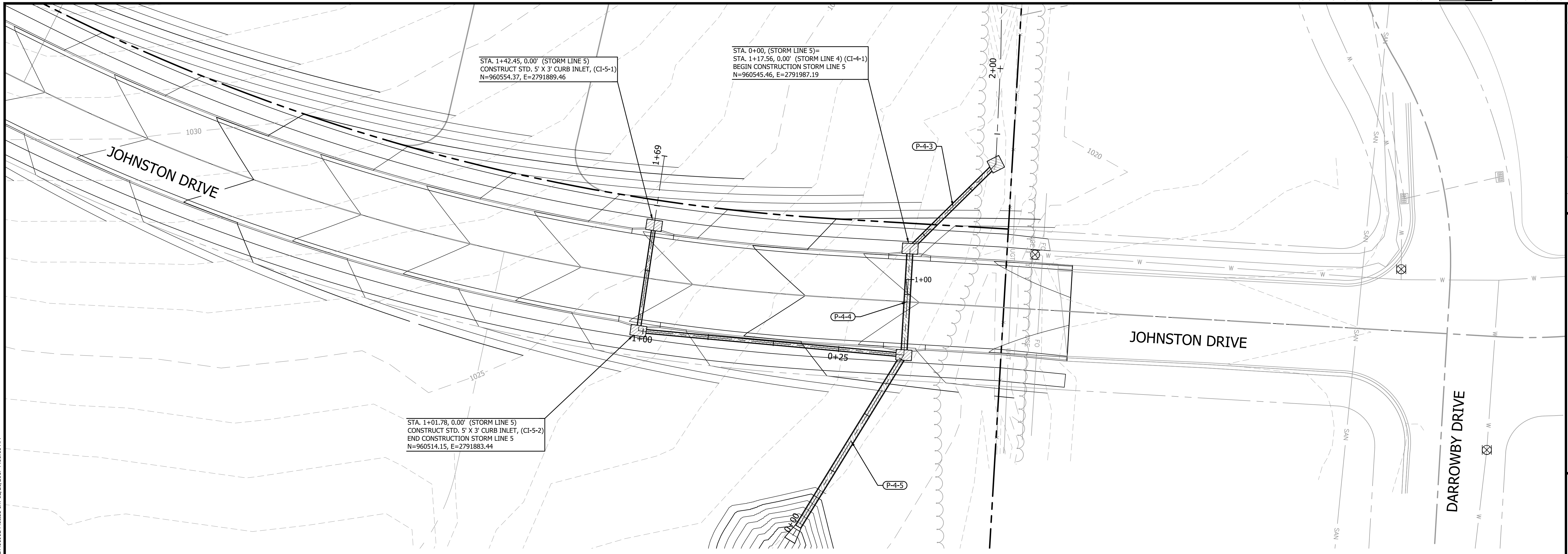
#	DATE	DESCRIPTION

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STORM PLAN & PROFILE
LINE 4
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



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DATE:	12/20/2017
DRAWING NO:	9
SHEET NO:	9 of 24

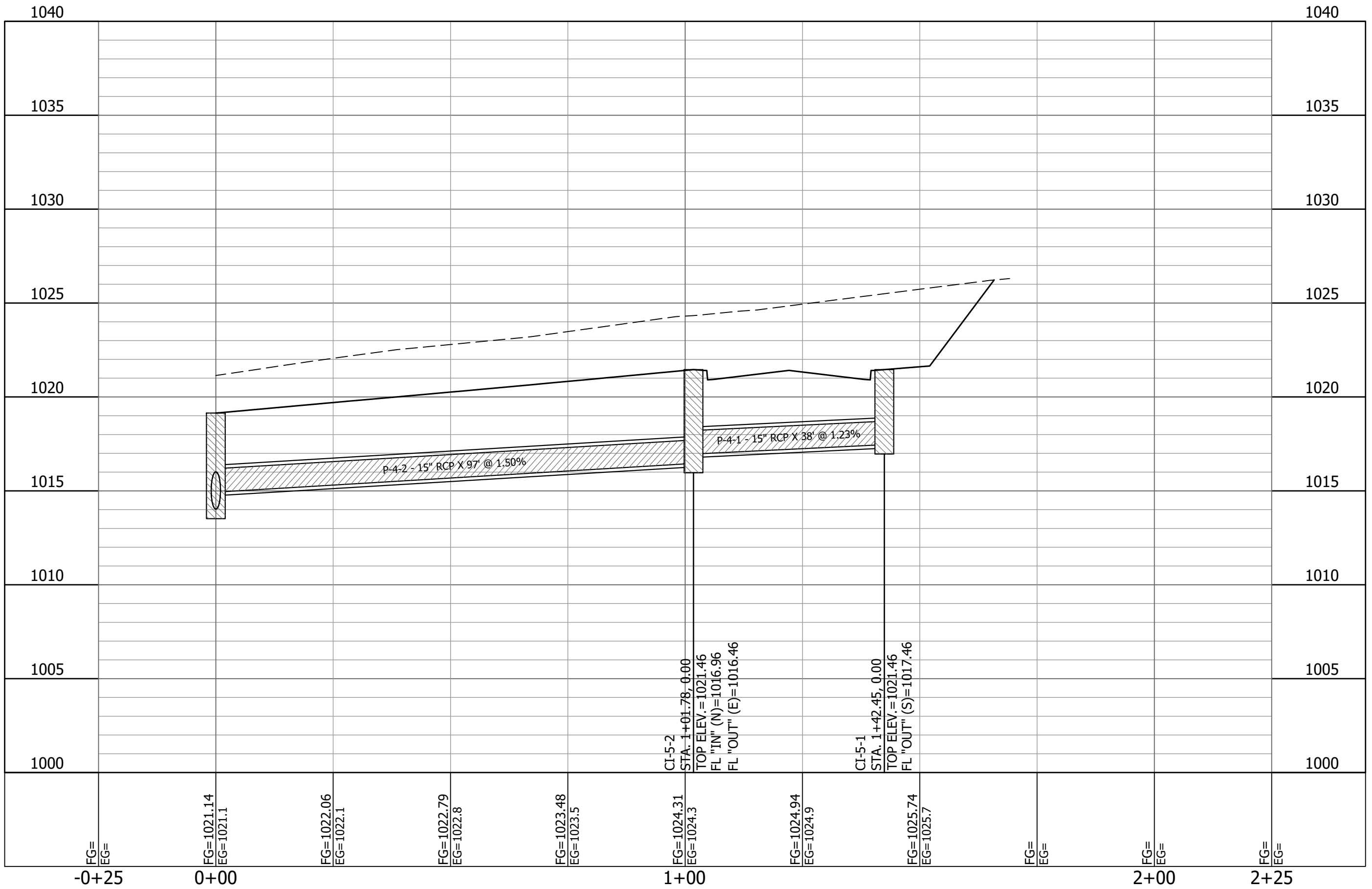
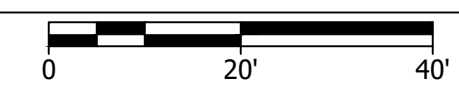


STA. 1+42.45, 0.00' (STORM LINE 5)
CONSTRUCT STD. 5' X 3' CURB INLET, (CI-5-1)
N=960554.37, E=2791889.46

STA. 0+00, (STORM LINE 5)=
STA. 1+17.56, 0.00' (STORM LINE 4) (CI-4-1)
BEGIN CONSTRUCTION STORM LINE 5
N=960545.46, E=2791987.19

STA. 1+01.78, 0.00' (STORM LINE 5)
CONSTRUCT STD. 5' X 3' CURB INLET, (CI-5-2)
END CONSTRUCTION STORM LINE 5
N=960514.15, E=2791883.44

LINE 5
SCALE: HORZ-1"=20' VERT-1"=5'

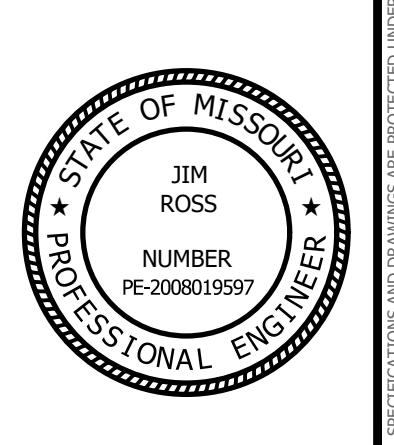


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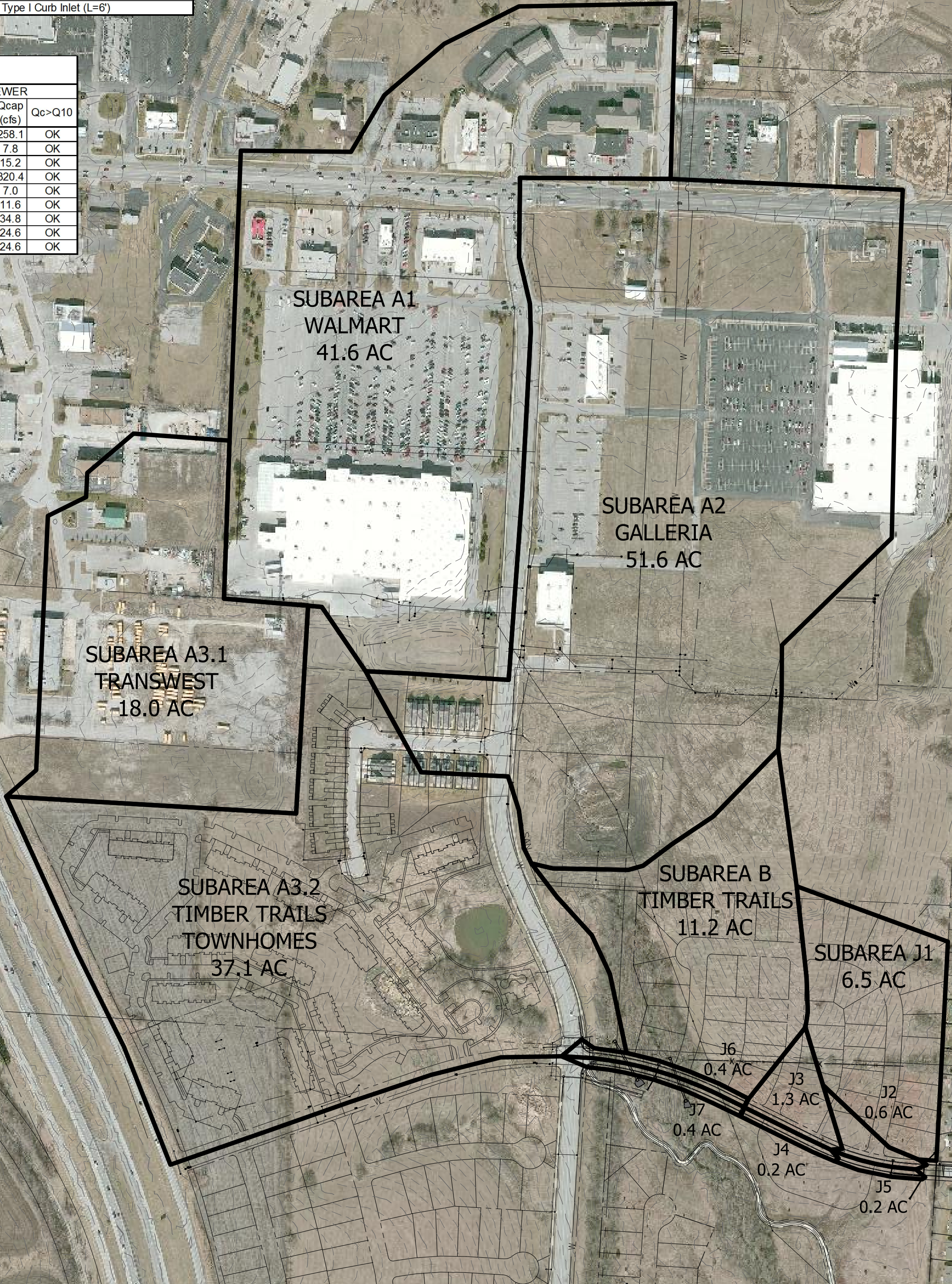
STORM PLAN & PROFILE
LINE 5
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



SEALED DATE:	
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DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	10
SHEET NO:	10 of 24

DRAINAGE AREA & STRUCTURE DATA											
Drain Area No.	Structure Name	k	c/CN	Ti (min)	A (acres)	Intensity (in/hr)	Q total (cfs)	St. Slope at Inlet (%)	Width of Spread (ft)	Description/Reference	
										10-Yr	50-Yr
A1	Wal-mart detention	1	91	N/A	41.6	N/A	141.2	N/A	N/A	Outflow into Galleria detention - Lutjen 6/30/05	
A2	Galleria detention	1	92	N/A	51.6	N/A	75.0	N/A	N/A	Timber Trails Macro Stormwater Study - Lutjen 6/30/05	
A3.1(dev)	Transwest detention	1	95	N/A	11.4	N/A	60.1	N/A	N/A	Transwest Detained Discharge, Warger 7/23/15	
A3.1(undev)	None	1	0.78	14	6.6	5.1	5.4	27.8	N/A	Transwest area not included in Transwest study	
A3.2	Dean Ave Pipe 29-30	1	0.66	18	36.5	24.0	4.7	121.9	N/A	Dean Ave Road Plans - Lutjen 11/17/05	
B	B	1	0.51	15	11.2	5.7	5.2	29.7	N/A	Proposed 54" RCP	
J1	J1	1	0.51	15	6.5	3.3	5.2	17.2	N/A	Proposed east field inlet	
J2	J2	1	0.51	9	0.6	0.3	6.3	1.9	2.3	Type I Curb Inlet (L=6')	
J3	J3	1	0.51	9	1.3	0.7	6.3	4.2	2.3	Type I Curb Inlet (L=6')	
J4	J4	1	0.80	5	0.2	0.2	7.4	1.2	2.3	Type I Curb Inlet (L=6')	
J5	J5	1	0.80	8	0.2	0.2	6.5	1.0	2.3	Type I Curb Inlet (L=6')	
J6	J6	1	0.80	5	0.4	0.3	7.4	2.4	0.6	Type I Curb Inlet (L=6')	
J7	J7	1	0.80	5	0.4	0.3	7.4	2.4	0.6	Type I Curb Inlet (L=6')	

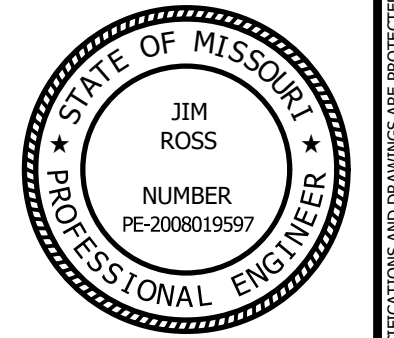
PIPE DATA																	
Drain Area No.	Pipe Name	Area (acres)	C (coeff)	k^C/A		Tc (min)	Intensity (in/hr)	Q pipe (cfs)	PIPE LENGTH (ft)	Travel Time (min)	STORM SEWER						
				10-Yr	50-Yr						SLOPE (%)	Type	DIA (in)	n	Qcap (cfs)	Qc>Q10	
1	P-1	54.50	0.66	35.86	43.03	18	4.80	122	132	@	1.46	0.1	RCP	54	0.012	258.1	OK
2	P2-1	0.40	0.80	0.32	0.38	5	7.40	2.4	38	@	1.23	0.1	RCP	15	0.012	7.8	OK
3	P2-2	0.80	0.80	0.64	0.77	5	7.40	4.7	40	@	4.71	0.1	RCP	15	0.012	15.2	OK
5	P-3	104.40	0.66	68.90	82.68	15	5.20	117	134	@	2.25	0.1	RCP	54	0.012	320.4	OK
6	P4-1	0.20	0.80	0.16	0.19	5	7.40	1.2	38	@	1.00	0.1	RCP	15	0.012	7.0	OK
7	P4-2	1.50	0.55	0.82	0.99	9	6.30	5.2	263	@	2.74	0.5	RCP	15	0.012	11.6	OK
8	P4-3	6.49	0.51	3.31	3.97	15	5.20	17.2	42	@	2.00	0.1	RCP	24	0.012	34.8	OK
9	P4-4	8.59	0.52	4.44	5.33	15	5.20	23.1	38	@	1.00	0.1	RCP	24	0.012	24.6	OK
10	P4-5	8.79	0.52	4.60	5.52	15	5.20	23.9	76	@	1.00	0.2	RCP	24	0.012	24.6	OK



Last edit on: Dec 22, 2017 by: BDM0992 Drawing Name: W:\Proj\19267\19267.001\AutoCad\Johnson Drive Plans\19267.001 Drainage Map.dwg Layout Name: STORM SEWER DRAINAGE MAP Plotted by: BDM0992 Plotted on: 12/26/2017 7:12:03 AM

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STATE OF MISSOURI

STORM SEWER DRAINAGE MAP
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	11
SHEET NO:	11 of 24

EROSION & SEDIMENT CONTROL GENERAL NOTES

GENERAL INFORMATION:

STOCKPILED SOIL SHALL HAVE SEDIMENT FENCE PLACED ON THE DOWNHILL SIDE TO TRAP SEDIMENT.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND OPERABLE BEFORE SOIL-DISTURBING ACTIVITY BEGINS AND UNTIL SOIL-DISTURBING ACTIVITY HAS ENDED AND PERMANENT VEGETATION HAS BEEN ESTABLISHED.

MINIMIZE AREA OF SOIL &/OR VEGETATION DISTURBANCE TO ONLY THE AREA NECESSARY FOR PROPOSED IMPROVEMENTS.

AREAS THAT HAVE BEEN CLEARED AND GRADED BUT WILL NOT CONSTRUCTED ON FOR MORE THAN 10 DAYS MUST BE STABILIZED WITH TEMPORARY VEGETATION.

SEDIMENT FENCE AND ROCK CHECK DAM INSTALLATION AND DETAILS SHALL COMPLY WITH MOST RECENT APWA SPECIFICATIONS AND DRAWINGS.

AMENDING/UPDATING PLAN:

THIS PLAN SHALL BE AMENDED AS APPROPRIATE DURING THE TERM OF THE LAND DISTURBANCE AND AT A MINIMUM WHENEVER THE:

1. DESIGN, OPERATION, OR MAINTENANCE OF CONTROL MEASURES ARE CHANGED.
2. DESIGN OF THE CONSTRUCTION PROJECT IS CHANGED THAT COULD SIGNIFICANTLY AFFECT THE QUALITY OF THE STORM WATER DISCHARGES.
3. CONTRACTOR'S INSPECTIONS INDICATE DEFICIENCIES IN THE PLAN.
4. MISSOURI DEPARTMENT OF NATURAL RESOURCES(MDNR) OR LBVSD NOTIFY THE CONTRACTOR IN WRITING OF DEFICIENCIES.
5. PLAN IS DETERMINED TO BE INEFFECTIVE IN SIGNIFICANTLY MINIMIZING OR CONTROLLING EROSION & SEDIMENTATION (EG, THERE IS VISUAL EVIDENCE, SUCH AS EXCESSIVE SITE EROSION OR EXCESSIVE SEDIMENT DEPOSITS IN STREAMS OR LAKES)
6. SETTLEABLE SOLIDS FROM A STORM WATER OUTFALL EXCEED 2.5 MG/L/HR.
7. MDNR OR LBVSD DETERMINE VIOLATIONS OF WATER QUALITY STANDARDS MAY OCCUR OR MAY HAVE OCCURRED.

SITE INSPECTIONS:

THE CONTRACTOR SHALL ENSURE THE LAND DISTURBANCE SITE IS INSPECTED WITHIN 24 HOURS FOLLOWING A HEAVY RAIN OF 0.5" OR MORE IN 24 HOURS OR AT LEAST ONCE PER SEVEN CALENDAR DAYS.


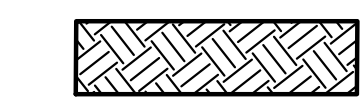

OPERATION AND MAINTENANCE:

THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN ALL TEMPORARY EROSION & SEDIMENT CONTROL MEASURES AND REMOVE SEDIMENT FROM ALL SEDIMENT TRAPS ON AN AS NEEDED BASIS. THE CONTRACTOR SHALL PREVENT FLOW FROM BYPASSING THE PROPOSED CONTROL MEASURES AND IF BYPASSING OCCURS MODIFY THE PLAN TO PREVENT FUTURE BYPASSING.

NOTIFICATION TO ALL CONTRACTORS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING EACH CONTRACTOR ENTITY (INCLUDING CREWS & CITY EMPLOYEES OR THEIR AGENTS) WHO WILL PERFORM WORK AT THE SITE OF THE EROSION CONTROL MEASURES IN PLACE AND WHAT ACTION OR PRECAUTIONS SHALL BE TAKEN WHILE ON SITE TO MINIMIZE THE POTENTIAL FOR DAMAGING ANY CONTROLS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE A SUBCONTRACTOR MAY DO TO ESTABLISHED CONTROLS AND ANY SUBSEQUENT WATER QUALITY VIOLATION RESULTING FROM THE DAMAGE.

LEGEND

-  TEMPORARY SEDIMENT FENCE
-  ROCK CHECK DAM
-  INLET SEDIMENT BARRIER

QUANTITY ESTIMATE

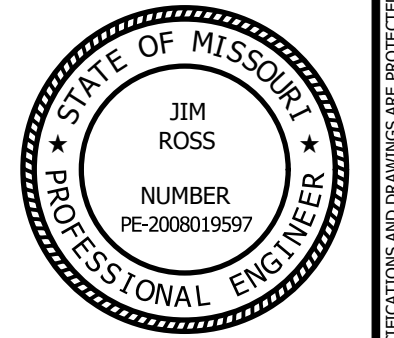
SEDIMENT FENCE	1,600 LF
ROCK CHECK DAM	2
INLET SEDIMENT BARRIER	7



#	DATE	DESCRIPTION

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 228 NW EXECUTIVE WAY - LEES SUMMIT MO 64083
 PHONE 816.525.3562 - FAX 816.525.9041
 CERTIFICATE OF AUTHORITY NO. 000167
 MISSOURI PROFESSIONAL ENGINEER

EROSION CONTROL PLAN
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	12
SHEET NO:	12 of 24

EROSION CONTROL PLAN
 SCALE: 1"=60'

Last edit on: Dec 22, 2017 by: BDM09992 Drawing Name: V:\Proj\190001\19267\19267.001\AutoCAD\Johnson Drive Plans\19267.001 Erosion Control.dwg Layout Name: EROSION CONTROL PLAN Plotted on: 12/26/2017 7:12:55 AM

Last edit on: Dec 22, 2017 By: BDM0992 Drawing Name: V:\Proj\190001\19067\001\AutoCAD\Johnson Drive Plans\19067\001 Details.dwg Layout Name: STORM & SILT PROTECTION DETAILS Plotted By: BDM0992 Plotted on: 12/26/2017 7:13:18 AM

ELEVATION

CROSS-SECTION

NOTE: BOTTOM OF FILTER FABRIC MUST BE PLACED IN TRENCH AND SECURED BY EITHER BACKFILLING W/ SOIL MATERIAL AND TAMPING, OR BY PLACING WASHED STONE TO A HEIGHT OF 6" ABOVE GROUND LEVEL.

NOTE: BOTTOM OF WIRE FENCE & FILTER FABRIC ARE TO BE BURIED IN A 6" X 6" EXCAVATED TRENCH.

PLANNING & ENGINEERING 104 NORTH MADISON RAYMORE, MO 64083 (816)331-0488 FAX (816)331-8724		CITY OF RAYMORE SILT FENCE			
DRAWN	DATE	SIZE	FSCM NO.	DWG NO.	REV
CHECKED		A		SD-31	
APPROVED		SCALE	NONE	SHEET 1 OF 1	

FRONT VIEW

ANCHORING BALES

NOTE: DOUBLE ROW OF BALES OF STRAW TO BE PLACED PRIOR TO THE START OF ROUGH GRADING. BALES ARE TO BE PLACED AS CLOSELY TOGETHER AS POSSIBLE IN ORDER TO PROVIDE MAXIMUM PROTECTION.

NOTE: WIRE OR NYLON BOUND BALES ARE REQUIRED FOR DURABILITY.

NOTE: 2 REBARS, STEEL PICKET, OR 2"x2" STAKES 1-1/2' TO 2' IN GROUND.

PLANNING & ENGINEERING 104 NORTH MADISON RAYMORE, MO 64083 (816)331-0488 FAX (816)331-8724		CITY OF RAYMORE STRAW BALE BARRIER			
DRAWN	DATE	SIZE	FSCM NO.	DWG NO.	REV
CHECKED		A		SD-33	
APPROVED		SCALE	NONE	SHEET 1 OF 1	

DEFLECTOR CHANNEL FORM DETAIL

THROAT DETAIL FOR CS & C-1 CURBS

SECTION A-A PRECAST

SECTION B-B CAST IN PLACE

CURB INLET LENGTH	A	B	C	D	E	NO. OF DEFLECTORS
1'-0"	6"	6"	6"	6"	6"	1
1'-6"	6"	6"	6"	6"	6"	2
2'-0"	6"	6"	6"	6"	6"	3
2'-6"	6"	6"	6"	6"	6"	4
3'-0"	6"	6"	6"	6"	6"	5
3'-6"	6"	6"	6"	6"	6"	6
4'-0"	6"	6"	6"	6"	6"	7
4'-6"	6"	6"	6"	6"	6"	8
5'-0"	6"	6"	6"	6"	6"	9
5'-6"	6"	6"	6"	6"	6"	10

GENERAL NOTES:

- Minimum distance from top of curb inlet to top of entering or leaving pipe shall be 2'-4" in front and 2'-0" in back or on sides.
- Concrete shall be MCIB mix A618-1-4 (mechanically vibrated). Except base and invert shaping, which may be A543-1-4.
- Reinforcing shall be ASTM A615 with 1-1/2" clear cover unless shown otherwise. L & W bar are #5 @ 6" O.C. H & V bar are #4 @ 12" O.C.
- 1 H-bar minimum over a cast-in-place pipe & 2 H-bars over a precast boxout.
- Boxouts shall not project through the structure corners. Reinforcing shall be bent around pipe openings when possible. When reinforcing is cut, a diagonal bar shall be used to tie all cut ends together.
- Center manhole ring and cover over outlet centerline.
- Use 3/4" chamfer on bottom edge of lid front.
- 4" weep hole shall be located at each inlet and in the front face at sump inlets. The openings shall be capped with 1/4" galvanized wire mesh on the outside of the inlet and clear the invert and concrete base.
- Steps required @ 16" O.C. when depth from top of casting to invert exceeds 4'.
- See STD. drawing CI-3 for precast details.
- CI designations indicates Type 1 unless indicated otherwise.
- Deflector use designated by CI-1D, or CI-D.

PLANNING & ENGINEERING 104 NORTH MADISON RAYMORE, MO 64083 (816)331-0488 FAX (816)331-8724		CITY OF RAYMORE CURB INLET (TYPE 1)			
DRAWN	DATE	SIZE	FSCM NO.	DWG NO.	REV
CHECKED		A		SD-27	
APPROVED		SCALE	NONE	SHEET 1 OF 1	

REINFORCING

BAR SIZE	SPACING (IN.)
H 4	12
V 4	12
L 5	6
W 5	6

CORNER DETAIL

SECTION B-B

SECTION A-A CAST IN PLACE

SECTION A-A PRECAST

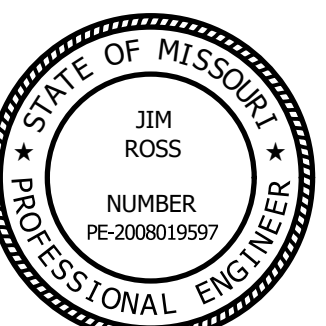
GENERAL NOTES:

- Locate ring and cover over outlet.
- Concrete shall be MCIB mix A618-1-4 (mechanically vibrated). Except base and invert shaping, which may be A543-1-4.
- Use 3/4" chamfer strip on all exposed concrete corners.
- 4" weep hole shall be located at each inlet pipe and in the front face at sump inlets. The openings shall be capped with 1/4" galvanized wire mesh on the outside of the inlet and clear the invert and base concrete.
- Steps required @ 16" O.C. when depth from top of casting to invert exceeds 4 feet.
- Boxouts shall not project through the corners of the structure.
- The minimum reinforcing shall be 1 H-bar over a cast-in-place pipe and 2 H-bars over a precast boxout.
- Limit opening height to 6" with 5/8" galvanized bars extending to corner rebars.
- Show field inlet orientation on plans plus number and size of opening.
- O.R. = one half outside pipe diameter (O.D.).

PLANNING & ENGINEERING 104 NORTH MADISON RAYMORE, MO 64083 (816)331-0488 FAX (816)331-8724		CITY OF RAYMORE YARD INLET			
DRAWN	DATE	SIZE	FSCM NO.	DWG NO.	REV
CHECKED		A		SD-32	
DESIGN		SCALE	NONE	SHEET 1 OF 1	

STORM & SILT PROTECTION DETAILS

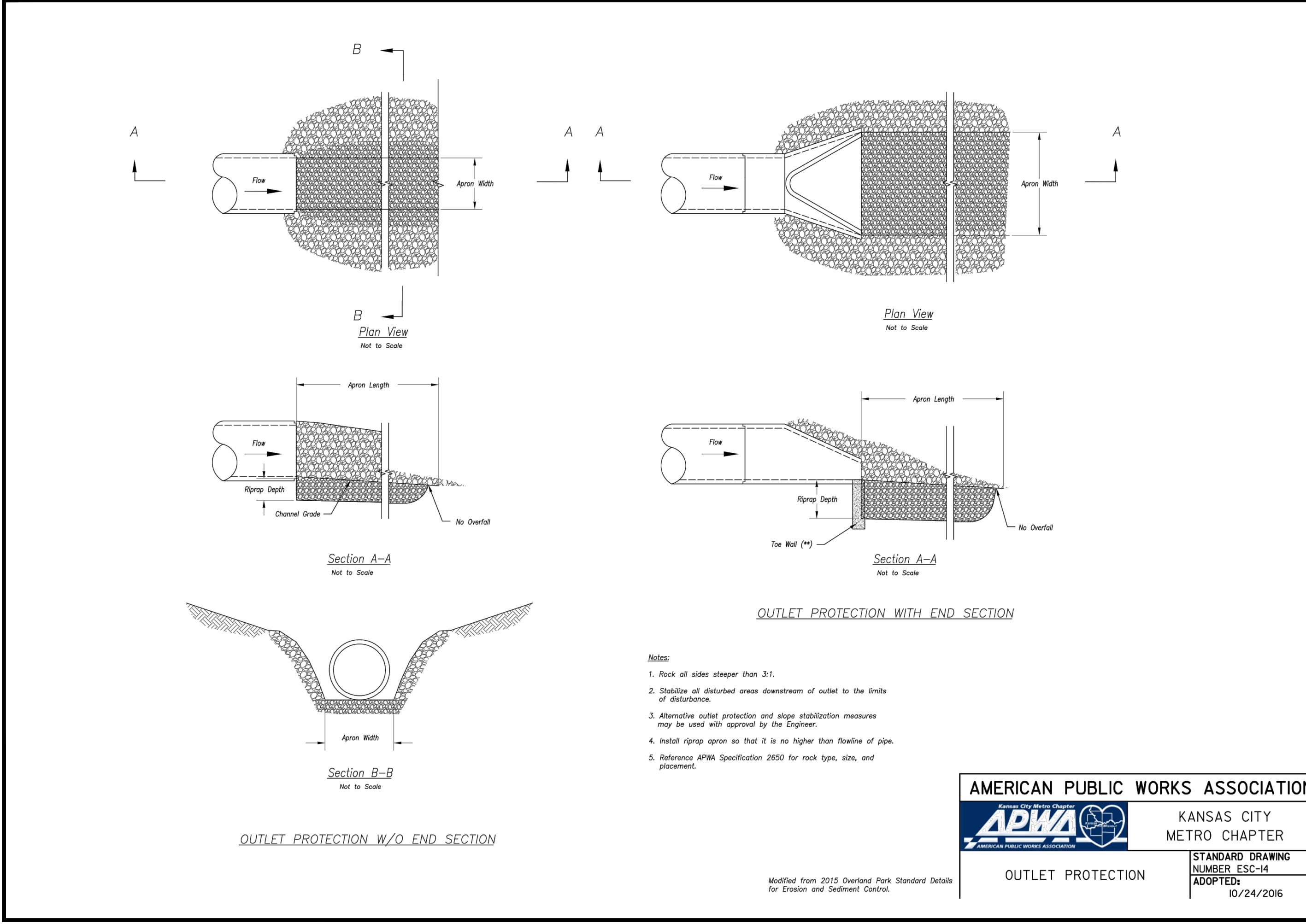
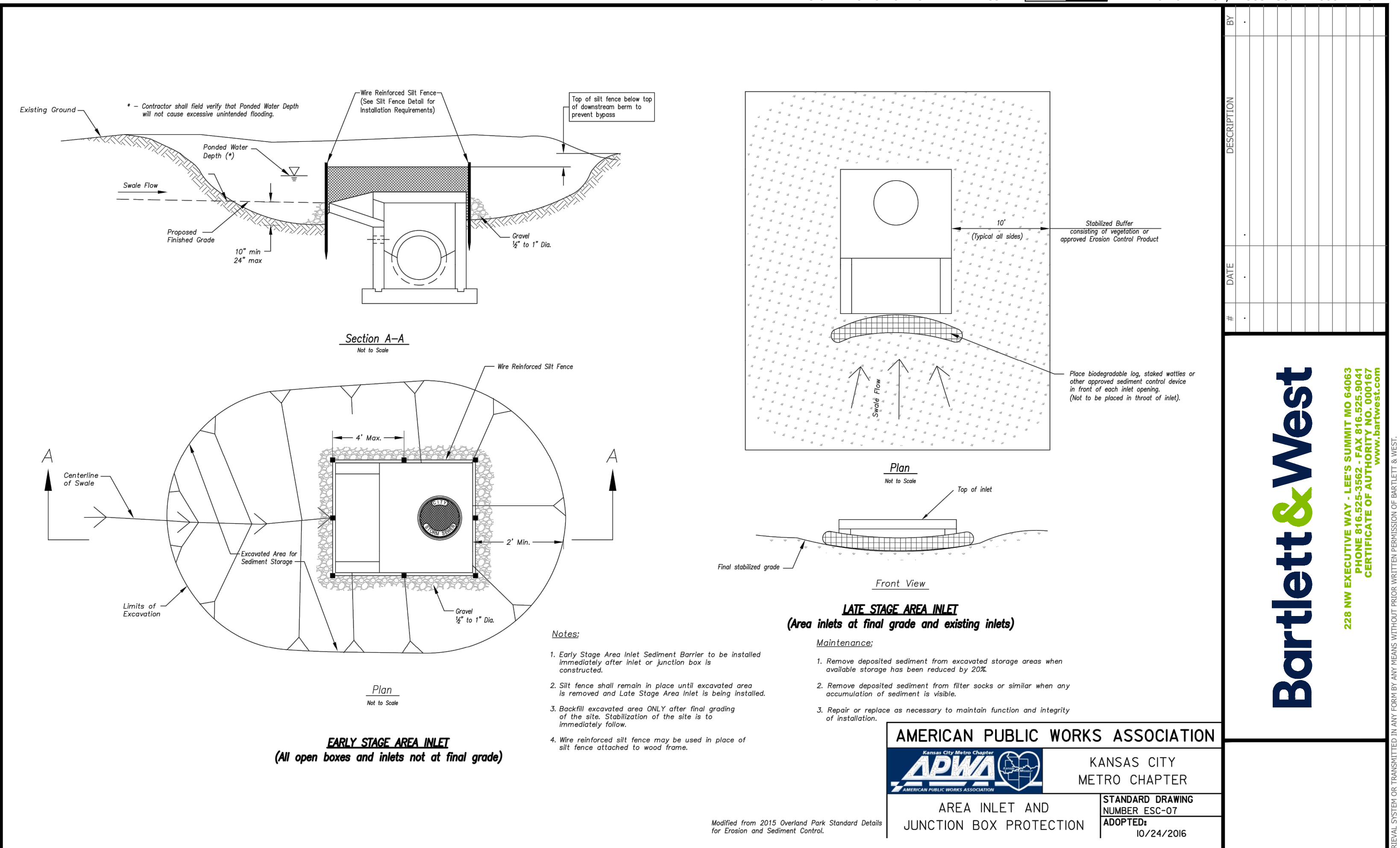
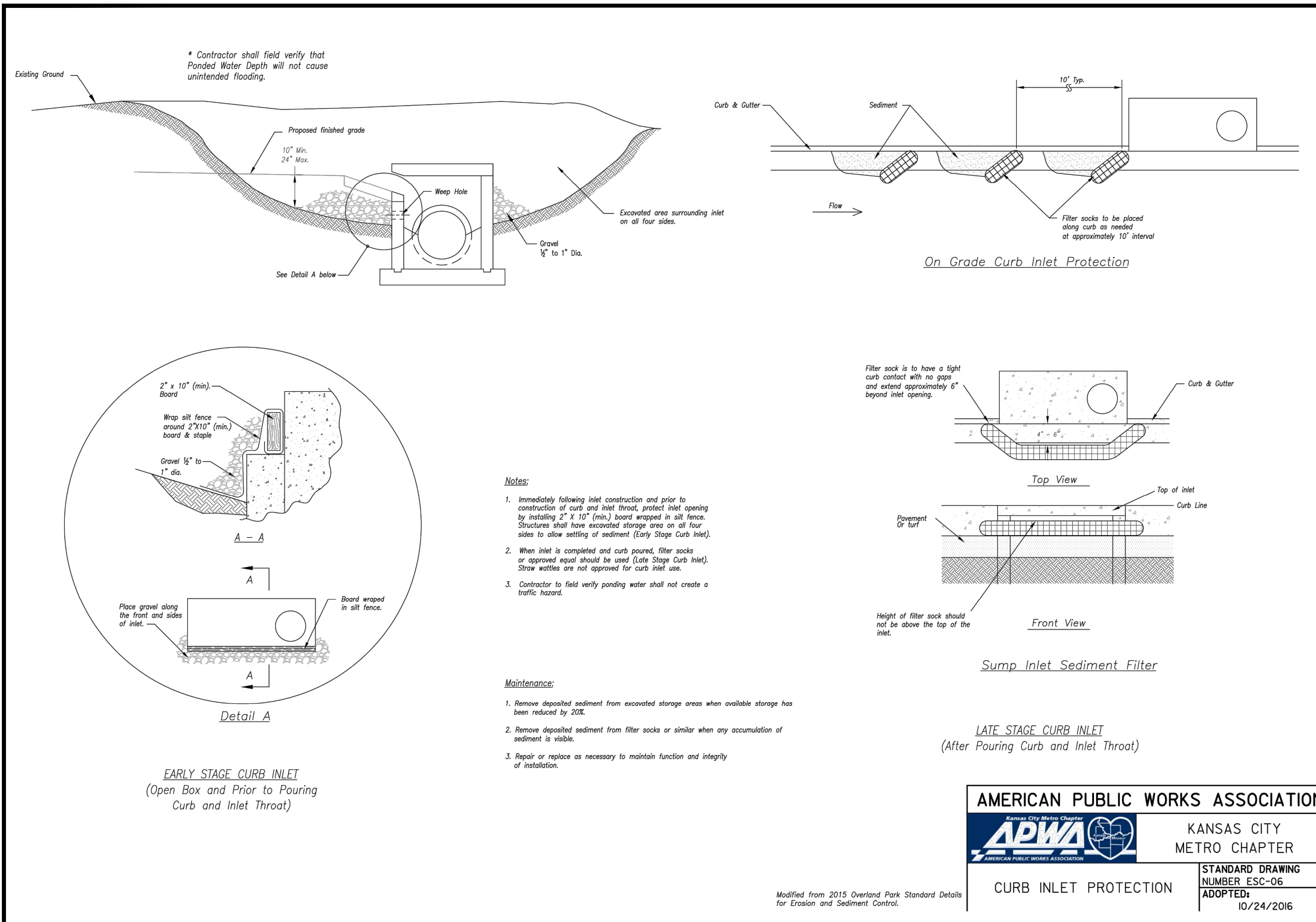
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALD DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ.:	19067.001
DATE:	12/20/2017
DRAWING NO.:	14
SHEET NO.:	14 of 24

Bartlett & West

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EXPIRES 12/31/2018



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PHONE 816.525.3562 - FAX 816.525.9044
CERTIFICATE OF AUTHORITY NO. 000167
REGISTERED PROFESSIONAL ENGINEER

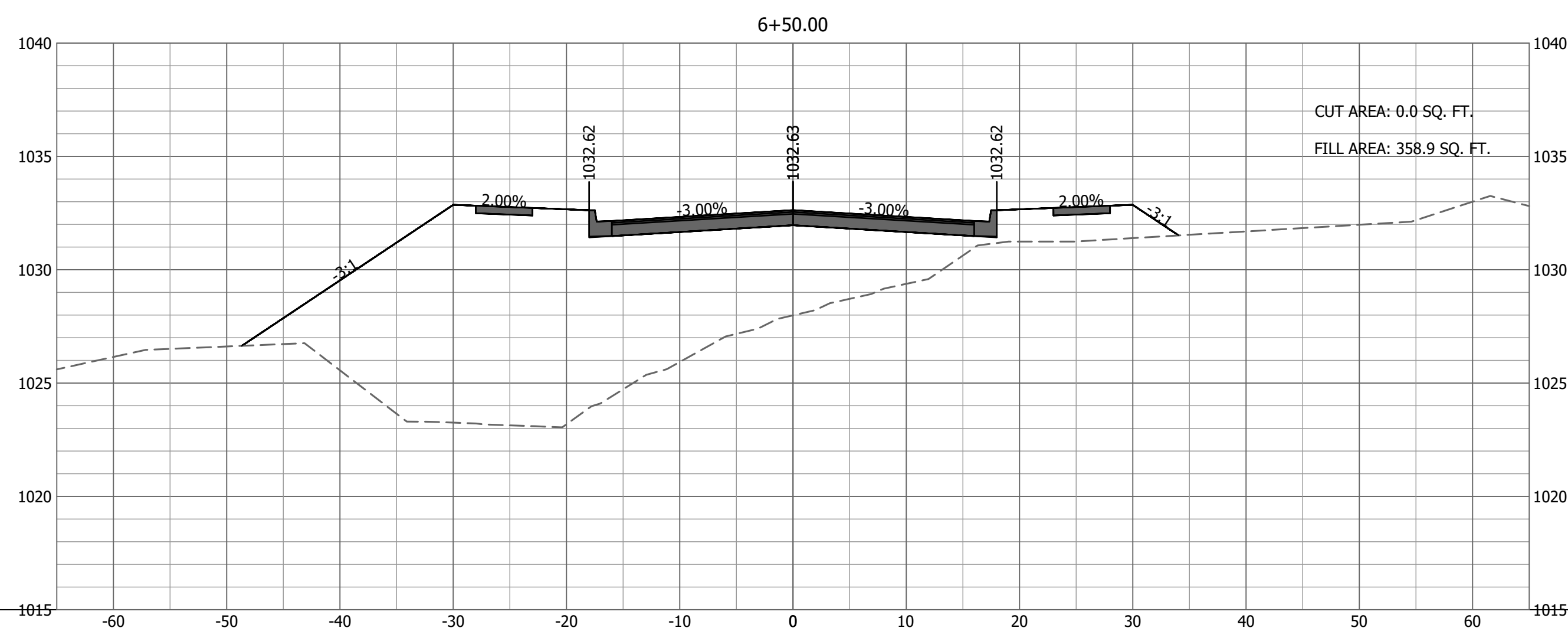
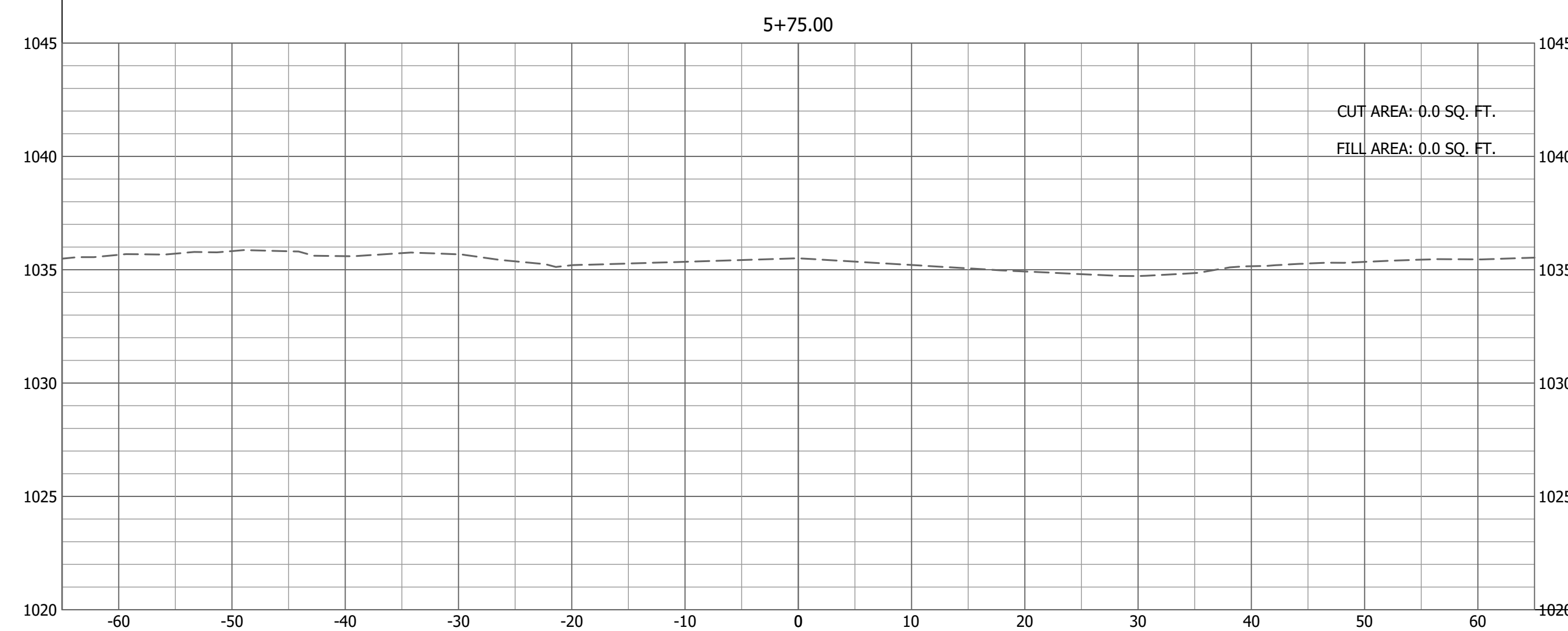
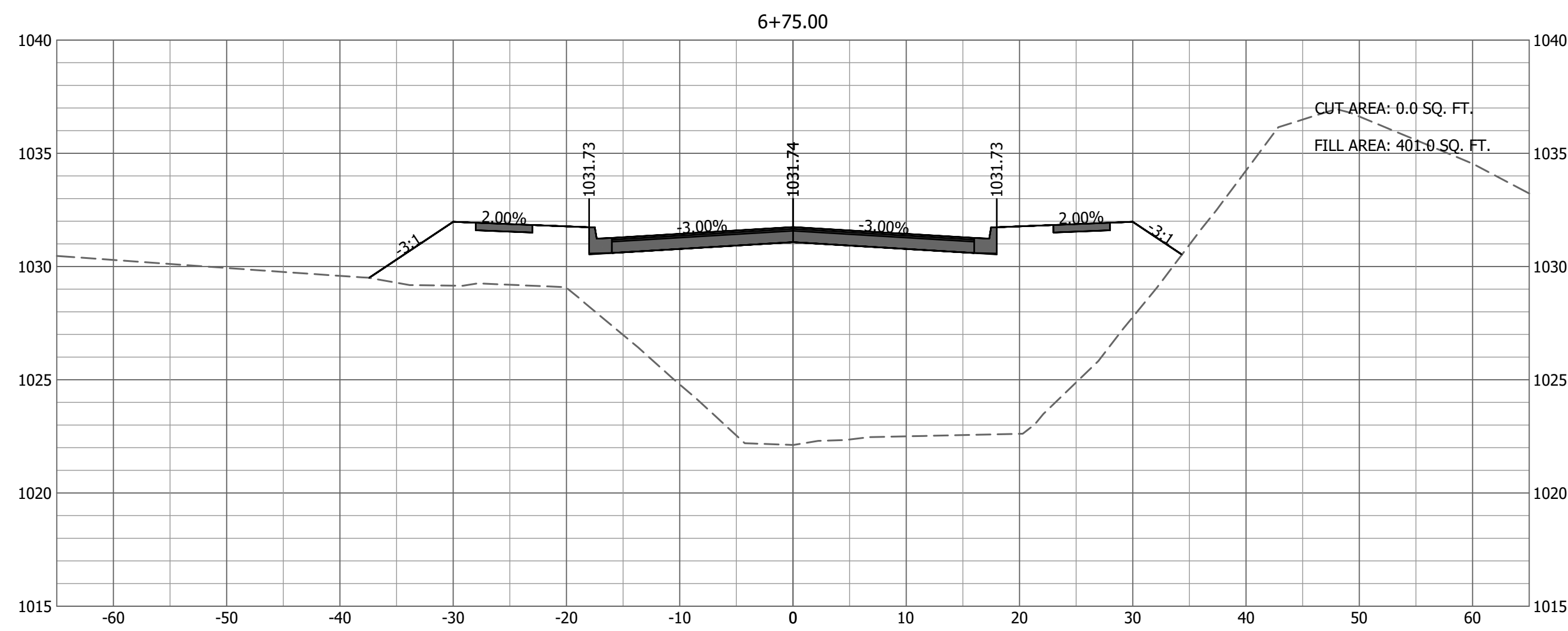
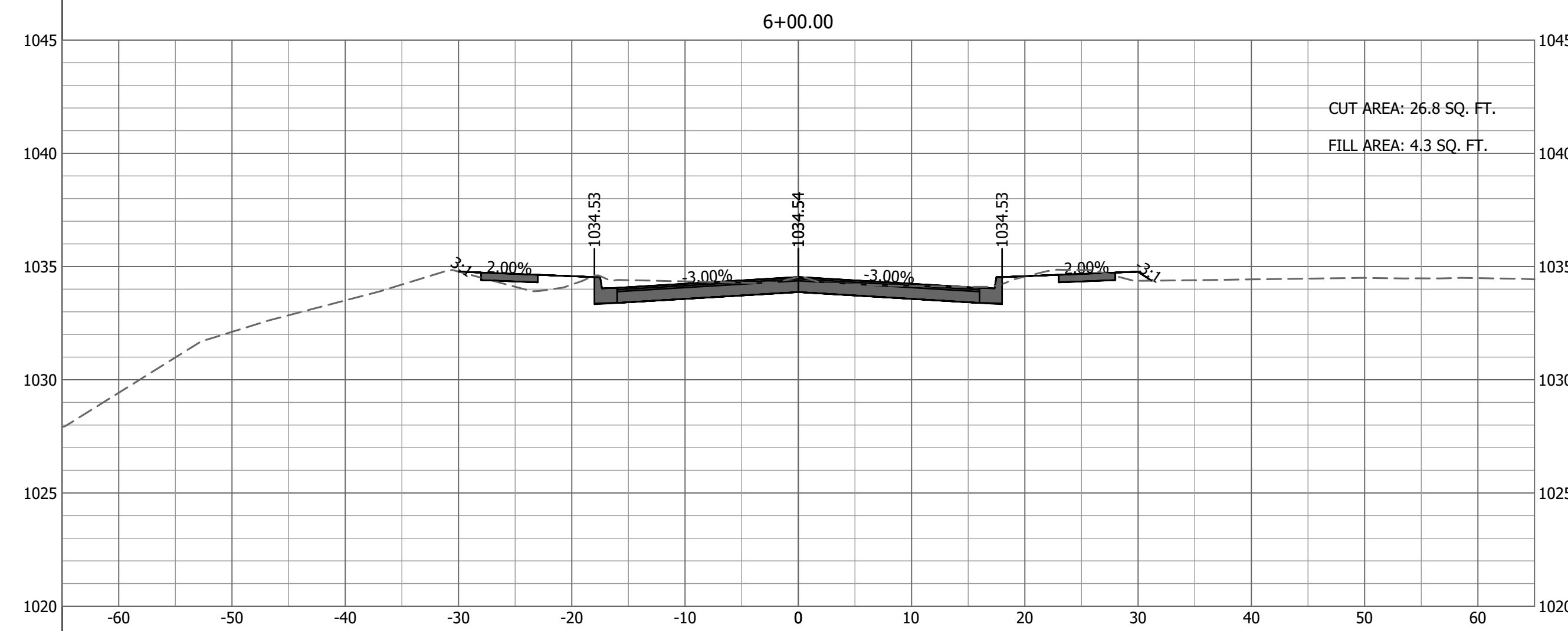
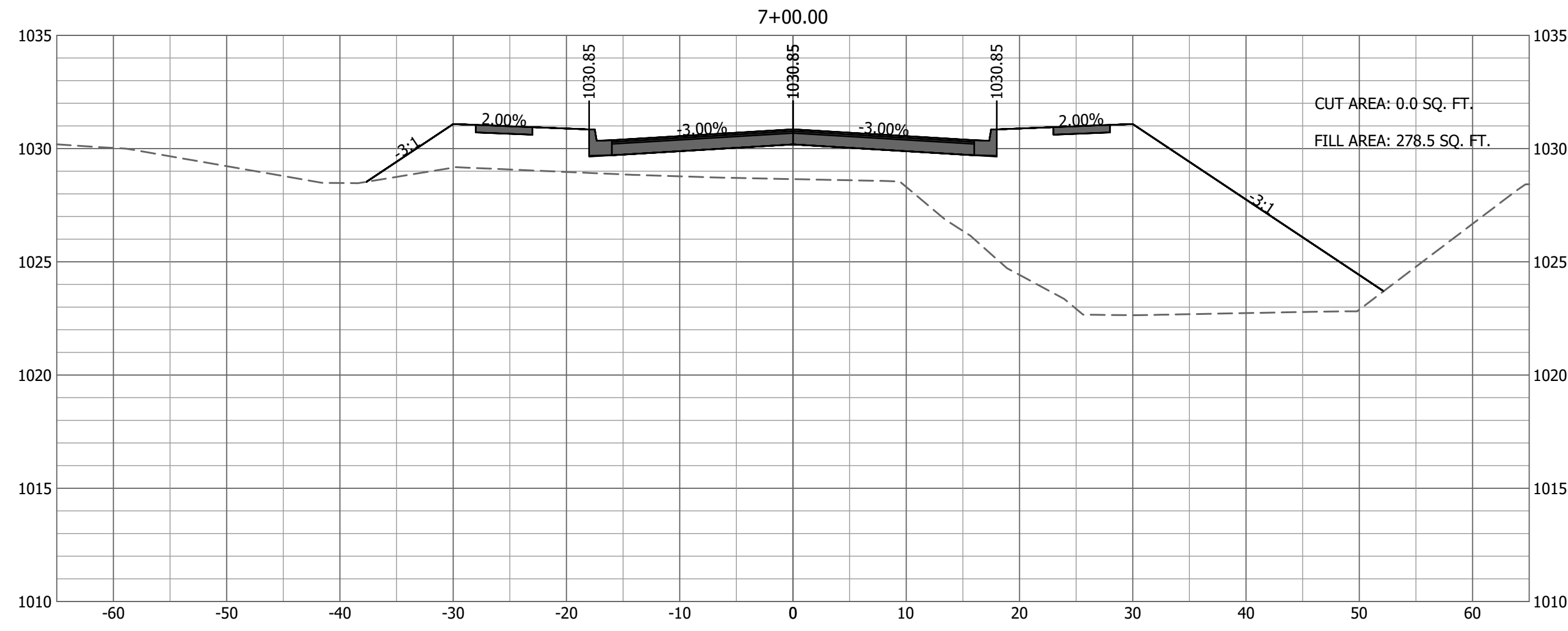
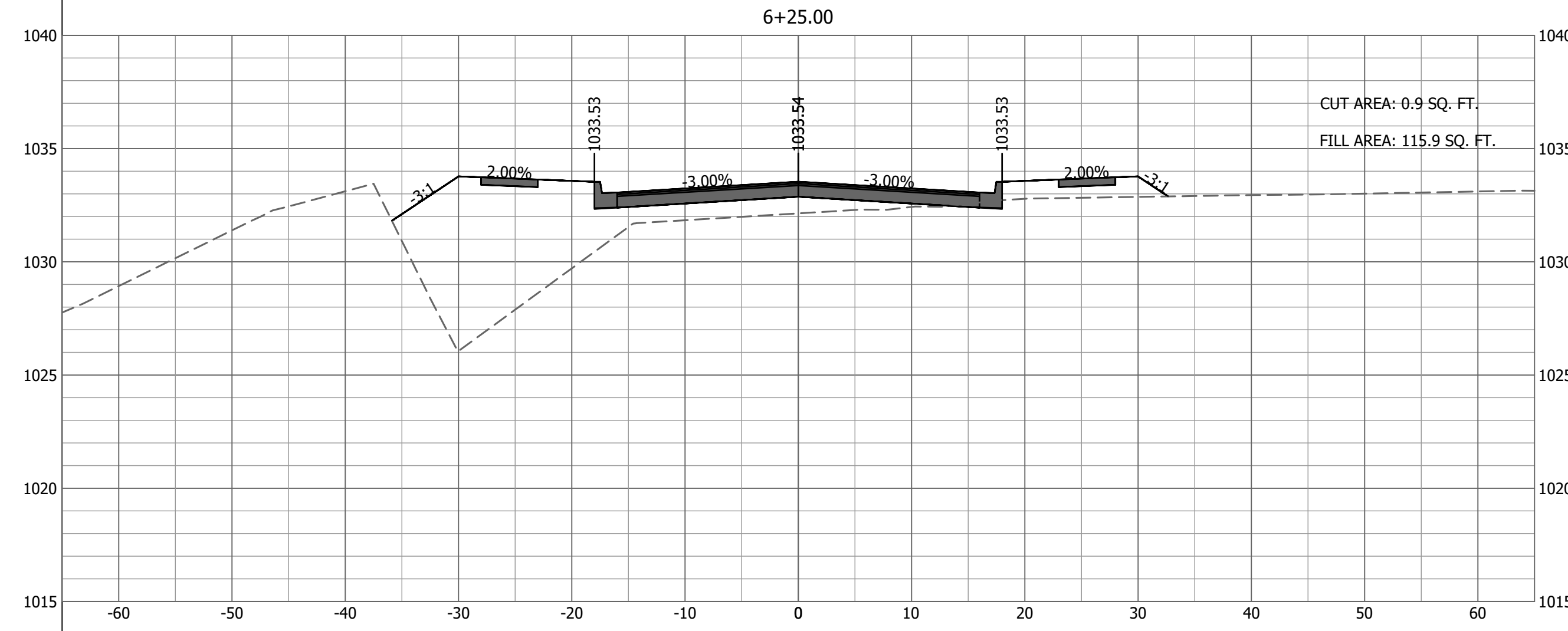
SILT PROTECTION DETAILS

JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

PROFESSIONAL ENGINEER

JIM ROSS
NUMBER PE-2008019597

SEALED DATE: _____
DESIGNED BY: BLW
DRAWN BY: BDM
APPROVED BY: JER
DESIGN PROJ: 19267.001
DATE: 12/20/2017
DRAWING NO: 15
SHEET NO: 15 of 24



JOHNSTON DRIVE - CROSS SECTIONS - 1
SCALE: HORZ-1"=10' VERT-1"=5'



JOHNSTON DRIVE
CROSS SECTIONS - 1
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

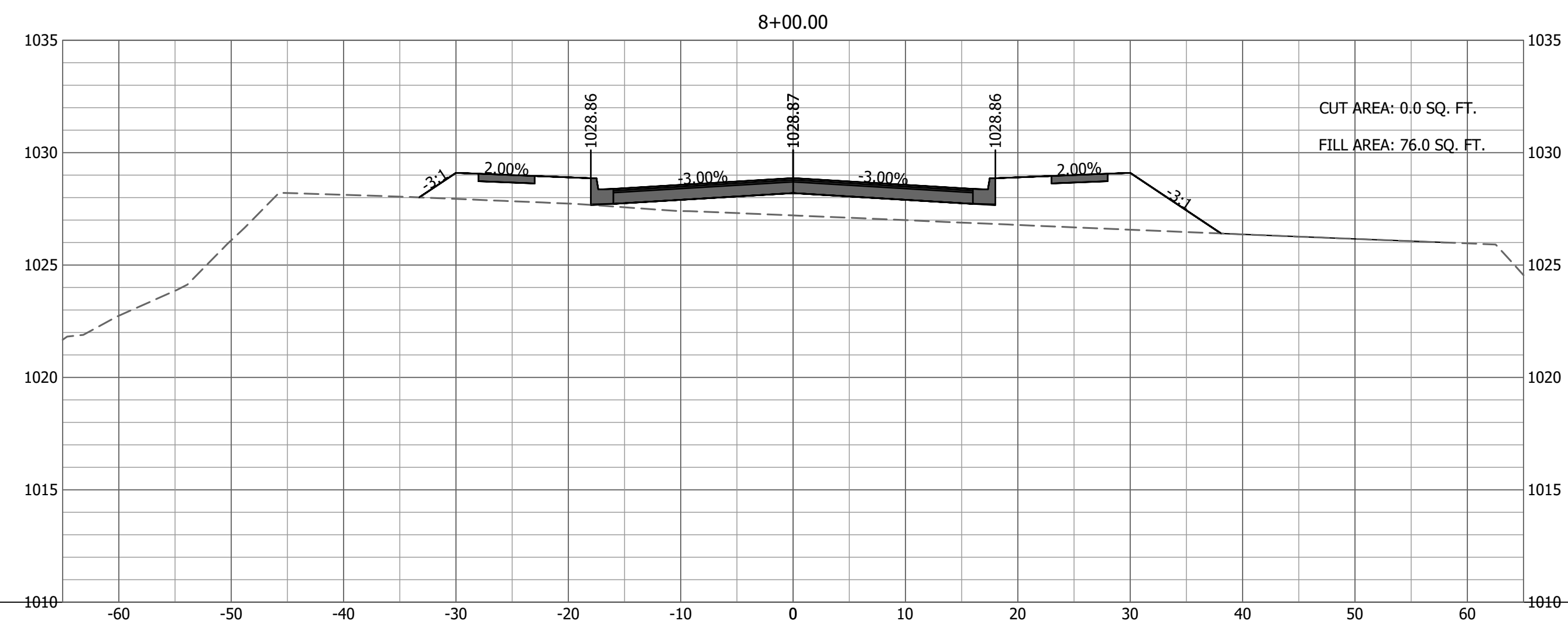
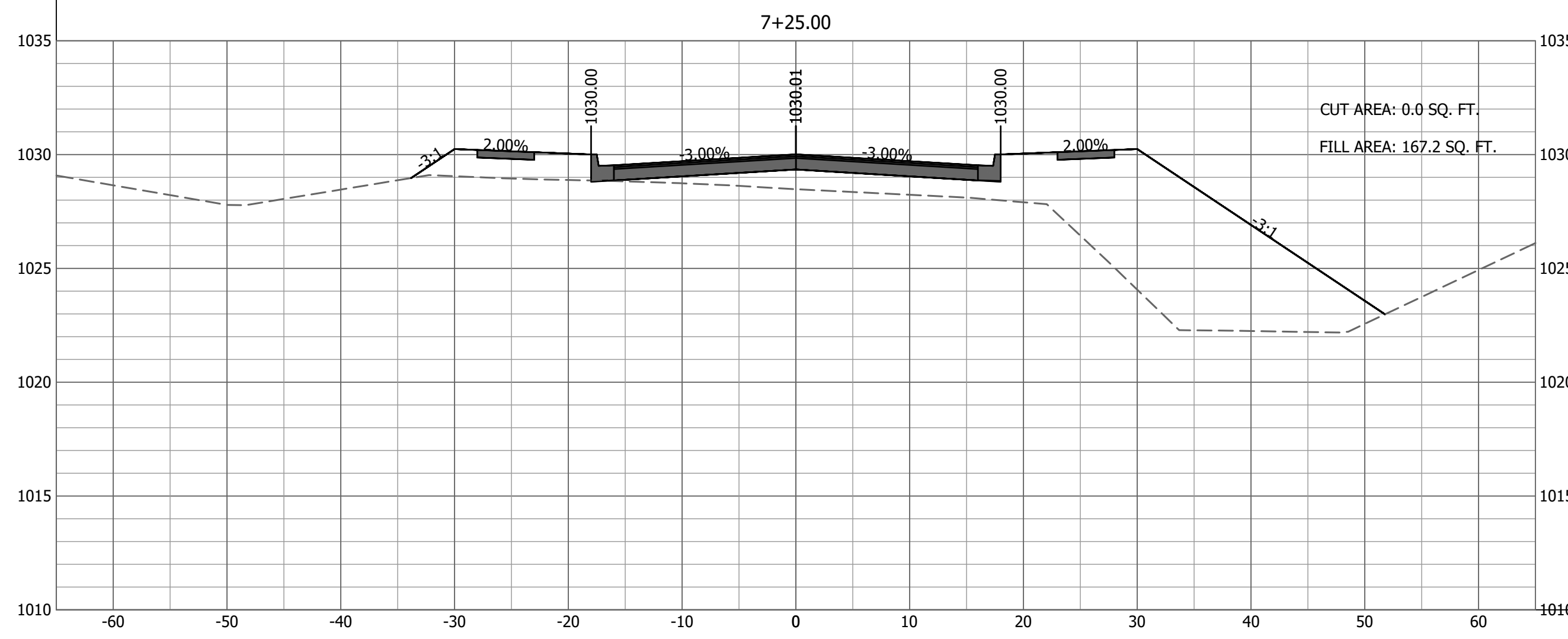
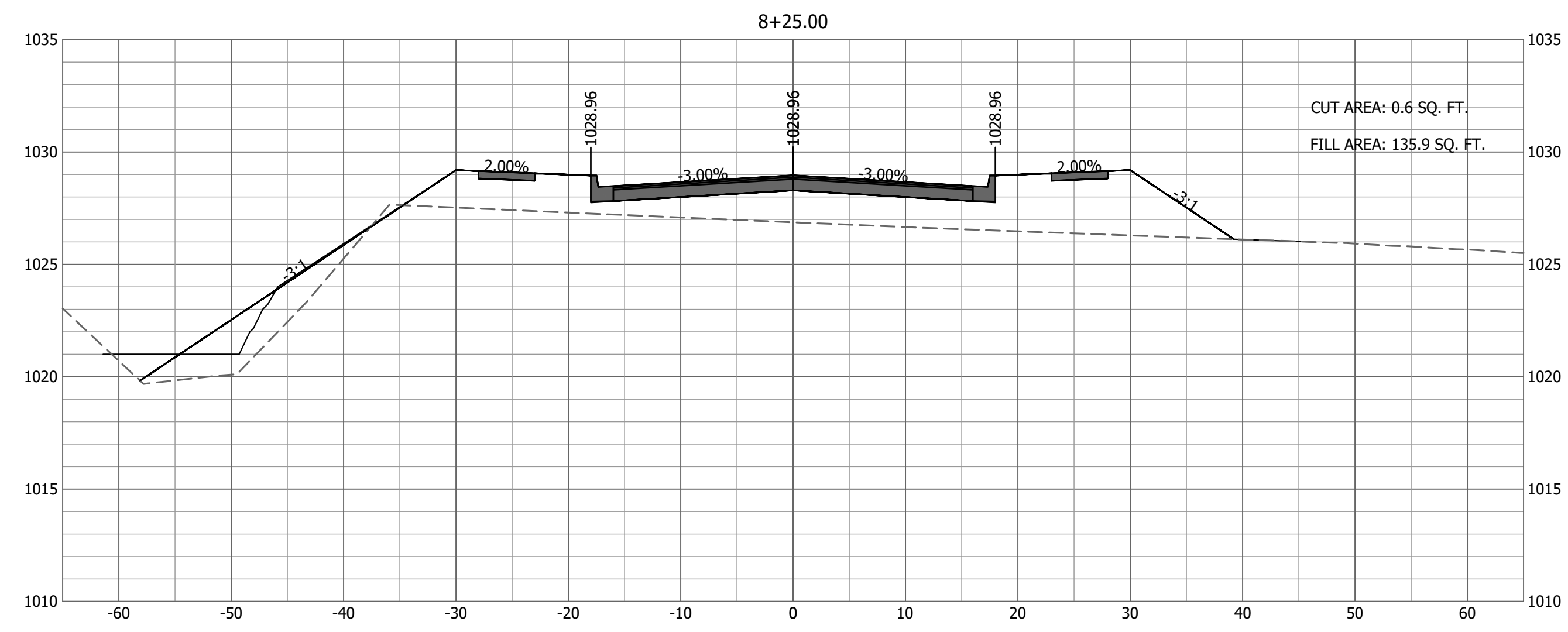
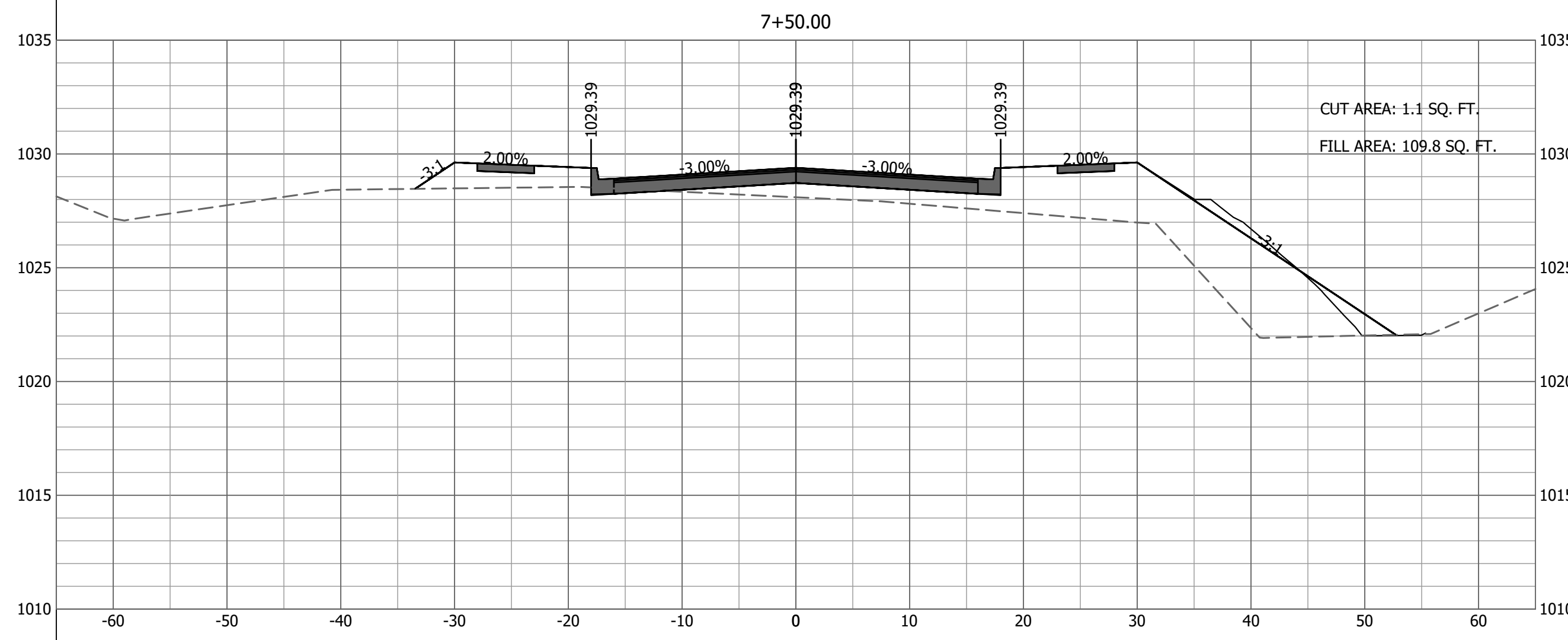
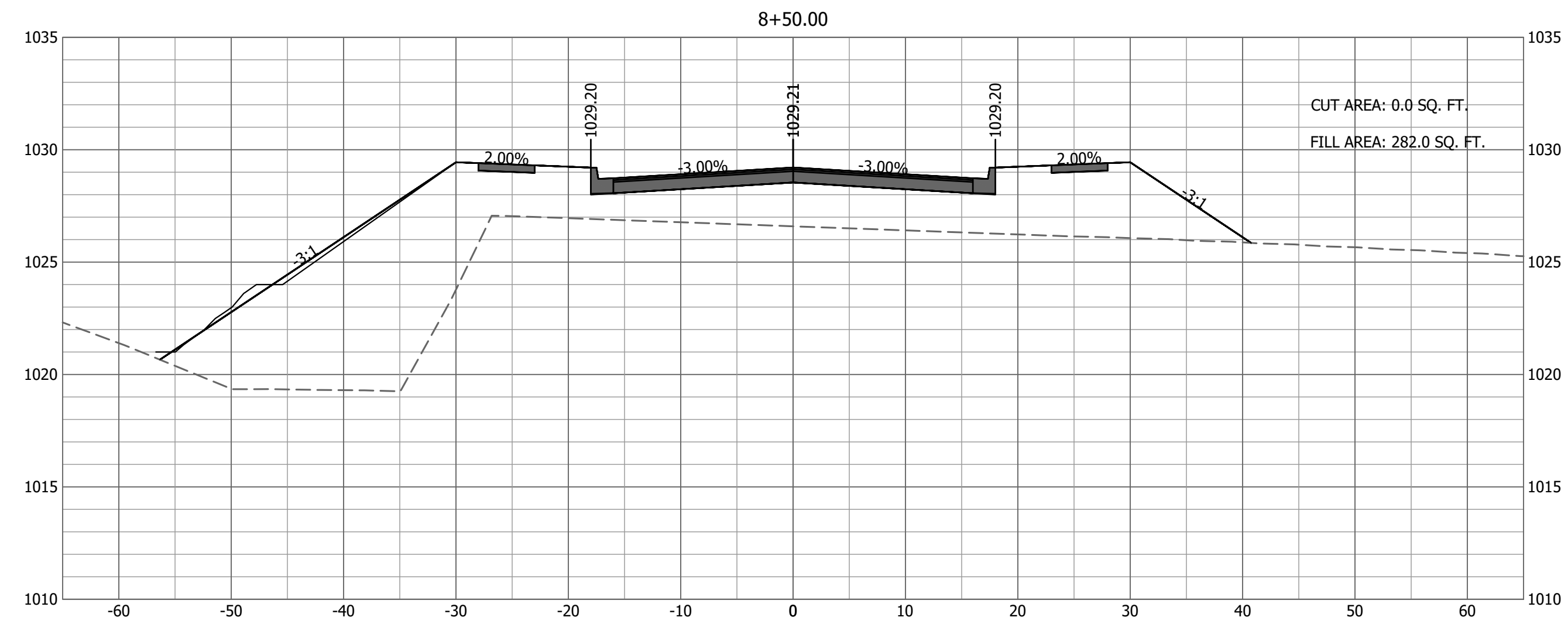
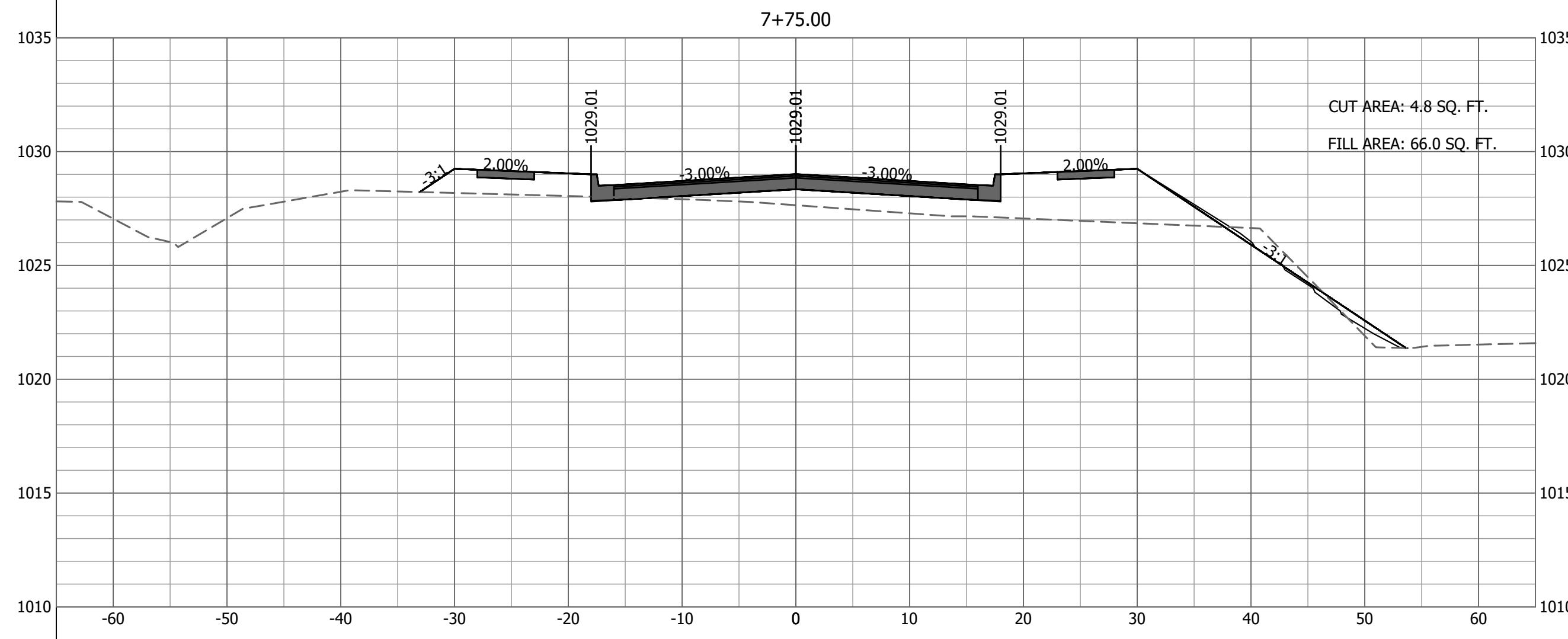


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DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	17
SHEET NO:	17 of 24

Last edit on: Dec 1, 2017 by: BDM00992 Drawing Name: W:\Proj\190001\19267\19267.001\AutoCad\Johnston Drive Plans\19267.001 Cross Section Sheets.dwg Layout Name: CROSS SECTIONS - 1 Plotted By: BDM00992 Plotted on: 12/26/2017 7:14:12 AM

#	DATE	DESCRIPTION

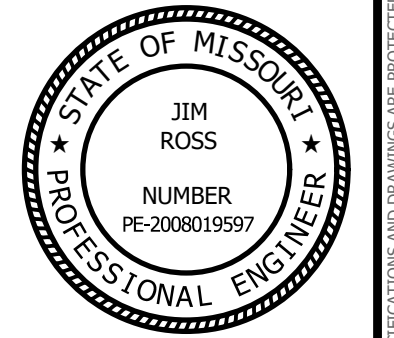
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JOHNSTON DRIVE - CROSS SECTIONS - 2
SCALE: HORZ-1"=10' VERT-1"=5'



JOHNSTON DRIVE
CROSS SECTIONS - 2
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI

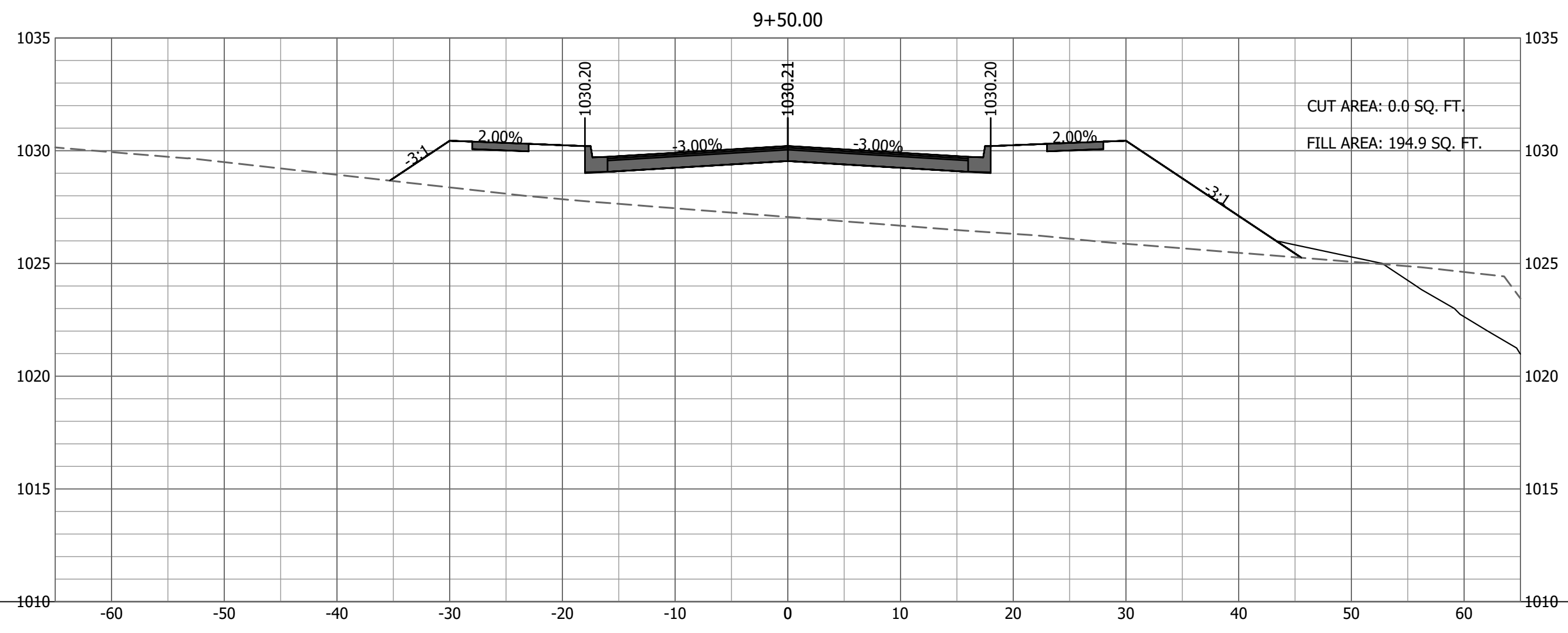
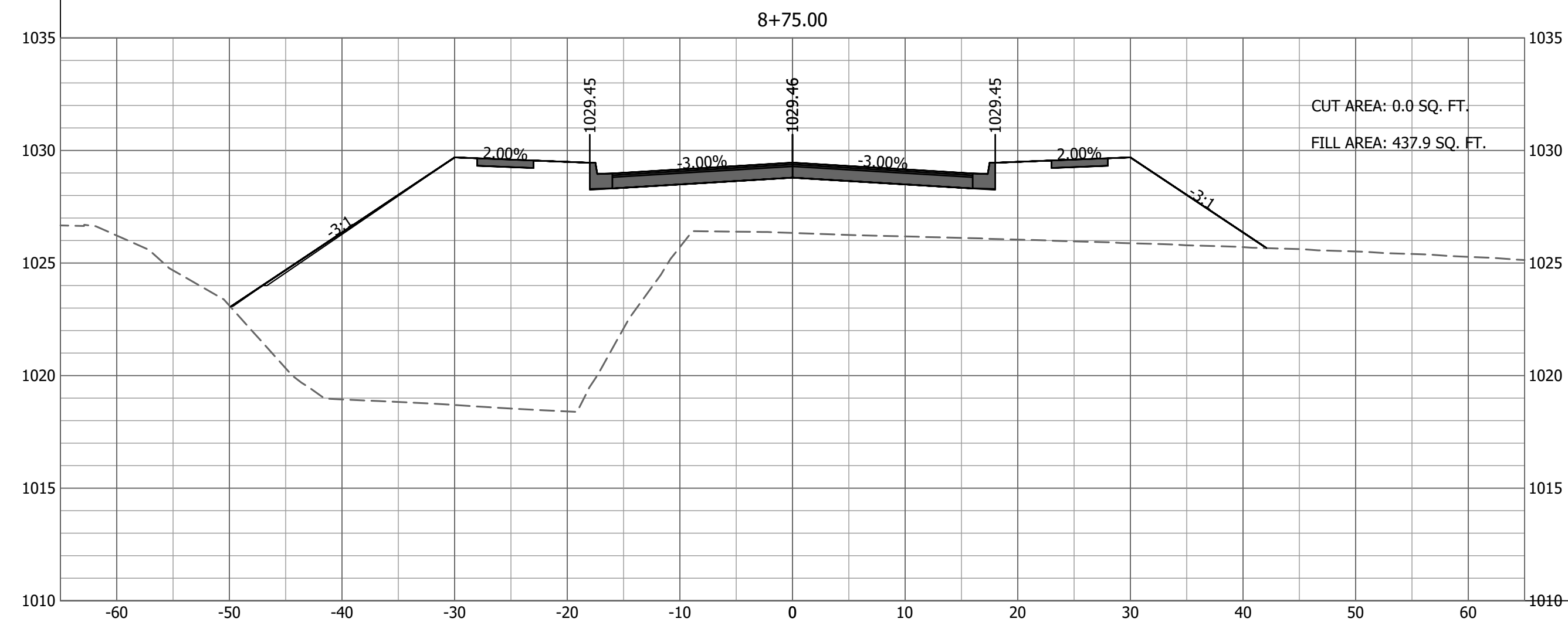
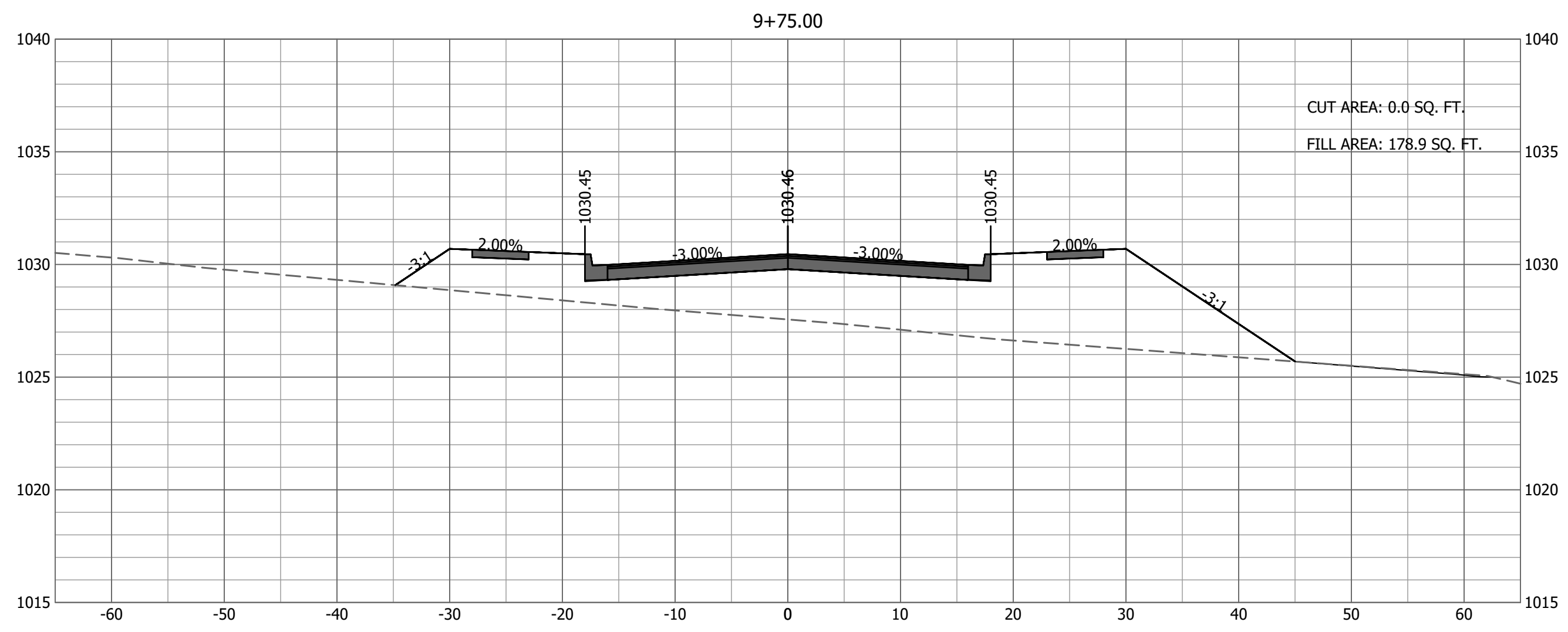
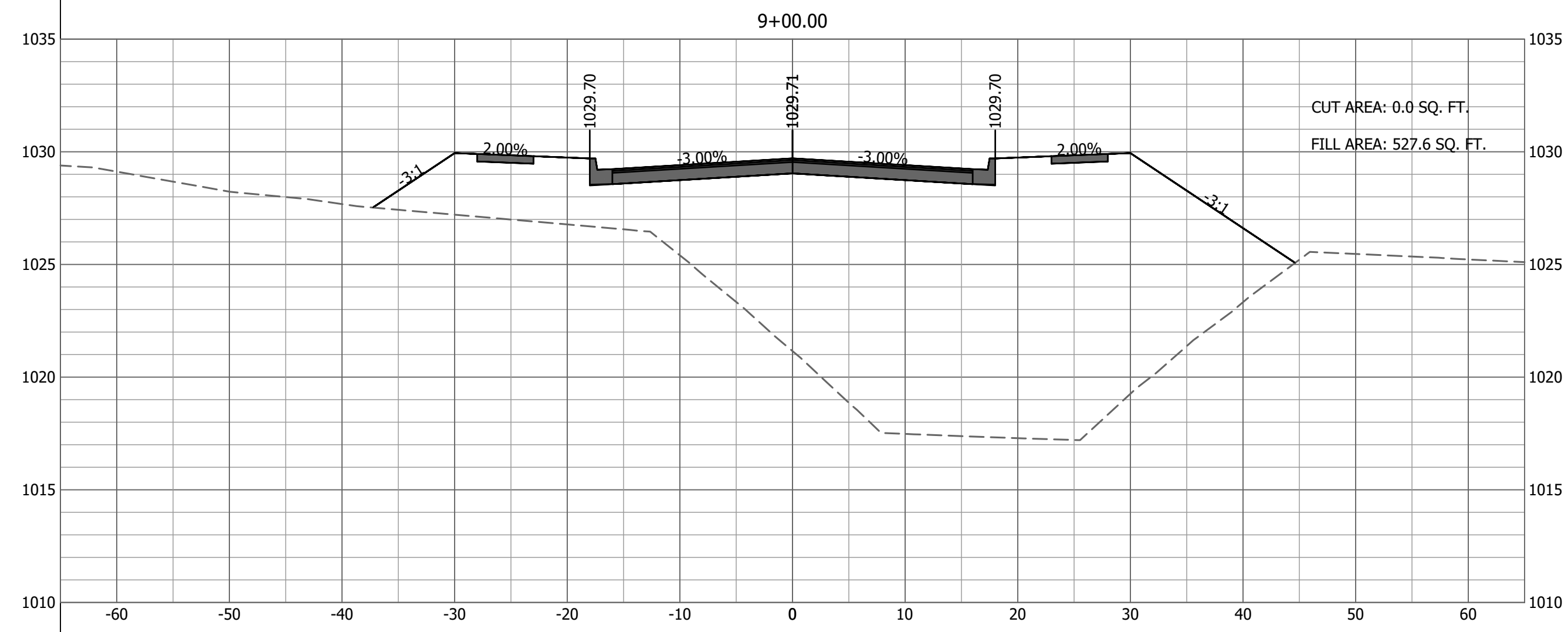
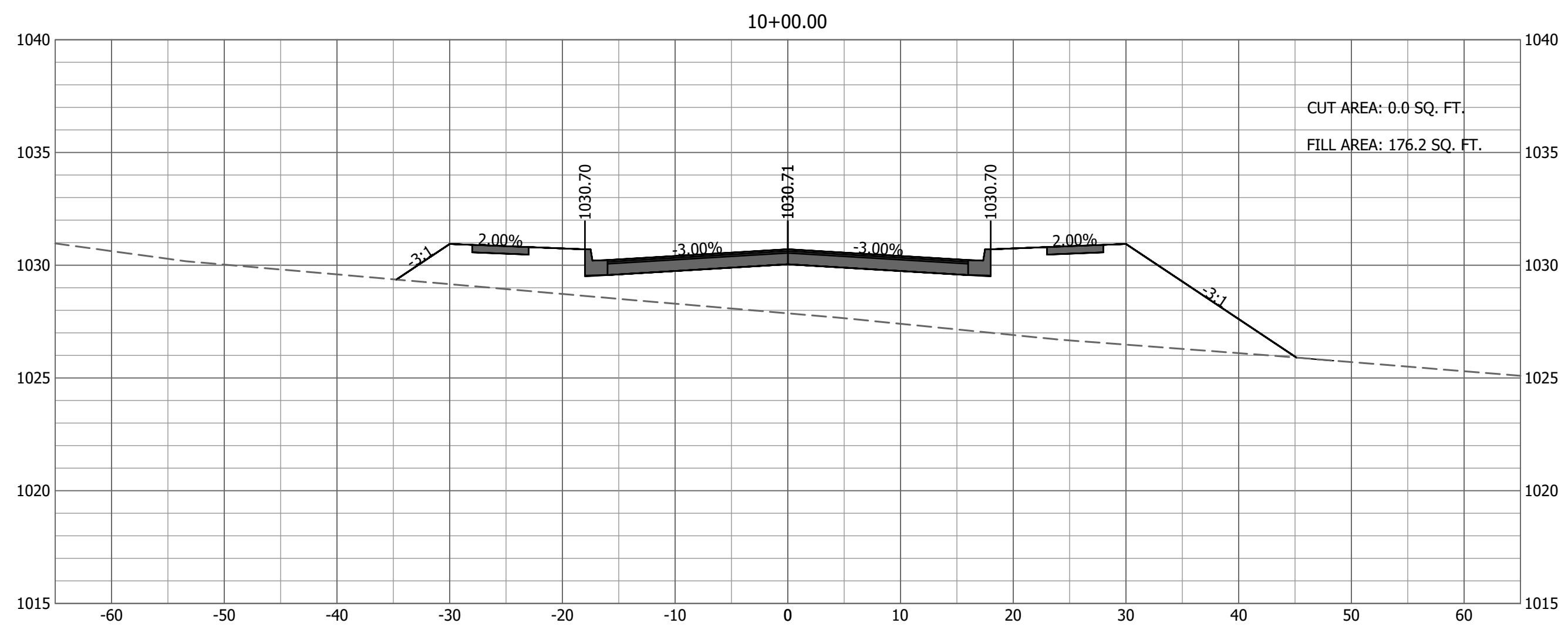
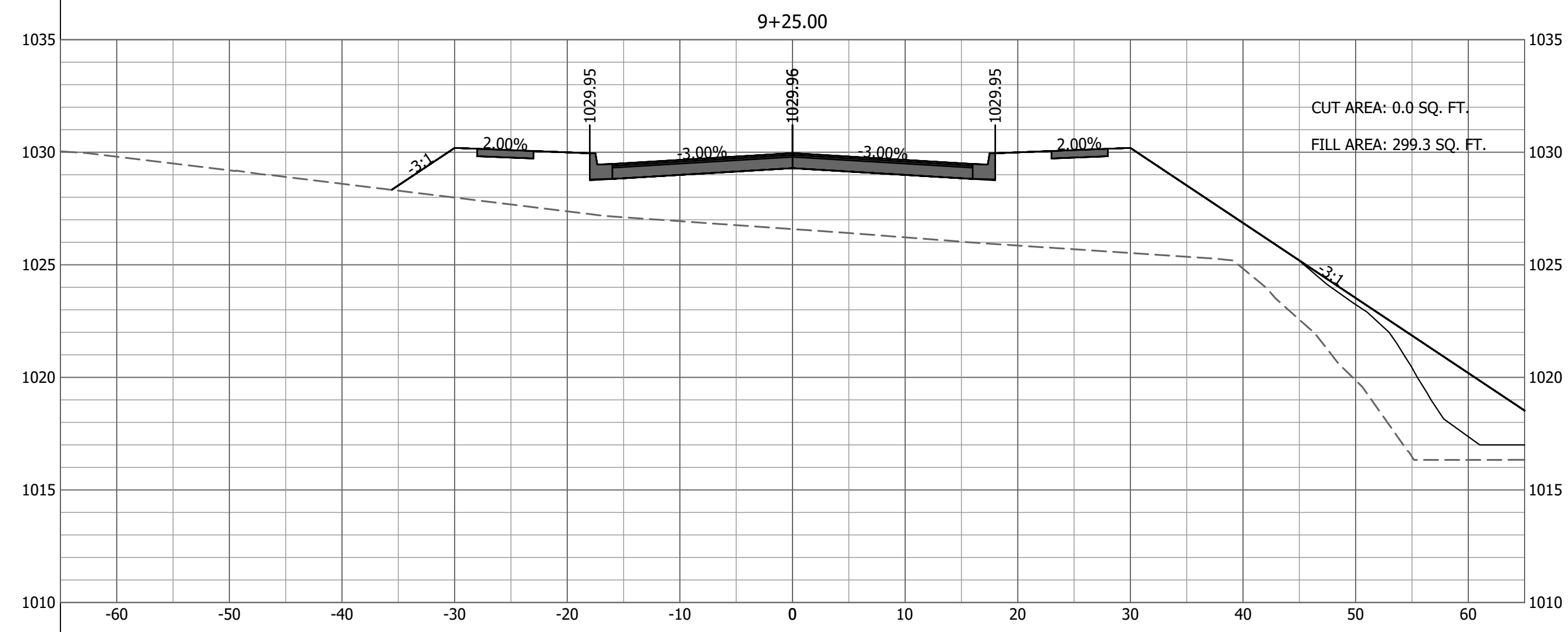


SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	18
SHEET NO:	18 of 24

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JOHNSTON DRIVE - CROSS SECTIONS - 3
 SCALE: HORIZ-1"=10' VERT-1"=5'

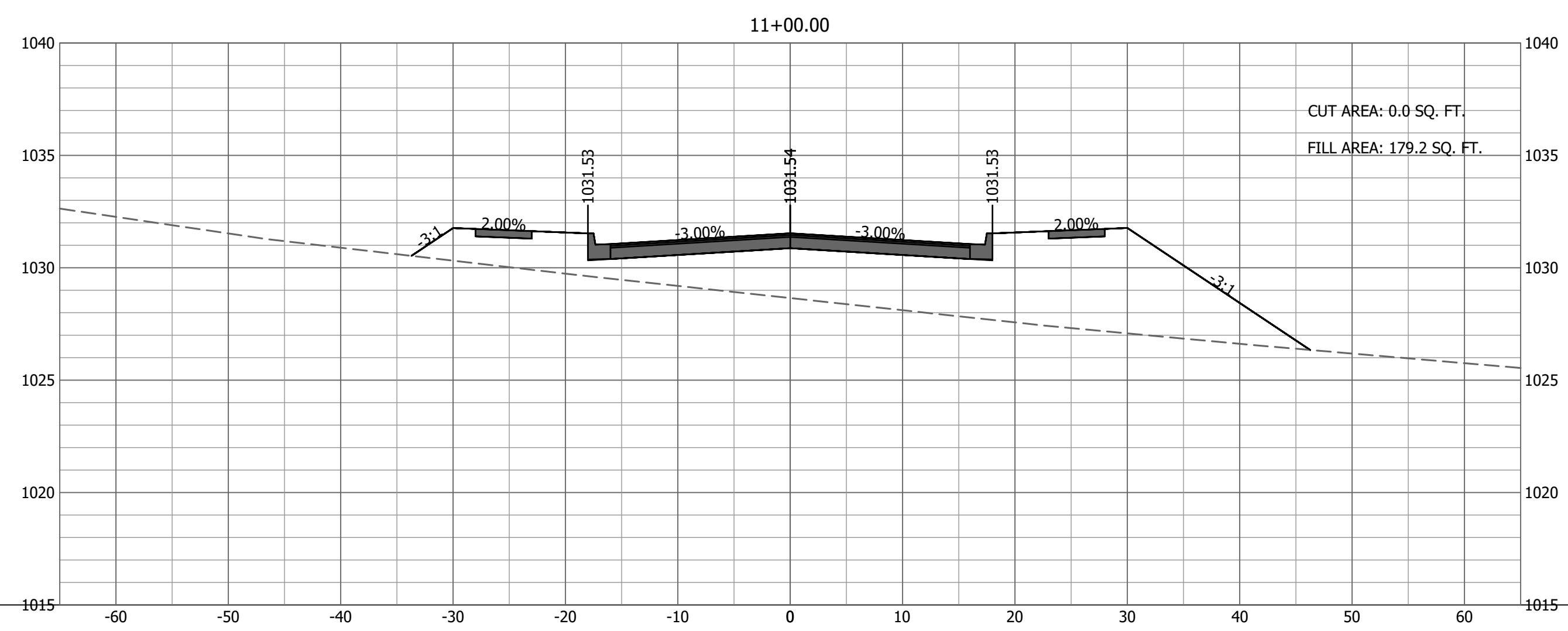
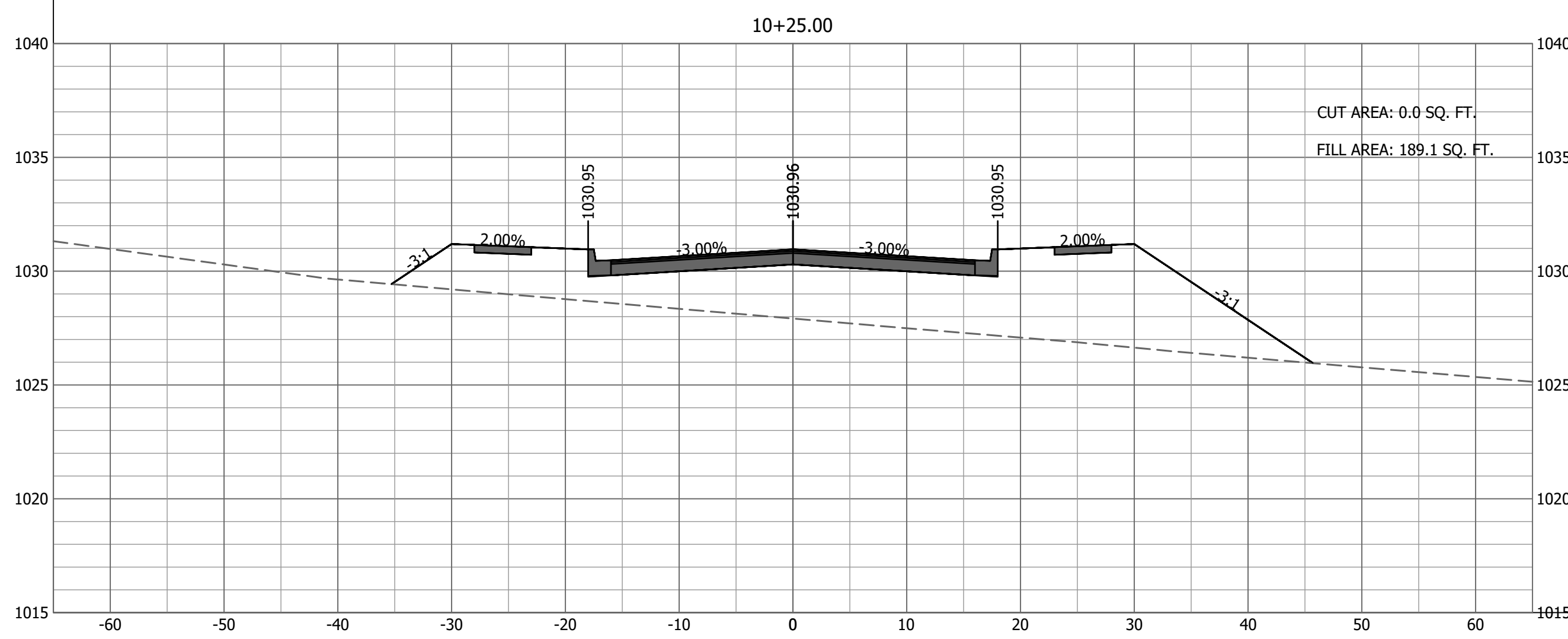
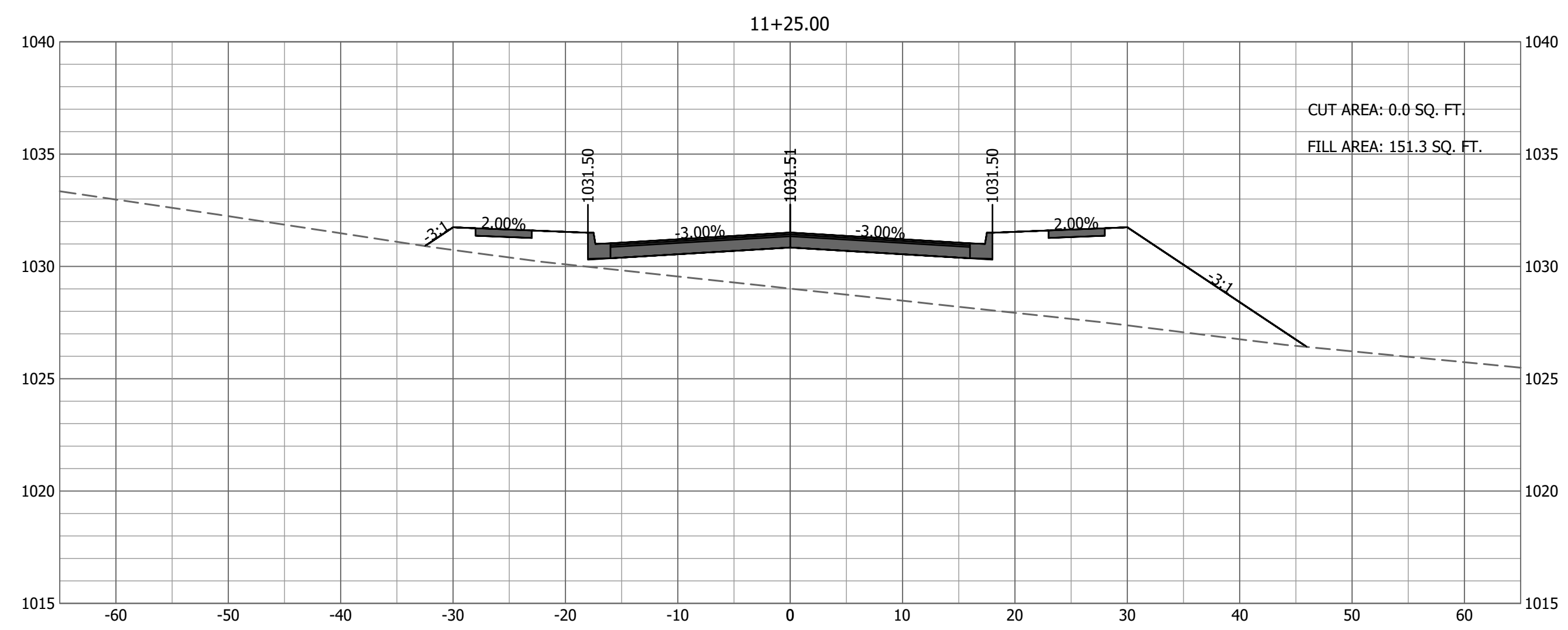
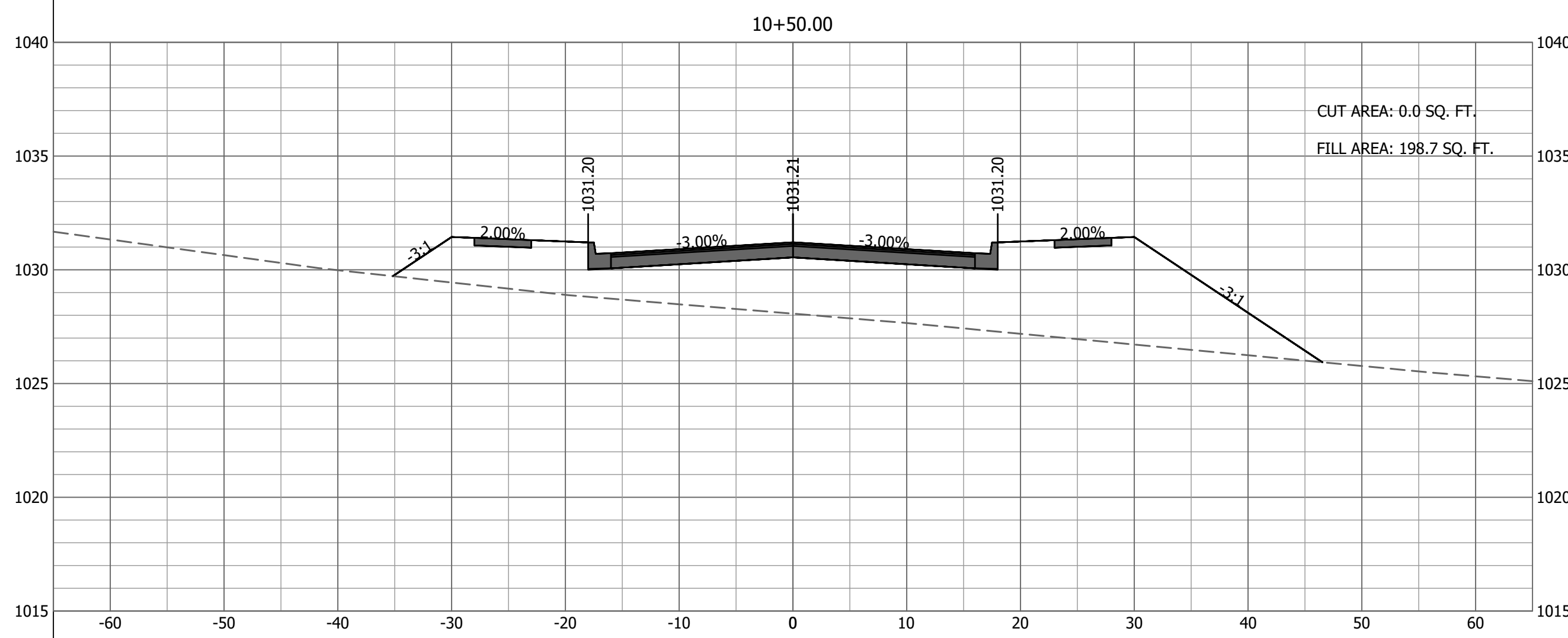
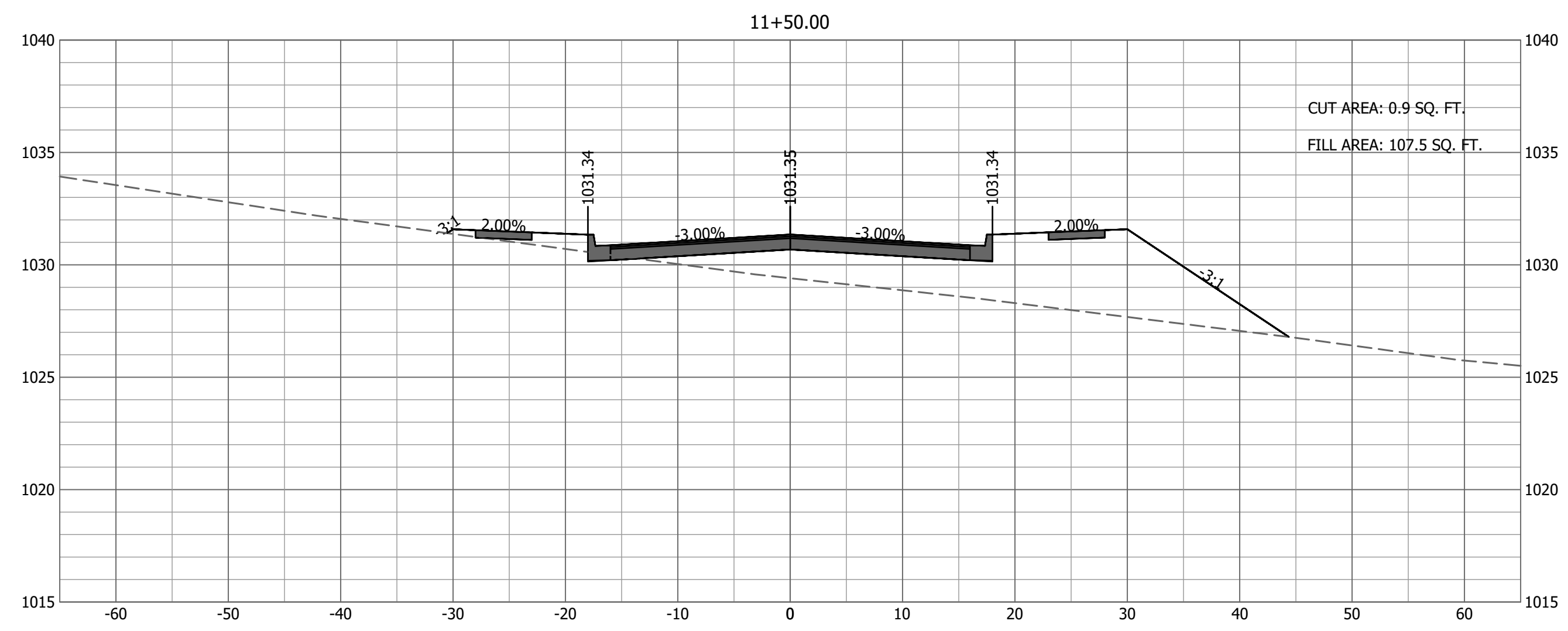
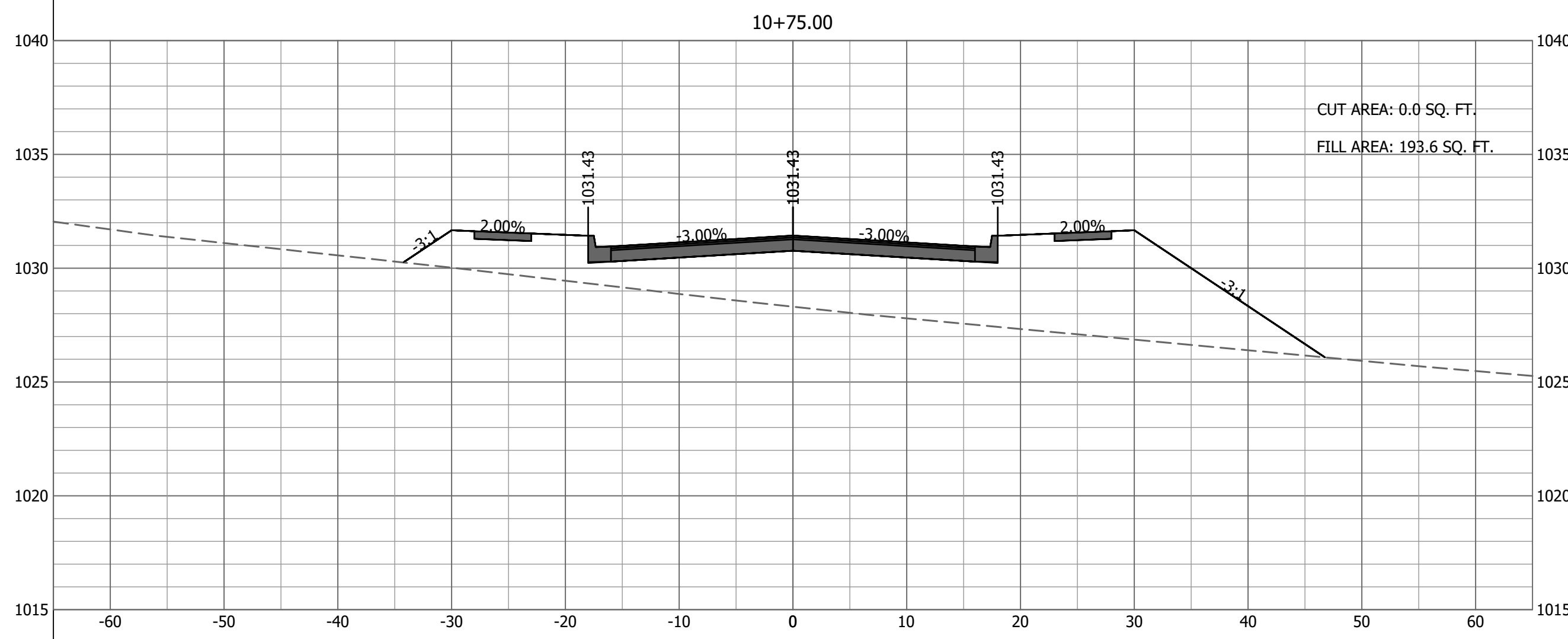


JOHNSTON DRIVE
 CROSS SECTIONS - 3
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



SEALED DATE:	
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DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	19
SHEET NO:	19 of 24

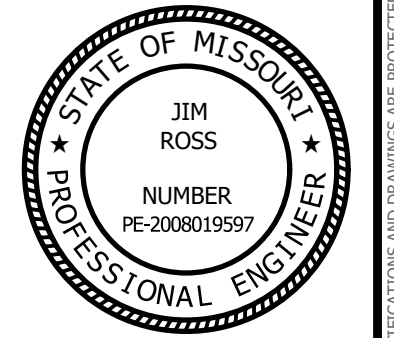
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JOHNSTON DRIVE - CROSS SECTIONS - 4
SCALE: HORZ-1"=10' VERT-1"=5'

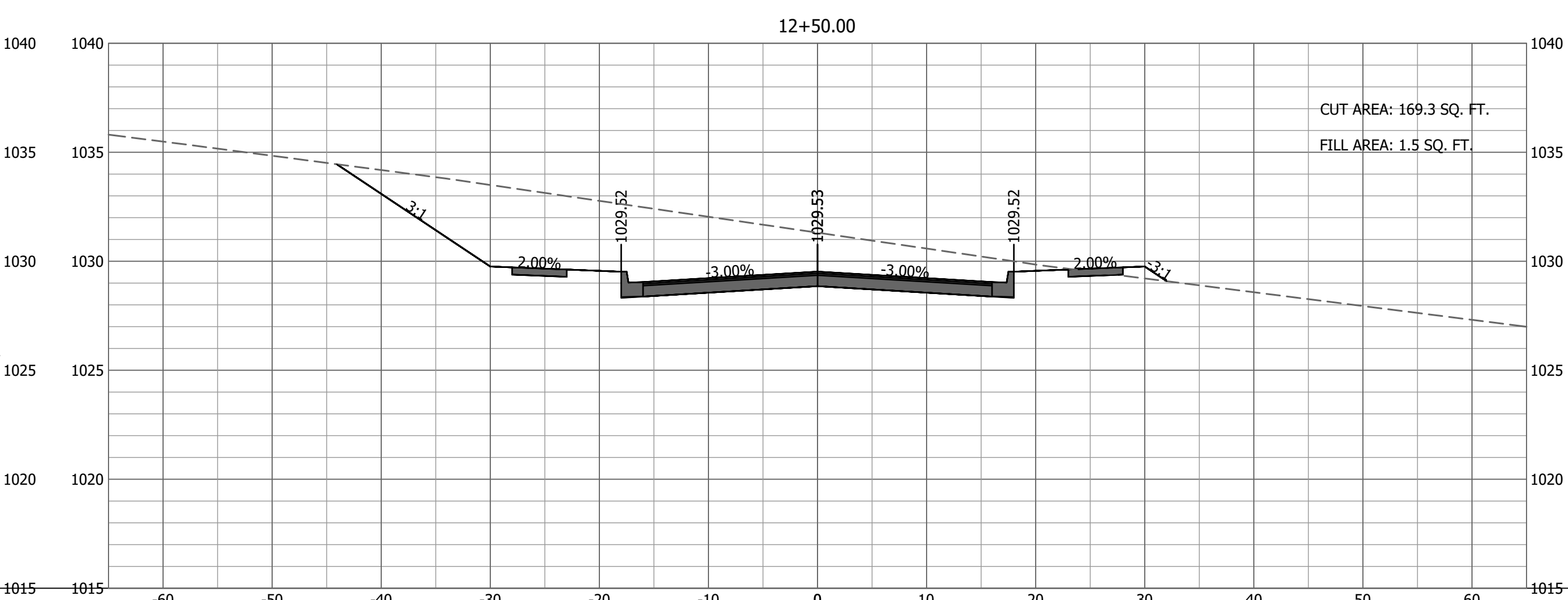
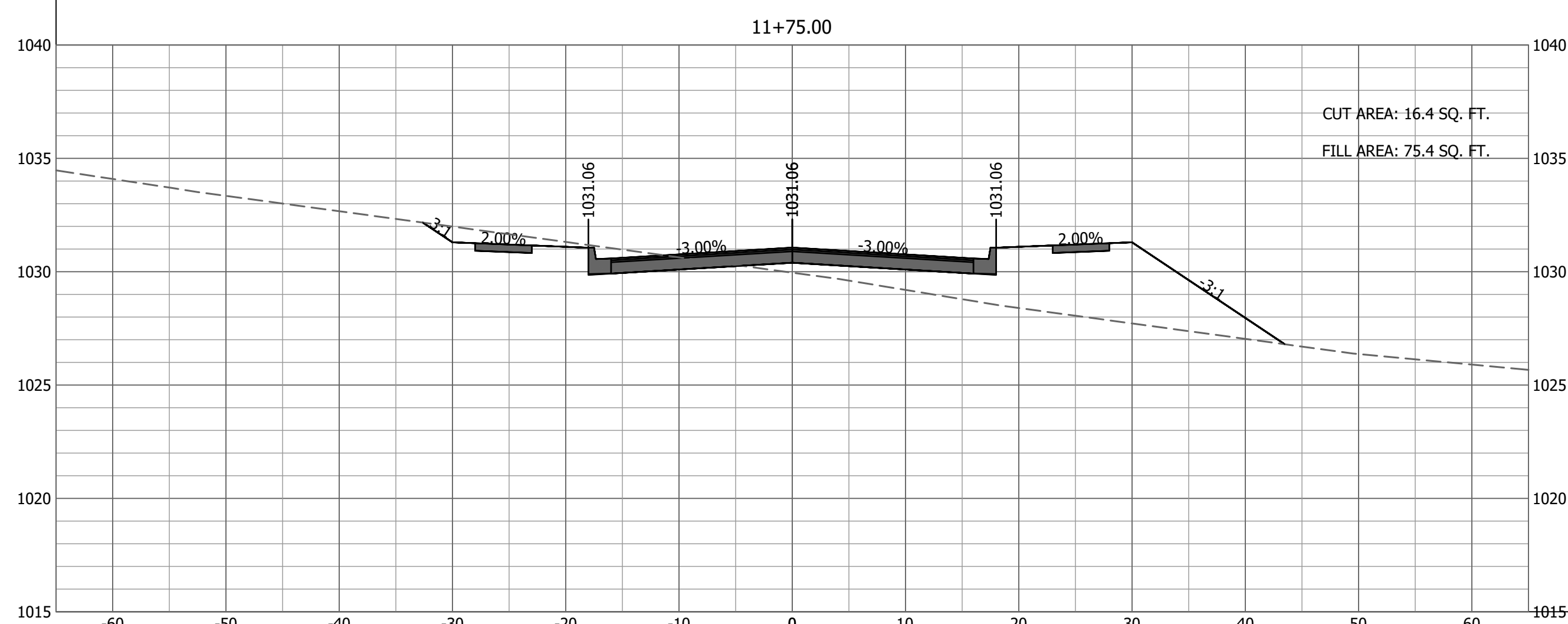
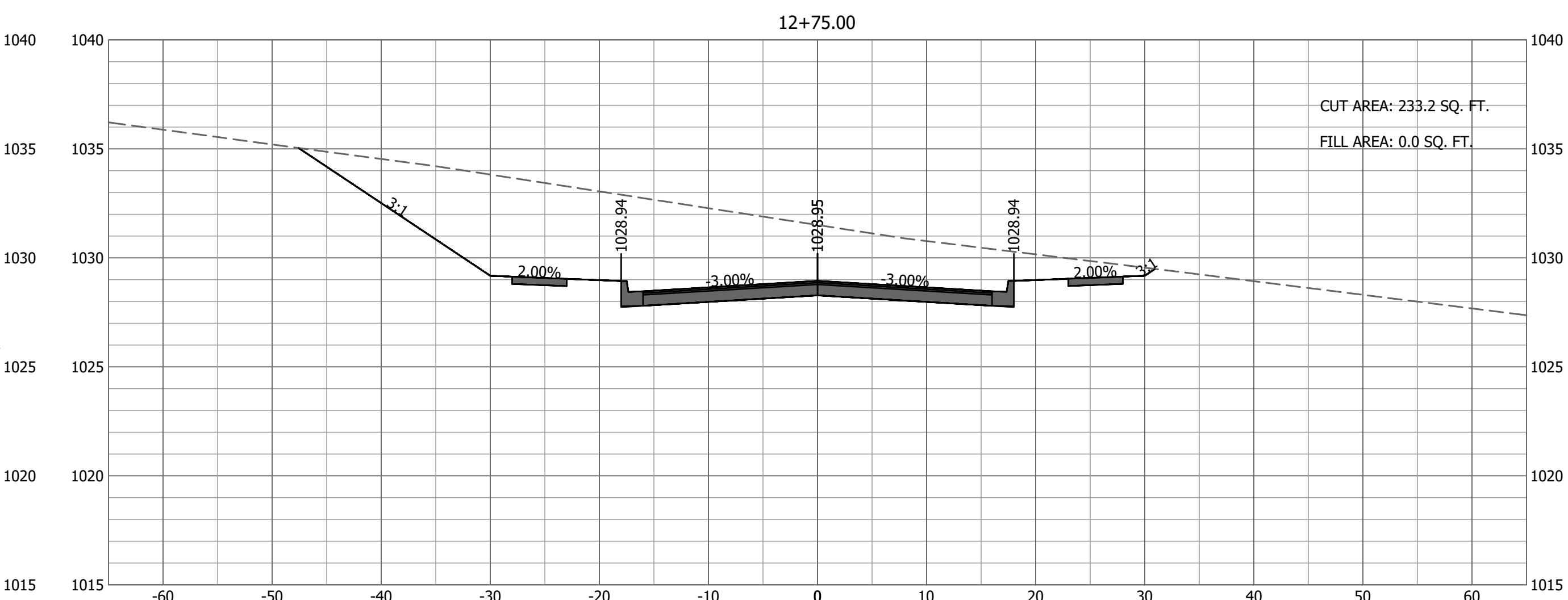
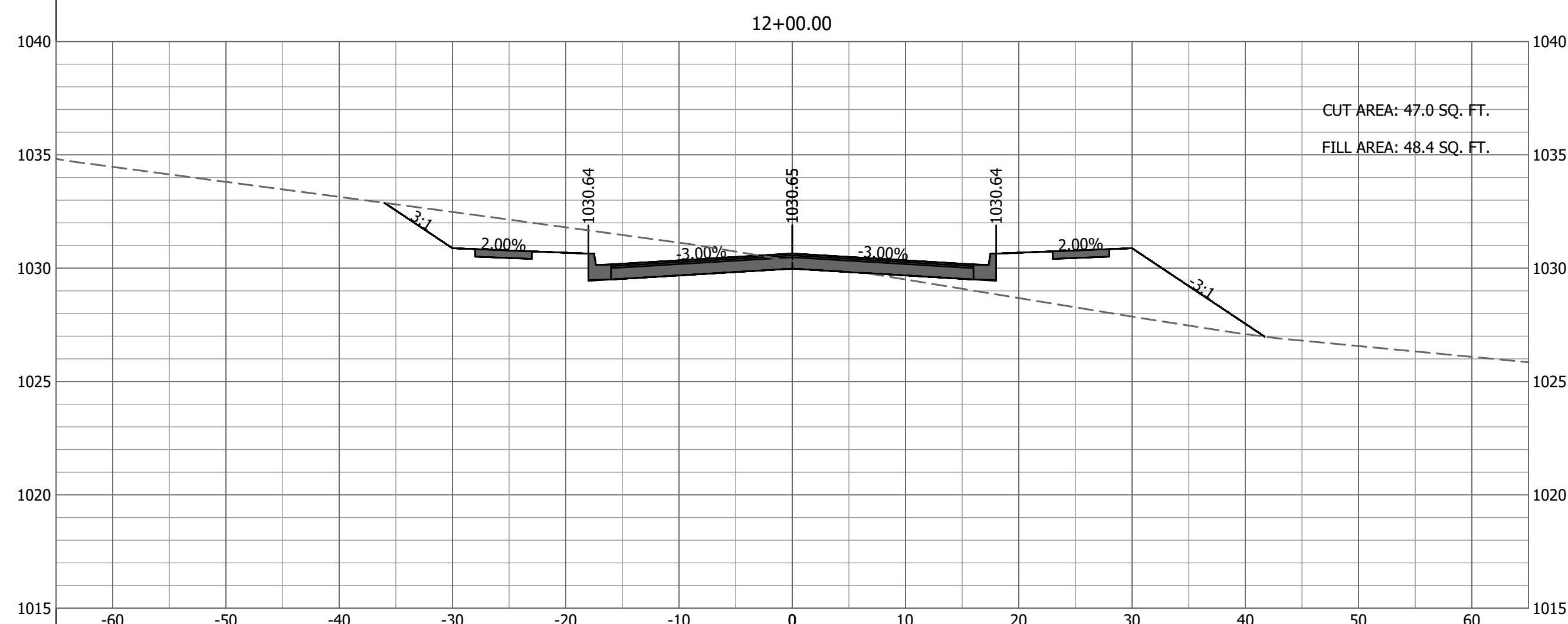
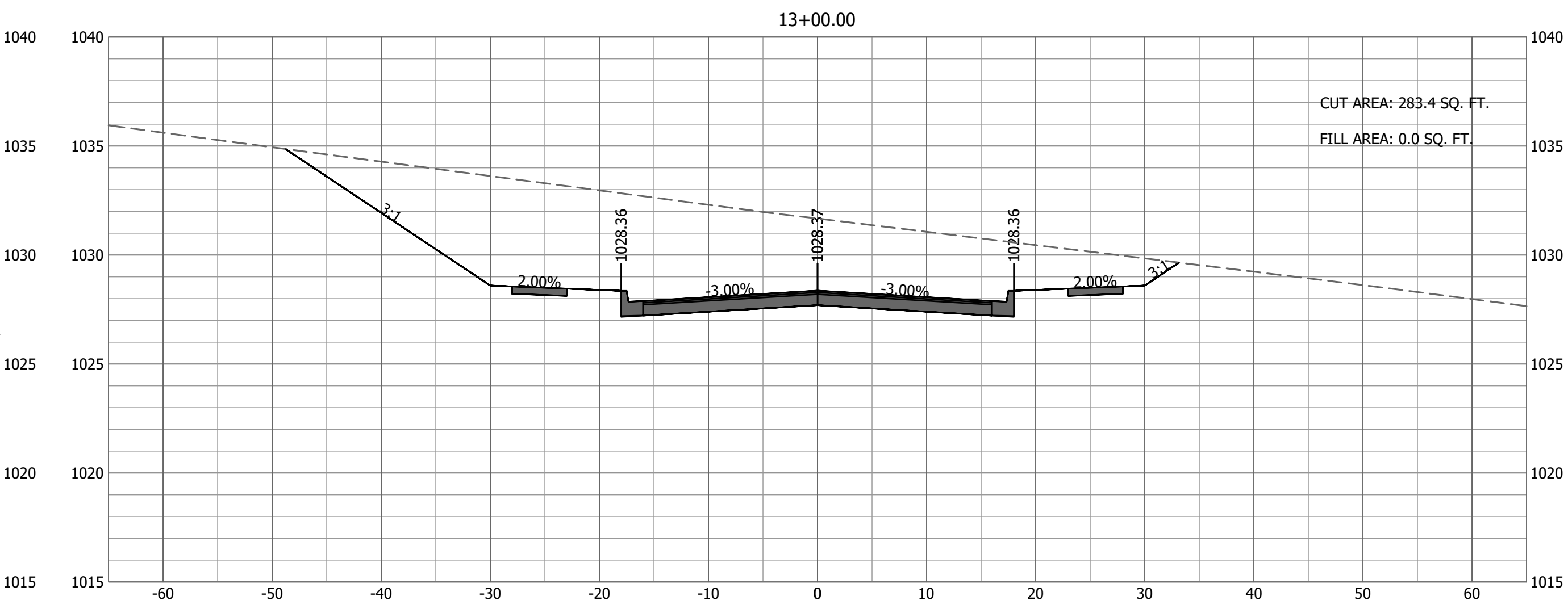
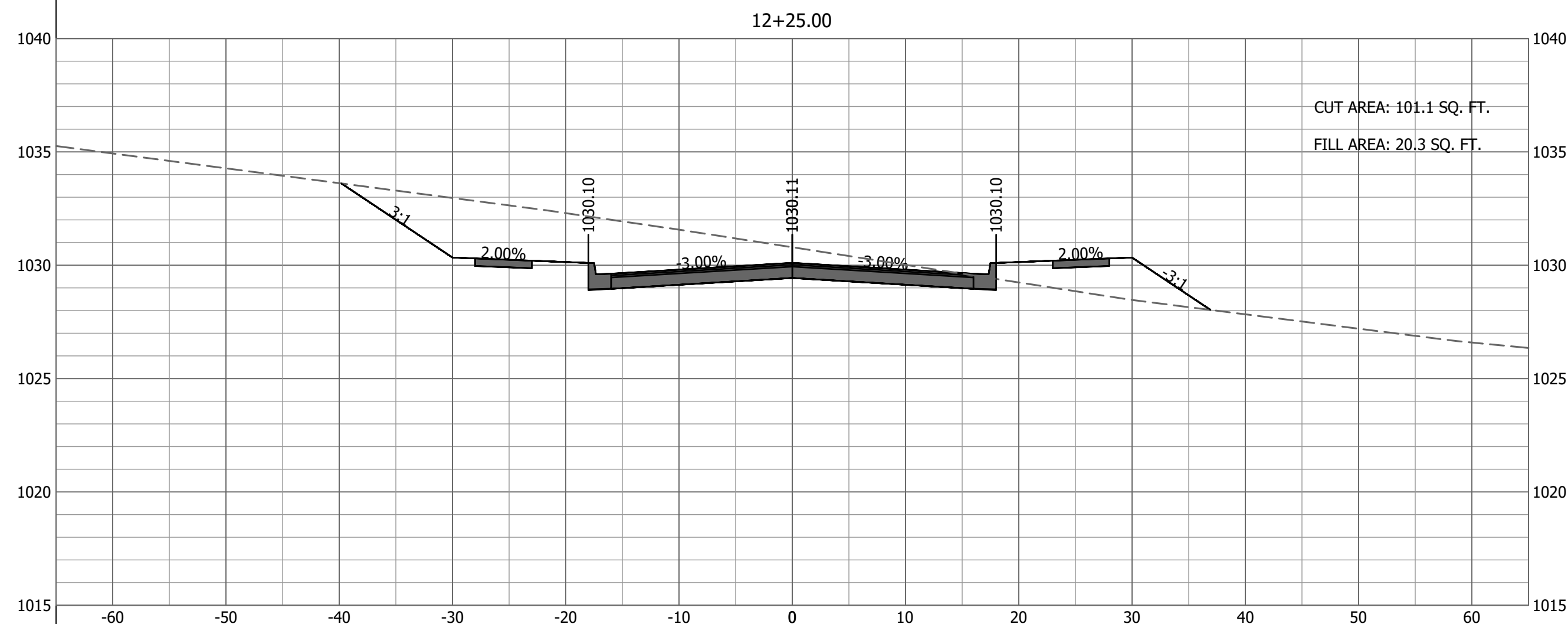


**JOHNSTON DRIVE
CROSS SECTIONS - 4**
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALED DATE:	
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DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	20
SHEET NO:	20 of 24

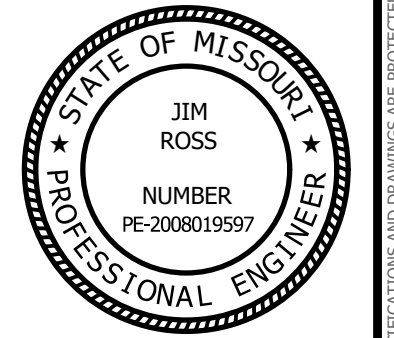
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JOHNSTON DRIVE - CROSS SECTIONS - 5
 SCALE: HORZ-1"=10' VERT-1"=5'

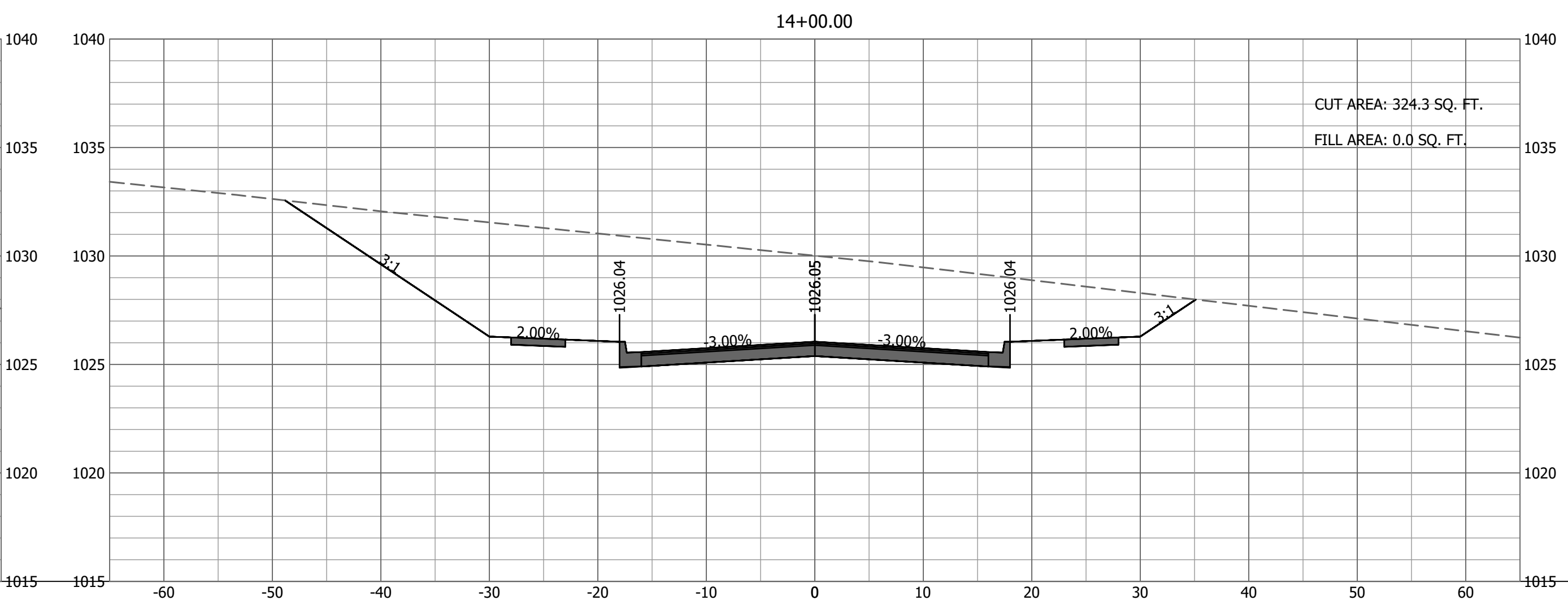
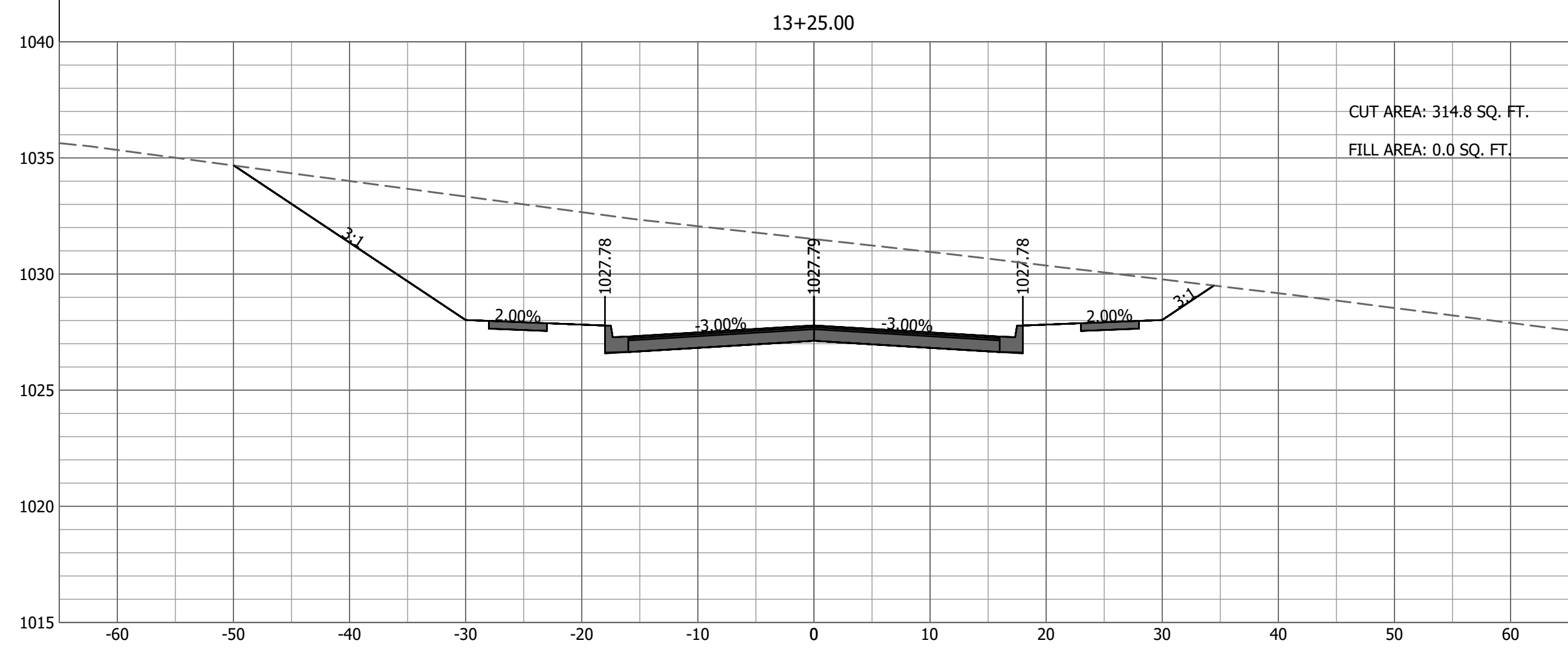
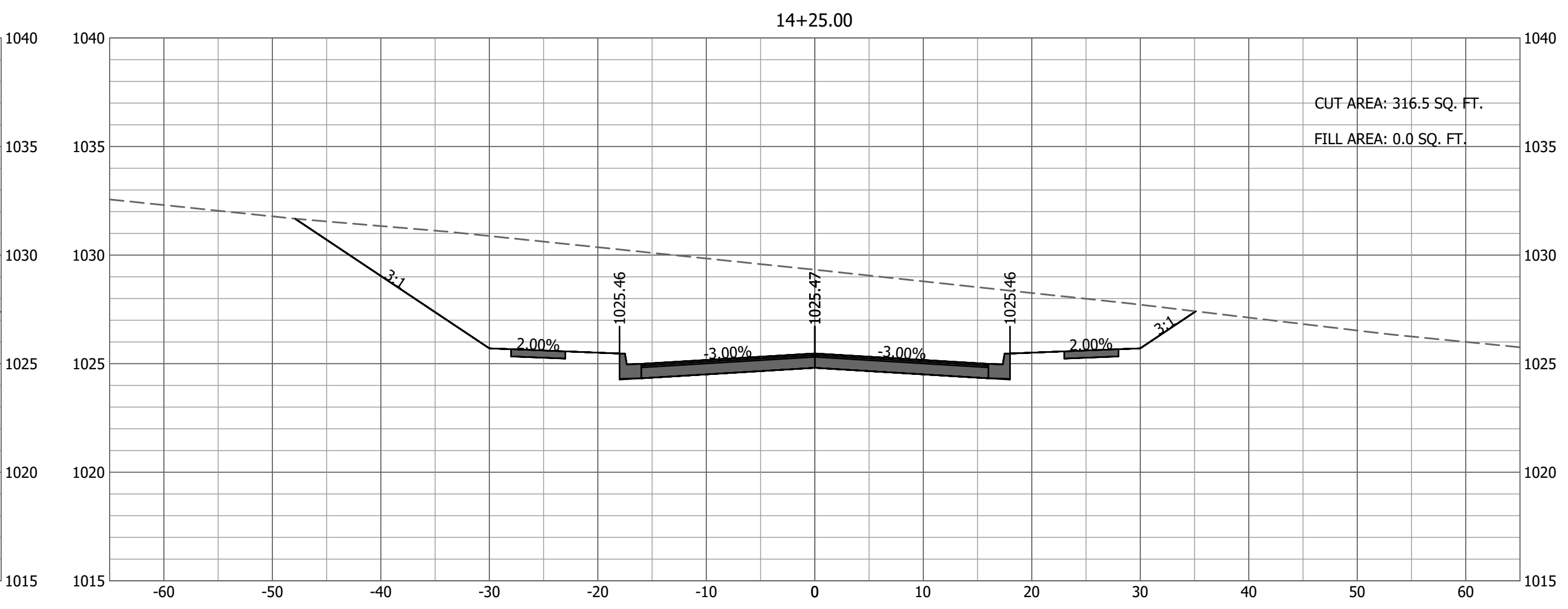
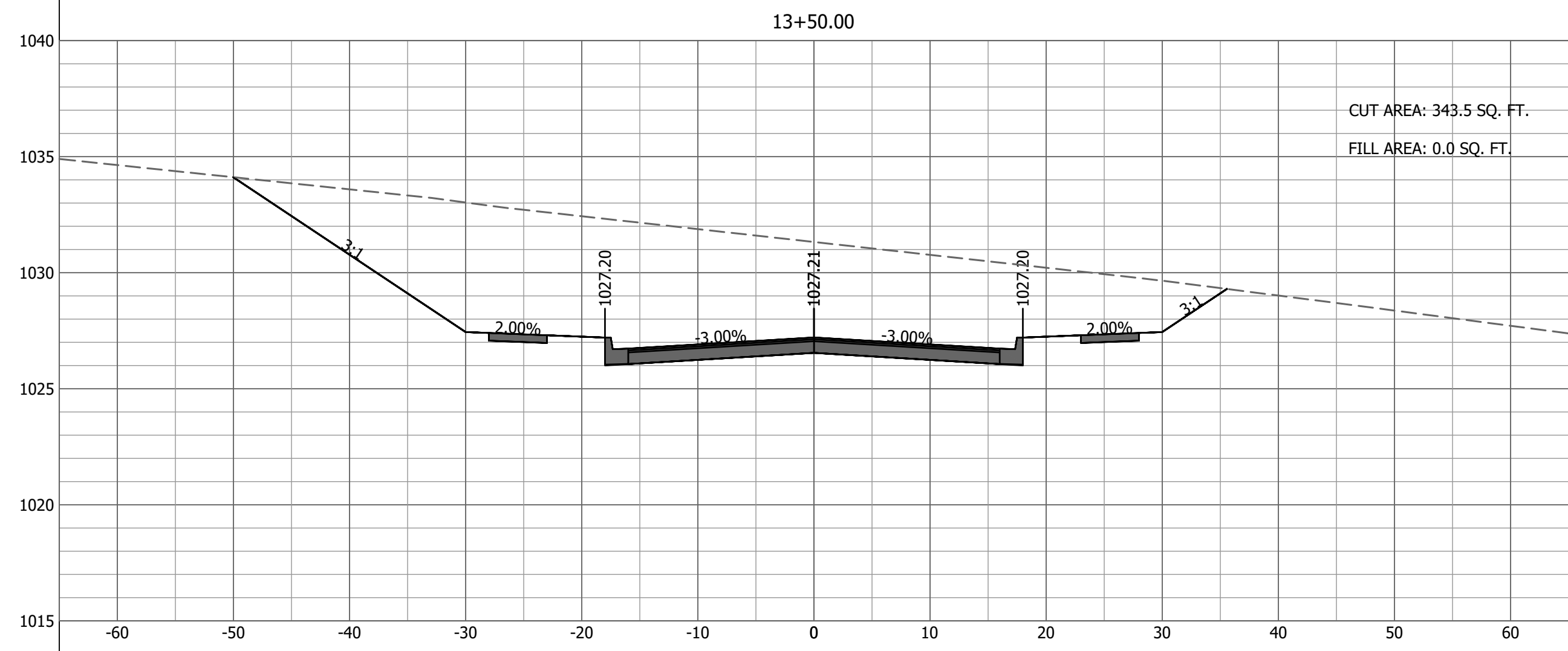
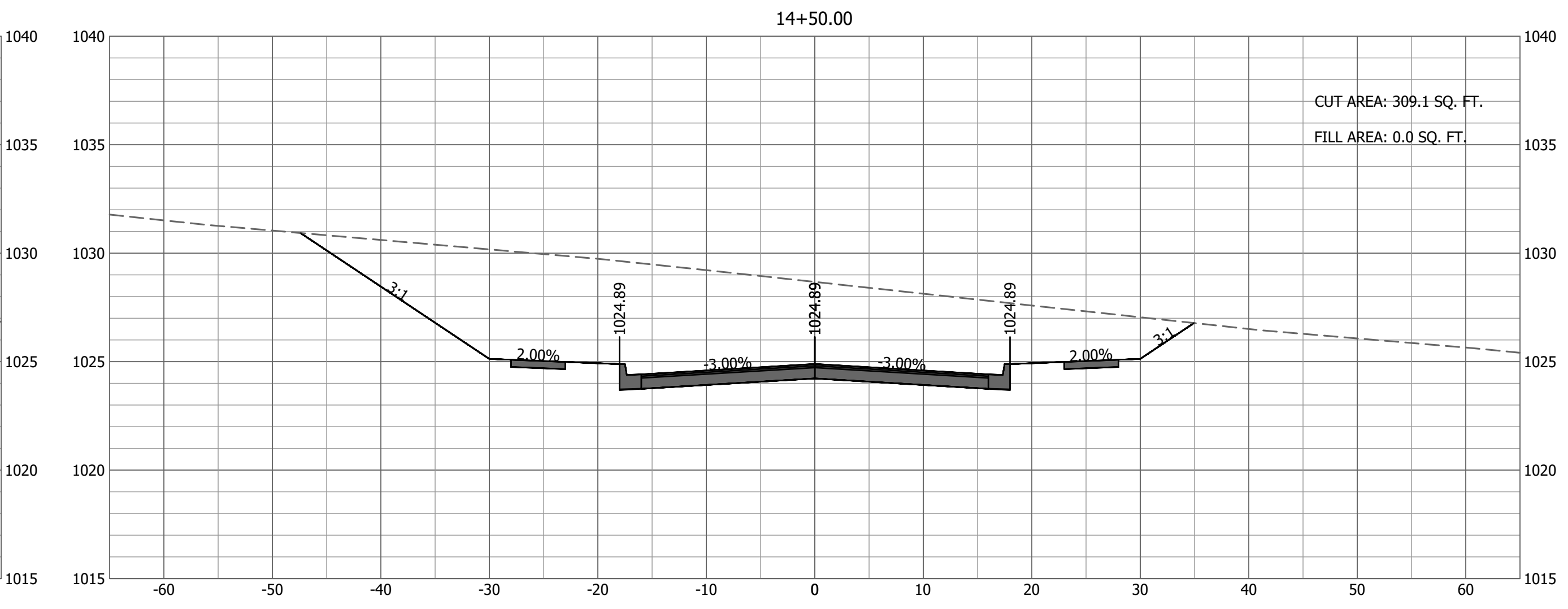
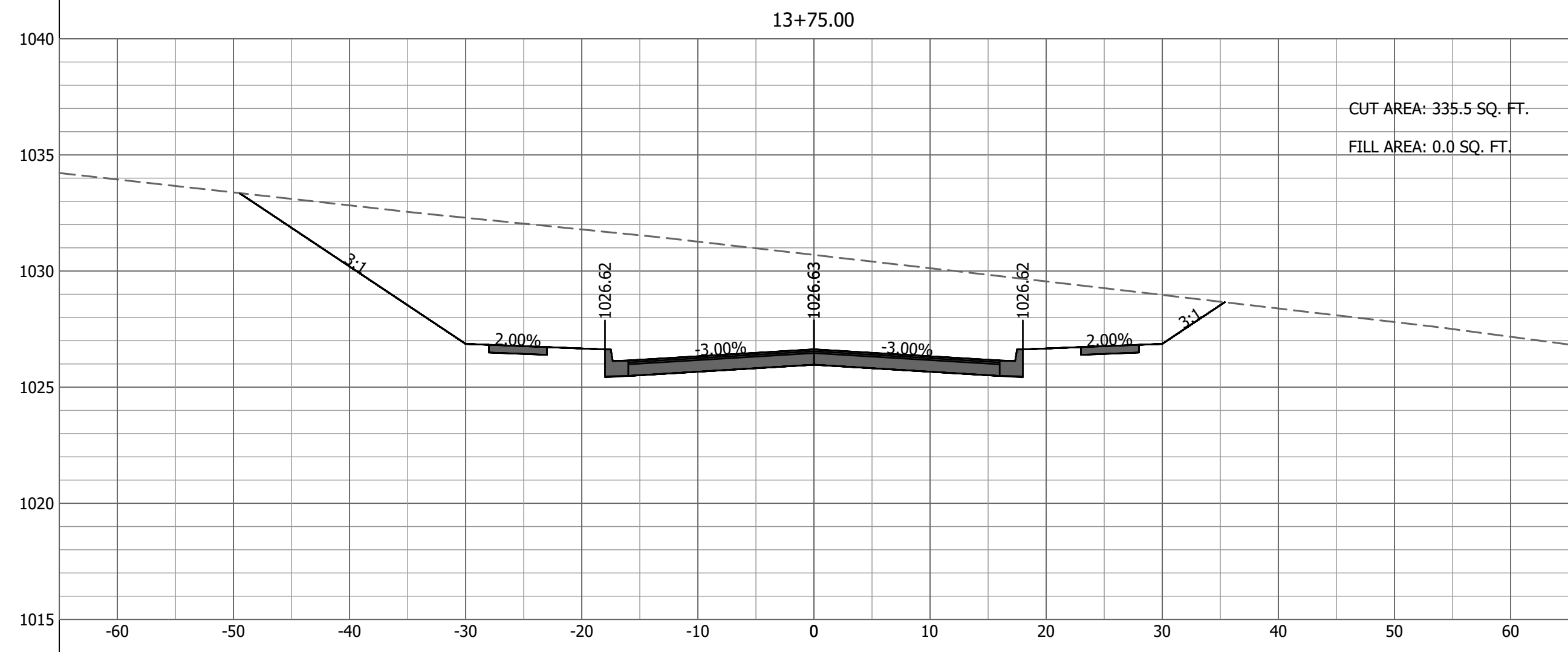


JOHNSTON DRIVE
 CROSS SECTIONS - 5
 JOHNSTON DRIVE EXTENSION
 CITY OF RAYMORE
 CASS COUNTY, MISSOURI



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DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	21
SHEET NO:	21 of 24

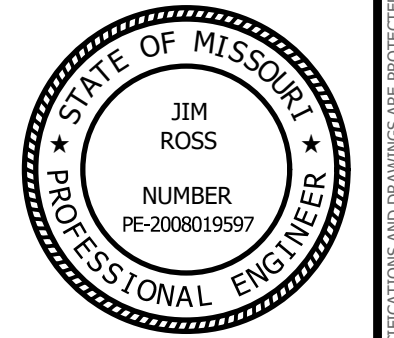
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JOHNSTON DRIVE - CROSS SECTIONS - 6
SCALE: HORZ-1"=10' VERT-1"=5'



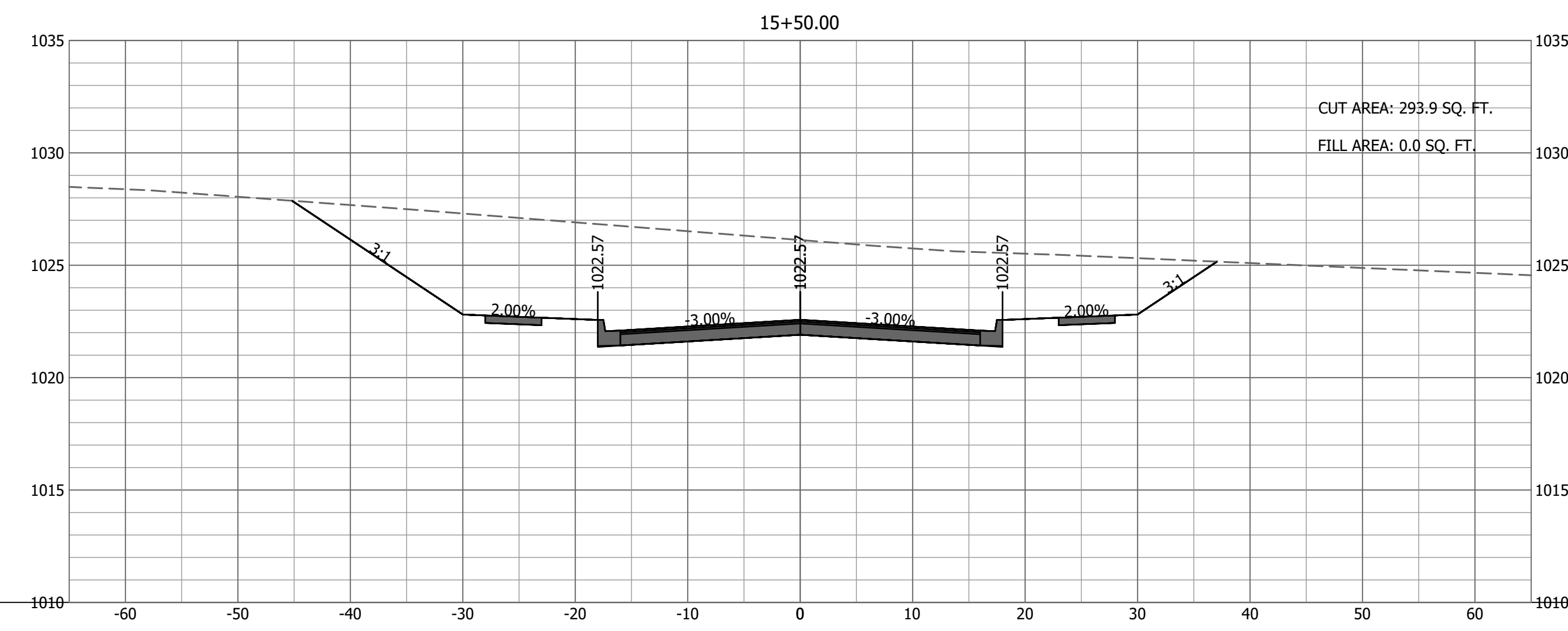
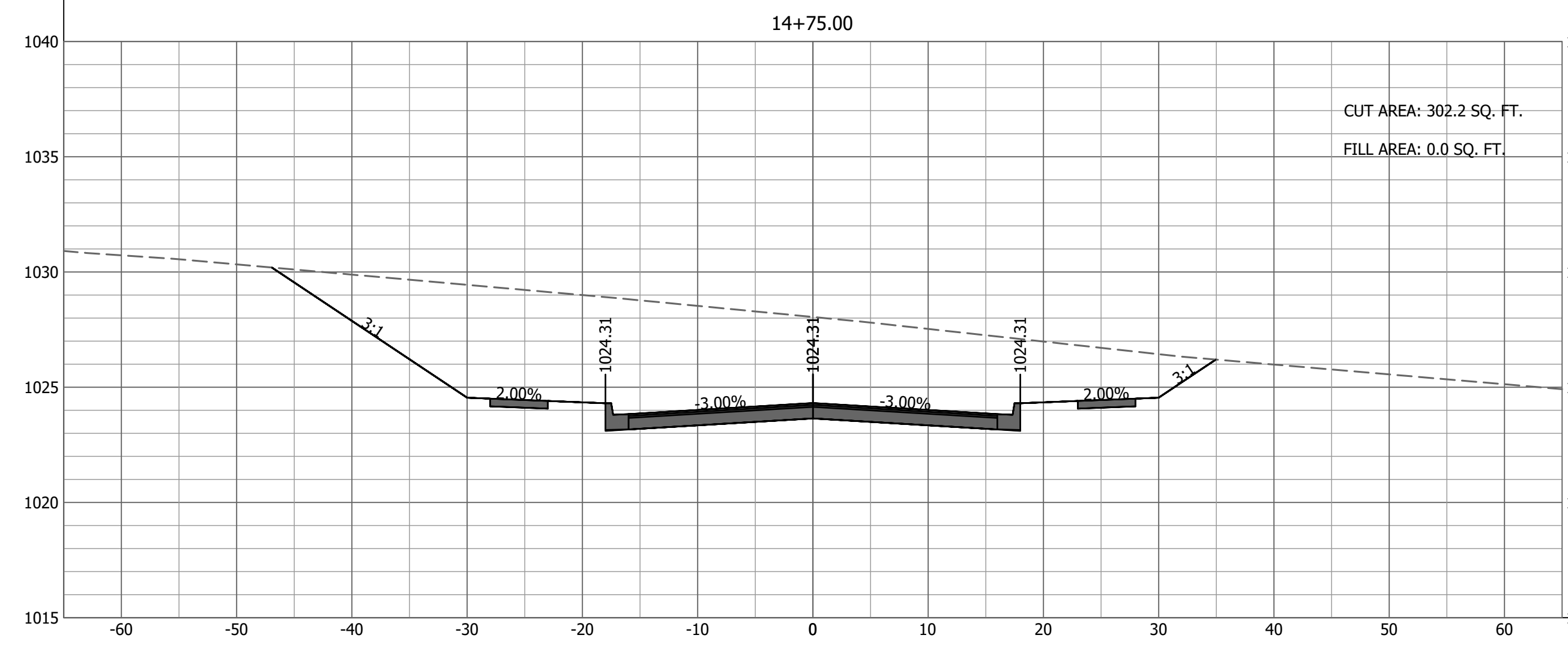
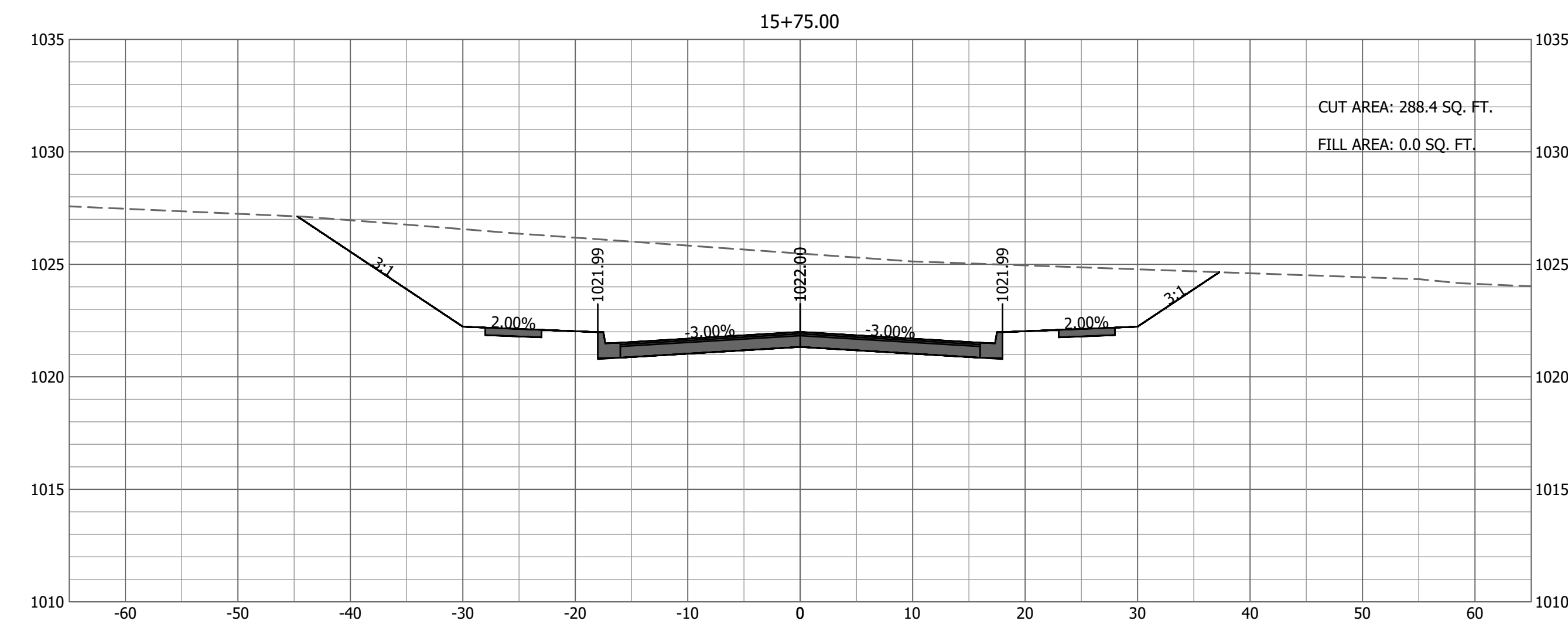
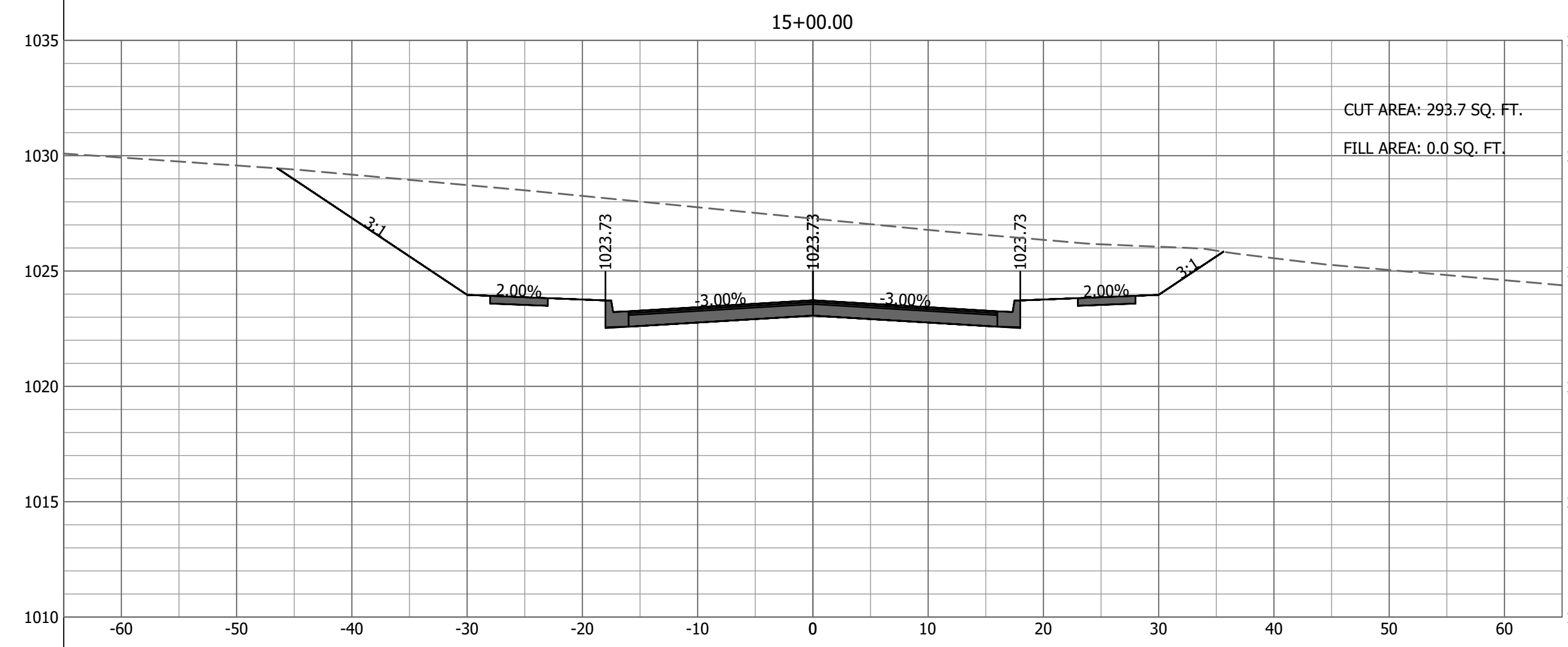
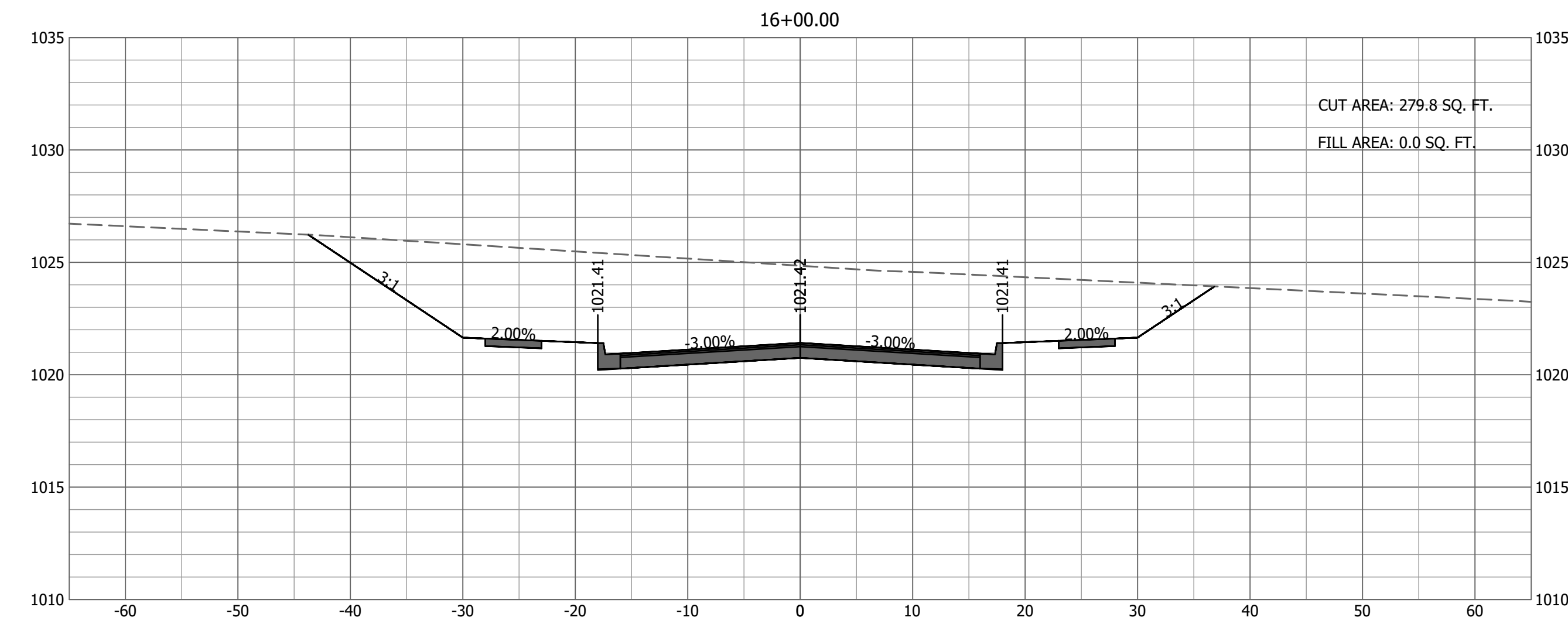
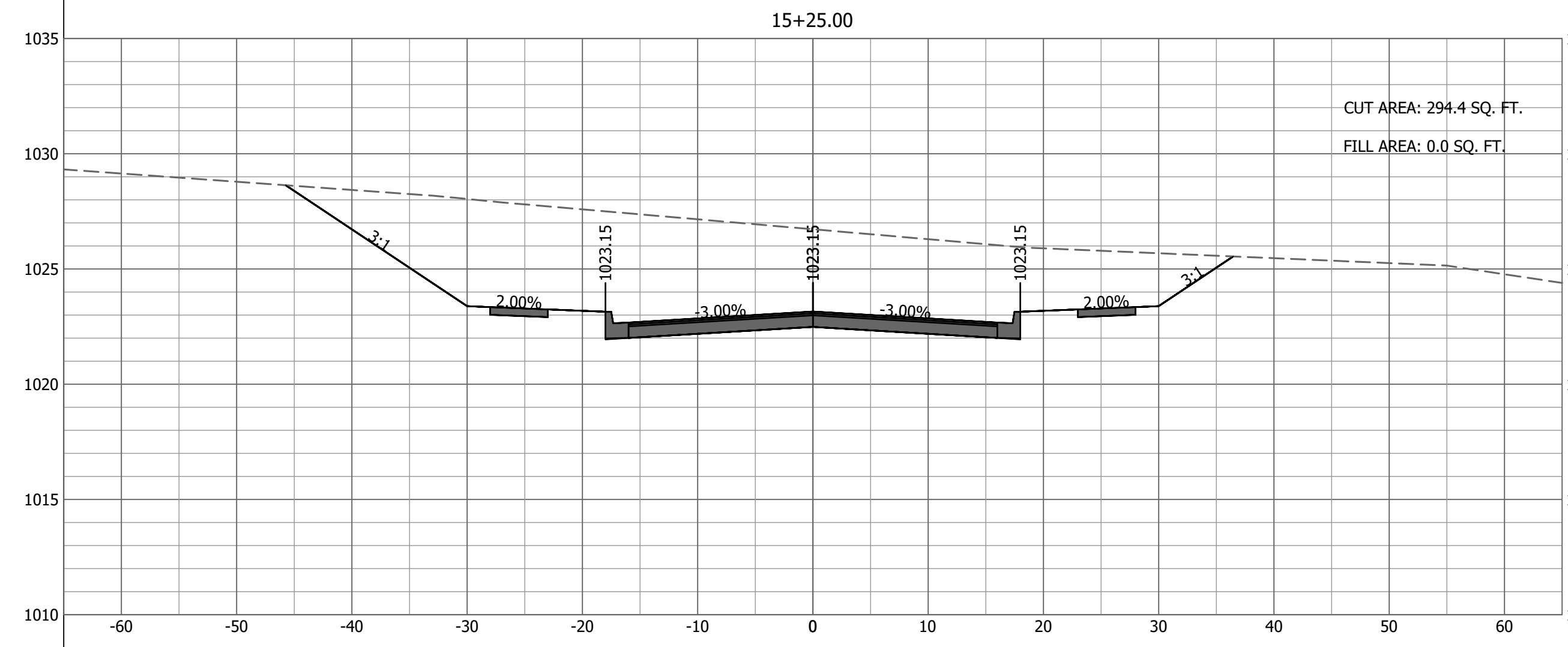
JOHNSTON DRIVE
CROSS SECTIONS - 6
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	22
SHEET NO:	22 of 24

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#	DATE	DESCRIPTION



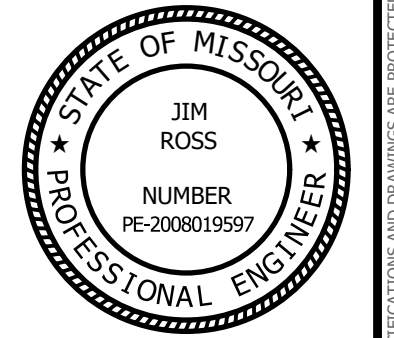
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JOHNSTON DRIVE - CROSS SECTIONS - 7
SCALE: HORIZ-1"=10' VERT-1"=5'

NO.	DATE	DESCRIPTION

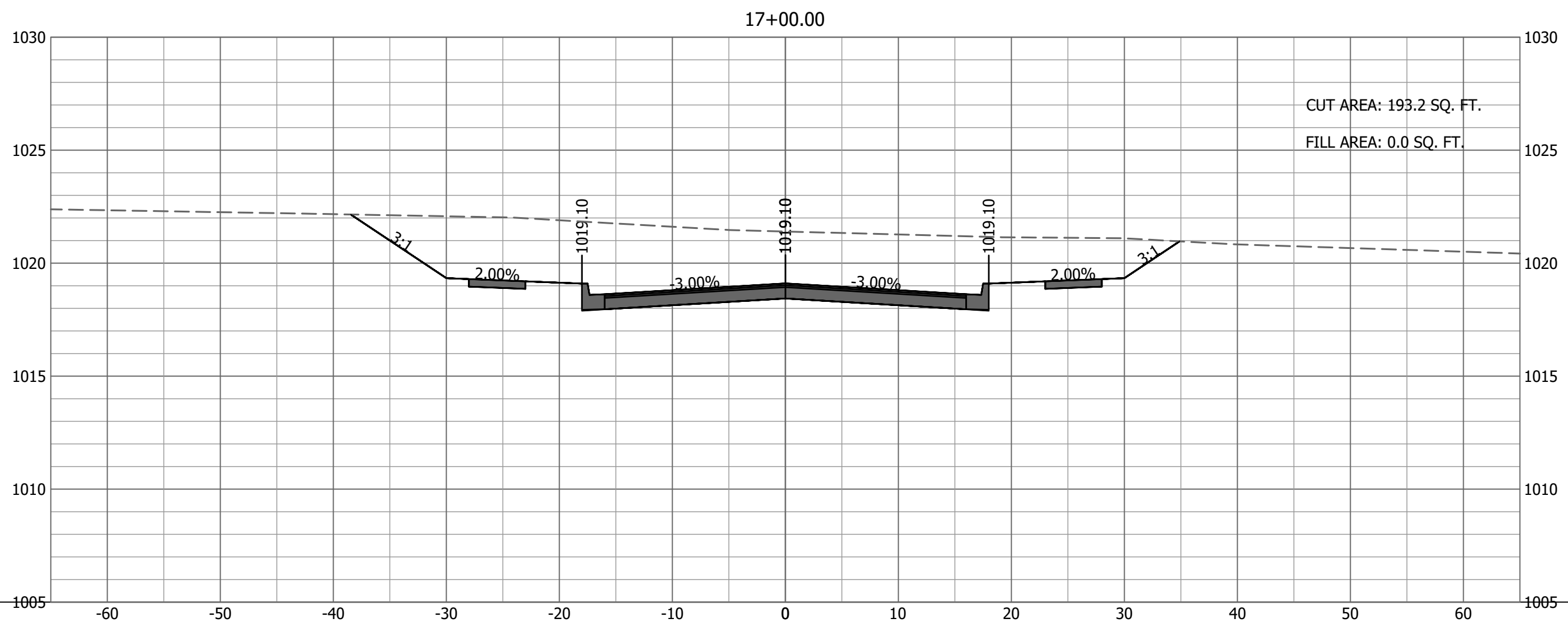
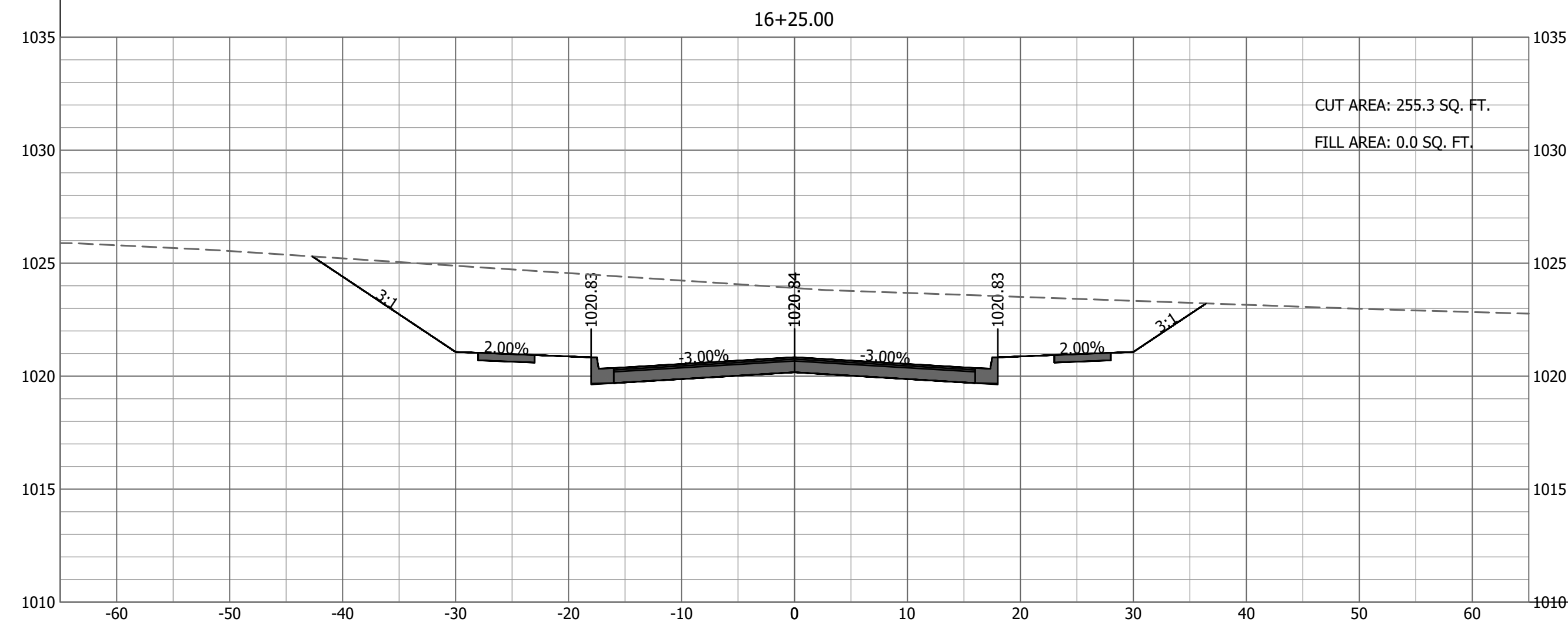
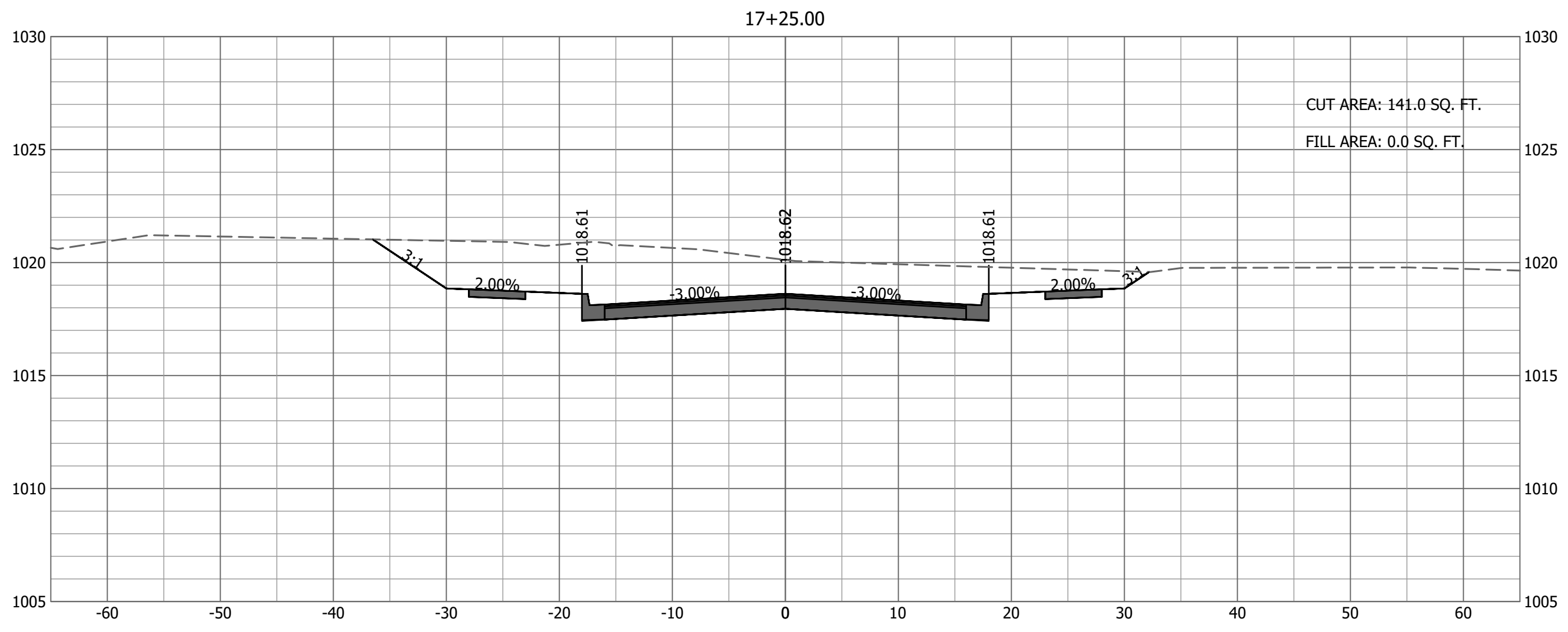
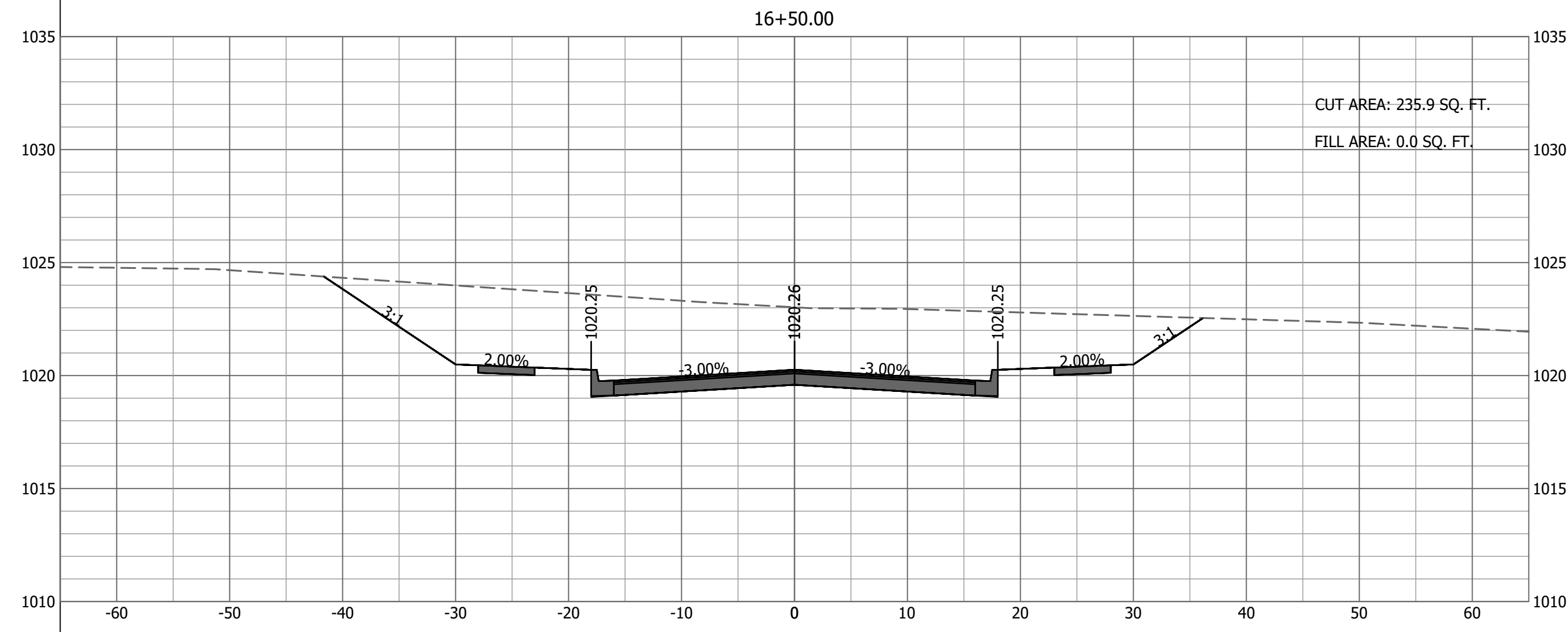
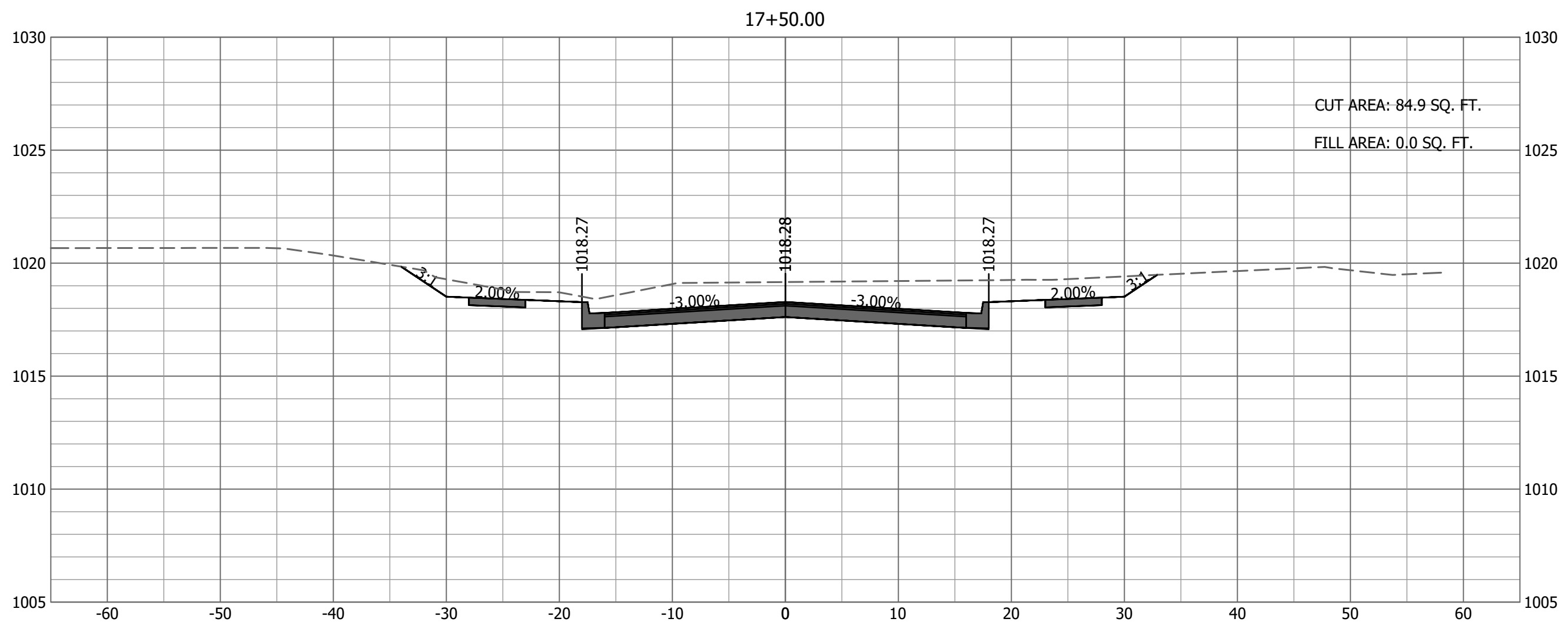
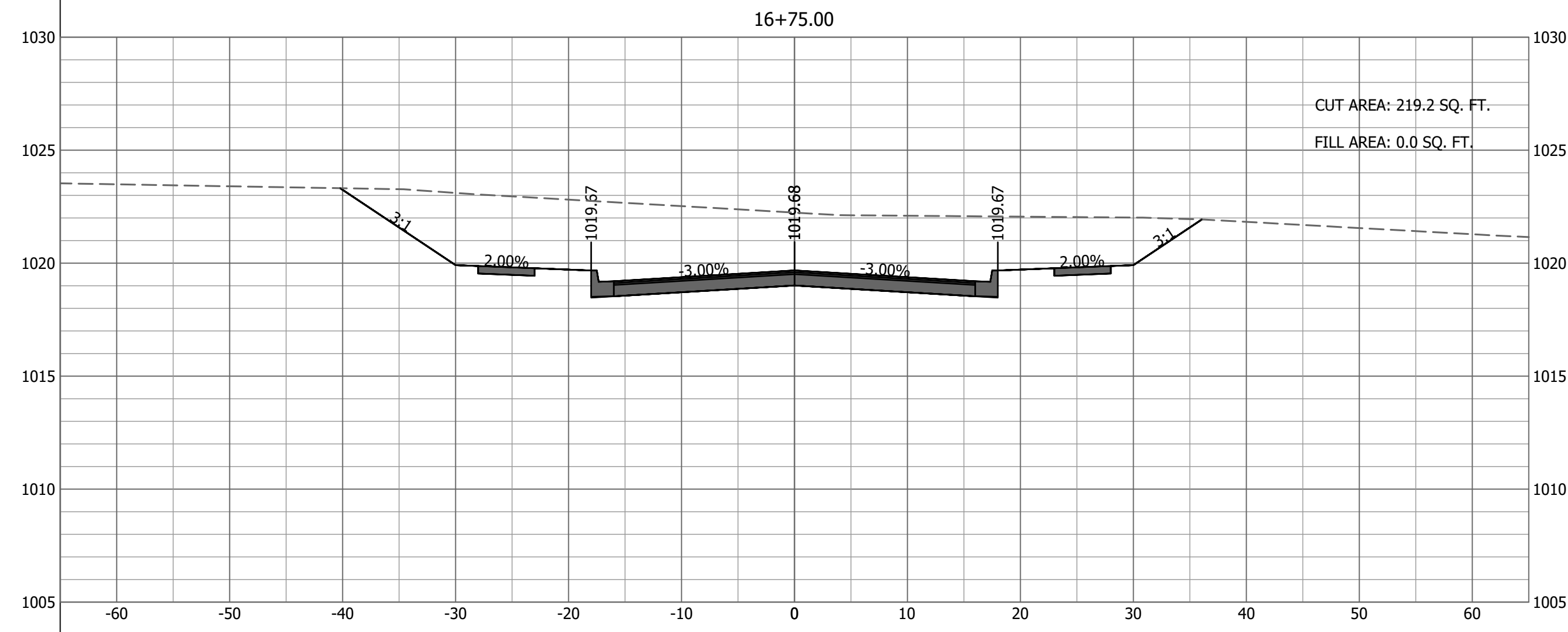
Bartlett & West
228 NW EXECUTIVE WAY - LEE'S SUMMIT MO 64063
PHONE 816-525-3552 - FAX 816-525-9041
CERTIFICATE OF AUTHORITY NO. 000167
www.bartlettwest.com

**JOHNSTON DRIVE
CROSS SECTIONS - 7**
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
DRAWN BY:	BDM
APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	23
SHEET NO:	23 of 24

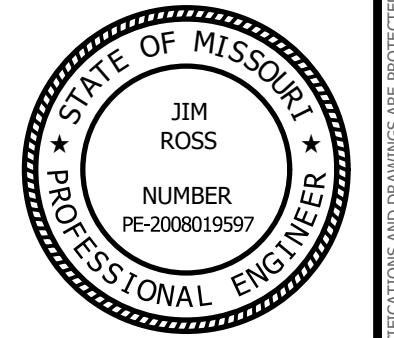
FINAL REVIEW SET



JOHNSTON DRIVE - CROSS SECTIONS - 8
SCALE: HORZ-1"=10' VERT-1"=5'



JOHNSTON DRIVE
CROSS SECTIONS - 8
JOHNSTON DRIVE EXTENSION
CITY OF RAYMORE
CASS COUNTY, MISSOURI



SEALED DATE:	
DESIGNED BY:	BLW
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APPROVED BY:	JER
DESIGN PROJ:	19267.001
DATE:	12/20/2017
DRAWING NO:	24
SHEET NO:	24 of 24

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