

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
RECONSTRUCTION OF CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO WALTER MARTZ /POOLE JONES ROAD

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NOTICE TO BIDDERS

THE SPECIFICATIONS FOR THIS CONTRACT WILL BE THOSE OF THE MDOT SHA, TITLED "STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS", DATED MAY 2017, REVISIONS THERETO, AND THE SPECIAL PROVISIONS.

SEDIMENT AND EROSION CONTROL WILL BE STRICTLY ENFORCED DURING CONSTRUCTION BY ENVIRONMENTAL COMPLIANCE SECTION PHONE NO. 310-600-3507.

THE GRADING LIMITS SHOWN ON THE PLANS ARE NOT TO BE EXCEEDED. CHANGES IN GRADING EROSION AND SEDIMENT CONTROL PLAN, OR OTHER SEGMENT OF THE WORK MUST BE REVIEWED AND APPROVED BY THE FREDERICK COUNTY DIVISION OF PUBLIC WORKS.

THE FREDERICK COUNTY DIVISION OF PUBLIC WORKS SHALL ONLY BE RESPONSIBLE FOR THE COMPLETENESS OF DOCUMENTS OBTAINED DIRECTLY FROM FREDERICK COUNTY. FAILURE TO ATTACH ALL ADDENDA MAY CAUSE THE BID TO BE NON-RESPONSIVE.

IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR THAT THE STANDARD PLATES IN HIS/HER POSSESSION ARE THE LATEST REVISED MDOT SHA STANDARD PLATES AS OF THE DATE OF THE AWARD OF THIS PROJECT.

RIGHT OF WAY LINES ON THESE PLANS DO NOT INCLUDE EASEMENTS. THEY ARE FOR ASSISTANCE IN INTERPRETING THE PLANS. THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE SIMPLE RIGHT OF WAY AND EASEMENT INFORMATION, SEE APPROPRIATE R/W PLATS NUMBERED *

MDE PERMIT NO. _____ EXPIRATION DATE: _____

USCAE PERMIT NO. _____ EXPIRATION DATE: _____

OWNER'S / DEVELOPER'S CERTIFICATION

I CERTIFY THAT THIS PLAN OF SEDIMENT CONTROL WILL BE IMPLEMENTED TO THE FULLEST EXTENT, AND ALL STRUCTURES WILL BE INSTALLED TO THE DESIGN AND SPECIFICATIONS AS SPELLED OUT IN THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATION OF ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE EVALUATION BY THE FREDERICK COUNTY SOIL CONSERVATION DISTRICT PERSONNEL AND COOPERATING AGENCIES.

JASON M. STITT, P.E., CHIEF
FREDERICK COUNTY OFFICE OF TRANSPORTATION ENGINEERING
355 MONTEVUE LANE, SUITE 200
FREDERICK, MARYLAND 21702
301-600-2932

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE PLANS HAVE BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07 AND 2017 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (LATEST VERSION AND REVISIONS).

SIGNATURE _____ DATE _____ REG. NO. _____

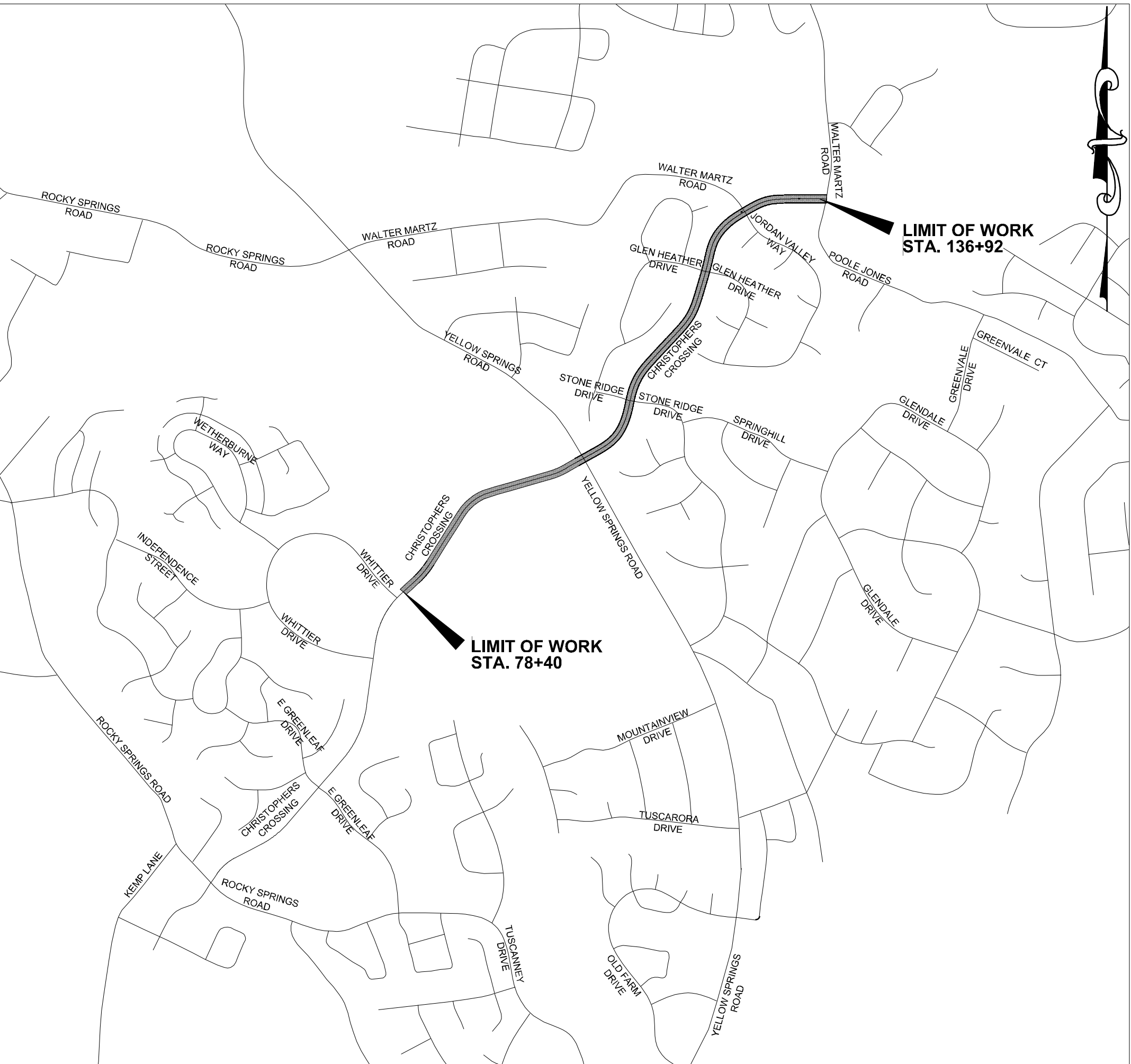
SURVEY INFORMATION

THE DATA COLLECTED ELECTRONICALLY AND NO PHYSICAL FIELD BOOK EXISTS. CONTROL INFORMATION IS AVAILABLE UPON REQUEST.

FIELD SURVEYS PREPARED BY:
A. MORTON THOMAS & ASSOCIATES
MARCH 2020

HORIZONTAL DATUM: NAD 83/2011

VERTICAL DATUM: NAVD 88



PROJECT VICINITY MAP
SCALE: 1"=1000'

CHRISTOPHERS CROSSING TRAFFIC DATA		YELLOW SPRINGS ROAD TRAFFIC DATA	
ROAD CLASSIFICATION	MAJOR ARTERIAL	ROAD CLASSIFICATION	MAJOR ARTERIAL
DESIGN SPEED	35 MPH	DESIGN SPEED	40 MPH
A.D.T. (EXISTING) 2019	7000	A.D.T. (EXISTING) 2019	8660
A.D.T. (FUTURE) 2039	12600	A.D.T. (FUTURE) 2039	14050
PERCENT TRUCKS	2.5%	PERCENT TRUCKS	1.5%

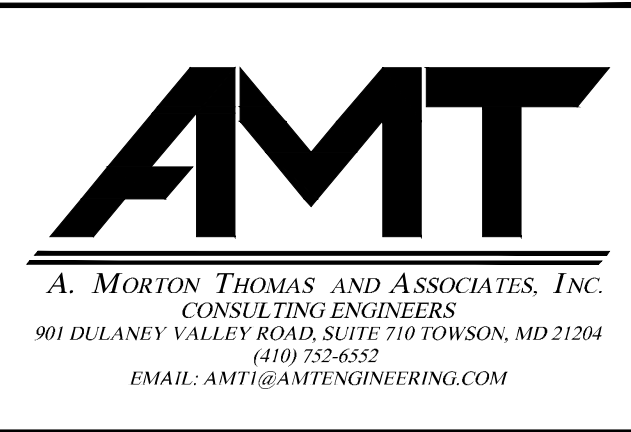
FREDERICK SOIL CONSERVATION DISTRICT
APPROVED BY: _____ DISTRICT MANAGER
DATE: _____

FREDERICK COUNTY OFFICE OF PUBLIC WORKS
_____ DIRECTOR
_____ DATE

FREDERICK COUNTY OFFICE OF TRANSPORTATION ENGINEERING
_____ CHIEF
_____ DATE

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



TT-1	
FREDERICK COUNTY, MARYLAND DIVISION OF PUBLIC WORKS DEPARTMENT OF HIGHWAYS AND TRANSPORTATION OFFICE OF TRANSPORTATION ENGINEERING FREDERICK COUNTY, MARYLAND	
RECONSTRUCTION OF CHRISTOPHERS CROSSING FROM WHITTIER DRIVE TO WALTER MARTZ /POOLE JONES ROAD	
TITLE SHEET	
DATE: APRIL 2020	SCALE:
AMT FILE NO. 15-0758.007	SHEET NO. 01 OF 48

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIAL PROVISIONS, THE LATEST EDITION OF THE MDOT SHA STANDARD SPECIFICATIONS, AND SUPPLEMENTAL SPECIFICATIONS.
2. WHERE REFERENCE IS MADE TO STANDARDS, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE POSSESSION OF THE MDOT SHA BOOK OF STANDARDS FOR HIGHWAY AND INCIDENTAL STRUCTURES WITH THE LATEST UP TO DATE MDOT SHA STANDARDS AS OF THE DATE OF ADVERTISEMENT OF THIS PROJECT.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE LATEST APPROVED SET OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND ANY REFERENCED MDOT SHA STANDARDS AS OF NOTICE TO PROCEED.
4. HORIZONTAL CONTROL: THE COORDINATES FOR THIS PROJECT HAVE BEEN ESTABLISHED BY RTK GPS OBSERVATIONS ADJUSTED TO THE MARYLAND GRID SYSTEM, NAD 83/2011.
5. VERTICAL CONTROL: THE LOCATIONS AND ELEVATIONS BENCHMARKS ARE SHOWN ON GEOMETRIC LAYOUT PLAN. PROJECT ELEVATIONS SHOWN ARE IN U.S. SURVEY FEET AND AGREE WITH THE MARYLAND GRID SYSTEM, NAVD 88.
6. ALL INVERT ELEVATIONS ARE APPROXIMATE. INVERT ELEVATIONS OF PIPES MAY BE MODIFIED, AS DIRECTED BY THE ENGINEER, TO MEET CONDITIONS ENCOUNTERED DURING INSTALLATION OF DRAINAGE STRUCTURES. ALL PIPES SHALL BE CONSTRUCTED ON UNIFORM GRADE BETWEEN INVERT ELEVATIONS AS NOTED ON THE PLANS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. THE LOCATIONS AND LENGTHS OF PIPES TO BE INSTALLED SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING.
8. THE CONTRACTOR SHALL MAKE, CHECK, AND BE RESPONSIBLE FOR ALL MEASUREMENTS AND DIMENSIONS NECESSARY FOR THE PROPER CONSTRUCTION OF ALL WORK.
9. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS TO STORMDRAIN STRUCTURES AS NECESSARY IN ORDER TO MEET FIELD CONDITIONS AS APPROVED THE ENGINEER.
10. ALL DITCHES AND CHANNELS SHALL BE CONSTRUCTED AND STABILIZED IN ACCORDANCE WITH THE DETAILS AND SPECIFICATIONS SHOWN ON THE PLANS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ACTUAL CONDITIONS AND PLANNING ALL CONSTRUCTION ACCORDINGLY. ALL DIMENSIONS SHOWN SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR BEFORE ANY WORK COMMENCES.
12. ANY DAMAGE TO ADJACENT ROADS, YARDS, STRUCTURES, FENCES, SHRUBBERY, ETC., DURING CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR BEFORE ANY WORK COMMENCES.
13. THE CONTRACTOR SHALL GRADE FOR POSITIVE DRAINAGE AT ALL ROADWAY INTERSECTIONS, ENTRANCES, PARKING LOTS, AND YARDS IN CONFORMANCE WITH THE PROPOSED DRAINAGE PATTERNS SHOWN ON THE PLANS.
14. MAILBOXES SHALL BE REMOVED AND RESET BY THE CONTRACTOR AS NECESSARY TO COMPLETE THE WORK. THIS COST IS INCIDENTAL TO THE CLEARING AND GRUBBING ITEM. CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS AND THE POSTMASTER 48 HRS. PRIOR TO THE REMOVAL OF THE MAILBOXES. THE CONTRACTOR SHALL COORDINATE THE TEMPORARY RELOCATION AND FINAL PLACEMENT OF ALL EXISTING MAILBOXES WITH THE POST OFFICE IN HAGERSTOWN, MD SUCH THAT MAIL DELIVERY IS UNINTERRUPTED.
15. MATERIALS SALVAGED FROM CONSTRUCTION SHALL BECOME THE CONTRACTOR'S PROPERTY UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
16. JOBSITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS APPROXIMATE. THE CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO BEGINNING EXCAVATION TO DETERMINE THE LOCATION OF ALL EXISTING UTILITIES. THE UTILITIES SHOWN ON THESE PLANS ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE.
18. IF DURING CONSTRUCTION THE CONTRACTOR FINDS THAT CLEARANCES BETWEEN EXISTING UTILITIES AND PROPOSED WORK IS LESS THAN THAT NOTED OR IS LESS THAN SIX INCHES, HE SHALL CONTACT THE ENGINEER FOR INSTRUCTIONS ON HOW TO PROCEED.
19. THE CONTRACTOR MUST PROTECT IN PLACE ANY ACTIVE ABOVE GROUND AND OR UNDERGROUND UTILITIES FOUND UNLESS OTHER TREATMENT IS CALLED FOR. REPAIRS TO UTILITIES OR PROPERTY DAMAGE AS A RESULT OF THE CONTRACTOR'S NEGLIGENCE MUST BE MADE AT THE CONTRACTOR'S EXPENSE BEFORE PROCEEDING WITH CONSTRUCTION. THE COUNTY OR THE PROPERTY OWNER SHALL NOT BEAR ANY COST OR RESPONSIBILITY FOR DAMAGE TO UTILITIES OR PROPERTY AS THE RESULT OF THE CONTRACTOR'S NEGLIGENCE.
20. THE CONTRACTOR SHALL PROTECT AND NOT INTERRUPT EXISTING UTILITY SERVICES DURING CONSTRUCTION, UNLESS AUTHORIZED BY THE ENGINEER. THE CONTRACTOR SHALL SUPPORT EXISTING UNDERGROUND UTILITIES DURING CONSTRUCTION AND THIS SUPPORT SHALL BE INCIDENTAL TO PERTINENT PAY ITEMS.
21. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES. IF ACCESS MUST BE INTERRUPTED FOR SHORT PERIODS OF TIME, THE INTERRUPTION SHALL BE COORDINATED WITH THE ENGINEER AND THE PROPERTY OWNER.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC THROUGHOUT THE ENTIRE PERIOD OF CONSTRUCTION BY PROVIDING A REASONABLY SMOOTH AND EVEN SURFACE SATISFACTORY FOR THE USE OF PUBLIC TRAFFIC, AND BY PROVIDING ACCESS TO ALL PUBLIC ROADS AND RESIDENTIAL AND COMMERCIAL ENTRANCES AT ALL TIMES.
23. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE ELECTRIC POWER AND TELEPHONE SERVICE CONNECTIONS NECESSARY FOR THE FIELD OFFICES AND PROJECT OPERATIONS WITH ALLEGHENY POWER COMPANY AND VERIZON TELEPHONE COMPANY. ALL COSTS, MATERIALS, AND INSTALLATION OF SERVICE CONNECTIONS SHALL BE PAID FOR BY THE CONTRACTOR.
24. THE CONTRACTOR SHALL ADJUST TO PROPOSED GRADE ALL EXISTING MANHOLES, VALVE BOXES, OR OTHER UTILITIES LOCATED WITHIN THE ASPHALT OVERLAY AND FULL DEPTH ASPHALT PAVING AREAS. IF A VALVE BOX WILL NEED MORE THAN ONE RISER, THE VALVE BOX MUST BE ADJUSTED TO THE FINAL GRADE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ASPHALT PAY ITEMS NECESSARY TO COMPLETE THE WORK.
25. THE CONTRACTOR SHALL ADJUST TO PROPOSED GRADE ALL EXISTING MANHOLES, VALVE BOXES, CLEANOUTS, OR OTHER UTILITIES LOCATED WITHIN THE CONCRETE SIDEWALK AND SHARED USE PATH. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONCRETE SIDEWALK ITEMS NECESSARY TO COMPLETE THE WORK.
26. ALL ASPHALT PAVEMENT UTILITY CUTS SHALL BE PERFORMED AND REPAIRED IN ACCORDANCE WITH FREDERICK COUNTY STANDARDS.
27. IN ANY AREA WHERE ASPHALT THAT IS TO BE REMOVED ADJOINS ASPHALT THAT IS TO REMAIN, THE ASPHALT PAVING SHALL BE SAWCUT IN ORDER TO PROVIDE A CLEAN JOINT BETWEEN THAT WHICH IS TO BE REMOVED AND THAT WHICH IS TO REMAIN.
28. IN AREAS WHERE CONCRETE THAT IS TO BE REMOVED ADJOINS CONCRETE THAT IS TO REMAIN, THE CONCRETE SHALL BE SAWCUT AT THE NEAREST JOINT AND A BITUMINOUS EXPANSION JOINT PROVIDED BETWEEN NEW AND EXISTING WORK. WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THE SPECIFICATIONS AND ON THE APPROVED CONSTRUCTION DRAWINGS.
29. THE CONTRACTOR SHALL OBTAIN A ROADSIDE TREE PERMIT FOR ANY MAINTENANCE, TREATMENT, PLANTING, REMOVAL OR ROOT CUTTING OF TREES WITHIN THE PUBLIC RIGHT OF WAY. REPLACEMENT TREES, IF REQUIRED, WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. PERMIT REQUIREMENTS MAY BE OBTAINED FROM THE DEPARTMENT OF NATURAL RESOURCES-MARYLAND FOREST, PARK, AND WILDLIFE SERVICE WHOSE TELEPHONE NUMBER IS (301) 888-1638. THE CONTRACTOR SHALL ALLOW FOR THE TIME INVOLVED IN THE PROCESSING OF THE PERMIT WHEN MAKING APPLICATION.
30. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING PROPERTY MARKERS, CONTROL POINTS AND BENCHMARKS FOR THE DURATION OF THE CONTRACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE ANY OF THESE POINTS THAT ARE DISTURBED OR DAMAGED DURING THE CONSTRUCTION PROCESS. WHERE NECESSARY, POINTS SHALL BE REPLACED UNDER THE DIRECT SUPERVISION OF A REGISTERED SURVEYOR TO THE STANDARD WITH WHICH THEY WERE ESTABLISHED.
31. DEFINITION OF TERMS:
PROPOSED RIGHT OF WAY: DENOTES LAND BELONGING TO COUNTY OR STATE, WHICH CONTAINS THE ROADWAY AND SUPPORTING STRUCTURES.

PERPETUAL EASEMENT: PORTIONS OF PRIVATE PROPERTY FOR WHICH THE COUNTY HAS ACQUIRED THE RIGHT TO UTILIZE FOR THE INSTALLATION AND MAINTENANCE OF UTILITIES, DRAINAGE STRUCTURES, ETC.

REVERTIBLE EASEMENT: PORTIONS OF PRIVATE PROPERTY FOR WHICH THE COUNTY HAS ACQUIRED THE RIGHT TO CONSTRUCT AND MAINTAIN SUPPORTING SLOPES AND STRUCTURES FOR THE ROADWAY.

TEMPORARY CONSTRUCTION EASEMENT: PORTIONS OF PRIVATE PROPERTY ON WHICH THE COUNTY HAS ACQUIRED THE RIGHT TO OCCUPY AND GRADE ON DURING THE PERIOD OF CONSTRUCTION.

32. THE CONTRACTOR SHALL VERIFY THE DEPTHS OF THE UTILITIES TO CHECK IF THERE IS THE MINIMUM 30" OF COVER BEFORE USING VIBRATORY EQUIPMENT OVER WATER UTILITIES.

33. IF A WATER SERVICE LINE WILL NEED TO BE MOVED BY THE CITY, IT WILL BE DONE AT THE OWNER'S EXPENSE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL EXCAVATION, BACKFILL, PERMITS, TRAFFIC CONTROL, PAVING, AND RESTORATION FROM THE WATER MAIN TO THE PROPOSED LOCATION OF EACH SERVICE. THE CITY WILL RUN THE SERVICE LINE FROM THE CORP STOP OFF THE MAIN TO NEW PROPOSED LOCATION OF THE METER TILE. THE WATER SERVICE LINE WILL BE ONE PIECE OF COPPER (NO SOLID SLEEVES/COUPLINGS TO EXTEND THE WATER SERVICE LINE). THE CONTRACTOR/PLUMBER WILL NEED TO RECONNECT THE PRIVATE SIDE OF THE SERVICE TO THE NEW PROPOSED LOCATION OF THE METER.

34. THE CONTRACTOR WILL NEED TO TAKE TEST PITS OF THE EXISTING WATER SERVICES AND WATER MAINS AT LOCATIONS OF FULL DEPTH PAVEMENT TO AVOID CONFLICTS.

STORM INVERTS

1	PRECAST OPEN-BACK CURB INLET INV IN=400.77 INV OUT=400.45
2	PRECAST OPEN-BACK CURB INLET INV IN=400.60 INV OUT=400.00
3	PRECAST OPEN-BACK CURB INLET INV IN=399.83 INV OUT=399.44
4	PRECAST OPEN-BACK CURB INLET INV IN=400.51 INV OUT=400.04
5	HEADWALL INV=396.76
6	HEADWALL INV=397.14
7	HEADWALL INV=395.96
8	HEADWALL INV=394.92
9	RISER TOP=393.83 INV OUT=387.83
10	OUTFALL INV=384.46
11	DOUBLE GRATE INLET TOP=388.80 INV OUT=383.77
12	HEADWALL INV=383.25
13	DITCH INLET W/GRATE TOP=386.80 INV IN=386.80(6") INV IN=384.46(CONC. THROAT) INV OUT=383.51
14	DITCH INLET W/GRATE TOP=384.93 INV IN=380.48(6") INV IN=380.78(18") INV IN=383.66(NORTH THROAT) INV IN=383.68(SOUTH THROAT) INV OUT=380.47

15	HEADWALL INV=377.72
16	HEADWALL INV=376.95
17	HEADWALL INV=372.34
18	HEADWALL INV=371.49
19	HEADWALL INV(a)=373.53 INV(b)=373.51
20	HEADWALL INV(a)=373.07 INV(b)=373.09
21	CURB INLET TOP=376.40 INV OUT=373.05
22	CURB INLET TOP=376.50 INV IN=372.94 INV OUT=372.63
23	CURB INLET TOP=377.05 INV IN=372.70 INV OUT=377.01(WEIR)
24	MANHOLE TOP=377.20 INV IN(a)= INV IN(b)=372.46 INV OUT=372.43
25	MANHOLE TOP=377.59 INV IN=372.63 INV OUT=371.31
26	CURB INLET TOP=377.45 OUT=372.63
27	HEADWALL INV=396.71 *PIPE DAMAGED OTHER END NOT FOUND
28	CULVERT INV IN=415.32 INV OUT=414.86

29	CULVERT INV IN=412.99 INV OUT=412.62
30	CULVERT INV IN=406.66 INV OUT=406.51
31	OUTFALL INV=404.08
32	GRATE INLET TOP=407.18 INV IN=403.18 INV OUT=403.19
33	HEADWALL INV=402.24
34	CULVERT INV IN=411.97
35	CULVERT INV OUT=411.72
36	CULVERT INV IN=411.53
37	CULVERT INV OUT=410.70
38	SUMP DRAIN INV=411.05
39	SUMP DRAIN INV=410.87
40	HEADWALL INV=397.37
41	HEADWALL INV=396.52
42	HEADWALL INV=391.20
43	HEADWALL INV=396.34
44	HEADWALL INV=392.40
45	HEADWALL INV=394.56
46	HEADWALL INV IN=394.13 INV OUT=394.12

47	HEADWALL INV=393.25
48	CATCH BASIN TOP=NOT IN PLACE AT TIME OF SURVEY INV IN=376.21 INV OUT=376.03
49	HEADWALL INV=375.66
50	RISER TOP=384.54 INV IN=379.05
51	OUTFALL INV=378.12
52	HEADWALL INV=378.12
53	HEADWALL INV=376.57
54	CULVERT INV IN=408.41 INV OUT=408.37
55	CULVERT INV IN=399.85 INV OUT=397.32
56	CULVERT INV IN=412.99 INV OUT=412.62
* STRUCTURES 48 AND 49 WERE UNDER CONSTRUCTION AT TIME OF SURVEY	

ABBREVIATIONS

A	- GRADE CHANGE / ALGEBRAIC DIFFERENCE
AASHTO	- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADT	- AVERAGE DAILY TRAFFIC
B/L	- BASELINE
BOA	- BEGINNING OF ALIGNMENT
BOT	- BOTTOM
BP	- ALIGNMENT BEGINNING
BVC	- BEGIN VERTICAL CURVE
BVCS	- BEGIN VERTICAL CURVE STATION
BVCE	- BEGIN VERTICAL CURVE ELEVATION
BVP	- BEGINNING OF VERTICAL PROFILE
C.B.	- CATCH BASIN
CL	- CLASS
C/O	- CLEAN OUT
CONC.	- CONCRETE
CIBTR. /CAB.	- CONTROL CABINET
CORR.	- CORRECTION
CPI	- CURVE POINT OF INTERSECTION
CULV.	- CULVERT
-C-	- CUT
Dc	- DEGREE OF CURVE
DHV	- DESIGN HOURLY VOLUME
D.S.	- DESIGN SPEED
E.B.	- EASTBOUND
ELEV.,EL.	- ELEVATION
EOA	- END OF ALIGNMENT
EP	- ALIGNMENT END
EX.	- EXISTING
e	- EXTERNAL
EVC	- END VERTICAL CURVE
EVCS	- END VERTICAL CURVE STATION
EVCE	- END VERTICAL CURVE ELEVATION
EVP	- END OF VERTICAL PROFILE
F-	- FILL
G1	- GRADE 1
G2	- GRADE 2
H.S.D.	- HEADLIGHT SIGHT DISTANCE
H/WALL	- HEADWALL
HOR.	- HORIZONTAL
HP	- HIGH POINT
INV.	- INVERT
L	- LENGTH
LVC	- LENGTH OF VERTICAL CURVE
LP	- LIGHT POLE
LOD	- LIMIT OF DISTURBANCE
L.P.	- LOW POINT
MDSHA	- MARYLAND STATE HIGHWAY ADMINISTRATION
M.P.H.	- MILES PER HOUR
N.B.	- NORTHBOUND
N.T.S.	- NOT TO SCALE
PCC	- POINT OF COMPOUND CURVE
BP	- POINT OF BEGINNING
P/C	- POINT OF CURVATURE
P/C	- POINT OF CROWN
POE	- POINT OF ENDING
PI	- POINT OF INTERSECTION
P/R	- POINT OF ROTATION
PT	- POINT OF TANGENCY
PVC	- POINT OF VERTICAL CURVATURE
PVI	- POINT OF VERTICAL INTERSECTION
PVT	- POINT OF VERTICAL TANGENCY
P/GE	- PROFILE GRADE ELEVATION
P.G.L.	- PROFILE GRADE LINE
P/GL	- PROFILE GROUND LINE
PROP.	- PROPOSED
PRC	- POINT OF REVERSE CURVE
R	- RADIUS
K	- RATE OF CHANGE OF GRADE
RCCP	- REINFORCED CONCRETE PIPE
D.S.	- SATELLITE DISH
SDWK	- SIDEWALK
SHLD	- SHOULDER
S.B.	- SOUTHBOUND
STA.,sto	- STATION
S.S.D.	- STOPPING SIGHT DISTANCE
SE	- SUPERELEVATION
ST	- SPIRAL TANGENT INTERSECT
T	- TANGENT
TSP	- TRAFFIC SIGNAL POLE
TCE	- TEMPORARY CONSTRUCTION EASEMENT
U/BOX	- UTILITY BOX
VERT.	- VERTICAL
V.C.	- VERTICAL CURVE
VCC	- VERTICAL COMPOUND CURVE
VCCE	- VERTICAL COMPOUND CURVE ELEVATION
VCCS	- VERTICAL COMPOUND CURVE STATION
VRC	- VERTICAL REVERSE CURVE
VRCS	- VERTICAL REVERSE CURVE STATION
VRCE	- VERTICAL REVERSE CURVE ELEVATION
W.B.	- WESTBOUND

SYMBOL LEGEND

	RAILROAD SIGNAL
	RR MILEPOST
	MAIL BOX
	STORM MANHOLE
	GRATE INLET
	DRAIN
	TRAF. SIGNAL POLE
	SIGN
	TELE. JUNC. BOX
	POWER POLE
	LIGHT POLE
	LAMP POST
	GUY WIRE
	GUY POLE
	ELEC. METER
	ELEC. JUNC. BOX
	AC UNIT
	SAN. SEW. MH
	CLEAN OUT
	WATER VALVE
	WATER METER
	FIRE HYDRANT
	GAS VALVE
	GAS METER
	GAS MANHOLE
	BOLLARD
	FLY STATION
	BENCHMARK
	FLARED END SECTION
	FLOW DIRECTION
	CENTERLINE OF DITCH
	CURB OPENING INLET
	CURB OPENING INLET
	CATCH BASIN (SINGLE)
	CATCH BASIN (DOUBLE)
	TEST PIT
	SOIL BORING
	COMM. LINE PAINT MARK
	ELEC. TRANSFORMER
	ELECTRIC PAINT MARK
	GAS LINE PAINT MARK
	WATERLINE PAINT MARK
	FENCE (CHAIN-LINK)
	FENCE
	WOODLINE

AB-1

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

NOTES, ABBREVIATIONS, LEGEND AND CONVENTIONAL SIGNS

DRAFT DATE: APRIL 2020

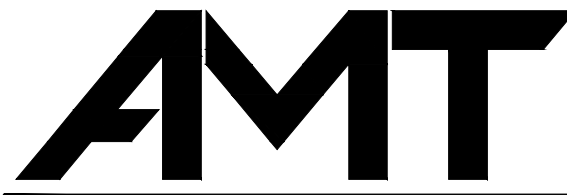
SCALE:

AMT FILE NO. 15-0758.007

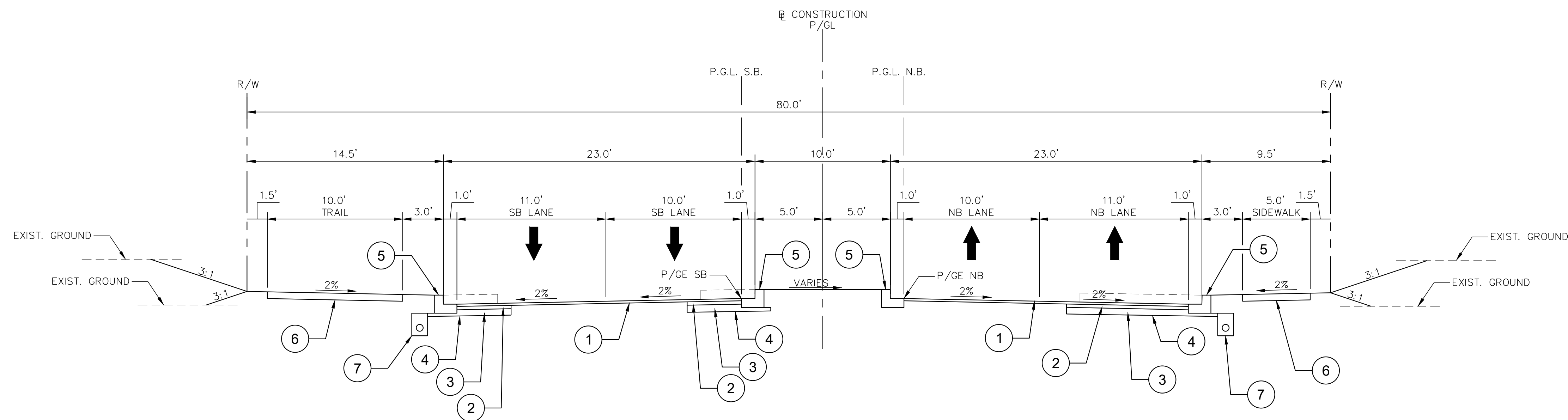
SHEET NO. 02 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

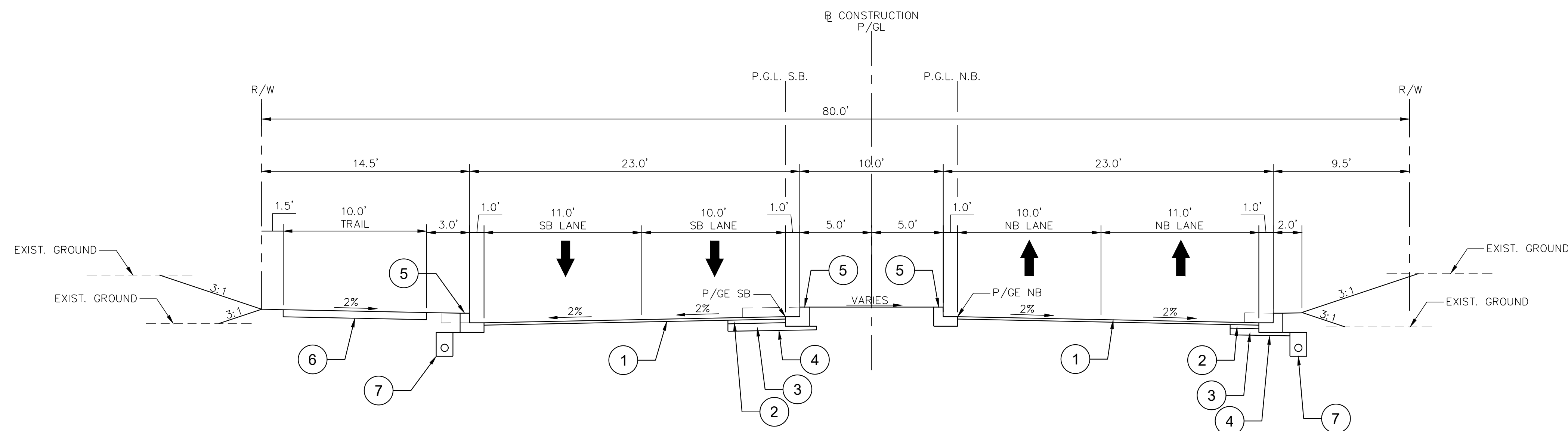
REGISTRATION STAMP



A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
410-752-6552
EMAIL: AMT1@AMTENGINEERING.COM



TYPICAL SECTION - CHRISTOPHERS CROSSING
10' TRAIL & 5' SIDEWALK
STA. 102+50 TO STA. 136+92



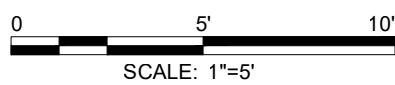
TYPICAL SECTION - CHRISTOPHERS CROSSING
10' TRAIL
STA. 78+75 TO STA. 101+25

KEYNOTES

1. 2" SURFACE COURSE - 12.5mm HMA SUPERPAVE PG64-22
2. 4" BASE COURSE - 19.0mm HMA SUPERPAVE PG64-22
3. 8" COMPACTED GRADED AGGREGATE BASE (TWO 4" LIFTS)
4. TOP OF SUBGRADE
5. TYPE 'A' COMBINATION CURB AND GUTTER SHA STD MD-620.02
6. 5" CONCRETE SIDEWALK/TRAIL
7. 6" LONGITUDINAL UNDERDRAIN SHA STD. MD-387.11-01
8. TYPE 'A' CURB SHA STD MD-620.02
9. TYPE 'C' COMBINATION CURB AND GUTTER SHA STD MD-620.02-01
10. 9" JOINTED PLAIN CONCRETE PAVEMENT - MIX #7

GENERAL NOTES

1. PLACE 4" FURNISHED TOPSOIL AND TURFGRASS ESTABLISHMENT FOR ALL SLOPES UNLESS OTHERWISE NOTED.
2. SAW CUT TO BE PERFORMED 1' INSIDE EXISTING EDGE OF PAVEMENT ALONG ALL AREAS OF FULL-DEPTH WIDENING AND FOR CONSTRUCTION OF CURB AND GUTTER.



REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

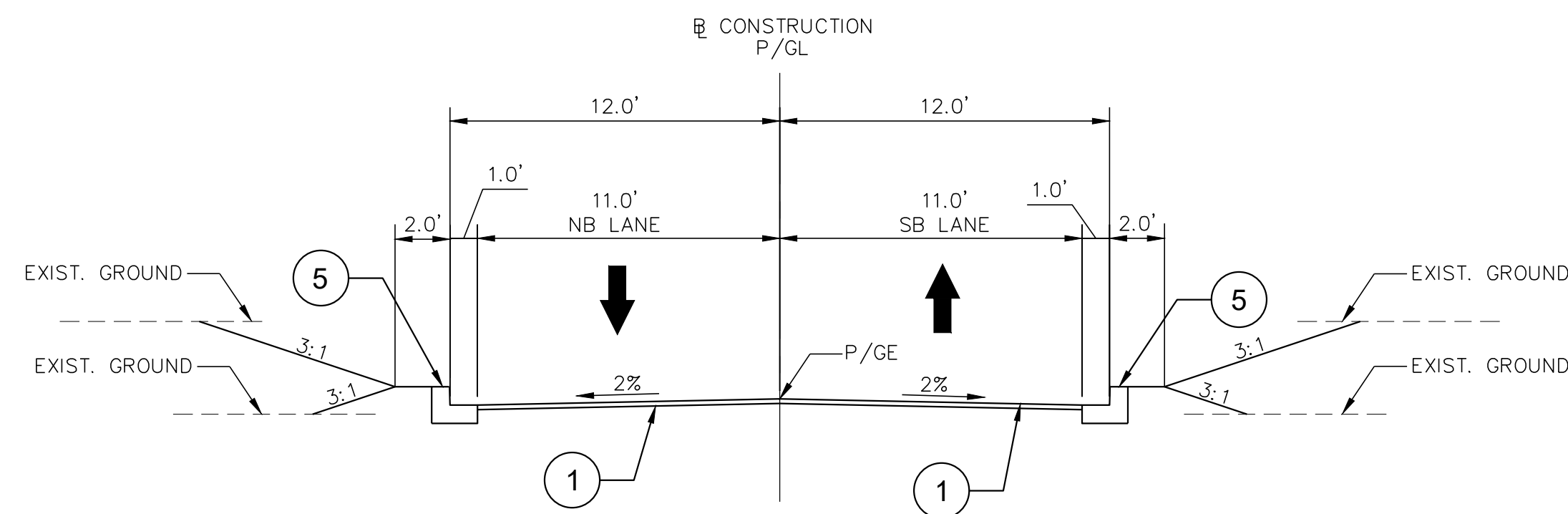
TYPICAL SECTIONS

DATE: APRIL 2020

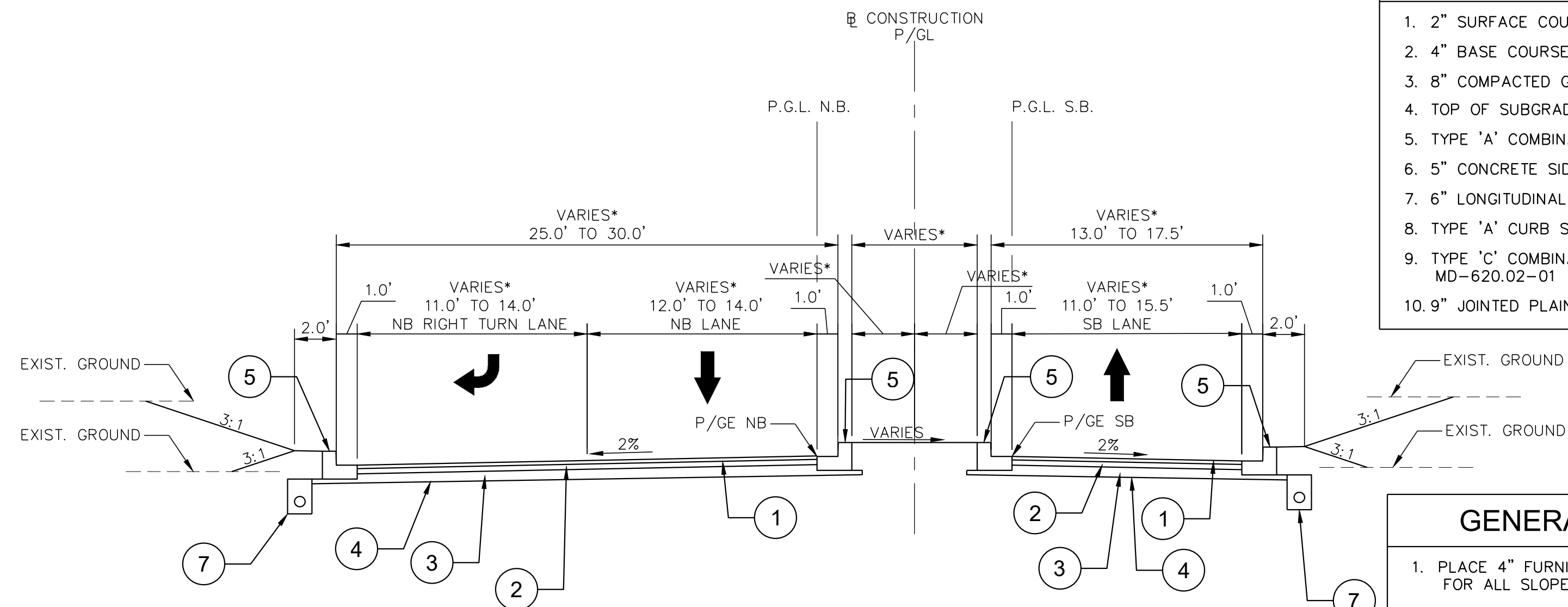
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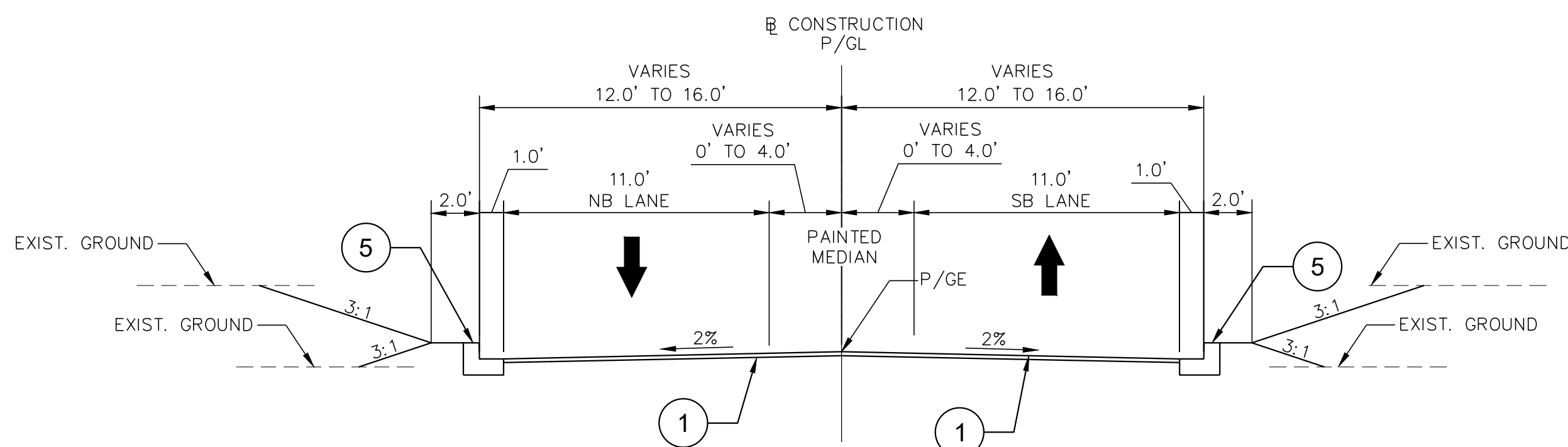
SHEET NO. 03 OF 48



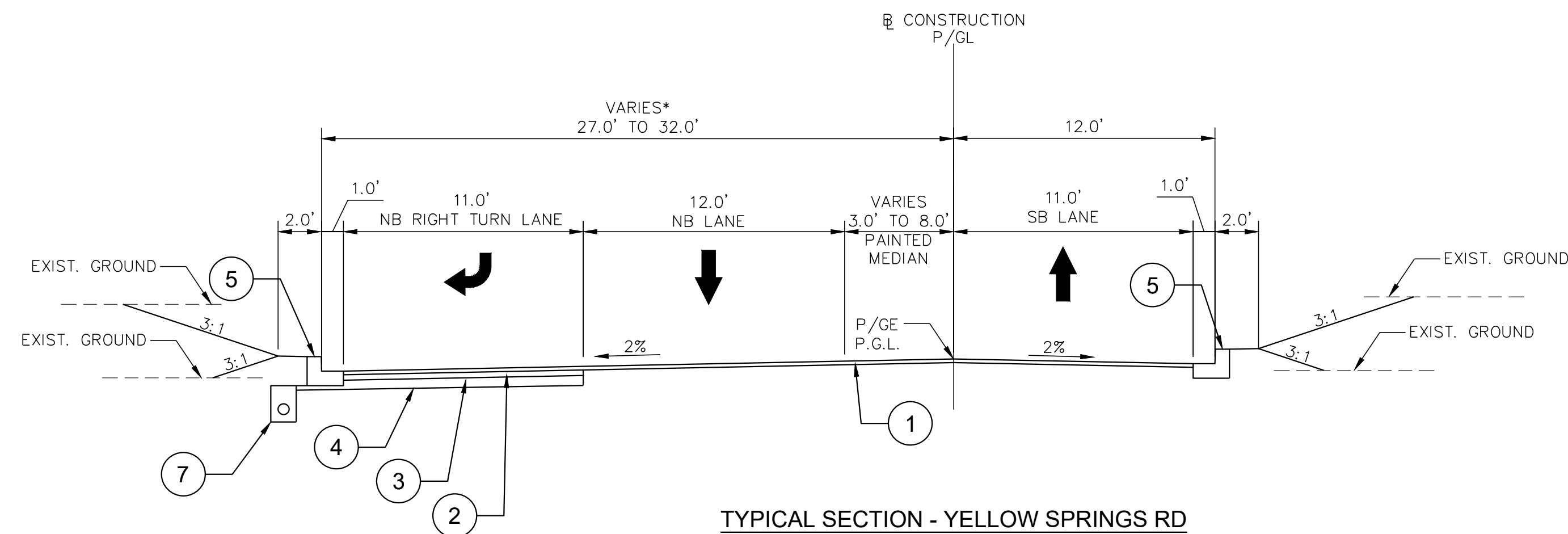
TYPICAL SECTION - YELLOW SPRINGS RD
STA. 200+00 TO STA. 200+70.49



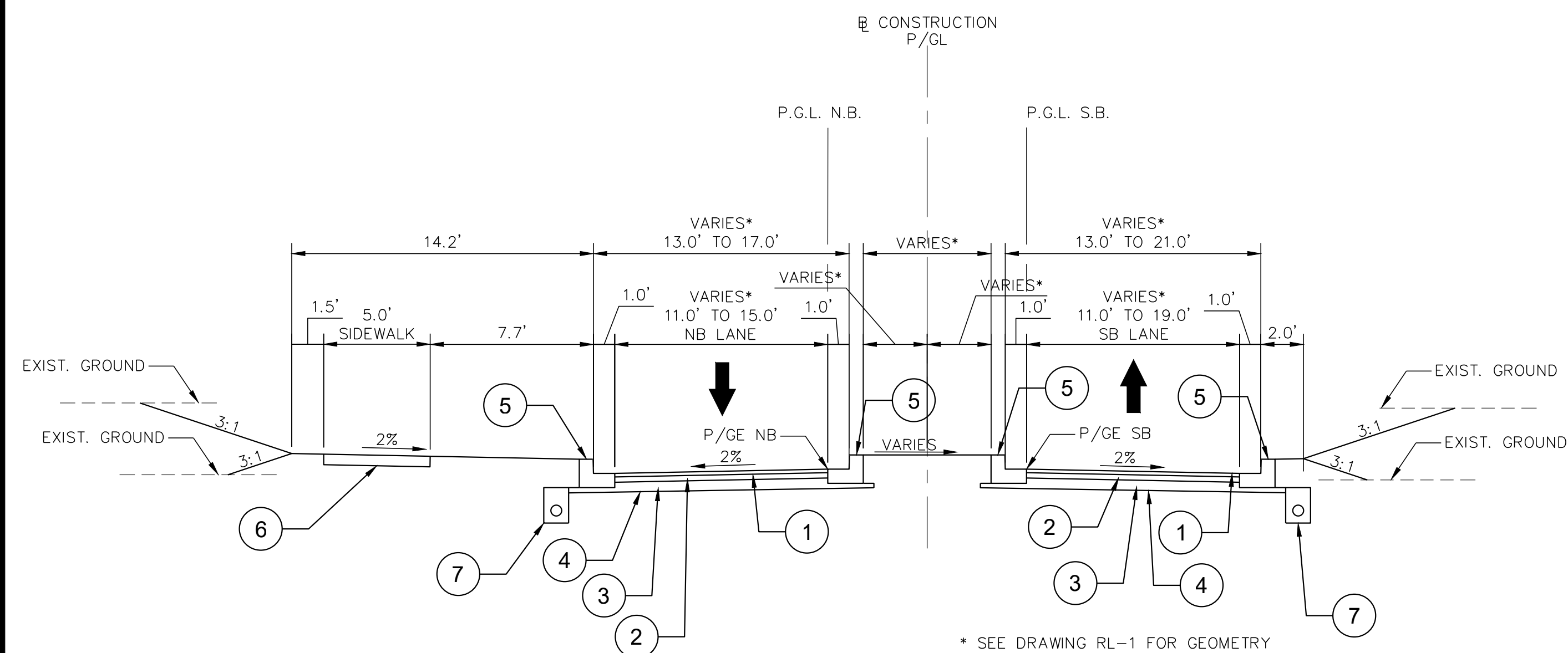
TYPICAL SECTION - YELLOW SPRINGS RD
STA. 300+82.66 TO STA. 302+00



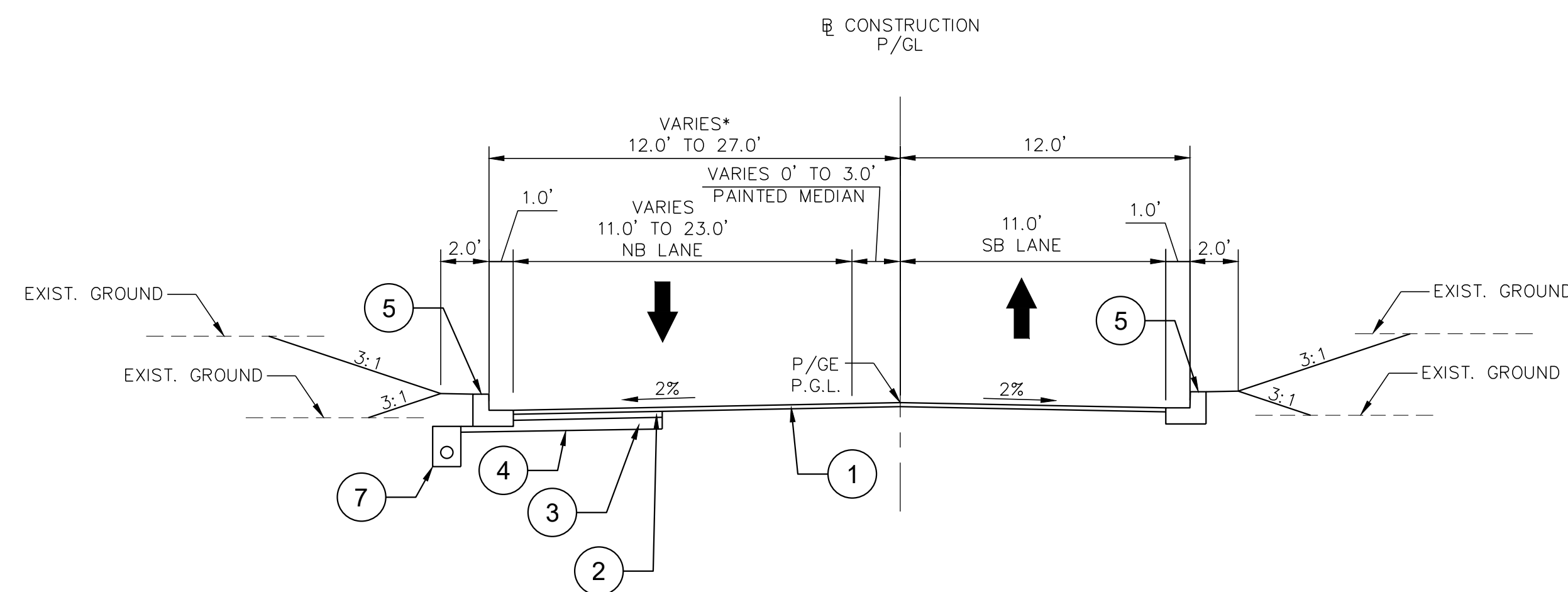
TYPICAL SECTION - YELLOW SPRINGS RD
STA. 200+70.49 TO STA. 201+24.49



TYPICAL SECTION - YELLOW SPRINGS RD
STA. 302+00 TO STA. 303+34.67



TYPICAL SECTION - YELLOW SPRINGS RD
STA. 201+24.49 TO STA. 202+24.17



TYPICAL SECTION - YELLOW SPRINGS RD
STA. 303+34.67 TO STA. 304+35

KEYNOTES

- 2" SURFACE COURSE - 12.5mm HMA SUPERPAVE PG64-22
- 4" BASE COURSE - 19.0mm HMA SUPERPAVE PG64-22
- 8" COMPACTED GRADED AGGREGATE BASE (TWO 4" LIFTS)
- TOP OF SUBGRADE
- TYPE 'A' COMBINATION CURB AND GUTTER SHA STD MD-620.02
- 5" CONCRETE SIDEWALK/TRAIL
- 6" LONGITUDINAL UNDERDRAIN SHA STD. MD-387.11-01
- TYPE 'A' CURB SHA STD MD-620.02
- TYPE 'C' COMBINATION CURB AND GUTTER SHA STD MD-620.02-01
- 9" JOINTED PLAIN CONCRETE PAVEMENT - MIX #7

GENERAL NOTES

- PLACE 4" FURNISHED TOPSOIL AND TURFGRASS ESTABLISHMENT FOR ALL SLOPES UNLESS OTHERWISE NOTED.
- SAW CUT TO BE PERFORMED 1' INSIDE EXISTING EDGE OF PAVEMENT ALONG ALL AREAS OF FULL-DEPTH WIDENING AND FOR CONSTRUCTION OF CURB AND GUTTER.

0 5' 10'
SCALE: 1"=5'

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

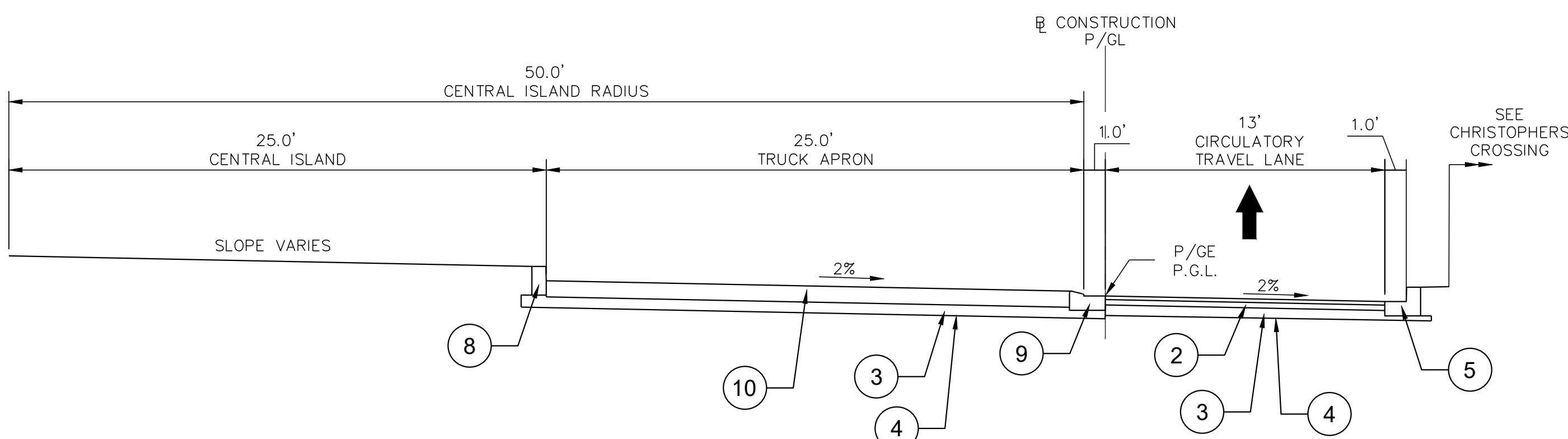
TYPICAL SECTIONS

DATE: APRIL 2020

SCALE:

AMT FILE NO. 15-0758.007

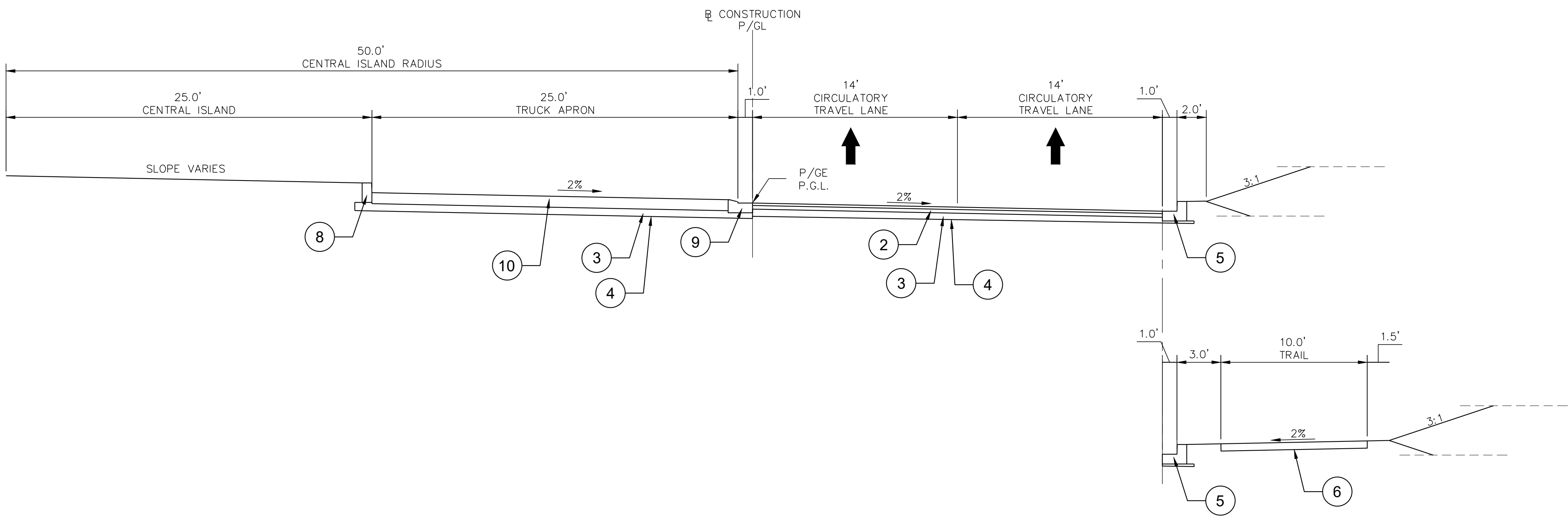
SHEET NO. 04 OF 48



TYPICAL SECTION - ROUNDABOUT
STA. 400+00 TO STA. 400+15.31
STA. 401+33.57 TO STA. 401+75.97
STA. 403+00.24 TO STA. 403+20.44

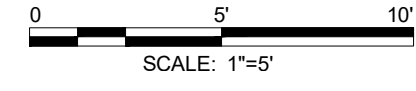
- KEYNOTES
- 1. 2" SURFACE COURSE - 12.5mm HMA SUPERPAVE PG64-22
 - 2. 4" BASE COURSE - 19.0mm HMA SUPERPAVE PG64-22
 - 3. 8" COMPACTED GRADED AGGREGATE BASE (TWO 4" LIFTS)
 - 4. TOP OF SUBGRADE
 - 5. TYPE 'A' COMBINATION CURB AND GUTTER SHA STD MD-620.02
 - 6. 5" CONCRETE SIDEWALK/TRAIL
 - 7. 6" LONGITUDINAL UNDERDRAIN SHA STD. MD-387.11
 - 8. TYPE 'A' CURB SHA STD MD-620.02
 - 9. TYPE 'C' COMBINATION CURB AND GUTTER SHA STD MD-620.02-01
 - 10. 9" JOINTED PLAIN CONCRETE PAVEMENT - MIX #7

- GENERAL NOTES
- 1. PLACE 4" FURNISHED TOPSOIL AND TURFGRASS ESTABLISHMENT FOR ALL SLOPES UNLESS OTHERWISE NOTED.
 - 2. SAW CUT TO BE PERFORMED 1' INSIDE EXISTING EDGE OF PAVEMENT ALONG ALL AREAS OF FULL-DEPTH WIDENING AND FOR CONSTRUCTION OF CURB AND GUTTER.



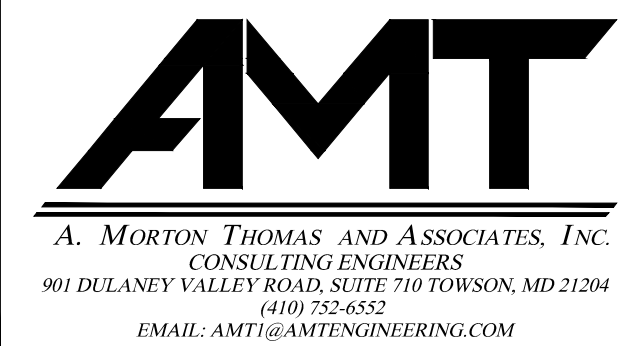
TYPICAL SECTION - ROUNDABOUT
STA. 400+15.31 TO STA. 401+33.57
STA. 401+75.97 TO STA. 403+00.24

STA. 400+15.31 TO STA. 401+33.57



REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

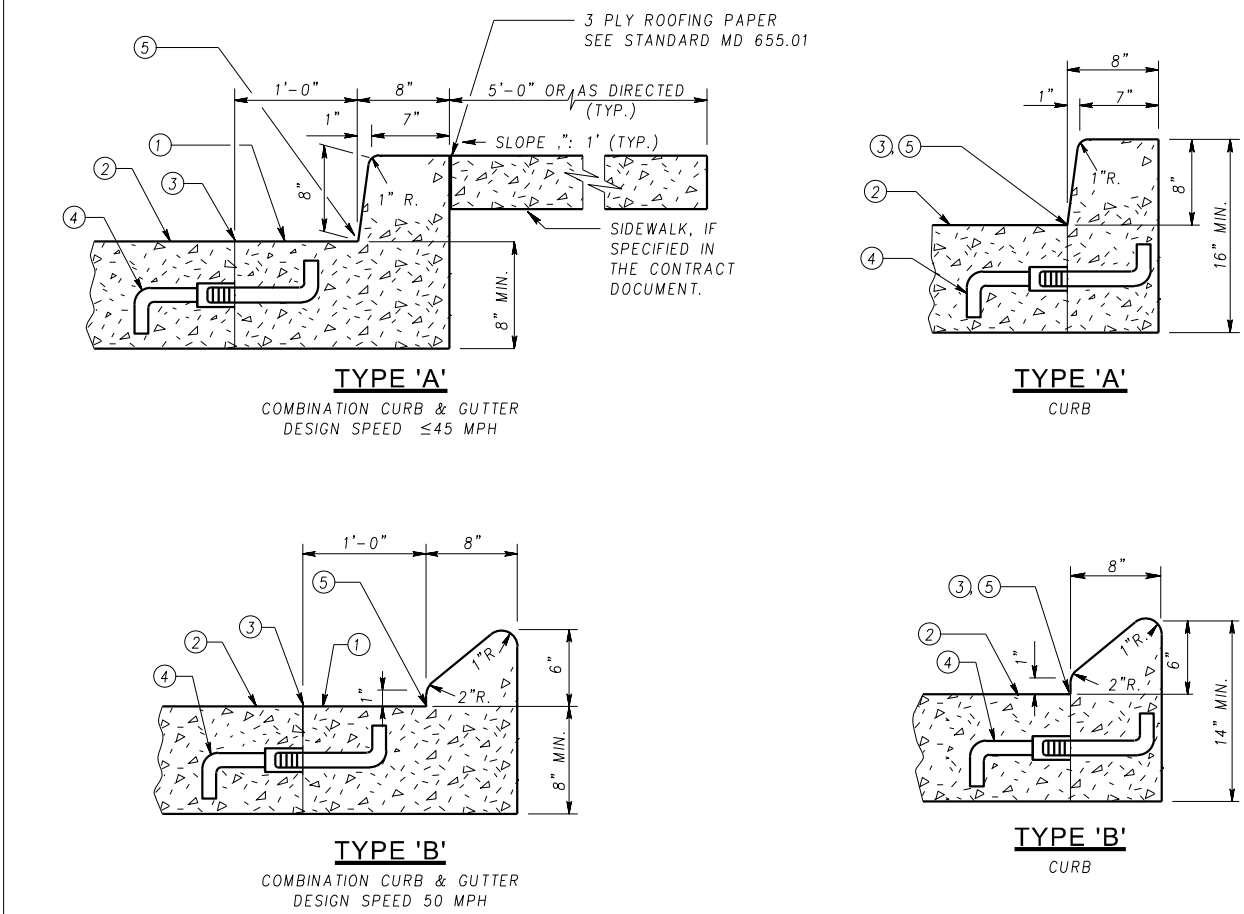
TYPICAL SECTIONS

DATE: APRIL 2020

SCALE:

AMT FILE NO. 15-0758.007

SHEET NO. 05 OF 48

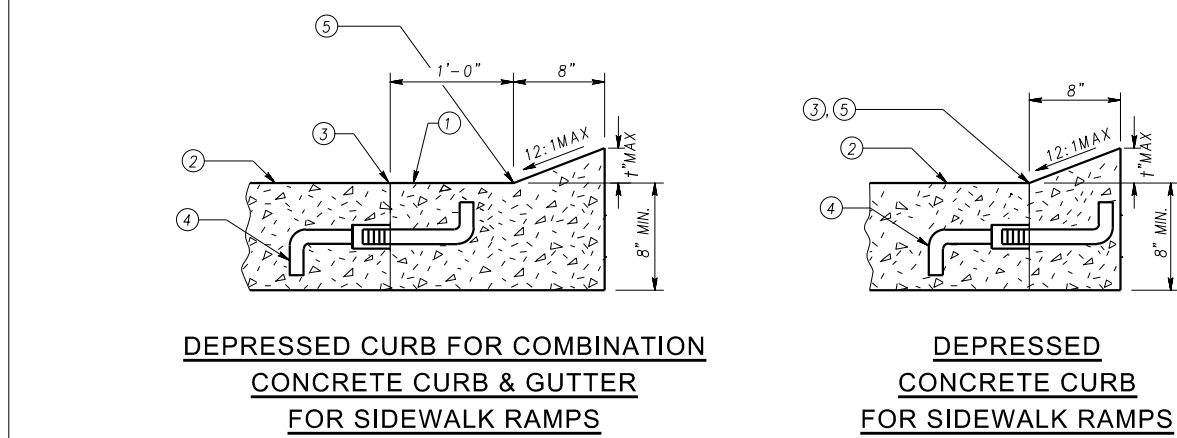


- ① SLOPE GUTTER PAN " " PER FOOT TOWARD FLOW LINE ON ALL ROADWAYS INCLUDING SUPERELEVATED SECTIONS, EXCEPT INTERCHANGE RAMPS.
- ② ROADWAY PAVEMENT SLOPE.
- ③ ROADWAY PAVEMENT CONSTRUCTION JOINT.
- ④ PROVIDE LONGITUDINAL TIE DEVICE "J" BAR MODIFIED. REFER TO STANDARD NO MD 572.61.
- ⑤ FLOW LINE.

NOTES

- A. RIGID PAVEMENT ROADWAY ADJACENT TO COMBINATION CURB AND GUTTER AND CLOSED SECTION ROADWAY USING RIGID PAVEMENT WITH COMBINATION CURB AND GUTTER SHALL BE TIED AT THE ROADWAY PAVEMENT CONSTRUCTION JOINT. REFER TO STANDARD MD 572.61 FOR METHOD OF LONGITUDINAL TIE DEVICES. SPACING OF THE TIE BARS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. RIGID PAVEMENT AND CURB SHALL BE CONSTRUCTED AS INDICATED. TIE DEVICES AND KEYS ARE NOT REQUIRED WHEN USING FLEXIBLE PAVEMENT FOR ROADWAY.
- B. MAXIMUM JOINT SPACING FOR CONCRETE CURB AND COMBINATION CURB & GUTTER IS 10'. SEE SPECIFICATION FOR LOCATIONS AND DESCRIPTION OF TREATMENT FOR THE TYPES OF JOINTS USED.
- C. TYPE A OR B COMBINATION CURB AND GUTTER SHALL BE USED FOR ALL APPLICABLE NEW CONSTRUCTION AND IN THOSE AREAS WHERE THE COMBINATION CURB AND GUTTER ARE REPLACED IN KIND.
- D. TYPE A OR B CURB SHALL BE USED FOR THE REPLACEMENT OF LIKE KIND OF CURB ONLY. NOT TO BE USED FOR NEW CONSTRUCTION EXCEPT WHERE INDICATED ON APPROPRIATE INLET STANDARDS.

SPECIFICATION 602	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES STANDARD TYPES A & B CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER STANDARD NO. MD 620.02
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

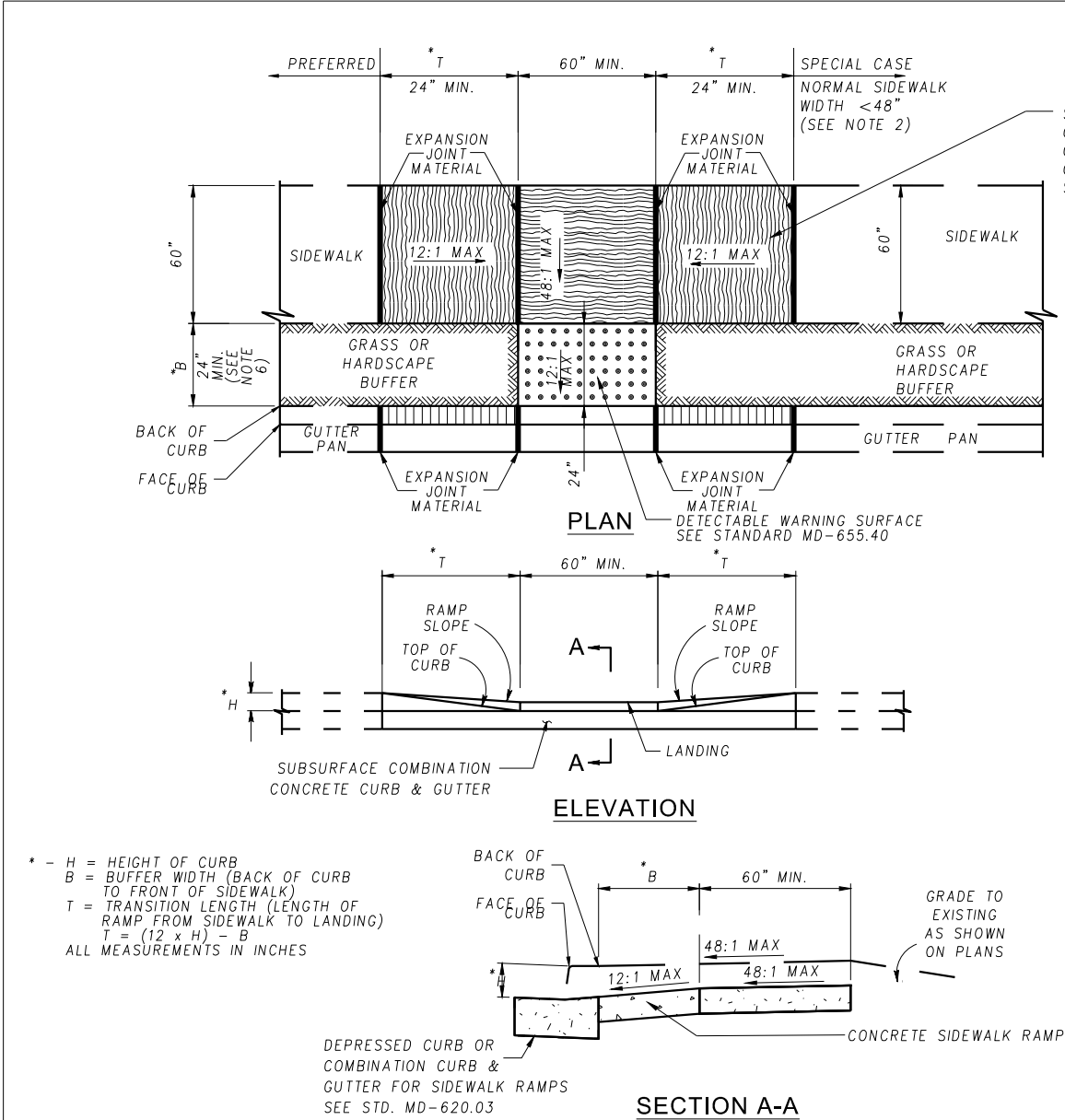


- ① SLOPE GUTTER PAN " " PER FOOT TOWARD FLOW LINE ON ALL ROADWAYS INCLUDING SUPERELEVATED SECTIONS, EXCEPT INTERCHANGE RAMPS.
- ② ROADWAY PAVEMENT SLOPE.
- ③ ROADWAY PAVEMENT CONSTRUCTION JOINT.
- ④ PROVIDE LONGITUDINAL TIE DEVICE "J" BAR MODIFIED. REFER TO STANDARD NO MD 572.61.
- ⑤ FLOW LINE.

NOTES

- A. RIGID PAVEMENT ROADWAY ADJACENT TO COMBINATION CURB AND GUTTER AND CLOSED SECTION ROADWAY USING RIGID PAVEMENT WITH COMBINATION CURB AND GUTTER SHALL BE TIED AT THE ROADWAY PAVEMENT CONSTRUCTION JOINT. REFER TO STANDARD MD 572.61 FOR METHOD OF KEYWAY AND LONGITUDINAL TIE DEVICES. SPACING OF THE TIE BARS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. RIGID PAVEMENT AND CURB SHALL BE CONSTRUCTED AS INDICATED. TIE DEVICES AND KEYS ARE NOT REQUIRED WHEN USING FLEXIBLE PAVEMENT FOR ROADWAY.
- B. MAXIMUM JOINT SPACING FOR CONCRETE CURB AND COMBINATION CURB & GUTTER IS 10'. SEE SPECIFICATION FOR LOCATIONS AND DESCRIPTION OF TREATMENT FOR THE TYPES OF JOINTS USED.
- C. PAYMENT FOR DEPRESSING THE CURB WILL BE INCIDENTAL TO THE CONTRACT UNIT PRICE BID PER LINEAR FOOT FOR THE ITEM CONCRETE CURB OR COMBINATION CONCRETE CURB AND GUTTER, AS SPECIFIED IN THE CONTRACT DOCUMENTS.

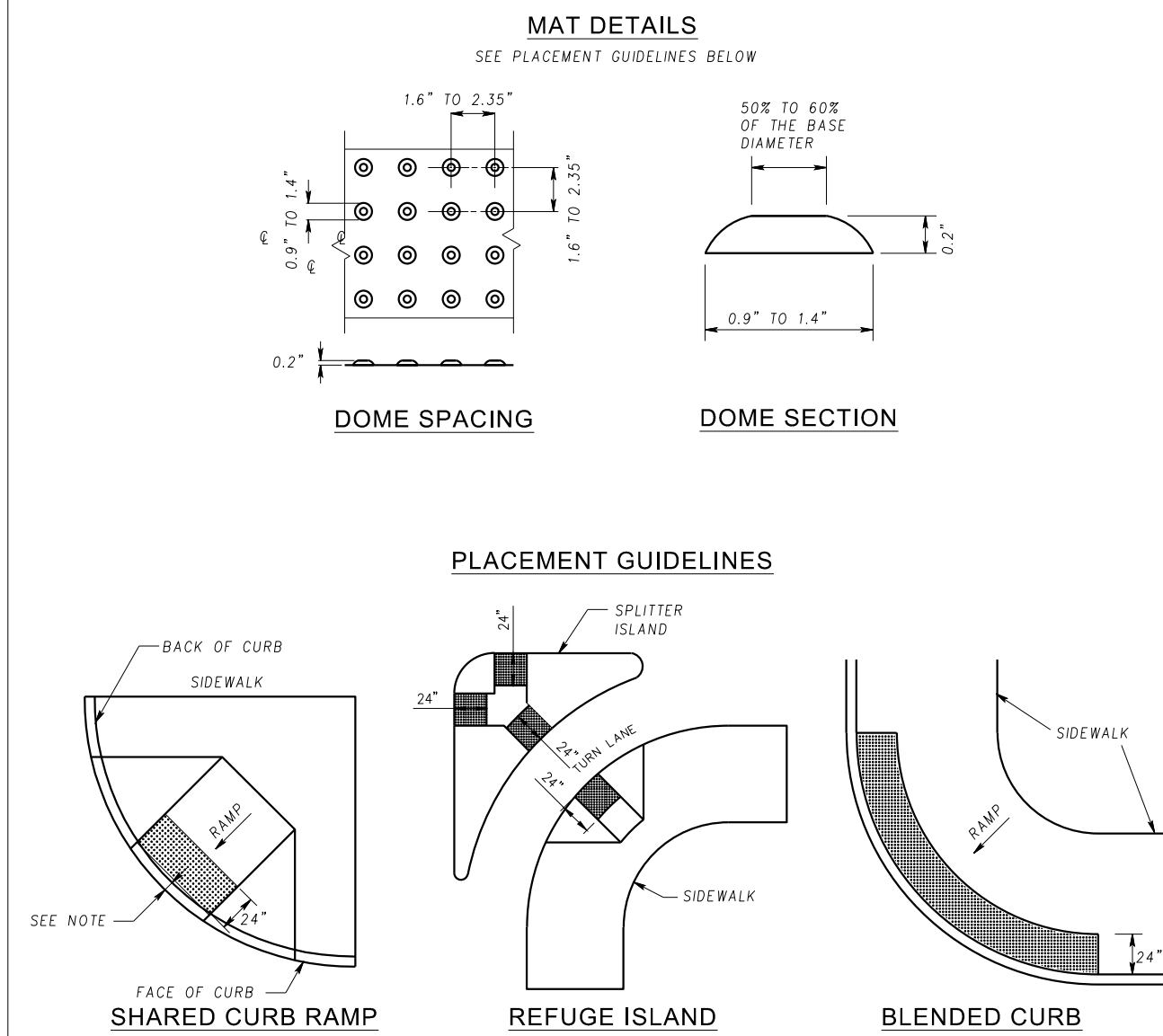
SPECIFICATION 602	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES DEPRESSED CURB FOR COMBINATION CURB AND GUTTER AND DEPRESSED CURB FOR SIDEWALK RAMPS STANDARD NO. MD 620.03
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	



NOTES

1. TO BE USED WHERE AT LEAST 7'-0" EXISTS BETWEEN THE BACK OF CURB AND THE BACK OF SIDEWALK. THIS STANDARD MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
3. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
4. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH STD. MD-655.01.
5. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.
6. FOR BUTTER WIDTHS LESS THAN 24", WHEN SIDEWALK TO BACK OF CURB AS SHOWN FOR THE SPECIAL CASE, THEN BUILD PARALLEL RAMP USING STANDARD MD-655.12.
7. TRANSITION PANELS TO TIE INTO EXISTING SIDEWALK MUST BE A MINIMUM OF 5' IN LENGTH.
8. IF THE BUFFER AREA IS GREATER THAN OR EQUAL TO 4' THE LANDING AREA MUST BE 2X 1 2X IF THE BUFFER AREA IS LESS THAN 4' THE LANDING AREA CROSS-SLOPE CANNOT EXCEED THE GRADE OF THE ROAD.

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES SIDEWALK RAMPS COMBINATION STANDARD NO. MD 655.13
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	



NOTES

1. THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6" TO 8" INCHES FROM THE FACE OF CURB.
2. FOR SOME APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF CURB ARE NO LESS THAN 0.5" AND NO MORE THAN 3.0" FROM THE BACK OF CURB. TRUNCATED DOME SURFACES SHALL BE FABRICATED TO PROVIDE FULL DOMES ONLY.
3. DETECTABLE WARNING SURFACE SHALL BE PAID FOR IN ACCORDANCE WITH SECTION 611 OF THE SPECIFICATIONS.
4. DETECTABLE WARNING SURFACES ARE REQUIRED AT STREET CROSSING & SIGNALIZED INTERSECTIONS.

SPECIFICATION 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES DETACHABLE WARNING SURFACES STANDARD NO. MD 655.40
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	



1. TO BE USED WHERE A STREET-LEVEL PEDESTRIAN CROSSING IS REQUIRED THROUGH RAISED MEDIANS OR RAISED ISLANDS AND THERE IS INSUFFICIENT WIDTH TO PROVIDE A RAMPED MEDIAN OR ISLAND OPENING (STD. MD-655.22).
2. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD MD-655.01.
3. CUT-THROUGH MEDIAN AND ISLAND OPENINGS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE OPENING ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED OPENING VARIES FROM STANDARD METHODS.
4. WHERE 60" CUT THROUGHS CAN NOT BE PROVIDED A DESIGN WAIVER MUST BE REQUESTED.

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	



1. TO BE USED WHERE A STREET-LEVEL PEDESTRIAN CROSSING IS REQUIRED THROUGH RAISED MEDIANS OR RAISED ISLANDS AND THERE IS INSUFFICIENT WIDTH TO PROVIDE A RAMPED MEDIAN OR ISLAND OPENING (STD. MD-655.22).
2. EXPANSION JOINT MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD MD-655.01.
3. CUT-THROUGH MEDIAN AND ISLAND OPENINGS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE OPENING ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED OPENING VARIES FROM STANDARD METHODS.
4. WHERE 60" CUT THROUGHS CAN NOT BE PROVIDED A DESIGN WAIVER MUST BE REQUESTED.

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
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SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
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SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
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APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES CUT-THROUGH MEDIAN AND ISLAND OPENINGS STANDARD NO. MD 655.21
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

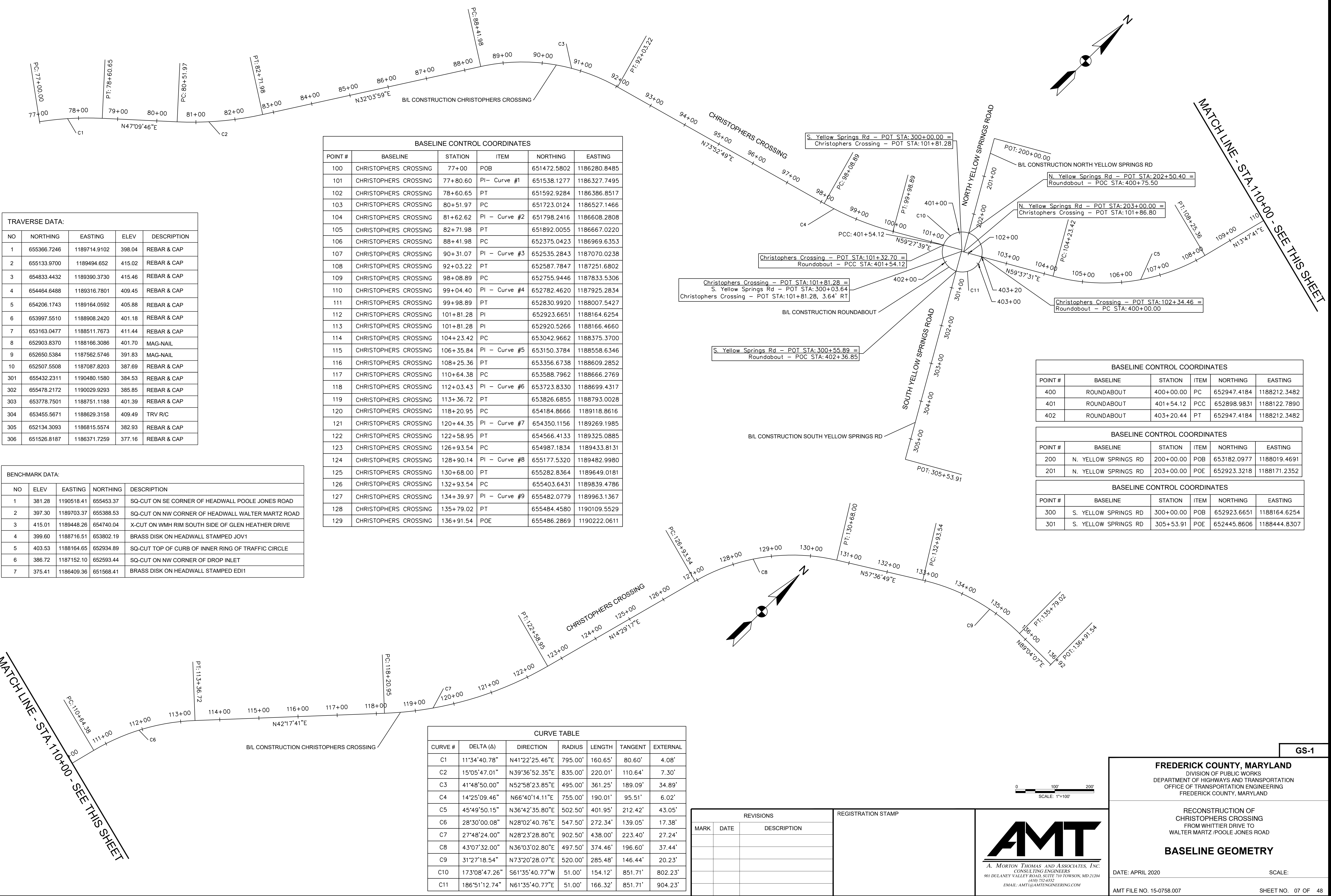
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APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

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APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	
APPROVAL	APPROVAL	

SPECIFICATION 603 & 611	CATEGORY CODE ITEMS
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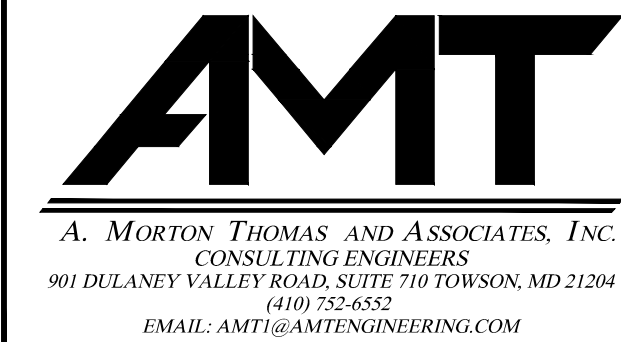
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NO	NORTHING	EASTING	ELEV	DESCRIPTION
1	655366.7246	1189714.9102	398.04	REBAR & CAP
2	655133.9700	1189494.652	415.02	REBAR & CAP
3	654833.4432	1189390.3730	415.46	REBAR & CAP
4	654464.6488	1189316.7801	409.45	REBAR & CAP
5	654206.1743	1189164.0592	405.88	REBAR & CAP
6	653997.5510	1188908.2420	401.18	REBAR & CAP
7	653163.0477	1188511.7673	411.44	REBAR & CAP
8	652903.8370	1188166.3086	401.70	MAG-NAIL
9	652650.5384	1187562.5746	391.83	MAG-NAIL
10	652507.5508	1187087.8203	387.69	REBAR & CAP
301	655432.2311	1190480.1580	384.53	REBAR & CAP
302	655478.2172	1190029.9293	385.85	REBAR & CAP
303	653778.7501	1188751.1188	401.39	REBAR & CAP
304	653455.5671	1188629.3158	409.49	TRV R/C
305	652134.3093	1186815.5574	382.93	REBAR & CAP
306	651526.8187	1186371.7259	377.16	REBAR & CAP

BENCHMARK DATA:				
NO	ELEV	EASTING	NORTHING	DESCRIPTION
1	381.28	1190518.41	655453.37	SQ-CUT ON SE CORNER OF HEADWALL POOLE JONES ROAD
2	397.30	1189703.37	655388.53	SQ-CUT ON NW CORNER OF HEADWALL WALTER MARTZ ROAD
3	415.01	1189448.26	654740.04	X-CUT ON WMH RIM SOUTH SIDE OF GLEN HEATHER DRIVE
4	399.60	1188716.51	653802.19	BRASS DISK ON HEADWALL STAMPED JOV1
5	403.53	1188164.65	652934.89	SQ-CUT TOP OF CURB OF INNER RING OF TRAFFIC CIRCLE
6	386.72	1187152.10	652593.44	SQ-CUT ON NW CORNER OF DROP INLET
7	375.41	1186409.36	651568.41	BRASS DISK ON HEADWALL STAMPED EDI1

BASELINE CONTROL COORDINATES					
POINT #	BASELINE	STATION	ITEM	NORTHING	EASTING
100	CHRISTOPHERS CROSSING	77+00	POB	651472.5802	1186280.8485
101	CHRISTOPHERS CROSSING	77+80.60	PI - Curve #1	651538.1277	1186327.7495
102	CHRISTOPHERS CROSSING	78+60.65	PT	651592.9284	1186386.8517
103	CHRISTOPHERS CROSSING	80+51.97	PC	651723.0124	1186527.1466
104	CHRISTOPHERS CROSSING	81+62.62	PI - Curve #2	651798.2416	1186608.2808
105	CHRISTOPHERS CROSSING	82+71.98	PT	651892.0055	1186667.0220
106	CHRISTOPHERS CROSSING	88+41.98	PC	652375.0423	1186969.6353
107	CHRISTOPHERS CROSSING	90+31.07	PI - Curve #3	652535.2843	1187070.0238
108	CHRISTOPHERS CROSSING	92+03.22	PT	652587.7847	1187251.6802
109	CHRISTOPHERS CROSSING	98+08.89	PC	652755.9446	1187833.5306
110	CHRISTOPHERS CROSSING	99+04.40	PI - Curve #4	652782.4620	1187925.2834
111	CHRISTOPHERS CROSSING	99+98.89	PT	652830.9920	1188007.5427
112	CHRISTOPHERS CROSSING	101+81.28	PI	652923.6651	1188164.6254
113	CHRISTOPHERS CROSSING	101+81.28	PI	652920.5266	1188166.4660
114	CHRISTOPHERS CROSSING	104+23.42	PC	653042.9662	1188375.3700
115	CHRISTOPHERS CROSSING	106+35.84	PI - Curve #5	653150.3784	1188558.6346
116	CHRISTOPHERS CROSSING	108+25.36	PT	653356.6738	1188609.2852
117	CHRISTOPHERS CROSSING	110+64.38	PC	653588.7962	1188666.2769
118	CHRISTOPHERS CROSSING	112+03.43	PI - Curve #6	653723.8330	1188699.4317
119	CHRISTOPHERS CROSSING	113+36.72	PT	653826.6855	1188793.0028
120	CHRISTOPHERS CROSSING	118+20.95	PC	654184.8666	1189118.8616
121	CHRISTOPHERS CROSSING	120+44.35	PI - Curve #7	654350.1156	1189269.1985
122	CHRISTOPHERS CROSSING	122+58.95	PT	654566.4133	1189325.0885
123	CHRISTOPHERS CROSSING	126+93.54	PC	654987.1834	1189433.8131
124	CHRISTOPHERS CROSSING	128+90.14	PI - Curve #8	655177.5320	1189482.9980
125	CHRISTOPHERS CROSSING	130+68.00	PT	655282.8364	1189649.0181
126	CHRISTOPHERS CROSSING	132+93.54	PC	655403.6431	1189839.4786
127	CHRISTOPHERS CROSSING	134+39.97	PI - Curve #9	655482.0779	1189963.1367
128	CHRISTOPHERS CROSSING	135+79.02	PT	655484.4580	1190109.5529
129	CHRISTOPHERS CROSSING	136+91.54	POE	655486.2869	1190222.0611

CURVE TABLE						
CURVE #	DELTA (Δ)	DIRECTION	RADIUS	LENGTH	TANGENT	EXTERNAL
C1	11°34'40.78"	N41°22'25.46"E	795.00'	160.65'	80.60'	4.08'
C2	15°05'47.01"	N39°36'52.35"E	835.00'	220.01'	110.64'	7.30'
C3	41°48'50.00"	N52°58'23.85"E	495.00'	361.25'	189.09'	34.89'
C4	14°25'09.46"	N66°40'14.11"E	755.00'	190.01'	95.51'	6.02'
C5	45°49'50.15"	N36°42'35.80"E	502.50'	401.95'	212.42'	43.05'
C6	28°30'00.08"	N28°02'40.76"E	547.50'	272.34'	139.05'	17.38'
C7	27°48'24.00"	N28°23'28.80"E	902.50'	438.00'	223.40'	27.24'
C8	43°07'32.00"	N36°03'02.80"E	497.50'	374.46'	196.60'	37.44'
C9	31°27'18.54"	N73°20'28.07"E	520.00'	285.48'	146.44'	20.23'
C10	173°08'47.26"	S61°35'40.77"W	51.00'	154.12'	851.71'	802.23'
C11	186°51'12.74"	N61°35'40.77"E	51.00'	166.32'	851.71'	904.23'

REVISIONS			REGISTRATION STAMP
MARK	DATE	DESCRIPTION	



FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS

DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

OFFICE OF TRANSPORTATION ENGINEERING

FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

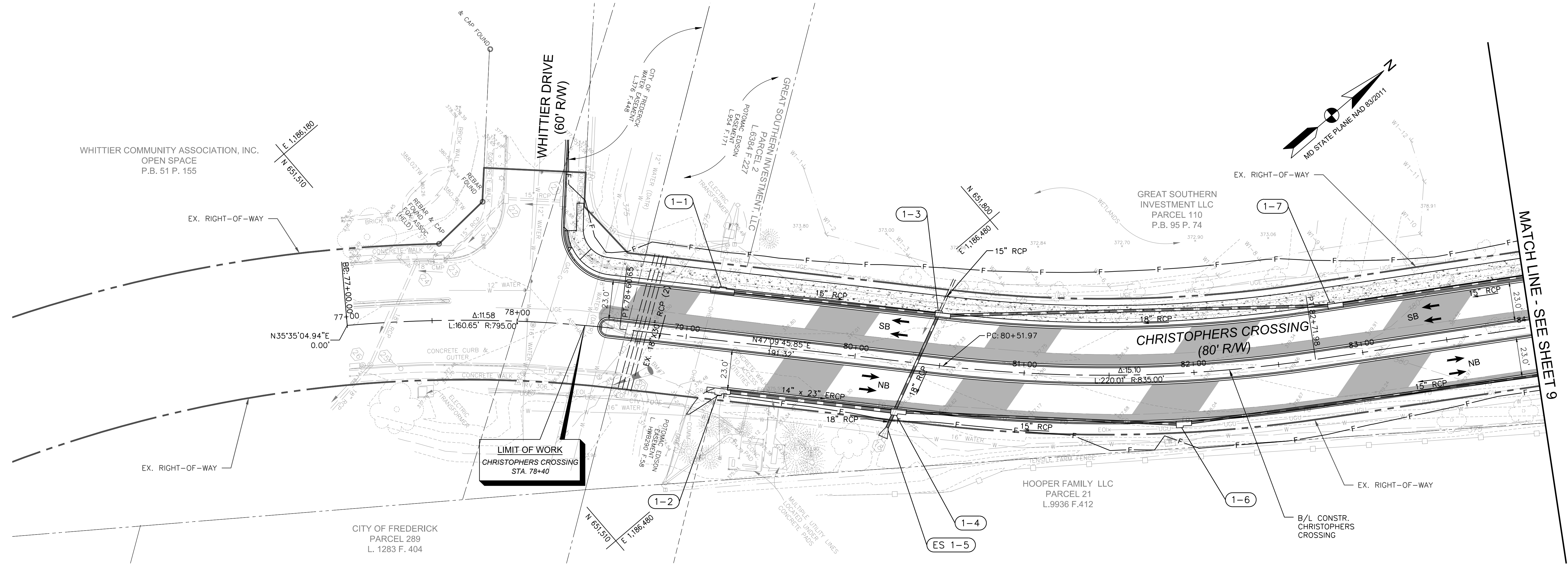
BASELINE GEOMETRY

DATE: APRIL 2020

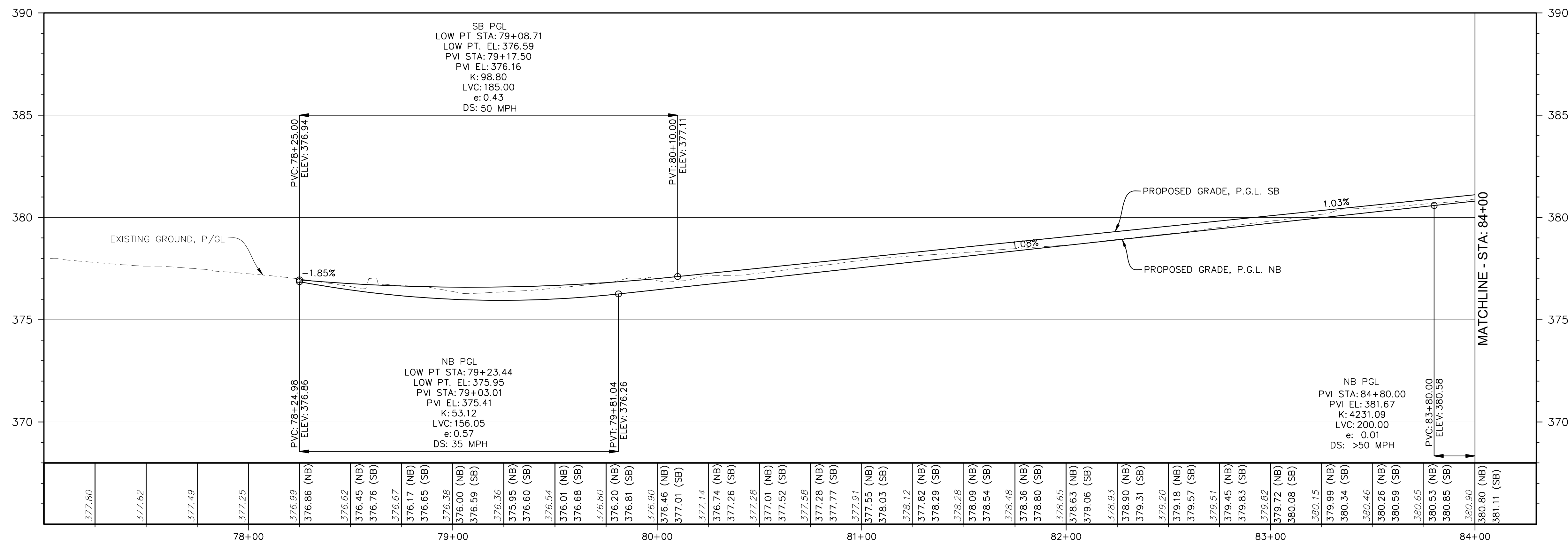
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AMT FILE NO. 15-0758.007

SHEET NO. 07 OF 48

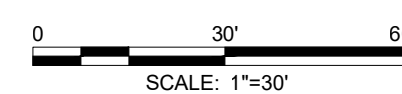


PLAN
SCALE: 1"=30'



STA. 77+00 TO STA. 84+00 PROFILE

SCALE: HORIZ 1"=30'
VERT 1"=3'



LEGEND	
	RIGHT-OF-WAY
	FULL DEPTH PAVEMENT
	AT GRADE FINE MILLING AND RESURFACING
	CONCRETE SIDEWALK/TRAIL
	RIP-RAP
	CENTERLINE OF DITCH

PS-1

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ/POOLE JONES ROAD

ROADWAY PLAN AND PROFILE

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

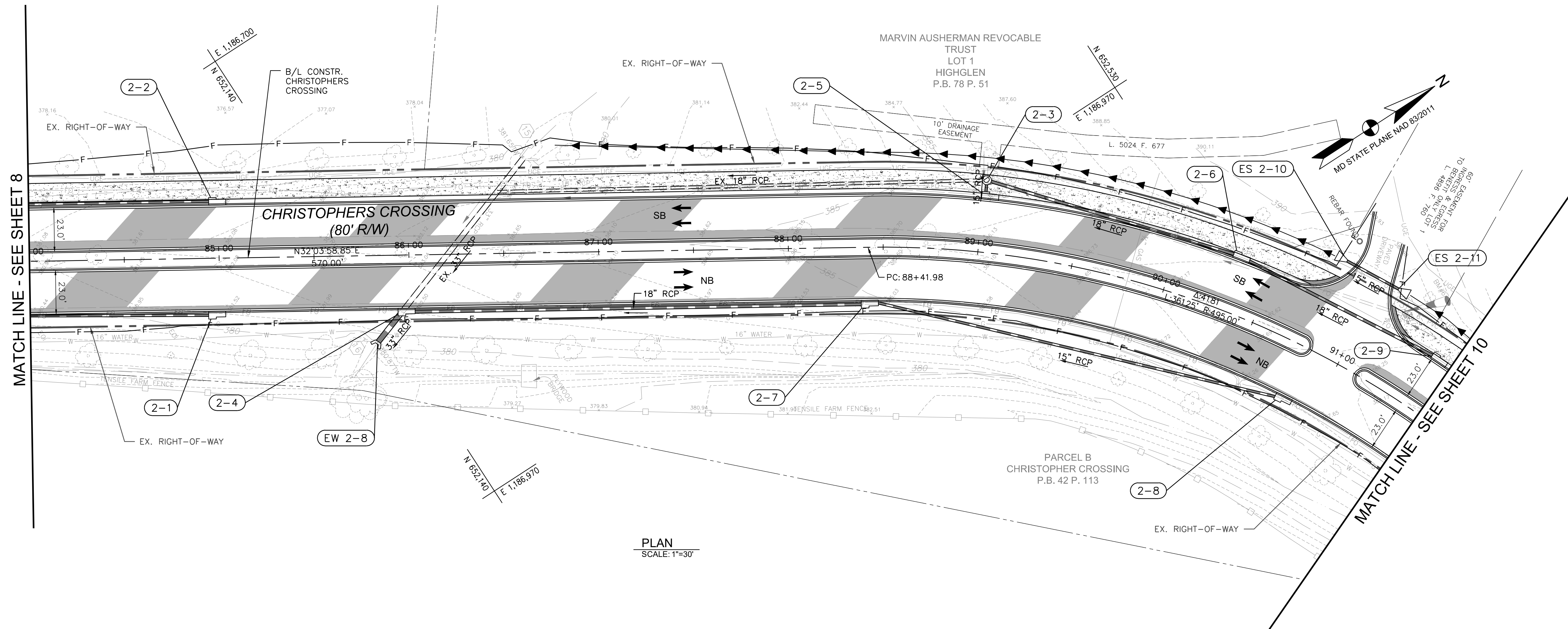
SHEET NO. 08 OF 48

AMT

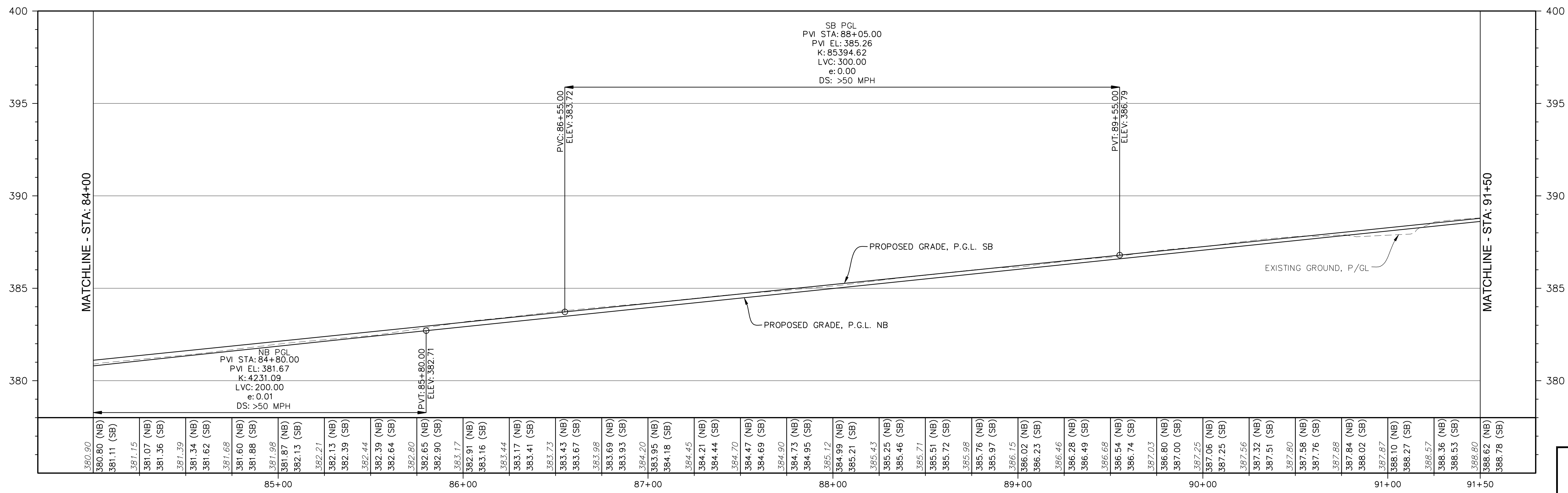
A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 724-6553
EMAIL: AMT@AMTENGINEERING.COM

REGISTRATION STAMP

REVISIONS		
MARK	DATE	DESCRIPTION



PLAN
SCALE: 1"=30'



STA. 84+00 TO STA. 91+50 PROFILE
SCALE: HORZ 1"=30'
VERT 1"=3'

LEGEND

- RIGHT-OF-WAY
- FULL DEPTH PAVEMENT
- AT GRADE FINE MILLING AND RESURFACING
- CONCRETE SIDEWALK/TRAIL
- RIP-RAP
- CENTERLINE OF DITCH

REVISIONS		
MARK	DATE	DESCRIPTION

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A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 723-6553
EMAIL: AMT1@AMTENGINEERING.COM

FREDERICK COUNTY, MARYLAND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

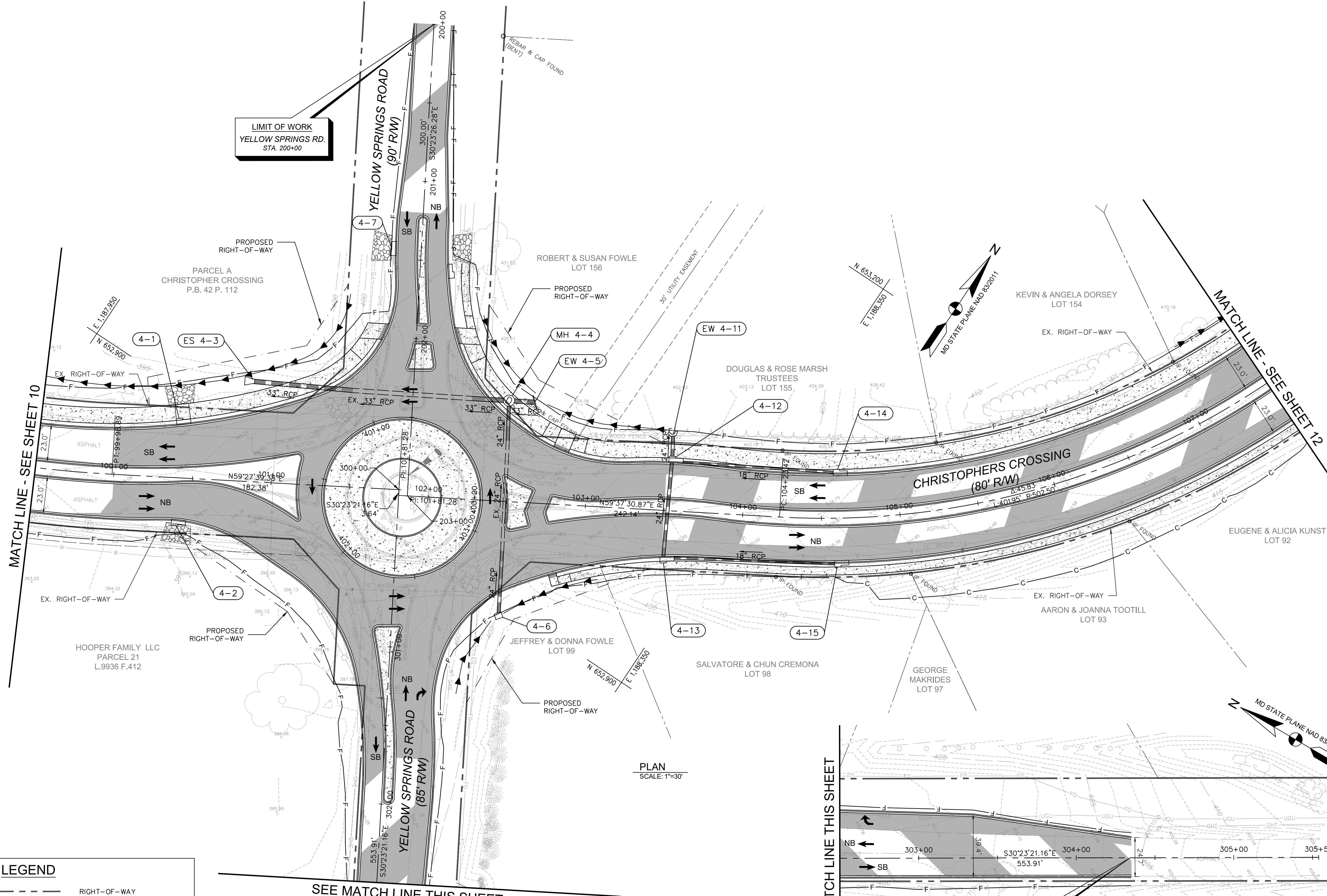
ROADWAY PLAN AND PROFILE

DATE: APRIL 2020

SCALE: 1"=30'

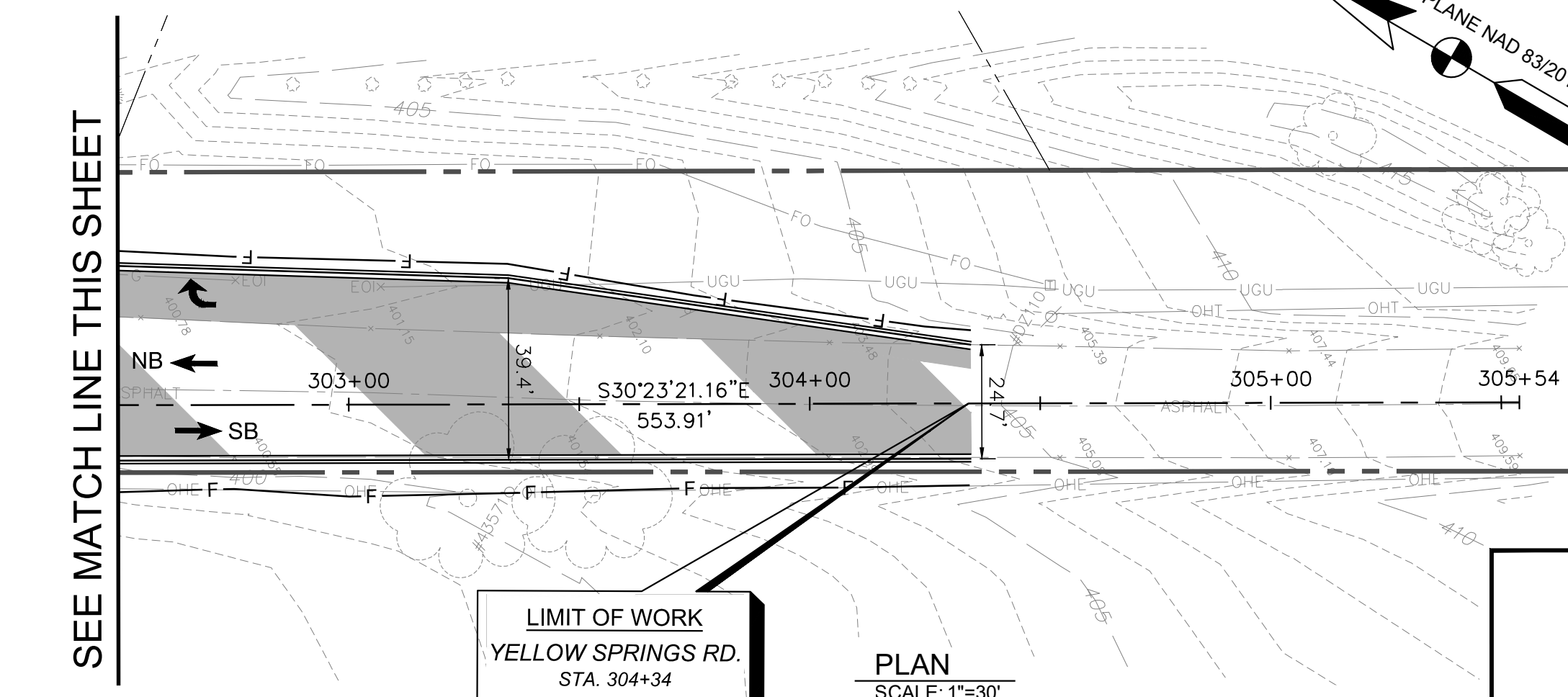
AMT FILE NO. 15-0758.007

SHEET NO. 09 OF 48



LEGEND

- RIGHT-OF-WAY
- FULL DEPTH PAVEMENT
- AT GRADE FINE MILLING AND RESURFACING
- CONCRETE SIDEWALK/TRAIL
- RIP-RAP
- CENTERLINE OF DITCH



PLAN
SCALE: 1"=30'

PLAN
SCALE: 1"=30'

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP	

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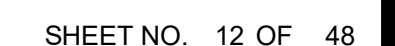
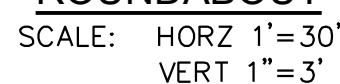
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

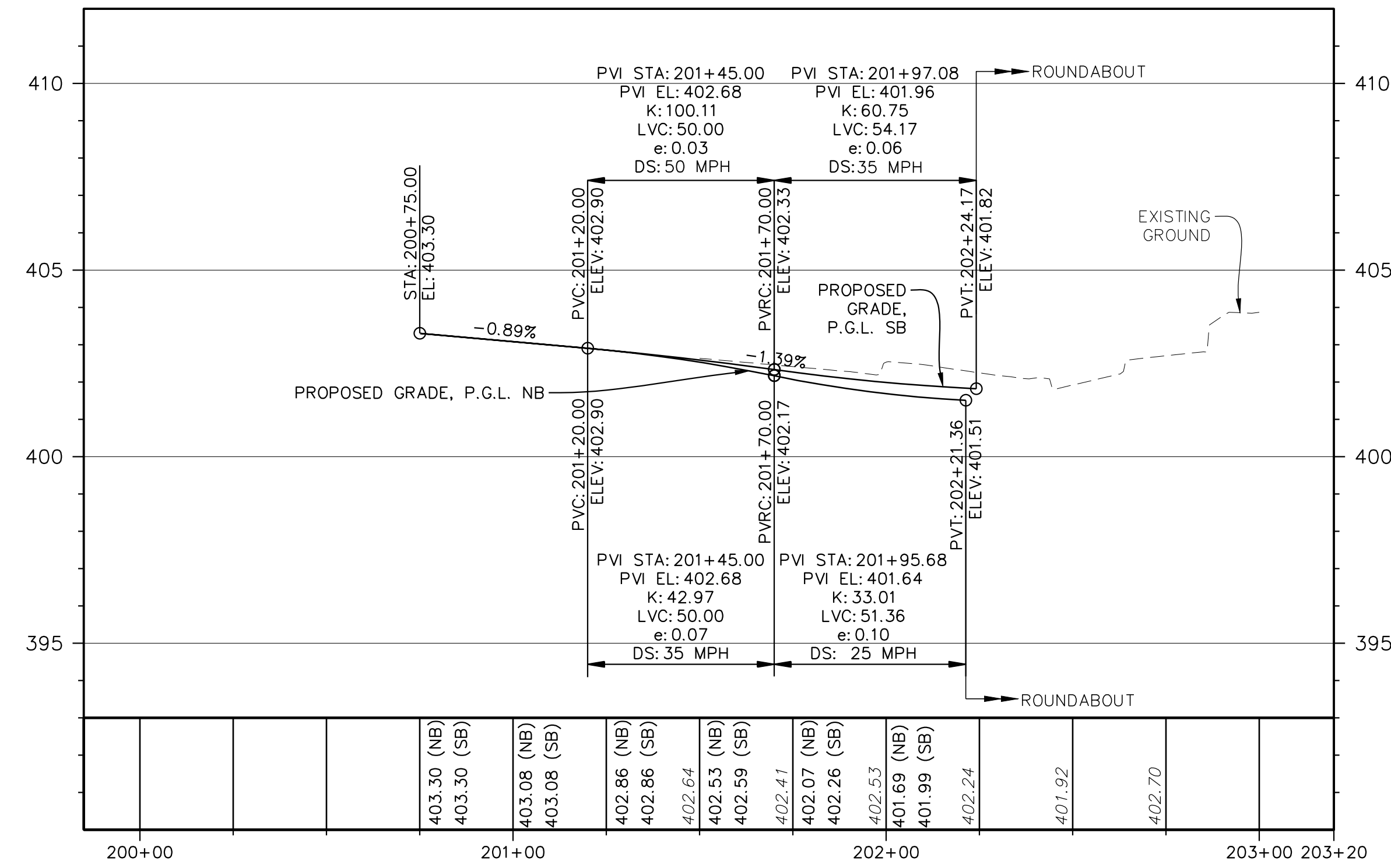
RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

ROADWAY PLAN

DATE: APRIL 2020
SCALE: 1"=30'
AMT FILE NO. 15-0758.007
SHEET NO. 11 OF 48

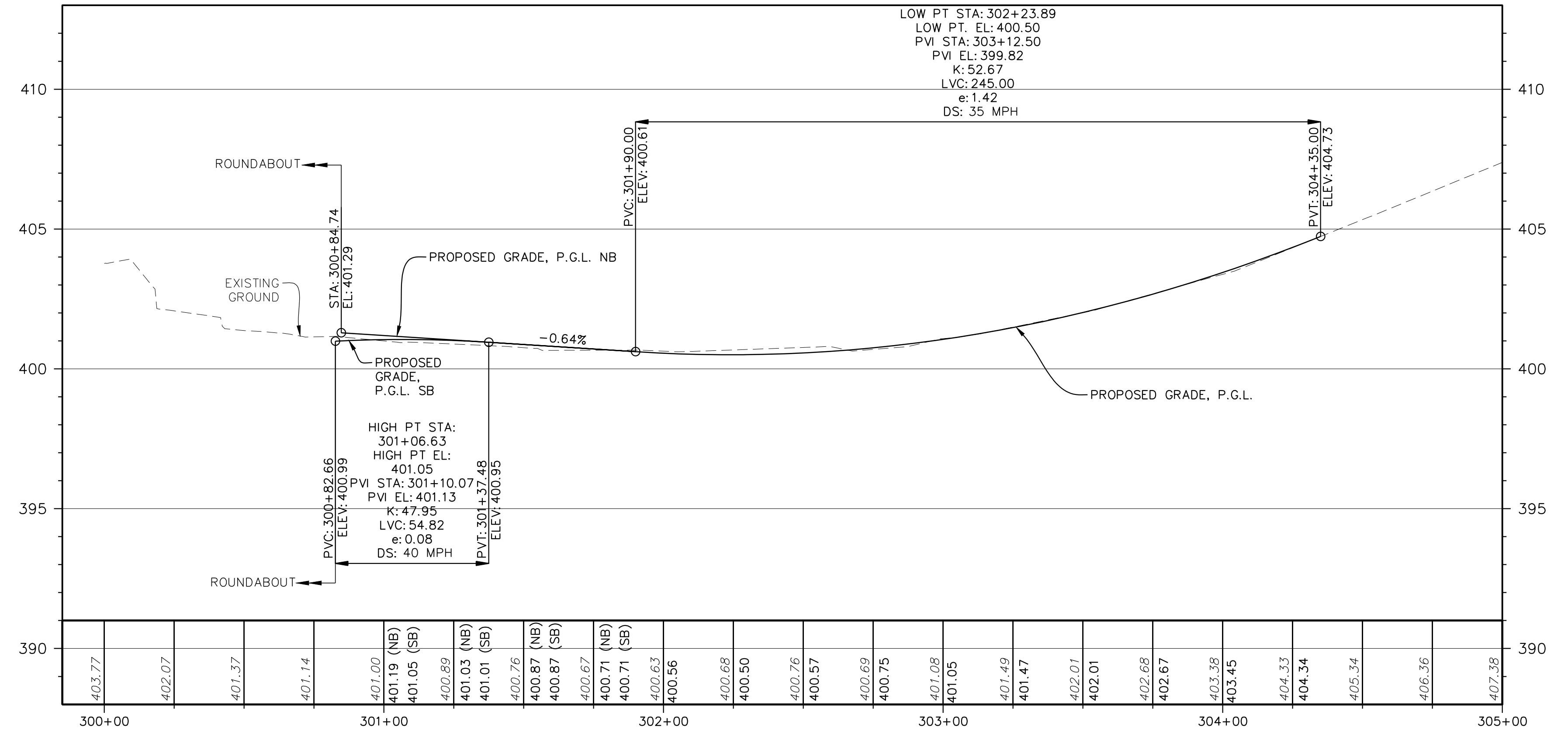
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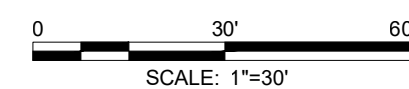
YELLOW SPRINGS ROAD PROFILE NORTH OF CHRISTOPHERS CROSSING

SCALE: HORIZ 1"=30'
VERT 1"=3'



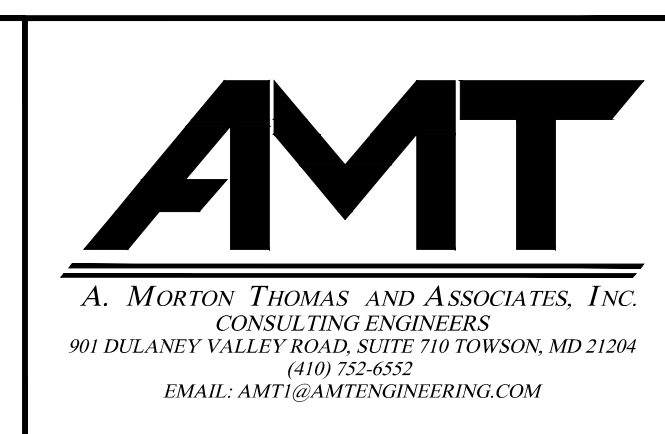
YELLOW SPRINGS ROAD PROFILE SOUTH OF CHRISTOPHERS CROSSING

SCALE: HORIZ 1"=30'
VERT 1"=3'



REVISIONS		
MARK	DATE	DESCRIPTION

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FREDERICK COUNTY, MARYLAND

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CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

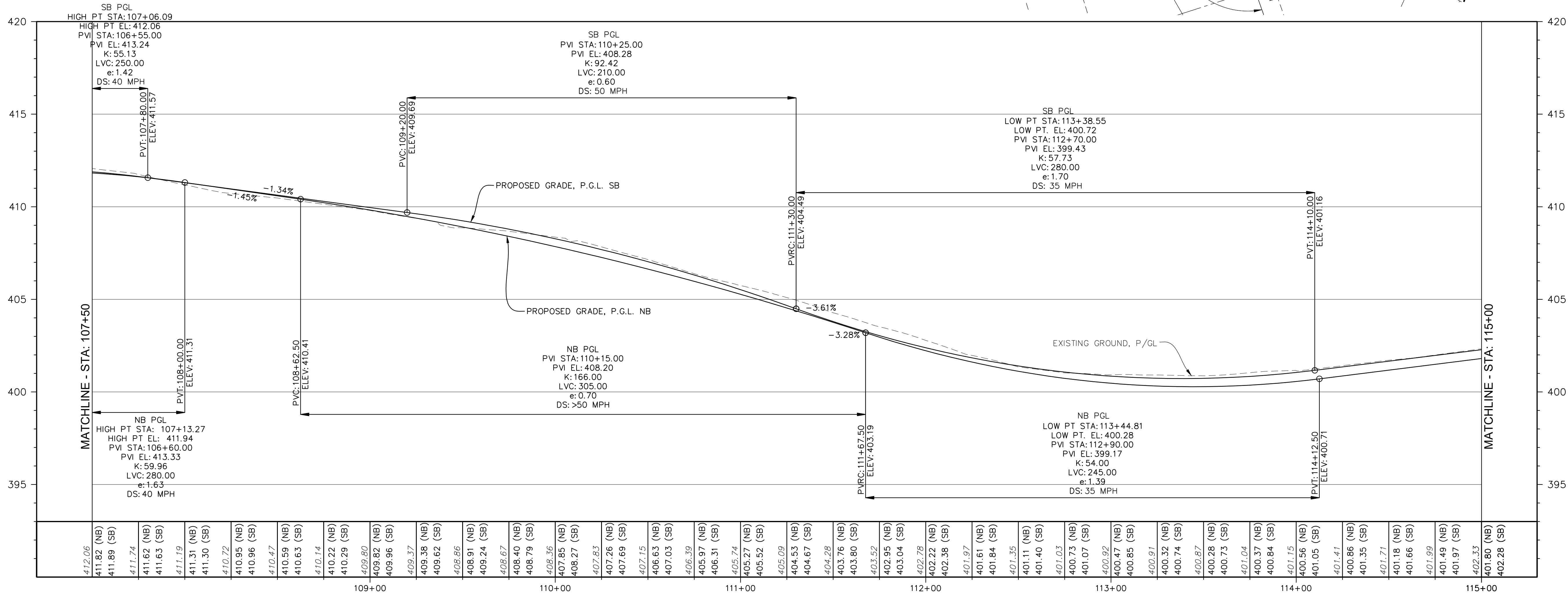
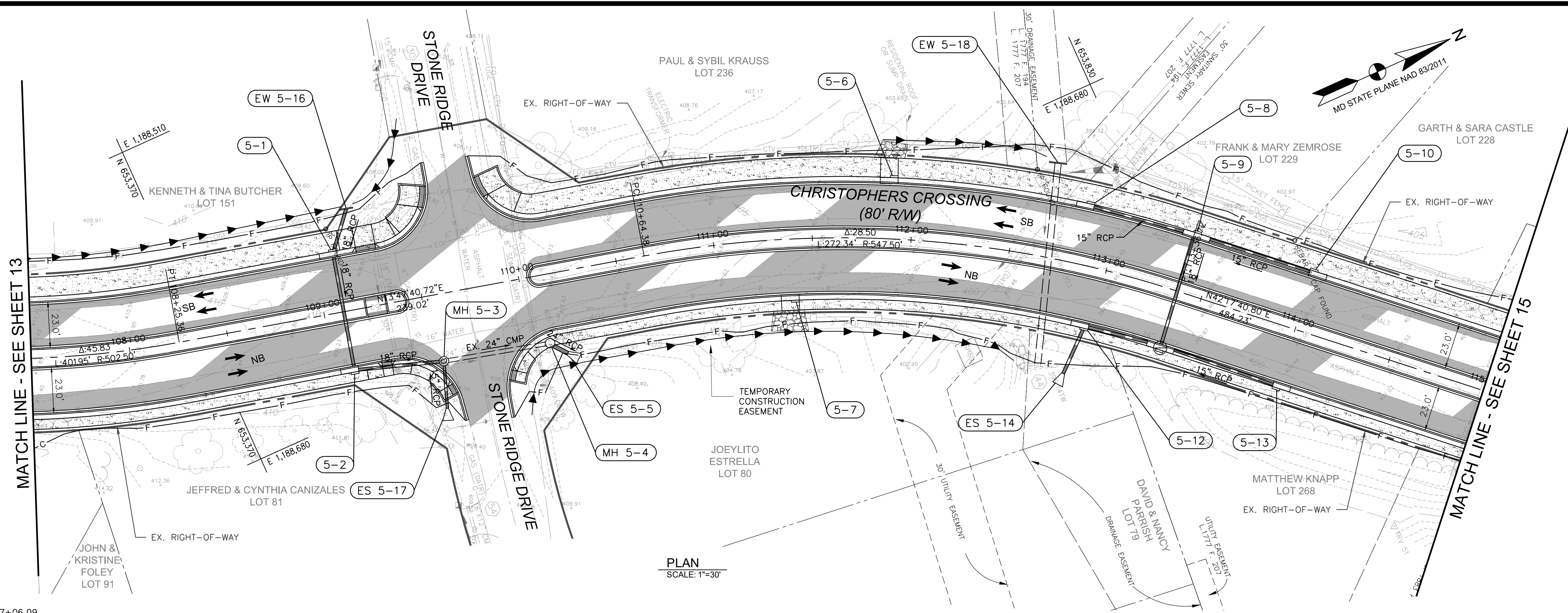
ROADWAY PROFILE

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 13 OF 48



LEGEND

- RIGHT-OF-WAY
- Full Depth Pavement
- At Grade Fine Milling and Resurfacing
- Concrete Sidewalk/Trail
- RIP-RAP
- Centerline of Ditch

STA. 107+50 TO STA. 115+00 PROFILE
SCALE: HORIZ 1"=30'
VERT 1"=3'

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP	

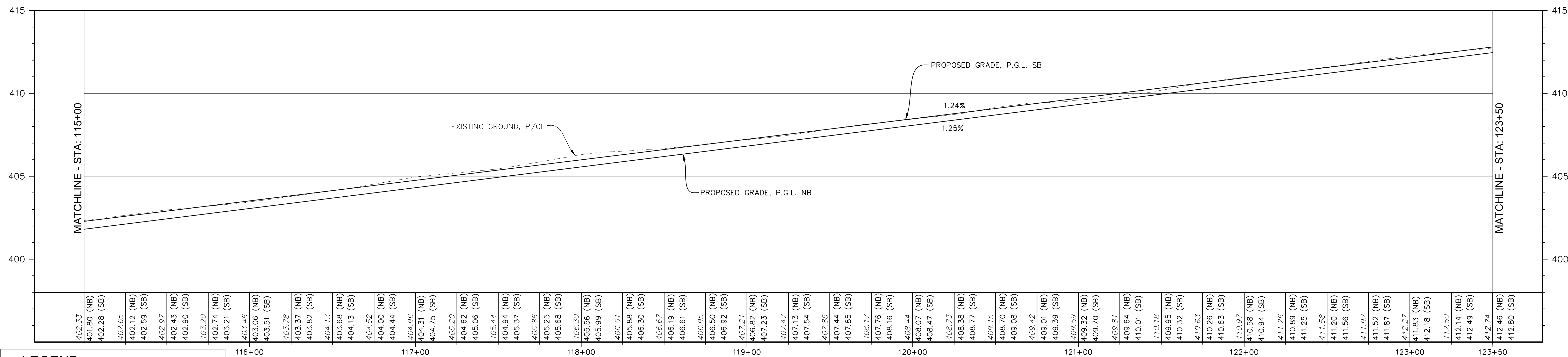
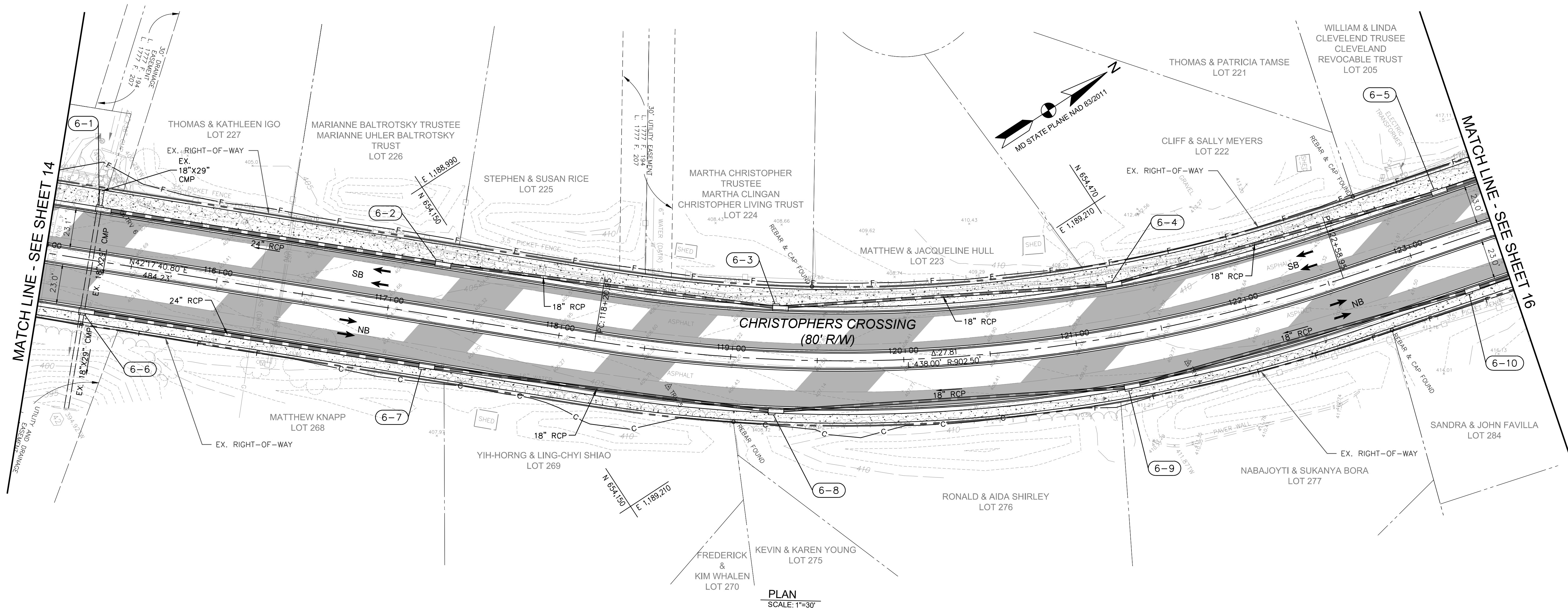
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

ROADWAY PLAN AND PROFILE

DATE: APRIL 2020
SCALE: 1"=30'
AMT FILE NO. 15-0758.007
SHEET NO. 14 OF 48



LEGEND	
	RIGHT-OF-WAY
	FULL DEPTH PAVEMENT
	AT GRADE FINE MILLING AND RESURFACING
	CONCRETE SIDEWALK/TRAIL
	RIP-RAP
	CENTERLINE OF DITCH

STA. 115+00 TO STA. 123+50 PROFILE
SCALE: HORIZ 1"=30'
VERT 1"=3'

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP	



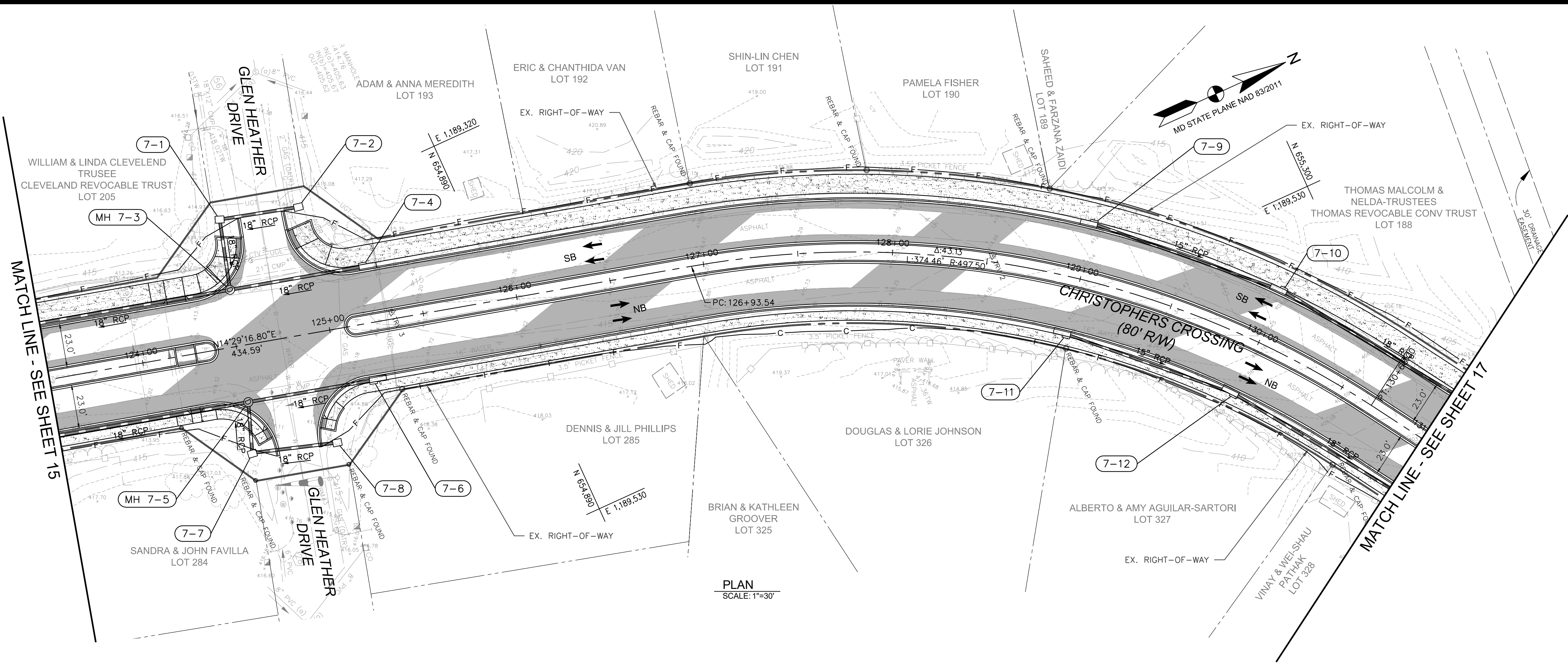
FREDERICK COUNTY, MARYLAND
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RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ/POOLE JONES ROAD

ROADWAY PLAN AND PROFILE

DATE: APRIL 2020
AMT FILE NO. 15-0758.007

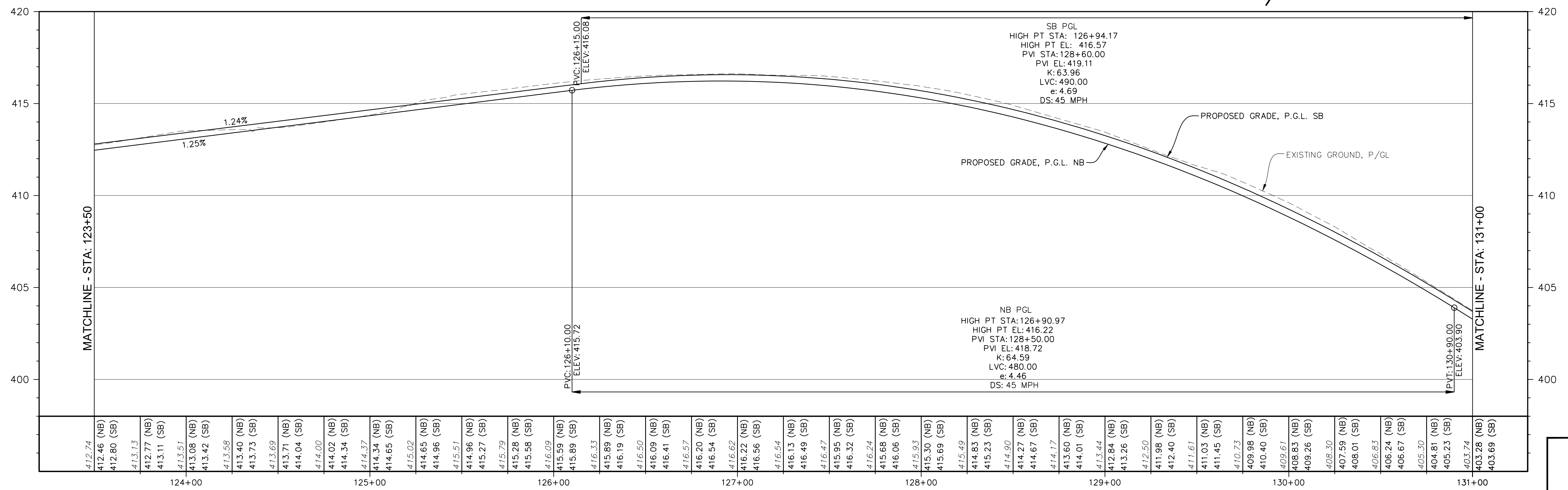
SCALE: 1"=30'
SHEET NO. 15 OF 48



PLAN
SCALE: 1"=30'

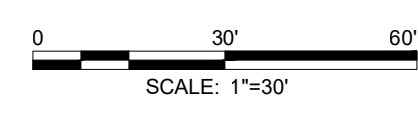
LEGEND

RIGHT-OF-WAY

FULL DEPTH PAVEMENT

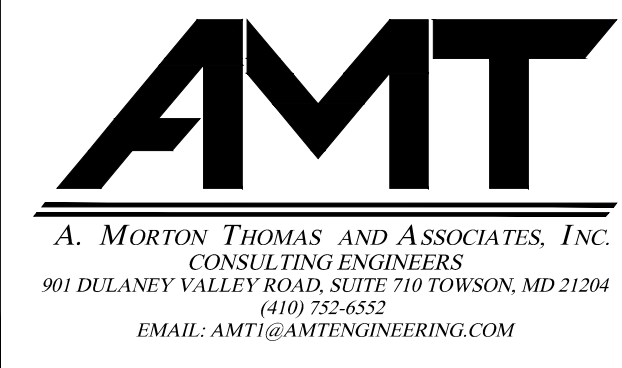
STA. 123+50 TO STA. 131+00 PROFILE

SCALE: HORIZ 1"=30'
VERT 1"=3'



REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS

DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF

CHRISTOPHERS CROSSING

FROM WHITTIER DRIVE TO

WALTER MARTZ / POOLE JONES ROAD

ROADWAY PLAN AND PROFILE

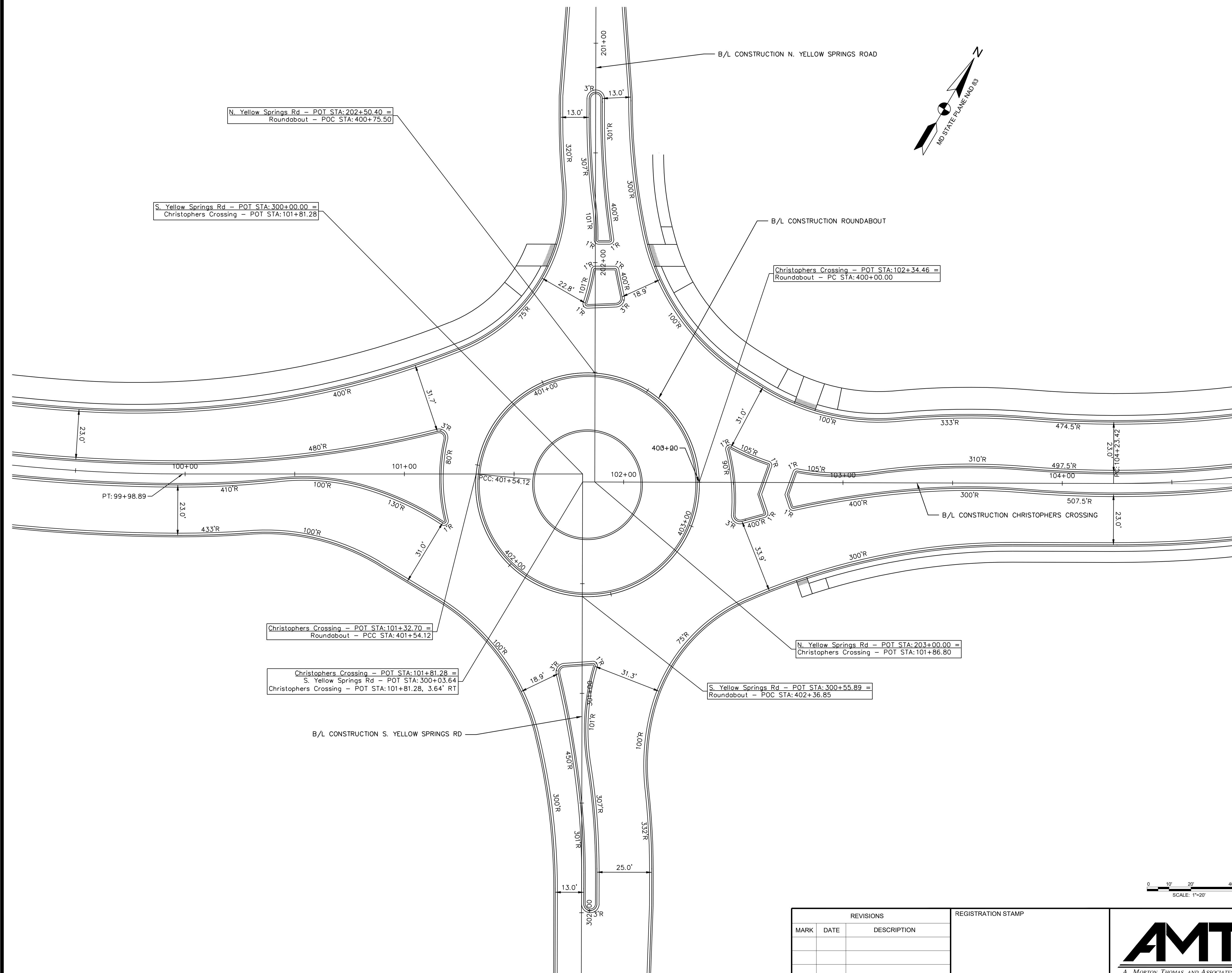
DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 16 OF 48

NOTES:
1. DIMENSIONS AND RADII REFERENCE THE FACE OF CURB.



RL-1

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ /POOLE JONES ROAD

ROUNDABOUT LAYOUT

DATE: APRIL 2020

SCALE:

AMT FILE NO. 15-0758.007

SHEET NO. 18 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 752-6552
EMAIL: AMT1@AMTENGINEERING.COM

GENERAL NOTES:

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST VERSION OF MDOT SHA WORK ZONE TRAFFIC CONTROL TYPICALS, THE MD MUTCD 2011, AND SUBSEQUENT REVISIONS. ADOPTED BY THE STATE OF MARYLAND, THESE PLANS AND THE OTHER CONTRACT DOCUMENTS.
2. ALL STANDARD REGULATORY AND WARNING SIGNS USED FOR MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD-2011) AS WELL AS THE MARYLAND STATE HIGHWAY ADMINISTRATION'S STANDARD SIGN BOOK-STANDARD SIGNS-2009 REVISION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING THE LATEST EDITIONS AND SUPPLEMENTS OF THE MUTCD.
3. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION OPERATIONS WITHIN THE BASIC CONCEPT OF THIS SUGGESTED SEQUENCE OF CONSTRUCTION AND TRAFFIC CONTROL PLANS. ALL THE ACTIVITIES SHALL IN NO WAY CHANGE TRAFFIC OPERATIONAL REQUIREMENTS EXCEPT AS APPROVED BY THE ENGINEER.
4. NO WORK IS TO BEGIN UNTIL ALL ADVANCE WARNING SIGNS, CHANNELIZATION DEVICES AND PAVEMENT MARKINGS ARE IN PLACE AND OPERATIONAL.
5. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES THROUGHOUT ALL PHASES OF CONSTRUCTION.
6. PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. TEMPORARY MARKINGS SHALL BE INSTALLED AS SHOWN ON THE PLANS.
7. TEMPORARY PAINT SHALL BE USED ON PAVED SURFACES ONLY AND IS TO BE MAINTAINED TO ENSURE CONTINUOUS REFLECTIVITY AND VISIBILITY. BLACK PAINT SHALL NOT BE PERMITTED.
8. CONTRACTOR SHALL NOTIFY THE PROPERTY OWNERS OF POTENTIAL INTERRUPTIONS IN PRIVATE DRIVEWAY ACCESS. ALL EXISTING DRIVEWAY ACCESS AND PUBLIC ROADS SHALL BE OPEN TO TRAFFIC AT ALL TIME.
9. ALL EXCAVATIONS WITHIN THE TRAVELED WAY SHALL BE PLATED AND / OR BACKFILLED AT THE END OF EACH WORK DAY. IF EXCAVATION IS PLATED W8-8(4) "STEEL PLATES" SIGNS SHALL BE PLACED IN ADVANCE OF THE CONSTRUCTION AREA.
10. IN ORDER TO ASSURE A UNIFORM APPEARANCE OF FINISHED SURFACE AND QUALITY OF PAVEMENT, THE FINAL PAVEMENT SURFACE SHALL NOT BE PLACED UNTIL ALL WORK UNDER THIS CONTRACT IS READY FOR FINAL PAVING AS DESCRIBED IN PHASE 3 OF THE TRAFFIC CONTROL PLANS. NO PAINTED TEMPORARY PAVEMENT MARKINGS SHALL BE USED ON THE FINAL PAVEMENT SURFACE. USE TEMPORARY PAVEMENT MARKING TAPE ON FINAL PAVEMENT SURFACE PRIOR TO THE FINAL PERMANENT PAVEMENT MARKINGS.
11. CONTRACTOR SHALL PROVIDE SUFFICIENT STOPPING SIGHT DISTANCE AT THE INTERSECTIONS DURING CONSTRUCTION PER MD. STD. 104.01-29.
12. MAINTAIN 11 FOOT MINIMUM LANE WIDTH AT ALL TIMES DURING CONSTRUCTION. STORAGE OF CONSTRUCTION EQUIPMENT AND MATERIALS SHALL BE LOCATED 30' OFF THE TRAVEL LANES AT ALL TIMES.
13. EXISTING SIGNS THAT ARE LOCATED IN THE WORK AREA NEED TO EITHER REMAIN IN PLACE OR BE RELOCATED AS DIRECTED BY THE ENGINEER.
14. ROADWAY EXCAVATION ADJACENT TO TRAVEL LANES SHALL NOT BE MORE THAN THE CONTRACTOR CAN BACKFILL WITHIN 2 INCHES OF THE ADJACENT ROADWAY GRADE, WITHIN THE SAME WORKING DAY. FOR INFORMATION ON STAGED ROADWAY CONSTRUCTION, REFER TO MD STD. DETAIL NO. 104.01-28.
15. ALL EXCAVATIONS WHICH RESULT IN PAVEMENT EDGE DROP-OFF SHALL BE IN ACCORDANCE WITH STD. NOS MD 104.06-15 TO MD 104.06-19. TEMPORARY CAB AND HMA FOR MOT SHALL BE USED AS BACKFILL MATERIAL TO SATISFY PAVEMENT EDGE DROP-OFF CRITERIA.
16. MAXIMUM SPACING BETWEEN PLASTIC DRUMS (CHANNELIZATION DEVICES) SHALL BE AS INDICATED IN THE DRAWINGS.
17. ADVANCED WARNING SIGNS SHALL BE INSTALLED AT A MINIMUM SPACING OF 200 FEET TO AN EXISTING SIGN, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
18. PERMANENT MARKINGS DAMAGED SHALL BE REPAIRED AT THE DISCRETION OF THE ENGINEER.
19. PORTABLE VARIABLE MESSAGE SIGNS AND/OR ARROW PANELS SHALL BE USED AS DIRECTED BY THE CONSTRUCTION PROJECT ENGINEER.
20. WHERE TWO ENTRANCES EXIST FOR ONE PROPERTY, CONSTRUCTION SHALL BE SEQUENCED SO THAT ONLY ONE ENTRANCE WILL BE DISTURBED AT ANY GIVEN TIME. WHEN ONLY ONE ENTRANCE EXISTS FOR A PROPERTY, WHEN NECESSARY, THE CONTRACTOR SHALL PROVIDE FLAGGERS TO CONTROL ENTRANCE CONSTRUCTION.
21. SIGNS USED FOR TEMPORARY TRAFFIC CONTROL THAT ARE NOT APPLICABLE FOR A PARTICULAR CONSTRUCTION PHASE SHALL BE REMOVED OR COMPLETELY COVERED WITH A NON-TRANSPARENT MATERIAL.
22. TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS SHALL NOT INTRUDE INTO THE USEABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY, OR OTHER PEDESTRIAN FACILITY.
23. WHERE A SIDEWALK IS CLOSED DURING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL A BARRIER ACROSS THE FULL WIDTH OF THE SIDEWALK APPROACHING THE CLOSURE. THIS BARRIER SHALL BE DETECTABLE BY A VISUALLY IMPAIRED INDIVIDUAL TRAVELING WITH THE AID OF A CANE.

TP-1

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ /POOLE JONES ROAD

MAINTENANCE OF TRAFFIC PLAN

DATE: APRIL 2020

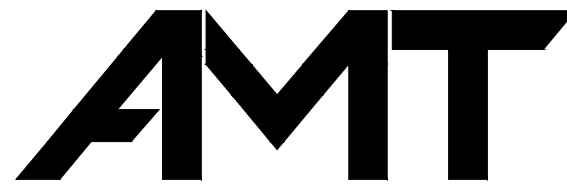
SCALE:

AMT FILE NO. 15-0758.007

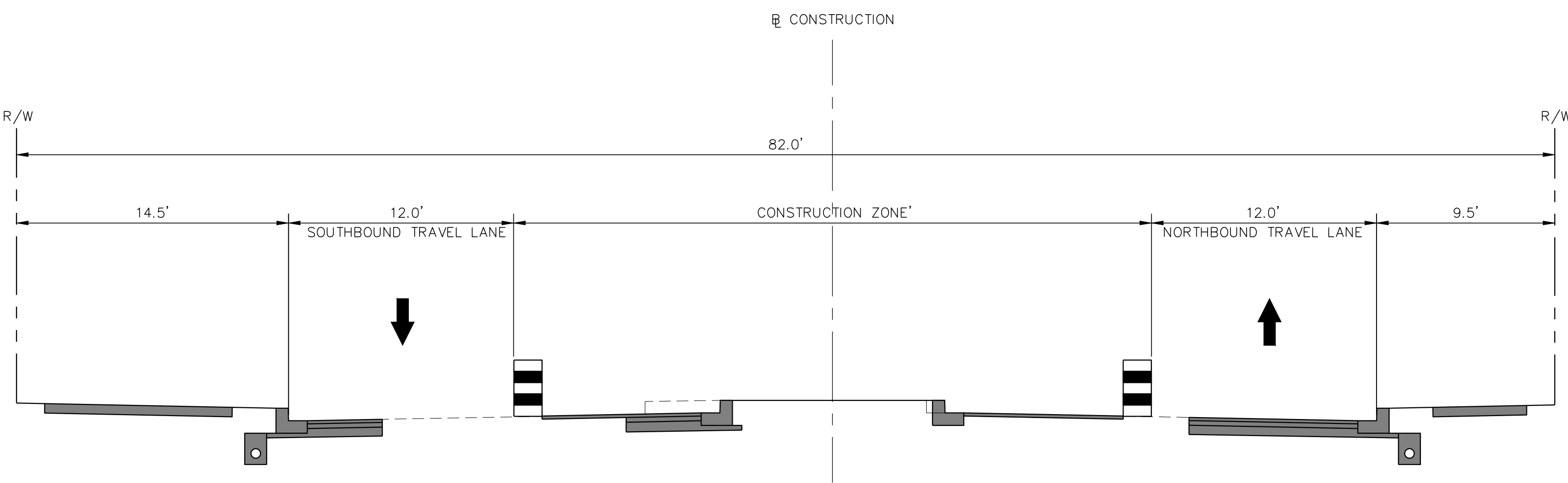
SHEET NO. 19 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

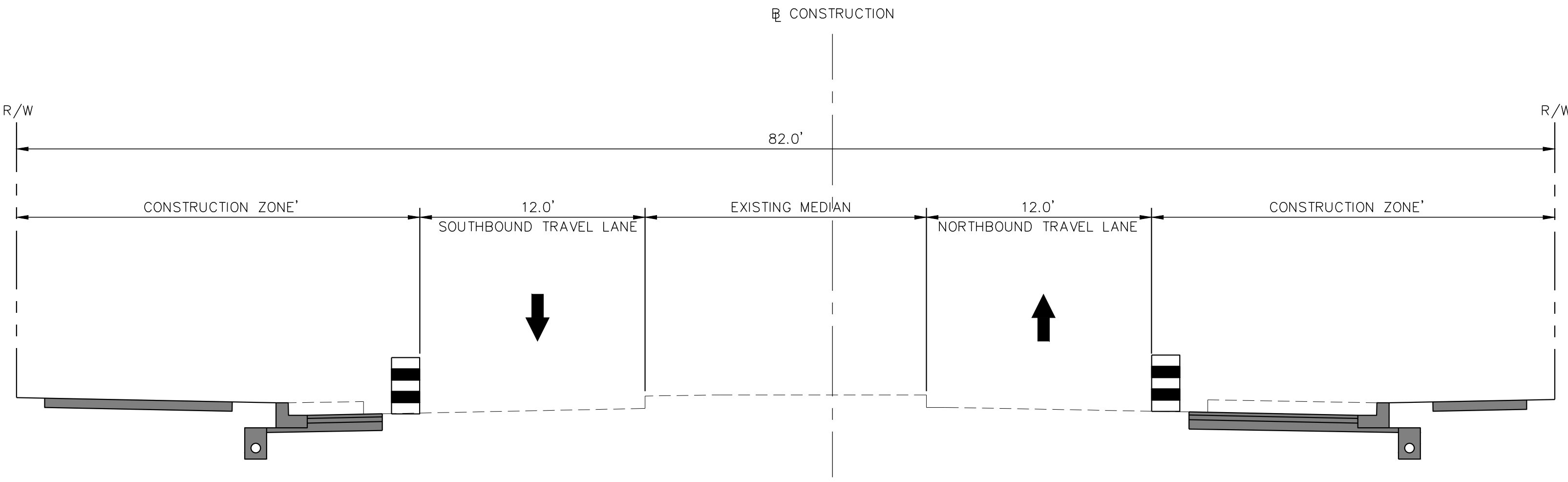
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A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 752-6552
EMAIL: AMT1@AMTENGINEERING.COM



TYPICAL SECTION - PHASE 2



TYPICAL SECTION - PHASE 1

TP-2

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
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OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

MAINTENANCE OF TRAFFIC TYPICAL
SECTIONS

DATE: APRIL 2020

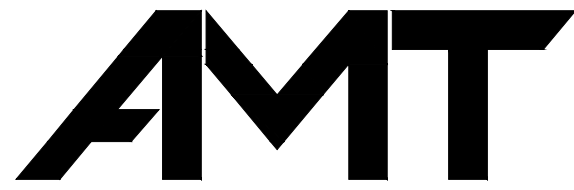
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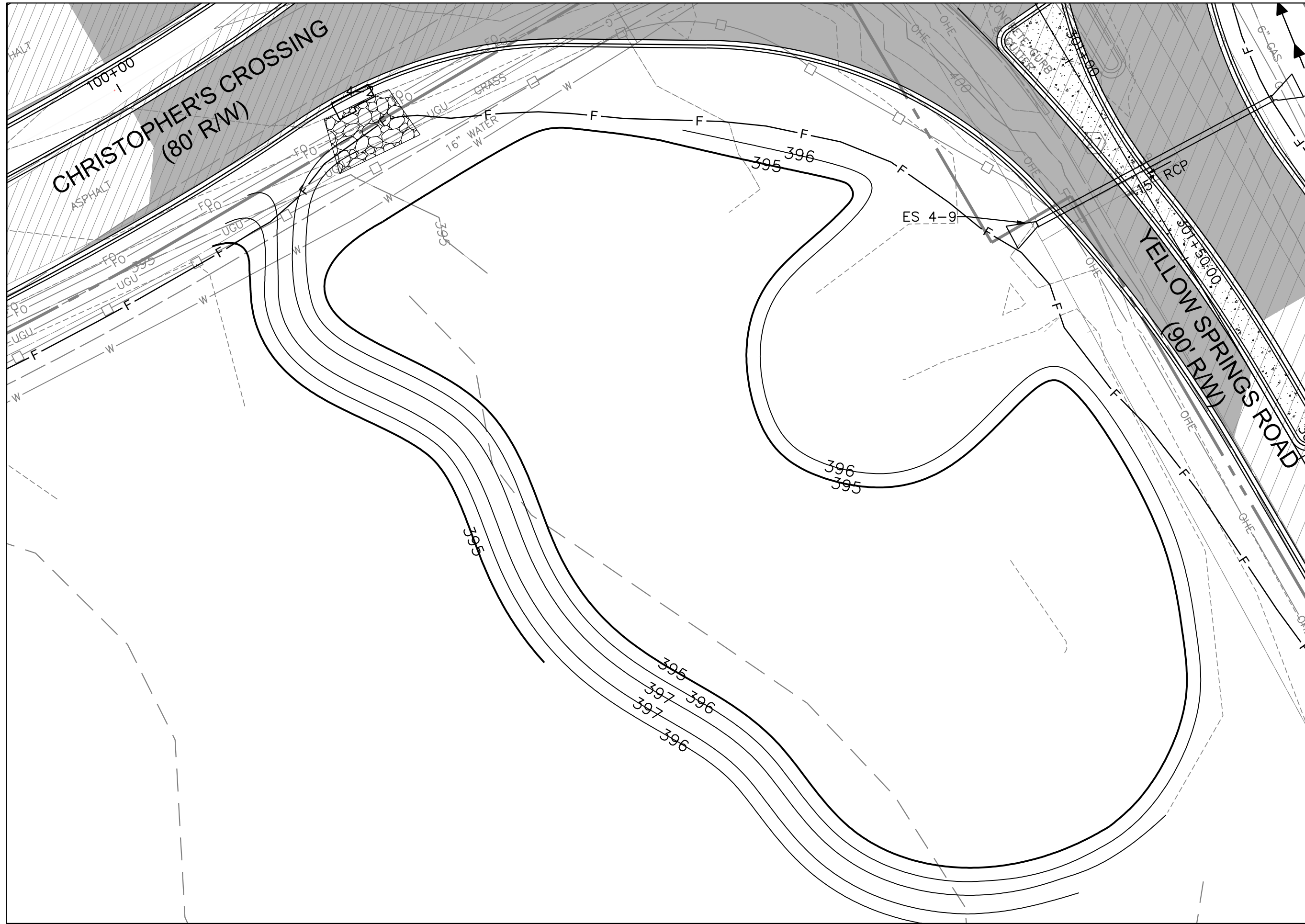
SHEET NO. 20 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

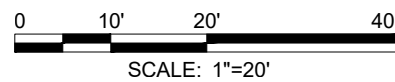
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A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 752-6552
EMAIL: AMT1@AMTENGINEERING.COM



PROPOSED BIORETENTION FACILITY - PLAN VIEW
SCALE: 1"=20'



SW-1

FREDERICK COUNTY, MARYLAND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

STORMWATER MANAGEMENT PLAN

DATE: APRIL 2020

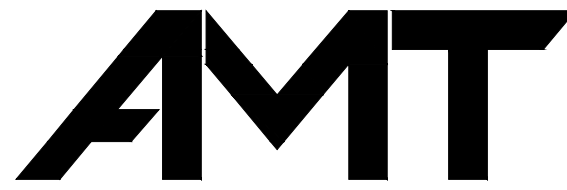
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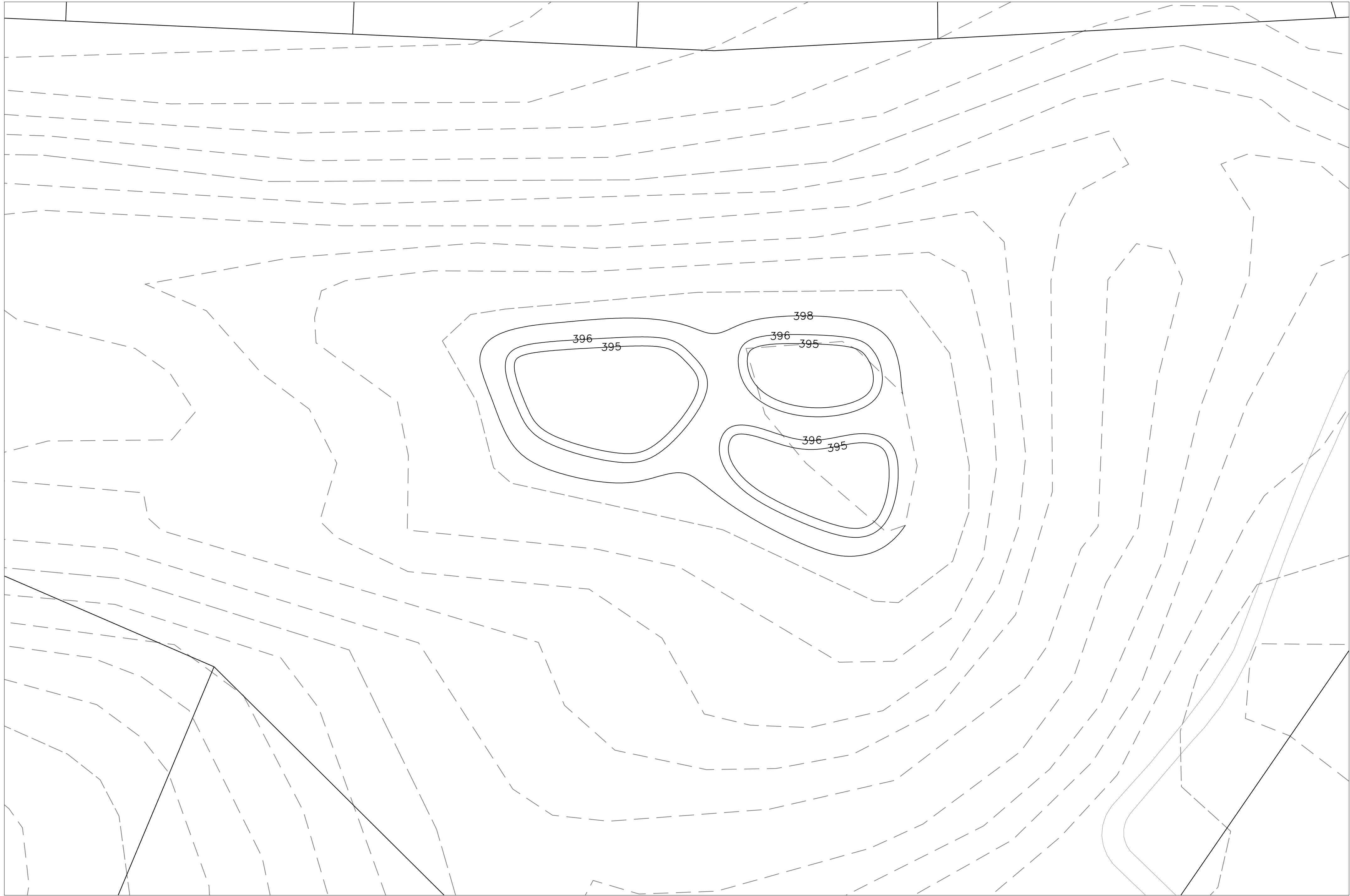
SHEET NO. 21 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

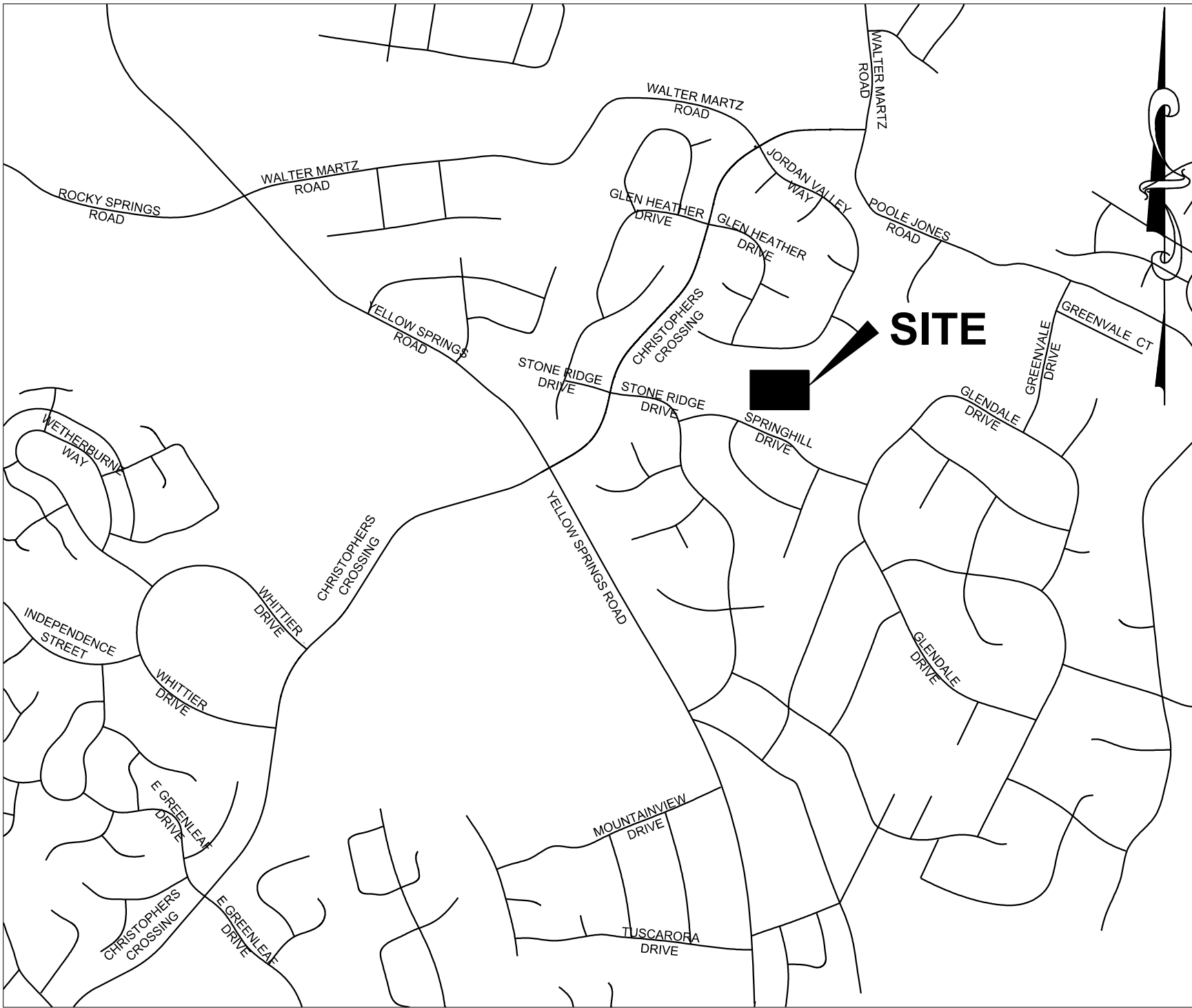
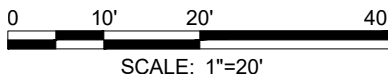
REGISTRATION STAMP



A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 752-6552
EMAIL: AMT@AMTENGINEERING.COM



EXISTING SWM POND RETROFIT - PLAN VIEW
SCALE: 1"=20'



PROJECT KEY MAP
SCALE: 1"=1000'

SW-2

FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

STORMWATER MANAGEMENT PLAN

DATE: APRIL 2020

SCALE:

AMT FILE NO. 15-0758.007

SHEET NO. 22 OF 48

REVISIONS		
MARK	DATE	DESCRIPTION

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A. MORTON THOMAS AND ASSOCIATES, INC.
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901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
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EMAIL: AMT1@AMTENGINEERING.COM

B-4-3 STANDARDS AND SPECIFICATIONS
FOR SEEDING & MULCHING

- A. SEEDING
1. SPECIFICATIONS
- a. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED MUST BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED MUST HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON ANY PROJECT. REFER TO TABLE B.4 REGARDING THE QUALITY OF SEED. SEED TAGS MUST BE AVAILABLE UPON REQUEST TO THE INSPECTOR TO VERIFY TYPE OF SEED AND SEEDING RATE.

b. MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

c. INOCULANTS: THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES MUST BE A PURE CULTURE OF NITROGEN FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS MUST NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANTS AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WHEN HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75 TO 80 DEGREES FAHRENHEIT CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.

d. SOD OR SEED MUST NOT BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
2. APPLICATION
- a. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.

i. INCORPORATE SEED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON TEMPORARY SEEDING TABLE B.1, PERMANENT SEEDING TABLE B.3, OR SITE-SPECIFIC SEEDING SUMMARIES.

ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. ROLL THE SEEDED AREA WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
- b. DRILL OR CULTPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
- i. CULTPACKING SEEDERS ARE REQUIRED TO BURY THE SEED IN SUCH A FASHION AS TO PROVIDE AT LEAST 1/4 INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING.

ii. APPLY SEED IN TWO DIRECTIONS, PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- c. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).
- i. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES SHOULD NOT EXCEED THE FOLLOWING: NITROGEN, 100 POUNDS PER ACRE TOTAL OF SOLUBLE NITROGEN; P2O5 (PHOSPHOROUS), 200 POUNDS PER ACRE; K2O (POTASSIUM), 200 POUNDS PER ACRE.

ii. LIME: USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 3 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME. DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.

iii. MIX SEED AND FERTILIZER ON SITE AND SEED IMMEDIATELY AND WITHOUT INTERRUPTION.

iv. WHEN HYDROSEEDING DO NOT INCORPORATE SEED INTO THE SOIL.
- B. MULCHING
1. MULCH MATERIALS (IN ORDER OF PREFERENCE)
- a. STRAW CONSISTING OF THOROUGHLY THRESHED WHEAT, RYE, OAT, OR BARLEY AND REASONABLY BRIGHT IN COLOR. STRAW IS TO BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW AND NOT MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY. NOTE: USE ONLY STERILE STRAW MULCH IN AREAS WHERE ONE SPECIES OF GRASS IS DESIRED.

b. WOOD CELLULOSE FIBER MULCH (WCFM) CONSISTING OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.

i. WCFM IS TO BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.

ii. WCFM, INCLUDING DYE, MUST CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.

iii. WCFM MATERIALS ARE TO BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN IN UNIFORM SUSPENSION IN WATER UNDER AGITATION AND WILL BLEND WITH SEED, FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL MUST FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND MUST COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
- iv. WCFM MATERIAL MUST NOT CONTAIN ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
- v. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH OF APPROXIMATELY 10 MILLIMETERS, DIAMETER APPROXIMATELY 1 MILLIMETER, PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6 PERCENT MAXIMUM AND WATER HOLDING CAPACITY OF 90 PERCENT MINIMUM.
2. APPLICATION
- a. APPLY MULCH TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING.

b. WHEN STRAW MULCH IS USED, SPREAD IT OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS PER ACRE TO A UNIFORM LOOSE DEPTH OF 1 TO 2 INCHES. APPLY MULCH TO ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. WHEN USING A MULCH ANCHORING TOOL, INCREASE THE APPLICATION RATE TO 2.5 TONS PER ACRE.

c. WOOD CELLULOSE FIBER USED AS MULCH MUST BE APPLIED AT A NET DRY WEIGHT OF 1500 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER TO ATTAIN A MIXTURE WITH A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
3. ANCHORING
- a. PERFORM MULCH ANCHORING IMMEDIATELY FOLLOWING APPLICATION OF MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON THE SIZE OF THE AREA AND EROSION HAZARD:

i. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD FOLLOW THE CONTOUR.

ii. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. MIX THE WOOD CELLULOSE FIBER WITH WATER AT A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

iii. SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70, PETROSET, TERRA TAX II, TERRATAK AR OR OTHER APPROVED EQUAL MAY BE USED. FOLLOW APPLICATION RATES AS SPECIFIED BY THE MANUFACTURER. APPLICATION OF LIQUID BINDERS NEEDS TO BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. USE OF ASPHALT BINDERS IS STRICTLY PROHIBITED.

iv. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

B-4-2 STANDARDS AND SPECIFICATIONS FOR
SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

- A. SOIL PREPARATION
1. TEMPORARY STABILIZATION
- a. SEEDBED PREPARATION CONSISTS OF LOOSENING SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. AFTER THE SOIL IS LOOSENEED, IT MUST NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPES 3:1 OR FLATTER ARE TO BE TRACKED WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.

b. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.

c. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
2. PERMANENT STABILIZATION
- a. A SOIL TEST IS REQUIRED FOR ANY EARTH DISTURBANCE OF 5 ACRES OR MORE. THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:

i. SOIL PH BETWEEN 6.0 AND 7.0.

ii. SOLUBLE SALTS LESS THAN 500 PARTS PER MILLION (PPM).

iii. SOIL CONTAINS LESS THAN 40 PERCENT CLAY BUT ENOUGH FINE GRAINED MATERIAL (GREATER THAN 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION: IF LOVEGRASS WILL BE PLANTED, THEN A SANDY SOIL (LESS THAN 30 PERCENT SILT PLUS CLAY) WOULD BE ACCEPTABLE.

iv. SOIL CONTAINS 1.5 PERCENT MINIMUM ORGANIC MATTER BY WEIGHT.

v. SOIL CONTAINS SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

b. APPLICATION OF AMENDMENTS OR TOPSOIL IS REQUIRED IF ON-SITE SOILS DO NOT MEET THE ABOVE CONDITIONS.

c. GRADED AREAS MUST BE MAINTAINED IN A TRUE AND EVEN GRADE AS SPECIFIED ON THE APPROVED PLAN, THEN SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3 TO 5 INCHES.

d. APPLY SOIL AMENDMENTS AS SPECIFIED ON THE APPROVED PLAN OR AS INDICATED BY THE RESULTS OF A SOIL TEST.

e. MIX SOIL AMENDMENTS INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS. RAKE LAWN AREAS TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION. LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION. TRACK SLOPES 3:1 OR FLATTER WITH TRACKED EQUIPMENT LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. LEAVE THE TOP 1 TO 3 INCHES OF SOIL LOOSE AND FRIABLE. SEEDBED LOOSENING MAY BE UNNECESSARY ON NEWLY DISTURBED AREAS.
- B. TOPSOILING
1. TOPSOIL IS PLACED OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. THE PURPOSE IS TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
2. TOPSOIL SALVAGED FROM AN EXISTING SITE MAY BE USED PROVIDED IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS.
3. TOPSOILING IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
- a. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

b. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.

c. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

d. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
4. AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN.
5. TOPSOIL SPECIFICATIONS: SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING CRITERIA:
- a. TOPSOIL MUST BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. TOPSOIL MUST NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND MUST CONTAIN LESS THAN 5 PERCENT BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1½ INCHES IN DIAMETER.

b. TOPSOIL MUST BE FREE OF NOXIOUS PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACK GRASS, JOHNSON GRASS, NUT SEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

c. TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
6. TOPSOIL APPLICATION
- a. EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.

b. UNIFORMLY DISTRIBUTE TOPSOIL IN A 5 TO 8 INCH LAYER AND LIGHTLY COMPACT TO A MINIMUM THICKNESS OF 4 INCHES. SPREADING IS TO BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS MUST BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

c. TOPSOIL MUST NOT BE PLACED IF THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING
- AND SEEDBED PREPARATION.
- C. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
1. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OF 5 ACRES OR MORE. SOIL ANALYSIS MAY BE PERFORMED BY A RECOGNIZED PRIVATE OR COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.

2. FERTILIZERS MUST BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROPRIATE EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS MUST ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE LAWS AND MUST BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTY OF THE PRODUCER.

3. LIME MATERIALS MUST BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED EXCEPT WHEN HYDROSEEDING) WHICH CONTAINS AT LEAST 50 PERCENT TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE MUST BE GROUND TO SUCH FINENESS THAT AT LEAST 50 PERCENT WILL PASS THROUGH A #100 MESH SIEVE AND 98 TO 100 PERCENT WILL PASS THROUGH A #20 MESH SIEVE.

4. LIME AND FERTILIZER ARE TO BE EVENLY DISTRIBUTED AND INCORPORATED INTO THE TOP 3 TO 5 INCHES OF SOIL BY DISKING OR OTHER SUITABLE MEANS.

5. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, SPREAD GROUND LIMESTONE AT THE RATE OF 4 TO 8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL.

FREDERICK COUNTY STANDARD SEDIMENT &
EROSION CONTROL NOTES

1. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AS APPROVED BY THE COUNTY.
2. ALL DISTURBED AREAS NOT UNDER ACTIVE GRADING TO BE SEEDED WITHIN 7 DAYS OF INITIAL GRADING. FOR TEMPORARY SEEDING SPECIFICATIONS SEE SECTION B1, "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY WATER MANAGEMENT ADMINISTRATION, SOIL CONSERVATION SERVICE AND STATE SOIL CONSERVATION COMMITTEE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AT THE INITIATION OF GRADING.
4. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS AND NOT SUBJECT TO ACTIVE GRADING ARE TO BE MULCHED & SEEDED WITHIN 7 DAYS OF INITIAL BACKFILL.
5. ELECTRIC POWER, TELEPHONE AND GAS LINES NOT IN ACTIVE GRADING AREAS ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 7 DAYS AFTER INITIAL BACKFILL.
6. ALL EARTH BERMS AND SEDIMENT DAMS ARE TO BE MULCHED AND SEEDED (SEE SECTION B OF ABOVE REFERENCE) WITHIN 7 DAYS AFTER GRADING. ALL SOIL STOCKPILES ARE TO BE MULCHED AND SEEDED WITHIN 7 DAYS.
7. DURING CONSTRUCTION, ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED AFTER EACH RAINFALL AND REPAIRED IF NECESSARY. SEDIMENT TO BE REMOVED TO A SUITABLE DISPOSAL AREA AND STABILIZED WITH PERMANENT VEGETATIVE COVER. (SEE SECTION B OF "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY WATER MANAGEMENT ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE.).
8. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT EROSION CONTROL MEASURES UNTIL DISTURBED AREAS ARE STABILIZED.
9. AFTER FINE GRADING, ALL DISTURBED AREAS ARE TO BE PERMANENTLY MULCHED AND SEEDED (SEE SECTION B).
10. NO SLOPE SHALL BE GREATER THAN 2:1.
11. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS WHICH ARE SHOWN ON THE PLAN AND AREA CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".
12. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN CONTINUOUS COMPLIANCE WITH THE LATEST VERSION OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
13. ALL UTILITIES, SUCH AS: STORM DRAIN, PUBLIC WATER, SANITARY SEWER, ELECTRIC POWER, TELEPHONE, CABLE AND GAS LINES, THAT ARE NOT IN PAVED AREAS AND ARE NOT UNDERGOING ACTIVE GRADING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 3 DAYS OF INITIAL DISTURBANCE.
14. THE OWNER DEVELOPER OR THEIR DESIGNATE IS RESPONSIBLE FOR CONDUCTING ROUTINE MAINTENANCE. THE SITE AND CONTROLS SHOULD BE INSPECTED WEEKLY AND THE NEXT DAY AFTER EACH RAIN EVENT**. ANY ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN A SUITABLE AREA AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED.
- **ANY PROJECT THAT HAS A STATE ISSUED N.O.I. PERMIT DOCUMENT EACH INSPECTION AND MAINTAIN AN INSPECTION LOG (PLEASE SEE NOI FOR DETAILS).

NOTES FOR UTILITY WORK

1. DISTURBANCE OUTSIDE THE LIMIT OF DISTURBANCE CANNOT EXCEED 5,000 SQUARE FEET.
2. PLACE ALL EXCAVATED MATERIAL ON THE HIGH SIDE OF THE TRENCH.
3. ONLY COMPLETE AS MUCH WORK AS CAN BE DONE IN ONE DAY SO BACKFILLING, FINAL GRADING, SEEDING, AND MULCHING CAN OCCUR.
4. ANY SEDIMENT CONTROL MEASURES DISTURBED BY CONSTRUCTION SHALL BE REPAIRED THE SAME DAY.

NOTES FOR SECONDARY UTILITY WORK

- A. DISTURBANCE FROM SECONDARY UTILITIES SUCH AS PHONE, CABLE, ELECTRIC CABLE, T.V. CABLE, ETC. SHALL BE THE SUBCONTRACTORS RESPONSIBILITY. THE WORK AREA SHALL BE RETURNED TO EXISTING GRADE. SEED AND MULCH THE DISTURBED AREA FROM THE INSTALLATION OR RELOCATION OF ANY LINES OR CONDUIT.
- B. THE SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE REINSTALLATION OR REPAIR OF ANY SILT FENCE OR SEDIMENT CONTROLS MEASURES THAT WERE DAMAGED OR MOVED DURING THE INSTALLATION OR RELOCATION OF ANY LINES OR CONDUIT.

TEMPORARY SEEDING SUMMARY						
HARDINESS ZONE (FROM FIGURE B.3): 6b SEED MIXTURE (FROM TABLE B.1)					FERTILIZER RATE (10-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
TEMPORARY	ANNUAL RYEGRASS	40	3/1-5/31 8/15-10/15	0.5"	4.36 LB/AC	2 TONS/AC
TEMPORARY	WHEAT	120	3/1-5/31 8/15-10/15	1.0"	4.36 LB/AC	2 TONS/AC

PERMANENT SEEDING SUMMARY								
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P ₂ O ₅	K ₂ O	LIME RATE
3	SHEEP FESCUE REDTOP KOREAN LESPEDEZA	20 1 10	3/1-5/31-1 0/15	1/2"-1/4"	45 LB/AC	90 LB/AC	90 LB/AC	2 TONS/AC

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FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

EROSION & SEDIMENT CONTROL NOTES

DATE: APRIL 2020

SCALE:

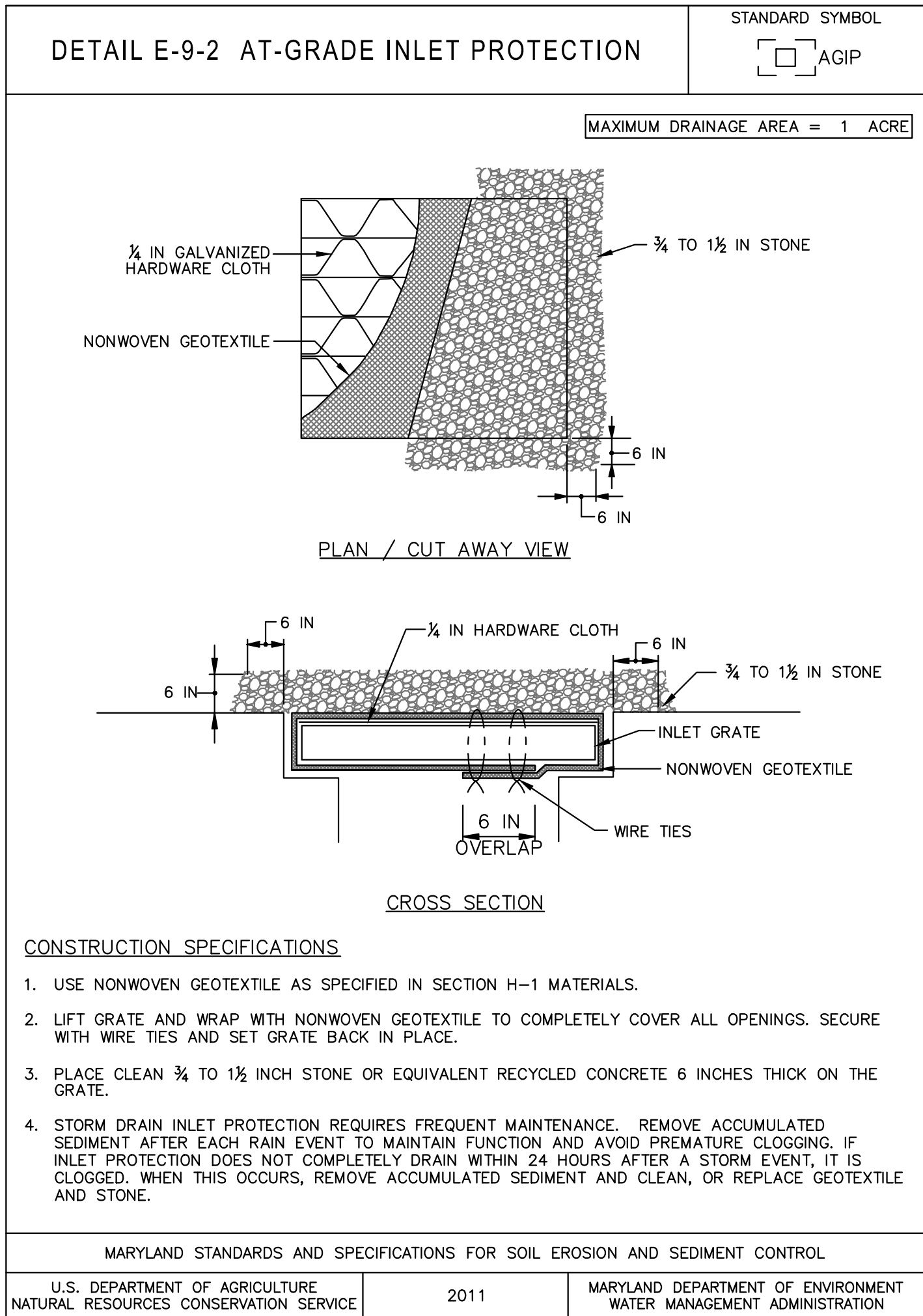
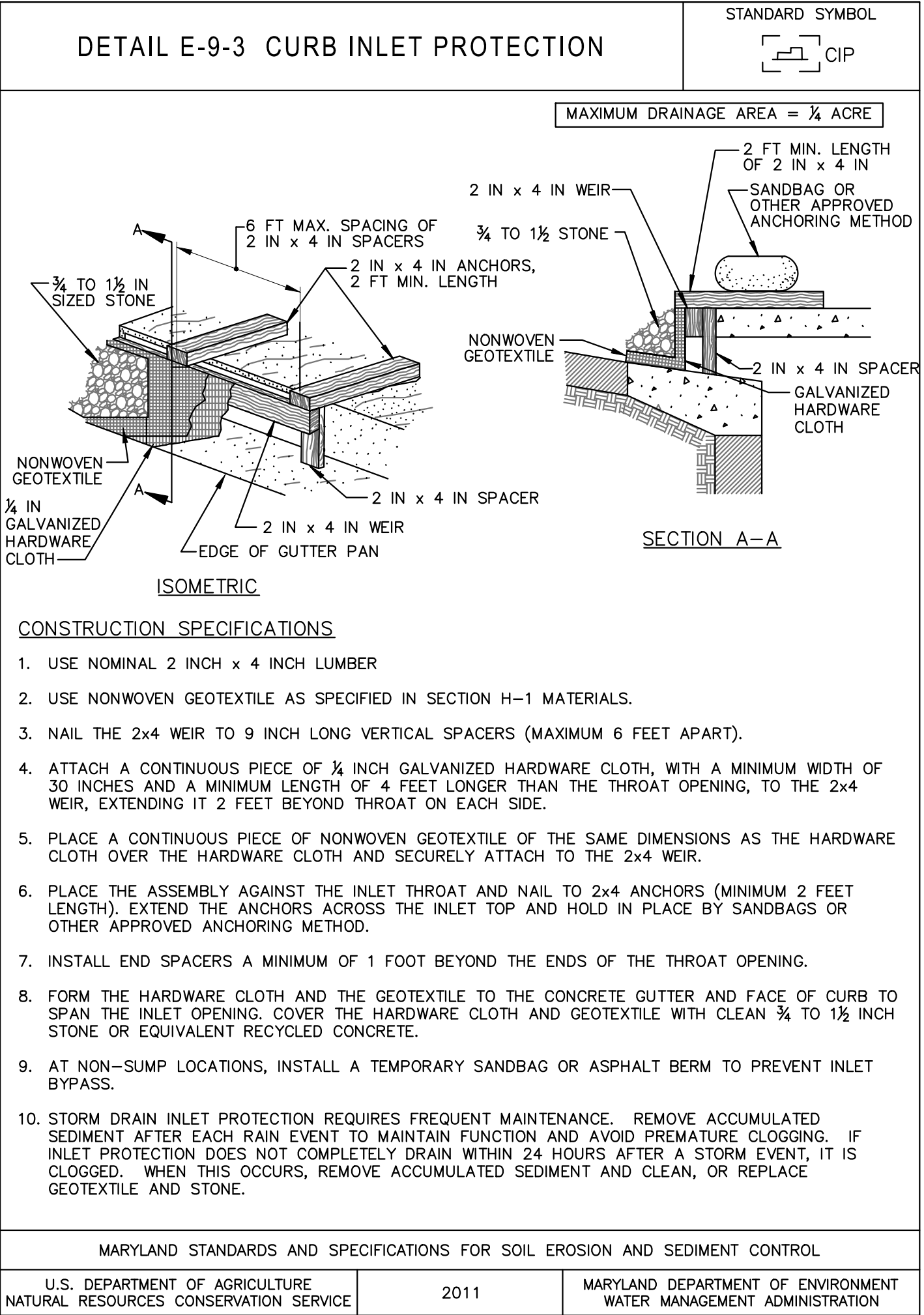
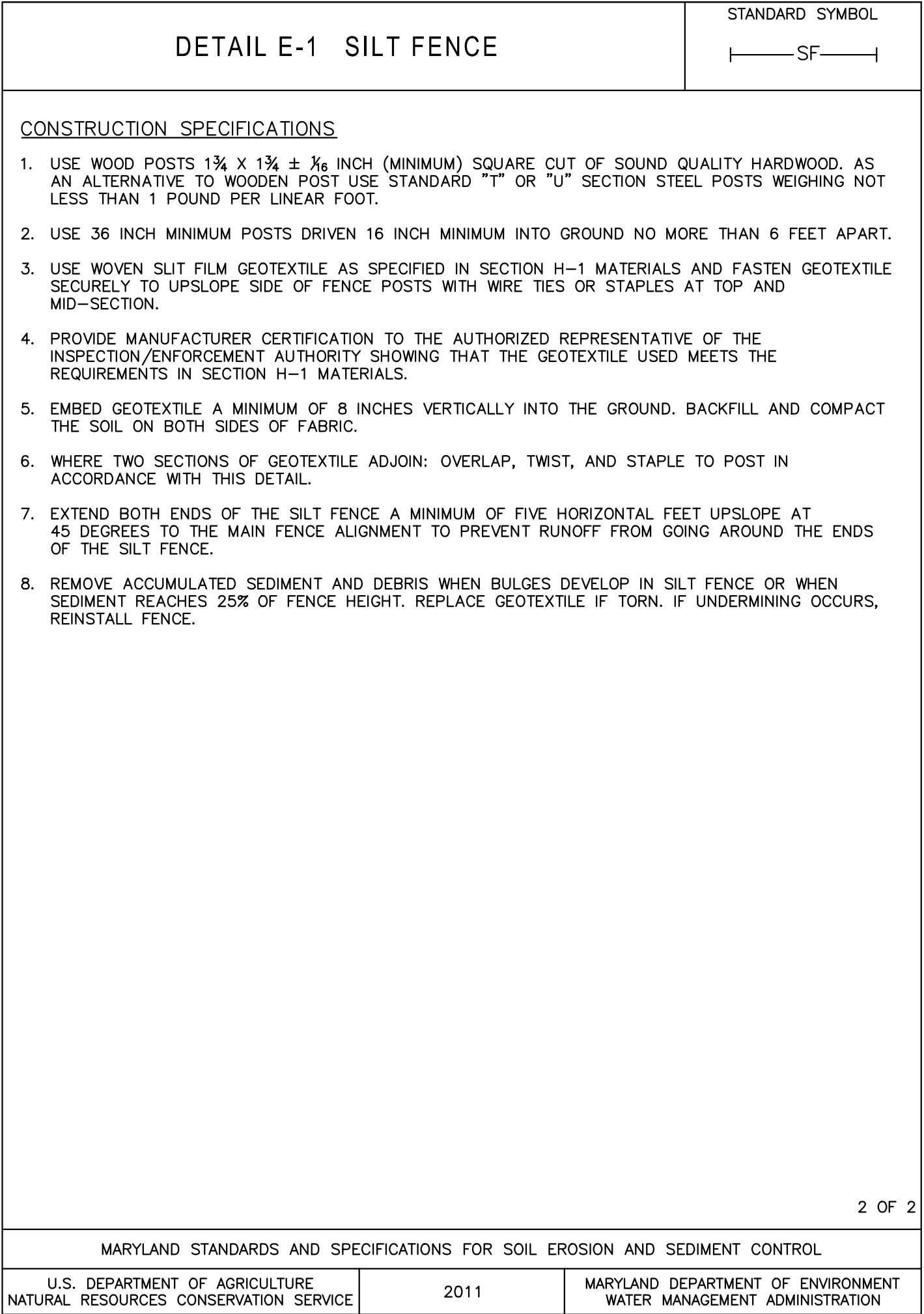
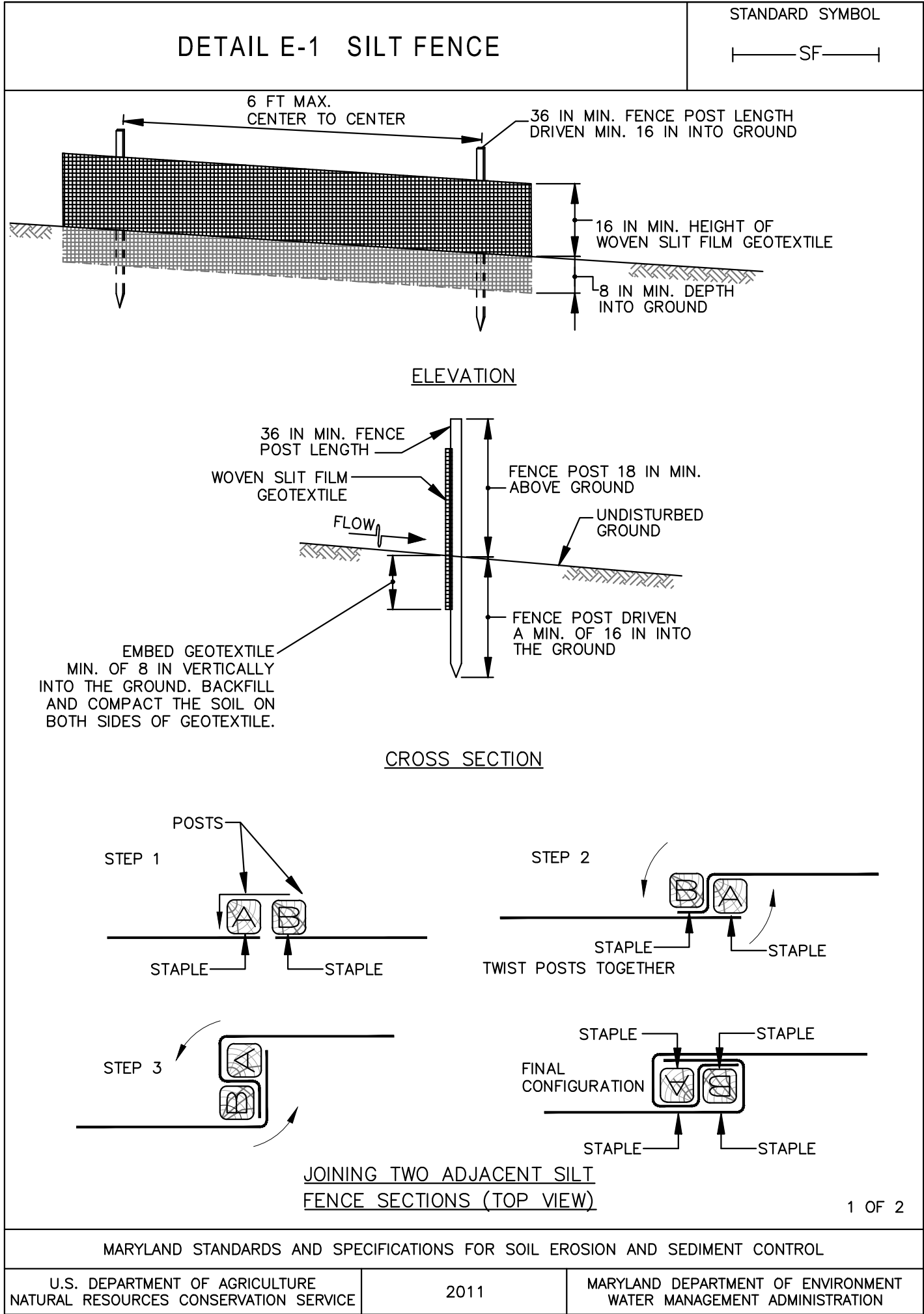
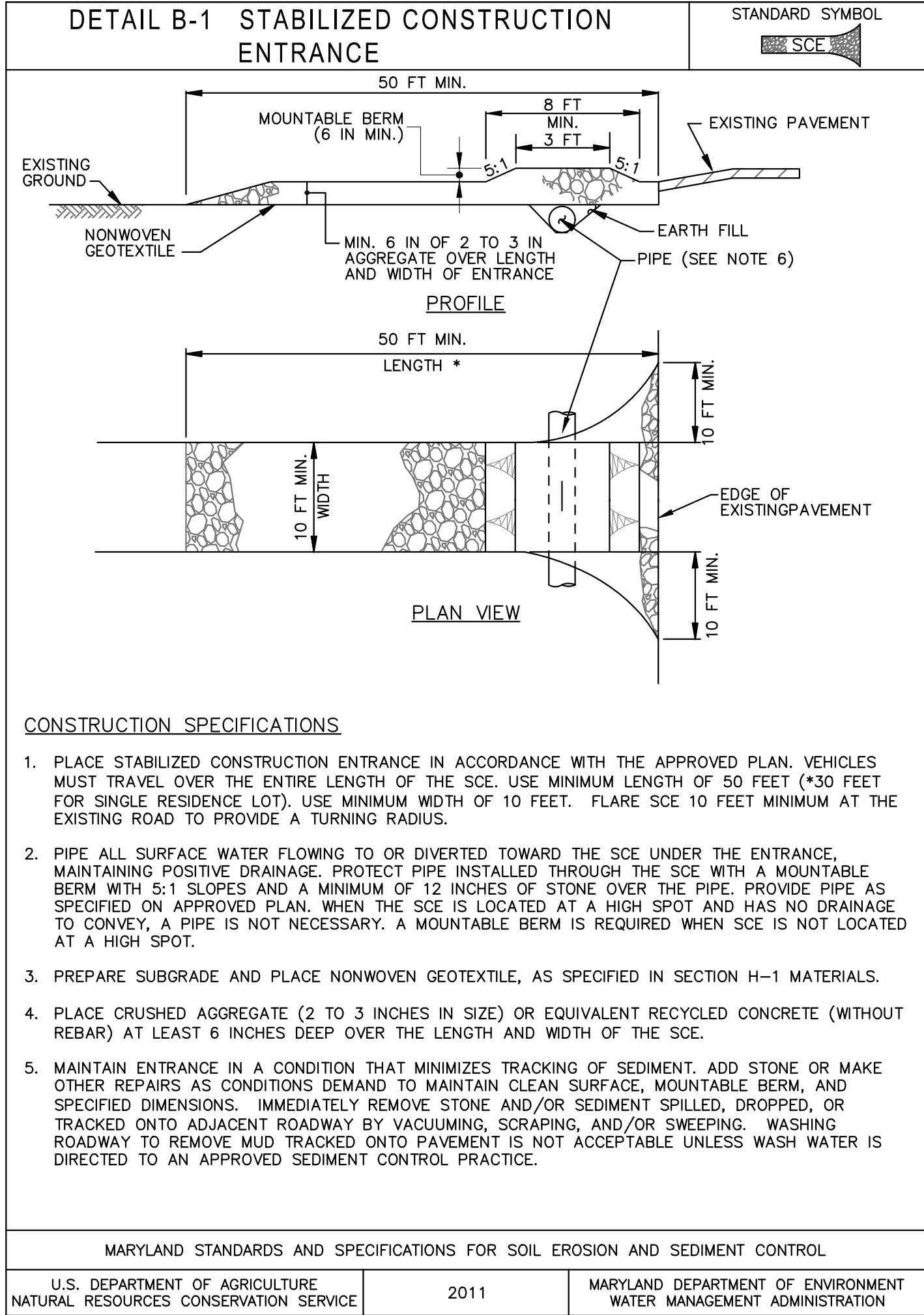
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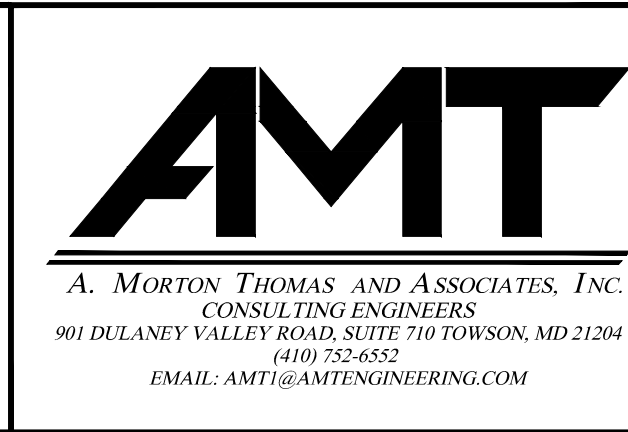
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A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
901 DULANEY VALLEY ROAD, SUITE 710 TOWSON, MD 21204
(410) 752-6552
EMAIL: AMT@AMTENGINEERING.COM



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FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS

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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
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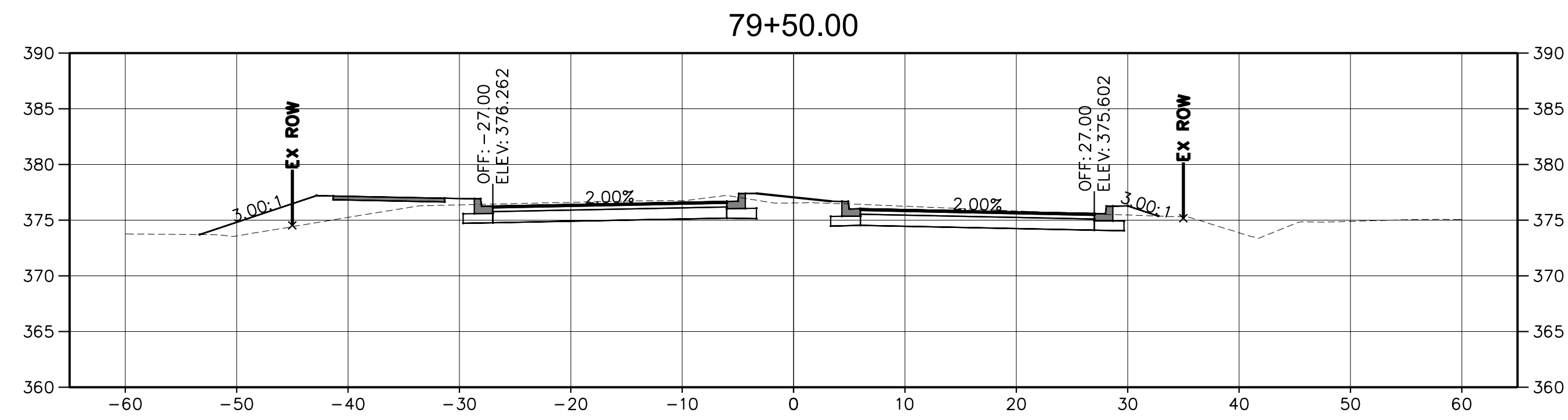
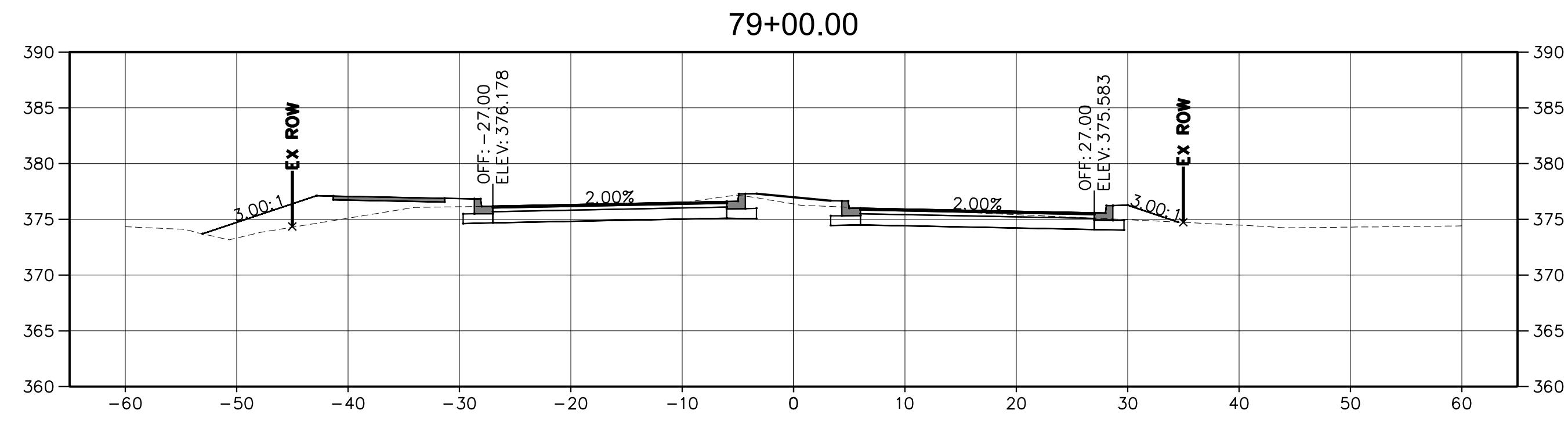
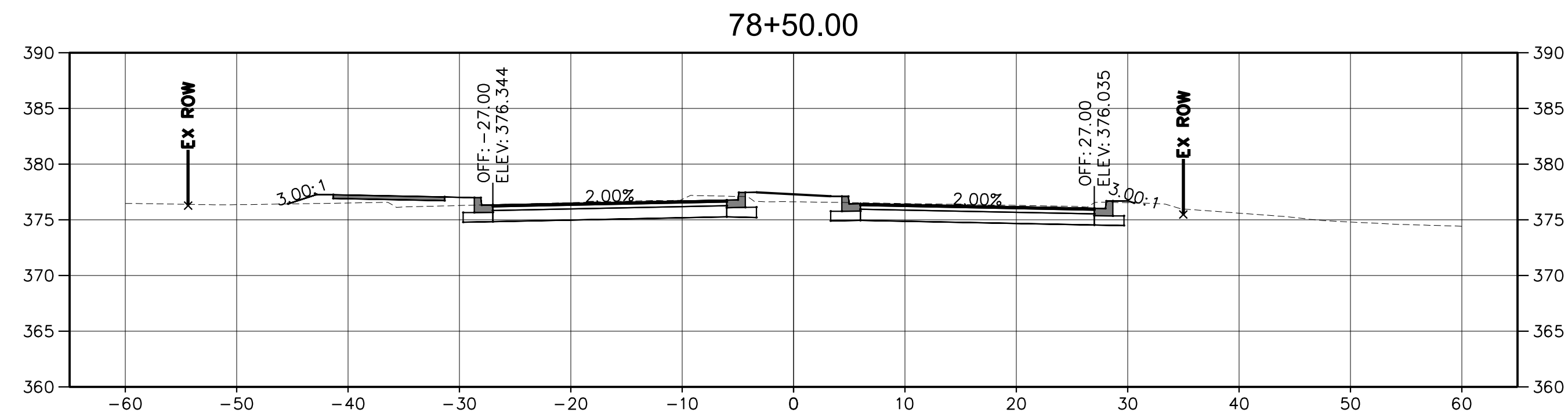
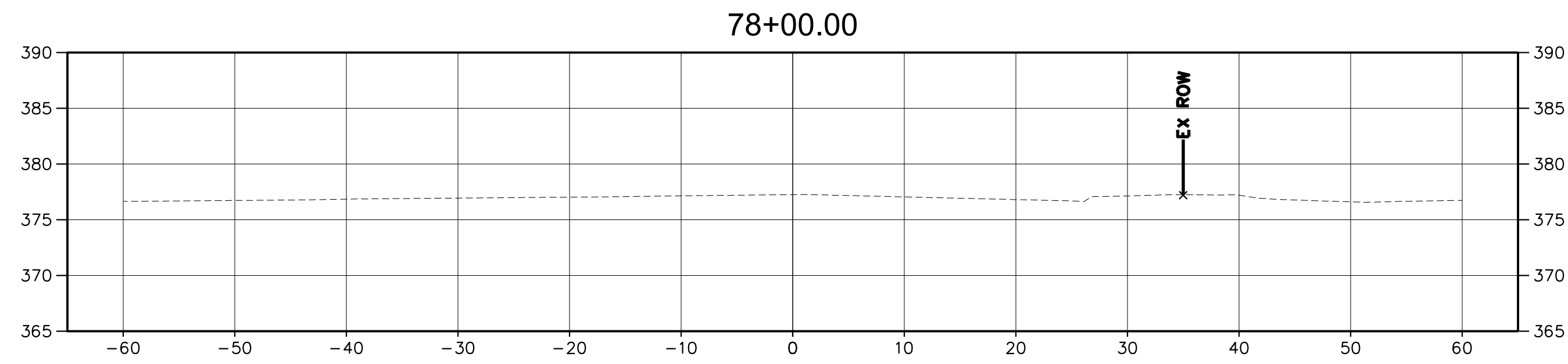
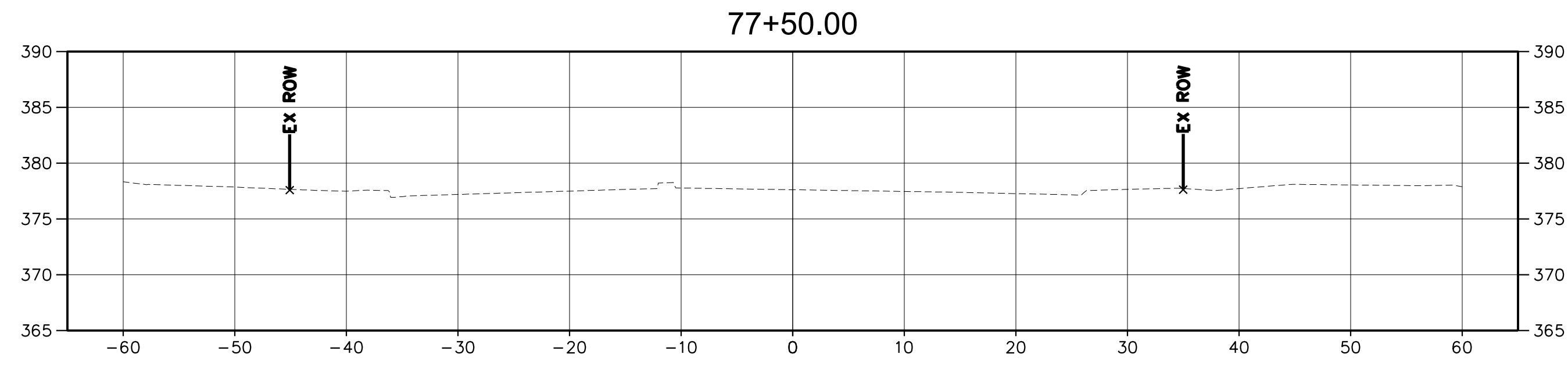
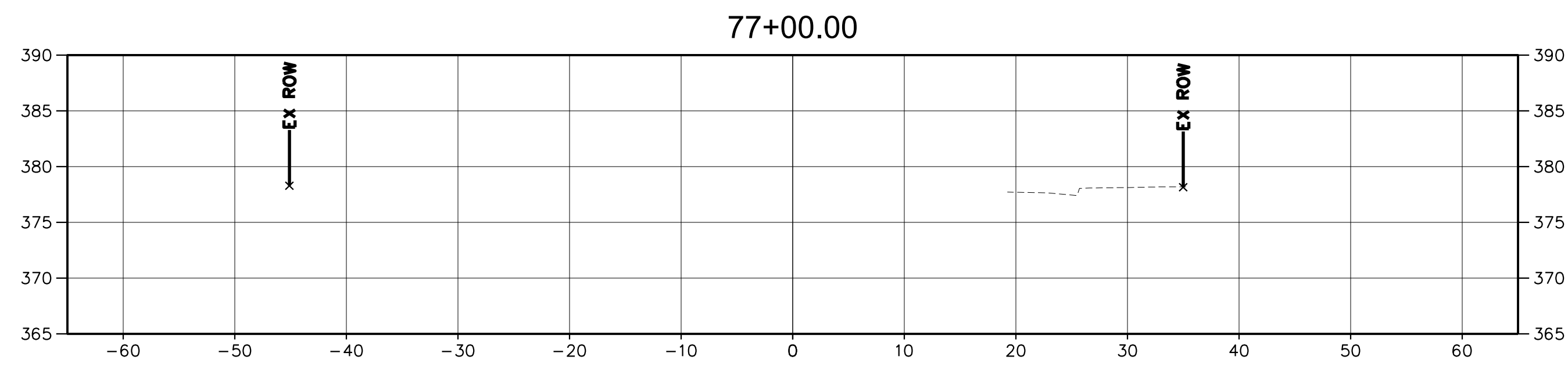
EROSION & SEDIMENT CONTROL
DETAILS

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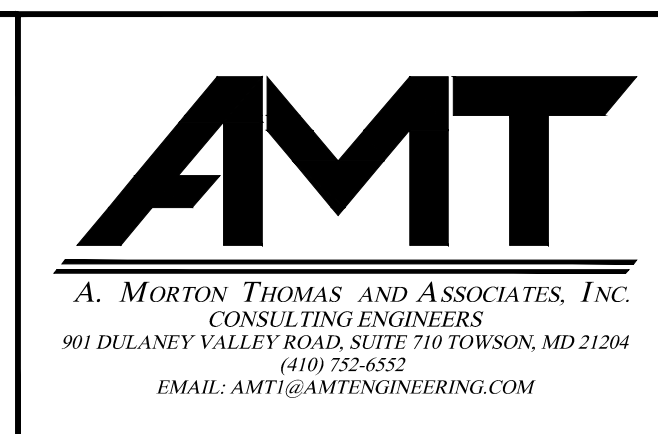
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
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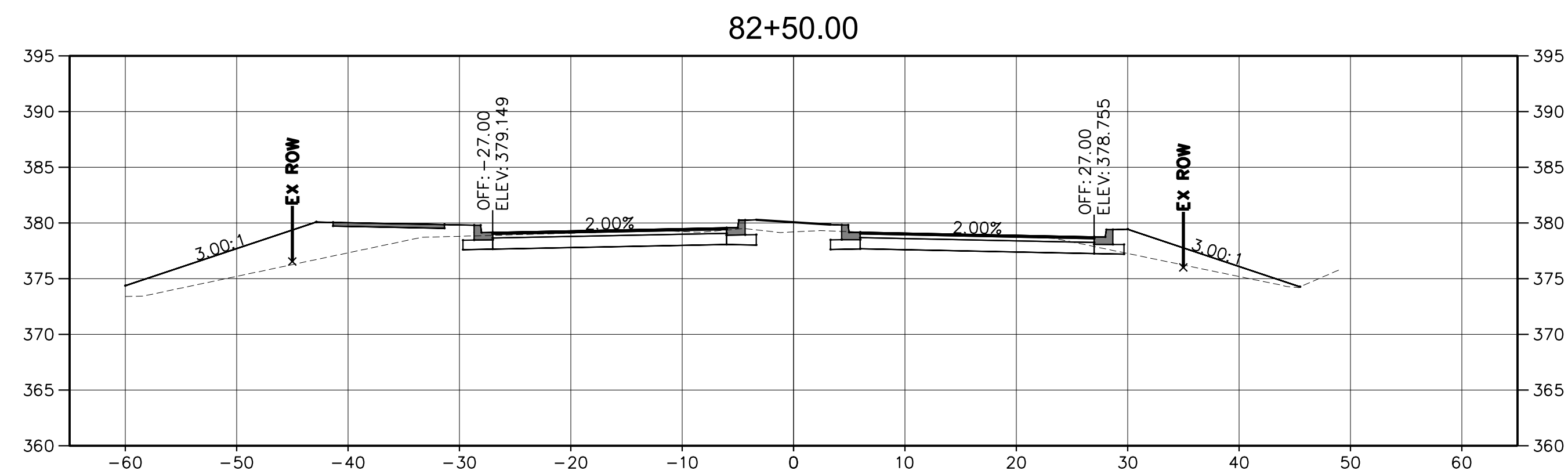
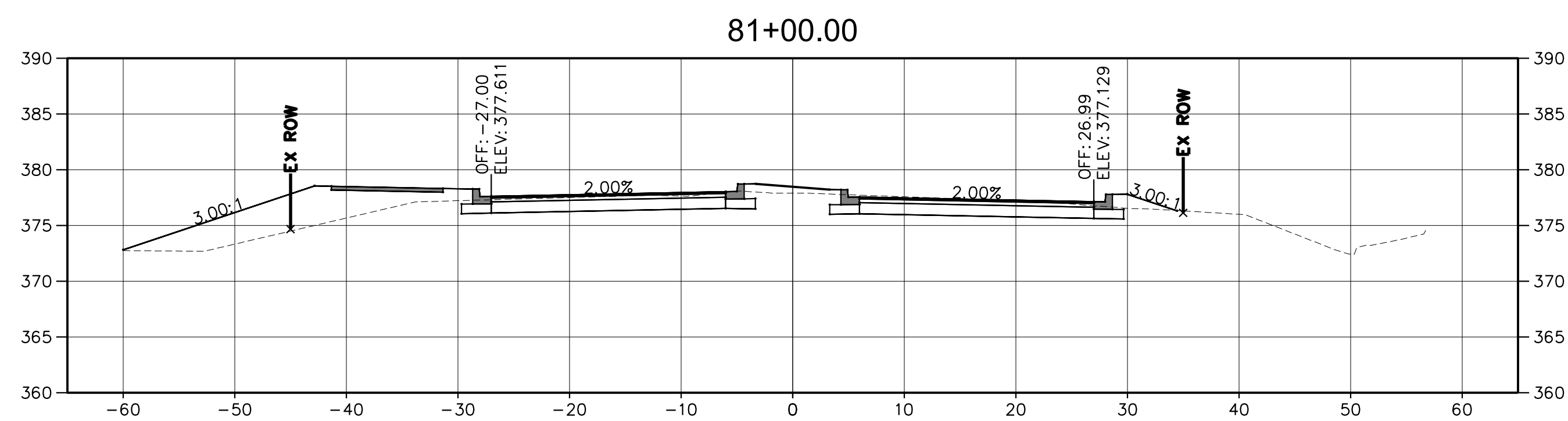
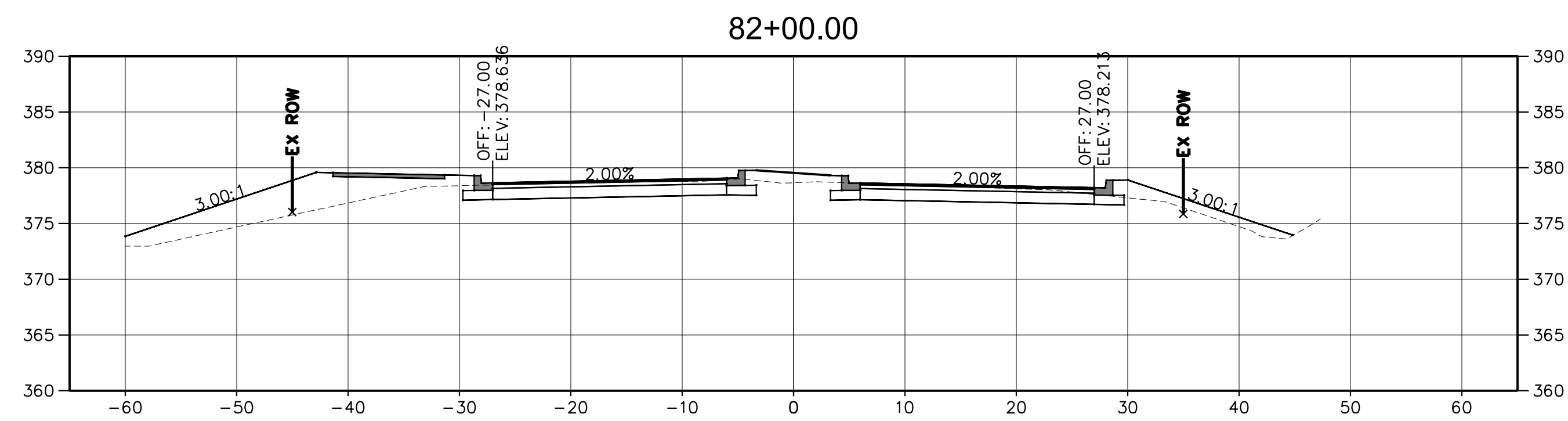
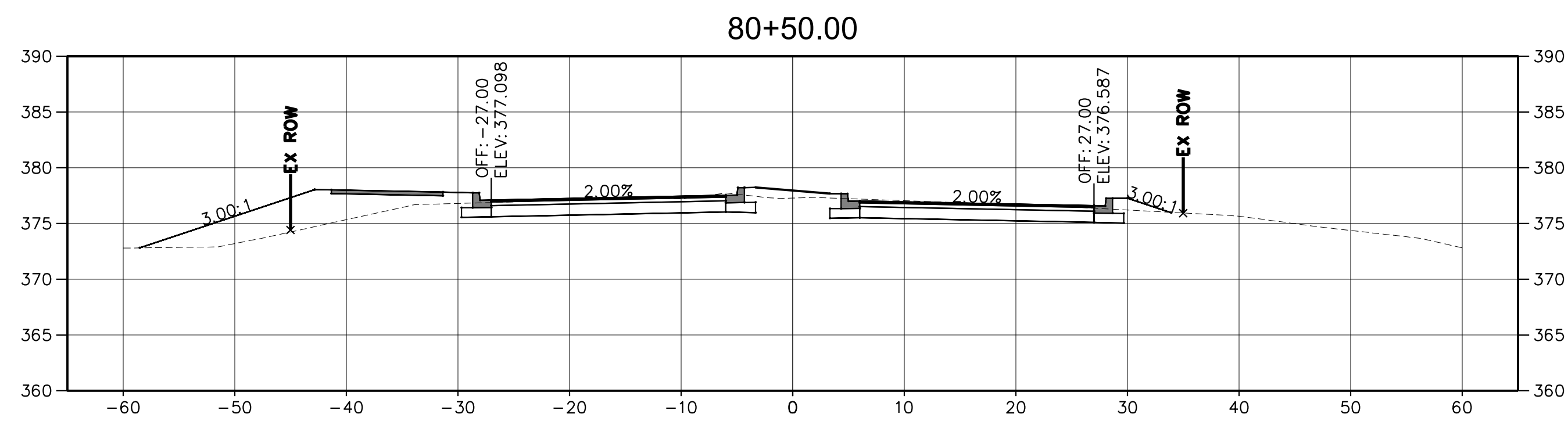
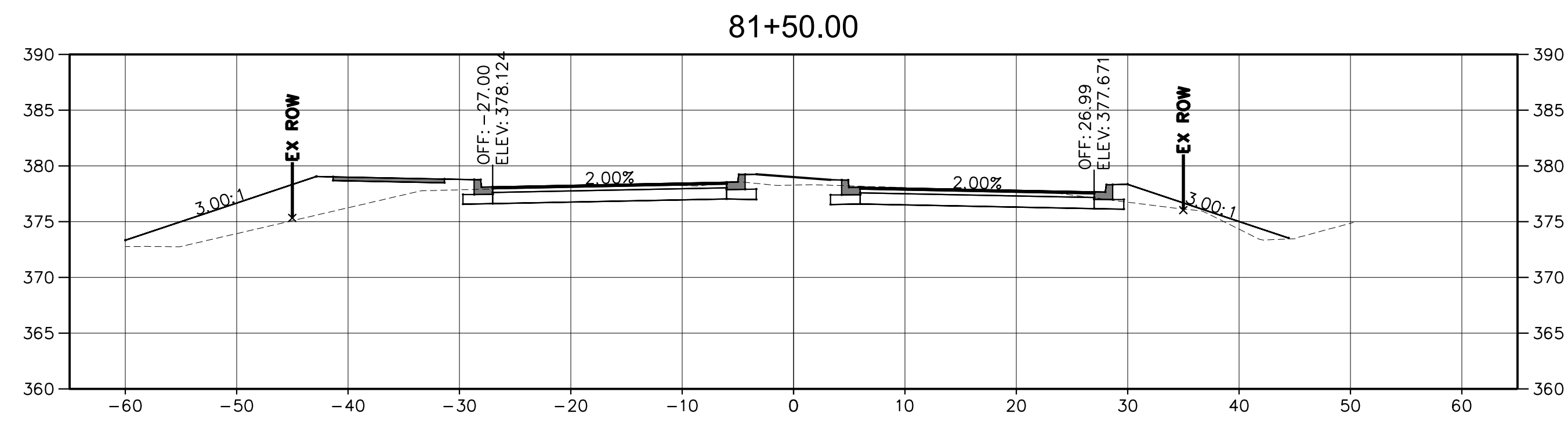
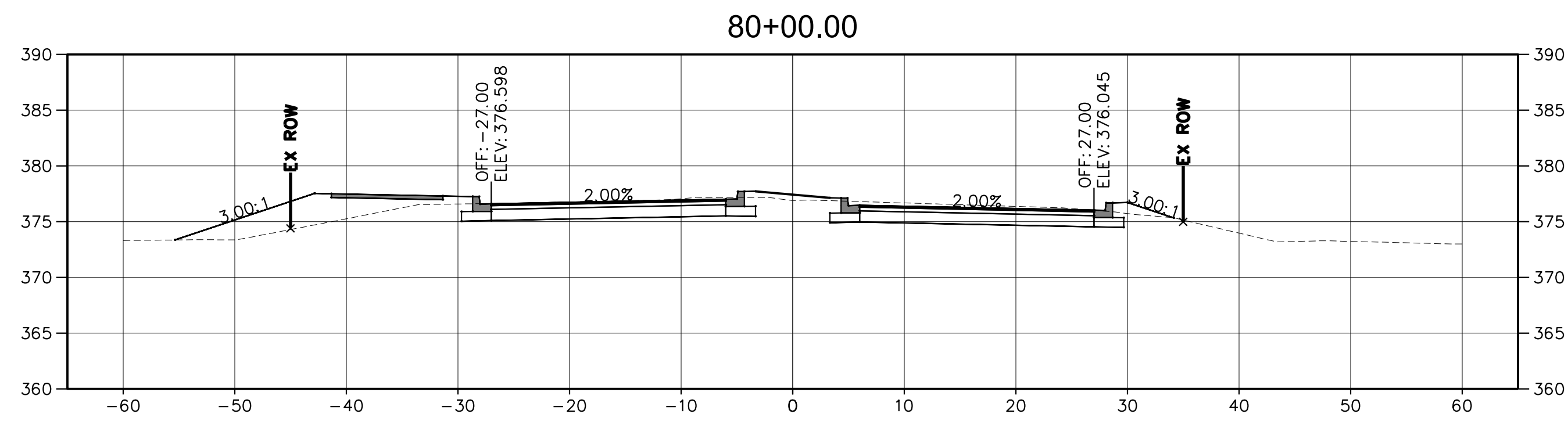
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
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WALTER MARTZ / POOLE JONES ROAD

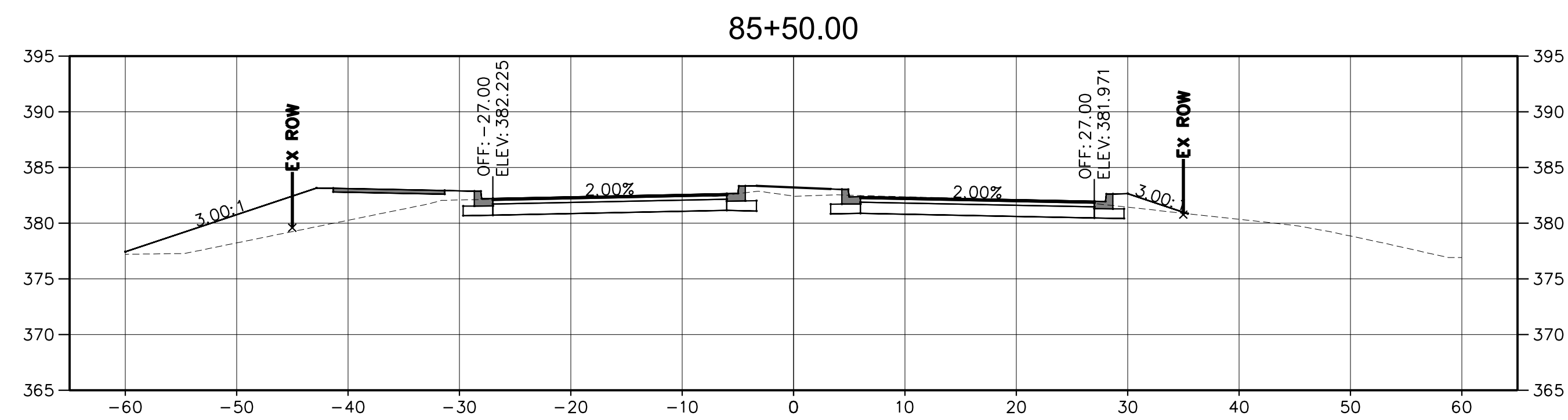
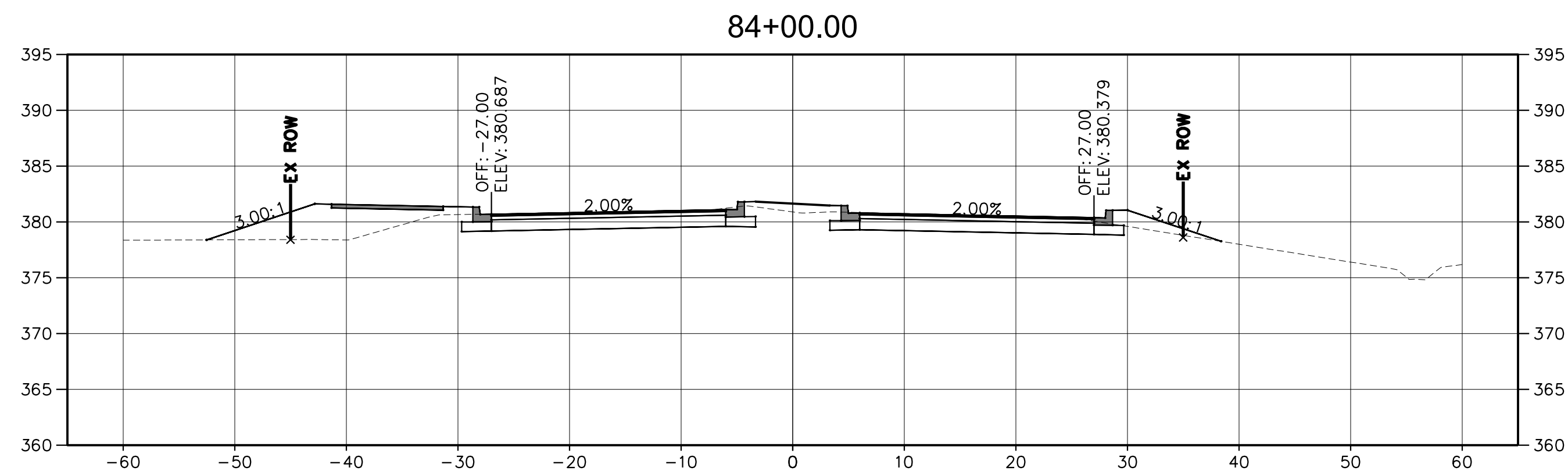
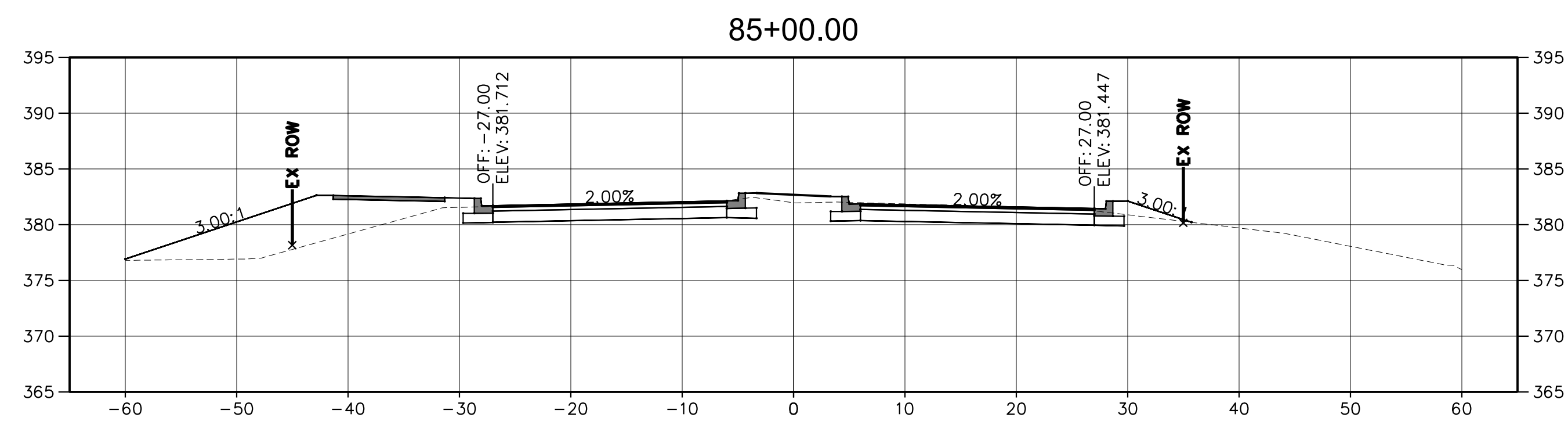
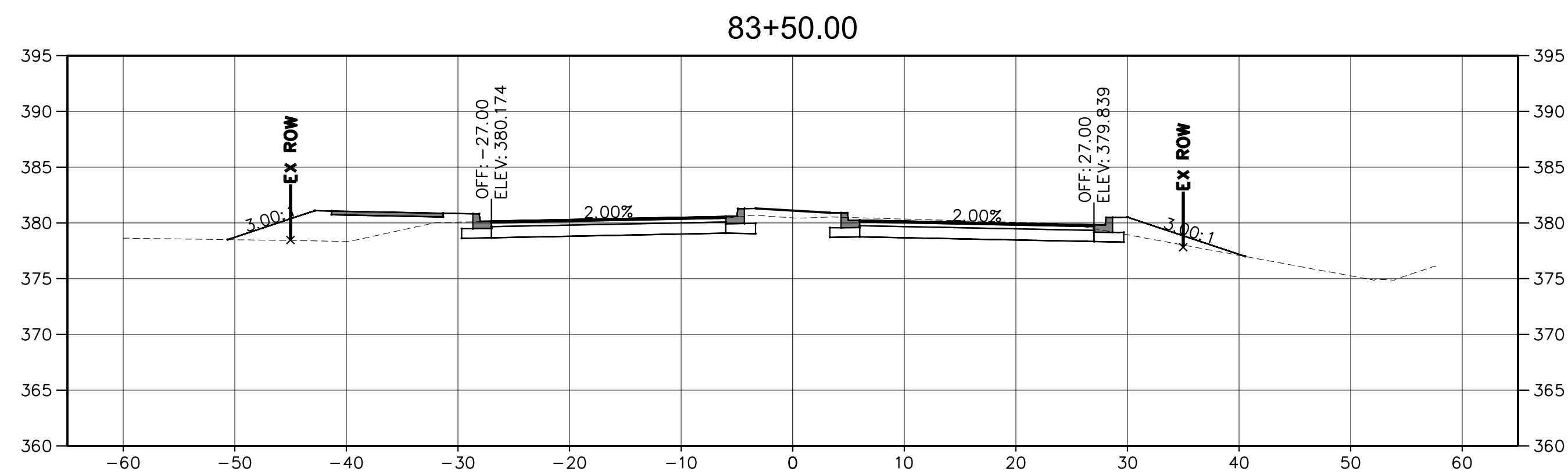
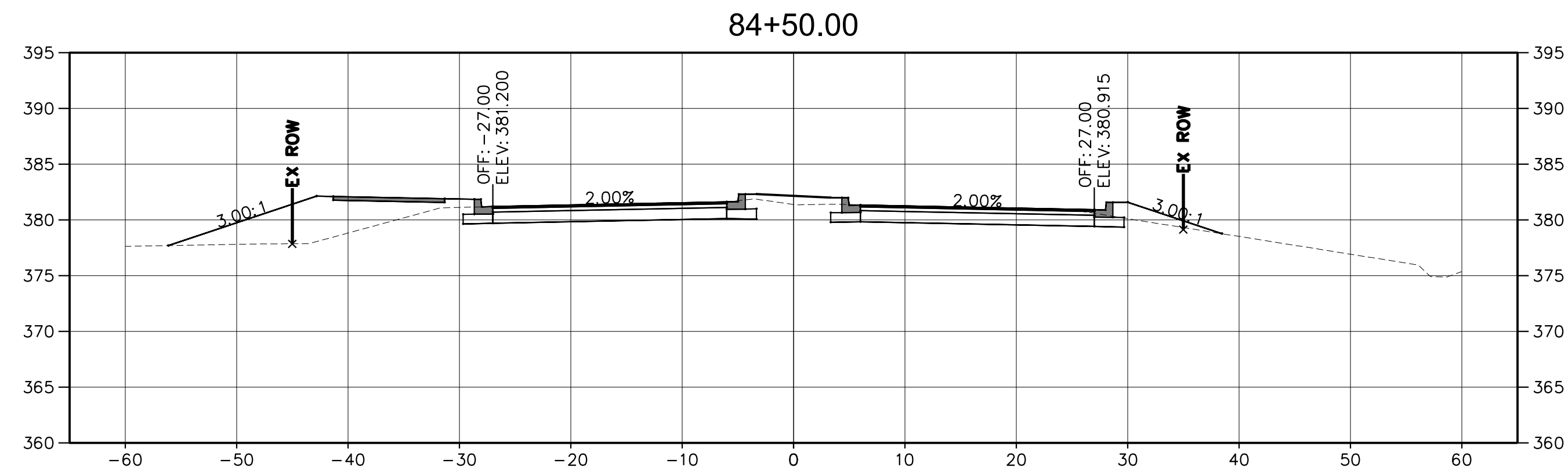
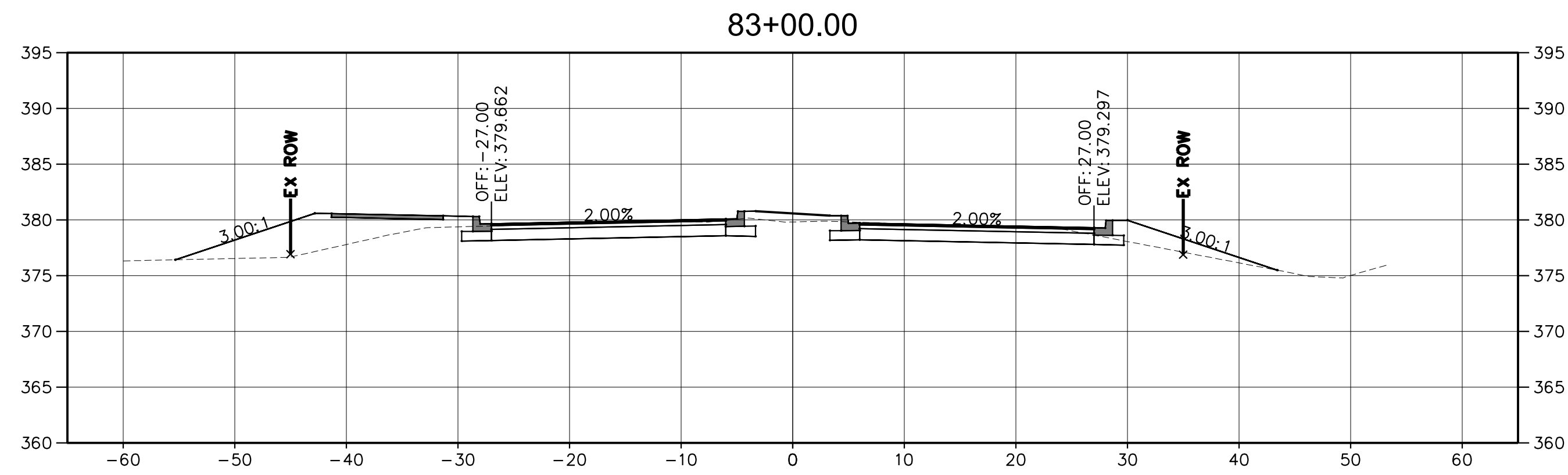
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RECONSTRUCTION OF
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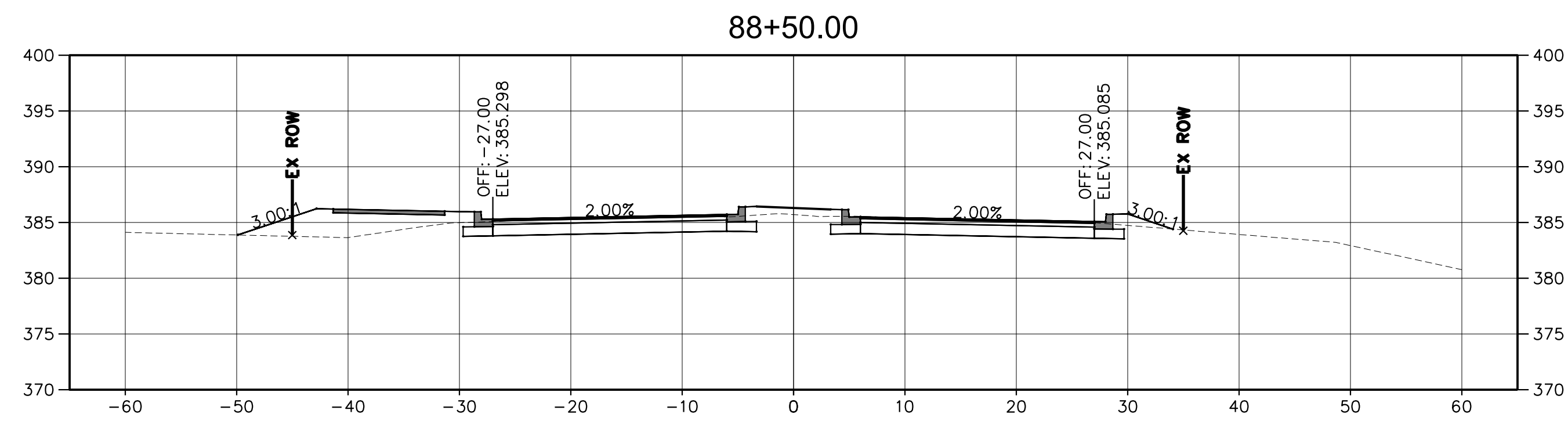
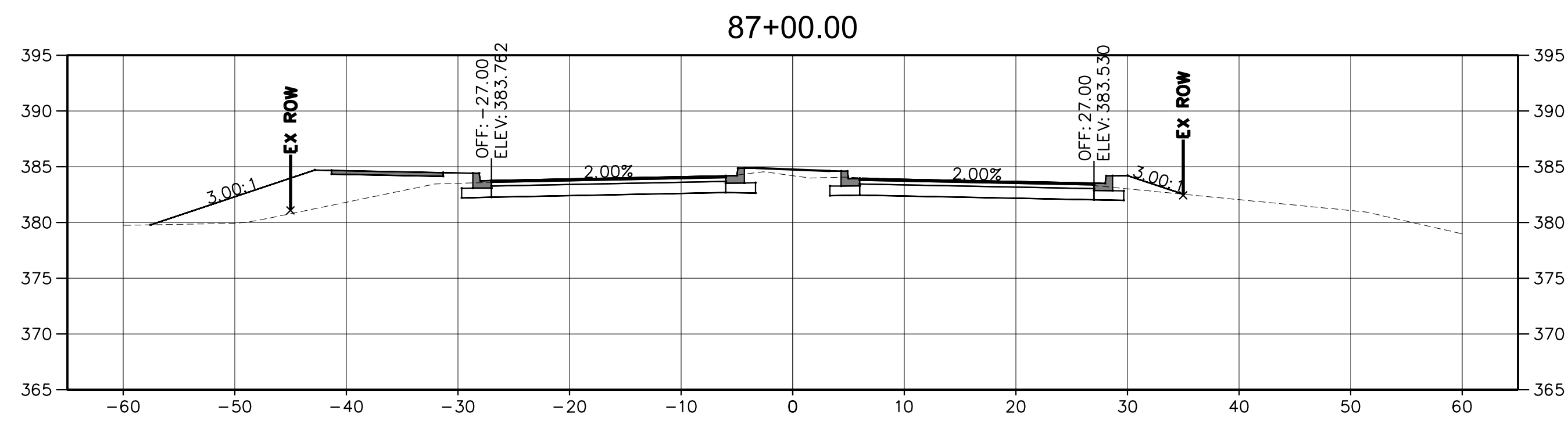
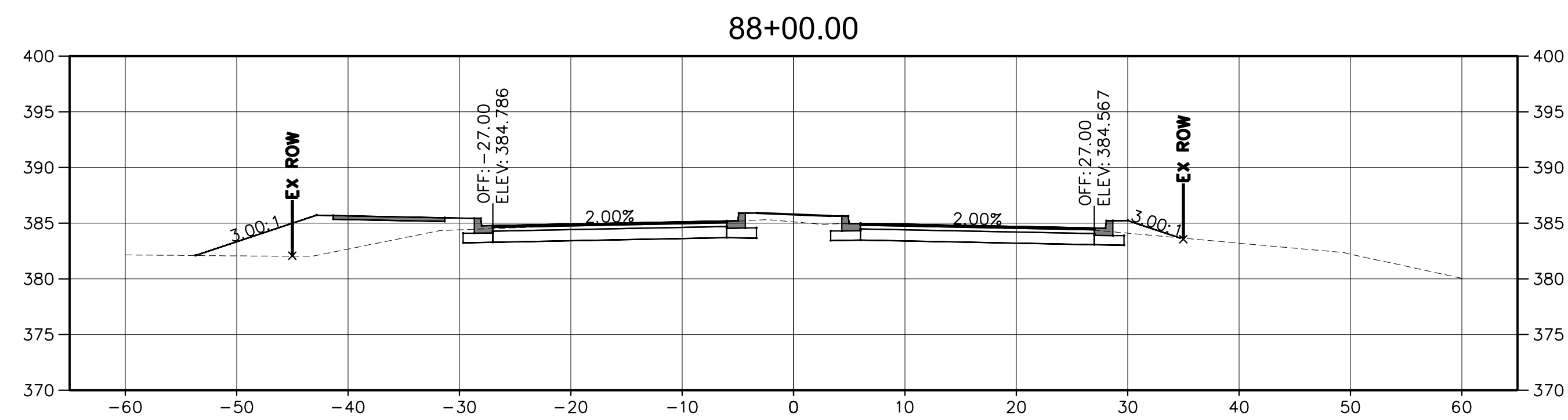
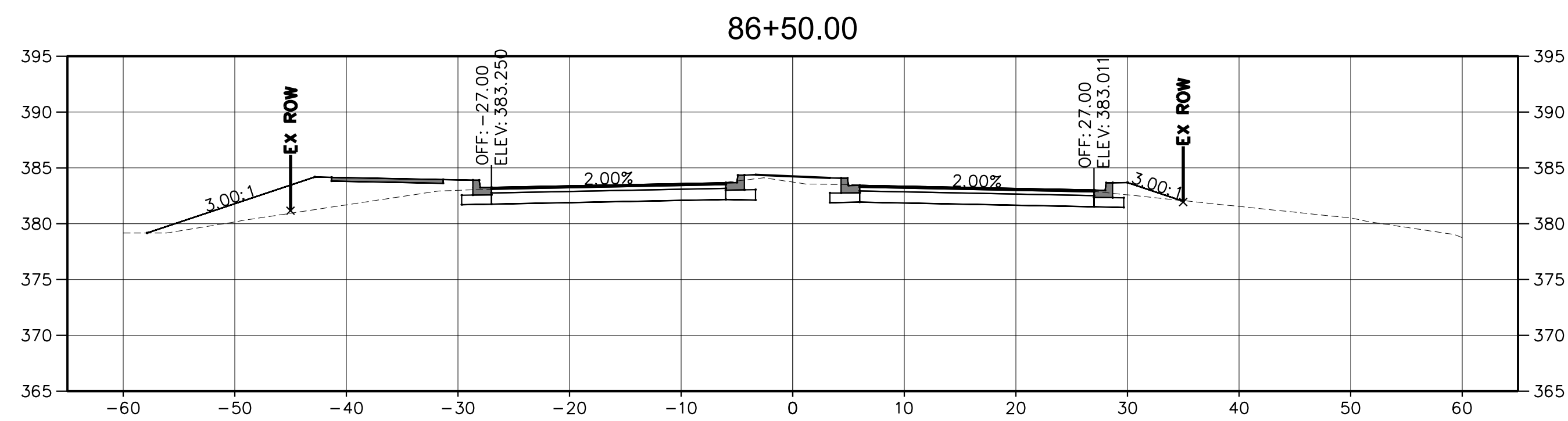
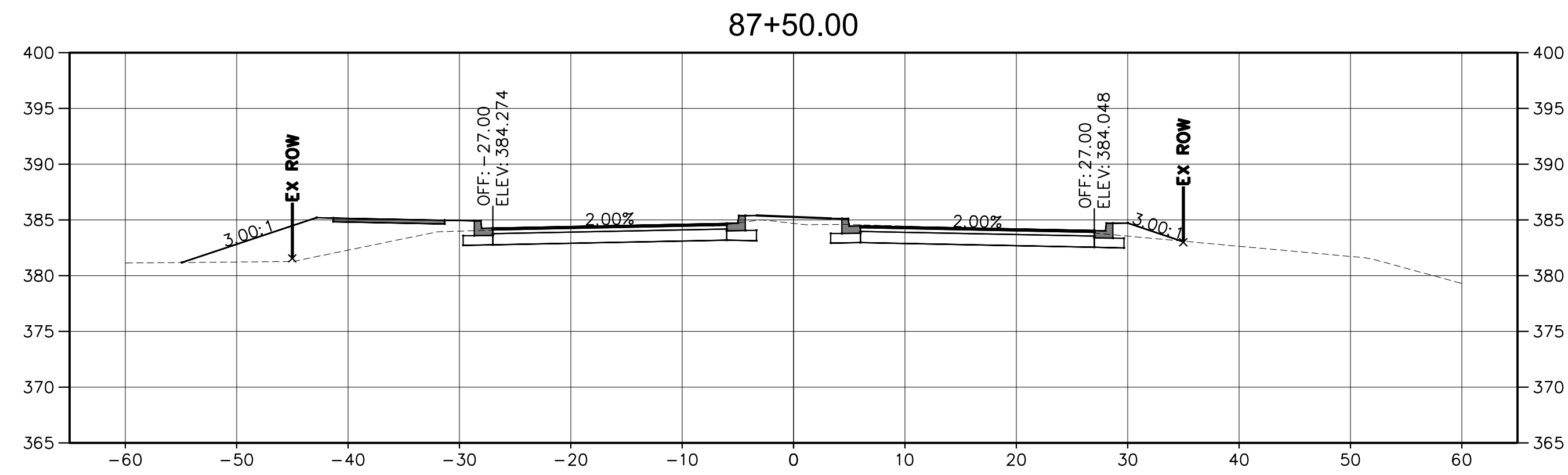
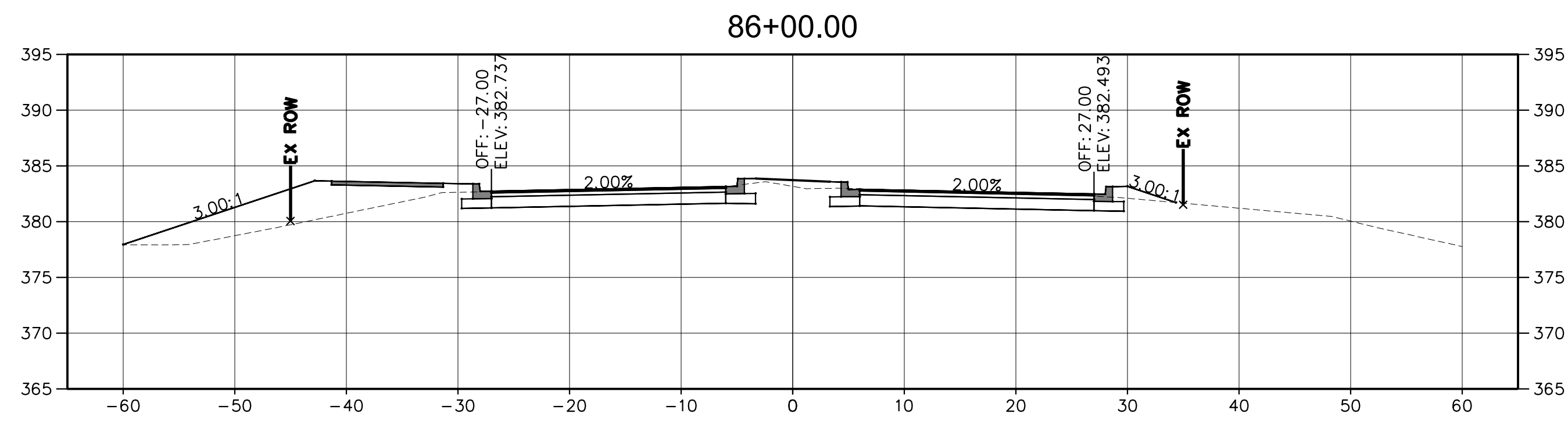
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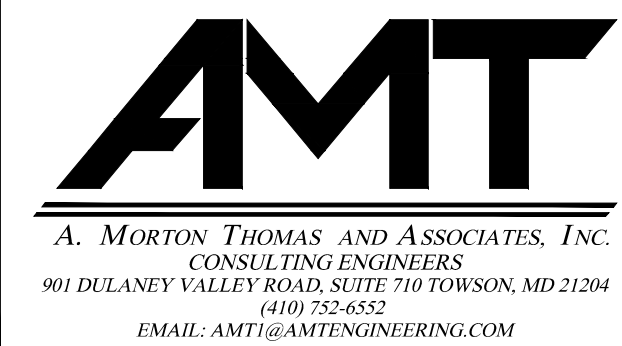
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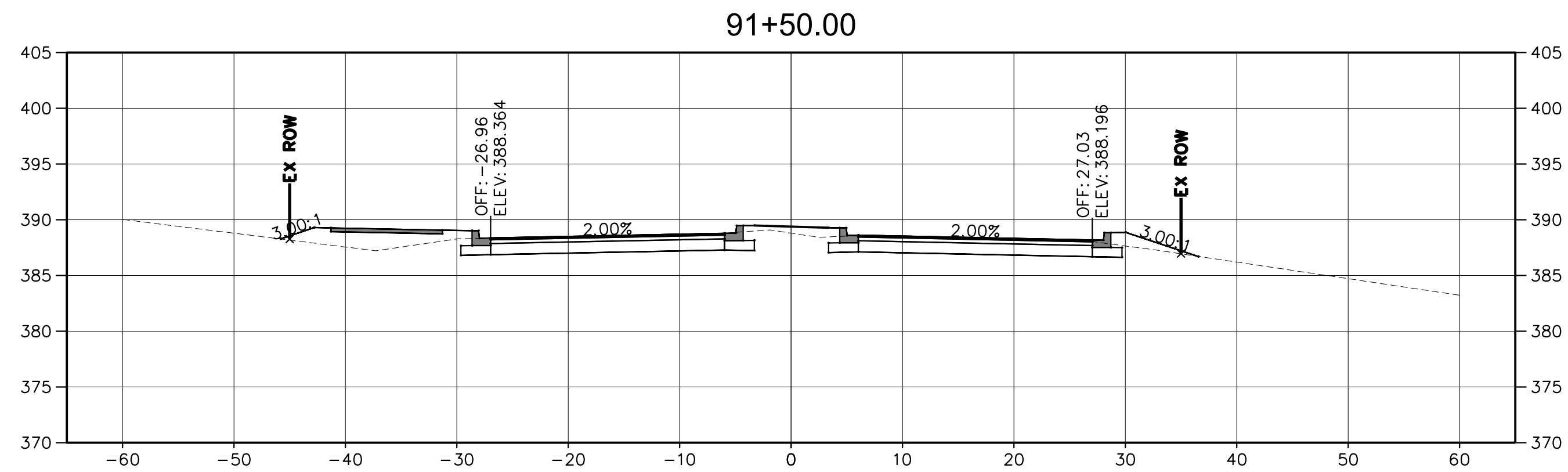
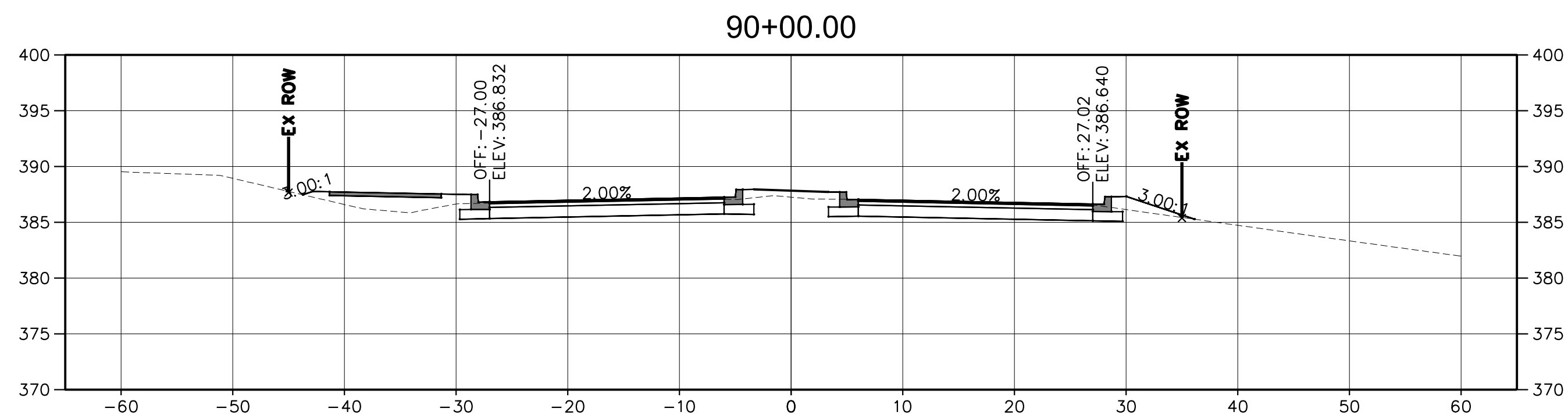
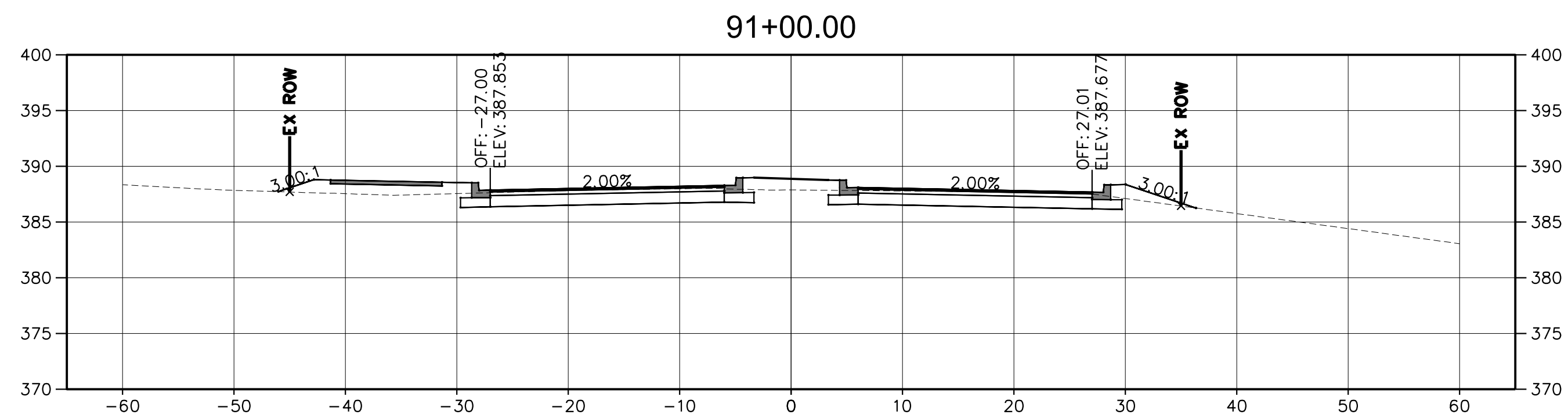
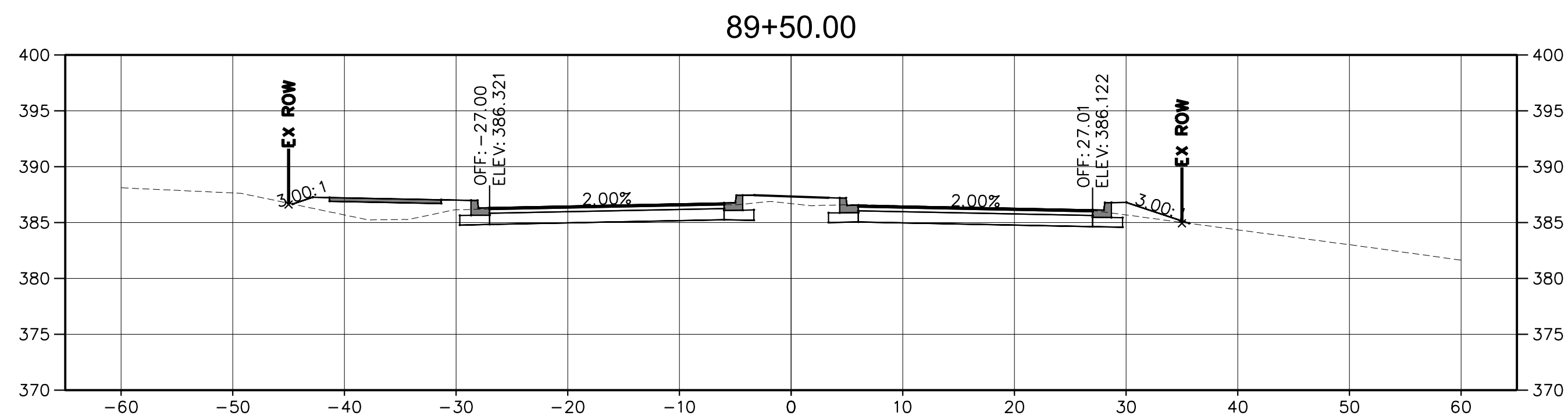
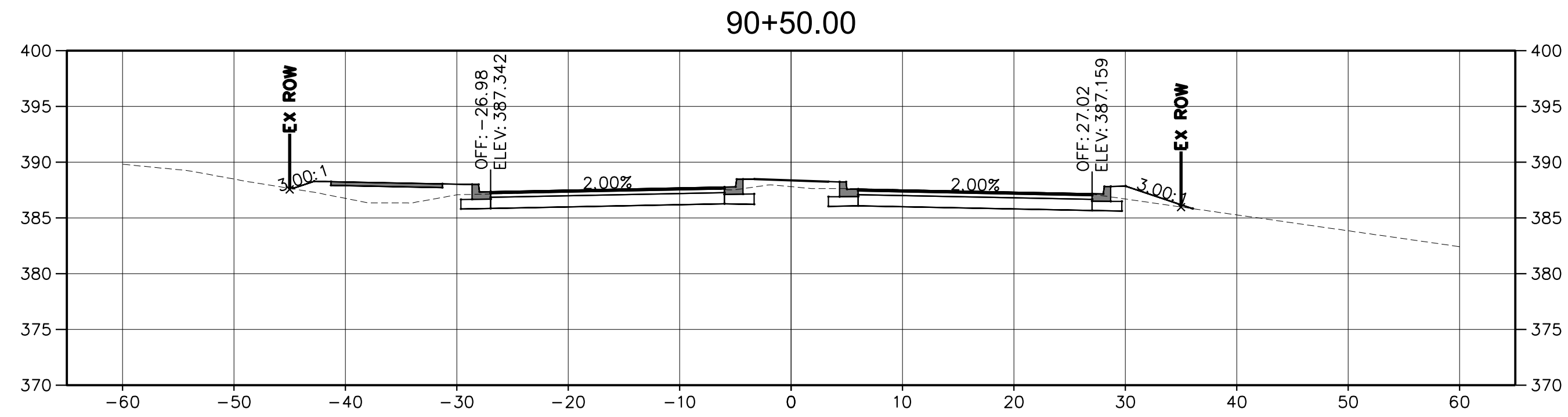
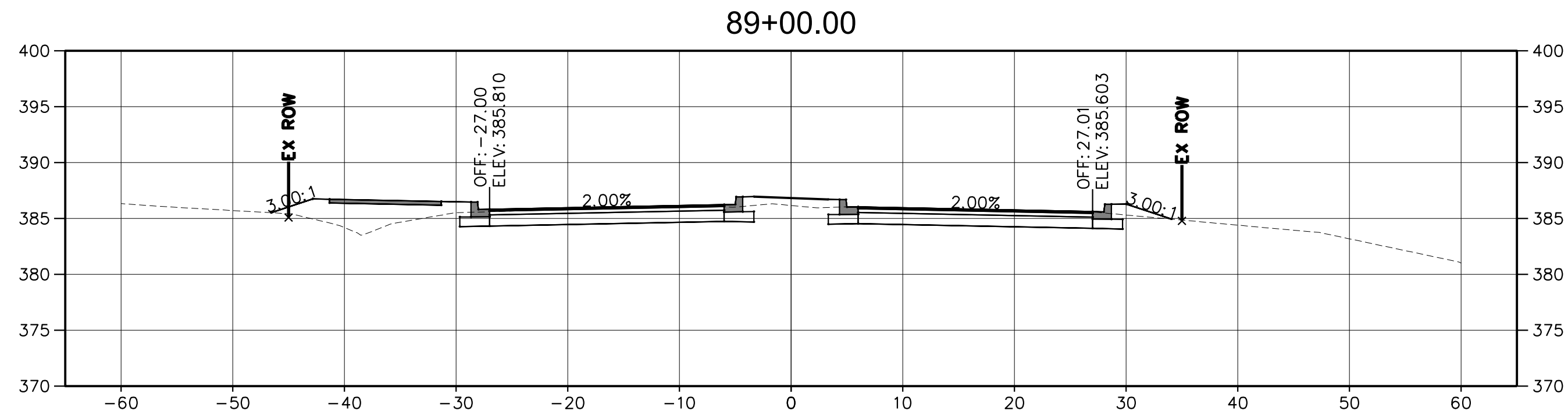


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RECONSTRUCTION OF
 CHRISTOPHERS CROSSING
 FROM WHITTIER DRIVE TO
 WALTER MARTZ / POOLE JONES ROAD

CROSS SECTIONS

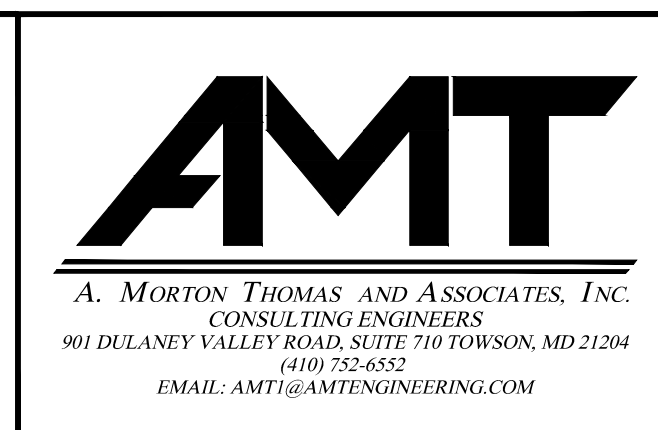
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FREDERICK COUNTY, MARYLAND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
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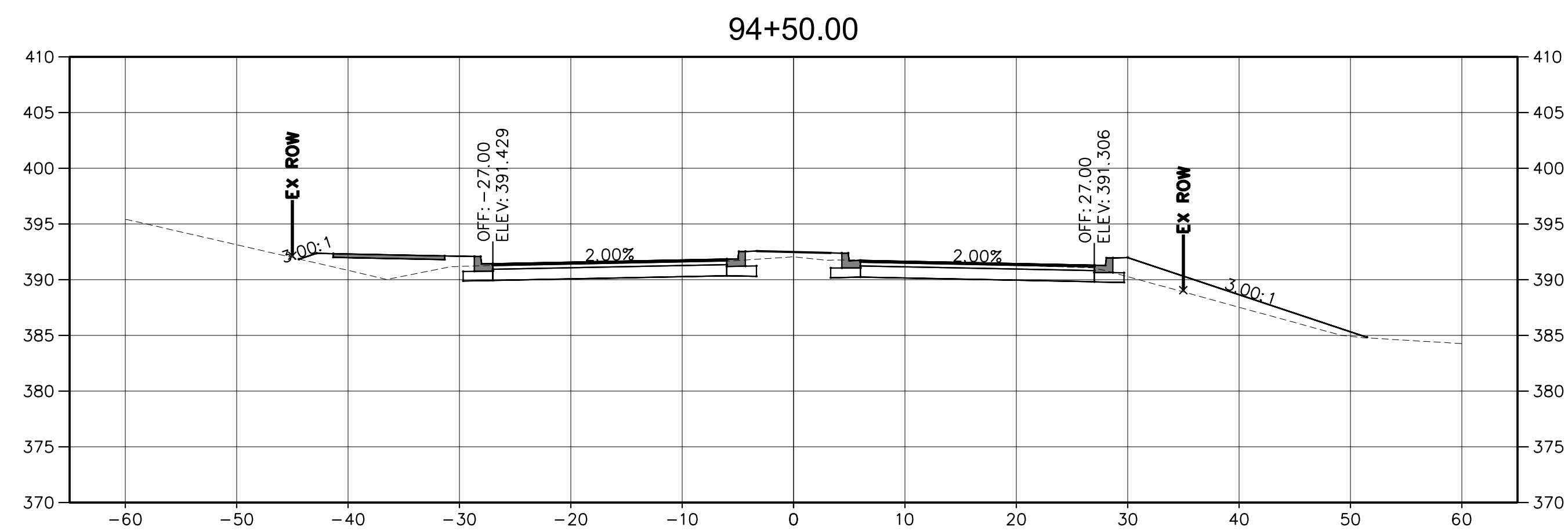
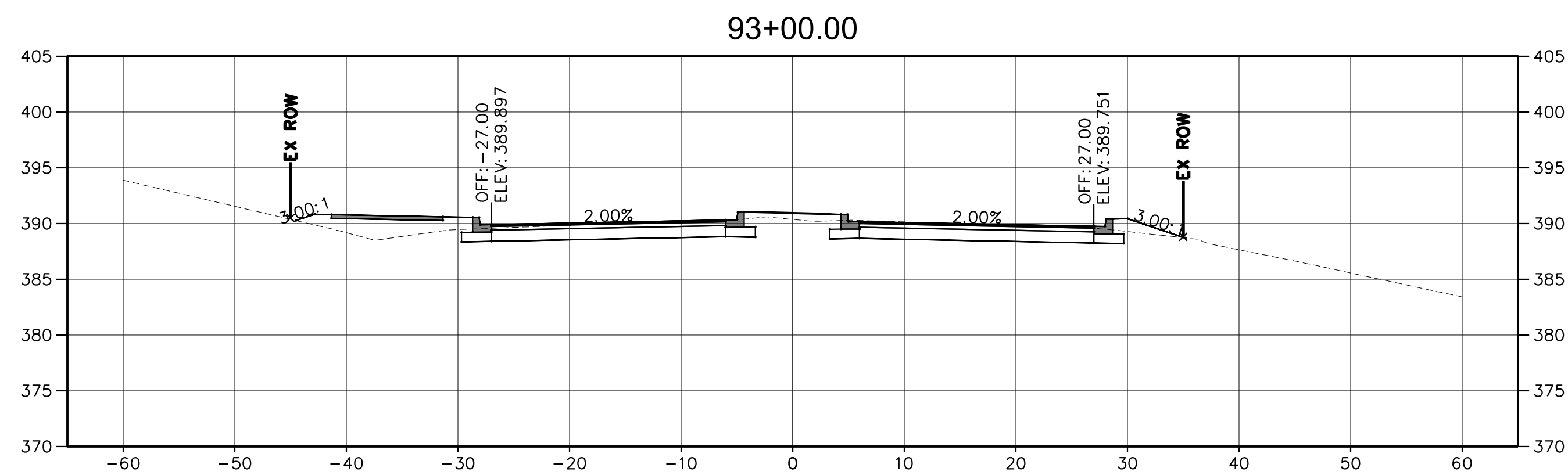
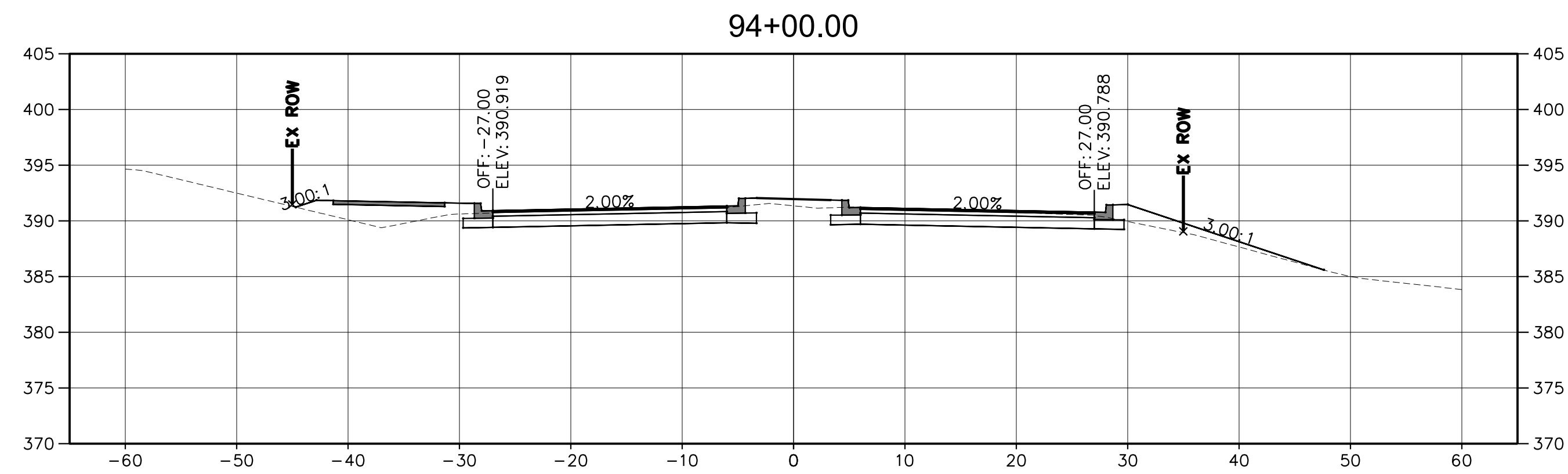
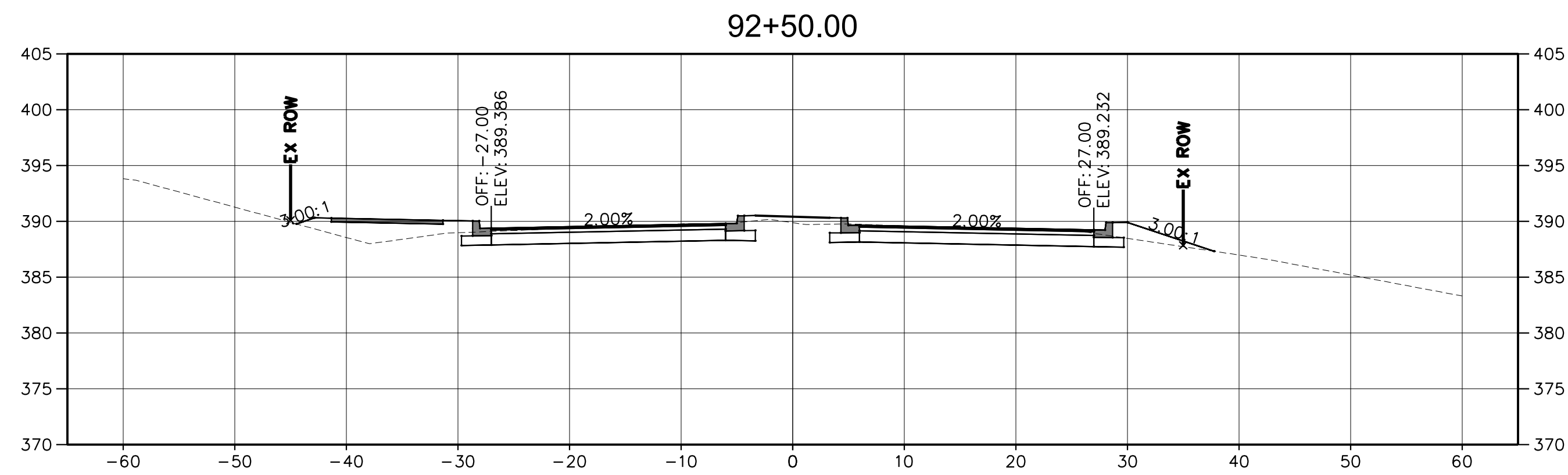
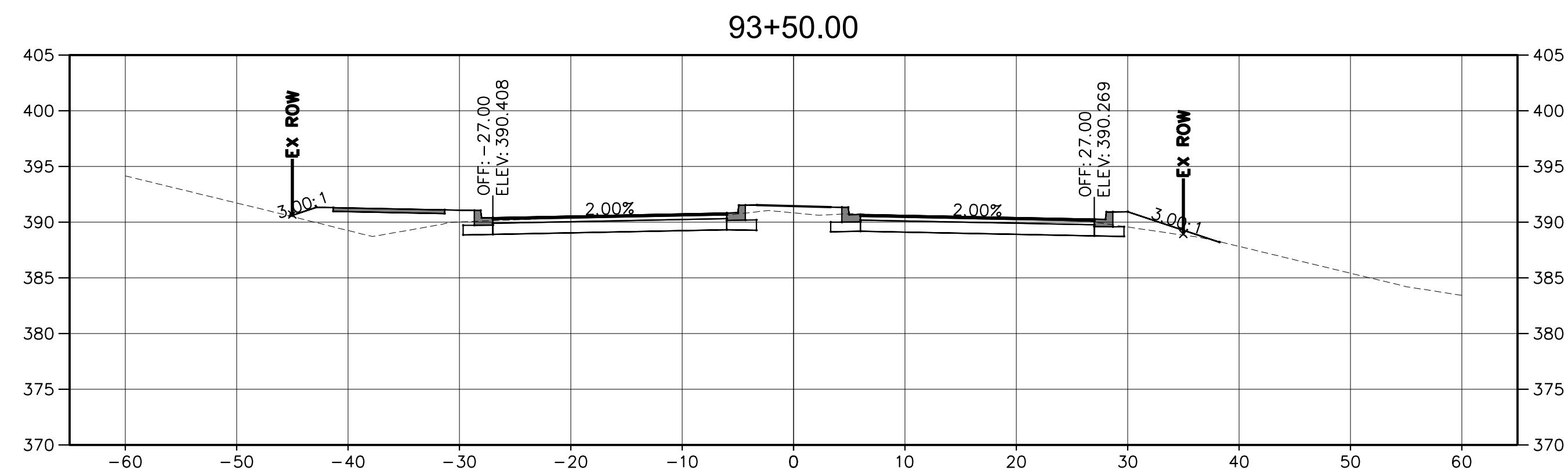
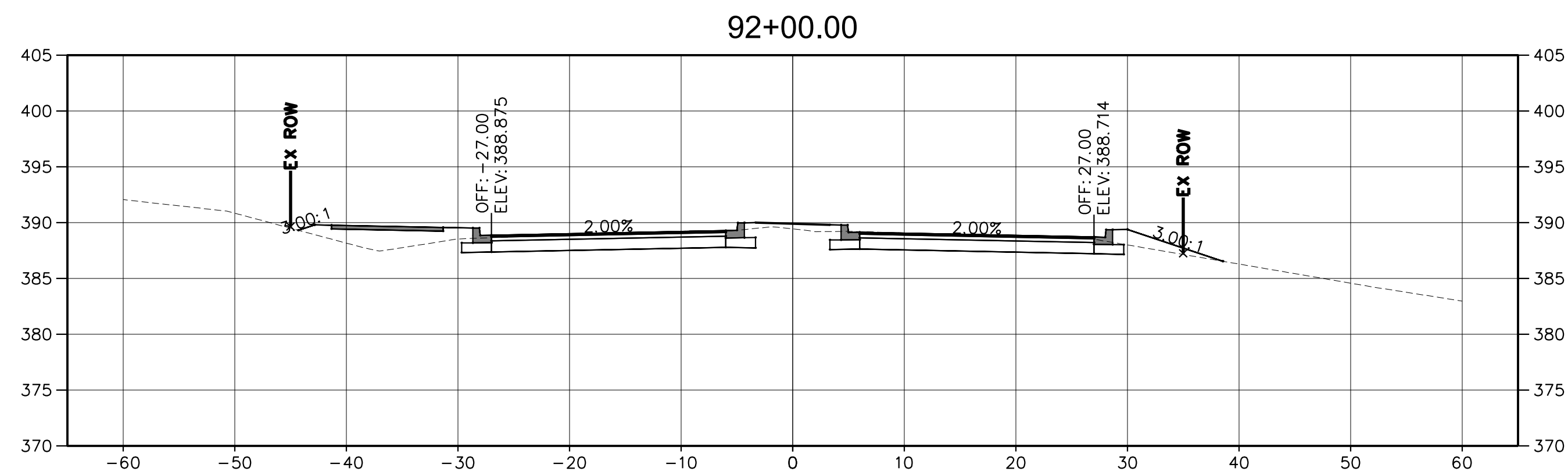
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SCALE: 1"=30'

AMT FILE NO. 15-0758.007

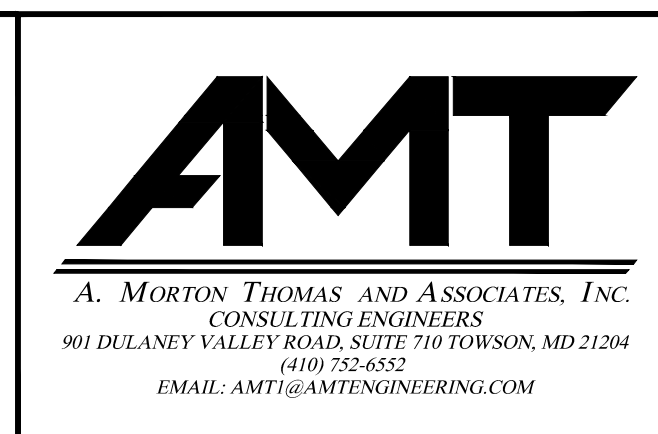
SHEET NO. 30 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
DO NOT INCLUDE ANY DRAINAGE IMPROVEMENTS SHOWN ON
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MANAGEMENT FEATURES.

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

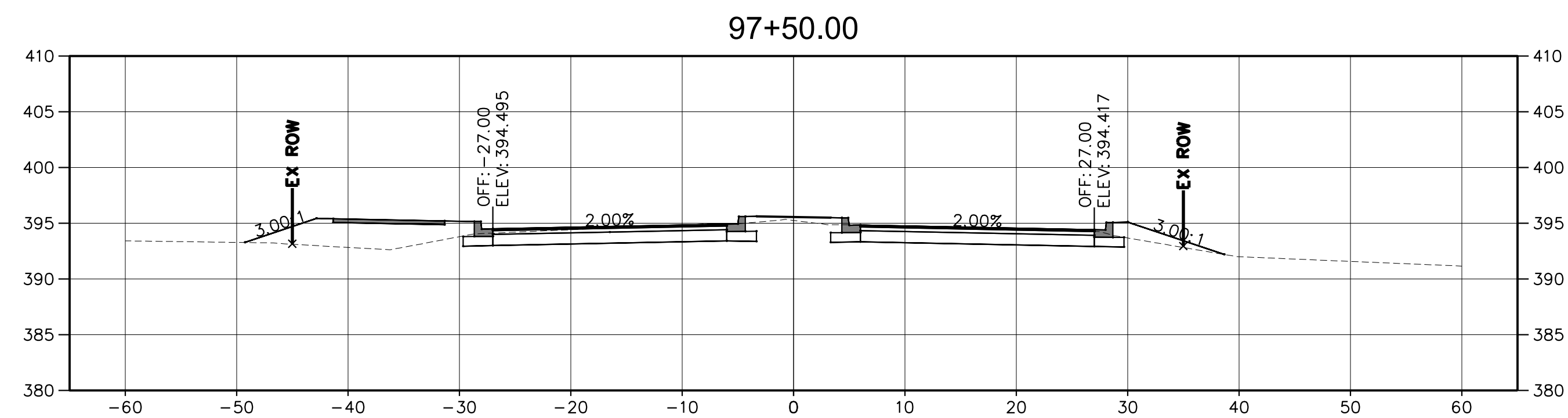
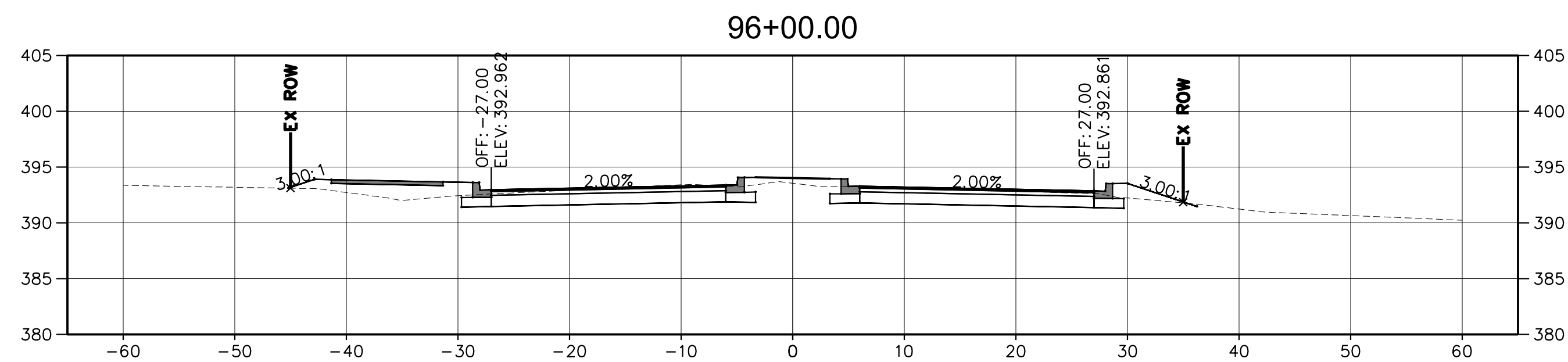
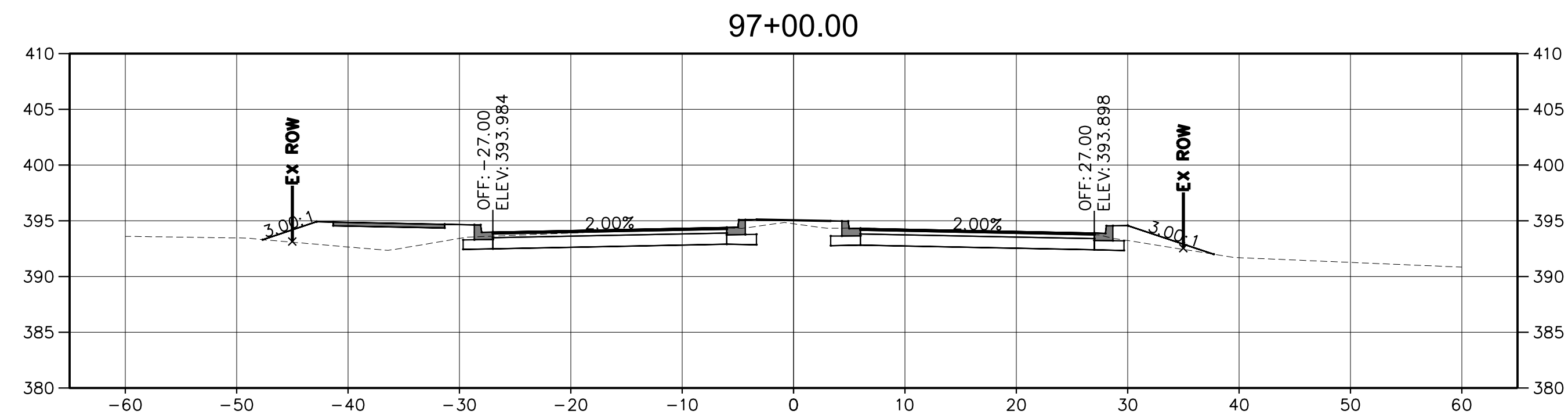
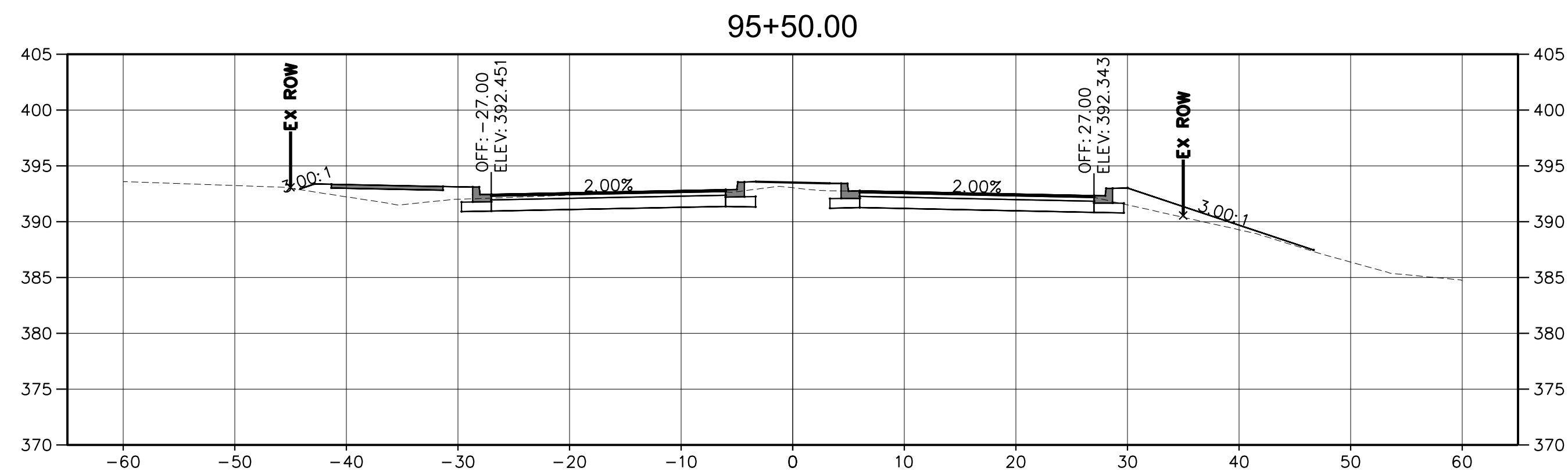
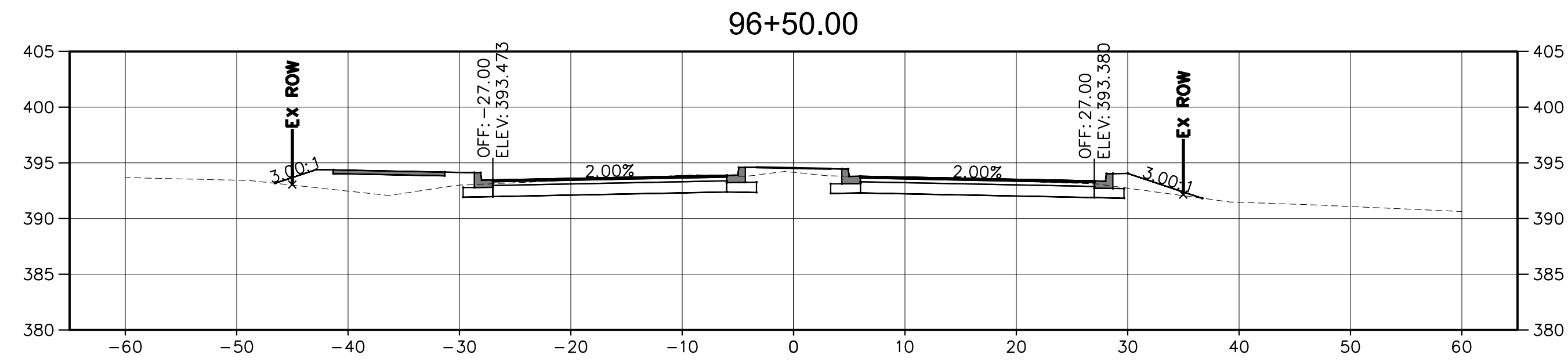
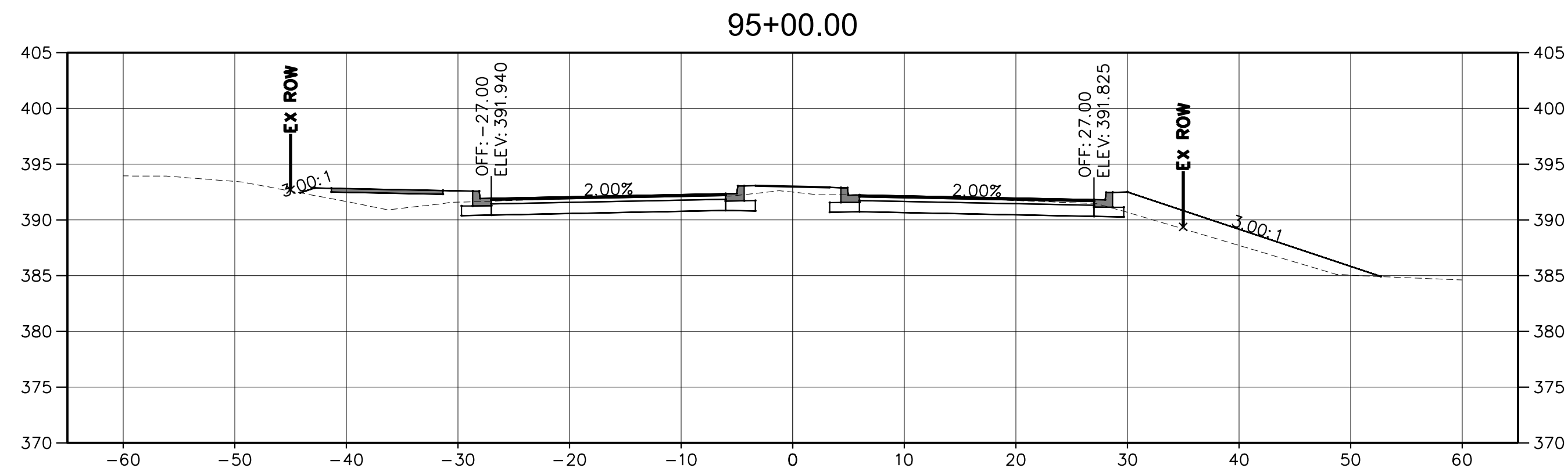
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 31 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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REVISIONS		
MARK	DATE	DESCRIPTION

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FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

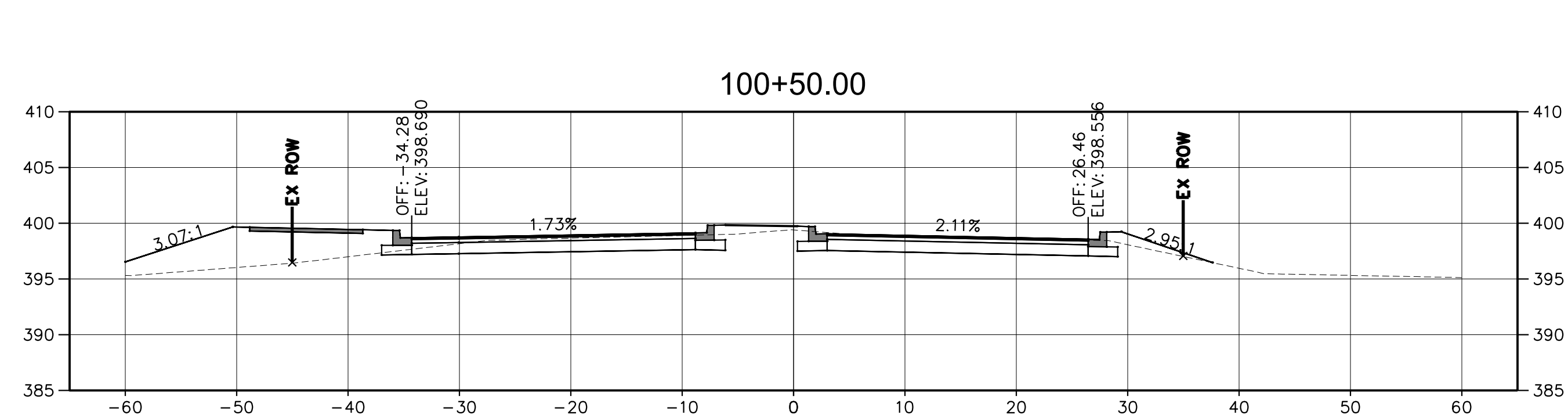
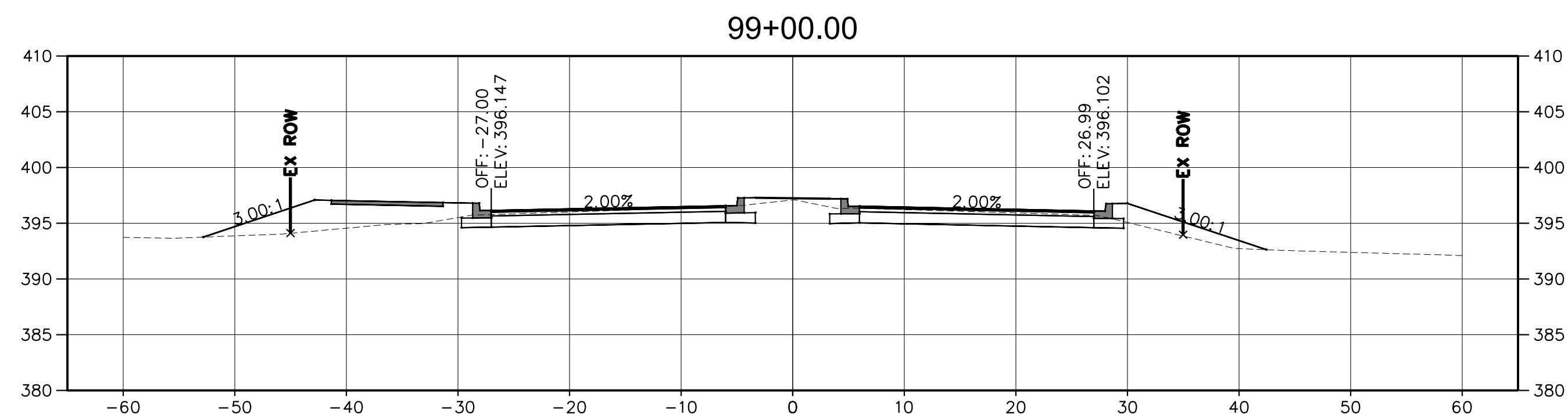
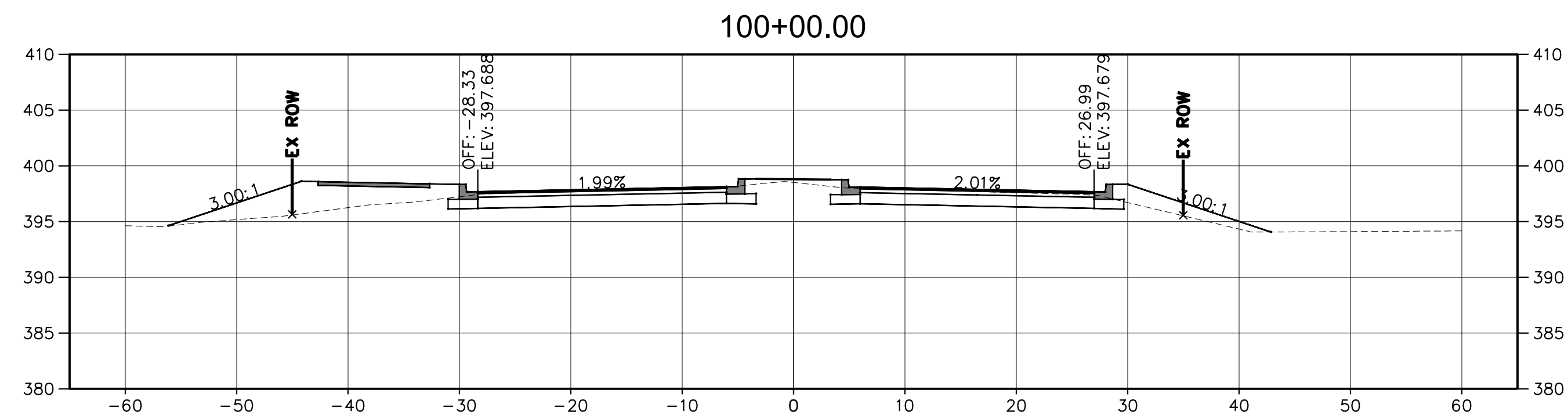
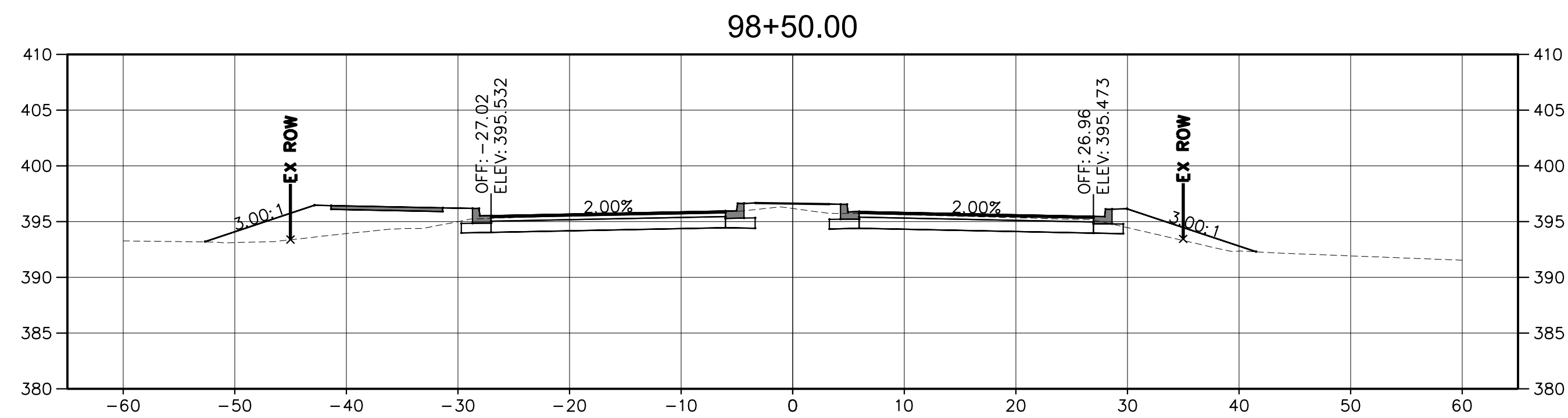
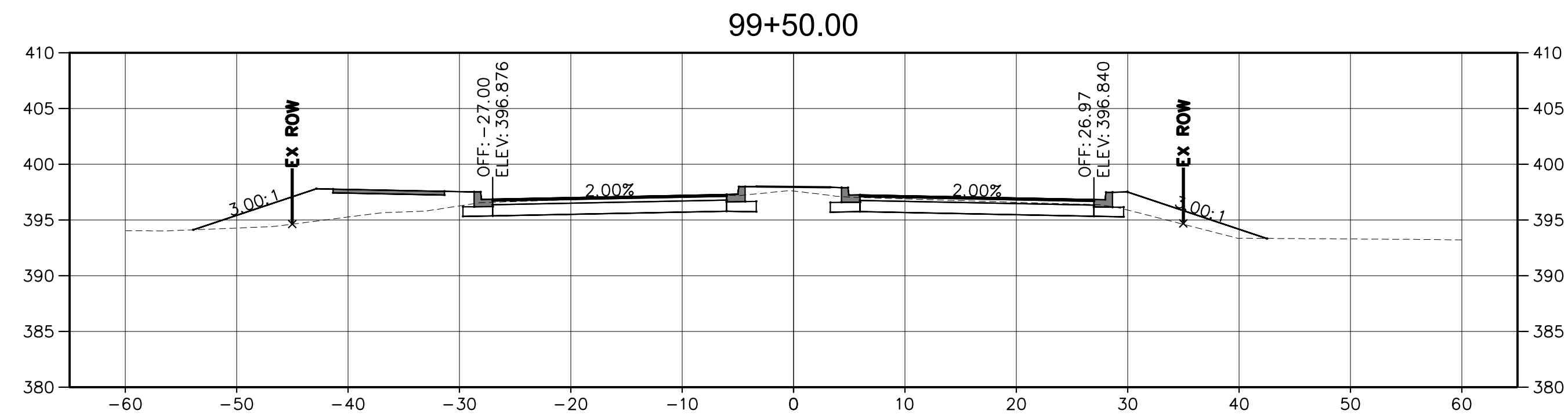
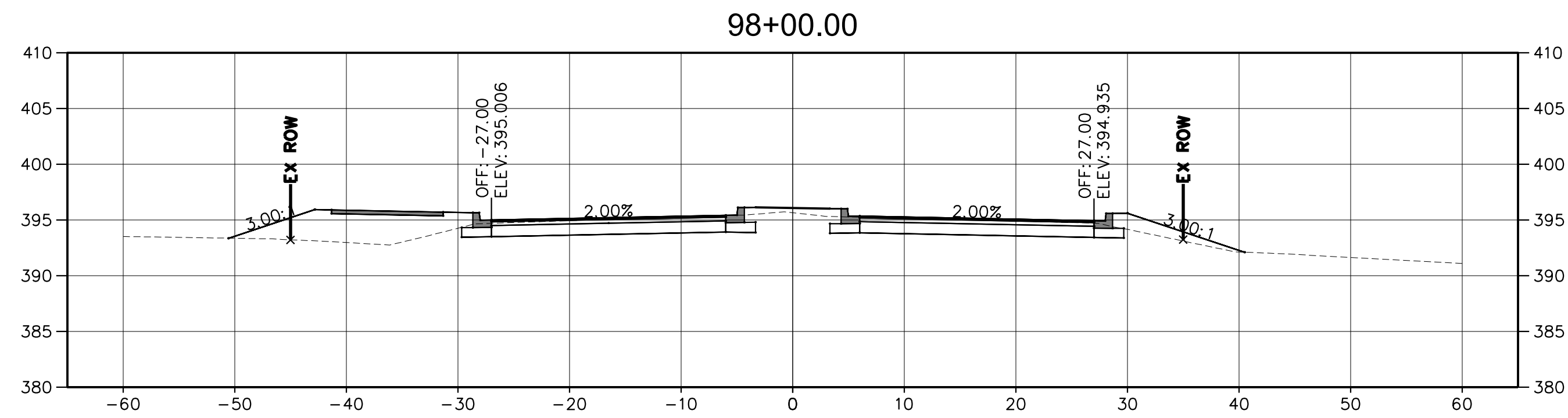
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

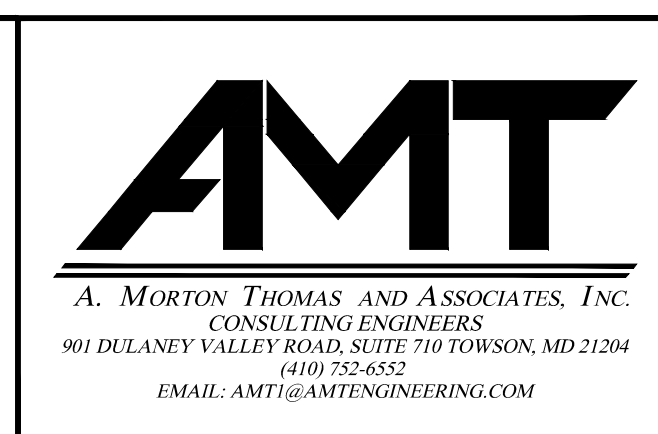
SHEET NO. 32 OF 48



NOTE:
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ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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RECONSTRUCTION OF
CHRISTOPHERS CROSSING
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WALTER MARTZ / POOLE JONES ROAD

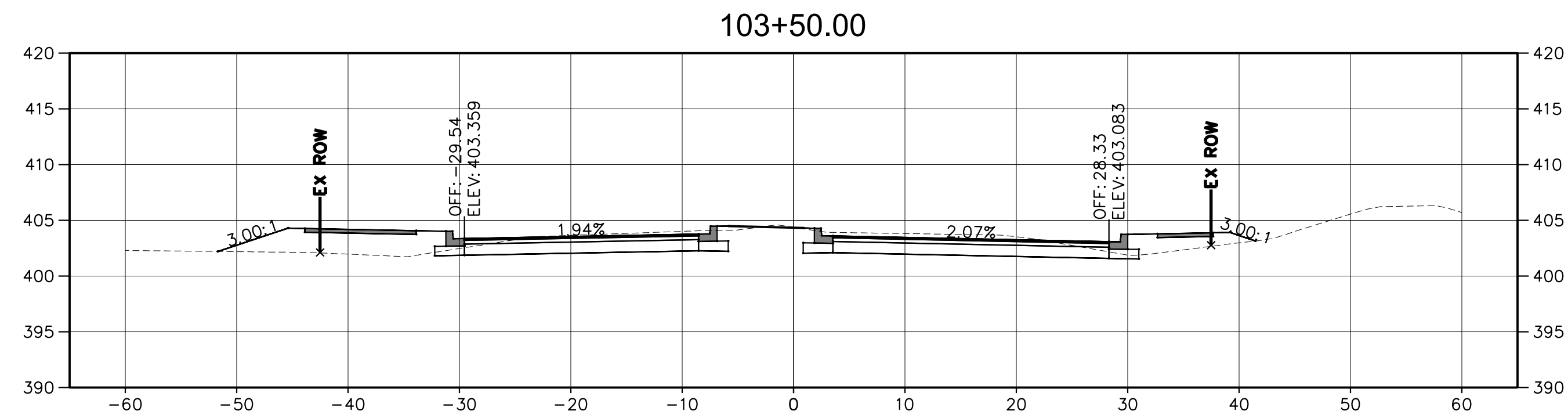
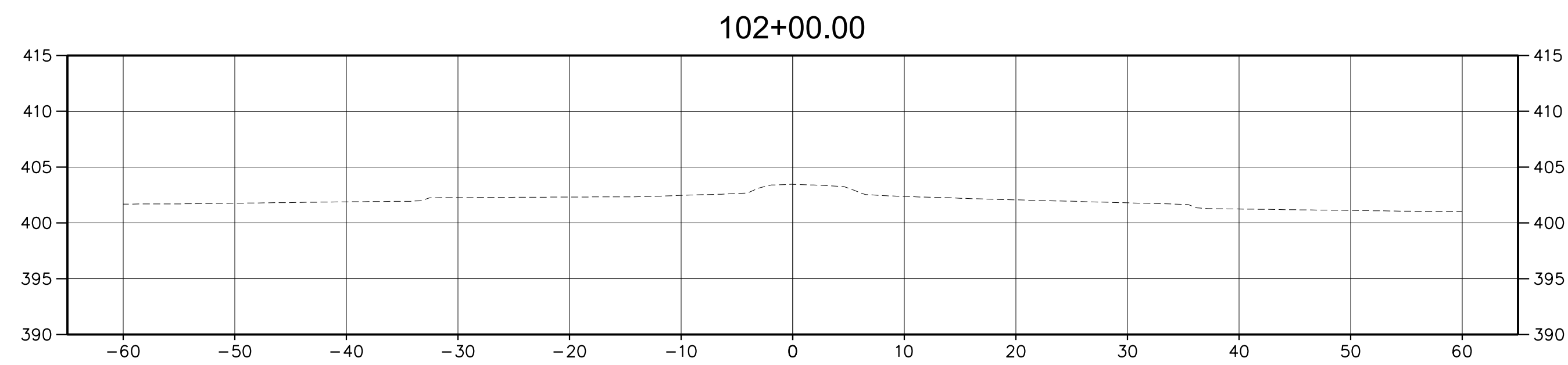
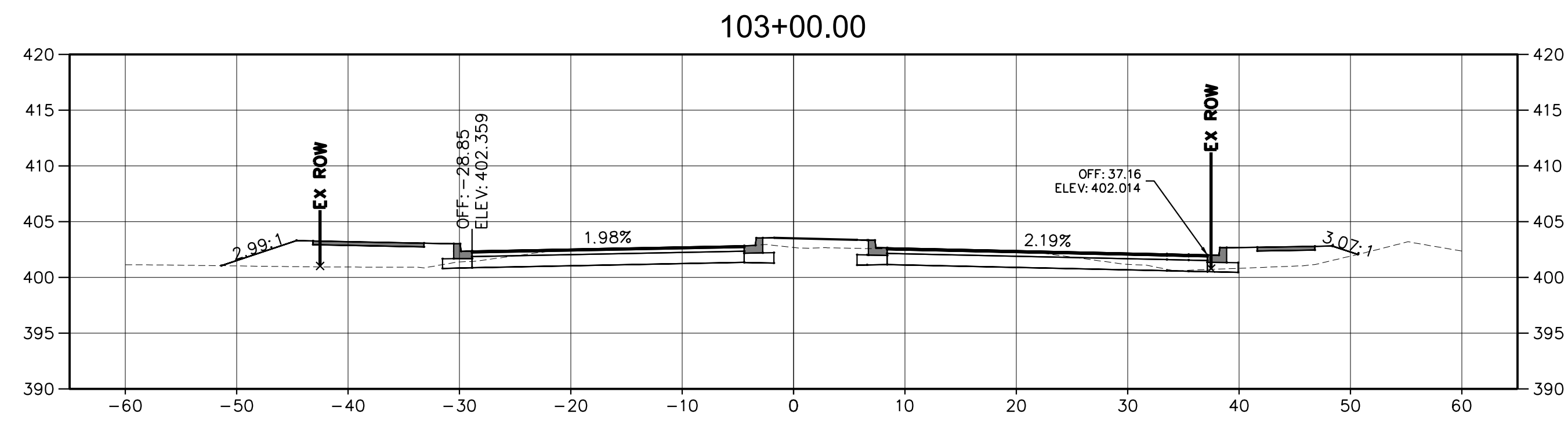
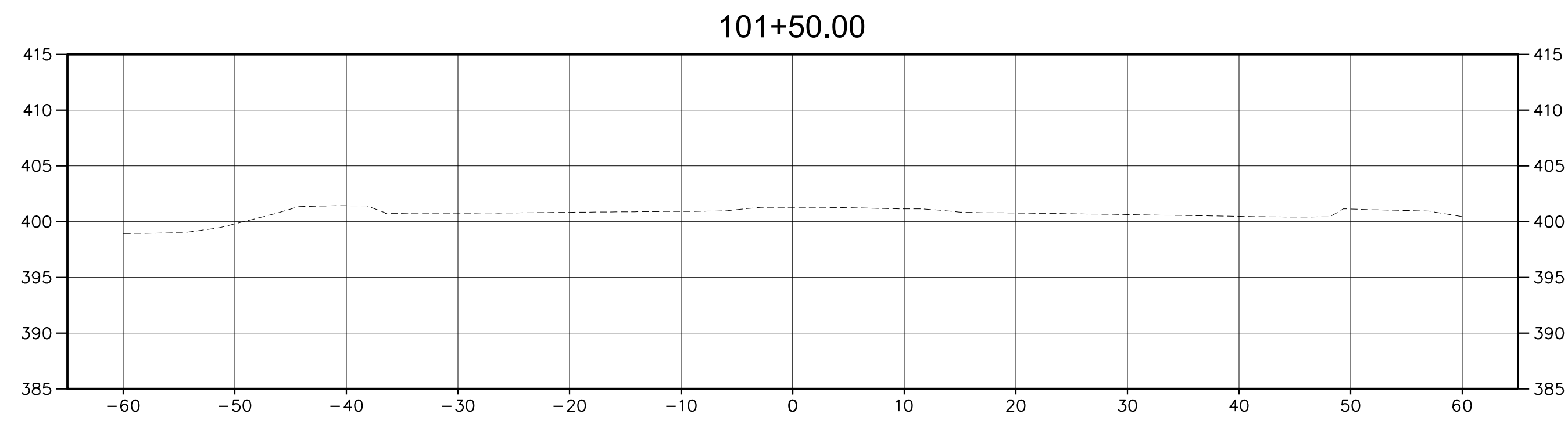
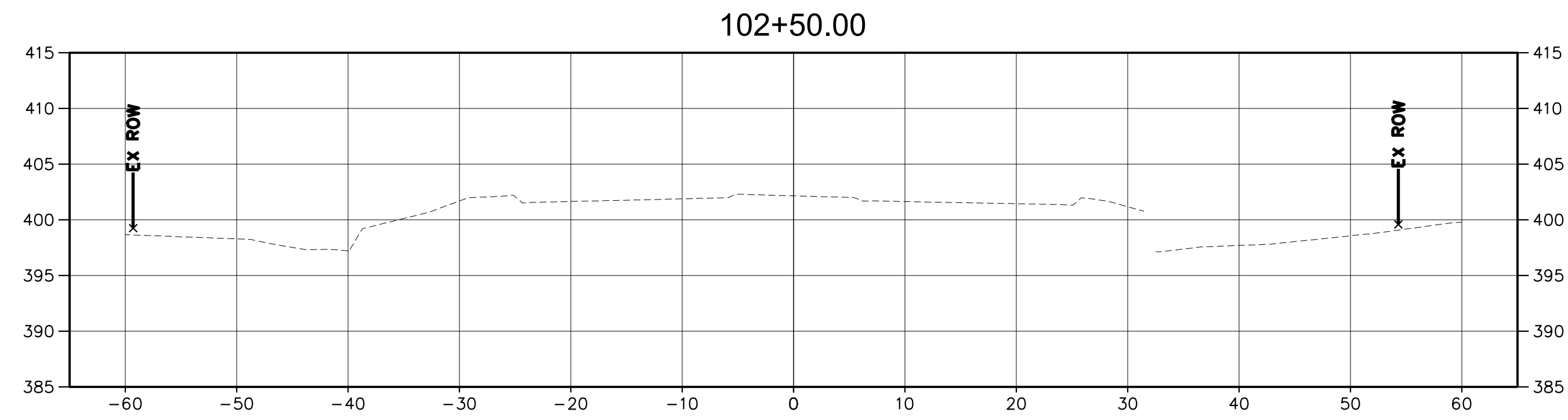
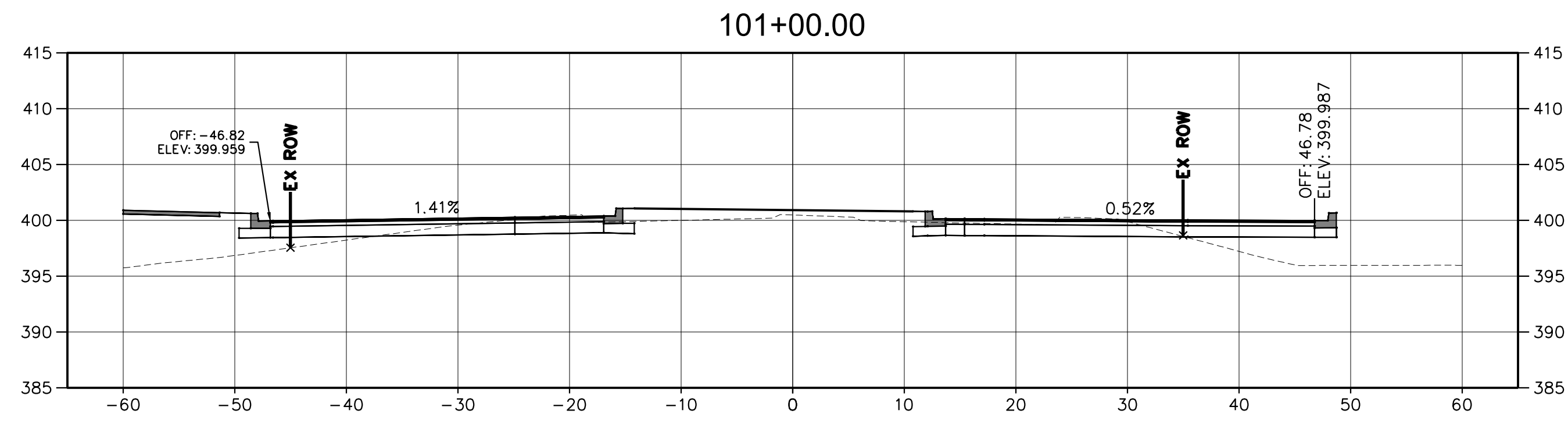
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

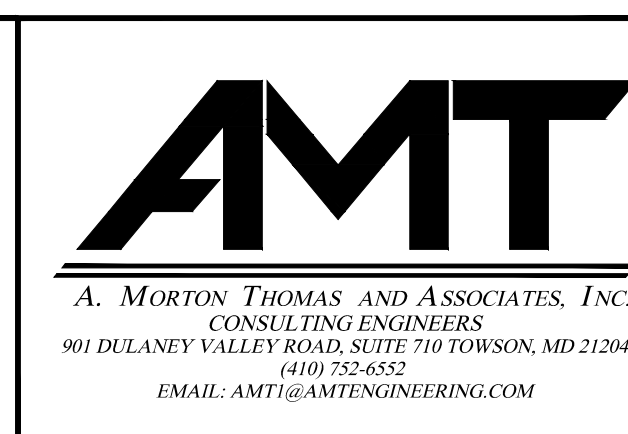
SHEET NO. 33 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL, AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

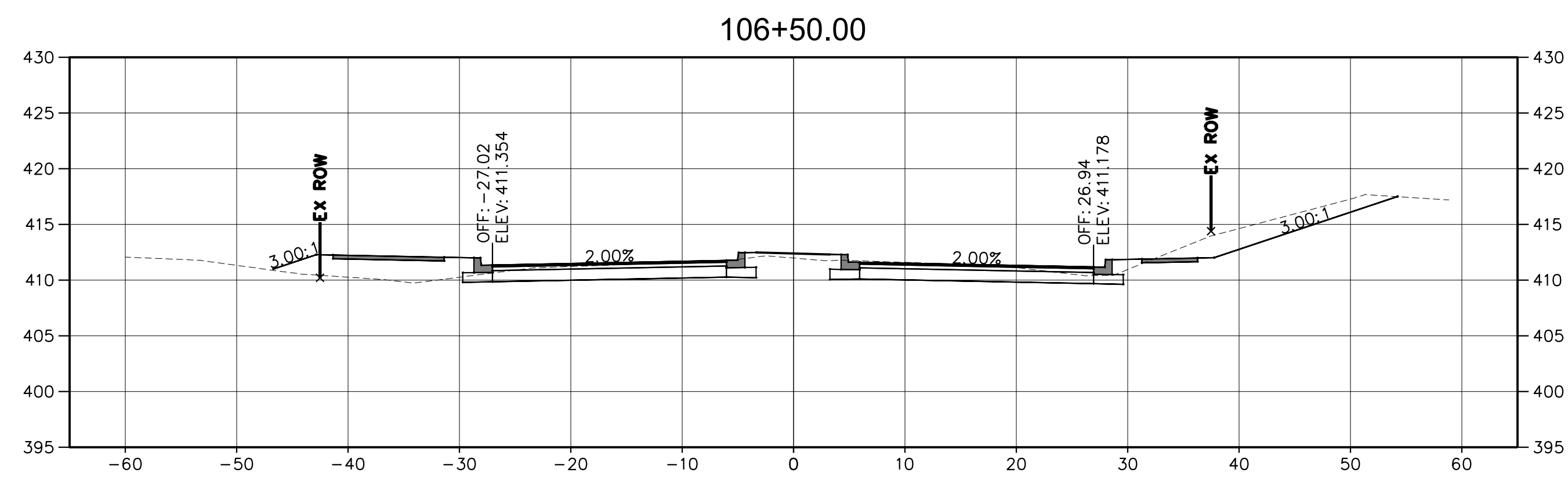
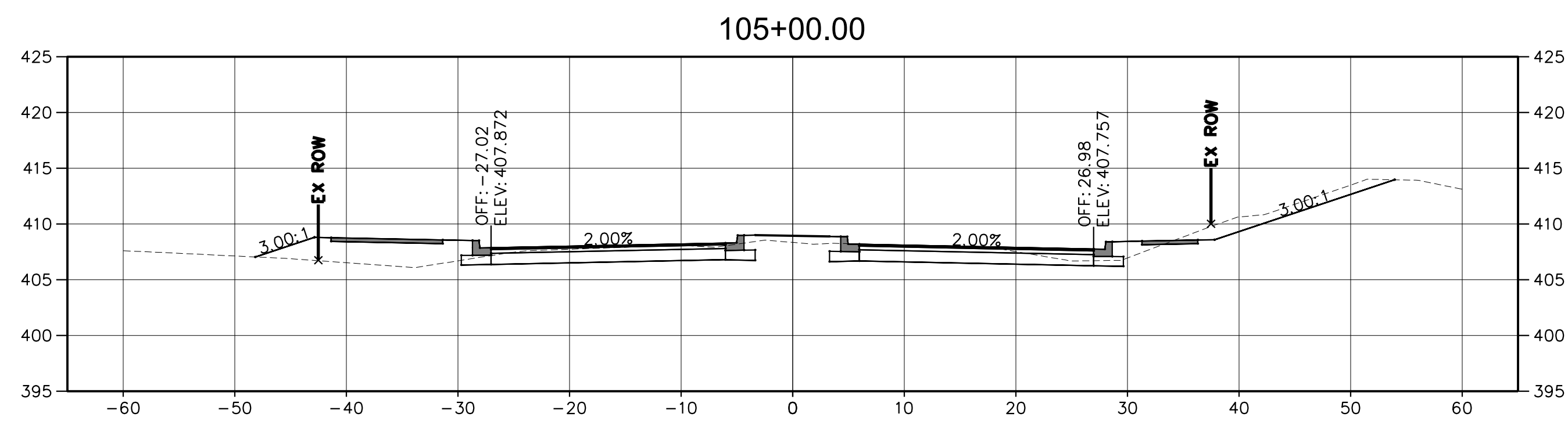
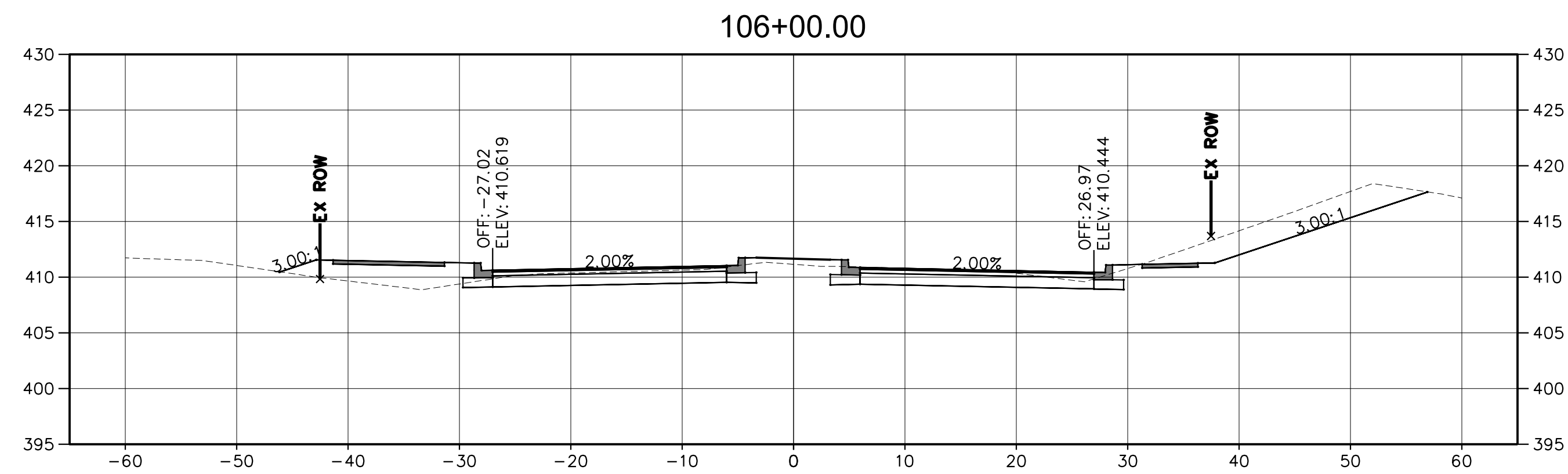
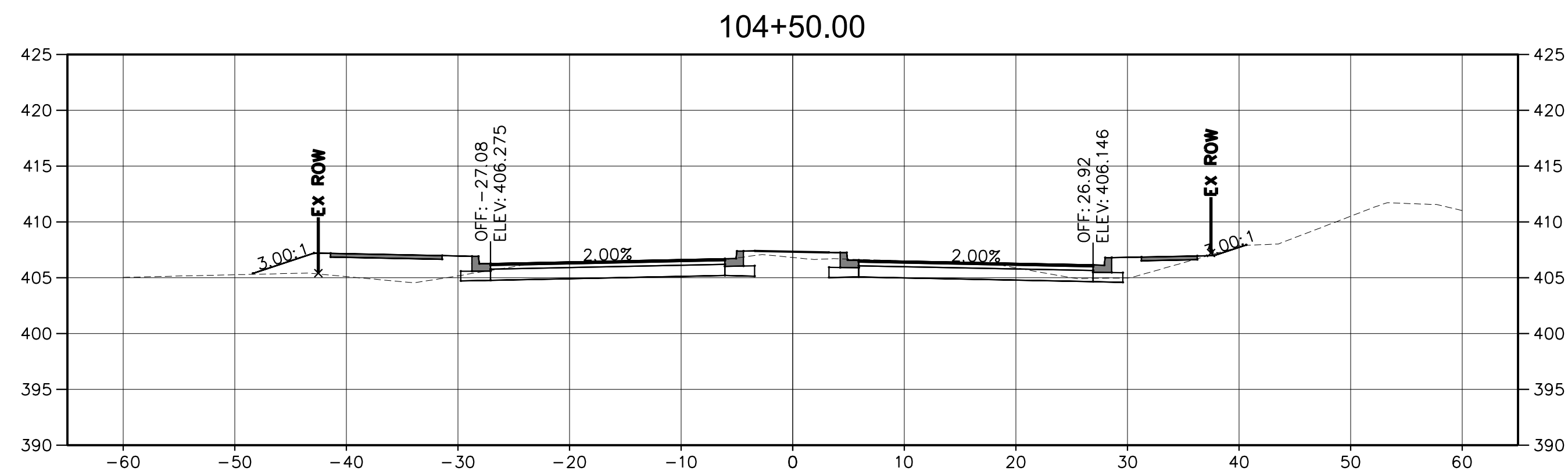
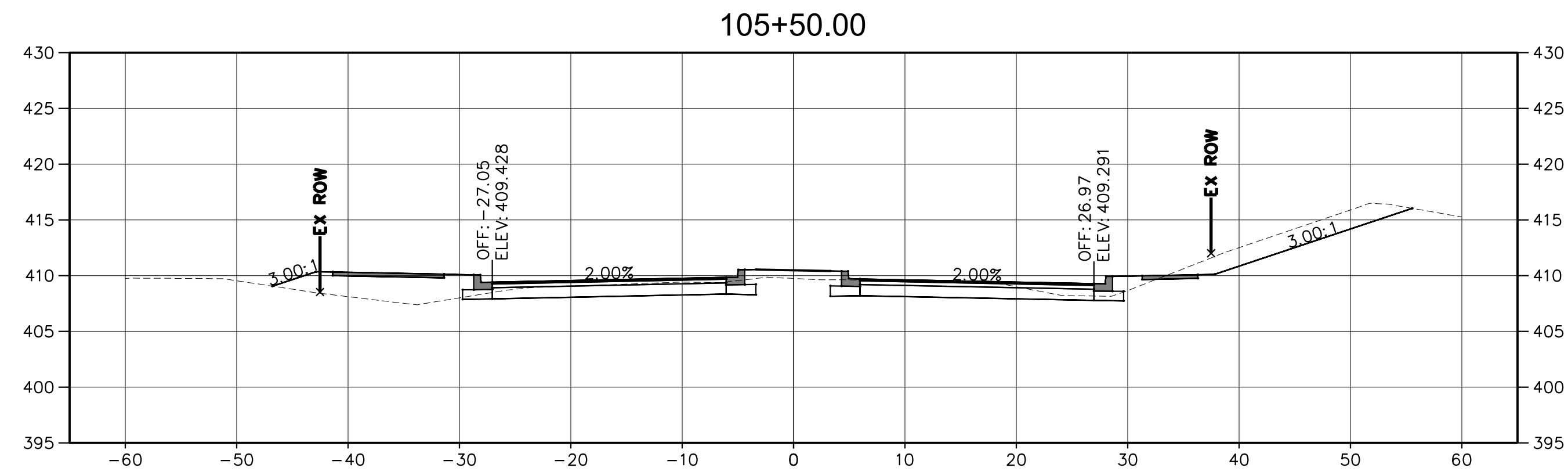
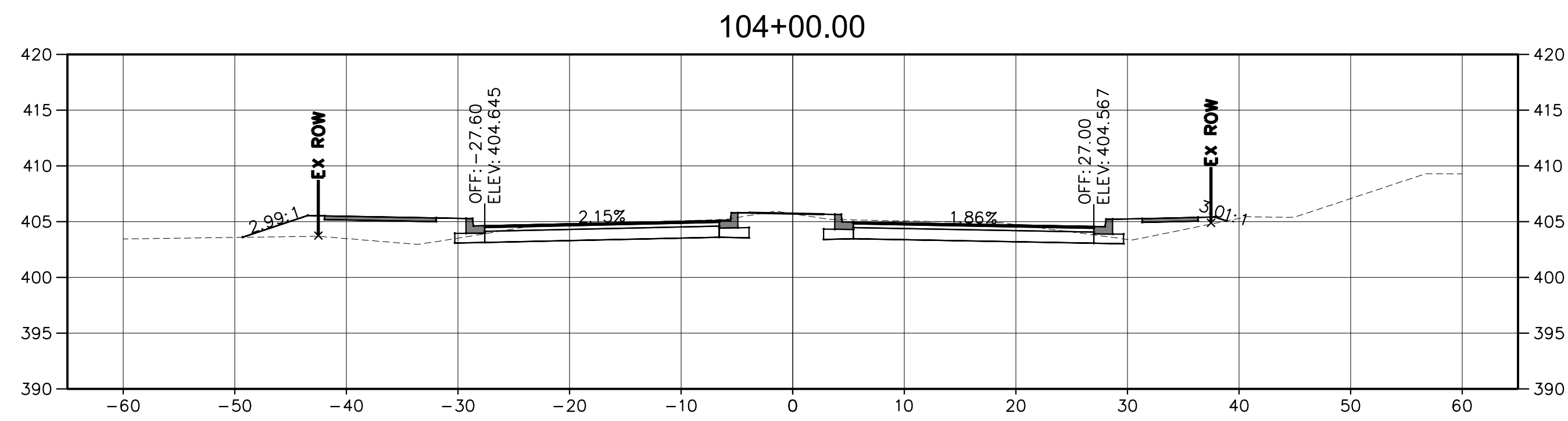
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

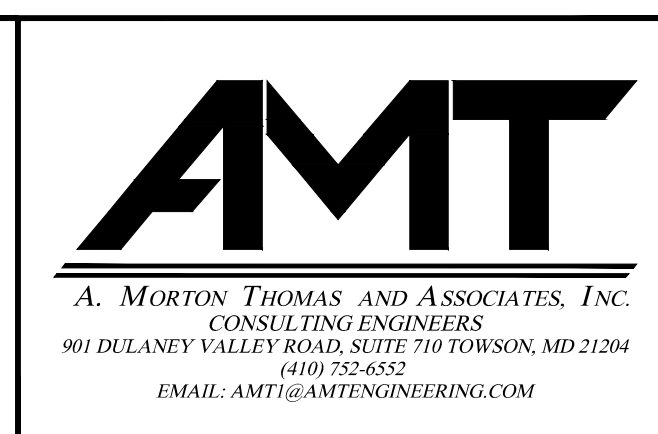
SHEET NO. 34 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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REVISIONS		
MARK	DATE	DESCRIPTION

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FREDERICK COUNTY, MARYLAND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

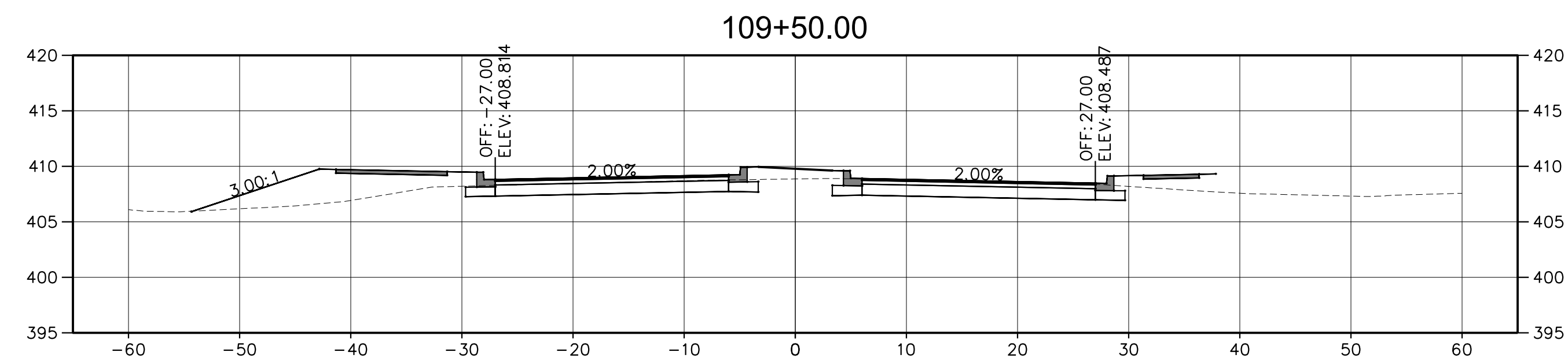
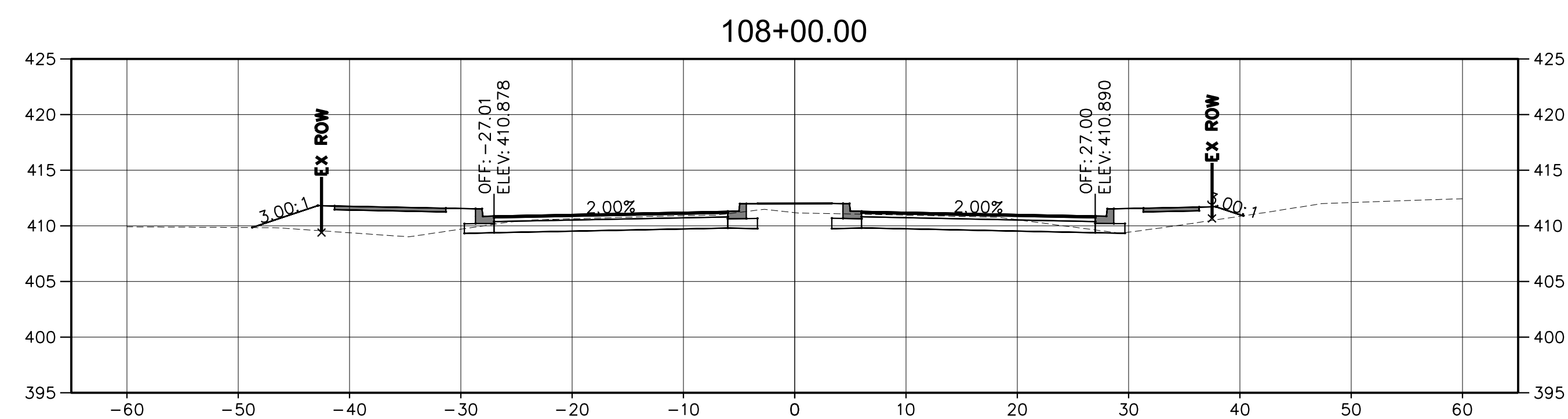
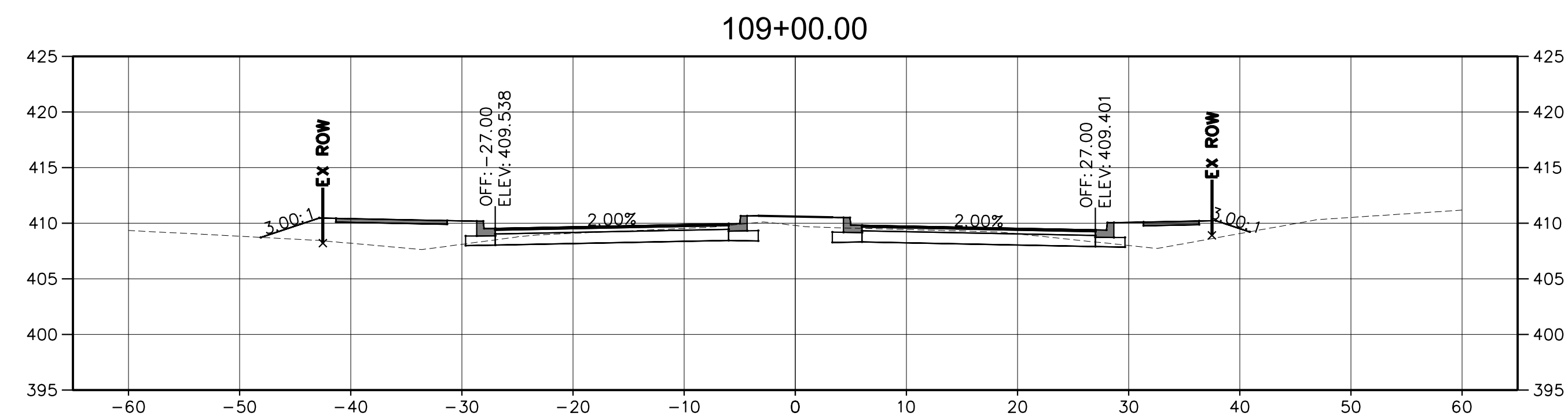
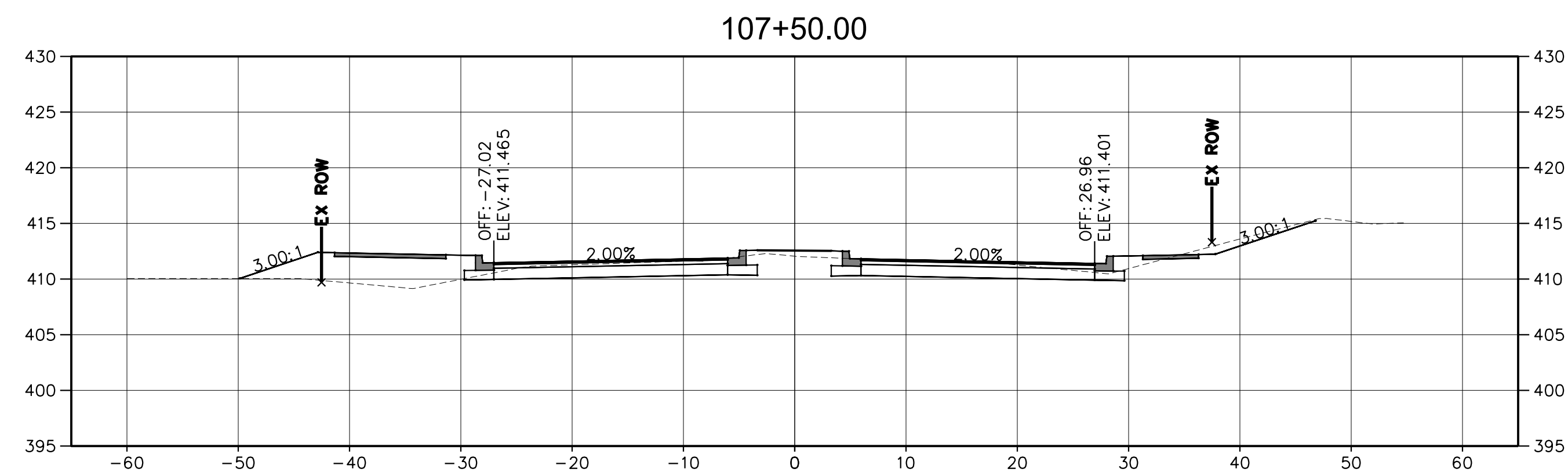
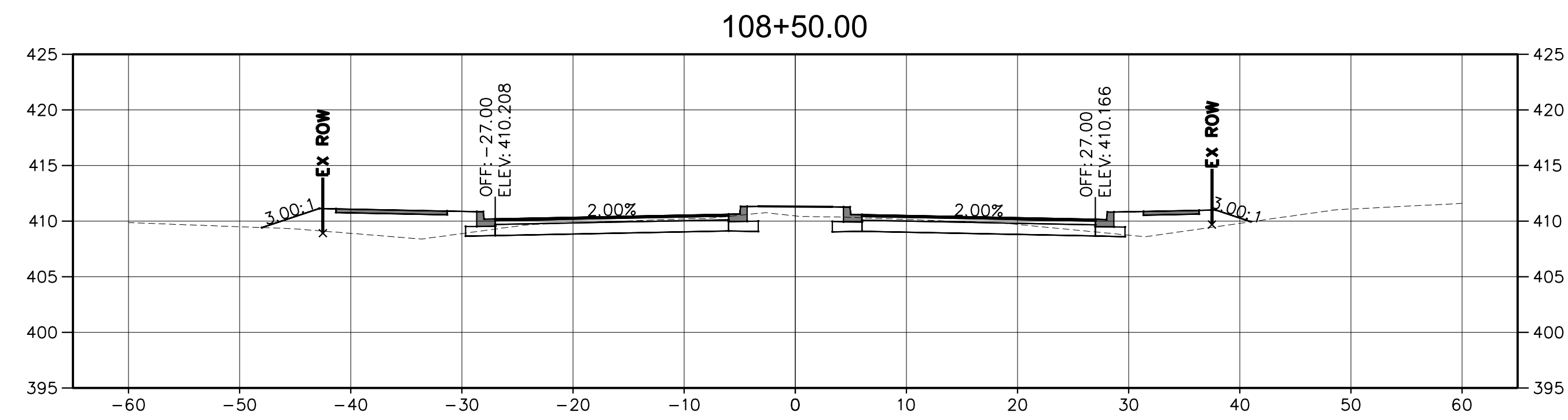
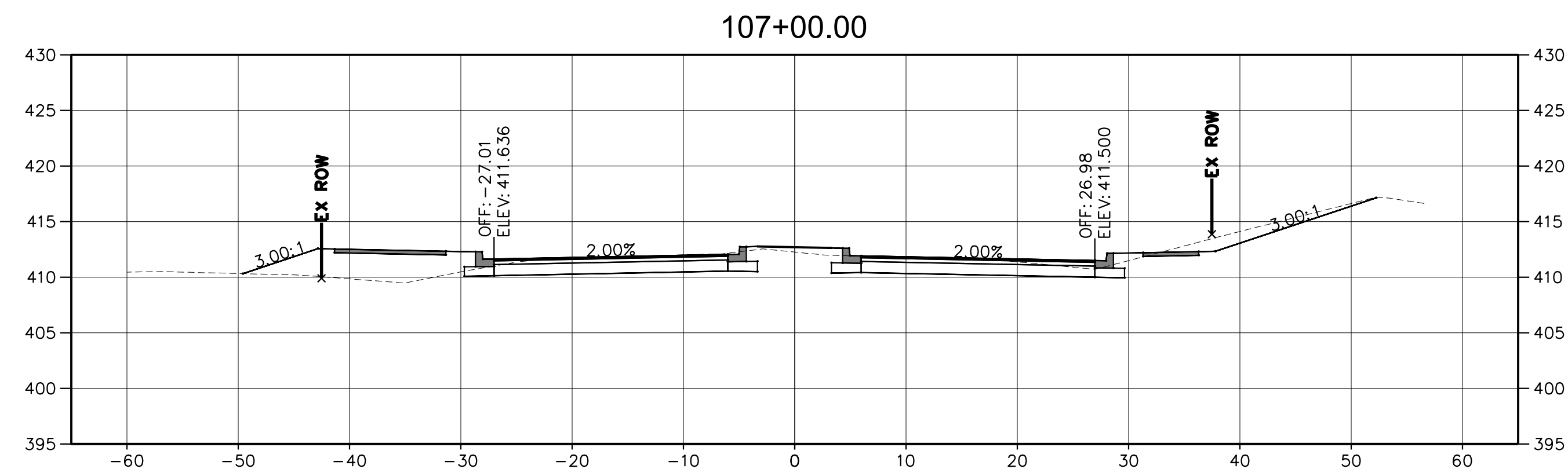
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

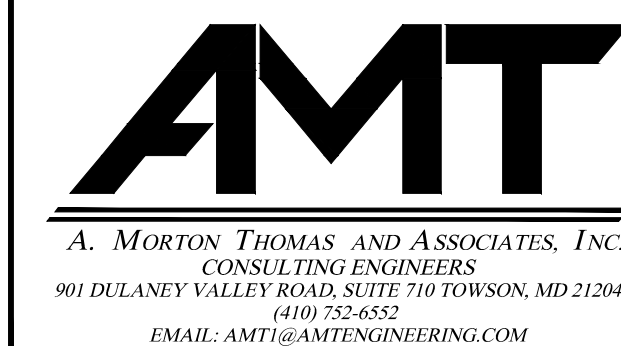
SHEET NO. 35 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND DO NOT INCLUDE ANY DRAINAGE IMPROVEMENTS SHOWN ON PLANS SUCH AS DITCHES, OUTFALLS OR STORMWATER MANAGEMENT FEATURES.

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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ /POOLE JONES ROAD

CROSS SECTIONS

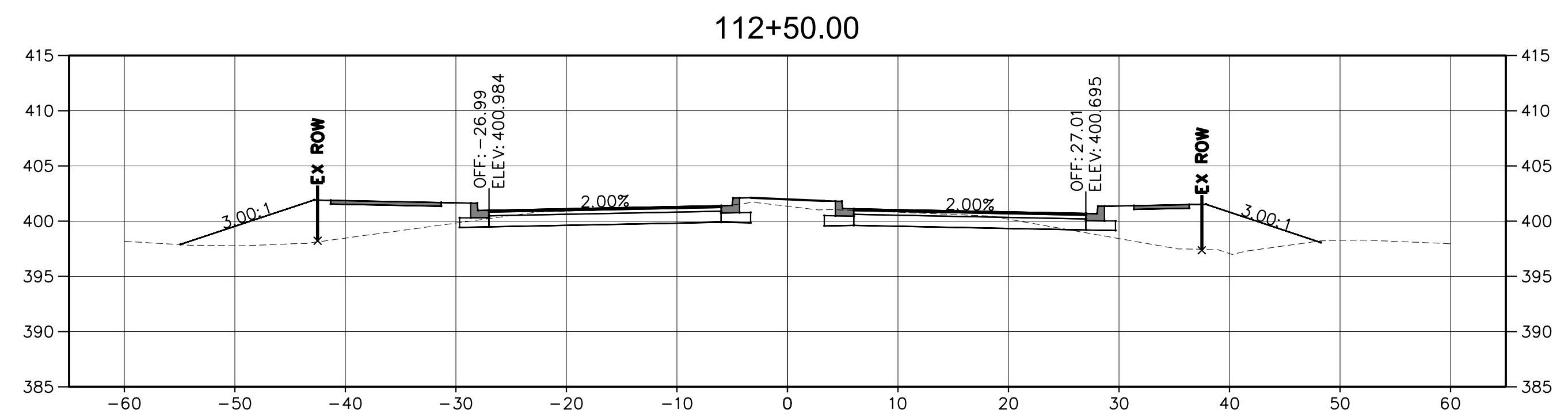
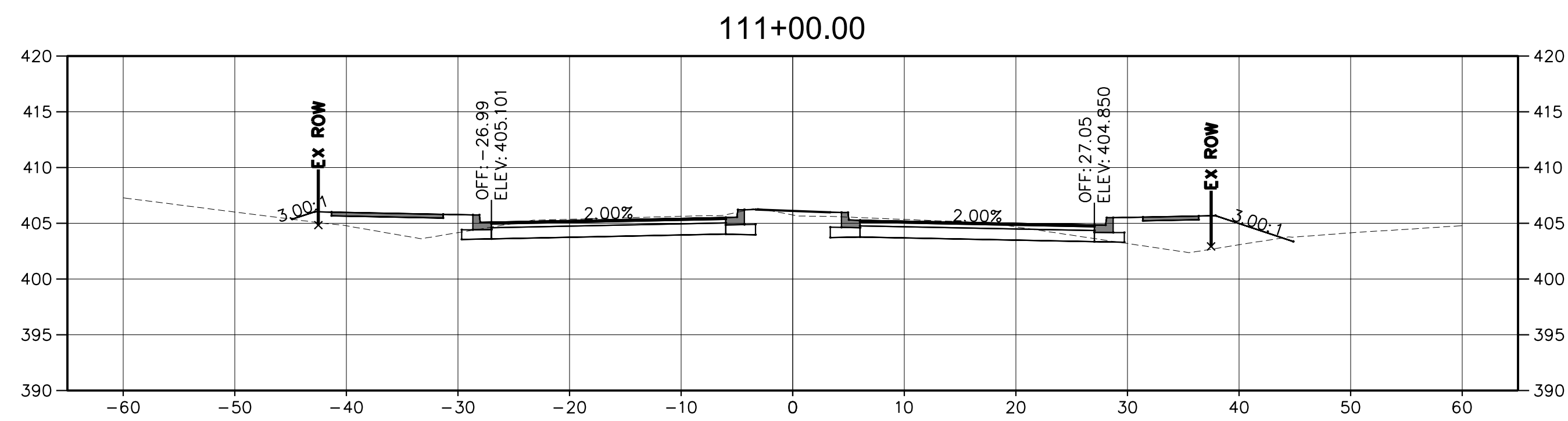
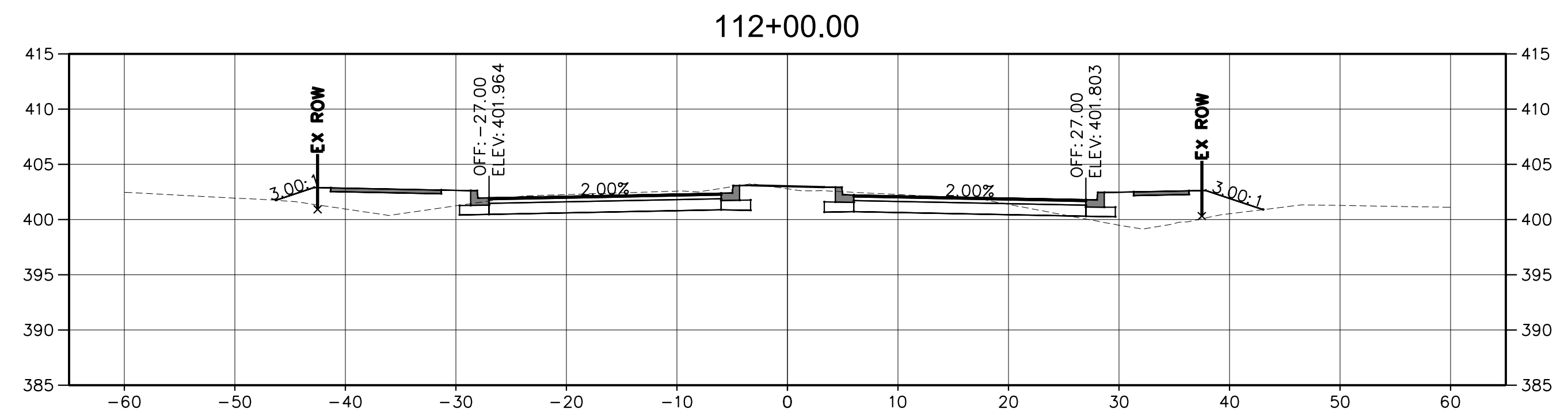
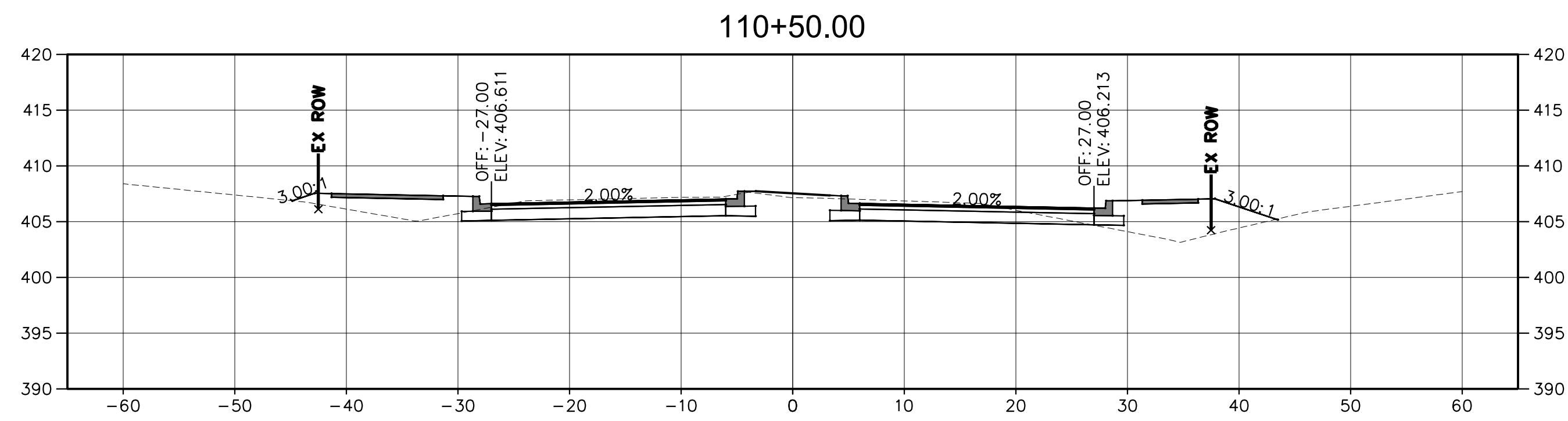
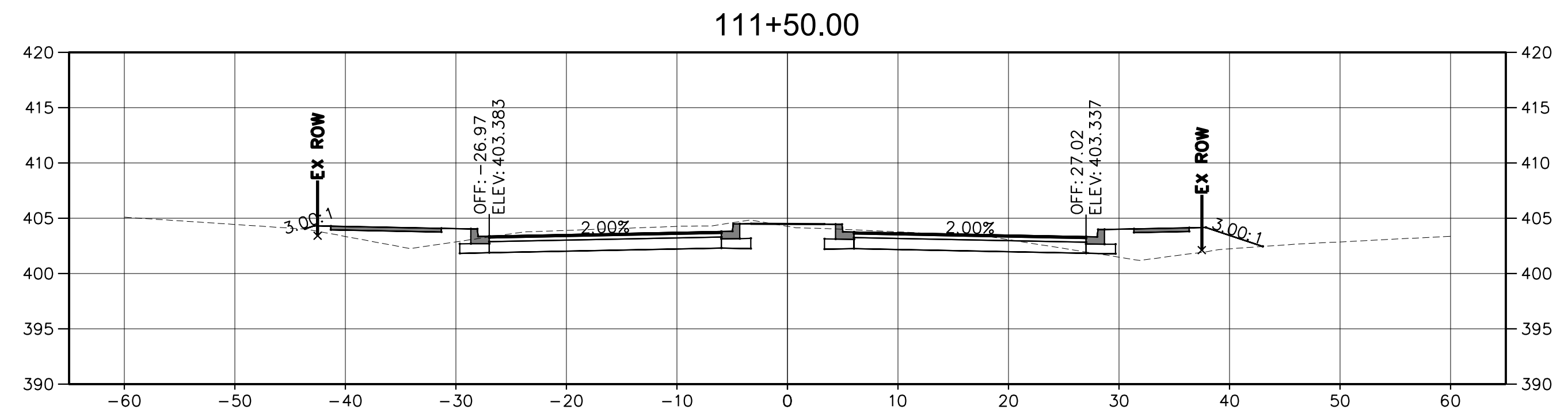
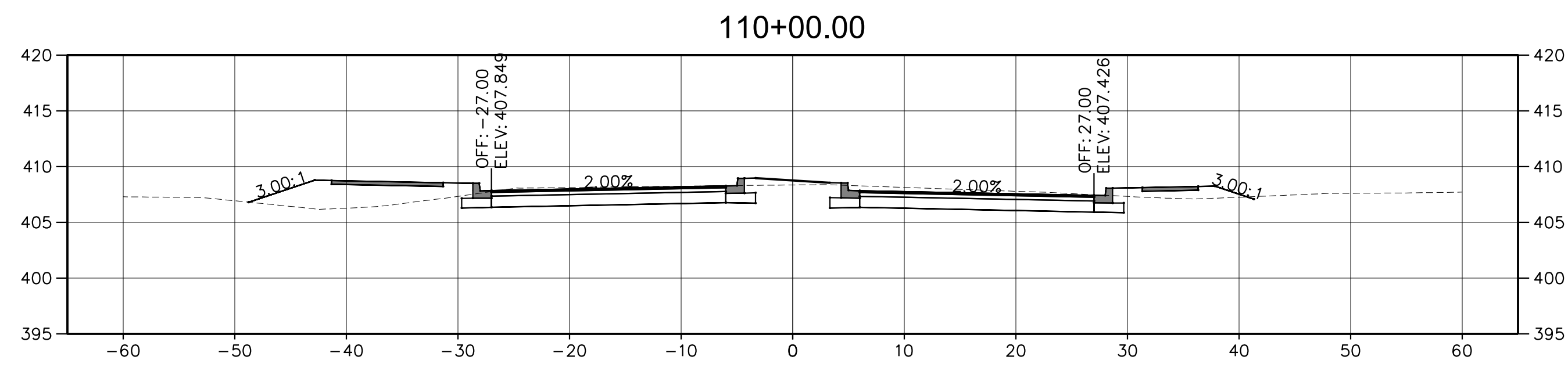
DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 36 OF 48

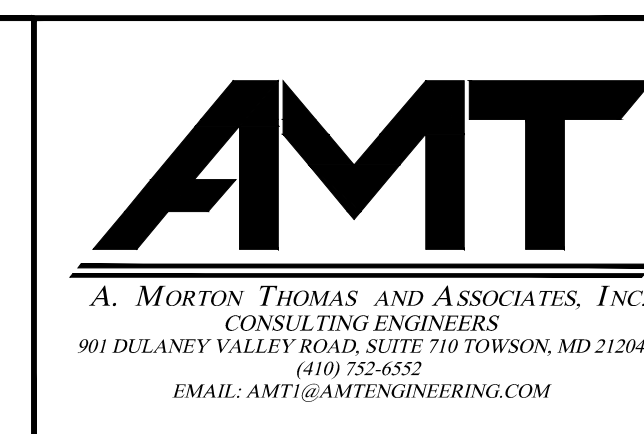
CS-11



NOTE:
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MANAGEMENT FEATURES.

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP



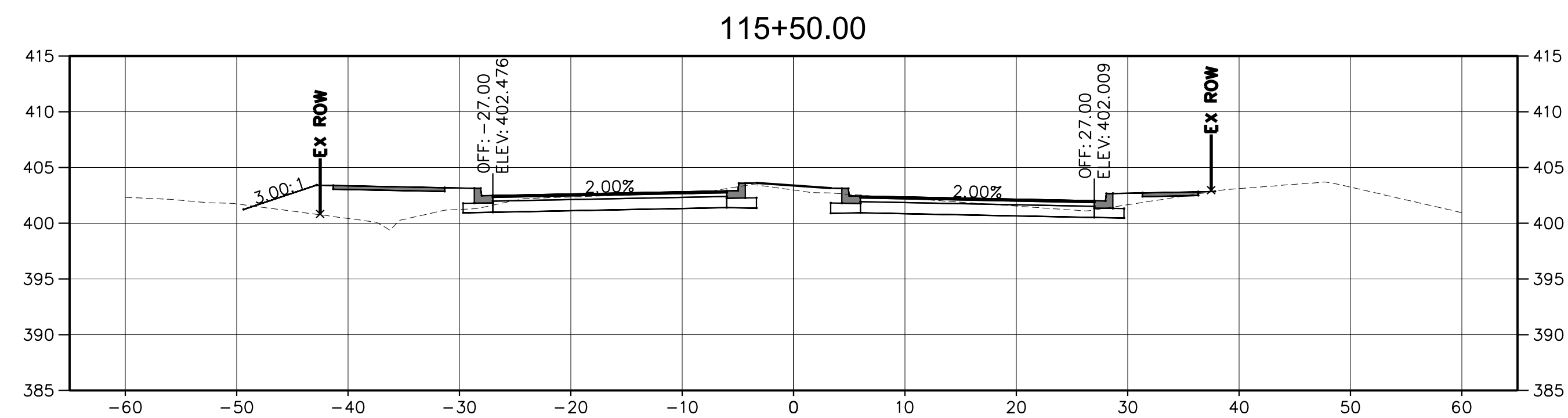
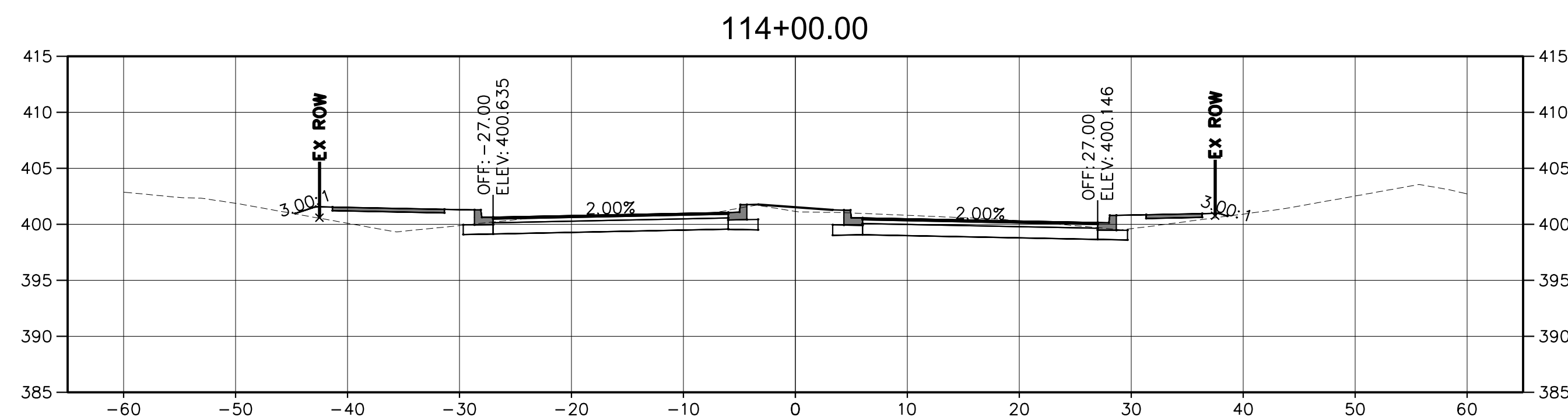
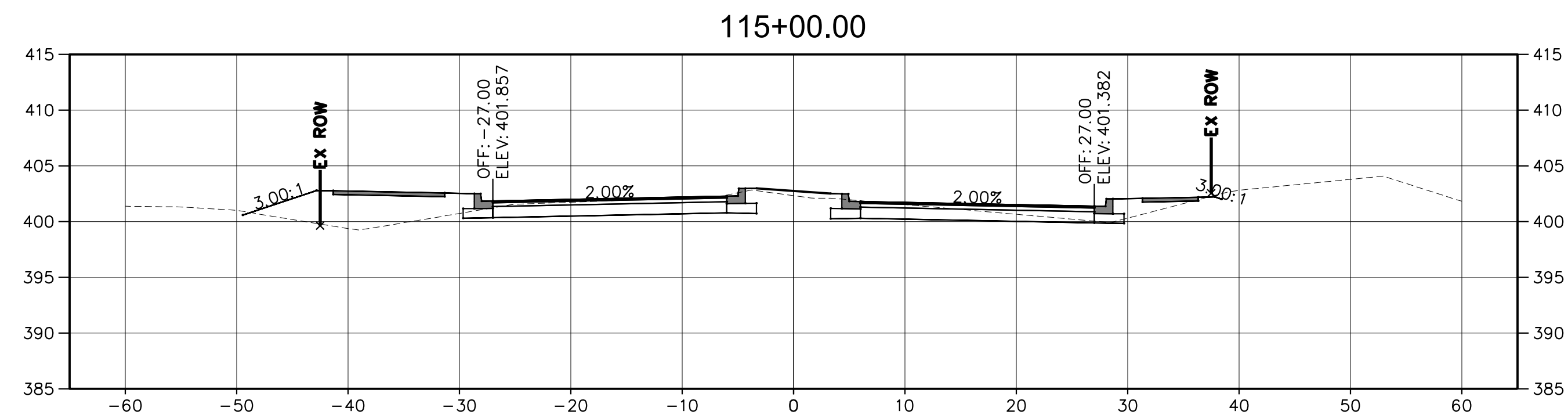
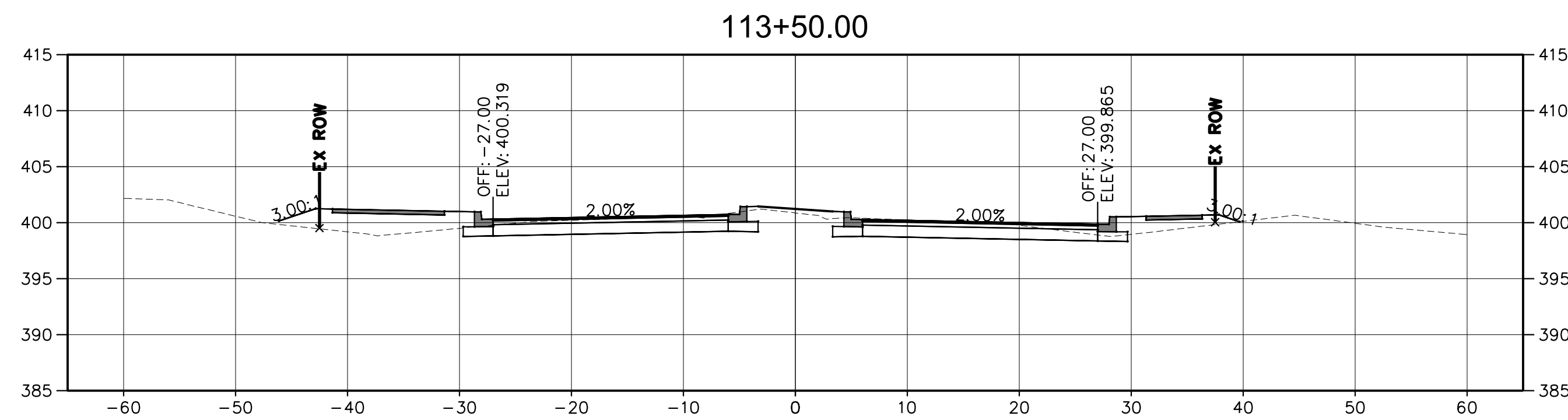
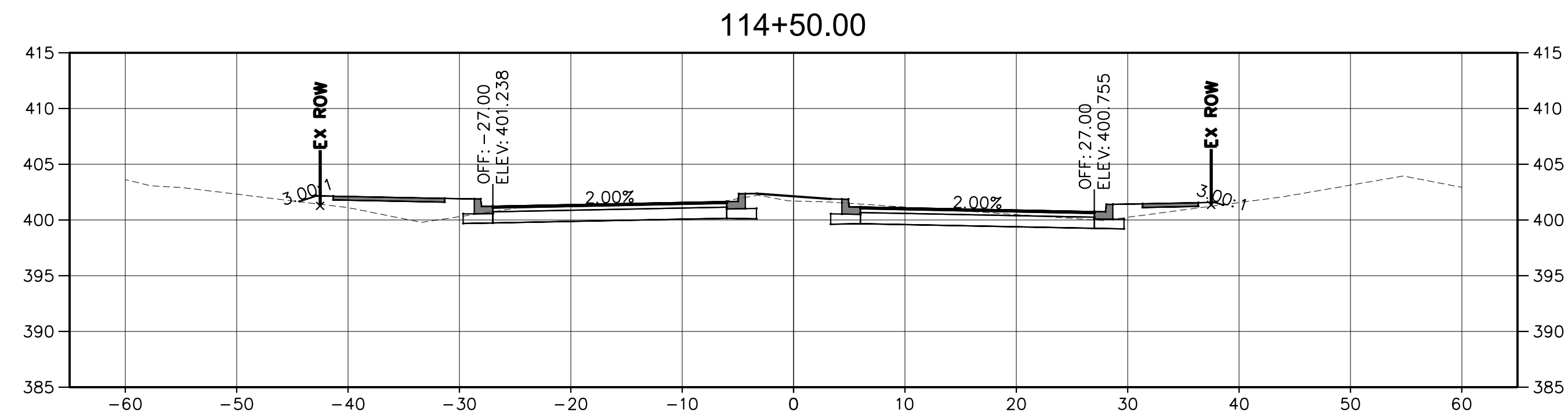
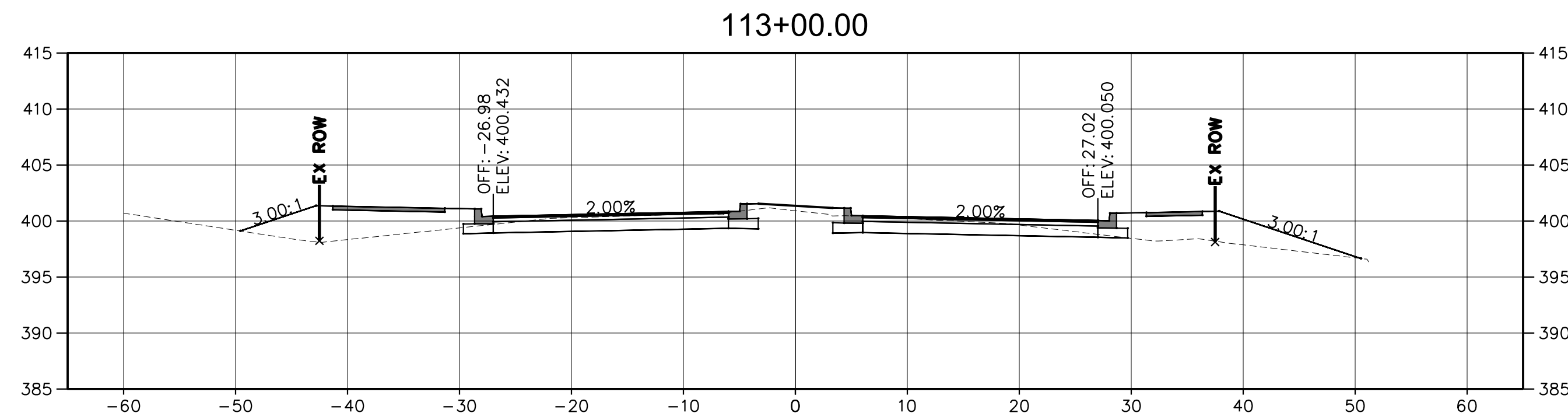
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

CROSS SECTIONS

DATE: APRIL 2020
AMT FILE NO. 15-0758.007

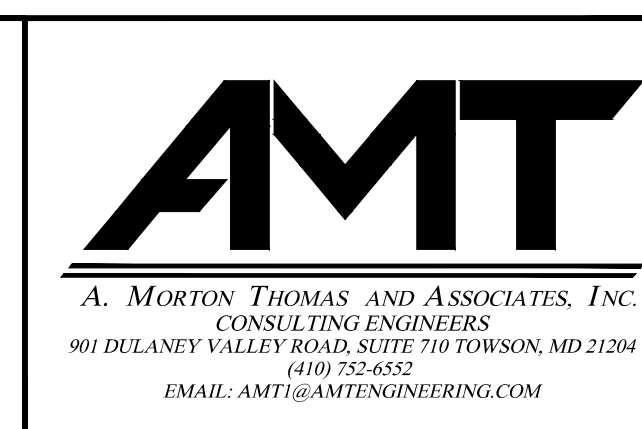
SCALE: 1"=30'
SHEET NO. 37 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

DIVISION OF PUBLIC WORKS
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

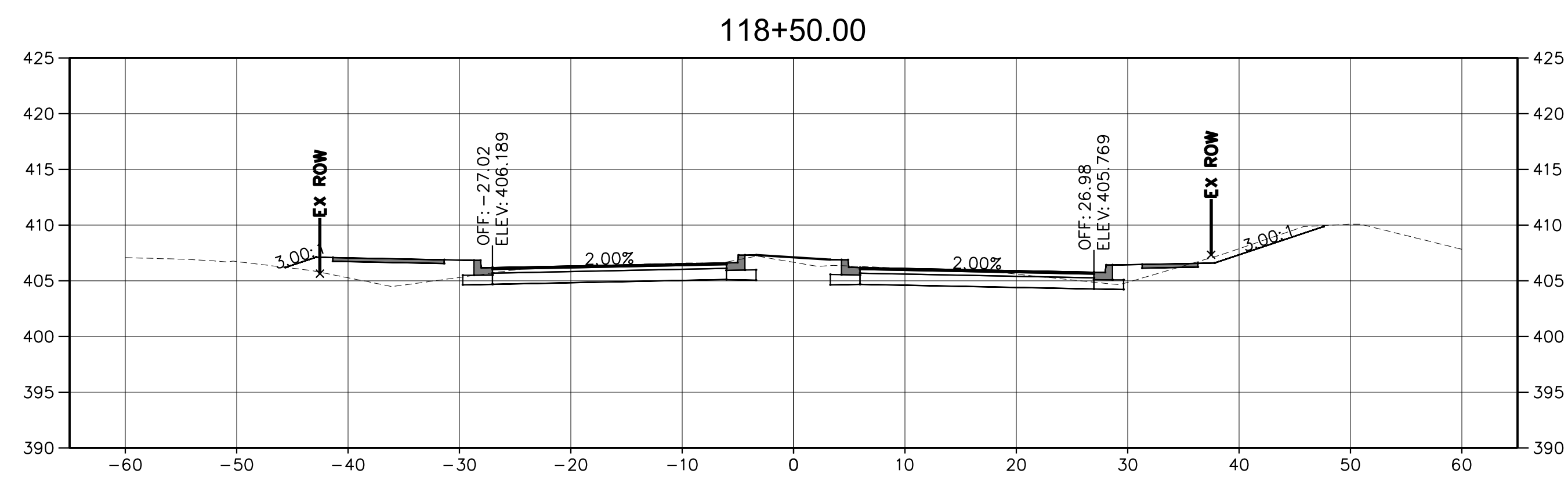
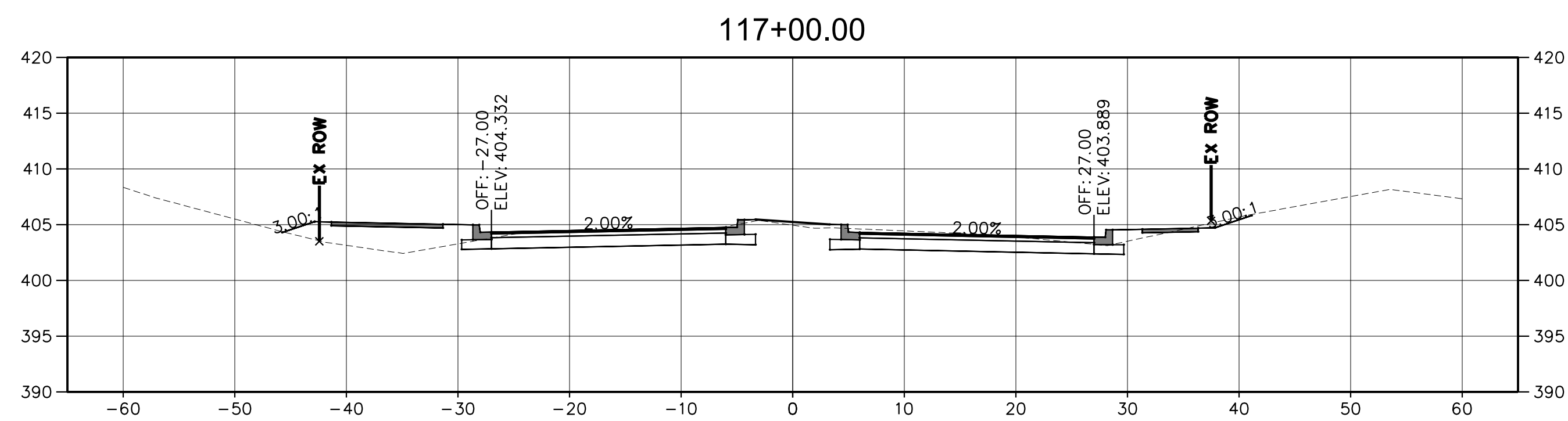
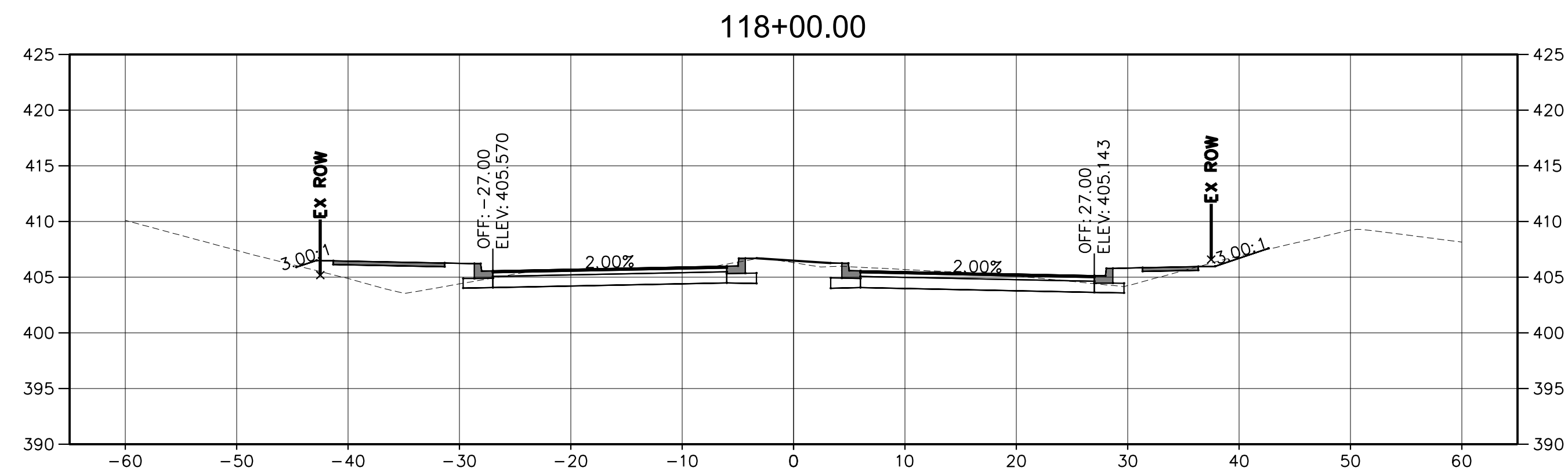
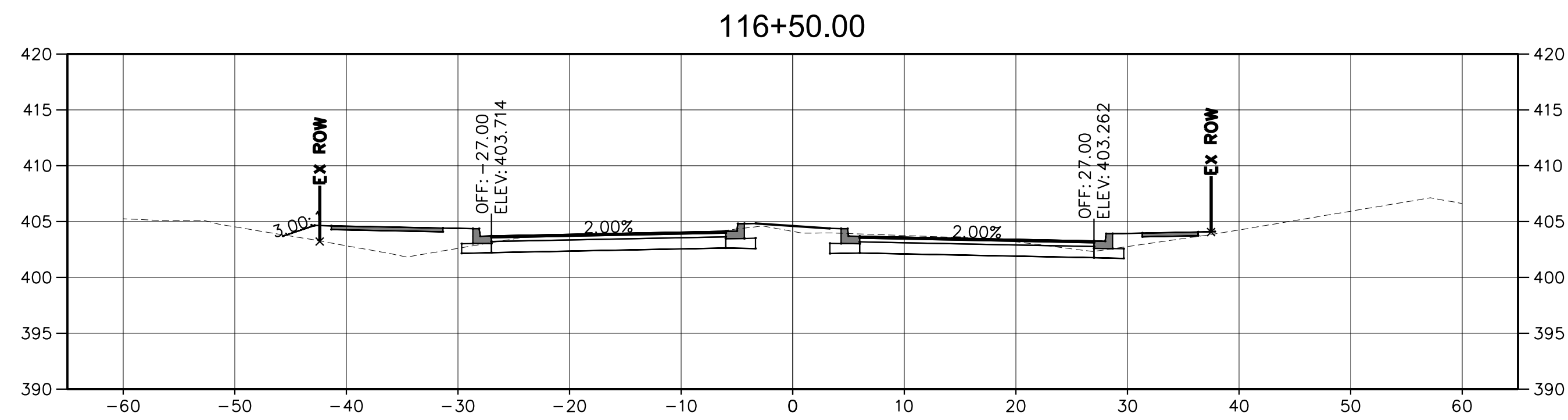
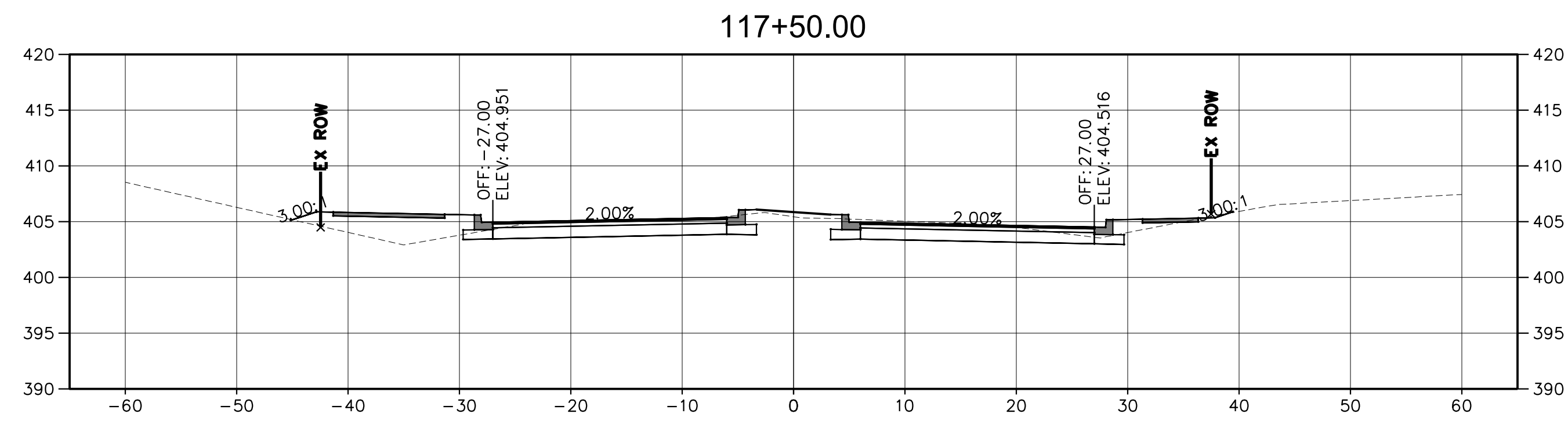
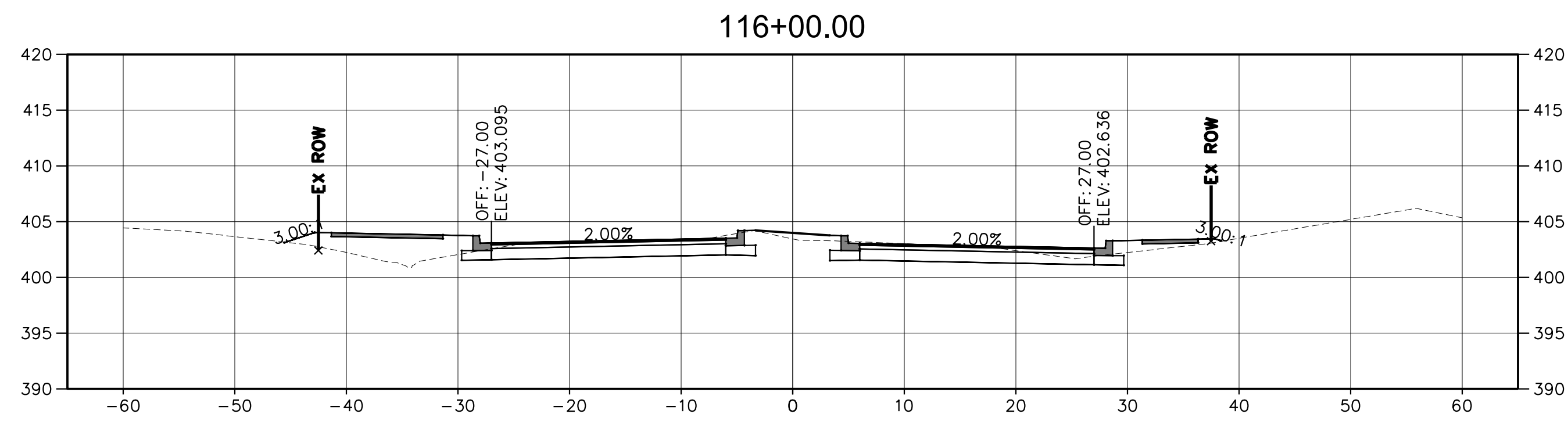
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

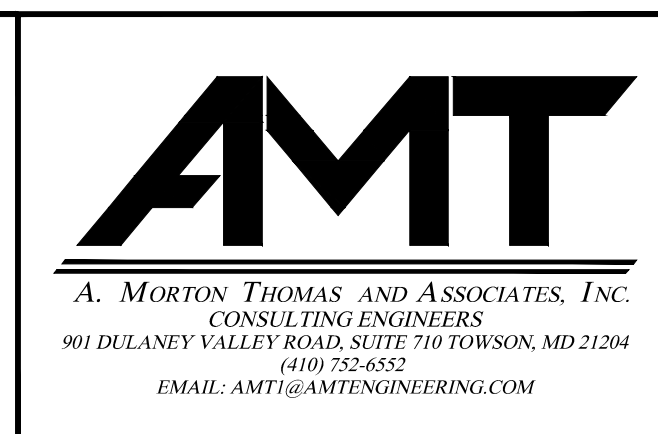
SHEET NO. 38 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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REVISIONS		
MARK	DATE	DESCRIPTION

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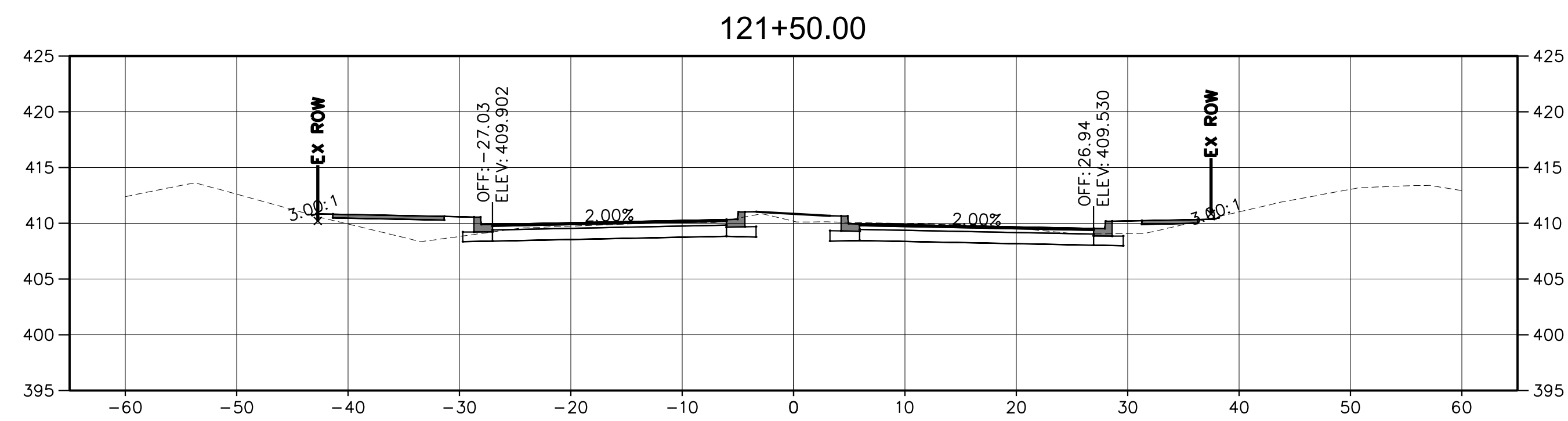
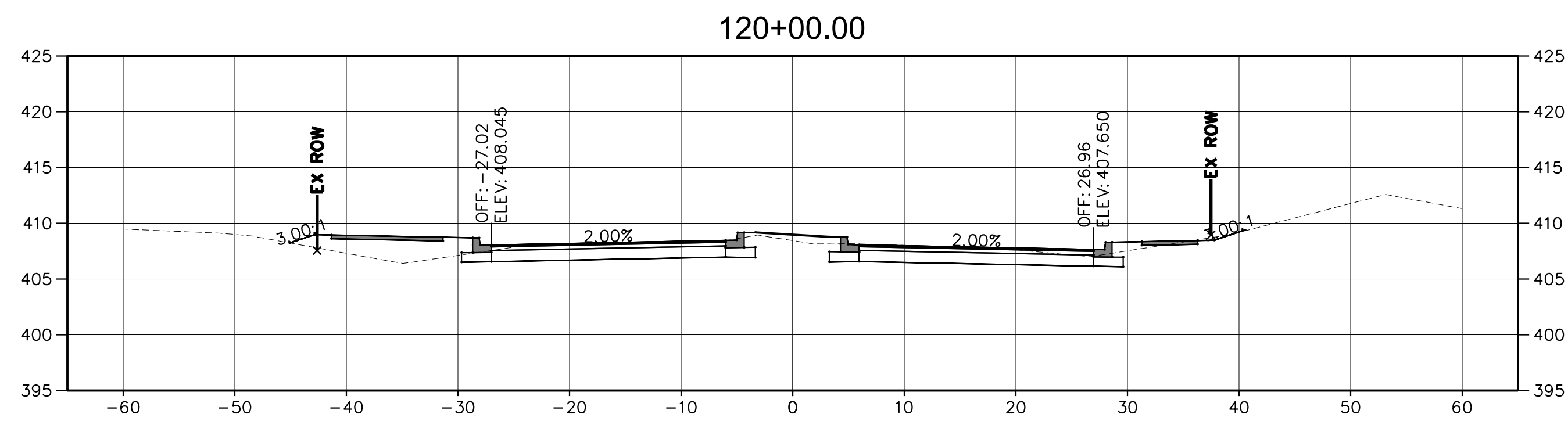
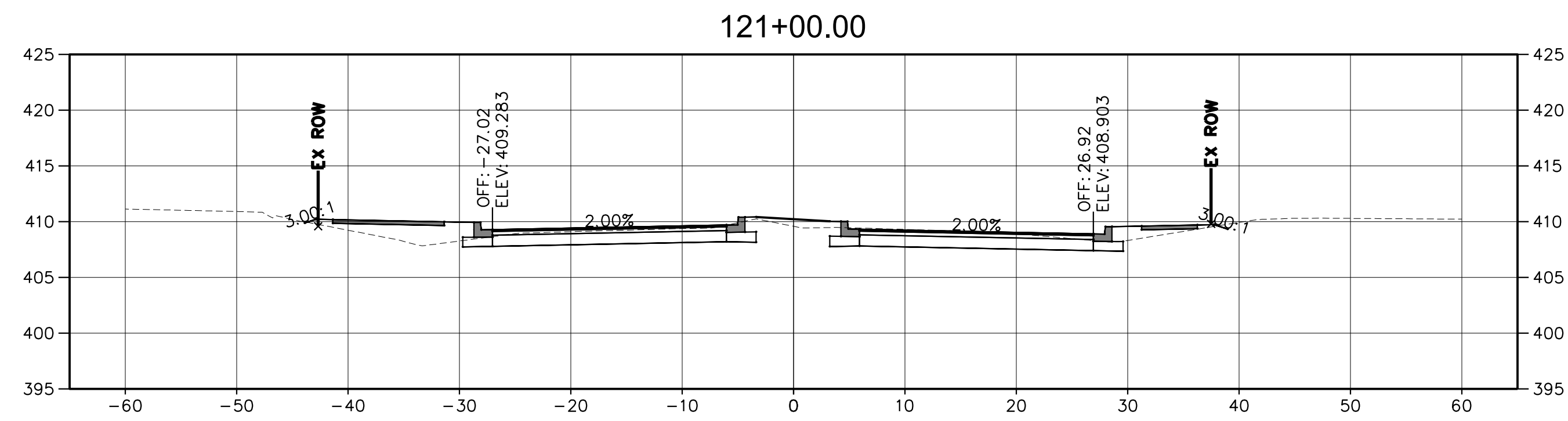
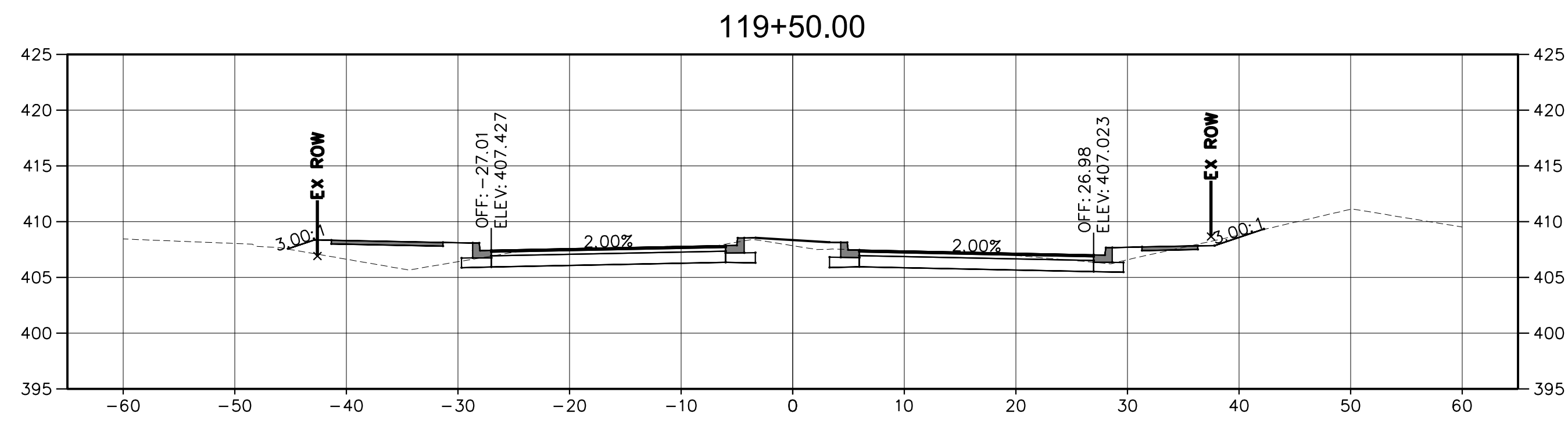
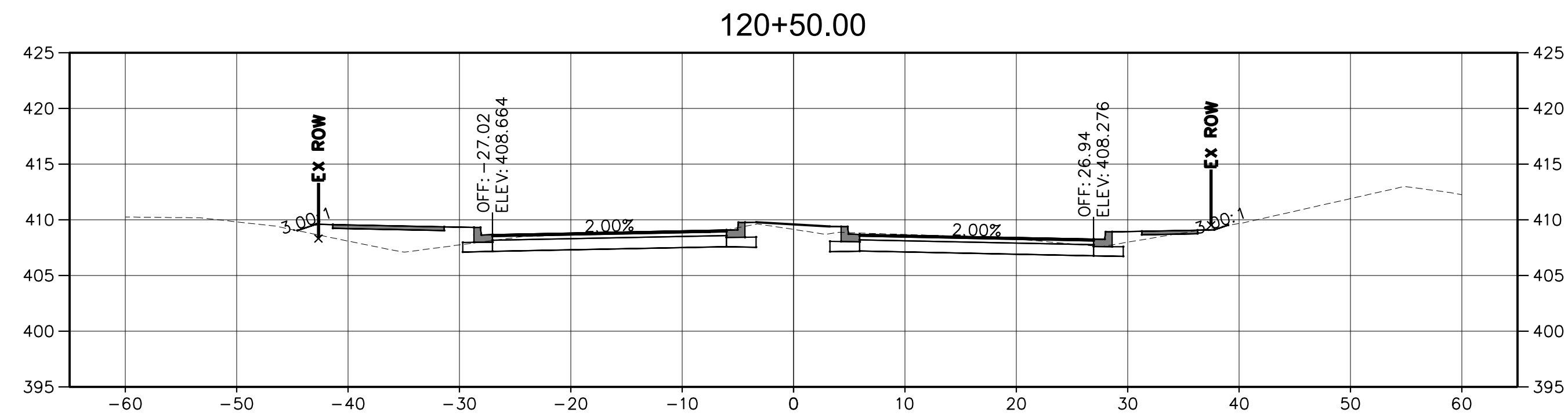
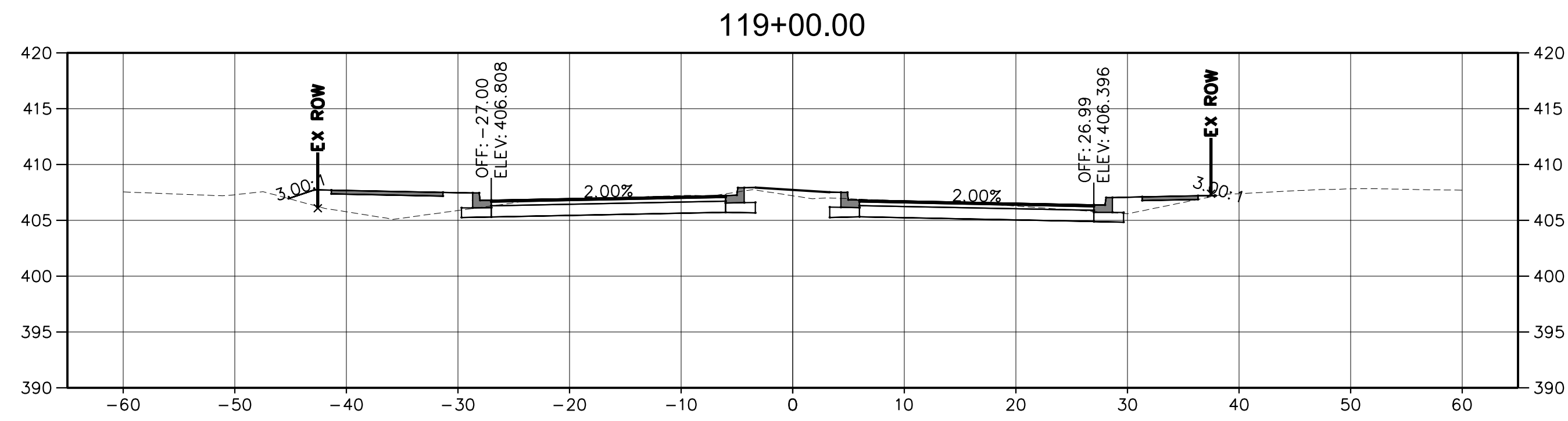
FREDERICK COUNTY, MARYLAND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

CROSS SECTIONS

DATE: APRIL 2020
SCALE: 1"=30'

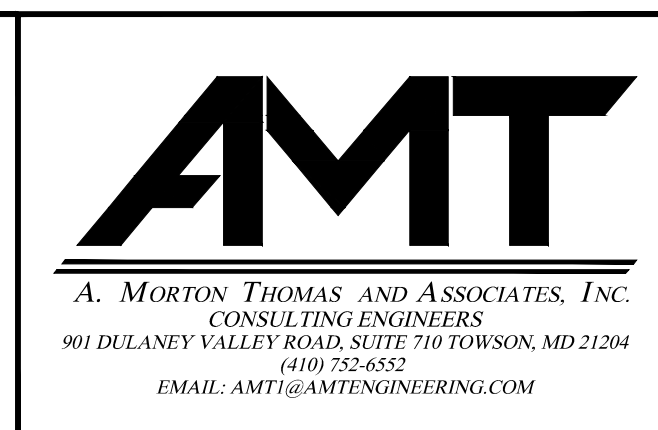
AMT FILE NO. 15-0758.007
SHEET NO. 39 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
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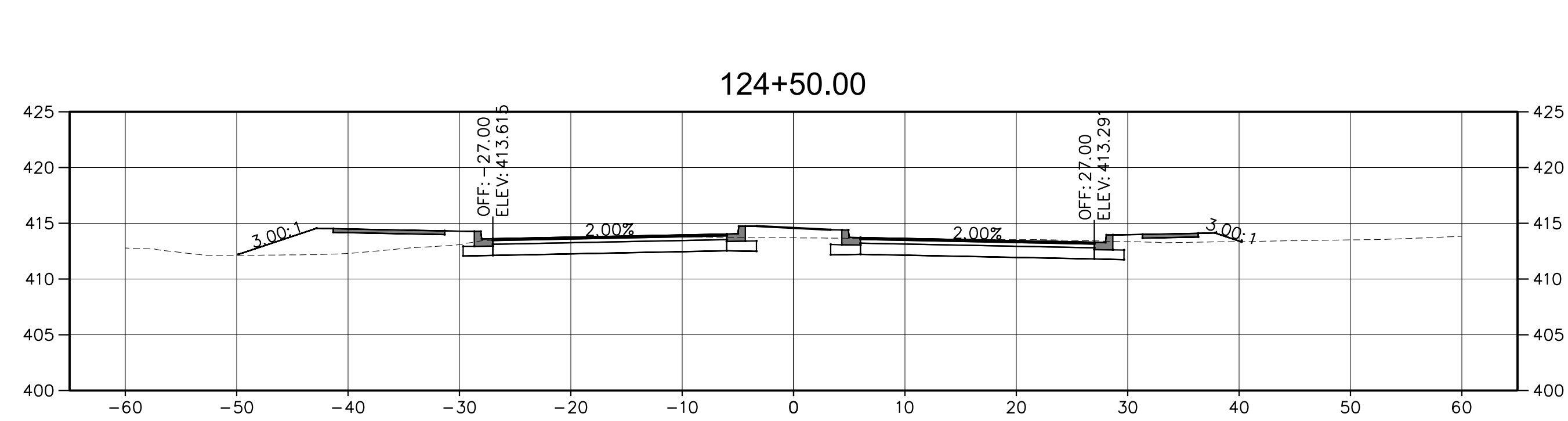
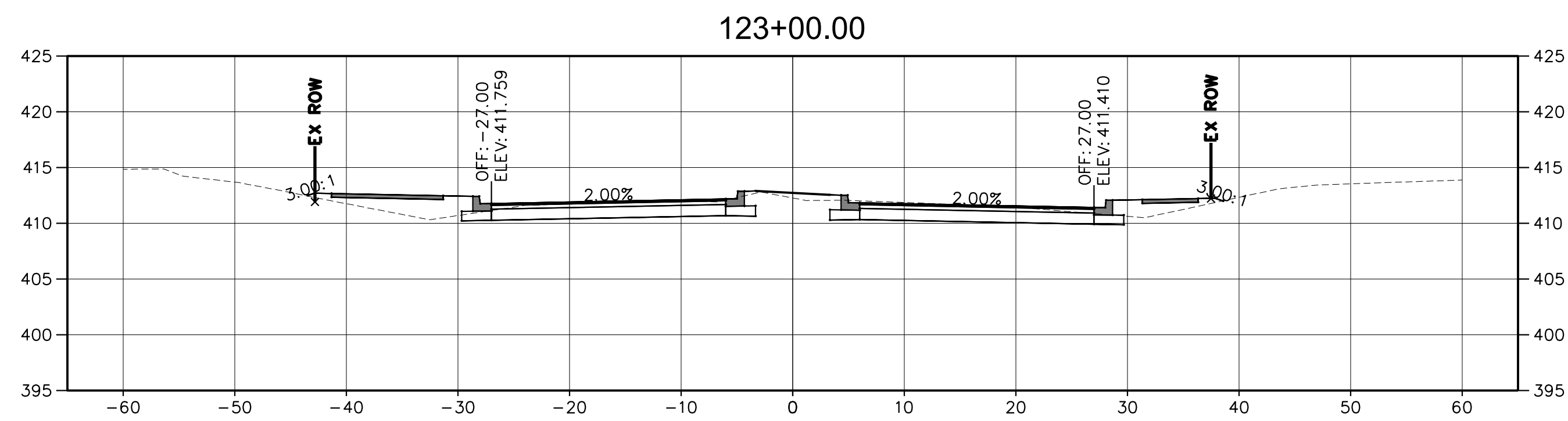
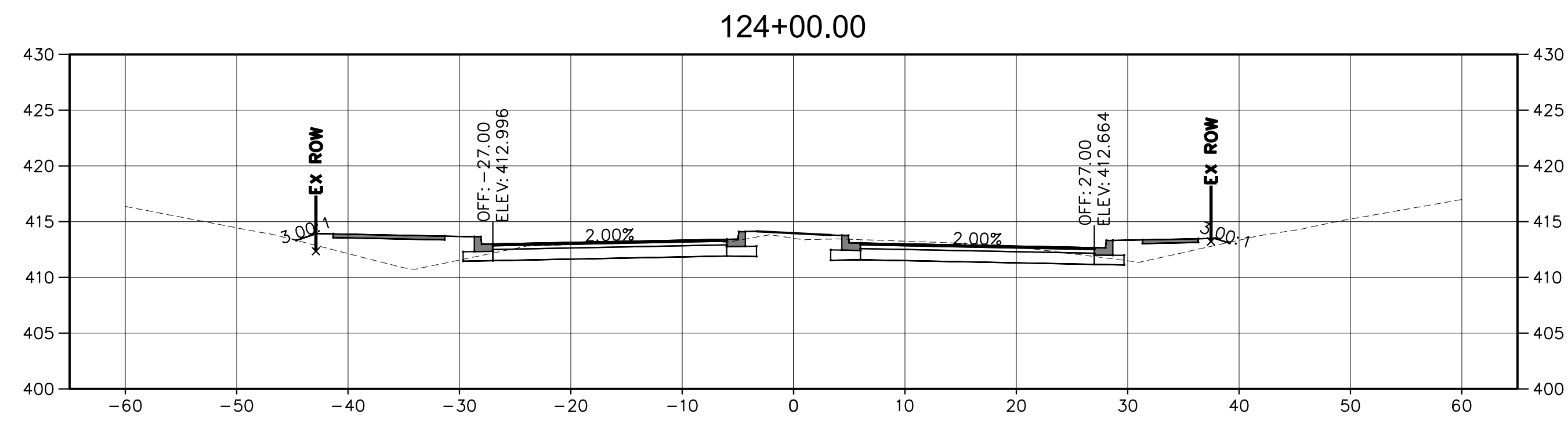
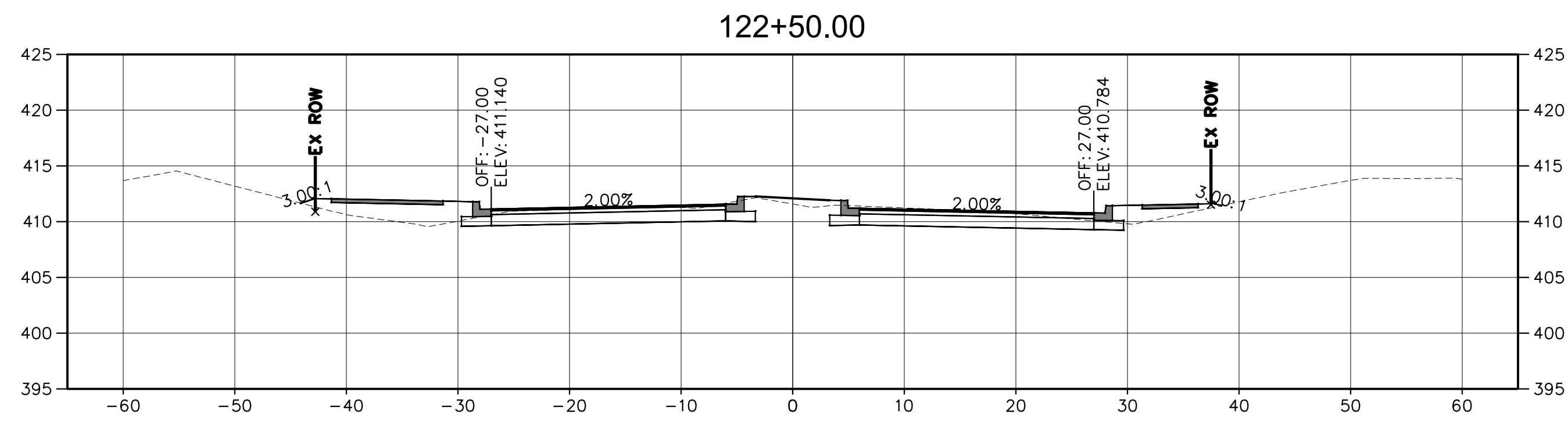
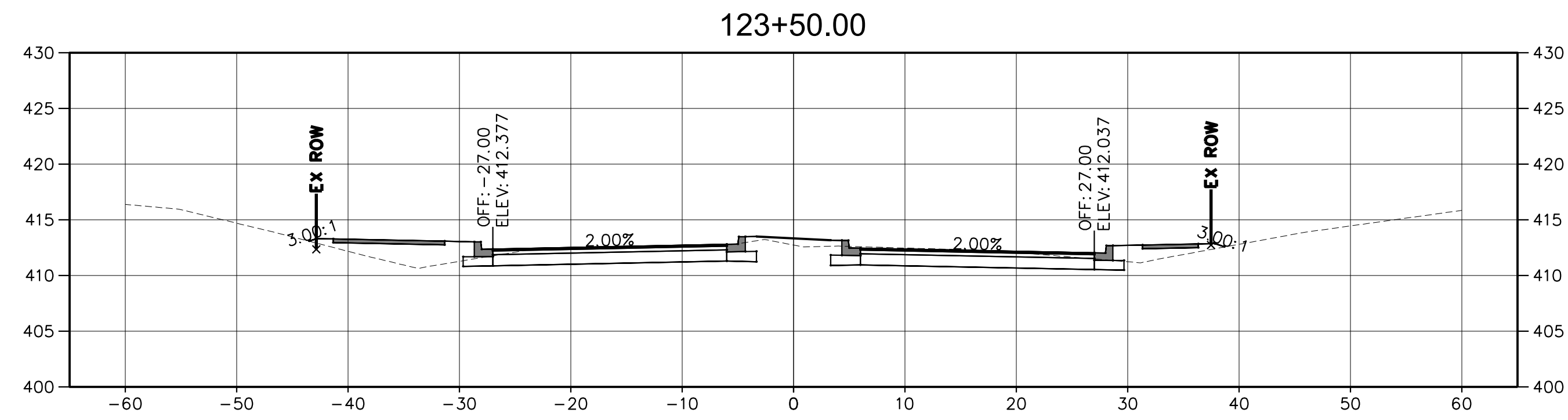
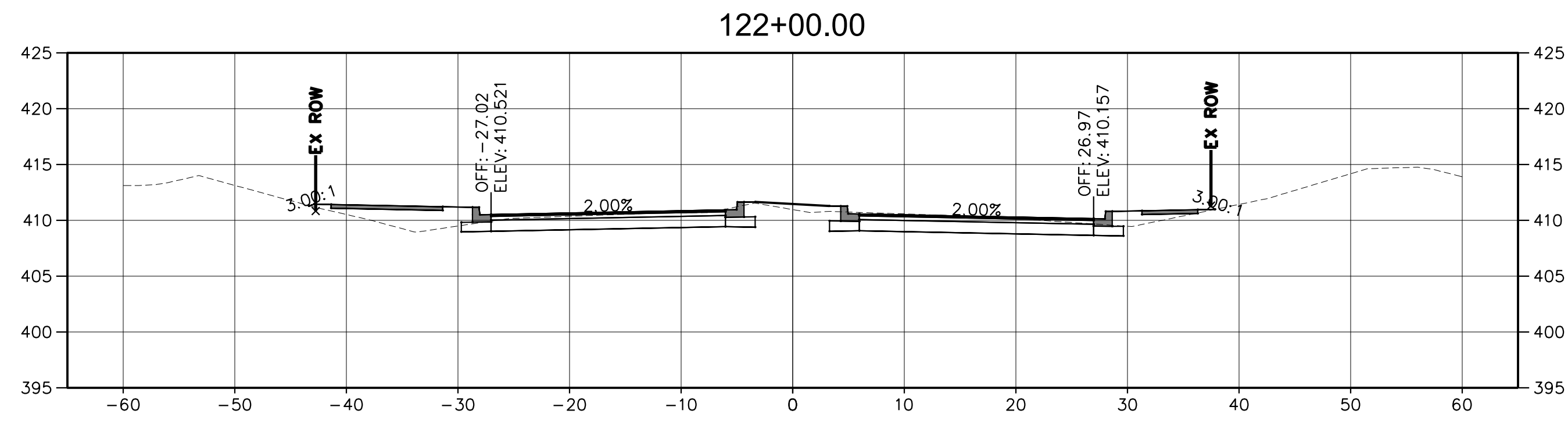
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

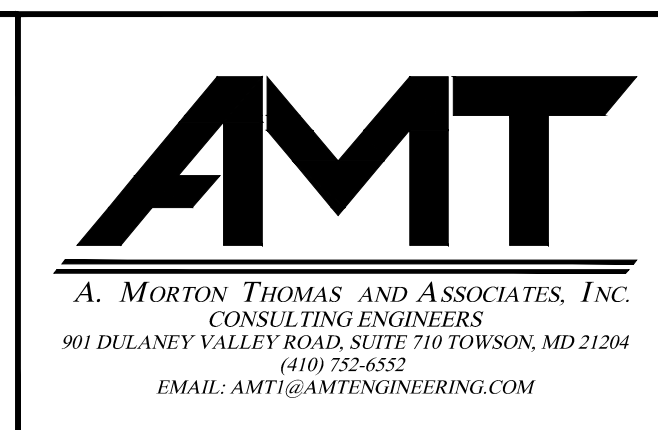
SHEET NO. 40 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
DO NOT INCLUDE ANY DRAINAGE IMPROVEMENTS SHOWN ON
PLANS SUCH AS DITCHES, OUTFALLS OR STORMWATER
MANAGEMENT FEATURES.

REVISIONS		
MARK	DATE	DESCRIPTION

REGISTRATION STAMP	



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FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

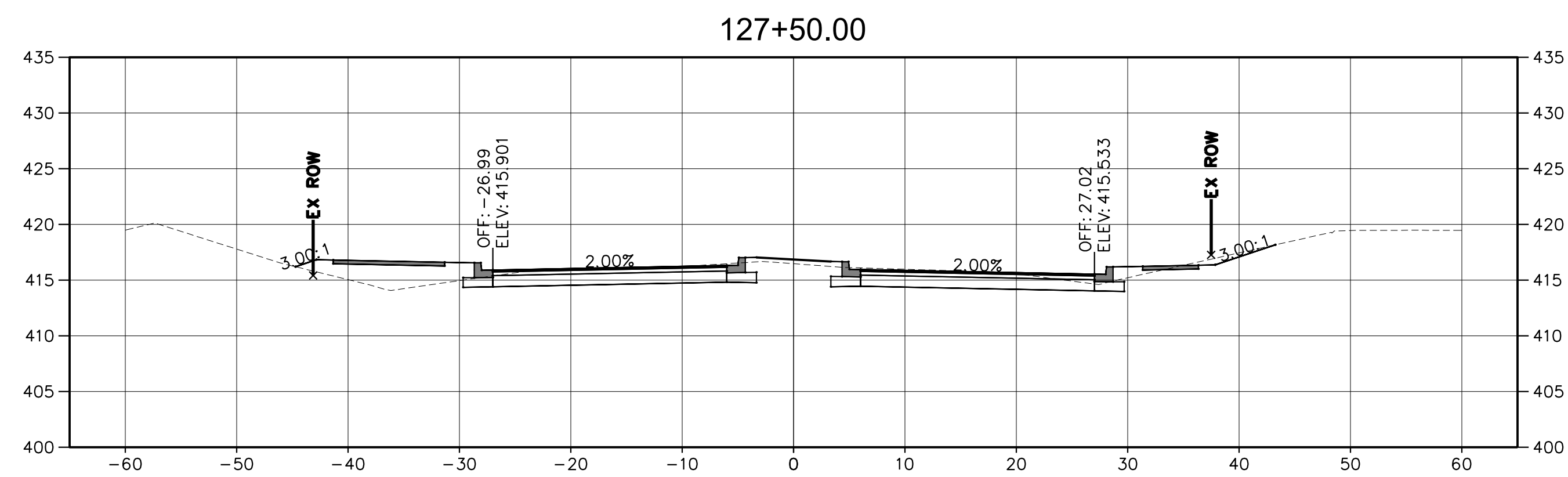
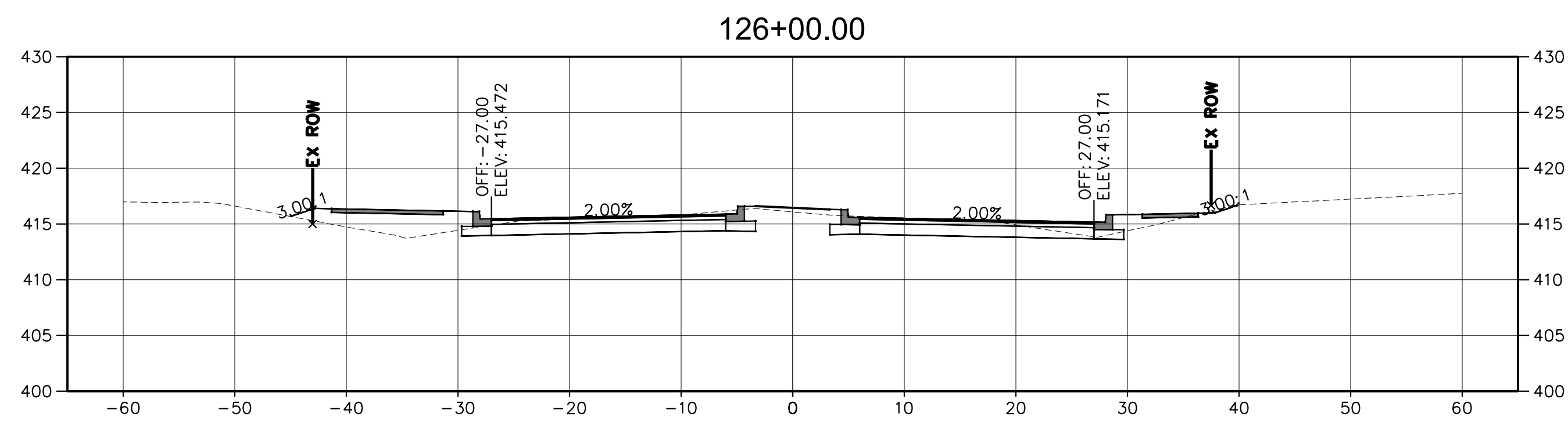
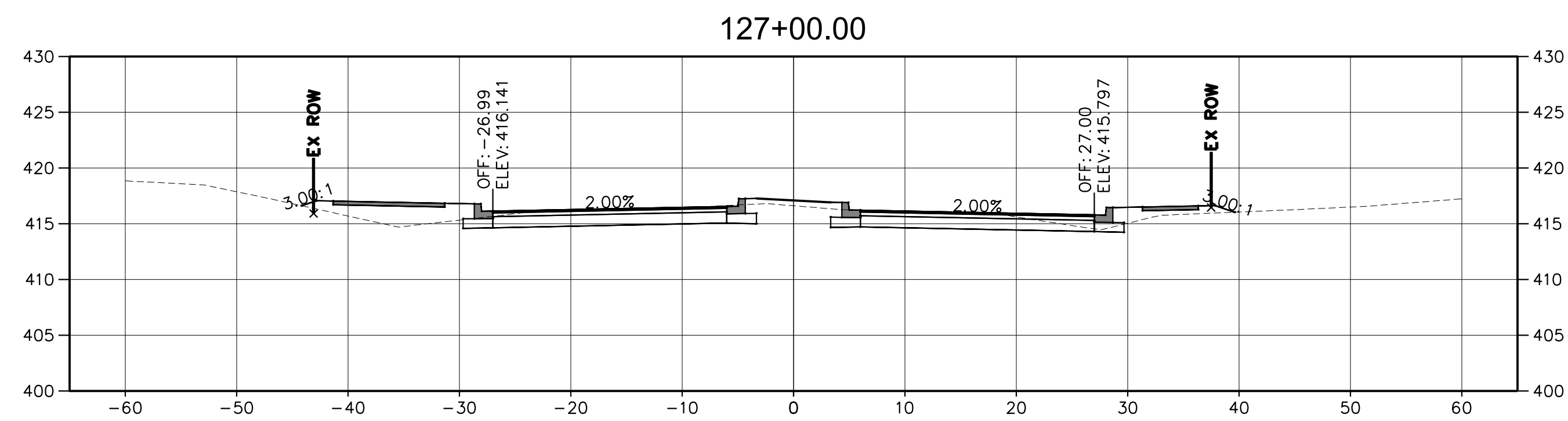
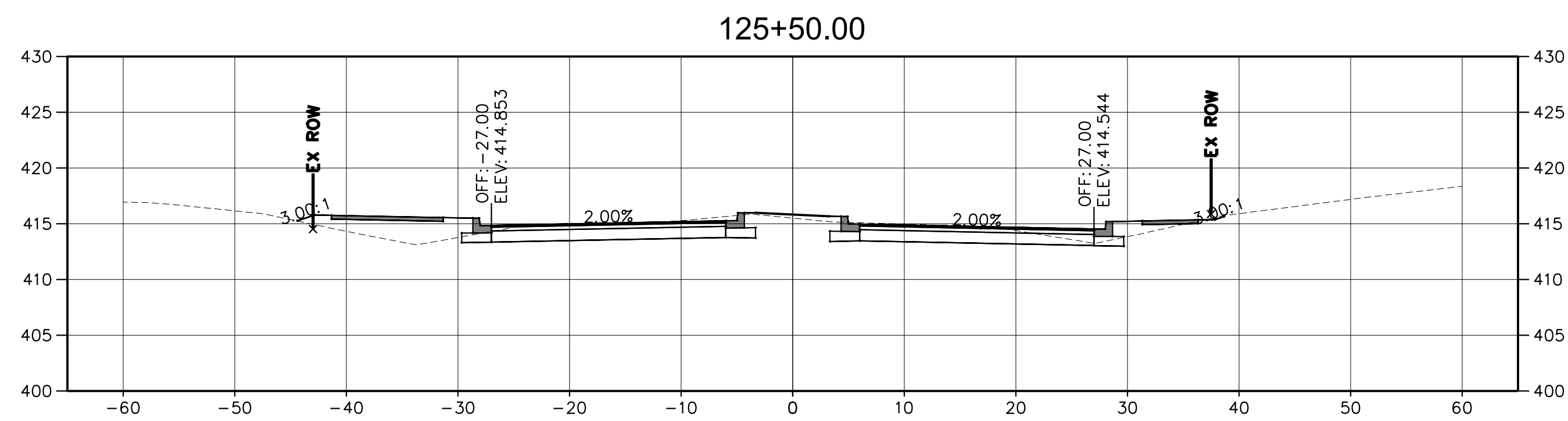
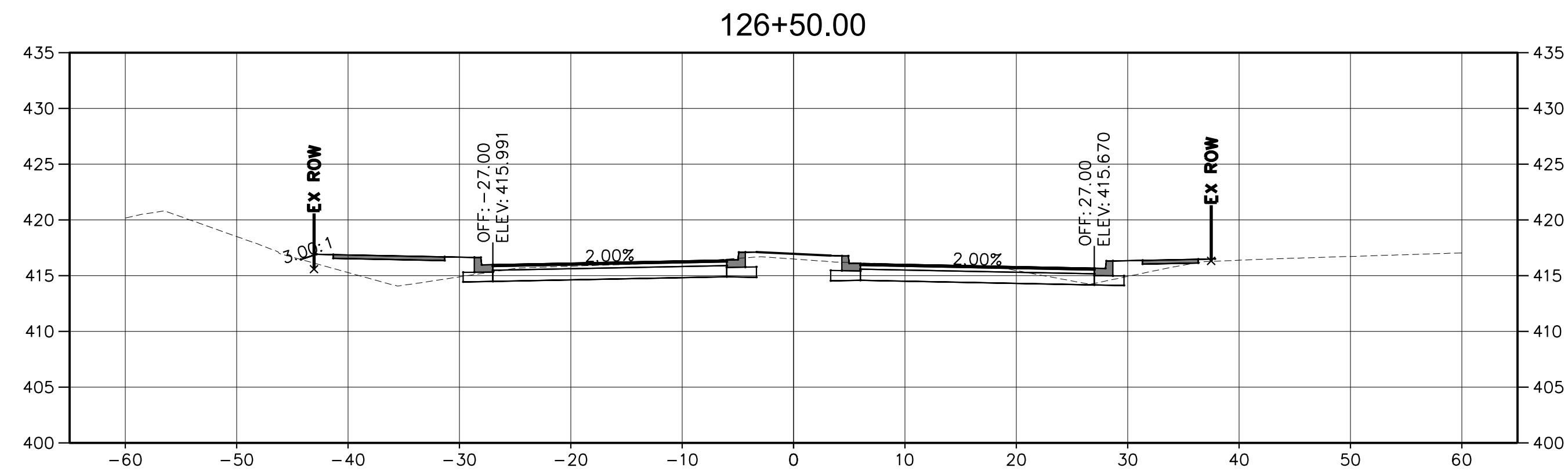
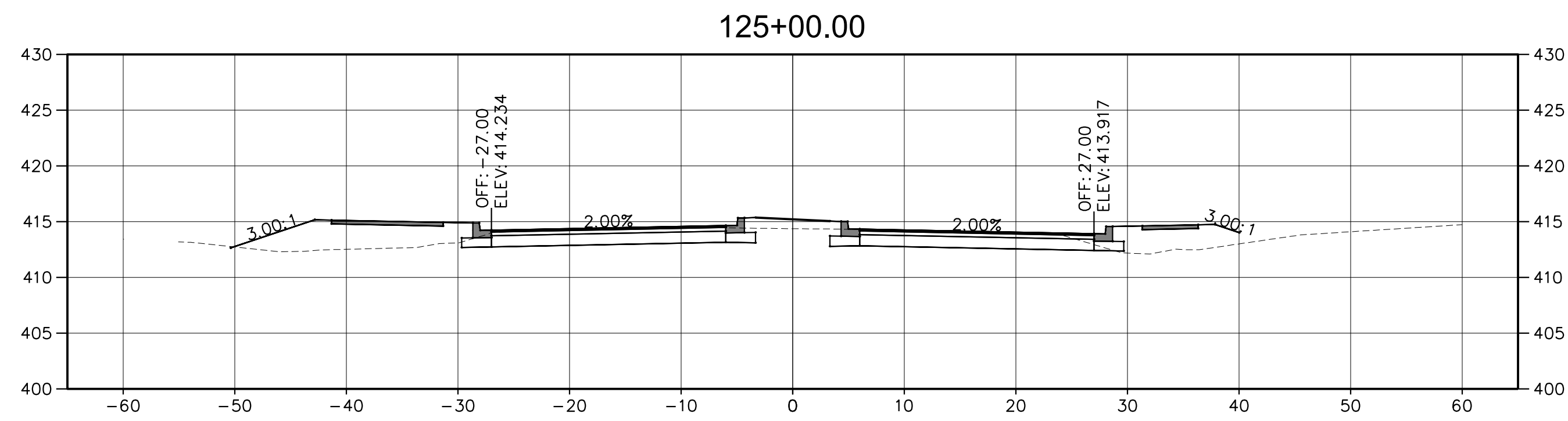
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

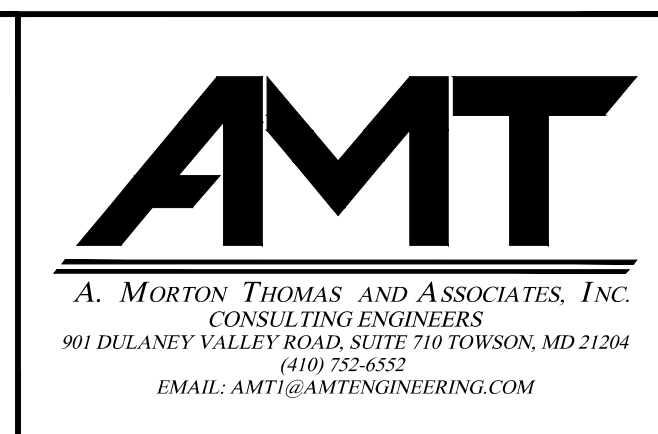
SHEET NO. 41 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

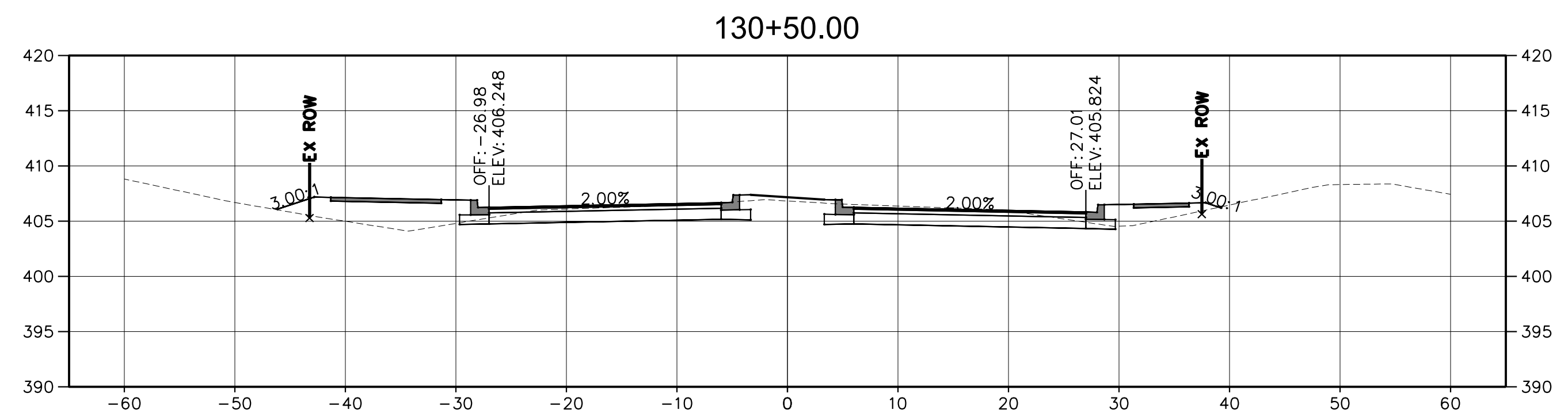
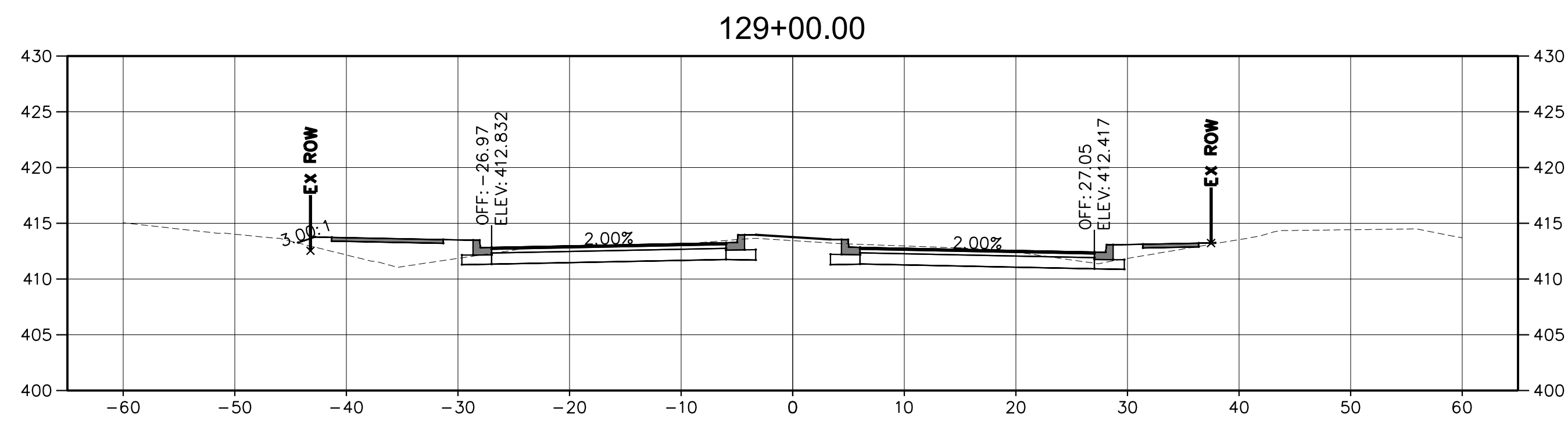
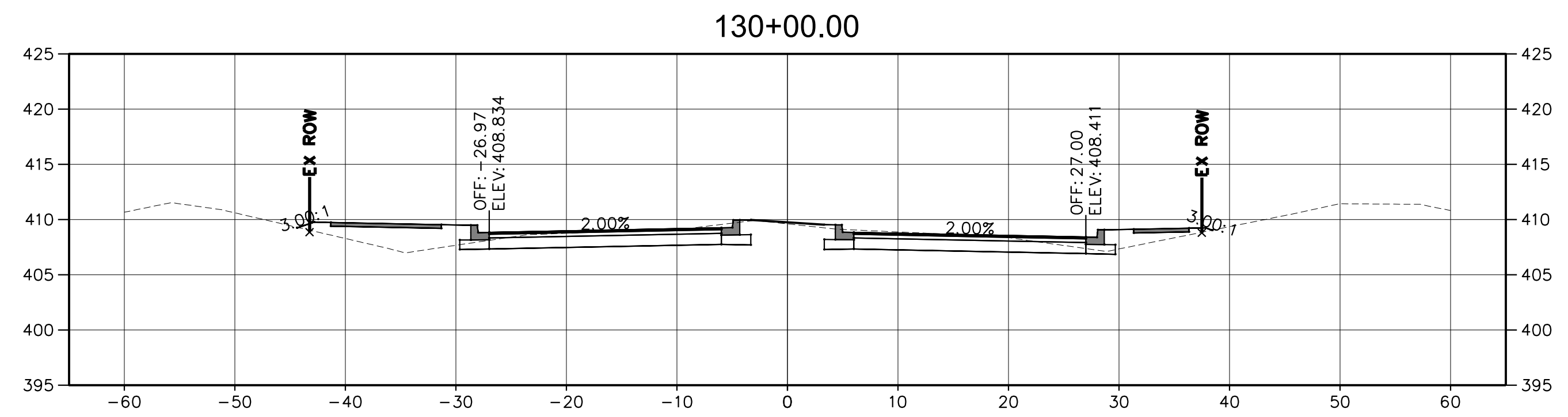
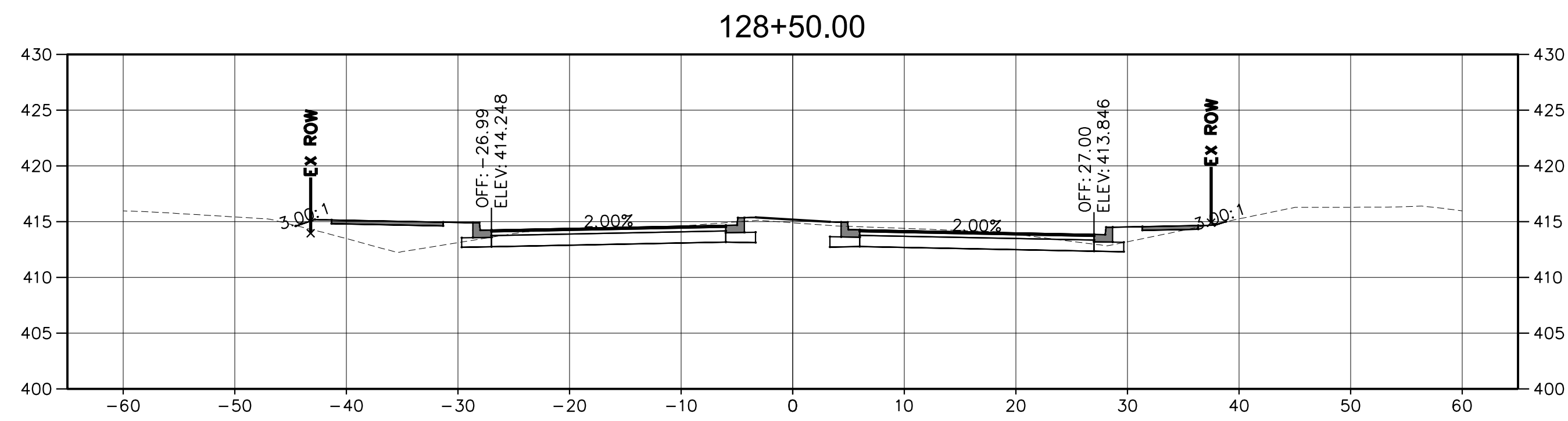
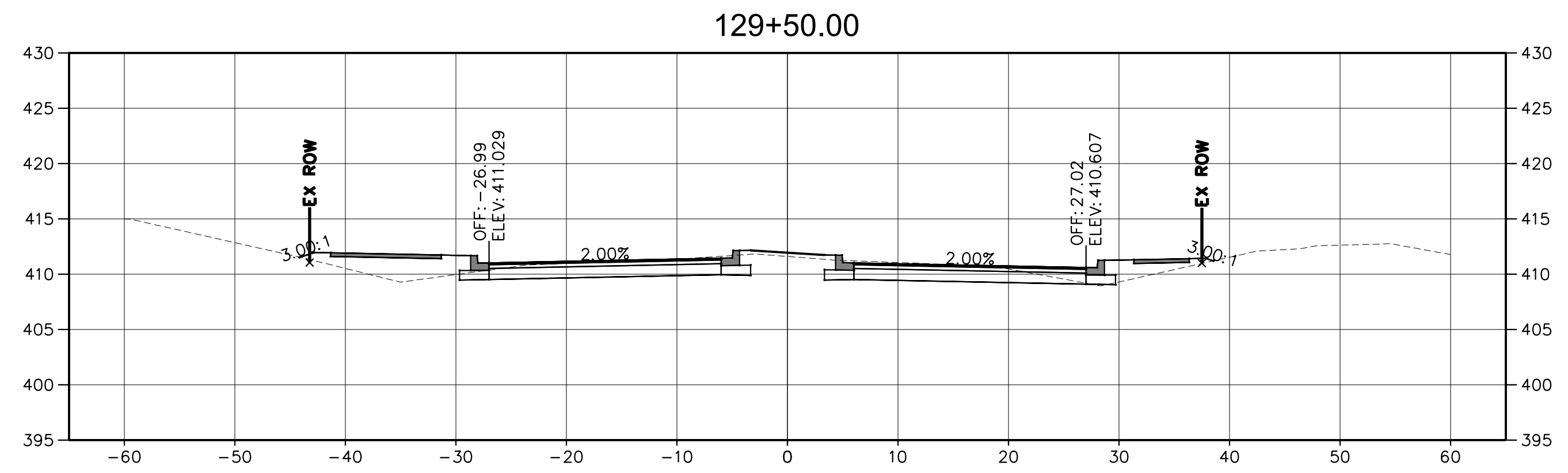
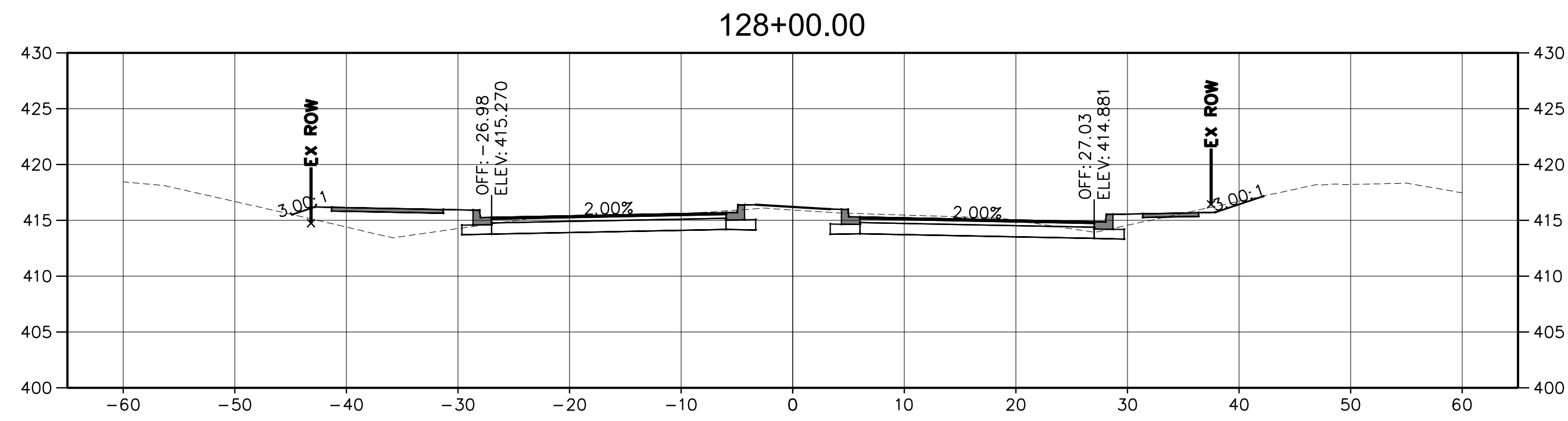
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 42 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

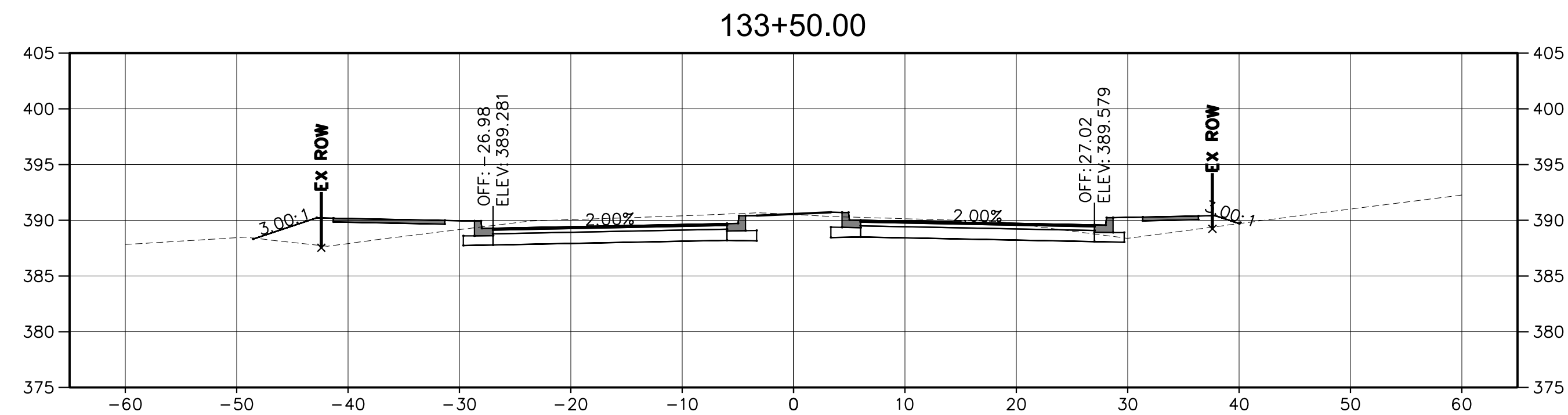
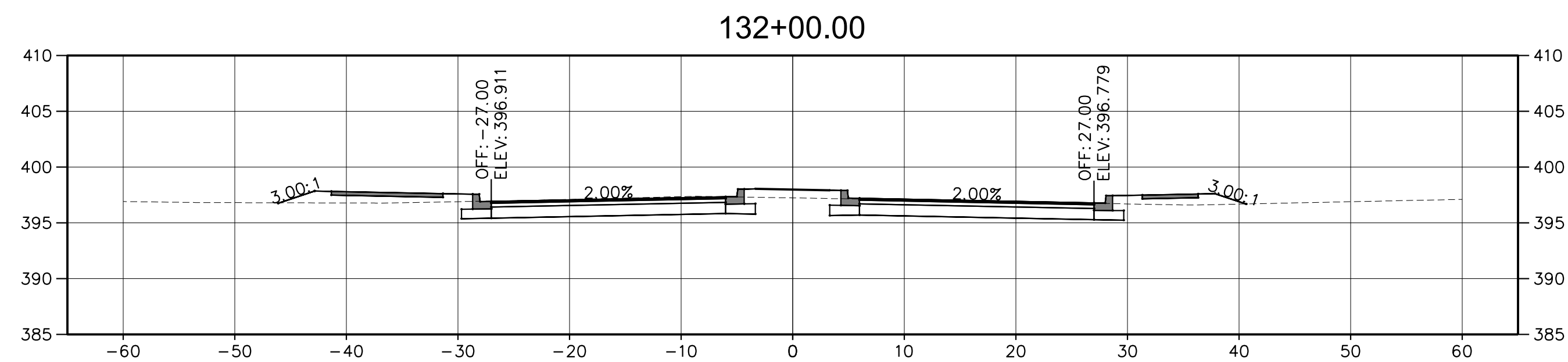
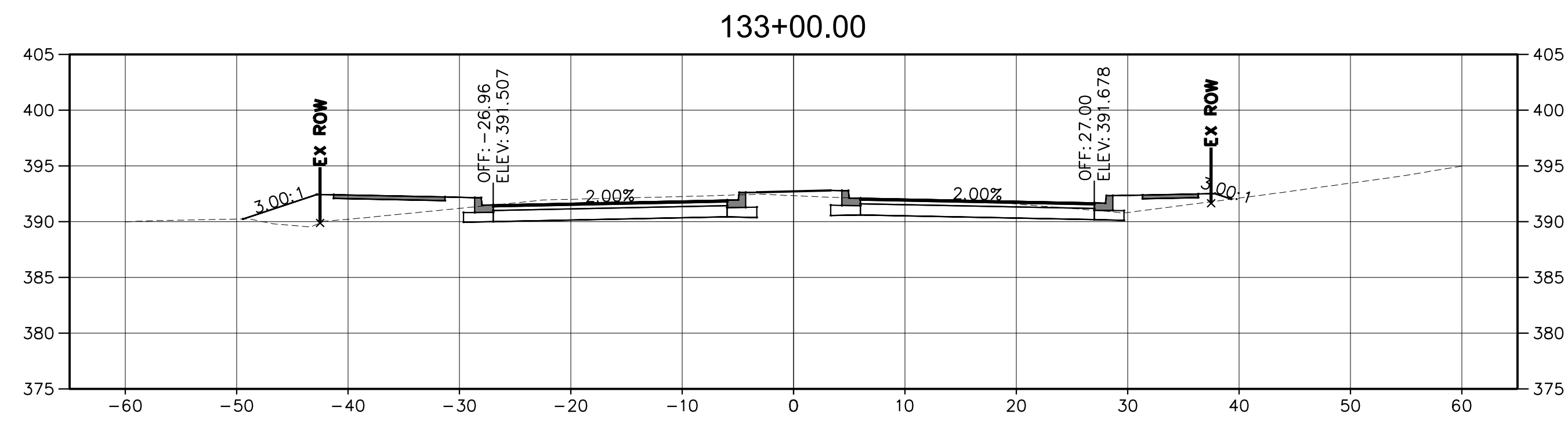
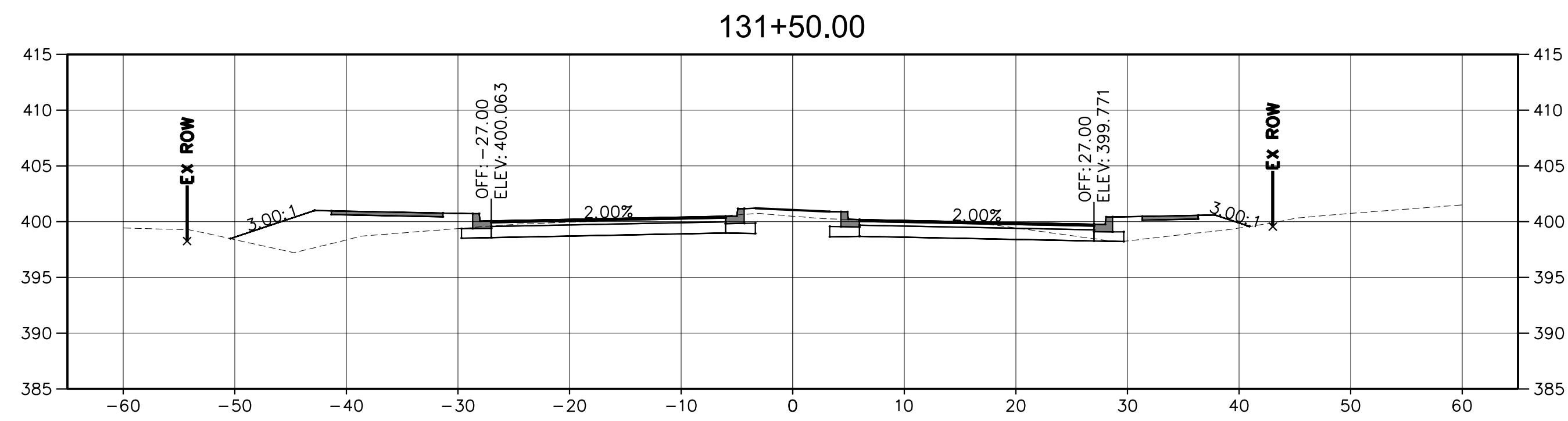
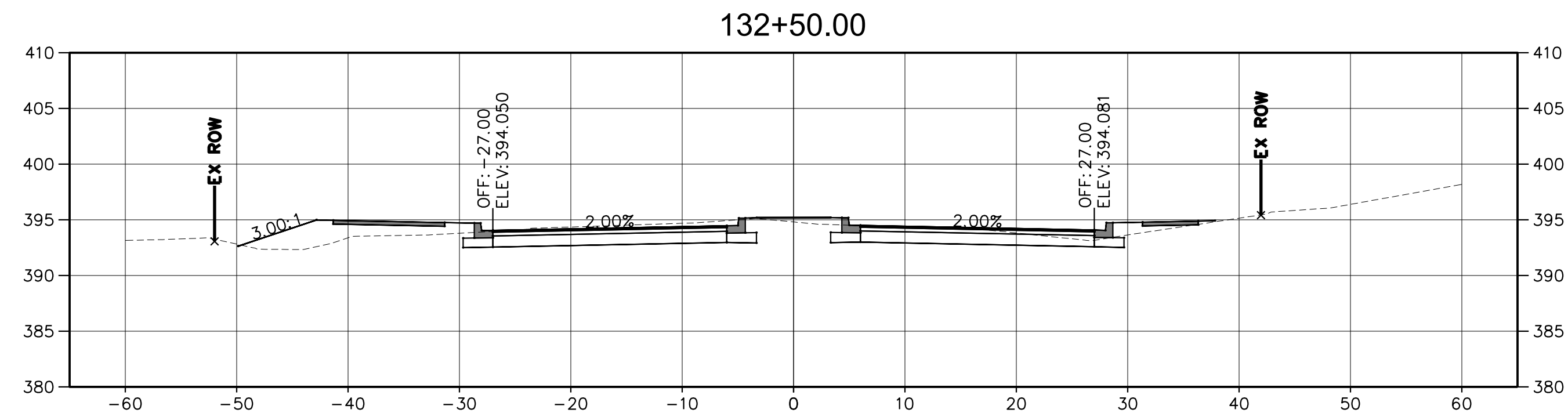
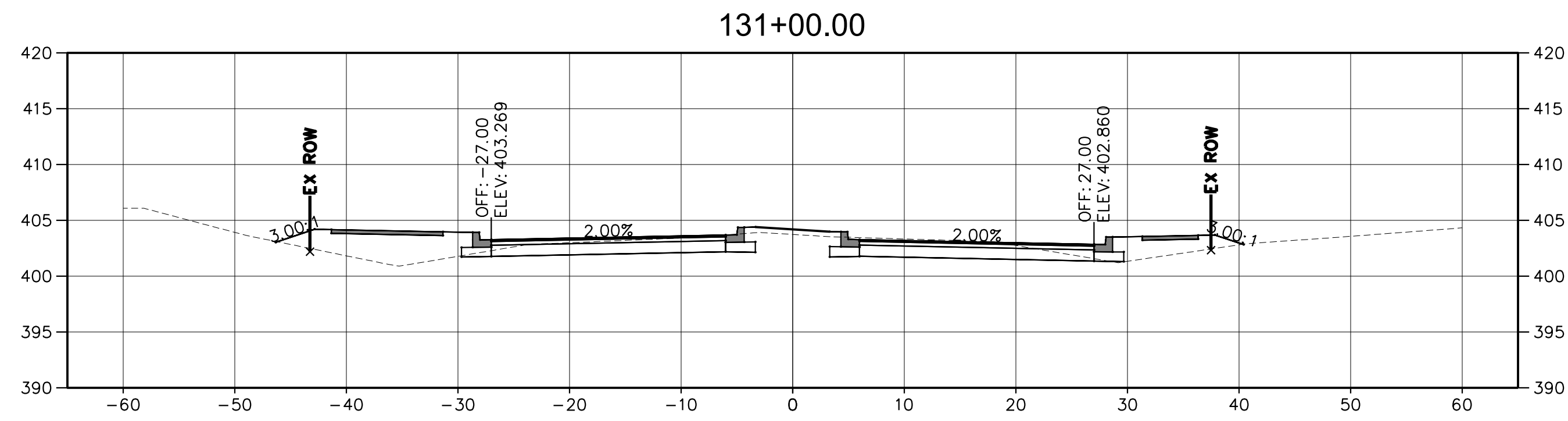
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

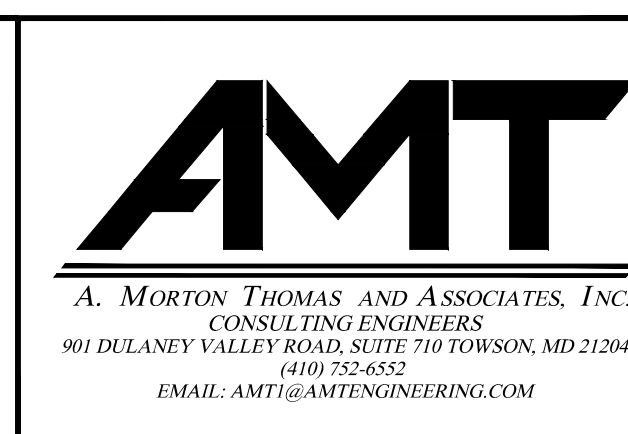
SHEET NO. 43 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

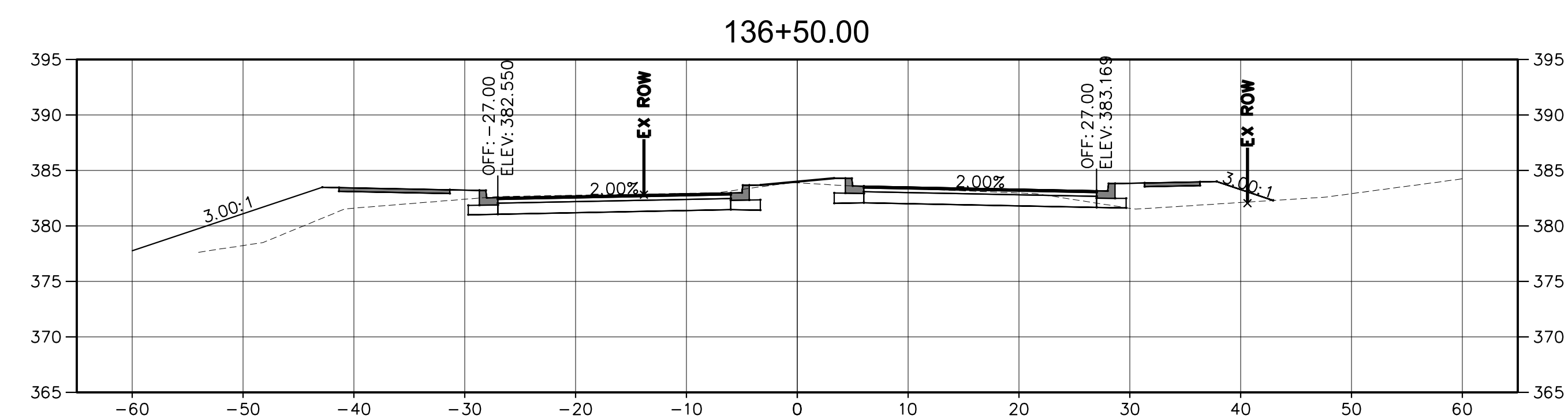
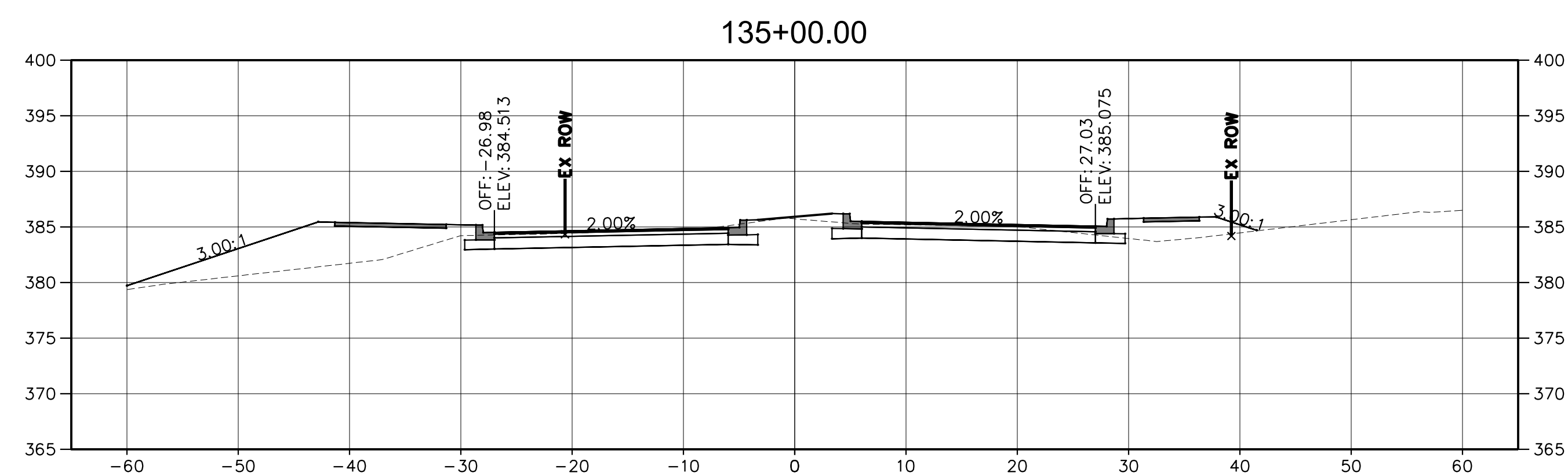
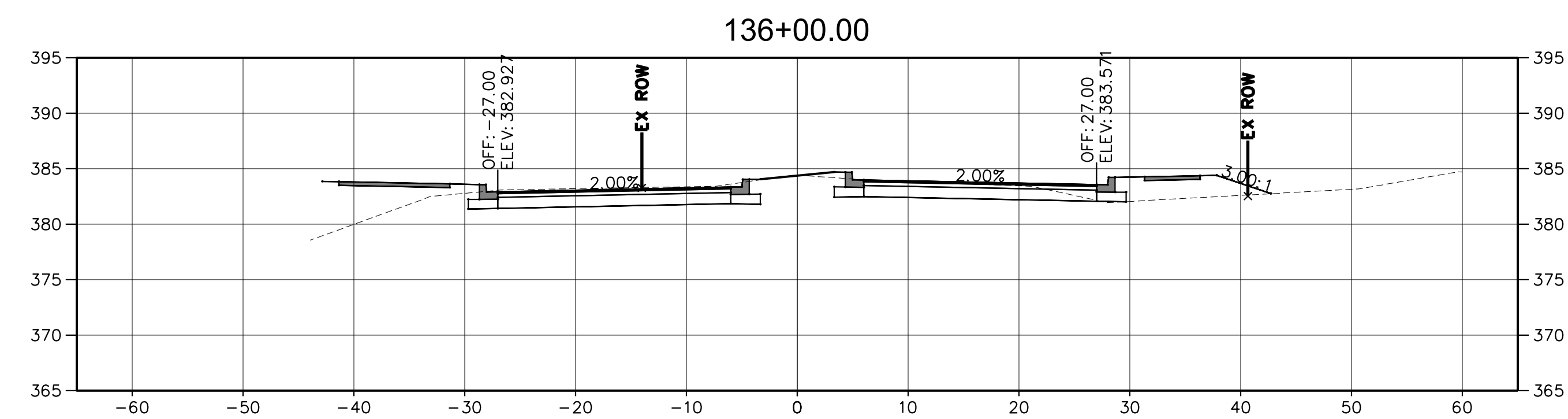
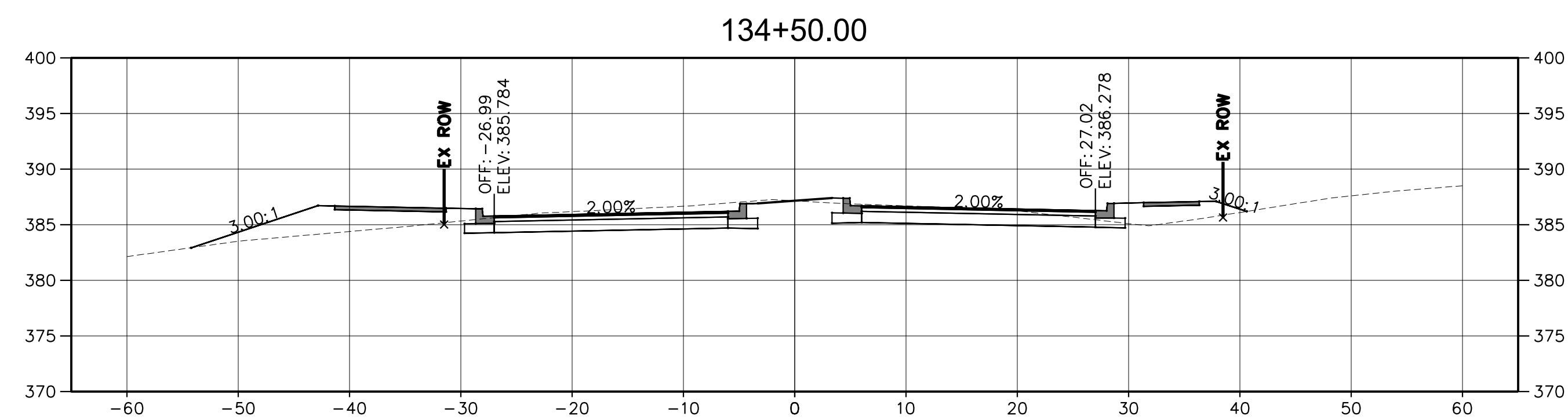
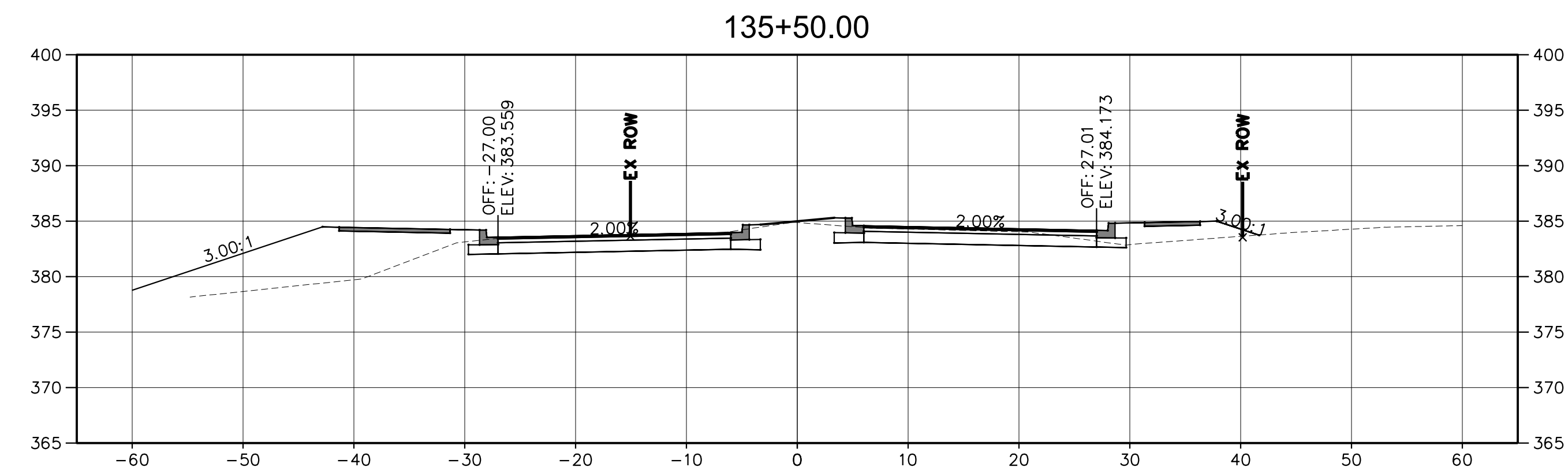
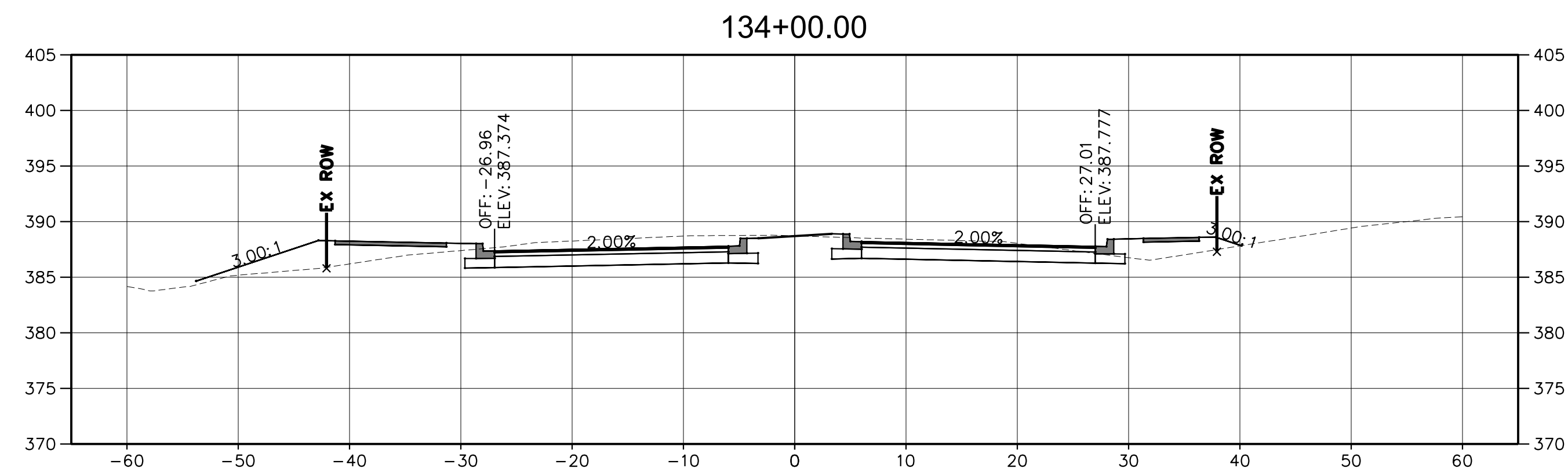
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

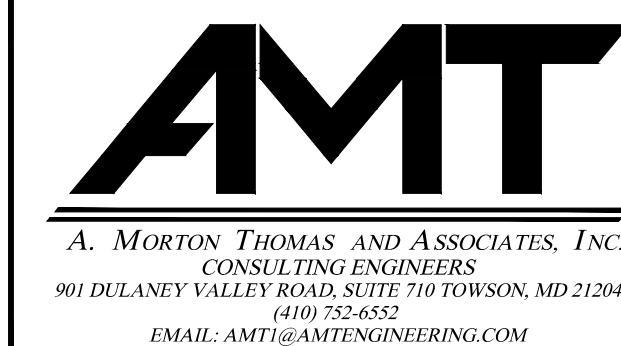
SHEET NO. 44 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND DO NOT INCLUDE ANY DRAINAGE IMPROVEMENTS SHOWN ON PLANS SUCH AS DITCHES, OUTFALLS OR STORMWATER MANAGEMENT FEATURES.

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RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ /POOLE JONES ROAD

CROSS SECTIONS

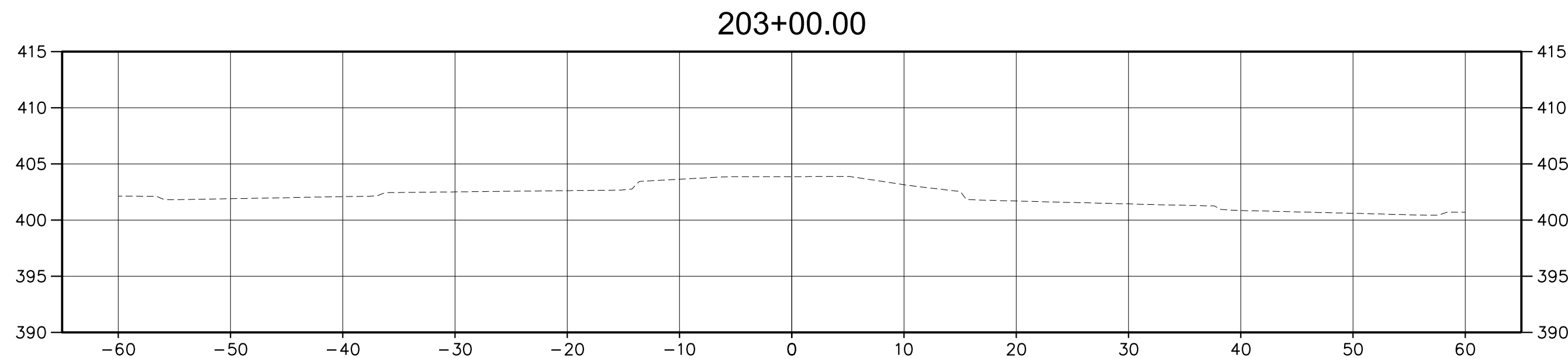
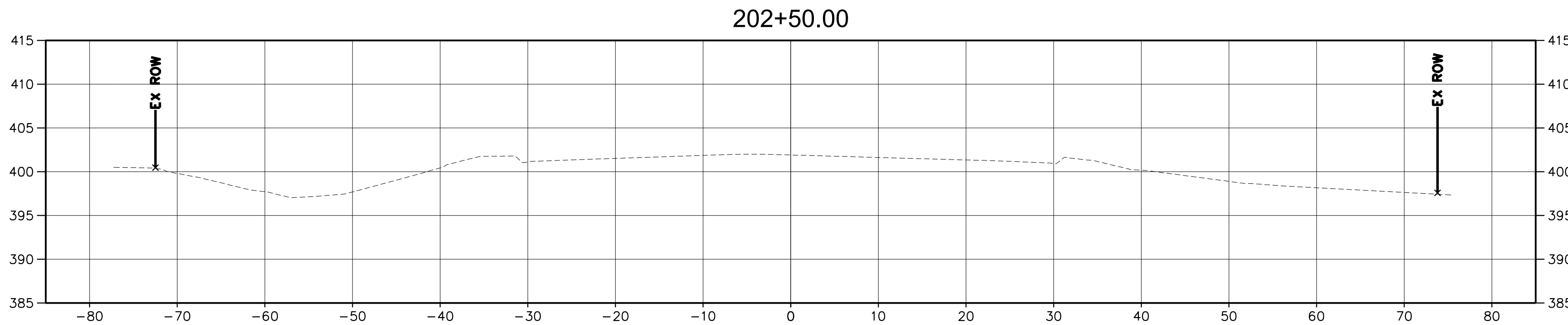
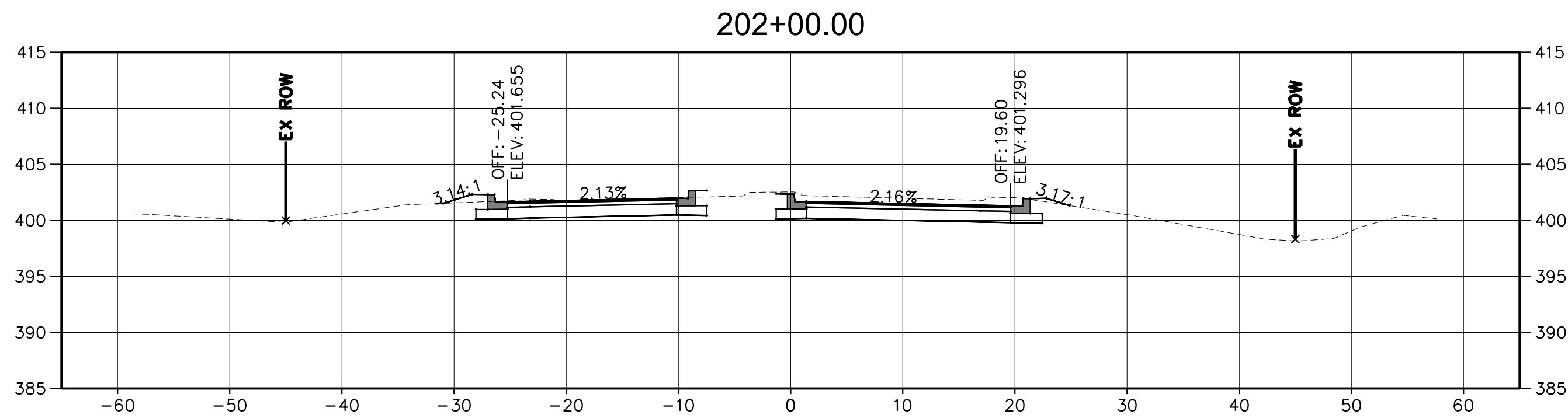
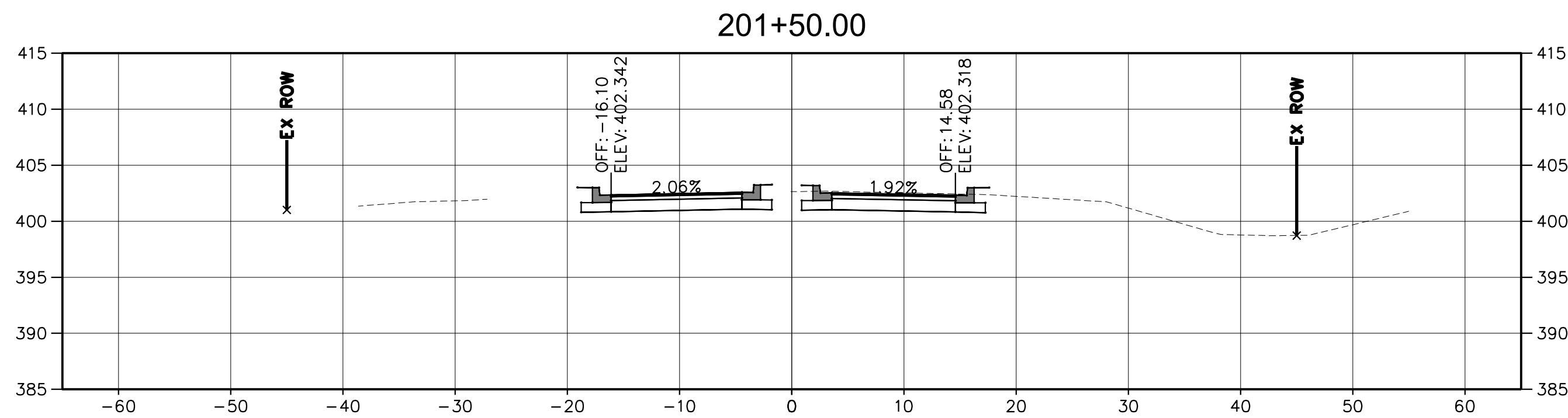
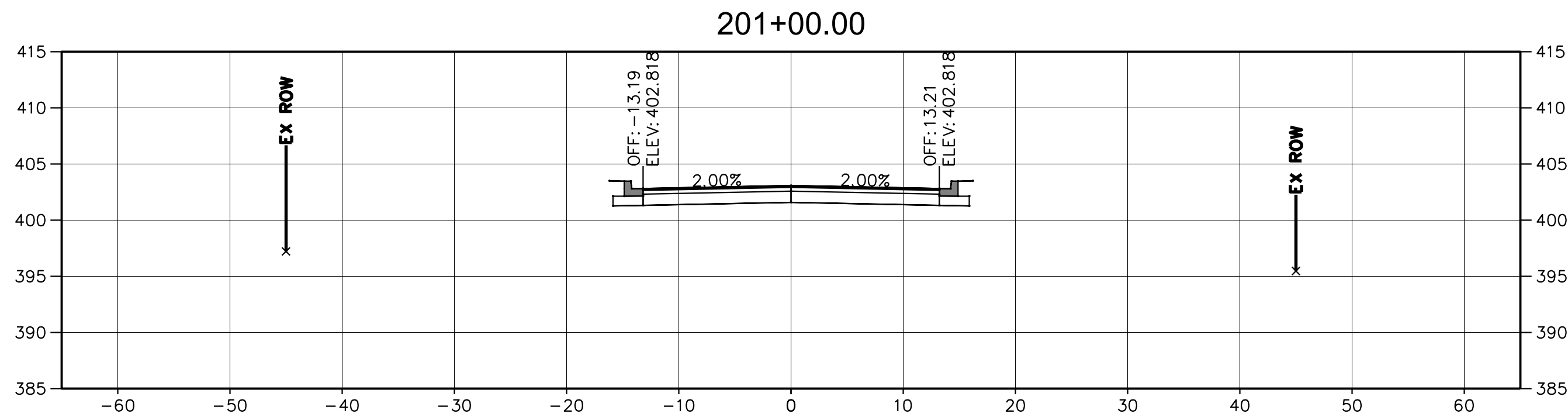
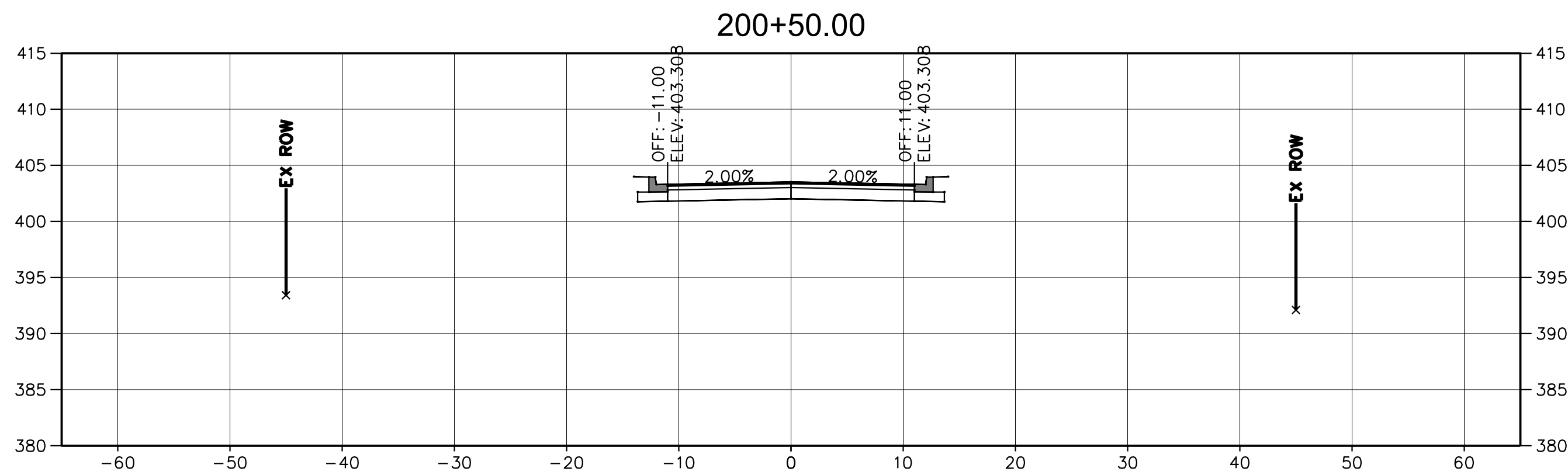
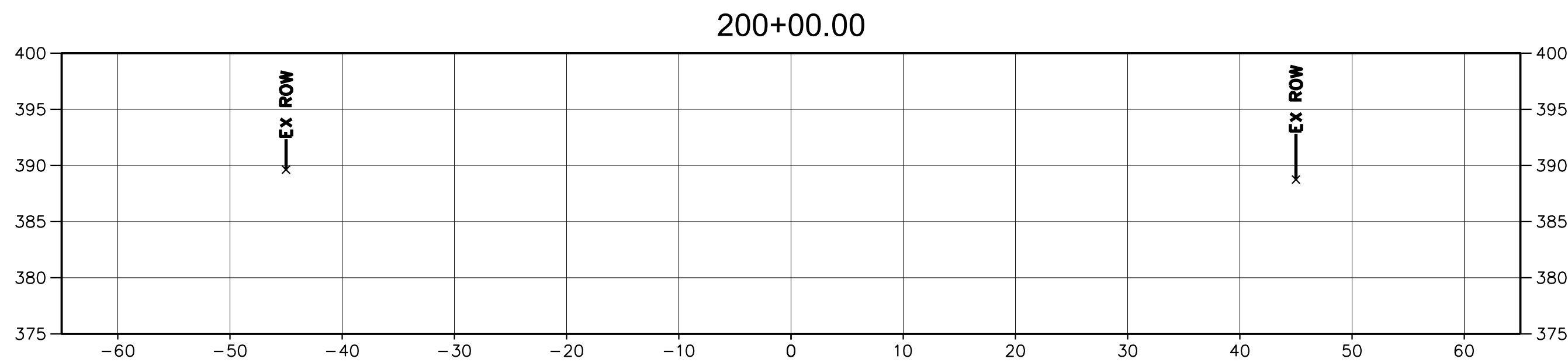
DATE: APRIL 2020

SCALE: 1"=30'

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NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED ON ROADWAY TYPICAL SECTIONS WITH 3:1 SIDESLOPES, AND DO NOT INCLUDE ANY DRAINAGE IMPROVEMENTS SHOWN ON PLANS SUCH AS DITCHES, OUTFALLS OR STORMWATER MANAGEMENT FEATURES.

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MARK	DATE	DESCRIPTION

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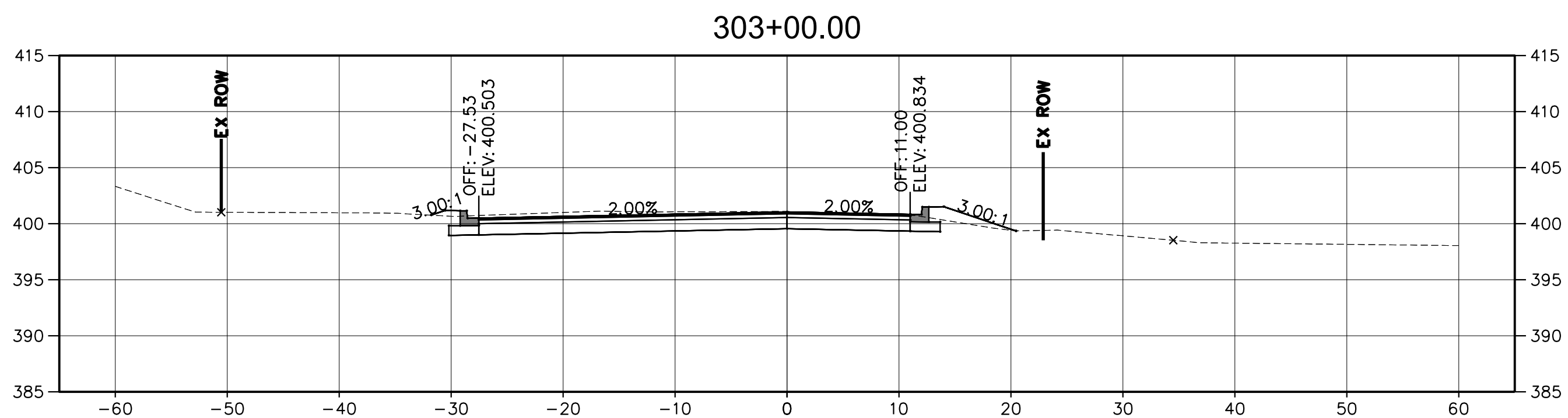
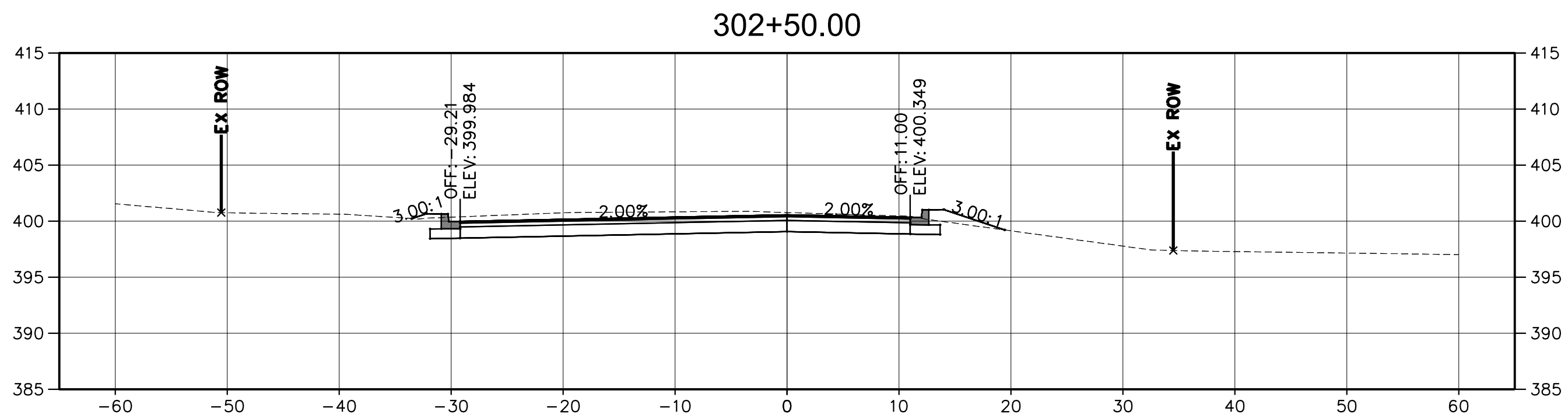
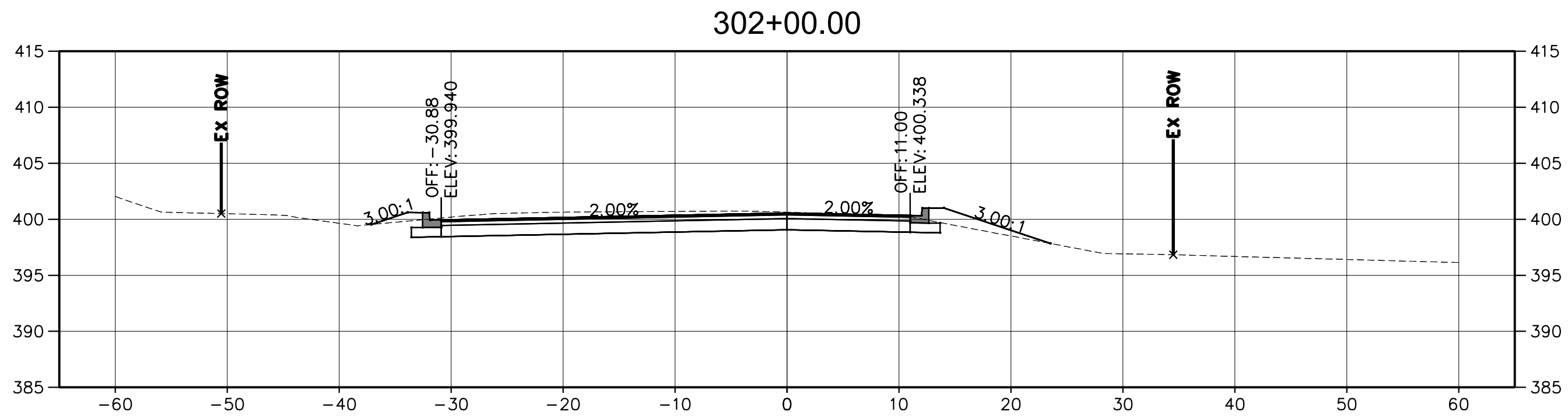
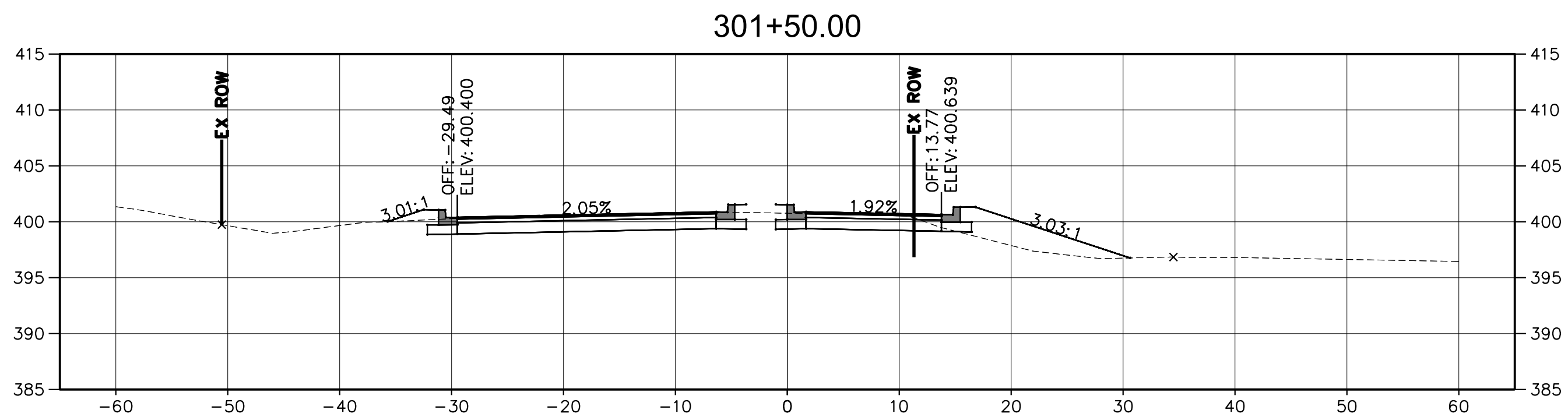
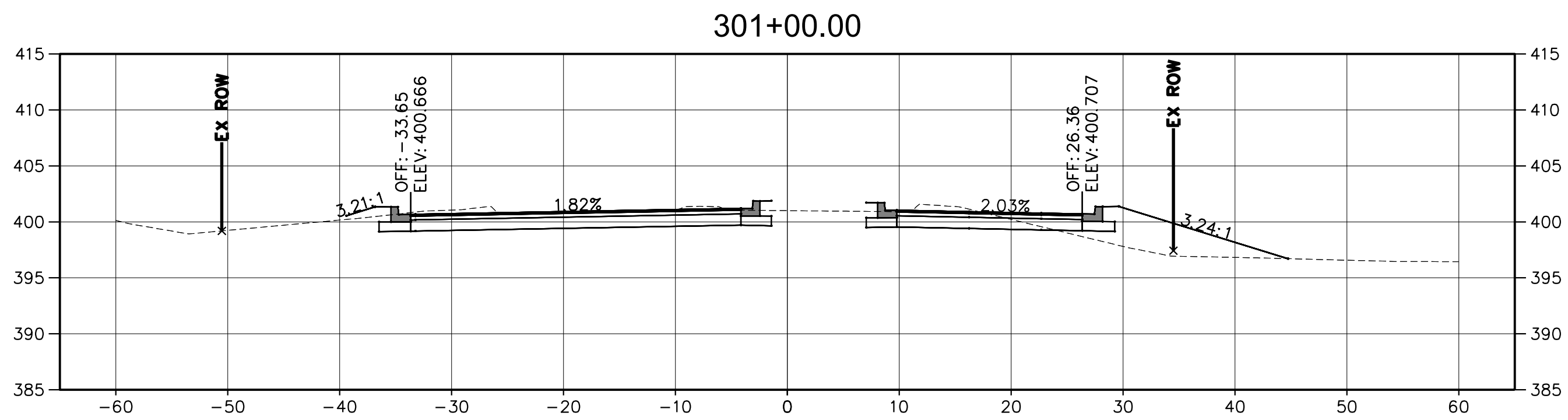
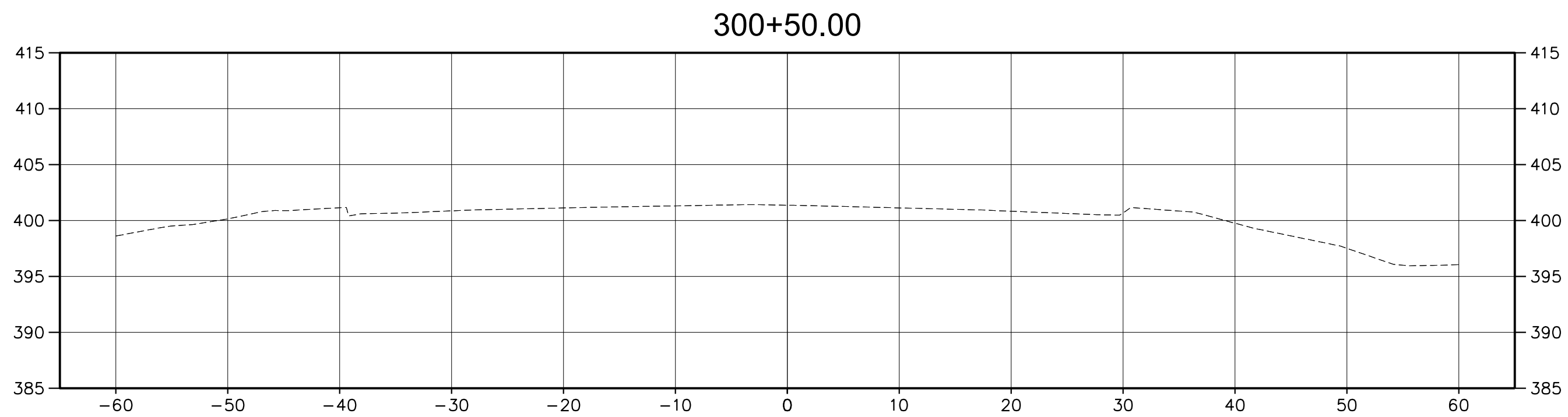
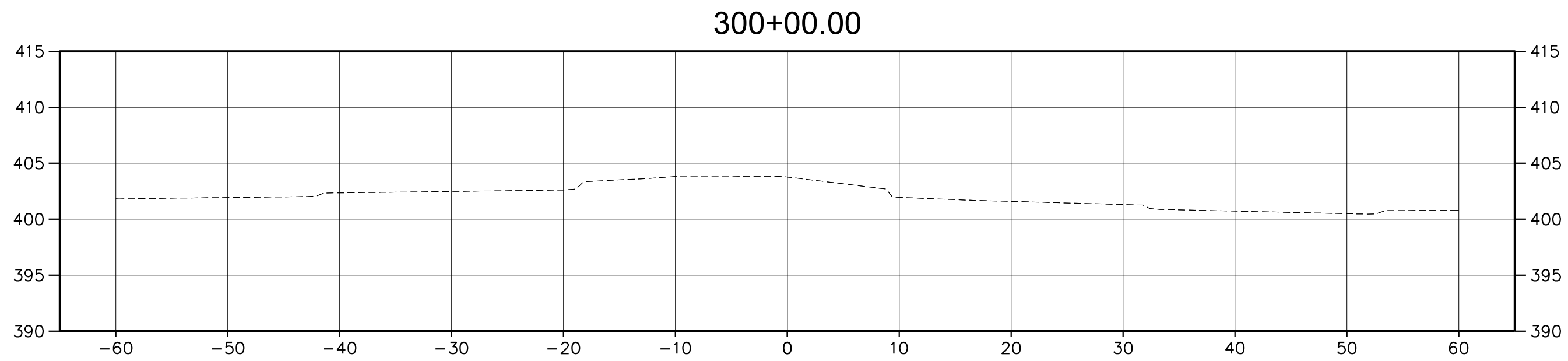
FREDERICK COUNTY, MARYLAND
DIVISION OF PUBLIC WORKS
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
OFFICE OF TRANSPORTATION ENGINEERING
FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

CROSS SECTIONS

DATE: APRIL 2020
AMT FILE NO. 15-0758.007

SCALE: 1"=30'
SHEET NO. 46 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

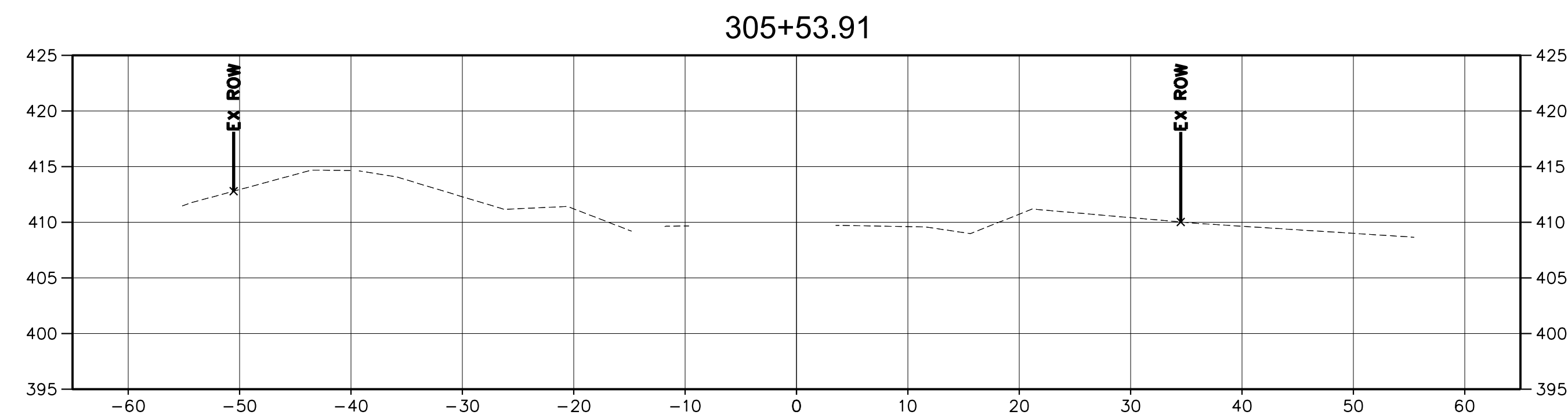
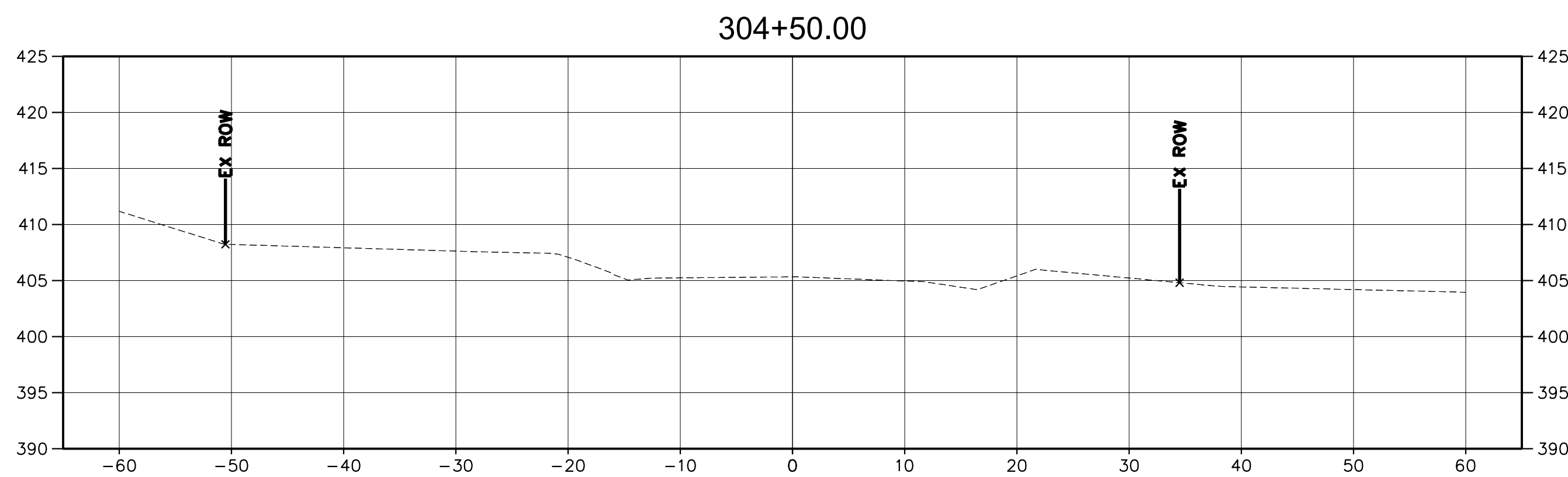
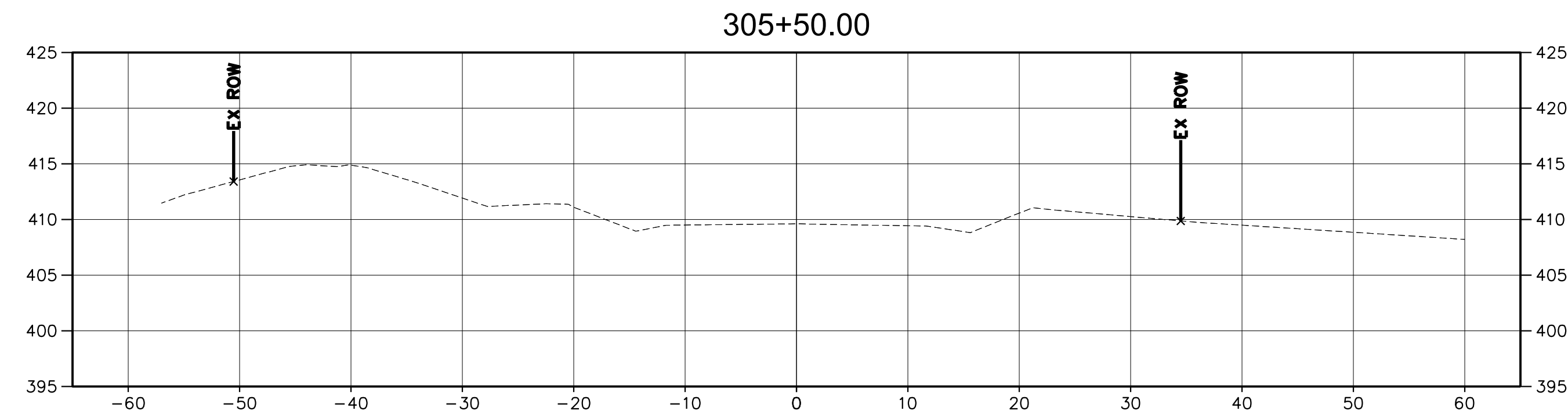
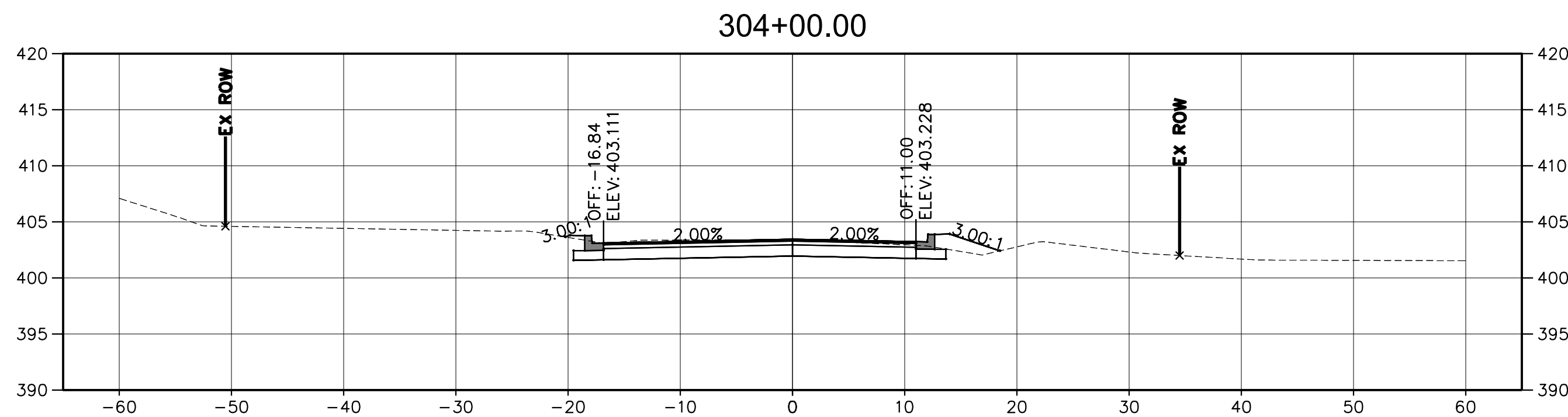
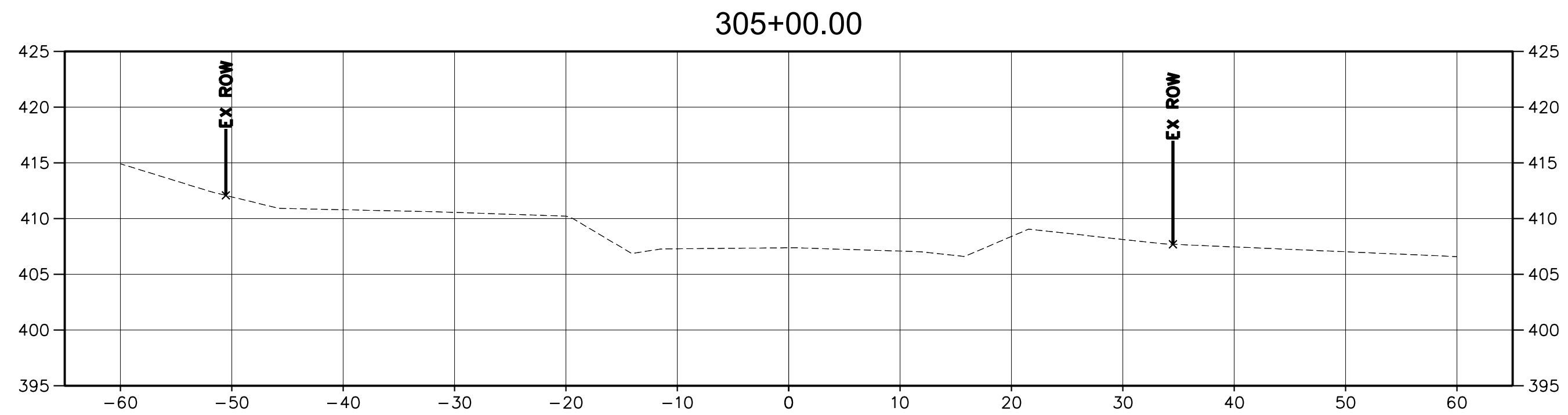
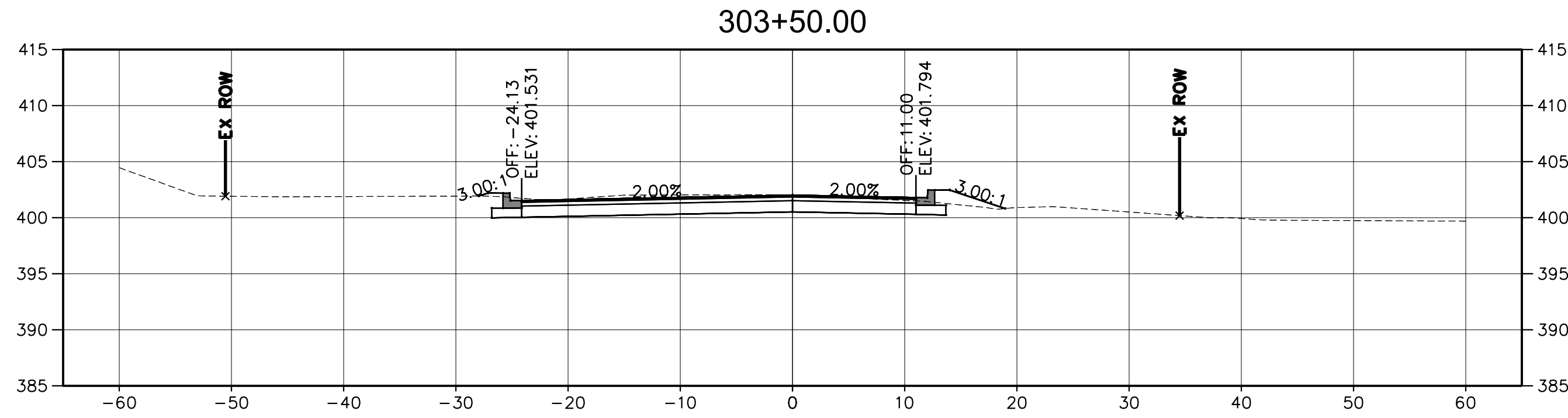
CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

SHEET NO. 47 OF 48



NOTE:
CROSS SECTIONS SHOWN ARE CONCEPTUAL AND ARE BASED
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FREDERICK COUNTY, MARYLAND

RECONSTRUCTION OF
CHRISTOPHERS CROSSING
FROM WHITTIER DRIVE TO
WALTER MARTZ / POOLE JONES ROAD

CROSS SECTIONS

DATE: APRIL 2020

SCALE: 1"=30'

AMT FILE NO. 15-0758.007

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