

PLAN INDEX

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C-102	DETAILS
C-201-207	PLAN SHEETS
C-301-308	CROSS SECTIONS
C-401	SOIL EROSION AND SEDIMENTATION CONTROL PLAN

ALLEGAN COUNTY ROAD COMMISSION

PLANS OF PROPOSED

144th AVENUE

FROM 700' EAST OF 17TH STREET TO 14TH STREET
SECTION 10, 11, 14 & 15 T04N-R12W, DORR TWP.
ALLEGAN COUNTY, MICHIGAN
DORR TOWNSHIP

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND SUPPLEMENTAL SPECIFICATIONS.

THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH THE AASHTO; A POLICY ON GEOMETRIC DESIGN OF HIGHWAY AND STREETS, 2011.

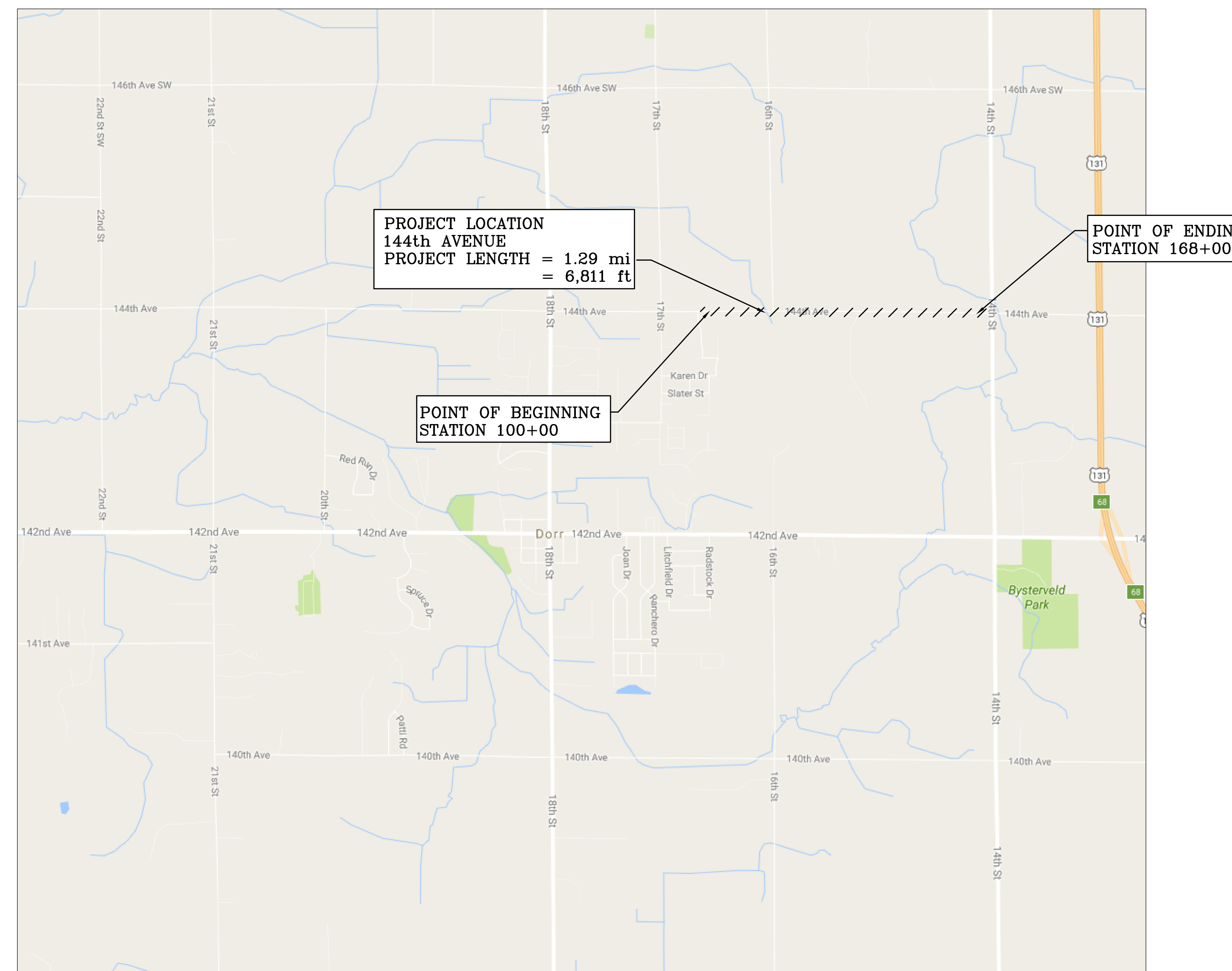
TRAFFIC DATA

	2005 (ESTIMATE)	2025 (PROJECTED)
AVERAGE DAILY TRAFFIC	250	375
DESIGN HOURLY VOLUME	38	57
% COMMERCIAL	1%	2%
POSTED SPEED	55 MPH	
DESIGN SPEED	55 MPH	

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REVISIONS

1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)



LOCATION MAP

PROJECT LENGTH = 1.29 mi

CONTRACT FOR : 1.29 MILES OF ROADWAY CONSTRUCTION INCLUDING GRADE ESTABLISHMENT, AGGREGATE SURFACE COURSE, CULVERT REPLACEMENTS, DITCHING AND MISC. ITEMS

MUNICIPAL APPROVAL
JASON S. EDWARDS _____ DATE _____

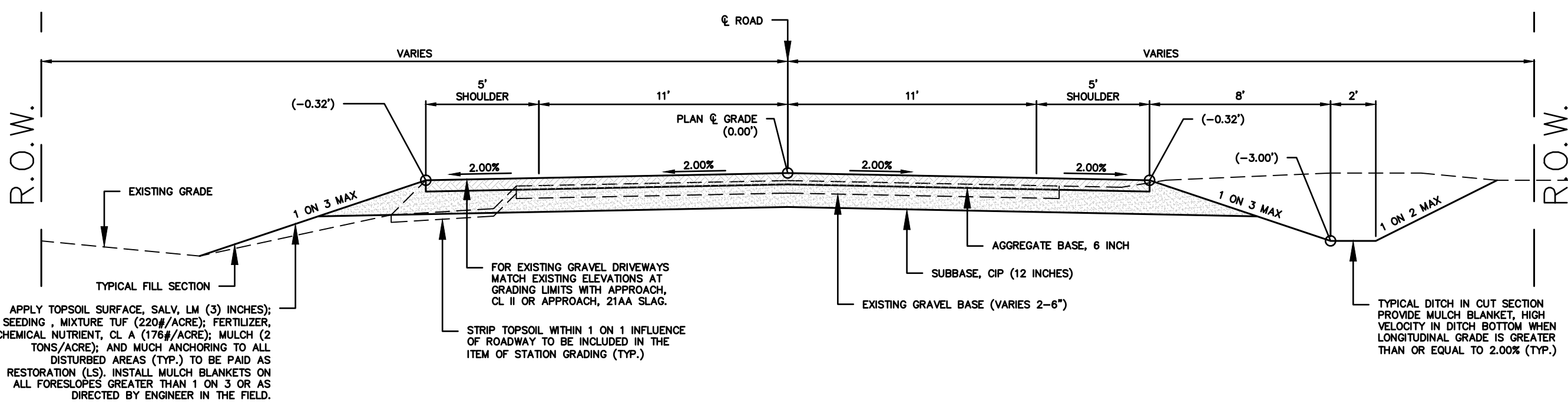
PLANS PREPARED UNDER THE SUPERVISION OF
ERIC R. NELSON, P.E. _____ DATE _____
DRIESEN & ASSOCIATES, INC.
ORGANIZATION
12330 JAMES STREET, SUITE H80
HOLLAND, MI. 49424
ADDRESS
(616) 396-0255
TELEPHONE NO.

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN
TITLE SHEET

Designed By: JMT
Drawn By: CJD
Checked By: Date:
Plot:
N/A
Scale:
07-07-17
Date:
1610998.1A
Job No.:

Sheet No.:
G-001

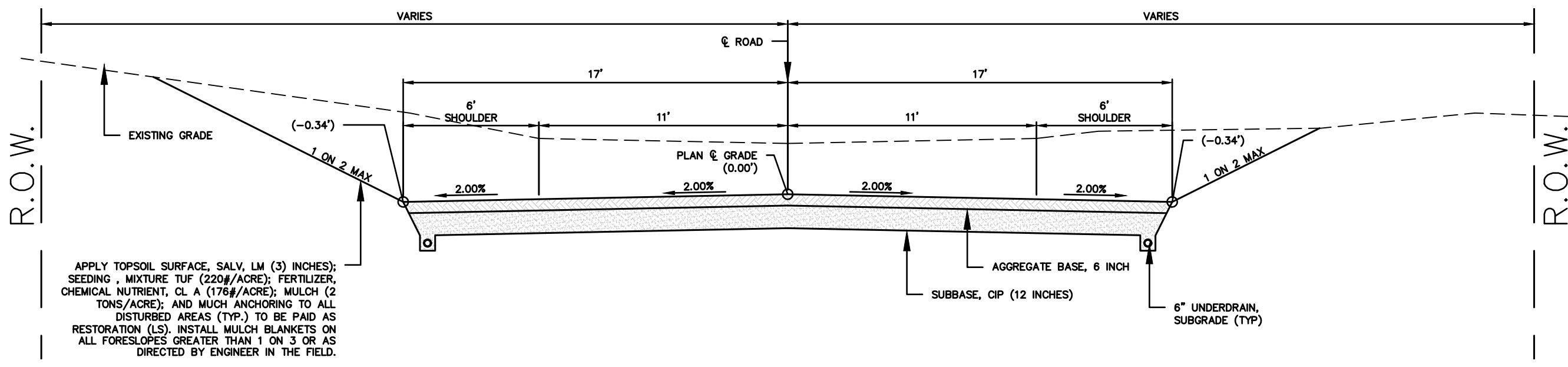




TYPICAL SECTION - 144TH AVENUE

SCALE: 1"=5'

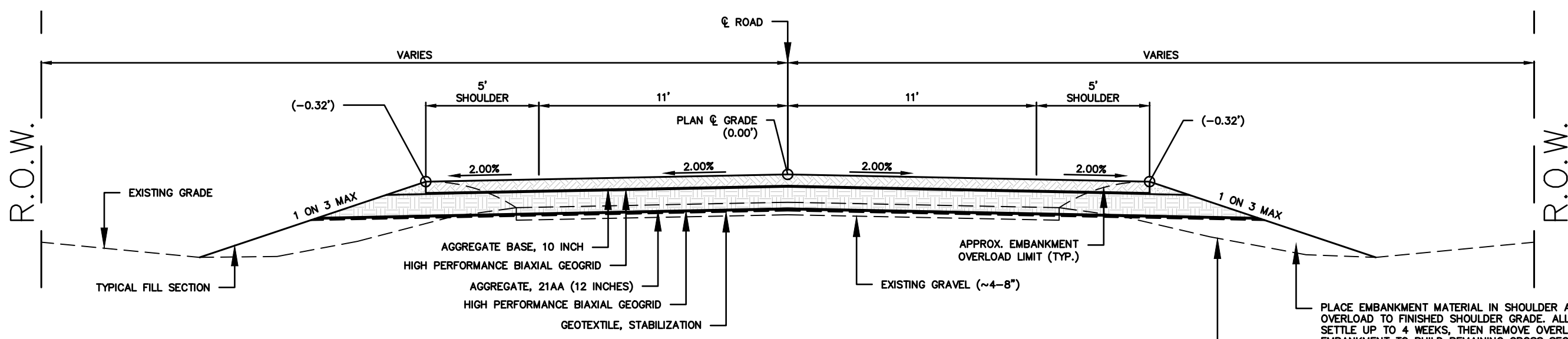
THIS SECTION APPLIES TO:
 P.O.B. TO P.O.E. EXCEPT AS NOTED BELOW



TYPICAL SECTION - VALLEY GUTTER

SCALE: 1"=5'

THIS SECTION APPLIES TO:
 STA. 100+00 TO 101+16 RIGHT ONLY
 STA. 101+16 TO 104+09
 STA. 104+09 TO 104+45 RIGHT ONLY
 STA. 109+51 TO 109+84 RIGHT ONLY
 STA. 109+84 TO 112+28
 STA. 112+28 TO 112+93 RIGHT ONLY
 STA. 142+43 TO 142+88 LEFT ONLY
 STA. 142+88 TO 147+21
 STA. 147+21 TO 147+51 RIGHT ONLY
 STA. 153+11 TO 153+59 RIGHT ONLY
 STA. 153+59 TO 159+22
 STA. 159+22 TO 166+27 RIGHT ONLY



HIGH PERFORMANCE BIAXIAL GEOGRID SECTION

SCALE: 1"=5'

THIS SECTION APPLIES TO:
 STA. 148+50 TO 152+50

UTILITY NOTES:

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR WILL CONTACT "MISS DIG" AT 811, A MINIMUM OF 72 HOURS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE CONTRACTOR WILL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND WILL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

PROJECT NOTES

THE "2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "STANDARD PLANS" BY THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) ARE HEREBY INCORPORATED INTO THESE CONTRACT DOCUMENTS. COPIES OF THESE STANDARDS ARE AVAILABLE FOR INSPECTION AT THE OFFICE OF THE ENGINEER.

THE CONTRACTOR WILL BE RESPONSIBLE FOR CONTACTING THE ALLEGAN COUNTY ROAD COMMISSION TO NOTIFY THEM THAT WORK IS COMMENCING.

THE CONTRACTOR SHOULD NOTE THAT STATION GRADING WILL INCLUDE THE REMOVAL OF FENCES, CULTIVETS, BRUSH, TREES SMALLER THAN 6", CONCRETE FOUNDATIONS, AND MISCELLANEOUS ITEMS AS REQUIRED AND WILL ALSO INCLUDE ALL EARTH EXCAVATION, EMBANKMENT, AND ALL OTHER OPERATIONS NECESSARY TO DEVELOP THE DESIRED CROSS SECTION. ALL TOPSOIL AND OTHER UNSUITABLE MATERIAL LOCATED BENEATH THE PROPOSED PAVEMENT SECTION WILL BE REMOVED TO THE SUBGRADE ELEVATION AS PART OF STATION GRADING. ALL TOPSOIL REMOVED MAY BE STOCKPILED AND REUSED AS TOPSOIL SURFACE, SALV. LM.

ALL FILL FOR THIS PROJECT MUST BE OBTAINED AND FURNISHED BY THE CONTRACTOR. ALL REQUIRED FILL SHALL BE SELECTED EXCAVATED MATERIAL FROM THE SITE APPROVED BY THE ENGINEER, OR MDOT CLASS II GRANULAR MATERIAL FROM BORROW. EXCESS FILL WILL BE REMOVED FROM SITE BY THE CONTRACTOR. NO BORROW OR SOIL REMOVAL ARRANGEMENTS HAVE BEEN PREARRANGED FOR THIS PROJECT AND WILL BE THE TOTAL RESPONSIBILITY OF THE CONTRACTOR.

THE SOIL BORINGS WERE TAKEN BY DRIESENGA & ASSOCIATES ON 7/14/06 & 12/6/16. THE TEST BORINGS REPRESENT POINT INFORMATION AND MAY NOT HAVE ENCOUNTERED ALL TYPES AND MATERIALS WHICH ARE PRESENT AT THE SITE. THESE BORING LOGS DO NOT CONSTITUTE A GUARANTEE OF THE SOIL OR GROUNDWATER CONDITIONS, OR THAT THE TEST BORINGS ARE AN EXACT REPRESENTATION OF THE SOIL OR GROUNDWATER CONDITIONS AT ALL POINTS ON THE SITE.

SEE PLAN AND PROFILE SHEETS FOR SOIL BORING DATA.

DRIVE REPLACEMENT WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

THE ITEM OF SUBBASE, CIP WILL BE PAID FOR AT PLAN QUANTITY EXCEPT IN THE CASE OF A DESIGN CHANGE OR DEMONSTRATED ERROR.

AS PART OF THIS PROJECT THE CONTRACTOR WILL COORDINATE WITH THE ALLEGAN COUNTY ROAD COMMISSION TO PRESERVE AND RESET ALL GOVERNMENT CORNERS WITHIN THE PROJECT LIMITS.

CONTRACTOR WILL RELOCATE ALL MAILBOXES TO A TEMPORARY CENTRAL LOCATION APPROVED BY THE POSTAL SERVICE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL INSTALL A 1" x 3" STAKE WITH THE RESPECTIVE PROPERTY ADDRESS WRITTEN ON IT IN THE FRONT YARD OF EACH RESIDENCE TO ASSIST WITH IDENTIFICATION FOR EMERGENCY VEHICLES. PAYMENT FOR RELOCATION WILL BE INCLUDED IN THE ITEM OF PROJECT CLEANUP. AT THE COMPLETION OF THE PROJECT SAID MAILBOXES SHALL BE RESET AT THEIR APPROPRIATE LOCATIONS.

ALL DISTURBED AREAS NOT TO BE GRAVELED WILL BE RESTORED WITH TOPSOIL SURFACE, SALV. LM (3 INCHES), MDT SEED MIXTURE TUF (220#/ACRE); FERTILIZER, CHEMICAL NUTRIENT, CL A (175#/ACRE); AND MULCH AND MULCH ANCHORING (2 TON/ACRE), TO BE PAID AS RESTORATION (LUMP SUM).

ADEQUATE DUST CONTROL MEASURES WILL BE MAINTAINED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER IN THE FIELD, TO BE INCLUDED IN THE VARIOUS ITEMS OF WORK.

MULCH BLANKET, HIGH VELOCITY WILL BE PLACED ON THE BOTTOM OF ALL DITCHES WHEN THE LONGITUDINAL GRADE IS GREATER THAN OR EQUAL TO 2.00% UNLESS OTHERWISE NOTED, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN FIELD DRAIN TILES ARE ENCOUNTERED IN THE EXISTING DITCHES, THE CONTRACTOR WILL EXTEND THEM AS REQUIRED WITH UNDERDRAIN, SUBGRADE 4" OR 6" AND ADJUST THE DITCH GRADES AS NECESSARY TO PROVIDE POSITIVE DRAINAGE AS DIRECTED BY THE ENGINEER IN THE FIELD. THE COST OF THE CONNECTION WILL BE INCLUDED IN THE NEW PIPE ITEM. IF THE ENGINEER DETERMINES THAT AN EXISTING TILE IS TOO LONG THE CONTRACTOR WILL REMOVE THE TILE AS NECESSARY, TO BE INCLUDED IN THE ITEM OF STATION GRADING. DRAINS THAT ARE ENCOUNTERED AND IDENTIFIED AS SOMETHING OTHER THAN A FIELD DRAIN SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EXISTING DRAINAGE PATTERNS, AND WILL RESOLVE ANY DRAINAGE PROBLEMS ON ADJACENT PROPERTIES WHICH MAY RESULT FROM THE CONTRACTOR'S ACTIVITIES.

DATUM REFERS TO LOCAL DATUM.

DIMENSIONS TAKE PRECEDENCE OVER SCALE. CONTRACTOR TO VERIFY ALL DIMENSIONS IN FIELD.

LAYOUT & UTILITY NOTES:

- CONTRACTOR SHALL OBTAIN ALL NECESSARY STATE AND LOCAL PERMITS. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO STANDARDS AND SPECIFICATIONS OF AGENCIES HAVING JURISDICTION.
- CONTRACTOR SHALL COORDINATE WORK WITH OTHER CONTRACTORS ON SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION AND COORDINATION OF ALL CONSTRUCTION WITH THE RESPECTIVE UTILITY PROVIDERS PRIOR TO STARTING ANY CONSTRUCTION.
- IF ANY ERRORS, DISCREPANCIES OR OMISSIONS BECOME APPARENT, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE CONSTRUCTION OF ANYTHING AFFECTED SO THAT CLARIFICATION OR REDESIGN MAY OCCUR.
- REFER TO EXISTING TOPOGRAPHIC SURVEY FOR BENCHMARKS AND OTHER EXISTING INFORMATION. CONTRACTOR TO FIELD VERIFY LAYOUT PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING AND NEW CONSTRUCTION FROM DAMAGE. SHOULD ANY DAMAGE OCCUR, CONTRACTOR SHALL MAKE ALL NECESSARY REPAIRS AT NO COST TO THE OWNER.
- PROVIDE BARRIERS OR OTHER PROTECTION TO KEEP VEHICULAR AND PEDESTRIAN TRAFFIC AWAY FROM CONSTRUCTION AREA AND OFF NEWLY PAVED AREAS BEFORE BITUMINOUS OR CONCRETE IS CURED.
- AT ALL EDGES OF EXISTING DRIVEWAYS AGAINST WHICH NEW CONCRETE IS TO BE PLACED, SAW CUT AND REMOVE CONCRETE BACK TO THE NEAREST CONTROL JOINT TO PROVIDE A SMOOTH TRANSITION TO THE NEW CONCRETE.
- CALL "MISS DIG", 811, 72 HOURS PRIOR TO THE START OF ANY WORK.
- ALL UTILITY WORK SHALL BE COMPLETED, INCLUDING TRENCH BACKFILL AND COMPACTION, PRIOR TO PLACEMENT OF ANY GRAVEL BASE.
- EXISTING UNDERGROUND UTILITIES ARE PLOTTED FROM ORIGINAL SITE DRAWINGS AND SITE TOPOGRAPHIC SURVEY. EVERY ATTEMPT HAS BEEN MADE TO SHOW ALL UTILITY LINES WHERE THEY EXIST. CONTRACTOR SHALL USE EVERY PRECAUTION IN EXCAVATING FOR NEW UTILITIES SINCE ACTUAL UNDERGROUND UTILITIES MAY NOT BE AS SHOWN. CONTRACTOR SHALL MAKE HIMSELF THOROUGHLY FAMILIAR WITH ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY EXCAVATION AND VERIFY LOCATIONS AND DEPTHS OF ALL UTILITIES.
- EXCEPT FOR THOSE UTILITIES NOTED TO BE PLUGGED OR REMOVED, RECONNECT ALL LINES ENCOUNTERED DURING CONSTRUCTION. CONTRACTOR SHALL COORDINATE ALL UTILITY WORK WITH UTILITY PROVIDER.
- STAKING TO BE PROVIDED BY ACRC

LEGEND

BENCHMARK	EXISTING	PROPOSED
STORM SEWER MANHOLE	EXISTING	PROPOSED
CATCH BASIN	EXISTING	PROPOSED
SANITARY SEWER MANHOLE	EXISTING	PROPOSED
CLEANOUT	EXISTING	PROPOSED
WELL HEAD	EXISTING	PROPOSED
FIRE HYDRANT	EXISTING	PROPOSED
SPRINKLER CONTROL VALVE	EXISTING	PROPOSED
SPRINKLER HEAD	EXISTING	PROPOSED
VALVE (WATER & GAS)	EXISTING	PROPOSED
GAS METER	EXISTING	PROPOSED
UTILITY RISERS	EXISTING	PROPOSED
UTILITY POLE	EXISTING	PROPOSED
LIGHT POLE	EXISTING	PROPOSED
GUY ANCHOR	EXISTING	PROPOSED
TRANSFORMER	EXISTING	PROPOSED
HAND HOLE (ELECTRIC)	EXISTING	PROPOSED
ELECTRIC METER	EXISTING	PROPOSED
GROUND MOUNTED LIGHT	EXISTING	PROPOSED
SIGN	EXISTING	PROPOSED
SOIL BORING	EXISTING	PROPOSED
BOLLARD POST	EXISTING	PROPOSED
GATE	EXISTING	PROPOSED
"MISS DIG" FLAG - CATV	EXISTING	PROPOSED
"MISS DIG" FLAG - ELECTRICAL	EXISTING	PROPOSED
"MISS DIG" FLAG - FIBER OPTIC	EXISTING	PROPOSED
"MISS DIG" FLAG - GAS	EXISTING	PROPOSED
"MISS DIG" FLAG - SANITARY	EXISTING	PROPOSED
"MISS DIG" FLAG - STORM	EXISTING	PROPOSED
"MISS DIG" FLAG - TELEPHONE	EXISTING	PROPOSED
"MISS DIG" FLAG - WATER	EXISTING	PROPOSED
FENCE LINE	EXISTING	PROPOSED
ELECTRIC	EXISTING	PROPOSED
TELEPHONE	EXISTING	PROPOSED
FIBER OPTIC	EXISTING	PROPOSED
GAS LINE	EXISTING	PROPOSED
EXISTING WATER LINE	EXISTING	PROPOSED
PROPOSED WATER LINE	PROPOSED	PROPOSED
EXISTING STORM SEWER	EXISTING	PROPOSED
PROPOSED STORM SEWER	PROPOSED	PROPOSED
EXISTING SANITARY SEWER	EXISTING	PROPOSED
PROPOSED SANITARY SEWER	PROPOSED	PROPOSED
BITUMINOUS SURFACE	CONCRETE SURFACE	GRAVEL SURFACE
CONIFEROUS TREE	DECIDUOUS TREE	ORNAMENTAL BUSH



Know what's below.
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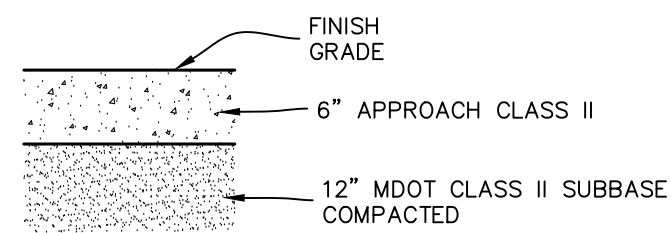
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REVISIONS

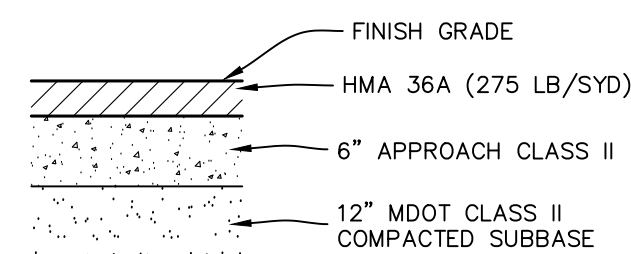
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 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN

Designed By: JMT
 Drawn By: CJD
 Checked By: Date:
 Plot:
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 Scale:
 07-07-17
 Date:
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 Job No.:
 Sheet No.:

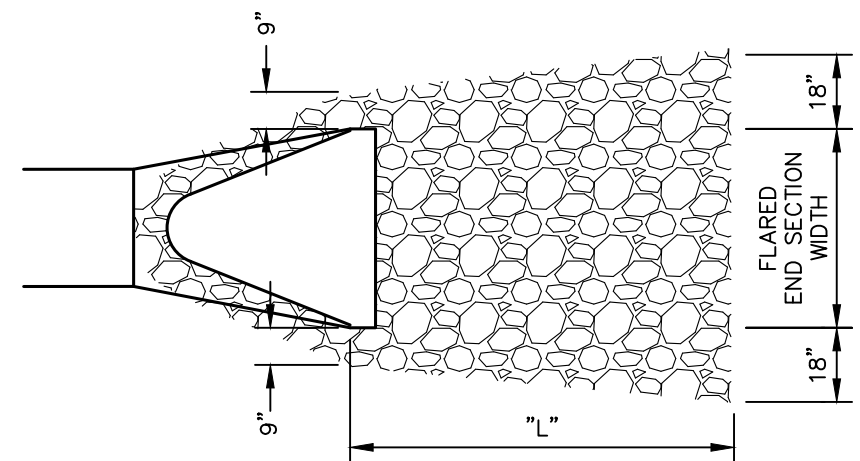


GRAVEL DRIVEWAY SECTION
NO SCALE

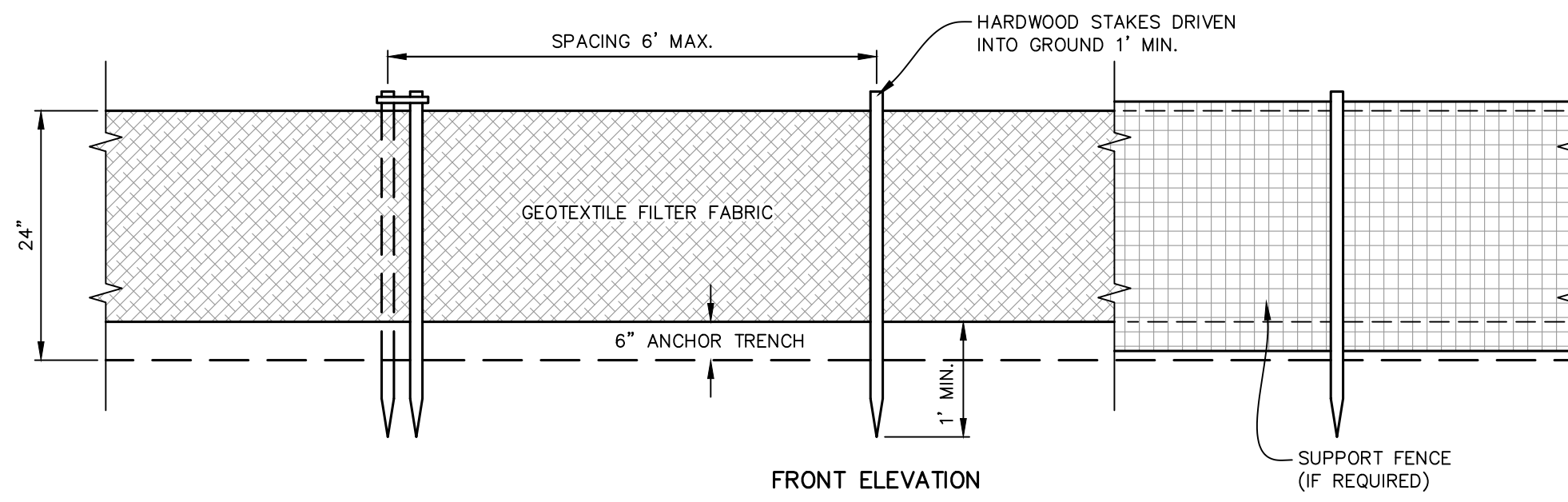


APPROACH PAVEMENT SECTION
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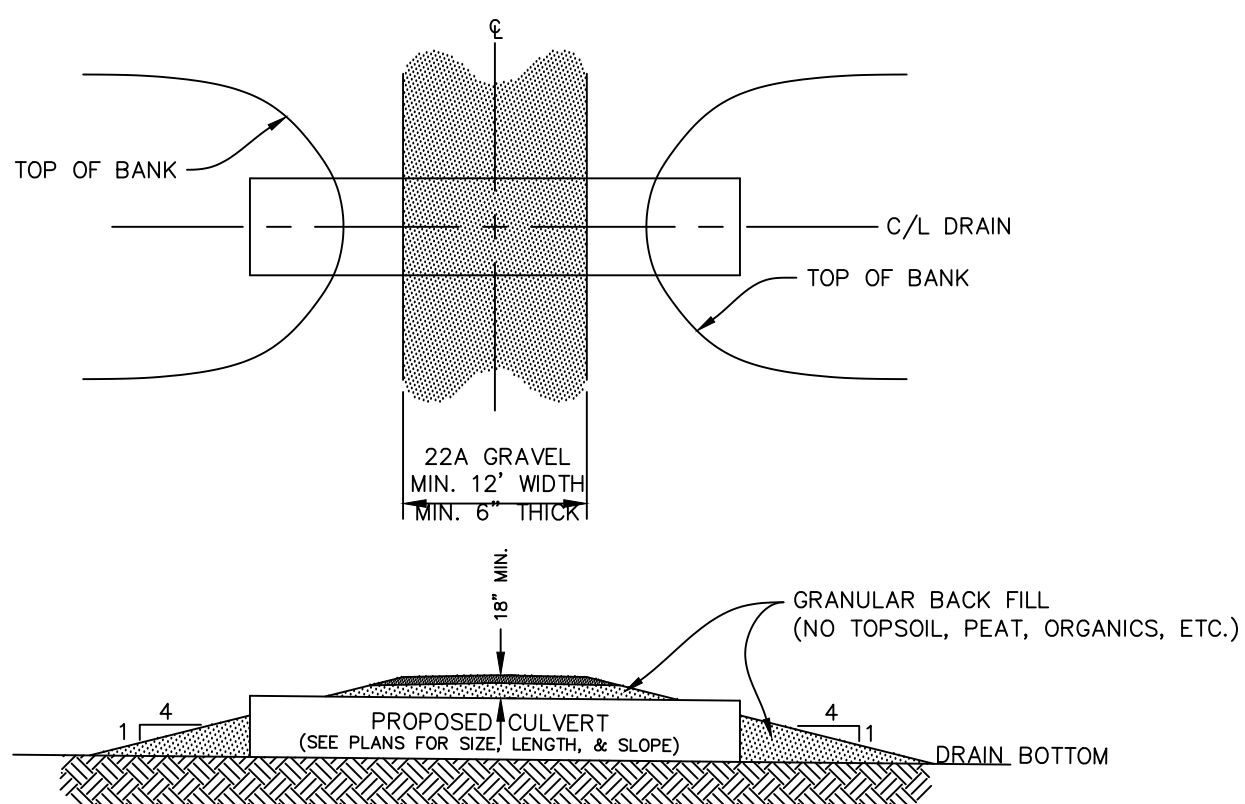
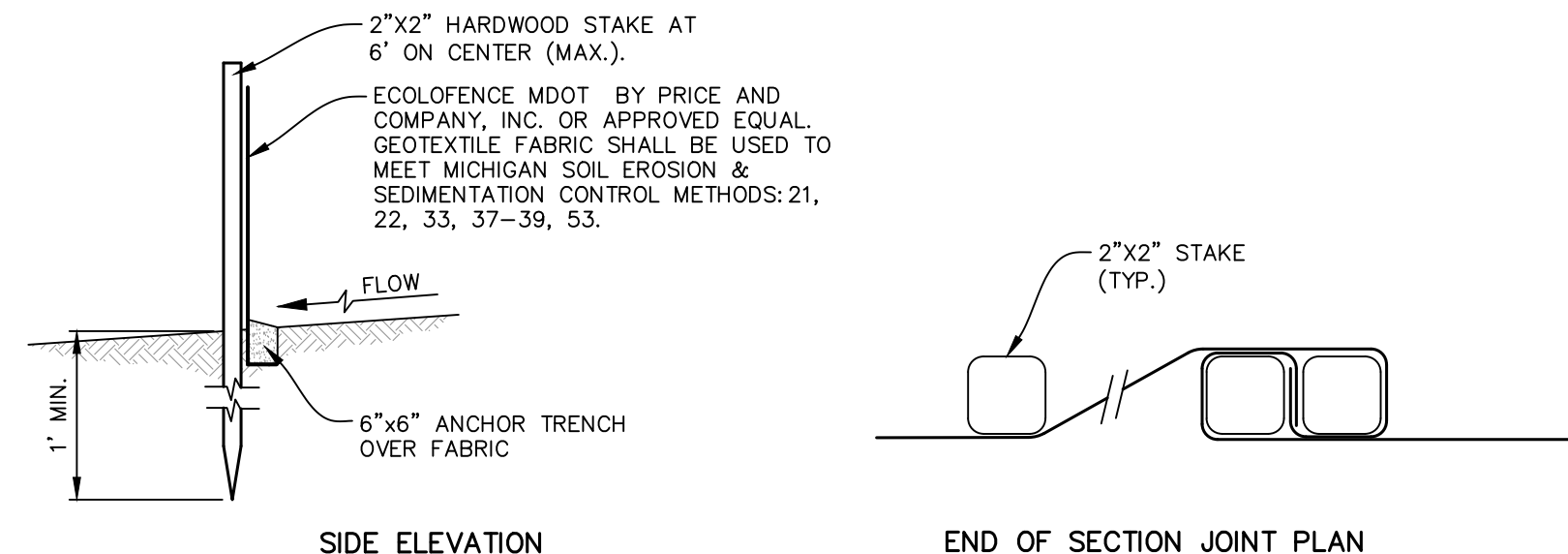
PIPE DIA	"L" (FEET)
12"	5
15"	
18"	
21"	
24"	10
30"	
36"	
42"	
48"	15
54"	
60"	
66"	
72"	20
78"	
84"	



FLARED END SECTION
NO SCALE



SEDIMENT CONTROL FENCE
NO SCALE



DRIVE CULVERT DETAIL
NO SCALE

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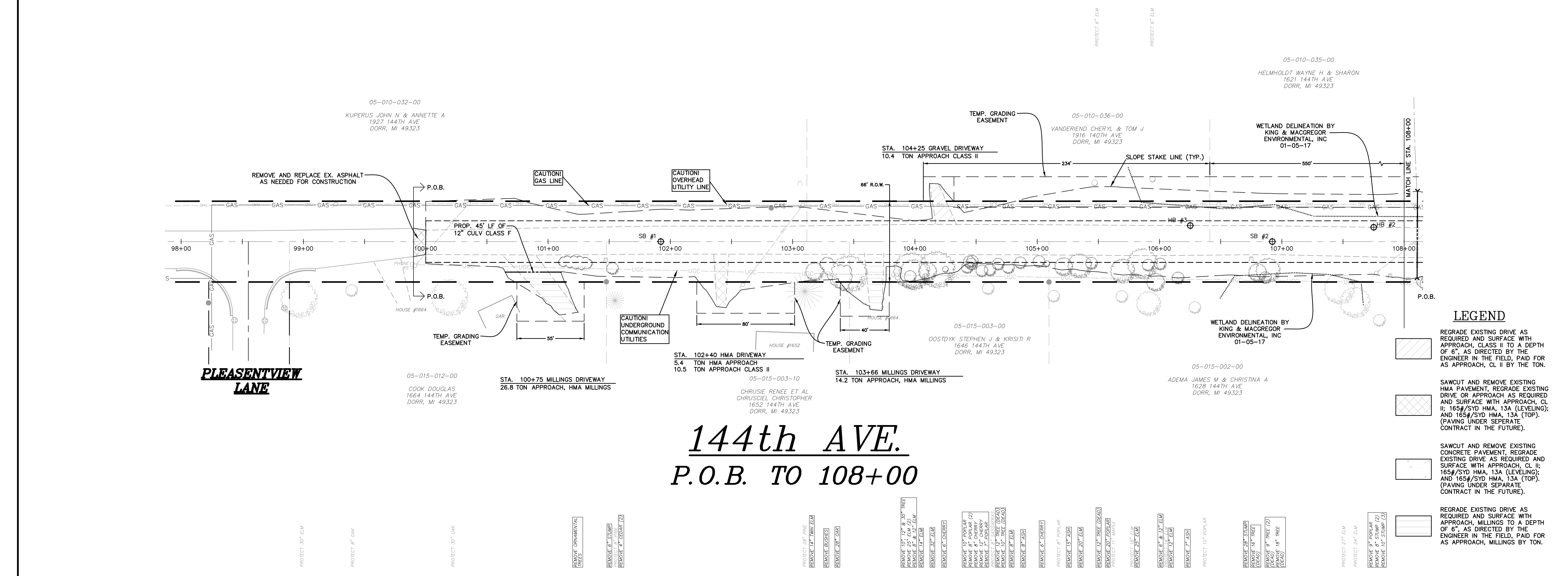
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Job No.:

Sheet No.: **C-102**

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144th AVE.

P.O.B. TO 108+00

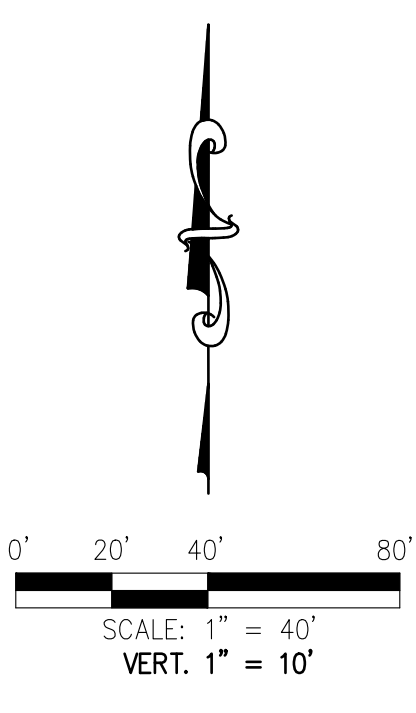
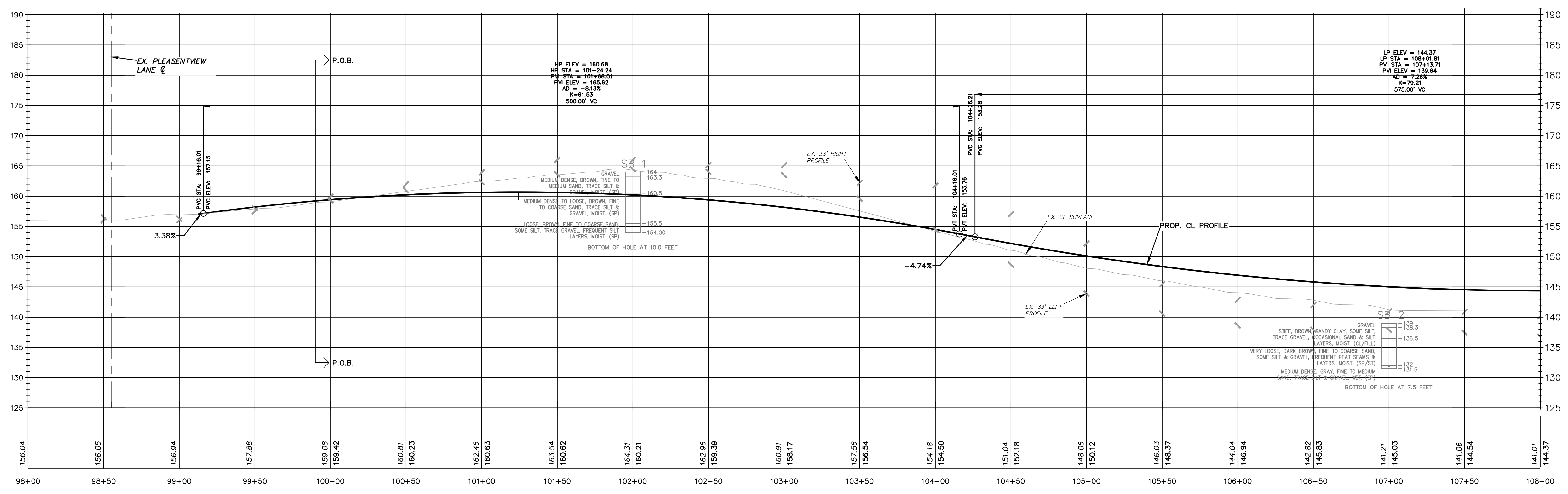
LEGEND

- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6", AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
- SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
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LEFT SIDE OF ROAD	+00	1:3 MAX F.S.	+16
			HMA VALLEY GUTTER; 1:3 B.S (1:2 MAX)
			+09
			1:3 MAX F.S.
RIGHT SIDE OF ROAD	+00		+45
			1:3 MAX F.S.



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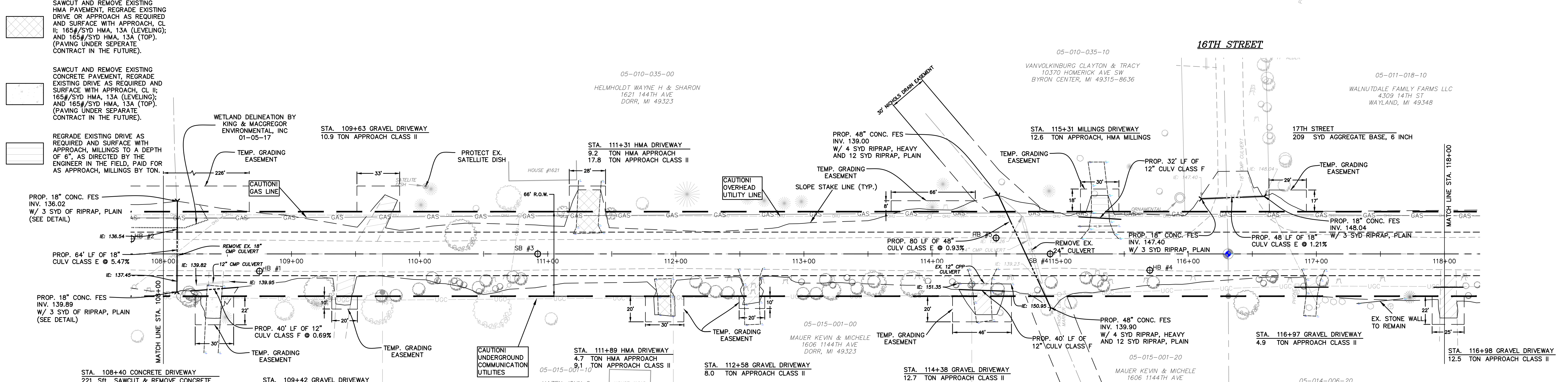
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C-201

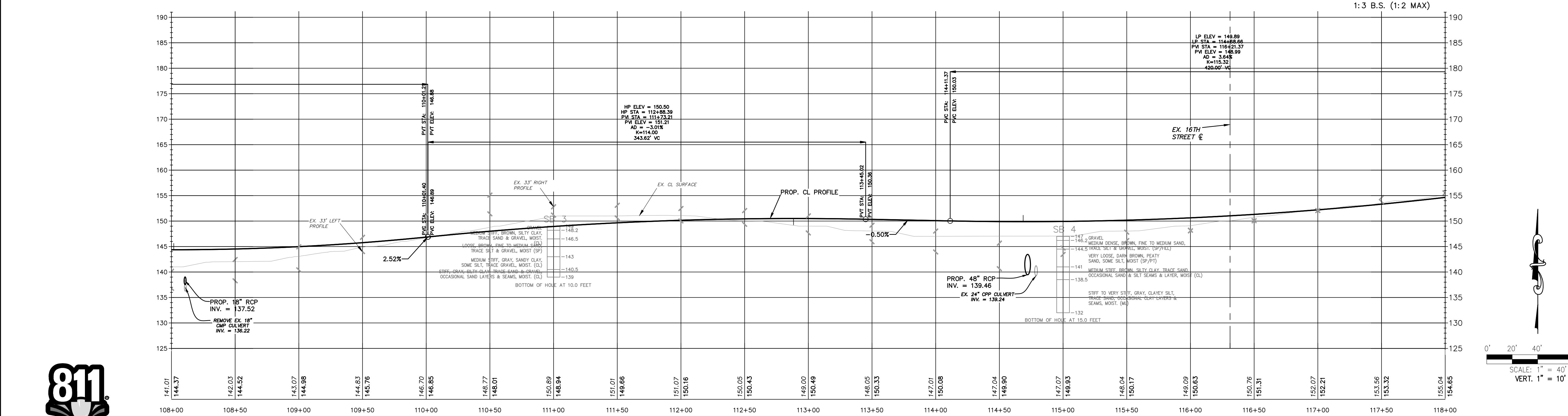
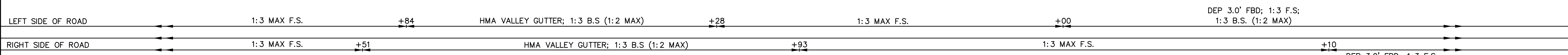
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**144th AVE.
108+00 to 118+00**



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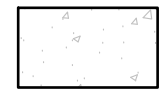

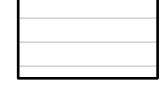
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C-202

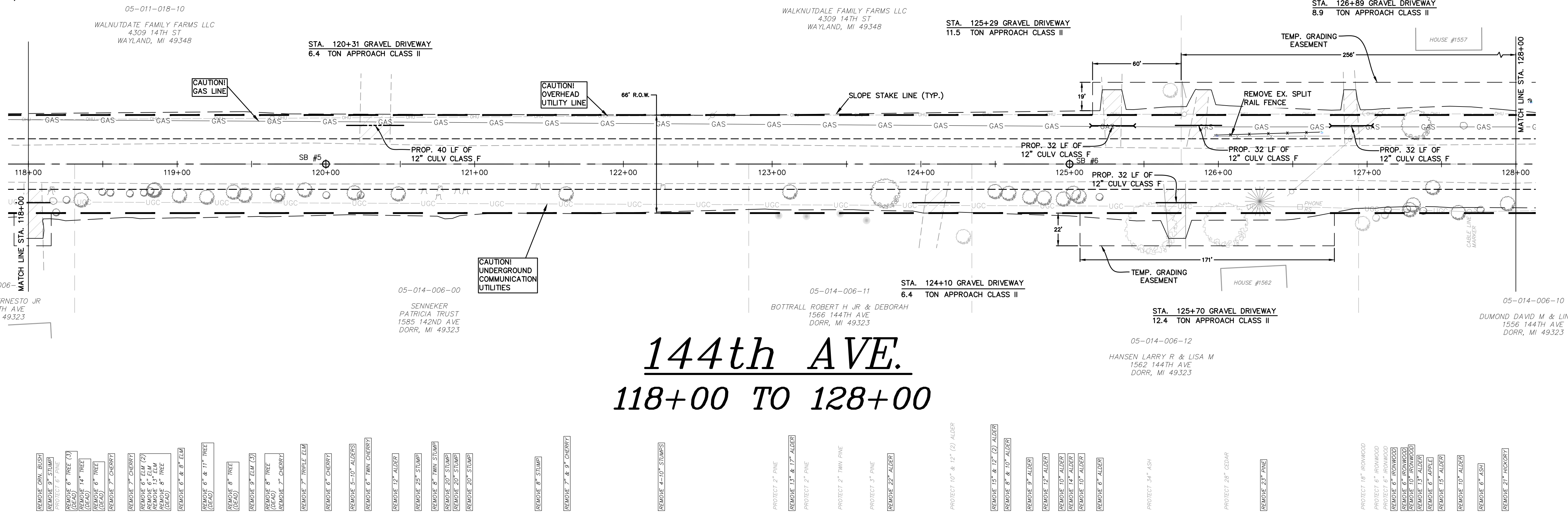
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Lent: 4:30:31 PM
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LEGEND

-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
-  SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
-  SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, MILLINGS TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, MILLINGS BY TON.



144th AVE.

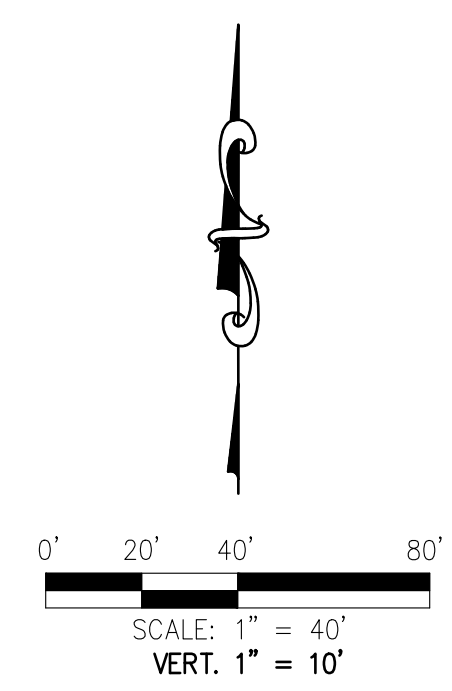
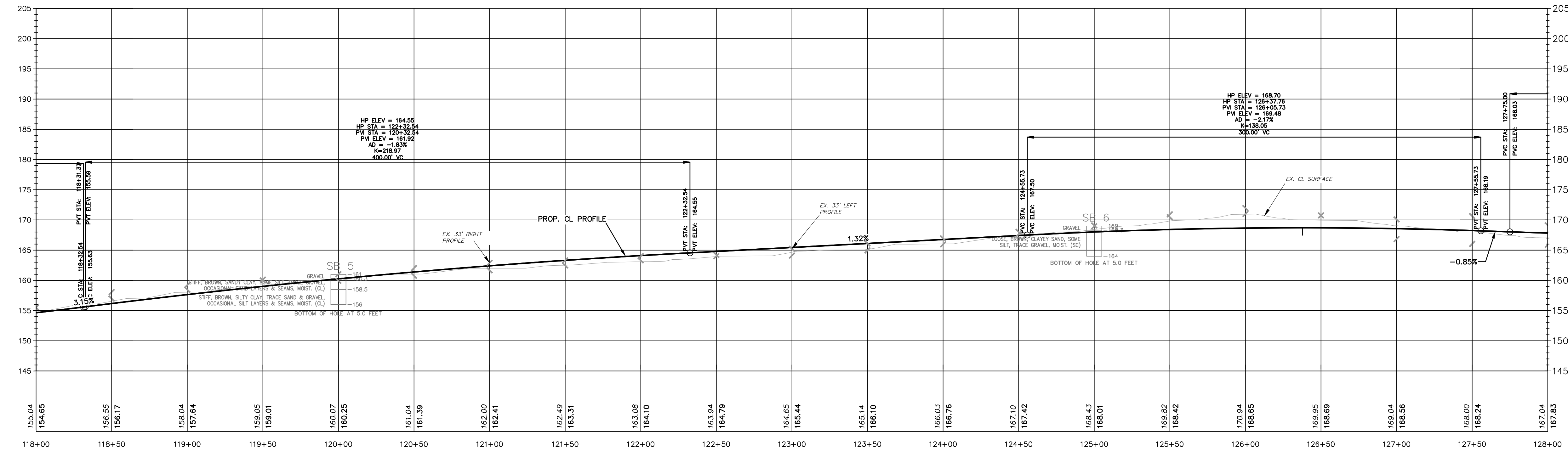
118+00 TO 128+00

LEFT SIDE OF ROAD

RIGHT SIDE OF ROAD

DEP 3.0' FBD; 1:3 F.S;
1:3 B.S. (1:2 MAX)

DEP 3.0' FBD; 1:3 F.S;
1:3 B.S. (1:2 MAX)



File Name: N:\Users\j\Projects\2016\1610998.1A_Megon_C14\144th\DWG\1610998-PLR-10.dwg, Last Saved: 7/7/2017 4:30:31 PM



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REVISIONS

1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

PLAN/PROFILE - 118+00 TO 128+00

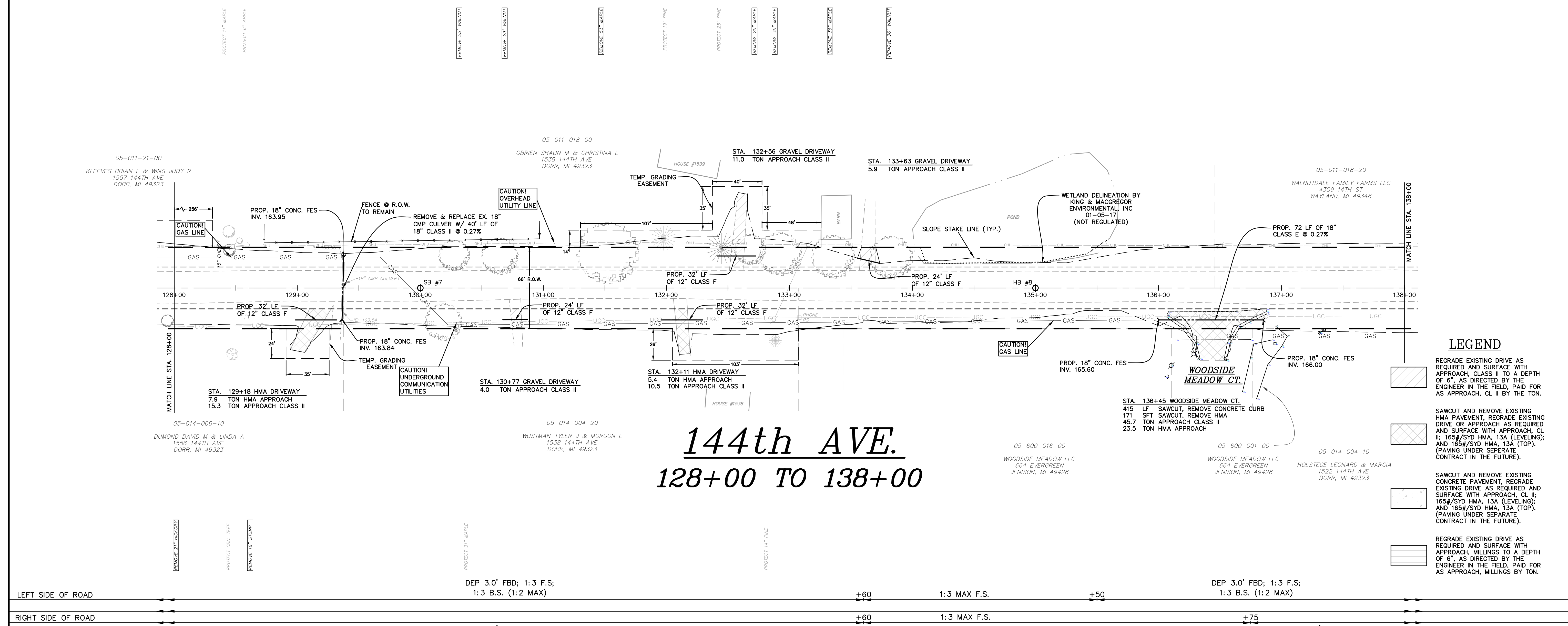
Designed By: JMT
Drawn By: CJD
Checked By: Date:
Plot:
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Scale:
07-07-17
Date:
1610998.1A
Job No.:
Sheet No.:
C-203

REVISIONS

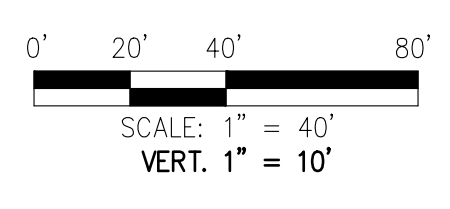
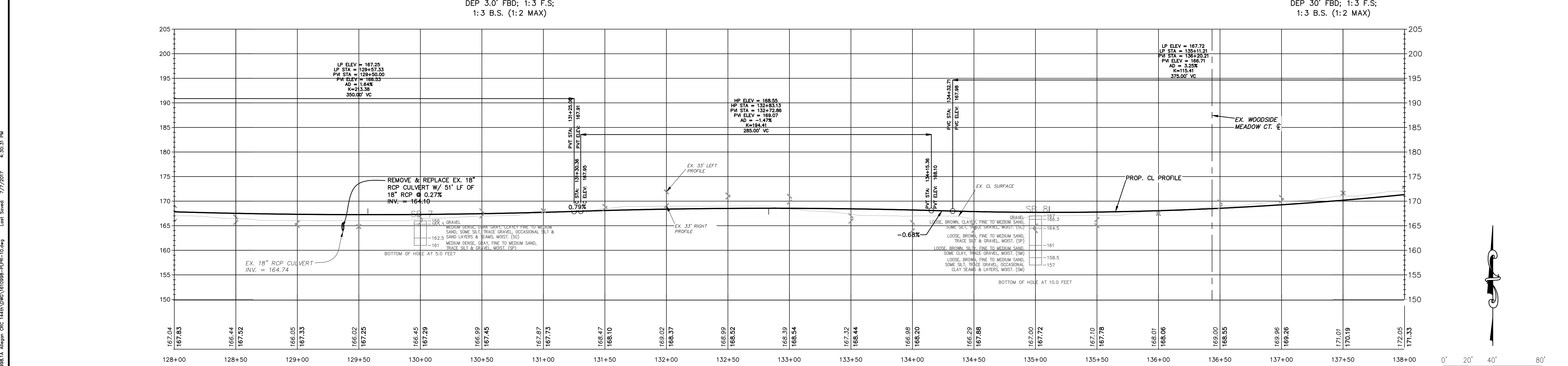
1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN
PLAN/PROFILE - 128+00 TO 138+00

Designed By: JMT
 Drawn By: CJD
 Checked By: Date:
 Plot:
 N/A
 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:
 Sheet No.:
C-204



- LEGEND**
- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6", AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
 - SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
 - SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
 - REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, MILLINGS TO A DEPTH OF 6", AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, MILLINGS BY TON.



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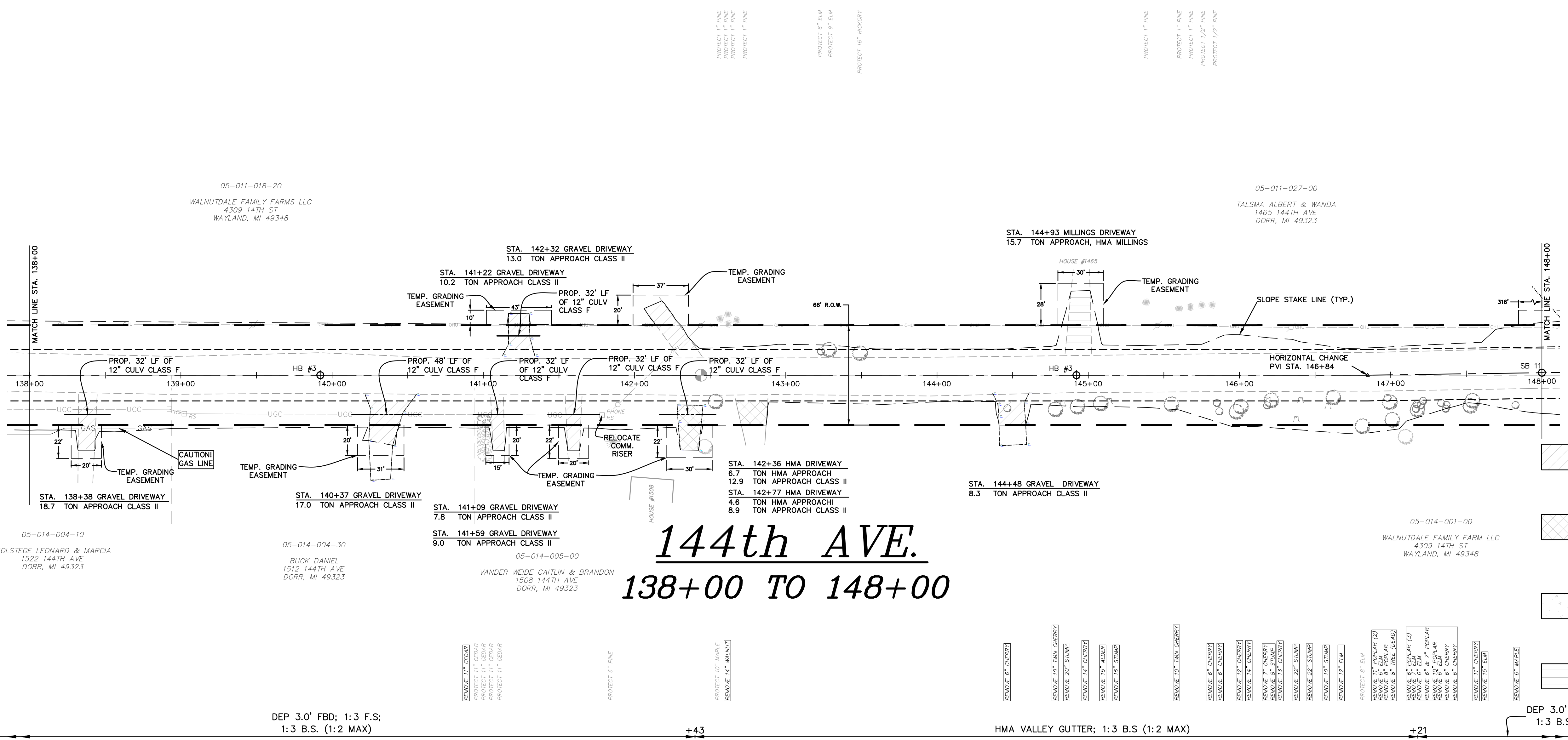


REVISIONS

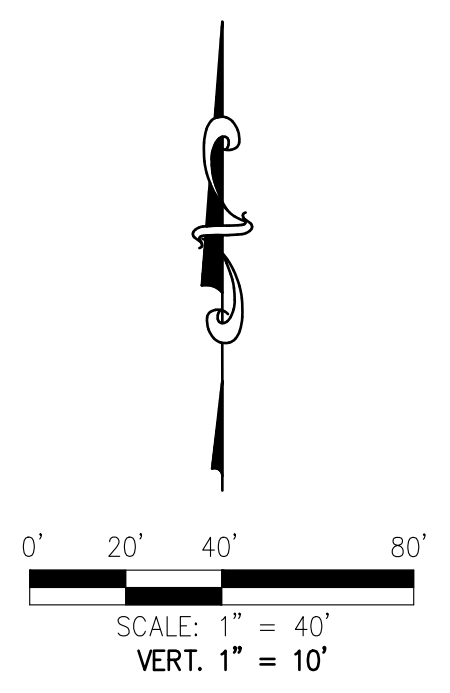
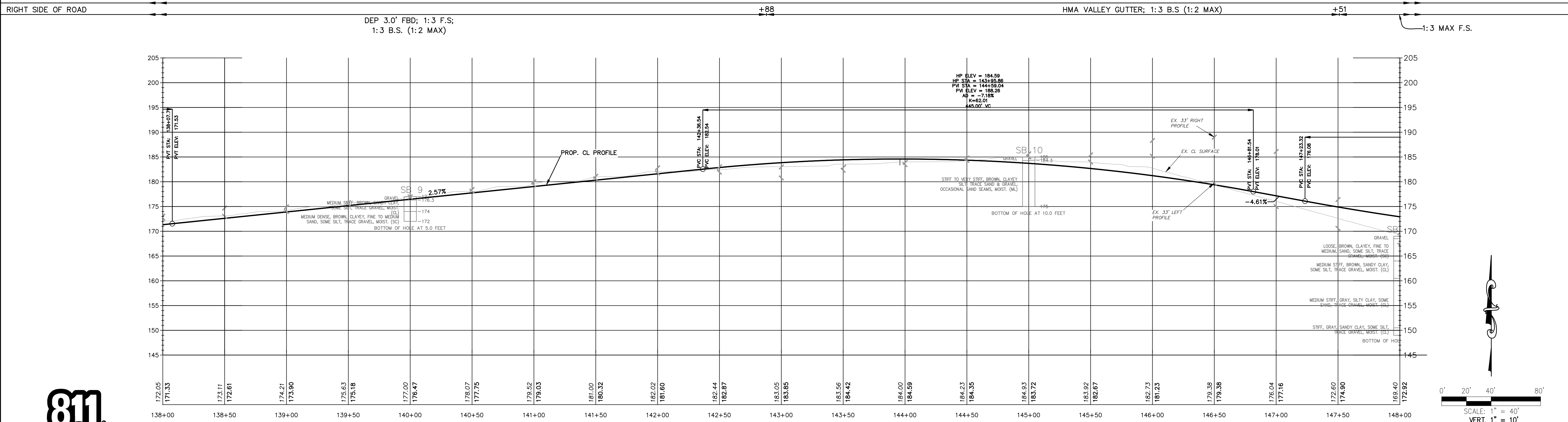
1	SUBMITTED TO ACR FOR REVIEW (8/27/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN
PLAN/PROFILE - 138+00 TO 148+00

Designed By: JMT
 Drawn By: CJD
 Checked By: Date:
 Plot:
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 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:
 Sheet No.:
C-205





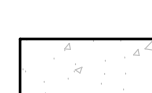

- LEGEND**
- REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6". AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
 - SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
 - SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
 - REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, MILLINGS TO A DEPTH OF 6". AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, MILLINGS BY TON.

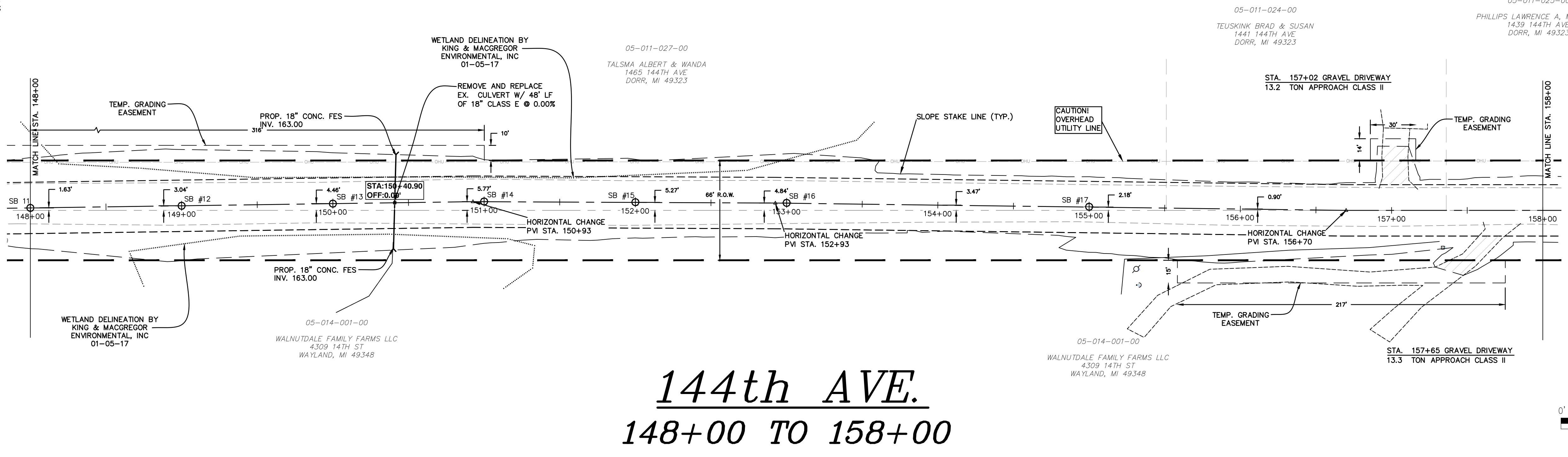


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 Date: 7/7/2017 4:30:31 PM
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LEGEND

-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6". AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
-  SAWCUT AND REMOVE EXISTING HMA PAVEMENT, REGRADE EXISTING DRIVE OR APPROACH AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
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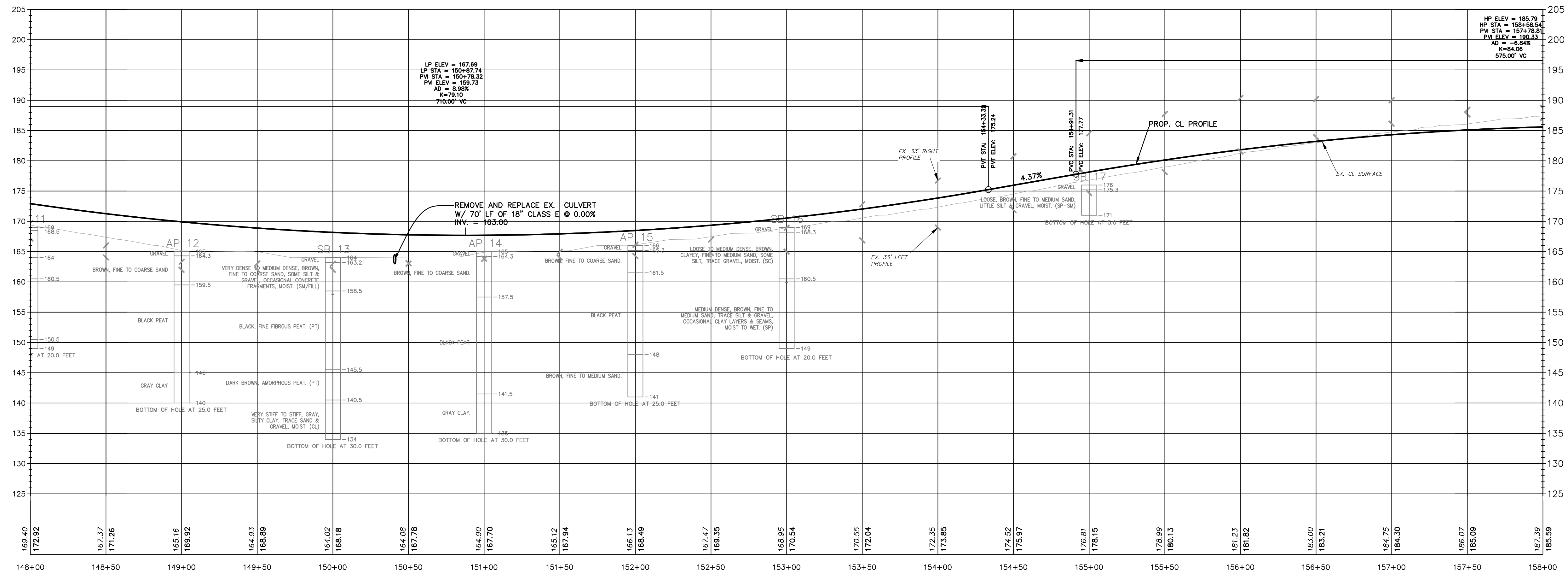


144th AVE.

148+00 TO 158+00

LEFT SIDE OF ROAD: 1:3 MAX F.S. +59 HMA VALLEY GUTTER; 1:3 B.S (1:2 MAX)

RIGHT SIDE OF ROAD: 1:3 MAX F.S. +11 HMA VALLEY GUTTER; 1:3 B.S (1:2 MAX)



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REVISIONS

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2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)


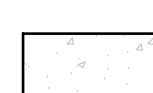


144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

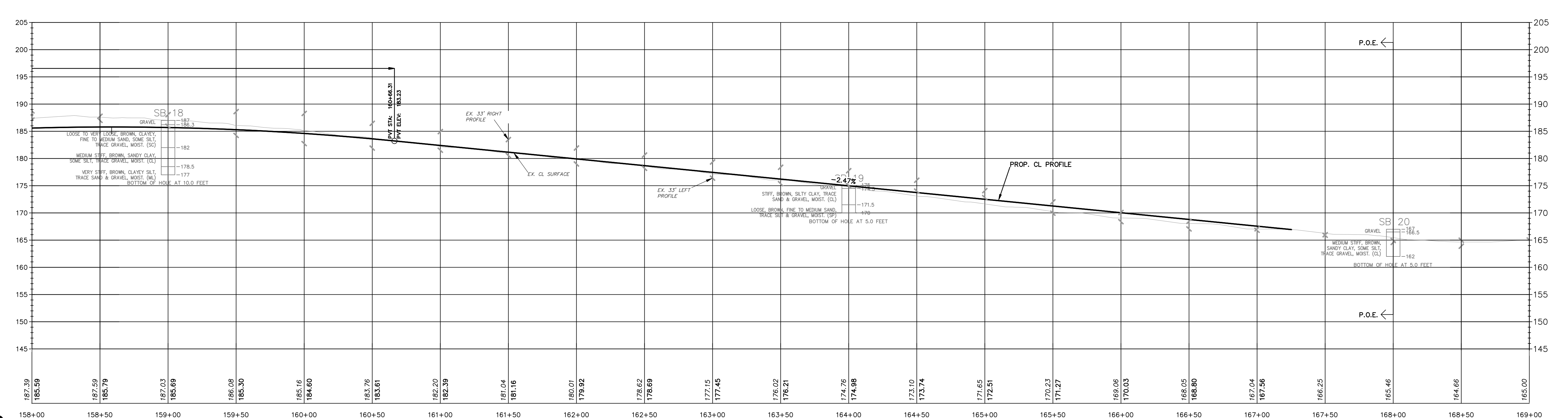
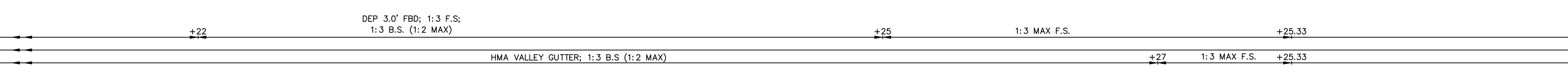
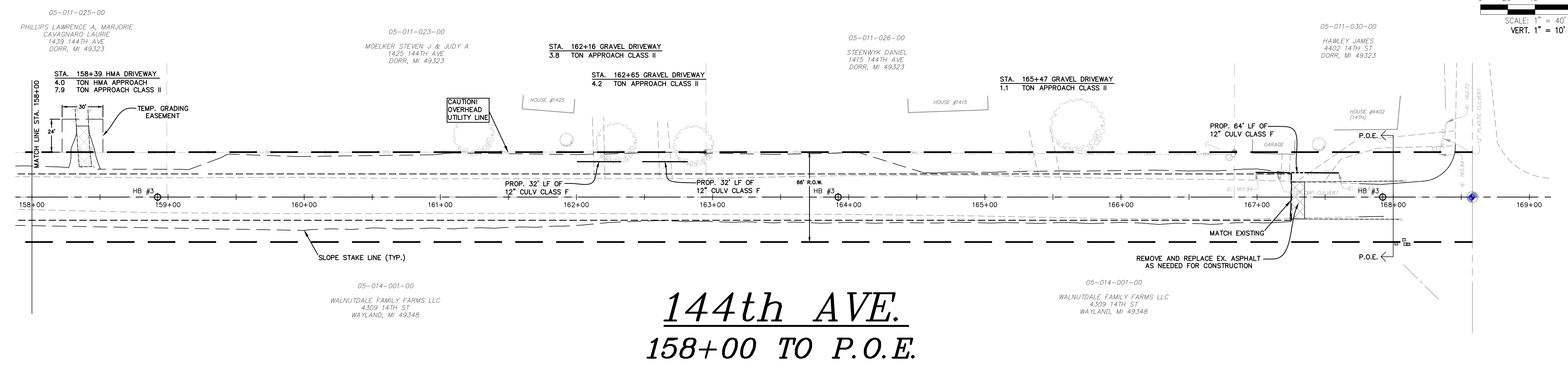
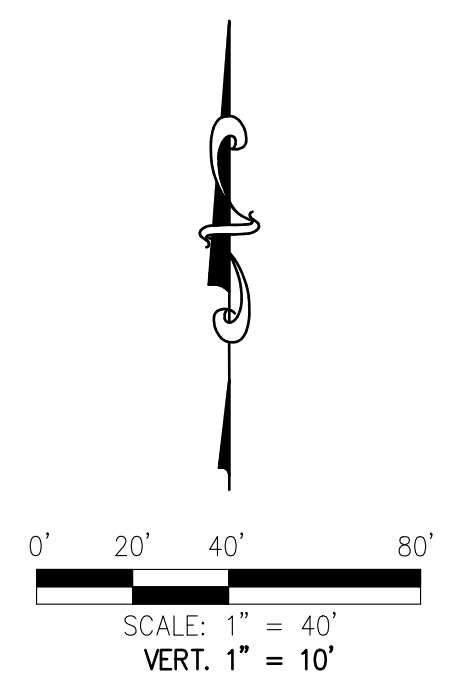
PLAN/PROFILE - 148+00 TO 158+00

Designed By: JMT
Drawn By: CJD
Checked By: Date:
Plot: N/A
Scale: 07-07-17
Date: 1610998.1A
Job No.:
Sheet No.: **C-206**

File Name: N:\Users\jmt\Projects\2014\1010998.1A Allegan CRC 144th\DWG\1010998-PPR-10.dwg, Last Saved: 7/7/2017 4:30:31 PM

LEGEND

-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CLASS II TO A DEPTH OF 6", AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, CL II BY THE TON.
-  SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, 13A (LEVELING); AND 165#/SYD HMA, 13A (TOP). (PAVING UNDER SEPARATE CONTRACT IN THE FUTURE).
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-  REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, MILLINGS TO A DEPTH OF 6" AS DIRECTED BY THE ENGINEER IN THE FIELD, PAID FOR AS APPROACH, MILLINGS BY TON.



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1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN
PLAN/PROFILE - 158+00 TO P.O.E.

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 Drawn By: CJD
 Checked By: Date:
 Plot:
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 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:

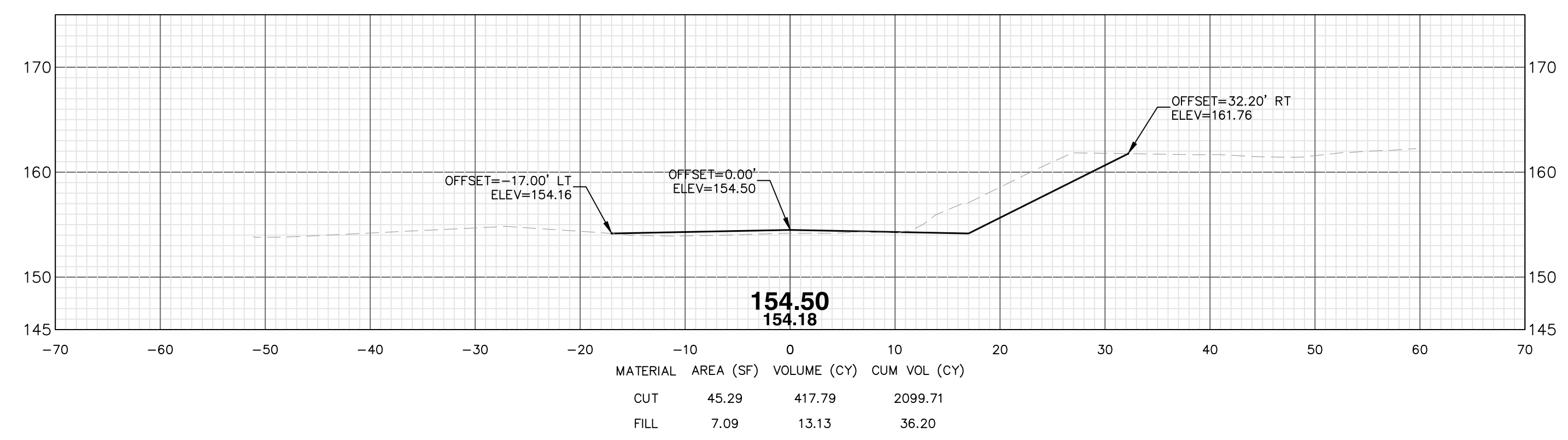
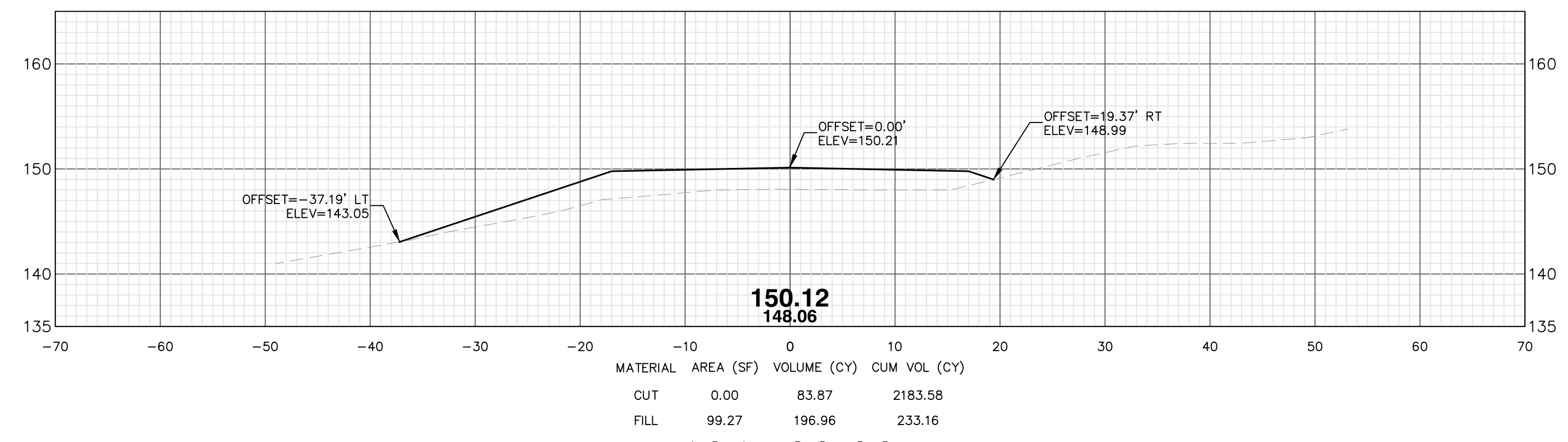
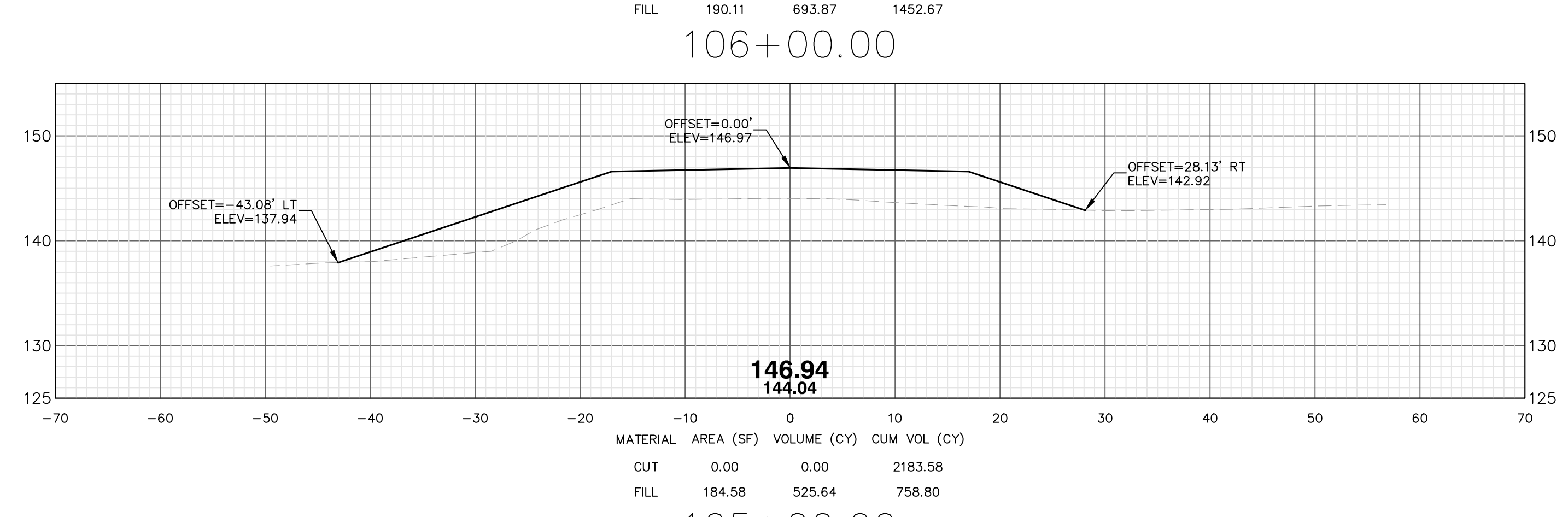
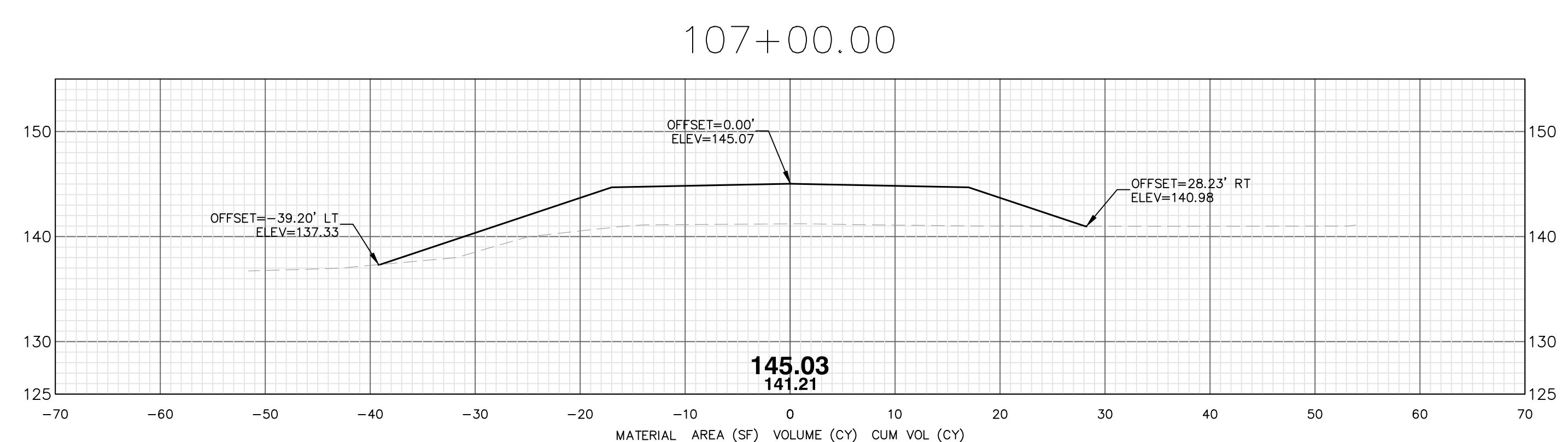
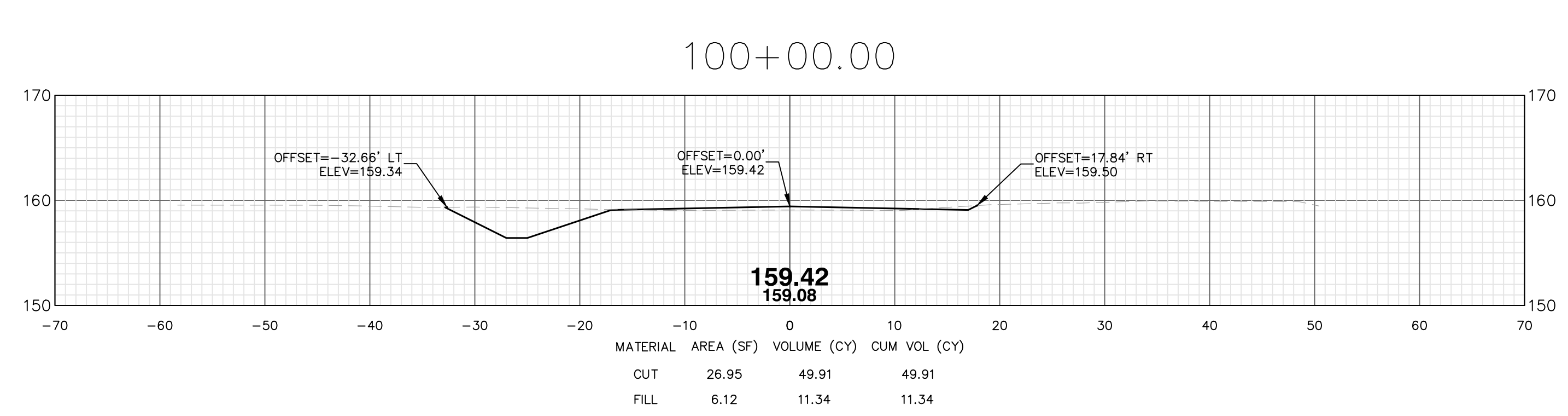
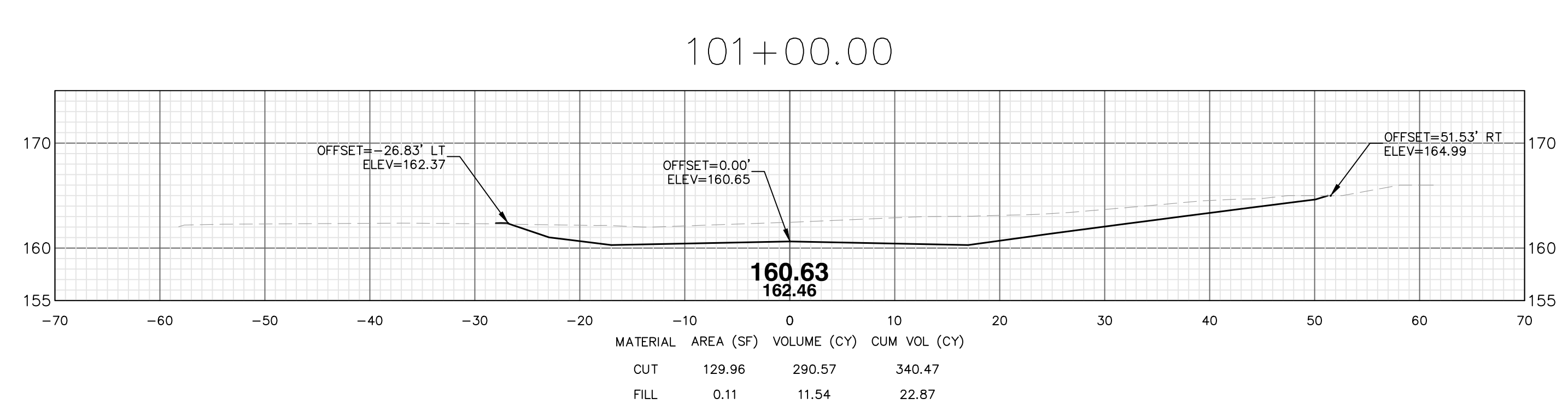
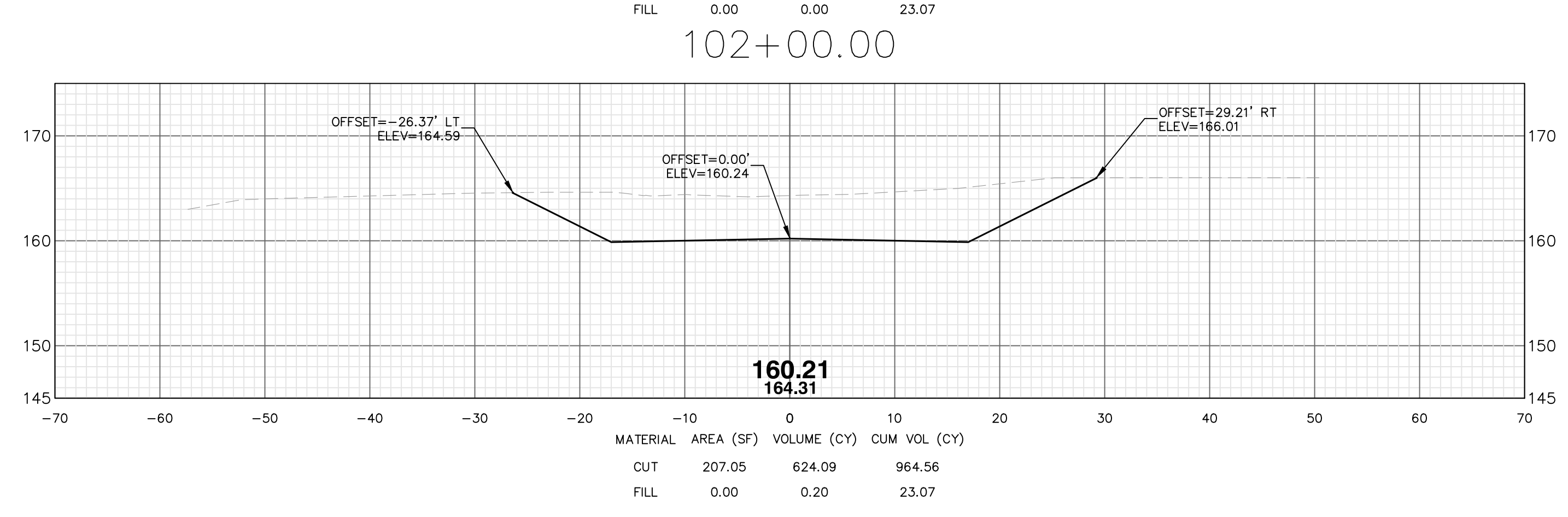
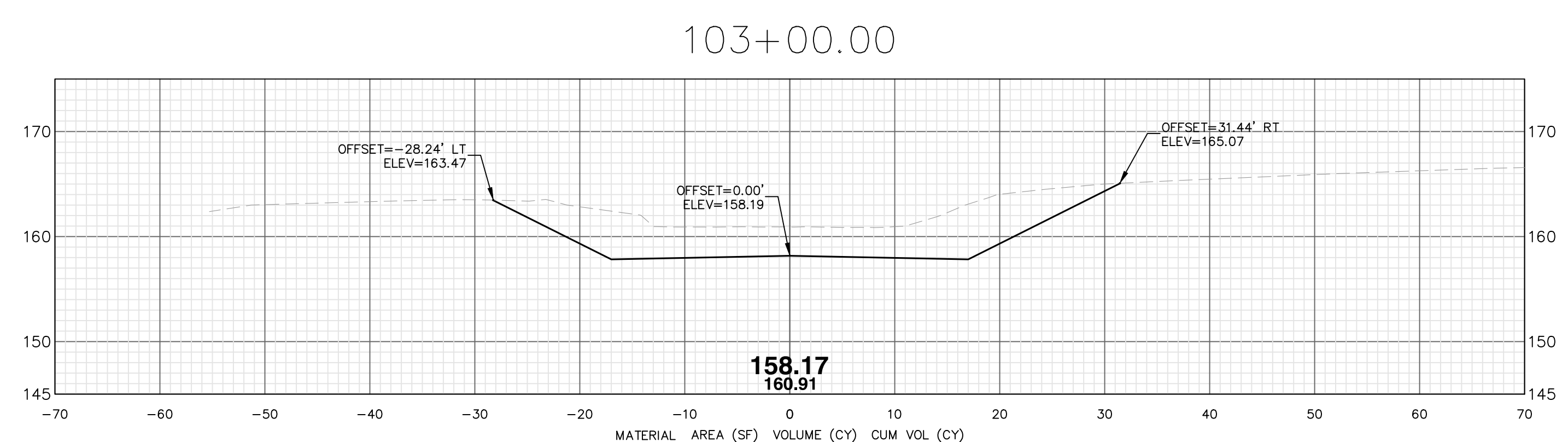
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C-207

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REVISIONS

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2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

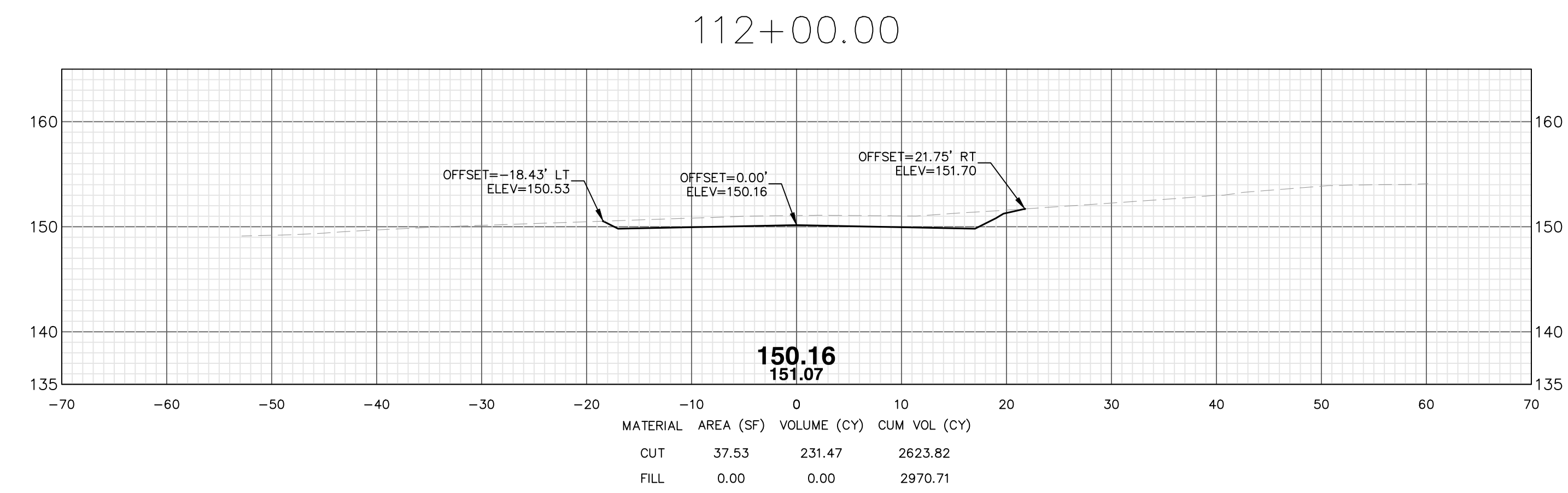
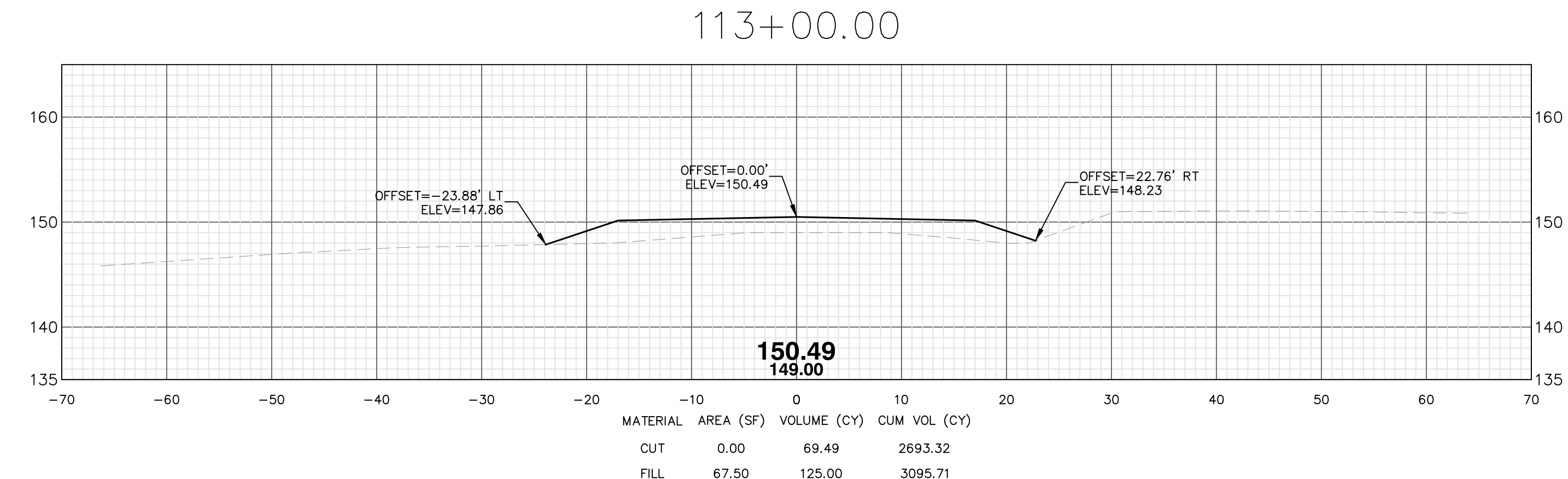
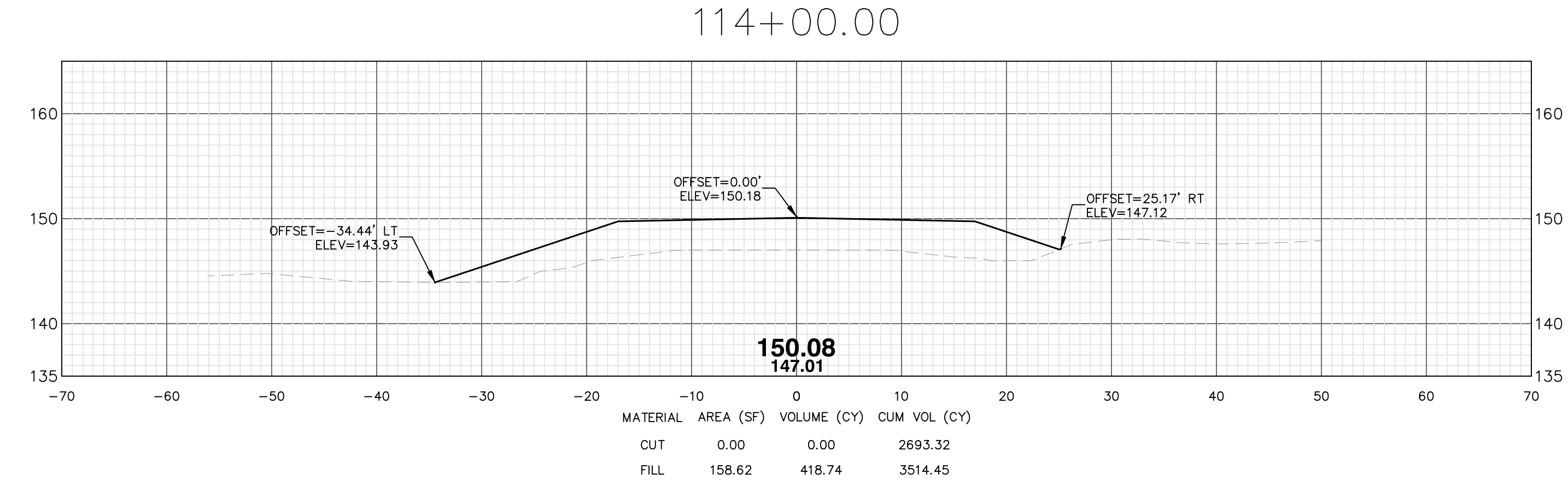
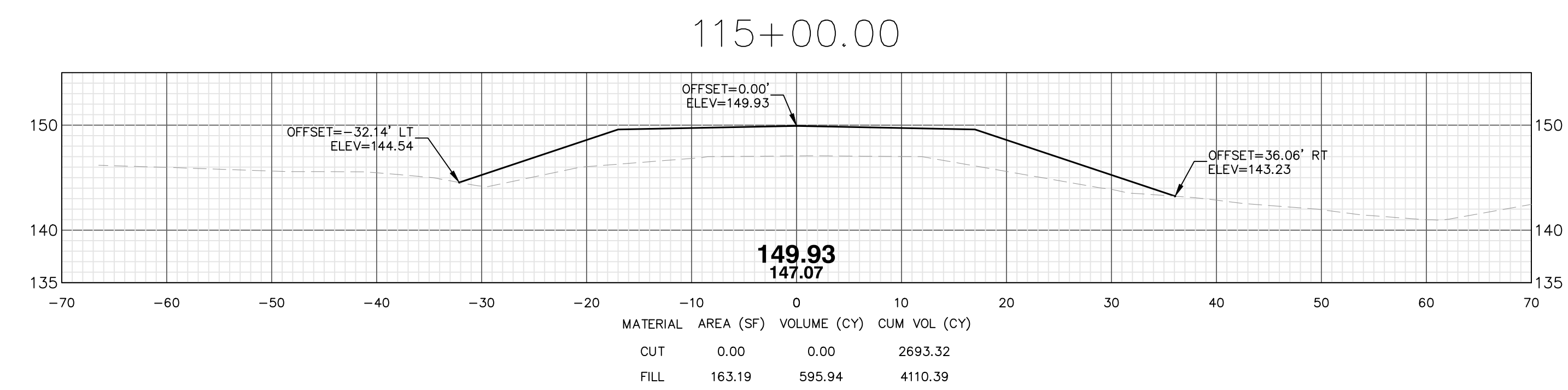
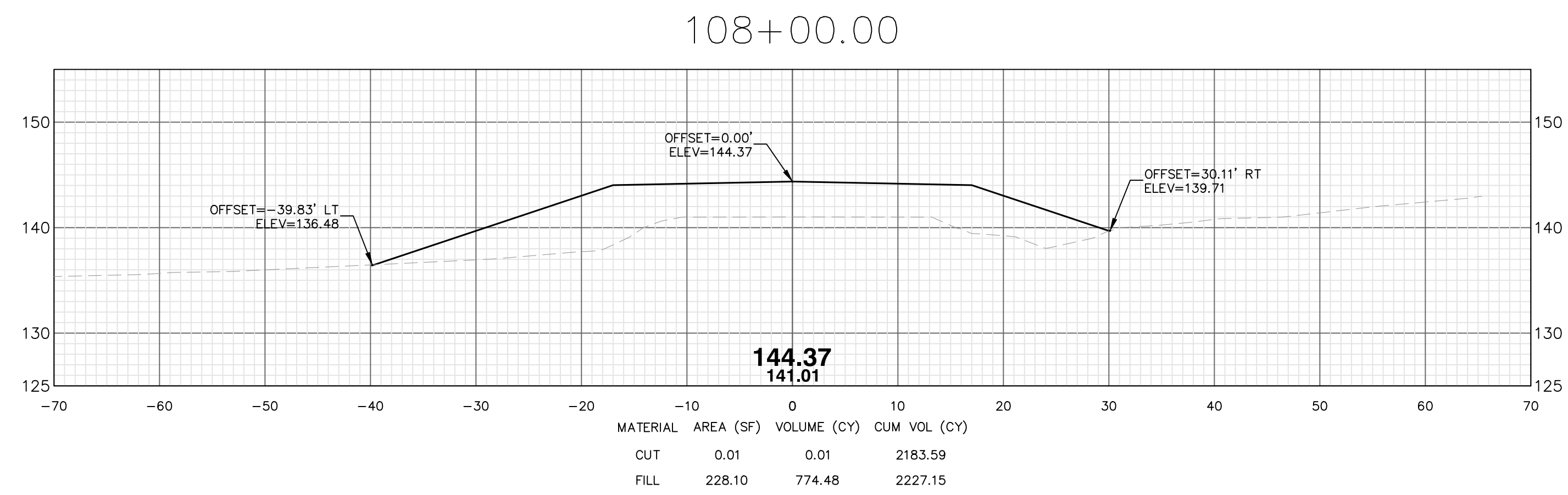
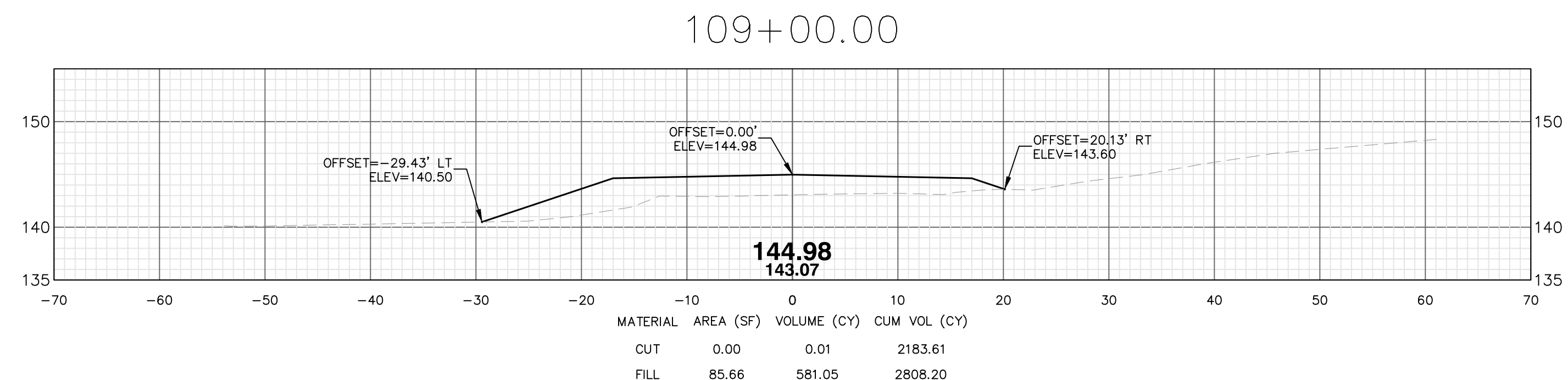
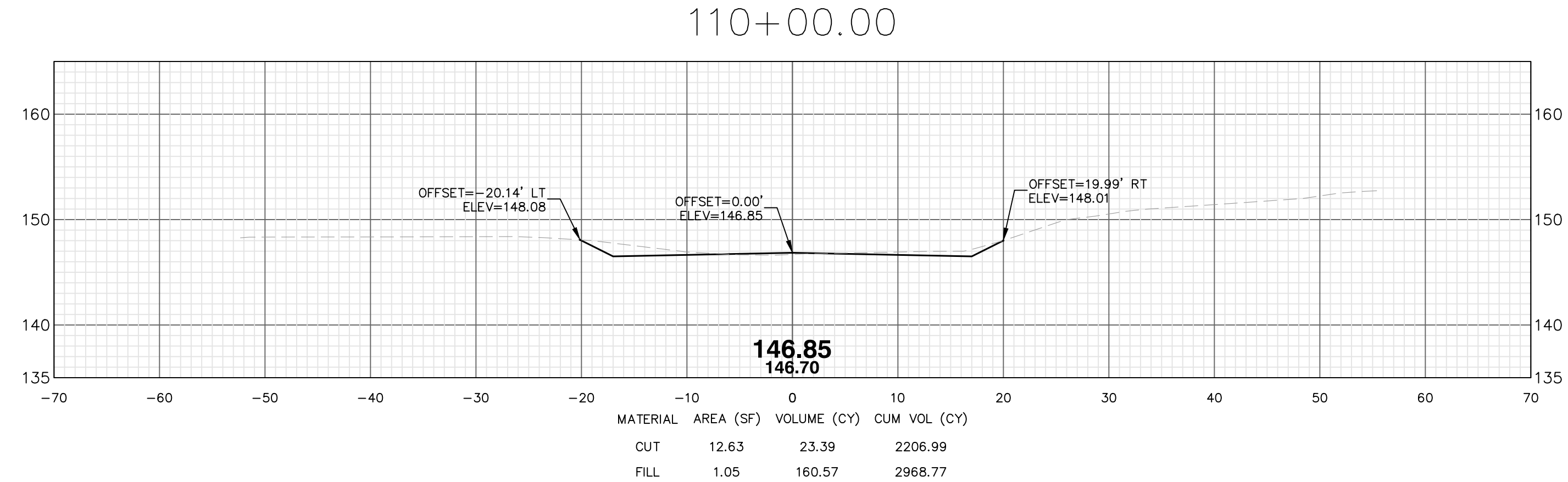
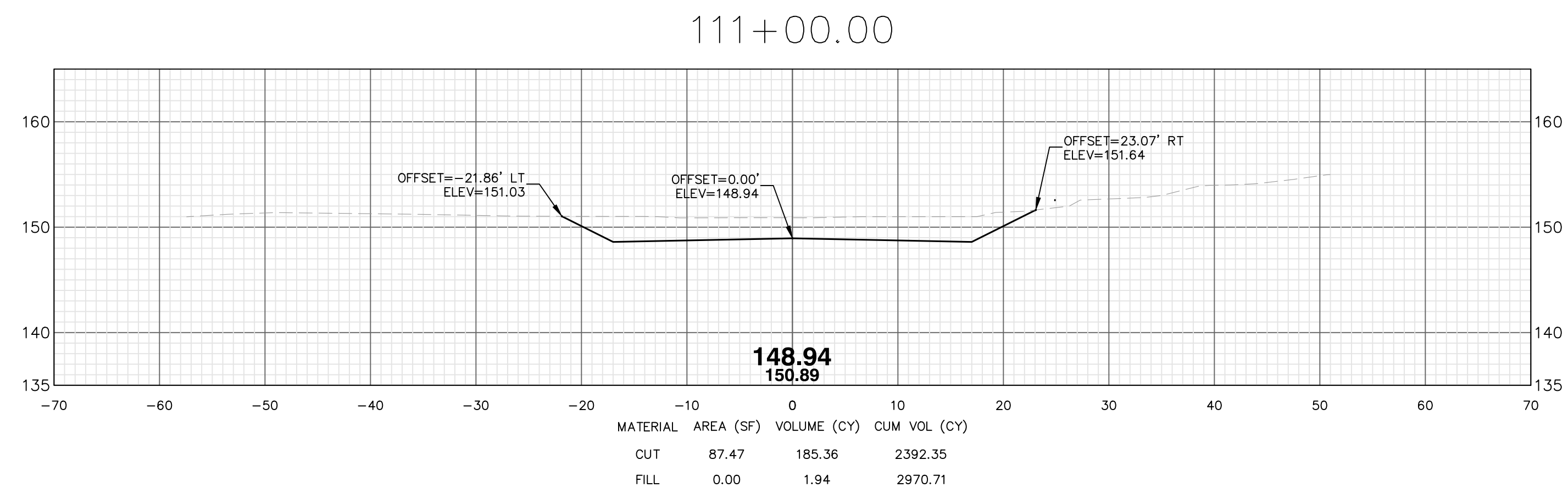
SECTION VIEWS - 100+00 TO 107+00

Designed By: JMT
Drawn By: CJD
Checked By: Date:

Plot:
VERT: 1"=10'
HOR: 1"=40'
Scale:
07-07-17
Date:
1610998.1A
Job No.:

Sheet No.:
C-301

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REVISIONS

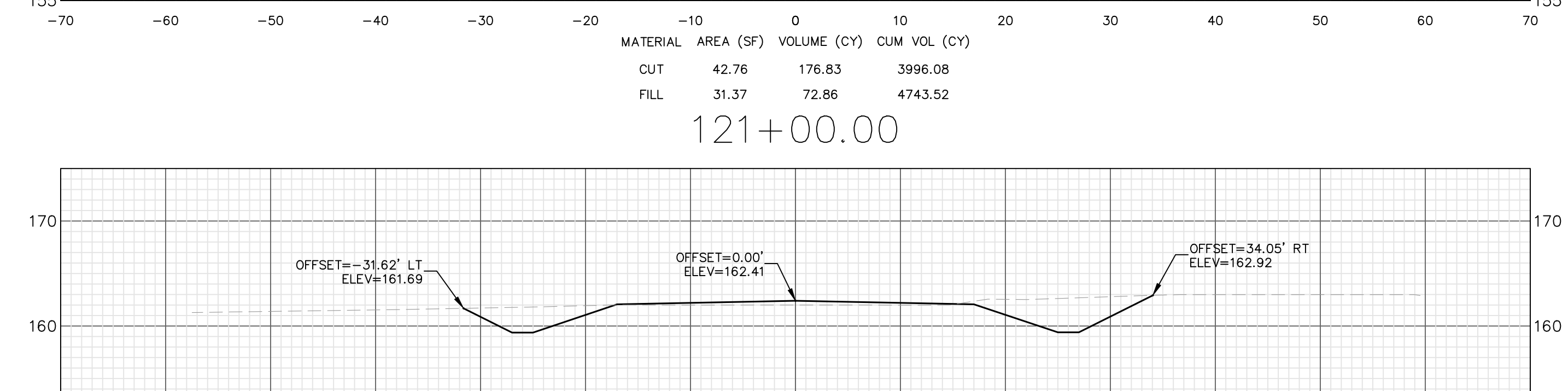
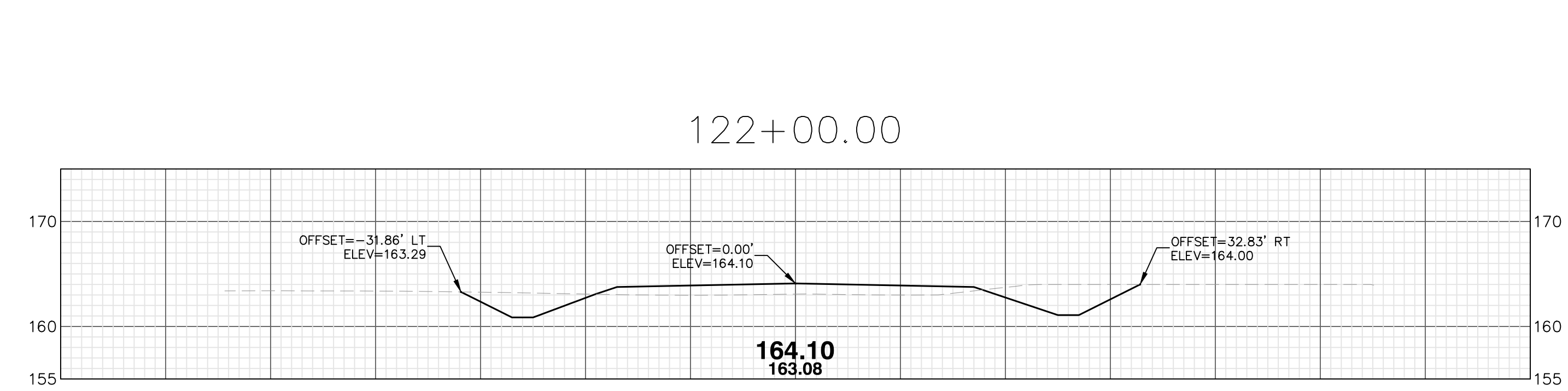
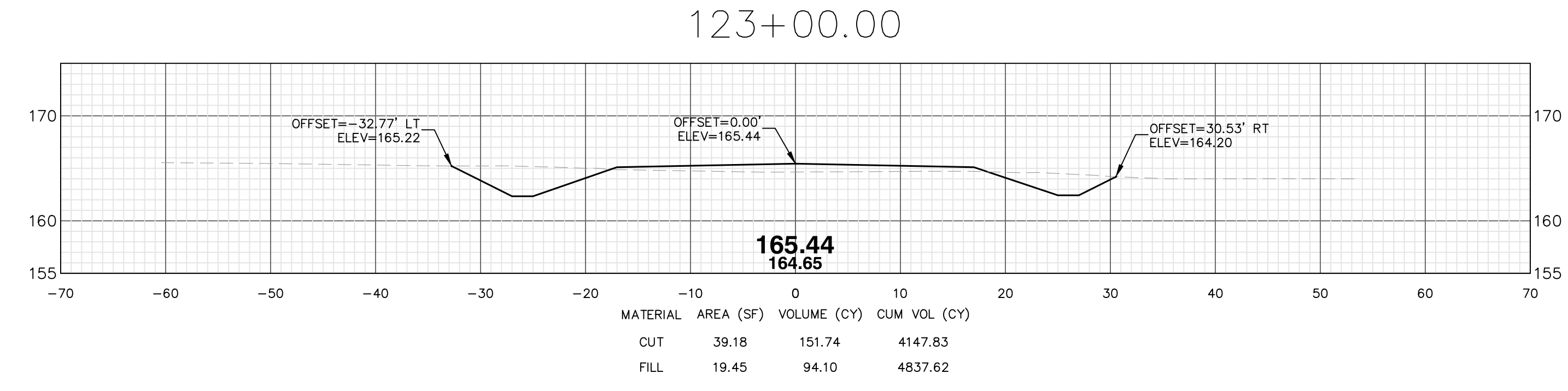
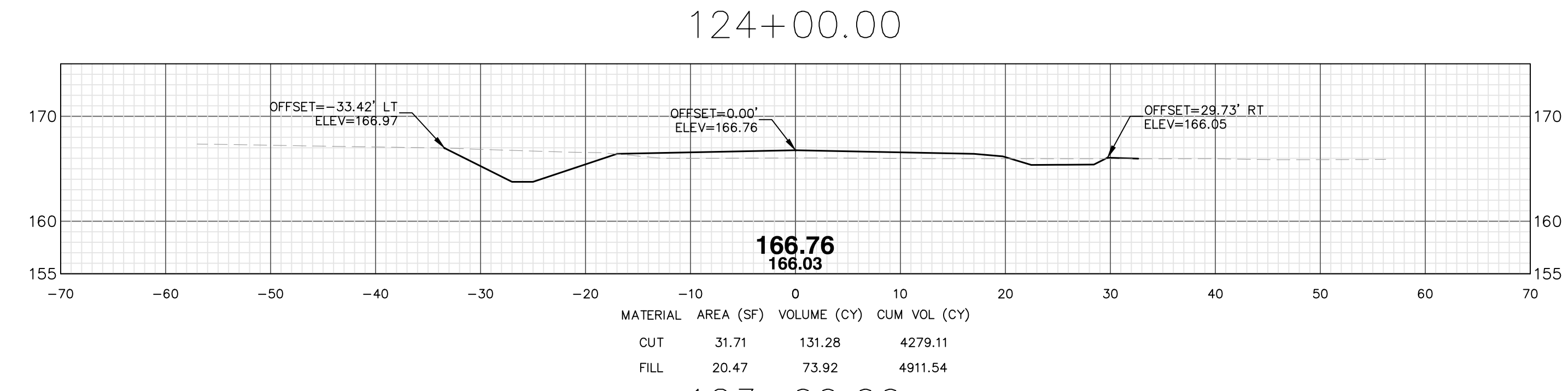
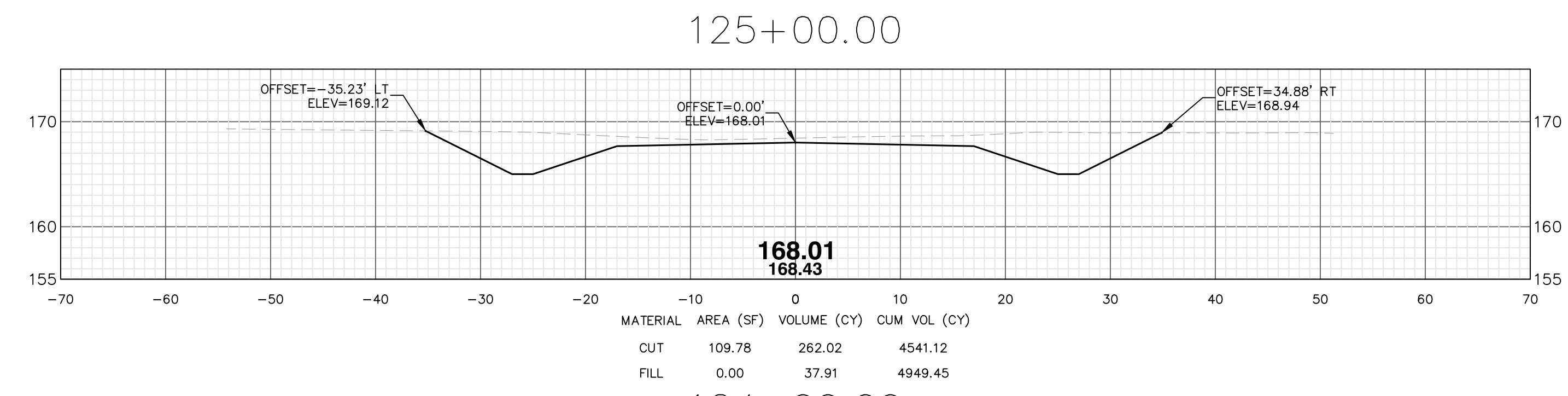
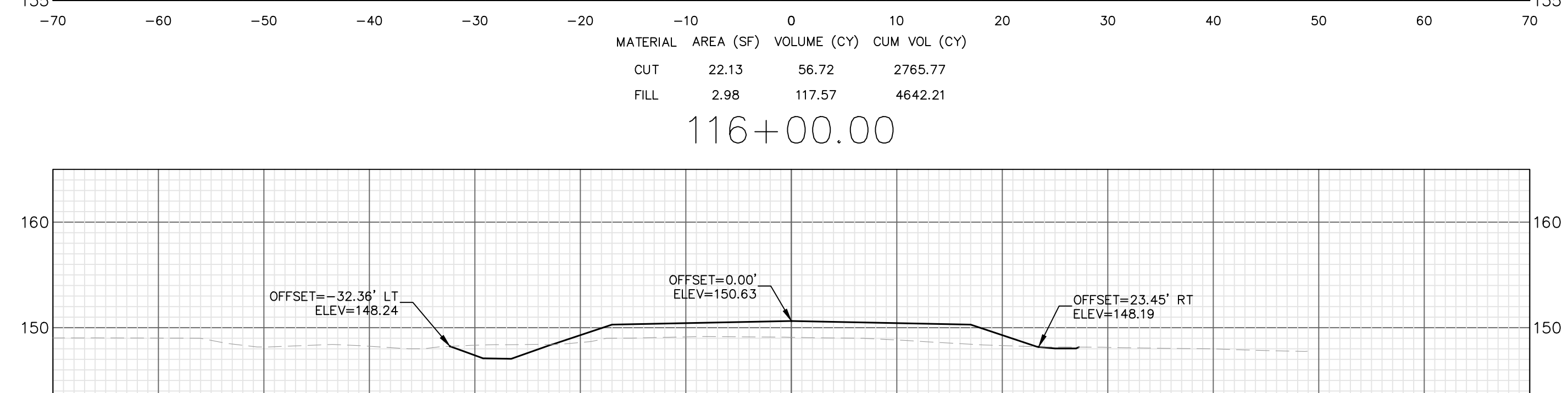
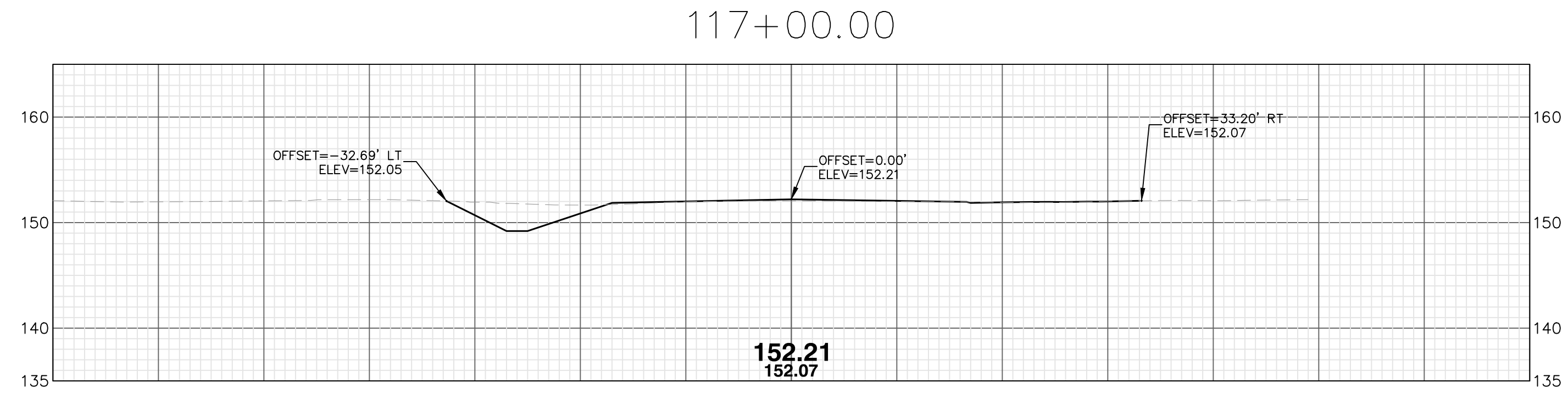
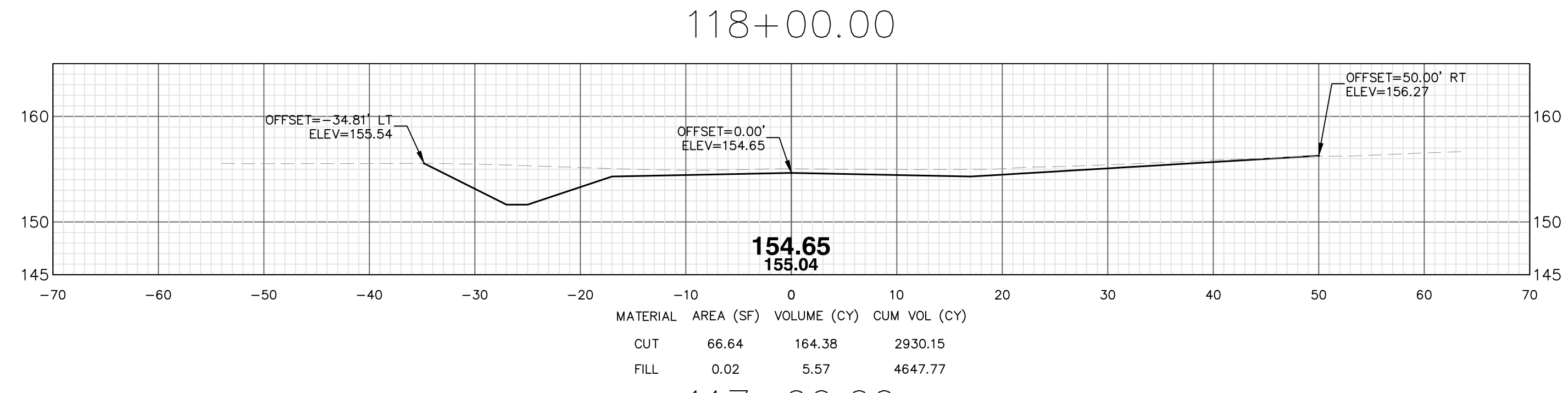
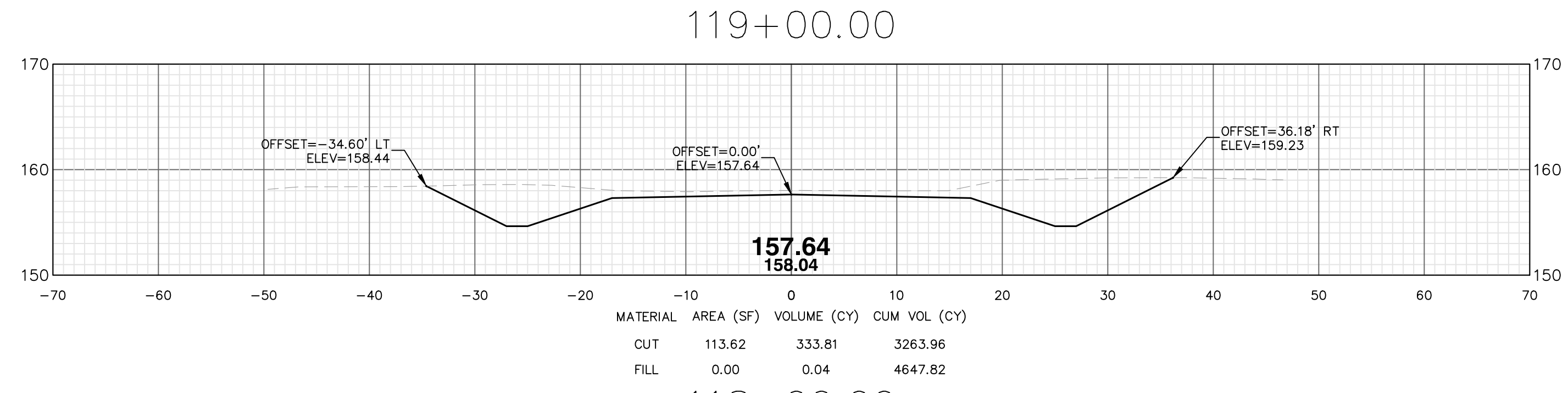
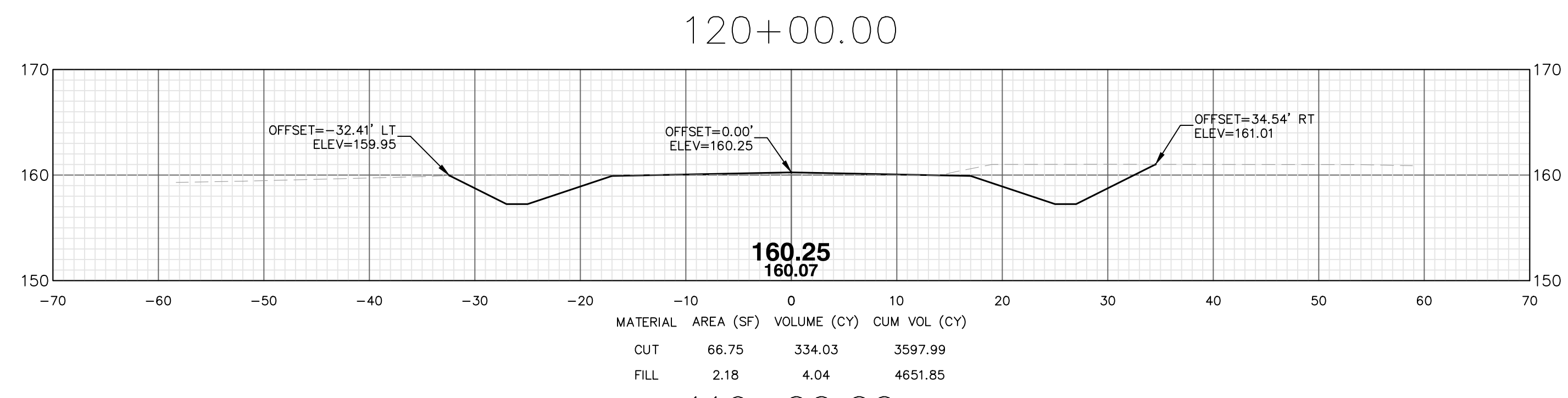
1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN

SECTION VIEWS - 108+00 TO 115+00

Designed By: JMT
 Drawn By: CJD
 Checked By: _____ Date: _____
 Plot:
 VERT: 1"=10'
 HOR: 1"=40'
 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:
 Sheet No.:
C-302

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REVISIONS

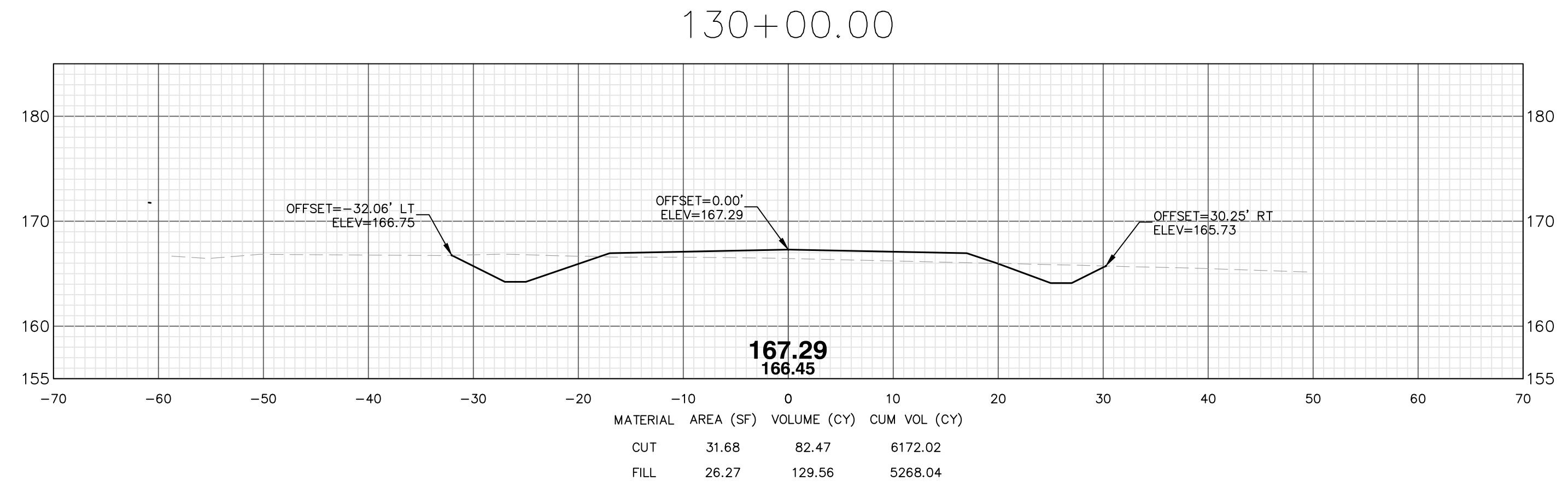
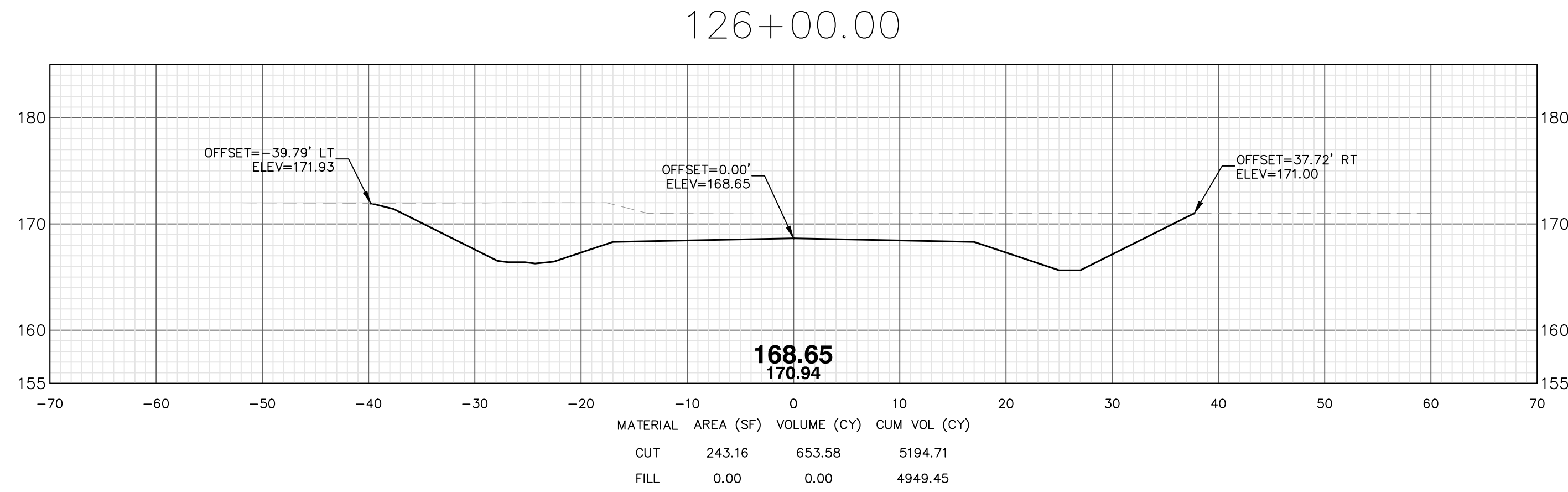
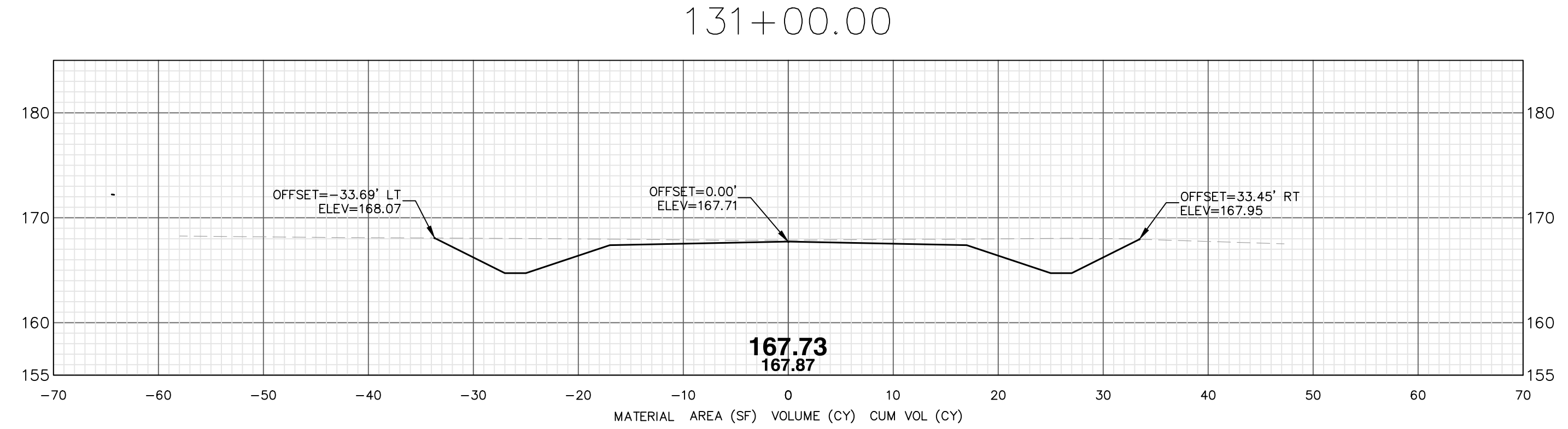
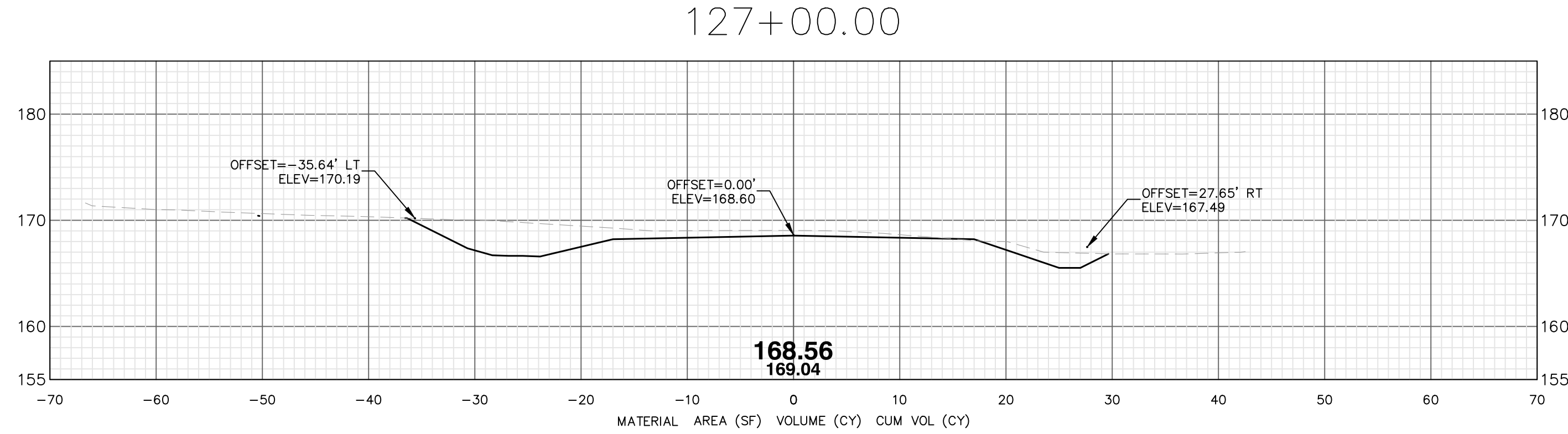
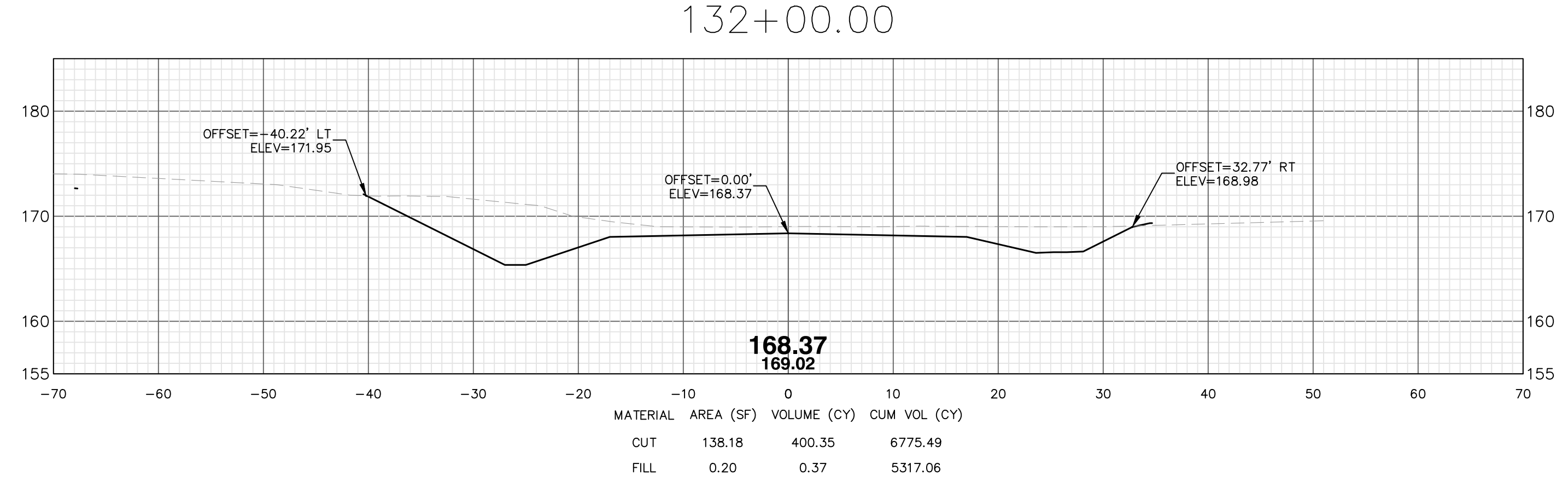
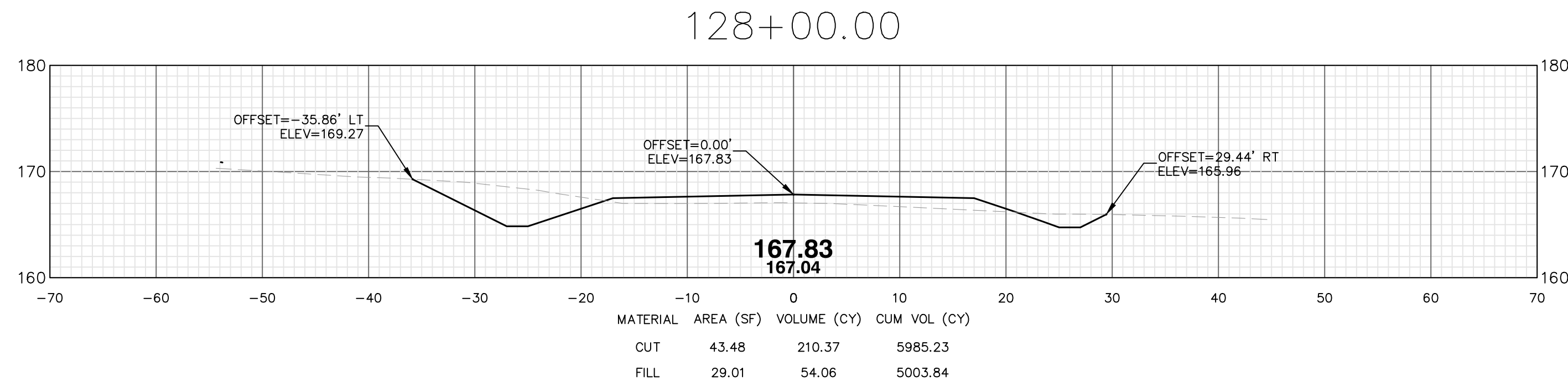
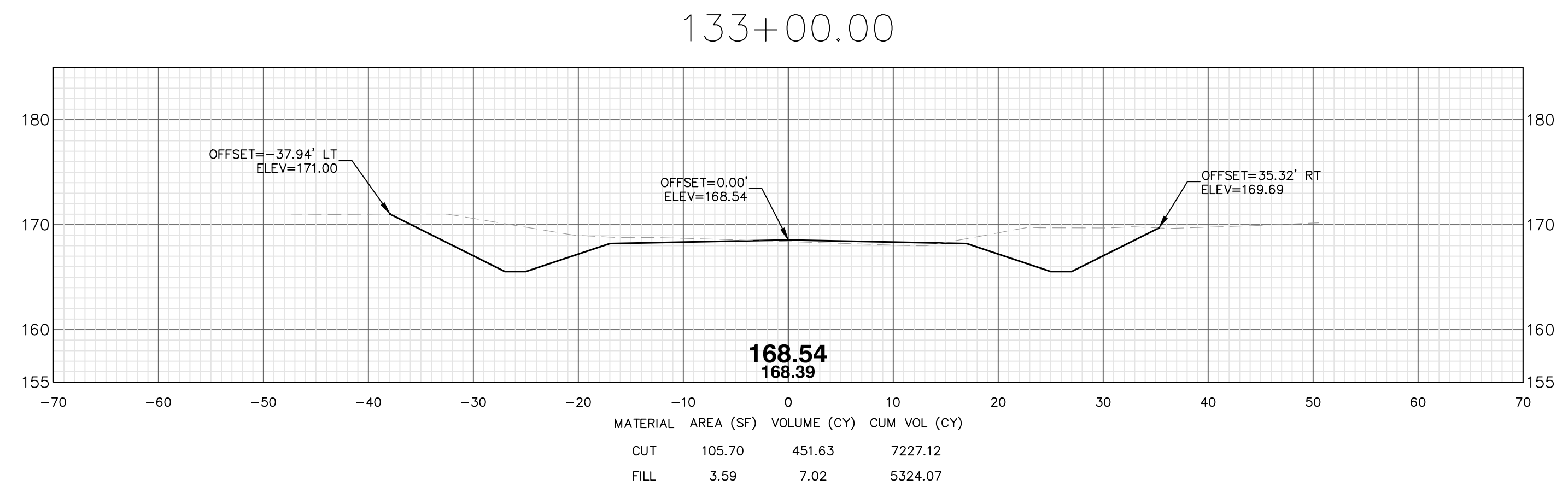
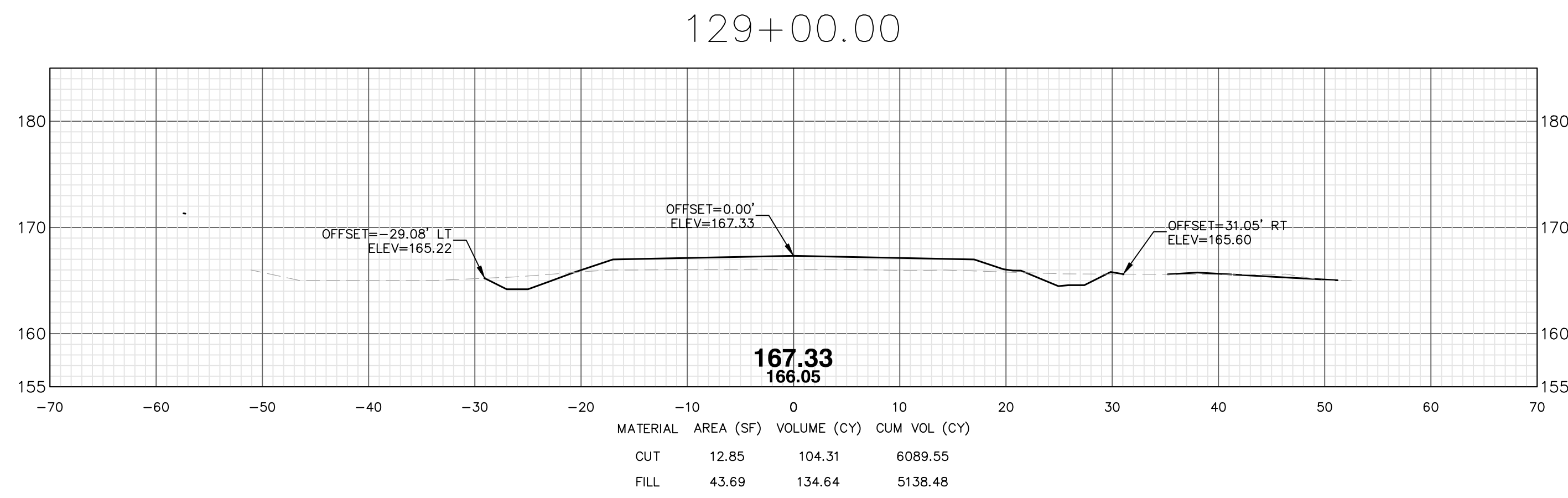
1	SUBMITTED TO ACRG FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACRG FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN
SECTION VIEWS - 116+00 TO 125+00

Designed By: JMT
 Drawn By: CJD
 Checked By: Date:
 Plot:
 VERT: 1"=10'
 HOR: 1"=40'
 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:

Sheet No.: **C-303**

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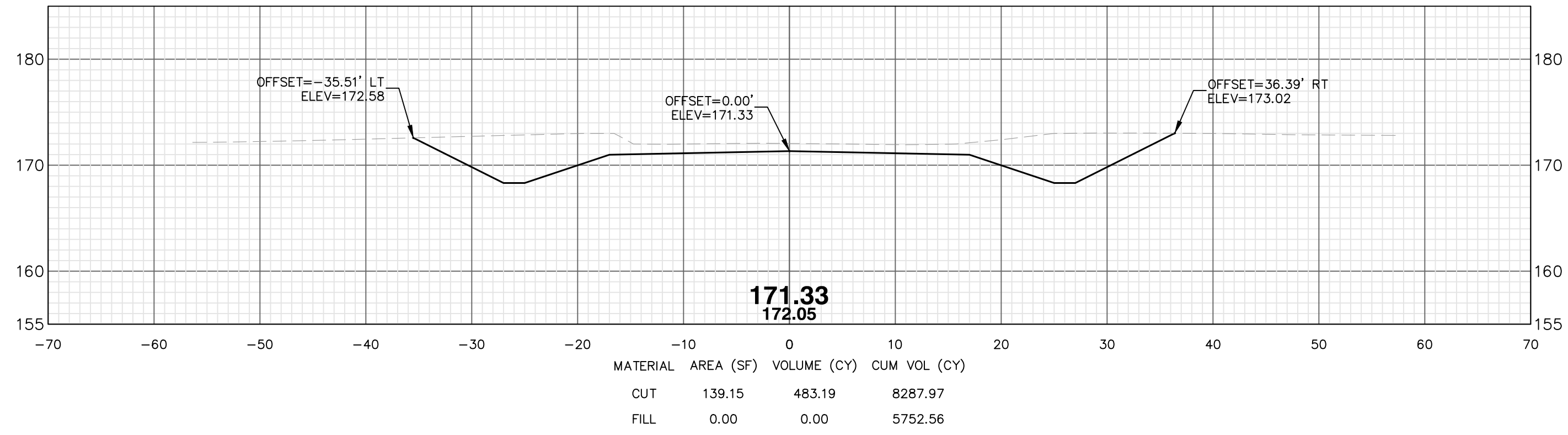


REVISIONS	
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2	SUBMITTED TO ACRG FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

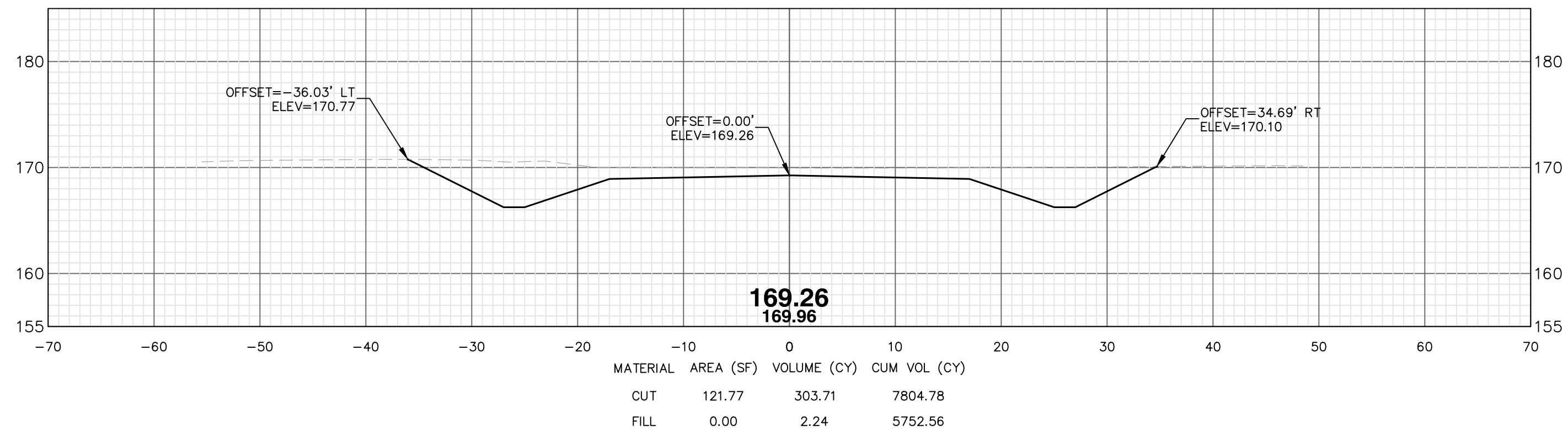
144th AVENUE RECONSTRUCTION
 700' EAST OF 17TH STREET TO 14TH STREET
 SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
 ALLEGAN COUNTY ROAD COMMISSION
 ALLEGAN, MICHIGAN
SECTION VIEWS - 126+000 TO 135+00

Designed By: JMT
 Drawn By: CJD
 Checked By: _____ Date: _____
 Plot:
 VERT: 1"=10'
 HOR: 1"=40'
 Scale:
 07-07-17
 Date:
 1610998.1A
 Job No.:

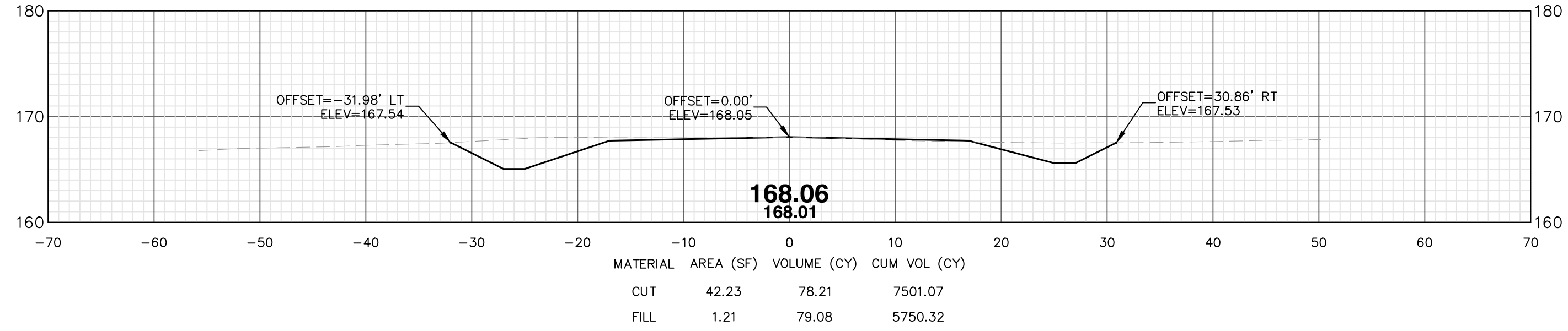
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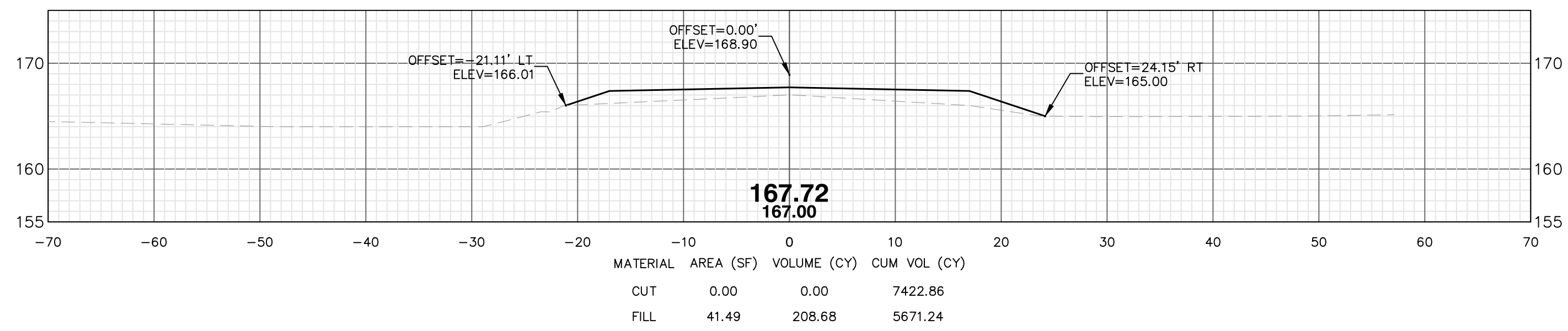
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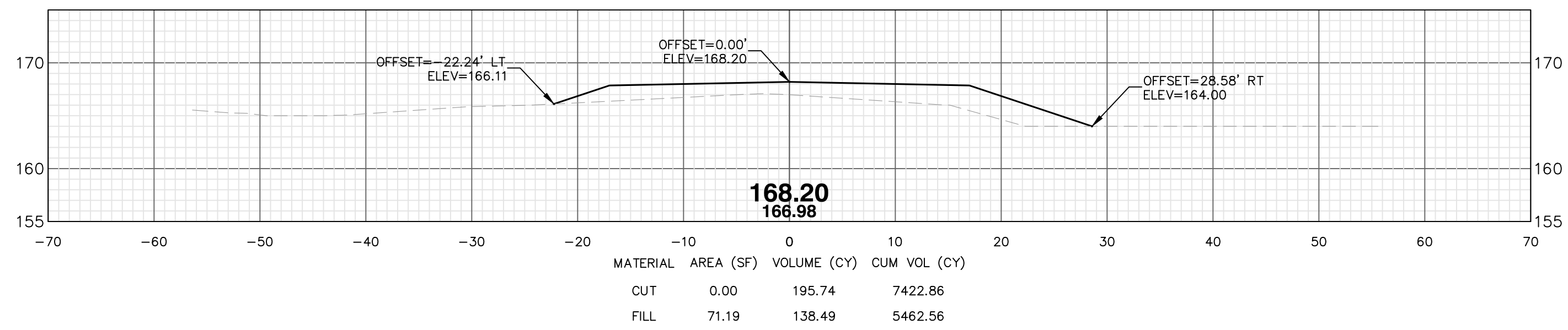
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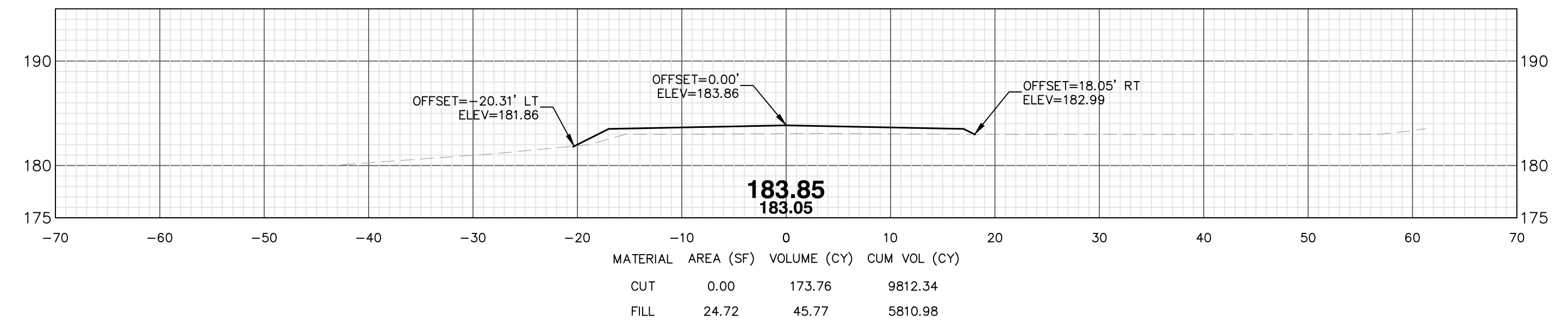
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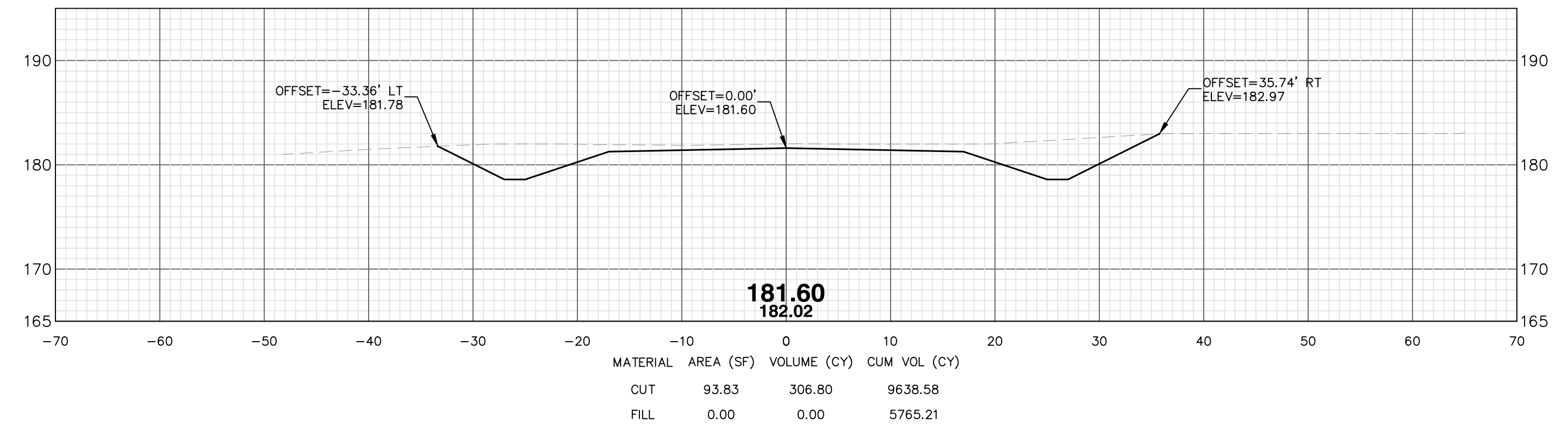
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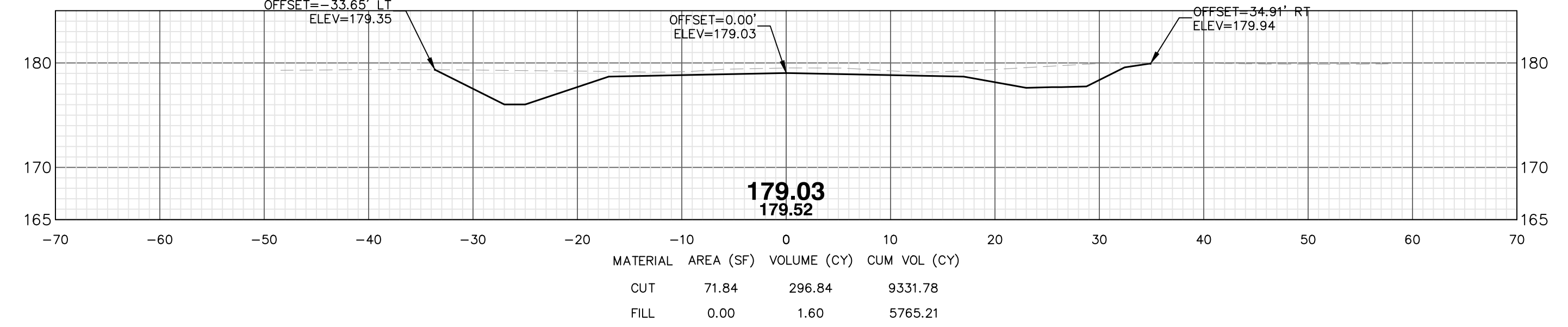
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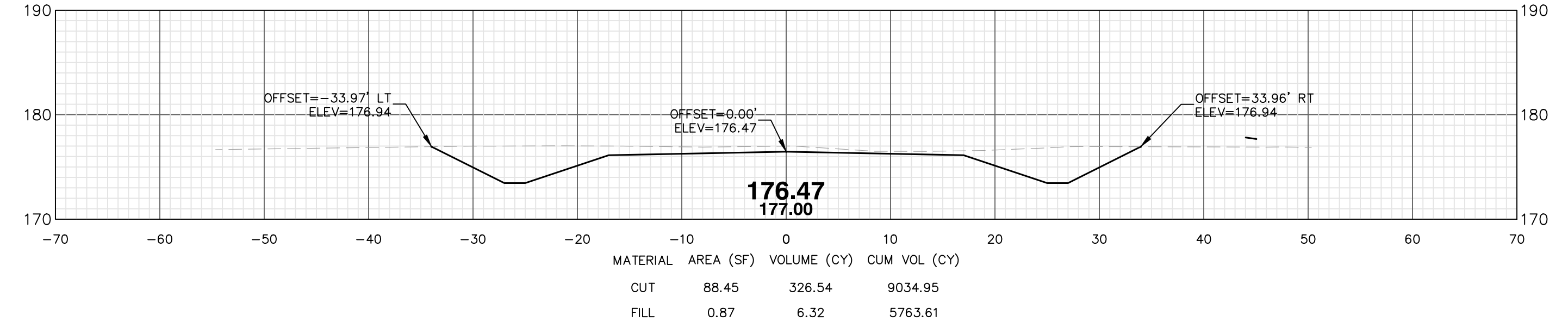
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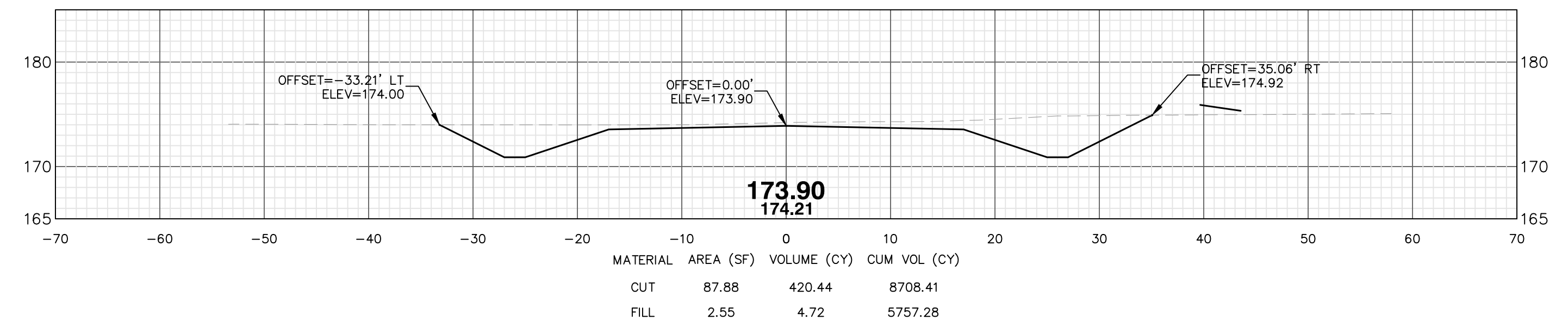
141+00.00



140+00.00



139+00.00



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- SUBMITTED TO ACRG FOR REVIEW (5/17/2017)
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- ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

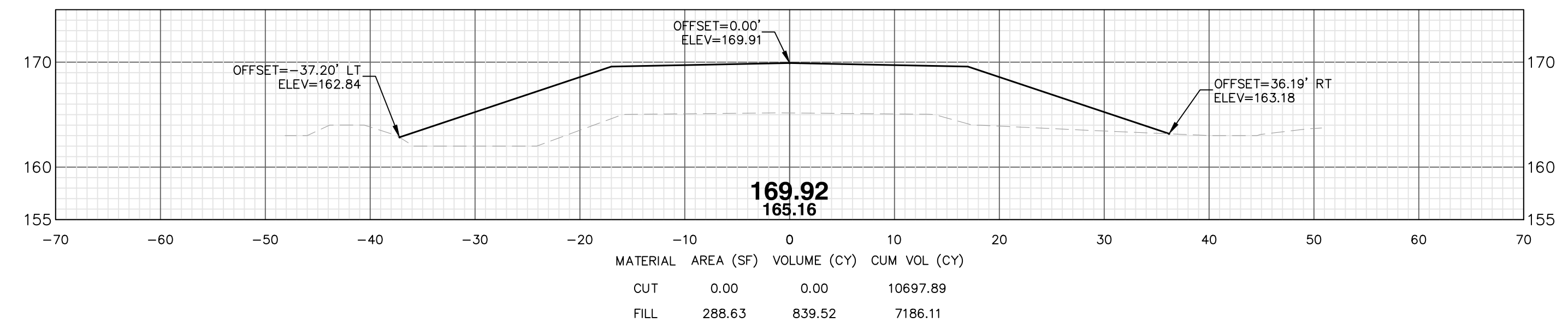
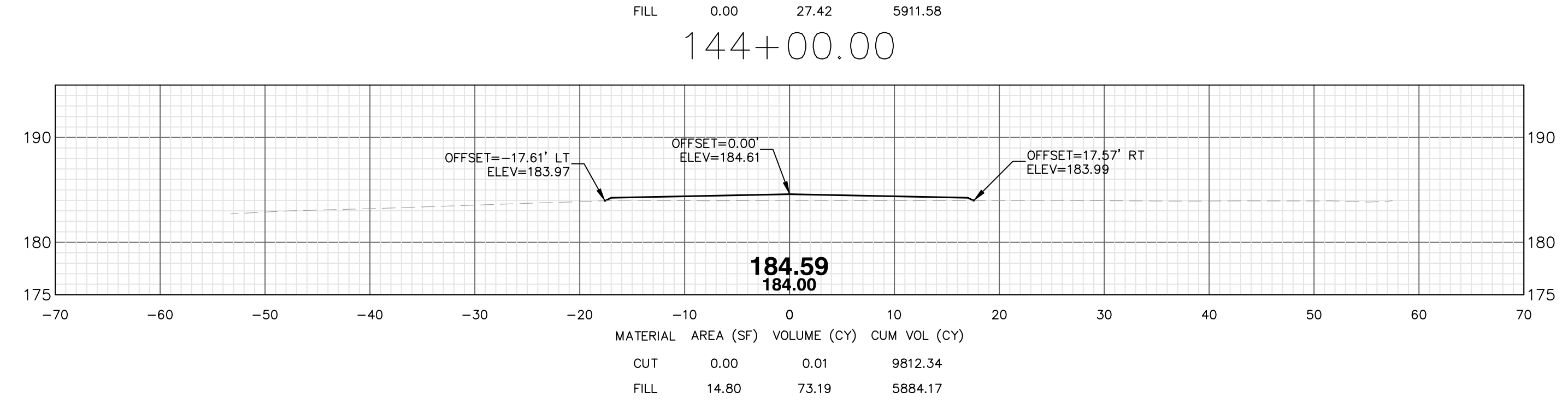
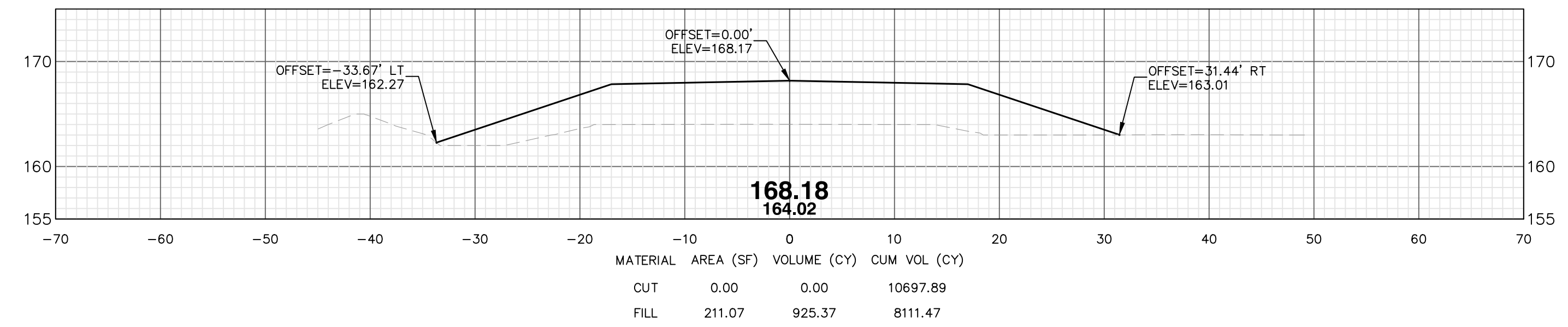
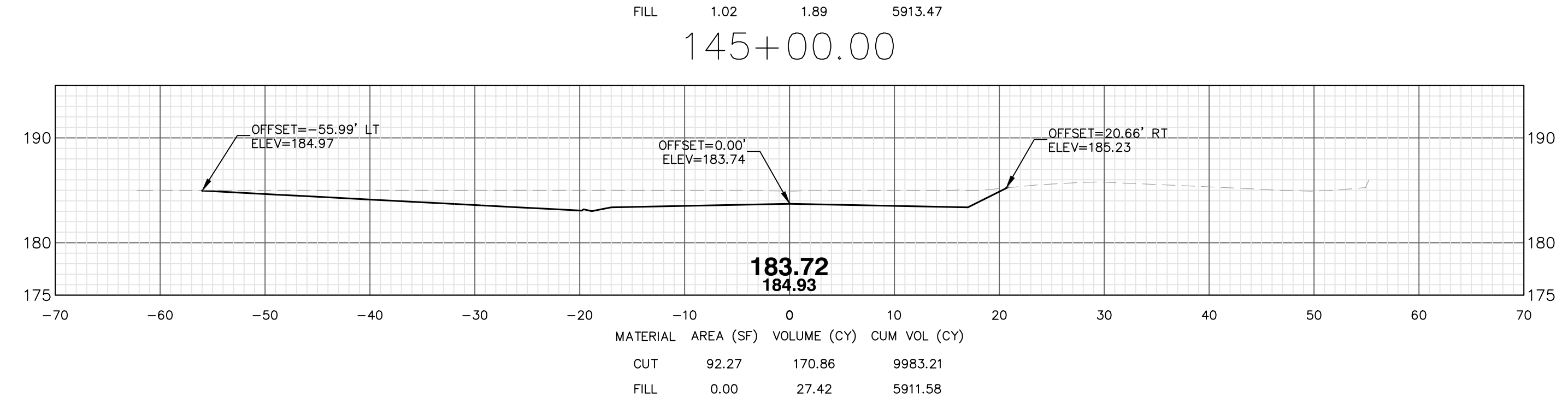
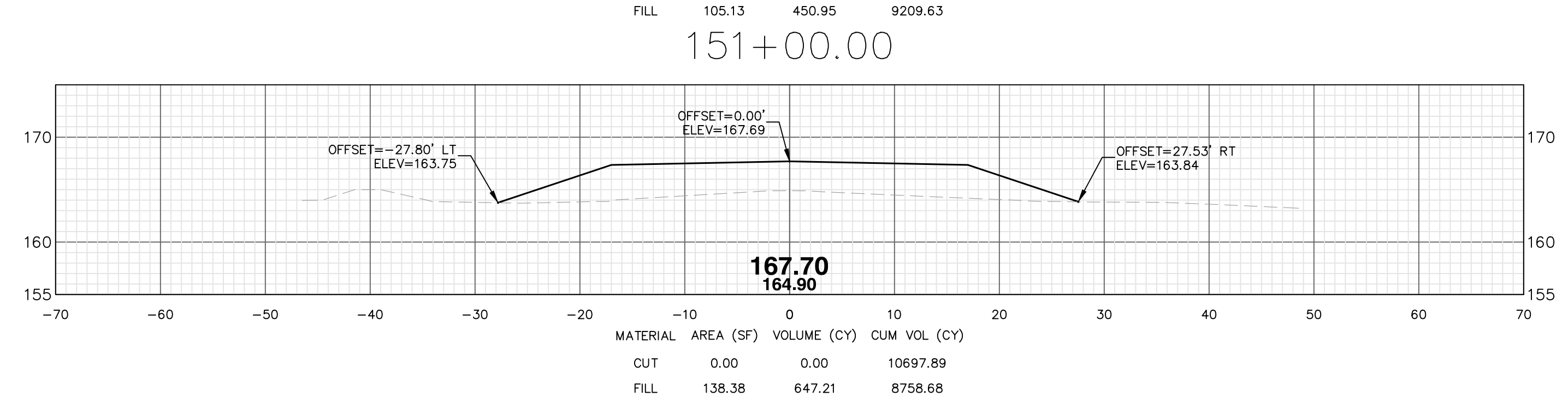
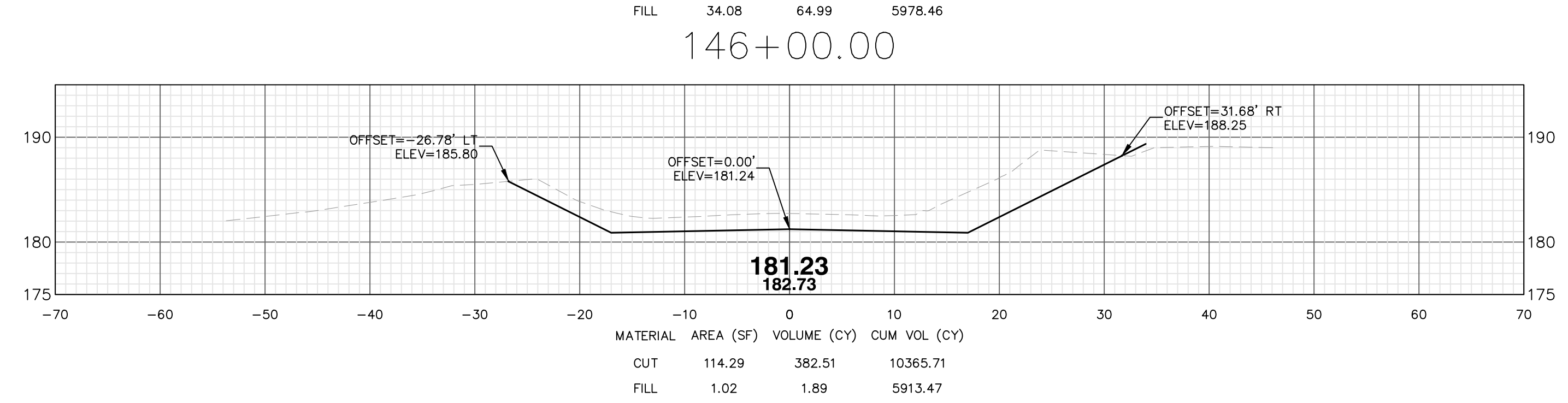
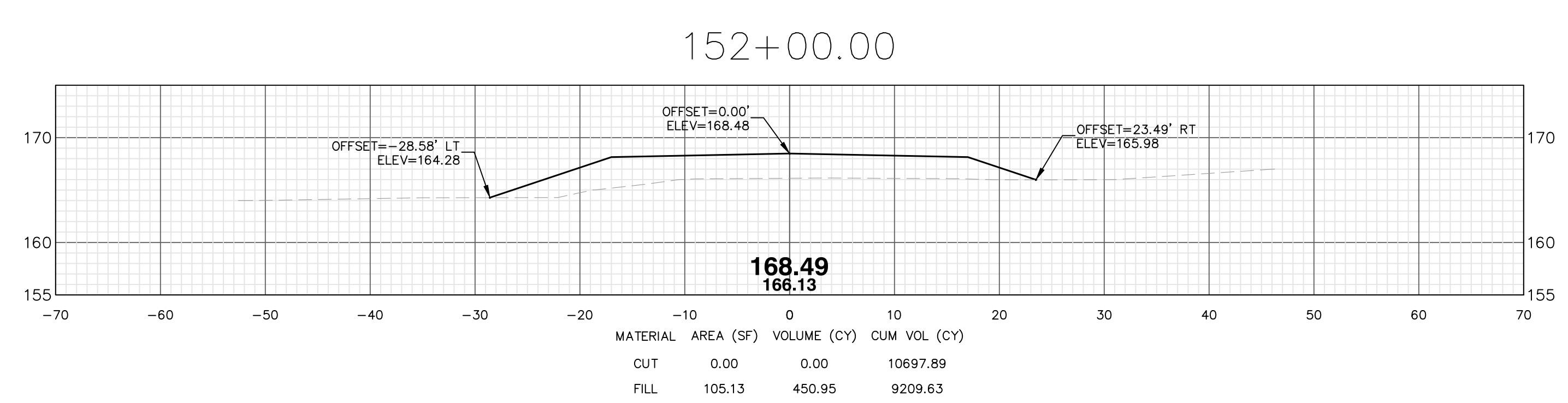
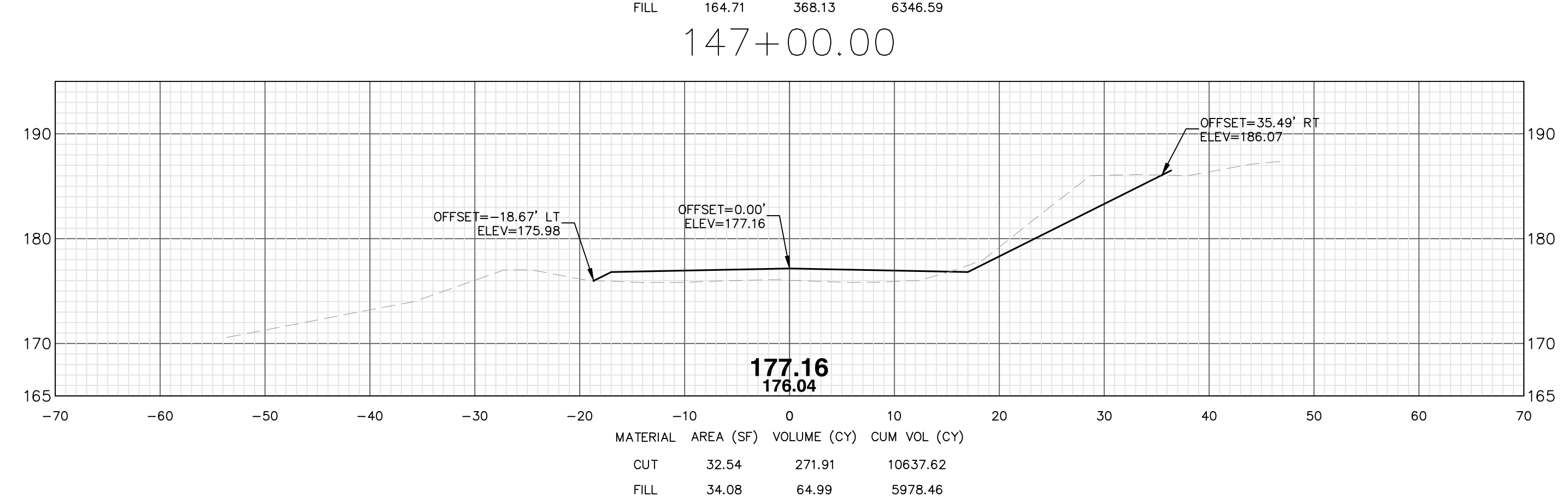
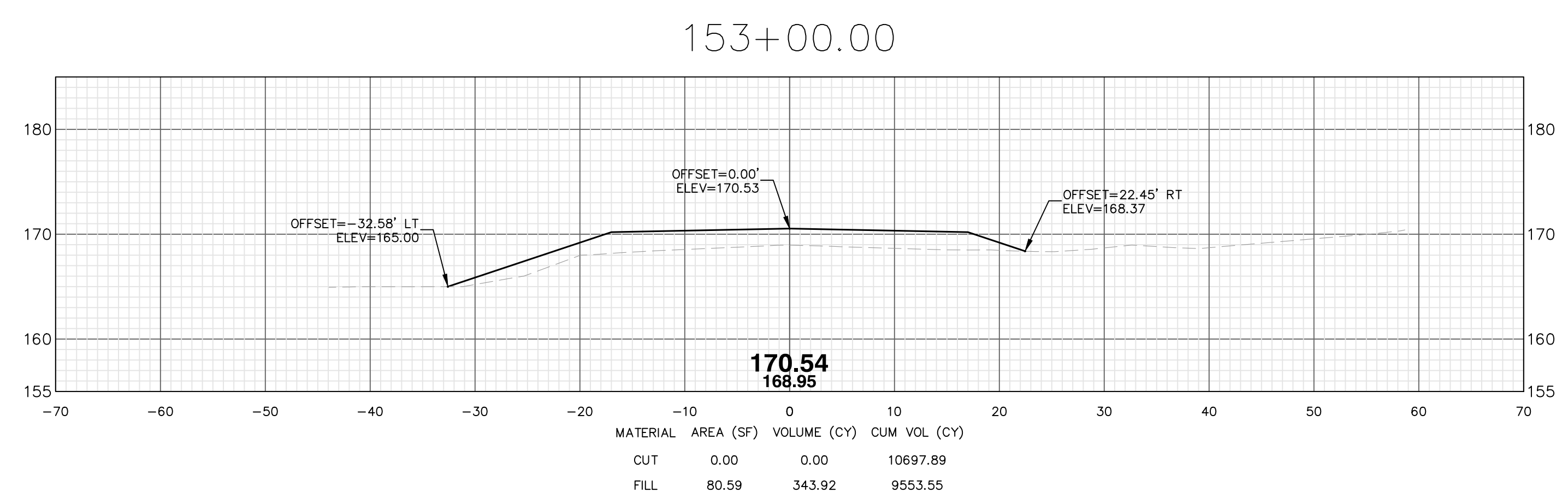
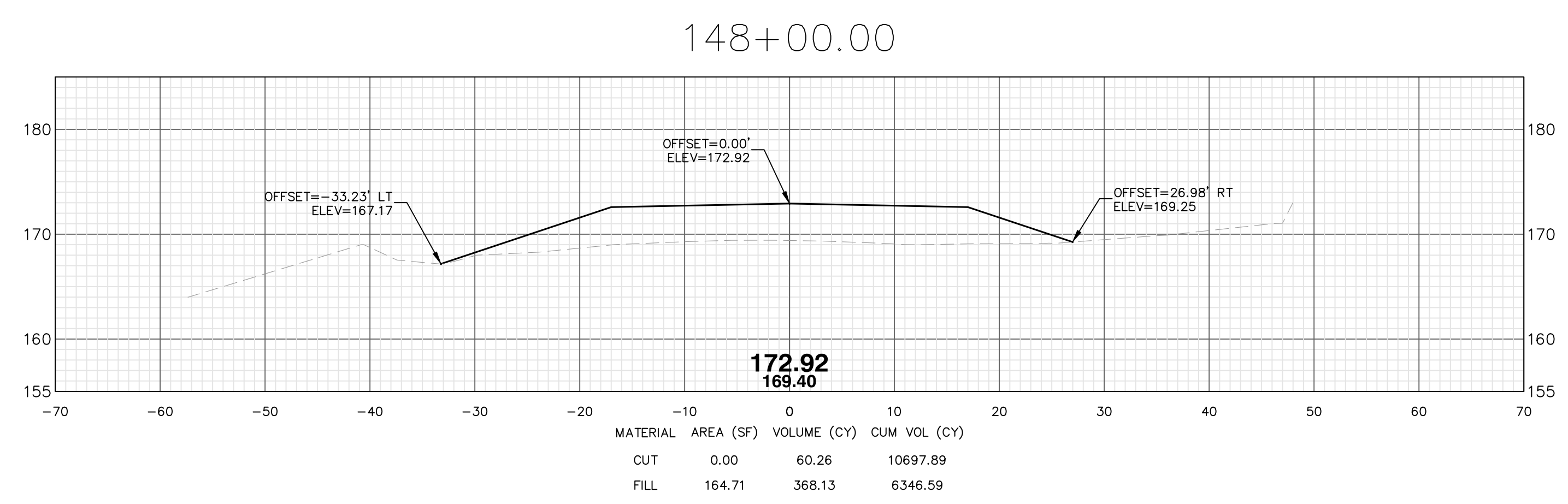
SECTION VIEWS - 136+00 to 145+00

Designed By: JMT
Drawn By: CJD
Checked By: Date:
Plot:
VERT: 1"=10'
HOR: 1"=40'
Scale:
07-07-17
Date:
1610998.1A
Job No.:

Sheet No.: **C-305**

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Last Saved: 7/7/2017 4:30:31 PM

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1	SUBMITTED TO ACR FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACR FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

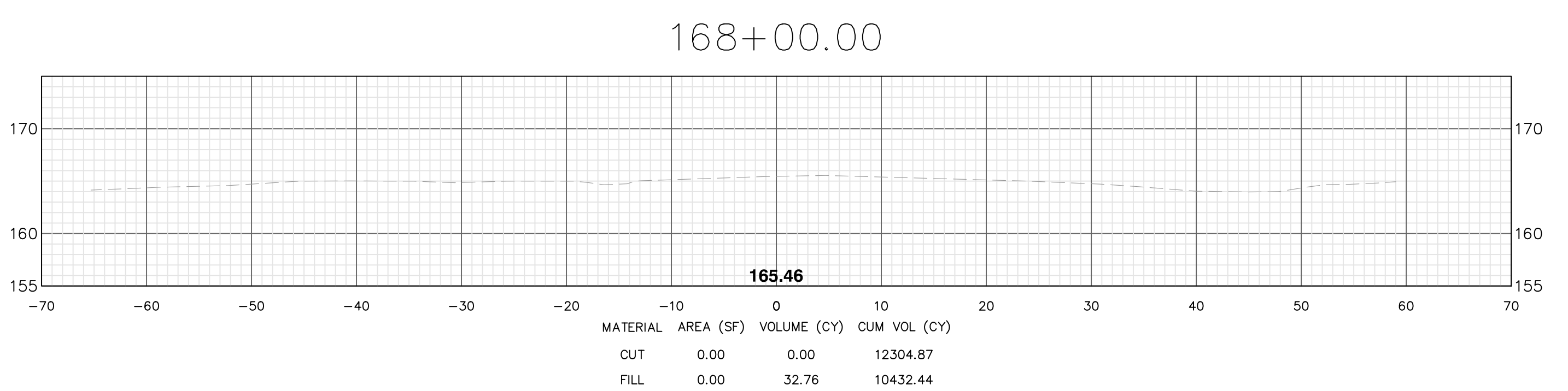
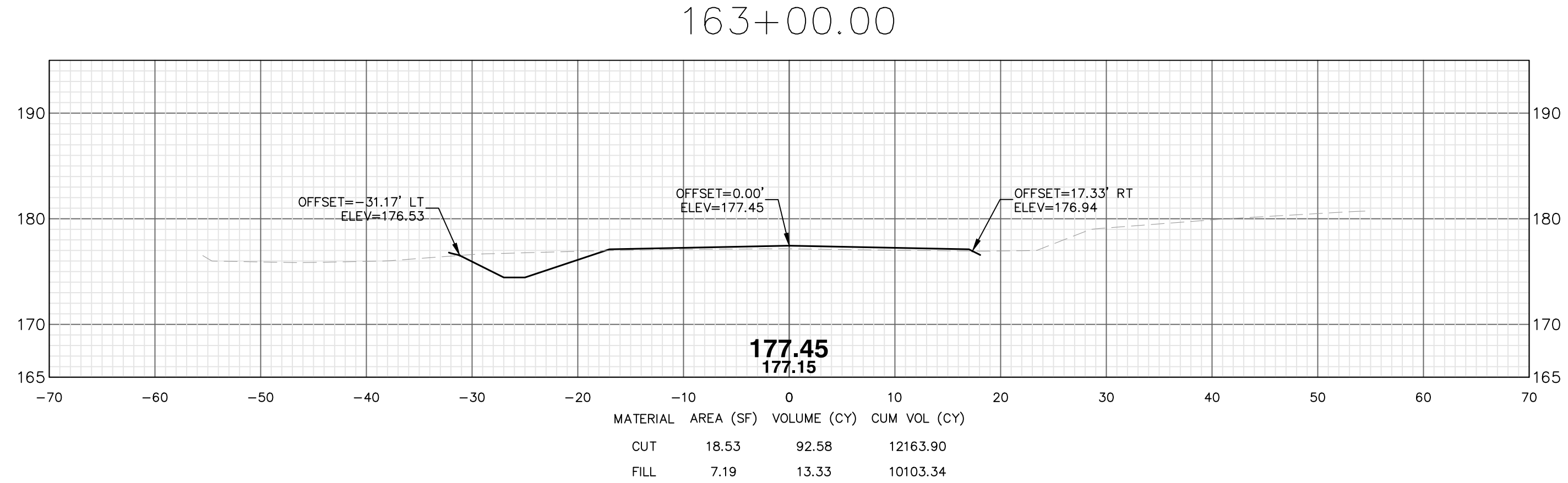
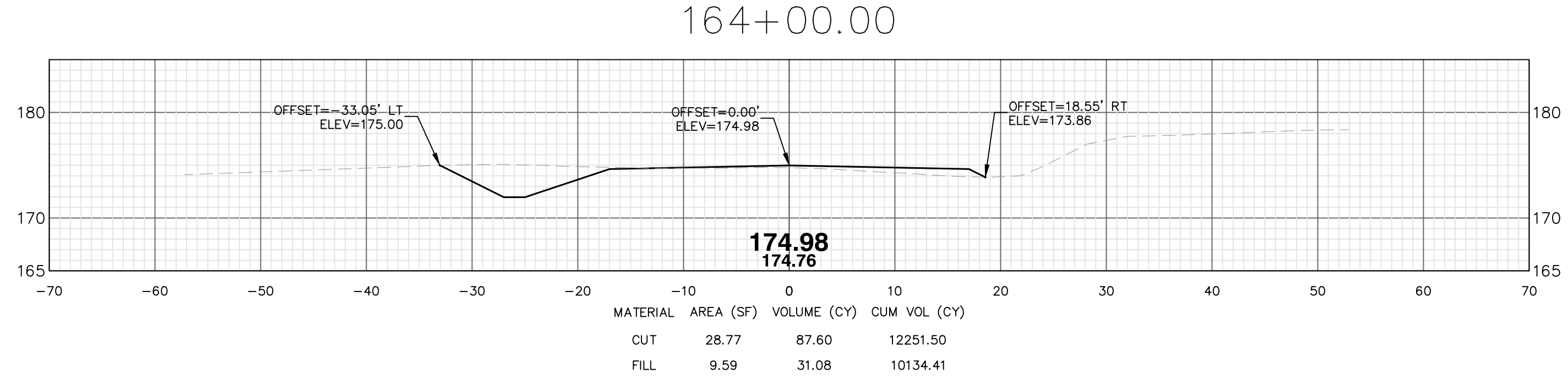
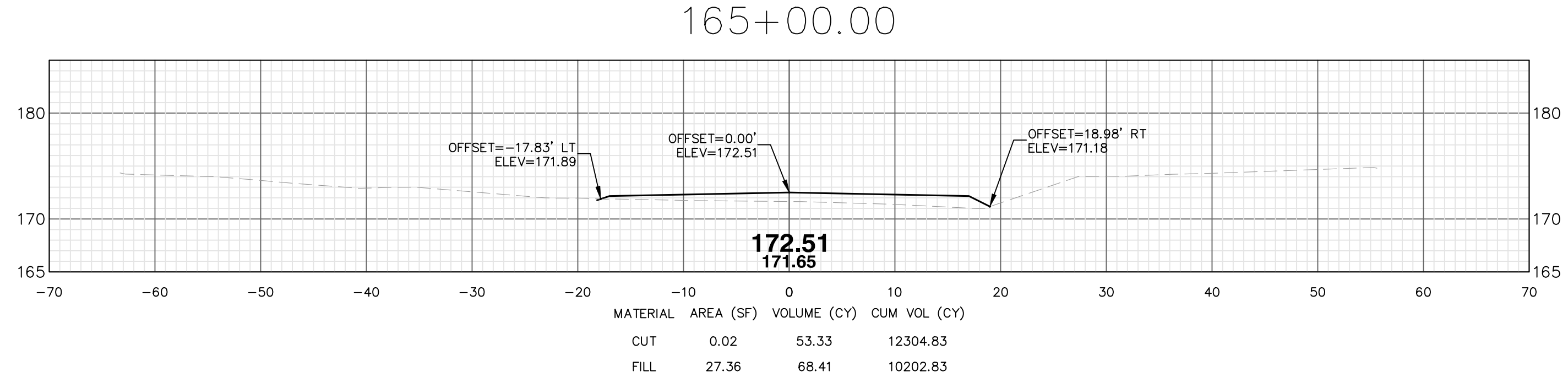
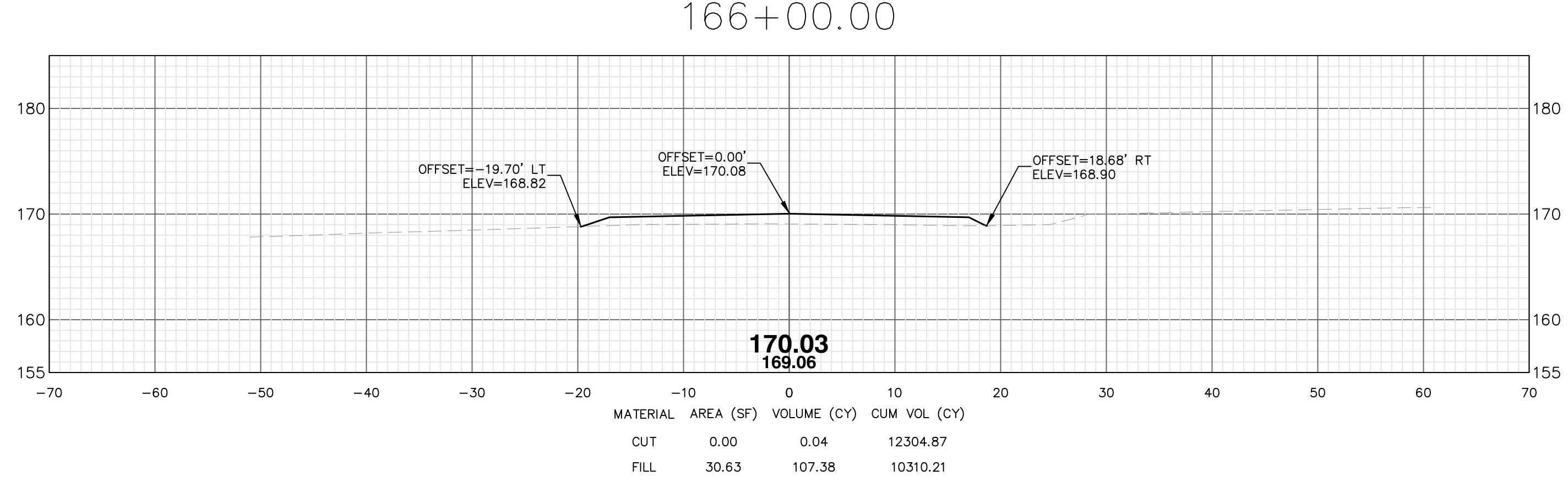
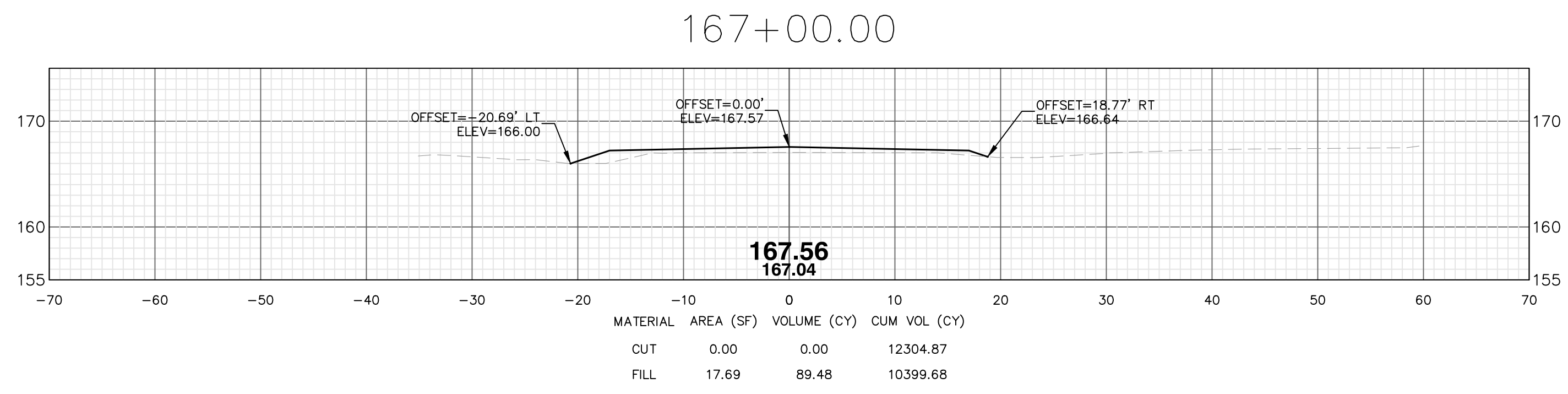
SECTION VIEWS = 146+00 TO 154+00

Designed By: JMT
Drawn By: CJD
Checked By: _____ Date: _____

Plot:
VERT: 1"=10'
HOR: 1"=40'
Scale:
07-07-17
Date:
1610998.1A
Job No.:

Sheet No.: **C-306**

File Name: N:\Users\Project1\2016\101098\14 Allegan CDC 144th\DWG\101098-PLR-10.dwg Unit: Feet 7/7/2017 4:30:31 PM



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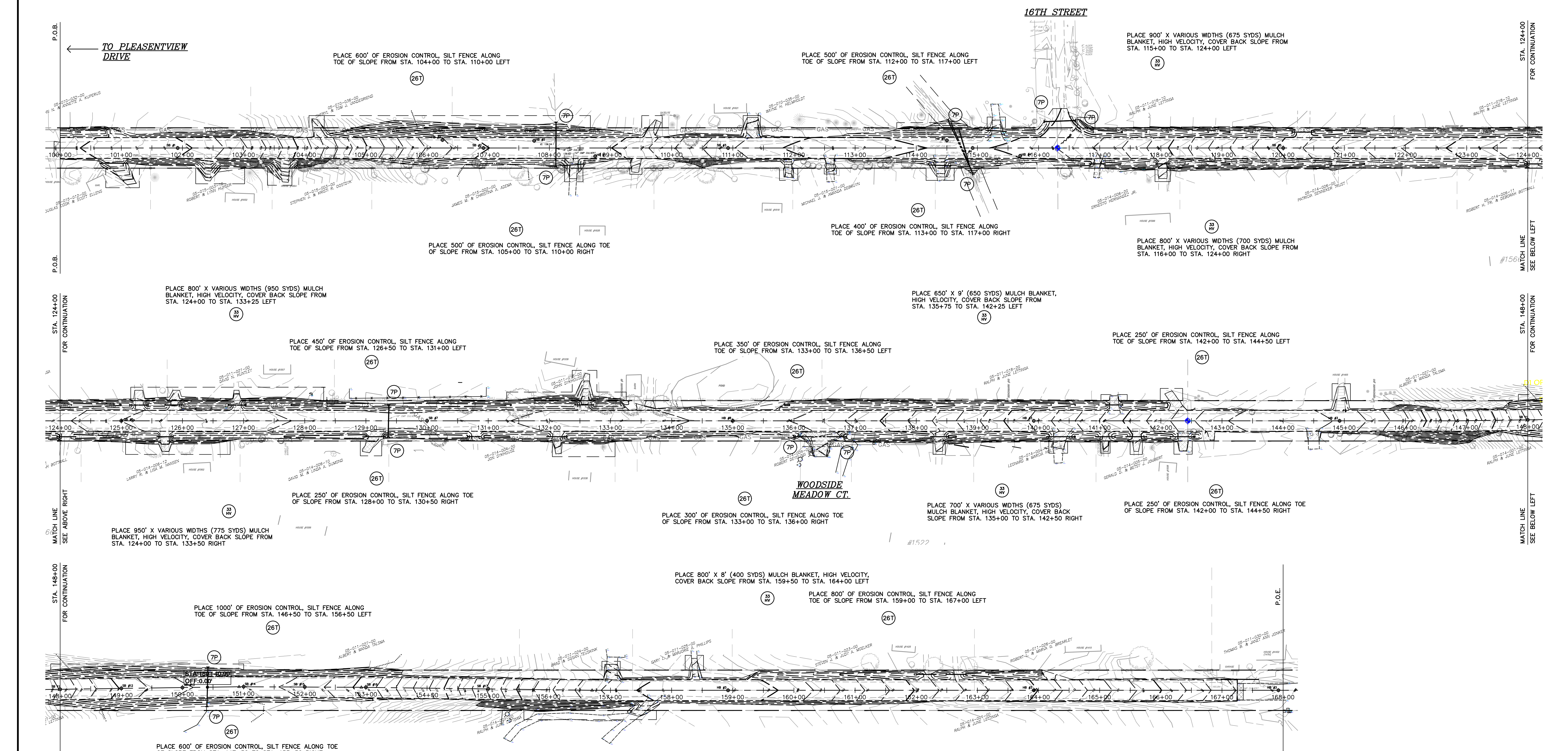
1	SUBMITTED TO ACRG FOR REVIEW (5/17/2017)
2	SUBMITTED TO ACRG FOR REVIEW (06/20/2017)
3	ISSUED FOR BIDS (07/07/2017)

144th AVENUE RECONSTRUCTION
700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN

SECTION VIEWS = 165+00 TO 168+00

Designed By: _____
 Drawn By: _____
 Checked By: _____ Date: _____
 Plot: _____
 Scale: _____
 Date: _____
 Job No.: _____
 Sheet No.: _____

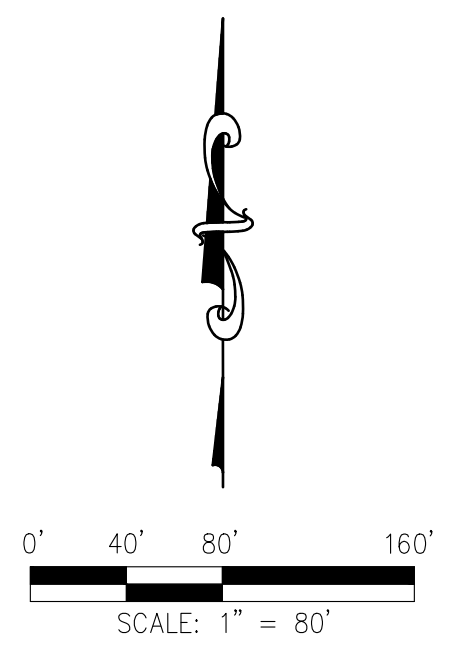
C-308



SOIL EROSION & SEDIMENTATION CONTROL NOTES:

1. ALL CONSTRUCTION METHODS SHALL BE DONE IN COMPLIANCE WITH THE MICHIGAN SOIL EROSION AND SEDIMENTATION CONTROL ACT. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING A "SOIL EROSION PERMIT" FROM THE COUNTY AND "PERMIT BY RULE/NOTICE OF COVERAGE" FROM THE MDEQ PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL REQUIREMENTS OF THE COUNTY "SOIL EROSION PERMIT" AND FOR ALL CERTIFIED STORM WATER INSPECTION SERVICE REQUIRED BY THE "PERMIT BY RULE." EROSION CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS AND SHALL NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR PROVIDING ALL REQUIRED EROSION CONTROL MEASURES.
2. AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER, THESE COVER AREAS ACT AS SEDIMENT FILTERS.
3. ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
4. GEOTEXTILE SILT FENCE SHALL BE INSTALLED AS REQUIRED WHEN CROSSING CREEKS OR WHEN ADJACENT TO WETLANDS OR SURFACE WATER BODIES TO PREVENT SILTATION AND ELSEWHERE AS DIRECTED BY THE ENGINEER. SEEDING AND/OR SOODING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
5. MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
6. NUMBER IN CIRCLE REFERS TO NUMBERED DETAILS ON MDOT STANDARD PLAN R-96 SERIES, SOIL EROSION & SEDIMENTATION CONTROL MEASURE. "P" DENOTES PERMANENT MEASURE AND "T" DENOTES TEMPORARY MEASURE. SOIL EROSION CONTROL PLANS DENOTE MINIMUM EROSION MEASURES REQUIRED AS DESCRIBED BELOW.
7. ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED UNDER THE PAY ITEM OF RESTORATION (LUMP SUM). THIS PAY ITEM INCLUDES PLACING MDOT SEEDING, MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE, FERTILIZER CHEMICAL NUTRIENT, CL A APPLIED AT A RATE OF 175 LB/ACRE; MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING.
31. TEMPORARY SEEDING WILL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER IN THE FIELD AND WILL INCLUDE SEEDING MIXTURE, OR APPLIED AT A RATE OF 70 LB/ACRE AND MULCH.
41. DUST CONTROL MAY BE REQUIRED ON THE SUBGRADE CONSTRUCTION AND WILL INCLUDE APPLYING FRESH WATER TO BE INCLUDED IN THE ITEM OF EMBANKMENT. DUST CONTROL ON THE AGGREGATE BASE COURSE WILL BE ACCOMPLISHED BY APPLYING FRESH WATER (INCLUDED IN THE ITEM OF AGGREGATE BASE, 6 INCH) AS DIRECTED BY THE PROJECT ENGINEER.
- 7P. INSTALL RIPRAP, PLAIN AS DIRECTED BY THE ENGINEER IN THE FIELD. THE RIPRAP, PLAIN PAY ITEM WILL INCLUDE A GEOTEXTILE UNDERLAYMENT.
- 26T. SILT FENCE WILL BE INSTALLED AT CREEK CROSSINGS, ADJACENT TO ALL WETLANDS AND SURFACE WATERS, AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. EACH SILT FENCE WILL BE INSTALLED GENERALLY ALONG THE SAME CONTOUR ELEVATION.
32. CONTRACTOR WILL PROVIDE DOZER TRACKING PERPENDICULAR TO THE SLOPE TO REDUCE WATER AND WIND EROSION. THIS WILL BE PERFORMED AT LOCATIONS SHOWN OR AS DIRECTED BY THE ENGINEER IN THE FIELD, TO BE INCLUDED IN THE ITEM OF EMBANKMENT.
33. HIGH VELOCITY MULCH BLANKETS WILL BE USED ON STEEP BANKS. PROVIDE MULCH BLANKET, HIGH VELOCITY CENTERED ON ALL DITCH BOTTOMS WITH A LONGITUDINAL GRADE OF 2.00% OR GREATER AND AT OTHER LOCATIONS AS DIRECTED BY THE ENGINEER IN THE FIELD.
37. CHECK DAMS WILL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

TO 14TH STREET →



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700' EAST OF 17TH STREET TO 14TH STREET
SECTIONS 10, 11, 14 & 15, T04N-R12W, DORR TWP.
ALLEGAN COUNTY ROAD COMMISSION
ALLEGAN, MICHIGAN
SOIL EROSION AND SEDIMENTATION CONTROL PLAN

Designed By: ERN
Drawn By: CJD
Checked By: Date:
Plot:
1" = 80'
Scale:
07-07-17
Date:
1610998.1A
Job No.:
Sheet No.:
C-401