

# ALLEGAN COUNTY ROAD COMMISSION

## 34TH STREET RECONSTRUCTION PROJECT 146TH AVENUE NORTH TO COUNTY LINE SALEM TOWNSHIP

### NOTES

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL AND SUPPLEMENTAL SPECIFICATIONS CONTAINED THEREIN, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE PLACING OF PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SHALL BE DONE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AS AMENDED.

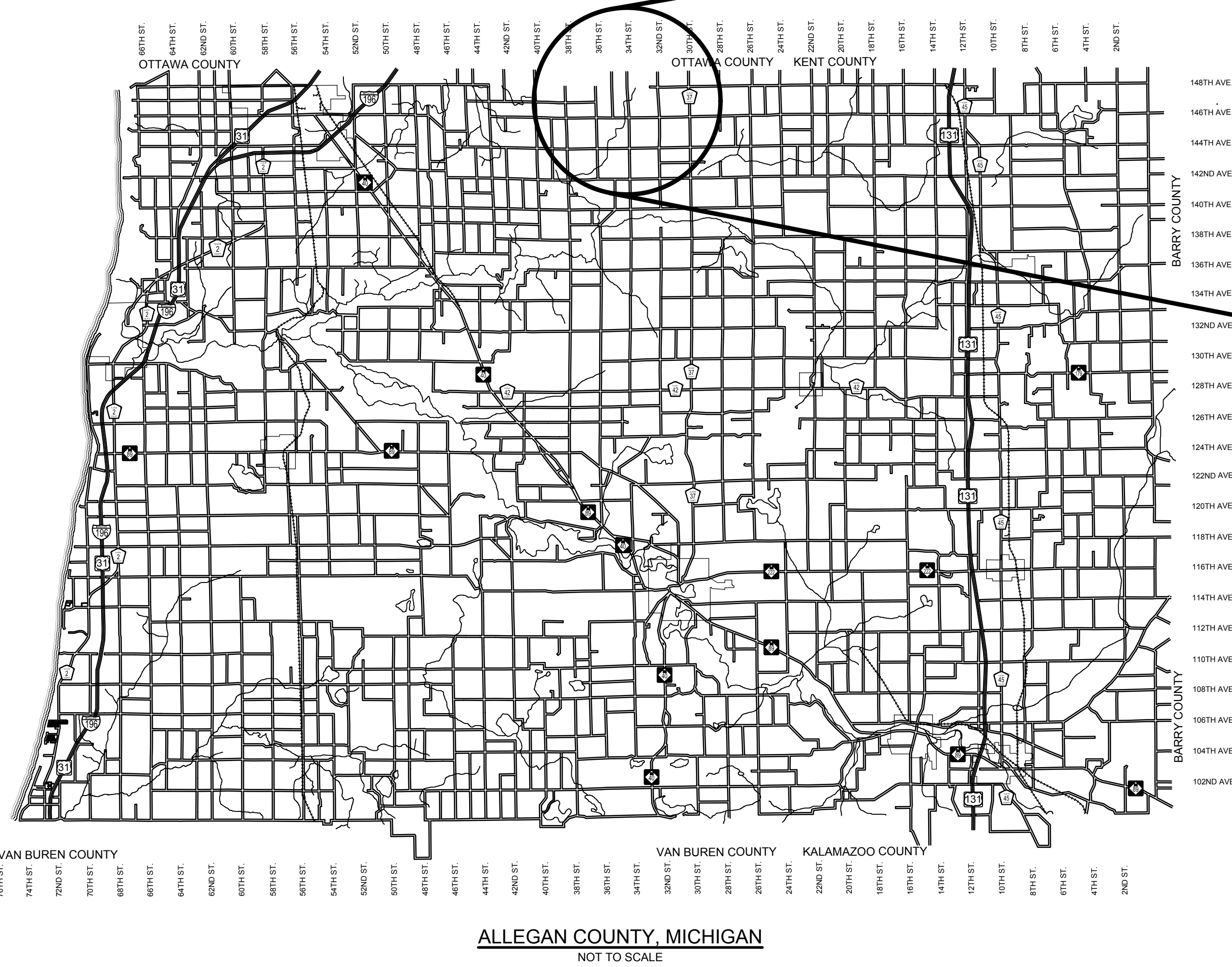
THE IMPROVEMENTS COVERED BY THESE PLANS ARE IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2011 EDITION; A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS AND WITH THE GUIDELINES FOR GEOMETRIC DESIGN OF VERY LOW-VOLUME LOCAL ROADS (ADT<400), 1ST EDITION.

THE CONTRACTOR SHALL DIAL MISS DIG @ 811 FOR PROTECTION OF UNDER GROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBERS WILL THUS 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.

UTILITY CONTACTS	
<b>ELECTRIC</b>	CONSUMERS ENERGY 2500 E. CORK ST KALAMAZOO, MI 49001 616-530-4097 MR. BILL BRINDLEY
<b>TELEPHONE</b>	AT&T 245 E 24TH ST HOLLAND, MI 49423 616-392-9966 MR. BRAD DYKENS
	*MISS DIG* 811

**Board of County Road Commissioners  
Of Allegan County**  
1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
TELEPHONE: (269) 673-2184 www.alleganroads.org FAX: (269) 673-5922

REVISIONS
1
2
3
4
5
6
7



**INDEX OF PLANS**

- 1 - COVER SHEET
- 2 - TYPICAL SECTIONS, DETAILS & NOTES
- 3 - PLAN AND PROFILE - STA. P.O.B. TO STA. 10+00
- 4 - PLAN AND PROFILE - STA. 10+00 TO STA. 20+00
- 5 - PLAN AND PROFILE - STA. 20+00 TO STA. 30+00
- 6 - PLAN AND PROFILE - STA. 30+00 TO STA. 40+00
- 7 - PLAN AND PROFILE - STA. 40+00 TO STA. 50+00
- 8 - PLAN AND PROFILE - STA. 50+00 TO STA. P.O.E.
- 9 - CROSS SECTIONS - STA. 1+00 TO STA. 10+00
- 10 - CROSS SECTIONS - STA. 11+00 TO STA. 20+00
- 11 - CROSS SECTIONS - STA. 21+00 TO STA. 30+00
- 12 - CROSS SECTIONS - STA. 31+00 TO STA. 40+00
- 13 - CROSS SECTIONS - STA. 41+00 TO STA. 52+00
- 14 - SOIL EROSION & SEDIMENTATION CONTROL PLAN

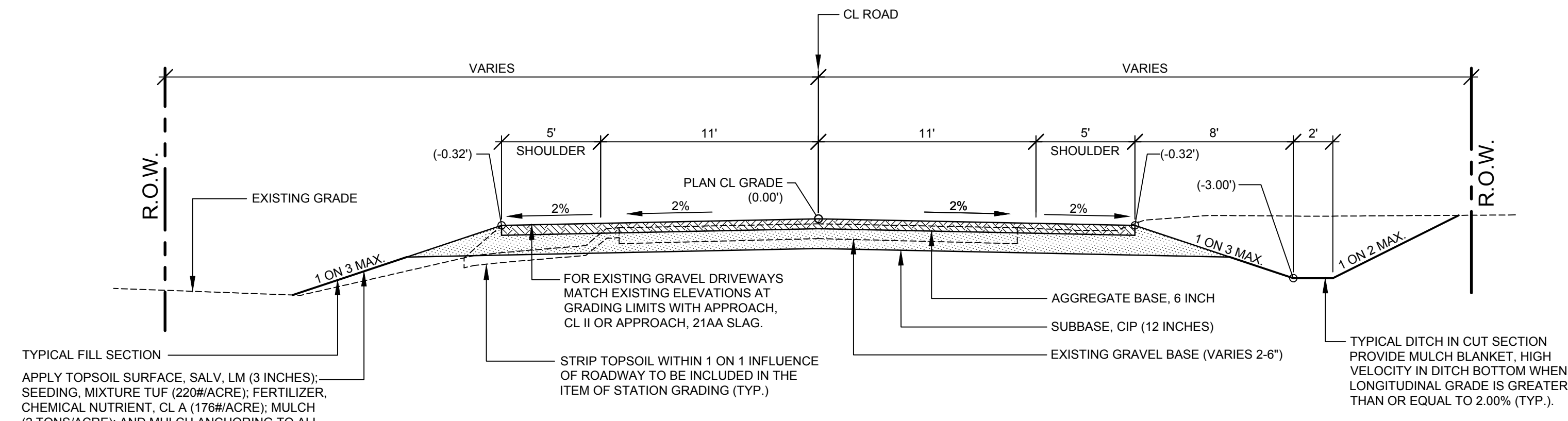
**CONTRACT FOR ROAD IMPROVEMENTS**  
0.99 MILES OF ROADWAY RECONSTRUCTION INCLUDING CLEARING, GRADE ESTABLISHMENT, SAND SUBBASE, AGGREGATE BASE, CULVERT REPLACEMENTS, AND RESTORATION ON 34TH STREET FROM 146TH AVENUE NORTH TO COUNTY LINE IN SALEM TOWNSHIP, ALLEGAN COUNTY.

PREPARED UNDER THE SUPERVISION OF:

JASON S. EDWARDS  
REGISTERED PROFESSIONAL ENGINEER No. 69473

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
COVER SHEET

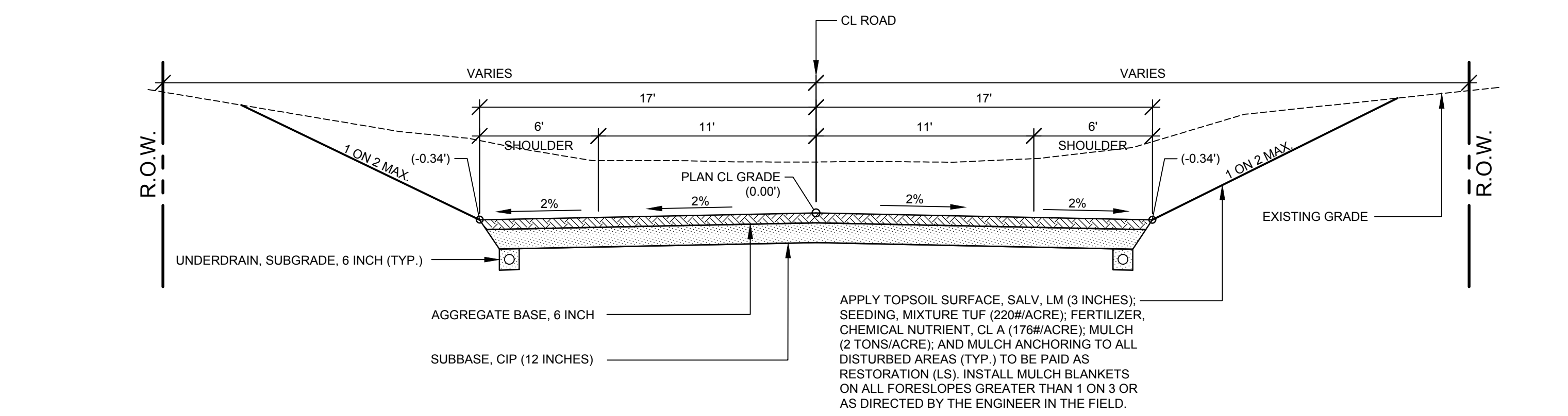
DRAWN BY:	J.S.E.
REVIEWED BY:	
DATE:	MAY, 2016
SCALE:	NONE



TYPICAL FILL SECTION  
 APPLY TOPSOIL SURFACE, SALV. LM (3 INCHES); SEEDING, MIXTURE TUF (220#/ACRE); FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); MULCH (2 TONS/ACRE); AND MULCH ANCHORING TO ALL DISTURBED AREAS (TYP.) TO BE PAID AS RESTORATION (L.S). INSTALL MULCH BLANKETS ON ALL FORESLOPES GREATER THAN 1 ON 3 OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

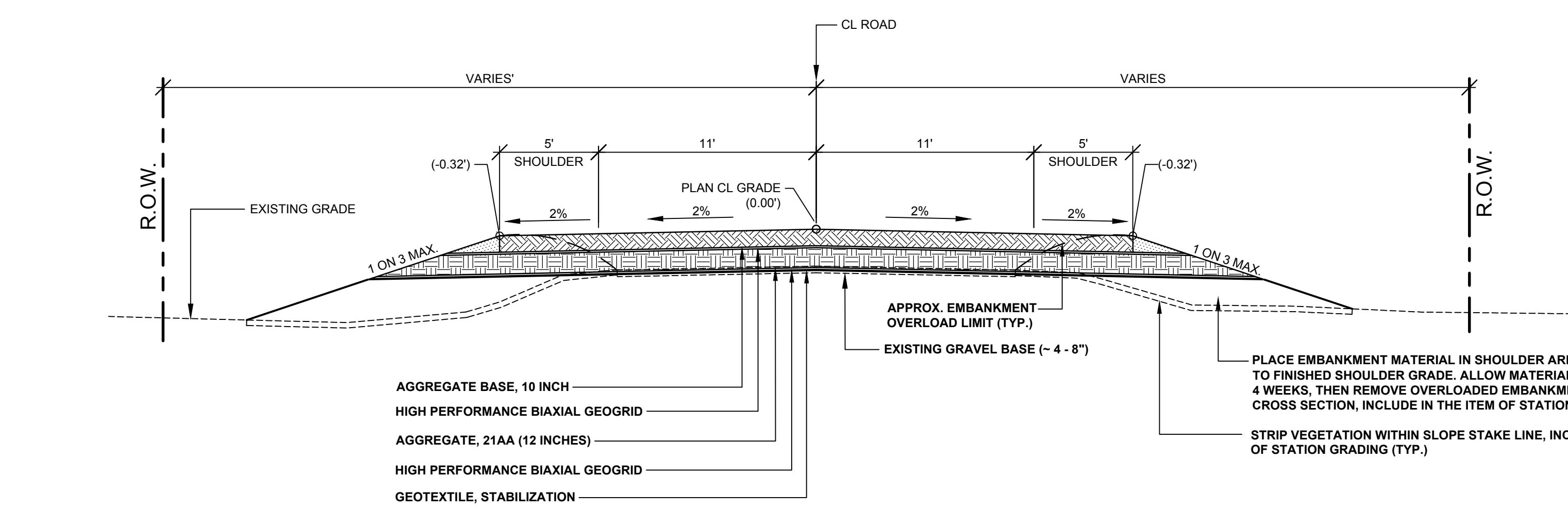
**TYPICAL SECTION - 34TH STREET**

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. 5+50 TO 15+25 RIGHT ONLY  
 STA. 18+00 TO 18+50 LEFT ONLY  
 STA. 18+50 TO 22+25  
 STA. 23+00 TO 24+50 RIGHT ONLY  
 STA. 31+50 TO 35+50



**HIGH PERFORMANCE BIAXIAL GEOGRID SECTION**

SCALE: 1" = 5'  
 THIS SECTION APPLIES TO:  
 STA. 43+00 TO 52+00

**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, CULVERTS, 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 GREAT LAKES DRILLING COMPANY, P.O. BOX 51, ALLEGAN, MI 49010 ON DECEMBER 31, 2015. THE TEST BORINGS REPRESENT POINT INFORMATION AND MAY NOT HAVE ENCOUNTERED ALL THE 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 PAVED WILL BE RESTORED WITH TOPSOIL SURFACE, SALV. LM (3 INCHES), MDOT SEED MIXTURE TUF (220#/ACRE); FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/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 NAVD88 DATUM.

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

**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 THUS 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.

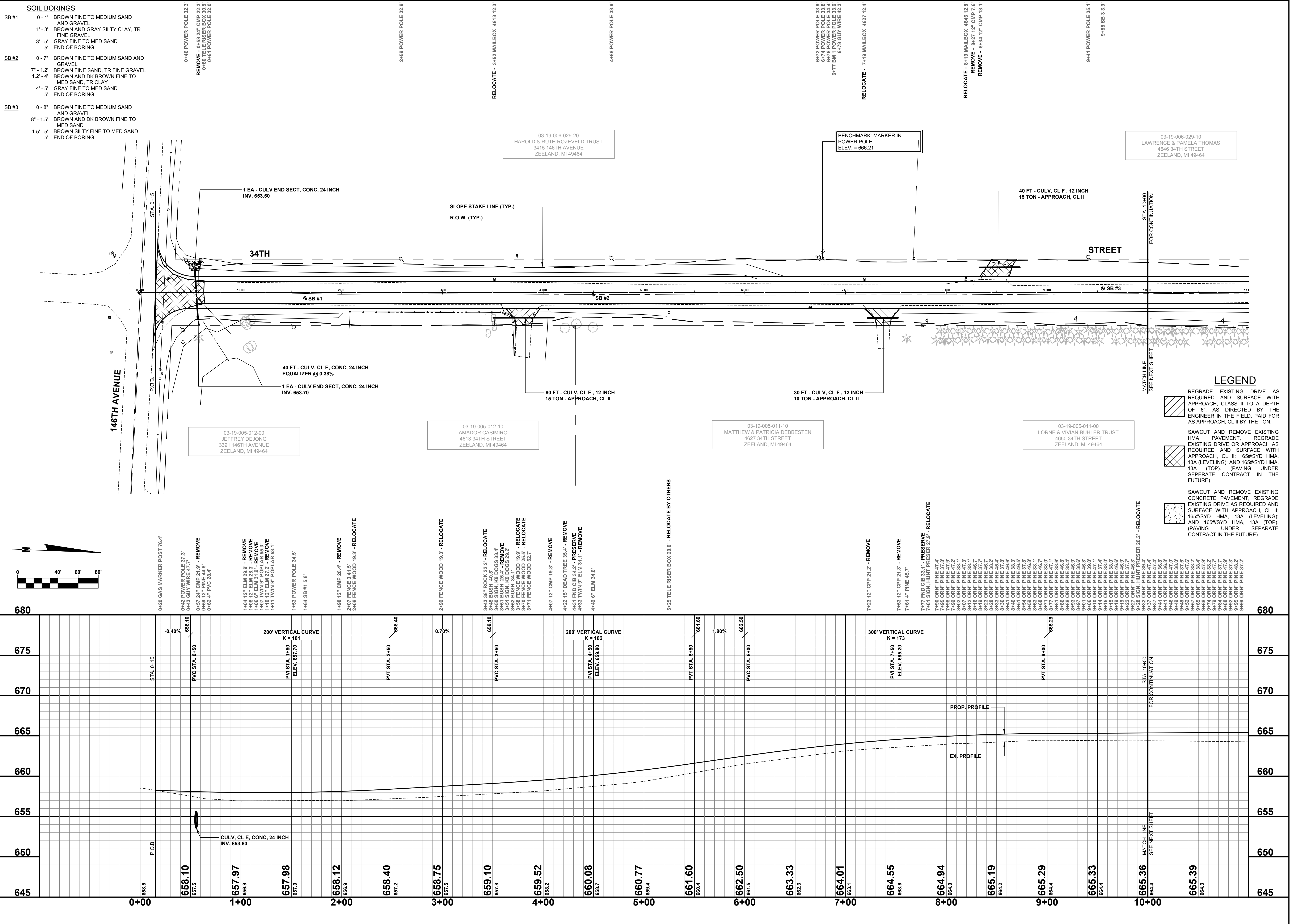
THE CONTRACTOR WILL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND WILL CONDUCT HIS OPERATIONS IN A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED.

**Board of County Road Commissioners  
 Of Allegan County**  
 1308 LINCOLN ROAD  
 ALLEGAN, MICHIGAN 49010-9762  
 www.alleganroads.org  
 TELEPHONE: (269) 673-2184 FAX: (269) 673-5922

REVISIONS	
NO.	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
 SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
 TYPICAL SECTIONS, DETAILS, & NOTES

DRAWN BY: J.S.E.  
 REVIEWED BY:  
 DATE: MAY, 2016  
 SCALE: AS NOTED



**Board of County Road Commissioners  
Of Allegan County**

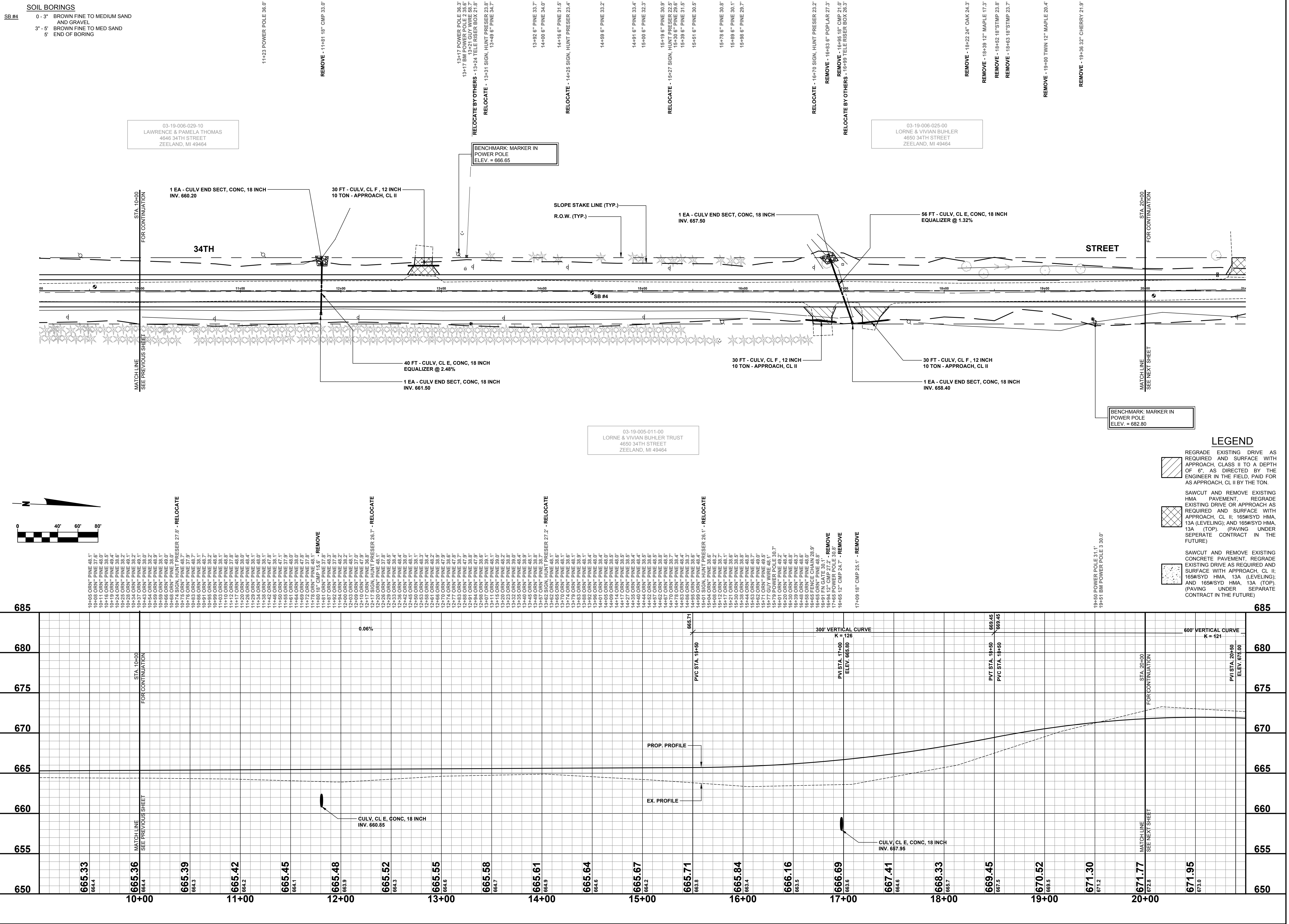
1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
www.alleganroads.org  
TELEPHONE: (269) 673-2184 FAX: (269) 673-5922

REVISIONS
1
2
3
4
5
6
7

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE

PLAN & PROFILE - STA. P.O.B. TO STA. 10+00

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 40'H, 5'V



**Board of County Road Commissioners  
Of Allegan County**

1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
www.alleganroads.org  
TELEPHONE: (269) 673-2184 FAX: (269) 673-5922

REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE

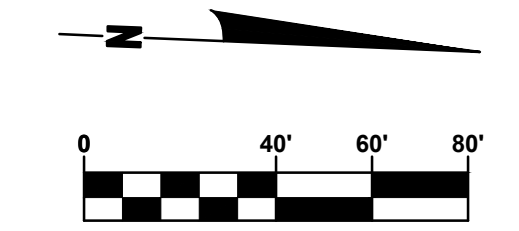
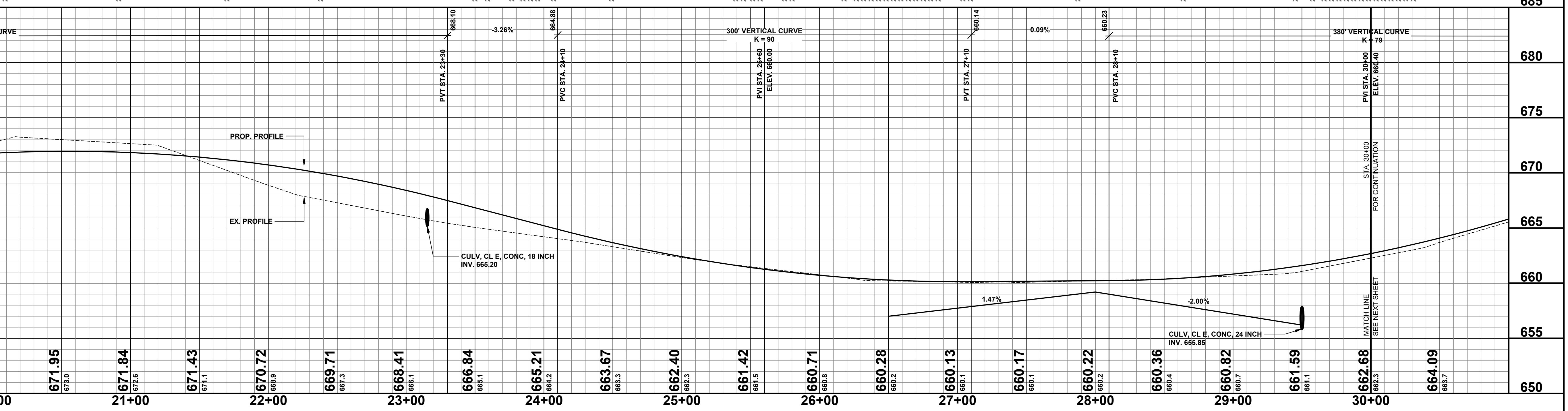
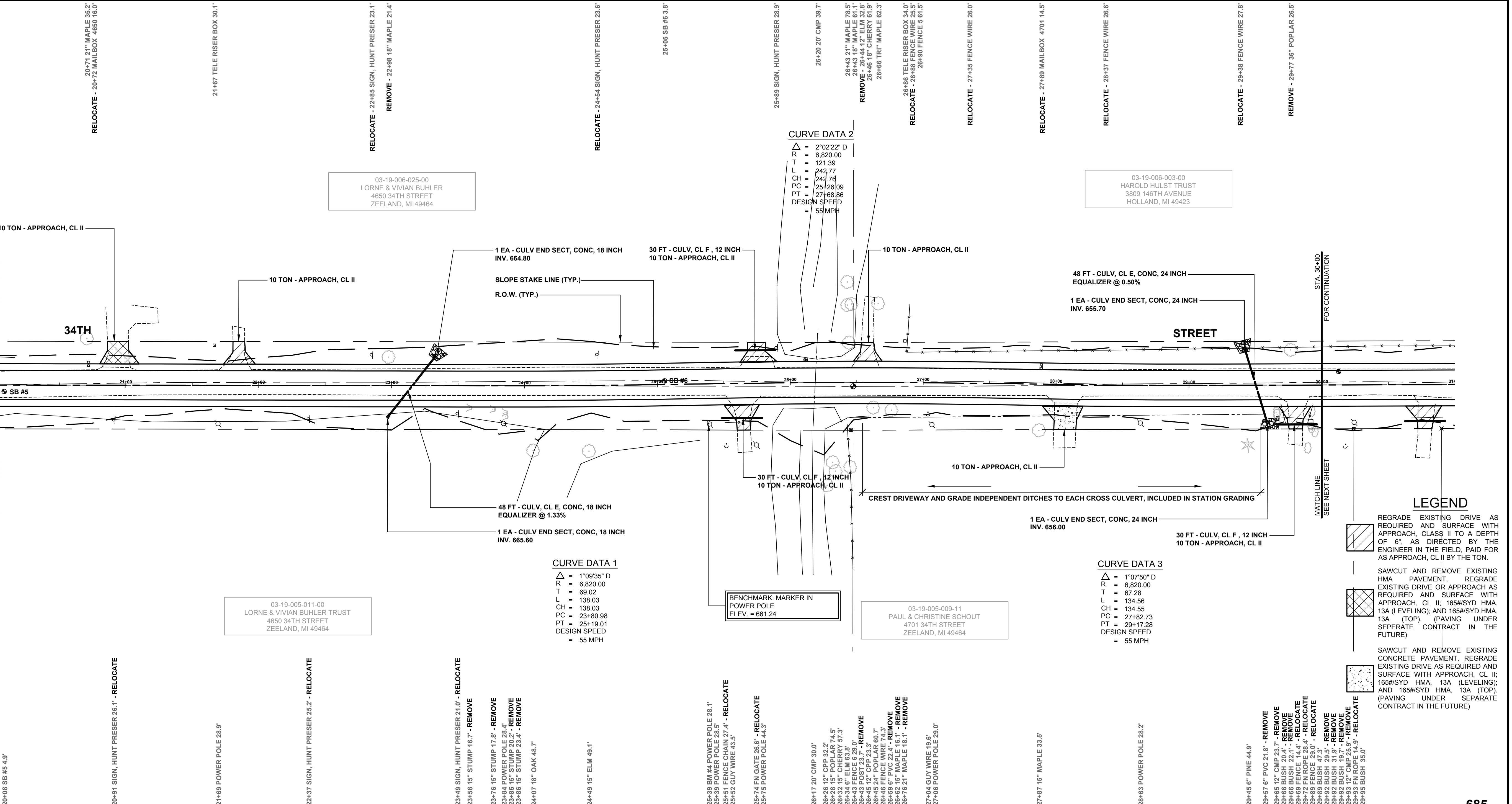
PLAN & PROFILE - STA. 10+00 TO STA. 20+00

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 40'H, 5'V

LH 4809 4

**SOIL BORINGS**

SB #5	0 - 4"	BROWN FINE TO MEDIUM SAND AND GRAVEL
	4" - 3"	BROWN SANDY CLAY, TR FINE GRAVEL
	3" - 6"	BROWN SILTY FINE TO MED SAND WITH CLAY LAYERS
	6" - 10"	BROWN SILTY FINE TO MED SAND
	10'	END OF BORING
SB #6	0 - 3"	BROWN FINE TO MEDIUM SAND AND GRAVEL
	3" - 9"	BROWN FINE TO MED SAND, TR FINE GRAVEL
	9" - 5'	BROWN SILTY FINE TO MED SAND
	5'	END OF BORING



03-19-006-025-00  
LORNE & VIVIAN BUHLER  
4650 34TH STREET  
ZEELAND, MI 49464

**CURVE DATA 2**  
 $\Delta$  = 2°02'22" D  
 R = 6,820.00  
 T = 121.39  
 L = 242.77  
 CH = 242.76  
 PC = 25+28.09  
 PT = 27+48.86  
 DESIGN SPEED = 55 MPH

**CURVE DATA 1**  
 $\Delta$  = 1°09'35" D  
 R = 6,820.00  
 T = 89.82  
 L = 138.03  
 CH = 138.03  
 PC = 23+80.98  
 PT = 25+19.01  
 DESIGN SPEED = 55 MPH

**CURVE DATA 3**  
 $\Delta$  = 1°07'50" D  
 R = 6,820.00  
 T = 97.28  
 L = 134.56  
 CH = 134.55  
 PC = 27+82.73  
 PT = 29+17.28  
 DESIGN SPEED = 55 MPH

**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)

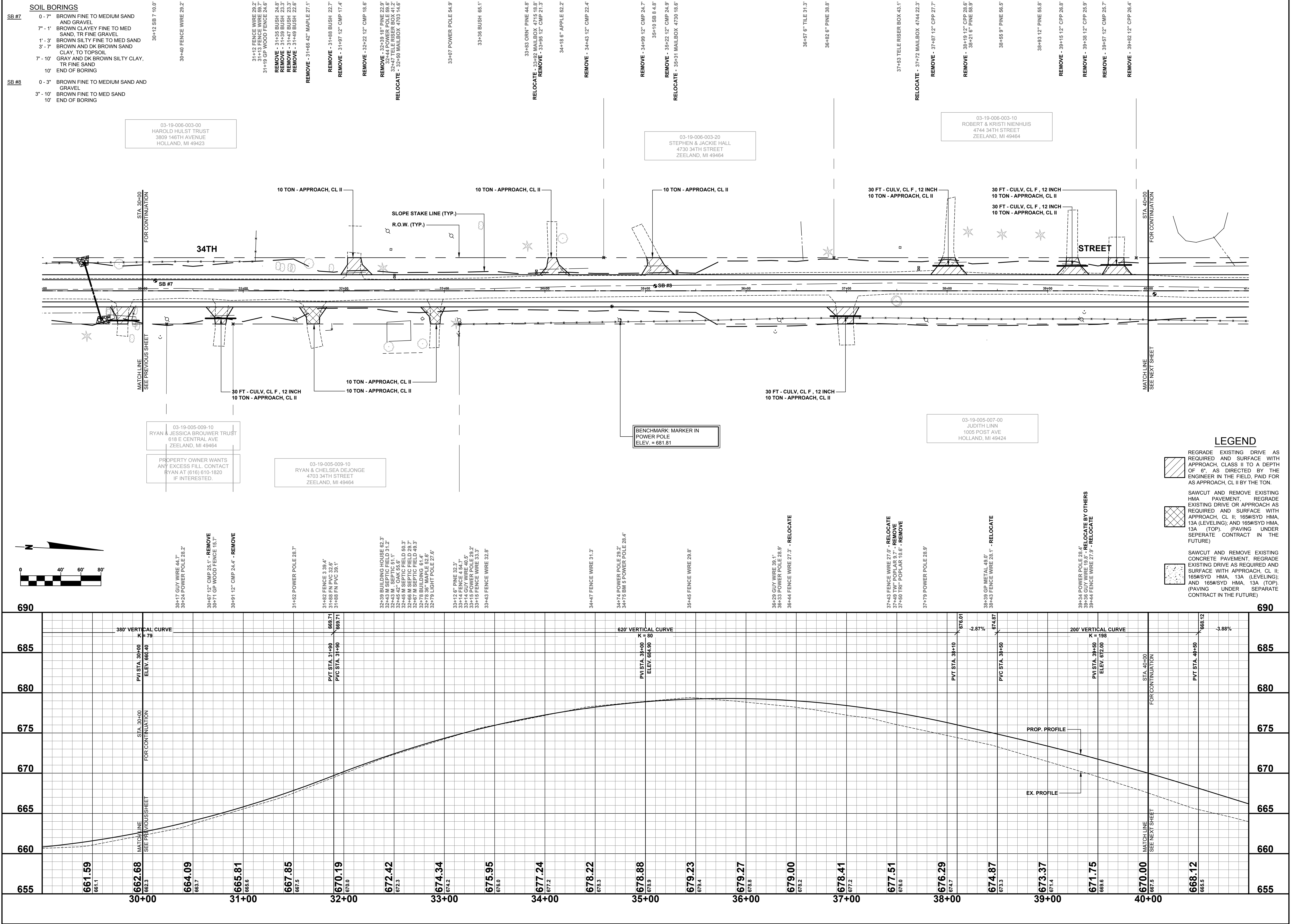
**Board of County Road Commissioners  
Of Allegan County**  
 1308 LINCOLN ROAD  
 ALLEGAN, MICHIGAN 49010-9762  
 TELEPHONE: (269) 673-2184 www.alleganroads.org FAX: (269) 673-5922

REVISIONS

1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
 SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
 PLAN & PROFILE - STA. 20+00 TO STA. 30+00

DRAWN BY: J.S.E.  
 REVIEWED BY:  
 DATE: MAY, 2016  
 SCALE: 1" = 40'H, 5'V



**SOIL BORINGS**

SB #7	SB #8
0 - 7" BROWN FINE TO MEDIUM SAND AND GRAVEL	0 - 3" BROWN FINE TO MEDIUM SAND AND GRAVEL
7 - 1' BROWN CLAYEY FINE TO MED SAND, TR FINE GRAVEL	3" - 10" BROWN FINE TO MED SAND
1' - 3" BROWN SILTY FINE TO MED SAND	10" END OF BORING
3' - 7" BROWN AND DK BROWN SAND CLAY, TO TOPSOIL	
7' - 10" GRAY AND DK BROWN SILTY CLAY, TR FINE SAND	
10" END OF BORING	

03-19-006-003-00  
HAROLD HULST TRUST  
3809 146TH AVENUE  
HOLLAND, MI 49423

03-19-006-003-20  
STEPHEN & JACKIE HALL  
4730 34TH STREET  
ZEELAND, MI 49464

03-19-006-003-10  
ROBERT & KRISTI NIENHUIS  
4744 34TH STREET  
ZEELAND, MI 49464

03-19-005-009-10  
RYAN & JESSICA BROUWER TRUST  
818 E CENTRAL AVE  
ZEELAND, MI 49464

03-19-005-009-10  
RYAN & CHELSEA DEJONGE  
4703 34TH STREET  
ZEELAND, MI 49464

BENCHMARK MARKER IN  
POWER POLE  
ELEV. = 681.81

03-19-005-007-00  
JUDITH LIND  
1005 POST AVE  
HOLLAND, MI 49424

PROPERTY OWNER WANTS  
ANY EXCESS FILL. CONTACT  
RYAN AT (616) 610-1820  
IF INTERESTED.

- 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)

**Board of County Road Commissioners  
Of Allegan County**

1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
TELEPHONE: (269) 673-2184 www.alleganroads.org FAX: (269) 673-5922

REVISIONS

1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE

PLAN & PROFILE - STA. 30+00 TO STA. 40+00

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 40'H, 5'V

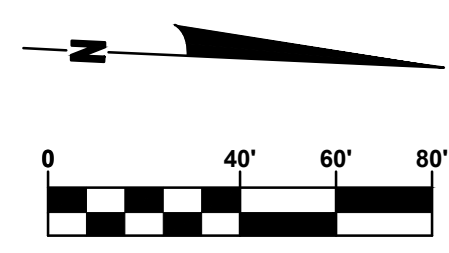
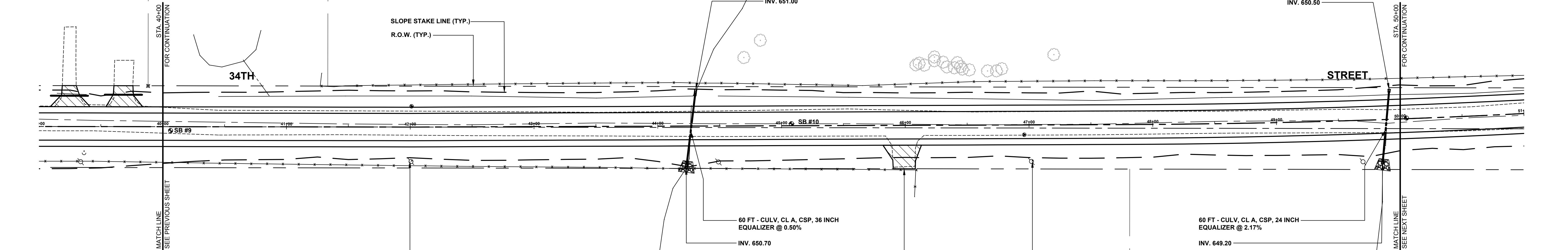
SB #	SOIL BORINGS
SB #9	0 - 7" BROWN FINE TO MEDIUM SAND AND GRAVEL 7" - 1.5' BROWN FINE TO MED SAND 1.5' - 5' BROWN SANDY CLAY, TR FINE GRAVEL 5' END OF BORING
	40+65.6" PVC 53.3' 40+86.6" PVC 26.2'
SB #10	0 - 1.2' BROWN FINE TO MEDIUM SAND AND GRAVEL 1.2' - 3' BROWN FINE TO MED SAND, TR FINE GRAVEL 3' - 11' BROWN PEAT 11' - 15' BROWN VERY ORGANIC MARL 15' - 20' GRAYISH SILTY CLAY 20' END OF BORING
	41+27 FENCE 33.0' 41+28 FENCE 43.4' 41+38 FENCE 32.4' 41+47 FENCE 4 33.3'
	42+48 FENCE WIRE 34.6'
	43+54 FENCE WIRE 36.8'
	44+15 FENCE WIRE 38.2' REMOVE - 44+27 30" CMP 17.6' 44+33 FENCE WIRE 36.8' 44+49 FENCE WIRE 36.9' 44+69 24" WILLOW 66.5' 44+83 24" WILLOW 70.4'
	45+65 FN FN2 34.0'
	46+08 TW" WILLOW 60.8' 46+15 TW" WILLOW 50.6' 46+23 9" WILLOW 57.1' 46+33 5" WILLOW 52.3' 46+33 5" WILLOW 52.3' 46+34 12" WILLOW 49.1' 46+40 5" WILLOW 48.4' 46+45 15" WILLOW 49.9' 46+45 15" WILLOW 49.9' 46+46 15" WILLOW 47.4' 46+46 15" WILLOW 47.4' 46+55 FENCE WIRE 36.2' 46+66 12" WILLOW 46.0' 46+74 15" WILLOW 46.1' 46+79 TW" WILLOW 47.7'
	47+20 27" MAPLE 59.2' 47+53 FENCE WIRE 38.2'
	48+56 FENCE WIRE 38.4'
	49+60 FENCE WIRE 39.3'
	REMOVE - 49+91 18" CPP 29.3'

03-19-006-002-00  
ROBERT & KRISTI NIENHUIS  
4744 34TH STREET  
ZEELAND, MI 49464

03-19-006-001-00  
SHIRLEY DYKSTRA TRUST  
4747 35TH STREET  
ZEELAND, MI 49464

03-19-005-007-00  
JUDITH LINN  
1005 POST AVE  
HOLLAND, MI 49424

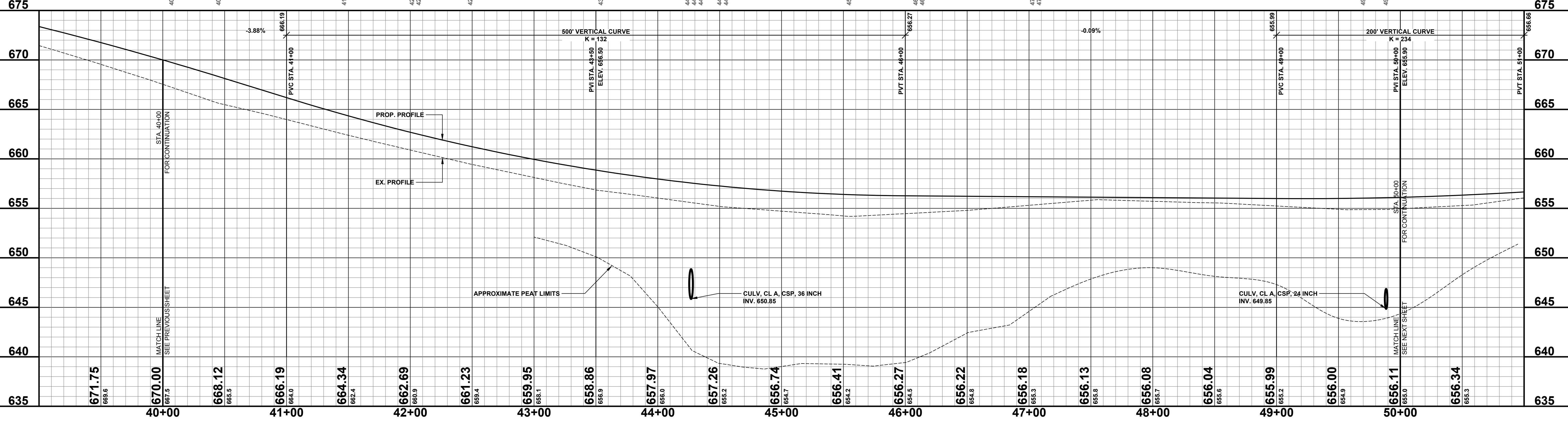
03-19-005-008-00  
HAROLD HULST TRUST  
3809 146TH AVENUE  
HOLLAND, MI 49423



CURVE DATA 4	
Δ	= 03°48'05" D
R	= 6,820.00
T	= 226.32
CL	= 452.40
PC	= 47+73.90
PT	= 52+26.38
DESIGN SPEED	= 55 MPH

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)



**Board of County Road Commissioners  
Of Allegan County**  
1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
TELEPHONE: (269) 673-2184 www.alleganroads.org FAX: (269) 673-5922

REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
  
PLAN & PROFILE - STA. 40+00 TO STA. 50+00

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 40'H, 5'V

**SOIL BORINGS**

SB #11	0 - 18"	BROWN FINE TO MEDIUM SAND AND GRAVEL
	18" - 4'	BROWN PEAT
	4' - 10'	BROWN ORGANIC MARL
	10' - 15'	GRAY SILTY CLAY
	15'	END OF BORING

50+05 SB #11 6.7'

50+65 FENCE WIRE 36.6'

51+65 FENCE WIRE 29.8'

51+83 FENCE WIRE 28.3'

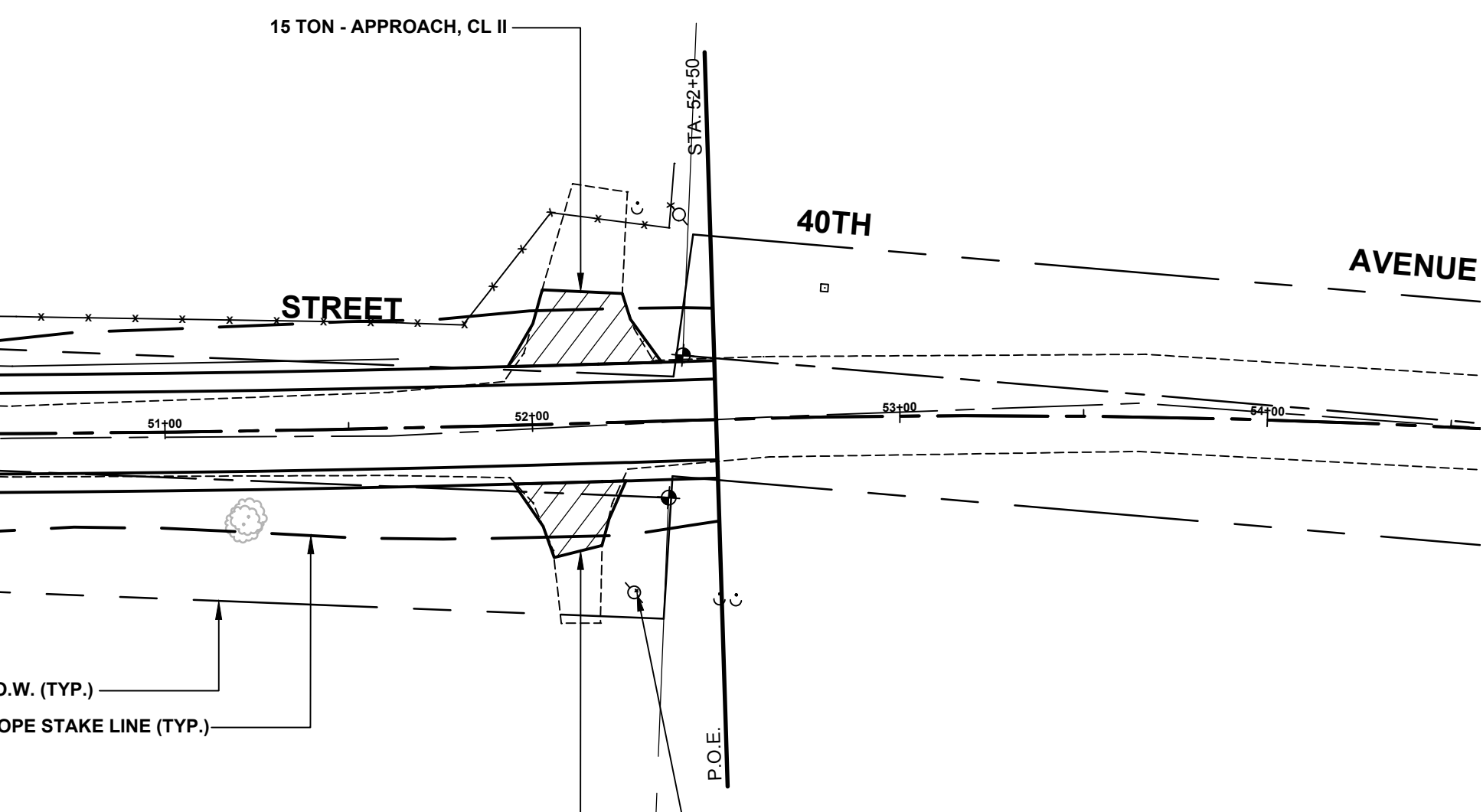
52+05 FENCE WIRE 27.6'

52+32 GUY WIRE 69.0'

52+40 FENCE WIRE 68.3'

52+43 POWER POLE 65.2'

03-19-005-001-00  
SHIRLEY DYKSTRA TRUST  
4747 35TH STREET  
ZEELAND, MI 49464



**CURVE DATA 4**

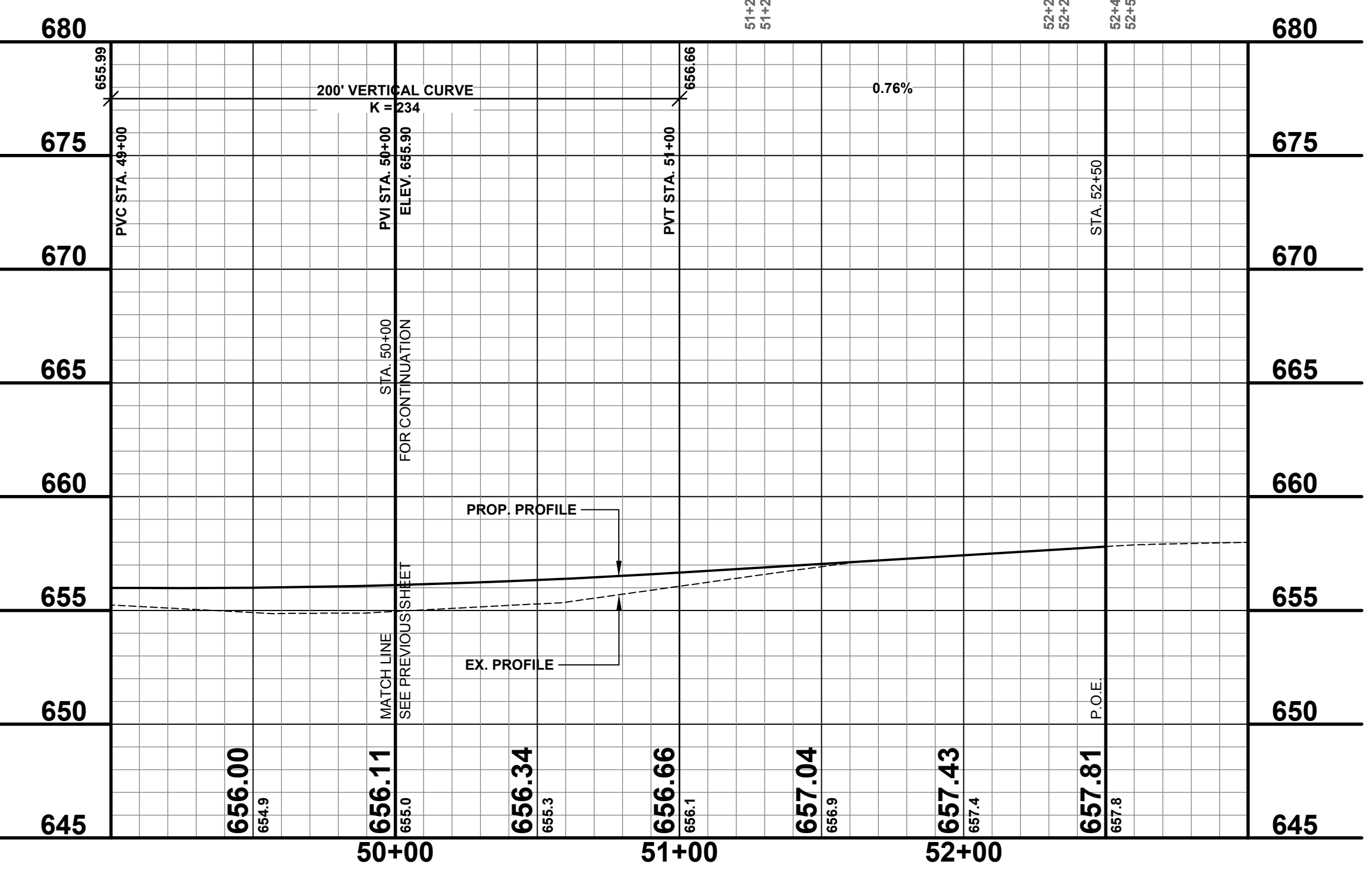
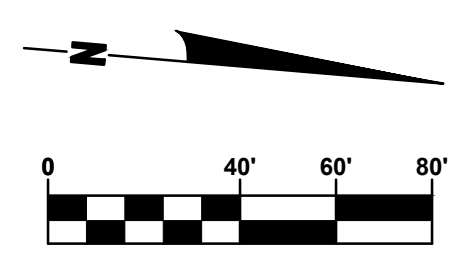
Δ	=	03°48'05" D
R	=	6,820.00
T	=	226.32
CL	=	452.48
CH	=	452.49
PC	=	47+73.90
PT	=	52+26.38
DESIGN SPEED	=	55 MPH

03-19-005-008-00  
HAROLD HULST TRUST  
3809 146TH AVENUE  
HOLLAND, MI 49423

BENCHMARK: MARKER IN POWER POLE  
ELEV. = 657.84

**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 SEPERATE 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 SEPERATE CONTRACT IN THE FUTURE)



**Board of County Road Commissioners  
Of Allegan County**

1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
TELEPHONE: (269) 673-2184 FAX: (269) 673-5922  
www.alleganroads.org

REVISIONS

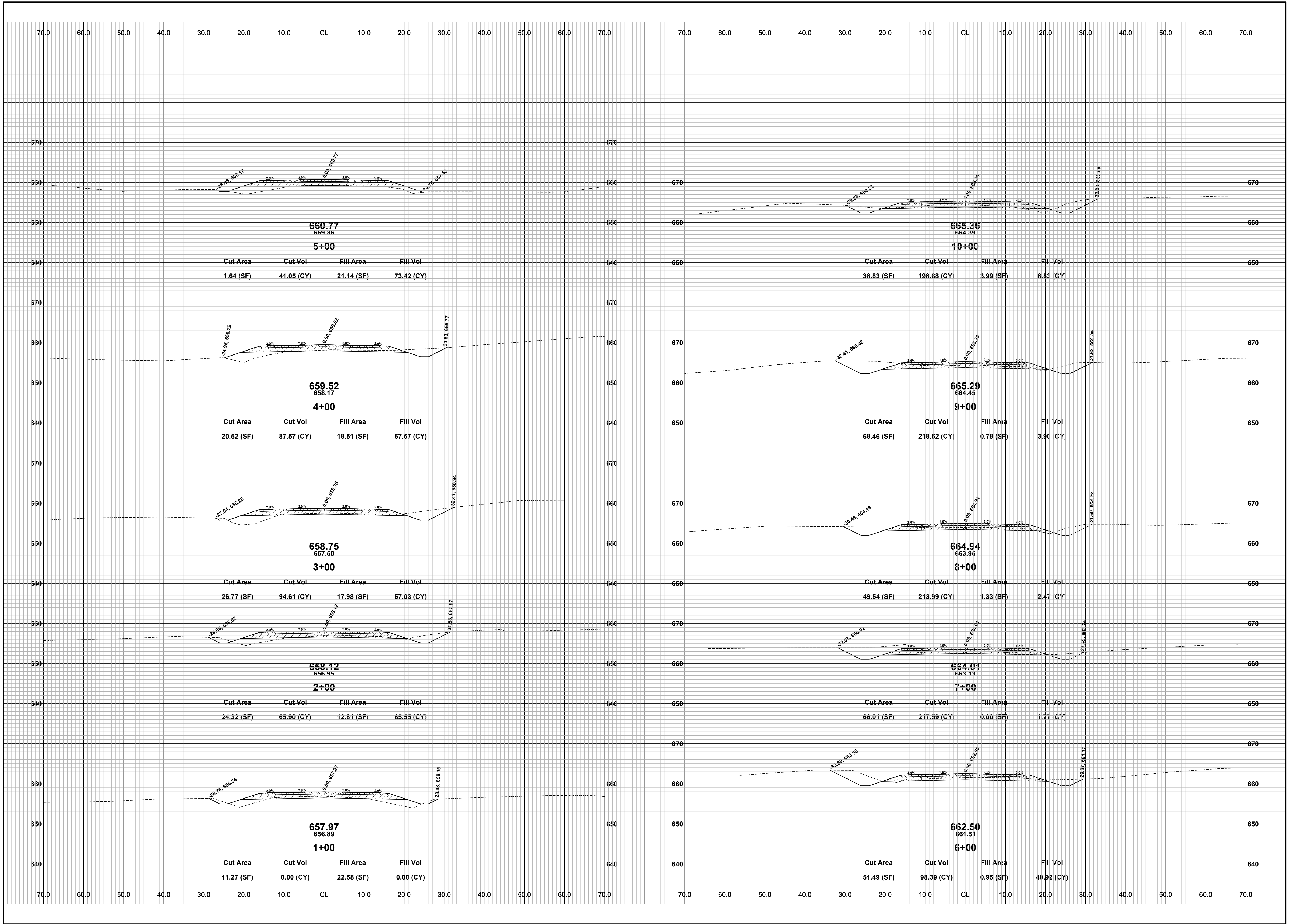
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE

PLAN & PROFILE - STA. 50+00 TO STA. P.O.E.

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 40'H, 5'V

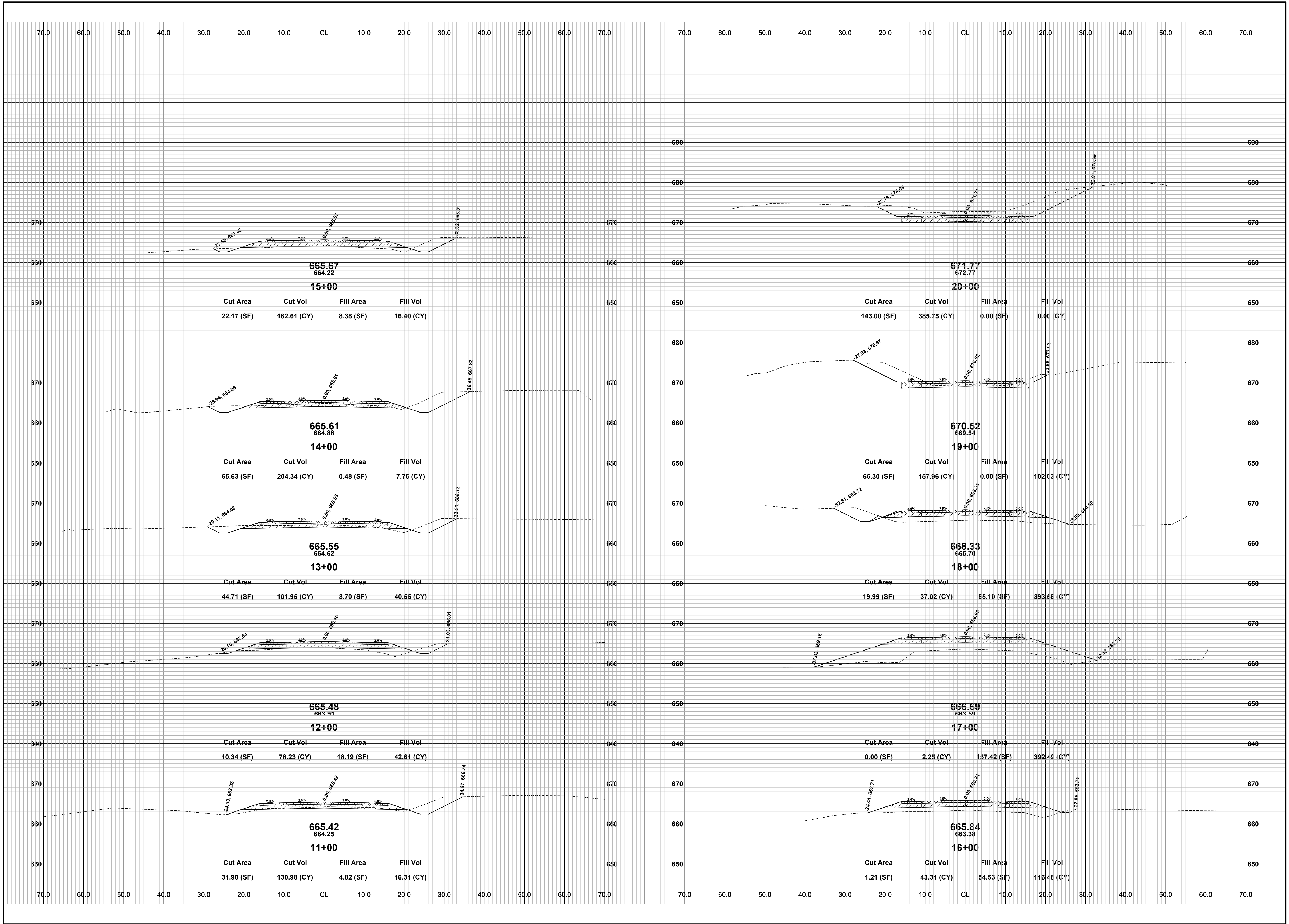




REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
CROSS SECTIONS - STA. 1+00 TO STA. 10+00

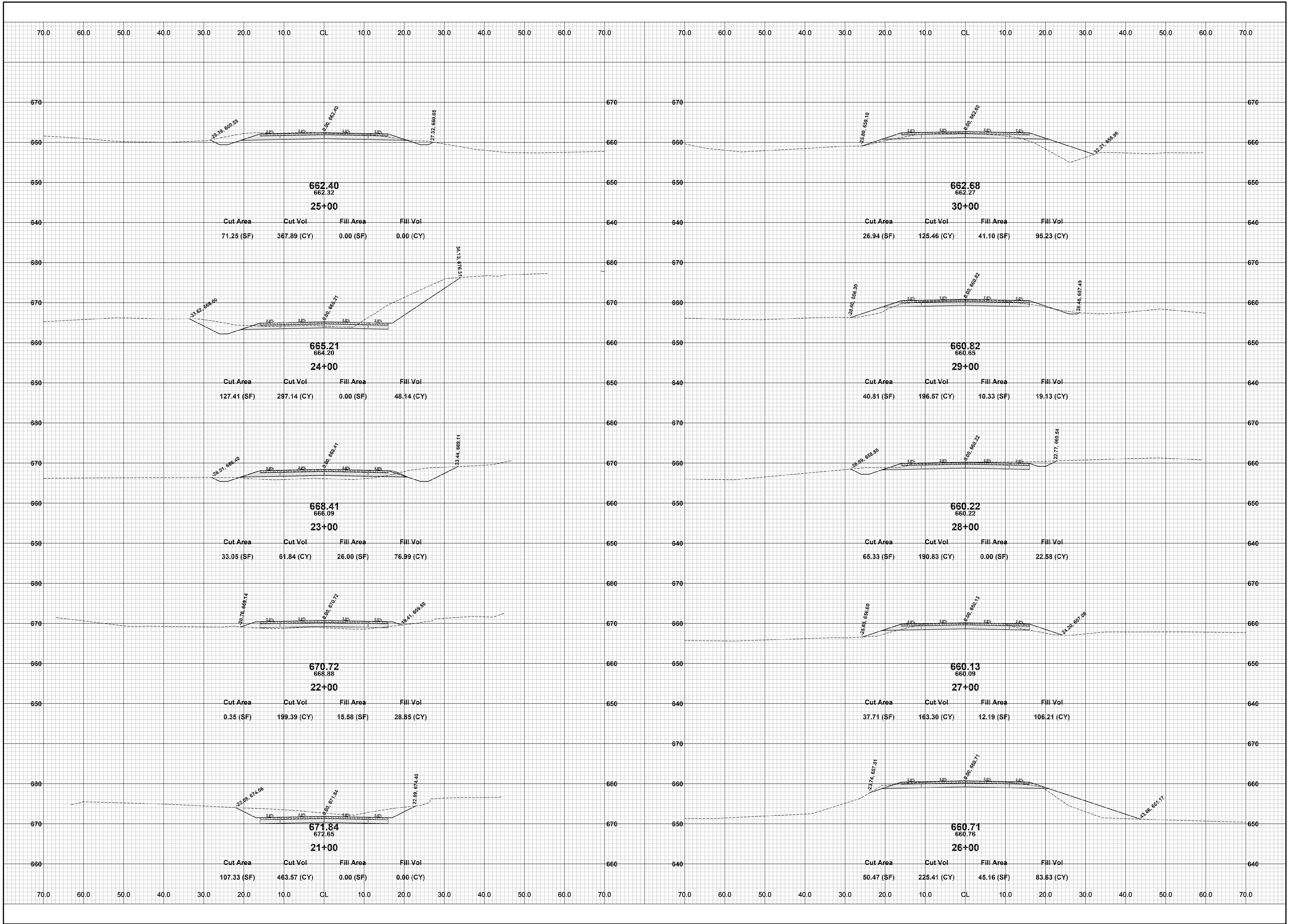
DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 10'



REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
CROSS SECTIONS - STA. 11+00 TO STA. 20+00

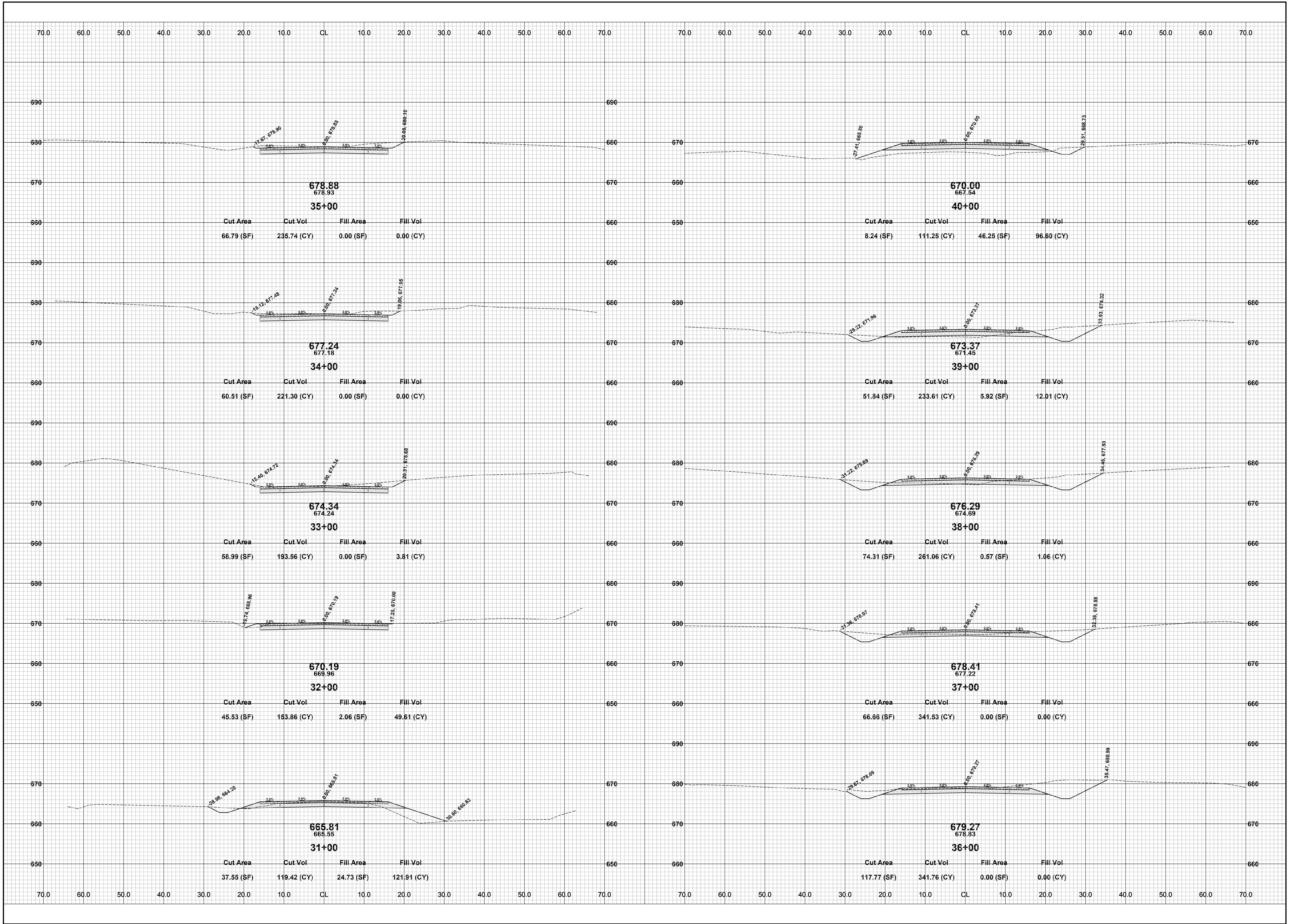
DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 10'



REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
 SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
 CROSS SECTIONS - STA. 21+00 TO STA. 30+00

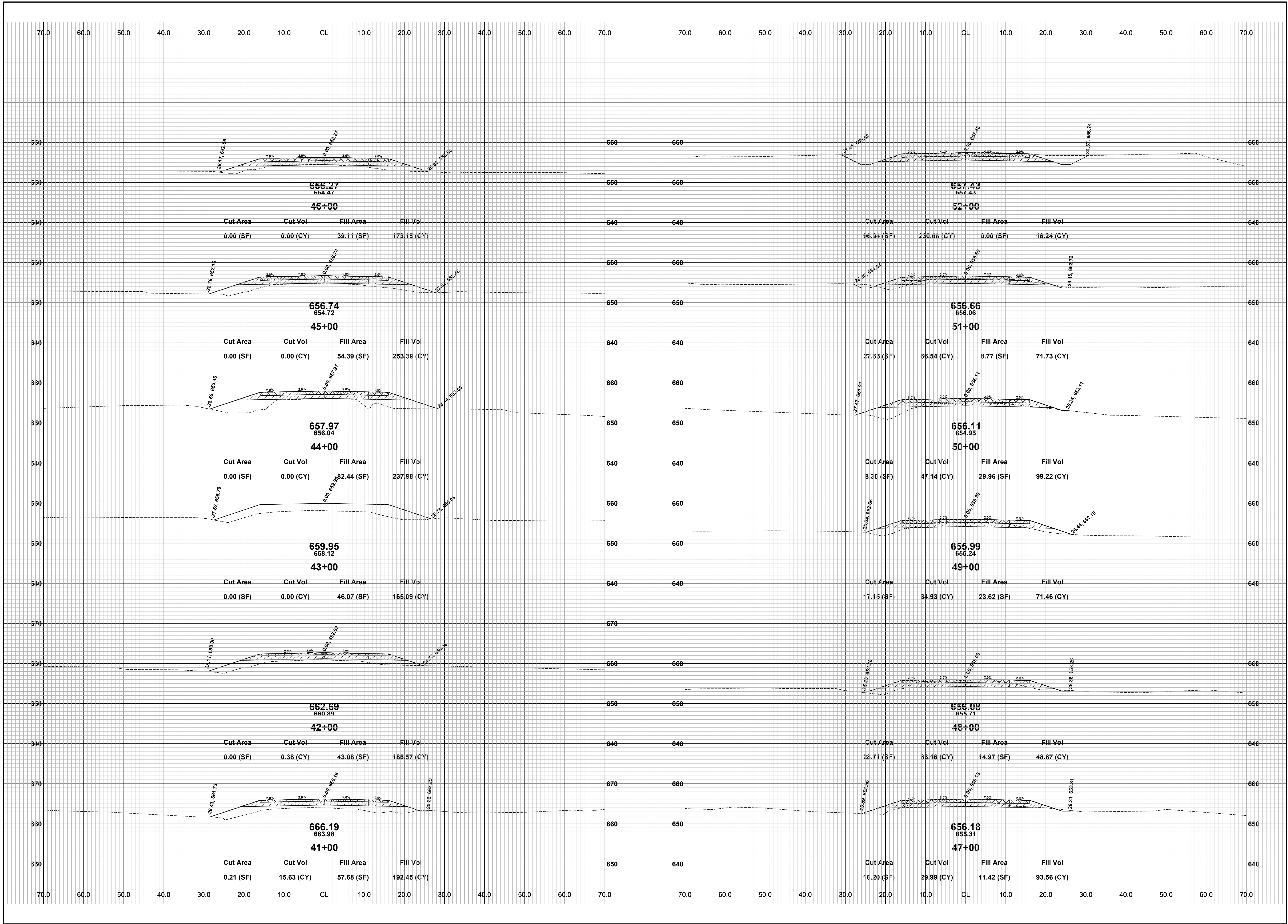
DRAWN BY: J.S.E.  
 REVIEWED BY:  
 DATE: MAY, 2016  
 SCALE: 1" = 10'



REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
 SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
 CROSS SECTIONS - STA. 31+00 TO STA. 40+00

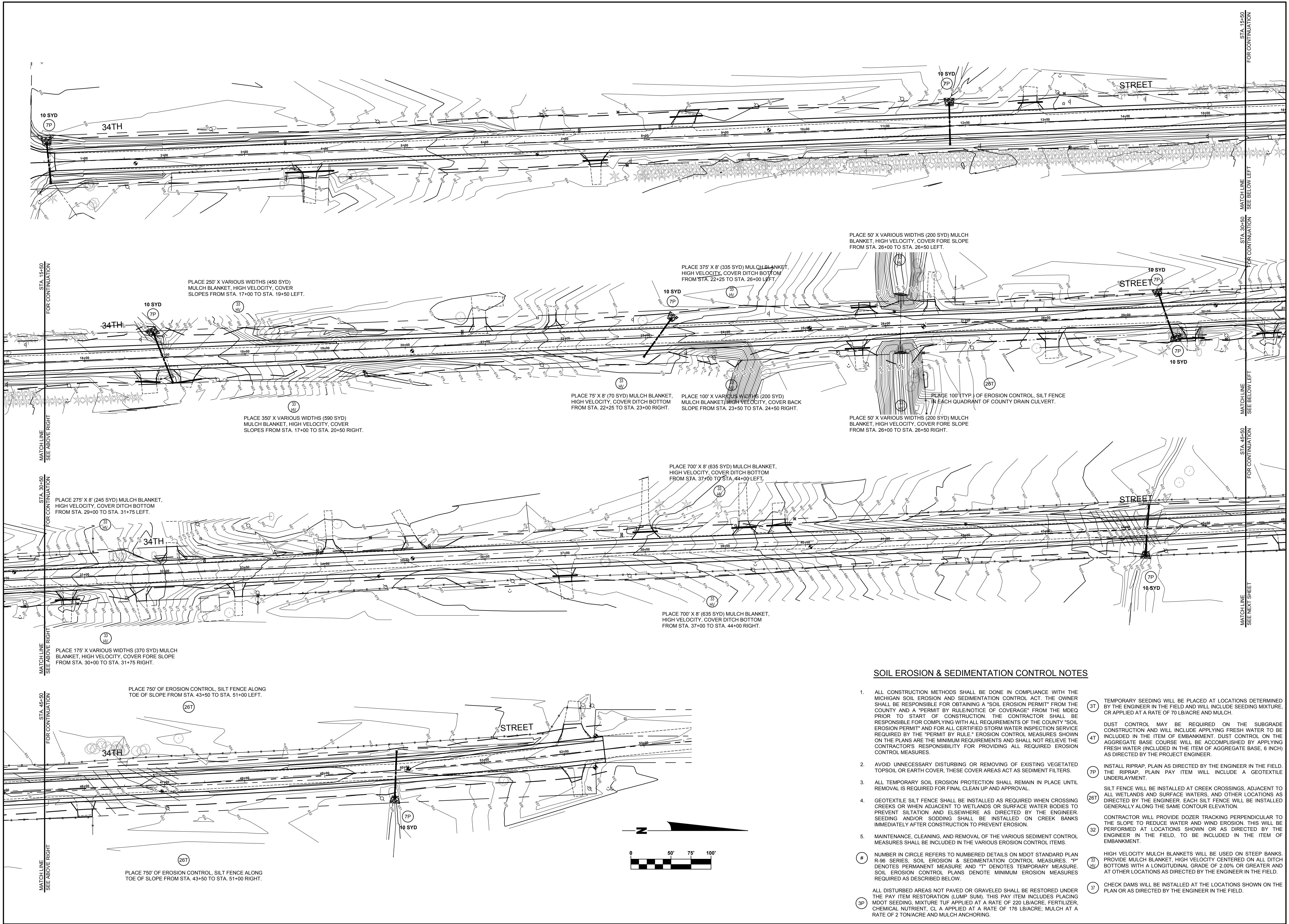
DRAWN BY: J.S.E.  
 REVIEWED BY:  
 DATE: MAY, 2016  
 SCALE: 1" = 10'



REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
 SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE  
 CROSS SECTIONS - STA. 41+00 TO STA. 52+00

DRAWN BY: J.S.E.  
 REVIEWED BY:  
 DATE: MAY, 2016  
 SCALE: 1" = 10'



**SOIL EROSION & SEDIMENTATION CONTROL NOTES**

- 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 A "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.
  - AVOID UNNECESSARY DISTURBING OR REMOVING OF EXISTING VEGETATED TOPSOIL OR EARTH COVER. THESE COVER AREAS ACT AS SEDIMENT FILTERS.
  - ALL TEMPORARY SOIL EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL REMOVAL IS REQUIRED FOR FINAL CLEAN UP AND APPROVAL.
  - 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 SODDING SHALL BE INSTALLED ON CREEK BANKS IMMEDIATELY AFTER CONSTRUCTION TO PREVENT EROSION.
  - MAINTENANCE, CLEANING, AND REMOVAL OF THE VARIOUS SEDIMENT CONTROL MEASURES SHALL BE INCLUDED IN THE VARIOUS EROSION CONTROL ITEMS.
- 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 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.
- ALL DISTURBED AREAS NOT PAVED OR GRAVELED SHALL BE RESTORED UNDER THE PAY ITEM RESTORATION (LUMP SUM). THIS PAY ITEM INCLUDES PLACING MDT SEEDING, MIXTURE TUF APPLIED AT A RATE OF 220 LB/ACRE, FERTILIZER, CHEMICAL NUTRIENT, CL A APPLIED AT A RATE OF 176 LB/ACRE, MULCH AT A RATE OF 2 TON/ACRE AND MULCH ANCHORING.

**Board of County Road Commissioners  
Of Allegan County**

1308 LINCOLN ROAD  
ALLEGAN, MICHIGAN 49010-9762  
TELEPHONE: (269) 673-2184 www.alleganroads.org FAX: (269) 673-5922

REVISIONS	
1	
2	
3	
4	
5	
6	
7	

**34TH STREET RECONSTRUCTION PROJECT**  
SALEM TOWNSHIP - 146TH AVENUE NORTH TO COUNTY LINE

SOIL EROSION AND SEDIMENTATION CONTROL PLAN

DRAWN BY: J.S.E.  
REVIEWED BY:  
DATE: MAY, 2016  
SCALE: 1" = 50'