

ALLEGAN COUNTY ROAD COMMISSION

109TH AVENUE REHABILITATION PROJECT 37TH STREET TO 34TH STREET CHESHIRE AND TROWBRIDGE TOWNSHIPS

UTILITY CONTACTS

ELECTRIC
CONSUMERS ENERGY
4000 CLAY AVE, SW
GRAND RAPIDS, MI 49548
616-530-4185
MS. KYLEE MAYCROFT
grvimp@cmsenergy.com

TELEPHONE
FRONTIER COMMUNICATIONS
MR. LANCE WEBLEY
269-370-4046
lance.webley@ftr.com

MISS DIG 811

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

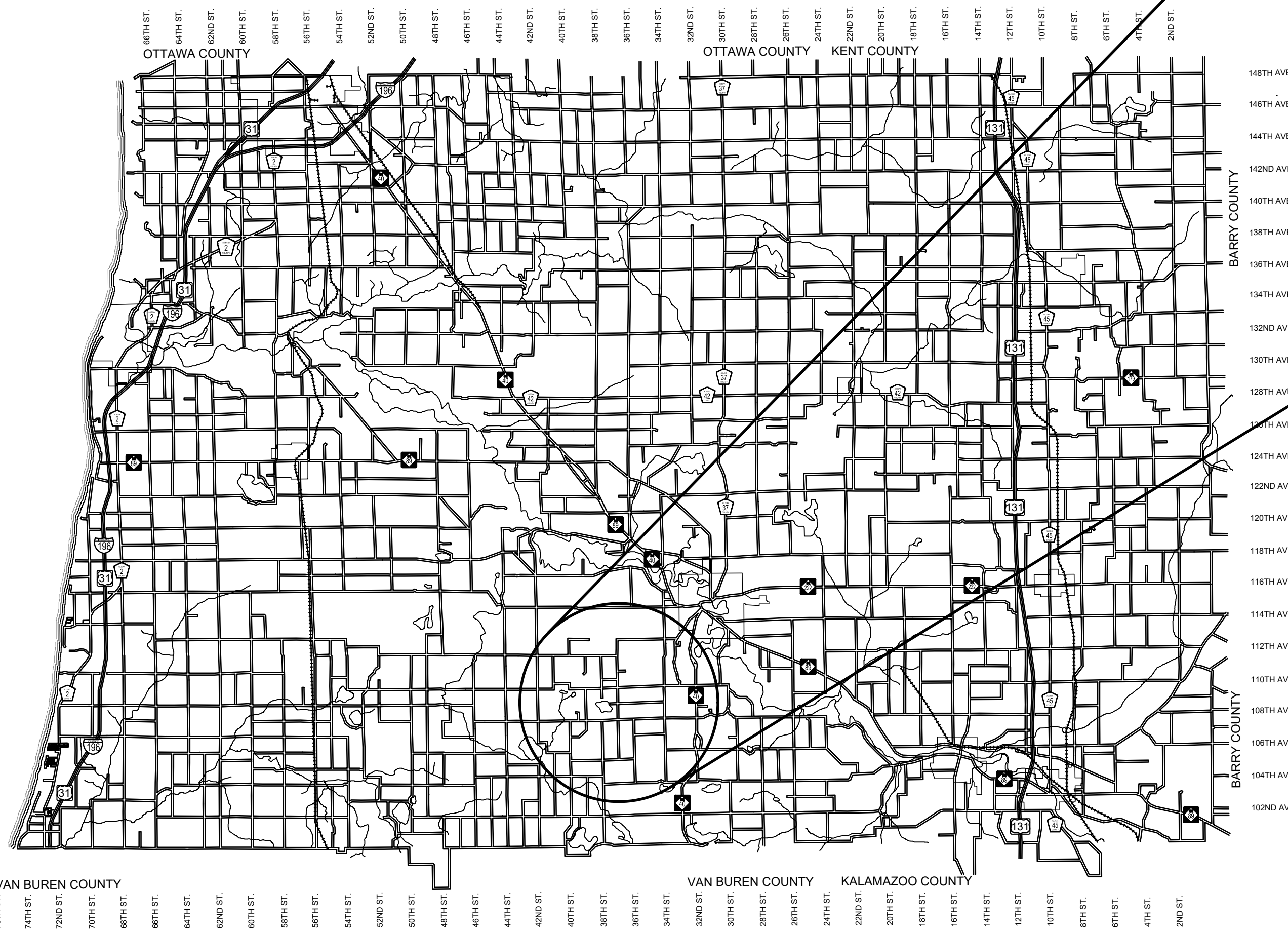
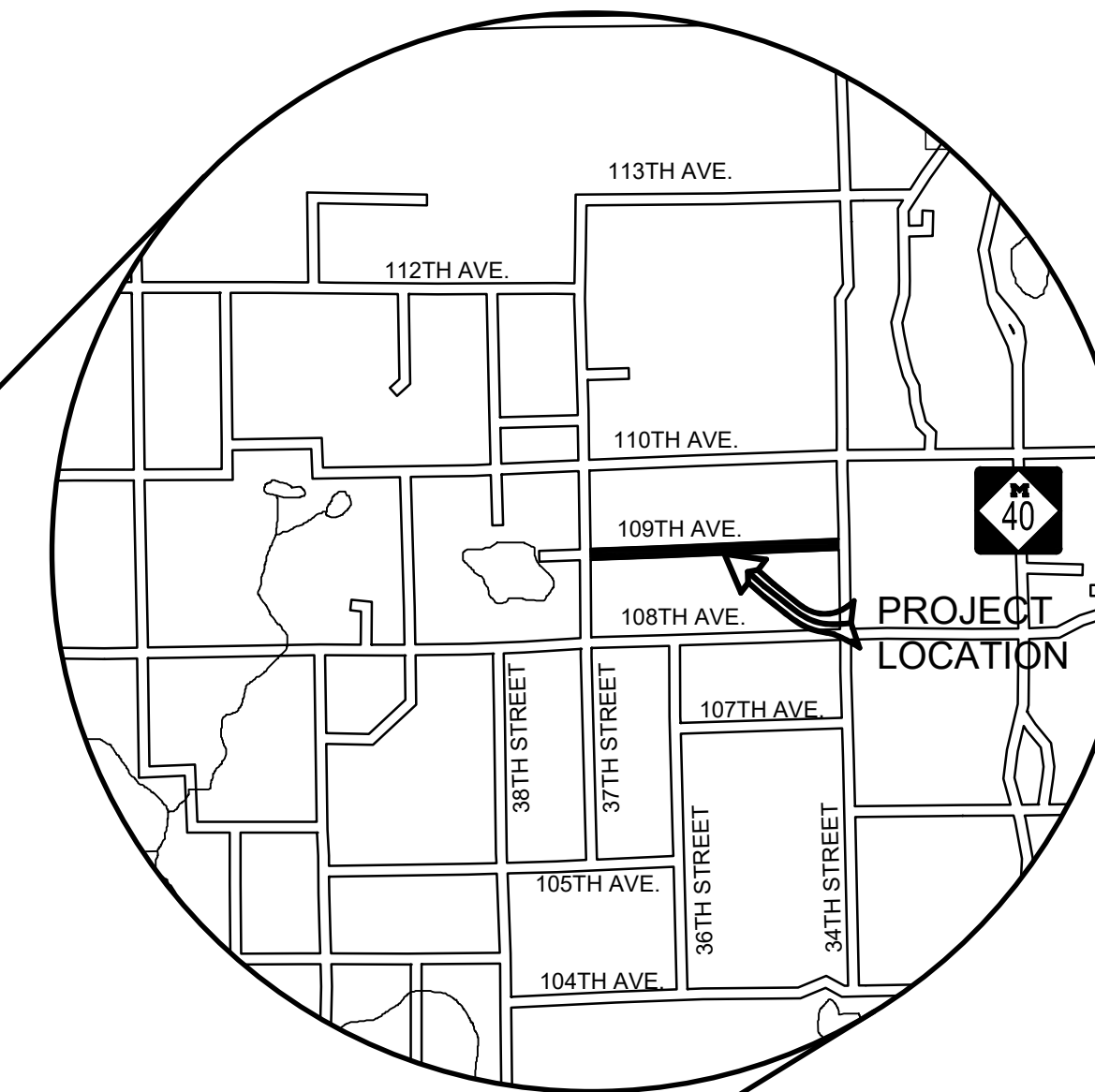
1308 LINCOLN ROAD
ALLEGAN, MICHIGAN 49010-9762
TELEPHONE (269) 673-2184 www.alleganroads.org FAX (269) 673-5922

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.

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.



INDEX OF PLANS

- 1 - COVER SHEET
- 2 - TYPICAL SECTIONS, DETAILS, & NOTES
- 3 - PLAN & PROFILE - P.O.B. TO STA. 20+00
- 4 - PLAN & PROFILE - STA. 20+00 TO STA. 30+00
- 5 - PLAN & PROFILE - STA. 30+00 TO STA. 40+00
- 6 - PLAN & PROFILE - STA. 40+00 TO STA. 50+00
- 7 - PLAN & PROFILE - STA. 50+00 TO STA. 60+00
- 8 - PLAN & PROFILE - STA. 60+00 TO STA. 70+00
- 9 - PLAN & PROFILE - STA. 70+00 TO STA. 80+00
- 10 - PLAN & PROFILE - STA. 80+00 TO P.O.E.

REVISIONS

1	2	3	4	5	6	7
---	---	---	---	---	---	---

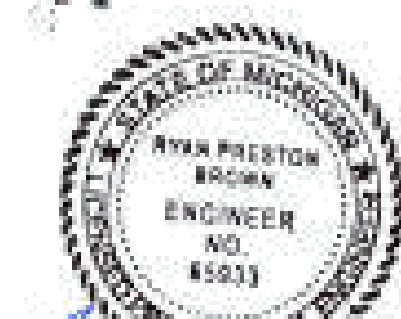
109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH STREET TO 34TH STREET

COVER SHEET

CONTRACT FOR ROAD IMPROVEMENTS

1.45 MILES OF ROADWAY REHABILITATION INCLUDING CLEARING, CRUSHING AND SHAPING, SHOULDER PREPARATION, WIDENING, AGGREGATE BASE, CULVERT REPLACEMENTS, HMA PAVING, AND RESTORATION ON 109TH AVENUE FROM 37TH STREET TO 34TH STREET IN CHESHIRE AND TROWBRIDGE TOWNSHIPS, ALLEGAN COUNTY.

PREPARED UNDER THE SUPERVISION OF:

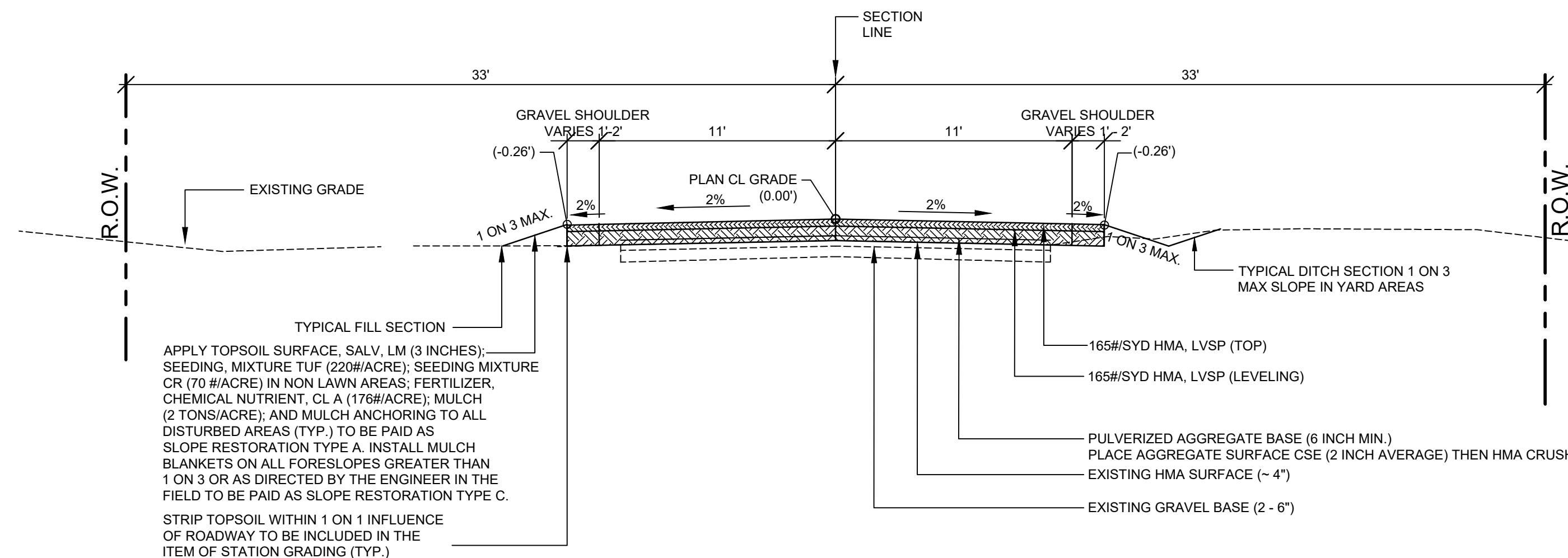


Ryan P. Brown

RYAN P. BROWN
REGISTERED PROFESSIONAL ENGINEER No. 65933

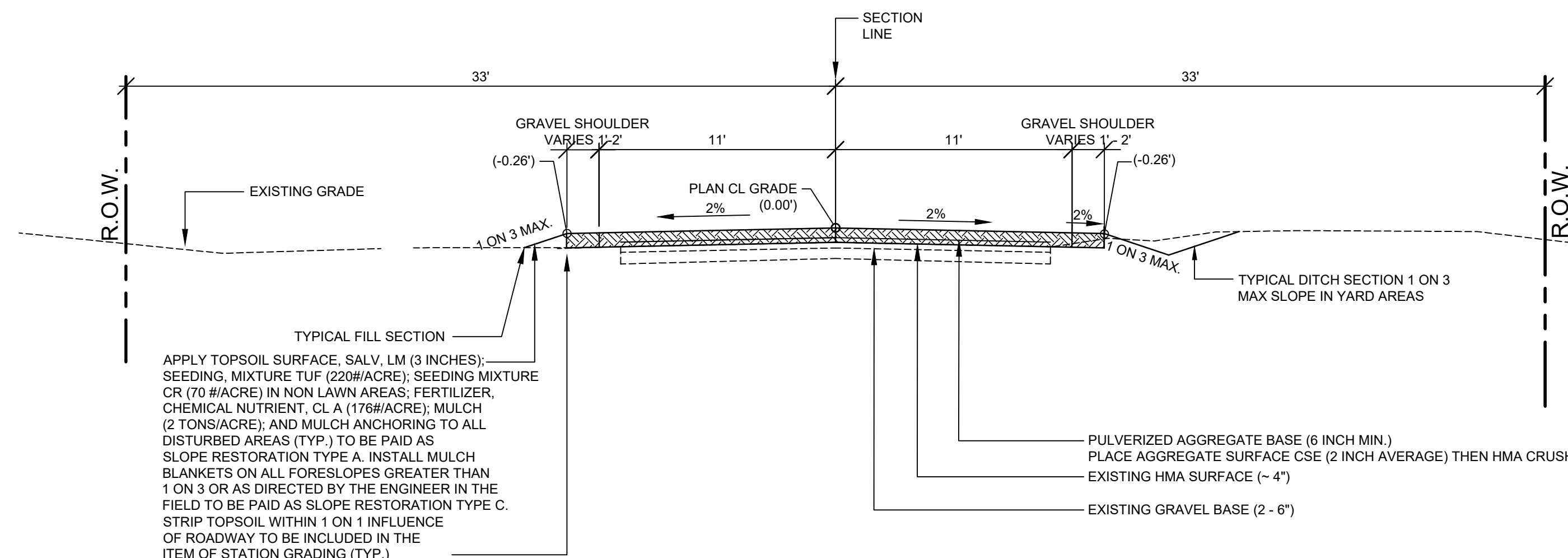
DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: NONE

LH 4053 1



TYPICAL SECTION - 109TH AVENUE, CHESHIRE TOWNSHIP

SCALE: 1" = 5'
THIS SECTION APPLIES TO:
P.O.B. TO 36+00



TYPICAL SECTION - 109TH AVENUE, TROWBRIDGE TOWNSHIP

SCALE: 1" = 5'
THIS SECTION APPLIES TO:
36+00 TO P.O.E.

ITEM	AWI	YIELD	PERFORMANCE GRADE
HMA, LVSP, MOD (TOP)	220	165#/SYD	P.G. 64 - 28
HMA, LVSP, MOD (LEVELING)		165#/SYD	P.G. 64 - 28
HMA BOND COAT (NOT A PAY ITEM)		0.05 TO 0.15 GAL/SYD	SS - 1h

HMA APPLICATION TABLE

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 18, 2019. 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 SHEETS FOR SOIL BORING DATA.

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

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); SEEDING MIXTURE CR (70 #/ACRE) IN NON LAWN AREAS; FERTILIZER, CHEMICAL NUTRIENT, CL A (176#/ACRE); AND MULCH AND MULCH ANCHORING (2 TON/ACRE) TO BE PAID AS SLOPE RESTORATION, TYPE A. AREAS TO USE HIGH VELOCITY MULCH BLANKET, TO BE PAID AS SLOPE RESTORATION TYPE C WILL BE DIRECTED BY THE ENGINEER IN THE FIELD.

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 TO BE PAID AS SLOPE RESTORATION TYPE C.

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.

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 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.

MISCELLANEOUS QUANTITIES

DESCRIPTION	QUANTITY	UNIT
SUBBASE, CIP	1750	CYD
SUBGRADE UNDERCUTTING, TYPE II	500	CYD
AGGREGATE, 6A	50	TON
GEOTEXTILE, STABILIZATION	1000	SYD
RIPRAP, PLAIN	20	SYD
EROSION CONTROL, SILT FENCE	300	FT
APPROACH, CL II	30	TON
APPROACH, HMA, MILLINGS	20	TON

**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	

109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH STREET TO 34TH STREET

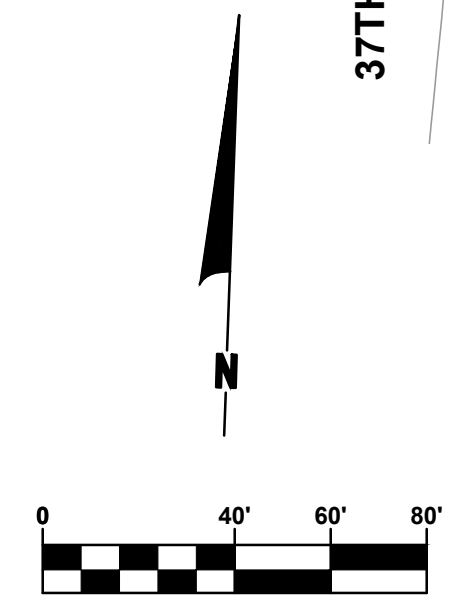
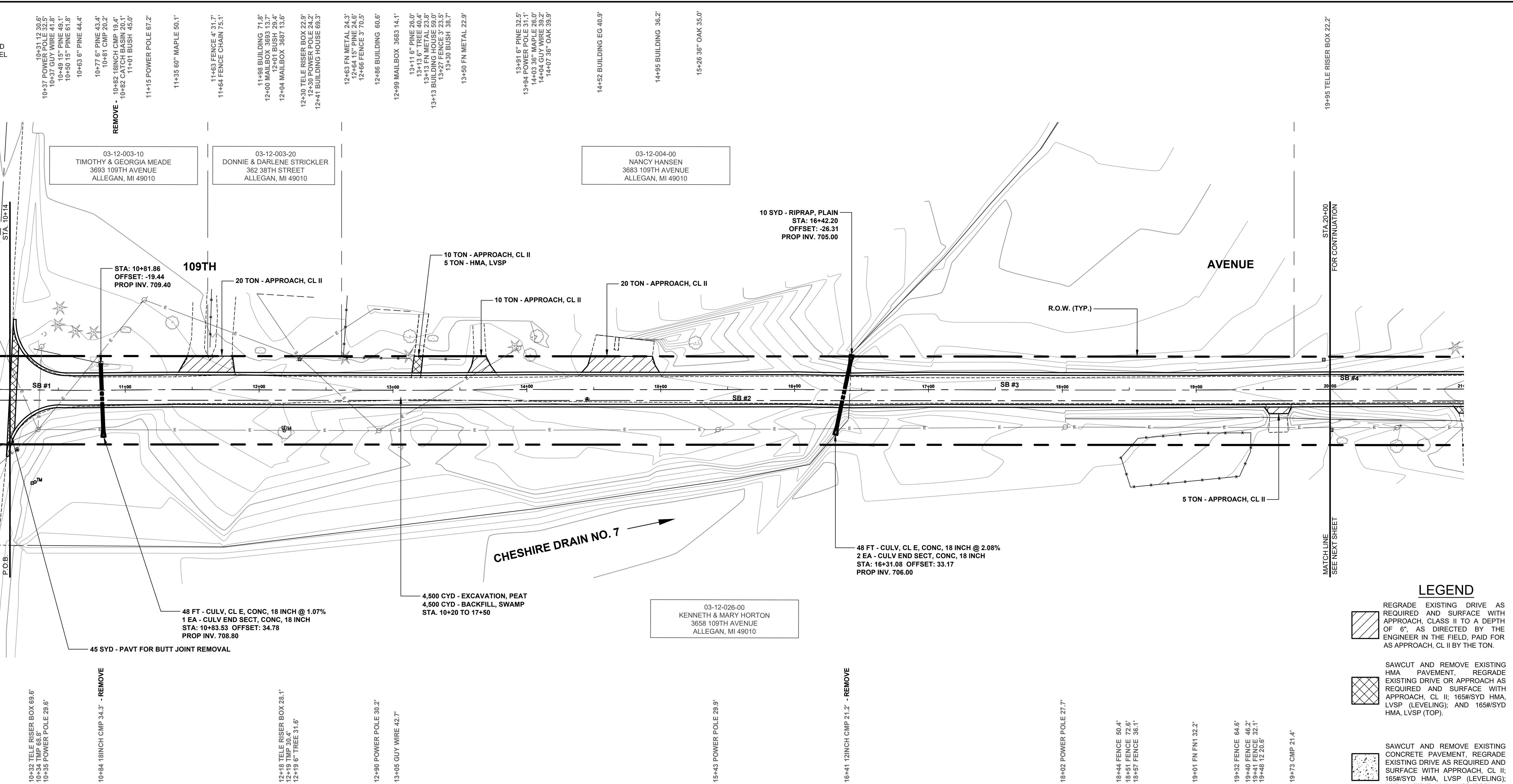
TYPICAL SECTIONS, DETAILS, & NOTES

DRAWN BY:	RPB
REVIEWED BY:	JSE
DATE:	JUNE, 2021
SCALE:	AS NOTED

LH 4053 2

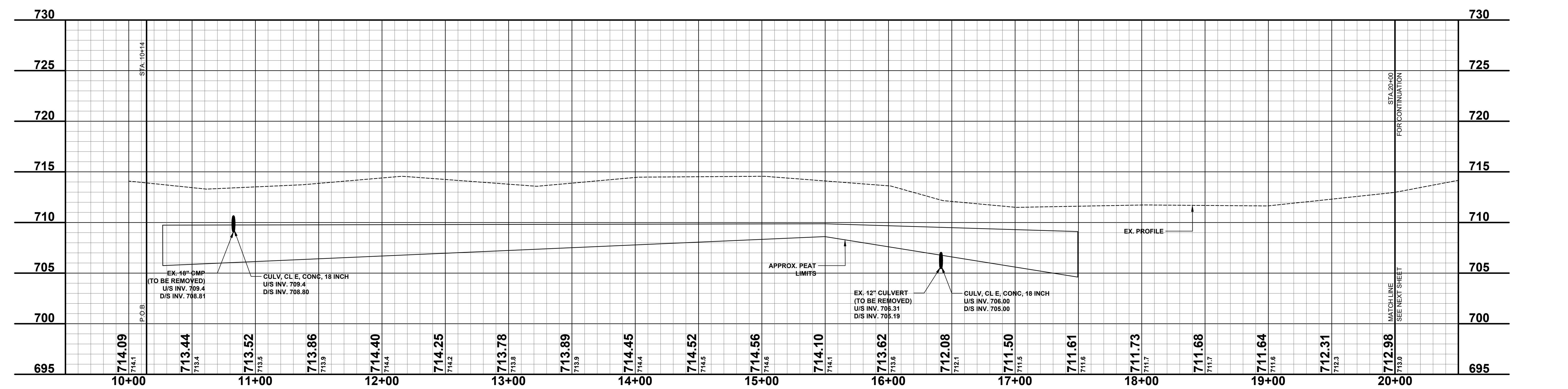
SOIL BORINGS

SB #1	0 - 2" ASPHALT
	2" - 18" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL
	18" - 30" DARK BROWN FINE TO MEDIUM SAND TR CLAY & FINE TO COARSE GRAVEL
	30" - 48" BROWN FINE TO MEDIUM SAND
	48" - 96" BLACK PEAT
	96" - 120" GRAY CLAYEY FINE SAND
	120" END OF BORING
SB #2	0 - 3.5" ASPHALT
	3.5" - 48" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
	48" - 66" BLACK PEAT
	66" - 96" LIGHT BROWN FINE SAND
	96" END OF BORING
SB #3	0 - 3" ASPHALT
	3" - 5" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
	5" - 30" BROWN FINE TO MEDIUM SAND
	30" - 78" BLACK PEAT
	78" - 120" LIGHT BROWN FINE SAND
	120" END OF BORING



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, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).
- SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).



**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	

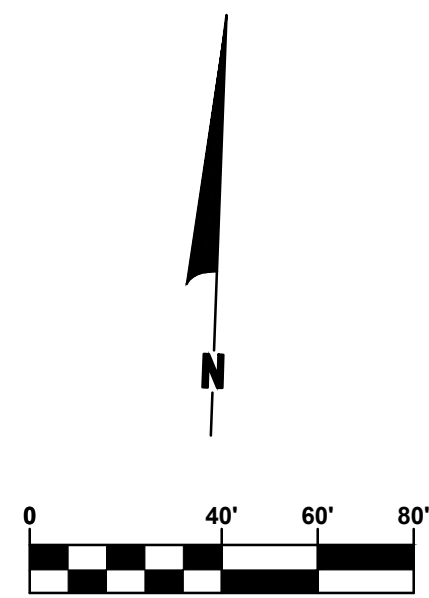
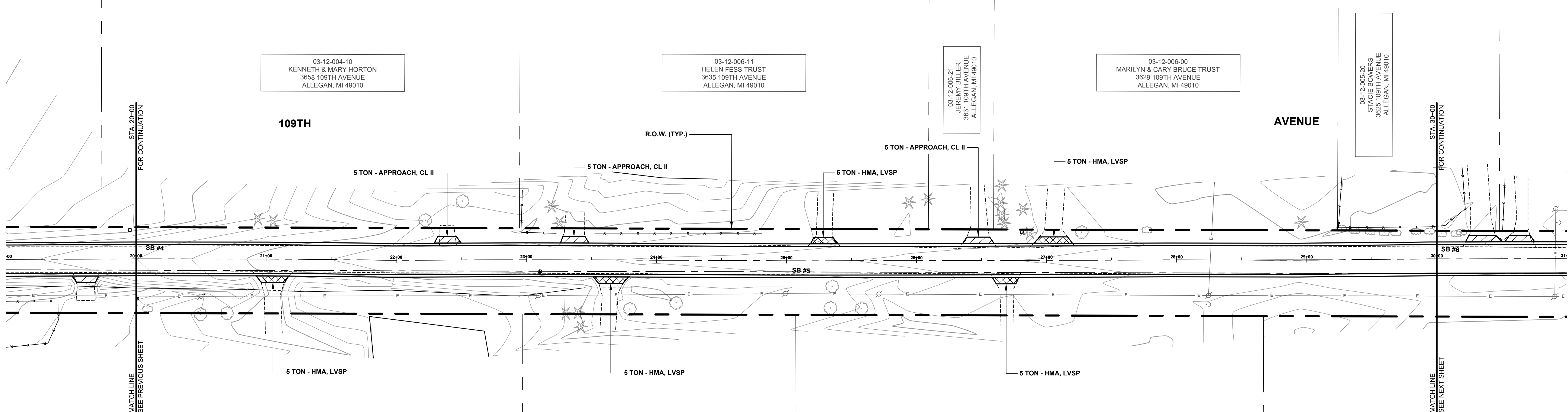
109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET
PLAN & PROFILE - P.O.B. TO STA. 20+00

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5V

LH 4053 3

SOIL BORINGS

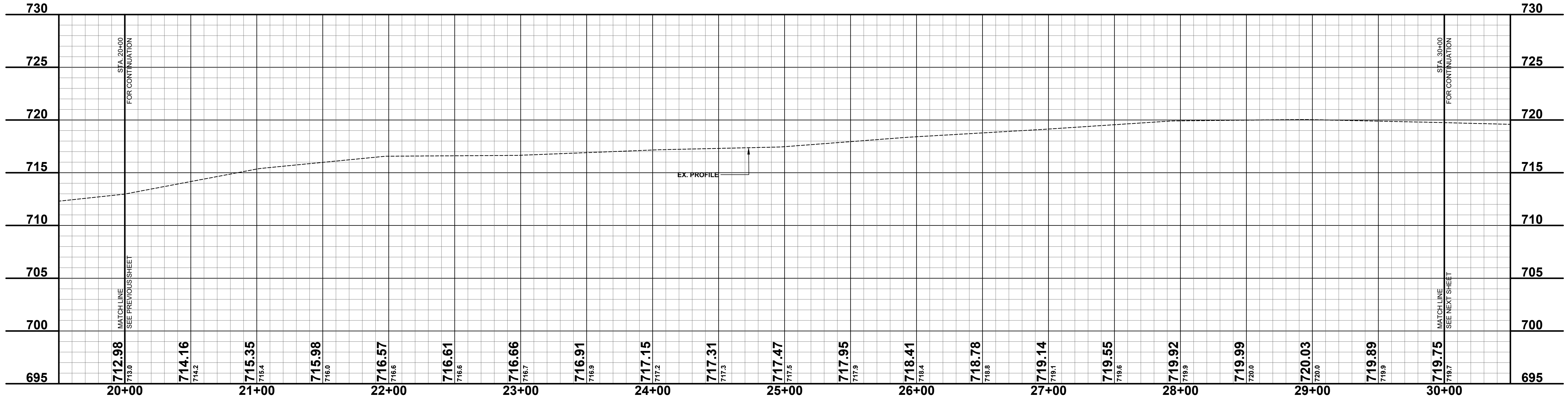
SB #4	0 - 3" ASPHALT	20+93.6" PINE 31.1'
	3" - 11" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL	21+05.6" PINE 29.5'
	11" - 60" BROWN FINE TO MEDIUM SAND	
	60" END OF BORING	
SB #5	0 - 3" ASPHALT	
	3" - 14" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL	
	14" - 24" DARK BROWN FINE SAND - TR CLAY	
	24" - 60" BROWN FINE SAND	
	60" END OF BORING	



- 20+01 TELE RISER BOX 30.5'
- 20+09 BUSH 38.4'
- 20+50 6" APPLE 42.5'
- 20+50 POWER POLE 28.7'
- 20+53 BM2 PP N SIDE 27.3'
- 20+70 6" APPLE 41.7'
- 20+74 MAILBOX 3658 15.6'
- 20+86 12 23.4'
- 21+31 CMP 24.9'
- 23+10 POWER POLE 27.5'
- 23+30 ORN PINE 40.8'
- 23+35 ORN PINE 40.2'
- 23+42 ORN PINE 44.8'
- 23+50 12 20.9'
- 23+80 9" MAPLE 37.7'
- 23+82 CMP 20.9'
- 24+15 9" CHERRY 32.9'
- 24+99 POWER POLE 25.3'
- 25+34 12" MAPLE 38.3'
- 25+35 12" MAPLE 19.7' - REMOVE
- 25+58 12" MAPLE 36.6'
- 25+71 POWER POLE 25.7'
- 27+13 MAILBOX 3636 17.1'
- 28+23 GUY WIRE 34.1'
- 28+24 POWER POLE 27.3'

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, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).
	SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).



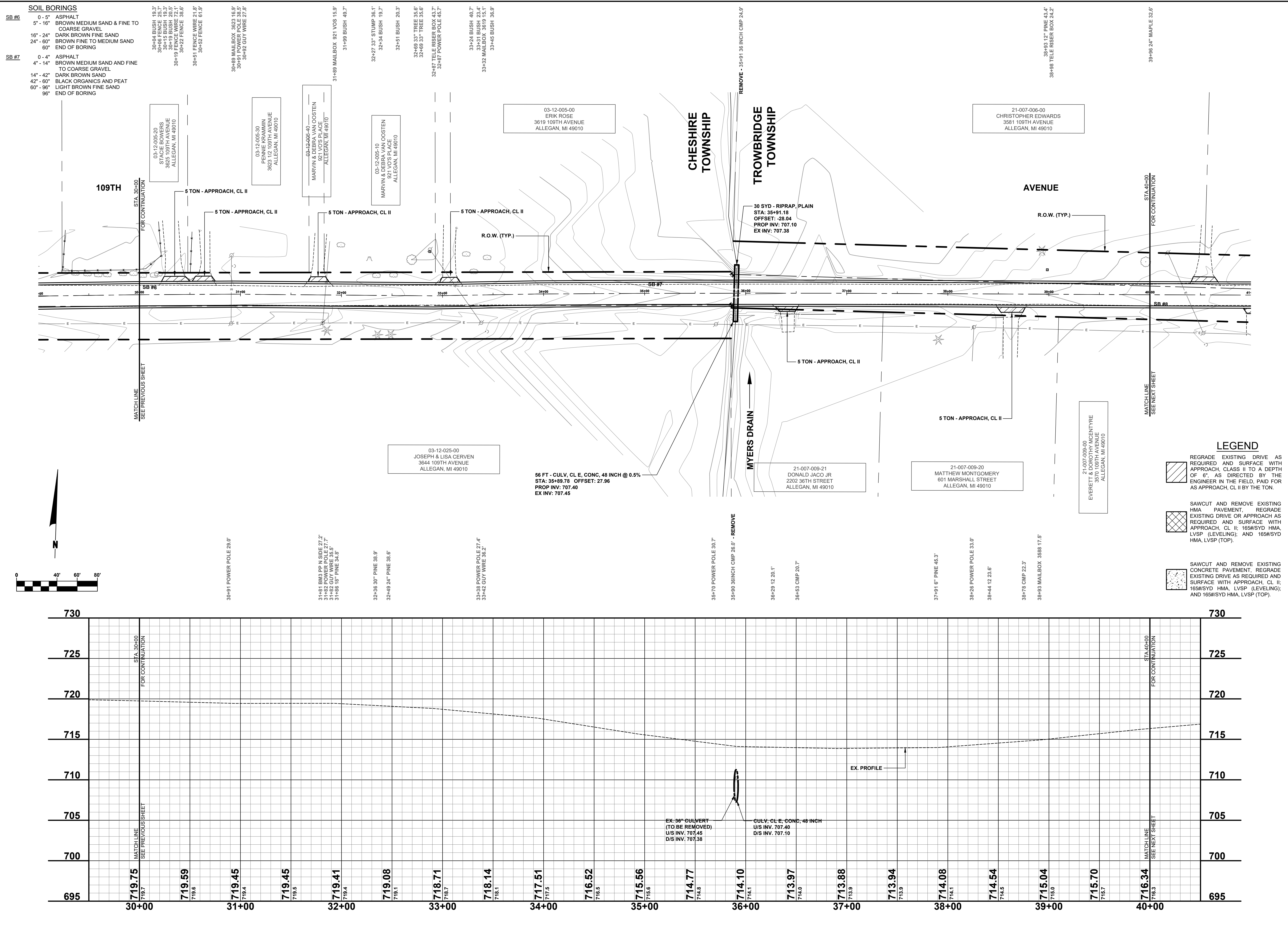
**Board of County Road Commissioners
Of Allegan County**
1308 LINCOLN ROAD
ALLEGAN, MICHIGAN 49010-9762
www.alleganroads.org
TELEPHONE (269) 673-2184 FAX (269) 673-5922

REVISIONS

1	
2	
3	
4	
5	
6	
7	

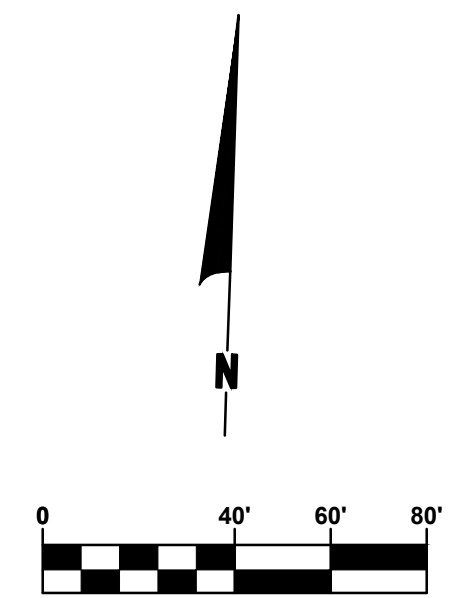
109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET
PLAN & PROFILE - STA. 20+00 TO STA. 30+00

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40', 5V



SOIL BORINGS

SB #6	SB #7
0 - 5" ASPHALT	0 - 4" ASPHALT
5" - 16" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL	4" - 14" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
16" - 24" DARK BROWN FINE SAND	14" - 42" DARK BROWN SAND
24" - 60" BROWN FINE TO MEDIUM SAND	42" - 60" BLACK ORGANICS AND PEAT
60" END OF BORING	60" - 96" LIGHT BROWN FINE SAND
	96" END OF BORING



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, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).
- SAWCUT AND REMOVE EXISTING CONCRETE PAVEMENT, REGRADE EXISTING DRIVE AS REQUIRED AND SURFACE WITH APPROACH, CL II; 165#/SYD HMA, LVSP (LEVELING); AND 165#/SYD HMA, LVSP (TOP).

**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

NO.	DESCRIPTION
1	
2	
3	
4	
5	
6	
7	

109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET

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

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5'V

SOIL BORINGS

SB #8	0 - 5" ASPHALT
	5" - 9" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL
	9" - 36" BROWN FINE TO MEDIUM SAND BROWN & GRAY SILTY CLAY
	36" - 42" BROWN SILTY FINE SAND
	42" - 60" END OF BORING
SB #9	0 - 3.5" ASPHALT
	3.5" - 42" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
	42" - 60" LIGHT BROWN SILTY FINE SAND
	60" END OF BORING

40+14 MAILBOX 3581 17.5'
40+17 POWER POLE 41.6'

41+88 6" PINE 41.3'
41+98 9" PINE 33.7'
42+33 6" PINE 30.5'
42+41 6" PINE 30.7'
42+45 6" PINE 33.4'
42+48 21" TREE 41.7'

42+85 6" PINE 33.6'
42+89 MAILBOX 3567 16.7'
42+95 BUSH 38.5'
42+95 POWER POLE 28.7'
42+98 TELE RISER BOX 25.9'
42+99 POWER POLE 35.4'

46+23 POWER POLE 27.7'
46+25 TELE RISER BOX 26.2'

46+71 12" TREE 44.0'
46+77 6" APPLE 34.9'
46+77 6" APPLE 47.5'

48+39 POWER POLE 25.8'
48+32 TELE RISER BOX 24.6'

21-007-006-00
CHRISTOPHER EDWARDS
3581 109TH AVENUE
ALLEGAN, MI 49010

21-007-006-10
ROBERT & CHRISTINA HOLDEN
914 N 16TH STREET
OTSEGO, MI 49078

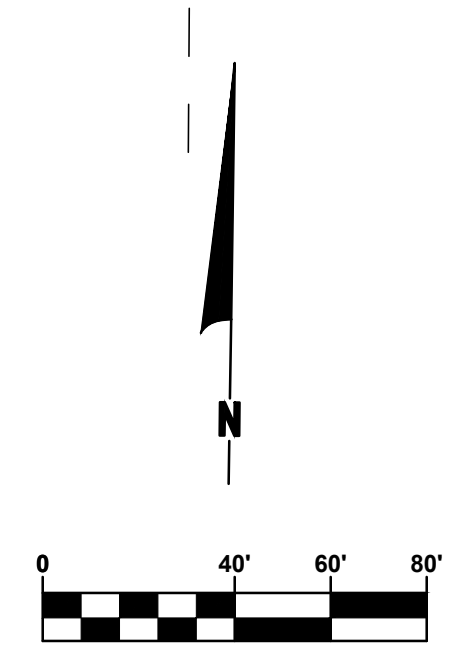
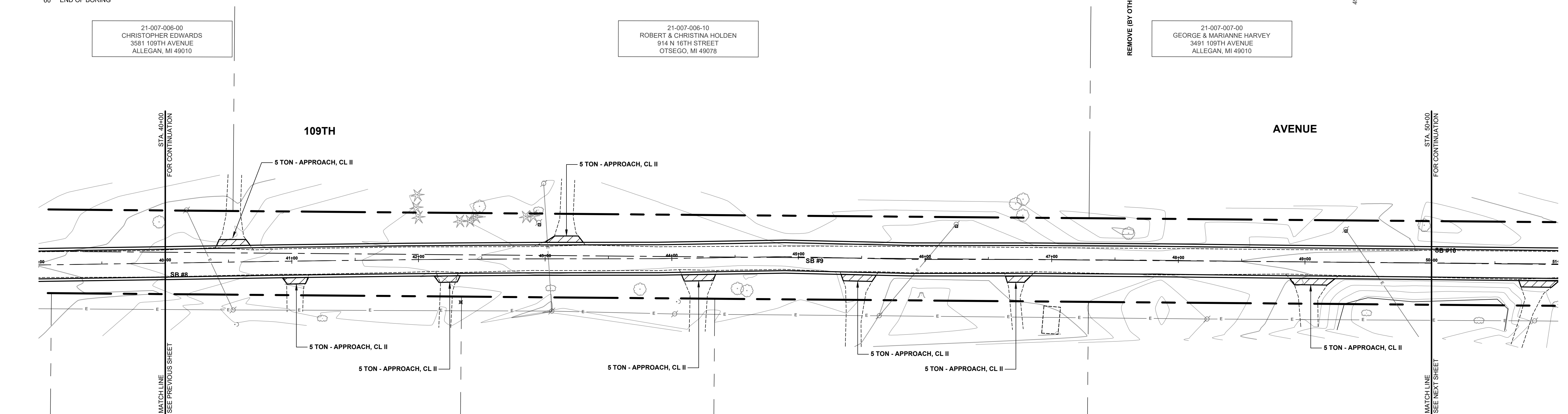
21-007-007-00
GEORGE & MARIANNE HARVEY
3491 109TH AVENUE
ALLEGAN, MI 49010

21-007-009-00
EVERETT & DOROTHY MCENTYRE
3570 109TH AVENUE
ALLEGAN, MI 49010

21-007-010-10
JAMIE & JENNIFER GOODRICH
3560 109TH AVENUE
ALLEGAN, MI 49010

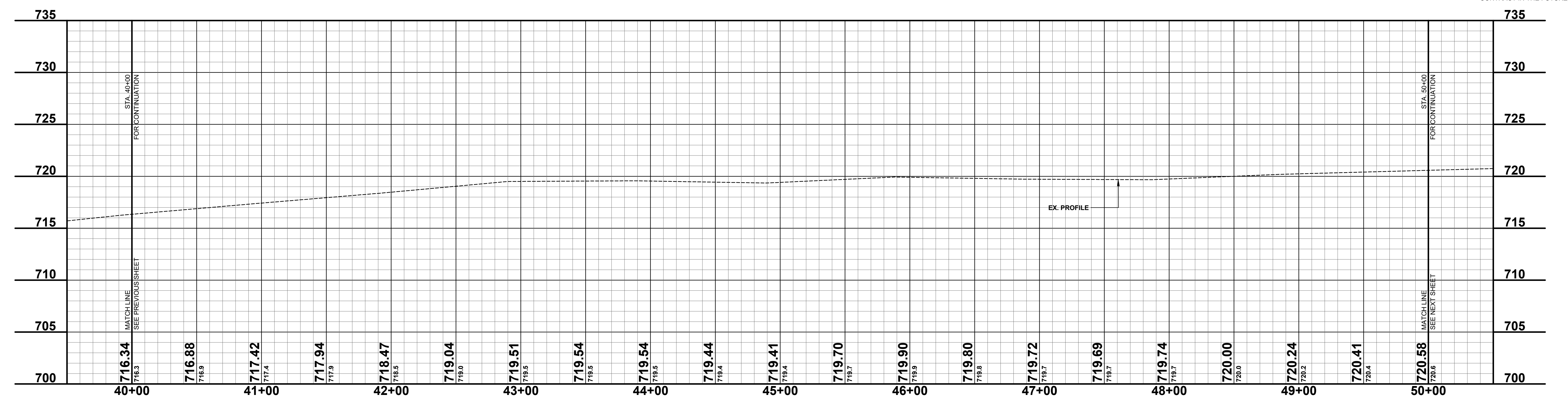
21-007-010-00
LINDA SNYDER
779 39TH STREET
ALLEGAN, MI 49010

21-007-008-00
WIRGIL MERCHANT
3406 108TH AVENUE
ALLEGAN, MI 49010



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
www.alleganroads.org FAX (269) 673-5922
TELEPHONE (269) 673-2184

REVISIONS

1	
2	
3	
4	
5	
6	
7	

109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET
PLAN & PROFILE - STA. 40+00 TO STA. 50+00

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5V

SOIL BORINGS

- SB #10 0 - 4" ASPHALT
4" - 10" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL
10" - 60" LIGHT BROWN FINE SAND
60" END OF BORING
- SB #11 0 - 3.5" ASPHALT
3.5" - 6" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
6" - 30" BROWN FINE SAND
30" - 36" BLACK SANDY ORGANIC SILT & PEAT
36" - 60" LIGHT BROWN SILTY FINE SAND
60" END OF BORING
- SB #12 0 - 3" ASPHALT
3" - 11" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
11" - 24" BROWN FINE TO MEDIUM SAND
24" - 60" BROWN CLAYEY MEDIUM SAND
60" END OF BORING

49+94 8" CHERRY 29.8'

54+38 2 1/4" TREE 34.0'
54+38 3" TREE 35.0'

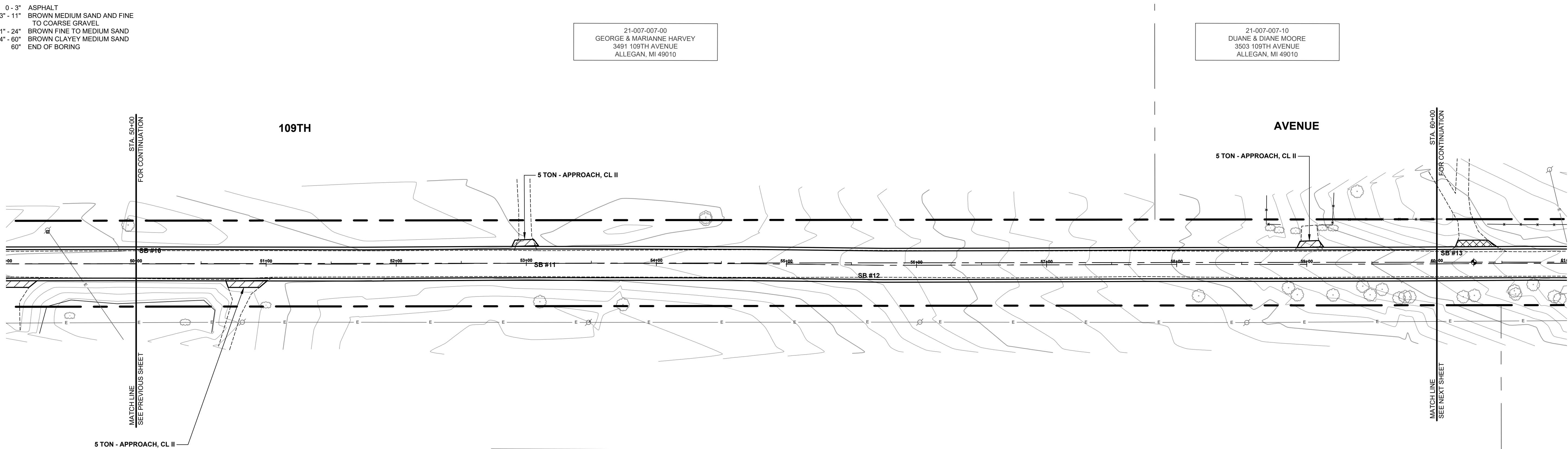
58+69 FENCE WOOD 30.9'
58+69 FENCE 4 3/8"
58+79 BUSH 26.4'
58+80 FENCE WOOD 30.6'
58+92 BUSH 25.7'
59+10 FENCE 4 3/8"
59+12 BUSH 28.0'
59+20 FENCE WOOD 30.4'
59+21 FENCE WOOD 54.8'
59+24 FENCE SPLIT 34.4'
59+39 12" TW 55.9'

59+73 FN RAIL 34.4'

21-007-007-00
GEORGE & MARIANNE HARVEY
3491 109TH AVENUE
ALLEGAN, MI 49010

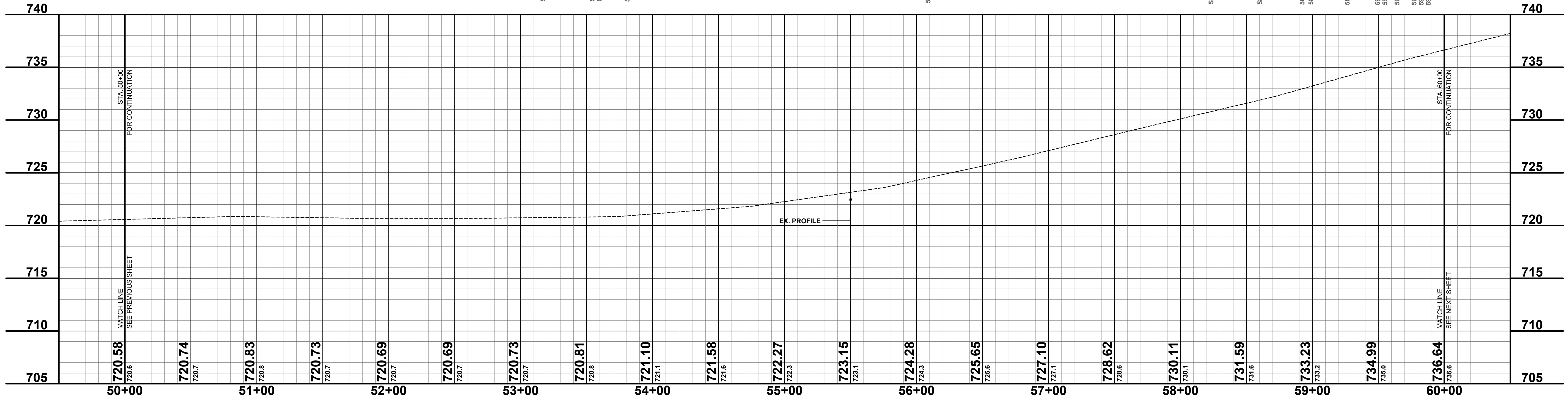
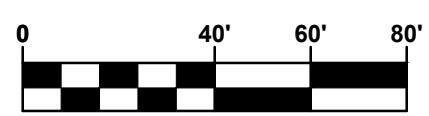
21-007-007-10
DUANE & DIANE MOORE
3503 109TH AVENUE
ALLEGAN, MI 49010

21-007-009-00
VIRGIL MERCHANT
3406 109TH AVENUE
ALLEGAN, MI 49010



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)



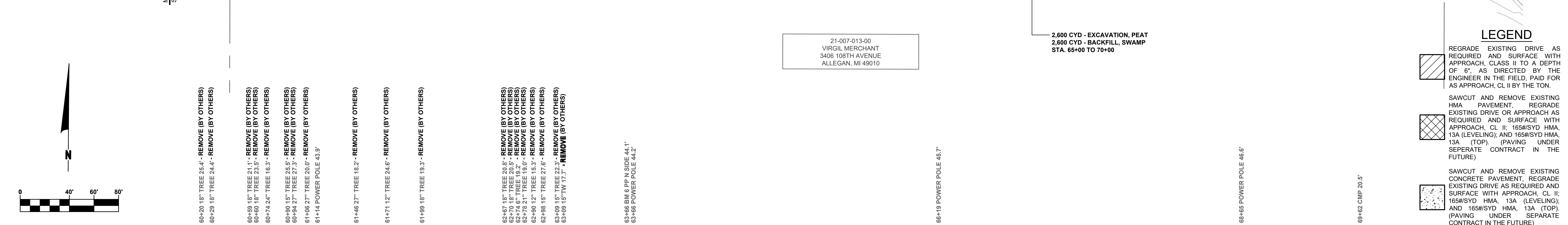
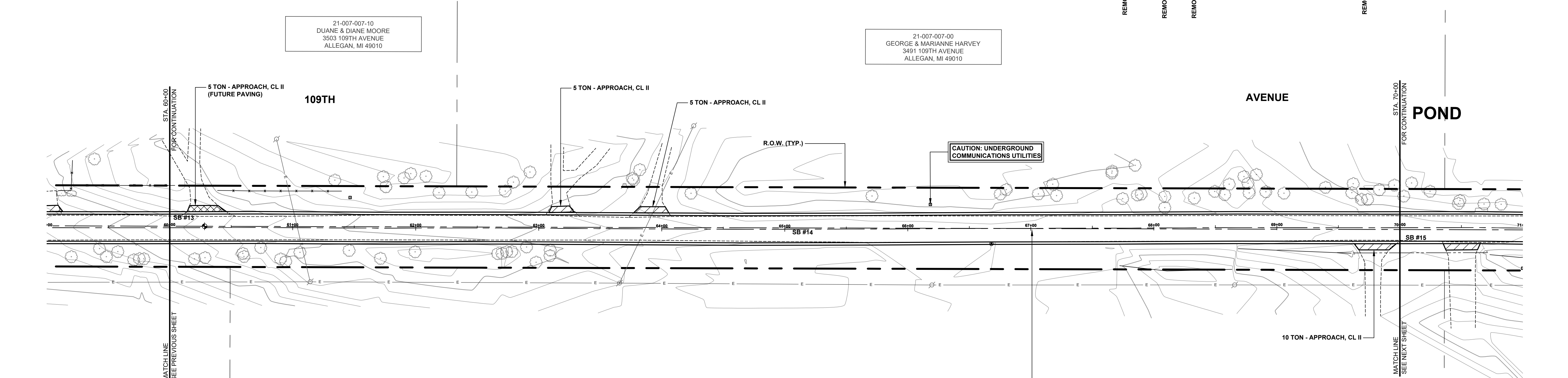
**Board of County Road Commissioners
Of Allegan County**
1308 LINCOLN ROAD
ALLEGAN, MICHIGAN 49010-9762
www.alleganroads.org FAX (269) 673-5922
TELEPHONE (269) 673-2184

REVISIONS	
1	
2	
3	
4	
5	
6	
7	

109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET
PLAN & PROFILE - STA. 50+00 TO STA. 60+00

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5V

SOIL BORINGS	SB #13	SB #14	
0 - 3"	ASPHALT	0 - 4.5"	ASPHALT
3" - 5"	BROWN MEDIUM SAND & FINE TO COARSE GRAVEL	4.5" - 15"	BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL
5" - 60"	BROWN FINE TO MEDIUM SAND	15" - 24"	BROWN FINE TO MEDIUM SAND
60"	END OF BORING	24" - 36"	DARK BROWN FINE SAND
		36" - 84"	BLACK PEAT
		84" - 104"	BROWN/GRAY SANDY CLAY
		104" - 120"	GRAY SILTY CLAY
		120"	END OF BORING



STATION	ELEVATION	STATION	ELEVATION
60+00	736.64	65+00	737.52
61+00	738.21	66+00	737.25
62+00	739.34	67+00	737.41
63+00	740.14	68+00	737.77
64+00	740.47	69+00	737.47
65+00	740.46	70+00	736.67
66+00	739.97		
67+00	739.14		
68+00	738.44		
69+00	737.85		
70+00	737.35		

REVISIONS	NO.	DESCRIPTION
	1	
	2	
	3	
	4	
	5	
	6	
	7	

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

109TH AVENUE REHABILITATION PROJECT
 CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET
 PLAN & PROFILE - STA. 60+00 TO STA. 70+00

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)

SOIL BORINGS	
SB #15	0' - 5" ASPHALT 5' - 9" BROWN MEDIUM SAND & FINE TO COARSE GRAVEL 9" - 16" BROWN CLAYEY FINE SAND 16" - 24" BROWN FINE TO MEDIUM SAND 24" - 30" DARK BROWN FINE SAND 30" - 48" BLACK PEAT 48" - 96" BROWN FINE TO MEDIUM SAND 96" END OF BORING
SB #16	0' - 5" ASPHALT 5' - 15" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL 15" - 24" BROWN FINE TO MEDIUM SAND 24" - 30" DARK BROWN FINE SAND 30" - 54" BLACK PEAT 54" - 96" BROWN FINE TO MEDIUM SAND 96" END OF BORING
SB #17	0' - 4" ASPHALT 4" - 18" BROWN MEDIUM SAND AND FINE TO COARSE GRAVEL 18" - 24" BROWN SILTY FINE SAND 24" - 30" DARK BROWN FINE SAND 30" - 54" BLACK SANDY PEAT 54" - 60" GRAY MEDIUM SAND 60" - 96" BROWN FINE SAND 96" END OF BORING

REMOVE (BY OTHERS) - 70+03.97" TREE 26.7'
70+10.97" TREE 36.4'
70+24.6" TREE 26.5'

REMOVE (BY OTHERS) - 70+48.24" TREE 19.6'
70+48.18" TREE 22.0'

REMOVE (BY OTHERS) - 70+68.9" TREE 19.2'

REMOVE (BY OTHERS) - 70+82.15" TREE 19.1'

REMOVE (BY OTHERS) - 71+17.07" TREE 19.8'

REMOVE (BY OTHERS) - 71+30.36" TREE 21.0'

72+03 TELE RISER BOX 26.4'

72+33.12 21.4'

72+67 OPP 21.0'

21-007-013-20
VIRGIL MERCHANT
3406 108TH AVENUE
ALLEGAN, MI 49010

21-007-001-00
WILLIAM & VIRGINIA LANE
981 34TH STREET
ALLEGAN, MI 49010

REMOVE (BY OTHERS) - 74+44.6" TREE 20.9'
74+51.6" TREE 25.0'
REMOVE (BY OTHERS) - 74+56.6" TREE 22.3'
REMOVE (BY OTHERS) - 74+64.12" TREE 23.1'

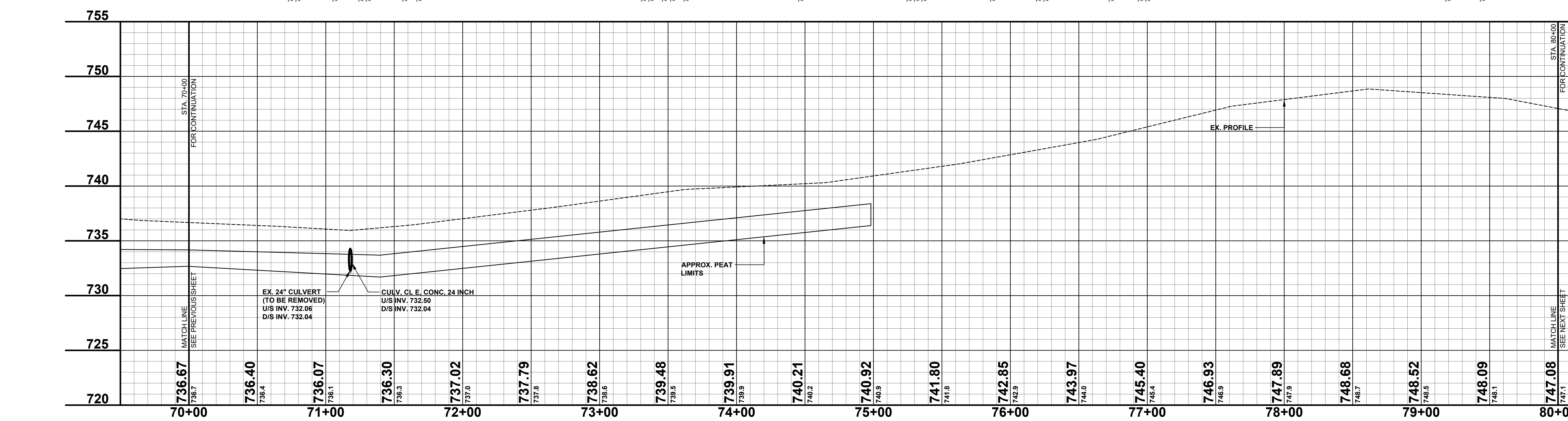
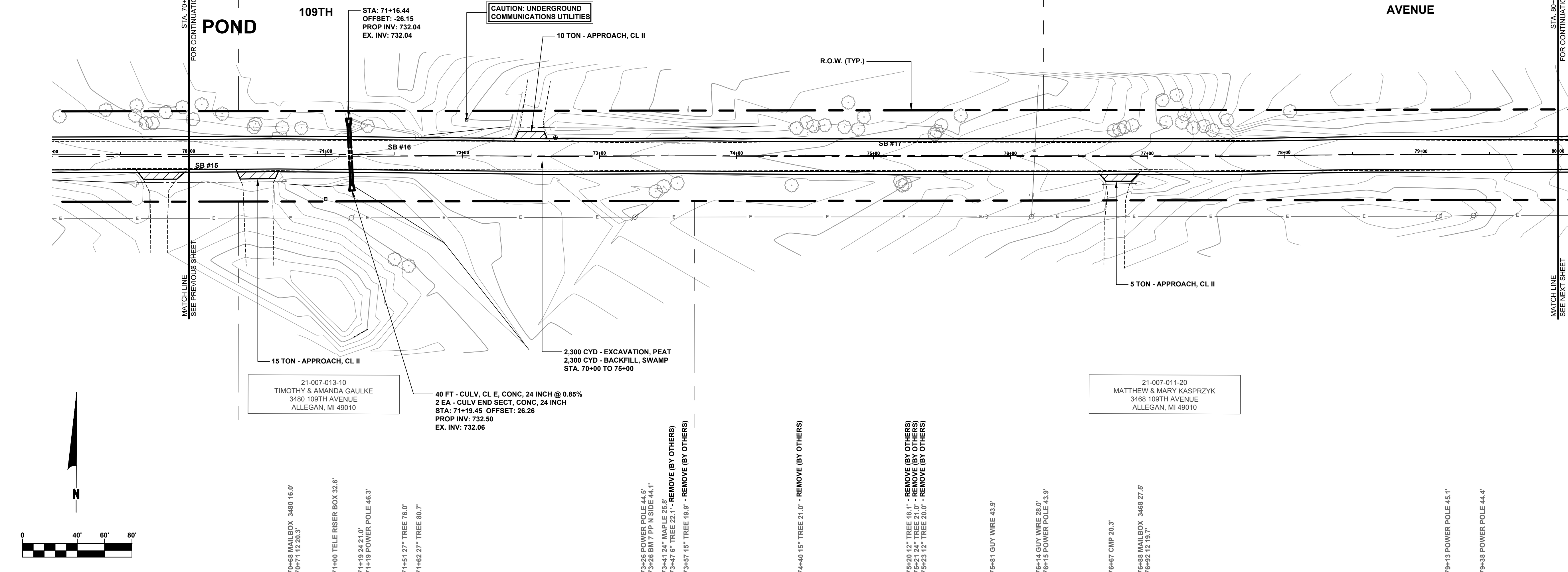
REMOVE (BY OTHERS) - 74+79.6" TREE 21.7'
74+82.6" TREE 30.6'
74+89.12" TREE 20.4'
74+93.6" TREE 28.9'

REMOVE (BY OTHERS) - 75+45.24" TREE 16.5'
75+46.12" TREE 18.5'
75+49.12" TREE 22.9'
75+64.6" TREE 30.0'

REMOVE (BY OTHERS) - 76+76.6" TREE 19.1'
76+79.6" TREE 19.9'
REMOVE (BY OTHERS) - 76+83.6" TREE 21.4'
REMOVE (BY OTHERS) - 76+89.6" TREE 22.8'

77+11.9" TREE 41.2'
77+14.9" TREE 25.3'
77+25.9" TREE 24.9'
77+27.9" TREE 30.8'
77+33.6" TREE 21.1'
REMOVE (BY OTHERS) - 77+48.6" TREE 19.2'
77+58.9" TREE 26.6'

78+05.36" TREE 32.4'



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
www.alleganroads.org FAX (269) 673-5922
TELEPHONE (269) 673-2184

REVISIONS

1	
2	
3	
4	
5	
6	
7	

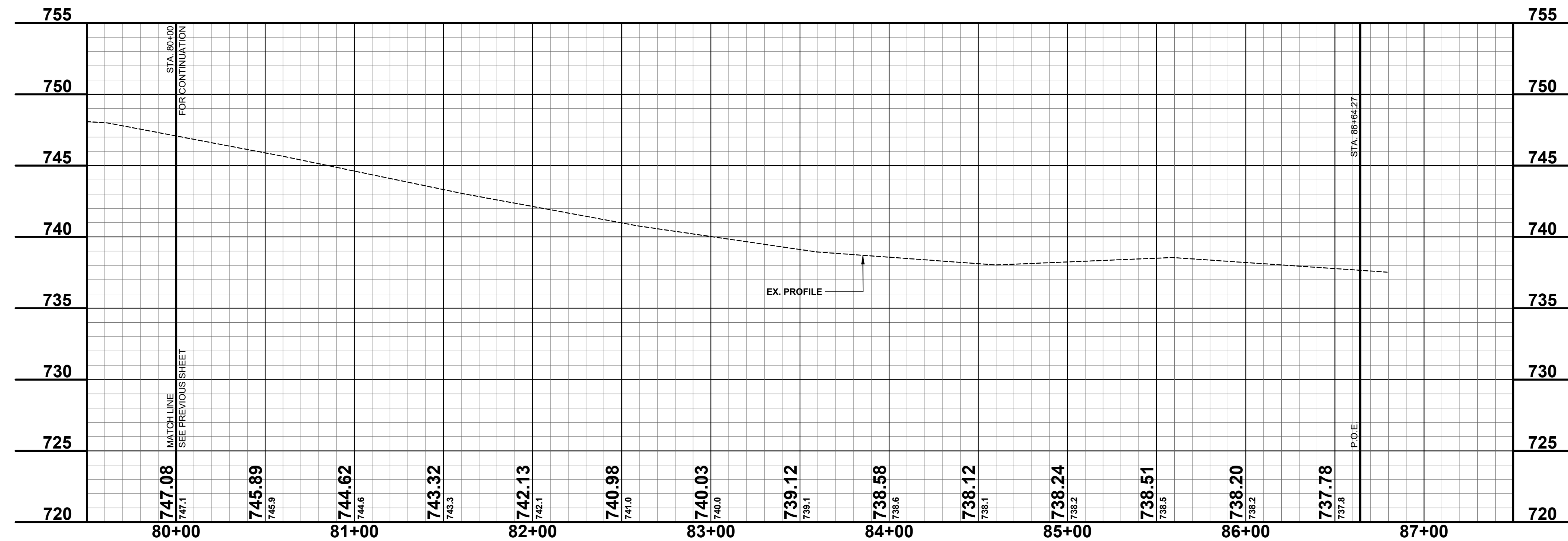
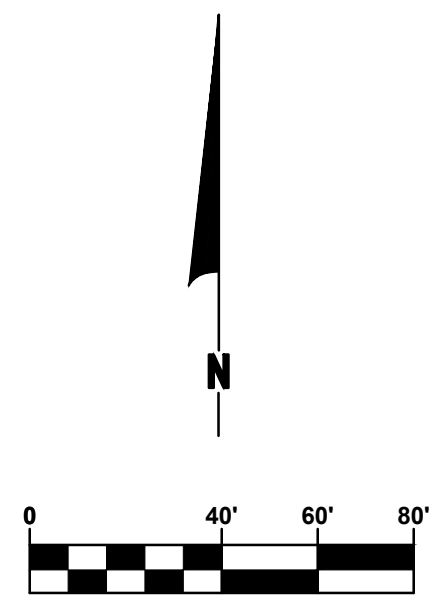
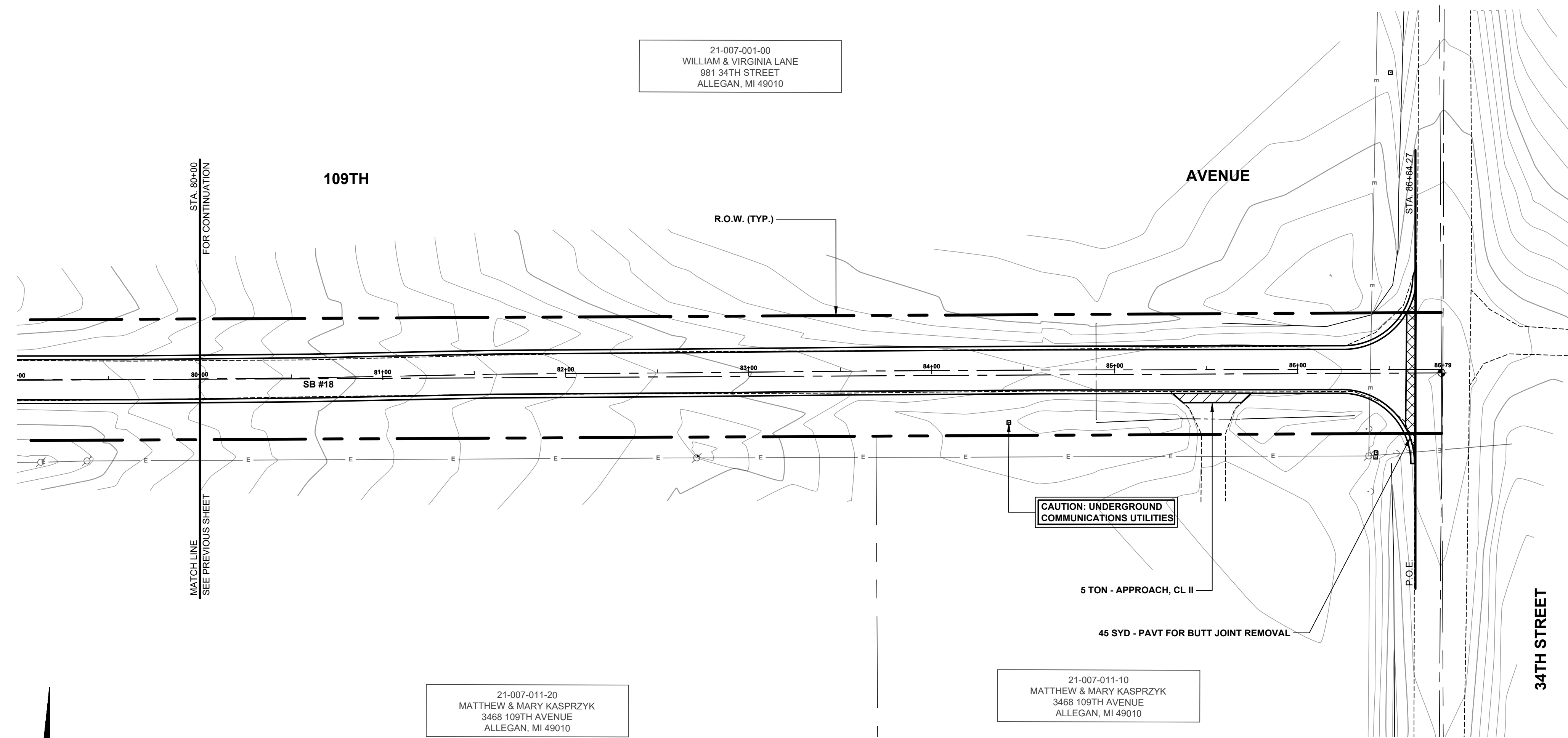
109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET

PLAN & PROFILE - STA. 70+00 TO STA. 80+00

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5'V

SOIL BORINGS

SB #18	0 - 5"	ASPHALT
	5" - 12"	BROWN MEDIUM SAND & FINE TO COARSE GRAVEL
	12" - 22"	DARK BROWN CLAYEY FINE SAND
	22" - 60"	BROWN SANDY CLAY
	60"	END OF BORING



- 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.
 - SAW/CUT 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)
 - SAW/CUT 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
www.alleganroads.org FAX (269) 673-5922
TELEPHONE (269) 673-2184

REVISIONS

1	
2	
3	
4	
5	
6	
7	

109TH AVENUE REHABILITATION PROJECT
CHESHIRE & TROWBRIDGE TOWNSHIPS - 37TH TO 34TH STREET

PLAN & PROFILE - STA. 80+00 TO P.O.E.

DRAWN BY: RPB
REVIEWED BY: JSE
DATE: JUNE, 2021
SCALE: 1"= 40'H, 5'V