

**SPECIFICATIONS**

EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS OR IN THE PROPOSAL, ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION.

**MDOT STANDARD PLANS**

- R-1-G DRAINAGE STRUCTURES
- R-7-F COVER B
- R-12-E COVER G
- R-23-C UTILITY TRENCHES
- R-28-J CURB RAMP AND DETECTABLE WARNING DETAILS
- R-30-G CONCRETE CURB AND CONCRETE CURB & GUTTER
- R-82-D BEDDING AND FILLING AROUND PIPE CULVERTS
- R-96-E SOIL EROSION & SEDIMENTATION CONTROL MEASURES

# 2023 ROADWAY IMPROVEMENTS HMA BASE CRUSHING AND SHAPING FOR CHARTER TOWNSHIP OF MERIDIAN INGHAM COUNTY MICHIGAN



COUNTY KEY

**AREA 1:**  
RANDALL STREET  
W REYNOLDS ROAD  
E PERRY ROAD  
E REYNOLDS ROAD  
QUAIL STREET  
MILENZ STREET

**AREA 2:**  
CARLTON STREET  
BUCKINGHAM ROAD  
BAYSHORE ROAD  
HALLENDALE ROAD

**AREA 3:**  
COUNTRY DRIVE

**AREA 4:**  
BOULEVARD DRIVE  
OAKWOOD DRIVE  
OAKLAWN ROAD  
PONTCHARTRAIN DRIVE

**AREA 5:**  
SYLVAN GLEN ROAD

**AREA 6:**  
RIVER TERRACE

**AREA 7:**  
TAYLOR DRIVE  
HARKSON DRIVE

**UTILITY CONTACTS:**

**WATER**  
MERIDIAN TOWNSHIP  
DEPARTMENT OF PUBLIC WORKS & ENGINEERING  
5151 MARSH ROAD  
OKEMOS, MI 48864  
CONTACT: JAY GRAHAM  
517-853-4440

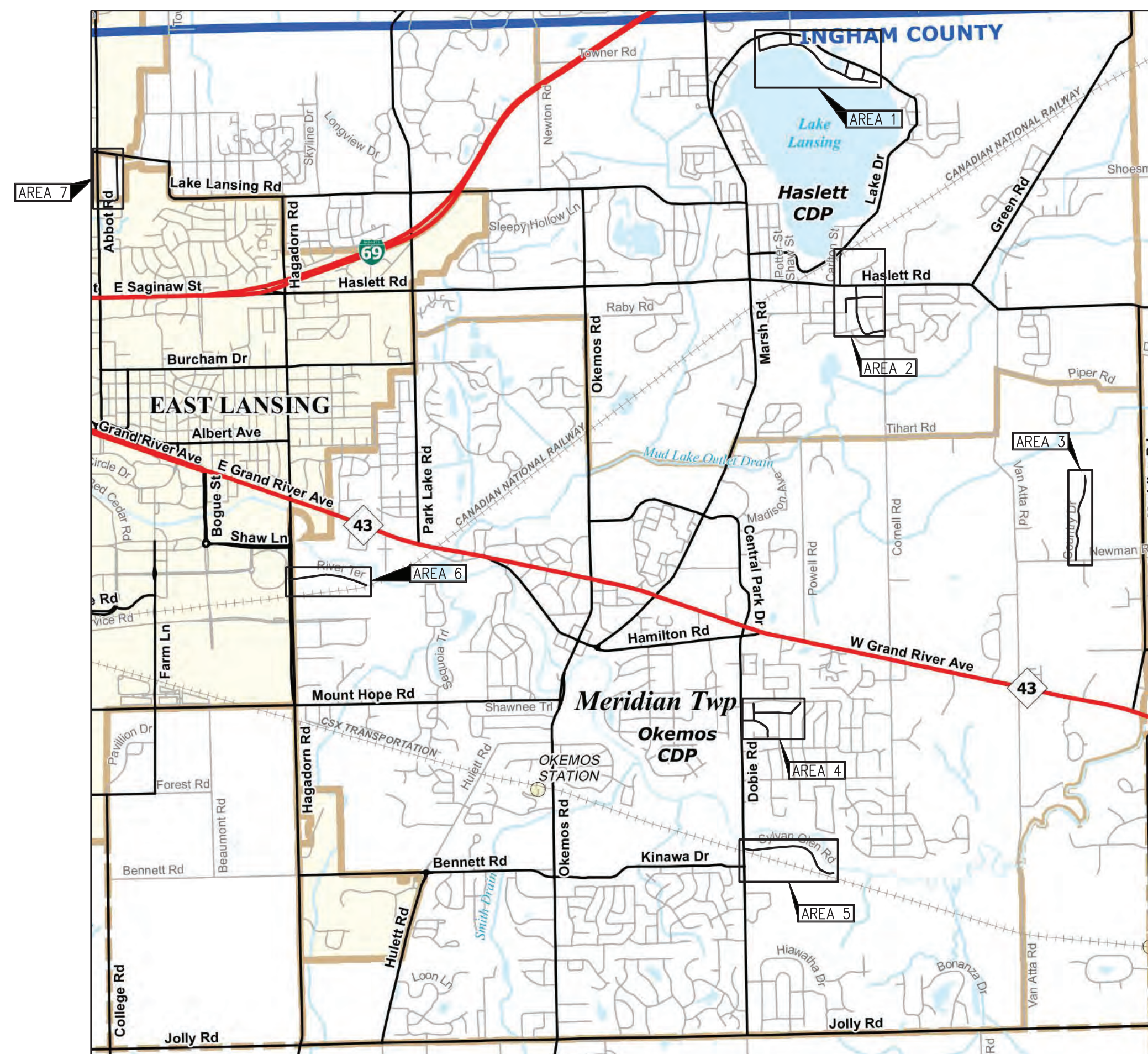
**SANITARY SEWER**  
MERIDIAN TOWNSHIP  
DEPARTMENT OF PUBLIC WORKS & ENGINEERING  
5151 MARSH ROAD  
OKEMOS, MI 48864  
CONTACT: JAY GRAHAM  
517-853-4440

**COMMUNICATIONS:**  
AT&T  
337 ABBOTT ROAD  
EAST LANSING, MI 48823  
CONTACT: DARNELL TAYLOR  
517-337-3509  
DJ5474@US.ATT.COM

**GAS**  
CONSUMERS ENERGY  
1955 PARNELL ROAD  
JACKSON, MI 49201  
CONTACT: ADAM BETRAM  
517-374-2375

**ELECTRIC**  
CONSUMERS ENERGY  
530 W WILLOW ROAD  
LANSING, MI 48906  
CONTACT: DAN SMITH  
517-374-2259

**STORM SEWER**  
INGHAM COUNTY DRAIN COMMISSION  
707 BUHL ST  
MASON, MI 48854  
CONTACT: DAVE SOLBERG  
517-676-8361  
DSOLBERG@INGHAM.ORG



**SHEET INDEX**

TITLE SHEET.....	1
GENERAL NOTES .....	2
TYPICAL SECTIONS SHEET.....	3-5
DRIVEWAY TABLES.....	6
QUANTITIES.....	7
PLAN AND PROFILE SHEET.....	8-57

**APPROVALS**

APPROVED: \_\_\_\_\_ INGHAM COUNTY ROAD DEPARTMENT \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_ CHARTER TOWNSHIP OF MERIDIAN \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED: *Corey A Vincent* 3/17/2023 \_\_\_\_\_ DATE: \_\_\_\_\_  
REGISTERED PROFESSIONAL ENGINEER

72 HOURS  
(3 WORKING DAYS)  
BEFORE YOU DIG  
CALL MISS DIG  
1-800-482-7171  
(TOLL FREE)

2193 ASSOCIATION DRIVE SUITE 2000  
OKEMOS, MI 48864  
TEL: (517) 316-9292  
FAX: (517) 316-9233  
www.MannikSmithGroup.com

NO.	DATE	BY	DESCRIPTION
REV 1	2-28-2023	ASML	TWP AND CDR COMMENTS DRAINAGE REMOVED PER TWP
REV 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DRIVE SUITE #200 OKEMOS, MI 48864 TEL: 517.316.9292 FAX: 517.316.9233

PROJECT DATE: 10/27/2022 PROJECT NO.: M4150015 DRAWN BY: ASML CHECKED BY: CAV

**TECHNICAL SKILL. CREATIVE SPIRIT.**

www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD OKEMOS, MI 48864

2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN

TITLE SHEET

1 / 57

**GENERAL NOTES:**

**SPECIFICATIONS:** ALL WORK AND MATERIALS, UNLESS OTHERWISE STATED IN THESE PLANS, SHALL BE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND THESE PLANS.

**STANDARD DRAWINGS:** ALL STANDARD DRAWINGS AND ITEMS LISTED IN THE PLANS, UNLESS OTHERWISE STATED ARE FOR THE MDOT STANDARD ROAD PLANS.

**CONFLICT NOTES:** IN CASES WHERE THERE IS A CONFLICT BETWEEN STANDARDS, DETAILS OR NOTES. THE MORE RESTRICTIVE SHALL TAKE PRECEDENT OR AS DETERMINED BY THE INGHAM COUNTY ROAD COMMISSION OR APPROPRIATE JURISDICTIONAL AGENCY.

**EXISTING UTILITIES:** THE LOCATION OF ALL PUBLIC UTILITIES AS SHOWN ON THESE PLANS ARE OBTAINED FROM THE BEST AVAILABLE DATA. ICRC AND MANNIK & SMITH GROUP, INC. ARE NOT RESPONSIBLE FOR ANY OMISSIONS OR VARIATIONS FROM THE LOCATIONS FROM THE LOCATIONS SHOWN. THE VERIFICATION OF THE ACTUAL LOCATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013. THE CONTRACTOR SHALL CALL 1-800-482-7171 OR 811 A MINIMUM OF THREE FULL DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING ANY EXCAVATION OR CONSTRUCTION ACTIVITIES 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 SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES CAUSED BY THEIR OPERATIONS.

**UTILITY OWNERSHIP:** THE FOLLOWING IS A LIST OF UTILITY COMPANIES KNOWN TO BE IN THE VICINITY OF THIS PROJECT.

**UTILITY CONTACTS:**

<b>WATER</b> MERIDIAN TOWNSHIP DEPARTMENT OF PUBLIC WORKS & ENGINEERING 5151 MARSH ROAD OKEMOS, MI 48864 CONTACT: RYAN SCHANER 517-853-4464 SCHANER@MERIDIAN.MI.US	<b>GAS</b> CONSUMERS ENERGY 1955 PARNELL ROAD JACKSON, MI 49201 CONTACT: ADAM BERTRAM 517-374-2375
<b>SANITARY SEWER</b> MERIDIAN TOWNSHIP DEPARTMENT OF PUBLIC WORKS & ENGINEERING 5151 MARSH ROAD OKEMOS, MI 48864 CONTACT: RYAN SCHANER 517-853-4464 SCHANER@MERIDIAN.MI.US	<b>ELECTRIC</b> CONSUMERS ENERGY 530 W WILLOW ROAD LANSING, MI 48906 CONTACT: JACOB CHALUT 517-580-2049 JACOB.CHALUT@CMEENERGY.COM
<b>COMMUNICATIONS:</b> ATT 337 ABBOTT ROAD EAST LANSING, MI 48823 CONTACT: DARNELL TAYLOR 517-337-3509 DJ5474@US.ATT.COM	<b>STORM SEWER</b> INGHAM COUNTY DRAIN COMMISSION 707 BUHL ST MASON, MI 48854 CONTACT: DAVE SOLBERG 517-676-8361 DSOLBERG@INGHAM.ORG

**CONSTRUCTION SCHEDULE:** THE CONTRACTOR MUST SUBMIT A CONSTRUCTION SCHEDULE TO THE OWNER BEFORE OR AT THE RECONSTRUCTION MEETING. THIS SCHEDULE WILL SHOW THE SEQUENCE OF CONSTRUCTION AND COMPLETION DATES FOR MAJOR ITEMS OF WORK. THE PROJECT CONSTRUCTION SCHEDULE MUST BE UPDATED PERIODICALLY AS PROGRESS CONTINUES IN ACCORDANCE WITH PROVISIONS IN THE CONTRACT DOCUMENTS. BI-WEEKLY PROGRESS MEETINGS MAY BE REQUIRED IF DETERMINED NECESSARY.

**CONSTRUCTION STAKES:** IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND PRESERVE THE CONSTRUCTION STAKES AND TO VERIFY THEIR CORRECTNESS PRIOR TO LAYING PIPE OR CONSTRUCTING CURB OR PAVEMENT. THE FIRST SET OF STAKES WILL BE PAID FOR BY THE OWNER. REPLACEMENT OF STAKES BY THE OWNER'S ENGINEER WILL BE AT THE EXPENSE OF THE CONTRACTOR.

THE CONTRACTOR SHALL PROVIDE AT LEAST 72 HOURS (3 WORKING DAYS) NOTICE TO THE OWNER'S ENGINEER FOR THE PLACEMENT OF CONSTRUCTION STAKES.

**SURVEY POINTS:** ANY PROPERTY CORNERS, MONUMENTS, OR RIGHT-OF-WAY MARKERS DISTURBED BY ACTIVITIES OF THE CONTRACTOR SHALL BE RESET BY A LICENSED LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.

**STORAGE OF MATERIALS:** CONSTRUCTION EQUIPMENT AND MATERIALS MUST BE STORED IN A MANNER SO AS TO POSE NO THREAT TO WORKERS, ADJACENT PROPERTY OWNERS, OR PUBLIC USE OF THE ROADWAY. NO MATERIALS OR EQUIPMENT SHALL BE STORED OUTSIDE THE WORK LIMITS WITHOUT VERIFIED WRITTEN PERMISSION OF THE OWNER OF THE PROPERTY.

**FENCING & LANDSCAPING IN RIGHT-OF-WAY:** WHERE PRIVATE FENCES AND/OR LANDSCAPE PLANTINGS ARE LOCATED WITHIN THE WORK AREA, THE PROPERTY OWNER SHALL BE NOTIFIED BY THE TOWNSHIP. IF THE PROPERTY OWNER FAILS TO REMOVE THESE ITEMS PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE FENCING AND/OR LANDSCAPE ITEMS AND STOCKPILE THEM ON THE PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE FENCING AND/OR LANDSCAPING IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND IS NOT PART OF THE CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.

**LAWN SPRINKLER SYSTEMS:** OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS SHALL BE NOTIFIED BY THE TOWNSHIP. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEMS PRIOR TO THE CONTRACTOR BEGINNING WORK AND THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE SPRINKLER ITEMS AND STOCKPILE THEM ON THE PROPERTY FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE SPRINKLER SYSTEM IS THE RESPONSIBILITY OF THE PROPERTY OWNER AND IS NOT PART OF THE CONTRACT. THIS WORK IS INCLUDED IN OTHER ITEMS OF THE PROJECT.

**SUBGRADE UNDERCUT:** SUBGRADE UNDERCUT TYPE II IS TO BE USED AS DIRECTED BY THE ENGINEER TO STABILIZE AREAS AS NEEDED. UNDERCUT AREAS WILL BE EXCAVATED AND BACKFILLED PER 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION. AGGREGATE BASE, 6 INCH WILL BE PLACED AND COMPACTED ON UNDERCUT AREAS AS DIRECTED PRIOR TO PAVING RECYCLED AGGREGATE MEETING SP GRADATION MAY BE UTILIZED FOR UNDERCUT BACKFILL AND AGGREGATE BASE

**AGGREGATE BASE CONDITIONING:** AGGREGATE BASE CONDITIONING IS TO BE USED TO CONDITION THE BASE OF EXISTING DRIVEWAY APPROACHES AS DIRECTED. BASE CONDITIONING REQUIRED FOR ROADWAY WORK IS INCLUDED IN ROADWAY WORK PAY ITEMS PER 2020 MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

**TRENCHING:** TRENCHING SHALL BE USED TO GRADE AND/OR EXCAVATE SHOULDERS TO THE DIMENSIONS SPECIFIED OR SHOWN ON THE TYPICAL CROSS-SECTION AND AS SPECIFIED IN SECTION 307 OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2020 STANDARD SPECIFICATIONS FOR CONSTRUCTION. GRADE THE EDGE OF SHOULDERS TO REMOVE GRASS AND OTHER VEGETATION FROM THE EDGE OF THE EXISTING ROADBED TO PREVENT CONTAMINATION OF THE EXISTING SHOULDER MATERIAL PRIOR TO HMA BASE CRUSHING AND SHAPING. SPREAD GRADED ORGANIC MATERIAL PRIOR TO HMA BASE CRUSHING AND SHAPING. SPREAD GRADED ORGANIC MATERIAL DOWN SLOPE AND UP/DOWN STATION AS NECESSARY TO MAINTAIN POSITIVE DRAINAGE. DISPOSE OF EXCESS UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER. OMIT TRENCHING ACROSS PAVED APPROACHES AND

CURBED AREAS. REMOVE EXCESS SPOILS AND REMOVE OR SHRED CLOUDS OF SOD AS DIRECTED BY THE ENGINEER, LEAVING SUFFICIENT TOPSOIL TO ROLL BACK UP TO THE NEW PAVEMENT/SHOULDER EDGE AS REQUIRED FOR RESTORATION.

**SHOULDER MATERIAL:** SHOULDER CL II, 4 INCH SHALL BE USED AS DIRECTED BY THE ENGINEER. SHOULDER AREA MAY BE RESTORED WITH SLOPE RESTORATION, MODIFIED IN AREAS WITH MAINTAINED LAWNS AS DIRECTED BY ENGINEER.

**MAILBOXES:** ALL MAILBOXES SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. POSTAL SERVICE MAY NOT BE INTERRUPTED. MAILBOXES WITH GRADING LIMITS OR THAT OTHERWISE INTERFERE WITH CONSTRUCTION METHODS WILL BE RELOCATED AS DIRECTED ACCORDING TO STANDARD SPECIFICATIONS, EXCEPT THAT POST REPLACEMENT WILL REMAIN AT THE DISCRETION OF THE PROPERTY OWNER AND THE ENGINEER.

**DRIVEWAYS:** THE CONTRACTOR SHALL PROVIDE ACCESS FOR THE PROPERTY OWNERS FROM THE ROAD AT ALL TIMES. DRIVEWAY ACCESS SHALL BE MAINTAINED WITH RAMP AS DESCRIBED AND FOR IN DRIVEWAY APPROACH, REM, MODIFIED.

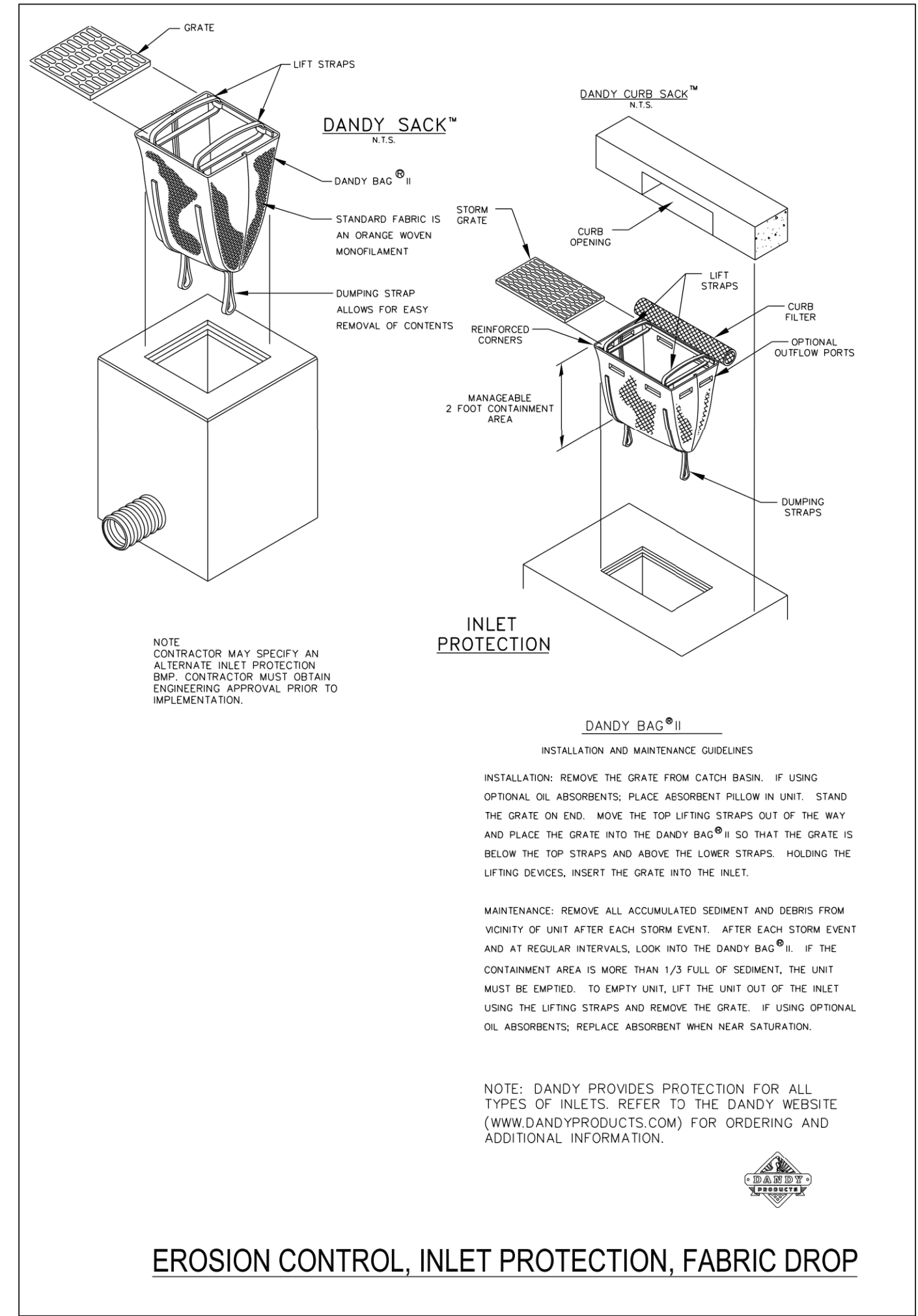
ALL DRIVEWAYS THAT ARE GRAVEL, CONCRETE, OR BRICK ARE TO RECEIVE A PERMANENT 2-FOOT HMA TAB TO MEET ICRC STANDARDS.

**EXISTING SIGNS:** THE CONTRACTOR SHALL MAINTAIN ALL EXISTING WARNING, REGULATORY AND/OR GUIDE SIGNS DURING CONSTRUCTION IN ACCORDANCE WITH APPLICABLE MDOT SPECIFICATIONS TO BE PAID AS PART OF "MINOR TRAF DEVICES." ANY TEMPORARY REMOVAL AND/OR RELOCATION DUE TO THE PROPOSED WORK SHALL BE PERFORMED WITHOUT DAMAGE TO THE SIGNS, SIGN COMPONENTS, OR POSTS DURING ALL PHASES OF CONSTRUCTION.

**RESTORATION:** SLOPE RESTORATION, MODIFIED SHALL BE PERFORMED AS NECESSARY AND WHERE INDICATED BY THE ENGINEER. SLOPE RESTORATION SHALL BEGIN WITHIN SEVEN (7) CALENDAR DAYS OF THE COMPLETION OF PAVING AND SHOULDER PLACEMENT OPERATIONS TO MINIMIZE DISTURBANCES TO THE RESIDENTS.

**UTILITY COORDINATION:** SANITARY SEWER – CONSTRUCTION ALONG REYNOLDS/QUAIL/MILENZ SCHEDULED TO BE COMPLETE BY AUGUST 1. ROAD CONSTRUCTION MAY NOT COMMENCE PRIOR TO COMPLETION OF SANITARY SEWER WORK.

NATURAL GAS – CONSTRUCTION IN THE AREA AT THE NORTH END OF LAKE LANSING SCHEDULED TO BE COMPLETE BY THE BEGINNING OF JULY. ROAD CONSTRUCTION MAY NOT COMMENCE PRIOR TO COMPLETION OF GAS WORK.



**EROSION CONTROL, INLET PROTECTION, FABRIC DROP**

**LEGEND**

	CATCH BASIN
	STORM MANHOLE
	SANITARY MANHOLE
	WATER VALVE
	FIRE HYDRANT
	GAS VALVE
	PROPERTY CORNER
	MAILBOX
	TREE
	UTILITY POLE
	LIGHT POLE
	SIGN
	TREE LINE
	PR. CULVERT
	EX. GAS LINE
	EX. STORM SEWER
	EX. CULVERT
	EX. SANITARY SEWER
	EX. WATER MAIN
	ROW
	EX. FENCE LINE
	PROPOSED ASPHALT
	PROPOSED STONE SHOULDER
	SLOPE RESTORATION LIMIT
	PROPOSED DITCH LINE
	SILT FENCE

NO. REV. 1 REV. 2	DATE 3/21/23 3/15/2023	BY ASML	DESCRIPTION: TYP AND USER COMMENTS: ASML REMOVE BID ALTERNATE
		BY ASML	
		BY ASML	
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517-316-9233 FAX: 517-268-9233	PROJECT NO.: 11/22/2022 M4150015	PROJECT DATE:	PROJECT NO.:
		DRAWN BY: ASML	CHECKED BY: CAV

**TECHNICAL SKILL. CREATIVE SPIRIT.**

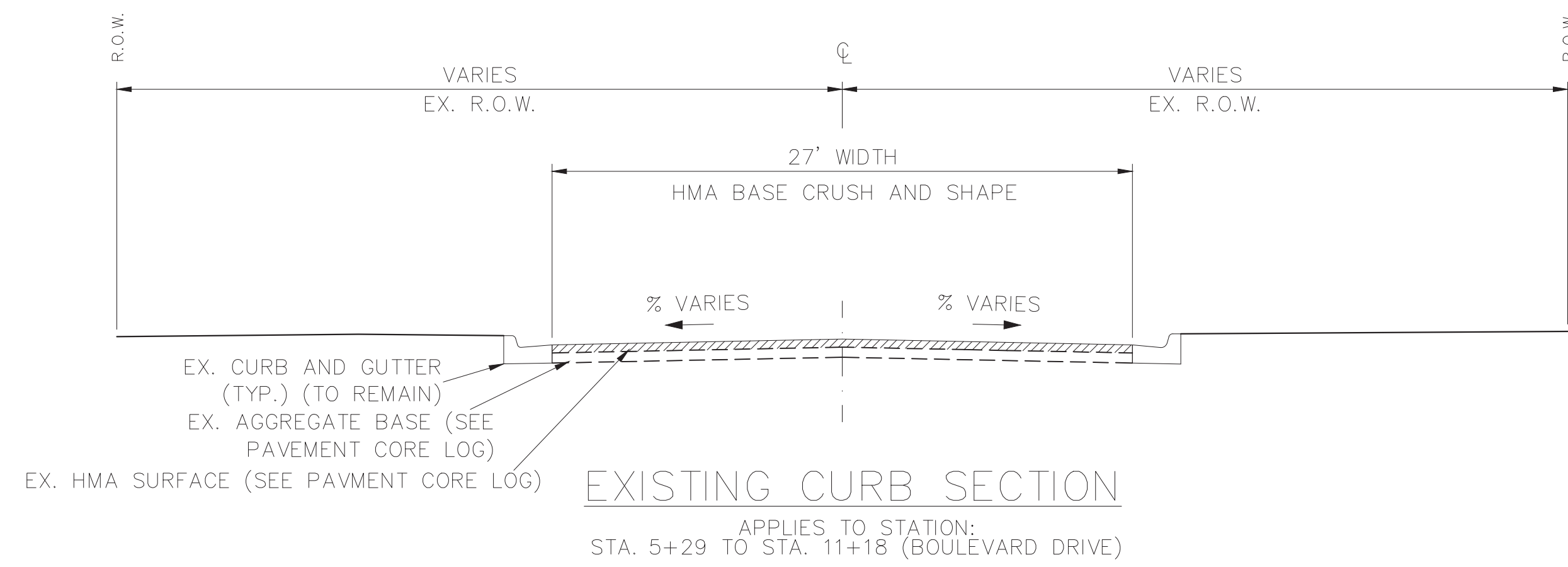
www.MannikSmithGroup.com

PREPARED FOR:

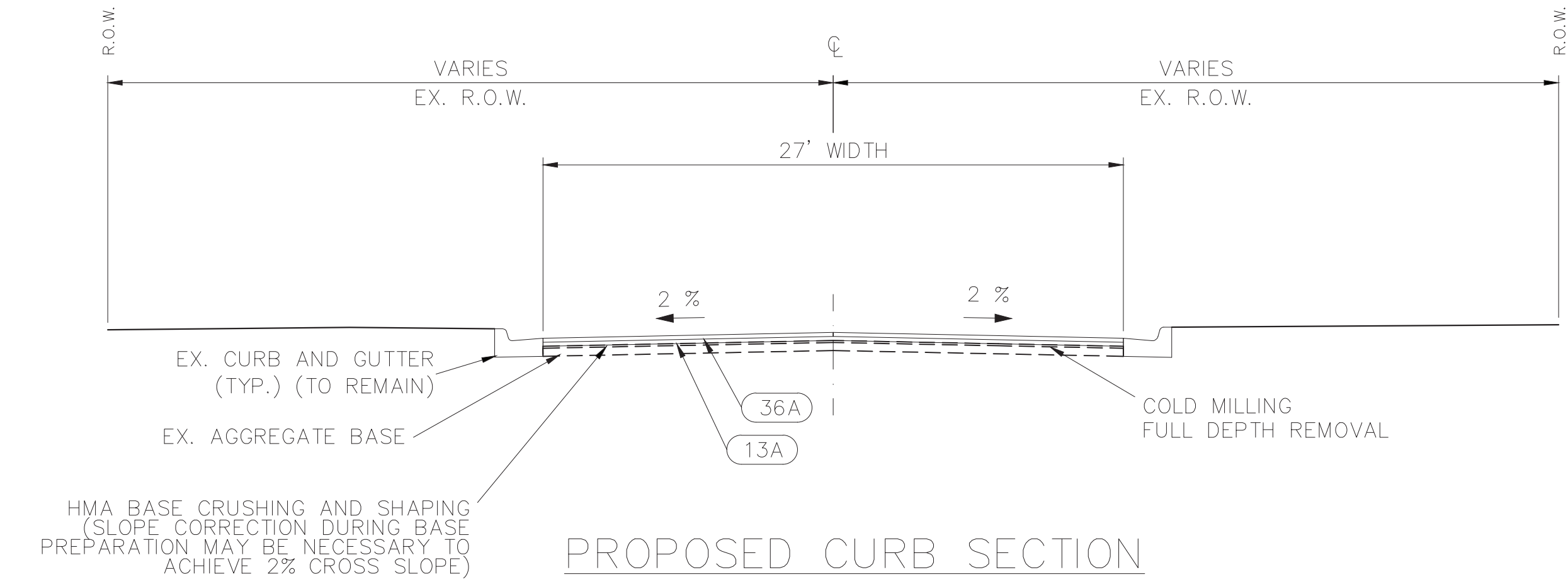
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS	GENERAL NOTES	2
MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN		57

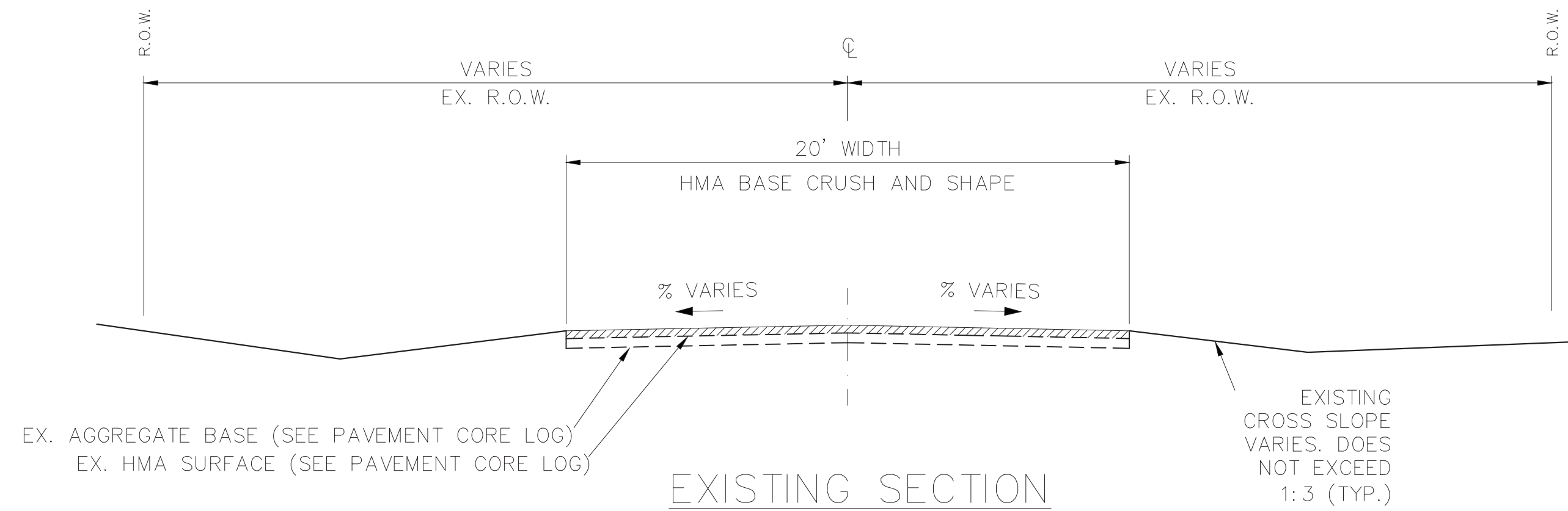
[www.manniksmith.com](http://www.manniksmith.com) (800)354-2267 (517)316-9233 Fax (517)268-9233



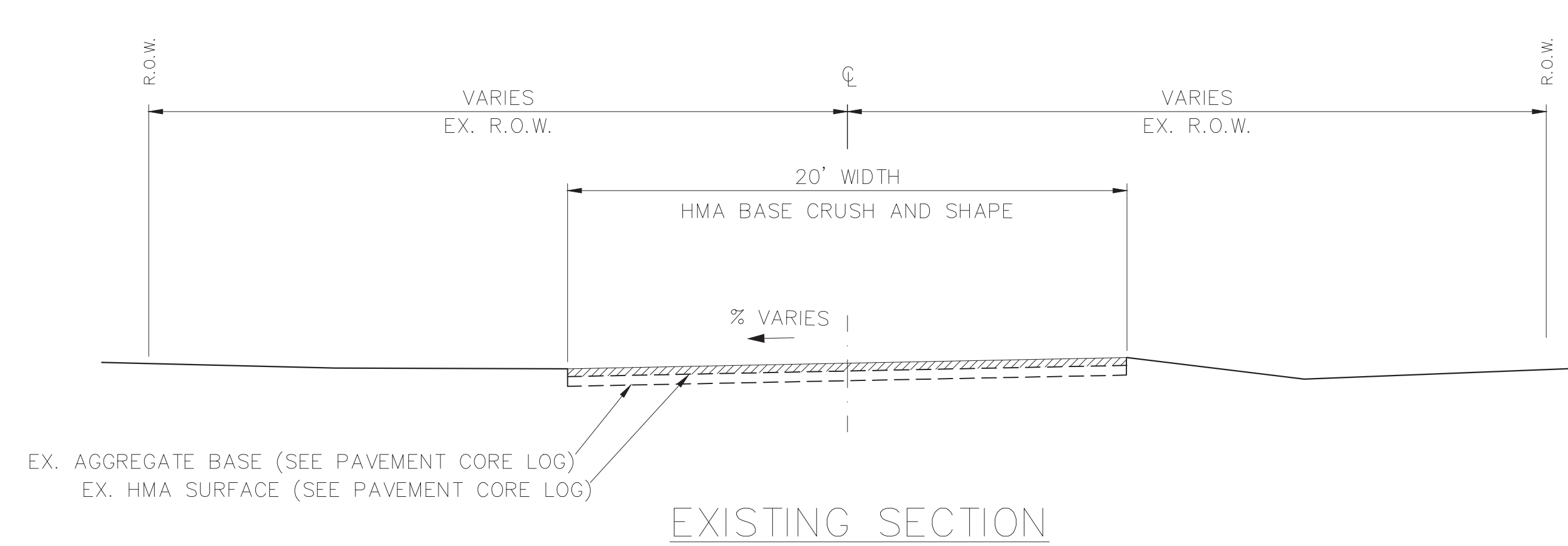
**EXISTING CURB SECTION**  
 APPLIES TO STATION:  
 STA. 5+29 TO STA. 11+18 (BOULEVARD DRIVE)



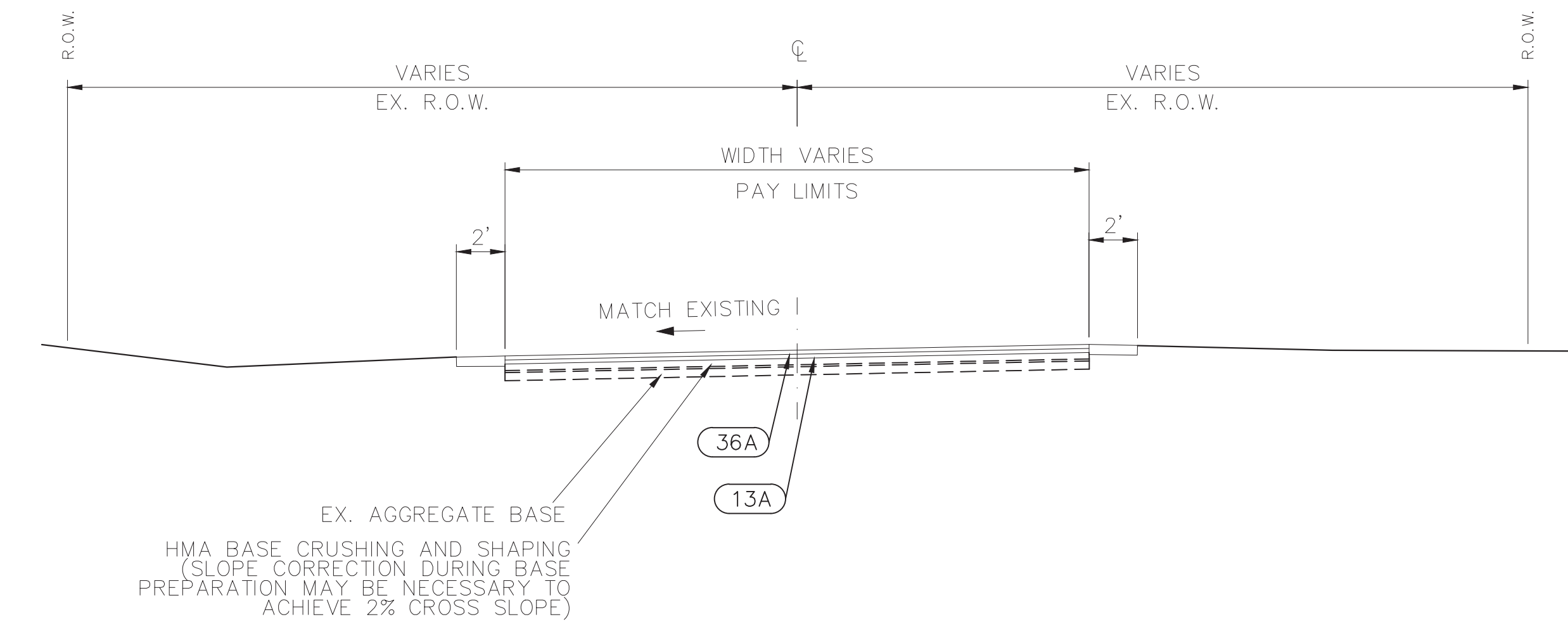
**PROPOSED CURB SECTION**  
 APPLIES TO STATION:  
 STA. 5+29 TO STA. 11+18 (BOULEVARD DRIVE)



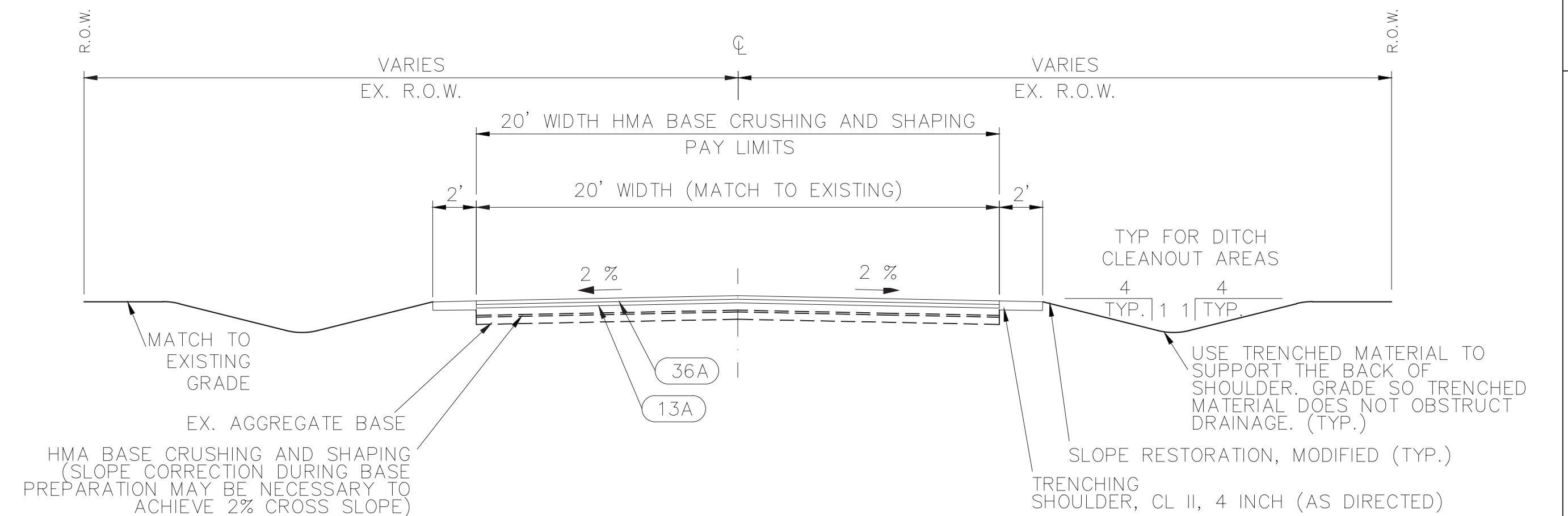
**EXISTING SECTION**  
 APPLIES TO STATION:  
 STA. 0+00 TO STA. 25+25 (COUNTRY DRIVE)  
 STA. 5+50 TO STA. 19+28 (HARKSON DRIVE)  
 STA. 0+06 TO STA. 16+00 (RIVER TERRACE)  
 STA. 0+06 TO STA. 5+14 (OAKWOOD DRIVE)  
 STA. 0+16 TO STA. 5+42 (OAKLAWN ROAD)  
 STA. 0+10 TO STA. 11+40 (PONTCHARTRAIN DRIVE)  
 STA. 0+00 TO STA. 5+29 (BOULEVARD DRIVE)  
 STA. 0+22 TO STA. 21+41 (BUCKINGHAM ROAD)  
 STA. 81+40 TO STA. 85+00 (HALLENDALE ROAD)  
 STA. 85+00 TO STA. 96+20 (BAYSHORE DRIVE)  
 STA. 0+21 TO STA. 9+05 (CARLTON DRIVE)  
 STA. 9+55 TO STA. 10+49 (CARLTON DRIVE)



**EXISTING SECTION**  
 APPLIES TO STATION:  
 STA. 21+50 TO STA. 23+95 (RIVER TERRACE)  
 STA. 30+25 TO STA. 33+00 (SYLVAN GLEN)



**PROPOSED CUL-DE-SAC SECTION**  
 APPLIES TO STATION:  
 STA. 25+25 TO STA. 26+64 (COUNTRY DRIVE)  
 STA. 21+50 TO STA. 23+95 (RIVER TERRACE)  
 STA. 30+25 TO STA. 33+00 (SYLVAN GLEN ROAD)



**PROPOSED SECTION**  
 APPLIES TO STATION:  
 STA. 0+00 TO STA. 25+25 (COUNTRY DRIVE)  
 STA. 5+50 TO STA. 19+28 (HARKSON DRIVE)  
 STA. 0+00 TO STA. 21+50 (RIVER TERRACE)  
 STA. 0+06 TO STA. 30+25 (SYLVAN GLEN ROAD)  
 STA. 0+06 TO STA. 5+14 (OAKWOOD DRIVE)  
 STA. 0+16 TO STA. 5+42 (OAKLAWN ROAD)  
 STA. 0+00 TO STA. 11+82 (PONTCHARTRAIN DRIVE)  
 STA. 0+00 TO STA. 5+29 (BOULEVARD DRIVE)  
 STA. 0+22 TO STA. 21+41 (BUCKINGHAM ROAD)  
 STA. 81+40 TO STA. 85+00 (HALLENDALE ROAD)  
 STA. 85+00 TO STA. 96+20 (BAYSHORE DRIVE)  
 STA. 0+21 TO STA. 9+05 (CARLTON DRIVE)  
 STA. 9+55 TO STA. 10+49 (CARLTON DRIVE)

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TYP AND ICD COMMENTS
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE

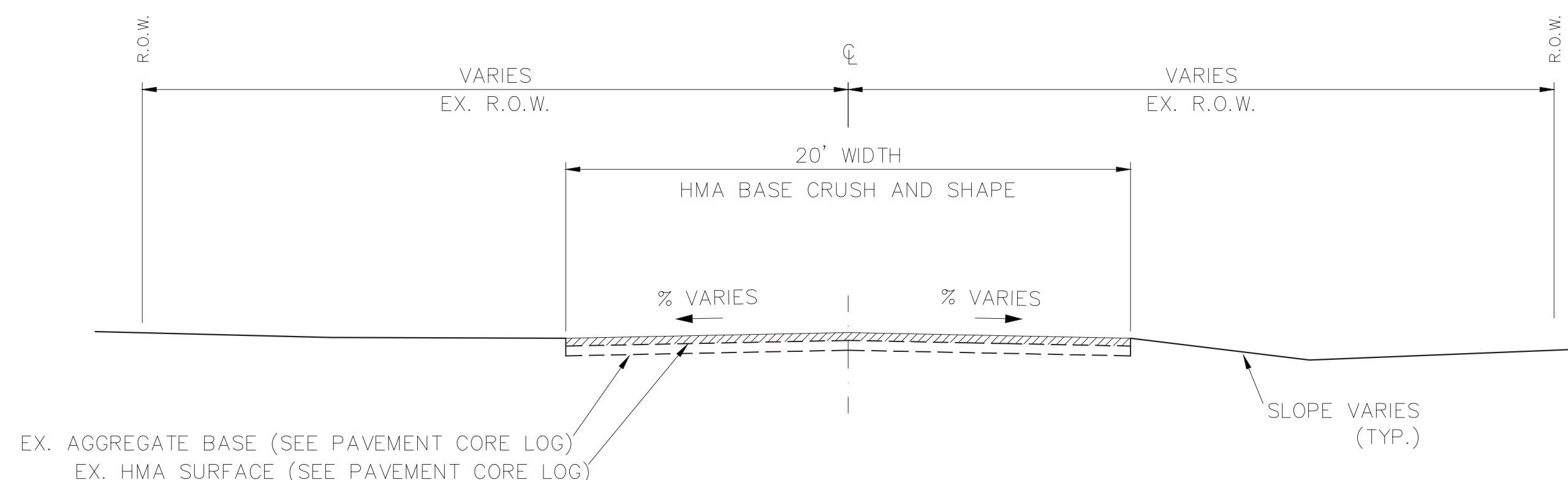
2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9232  
 FAX: 517.316.9233

PROJECT NO.: 10077022  
 PROJECT NAME: I475/2025  
 DRAWN BY: ASML  
 CHECKED BY: CAV



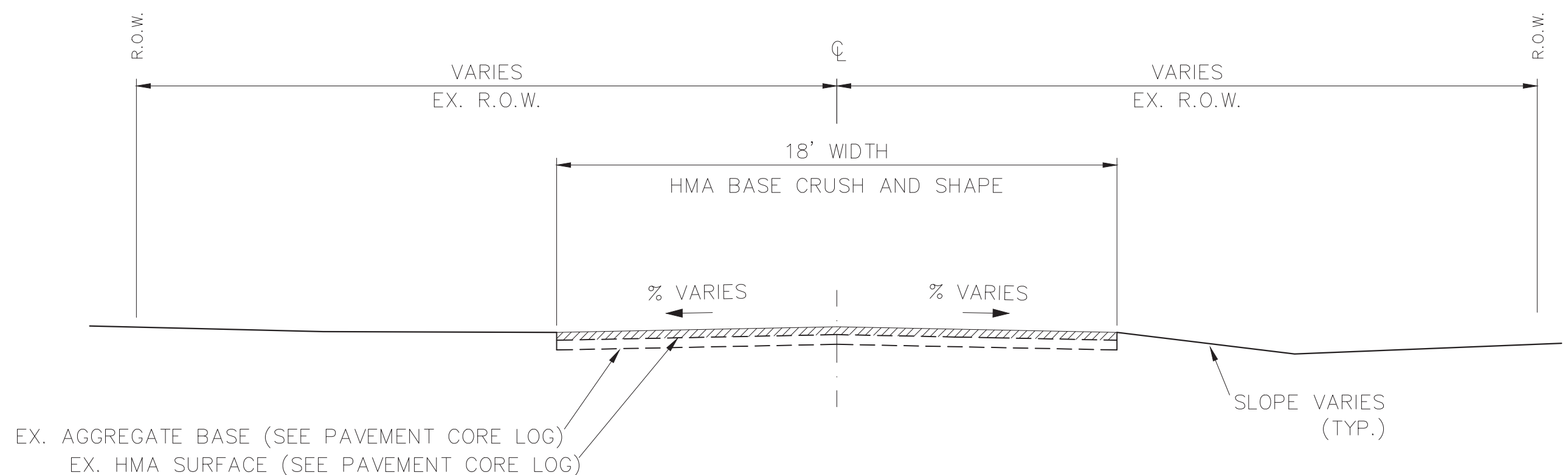
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

TYPICAL SECTIONS



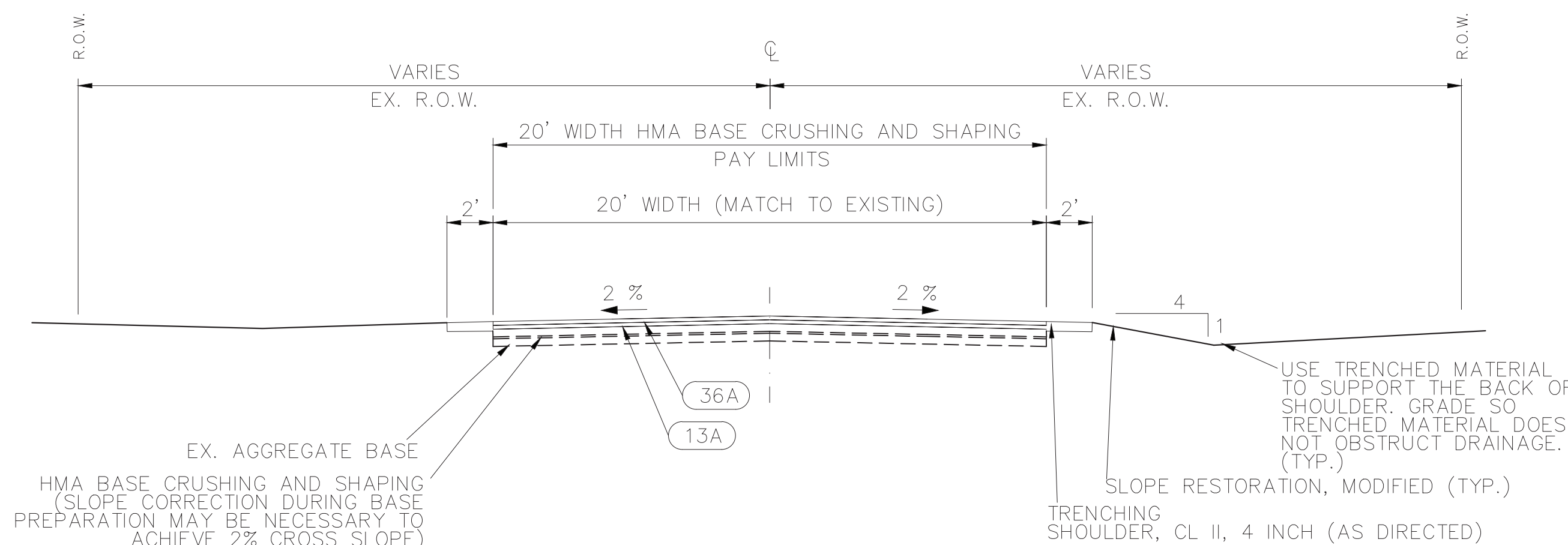
**EXISTING SECTION**

APPLIES TO STATION:  
 STA. 0+26 TO STA. 21+50 (RIVER TERRACE)  
 STA. 0+06 TO STA. 30+25 (SYLVAN GLEN ROAD)  
 STA. 0+20 TO STA. 5+50 (TAYLOR DRIVE)  
 STA. 0+00 TO STA. 4+18 (MILENZ STREET)  
 STA. 0+00 TO STA. 2+60 (E. PERRY ROAD)



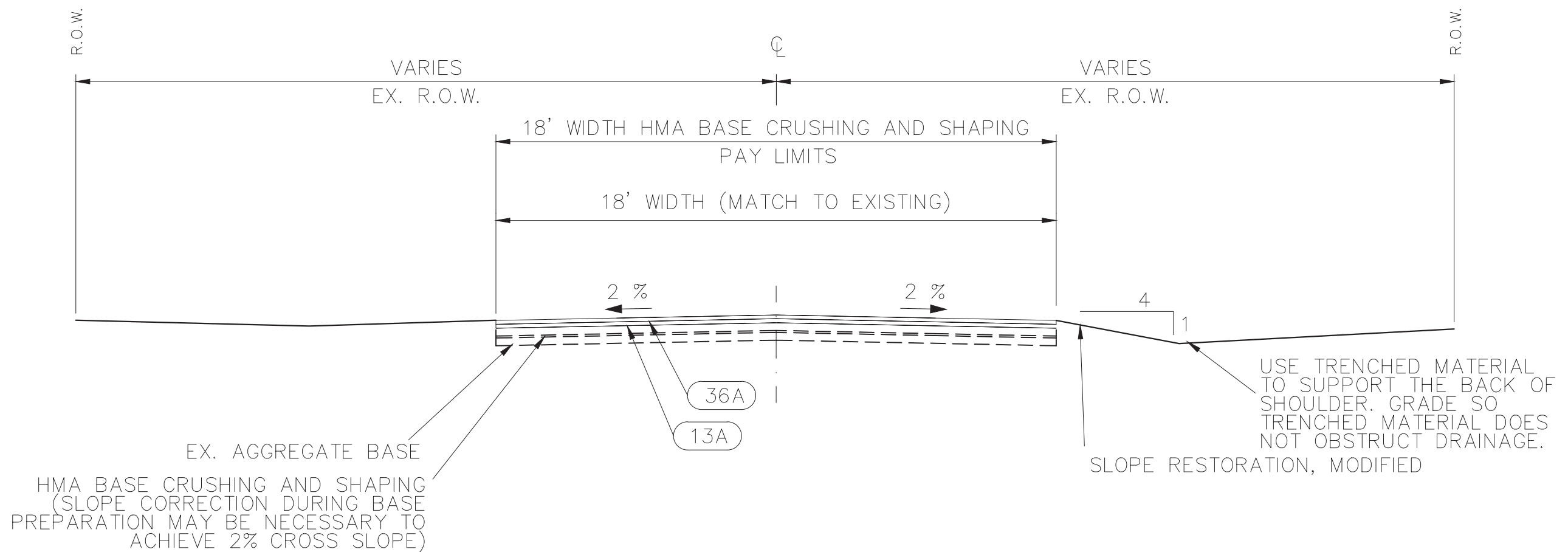
**EXISTING SECTION**

APPLIES TO STATION:  
 STA. 0+00 TO STA. 4+08 (RANDALL STREET)  
 STA. 10+26 TO STA. 30+58 (E REYNOLDS STREET)  
 STA. 30+58 TO STA. 36+15 (QUAIL STREET)



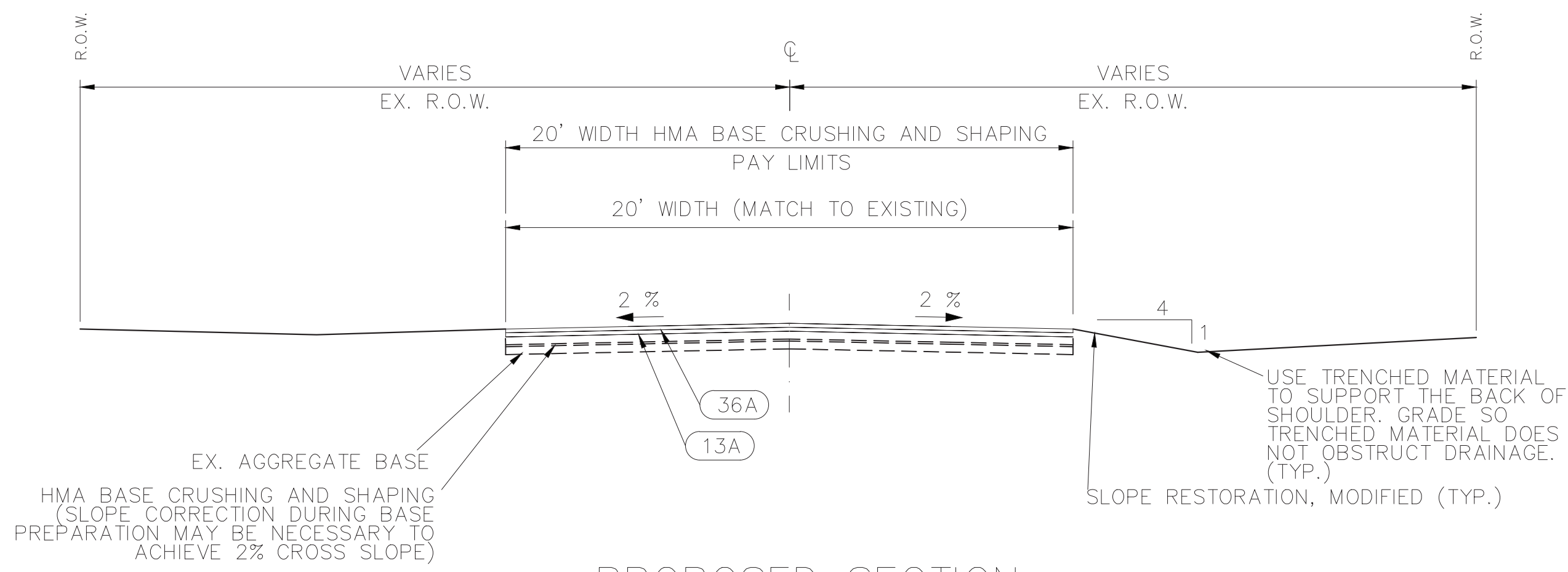
**PROPOSED SECTION**

APPLIES TO STATION:  
 STA. 0+20 TO STA. 5+50 (TAYLOR DRIVE)



**PROPOSED SECTION**

APPLIES TO STATION:  
 STA. 0+00 TO STA. 4+08 (RANDALL STREET)  
 STA. 10+26 TO STA. 30+58 (E REYNOLDS STREET)  
 STA. 30+58 TO STA. 36+15 (QUAIL STREET)



**PROPOSED SECTION**

APPLIES TO STATION:  
 STA. 0+00 TO STA. 4+18 (MILENZ STREET)  
 STA. 0+00 TO STA. 2+60 (E. PERRY ROAD)

**HMA APPLICATION ESTIMATE**

IDENT NO.	ITEM	RATE LBS PER SYD	PERFORMANCE GRADE	REMARKS
36A	HMA, 36A	165	PG 58-28	TOP COURSE (AWI=260 MIN., TARGET AIR VOIDS 3.0%)
13A	HMA, 13A	275	PG 58-28	LEVELING COURSE
	BOND COAT	0.05-0.15 GAL		SS-AH (FOR INFORMATION ONLY)

\*FOR INFORMATION ONLY

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TWP AND CRD COMMENTS DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9232  
 FAX: 517.316.9233

PROJECT DATE: 10/27/2022  
 PROJECT NO.: IM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

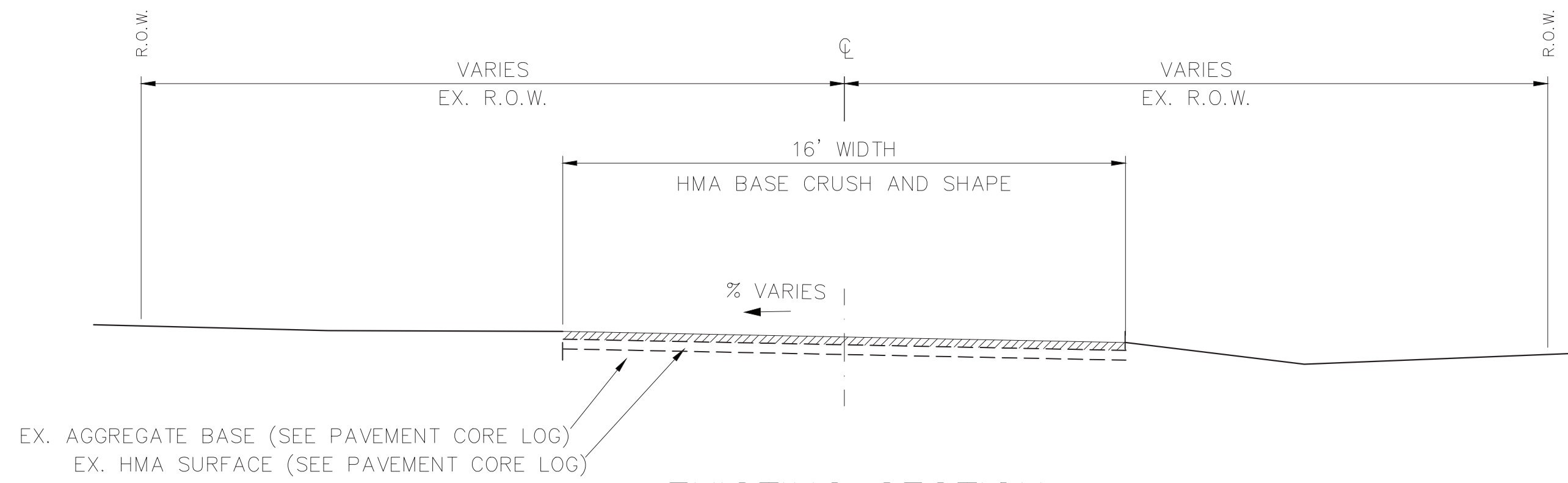
**Mannik Smith GROUP**  
 TECHNICAL SKILL  
 CREATIVE SPIRIT  
 www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

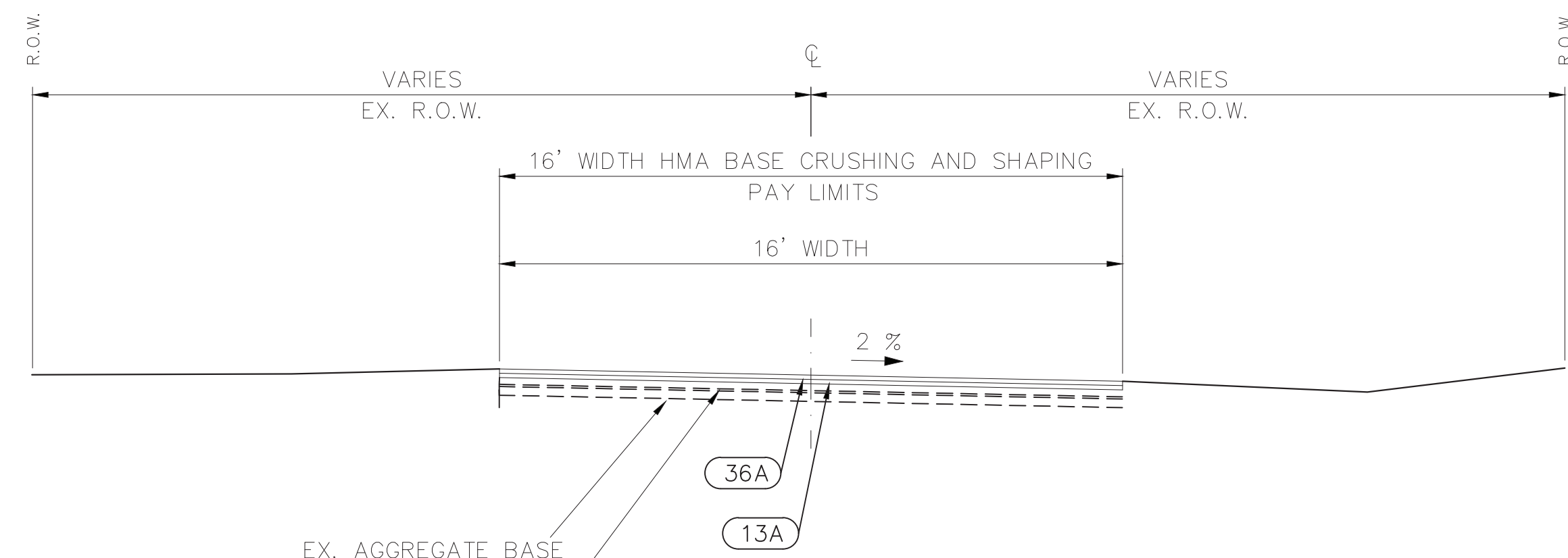
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

TYPICAL SECTIONS



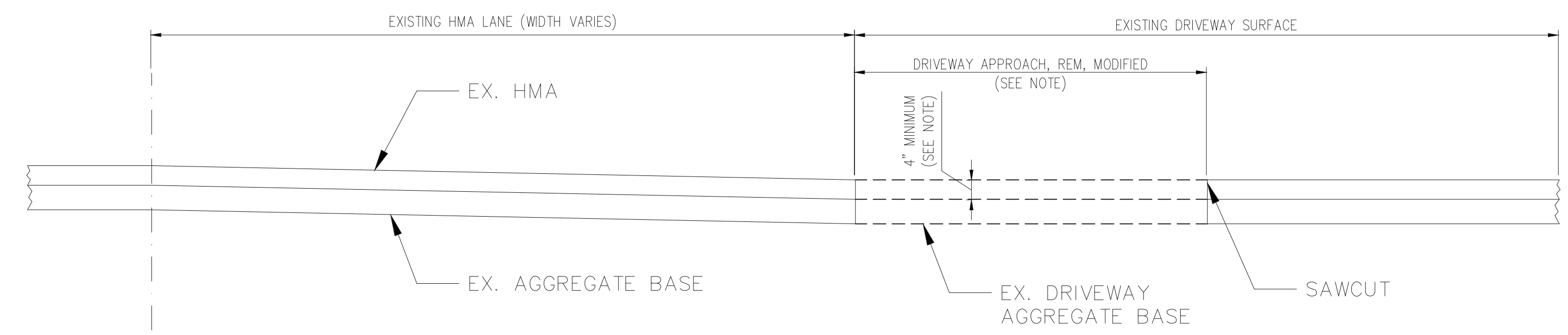
**EXISTING SECTION**

APPLIES TO STATION:  
STA. 0+00 TO STA. 10+26 (W. REYNOLDS - ONE WAY SECTION)

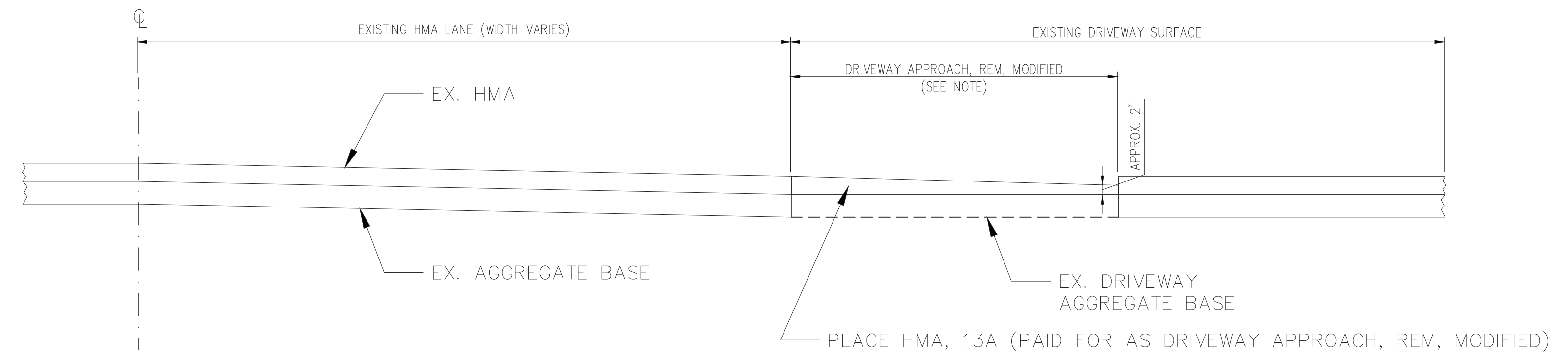


**PROPOSED SECTION**

APPLIES TO STATION:  
STA. 0+00 TO STA. 10+26 (W. REYNOLDS - ONE WAY SECTION)



**DRIVEWAY APPROACH, REM, MODIFIED - EXISTING REMOVAL**



**DRIVEWAY APPROACH, REM, MODIFIED - TEMPORARY BREAKER**

NOTE: ALL DRIVEWAYS THAT ARE NOTED FOR RECONSTRUCTION SHALL RECEIVE A 2" HMA TAB EXTENDING FROM THE EDGE OF THE ROAD PAID FOR AS HMA, 13A AS PART OF THE MAINLINE PAVING. THE DRIVEWAY WILL BE REPLACED IN KIND OR AS NOTED IN THE PLAN BEYOND THE 2".

NO.	DATE	BY	DESCRIPTION
REV 1	2-28-2023	ASML	TWP AND CRD COMMENTS DRAINAGE REMOVED PER TWP
REV 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517.316.9232  
FAX: 517.316.9233

PROJECT DATE: 10/27/2022  
PROJECT NO.: M450015  
DRAWN BY: ASML  
CHECKED BY: CAV



2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

TYPICAL SECTIONS

RANDALL STREET APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+15, 2+31, 2+83, 2+89.

E. PERRY ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+03, 1+19, 1+63.

MILENZ STREET APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+66, 2+01, 2+78.

W. REYNOLDS ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+91, 1+11, 2+26, 2+26, 2+93, 3+15, 3+25, 4+02, 4+54, 4+80, 5+05, 5+82, 6+48, 7+00, 7+50, 8+50, 8+83, 9+24, 9+64, 9+66.

E. REYNOLDS ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 10+74, 10+87, 11+32, 11+32, 11+84, 11+84, 11+98, 12+21, 13+32, 14+05, 14+43, 14+56, 14+84, 14+84, 15+40, 15+52, 16+19, 16+30, 16+66, 16+74, 16+80, 17+59, 18+21, 18+71, 19+43, 19+89, 20+07, 20+75, 21+01, 21+13, 21+40, 22+06, 22+43, 23+16, 23+48, 24+19, 25+00, 25+37, 26+24, 26+78, 28+54, 29+34, 29+34, 30+13, 30+37.

QUAIL STREET APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 31+28, 31+28, 31+87, 32+08, 32+48, 32+94, 33+31, 33+92, 34+07, 34+88, 34+91, 35+35, 35+79, 35+85.

CARLTON STREET APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+57, 1+81, 1+93, 2+12, 3+04, 3+19, 3+90, 4+54, 4+67, 5+76, 5+84, 6+00, 7+11, 7+57.

BUCKINGHAM ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 20+54, 20+03, 19+59, 19+51, 19+00, 18+57, 17+60, 16+86, 15+88, 15+95, 15+55, 14+86, 13+66, 12+91, 11+90, 11+44, 11+28, 10+71, 10+43, 10+02, 9+66, 9+28, 8+66, 8+41, 8+14, 7+66, 6+64, 5+42, 5+10, 87+22, 2+57, 1+42, 1+42.

BAYSHORE DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 83+94, 84+84, 85+33, 86+33, 86+66, 4+73, 89+27, 89+63, 89+74, 90+56, 90+73, 91+19, 91+70, 92+30, 92+33, 93+21, 93+60, 93+89, 94+72, 95+19.

HALLENDALE ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 81+66, 81+75, 82+48, 82+52, 83+26, 83+72, 83+98, 83+98, 83+98.

COUNTRY DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+56, 3+67, 4+70, 4+96, 6+67, 7+50, 10+53, 10+88, 12+62, 13+52, 15+39, 16+38, 16+76, 17+67, 20+01, 21+43, 22+78, 26+14, 26+14, 26+84.

BOULEVARD DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+96, 1+66, 2+57, 3+50, 4+25.

OAKLAWN ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+68, 1+54, 2+52, 3+21, 3+75, 4+50.

OAKWOOD DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+80, 1+26, 1+70, 2+16, 3+00, 3+00, 3+36, 4+35.

PONTCHARTRAIN DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+80, 2+13, 2+50, 3+02, 3+15, 4+14, 4+29, 5+00, 5+70, 6+71, 7+06, 7+70, 8+61, 8+76, 9+86, 10+04, 10+61.

SYLVAN GLEN ROAD APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 2+67, 3+69, 4+89, 5+86, 7+60, 9+66, 10+68, 11+91, 12+85, 15+42, 16+02, 17+19, 18+69, 19+67, 21+19, 21+60, 22+58, 23+36, 23+82, 24+88, 25+91, 25+91, 26+53, 28+54, 29+97, 31+69, 32+00, 32+16.

RIVER TERRACE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 1+12, 2+16, 3+25, 3+25, 5+00, 6+50, 7+62, 7+62, 7+92, 8+25, 8+86, 10+11, 10+32, 10+85, 10+85, 12+27, 12+27, 13+17, 13+73, 14+75, 15+28, 15+64, 16+37, 16+75, 16+75, 17+50, 18+22, 18+92, 19+67, 19+80, 20+04, 20+42, 21+06, 21+06.

TAYLOR DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 0+71, 1+00, 1+92, 3+04, 3+15, 4+70.

HARKSON DRIVE APPROACH TABLE table with columns: Station, Address, Side, Material, Width At EOP (FT), Width At Point of Restoration (FT), Distance From EOP to Match Point (FT). Rows include 5+97, 7+62, 7+94, 8+05, 8+39, 9+44, 9+44, 10+29, 10+57, 11+38, 11+51, 12+02, 12+27, 12+97, 13+42, 14+13, 14+77, 15+25, 15+84, 16+50, 17+32, 17+77, 18+33.

Project information table including NO. 2193, ASSOCIATION DR. SUITE #200, OKEMOS, MI 48864, DATE: 2-28-2023, BY: ASML, TWP AND ICRD COMMENTS, DRAINAGE REMOVED PER TWP, REV: 1, 2, REMOVE BID ALTERNATE.

Project information table including PROJECT DATE: 10/27/2022, PROJECT NO.: M150005, DRAWN BY: ASML, CHECKED BY: CAU.



2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS PROJECT NO. MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN

Total Project Quantity for Base Crush & Shape Roads																						
Item No.	Description	Unit	Randal St	W Reynolds Rd	E Perry Road	E Reynolds Rd	Quail St	Milenz St	Carlton St	Buckingham Rd	Bayshore Rd	Hallendale Rd	Country Dr	Boulevard Dr	Oaklawn Dr	Oakwood Dr	Pontchartrain Dr	Sylvan Glen Rd	River Terrace	Taylor Dr	Harkson Dr	TOTAL
1100001	Mobilization	Lsum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2010001	Clearing	Acre	0	0	0	0.07	0	0	0	0	0	0	0	0	0	0	0	0.17	0.06	0	0	0.31
2030001	Culv, Rem, Less than 24 inch	Ea	0	0	0	0	1	0	8	8	1	0	6	4	0	4	6	2	8	0	3	51
2047011	Driveway Approach, Rem, Modified	Syd	8	111	15	823	168	35	290	0	0	0	382	117	49	161	269	476	470	32	353	3759
2050006	Ditch Cleanout	Sta	0	0	0	0	2	0	7	22	10	9	15	12	18	4	7	9	13	0	6	134
2050041	Subgrade Undercutting, Type II	Cyd	0	25	0	45	0	0	0	0	0	0	70	0	0	0	0	80	0	0	0	220
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	0	2	3	1	0	0	2	12	1	0	0	4	0	2	0	0	0	0	0	27
2080036	Erosion Control, Silt Fence	LF	0	977	0	576	0	0	319	0	0	0	0	0	0	0	0	627	0	0	0	2499
3020016	Aggregate Base, 6 inch	Syd	0	68	0	139	0	0	0	0	0	0	221	0	0	0	0	266	0	0	0	694
3020050	Aggregate Base, Conditioning	Syd	890	2260	605	4620	1225	1005	2515	5235	2740	1100	7355	3240	1290	1245	2775	8860	5795	1395	3495	57645
3050002	HMA Base Crushing and Shaping	Syd	890	2260	605	4620	1225	1005	2515	5235	2740	1100	7355	1295	1290	1245	2775	8860	5795	1395	3495	55700
3070001	Approach, CI I	Ton	4	11	11	72	8	8	35	0	0	0	0	6	0	0	0	32	85	1	10	283
3070126	Shoulder, CI II, 4 inch	Syd	0	0	0	0	0	0	457	951	497	200	1267	236	234	226	503	1464	1053	214	635	7937
3070200	Trenching	Sta	0	3	0	0	0	0	21	43	23	9	58	11	11	11	23	66	48	10	29	366
4010573	Culv, CI E, Conc, 12 inch	Ft	0	0	0	0	0	0	0	96	0	0	0	0	0	0	0	0	0	0	0	96
4010607	Culv, CI F, 12 inch	Ft	0	0	0	0	30	0	194	188	0	0	172	90	0	84	162	50	225	0	66	1261
4030004	Dr Structure Cover, Adj, Case 1, Modified	Ea	0	0	1	0	0	0	1	1	0	0	0	3	0	2	0	1	0	0	0	9
4030006	Dr Structure Cover, Adj, Case 2	Ea	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4030040	Dr Structure Cover, Type G	Ea	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4030390	Dr Structure, Temp Lowering	Ea	0	4	2	8	2	1	5	5	3	1	0	9	0	4	0	2	7	2	4	59
5010002	Cold Milling HMA Surface	Syd	0	0	0	0	0	0	0	0	0	0	0	1945	0	0	0	0	0	0	0	1945
5010008	Pavt for Butt Joints, Rem	Syd	225	0	265	0	0	265	500	555	95	60	255	325	230	575	0	270	130	135	130	4015
5010033	HMA, 13A	Ton	130	325	90	660	175	145	430	750	390	160	1050	465	185	180	400	1265	830	200	500	8330
5010034	HMA, 36A	Ton	80	195	55	400	105	90	260	450	235	95	630	280	115	110	240	760	500	120	300	5020
5010061	HMA Approach	Ton	20	15	25	75	10	25	20	35	0	0	100	55	30	80	30	85	50	15	55	725
8010005	Driveway, Nonreinf Conc, 6 inch	Syd	6	34	0	290	87	13	84	3	0	0	44	0	20	27	151	112	70	14	137	1092
8027010	Driveway, Brick Pavers, Rem and Salv	Sft	0	25	0	0	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	173
8070095	Post, Mailbox	Ea	5	22	4	44	16	4	16	37	18	11	22	6	7	9	19	30	38	7	26	341
8127051	Traffic Control	Lsum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8167011	Slope Restoration, Modified	Syd	615	1560	376	3192	844	624	1568	3042	1626	684	4453	805	802	773	1726	5007	3601	867	2171	34336
8230381	Water Shutoff, Adj, Temp, Case 1	Ea	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
8230382	Water Shutoff, Adj, Temp, Case 2	Ea	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8230391	Gate Box, Adj, Temp, Case 1	Ea	0	0	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	3
8230421	Water Shutoff, Adj, Case 1	Ea	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3
8230422	Water Shutoff, Adj, Case 2	Ea	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8230431	Gate Box, Adj, Case 1	Ea	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
8240001	Contractor Staking	Lsum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8252140	Sanitary Structure, Adj, Add Depth	Ft	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
8252145	Sanitary Structure Cover, Adj, Case 1	Ea	0	4	1	8	2	1	4	4	1	1	0	6	0	2	0	1	7	2	4	48
8252146	Sanitary Structure Cover, Adj, Case 2	Ea	0	0	0	0	0	0	0	4	3	1	0	0	1	0	3	0	0	0	0	12
8257010	Sanitary Structure Chimney Seal, External	Sft	0	60	15	120	30	15	60	120	60	30	0	90	15	30	45	15	105	30	60	900
8257050	Sanitary Structure Cover	Ea	0	4	1	9	2	1	0	8	4	2	0	5	1	2	4	0	8	1	2	54

NO.	REV. 1	REV. 2	DATE	2-28-2023	3-15-2023	BY	ASML	ASML	DESCRIPTION	TWP AND ICRD COMMENTS	DRAINAGE REMOVED PER TWP	REMOVE BID ALTERNATE
-----	--------	--------	------	-----------	-----------	----	------	------	-------------	-----------------------	--------------------------	----------------------

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517.316.9232  
FAX: 517.316.9233

PROJECT DATE: 10/27/2022  
PROJECT NO.: M4150015  
DRAWN BY: ASML  
CHECKED BY: CAW

TECHNICAL SKILL:  
CREATIVE SPIRIT.

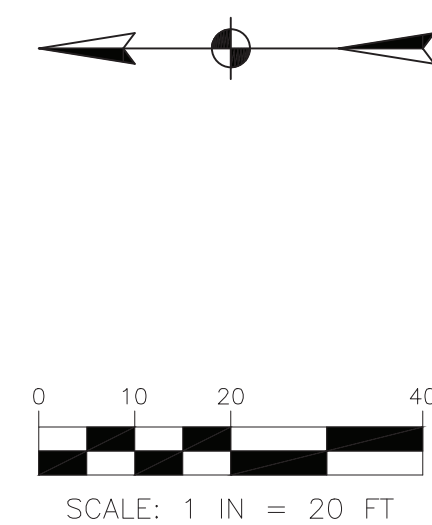
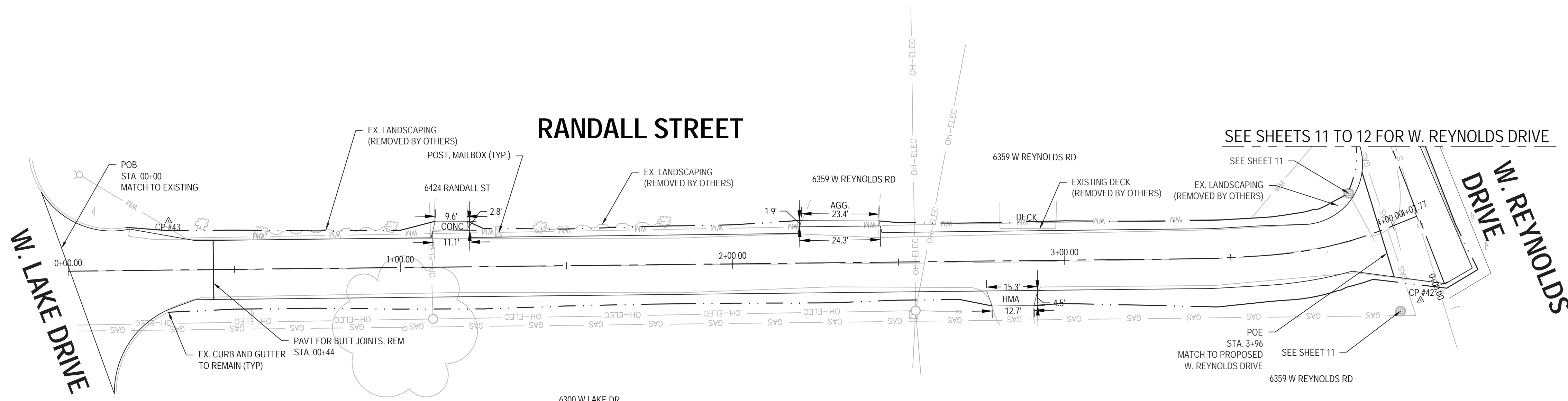
**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:



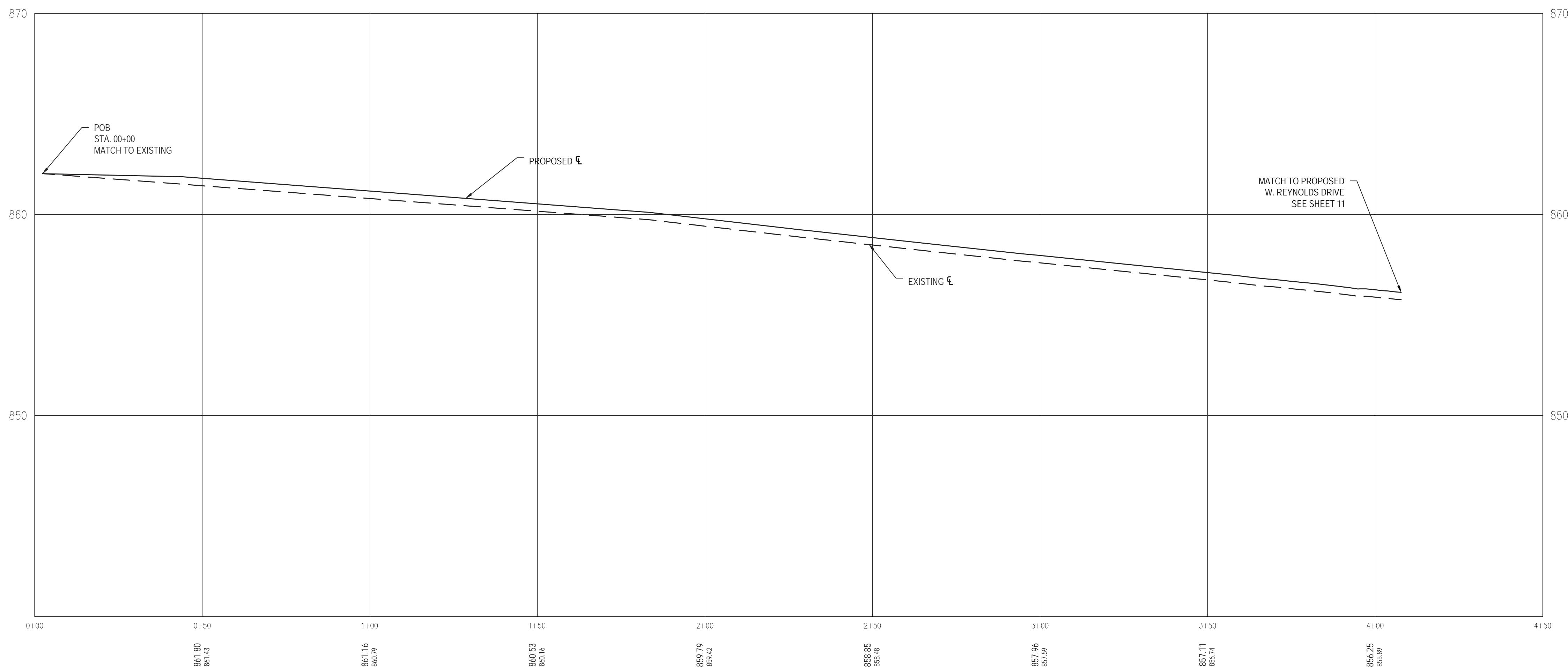
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN



<b>CONTROL POINT #42</b>
ELEV. = 855.89
N = 461676.52
E = 13112563.38
<b>CONTROL POINT #43</b>
ELEV. = 861.57
N = 462058.04
E = 13112579.83

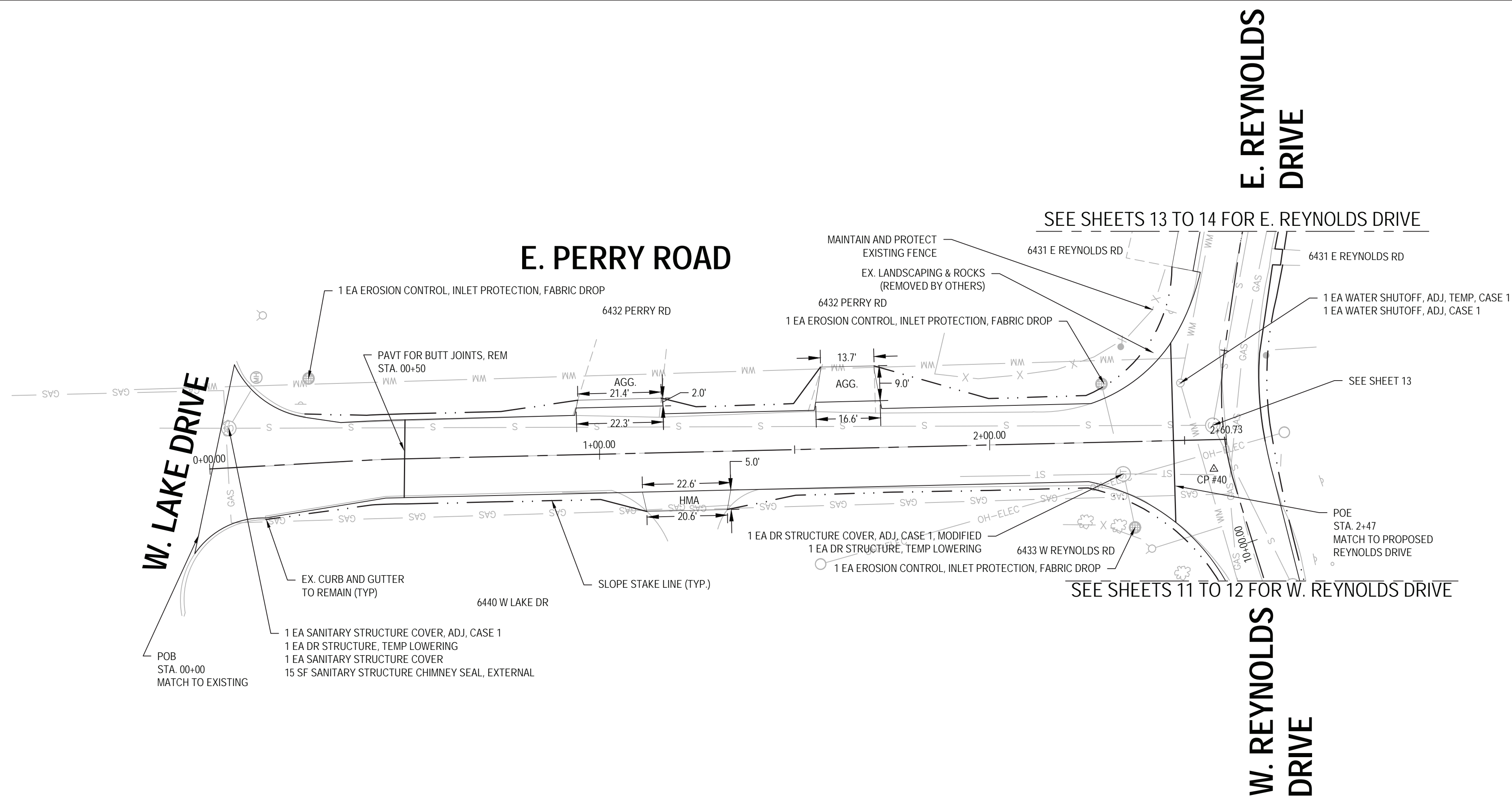
NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



W:\projects\p1314\13140001\13140001.dwg: Randall, D:\p1314\13140001\13140001.dwg: Randall, P:\1314\13140001\13140001.dwg: Randall, 13140001.dwg: Randall

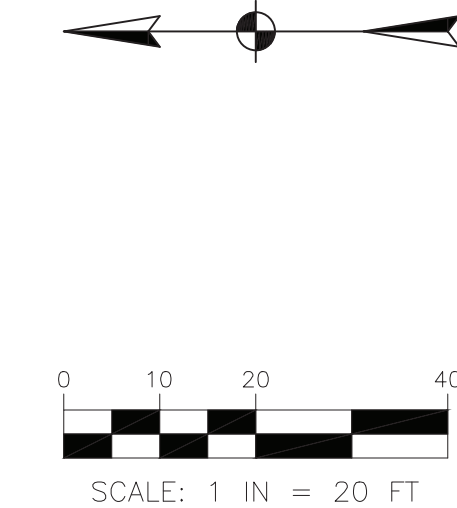
NO.	REV.	DATE	BY	DESCRIPTION	REMOVE BID ALTERNATE
					REMOVE BID ALTERNATE
2193				ASSOCIATION DR SUITE #200	
				DKEMOS, MI 48864	
				TEL: 517.316.9233	
				FAX: 517.316.9233	
				PROJECT DATE: 11/22/2022	
				PROJECT NO.: M150015	
				DRAWN BY: ASML	
				CHECKED BY: CAV	
<b>TECHNICAL SKILL: CREATIVE SPIRIT.</b>					
www.MannikSmithGroup.com					
PREPARED FOR:					
5151 MARSH ROAD OKEMOS, MI 48864					
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN					
RANDALL STREET PLAN & PROFILE STA. 0+00 TO STA. 4+08					
8 57					





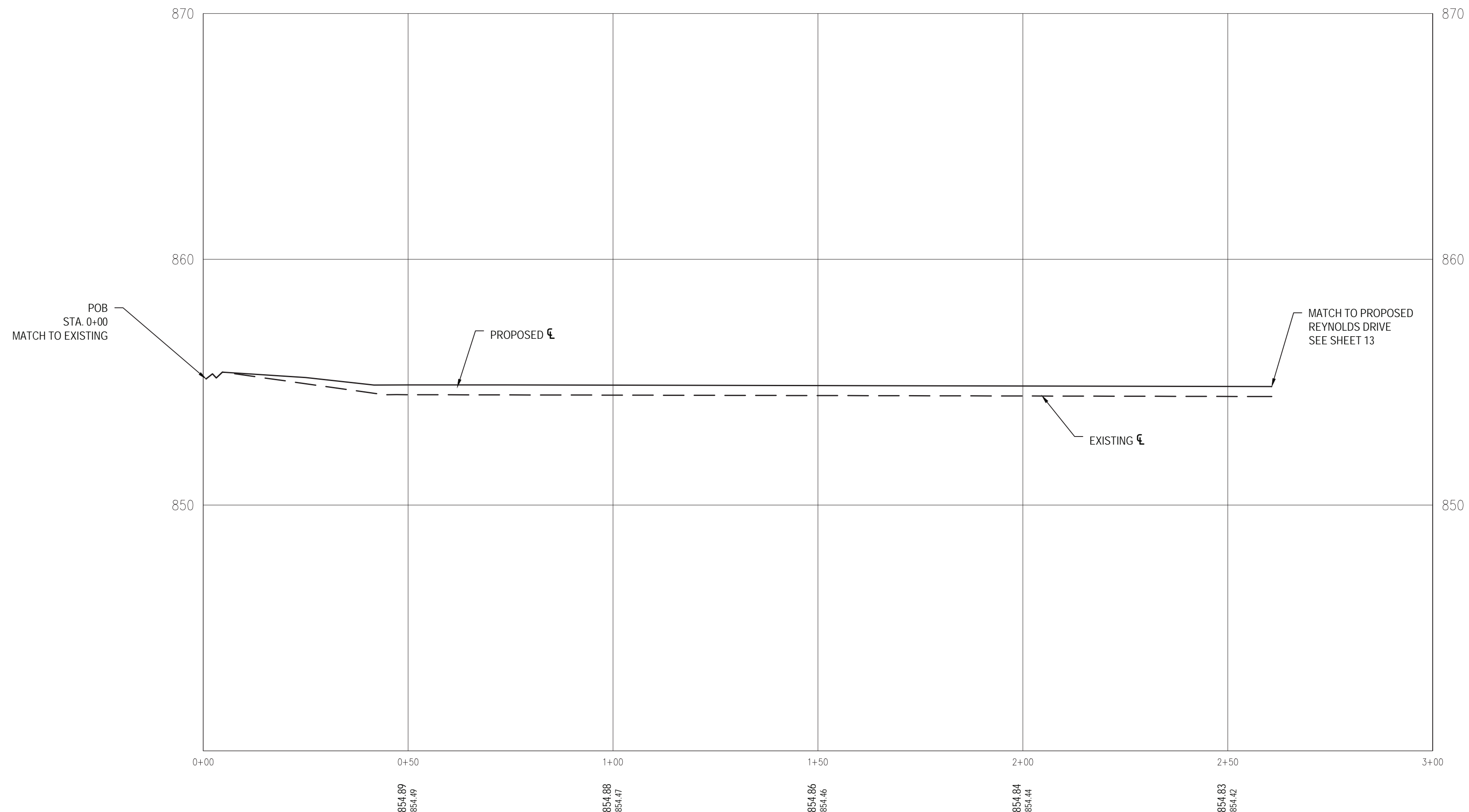
SEE SHEETS 13 TO 14 FOR E. REYNOLDS DRIVE

SEE SHEETS 11 TO 12 FOR W. REYNOLDS DRIVE



**CONTROL POINT #40**  
 ELEV. = 854.03  
 N = 461892.09  
 E = 13113551.02

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

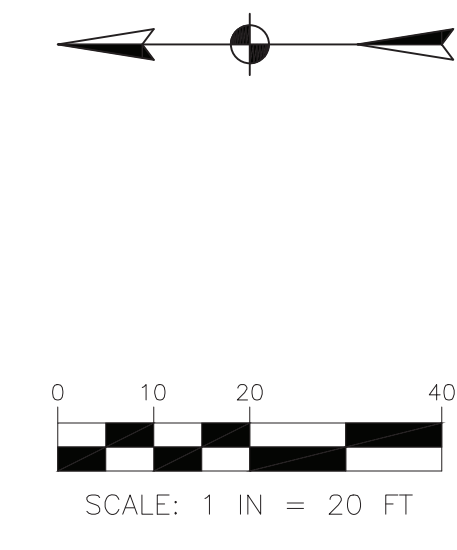
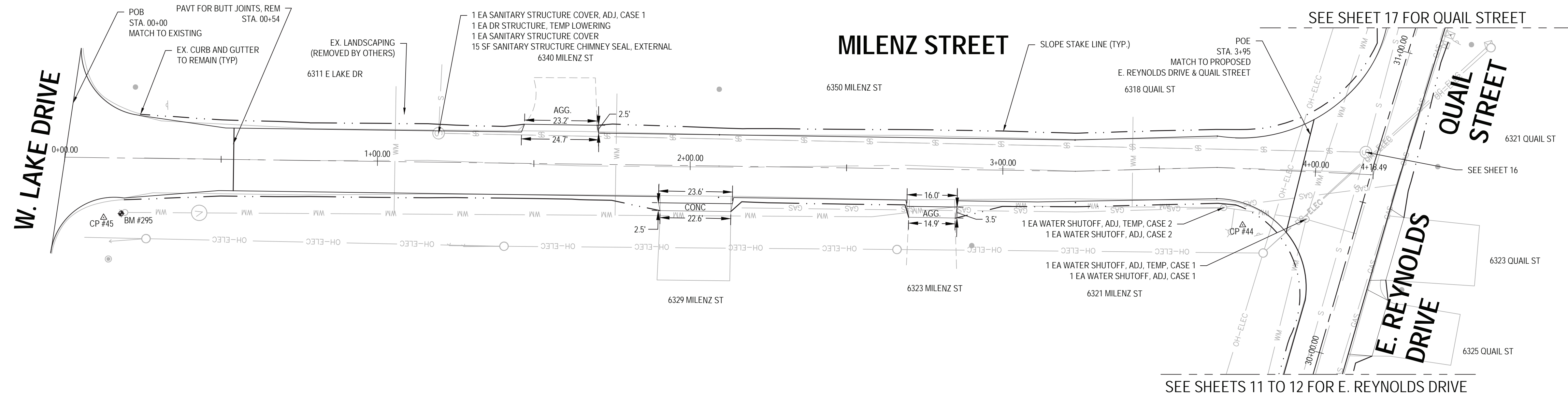


DESCRIPTION:	REMOVE BRIDGE
BY:	ASML
DATE:	3/15/2023
US:	REV 1
REV 2	3/15/2023
2193 ASSOCIATION DR	ASML
SUITE #200	ASML
OKEMOS, MI 48864	ASML
TEL: 517.316.9233	ASML
FAX: 517.316.9233	ASML
PROJECT DATE:	11/22/2022
PROJECT NO.:	MA150015
DRAWN BY:	ASML
CHECKED BY:	CAV



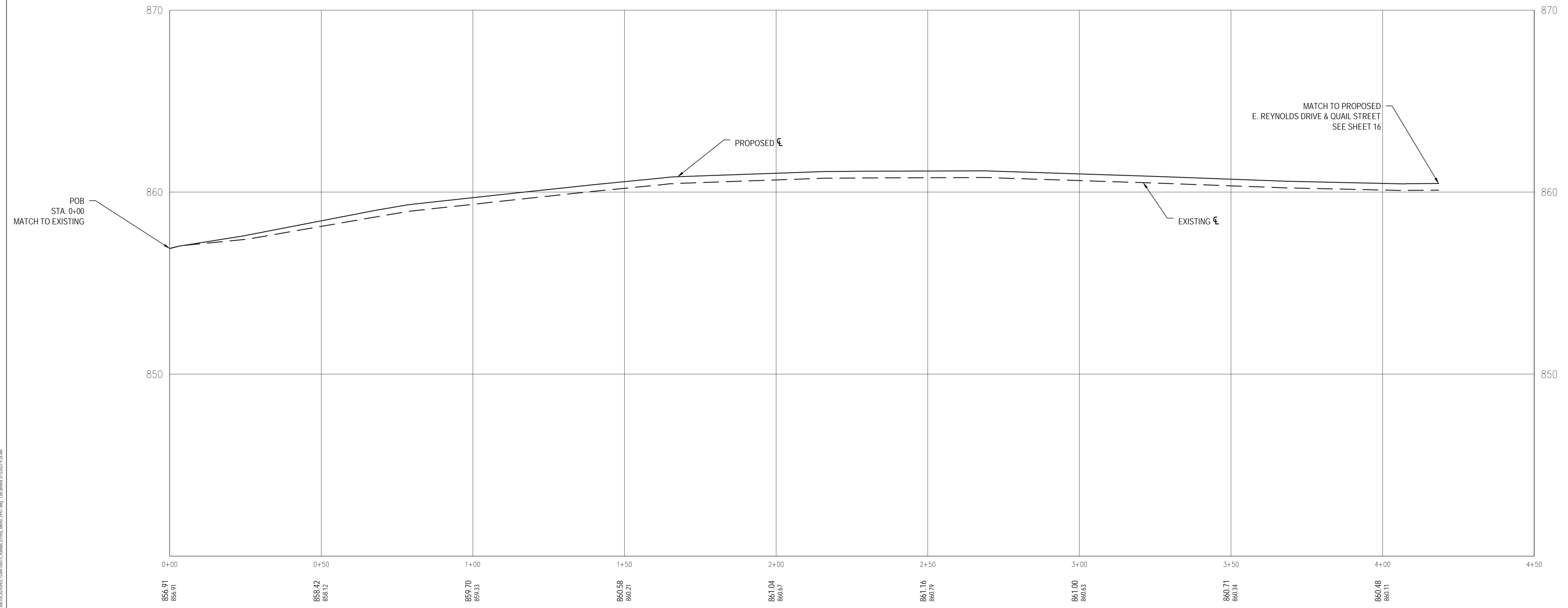
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

E. PERRY ROAD  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 2+60



<b>BENCHMARK #295</b>
N BOLT W SIDE FIRE HYDRANT PAINT DOT ELEV. = 859.62 N = 461246.25 E = 13115325.64
<b>CONTROL POINT #44</b>
ELEV. = 859.85 N = 460901.84 E = 13115229.29
<b>CONTROL POINT #45</b>
ELEV. = 857.66 N = 461253.65 E = 13115324.61

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	BY	DESCRIPTION
REV 1	2/28/23	ASML	TYP AND DESIG COMMENTS CHANGE, REMOVE PER TYP
REV 2	3/15/23	ASML	REMOVE RD ALTERNATE

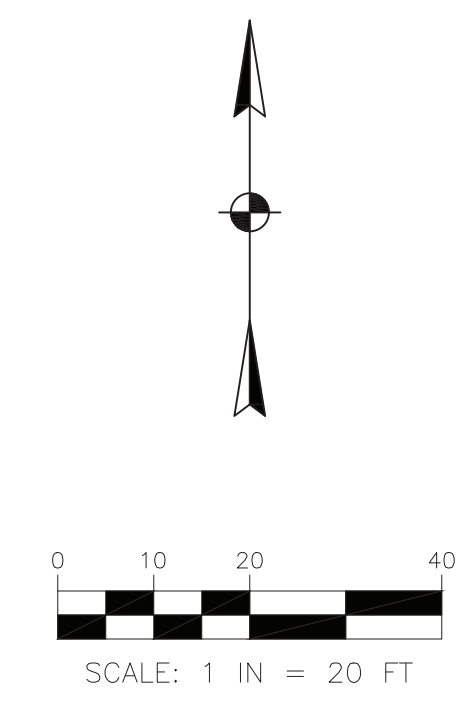
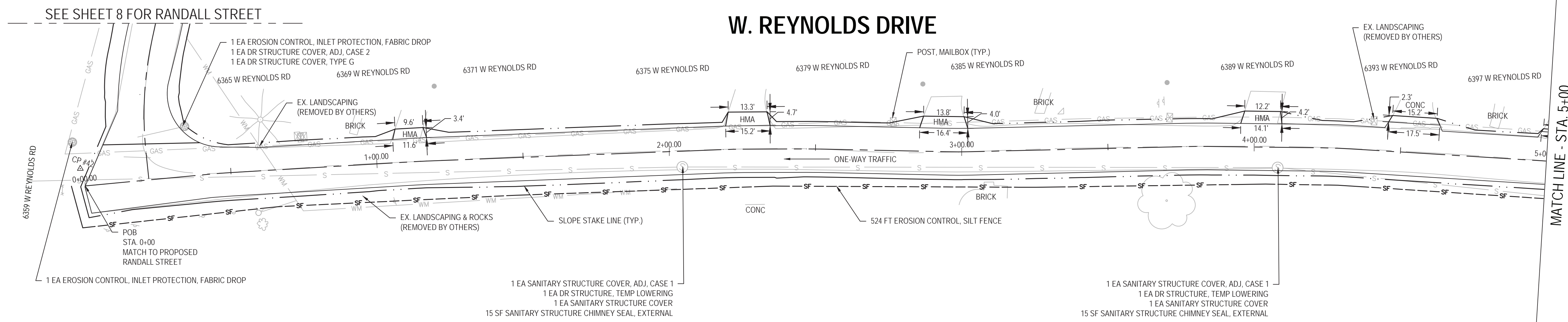
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.368.9233 FAX: 517.368.9233	PROJECT NO.: MM150015 DRAWN BY: ASML CHECKED BY: CAV
---	--

PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI 48864

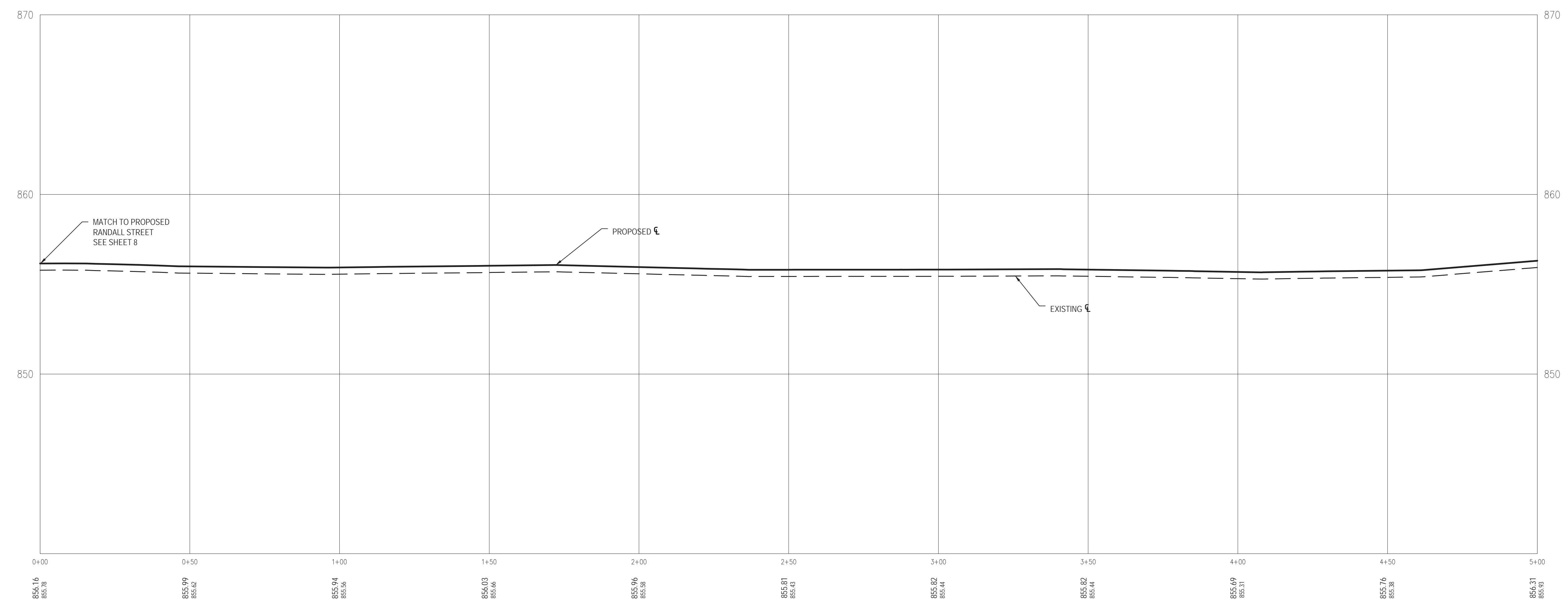
2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

MILENZ STREET  
PLAN & PROFILE  
STA. 0+00 TO STA. 4+18



**CONTROL POINT #42**  
 ELEV. = 855.89  
 N = 461676.52  
 E = 13112563.38

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



856.16 855.78	855.09 855.04	855.94 855.36	856.03 855.06	855.96 855.38	855.81 855.43	855.82 855.44	855.82 855.44	855.69 855.31	855.76 855.38	856.31 855.93
------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

NO.	DATE	BY	DESCRIPTION
REV 1	3/24/23	ASML	TYP AND ORDER COMMANDS
REV 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 268-2923  
 FAX: 268-9233

PROJECT DATE: 11/22/2022  
 PROJECT NO.: MM15015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

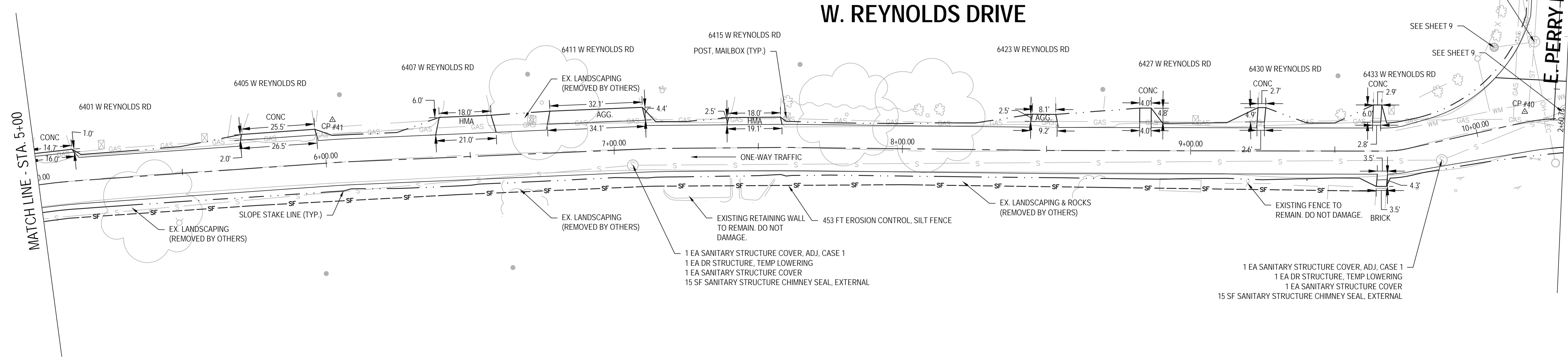
**Mannik Smith GROUP**  
 TECHNICAL SKILL  
 CREATIVE SPIRIT  
 www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

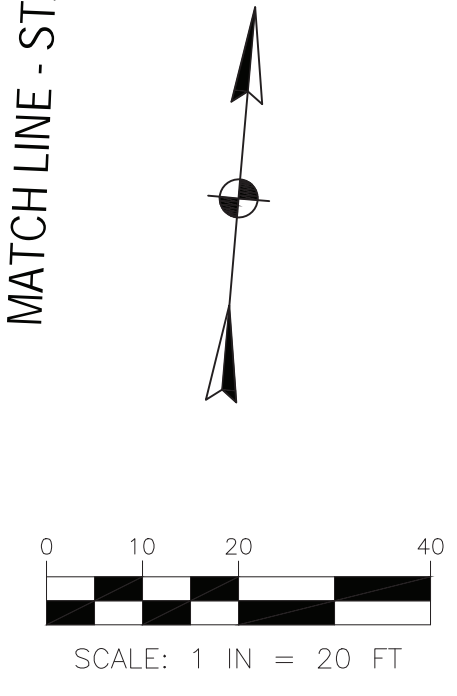
W REYNOLDS DRIVE  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 5+00



SEE SHEET 9 FOR E PERRY ROAD

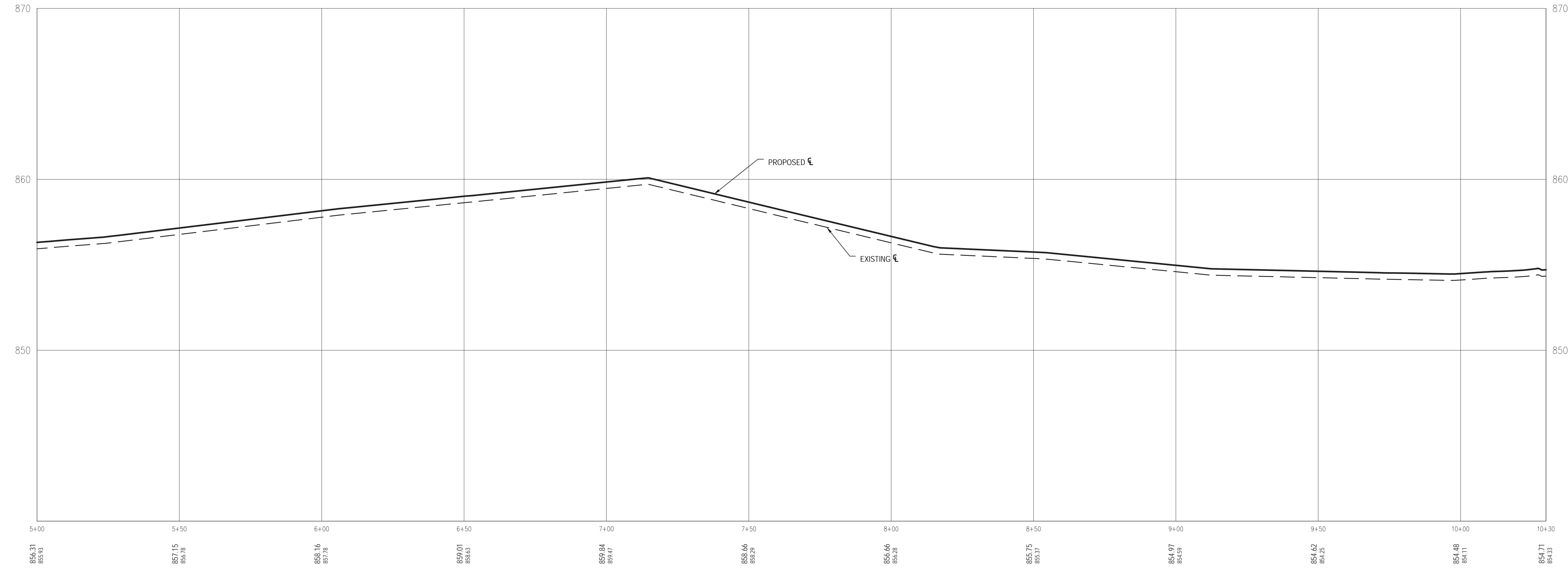
MATCH LINE - STA. 10+30

MATCH LINE - STA. 5+00



<b>CONTROL POINT #40</b>
ELEV. = 854.03 N = 461892.09 E = 13113551.02
<b>CONTROL POINT #41</b>
ELEV. = 858.28 N = 461848.71 E = 13113140.07

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	3/26/23	ASML	TYP AND USER COMMENTS
REV. 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
OKEMOS, MI 48864  
TEL: 517.316.9233  
FAX: 517.316.9233

PROJECT DATE: 11/22/2022  
PROJECT NO.: MM150015  
DRAWN BY: ASML  
CHECKED BY: CAV

**TECHNICAL SKILL  
CREATIVE SPIRIT.**

**Mannik  
Smith  
GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:

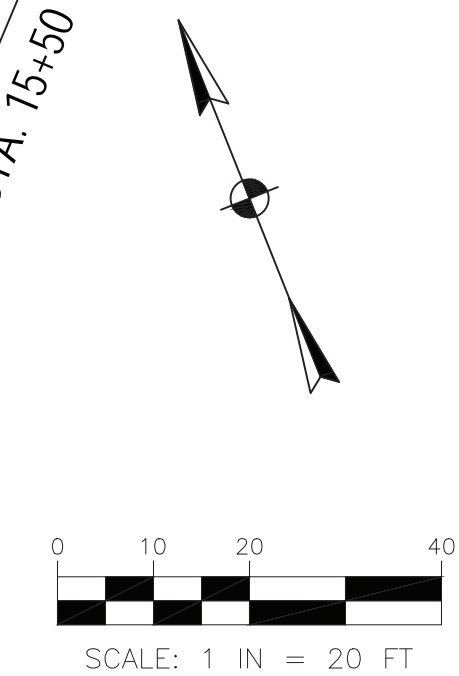
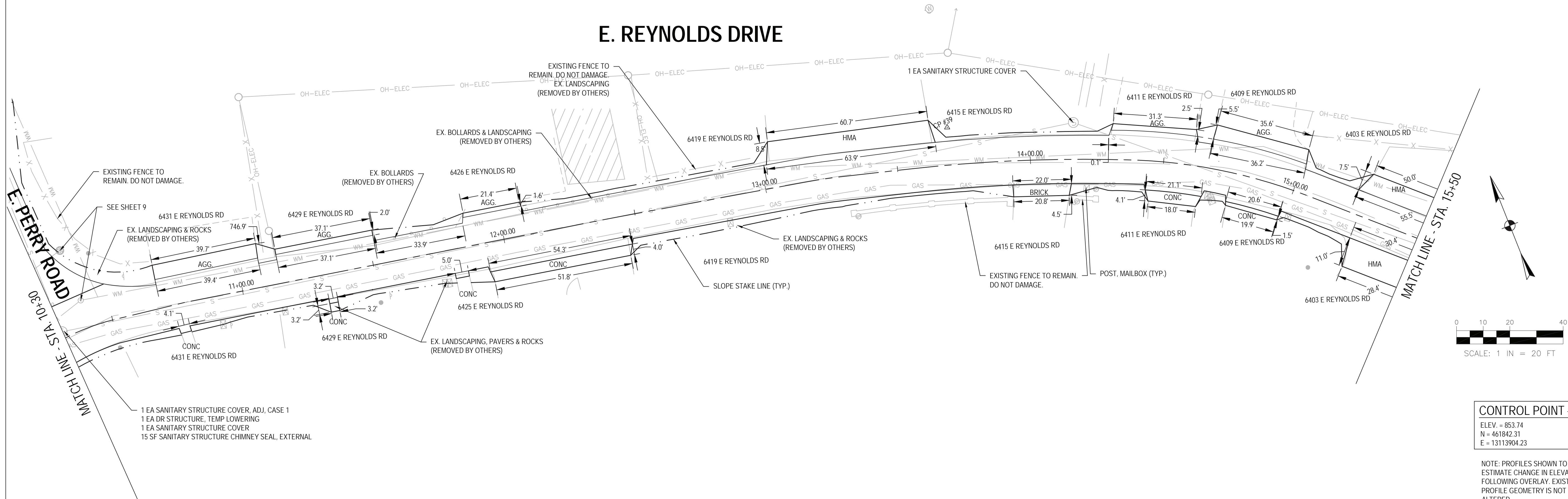
**MERIDIAN  
TOWNSHIP**  
EST. 1848

5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

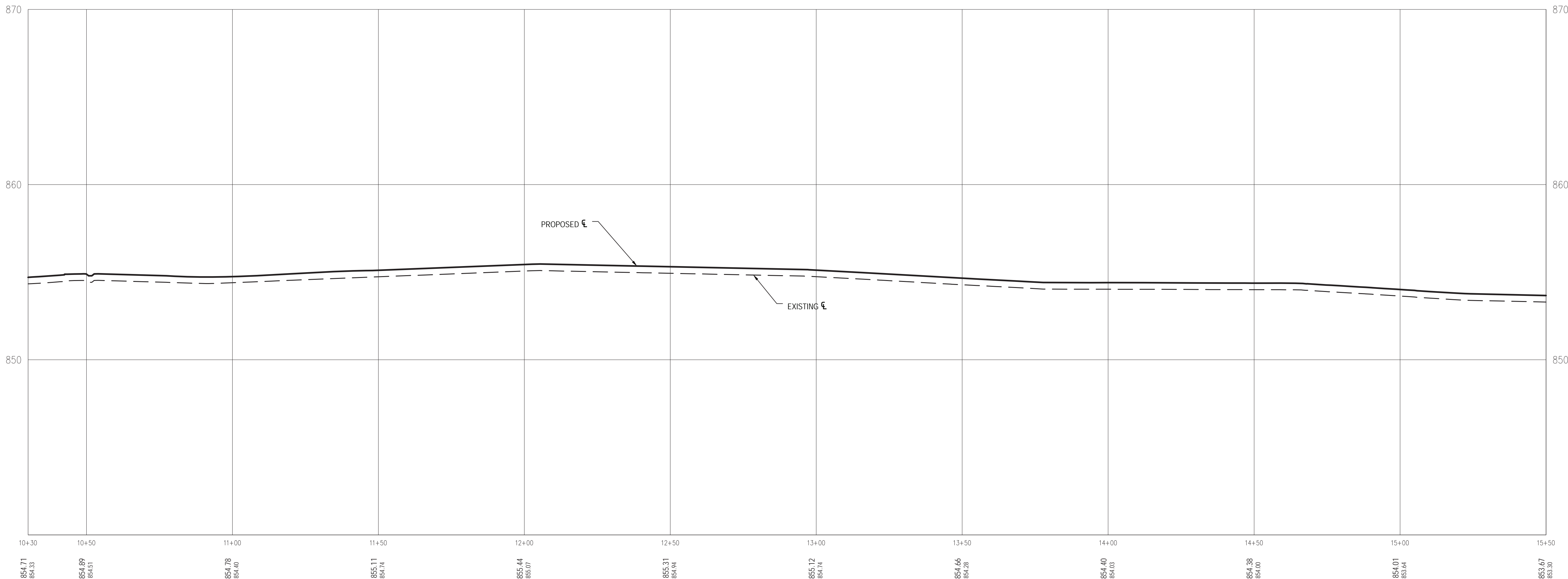
W REYNOLDS DRIVE  
PLAN & PROFILE  
STA. 5+00 TO STA. 10+30

# E. REYNOLDS DRIVE



**CONTROL POINT #39**  
 ELEV. = 853.74  
 N = 461842.31  
 E = 13113904.23

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	2/28/23	ASML	TYP AND CORD COMM. REMOVE BID ALTERNATE
REV. 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

**TECHNICAL SKILL.  
 CREATIVE SPIRIT.**

**Mannik  
 Smith  
 GROUP**  
 www.MannikSmithGroup.com

PREPARED FOR:

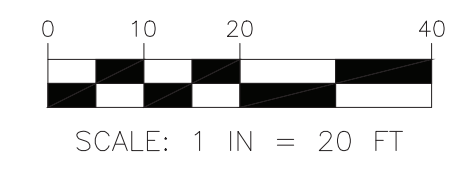
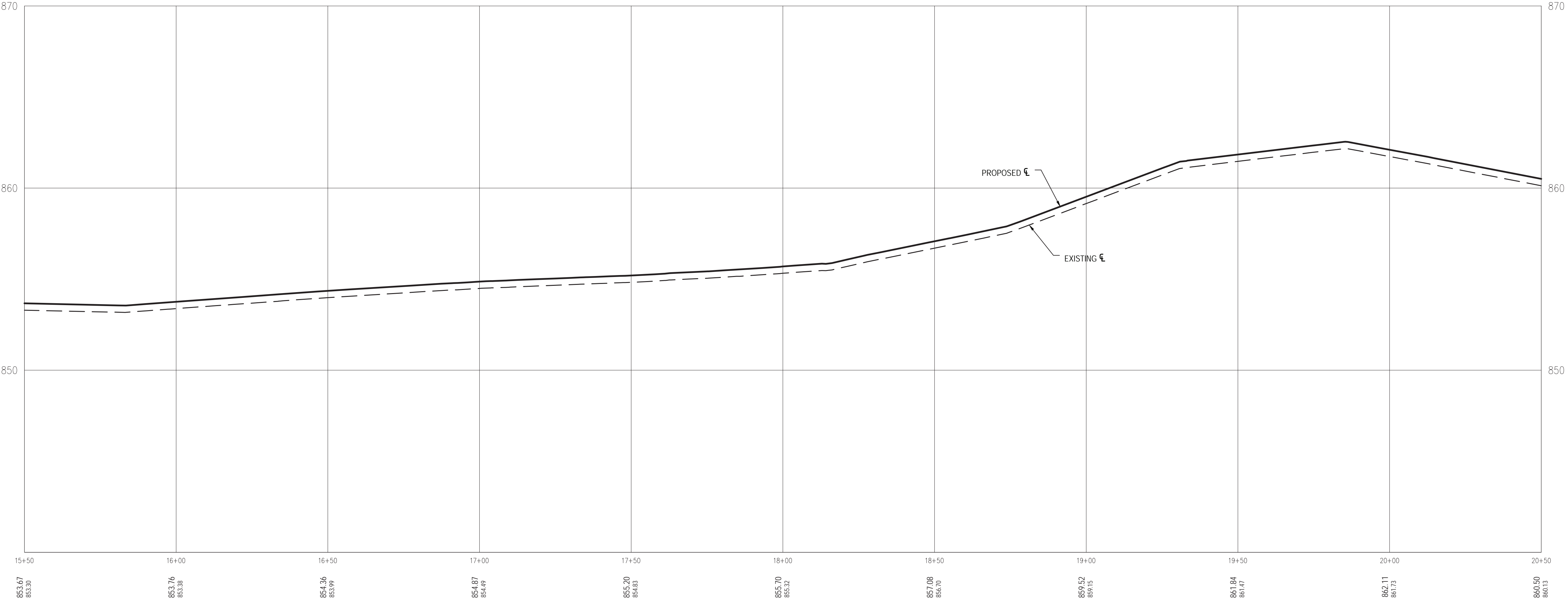
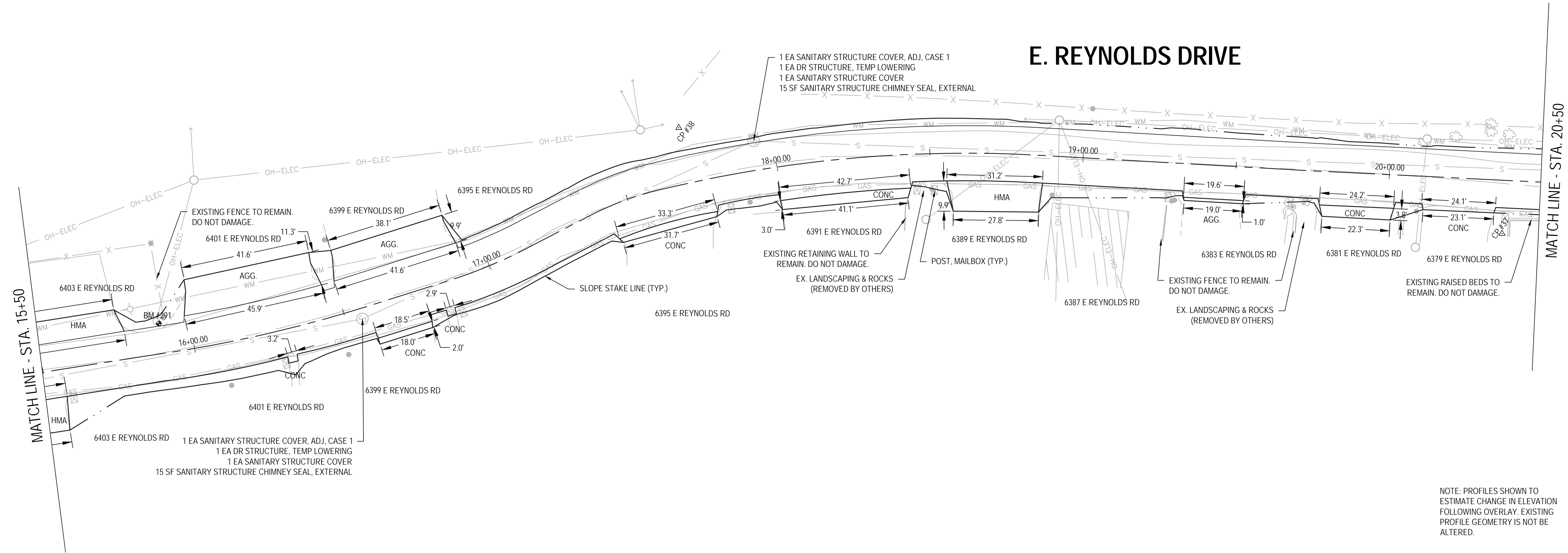
**MERIDIAN  
 TOWNSHIP**

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

E. REYNOLDS DRIVE  
 PLAN & PROFILE  
 STA. 10+30 TO STA. 15+50

# E. REYNOLDS DRIVE



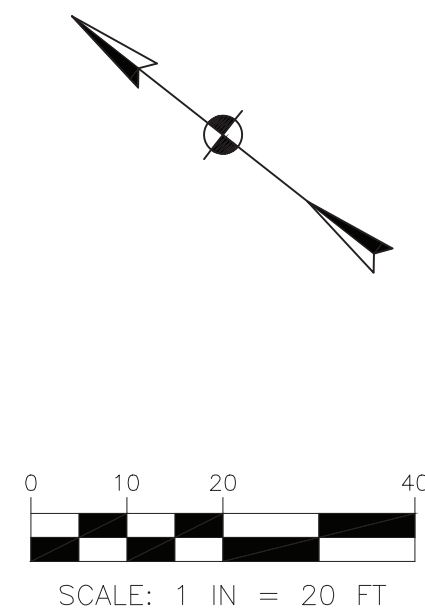
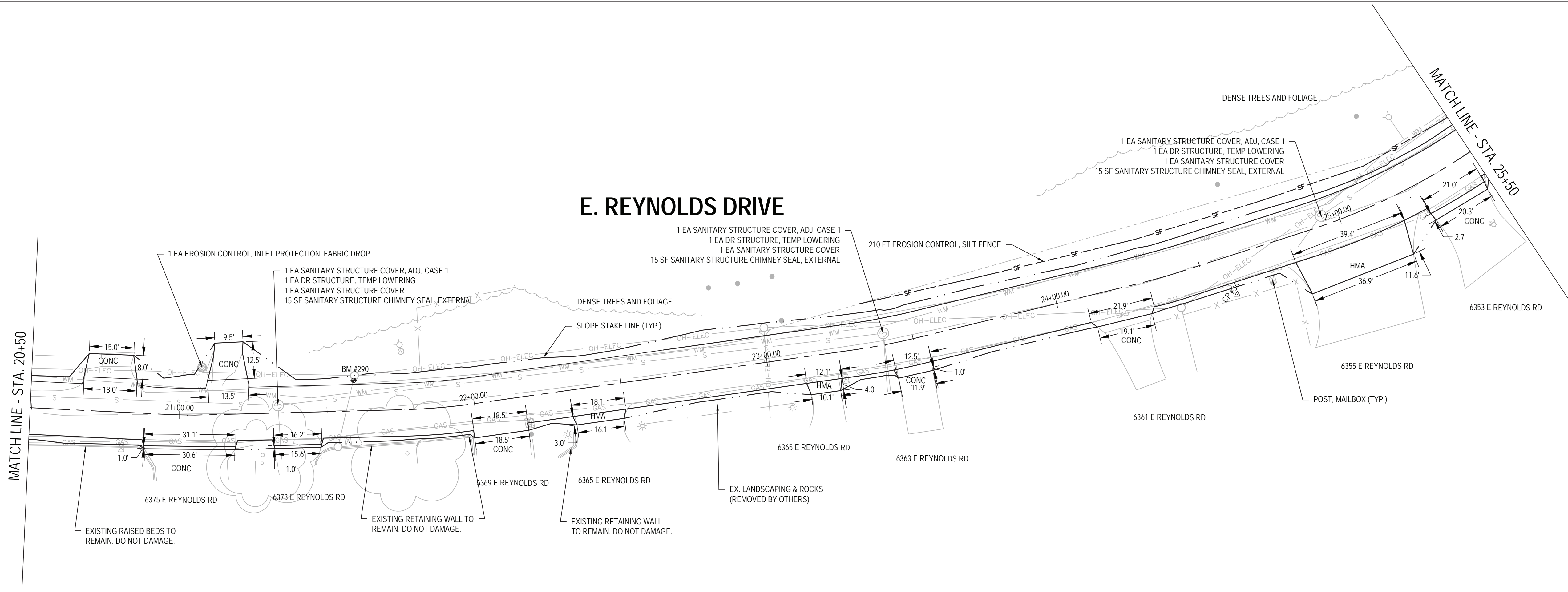
<b>BENCHMARK #291</b> RR SPIKE IN S SIDE UP ELEV. = 853.85 N = 461717.18 E = 13114089.16
<b>CONTROL POINT #37</b> ELEV. = 861.19 N = 461390.66 E = 13114383.52
<b>CONTROL POINT #38</b> ELEV. = 854.09 N = 461619.25 E = 13114244.52

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

MATCH LINE - STA. 20+50

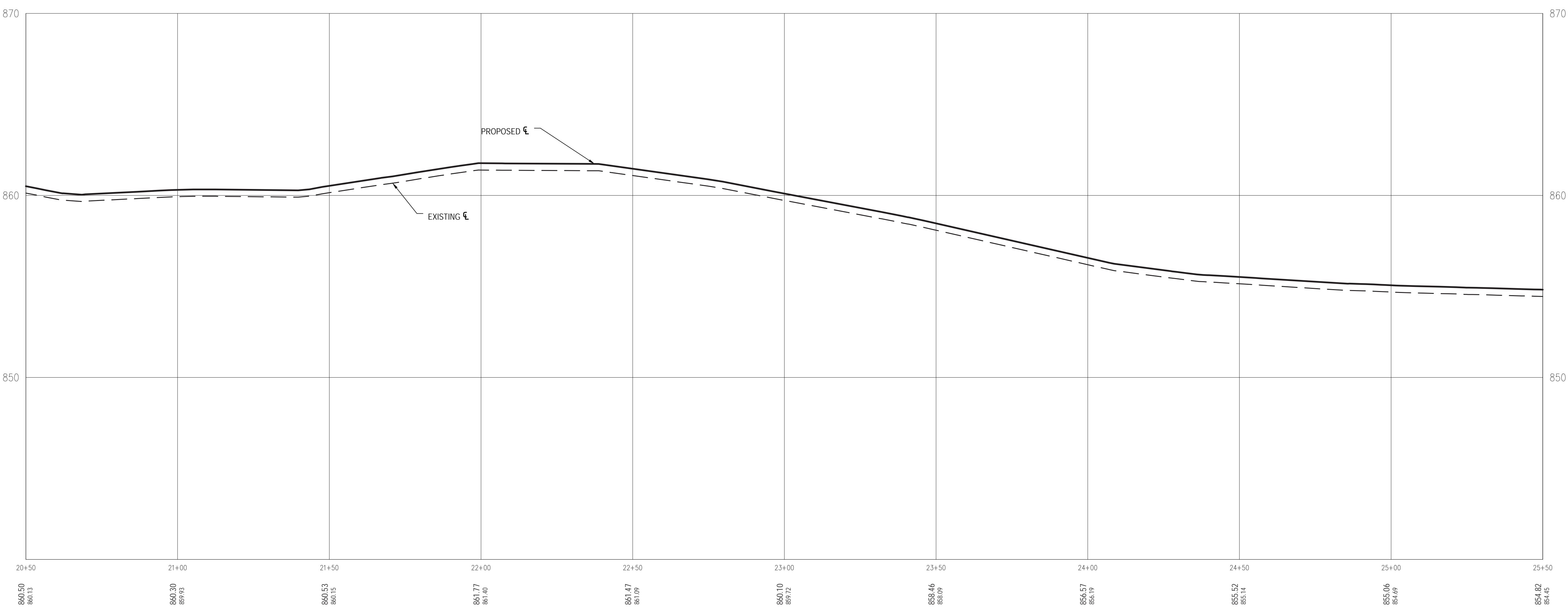
MATCH LINE - STA. 15+50

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517-368-9233 FAX: 517-368-9233	PROJECT NO.: MM150015 PROJECT DATE: 11/22/2022 DRAWN BY: ASML CHECKED BY: CAV
<b>Mannik Smith GROUP</b> www.MannikSmithGroup.com TECHNICAL SKILL: CREATIVE SPIRIT.	PREPARED FOR: 5151 MARSH ROAD OKEMOS, MI 48864
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN	E. REYNOLDS DRIVE PLAN & PROFILE STA. 15+50 TO STA. 20+50
14	57



BENCHMARK #290	
FOUND BOLT IN S SIDE UP	
ELEV. = 861.03	
N = 461311.02	
E = 13114479.47	
CONTROL POINT #36	
ELEV. = 855.07	
N = 461093.99	
E = 13114685.58	

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	3/20/2023	ASML	TYP AND GRID COMPLETION CHANGE REMOVE PER TYP
REV. 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517-318-9233  
 FAX: 517-318-9233  
 PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2022  
 DRAWN BY: ASML  
 CHECKED BY: CAV

TECHNICAL SKILL  
CREATIVE SPIRIT.

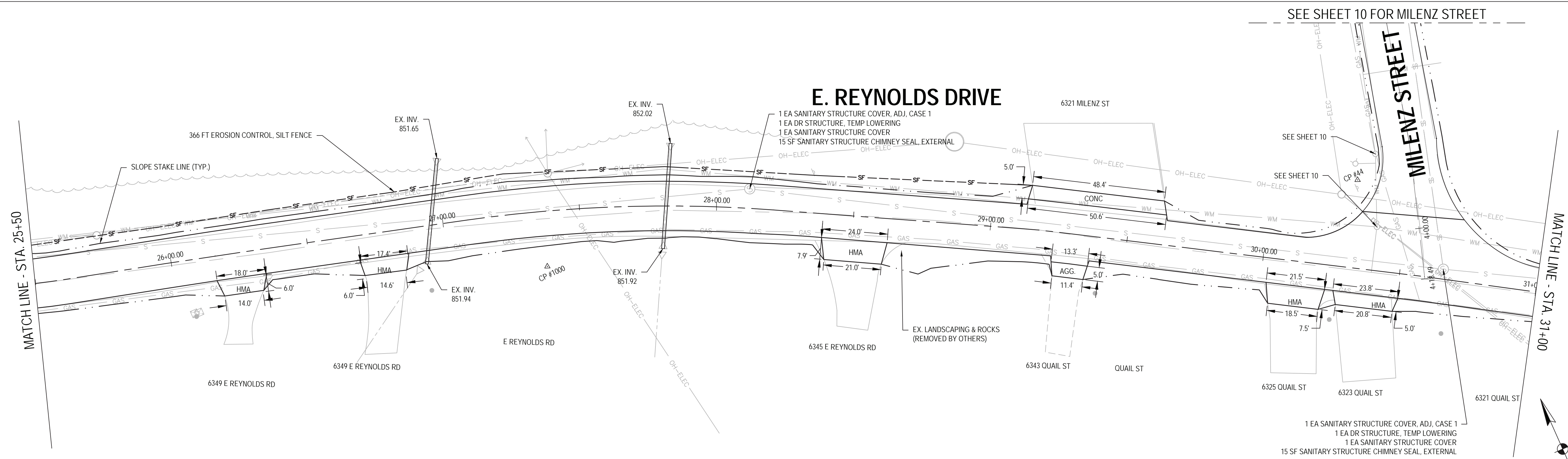
www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI 48864

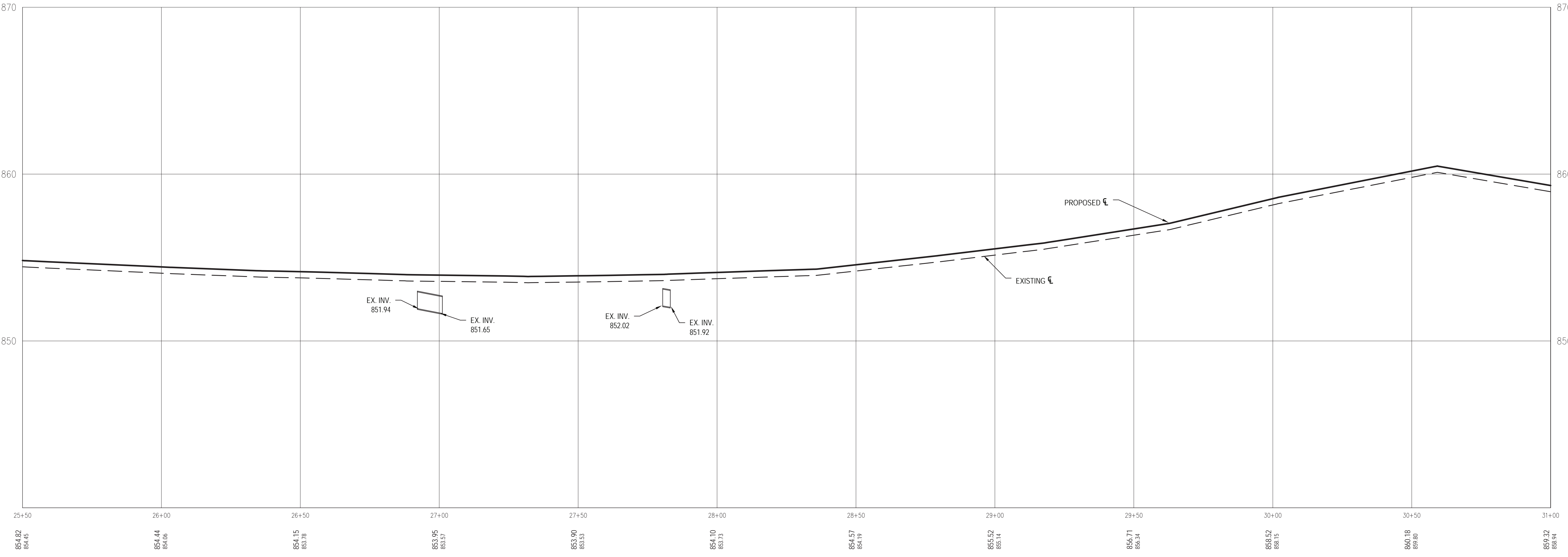
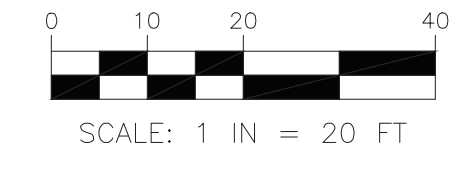
2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

E. REYNOLDS DRIVE  
PLAN & PROFILE  
STA. 20+50 TO STA. 25+50



<b>CONTROL POINT #44</b>	
ELEV. = 859.85	
N = 460901.84	
E = 13115229.29	
<b>CONTROL POINT #1000</b>	
ELEV. = 852.95	
N = 460987.61	
E = 13114945.56	

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



SEE SHEET 10 FOR MILENZ STREET

SEE SHEET 10

SEE SHEET 10

NO.	DATE	DESCRIPTION
REV. 1	2/28/23	TYP AND USER COMMENTS
REV. 2	3/15/23	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 268-3838  
FAX: 268-9233

PROJECT NO.: MM150015  
PROJECT DATE: 11/22/2022  
DRAWN BY: ASML  
CHECKED BY: CAV

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

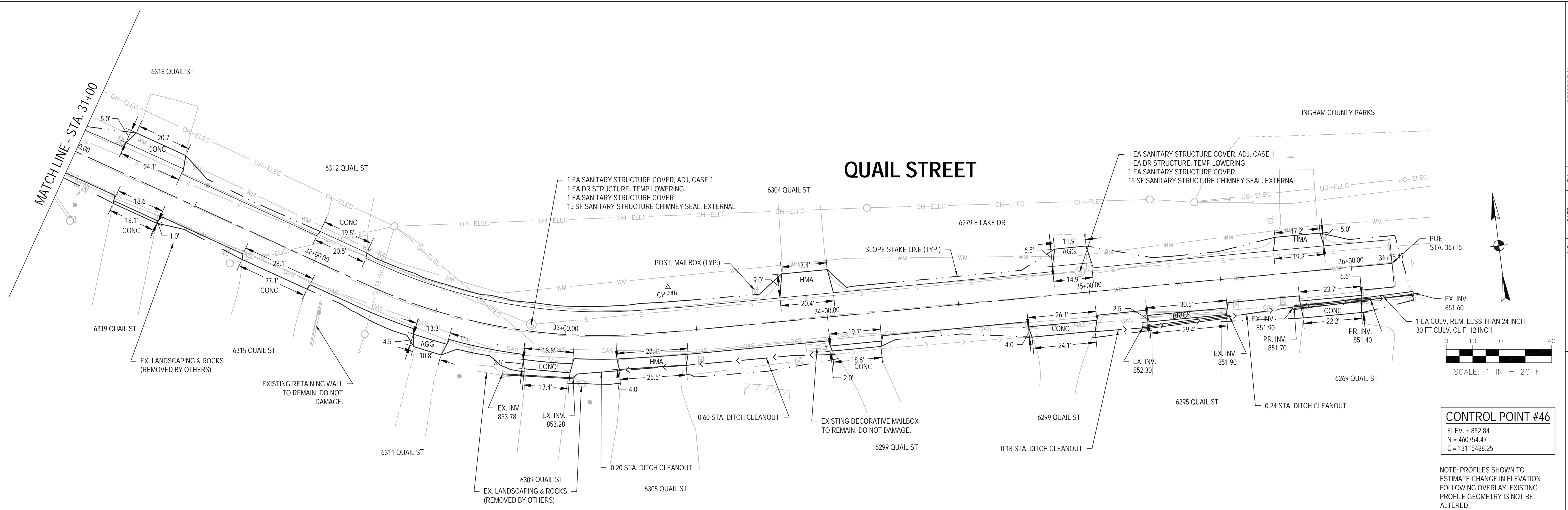
PREPARED FOR:

**MERIDIAN TOWNSHIP**  
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

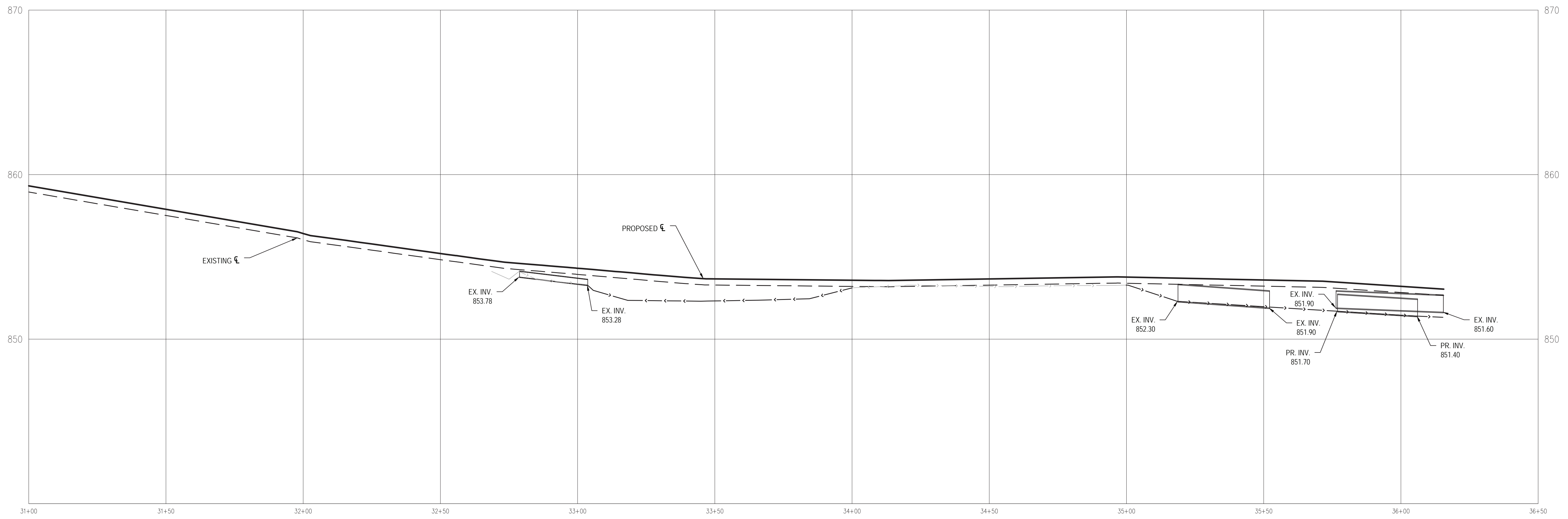
E. REYNOLDS DRIVE  
PLAN & PROFILE  
STA. 25+50 TO STA. 31+00





**CONTROL POINT #46**  
 ELEV. = 852.84  
 N = 460754.47  
 E = 13115488.25

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



31+00	31+50	32+00	32+50	33+00	33+50	34+00	34+50	35+00	35+50	36+00	36+50
859.22 858.94	857.89 857.52	856.42 856.05	855.21 854.83	854.31 853.93	853.67 853.29	853.58 853.21	853.66 853.29	853.77 853.40	853.60 853.22	853.21 852.84	

NO.	DATE	DESCRIPTION
REV. 1	3/20/23	ASML
REV. 2	3/15/2023	ASML

BY: ASML

DATE: 3/15/2023

DESCRIPTION: TYP AND CIRCULARS, BRIDGE, REMOVE AND ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.368.9233  
 FAX: 517.368.9233

PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2022

DRAWN BY: ASML  
 CHECKED BY: CAV

**Mannik Smith GROUP**  
 CREATIVE SPIRIT.  
 www.MannikSmithGroup.com

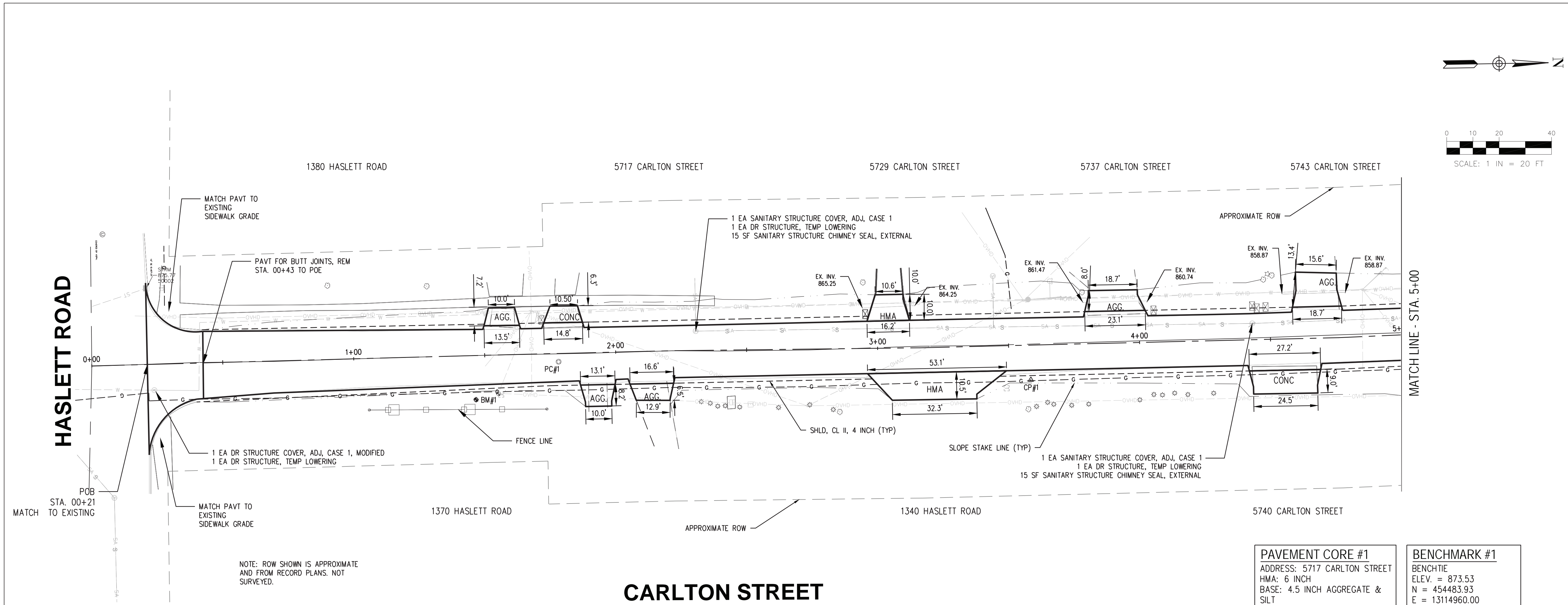
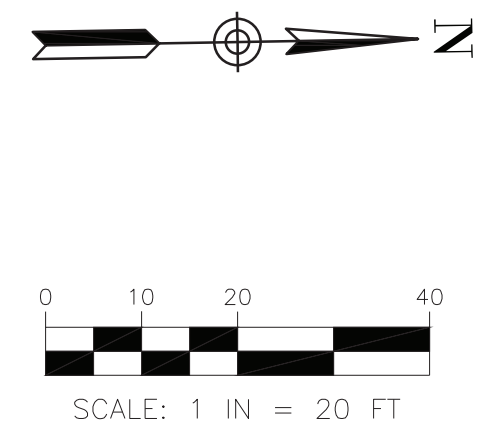
PREPARED FOR:

**MERIDIAN TOWNSHIP**  
 EST. 1848

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

QUAIL STREET  
 PLAN & PROFILE  
 STA. 31+00 TO STA. 36+15

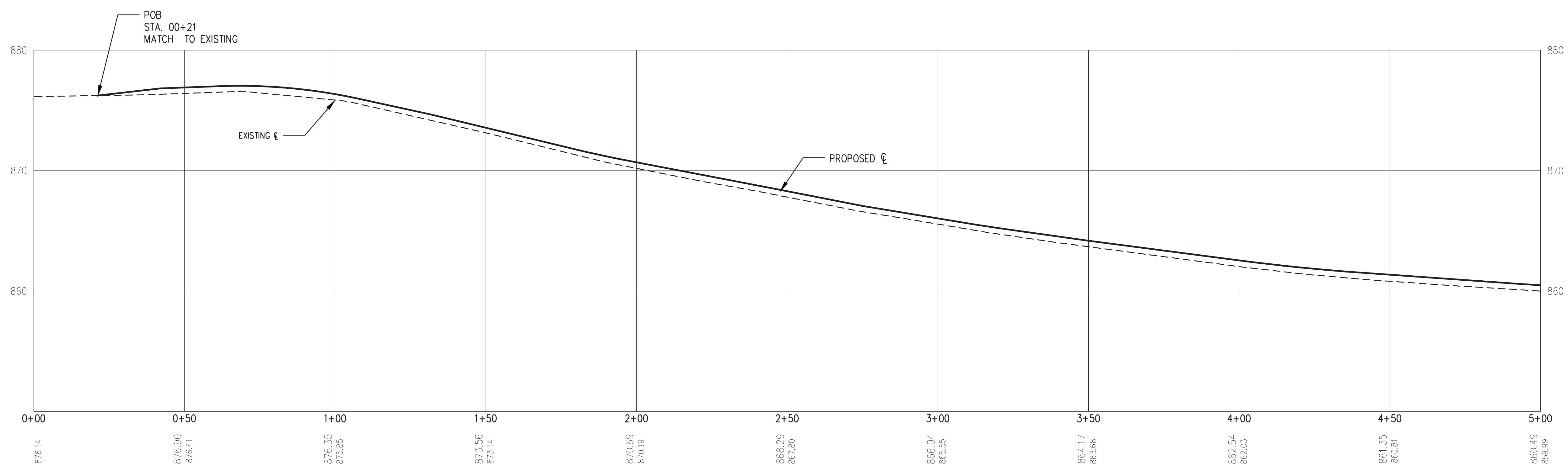


NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

**PAVEMENT CORE #1**  
 ADDRESS: 5717 CARLTON STREET  
 HMA: 6 INCH  
 BASE: 4.5 INCH AGGREGATE & SILT

**BENCHMARK #1**  
 BENCHTIE  
 ELEV. = 873.53  
 N = 454483.93  
 E = 13114960.00

**CONTROL POINT #1**  
 ELEV. = 863.36  
 N = 454683.29  
 E = 13114962.48



NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TWP AND ICRO COMMENTS DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2103 ASSOCIATION DR. #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9232  
 FAX: 517.316.9233

PROJECT DATE: 4/13/2022  
 PROJECT NO.: M4150014  
 DRAWN BY: KHW  
 CHECKED BY: CAV

**Mannik Smith GROUP**  
 TECHNICAL SKILL. CREATIVE SPIRIT.  
 www.MannikSmithGroup.com

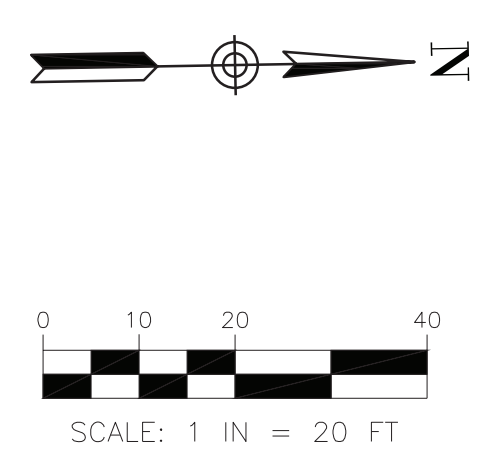
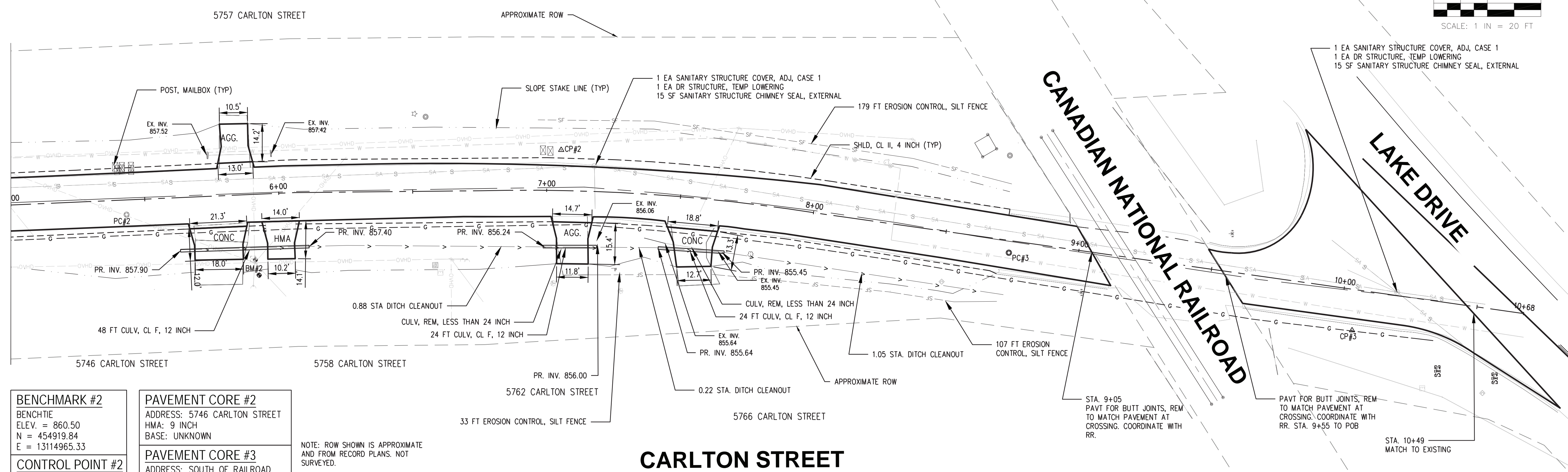
PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI

2022 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

CARLTON STREET PLAN & PROFILE STA. 0+00 TO STA. 5+00

MATCH LINE - STA. 5+00



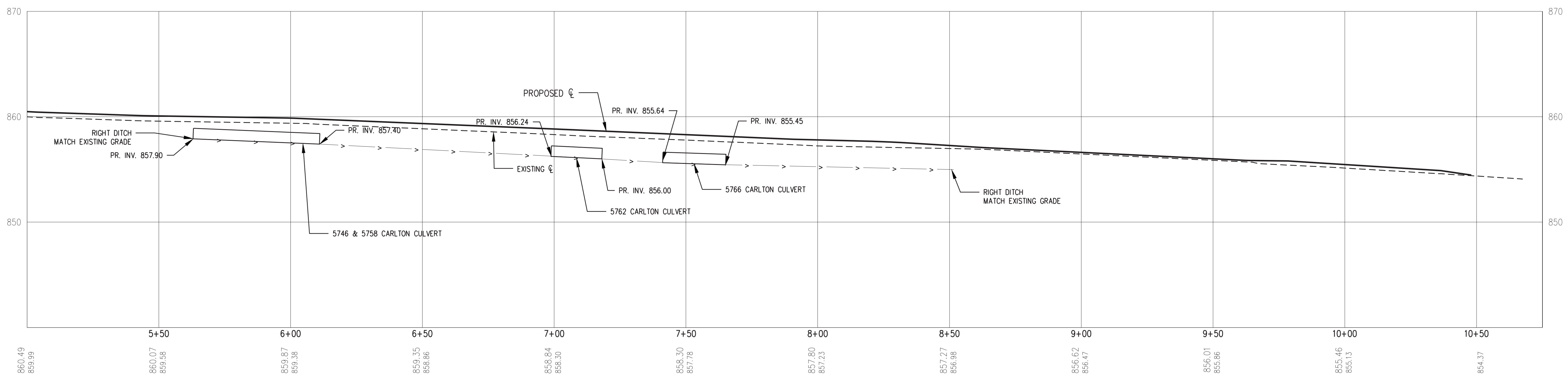
<b>BENCHMARK #2</b>
BENCHTIE
ELEV. = 860.50
N = 454919.84
E = 13114965.33
<b>CONTROL POINT #2</b>
ELEV. = 857.51
N = 455033.71
E = 13114925.90
<b>CONTROL POINT #3</b>
ELEV. = 854.81
N = 455324.29
E = 13114998.10

<b>PAVEMENT CORE #2</b>
ADDRESS: 5746 CARLTON STREET
HMA: 9 INCH
BASE: UNKNOWN
<b>PAVEMENT CORE #3</b>
ADDRESS: SOUTH OF RAILROAD
HMA: 5 INCH
BASE: 3 INCH AGGREGATE & SAND

NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

### CARLTON STREET

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	AS/ML	TWP AND CRD COMMENTS, DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	AS/ML	REMOVE BID ALTERNATE
PROJECT NO.:		11232020	
DRAWN BY:		M150014	KHW
CHECKED BY:			CAV

TECHNICAL SKILL.  
CREATIVE SPIRIT.

www.MannikSmithGroup.com

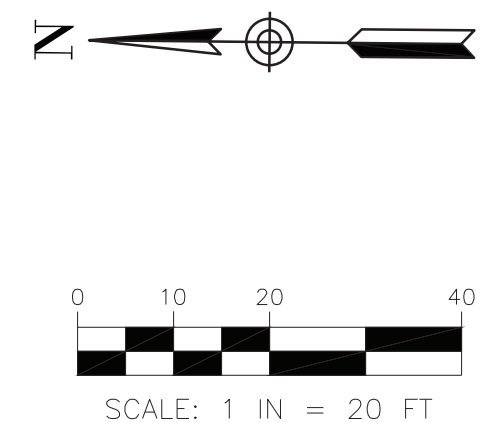
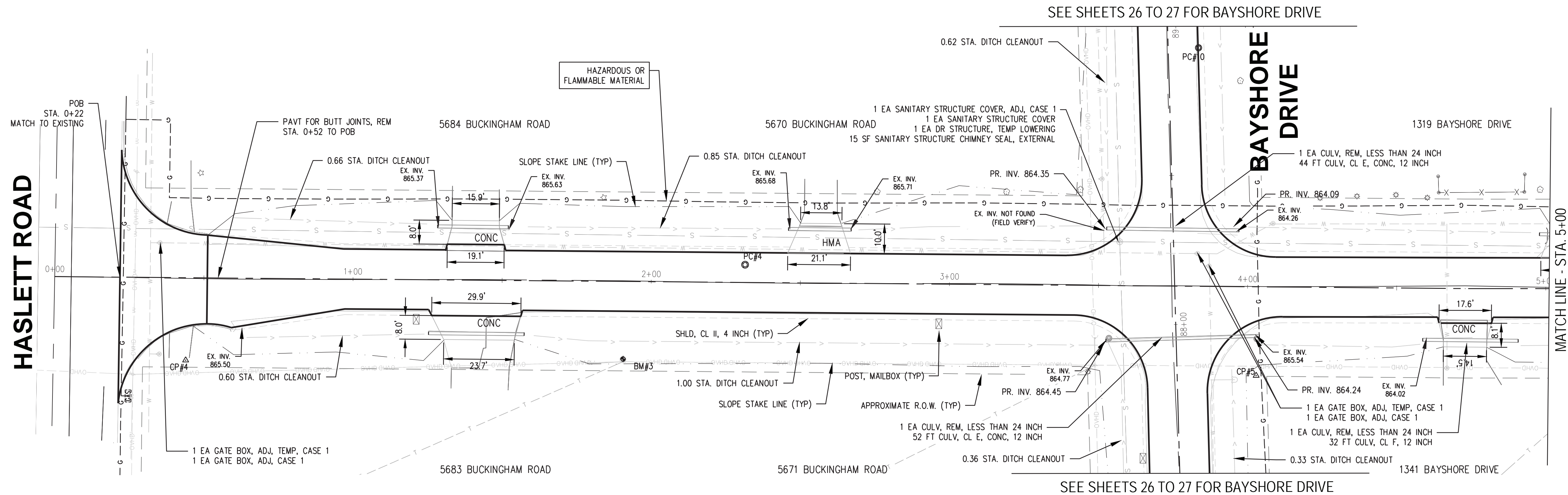
PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

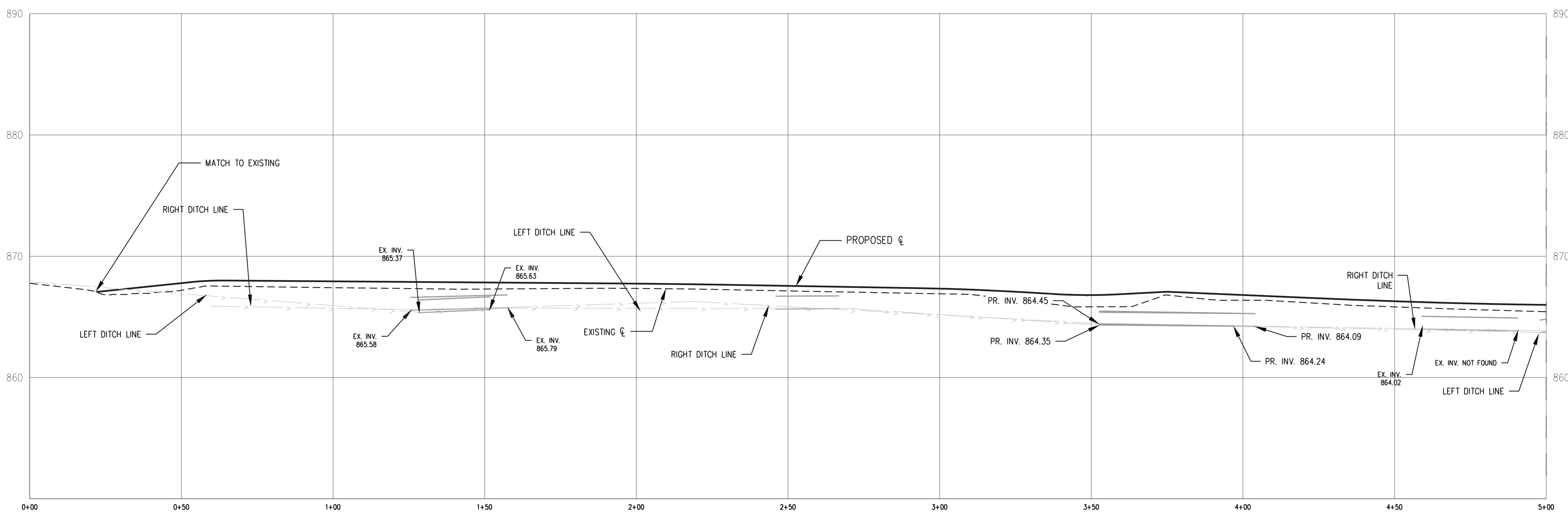
CARLTON STREET  
PLAN & PROFILE  
STA. 5+00 TO STA. 10+49

HASLETT ROAD



NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

**BUCKINGHAM ROAD**



<b>BENCHMARK #3</b> BENCHTIE ELEV. = 867.87 N = 454135.07 E = 13115414.02
<b>CONTROL POINT #4</b> ELEV. = 867.59 N = 454291.68 E = 13115410.84
<b>CONTROL POINT #5</b> ELEV. = 866.07 N = 453933.77 E = 13115411.97
<b>PAVEMENT CORE #4</b> ADDRESS: 5670 BUCKINGHAM ROAD HMA: 2.5 INCH BASE: UNKNOWN
<b>PAVEMENT CORE #10</b> ADDRESS: 1358 BAYSHORE DRIVE HMA: 4 INCH BASE: UNKNOWN

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV 1	2-28-2023	ASAL	TWP AND ICRO COMMENTS DRAINAGE REMOVED PER TWP REMOVE BID ALTERNATE
REV 2	3-15-2023	ASAL	

2193 ASSOCIATION DR #202  
OKEMOS, MI 48864  
TEL: 517.316.9232  
FAX: 517.316.9233

PROJECT DATE: 1/12/2020  
PROJECT NO.: M150014  
DRAWN BY: KHW  
CHECKED BY: CAW

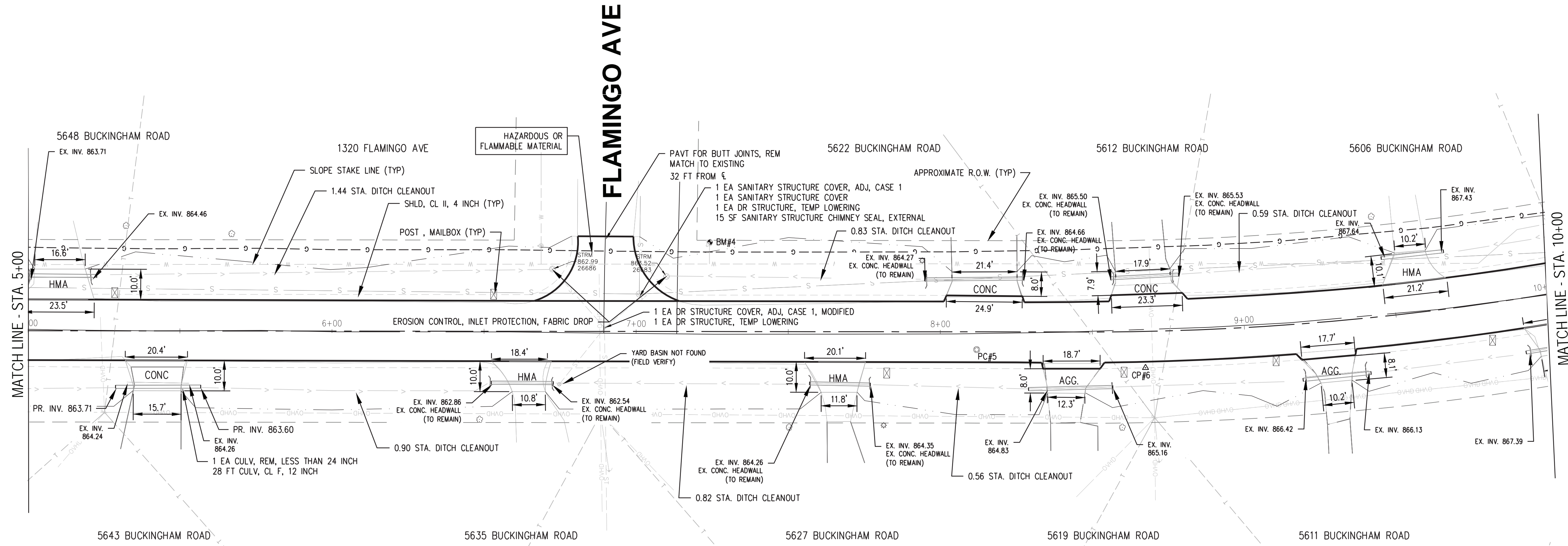
**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:  
**MERIDIAN TOWNSHIP**  
5151 MARSH ROAD  
OKEMOS, MI

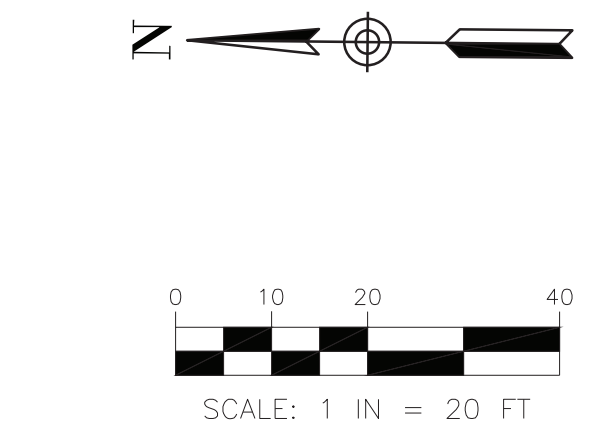
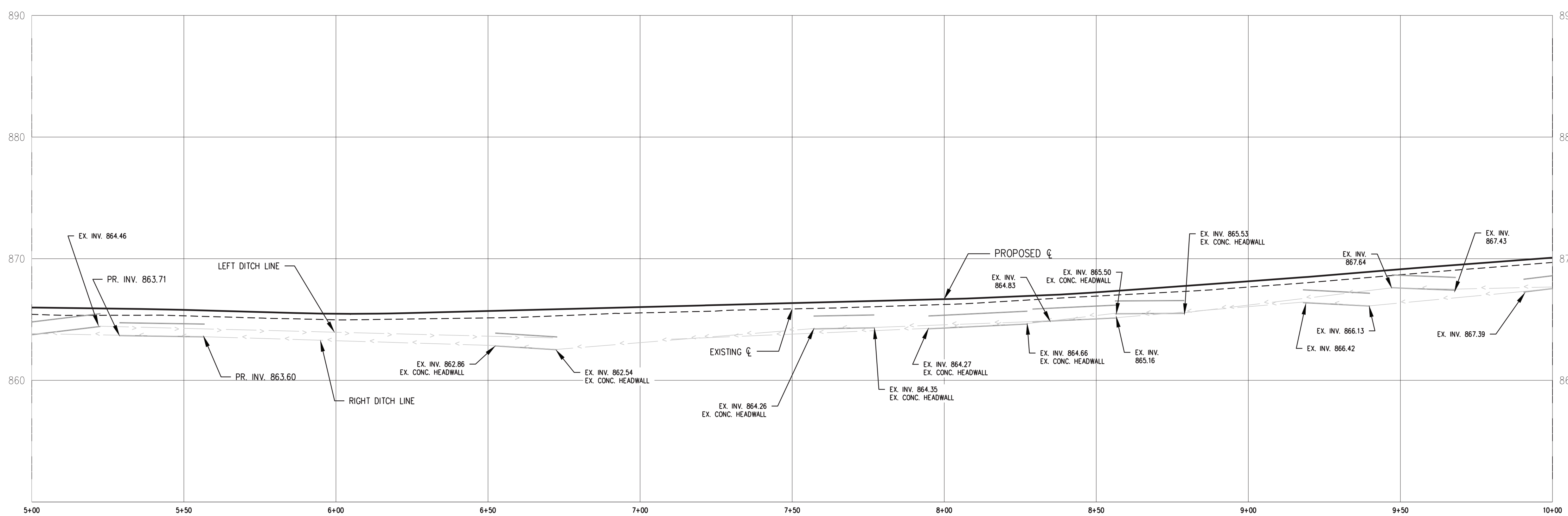
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

BUCKINGHAM ROAD  
PLAN & PROFILE  
STA. 0+00 TO STA. 5+00

20 57



### BUCKINGHAM ROAD



NOTE:  
 STORM MANHOLE, CATCH BASINS, AND STORM SEWER CONNECTIONS LOCATED AT THE INTERSECTION OF FLAMINGO AVENUE WERE DRAWN FROM RECORD PLANS. THE CONTRACTOR SHALL LOCATE EXISTING STRUCTURES PRIOR TO THE START OF CONSTRUCTION TO DETERMINE THE CONDITION OF EXISTING INFRASTRUCTURE.  
 ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

- BENCHMARK #4**  
 SW BOLT HYDRANT FLANGE  
 ELEV. = 867.72  
 N = 453601.61  
 E = 13115472.33
- CONTROL POINT #6**  
 ELEV. = 866.09  
 N = 453461.45  
 E = 13115428.66
- PAVEMENT CORE #5**  
 ADDRESS: 5746 CARLTON STREET  
 HMA: 6.25 INCH  
 BASE: 9 INCH CLAY

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TWP AND CRO COMMENTS, DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2103 ASSOCIATION DR. #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9232  
 FAX: 517.316.9233

PROJECT NO.: M4150014  
 DRAWN BY: KHW  
 CHECKED BY: CAV

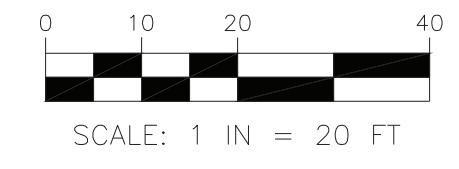
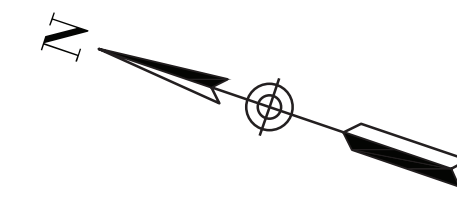
**Mannik Smith Group**  
 CREATIVE SPIRIT.  
 www.MannikSmithGroup.com

PREPARED FOR:

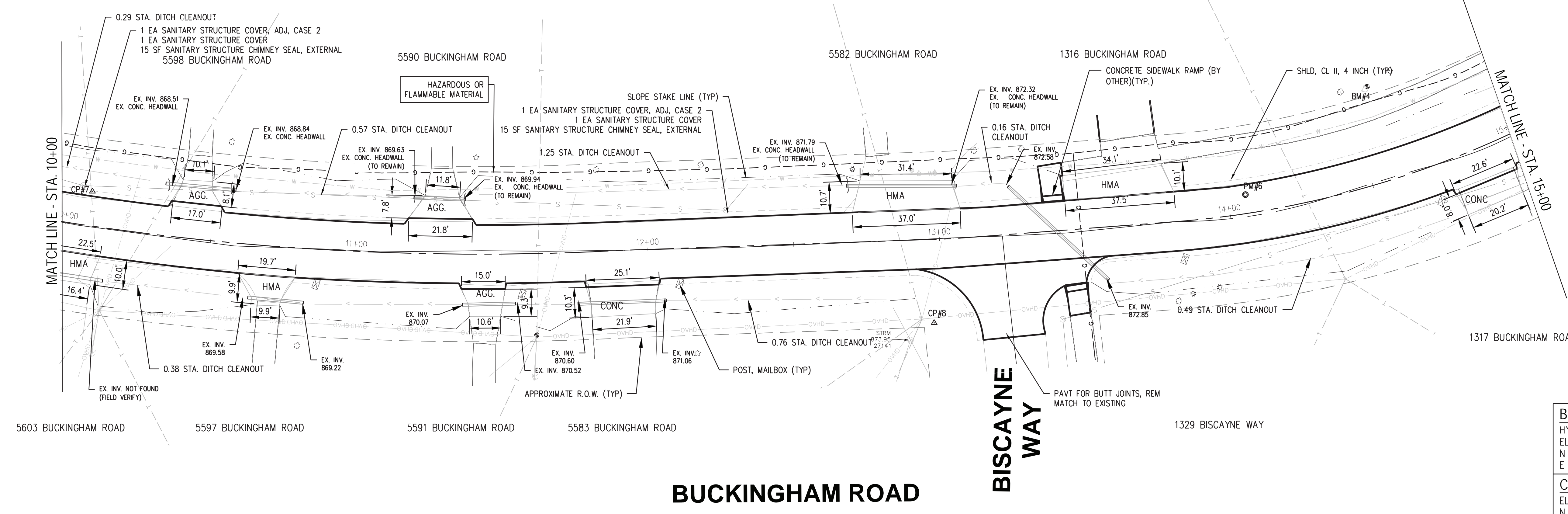
**MERIDIAN TOWNSHIP**  
 5151 MARSH ROAD  
 OKEMOS, MI

2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
 MEIRIDAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

BUCKINGHAM ROAD  
 PLAN & PROFILE  
 STA. 5+00 TO STA. 10+00

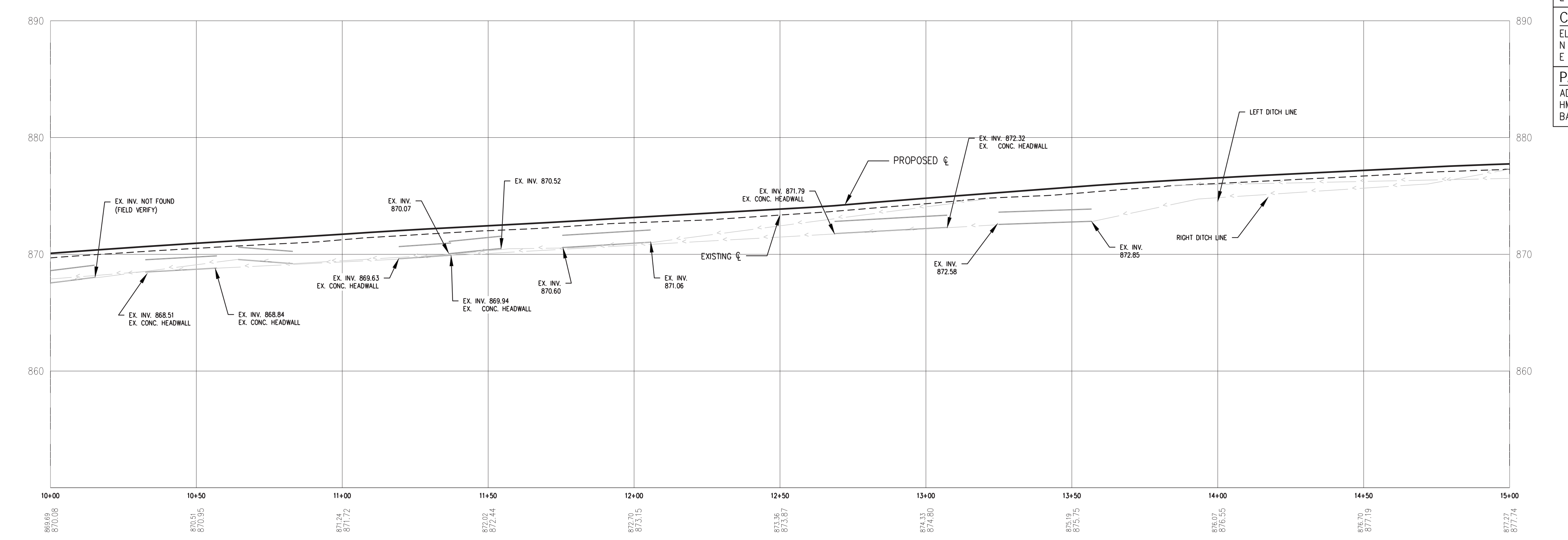


NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.





# BUCKINGHAM ROAD

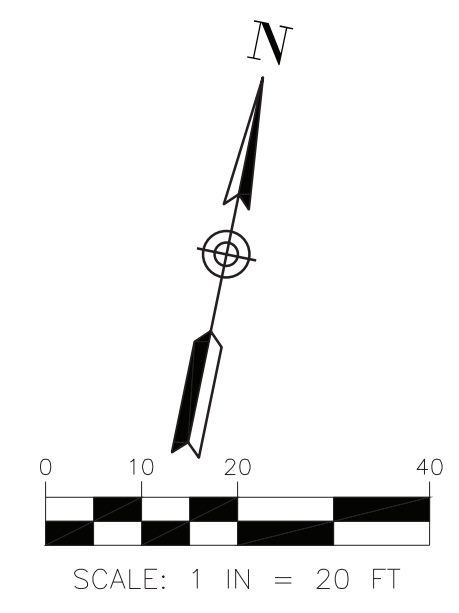
# BISCAYNE WAY



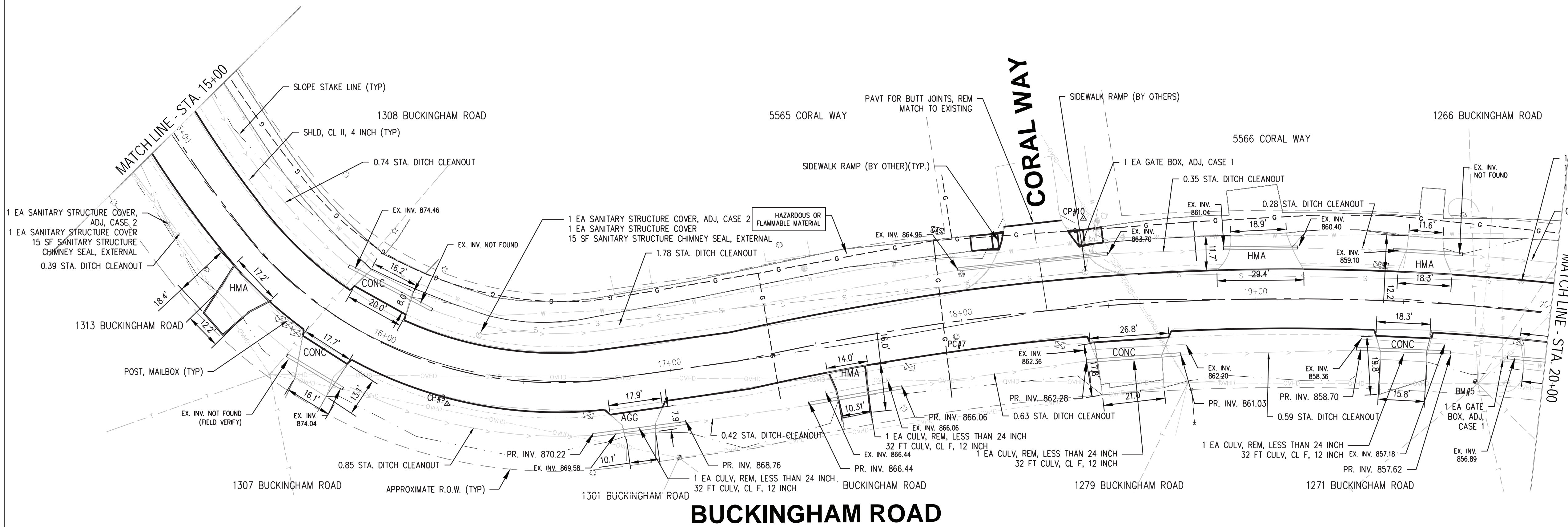
<b>BENCHMARK #4</b> HYD. FLANGE BOLT ELEV. = 877.80 N = 452919.70 E = 13115645.87
<b>CONTROL POINT #7</b> ELEV. = 868.80 N = 453325.01 E = 13115471.78
<b>CONTROL POINT #8</b> ELEV. = 873.38 N = 453038.24 E = 13115524.19
<b>PAVEMENT CORE #6</b> ADDRESS: 1316 BUCKINGHAM ROAD HMA: 3 INCH BASE: UNKNOWN

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TWP AND CRO COMMENTS DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE
PROJECT NO.: 11232020			
PROJECT NAME: M4150014			
DRAWN BY: KHW			
CHECKED BY: CAV			
 <b>Mannik Smith Group</b> www.MannikSmithGroup.com			
 <b>MERIDIAN TOWNSHIP</b> 5151 MARSH ROAD OKEMOS, MI			
<b>2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS</b> MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
<b>BUCKINGHAM ROAD PLAN &amp; PROFILE STA. 10+00 TO STA. 15+00</b>			
22			
			57

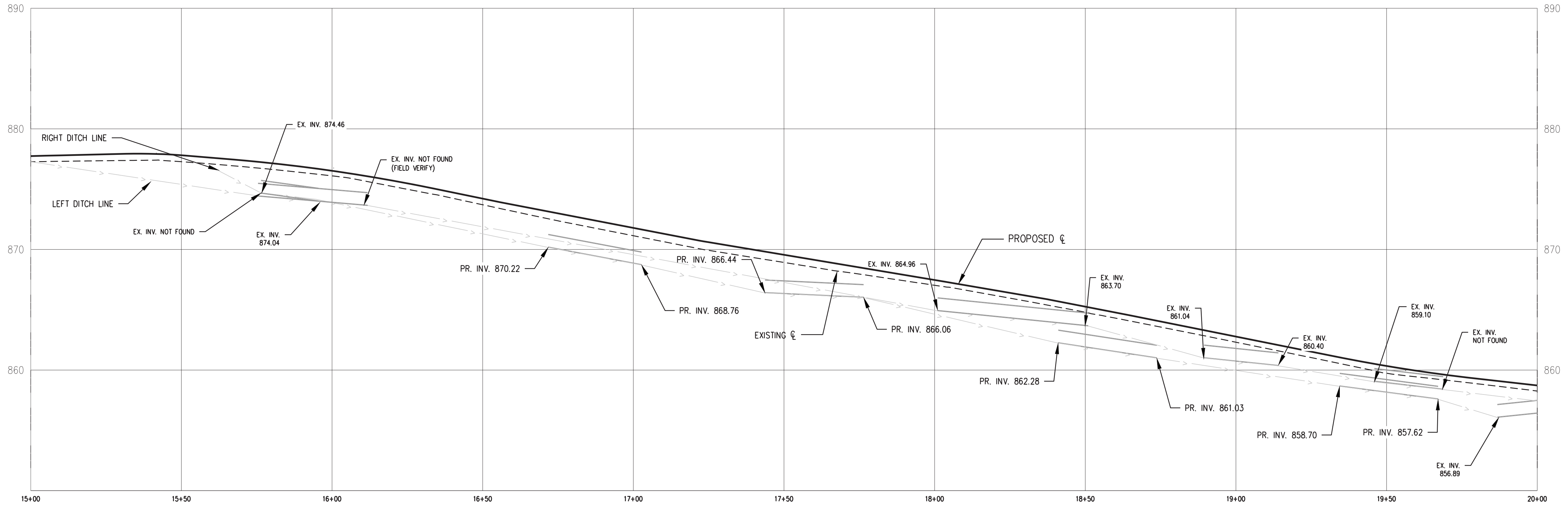


NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.




### BUCKINGHAM ROAD

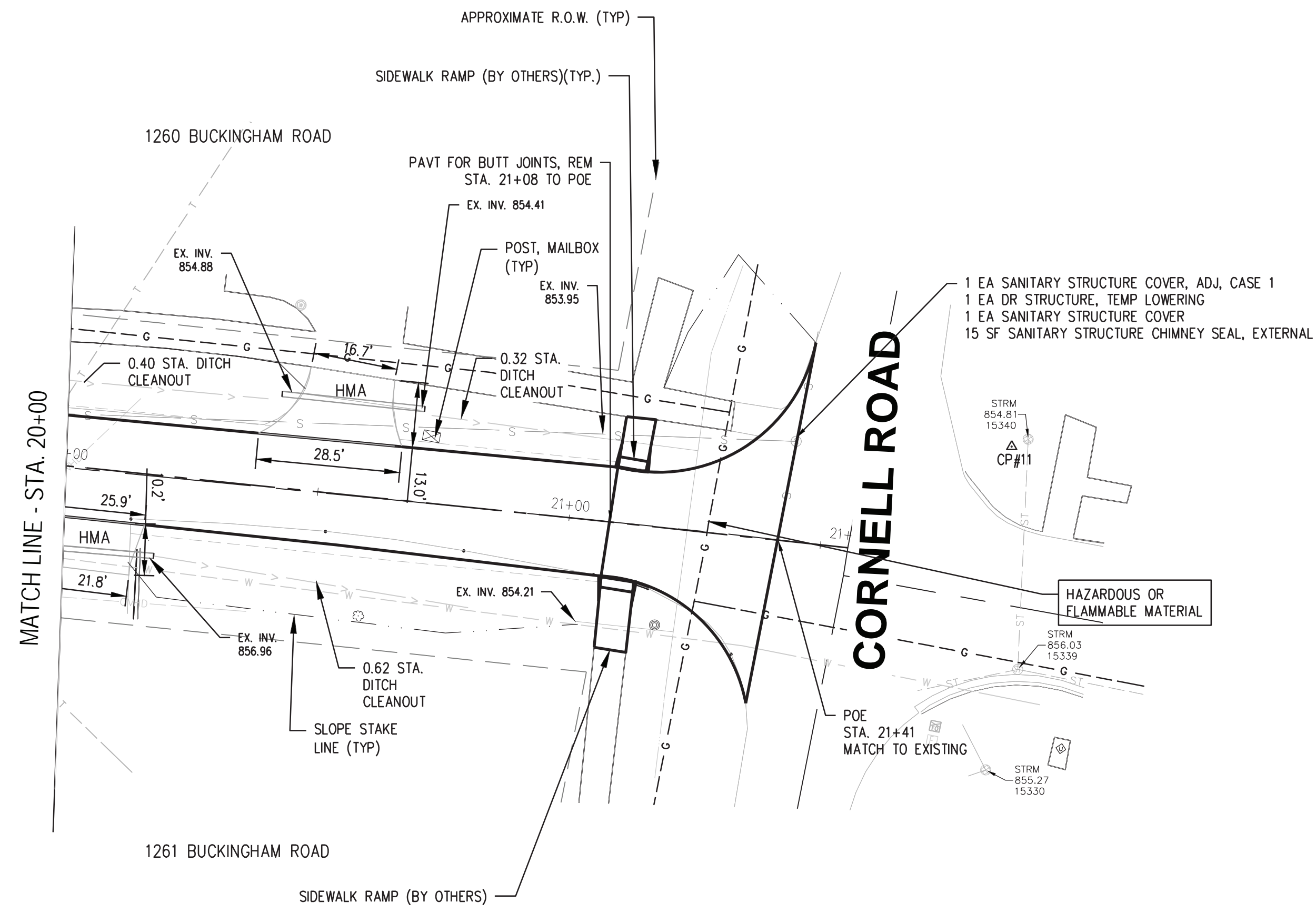
<b>BENCHMARK #5</b>
BENCHTIE
ELEV. = 860.31
N = 452872.39
E = 131146093.90
<b>CONTROL POINT #9</b>
ELEV. = 874.52
N = 452794.91
E = 13115749.16
<b>CONTROL POINT #10</b>
ELEV. = 865.64
N = 452899.78
E = 13115952.92
<b>PAVEMENT CORE #7</b>
ADDRESS: 1279 BUCKINGHAM DRIVE
HMA: 2 INCH
BASE: 8 INCH SAND & AGGREGATE



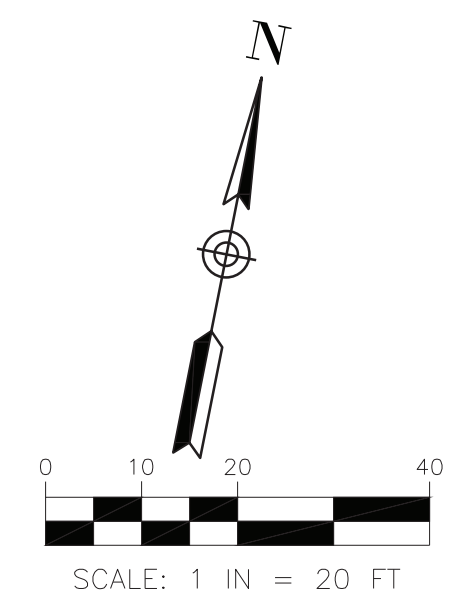
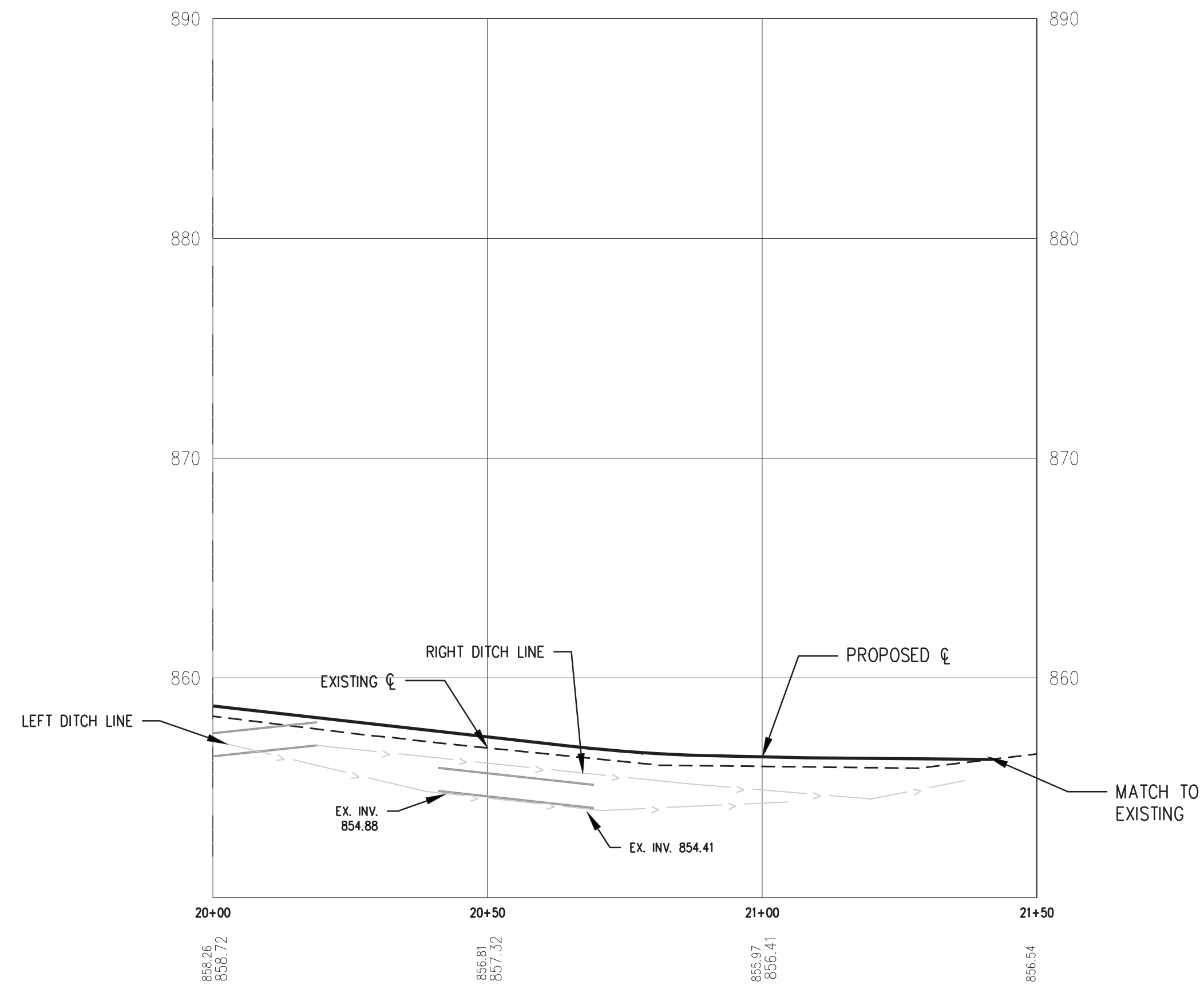
NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV. 1	2-28-2023	ASML	TWP AND CRO COMMENTS, DRAINAGE REMOVED PER TWP
REV. 2	3-15-2023	ASML	REMOVE BID ALTERNATE
PROJECT NO: M150014 DRAWN BY: KHW CHECKED BY: CAV			
PREPARED FOR:  5151 MARSH ROAD OKEMOS, MI			
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
BUCKINGHAM ROAD PLAN & PROFILE STA. 15+00 TO STA. 20+00			
23	57		





**BUCKINGHAM ROAD**



NOTE: STORM UTILITIES ARE SHOWN FROM RECORD PLANS. FIELD VERIFY.  
ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

**CONTROL POINT #11**  
ELEV. = 857.00  
N = 452930.19  
E = 13116297.44

NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO.	DATE	BY	DESCRIPTION
REV 1	2-28-2023	ASML	TWP AND ICRD COMMENTS, DRAINAGE REMOVED PER TWP
REV 2	3-15-2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR. #200  
OKEMOS, MI 48864  
TEL: 517.316.9232  
FAX: 517.316.9233

PROJECT DATE: 11/23/2020  
PROJECT NO.: M4150014  
DRAWN BY: KHW  
CHECKED BY: CAV

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

TECHNICAL SKILL.  
CREATIVE SPIRIT.

PREPARED FOR:

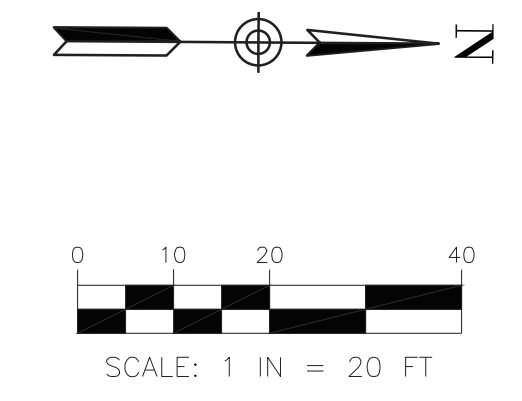
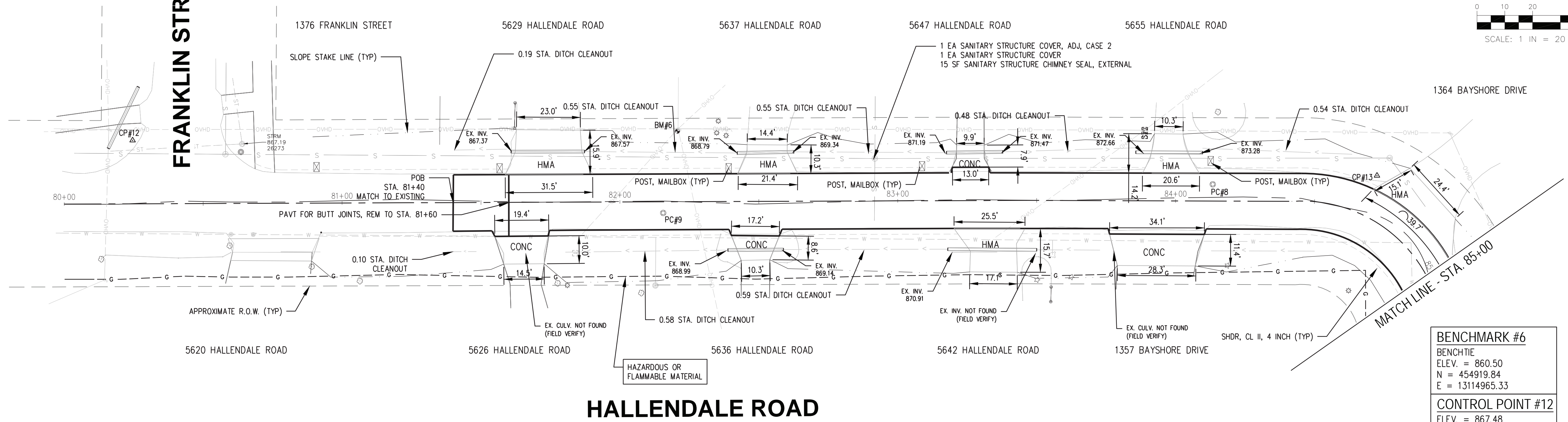
5151 MARSH ROAD  
OKEMOS, MI

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

BUCKINGHAM ROAD  
PLAN & PROFILE  
STA. 20+00 TO STA. 21+41



# FRANKLIN STREET



# HALLENDALE ROAD

NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

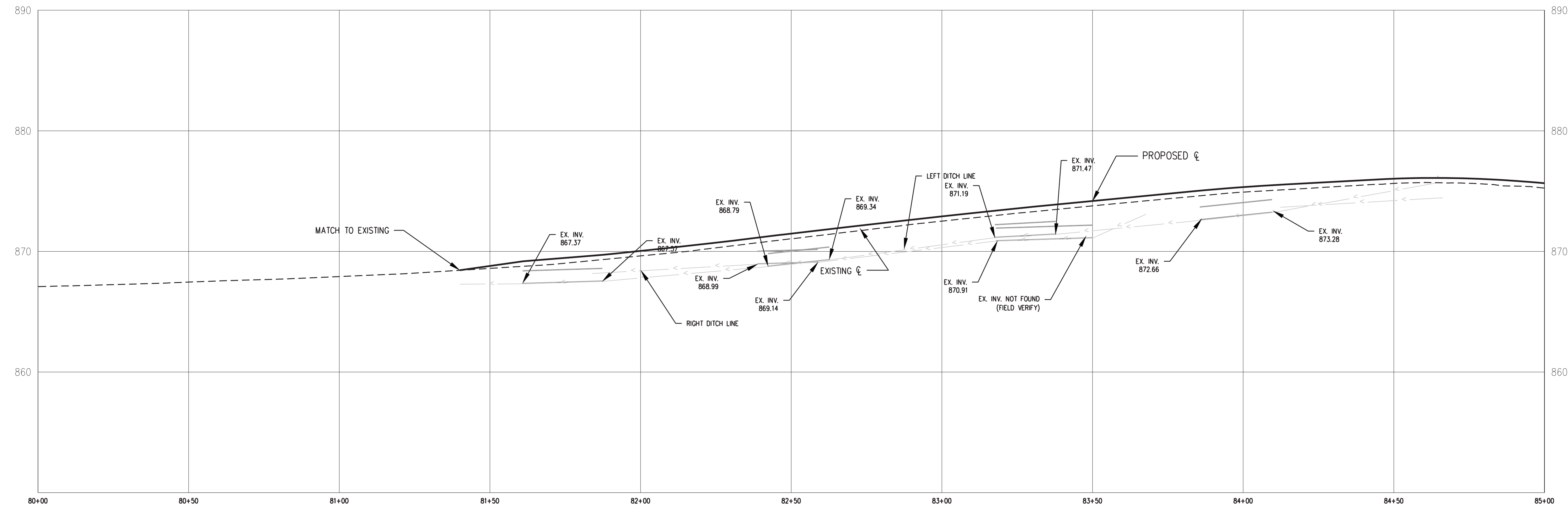
**BENCHMARK #6**  
 BENCHTIE  
 ELEV. = 860.50  
 N = 454919.84  
 E = 13114965.33

**CONTROL POINT #12**  
 ELEV. = 867.48  
 N = 453462.90  
 E = 13115082.87

**CONTROL POINT #13**  
 ELEV. = 875.19  
 N = 453913.85  
 E = 13115090.71

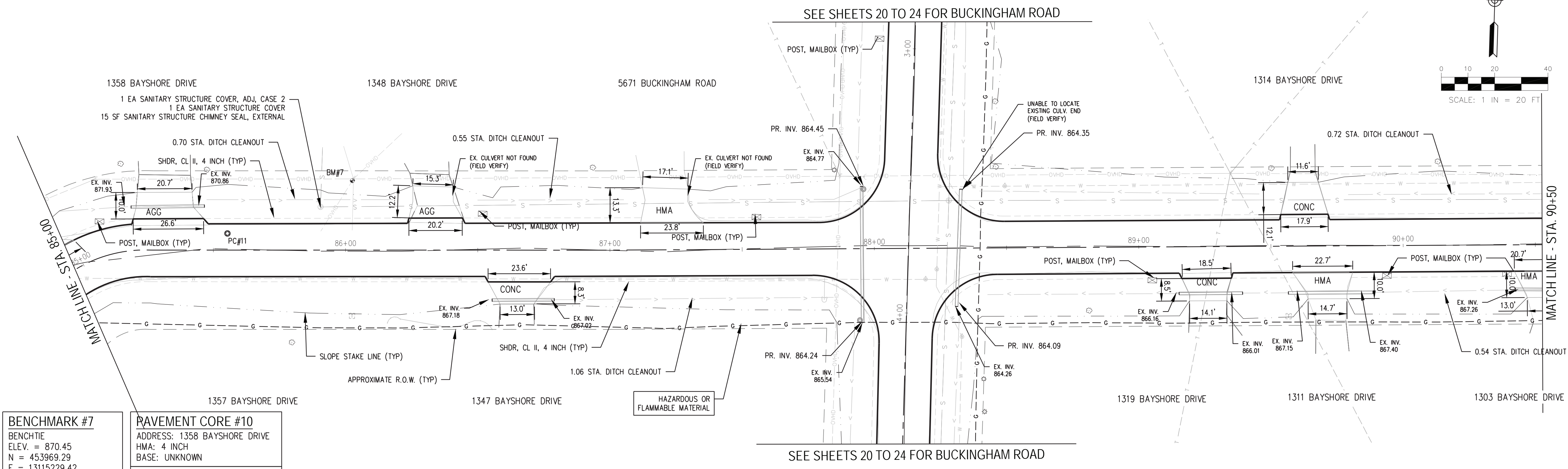
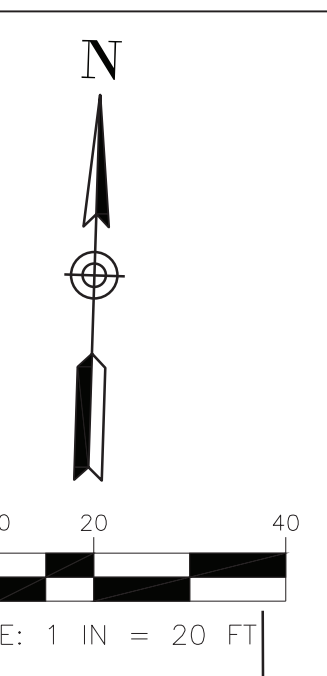
**PAVEMENT CORE #8**  
 ADDRESS: 5636 HALLENDALE ROAD  
 HMA: 2 INCH  
 BASE: UNKNOWN

**PAVEMENT CORE #9**  
 ADDRESS: 5655 HALLENDALE ROAD  
 HMA: 4 INCH  
 BASE: 6 INCH AGGREGATE, SAND & CLAY



NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

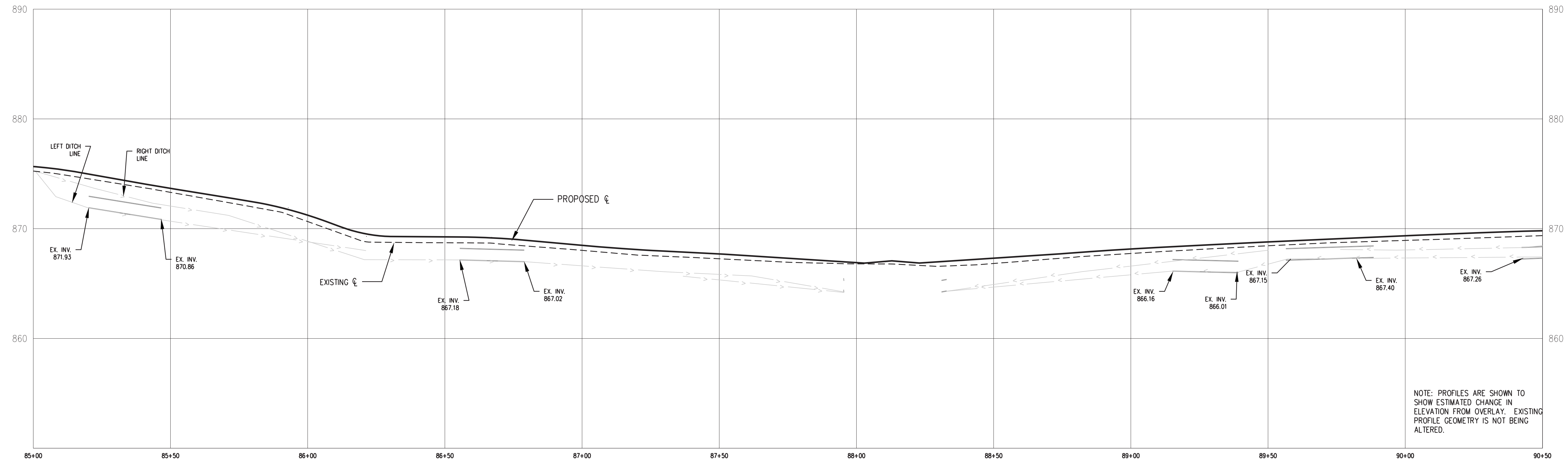
NO.	DATE	BY	DESCRIPTION
REV 1	2-28-2023	ASML	TWP AND ICRD COMMENTS, DRAINAGE REMOVED PER TWP
REV 2	3-15-2023	ASML	REMOVE BID ALTERNATE
2103 ASSOCIATION DR. #200 OKEMOS, MI 48864 TEL: 517.316.9232 FAX: 517.316.9233			
PROJECT DATE: 1/12/2020		PROJECT NO.: M150014	
DRAWN BY: KHW		CHECKED BY: CAV	
TECHNICAL SKILL. CREATIVE SPIRIT. www.MannikSmithGroup.com			
PREPARED FOR: 5151 MARSH ROAD OKEMOS, MI			
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
HALLENDALE ROAD PLAN & PROFILE STA. 80+58 TO STA. 85+00			
25			57





<b>BENCHMARK #7</b> BENCHTIE ELEV. = 870.45 N = 453969.29 E = 13115229.42	<b>PAVEMENT CORE #10</b> ADDRESS: 1358 BAYSHORE DRIVE HMA: 4 INCH BASE: UNKNOWN
<b>BENCHMARK #8</b> BENCHTIE ELEV. = 869.99 N = 453986.29 E = 13115724.41	<b>PAVEMENT CORE #11</b> ADDRESS: 1319 BAYSHORE DRIVE HMA: 2.5 INCH BASE: 2. INCH AGGREGATE & SAND

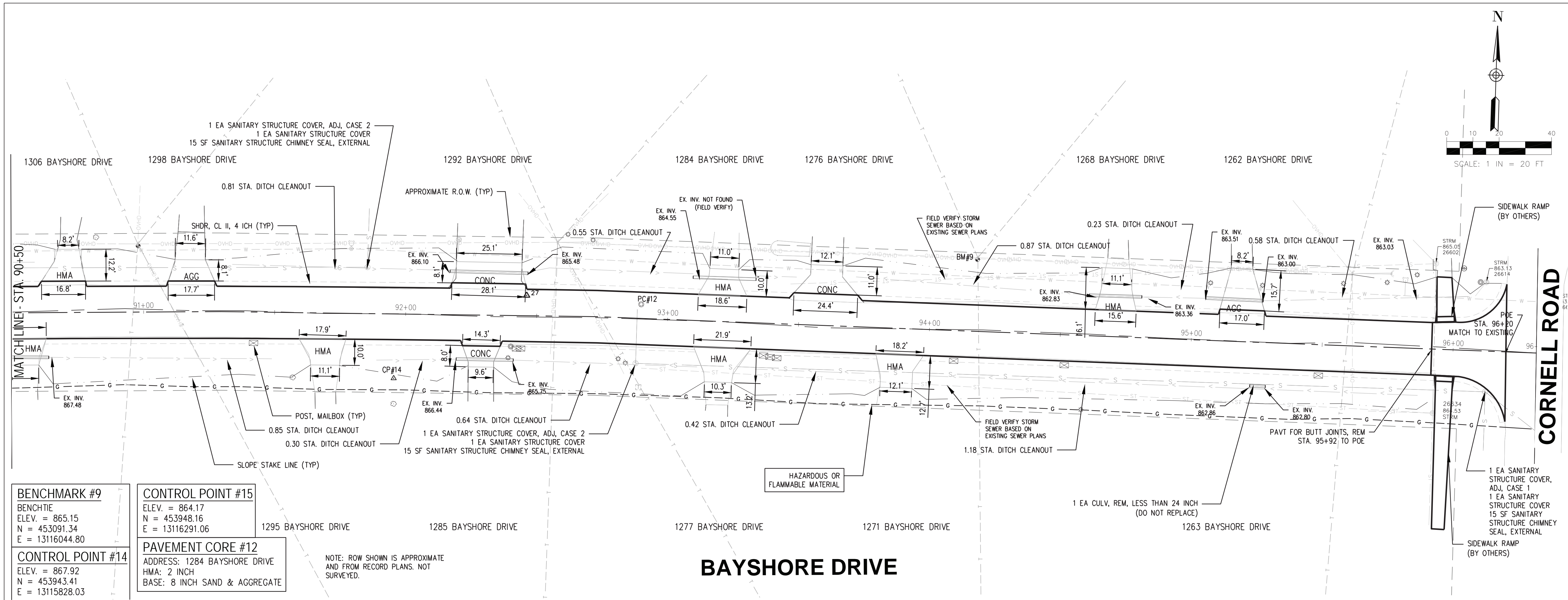
NOTE: ROW SHOWN IS APPROXIMATE AND FROM RECORD PLANS. NOT SURVEYED.

## BAYSHORE DRIVE



NOTE: PROFILES ARE SHOWN TO SHOW ESTIMATED CHANGE IN ELEVATION FROM OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BEING ALTERED.

NO. 2103	DATE 2-28-2023	BY ASHL	DESCRIPTION 2103 ASSOCIATION DR. #200
REV. 1	DATE 3-15-2023	BY ASHL	DESCRIPTION TYP AND CORD COMMENTS DRAINAGE REMOVED PER TYP REMOVE BID ALTERNATE
REV. 2	DATE	BY	DESCRIPTION
PROJECT NO. 11232020	PROJECT DATE: 11/23/2020	DRAWN BY: KHW	CHECKED BY: CAV
			
PREPARED FOR: <b>2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS</b> MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
BAYSHORE DRIVE PLAN & PROFILE STA. 85+00 TO STA. 91+00			
26	57		



**CORNELL ROAD**

**BENCHMARK #9**  
 BENCHTIE  
 ELEV. = 865.15  
 N = 453091.34  
 E = 13116044.80

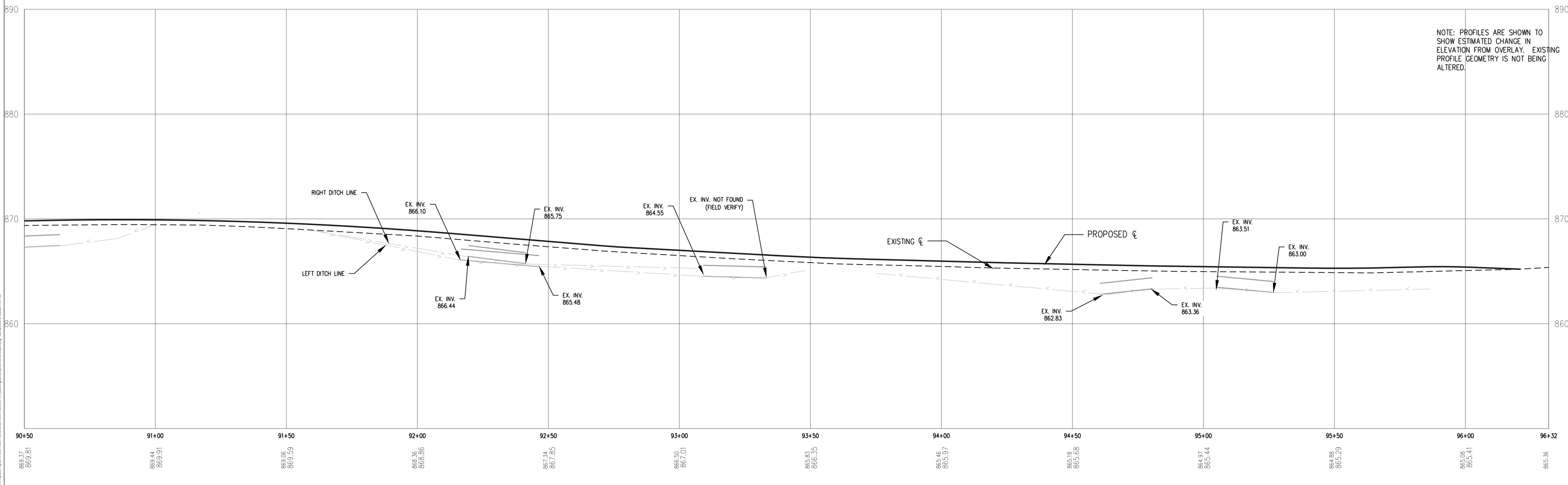
**CONTROL POINT #15**  
 ELEV. = 864.17  
 N = 453948.16  
 E = 13116291.06

**CONTROL POINT #14**  
 ELEV. = 867.92  
 N = 453943.41  
 E = 13115828.03

**PAVEMENT CORE #12**  
 ADDRESS: 1284 BAYSHORE DRIVE  
 HMA: 2 INCH  
 BASE: 8 INCH SAND & AGGREGATE

NOTE: ROW SHOWN IS APPROXIMATE  
 AND FROM RECORD PLANS. NOT  
 SURVEYED.

**BAYSHORE DRIVE**



NOTE: PROFILES ARE SHOWN TO  
 SHOW ESTIMATED CHANGE IN  
 ELEVATION FROM OVERLAY. EXISTING  
 PROFILE GEOMETRY IS NOT BEING  
 ALTERED.

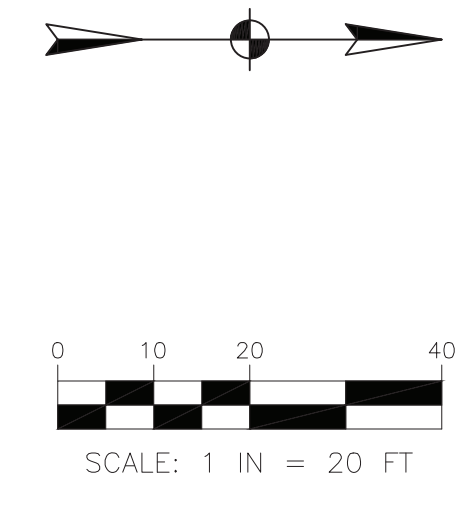
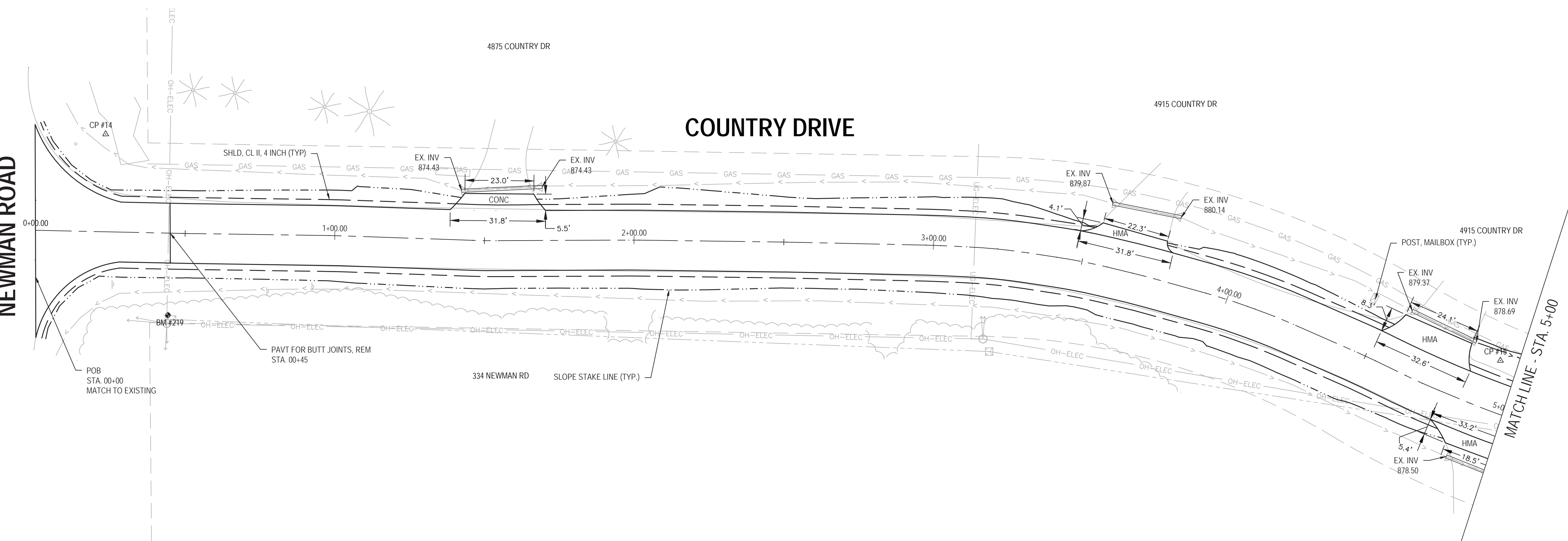
NO.	DATE	BY	DESCRIPTION
	2-28-2023	ASML	TWP AND CRD COMMENTS, DRAINAGE REMOVED PER TWP
REV 1	3-15-2023	ASML	REMOVE BID ALTERNATE
REV 2			
PROJECT NO.: 11232020			
PROJECT DATE: 11/23/2020			
DRAWN BY: KHW			
CHECKED BY: CAV			
PREPARED FOR: 2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN			
BAYSHORE DRIVE PLAN & PROFILE STA. 91+00 TO STA. 96+20			
27	57		

NEWMAN ROAD

4875 COUNTRY DR

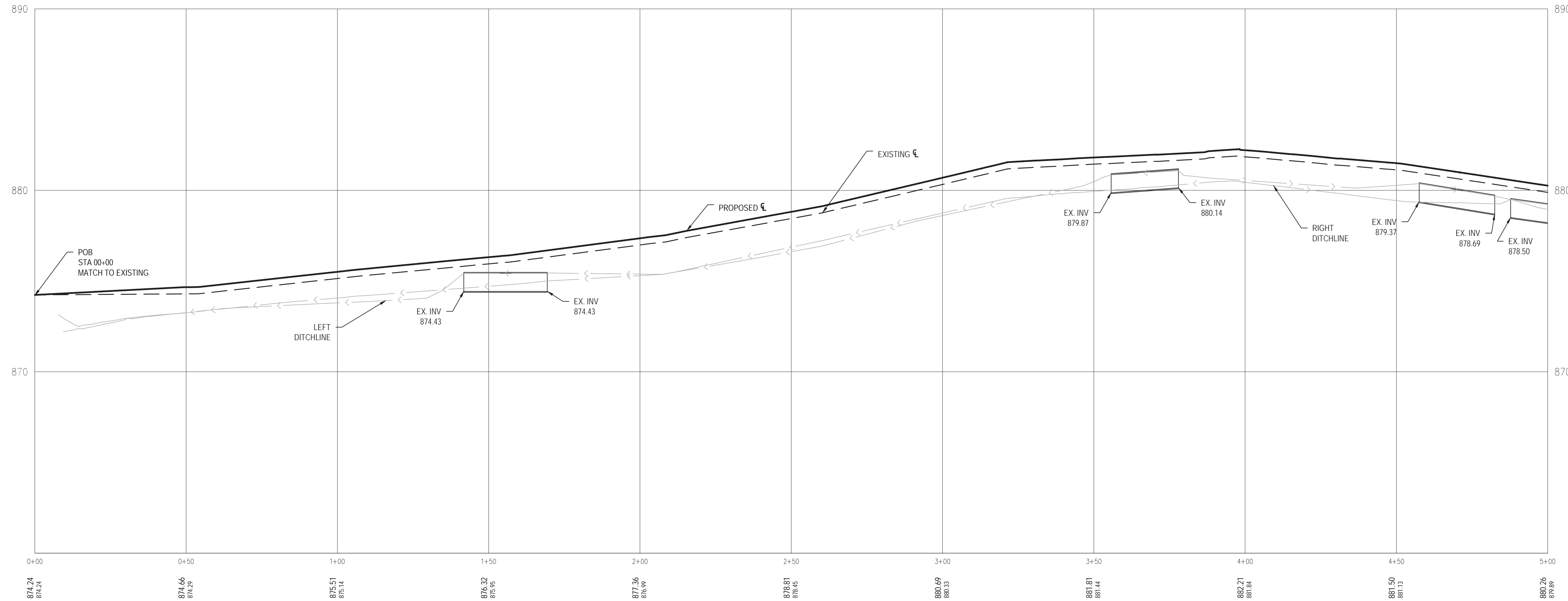
4915 COUNTRY DR

COUNTRY DRIVE



<b>CONTROL POINT #14</b>
ELEV. = 873.04 N = 445682.95 E = 13122064.55
<b>CONTROL POINT #15</b>
ELEV. = 879.60 N = 446148.82 E = 13122142.14
<b>BENCHMARK #219</b>
RR SPIKE W/ SIDE UP ELEV. = 875.38 N = 445703.60 E = 13122125.10

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



874.24 874.24	874.66 874.27	875.51 875.14	876.32 875.95	877.36 876.99	878.81 878.45	880.69 880.33	881.81 881.44	882.21 881.84	881.50 881.13	880.26 879.89
------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

DATE	BY	DESCRIPTION
3/20/23	ASML	TYP AND DERIV COMMENTS, PRICE, REMOVE BID ALTERNATE
3/15/2023	ASML	REMOVE BID ALTERNATE
11/22/2022	ASML	PROJECT NO. 11/22/2022

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517.316.9233  
FAX: 517.316.9233

PROJECT NO.: 11/22/2022  
DRAWN BY: ASML  
CHECKED BY: CAV

**TECHNICAL SKILL  
CREATIVE SPIRIT.**

**Mannik  
Smith  
GROUP**  
www.MannikSmithGroup.com

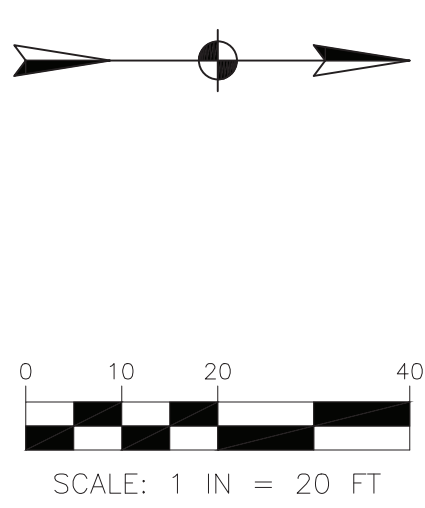
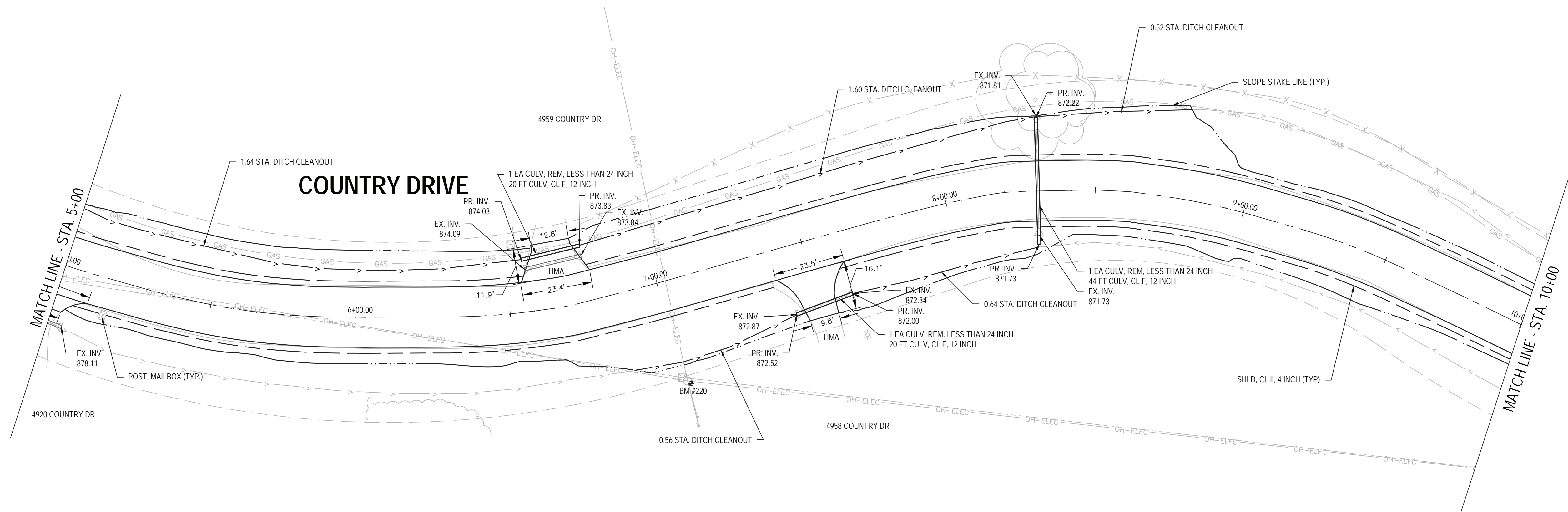
PREPARED FOR:

**MERIDIAN  
TOWNSHIP**

5151 MARSH ROAD  
OKEMOS, MI 48864

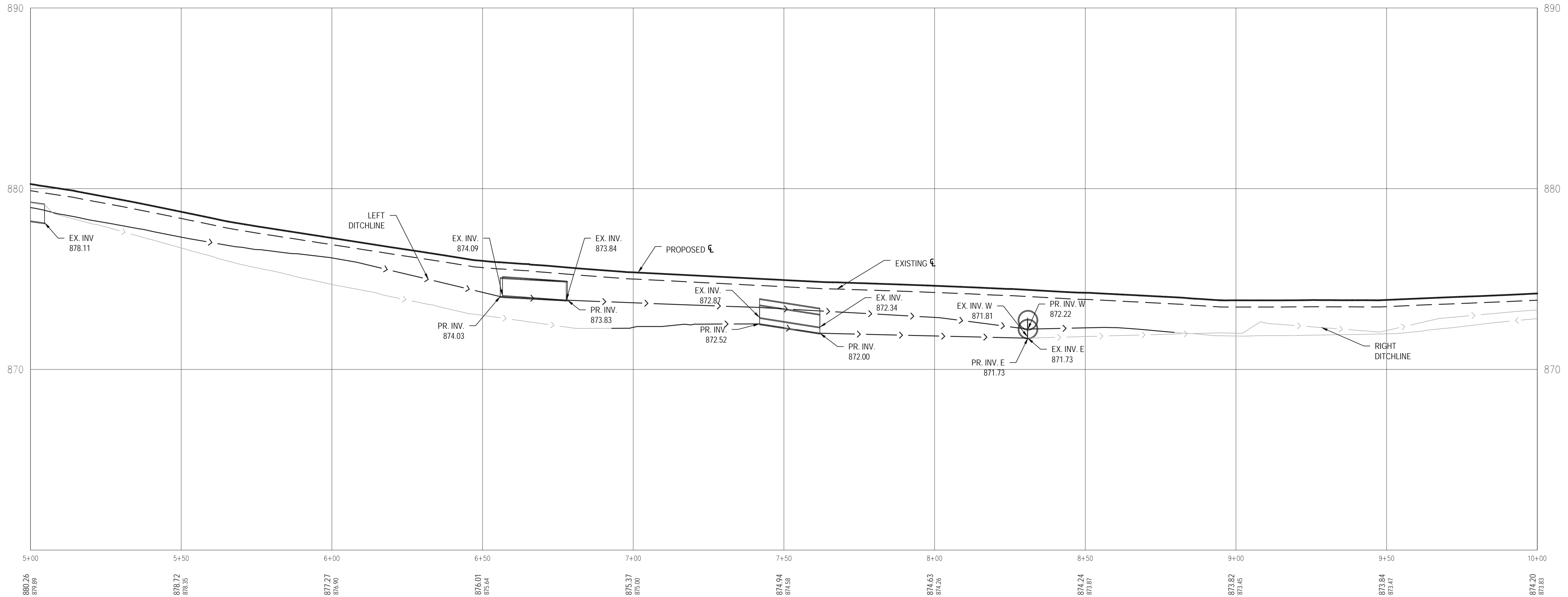
2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
PLAN & PROFILE  
STA. 0+00 TO STA. 5+00



**BENCHMARK #220**  
 RR SPIKE NW/ SIDE UP  
 ELEV. = 874.17  
 N = 446357.50  
 E = 13122198.23

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



W:\Projects\2023\20230314\20230314\20230314.dwg, 11/22/2023 10:50:14 AM

NO.	DATE	DESCRIPTION
REV. 1	3/28/23	ASML
REV. 2	3/15/23	ASML

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517-318-9933  
 FAX: 517-318-9933

PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2023  
 DRAWN BY: ASML  
 CHECKED BY: GAV

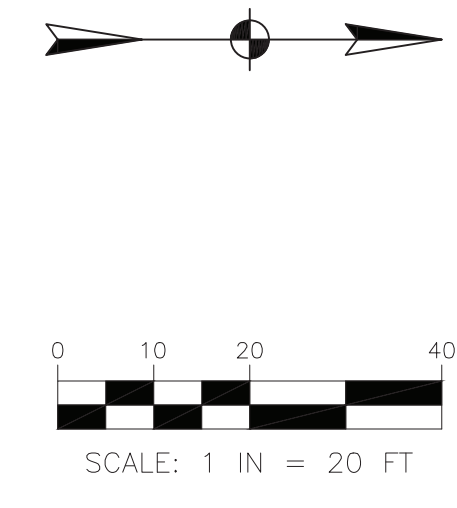
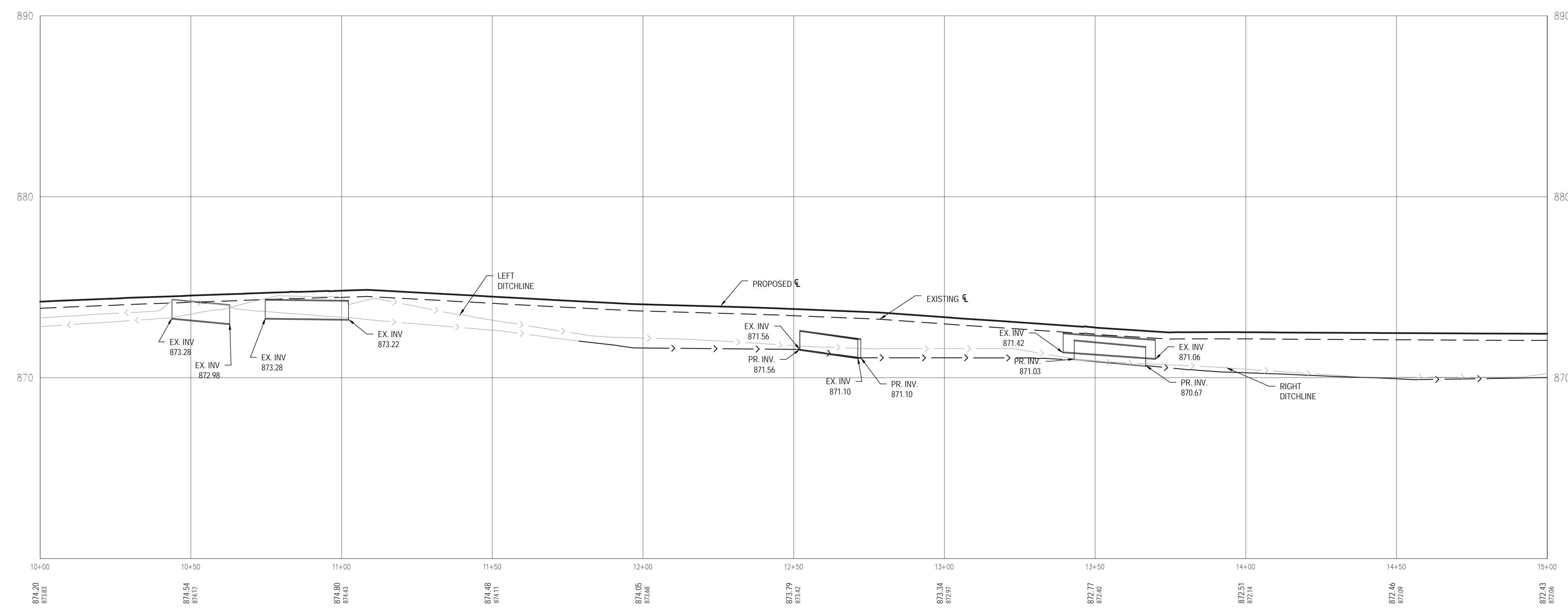
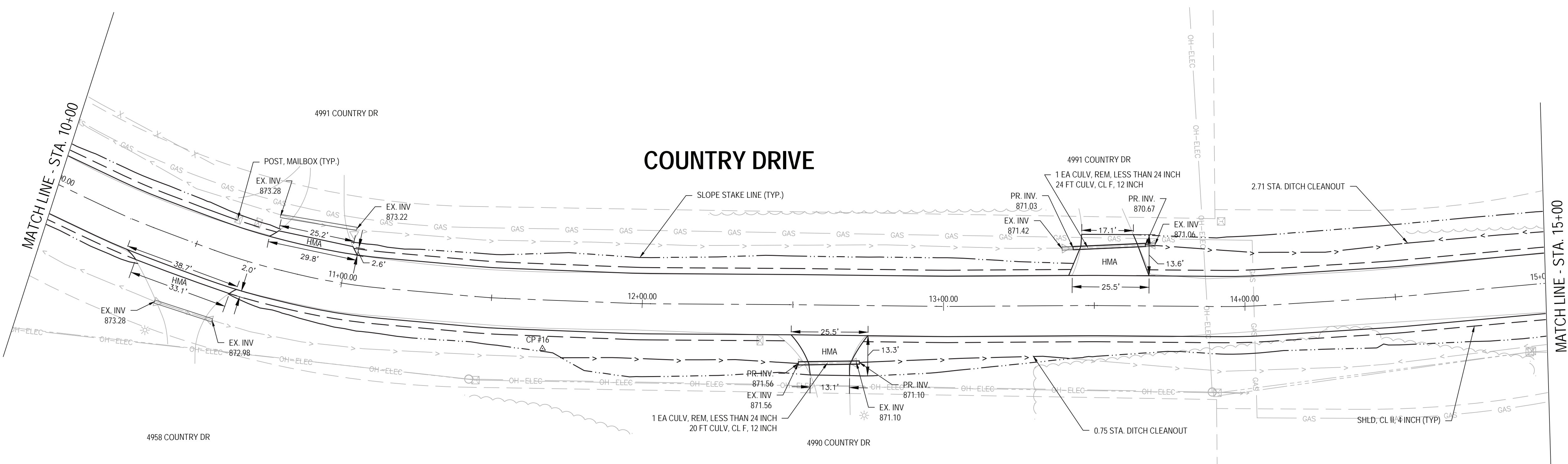
**Mannik Smith Group**  
 CREATIVE SPIRIT.  
 www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
 PLAN & PROFILE  
 STA. 5+00 TO STA. 10+00



**CONTROL POINT #16**  
 ELEV. = 872.53  
 N = 446794.76  
 E = 1312236.50

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NO.	DATE	BY	DESCRIPTION
REV 1	2/28/23	ASML	TYP AND CRED COMMEN
REV 2	3/15/23	ASML	REMOVE BID ALTERNATE

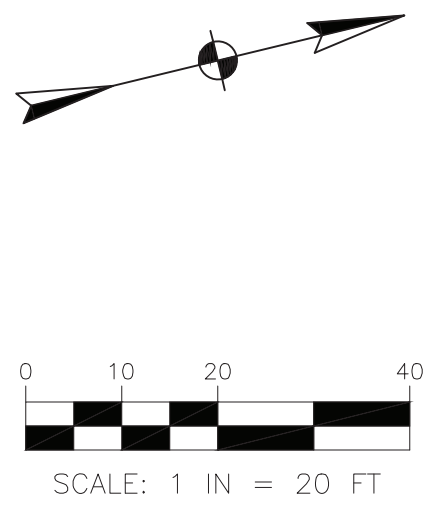
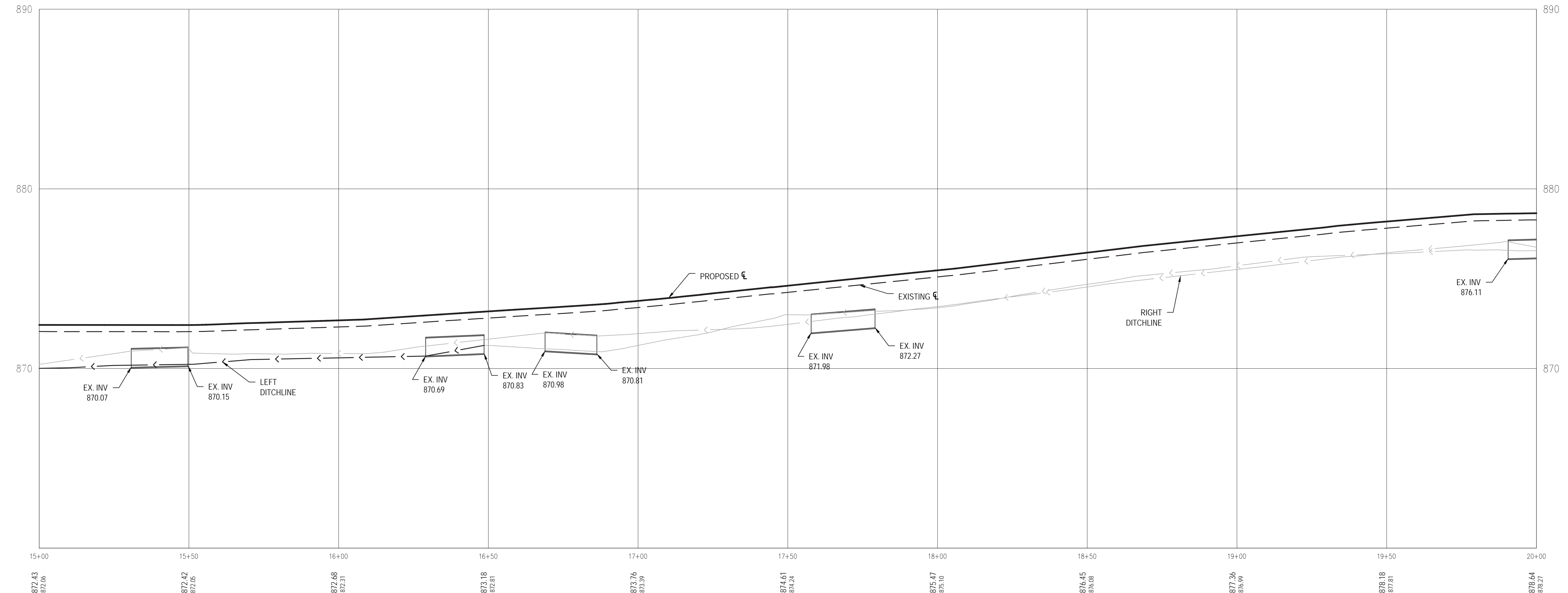
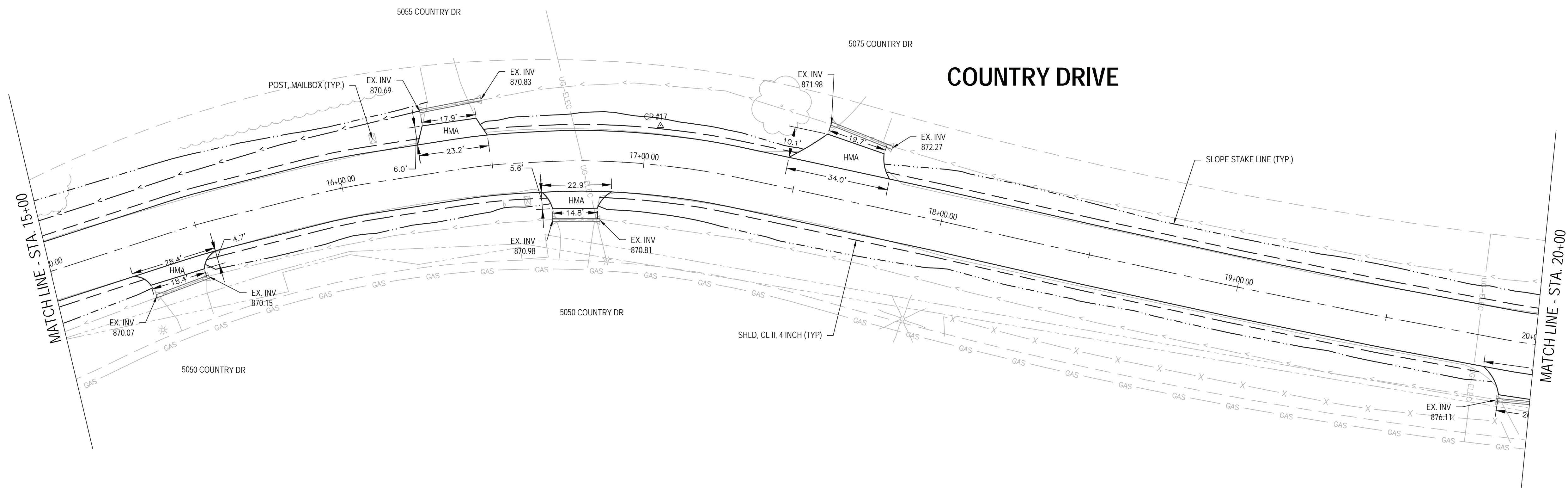
2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT DATE: 11/22/2022  
 PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV



2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
 PLAN & PROFILE  
 STA. 10+00 TO STA. 15+00



**CONTROL POINT #17**  
 ELEV. = 873.27  
 N = 447333.94  
 E = 13122216.84

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NO.	DATE	DESCRIPTION
REV 1	3/28/2023	ASML
REV 2	3/15/2023	ASML

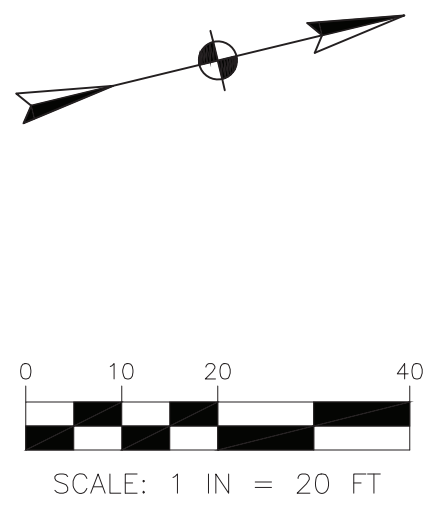
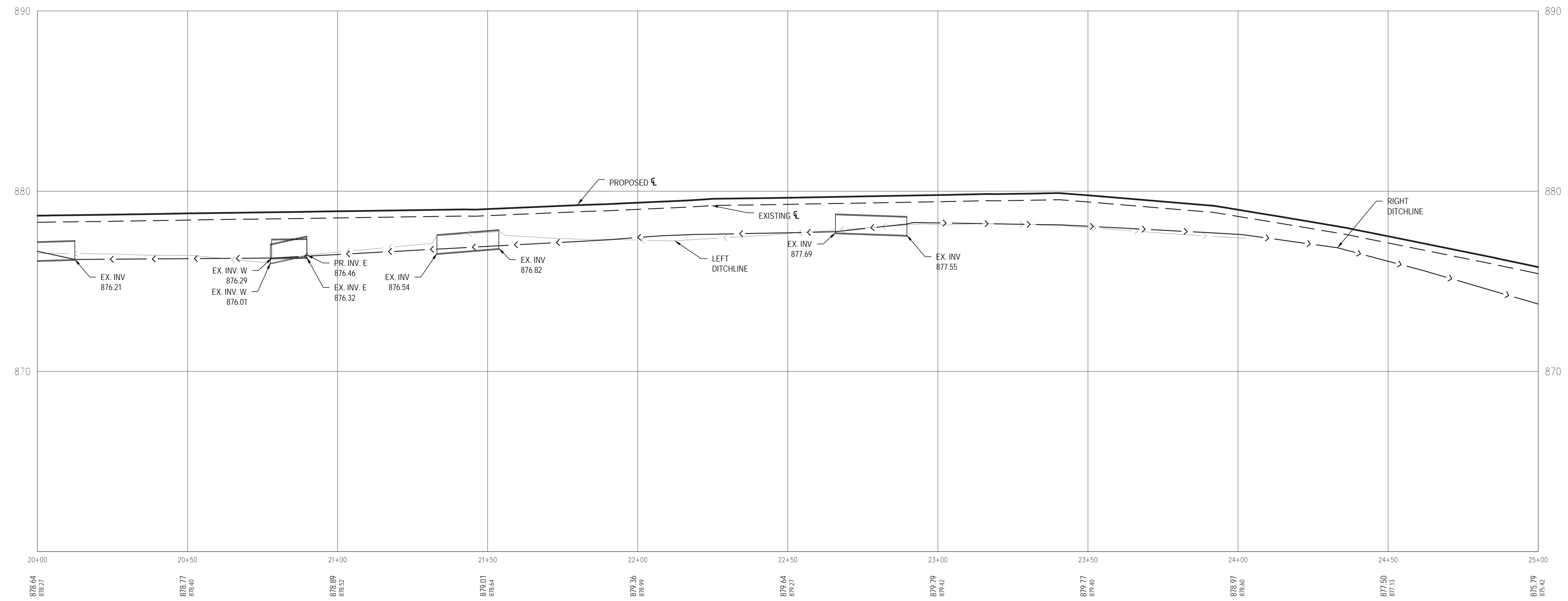
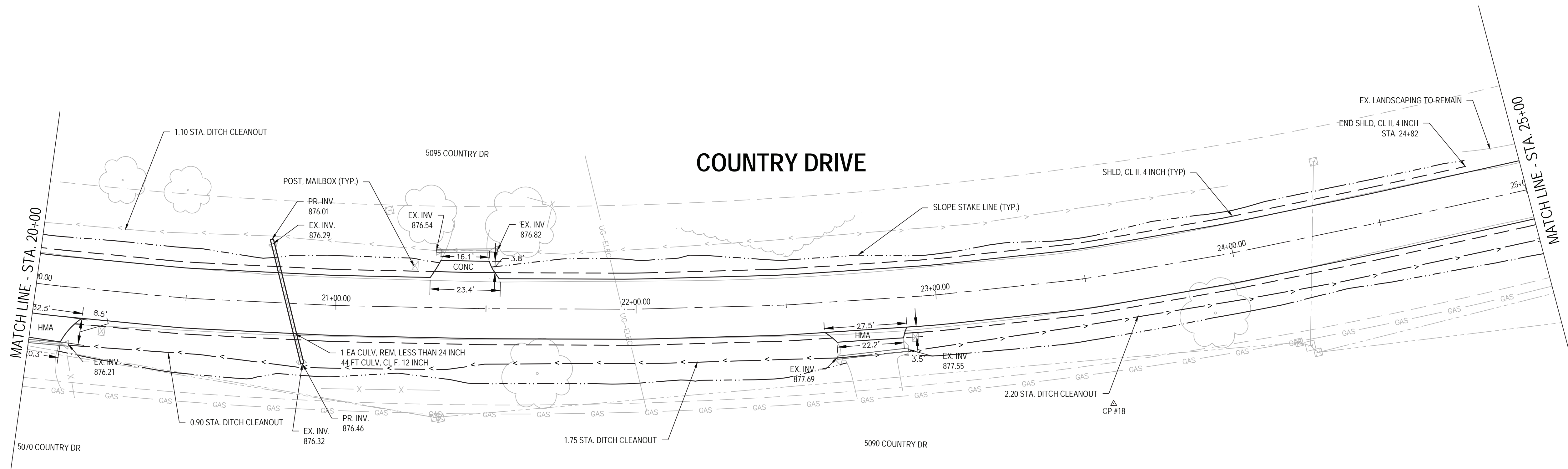
2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 313.363.9233  
 FAX: 313.363.9233

PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV



2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
 PLAN & PROFILE  
 STA. 15+00 TO STA. 20+00



**CONTROL POINT #18**  
 ELEV. = 879.95  
 N = 447936.81  
 E = 1312247.76

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NO.	DATE	BY	DESCRIPTION
REV 1	3/20/23	ASML	TYP AND CDED COMMENTS AND CHANGE REMOVED PER TYP
REV 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

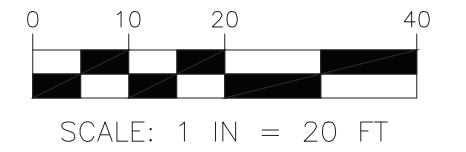
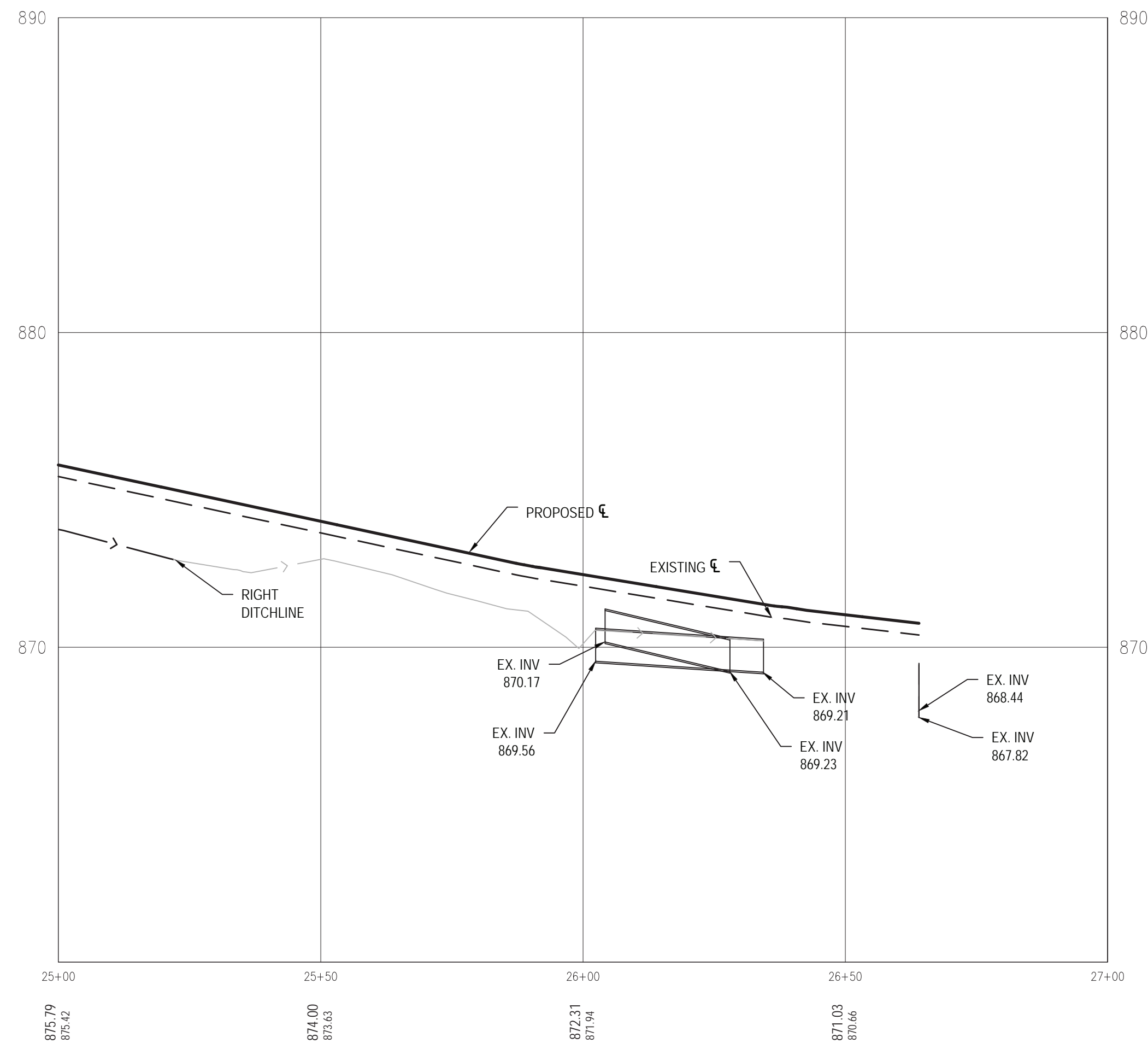
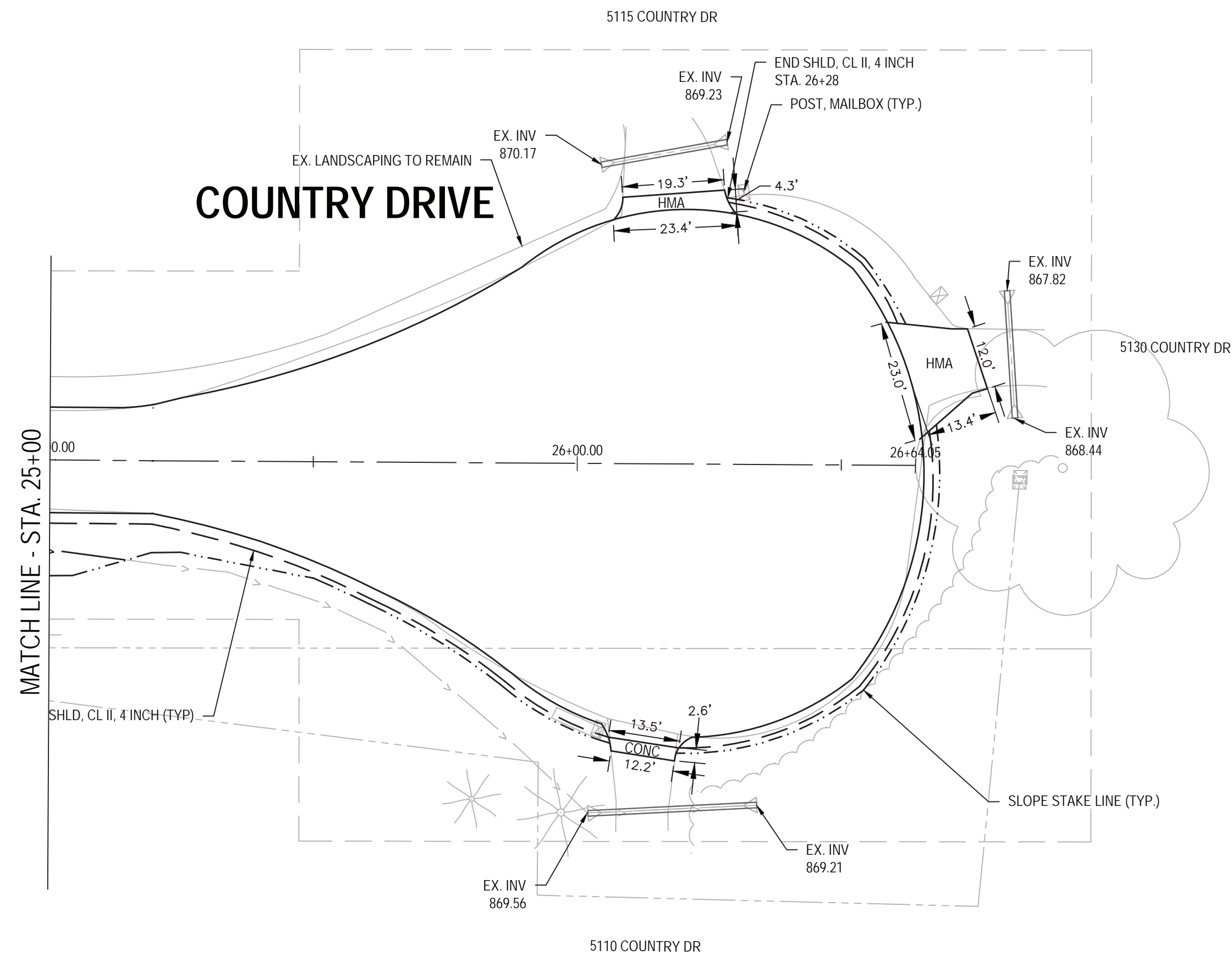
PROJECT DATE: 11/22/2022  
 PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV



2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
 PLAN & PROFILE  
 STA. 20+00 TO STA. 25+00





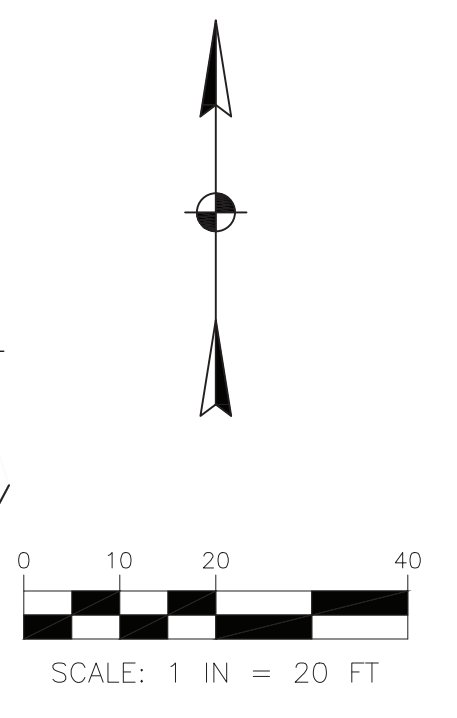
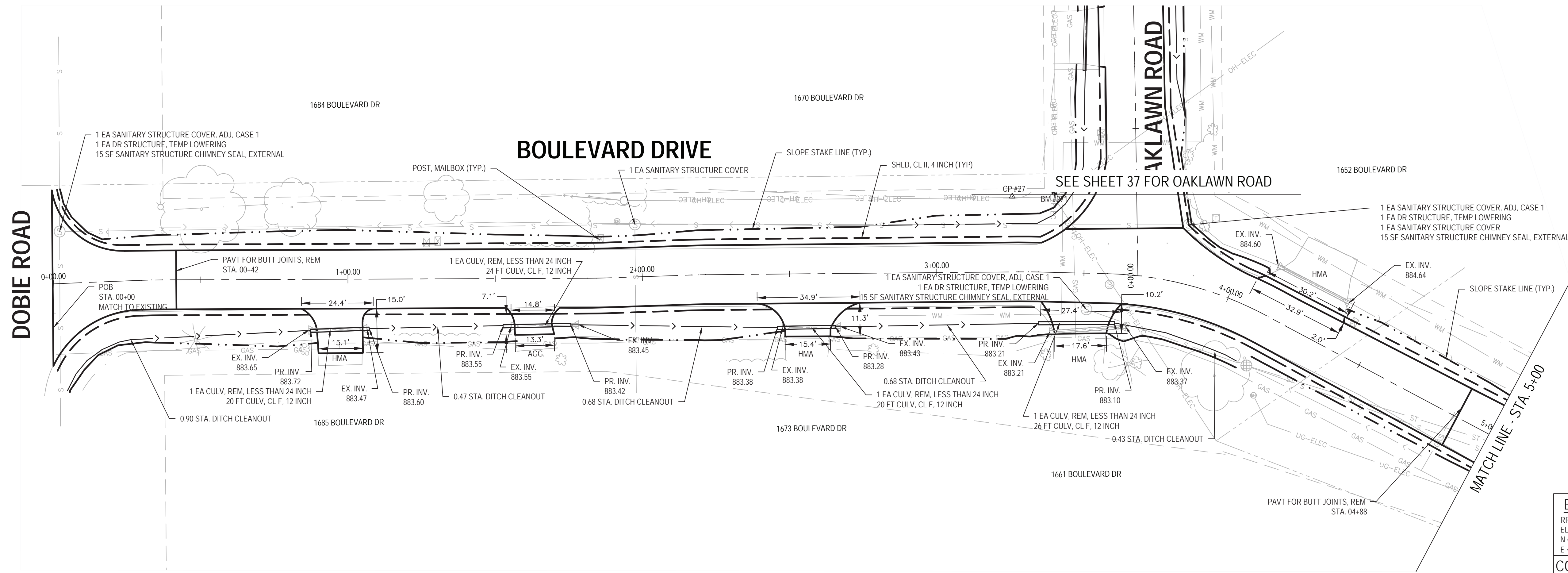
NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

DESCRIPTION:	BY:	DATE:	REV:
TYP AND DESD COMMENTS: REMOVE BID ALTERNATE	ASML	3/15/2023	REV 2
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517-316-9233 FAX: 517-316-9233	ASML	11/22/2022	REV 1
PROJECT NO: MA150015	ASML		
DRAWN BY: CAV	ASML		
CHECKED BY:			



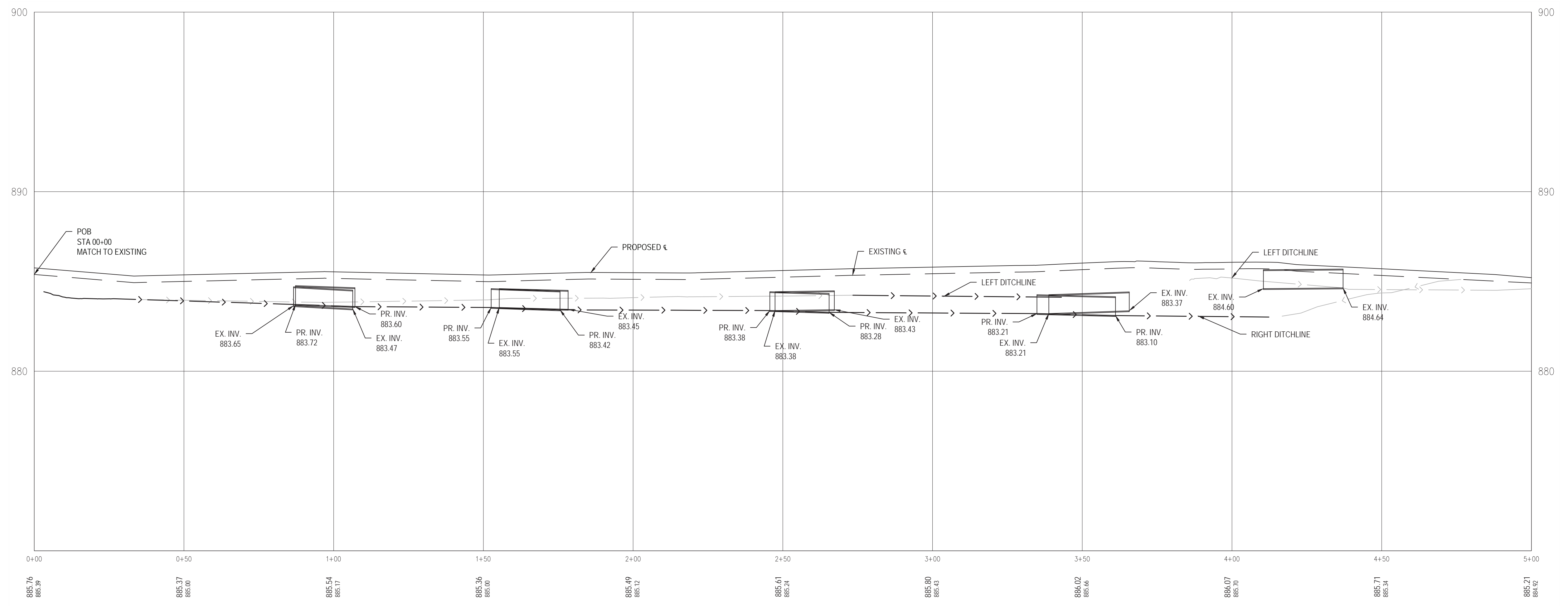
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

COUNTRY DRIVE  
 PLAN & PROFILE  
 STA. 25+00 TO STA. 26+64.32



<b>BENCHMARK #271</b>
RR SPIKE SE SIDE UP
ELEV. = 885.87
N = 440907.49
E = 13111965.15
<b>CONTROL POINT #27</b>
ELEV. = 885.83
N = 440908.43
E = 13111949.83

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



DESCRIPTION:	ASML
BY:	ASML
DATE:	3-15-2023
REV. 1:	3-15-2023
REV. 2:	3-15-2023
USP:	
ASSOCIATION:	2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864
PROJECT NO.:	11/22/2022
PROJECT DATE:	MM/SS/YY
DRAWN BY:	ASML
CHECKED BY:	CAV
REVISION:	TRIP AND ORDER COMMENTS: BRIDGE REMOVED PER TYP REMOVE BRIDGE ALTERNATE

TECHNICAL SKILL  
CREATIVE SPIRIT

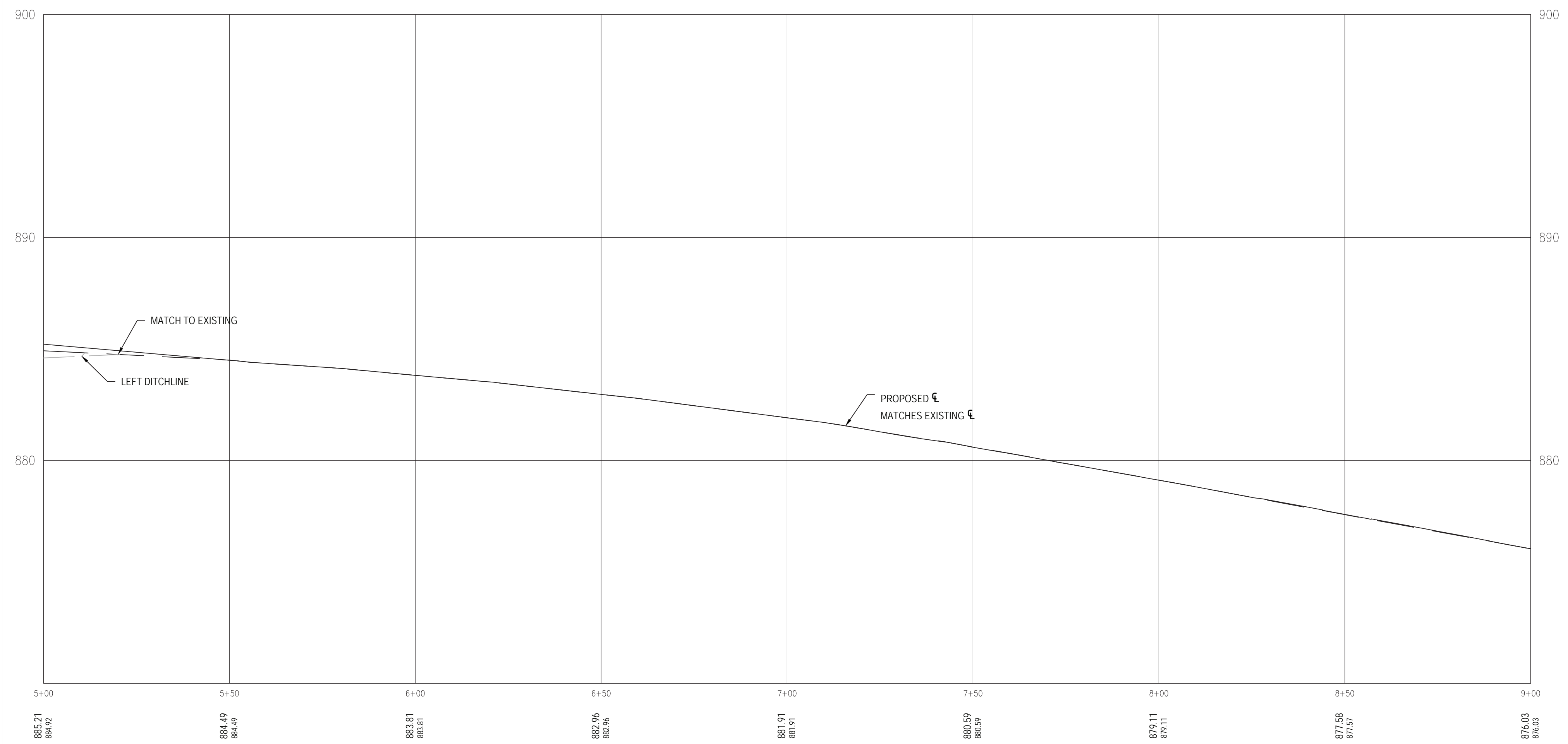
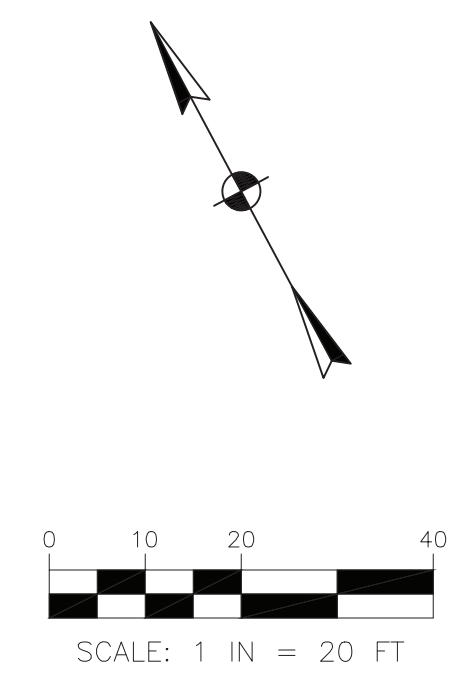
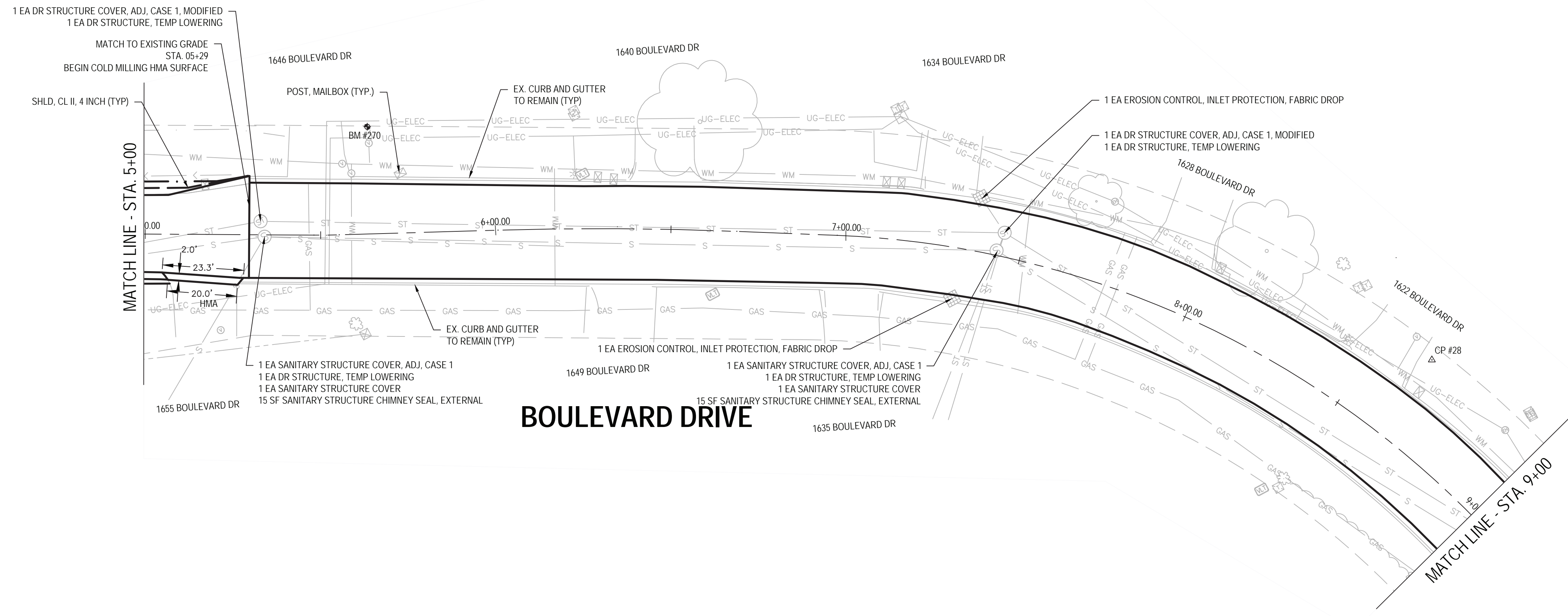
Mannik Smith GROUP  
www.MannikSmithGroup.com

PREPARED FOR:

EST. 1848  
MERIDIAN TOWNSHIP  
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

BOULEVARD DRIVE  
PLAN & PROFILE  
STA. 0+00 TO STA. 5+00



**BENCHMARK #270**  
 NW FLANGE BOLT ON HYD  
 ELEV. = 887.04  
 N = 440821.31  
 E = 13112180.35

**CONTROL POINT #28**  
 ELEV. = 877.43  
 N = 440621.33  
 E = 13112417.83

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NO.	DATE	BY	DESCRIPTION
REV 1	3/28/23	ASML	TYP AND COR'D CHANGE TO BE REMOVED PER TYP
REV 2	3/15/2023	ASML	REMOVE AND ALTERATE

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.318.9233 FAX: 517.318.9233

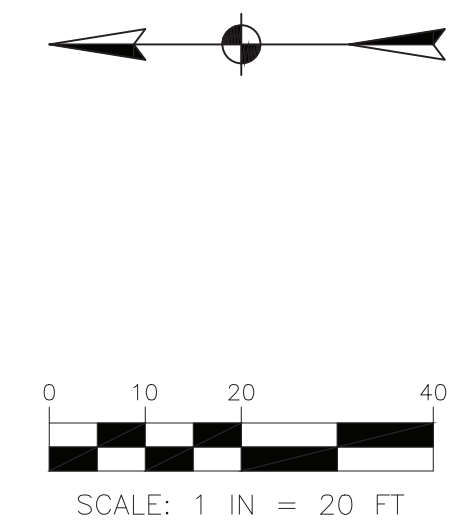
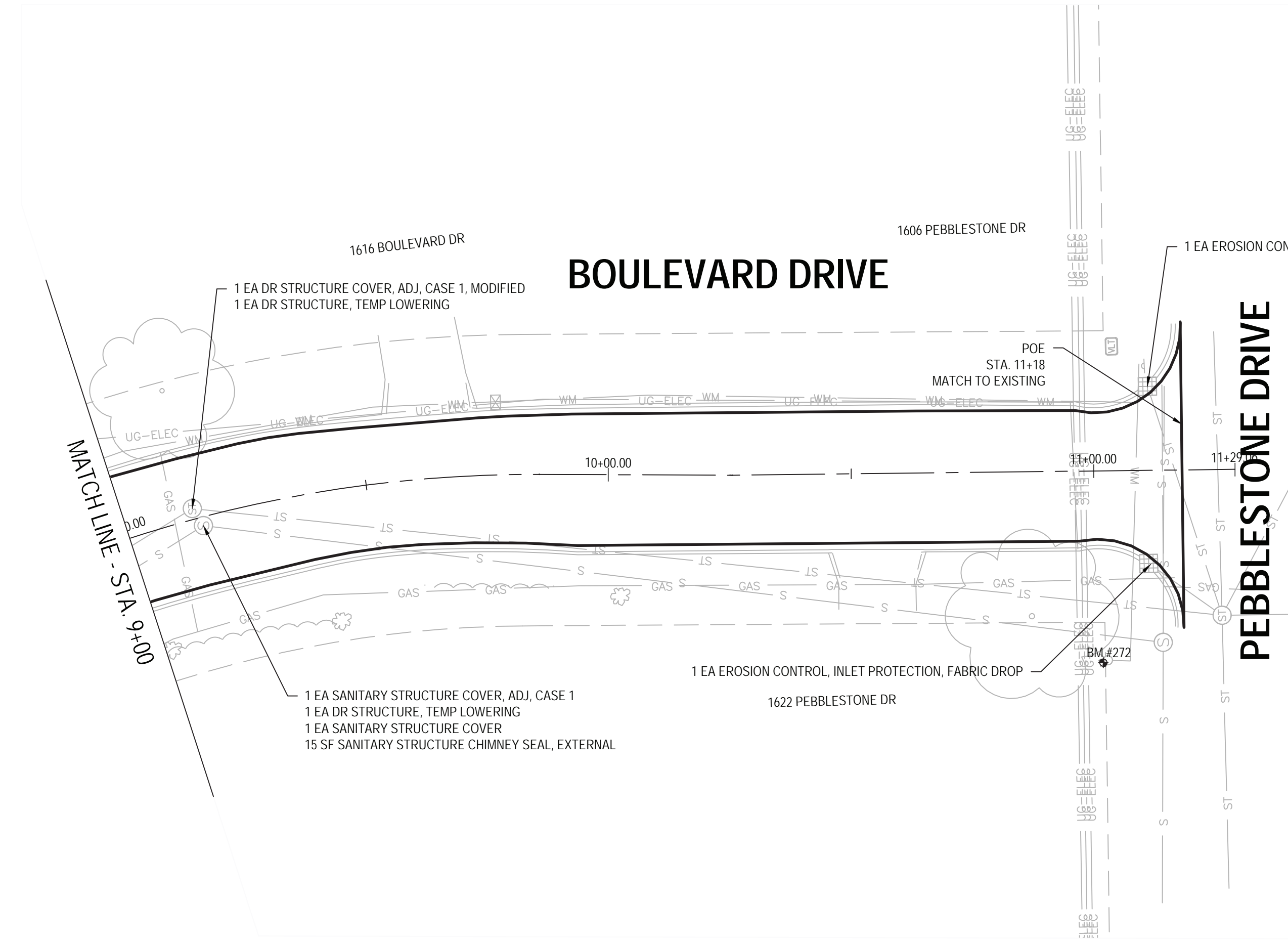
PROJECT DATE: 11/22/2022 PROJECT NO.: M15015 DRAWN BY: ASML CHECKED BY: CAV



2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP INGHAM COUNTY, MICHIGAN

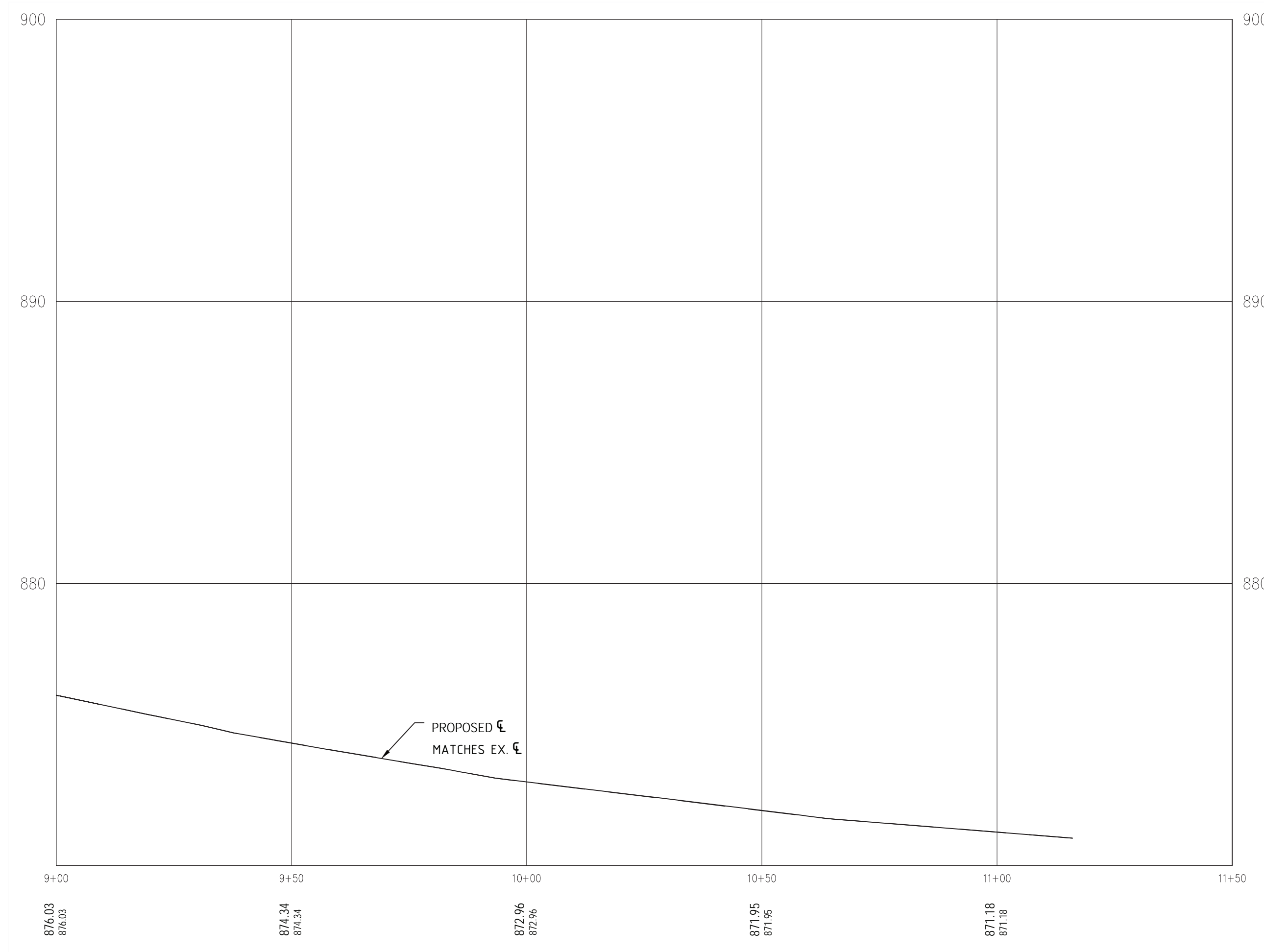
BOULEVARD DRIVE PLAN & PROFILE STA. 5+00 TO STA. 9+00

W:\Projects\2023\20230117\20230117\20230117.dwg, 11/22/2023 10:52 AM



**BENCHMARK #272**  
 NE FLANGE BOLT ON HYD  
 ELEV = 872.23  
 N = 440377.08  
 E = 13112377.09

NOTE: PROFILES SHOWN TO ESTIMATE  
 CHANGE IN ELEVATION FOLLOWING  
 OVERLAY. EXISTING PROFILE  
 GEOMETRY IS NOT BE ALTERED.



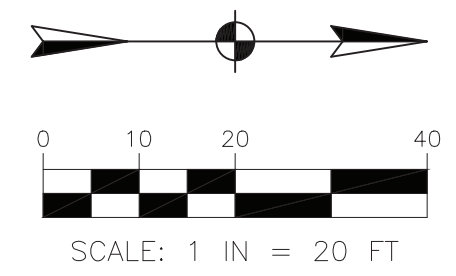
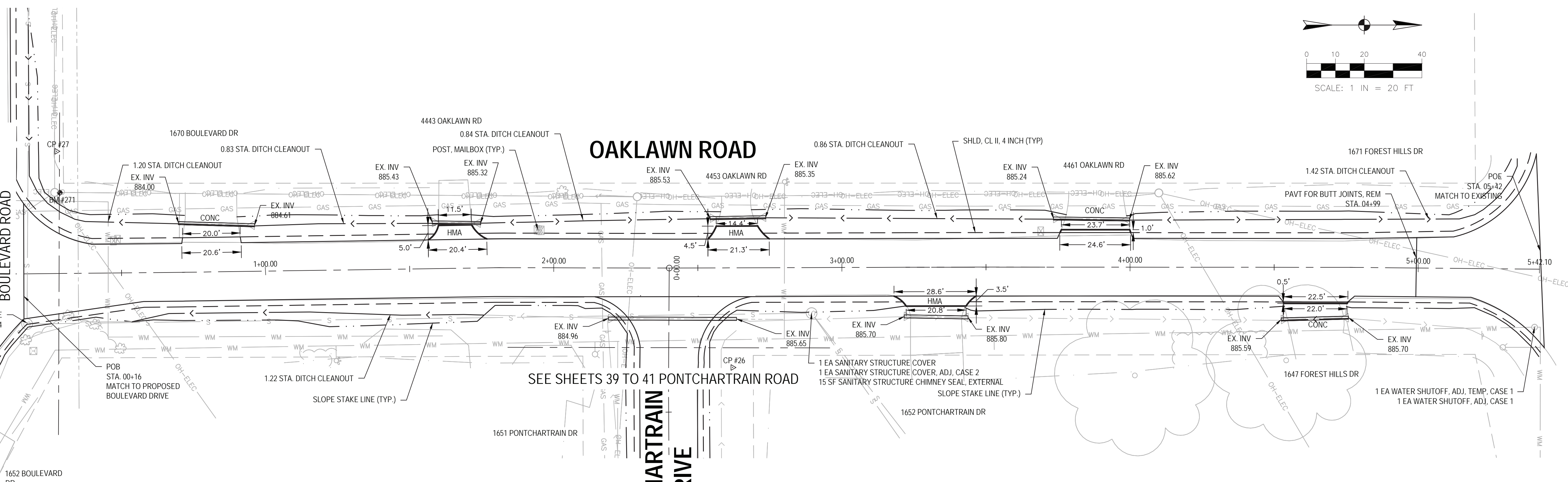
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.318.9233 FAX: 517.318.9233	PROJECT DATE: 11/22/2022	PROJECT NO.: M150015	DRAWN BY: ASML	CHECKED BY: CAV
	DATE: 3/15/2023 REV 1: 3/15/2023 REV 2: 3/15/2023	BY: ASML ASML	DESCRIPTION: TYPE AND DESCR. COMM. NO. DATE REMOVED PER DVP REMOVE AND ALTERNATE	
<b>2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS</b> MEIRIDAN TOWNSHIP INGHAM COUNTY, MICHIGAN				
<b>BOULEVARD DRIVE PLAN &amp; PROFILE</b> STA. 9+00 TO STA. 11+18				
36				57



BOULEVARD DRIVE

SEE SHEETS 34 TO 26 FOR BOULEVARD ROAD

SEE SHEET 34



### OAKLAWN ROAD

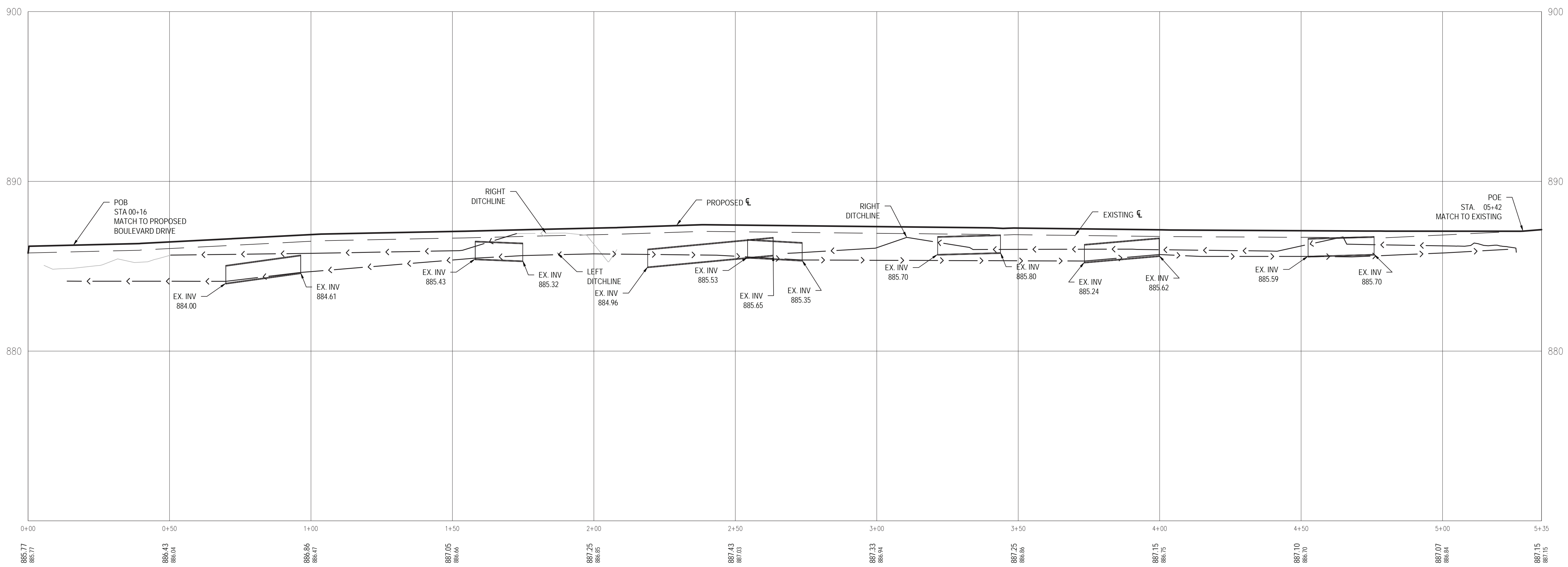
SEE SHEETS 39 TO 41 PONTCHARTRAIN ROAD

PONTCHARTRAIN DRIVE

FOREST HILLS DRIVE

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

<b>CONTROL POINT #26</b> ELEV. = 886.82 N = 441143.15 E = 13112025.33	<b>CONTROL POINT #27</b> ELEV. = 885.83 N = 440908.43 E = 13111949.83	<b>BENCHMARK #271</b> RR SPIKE SE SIDE UP ELEV. = 885.87 N = 440907.49 E = 13111965.15
--	--	--



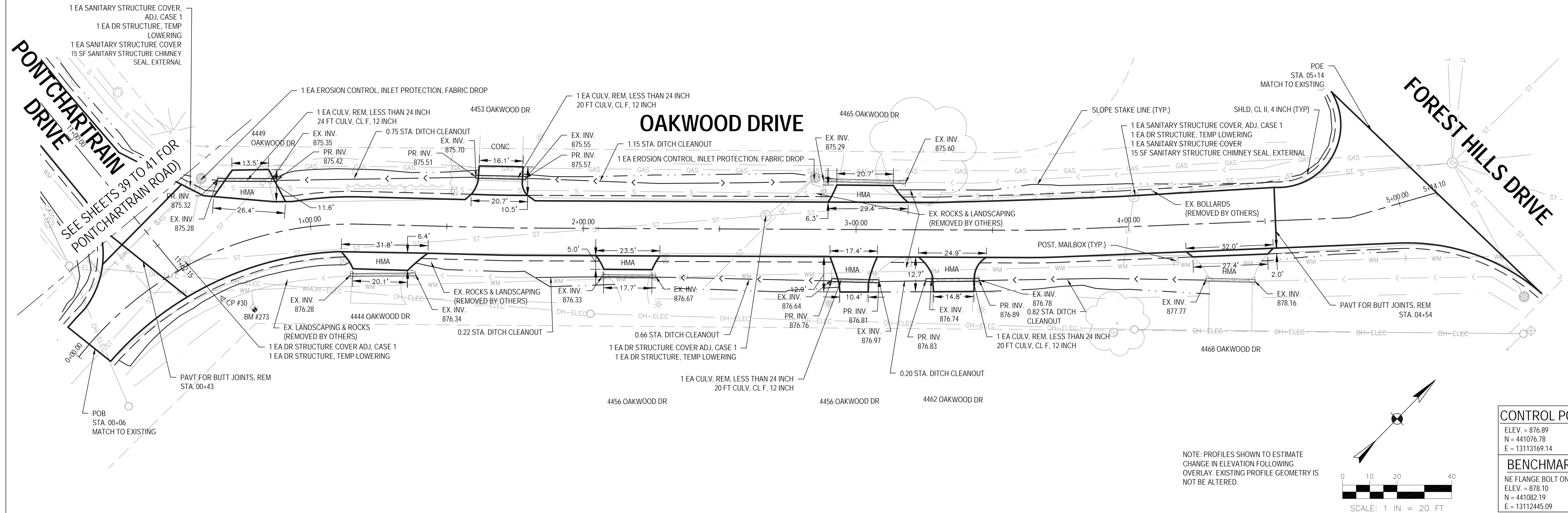
USP	DATE	DESCRIPTION
REV 1	3/28/2023	REVISED COMMONS BRIDGE REMOVED PER TYP
REV 2	3/15/2023	REMOVE BRIDGE ALTERNATE

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.316.9233 FAX: 517.316.9233	PROJECT NO.: MM150015	DATE: 11/22/2022
DRAWN BY: ASML	CHECKED BY: CAV	



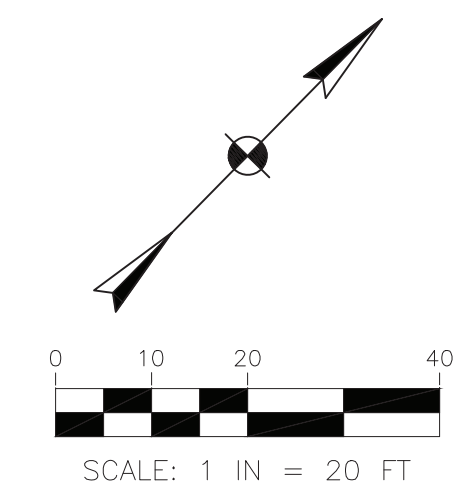
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

OAKLAWN DRIVE  
PLAN & PROFILE  
STA. 0+00 TO STA. 5+32

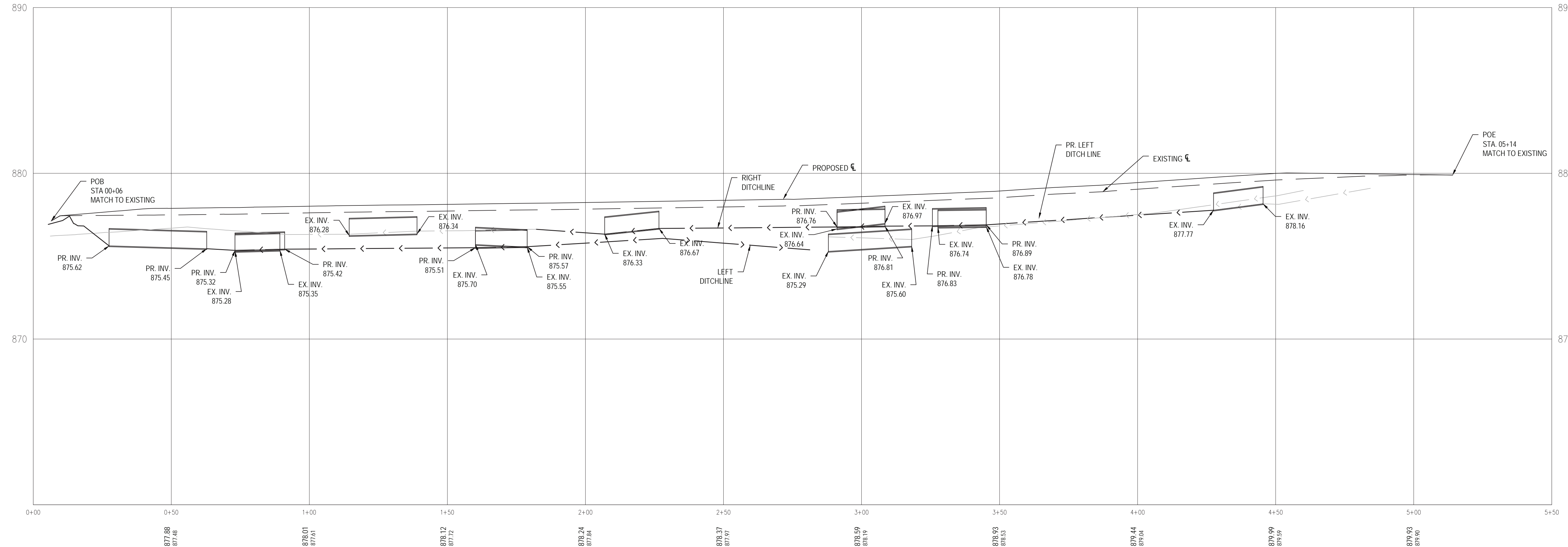


**CONTROL POINT #30**  
 ELEV. = 876.89  
 N = 441076.78  
 E = 13113169.14

**BENCHMARK #273**  
 NE FLANGE BOLT ON HYDRANT  
 ELEV. = 878.10  
 N = 441082.19  
 E = 13112445.09



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



DESCRIPTION:	BY:	DATE:	US:
1 EA SANITARY STRUCTURE COVER, ADJ. CASE 1 1 EA DR STRUCTURE, TEMP LOWERING 1 EA SANITARY STRUCTURE COVER 15 SF SANITARY STRUCTURE CHIMNEY SEAL, EXTERNAL	ASML	3-15-2023	REV. 1
1 EA EROSION CONTROL, INLET PROTECTION, FABRIC DROP	ASML	3-15-2023	REV. 2
1 EA CULV. REM. LESS THAN 24 INCH 20 FT CULV. CL. F. 12 INCH			
1 EA SANITARY STRUCTURE COVER, ADJ. CASE 1 1 EA DR STRUCTURE, TEMP LOWERING 1 EA SANITARY STRUCTURE COVER 15 SF SANITARY STRUCTURE CHIMNEY SEAL, EXTERNAL			
1 EA CULV. REM. LESS THAN 24 INCH 24 FT CULV. CL. F. 12 INCH			
0.75 STA. DITCH CLEANOUT			
1.15 STA. DITCH CLEANOUT			
1 EA EROSION CONTROL, INLET PROTECTION, FABRIC DROP			
1 EA SANITARY STRUCTURE COVER, ADJ. CASE 1 1 EA DR STRUCTURE, TEMP LOWERING 1 EA SANITARY STRUCTURE COVER 15 SF SANITARY STRUCTURE CHIMNEY SEAL, EXTERNAL			
1 EA CULV. REM. LESS THAN 24 INCH 20 FT CULV. CL. F. 12 INCH			
0.22 STA. DITCH CLEANOUT			
0.66 STA. DITCH CLEANOUT			
1 EA CULV. REM. LESS THAN 24 INCH 20 FT CULV. CL. F. 12 INCH			
0.20 STA. DITCH CLEANOUT			
1 EA SANITARY STRUCTURE COVER, ADJ. CASE 1 1 EA DR STRUCTURE, TEMP LOWERING 1 EA SANITARY STRUCTURE COVER 15 SF SANITARY STRUCTURE CHIMNEY SEAL, EXTERNAL			
1 EA CULV. REM. LESS THAN 24 INCH 20 FT CULV. CL. F. 12 INCH			
0.82 STA. DITCH CLEANOUT			
PAVT FOR BUTT JOINTS, REM STA. 04+54			
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.316.9233 FAX: 517.316.9233	PROJECT NO.:	11/22/2022	MM150015
	DRAWN BY:	ASML	CAV
	CHECKED BY:		

TECHNICAL SKILL.  
 CREATIVE SPIRIT.

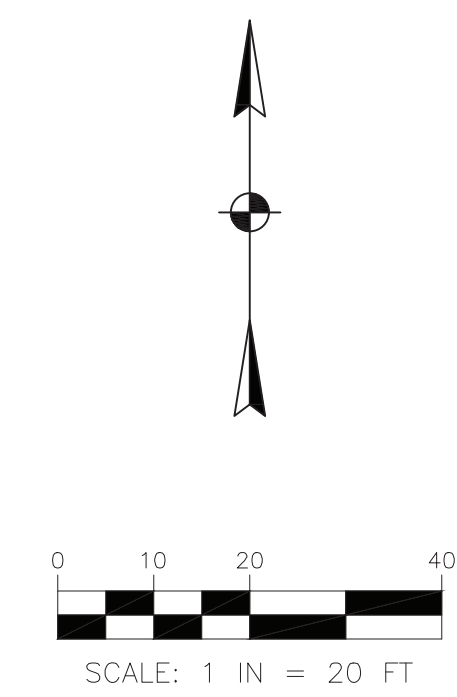
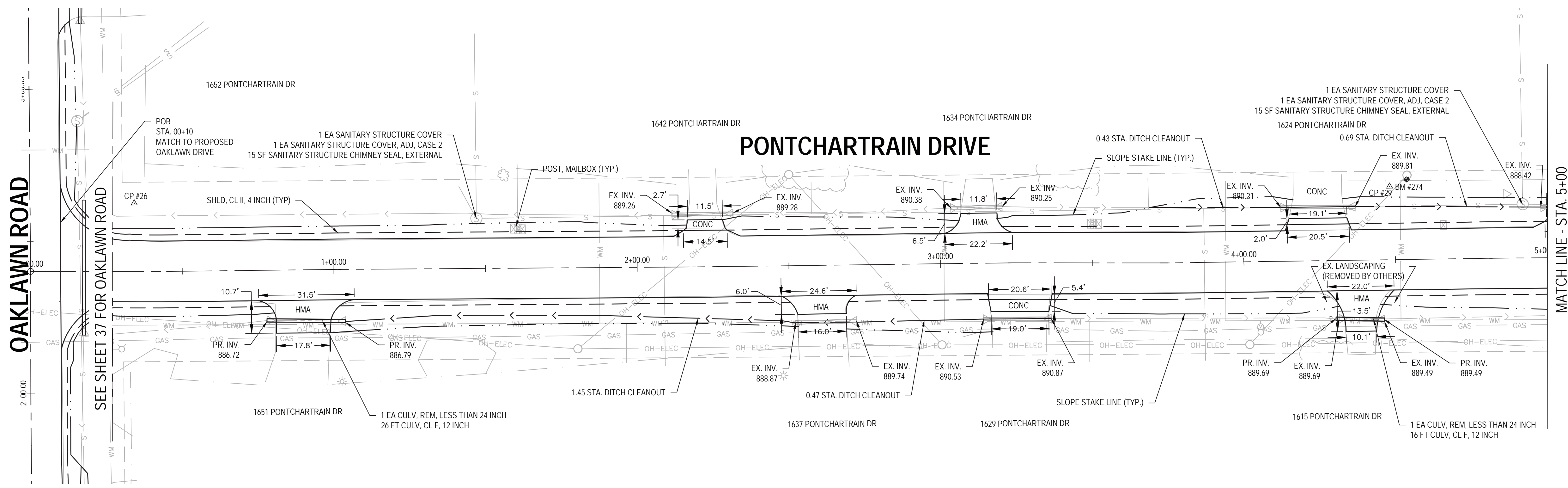
www.MannikSmithGroup.com

PREPARED FOR:

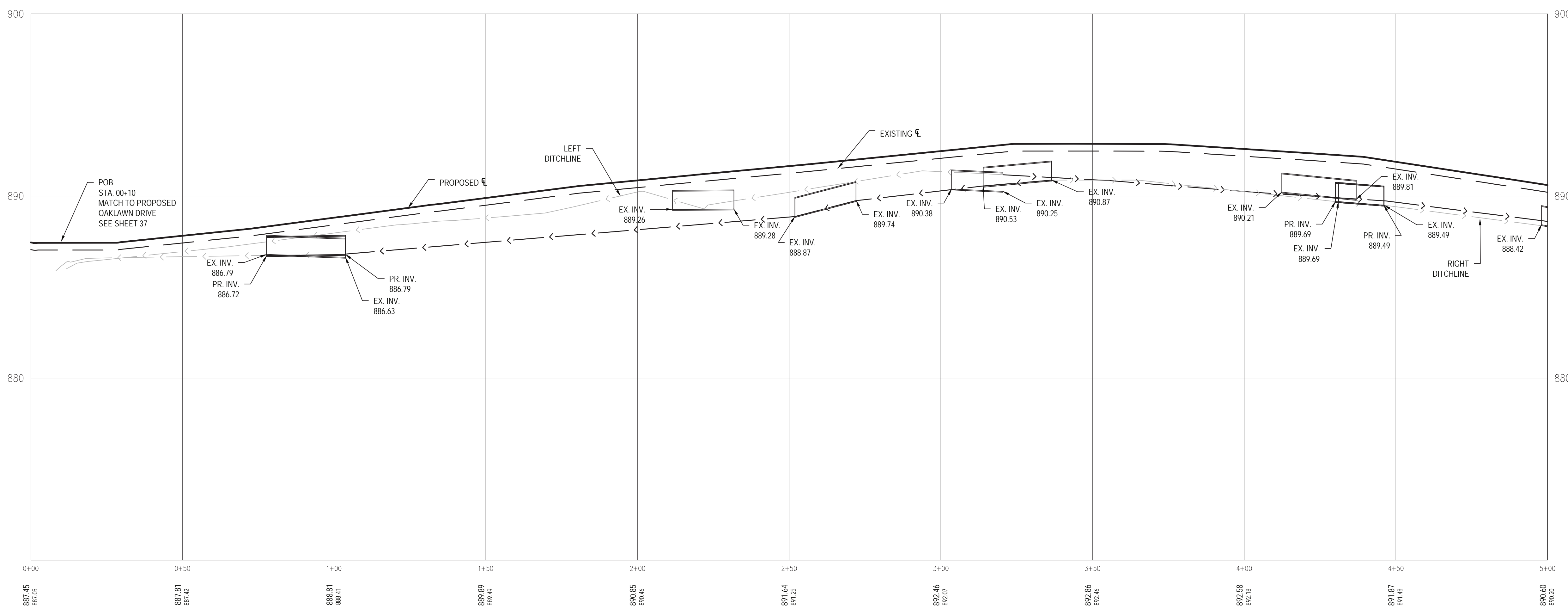
5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

OAKWOOD DRIVE  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 5+14



<b>CONTROL POINT #26</b>
ELEV. = 886.82 N = 441143.15 E = 13112025.33
<b>CONTROL POINT #29</b>
ELEV. = 891.17 N = 441145.23 E = 13112439.26
<b>BENCHMARK #274</b>
RR SPIKE S SIDE UP ELEV. = 892.67 N = 441148.92 E = 13112445.09



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

OAKLAWN ROAD  
SEE SHEET 37 FOR OAKLAWN ROAD

MATCH LINE - STA. 5+00

DESCRIPTION:	ASML
BY:	ASML
DATE:	3/15/2023
REV. 1:	3/15/2023
REV. 2:	3/15/2023
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864	
TEL: 517.316.9233	
FAX: 517.316.9233	
PROJECT DATE:	11/22/2022
PROJECT NO.:	MM150015
DRAWN BY:	ASML
CHECKED BY:	CAV

TECHNICAL SKILL:  
CREATIVE SPIRIT.

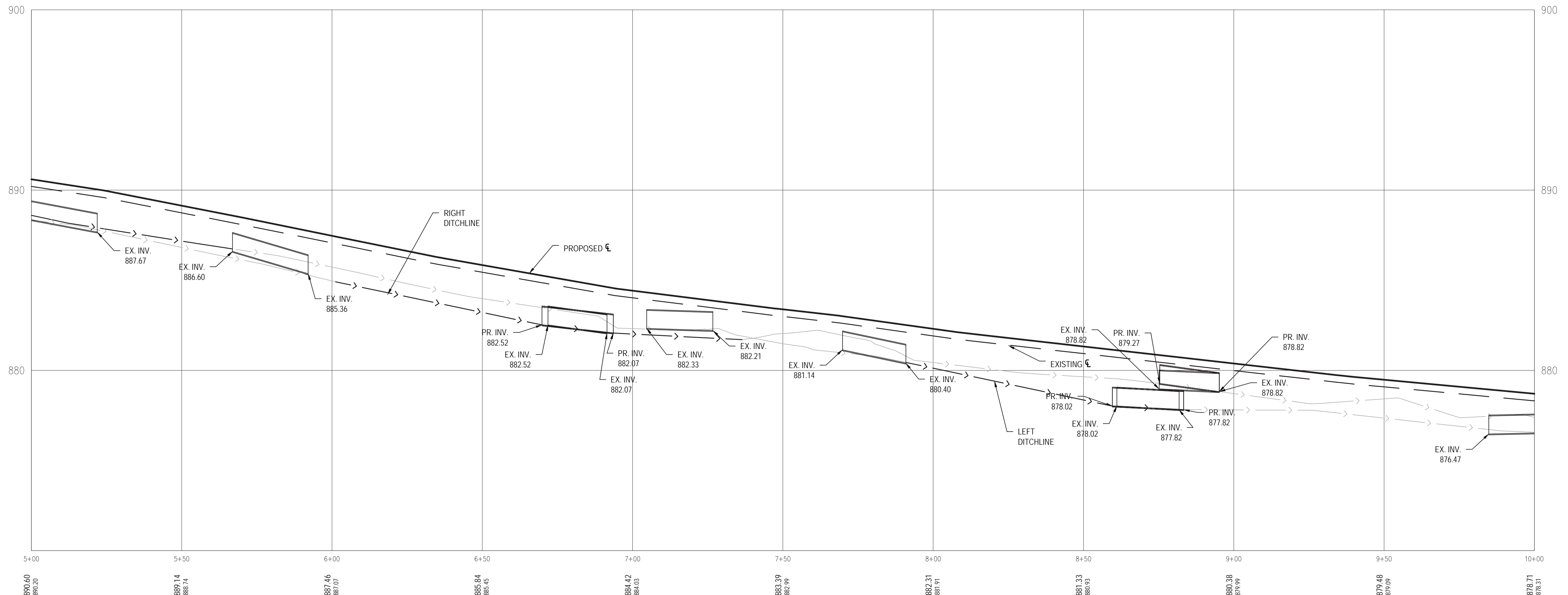
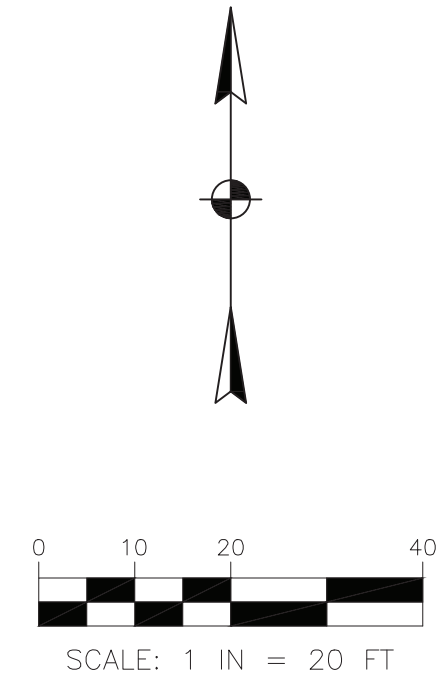
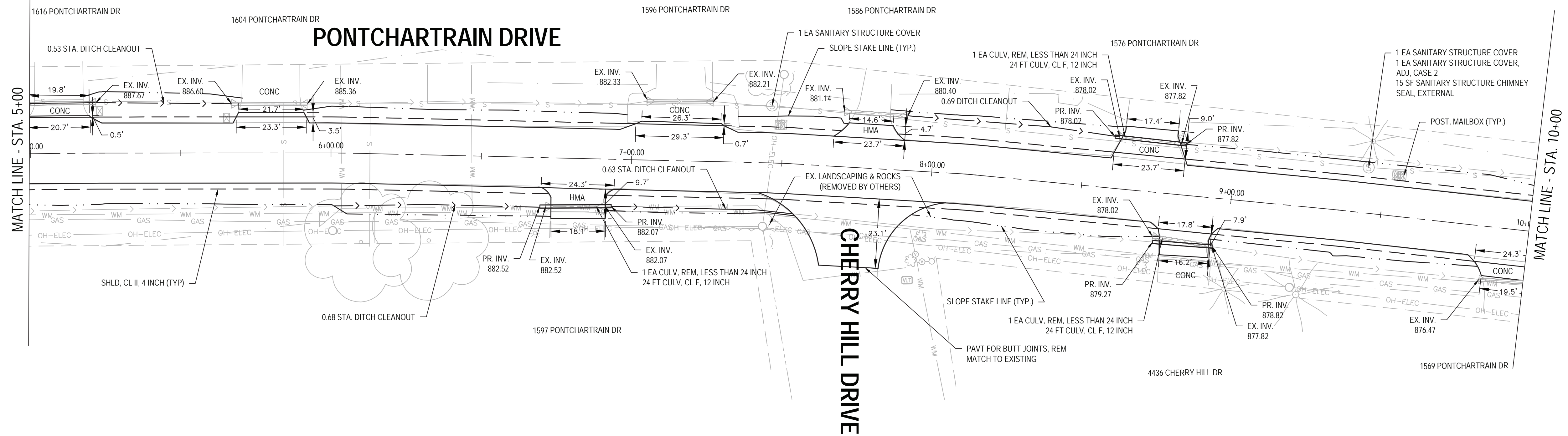
www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

PONTCHARTRAIN DRIVE  
PLAN & PROFILE  
STA. 0+00 TO STA. 5+00



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

MATCH LINE - STA. 5+00

MATCH LINE - STA. 10+00

W:\Projects\2023\20230510\PONTCHARTRAIN\Drawings\20230510\11000.dwg (Last printed: 3/15/2023 11:00 AM)

NO.	DATE	DESCRIPTION
REV. 1	3/15/2023	ASML
REV. 2	3/15/2023	ASML

2193 ASSOCIATION DR  
OKEMOS, MI 48864  
TEL: 517.316.9233  
FAX: 517.316.9233

PROJECT NO.: MM150015  
PROJECT DATE: 11/22/2022  
DRAWN BY: ASML  
CHECKED BY: CAV

**TECHNICAL SKILL:**  
CREATIVE SPIRIT.

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:

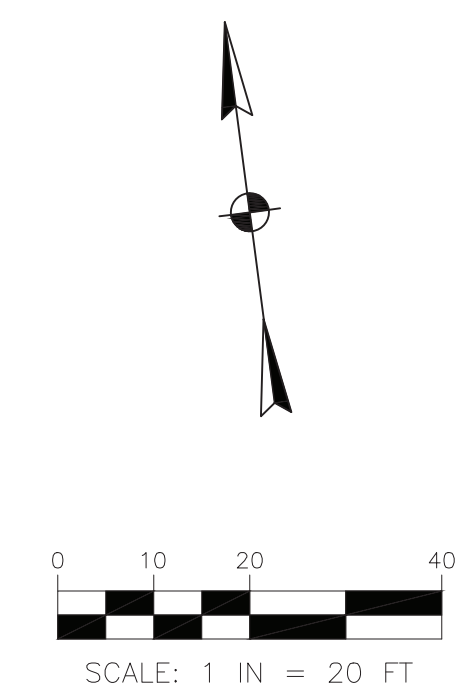
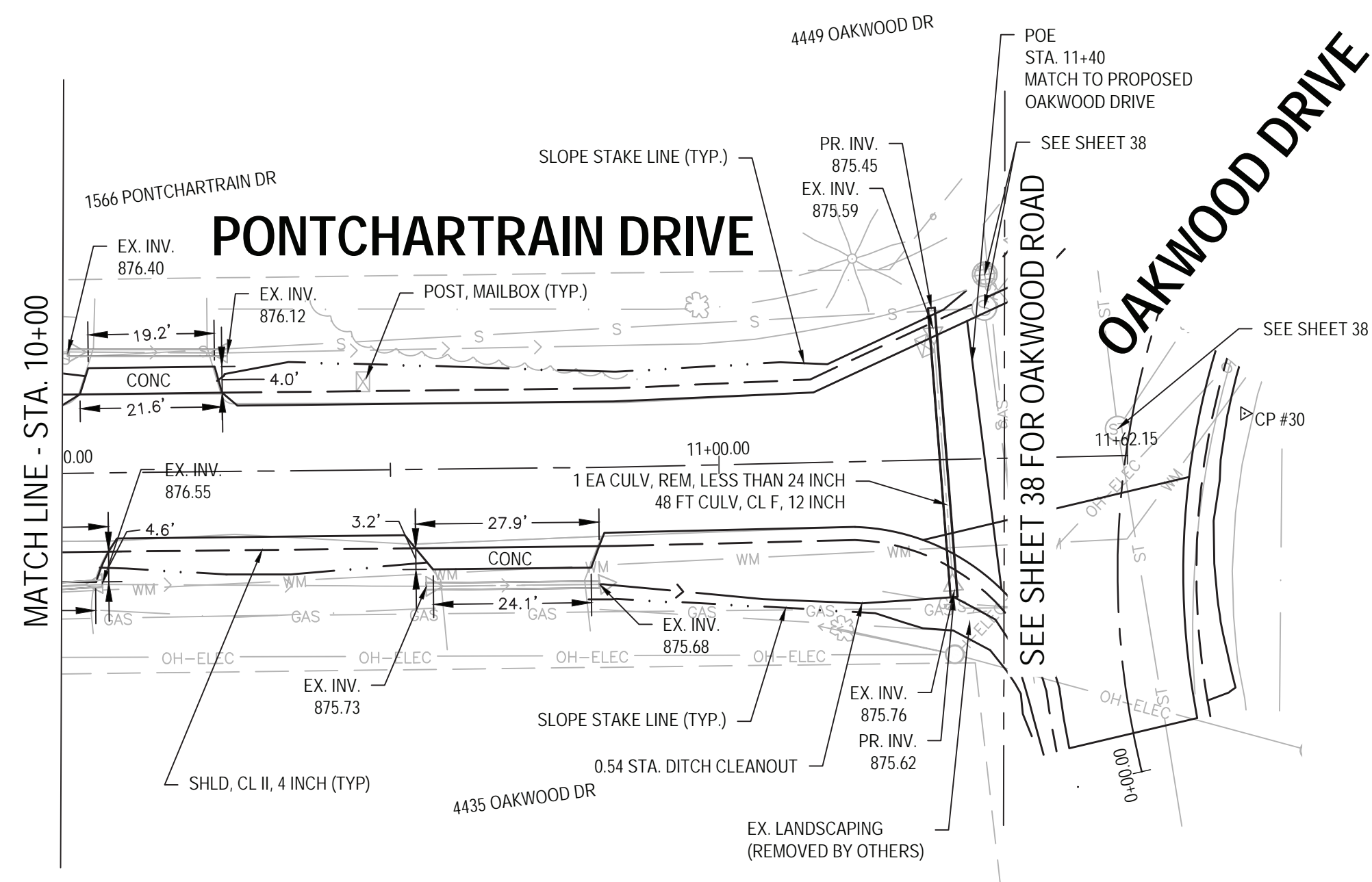
**MERIDIAN TOWNSHIP**  
EST. 1848

5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

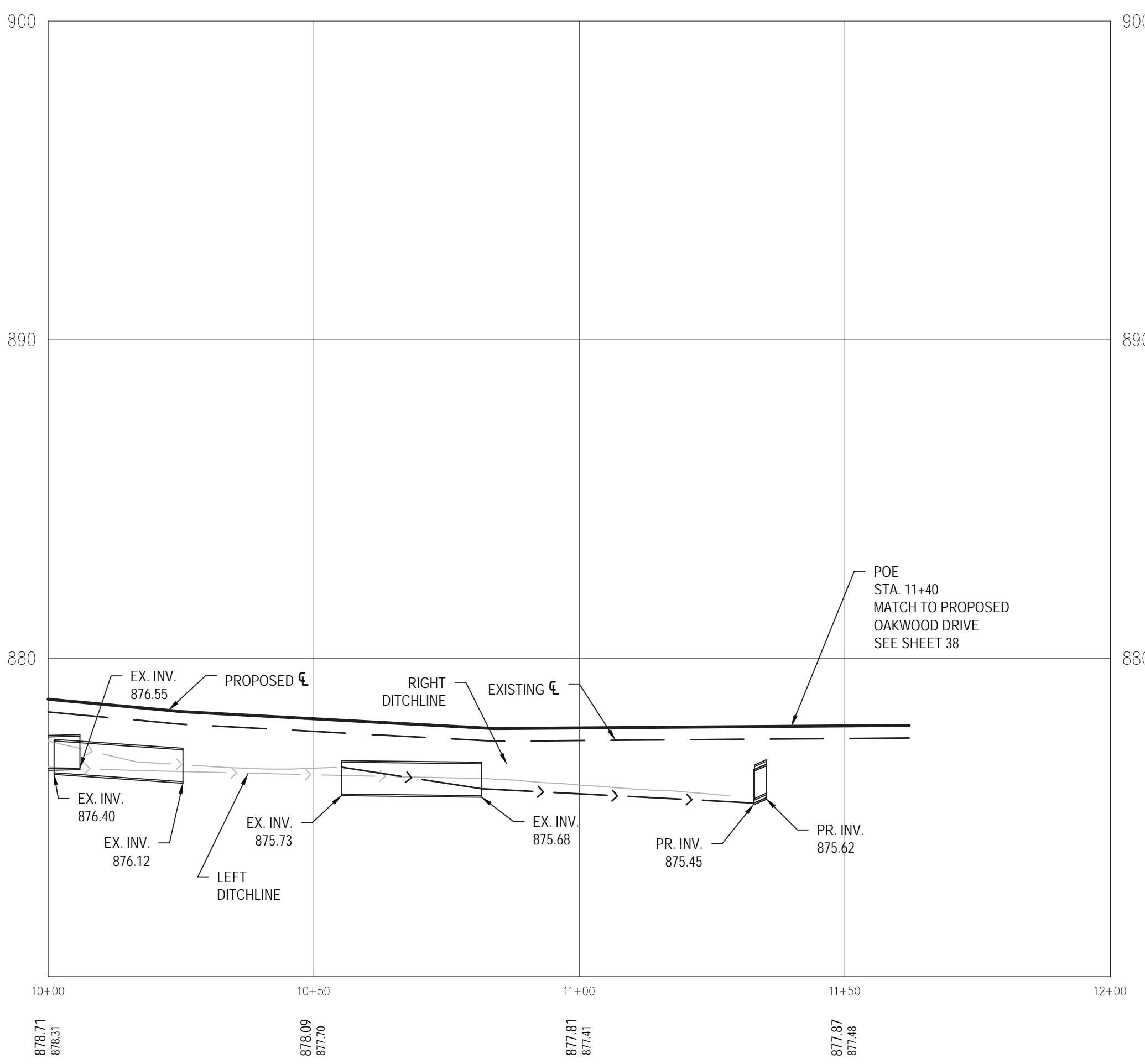
PONTCHARTRAIN DRIVE  
PLAN & PROFILE  
STA. 5+00 TO STA. 10+00





**CONTROL POINT #30**  
 ELEV. = 876.89  
 N = 441076.78  
 E = 13113169.14

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



W:\Projects\2023\20230110\20230110.dwg (Last Printed: 3/15/2023 10:09 AM)

US	DATE	BY	DESCRIPTION
REV. 1	3/22/23	ASML	TYP AND USRD COMMENTS: CHANGE REMOVED PER TYP
REV. 2	3/15/2023	ASML	REMOVE RD ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT DATE: 11/22/2022  
 PROJECT NO.: M150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

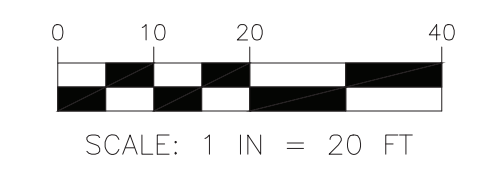
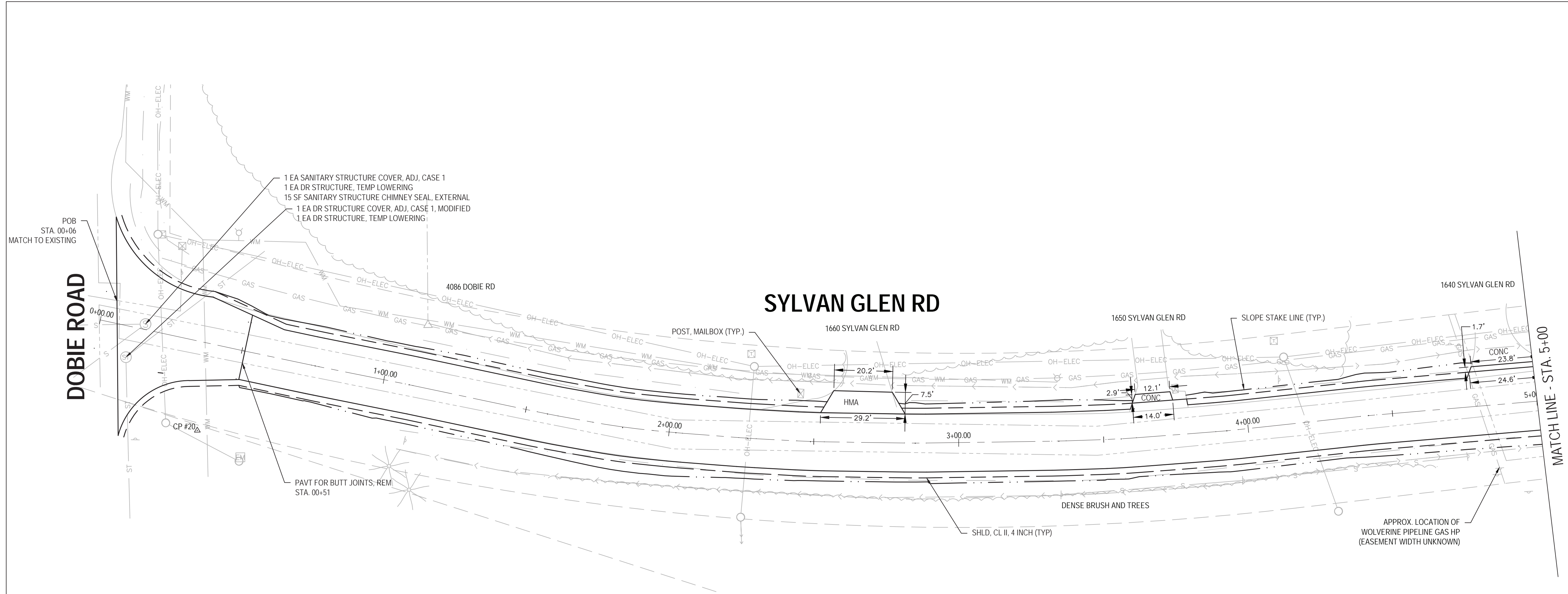
**Mannik Smith GROUP**  
 www.MannikSmithGroup.com

PREPARED FOR:  
  
 5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

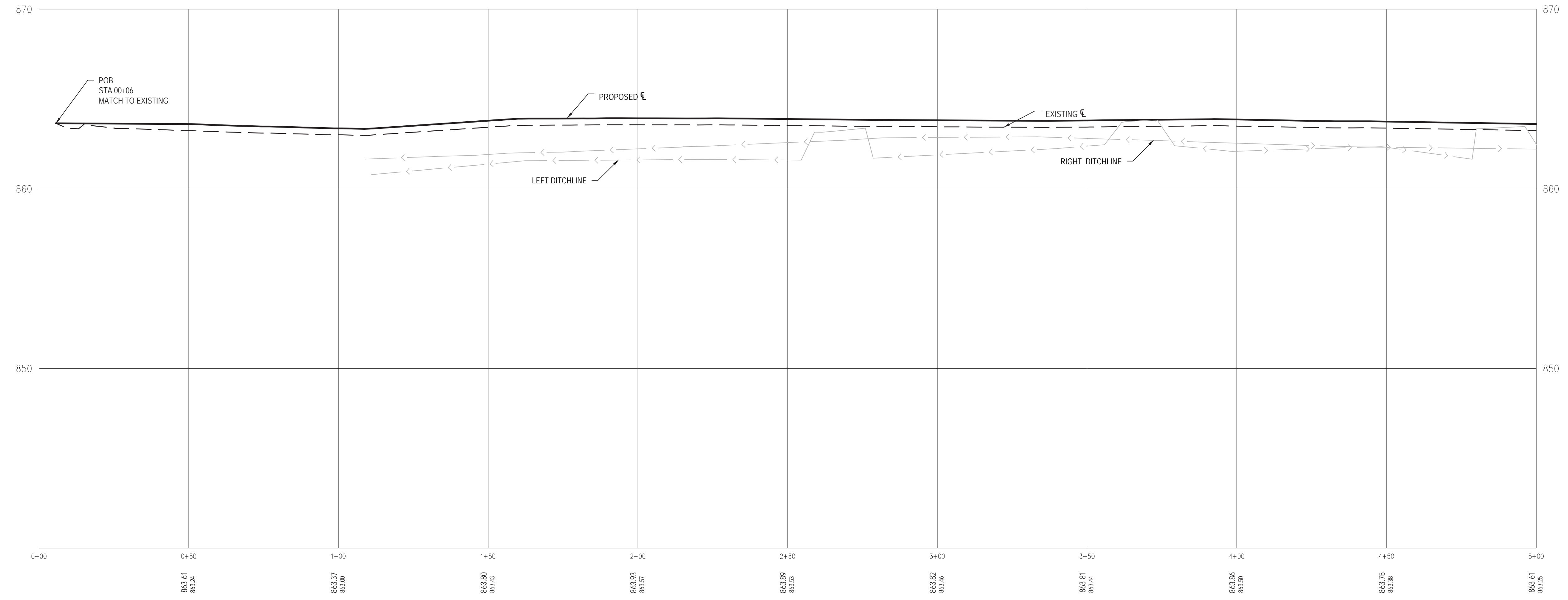
PONTCHARTRAIN DRIVE  
 PLAN & PROFILE  
 STA. 10+00 TO STA. 11+62

W:\Projects\2023\20230110\20230110\20230110\20230110.dwg, 1/11/2023 10:15 AM



**CONTROL POINT #20**  
 ELEV. = 864.65  
 N = 436858.03  
 E = 13111650.52

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



US	DATE	BY	DESCRIPTION
REV. 1	2/28/2023	ASML	TYP AND USRD COMMENTS: BRIDGE REMOVED PER TYP
REV. 2	3/15/2023	ASML	REMOVE BID ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.318.9233  
 FAX: 517.318.9233

PROJECT DATE: 12/6/2022  
 PROJECT NO.: M150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

**Mannik Smith GROUP**  
 www.MannikSmithGroup.com

TECHNICAL SKILL  
 CREATIVE SPIRIT

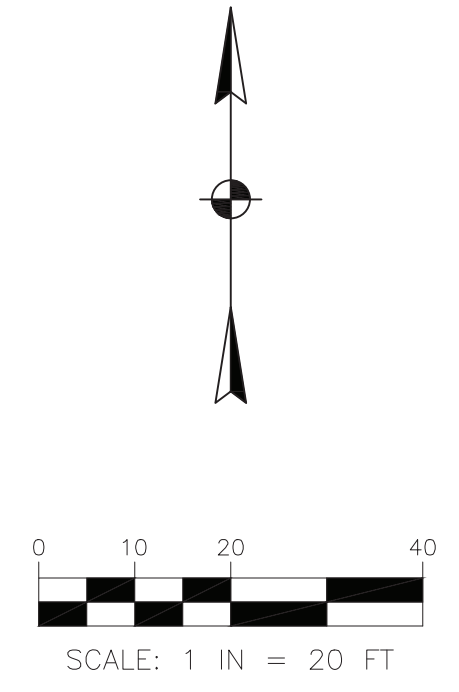
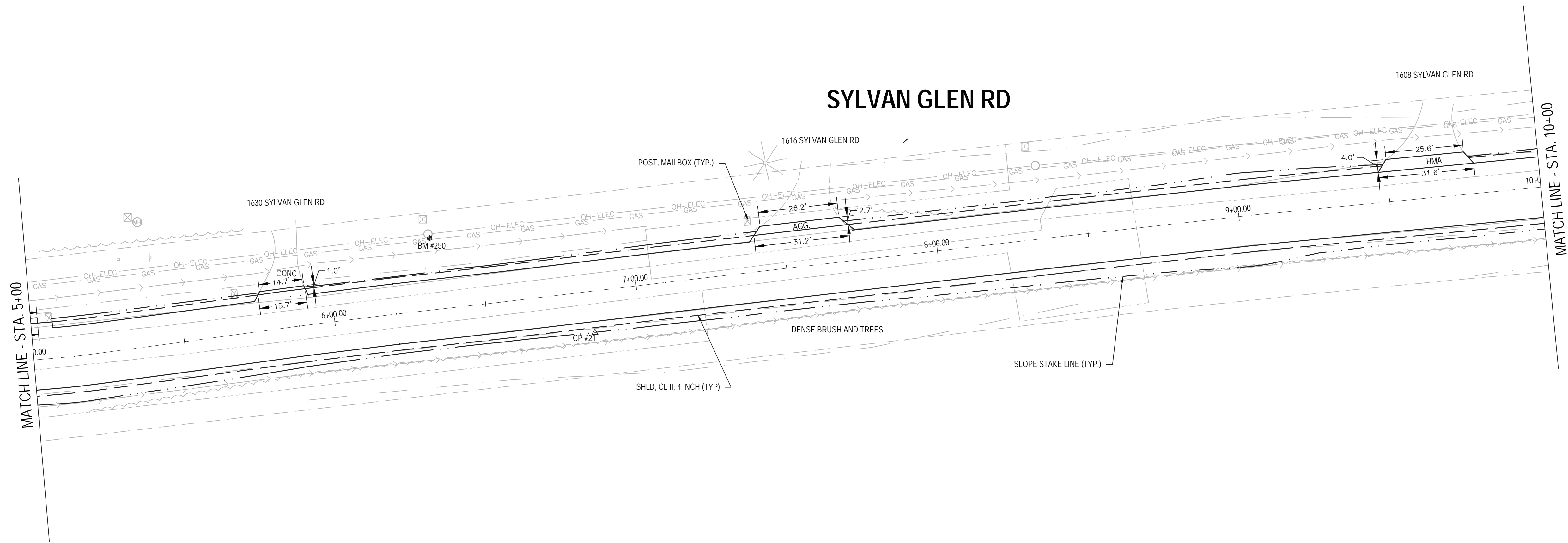
PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

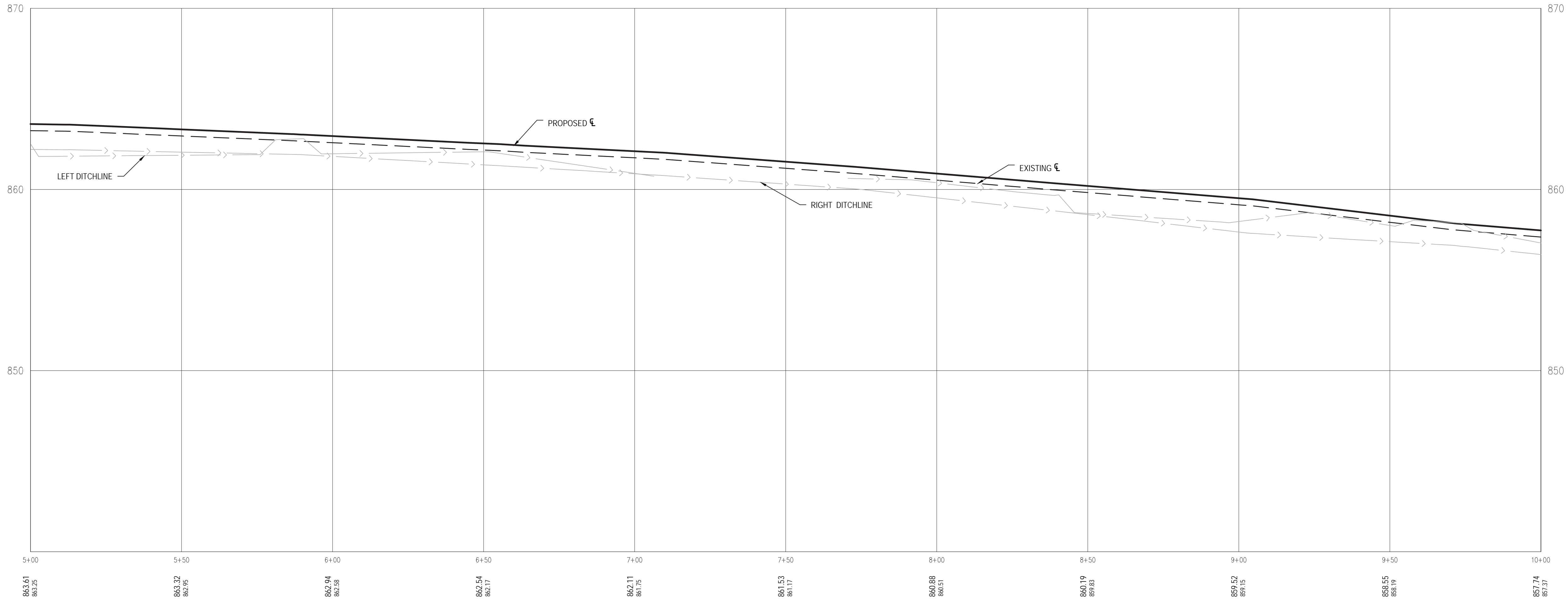
SYLVAN GLEN ROAD  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 5+00

# SYLVAN GLEN RD



<b>CONTROL POINT #21</b>
ELEV. = 861.40 N = 436871.39 E = 13112297.51
<b>BENCHMARK #250</b>
RR SPIKE S SIDE UP ELEV. = 862.95 N = 436903.78 E = 13112243.61

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



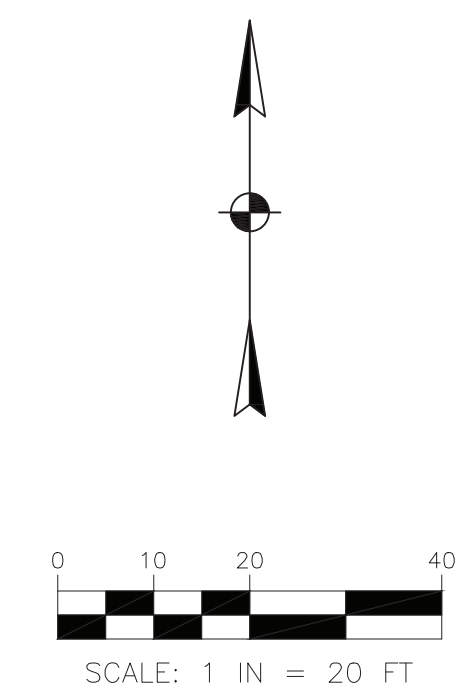
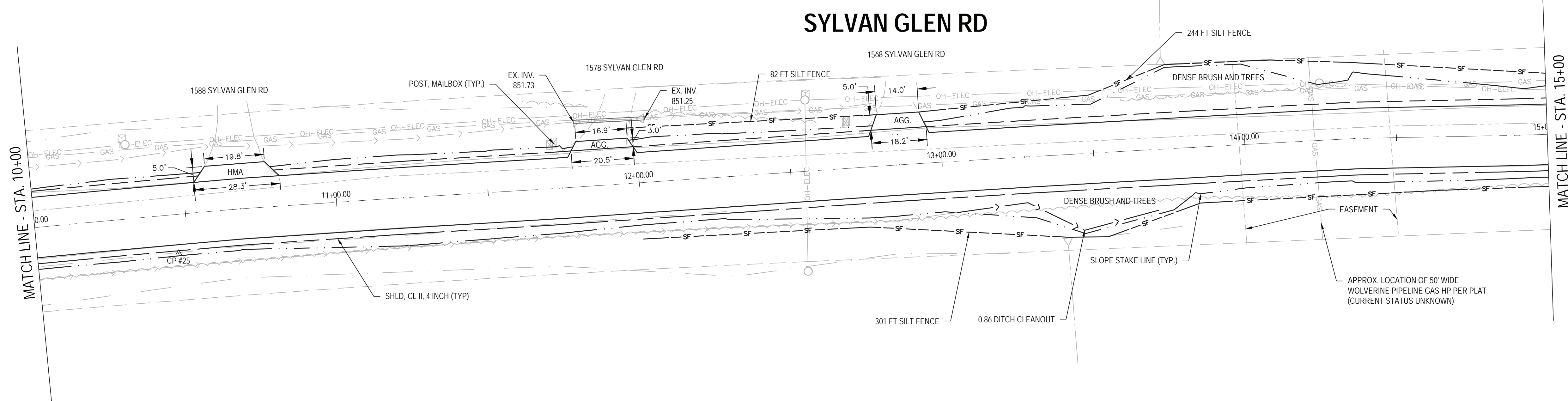
NO.	DATE	BY	DESCRIPTION
REV. 1	3/28/23	ASML	TYP AND USER COMMENTS CHANGE REMOVED PER TYP
REV. 2	3/15/23	ASML	REMOVE RD ALTERNATE

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517.316.9233  
FAX: 517.316.9233

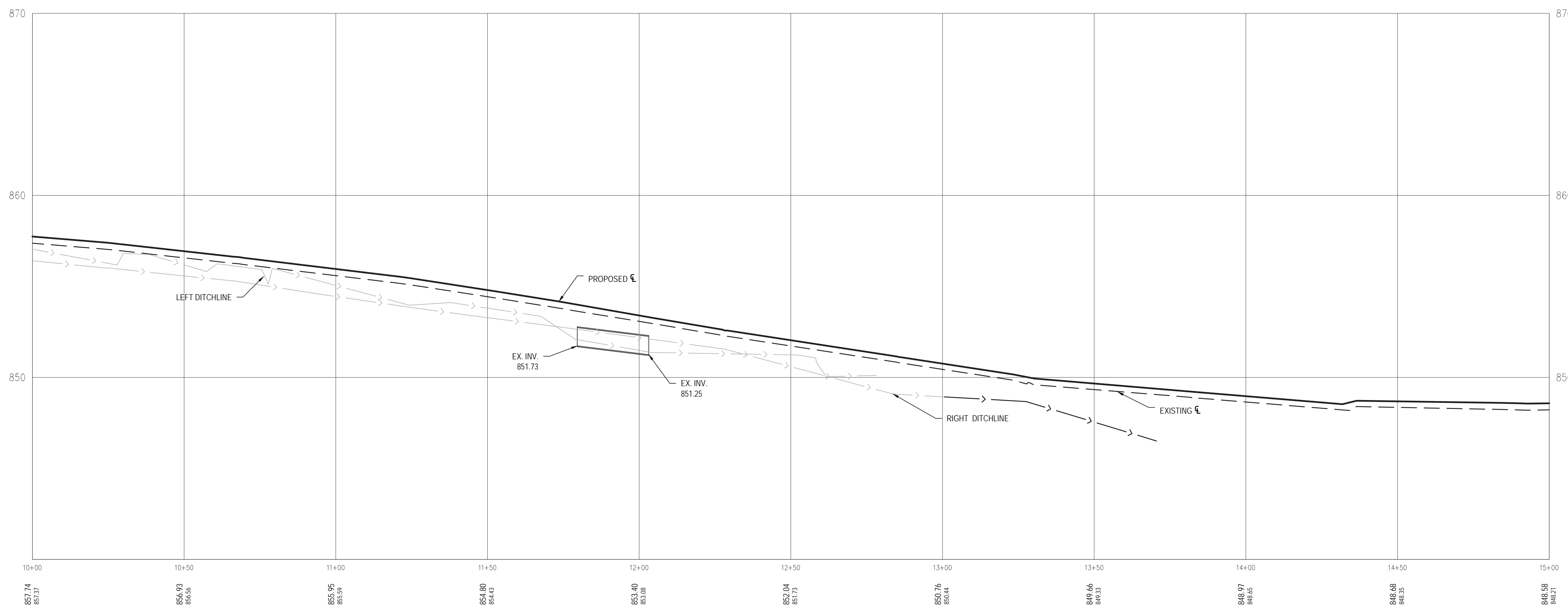


2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
PLAN & PROFILE  
STA. 5+00 TO STA. 10+00



**CONTROL POINT #25**  
 ELEV. = 856.14  
 N = 436907.86  
 E = 13112657.35



857.74 857.37	856.93 856.26	855.95 855.99	854.80 854.43	853.40 853.08	852.04 851.73	850.76 850.44	849.66 849.33	848.97 848.65	848.68 848.35	848.59 848.21
------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------

# SYLVAN GLEN RD

NO.	DATE	BY	DESCRIPTION
REV 1	3/22/23	ASML	TYP AND CORD COMMANDS CHANGE REMOVE PER TYP
REV 2	3/15/2023	ASML	REMOVE AND ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT DATE: 12/6/2022  
 PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

**TECHNICAL SKILL**  
**CREATIVE SPIRIT**

**Mannik Smith GROUP**  
 www.MannikSmithGroup.com

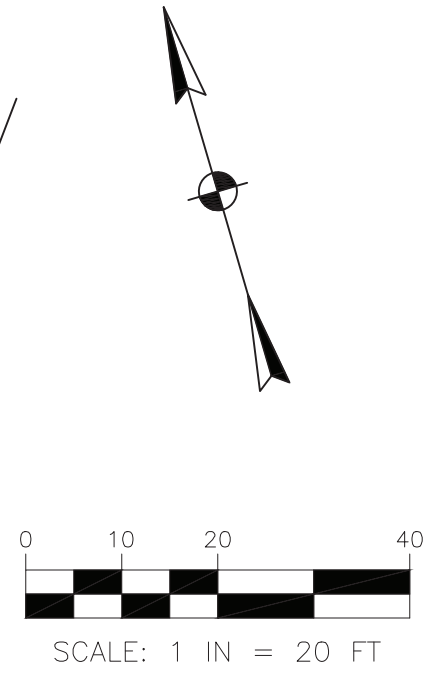
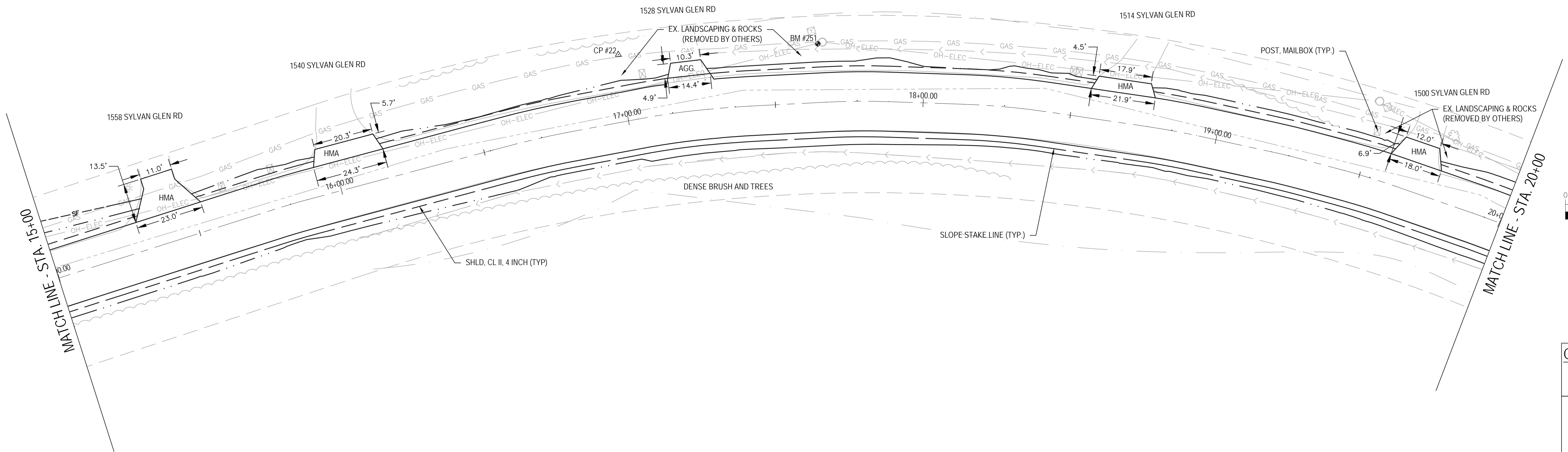
PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

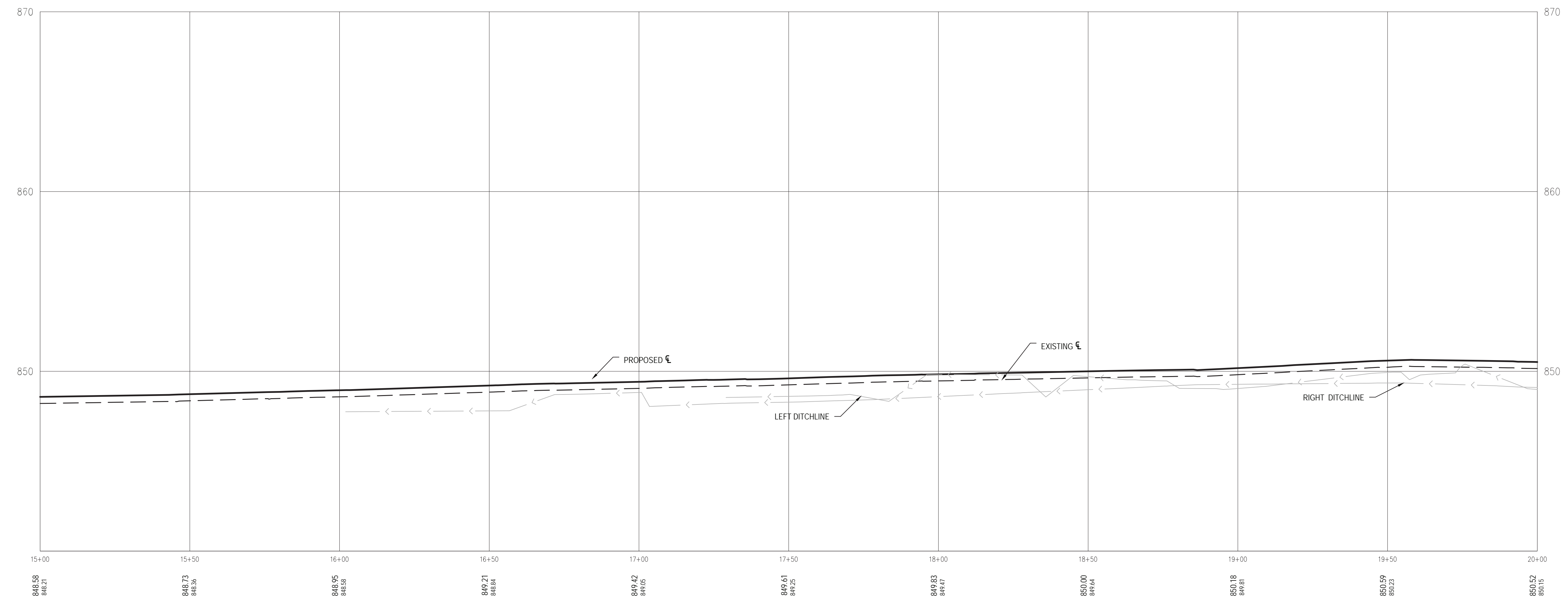
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
 PLAN & PROFILE  
 STA. 10+00 TO STA. 15+00

# SYLVAN GLEN RD



<b>CONTROL POINT #22</b>
ELEV. = 848.74 N = 436962.46 E = 1311331.74
<b>BENCHMARK #251</b>
RR SPIKE SW SIDE UP ELEV. = 849.66 N = 436947.36 E = 13113378.93



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NO.	DATE	DESCRIPTION
REV 1	3/22/2023	ASML
REV 2	3/15/2023	ASML

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517.316.9233  
FAX: 517.316.9233

PROJECT DATE: 12/6/2022  
PROJECT NO.: MA150015  
DRAWN BY: ASML  
CHECKED BY: CAV

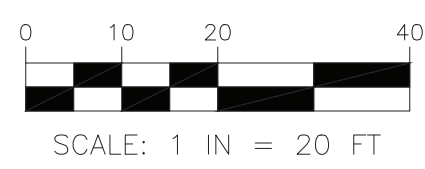
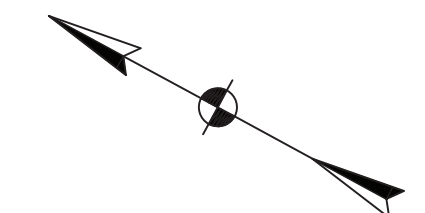
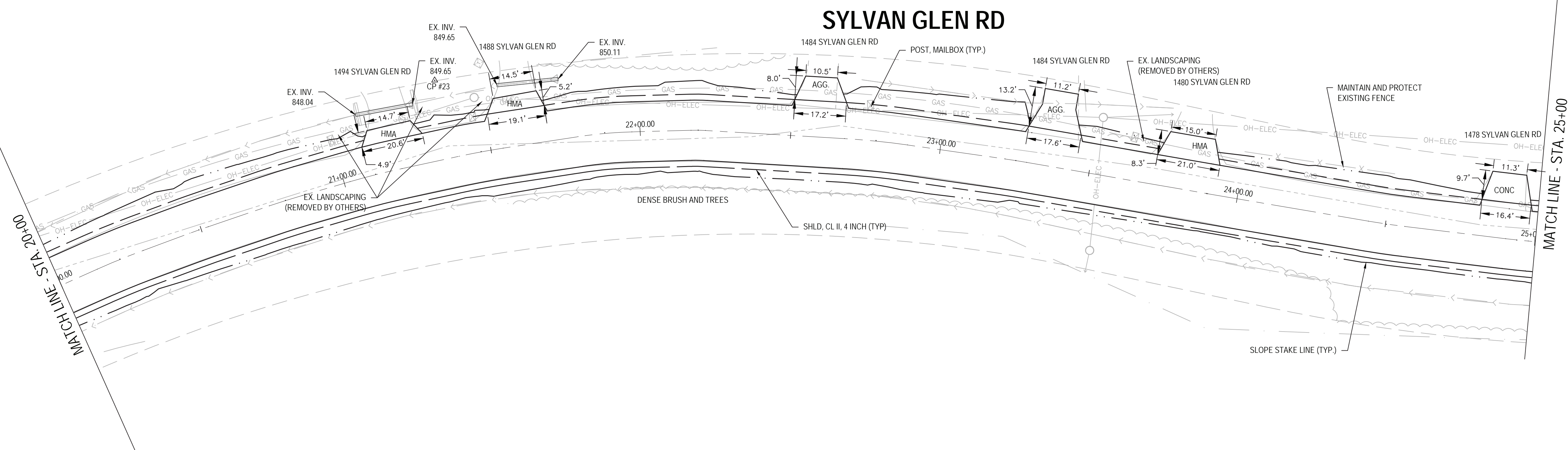
**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:

**MERIDIAN TOWNSHIP**  
5151 MARSH ROAD  
OKEMOS, MI 48864

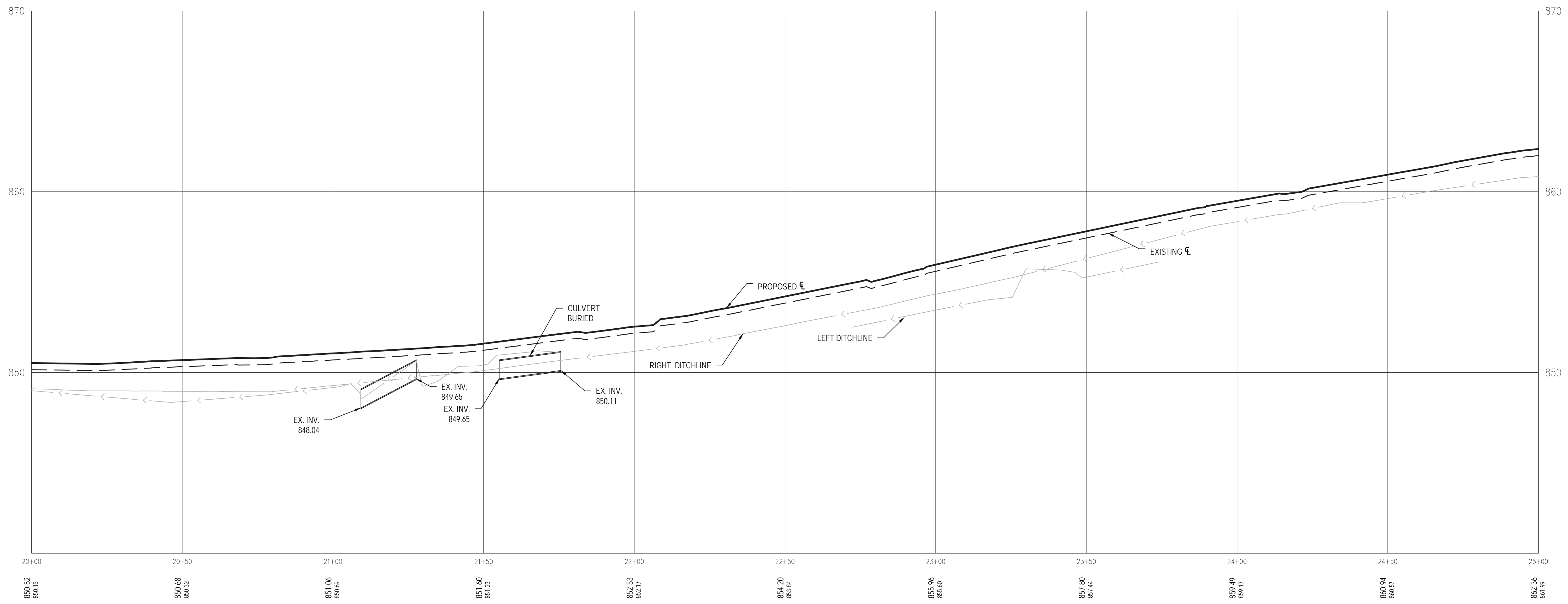
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
PLAN & PROFILE  
STA. 15+00 TO STA. 20+00



**CONTROL POINT #23**  
 ELEV. = 849.71  
 N = 436747.84  
 E = 13113700.95

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	BY	DESCRIPTION
REV. 1	3/20/2023	ASML	TYP AND CRED COMMONS
REV. 2	3/15/2023	ASML	REMOVE AND ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.318.9233  
 FAX: 517.318.9233

PROJECT DATE: 12/6/2022  
 PROJECT NO.: MA150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

TECHNICAL SKILL  
 CREATIVE SPIRIT.

www.MannikSmithGroup.com

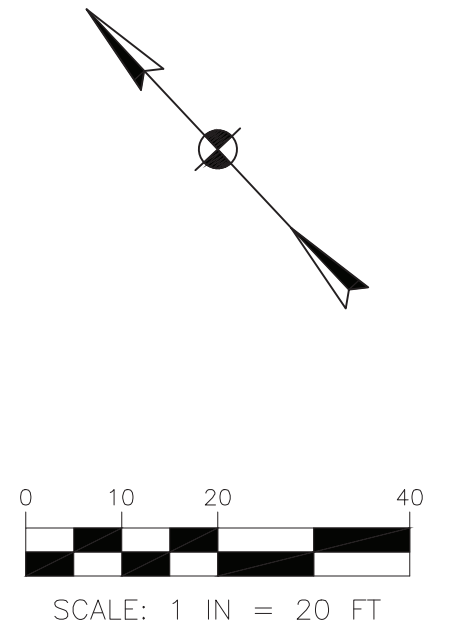
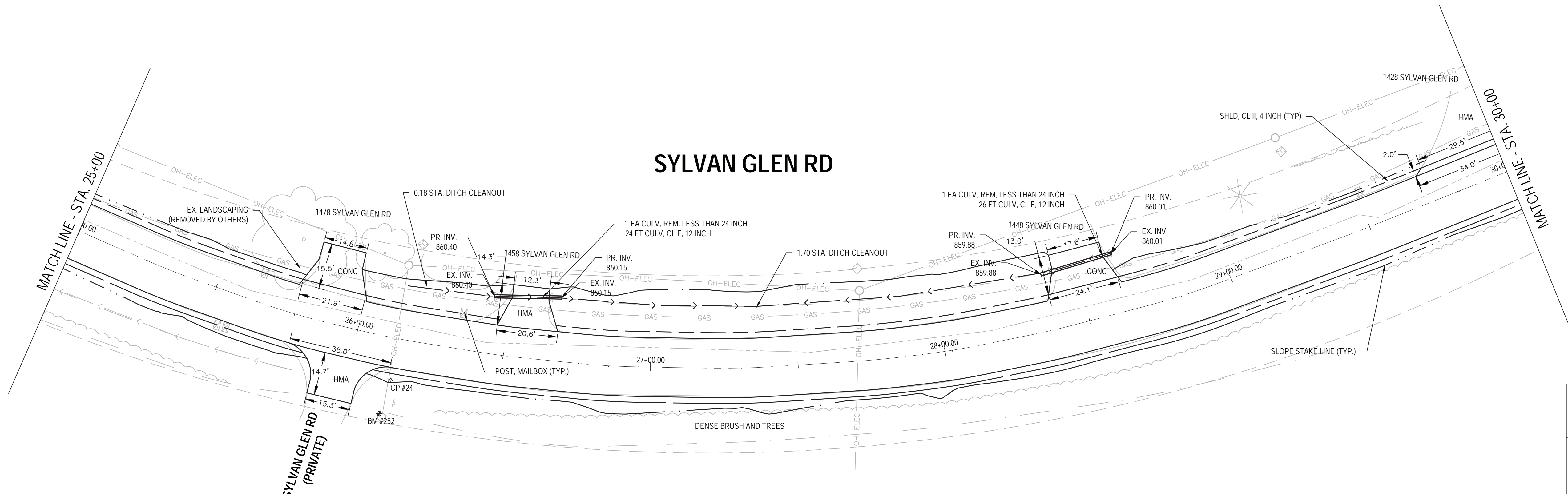
PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
 PLAN & PROFILE  
 STA. 20+00 TO STA. 25+00

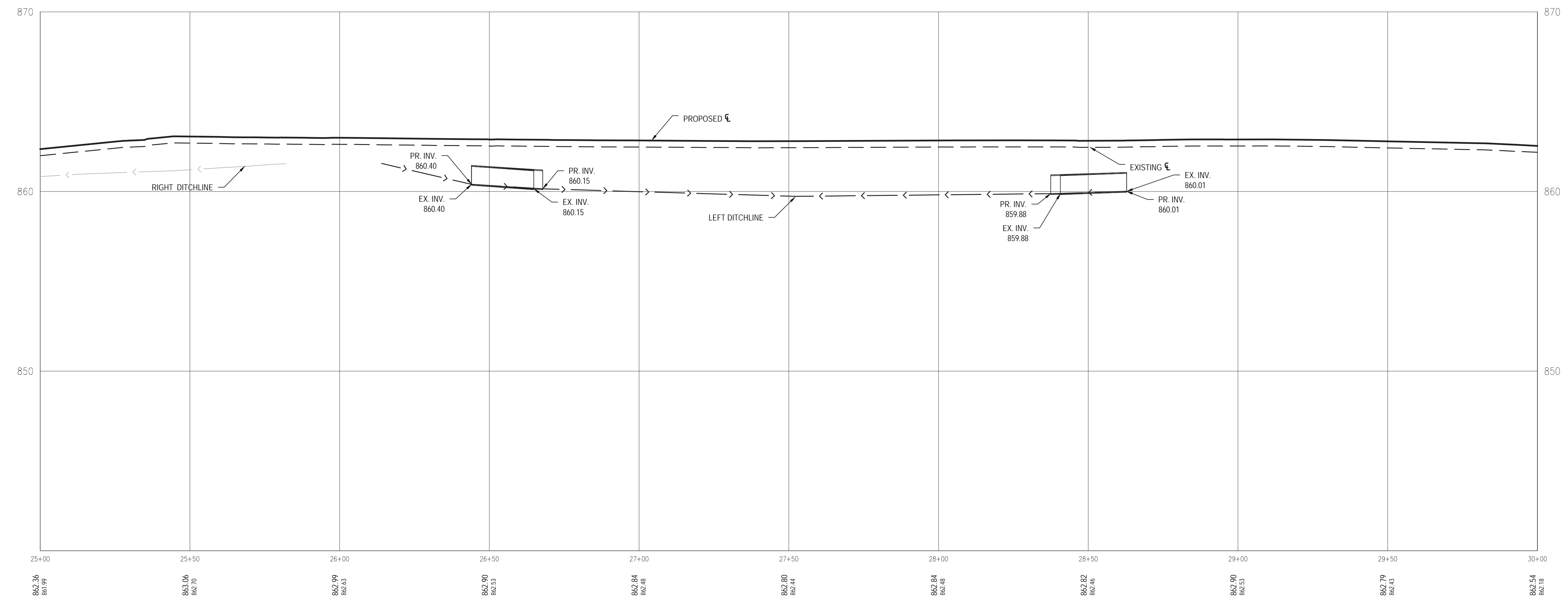
W:\Projects\2023\23001\23001.dwg, 3/15/2023 10:41 AM



**CONTROL POINT #24**  
 ELEV. = 861.65  
 N = 436291.73  
 E = 13113870.22

**BENCHMARK #252**  
 RR SPIKE NE SIDE UP  
 ELEV. = 863.17  
 N = 436284.93  
 E = 13113859.83

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	DESCRIPTION
REV 1	3/15/2023	ASML
REV 2	3/15/2023	ASML

BY: ASML

DATE: 3/15/2023

DESCRIPTION: TYP AND CORD COMMA'S CHANGE REMOVE ND ALTERNATE REMOVE ND ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT DATE: 12/6/2022  
 PROJECT NO.: MM150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

**Mannik Smith GROUP**  
 TECHNICAL SKILL  
 CREATIVE SPIRIT  
 www.MannikSmithGroup.com

PREPARED FOR:

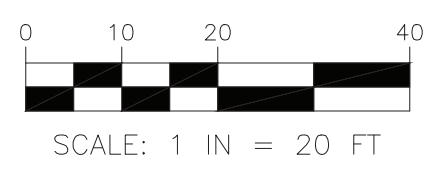
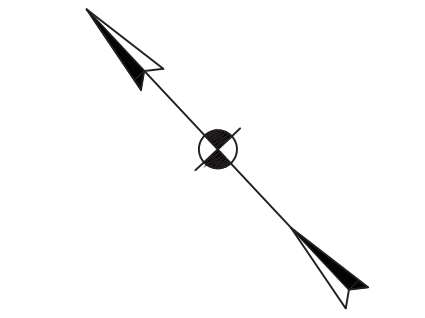
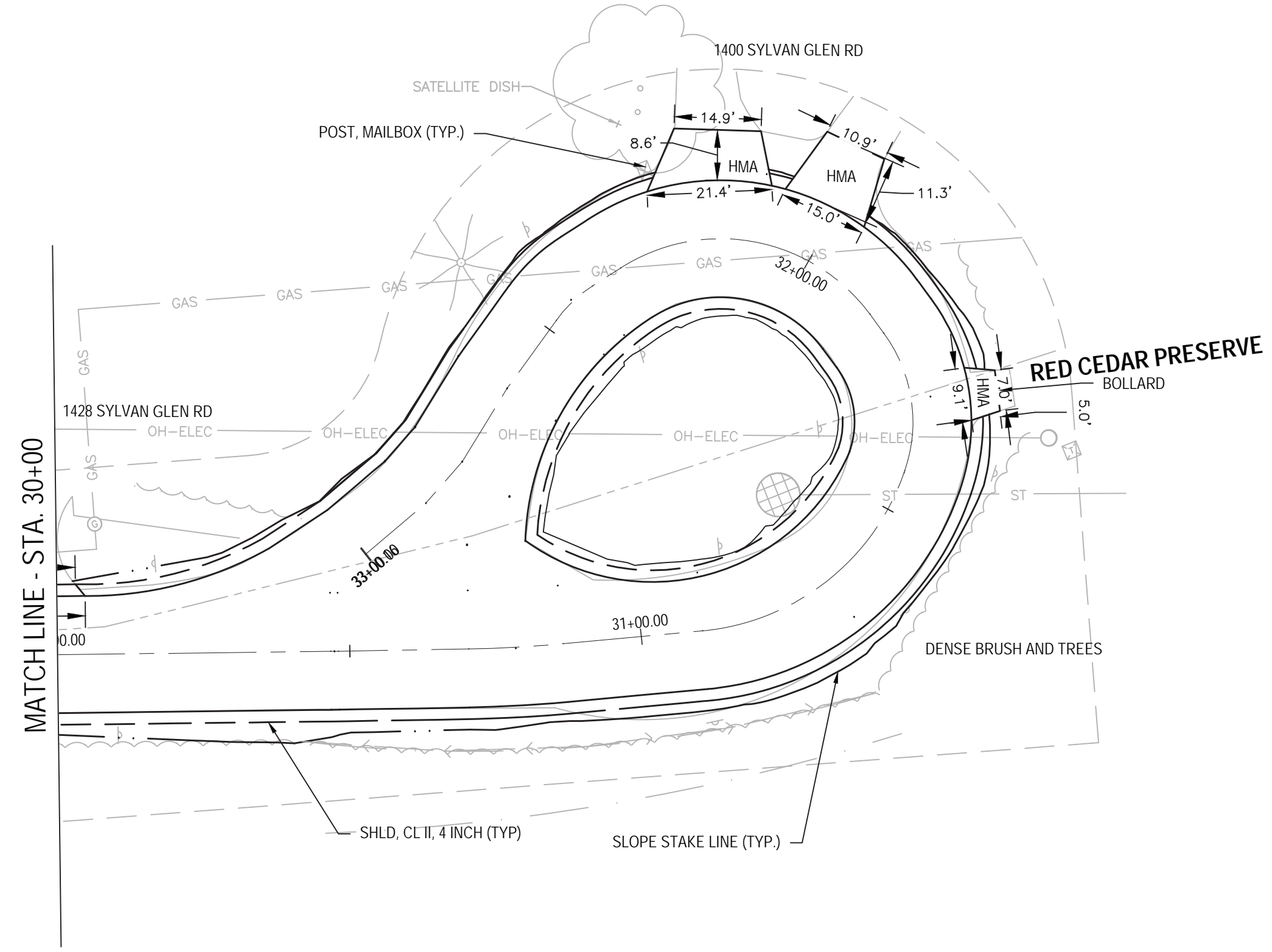
**MERIDIAN TOWNSHIP**  
 EST. 1848

5151 MARSH ROAD  
 OKEMOS, MI 48864

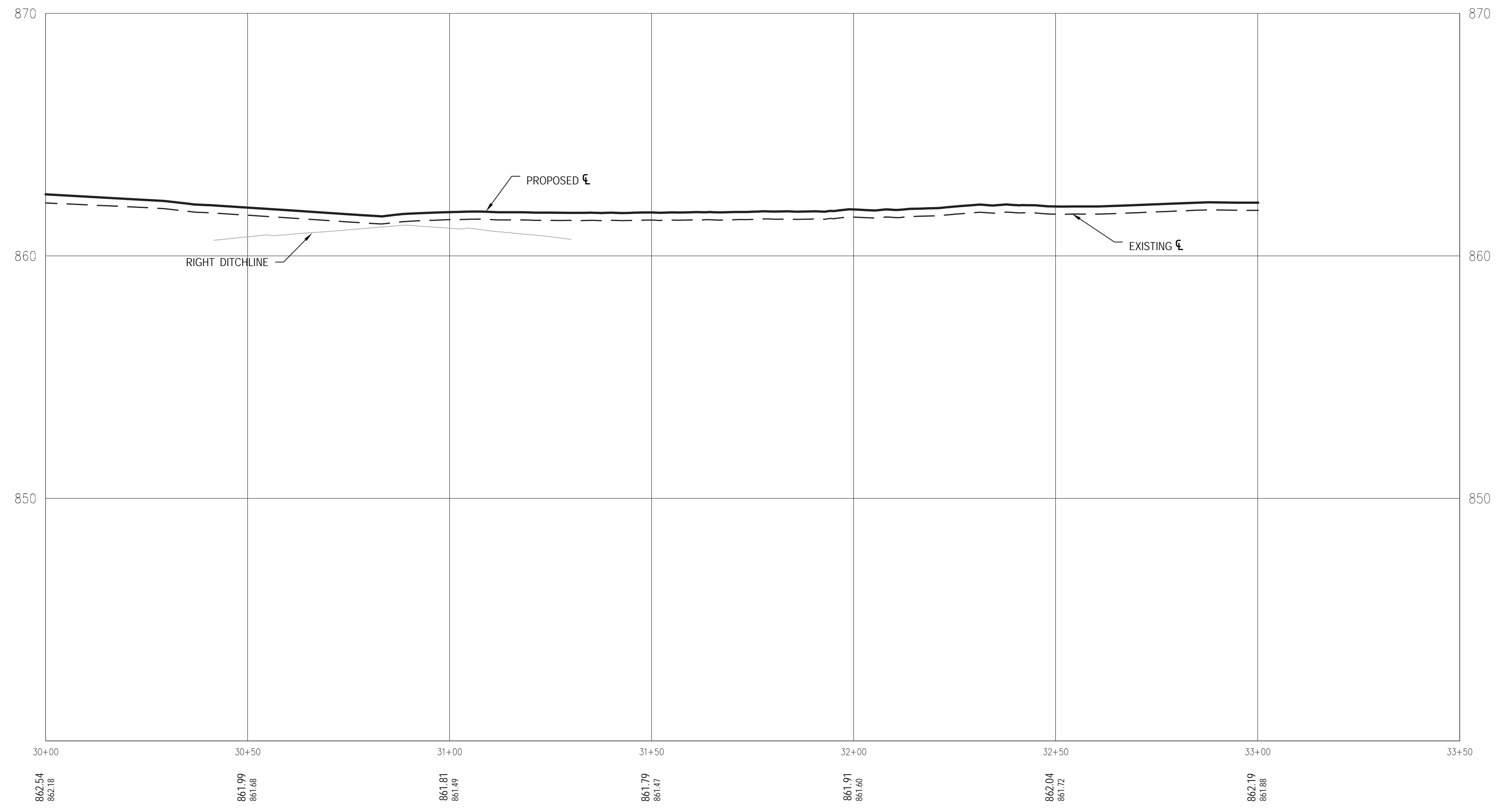
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
 PLAN & PROFILE  
 STA. 25+00 TO STA. 30+00

# SYLVAN GLEN RD



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



DATE	DESCRIPTION
3/15/2023	ASML
3/15/2023	ASML

BY	DATE	DESCRIPTION
ASML	3/15/2023	TYP AND CORD COMMONS PACKAGE REMOVED PER TYP
ASML	3/15/2023	REMOVE AND ALTERNATE

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.318.9233 FAX: 517.318.9233	PROJECT DATE: 12/6/2022	PROJECT NO.: M150015	DRAWN BY: ASML	CHECKED BY: CAV
---	-------------------------	----------------------	----------------	-----------------

TECHNICAL SKILL:  
CREATIVE SPIRIT.

www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI 48864

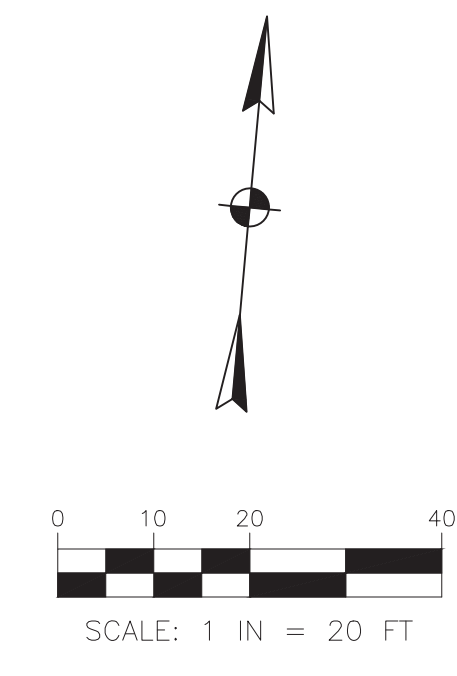
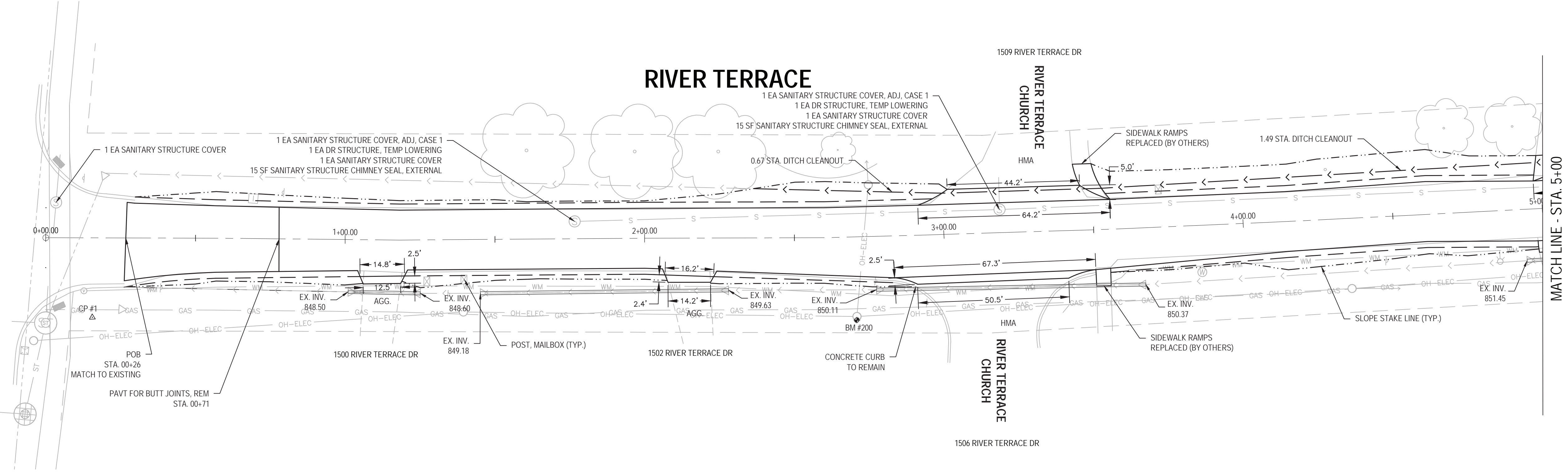
2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

SYLVAN GLEN ROAD  
PLAN & PROFILE  
STA. 30+00 TO STA. 33+00

W:\Projects\2023\20230315\20230315\_SylvanGlen\_Plan\_Profile.dwg, 1:14:11 PM 3/15/2023 10:48 AM



HAGADORN ROAD

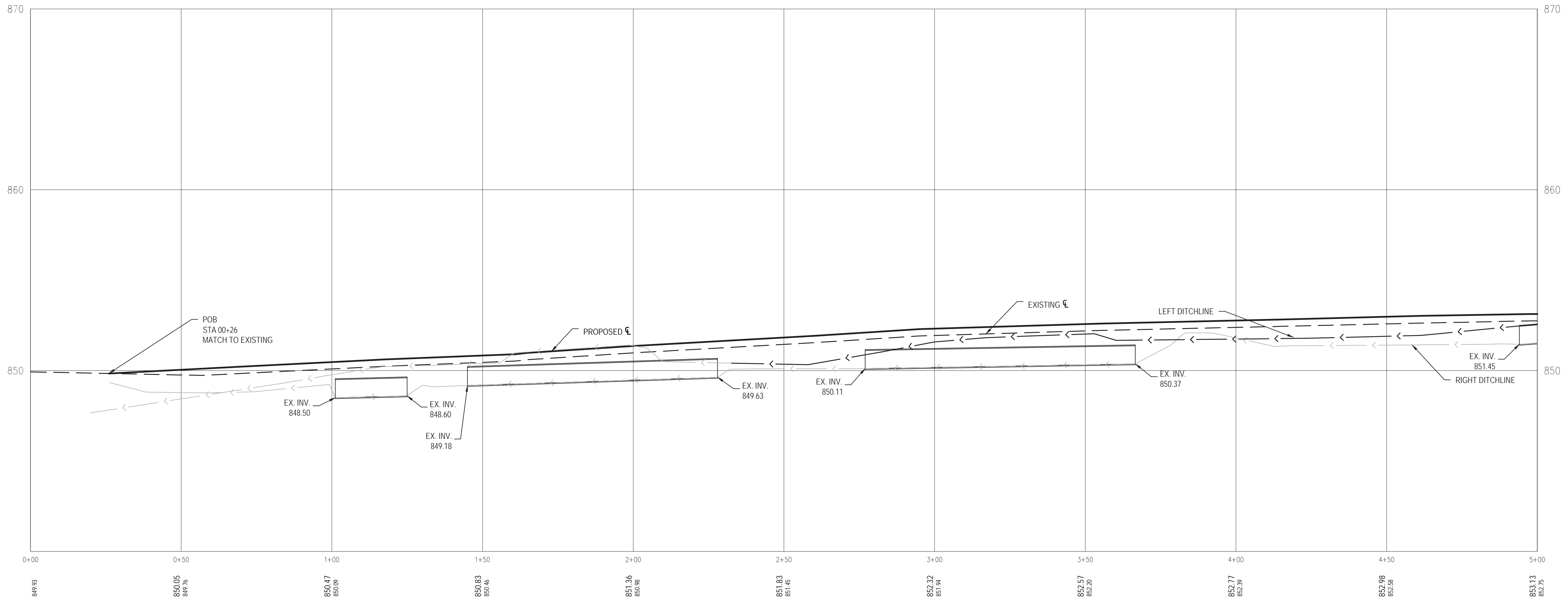


**CONTROL POINT #1**  
 ELEV. = 849.60  
 N = 445532.55  
 E = 13097758.26

**BENCHMARK #200**  
 BENCH TIE IN S SIDE UP  
 ELEV. = 852.41  
 N = 445554.29  
 E = 13098013.35

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NOTE: NO EXISTING DITCHLINE NOTED BY SURVEY.



NO.	DATE	DESCRIPTION
REV 1	3/20/23	AS/ML
REV 2	3/15/2023	AS/ML

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2022  
 DRAWN BY: AS/ML  
 CHECKED BY: CAV

**TECHNICAL SKILL:  
 CREATIVE SPIRIT.**

**Mannik  
 Smith  
 GROUP**  
 www.MannikSmithGroup.com

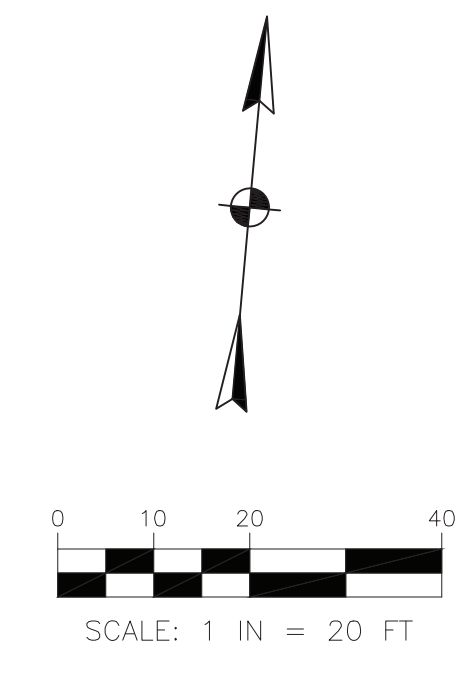
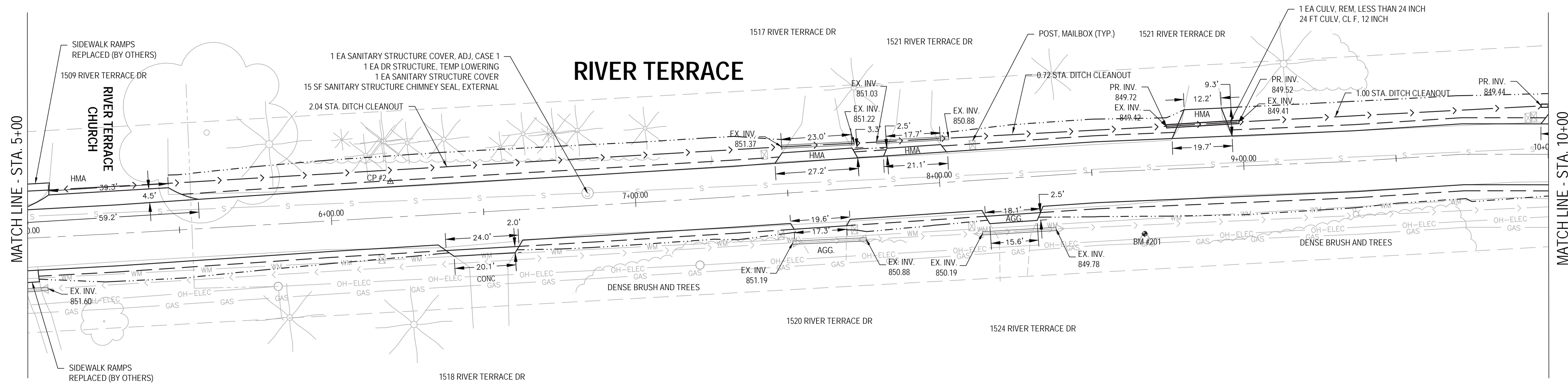
PREPARED FOR:

**MERIDIAN  
 TOWNSHIP**

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

RIVER TERRACE  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 5+00

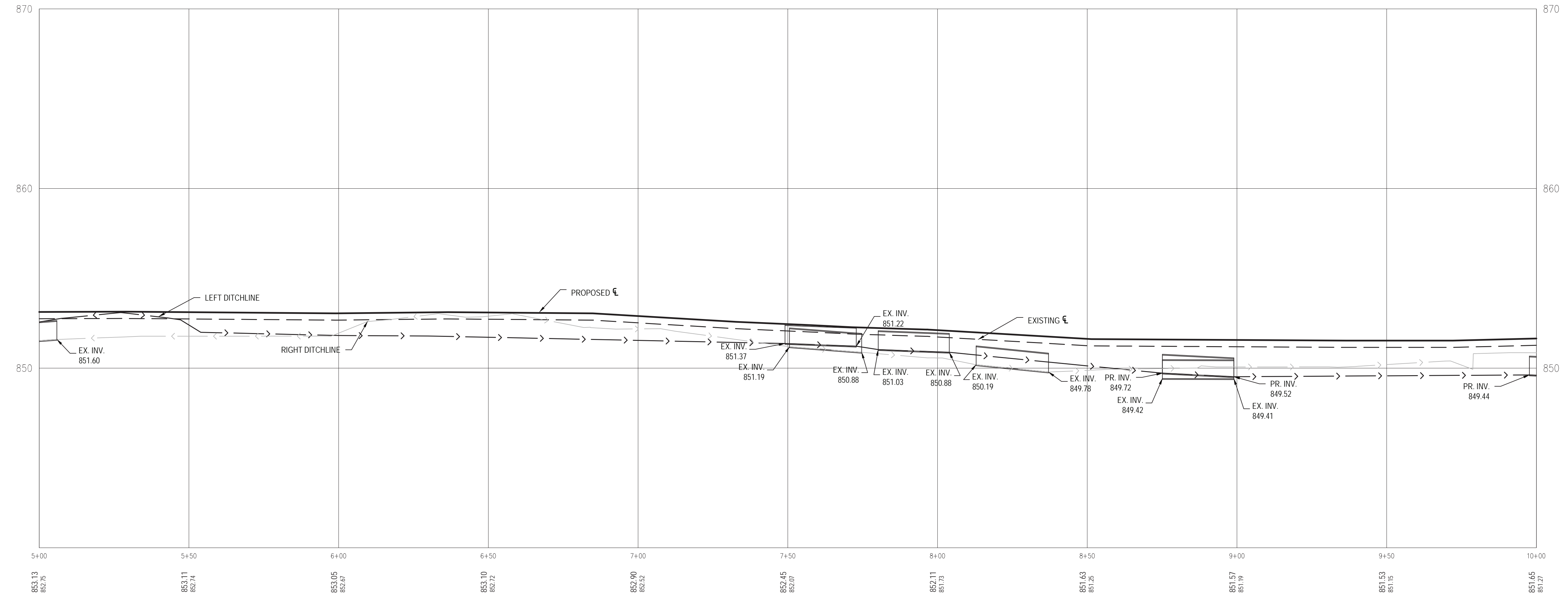


**CONTROL POINT #2**  
 ELEV. = 852.53  
 N = 445639.53  
 E = 13098354.71

**BENCHMARK #201**  
 BENCH TIE N SIDE UP  
 ELEV. = 851.74  
 N = 445642.70  
 E = 13098603.50

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NOTE: NO EXISTING DITCHLINE NOTED BY SURVEY.



NO.	DATE	BY	DESCRIPTION
REV 1	2/28/23	ASML	TYP AND CORD. COMMENTS AND CHANGE REMOVED PER TYP
REV 2	3/15/2023	ASML	REMOVE B.O. ALTERNATE

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2022  
 DRAWN BY: ASML  
 CHECKED BY: CAV

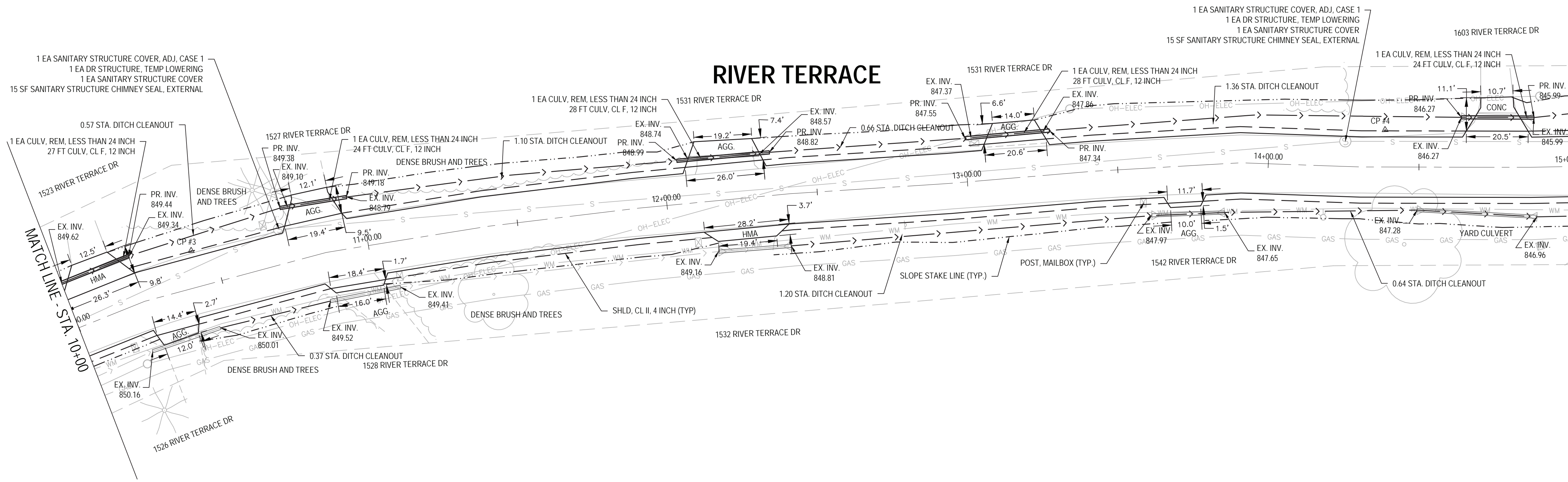
**TECHNICAL SKILL  
 CREATIVE SPIRIT.**

**Mannik  
 Smith  
 GROUP**  
 www.MannikSmithGroup.com

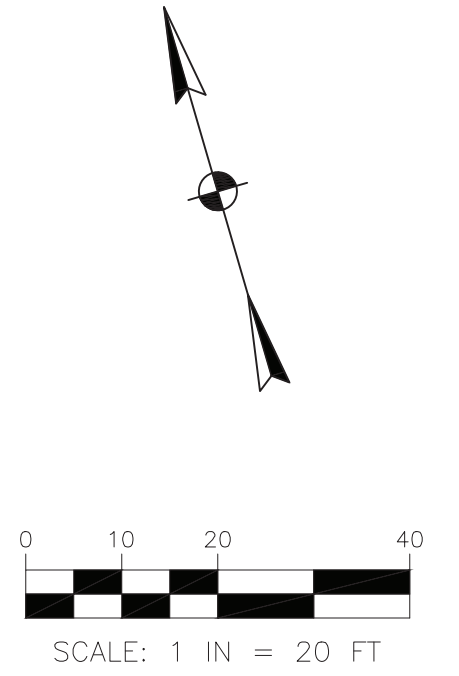


2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

RIVER TERRACE  
 PLAN & PROFILE  
 STA. 5+00 TO STA. 10+00



MATCH LINE - STA. 15+00

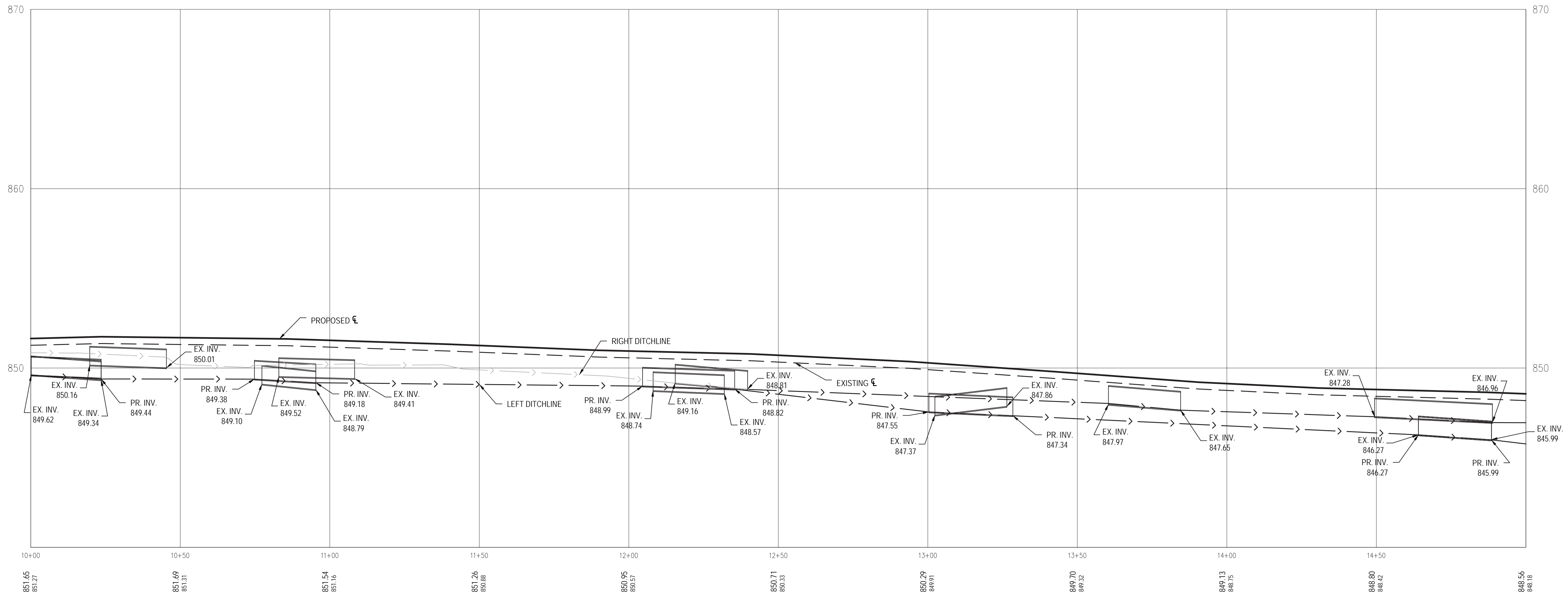


CONTROL POINT #3

ELEV. = 850.91  
N = 445694.54  
E = 13098775.31

CONTROL POINT #4

ELEV. = 847.84  
N = 445617.63  
E = 13099166.07



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NOTE: NO EXISTING DITCHLINE NOTED BY SURVEY.

www.manick-smith.com (888)525-2211 (MI) (517)511-3000 (MI)

NO.	DATE	BY	DESCRIPTION
REV 1	3/28/23	ASML	TYP AND DESCR COMMENTS
REV 2	3/15/23	ASML	REMOVE AND ALTERNATE

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517-511-3000  
FAX: 517-511-3003

PROJECT NO.: MM50015  
PROJECT DATE: 11/22/2022  
DRAWN BY: ASML  
CHECKED BY: CAV

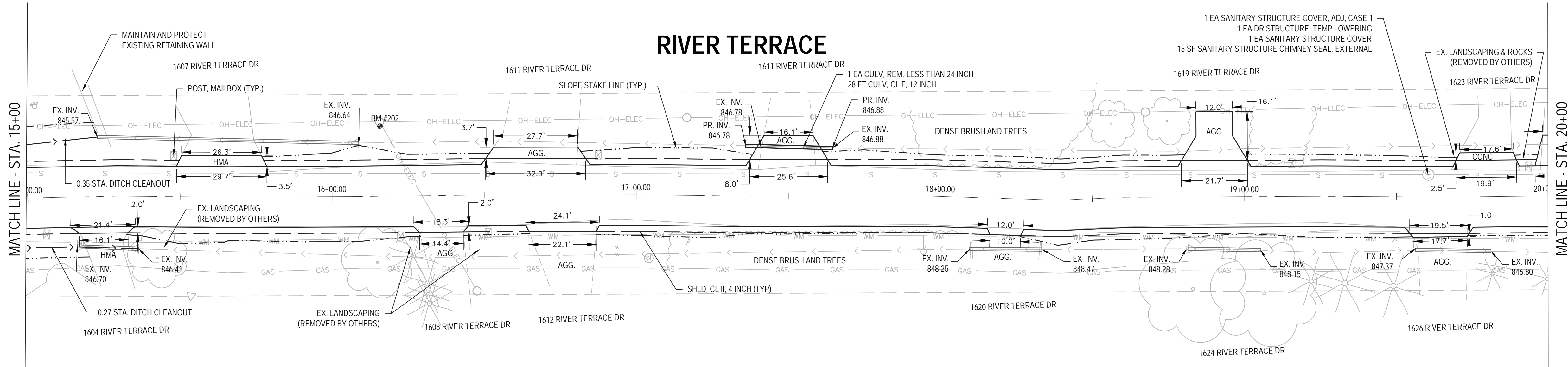
TECHNICAL SKILL  
CREATIVE SPIRIT

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

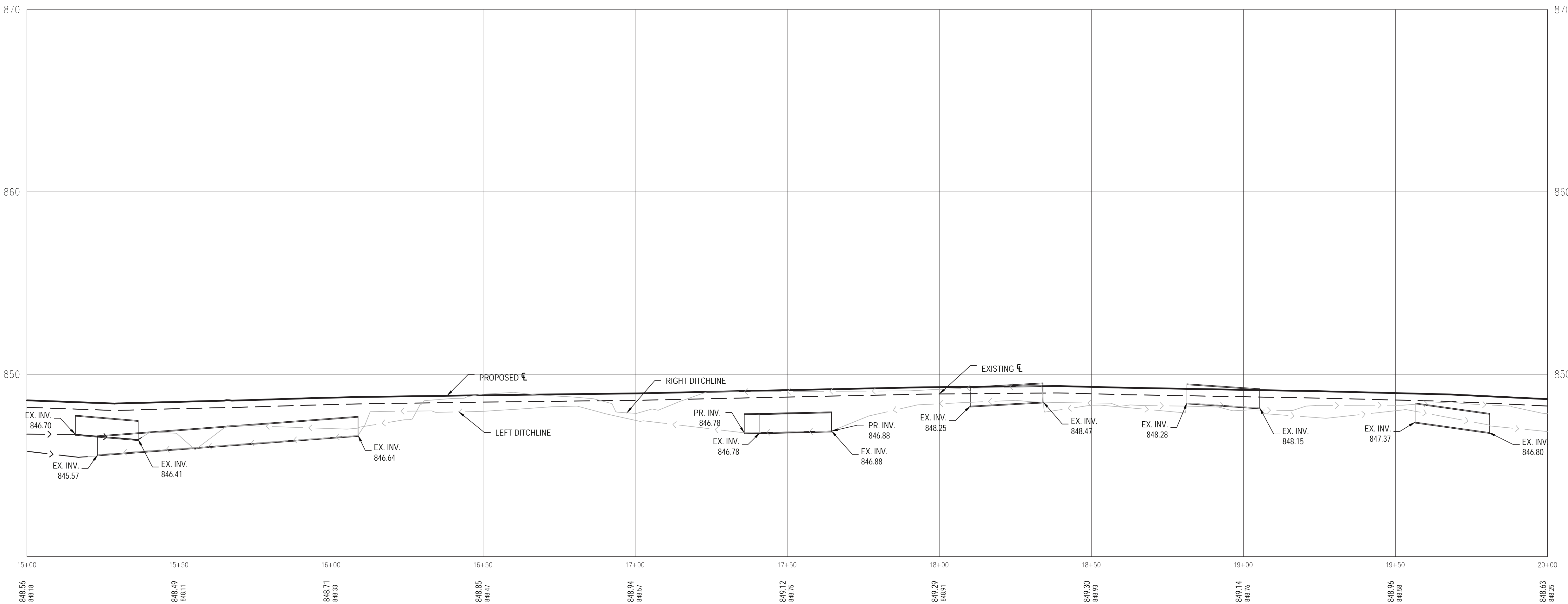
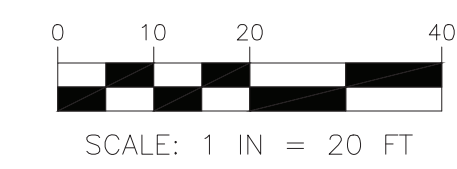
PREPARED FOR:  
**MERIDIAN TOWNSHIP**  
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

RIVER TERRACE  
PLAN & PROFILE  
STA. 10+00 TO STA. 15+00



**BENCHMARK #202**  
 BENCH TIE S SIDE UP  
 ELEV. = 848.42  
 N = 445578.01  
 E = 13099339.37



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.  
 NOTE: NO EXISTING DITCHLINE NOTED BY SURVEY.

NO.	DATE	DESCRIPTION
REV 1	3/28/23	ASML
REV 2	3/15/2023	ASML

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT DATE: 11/22/2022  
 PROJECT NO.: MA150015  
 DRAWN BY: ASML  
 CHECKED BY: CAV

**TECHNICAL SKILL**  
**CREATIVE SPIRIT**

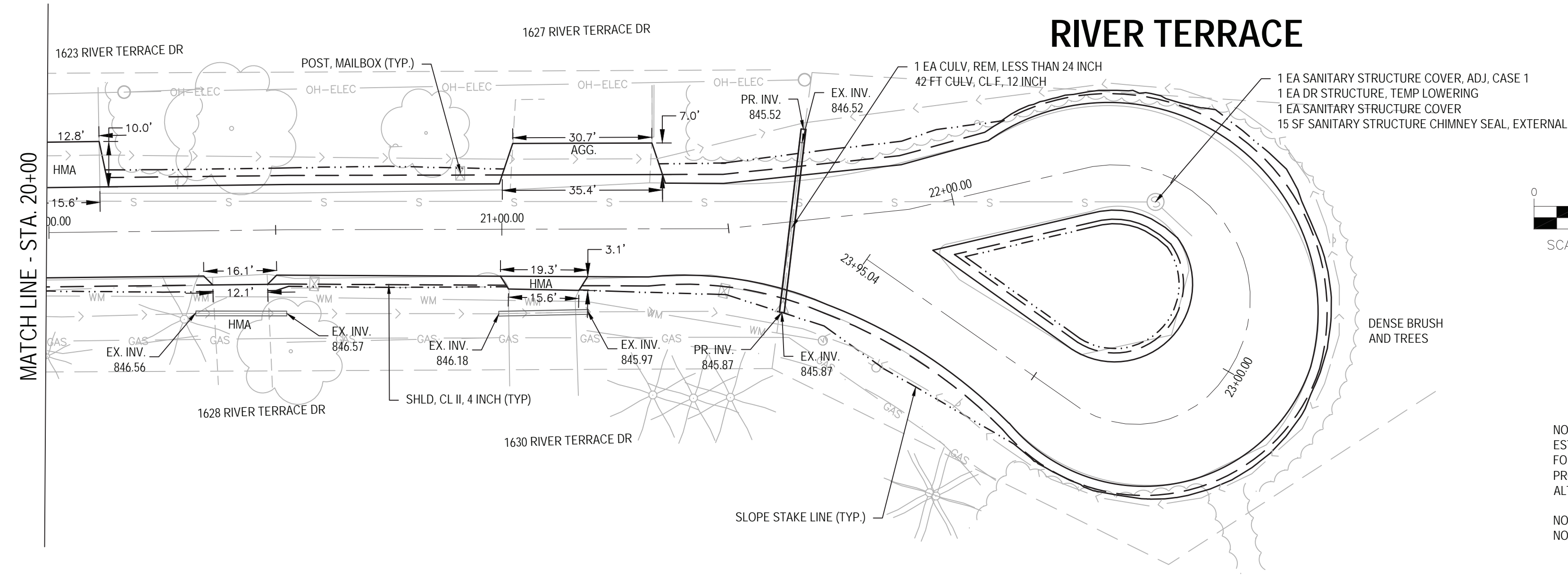
www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

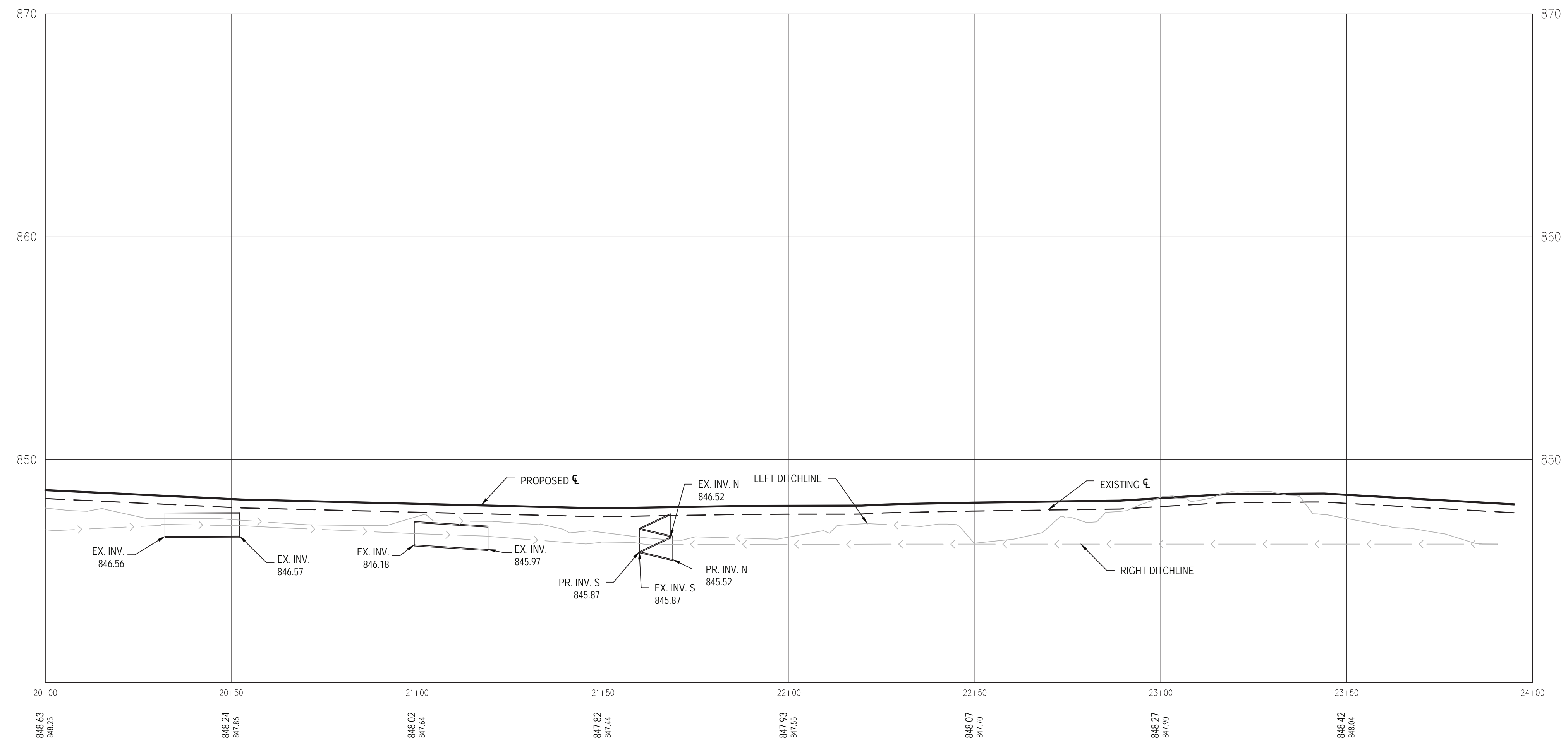
2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

RIVER TERRACE  
 PLAN & PROFILE  
 STA. 15+00 TO STA. 20+00



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

NOTE: NO EXISTING DITCHLINE NOTED BY SURVEY.



US	DATE	DESCRIPTION
REV. 1	3/22/23	BY: ASML
REV. 2	3/15/2023	ASML

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.316.9233 FAX: 517.316.9233	PROJECT DATE: 11/22/2022	PROJECT NO.: M150015	DRAWN BY: ASML	CHECKED BY: CAV
---	--------------------------	----------------------	----------------	-----------------

TECHNICAL SKILL  
CREATIVE SPIRIT.

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:

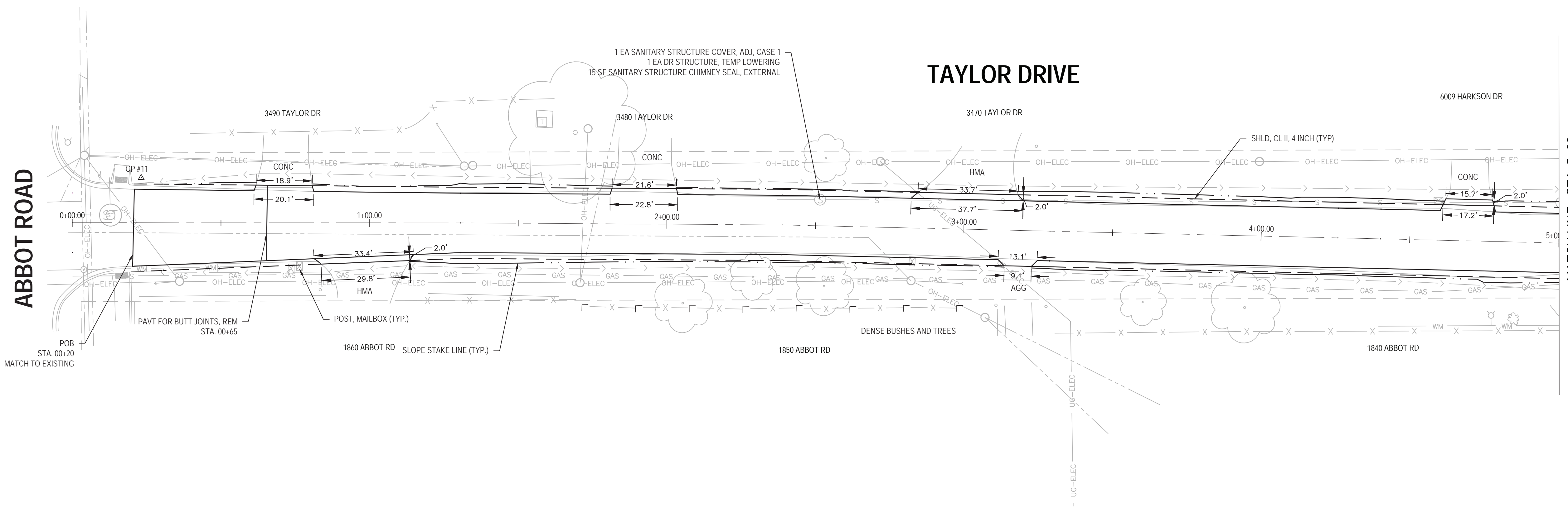
**MERIDIAN TOWNSHIP**  
5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

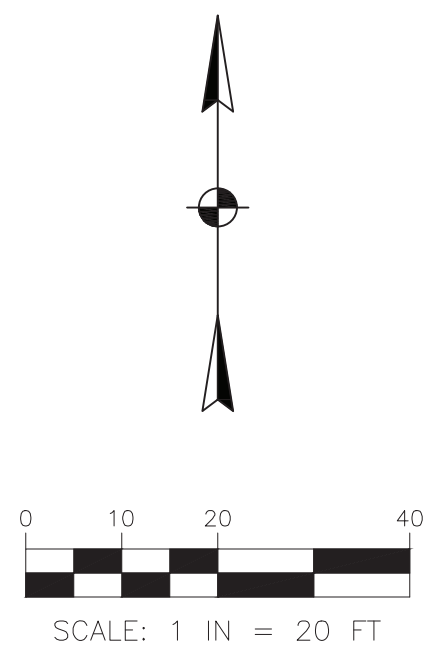
RIVER TERRACE  
PLAN & PROFILE  
STA. 20+00 TO STA. 23+95

ABBOT ROAD

TAYLOR DRIVE

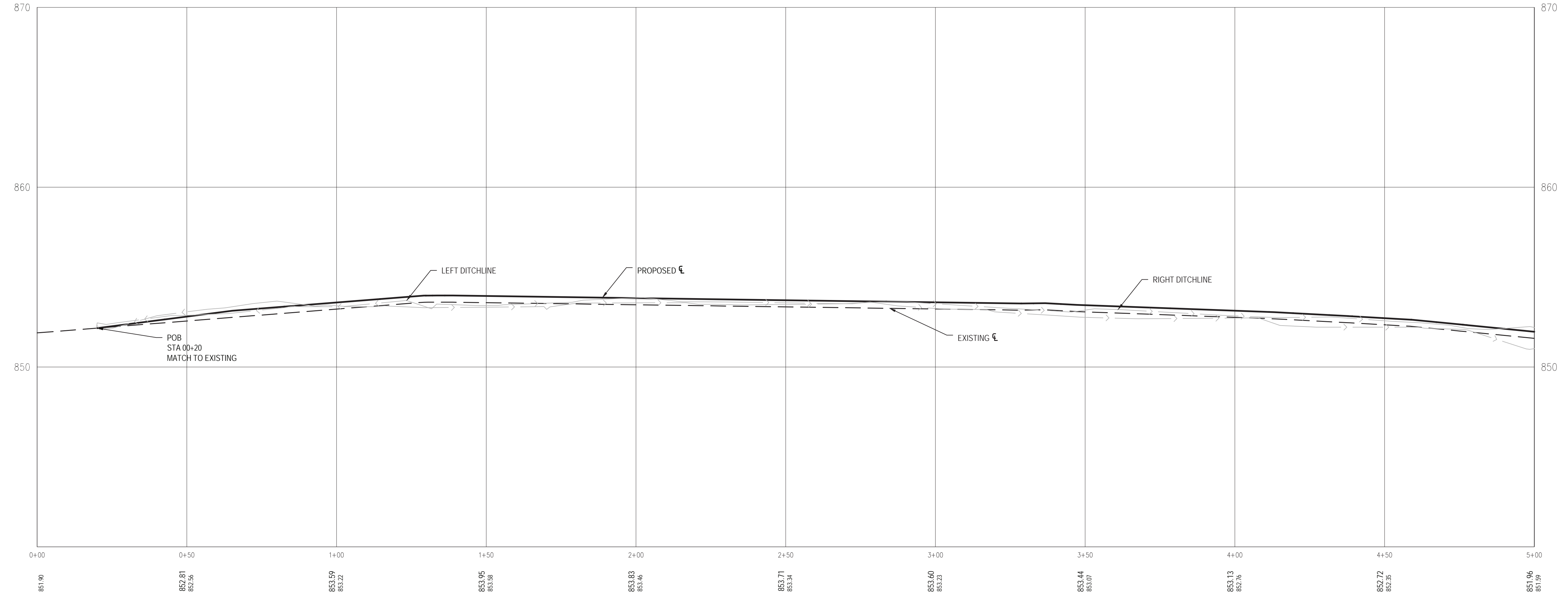


MATCH LINE - STA. 5+00



CONTROL POINT #11  
 ELEV = 852.23  
 N = 457461.77  
 E = 13091979.73

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	DESCRIPTION
REV 1	3/24/23	ASML
REV 2	3/15/2023	ASML

2193 ASSOCIATION DR  
 SUITE #200  
 OKEMOS, MI 48864  
 TEL: 517.316.9233  
 FAX: 517.316.9233

PROJECT NO.: MM150015  
 PROJECT DATE: 11/22/2022  
 DRAWN BY: ASML  
 CHECKED BY: CAV

TECHNICAL SKILL:  
**Mannik Smith GROUP**  
 www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
 OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
 OF MERIDIAN  
 ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

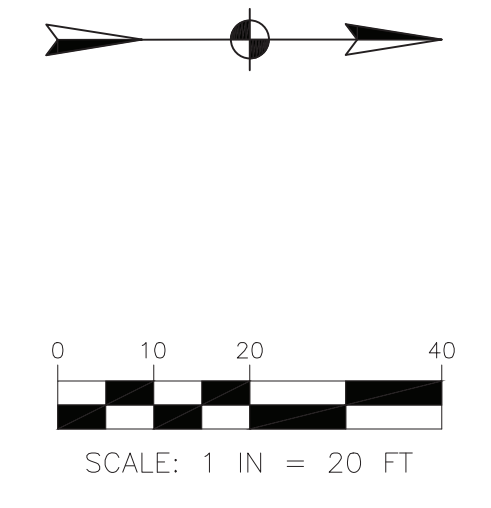
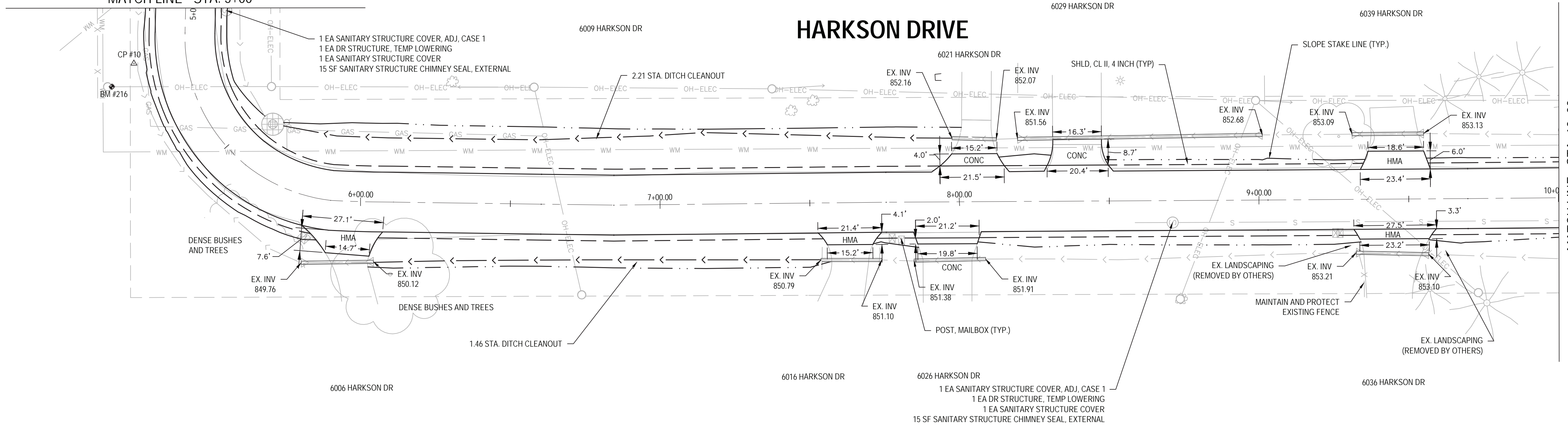
TAYLOR DRIVE  
 PLAN & PROFILE  
 STA. 0+00 TO STA. 5+00

# TAYLOR DRIVE

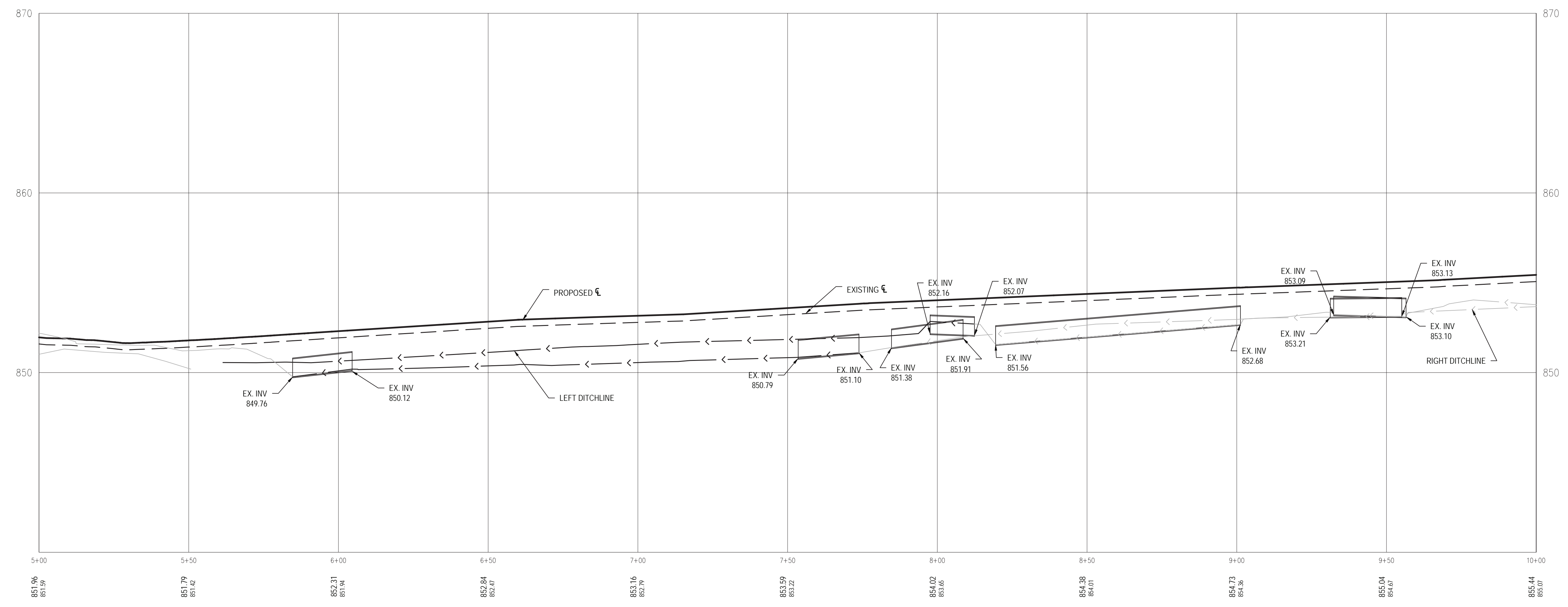
MATCH LINE - STA. 5+00

# HARKSON DRIVE

MATCH LINE - STA. 10+00



CONTROL POINT #10	
ELEV.	= 851.47
N	= 457419.03
E	= 13092474.81
BENCHMARK #216	
RR SPIKE N SIDE UP	
ELEV.	= 852.63
N	= 457410.02
E	= 13092482.86



NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.

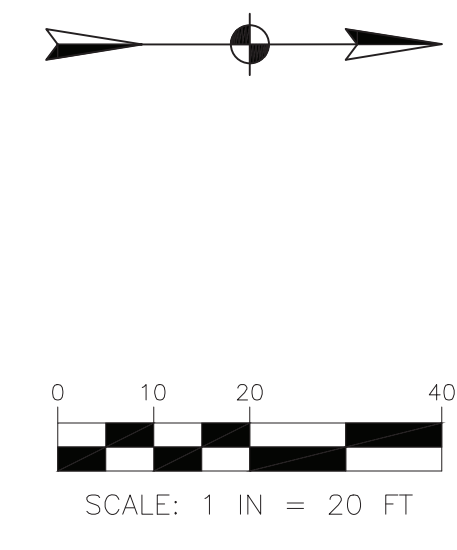
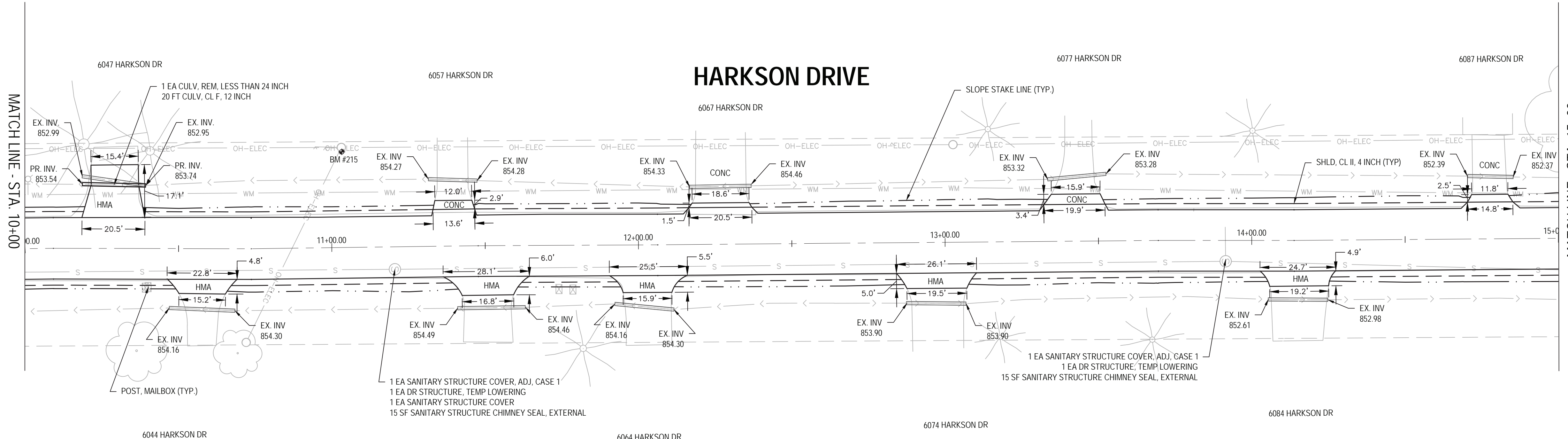
NO.	DATE	DESCRIPTION
REV 1	3/28/23	ASML
REV 2	3/15/2023	ASML

2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864 TEL: 517.316.9233 FAX: 517.316.9233	PROJECT NO.: MM150015	PROJECT DATE: 11/22/2022
DRAWN BY: ASML		CHECKED BY: CAV



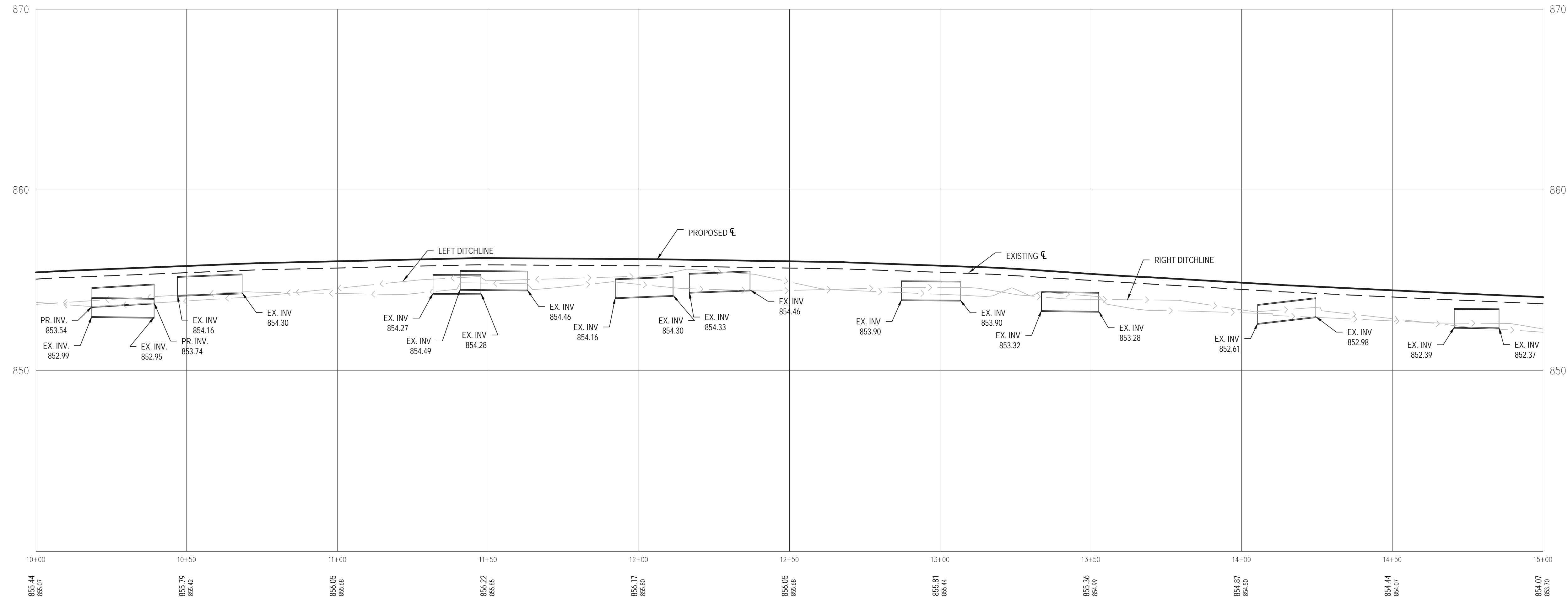
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

HARKSON DRIVE  
PLAN & PROFILE  
STA. 5+00 TO STA. 10+00



**BENCHMARK #215**  
 RR SPIKE E SIDE UP  
 ELEV = 856.53  
 N = 457997.96  
 E = 13092482.86

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



DESCRIPTION:	ASML
BY:	ASML
DATE:	3-15-2023
US:	REV 2
REV 1:	3-29-2023
REV 2:	3-15-2023
2193 ASSOCIATION DR SUITE #200 OKEMOS, MI 48864	PROJECT NO.: MM150015
DKEMOS, MI 48864	PROJECT DATE: 11/22/2022
TEL: 517.316.9233	DRAWN BY: ASML
FAX: 517.316.9233	CHECKED BY: CAV

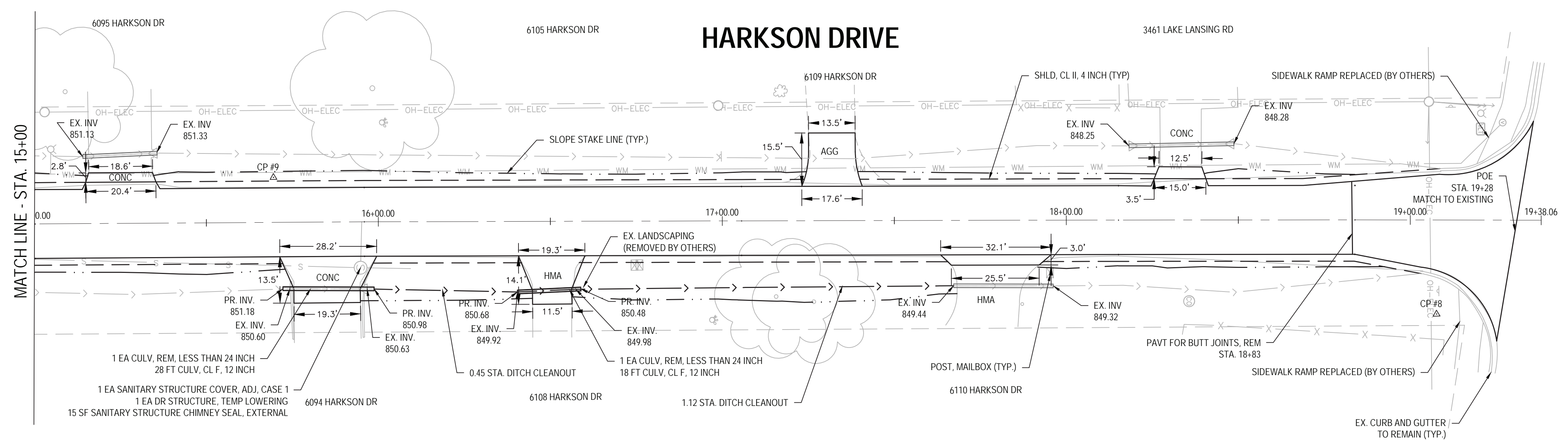
TECHNICAL SKILL:  
**Mannik Smith GROUP**  
 CREATIVE SPIRIT.  
 www.MannikSmithGroup.com

PREPARED FOR:  
**MERIDIAN TOWNSHIP**  
 5151 MARSH ROAD  
 OKEMOS, MI 48864

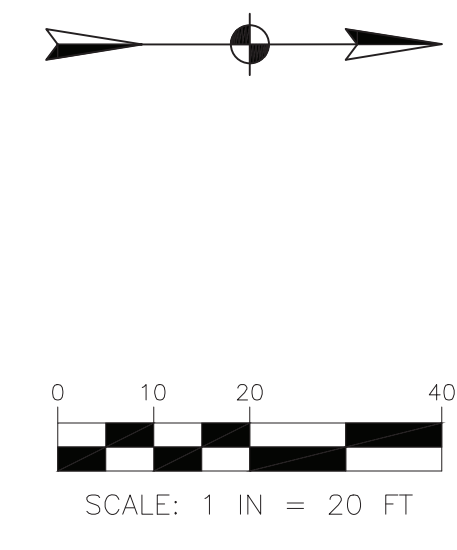
2023 CHARTER TOWNSHIP OF MERIDIAN ROADWAY IMPROVEMENTS  
 MERIDIAN TOWNSHIP  
 INGHAM COUNTY, MICHIGAN

HARKSON DRIVE  
 PLAN & PROFILE  
 STA. 10+00 TO STA. 15+00



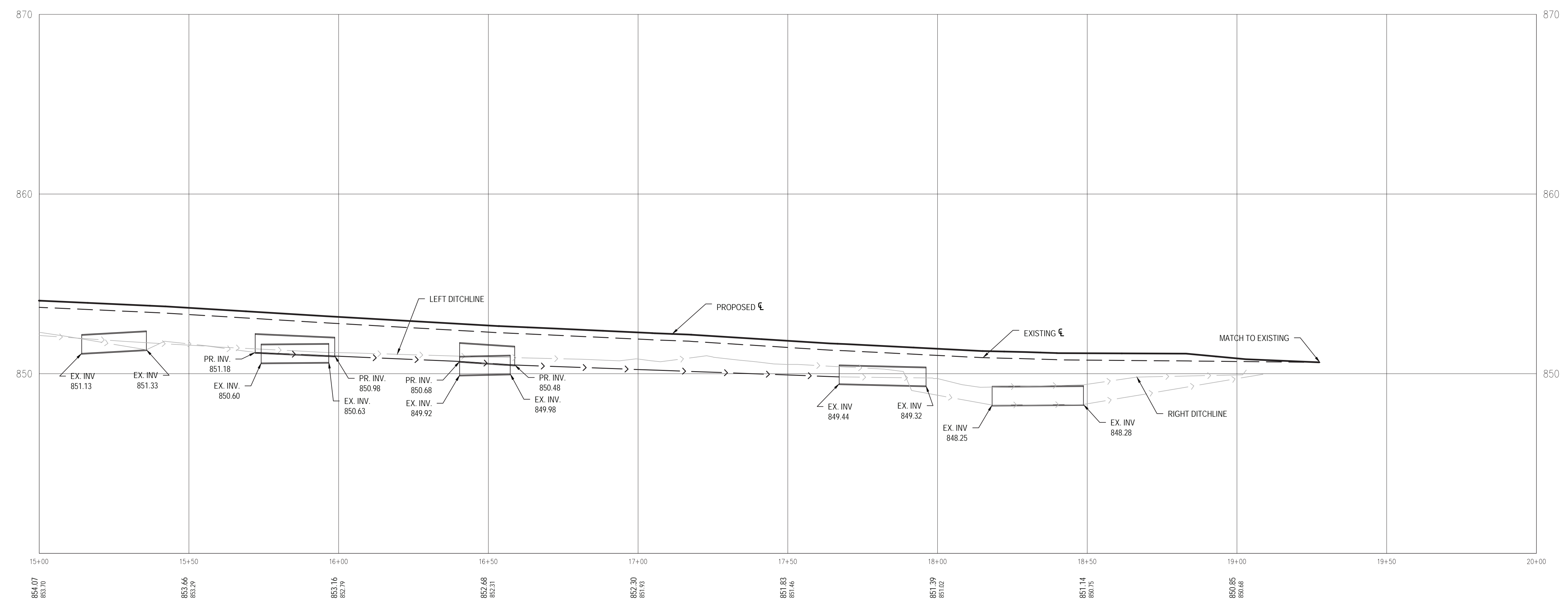


**E. LAKE LANSING ROAD**



<b>CONTROL POINT #8</b>
ELEV. = 850.49 N = 458802.28 E = 13092553.82
<b>CONTROL POINT #9</b>
ELEV. = 852.57 N = 458464.28 E = 13092511.09

NOTE: PROFILES SHOWN TO ESTIMATE CHANGE IN ELEVATION FOLLOWING OVERLAY. EXISTING PROFILE GEOMETRY IS NOT BE ALTERED.



NO.	DATE	DESCRIPTION
REV 1	3/20/23	ASML
REV 2	3/15/2023	ASML

2193 ASSOCIATION DR  
SUITE #200  
OKEMOS, MI 48864  
TEL: 517-316-9233  
FAX: 517-316-9233

PROJECT DATE: 11/22/2022  
PROJECT NO.: M150015  
DRAWN BY: ASML  
CHECKED BY: CAV

**Mannik Smith GROUP**  
www.MannikSmithGroup.com

PREPARED FOR:

5151 MARSH ROAD  
OKEMOS, MI 48864

2023 CHARTER TOWNSHIP  
OF MERIDIAN  
ROADWAY IMPROVEMENTS  
MERIDIAN TOWNSHIP  
INGHAM COUNTY, MICHIGAN

HARKSON DRIVE  
PLAN & PROFILE  
STA. 15+00 TO STA. 19+38