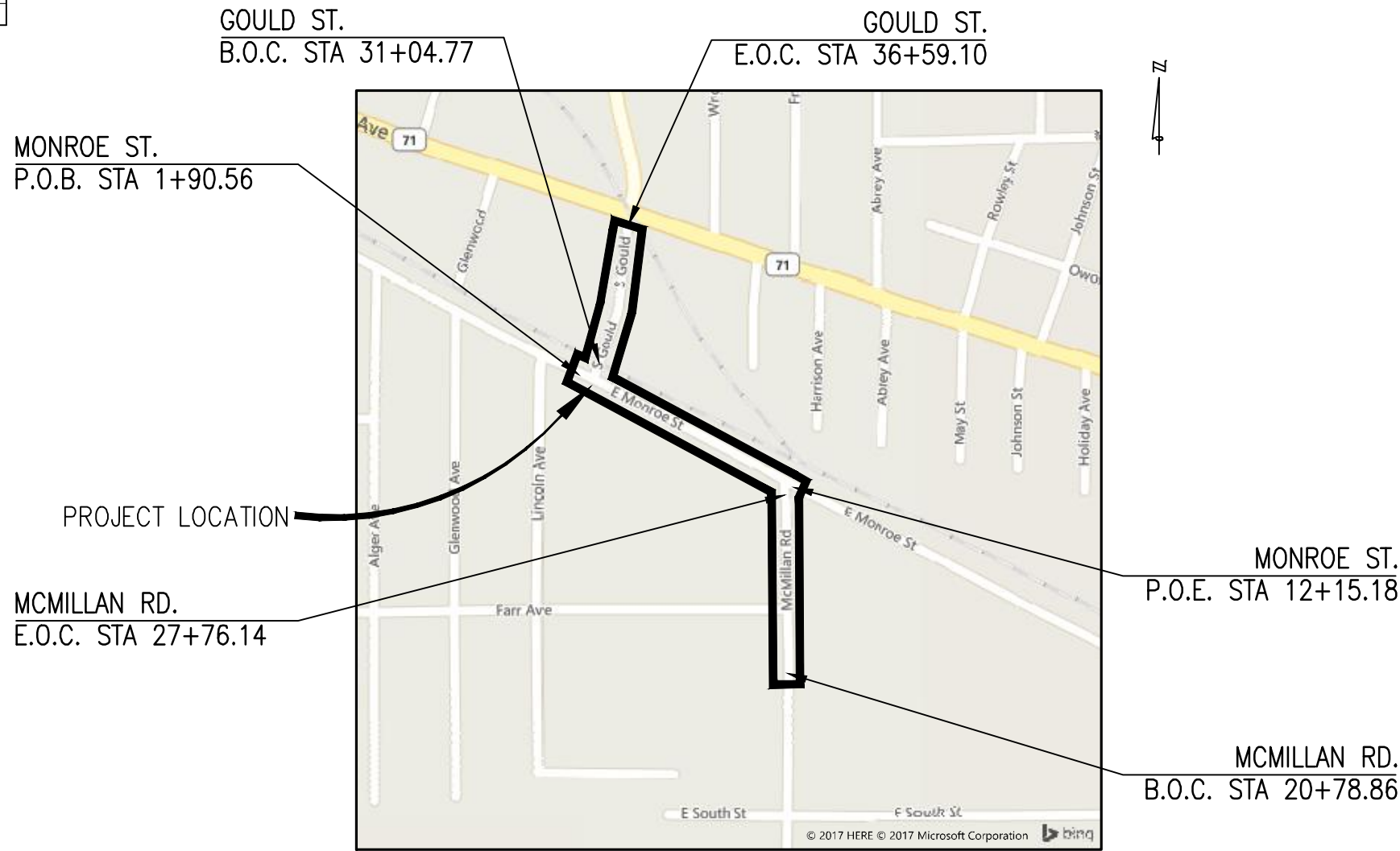


INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	COVER SHEET
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5 - 7	DETAIL SHEETS
8	NOTE SHEET
9	LEGEND SHEET
10 - 11	ALIGNMENT SHEETS
12, 15, 18, 21	REMOVAL SHEETS
13, 16, 19, 22	CONSTRUCTION SHEETS
14, 17, 20	PROFILE SHEETS
23 - 25	PAVEMENT MARKING AND SIGNING SHEET
26	SOIL BORING SHEET
27 - 28	DETOUR SHEETS
29 - 30	MAINTENANCE OF TRAFFIC SHEETS

CITY OF OWOSSO INDUSTRIAL PARK CONNECTOR SHIAWASSEE COUNTY, MICHIGAN



LOCATION MAP
N.T.S.

UTILITY NOTE

FOR THE PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174 OF 2013, THE CONTRACTOR SHALL CONTRACT THE MISS DIG SYSTEM, INC. BY PHONE AT 811 OR 800-482-7171 OR VIA THE WEB AT EITHER ELOCATE.MISSDIG.ORG FOR SINGLE ADDRESS OR RTE.MISSDIG.ORG, A MINIMUM OF 3 BUSINESS DAYS PRIOR TO EXCAVATION, EXCLUDING WEEKENDS AND HOLIDAYS.

UTILITY CONTACTS	
<p>TELEPHONE/FIBER</p> <p>FRONTIER COMMUNICATIONS MARK STEVENS 1943 W. M-21 OWOSSO, MI 48867 (989) 723-0373 Mark.Stevens@ftr.com</p> <p>FIBER</p> <p>DAYSTARR COMMUNICATIONS CASEY ROSE 307 N. BALL STREET OWOSSO, MI 48867 (989) 720-6060 Casey.Rose@corp.daystarr.net</p> <p>CABLE TV</p> <p>CHARTER COMMUNICATIONS MARK KELLY 1480 S. VALLEY CENTER DRIVE BAY CITY, MI 48706 (989) 233-9404 Mark.Kelly@charter.com</p> <p>WATER AND SEWER</p> <p>CITY OF OWOSSO GLENN CHINAVARE 301 WEST MAIN STREET OWOSSO, MI 48867 (989) 725-0555 Glenn.Chinavare@ci.owosso.mi.us</p> <p>RAILROAD</p> <p>HURON AND EASTERN RAILROAD LUKE ZIESEMER, ROADMASTER 101 ENTERPRISE DR. VASSAR, MI 48768 (989) 797-5129</p>	<p>ELECTRIC</p> <p>CONSUMERS ENERGY JACOB CHALUT 530 W. WILLOW STREET LANSING, MI 48906 (517) 580-2049 Jacob.Chalut@csmenergy.com</p> <p>GAS</p> <p>CONSUMERS ENERGY ADAM BERTRAM 530 W. WILLOW STREET LANSING, MI 48906 (517) 614-8570 Adam.Bertram@csmenergy.com</p> <p>STORM/COUNTY DRAIN</p> <p>SHIAWASSEE COUNTY DRAIN COMMISSION TONY NEWMAN 149 E. CORUNNA AVENUE L-1 CORUNNA, MI 48817 (989) 743-2398 drains@shiassee.net</p> <p>ROAD</p> <p>CITY OF OWOSSO RANDY CHESNEY P.E. 301 WEST MAIN STREET OWOSSO, MI 48867 (989) 725-0550 Randy.Chesney@ci.owosso.mi.us</p> <p>SOIL EROSION CONTROL</p> <p>SHIAWASSEE COUNTY HEALTH DEPT. ENVIRONMENTAL HEALTH DIVISION CASEY ELLIOT, REHS 201 N. SHIAWASSEE STREET CORUNNA, MI 48817 (989) 743-2289 celliot@shiassee.net</p>

APPLICATION DATE	PERMITS	APPROVAL DATE
X	SESC	X
X	NPDES	X
X	MDOT ROW	X

PROJECT DETAILS	
POSTED SPEED.....25 MPH	DESIGN SPEED.....30 MPH
E. MONROE STREET	P.O.B. = STA 1+90.56 P.O.E. = STA 12+15.18 PROJECT LENGTH.....0.19 MILES ADT: 3100
MCMILLAN ROAD	B.O.C. = STA 20+78.86 E.O.C. = STA 27+76.14 PROJECT LENGTH.....0.14 MILES ADT: 1400
S. GOULD STREET	B.O.C. = STA 31+04.77 E.O.C. = STA 36+59.10 PROJECT LENGTH.....0.10 MILES ADT: 3500

M.D.O.T. STANDARD PLANS	
TITLE	PLAN NO.
DRAINAGE STRUCTURES	R-1-G*
COVER B	R-7-F
COVER G	R-12-E
COVER K	R-15-F
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28-J*
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS	R-29-I
CONCRETE CURB AND CONCRETE CURB & GUTTER	R-30-G
GUARDRAIL TYPES A, B, BD, T, TD, MGS-8, & MGS-8D	R-60-J
GUARDRAIL APPROACH TERMINAL TYPES 2B& 2T	R-62-H
SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E
GUARDRAIL AT INTERSECTIONS	21*

* DENOTES SPECIAL DETAIL PROVIDED IN THE PROPOSAL

TRAFFIC & SAFETY STANDARD PLANS	
TITLE	PLAN NO.
GROUND DRIVEN SIGN SUPPORTS FOR TEMP. SIGNS	WZD-100-A*
TEMPORARY TRAFFIC CONTROL DEVICES	WZD-125-E*

* DENOTES SPECIAL DETAIL PROVIDED IN THE PROPOSAL

THE IMPROVEMENTS BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION AND SUPPLEMENTAL SPECIFICATIONS. THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE DESIGNED IN ACCORDANCE WITH THE AASHTO; A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, 2011 EDITION AND SECTION B (3R) OF THE MICHIGAN DEPARTMENT OF TRANSPORTATION LOCAL AGENCY PROGRAMS FOR GEOMETRICS ON LOCAL AGENCY PROJECTS, 2014 EDITION.

ALL TRAFFIC CONTROL TEMPORARY AND PERMANENT SHALL FOLLOW 2011 EDITION OF MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD).

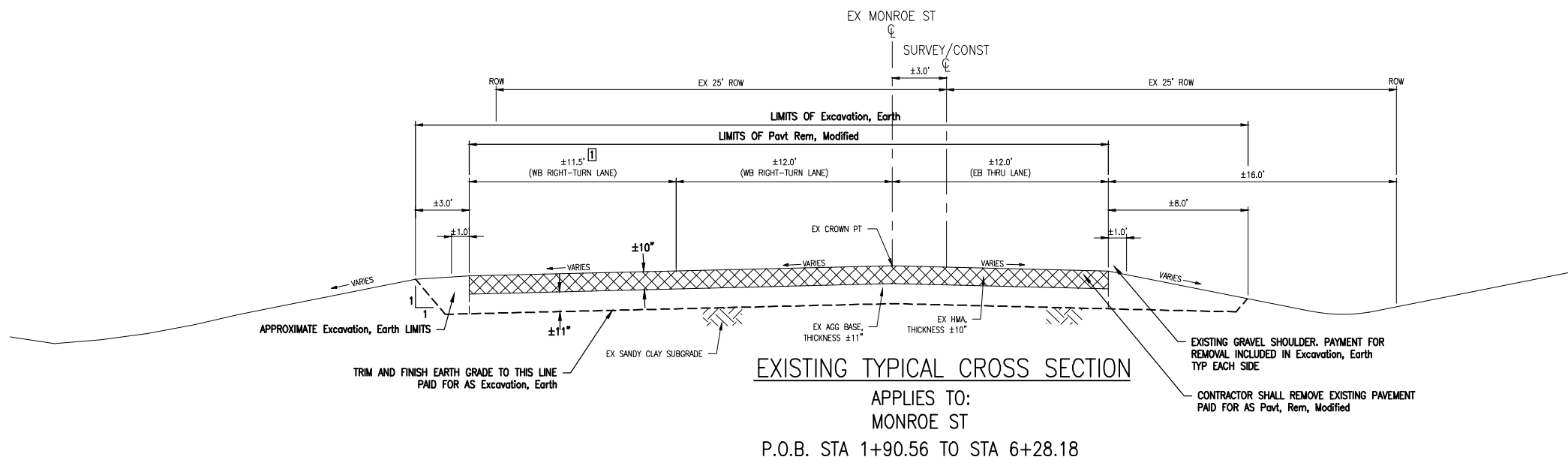
CONTRACT FOR: 0.33 MILES OF ROAD RECONSTRUCTION, 0.10 MILES OF MILL AND RESURFACE, DRAINAGE IMPROVEMENTS, CURB INSTALLATION, AND ADA RAMP IMPROVEMENTS.

THESE PLANS WERE PREPARED FOR THE CITY OF OWOSSO BY:

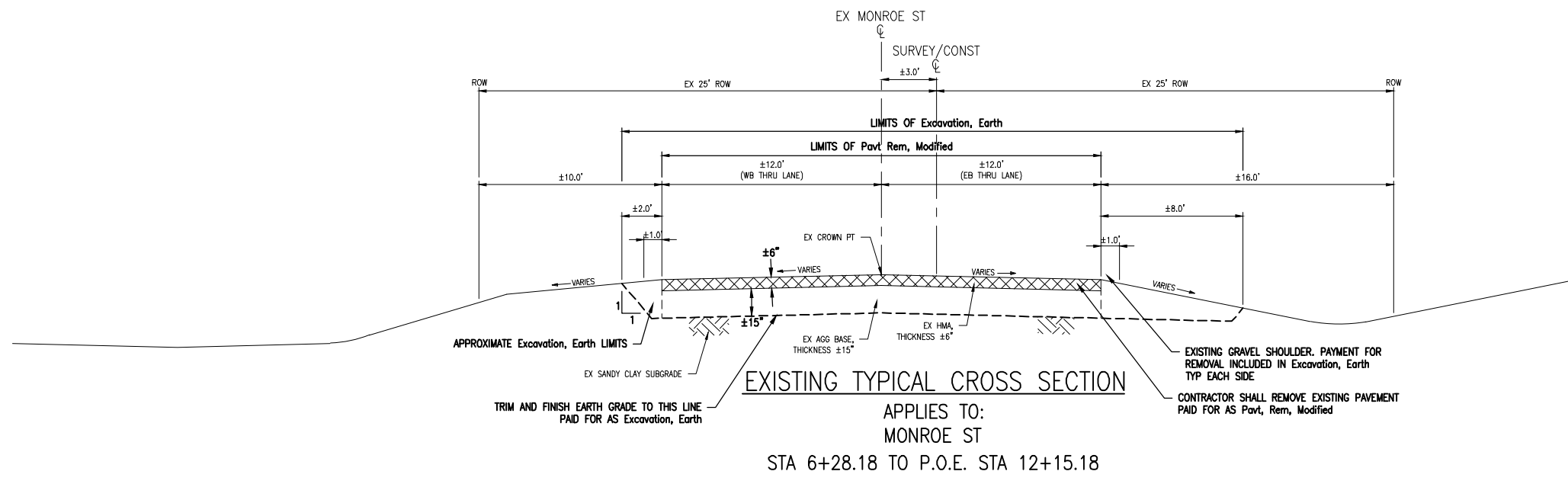
Advancing Communities
 929 Bridgeview South | Saginaw, MI 48604
 p (989) 393-4200

REVISIONS	
PROJECT NO.	SHEET NO.
0020-17-0030	1 OF 30



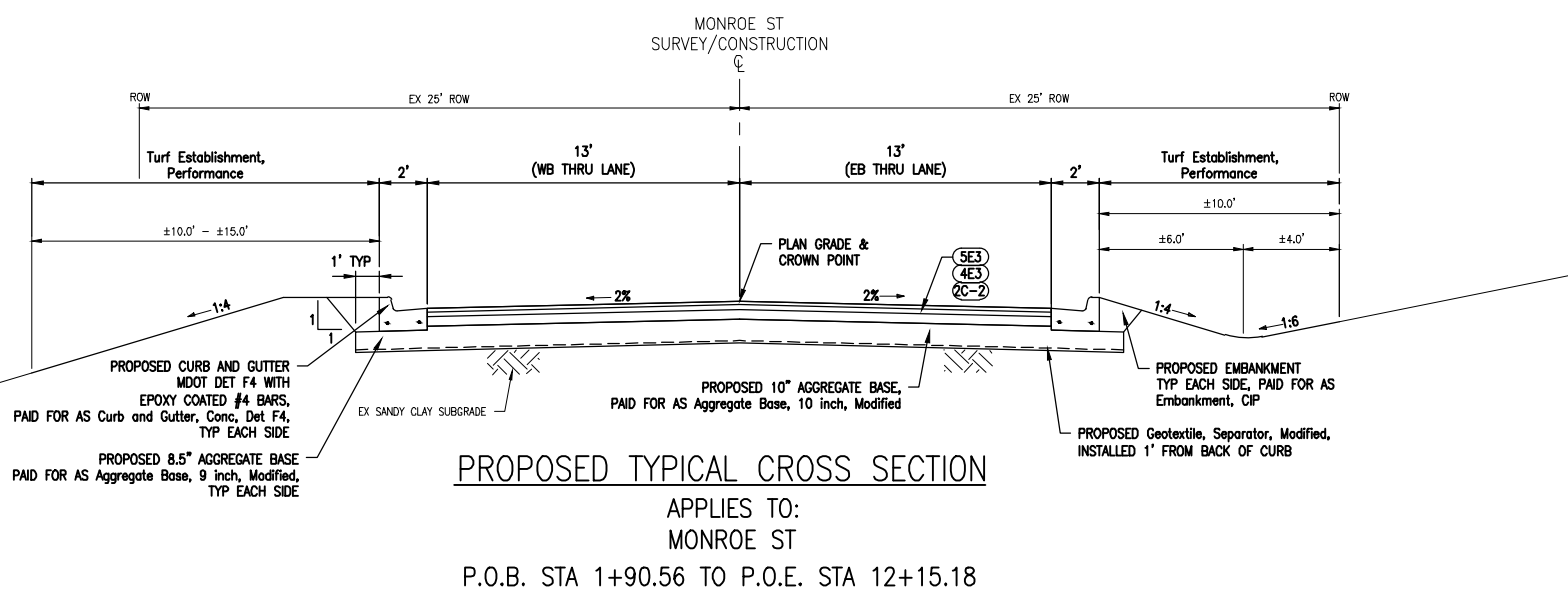


EXISTING TYPICAL CROSS SECTION
 APPLIES TO:
 MONROE ST
 P.O.B. STA 1+90.56 TO STA 6+28.18



EXISTING TYPICAL CROSS SECTION
 APPLIES TO:
 MONROE ST
 STA 6+28.18 TO P.O.E. STA 12+15.18

WB RIGHT-TURN LANE TAPERS FROM 11.5' TO 0' AT:
 STA 5+72.81 TO STA 6+28.18



PROPOSED TYPICAL CROSS SECTION
 APPLIES TO:
 MONROE ST
 P.O.B. STA 1+90.56 TO P.O.E. STA 12+15.18

HMA APPLICATION ESTIMATE				
IDENT NO.	ITEM	RATE (LBS/SYD)	PERFORMANCE GRADE	REMARKS
5E3	HMA, 5E3	165	64-28	1.5" WEARING COURSE (MIN. AWI = 220)
4E3	HMA, 4E3	220	64-28	2" LEVELING COURSE
2C-1	HMA, 2C	330	64-28	3" BASE COURSE (MCMILLAN)
2C-2	HMA, 2C	440	64-28	4" BASE COURSE (MONROE)
HR	HMA, REPAIR	495	64-28	2C PLACED IN ONE LIFT (SEE DETAIL)
	BOND COAT	0.05 GAL/SQ.YD		

NOTE: ALL HMA QUANTITIES INCLUDE INTERSECTION WORK. PAYMENT FOR INTERSECTION APPROACH WORK WILL NOT BE PAID FOR SEPARATELY.



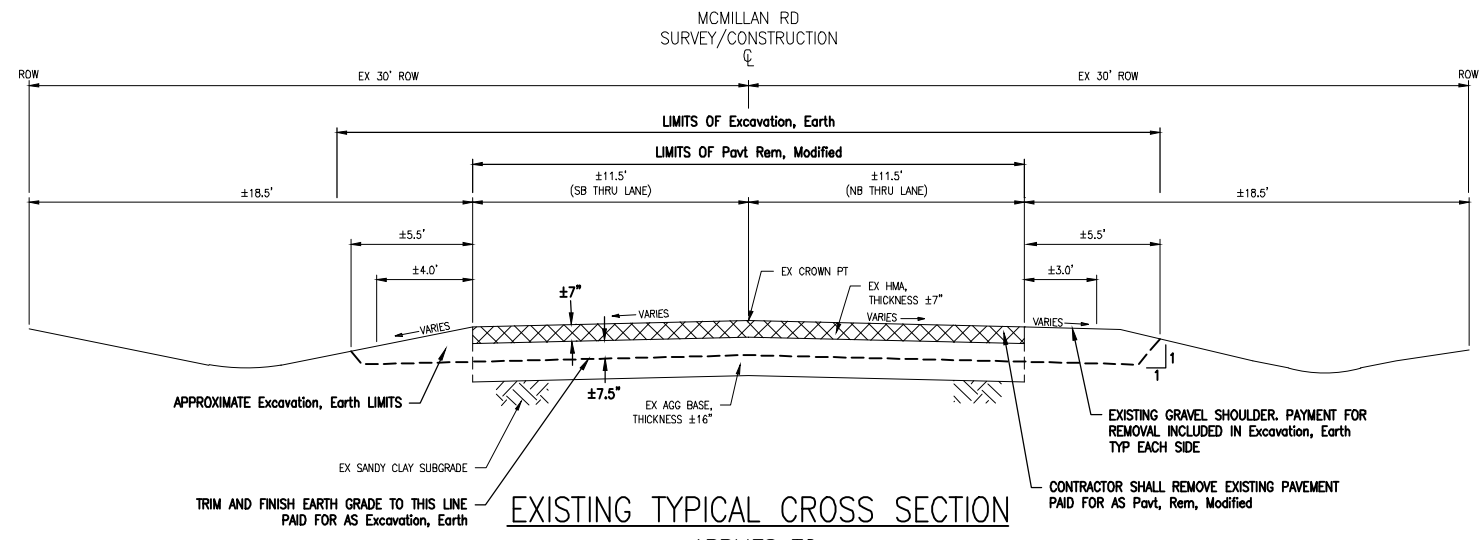
Know what's below.
 Call before you dig.

REVISIONS: _____
 DATE: _____ PROJ. NO.: _____ CITY/TOWNSHIP: _____ COUNTY: _____ CAD: _____ SHEET: _____

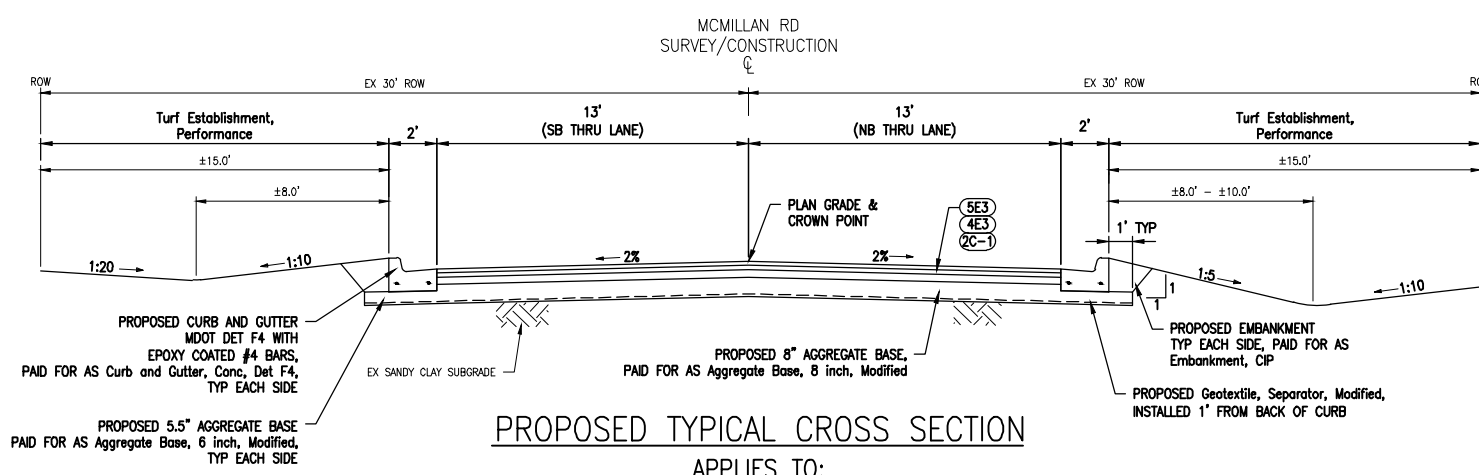
CITY OF OWOSSO
 INDUSTRIAL PARK CONNECTOR
 TYPICAL CROSS SECTION SHEET

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EXISTING TYPICAL CROSS SECTION
 APPLIES TO:
 MCMILLAN RD
 B.O.C. STA 20+78.86 TO E.O.C. STA 27+76.14



PROPOSED TYPICAL CROSS SECTION
 APPLIES TO:
 MCMILLAN RD
 B.O.C. STA 20+78.86 TO E.O.C. STA 27+76.14

REVISIONS:

DATE: 03/21/2024
 PROJ NUMBER: 8021-2024-05
 PROJ NAME: AV
 CADD: SS
 COUNTY: SHAWANEE
 CITY/TOWNSHIP: OWOSSO
 SCALE: H: 1"=40' V: 1"=4'
 HORIZ DATUM: MDS
 VERT DATUM: MDS
 INCHES: 1/8" X 1/4"

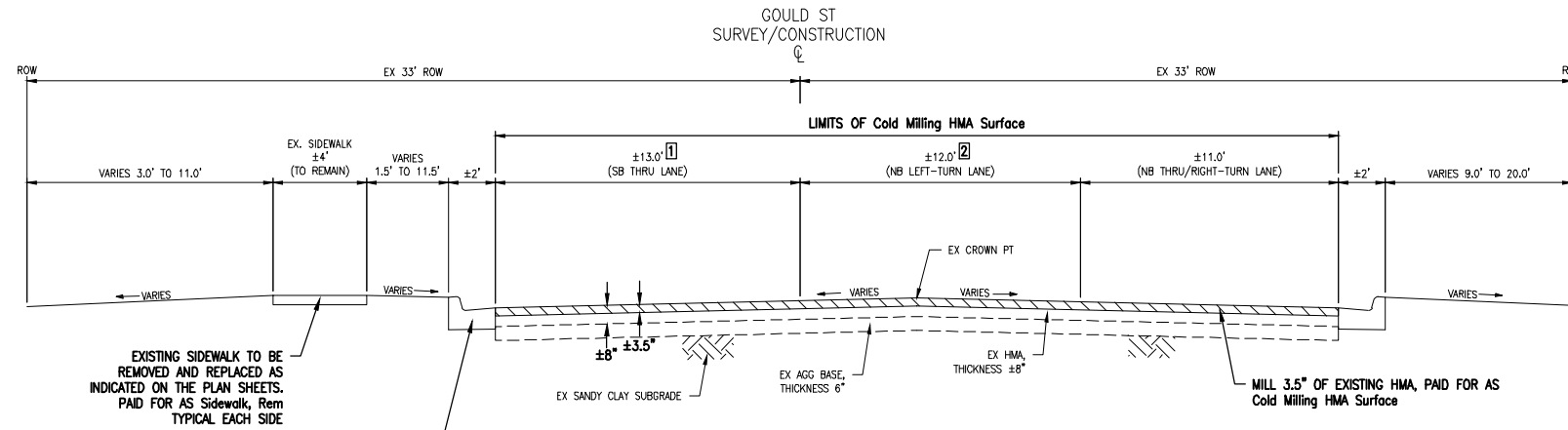
CITY OF OWOSSO
 INDUSTRIAL PARK CONNECTOR
 TYPICAL CROSS SECTION SHEET



Know what's below.
 Call before you dig.

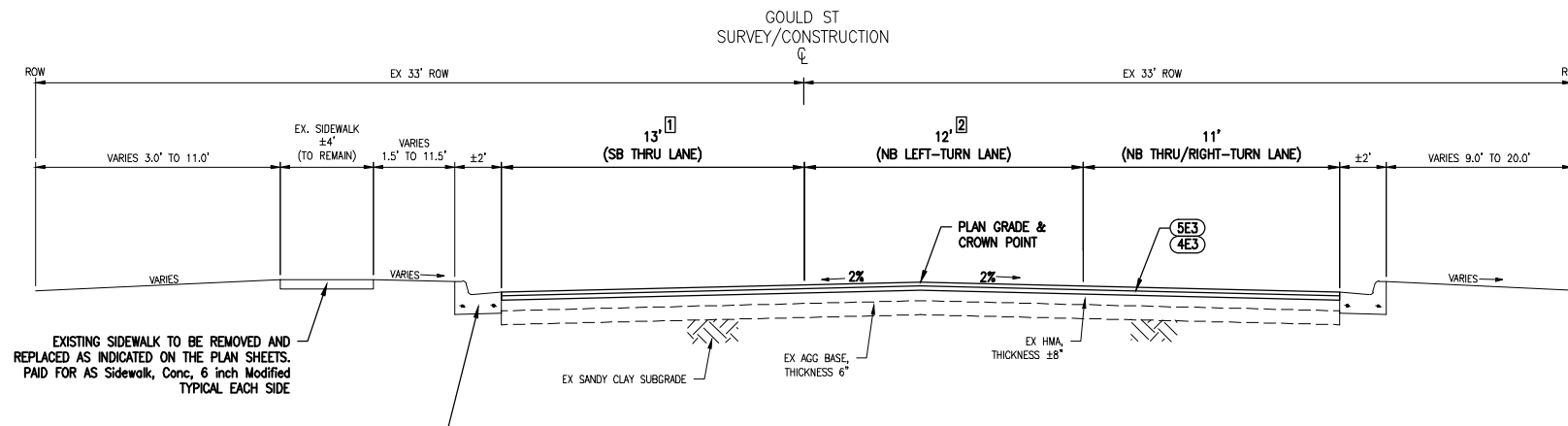
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EXISTING TYPICAL CROSS SECTION
 APPLIES TO:
 GOULD ST
 B.O.C. STA 31+04.77 TO E.O.C. STA 36+59.10

- ① LANE VARIES 11' TO 13' FROM:
STA 32+72.13 TO STA 34+63.00
- ② LANE VARIES 0' TO 12' FROM:
STA 32+72.13 TO STA 34+63.00



PROPOSED TYPICAL CROSS SECTION
 APPLIES TO:
 GOULD ST
 B.O.C. STA 31+04.77 TO E.O.C. STA 36+59.10

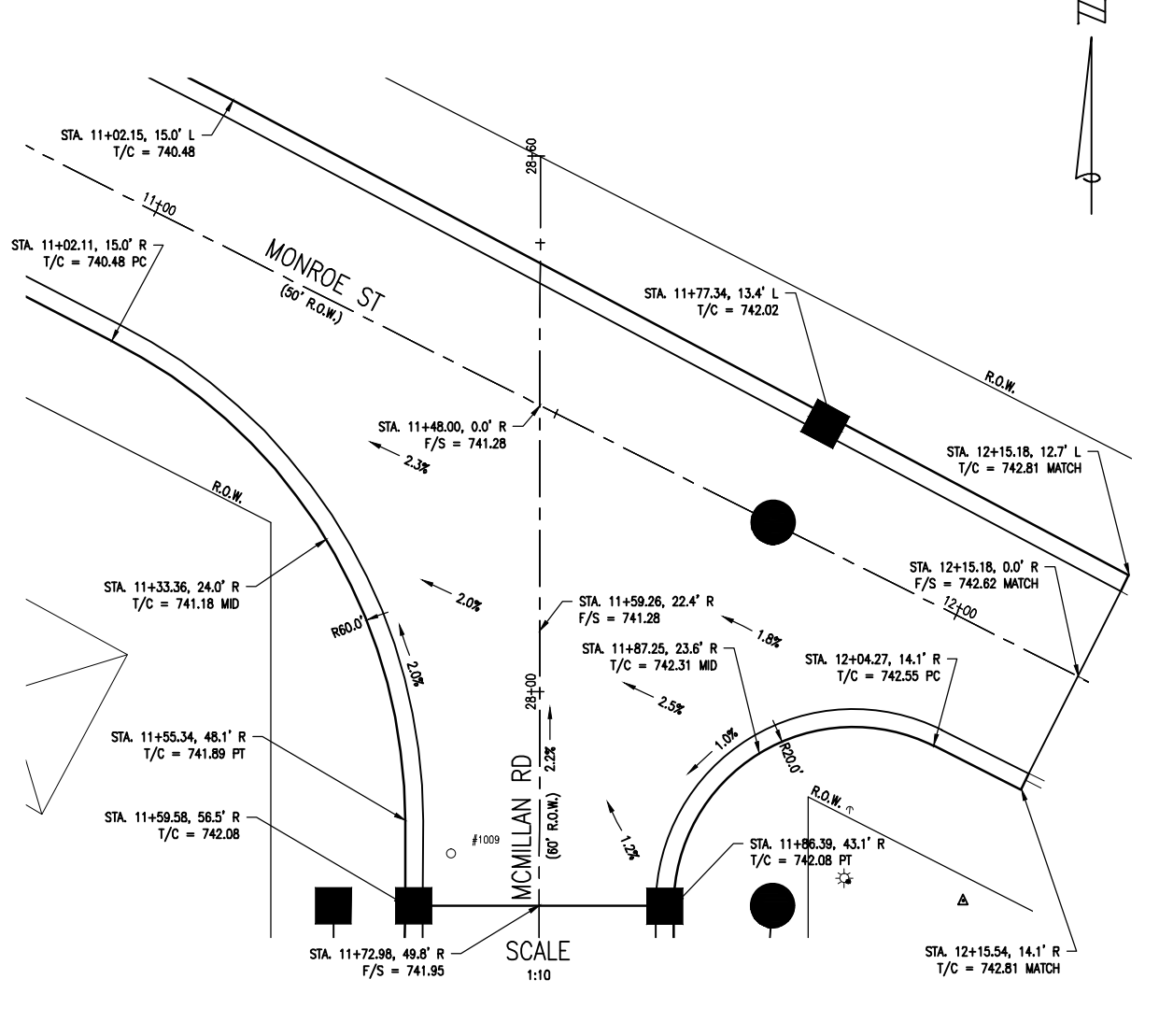
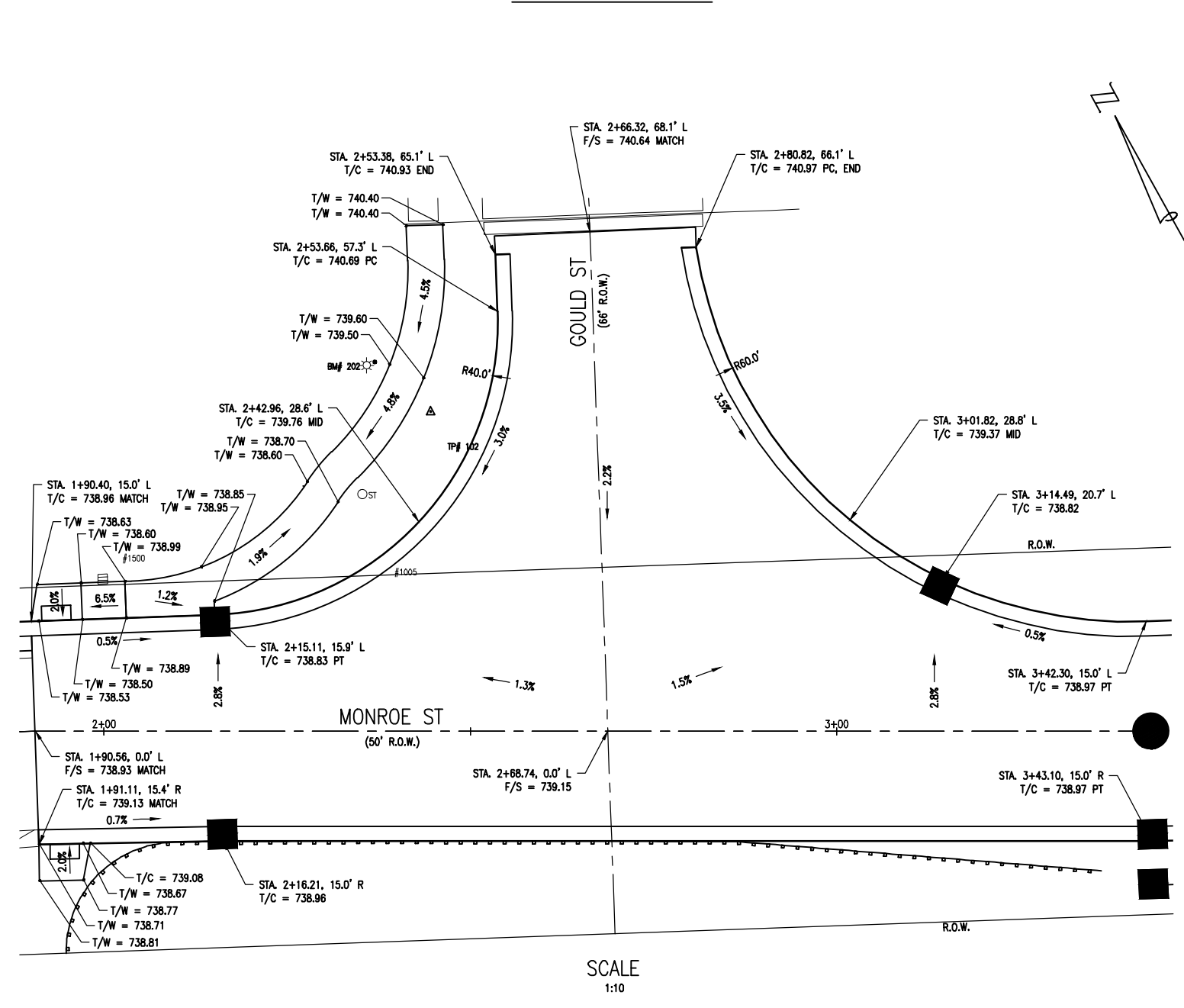
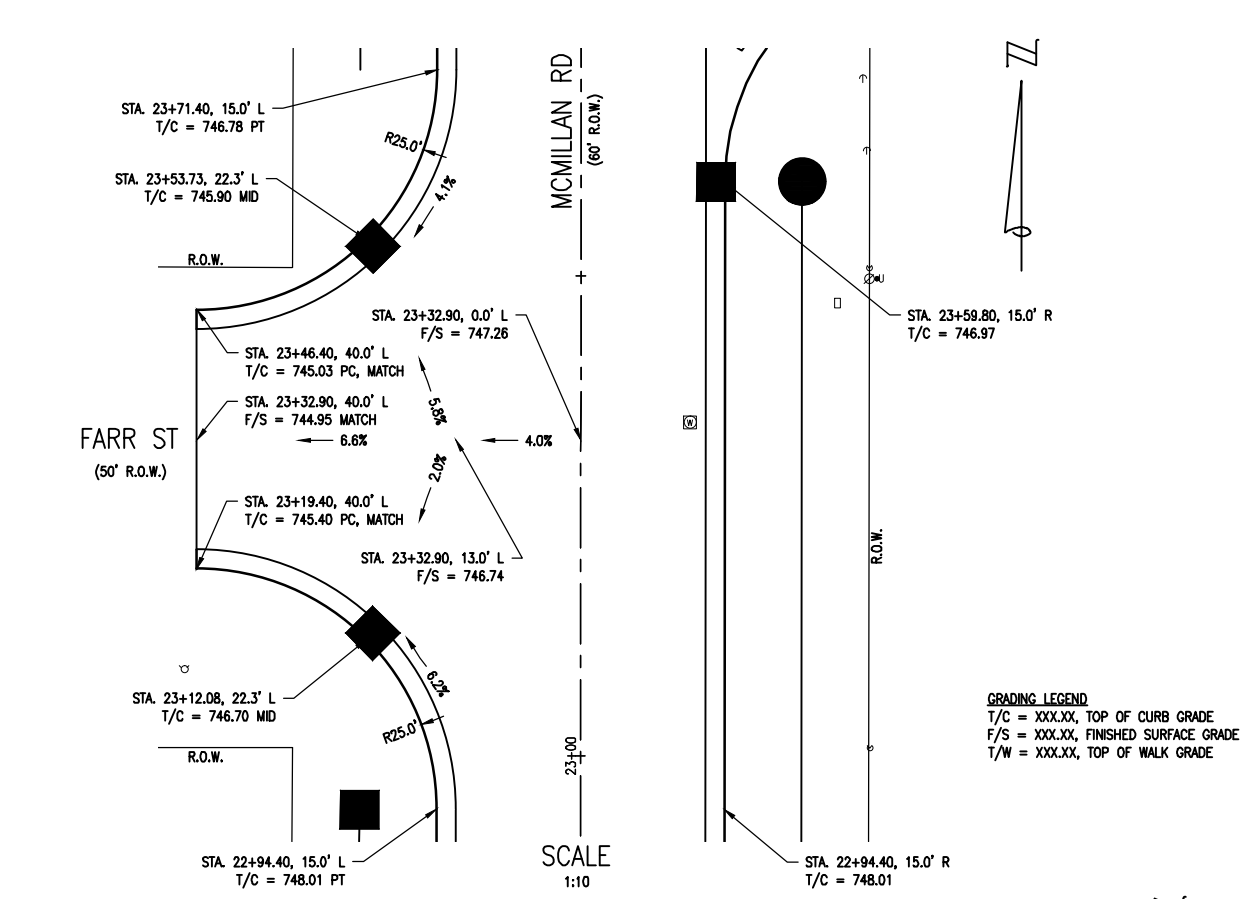
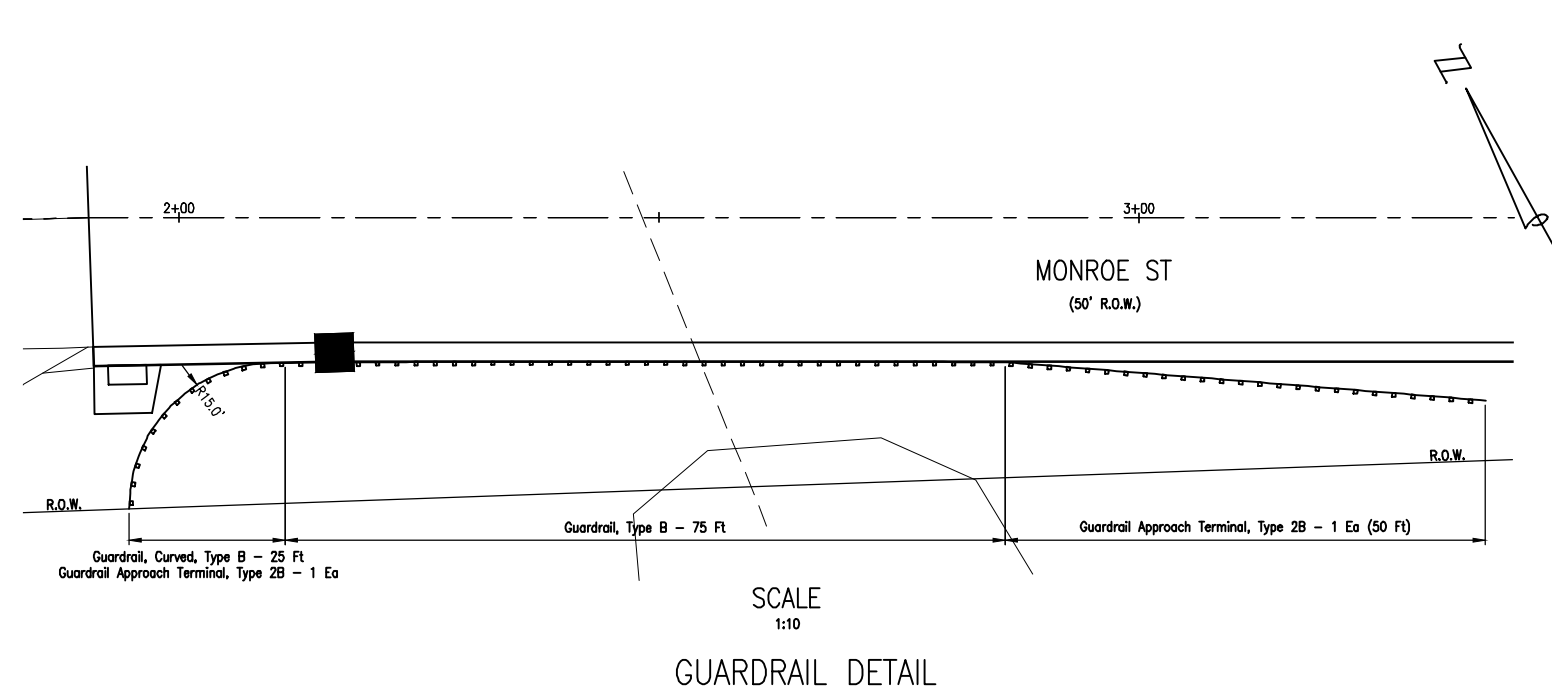


Know what's below.
 Call before you dig.

DATE	PROJ NUMBER	ENG	PROJ MGR	CADD	COUNTY	CITY/TOWNSHIP	SCALE	VERT DATUM
02/27/2023	25	DS	AV	SS	SARASSEE	OWOSSO	1"=40'	NAVD 83
CITY OF OWOSSO INDUSTRIAL PARK CONNECTOR TYPICAL CROSS SECTION SHEET								

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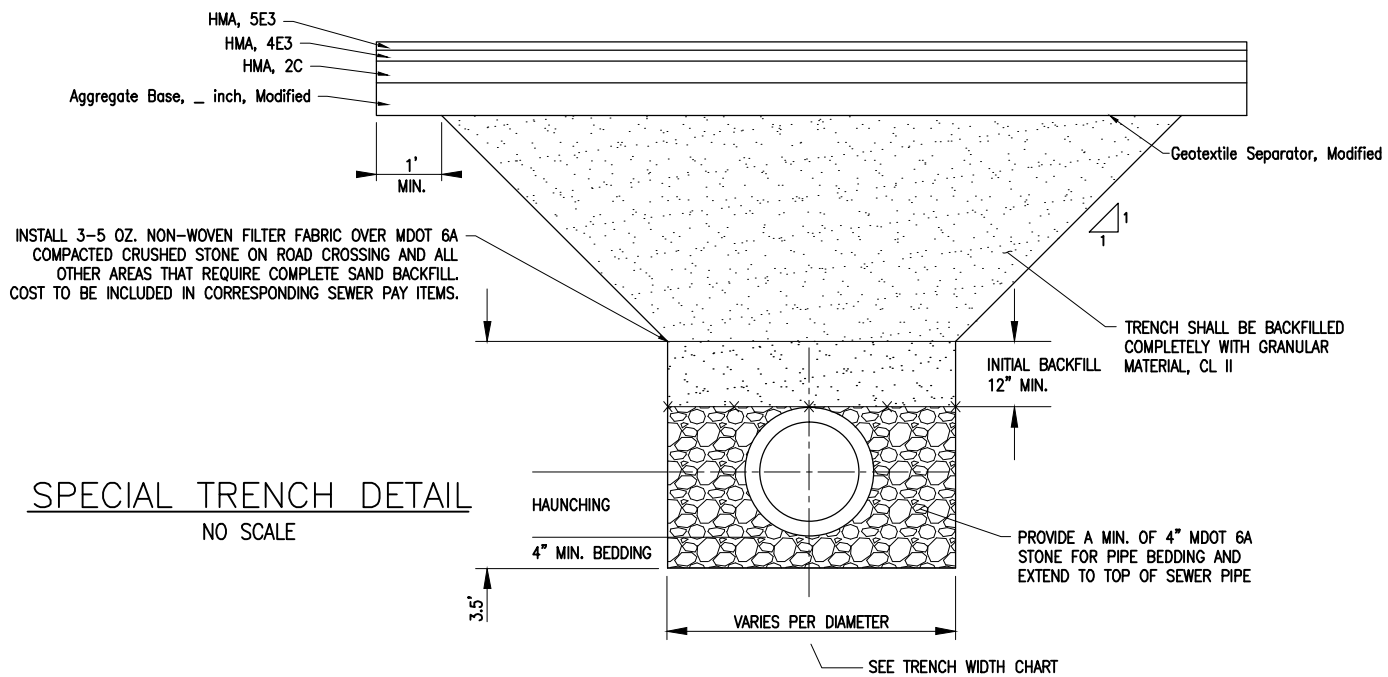
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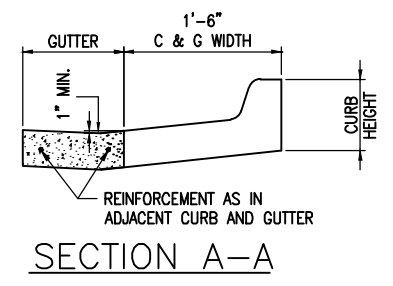
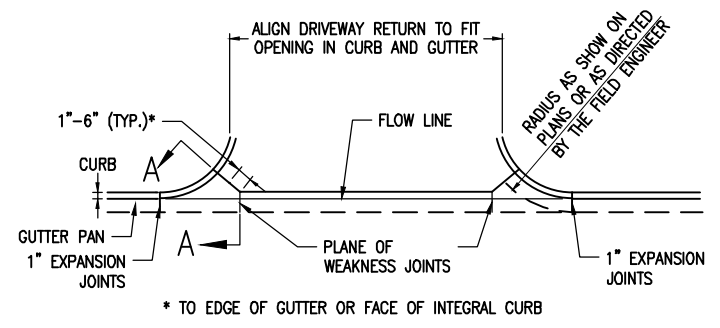
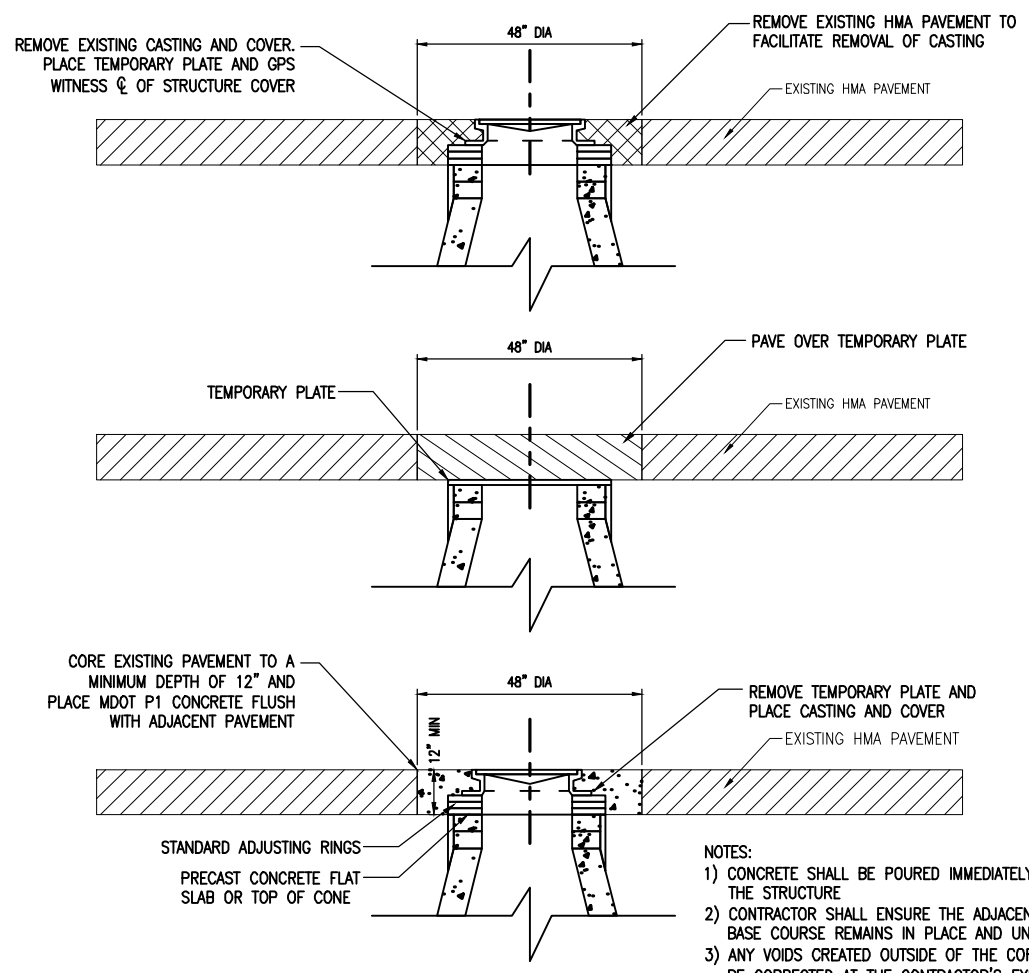
DATE	PROJ NUMBER	ENG	PROJ MGR	CADD	COUNTY	CITY/TOWNSHIP	SCALE	VERT DATUM	NO OF SHEETS
02/21/2023	002170035	DS	AV	SS	SHAWANEE	OWASSO	1"=40'	NGVD 83	10
CITY OF OWASSO									
INDUSTRIAL PARK CONNECTOR									
DETAIL SHEET									
5									
OF 30									

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-TRENCH WIDTH CHART-

PIPE SIZE	MINIMUM	MAXIMUM
6", 8" & 10"	24"	30"
12" & 15"	30"	36"
18"	34"	40"
21"	38"	42"
24"	42"	46"
27"	45"	49"
30"	49"	53"
36"	56"	60"
LARGER THAN 36"	I.D. +20"	I.D. +24"







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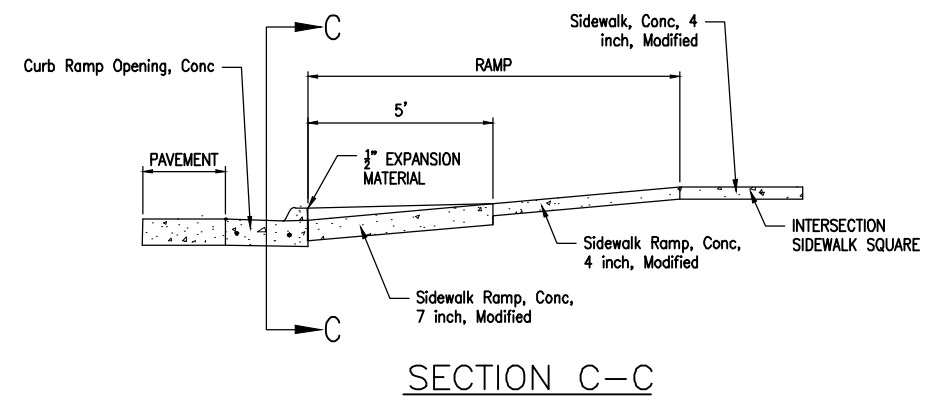
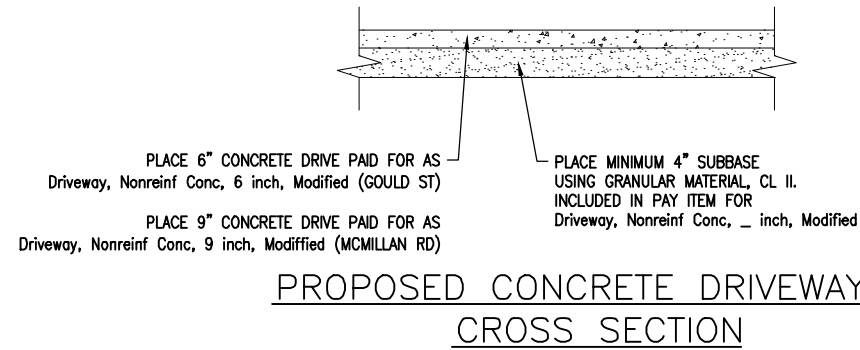
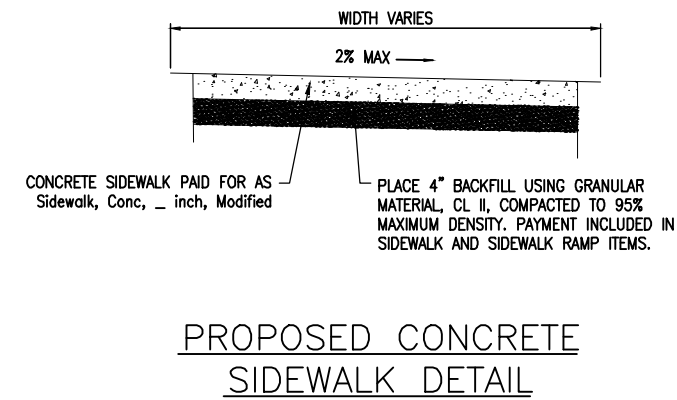
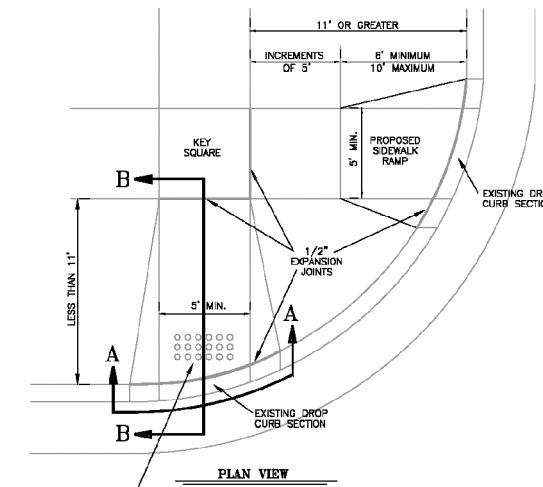
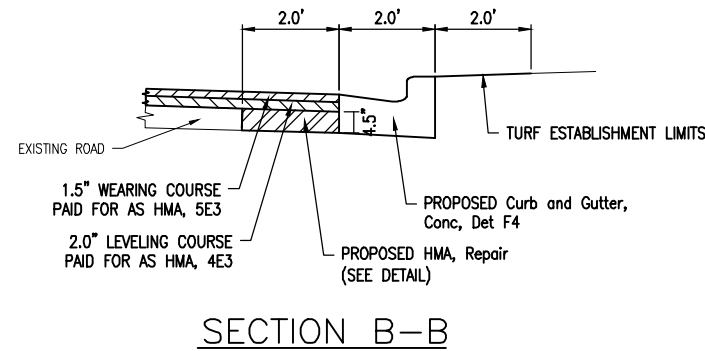
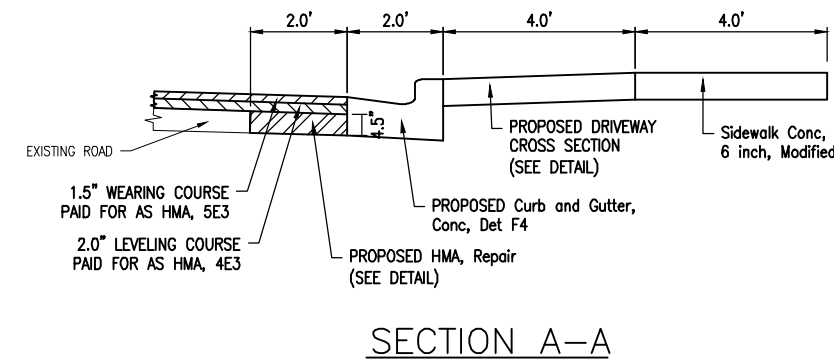
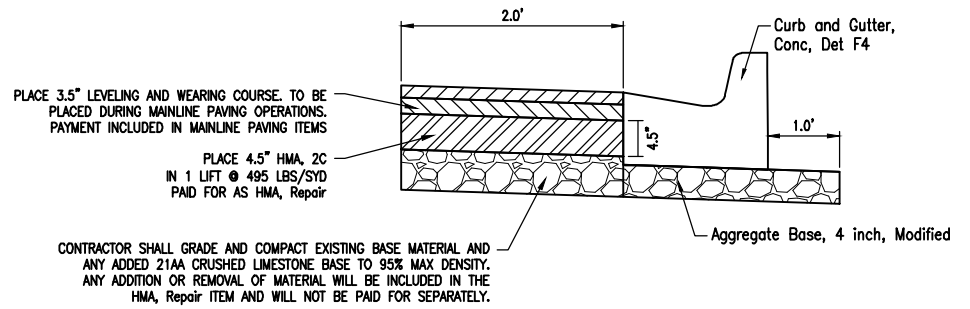
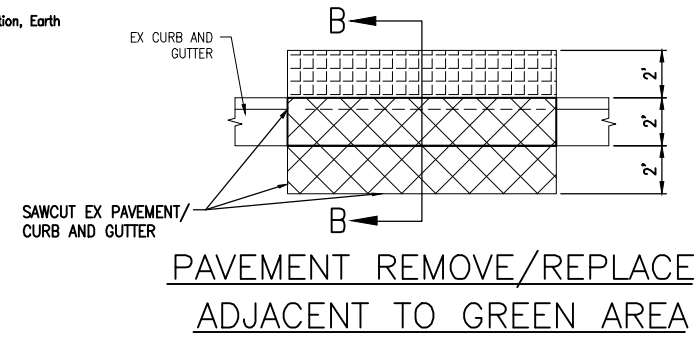
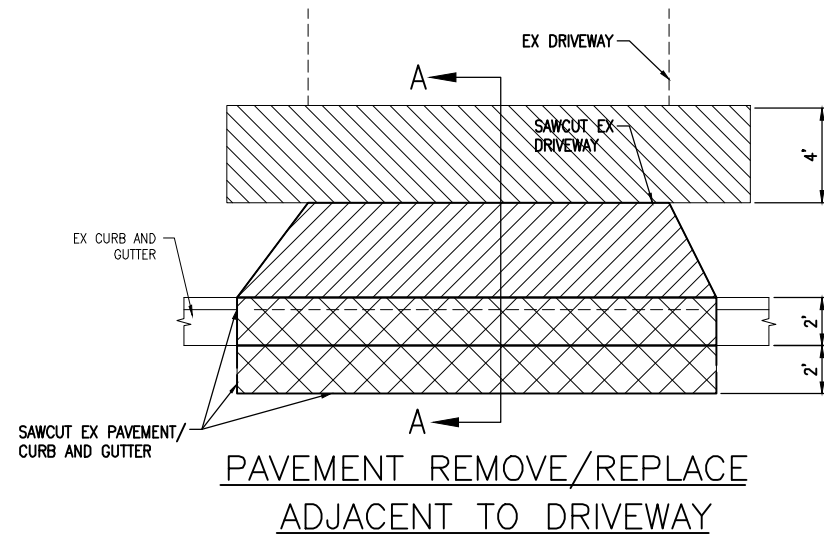
REVISIONS

DATE: 02/17/2020
PROJ NUMBER: 00217-2030
ENG: DS
PROJ MGR: AV
CADD: SS
COUNTY: SHAWANSEE
CITY/TOWNSHIP: OWASSO
SCALE: H: 1"=40' V: 1"=4'
HORIZ DATUM: MDS
VERT DATUM: MDS
DATE PLOTTED: 03/08/20

CITY OF OWASSO
INDUSTRIAL PARK CONNECTOR
DETAIL SHEET

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-  Sidewalk, Rem, Modified
-  Driveway, Rem
-  Pavt, Rem, Modified
-  Excavation, Earth



- NOTES:**
- CONCRETE SIDEWALK THICKNESS SHALL BE INCREASED TO 6" IN DRIVEWAY CROSSINGS AND SHALL BE PAID FOR AS Sidewalk, Conc, 6 inch, Modified.
 - CONCRETE SIDEWALK THICKNESS SHALL BE INCREASED TO 7" IN SIDEWALK RAMPS AND SHALL BE PAID FOR AS Sidewalk Ramp, Conc, 7 inch, Modified.

DATE	PROJ NUMBER	ENG	DES	ISS	PROJ MGR	AV	CADD	COUNTY	SHAWANSEE	CITY/TOWNSHIP	OWASSO	SCALE	V	1"=4'	VERT DATUM	NOV 03	NOV 03
CITY OF OWASSO INDUSTRIAL PARK CONNECTOR DETAIL SHEET																	

DRAWING PATH: P:\0000_01\02\02017\030_Industrial_Park_Connector\Drawings\Civil\Detail170030DET.dwg Mar 08, 2018 - 10:58am

WATER & SEWER UTILITY SYMBOLS

EXISTING

- ST STORM MANHOLE
- SQUARE CATCH BASIN
- ROUND CATCH BASIN
- CULVERT
- CULVERT W/O END SECTION
- CULVERT W/END SECTION
- S SANITARY MANHOLE
- CO CLEAN OUT
- GW GATE VALVE & WELL
- GATE VALVE & BOX
- W WATER STOP BOX
- FIRE HYDRANT
- MP METER PIT
- WATER METER
- SH SPRINKLER HEAD
- IRRIGATION VALVE

PROPOSED

- STORM MANHOLE
- INLET/CATCH BASIN
- CULVERT END SECTION
- SANITARY MANHOLE
- GV&W GATE VALVE & WELL
- GV&B GATE VALVE & BOX
- TSV&W TAPPING SLEEVE VALVE & WELL
- TSV&B TAPPING SLEEVE VALVE & BOX
- FIRE HYDRANT

REAL ESTATE SYMBOLS

- CONTIGUOUS PROPERTY SYMBOL
- PARCEL NUMBER BOX
- NO ROW IMPACTS

MISCELLANEOUS UTILITY SYMBOLS

EXISTING

- GUY WIRE
- GP GUY POLE
- U UTILITY POLE
- U UTILITY POLE W/LIGHT
- LIGHT/DECOR LAMP POLE
- FLOOD LIGHT
- GAS VALVE
- GAS VENT
- GAS METER
- GAS RISER
- TRAFFIC SIGNAL
- PEDESTRIAN RISER
- TRANSFORMER PAD
- U PRIVATE UTILITY MANHOLE
- RR R RAILROAD CROSSING
- E ELECTRIC METER
- PB PHONE BOOTH
- TS TRAFFIC SIGNAL CONTROLLER
- HAND HOLE
- E ELECTRIC RISER
- T TELEPHONE RISER
- C CABLE TV RISER
- W MONITORING WELL
- UNDERGROUND MARKER

MISCELLANEOUS SYMBOLS

EXISTING

- RIPRAP
- SIGN
- FLOW DIRECTION
- STUMP
- WETLAND
- CONIFEROUS TREE
CL 1 1" TO 5"
CL 2 6" TO 17"
CL 3 18" TO 35"
CL 4 36" AND UP
- DECIDUOUS TREE
- CONIFEROUS SHRUB
- DECIDUOUS SHRUB
- SB# SOIL BORING
- SECTION CORNER
- MON MONUMENT
- IRON ROD/PIPE
- PK# PK NAIL
- BM# BENCHMARK
- TP# TRAVERSE POINT
- MAIL/NEWSPAPER BOX
- FP FLAG POLE
- POST

HAZARDOUS OR FLAMMABLE MATERIAL

USED WITH UNDERGROUND GAS & ELECTRICAL LINES

CAUTION - CRITICAL UNDERGROUND UTILITY

USED WITH TELEPHONE & FIBER OPTIC LINES

PROPOSED

- RIPRAP
- SIGN
- FLOW DIRECTION
- STRUCTURE NUMBER
WM SAN STM

UTILITY PATTERN

EXISTING

- ELEC ELECTRICAL *
- 6" (COMPANY) GAS GAS/OIL
- CABLE/TEL CABLE/TELEPHONE *
- FIBER OPTIC FIBER OPTIC *
- 12" WM WATER
- 12" SAN SANITARY
- 12" STM STORM

PROPOSED

- 12" → STORM/SANITARY/WATER
- 12" PRIMARY UTILITY WILL HAVE A CONTINUOUS LIFESTYLE, WITH THE SECONDARY UTILITY MATCHING ITS RESPECTIVE EXISTING UTILITY LIFESTYLE

*OH = OVERHEAD , UG = UNDERGROUND

ROW PATTERN

EXISTING

- ROW ROW
- SECTION SECTION
- PROPERTY/PARCEL

PROPOSED

- ROW ROW

TOPO PATTERN

EXISTING

- HEDGE/TREE
- FENCE
- GUARDRAIL
- CENTERLINE OF DITCH
- RAILROAD
- WETLAND/EDGE OF WATER

PROPOSED

- GRADING LIMIT (SLOPE STAKE)
- CENTERLINE OF DITCH
- GUARDRAIL
- FENCE

REMOVAL LEGEND

- SIDEWALK REMOVAL
- DRIVEWAY REMOVAL
- COLD MILLING HMA SURFACE
- PAVEMENT REMOVAL
- CURB AND GUTTER, REM
- TREE, REM
- SEWER, REM
- S-XXXXXX SALVAGE
- B-XXXXXX BULKHEAD
- A-XXXXXX ABANDON
- R-XXXXXX REMOVE
- ADJ-XXXXXX ADJUST
- REL-XXXXXX RELOCATE
- REC-XXXXXX RECONSTRUCT
- R B/O-XXXXXX REMOVE BY OTHERS
- ADJ B/O-XXXXXX ADJUST BY OTHERS
- REL B/O-XXXXXX RELOCATE BY OTHERS

IF NECESSARY FOR CLARITY

- SALVAGE
- BULKHEAD
- ABANDON
- CLEARING
- REMOVE
- RELOCATE
- RECONSTRUCT
- RELOCATE BY OTHERS
- ADJUST BY OTHERS

SPECIAL LEGEND

- SESC MEASURE

ARCHITECTS ENGINEERS PLANNERS
929 Bridgeview South
Saginaw, MI 48804
P (989) 393-4200
OHM-ADVISORS.COM

DATE: 02/21/2023
 PROJ. NO: 2023-03
 ENG: DS
 COUNTY: SHAWANSEE
 CADD: SS
 CITY/TOWNSHIP: OWOSSO
 SCALE: 1"=40'
 V: 1"=4'
 HORIZ. DATUM: NAD 83
 VERT. DATUM: NAVD 83
 REVISIONS:

CITY OF OWOSSO
 INDUSTRIAL PARK CONNECTOR
 LEGEND SHEET



Know what's below.
Call before you dig.

DRAWING PATH: P:\0000_01\02\0202170030_Industrial_Park_Connector\Drawings\Civil\Misc\70030LEC.dwg Mar 08, 2018 - 10:56am

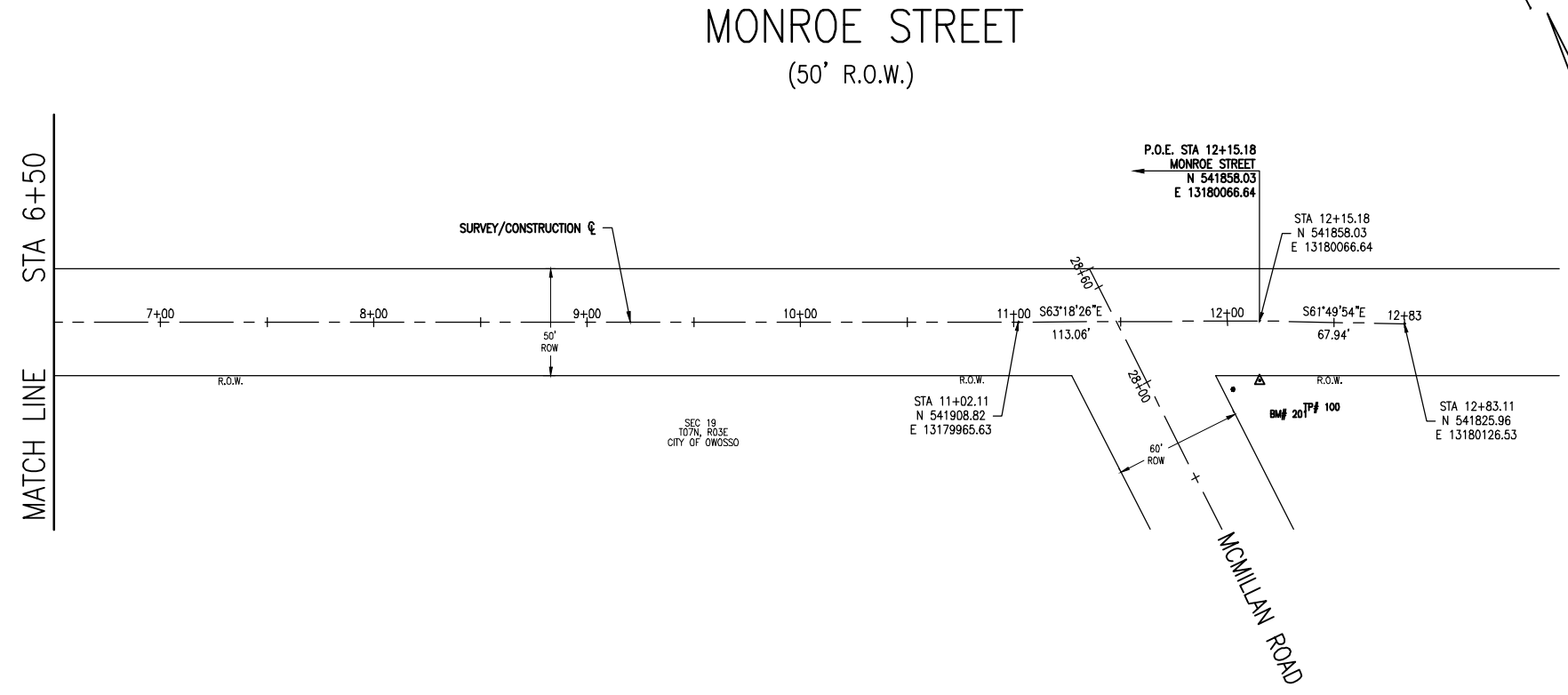
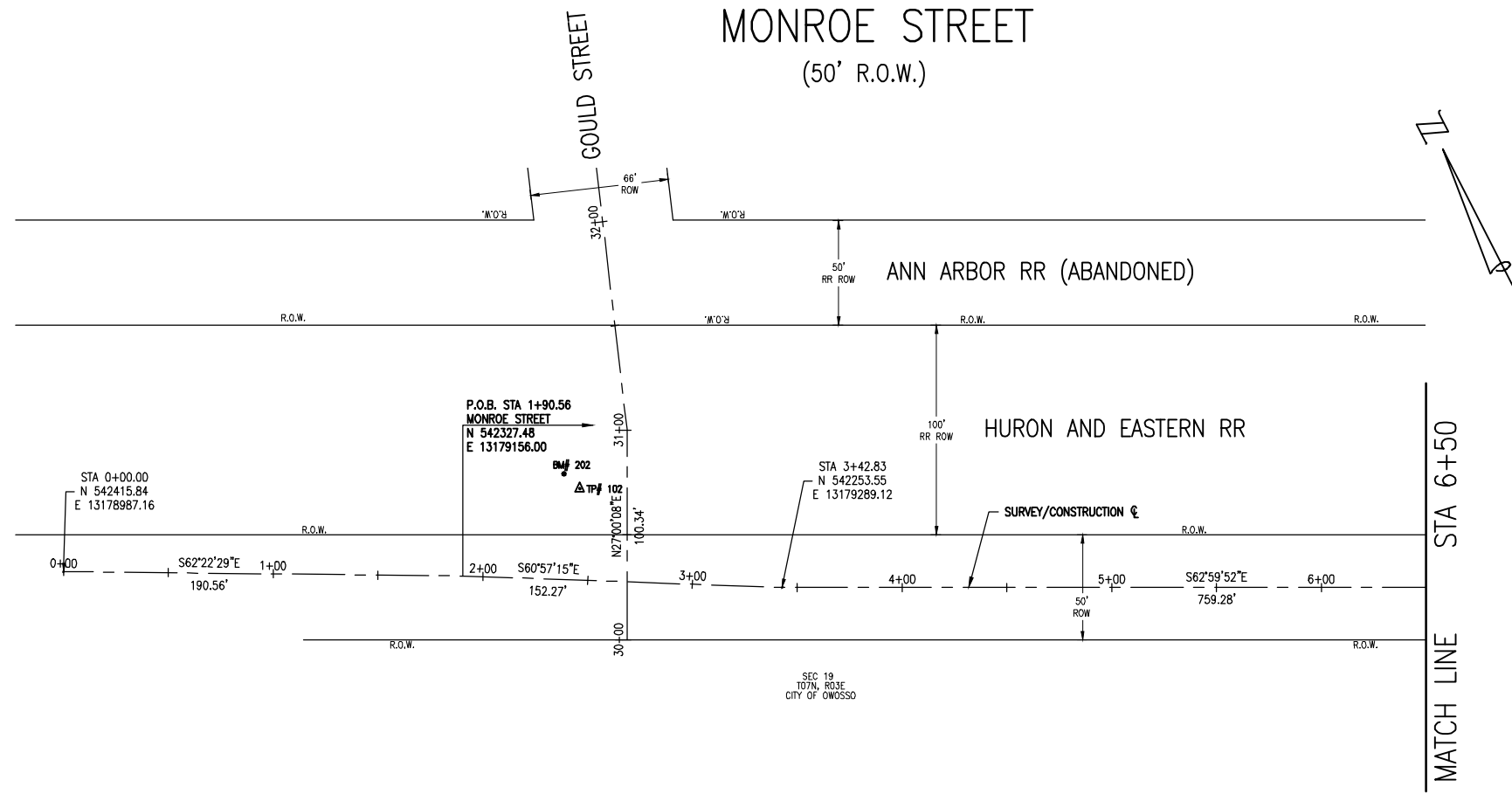
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JOB BENCHMARK #201
 DESCRIPTION: SET COTTON SPINDLE IN
 EAST FACE POWER POLE IN SE
 QUAD OF McMILLAN AND MONROE
 ELEV 742.80

JOB BENCHMARK #202
 DESCRIPTION: SET COTTON SPINDLE IN
 EAST FACE POWER POLE IN NW
 QUAD OF GOULD AND MONROE
 ELEV 739.90

TRAVERSE POINT #100
 N 541833.00
 E 13180053.83 ELEV 741.97

TRAVERSE POINT #102
 N 542239.545
 E 13179224.38 ELEV 739.20



DRAWING PATH: P:\0000_01\02\00217002_Industrial_Park_Connector\Drawings\Civil\Sec170230MLA.dwg Mar 08 2018 10:58am

REVISIONS:

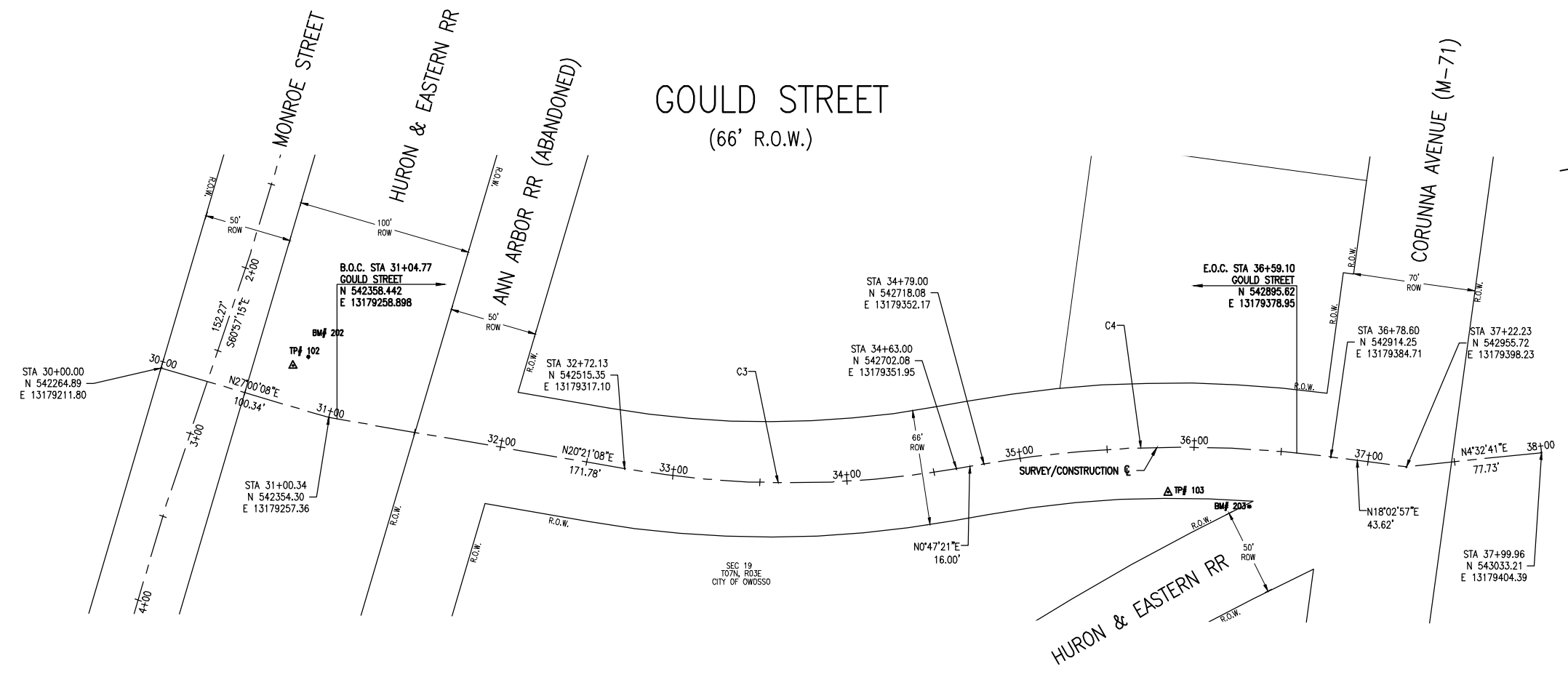
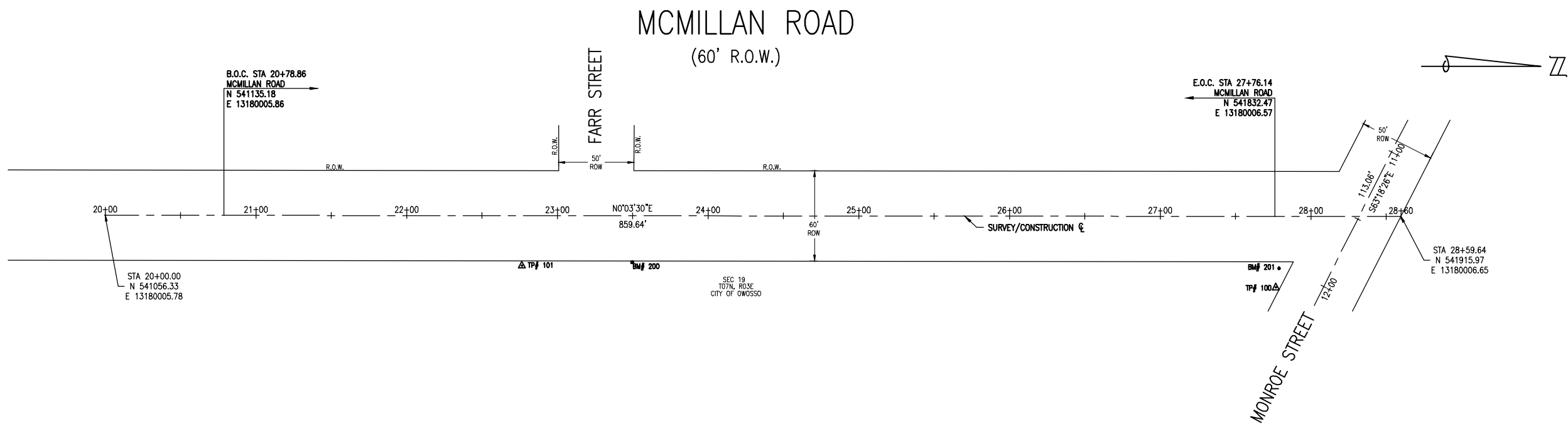
NO.	DATE	DESCRIPTION

DATE	PROJ NUMBER	ENG	DIS	PROJ LEAD	CADD	COUNTY	CITY/VILLAGE/TOWNSHIP	SCALE	H.	V.	VERT DATUM
	00217-002	DS		AV	SS	SHAWANSEE	OWOSSO	1"=40'			NAVD 83

CITY OF OWOSSO
 INDUSTRIAL PARK CONNECTOR
 MONROE ALIGNMENT SHEET

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JOB BENCHMARK #200 DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN NW QUAD OF MCMILLAN AND FARR ELEV 745.49
JOB BENCHMARK #201 DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN SE QUAD OF MCMILLAN AND MONROE ELEV 742.80
JOB BENCHMARK #202 DESCRIPTION: SET COTTON SPINDLE IN EAST FACE OF POWER POLE IN NW QUAD OF GOULD AND MONROE ELEV 739.90
JOB BENCHMARK #203 DESCRIPTION: SET CHISELED "X" IN NW BOLT OF STRAIN POLE IN SE QUAD OF CORUNNA AND GOULD ELEV 738.84
TRAVERSE POINT #100 N 541833.00 E 13180053.83 ELEV 741.97
TRAVERSE POINT #101 N 541332.81 E 13180039.32 ELEV 748.12
TRAVERSE POINT #102 N 542339.36 E 13179224.38 ELEV 739.20
TRAVERSE POINT #103 N 542818.78 E 13179387.63 ELEV 738.63



ALIGNMENT CURVE DATA										
Curve #	Δ	R (Ft)	L (Ft)	T	PC STATION	NORTHING	EASTING	PI STATION	NORTHING	EASTING
C3	19°33'47"	559.034	190.877	96.38	32+72.13	542515.35	13179317.10	33+68.50	542605.72	13179350.62
C4	17°15'36"	662.592	199.601	100.56	34+79.00	542718.08	13179352.17	35+79.57	542818.63	13179353.56

DRAWING PATH: P:\0000_01\02\0202170030_Industrial_Park_Connector\Drawings\Civil\170030\MCMillan.dwg Mar 08 2018 - 10:58am

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Saginaw, MI 48604
P (989) 393-4200
OHM-ADVISORS.COM

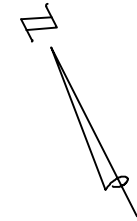
NO.	DATE	REVISIONS

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MCMILLAN/GOULD ALIGNMENT SHEET

JOB BENCHMARK #202
 DESCRIPTION: SET COTTON SPINDLE IN
 EAST FACE POWER POLE IN NW
 QUAD OF GOULD AND MONROE
 ELEV 739.90

TRAVERSE POINT #102
 N 542339.345
 E 13179224.38 ELEV 739.20

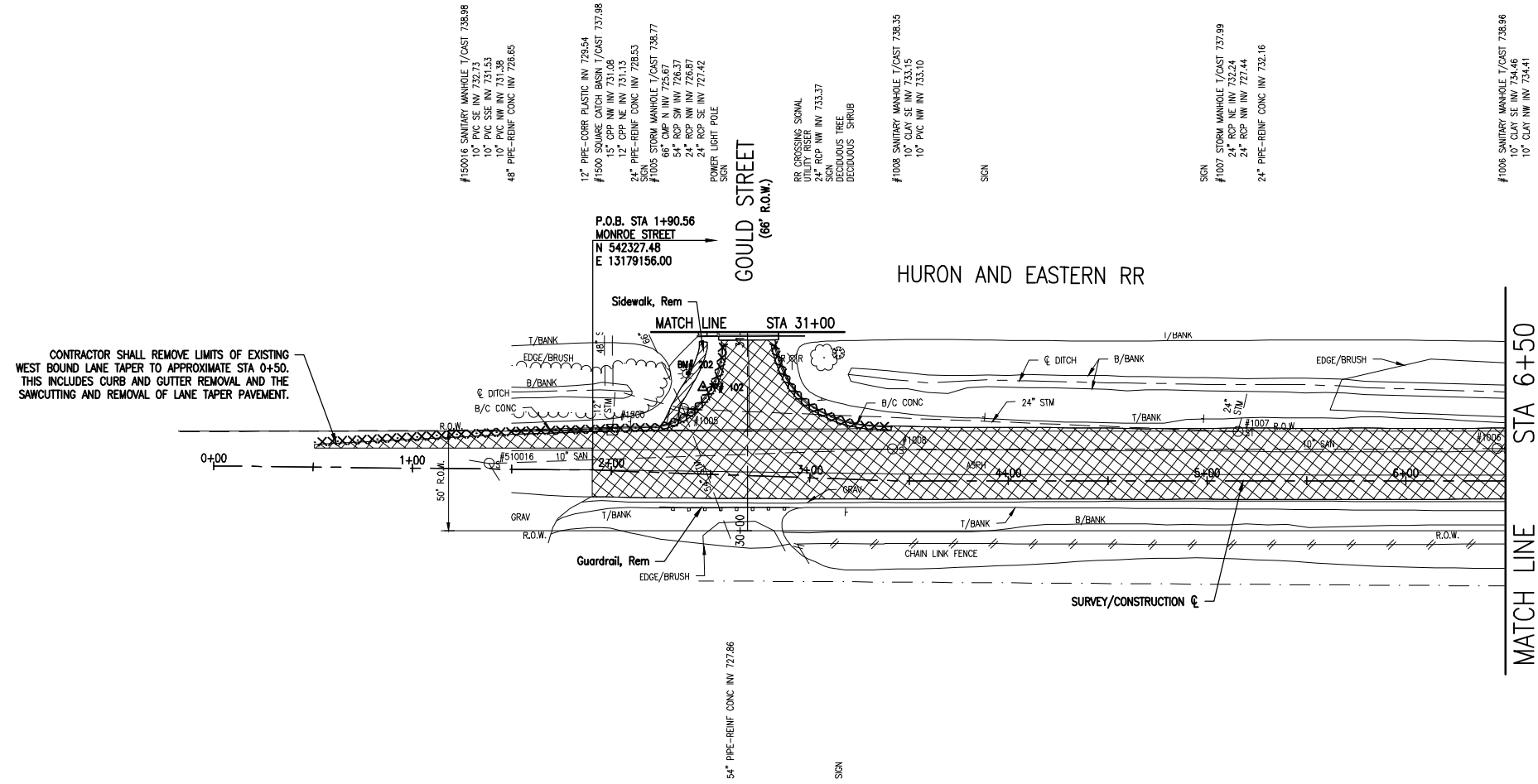
MONROE STREET (50' R.O.W.)



OHM
 ARCHITECTS ENGINEERS PLANNERS

929 Bridgeview South
 Saginaw, MI 48604
 P (989) 393-4200

OHM-ADVISORS.COM



CONTRACTOR SHALL REMOVE LIMITS OF EXISTING
 WEST BOUND LANE TAPER TO APPROXIMATE STA 0+50.
 THIS INCLUDES CURB AND GUTTER REMOVAL AND THE
 SAWCUTTING AND REMOVAL OF LANE TAPER PAVEMENT.

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
316	Ft	Curb and Gutter, Rem
66	Ft	Guardrail, Rem
22	Syd	Sidewalk, Rem
2104	Syd	Pavt, Rem, Modified



Know what's below.
 Call before you dig.

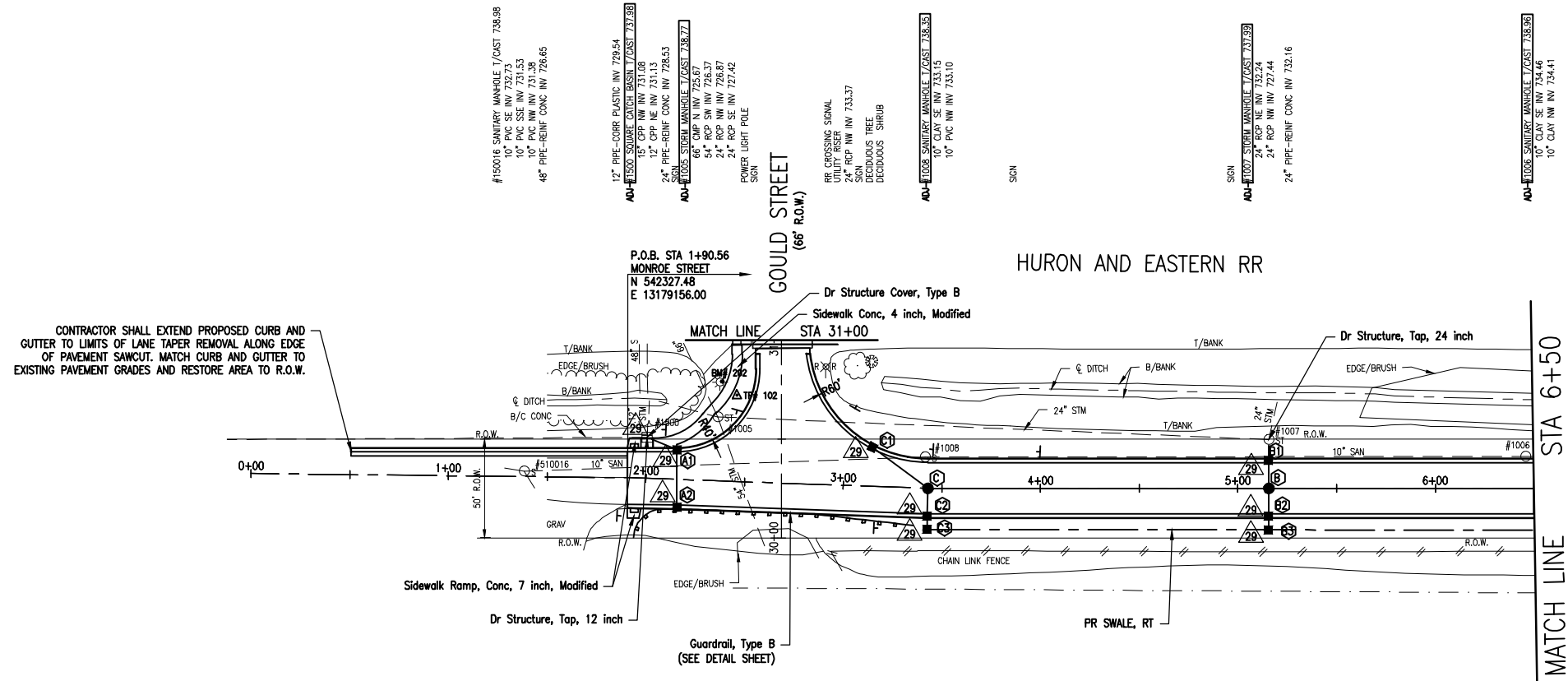
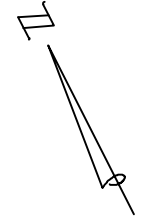
DATE: 02/17/2023
 PROJ NUMBER: 020217032
 PROJ MGR: AV
 COUNTY: SHELBY
 CITY/TOWNSHIP: OWASSO
 SCALE: 1"=40'
 VERT DATUM: NAVD 83
 HORIZ DATUM: NAD 83
 REVISIONS:

CITY OF OWASSO
 INDUSTRIAL PARK CONNECTOR
 MONROE REMOVAL SHEET
 P.O.B. TO STA 6+50

JOB BENCHMARK #202
 DESCRIPTION: SET COTTON SPINDLE IN
 EAST FACE POWER POLE IN NW
 QUAD OF GOULD AND MONROE
 ELEV 739.90

TRAVERSE POINT #102
 N 542339.345
 E 13179224.38 ELEV 739.20

MONROE STREET (50' R.O.W.)



CONTRACTOR SHALL EXTEND PROPOSED CURB AND GUTTER TO LIMITS OF LANE TAPER REMOVAL ALONG EDGE OF PAVEMENT SAWCUT. MATCH CURB AND GUTTER TO EXISTING PAVEMENT GRADES AND RESTORE AREA TO R.O.W.

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
9	Ea	Erosion Control, Inlet Protection, Fabric Drop
1606	Syd	Aggregate Base, 10 inch, Modified
47	Syd	Aggregate Base, 4 inch, Modified
366	Syd	Aggregate Base, 9 inch, Modified
1972	Syd	Geotextile, Separator, Modified
295	Ft	Sewer, Storm, 12 inch, SDR-26, Special Trench Detail
160	Ft	Sewer, Storm, 24 inch, SDR-26, Special Trench Detail
3	Ea	Dr Structure Cover, Type B
2	Ea	Dr Structure Cover, Type G
6	Ea	Dr Structure Cover, Type K
1	Ea	Dr Structure, Tap, 12 inch
1	Ea	Dr Structure, Tap, 24 inch
5	Ft	Dr Structure, 36 inch dia, Additional Depth
10	Ft	Dr Structure, 48 inch dia, Additional Depth
2	Ea	Dr Structure Collar, Modified
2	Ea	Dr Structure, 24 inch dia, Catch Basin
5	Ea	Dr Structure, 36 inch dia, Catch Basin
1	Ea	Dr Structure, 48 inch dia, Catch Basin
2	Ea	Dr Structure, 48 inch dia, Manhole
5	Ea	Structure Cover, Adj. Case 2, Modified
397	Ton	HMA, 2C
199	Ton	HMA, 4E3
149	Ton	HMA, 5E3
32	Syd	HMA, Repair
1098	Ft	Curb and Gutter, Conc, Det F4
10	Ft	Detectable Warning Surface
14	Ft	Curb Ramp Opening, Conc
95	Sft	Sidewalk Ramp, Conc, 7 inch, Modified
370	Sft	Sidewalk, Conc, 4 inch, Modified
75	Ft	Guardrail, Type B
25	Ft	Guardrail, Curved, Type B
2	Ea	Guardrail Approach Terminal, Type 2B
5	Ea	Guardrail Reflector



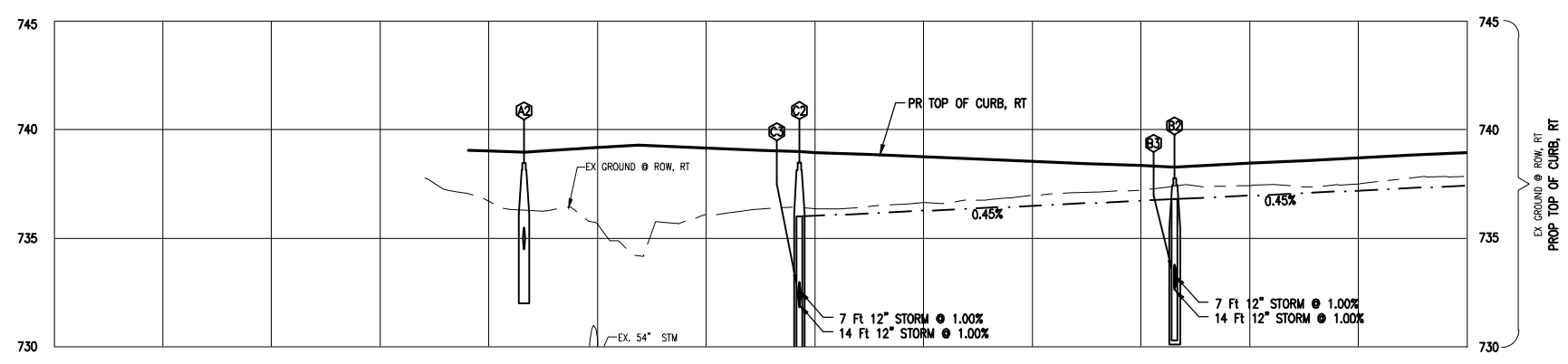
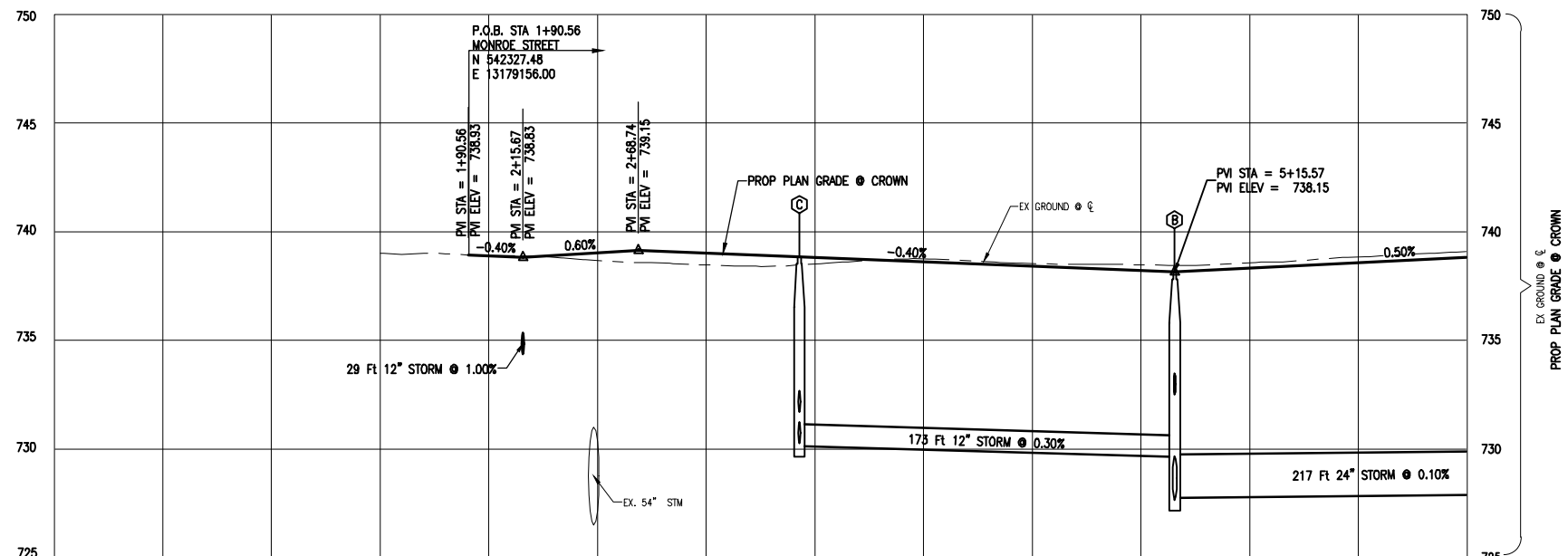
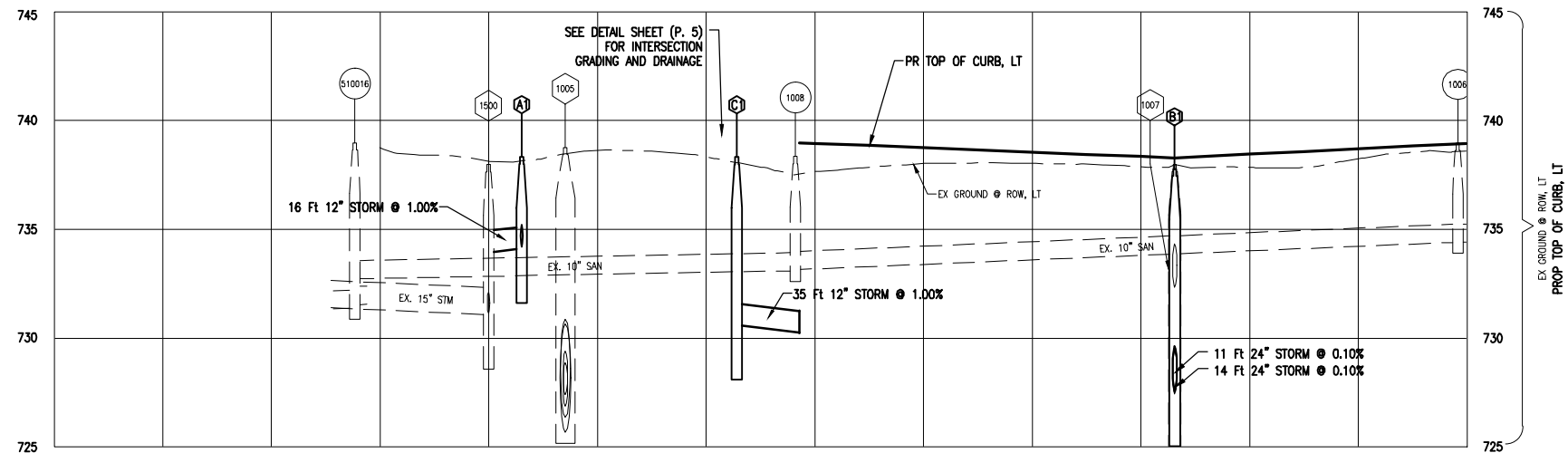
Know what's below.
 Call before you dig.

DATE: 02/17/2023
 PROJ NUMBER: 002-17-2023
 ENG: DS
 PROJ MGR: AV
 COUNTY: SHAWASSEE
 CADD: SS
 CITY/TOWNSHIP: CANTON
 SCALE: 1"=40'
 VERT DATUM: NAVD 83
 HORIZ DATUM: NAD 83
 CITY OF OWOSSO
 INDUSTRIAL PARK CONNECTOR
 MONROE CONSTRUCTION SHEET
 P.O.B. TO STA 6+50

DRAWING PATH: P:\0000_01\02\020217035_Industrial_Park_Connector\Drawings\Civil\Plan_Constr\170303CON.dwg Mar 08, 2018 - 11:08am

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DRAWING PATH: P:\0000_01020020170030_Industrial_Park_Connector\Drawings\Civil\Profile\170030PPE.dwg, Mod: 08-2018-11:01am



Station	EX GROUND @ ROW, LT	PROP TOP OF CURB, LT	EX GROUND @ ROW, RT	PROP TOP OF CURB, RT	PROP PLAN GRADE @ CROWN
0+00					
1+00					
2+00	738.7	738.1	738.9	738.9	738.89
2+10					738.04
2+20	738.6	738.17	738.7	738.7	738.04
3+00	738.5	738.15	738.5	738.5	738.02
3+10					738.82
3+20	738.4	738.05	738.5	738.5	738.82
3+30					738.7
3+40	738.6	738.05	738.7	738.7	738.62
4+00	738.5	738.55	738.5	738.55	738.42
4+10					738.5
4+20	737.9	738.34	738.5	738.5	738.21
4+30					738.6
4+40	737.4	738.45	738.6	738.6	738.32
5+00	737.5	738.70	738.8	738.8	738.57
6+00	737.9	738.95	739.1	739.1	738.82

- (A1)**
STA 2+15.14, 14.9' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 738.33, TYPE K COVER
12" INV SW 734.21
12" INV NW 734.11
- (A2)**
STA 2+16.18, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 738.46, TYPE K COVER
12" INV NE 734.50
- (B)**
STA 5+15.57, 0.0'
Dr Structure, 48 inch dia, Manhole
T/CAST 738.15, TYPE B COVER
24" INV SE 727.76
24" INV NE 727.67
12" INV SW 732.49
12" INV NW 729.63
- (B1)**
STA 5+15.57, 14.0' L
Dr Structure, 48 inch dia, Catch Basin
T/CAST 737.78, TYPE K COVER
24" INV SW 727.65
24" INV NE 727.55
- (B2)**
STA 5+15.57, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 737.78, TYPE K COVER
12" INV SW 732.73
12" INV NE 732.63
- (B3)**
STA 5+15.57, 21.0' R
Dr Structure, 24 inch dia, Catch Basin
T/CAST 736.80, TYPE G COVER
12" INV NE 732.80
- (C)**
STA 3+42.83, 0.0' L
Dr Structure, 48 inch dia, Manhole
T/CAST 738.85, TYPE B COVER
12" INV SE 730.15
12" INV NW 730.25
12" INV SW 731.69
- (C1)**
STA 3+14.08, 19.8' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 738.32, TYPE K COVER
12" INV SE 730.60
- (C2)**
STA 3+42.83, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 738.47, TYPE K COVER
12" INV SW 731.93
12" INV NE 731.83
- (C3)**
STA 3+42.83, 20.8' R
Dr Structure, 24 inch dia, Catch Basin
T/CAST 736.00, TYPE G COVER
12" INV NE 732.00

ALL OFFSETS FOR PROPOSED STRUCTURES ARE TO THE PROPOSED CENTER OF CASTING. GRADES FOR STRUCTURES LOCATED IN THE PROPOSED CURB LINE ARE PROPOSED FLOW LINE ELEVATIONS.

REV	DATE	DESCRIPTION

DATE	PROJ NUMBER	ENG	DES	PROJ MGR	CADD	COUNTY	CITY/TOWNSHIP	SCALE	VERT DATUM	NO/DWG
	002-17-003	ES	AV	SS	SS	SHAWANSEE	OWOSSO	H: 1"=40'	V: 1"=4'	

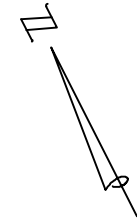
CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MONROE PROFILE SHEET
P.015 TO STA 6+50

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JOB BENCHMARK #201
 DESCRIPTION: SET COTTON SPINDLE IN
 EAST FACE POWER POLE IN SE
 QUAD OF MCMILLAN AND MONROE
 ELEV 742.80

TRAVERSE POINT #100
 N 541833.00
 E 13180063.83 ELEV 741.97

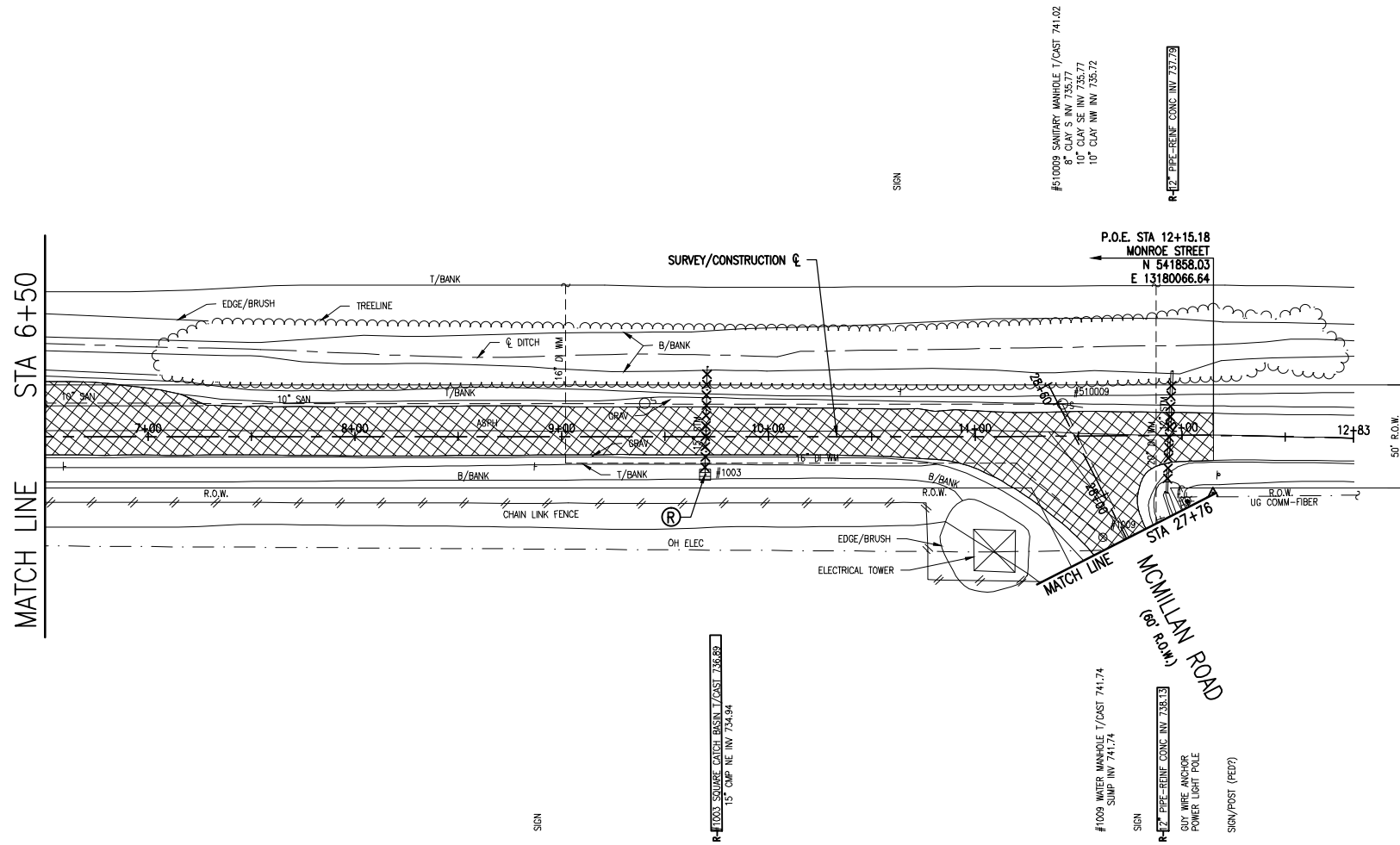
MONROE STREET (50' R.O.W.)



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 ARCHITECTS ENGINEERS PLANNERS

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 Saginaw, MI 48604
 P (989) 393-4200

OHM-ADVISORS.COM



QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
1	Ea	Dr Structure, Rem
112	Ft	Sewer, Rem, Less than 24 Inch
1799	Syd	Pavt, Rem, Modified



Know what's below.
 Call before you dig.

DATE: 02/17/2023
 PROJ NUMBER: 2023-003
 ENG: DS
 PROJ MGR: AV
 CADD: BS
 COUNTY: SHAWANASSEE
 CITY/TOWN/VILLAGE/TOWNSHIP: OWASSO
 SCALE: 1"=40'
 HORIZ DATUM: NAD 83
 VERT DATUM: NAD 83
 REVISIONS:

CITY OF OWASSO
 INDUSTRIAL PARK CONNECTOR
 MONROE REMOVAL SHEET
 STA 6+50 TO P.O.E.

DRAWING PATH: P:\0000_01\2023\02\17\2023_Industrial_Park_Connector\Drawings\Civil\Removal\170303PCE1.dwg Mar 08, 2018 - 1:01am

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JOB BENCHMARK #201
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 QUAD OF McMILLAN AND MONROE
 ELEV 742.80

TRAVERSE POINT #100
 N 541833.00
 E 13180063.83 ELEV 741.97

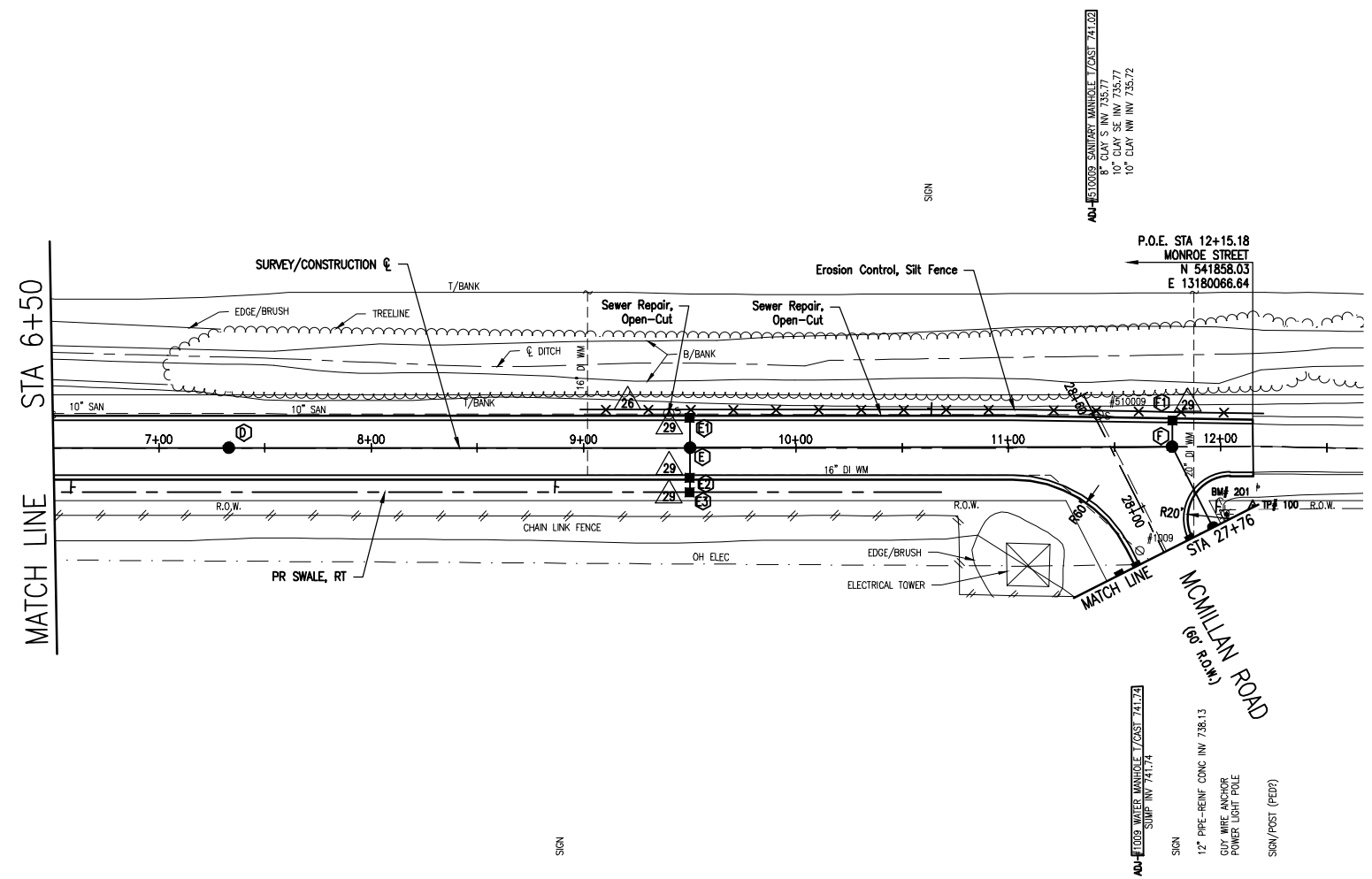
MONROE STREET (50' R.O.W.)



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 Saginaw, MI 48604
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Sewer Repair, Open-Cut		
STATION, OFFSET	PIPE DIAMETER	QUANTITY
STA 9+40, 15.8' L	10 IN	10 FT
STA 10+40, 15.7' L	10 IN	10 FT

QUANTITIES THIS SHEET		
TOTAL	UNIT	DESCRIPTION
4	Ea	Erosion Control, Inlet Protection, Fabric Drop
323	Ft	Erosion Control, Silt Fence
1793	Syd	Aggregate Base, 10 inch, Modified
384	Syd	Aggregate Base, 9 inch, Modified
2176	Syd	Geotextile, Separator, Modified
48	Ft	Sewer, Storm, 12 inch, SDR-26, Special Trench Detail
572	Ft	Sewer, Storm, 24 inch, SDR-26, Special Trench Detail
3	Ea	Dr Structure Cover, Type B
1	Ea	Dr Structure Cover, Type C
3	Ea	Dr Structure Cover, Type K
2	Ft	Dr Structure, 24 inch dia, Additional Depth
6	Ft	Dr Structure, 36 inch dia, Additional Depth
13	Ft	Dr Structure, 48 inch dia, Additional Depth
4	Ea	Dr Structure Collar, Modified
1	Ea	Dr Structure, 24 inch dia, Catch Basin
3	Ea	Dr Structure, 36 inch dia, Catch Basin
3	Ea	Dr Structure, 48 inch dia, Manhole
1	Ea	Structure Cover, Adj, Case 1, Modified
1	Ea	Structure Cover, Adj, Case 2, Modified
434	Ton	HMA, 2C
217	Ton	HMA, 4E3
163	Ton	HMA, 5E3
1151	Ft	Curb and Gutter, Conc, Det F4

QUANTITIES THIS SHEET - NON-PARTICIPATING		
TOTAL	UNIT	DESCRIPTION
10	Ft	Sewer Repair, Cured-In-Place Pipe
30	Ft	Sewer Repair, Open-Cut



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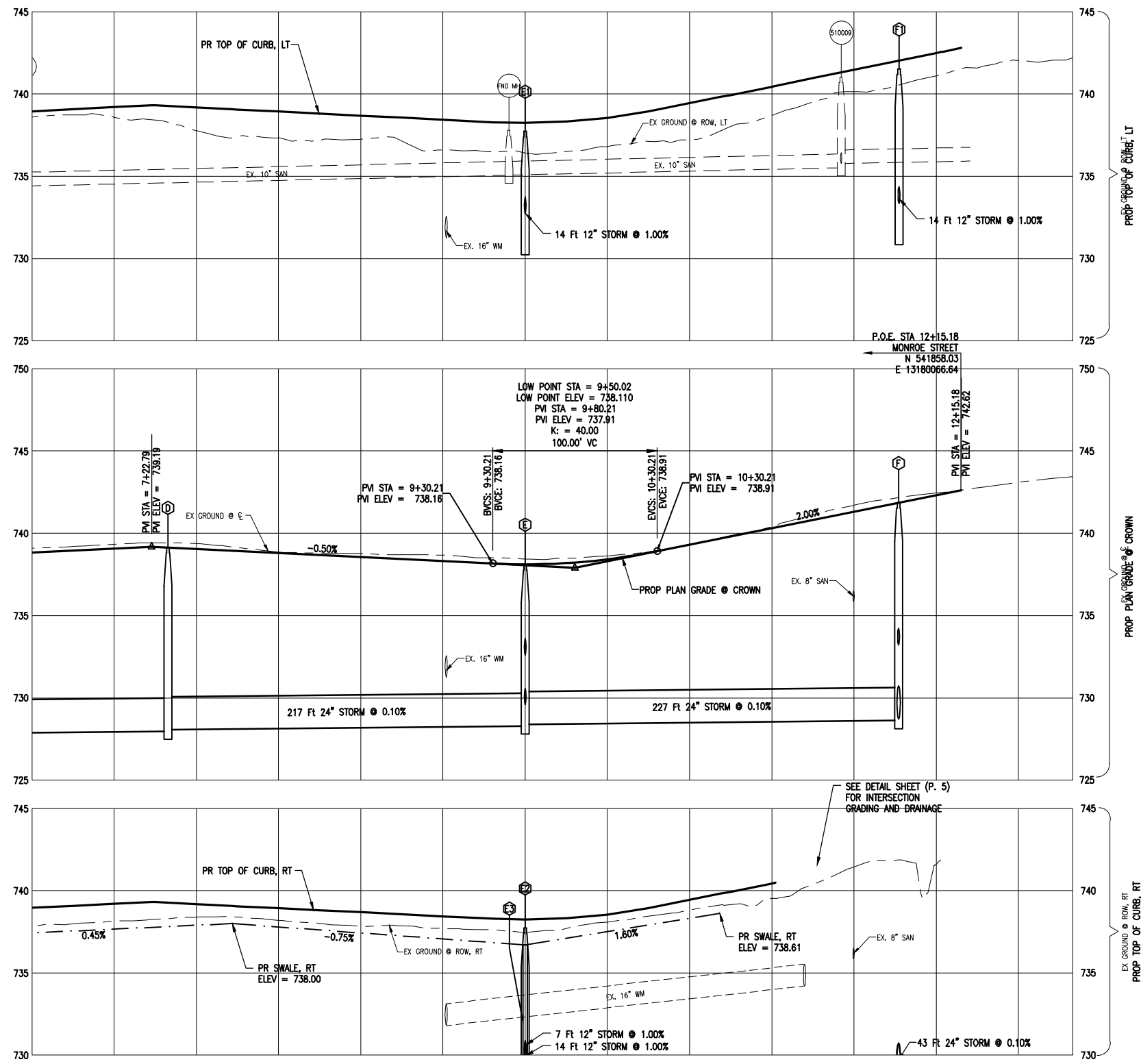
DATE: 02/17/2023
 PROJ NUMBER: 002-17-2023
 ENG: DS
 PROJ MGR: AV
 COUNTY: SHAWANSEE
 CADD: SS
 CITY/TOWNSHIP: OWASSO

CITY OF OWASSO
 INDUSTRIAL PARK CONNECTOR
 MONROE CONSTRUCTION SHEET
 STA 6+50 TO P.O.E.

DRAWING PATH: P:\0000_01\02\020217035_Industrial_Park_Connector\Drawings\Civil\Plan_Constr\170303CON.dwg Mar 08, 2018 - 11:03am

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DRAWING PATH: P:\0000_01020020170030_Industrial_Park_Connector\Drawings\CH\Profile170030PPE.dwg Mod: 08-2018-11:02am



STATION	EX GROUND @ ROW, RT	PROP TOP OF CURB, RT	EX GROUND @ ROW, LT	PROP TOP OF CURB, LT	EX GROUND @ CROWN	PROP PLAN GRADE @ CROWN
7+00	737.9	736.95	739.3	738.32	739.3	738.32
8+00	738.2	737.2	739.7	738.69	739.7	738.69
9+00	738.4	737.7	739.4	738.51	739.4	738.51
10+00	738.6	738.1	739.5	738.42	739.5	738.42
11+00	739.3	738.7	739.3	738.31	739.3	738.31
12+00	740.5	740.1	741.7	741.32	741.7	741.32
12+83	741.6	741.6	743.1	743.1	743.1	743.1

- (D) STA 7+32.79, 0.0' Dr Structure, 48 inch dia, Manhole T/CAST 739.14, TYPE B COVER 24" INV NW 727.98 24" INV SE 728.08
- (E) STA 9+50.01, 0.0' Dr Structure, 48 inch dia, Manhole T/CAST 738.11, TYPE B COVER 24" INV NW 728.30 24" INV SE 728.40 12" INV SW 729.59 12" INV NE 732.60
- (E1) STA 9+50.01, 14.0' L Dr Structure, 36 inch dia, Catch Basin T/CAST 737.74, TYPE K COVER 12" INV SW 732.74
- (E2) STA 9+50.01, 14.0' R Dr Structure, 36 inch dia, Catch Basin T/CAST 737.74, TYPE K COVER 12" INV SW 729.83 12" INV NE 729.73
- (E3) STA 9+50.01, 21.0' R Dr Structure, 24 inch dia, Catch Basin T/CAST 736.70, TYPE G COVER 12" INV NE 729.90
- (F) STA 11+77.09, 0.0' L Dr Structure, 48 inch dia, Manhole T/CAST 741.86, TYPE B COVER 24" INV NW 728.63 24" INV S 728.73 12" INV NE 733.23
- (F1) STA 11+77.34, 12.5' L Dr Structure, 36 inch dia, Catch Basin T/CAST 741.52, TYPE K COVER 12" INV SW 733.35

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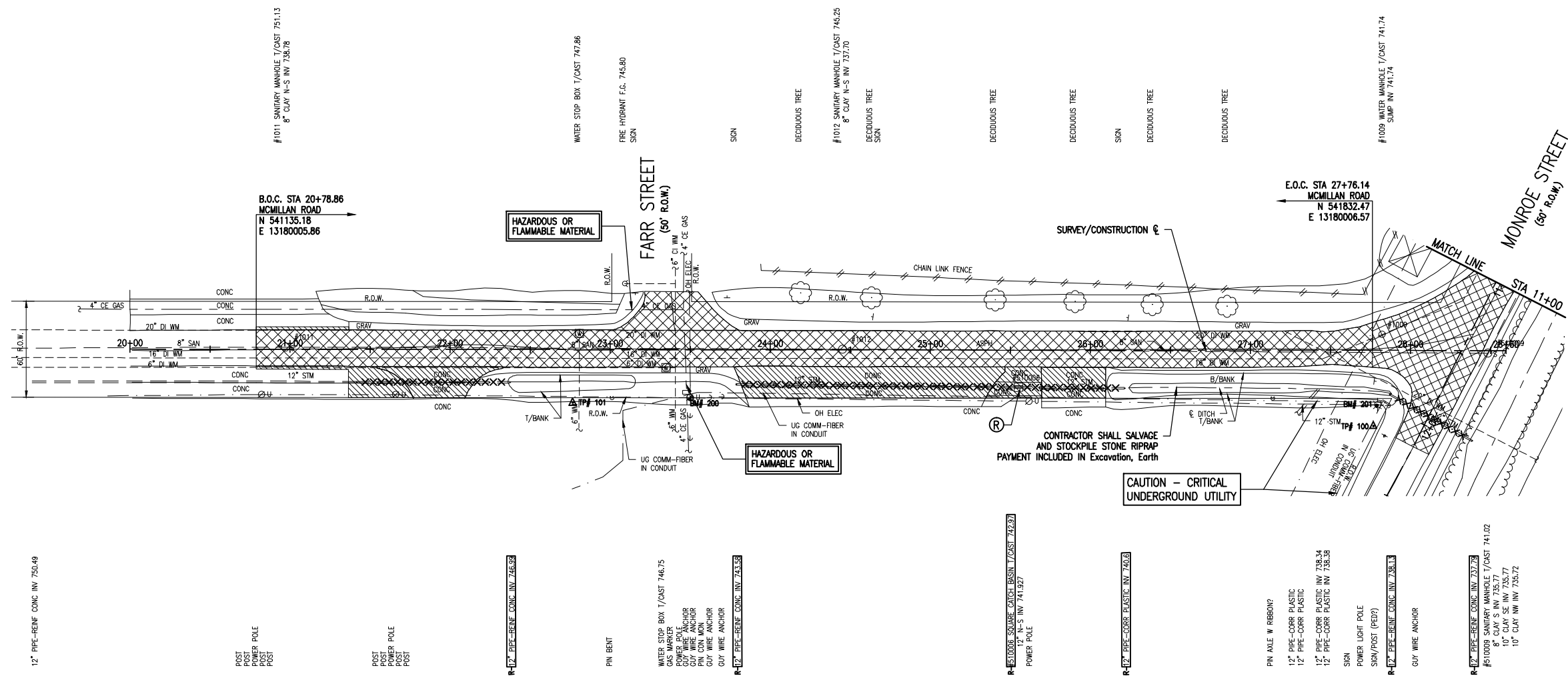
JOB BENCHMARK #200
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN NW QUAD OF MCMILLAN AND FARR
ELEV 745.49

JOB BENCHMARK #201
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN SE QUAD OF MCMILLAN AND MONROE
ELEV 742.80

TRAVERSE POINT #100
N 541833.00
E 13180053.83 ELEV 741.97

TRAVERSE POINT #101
N 5411332.81
E 13180039.32 ELEV 748.12

MCMILLAN ROAD (60' R.O.W.)



- 12" PIPE-REINF CONC INV 756.49
- POST POWER POLE
- POST POWER POLE
- POST POWER POLE
- R-12" PIPE-REINF CONC INV 748.93
- PIN BENT
- WATER STOP BOX T/CAST 746.75
- WATER STOP BOX T/CAST 746.75
- POWER POLE
- GUY WIRE ANCHOR
- PIN CON MON
- GUY WIRE ANCHOR
- GUY WIRE ANCHOR
- R-12" PIPE-REINF CONC INV 748.93
- R-510009 SQUARE CATCH BASIN T/CAST 742.91
- POWER POLE
- R-12" PIPE-CORR PLASTIC INV 740.0
- PIN AXLE W RIBBON?
- 12" PIPE-CORR PLASTIC
- 12" PIPE-CORR PLASTIC
- 12" PIPE-CORR PLASTIC INV 738.34
- 12" PIPE-CORR PLASTIC INV 738.38
- SIGN
- POWER LIGHT POLE
- SIGN/POST (PED?)
- R-12" PIPE-REINF CONC INV 738.13
- GUY WIRE ANCHOR
- R-12" PIPE-REINF CONC INV 737.79
- #510009 SANITARY MANHOLE T/CAST 741.02
- 8" CLAY S INV 735.77
- 10" CLAY INV INV 735.72

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
1	Ea	Dr Structure, Rem
340	Ft	Sewer, Rem, Less than 24 inch
696	Syd	Driveway, Rem
1889	Syd	Pavt, Rem, Modified



REVISIONS:

NO. 1	DATE	DESCRIPTION

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MCMILLAN REMOVAL SHEET

DATE: 02/17/2018
PROJ NUMBER: 00217-2018
ENG: DS
PROJ MGR: AV
CADD: SS
COUNTY: SHAWASSEE
SCALE: 1"=40'

VERT DATUM: NAVD 83
HORIZ DATUM: NAVD 83
V: N/A

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JOB BENCHMARK #200
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN NW QUAD OF MCMILLAN AND FARR ELEV 745.49

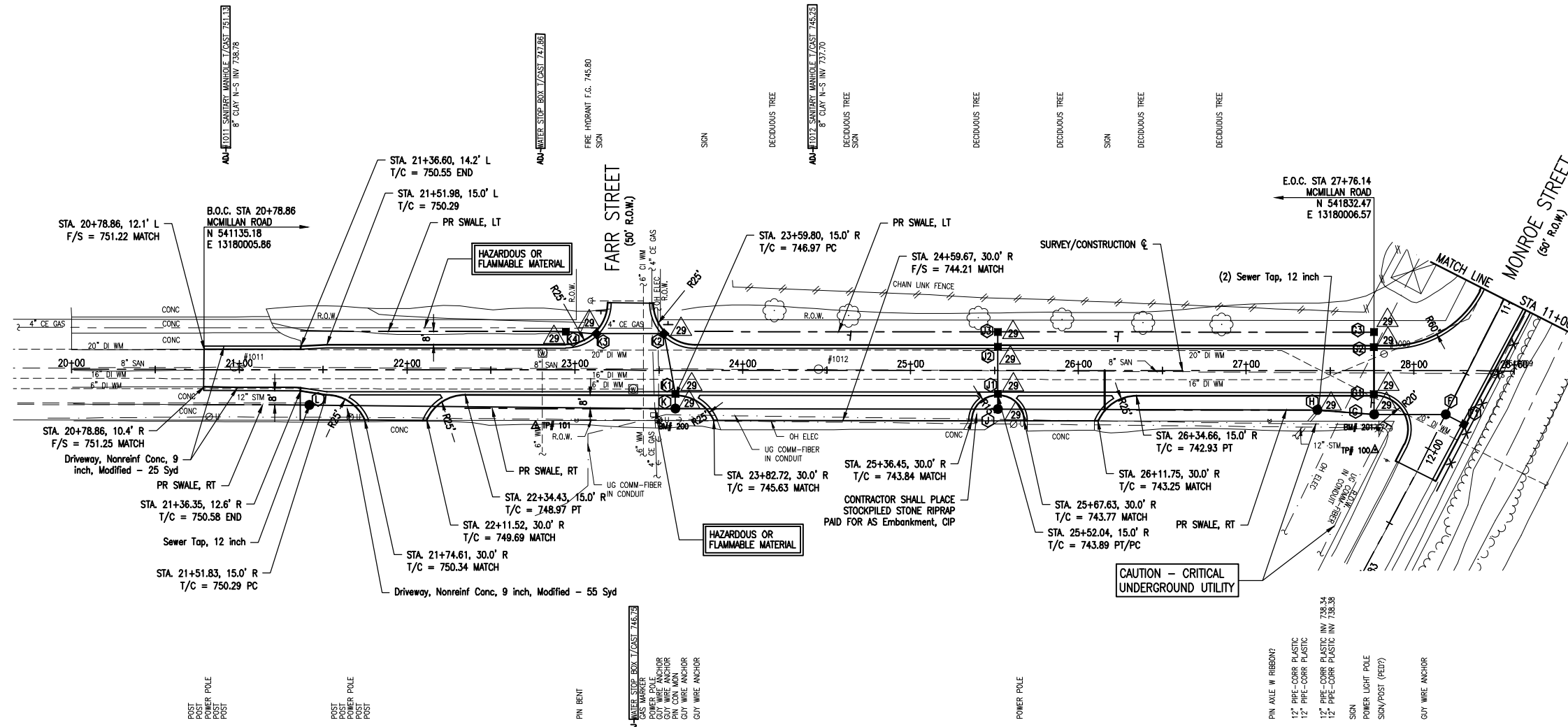
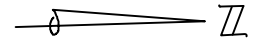
JOB BENCHMARK #201
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE POWER POLE IN SE QUAD OF MCMILLAN AND MONROE ELEV 742.80

TRAVERSE POINT #100
N 541833.00
E 13180053.83 ELEV 741.97

TRAVERSE POINT #101
N 5411332.81
E 13180039.32 ELEV 748.12

MCMILLAN ROAD

(60' R.O.W.)



GRADING LEGEND
T/C = XXX.XX, TOP OF CURB GRADE
F/S = XXX.XX, FINISHED SURFACE GRADE

STATION	OFFSET	EX DRIVE MATERIAL	EX SLOPE	PROPOSED SLOPE	Driveway, Nonreinf Conc, 9 inch, Modified (SYD)
21+96	R	CONC	1.64%	1.44%	80
24+57	R	CONC	-3.36%	-4.98%	262
25+90	R	CONC	0.37%	2.07%	72

TOTAL	UNIT	DESCRIPTION
14	Ea	Erosion Control, Inlet Protection, Fabric Drop
2094	Syd	Aggregate Base, 8 inch, Modified
353	Syd	Aggregate Base, 6 inch, Modified
2446	Syd	Geotextile, Separator, Modified
3	Ea	Sewer Top, 12 inch
200	Ft	Sewer, Storm, 12 inch, SDR-26, Special Trench Detail
634	Ft	Sewer, Storm, 24 inch, SDR-26, Special Trench Detail
1	Ea	Dr Structure Cover, Type B
7	Ea	Dr Structure Cover, Type G
7	Ea	Dr Structure Cover, Type K
31	Ft	Dr Structure, 36 inch dia, Additional Depth
28	Ft	Dr Structure, 48 inch dia, Additional Depth
4	Ea	Structure Cover, Adj, Case 1, Modified
7	Ea	Dr Structure, 36 inch dia, Catch Basin
2	Ea	Dr Structure Collar, Modified
3	Ea	Dr Structure, 24 inch dia, Catch Basin
4	Ea	Dr Structure, 48 inch dia, Catch Basin
1	Ea	Dr Structure, 48 inch dia, Manhole
380	Ton	HMA, 2C
254	Ton	HMA, 4E3
190	Ton	HMA, 5E3
494	Syd	Driveway, Nonreinf Conc, 9 inch, Modified
1057	Ft	Curb and Gutter, Conc, Det F4
357	Ft	Driveway Opening, Conc, Det M

TOTAL	UNIT	DESCRIPTION
10	Ft	Sewer Repair, Open-Cut
30	Ft	Sewer Repair, Cured-In-Place Pipe



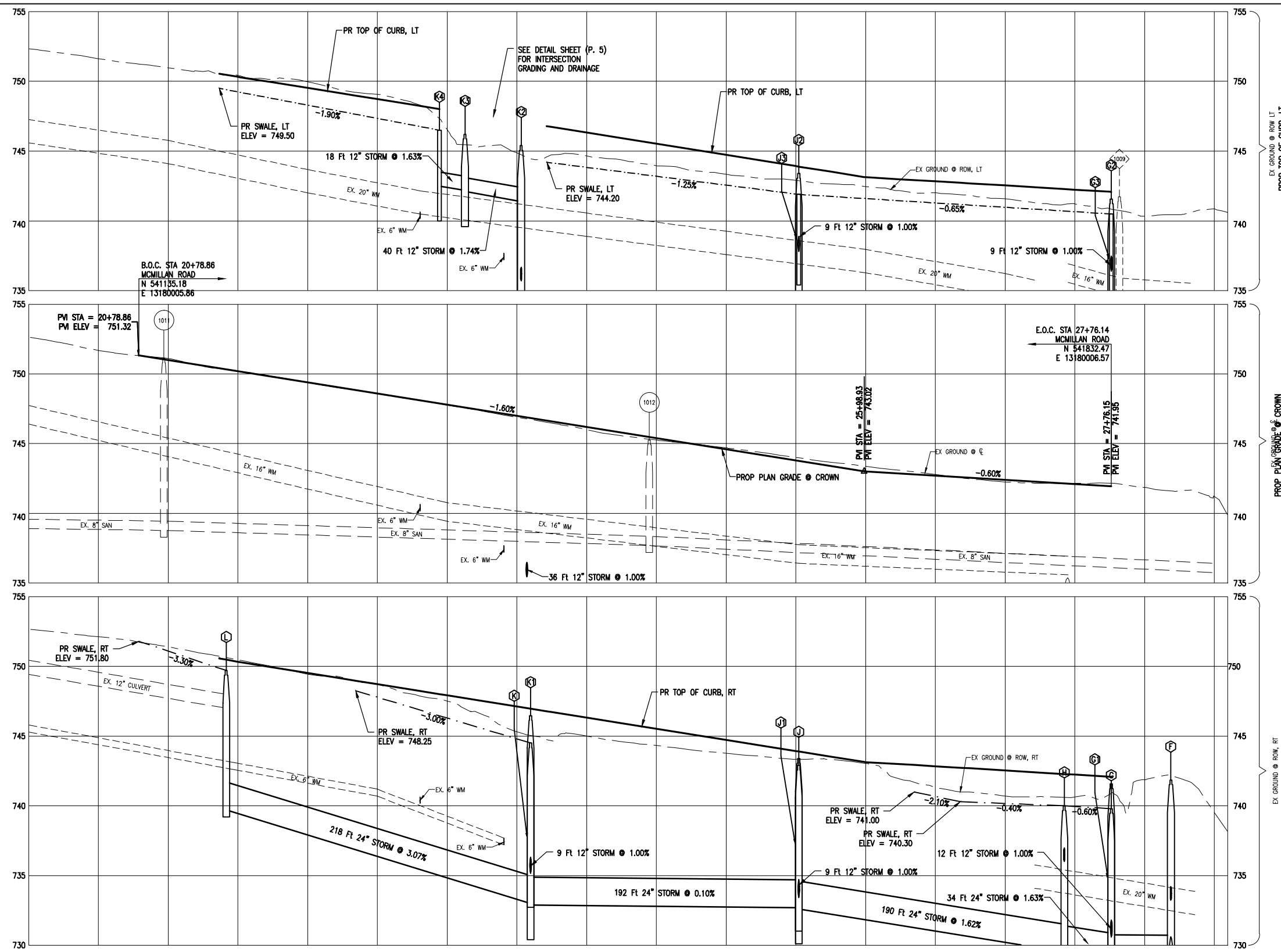
Know what's below.
Call before you dig.

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MCMILLAN CONSTRUCTION SHEET

DRAWING PATH: P:\0000_01\000020170035_Industrial_Park_Connector\Drawings\Civil\Plan_Constr\170035CON.dwg Mar 08, 2018 - 11:02am

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DRAWING PATH: P:\0000_01900020170039_Industrial_Park_Connectors\Drawings\Civil\Profile\70039PRF.dwg Mar 08, 2018 - 11:03am



Station	EX GROUND @ E	PROP PLAN GRADE @ CROWN	EX GROUND @ ROW, LT	PROP TOP OF CURB, LT	EX GROUND @ ROW, RT	PROP TOP OF CURB, RT
20+00	751.7	751.7	751.6	751.6	752.1	752.1
21+00	751.98	750.98	751.0	750.32	751.4	751.4
22+00	750.18	750.18	750.4	750.32	750.5	750.32
23+00	749.39	749.39	749.4	749.52	749.4	749.52
24+00	748.59	748.59	748.7	748.72	748.7	748.72
25+00	747.79	747.79	746.6	747.92	747.5	747.92
26+00	746.99	746.99	744.9	747.12	746.3	747.12
27+00	746.19	746.19	744.7	746.32	746.0	746.32
28+00	745.39	745.39	744.0	745.52	744.3	745.52
29+00	744.60	744.60	743.3	744.75	743.9	744.75
30+00	743.80	743.80	742.5	743.95	742.9	743.95
31+00	743.01	743.01	742.0	743.14	742.0	743.14
32+00	742.21	742.21	741.5	742.34	741.5	742.34
33+00	742.41	742.41	741.2	742.54	740.7	742.54
34+00	742.11	742.11	740.6	742.24	740.6	742.24
35+00	741.9	741.9	740.3	742.44	741.9	742.44
36+00	741.2	741.2	740.9	742.64	740.9	742.64
37+00	739.9	739.9	740.6	742.84	739.5	742.84
38+00	738.9	738.9	740.6	743.04	738.2	743.04

- G STA 27+76.14, 26.0' R
Dr Structure, 48 inch dia, Catch Basin
T/CAST 739.80, TYPE G COVER
24" INV N 728.77
12" INV S 728.87
12" INV W 730.60
- G1 STA 27+76.11, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 741.58, TYPE K COVER
12" INV W 730.82
12" INV E 730.72
- G2 STA 27+76.14, 14.0' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 741.58, TYPE K COVER
12" INV W 736.41
12" INV E 731.10
- G3 STA 27+76.14, 23.0' L
Dr Structure, 24 inch dia, Catch Basin
T/CAST 740.50, TYPE G COVER
12" INV E 736.50
- H STA 27+42.35, 23.5' R
Dr Structure, 48 inch dia, Catch Basin
T/CAST 740.00, TYPE G COVER
24" INV S 729.52
24" INV N 729.42
12" INV SE 736.00
12" INV SW 734.50
- J STA 25+52.04, 23.0' R
Dr Structure, 48 inch dia, Catch Basin
T/CAST 742.90, TYPE G COVER
24" INV N 732.61
24" INV S 732.71
12" INV W 733.43
- J1 STA 25+52.04, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 743.39, TYPE K COVER
12" INV W 733.72
12" INV E 733.52
- J2 STA 25+52.04, 14.0' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 743.39, TYPE K COVER
12" INV W 737.81
12" INV E 734.00
- J3 STA 25+52.04, 23.0' L
Dr Structure, 24 inch dia, Catch Basin
T/CAST 741.90, TYPE G COVER
12" INV E 737.90
- K STA 23+59.80, 23.0' R
Dr Structure, 48 inch dia, Catch Basin
T/CAST 744.50, TYPE G COVER
24" INV S 733.00
24" INV N 732.90
12" INV W 735.15
- K1 STA 23+59.80, 14.0' R
Dr Structure, 36 inch dia, Catch Basin
T/CAST 746.47, TYPE K COVER
12" INV W 735.34
12" INV E 735.24
- K2 STA 23+53.04, 21.6' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 745.40, TYPE K COVER
12" INV S 741.40
12" INV E 735.70
- K3 STA 23+12.77, 21.6' L
Dr Structure, 36 inch dia, Catch Basin
T/CAST 746.20, TYPE K COVER
12" INV S 742.20
12" INV N 742.10
- K4 STA 22+94.40, 23.0' L
Dr Structure, 24 inch dia, Catch Basin
T/CAST 746.50, TYPE G COVER
12" INV N 742.50
- L STA 21+41.63, 21.0' R
Dr Structure, 48 inch dia, Manhole
T/CAST 749.70, TYPE B COVER
24" INV N 739.70
12" INV S 746.99

ALL OFFSETS FOR PROPOSED STRUCTURES ARE TO THE PROPOSED CENTER OF CASTING. GRADES FOR STRUCTURES LOCATED IN THE PROPOSED CURB LINE ARE PROPOSED FLOW LINE ELEVATIONS.

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Saginaw, MI 48604
P (989) 393-4200
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REVISIONS:

NO.	DATE	DESCRIPTION

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MCMILLAN PROFILE SHEET

DATE: 02/27/2020
PROJECT: 002170039
ENGR: ES
CADD: SB
COUNTY: SHELBY
CITY/TOWNSHIP: SHAWANEE
SCALE: HORIZONTAL: VERT. DATUM: NAD 83
SCALE: V: 1"=4'

SHEET 20 OF 30

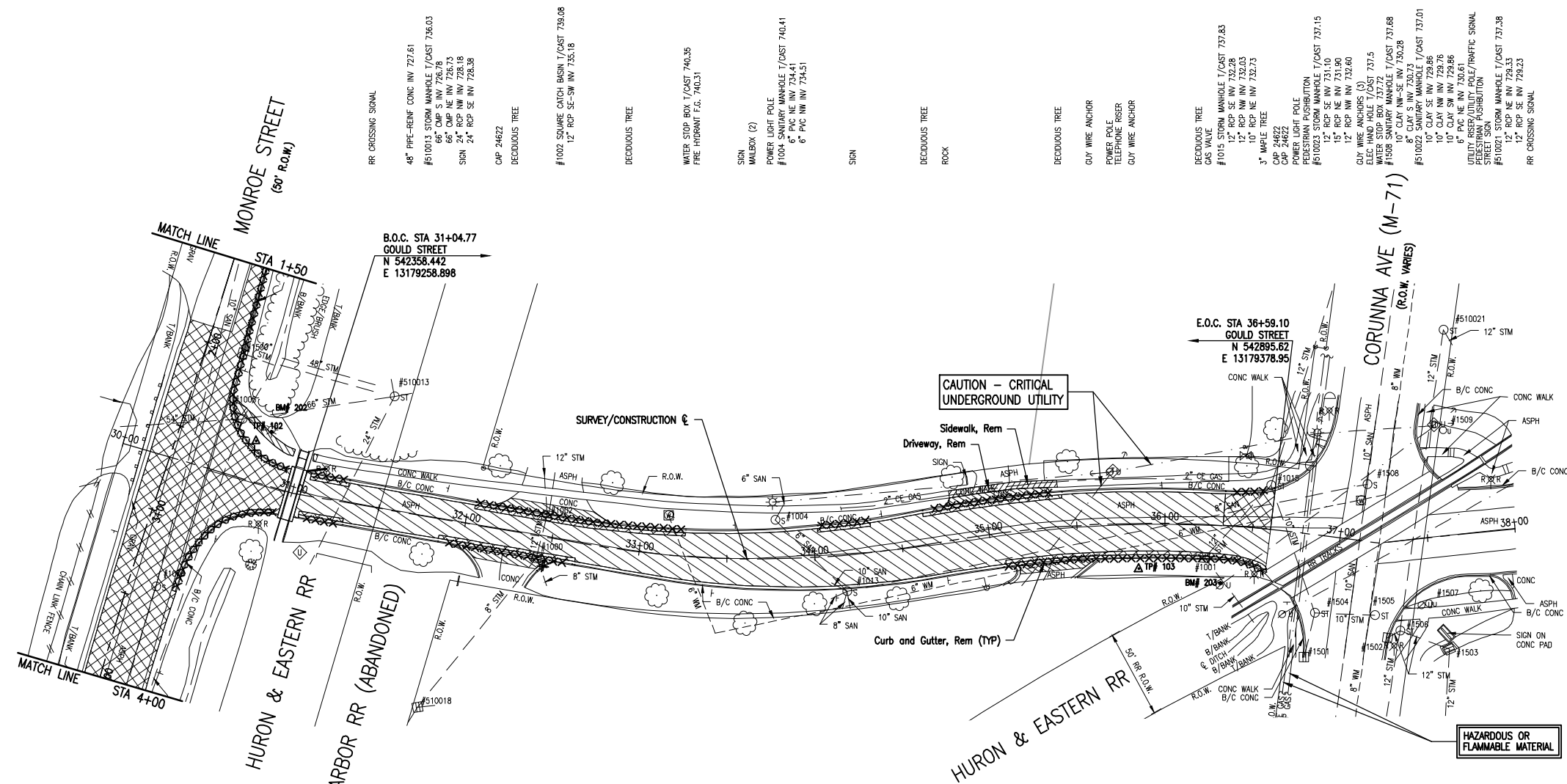
JOB BENCHMARK #202
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE OF POWER POLE IN NW QUAD OF GOULD AND MONROE
ELEV 739.90

JOB BENCHMARK #203
DESCRIPTION: SET CHISELED "X" IN NW BOLT OF STRAIN POLE IN SE QUAD OF CORUNNA AND GOULD
ELEV 738.84

TRAVERSE POINT #102
N 542339.35
E 13179224.38 ELEV 739.20

TRAVERSE POINT #103
N 542818.78
E 13179387.63 ELEV 738.63

GOULD STREET (66' R.O.W.)



RR CROSSING SIGNAL
48\"/>

UTILITY RISER
24\"/>

CAUTION - CRITICAL UNDERGROUND UTILITY

HAZARDOUS OR FLAMMABLE MATERIAL

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
528	Ft	Curb and Gutter, Rem
29	Syd	Sidewalk, Rem
102	Syd	Driveway, Rem
113	Syd	Pavt, Rem, Modified
1841	Syd	Cold Milling HMA Surface

QUANTITIES THIS SHEET - NON-PARTICIPATING

TOTAL	UNIT	DESCRIPTION
28	Ft	Curb and Gutter, Rem
60	Syd	Pavt, Rem, Modified



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P (989) 393-4200

OHM-ADVISORS.COM

DATE: 02/17/2018
PROJ NUMBER: 002-17-2003
ENGR: DS
CITY: SAGINAW
COUNTY: SHERBORN
SCALE: 1\"/>



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DRAWING PATH: P:\0000_01020\02017030_Industrial_Park_Connectors\Drawings\Civil\Plan_Constr\17030CON.dwg Mar 06, 2018 - 11:03am

JOB BENCHMARK #202
DESCRIPTION: SET COTTON SPINDLE IN EAST FACE OF POWER POLE IN NW QUAD OF GOULD AND MONROE
ELEV 739.90

JOB BENCHMARK #203
DESCRIPTION: SET CHISELED "X" IN NW BOLT OF STRAIN POLE IN SE QUAD OF CORUNNA AND GOULD
ELEV 738.84

TRAVERSE POINT #102
N 542339.35
E 13179224.38 ELEV 739.20

TRAVERSE POINT #103
N 542818.78
E 13179387.63 ELEV 738.63

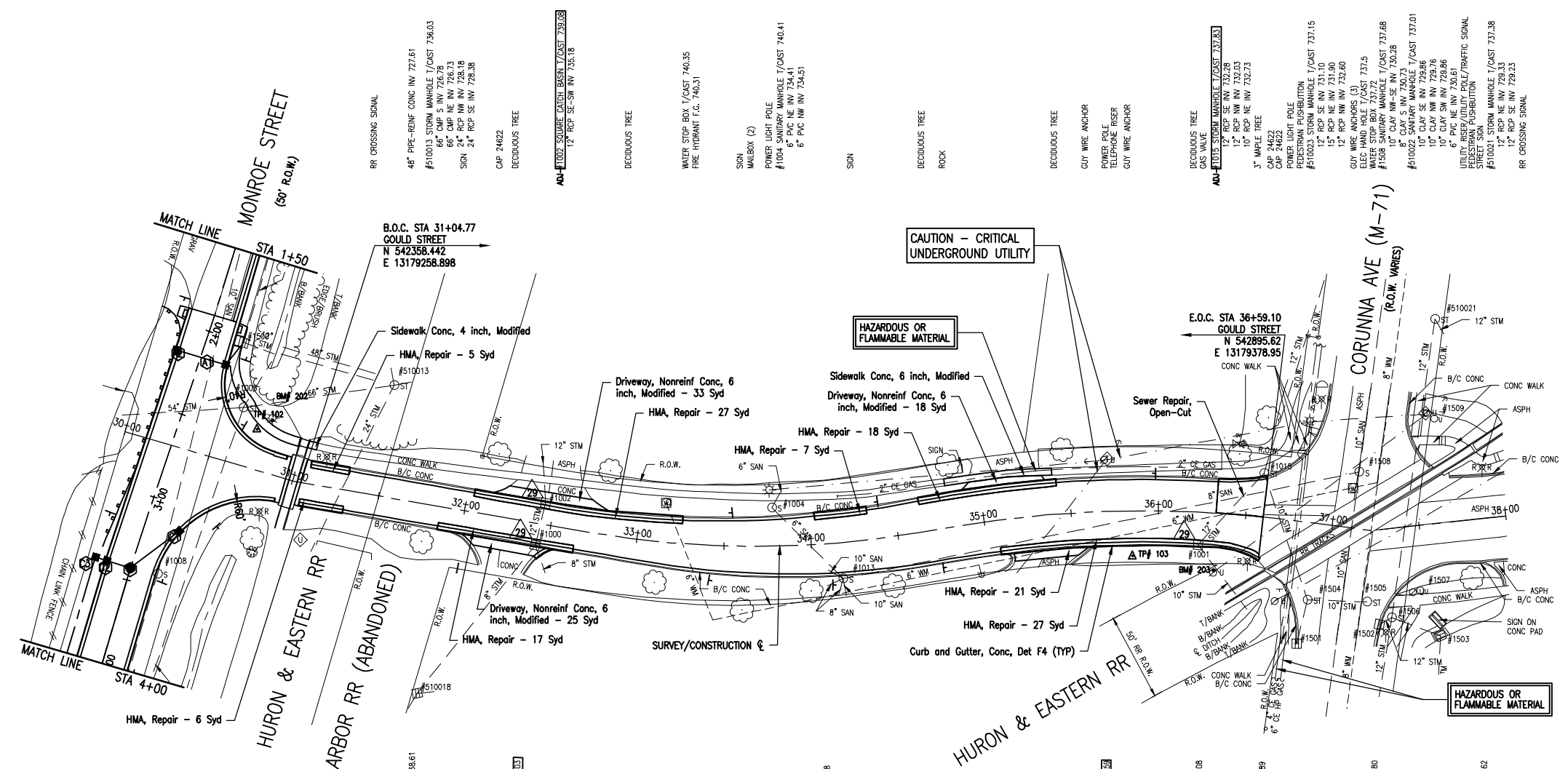
GOULD STREET (66' R.O.W.)



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RR CROSSING SIGNAL
48" PIPE-REINF CONC INV 727.61
#510013 STORM MANHOLE T/CAST 736.03
6" PVC NW INV 728.73
8" CPP NW INV 728.18
SIGN 24" RCP SE INV 728.38

CAP 24622
DECIDUOUS TREE

AD-11002 SQUARE CATCH BASIN T/CAST 739.09
12" RCP SE-SW INV 735.18

DECIDUOUS TREE
WATER STOP BOX T/CAST 740.35
FIRE HYDRANT F.G. 740.31

SIGN
MAILBOX (2)
POWER LIGHT POLE
#1004 SANITARY MANHOLE T/CAST 740.41
6" PVC NE INV 734.41
6" PVC NW INV 734.51

SIGN

DECIDUOUS TREE
ROCK

DECIDUOUS TREE

GUY WIRE ANCHOR
POWER POLE
TELEPHONE RISER
GUY WIRE ANCHOR

DECIDUOUS TREE
GAS VALVE
AD-11001 STORM MANHOLE T/CAST 737.83
12" RCP SE INV 732.28
10" RCP NW INV 732.03
10" RCP NE INV 732.73
3" MAPLE TREE
CAP 24622
POWER LIGHT POLE
PEDESTRIAN PUSHBUTTON
#51000 STORM MANHOLE T/CAST 737.15
12" RCP SE INV 731.90
12" RCP NW INV 732.60
GUY WIRE ANCHORS (3)
ELEC HAND HOLE T/CAST 737.5
WATER STOP BOX T/CAST 737.68
#1506 10" CLAY NW-SE INV 730.28
8" CLAY S INV 730.73
#510022 SANITARY MANHOLE T/CAST 737.01
10" CLAY SE INV 729.86
10" CLAY SW INV 729.16
10" CLAY NW INV 730.61
6" PVC NE INV 730.61
UTILITY RESEA/UTILITY POLE/TRAFFIC SIGNAL
PEDESTRIAN PUSHBUTTON
#510021 STORM MANHOLE T/CAST 737.38
12" RCP NE INV 729.33
12" RCP SE INV 729.23
RR CROSSING SIGNAL

UTILITY RISER
24" PIPE-REINF CONC INV 733.37

DECIDUOUS TREE
#510018 SQUARE CATCH BASIN T/CAST 738.61
8" CPP NW-SE INV 735.61
4" CPP NE INV 638.01

AD-11000 SQUARE CATCH BASIN T/CAST 739.03
12" RCP SE INV 735.23
8" RCP SE INV 735.38
8" CPP NE INV 735.38

MAILBOX
DECIDUOUS TREE

SIGN

DECIDUOUS TREE

DECIDUOUS TREE
#1013 SANITARY MANHOLE T/CAST 740.28
8" CLAY SE INV 732.83
6" PVC SW INV 733.93
10" CLAY SW INV 733.53
8" CPP NW INV 734.18
10" CLAY SE INV 734.18
8" CLAY SE INV 734.53

SIGN
FIRE HYDRANT F.G. 739.91

AD-11001 STORM MANHOLE T/CAST 737.83
12" RCP NW INV 732.74
12" RCP NE INV 732.74
RR CROSSING SIGNAL
UTILITY POLE/TRAFFIC SIGNAL
STREET SIGN
PEDESTRIAN PUSHBUTTON
#1500 SQUARE CATCH BASIN T/CAST 735.03
#1504 STORM MANHOLE T/CAST 738.18
10" CLAY N INV 733.38
12" RCP SE INV 734.28
#501122 STORM MANHOLE T/CAST 739.89
6" CLAY NW INV 730.89
6" CLAY NE INV 730.79
10" CLAY SE INV 734.74
#1505 STORM MANHOLE T/CAST 737.99
12" RCP NW INV 732.80
#15024 STORM MANHOLE T/CAST 736.50
12" RCP SSE INV 732.80
12" RCP SE INV 732.80
#1502 SQUARE CATCH BASIN T/CAST 737.80
12" RCP NW INV 733.50
RR CROSSING SIGNAL
#1506 STORM MANHOLE T/CAST 738.31
12" RCP NW INV 730.41
12" RCP E INV 730.21
12" RCP SE INV 733.16
12" RCP NE INV 733.71
POWER
PEDESTRIAN PUSHBUTTON
#1507 ELEC MANHOLE T/CAST 738.23
#1503 SQUARE CATCH BASIN T/CAST 736.62
12" RCP NW INV 734.32
12" CPP E INV 732.92

Sewer Repair, Open-Cut		
BEGIN STATION, OFFSET	PIPE DIAMETER	QUANTITY
STA 36+48, 10.8' L	8 IN	10 FT

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
3	Ea	Erosion Control, Inlet Protection, Fabric Drop
152	Syd	Aggregate Base, 4 inch, Modified
3	Ea	Structure Cover, Adj, Case 1, Modified
223	Ton	HMA, 4E3
167	Ton	HMA, SE3
133	Syd	HMA, Repair
84	Syd	Driveway, Nonrein Conc, 6 inch, Modified
528	Ft	Curb and Gutter, Conc, Det F4
20	Sft	Sidewalk, Conc, 4 inch, Modified
245	Sft	Sidewalk, Conc, 6 inch, Modified

QUANTITIES THIS SHEET - NON-PARTICIPATING

TOTAL	UNIT	DESCRIPTION
10	Syd	Aggregate Base, 4 inch, Modified
60	Syd	Aggregate Base, 8 inch, Modified
10	Ft	Sewer Repair, Cured-in-Place Pipe
20	Ft	Sewer Repair, Open-Cut
60	Syd	HMA, Repair
28	Ft	Curb and Gutter, Conc, Det F4

Know what's below.
Call before you dig.

REVISIONS:

NO.	DATE	DESCRIPTION

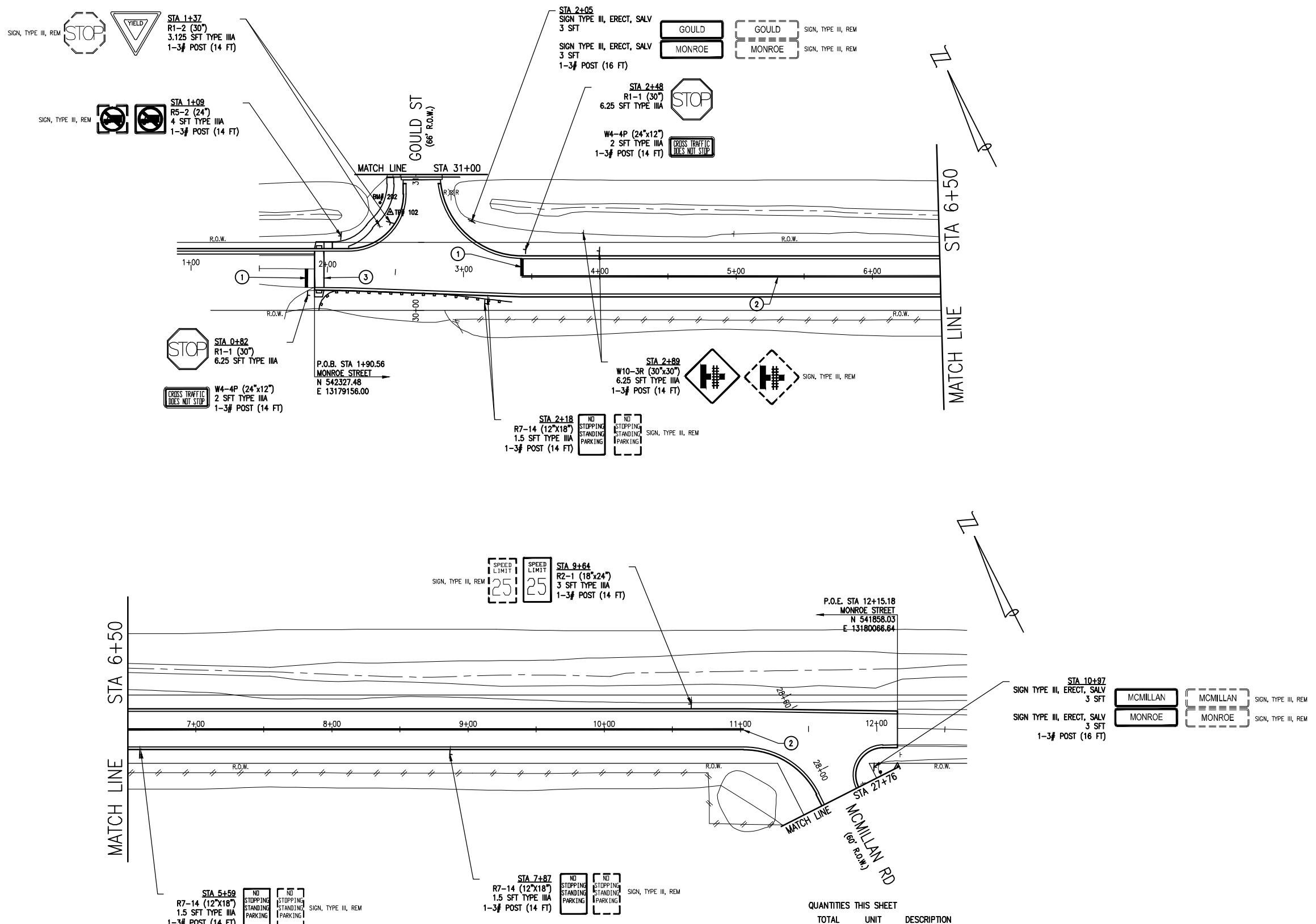
CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
GOULD CONSTRUCTION SHEET

DATE: 02/27/2020
PROJ NUMBER: 020217030
ENG: DS
CADD: SB
PROJ LEAD: AV
CITY VILLAGE/TOWNSHIP: OWOSSO
COUNTY: SHAWANEE
SCALE: H: 1"=40' V: 1"=4'
SHEET: 22 OF 30

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MONROE STREET

(50' R.O.W.)



- LEGEND**
- ① PAVT MRKG, OVLY COLD PLASTIC, 24 INCH, STOP BAR
 - ② PAVT MRKG, WATERBORNE, 4 INCH, YELLOW (DOUBLE)
 - ③ PAVT MRKG, OVLY COLD PLASTIC, 6 INCH, CROSSWALK

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
158	Ft	Post, Steel, 3 lb
4	Ea	Sign, Type III, Erect, Salv
12	Ea	Sign, Type III, Rem
38	Sft	Sign, Type IIIA
53	Ft	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk
27	Ft	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar
1518	Ft	Pavt Mrkg, Waterborne, 4 inch, Yellow



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REVISIONS:

NO	DATE	DESCRIPTION

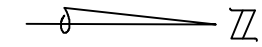
DATE: 02/27/2020
 PROJ. NO: 2002-1003
 ENG: DS
 COUNTY: SHAWANSEE
 CITY/TOWNSHIP: OWASSO
 SCALE: H: 1"=40' V: 1"=4'
 SHEET: 23 OF 30

CITY OF OWASSO
INDUSTRIAL PARK CONNECTOR
MONROE PAVEMENT MARKING & SIGNING SHEET

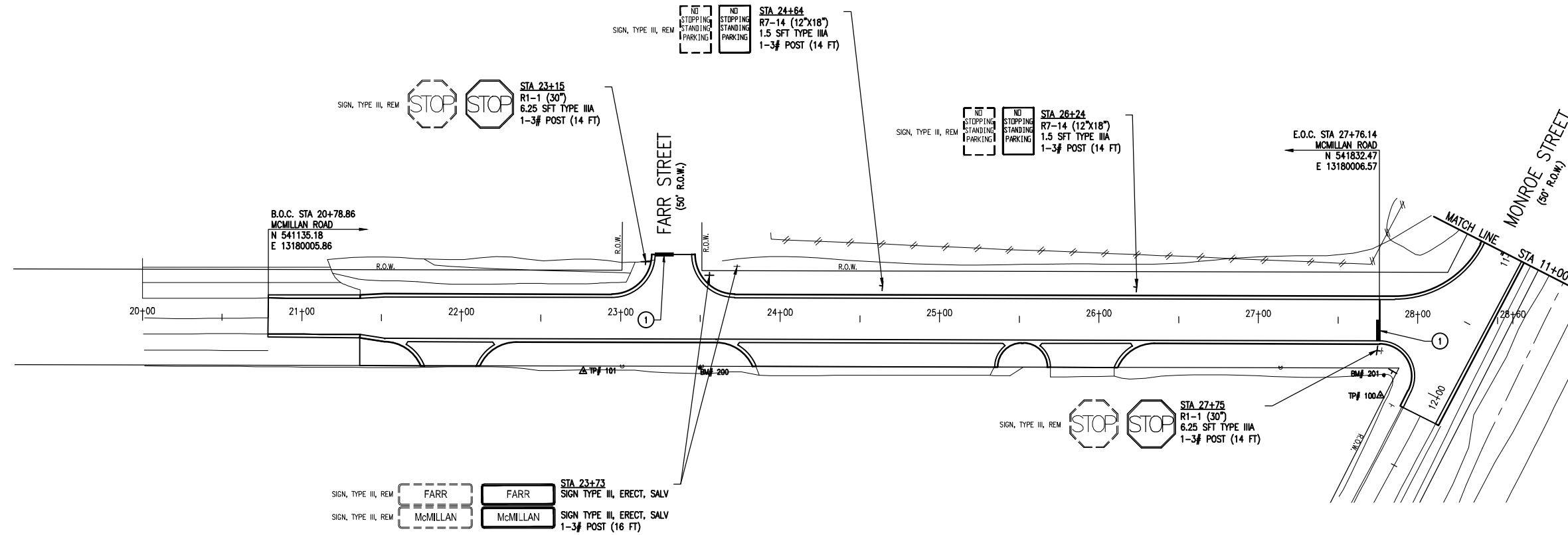
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MCMILLAN ROAD (60' R.O.W.)



ARCHITECTS ENGINEERS PLANNERS
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Saginaw, MI 48604
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LEGEND

- ① PAVT MRKG, OVLV COLD PLASTIC, 24 INCH, STOP BAR

QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
72	Ft	Post, Steel, 3 lb
2	Ea	Sign, Type III, Erect, Salv
6	Ea	Sign, Type III, Rem
16	Sft	Sign, Type IIIA
25	Ft	Pavt Mrkg, Ovlv Cold Plastic, 24 inch, Stop Bar



Know what's below.
Call before you dig.

REVISIONS:
DATE: 02/21/2023
PROJ NUMBER: 2023-0003
ENG: AV
PROJ MGR: AV
CADD: SS
COUNTY: SHAWANSEE
CITY/TOWNSHIP: OWOSSO
SCALE: H: 1"=40', V: 1"=4'
HORIZ DATUM: NAD 83
VERT DATUM: NAVD 83
SHEET: 24 OF 30

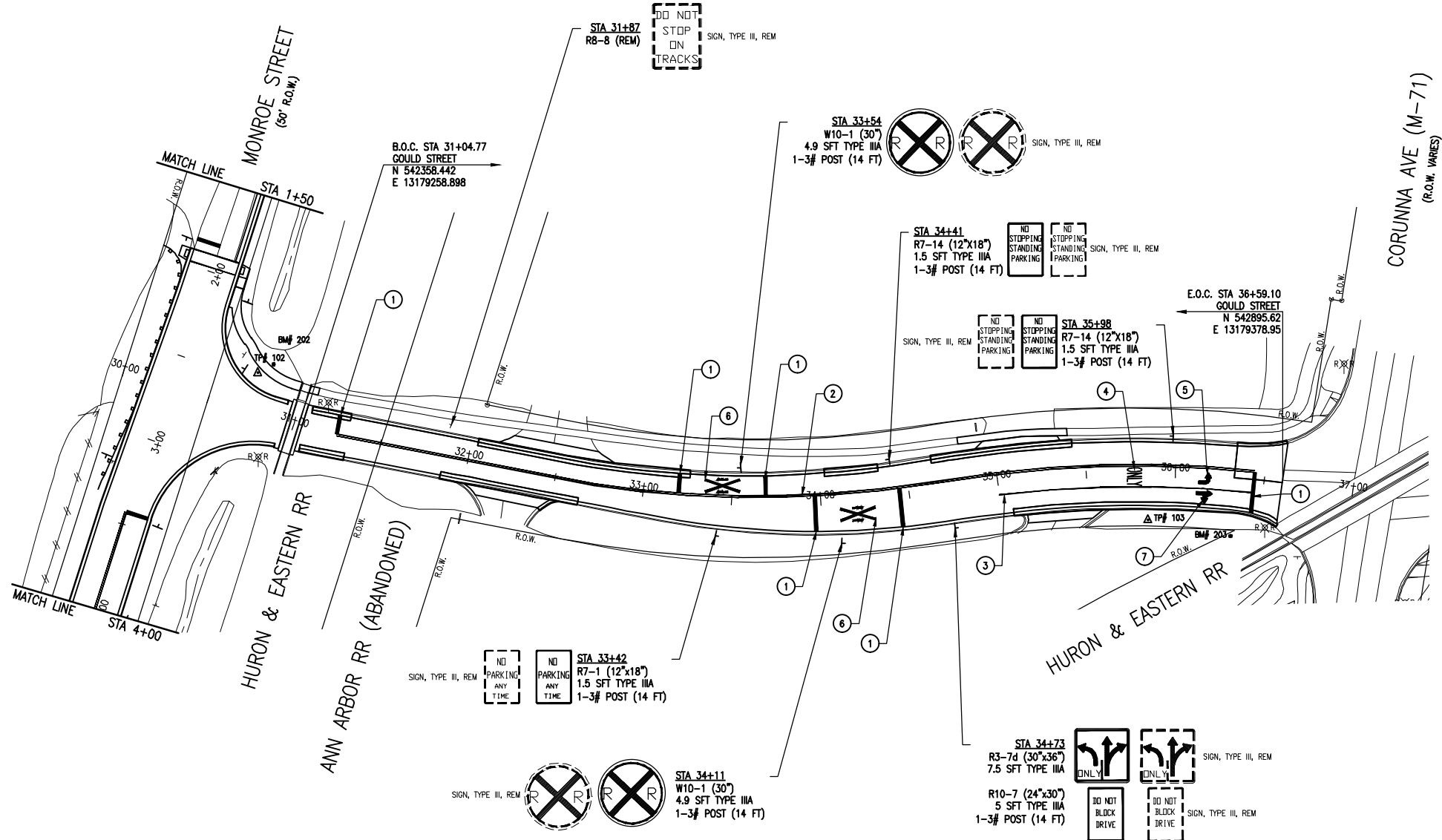
CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MCMILLAN PAVEMENT MARKING & SIGNING SHEET

DRAWING PATH: P:\0000_01\2023\02\17\032_Industrial_Park_Connector\Drawings\Civil\PLANS\17032\PLANS.dwg, I:\ar_08_2018_11\04am

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GOULD STREET

(66' R.O.W.)



LEGEND

- ① PAVT MRKG, OVLY COLD PLASTIC, 24 INCH, STOP BAR
- ② PAVT MRKG, WATERBORNE, 4 INCH, YELLOW (DOUBLE)
- ③ PAVT MRKG, WATERBORNE, 4 INCH, WHITE
- ④ PAVT MRKG, OVLY COLD PLASTIC, ONLY
- ⑤ PAVT MRKG, OVLY COLD PLASTIC, LT TN AR SYM
- ⑥ PAVT MRKG, OVLY COLD PLASTIC, RAILROAD SYM
- ⑦ PAVT MRKG, OVLY COLD PLASTIC, THRU AND RT TURN AR SYM

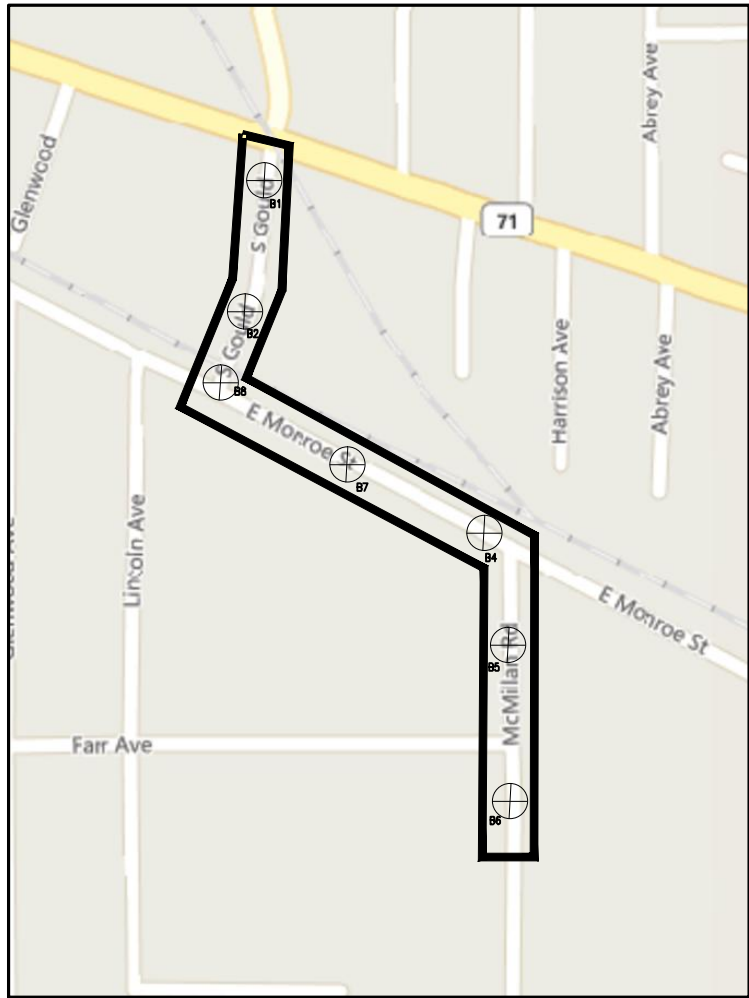
QUANTITIES THIS SHEET

TOTAL	UNIT	DESCRIPTION
84	Ft	Post, Steel, 3 lb
8	Ea	Sign, Type III, Rem
27	Sft	Sign, Type IIIA
99	Ft	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar
1	Ea	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym
1	Ea	Pavt Mrkg, Ovly Cold Plastic, Only
2	Ea	Pavt Mrkg, Ovly Cold Plastic, Railroad Sym
1	Ea	Pavt Mrkg, Ovly Cold Plastic, Thru and Rt Turn Arrow Sym
142	Ft	Pavt Mrkg, Waterborne, 4 inch, White
1040	Ft	Pavt Mrkg, Waterborne, 4 inch, Yellow



Know what's below.
Call before you dig.

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
GOULD PAVEMENT MARKING & SIGNING SHEET



OHM BORING LOG

Project: Industrial Park Connector Boring No: 1
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: Gould St., SB lane, S of Corunna
 Datum/Benchmarks: Pavement Thickness = 9"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	6"	6"	Course aggregate				
	6"	21"	15"	Course aggregate, clayey sand coarse, dark brown				
	21"	40"	19"	Clayey Sand, coarse, trace gravel, orange-brown				
	40"	83"	43"	Clay, hard, dry, brown with gray marbling				
				EOB Water not encountered				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

OHM BORING LOG

Project: Industrial Park Connector Boring No: 2
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: Gould St., NB, S of M-71
 Datum/Benchmarks: Pavement Thickness = 7.5"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	6"	6"	Gray coarse gravel				
	6"	9"	3"	Sandy clay, trace gravel, end of boring, big chunk of stone				
				Also notices some old HMA chunks at 8-9"				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

OHM BORING LOG

Project: Industrial Park Connector Boring No: 4
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: Monroe St., EB, just before McMillan
 Datum/Benchmarks: Pavement Thickness = 6"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	12"	12"	Course sand, brown; some gravel found				
	12"	24"	12"	Sandy clay, dry, hard, brown; trace fine gravel				
	24"	36"	12"	Sandy clay, moist, gray; trace fine gravel				
	36"	50"	14"	Sandy clay, moist, dark gray; some small roots				
				EOB Water not encountered				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

*ALL SOIL BORINGS ARE POINT DATA ONLY AND MAY NOT REPRESENT THE EXISTING PAVEMENT CROSS SECTION FOR THE ENTIRETY OF THE PROJECT LIMITS.

OHM BORING LOG

Project: Industrial Park Connector Boring No: 5
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: McMillan St. SB lane
 Datum/Benchmarks: Pavement Thickness = 7"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	10"	10"	Gravel with coarse sand				
	10"	16"	6"	Clay, firm, dry, gray				
	16"	46"	30"	Sandy clay, firm, dry, brown; trace gravel				
				EOB Encountered obstruction, stopped				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

OHM BORING LOG

Project: Industrial Park Connector Boring No: 6
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: McMillan St., NB
 Datum/Benchmarks: Pavement Thickness = 6.5"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	24"	24"	Gravel, brown				
	24"	35"	11"	Mixture gravel with sandy clay, moist, firm				
	35"	38"	3"	Sandy clay, wet, groundwater at 38" depth				
				EOB at 38" Groundwater filled hole, could not continue				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

OHM BORING LOG

Project: Industrial Park Connector Boring No: 7
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: Monroe St. WB
 Datum/Benchmarks: Pavement Thickness = 5.5"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	19"	19"	Gravel with coarse sand				
	19"	26"	7"	Gravel with coarse sand, some moist clay; clay in small chunks				
	26"	35"	9"	Sandy clay with trace fine gravel, brown, firm, dry				
	35"	44"	9"	Sandy clay with trace fine gravel, gray, firm, dry				
	44"	60"	16"	Sandy clay with trace fine gravel, brown, firm, dry				
	60"	66"	6"	Sandy clay with trace fine gravel, dark gray				
	66"	70"	4"	Sandy clay with trace fine gravel, brown				
	70"	-	-	EOB Did not encounter groundwater				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

OHM BORING LOG

Project: Industrial Park Connector Boring No: 8
 Location: Owosso Job No: 0020-17-0030
 Client: City of Owosso Date: 11/22/17
 Location of Boring: S. Gould, NB, S of M-71
 Datum/Benchmarks: Pavement Thickness = 8"

Depth	From	To	Thickness	Soil Description	DCP** (Blows per ft)	Sample No. & Type	LOI (%)	Qp * (tsf)
	0	6"	6"	Gravel, coarse, gray				
	6"	20"	14"	Clayey sand, moist, brown				
	20"	42"	22"	Sandy clay, moist, brown				
	42"	52"	10"	Same as above, encountered groundwater				
	52"	-	-	EOB, hole saturated				

** The Dynamic Cone Penetrometer (DCP) consists of a 10 lb. hammer falling 24" driving a 1-1/8" conical tip. *The hand penetrometer estimates the unconfined compressive strength of cohesive soils. Unless otherwise noted, the boring was backfilled with natural soil.

WATER LEVEL OBSERVATIONS	DATE STARTED	DATE COMPLETED
METHOD OF BORING		
WHILE SAMPLING OR WHILE DRILLING	<input type="checkbox"/> POWER AUGER	OPERATORS:
IMMEDIATELY AFTER COMPLETION	<input type="checkbox"/> HAND AUGER	DRAWN BY:
AFTER COMPLETION	<input type="checkbox"/>	APPROVED BY:

Reported By: _____ Reviewed By: _____

REVISIONS:

VERT. DATUM: NOV 09

HORIZ. DATUM: NAD 83

SCALE: 1"=4'

CITY: OWOSSO

COUNTY: SHAWANEE

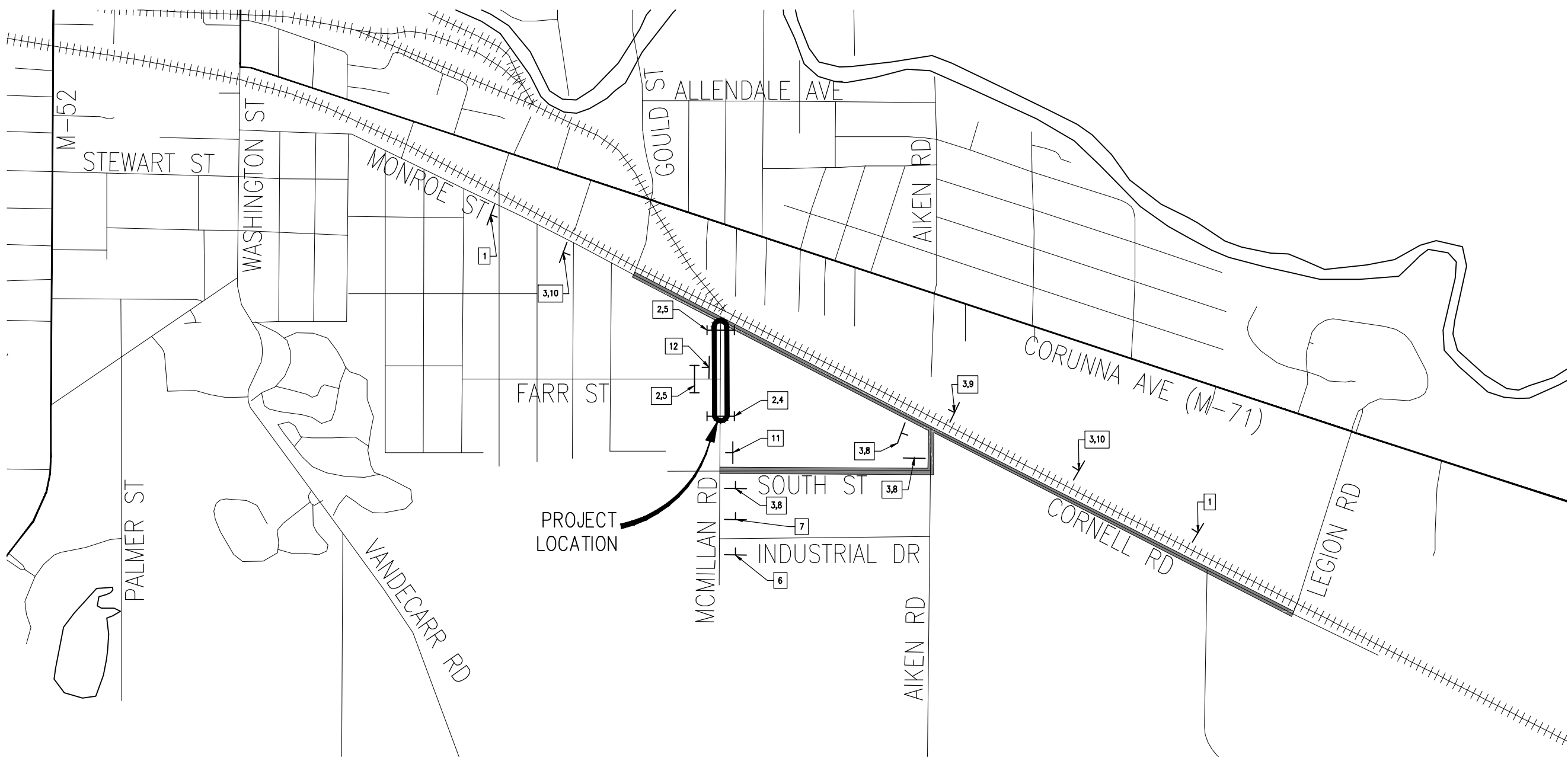
STATE: MI

PROJECT: INDUSTRIAL PARK CONNECTOR

DATE: 02/27/2020

SHEET: 26

OF 30



SIGNING REQUIREMENTS					SIGNING REQUIREMENTS					SIGNING REQUIREMENTS				
#	SIGN	SIGN DESIGNATION	SIZE	NO. REQ.	#	SIGN	SIGN DESIGNATION	SIZE	NO. REQ.	#	SIGN	SIGN DESIGNATION	SIZE	NO. REQ.
1.		SS-1	48 x 30	2	5.		R11-2	48 x 30	2	9.		M4-9L	30 x 24	1
2.		TYPE III BARRICADE	LIGHTED	6	6.		R11-3a	48 x 30	1	10.		M4-9S	30 x 24	2
3.		SS-2	30 x 18	6	7.		W20-2	48 x 48	1	11.		M4-8a	30 x 24	1
4.		R11-4	48 x 30	1	8.		M4-9R	30 x 24	3	12.		R14-5	24 x 24	1

DETOUR AND MOT QUANTITIES

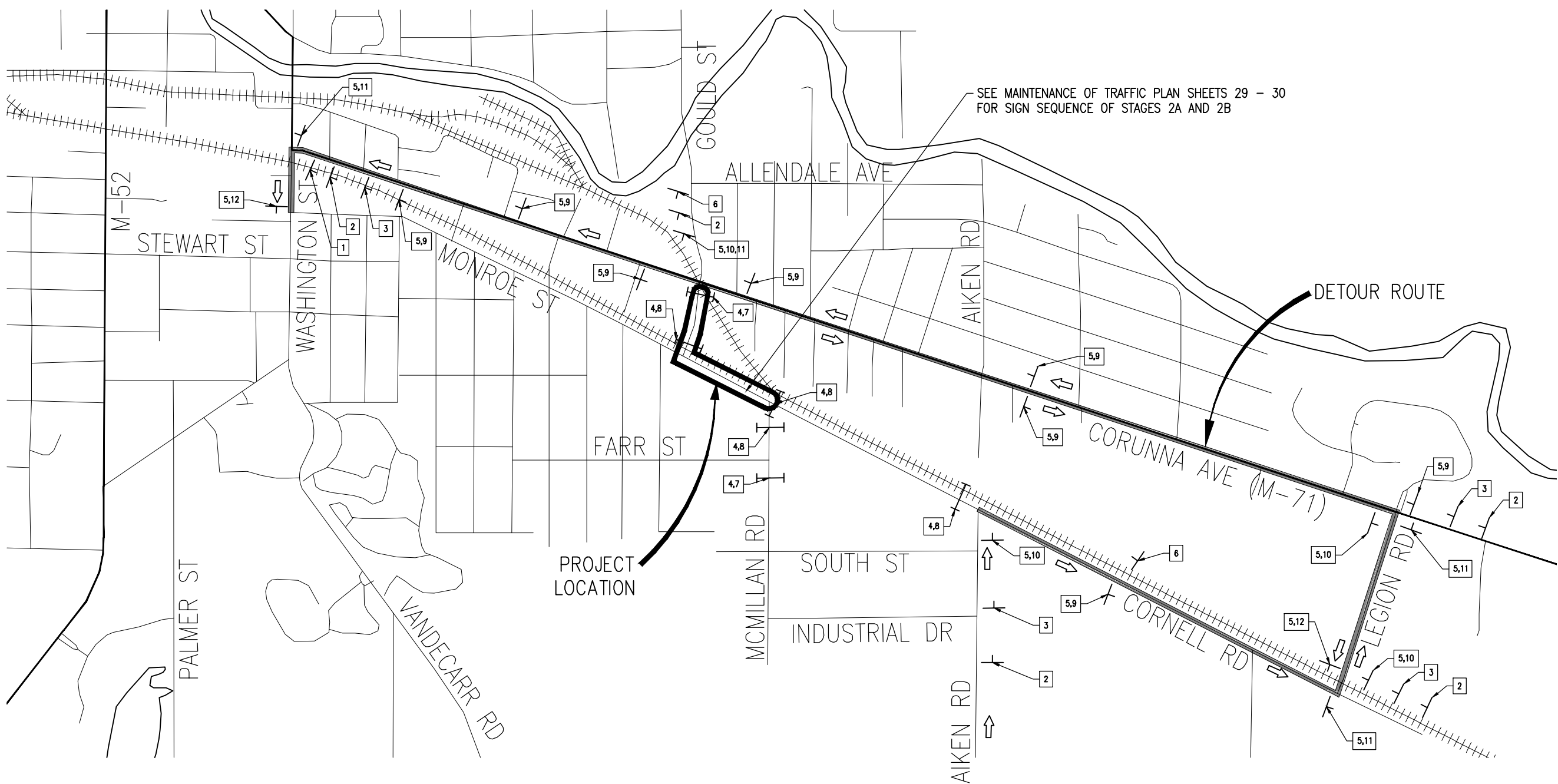
TOTAL	UNIT	DESCRIPTION
25	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn
25	Ea	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper
10	Ton	Dust Palliative, Applied
2	Ea	Lighted Arrow, Type C, Furn
2	Ea	Lighted Arrow, Type C, Oper
1	LSUM	Minor Traf Devices
1500	Ft	Pavt Mrgk, Wet Reflective, Type R, Tape, 4 inch, White, Temp
2500	Ft	Pavt Mrgk, Wet Reflective, Type R, Tape, 4 inch, Yellow, Temp
100	Ea	Plastic Drum, High Intensity, Furn
100	Ea	Plastic Drum, High Intensity, Oper
554	Sft	Sign, Type B, Temp, Prismatic, Furn
554	Sft	Sign, Type B, Temp, Prismatic, Oper
147	Sft	Sign, Type B, Temp, Prismatic, Special, Furn
147	Sft	Sign, Type B, Temp, Prismatic, Special, Oper
1	LSUM	Traf Regulator Control
24	Hr	Railroad Flag Person

DRAWING PATH: P:\0000_0100\02017000_Industrial_Park_Connectors\Drawings\Stage1\7030DTR.dwg Mar 08, 2018 - 11:04am

REVISIONS

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 PROJ LEAD: AV
 CADD: [blank]
 COUNTY: SHAWANSEE
 CITY/TOWNSHIP: OWASSO
 SCALE: H: 1"=40' V: 1"=4'
 VERT DATUM: NAD 83
 HORZ DATUM: NAD 83
 DATE PLOTTED: 02/27/2008

CITY OF OWASSO
INDUSTRIAL PARK CONNECTOR
DETOUR SHEET - STAGE 1



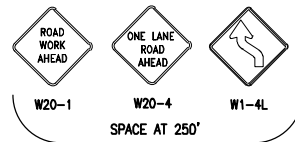
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1.		W20-1	48 x 48	1	4.		TYPE III BARRICADE	LIGHTED	14	7.		R11-4	48 x 30	2	10.		M4-9R	30 x 24	4
2.		W20-2	48 x 48	5	5.		SS-4	30 x 18	17	8.		R11-2	48 x 30	4	11.		M4-9L	30 x 24	4
3.		SS-3	48 x 30	4	6.		R11-3a	48 x 30	2	9.		M4-9S	30 x 24	8	12.		M4-8a	30 x 24	2

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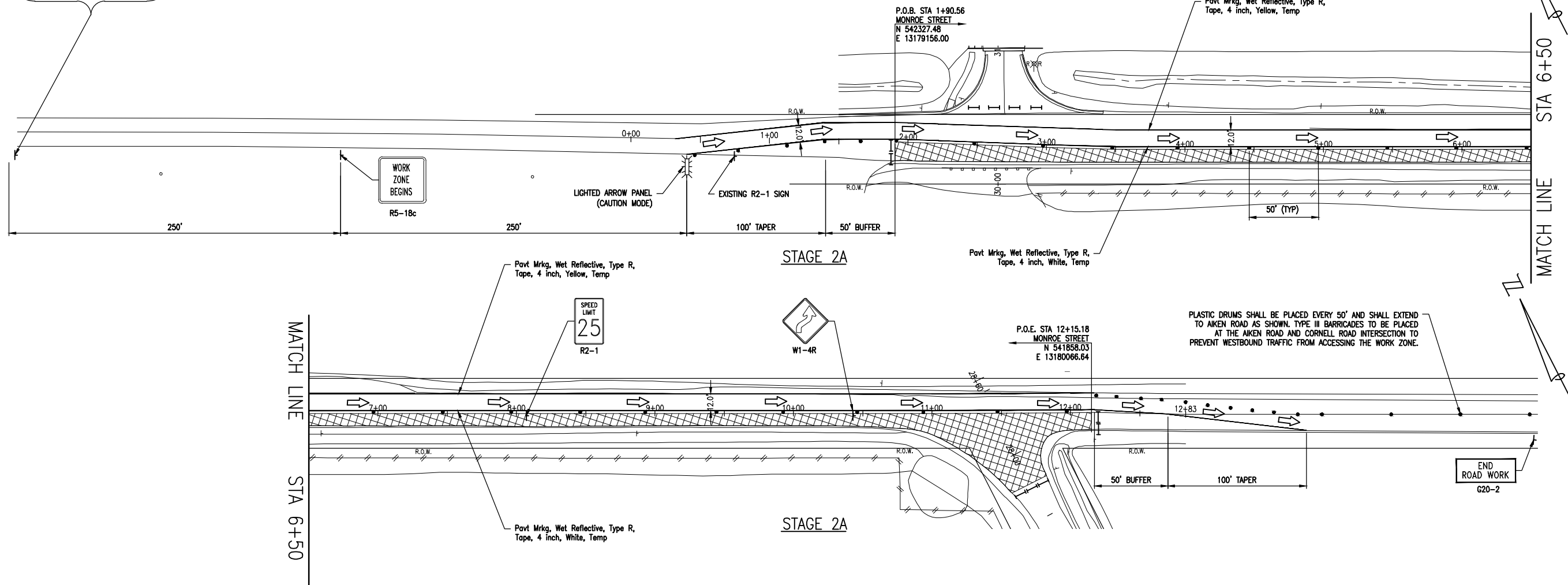
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CITY OF OWASSO
INDUSTRIAL PARK CONNECTOR
DETOUR SHEET - STAGE 2

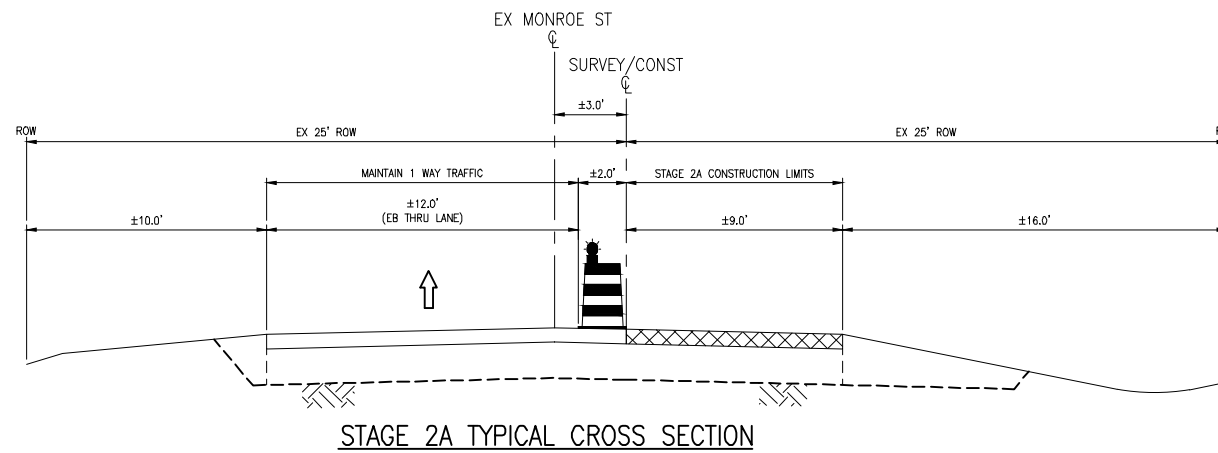
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MONROE STREET (50' R.O.W.)



SIGN LEGEND STAGE 2A					
I.D. NUMBER	SIGN	SIGN DESIGNATION	SIZE	NUMBER REQUIRED	TOTAL AREA (SFT)
1	END ROAD WORK	G20-2	60x30	1	12.5
2	ROAD WORK AHEAD	W20-1	48x48	1	16
3	WORK ZONE BEGINS	R5-18c	48x48	1	16
4	TYPE III BARRICADE	TYPE III BARRICADE	5'x4' (MIN.)	11	-
5	ONE LANE ROAD AHEAD	W20-4	48x48	1	16
6	ONE LANE ROAD AHEAD (ARROW)	W1-4L	48x48	1	16
7	ONE LANE ROAD AHEAD (ARROW)	W1-4R	48x48	1	16
8	SPEED LIMIT 25	W1-4R	48x60	1	20



- LEGEND**
- ⊥ TEMPORARY SIGN
 - PLASTIC DRUM
 - I TYPE III BARRICADE
 - ⊥ LIGHTED ARROW TYPE C
 - ▨ WORK ZONE
 - ➡ TRAFFIC FLOW
 - ⊥ LIGHTED ARROW PANEL (CAUTION MODE)

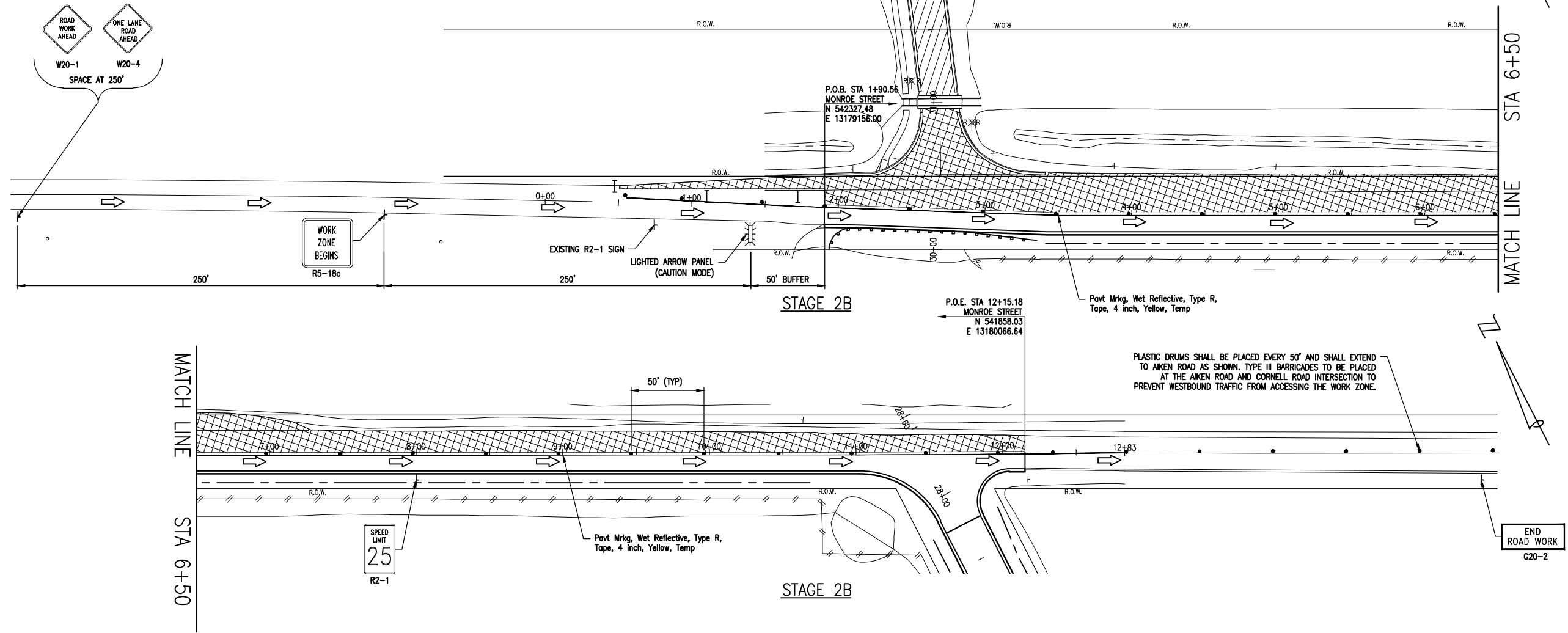


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DATE: 02/21/2023 10:00 AM PROJ: INDUS_PARK_CONNECTOR_DRAWING_Civil Stage 17033MOT.dwg Mar 08, 2018 - 11:04am

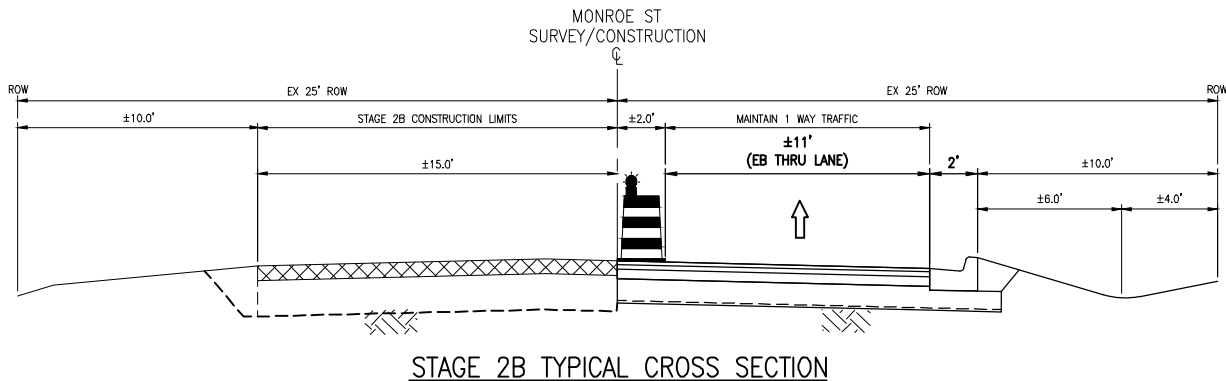
CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MAINTENANCE OF TRAFFIC - STAGE 2A

MONROE STREET (50' R.O.W.)



PLASTIC DRUMS SHALL BE PLACED EVERY 50' AND SHALL EXTEND TO AKEN ROAD AS SHOWN. TYPE III BARRICADES TO BE PLACED AT THE AKEN ROAD AND CORNELL ROAD INTERSECTION TO PREVENT WESTBOUND TRAFFIC FROM ACCESSING THE WORK ZONE.

SIGN LEGEND STAGE 2B					
I.D. NUMBER	SIGN	SIGN DESIGNATION	SIZE	NUMBER REQUIRED	TOTAL AREA (SFT)
1		G20-2	60x30	1	12.5
2		W20-1	48x48	1	16
3		R5-18c	48x48	1	16
4		TYPE III BARRICADE	5'x4' (MIN.)	3	-
5		W20-4	48x48	1	16
6		W1-4R	48x60	1	20



- LEGEND**
- TEMPORARY SIGN
 - PLASTIC DRUM
 - TYPE III BARRICADE
 - LIGHTED ARROW TYPE C
 - WORK ZONE
 - TRAFFIC FLOW
 - LIGHTED ARROW PANEL (CAUTION MODE)



Know what's below.
Call before you dig.

REVISIONS:

NO. 1	DATE	DESCRIPTION

CITY OF OWOSSO
INDUSTRIAL PARK CONNECTOR
MAINTENANCE OF TRAFFIC - STAGE 2B

DRAWING PATH: P:\0000_01000002\170030_Industrial_Park_Connector\Drawings\CH\Stage1\7030\DOT.dwg Mar 08, 2018 - 11:04am

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