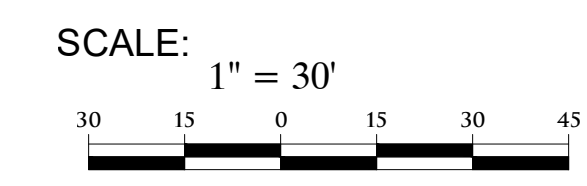
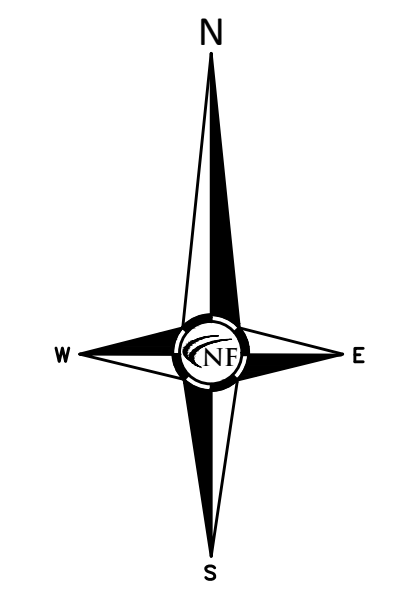


MATCHLINE SHEET C13

MATCHLINE SHEET C14

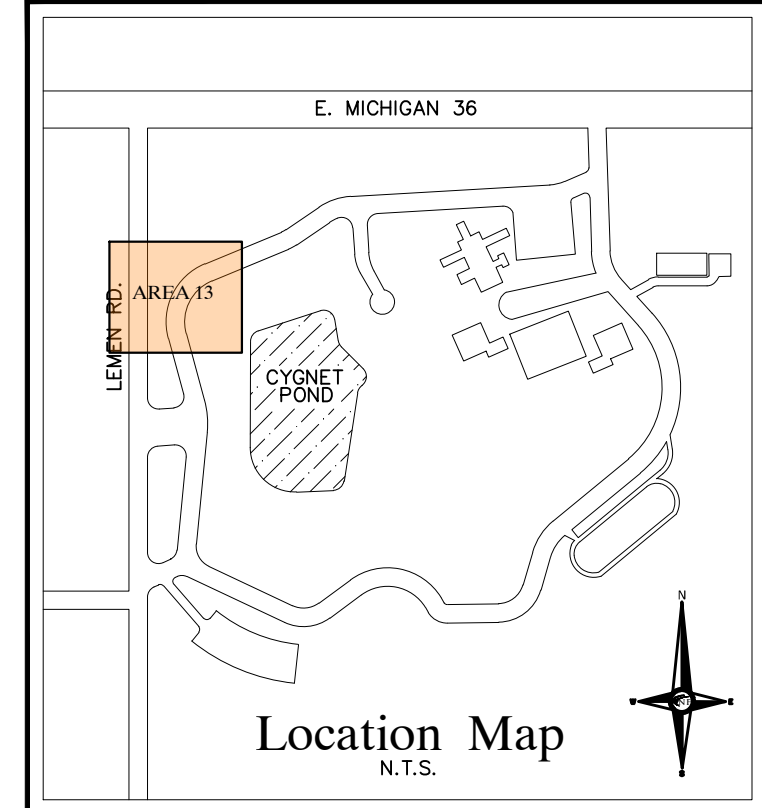


REDUCED ACCESS AREAS
 THERE MAY BE AREAS THAT PROVIDE LIMITED OR REDUCED ACCESS WIDTH/AREA WITHIN THE FACILITY TO PERFORM THE PREFERRED METHOD OF HYDRO EXCAVATION DUE TO SIZE OF THE REQUIRED VEHICLES/EQUIPMENT. THE CONTRACTOR MAY REQUEST AN ALTERNATE MEANS OF EXCAVATION TO BE REVIEWED AND APPROVED BY THE FACILITY PRIOR TO PERFORMING THE WORK. LOCATIONS WHERE THIS MAY OCCUR HAVE BEEN NOTED IN EACH AREA OF WORK.

SURFACE REPAIRS
 ANY PAVED OR GRAVEL AREA THAT IS DAMAGED DURING THE PROJECT SHALL BE REPAIRED "IN KIND" OR PER THE PROVIDED CROSS SECTIONS (WHICHEVER IS MORE STRINGENT).

SANITARY STRUCTURE SCHEDULE

E27 EX. SANITARY MANHOLE RIM 907.79 10" NE INV. 884.49 10" S. INV. 884.49	E28 EX. SANITARY MANHOLE RIM 907.64 10" E. INV. 885.84 10" WSW INV. 885.79	E29 EX. SANITARY MANHOLE RIM 905.53 10" NE INV. 887.43 10" WSW INV. 887.33	E30 PR. 4" SANITARY MANHOLE RIM 904.81 10" N. INV. 889.83 10" SW INV. 889.83	E31 PR. 4" SANITARY MANHOLE RIM 902.45 10" NE INV. 889.08 10" SW INV. 889.08	E32 PR. 4" SANITARY MANHOLE RIM 900.09 10" NE INV. 888.17 10" SW INV. 888.17	E33 PR. 4" SANITARY MANHOLE RIM 908.02 10" NE INV. 887.83 10" S. INV. 887.83
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LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	SAN. CLEAN OUT
MANHOLE CATCH BASIN	EXISTING WATER MAIN
UTILITY POLE	EXISTING STORM SEWER
GUY POLE	EX. R. Y. CATCH BASIN
GUY WIRE	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
C.O. MANHOLE	EXISTING GAS MAIN
HYDRANT	PR. SANITARY SEWER
INLET	PR. WATER MAIN
C.B. MANHOLE	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	SAND BACKFILL (95% DENSITY)
	PROPOSED LIGHT POLE

PROJECT NO. K64806
 4275 WOODLAND AVE SUITE
 FOUNTAIN, MI 48342-5031
 TEL. (248) 332-7931
 FAX. (248) 332-8257

CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

NF
 ENGINEERS

STATE OF MICHIGAN
 DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
 STATE FACILITIES ADMINISTRATION
 DESIGN AND CONSTRUCTION DIVISION
 ADAM P. LACH, RA, NCARB, DIRECTOR

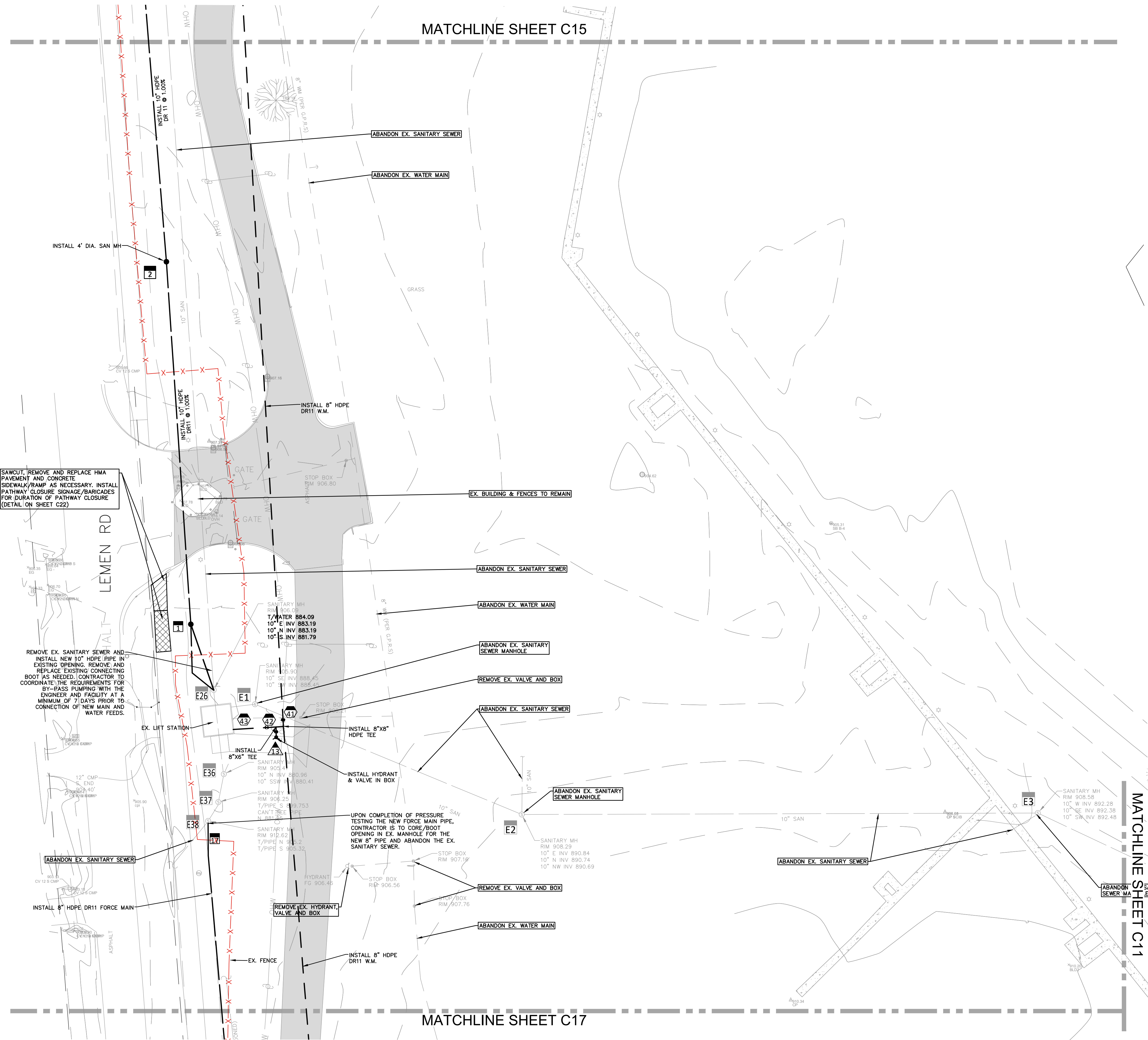
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12-05-2024	12-05-2024	Phase 500 50%	
08-15-2024	08-15-2024	Phase 400 50%	
12-12-2023	12-12-2023	Phase 400 50%	
			DATE

PROJECT DESCRIPTION
WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM
 WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

IMPROVEMENT PLAN
 AREA 13

PROJECT NO. 47203238.SDW	INDEX	PCA	00-0000	MAW	MAW	SWS
	DESIGNED BY			JCIENG BY		

C15



MATCHLINE SHEET C15

MATCHLINE SHEET C17

SAWCUT, REMOVE AND REPLACE HMA PAVEMENT AND CONCRETE SIDEWALK/RAMP AS NECESSARY. INSTALL PATHWAY CLOSURE SIGNAGE/BARICADES FOR DURATION OF PATHWAY CLOSURE (DETAIL ON SHEET C22)

REMOVE EX. SANITARY SEWER AND INSTALL NEW 10" HDPE PIPE IN EXISTING OPENING. REMOVE AND REPLACE EXISTING CONNECTING BOOT AS NEEDED. CONTRACTOR TO COORDINATE THE REQUIREMENTS FOR BY-PASS PUMPING WITH THE ENGINEER AND FACILITY AT A MINIMUM OF 7 DAYS PRIOR TO CONNECTION OF NEW MAIN AND WATER FEEDS.

UPON COMPLETION OF PRESSURE TESTING THE NEW FORCE MAIN PIPE, CONTRACTOR IS TO CORE/BOOT OPENING IN EX. MANHOLE FOR THE NEW 8" PIPE AND ABANDON THE EX. SANITARY SEWER.

NE PROJECT NO. K46R06
4575 WOODLAND BLVD, SUITE 100
FONTAINE, MI 48342-5035
TEL: (248) 332-7931 FAX: (248) 332-8257

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, NCARB, DIRECTOR

SCALE: 1" = 30'

REDUCED ACCESS AREAS
THERE MAY BE AREAS THAT PROVIDE LIMITED OR REDUCED ACCESS WIDTH/AREA WITHIN THE FACILITY TO PERFORM THE PREFERRED METHOD OF HYDRO EXCAVATION DUE TO SIZE OF THE REQUIRED VEHICLES/EQUIPMENT. THE CONTRACTOR MAY REQUEST AN ALTERNATE MEANS OF EXCAVATION TO BE REVIEWED AND APPROVED BY THE FACILITY PRIOR TO PERFORMING THE WORK. LOCATIONS WHERE THIS MAY OCCUR HAVE BEEN NOTED IN EACH AREA OF WORK.

BUILDING CONNECTIONS
CONTRACTORS SHALL INVESTIGATE THE INTERIOR PLUMBING TO VERIFY EXACT LOCATIONS AND TYPE OF MATERIALS TO ALLOW FOR PROPER EXTERIOR RECONNECTION OF NEW MAINS AT EACH PROPOSED REFEED. THIS EFFORT SHALL BE INCLUDED IN THE BID FEES.

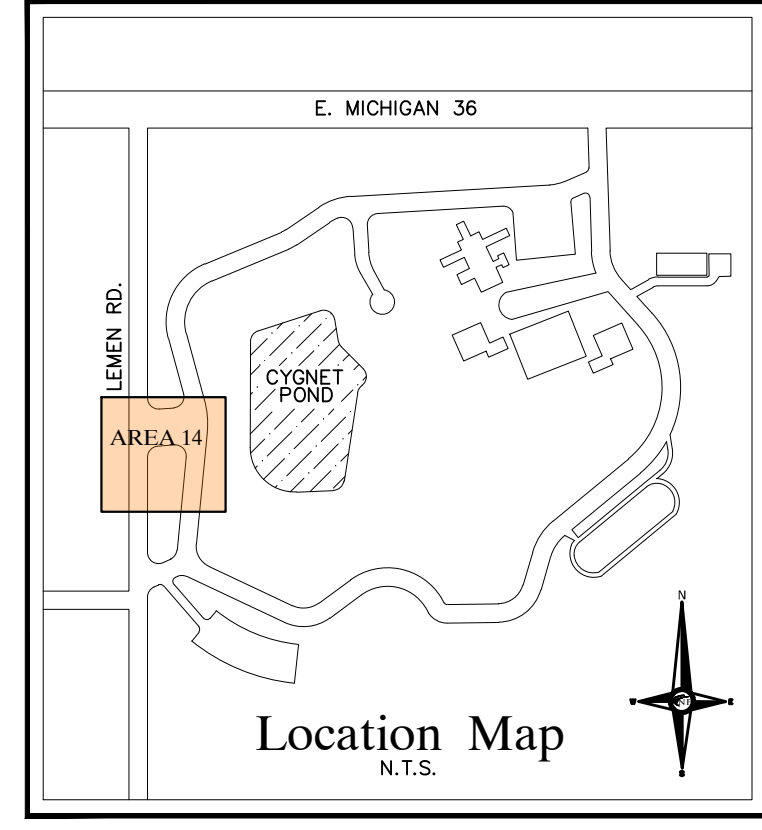
SURFACE REPAIRS
ANY PAVED OR GRAVEL AREA THAT IS DAMAGED DURING THE PROJECT SHALL BE REPAIRED "IN KIND" OR PER THE PROVIDED CROSS SECTIONS (WHICHEVER IS MORE STRINGENT).

WATER STRUCTURE SCHEDULE

41	PR. 8" GATE VALVE IN BOX FG 908.14
42	PR. 6" GATE VALVE IN BOX FG 906.00
13	PR. HYDRANT FG 905.97
43	PR. 8" GATE VALVE IN BOX FG 905.76

SANITARY STRUCTURE SCHEDULE

E1	EX. SANITARY MANHOLE RIM 905.90 10" SE. INV. 888.45 10" SW. INV. 888.45	E33	EX. SANITARY MANHOLE RIM 905.41 10" N. INV. 880.96 10" SW. INV. 880.41
E3	EX. SANITARY MANHOLE RIM 908.59 10" W. INV. 892.28 10" SE. INV. 892.38 10" SW. INV. 892.48	E37	EX. SANITARY MANHOLE RIM 906.25 10" S. T/P 899.75 10" N. INV. 881.25
E28	EX. SANITARY MANHOLE RIM 905.41 10" N. INV. 880.96 10" SW. INV. 880.41	E38	EX. SANITARY MANHOLE RIM 906.09 10" E. INV. 883.19 10" S. INV. 881.25
		2	PR. 4" SANITARY MANHOLE RIM 906.43 10" N. INV. 884.71 10" S. INV. 884.71
		1	PR. 4" SANITARY MANHOLE RIM 905.58 10" N. INV. 882.32 10" SE. INV. 882.32



LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	SAN. CLEAN OUT
MANHOLE CATCH BASIN	EXISTING WATER MAIN
UTILITY POLE	EXISTING STORM SEWER
GUY WIRE	EX. R. Y. CATCH BASIN
GUY WIRE	EXISTING BURIED CABLES
GUY WIRE	OVERHEAD LINES
GUY WIRE	LIGHT POLE
GUY WIRE	SIGN
C.O.	EXISTING GAS MAIN
HYDRANT	PR. SANITARY SEWER
INLET	PR. WATER MAIN
C.B.	PR. STORM SEWER
MANHOLE	PR. R. Y. CATCH BASIN
	SAND BACKFILL (95% DENSITY)
	PROPOSED LIGHT POLE

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, NCARB, DIRECTOR

PROJECT DESCRIPTION

03-17-2025	Bid Documents	Phase 500 90%	REVIEW
12-05-2024	Phase 500 90%	Phase 500 50%	
08-15-2024	Phase 500 50%	Phase 400 50%	
12-12-2023	Phase 400 50%		

WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM
WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

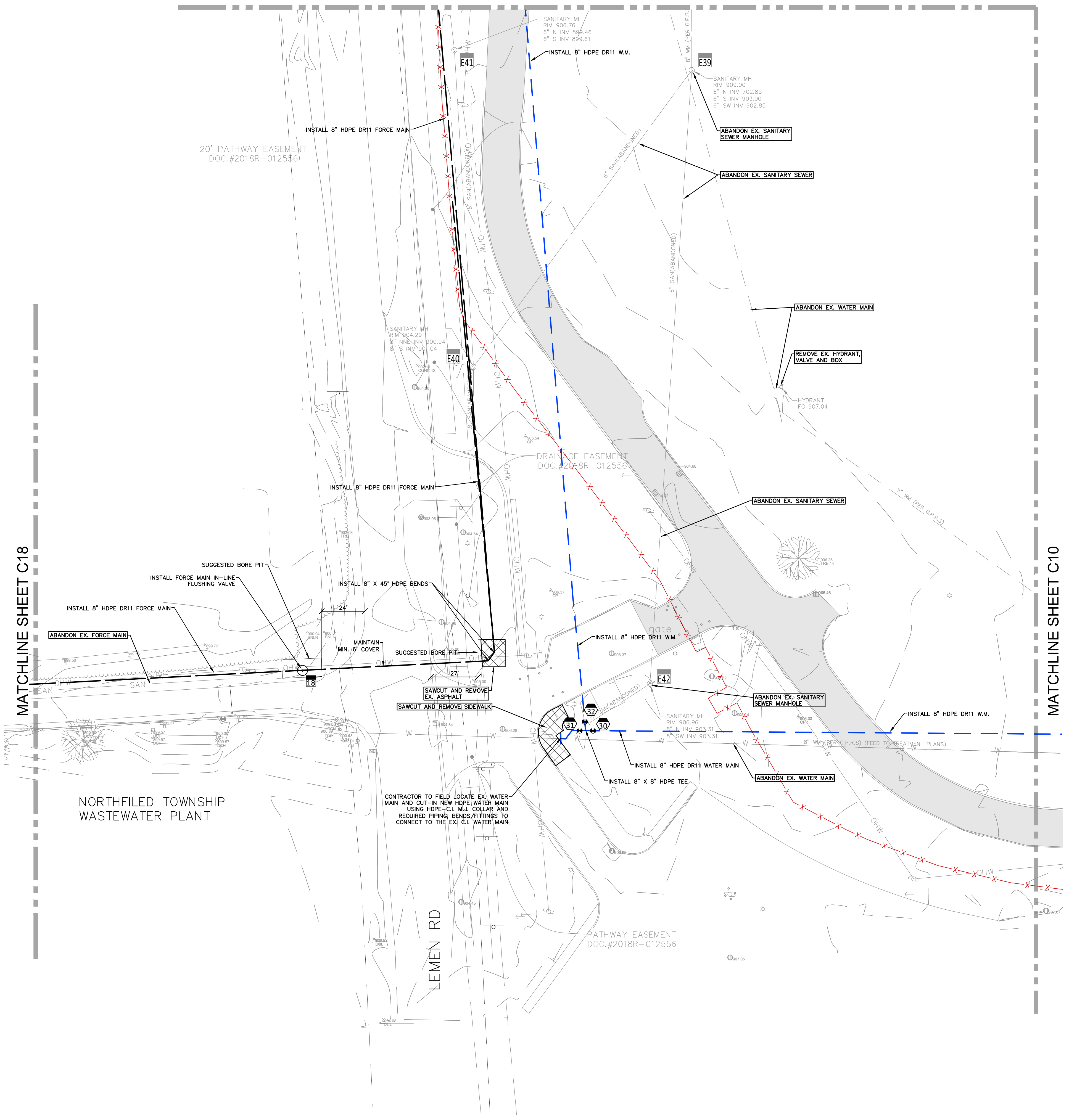
IMPROVEMENT PLAN
AREA 14

PROJECT NO. 472023128.S00

INDEX	00-0000	MAV	MAV	SWS
PCA				
DESIGNED BY				
JCIENG BY				

C16

MATCHLINE SHEET C16



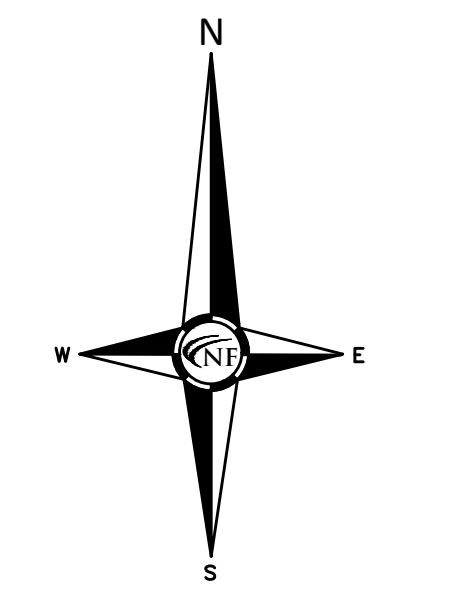
20' PATHWAY EASEMENT
DOC.#2018R-0125461

DRAINAGE EASEMENT
DOC.#2018R-012556

PATHWAY EASEMENT
DOC.#2018R-012556

NORTHFILED TOWNSHIP
WASTEWATER PLANT

CONTRACTOR TO FIELD LOCATE EX. WATER
MAIN AND CUT-IN NEW HDPE WATER MAIN
USING HDPE-C.I. M.J. COLLAR AND
REQUIRED PIPING, BENDS/FITTINGS TO
CONNECT TO THE EX. C.I. WATER MAIN.



SCALE: 1" = 30'

REDUCED ACCESS AREAS
THERE MAY BE AREAS THAT PROVIDE LIMITED OR REDUCED ACCESS WIDTH/AREA WITHIN THE FACILITY TO PERFORM THE PREFERRED METHOD OF HYDRO EXCAVATION DUE TO SIZE OF THE REQUIRED VEHICLES/EQUIPMENT. THE CONTRACTOR MAY REQUEST AN ALTERNATE MEANS OF EXCAVATION TO BE REVIEWED AND APPROVED BY THE FACILITY PRIOR TO PERFORMING THE WORK. LOCATIONS WHERE THIS MAY OCCUR HAVE BEEN NOTED IN EACH AREA OF WORK.

LEMEN ROAD CROSSING NOTES
- MAINTAIN MINIMUM 6' COVER ON SANITARY SEWER.
- BORE PITS MUST BE AT LEAST 10' FROM EDGE OF LEMEN ROAD PAVEMENT.

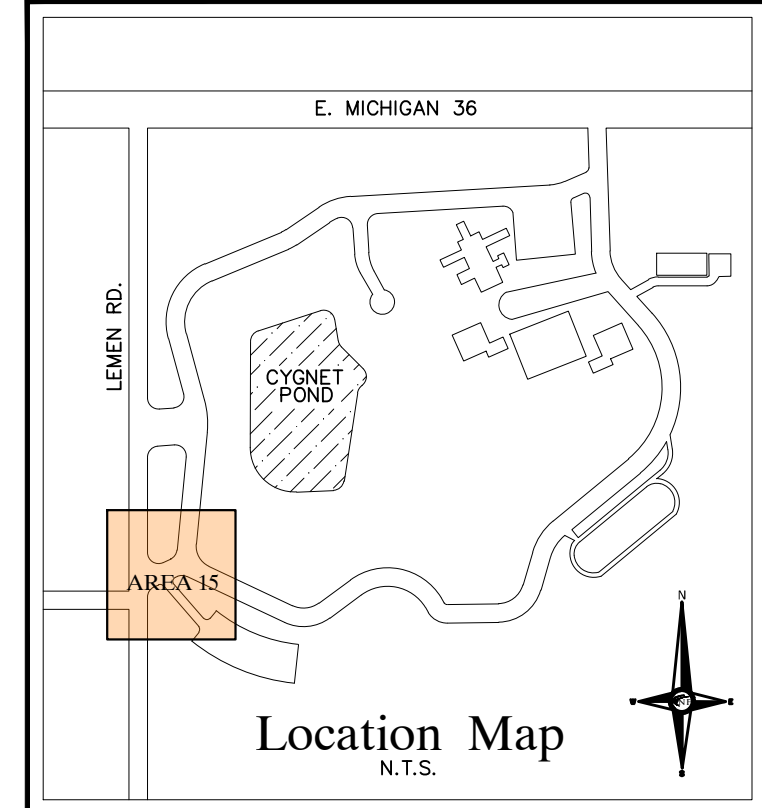
SURFACE REPAIRS
ANY PAVED OR GRAVEL AREA THAT IS DAMAGED DURING THE PROJECT SHALL BE REPAIRED "IN KIND" OR PER THE PROVIDED CROSS SECTIONS (WHICHEVER IS MORE STRINGENT).

WATER STRUCTURE SCHEDULE

30	PR. 8" GATE VALVE IN BOX FG 907.16
31	PR. 8" GATE VALVE IN BOX FG 906.98
32	PR. 8" GATE VALVE IN BOX FG 906.98

SANITARY STRUCTURE SCHEDULE

E39	EX. SANITARY MANHOLE RIM 909.00 6" E. INV. 902.85 6" S. INV. 903.00 6" SW. INV. 902.85	E42	EX. SANITARY MANHOLE RIM 906.96 6" N. INV. 903.31 6" S. INV. 903.31
E40	EX. SANITARY MANHOLE RIM 904.29 6" NNE. INV. 900.94 6" S. INV. 901.04	18	PR. FLUSHING VALVE FG 901.92
E41	EX. SANITARY MANHOLE RIM 906.76 6" N. INV. 899.46 6" S. INV. 899.61		



LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	SAN. CLEAN OUT
MANHOLE CATCH BASIN	EXISTING WATER MAIN
UTILITY POLE	EXISTING STORM SEWER
GUY POLE	EX. R. Y. CATCH BASIN
GUY WIRE	EXISTING BURIED CABLES
	OVERHEAD LINES
	LIGHT POLE
	SIGN
C.O. MANHOLE	EXISTING GAS MAIN
HYDRANT	PR. SANITARY SEWER
INLET	PR. WATER MAIN
C.B. MANHOLE	PR. STORM SEWER
	PR. R. Y. CATCH BASIN
	SAND BACKFILL (95% DENSITY)
	PROPOSED LIGHT POLE

NE PROJECT NO. K64806
4577 WOODLAND AVENUE
FONTANA, MI 48342-5031
TEL. (248) 332-7931
FAX. (248) 332-8257

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

ENGINEERS

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, NCARB, DIRECTOR

03-17-2025	03-17-2025	03-17-2025	03-17-2025
03-17-2025	03-17-2025	03-17-2025	03-17-2025
03-17-2025	03-17-2025	03-17-2025	03-17-2025
03-17-2025	03-17-2025	03-17-2025	03-17-2025

PROJECT DESCRIPTION
**WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM**
WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

IMPROVEMENT PLAN
AREA 15

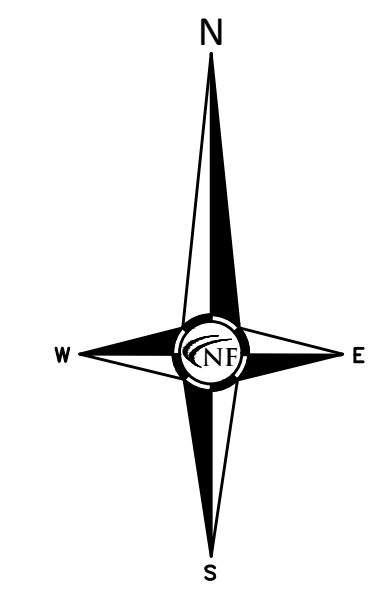
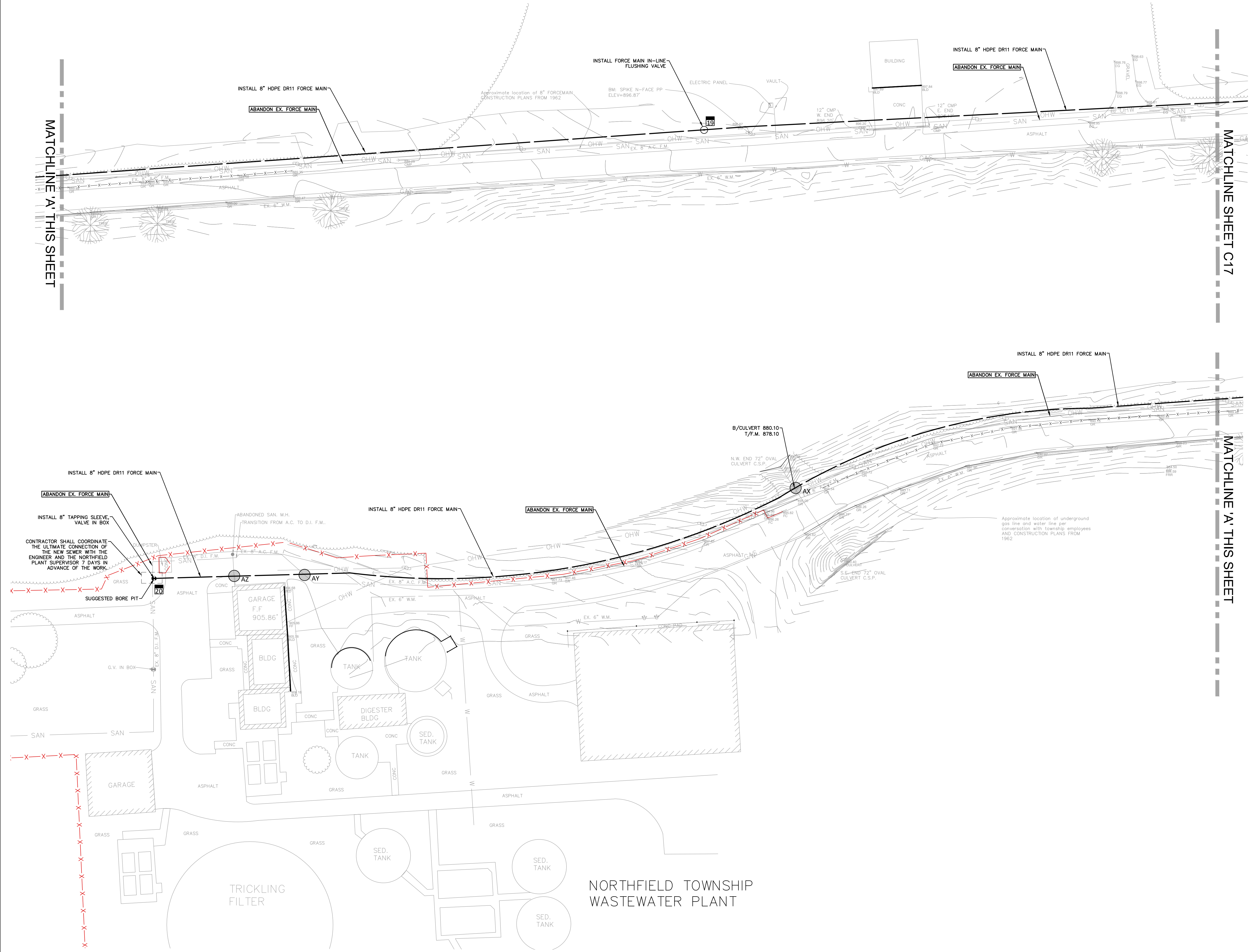
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	DESIGNED BY				
	DESIGNED BY				
	DESIGNED BY				

C17

MATCHLINE A THIS SHEET

MATCHLINE SHEET C17

MATCHLINE A THIS SHEET

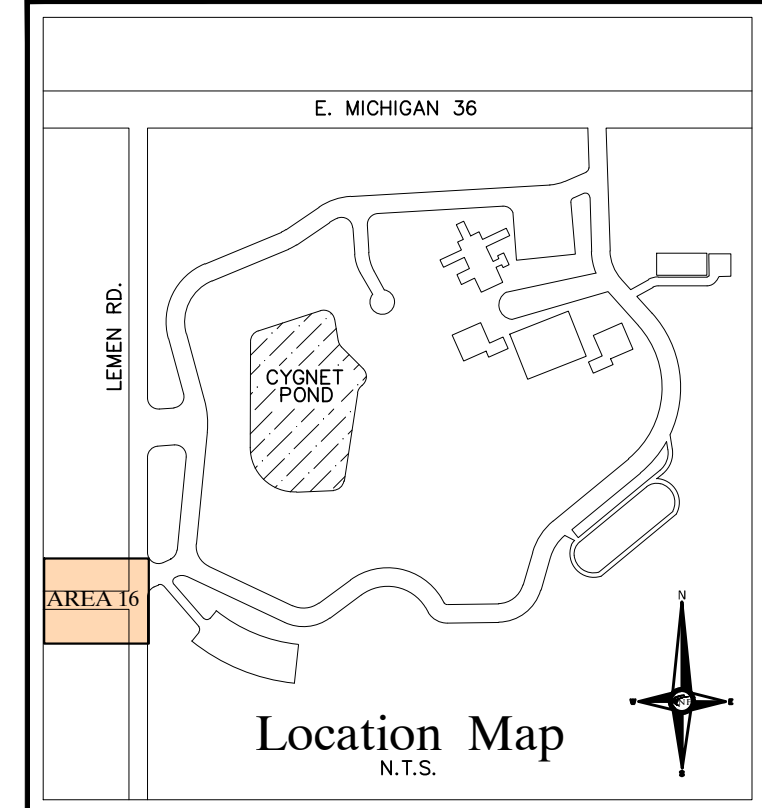


REDUCED ACCESS AREAS
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SURFACE REPAIRS
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SANITARY STRUCTURE SCHEDULE

15	PR. FLUSHING VALVE FG 896.45
16	PR. TAPPING SLEEVE, VALVE IN BOX 8" E&W T/P 890.45 (MIN.) FG 904.80±
20	8" E&W T/P 898.80 (MIN.)
CROSSING SCHEDULE	
AX	FG. 904.65± EX. CULVERT B/P 880.10 PR. 8" SAN T/P 878.10
AY	FG. 905.00± V.I.F. EX. SAN - VERIFY DEPTH IN FIELD PR. 8" SAN - MAINTAIN 1.5' CLEARANCE & MIN. 5.5' COVER
AZ	FG. 905.00± V.I.F. EX. SAN - VERIFY DEPTH IN FIELD PR. 8" SAN - MAINTAIN 1.5' CLEARANCE & MIN. 5.5' COVER



LEGEND

MANHOLE	EXISTING SANITARY SEWER
HYDRANT	SAN. CLEAN OUT
MANHOLE CATCH BASIN	EXISTING WATER MAIN
UTILITY POLE	EXISTING STORM SEWER
GUY WIRE	EX. R. Y. CATCH BASIN
GUY WIRE	EXISTING BURIED CABLES
GUY WIRE	OVERHEAD LINES
GUY WIRE	LIGHT POLE
GUY WIRE	SIGN
C.O. MANHOLE	EXISTING GAS MAIN
HYDRANT	PR. SANITARY SEWER
INLET	PR. WATER MAIN
C.B. MANHOLE	PR. STORM SEWER
INLET	PR. R. Y. CATCH BASIN
INLET	SAND BACKFILL (95% DENSITY)
INLET	PROPOSED LIGHT POLE

PROJECT NO. K64806
 4275 WOODLAND AVENUE
 FOUNTAIN, MI 48342-5932
 TEL. (248) 332-7931
 FAX. (248) 332-8257

CIVIL ENGINEERS
 LAND SURVEYORS
 LAND PLANNERS

ENGINEERS

STATE OF MICHIGAN
 DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
 STATE FACILITIES ADMINISTRATION
 DESIGN AND CONSTRUCTION DIVISION
 ADAM P. LACH, RA, NCARB, DIRECTOR

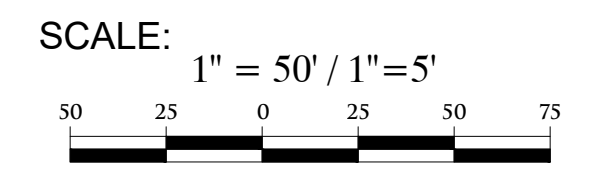
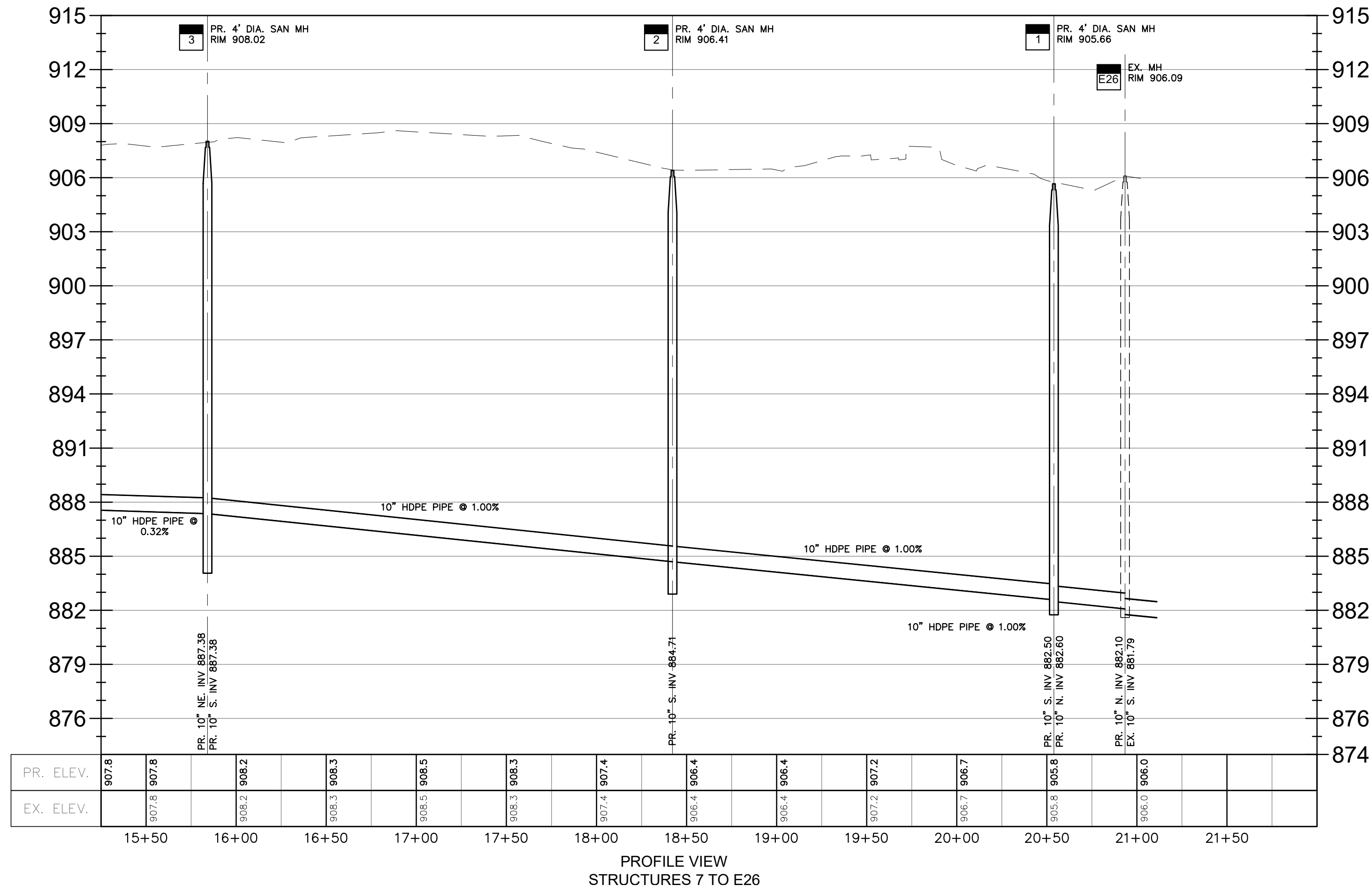
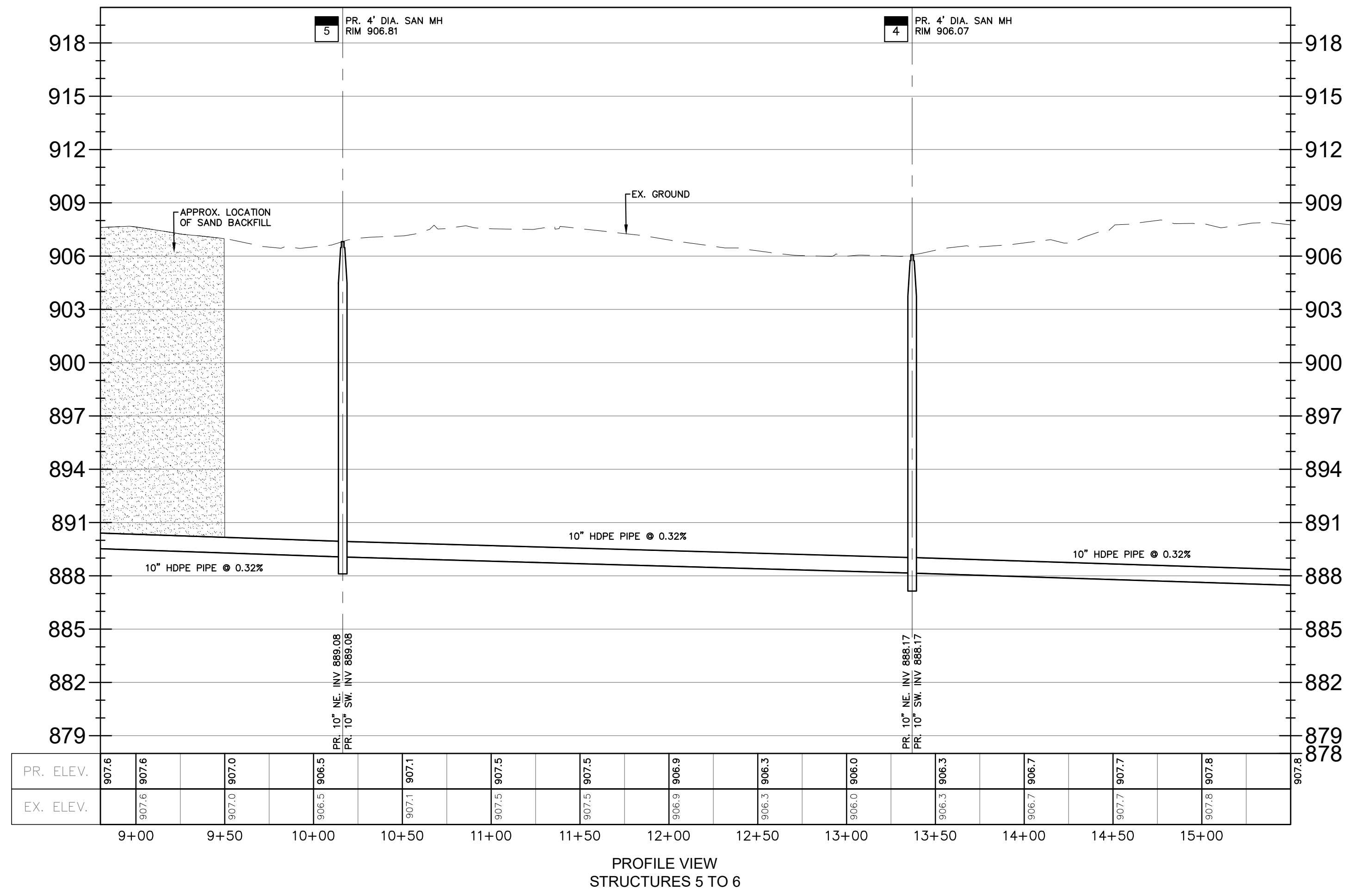
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12-05-2024	Phase 500 90%	Phase 500 50%	
08-15-2024	Phase 500 50%	Phase 400 50%	
12-12-2023	Phase 400 50%		
	DATE		

PROJECT DESCRIPTION
WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM
 WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

IMPROVEMENT PLAN
AREA 16

PROJECT NO.	47223238.SDW
INDEX	1
PCA	00-0000
DRAWN BY	MAW
DESIGNED BY	MAW
JC/ENG BY	SWV

C18



N/E PROJECT NO. K64806
4677 WOODLAND CENTER
LIVINGSTON COUNTY, MICHIGAN 48342-5032
TEL. (248) 332-7931 FAX. (248) 332-8257

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

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ENGINEERS

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, NCARB, DIRECTOR

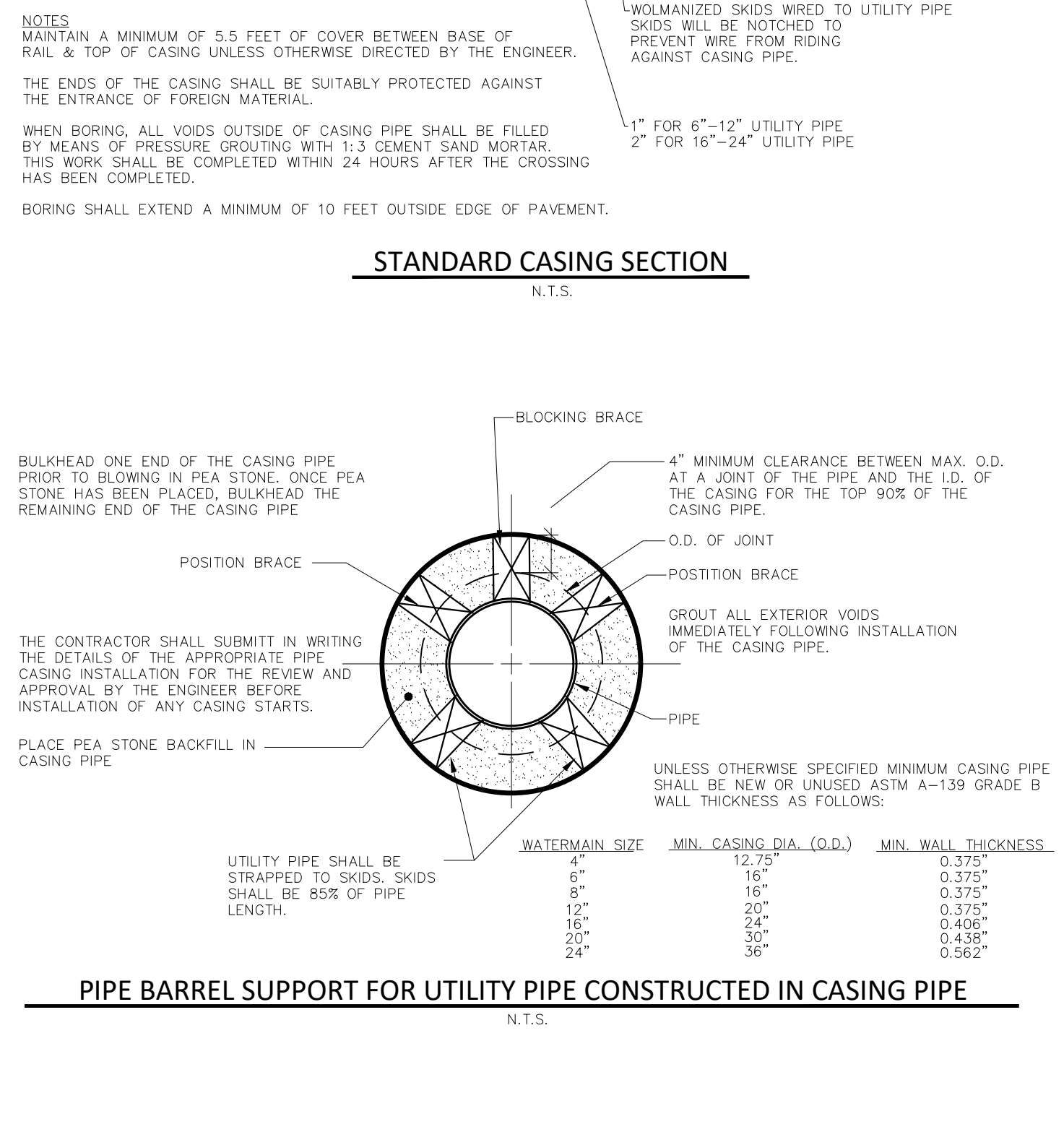
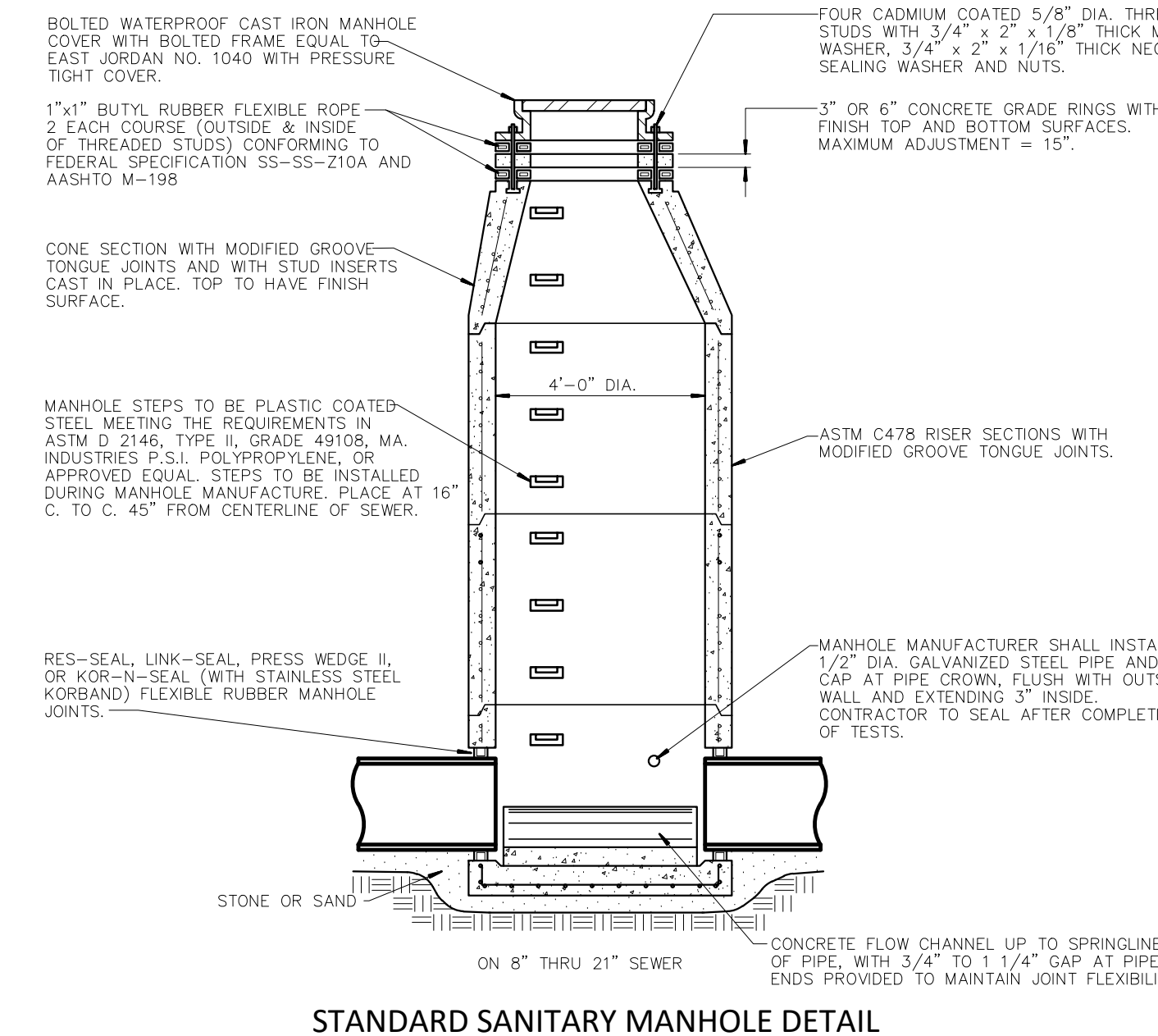
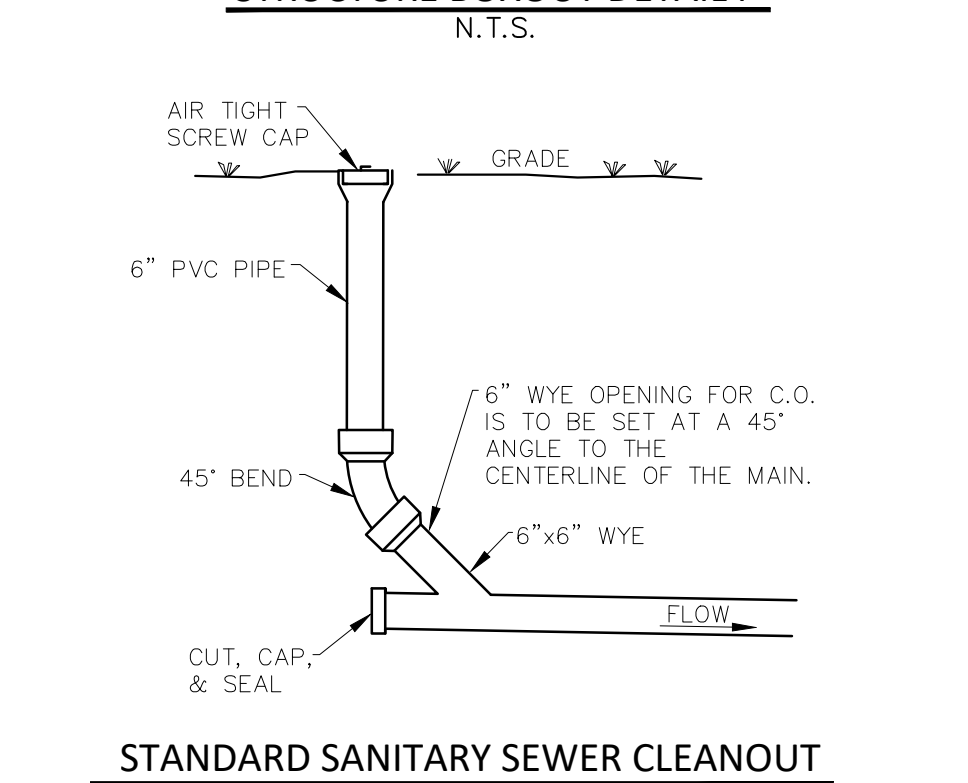
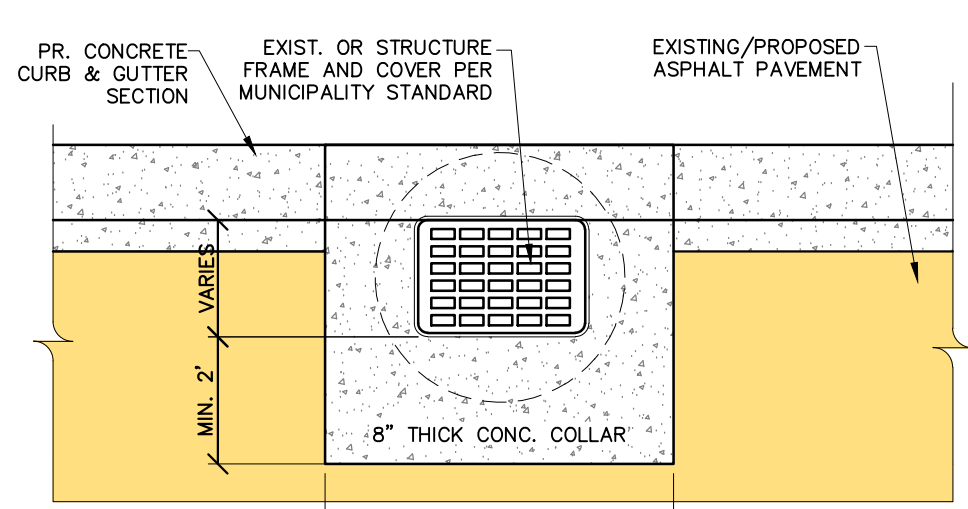
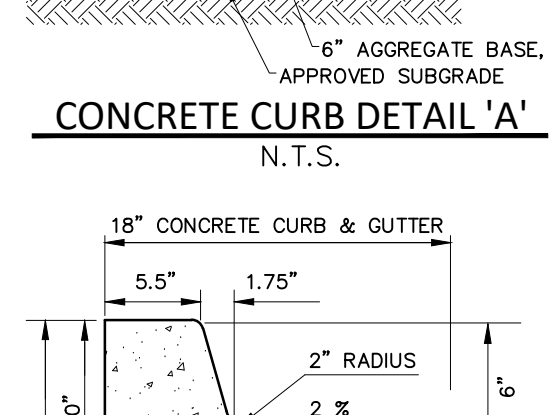
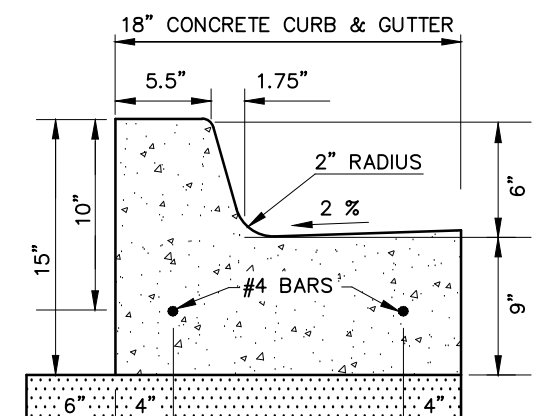
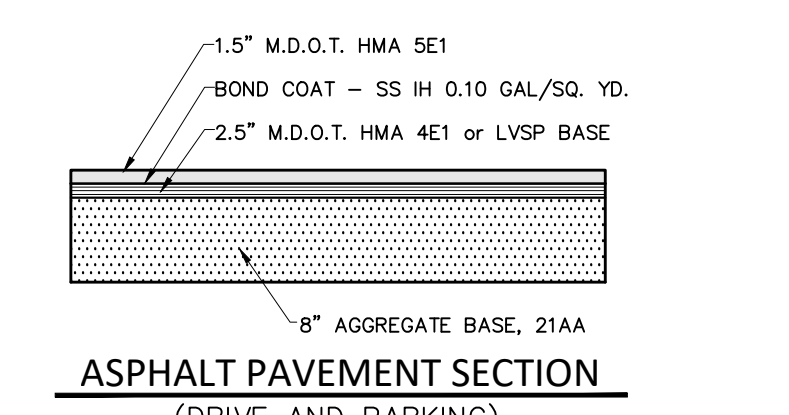
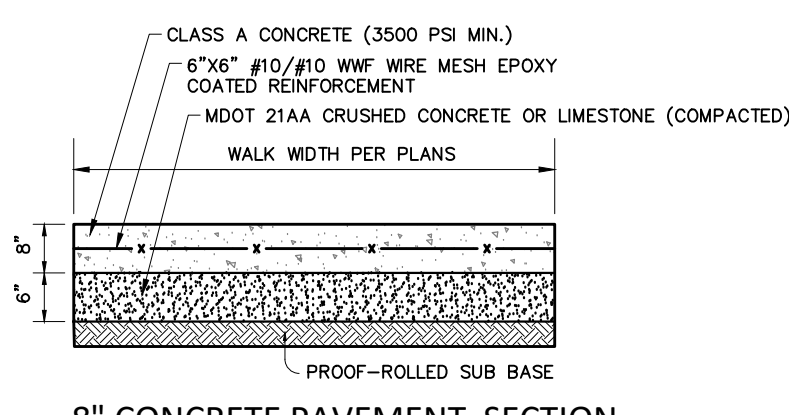
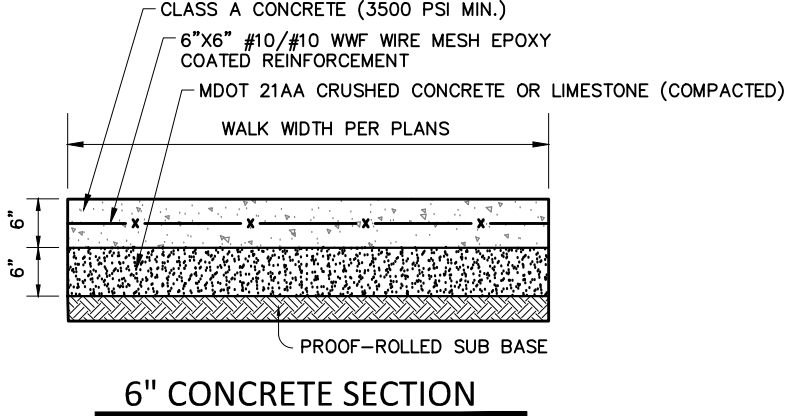
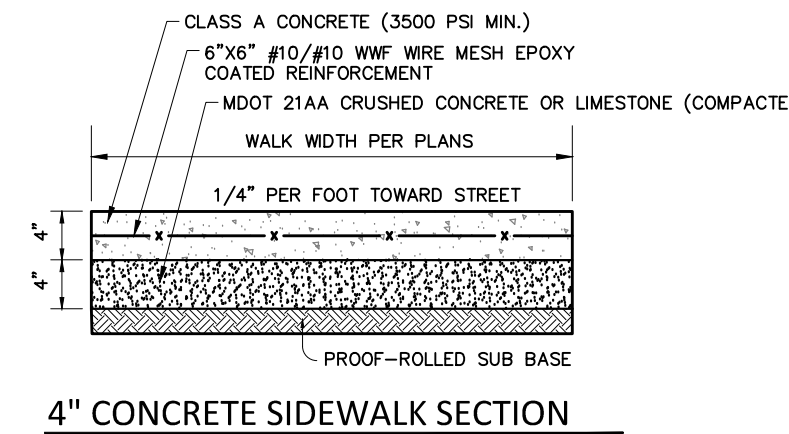
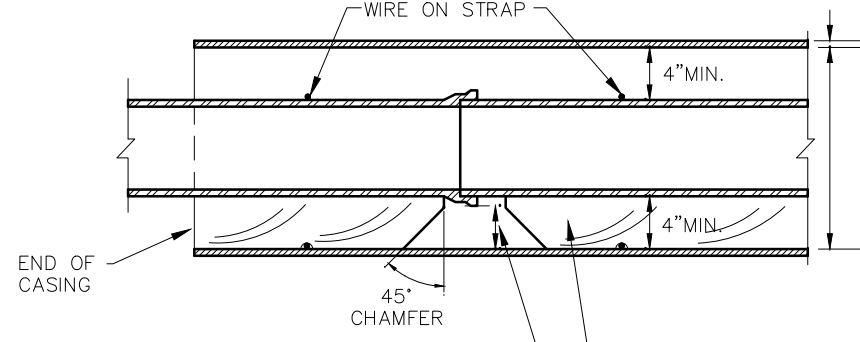
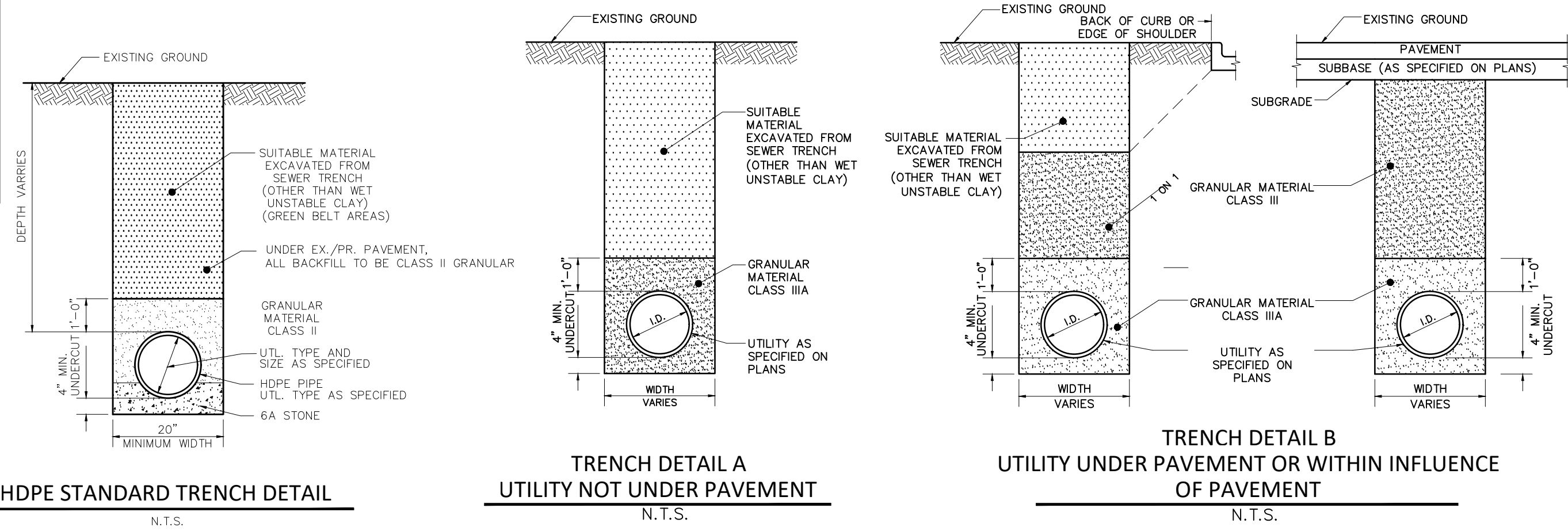
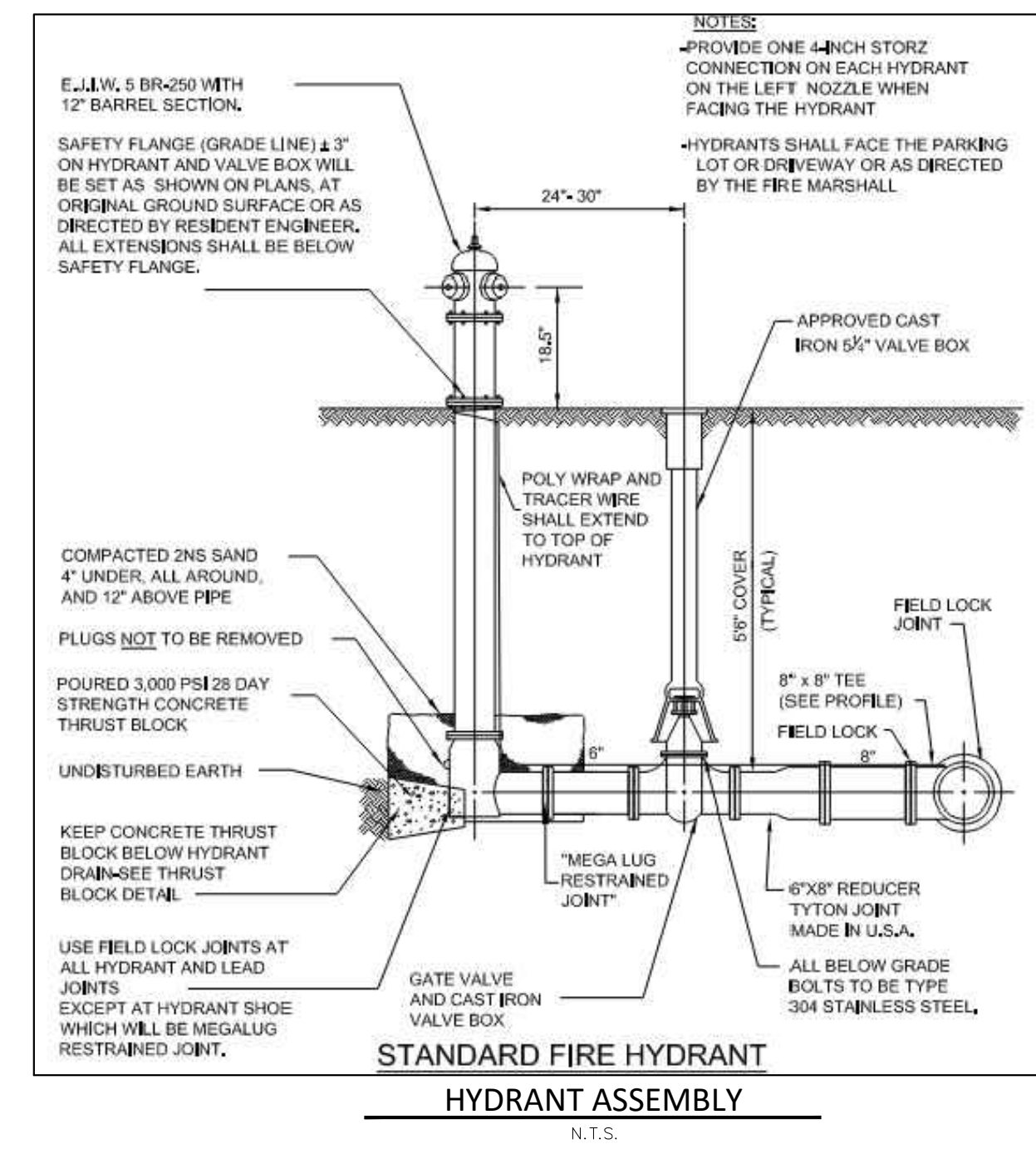
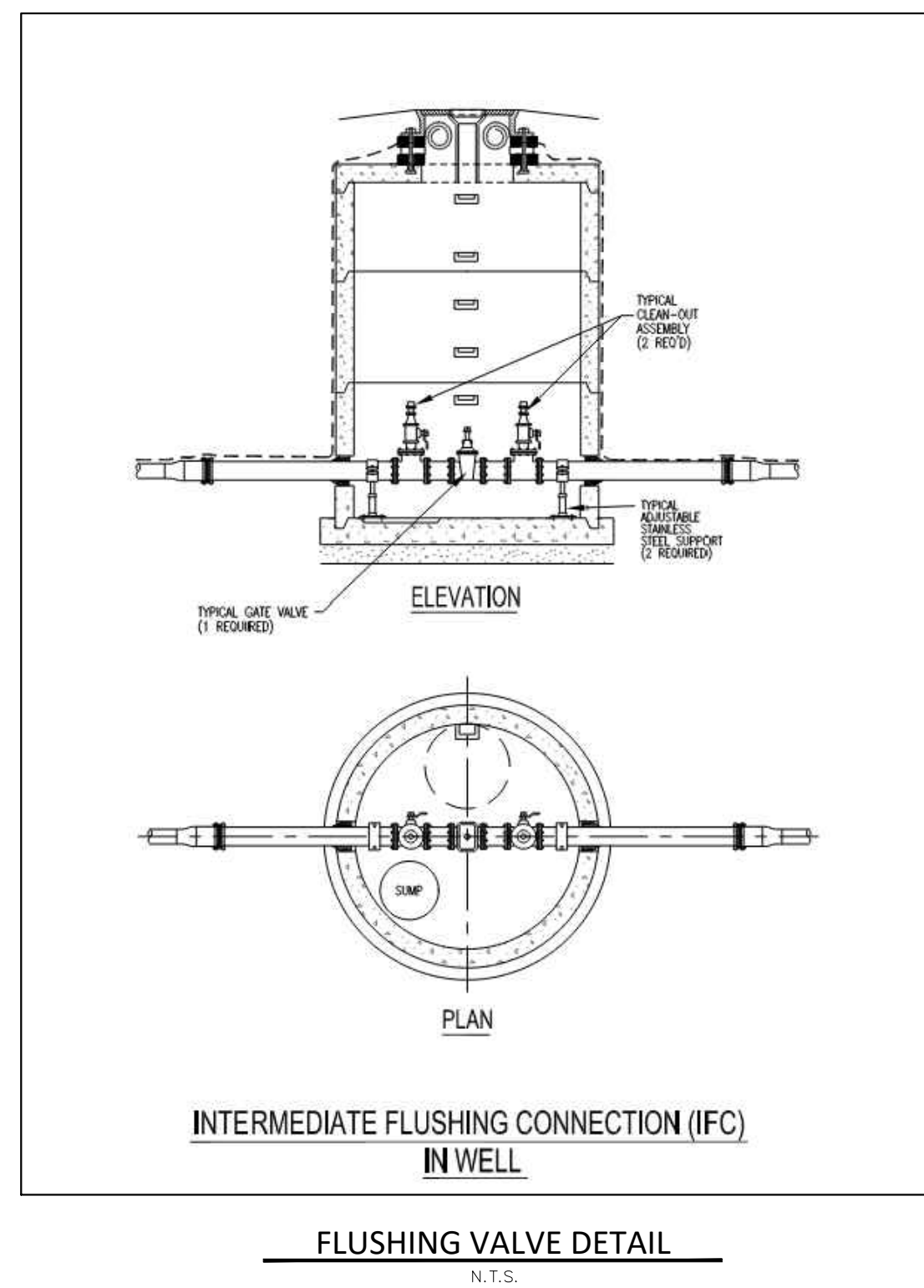
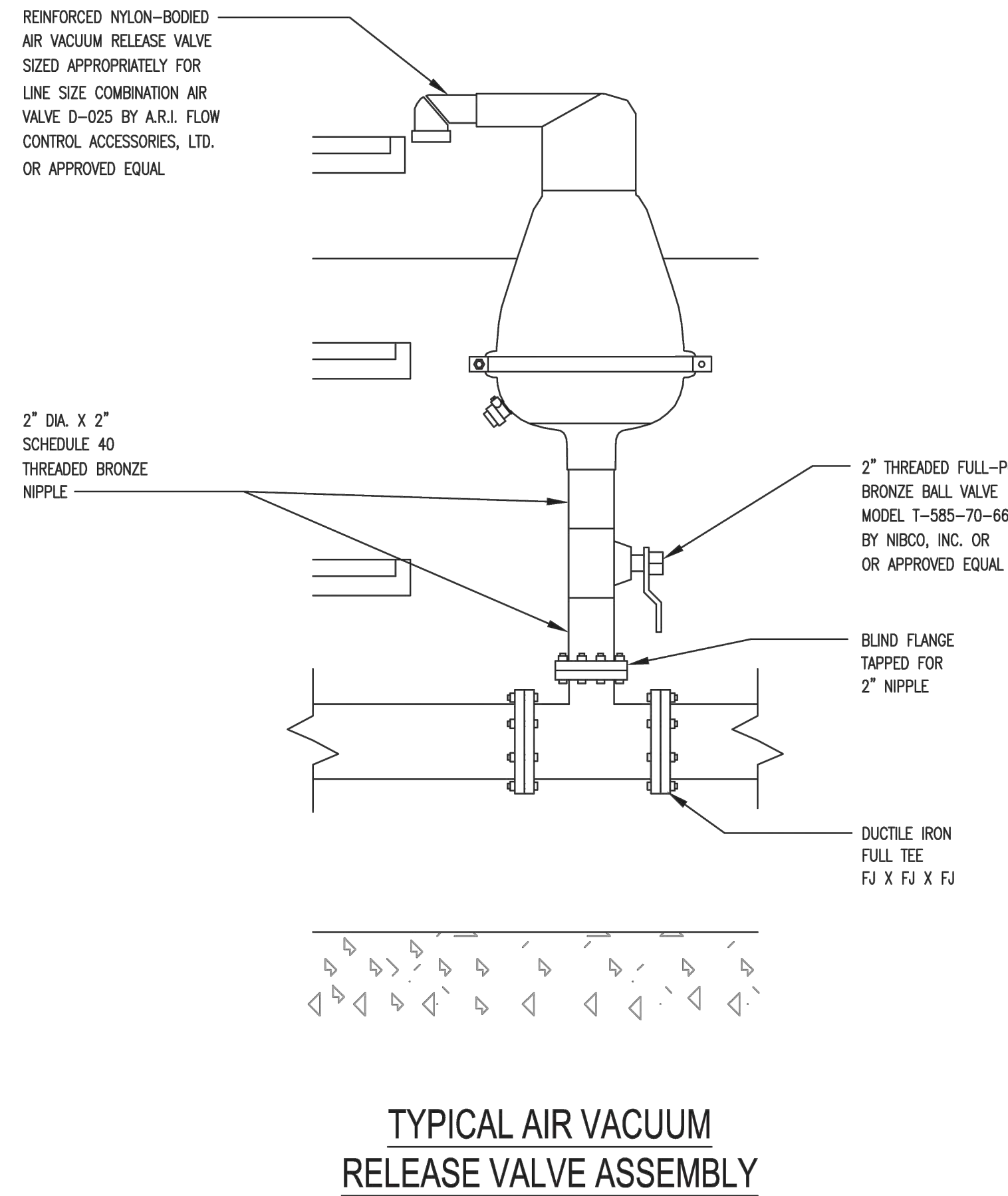
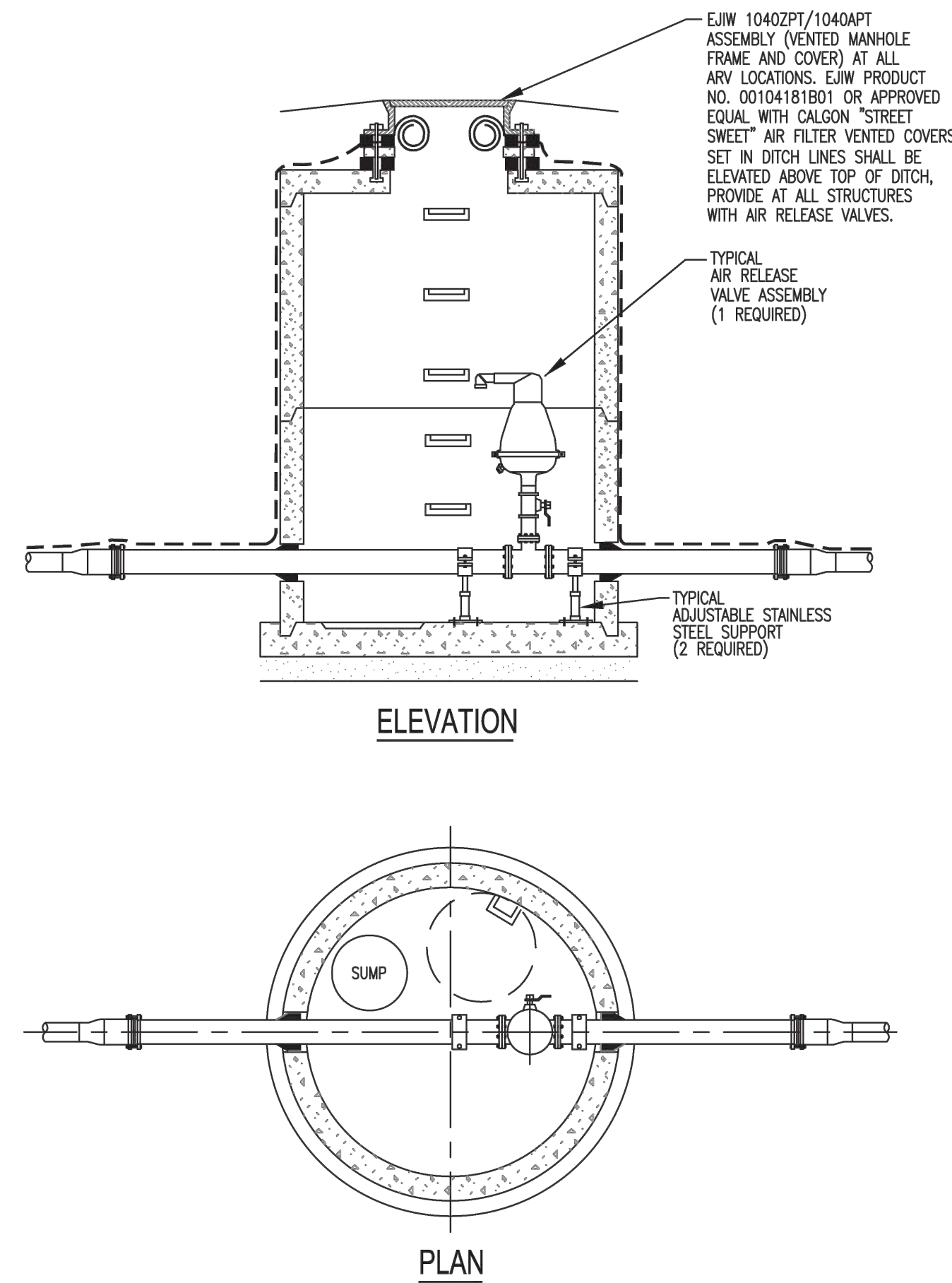
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03-17-2025	03-17-2025	03-17-2025	03-17-2025

PROJECT DESCRIPTION
**WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM**
WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

SANITARY PROFILES

PROJECT NO.	4720328.SDW
INDEX	
PCA	00-0000
DRAWN BY	MAW
DESIGNED BY	MAW
JC/ENG BY	SWS

C20



PROJECT NO. K64806
4575 WOODLAND CENTER
FONTSVILLE, MI 48342-5033
TEL. (248) 332-7931
FAX. (248) 332-8257

CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

ENGINEERS

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
ADAM P. LACH, RA, NCARB, DIRECTOR

DATE	REVIEW
03-17-2025 <td>Phase 500 90%</td>	Phase 500 90%
12-05-2024 <td>Phase 500 90%</td>	Phase 500 90%
08-15-2024 <td>Phase 500 50%</td>	Phase 500 50%
12-12-2023 <td>Phase 400 50%</td>	Phase 400 50%

PROJECT DESCRIPTION

**WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM**

WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

STANDARD DETAILS AND NOTES

PROJECT NO.	4720328-50W
INDEX	00-0000
PCN	MAW
DRAWN BY	MAW
DESIGNED BY	MAW
IN CHARGE	JCIENG BY

C22

GENERAL ELECTRICAL NOTES

- ALL NON-FIRE RATED WALLS ARE TO BE PATCHED WITH LIKE MATERIAL TO MAINTAIN ORIGINAL RATINGS.
- ALL WALL AND FLOOR PENETRATIONS THROUGH FIRE RATED WALLS ARE TO BE SEALED WITH FIRE CAULK TO MAINTAIN ORIGINAL RATING.
- ALL CONDUITS SHALL BE FIELD ROUTED ALONG EXISTING PIPING AND STRUCTURAL STEEL.
- CONTRACTORS SHALL VISIT THE PROJECT SITE DURING PRE-BID WALK THROUGH TO DETERMINE THE EXACT EXTENT OF THE WORK REQUIRED BEFORE BIDDING THE PROJECT.
- REMOVE ALL EXISTING EXPOSED CONDUIT, WIRE, AND EQUIPMENT NOT TO BE RE-USED WHERE WORK IS BEING DONE EXCEPT ITEMS NOTED OTHERWISE.
- WHERE BUILDING SURFACES ARE DAMAGED BY THE REMOVAL OF OLD WORK, SURFACES SHALL BE PATCHED AND PAINTED TO MATCH ADJACENT.
- EXISTING WORK WHICH IS PRESENTLY CONCEALED, WHICH WILL REMAIN CONCEALED, AND DOES NOT INTERFERE WITH ANY NEW WORK OF ANY TRADE NEED NOT BE REMOVED. HOWEVER, ALL CONDUIT SHALL BE CAPPED BELOW FINISH SURFACE AND THEN PATCHED AND PAINTED TO MATCH, OR AS NOTED.
- EXISTING OPENINGS, WHICH ARE TO BE REUSED, SHALL BE MODIFIED OR ENLARGED TO SUIT THE NEW SYSTEMS AS REQUIRED. PROVIDE ALL REQUIRED CUTTING AND PATCHING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING THE EXISTING WALLS TO MATCH THE ADJACENT SURFACES BEHIND ALL SURFACE MOUNTED EQUIPMENT.
- CONTRACTOR SHALL FIELD VERIFY ALL EQUIPMENT AND LOADS PRIOR TO INSTALLING SERVICE TO EQUIPMENT.
- DRAWINGS ARE BASED ON EXISTING RECORD DOCUMENTS AND CASUAL FIELD OBSERVATION PERFORMED ON AUGUST 16, 2024. REPORT ANY DISCREPANCIES TO ENGINEER FOR CLARIFICATION.
- MINIMUM RACEWAY SIZE; 3/4" TRADE SIZE. ALL FLEXIBLE CONDUIT RACEWAYS SHALL BE LIQUID TITE, MAXIMUM 36" LENGTH. REFER TO SPECIFICATION 260533 - RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS.
- ALL CONDUIT ABOVE 10 FOOT SHALL MEET THE FOLLOWING REQUIREMENTS:
 - STRAP DISTANCE: 5 FEET.
 - FASTENERS: 2 HOLE
 - CONDUIT: INTERIOR EMT, EXTERIOR EXPOSED/ CONCEALED- GRC
 - FITTINGS: COMPRESSION.
 - SECURE CONDUIT WITHIN 12 INCHES OF BOXES AND ENCLOSURES.
- ALL CONDUIT 10 FOOT AND BELOW SHALL MEET THE FOLLOWING REQUIREMENTS:
 - STRAP DISTANCE: 3 FEET.
 - FASTENERS: 2 HOLE WITH SECURITY SCREWS.
 - CONDUIT: INTERIOR EMT, EXTERIOR EXPOSED/ CONCEALED - GRC.
 - FITTINGS: COMPRESSION.
 - BELL BOXES: FS TYPE.
 - NO KNOCKOUTS.
 - SECURE CONDUIT WITHIN 12 INCHES OF BOXES AND ENCLOSURES
- ALL EXPOSED WIRING SHALL BE IN CONDUIT. OPEN LOW VOLTAGE WIRINGS ABOVE CEILINGS IS ACCEPTABLE.
- ALL EXPOSED WIRING ABOVE CEILINGS SHALL BE INSTALLED WITH J-HOOKS. DO NOT CONNECT TO EXISTING CEILING TIE WIRES.
- CONDUITS AND WIRES SHALL BE INSTALLED STRAIGHT, LEVEL, AND SHALL BE PARALLEL OR PERPENDICULAR TO THE BUILDING LINES.
- CONTRACTOR SHALL VERIFY ALL VOLTAGES BEFORE CONNECTING ANY EQUIPMENT.
- ALL LOCATIONS WHERE THE WALLS CAN NOT BE FISHED SHALL BE SURFACE MOUNTED CONDUIT FOLLOWING NOTES 12 THROUGH 14 ABOVE.
- ALL WALLS THAT ARE ACCESSIBLE SHALL BE FISHED AND DEVICE CUT INTO WALL.
- ALL EXTERIOR CONCEALED CONDUIT UNDERGROUND SHALL BE RNC, TYPE EPC-40-PVC. ALL EXTERIOR ABOVE GROUND CONDUIT SHALL BE GRC.
- ALL ELECTRICAL OUTAGES SHALL NOT LAST OVER 2-HOURS. PORTABLE GENERATORS SHALL BE USED TO REPLACE ANY ELECTRICAL SERVICE EXCEEDING THAT DURATION.
- WHEN RELOCATING ANY ELECTRICAL DEVICE, CONTRACTOR SHALL COMPLETE THE RELOCATION IN ONE DAY AND VERIFY THAT ALL DEVICES RELOCATED ARE WORKING PROPERLY PRIOR TO LEAVING THE SITE.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL REQUIRED COMPONENTS, RACEWAYS, WIRE, AND HARDWARE, AS INDICATED ON DRAWINGS.
- ALL WORK DONE WITHOUT APPROVED SHOP DRAWINGS IS AT CONTRACTORS RISK.
- CONTRACTOR SHALL NOTIFY PSC OF ANY EXISTING INSTALLATIONS NOT MEETING THESE STANDARDS PRIOR TO STARTING WORK IN THE AREA.
- THESE DRAWINGS HAVE BEEN SUBMITTED AND APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION. ANY COMMENTS THAT WERE PROVIDED BY THE LOCAL AUTHORITIES HAVING JURISDICTION HAVE BEEN ADDRESSED, AND THE DRAWINGS MODIFIED ACCORDINGLY. BECAUSE OF THIS, RESPONSIBILITY OF ANY ISSUES THAT ARISE UPON FINAL INSPECTION SHALL NOT FALL UPON MATRIX CONSULTING ENGINEERS.

ELECTRICAL SYMBOLS LEGEND

<p>OUTLETS</p> <p>⊕ SINGLE RECEPTACLE (120 VOLT)</p> <p>⊕ DUPLEX RECEPTACLE</p> <p>⊕ EMERGENCY RECEPTACLE</p> <p>⊕ DOUBLE DUPLEX RECEPTACLE</p> <p>⊕ F FLUSH FLOOR BOX</p> <p>⊕ S SURFACE FLOOR BOX</p> <p>⊕ SPECIAL EQUIPMENT RECEPTACLE</p> <p>▼ TELEPHONE OUTLET</p> <p>▽ DATA OUTLET</p> <p>▽ TELEPHONE / DATA OUTLET</p> <p>■ PP POWER POLE</p> <p>⊕ JUNCTION BOX</p> <p>⊕ WALL JUNCTION BOX</p> <p>⊕ PULL (UNCTION) BOX</p> <p>⊕ UNDERFLOOR JUNCTION BOX</p> <p>⊕ CEILING MOUNTED WIFI</p> <p>◇ DEMOLITION NOTE</p> <p>○ PLAN NOTE</p> <p>△ ADDENDUM NOTE</p> <p>SOUND and SIGNAL</p> <p>Ⓢ CAMERA</p> <p>SSCP SECURITY SYSTEM CONTROL PANEL</p> <p>CO CO</p> <p>DATA RACK</p> <p>RACK MOUNTED UPS</p> <p>FLOOR UPS</p> <p>WALL MOUNTED UPS</p> <p>⊕ POLE</p>	<p>FIXTURES</p> <p>☐ LIGHT FIXTURE</p> <p>☐ STRIP FIXTURE</p> <p>☐ EMERGENCY LIGHT FIXTURE</p> <p>☐ IN-GRADE LIGHT FIXTURE</p> <p>☐ SPOTLIGHT (number of heads shown)</p> <p>☐ EXIT SIGN (face & direction as shown)</p> <p>☐ WALL MOUNT LIGHT FIXTURE</p> <p>☐ CEILING LIGHT FIXTURE</p> <p>☐ TRACK & FIXTURE</p> <p>☐ STREET TYPE POLE FIXTURE</p> <p>☐ POLE MOUNTED LIGHT FIXTURE</p> <p>☐ EXTERIOR WALL MOUNT LIGHT FIXTURE</p> <p>☐ WALLPACK LIGHT FIXTURE</p> <p>☐ SPECIAL PURPOSE LIGHT FIXTURE</p> <p>☐ HIGH BAY LIGHT FIXTURE</p> <p>☐ EMERGENCY EGRESS LIGHT FIXTURE (number of heads shown)</p> <p>☐ DOCK LIGHT FIXTURE</p> <p>CIRCUITRY and RACEWAYS</p> <p>— CONDUIT INSTALLED (by E.C.)</p> <p>— CONDUIT INSTALLED (by others)</p> <p>— CONDUIT STUB UP</p> <p>— CONDUIT STUB DOWN</p> <p>— HOME RUN (with circuit numbers)</p> <p>— END OF CONDUIT RUN</p> <p>— END OF CONDUIT RUN, CAP AND STAKE</p> <p>— "CONDUIT RUN CONTINUES" INDICATION</p> <p>— FLEXIBLE PIGTAILS/CONNECTIONS</p> <p>— WM WIREMOLD AS SPECIFIED</p> <p>— PM PLUGMOLD AS SPECIFIED</p> <p>— BD BUS DUCT</p> <p>— UFD UNDERFLOOR DUCT</p>	<p>SERVICE and EQUIPMENT</p> <p>TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION</p> <p>VFD VARIABLE FREQUENCY DRIVE</p> <p>☐ TRANSFORMER</p> <p>☐ DISCONNECT SWITCH</p> <p>☐ MAGNETIC STARTER</p> <p>☐ COMB. STARTER</p> <p>☐ PANELBOARD, SURFACE MOUNTED</p> <p>☐ PANELBOARD, FLUSH MOUNTED</p> <p>☐ WEATHERHEAD</p> <p>☐ UTILITY METER, AS REQUIRED</p> <p>☐ DIGITAL EQUIPMENT METER, AS REQUIRED</p> <p>☐ CURRENT TRANSFORMERS</p> <p>☐ GENERATOR, KW SHOWN</p> <p>☐ TELEPHONE TERMINAL BOARD</p> <p>☐ GROUND CONNECTION PER N.E.C.</p> <p>☐ WIREWAY</p> <p>☐ TRANSFER SWITCH</p> <p>☐ ENCLOSED CIRCUIT BREAKER</p> <p>☐ CAPACITOR</p> <p>CONTROL</p> <p>⊕ THERMOSTAT</p> <p>⊕ HUMIDISTAT</p> <p>⊕ PC PHOTOCELL (voltage as required)</p> <p>⊕ TIME CLOCK (24 hour U.O.N.)</p> <p>⊕ PUSHBUTTON STATION (number of buttons indicated)</p> <p>☐ CONTROL TRANSFORMER</p> <p>☐ LIGHTING CONTACTOR</p> <p>☐ IRRIGATION CONTROLLER (120 volt xxVA connection by x/C)</p>
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ABBREVIATIONS LEGEND

<p>A AC</p> <p>ACU- AIR CONDITIONING UNIT</p> <p>AFF ABOVE FINISHED FLOOR</p> <p>AHJ AUTHORITY HAVING JURISDICTION</p> <p>AHU- AIR HANDLING UNIT</p> <p>AIC AMPS INTERRUPTING CAPACITY</p> <p>AS ABOVE SHELF</p> <p>ATS AUTOMATIC TRANSFER SWITCH</p> <p>B- BOILER</p> <p>BC BELOW COUNTER</p> <p>BLDG BUILDING</p> <p>CHLR- CHILLER</p> <p>CND (C) CONDUIT</p> <p>CKT CIRCUIT</p> <p>CKT BKR CIRCUIT BREAKER</p> <p>CT- COOLING TOWER</p> <p>CU- CONDENSING UNIT</p> <p>CUH- CABINET UNIT HEATER</p> <p>DFU- DUCT FURNACE</p> <p>DISC DISCONNECT</p> <p>DWG DRAWING</p> <p>DWH- DOMESTIC WATER HEATER</p> <p>EBB- ELECTRIC BASEBOARD</p> <p>EC ELECTRICAL CONTRACTOR</p> <p>EF- EXHAUST FAN</p> <p>EM EMERGENCY</p> <p>EMT ELECTRICAL METALLIC TUBING</p> <p>EW ELECTRIC WATER COOLER</p> <p>EX EXISTING</p> <p>FLA FULL LOAD AMPS</p> <p>FLEX FLEXIBLE CONDUIT</p> <p>FLR FLOOR</p> <p>FLUOR FLUORESCENT</p> <p>FSES FOOD SERVICE EQUIP. SUPPLIER</p> <p>FIS FIRE/SMOKE</p> <p>FU FURNACE</p>	<p>GC GENERAL CONTRACTOR</p> <p>GFI GROUND FAULT INTERRUPTER</p> <p>GND GROUND</p> <p>H- HUMIDIFIER</p> <p>HID HIGH INTENSITY DISCHARGE</p> <p>HOA HAND-OFF-AUTO SELECTOR SWITCH</p> <p>HP HORSEPOWER</p> <p>HR HOUR</p> <p>HVAC HEATING/VENTILATING/AIR CONDITIONING</p> <p>IG ISOLATED GROUND</p> <p>IMC INTERMEDIATE METAL CONDUIT</p> <p>JB JUNCTION BOX</p> <p>LC LIGHT CONTROL</p> <p>LT LIGHT</p> <p>LTG LIGHTING</p> <p>LT FLEX LIQUID TIGHT FLEXIBLE METAL CONDUIT</p> <p>MAX MAXIMUM</p> <p>MC MECHANICAL CONTRACTOR</p> <p>MCC MOTOR CONTROL CENTER</p> <p>MIN MINIMUM</p> <p>MLO MAIN LUG ONLY</p> <p>MT MOUNT</p> <p>MTD MOUNTED</p> <p>MTG MOUNTING</p> <p>MUAU- MAKE-UP AIR UNIT</p> <p>NC NORMALLY CLOSED</p> <p>NIC NOT IN CONTRACT</p> <p>NL NIGHT LIGHT</p> <p>NO NORMALLY OPEN</p> <p>NTS NOT TO SCALE</p>	<p>P POLE</p> <p>P- PUMP</p> <p>PB PULL BOX</p> <p>PNL PANEL</p> <p>PRV- POWER ROOF VENTILATOR</p> <p>PVC POLY VINYL CHLORIDE</p> <p>PWR POWER</p> <p>RECEPT RECEPTACLE</p> <p>RGC RIGID GALVANIZED STEEL CONDUIT</p> <p>RTU- ROOF TOP UNIT</p> <p>SF- SUPPLY FAN</p> <p>SPEC SPECIFICATIONS</p> <p>SW SWITCH</p> <p>SWBD SWITCHBOARD</p> <p>TCC TEMPERATURE CONTROL CONTRACTOR</p> <p>TR TAMPER PROOF RECEPTACLE</p> <p>TS TAMPER PROOF SWITCH</p> <p>TYP TYPICAL</p> <p>UF UNDER FLOOR</p> <p>UH- UNIT HEATER</p> <p>UL UNDERWRITERS' LABORATORIES, INC.</p> <p>UNO UNLESS NOTED OTHERWISE</p> <p>V VOLTS</p> <p>VL VERIFY LOCATION WITH OWNER</p> <p>W WATTS</p> <p>W/ WITH</p> <p>W/O WITHOUT</p> <p>WP WEATHER PROOF</p> <p>XFMR TRANSFORMER</p>
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ENGINEERS

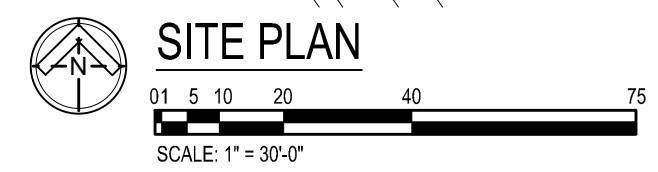
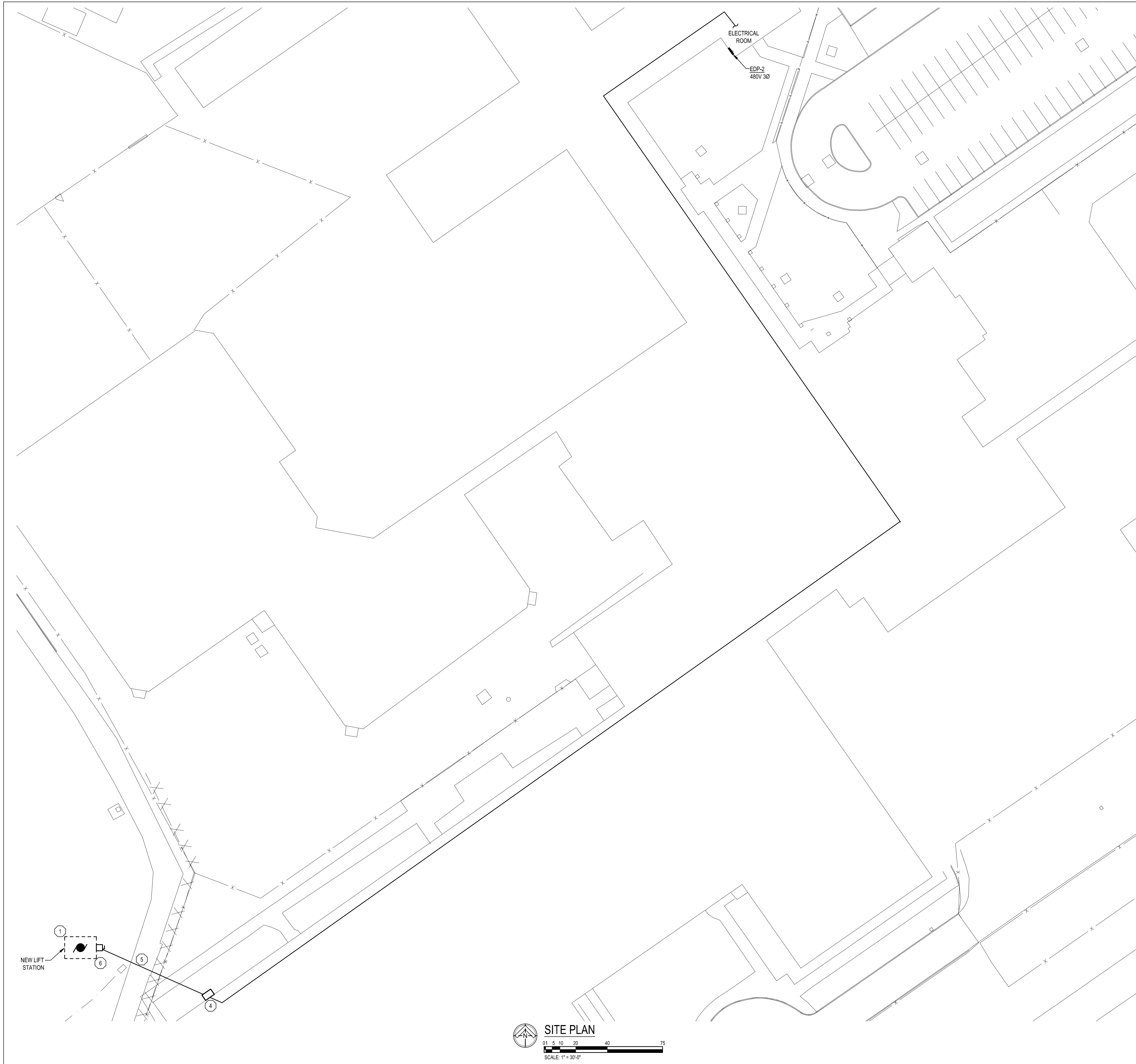
STATE OF MICHIGAN
 DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
 STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
 ADAMP. LACH, RA, NCARB, DIRECTOR

PROJECT DESCRIPTION
WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM
 WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

ELECTRICAL - SYMBOLS -
NOTES - ABBREVIATIONS

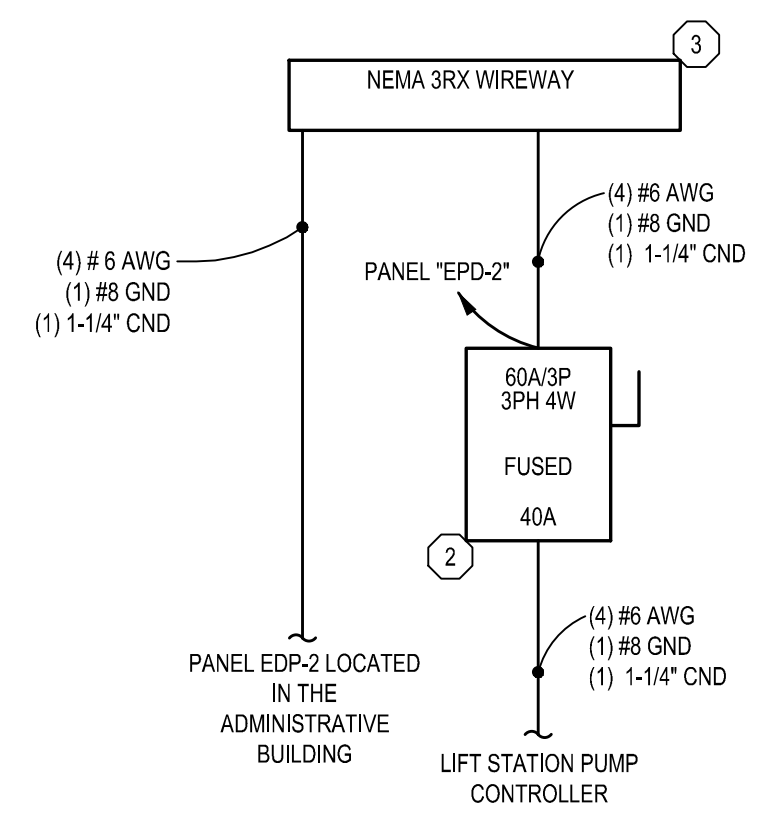
PROJECT NO. 4722329330W	
INDEX	
PCA	00-0000
DRAWN BY	DRK-
DESIGNED BY	DRK-
JCI/ENG BY	JFC-

E1



ELECTRICAL KEY NOTES

- 1 PROVIDE AND INSTALL NEW CIRCUITS AND TERMINATE NEW EQUIPMENT. REFER TO SHEET E-500 DETAIL 1. PROVIDE AND INSTALL ALL CONDUIT, WIRE, HARDWARE, AND BREAKERS AS REQUIRED.
- 2 PROVIDE AND INSTALL NEW WEATHER RATED WIREWAY AND DISCONNECT SWITCH. PROVIDE AND INSTALL FUSES AS SHOWN. COORDINATE LOCATION IN FIELD.
- 3 PROVIDE AND INSTALL GROUND LUG AND GROUND ALL CONDUITS AND ENCLOSURES.
- 4 PROVIDE AND INSTALL NEW WEATHER RATED PULL BOX ON THE EXTERIOR OF THE BUILDING TO DIRECTIONAL BORE TO. PROVIDE AND INSTALL CONDUIT TO EXTEND THE CIRCUIT TO THE ELECTRICAL ROOM. REFER TO SHEET E-2 DETAIL 1 FOR CONDUIT AND WIRE SIZES.
- 5 DIRECTIONAL BORE AND HYDRO-EXCAVATE CONDUITS AS SHOWN.
- 6 CONNECT NEW LIFT STATION PUMP(S) INTO EXISTING STARNET SYSTEM VIA NEW ULTRA LINK. CONTRACTOR SHALL CONTACT BRET EMERSON (BRET@COMTECHDESIGN.COM) AND NATE DEWEERD (NATHAN.DEWEERD@AUS.COM) FOR INTEGRATION INTO THE EXISTING STARNET SYSTEM. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT AND CAT6 CABLE FOR THE INTEGRATION. AUS SHALL BE RESPONSIBLE FOR INSTALLING AND PROVIDING A COMPLETE WORKING CONTROLS SYSTEM.



1 PARTIAL ONE-LINE DIAGRAM - LIFT STATION DISCONNECTS
SCALE: N.T.S.

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PROJECT NO.	4720303.SDW
INDEX	-
PCA	00-0000
DRAWN BY	DRK
DESIGNED BY	DRK
JCENG BY	JFS

DATE	01/17/25
REVIEW	
BID SET	

PROJECT DESCRIPTION
WOODLAND CORRECTIONAL CENTER
- UTILITY IMPROVEMENT PROGRAM
WHITMORE LAKE, LIVINGSTON COUNTY, MICHIGAN

ELECTRICAL -
SITE PLAN

E2

STATE OF MICHIGAN
DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
STATE FACILITIES ADMINISTRATION
DESIGN AND CONSTRUCTION DIVISION
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