

LIST OF STANDARDS

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
664001-02	CHAIN LINK FENCE
701301-04	LANE CLOSURE 2L, 2W, SHORT TIME OPERATIONS
701501-08	URBAN LANE CLOSURE 2L, 2W, UNDIVIDED
701901-10	TRAFFIC CONTROL DEVICES

GENERAL NOTES

1. THE PROJECT CONSISTS OF REHABILITATING AN EXISTING SUBMERSIBLE DUPLEX LIFT STATION AT 3705 MARKET AVENUE, INCLUDING REMOVAL AND REPLACEMENT OF LIFT STATION PUMPS, CONTROL PANEL, VALVES, PRESSURE GAUGE, GUIDE BARS, FLOAT SWITCHES, LIFT CABLES, SERVICE POLE, DISCONNECT SWITCHES, POWER & ALARM CABLES, DISCHARGE PIPE, FORCE MAIN, VALVE VAULT LID, ACCESS HATCH, AND FENCING, TOGETHER WITH RESTORATION OF ALL DISTURBED SURFACES AND ALL OTHER INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PLANS, "I.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", ADOPTED JANUARY 1, 2022, THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS, SIXTH EDITION", THE SPECIAL PROVISIONS AND ALL LOCAL AND STATE CODES GOVERNING THE CONSTRUCTION OF THE PROPOSED FACILITIES.
3. RIGHT-OF-WAYS, PROPERTY LINES AND TOPOGRAPHY SHOWN HEREON HAVE BEEN TAKEN FROM THE BEST AVAILABLE RECORDS AND MUST BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION.
4. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOPED DURING CONSTRUCTION THAT WERE UNFORESSEEN DURING THE DESIGN STAGE OR, THAT ARE NEEDED TEMPORARILY TO CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PRACTICES.
5. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION BEFORE AND DURING CONSTRUCTION. THE ENGINEER NOR THE OWNERS DO NOT WARRANT OR GUARANTEE THE COMPLETENESS OR THE CORRECTNESS OF THE INFORMATION GIVEN.
6. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL ARRANGE TO HAVE ALL UNDERGROUND UTILITIES INCLUDING WATER, GAS, ELECTRIC, STORM SEWER, TELEPHONE AND CABLE TV LOCATED AND SUITABLY MARKED. THE CONTRACTOR SHALL CALL J.U.L.I.E. @ 1-800-892-0123 AND ALL UTILITY COMPANIES FOR UTILITY LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO DIGGING. ANY DAMAGES TO UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. SHOULD A UTILITY BE IN CONFLICT WITH THE PROPOSED CONSTRUCTION, THE ENGINEER SHALL BE NOTIFIED AT ONCE.
7. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS, AND ANY DAMAGE TO THEM DUE TO HIS NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
8. AFTER EXCAVATED AREAS HAVE BEEN BACKFILLED, GROUND SHALL BE RETURNED TO EXISTING OR PROPOSED GRADE AND EXCESS EXCAVATED MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING AND REPLACING EXISTING ITEMS DAMAGED OR REMOVED DURING CONSTRUCTION, AND SHALL BE INCIDENTAL TO THE COST OF CONSTRUCTION. ALL DISTURBED AREAS SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
10. NO ON SITE STORAGE OF EXCAVATED MATERIAL WILL BE PERMITTED, UNLESS APPROVED BY THE ENGINEER. ANY EXCAVATED MATERIAL THAT IS APPROVED TO BE STORED ON SITE SHALL BE PROTECTED AND STABILIZED BY SEEDING OR OTHER APPROVED METHODS TO PREVENT EROSION AND SEDIMENT FROM LEAVING THE SITE.
11. THE CONTRACTOR HAS NO AUTHORITY TO PERMIT THE USE OF ANY PORTION OF THE SITE BY ANYONE EXCEPT FOR BUSINESS CONNECTED WITH THE CONSTRUCTION IN WHICH THIS CONTRACT IS CONCERNED.
12. ANY DAMAGE TO EXISTING ROAD SURFACES BY CONTRACTOR'S EQUIPMENT SHALL BE REPAIRED TO ORIGINAL CONDITION OR BETTER, AND THE REPAIR SHALL BE ACCEPTABLE TO THE OWNER. COST OF SUCH REPAIR SHALL BE INCIDENTAL TO THE COST OF CONSTRUCTION.
13. DURING CONSTRUCTION, THE CONTRACTOR SHALL NOT CAUSE SEWAGE TO BE DISCHARGED ON THE GROUND, IN WATERWAYS OR INTO THE GROUND NOR SHALL HE CAUSE BACKUP OF SEWAGE INTO BUILDINGS. SEWAGE SHALL BE DIVERTED BY PUMPING AND/OR PIPING AROUND ANY PORTIONS OF THE SEWER SYSTEM WHICH ARE TAKEN OUT OF SERVICE.
14. PERMITS AND LICENSES OF A TEMPORARY NATURE NECESSARY FOR THE PROCESSION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE CONTRACTOR.
15. ANY REPAIR REQUIRING REPLACEMENT OF SEWER AT AN EXISTING MANHOLE SHALL INCLUDE A WATER-TIGHT CONNECTION TO THE EXISTING MANHOLE. MAKE CONNECTION WITH NON-SHRINK GROUT OR OTHER MATERIAL APPROVED BY THE ENGINEER.
16. WORK AREAS MAY HAVE LIMITED ACCESS AND INCLUDE FENCES, POWER POLES, OVERHEAD UTILITY LINES, ETC. ALL EXISTING FENCES, POWER POLES, ETC., SHALL BE REMOVED AND RE-INSTALLED AS NECESSARY. PROTECTION AND/OR REMOVAL AND RE-INSTALLATION OF UTILITY SERVICES SHALL BE COORDINATED WITH THE UTILITY COMPANIES. UTILITY COMPANY COSTS FOR PROTECTION AND/OR REMOVAL AND RE-INSTALLATION OF UTILITY SERVICES SHALL BE BILLED DIRECTLY TO THE CITY OF CAHOKIA HEIGHTS.
17. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH IDOT HIGHWAY STANDARDS 701301, 701501, AND 701901.

UTILITY OWNERS

J.U.L.I.E. (800) 892-0123	CITY OF CAHOKIA HEIGHTS (618) 410-7808
AMEREN ILLINOIS (SOUTH) (618) 301-5305	ETC MISSISSIPPI RIVER GAS TRANSMISSION (703) 989-7079
ATT/DISTRIBUTION (630) 573-5450	ILLINOIS AMERICAN WATER (EAST ST. LOUIS) (859) 321-8236
BUCKEYE PARTNERS (210) 318-2124	

37TH & MARKET LIFT STATION REHABILITATION PY24 CAHOKIA HEIGHTS ST. CLAIR COUNTY, ILLINOIS

PREPARED FOR:

ST. CLAIR COUNTY, ILLINOIS
INTERGOVERNMENTAL GRANTS DEPARTMENT

PREPARED BY:

HURST-ROSCHE, INC.

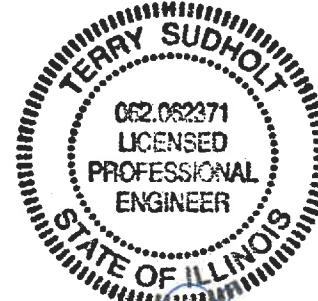


PROJECT LOCATION

LOCATION MAP

NO SCALE

T2N, R9W, 3RD P.M., SECTION 30
CAHOKIA HEIGHTS
CENTREVILLE TOWNSHIP



Terry Sudholt
ILLINOIS P.E. # 062-062371
EXPIRES: 11-30-25
DATE: 4/14/2025

NOTE:

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS. THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATELY ONLY. THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY UNKNOWN. THE CONTRACTOR IS TO CALL J.U.L.I.E. @ 1-800-892-0123, AND ALL UTILITY COMPANIES FOR UTILITY LOCATIONS A MINIMUM OF 48 HOURS PRIOR TO ANY DIGGING. ANY DAMAGES TO UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.



PROJECT LOCATION

ST. CLAIR COUNTY
LOCATION OF SECTION INDICATED THUS -

INDEX OF SHEETS

- 1 COVER SHEET & GENERAL NOTES
- 2 EXISTING SITE PLAN AND TRIBUTARY SEWER MAP
- 3 PROPOSED SITE PLAN
- 4 SUBMERSIBLE DUPLEX LIFT STATION REHABILITATION DETAILS
- 5 MISCELLANEOUS DETAILS
- 6 ELECTRICAL DETAILS

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www.hurst-rosche.com
HILLSBORO, IL
MARION, IL
SPRINGFIELD, IL
ARNOLD, MO
NASHVILLE, TN

SIGNATURE _____
DATE _____
LICENSE EXPIRES _____

37TH & MARKET LIFT STATION REHABILITATION PY24
CAHOKIA HEIGHTS
ST. CLAIR COUNTY, ILLINOIS 62207

MK.	DATE	DESCRIPTION

DATE: 04/2025
PROJECT NO: 211-0235
DESIGN: TAS DRAWN: CHECK:
JJD JLS

COVER SHEET & GENERAL NOTES



Hurst-Rosche, Inc.
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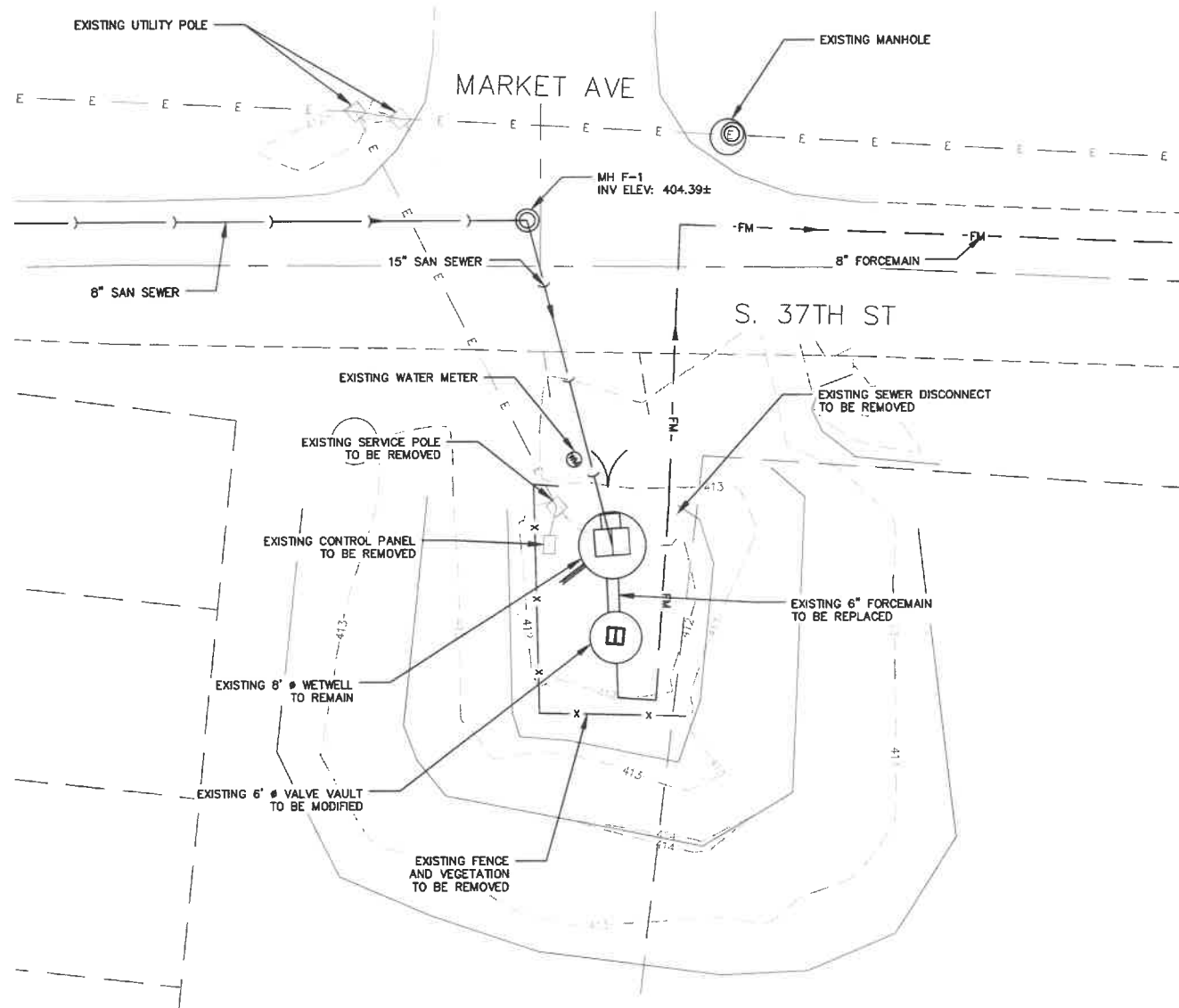
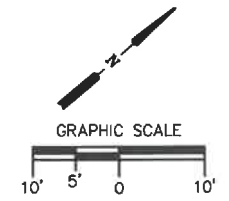
SIGNATURE _____
DATE _____
LICENSE EXPIRES _____

37TH & MARKET LIFT STATION REHABILITATION PY24
CAHOKIA HEIGHTS
ST. CLAIR COUNTY, ILLINOIS 62207

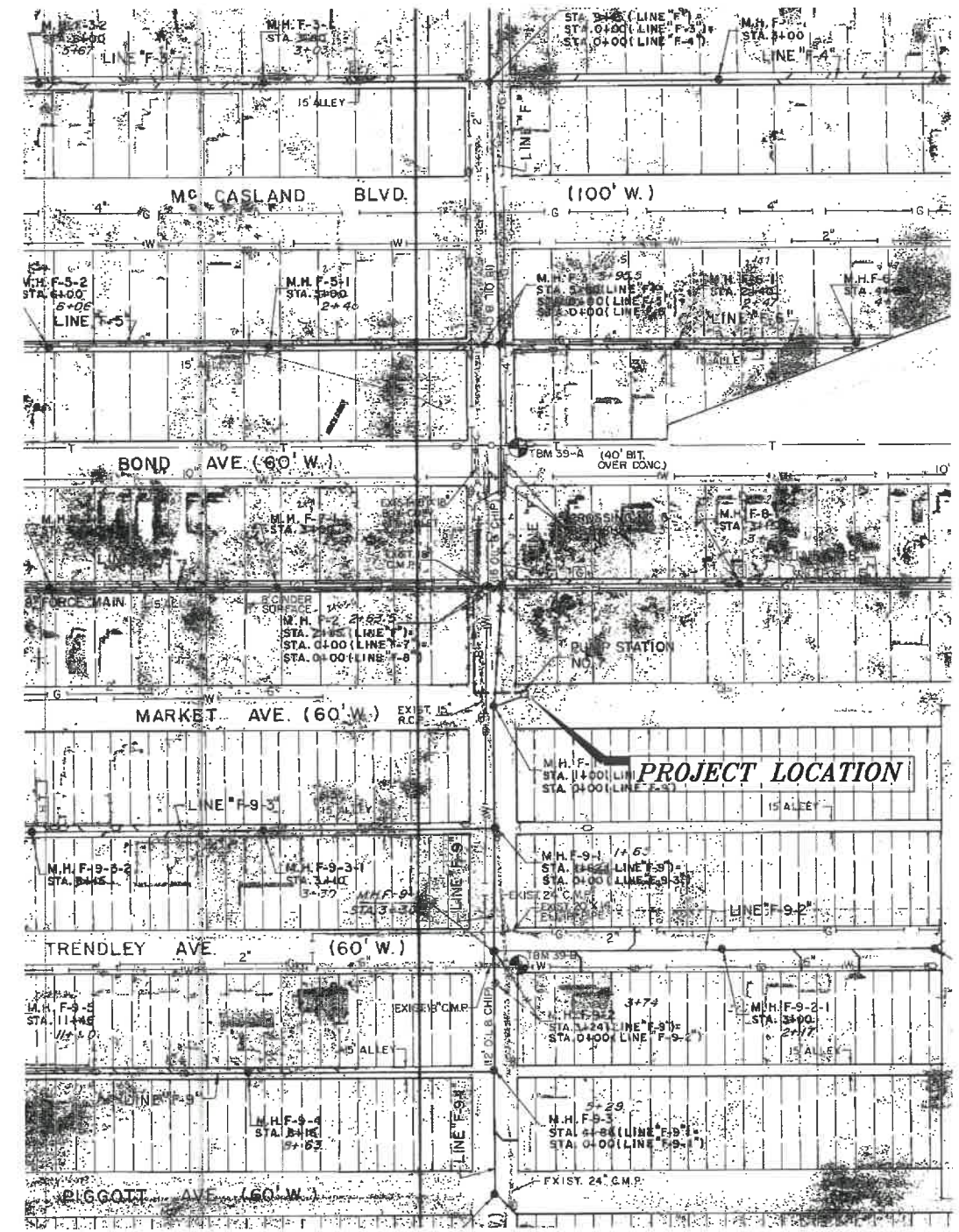
MK.	DATE	DESCRIPTION

EXISTING SITE PLAN AND TRIBUTARY SEWER MAP

2
SHEET 2 OF 6

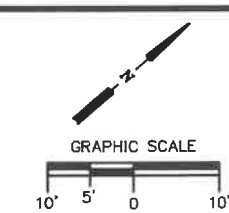
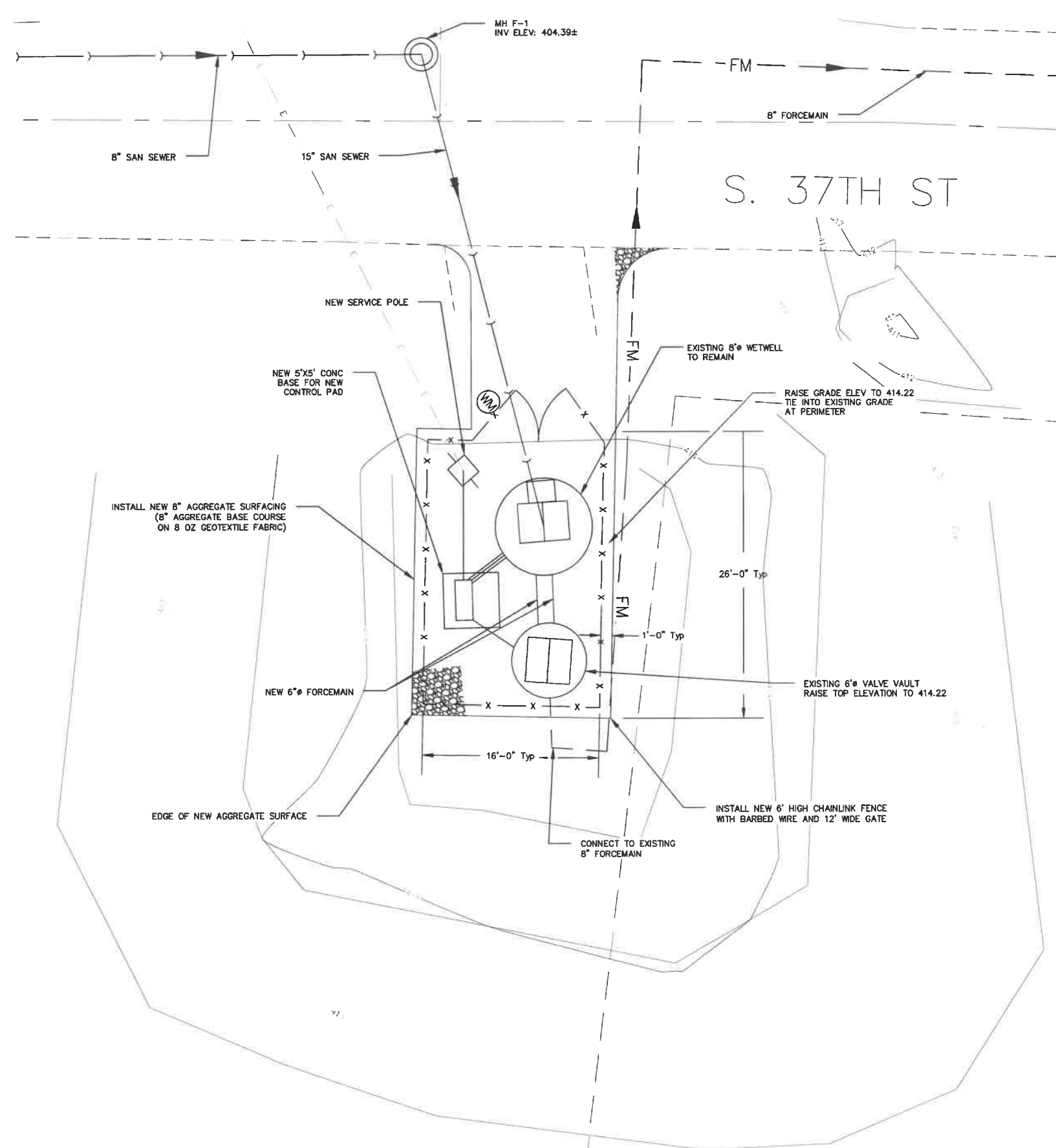


EXISTING SITE PLAN
SCALE 1"=10'



TRIBUTARY SEWER MAP
SCALE NTS

NOTE:
1. SEE LIFT STATION DETAILS ON SHEET 4.



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 DATE _____
 LICENSE EXPIRES _____

37TH & MARKET LIFT STATION REHABILITATION PY24
CAHOKIA HEIGHTS
ST. CLAIR COUNTY, ILLINOIS 62207

MK.	DATE	DESCRIPTION

DATE: 04/2025
 PROJECT NO: 211-0235
 DESIGN: TAS DRAWN: JJD CHECK: LS

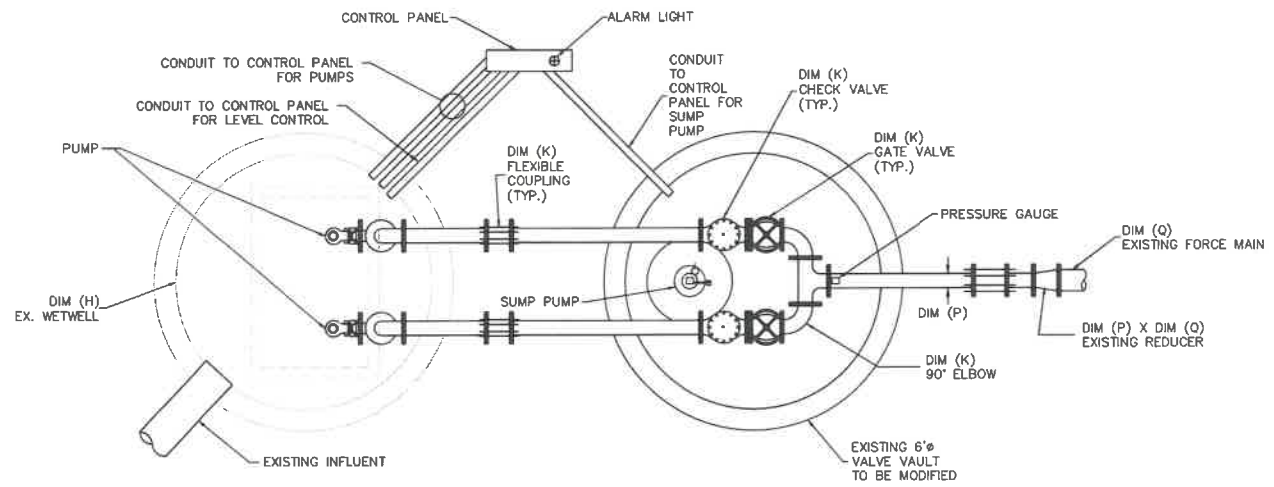
PROPOSED SITE PLAN

PROPOSED SITE PLAN
 SCALE 1"=5'

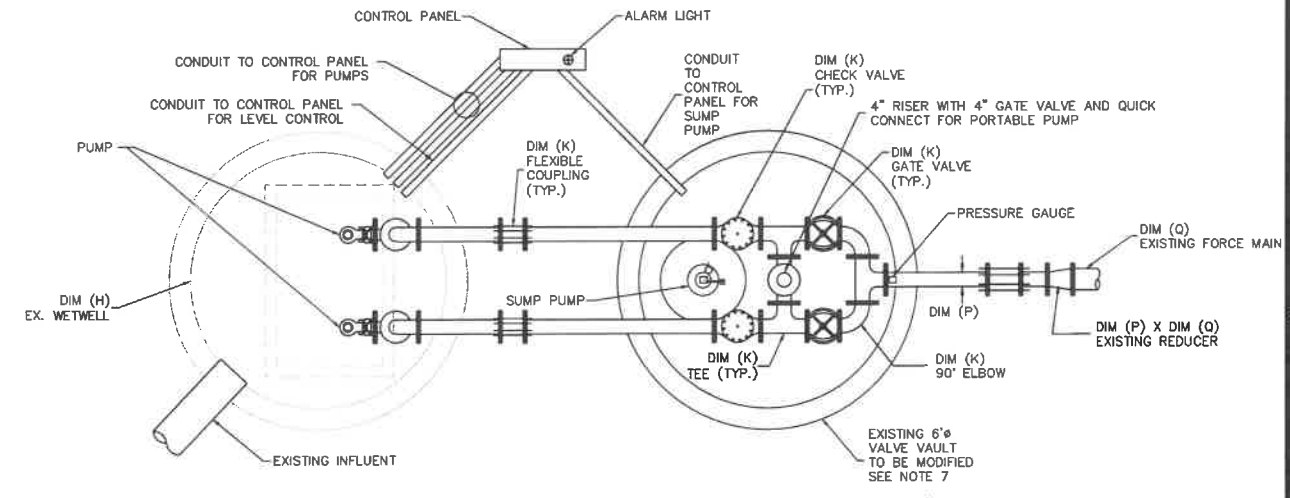
NOTE:
 1. SEE LIFT STATION DETAILS ON SHEET 4.



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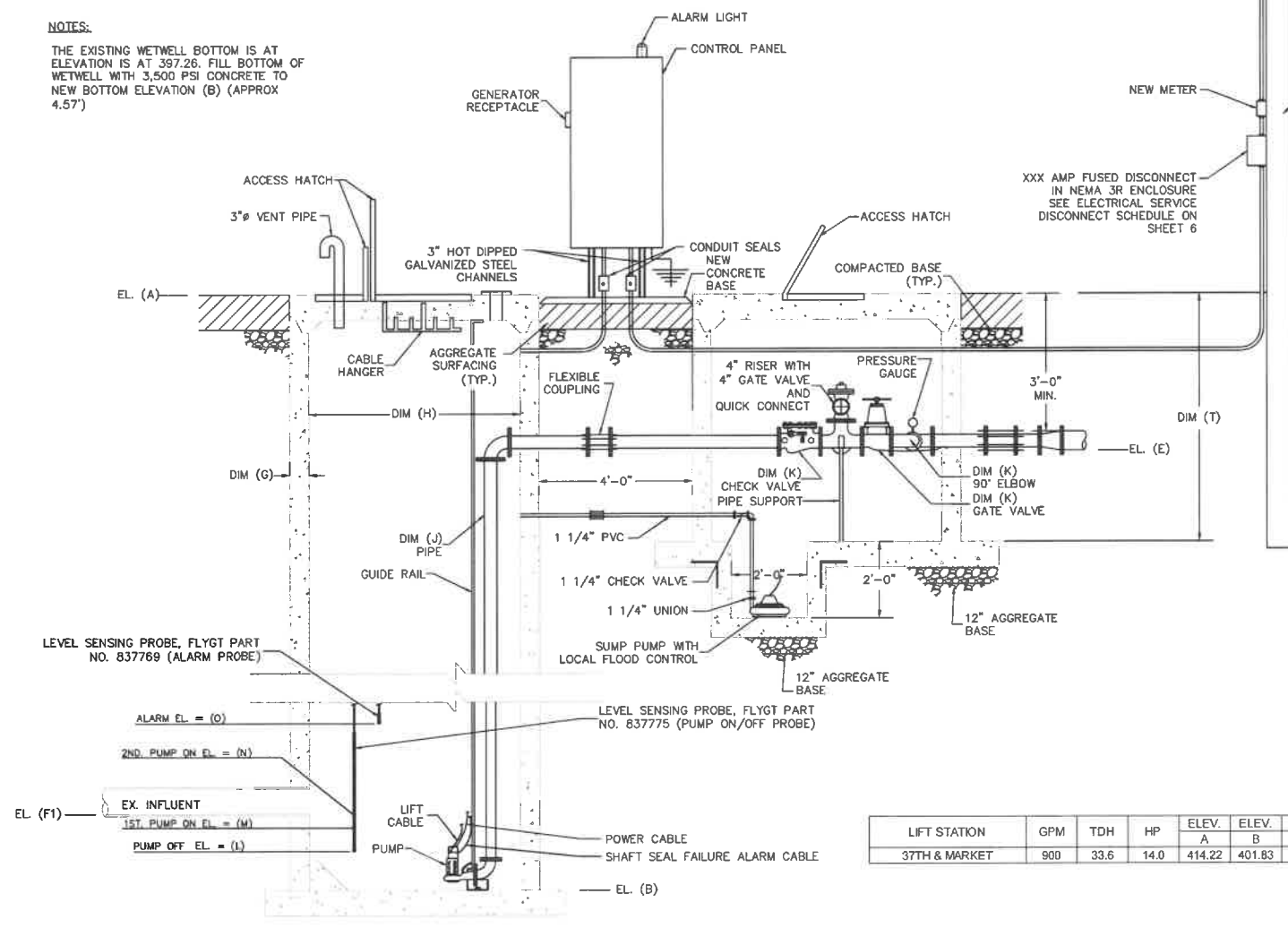


EXISTING LIFT STATION PLAN
 1/2"=1'-0"



PROPOSED LIFT STATION PLAN
 1/2"=1'-0"

NOTES:
 THE EXISTING WETWELL BOTTOM IS AT ELEVATION IS AT 397.26. FILL BOTTOM OF WETWELL WITH 3,500 PSI CONCRETE TO NEW BOTTOM ELEVATION (B) (APPROX 4.57')



LIFT STATION DETAILS
 1/2"=1'-0"

NOTES:

1. REMOVE AND REPLACE LIFT STATION PUMPS, CONTROL PANEL, VALVES, PRESSURE GAUGE, GUIDE BARS, FLOAT SWITCHES, LIFT CABLES, SERVICE POLE, DISCONNECT SWITCHES, POWER & ALARM CABLES, DISCHARGE PIPE, FORCE MAIN, VALVE VAULT LID AND ACCESS HATCH, AND FENCING.
2. DISPOSE OF REMOVED EQUIPMENT LEGALLY OFFSITE UNLESS REQUESTED TO REMAIN THE PROPERTY OF CAHOKIA HEIGHTS.
3. THE NEW LEVEL SENSING PROBES WILL REQUIRE ADDITION OF THE FOLLOWING RELAYS AND INTRINSICALLY SAFE BARRIER WITHIN THE CONTROL PANEL:
 - ONE (1) MTR3
 - ONE (1) MTRA3
 - ONE (1) MTIC3
 - ONE (1) MTISB10
4. PUMPS, VALVES, PIPING, ETC. ORIENTED HORIZONTALLY FOR CLARITY. SEE DETAILED PLAN VIEWS FOR ACTUAL ORIENTATION.
5. SEE SHEET 6 AND SITE PLANS FOR CONTROL PANEL/ELECTRICAL DETAILS.
6. CONTRACTOR TO CONFIRM EXISTING DIMENSIONS/ELEVATIONS PRIOR TO ORDERING NEW MATERIALS.
7. THE EXISTING VALVE IS 6'-0" DEEP, WITH A TOP ELEVATION OF 412.13. RAISE TOP OF VALVE VAULT TO ELEVATION 414.22.

SUBMERSIBLE DUPLEX LIFT STATION REHABILITATION SCHEDULE

LIFT STATION	GPM	TDH	HP	ELEV. A	ELEV. B	ELEV. C	DIM. D	ELEV. E	ELEV. F1	ELEV. F2	ELEV. F3	DIM. G	DIM. H	DIM. I	DIM. J	DIM. K	DIM. L	ELEV. M	ELEV. N	ELEV. O	DIM. P	DIM. Q	DIM. R	DIM. S	DIM. T
37TH & MARKET	900	33.6	14.0	414.22	401.83	-	-	409.97	404.33	-	-	8"	8'-0"	-	6"	6"	402.83	403.83	404.33	404.83	6"	8"	-	-	8'-1"

SIGNATURE _____
 DATE _____
 LICENSE EXPIRES _____

37TH & MARKET LIFT STATION REHABILITATION PY24
 CAHOKIA HEIGHTS
 ST. CLAIR COUNTY, ILLINOIS 62207

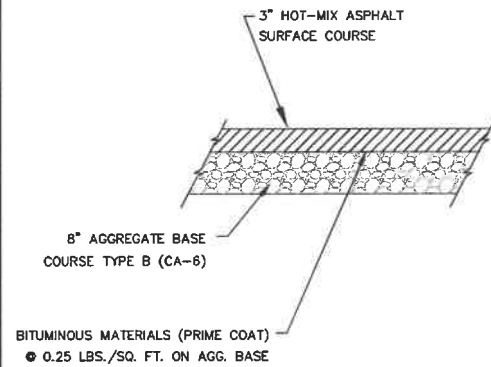
MK.	DATE	DESCRIPTION

DATE: 04/2025
 PROJECT NO: 211-0235
 DESIGN: TAS
 DRAWN: JJD
 CHECK: LS

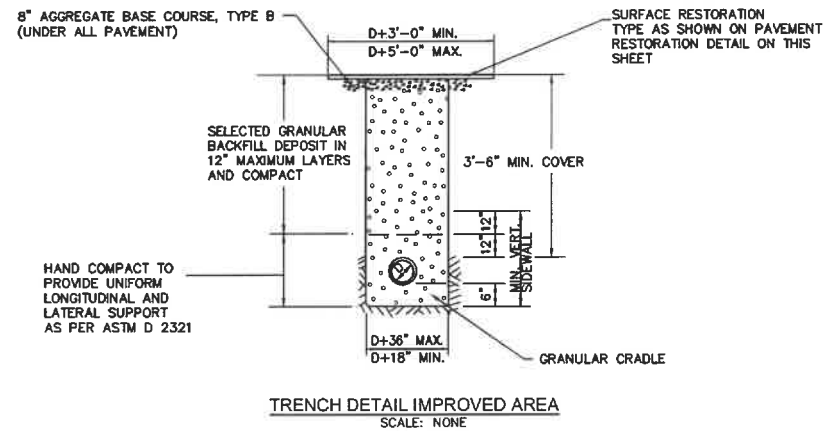
SUBMERSIBLE DUPLEX LIFT STATION REHABILITATION DETAILS

MIXTURE TABLE

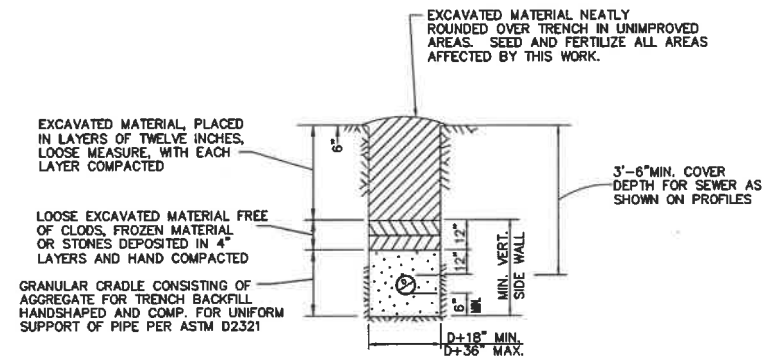
LOCATION	VARIES
MIXTURE USE	SURFACE COURSE
PG	PG 64-22
RAP % (MAX)	10%
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION (GRADATION MIXTURE)	IL-9.5
FRICTION AGGREGATE	MIXTURE "C"
MIXTURE WEIGHT	112 LBS./SQ. YD./IN.



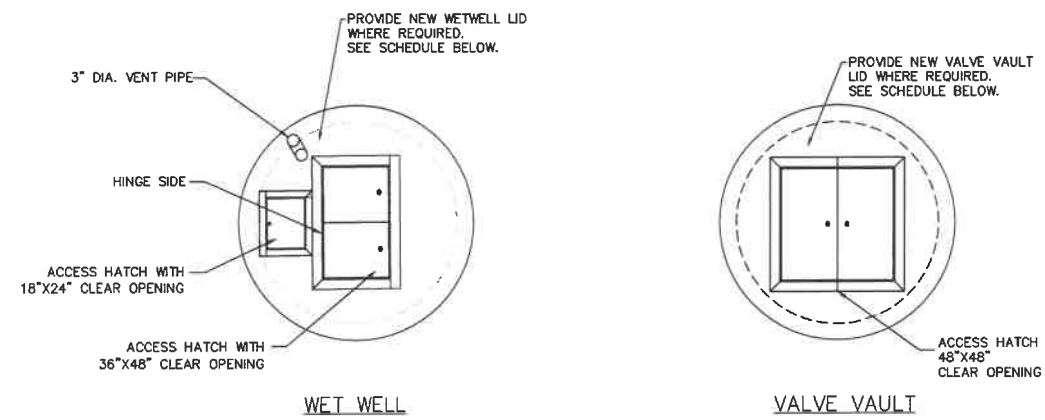
PAVEMENT RESTORATION DETAIL
NOT TO SCALE



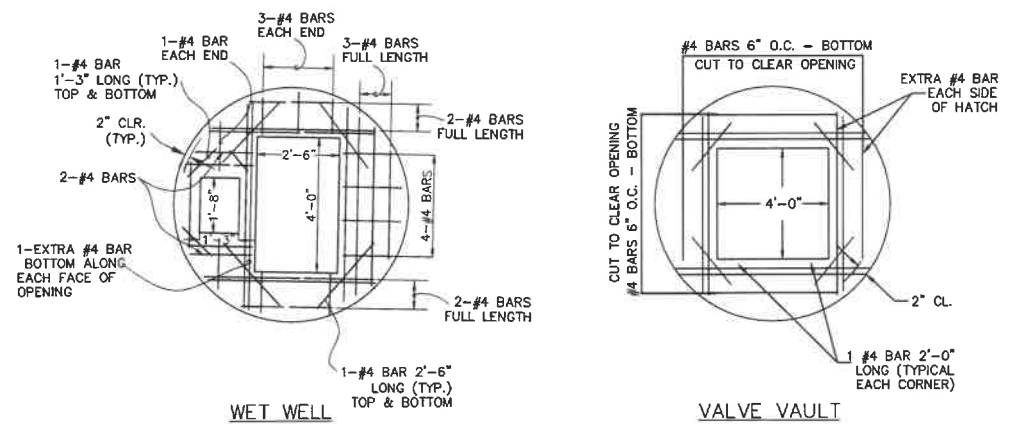
TRENCH DETAIL IMPROVED AREA
SCALE: NONE



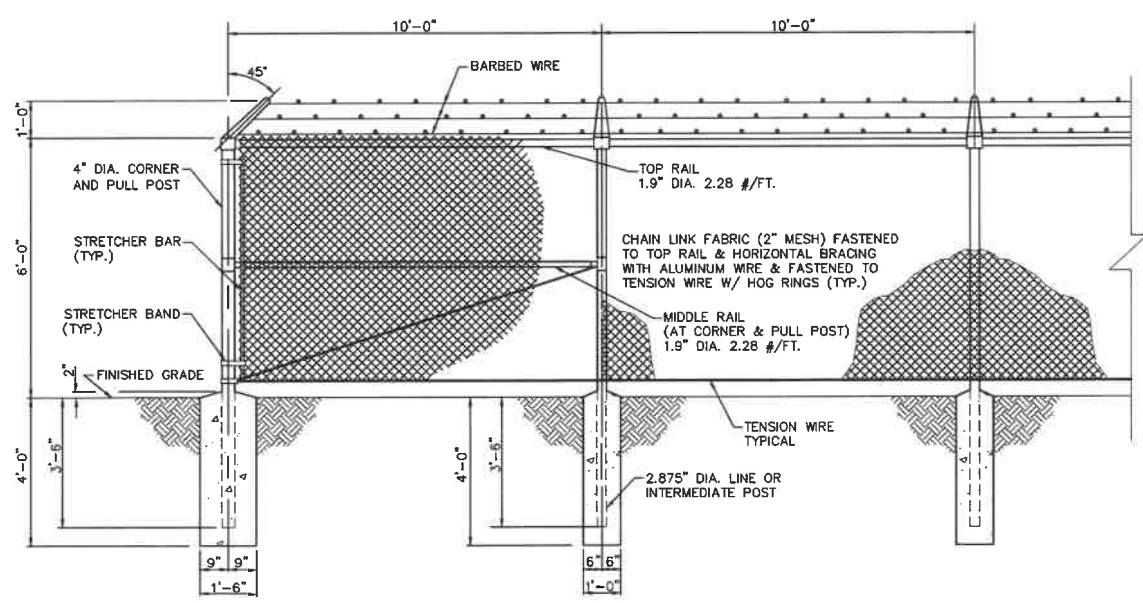
TRENCH DETAIL UNIMPROVED AREA
SCALE: NONE



PLAN VIEW - ACCESS HATCH
NO SCALE



TOP SLAB REINFORCEMENT
NO SCALE



PROPOSED FENCE DETAIL
NO SCALE

- LEGEND**
- TREE WITH DIAMETER
 - EXISTING INLET WITH FLAT CONC. SLAB TOP
 - EXISTING MANHOLE
 - EXISTING INLET
 - EXISTING WATER METER
 - EXISTING WATER VALVE BOX
 - EXISTING GAS VALVE BOX
 - EXISTING LIGHT POLE
 - EXISTING UTILITY POLE
 - EXISTING STREET SIGN
 - GUY WIRE
 - GUY POLE
 - FIRE HYDRANT
 - EXISTING FENCE
 - SEWER LINE
 - UNDERGROUND GAS LINE
 - WATER LINE
 - UNDERGROUND TELEPHONE LINE

WET WELL / VALVE VAULT LID SCHEDULE

LIFT STATION	WET WELL LID	VALVE VAULT LID
37TH & MARKET	EXISTING	NEW

WETWELL/VALVE VAULT LID SCHEDULE
NOT TO SCALE

NOTE:
CONTRACTOR SHALL FIELD VERIFY EXISTING WETWELL AND VALVE VAULT DIMENSIONS PRIOR TO FABRICATING NEW LID.

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37TH & MARKET LIFT STATION REHABILITATION PY24
CAHOKIA HEIGHTS
ST. CLAIR COUNTY, ILLINOIS 62207

MK.	DATE	DESCRIPTION

DATE: 04/2025
PROJECT NO: 211-0235
DESIGN: TAS DRAWN: JJD CHECK: LS

MISCELLANEOUS
DETAILS

5
SHEET 5 OF 6



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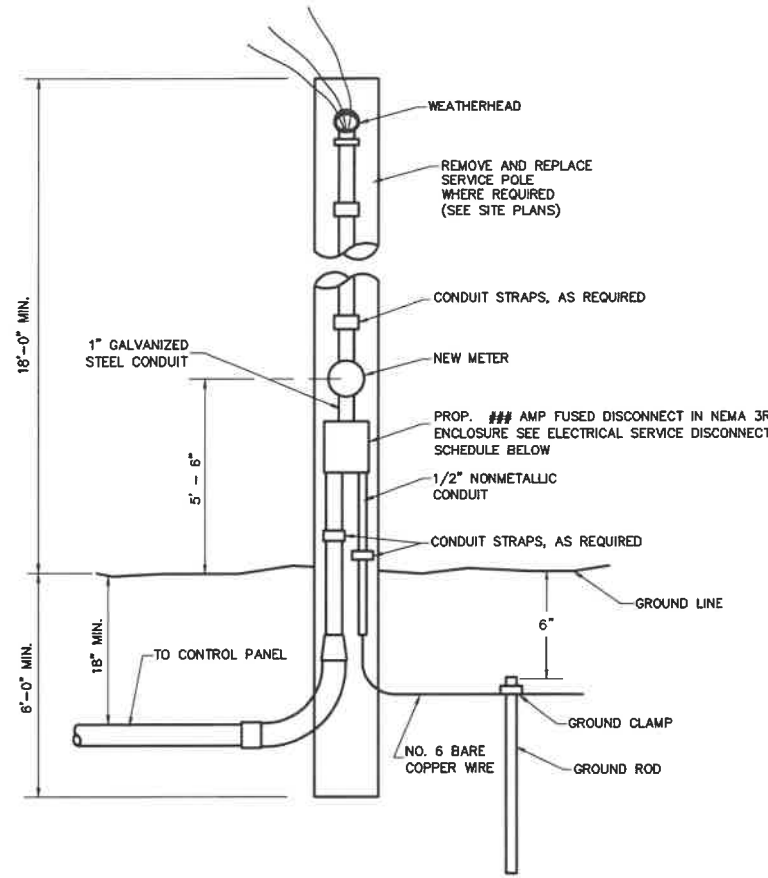
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37TH & MARKET LIFT STATION REHABILITATION PY24
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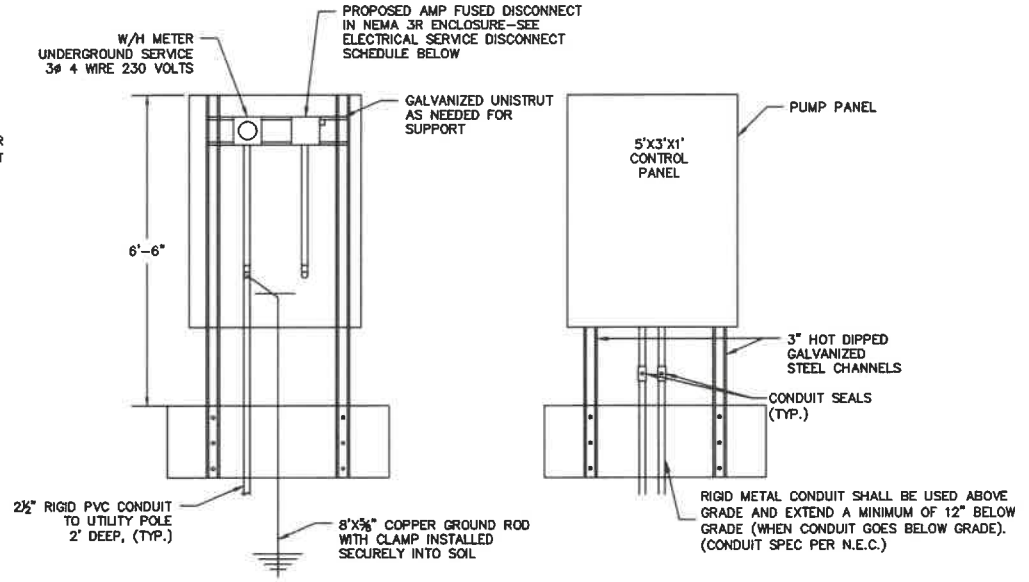
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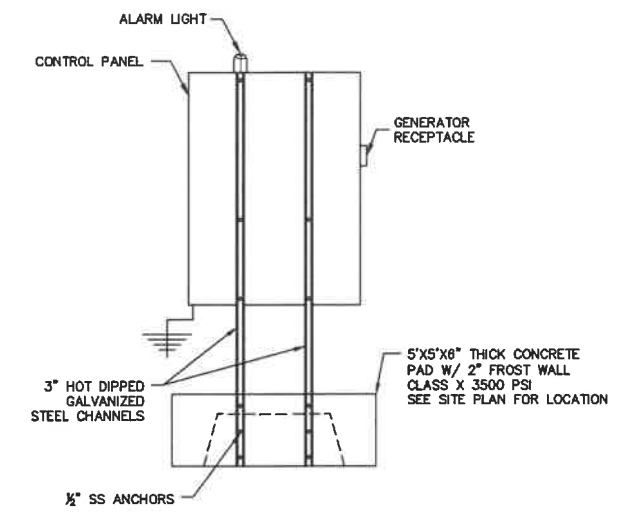
ELECTRICAL DETAILS



SERVICE INSTALLATION
NOT TO SCALE



CONTROL PANEL AND ELECTRICAL RACK DETAIL
NOT TO SCALE



CONTROL PANEL DETAIL
NOT TO SCALE

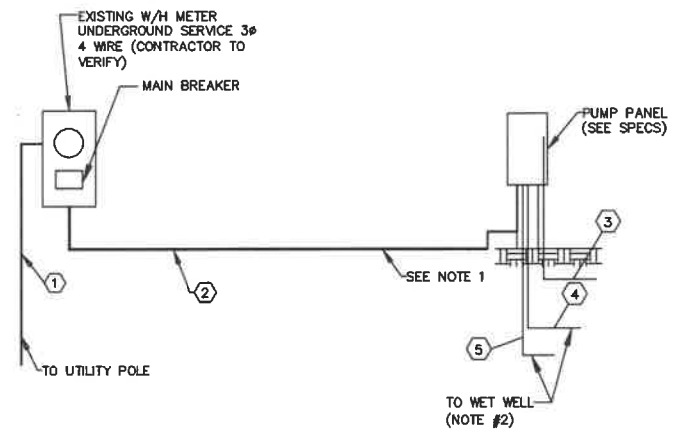
ELECTRICAL SERVICE DISCONNECT SCHEDULE

LIFT STATION	EXISTING FUSED DISCONNECT	UPGRADED FUSED DISCONNECT	EXISTING POWER	UPGRADED POWER
37TH & MARKET	200 AMP	200 AMP	480 VAC, 3 PHASE	480 VAC, 3 PHASE

ELECTRICAL SERVICE DISCONNECT SCHEDULE
NOT TO SCALE

- WIRE AND CONDUIT LEGEND:
- ① 4-1/0 WIRES THWN TYPE IN 2" CONDUIT (EXISTING).
 - ② 4-1/0 WIRES THWN TYPE IN 2 1/2" CONDUIT.
 - ③ WIRE AND CONDUIT AS REQUIRED BY SUMP PUMP MANUFACTURER.
 - ④ WIRE AND CONDUIT SIZE AS REQUIRED BY PUMP MANUFACTURER (ONE SET PER PUMP)
 - ⑤ WIRE AND CONDUIT SIZE AS REQUIRED BY LEVEL SENSOR MANUFACTURER

- NOTES:
1. IMC SHALL BE USED ABOVE GRADE AND EXTEND A MINIMUM OF 12" BELOW GRADE (WHEN CONDUIT GOES BELOW GRADE).
 2. CONTRACTOR SHALL PROVIDE A J-BOX JUST OUTSIDE OF THE WET WELL TO BE USED AS A PULL BOX FOR THE NOTED WIRES. CONTRACTOR SHALL SUPPLY A CONDUIT SEAL ON THE RUN TO THE CONTROL PANEL.



PUMP WIRING SCHEMATIC
NOT TO SCALE