

**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
- 701501-06 URBAN LANE CLOSURE 2L, 2W, UNDIVIDED
- 701901-09 TRAFFIC CONTROL DEVICES

**GENERAL NOTES**

1. THE PROJECT CONSISTS OF CONVERTING AN EXISTING FLOODED SUCTION LIFT STATION AT 817 ST. MONICA DRIVE TO A SUBMERSIBLE DUPLEX LIFT STATION, INCLUDING REMOVAL AND REPLACEMENT OF LIFT STATION PUMPS, CONTROL PANEL, VALVES, PRESSURE GAUGE, GUIDE BARS, FLOAT SWITCHES, LIFT CABLES, DISCONNECT SWITCHES, POWER & ALARM CABLES, DISCHARGE PIPE, FORCE MAIN, WETWELL LID, VALVE VAULT, ACCESS HATCHES, 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 UNFORESEEN 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.<br>(800) 892-0123              | CHARTER COMMUNICATIONS<br>(636) 232-1398                 |
| AMEREN ILLINOIS (SOUTH)<br>(618) 301-5305 | CITY OF CAHOKIA HEIGHTS<br>(618) 410-7808                |
| ATT/DISTRIBUTION<br>(630) 573-5450        | CITY OF COLUMBIA<br>(618) 281-7144                       |
| BUCKEYE PARTNERS<br>(610) 904-4156        | ETC MISSISSIPPI RIVER GAS TRANSMISSION<br>(703) 989-7079 |

# ST. MONICA LIFT STATION REHABILITATION PY23 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

T1N, R10W, 3RD P.M., SECTION 3  
CAHOKIA HEIGHTS  
CENTREVILLE TOWNSHIP

**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.



TERRY SUDHOLT  
ILLINOIS P.E. # 062-062371  
EXPIRES: 11-30-25

**PROJECT LOCATION**



ST. CLAIR COUNTY  
LOCATION OF SECTION INDICATED THUS -

**INDEX OF SHEETS**

- 1 COVER SHEET & GENERAL NOTES
- 2 SITE PLANS
- 3 DETAILED SITE PLAN AND TRIBUTARY SEWER MAP
- 4 FLOODED SUCTION LIFT STATION REHABILITATION DETAILS
- 5 MISCELLANEOUS DETAILS
- 6 ELECTRICAL DETAILS



**Hurst-Rosche, Inc.**  
PROFESSIONAL DESIGN NUMBER 154-90209

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PH: 618.398.0890  
www.hurst-rosche.com  
HILLSBORO, IL  
MARION, IL  
SPRINGFIELD, IL  
ARNOLD, MO  
NASHVILLE, TN

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_  
LICENSE EXPIRES \_\_\_\_\_

**ST. MONICA LIFT STATION REHABILITATION PY23  
CAHOKIA HEIGHTS  
ST. CLAIR COUNTY, ILLINOIS 62207**

MK	DATE	DESCRIPTION

DATE: 06/2024  
PROJECT NO.: 211-0704  
DESIGN: TAS    DRAWN: JJD    CHECK: LS

**COVER SHEET & GENERAL NOTES**

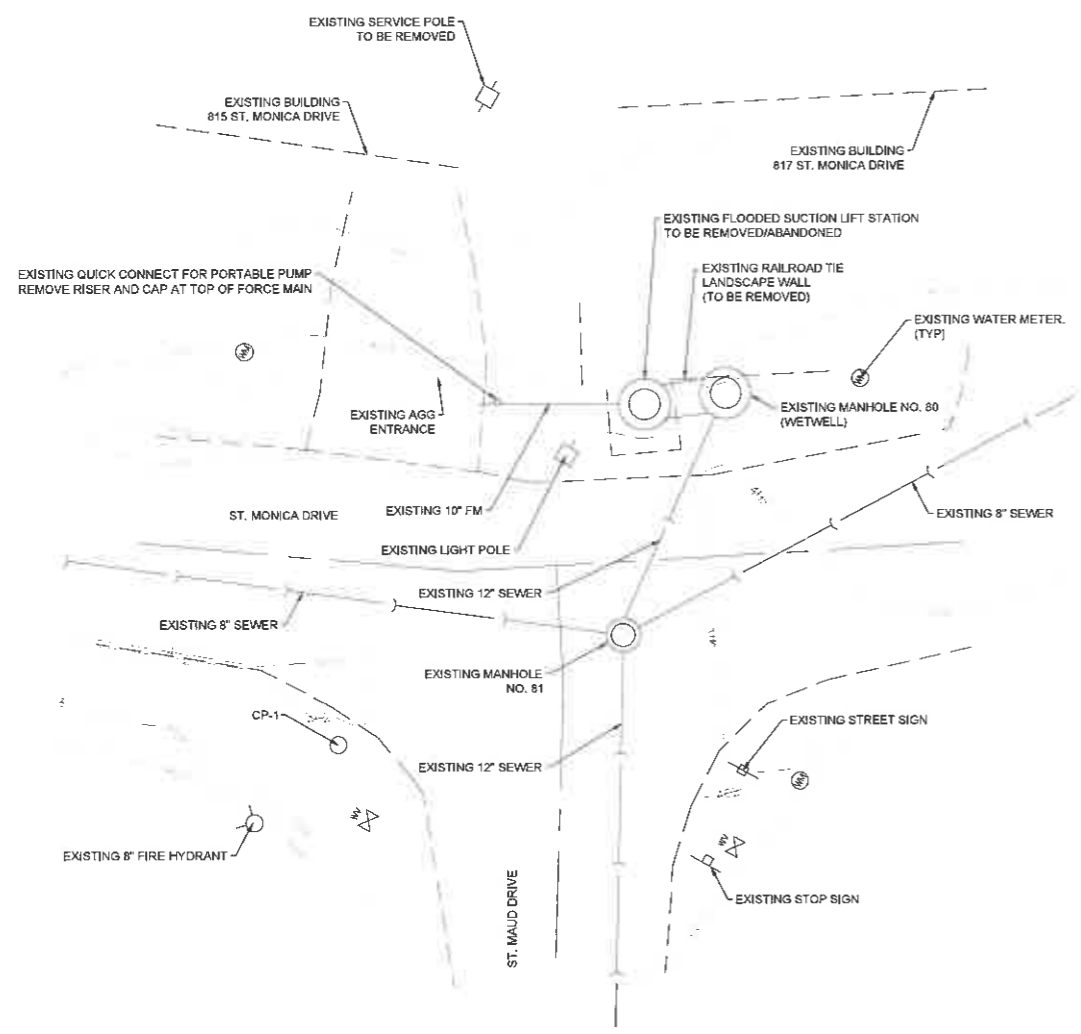
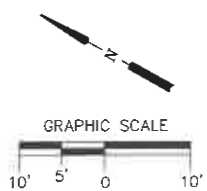
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SHEET 1 OF 6

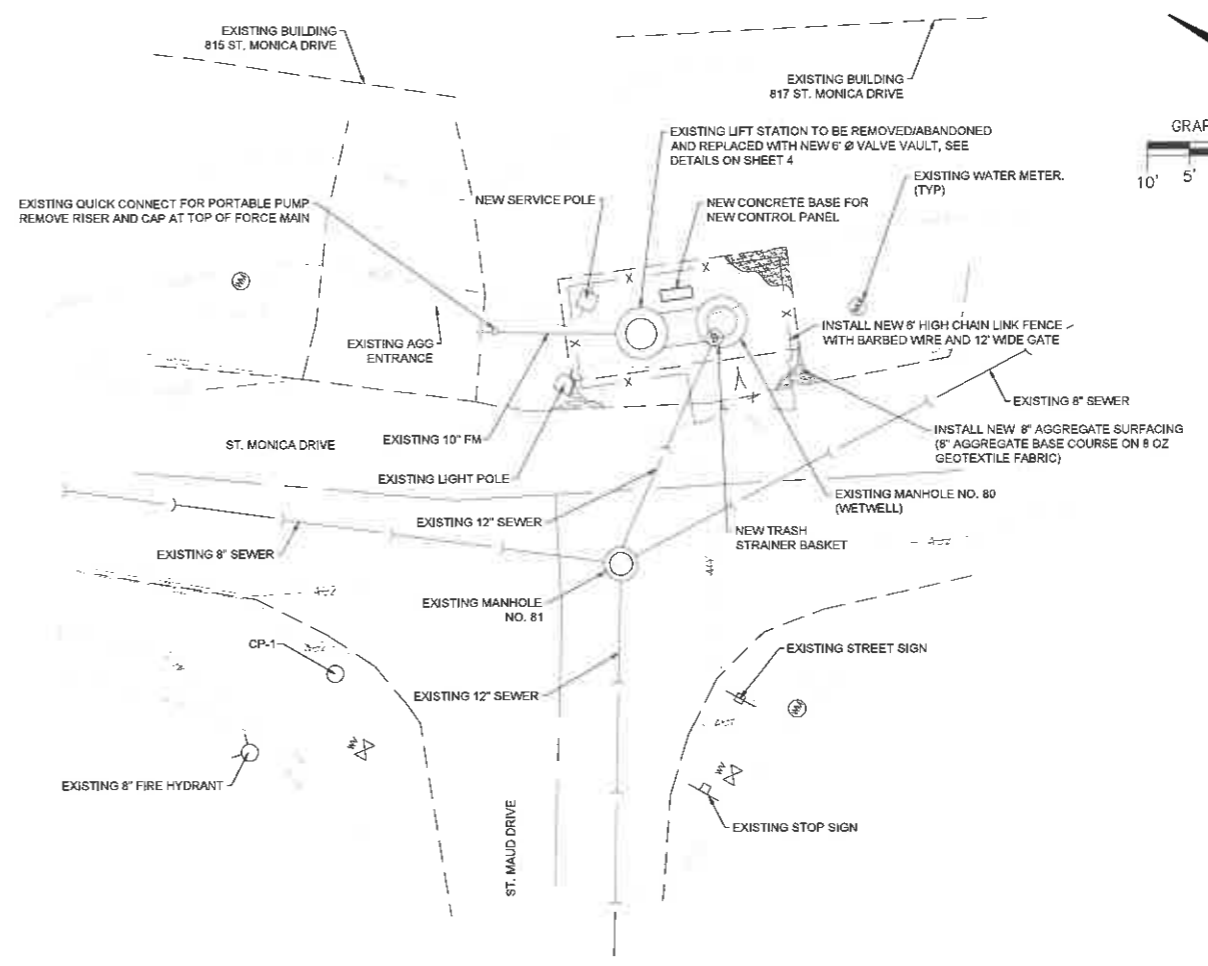


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EXISTING SITE PLAN  
SCALE 1"=10'



PROPOSED SITE PLAN  
SCALE 1"=10'

NOTES:  
1. SEE LIFT STATION DETAILS ON SHEET 3 AND 4.

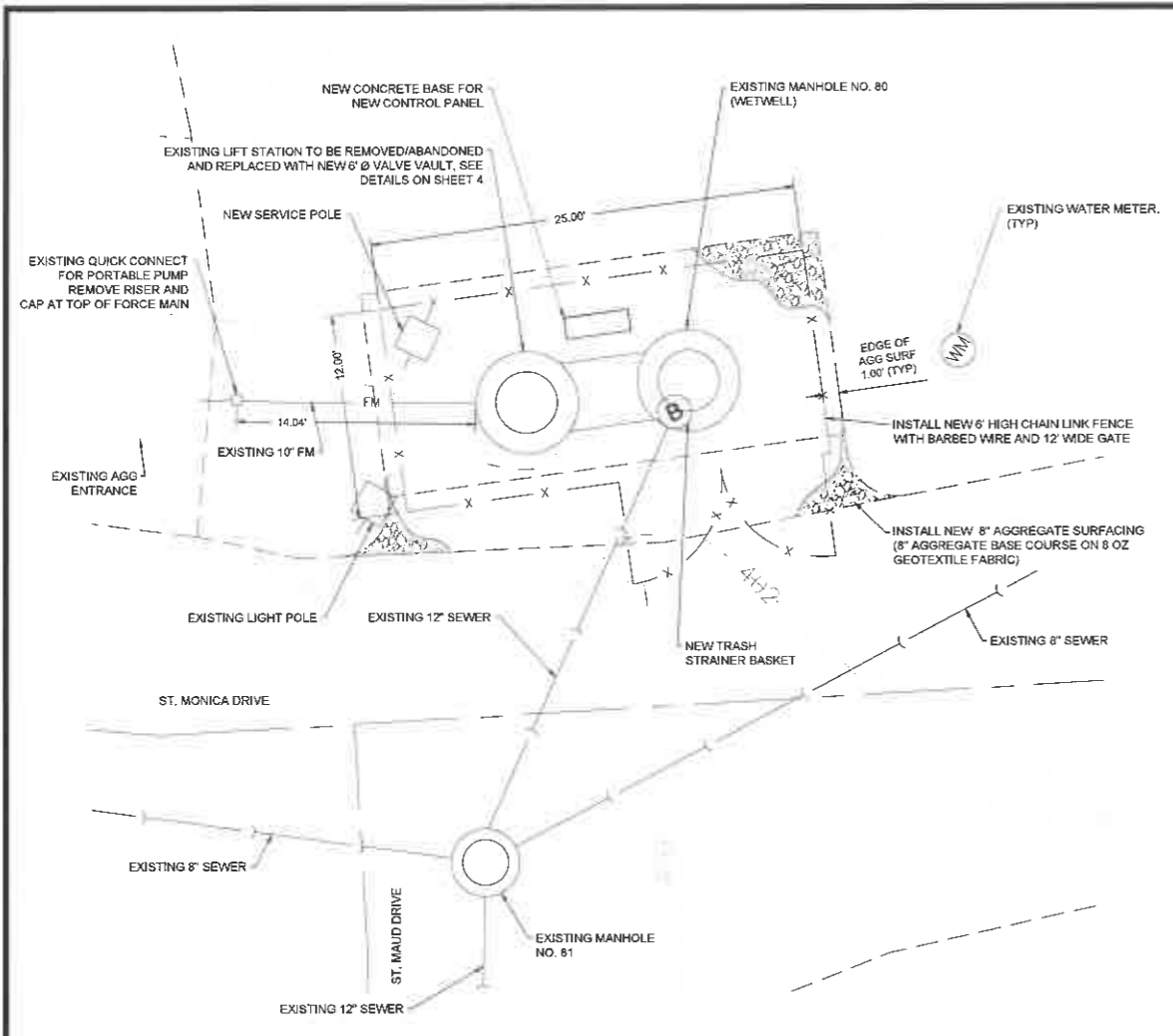
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DATE \_\_\_\_\_  
LICENSE EXPIRES \_\_\_\_\_

ST. MONICA LIFT STATION REHABILITATION PY23  
CAHOKIA HEIGHTS  
ST. CLAIR COUNTY, ILLINOIS 62207

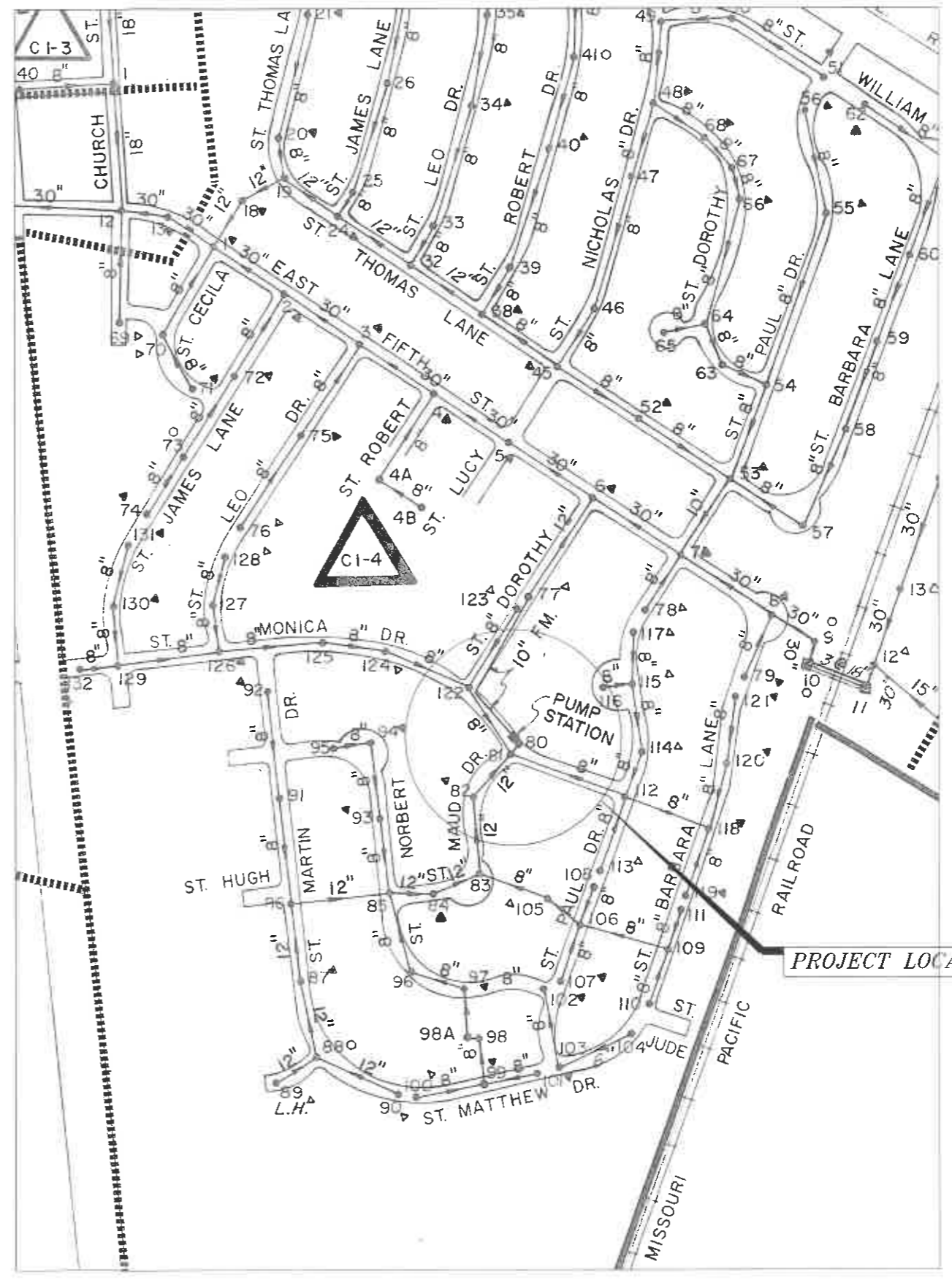
MK.	DATE	DESCRIPTION

DATE: 06/2024  
PROJECT NO: 211-0704  
DESIGN: TAS    DRAWN: JJD    CHECK: LS

SITE PLANS



DETAILED SITE PLAN  
SCALE 1"=5'



TRIBUTARY SEWER MAP  
SCALE NTS

**HR**  
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ST. MONICA LIFT STATION REHABILITATION PY23  
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DETAILED SITE PLAN  
AND TRIBUTARY  
SEWER MAP



Hurst-Rosche, Inc.  
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SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

LICENSE EXPIRES \_\_\_\_\_

ST. MONICA LIFT STATION REHABILITATION PY23  
CAHOKIA HEIGHTS  
ST. CLAIR COUNTY, ILLINOIS 62207

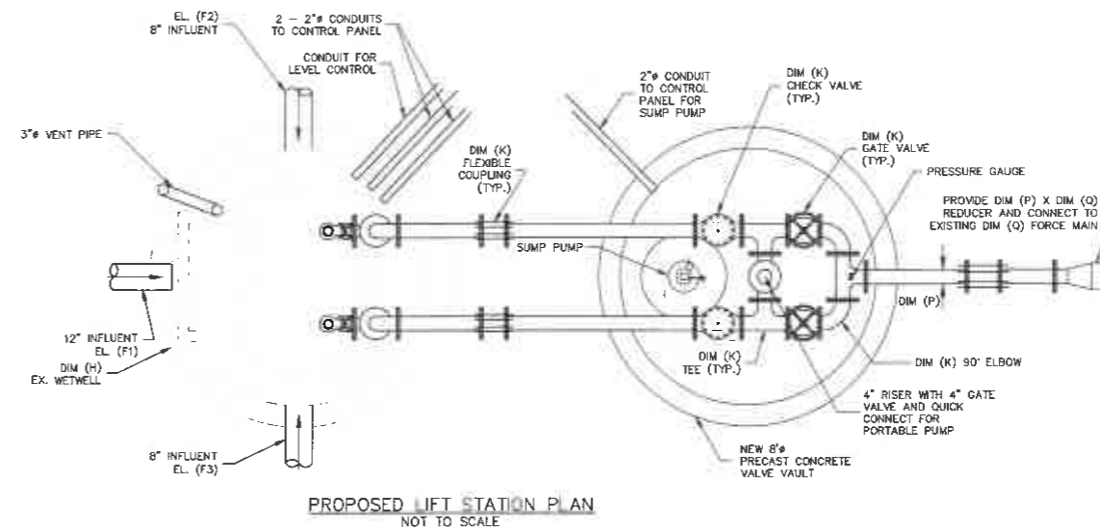
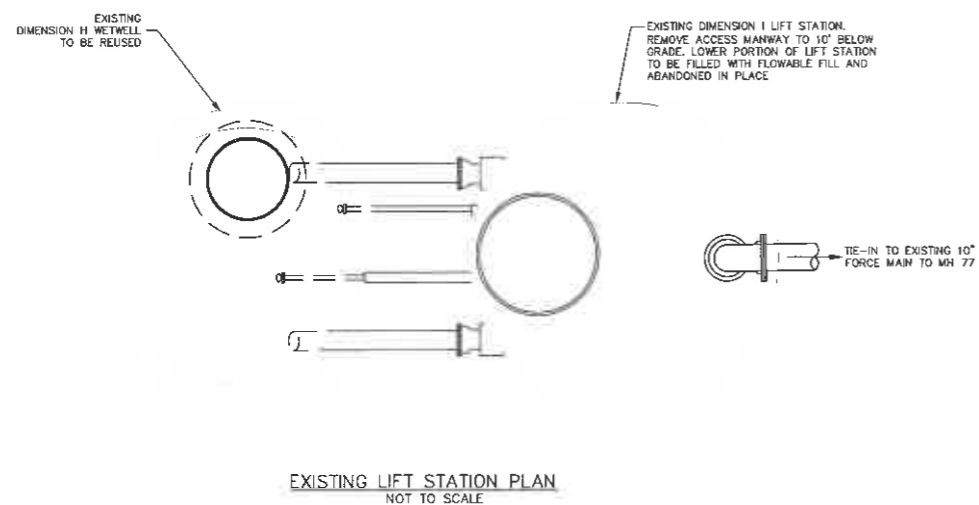
MK DATE DESCRIPTION

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PROJECT NO: 211-0704  
DESIGN: DRAWN: CHECK:  
TAS JJD LS

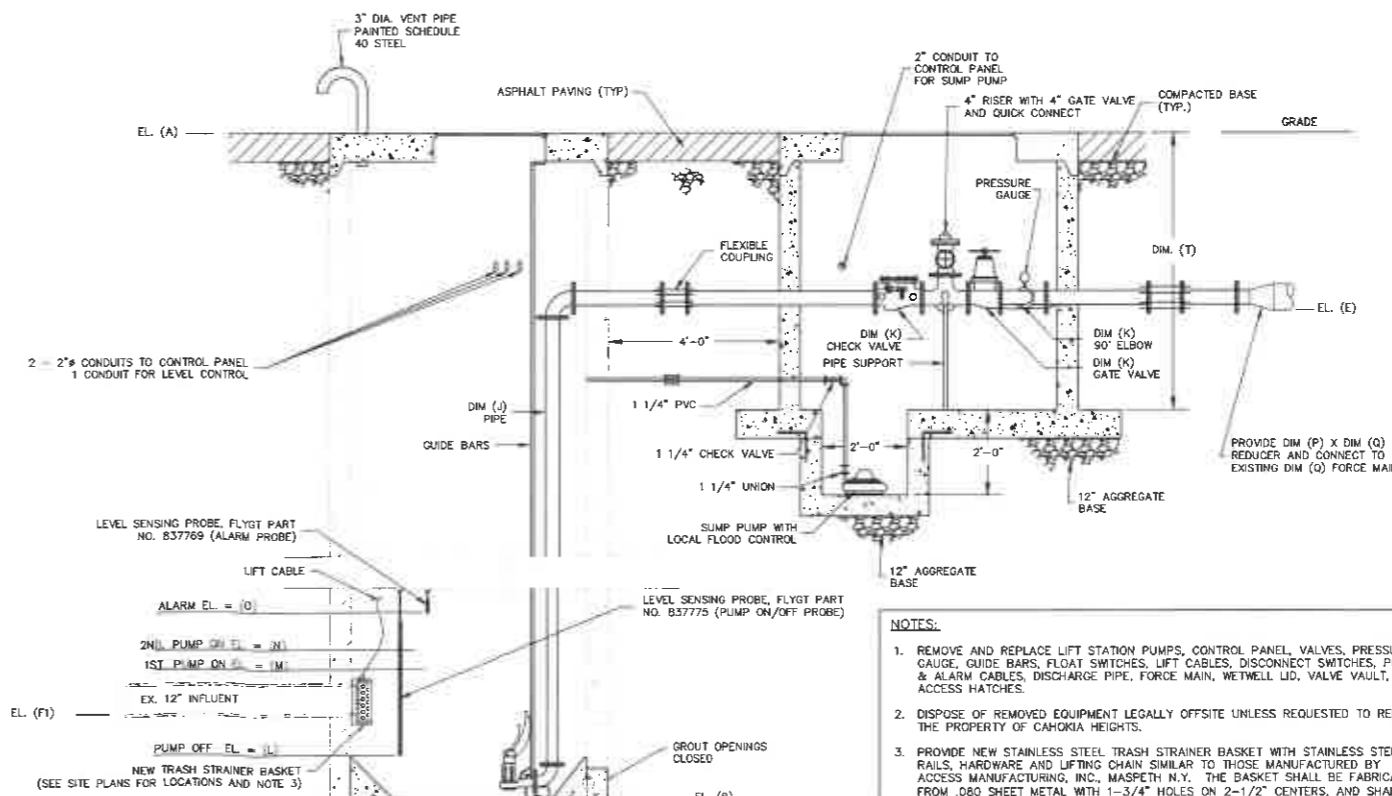
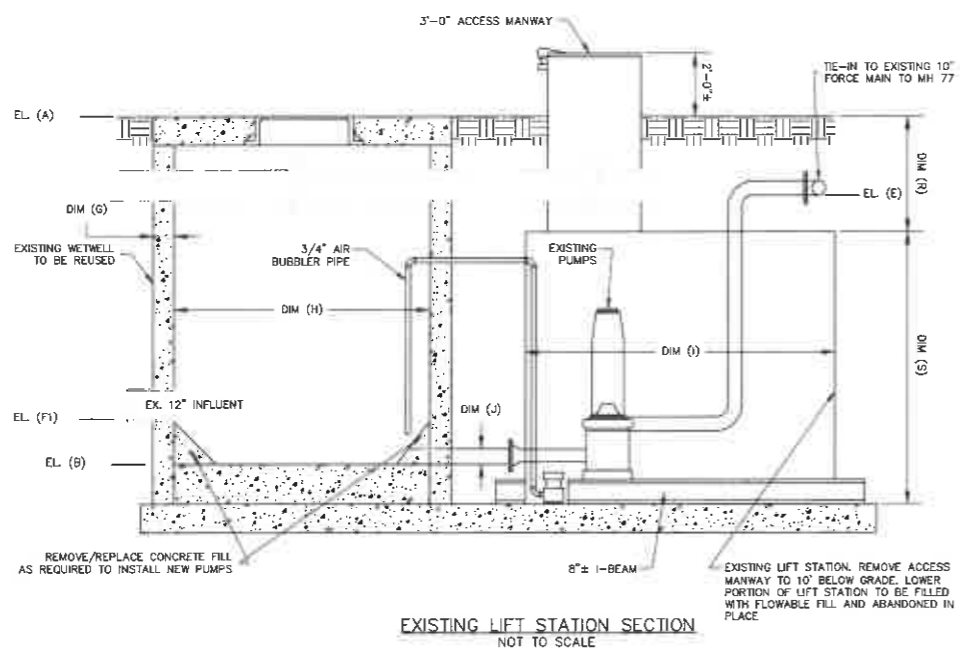
FLOODED SUCTION  
LIFT STATION  
REHABILITATION  
DETAILS

4  
SHEET 4 OF 6

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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	ELEV. L	ELEV. M	ELEV. N	ELEV. O	DIM. P	DIM. Q	DIM. R	DIM. S	DIM. T
ST. MONICA	700	16.1	5.5	402.34	386.67	-	-	399.28	390.67	-	-	1'-1"	8'-0"	8'-0"	8"	8"	386.57	387.07	387.57	388.07	10"	10"	6'-9"	9'-2"	6'-0"



NOTES:

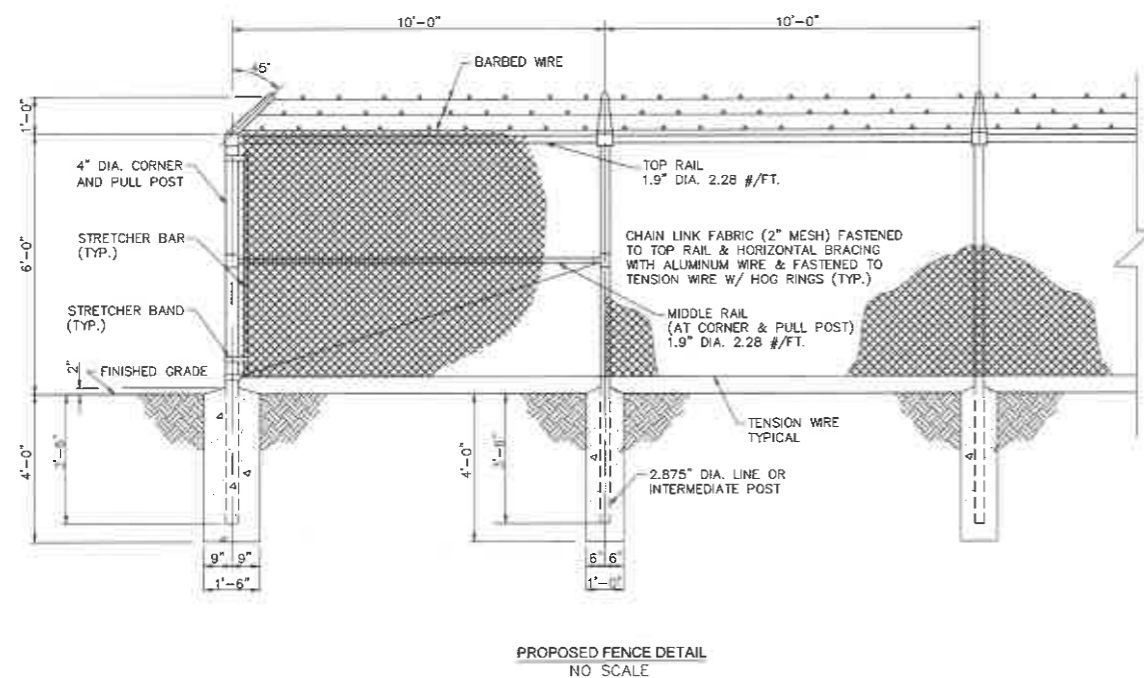
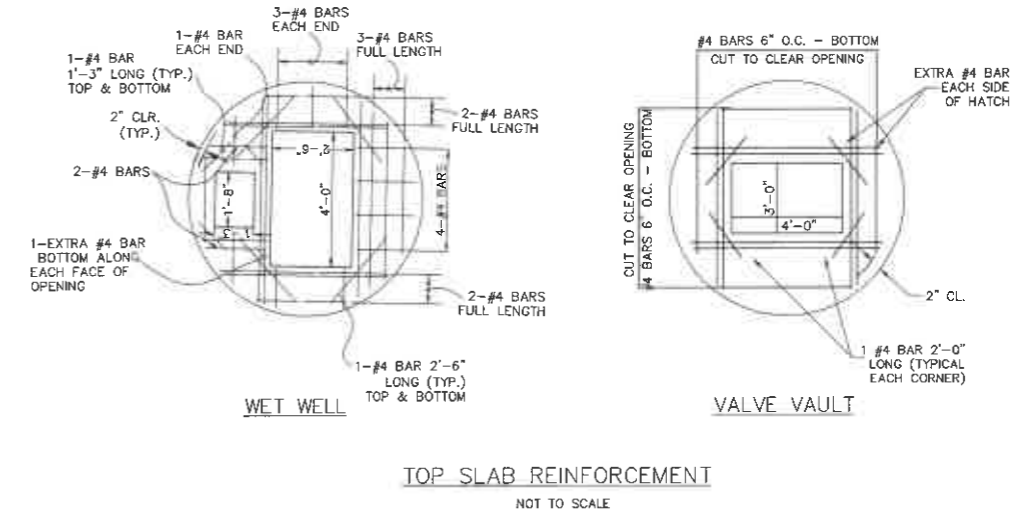
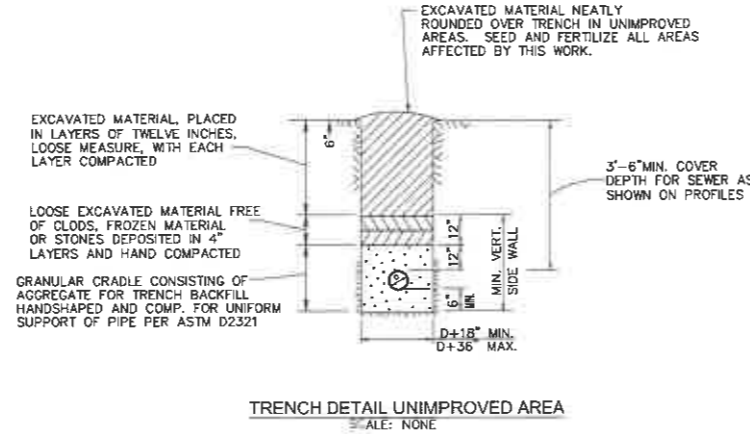
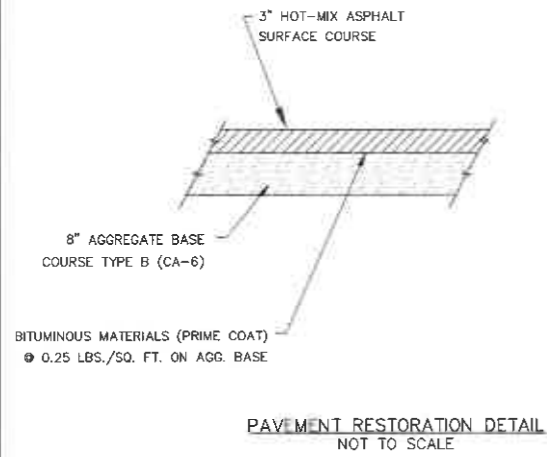
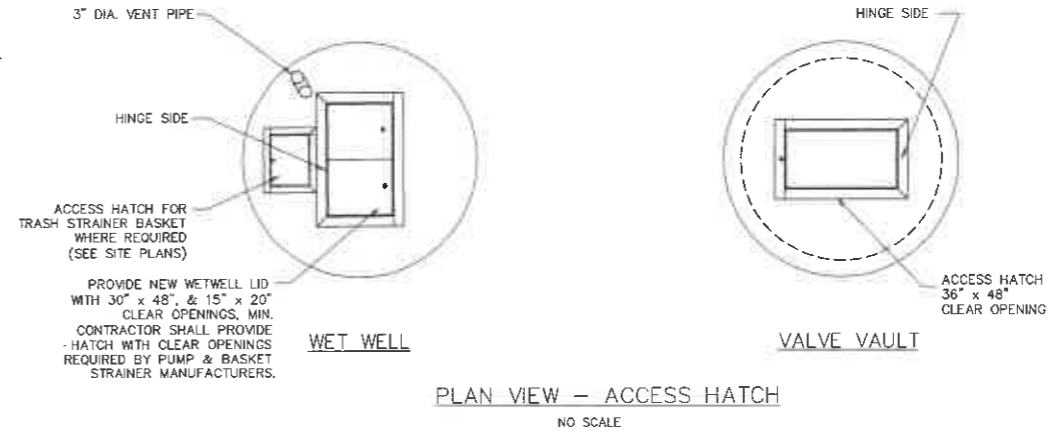
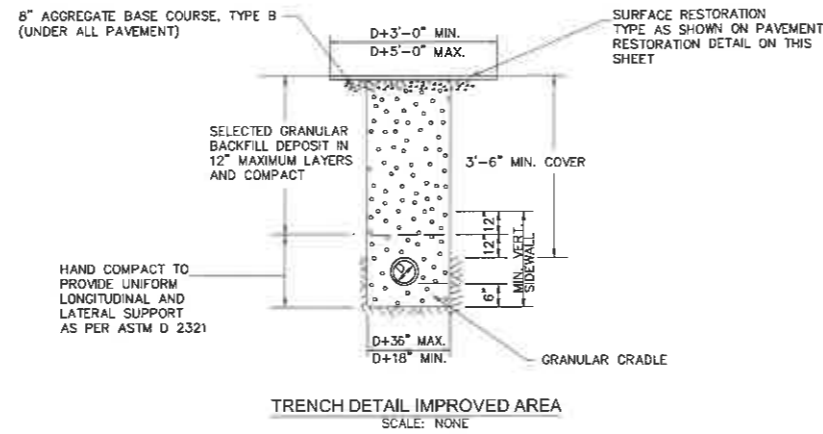
- REMOVE AND REPLACE LIFT STATION PUMPS, CONTROL PANEL, VALVES, PRESSURE GAUGE, GUIDE BARS, FLOAT SWITCHES, LIFT CABLES, DISCONNECT SWITCHES, POWER & ALARM CABLES, DISCHARGE PIPE, FORCE MAIN, WETWELL LID, VALVE VAULT, AND ACCESS HATCHES.
- DISPOSE OF REMOVED EQUIPMENT LEGALLY OFFSITE UNLESS REQUESTED TO REMAIN THE PROPERTY OF CAHOKIA HEIGHTS.
- PROVIDE NEW STAINLESS STEEL TRASH STRAINER BASKET WITH STAINLESS STEEL RAILS, HARDWARE AND LIFTING CHAIN SIMILAR TO THOSE MANUFACTURED BY ACCESS MANUFACTURING, INC., MASPELTH N.Y. THE BASKET SHALL BE FABRICATED FROM .080 SHEET METAL WITH 1-3/4" HOLES ON 2-1/2" CENTERS, AND SHALL BE REINFORCED WITH 1"x1" ANGLES. THE BASKETS SHALL BE SECURED IN A RAIL SYSTEM WHICH WILL GUIDE THE BASKET WHEN LIFTED TO THE TOP OF THE STATION.
- 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) MTR3
  - ONE (1) MTR3
  - ONE (1) MTR3
  - ONE (1) MTR3
- PUMPS, VALVES, PIPING, ETC. ORIENTED HORIZONTALLY FOR CLARITY. SEE DETAILED PLAN VIEWS FOR ACTUAL ORIENTATION.
- SEE SHEET 6 AND SITE PLANS FOR CONTROL PANEL/ELECTRICAL DETAILS.

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**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



**LEGEND**

- 15" 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

LIFT STATION	WET WELL LID	VALVE VAULT LID
ST. MONICA	NEW	NEW

**WETWELL / VALVE VAULT LID SCHEDULE**  
NOT TO SCALE

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

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SIGNATURE \_\_\_\_\_  
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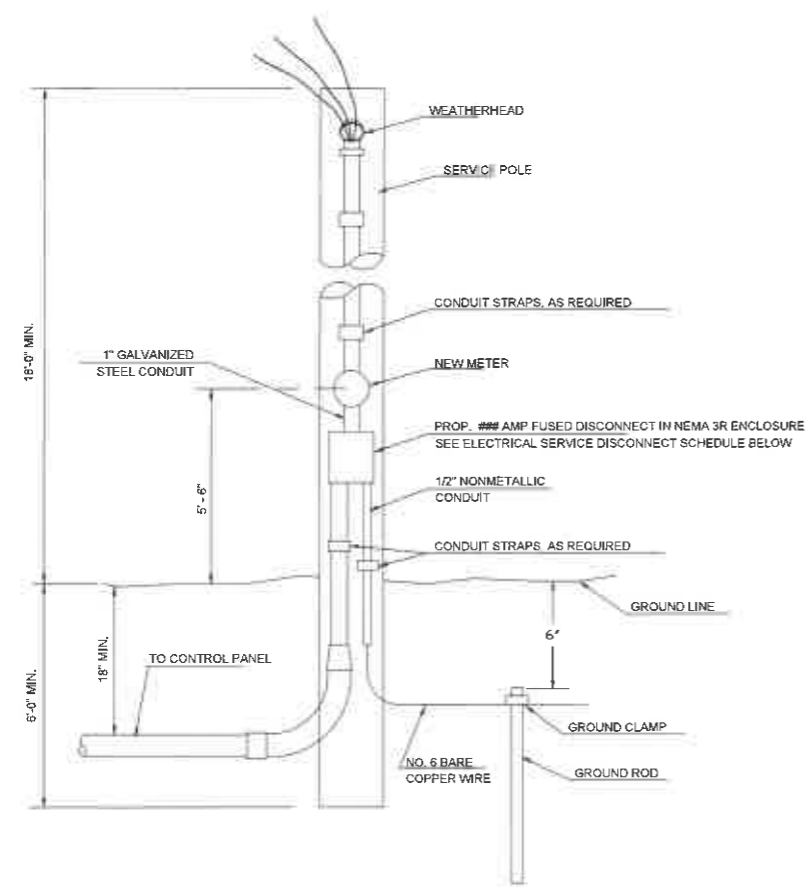
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MISCELLANEOUS DETAILS

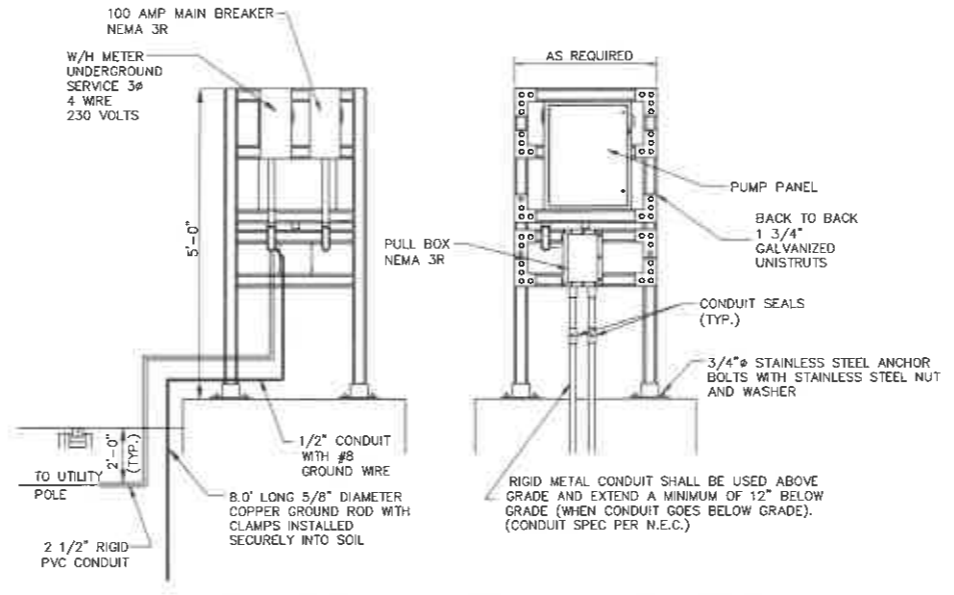


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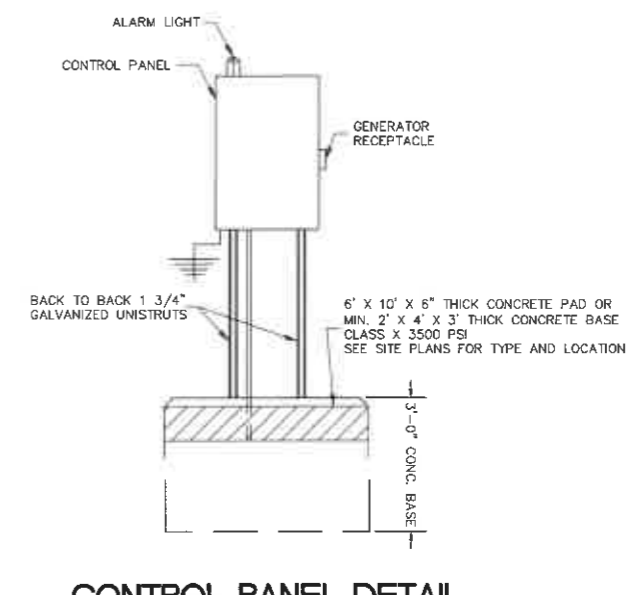
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**SERVICE INSTALLATION**  
NOT TO SCALE



**CONTROL PANEL AND ELECTRICAL RACK DETAIL**  
NOT TO SCALE



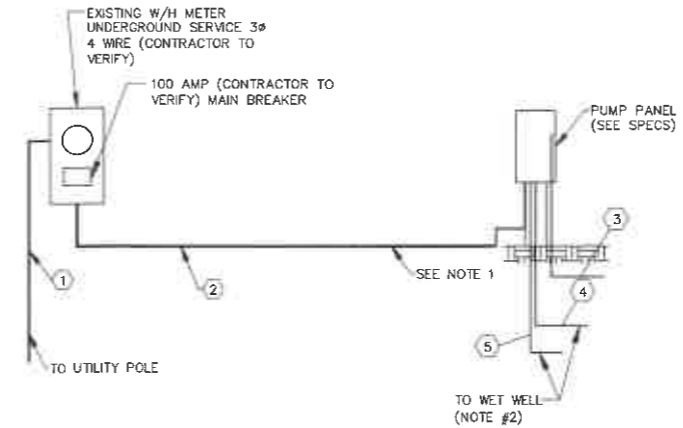
**CONTROL PANEL DETAIL**  
NOT TO SCALE

LIFT STATION	EXISTING FUSED DISCONNECT	UPGRADED FUSED DISCONNECT	EXISTING POWER	UPGRADED POWER
ST. MONICA	100 AMP	100 AMP	240 VAC, 3 PHASE	240 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

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_  
LICENSE EXPIRES \_\_\_\_\_

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ELECTRICAL DETAILS