

**CITY OF CAHOKIA HEIGHTS, IL
SANITARY SEWER SYSTEM
TARGETED DRY-WEATHER SSO INVESTIGATION PLAN**

PREPARED FOR REVIEW AND APPROVAL BY:

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY – REGION 5
ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION**

AS REQUIRED UNDER:

ADMINISTRATIVE ORDER ON CONSENT

UNDER SECTION 309(a) OF THE CLEAN WATER ACT, 33 U.S.C. § 1319(a)

DATED AUGUST 16, 2021

PREPARED BY



Hurst-Rosche, Inc.

5 Bank Square
East St. Louis, IL 62203
(t) 618.398.0890

www.hurst-rosche.com

November 2021

EXECUTIVE SUMMARY

The City of Cahokia Heights, newly formed from consolidation of the former communities of Alorton, Centreville and Cahokia, plus the Commonfields of Cahokia Public Water District, is located in the southwestern portion of St. Clair County, IL, and in the region known as the American Bottoms. The Bottoms are a floodplain of the Mississippi River, between the current east riverbank and the line of limestone bluffs more or less parallel to Illinois Rt. 157, being part of the ancient riverbed, protected from surface water flooding by riverfront levees and interior levees and drainage canals, but subject to frequent groundwater flooding from seasonal precipitation and river level surcharges.

This plan, designed to describe steps to be taken to counteract and prevent sanitary sewer overflows (SSO's) during dry weather, will detail the problem areas, probable causes of the SSO's, characteristics of the sewer system in these targeted areas, corrective actions proposed, and an estimate of costs and timeline for completion of the actions.

These descriptions and information are grouped together into a section on each of the three targeted areas.

- North 82nd Street
- Pocket Road and Missouri Ave (Lift Station #5)
- Lauralee Drive (Lift Station #22)

BACKGROUND AND HISTORY

The City of Cahokia Heights was formed through a series of elections, consolidations, and dissolutions from the former communities of Centreville, Alorton, and Cahokia, along with the sewer and water systems owned and operated by the Commonfields of Cahokia Public Water District, in early 2021. Prior to that time, these former municipal entities had tried for decades, unsuccessfully, to keep up with needed operation and maintenance needs, combatting frequent flooding disasters, causing millions of dollars of damages to infrastructure, along with a dwindling tax base and limited annual funds to keep operating. With the consolidation of the former communities into Cahokia Heights, and the combined new population of over 20,000 residents, an increased tax base, economies of scale, increased eligibility for state and federal funds, and similar benefits, the City is better positioned to seek funds as well as operate and maintain systems, once the needed repairs and upgrades are addressed.

The City now owns and operates a sanitary sewer collection system consisting of dozens of miles of gravity sewer, pump stations, lift stations, and force mains, all designed to convey sewage from residents and businesses in the City to a large pump station, which the pumps then discharge to the regional WWTP, known as the American Bottoms Regional Wastewater Treatment Plant, in adjacent Sauget, Illinois. The number of pump stations and lift stations is significant (over 70 total), and could be considered a contributing factor to the difficulty of operations and maintenance (O&M) of the system. These pump stations, many at least 50 years old, are so numerous and necessary because of the very flat topography in the Bottoms region. This floodplain of the Mississippi River is protected from surface water inundation by riverfront and interior levees and interior drainage ditches and canals, but is susceptible to periodic and seasonal groundwater flooding from rising river levels, which saturate the floodplain from underneath, and raise groundwater levels accordingly. The rise and fall of these groundwater levels plays havoc with the sewer infrastructure, frequently causing infiltration, subsidence, blockage of flow, sewer line failure, and backups and overflows.

The findings and compliance orders issued by the USEPA as part of the Administrative Order on Consent on August 16, 2021, resulted from several inspections of the area and sewer systems owned and operated by the City's predecessors from early 2021, prior to the incorporation of the new City. The City entered into the Consent Order with EPA, which, among other stipulations, requires investigative and action plans to address sanitary sewer overflows (SSO's) and other system deficiencies, to ensure compliance with the Clean Water Act.

CCTV –

As mentioned above, the reach of sewer contributing to the SSO from the cleanout on 82nd St. was repaired in July 2021. Part of this repair included CCTV work of the completed repair. In addition, should the above steps indicate that a potential blockage or other obstruction exist in a sewer reach tributary to this area, cleaning and televising of that reach would be scheduled as both an investigative and preventative measure.

Smoke Testing –

Smoke testing of sewers adjacent to and tributary to this area was conducted in May 2021, with results indicating the presence of potential infiltration and inflow sources such as broken cleanouts, improperly abandoned lots and structures, etc. This could be expected to be typical of other areas in the Ping Pong neighborhood, for which additional smoke testing will be conducted, to identify I/I sources and eliminate them. Results of this testing have been provided to the IEPA, and are attached hereto.

Recordkeeping –

As discussed in each of the sections above, reports are generated by each process, and records of these reports will be maintained at the City Water and Sewer Department offices.

Schedule - (see attached bar schedule)

Lift Station #5 (Pocket Road and Missouri Ave.)

This area consists of a shared 6" service line from two small motels – the DeLux Inn and the Relax Inn, feeding into the small duplex submersible pump station, and a 2 ½ inch force main running flow out to Pocket Road, and then north to a discharge into a manhole in Pocket Road near the intersection with 40th Street. See attached sewer plans of existing conditions for more information.

Additional investigation measures in this area are described below.

Flow Monitoring –

Since no flows tributary to Lift Station #5 exist other than those coming from the 6" service line from the Relax Inn motel, there is no flow monitoring to be done for this location.

Visual Inspections –

Inspection of the lift station (wet well, pumps, valve vault, site) have been conducted, with the results incorporated into preliminary engineering plans and estimates for rehabilitation of the

lift station, as part of a funding request via a grant application to the St. Clair County Intergovernmental Grants Department currently in final review, and grant receipt expected any time between October 2021 and the end of the year. Following receipt of funds, plans and specs will be finalized, bids taken, and construction awarded.

CCTV –

There are no tributary areas to the lift station in question, other than the motel service line, and therefore no sewer lines to televise.

Smoke Testing –

Similarly, there are no tributary areas or potential connections or I/I sources to smoke test for.

Recordkeeping –

Since results of inspections have already been incorporated into preliminary engineering efforts, records will consist of the plans and specifications for the lift station work, construction observation reports, and as-builts of the work performed.

Schedule - (see attached bar schedule)

Lift Station #22 (Lauralee Drive)

This area consists of two pump stations and associated gravity tributary sewers between Lauralee Drive and Renois Blvd.

Some preliminary engineering, to evaluate options and compile preliminary cost estimates, has been done. The preliminary plan is to replace the two existing pump stations on Lauralee with one new pump station in the same vicinity, and one new pump station on Renois Blvd., to remove the flow from this area currently going into Lauralee, and direct it south to an existing gravity line in Renois Blvd that runs south into the main trunkline at IL Rt. 157. See plan sheet of existing sewer locations for more information.

Additional investigation measures in this area are described below.

Flow Monitoring –

Acoustic inspection of flow between manholes utilizing sonic technology such as products and equipment produced by Infosense, or similar, will be employed to determine specific reaches of sewer line experiencing reduced flow or backups, and target these reaches for further investigation via CCTV work to pinpoint repairs needed. It is anticipated that all sewer reaches tributary to the two pump stations in the vicinity of Lauralee Drive, and Renois Blvd., would be inspected in this manner.

Visual Inspections –

As part of the flow monitoring step above, as manhole covers are removed and flow metering devices are installed, a visual inspection of the manhole will be conducted from the surface to determine general conditions, and a report made of observations. See attached Manhole Inspection Report.

CCTV –

Should the above steps indicate that a potential blockage or other obstruction exist in a sewer reach tributary to this area, cleaning and televising of that reach would be scheduled as both an investigative and preventative measure.

Smoke Testing –

Smoke testing of areas tributary to Lauralee Drive and Renois Blvd. will be conducted to identify I/I sources and eliminate them. Results of this testing will be recorded on the attached form and include pictures like the ones attached for work done in the 82nd St. area.

Recordkeeping –

As discussed in each of the sections above, reports are generated by each process, and records of these reports will be maintained at the City Water and Sewer Department offices.

Schedule - (see attached bar schedule)

FINANCING

Repairs planned or further indicated by investigation under this plan to address past SSO's in the three target areas, or contributing conditions in tributary areas, will be financed through a combination of local funds, county intergovernmental grants, and anticipated state grant funds.

Financing of ongoing operation and maintenance programs, including system analytics and planning tools such as acoustic inspection, smoke testing, etc., will be financed through the City's operating budget for the Water and Sewer Department. The City already has resources and third party assistance to engage in smoke testing, and has made inquiries into purchasing acoustic inspection equipment.

SCHEDULE

The implementation schedule for the plan described herein can be best understood by examining the bar chart schedule included herein as an attachment.

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SANITARY SEWER SYSTEM
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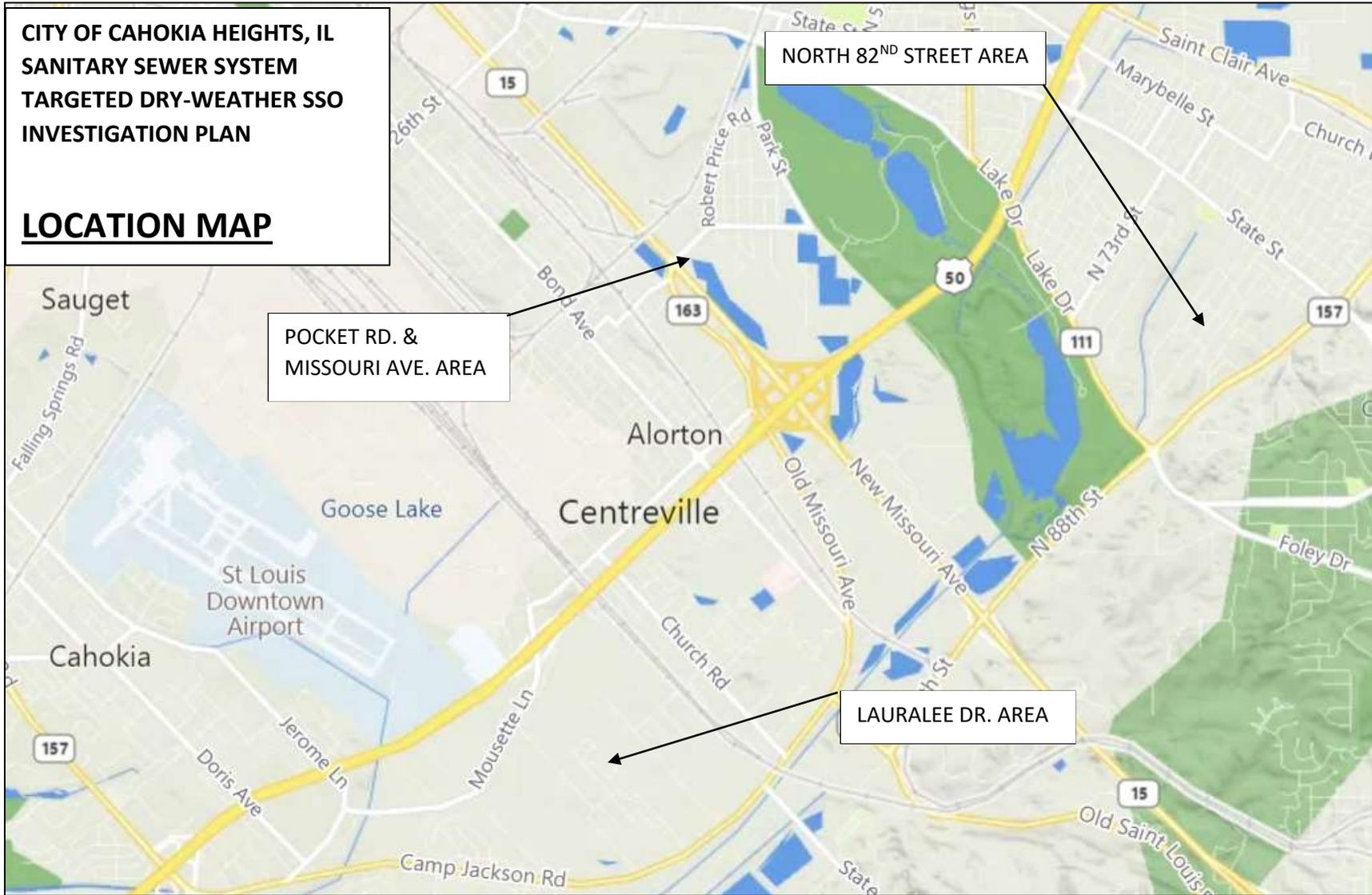
DATED AUGUST 16, 2021

ATTACHMENTS

- Sewer System Maps/Plans for Each Targeted Area
- Plans of Completed Repairs to Sewer Line in N. 82nd St.
- Plans for Rehabilitation of Lift Stations in N. 82nd St. Vicinity
- Manhole Inspection Report
- Smoke Test Report
- Smoke Test Results and Photos of N. 82nd Street Vicinity

**CITY OF CAHOKIA HEIGHTS, IL
SANITARY SEWER SYSTEM
TARGETED DRY-WEATHER SSO
INVESTIGATION PLAN**

LOCATION MAP



POCKET RD. &
MISSOURI AVE. AREA

NORTH 82ND STREET AREA

LAURALEE DR. AREA

Ex. 7f (Water Infra.), Ex. 6 (Personal Privacy) Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)

Ex. 7f (Water Infra.), Ex. 6 (Personal Privacy)

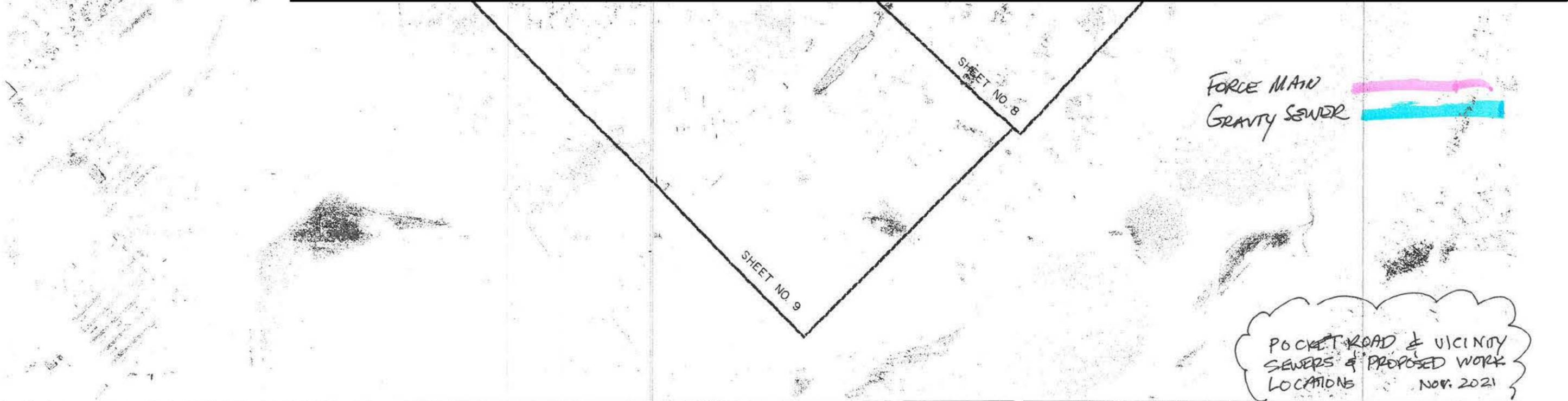
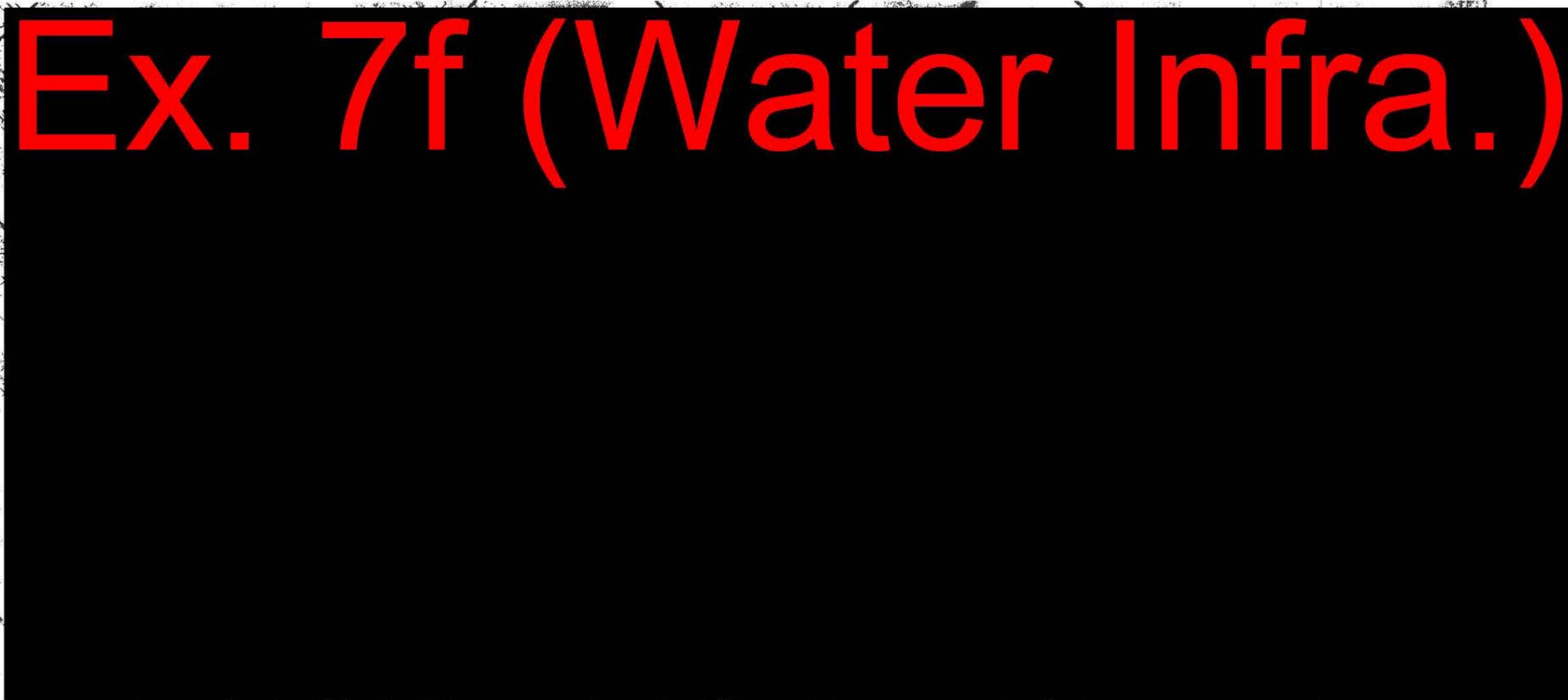
N

-  = SEWER DISTRICT NUMBER
-  = SEWER SUBDISTRICT NUMBER
-  = SEWER DISTRICT BOUNDARY
-  = SEWER SUBDISTRICT BOUNDARY
-  = SEWER SIZE & DIRECTION OF FLOW
-  = MANHOLE & NUMBER
-  = LAMPHOLE & NUMBER
-  = CATCH BASIN MANHOLE & NUMBER
-  = NOT LOCATED
-  = BURIED
-  = NO ACCESS (FULL OF DEBRIS, GAS DETECTED, SURCHARGED, ETC.)
-  = PUMP, EJECTOR OR EJECTOR STATION
-  = STORM SEWER MANHOLE & NUMBER
-  = STORM SEWER CATCH BASIN MANHOLE & NUMBER
-  = STORM SEWER SIZE & DIRECTION OF FLOW

N. 82ND ST & VICINITY
SEWERS & REPAIR LOC'S
NOV. 2021

WASTE WATER COLLECTION SYSTEM		
CITY OF EAST ST. LOUIS, ILLINOIS		
SEWER SYSTEM EVALUATION SURVEY		
HURST-ROSCHÉ ENGINEERS, INC.		
1400 EAST TREMONT		
HILLSBORO, ILLINOIS		
DESIGNED BY: T.C.	DRAWN BY: C.H.L.	SHEET NO. 9
CHECKED BY:	DATE: 1/18/21	TOTAL SHEETS 8

Ex. 7f (Water Infra.)



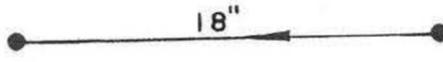
SCHUBX
500 SPIRY OF ST. LOUIS BLVD
CHESTERFIELD, MO 63017
314.832.3427

ALORTON-CENTREVILLE
SANITARY SEWER SYSTEM
PHASE I E. P. A. PROJECT NO. C-172053
GENERAL SEWER PLAN

HURST-ROSCHE ENGINEERS INC.
EAST ST LOUIS & HILLSBORO, ILLINOIS
DRAWN BY: K.H. APPROVED BY: D.D.S. SHEET 4 OF 27

EX. 7f (Water Infra.)

LEGEND

-  SEWER DISTRICT BOUNDARY
-  SEWER SUBDISTRICT BOUNDARY
-  SEWER DISTRICT NUMBER
-  SEWER SUBDISTRICT NUMBER
-  MANHOLE & M.H. NUMBER
-  SEWER SIZE & DIRECTION OF FLOW

- 6 Δ
- 11 *
- 9 ▲
- 12 ◯

COULD NOT LOCATE
M.H.'S TO HIGH TO ENTER (IN FLOOD PLAIN)
COULD NOT LOCATE, BURIED
NO ACCESS (FULL OF DEBRIS, GAS DETECTED,
SURCHARGED, ETC.)

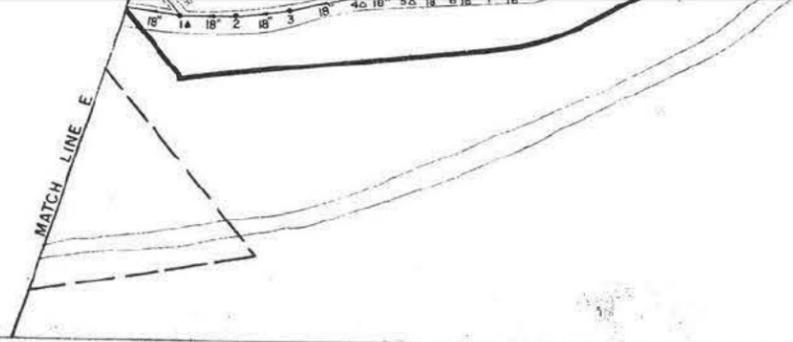
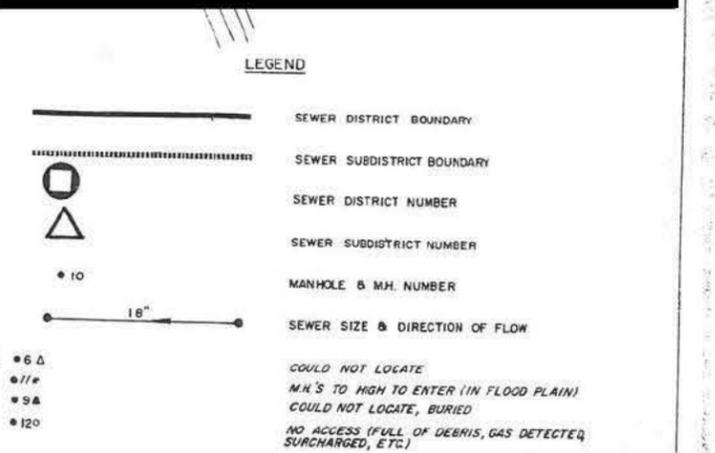
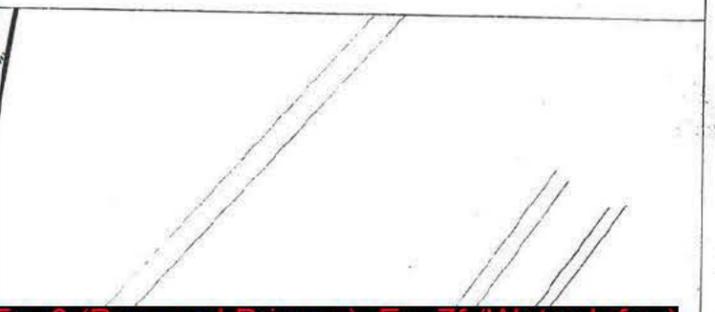
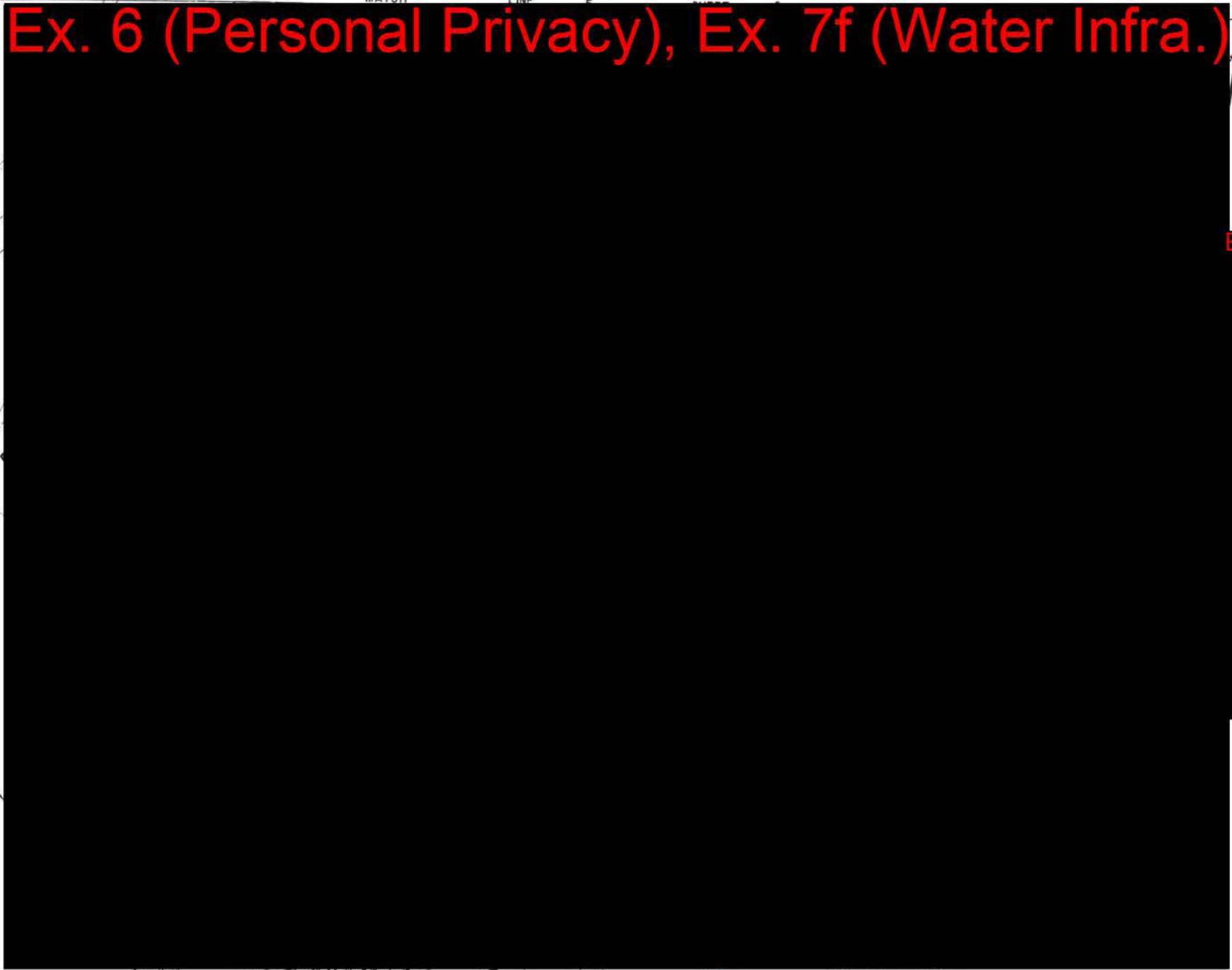
LAURALEE DR. & RENNOIS BLVD - PRELIM ENGR. NOV. 21

WASTE WATER COLLECTION SYSTEM
CAHOKIA, CENTREVILLE & ALORTON, ILLINOIS
SEWER SYSTEM EVALUATION SURVEY
HURST- ROSCHE ENGINEERS, INC.
1400 EAST TREMONT
HILLSBORO, ILLINOIS

DESIGNED BY: D.S.	DRAWN BY: C.W.V.	SHEET NO. 5
CHECKED BY: J.W.N.	DATE:	TOTAL SHEETS 6

Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)

Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



- XXXX SEWER LINE TO BE ABANDONED
- ⊗ LIFT STATION TO BE REPLACED BY NEW LIFT STATION ADJACENT
- NEW LIFT STATION
- NEW FORCE MAIN
- █ CLEAN, TELEVISION & VISUAL INSPECTION
- ☁ SMOKE TESTING & FLOW MONITORING

JAN. 2022

WASTE WATER COLLECTION SYSTEM		
CAHOKIA, CENTREVILLE & ALORTON, ILLINOIS		
SEWER SYSTEM EVALUATION SURVEY		
HURST- ROSCHE ENGINEERS, INC.		
1400 EAST TREMONT		
HILLSBORO, ILLINOIS		
DESIGNED BY: D.S.	DRAWN BY: C.W.V.	SHEET NO. 5
CHECKED BY: J.W.N.	DATE:	

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
- 701901-08 TRAFFIC CONTROL DEVICES

GENERAL NOTES

1. THE PROJECT CONSISTS OF CONVERTING EXISTING SEWAGE EDUCTOR LIFT STATIONS AT [REDACTED] 82ND STREET TO SUBMERSIBLE DUPLEX LIFT STATIONS, INCLUDING REMOVAL AND REPLACEMENT OF LIFT STATION PUMPS, CONTROL PANELS, VALVES, PRESSURE GAUGES, GUIDE BARS, FLOAT SWITCHES, LIFT CABLES, DISCONNECT SWITCHES, POWER AND ALARM CABLES, DISCHARGE PIPE, WETWELL LID, VALVE VAULT, AND ACCESS HATCHES, 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 APRIL 1, 2016, 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 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 INCLUDED IN THE COST OF CONSTRUCTION.
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 CENTREVILLE - SEWER
(618) 610-7961 |
| AMEREN IP (SOUTH) - GAS AND ELECTRIC
(618) 301-5327 | COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT - WATER & SEWER
(618) 337-3302 |
| ATT DISTRIBUTION - COMMUNICATIONS
(630) 573-5450 | ILLINOIS AMERICAN WATER - WATER
(618) 239-3254 |
| CHARTER COMMUNICATIONS - COMMUNICATIONS
(314) 386-1649 | |

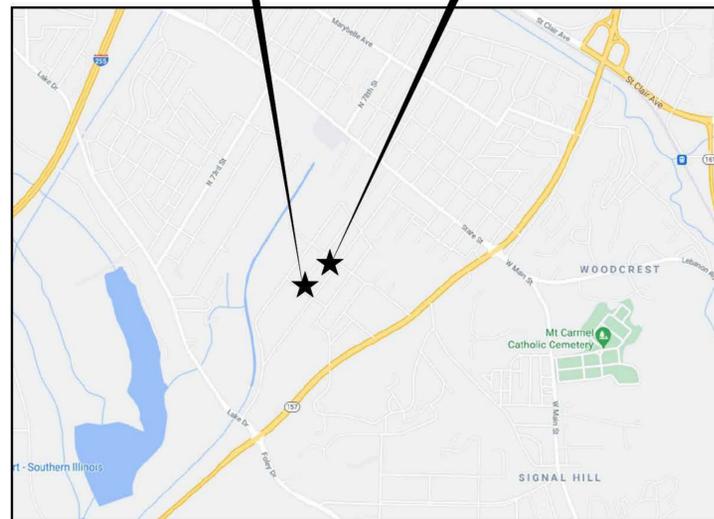
LIFT STATION REHABILITATION TWO LOCATIONS 82ND STREET CENTREVILLE, IL.

Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)

PREPARED FOR:
**COMMONFIELDS OF CAHOKIA
PUBLIC WATER DISTRICT**

PREPARED BY:
HURST-ROSCHE, INC.

Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



LOCATION MAP

NO SCALE

T1N, R9W, 3RD P.M., SECTION 26
CITY OF CENTREVILLE
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.

PROJECT LOCATION



ST. CLAIR COUNTY

INDEX OF SHEETS

- 1 COVER SHEET & GENERAL NOTES
- 2 PLAN & PROFILE [REDACTED] 82ND STREET)
- 3 LIFT STATION DETAILS [REDACTED] 82ND STREET)
- 4 PLAN & PROFILE [REDACTED] 82ND STREET)
- 5 LIFT STATION DETAILS [REDACTED] 82ND STREET)
- 6 DETAILED PLANS
- 7 MISCELLANEOUS DETAILS
- 8 ELECTRICAL DETAILS

HR
Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-002298
NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
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www.hurst-rosche.com
HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

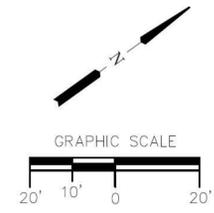
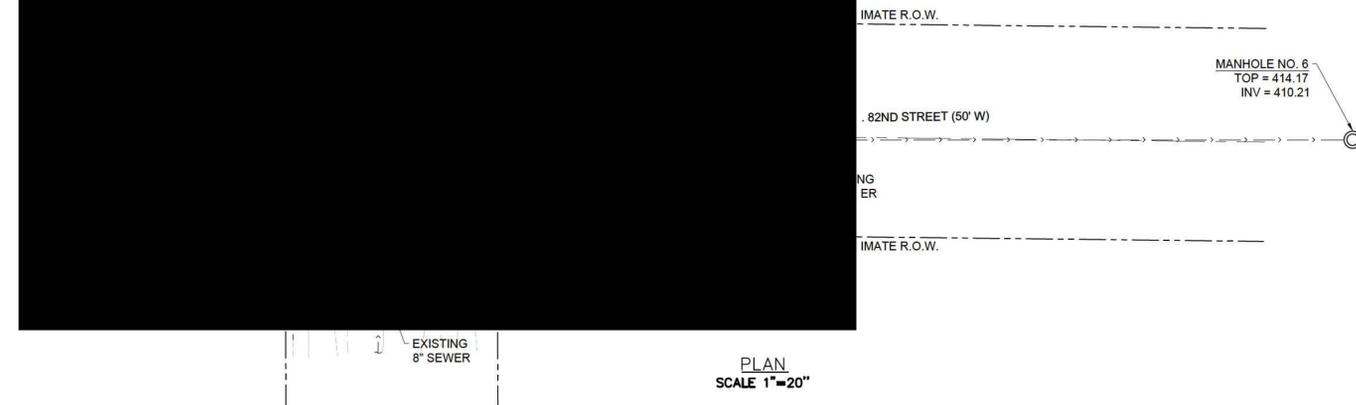
11/2021

TAS JJD SMS

COVER SHEET
& GENERAL
NOTES

TERRY SUDHOLT DATE
ILLINOIS P.E. NO. 062-062371
EXPIRES: 11-30-21

Ex. 7f (Water Infra.), Ex. 6 (Personal Privacy)

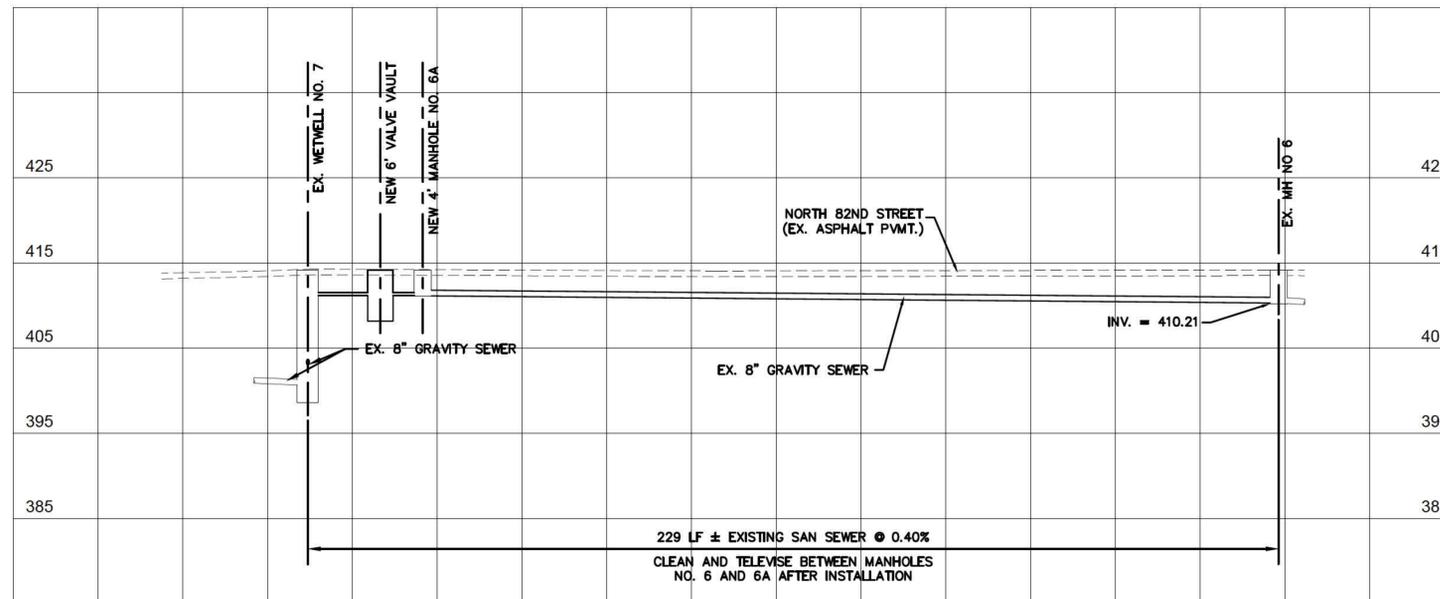


Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-000299

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.398.0890
www.hurst-rosche.com

HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

SIGNATURE _____
DATE _____
LICENSE EXPIRES _____



11/2021

DATE:
PROJECT NO: 211-0741
TAS JJD SMS

PLAN AND PROFILE
STREET



Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-000299

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
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www.hurst-rosche.com
HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

SIGNATURE _____
DATE _____
LICENSE EXPIRES _____

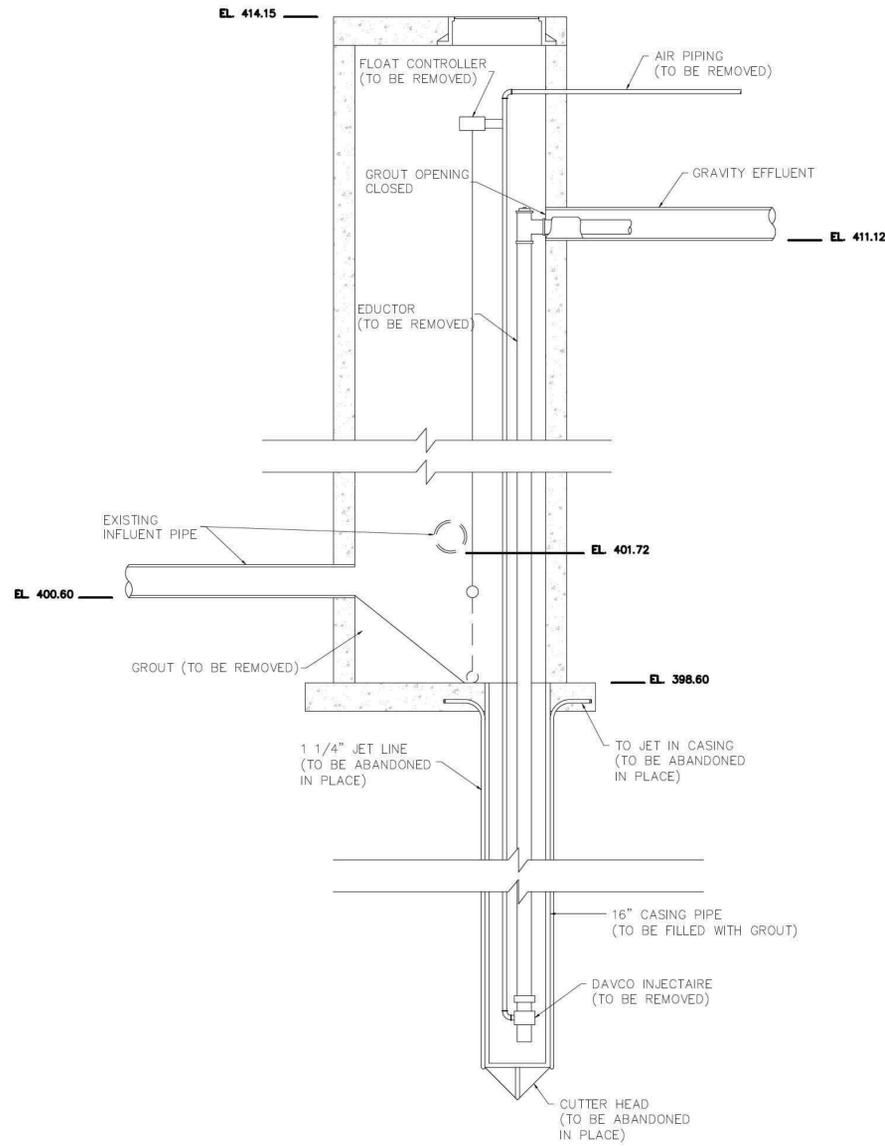
LIFT STATION REHABILITATION
TWO LOCATIONS 82ND ST.)
COMMONFIELDS OF CAHOKIA WATER DISTRICT
CITY OF CENTREVILLE
ST. CLAIR COUNTY, ILLINOIS 62204

MK.	DATE	DESCRIPTION
	11/2021	

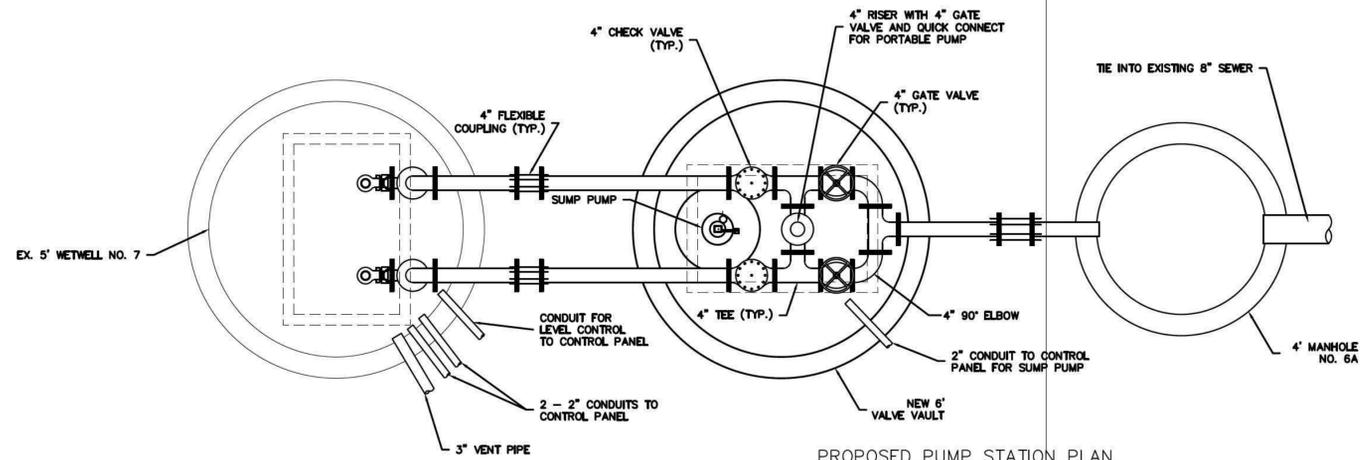
DATE:
PROJECT NO: 211-0741
DESIGN: TAS DRAWN: JJD CHECK: SMS

LIFT STATION DETAILS
STREET

NOTE:
DISPOSE OF REMOVED EQUIPMENT LEGALLY OFFSITE UNLESS REQUESTED TO REMAIN THE PROPERTY OF COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT.

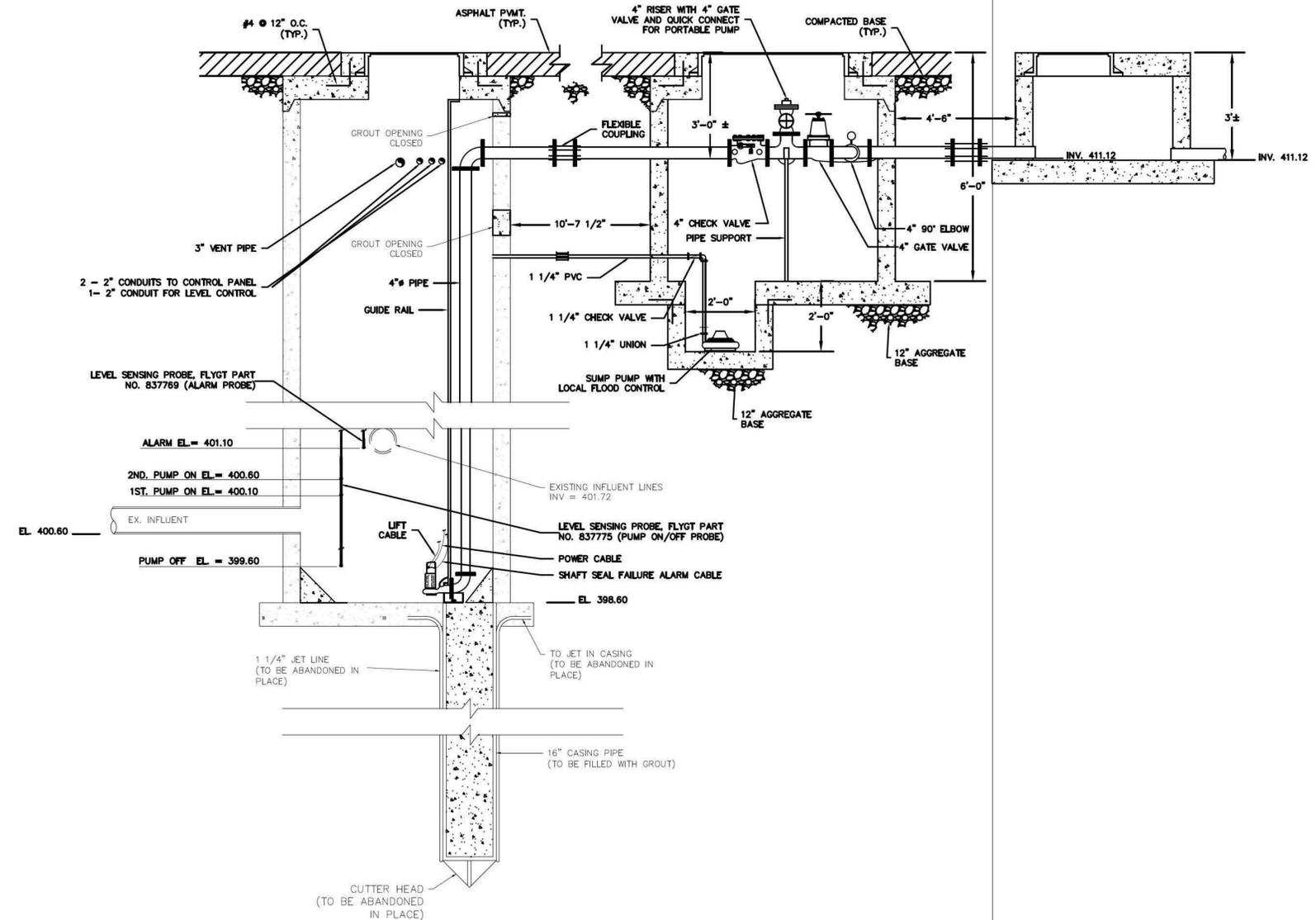


EXISTING WETWELL SECTION
1/2"=1'-0"



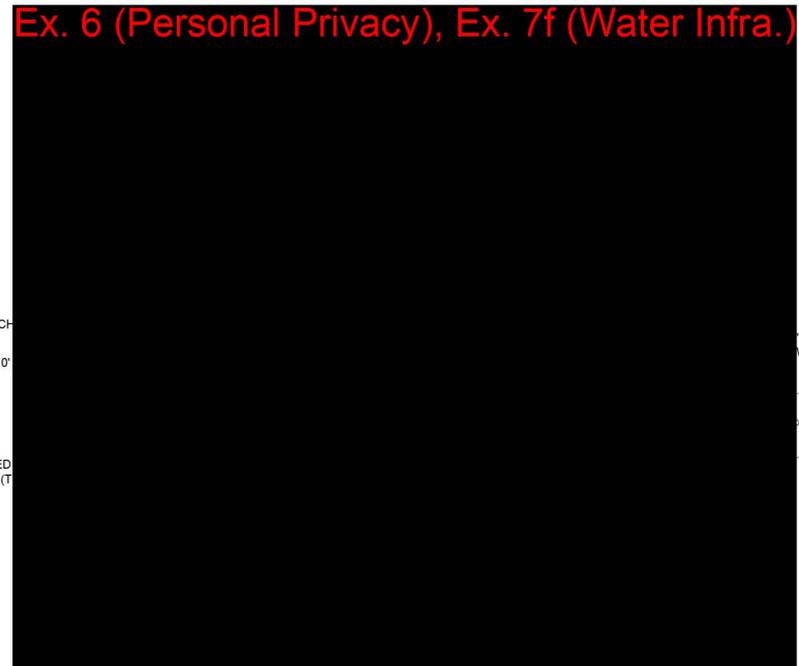
PROPOSED PUMP STATION PLAN
1/2"=1'-0"

NOTE:
REMOVE EXISTING WETWELL TOP AND REPLACE WITH NEW TOP AND HATCH. THE CONTRACTOR SHALL PROVIDE A WATERTIGHT SEAL.



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

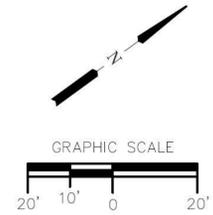
Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



NEW 6' HIGH CH
NEW 6' X 10'
EXISTING ED
(T



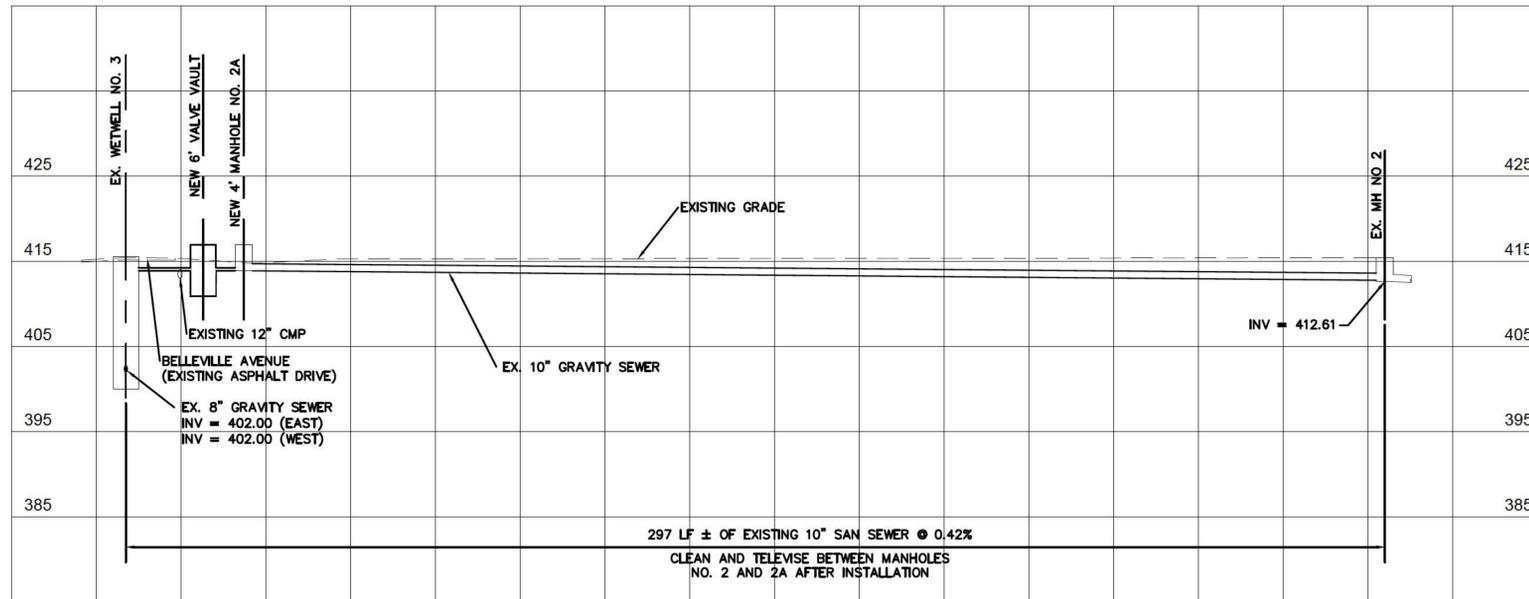
PLAN
SCALE 1"=20"



Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-000299

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.398.0890
www.hurst-rosche.com
HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

SIGNATURE _____
DATE _____
LICENSE EXPIRES _____



PROFILE
HORIZ. SCALE 1"=20'
VERT. SCALE 1"=10'

11/2021

DATE:
PROJECT NO: 211-0741
TAS JJD SMS

PLAN AND PROFILE
Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-000298

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.398.0890
www.hurst-rosche.com
HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

SIGNATURE _____
DATE _____
LICENSE EXPIRES _____

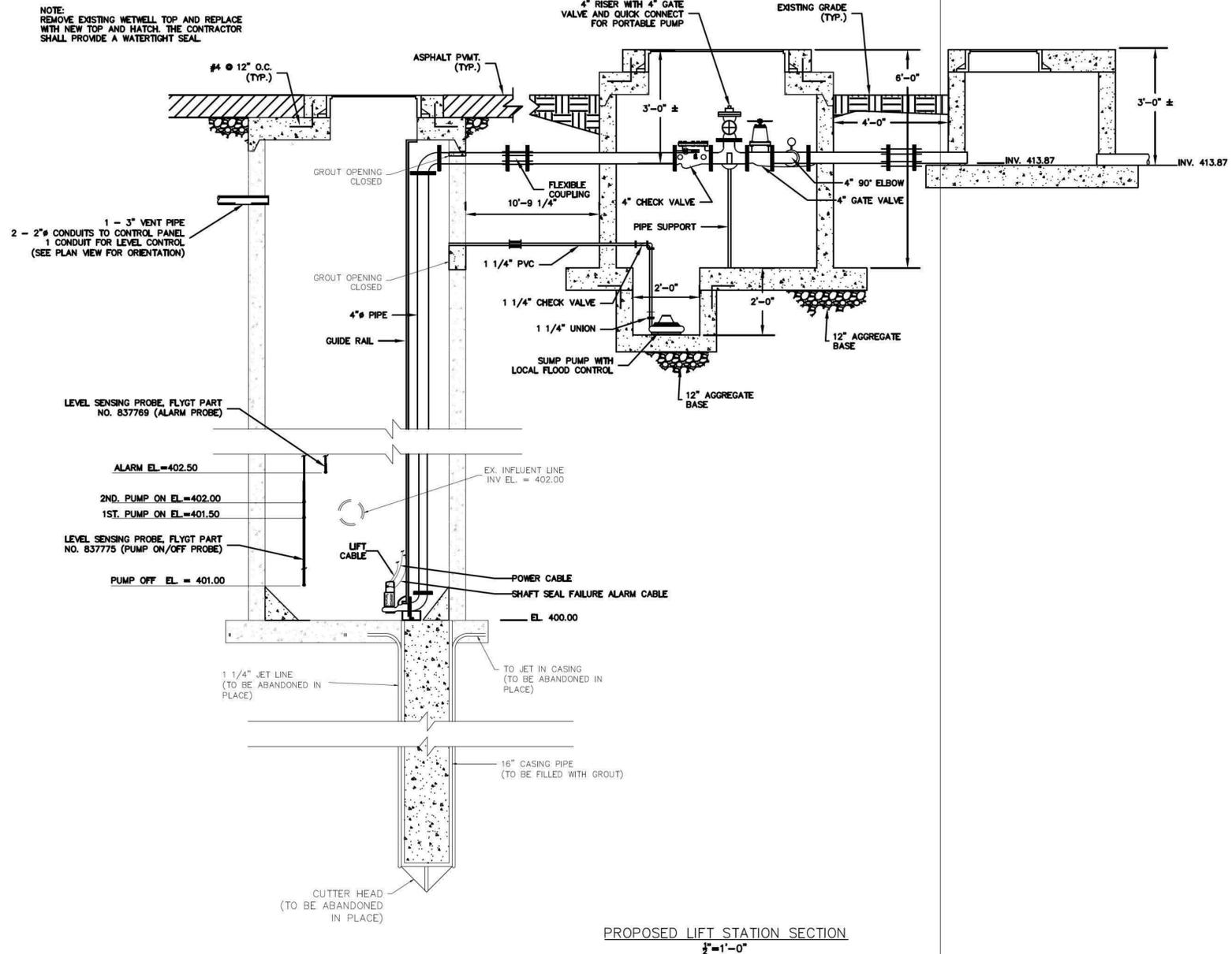
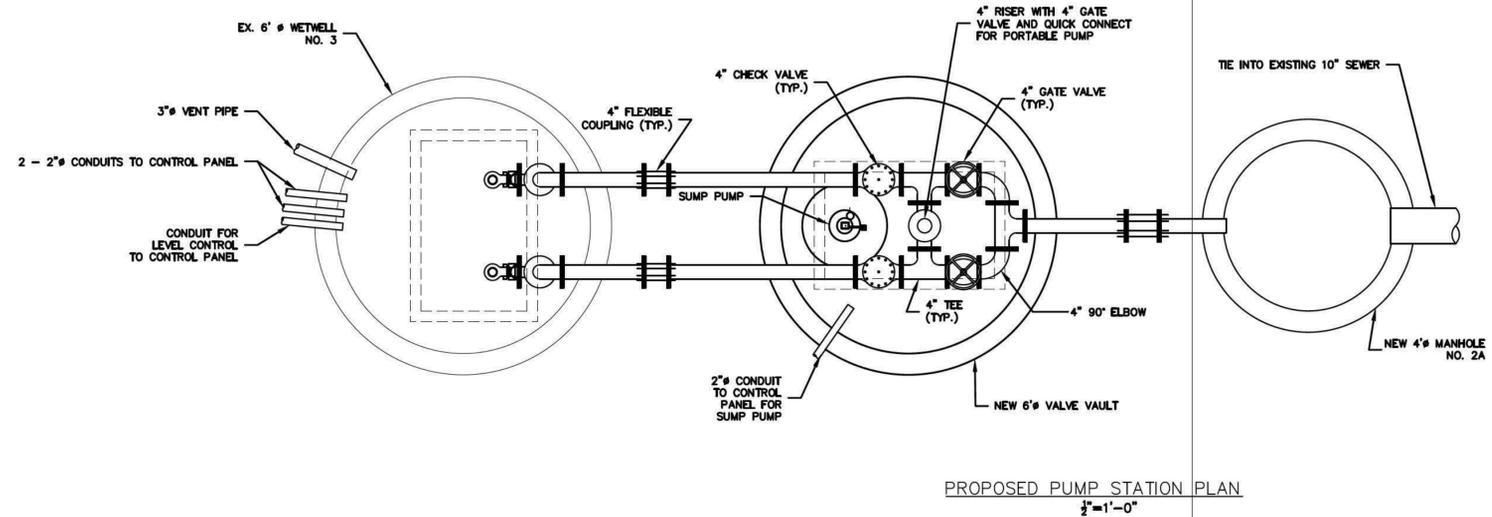
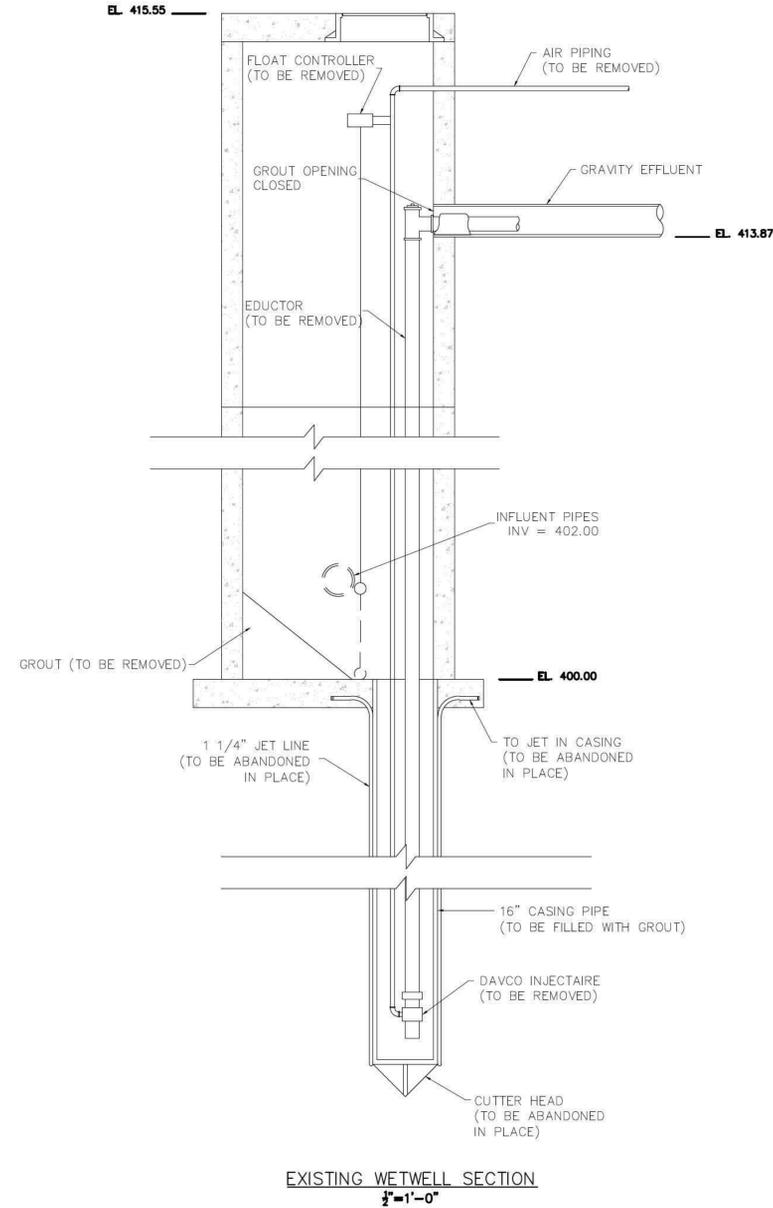
LIFT STATION REHABILITATION
TWO LOCATIONS (82ND ST.)
COMMONFIELDS OF CAHOKIA WATER DISTRICT
CITY OF CENTREVILLE
ST. CLAIR COUNTY, ILLINOIS 62204

MK.	DATE	DESCRIPTION
	11/2021	

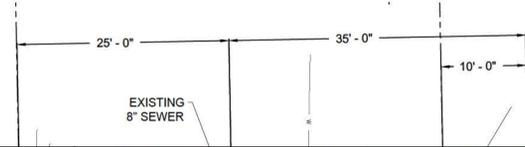
DATE:
PROJECT NO: 211-0741
DESIGN: TAS DRAWN: JJD CHECK: SMS

LIFT STATION DETAILS

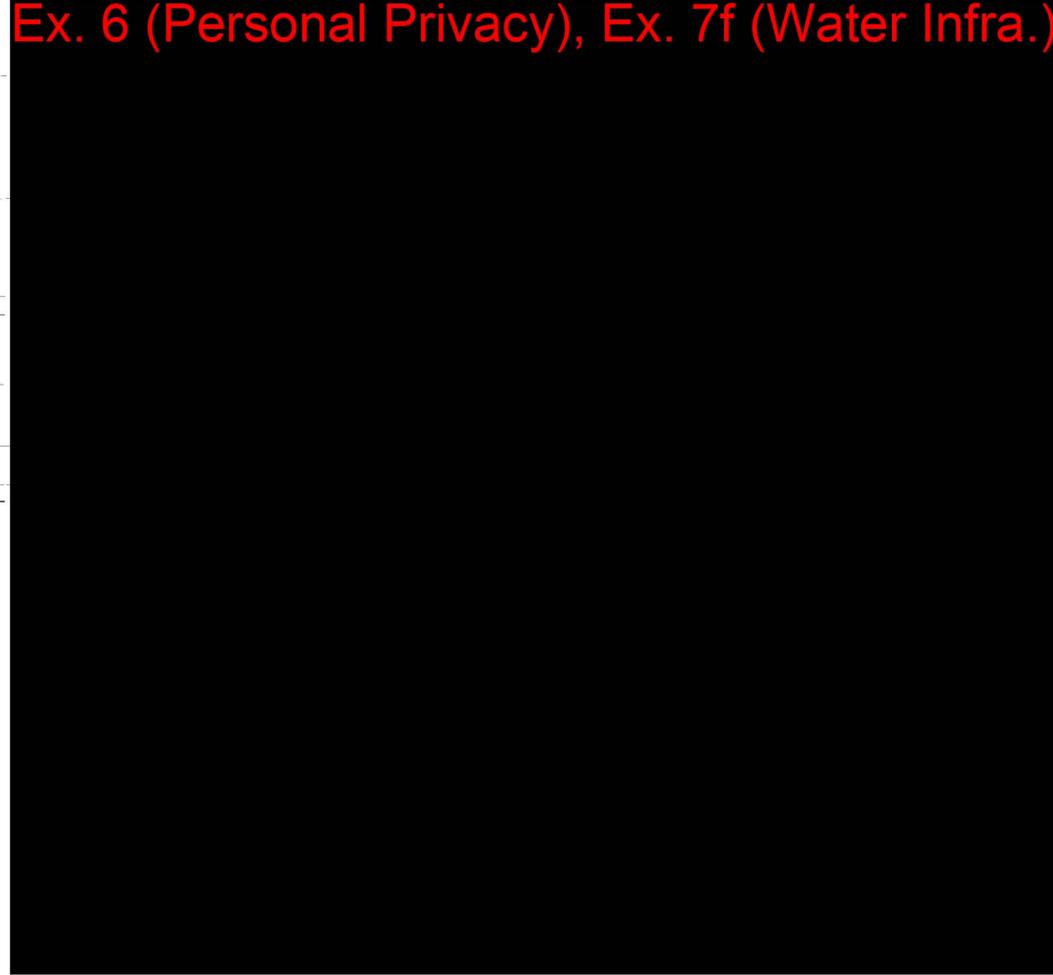
NOTE:
DISPOSE OF REMOVED EQUIPMENT LEGALLY OFFSITE UNLESS REQUESTED TO REMAIN THE PROPERTY OF COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT.



NOTE:
 REMOVE AND REINSTALL SERVICE POLE AS
 REQUIRED TO COMPLETE INSTALLATION.



Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



NOTE:
 REMOVE AND REINSTALL SERVICE POLE AS
 REQUIRED TO COMPLETE INSTALLATION.



Ex. 6 (Personal Privacy), Ex. 7f (Water Infra.)



SCALE 1"=10'



11/2021

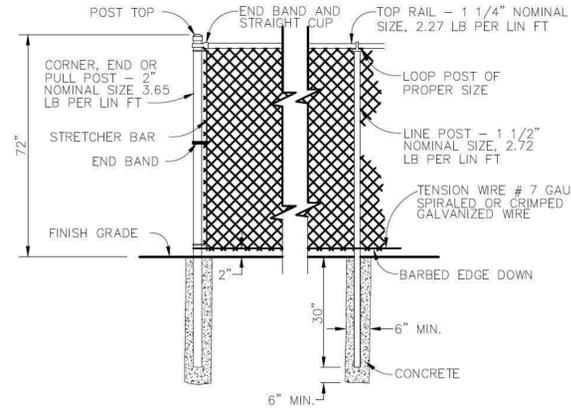
DATE:
 PROJECT NO: 211-0741

TAS JJD SMS

DETAIL PLANS

NOTES:

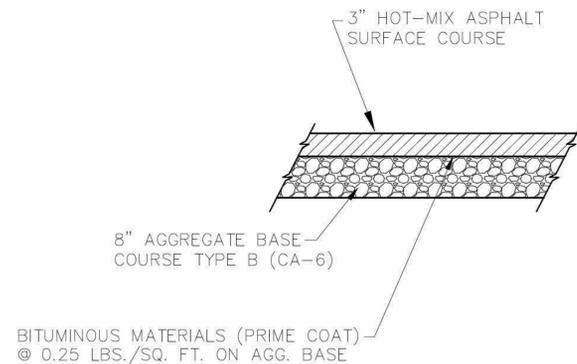
1. WIRE MESH TO BE FASTENED TO LINE POST, TOP RAIL, AND TENSION WIRE WITH # 9 GAUGE ALUMINUM TIE WIRE. SPACING FOR TIE OR CLIP WIRES SHALL BE AS FOLLOWS:
TOP RAIL - 24"
LINE POST - 12"
TENSION WIRE - 24"
2. POST SPACING SHALL NOT EXCEED TEN FEET. PULL POST SHALL BE PROVIDED SO THAT NO RUN EXCEEDS 400' IN LENGTH.
3. THE TOP RAIL SHALL PASS THROUGH OPENINGS PROVIDED FOR THAT PURPOSE IN THE POST TOPS AND EACH LENGTH SHALL BE COUPLED WITH INSERT SLEEVE COUPLINGS.
4. CORNER POSTS SHALL BE PROVIDED AT ALL INTERSECTED PROPERTY LINES WHICH HAVE EXISTING YARD FENCES. REQUIRED LENGTHS OF NEW FENCE SHALL BE PROVIDED TO CONNECT THE EXISTING YARD FENCES IN EASEMENT TO THE NEW FENCE.
5. POSTS SHALL BE GROUTED INTO THE 4" OPENINGS PROVIDED IN THE CHANNEL WALLS WITH A UNIFORM MIXTURE OF "POR-ROK" TYPE GROUT OR EQUAL.
6. WIRE MESH TO BE PLACED ON THE STREET SIDE OF THE LINE POSTS.
7. HEIGHT OF FENCE 48".



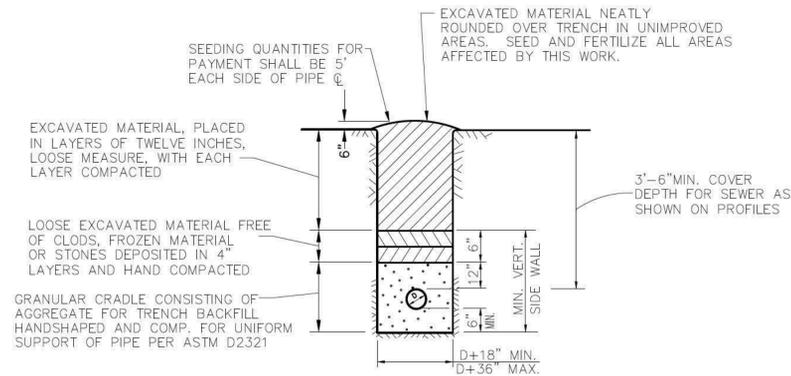
DETAIL OF FENCE INSTALLATION
N.T.S.

MIXTURE TABLE

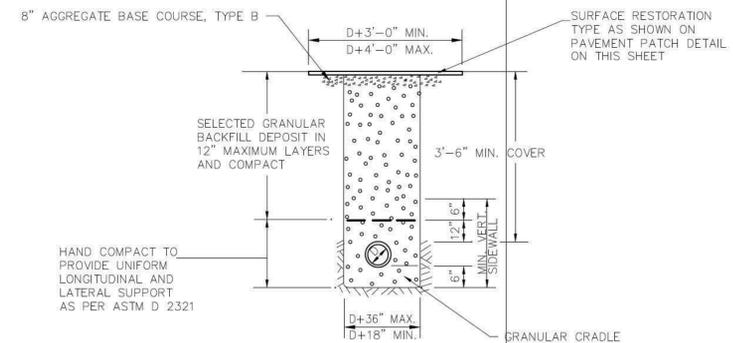
LOCATION	VARIES
MIXTURE USE	SURFACE COURSE
PG	PG 64-22
RAP % (MAX)	10%
DESIGN AIR VOIDS	4.0% @ Ndes=70
MIX COMPOSITION (GRADATION MIXTURE)	IL-9.5
FRICTION AGGREGATE	MIXTURE "C"
MIXTURE WEIGHT	112 LBS./SQ. YD./IN.



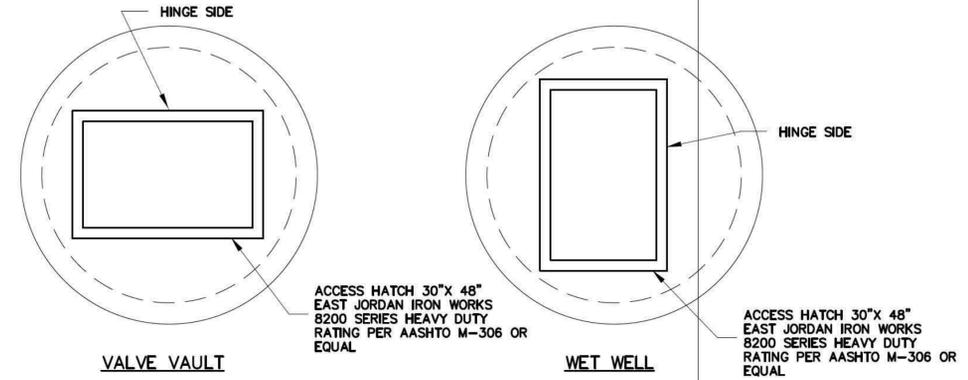
PAVEMENT RESTORATION DETAIL
NOT TO SCALE



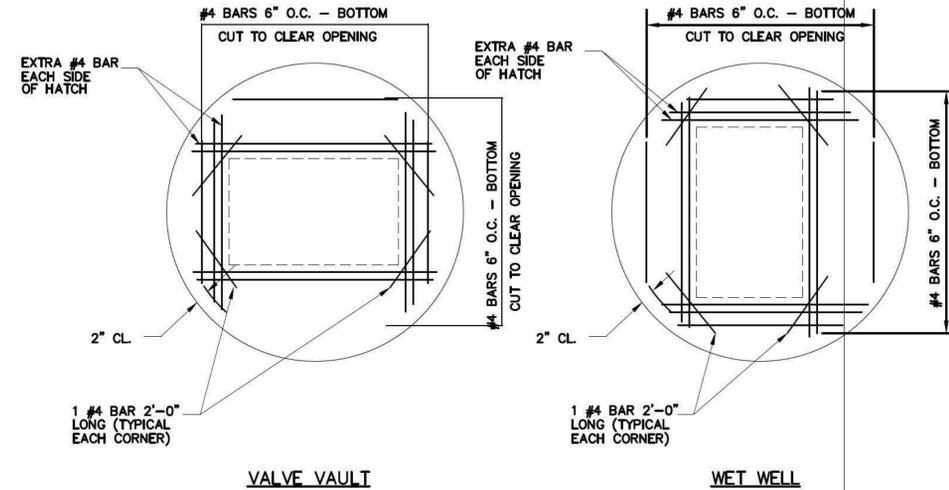
TRENCH DETAIL UNIMPROVED AREA
NOT TO SCALE



TRENCH DETAIL IMPROVED AREA
NOT TO SCALE



ACCESS HATCH PLAN VIEW
1/2"=1'-0"



TOP SLAB REINFORCEMENT
1/2"=1'-0"



Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-00209

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.398.0890

www.hurst-rosche.com

HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN

SIGNATURE

DATE

LICENSE EXPIRES

LIFT STATION REHABILITATION
TWO LOCATIONS [REDACTED] 82ND ST.)
COMMONFIELDS OF CAHOKIA WATER DISTRICT
CITY OF CENTREVILLE
ST. CLAIR COUNTY, ILLINOIS 62204

MK.	DATE	DESCRIPTION
	11/2021	

DATE:
PROJECT NO: 211-0741
DESIGN: TAS DRAWN: JJD CHECK: SMS

MISC. DETAILS

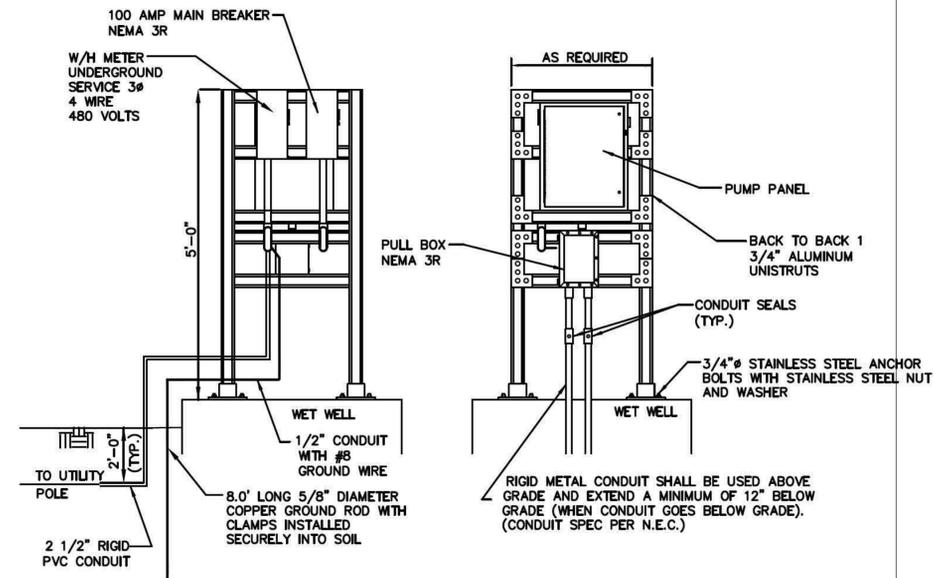


Hurst-Rosche, Inc.
PROFESSIONAL DESIGN NUMBER: 104-000299

NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.398.0890

www.hurst-rosche.com

HILLSBORO, IL
MARION, IL
ARNOLD, MO
NEOSHO, MO
NASHVILLE, TN



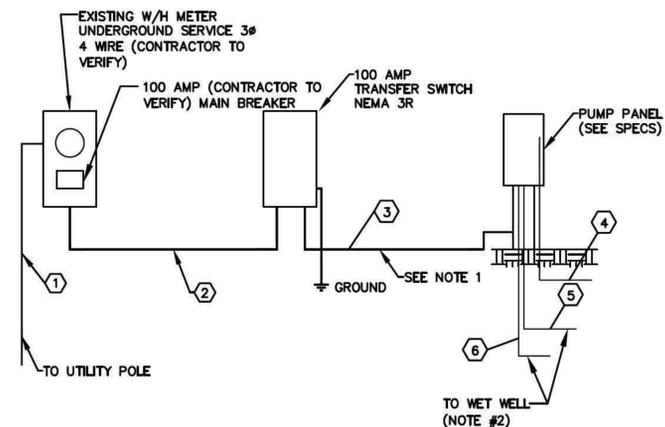
CONTROL PANEL AND ELECTRICAL RACK DETAIL
NOT TO SCALE

WIRE AND CONDUIT LEGEND:

- ① 4-1/0 WIRES THWN TYPE IN 2" CONDUIT (EXISTING).
- ② 4-1/0 WIRES THWN TYPE IN 2 3/4" CONDUIT.
- ③ 4-1/0 WIRES THWN TYPE IN 2" CONDUIT.
- ④ WIRE AND CONDUIT AS REQUIRED BY SUMP PUMP MANUFACTURER.
- ⑤ WIRE AND CONDUIT SIZE AS REQUIRED BY PUMP MANUFACTURER (ONE SET PER PUMP)
- ⑥ WIRE AND CONDUIT SIZE AS REQUIRED BY PRESSURE TRANSDUCER 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 _____

LIFT STATION REHABILITATION
TWO LOCATIONS 82ND ST.)
COMMONFIELDS OF CAHOKIA WATER DISTRICT
CITY OF CENTREVILLE
ST. CLAIR COUNTY, ILLINOIS 62204

MK.	DATE	DESCRIPTION
	11/2021	

DATE:
PROJECT NO: 211-0741
DESIGN: TAS DRAWN: JJD CHECK: SMS

ELECTRICAL DETAILS



HURST-ROSCHE, INC.

5 Bank Square
618/398-0890

Date November 16, 2020
PROJECT Emergency Sanitary
Sewer Rehabilitation
Ex. 6 (Personal Privacy) St, Centreville
Commonfields of Cahokia PWD

TO: Mr. Henry Rohwedder
Hank's Excavating & Landscaping, Inc.

Mr. Jim Rossel
Haier Plumbing & Heating, Inc.

Mr. Mark Ehret
Ehret, Inc.

WE ARE ENCLOSING THE FOLLOWING: ORIGINAL DRAWINGS REPRODUCIBLE MYLAR
 SHOP DRAWINGS BLUE LINE PRINTS
 SPECIFICATIONS SEPIA PRINTS
 REPORT OTHER

QUANTITY	DESCRIPTION
1 Set	Plans & Specifications for the referenced project.

FOR YOUR INFORMATION PRELIMINARY RETURNED TO YOU
 FOR REVIEW & COMMENTS AS REQUIRED BY CONTRACT FINAL
 DISPOSITION OTHER

COMMENTS: Plans and specifications are attached for your use in preparing a proposal

COPY TO: Mr. Denny Traiteur
Mr. Curtis McCall

HURST-ROSCHE INC
Ex. 6 (Personal Privacy)

EMERGENCY SANITARY SEWER REPAIRS
Ex 6 (Personal Privacy) STREET, CENTREVILLE
COMMONFIELDS OF CAHOKIA
PUBLIC WATER DISTRICT

SCOPE OF WORK / PROJECT REQUIREMENTS:

1. The project consists of replacing approximately 370 lineal feet of 8-inch diameter sewer as shown Drawing Sheets 1-3, including traffic control, dewatering, temporary by-pass pumping, reinstatement of service connections, surface restoration, cleaning and televising, and any other related items to complete the project. The sanitary sewer work shall be performed in accordance with the Standard specifications for Water and Sewer Main Construction in Illinois. Surface restoration and traffic control shall be performed in accordance with the Illinois Department of Transportation (IDOT) Specifications for Road and Bridge Construction. The Contractor shall visit the site prior to submitting his bid and include all costs to perform all work necessary to complete the project.
2. A granular cradle shall be constructed on all sewer mains from a plane 6" below the pipe to a plane 12" above the pipe. The granular cradle shall consist of Class II embedment material as per ASTM D2321 and shall conform to IDOT gradation CA-7. Select granular backfill shall also conform to IDOT gradation CA-7.
3. The Contractor shall install and operate a suitable dewatering system. Dewatering is to be included in the base bid.
4. The contractor shall install and maintain a temporary bypass pumping system for all reaches affected by this work. Installation and maintenance of the bypass pumping system is to be included in the base bid.
5. The new sewer shall be cleaned and televised full reach (manhole to manhole) after the sewer rehabilitation is completed. Two copies of the inspection logs and video recordings shall be furnished to the A/E.
6. Surface restoration shall include replacement of the asphalt pavement, along with the restoration of any other disturbed areas.
7. The Contractor shall provide traffic control devices as necessary to complete the sewer rehabilitation. Traffic control shall be in accordance with IDOT Highway Standards 701301, 701501 and 701901.
8. The party to whom the contract is awarded will be required to execute the Agreement and obtain a Performance bond, Payment Bond, and Certificate of Insurance. The Certificate of Insurance must list the Owner and Hurst-Rosche, Inc. as additional insureds.
9. Bidder's attention is directed to the fact that all Federal and Illinois State Laws, municipal ordinances and regulations of any and all authority having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full. Successful Bidders shall be required to observe Illinois Public Act 77-1552 and the Illinois Department of Human Rights and Illinois Human Rights Commission Rules pertaining to Equal Employment Opportunity, as provided for in Paragraphs 2-101, et seq., Article II, Chapter 68, of the Illinois Revised Statutes; Paragraph 271 of Chapter 48 of the Illinois Revised Statutes concerning the employment of citizens of the State of Illinois; and the Prevailing Wage Act, as issued by the IL Department of Labor.
10. Proposals are due at the office of Hurst-Rosche, Inc., No. 5 Bank Square, East St. Louis, IL 62203 by Wednesday, November 25, 2015 at 10:30 A.M. Mailed bid envelopes shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED". No bid security is required. A bid may not be modified, withdrawn or canceled during the thirty (30) days immediately following bid opening.

B I D

Proposal of _____
(hereinafter called "BIDDER"), organized and existing under the laws of the State of _____
doing business as * _____

*Insert "a corporation," "a partnership," or "an individual," as applicable.

To Commonfields of Cahokia Public Water District (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, BIDDER hereby proposes to perform all WORK for the improvements of **Emergency Sanitary Sewer Rehabilitation** Ex. 6 (Personal Privacy) **Street, Centreville, IL.** The Contractor shall include all costs in his proposal to replace approximately 370 lineal feet of 8-inch diameter sewer as shown Drawing Sheets 1-3 including traffic control, dewatering, temporary by-pass pumping, reinstatement of service connections, surface restoration, cleaning and televising, and any other related items to complete the project. The sanitary sewer work shall be performed in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois. The surface restoration and traffic control shall be performed in accordance with the Illinois Department of Transportation (IDOT) Specifications for Road and Bridge Construction. The Contractor shall visit the site prior to submitting his bid and include all costs to perform all work necessary to complete the project. The Owner reserves the right to reject any and all proposals and to award the work on any basis to obtain the lowest overall cost.

BIDDER hereby agrees to commence WORK under this contract on or before a date to be specified in the NOTICE TO PROCEED and to fully complete the PROJECT within 30 consecutive calendar days thereafter.

- (I) By submission of the bid, each bidder certifies, and in the case of a joint bid, each party thereto certifies as to his own organization, that in connection with the bid:
- (i) The prices in the bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
 - (ii) Unless otherwise required by law, the prices which have been quoted in the bid have not knowingly been disclosed by the bidder, prior to opening, directly or indirectly to any other bidder or to any competitor; and
 - (iii) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition.

(II) Each person signing the bid shall certify that:

- (i) He is the person in the bidder's organization responsible within that organization for the decision as to the prices being bid and that he has not participated, and will not participate, in any action contrary to (I) (i) through (I) (iii) above; or

*Insert "a corporation," "a partnership," or "an individual," as applicable

EMERGENCY SANITARY SEWER REHABILITATION
Ex. 6 (Personal Privacy) **REET, CENTREVILLE, IL**

Dated _____
This proposal consists of 2 pages.

- (ii) He is not the person in the bidder's organization responsible within that organization for the decision as to the prices being bid, but that he has been authorized to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (I) (i) through (I) (iii) above, and as their agent, shall so certify; and shall also certify that he has not participated, and will not participate, in any action contrary to (I) (i) through (I) (iii) above.
- (iii) The Contractor by submitting its bid certifies that it will provide a drug free workplace and that it is in compliance with the requirements of the Drug Free Workplace Act 30ILCS 580.1 et.seq., and the Substance Abuse Prevention on Public Works Projects Act PA095-635.

BIDDER acknowledges receipt of the following ADDENDA:

No. _____, dated _____ No. _____, dated _____
 No. _____, dated _____ No. _____, dated _____

BIDDER agrees to perform all work described in the CONTRACT DOCUMENTS for the following lump sum price:

BID SCHEDULE

TOTAL LUMP SUM PRICE BID (in figures) \$ _____

TOTAL BID IN WRITING _____

Name of Bidder (FIRM) _____

Signed by _____

Title _____ Date _____

Business Address _____

Treasury Number _____

(SEAL)

If Bid is by a corporation.

Social Security Number (if private owner) _____

Attest: _____

EMERGENCY SANITARY SEWER REHABILITATION
 _____ STREET, CENTREVILLE, IL

Dated _____

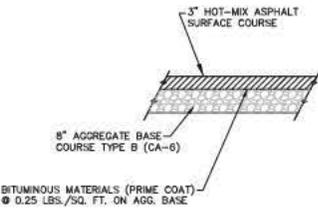
This proposal consists of 2 pages.

LEGEND

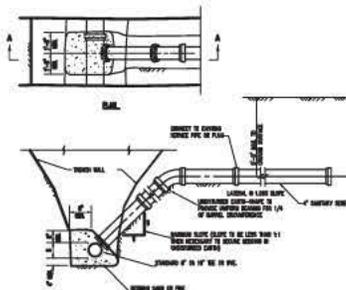
- ⊙ EXISTING MANHOLE
- ⊕ EXISTING INLET
- ⊕ EXISTING WATER METER
- ⊕ EXISTING WATER VALVE BOX
- ⊕ EXISTING GAS VALVE BOX
- ⊕ EXISTING LIGHT POLE
- ⊕ EXISTING UTILITY POLE
- ⊕ EXISTING SIGN
- ⊕ GUY WIRE
- ⊕ GUY POLE
- ⊕ VALVE (MISCELLANEOUS)
- EXISTING FENCE
- EXISTING OVERHEAD ELECTRIC LINE
- EXISTING UNDERGROUND ELECTRIC LINE
- WATER LINE
- UNDERGROUND TELEPHONE LINE
- UNDERGROUND GAS LINE
- ⊕ SURVEY CONTROL POINT

MIXTURE TABLE

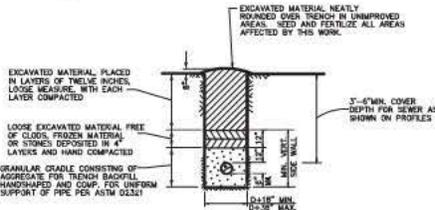
LOCATION	VARIES
MIXTURE USE	SURFACE COURSE
PG.	PG. 64-22
RAP % (MAX)	100
DESIGN AIR VOIDS	4.0% @ Nides=70
MIX COMPOSITION (GRADATION MIXTURE)	IL-9.5
FRICTION AGGREGATE	MIXTURE "C"
MIXTURE WEIGHT	112 LBS/SQ. YD./IN.



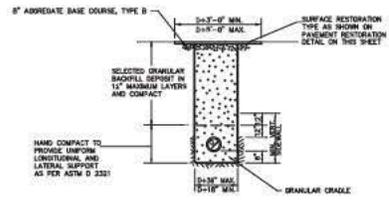
PAVEMENT RESTORATION DETAIL
NOT TO SCALE



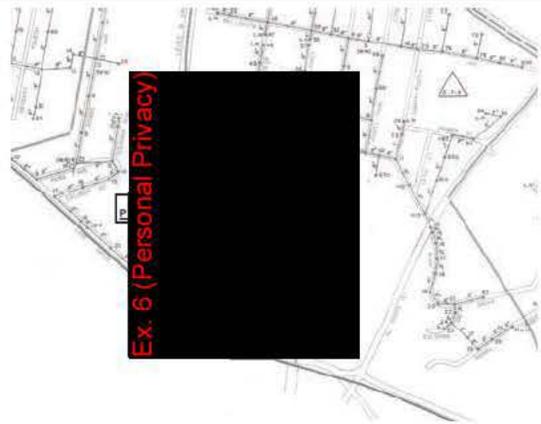
TYPICAL SERVICE CONNECTION
NOT TO SCALE



TRENCH DETAIL UNIMPROVED AREA
NOT TO SCALE



TRENCH DETAIL IMPROVED AREA
NOT TO SCALE



TRIBUTARY SEWERS
NOT TO SCALE

CONTROL POINTS

NO.	COORDINATES	EXISTING ELEVATION	PROPOSED ELEVATION
1	100.00	100.00	100.00
2	100.00	100.00	100.00
3	100.00	100.00	100.00

HR
Hurst-Rosche, Inc.
NO. 5 BANK SQUARE
EAST ST. LOUIS, IL
PH: 618.366.0260
WWW.HURST-ROSCH.COM
EAST ST. LOUIS, IL
MARRON, IL
ANNCOLE, MO
NEOSHO, MO
NASHVILLE, TN

EMERGENCY SANITARY SEWER REHABILITATION
CITY OF CENTREVILLE
ST. CLAIR COUNTY, ILLINOIS

REV. DATE	DESCRIPTION
1/10/20	
DATE: 1/10/20	PROJECT NO: 2112143
TENDER: 1	ISSUE: CHECK
1/10	200
	500
	500

MISCELLANEOUS DETAILS

3
SHEET 3 OF 3

**CITY OF CAHOKIA HEIGHTS, IL
SANITARY SEWER SYSTEM
TARGETED DRY-WEATHER SSO INVESTIGATION PLAN**

PREPARED FOR REVIEW AND APPROVAL BY:
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY – REGION 5
ENFORCEMENT AND COMPLIANCE ASSURANCE DIVISION

AS REQUIRED UNDER:
ADMINISTRATIVE ORDER ON CONSENT
UNDER SECTION 309(a) OF THE CLEAN WATER ACT, 33 U.S.C. § 1319(a)
DATED AUGUST 16, 2021

Hurst-Rosche, Inc.

November 2021 (revised)

SCHEDULE OF TASKS AND MILESTONES

ACTIVITY	WEEKS FROM NOVEMBER 2021																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Iterative Discussions with EPA on Plan Details	■	■																	
Finalize SSO plan and Submit			■	■															
EPA Review and Approval of Plan				■	■	■	■	■											
Order Equipment for Acoustic Investigation of Sewer Lines							■												
N. 82nd Street and Vicinity																			
Investigative Actions																			
Flow Monitoring								■	■	■									
Visual Inspections								■	■	■	■	■	■						
CCTV (as needed)										■	■	■	■	■					
Smoke testing																			
Lift Station #5 (Pocket Road and Missouri Ave. and Vicinity)																			
Investigative Actions																			
Flow Monitoring																			
Visual Inspections																			
CCTV (as needed)																			
Smoke testing																			
Lift Station #22 (Lauralee Drive and Renois Blvd. and Vicinity)																			
Investigative Actions																			
Flow Monitoring																			
Visual Inspections																			
CCTV (as needed)																			
Smoke testing																			
Submit Reports of Investigative Actions to EPA																			■
Submit Corrective Action Plan to EPA																			■

NOTE: All investigative actions for this area have been conducted and are incorporated into preliminary engineering and a grant application to St. Clair County for funds for corrective action lift station repairs - anticipated to begin after plans and specs are complete and per competitive bidding results in late 2021 or early 2022

Within 60 days of completion of investigations

MANHOLE INSPECTION SHEET

CLIENT: _____

NOTE TAKER: _____

FACILITY: _____

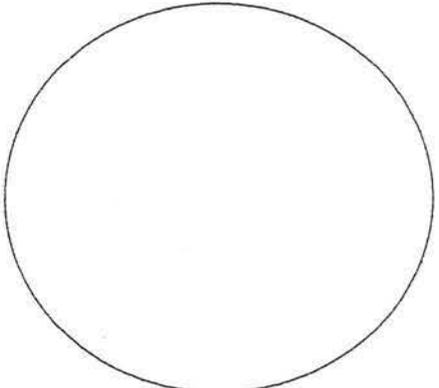
INSPECTOR: _____

PROJECT NO. _____

WEATHER: _____

STRUCTURE ID: _____

TIME: _____ DATE: _____

<p>NORTH _____ EAST _____ ELV. T/R _____</p> <p>MH LOCATION: _____</p> <p>MH DEPTH: _____ MH STEPS: GOOD _____ FAIR _____ POOR _____</p> <p>MH LID: SUBJ. TO INUNDATION: YES _____ NO _____ INFLOW _____ SOLID _____ VENTED _____ INFLOW _____ BROKEN _____ MISSING _____ INFLOW _____</p> <p>MH RING: GOOD _____ BROKEN _____ MISSING _____</p> <p>MH WALLS: BRICK _____ PRECAST _____ OTHER _____ DEBRIS ON MH WALLS: HEAVY _____ LIGHT _____ ROOTS IN WALLS _____ INFILTRATION _____ PAST SURCHARGING _____ HEIGHT ABOVE INVERT _____ DETERIORATED WALLS _____ INFILTRATION _____ HOLE IN MH WALLS _____ INFILTRATION _____ INFLOW _____ CRACK IN MH WALLS _____ INFILTRATION _____ INFLOW _____ HOLE IN MH CONE _____ INFILTRATION _____ INFLOW _____ CRACK IN MH CONE _____ INFILTRATION _____ INFLOW _____ OTHER DEFECTS _____ INFILTRATION _____ INFLOW _____</p> <p>MH BENCH: DETERIORATED _____ INFILTRATION _____ INFLOW _____ SEDIMENT ON BENCH: HEAVY _____ MEDIUM _____ LIGHT _____ TYPE _____ OTHER: _____</p> <p>MH INVERT: DETERIORATED _____ INFILTRATION _____ INFLOW _____ SEDIMENT IN INVERT: HEAVY _____ MEDIUM _____ LIGHT _____ TYPE _____</p>	<p style="text-align: center;">FLOW PATTERN</p> <div style="text-align: center;">  </div> <p>DEPTH OF FLOW: _____</p>
---	---

LINE DESCRIPTION												
LINE NUMBER:	1			2			3			4		
LINE SIZE												
MATERIAL	PVC	HDPE	OTHER									
DEPTH FROM MP TO FL												

GENERAL COMMENTS:



Hurst-Rosche, Inc.
James W. Roth, PE, PLS
President

May 27, 2021

Mr. Dennis Traiteur
General Manager
Commonfields of Cahokia Public Water District
2525 Mousette Lane
Cahokia, Illinois 62206

SUBJECT: Sanitary Sewer Smoke Testing - Various Locations
Commonfields of Cahokia Public Water District
H-R 211-0051

Dear Mr. Traiteur:

Hurst-Rosche, with the support of Hank's Excavating & Landscaping and Commonfields of Cahokia Public Water District staff, performed sanitary sewer smoke testing on Belleview Avenue on Monday, May 24, 2021 as noted below:

1. Smoke testing was performed at Manhole No. 76, with smoke observed coming out of the sewer vents at **Ex. 6 (Personal Privacy)** Street and **Ex. 6 (Personal Privacy)** Street. Smoke was also observed coming out of Manhole No. 3 (the wetwell at the **Ex. 6 (Personal Privacy)** Belleview Pump Station) and Manhole No. 70.
2. Smoke testing was performed at Manhole No. 79, with smoke observed coming out of the sewer vents at **Ex. 6 (Personal Privacy)** Street and **Ex. 6 (Personal Privacy)** Belleview Avenue. Smoke was also observed coming out of Manhole Nos. 76, 78 and 80, and an existing cleanout with no cap between the residence at **Ex. 6 (Personal Privacy)** Belleview Avenue and the adjacent garage (approximately 70 feet west and 65 feet north of Manhole No. 79).
3. Smoke testing was performed at Manhole No. 80, with smoke observed coming out of the sewer vents at **Ex. 6 (Personal Privacy)** Belleview Avenue. Smoke was also observed coming out of Manhole Nos. 79 and 80A, and out of the ground at the following locations:
 - a. Lot east of **Ex. 6 (Personal Privacy)** Avenue (approximately 24 feet south & 74 feet west of Manhole No. 80A),
 - b. First lot northwest of **Ex. 6 (Personal Privacy)** (approximately 30 feet north & 26 feet west of Manhole No. 80A),

Jeremy J. Connor, PE

5 Bank Square
East St. Louis, IL 62203
(t) 618.398.0890

www.hurst-rosche.com

Mr. Dennis Traiteur
Page Two
May 27, 2021

- c. Lot directly in front of [Ex. 6 (Personal Privacy)] Avenue (sewer tap from demolished house approximately 68 feet north of the centerline of Belleview Avenue) and
 - d. Second lot northwest of [Ex. 6 (Personal Privacy)] old foundation approximately 70 feet north & 135 feet west of the centerline of Belleview Avenue).
- 4. Smoke testing was performed at Manhole No. 73, with smoke observed coming out of sewer vents throughout the neighborhood.
 - 5. Hurst-Rosche was unable to perform additional smoke testing due to manholes being surcharged.
 - 6. A location map and photos of the sanitary sewer smoke testing activities are attached for reference.

If you should have any questions or require additional information, please feel free to contact our office.

Sincerely,

HURST-ROSCHE, INC.

[Ex. 6 (Personal Privacy)]

Terry A. Sudholt, PE

TAS/jc
Attachments

St Clair County Parcel Map



5/27/2021, 2:03:48 PM

Major Highways

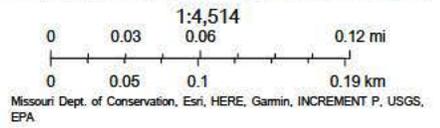
- 20
- 30
- MidAmerica Flight Line

- Scott Flight Line
- Railroads
- Township Boundary

Imagery2020

- Red: Band_1
- Green: Band_2
- Blue: Band_3

- Roads
- Parcels



COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT
SANITARY SEWER SMOKE TESTING (5/24/2021)



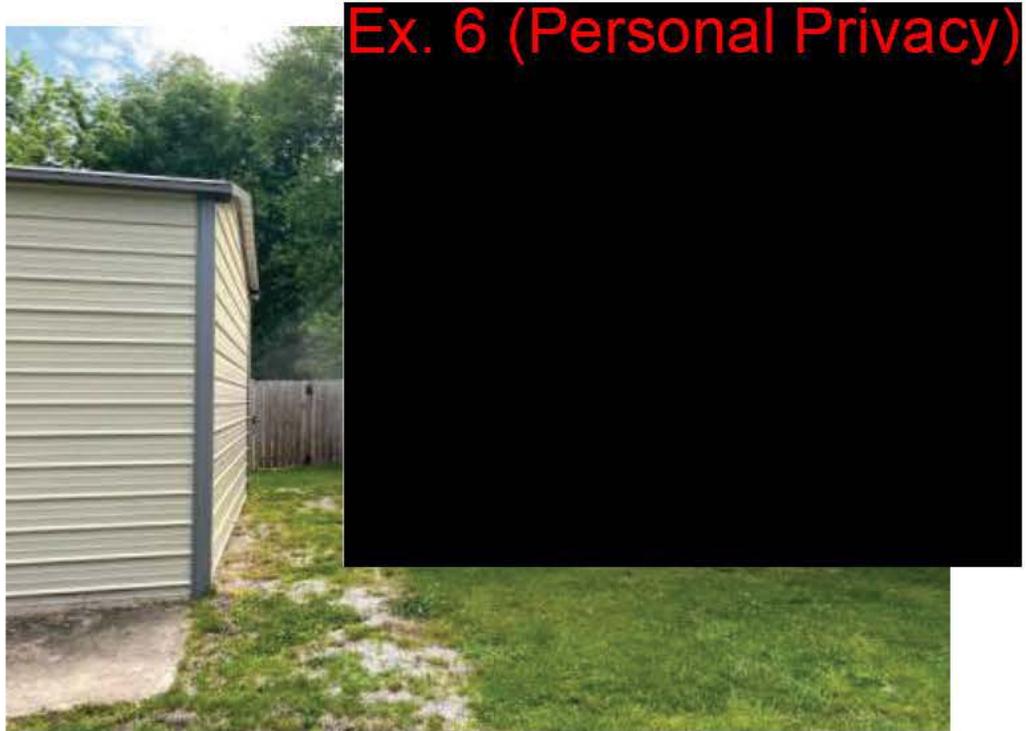
Sanitary sewer smoke testing equipment



Ex. 6 (Personal Privacy)

Smoke escaping from a roof vent a [REDACTED] Street

COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT
SANITARY SEWER SMOKE TESTING (5/24/2021)



Smoke escaping from an open cleanout at **Ex. 6 (Personal Privacy)**



Smoke Escaping from the Ground near **Ex. 6 (Personal Privacy)**

SMOKE TEST REPORT

COMMONFIELDS OF CAHOKIA PUBLIC WATER DISTRICT
ST. CLAIR COUNTY, ILLINOIS

PAGE ___ OF ___

CONSULTING ENGINEER _____

DATE: _____

CREW # _____

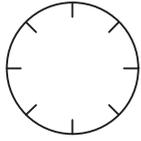
TIME: _____

DISTRICT _____ SUBDISTRICT _____

BY: _____

MANHOLE NO. _____ TO MANHOLE NO. _____

REPORT NO. _____

	STREET _____ / EASEMENT _____	
SKETCH M.H. LOCATIONS & NUMBERS STREET	RIGHT OF WAY OF EASEMENT LINE (TYP.) SCHEMATIC (MODIFY AS REQUIRED)	 NORTH

LEAK NO.	SOURCE OF SMOKE LEAK SERVICE LINE (PRIVATE PROPERTY) SERVICE LINE (EASEMENT) CLEANOUT (R.O.W.) CLEANOUT (MISSING PLUG) ROOF DRAIN (BROKEN) INSIDE BUILDING SOLID BUILDING VENTED LID (SUBJECT TO INFLOW) MANHOLE LID (SUBJECT TO INFLOW) BROKEN WALLS MAIN LINE STORM SEWER PHOTO NO.	INFLOW AREA DRAINED (CALCULATE AREA IN ACRES OR SQ. FEET)		CALCULATIONS OF INFLOW (OFFICE ONLY)
		AREA SIZE	ADDRESS	DATE: _____ BY: _____

REMARKS: