# IEPA Grant 21WWCTIRR01 OUTREACH MEETING The City of Cahokia Heights

# **Outreach Meeting Agenda**



- OVERVIEW OF THE MEETING AGENDA AND WASTEWATER COLLECTION AND TRANSPORT INFRASTRUCTURE REHABILITATION AND RESTORATION PROJECT PRESENTED BY **ANTONIO BAXTON**
- INTRODUCTION OF THE PROJECT MANAGER FOR WATER AND SEWER PROJECTS, NEWLY HIRED CITY ENGINEER, AND ADDITIONAL PROJECT ENGINEERS PRESENTED BY **EDWARD HIGHTOWER**
- WATER INFRASTUCTURE PROJECTS PRESENTED BY **SANDY BERNARD OF LOCHMUELLER GROUP** LLC
- SEWER INFRASTRUCTURE PROJECTS PRESENTED BY **CURTIS ZURLIENE OF TWM INC**
- CAHOKIA HEIGHTS DEPARTMENT STAFF TRAINING AND CERTIFICATIONS UPDATE PRESENTED BY
   SHARLIN PFEFFER
- WATER TOWER AND PUMP STATION PROJECTS PRESENTED BY JAMES NOLD OF HURST ROSCHE
- CAHOKIA HEIGHTS MAIN SANITARY SEWER TRUNKLINE SLIP LINING PROJECT PRESENTED BY
   JACOB CONWAY OF THE U.S. ARMY CORPS OF ENGINEERS
- ILLINOIS EPA GRANT CONSTRUCTION ACTIVITIES, ENGINEERING TIMELINE AND BID PROCESSES
   PRESENTED BY JAMES NOLD OF HURST ROSCHE

# **WEBSITE**



#### Cahokia Heights Sewer Project - Cahokia Heights Sewer Project











# WHILE THIS GRANT WILL WORK TO SOLVE SOME OF THE ISSUES WITH FLOODING IN CAHOKIA HEIGHTS, IT WILL NOT SOLVE ALL OF THE PROBLEMS. IT IS A STEP TOWARDS SOLVING A HISTORICAL ISSUE.

# Ongoing Drinking Water Projects

For The City of Cahokia Heights



- Project Goals
  - Rehabilitate the 1.5 Million Gallon Tank
  - Supply Emergency Storage Capacity





- Rehabilitation
  - Remove lead paint
    - Require air monitoring at the fence line during removal
  - Repair Damage
    - Walls
    - Floor





- Rehabilitation
  - Repair Concrete Pad
  - Repair Grouting
  - Ensure Pad Exposure





- Rehabilitation
  - Replace overflow
    - Install Duckbill Valve
    - Install Concrete Splash Pad





- Rehabilitation
  - Replace vent
    - Smaller Screening
    - Add Rain Shield





- Rehabilitation
  - Replace Level Control Valve
  - Install Level Meter





- Rehabilitation
  - Install Mixer
    - Maintain Water Quality





# Water Main Replacements/Extension

- 6 Water Main Projects
  - White & Mary Loop
  - Loren & Carol Loop
  - Parks College to St. Paul
  - Julian
  - Edwards
  - Kinder





# Water Meter Replacements

- Replace Manual Read Meters
  - Radio Read Meters
  - Make Database on GIS for Easy Tracking
  - Up to 2,500
- Benefits
  - Efficiency

#### Water Meter Report Meter ID: 123456789 Location: 123 Water Street Meter Brand: Brand X Meter Size: 1/2-inch Installation Date: 9/26/2024





# **Fire Hydrant Replacements**

- Replace Broken or Outdated Fire Hydrants
  - Field Inspection & Locations
  - Prioritize Replacement Based on Need
  - Develop GIS Database for Monitoring and Tracking Upgrades





# THOUVENOT, WADE & MOERCHEN, INC

Exceptional Service – Nothing Less Since 1946

**MUNICIPAL PLANNING** 

Projects for the City of Cahokia Heights Outside of the IEPA Grant

Curt Zurliene. PE 9/26/2024



GEOSPATAIL SERVICES LAND S

**CIVIL ENGINEERING** 

LAND SURVEYING

# About TWM

#### Engineering

- Structural
- Transportation
- Land Development
- Water Infrastructure

#### Geospatial

Traditional surveying
Mobile & aerial LiDAR
Geographic Information Systems (GIS)

**Current Projects** 

- •Cahokia Heights High School
- •5-lane road
- •Sanitary sewer repairs



TWM Office Locations

# Cahokia Heights High School

#### **Quick Hits**

Initial build out – 1100 students Full build out – 1500 students Schedule

Award contract – Oct '24
Start construction – Oct '24
Complete construction – Aug '26



New and existing high school locations

# Cahokia Heights High School



Site layout of high school campus



# Cahokia Heights High School



School Building, Football Field, Track

Parking, Base/Softball Fields, Tennis Courts

# 5 – Lane Roadway

#### **Quick Hits**

Being coordinated with IDOT
Completion date similar to school
Improve signaling for safety & flow

Connect Camp Jackson to Falling Spring Road

- Anticipated demo of Parks College
- City investigating future development potential



5-Lane Road between Camp Jackson & Falling Spring





## CRITICAL INFRASTRUCTURE PROJECTS SEPARATE FROM THE IEPA WASTEWATER GRANT

- Drinking Water Storage and Disinfection
- Other Drinking Water System Infrastructure
- Stormwater Management and Flood Control
- Sewer Repairs Funded Outside the IEPA Grant
- Pump Station Repairs Funded Outside the IEPA Grant



# PROJECTS SEPARATE FROM THE IEPA GRANT

### **DRINKING WATER SYSTEM**

- CURRENT (Design and Funding in Progress) \$12 Million
  - Water Towers
  - Booster Disinfection Systems
  - New Hydrants and Meters
  - Line Extensions
  - SCADA System
- COMPLETED
  - Water Tower Rehab Church Road \$900,000

### <u>Water Tower Rehab and Restoration – Church Road –</u> <u>Completed April 2024 - \$900,000</u>

- Inspection and Report on Conditions
- Critical Safety Repairs
- Containment
- Pressure Cleaning, Sandblasting, Painting
- Foundation and Structural Repairs
- Access and Safety Improvements
- New Mixing System
- Security Fencing and Grounds Improvements



#### Water Tower Rehab and Restoration – Church Road – Completed April 2024









### **PROJECTS SEPARATE FROM THE IEPA GRANT**

### STORMWATER MANAGEMENT and FLOOD CONTROL

- CURRENT (Design and Funding in Progress) \$20 Million
  - New Storm Sewers and Culverts
  - Major Drainage Ditch Cleanout and Regrading
  - Capacity Increase in Harding Ditch
  - Roadside Drainage Improvements and Street Paving
- COMPLETED
  - Storm Sewer Improvements and Paving Piat Place
  - Roadside ditch cleanout Ping Pong

#### Paving and Storm Sewer Repair – Piat Place – Completed September 2024









### **PROJECTS SEPARATE FROM THE IEPA GRANT**

### SANITARY SEWER AND PUMP STATION REPAIRS

- CURRENT (Design and Funding in Progress) \$28 Million
  - Sewer Repairs
  - Pump Station Rehab/Replacements
  - Sewer and Trunkline Cleaning, TV, CIPP
  - Interceptor Sewer
  - SCADA
- COMPLETED
  - Sanitary Sewer Repairs 5 locations \$500,000
  - Pump Station Repairs/Replacements 12 locations \$2,000,000

### **Typical Sewer Repair** (N. 63<sup>rd</sup> St. – completed in May 2024)



### **Typical Pump Station Rehab/Replacement** (N. 82<sup>nd</sup> St. –two stations completed in October 2023)



### **Typical Cleaning, Televising, CIPP Lining of Sewer Lines** (various locations completed in 2023, Main Trunkline started in April 2024)















# Cahokia Heights Water Dept.



- The EPA has requested that 3 employees be certified in collection systems.
- We currently have 3 that have received their certification for collection systems.
- 4 additional employee have taken the test, and we are waiting on the results.
- City Employees: Kerchavian McCall and Jason McMath

# City of Cahokia Heights Water & Sewer Dept.

Employee's receiving training on a video camera system.



# THOUVENOT, WADE & MOERCHEN, INC

Exceptional Service – Nothing Less Since 1946

Projects for the City of Cahokia Heights IEPA Grant 21WWCT0RR01

Curt Zurliene. PE 9/26/2024



GEOSPATAIL SERVICES LAN

**CIVIL ENGINEERING** 

LAND SURVEYING

**MUNICIPAL PLANNING** 

# Sanitary Sewer Repair Project

#### **Quick Hits**

- Point Repairs/Reach Replacement
- 10 repairs, about 8 areas
- IEPA WWCTIRR Program Grant

### •Schedule

- Award contract Oct '24
- Work complete May '25

In conjunction with work being done by others



Sewer Repair Locations

# Sanitary Sewer Repair Project

#### Work Includes

- **Repairing a short section (point repair)** 
  - Or replace all pipe between manholes
- **Repair/replace lateral connections**
- Dewatering
  - Suitable construction conditions
- **Bypass pumping** 
  - Minimize service disruptions
- **Site Restoration** 
  - Neat final appearance



**Broken Lateral** 

**Repaired Lateral** 



# Sanitary Sewer Repair Project



Submerged Sewer Manhole & Bypass Pipe



FOG Buildup on Sewer

### SECTION 219 ENVIRONMENTAL INFRASTRUCTURE ASSISTANCE

US Army Corps of Engineers®

**U.S. ARMY** 

### Jacob Conway – Project Manager

#### **Sewer Pipe Rehabilitation**

Cured in Place Pipe CIPP Lining No Dig, Trenchless







#### **PROJECT SCOPE AND STATUS**



#### PROJECT SCOPE

#### Sanitary Sewer Rehabilitation

- Approximately 3 miles of 9-mile-long trunk sewer system
- Using Cured-In-Place Pipe (CIPP) Lining.
  - CIPP is a trenchless sewer rehabilitation method with no need to excavate and replace existing pipes.
  - This method eliminates defects in the sewer line such as cracks, offset joints, and structurally deficient segments.

#### Who Benefits?

- Entire community
  - This is the largest, deepest, and most downstream section of the sewer system.
- Restoring Structural Stability = Long Term Reliability
- "LINING" the way for future projects

#### **PROJECT SPECIFICS**

#### Insituform Technologies USA, LLC.

- Projected Mobilization April 2024
- Construction Complete April 2025

#### **PROJECT SCHEDULE**

✓ Contract Award
 ✓ Construction Start Date
 Construction Completion

FEB 2024 17 APR 2024 Spring 2025

#### **Budget**

- FY23 Appropriation: \$3.5M Received (Federal)
- City's Cost Share: \$1.667M Received (Non-Federal)

#### FY24 Workplan Funds

- \$1.1M Received (Federal)
- City's Cost Share: \$360K (Non-Federal)
- Scope: Additional cleaning and lining of trunkline
- February 2025 Initiate contract work



#### CITY OF CAHOKIA HEIGHTS

#### IEPA GRANT - WASTEWATER COLLECTION AND TRANSPORT INFRASTRUCTURE

#### REPAIR AND REHABILITATION PROJECT LOCATIONS





	IDPA Grant #	Address	IEPA Grant 4	Address	EPA Grant #	Address	IEPA Grant #	Address	ERA Grant #	Address	IEFA Grant #	Address	
US Army Corps of Engineers.	CP2-01	Jerome Lane to Levin Drive"	SSR-05	IIS8 Mildred	SSR-10	1150 Hallonan Street	P5R-D6	455 N. 73rd Street (Rear)	PSR-09	1001 Camp Jackson Road	P\$9-14	617 Range Lane	1000
	SSR-01	327 N. 63rd Street	SSR-06	905 LuSalle	55R-11	4005 White Street	P\$9-05	100 N. 75th Street	P58-1D	1202 Richard Drive	P\$8-15	210 Donald Street	
	\$\$R-02	310 N. 73rd Street	558-07	148 Blue Water Late	PSR-01	5651 Lake Drive	P59-06	7001 Amer Drive	P\$8-11	215 Hatchings Drive	P\$8-16	222 Miskell Blvd.	
	\$\$R-01	1301 St. Zita Larye	55R-08	125 Kenneth Street	PSR-02	339 N. 63rd Street	P\$9-07	7100 Park Place (Rear)	PSR-12	1201 Williams Street	3		a second
	55R-04	Cooper Drive	SSR-09	1613 Parklane Drive	PSR-03	490 N. 73rd Street	P58-08	6951 Ames Drive	PSR-13	1227 Williams Street			Hurst-Re



Cleaning Efforts w/ vacuum Truck

Live inspection & Cleaning

**Curing Liner with Steam** 





Jacob Conway Facebook.com/TeamSaintLouis **Project Manager** U.S. Army Corps of Engineers Twitter.com/TeamSaintLouis Mobile (Primary): 314-331-8501 Youtube.com/TeamSaintLouis Jacob.d.conway@usace.army.mil Instagram.com/TeamSaintLouis USACE **US Army Corps** in linkedin.com/company/us-army-corps-of-engineers-st-louis-district/ of Engineers ® mvs.usace.army.mil St. Louis District Shawn Sullivan teamstl-pao@usace.army.mil U.S. Army Corps of Engineers Strategic Planning Coordinator St. Louis District Mobile (Primary): 314-303-4778 shawn.f.sullivan@usace.army.mil

https://www.mvs.usace.army.mil/Missions/Programs-Project-Management/Cahokia-Heights/





# <u>COMMUNITY</u> OUTREACH MEETING

#### City of Cahokia Heights Illinois EPA – Bureau of Water

Wastewater Collection and Transport Infrastructure Rehabilitation and Restoration Project – 21WWCT0RR01

September 2024



### **PROJECT LOCATION SELECTION AND PRIORITY**



### Jerome Lane Emergency Sewer Repair



- Failure and subsidence of manhole on main trunkline
- Damage became visible after heavy rains July 2024
- Damage to street, curb & gutter, guardrail
- Large power pole with transformer close by
- Across Jerome Lane from school and school bus depot
- Large line (24" diameter) approx. 19 feet deep
- Repair will require:
  - New manholes and trunkline sections
  - Several dewatering wells to lower groundwater levels to enable repair
  - Deep excavation with shoring
  - Traffic re-routing
  - Street restoration
- Expected completion in November 2024



#### **RECENT & CURRENT SEWER PROJECTS**



Ï. H

U.S. ARMY

US Army Corps of Engineers





		A	_			 
		<u> </u>	<b>ر</b> د	OMPLETED		
500 S. 42nd St.	Lift Station Rehabilitation	\$164,000		Various	Clean, TV and CIPP Sewer Lining	\$ 58,000
4972 Bond Ave.	Sanitary Sewer Repair	\$132,000		4211 Pocket Rd.	Lift Station Rehabilitation	\$ 121,000
4200 Missouri Ave.	Lift Station Replacement	\$103,000		239 Pfeiffer Rd.	Lift Station Rehabilitation	\$ 116,000
143 Racehorse Dr.	Lift Station Replacement	\$ 51,000		320 N. 82nd St.	Lift Station Replacement	\$ 189,000
800 Range Ln.	Sanitary Sewer Repair	\$ 69,000		352 N. 82nd St.	Lift Station Replacement	\$ 189,000
5800 Bond Ave.	Lift Station Rehabilitation	\$130,000		6927 Old Missouri Ave.	Lift Station Replacement	\$ 209,000
219 N. 82nd St.	Sanitary Sewer Repair	\$158,000		327 N. 63rd St.	Sanitary Sewer Repair	\$ 96,000
301 St. John Dr.	Sanitary Sewer Repair	\$121,000		310 N. 73rd St.	Sanitary Sewer Repair	\$ 111,000
5800 Old Missouri Ave.	Lift Station Replacement	\$199,000		5008 Market Ave.	Lift Station Replacement	\$ 263,000
36 East Adams Dr.	Lift Station Replacement	\$228,000		1150 Halloran St.	Sanitary Sewer Repair	\$ 123,380
1613 Parklane Drive	Sanitary Sewer Repair	\$ 68,600			TOTAL	\$ 2,898,980

1301 St. Zita Ln.	Sanitary Sewer Repair	\$ 93,500
1001 Camp Jackson Rd.	Sanitary Sewer Repair	\$ 110,600
858 Mildred Ave.	Sanitary Sewer Repair	\$ 303,300
905 LaSalle Dr.	Sanitary Sewer Repair	\$ 126,765
148 Blue Water Ln.	Sanitary Sewer Repair	\$ 78,870
126 Kenneth St.	Sanitary Sewer Repair	\$ 176,385
4005 White St.	Sanitary Sewer Repair	\$ 261,570
817 St. Monica Dr.	Lift Station Replacement	\$ 256,000
1689 Jerome Lane	Sanitary Sewer Repair (Trunkline)	\$ 1,200,000
Main Trunkline	Clean, TV, & CIPP Sewer Lining	\$ 4,628,000
	TOTAL	\$ 7,234,990



#### **CITY OF CAHOKIA HEIGHTS**

#### IEPA GRANT - WASTEWATER COLLECTION AND TRANSPORT INFRASTRUCTURE



#### REPAIR AND REHABILITATION PROJECT LOCATIONS



-	-	IEPA Grant #	Address	IEPA Grant #	Address	IEPA Grant #	Address	IEPA Grant #	Address	IEPA Grant #	Address	IEPA Grant #	Address	
~	1000	CIPP-01	Jerome Lane to Levin Drive*	SSR-05	858 Mildred	SSR-10	1150 Halloran Street	PSR-04	456 N. 73rd Street (Rear)	PSR-09	1001 Camp Jackson Road	PSR-14	617 Range Lane	
X	US Acres Corns	SSR-01	327 N. 63rd Street	SSR-06	905 LaSalle	SSR-11	4005 White Street	PSR-05	100 N. 75th Street	PSR-10	1202 Richard Drive	PSR-15	210 Donald Street	HIR
U.S. ARNY	of Engineers.	SSR-02	310 N. 73rd Street	SSR-07	148 Blue Water Lane	PSR-01	5651 Lake Drive	PSR-06	7101 Ames Drive	PSR-11	215 Hutchings Drive	PSR-16	222 Miskell Blvd.	
		SSR-03	1301 St. Zita Lane	SSR-08	126 Kenneth Street	PSR-02	339 N. 63rd Street	PSR-07	7100 Park Place (Rear)	PSR-12	1201 Williams Street	SSR-12	1689 Jerome Lane	Humit Deaths In
		SSR-04	Cooper Drive	SSR-09	1613 Parklane Drive	PSR-03	490 N. 73rd Street	PSR-08	6951 Ames Drive	PSR-13	1227 Williams Street			Hurst-Mosche, Inc

## **IEPA GRANT – STATUS AND LOOK AHEAD**

#### (projected milestones)

		September 2024	October 2024	November 202	4 December 2024
Bid Packa	ge Location				
1	<u>CIPP-01</u> Trunkline Section 1 – Levin Dr. to Jerome Ln. & Mousette Ln.	Continue Construction	Continue Construction	Continue Construction	Continue Construction
3	<u>SSR-03 thru 11</u> Nine Sewer Repair Locations	Continue Construction	Continue Construction	Complete Construction	
4	PSR-01 thru 16 Sixteen Pump Station Locations	Receive Bids and Make Award	Commence Construction (order long lead time equip.)	Continue Construction	Continue Construction
5	<u>SSR-13 thru 22</u> Ten Sewer Repair Locations	Receive Bids and Make Award	Commence Construction	Continue Construction	Continue Construction





# WE WILL NOW TAKE QUESTIONS REGARDING IEPA Grant 21WWCTIRR01

### THANK YOU FOR ATTENDING

### THE NEXT OUTREACH MEETING WILL BE DECEMBER 2024 (LOCATION TBD AND WILL BE ADVERTISED VIA MAILERS, TEXT MESSAGE BLAST, SOCIAL MEDIA AND IN YOUR LOCAL BUSINESSES)