



 District 3
Marks Street and Pasadena Place
Drainage & Utility Improvements

March 7, 2024



A photograph of a city skyline reflected in a body of water. In the foreground, a white swan is swimming in the blue water. The skyline includes several modern buildings, with a prominent blue glass skyscraper. A green rectangular graphic is positioned above the word 'Agenda'.

Agenda

1. Introductions
2. Background
3. Proposed Improvements
4. Maintenance of Pedestrian and Vehicular Traffic
5. Project Benefits
6. Project Timeline
7. Public Outreach Plan



Introductions



Kristi Fries, P.E. Project Manager

Julio Alamo - Construction Manager



Natalie Urick, P.E.- Project Manager

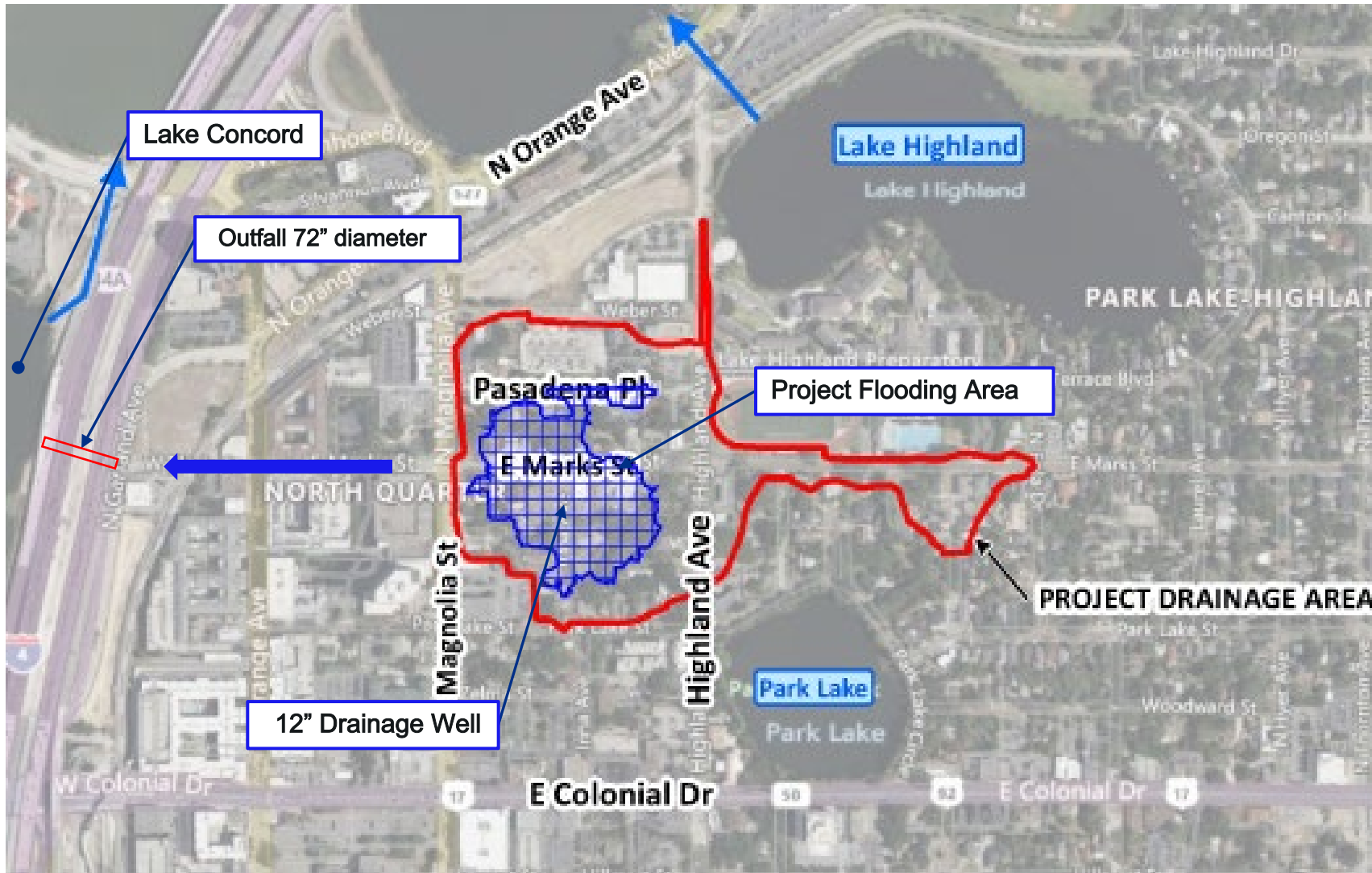


Brian Kinsley, P.E.- Project Manager

Clay Tappan, P.E.- Engineer of Record- Water

Mike Galura, P.E.- Engineer of Record- Drainage, Sewer, Roadways

Background



- Drainage currently outfalls to the west through a 72-inch effective diameter trunkline to Lake Concord.
- 12-inch drainage well also supplements existing drainage.
- Existing drainage system and drainage well do not have sufficient capacity to manage large storms.
- Significant flooding conditions during storm events due to low topography.

Background

Marks St. and Pasadena Pl.

Flooding at Marks Street



Background

Marks St. and Pasadena Pl.

Flooding at Irma Avenue



Background

Marks St. and Pasadena Pl.

Flooding at Marks Street
and Highland Avenue



September 2022, after Hurricane Ian

**CITY OF ORLANDO
DEPARTMENT OF PUBLIC WORKS**

**MARKS STREET AND PASADENA PLACE
DRAINAGE IMPROVEMENTS**

PROJECT No.: STW0078_P

NOVEMBER 2023

MAYOR BUDDY DYER

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SIGNATURE SHEET
3	GENERAL NOTES
4	SUMMARY OF PAY ITEMS
5	SUMMARY OF PAY ITEMS AND PAY ITEM NOTES
6	SUMMARY OF DRAINAGE STRUCTURES
7-8	TYPICAL SECTIONS
9-13	SURVEY CONTROL
14	PROJECT LAYOUT
15-17	SOIL BORING PROFILES
18	PLAN AND PROFILE - PASADENA PLACE
19	PLAN AND PROFILE - IRMA AVENUE
20	PLAN AND PROFILE - MARKS STREET
21-22	PLAN AND PROFILE - HIGHLAND AVENUE
23	PLAN AND PROFILE - HIGHLAND AVENUE/DRAINAGE OUTFALL
24	INTERSECTION DETAILS - MARKS STREET
25	INTERSECTION DETAILS - IRMA AVE./WEBER ST./PASADENA PLACE
26-27	CROSS-SECTIONS - PASADENA PLACE
28-30	CROSS-SECTIONS - HIGHLAND AVENUE
31-32	CROSS-SECTIONS - MARKS STREET
33	CROSS-SECTIONS - IRMA AVENUE
34	CROSS-SECTIONS - DRAINAGE OUTFALL
35	DRAINAGE STRUCTURE CROSS-SECTIONS - IRMA AVE./MARKS ST.
36	DRAINAGE STRUCTURE CROSS-SECTIONS - HIGHLAND AVENUE
37	DRAINAGE STRUCTURE CROSS-SECTIONS - PASADENA PLACE
38	STANDARD DETAILS
39	DRAINAGE WELL DETAILS
40	NUTRIENT SEPARATING BAFFLE BOX (NSBB) GENERAL NOTES
41	NUTRIENT SEPARATING BAFFLE BOX (NSBB) GENERAL DETAILS
42	SANITARY SEWER KEY MAP
43	SUMMARY OF SEWER STRUCTURES
44	SANITARY SEWER PLAN AND PROFILE - PASADENA PLACE
45	SANITARY SEWER PLAN AND PROFILE - IRMA AVENUE
46	SANITARY SEWER PLAN AND PROFILE - MARKS STREET



COMMISSIONER JIM GRAY
DISTRICT 1

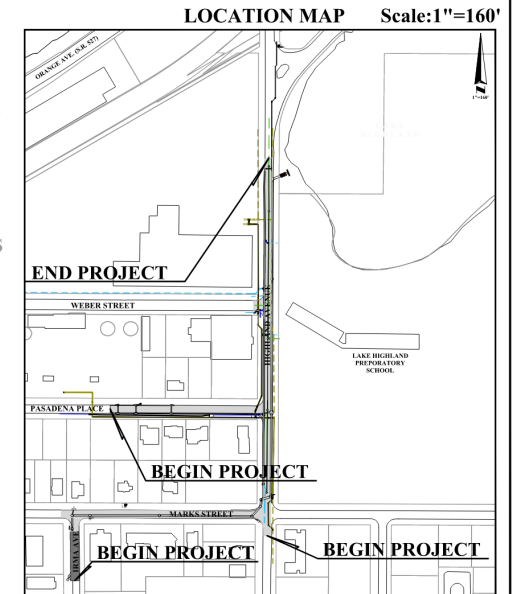
COMMISSIONER PATTY SHEEHAN
DISTRICT 4

COMMISSIONER TONY ORTIZ
DISTRICT 2

COMMISSIONER REGINA I. HILL
DISTRICT 5

COMMISSIONER ROBERT F. STUART
DISTRICT 3

COMMISSIONER BAKARI F. BURNS
DISTRICT 6



Director of Public Works: Corey F. Knight, P.E.
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Project Manager: Kristina L. Fries, P.E.

PREPARED BY:



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**BID SET PLANS
NOVEMBER 2023**

**Proposed
Improvements**

PROJECT NO. STW0078_P - MARKS STREET AND PASADENA PLACE DRAINAGE IMPROVEMENTS



Proposed Improvements

- New drainage system to Highland Avenue, providing overflow to Lake Highland during larger storms.
- Replacement of aging gravity sanitary sewer vitrified clay pipe (VCP) with new PVC pipe.
- Orlando Utilities Commission Raw Water Mains and Potable Water Main Improvements.
- Impacted roadways, driveways, and sidewalks will be rebuilt.
- FEMA Grant obtained for drainage work

Proposed Improvements

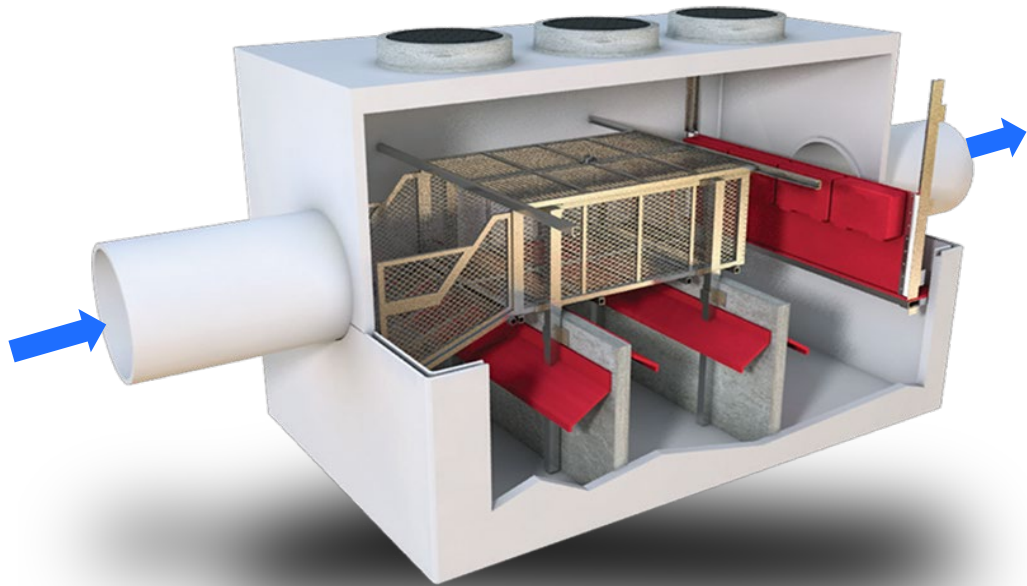
Drainage Improvements



- 30-inch to 48-inch diameter reinforced concrete pipes (RCP) with curb inlets and manholes
- Existing drainage well will be housed in a new concrete structure and will be protected with a steel bar guard to prevent floatable and other debris from entering the drainage well
- Concrete weir structure
- A nutrient separating baffle box (NSBB) to provide a measure of water quality treatment

Proposed Improvements

Drainage Improvements



Nutrient Separating Baffle Box (NSBB)



Drainage Well

Proposed Improvements

Sanitary Sewer Improvements

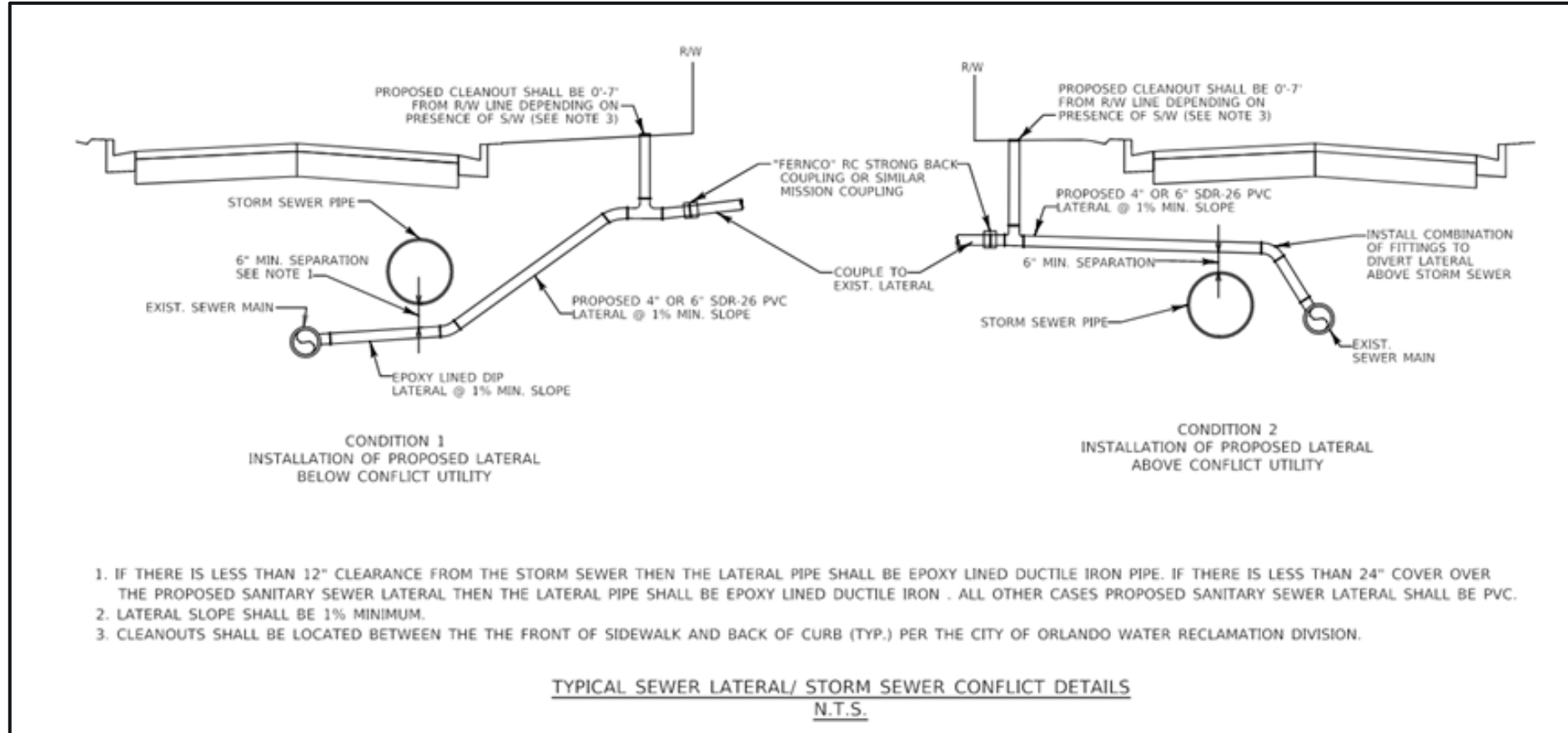


- Replacement of the existing vitrified clay pipe (VCP) along Highland Avenue and Irma Avenue with PVC sewer mains
- Replacement of lateral service lines will be upgraded to meet the current City standards



Proposed Improvements

Sanitary Sewer Improvements



Lateral Service Line Detail

Proposed Improvements

Water Main Improvements



- Replace 16-inch and 20-inch cast iron raw water mains along Highland Avenue with a 24-inch ductile iron raw water main
- Replace 12-inch cast iron raw water main along Pasadena Place with a 16-inch ductile iron raw water main
- Replace 20-inch cast iron potable water main along Highland Avenue with a 20-inch ductile iron potable water main
- Replace 2-inch galvanized potable water main along Pasadena Place with a 2-inch PVC water main
- Replacing some of the oldest water mains in the City.

Proposed Improvements

Roadway Improvements



- **Highland Ave.** – Full-width asphalt pavement, base, subbase, and Type-F curb reconstruction
- **Marks St. & Highland Ave. Intersection** – Asphalt pavement, base, subbase, and Type-F curb reconstruction
- **Marks St. Westbound** – Milling and resurfacing
- **Marks St. Eastbound** – Asphalt pavement, base, subbase, and Type-F curb reconstruction
- **Irma Ave. Southbound** – Brick, base, subbase, and Modified Type-F curb reconstruction
- **Irma Ave. Northbound** – Brick and base reconstruction
- **Weber St. Crosswalk** – Replace bricks with asphalt pavement for ADA compliance

Proposed Improvements

Roadway Improvements



Paving, Curb Inlet, and Type F Curb



Maintenance of Pedestrian and Vehicular Traffic



MOT Phase 1



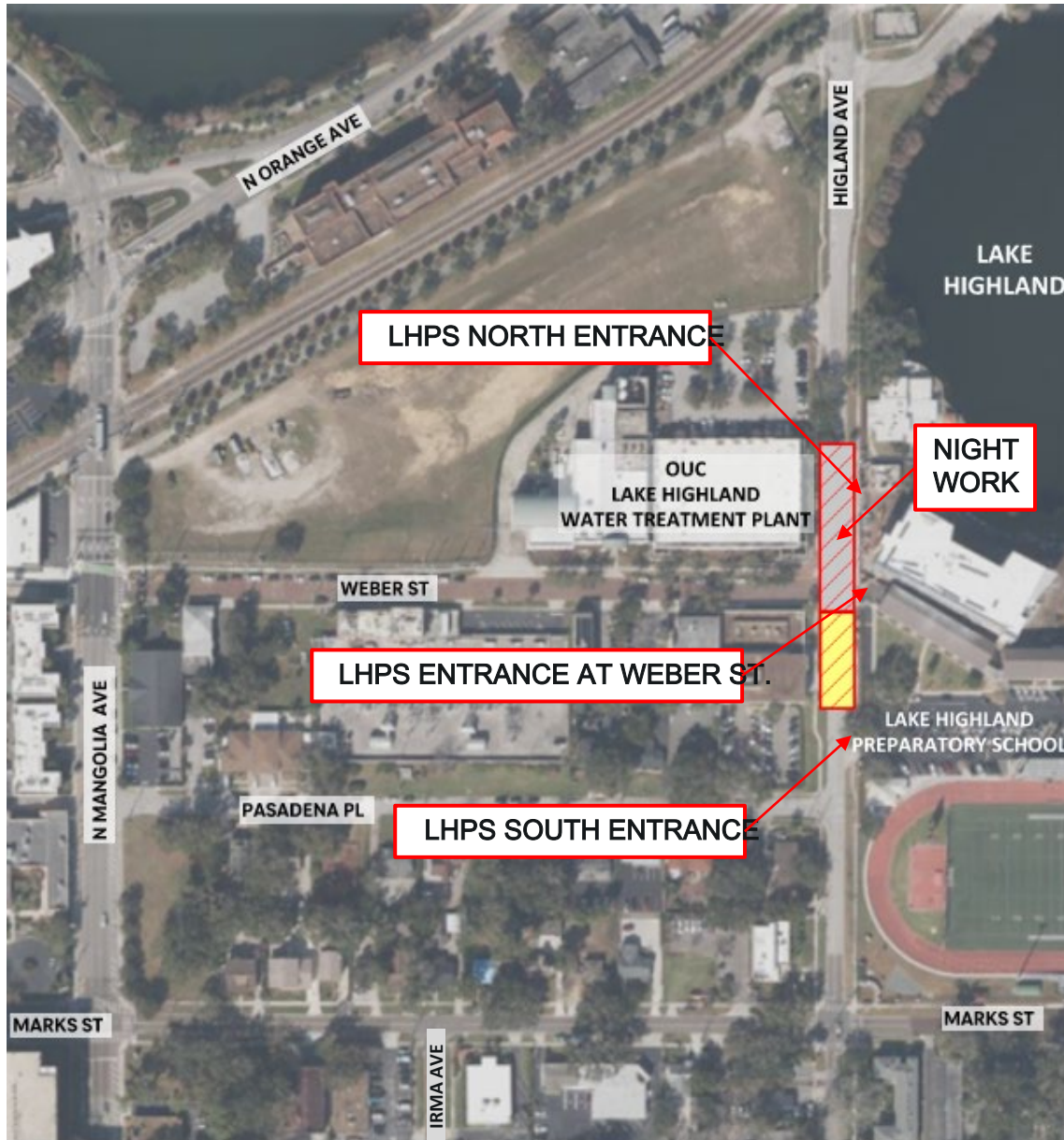
- Raw Water Main installation along the west side of Highland Ave. from OUC water treatment plant to the intersection with Pasadena Pl.
- Exploratory Excavations at Pasadena Pl. and Highland Ave. intersection, and near the Marks St. and Highland Ave. intersection.
- Highland Ave. southbound closed with flagging operation.
- Road closed to thru traffic near the Marks St. and Highland Ave. intersection for Exploratory Excavations.

MOT Phase 2



- Drainage, sanitary sewer and potable water main improvements along Highland Ave. from Lake Highland outfall up to LHPS northern entrance.
- Road closed to thru traffic.
- Access to student parking on west side of the road will be maintained through the current calendar year.

MOT Phase 3



- Drainage, sanitary sewer and water main improvements along Highland Ave. from LHPs northern entrance, through new entrance at Weber St., up to south entrance.
- Night work in front of each LHPs entrance.
- Road closed to thru traffic.

MOT Phase 4



- Drainage, sanitary sewer and water main improvements along Highland Ave., through LHPs south entrance, and through Mark St. intersection.
- Night work in front of LHPs south entrance.
- Road closed to thru traffic.

MOT Phase 5



- Drainage improvements along Marks St. from Highland Ave. intersection through east entrance of Medical City.
- Work zone will be in eastbound lane only.
- Road closed to thru traffic.

MOT Phase 6



- Drainage improvements along Marks St. from east entrance of Medical City through Irma Ave. intersection
- Work zone will be in the eastbound lane only.
- Road closed to thru traffic.

MOT Phase 7



- Drainage and sanitary sewer improvements along Irma Ave. from Marks St. intersection to existing drainage well.
- Road closed to thru traffic.

MOT Phase 8



- Drainage and water main improvements along Pasadena Pl. from Highland Ave. intersection to existing OUC supply well No. 7.
- Road closed to thru traffic.

Contractor Storage Yard





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Project Benefits



Project Benefits

— Stormwater System

- Reduce chronic and repetitive flooding in specific problem areas.
- Reduce introduction of pollutants into receiving waters and drainage wells (protecting aquifer).

— Wastewater System

- Reduce the risk of potential infiltration to or leakage from aging infrastructure.

— Water Distribution System

- Replace aging infrastructure and improve system hydraulics.

— Overall Benefits

- Improves Level of Service (LOS) for all three Systems (Stormwater, Wastewater, and Water Distribution).
- Will bring System up to current standards and regulations.
- Combining improvements for all three Systems under one project will minimize the impacts to the community during construction.
- Reduces the potential of pipe failures.
- Newly reconstructed roadways.

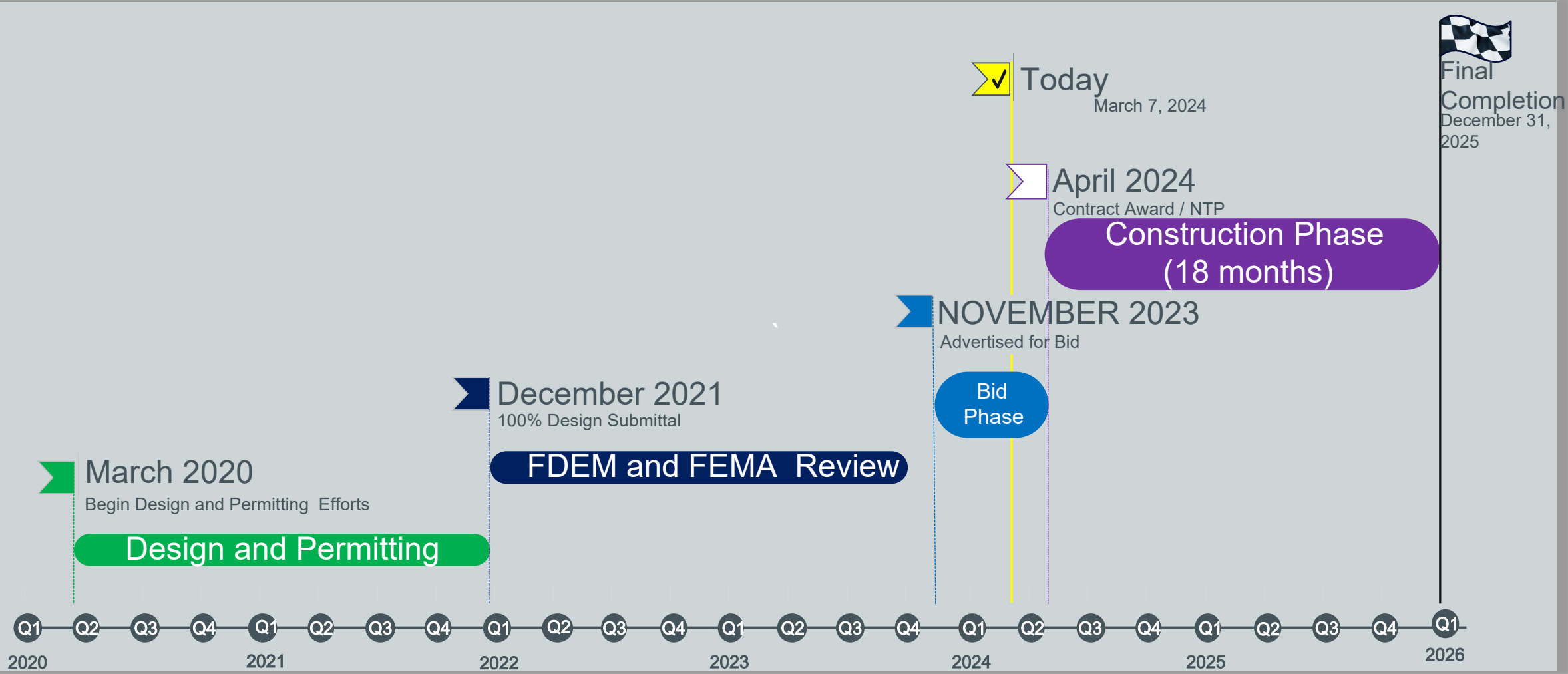


Project Timeline



Project Timeline

Marks St. and Pasadena Pl. Drainage & Utility Improvements





Public Outreach Plan



Public Outreach Plan

- Project Website:
orlando.gov/highlanddrainage
- Project site signage will have contact information
- Postcard Mailers
 - Before Contractor Mobilization
 - Prior to each MOT Phase change
- Coordination during construction with Lake Highland Preparatory School
- Neighborhood Outreach Coordinator contact:
Lauri Brooks, Lauri.Brooks@Orlando.gov



Questions?

