

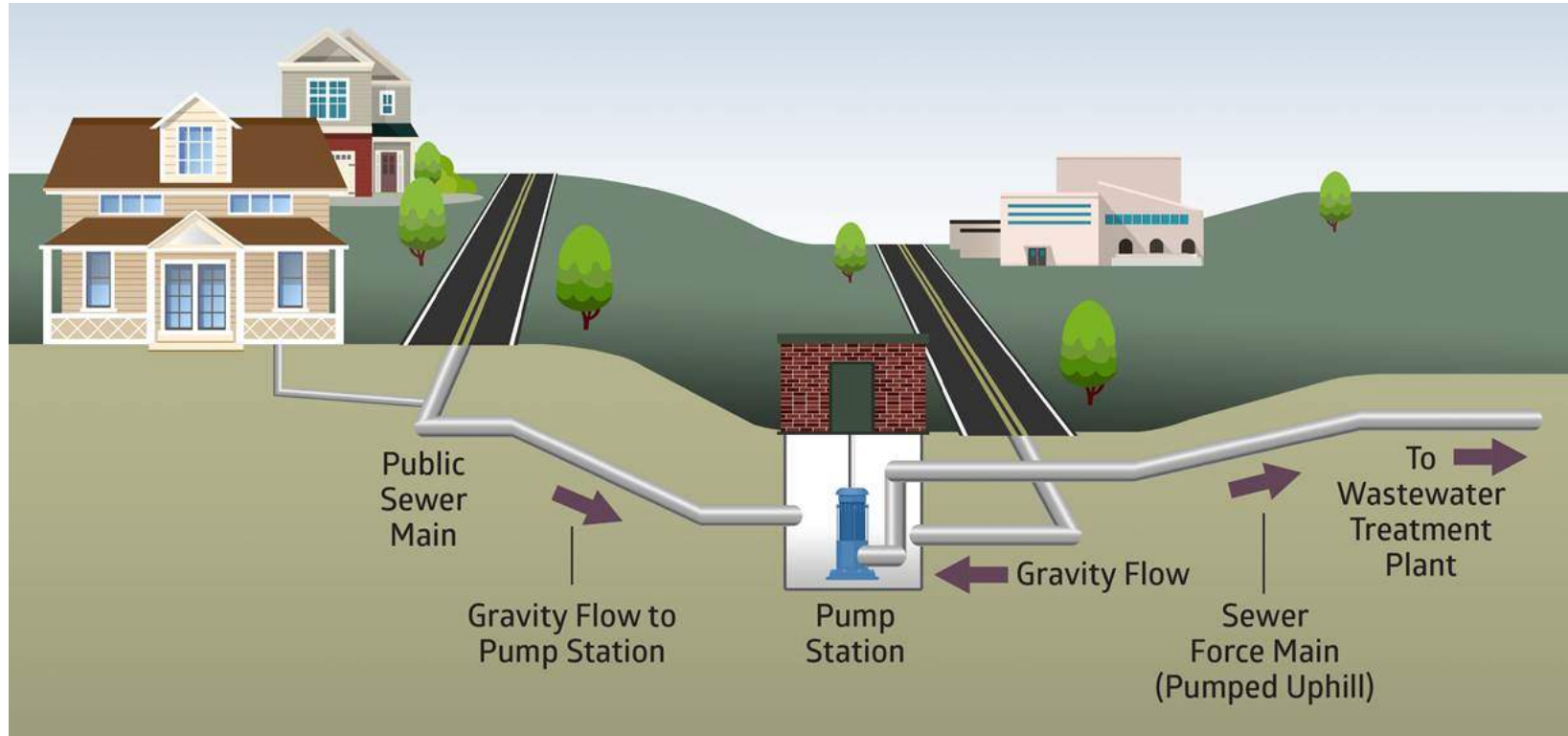
# Voorhees Avenue Wastewater Pump Station (WWPS) Improvements Project

Community Meeting – October 24, 2023

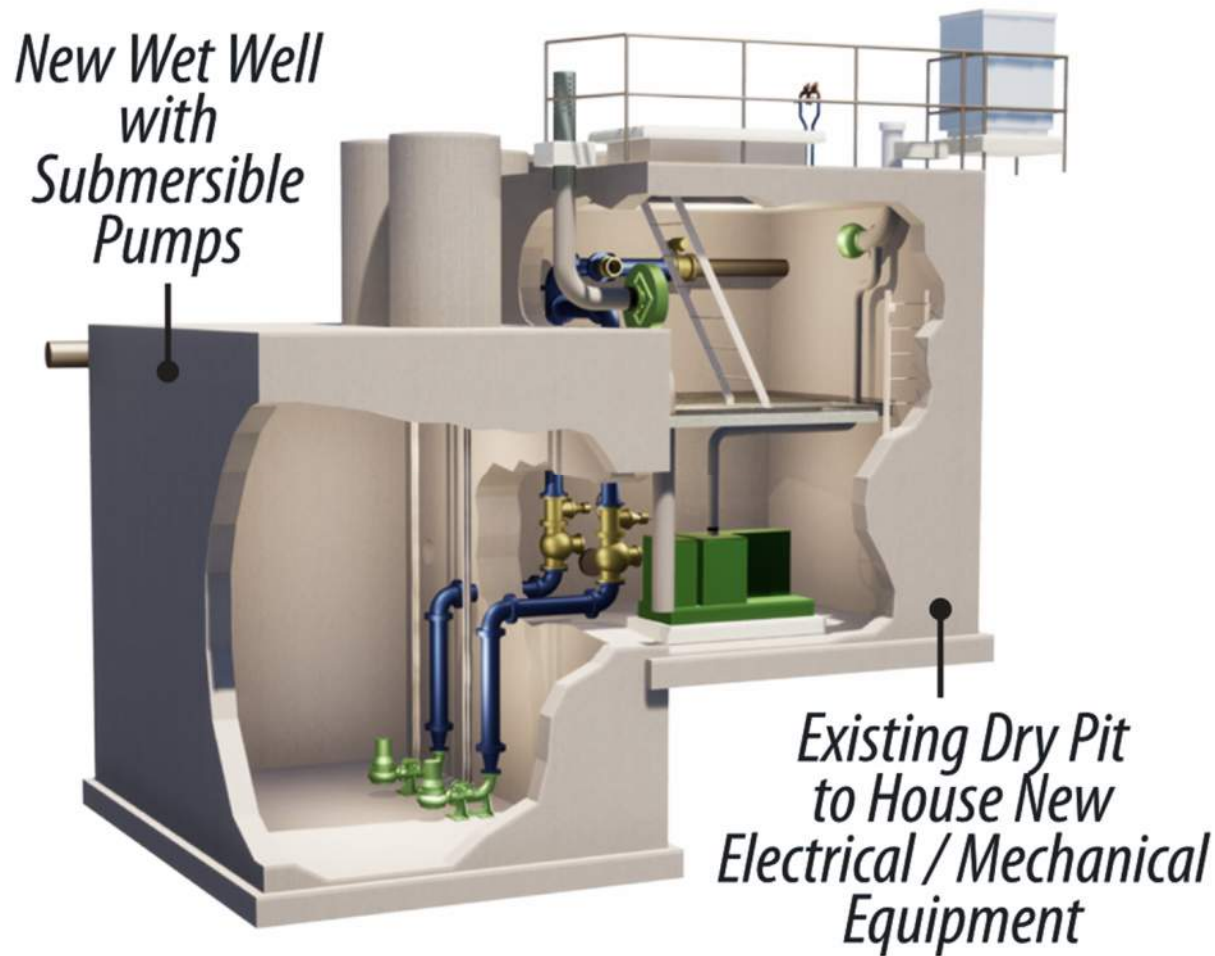


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# Typical Sewer Service

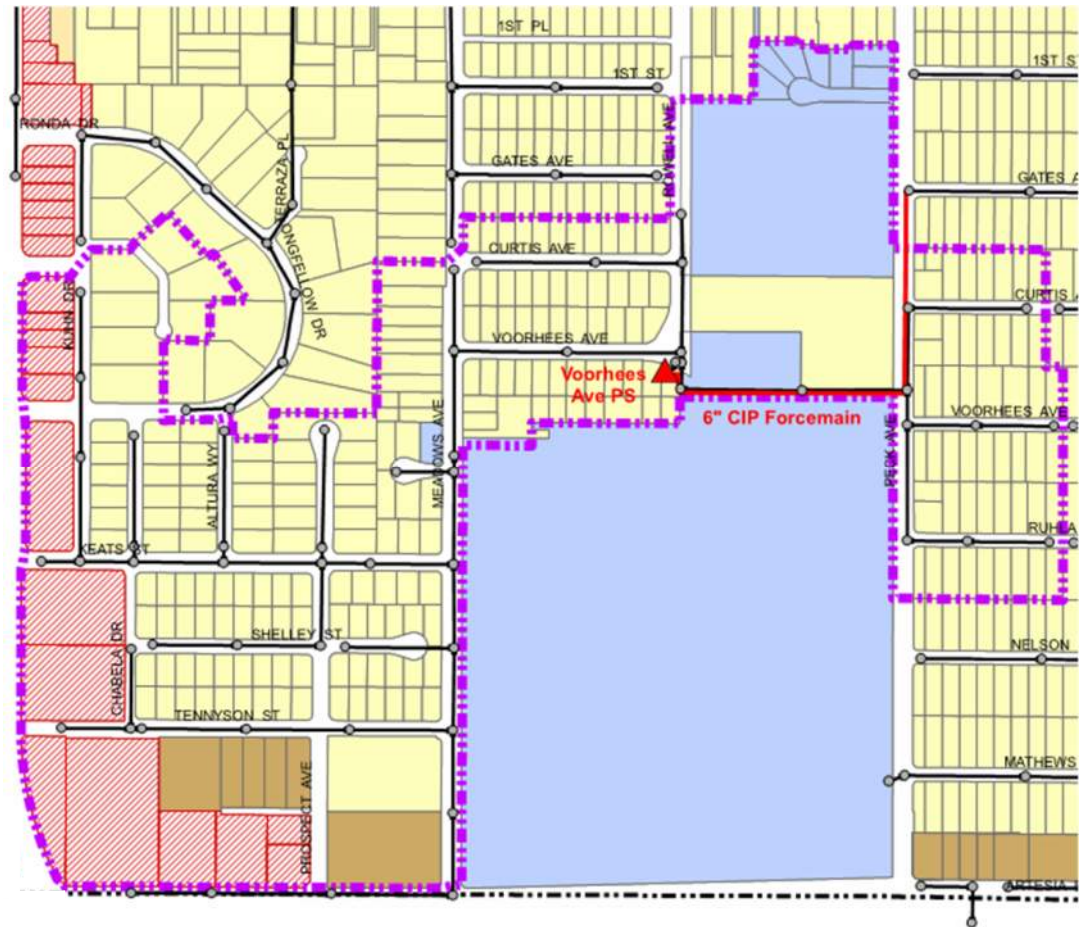


# Typical Pump Station Overview



# Voorhees WWPS Wastewater Sub-Basin

- Why a PS?
  - Topography
- Where is a PS located?
  - Lowest point.
- What does a PS do?
  - Moves sewage to a higher elevation in the gravity sewer system.



# History & Background

- 1960s Voorhees Ave WWPS and force main was constructed
- 1990s Mechanical and electrical upgrades
- 2010 Wastewater Master Plan identified the facility as approaching the end of useful life and this aging system further exasperated by periodic power outages
- 2019 Preliminary Engineering began with Basis of Design Reports for three WWPS including Voorhees
- 2022 Basis of Design Reports received by City Council
- 2023 Final Design

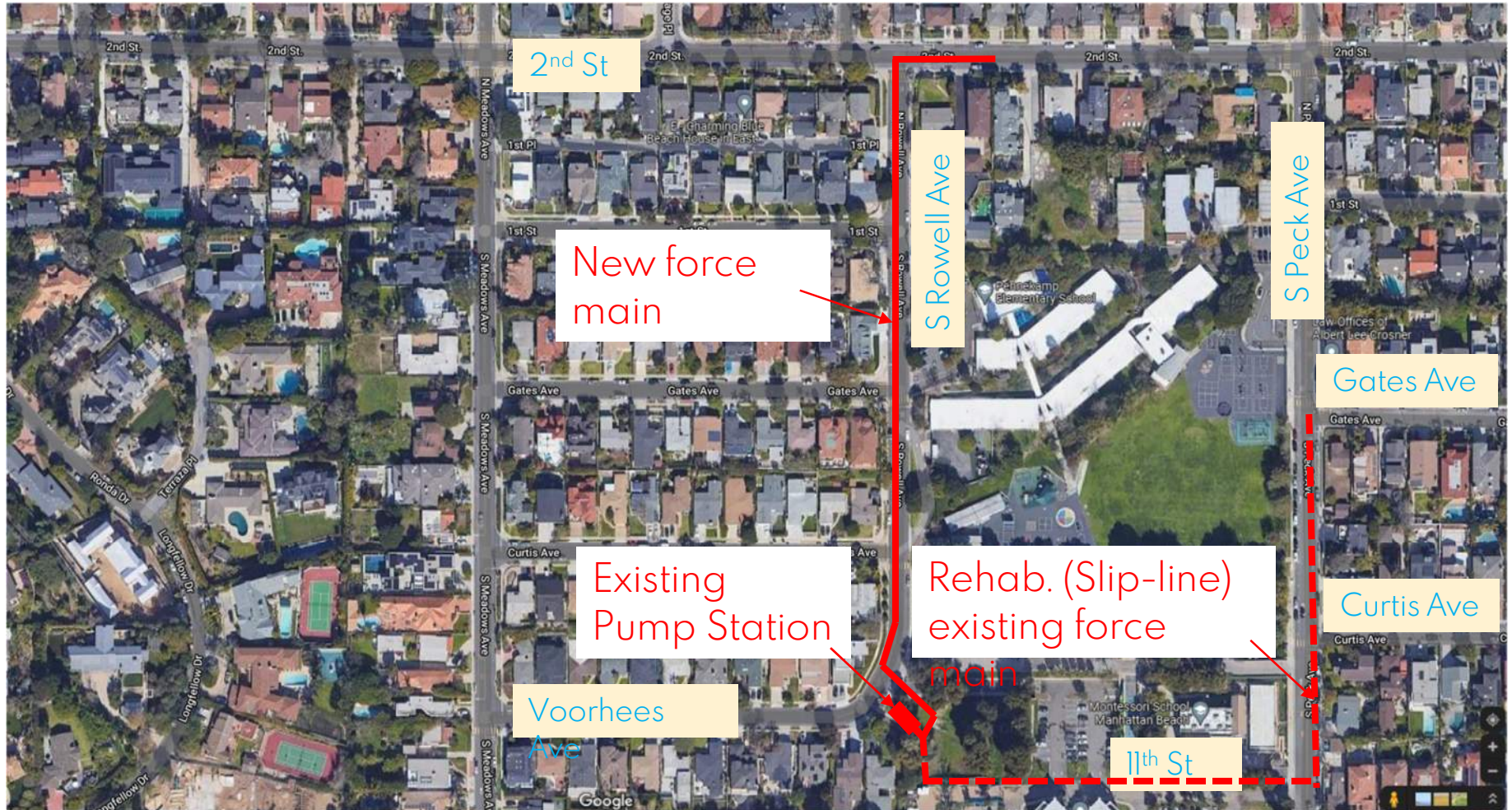


# Project Summary

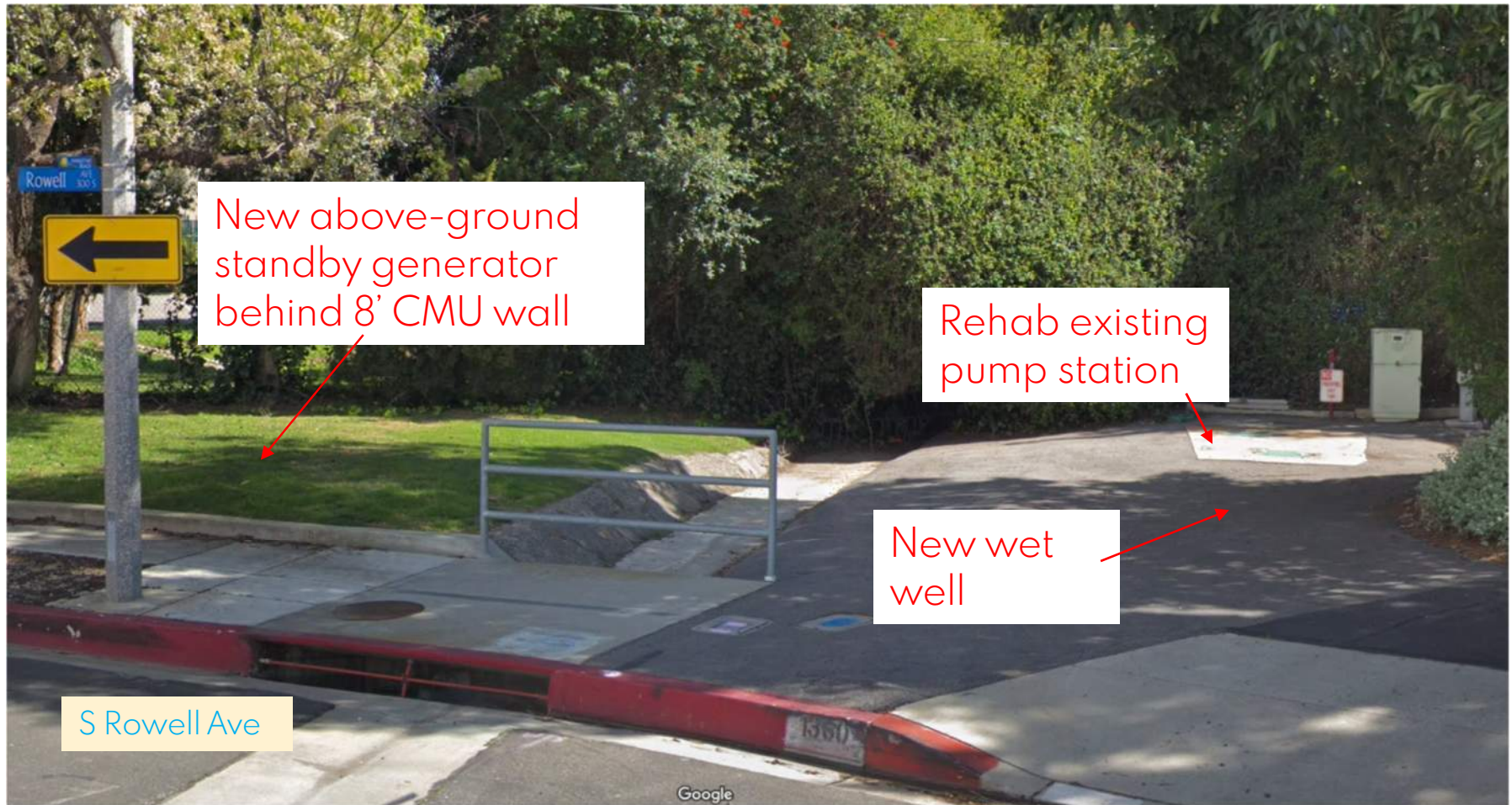
- Proposed Upgrades
  - New above-ground standby generator
  - New larger wet well (>30 minutes emergency storage)
  - New 350gpm submersible pumps
  - Rehabilitation of existing pump station
  - New Force main (~1,300')
  - Slip-line of existing force main (~1,400')
- During construction
  - Minimize the use of above-ground temporary bypass



# Site Map

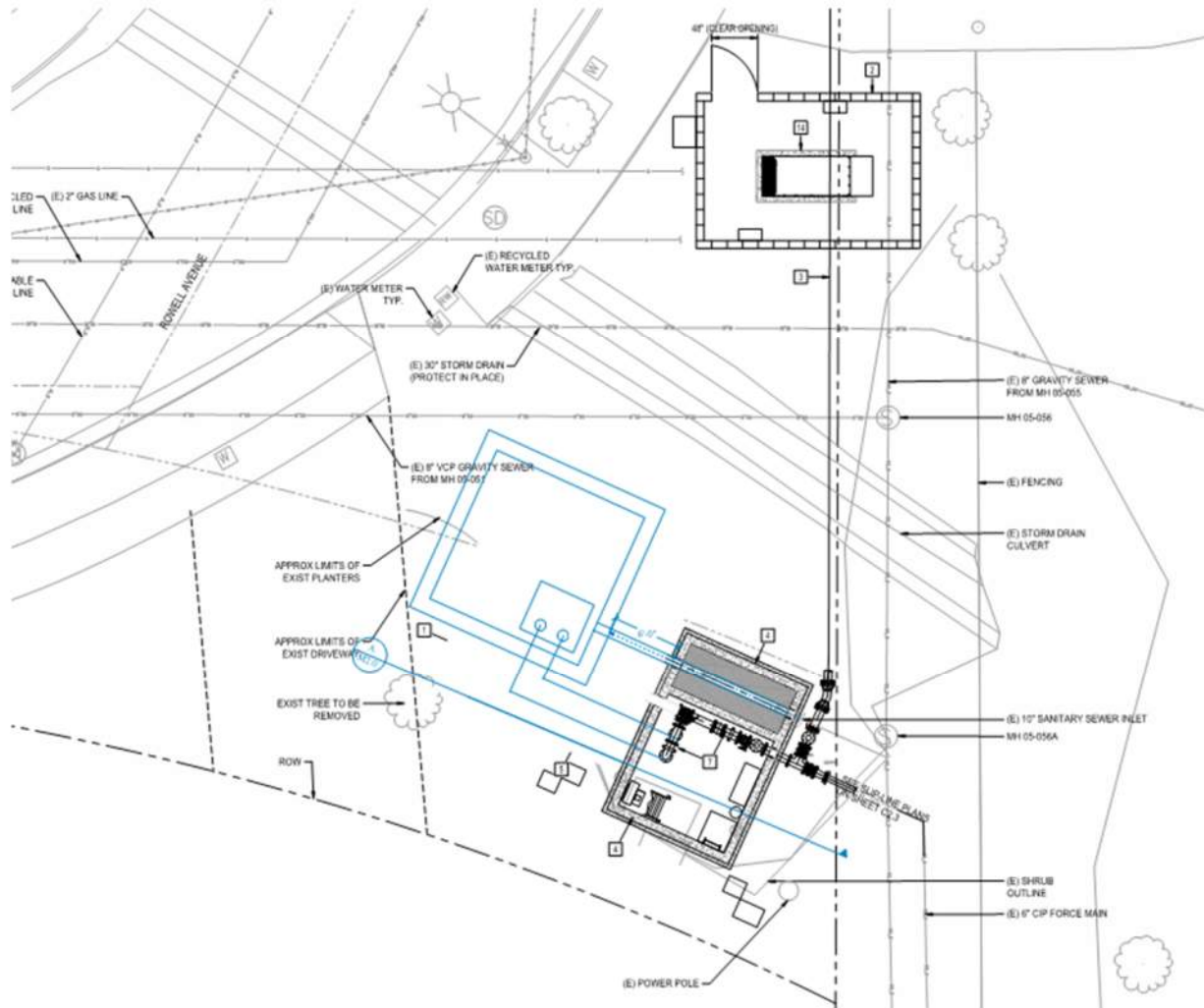


# Proposed Improvements





# Plan View



CIVIL CONSTRUCTION NOTES	
NO.	DESCRIPTION
1	INSTALL CAST-IN-PLACE WET WELL PER STRUCTURAL.
2	INSTALL CMU GENERATOR ENCLOSURE PER STRUCTURAL.
3	INSTALL 8\"/>

### LEGEND

- PROPOSED 8\"/>
- WROUGHT IRON FENCE
- LOT LINE
- EXISTING



# Section View

MECHANICAL CONSTRUCTION NOTES	
NO.	DESCRIPTION
1	INSTALL 1/2" CERAMIC EPOXY-LINED CL 350 DUCTILE IRON PIPE AND FITTINGS.
2	INSTALL 1/2" DUCTILE IRON 90° ELBOW (FLDPLG).
3	INSTALL MECHANICAL MODULAR SEAL PENETRATION PER DETAIL A, SHEET M3.5.
4	INSTALL 1/2" X 1/2" DUCTILE IRON REDUCER (FLDGLG).
5	INSTALL STAINLESS STEEL VERTICAL PIPE WALL SUPPORT PER ATLAS HBS-V, OR EQUAL.
6	INSTALL 1/2" GROOVED UCTALIC COUPLING.
7	INSTALL 1/2" DUCTILE IRON TEE (FLDPLGFLG).
8	INSTALL 1/2" X 1/2" DUCTILE IRON REDUCING TEE (FLDPLGFLG).
9	INSTALL 1/2" QUICK CONNECT CARBOLUX FITTING.
10	INSTALL 1/2" DUCTILE IRON TEE 90 X 1/2 X 1/2.

11	INSTALL 1/2" DUCTILE IRON PIPE PENETRATION.
12	INSTALL CAST-IN-PLACE WALL PENETRATION PER DETAIL E, SHEET M3.5.
13	INSTALL 1/2" DUCTILE IRON BEND 90 X 1/2.
14	INSTALL 1/2" DUCTILE IRON 90° ELBOW (FLD X GROOVED).
15	INSTALL 1/2" X 1/2" 304 SS CLEAR OPENING 1/2" HO RATED ALUMINUM ACCESS PATCHING METAL SAFETY GRATING PER BLDG. OR EQUAL.
16	INSTALL 2" COMBINATION AIR VALVE PER DETAIL C, SHEET M3.1.
17	INSTALL DUCTILE IRON SADDLE TAP OR TAPPING BOSS.
18	INSTALL HIGH POS EXPOSURE COATING ON ALL INTERIOR STRUCTURAL EQUIPMENT AND PIPING PER SPEC. 09.1705.
19	INSTALL 1/2" 50 ALUMINUM DUCTING w/ INSECT SCREEN.
20	INSTALL 1/2" EPDM DUCKBALL CHECK VALVE W/ 2" MAX CRACKING PRESSURE PER CLAS. 501, 501.05, OR EQUAL.
21	INSTALL 1/2" CHANNEL AND GROUT BENCH BLOEM TO WET WELL EXPANSION.
22	1/2" P.P. EXISTING TRASH-RACK AND SLUDGE RAIL SYSTEM.

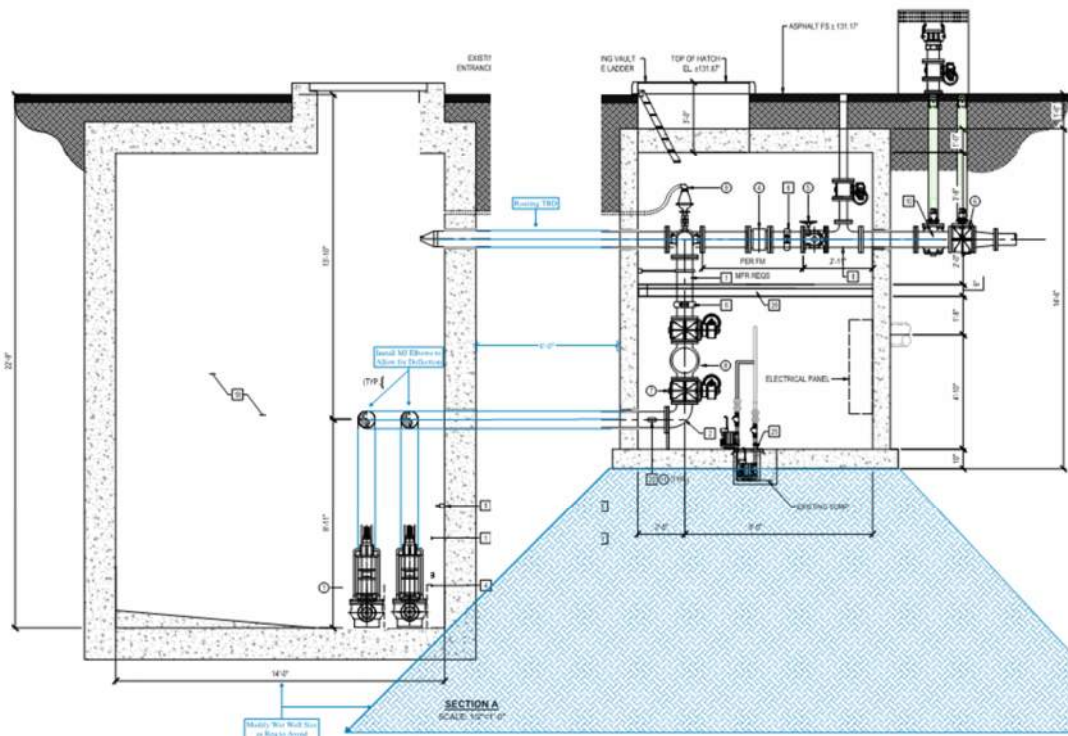
23	INSTALL PRESSURE GAUGE PER DETAIL F, SHEET M3.1.
24	INSTALL ULTRASONIC LEVEL TRANSDUCER PER DETAIL E, SHEET M3.1.
25	INSTALL DUAL SLUMP PUMP ASSEMBLY PER DETAIL A, SHEET M3.1.
26	1/2" P.P. EXISTING SLUMP & PATCH/REPAIR AS REQUIRED.
27	INSTALL STAINLESS STEEL FIXED ACCESS LADDER PER O'NEEPEE'S MODEL 505, OR EQUAL.
28	INSTALL 1/2" THICK 2" X 2" 50 GRID 72% OPEN AREA FIBERGLASS GRATING AND ASSOCIATED SUPPORT/ANCHORAGE PER MEMPHOLAS, OR EQUAL.
29	INSTALL PIPE SUPPORT PER DETAIL D, SHEET M3.5.

**NOTES:**

- RIP GRATING IS CONSIDERED A DEFERRED SUBMITTAL. THE CONTRACTOR SHALL SUBMIT STRUCTURAL CALC'S SIGNED AND STAMPED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF CALIFORNIA FOR THE GRATING SUPPORT SYSTEM ANCHORAGE AND DEFLECTION PERFORMANCE PER SPEC.

**LEGEND:**

- EQUIPMENT LEFT CALL OUT
- CONSTRUCTION NOTE CALL OUT



**CITY OF MANHATTAN BEACH**  
PUBLIC WORKS DEPARTMENT - ENGINEERING DIVISION

**VOORHEES WWPS UPGRADES**  
MECHANICAL SECTIONS

PROJECT MANAGER MARILENA LAZOVSKA	CITY ENGINEER CLARENCE COWERTY
DATE 01-01-23	SCALE AS SHOWN
DATE PREPARED 01-01-23	DRAWN BY JUNYANG LEE

**M2.0**

**SUPPLEMENTAL NOTES:**

- THE CONTRACTOR SHALL LOCATE, VERIFY AND PROTECT ALL EXISTING UNDERGROUND UTILITIES. UNDETECTED UTILITIES SHALL BE REPAIRED IN KIND AT THE CONTRACTOR'S EXPENSE.
- DUE TO IRREGULAR LOT SURVEYING, THE EXISTING WATER, SEWER, AND GAS UTILITIES MAY VARY BY 18" AT THE LOCATION. CORRECT AS SHOWN IN THIS DRAWING. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING.
- THE CONTRACTOR SHALL DETERMINE THE DEPTH OF THE GAS LINE. LOCAL, STATE, COUNTY, STATE AND FEDERAL ALL APPLICABLE AND SUPERSEDES PRIOR TO CONSTRUCTION AND AS NOTED ON PLAN.



REVIEWED BY: [Signature]

REVISIONS:

NO.	DESCRIPTION

90% PLANS - ISSU



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OCTOBER 24, 2023**

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# Existing Site



# Proposed Site Rendering



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# Environmental Review

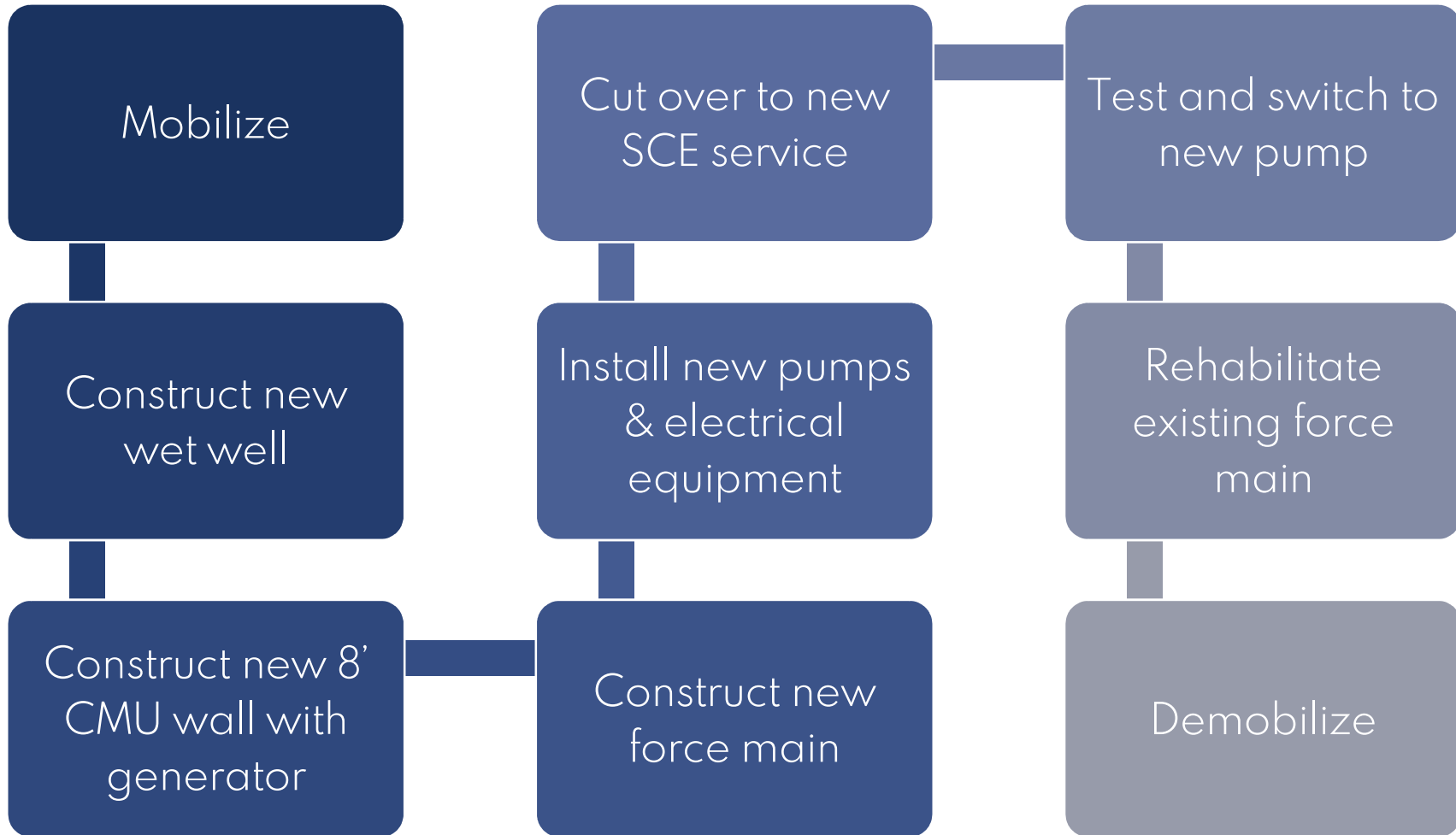
- The Phase I preliminary engineering BODR included a pre-screening Initial Study, prepared in accordance with the California Environmental Quality Act (CEQA), to disclose and evaluate short-term construction-related and long-term operational impacts initial determination of the Voorhees Sewer Lift Station Upgrade project.
- Based on the Pre-Screening Initial Study analysis, no potentially significant impacts would occur from the proposed project.
- The study may be found on City of Manhattan Beach Public Works CIP page for Voorhees Sewer Lift Station.



# Construction Objectives



# Preliminary Construction Sequence



# Preliminary Timeline

Winter  
2023/24

• Complete Final Design

Spring  
2024

• Bid/Award

Summer  
2024

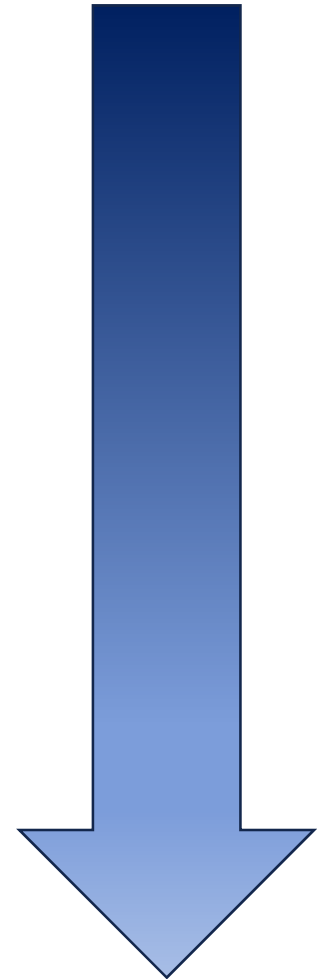
• Construction Start

Fall  
2025

• Construction End

Winter  
2025/26

• Close Out





# Potential Impacts & Mitigations

- Construction Noise
  - Excavators
  - Dump trucks
  - Hoist / Crane
  - Compactor
  - Other typical construction vehicles / equipment
- Mitigations
  - Follow ROW permit and allowed construction hours.



# Potential Impacts & Mitigations

- Traffic Related
  - No Parking Signage
  - Traffic Pattern Modifications
- Mitigations
  - Follow ROW permit allowed traffic
  - modification hours.
- Potential Mitigations
  - Portion of construction outside the site (i.e. street) may take place in summer.
    - New force main installation.
    - Existing force main slip-lining.



# Potential Impacts & Mitigations

- Removal of interfering shrubs and/or trees
- Mitigations
  - Moved the new wet well away from tree.
  - Kept electrical panels in existing dry vault.
- Potential Mitigations
  - Plant new trees
  - New landscape
  - Sacrificial shoring on tree side



# Questions and Answers



Questions? Contact... Marzena Laskowska

E: [mlaskowska@manhattanbeach.gov](mailto:mlaskowska@manhattanbeach.gov)

O: (310) 802-5325



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