



SEWER STUDY REPORT

PACIFIC BEACH HOTEL

4545 MISSION BAY DRIVE, SAN DIEGO, CA, 92109

DATE

2/26/2026

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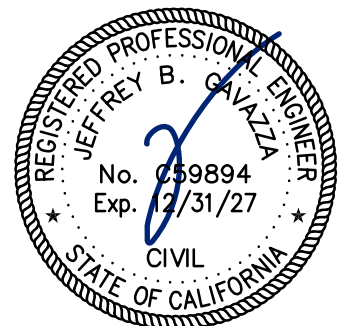




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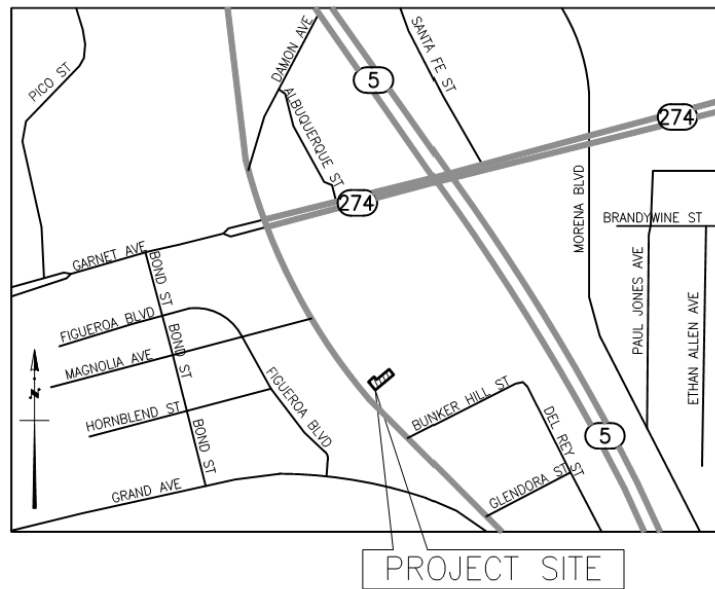
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I. INTRODUCTION

The purpose of this sewer study is to provide an assessment of the existing public sanitary sewer infrastructure and to understand the systems capability to withstand the projected sewer flow increase due to the proposed Pacific Beach Hotel project. This study identifies the approximate location and size of the existing public sanitary sewer main within Mission Bay Drive. Hydraulic calculations are presented using estimates for the preliminary sewer flow rates anticipated from the proposed development.

II. PROJECT INFORMATION

The Pacific beach Hotel site is located on the Northeast side of Mission Bay Drive, San Diego, CA, 92109, within the Pacific Beach Community Plan Area and the Balboa Avenue Station Area Specific Plan, see figure 1 below. The project consists of approximately 0.63 acres, located west of Interstate-5 and south of highway 274. The project proposes a single three-story hotel building with subterranean parking. This will require the demolition of the existing building, which is also a three-story hotel located at 4545 Mission Bay Drive. The project site is currently under a Multiple Use designation CC-3-8. See figure 2 for a map of the designated zones.



VICINITY MAP

NO SCALE

Figure 1: PB Hotel Project Vicinity Map

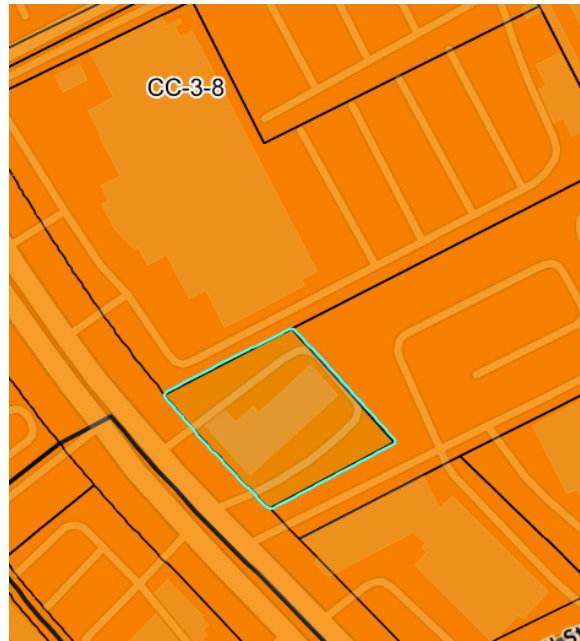


Figure 2: Current designated land use zone.

III. EXISTING CONDITIONS

Within the frontage of the project site, along Mission Bay Drive, there is a 8" PVC sanitary sewer main, see figure 3 below. This existing infrastructure has a variable depth of 10'-12.5' below grade. The proposed project laterals will be tying into this sewer main.

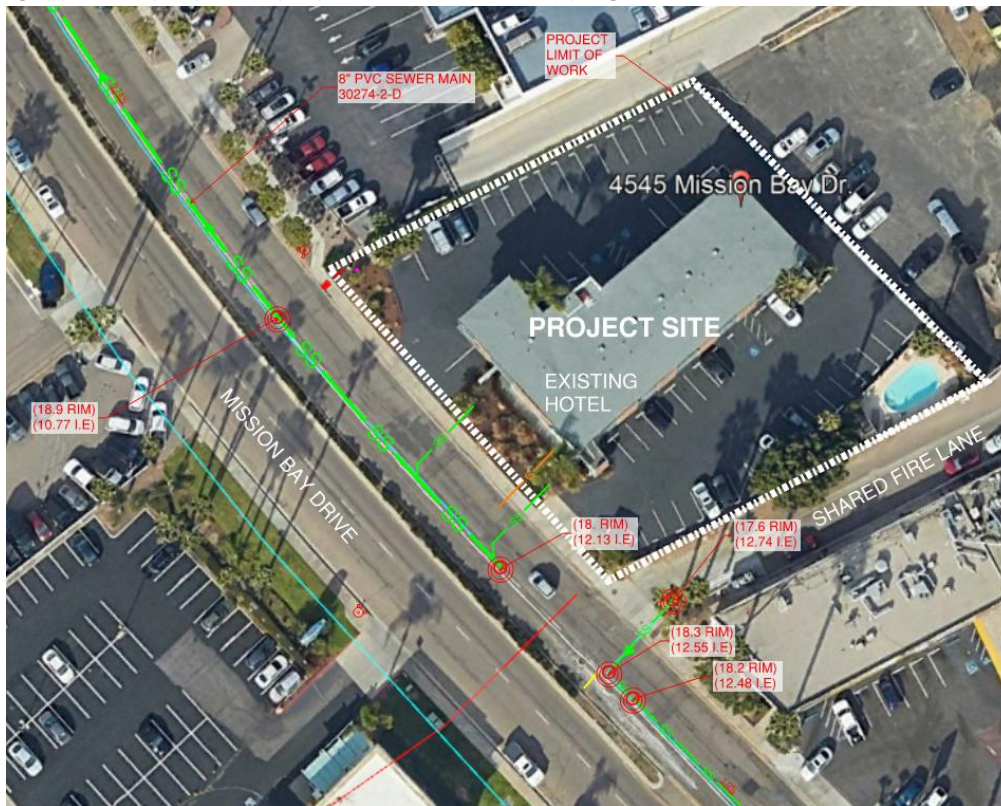


Figure 3: Existing Public Sanitary Sewer Infrastructure within 55th Street.



IV. DESIGN CRITERIA

The sewer study performed for this project was based on the design criteria listed in the *City of San Diego’s Sewer Design Guide*, dated May 2015. This gravity sewer was analyzed for conveyance of the peak wet weather flow. The analysis used projected fixture units and population to obtain the additional flow due to the increase of population within The Peninsula.

The daily per capita sewer flow of 80 gallons per capita per day was used in accordance with section 1.3.2.2 of the design guidelines. The *Peaking Factor for Wet Weather Flow* (PFWWF) used was 1.0 per the request of the City of San Diego Developmental Services Department.

V. OFF-SITE AND ON-SITE SEWER FLOW PROJECTIONS

a. EXISTING CONDITIONS – ON SITE FLOW PROJECTION

The existing on-site flow is estimated to be 15,840 gallons per day (gpd). The on-site flow projections were also calculated using land use and zone designation. Refer to Appendix A, table 1, for the zone designation used for the site, as well as for the on-site flow projected for the building. The on-site flow projection value will be used solely to understand the net increase in flow by comparing it to the proposed sewage flow.

b. PROPOSED CONDITIONS – ON SITE FLOW PROJECTION

The estimated total flow projection for the proposed building within the project site is 40,320 gpd. The on-site proposed condition flow was calculated using the anticipated number of fixture units for the building, see appendix A, table 2 for the proposed sewer condition calculation. Refer to appendix B to see the proposed utility plan depicting the sewer main and lateral connections to the project site.

VI. CONCLUSIONS

The anticipated sewer demand of the pre- and post-development conditions at the Pacific Beach Hotel project site was calculated using the City of San Diego Sewer Design Guide. The anticipated net increase in water demand is summarized in the table below.

| TABLE 3: APPROXIMATE NET SEWAGE FLOW INCREASE | | | |
|--|----------------|----------------|--------------------|
| | Existing (gpd) | Proposed (gpd) | Net Increase (gpd) |
| Flow (gpd) | 15840.00 | 44856.00 | 29016.00 |



APPENDIX A: CALCULATIONS SUMMARY



TABLE 1: EXISTING SEWER CONDITIONS (GENERATED BY LAND USE/ZONE)

| Segment | Zone | Population per D.U.'s | Net Area ¹ (acres) | Equivalent Population Factor | Population per DU Conversion Factor | Population per DU | Average Dry Weather Flow ² (gpd) | Average Dry Weather Flow(gpm) | Dry Weather Peaking Factor ³ | Peak Dry Weather Flow (gpm) | Peak Wet Weather Flow Factor ⁴ | Peak Wet Weather Flow (gpm) | Peak Wet Weather Flow (gpd) | Cumulative Demand at END Node (gpd) |
|-----------|--------|-----------------------|-------------------------------|------------------------------|-------------------------------------|-------------------|---|-------------------------------|---|-----------------------------|---|-----------------------------|-----------------------------|-------------------------------------|
| Sure Stay | CC-3-8 | 3.5 | 0.38 | 131.1 | 3.5 | 50 | 3,865 | 2.77 | 3.73 | 11 | 1 | 11 | 15,840 | 15,840 |

TABLE 2: PROPOSED SEWER CONDITIONS (GENERATED BY LAND USE/ZONE)

| Segment | Zone | Population per D.U.'s | Net Area ¹ (acres) | Equivalent Population Factor | Population per DU Conversion Factor | Population per DU | Average Dry Weather Flow ² (gpd) | Average Dry Weather Flow(gpm) | Dry Weather Peaking Factor ³ | Peak Dry Weather Flow (gpm) | Peak Wet Weather Flow Factor ⁴ | Peak Wet Weather Flow (gpm) | Peak Wet Weather Flow (gpd) | Cumulative Demand at END Node (gpd) |
|-----------|--------|-----------------------|-------------------------------|------------------------------|-------------------------------------|-------------------|---|-------------------------------|---|-----------------------------|---|-----------------------------|-----------------------------|-------------------------------------|
| Sure Stay | CC-3-8 | 3.5 | 1.19 | 131.1 | 3.5 | 156 | 12,481 | 8.67 | 3.20 | 28 | 1 | 28 | 40,320 | 40,320 |

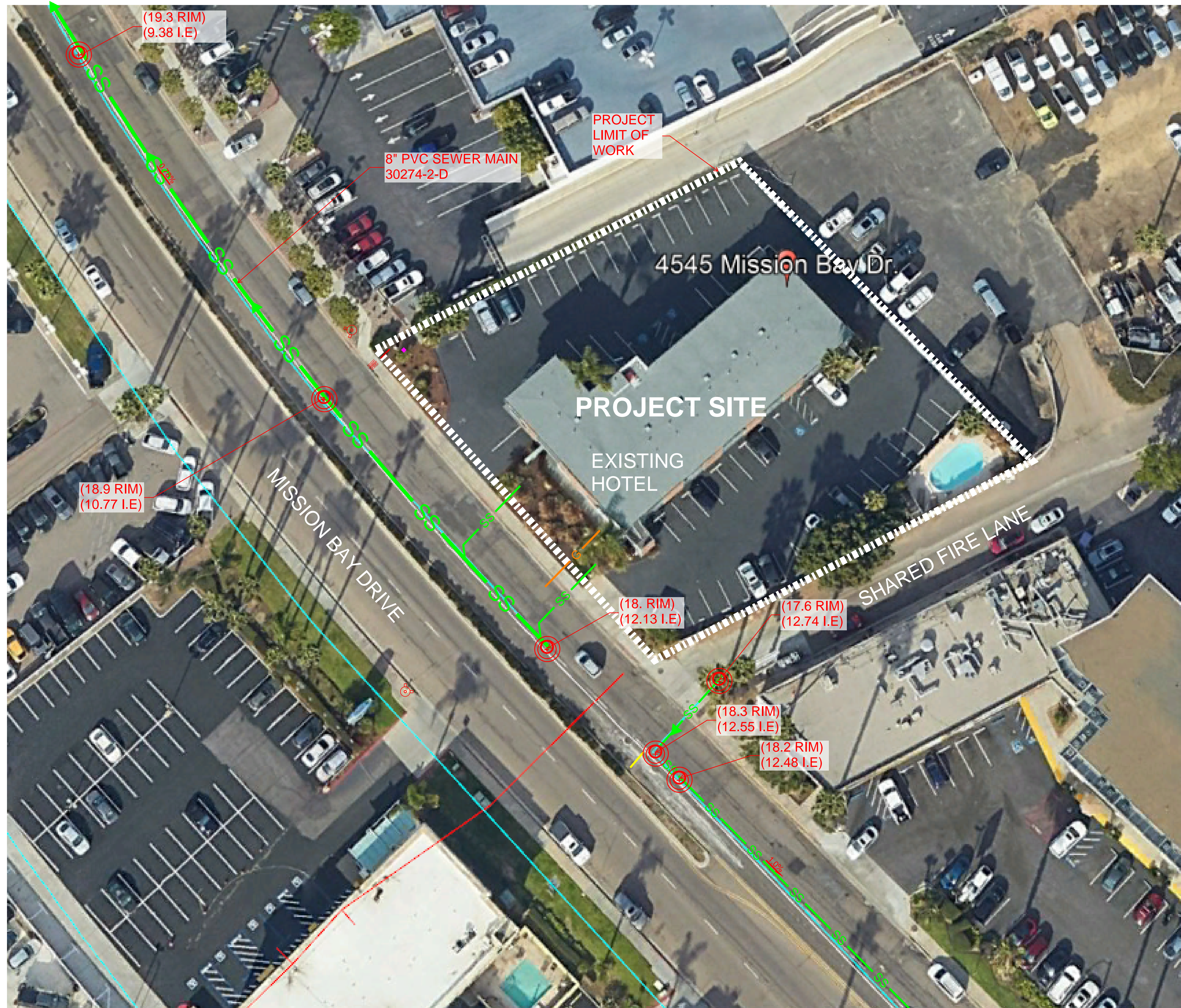
TABLE 3: APPROXIMATE NET SEWAGE FLOW INCREASE

| | Existing (gpd) | Proposed (gpd) | Net Increase (gpd) |
|------------|----------------|----------------|--------------------|
| Flow (gpd) | 15840.00 | 44856.00 | 29016.00 |



APPENDIX B: SANITARY SEWER EXISTING AND PROPOSED CONDITIONS

EXISTING CONDITIONS



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| | |
|---|---|
| PROJECT ADDRESS: | 4545 MISSION BAY DRIVE, PACIFIC BEACH, SAN DIEGO, CA, 92109 |
| APN: | 424-140-03-00 |
| CURRENT ZONING: | CC-3-8 |
| MAX BLDG HEIGHT(ZONING): | PER COSTAL |
| PROPOSED USE: | HOTEL |
| OCCUPANCY GROUP: | R-1 |
| TOTAL NUMBER OF STORIES: | 4 |
| PROPOSED GROSS BLDG AREA: | 77,100 SF |
| PROPOSED F.A.R. BLDG AREA: | 55,500 SF |
| PROPOSED AREA PER FLOOR: | 17,600 SF |
| PROPOSED F.A.R.: | 2.0 |
| GROSS PROPOERTY AREA (APPROX. 0.64 ACRES) | 27,862 SQ FT |

| No. | Date | Description |
|-----|----------|----------------------------------|
| 1 | 1/10/25 | ENTITLEMENTS - INITIAL SUBMITTAL |
| 2 | 5/15/25 | ENTITLEMENTS - RESUBMITTAL |
| 3 | 10/29/25 | ENTITLEMENTS - RESUBMITTAL |

ALL DESIGN, CONCEPT, IDEAS, AND ARRANGEMENTS DEPICTED ON THESE PLANS ARE THE SOLE PROPERTY OF JBA ARCHITECTS AND ARE INTENDED FOR THIS SPECIFIC PROJECT ONLY AND SHALL NOT BE USED IN WHOLE OR IN PART FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF JONES/BALLARD ARCHITECTS

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UTILITY CONSTRUCTION NOTES:

STORM DRAIN

(SD1) CONNECT TO EXISTING 24" CONCRETE SD LINE.

SANITARY SEWER

(SS1) PVC, SDR-35 SANITARY SEWER PIPE. SIZE AND SLOPE PER PLAN.

(SS2) POINT OF CONNECTION 5 FEET FROM BUILDING FACE. SEE PLUMBING DRAWINGS FOR CONTINUATION.

(SS3) SEWER CLEANOUT PER SDS-103.

(SS4) 8" SEWER LATERAL. CONNECTION VIA MANHOLE

DOMESTIC WATER

(W1) 3" WATER SERVICE.

(W2) POINT OF CONNECTION 5 FEET FROM BUILDING FACE. SEE PLUMBING DRAWINGS FOR CONTINUATION.

(W3) BACKFLOW PREVENTION DEVICE PER SDW-157. (WILKINS 375DA) PER SEPARATE PERMIT.

(W4) THRUST BLOCK

(W5) POINT OF CONNECTION TO EXISTING WATER MAIN.

FIRE WATER

(F1) 6" FIREWATER SERVICE.

(F2) POINT OF CONNECTION 5 FEET FROM BUILDING FACE. SEE PLUMBING DRAWINGS FOR CONTINUATION.

(F3) BACKFLOW PREVENTION DEVICE PER SDW-105 PER SEPARATE PERMIT.

(F4) THRUST BLOCK.

IRRIGATION WATER

(IR1) 1" WATER SERVICE.

(IR2) BACKFLOW PREVENTION DEVICE PER SDW-150.

(IR3) POINT OF CONNECTION 5 FEET FROM BUILDING FACE. SEE PLUMBING DRAWINGS FOR CONTINUATION.

(IR4) THRUST BLOCK

(IR5) POINT OF CONNECTION TO EXISTING WATER MAIN.

NOTE:
STORMWATER WILL BE CAUGHT IN ROOF/AREA DRAINS AND PIPED VIA GRAVITY TO THE BIOFILTRATION PLANTERS. AFTER THE WATER IS TREATED IT WILL BE PIPED VIA GRAVITY TO THE EXISTING 24" CONCRETE STORM DRAIN LINE.

NOTE:
PRIOR TO THE INSTALLATION OF ALL STORM DRAIN AND SEWER MAIN LINE CONNECTIONS, THE CONTRACTOR SHALL POTHOLE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF THE MAIN LINE. IF CONDITIONS DIFFER FROM THOSE ON THE PLAN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITION HAS BEEN EVALUATED.

NOTE:
IF A 3" OR LARGER METER IS REQUIRED FOR THIS PROJECT, THE OWNER/PERMITEE SHALL CONSTRUCT THE NEW METER AND PRIVATE BACK FLOW DEVICE ON SITE, ABOVE GROUND, WITHIN AN ADEQUATELY SIZED WATER EASEMENT, IN A MANNER SATISFACTORY TO THE PUBLIC UTILITIES DEPARTMENT AND THE CITY ENGINEER.

| LOT NO. | INV. ELEV. AT MAIN | DROP TO MAIN | LENGTH (FT) | INV. ELEV. AT PL | SLOPE | FS ELEV | DEPTH BELOW FS AT PL | SEWER LATERAL STATION |
|---------|--------------------|--------------|-------------|------------------|-------|---------|----------------------|-----------------------|
| | | | | | | | | |

