

8.1 Purpose and Intent

The purpose of this chapter is to describe the Master Roadway and Infrastructure Plans for the Project. This chapter includes exhibits and text illustrating and describing the pattern and hierarchy of roadways proposed to serve the development, and master infrastructure plans for domestic and fire water service and wastewater collection and treatment. Descriptions of off-site improvements or regional upgrades to existing systems required to serve the Project are included in this chapter.

8.2 Master Roadway Improvements

8.2.1 Master Roadway Plan

A network of new public roadways will be constructed within the Project Site, providing access to the Project Site from existing West Coast Highway, 15th Street, 16th Street, 17th Street, and 19th Street.

The roadway system for the Project Site is illustrated in Exhibit 8-1, “Master Roadway Plan and Key Map.” As shown, a hierarchy of streets is planned, including primary roadways connecting to existing public arterial roadways, a system of local roads, and private alleys within the Project. Following construction regulatory clearances, all roadways within the Project shall be constructed as shown in Exhibits 8-1 through 8-15.

8.2.2 Project Entries and Off-Site Improvements

1. West Coast Highway-Bluff Road Entry/Intersection Improvements

The primary Newport Beach entrance to the Project shall be from West Coast Highway via (new) Bluff Road, as illustrated in Exhibit 8-2, “West Coast Highway – Bluff Road Entry/Intersection Improvements.” A T-intersection shall be constructed consistent with the County’s MPAH and the City’s General Plan Circulation Element. In order to accommodate the lane geometry envisioned by the City’s General Plan, a portion of West Coast Highway shall be widened.

West Coast Highway is currently owned and maintained by the California Department of Transportation (Caltrans), and therefore, permits that affect the highway shall be coordinated with and approved by Caltrans.

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The improvements to be constructed to West Coast Highway as part of the Project are illustrated in Exhibit 8-9, “Sections K-K and L-L – West Coast Highway.” As shown on this exhibit and Exhibit 8-2, the improvements to West Coast Highway as part of the Project include widening improvements at the Bluff Road entry to the Project Site, on- and off-site deceleration/acceleration transitions along the roadway, and intersection improvements such as median turn pockets and lane striping. A public sidewalk will be constructed from the easterly Project Boundary to Bluff Road. Generally, improvements along West Coast Highway are constrained by existing wetlands and habitat.

2. 15th Street Entry/ Off-Site Improvements

A full section of required 15th Street right-of-way does not currently connect with the Project Site. The City’s General Plan designates 15th Street as a Primary Road. As illustrated in Exhibit 8-3, “15th Street Entry and Off-Site Improvements,” 15th Street shall be constructed from Bluff Road to Monrovia Avenue. Project improvements shall transition in a generally tapering manner to existing street improvements to the east.

3. 16th Street Entry/ Off-Site Improvements

The off-site extension of 16th Street to the Project Site has been accommodated in the previous planning and construction of the City of Newport Beach Utilities Yard, and adequate setbacks are available to build the street improvements. As illustrated in Exhibit 8-4, “16th Street Entry and Off-Site Improvements,” 16th Street shall be extended, with a centerline located on the current property line between the NMUSD property and the City’ Utility Yard property.

4. North Bluff Road/Off-Site Improvements

Exhibit 8-5, “North Bluff Road Off-Site Improvements,” illustrates off-site improvements adjacent to the Project Site boundary within NMUSD property on the east. Approximately one half of the right of way improvements required for this segment of North Bluff Road shall be constructed within NMUSD property.

5. 17th Street Entry

17th Street currently terminates at the easterly boundary of the Project Site. As illustrated in Exhibit 8-6, “17th Street Entry Off-Site Improvements,” a Project entry shall be constructed at the Project Site Boundary and the terminus of 17th Street. The Master Roadway Plan includes the construction of an extension of 17th Street west of the Project Site boundary to intersect with North Bluff Road.

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6. 19th Street Entry/Off-Site Improvements

North Bluff Road is proposed to connect with existing 19th Street at the Project's northern property line. Improvements to 19th Street, which shall be constructed as part of the Project entry, are illustrated on Exhibit 8-7, "19th Street and North Bluff Road Entry and Off-Site Improvements."

Additionally, a right-of-way is reserved on the Project subdivision map for a potential future extension of 19th Street to the Santa Ana River by the City, County, and/or other public agency.

7. Pedestrian and Bicycle Bridge over West Coast Highway/Off-Site Improvements

A public pedestrian and bicycle bridge will be constructed as part of the Project over West Coast Highway (State Highway 1) from a connection in South Bluff Park and the Resort Colony to a connection in West Newport Park, a public park, located on the south side of West Coast Highway and served by public streets. The construction of the pedestrian and bicycle bridge will allow pedestrians and bicyclists to travel between the Project Site and the beach via the park and adjacent public streets, as shown in Exhibit 8-2.

8.2.3 Traffic-Calming Design Features

In order to reduce speeds of motorists and enhance the pedestrian experience, traffic-calming design features shall be constructed within local streets within the Project as approved by the City Engineer. These features may include mid-block tapers and tapers/chokers at select intersections and modified knuckles. Examples of these elements are shown on Exhibit 8-8, "Traffic-Calming Design Features." Other traffic-calming design features may be approved by the City as part of subdivision map review or Site Development Review.

8.2.4 Project Roadways

The following sections describe the internal arterial roadway improvements to be constructed as part of the Project.

1. Bluff Road from West Coast Highway to 15th Street; and North Bluff Road from 15th Street to 16th Street

The design for Bluff Road from West Coast Highway to 15th Street and the design for North Bluff Road from 15th Street to 16th Street are illustrated in Exhibit 8-10, "Sections A-A, B-B, and P-P – Bluff Road (West Coast Highway to 15th Street) and North Bluff Road (15th Street to 16th Street)."

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As shown, both Bluff Road and North Bluff Road shall be constructed with two travel lanes and a five-foot-wide striped on-street bike lane in each direction. An eight-foot-wide meandering walkway, separated from the street by a varying-width landscaped bioswale, shall be constructed on the east side of the road. A five-foot-wide walkway, separated from the street by a landscaped bioswale, shall be constructed on the west side of the road except that, to avoid native habitat impacts, there shall be no sidewalk on the west side of Bluff Road between West Coast Highway and Resort Colony Road. A landscaped median shall be constructed along this length of both Bluff Road and North Bluff Road. Parking shall be prohibited along Bluff Road and North Bluff Road.

2. North Bluff Road from 16th Street to 17th Street

The design for North Bluff Road from 16th Street to 17th Street is illustrated in Exhibit 8-11, "Sections Q-Q and R-R – North Bluff Road (16th Street to 17th Street)."

As shown, North Bluff Road from 16th Street to 17th Street shall be constructed with two travel lanes and a five-foot-wide striped on-street bike lane in each direction. An eight-foot-wide walkway, separated from the street by a landscaped bioswale shall be constructed on the east side of the road and a five-foot-wide walkway, separated from the street by a landscaped bioswale, shall be constructed on the west side of the street. An approximate 16-foot-wide landscaped median shall be constructed along this length of North Bluff Road.

Parking shall be prohibited along this segment of North Bluff Road.

3. North Bluff Road from 17th Street to 19th Street

The design for North Bluff Road is illustrated in Exhibit 8-12, "Sections J-J and M-M – North Bluff Road (17th Street to 19th Street)."

As shown, North Bluff Road from 17th Street to North Bluff Park, north of the Urban Colony, shall be constructed with two travel lanes and a five-foot-wide striped on-street bike lane in one direction, and one travel lane and a five-foot-wide striped on-street bike lane in the other direction. An eight-foot-wide walkway, separated from the street by a landscaped bioswale, shall be constructed on the east side of the road and a 10-foot-wide curb-adjacent landscaped bioswale, shall be constructed on the west side of the road. A landscaped median shall be constructed along this length of North Bluff Road.

To reduce habitat impacts, North Bluff Road between North Bluff Park and 19th Street shall be constructed with a narrower cross-section, with one travel lane and a five-foot-wide striped on-street bike lane in each direction. A six-foot-wide pedestrian walkway, separated from the street by a nine-foot-wide landscaped bioswale, shall be constructed on the east side of the road and a 10-foot-wide curb-adjacent landscaped bioswale shall be constructed on the west side of the road.

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A six-foot-wide striped median shall be constructed along this segment of North Bluff Road. Parking shall be prohibited along this segment of North Bluff Road.

4. 15th Street, from Project Entry to Bluff Road

The design for 15th Street within the Project Site is illustrated in Exhibit 8-13, “Sections C-C, D-D, and E-E – 15th, 16th, and 17th Streets.”

As shown, 15th Street within the Project Site shall be constructed with two travel lanes and a five-foot-wide, striped, on-street bike lane in each direction. The roadway shall be divided by a landscaped median. An eight-foot-wide pedestrian walkway separated from the street by a varying-width, landscaped bioswale shall be constructed on each side of the street. Parking shall be prohibited along 15th Street

5. 16th Street, from Project Entry to North Bluff Road

The design for 16th Street within the Project Site is illustrated in Exhibit 8-13, “Sections C-C, D-D, and E-E – 15th, 16th, and 17th Streets.”

As shown, 16th Street within the Project Site shall be constructed with 40 feet of paved width, which can accommodate one travel lane in each direction and parking on both sides of the street. A five-foot-wide pedestrian walkway, separated from the street by a landscaped bioswale, will be provided on each side of the street. Parking shall be permitted along both sides of this segment of 16th Street

6. 17th Street, from Project Entry to North Bluff Road

The design for 17th Street within the Project Site is illustrated in Exhibit 8-13, “Sections C-C, D-D, and E-E – 15th, 16th, and 17th Streets.”

As shown, 17th Street within the Project Site shall be constructed with two travel lanes and a five-foot-wide, striped, on-street bike lane in each direction. A five-foot-wide pedestrian walkway, separated from the street by a landscaped bioswale, shall be constructed on both sides of the street. A landscaped median shall be developed along the length of 17th Street within the Project Site. Parking shall be prohibited along this segment of 17th Street.

7. Resort Colony Road, from Bluff Road to “D” Street

Resort Colony Road extends from Bluff Road to connect with a local roadway to serve the South Family Village. Resort Colony Road shall be constructed with one travel lane in each direction. An eight-foot-wide pedestrian walkway, separated from the street by a landscaped bioswale, shall be constructed on each side of the roadway, with no on-street parking. The design for Resort

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Colony Road is illustrated in Exhibit 8-14, “Sections G-G and H-H – Resort Colony Road and Scenic Drive.”

8. Scenic Drive, from 16th Street to 17th Street

Scenic Drive will connect to North Bluff Road at 16th and 17th Streets, and will extend adjacent to North Bluff Park along the south, west, and north perimeter of the North Family Village. Scenic Drive shall be constructed with one travel lane and one curb-adjacent parking lane in each direction. A four-foot-wide pedestrian walkway, separated from the street by a six-foot-wide landscaped parkway, shall be constructed on the side of the roadway adjacent to residential uses. A meandering trail shall be developed on the opposite side of the roadway within North Bluff Park. Parking is allowed on both sides of Scenic Drive. The design for the Scenic Drive is illustrated in Exhibit 8-14, “Sections G-G and H-H – Resort Colony Road and Scenic Drive.”

9. Local Roads

Local Roads shall be constructed with one travel lane and one curb-adjacent parking lane in each direction. A four-foot-wide pedestrian walkway, separated from the street by either a minimum six-foot-wide landscaped parkway or an eight-foot-wide landscaped bioswale depending upon the location, shall be constructed on both sides of the street. Parking is allowed on both sides of local roads. The design for Local Roads is illustrated in Exhibit 8-15, “Sections F-F, I-I, and N-N – Typical Local Roads and Private Alley.”

10. Private Alleys

Private alleys shall be constructed with a minimum width of 28 feet between buildings with a varying width 20- to 24-foot-wide paved travel lane and a three- to four-foot-wide area for landscaping and garage access on each side of the alley. Parking is prohibited along both sides of alleys. The design for Private Alleys is illustrated in Exhibit 8-15, “Sections F-F, I-I, and N-N – Typical Local Roads and Private Alley.”

8.3 Master Infrastructure and Utilities

8.3.1 Domestic Water Distribution

1. Existing Conditions

The Project Site is located within the City of Newport Beach's domestic water service area. Existing Newport Beach distribution facilities are located adjacent to the Project Site in West Coast Highway, 16th Street, and Ticonderoga Street. A transmission main exists at the north edge of the Project Site, which transports well water to the City-operated treatment facility and reservoir on 16th Street (Utilities Yard)

2. Master Water Plan

Domestic water demand for the Project includes water for dust control during construction, water for landscaping and irrigation needs, adequate water to meet fire-flow requirements, and potable water for all residential, commercial, and visitor-serving resort uses planned for the Project Site.

Exhibit 8-16, "Master Water Plan," depicts the backbone water facilities to be constructed as part of the Project. As shown, the proposed domestic water system shall connect to the existing City of Newport Beach water facilities in 16th Street, 15th Street at Monrovia, Ticonderoga Street, and West Coast Highway. Within the Project Site, a network of 8- to 12-inch-diameter water mains shall be constructed to provide service to the various uses

No reclaimed water distribution is planned since a qualified service provider is not available.

8.3.2 Wastewater Collection and Disposal

1. Existing Conditions

The City of Newport Beach has wastewater collection facilities adjacent to the Project Site, located in West Coast Highway, 19th Street, and Ticonderoga Street. The Ticonderoga and West Coast Highway sewer systems are connected to the County Sanitation District of Orange County's (CSDOC's) Bitter Point Pump Station near the southwest corner of the Project Site, adjoining West Coast Highway. Discharge from the 19th Street sewer flows northerly to a City-operated pump station at the end of Walkabout Circle, where the discharge is directed to the CSDOC's Wastewater Treatment Plant.

The CSDOC operates facilities in West Coast Highway as well as the Bitter Point Pump Station and two force mains located within the Project Site. The trunk system in West Coast Highway is part of the Newport Beach Trunk Sewer System which serves the southeastern portion of the

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CSDOC's Districts No. 5 and No. 6. From the Bitter Point Pump Station, the effluent is pumped through the force mains on-site and then flows via a siphon under the Santa Ana River to Wastewater Treatment Plant 2.

Improvements by the CSDOC to improve the Bitter Point Pump Station and force mains will be completed prior to the time of Project occupancy. The proposed improvements will increase flow through capacity and reliability.

The existing oil extraction operation on the Project Site produces water which is cleaned and then directed to a 12-inch-diameter pipe that joins the County Sanitation District Facility upstream of the siphon at the Santa Ana River. As part of the CSDOC upgrades, arrangements will be made for the oil operation effluent to be pumped by the oil operators (i.e., WNOC and the City of Newport Beach) to a point upstream of the pump station.

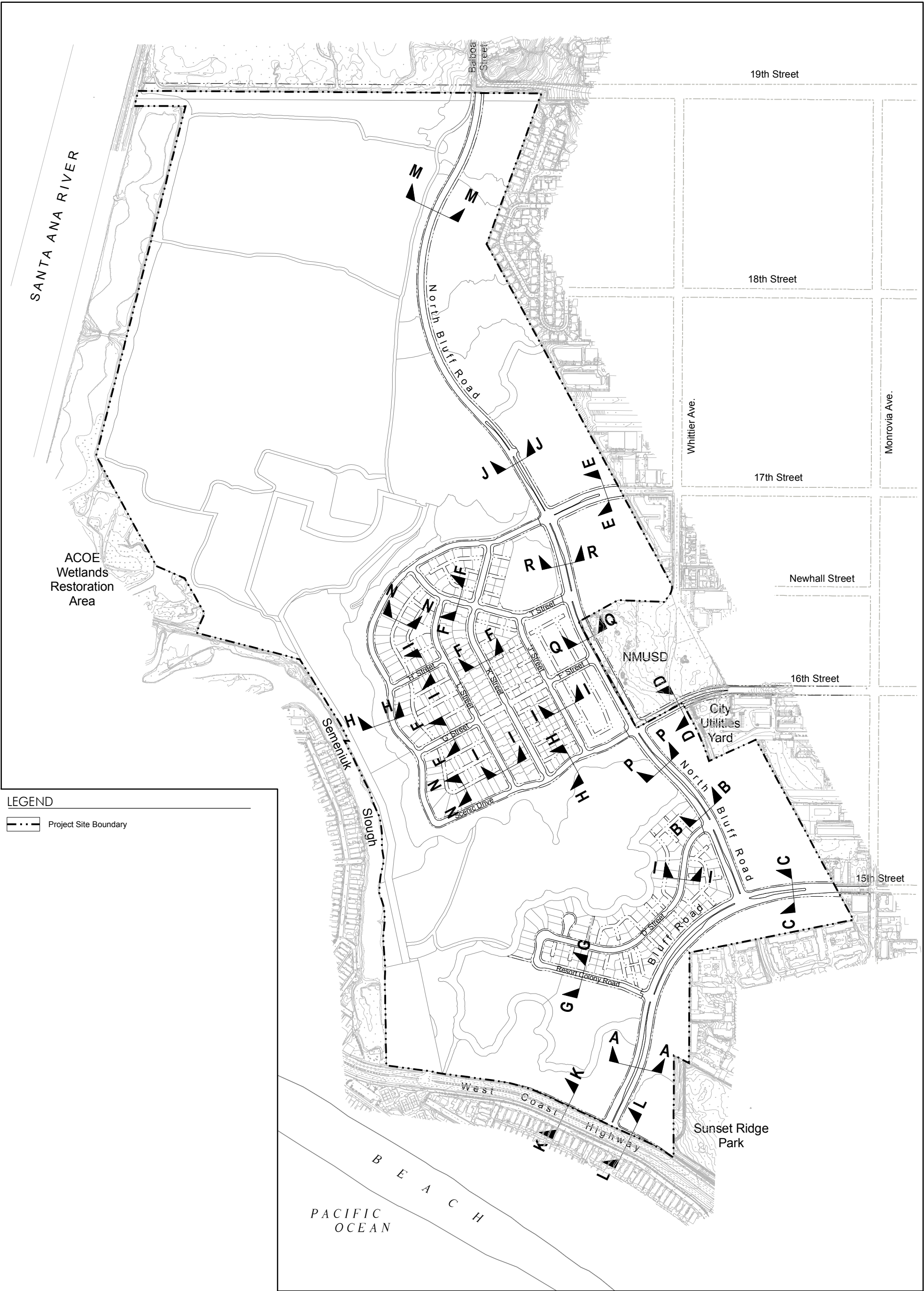
2. Master Wastewater Plan

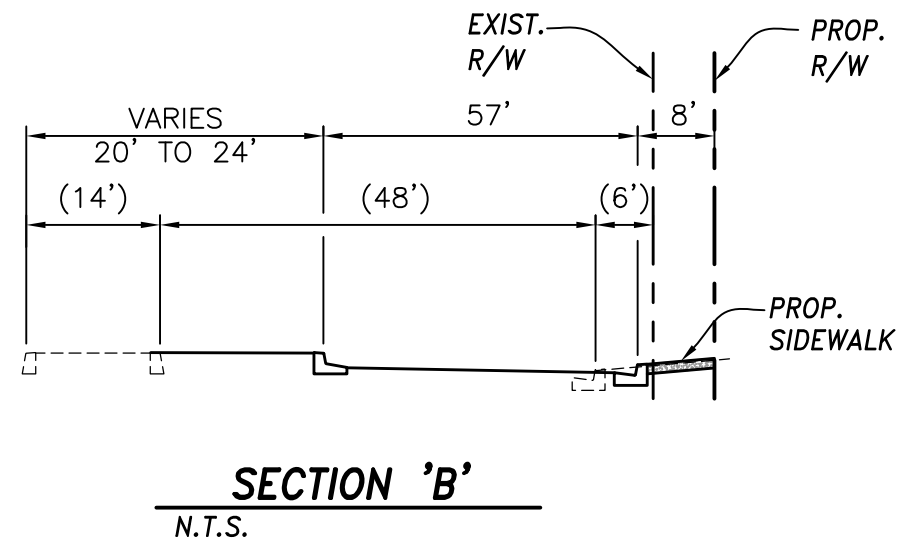
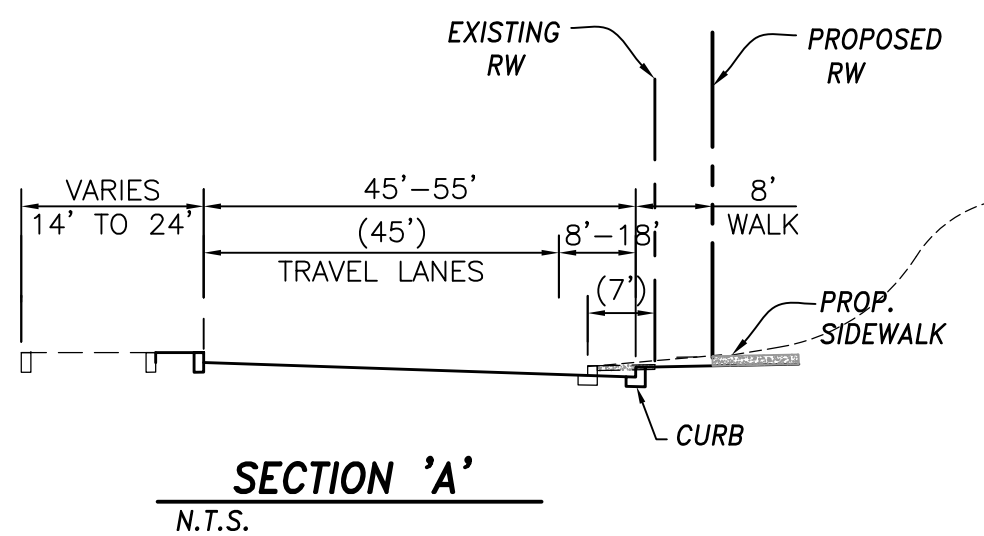
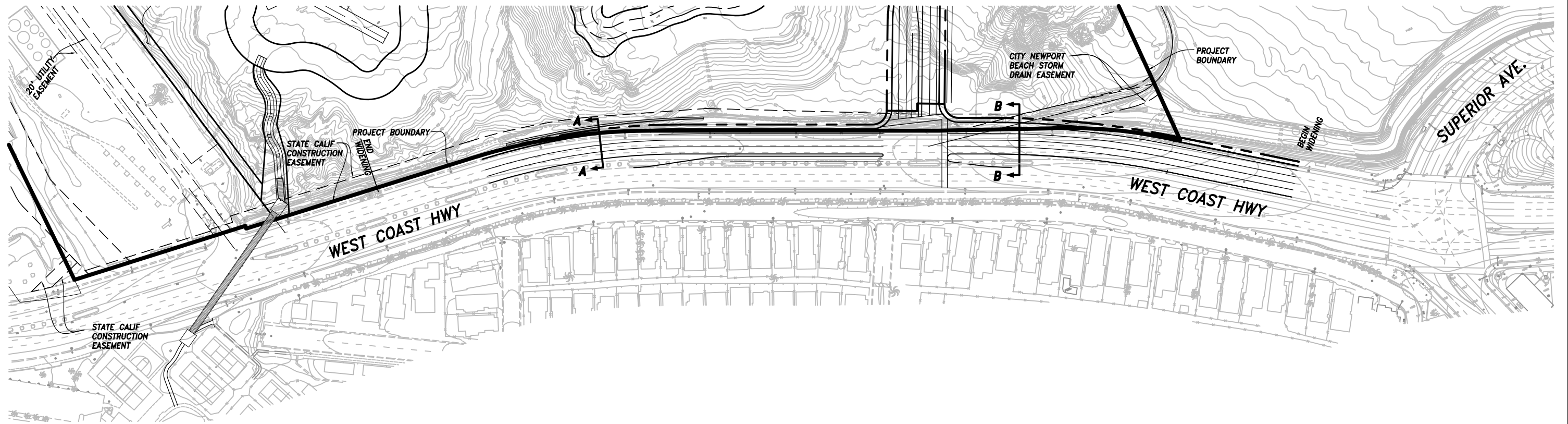
Exhibit 8-17, "Master Wastewater Plan," depicts the backbone wastewater facilities to be constructed as part of the Project. As shown, the Project shall provide a sanitary sewer network to serve the proposed residential, commercial, resort inn, and public park uses. Effluent from the development areas shall be collected and directed to the CSDOC trunk sewer upstream of the Bitter Point Pump Station via 10 and 12-inch-diameter pipes. The on-site sewer system shall be public, and owned and maintained by the City of Newport Beach.

8.3.3 Dry Utilities and Services

Dry utilities and services shall be provided to the proposed Project by the following purveyors:

- Electrical – Southern California Edison Company;
- Gas – The Gas Company;
- Telephone – Pacific Bell; and
- Cable Television/Internet/Telephone – Time Warner.





- PROVIDE PEDESTRIAN BRIDGE OVER WCH.
- CONSTRUCT LANDING FOR PEDESTRIAN BRIDGE WITHIN WEST NEWPORT PARK.
- PROVIDE DUAL LEFT TURN LANE ON EASTBOUND WCH.
- WIDEN WCH TO ACCOMMODATE DUAL LEFT TURNS, AND 4TH LANE FROM SUPERIOR TO BLUFF ROAD.
- SIGNALIZE BLUFF ROAD INTERSECTION WITH WCH.
- DEDICATE ADDITIONAL RIGHT OF WAY.

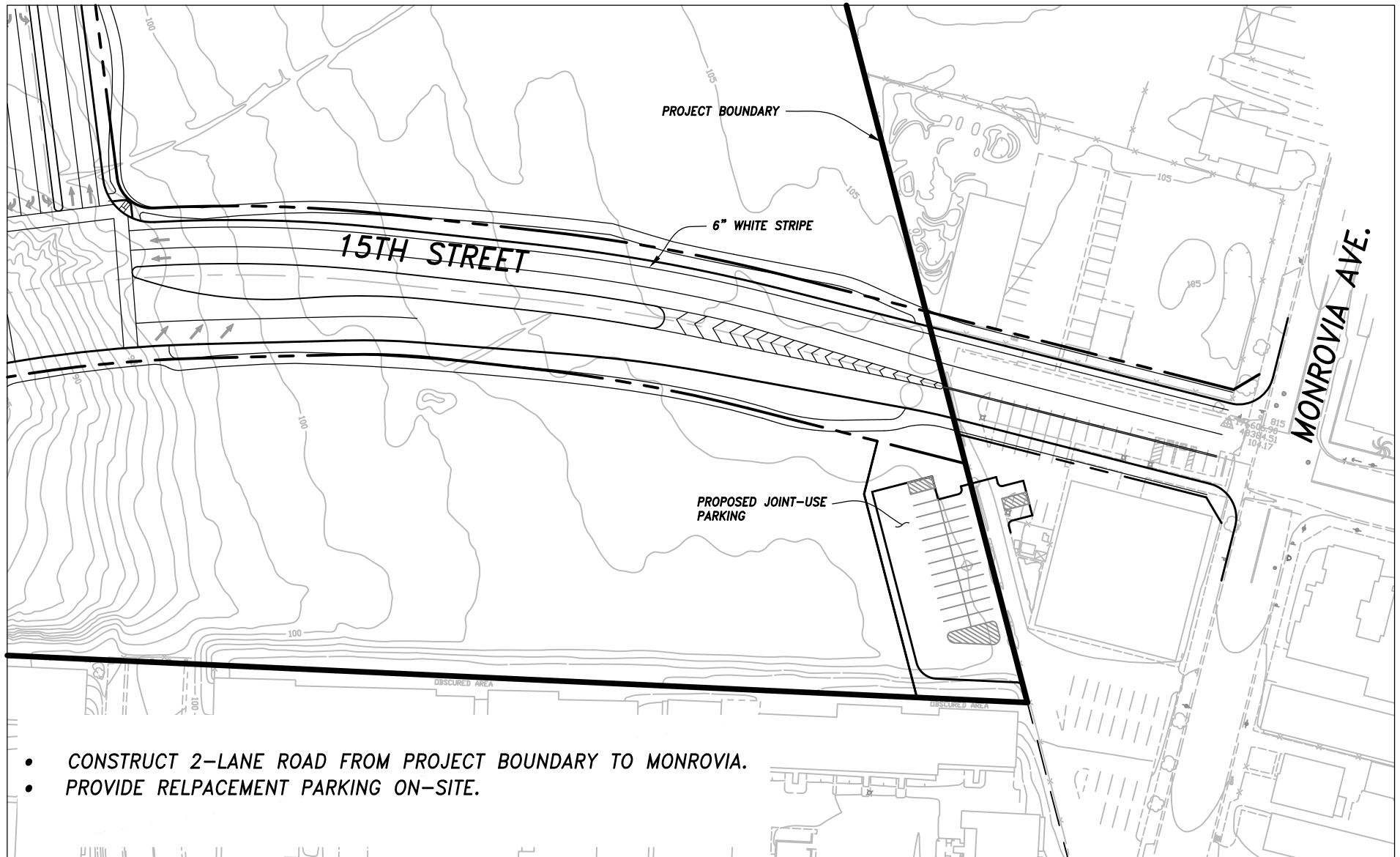


Exhibit 8-3 15th Street Entry and Off-Site Improvements



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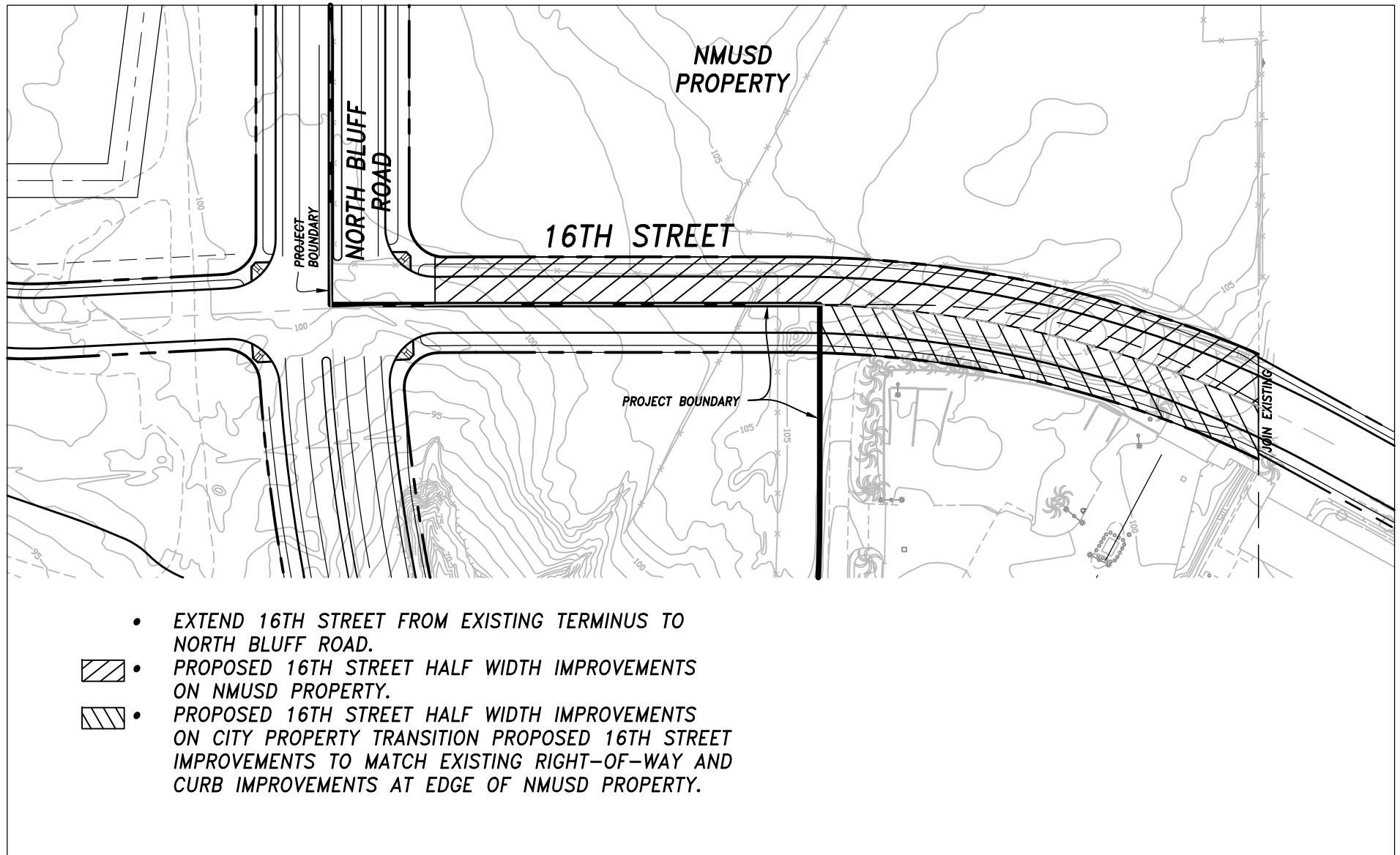


Exhibit 8-4 16th Street Entry and Off-Site Improvements



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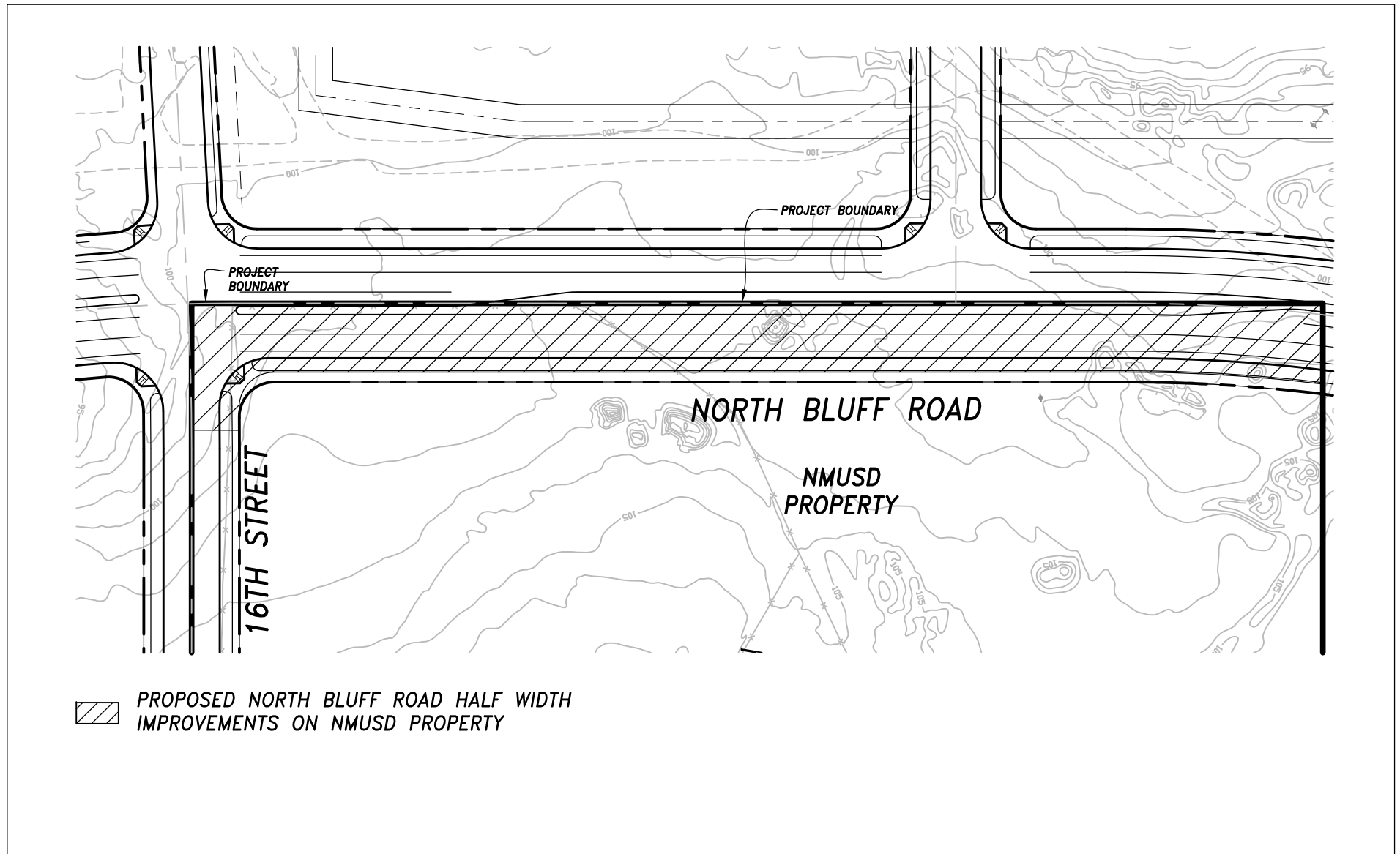


Exhibit 8-5
 North Bluff Road
 Off-Site Improvements



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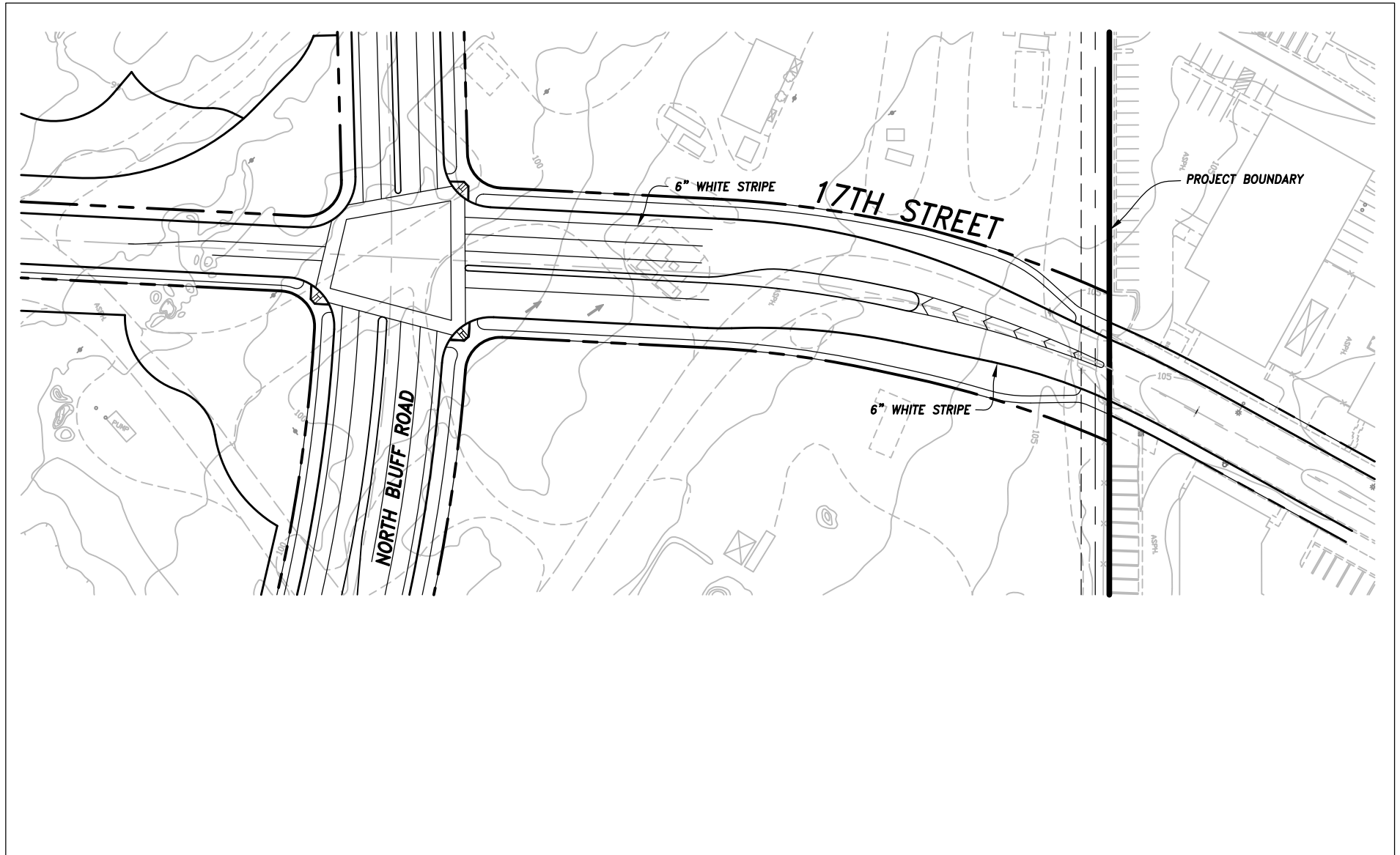


Exhibit 8-6
 17th Street Entry and
 Off-Site Improvements



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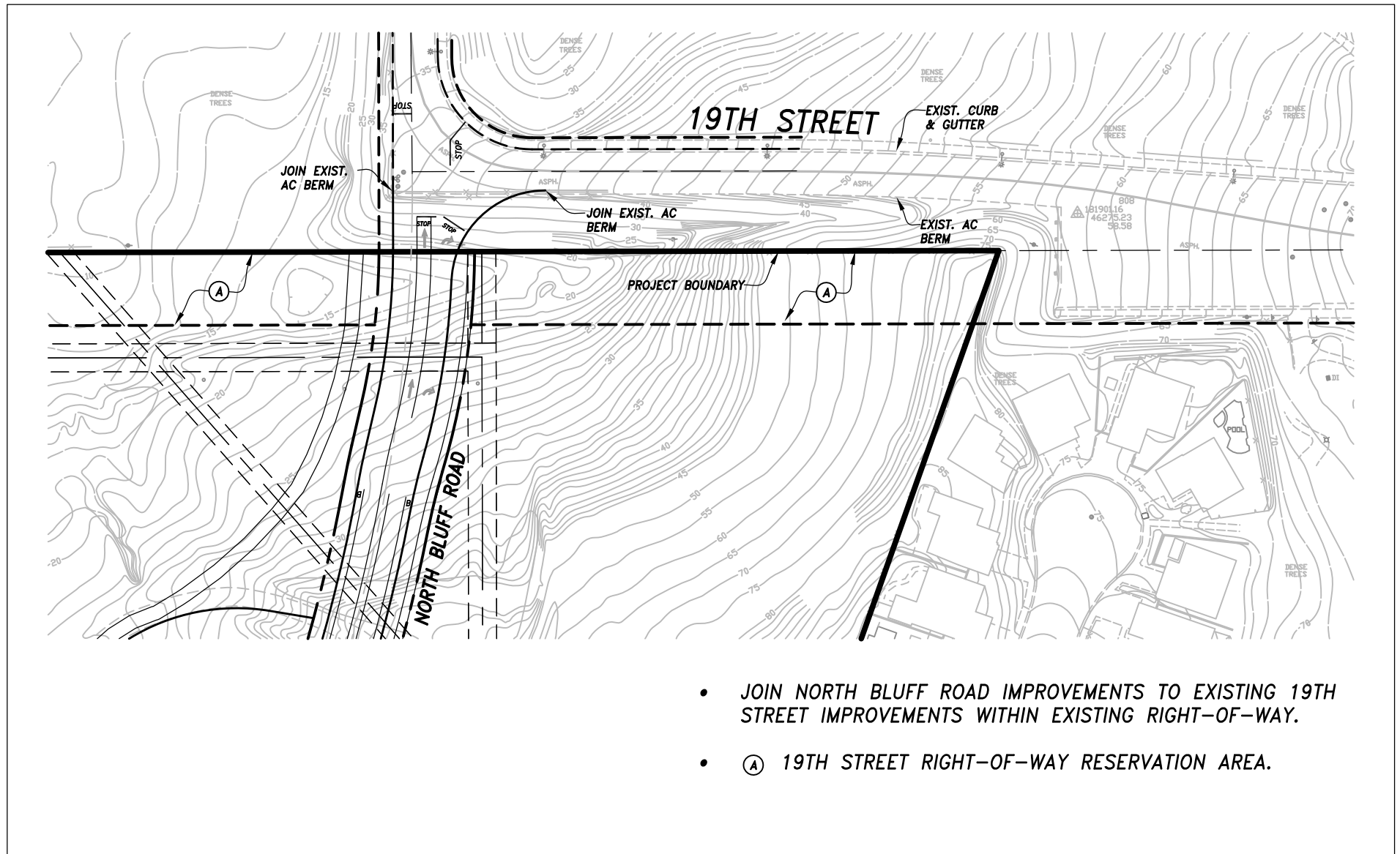
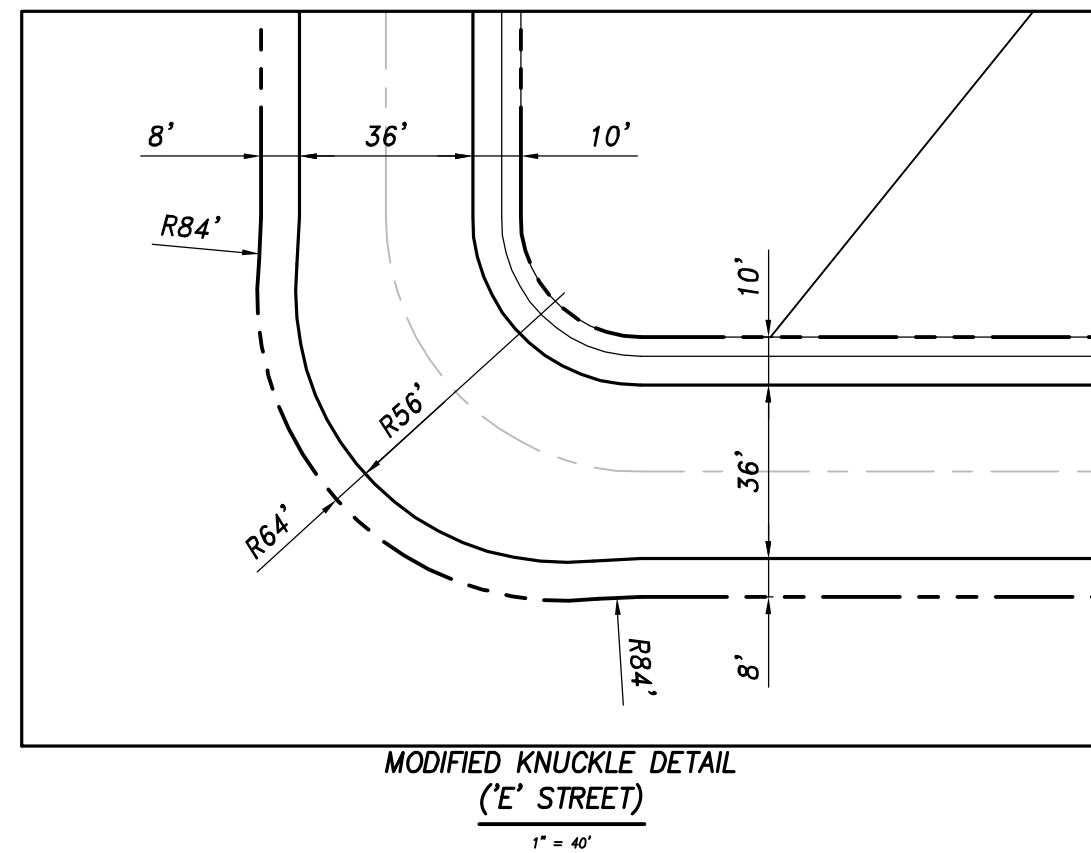
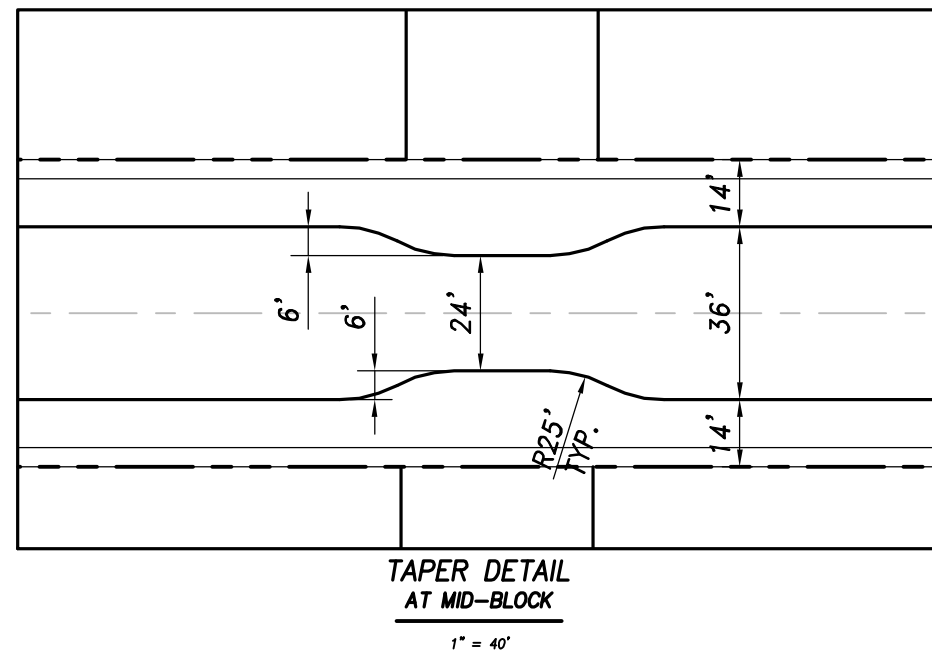
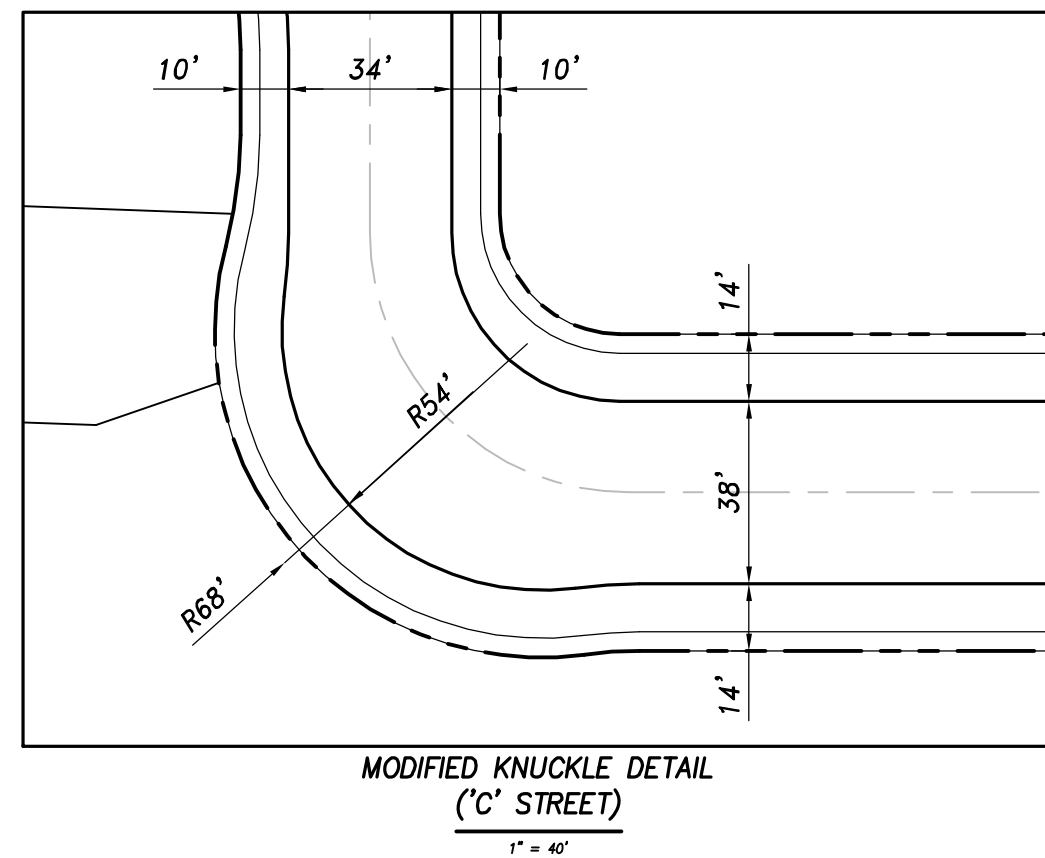
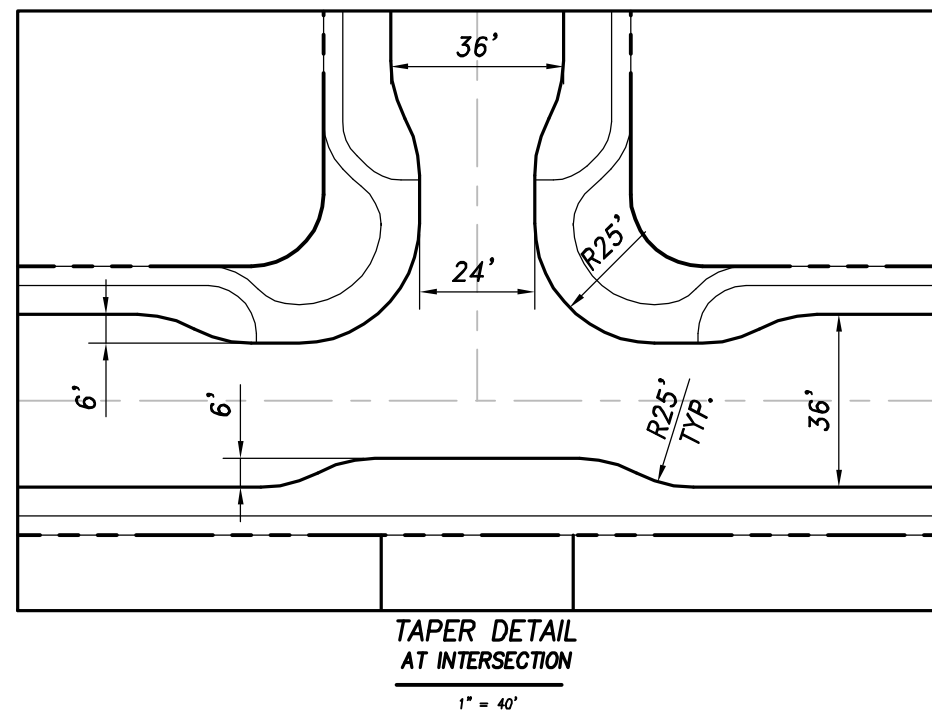
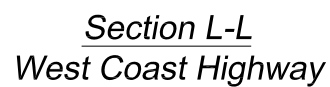


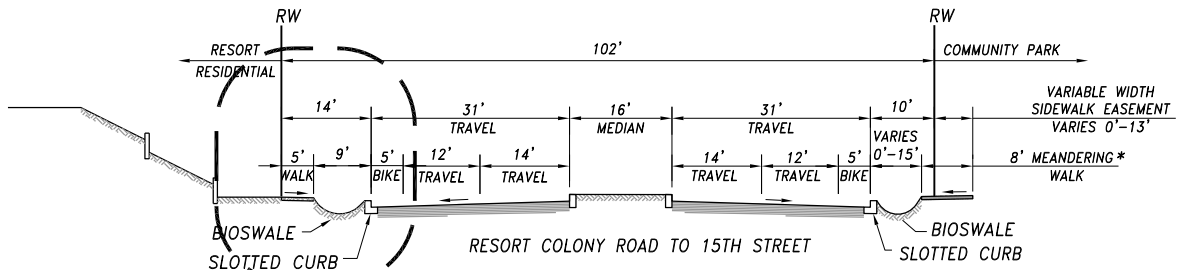
Exhibit 8-7 19th Street and North Bluff Road Entry and Off-Site Improvements



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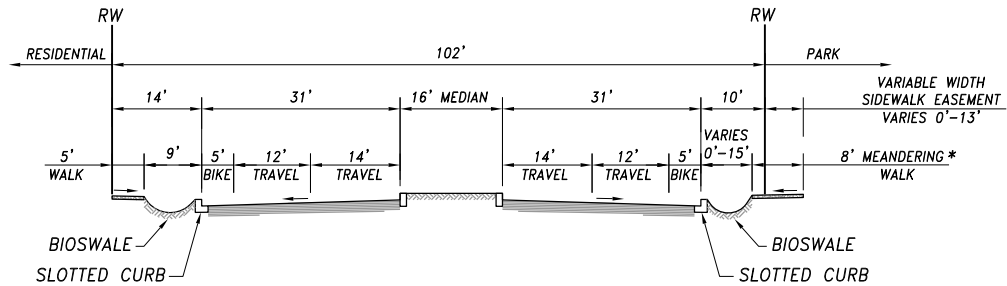
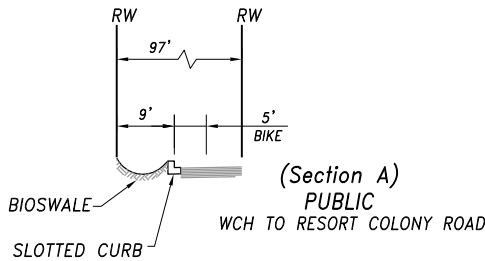




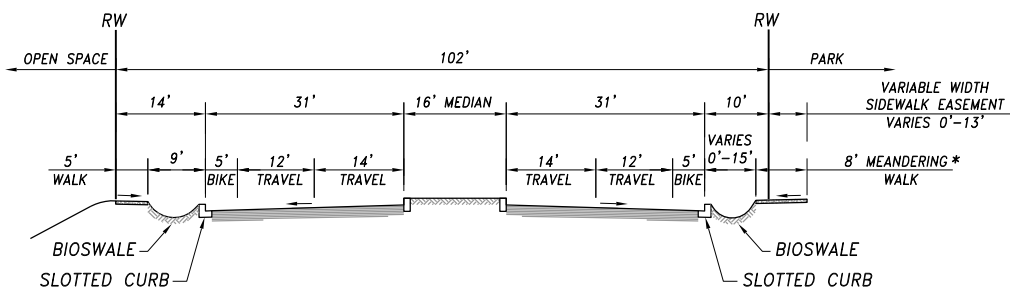


SEE BELOW FOR
SECTION A

Section A-A
Bluff Road (West Coast Highway to 15th Street)



Section B-B
North Bluff Road (15th Street to 16th Street - Adjacent Residential to West)



Section P-P
North Bluff Road (15th Street to 16th Street - Adjacent Open Space to West)

Exhibit 8-10

Sections A-A, B-B, and P-P

Bluff Road (West Coast Highway to 15th Street)
North Bluff Road (15th Street to 16th Street)



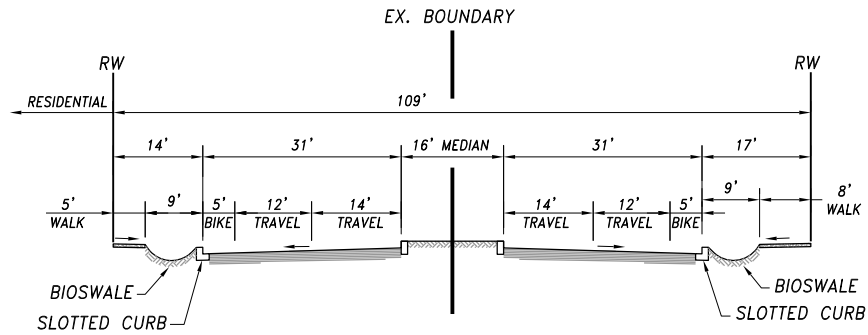
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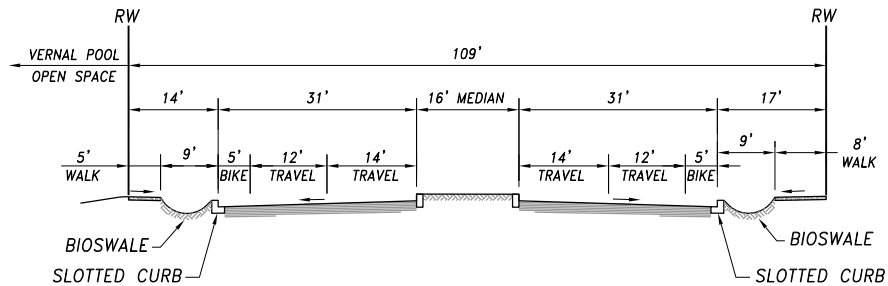


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Section Q-Q

North Bluff Road (16th Street to 17th Street - Adjacent Residential to West)



Section R-R

North Bluff Road (16th Street to 17th Street -
Adjacent Interpretive Park/Open Space to West)

Exhibit 8-11

Sections Q-Q and R-R

North Bluff Road (16th Street to 17th Street)



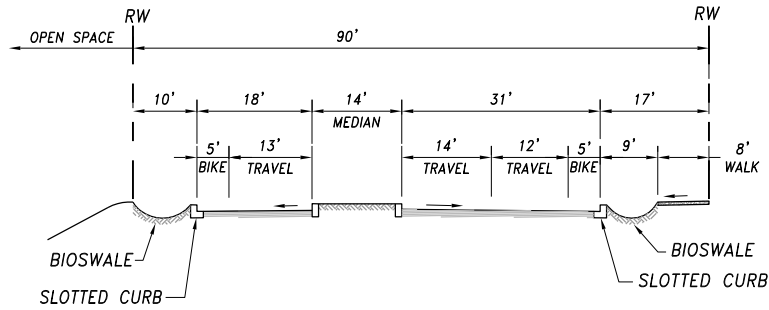
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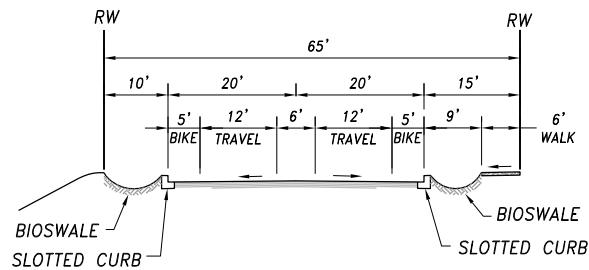


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Section J-J

North Bluff Road (17th Street to North Bluff Park North of Urban Colony)



Section M-M

North Bluff Road (North Bluff Park North of Urban Colony to 19th Street)

Exhibit 8-12

Sections J-J and M-M

North Bluff Road (17th Street to 19th Street)



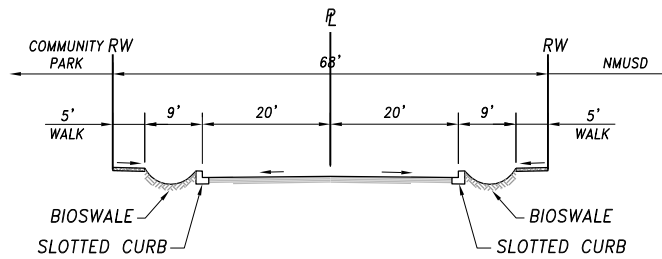
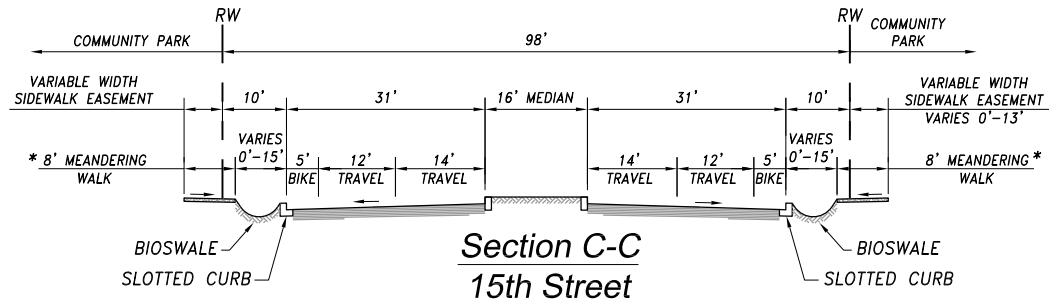
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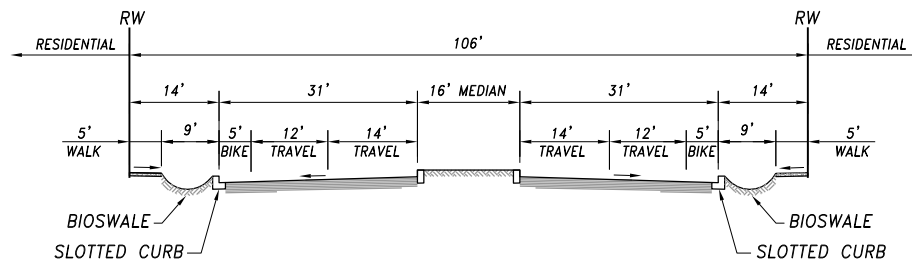
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Section D-D
16th Street



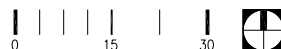
Section E-E
17th Street

Exhibit 8-13

Sections C-C, D-D, and E-E
15th, 16th, and 17th Streets



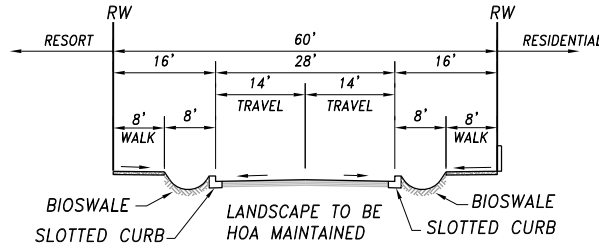
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City of Newport Beach - California



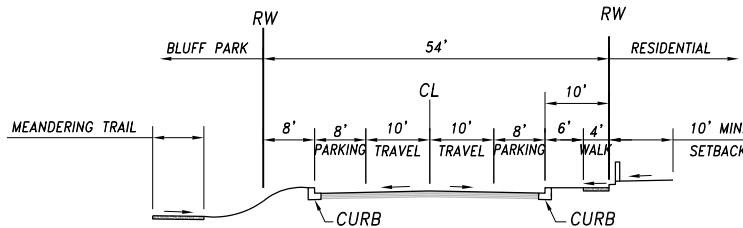
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Section G-G
Resort Colony Road



Section H-H
Scenic Drive

Exhibit 8-14

Sections G-G and H-H

Resort Colony Road and Scenic Drive



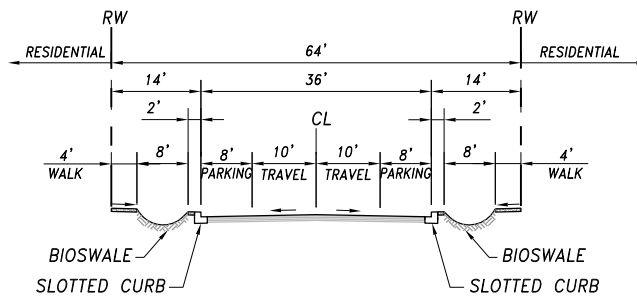
MASTER DEVELOPMENT PLAN
City of Newport Beach - California



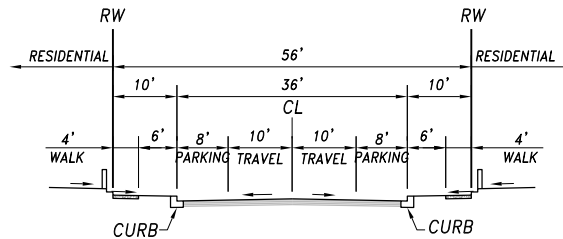
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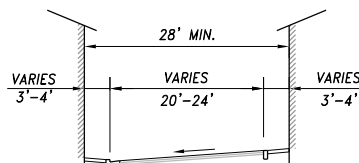
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Section F-F
Typical Local Road with Bioswales



Section I-I
Typical Local Road



Section N-N
Typical Private Alley

Exhibit 8-15

Sections F-F, I-I, and N-N

Typical Local Roads and Private Alley



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