DRAFT
MASTER INFRASTRUCTURE PLAN 2020 AMENDMENT

ALAMEDA POINT

ALAMEDA, CALIFORNIA

AUGUST 2020

Prepared For:

Prepared by:

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I. INTRODUCTION

The Alameda Point Master Infrastructure Plan (MIP) presents the backbone infrastructure requirements and standards necessary to support the redevelopment of Alameda Point. The MIP established a framework of street and utility corridors necessary to ensure a logical implementation of the backbone infrastructure, replacing the Navy's antiquated and sub-standard infrastructure.

The MIP was adopted by the City Council in March 2014. Since then, the City of Alameda has advanced the development of backbone infrastructure within both the new Development and Adaptive Reuse areas. The various Development and Reuse projects have been implemented in a consistent manner as the MIP outlined and have commenced the orderly replacement of the Navy's aged infrastructure. The projects that have been constructed or are actively being implemented within Alameda Point are summarized in the following section and are depicted on Figure 1.

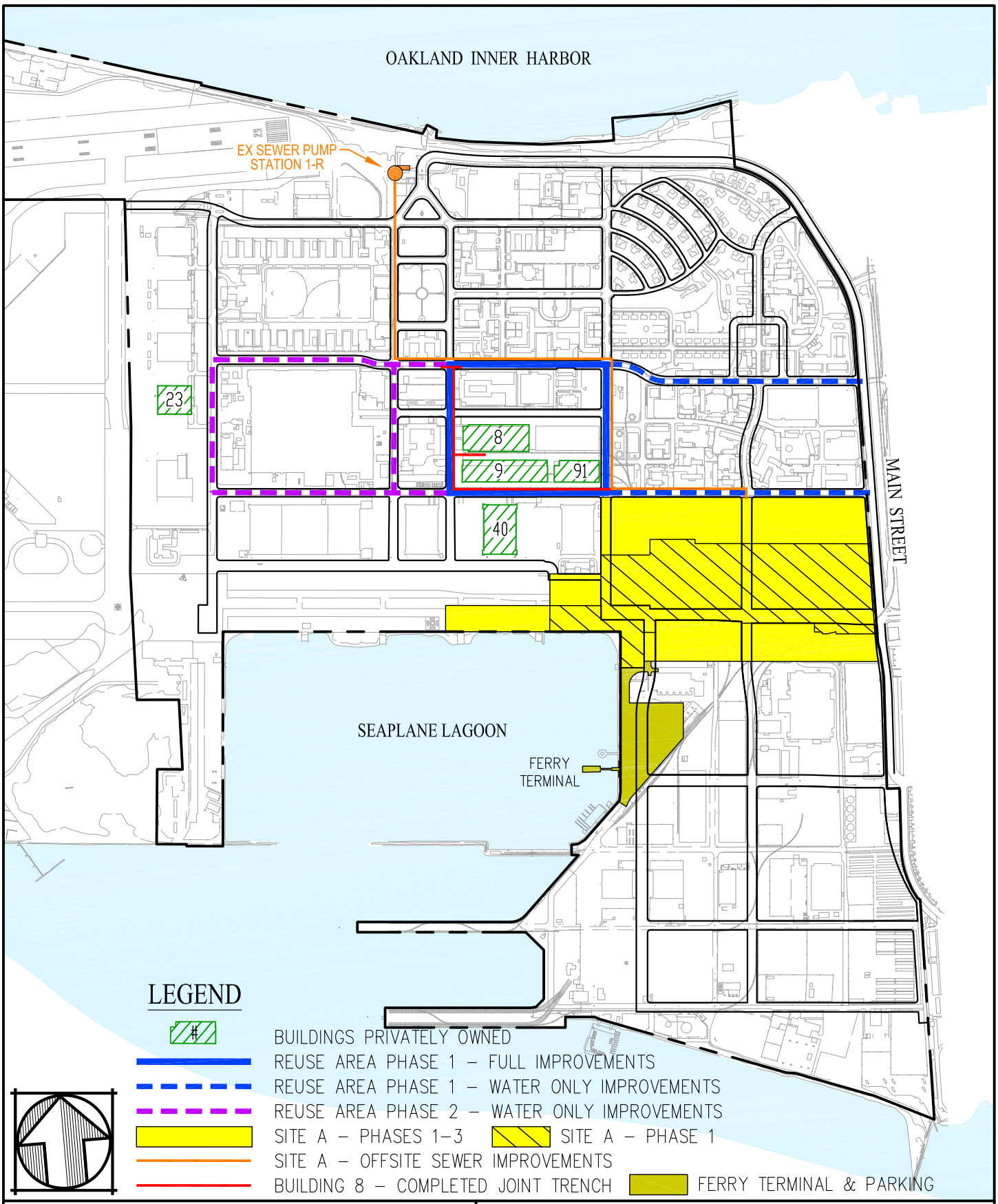
Additionally, in the past 5 years there have been advancements of implementation details for the backbone infrastructure. There have been updated agreements executed with East Bay Municipal Utility District (EBMUD) and Pacific Gas and Electric (PG&E) to address the on-going maintenance and planned replacements of the historical Navy water and natural gas systems. Additionally, in 2019, the City of Alameda adopted a Climate Action and Resiliency Plan (CARP) that outlines an approach for the City to reduce emissions and further commit to constructing infrastructure that extends the City's resiliency from the impacts of climate change and sea level rise.

The purpose of this MIP Amendment is provide a summary of the current backbone infrastructure implementation and update requirements or standards that have evolved in the past 5 years. The following are key topics of this MIP Amendment:

- Backbone Infrastructure Implementation as of 2019
- Coordination with the CARP
- Adaptive Reuse Street Sections Adopted by the Transportation Commission is 2019
- Transit Systems Based on Current City-Wide Transportation Planning and Completed or Funded Facilities
- Parks and Open Space to Incorporate Depave Park and Coordinate with Recently Constructed Other City Parks and Trails
- Backbone Sanitary Sewer System Configuration, as Implemented by Site A
- Potable Water System Implementation in Coordination with EBMUD

- Electrical System Implementation in Coordination with AMP and Electrification Considerations from the CARP
- Natural Gas System Replacement in Coordination with PG&E
- Updated Construction Cost Estimates for the Remaining Backbone Infrastructure to be Completed in the Development Impact Fee Program

The following sections and figures enclosed in this MIP Amendment update and replace the respective components of the 2014 MIP. All other components of the 2014 MIP not included or discussed within this MIP Amendment remain effective.



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CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
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FIGURE 1
IMPLEMENTATION PROJECTS (2019)

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\FIGURE 1_IMPLEMENTATION PROJECTS.DWG

II. BACKBONE INFRASTRUCTURE IMPLEMENTATION STATUS

The City of Alameda has been implementing several projects at Alameda Point that include backbone infrastructure improvements in accordance with the MIP. A summary of each project and the related backbone infrastructure improvements is provided below. The locations of each project and related backbone infrastructure improvements are depicted on Figures 1 and 2.

SITE A

Site A is a 68-acre mixed-use neighborhood located at the Main Street and Ralph Appezzato Memorial Parkway intersection. This neighborhood is being implemented over 3 phases. The first phase is actively being constructed and is anticipated to be completed in 2020. The first phase includes the following components of backbone infrastructure:

- West Atlantic Avenue
- Ferry Point – Phase 1 Segment
- Orion Street – Phase 1 Segment
- Main Street Frontage Improvements – Phase 1 Segment
- Stormwater Outfall at the northeast corner of the Seaplane Lagoon
- Waterfront Park – Phase 1 Segment
- Neighborhood Parks
- Off-Site Sanitary Sewer Pipeline Extension
- Sanitary Sewer Pump Station

Site A Phase 2 is anticipated to commence construction in 2020 and Phase 3 in 2024.

BUILDING 8 JOINT TRENCH

The reuse and rehabilitation of Building 8 included the construction of a joint trench along Saratoga Avenue and West Tower Avenue. These facilities were designed to not only serve Building 8, but also the reuse of other adjacent Buildings, such as 9 and 91. This joint trench installation was completed in 2019.

ADAPTIVE REUSE INFRASTRUCTURE REPLACEMENT – PHASE 1 & 2

The City of Alameda is actively preparing construction documents for the replacement of all infrastructure within the Adaptive Reuse Phase 1 areas. This includes new utilities and street improvements for West Tower Ave, Saratoga Ave, Pan Am Ave, and W Midway Ave. Additionally, new EBMUD waterlines will be installed from the Reuse Phase 1 areas along W Tower and W Midway to provide redundant connections to the existing EBMUD waterline in Main

Street. The project also includes the extension of EBMUD waterlines throughout the Reuse Phase 2 areas, extending new water distribution system to Monarch Street. This allows for the historical Navy water system to be decommissioned within the Reuse Phase 1 & 2 areas, providing improved reliability for Alameda Point businesses and reduced maintenance liability for the City of Alameda. This project is anticipated to commence construction in 2021 and be completed in 2023.

SEAPLANE LAGOON FERRY TERMINAL

The City of Alameda in coordination with the Site A development team are actively constructing the Seaplane Lagoon Ferry Terminal. This terminal is located at the southeast corner of Seaplane Lagoon. The ferry service from this facility will be operated by WETA and provide direct ferry commuting to Downtown San Francisco. This is a critical component of the Alameda Point transit service and traffic management program. This project is actively in construction and anticipated to be completed in 2020.

This project also includes an agreement with the Site A development team to allocate funds for the future undergrounding of the temporary overhead electrical distribution system installed to serve the Seaplane Lagoon Ferry Terminal.

SITE MANAGEMENT PLAN UPDATE

An important component of the successful implementation of the backbone infrastructure is to ensure that construction operations appropriately plan for and address potential environmental contaminants. Accordingly, the City of Alameda has commissioned an update to the Site Management Plan (SMP). The SMP update is still on-going and anticipated to be completed in 2020. The SMP provides a summary of potential contaminants that may be encountered and the required measures to implement if they are encountered. All projects pursuing construction of MIP-related improvements shall review and comply with this SMP.

OTHER PENDING PROJECTS

There are several other pending projects under consideration by the City of Alameda, all of which are planned to deliver the supporting backbone infrastructure. These include:

- Site B Development Area
- West Midway Area
- BEQ
- VA Project
- Seaplane Lagoon Taxiway Development Areas

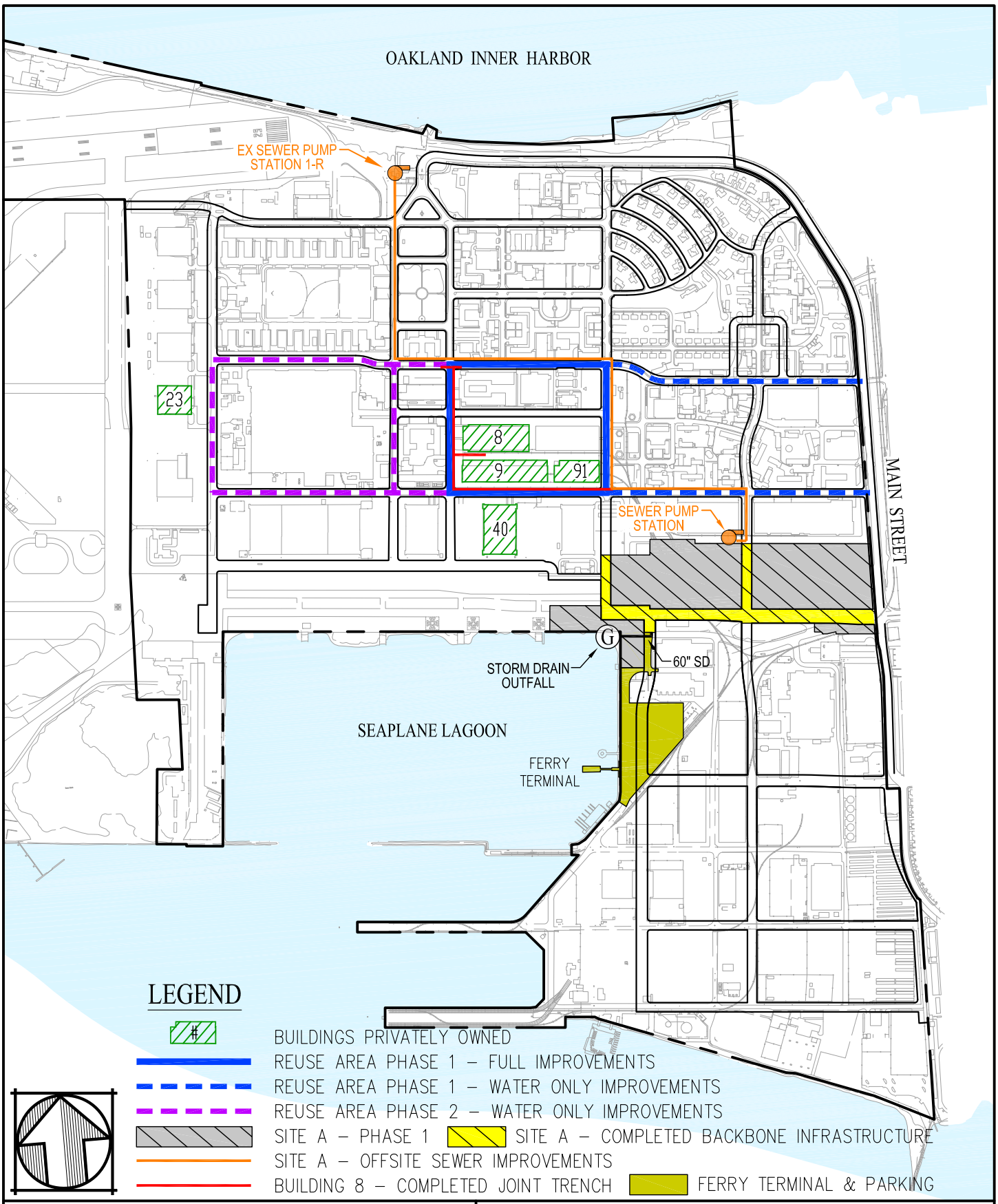

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FIGURE 2
BACKBONE INFRASTRUCTURE IMPLEMENTATION (2019)

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III. COORDINATION WITH THE CARP

SEA LEVEL RISE PROTECTION

The MIP established a plan to provide long-range protection for Alameda Point from rising sea levels. The plan included flood protection strategies and requirements for raising elevations within the Development Areas, providing a perimeter flood protection berm surrounding the historic core of the Adaptive Reuse areas and managed shoreline retreat within open spaces areas, such as the Depave Park and Northwest Territories. The MIP also outlined requirements to ensure that adaptive capacity is incorporated as part of the flood protection measure designs. The City has also since created a Community Facilities District for Alameda Point, which provides a funding mechanism to ensure funds are being collected to support the implementation of adaptive measures in the future should sea level rise exceed current projections.

The MIP utilized the best available science at the time it was adopted to establish the required minimum elevations to be achieved in order to provide built-in protection from future sea level rise. In 2018, the California Ocean Protection Council (OPC) published an update to its prior sea level rise guidance. This updated guidance provides the scientific foundation for a decision-making process to select which sea level rise projection is appropriate for a specific project. This approach considers multiple factors, including project location, lifespan of the project, degree of sea level rise exposure, risk tolerance and adaptive capacity of the project design. The CARP utilized this approach to assess the vulnerabilities of the City of Alameda, including Alameda Point, related to future sea level rise. The CARP also outlined plans for the City's shoreline future based on the current California OPC's sea level rise guidance and projections. The CARP selected to plan shoreline improvements based on projections associated with the "medium-high risk aversion" and the higher GHG emissions scenarios, which are summarized as follows:

- Mean Higher High Water + approximately 24-inches of sea level rise by 2050, and
- Mean Higher High Water + 71-inches to 83-inches of sea level rise by 2100

In order to align the MIP with the CARP, the following is the updated MIP Table 5 – Site Grading Design Criteria and Figures 11 and 12, providing the higher minimum required elevations within Alameda Point to achieve the level of protection of buildings, critical services, land uses, shoreline and recreation areas, and transportation facilities as targeted in the CARP.

MIP Table 5 – Site Grading Design Criteria

	Location	Improvements	Minimum Elevation (City Datum)	Design Criteria
Development Areas (New Construction)				
Perimeter	Eastern Seaplane Lagoon	Raise Existing Revetment	8.9	= MHHW + 6.6' SLR + 1' W/W + 1' FB = 100-YR BFE + 3' SLR + 1' W/W + 1' FB
	West & North Project Boundary	Raise Existing Headwall or Revetment	8.9	= MHHW + 6.6' SLR + 1' W/W + 1' FB = 100-YR BFE + 3' SLR + 1' W/W + 1' FB
	Existing Piers	Raise Existing Floodwall	11.9	= MHHW + 6.6' SLR + 4' W/W + 1' FB = 100-YR BFE + 3' SLR + 4' W/W + 1' FB
	Southwest Project Boundary	Raise Existing Revetment	11.9	= MHHW + 6.6' SLR + 4' W/W + 1' FB = 100-YR BFE + 3' SLR + 4' W/W + 1' FB
Inland	Areas Adjacent to Main Street	Raise Building Ground Floor Elevations	6.9	= MHHW + 6.6' SLR = 100-YR BFE + 3' SLR
Reuse Areas				
Perimeter	West & North Project Boundary	Construct Berm or Raise Existing Revetment	8.9	= 100-YR BFE + 3' SLR + 1' W/W + 1' FB
Inland	Existing Areas to Remain	Reconstruct Backbone Improvements	–	Existing Elevations to Remain As Is
Main Street				
Initial Construction	Pacific Avenue to Main Gate	Frontage Improvements	–	Existing Elevations to Remain As Is
Ultimate Improvements	Atlantic to Main Gate	Raise Main Street Or Integrate to Regional Sea Level Rise Protection	8.9 Or Existing Ground	City to Determine as part of Adaptive Management Plan

*MHHW Per NOAA Tidal Station = 0.3 (City Datum) / 6.37 (NAVD 88)
**BFE Per FEMA = 3.9 (City Datum) / 10.0 (NAVD 88)

Abbreviations:

BFE	Base Flood Elevation
MHHW	Mean Higher High Water
SLR	Sea Level Rise
W/W	Wave / Wind Runup
FB	Freeboard

EMERGENT GROUNDWATER

The CARP identified the need to consider impacts of sea level rise on groundwater. As sea levels rise, groundwater will rise, increasing the potential for groundwater to emerge, in turn increasing the potential for flooding or for contaminants to migrate.

Groundwater Contaminant Migration

At Alameda Point, the US Navy has been completing remediation activities with the oversight of the US EPA, DTSC and RWQCB prior to the transfer of property to the City of Alameda. The remediation technologies have varied, but generally include excavation and removal, in-situ groundwater treatment and capping or engineering controls.

As noted in the CARP, the excavation, removal and in-situ groundwater controls either remove the contaminants or degrade the contaminates to concentrations that are protective of human health and environment. Accordingly, sea level rise is not expected to adversely affect the portions of Alameda Point where these remediation methods have been implemented.

For those areas where capping or other engineering controls are being implemented as the remediation methods, long-term monitoring is required to verify that the controls remain protective of human health and the environment. Inspections are typically required annually, with detailed assessments at five-year intervals. The monitoring programs for these controls at Alameda Point will need to identify if changing conditions resulting from sea level rise are adversely impacting the environmental conditions and additional remediation technologies need to be employed.

Emergent Groundwater Measures

The following measures shall be implemented with new backbone infrastructure construction in order to minimize the potential flooding impact of rising groundwater:

- Construct Sewer and Storm Drain Pipelines with Watertight Joints
- Construct Concrete Cut-Off Walls and Pipe Anchors with Sanitary Sewer and Storm Drain Trenches
- Increase Sanitary Sewer and Storm Drain Pipeline Trench Bedding to 12-Inches Minimum
- Construct a Subdrain Under Curb and Gutter

Additional long-term adaptive measures, such as a perimeter cut-off wall or a groundwater pumping system, shall be incorporated to the Alameda Point long-term adaptive management strategies to address sea level rise.

MANAGED SHORELINE ADAPTION

The MIP outlined potential locations for managed shoreline adaption and transformation of vast paved areas into tidal wetlands, marshes and coastal open spaces that support a sustainable ecology, new wildlife habitat with an additional co-benefit of carbon sequestration. The areas identified in the MIP included the Northwest Territories and the De-Pave Park. The CARP highlighted the importance of these opportunities and presented an additional concept for conversion of the airfield areas into an expansive Nature Reserve. The Case Study from the CARP focused on these open spaces is incorporated to the MIP Amendment below along with the updated Figures 12 & 31.

Additional managed shoreline adaption may also be considered along the northern shoreline of the planned sports complex. This would allow the levee to be positioned outside of the potential zone of deformation and avoid shoreline stabilization costs in this area. This is subject to coordination with the City's Parks and Recreation Department for confirmation that the remaining area for the sports complex is adequate. The potential adjusted levee alignment and additional tidal wetlands in the sports complex areas are depicted on the updated Figures 11 and 12.

MAIN STREET ADAPTION

Main Street has multiple critical functions identified in the MIP. As the landside perimeter of Alameda Point, Main Street is the location of reliable utility systems supporting the build out of Alameda Point and integrates the project to the regional transportation framework. Additionally, Main Street is an important component of the flood and sea level rise protection system for Alameda Point.

As the identified in the recently adopted CARP, there is the need for regional shoreline protection along the northern shoreline of the City of Alameda to the east of Alameda Point. A regional extension of shoreline protection will provide resiliency for a larger region of surrounding neighborhoods. In order to integrate with this regional system, the MIP Amendment incorporates an adaptive approach the improvement of Main Street. This adaptive approach will allow the City of Alameda to achieve the highest level of protection for the community. The approach will ensure that Main Street is improved with high quality bicycle and pedestrian facilities. It will also enhance the existing Main Street storm drain pump station and related facilities to address increasing tides in the near term, while planning for the long term reconstruction at the time the City to determines how best to integrate Main Street into the regional sea level rise protection system.

The adaptive approach is outlined as follows:

Initial Construction Improvements

Any new development directly adjacent to Main Street, or as determined necessary by the City of Alameda, will be responsible for constructing the initial frontage improvements as depicted on Updated Figure 23A. These improvements will be required to be implemented adjacent to each new development project and will include delivering a Class I trail along with landscaping and curb, gutter, storm drainage improvement and street lighting on the west side. The Class I trail facility will be connected and utilize the functionality of the existing trail network on the east side of Main Street as well as the Cross Alameda Trail at the intersection with W Atlantic Ave, providing safe connections the regional bicycle and pedestrian trail systems.

All development projects will also be required to participate in additional long-term ultimate improvements to Main Street, as described below, as well as enhancements to the existing Main Street storm drain pump station facility. The participation to these improvements will be based on a proration of fair share spread across all Development and Reuse Area land areas. The costs for these improvements and the cost per acre of Development and Reuse Areas are included in Section XI.

Ultimate Improvements

The ultimate improvements for Main Street will include reconstruction of the street improvements and incorporating a 2-way cycle-track on the west side. The elevation of the reconstructed road will be determined by the City Engineer at the time the ultimate improvements are to be implemented. This will allow the City of Alameda to determine how best to integrate Main Street into the regional sea level rise protection system. The City may determine that the implementation of extending regional shoreline protection improvements to the east is feasible and in the best interest of community, in which case Main Street would be protected by these shoreline improvements and would remain at its existing elevations. Conversely, the City may determine that the regional flood protection is not feasible or not within the necessary timeframe for providing resiliency for Alameda Point. In which case, Main Street would be reconstructed at an elevation that provides flood and sea level rise protection for Alameda Point, currently estimated to be elevation 8.9.

EMISSION REDUCTION ACTIONS

The CARP outlined GHG emission reduction actions to work towards achieving the City's emission reduction goals and net zero GHG emissions as soon as possible. Many of the reduction actions had already been integrated into the project requirements for the redevelopment of

Alameda Point and the MIP. These primarily include transportation mode shift actions, such as the extensive bicycle and transit networks outlined in the MIP.

The CARP included additional actions that relate to the Alameda Point backbone infrastructure planning and requirements and, accordingly, are included in this MIP Amendment. These additional GHG reduction actions related to the backbone infrastructure are as follows:

- T6 – Increase availability of EV charging stations citywide
    - EV chargers are to be implemented into the public parking lots (10% of stalls) outlined in the Alameda Point Transportation Demand Program.
    - EV Chargers will be implemented in accordance with the California Green Building Code, which includes a mandatory EV space per single family residence and 10% of total parking spaced for multi-family and non-residential projects.
    - The addition of EV chargers throughout Alameda Point must be factored into the total electric demand estimates and AMP electrical system designs. See the Electrical System section for estimates of these additional demands and required system requirements to support them.

- E1 – "Fuel Switch" in existing buildings
    - Assumes that 12% of existing residential and commercial buildings will replace their natural gas usage with electric-powered appliances.
    - The conversion of existing natural gas uses to electric at Alameda Point must be factored into the total electric demand estimates and AMP electrical system designs. See the Electrical System section for estimates of these additional demands and required system requirements to support them.

- E2 – Electrification of new residential construction

    - Assumes that all new residential construction will be all-electric, with no natural gas supply.

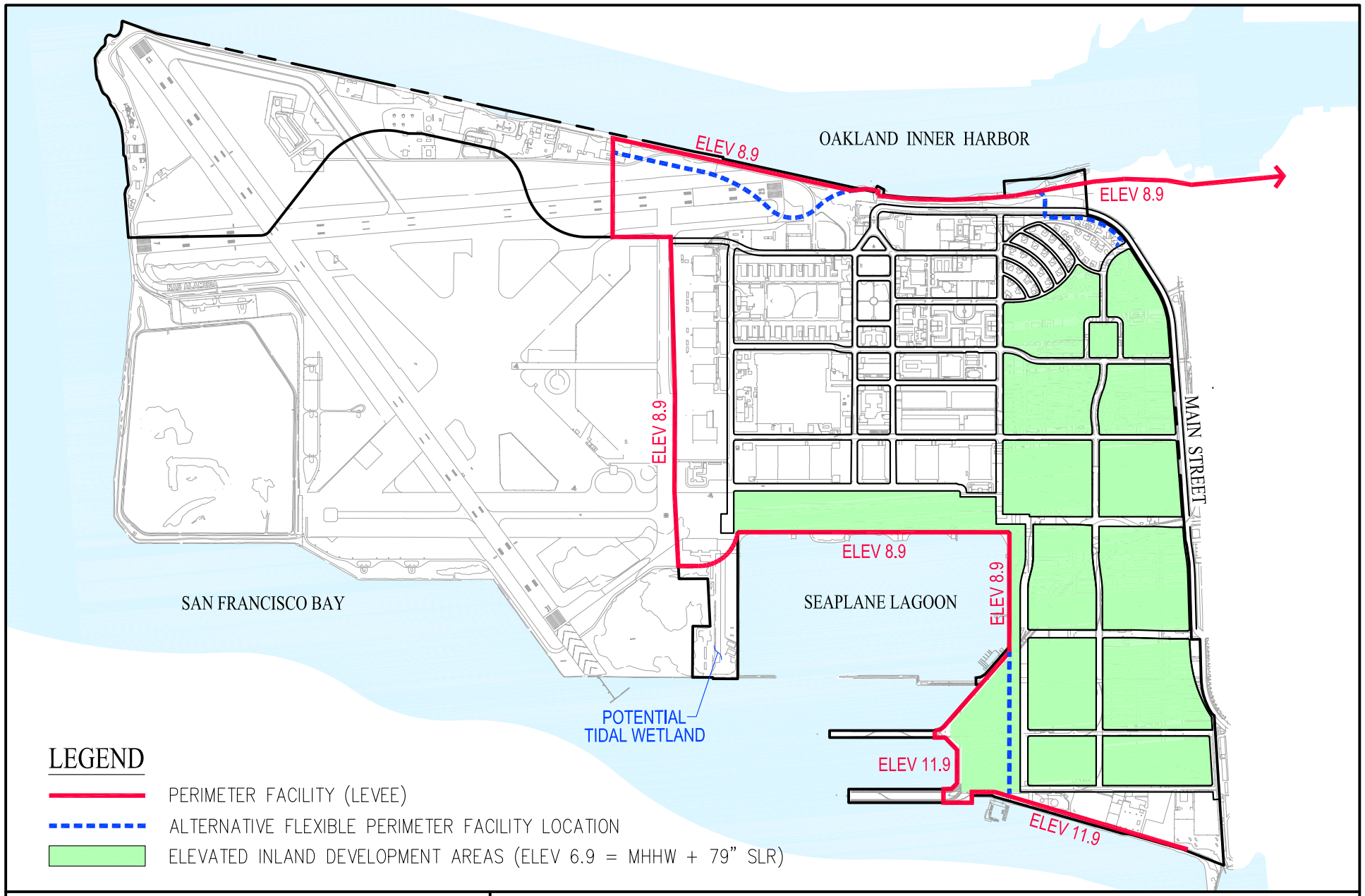
    - Site A Phase 1 includes approximately 600 residential units that were approved for construction prior to the adoption of the CARP. Accordingly, under the current land use program there are a remaining 825 residential units still to be processed for approvals at Alameda Point that will be subject to this additional GHG reduction action.

    - The additional electrical demands associated with the 100% electrified residential units at Alameda Point must be factored into the total electric demand estimates and AMP electrical system designs. See the Electrical System section for estimates of these additional demands and required system requirements to support them.

- E4 – Green roof installations on new developments at Alameda Point

    - Assumes that green roofs will be implemented on 10% of the roof areas within the new development areas at Alameda Point.

    - This is a consistent with requirement of the Stormwater Management Plan approved by the RWQCB as part of the Alameda Point stormwater outfall permits. See the Stormwater Section for further discussion of this requirement as well as others included in the outfall permit documents.



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UPDATED FIGURE 11
FLOOD PROTECTION
(MHHW + 79" OF SEA LEVEL RISE)

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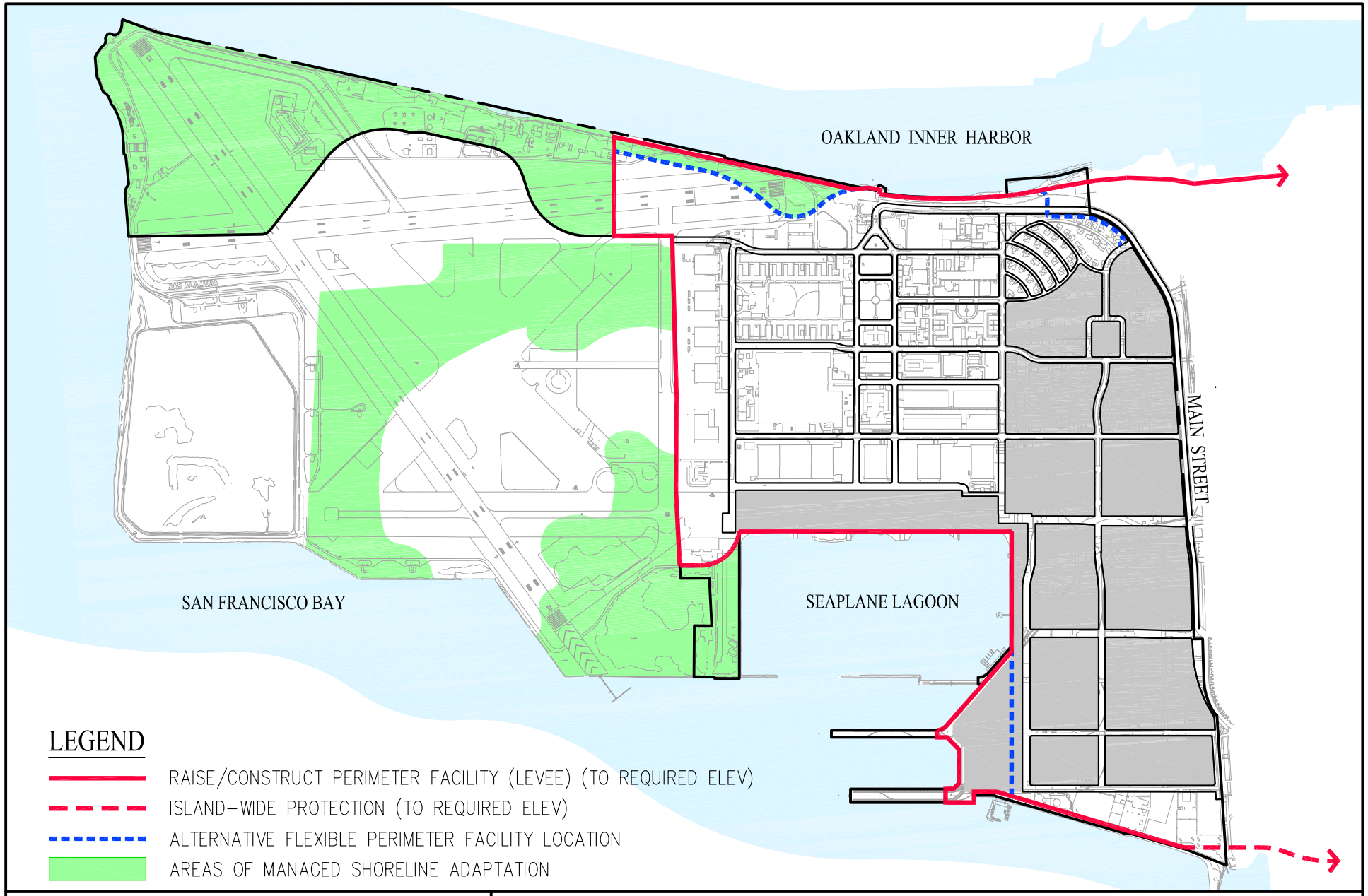

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UPDATED FIGURE 12
ADAPTED FLOOD PROTECTION

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IV. TRANSPORTATION SYSTEM

STREET SECTIONS

The MIP outlines the required transportation framework for Alameda Point. This included street sections that focused on pedestrian safety, bicycle priority and transit accommodations. The MIP also recognized that flexibility in the final street section design was necessary to complement each adjacent respective development. In the past 5 years, each adopted Development Plan or Specific Plan within Alameda Point has included minor adjustments to the street sections within those respective areas. Additionally, in 2019, the Transportation Commission reviewed and approved updates to the street sections within the Adaptive Reuse areas in support of the City's Reuse Area Infrastructure Replacement Project.

The following Appendix B and Figure 25 reflect the updated street sections and bike facilities approved through the recently adopted Development Plans, Specific Plans and the Adaptive Reuse areas. These maintain the goal of the MIP to promote transit-oriented community emphasizing walking, bicycling, and direct and convenient access to transit options.

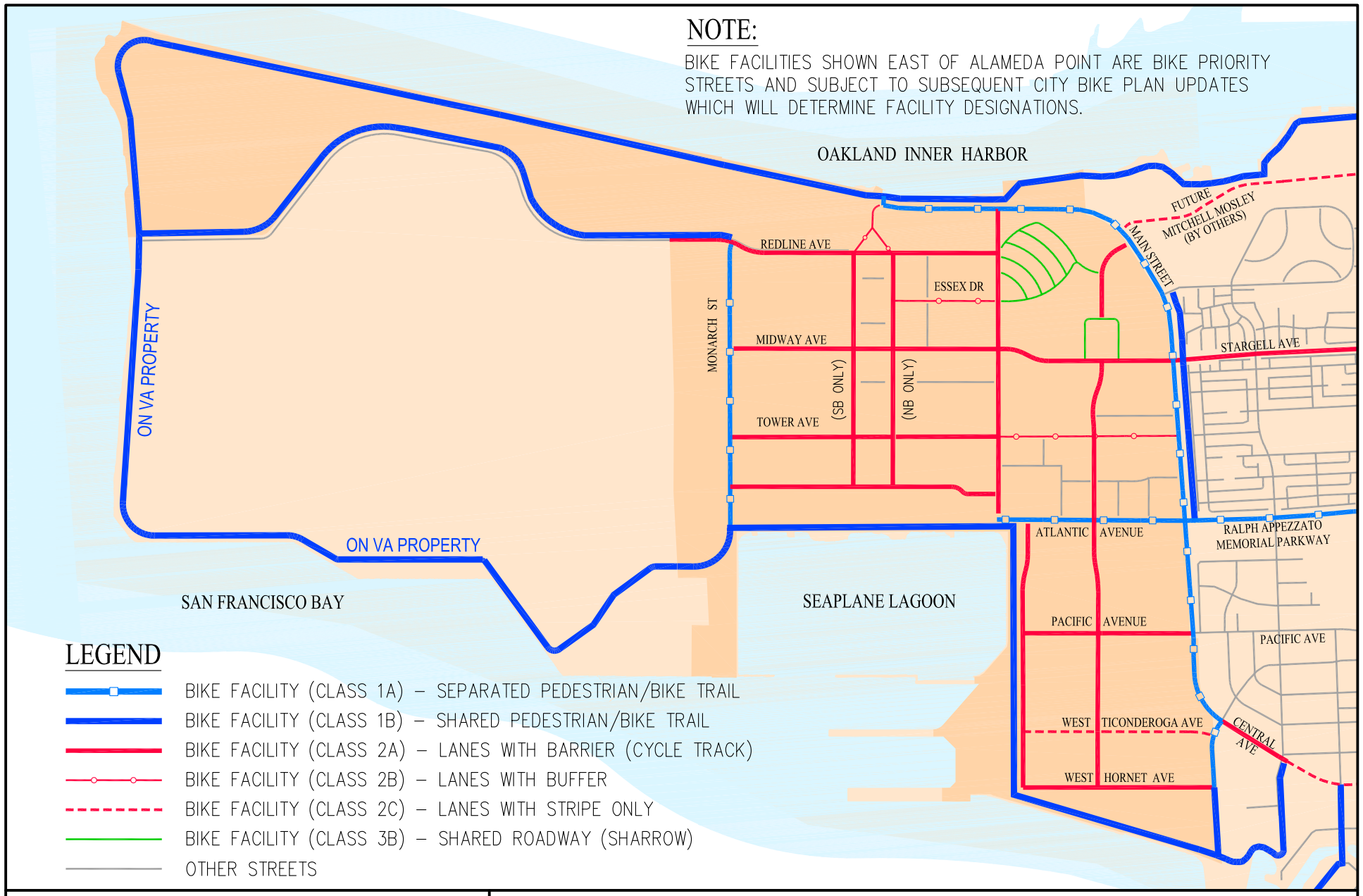
Additionally, the Main Street street section has been amended to incorporate the initial construction improvements as described in the prior section. The ultimate improvement cross sections have also been amended to provide a larger buffer to the existing wetlands on the east side of Main Street to accommodate a slope in the case the City determines Main Street shall be raised. These amendments maintain consistency with the ultimate bike, pedestrian and transit facilities and network reflected in the original MIP.

This MIP Amendment maintains the acknowledgement of the MIP that future adjustments of the street sections may be pursued to enhance and integrate into specific Development Plans. For example, the future Development Plans within the Site B and Seaplane Lagoon Taxi-Way areas may warrant further adjustments and enhancements to the street sections within these areas.

TRANSIT SYSTEM

The 2014 MIP outlines various transit facilities to achieve the development of a transit-oriented community at Alameda Point. The City of Alameda has implemented components of the transit system at Alameda Point over the past 5 years. Most notably, the Ferry Terminal in Seaplane Lagoon is near completion and scheduled to begin ferry service in summer of 2020. Also, the City has obtained grant funding for segments of the bus rapid transit system, as well as the realignment of Central Avenue south of Pacific Avenue.

Additionally, the City has established a Transit Management Demand Program (TMDP) for Alameda Point, as well as establishing the associated funding source through a Community Facilities District. The TMDP implements on-going transit strategies and demand management programs to reduce congestion, reduce vehicle miles traveled and provide an effective transit system for Alameda Point. With these programs in place and operating, other transit strategies contemplated in the 2014 MIP as potential for Alameda Point, such as a transit center or off-site street and intersection improvements are no longer included in the MIP Amendment and the updated backbone infrastructure cost estimate.



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UPDATED FIGURE 25
PROPOSED BIKE FACILITIES

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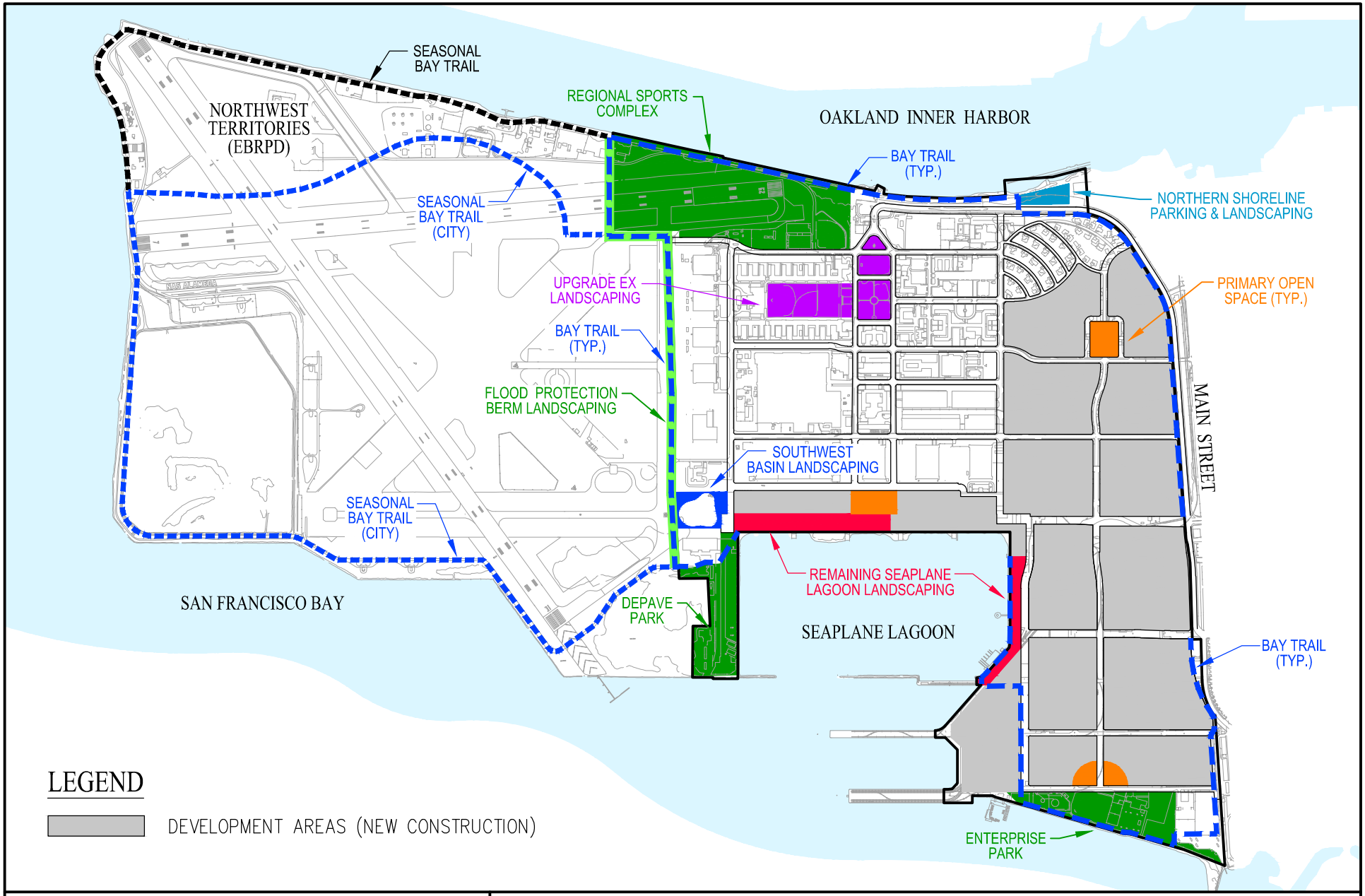
V. OPEN SPACE SYSTEM

The proposed open space framework at Alameda Point described in the 2014 MIP is comprised of numerous parks, open space, trail and community facilities. The specific amount and timing of proposed parks, open space and community facilities to be constructed at Alameda Point are subject to policy decisions by the City Council for each proposed development project.

Since the 2014 MIP, the City has executed an agreement with East Bay Regional Park District to improve and manage the Northeast Territories. The Encinal Boat Ramp has also been improved. Also, portions of the Seaplane Lagoon Waterfront Park and neighborhood parks are in construction as part of Site A Phase 1. Additionally, in coordination with the CARP, the MIP Amendment incorporates Depave Park along the west shoreline of Seaplane Lagoon enhancing the open space network and managed shoreline adaption as sea levels rise. The updated open space system is depicted on the updated MIP Figure 31.



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UPDATED FIGURE 31A
PROPOSED OPEN SPACES

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VI. STORMWATER MANAGEMENT

A key component of the City of Alameda's efforts towards facilitating the implementation of the backbone infrastructure at Alameda Point was to obtain the resource agency permits (i.e. Army Corp, BCDC, RWQCB, etc.) related to the construction of the new stormwater outfalls required by the MIP. The permitted outfalls locations are depicted on Figure 3. The permit includes a conditional water quality certification from the RWQCB.

As part of the process to obtain this certification, the City commissioned a Preliminary Stormwater Management Plan (SWMP) for Alameda Point, which is enclosed in Appendix A. The SWMP built upon the stormwater management requirements outlined in the MIP, which are largely based upon the Municipal Regional Stormwater NPDES Permit (MRP) and Alameda County Cleanwater Program requirements. The SWMP also established a higher level of commitment of stormwater treatment at Alameda Point. The SWMP outlined the following additional low-impact development performance standards above and beyond the current MRP requirements:

1. Rainwater harvesting and reuse required for 10 percent of roof area;
2. Reduce the LID exemption threshold for impervious surface area from 10,000 square feet to 5,000 square feet;
3. Eliminate the MRP area exemption for uncovered parking, auto service, and gas station outlets
4. Construct 100 percent green streets throughout the entire Alameda Point;
5. Waive the MRP exemption for special project category A (small infill projects) and B (large infill projects) LID reductions;
6. Limit the MRP exemption special category C (transit-oriented development) to a maximum 50 percent non-LID treatment;
7. Require a minimum of 10 percent green roofs within the Development Areas; and
8. Implement a bioretention treatment basin providing stormwater treatment for one of the highest impervious cover areas within the Reuse Areas. A specific location was identified in the SWMP at the northern end of Hanger Row adjacent to Monarch Street, where a bioretention area will be provided to treat runoff from roughly 20-acre watershed.

The SWMP also discussed the City's obligation to implement the stormwater outfall permitting conditions through the implementation of various projects within Alameda Point. This translates to two on-going requirements for proposed projects at Alameda Point:

1. Each Reuse and / or Development project within Alameda Point shall demonstrate compliance with the standard LID performance standards outlined in the Alameda Point Draft SWMP and the conditions to the Water Quality Certification.
2. Each reuse and / or development project within Alameda Point is required to submit their project specific post-construction stormwater treatment plan to the Water Board's Executive Officer for review and acceptance not later than 60 days prior to the start of construction of that respective project. The stormwater treatment plans should provide water quality treatment in conformance with the SWMP and the MRP. Construction of each project shall not start until the Executive Officer has approved the final designs for the post-construction stormwater treatment measures to be constructed for the project. If the Water Board staff does not respond to the project's proponent's stormwater treatment plan for their project within 45 days of the received date, the plans will be deemed approved by the Executive Officer and construction of the project may commence.

All projects within Alameda Point shall demonstrate compliance with the SWMP, MRP and Water Quality Certification requirements.

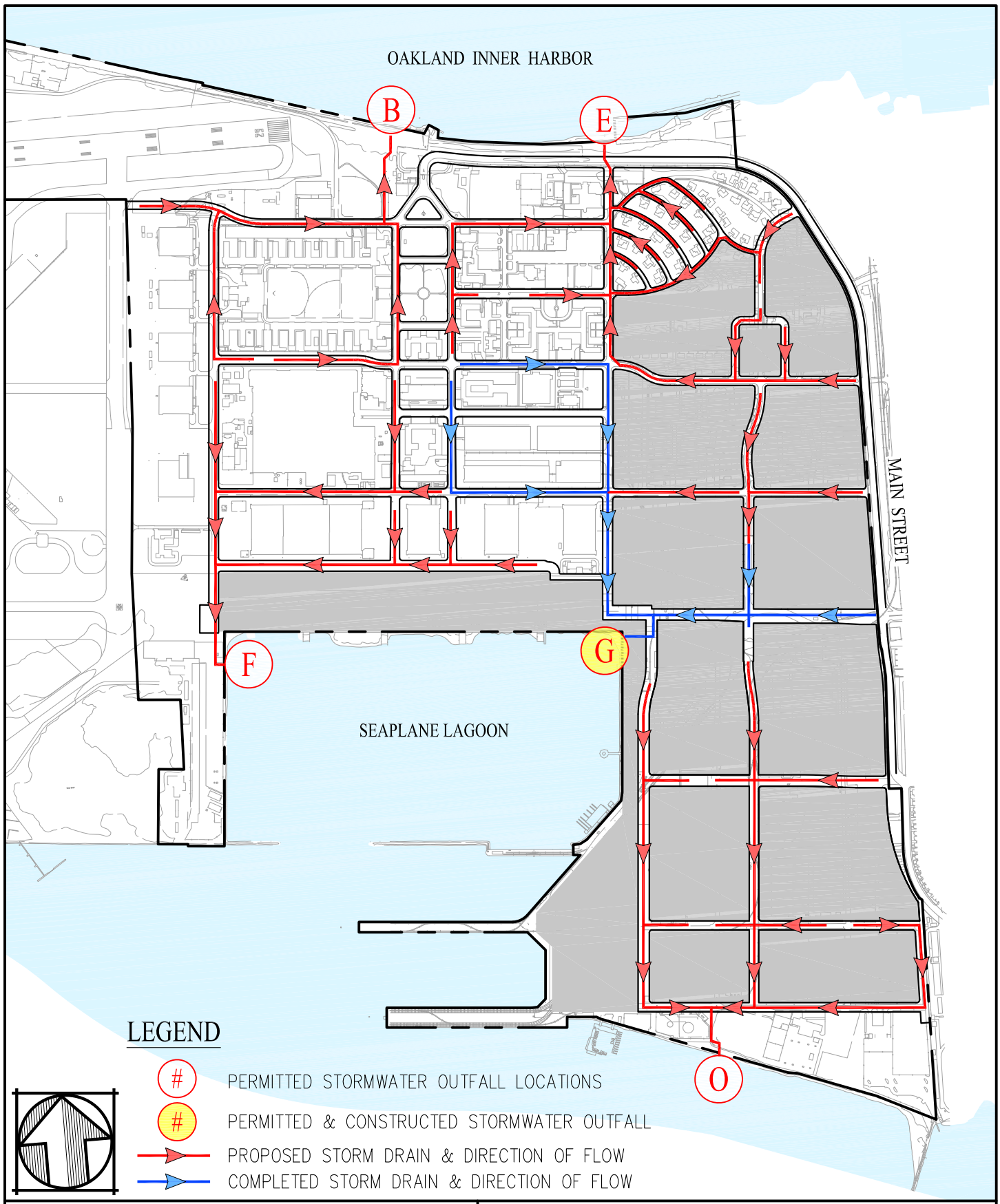

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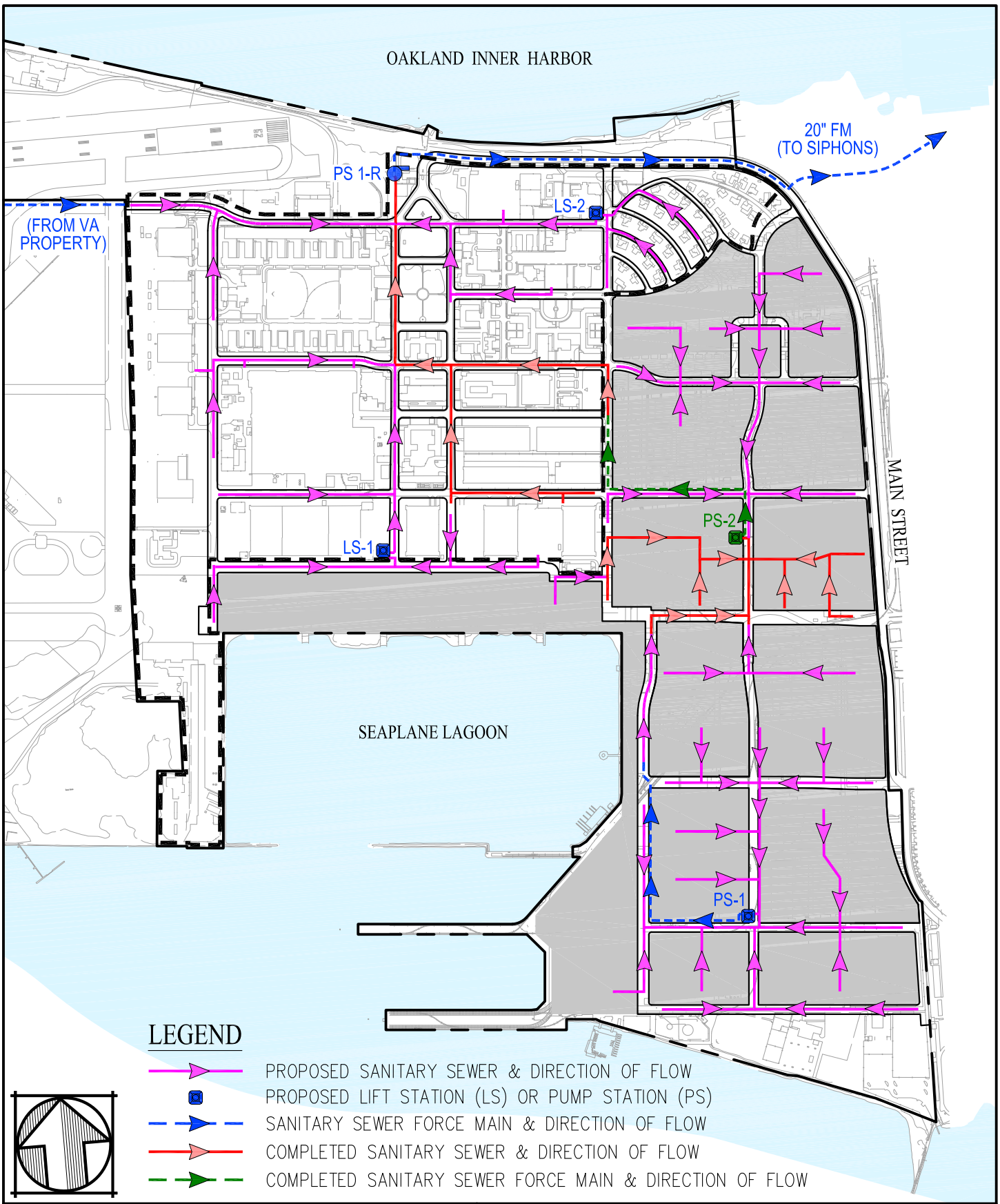
FIGURE 3
PERMITTED STORMWATER OUTFALL LOCATIONS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\FIGURE 3_PERMITTED OUTFALLS.DWG

VII. SANITARY SEWER SYSTEM

The Site A Phase 1 development included the construction of key components of the backbone sanitary sewer system. This included an off-site pipeline extension from Site A Phase 1 to the EBMUD Pump Station R located at the Main Gate, which was planned and appropriately sized to accommodate the estimated flows at build-out of Alameda Point. Additionally, Site A Phase 1 constructed a pump station located along Orion Street. This pump station is a critical component of the sanitary sewer system within the eastern portions of Alameda Point, including Site A, Site B and Main Street neighborhood providing wastewater conveyance from these areas to the off-site pipeline extension.

As part of the implementation of these components of the sanitary sewer system, the City of Alameda coordinated value engineering efforts with the Site A development team. Through these efforts, the backbone sanitary sewer system reflected in the MIP was modified to replace 6 planned lift stations with 4 planned pump stations, reducing the overall sewer lift / pump stations by 2. The modified backbone sanitary sewer system configuration is depicted on the enclosed amended version of MIP Figure 36. The components of this system that have since been constructed by the Site A Phase 1 project are also depicted on this figure.



ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 SCALE: 1" = 1,000'
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UPDATED FIGURE 36
PROPOSED SANITARY SEWER
ULTIMATE SYSTEM

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_36_SEWER (ULTIMATE).DWG

VIII. POTABLE WATER SYSTEM

Implementation Considerations

The MIP provided a plan and outlined the implementation of a phased replacement of all the Navy's outdated and substandard infrastructure, including the water system at Alameda Point. The City of Alameda currently owns and is responsible for the maintenance of the aged Navy water system. The proposed replacement water mains within the backbone infrastructure will be owned and operated by EBMUD. The domestic and fire services to existing and proposed buildings within Alameda Point will be connected to the new EBMUD water mains.

As outlined in the MIP, the proposed backbone water system will be implemented differently in the Reuse Areas than in the Development Areas. This is primarily because the NAS Alameda Historic District that comprises most of the Reuse Areas constrains the development process as the reuse and redevelopment of these historic buildings occurs incrementally, on a parcel-by-parcel basis, also not in contiguous areas. Accordingly, the MIP outlined a process for the City to utilize funds collected through the sale of properties and oversee a logical implementation of the new backbone infrastructure within the Reuse Areas.

EBMUD's regulations require that property owners within the District's service area must be the District's customers. The District and City identified that the redevelopment process within the Reuse Areas would result in a period of time that private property owners do not have direct access to the District's water mains, while the City is still generating adequate funds to extend new water mains to these areas. Accordingly, in 2017 the City of Alameda and EBMUD entered into a Ten-Year Water Infrastructure Agreement regarding Alameda Point. This agreement outlines a process and timelines for the City and EBMUD to work together to extend new water mains to the Reuse Areas. This process is triggered by property sales, which have also since occurred. At this time, Buildings 8, 9, 23, 40 and 91 have been sold to private property owners. Accordingly, the City has triggered the requirement to extend new water mains to these properties. The City has engaged in the design process and assembling construction documents for the Reuse Areas Replacement Infrastructure – Phase 1 & 2 project, which is anticipated to commence construction in 2021. Additional property sales adjacent to the water mains constructed by this project will connect to these water mains and not trigger additional water main extensions. Whereas, if property sales occur in portions of the Reuse Areas that do not have direct access to the EBMUD water mains, then new water main extensions will be required. These extensions will need to be completed in compliance with the EBMUD standards and specifications and in accordance with the Ten-Year Agreement.

The implementation approach of new water mains within the Development Areas described in the 2014 MIP remains. New development projects will facilitate the installation of new water mains within the backbone streets connecting to the existing EBMUD water mains at multiple locations to provide reliable water service and supply.

One detailed component of implementing new water main installations is ensuring environmental conditions within Alameda Point do not compromise the potable water facilities and associated long-term maintenance. To ensure the water system is safe, in both Reuse and Development Areas, the potential environmental conditions within the new waterline corridors must be characterized to EBMUD. EBMUD may determine that a "clean corridor" constructed to the District's standards be established for new water line trenches through areas of concern. Projects implementing MIP Backbone Infrastructure shall review the Alameda Point SMP and coordinate with EBMUD to determine the required extents of a "clean corridor" for EBMUD facilities.

Main Street Pipeline Replacement

Main Street adjacent to Alameda Point is proposed to be reconfigured to reduce the amount of travel lanes and incorporate pedestrian and bicycle facilities. The reconfiguration of the street improvements will result in the EBMUD existing 10-inch water main to be located in a non-standard location. Accordingly, this water line will be replaced with a new 10-inch waterline located within the reconfigured Main Street in accordance with EBMUD's standards.

IX. ELECTRIC SYSTEM

UPDATED ELECTRIC DEMANDS

As previously stated, the CARP requires a number of emission reduction actions that will be implemented within Alameda Point. A number of these actions result in increased demands on the electrical system. These include the following items:

- Electricrification of remaining residential units (825 units)
- 10% of EV Chargers within public parking lots (2,500 total public stalls per Alameda Point TDM)
- 10% of EV charger within multi-family and non-residential private parking areas (10,500 total private parking stalls per Alameda Point TDM)
- Conversion of 12% of commercial uses to 100% electrical

The estimated total electric demands have been updated to account for these new requirements. The total estimated electric demand has increased from 46.2 MVA, originally estimated in the 2014 MIP, to 51.9 MVA. See the updated Table 12 providing an updated summary of the estimated electric demands associated with the build-out of Alameda Point. This is based on the current land uses included in the Community Reuse Plan.

MIP Table 12 – Estimated Electric Demand (Build-Out)

Land Use	Units	Square Footage	Acres	Estimated Loads (MVA)
Residential (100% Electric)	825			3.7
Residential (Electric and Gas)	600			1.8
Commercial (100% Electric)		650,000		5.1
Commercial (Electric and Gas)		4,650,000		31.9
Retail		200,000		2.5
VA Development Area			75	3.0
EV Chargers (Public Parking Lots)	250			0.9
EV Chargers (Private Parking Lots)	1,050			3.0
			Total Electrical Load	**51.9**

CARTWRIGHT SUBSTATION

The Cartwright Substation provides local electric distribution to Alameda Point and the portions of surrounding community to the east of Main Street. The current capacity of the substation is estimated to be approximately 50 MVA. To address the increased electric demands forecasted, the substation will need to be upgraded. The upgrade will include the conversion of Cartwright Substation from a single to a ring bus configuration. It will include the installation of 115 kV circuit breakers and accessories, 3-phase transformer and one 15kV switchgear with control accessories.

Specific users with large electrical demands, such as a large industrial or technology center with high electric demands, may require additional electric capacity. This may include additional improvements at the substation, as well as providing service at primary voltage.

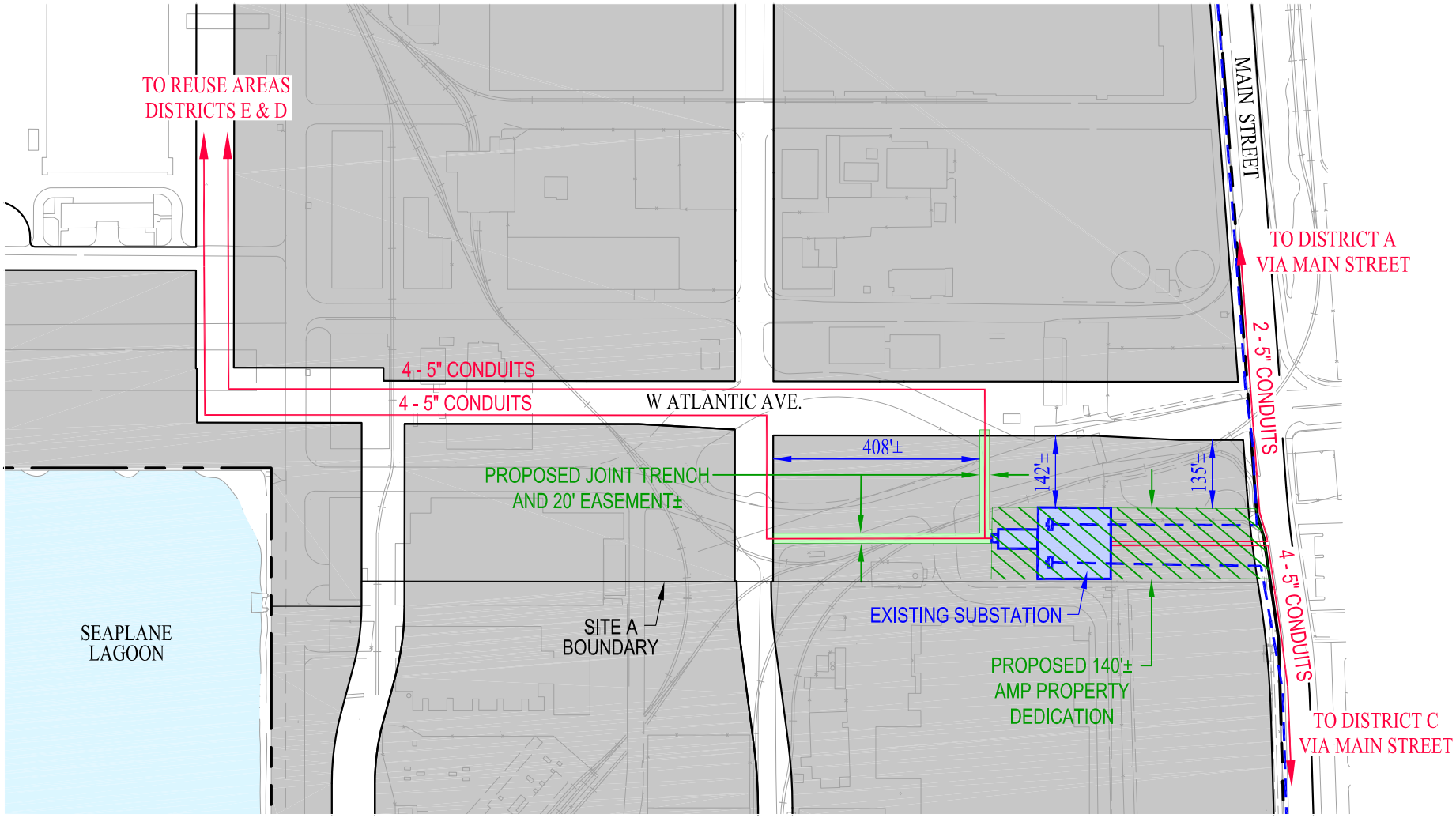
These improvements to the Cartwright Substation will require additional land. The facility is within an existing easement area that will be converted to AMP ownership to ensure the land is preserved for the electrical facilities needed to serve the build-out of Alameda Point. This land area is approximately depicted on Figure 50. AMP has not done a substation expansion study at this time and from their high level review of the current Site Expansion Plan depicted on Figure 50, the size of the expanded substation appears adequate. After AMP conducts a substation expansion study, there may be a need to acquire more land than what is currently depicted on Figure 50.

IMPLEMENTATION CONSIDERATIONS

The new electric system is being implemented in accordance with the 2014 MIP within the active project areas. The following details and requirements of the implementation of the new electric system that are clarified below:

- Implementation of new electric systems must consider and maintain electric service to existing customers. This may require temporary facilities to re-route electric facilities while the new permanent facilities are being constructed.
- Reliability of electric service is a priority. This may require that new services require additional improvements to connect to more than one circuit to provide reliable service.
- Within the Reuse Areas, new services may be allowed to be connected to the existing electric system. AMP may determine that improvements to the existing electrical system are required in order to provide reliable service to the user. The user is responsible for the costs of these improvements, as they are interim and in addition to the costs of ultimate replacement of the electric system planned within the Reuse Areas through the Development Impact Fee program.

- Connecting to AMP's existing electric system will require access to old Navy vaults that would require extensive environmental remediation and mitigation requirements. Developers are responsible for the costs of these environmental remediation and mitigation requirements and in addition to the costs of the ultimate replacement of the electric system planned within Alameda Point through the Development Impact Fee Program.
- The demolition of existing electrical facilities will include the following measures:
    - Demolition of existing electrical facilities that are not in conflict with new construction can be abandoned in place. If AMP determines it is necessary to remove, the existing wires within the conduits are to be pulled and salvaged to the extent feasible. Existing conduits are to be abandoned in place. Existing boxes and vaults are to be removed and backfilled. The abandoned transformers and the salvaged wires are to be returned to AMP.
    - Demolition of existing facilities that are in conflict with new construction are to be removed and backfilled. The abandoned transformers and salvaged wires are to be returned to AMP



LEGEND

PROPOSED CONDUITS

EXISTING 115kV TRANSMISSION LINES

NOTE:

AMP HAS NOT COMPLETED A SUBSTATION EXPANSION STUDY AT THIS TIME AND FROM THEIR HIGH LEVEL REVIEW OF THE CURRENT SITE EXPANSION PLAN (THIS FIGURE), THE SIZE OF THE EXPANDED SUBSTATION APPEARS ADEQUATE. AFTER AMP CONDUCTS A SUBSTATION EXPANSION STUDY, THERE MAY BE A NEED TO ACQUIRE MORE LAND THAN WHAT IS CURRENTLY DEPICTED.

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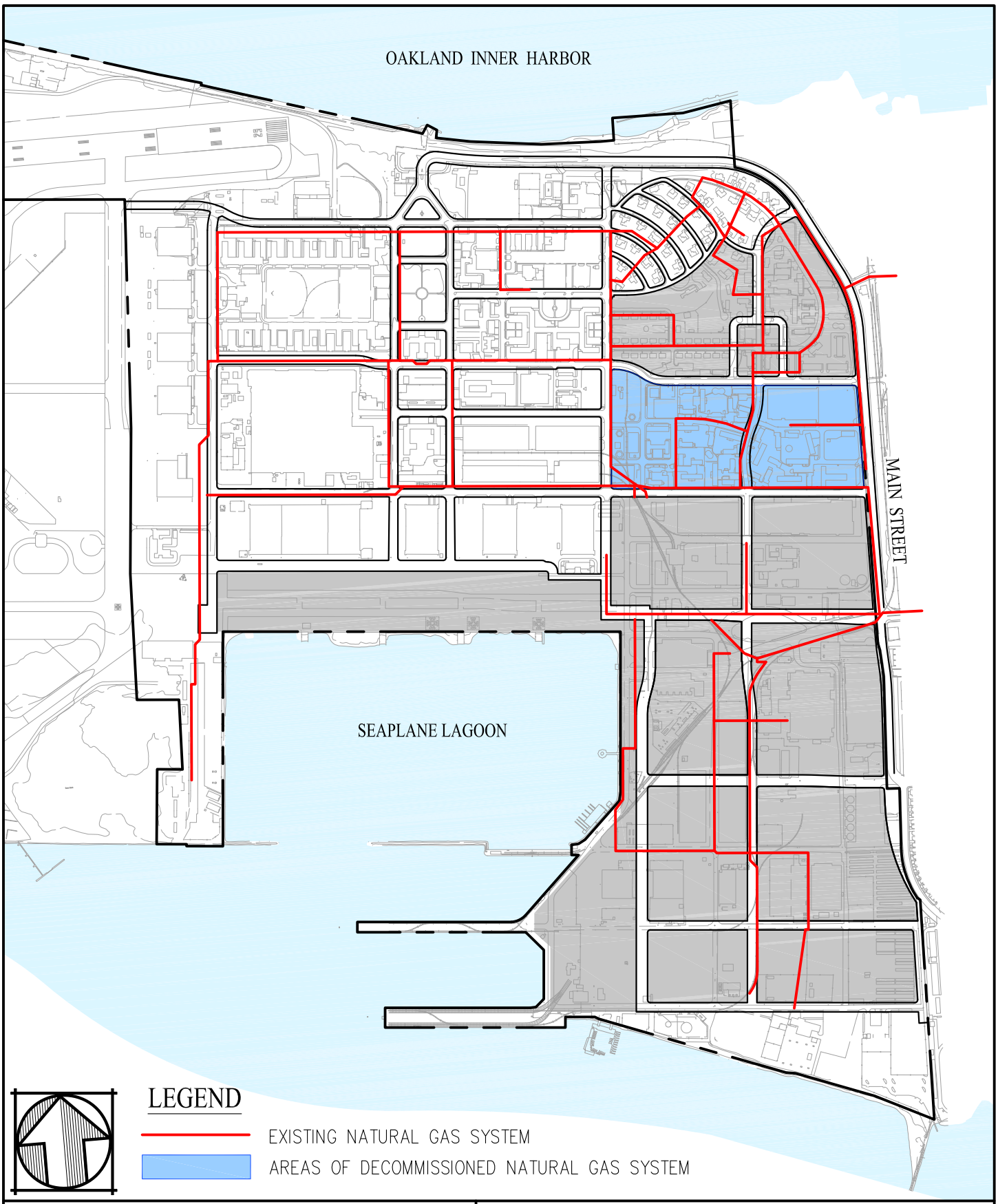
UPDATED FIGURE 50
CARTWRIGHT SUBSTATION

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_50_CARTWRIGHT SUBSTATION.DWG

X. NATURAL GAS SYSTEM

The existing natural gas system is actively operated by PG&E through an agreement with the City of Alameda. PG&E has identified portions of the existing system that are no longer needed and pose a liability to the City & PG&E. Accordingly, PG&E has coordinate the decommissioning of the natural gas system in portions of the Main Street Neighborhood as depicted on Figure 4.

The replacement of the existing natural gas system will be implemented consistent with the approach outlined in the 2014 MIP. The extents of the natural gas system may be reduced as emission reduction actions are implemented and the demand and use of natural gas are decreased at Alameda Point. More specifically, there could be a portion of the new Development Areas, such as Main Street Neighborhood or the Enterprise District, where a natural gas distribution system is not needed or is very minimal, only serving specific users and locations.



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CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
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FIGURE 4
DECOMMISSIONED NATURAL GAS SYSTEM

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\FIGURE 4_DECOMMISSIONED NATURAL GAS.DWG

XI. STREET LIGHT SYSTEM

The ownership and operation of the existing and proposed public street light system has been transferred from AMP to the City of Alameda Public Works Department. The Public Works Department has adopted standards and details through the recent installations of new street lights within the active projects in Alameda Point, specifically Site A Phase 1. This includes service pedestal configurations that have a single breaker and photocell for the lights served on that circuit to optimize maintenance and operation of the lights. The service pedestals are to have a metered service from AMP's electrical system. The approved street light type being implemented in the active projects is Lumis, EC801, PT16, Matte Silver (MST). Additional decorative light types have also been implemented within the shared street and W. Atlantic Avenue. The proposed street lights are to have a poured concrete foundation and not be a direct bury pole type. Development and Reuse projects shall coordinate the proposed street light design and details with the Public Works Department and with AMP for the electrical service.

XII. BACKBONE INFRASTRUCTURE COST ESTIMATE UPDATE

The backbone infrastructure cost estimate has been updated to reflect the items discussed within this MIP Amendment. The improvements that have been constructed or are already planned and funded as part of the active projects discussed in the MIP Amendment have been removed from the cost estimate, so that the cost estimate only includes the backbone infrastructure still to be implemented and constructed. The cost estimate has been updated to reflect 2020 construction costs. The updated cost estimate is summarized in MIP Table 15. The detailed cost estimate is included in Appendix C.

The cost estimate included in the MIP Amendment is for backbone infrastructure costs only. All costs related to infrastructure within development / reuse blocks are additional costs to be funded by that respective development / reuse project.

MIP Table 15 – Backbone Infrastructure Construction Costs

No.	DESCRIPTION	AMOUNT
Backbone Infrastructure		
1.	Demolition / Site Preparation	$27,454,000
2.	Environmental Remediation	BY OTHERS
3.	Perimeter Flood Protection and Roadway Grading	$70,015,000
4.	Dewatering	$2,500,000
5.	Sanitary Sewer	$28,168,000
6.	Storm Drain	$53,794,000
7.	Potable Water	$12,826,000
8.	Recycled Water	$3,009,000
9.	Dry Utilities	$53,498,000
10.	On-Site Street Work	$73,685,000
11.	Transportation	$29,424,000
12.	Parks and Open Space	$139,661,000
13.	Public Benefits	$32,163,000
	Subtotal Backbone Infrastructure	**$526,197,000**
Soft Costs		
14.	Construction Admin	$16,838,000
15.	Professional Services	$63,144,000
16.	Fees	$23,170,000
17.	Improvement Acceptance	$2,105,000
	Subtotal Soft Costs	**$105,260,000**
	TOTAL	**$631,460,000**

The remaining developable area within Alameda Point is approximately 375 acres. These areas are depicted in Figure 5.

MAIN STREET ADAPTION COST PARTICIPATION

As discussed in Section III, Main Street will be implemented through multiple stages of improvements, allowing for the ultimate improvements to be integrated into a regional sea level rise protection system. In order for this to be successful, funding for the ultimate Main Street improvements and Main Street storm drain pump station enhancements will be collected by the City of Alameda from all remaining developable area and Site A, a total of 439 acres. The estimated costs for the ultimate Main Street improvements and pump station enhancements is $17.3 million. Applying this cost to all 439 acres equates to a participation of $45,500 cost per acre.

The City of Alameda Public Works and Base Reuse Departments are to collect these funds and be responsible for determining the timing and final configuration of and implementing the ultimate Main Street improvements.

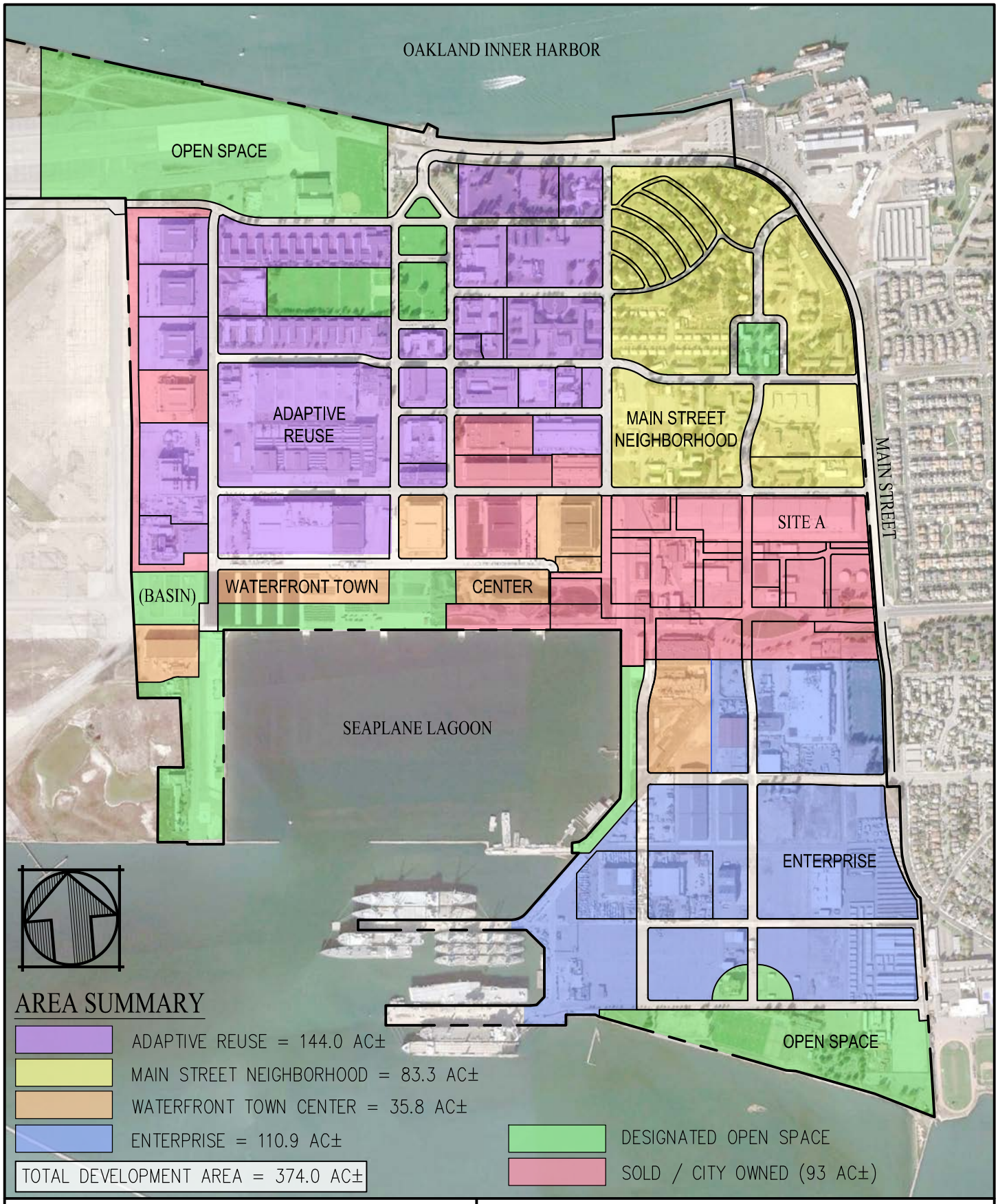

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FIGURE 5
DEVELOPABLE AREA

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\FIGURE 5_DEVELOPABLE AREA.DWG

APPENDIX A

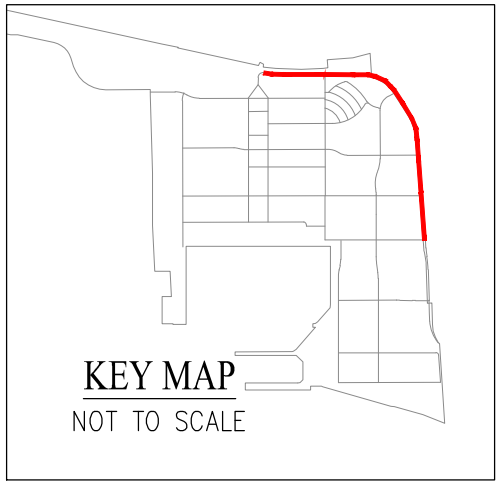
Alameda Point Preliminary Stormwater Management Plan

APPENDIX B

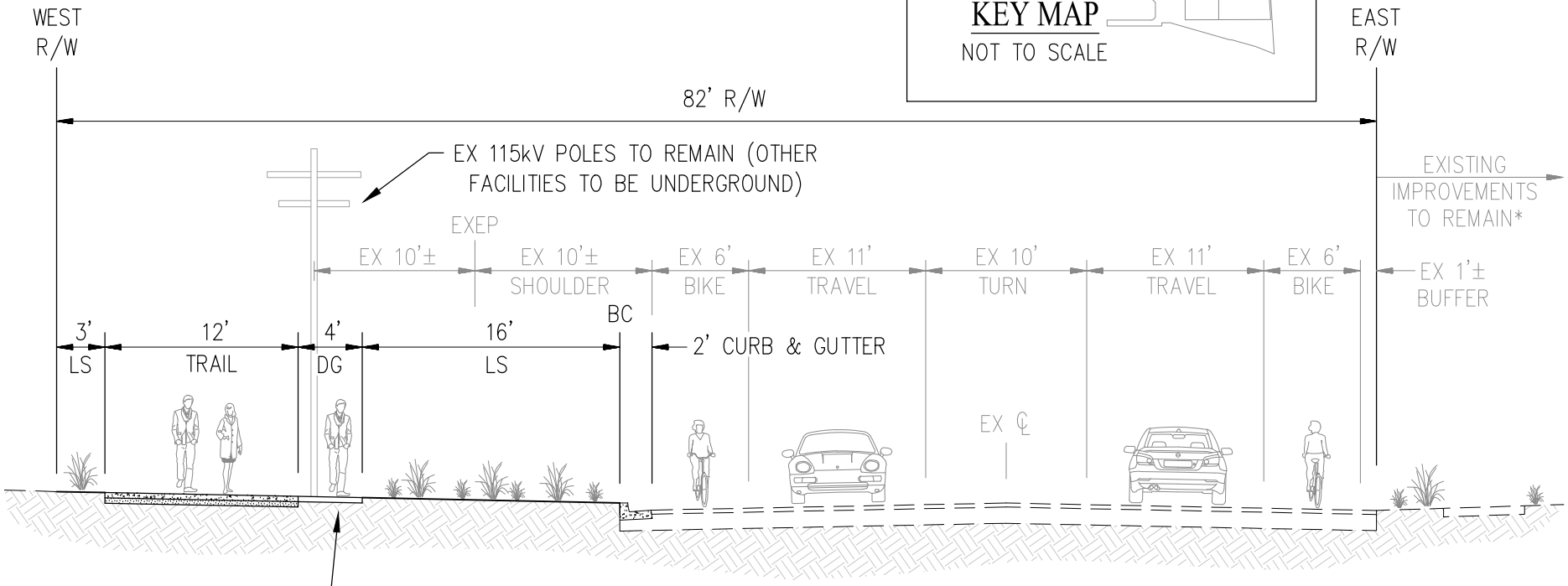
MIP Updated Figures 23 and 24 – Conceptual Street Sections

STREET CLASSIFICATIONS

- REGIONAL ARTERIAL
- PRIMARY TRANSIT
- TRUCK ROUTE
- CLASS 2C BIKE FACILITY



KEY MAP
NOT TO SCALE



MAIN STREET

ATLANTIC TO MAIN GATE
(INITIAL CONSTRUCTION)

*EXISTING IMPROVEMENTS NOTE:

THERE IS AN EXISTING LINEAR PARK INCLUDING CLASS I TRAILS ON THE EAST SIDE OF MAIN STREET FROM ATLANTIC TO SINGLETON AVENUE.

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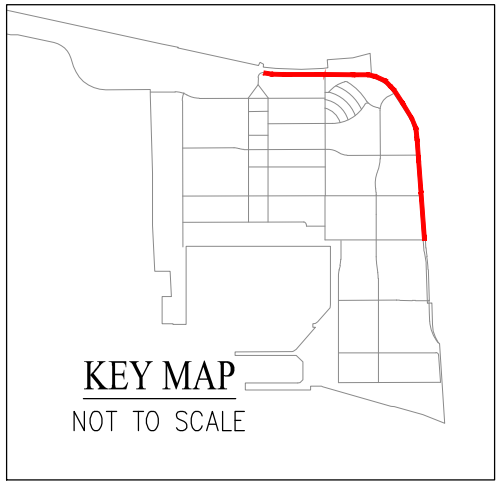
UPDATED FIGURE 23
MAIN STREET - INITIAL DEVELOPMENT AREAS

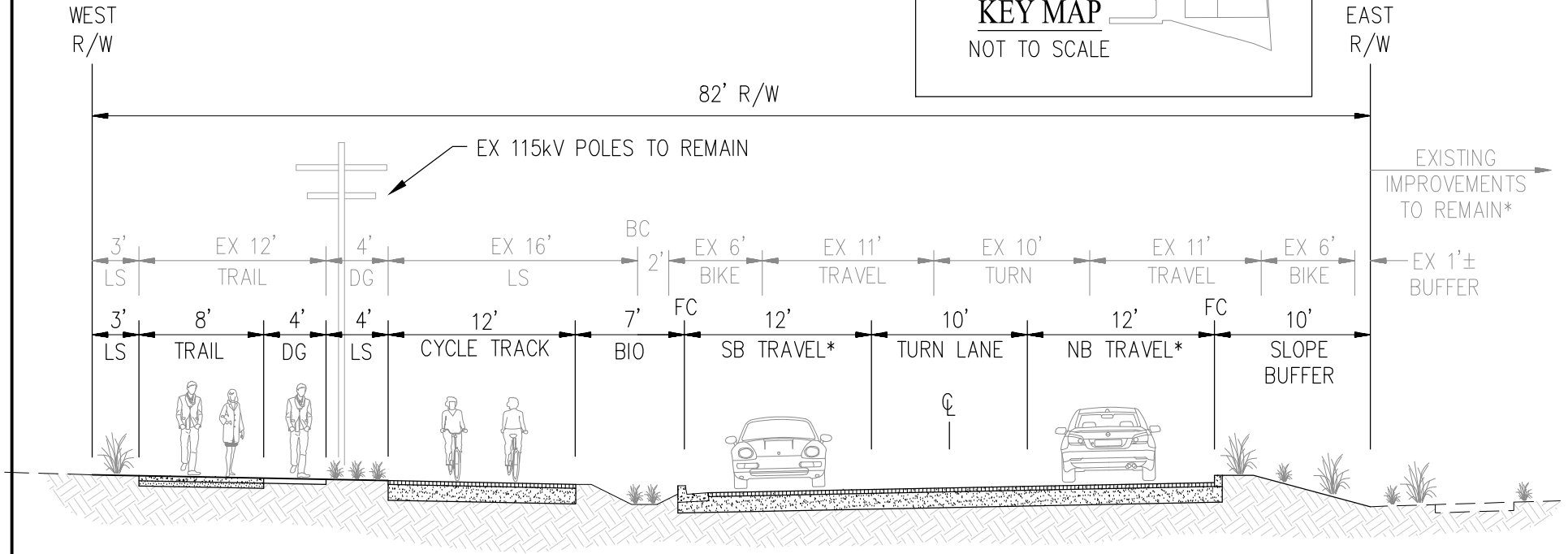
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- REGIONAL ARTERIAL
- PRIMARY TRANSIT
- TRUCK ROUTE
- CLASS 1A BIKE FACILITY



KEY MAP
NOT TO SCALE



TRAVEL LANE NOTE:

12' TRAVEL LANES MAY BE 11.5' WIDE WHEN NOT ALONG HORIZONTAL CURVES.

MAIN STREET

ATLANTIC TO MAIN GATE
(ULTIMATE CONSTRUCTION)

*EXISTING IMPROVEMENTS NOTE:

THERE IS AN EXISTING LINEAR PARK INCLUDING CLASS I TRAILS ON THE EAST SIDE OF MAIN STREET FROM ATLANTIC TO SINGLETON AVENUE.

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
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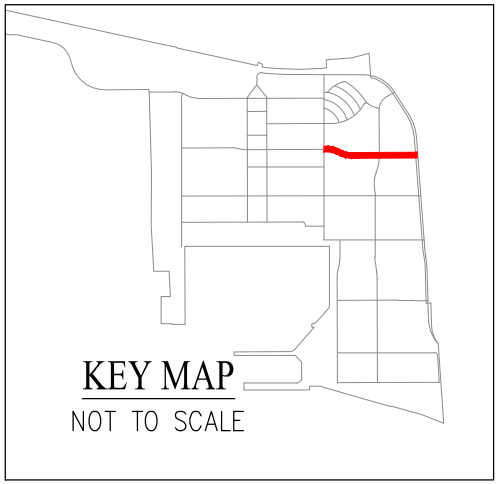
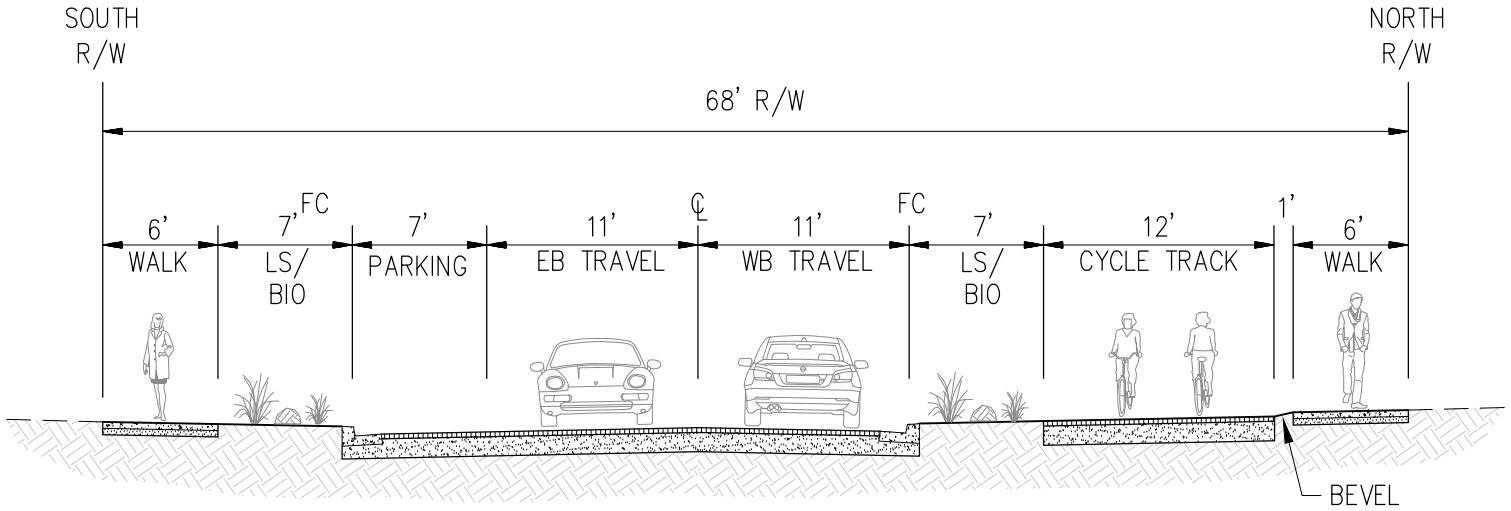
UPDATED FIGURE 23
MAIN STREET - ULTIMATE DEVELOPMENT AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- ISLAND ARTERIAL
- SECONDARY TRANSIT
- CLASS 2A BIKE FACILITY





TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 10' LANES.

WEST MIDWAY AVENUE

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MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
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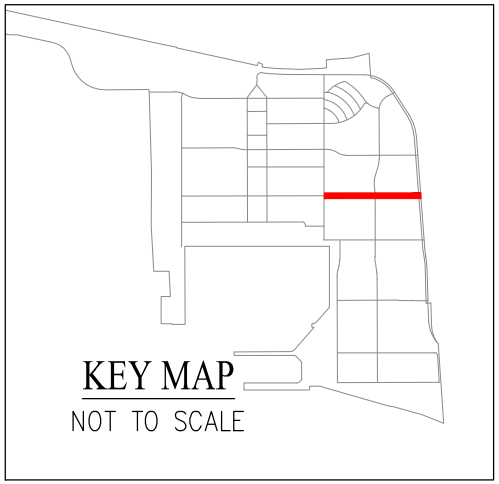
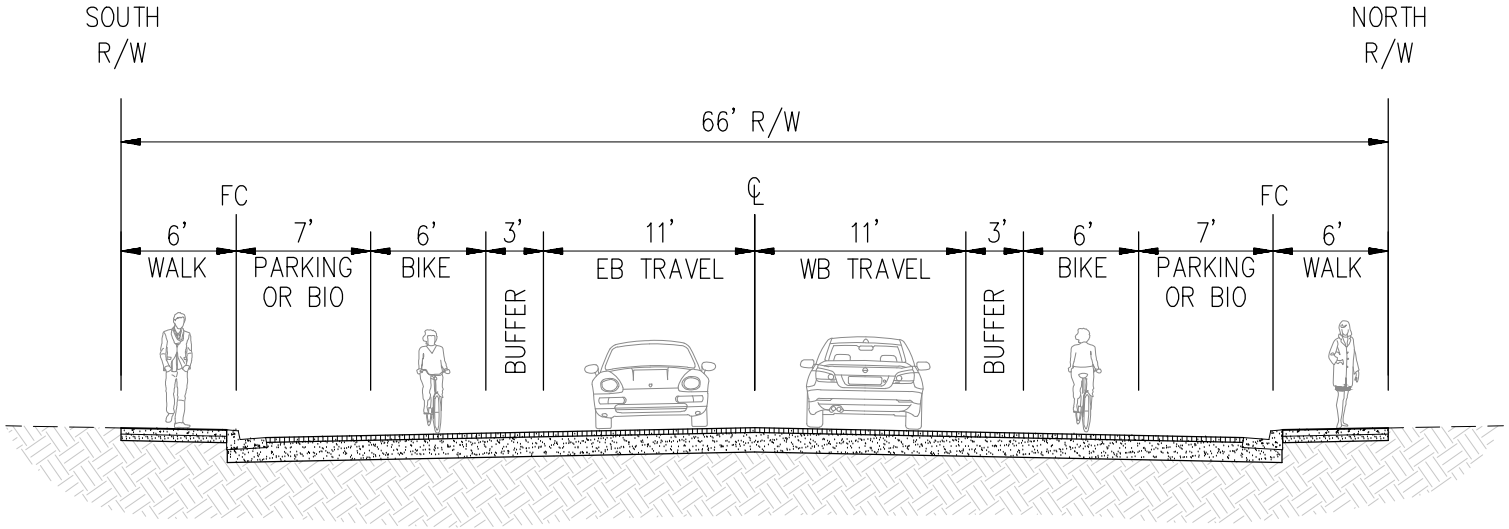
UPDATED FIGURE 23
WEST MIDWAY AVENUE
DEVELOPMENT AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- LOCAL STREET
- CLASS 2B BIKE FACILITY





WEST TOWER AVENUE

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MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
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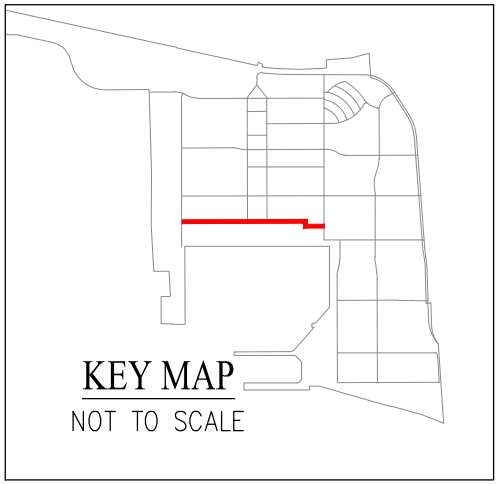
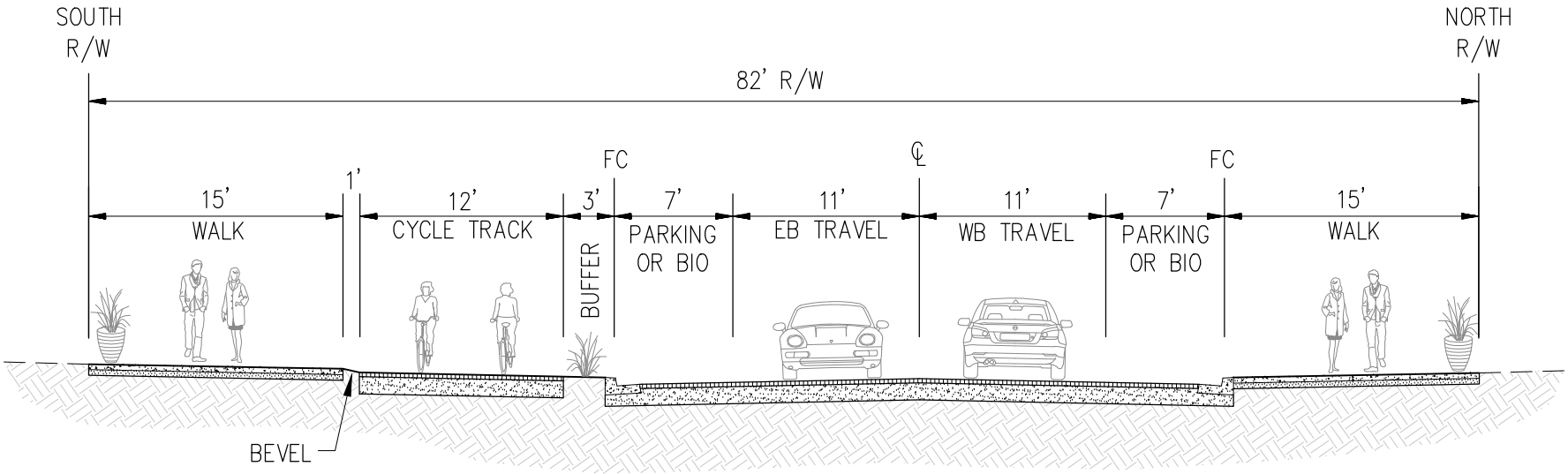
UPDATED FIGURE 23
WEST TOWER AVENUE
DEVELOPMENT AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- LOCAL STREET
- CLASS 2A BIKE FACILITY





SEAPLANE (NORTH)

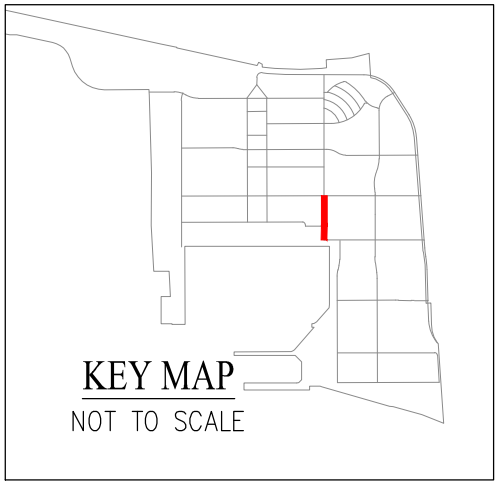
ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

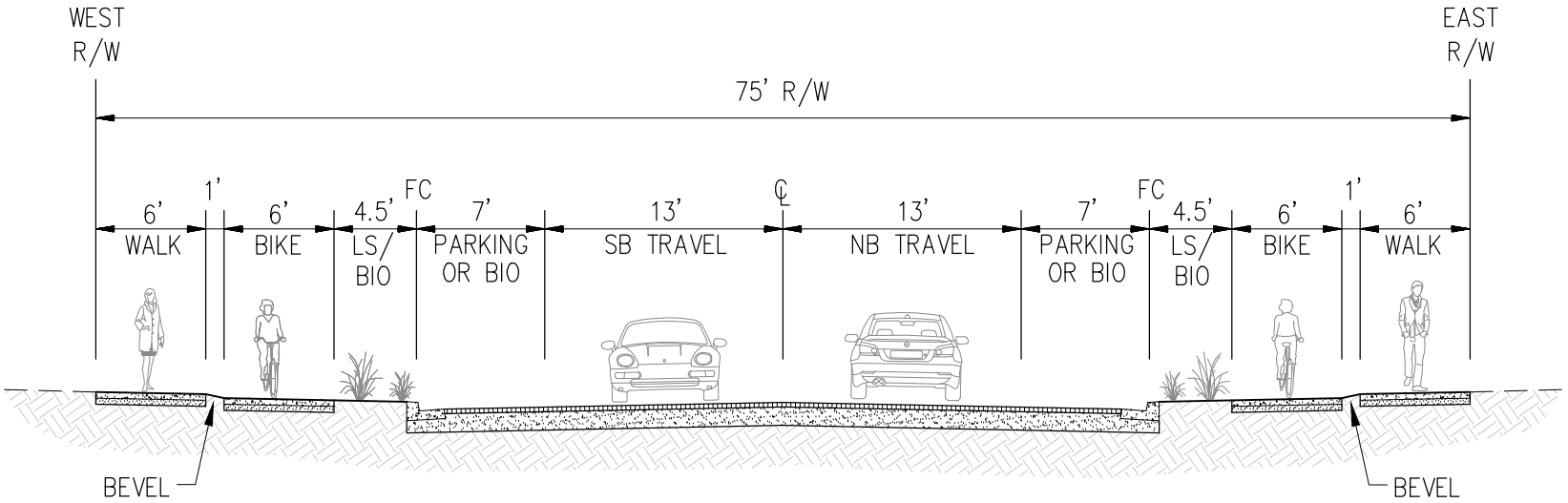
UPDATED FIGURE 23
SEAPLANE (NORTH)
DEVELOPMENT AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- ISLAND COLLECTOR
- PRIMARY/SECONDARY TRANSIT (VARIES)
- TRUCK ROUTE
- CLASS 2A BIKE FACILITY





ISLAND COLLECTOR
BIKEWAY

TRAFFIC CALMING NOTE:

TRAFFIC CALMING MEASURES (I.E. CURB BULB-OUTS) TO BE INCORPORATED.

ALAMEDA POINT
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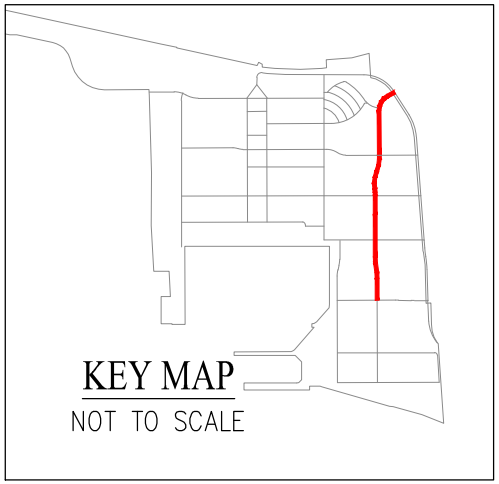
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

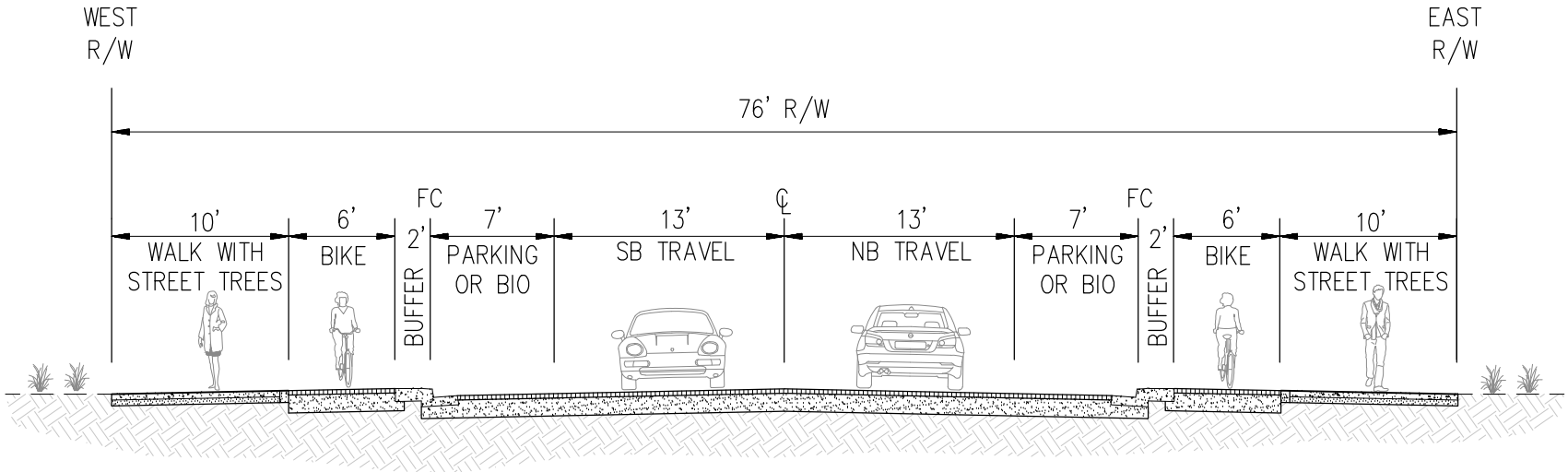
UPDATED FIGURE 23
ISLAND COLLECTOR - BIKEWAY
DEVELOPMENT AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

- LOCAL STREET
- SECONDARY TRANSIT STREET
- CLASS 2A BIKE FACILITY





LOCAL STREET
PROTECTED BIKE LANES

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CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
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UPDATED FIGURE 23
LOCAL STREETS - PROTECTED BIKE LANES
DEVELOPMENT AREAS

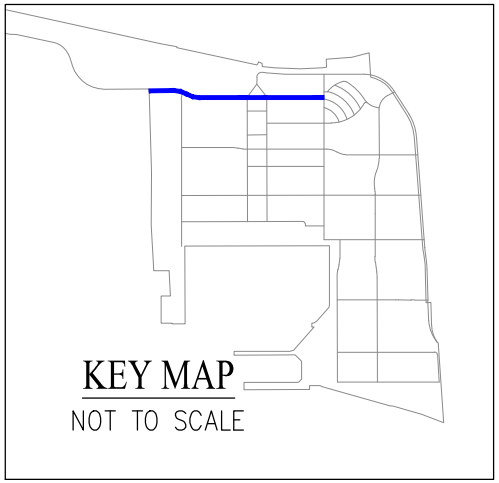
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_23_STREET SECTIONS (DEVELOPMENT).DWG

STREET CLASSIFICATIONS

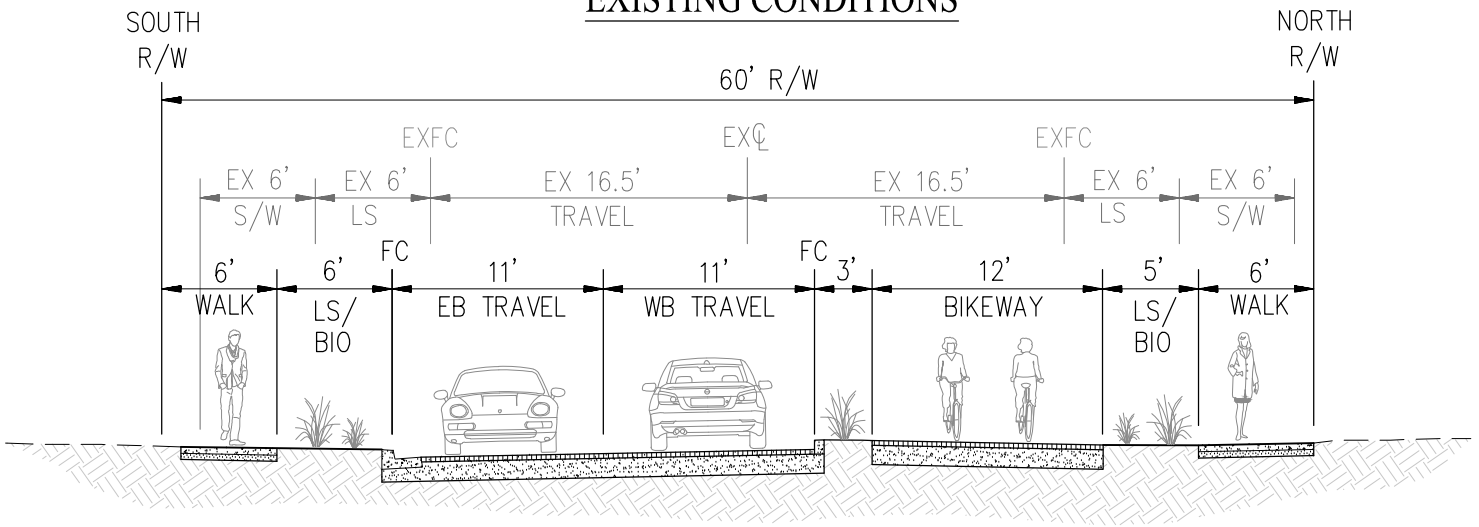
- ISLAND COLLECTOR/LOCAL STREET
- CLASS 2A BIKE FACILITY

TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 10' LANES.



EXISTING CONDITIONS



O-CLUB NOTE:

ADD LOADING BAY IN FRONT OF EXISTING O-CLUB.

RETROFITTED CROSS-SECTION

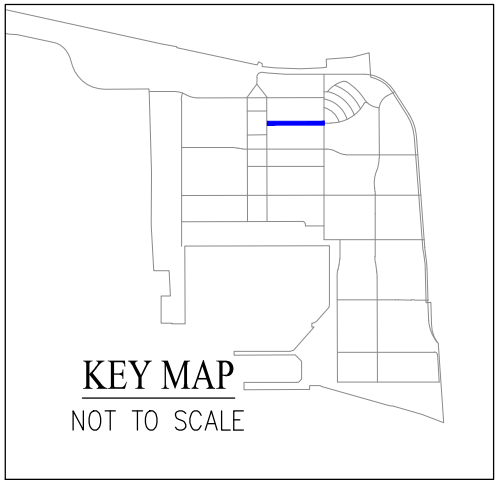
ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
WEST REDLINE AVENUE
REUSE AREAS

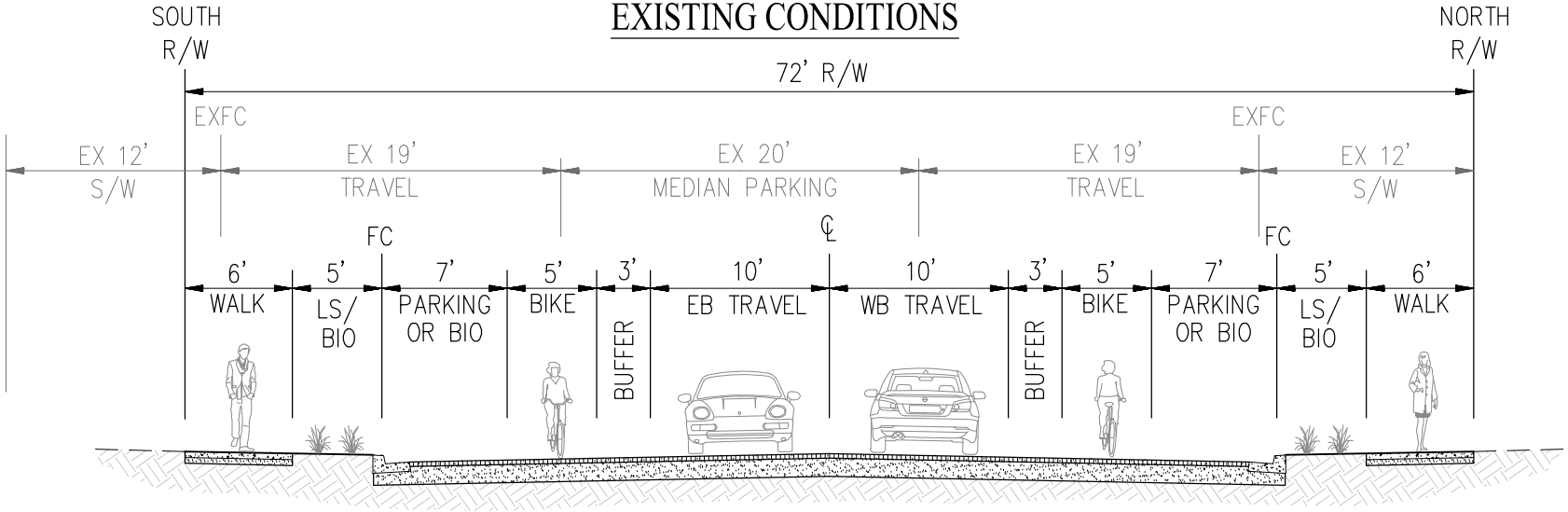
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

- LOCAL STREET
- CLASS 2B BIKE FACILITY



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
ESSEX DRIVE
REUSE AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

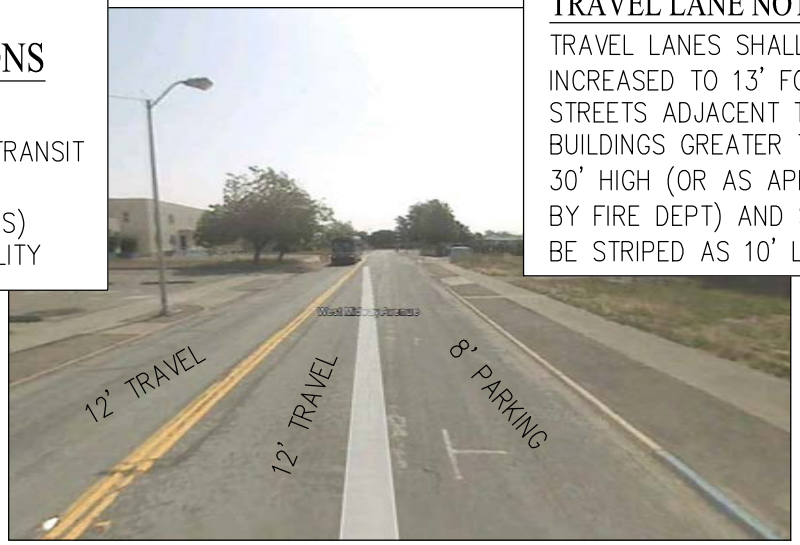
STREET CLASSIFICATIONS

- ISLAND ARTERIAL
- SECONDARY/OTHER TRANSIT STREET (VARIES)
- TRUCK ROUTE (VARIES)
- CLASS 2A BIKE FACILITY

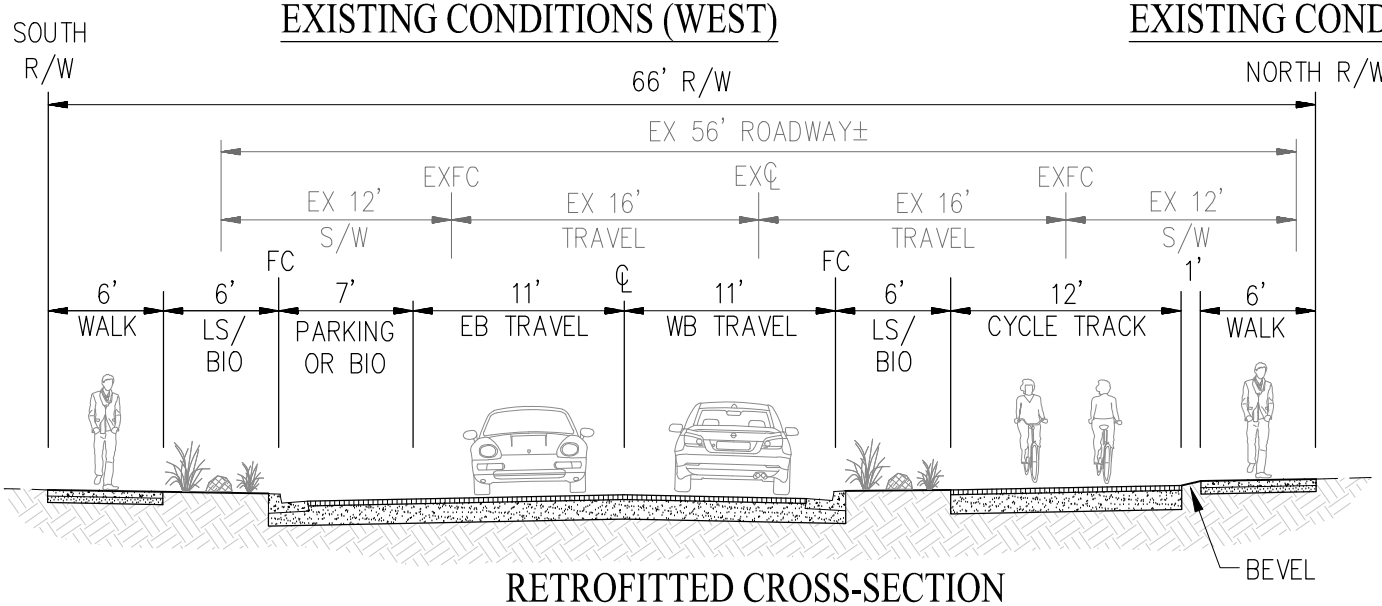
TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 10' LANES.

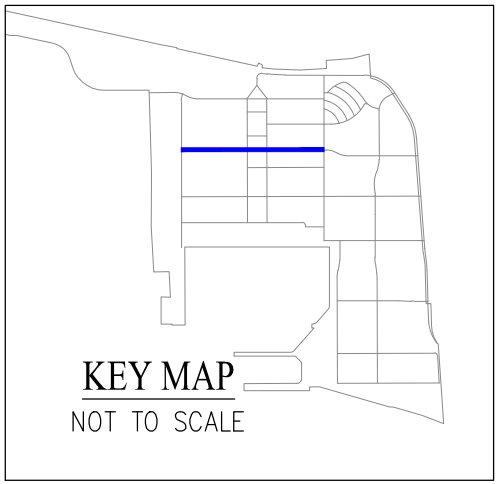
EXISTING CONDITIONS (WEST)



EXISTING CONDITIONS (EAST)



RETROFITTED CROSS-SECTION



ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
WEST MIDWAY AVENUE
REUSE AREAS

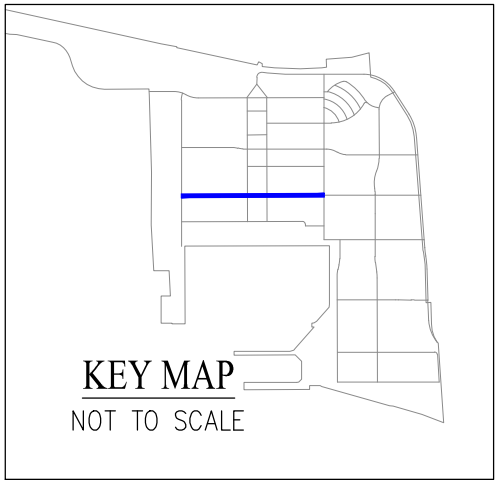
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

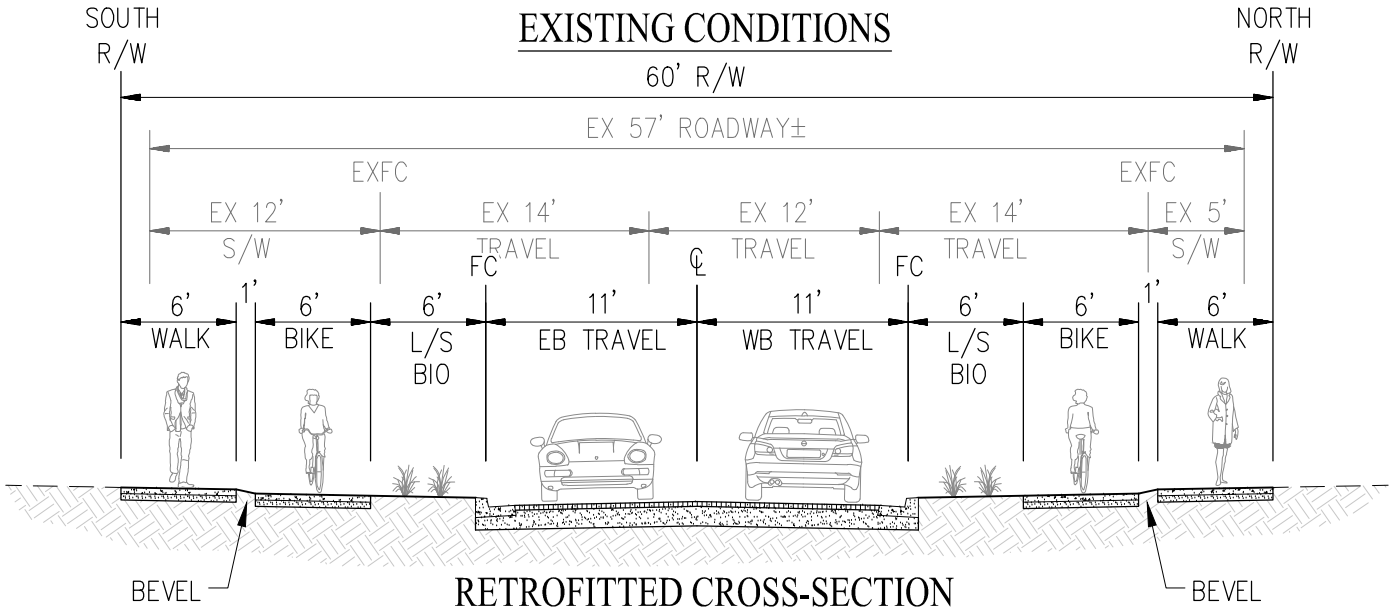
- LOCAL STREET
- PRIMARY/OTHER TRANSIT STREET (VARIES)
- TRUCK ROUTE (VARIES)
- CLASS 2A BIKE FACILITY

TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 11' LANES.



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
TOWER AVENUE
REUSE AREAS

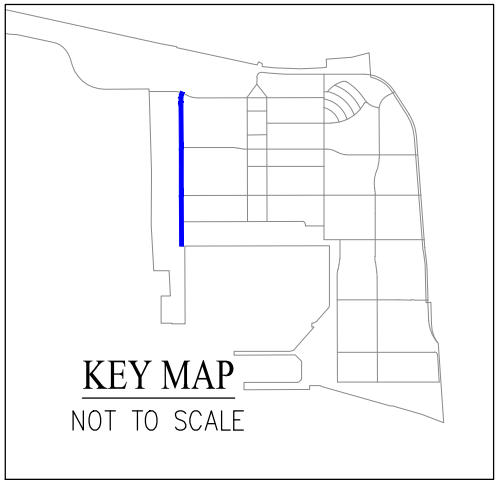
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

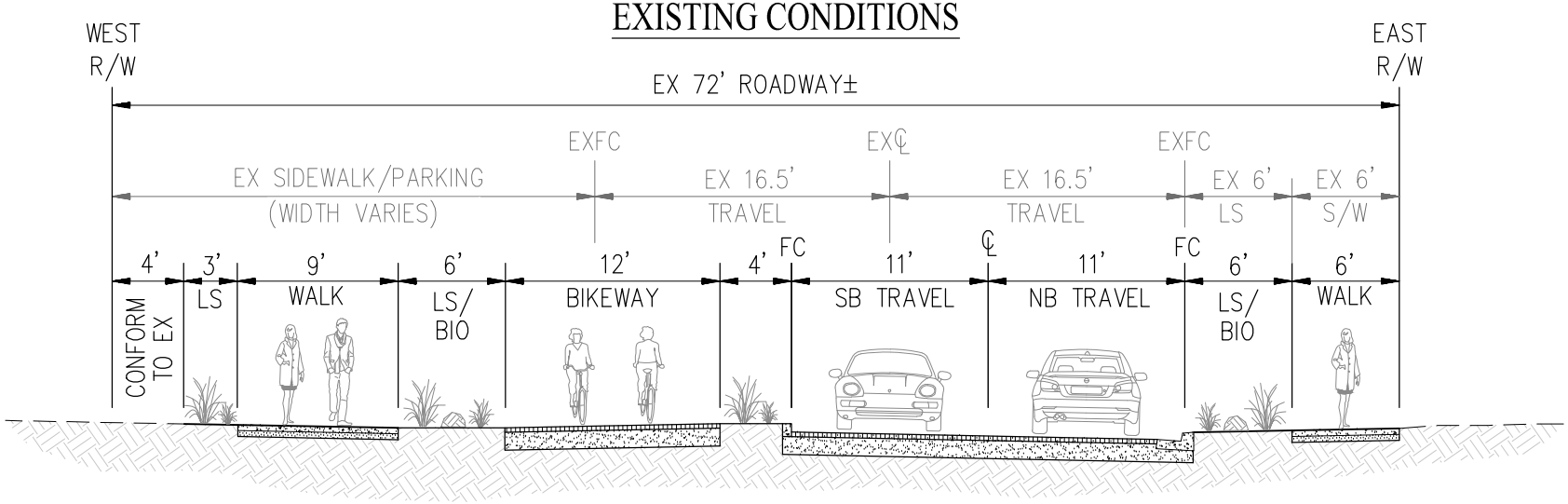
- LOCAL STREET
- CLASS 1A BIKE FACILITY

TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 11' LANES.



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
MONARCH STREET
REUSE AREAS

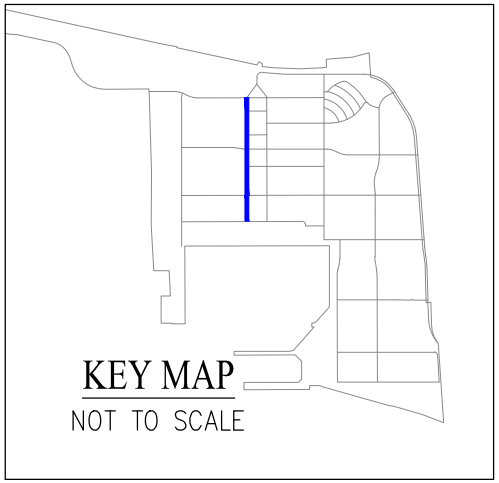
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

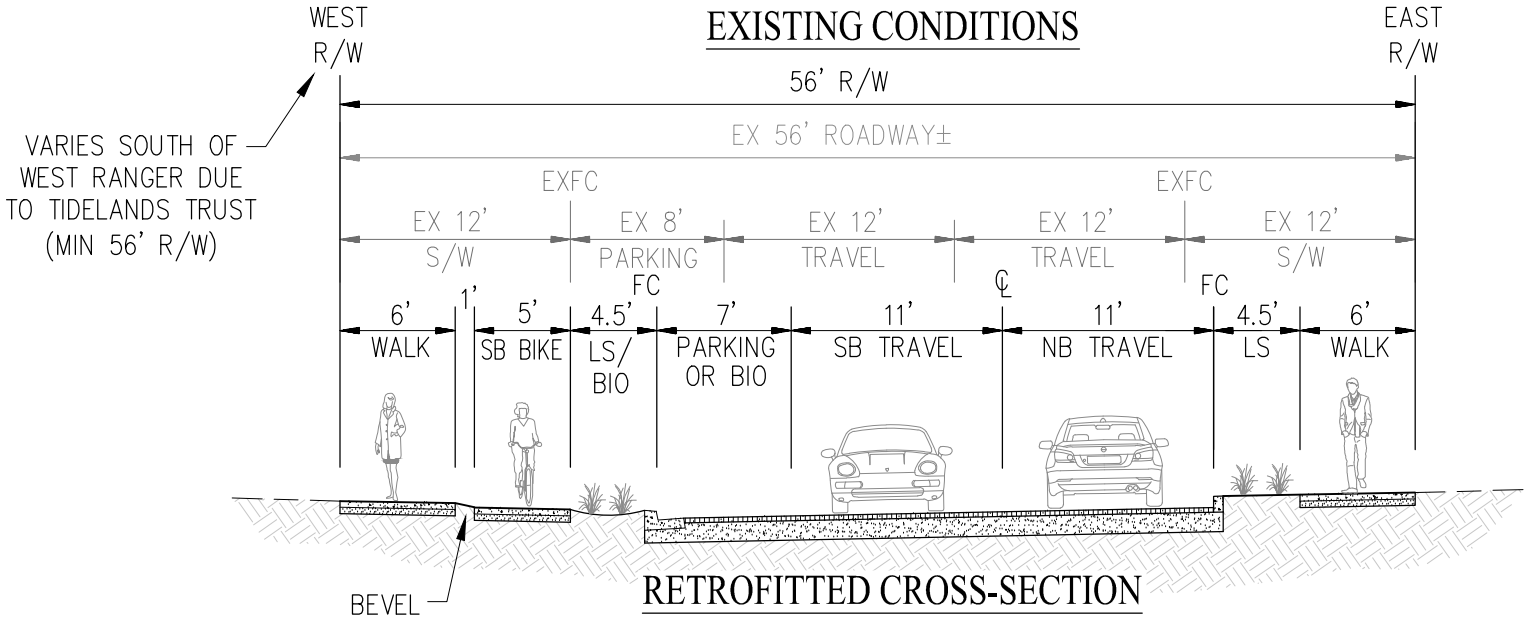
- ISLAND ARTERIAL
- PRIMARY/OTHER TRANSIT STREET (VARIES)
- TRUCK ROUTE (VARIES)
- CLASS 2A BIKE FACILITY

TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 11' LANES.



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
LEXINGTON STREET
REUSE AREAS

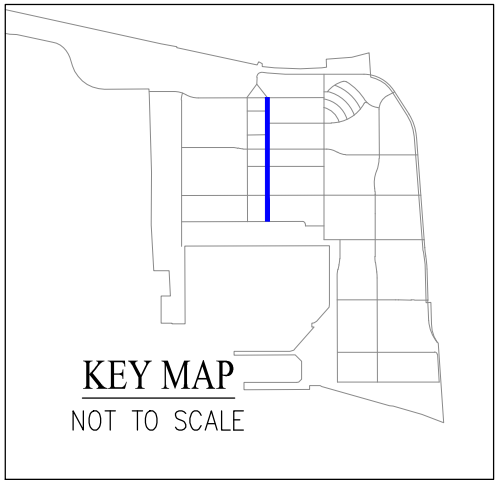
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

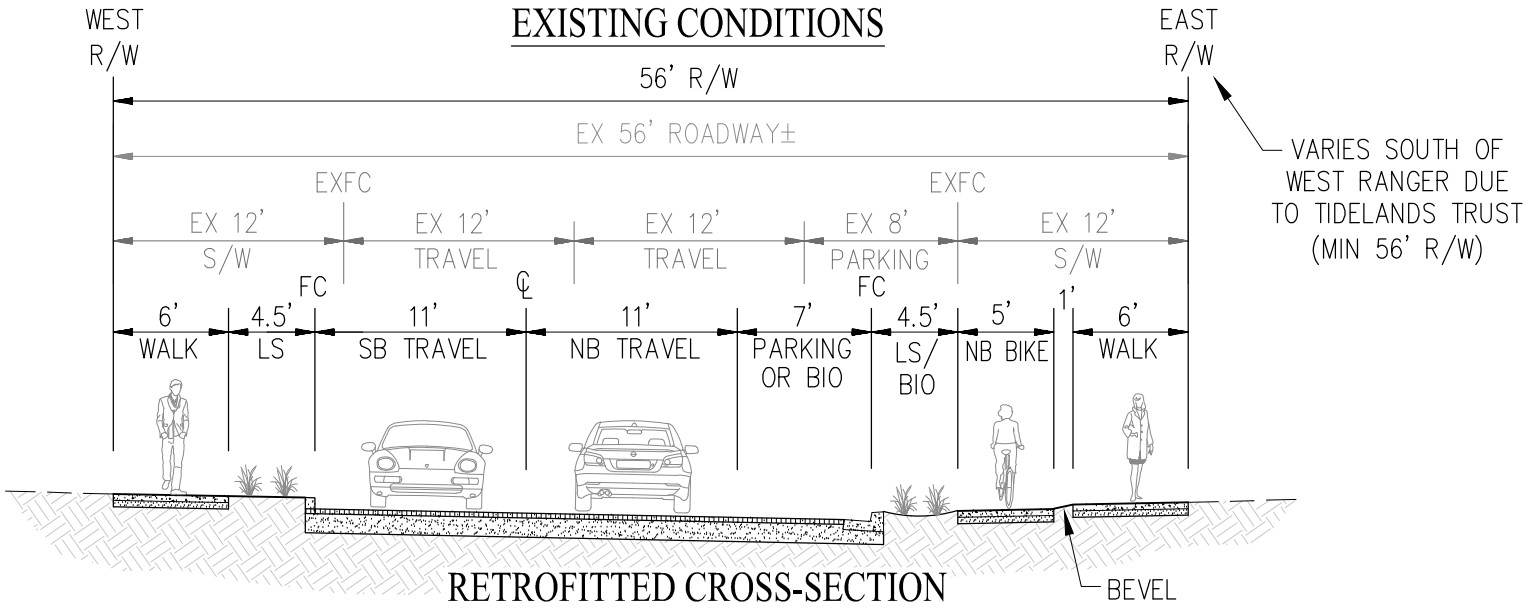
- LOCAL STREET
- SECONDARY/OTHER TRANSIT STREET (VARIES)
- CLASS 2A BIKE FACILITY

TRAVEL LANE NOTE:

TRAVEL LANES SHALL BE INCREASED TO 13' FOR STREETS ADJACENT TO BUILDINGS GREATER THAN 30' HIGH (OR AS APPROVED BY FIRE DEPT) AND SHALL BE STRIPED AS 11' LANES.



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
SARATOGA STREET
REUSE AREAS

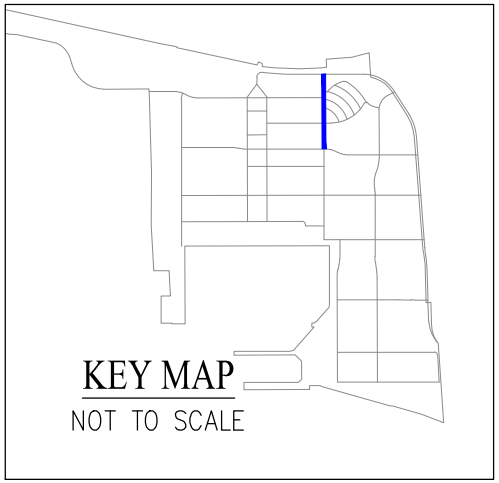
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

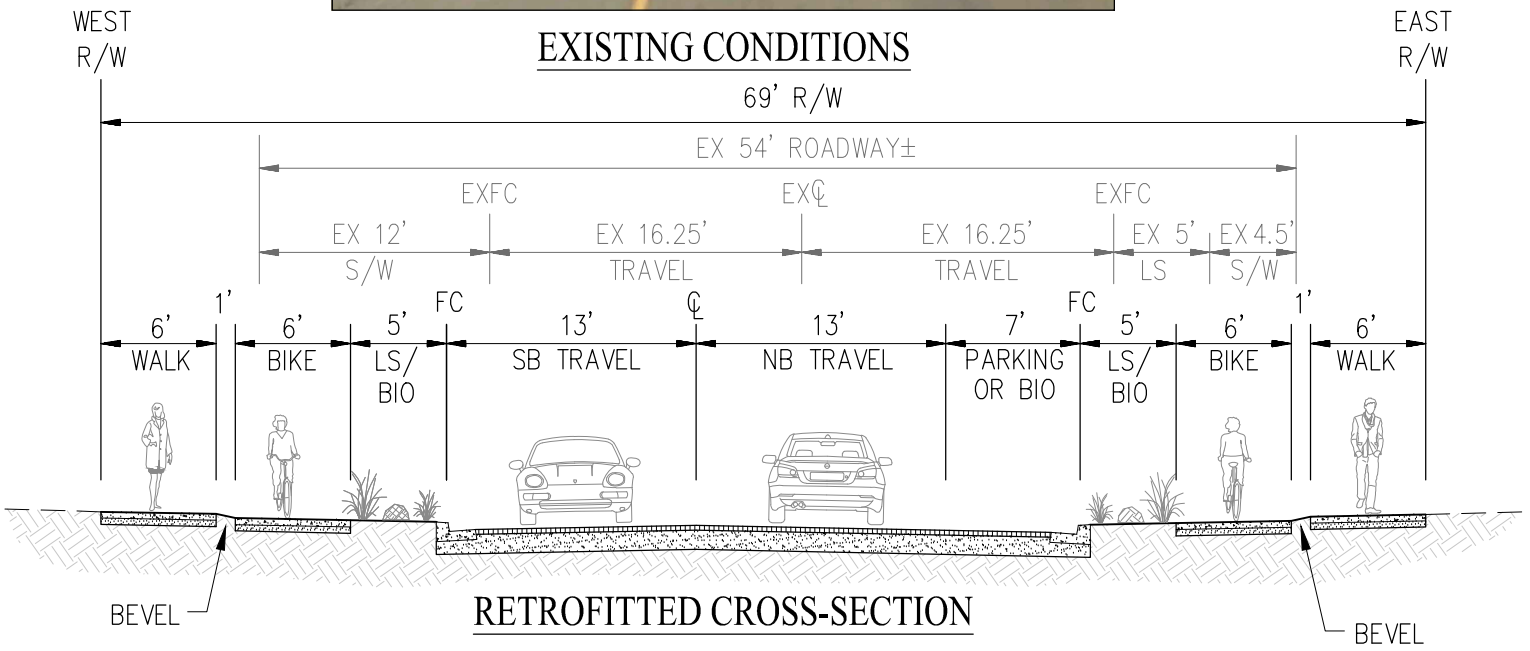
STREET CLASSIFICATIONS

- ISLAND COLLECTOR/LOCAL STREET
- CLASS 2A BIKE FACILITY

CONSTRUCTION NOTE:

REHAB EX PAN AM WAY FROM MIDWAY TO REDLINE. NEW CONSTRUCTION FROM REDLINE TO MAIN STREET.





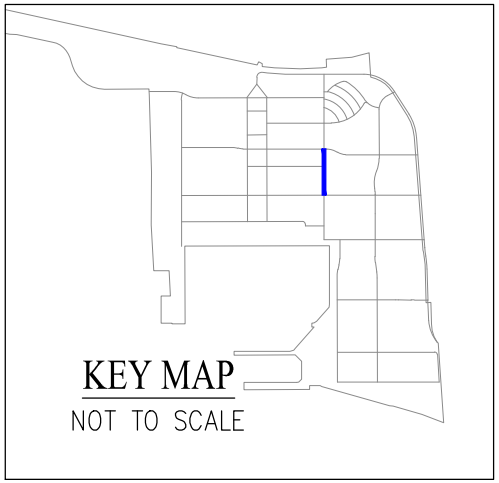
ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
PAN AM WAY (NORTH)
REUSE AREAS

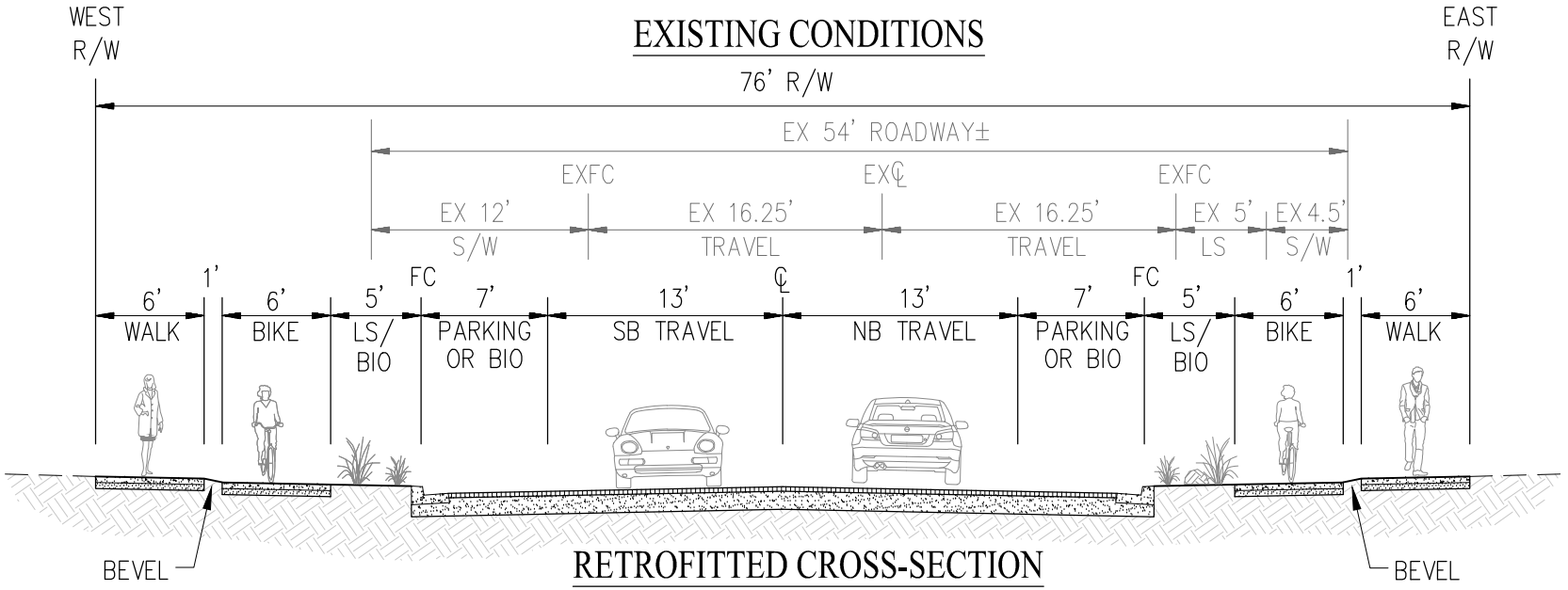
G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

STREET CLASSIFICATIONS

- ISLAND COLLECTOR/LOCAL STREET
- CLASS 2A BIKE FACILITY



EXISTING CONDITIONS



RETROFITTED CROSS-SECTION

ALAMEDA POINT
MASTER INFRASTRUCTURE PLAN
CITY OF ALAMEDA ALAMEDA COUNTY CALIFORNIA
DATE: FEBRUARY, 2020 NOT TO SCALE
Carlson, Barbee, & Gibson, Inc.

UPDATED FIGURE 24
PAN AM WAY (SOUTH)
REUSE AREAS

G:\1087-10\ACAD-10\EXHIBITS\MIP FIGURES (AMENDED)\XB_24_STREET SECTIONS (REUSE AREAS).DWG

APPENDIX C

Backbone Infrastructure Cost Estimate

CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE

August 13, 2020

ALAMEDA POINT

Job No.: 1087-010

BACKBONE INFRASTRUCTURE

DEVELOPMENT IMPACT FEE

COST ESTIMATE SUMMARY

ALAMEDA, CALIFORNIA

Item	Description		Amount
	BACKBONE INFRASTRUCTURE		
1	DEMOLITION / SITE PREPARATION	$	27,454,000
2	ENVIRONMENTAL REMEDIATION		BY OTHERS
3	PERIMETER FLOOD PROTECTION AND ROADWAY GRADING	$	70,015,000
4	DEWATERING	$	2,500,000
5	SANITARY SEWER	$	28,168,000
6	STORM DRAIN	$	53,794,000
7	POTABLE WATER	$	12,826,000
8	RECYCLED WATER	$	3,009,000
9	DRY UTILITIES	$	53,498,000
10	ON-SITE STREET WORK	$	73,685,000
11	TRANSPORTATION	$	29,424,000
12	PARKS AND OPEN SPACE	$	139,661,000
13	PUBLIC BENEFITS	$	32,163,000
	SUBTOTAL BACKBONE INFRASTRUCTURE CONSTRUCTION COSTS	**$**	**526,197,000**
	(to nearest $10,000)		
	SOFT COSTS		
14	CONSTRUCTION ADMIN	$	16,838,000
15	PROFESSIONAL SERVICES	$	63,144,000
16	FEES	$	23,170,000
17	IMPROVEMENT ACCEPTANCE	$	2,105,000
	SUBTOTAL SOFT COSTS	**$**	**105,260,000**
	(to nearest $10,000)		
	TOTAL BACKBONE INFRASTRUCTURE COSTS	**$**	**631,460,000**
	(to nearest $10,000)		

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
DEMOLITION / SITE PREPARATION
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	DEMOLITION / SITE PREPARATION				
1	Remove Ex Building Foundations - *Multi-Family Bldgs*	5	EA	$ 53,500	$ 267,500
1	Demo & Abatement of Ex Structures - *Big Whites*	21	EA	$ 57,500	$ 1,207,500
2	Demo & Abatement of Ex Structures - *Multi-Family Bldgs*	18	EA	$ 110,000	$ 1,980,000
3	Demo & Abatement of Ex Structures - *Industrial (N)*	3,000	SF	$ 8	$ 24,000
4	Demo & Abatement of Ex Structures - *Industrial (S)*	472,000	SF	$ 17.25	$ 8,142,000
5	Demolition of Existing Pavement and Concrete *(Assume to be recycled and reused)* *(Includes DePave Park / Excludes Enterprise & Sports Complex)*	2,930,000	SF	$ 2.15	$ 6,299,500
6	Demolition of Ex Sea Plane Lagoon Ramps	4	EA	$ 125,000	$ 500,000
7	Clearing and Grubbing - *Open Space areas only*	12.5	AC	$ 2,150	$ 26,875
8	Slurry Fill Existing Utilities - *Parks* *(Excludes DePave, Enterprise & Sports Complex)*	29,600	LF	$ 30	$ 888,000
9	Slurry Fill Existing Utilities - *Within Proposed R/W's*	28,000	LF	$ 30	$ 840,000
10	Remove Existing Utilities - *Within Proposed R/W's*	28,000	LF	$ 60	$ 1,680,000
11	Demolition of Ex Railroad Spurs	3,600	LF	$ 30	$ 108,000
12	Relocate Collaborative Housing	1	LS	N.I.C.	N.I.C.
	SUBTOTAL DEMOLITION / SITE PREPARATION COSTS				**$ 21,963,000**
	25% CONTINGENCY				**$ 5,490,750**
	TOTAL DEMOLITION / SITE PREPARATION COSTS				**$ 27,454,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
ENVIRONMENTAL REMEDIATION
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	ENVIRONMENTAL REMEDIATION				
	SUBTOTAL ENVIRONMENTAL REMEDIATION COSTS				**BY OTHERS**
	25% CONTINGENCY				**BY OTHERS**
	TOTAL ENVIRONMENTAL REMEDIATION COSTS				**BY OTHERS**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
PERIMETER FLOOD PROTECTION AND ROADWAY GRADING
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	GEOTECHNICAL REMEDIATION				
1	Northern Shoreline Stabilization - *DDC*	255,000	SF	$ 1.70	$ 433,500
2	Northern Shoreline Stabilization - *Concrete Piles*	5,100	LF	$ 2,875	$ 14,662,500
3	Sea Plane Lagoon - *Northern Headwall*	1,800	LF	$ 4,600	$ 8,280,000
4	Sea Plane Lagoon - *Revetment Repairs*	1,800	LF	$ 230	$ 414,000
5	Sea Plane Lagoon - *Floodwall on Wharf*	2,200	LF	$ 1,150	$ 2,530,000
6	Liquefaction Remediation - *Roadways (Dev Areas)*	1,477,000	SF	$ 1.70	$ 2,510,900
7	Liquefaction Remediation - *Berm*	741,500	SF	$ 1.70	$ 1,260,550
	Subtotal Geotechnical Remediation				$ 30,091,450
	EARTHWORK				
8	Import - *Berms*				
	Raise to Flood Protection Elevation	150,000	CY	$ 35	$ 5,250,000
	Settlement due to DDC - *Assume 1.5'*	56,500	CY	$ 35	$ 1,977,500
	Settlement due to Increased Load - *Assume 1.5'*	56,500	CY	$ 35	$ 1,977,500
9	Import - *Replace Ex Pav and Concrete - Residential Parcels* *(Assume 1' Depth over Ex Pave / Concrete Demo)*	0	CY	$ 35	$ -
10	Import - *Roadways*				
	Raise Above Flood Plain	210,000	CY	$ 35	$ 7,350,000
	Settlement due to Fill	105,000	CY	$ 35	$ 3,675,000
	Settlement due to DDC - *Excludes Parks*	32,400	CY	$ 35	$ 1,134,000
	Settlement due to Increased Structure Load *(Assume 1')*	0	CY	$ 35	$ -
11	Rough Grade - *Roadways & New Parks (Assume 1')* *(Excludes DePave, Enterprise & Sports Complex)*	141,000	CY	$ 10	$ 1,410,000
12	Rock Slope Protection	10,550	LF	$ 230	$ 2,426,500
13	Finish Super Pad	0	AC	$ 6,000	$ -
14	Settlement Acceleration Program - *Budget*	1	LS	$ 115,000	$ 115,000
15	Retaining Walls - *Budget*	0	LS	$ 430,000	$ -
16	Erosion Control - *New Parks* *(Excludes DePave, Enterprise & Sports Complex)*	20.8	AC	$ 3,750	$ 78,000
17	Erosion Control - *Roadways*	45,810	LF	$ 11.50	$ 526,815
	Subtotal Earthwork				$ 25,920,315
	SUBTOTAL PERIMETER FLOOD PROTECTION AND ROADWAY GRADING COSTS				**$ 56,011,765**
	25% CONTINGENCY				**$ 14,002,941**
	TOTAL PERIMETER FLOOD PROTECTION AND ROADWAY GRADING COSTS				**$ 70,015,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
DEWATERING
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	DEWATERING				
1	Dewatering (*On-Site Roadways and Main Street)*	45,810	LF	$ -	*Incl. in Utility Costs*
2	Groundwater Contamination Treatment *(Budget)*	1	LS	$ 2,000,000	$ 2,000,000
				SUBTOTAL DEWATERING COSTS	**$ 2,000,000**
				25% CONTINGENCY	**$ 500,000**
				TOTAL DEWATERING COSTS	**$ 2,500,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
SANITARY SEWER
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	SANITARY SEWER				
1	36" Sanitary Sewer *(In Existing Pavement)*	0	LF	$ 825	$ -
2	24" Sanitary Sewer *(In Existing Pavement)*	0	LF	$ 550	$ -
3	24" Sanitary Sewer	0	LF	$ 420	$ -
4	18" Sanitary Sewer	1,130	LF	$ 400	$ 452,000
5	12" Sanitary Sewer *(In Existing Pavement)*	0	LF	$ 475	$ -
6	12" Sanitary Sewer	2,315	LF	$ 380	$ 879,700
7	10" Sanitary Sewer	865	LF	$ 360	$ 311,400
8	8" Sanitary Sewer *(In Existing Pavement)*	0	LF	$ 425	$ -
9	8" Sanitary Sewer	26,350	LF	$ 340	$ 8,959,000
10	Manholes *(Assume 1 Every 300')*	125	EA	$ 13,900	$ 1,737,500
11	Stubs to Future Development	60	EA	$ 650	$ 39,000
12	Lift / Pump Stations (*With Back-Up Power)*	3	EA	$ 2,000,000	$ 6,000,000
13	8" Force Main *(VA Connection)*	725	LF	$ 340	$ 246,500
14	12" Force Main *(Southern Pump Station)*	2,050	LF	$ 380	$ 779,000
15	Temporary Lift Station *(Budget)*	0	EA	$ 650,000	$ -
16	Connect to Ex Pump Station 1	0	LS	$ 115,000	$ -
17	Connect New Main to Existing Trunk Main	7	EA	$ 21,500	$ 150,500
18	Rehabilitate Existing Trunk Main *(Budget)*	0	LF	$ 23	$ -
19	Utilidors / Industrial Waste Line Crossings	825	LF	$ 500	$ 412,500
20	Maintain Service to Ex Buildings and Future Phases	1	LS	$ 1,000,000	$ 1,000,000
21	Connect Existing Lateral to New Main *(Budget)*	69	EA	$ 500	$ 34,500
22	Replace Bay Mud *(Within Utility Trenches)* *(Excludes Force Mains)*	30,660	CY	$ 50	$ 1,533,000
				SUBTOTAL SANITARY SEWER COSTS	**$ 22,534,600**
				25% CONTINGENCY	**$ 5,633,650**
				TOTAL SANITARY SEWER COSTS	**$ 28,168,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
STORM DRAIN
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	STORM DRAIN				
1	60" Storm Drain	1,475	LF	$ 460	$ 678,500
2	60" Storm Drain *(In Existing Pavement)*	860	LF	$ 735	$ 632,100
3	48" Storm Drain	10,635	LF	$ 430	$ 4,573,050
4	48" Storm Drain *(In Existing Pavement)*	1,425	LF	$ 540	$ 769,500
5	36" Storm Drain	9,600	LF	$ 380	$ 3,648,000
6	36" Storm Drain *(In Existing Pavement)*	0	LF	$ 475	$ -
7	24" Storm Drain	10,915	LF	$ 330	$ 3,601,950
8	18" Storm Drain	6,600	LF	$ 275	$ 1,815,000
9	Manholes *(Assume 1 Every 300')*	165	EA	$ 15,500	$ 2,557,500
10	Multi-Purpose Basin				
	Excavation	45,000	CY	$ 35	$ 1,575,000
	Inlet / Outlet	3	EA	$ 287,500	$ 862,500
	Passive Landscaping	290,000	SF	$ 2.50	$ 725,000
	Access Road	44,000	SF	$ 6.00	$ 264,000
11	Force Mains *(12-24")*	800	LF	$ 350	$ 280,000
12	Emergency and Treatment Flow Pump Station *(With Back-Up Power)*	3	EA	$ 2,000,000	$ 6,000,000
13	Main Street Pump Station Enchancements	1	LS	$ 1,500,000	$ 1,500,000
14	Outlets to Sea Plane Lagoon / Inner Harbor	4	EA	$ 385,000	$ 1,540,000
15	Trash Capture Device at Outfall	4	EA	$ 300,000	$ 1,200,000
16	Utilidors / Industrial Waste Line Crossings	825	LF	$ 500	$ 412,500
17	Interim Drainage to Existing Parcels to Remain *(Budget)*	1	LS	$ 1,000,000	$ 1,000,000
18	Stubs to Future Development *(Budget)*	60	EA	$ 650	$ 39,000
19	Existing Main Street Storm Drain Pump Modification	1	LS	$ 300,000	$ 300,000
20	Roadside Vegetated Swales / Water Quality Facilities	79,690	LF	$ 50	$ 3,984,500
21	Replace Bay Mud - *Within Utility Trenches*	83,020	CY	$ 50	$ 4,151,000
22	Hangar Row - Water Quality Upgrades				
	Demolition of Existing Pavement and Concrete	38,000	SF	$ 2.15	$ 81,700
	Grading and Excavation	3,500	CY	$ 10	$ 35,000
	Bioretention Area	32,800	SF	$ 20	$ 656,000
	Manhole with Low Flow Sump Pump	1	EA	$ 150,000	$ 150,000
	Erosion Control	0.9	AC	$ 3,750	$ 3,375
				SUBTOTAL STORM DRAIN COSTS	**$ 43,035,000**
				25% CONTINGENCY	**$ 10,758,750**
				TOTAL STORM DRAIN COSTS	**$ 53,794,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
POTABLE WATER
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	POTABLE WATER				
1	16" Water Pipe *(Including Appurtenances)*	8,000	LF	$ 170	$ 1,360,000
2	12" Water Pipe *(Including Appurtenances)*	25,200	LF	$ 140	$ 3,528,000
3	10" Water Pipe *(Including Appurtenances) - Main Street*	3,035	LF	$ 135	$ 409,725
4	8" Water Pipe *(Including Appurtenances) - Big Whites*	3,765	LF	$ 130	$ 489,450
5	Stubs to Future Development	60	EA	$ 1,070	$ 64,200
6	Connect to Ex Waterline *(Including Meter and Backflow)*	59	EA	$ 16,000	$ 944,000
7	Fire Hydrants *(Assume 1 Every 450')*	82	EA	$ 10,920	$ 895,440
8	Irrigation Services *(Assume 1 Every 0.33 Mile)*	21	EA	$ 2,140	$ 44,940
9	EBMUD Clean Corridor	825	LF	$ 500	$ 412,500
10	Maintain Service to Existing Buildings and Future Phases	1	LS	$ 1,000,000	$ 1,000,000
11	Connect Existing Lateral to New Main *(Includes Meter)*	104	EA	$ 10,700	$ 1,112,800
	SUBTOTAL POTABLE WATER COSTS				**$ 10,261,000**
	25% CONTINGENCY				**$ 2,565,250**
	TOTAL POTABLE WATER COSTS				**$ 12,826,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
RECYCLED WATER
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	RECYCLED WATER				
1	12" Recycled Water Pipe *(Including Appurtenances)*	16,850	LF	$ 140	$ 2,359,000
2	Stubs to Future Development	25	EA	$ 1,070	$ 26,750
3	Irrigation Services	10	EA	$ 2,140	$ 21,400
4	Utilidors	0	LF	$ 290	$ -
	SUBTOTAL RECYCLED WATER COSTS				**$ 2,407,000**
	25% CONTINGENCY				**$ 601,750**
	TOTAL RECYCLED WATER COSTS				**$ 3,009,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
DRY UTILITIES
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	DRY UTILITIES				
1	Relocate Elec Transmission (115 kV) Poles - *Main St*	0	EA	$ 57,500	N.I.C.
2	Relocate Exiting Street Lights - *Main St*	31	EA	$ 5,500	$ 170,500
3	Joint Trench Facilities - *Main St*	5,965	LF	$ 450	$ 2,684,250
4	Joint Trench Facilities - *On-Site*	40,345	LF	$ 450	$ 18,155,250
5	Add'l Facilities for Multiple Utility Companies / City Fiber	39,845	LF	$ 50	$ 1,992,250
6	Electroliers *(Assume 1 Every 90')*	515	EA	$ 12,000	$ 6,180,000
7	Utilidors / Industrial Waste Line Crossings	825	LF	$ 500	$ 412,500
8	Maintain Service to Ex Buildings *(During Construction)*	1	LS	$ 1,550,000	$ 1,550,000
9	Establish New Connection to Historic Buildings to Remain	119	EA	$ 11,000	$ 1,309,000
10	Connect to Existing Substation	3	EA	$ 115,000	$ 345,000
11	Cartwright Substation Upgrades	1	LS	$ 10,000,000	$ 10,000,000
	SUBTOTAL DRY UTILITIES COSTS				**$ 42,798,750**
	25% CONTINGENCY				**$ 10,699,688**
	TOTAL DRY UTILITIES COSTS				**$ 53,498,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
ON-SITE STREET WORK
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	Note: Please see Appendix for the linear footage cost breakdowns				
	MAIN STREET - INITIAL CONSTRUCTION				
1	Main Street - Initial Construction				
	Pacific to Atlantic *(Ultimate)*	865	LF	$ 1,220	$ 1,055,300
	Atlantic to Main Gate	5,100	LF	$ 720	$ 3,672,000
	Intersection Modification - *Atlantic Ave / Main St*	0	LS	$ 50,000	$ -
	Intersection Modification - *Stargell Ave / Main St*	1	LS	$ 50,000	$ 50,000
	Intersection Modification - *Singleton Ave / Main St*	1	LS	$ 50,000	$ 50,000
	Intersection Modification - *Pacific / Main St (Ultimate)*	1	LS	$ 575,000	$ 575,000
	Intersection Modification - *Main Gate / Main St*	1	LS	$ 50,000	$ 50,000
	Transition to Ex Roadway - *At Northern Boundary*	1	LS	$ 50,000	$ 50,000
	Transition to Ex Roadway - *At Southern Boundary*	0	LS	$ 50,000	$ -
	Traffic Signal Modification - *Atlantic Ave / Main St*	0	LS	$ 125,000	$ -
	Traffic Signal Modification - *Stargell Ave / Main St*	1	LS	$ 125,000	$ 125,000
	Traffic Signal Modification - *Singleton Ave / Main St*	1	LS	$ 125,000	$ 125,000
	Traffic Signal Modification - *Pacific / Main St (Ultimate)*	1	LS	$ 400,000	$ 400,000
	Subtotal Main Street - Initial Construction				$ 6,152,300
	MAIN STREET - ULTIMATE IMPROVEMENTS				
2	Main Street - Ultimate Improvements				
	Pacific to Atlantic	0	LF	$ 1,220	$ -
	Atlantic to Main Gate	5,100	LF	$ 1,670	$ 8,517,000
	Intersection Modification - *Atlantic Ave / Main St*	0	LS	$ 115,000	$ -
	Intersection Modification - *Stargell Ave / Main St*	1	LS	$ 115,000	$ 115,000
	Intersection Modification - *Singleton Ave / Main St*	1	LS	$ 115,000	$ 115,000
	Intersection Modification - *Pacific / Main St*	0	LS	$ 575,000	$ -
	Intersection Modification - *Main Gate / Main St*	1	LS	$ 115,000	$ 115,000
	Transition to Ex Roadway - *At Northern Boundary*	1	LS	$ 400,000	$ 400,000
	Transition to Ex Roadway - *At Southern Boundary*	0	LS	$ 115,000	$ -
	Traffic Signal Modification - *Atlantic Ave / Main St*	0	LS	$ 250,000	$ -
	Traffic Signal Modification - *Stargell Ave / Main St*	1	LS	$ 250,000	$ 250,000
	Traffic Signal Modification - *Singleton Ave / Main St*	1	LS	$ 250,000	$ 250,000
	Traffic Signal Modification - *Pacific / Main St*	0	LS	$ 400,000	$ -
3	Adjust Existing Joint Trench Facilities to Grade	1	LS	$ 100,000	$ 100,000
4	Adjust Existing Water Facilities to Grade	1	LS	$ 50,000	$ 50,000
5	Adjust Ex Field Inlets to Grade *(Assume 1 every 300')*	17	EA	$ 2,000	$ 34,000
6	Adjust Existing Electorliers to Grade	57	EA	$ 2,000	$ 114,000
7	Misc Frontage Improvements to Ex Bldg's to Remain	5,100	LF	$ 110	$ 561,000
	Subtotal Main Street - Ultimate Improvements				$ 10,621,000

Item	Description	Quantity	Unit	Unit Price	Amount
	ON-SITE STREET WORK				
8	On-Site Streets				
	West Atlantic Avenue - *New*	0	LF	$ -	$ -
	Pacific Avenue - *New*	1,800	LF	$ 1,040	$ 1,872,000
	Island Collector - Bike Lanes - *New*	1,570	LF	$ 900	$ 1,413,000
	Island Collector - Bikeway - *By Reuse Phase 1*	0	LF	$ -	$ -
	Local Streets - Sharrows - *By Site A Phase 2*	0	LF	$ -	$ -
	Local Streets - Bike Lanes - *New*	2,700	LF	$ 865	$ 2,335,500
	Local Streets - Bike Lanes (Protected) - *New*	3,100	LF	$ 930	$ 2,883,000
	Seaplane (East) - *New*	2,660	LF	$ 1,180	$ 3,138,800
	Seaplane (North) - *New*	2,600	LF	$ 1,115	$ 2,899,000
	West Hornet Avenue - *New*	2,040	LF	$ 895	$ 1,825,800
	West Midway Avenue - *New*	1,800	LF	$ 870	$ 1,566,000
	West Redline Avenue - *Reconstruction*	3,635	LF	$ 800	$ 2,908,000
	Essex Drive - *Reconstruction*	1,125	LF	$ 915	$ 1,029,375
	West Midway Avenue - *Reconstruction*	1,680	LF	$ 850	$ 1,428,000
	Tower Avenue - *Reconstruction*	1,670	LF	$ 840	$ 1,402,800
	Monarch Street - *Reconstruction*	3,180	LF	$ 910	$ 2,893,800
	Big Whites - *Reconstruction*	4,800	LF	$ 520	$ 2,496,000
	Lexington Street - *Reconstruction*	2,525	LF	$ 785	$ 1,982,125
	Lexington Street - *New*	0	LF	$ -	$ -
	Saratoga Street - *Reconstruction*	1,500	LF	$ 785	$ 1,177,500
	Saratoga Street - *New*	0	LF	$ -	$ -
	Pan Am Way - *Reconstruction*	1,460	LF	$ 910	$ 1,328,600
	Pan Am Way - *New*	0	LF	$ -	$ -
	Roadway Resurfacing	1,850	LF	$ 290	$ 536,500
9	Central Avenue Realignment	1	LS	$ -	BY OTHERS
10	Conform to Ex Intersections - *Budget During Construction*	33	EA	$ 110,000	$ 3,630,000
11	Temporary Access Roads to Ex Bldg's - *During Construction*	1	LS	$ 1,000,000	$ 1,000,000
12	Misc Frontage Improvements to Ex Bldg's to Remain	10,900	LF	$ 110	$ 1,199,000
13	Driveways - *Residential Alleys & Commercial Parking lots*	130	EA	$ 2,500	$ 325,000
14	Temp Barricades - *At Entrances to Future Development*	97	EA	$ 1,600	$ 155,200
15	Traffic Calming Budget	1	LS	$ 750,000	$ 750,000
	Subtotal On-Site Street Work				$ 42,175,000
	SUBTOTAL ON-SITE STREET WORK COSTS				**$ 58,948,300**
	25% CONTINGENCY				**$ 14,737,075**
	TOTAL ON-SITE STREET WORK COSTS				**$ 73,685,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TRANSPORTATION
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description		Improvement Amount	Project Pro-Rata Share		Project Amount
	OFF-SITE PROJECT IMPROVEMENTS					
	VEHICLE IMPROVEMENTS					
1	Fernside Blvd / Otis Dr - *Intersection & Signal Improvements*	$	369,000	0%	$	-
2	Main St / Pacific Ave - *Signal Improvements*		*Included in Main Street Estimate*			
3	Webster St / RAMP - *Signal Improvements*	$	62,000	0%	$	-
4	Park St / Otis Dr - *Signal Improvements*	$	62,000	0%	$	-
5	Broadway / Tilden Way - *Signal Improvements*	$	62,000	0%	$	-
6	High St / Fernside Blvd - *Signal Improvements*	$	62,000	0%	$	-
7	Atlantic Ave / Constitution Way - *Signal Modification*	$	185,000	0%	$	-
	BICYCLE IMPROVEMENTS					
8	Stargell Avenue Class I Trail - *Main St to 5th Street*	$	492,000	0%	$	-
9	Main St Class I Trail - *RAMP to Pacific Ave*		*Included in Main Street Estimate*			
10	Central Ave Class I & II Trail - *Pacific Ave to 4th St*		N.I.C.	0%		N.I.C.
	Subtotal Off-Site Project Improvements				$	-
	OFF-SITE PROJECT CONTRIBUTIONS - *Pro-Rata Share*					
	VEHICLE IMPROVEMENTS					
11	Park St / Clement Ave - *Intersection Improvements*	$	677,000	0%	$	-
12	Park St / Encinal Ave - *Intersection Improvements*	$	246,000	0%	$	-
13	Broadway / Otis Dr - *Signal Improvements*	$	123,000	0%	$	-
14	Tilden Way / Blanding Ave / Fernside Blvd - *Intersection Imp's*	$	431,000	0%	$	-
15	High St / Fernside Blvd - *Signal Improvements / Transit Priority*	$	123,000	0%	$	-
16	High St / Otis Dr - *Intersection Improvements*	$	338,000	0%	$	-
17	Island Dr / Otis Dr / Doolittle Dr - *Signal Improvements*	$	123,000	0%	$	-
18	Fernside Blvd / Otis Dr - *Signal Improvements*	$	62,000	0%	$	-
19	Park St / Blanding Ave - *Intersection Improvements*	$	265,000	0%	$	-
20	Challenger Dr/Atlantic Ave - *Signal Improvements / Transit Priority*	$	123,000	0%	$	-
21	Park St / Lincoln Ave - *Signal Improvements / Transit Priority*	$	123,000	0%	$	-
	PEDESTRIAN IMPROVEMENTS					
22	Main St / Pacific Ave - *Signal Improvements*		*Included in Main Street Estimate*			
23	Webster St / RAMP - *Signal Improvements / Transit Priority*	$	308,000	0%	$	-
24	High St / Fernside Blvd - *Intersection Improvements*		*Included in Item #15*			
25	Atlantic Ave / Constitution Way - *Signal Modification*		*Included in Item #7*			

Item	Description	Improvement Amount	Project Pro-Rata Share	Project Amount
	TRANSIT IMPROVEMENTS			
26	Park St Transit Signal Priority - *Blanding Ave to Otis Dr*	$ 615,000	0%	$ -
27	RAMP Transit Corridor Improvements - *Main St to Webster St* *(incl. transit signal priority, exclusive transit lane eastbound)*	$ 5,845,000	0%	$ -
28	Stargell Ave Queue Jump Lanes - *Main St & 5th St Intersections*	$ 3,692,000	0%	$ -
	BICYCLE IMPROVEMENTS			
29	Stargell Avenue Class I Trail - *Main St to 5th Street*		*Included in Item #8*	
30	Main St Class I Trail - *RAMP to Pacific Ave*		*Included in Main Street Estimate*	
31	Central Ave Class I & II Trail - *Pacific Ave to 4th St*		*Included in Item #10*	
32	Oak Street Bicycle Blvd - *Blanding Ave to Encinal Ave*	$ 246,000	0%	$ -
	MISCELLANEOUS			
33	Off-Site Traffic Improvements	$ 4,300,000	100%	$ 4,300,000
	Subtotal Off-Site Project Contributions			$ 4,300,000
	ADDITIONAL PROJECT IMPROVEMENTS			
33	BRT (*Project Contribution)*	$ 20,000,000	0%	$ -
34	Shuttle Service	$ 1,150,000	100%	$ 1,150,000
35	Ferry Terminal - *Expand Pkg Lot @ Existing Terminal*	$ 655,000	0%	$ -
36	Ferry Terminal - *New Terminal @ Seaplane Lagoon*	$ 10,000,000	0%	$ -
37	Cross Alameda Trail *(Class I Trail along RAMP from Main St to Constitution Way)*	$ 2,338,000	0%	$ -
38	Other Potential Project Improvements	$ 7,691,000	100%	$ 7,691,000
39	Wayfinding Directional Signage	$ 185,000	100%	$ 185,000
40	Surface Parking Lots	$ 9,598,000	100%	$ 9,598,000
41	Parking Meters	$ 615,000	100%	$ 615,000
	Subtotal Additional Project Improvements			$ 19,239,000
	SUBTOTAL TRANSPORTATION COSTS			**$ 23,539,000**
	25% CONTINGENCY			**$ 5,884,750**
	TOTAL TRANSPORTATION COSTS			**$ 29,424,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
PARKS AND OPEN SPACE
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	PARKS AND OPEN SPACE				
1	Upgrade Existing Landscaping *(Includes BEQ)*	14.0	AC	$ 250,000	$ 3,500,000
2	Primary Open Spaces	8.5	AC	$ 1,156,000	$ 9,826,000
3	Seaplane Lagoon Landscaping	12.3	AC	$ 1,725,000	$ 21,217,500
4	Sports Complex	1	LS	$ 35,168,000	$ 35,168,000
5	Enterprise Park *("Southeast Park")*	16.0	AC	$ 1,156,000	$ 18,496,000
6	DePave Park *(Passive)*	13.8	AC	$ 1,156,000	$ 15,952,800
7	Southwest Basin Landscaping *(Passive)*	2.2	AC	$ 500,000	$ 1,100,000
8	Bay Trail *(Main Street, Berms and Seaplane Lagoon)*	484,000	SF	$ 8.50	$ 4,114,000
9	Northern Shoreline Parking and Landscaping	2.0	AC	$ 402,500	$ 805,000
10	Flood Protection Berm Landscaping	6.2	AC	$ 250,000	$ 1,550,000
	SUBTOTAL PARKS AND OPEN SPACE COSTS				**$ 111,729,000**
	25% CONTINGENCY				**$ 27,932,250**
	TOTAL PARKS AND OPEN SPACE COSTS				**$ 139,661,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
PUBLIC BENEFITS
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	PUBLIC BENEFITS				
1	Fire Station	1	LS	$ 15,000,000	$ 15,000,000
2	Marina	0	LS	BY OTHERS	BY OTHERS
3	Wetland Restoration / Creation	0	LS	BY OTHERS	BY OTHERS
4	Northwest Territories Open Space	0	LS	BY OTHERS	BY OTHERS
5	Corporation Yard - *Pro-Rata Share*	1	LS	$ 1,150,000	$ 1,150,000
6	Bay Trail - *NW Territories & VA Property*	1	LS	$ 9,580,000	$ 9,580,000
	SUBTOTAL PUBLIC BENEFITS COSTS				**$ 25,730,000**
	25% CONTINGENCY				**$ 6,432,500**
	TOTAL PUBLIC BENEFITS COSTS				**$ 32,163,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
CONSTRUCTION ADMIN
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	CONSTRUCTION ADMIN				
1	Construction Admin *(4% costs)*	0.04	LS	$ 420,957,600	$ 16,838,304
	SUBTOTAL CONSTRUCTION ADMIN COSTS				**$ 16,838,000**
	25% CONTINGENCY				**N.I.C.**
	TOTAL CONSTRUCTION ADMIN COSTS				**$ 16,838,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
PROFESSIONAL SERVICES
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Amount
	PROFESSIONAL SERVICES				
1	Professional Services *(15% Costs)*	0.15	LS	$ 420,957,600	$ 63,143,640
	SUBTOTAL PROFESSIONAL SERVICES COSTS				**$ 63,144,000**
	25% CONTINGENCY				**N.I.C.**
	TOTAL PROFESSIONAL SERVICES COSTS				**$ 63,144,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
FEES
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

Item	Description	Fee		Amount
	ENTITLEMENT FEES			
1	Entitlement Fees	*Not Included*		N.I.C.
	Subtotal Entitlement Fees			N.I.C.
	CITY PLAN CHECK AND INSPECTION FEES			
2	Grading and Improvement Plan Review	*Assume 1% of Infrastructure Costs*	$	4,209,576
3	Grading and Improvement Bond	*Assume 1% of Infrastructure Costs*	$	4,209,576
4	Inspection Fee	*Assume 2% of Infrastructure Costs*	$	8,419,152
	Subtotal City Plan Check and Inspection Fees		$	16,838,304
	EBMUD RELATED COSTS			
5	System Capacity Charge (Potable):			
	1" - *Public Irrigation*	$64760 / unit x 21 units	$	1,359,960
6	Design and Inspection Fee	$4019 + $47 / LF x 40000 LF	$	1,884,019
7	Potable Water Service Installation			
	1" - *Public Irrigation*	$8140 / unit x 21 units	$	170,940
8	Fire Hydrant Materials	$3918 / hydrant x 82 hydrants	$	321,276
		$22 / LF x 40 LF x 82 hydrants	$	72,160
9	EBMUD Bond	1% of Water Costs	$	102,610
10	Account Fee	$57 / unit x 21 units	$	1,197
11	8" Pipeline & Materials	$49 / LF x 3765 LF	$	184,485
12	10" Pipeline & Materials	$53 / LF x 3035 LF	$	160,855
13	12" Pipeline & Materials	$57 / LF x 25200 LF	$	1,436,400
14	16" Pipeline & Materials	$80 / LF x 8000 LF	$	640,000
	Subtotal EBMUD Related Costs		$	6,333,902
		SUBTOTAL FEES	**$**	**23,172,000**
		25% CONTINGENCY		**N.I.C.**
		TOTAL FEES	**$**	**23,170,000**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
IMPROVEMENT ACCEPTANCE
ALAMEDA, CALIFORNIA

August 13, 2020
Job No.: 1087-010

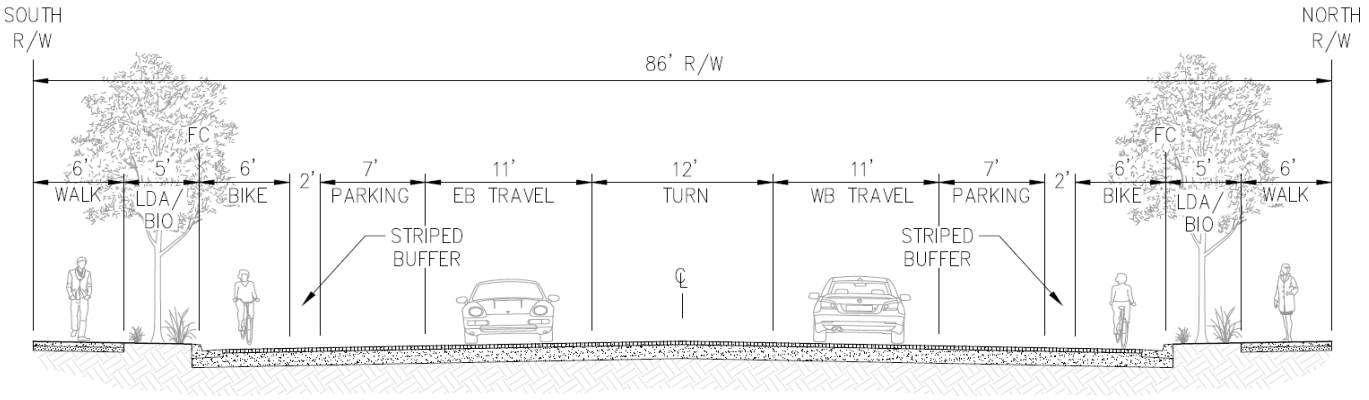
Item	Description	Quantity	Unit	Unit Price	Amount
	IMPROVEMENT ACCEPTANCE				
1	Improvement Acceptance *(0.5% Costs)*	0.005	LS	$ 420,957,600	$ 2,104,788
	SUBTOTAL IMPROVEMENT ACCEPTANCE COSTS				**$ 2,104,788**
	25% CONTINGENCY				**N.I.C.**
	TOTAL IMPROVEMENT ACCEPTANCE COSTS				**$ 2,105,000**

CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

PACIFIC AVENUE



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement / Median						*Included in Demolition*
3	Fine Grading	86	SF	$	1.25	$	107.50
4	6.5" AC	61	SF	$	4.55	$	277.55
5	15" AB *(Assume On-Site Re-Use)*	61	SF	$	1.70	$	103.70
6	SubGrade Fabric	64	SF	$	0.40	$	25.60
7	Pavement Sealant	61	SF	$	0.06	$	3.66
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	Sidewalk	12	SF	$	15.00	$	180.00
10	Handicap Ramps *(assume 2 every 500')*	1	LF	$	12.85	$	12.85
11	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
12	Parkway Irrigation and Landscaping	9	SF	$	10.00	$	90.00
13	Roadway Low Points *(2 Field Inlet's & 18" crossing/300')*	1	LF	$	129.92	$	129.92
14	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
15	Electroliers						*Included in Dry Utilities*

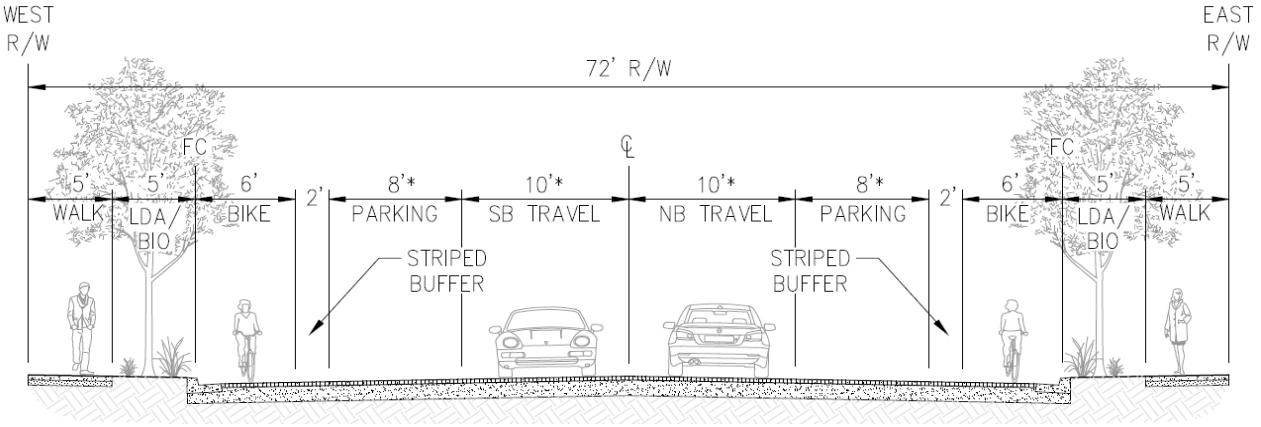
TOTAL PACIFIC AVENUE LINEAR FOOT COSTS $ 1,038.48

SAY $ 1,040.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

ISLAND COLLECTOR - BIKE LANES



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						Included in Demolition
3	Fine Grading	72	SF	$	1.25	$	90.00
4	6.5" AC	49	SF	$	4.55	$	222.95
5	15" AB *(Assume On-Site Re-Use)*	49	SF	$	1.70	$	83.30
6	SubGrade Fabric	52	SF	$	0.40	$	20.80
7	Pavement Sealant	49	SF	$	0.06	$	2.94
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	Sidewalk	10	SF	$	15.00	$	150.00
10	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
11	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
12	Parkway Irrigation and Landscaping	9	SF	$	10.00	$	90.00
13	Roadway Low Points *(2 Field Inlet's & 18" crossing/300')*	1	LF	$	118.92	$	118.92
14	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
14	Electroliers						*Included in Dry Utilities*

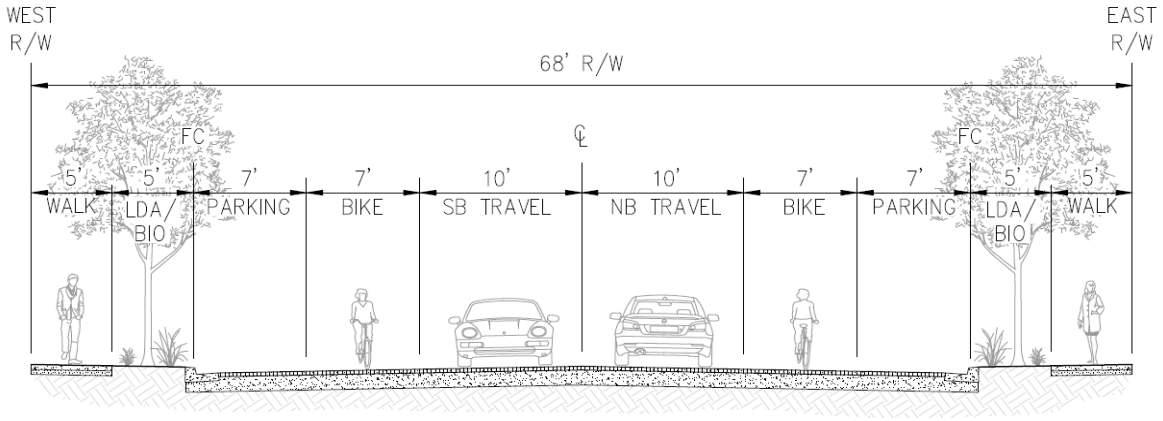
TOTAL ISLAND COLLECTOR - BIKE LANES LINEAR FOOT COSTS $ 899.46

SAY $ 900.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

LOCAL STREETS - BIKE LANES



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	68	SF	$ 1.25	$ 85.00
4	6.5" AC	45	SF	$ 4.55	$ 204.75
5	15" AB *(Assume On-Site Re-Use)*	45	SF	$ 1.70	$ 76.50
6	SubGrade Fabric	48	SF	$ 0.40	$ 19.20
7	Pavement Sealant	45	SF	$ 0.06	$ 2.70
8	Curb & Gutter	2	LF	$ 46.00	$ 92.00
9	Sidewalk	10	SF	$ 15.00	$ 150.00
10	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
11	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
12	Parkway Irrigation and Landscaping	9	SF	$ 10.00	$ 90.00
13	Roadway Low Points *(2 Field Inlet's & 18" crossing/300')*	1	LF	$ 115.25	$ 115.25
14	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
15	Electroliers				*Included in Dry Utilities*

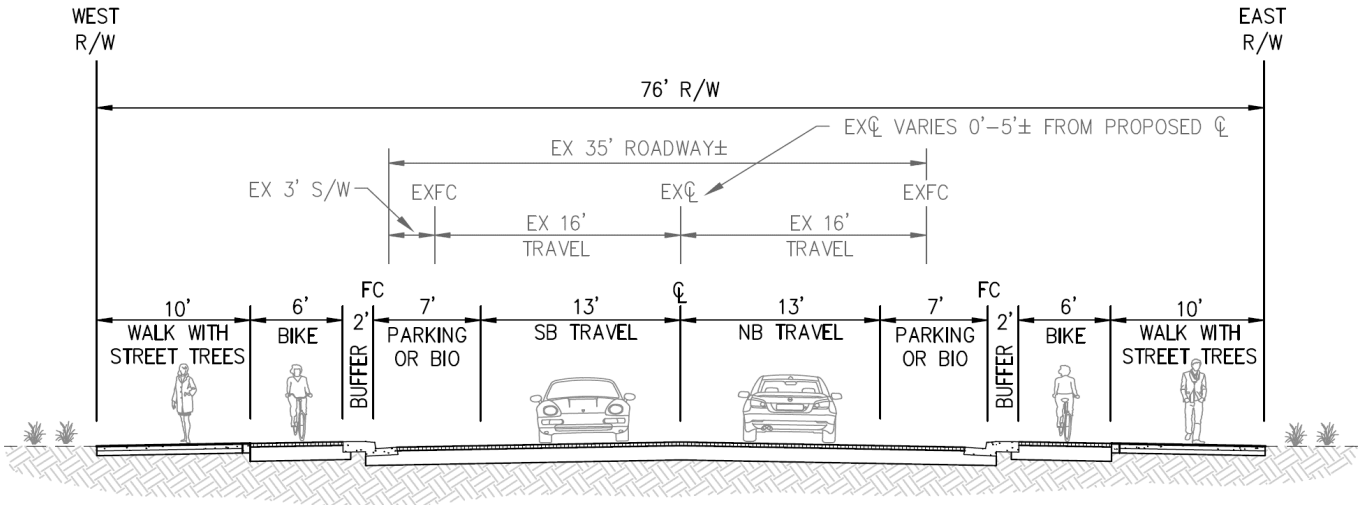
TOTAL LOCAL STREETS - BIKE LANES LINEAR FOOT COSTS $ 863.95

SAY $ 865.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

LOCAL STREET - PROTECTED BIKE LANES



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	76	SF	$ 1.25	$ 95.00
4	6.5" AC	37	SF	$ 4.55	$ 168.35
5	15" AB *(Assume On-Site Re-Use)*	37	SF	$ 1.70	$ 62.90
6	SubGrade Fabric	40	SF	$ 0.40	$ 16.00
7	Pavement Sealant	37	SF	$ 0.06	$ 2.22
8	Curb & Gutter	2	LF	$ 46.00	$ 92.00
9	Sidewalk	20	SF	$ 15.00	$ 300.00
10	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
11	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
12	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
13	Parkway Irrigation and Landscaping	3	SF	$ 10.00	$ 30.00
14	Roadway Low Points *(2 Field Inlet's & 18" crossing/300')*	1	LF	$ 97.83	$ 97.83
15	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
16	Electroliers				*Included in Dry Utilities*

TOTAL LOCAL STREETS - PROTECTED BIKE LANES LINEAR FOOT COSTS $ 931.85

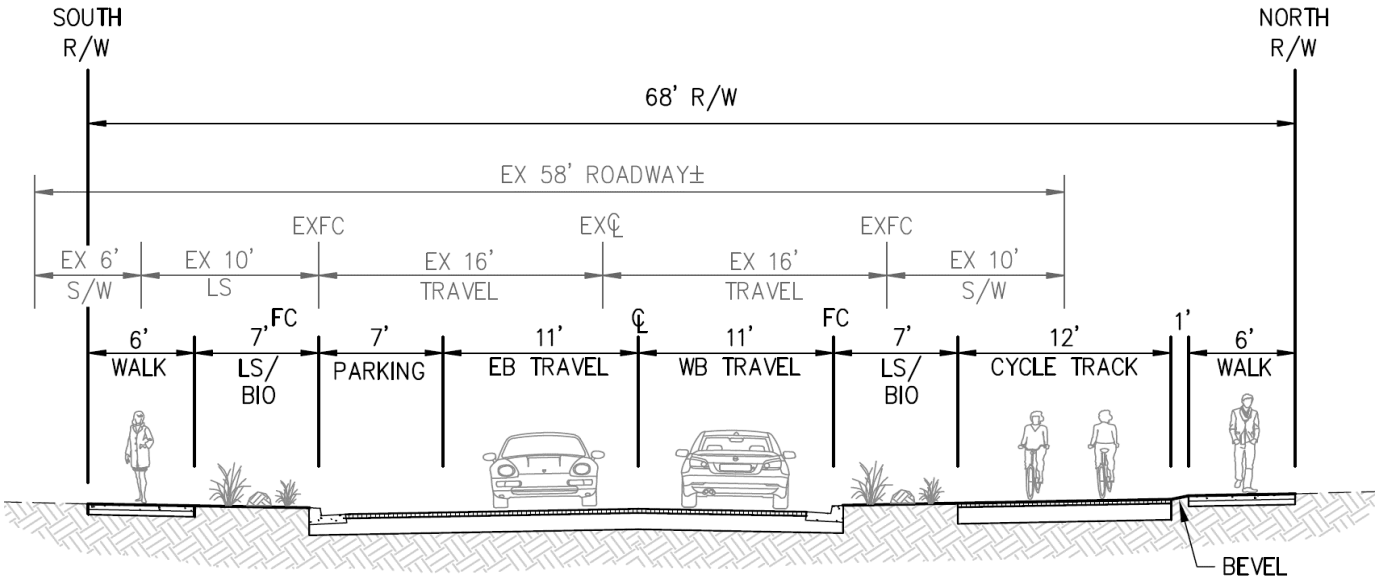
SAY $ 930.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit	Unit Price	Cost per LF

WEST MIDWAY AVENUE



1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	68	SF	$	1.25	$	85.00
4	6.5" AC	26	SF	$	4.55	$	118.30
5	15" AB *(Assume On-Site Re-Use)*	26	SF	$	1.70	$	44.20
6	SubGrade Fabric	29	SF	$	0.40	$	11.60
7	Pavement Sealant	26	SF	$	0.06	$	1.56
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	Median Curb	0	LF	$	55.00	$	-
10	2" Beveled Curb	1	LF	$	46.00	$	46.00
11	Sidewalk	12	SF	$	15.00	$	180.00
12	Bike Path *(3" AC on 10" AB)*	12	SF	$	3.25	$	39.00
13	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
14	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
15	Median Irrigation and Landscaping	0	SF	$	10.00	$	-
16	Parkway Irrigation and Landscaping	13	SF	$	10.00	$	130.00
17	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	94.17	$	94.17
18	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
19	Electroliers						*Included in Dry Utilities*

TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 870.38

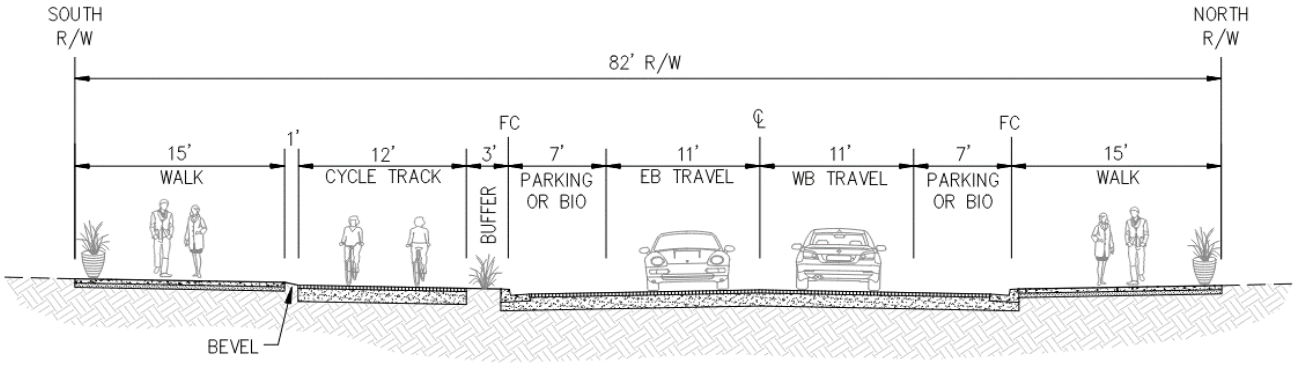
SAY $ 870.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

SEAPLANE (NORTH)

Note: Costs below assume an even split of roadway parking/planting.



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	82	SF	$	1.25	$	102.50
4	6.5" AC	26	SF	$	4.55	$	118.30
5	15" AB *(Assume On-Site Re-Use)*	26	SF	$	1.70	$	44.20
6	SubGrade Fabric	29	SF	$	0.40	$	11.60
7	Pavement Sealant	26	SF	$	0.06	$	1.56
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	2" Beveled Curb	1	LF	$	46.00	$	46.00
10	Sidewalk	29.5	SF	$	15.00	$	442.50
11	Bike Path *(3" AC on 10" AB)*	12	SF	$	3.25	$	39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
13	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
14	Parkway Irrigation and Landscaping	9.5	SF	$	10.00	$	95.00
15	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	93.25	$	93.25
16	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
17	Electroliers						*Included in Dry Utilities*

TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 1,114.46

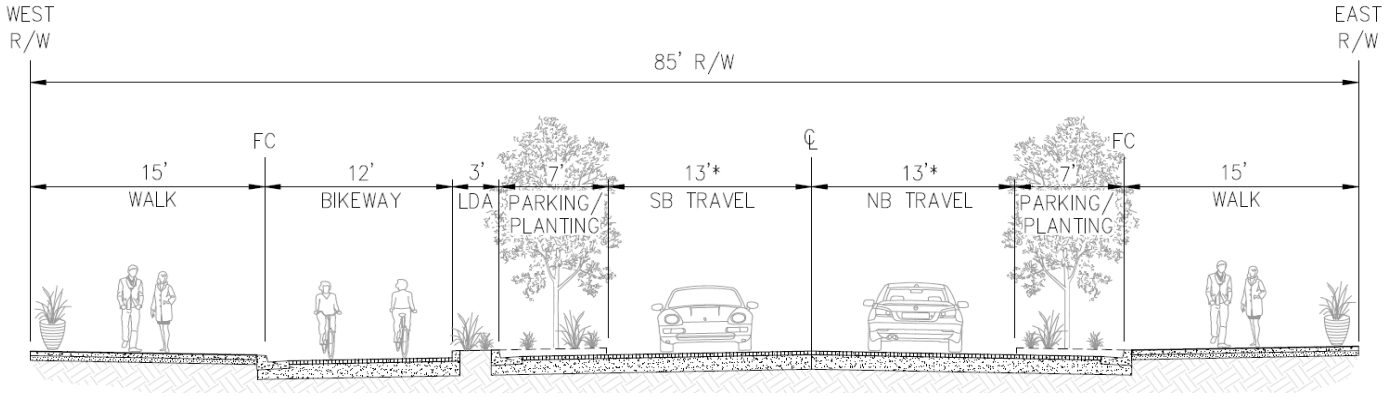
SAY $ 1,115.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

SEAPLANE (EAST)

Note: Costs below assume an even split of roadway parking/planting.



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	85	SF	$	1.25	$	106.25
4	6.5" AC	30	SF	$	4.55	$	136.50
5	15" AB *(Assume On-Site Re-Use)*	30	SF	$	1.70	$	51.00
6	SubGrade Fabric	33	SF	$	0.40	$	13.20
7	Pavement Sealant	30	SF	$	0.06	$	1.80
8	Curb & Gutter	3	LF	$	46.00	$	138.00
9	Median Curb	1	LF	$	55.00	$	55.00
10	Sidewalk	29	SF	$	15.00	$	435.00
11	Bike Path *(3" AC on 10" AB)*	10.5	SF	$	3.25	$	34.13
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
13	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
14	Median Irrigation and Landscaping	2	SF	$	10.00	$	20.00
15	Parkway Irrigation and Landscaping	6.5	SF	$	10.00	$	65.00
16	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	96.92	$	96.92
17	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
18	Electroliers						*Included in Dry Utilities*

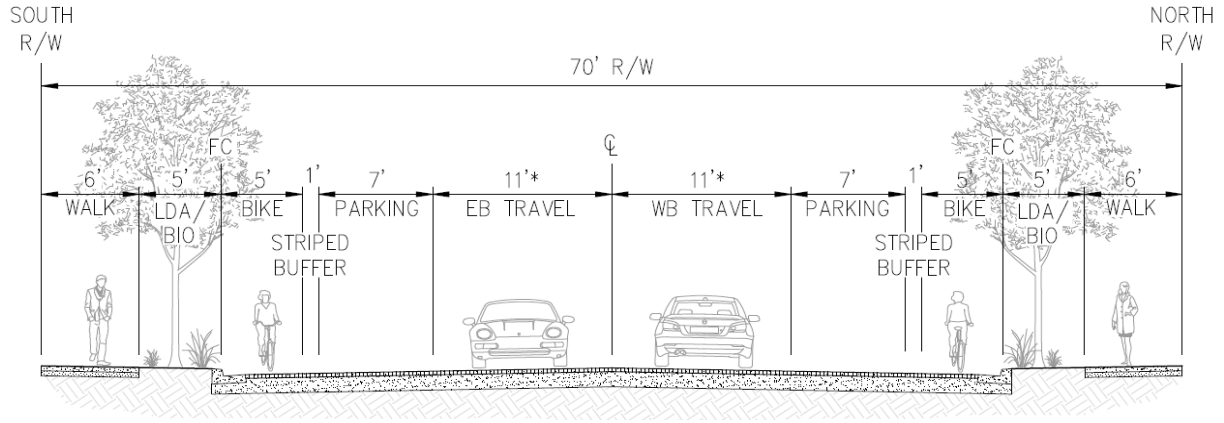
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 1,181.34

SAY $ 1,180.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (NEW)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

WEST HORNET



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	70	SF	$	1.25	$	87.50
4	6.5" AC	45	SF	$	4.55	$	204.75
5	15" AB *(Assume On-Site Re-Use)*	45	SF	$	1.70	$	76.50
6	SubGrade Fabric	48	SF	$	0.40	$	19.20
7	Pavement Sealant	45	SF	$	0.06	$	2.70
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	Sidewalk	12	SF	$	15.00	$	180.00
10	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
11	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
12	Parkway Irrigation and Landscaping	9	SF	$	10.00	$	90.00
13	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	115.25	$	115.25
14	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
15	Electroliers						*Included in Dry Utilities*

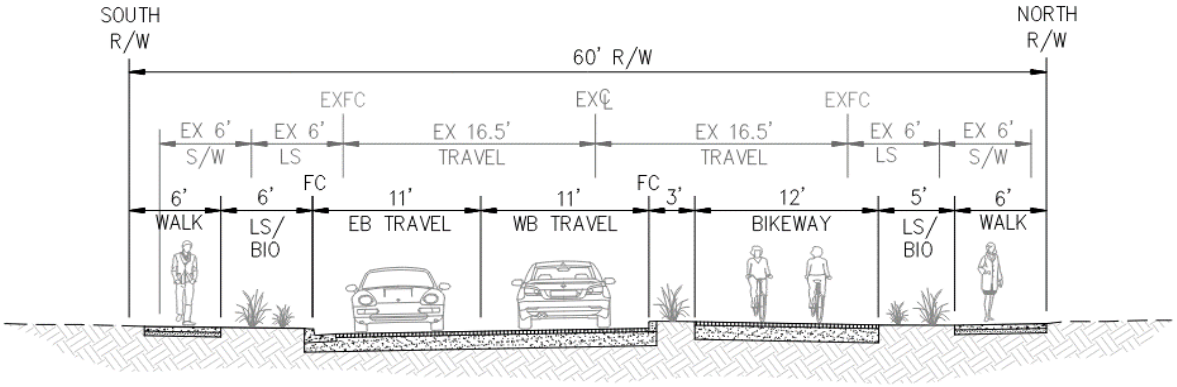
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 896.45

SAY $ 895.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

WEST REDLINE AVENUE - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	60	SF	$ 1.25	$ 75.00
4	6.5" AC	20.5	SF	$ 4.55	$ 93.28
5	15" AB *(Assume On-Site Re-Use)*	20.5	SF	$ 1.70	$ 34.85
6	SubGrade Fabric	22	SF	$ 0.40	$ 8.80
7	Pavement Sealant	20.5	SF	$ 0.06	$ 1.23
8	Curb & Gutter	1	LF	$ 46.00	$ 46.00
9	Median Curb	1	LF	$ 55.00	$ 55.00
10	Sidewalk	12	SF	$ 15.00	$ 180.00
11	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
13	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
14	Median Irrigation and Landscaping	2.5	SF	$ 10.00	$ 25.00
15	Parkway Irrigation and Landscaping	10.5	SF	$ 10.00	$ 105.00
16	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 105.63	$ 105.63
17	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
18	Electroliers				*Included in Dry Utilities*

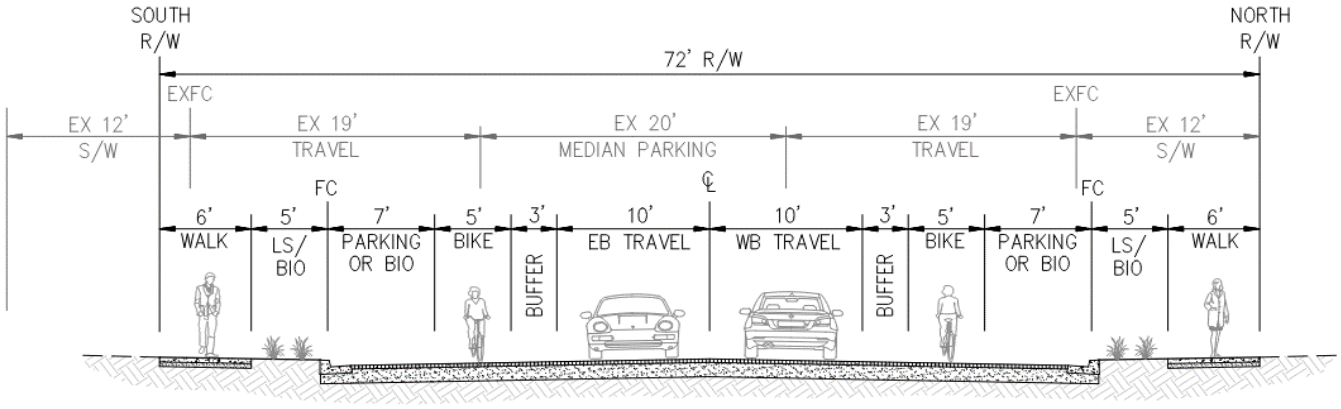
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 797.33

SAY $ 800.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

ESSEX DRIVE - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	72	SF	$ 1.25	$ 90.00
4	6.5" AC	47	SF	$ 4.55	$ 213.85
5	15" AB *(Assume On-Site Re-Use)*	47	SF	$ 1.70	$ 79.90
6	SubGrade Fabric	50	SF	$ 0.40	$ 20.00
7	Pavement Sealant	47	SF	$ 0.06	$ 2.82
8	Curb & Gutter	2	LF	$ 46.00	$ 92.00
9	Sidewalk	12	SF	$ 15.00	$ 180.00
10	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
11	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
12	Parkway Irrigation and Landscaping	9	SF	$ 10.00	$ 90.00
13	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 117.08	$ 117.08
14	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
15	Electroliers				*Included in Dry Utilities*

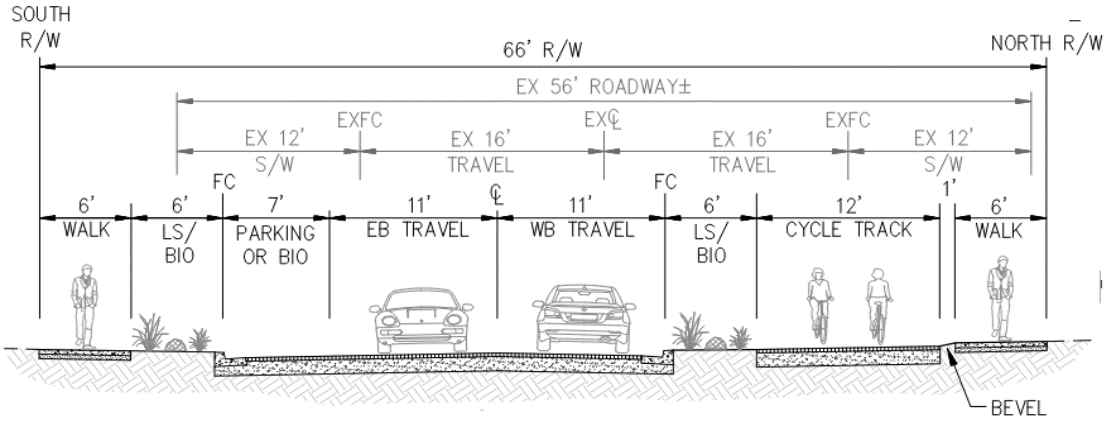
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 914.20

SAY $ 915.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

WEST MIDWAY AVENUE - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	66	SF	$ 1.25	$ 82.50
4	6.5" AC	26	SF	$ 4.55	$ 118.30
5	15" AB *(Assume On-Site Re-Use)*	26	SF	$ 1.70	$ 44.20
6	SubGrade Fabric	29	SF	$ 0.40	$ 11.60
7	Pavement Sealant	26	SF	$ 0.06	$ 1.56
8	Curb & Gutter	2	LF	$ 46.00	$ 92.00
9	2" Beveled Curb	1	LF	$ 46.00	$ 46.00
10	Sidewalk	12	SF	$ 15.00	$ 180.00
11	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
13	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
14	Parkway Irrigation and Landscaping	11	SF	$ 10.00	$ 110.00
15	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 94.17	$ 94.17
16	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
17	Electroliers				*Included in Dry Utilities*

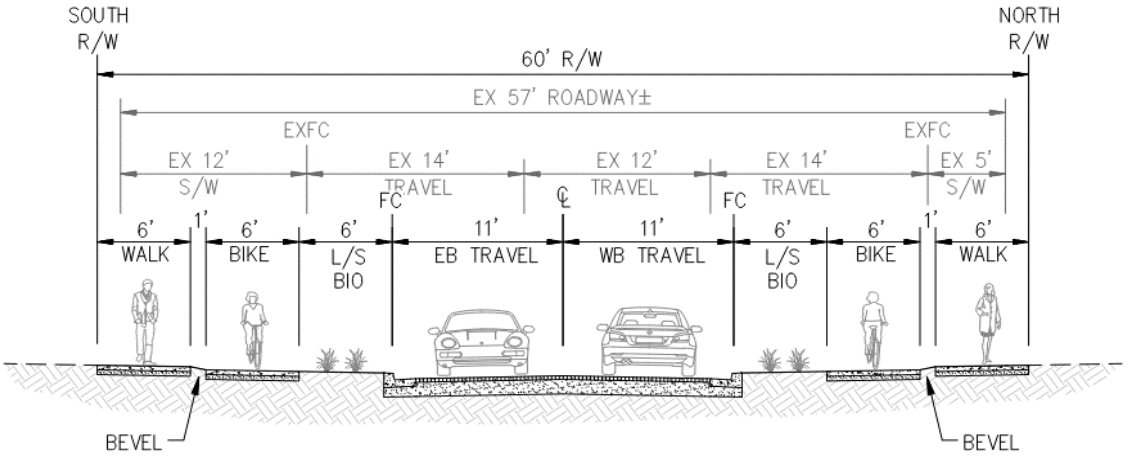
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 847.88

SAY $ 850.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

TOWER AVENUE - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	60	SF	$ 1.25	$ 75.00
4	6.5" AC	19	SF	$ 4.55	$ 86.45
5	15" AB *(Assume On-Site Re-Use)*	19	SF	$ 1.70	$ 32.30
6	SubGrade Fabric	22	SF	$ 0.40	$ 8.80
7	Pavement Sealant	19	SF	$ 0.06	$ 1.14
8	Curb & Gutter	2	LF	$ 46.00	$ 92.00
9	2" Beveled Curb	2	LF	$ 46.00	$ 92.00
10	Sidewalk	12	SF	$ 15.00	$ 180.00
11	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
13	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
14	Parkway Irrigation and Landscaping	11	SF	$ 10.00	$ 110.00
15	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 92.33	$ 92.33
16	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
17	Electroliers				*Included in Dry Utilities*

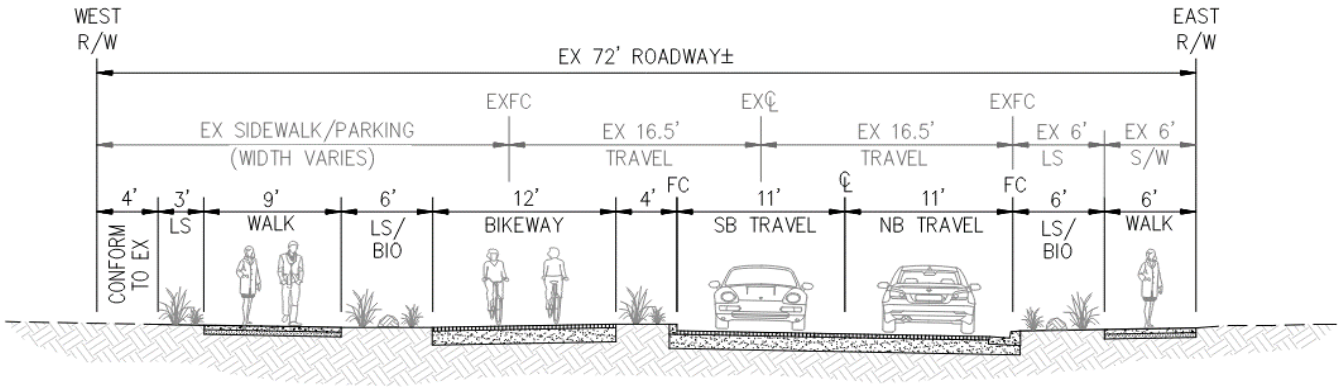
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 837.57

SAY $ 840.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

MONARCH STREET - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	72	SF	$ 1.25	$ 90.00
4	6.5" AC	20.5	SF	$ 4.55	$ 93.28
5	15" AB *(Assume On-Site Re-Use)*	20.5	SF	$ 1.70	$ 34.85
6	SubGrade Fabric	22	SF	$ 0.40	$ 8.80
7	Pavement Sealant	20.5	SF	$ 0.06	$ 1.23
8	Curb & Gutter	1	LF	$ 46.00	$ 46.00
9	Median Curb	1	LF	$ 55.00	$ 55.00
10	Sidewalk	15	SF	$ 15.00	$ 225.00
11	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
13	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
14	Parkway Irrigation and Landscaping	18	SF	$ 10.00	$ 180.00
15	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 107.00	$ 107.00
16	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
17	Electroliers				*Included in Dry Utilities*

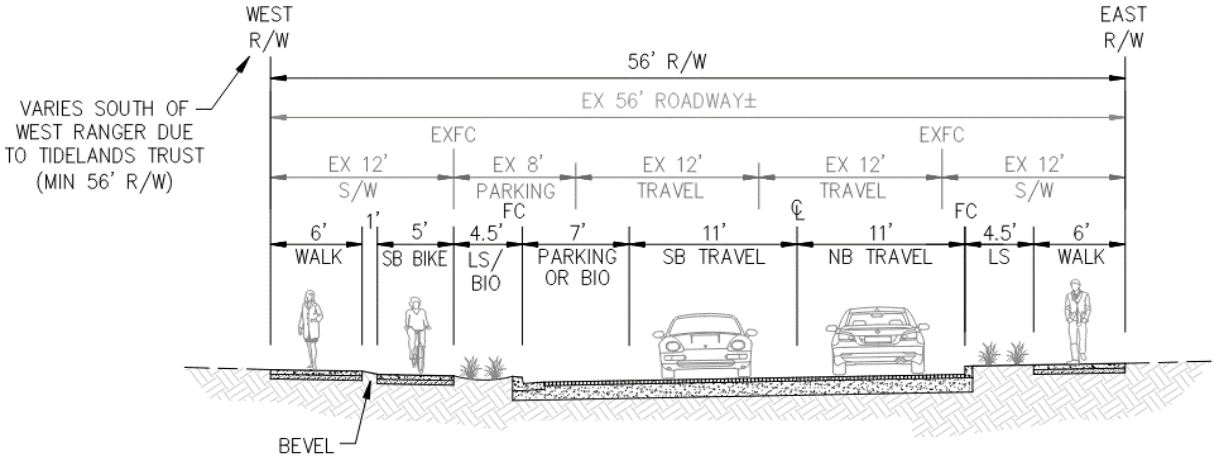
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 908.71

SAY $ 910.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

LEXINGTON STREET - RECONSTRUCTION



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	56	SF	$	1.25	$	70.00
4	6.5" AC	27.5	SF	$	4.55	$	125.13
5	15" AB *(Assume On-Site Re-Use)*	27.5	SF	$	1.70	$	46.75
6	SubGrade Fabric	29	SF	$	0.40	$	11.60
7	Pavement Sealant	27.5	SF	$	0.06	$	1.65
8	Curb & Gutter	1	LF	$	46.00	$	46.00
9	Median Curb	1	LF	$	55.00	$	55.00
10	2" Beveled Curb	1	LF	$	46.00	$	46.00
11	Sidewalk	12	SF	$	15.00	$	180.00
12	Bike Path *(3" AC on 10" AB)*	5	SF	$	3.25	$	16.25
13	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
14	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
15	Parkway Irrigation and Landscaping	8	SF	$	10.00	$	80.00
16	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	75.83	$	75.83
17	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
18	Electroliers						*Included in Dry Utilities*

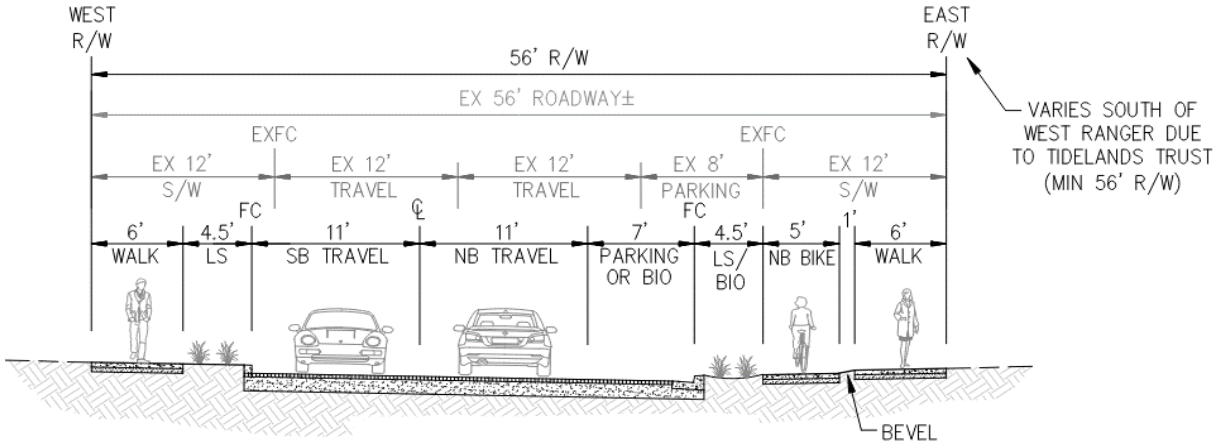
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 782.76

SAY $ 785.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

SARATOGA STREET - RECONSTRUCTION



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Grading				*Included in Grading*
2	Remove Existing Pavement				*Included in Demolition*
3	Fine Grading	56	SF	$ 1.25	$ 70.00
4	6.5" AC	27.5	SF	$ 4.55	$ 125.13
5	15" AB *(Assume On-Site Re-Use)*	27.5	SF	$ 1.70	$ 46.75
6	SubGrade Fabric	29	SF	$ 0.40	$ 11.60
7	Pavement Sealant	27.5	SF	$ 0.06	$ 1.65
8	Curb & Gutter	1	LF	$ 46.00	$ 46.00
9	Median Curb	1	LF	$ 55.00	$ 55.00
10	2" Beveled Curb	1	LF	$ 46.00	$ 46.00
11	Sidewalk	12	SF	$ 15.00	$ 180.00
12	Bike Path *(3" AC on 10" AB)*	5	SF	$ 3.25	$ 16.25
13	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
14	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
15	Parkway Irrigation and Landscaping	8	SF	$ 10.00	$ 80.00
16	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$ 75.83	$ 75.83
17	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
18	Electroliers				*Included in Dry Utilities*

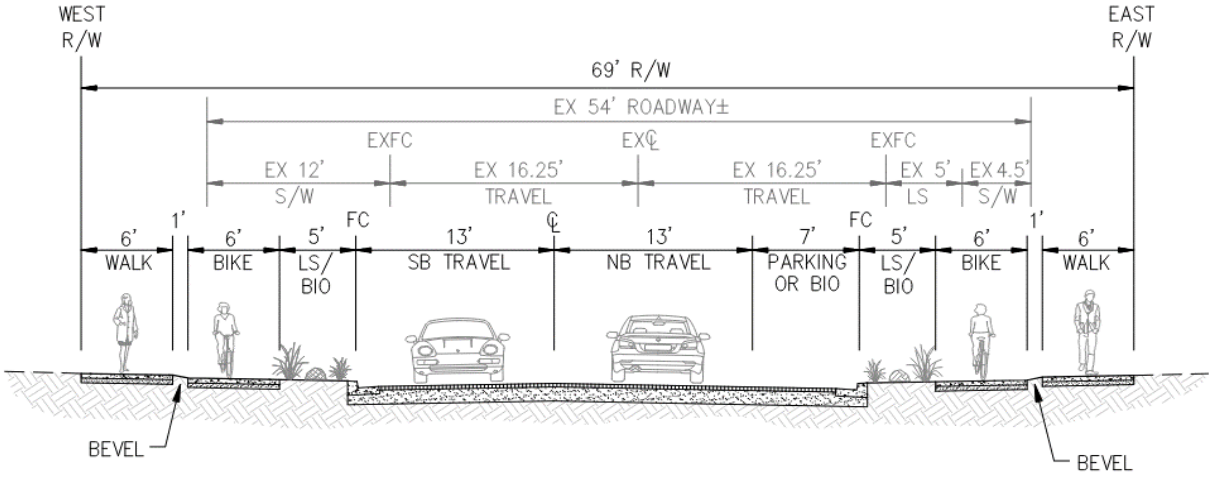
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 782.76

SAY $ 785.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

PAN AM WAY - RECONSTRUCTION



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	69	SF	$	1.25	$	86.25
4	6.5" AC	30	SF	$	4.55	$	136.50
5	15" AB *(Assume On-Site Re-Use)*	30	SF	$	1.70	$	51.00
6	SubGrade Fabric	33	SF	$	0.40	$	13.20
7	Pavement Sealant	30	SF	$	0.06	$	1.80
8	Curb & Gutter	2	LF	$	46.00	$	92.00
9	2" Beveled Curb	2	LF	$	46.00	$	92.00
10	Sidewalk	12	SF	$	15.00	$	180.00
11	Bike Path *(3" AC on 10" AB)*	12	SF	$	3.25	$	39.00
12	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
13	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
14	Parkway Irrigation and Landscaping	9	SF	$	10.00	$	90.00
15	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	96.00	$	96.00
16	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
17	Electroliers						*Included in Dry Utilities*

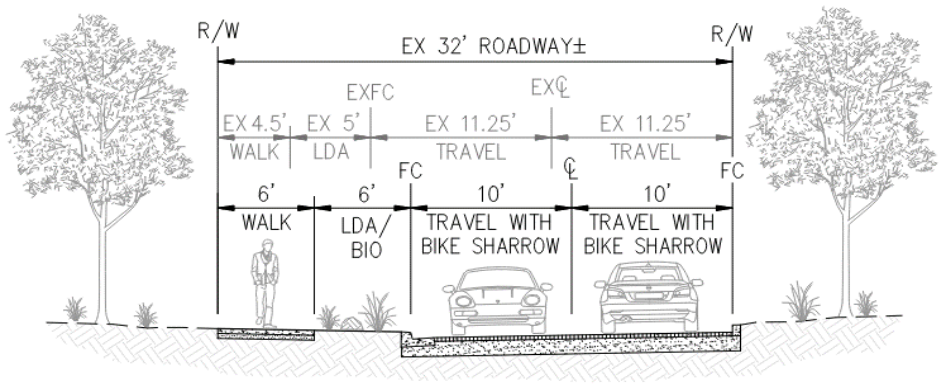
TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 906.30

SAY $ 910.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS (RECONSTRUCTION)
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

BIG WHITES - RECONSTRUCTION



Item	Description	Quantity	Unit		Unit Price		Cost per LF
1	Grading						*Included in Grading*
2	Remove Existing Pavement						*Included in Demolition*
3	Fine Grading	32	SF	$	1.25	$	40.00
4	6.5" AC	18.5	SF	$	4.55	$	84.18
5	15" AB *(Assume On-Site Re-Use)*	18.5	SF	$	1.70	$	31.45
6	SubGrade Fabric	20	SF	$	0.40	$	8.00
7	Pavement Sealant	18.5	SF	$	0.06	$	1.11
8	Curb & Gutter	1	LF	$	46.00	$	46.00
9	Median Curb	1	LF	$	55.00	$	55.00
10	Sidewalk	6	SF	$	15.00	$	90.00
11	Handicap Ramps *(Assume 2 every 500')*	1	LF	$	12.85	$	12.85
12	Signing / Striping / Monuments	1	LF	$	10.70	$	10.70
13	Parkway Irrigation and Landscaping	5.5	SF	$	10.00	$	55.00
14	Roadway Low Points *(2 Field Inlets & 18" Crossing / 300')*	1	LF	$	78.58	$	78.58
15	Trash Capture Devices at Field Inlets	1	LF	$	5.00	$	5.00
16	Electroliers						*Included in Dry Utilities*

TOTAL WEST MIDWAY AVENUE LINEAR FOOT COSTS $ 517.87

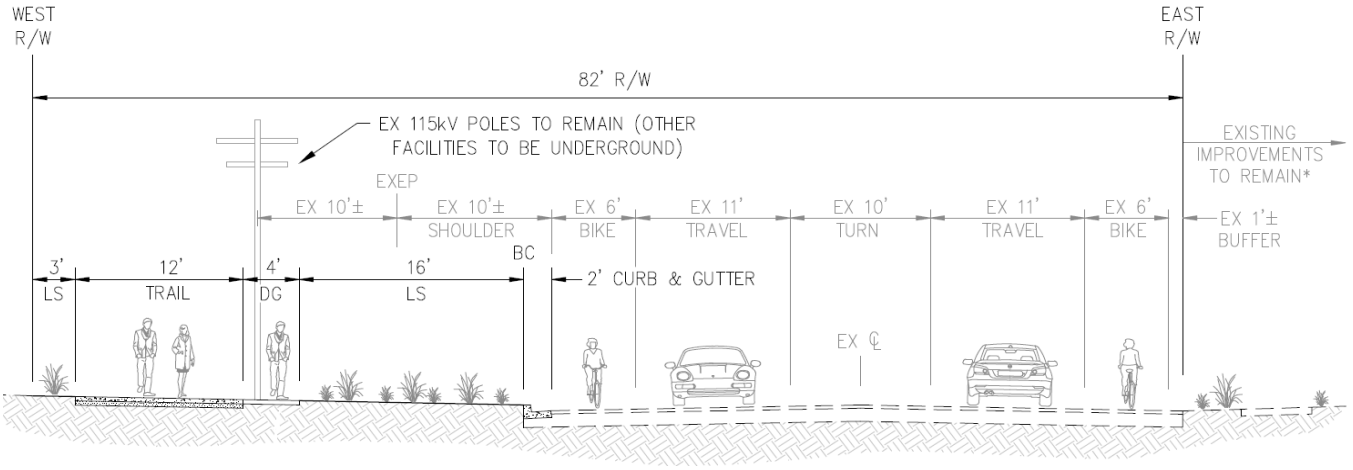
SAY $ 520.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

MAIN STREET - INITIAL CONSTRUCTION

Note: Bay Trail & Buffer included in In-Tract costs (See "Parks & Open Space")



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Clearing & Grubbing	1	LF	$ 3.00	$ 3.00
2	Rough Grading	0	CY	$ 10.00	$ -
3	Additional Import	0	CY	$ 35.00	$ -
3	Fine Grading	16	SF	$ 1.25	$ 20.00
4	Remove Existing Pavement / Concrete	10	SF	$ 2.15	$ 21.50
5	5" AC	0	SF	$ 3.50	$ -
6	22" AB *(Assume On-Site Re-Use)*	0	SF	$ 2.35	$ -
7	SubGrade Fabric	0	SF	$ 0.40	$ -
8	Pavement Sealant	0	SF	$ 0.06	$ -
9	Curb & Gutter	1	LF	$ 46.00	$ 46.00
10	Vertical Curb	0	LF	$ 55.00	$ -
11	Sidewalk	0	SF	$ 15.00	$ -
12	Bike Path *(3" AC on 10" AB)*	0	SF	$ 3.25	$ -
13	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
14	Signing / Striping / Monuments	0	LF	$ 10.70	$ -
15	Local Storm Drain *(24" main & 18" crossings every 300')*	1	LF	$ 351.54	$ 351.54
16	Storm Drain Field Inlets *(Assume 1 every 300')*	1	LF	$ 33.33	$ 33.33
17	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
18	Roadside Vegetated Swales	0	LF	$ 65.00	$ -
19	Median Irrigation and Landscaping	16	SF	$ 10.00	$ 160.00
20	Parkway Irrigation and Landscaping	0	SF	$ 10.00	$ -
21	Traffic Control	1	LF	$ 45.00	$ 45.00
22	Construction Sequencing	1	LF	$ 22.00	$ 22.00
23	Electroliers				*Included in Dry Utilities*

TOTAL MAIN STREET - INITIAL CONSTRUCTION LINEAR FOOT COSTS $ 720.23

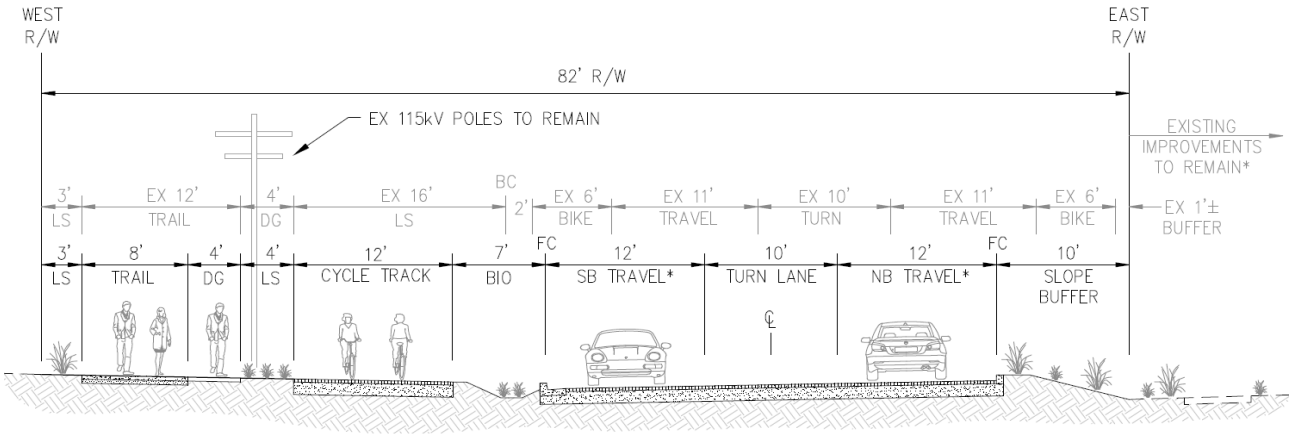
SAY $ 720.00

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

MAIN STREET - ULTIMATE IMPROVEMENTS

Note: Includes costs to remove and replace Bay Trail / Buffer installed with Main Street - Initial Construction.



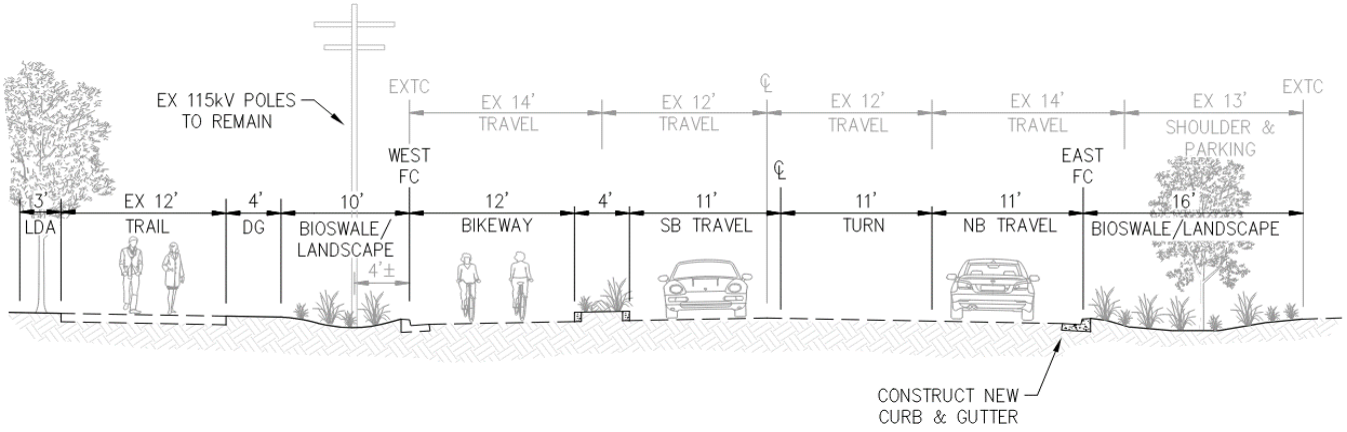
Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Clearing & Grubbing	1	LF	$ 3.00	$ 3.00
2	Rough Grading	6	CY	$ 10.00	$ 60.00
3	Additional Import	4	CY	$ 35.00	$ 140.00
4	Fine Grading	67	SF	$ 1.25	$ 83.75
5	Remove Existing Pavement / Concrete	59	SF	$ 2.15	$ 126.85
6	5" AC	32.5	SF	$ 3.50	$ 113.75
7	22" AB *(Assume On-Site Re-Use)*	32.5	SF	$ 2.35	$ 76.38
8	SubGrade Fabric	34	SF	$ 0.40	$ 13.60
9	Pavement Sealant	32.5	SF	$ 0.06	$ 1.95
10	Curb & Gutter	1	LF	$ 46.00	$ 46.00
11	Vertical Curb	1	LF	$ 55.00	$ 55.00
12	Sidewalk	8	SF	$ 15.00	$ 120.00
13	Bike Path *(3" AC on 10" AB)*	12	SF	$ 3.25	$ 39.00
14	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
15	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
16	Local Storm Drain *(24" main & 18" crossings every 300')*	1	LF	$ 351.54	$ 351.54
17	Adjust Ex Field Inlets to Grade *(Assume 1 every 300')*				*Included in Street Work*
18	Trash Capture Devices at Field Inlets	0	LF	$ 5.00	$ -
19	Roadside Vegetated Swales	1	LF	$ 65.00	$ 65.00
20	Median Irrigation and Landscaping	6.5	SF	$ 10.00	$ 65.00
21	Parkway Irrigation and Landscaping	20.5	SF	$ 10.00	$ 205.00
22	Traffic Control	1	LF	$ 45.00	$ 45.00
23	Construction Sequencing	1	LF	$ 22.00	$ 22.00
24	Adjust Existing Electroliers to Grade				*Included in Street Work*
25	Erosion Control	1	LF	$ 11.50	$ 11.50
	TOTAL MAIN STREET - ULTIMATE IMPROVEMENTS LINEAR FOOT COSTS				**$ 1,667.87**
				SAY	**$ 1,670.00**

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
TYPICAL PER FOOT STREET COSTS
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

MAIN STREET - PACIFIC AVENUE TO ATLANTIC AVENUE

Note: Bay Trail & Buffer included in In-Tract costs



Item	Description	Quantity	Unit	Unit Price	Cost per LF
1	Clearing & Grubbing	0	LF	$ 3.00	$ -
2	Grading	0	CY	$ 35.00	$ -
3	Fine Grading	0	SF	$ 1.25	$ -
4	Sawcut Existing Pavement	3	LF	$ 4.60	$ 13.80
5	Remove Existing Pavement / Concrete	21.5	SF	$ 2.15	$ 46.23
6	Demo Ex Curb & Gutter	1	LF	$ 11.50	$ 11.50
7	5" AC	0	SF	$ 3.50	$ -
8	22" AB *(Assume On-Site Re-Use)*	0	SF	$ 2.35	$ -
9	2" AC Overlay Existing Pavement	42	SF	$ 2.30	$ 96.60
10	SubGrade Fabric	0	SF	$ 0.40	$ -
11	Pavement Sealant	0	SF	$ 0.06	$ -
12	Curb & Gutter	1	LF	$ 46.00	$ 46.00
13	Median Curb	2	LF	$ 55.00	$ 110.00
14	Sidewalk	0	SF	$ 15.00	$ -
15	Bike Path *(Existing Pavement to Remain)*	0	SF	$ 3.25	$ -
16	Handicap Ramps *(Assume 2 every 500')*	1	LF	$ 12.85	$ 12.85
17	Signing / Striping / Monuments	1	LF	$ 10.70	$ 10.70
18	Local Storm Drain *(24" main & 18" crossings every 300')*	1	LF	$ 386.83	$ 386.83
19	Storm Drain Field Inlets *(Assume 2 every 300')*	1	LF	$ 66.67	$ 66.67
20	Trash Capture Devices at Field Inlets	1	LF	$ 5.00	$ 5.00
21	Roadside Vegetated Swales	1	LF	$ 65.00	$ 65.00
22	Median Irrigation and Landscaping	3	SF	$ 10.00	$ 30.00
23	Parkway Irrigation and Landscaping	25	SF	$ 10.00	$ 250.00
24	Traffic Control	1	LF	$ 45.00	$ 45.00
25	Construction Sequencing	1	LF	$ 22.00	$ 22.00
26	Electroliers				*Included in Dry Utilities*

TOTAL MAIN STREET - PACIFIC AVENUE TO ATLANTIC AVENUE LINEAR FOOT COSTS $ 1,218.18

SAY $ 1,220.00

CIVIL ENGINEERS ▪ SURVEYORS ▪ PLANNERS

ALAMEDA POINT
BACKBONE INFRASTRUCTURE
DEVELOPMENT IMPACT FEE
ENGINEER'S PRELIMINARY CONSTRUCTION COST ESTIMATE
MAIN STREET - ULTIMATE IMPROVEMENTS
ALAMEDA, CALIFORNIA

May 12, 2020
Job No.: 1087-010

Item	Description	Quantity	Unit		Unit Price		Amount
	MAIN STREET - ULTIMATE IMPROVEMENTS						
1	Main Street - Ultimate Improvements	1	LS	$	10,621,000	$	10,621,000
2	Main Street Pump Station Enchancements	1	LS	$	1,500,000	$	1,500,000
3	Main Street Import	38,000	CY	$	35	$	1,330,000
	SUBTOTAL ON-SITE STREET WORK COSTS					**$**	**13,451,000**
	25% CONTINGENCY					**$**	**3,362,750**
	23.5% SOFT COSTS					**$**	**3,160,985**
	TOTAL ON-SITE STREET WORK COSTS					**$**	**19,975,000**
	DEVELOPABLE ACREAGE						**439**
	TOTAL MAIN STREET - ULTIMATE IMPROVEMENTS COST PER ACRE					**$**	**45,500**
	(To the Nearest 100)						