SUB-PHASE APPLICATION 2
TREASURE ISLAND
SUB-PHASES 1B, 1C & 1E

JUNE 25, 2015

PREPARED FOR TREASURE ISLAND DEVELOPMENT AUTHORITY

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ACKNOWLEDGMENT

THE FOLLOWING WERE INSTRUMENTAL IN THE PREPARATION OF THIS DOCUMENT

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Moffatt & Nichol – Shoreline Engineering
AECOM – Landscape Architecture
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BCV Architects – Architecture
Dilworth Eliot Studios – Architecture
Horton Lees Brogden Lighting Design - Lighting Design
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MJM Management – Public Space Operations, Maintenance and Programming
Page & Turnbull – Historic Resource Consulting
Zimmer Gunsul Frasca Architects LLP – Urban Design
Hunt Design – Signage Design
Fehr & Peers – Transportation Design
AlfaTech-Timmons – Electrical Engineering
Environmental Science Associates (ESA) – Archaeologist
Holmes Culley – Structural Engineering
Raimi + Associates, Inc. – LEED ND Consultant
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Groundworks – Landscape Architecture
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Brookwater – Irrigation Engineering
Silverman and Light – Lighting Design
Townsend Management – Cost Estimating
Ware Associates - Architecture
Russ Mitchell Associates – Irrigation
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AEW – Environmental Consulting
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Structus – Structural Engineering
CM Pros – Cost Estimating
Infra Terra – Geotechnical Engineering
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B. REVIEW AGENCIES

Treasure Island Development Authority (TIDA)
Treasure Island/Yerba Buena Island Citizen Advisory Board (CAB)
San Francisco Department of Public Works (DPW)
San Francisco Public Utilities Commission (SFPUC)
San Francisco Planning Department
San Francisco Fire Department (SFFD)
San Francisco Mayor's Office of Disability/Disability Council (MOD)
San Francisco Municipal Transportation Agency (SFMTA)
San Francisco County Transportation Authority (SFCTA)
Treasure Island Mobility Management Agency (TIMMA)

C. PROJECT MASTER DEVELOPER

Treasure Island Community Development LLC (TICD)

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GLOSSARY OF ABBREVIATIONS AND ACRONYMS

A

AC	acres
AC	Alameda-Contra Costa (Transit)
ADA	Americans with Disabilities Act
AT&T	American Telephone & Telegraph

B

BFE	Base Flood Elevation
CD	Construction Documents
BMP	Best Management Practices
BLDG	Building

C

CAB	Citizen Advisory Board
CEQA	California Environmental Quality Act
CIP	cast-in-place

D

D4D	Design for Development
DA	Development Agreement
DD	Design Development
DDA	Disposition and Development Agreement
DRDAP	Design Review and Document Approval Procedure

E

(E)	Existing
EBMUD	East Bay Municipal Utility District
EIR	Environmental Impact Report

F

FPS	feet per second

G

GGIE	Golden Gate International Exposition
GSF	gross square fee

H

HMP	Habitat Management Plan

I

ICA	Interagency Cooperation Agreement
IP	Infrastructure Plan
IPCC	Intergovernmental Panel on Climate Change

J

JV	Joint Venture

L

LED	light-emitting diode
LEED-ND	Leadership in Energy & Environmental Design Neighborhood Development
LPW	low pressure water

M

MHW	Mean High Water
MLLW	Mean Lower Low Water
MMRP	Mitigation and Monitoring and Reporting Program
MUP	Master Utility Plans
MP	Major Phase

N

NAVD	North American Vertical Datum of 1988
NAVD88	North American Vertical Datum of 1988
NRC	National Research Council
NSTI	Naval Station Treasure Island

O

O+M	Operations and Maintenance

P

PG&E	Pacific Gas and Electric
PV	photovoltaic
POSP	Parks and Open Space Plan

R

ROW	Right of Way
RW	recycled water

S

SBE	Small Business Enterprise
SF MUNI	San Francisco Municipal Transit
SFCTA	San Francisco County Transportation Authority
SFFD	San Francisco Fire Department
SFPUC	San Francisco Public Utilities Commission
SFMTA	San Francisco Municipal Transportation Agency
SGMP	Soil and Groundwater Management Plan
SLC	(California) State Lands Commission
SLR	Sea Level Rise
SOQHD	Senior Officer Quarters Headquarters District
SP	spaces (parking)
SS	sanitary sewer
SWPPP	Stormwater Pollution Prevention Plan

T

TI	Treasure Island
TICD	Treasure Island Community Development
TIDA	Treasure Island Development Authority
TIHDI	Treasure Island Homeless Development Initiative
TIMMA	Treasure Island Mobility Management Agency
TITIP	Treasure Island Transportation Implementation Plan
TSM	Tentative Subdivision Map
TTM	Tentative Transfer Map

U

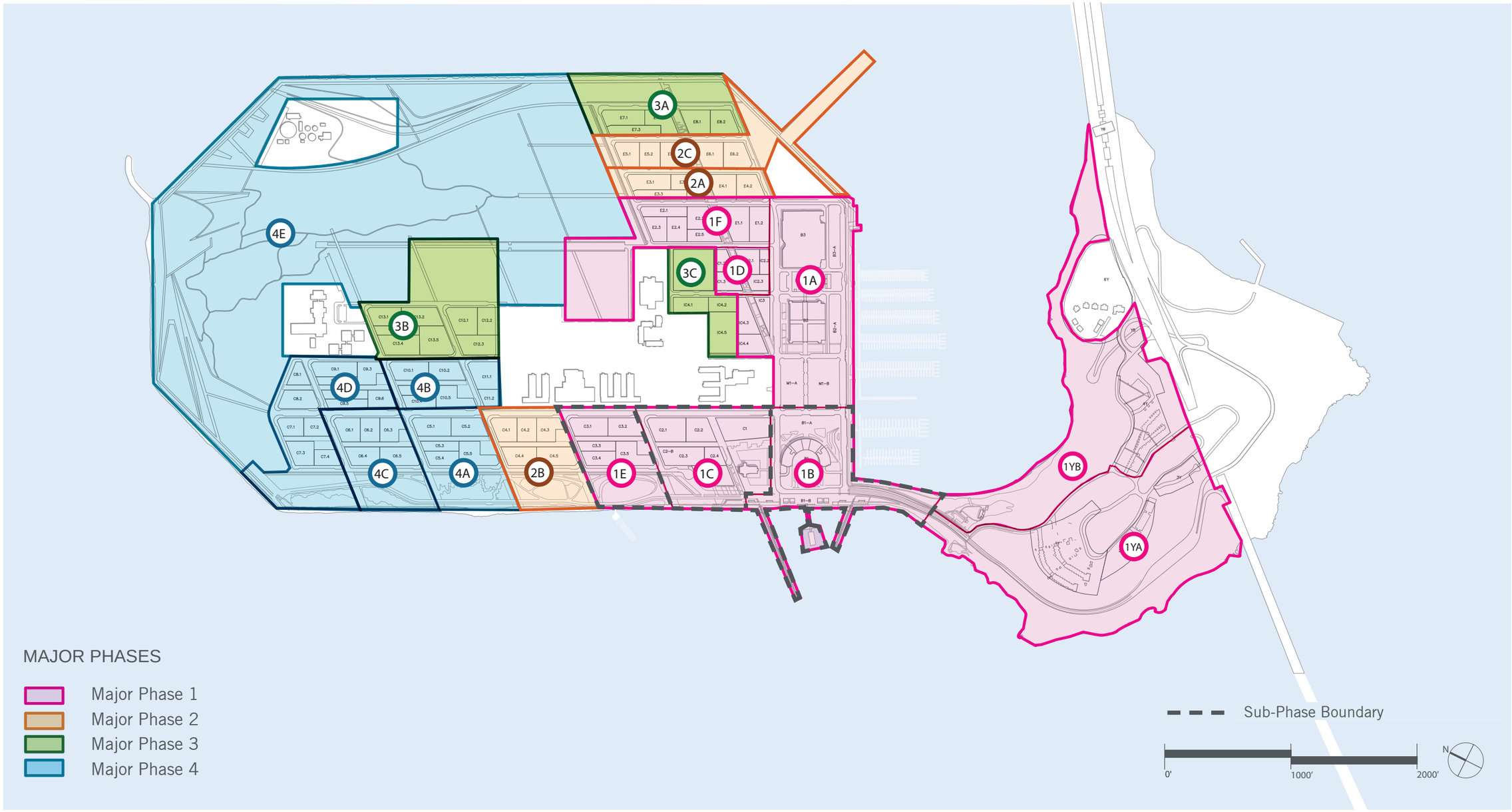
US	United States

W

WRU	Wave Run-Up

Y

YBI	Yerba Buena Island
YMCA	Young Men's Christian Association



MAJOR PHASE SITE PLAN

EXECUTIVE SUMMARY

The site for the Treasure Island and Yerba Buena Island "Project" is divided into four "Major Phases" (large, mixed-use areas) and, within each Major Phase, various "Sub-Phases" (one or more adjacent blocks within the Major Phase). This is conceptually illustrated in the Major Phases diagram on the previous page.

Subject to the terms and conditions in the Project's Disposition and Development Agreement (DDA), Treasure Island Development Authority (TIDA) will convey portions of the Project Site owned or acquired by TIDA to the Developer, Treasure Island Community Development (TICD), for phased development by TICD.

This application is the presentation by TICD of additional detailed information for Sub-Phases 1B, 1C, and 1E. It includes all of the plans, diagrams, data, narrative, reports, and compliance updates that are set forth in the Project's Design Review and Document Approval Procedure (DRDAP) exhibit to the DDA.

The Sub-Phase Application 1: Sub-Phases 1B, 1C, and 1E is organized according to the following Chapters.

1.0 INTRODUCTION

The Introduction chapter provides summary project background information including the regulatory governing processes for the Project, an overview of Sub-Phases 1B, 1C, and 1E, confirmation of the Sub-Phase compliance with the Schedule of Performance and other entitlement documents, and a description of the Sub-Phase Associated Public Benefits.

2.0 LAND USE AND DEVELOPMENT BLOCKS

The Land Use and Development Program chapter describes proposed Sub-Phase land uses. The proposed land uses and building design standards are consistent with descriptions provided in previously approved Project documents.

The chapter also confirms proposed locations for the various types of residential lots and commercial areas. Information about development blocks, easement standards, building heights and massing, and setbacks and streetwalls are also included in this chapter, along with information about the retail plan.

3.0 TRANSPORTATION AND STREETSCAPES

The Transportation and Streetscapes chapter describes the various transportation networks planned for Sub-Phases 1B, 1C, and 1E, including pedestrian, bicycle, vehicular, and transit. Information about street design and street intersections is included in the section, along with on-street and off-street parking locations, accessible loading and parking, and bicycle parking.

4.0 PARKS AND OPEN SPACE

The Parks and Open Space chapter includes 100% Design Development renderings, plans, illustrative images, and design narrative for all of the Open Space Lots within Sub-Phases 1B, 1C, and 1E. Design updates from the Schematic Design materials presented in the Major Phase 1 Application are provided for Waterfront Plaza, Ferry Terminal (land side and water side), Building 1 Plaza, Marina Plaza, Clipper Cove Promenade, Cultural Park, and Cityside Waterfront Park.

5.0 UTILITIES

The Utilities chapter features narratives, plans and 50% Construction Documents for each of the major utility systems in the Project, including storm water treatment, storm drainage, sanitary sewer, low pressure water, recycled water, and the joint trench (dry utilities: electric, gas, telephone, and cable TV). The information provided in this chapter is consistent with information in Project-wide utility master plans for each system. 50% Construction Documents for for Sub-Phase utilities are in Appendix F.

6.0 APPENDICES

Various appendices in this chapter provide greater level of data and technical detail in support of the Sub-Phase application.

The bulk of the sub-phase design can be found in the 50% Infrastructure Improvement Plans, which include all the improvements in the public right of way, and the 100% of Design Development (DD) package for open spaces. Other appendices include a compliance report for the Project EIR mitigation measures, the current Schedule of Performance, updated Housing Data Tables, cost estimates for Infrastructure, a form of Corporate Guaranty for Sub-Phase Improvements and Preliminary Stormwater Control Plan. Several appendices have been included for information only and are available on the enclosed disc with this document. Those include subdivision maps, preliminary utility relocation plans, geotechnical reports, and shoreline improvement plans.

SUMMARY OF APPENDICES

6.1 APPENDIX A: MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

The MMRP was established to provide for the monitoring of mitigation measures required of the Project, as set forth in the Final EIR. Prior to the issuance of building permits, while detailed development plans are being prepared for approval by TIDA and/or City staff, Treasure Island Development Authority (TIDA) and/or City staff will be responsible for ensuring compliance with mitigation monitoring applicable to the Project construction, development and design phases. The status of all applicable mitigation measures is included in Appendix A.

6.2 APPENDIX B: SCHEDULE OF PERFORMANCE

The Disposition and Development Agreement (DDA) contemplates that the submission of Major Phase and Sub-Phase Applications, the Commencement and Completion of Infrastructure and Stormwater Management Controls within Sub-Phases, the Commencement and Completion of the Required Improvements and certain other major milestones will be commenced or completed by the specific dates in the Schedule of Performance included in the DDA as Exhibit JJ. A revised Schedule of Performance was approved with the Major Phase 1 application on May 13, 2015, and it is attached herein as Appendix B, with no further revisions.

6.3 APPENDIX C: SUB-PHASE HOUSING DATA TABLES

In order to track compliance with the Project's Housing Plan, each Sub-Phase Application includes a Housing Data Table that includes the location and acreage for each residential lot in those Sub-Phases, the percentage of acreage of Authority Housing Lots to the total housing in those Sub-Phases, the cumulative total of Authority Housing acreage to date, the cumulative number of Developer Residential Units in those Sub-Phases, and additional information about each anticipated residential project in those Sub-Phases. When Sub-Phase property is conveyed to the Developer, TIDA retains the Authority Housing Lots within that sub-phase.

6.4 APPENDIX D: SUB-PHASE COST ESTIMATES

The Sub-Phase Cost Estimate identifies the estimated cost of completion for the improvements in Sub-Phases 1B, 1C, and 1E. Upon approval of the Sub-Phase application by TIDA Executive Director, this estimated cost of completion is the Sub-Phase Construction Secured Amount for which the Developer will provide Adequate Security (refer to Appendix E: Corporate Guaranty).

6.5 APPENDIX E: CORPORATE GUARANTY

The Developer must provide a Guaranty to secure its obligations for each Sub-Phase no later than 30 days after approval of that Sub-Phase, the proposed form of which is included herein. For this Sub-Phase Application 2, the Developer proposes to provide a Corporate Guaranty equal to 125% of the cost of completion of the obligations. Prior to acceptance of TICD's Corporate Guaranty, TICD will assign its SP2 interests in the DDA to Treasure Island Series 1, LLC, who will execute the obligations and serve as the Developer for the Guaranty. Treasure Island Series 1, LLC is a wholly owned subsidiary of TICD

6.6 APPENDIX F: 50% INFRASTRUCTURE IMPROVEMENT PLANS

The Sub-Phase Application includes 50% Improvement Plans for all utilities, along with a plan or narrative that indicates the relationship of those Sub-Phases to their Major Phase and to the utilities serving the entire Project, including sanitary sewer and storm drain facilities, low pressure, high pressure, and reclaimed

water facilities, and joint trench for electric power, natural gas, telephone and data communications. The Developer plans to submit 95% complete Infrastructure Plans for agency review in late October 2015, for DPW's issuance of construction permits.

6.7 APPENDIX G: PRELIMINARY STORMWATER CONTROL PLAN

The Preliminary Stormwater Control Plan for Sub-Phase Application 2 describes the proposed stormwater system, which includes a "treatment train" strategy in urban park settings for the Sub-Phases' larger centralized treatment areas and other stormwater treatment types for the smaller drainage management areas. The Preliminary Stormwater Control Plan identifies all drainage management areas with Best Management Practices (BMPs) for each, area summary tables, BMP sizing calculations, and typical details for each BMP type. The Developer plans to submit the Final Stormwater Control Plan, including 5-Year Conveyance System (SWMM) and 100-Year Overland Flow Conveyance Models, with the 95% complete Infrastructure Plans in late October 2015, for PUC's approval.

6.8 APPENDIX H: 100% DD PARKS AND OPEN SPACE

The Sub-Phase Application includes 100% Design Development drawings for the Open Space Lots within the Sub-Phase areas, including landscape architectural plans and sections that fix the location and design of landscape elements, outline specifications, and material and color information. The Developer plans to submit the 100% Construction Documents for the Open Space Lots in late October 2015, for approval by TIDA Executive Director.

6.9 APPENDIX I: TENTATIVE TRANSFER MAP

Prior to conveyance of the Sub-Phase Lots from the Authority to the Developer, the City will approve and the Authority will record a Transfer Map for the applicable property, which is in compliance with the California Subdivision Map Act. A Tentative Transfer Map is included in this Sub-Phase Application 2. Following approval of the Tentative Transfer Map by the DPW Director and prior to the conveyance of property to the Developer, the Developer will submit Final Transfer Maps for approval by the San Francisco Board of Supervisors.

6.10 APPENDIX J: DRAFT TENTATIVE SUBDIVISION MAP

Prior to conveyance of the Sub-Phase Lots from the Authority to the Developer, the Developer will procure approval of the Tentative Subdivision Map, which is in compliance with the California Subdivision Map Act. A Tentative Subdivision Map is included in this Sub-Phase Application 2. Following approval of the Tentative Subdivision Map by the DPW Director and prior to the subdivision of parcels by the (Master) Developer for sale of development lots to Vertical Developers, the Developer will submit Phased Final Subdivision Maps for approval by the San Francisco Board of Supervisors.

6.11 APPENDIX K: PRELIMINARY UTILITY RELOCATION PLANS (FOR INFORMATION ONLY)

Before commencing construction of improvements and to ensure minimal interruption of utility services to remaining existing operations on Treasure Island and Yerba Buena Island, existing buildings in the Sub-Phase area that are scheduled for removal must be demolished and existing utilities must be moved out of the way. Preliminary demolition and utility relocation plans are included in this Sub-Phase Application for information only. The Developer plans to submit the Demolition and Utility Relocation Plans in late July 2015, for approval by TIDA Executive Director.

6.12 APPENDIX L: GEOTECHNICAL REPORTS (FOR INFORMATION ONLY)

Geotechnical reports for this Sub-Phase area that were developed subsequent to the submission of the Major Phase 1 Application are included in this Sub-Phase Application for information and include data report, characterization report, supplemental basis of design memorandum, and design report. The Draft Geotechnical Report for Sub-Phases 1B, 1C, and 1E was issued to DPW and DBI for their review and approval on April 21, 2015.

6.13 APPENDIX M: PRELIMINARY SHORELINE IMPROVEMENT PLANS (FOR INFORMATION ONLY)

The existing rock slope shoreline protection along the perimeter of Treasure Island will be augmented with additional rock and receive geotechnical stabilization improvements. Preliminary shoreline improvement plans are included in this Sub-Phase Application for information only. The Developer plans to submit the 100% Shoreline Improvement Plans in late October 2015, for approval by TIDA Executive Director.

FIGURE 1.1 OVERALL ILLUSTRATIVE PLAN

1. INTRODUCTION

1.1 REGULATORY CONTEXT AND AUTHORITY

The General Plan land use designations and policies governing Treasure Island and Yerba Buena Island are set forth in the Treasure Island / Yerba Buena Area Plan, an area plan of the City's General Plan that provides the broad General Plan objectives and policies to redevelop the islands. The overall objectives and policies of the General Plan are implemented through the applicable zoning for the islands, which is found in the Treasure Island / Yerba Buena Island Special Use District ("Special Use District"), Section 249.52 of the Planning Code. The Special Use District includes basic land use and development standards for the development areas of Treasure Island and Yerba Buena Island identified in the Special Use District ("Development Plan Area"), and sets forth the process for approval by TIDA and the Planning Department and Commission, as applicable, of Vertical Improvements. The Special Use District references the Design for Development, also adopted by the Planning Commission, for more detailed design standards and guidelines for development.

TIDA is the public agency responsible for the oversight of the development within the Development Plan Area, and administers the property that is subject to the Tidelands Trust in accordance with the land use restrictions set forth in the Treasure Island Conversion Act of 1997 (amending Section 33492.5 of the California Health and Safety Code and added Section 2.1 to Chapter 1333 of the Statutes of 1968). TIDA will have oversight for the horizontal development of the islands as more particularly described in the Design for Development. TIDA, for the Tidelands Trust property, and the Planning Department and Commission, as applicable, will review and approve the development of buildings on the islands in accordance with the standards and procedures set forth in the Special Use District and the Design for Development.

As set forth in the Special Use District, the Special Use District and Design for Development supersede the San Francisco Planning Code in its entirety except as otherwise expressly noted in the Design for Development. The Green Building Specifications in the Design for Development supplement the City and County of San Francisco's Green Building Ordinance, essentially "raising the sustainability bar" for the islands' development. In addition, all development on the islands is subject to contractual agreements with the Developer that include detailed infrastructure and transportation plans, as more particularly described in the Design for Development. In the event of any conflict between the Design for Development and the Special Use District, the Special Use District provisions control.

DESIGN REVIEW AND DOCUMENT APPROVAL PROCEDURE

The Design Review and Document Approval Procedure (DRDAP), which is part of the Treasure Island and Yerba Buena Island Disposition and Development Agreement (DDA), sets forth the procedures for submitting, reviewing, and approving Major Phase and Sub-Phase Applications for the Project Site. The review and approval process set forth in the DRDAP relates primarily to horizontal infrastructure development and compliance with various obligations under the DDA..

MAJOR PHASE APPLICATIONS AND APPROVALS

The purpose of a Major Phase Application is for the Developer -- Treasure Island Community Development (TICD) -- to present additional detailed information for a certain geographic area of the Treasure Island and Yerba Buena Island Project (Project), referred to as a Major Phase (see Figure 1.1). Major Phase Applications generally include overall site plans, vicinity plans, illustrative concept plans for Infrastructure and Stormwater Management Controls, including all Associated Public Benefits, and any proposed changes to the Phasing Plan attached to the DDA, as updated and approved from time to time.

The Treasure Island Development Authority (TIDA) shall review such Applications and coordinate with applicable City Agencies for review in accordance with the Interagency Cooperation Agreement (ICA). TIDA's approval of the Major Phase confirms that the Major Phase Application conforms to and is consistent with the applicable Development Requirements, and for the Developer to obtain approval by TIDA of the additional detailed information included in a Major Phase Application that has not been previously reviewed or approved by TIDA.

Under the DDA, the TIDA Board must approve the Major Phase Application before the TIDA Executive Director may approve a Sub-Phase.

SUB-PHASE APPLICATIONS AND APPROVALS

A Sub-Phase is a smaller geographic area within a Major Phase. A Sub-Phase Application includes plans for Infrastructure and Stormwater Management Controls within the Sub- Phase, including data charts, site plans, 50% Construction Documents for Infrastructure and Stormwater Management Controls within the Sub-Phase, and 100% Design Development Documents for Open Space Lots.

A Sub-Phase Application must be approved by the Executive Director before the conveyance of land to TICD, before building permits may be issued for Infrastructure and Stormwater Management Controls and before the Authority's consideration of and grant of Vertical Approvals.

The Developer will submit Sub-Phase Applications for the Sub-Phases within Major Phase 1 in accordance with the Schedule of Performance (See Sections 1.4 and 1.6 of the approved Major Phase Application).

VERTICAL APPLICATIONS AND APPROVALS

The procedure for submitting, reviewing and approving applications for Vertical Improvements in the Project Site is governed by the Treasure Island and Yerba Buena Island Special Use District that resides in Section 249.52 of the City's Planning Code.

RELATIONSHIP OF THE SUB-PHASE APPLICATION TO OTHER PROJECT DOCUMENTS

The Disposition and Development Agreement (DDA) for Treasure Island and Yerba Buena Island were approved by the City of San Francisco in June 2011. The DDA and its attached Exhibits guide and regulate the implementation of the redevelopment project. The Major Phase 1 application was approved by Treasure Island Development Authority in May 2015. The following related documents are the most relevant to the information provided in this Sub-Phase Application.

Design for Development Document

The Design for Development for Treasure and Yerba Buena Islands (D4D)is the guiding document for the land use, urban design, vertical development and building design, streets and public parks and open spaces. It includes the overall vision for the project, the planning and transportation frameworks, land use, building massing and height controls, as well as programmatic requirements, standards and guidelines for the implementation of the streets, parks, and open spaces. It is the primary reference document relative to the design of the public realm and vertical development.

Treasure Island and Yerba Buena Island Parks and Open Space Plan

The Parks and Open Space Plan was approved by the City in June of 2011 as part of the project entitlements and establishes the scope and program for park and open space improvements that are required as part of the project. The Open Space Plan is consistent with the standards and design guidelines established in the Design for Development and provide additional information regarding program, materials and furnishings, as well as maintenance and operations. The Plan is the primary reference for review of the Parks and Open Spaces in this Sub-Phase Application.

Streetscape Master Plan

The Streetscape Master Plan was approved by TIDA in February 2015 and further develops the streetscape design defined in the Design for Development. The master plan includes specific design standards and guidelines that will direct the implementation of streetscapes on both islands. The master plan also positions the streetscape as an integral component of an innovative and welcoming public realm by establishing guidelines for paving, street trees, planting, lighting, furnishings, accessible parking and on-street loading as well as coordinating with necessary utilities. The document is the primary reference for review of the streetscape design in this Sub-Phase Application.

Treasure Island & Yerba Buena Island Signage Master Plan

The Treasure Island & Yerba Buena Island Signage Master Plan (SMP) provides concept-level designs and locations for non-standard signs within the public right of way and in TIDA-owned parks and open spaces. The signage in the SMP falls into three general categories: identification, interpretation and wayfinding. Wayfinding – including vehicular, bicycle, and pedestrian – is the primary focus of the SMP because it requires a cohesive, project wide approach to be effective. Illustrative examples of identification and interpretive signage are provided in the SMP, however it is anticipated that these types of signs will be site-specific and will be designed with their environs.

Master Utility Plans

The Master Utility Plans further develop the Infrastructure Plan approved by the City as part of the entitlements in June 2011 and provide detailed design criteria and systematic layout for the construction of new infrastructure on both Treasure Island and Yerba Buena Island. The Master Utility Plans include; Grading and Storm Drain, Joint Trench, Low Pressure Water, Recycled Water, and Sanitary Sewer systems. Each has been coordinated with applicable City Departments and utility service providers.

Stormwater Control Plans

Stormwater Control Plans documenting the proposed storm water management and treatment measures are required by the SFPUC Stormwater Design Guidelines. A Preliminary Stormwater Control Plan is included with this Sub-Phase Application as Appendix H. It further specifies the size, type, and detailed design of storm water treatment systems and features. The design of storm water treatment systems and open spaces shall be coordinated to ensure aesthetic and programmatic consistency.

Yerba Buena Island Habitat Management Plan (YBI HMP)

The YBI Habitat Management Plan approved by TIDA in April 2011 describes adaptive management strategies for the preservation, restoration, and enhancement of ecological resources and habitat on Yerba Buena Island. The goals and strategies outlined in the plan are an integral part of the YBI open space program.

Sustainability Plan

The Sustainability Plan finalized in June 2011 includes both sustainability commitments and aspirations. The Environmental Sustainability Obligations are part of the project entitlements. The obligations they describe in greater detail address Land Use, Transportation, Infrastructure, Energy and Water, Building Design and Construction, Solid Waste Management, and Community Benefits.

1.2 PROJECT OVERVIEW, PHASING AND MAJOR PHASE OVERVIEW

PROJECT OVERVIEW

Treasure Island and Yerba Buena Island are in the San Francisco Bay, about halfway between the San Francisco mainland and Oakland. The Islands are the site of the former Naval Station Treasure Island (NSTI), which is owned by the U.S. Navy. NSTI was closed on September 30, 1997, as part of the Base Realignment and Closure Program. The Islands also include a U.S. Coast Guard Station and Sector Facility, a U.S. Department of Labor Job Corps campus, and Federal Highway Administration land occupied by the San Francisco-Oakland Bay Bridge and tunnel structures.

The Project facilitates the City's long-term goal of implementing the creation of a new City neighborhood on Treasure Island and Yerba Buena Island that provides extensive public benefits to the City such as significant amounts of new affordable housing, increased public access and open space, transportation improvements, extensive infrastructure improvements, and recreational and entertainment opportunities, while creating jobs and a vibrant, sustainable community. In particular, the Project provides an innovative transportation program designed to maximize transit usage and opportunities for walking and biking, with a dense mixed-use urban core in close proximity to transit, and provides a model for sustainable development. The Project provides for the creation of approximately 300-acres of public open spaces, including neighborhood parks, sports fields, shoreline parks, wetlands, and urban farm and large areas for passive recreation and native habitat.

The Treasure Island Development Authority (TIDA) proposes to redevelop NSTI, some portions of which have been transferred to TIDA adn other portions which are still owned by the Navy. The Development Plan will be carried out by Treasure Island Community Development, LLC (TICD), a private development entity who has the right to develop the Project Site in accordance with the Development Agreement (DA) and the Disposition and Development Agreement (DDA), and related Project approvals (including the certified Environmental Impact Report (EIR), Design for Development (D4D), Parks and Open Space Plan (POSP), Streetscape Master Plan, Treasure Island Transportation Implementation Plan (TITIP), and Infrastructure Plan (IP)). These documents control the overall design, development and construction of the Project and all improvements, including the permitted uses on the Project Site, the density and intensity of uses, the maximum height and size of buildings, the number of allowable parking spaces and all Mitigation Measures required in order to eliminate or mitigate any materially adverse environmental impacts of the Project.

The development of the Project's planning and design documents is a thorough, thoughtful, and collaborative process, and it has included the engagement of hundreds of members of the community and many public agencies. A series of public hearings and numerous workshops with regulatory agency representatives have led to the preparation of this Sub-Phase Application.

Currently, the former military base consists primarily of low-density residential uses, along with vacant and underutilized non-residential structures. There are about 1,005 total dwelling units on Treasure Island and Yerba Buena Island (of which about 726 are available for occupancy), about 100 buildings with existing and former non-residential uses, parking and roadways, open space, a wastewater treatment facility, and other infrastructure.

The Project provides a new, high-density, mixed-use community with a variety of housing types, a retail core, open space and recreation opportunities, on-site infrastructure, and public and community facilities and services. In all, there will be up to 8,000 residential units; up to 140,000 square feet (sq. ft.) of new commercial and retail space; approximately 100,000 sq. ft. of new office space; up to 500 hotel rooms; approximately 300 acres of parks and open space; bicycle, transit, and pedestrian facilities; a ferry terminal and intermodal transit hub; and new and/or upgraded public services and utilities, including a new or upgraded wastewater treatment plant.

Three historic buildings on Treasure Island would be adapted to house up to 311,000 sq. ft. of commercial space. There is an opportunity to adaptively reuse nine historic buildings and four garages on Yerba Buena Island. The Navy will remediate hazardous materials to standards consistent with applicable Federal laws governing base closure prior to transfer. Geotechnical improvements will be made to stabilize Treasure Island and the causeway that connects it to Yerba Buena Island. Build out will be implemented in phases, anticipated to occur from approximately 2016 through 2034, depending on market conditions.

The Project's urban form is intended to be distinctive, place-based, and experience-focused, establishing a memorable identity on the Bay. Treasure Island is arranged with a series of fine-grained, walkable blocks. The new homes on Treasure Island will form two neighborhoods – one along the island's western edge with spectacular views back to the City, and a second stretching to the east along Clipper Cove with views of the new Bay Bridge and the East Bay hills. Each neighborhood will feature a distinctive mix of parks, and both will be enveloped by a regional waterfront park system that will occupy the majority of land on the island. The east and west neighborhoods will have a retail main street linking the historic buildings along clipper cove to the west-facing ferry and bus facilities. On Yerba Buena Island, the rugged natural topography informs the placement and form of development, which is focused on views and relationship to natural habitats. Yerba Buena Island's limited development footprint allows preservation of natural vegetation and landform along with historic structures and gardens.

PROJECT PHASING

The Project Site has been divided into four Major Phases and, within each Major Phase, various Sub-Phases, each of which is illustrated in Figure 1.2 (Phasing Plan). Subject to the terms and conditions of the DDA, TIDA will convey portions of the Project Site owned or acquired by TIDA to the Developer, and such portions shall be developed by Developer in phases under the DDA. TIDA Approval of each Major Phase Application is required before, or concurrently with its consideration of and grant of a Sub-Phase Approval for any Sub-Phase in that Major Phase. Major Phase 1, which is comprised of 8 Sub-Phases, was approved by the TIDA Board in May 2015.

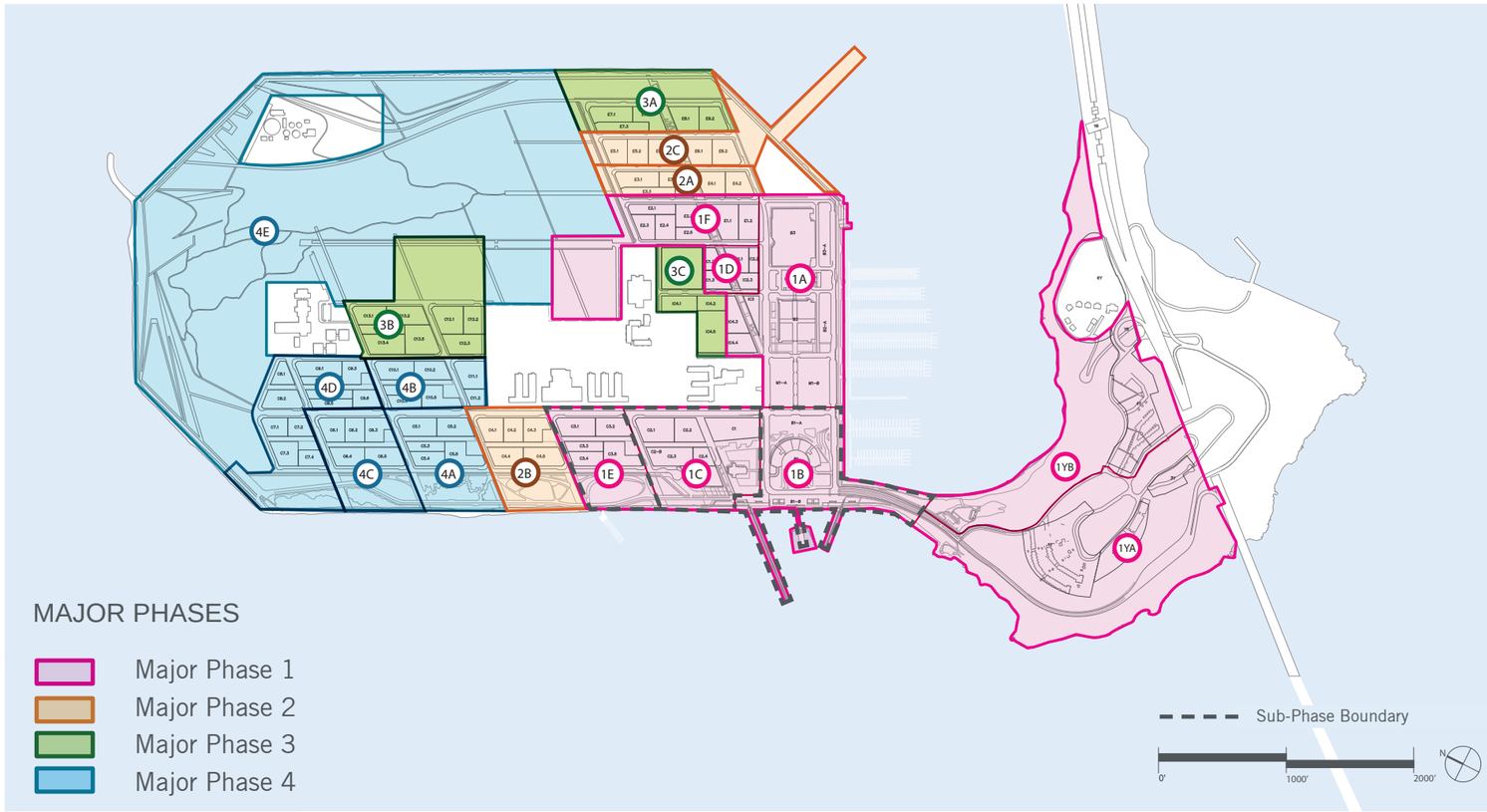


FIGURE 1.2 MAJOR PHASES SITE PLAN

1.3 SUB-PHASE OVERVIEW

This Sub-Phase Application comprises three Sub Phases on Treasure Island: 1B, 1C and 1E, as illustrated in Figure 1.3. Within these three Sub Phases are four new development blocks that form the core of two Island Districts described in the Design for Development:

- The Island Center will be a 24-hour district with a memorable skyline, an inviting network of lively spaces, a retail main street and plazas, marina and water access, and the density and intensity to support an intermodal transit center, the last of which is included within Sub-Phase 1B.
- The Cityside district will include a diversity of housing types clustered around neighborhood parks and linked by a Shared Public Way with primary pedestrian and bicycle use and limited vehicular service.

A predominantly 3-6 story building fabric will be punctuated by mid-rise buildings along Avenue C, and neighborhood towers adjacent to neighborhood parks. A collection of east-west streets, neighborhood Windrow Streets and Mid-block Easements cross the Shared Public Way while passing through the Cityside District. This is intended to draw residents from within the neighborhood to the Cityside Waterfront Park, while attracting visitors into the Cityside District along wind-buffered, pedestrian- oriented routes. Sub Phase 1B consists of Block B1 which is formed around the historic Building 1. Commensurate with its gateway location and function, this block will be improved with landscaping on all sides of Building 1, with a two development lots on its eastern edge to connect to the Retail Main Street in adjacent block.

Sub Phase 1C consists of Blocks C.1 and C.2. The land uses in these 2 blocks consist of the Cultural Park around the existing Chapel, residential development lots, and a hotel development lot on Trust Land. Block C.2 is a prototype of most blocks that would be developed in the Cityside district, bisected by Shared Public Ways and providing several lots for residential development.

Sub Phase 1E consists of Block C.3, programmed for primarily residential use. It is comprised of several development lots and is the first block in the Cityside District to have a neighborhood park fronting the Shared Public Way that would be provided on a private development lot.

FIGURE 1.3 SUB-PHASE APPLICATION 2 SITE PLAN

1.4 SCHEDULE OF PERFORMANCE

APPLICATION OUTSIDE DATES

The Schedule of Performance included in the DDA (as amended in Major Phase 1 application and included as Appendix B) provides for the submittal of the Sub-Phase Application as follows:

- 2015 - Sub-Phase 1C
  - 2015 - Blocks C1 and C2
  - 2015 - Cityside Waterfront Park 1
  - 2015 - Cultural Park
- 2016 - Sub-Phase 1B
  - 2015 - Blocks B1
  - 2016 - Building 1 Plaza
  - 2016 - Marina Plaza
  - 2016 - Clipper Cove Promenade 1
- 2019 - Sub-Phase 1E
  - 2019 - Blocks C3
  - 2019 - Cityside Waterfront Park 2

All references to year used herein are the last day in such year. As noted in Table 1.1, this submittal of the application conforms to such requirements.

COMPLETION OUTSIDE DATES

The Horizontal Obligations for the Sub-Phase include outside dates for completion of Infrastructure and Stormwater Management Controls for the Lots and all improvements for the Open Space Lots. The Schedule of Performance included in the DDA (as amended in Major Phase 1 application and included as Appendix B) provides for the Completion of all these Horizontal Obligations as follows:

- 2019 - Sub-Phase 1C
  - 2019 - Blocks C1 and C2
  - 2021 - Cityside Waterfront Park 1
  - 2021 - Cultural Park
- 2018 - Sub-Phase 1B
  - 2018 - Blocks B1
  - 2022 - Building 1 Plaza
  - 2022 - Marina Plaza
  - 2016 - Clipper Cove Promenade 1
- 2021 - Sub-Phase 1E
  - 2021 - Blocks C3
  - 2025 - Cityside Waterfront Park 2

All references to year used herein are the last day in such year. As noted in Table 1.1, the Planned Completion Dates conform to such requirements.

OBLIGATIONS UNDER THE HOUSING PLAN

The Housing Plan requires the Developer to prepare Developable Lots in Sub-Phases in accordance with the Schedule of Performance. As noted in Table 1.1, the Planned Completion Dates conform to such requirements.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Blocks														
C1-C2	★	❖	❖	❖	❖									
C3	★	❖	❖	❖	❖									
Parks and Open Space														
Building 1 Plaza	★			❖	❖	❖	❖							
Marina Plaza	★			❖	❖	❖	❖							
Clipper Cove Promenade 1	★			❖	❖	❖	❖							
Cityside Waterfront Park 1	★			❖	❖	❖	❖							
Cultural Park	★			❖	❖	❖	❖							
Cityside Waterfront Park 2	★			❖	❖	❖	❖							

Application Outside Date
Commencement and Completion Outside Dates (horizontal obligations only)

★ Actual Application date
❖ Planned Commencement and Completion Dates (horizontal obligations only)

TABLE 1.1 TREASURE ISLAND PERFORMANCE MILESTONES FOR SUB-PHASE APPLICATION 2

*Actual dates compared with Schedule of Performance deadline dates

1.5 ASSOCIATED PUBLIC BENEFITS

Sub-Phase Application 1B, 1C and 1E includes a variety of public benefits that would be provided to support the needs of the current and future residents, businesses and visitors. Associated Public Benefits shown in the Schedule of Performance (Appendix B) and the anticipated timing of the community benefits, including any payments or obligations to be fulfilled in Sub-Phase Application 1 in accordance with the DDA are described in this section. These will be completed in compliance with the Schedule of Performance. See Figure 1.5 on the following page.

PARKS AND OPEN SPACE

Sub-Phase Application 2 will provide 15.5 acres of open space and parks on TI. Consistent with the principle of adjacency described in the DDA, open space and parks will be developed in conjunction with the adjacent horizontal development proposed for this Sub-Phase. Chapter 4 – Parks & Open Space of this Sub-Phase application provides detailed descriptions of the location, boundary and character of each open space and park that will be developed, including:

- Waterfront Plaza
- Cityside Waterfront Parks 1 and 2
- Building 1 Plaza
- Marina Plaza
- Cultural Park
- Clipper Cove Promenade 1

COMMUNITY FACILITIES with Sub-Phases 1B, 1C, and 1E

Note that obligations that apply to entire Major Phase 1 may be referred to redundantly in all Sub-Phase Applications within that Major Phase.

- Waterfront Plaza/Ferry Terminal: As used herein, "ferry terminal" refers to all of the waterside and landside improvements associated with the accommodation of new ferry service to Treasure Island. A ferry terminal that will support and sustain full ferry service operations will be constructed with Sub-Phase 1B.
- Buses for East Bay Service: $3,213,675 to fund the purchase of up to five (5) buses in cooperation with AC Transit for service anticipated to be commence with the occupancy of the first new residential units.
- Bicycle Lending Library: $110,000 for the purchase of bicycles and equipment to establish the bicycle lending library no later than the occupancy of the 1,000th residential unit. It is currently assumed that bicycle lending library will be in the form of Bay Area Bike Share.
- TIHDI Support Space: Provide up to 2,500 square feet of administrative space (expected to be in Building 1),
- Chapel: Integrate the retained Chapel into the adjacent park and open space.
- Treasure Island Museum: Collaborate with the Treasure Island Museum Association for space suitable for programmatic and visitor needs necessary to create a viable museum operation. The space is expected to be in Building 1 but could be accommodated in other locations acceptable to both TICD and the Treasure Island Museum Association.
- TIMMA Office Space: Up to 500 sq ft of office for the TIMMA's Administrative Offices, expected to be located in Building 1.

FINANCIAL OBLIGATIONS with Sub-Phases 1B, 1C, and 1E

Note that obligations that apply to entire Major Phase 1 may be referred to redundantly in all Sub-Phase Applications within that Major Phase.

- Open Space Annual O+M Subsidy: $14.32 million of total subsidy beginning with the first opening of the first park owned by TIDA at the maximum rate of $1.5 million per year for the first 5 years and $3 million per year thereafter
- Transportation Annual Operating Subsidy: $30 million of total subsidy to be funded for transportation operation subsidies up to a maximum of $4 million per year, commencing after first new on-island shuttle AC transit bus, or ferry service begins.
- Transportation Capital Contributions: $1.8 million for the purchase of up to six (6) Muni buses at the lesser of 20% of the cost of a Muni bus or $300,000
- Community Center Space Subsidy: $9.5 million or 13,500 square feet of community center space (or a combination thereof as approved by TIDA and TICD) subject to a maximum of $2.375 million per Major Phase and consistent with timing provisions described in the DDA.
- Affordable Housing Subsidy: Approximately $29,120,000 at a subsidy rate of $17,500 per market rate unit sold from the approximately 1,664 market rate units expected to be developed within Sub-Phases 1 and 2.
- Ramps/Viaduct SFCTA Cost Reimbursement: Approximately $5.5 million in payment to SFCTA 30 days following the initial conveyance of land by the Navy to TIDA, followed by additional payments prior to the end of 2016.
- Import Fill: Approximately $1 million for landfill stockpiled on Treasure Island paid at a rate of $3.50 per cubic yard removed or in 3 equal annual installments at the end of 2015, 2016 and 2017.

PUBLIC BENEFITS

FIGURE 1.4 SUB-PHASE PUBLIC BENEFITS


M O L

1.6 CONSISTENCY WITH ENTITLEMENT DOCUMENTS

PHASING AND SCHEDULE OF PERFORMANCE

The Project Phasing Plan for Sub-Phase Application 2 is consistent with the Plan approved in Major Phase 1. As further described in Section 1.4, the Schedule of Performance for Sub-Phase Application 2 is consistent with the Schedule approved in Major Phase 1.

LAND USE AND DEVELOPMENT PROGRAM

The proposed land use for Sub-Phase Application 2 is consistent with all previous entitlement documents. The locations of housing, commercial and community uses are shown illustratively based on the land use standards and guidelines in Sections T3 and Y3 of the TI-YBI Design for Development. The proposed development program is also within the limits established by the Project EIR. The development blocks in Sub-Phase Application 2 are largely consistent with the TI-YBI D4D, but have been revised slightly based on updated street designs and new survey information. The changes to the development block dimensions are not substantive. Building height limits, setbacks, bulk and massing standards shown in the Sub-Phase Application 2 are all consistent with those in Sections T4 and Y4 of the TI-YBI D4D. The Tidelands Trust configuration is also consistent with the TI-YBI Trust Exchange Agreement.

TRANSPORTATION AND STREETSCAPES

The transportation systems and streetscapes included as part of this Sub-Phase Application 1 are consistent with previous entitlement documents, the Treasure Island/Yerba Buena Island Streetscape Master Plan and the Major Phase 1 Application, which were approved by TIDA in February 2015 and May 2015, respectively.

PARKS AND OPEN SPACE

The Parks and Open Spaces included as part of this Sub-Phase Application 2 are consistent with the Schematic Designs approved in the Major Phase 1 Application. The designs presented in this Sub-Phase Application are consistent with the Treasure Island/ Yerba Buena Island Parks and Open Space Plan, except as noted in the Major Phase 1 Application.

UTILITIES

The Utility systems included as part of this Sub-Phase Application 2 are consistent with previous entitlement documents and the Treasure Island/Yerba Buena Island Master Utility Plans, which are currently being reviewed by applicable City Agencies. The Utilities section of this Sub-Phase Application 2 includes 50% Construction Documents for all Utilities on Treasure Island Sub-Phases 1B, 1C, and 1E. Further information regarding phasing and interim utility improvements will be provided as part of subsequent improvement plan submittals.

GEOTECHNICAL

In 2009, during the Treasure Island and Yerba Buena EIR effort, conceptual geotechnical design reports were developed for Treasure Island and Yerba Buena Island. The subject reports identified the geotechnical issues and provided concept level geotechnical improvement strategies to mitigate the geotechnical hazards. For information only, Appendix L includes Geotechincal Data Report, Characterization Report, Design Report, and Supplemental Basis of Design for Sub-Phases 1B, 1C and 1E. The geotechnical concerns and the proposed geotechnical mitigation measures are similar to the ones identified in 2009 conceptual geotechnical design reports.

MARINE AND SHORELINE IMPROVEMENTS

The design of the Ferry Terminal and Shoreline improvements are consistent with the project as set forth in the Design for Development and Mitigation Measures described in the Final Environmental Impact Report. 100% Design Development drawings for the Ferry Terminal are included in Section 4.2 and for information only, preliminary Shoreline Improvement Plans are included in Appendix M.

TREASURE ISLAND CAUSEWAY LOOKING TOWARDS DOWNTOWN SAN FRANCISCO

2. LAND USE AND DEVELOPMENT BLOCKS

CONSISTENCY WITH ENTITLEMENT DOCUMENTS

The proposed land use for Sub-Phase Application 2 is consistent with all previous entitlement documents. The locations of housing, commercial and community uses are shown illustratively based on the land use standards and guidelines in Sections T3 and Y3 of the TI-YBI Design for Development. The proposed development program is also within the limits established by the Project EIR. The development blocks in Sub-Phase Application 2 are largely consistent with the TI-YBI D4D, but have been revised slightly based on updated street designs and new survey information. The changes to the development block dimensions are not substantive. Building height limits, setbacks, bulk and massing standards shown in the Sub-Phase Application 2 are all consistent with those in Sections T4 and Y4 of the TI-YBI D4D. The Tidelands Trust configuration is also consistent with the TI-YBI Trust Exchange Agreement.

2.1 OVERALL LAND USE

A map depicting the land use zones for the Project is shown in Figure 2.1. A map depicting the land use zones for Sub-Phases 1B, 1C and 1E is shown in Figure 2.2. Table 2.1 provides the following information: the overall TI/YBI building program, the Major Phase 1 land uses, and the proposed land uses for Sub-Phases 1B, 1C and 1E.

Further details of the development planned for this Sub-Phase are described in the subsequent sections and Appendices of this Application.

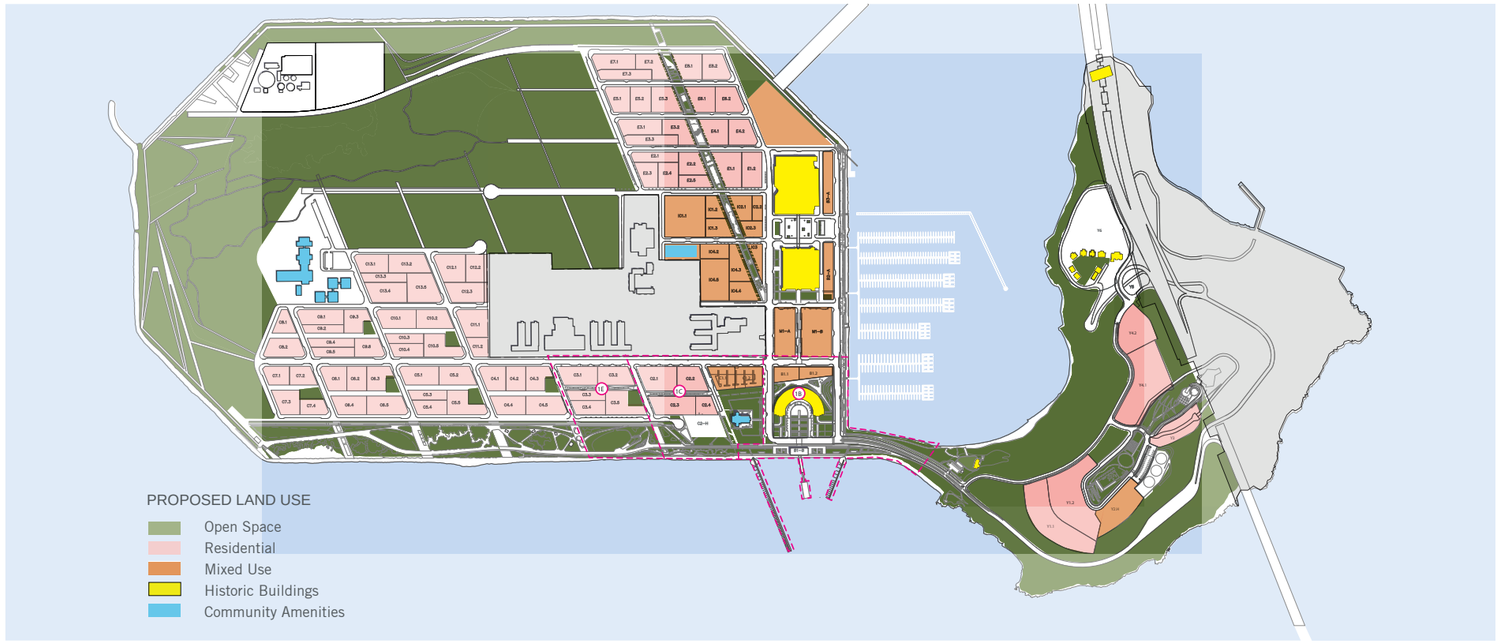


FIGURE 2.1 OVERALL PROPOSED LAND USE

Land Use	Total Allowable Building Program	Major Phase 1	Sub-Phase 1B, 1C & 1E TOTAL	Sub-Phase 1B Total	Sub-Phase 1C Total	Sub-Phase 1E Total
Total Residential Units	8,000	3,571	1,884	95	1,183	606
Adaptive Reuse (GSF) - Office /Commercial	202,000	202,000	-	-	-	-
Adaptive Reuse (GSF) - Retail/Community	67,000	67,000	67,000	67,000	-	-
Adaptive Reuse (GSF) - Circulation	42,000	42,000	42,000	42,000	-	-
New Construction Retail (GSF)	140,000	140,000	-	-	-	-
Hotel (Rooms)	500 Rooms	500 Rooms	300 Rooms	-	300 rooms	-
Office (GSF)	100,000	100,000	-	-	-	-
Total Commercial Area (GSF & Rooms)	551,000 sq ft & 500 Rooms	551,000 sq ft & 500 Rooms	109,000 sq ft & 300 Rooms	109,000	300 rooms	-
Parks and Open Space (AC)	300.00	103.6	15.7	6.4	5.4	4.0

TABLE 2.1 TI SUB-PHASES AGGREGATE DEVELOPMENT IN RELATION TO THE MAJOR PHASE AND THE TOTAL ALLOWABLE BUILDING PROGRAM

2.2 SUB-PHASE LAND USE

Sub-Phase 1B is within the Island Center district and includes Mixed Use and Open Space land use zones. Land uses in Sub-Phase 1B are anticipated to include retail, office, institutional and potentially residential, as allowed by the standards in the Design for Development.

Sub-Phase 1C straddles the boundary between the Island Center and Cityside districts and includes four land use zones: Mixed Use, Public Services/Civic/Institutional, Residential, and Open Space. Anticipated land uses in Sub-Phase 1C include cultural or public services on the Cultural Park site, a hotel, and residential.

Sub-Phase 1E is located in the Cityside district and includes Residential and Open Space land use zones. The predominant land use will be residential, although limited neighborhood-serving retail may be included as permitted by the Design for Development.

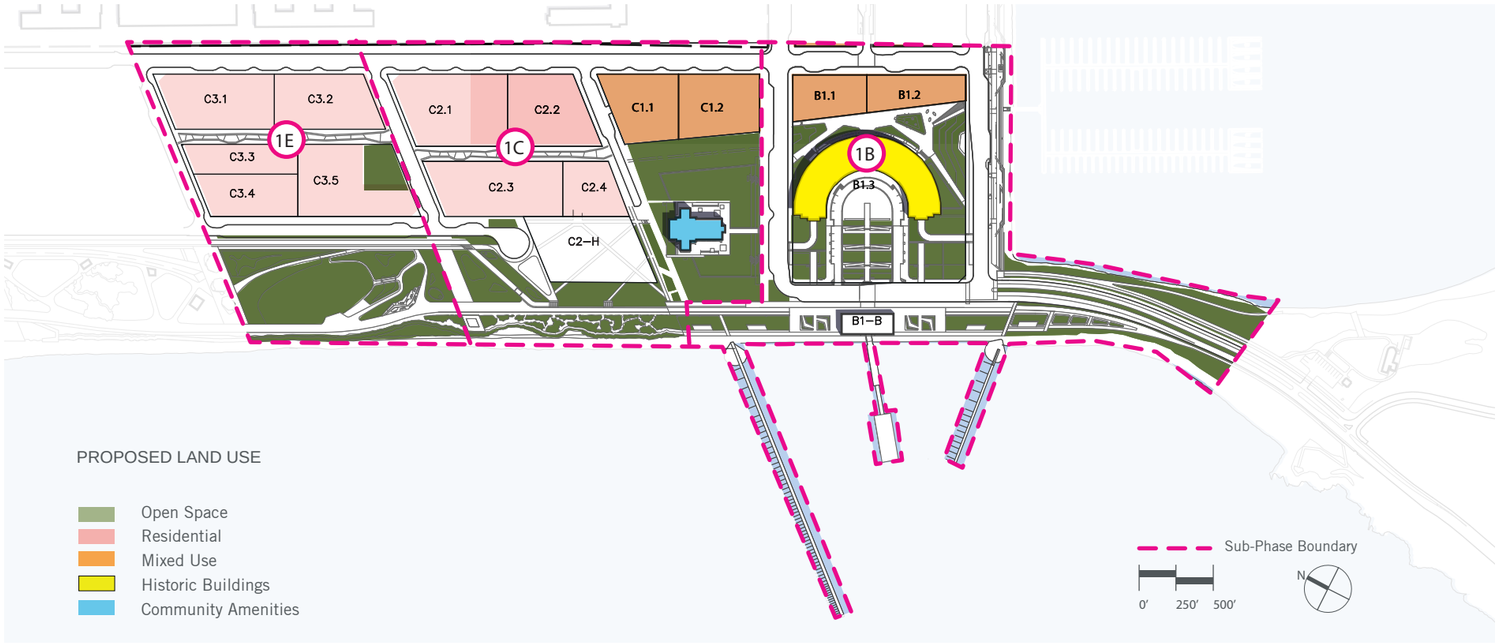


FIGURE 2.2 SUB-PHASE PROPOSED LAND USE

Land Use	Sub-Phase 1B, 1C & 1E TOTAL	Sub-Phase 1B			Sub-Phase 1C							Sub-Phase 1E				
		Block B1-A		Block B1	Block C1		Block C2					Block C3				
		Lot B1.1	Lot B1.2	Lot B1.3	Lot C1.1	Lot C1.2	Lot C2.1	Lot C2.2	Lot C2.3	Lot C2.4	Lot C2.H	Lot C3.1	Lot C3.2	Lot C3.3	Lot C3.4	Lot C3.5
Total Residential Units	1,884	50	45	-	225	225	321	128	108	176	-	110	110	29	90	267
Adaptive Reuse (GSF) - Office /Commercial	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Adaptive Reuse (GSF) - Retail	67,000	-	-	67,000	-	-	-	-	-	-	-	-	-	-	-	-
Adaptive Reuse (GSF) - Circulation	42,000	-	-	42,000	-	-	-	-	-	-	-	-	-	-	-	-
New Construction Retail (GSF)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hotel (Rooms)	300 Rooms	-	-	-		-	-	-	-	-	300 rooms	-	-	-	-	-
Office (GSF)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Commercial Area (GSF & Rooms)	109,000 sq ft & 300 Rooms	-	-	109,000	-	-	-	-	-	-	300 rooms	-	-	-	-	-

TABLE 2.2 TI SUB-PHASES PROGRAM OF USES AND APPROXIMATE AGGREGATE SQUARE FOOTAGE OF EACH USE BY LOT

2.3 SUB-PHASE HOUSING

Sub-Phases 1B, 1C and 1E on TI can accommodate up to approximately 1,884 housing units. Included in this phase are two (2) Authority Housing Lots (representing almost 20% of the development land in the sub-phase) that will be dedicated to TIDA and will accommodate approximately 220 units, including units TIDA may choose to allocate to TIHDI. In addition, there will be a requirement to provide inclusionary units within market-rate developments with an overall target of 5%, consistent with the requirements and process described in the DDA. The land parcels created within these Sub-Phases will enable the construction of all 4 Product Types (townhomes, low-rise, mid-rise and towers) to serve households with a broad range of incomes.

A summary of the housing proposed within this Sub-Phase is shown in Table 2.3

The locations of parcels dedicated to TIDA/TIHDI as Authority Housing Lots are shown in Figure 2.3.

The Housing Date Table in Appendix D provides more details on all proposed housing parcels within this sub-phase.

RESIDENTIAL UNITS	Lot No.	Lot Area (Sq Ft)	Housing Type	Total (Units)	Townhomes (Units)	Low-Rise (Units)	Mid-Rise (Units)	Tower (Units)
Total Allowable Building Program				8,000	421	3,916	519	3,144
Major Phase 1 Total				4,119	271	1,431	367	2,050
	LOT B1.1	22,216	Developer	50	-	50	-	-
	LOT B1.2	22,216	Developer	45	-	45	-	-
Sub-Phase 1B Total		**44,431**		95	**-**	**95**	**-**	**-**
	LOT C1.1	32,670	Developer	225	-	-	-	225
	LOT C1.2	35,284	Developer	225	-	-	-	225
	LOT C2.1	54,014	Auction	321	-	-	-	321
	LOT C2.2	40,946	Developer	128	-	-	128	-
	LOT C2.3	50,530	Developer	108	-	108		
	LOT C2.4	22,216	Developer	176	-	-	-	176
Sub-Phase 1C Total		**235,660**		**1,183**	**-**	**108**	**128**	**947**
	LOT C3.1	43,124	Authority	110	-	110	-	-
	LOT C3.2	39,204	Authority	110	-	110	-	-
	LOT C3.3	23,087	JV	29	29	-	-	-
	LOT C3.4	28,750	Auction	90	-	90	-	-
	LOT C3.5	55,321	Developer	267	-	-	-	267
Sub-Phase 1E Total		**189,486**		**606**	**29**	**310**	**-**	**267**
Market Rate + Inclusionary		337,590		1,664	29	293	128	1,214
Authority		82,328		220	-	220	-	-
TOTAL (Sub-Phase 1B, 1C & 1E)		**419,918**		**1,884**	**29**	**513**	**128**	**1,214**
Developer		281,398		1,224	-	203	128	893
Auction		82,764		411	-	90	-	321
JV		23,087		29	29	-	-	-
TOTAL (Sub-Phase 1B, 1C & 1E)		**387,248**		**1,664**	**29**	**293**	**128**	**1,214**

TABLE 2.3 TI SUB-PHASE SUMMARY OF PROPOSED HOUSING DATA

AUTHORITY LOTS

As required by the DRDAP and the DDA, Figure 2.3 identifies the proposed locations of Authority Housing lots. The acreage and approximate number of units in each product type are provided in Table 2.3

RESIDENTIAL AUCTION LOTS AND JV LOTS

Figure 2.3 identities the auction lots and JV lots proposed for this sub-phase.

The acreage and proposed number of units in each product type are provided in Table 2.3

RESIDENTIAL AUCTION LOT BID PRICES

Due to the period of time necessary to construct the infrastructure, it is more appropriate to set the minimum bid prices closer to the time when land parcels would be offered for sale, so that they are reflective of current market conditions.

PROPOSED MAJOR PHASE 1 EXCESS LAND APPRECIATION STRUCTURE

The following schedule in Table 2.4 was proposed for the Excess Land Appreciation Structure for Major Phase 1. At the time of this submittal, TICD believes this structure represents the market conditions for land sales in San Francisco for similar products. As this is the initial phase of development on TI/YBI, it is proposed that TICD and TIDA revisit the Excess Land Appreciation Structure closer to the time of land sales, and adjust the structure by mutual agreement.

Product Type	Profit Margin	Profit Participation %
Townhome	10%	50%
Low Rise	12%	30%
Mid Rise/Tower	N/A	N/A

TABLE 2.4 PROPOSED SCHEDULE FOR THE EXCESS LAND APPRECIATION STRUCTURE

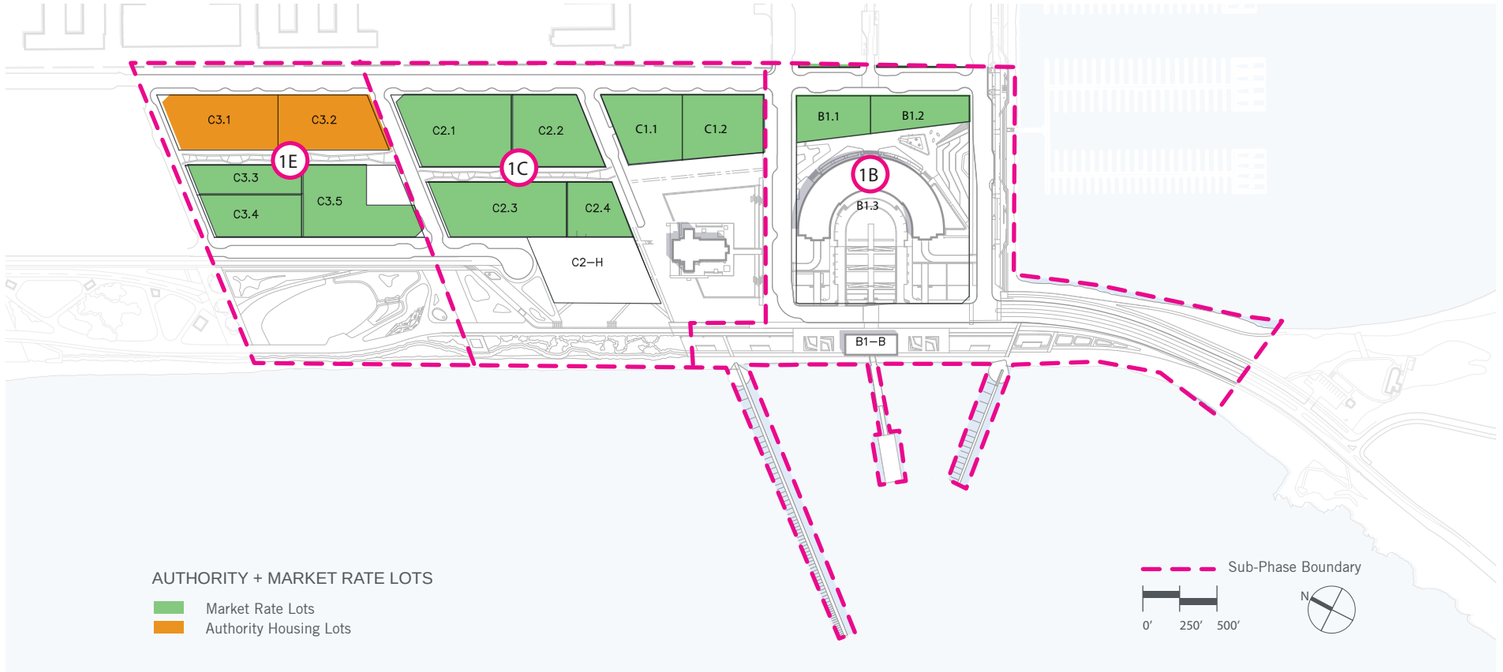


FIGURE 2.3 SUB-PHASE AUTHORITY LOTS

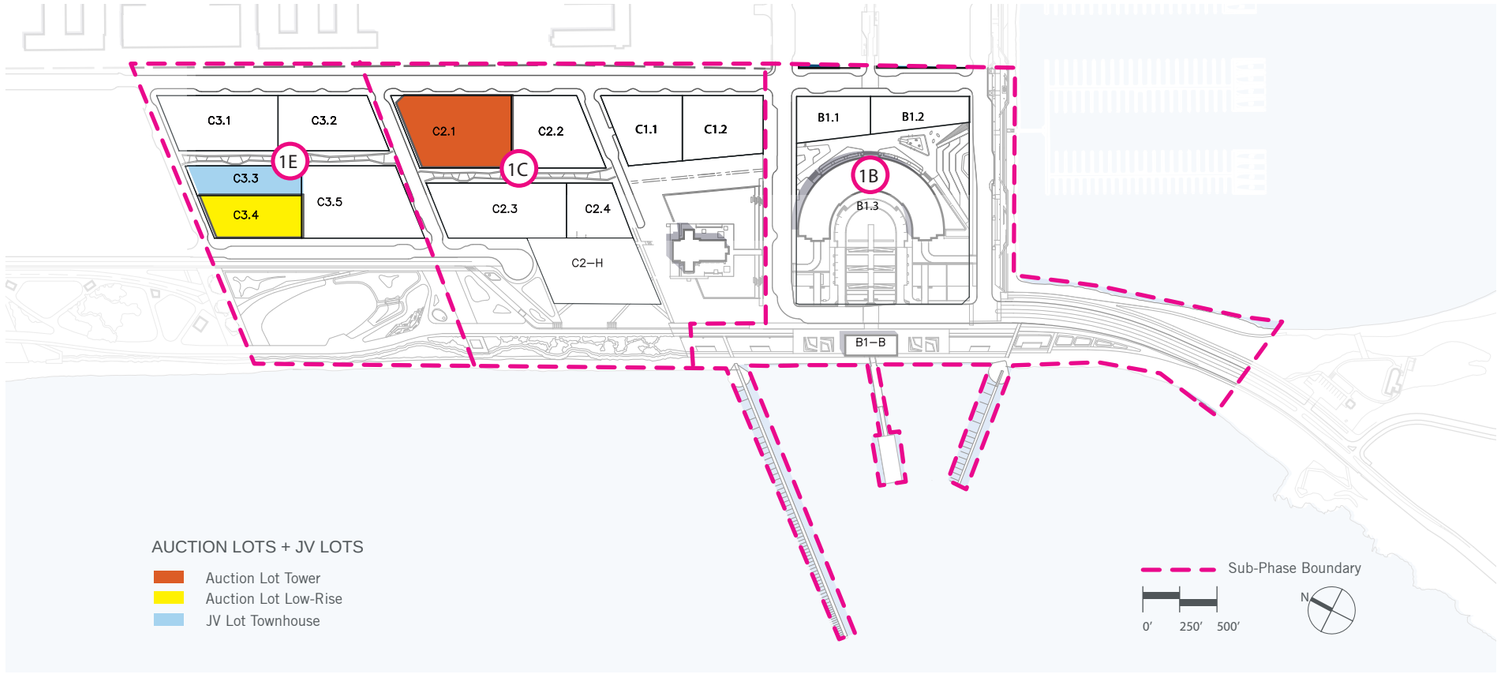


FIGURE 2.4 SUB-PHASE AUCTION LOTS AND JV LOTS

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2.4 SUB-PHASE RETAIL PLAN

This section below fulfills the Retail Plan (DRDAP 1.2.16.) requirement to provide a plan that includes the sizes and types of retail that will be targeted during the Sub-Phase including an updated assessment of the needs of Project residents for retail goods and services.

The overall Project's commercial component includes a total amount of retail space not exceeding 207,000 sq. ft., including approximately 140,000 sq. ft. of new commercial and retail space and adaptive reuse of Buildings 1, 2, and 3 for approximately 67,000 square feet of additional retail. A variety of retail uses are anticipated, including neighborhood-serving uses such as personal services, restaurants and cafés, housewares and apparel shops, and health and fitness clubs. Regional-serving retail uses could include specialty foods, specialty gift or crafts, and entertainment uses. Retail tenant spaces could range in size from 500 to 10,000 SF per tenant, depending upon the type of retail establishment, with the smaller spaces accommodating businesses like a small specialty gift or food boutique and the larger spaces accommodating tenants such as general merchandising or restaurants.

In Sub-Phase Application 2 (Sub-Phases 1B, 1C, and 1E), retail uses are envisioned in historic Building 1, and ancillary retail uses are envisioned to the east of Building 1 within Lot B1, along the Clipper Cove marina and in the residential neighborhoods. Current retail services on Treasure Island include convenience stores, a full service grocery store, three cafes, a bike shop, and several wineries. As the residential population on the island increases, neighborhood retail needs assessments will help vertical developers provide goods and services that support the goal of establishing and maintaining a walkable neighborhood community.

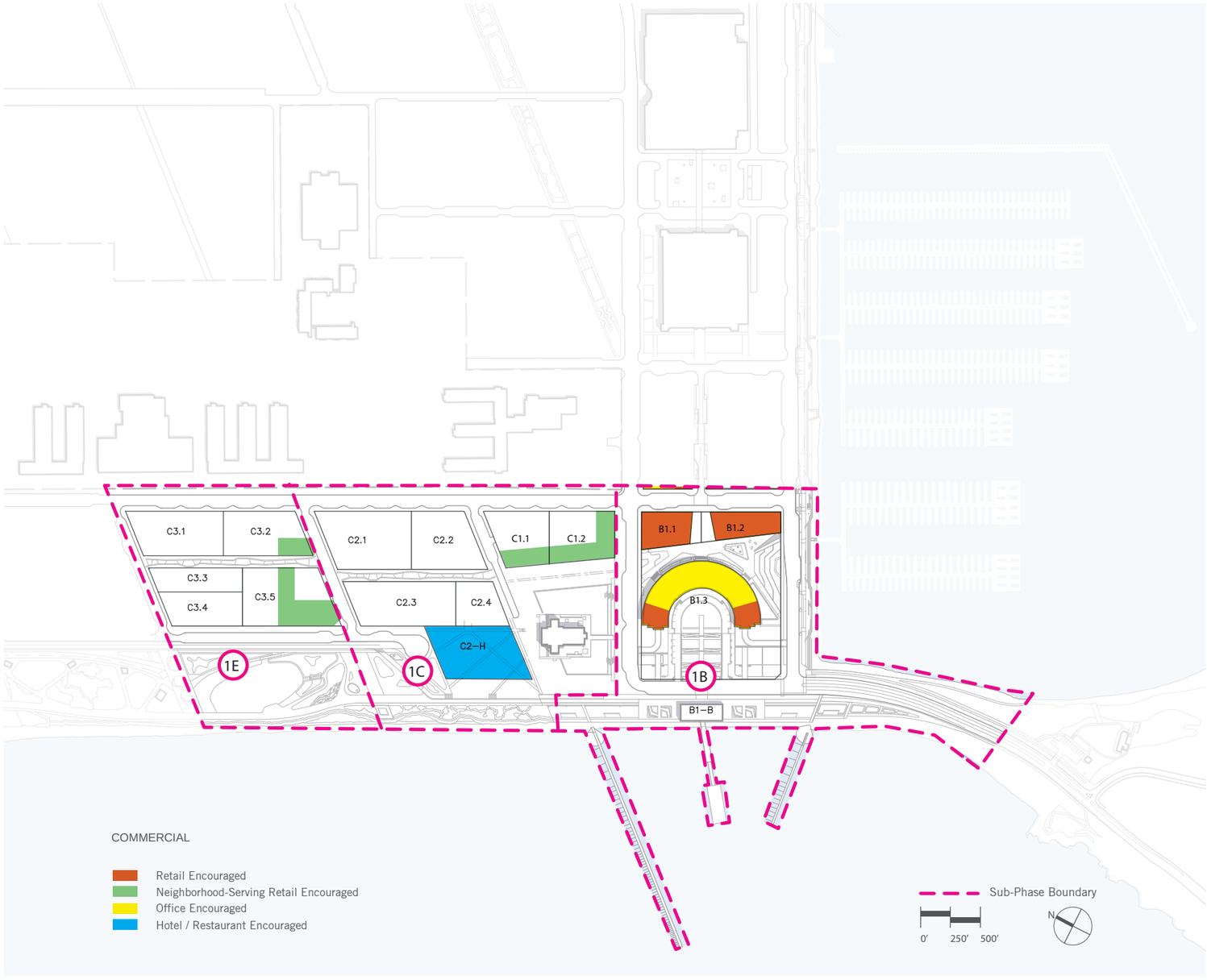

FIGURE 2.5 SUB-PHASE RETAIL PLAN

2.5 SUB-PHASE DEVELOPMENT BLOCKS AND MID-BLOCK EASEMENTS

SUB-PHASE	LAND USE BLOCK NUMBER	LOT NUMBER	LOT AREA (SQ FT)
1B	B1	LOT B1.1	22,216
1B	B1	LOT B1.2	22,216
1B	B1	LOT B1.3	209,088
Sub-Phase 1B Total			**253,519**
1C	C1	LOT C1.1	32,670
1C	C1	LOT C1.2	35,284
1C	C2	LOT C2.1	54,014
1C	C2	LOT C2.2	40,946
1C	C2	LOT C2.3	50,530
1C	C2	LOT C2.4	22,216
1C	C2	LOT C2-H	49,658
Sub-Phase 1C Total			**285,318**
1E	C3	LOT C3.1	43,124
1E	C3	LOT C3.2	39,204
1E	C3	LOT C3.3	23,087
1E	C3	LOT C3.4	28,750
1E	C3	LOT C3.5	55,321
Sub-Phase 1E Total			**189,486**
Sub-Phase 1B, 1C & 1E Total			**728,323**

TABLE 2.5 SUB-PHASE DEVELOPMENT LOTS SQUARE FOOTAGE

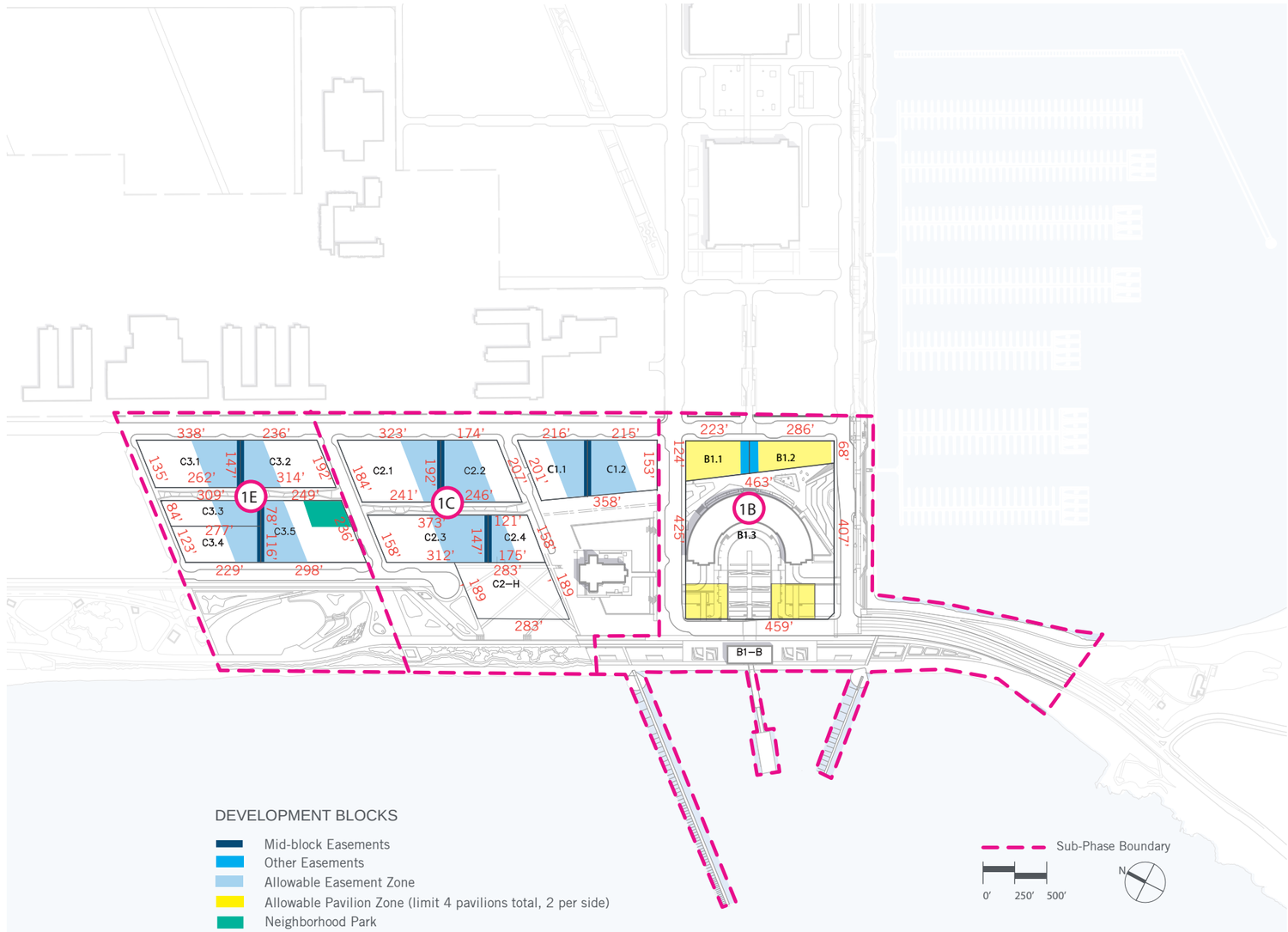

FIGURE 2.6 SUB-PHASE DEVELOPMENT BLOCKS AND EASEMENT PLAN

DEVELOPMENT BLOCKS AND EASEMENT STANDARDS

Sub-Phase Application 2 development areas are identified on the Development Block and Easement Plan (Figure 2.6).

Table 2.6 provides the area of land within each proposed lot. Note these areas are approximate and subject to change in accordance with adjustments permitted in the subdivision map for this area .

Typical development block corner conditions are defined in Figure 2.7, and identified on the Development Block and Easement Plan, Figure 2.6.

The type and location of Cityside Neighborhood Parks are also identified on the Development Block and Easement Plan (Figure 2.6). See Chapter 4, Parks and Open Space for further descriptions of these parks.

Required easements and allowable easement zones are identified on the Development Block and Easement Plan (Figure 2.6). Easements are permitted anywhere and in any configuration within the allowable easement zone, as long as they provide a connection between public rights-of-ways at both ends. However, the easement on Block B1 must be specifically located and dimensioned as shown in Figure 2.8.

Easements must be open to the sky and are intended to serve as dedicated throughways that are publicly accessible. Easements must have a predominantly pedestrian character, but may be used for limited vehicular access. Easements must be a minimum width of 16 feet and a maximum of 35 feet, with the exception of the following:

- Easements on Blocks B1 shall be dimensioned as specified in Figure 2.8.

Cityside and Eastside easements must be separated from the edge of the nearest right-of-way by a minimum of 150', as measured from the edge of the easement (as demonstrated in Figures 2.7).

A maximum total of four (4) 400 square foot buildings are permitted within the pavilion zones in the Building 1 Plaza. See Fig. 2.6

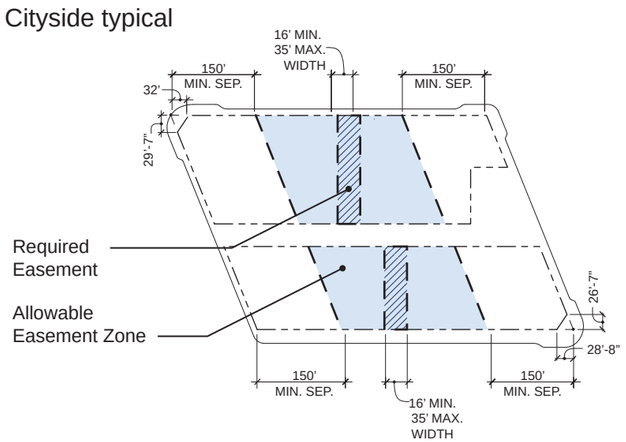

FIGURE 2.7 CITYSIDE TYPICAL BLOCK PLAN

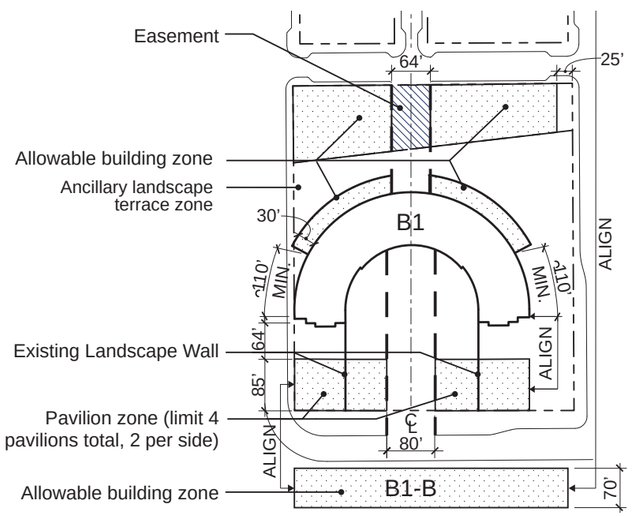

FIGURE 2.8 B1 DEMONSTRATIVE BLOCK PLAN

HISTORIC FIGURE OUTSIDE OF BUILDING 1 ON TREASURE ISLAND

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2.6 SUB-PHASE BUILDING HEIGHTS AND MASSING

CONSISTENCY WITH DESIGN FOR DEVELOPMENT

Building heights, massing, setbacks, and building design standards and guidelines are addressed in detail as part of the approved Design for Development document and Disposition and Development Agreement. No changes to the provisions for building height and massing are proposed as part of this Sub-Phase Application. An overview of the vision and general parameters for building height and massing are provided below to provide context. Refer to the following sections in the Design for Development document for detailed information regarding building heights and massing.

T4 - Building Envelope Treasure Island
T5 - Building Design Treasure Island

TREASURE ISLAND

The heart of the design vision for Treasure Island is the creation of a series of distinctive, pedestrian-oriented, high-density and sustainable neighborhoods that have time-tested virtues but can also accommodate emerging trends in building design, sustainability and household makeup. Each neighborhood on Treasure Island will house a diverse population in a mix of low, mid- and high-rise buildings. Density is focused near transit, services and amenities, and building massing is carefully considered to create places that are appropriately scaled to the pedestrian, shield public places from prevailing winds, and form a visually appealing skyline.

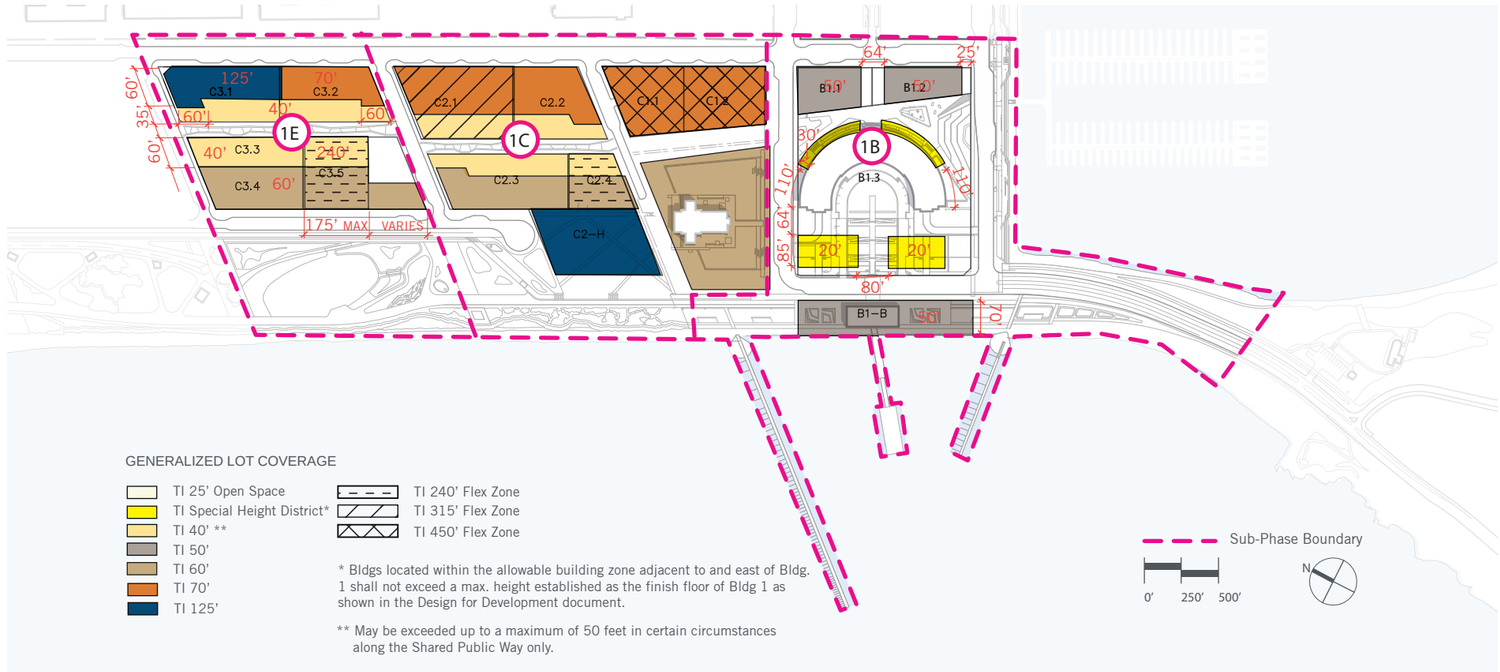


FIGURE 2.9 SUB-PHASE BUILDING HEIGHTS AND MASSING

BUILDING HEIGHT

BUILDING HEIGHTS

Maximum height requirements establish the predominant heights of development and the location of taller buildings. Height zones on Treasure Island focus the greatest density near transit, provide a comfortable pedestrian environment that is visually and socially engaging, and craft an attractive skyline that will be viewed from around the Bay Area. Height zones describe the three-dimensional maximum height envelopes without defining specific locations, numbers or shapes of buildings or parcels. Flex height zones allow for a variety of buildings types to be built up to the indicated maximum height as long as they conform to the relevant and applicable standards in Design for Development Sections T4.5, Building Separation, and T4.6, Bulk and Massing.

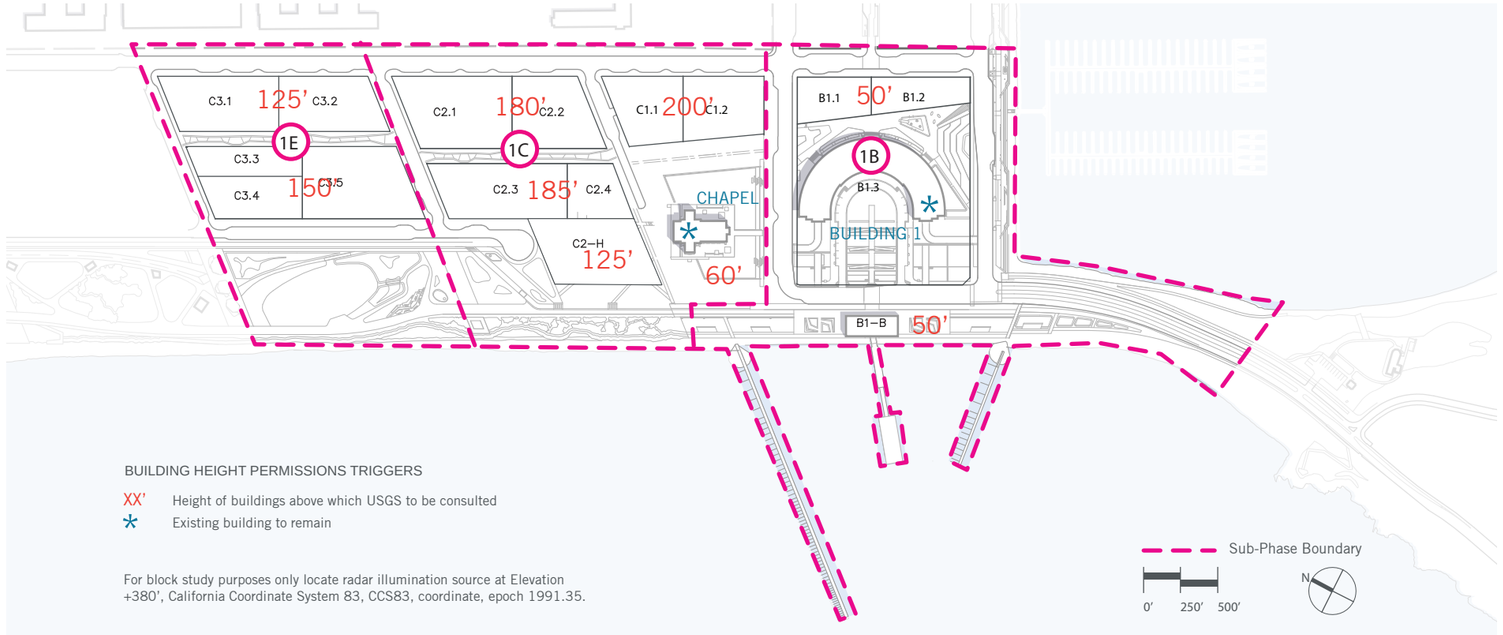


FIGURE 2.10 SUB-PHASE HEIGHTS REQUIRING CONSULTATION

BUILDING HEIGHT STANDARDS

The height of structures shall not exceed the applicable maximum height as indicated on the Maximum Height Plan (Figure 2.9). Height limits are to be measured from the average finish grade, along the full parcel perimeter, to the roof of the top occupied floor of each building.

Flex Height Zones have been established to allow for the flexibility in locating tall buildings within the overall built form of the island. The Flex Height Zones allow for a variety of building types to be built up to the indicated maximum height for their zone as long as they conform to the relevant applicable Bulk and Massing Standards, and Fig. 2.16, Bulk and Massing Controls Matrix.

Sloped roofs are to be measured to the midpoint of the vertical dimension of the roof.

Buildings that are located within an allowable development block as indicated on Figure 2.6 shall not exceed the applicable maximum height as indicated on Figure 2.9.

Those portions of a building that may project above the applicable maximum height are

- Parapets up to four feet (4') in height above the roof of the last habitable floor.
- For buildings less than 125 feet tall, mechanical enclosures and other rooftop support facilities that occupy less than 20% of the roof area up to 15 feet in height above the roof of the last habitable floor.
- For buildings taller than 125 feet, mechanical enclosures and other rooftop support facilities that occupy less than 50% of the roof area, up to 30 feet in height above the roof of the last habitable floor.
- For buildings taller than 125 feet, wall planes extensions that are either 50% physically and visibly permeable or translucent, up to 30 feet above the roof of the last habitable floor.

Components contributing to environmental sustainability, such as renewable power generation, may project above the applicable maximum height if they do not significantly alter the apparent height and mass of the building.

Buildings fronting on the Shared Public Way that fall within the 40' maximum height zone may exceed the indicated maximum height, up to a height of 50 feet from grade. Those portions of a building fronting on the Shared Public Way that do exceed the indicated 40 foot maximum height must conform to standard T4.3.9 in the Design for Development and are limited to no more than 60% of building roof area, in segments no greater than 40 feet parallel to the street frontage with a minimum separation of 10 feet (Figure 2.11). Railings, planters and visually permeable building elements no greater than 42 inches above the roof are exempt from stepback requirements.

Buildings or structures located within the allowable building

zone adjacent to and east of Building 1 shall not exceed a maximum height established as the finish floor of Building 1 as shown in Figure 2.12. Guardrails, handrails, trellises, canopies and awnings are allowed within this allowable building zone up to the height of the eastern façade marquee of Building 1 (Figure 2.12).

The 25' Open Space height limit is established for structures to be built in the open space areas of the island. Temporary structures to remain in place 6 months or less, structures with a plan area of 500 square feet or less, sculptural structures that have a positive contribution to the visual quality of the public realm, or structures that contribute to the island's sustainability goals are exempt from the indicated height limit.

VESSEL TRAFFIC SERVICE

Buildings whose height does not exceed the applicable maximum height on the Maximum Height Plan, subject to projections permitted under Maximum Height standards, but do exceed the applicable height on the Heights Requiring Consultation Plan (see Figure 2.10) inclusive of any projections, are permitted but require consultation with TIDA, Planning Department Staff or the Planning Commission, subject to the provisions of Planning Code Section 249.52 (g)(4)(E)(i), and the US Coast Guard to determine whether the building may interrupt direct contact between the U.S. Coast Guard's Vessel Traffic Service (VTS) and vessels in the Bay's shipping channels.

In the event that the consultation determines that the building would interrupt the VTS's direct contact, the applicant must alter the building so it does not do so, or make other arrangements to avoid doing so. Such arrangements include, but are not limited to: upgrading the VTS equipment, locating VTS equipment on the roof of the building, or relocating VTS equipment to a new location.

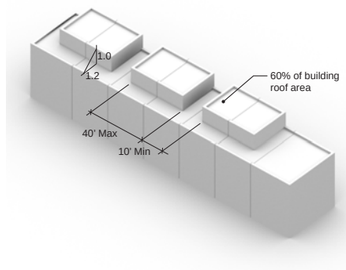


FIGURE 2.11 SHARED PUBLIC WAY STEPBACK EXAMPLE

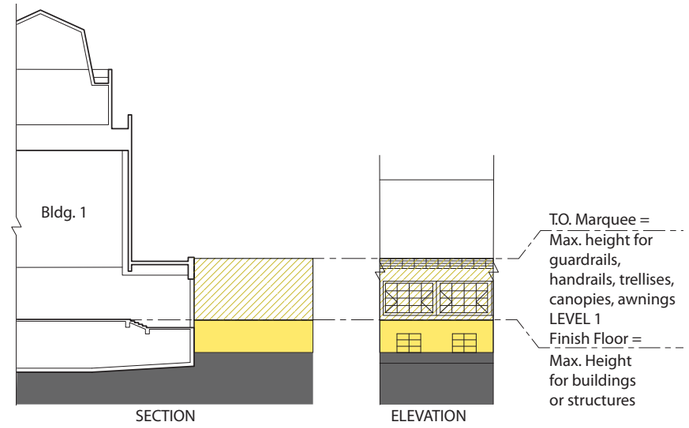
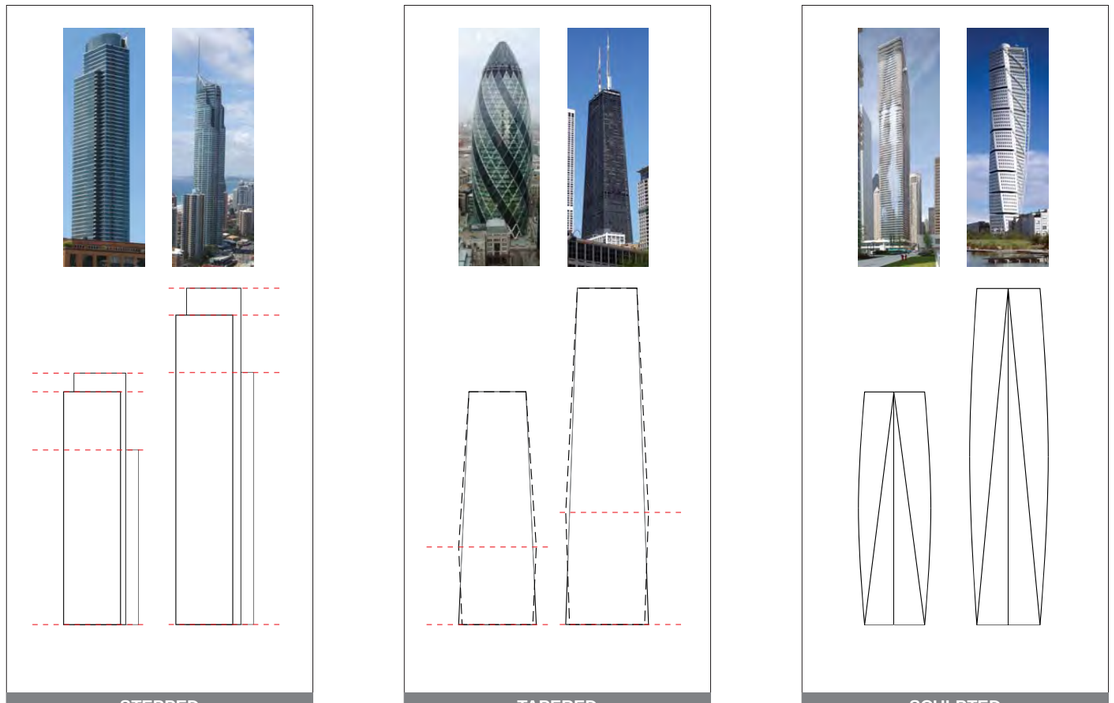


FIGURE 2.12 MAX. HEIGHT FOR ALLOWABLE BUILDING ZONE ADJACENT TO AND EAST OF BUILDING 1



STEPPED

Tall Towers that reduce their floor plan area at upper floors should utilize this stepping strategy to help accentuate their verticality and reduce the apparent mass of the towers as they reach the sky.

TAPERED

Tall Towers that result in tapered forms should produce a tower form that is visibly narrower towards the top of the tower than at the bottom.

SCULPTED

Tall Towers that produce a sculpted form should include one of the following:
- Individual floor plan profiles (not unit plans) that do not repeat consecutively
- A minimum floor plan rotation - .2° / floor
- A minimum floor plan offset - avg. 6" horizontal / floor

FIGURE 2.13 BULK REDUCTION STRATEGIES

BULK AND MASSING

Building bulk and massing have been established to support the creation of a neighborhood form that is comfortable for people, enhances views both to and from the island, and establishes a signature identity of a compact, visually engaging urban environment. The objective of bulk and massing controls is to create buildings that will be pedestrian scaled and visually well proportioned by defining: maximum floor plates, plan lengths, apparent faces and diagonals; building design elements that constitute a change in apparent face; and controls for sculpting the tallest buildings on Treasure Island. There are supplemental standards and guidelines for tall towers, which must respond to a unique set of issues due to their high degree of visibility from around the Bay Area. Tall towers are meant to be well proportioned, visually attractive, high quality design landmarks composed of simple geometries with tops that are visually engaging and accentuate smaller volumes as they rise towards the sky. As with all buildings on Treasure Island, tall towers are expected to engage the public and pedestrian realm by providing active bases and articulating facades with a high degree architectural detailing which promote a sense of vibrancy.

Figure 2.14 on this page is a conceptual representation of the building heights and massing described in the Design for Development. Actual building designs will be completed in subsequent submittals consistent with the Design Review and Document Approval Procedure.

Figure 2.9, on a previous page indicates the lot coverage and height zones for Treasure Island within Sub-Phases 1B, 1C and 1E.

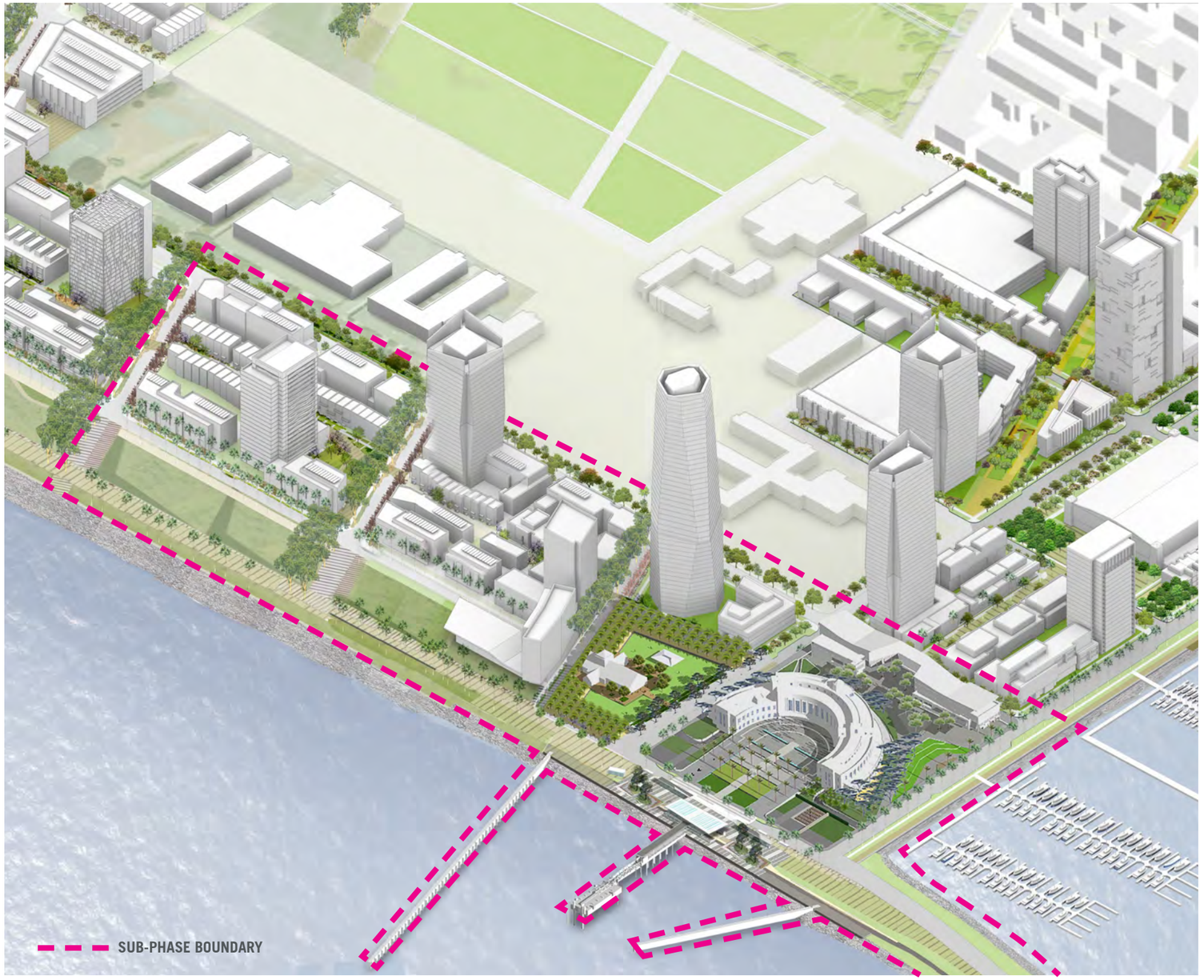


FIGURE 2.14 SUB-PHASE CONCEPTUAL BUILDING HEIGHT AND MASSING

BULK AND MASSING STANDARDS

All buildings, except as listed below, shall comply with the bulk and massing maximums for their height category indicated in Figure 2.16.

The maximum plan dimension as described in Figure 2.16 is defined as the maximum linear horizontal dimension of a building or structure, at a given level, between the outside surfaces of its exterior walls. The maximum plan dimension of a building or structure is the greatest plan dimension parallel to the long axis of the building (Figure 2.15).

To help reduce the overall bulk of building massing and produce buildings that are visually well proportioned the apparent face width for specific building types is limited as indicated in Fig. 2.15 and generally varies by building height.

Tall towers on Treasure Island are defined as those buildings that are taller than 300 feet.

Due to the potential need for additional service core area within towers taller than 300 feet, supplemental allowances may be permitted for increased maximum: floor plates, plan lengths, apparent face widths, and diagonal dimensions; provided the proposed buildings comply with all other Standards and Guidelines. Such modifications shall be considered Major Modifications as defined in the Treasure Island/Yerba Buena Island Special Use District, Planning Code Section 249.52.

In order to respond to their high degree of visibility from around the Bay Area, towers taller than 300 feet shall be well proportioned, producing slender forms as viewed from 360 degrees. To accentuate the vertical nature of tall towers, at least some portion of the tower shall be expressed for the entire height of the tower.

BULK AND MASSING GUIDELINES

All buildings taller than 85 feet should have a minimum of 25% of their perimeter extend directly to the ground.

Buildings taller than 85 feet should incorporate a minimum ten-foot (10') height difference between separately articulated volumes or wall planes.

Towers taller than 300 feet should utilize a minimum of one of the three tower form strategies indicated in Figure 2.25. The three tower form strategies encourage building designs that are slender, accentuate smaller volumes and result in distinctive forms that reinforce the notion of Treasure Island as a unique destination.

Towers taller than 300 feet should be visually attractive landmarks constructed of high quality materials and architectural detailing. Façade elements should be related to the pedestrian realm in scale and where feasible they should be integrated into the building's overall sustainability strategy and/or provide private outdoor space for residents.

Recognizing the visible nature of towers taller than 300 feet on Treasure Island, tower tops are intended to be visually engaging and accentuate smaller volumes as they rise towards the sky. A variety of strategies may be employed to achieve this objective including, but not limited to: stepped forms, wall plane extensions and sculpted tops.

The main tower on Treasure Island, located on development Block C1.2, is intended to read as a campanile, marking the island center. In order to achieve this desired skyline, towers located within the 315' Flex Zone height limit should not be taller than 70% of the height of the main tower on development Block C1.2.

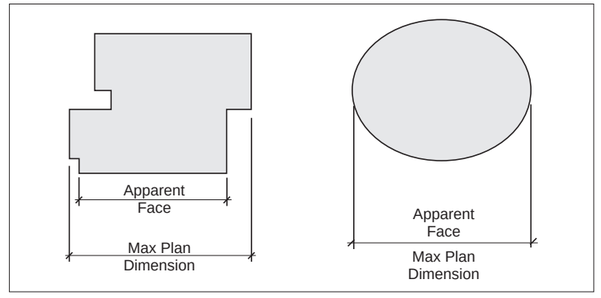
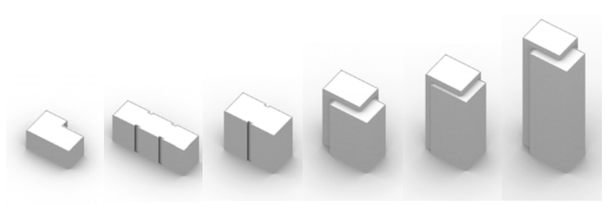


FIGURE 2.15 MAX. PLAN DIMENSION AND MAX. APPARENT FACE



BUILDING HEIGHT	Up to 60 ft	61-85 ft	86-125 ft	126-180 ft*	181-240 ft*	241-450 ft
MAX FLOOR PLATE	NA	NA	10,500 sf	12,000 sf	10,500 sf	12,000 sf
MAX PLAN LENGTH	NA	200 ft	140 ft	140 ft*	140 ft*	140 ft
MAX APPARENT FACE	120 ft Typical 25-30 ft Shared Public Way	75	100 ft	105 ft*	100 ft*	105 ft
MAX DIAGONAL	NA	NA	NA	170 ft	160 ft	170 ft
CHANGE IN APPARENT FACE	Two feet (2') deep X three foot (3') wide Notch, two foot (2') setback of building massing or major change in fenestration pattern and / or material.	Five feet (5') deep X ten foot (10') wide notch, five foot (5') setback of building massing in combination with a major change in fenestration pattern and / or material.		Ten feet (10') deep X ten foot (10') wide notch, ten foot (10') setback of building massing in combination with a major change in fenestration pattern and / or material.		

*Buildings within the Cityside District taller than 125 feet are limited to maximum plan dimensions of 120 feet and maximum apparent faces of 100 feet, parallel to the western shoreline

FIGURE 2.16 BULK AND MASSING CONTROLS MATRIX

STREETWALL

Streetwall requirements ensure buildings create clearly defined edges to the public realm. The individual character of streets and open spaces is influenced by the varying percentage of building massing that is built to the setback line. Thus, the streetwall requirements are a major component of the placemaking strategy for Treasure Island.

STREETWALL STANDARDS

Buildings must meet the minimum streetwall requirements shown in Figure 2.17. Streetwall requirements are a combination of horizontal percentages and minimum height as listed in Figure 2.17. Streetwall standards and calculations apply to each building, as opposed to being aggregated over the length of a block.

A building's streetwall percentage is calculated as the sum of those portions of the building built up to the setback line at the minimum streetwall height divided by the total property street frontage (Fig. 2.18).

Minor variations along the streetwall are allowed and count towards the overall streetwall requirements. Minor variations include covered pass-throughs and recessed building entries up to two (2) stories in height; recessed balconies; vertical recesses up to three feet (3') deep and four feet (4') wide; enclosed building area encroachments and projections; and building setbacks no further than two feet (2') from the setback line (Fig. 2.19).

Public open spaces, rights-of-way, and easements, as indicated on the Development Block and Easement Plan in the Design for Development are excluded from streetwall calculations.

Those portions of a building taller than 60 feet along the Cityside Avenue must step back a minimum of 20 feet from the setback line (Figure 2.21).

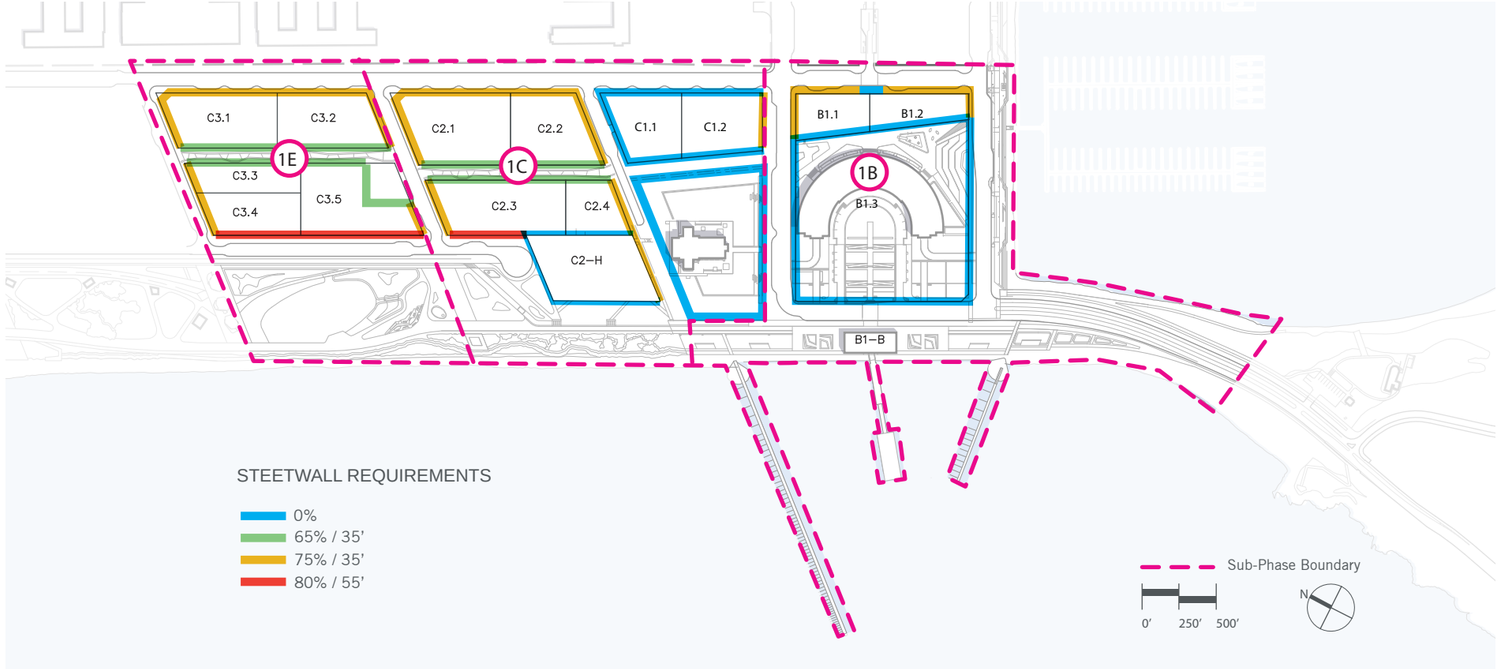


FIGURE 2.17 SUB-PHASE STREETWALL REQUIREMENTS

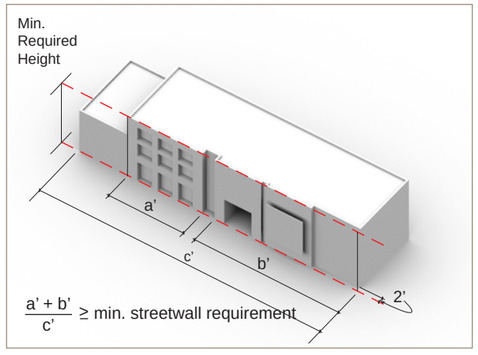


FIGURE 2.18 STREETWALL CALLCULATION EXAMPLE

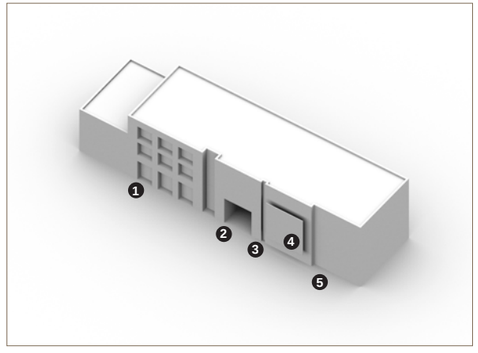


FIGURE 2.19 AN EXAMPLE OF MINOR VARIATIONS IN A STREETWALL

1. Recessed entries and balconies
2. Pass-throughs (up to 2 stories)
3. Vertical recesses (no greater than 3'x4' in plan)
4. Building projections
5. Minor setback (no further than two feet from the setback line)

Buildings taller than 60 feet fronting on Cityside Avenue are not obligated to meet indicated streetwall requirements for those portions of the building frontage that exceed 60 feet in height (Figure 2.22).

Buildings fronting on Cityside Avenue that fall within the 240 feet flex zone and which are part of a development project with a building taller than 60 feet, may have less than the indicated 55 feet streetwall height requirement, but must have a streetwall height of no less than 35 feet above grade in order to count towards the 80% streetwall requirement for Cityside Avenue (Figure 2.22).

To encourage a meandering spatial character along the Shared Public Way, buildings may have a setback up to a maximum average of three feet (3') average from the property line along the street frontage and still count towards the overall streetwall requirement (Figure 2.17). Building setbacks greater than three feet (3') up to six feet (6') maximum and which are parallel to the property line are limited to a maximum of 100 linear feet or 50% of street frontage measured continuously along the street frontage, whichever is smaller (Figure 2.23).

Buildings fronting on the Shared Public Way that exceed the 40-foot maximum height limit must step-back at a ratio of 1.2 feet in a horizontal dimension, from the building face along the Shared Public Way, for every one foot (1') above the 40 foot maximum height limit (Figure 2.24).

Easements must have a minimum streetwall of 20%, all of which must be located at intersections with public rights-ofway except easements through Blocks B2-A and B3-A. See Figure 2.25.

Buildings taller than 60 feet along Cityside Avenue are encouraged to incorporate a connected low-rise massing that corresponds to the 55 foot minimum streetwall height indicated on the Streetwall Plan (Figure 2.14), in order to help reduce uncomfortable wind conditions at the pedestrian level. This is demonstrated in Figure 2.22

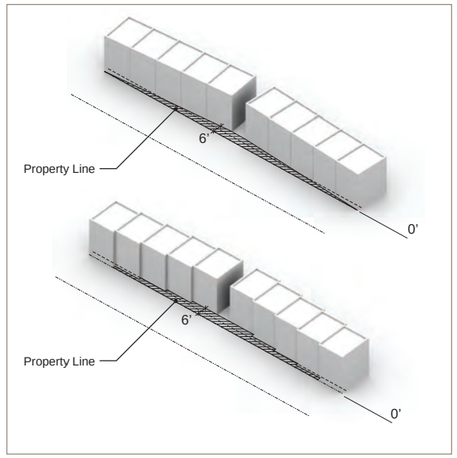


FIGURE 2.20 SHARED PUBLIC WAY STREETWALL EXAMPLE - 3FT AVERAGE MAXIMUM

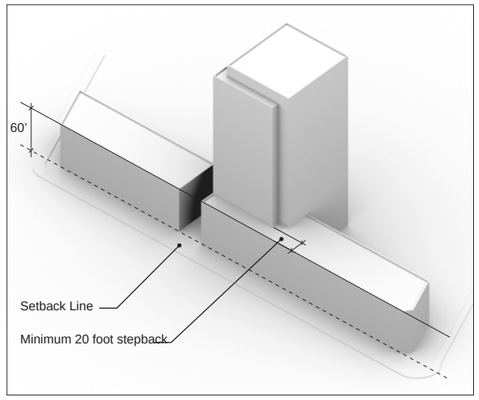


FIGURE 2.21 CITYSIDE TOWER STEPBACK

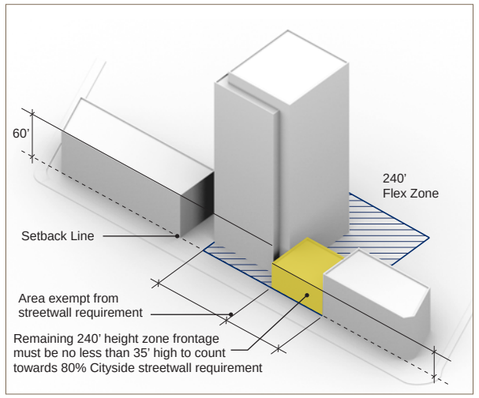


FIGURE 2.22 CITYSIDE TOWER PARCEL STREETWALL EXAMPLE

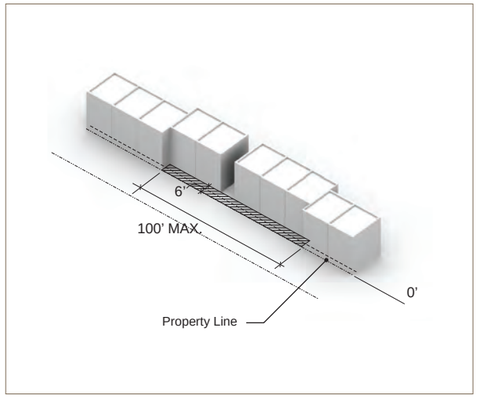


FIGURE 2.23 SHARED PUBLIC WAY STREETWALL EXAMPLE

*Building setbacks greater than 3 FT and parallel to the property line are limited to a maximum of 100 linear feet or 50% of street frontage measured continuously.

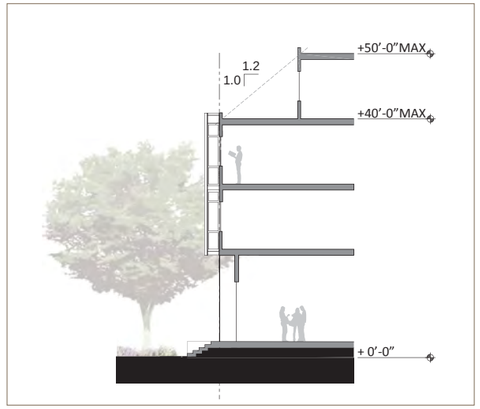


FIGURE 2.24 SHARED PUBLIC WAY STEPBACK ABOVE 40 FT

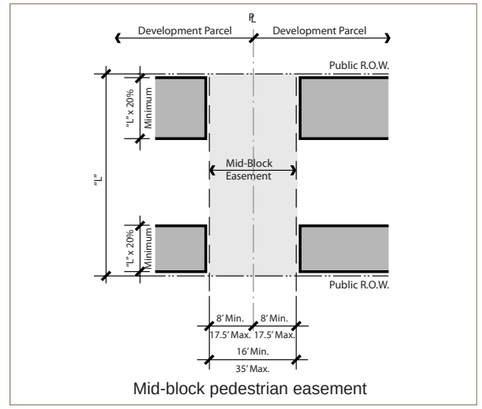


FIGURE 2.25 AN EXAMPLE OF STREETWALL ALONG EASEMENTS

SETBACKS AND ENVIRONMENT

Setbacks are intended to provide a comfortable buffer between the street and the interior of ground floor residences and to ensure that commercial streets are comfortably contained. Residential setbacks are intended to include stairs, stoops, private gardens and patios that will foster use and thus social interaction among neighbors.

SETBACK STANDARDS

The development of every parcel shall adhere to the required setbacks shown on the Setback Plan (Figure 2.26). Indicated setbacks are minimums. Additional setbacks may be used, provided they comply with streetwall requirements (Figure 2.17).

The extent of the front setback of each building or structure shall be taken as the horizontal distance, measured perpendicularly, from the property line.

The location and size of the neighborhood park on Block C3.5, as shown in Figure 2.26, are approximate. The setbacks shall be measured from the edge of the park perimeter as finally determined.

Provide a minimum setback of eight feet (8') from the property line of a parcel where such property line shall serve as the center line of a required (or otherwise provided) Mid-block Easement or other easement.

SUNLIGHT

No shadow studies are required for buildings conforming to the standards outlined in this document. Individual projects should seek to minimize shadowing of internal courtyards.

WIND

All projects must comply with Mitigation Measure M-WS-4. (Please see Appendix A which restates the mitigation measure from the Final Environmental Impact Report for the Treasure Island / Yerba Buena Island Redevelopment Project.)

Buildings greater than 100 feet in height should incorporate additional design measures, where practicable, to further reduce wind speeds in pedestrian and public areas, while balancing other design objectives as stated in this document.

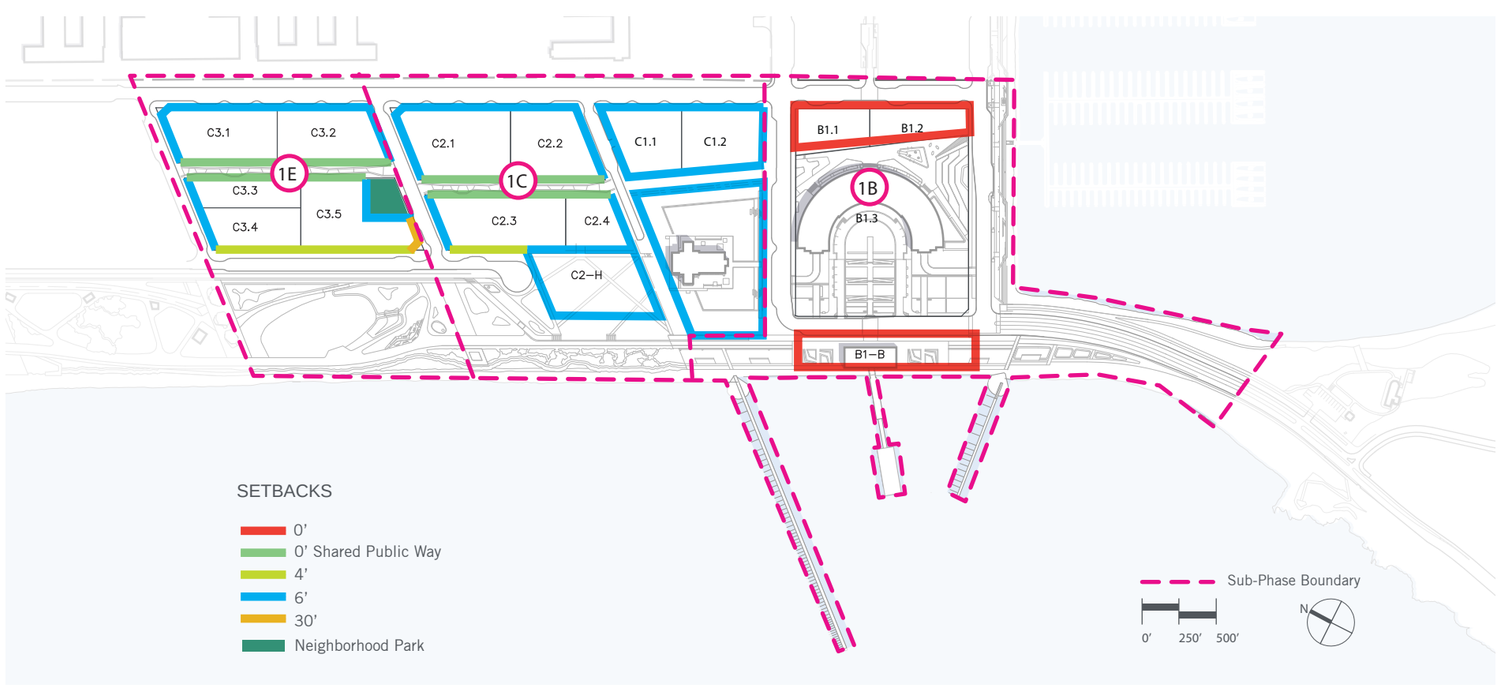


FIGURE 2.26 SUB-PHASE STREETWALL REQUIREMENTS

2.7 LEED-ND CREDIT CHECKLIST

LEED-ND CHECKLIST ESTIMATE

Included below is an initial estimate of which LEED-ND (LEED for Neighborhood Development) credits the Treasure Island and Yerba Buena Island development project is likely to pursue. The checklist of credits will continue to be refined and developed with submittal for LEED-ND Plan certification expected in the 4th Quarter of 2015. No points are final until reviewed and certified by USGBC.

The preliminary LEED-ND checklist identifies 70 "Yes" credits and 15 "Maybe" credits. "Yes" credits have a high likelihood of being achieved, and TICD currently intends to pursue them for certification. "Maybe" credits may be possible to pursue, but are being explored further to determine feasibility. Credits marked as "No" are infeasible. This preliminary LEED-ND checklist is consistent with Land Use Obligation #1 in the project's Developer Environmental Sustainability Obligations, which calls for the project to achieve LEED-ND Gold, while "making a good faith effort to achieve the higher Platinum certification." LEED-ND Gold is a minimum of 60 points, while LEED-ND Platinum is a minimum of 80 points.

Treasure Island and Yerba Buena Island will be certified under LEED-ND version 4, U.S. Green Building Council's (USGBC) most current rating system version that was just publicly released in November 2014. The Sustainability Obligations reference the July 2010 version of the LEED-ND rating system, but version 4 is widely considered more stringent and complete, and was recommended as the preferred version to use by USGBC.

TI/YBI CREDIT CHECKLIST
LEED® FOR NEIGHBORHOOD DEVELOPMENT

● YES: 70
● MAYBE: 15
○ NO: 25

SMART LOCATION & LINKAGE — 22 / 28 POINTS

PREREQ 1	Smart Location	✓
PREREQ 2	Imperiled Species and Ecological Communities	✓
PREREQ 3	Wetland and Water Body Conservation	✓
PREREQ 4	Agricultural Land Conservation	✓
PREREQ 5	Floodplain Avoidance	✓
CREDIT 1	Preferred Locations	●●●●●●●●●●
CREDIT 2	Brownfield Redevelopment	●●
CREDIT 3	Locations w/ Reduced Automobile Dependence	●●●●●●●
CREDIT 4	Bicycle Storage	●●
CREDIT 5	Housing and Jobs Proximity	○○○
CREDIT 6	Steep Slope Protection	●
CREDIT 7	Site Design for Habitat / Wetland & Water Body Conservation	●
CREDIT 8	Restoration of Habitat/Wetlands and Water Bodies	●
CREDIT 9	Long-Term Cnsrvtn. Mgmt. of Habitat/Wetlands & Water Bodies	●

NEIGHBORHOOD PATTERN & DESIGN — 31 / 41 POINTS

PREREQ 1	Walkable Streets	✓
PREREQ 2	Compact Development	✓
PREREQ 3	Connected and Open Community	✓
CREDIT 1	Walkable Streets	○○○●●●●●●●
CREDIT 2	Compact Development	○○●●●●●
CREDIT 3	Mixed-Use Neighborhood Centers	●●●●
CREDIT 4	Housing Types and Affordability	●●●●●●●●
CREDIT 5	Reduced Parking Footprint	●
CREDIT 6	Street Network	●●
CREDIT 7	Transit Facilities	●
CREDIT 8	Transportation Demand Management	●●
CREDIT 9	Access to Civic and Public Spaces	●
CREDIT 10	Access to Recreation Facilities	●
CREDIT 11	Visitability and Universal Design	○
CREDIT 12	Community Outreach and Involvement	●●
CREDIT 13	Local Food Production	●
CREDIT 14	Tree-Lined and Shaded Streets	●●
CREDIT 15	Neighborhood Schools	●

GREEN INFRASTRUCTURE & BUILDINGS — 11/31 POINTS

PREREQ 1	Certified Green Building	✓
PREREQ 2	Minimum Building Energy Efficiency	✓
PREREQ 3	Minimum Building Water Efficiency	✓
PREREQ 4	Construction Activity Pollution Prevention	✓
CREDIT 1	Certified Green Buildings	○○○●●
CREDIT 2	Building Energy Efficiency	○●
CREDIT 3	Building Water Efficiency	●
CREDIT 4	Water-Efficient Landscaping	○●
CREDIT 5	Existing Building Use	●
CREDIT 6	Historic Resource Preservation and Adaptive Reuse	●●
CREDIT 7	Minimized Site Disturbance in Design and Construction	●
CREDIT 8	Stormwater Management	○○●●
CREDIT 9	Heat Island Reduction	●
CREDIT 10	Solar Orientation	○
CREDIT 11	On-Site Renewable Energy Sources	○○●
CREDIT 12	District Heating and Cooling	○○
CREDIT 13	Infrastructure Energy Efficiency	●
CREDIT 14	Wastewater Management	○●
CREDIT 15	Recycled Content in Infrastructure	●
CREDIT 16	Solid Waste Management Infrastructure	●
CREDIT 17	Light Pollution Reduction	●

INNOVATION & DESIGN PROCESS — 2 / 6 POINTS

CREDIT 1	Innovation and Exemplary Performance	○○●●●
CREDIT 2	LEED Accredited Professional	●

REGIONAL PRIORITY CREDIT — 4 / 4 POINTS

CREDIT 1	Regional Priority	●●●●

40–49 POINTS: CERTIFIED | 50–59 POINTS: SILVER | **60–79 POINTS: GOLD** | 80+ POINTS: PLATINUM

FIGURE 2.27 LEED-ND CREDIT CHECKLIST


PILOT

3. TRANSPORTATION AND STREETSCAPES

CONSISTENCY WITH ENTITLEMENT DOCUMENTS

The transportation systems and streetscapes included as part of this Sub-Phase Application 1 are consistent with previous entitlement documents, the Treasure Island/Yerba Buena Island Streetscape Master Plan and the Major Phase 1 Application, which were approved by TIDA in February 2015 and May 2015, respectively.

Refinements to the street designs in the preceding documents have been reviewed with City Departments and are included within the Sub-Phase Application. Those improvements include the following:

1. Palm Drive and California Avenue Intersection: Addition of a diagonal street pedestrian and bike crossing.
2. Palm Drive and Clipper Cove Avenue Intersection: Further detail is provided for street crossings including bike boxes and separate crossings for bikes and pedestrians.
3. Avenue C Island Shuttle Stops: In the Sub-Phase booklet, proposed refinements to the Shuttle Stops on Avenue C include creating a shuttle loading island which allows a bypass for cyclists on the sidewalk side of the street. This island is combined with a Universally Accessible Loading Zone - a desired improvement from the “Modified Loading Zone” proposed in the Streetscape Master Plan.
4. Shuttle stop locations have been adjusted along Avenue C per City Interagency Streets Working Group direction
5. Avenue C Intersection Traffic Calming: The intersections on Avenue C are proposed to be raised three inches from the road grade to facilitate slower traffic speeds and safer intersections.
6. Clipper Cove Streetscape: To accommodate loading needs for the marina, along with providing separate bicycle and pedestrian circulation facilities along the promenade, curb alignment adjustments to the ROW have been made to facilitate all demands.
7. Clipper Cove Stormwater Management: To comply with the City stormwater management requirements, stormwater biofiltration planters have been added in the Clipper Cove ROW.

3.1 STREETS OVERVIEW

FUNCTION AND CHARACTER

Streets serve the important function of connecting places and people. Within the developed districts of Treasure Island, they are the primary place for circulation of all types, and as such they are designed to provide safe, efficient, and enjoyable routes for pedestrians, cyclists, and public transportation, while efficiently directing private vehicles to parking destinations. Streets also are corridors for utility infrastructure, emergency vehicle access, and wildlife.

Just as important is the street's role in the daily life of people living on Treasure Island and Yerba Buena Island, and the visitor's experience. It is an address, a setting outside the window, where the dog is walked, where a neighborly conversation takes place. Streets are the primary place for vibrant urban life of the Island Core, and routes out to the island's expansive destination parks.

Treasure Island and Yerba Buena Island streets are designed with equal attention to their function and their character, to comprise a pragmatic and efficient, diverse and delightful street network.

NEW ON-SITE STREETS

Although several of the streets on Treasure Island will fall into a footprint of an existing street, all streets will be reconfigured and re-built. The design of the streets will comply with DPW and PUC standards, including curb and gutter, street grade, and utility placement.

STREET AND BLOCK PATTERN

Treasure Island's unconventional street grid is designed to increase access to sunlight and views while minimizing the effects of wind on neighborhood public spaces. A conventional orthogonal street grid would have resulted in cross streets opening directly to prevailing westerly winds that flow through the Golden Gate and blow unimpeded across the Bay.

As a result, Treasure Island's street pattern features a unique non-orthogonal grid that maximizes solar access to streets and open spaces while protecting them from the prevailing west winds. The angled streets across the island align with views to the San Francisco skyline. In the Island Core, where several historic buildings are retained and preserved, the existing right-angle street grid is retained. The two grids intersect along the existing California Avenue.

3.2 TRANSPORTATION NETWORKS

PEDESTRIAN NETWORK

The Islands' various blocks, neighborhoods, parks, and other public spaces are connected by a diverse network of pedestrian routes. Its heart consists of primary routes leading from Treasure Island Core and the Intermodal Transit Hub out to the neighborhoods and parks beyond. Primary routes include Eastside Commons and the Shared Public Way, which is a pedestrian-oriented City street. Secondary routes along the islands' neighborhood streets and through parks and development blocks enable pedestrians to explore and link to regional open spaces on both islands.

BICYCLE NETWORK

As bicycles are a key transportation option on the islands, routes are designed to invite riders of all ages and capabilities for trips that range from a daily commute, to a school trip, to convenient shopping and casual recreation.

A system of separated Class 1 cycle tracks, Class 2 bike lanes, and shared bike routes fully covers both islands. Bicycle pathways connect through neighborhoods and open spaces, with range of options and experiences for cyclists of all types.

A Class 1 bikeway encircles the island, providing dedicated bicycle access and a full touring route to all shoreline parks and open spaces. As an improvement to the Design for Development plan, the Streetscape Master Plan illustrates that previous shared routes between cyclists and pedestrians have now been separated on the Clipper Cove Promenade, the Cityside Waterfront Park, Treasure Island Road Causeway, and Macalla Road. The Class 1 bikeway continues on Yerba Buena Island across the causeway and up Macalla Road where it connects with the new mixed-use path on the east span of the Bay Bridge. Treasure Island and Yerba Buena Island are linked by dedicated bike lanes, which continue onto the Bay Bridge access to the East Bay. Class 2 routes are present on many of the island's streets, with shared Class 3 "Sharrow" bicycle and vehicular lanes on low-speed neighborhood streets.

VEHICULAR NETWORK

A sustainable transportation system on Treasure Island and Yerba Buena Island promotes pedestrian and bicycle mobility and provides strong public transit connections, therefore de-emphasizing private automobile use. All island streets accommodate vehicles, but within design parameters that emphasize use by pedestrians and cyclists, regardless of the amount of traffic they must carry. Primary avenues, California Avenue and Avenue C, serve as arrival and primary circulation routes, connect local streets. Lots and garages are planned throughout the network to encourage visitors arriving by car to park once and circulate the islands on foot, bicycle, and shuttles.

TRANSIT NETWORK

The use of public transportation by significant numbers of visitors, residents, and workers on the islands is essential to meeting sustainability commitments, providing economic opportunity, and achieving high quality of life. The objective is to provide an efficient, attractive hub for transit in the Island Core District, located at the point of arrival from the Bay Bridge and at the junction of the two islands. An "Intermodal Transit Hub" will connect all regional, off-island transportation services such as buses and ferries with on-island services including shuttles, bicycles and attractive pedestrian routes. The intermodal facility is planned to include a ferry terminal facing the historic Building 1 on the shore of Treasure Island. The transbay buses have stops and layover spaces on Island Center streets.

3.2.1 PEDESTRIAN NETWORK

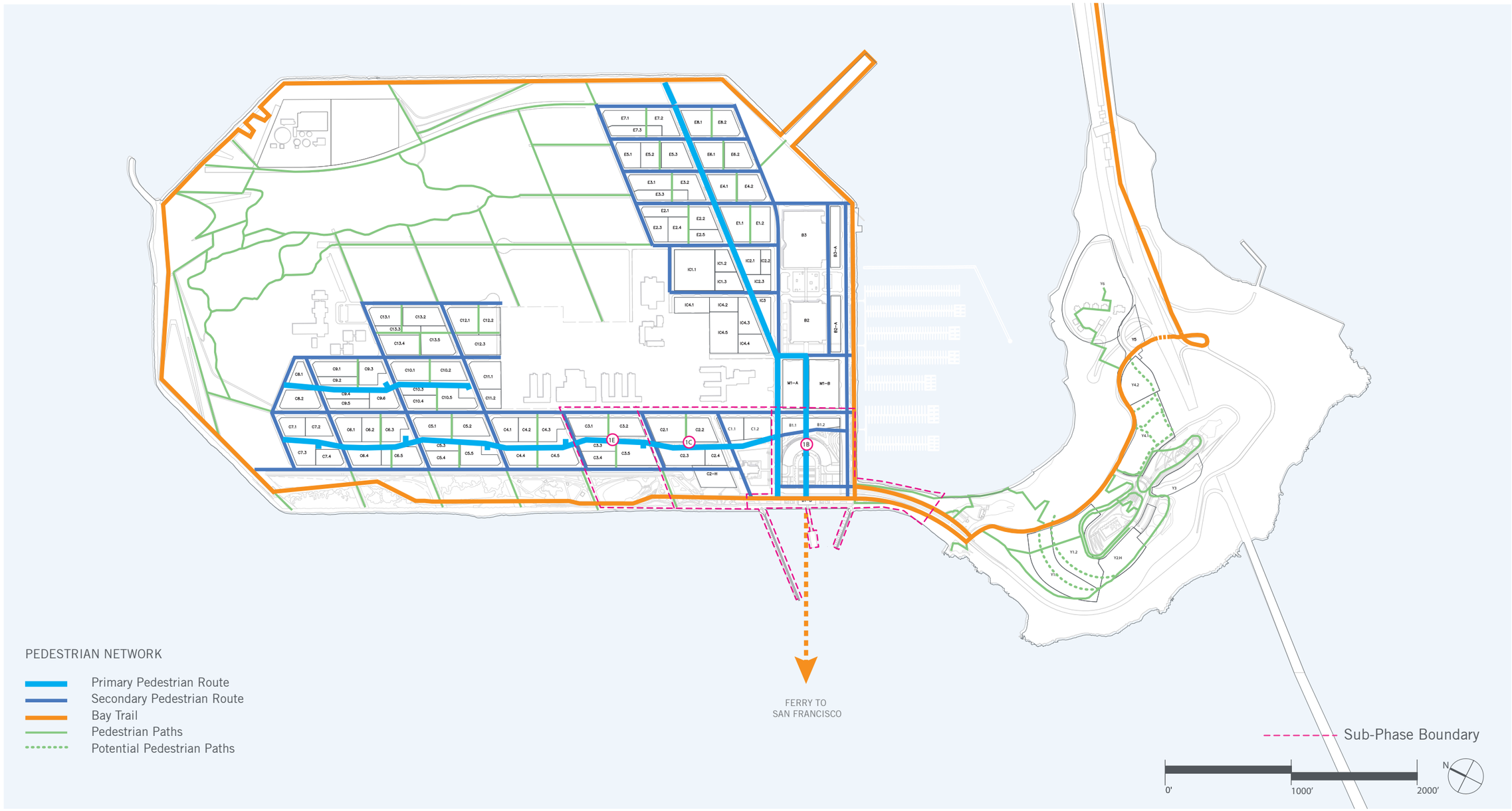


FIGURE 3.1 PEDESTRIAN NETWORK SITE PLAN

3.2.2 BICYCLE NETWORK

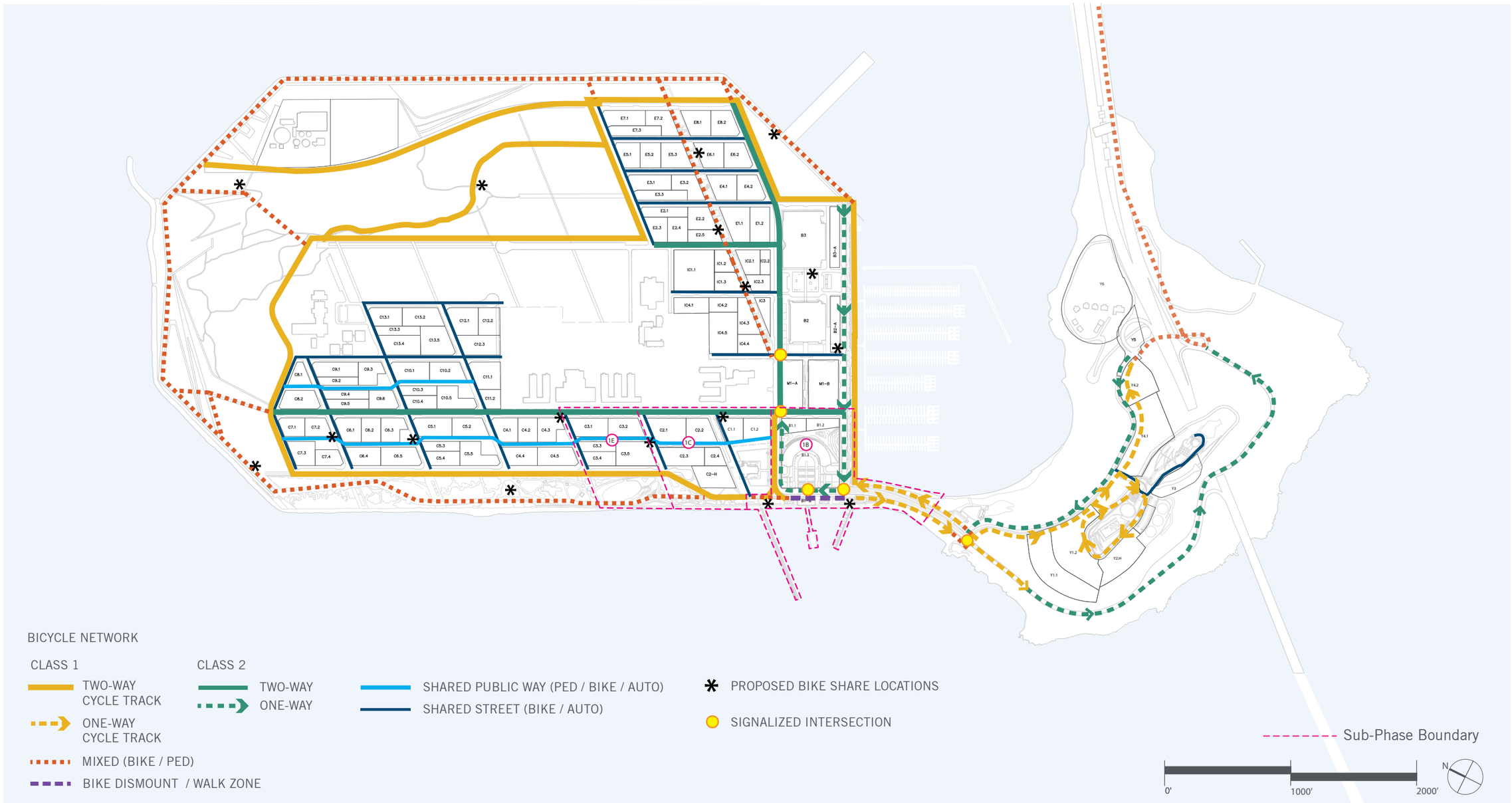


FIGURE 3.2 BICYCLE NETWORK SITE PLAN

3.2.3 VEHICULAR NETWORK

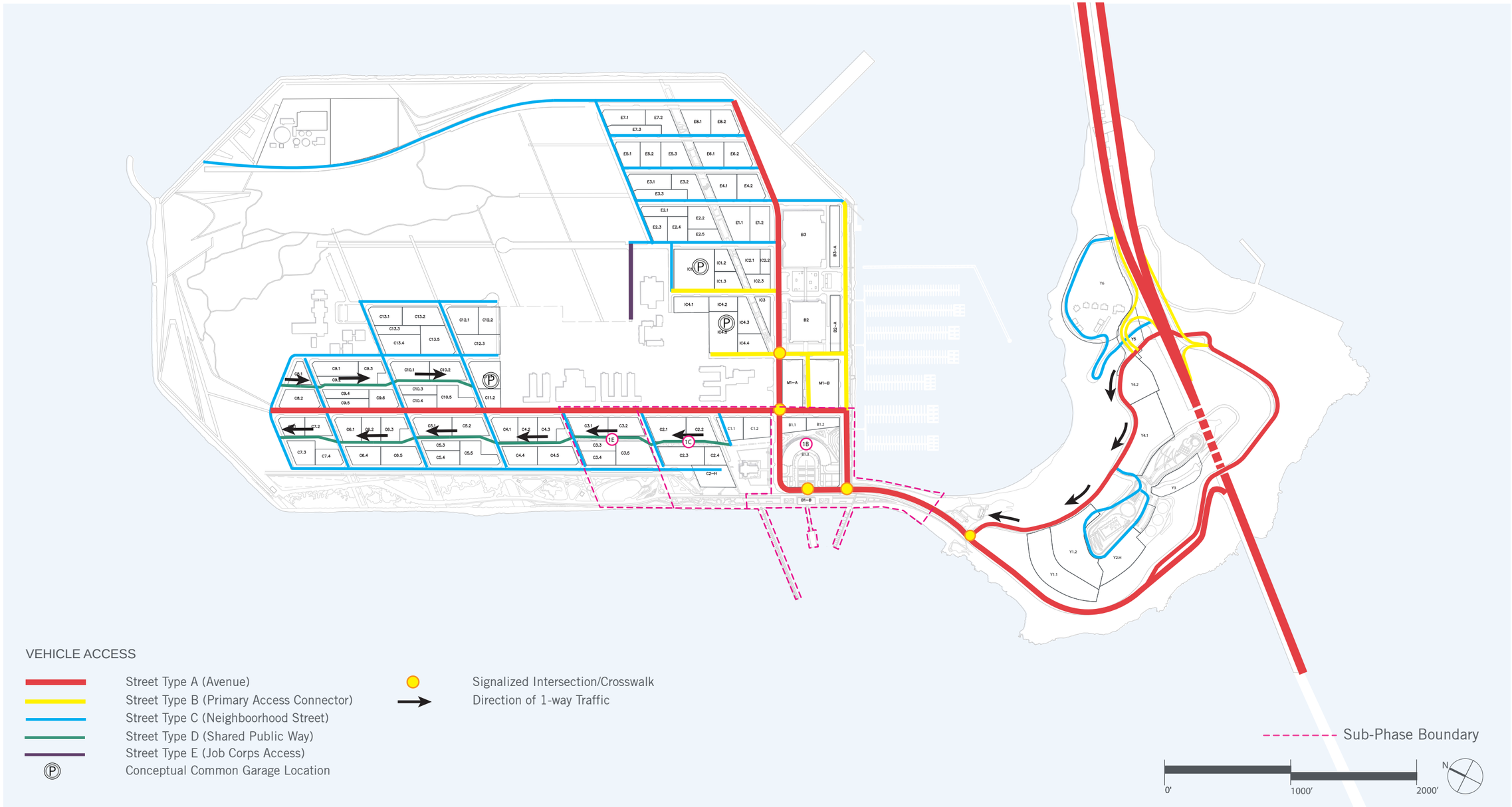


FIGURE 3.3 VEHICULAR NETWORK SITE PLAN

3.2.4 TRANSIT NETWORK

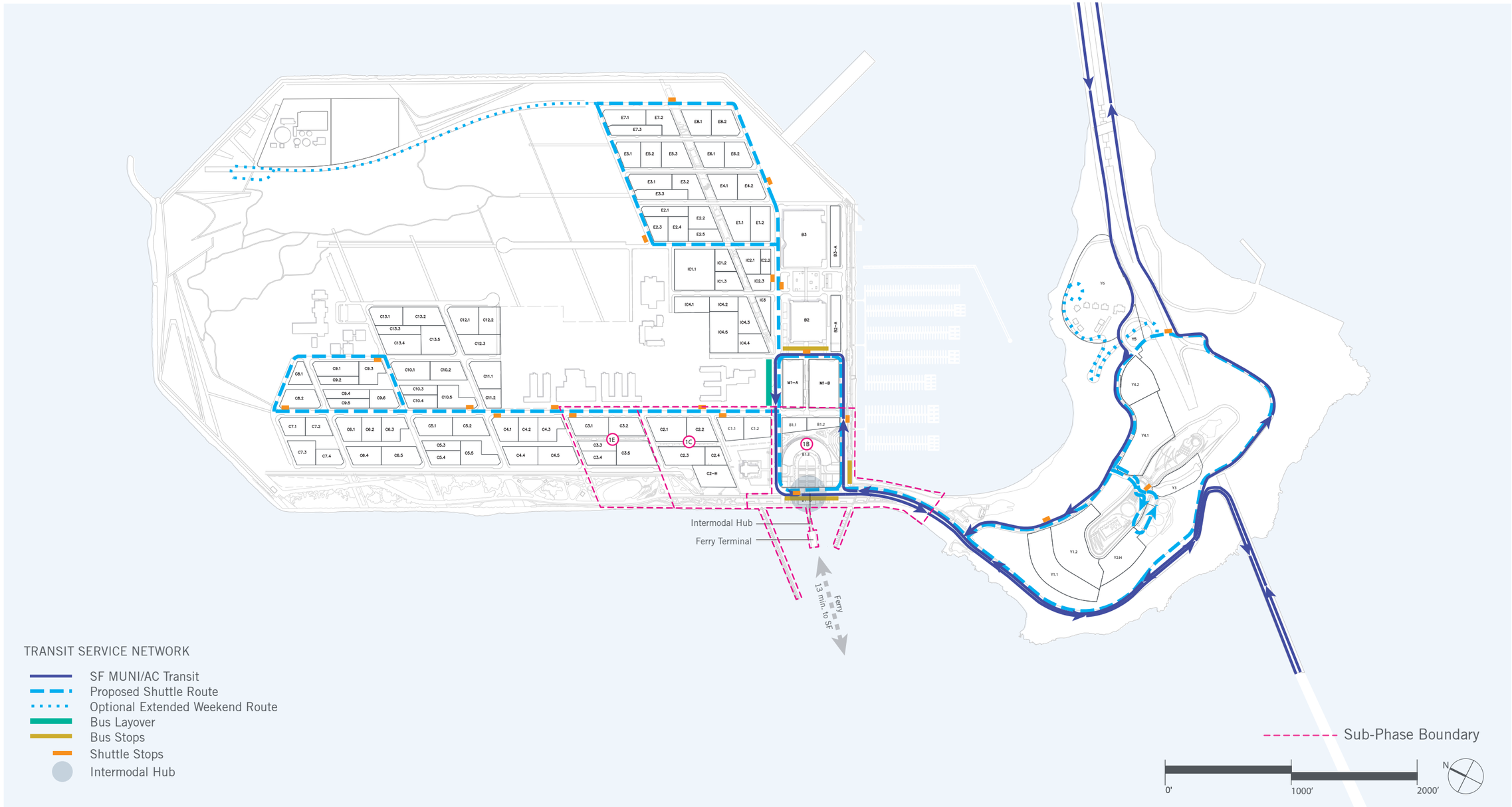


FIGURE 3.4 TRANSIT NETWORK SITE PLAN

3.2.5 TRUST STREETS

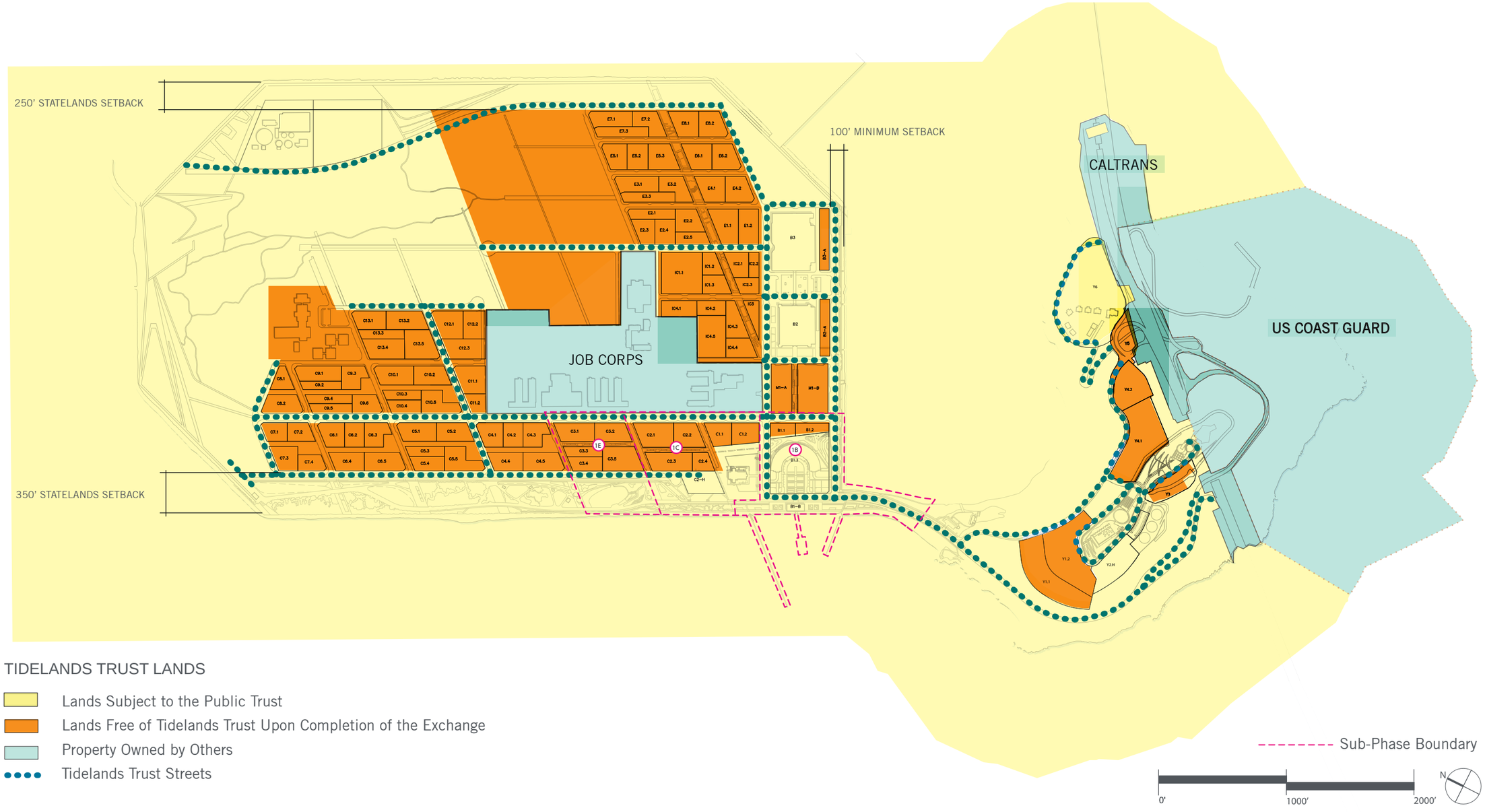


FIGURE 3.5 TIDELANDS TRUST SITE PLAN

3.3 STREET DESIGN

The area within the Sub-Phase Application boundary includes a wide range of Treasure Island streetscape types: Main Collectors such as Avenue C and California; Windrow Streets including 4th-6th Streets; Waterfront Streets on Clipper Cove and Cityside Avenue, and the unique streetscapes of Palm Drive and the Shared Public Way. While further detail is provided on the materiality, planting, and furnishings of these streetscapes in Appendix F: 50% CD Street Improvement Plans, several key goals remain paramount to the creation of these public spaces:

1. Generous, pedestrian focused through-ways
2. Comfortable, accessible routes of travel that encourage walking for all users
3. Quality materials and plant selections that endure the test of time
4. Safely designed intersections between different user groups such as pedestrian and bicyclists
5. Code compliant designs within the Rights of Way to meet the requirements of various City Departments

To highlight the additional detail provided in the Sub-Phase Application at the critical project intersections, the following plans and narratives are included to further explain the circulation and design intent. The designs shown in this section may not be consistent with the Improvement Plans in Appendix F. The following Plans reflect the design intent and will be incorporated into subsequent submittals of the Improvement Plans.

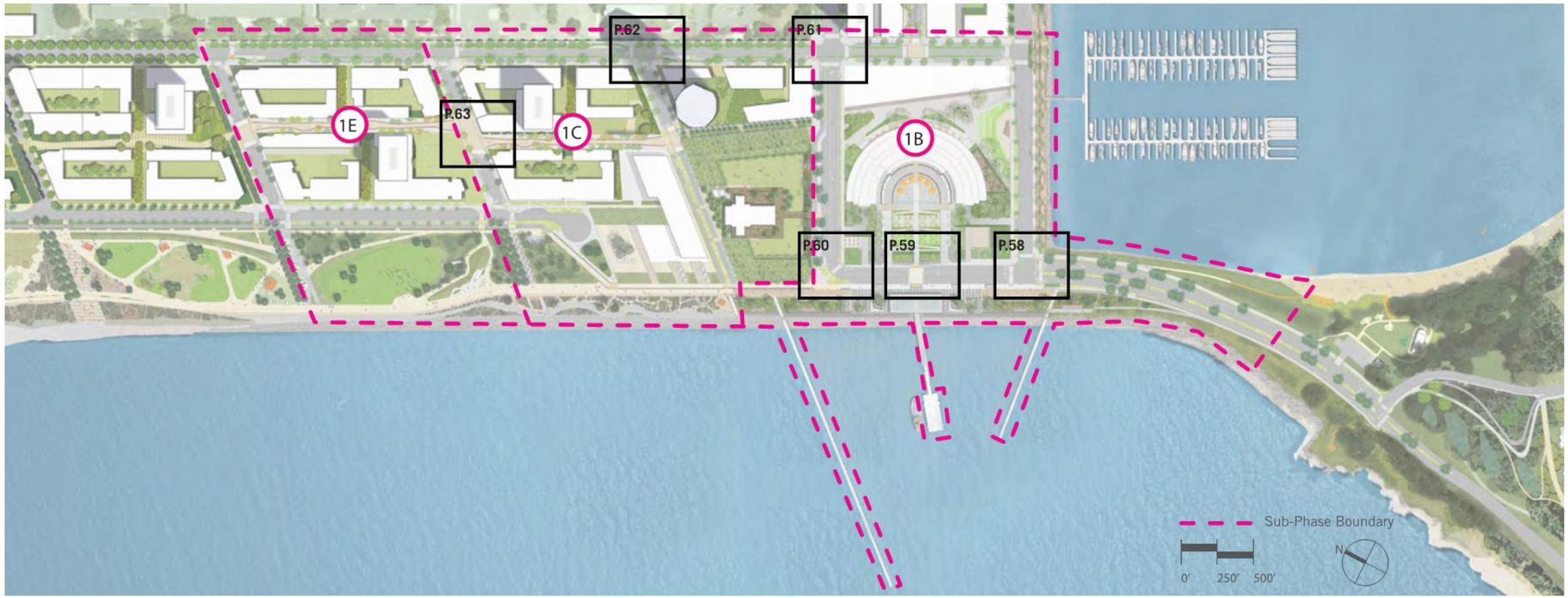


FIGURE 3.6 SUB-PHASE ILLUSTRATIVE PLAN

TREASURE ISLAND CAUSEWAY, PALM DRIVE AND CLIPPER COVE AVENUE INTERSECTION

It is important that this intersection is highly functional and comfortable for bicyclists and pedestrians. It is the intersection of the waterfront promenade; Treasure Island Rd., which provides Bay Bridge Path access; the Clipper Cove two-way cycle track and pedestrian path (along Clipper Cover Promenade); and the Palm Drive northbound Class II bicycle lanes. Due to the many desire lines of bicyclists and pedestrians through this intersection, several crossing treatments are proposed. First, a dedicated bicycle and pedestrian phase would allow east-west bike traffic and all pedestrian legs to cross. The northbound right-turns from Palm Drive and the westbound left-turns and pedestrians from Clipper Cove Avenue would have an overlap phase.

Because of the Clipper Cove Promenade two-way bike path and pedestrian path, the south crosswalk is marked as a trail crossing, with space for bicyclists and pedestrian denoted through paving markings and oversized curb ramps. The landscape buffer on the south side of the cycle track becomes a narrow pedestrian refuge at the crosswalk.

To accommodate westbound Clipper Cove Avenue bike traffic riding in the roadway, a bike box is proposed on the westbound approach. This should be implemented with a no right-turn on red restriction for autos. The bike box allows bicyclists making the westbound left to position themselves in front of autos before turning onto the Treasure Island Road Causeway. A two-stage turn box is also placed in front of the westbound Clipper Cove Avenue approach to allow bikes to make a northbound left from Palm Drive onto the Promenade in two stages. A bike ramp is located on the west side of the intersection to allow them to ramp up onto the promenade.

Directional curb ramps should be provided on all corners, and crosswalks should be placed as close to the intersection as possible to narrow the intersection.

FIGURE 3.7 TREASURE ISLAND CAUSEWAY, PALM DRIVE AND CLIPPER COVE AVE. INTERSECTION

PALM DRIVE CROSSING

Palm Drive is the point of arrival for all residents and visitors to Treasure Island. A large 30' wide mid-block crossing connects the Ferry Terminal and Waterfront Plaza directly to Building One Plaza, and the Commercial Island Core, beyond. Being positioned between the bus and shuttle stop locations, special attention is given to the surface treatment announcing the crossing to bus and automobile traffic at this busy intersection. Wide ramps from the road grade to sidewalk allow for ease of those with disabilities, bikes, and large moving groups of people. Signalization will be provided at this crossing as needed to ensure pedestrian and bicycle safety.

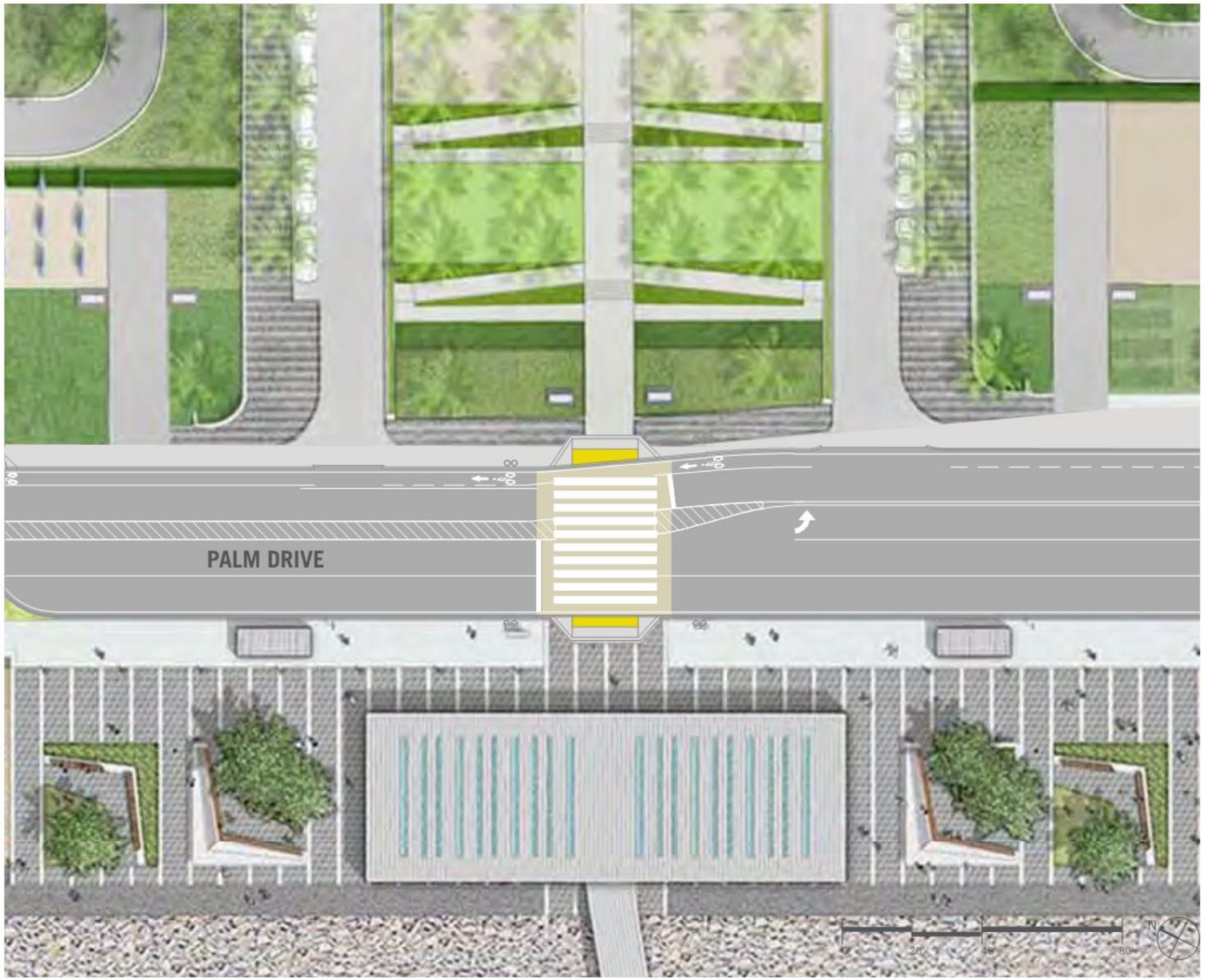


FIGURE 3.8 PALM DRIVE CROSSING

CALIFORNIA AVENUE AND PALM DRIVE INTERSECTION

A crosswalk is proposed at the intersection of California Avenue and Palm Drive. This is a key desire line between pedestrians and bicyclists traveling from the Treasure Island development to the water and promenade. The median would be striped through the curve to accommodate emergency vehicle access. The northbound/eastbound bicycle lane would be buffered through the curve to give bicyclists additional space through this constrained corner.

Bicyclists are intended to use the crossing in one of two ways. First, bicyclists can merge out of the bike lane and take the lane, turning left into the path area as a vehicle would. For bicyclists less comfortable merging into traffic, a bicycle ramp is provided to allow bicyclists to ramp up to the sidewalk and make a two-stage crossing in this location.

In the Sub-Phase, rectangular rapid flashing beacons (RRFBs) would be installed to provide additional visibility to the crossing. This treatment is paired with advanced yield markings and "Yield Here to Pedestrians" signs. In future phases, traffic operations and bicycle and pedestrian volumes should be monitored to determine if signalization is necessary.

FIGURE 3.9 CALIFORNIA AVE AND PALM DRIVE INTERSECTION

CALIFORNIA AVENUE AND AVENUE C INTERSECTION

Avenue C and California Avenue is an important intersection where various types of bike lanes converge. Avenue C Class II bike lanes transition to a two-way Class I cycle track on the west of California Avenue. Meanwhile, Avenue C Class II bike lanes traveling eastbound merge into a Class II Bicycle lane on California Avenue. The cycle track on California Avenue should ramp down in advance of the intersection such that it intersects the crosswalk at roadway-grade. The landscape buffer on the south side of the cycle track becomes a narrow pedestrian refuge at the crosswalk.

As the future phases occur, it is a project goal for the California Avenue cycle track to extend across the Avenue C intersection along the south side of the Job Corps campus. At that point in time, the signal should be modified to allow for a dedicated bicycle phase to facilitate bicyclists turning onto and off the cycle track.

Directional curb ramps should be provided on all corners, and crosswalks should be placed as close to the intersection as possible to narrow the intersection.

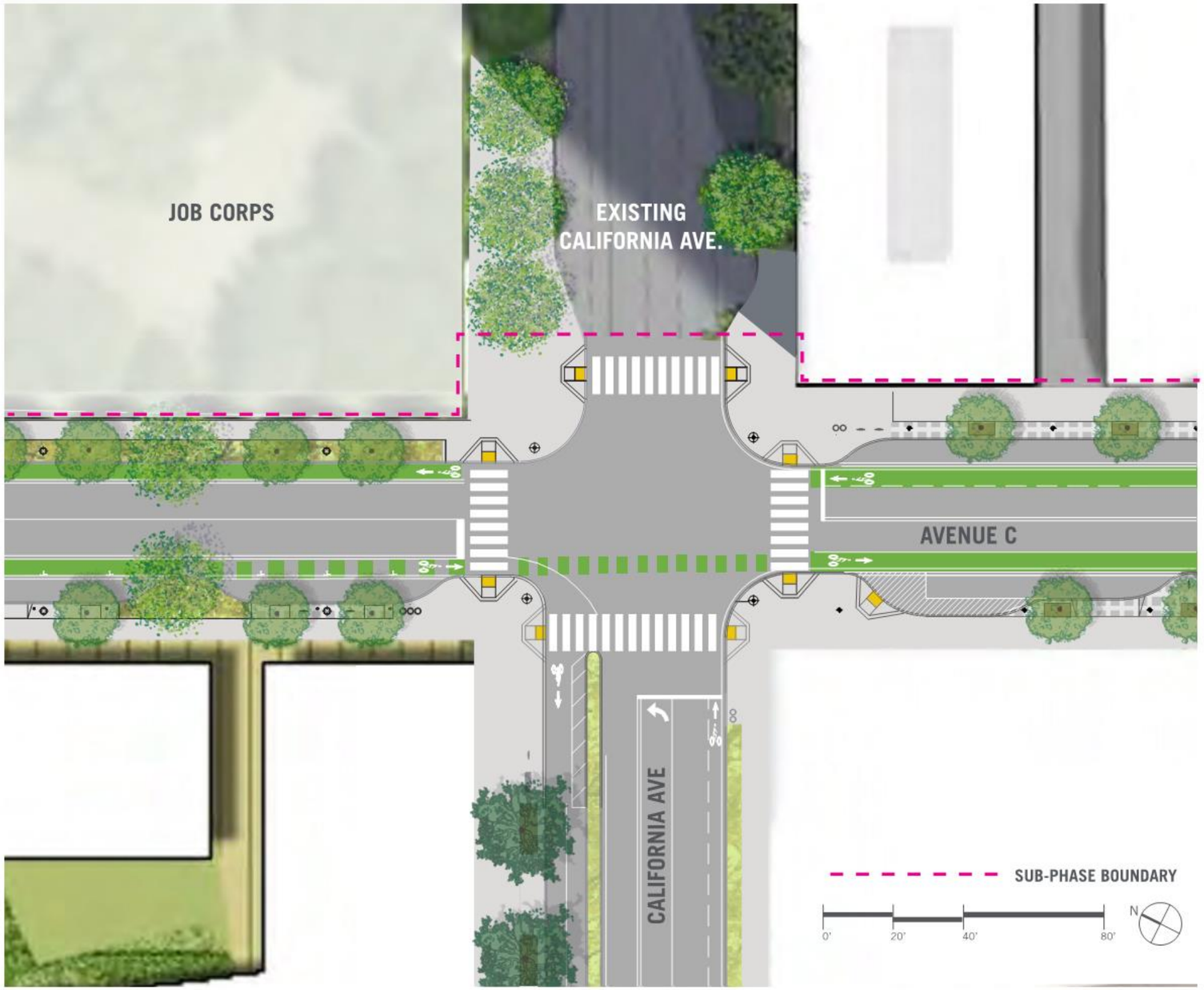


FIGURE 3.10 CALIFORNIA AVE AND AVE C INTERSECTION

AVENUE C AND 4TH STREET - TYPICAL CITYSIDE AVENUE INTERSECTION

The intersection of Avenue C and the Windrow Streets is a unique condition to Treasure Island, due to the angled street grid. It is one that calls for special treatment to ensure that automobiles can move freely through this primary north-south connector, while ensuring safe passage of cyclists in the Class II lanes and seamless interaction with the island shuttle service. Stop signs are not warranted at these intersections due to predicted traffic volumes, however, due to the lengthy, straight stretch of road, traffic speed and safety is a concern. To mitigate automobile speeding, the intersections of Avenue C and the Windrow Streets shall be raised by 3" from the roadway grade to encourage slow traffic movement or "traffic calming", a condition that is commonly known as a "traffic table". On the far-side of the intersection a shuttle island is created which allows cyclists to pass on the right in a dedicated bike zone to avoid conflict with passengers loading and unloading from the shuttle. On the west side of Avenue C, this shuttle stop is also coupled with a universally accessible loading zone, providing temporary stopping for vehicles loading or unloading

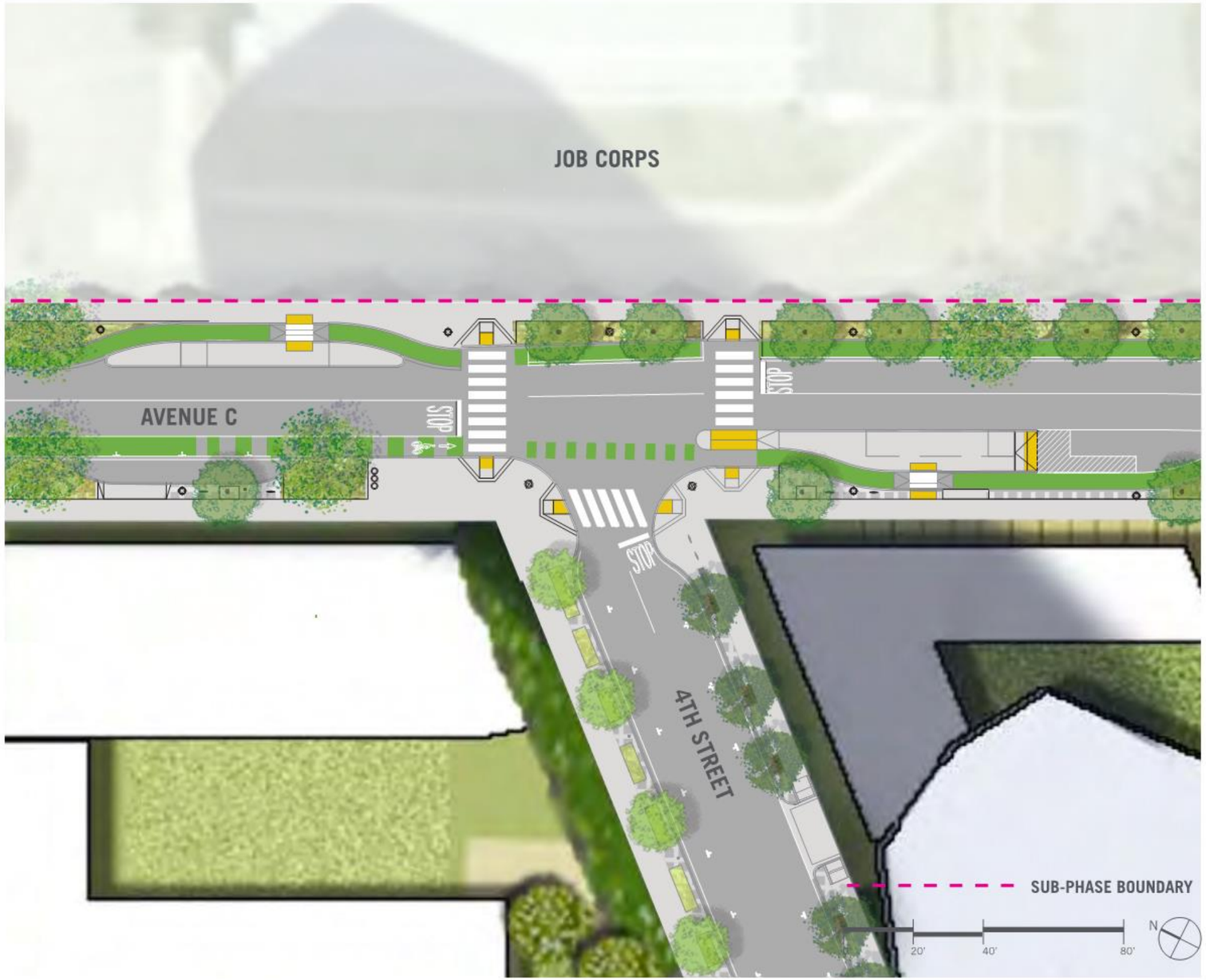


FIGURE 3.11 AVENUE C AND 4TH STREET INTERSECTION

SHARED PUBLIC WAY AND 5TH STREET - TYPICAL SHARED PUBLIC WAY INTERSECTION

Treasure Island's Shared Public Ways – pedestrian priority, shared streets – cross Windrow Streets at mid-block tabled intersections. Because of the diagonal alignment of the Windrow Streets and offset alignment of the Shared Public Ways, unique intersections are formed. Although stop controls are not warranted, stop signs are being considered at these intersections to ensure pedestrian and bike safety. In addition, the intersection is a 2" traffic table, raised above the roadway to slow vehicle speeds. Special pavement in the intersection gestures its significance to all modes of traffic and celebrates the unique Shared Public Way connection from the north to the south. Standard pedestrian crossings allow for safe crossing and ramps shall be compliant with City standards.

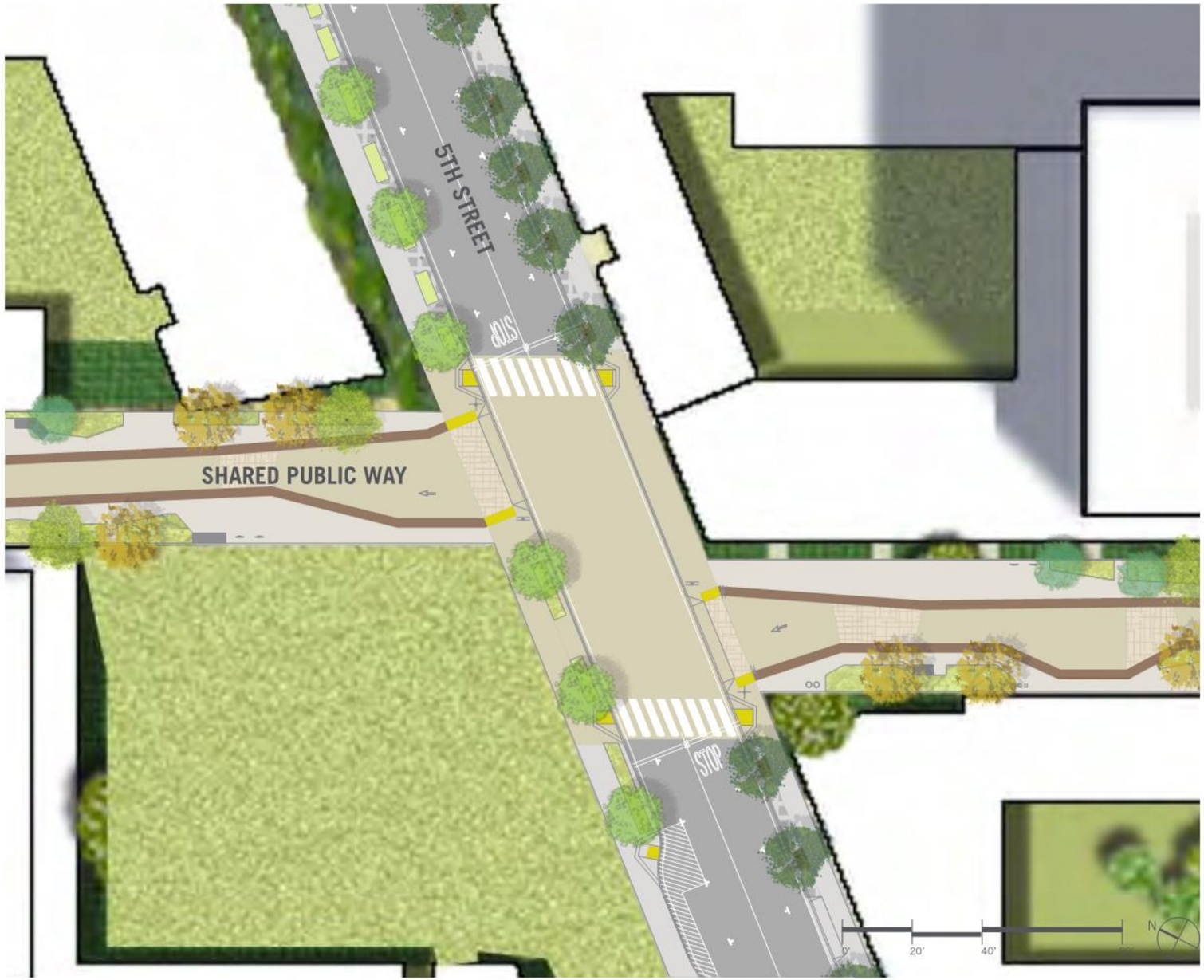


FIGURE 3.12 SHARED PUBLIC WAY AND 5TH STREET INTERSECTION

3.4 PARKING AND LOADING

ON-STREET PARKING

Parking is important element for island residents with vehicles, for their visitors, for tourists visiting the island that choose to drive, and for those people with disabilities who are not able to use the other transportation means. Parallel parking is the only type of on-street parking provided. Per the development agreements, all street parking on the island is metered, per City standards. A typical parking space is eight feet wide by twenty feet long, per City standards. On-street parking is provided on one side only for the streets around the island perimeter and for many of the neighborhood streets such as those in the Eastside Neighborhood. On-street parking is provided on both sides of specific primary streets.

STREET	PUBLIC PARKING SPACES	ADA
6TH STREET	18	1
5TH STREET	17	1
4TH STREET (WEST)	10	0
AVENUE C	34	1
CITYSIDE AVE	20	0
CALIFORNIA AVE	0	0
CLIPPER COVE AVE	7	1
TOTAL	106	4

TABLE 3.1 SUB-PHASE ANTICIPATED ON-STREET PARKING ALLOCATION

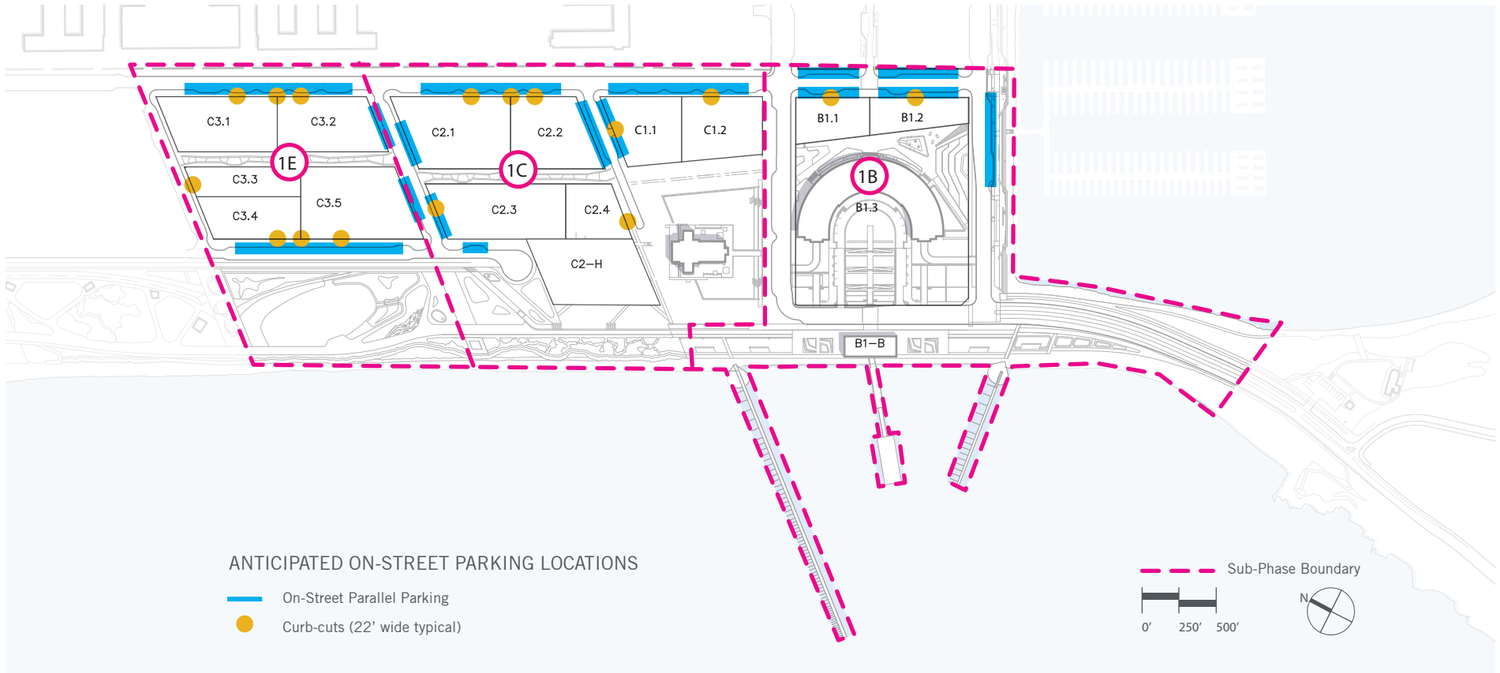


FIGURE 3.13 SUB-PHASE ON-STREET PARKING AND VEHICULAR ENTRANCES

OFF-STREET PARKING

OFF-STREET PARKING

Table 3.2 shows the number of parking spaces to be allocated to Sub-Phases 1B, 1C and 1E, as required by DDA Sec. 4.2.1. Off-street parking shall not be required for any use, and the quantities of off-street parking specified in Table 3.2 shall serve as the maximum amount of off-street parking that may be provided as accessory to the uses specified, calculated based on the proposed program for Sub-Phases 1B, 1C and 1E. Any off-street parking space dedicated for use as a car-share parking space shall not be counted toward the total parking permitted as accessory.

Accessory off-street parking spaces for residential and nonresidential uses may be located either on the same development block as the building served, or off-site within the Development Plan Area. All off-street parking spaces accessory to residential uses with common access in new structures of ten (10) dwelling units or more, shall be leased or sold separately from the rental or purchase fees for dwelling units for the life of the dwelling units, such that parking spaces are marketed and sold or rented as separate and optional additions to the base advertised or listed purchase or lease price for residential units alone, and the price for residential units with parking shall be marketed and sold or rented at a higher price than residential units without parking. Off-street non-residential parking will be provided in centralized parking facilities. All non-residential parking will incur a charge.

Use or Activity	Maximum Parking Ratios	Sub-Phase 1B		Sub-Phase 1C		Sub-Phase 1E		Total	
		Development Program	Off-Street Parking Spaces	Development Program	Off-Street Parking Spaces	Development Program	Off-Street Parking Spaces	Development Program	Off-Street Parking Spaces
Residential	1 for each dwelling unit calculated on an aggregate basis for all dwelling units constructed within the Development Plan Area, but in no event more than 8,000 residential accessory spaces within the combined Treasure Island and Yerba Buena Island Development Plan Area.	95 Units	95	1,183 Units	1,183	606 Units	606	1,884 Units	1,884
Office/Commercial	1 for every 1,000 square feet of gross floor area calculated on an aggregate basis for all office/commercial uses (other than retail, hotel and marina) but in no event more than 302 office/commercial accessory spaces within the combined Treasure Island and Yerba Buena Island Development Plan Area.	-	-	-	-	-	-	-	-
Retail	2 for every 1,000 square feet of gross floor area calculated on an aggregate basis for all retail uses, but in no event more than 414 retail accessory spaces within the Treasure Island portion of Development Plan Area.	New: 0 sf Adaptive Reuse: 67,000 sf Total: 67,000 sf	134	-	-	-	-	-	134
Hotel	0.4 for every hotel room calculated on an aggregate basis for all hotel uses on Treasure Island, but in no event more than 180 hotel accessory spaces on Treasure Island.	-	-	300 Rooms	120	-	-	-	120
Marina	0.6 for every slip constructed within the Development Plan Area calculated on an aggregate basis, but in no event more than 236 Marina accessory spaces within the Treasure Island portion of Development Plan Area.	*	*	*	*	*	*	*	*
Totals			**229**		**1,303**		**606**		**2,138**

*Marina developed by separate entity; timing unknown

TABLE 3.2 SUB-PHASE ANTICIPATED OFF-STREET PARKING

ACCESSIBLE LOADING AND PARKING

UNIVERSAL PASSENGER LOADING ZONES

On-street universal passenger loading zones and accessible parking zones shall be located throughout Treasure Island, providing convenient access to the island's buildings and open spaces.

Passenger loading zones are curbside stalls for pick-up and drop-off, limited to five minute stops (per SFMTA). Drivers must remain with the vehicle. Most of the site's loading zones will be universally accessible and ADA compliant, providing a wheelchair access aisle along the passenger side of the car and access to the sidewalk via a DPW standard curb ramp. To meet the Mayor's Office of Disability and DPW Accessibility Department request of providing a loading zone at building block faces, "Modified Loading Zones" are provided which meet the same criteria as the Universal Zones, but without the access aisle. Generally passenger loading zones shall be located in the middle of a block face, to provide convenient access to building entrances on the block. In some cases, such as at parks and open spaces, the loading zone may be located at an intersection, to utilize the associated bulb-out and crosswalk, for easy access across the street.

ACCESSIBLE PARKING ZONES

Accessible parking stalls ensure convenient, equal parking access for drivers and passengers with a valid disabled parking permit. There are two types of accessible parking stalls: standard and "enhanced." "Enhanced" accessible parking stalls are at sidewalks greater than 14'. Generally accessible parking stalls are located at the beginning of the block, utilizing the street corner bulb-out for curb-ramp access to the sidewalk.

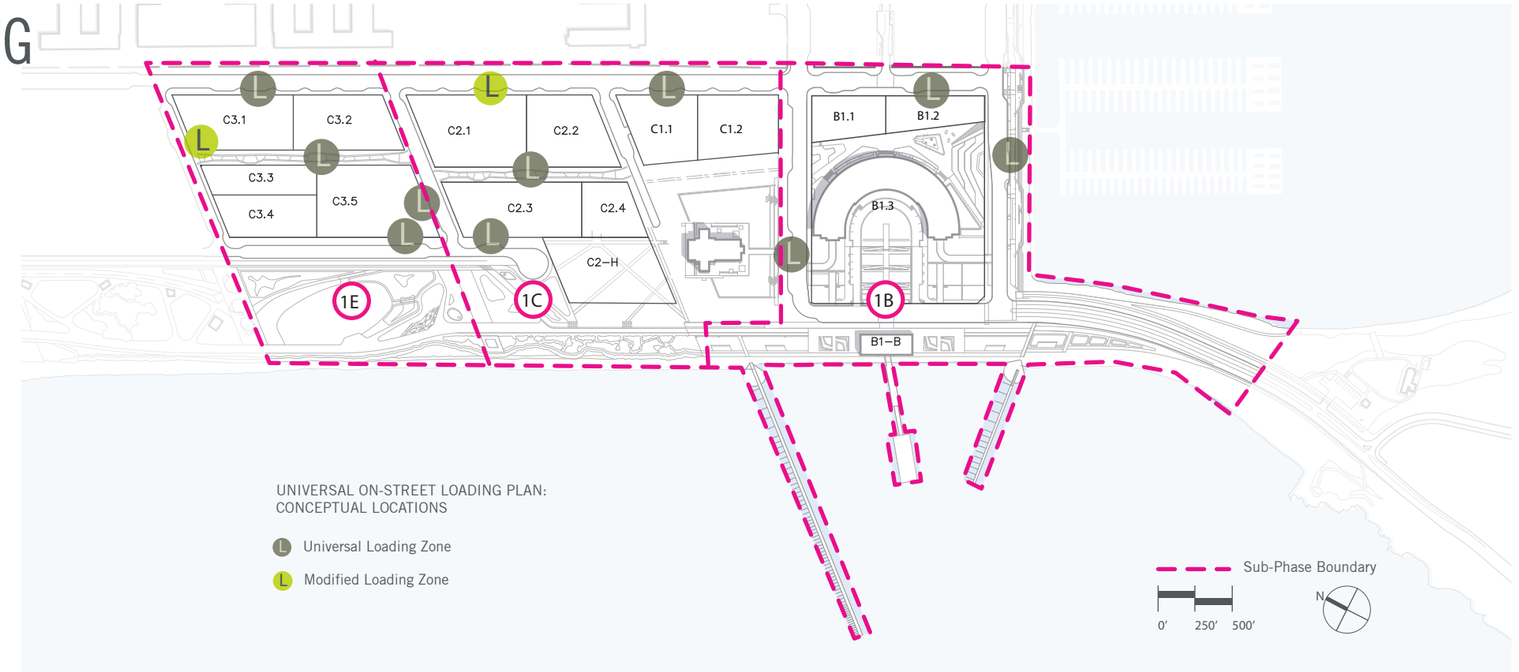


FIGURE 3.14 SUB-PHASE LOADING ZONES

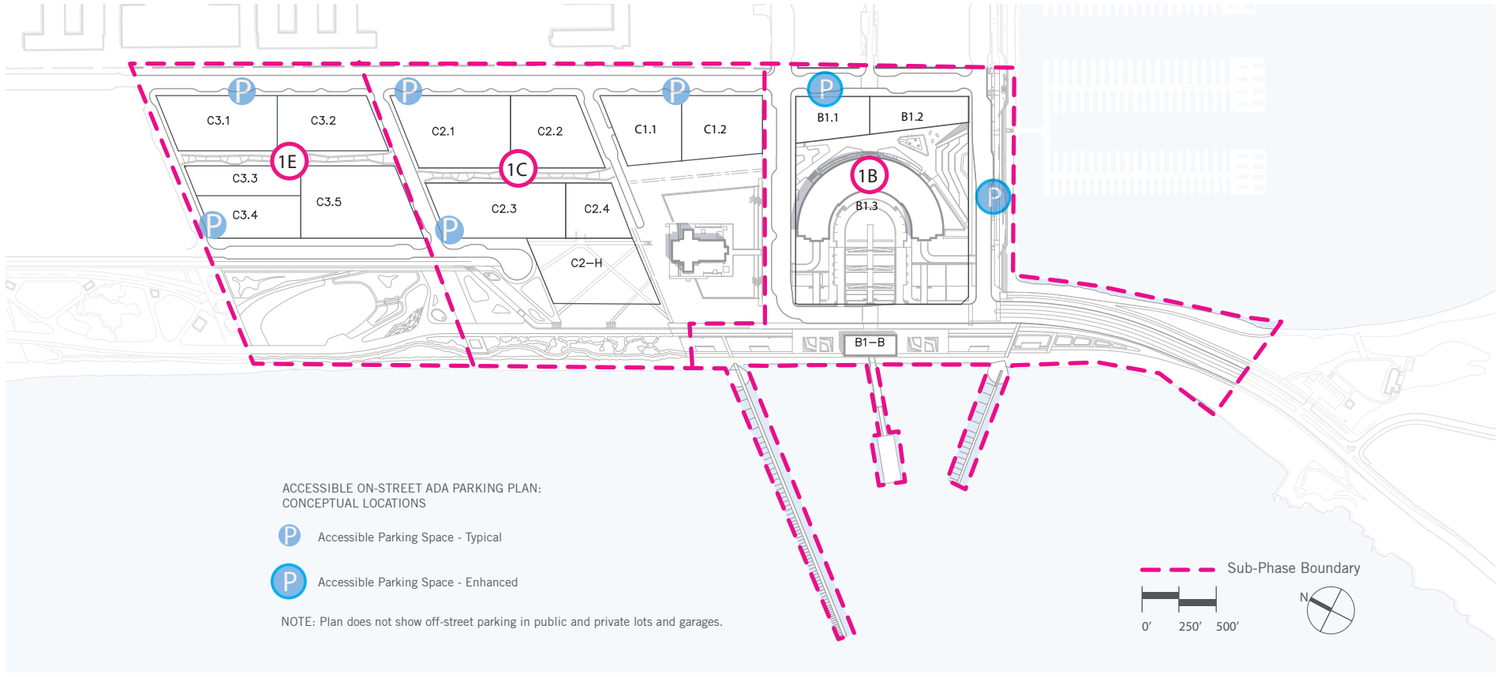


FIGURE 3.15 SUB-PHASE ACCESSIBLE PARKING ZONES

BICYCLE PARKING

Bicycles are a key transportation element on the Island. Well-located, secure bicycle racks and corrals are an important link to the success of the overall bicycle network. For convenience, potential single or dual bicycle racks have been placed all over the Island at most intersection and mid-block locations. There is a concentration of bicycle parking at Waterfront Plaza with approximately 100 racks and 48 bike share stations to support both tourists and commuters coming to and from San Francisco on the Ferry.

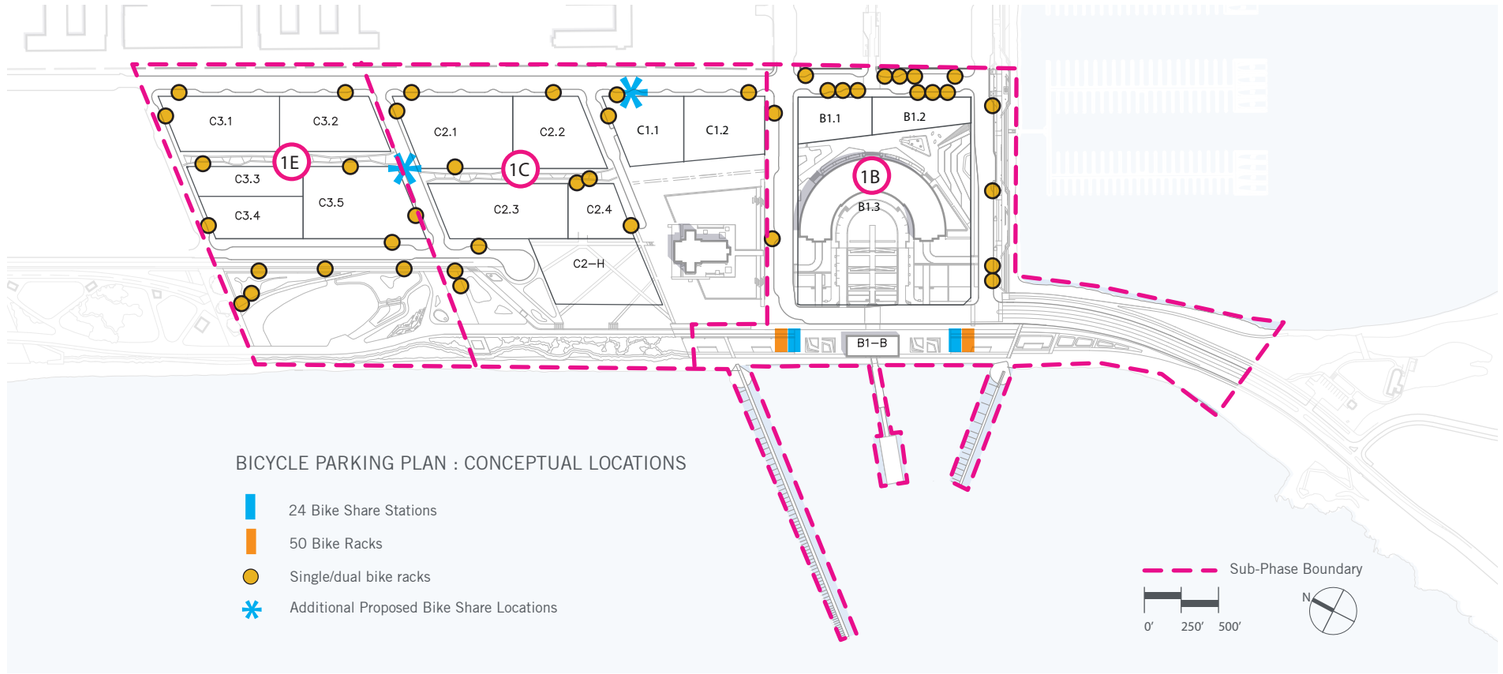


FIGURE 3.16 SUB-PHASE BICYCLE PARKING

4. PARKS AND OPEN SPACE

CONSISTENCY WITH ENTITLEMENT DOCUMENTS

The Parks and Open Spaces included as part of this Sub-Phase Application 2 are consistent with the Schematic Designs approved in the Major Phase 1 Application. The designs presented in this Sub-Phase Application are consistent with the Treasure Island/Yerba Buena Island Parks and Open Space Plan, except as noted in the Major Phase 1 Application.

4.1 OVERALL PARKS AND OPEN SPACE

The Treasure Island and Yerba Buena Island Parks and Open Space system and program are the culmination of over a decade of public discussion on how these extraordinary open spaces at the center of San Francisco Bay can best contribute to the City's and region's future. In addition to the public discussion and ongoing work with TIDA, TI/YBI Citizens Advisory Board (TI/YBI CAB), existing residents, and stakeholder organizations, the programming and design of the open spaces reflects intensive analysis of site opportunities and constraints, natural and cultural resources, Tidelands Trust, sea level rise, infrastructure, transportation, access, sustainability and habitat management.

The Islands' diverse open space program is made up of eight distinct open space types – six on Treasure Island and two on Yerba Buena Island. Together they encompass a wide variety of programs and experiences that will contribute to the unique identity of each island.

The redevelopment of Treasure Island and Yerba Buena Island will provide approximately 290 acres of open space and parks, including 80 acres on YBI and 210 acres on Treasure Island. Consistent with the principle of adjacency described in the DDA, open space and parks will be developed in conjunction with development blocks. Chapter 4 – Parks & Open Space of this Sub-Phase application provides detailed descriptions of the location, boundary and character of each open space and park that will developed as part of Sub-Phases 1B, 1C and 1E.

TREASURE ISLAND

Shoreline Park
A series of waterfront parks that wrap western, northern and eastern edges of Treasure Island, characterized by the Waterfront Plaza at the transit hub, Pier 1, a continuous waterfront promenade, water access, and sculpted topography.

Sports and Recreation Park
An active park designed specifically for sports recreation.

Urban Agriculture Park
A park devoted to the production of food and/or nursery stock and with opportunities that provide an educational outreach program. Northern Shoreline and The Wilds, constructed habitats that integrate stormwater management, education and passive recreation.

Northern Shoreline Park and Wilds
Constructed habitats that integrate stormwater management, education and limited passive recreation

Urban Core
A series of plazas and open spaces that help activate the retail core and the transit hub. These areas include Waterfront Plaza, Clipper Cove Promenade, Marina Plaza and the Cultural Park.

Pedestrian Network & Neighborhood Parks
Social spaces and amenities specifically designed for residents.

YERBA BUENA ISLAND

Hilltop Park
A regional and neighborhood serving park with passive recreational areas, overlooks, and picnic areas.

Regional Open Space - Habitat Management Areas
The majority of the island's open space is dedicated to habitat management and associated recreational uses such as hiking, biking, and picnicking.

Trails and Overlooks
A continuous network of rustic hiking trails will provide access to the island's open space areas and overlooks.

Senior Officers' Quarters Historic District
Existing gardens surrounding the historic Senior Officers Quarters.

OPEN SPACE AND PARK TYPOLOGIES

FIGURE 4.1 OPEN SPACE AND PARK TYPOLOGIES

SUB-PHASE PARKS AND OPEN SPACE

FIGURE 4.2 SUB-PHASE PROPOSED PARKS AND OPEN SPACE

PROPOSED PARKS AND OPEN SPACE	
TREASURE ISLAND : SUBPHASES 1B, 1C + 1E	
	ACRES
Waterfront Plaza	1.9
Building 1 Plaza	2.4
Marina Plaza	1.5
Cultural Park	2.9
Cityside Waterfront Park 1	2.5
Cityside Waterfront Park 2	3.8
Clipper Cove Promenade 1	0.6
TOTAL	***15.5***

TABLE 4.1 TI SUB-PHASE PARKS AND OPEN SPACE ACREAGE

WATERFRONT PLAZA LOOKING TOWARDS BUILDING 1 AND THE CULTURAL PARK

4.2 SUB-PHASE PARKS AND OPEN SPACE OVERVIEW

Located in the middle of San Francisco Bay, the two islands share an incredible water bound landscape with sweeping views of the entire Bay area, proximity to downtown San Francisco and Oakland. Both islands are exposed to wind that play a major role in shaping parks and open space program and design. But within these shared circumstances, different parts of the islands have very different characters. This Sub-Phase area focuses on the western edge of Treasure Island that looks directly back to the skyline of San Francisco, one of the great prospects in the world, yet does so in the face of persistent afternoon winds that sweep in through the Golden Gate. The southern and eastern edges of Treasure Island are more protected, and have the East Bay and the new Bay Bridge as their backdrop.

Each park and open space has been programmed and designed to exploit and emphasize these differences in order to enhance the diversity and memorable qualities that are hallmarks of great regional and world destinations alike. The Parks and Open Space chapter provides illustrative material that highlights the Sub-Phase parks and open spaces and describes how they contribute to the creation of a unique island community and a truly regional destination.

Sub-Phases 1B, 1C and 1E on Treasure Island include approximately 15.5 acres of parks and open space. Consistent with the principle of adjacency described in the DDA, open space and parks will be developed in conjunction with development blocks. The following goals and principals have guided the design of each park and open space.

SAFE AND ACCESSIBLE

Ensure that parks and open spaces are easily accessible by transit, universally accessible to all and safe for both pedestrians and bicyclists.

DIVERSE PROGRAMS

Sub-Phases 1B, 1C and 1E parks and open space programs are consistent with the Standards and Guidelines included in the Design for Development Document and the Open Space Plan approved as part of the Disposition and Development Agreement. The creation of an authentic San Francisco neighborhood and regional destination that will draw visitors from around the Bay Area and beyond are central to the vision set forth in those documents. The parks and open space program has been developed to reach a wide demographic of residents and visitors with a diversity of uses and opportunities for social and cultural events, passive and active recreation, hiking, biking, and natural areas. As part of the design process the design team has worked with park management specialists to address the programing, operations, and maintenance of each park and to ensure that they will function as part of a holistic network; will have the necessary infrastructure in place to support the program; and can be maintained and operated sustainably.

UNIQUE PLACES

Each park has been designed to reveal and magnify the natural and cultural forces that influences its unique role in the community and its place in the landscape, and each has its own visual character and experiential qualities, specific to location, context and program. Taken as a whole, Treasure Island's parks support a cohesive vision that contributes to the identity of the island and is greater than the sum of parts.

ENGAGE THE WATERFRONT

Take advantage of the waterfront, visually, experientially, and ecologically, and bring people to the water's edge to fully appreciate the Bay.

CONNECTED AND INTEGRATED WITH DEVELOPMENT

Create strong connections between parks, streets, and public open spaces and design for indoor-outdoor relationships with both historic buildings and new development. Integrate park, open space, and habitat concepts with adjacent uses, private development, and street design.

SUSTAINABILITY AND ECOLOGICAL INFRASTRUCTURE

Storm water management, food production, habitat creation, water conservation, and integrated pest management are the focus of parks and open space sustainability. In addition, the park and open space design is integrated with the new island infrastructure and natural processes to support urban sustainability.

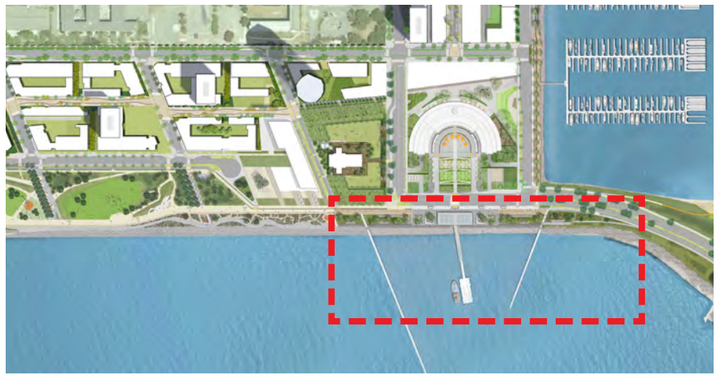
INTERPRETATION AND EDUCATION

Provide park facilities and opportunities that support learning about cultural history, ecology, and urban sustainability, and provide for discovery and personal connection with the natural and cultural resources of the Bay Area.

ADAPTABILITY

As a long-term redevelopment project, the construction of Treasure Island and Yerba Buena Island will happen in multiple phases over many years. With that in mind, a philosophy of adaptive management and flexibility has guided each park design to allow for ongoing public participation in an evolving community; changing needs and uses; varying design approaches; and sustainable management and operations.

4.2.1 WATERFRONT PLAZA



OVERVIEW

The proposed public plaza, ferry shelter, and associated coastal landscape is located on the waterfront opposite historic Building One. The approximately 400 foot by 100 foot plaza will serve as an intermodal hub connecting multiple modes of transit including cyclists, pedestrians, ferries, shuttles, and buses.

The Bay Trail is a key component of the waterfront design and extends through the plaza to allow continuous public access. The waterfront in this location has been designed to allow pedestrian access close to the existing riprap edge to take full advantage of the views to the Bay and the San Francisco skyline.

It is anticipated that many people will move from the Waterfront Plaza up to Building One so the crossing on Palm Avenue has been designed to channel people safely to the signalized crossing. In addition, a 20-25 foot wide pedestrian promenade has been designed to accommodate North/South movement for those migrating to and from the plaza. The Bay Trail is accommodated within this generous promenade at the Waterfront Plaza. The most intimate coastal access is provided by the skyline esplanade which hugs the existing rip-rap edge to provide spectacular views of San Francisco. Numerous pathways connect the esplanade to the main promenade and create a network spaces in between.

Given the expected volumes of various transit riders who will be traversing the plaza, a dismount zone has been identified for bicyclists to insure pedestrian safety. Bike facilities including city bike share and public bike storage have been provided on the north and south edges of the plaza to encourage bike trips to start and end outside the busy plaza core.

Numerous seating nodes and terraces radiate from the central Ferry Shelter, creating a porous landscape with many different scales of space. Given the direct exposure to prevailing winds, the outdoor gathering nodes on the plaza have been designed to buffer the wind using raised planters to insulate the seating areas from the elements.

SUB-PHASE UPDATES

The bike dismount zone at the Waterfront Plaza has been reduced in length to improve connectivity. Public bike parking has been relocated closer to the Ferry Shelter, adjacent to the seating cubes, thus giving bike commuters a more convenient arrival to the Ferry Shelter. The bike parking available along the promenade both on the north and south ends of the plaza has moved slighting west, into the rain garden zones in order to increase the width of the Bay Trail. This shift allows for unobstructed views along the promenade. City Bike Share has also been moved closer to the ferry shelter and increased in quantity. The Bay Ar ea Bike Share racks are located closest to the shelter so that they are highly visible to the public.

The current design allows for the flexibility of building future long-term bike storage facilities if they are needed in later phases of the project. The outermost seating cubes have been redesigned as planted landforms with site benches. These landscape areas can be easily removed and replaced with bike storage facilities if/when user demand requires such facilities. The two seating cubes adjacent to the Ferry Shelter remain as seating nodes that provide wind protection.

The Promenade and City View Esplanade have been slightly widened as a result of a change in the dimensions and number of bays of the Ferry Shelter shelter.

WATERFRONT PLAZA

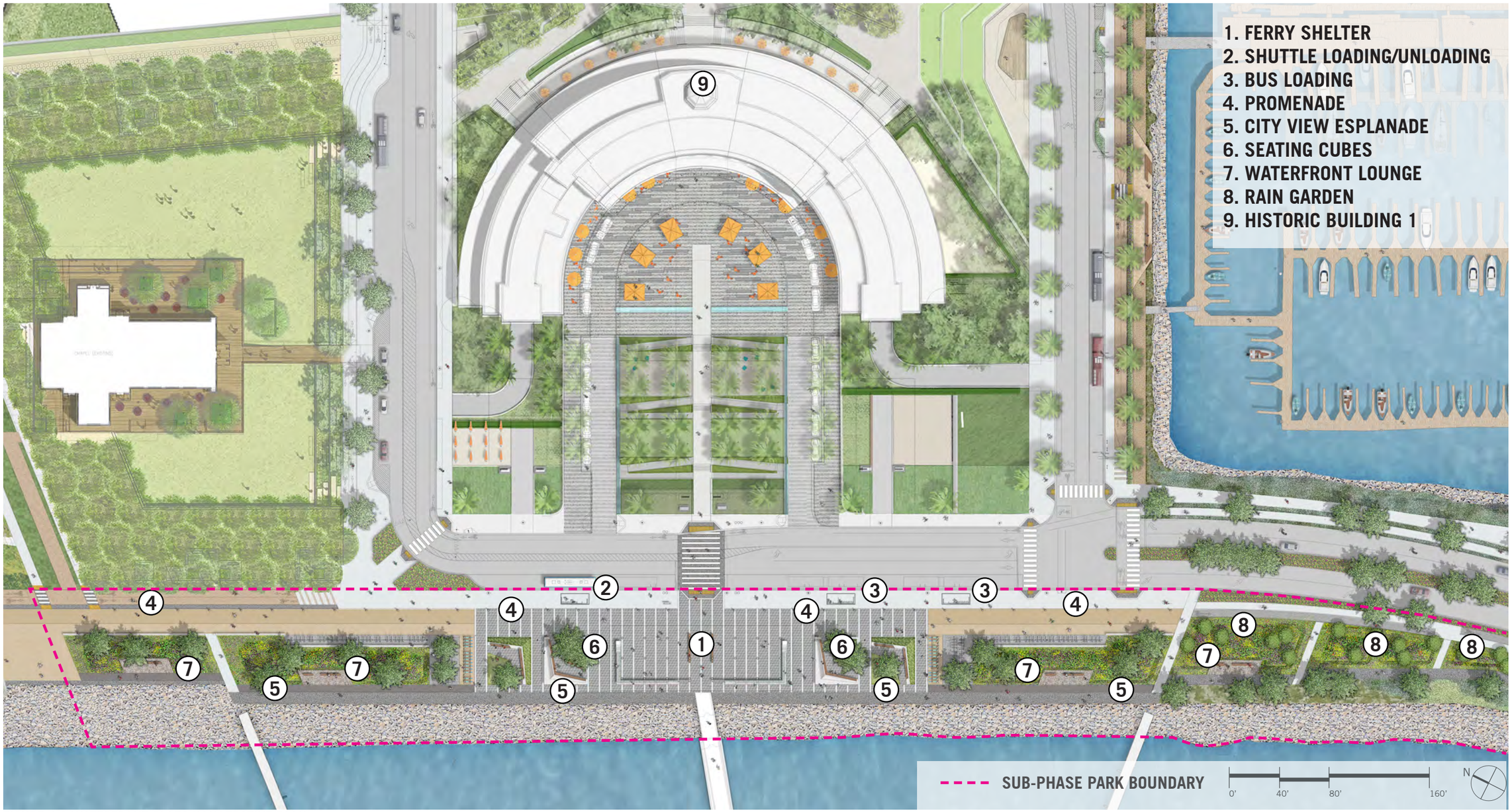


FIGURE 4.3 WATERFRONT PLAZA ILLUSTRATIVE PLAN

SUSTAINABILITY

SOILS

The Waterfront Plaza includes three types of planting soils. At the seating cubes, by extruding the planters from the ground plane, a sufficient depth of soil of 60 inches is achieved above the groundwater table to support large-growing trees: transplanted Monterey Cypress trees. The soil type in these seating cubes should match the existing conditions of the trees' current locations.

In the Rain Gardens, a special bioretention soil mix of 48 inches in depth will be used to ensure adequate percolation rates and filtration during storm events. The Rain Gardens constitute the majority of the planted areas of the Waterfront Plaza.

Other areas planted with groundcover and grasses will require planting soil of 24 inches deep. These softscape areas will be at grade and are not raised planters.

PLANTING

The Waterfront Plaza's planting palette is made up of California native and drought tolerant plants that will thrive in the climatic conditions of Treasure Island.

The raised planters within the seating cubes contain Monterey Cypress trees that will match the grand scale of Building One and frame views to and from the water. At the same time, the tree canopies provide additional habitat and shade for the plaza below. These existing trees will be transplanted from various locations on Treasure Island. The ground cover within the seating cubes and the planted cubes is a native meadow palette of California grasses and flowering plants. Specific zones of the planted cubes will provide a lawn area for visitors to sit and lounge on.

Within the Rain Gardens, the selection of biorentention plants include native California grasses and water-loving, though drought tolerant, flowering species. The plant variety is needed as the bioretention areas have sloped edges and basin zones that require different characteristics from the plants.

Along the City View Esplanade, the shoreline will be revegetated with coastal native species and native grasses. New Monterey Cypress trees are proposed throughout this coastal edge.

STORMWATER MANAGEMENT

The northern Rain Garden landscape extending from the plaza manages the stormwater from the roof of the ferry shelter and the paved plaza. Native and adaptive plantings take advantage of this water resource and provide additional habitat in a series of detention basins. Set within these basins are additional seating nodes which are accessed from the waterfront esplanade.

The souther Rain Garden will treat stormwater from The Causeway and will perform a critical role in the overall stormwater strategy.

IRRIGATION

The irrigation system includes water efficient measures such as bubblers, subsurface drip irrigation, controllers, flow sensors and rain sensors. In addition, the irrigation system would switch to using recycled water, once the service is available on Treasure Island. An adequate mulch layer with cover the irrigation lines, thus reducing evaporation.

FIGURE 4.4 WATERFRONT PLAZA SEATING CUBE

FIGURE 4.5 WATERFRONT PLAZA BIRD'S EYE VIEW

4.2.2 FERRY TERMINAL

FERRY TERMINAL

Located at the southwest corner of Treasure Island, a new ferry terminal will be constructed to provide service to downtown San Francisco.

As used herein, "ferry terminal" refers to all of the waterside and landside improvements associated with the accommodation of new ferry service to Treasure Island. Waterside improvements include all the functions of ferry service that will occur on or over the water including pier, gangway, float, and breakwater. Landside improvements include the passenger Ferry Shelter in the Waterfront Plaza.

The original schedule for the ferry terminal improvements considered implementation of improvements in two phases; interim improvements to support initial service needs, followed by permanent improvements after the ferry service frequency increased. The current approach does not include any interim improvements and instead provides a ferry shelter that will support and sustain full ferry service operations.

The ferry service will be operated with initial runs at approximately 60-minute intervals. At full build-out of the Project, the goal will be to provide service to downtown San Francisco at 20-minute intervals at peak periods from 5 a.m. to 9 p.m. The ferry terminal will include two side-loading ferry slips (where ferry boat loads passengers) with the capacity to accommodate future full build-out demand (15%-20% of commuters or 930 passengers in the morning and 1,210 passengers in the evening. The land access to the ferry slip includes an access pier, ADA- compliant gangway and float.

Pier

The Pier will provide access from the shore to the gangway and float for passengers arriving and departing Treasure Island by the Ferry. The Pier will be a fixed structure supported on piles embedded deep into the seafloor to the lower soil layers beneath the weak upper layer. The Pier will serve as a waiting area for passengers disembarking from Treasure Island and will have a canopy roof and wind protection as necessary. The pier will be open to pedestrians walking on the shore promenade to allow over water access and viewing. There will be door on end of the pier where it connects to the gangway to allow loading and unloading passengers. There will be an automated ticket card reader on the pier passengers to tag pay the fare prior to boarding the ferry.

Gangway

The gangway will serve passengers loading and unloading but will only operate in one direction at a time. When the ferry arrives, all passengers will disembark the ferry and clear the gangway before the passengers awaiting to board will be allowed onto the gangway and float. This common practice allows clearing of the vessel prior to loading for the next trip. The gangway will be 90 feet long and a minimum of 8 feet wide and will be either aluminum or steel construction. The gangway will be fixed to the pier and will allow a maximum slope of 1:16 over tides from -0.9 feet (MLLW datum) to 8.3 feet.

Float

The float provides mooring of the ferry boat and access onto the ferry for the passengers. The float will be either steel or concrete, anchored by up to six guide piles and mooring dolphin/ fenders. There will be adjustable ramps on the float to provide access onto the ferry. The float will have mooring fittings and access platforms on each side to allow two ferries to moor at the float at the same time.

Breakwaters

To protect the ferry slips and allow ferry service to continue in the exposed wave climate of SF Bay, the Project includes an approximately 200- to 300- foot-wide west-facing basin with angled breakwaters. An approximately 760-foot-long breakwater to the north will be constructed, and an approximately 350-foot-long breakwater to the south will be constructed, at a later date if deemed necessary based upon evaluation of ferry operations with the new pier, gangway, float and north breakwater. For example, if ferry service is interrupted during extremely severe storm events, it may provide no added value to ferry service operations to construct the south breakwater. In addition, the analysis of the value of a south breakwater may need to include consideration of maintenance dredging requirements over several seasons. The breakwaters will terminate on the east side (shore) at the toe of the slope of the existing rock revetment on TI. Both breakwaters will have navigation lights to mark the harbor entrance. Due to potential high waves overtopping the breakwaters, no public access along the breakwaters is proposed. Between 50 and 60 concrete or steel batter piles will support the north breakwater, and 20 to 30 batter piles will support the south breakwater, if built.

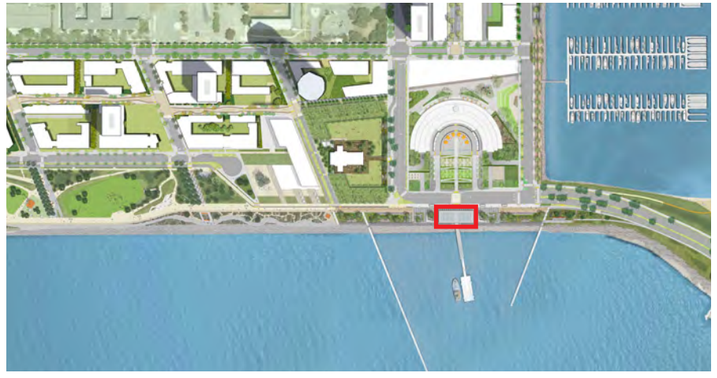
Shelter

An open air shelter structure will be located on shore to provide weather protection for passengers waiting to board arriving ferries. This area will serve as overflow for the waiting area on the pier. The Ferry Shelter is described in greater detail in Section 4.2.3. The waiting area accommodates 399 passengers, to accommodate full build out.

1. FLOAT
2. GANGWAY
3. PIER
4. PLAZA
5. SHELTER
6. NORTH BREAKWATER
7. SOUTH BREAKWATER
8. SHORELINE IMPROVEMENTS

FIGURE 4.6 FERRY TERMINAL BIRD'S EYE VIEW

4.2.3 FERRY SHELTER



OVERVIEW

The Treasure Island Ferry Shelter will be located on the central axis of historic Building 1, to which it will act as a welcoming gateway. This location on the island's western and city-facing shore will afford ferry passengers (residents, tourists, those who work on the island) spectacular views as they wait for the ferry. Its design is inspired by the rigor of Building 1's architecture and is a site specific response to the marine environment. The Ferry Shelter has been conceived as a light structure which is extremely transparent within the panorama of sea and sky to maintain extraordinary views of the City and Bay Bridge, and in the opposite direction, it clearly differentiates itself from the opacity of Building 1's Deco-era architecture.

SUB-PHASE UPDATES

The main roof canopy continues to be shown clad in ipe wood and beveled on the underside in all four directions. The roof is now gently sloped to the middle of the structure, allowing hidden drainage and utilities to run down through the nonstructural central row of columns. Skylights have been reduced in number, but made wider, providing a more even pattern of daylight to the patron area. Drainage scuppers punctuating the skylight aperture are obscured by the central structural beam. Ferry Shelter identity signage with the words "Treasure Island" is shown within the fritted pattern of the windscreen glass on the southern end of the west-facing windscreen (versus previous northern location) to increase visibility upon approach from San Francisco. The entire shelter has been shifted further east from the water's edge. While remaining aligned with the adjacent seating cubes, this provides additional space for circulation and recreation along the city view esplanade.

Ferry passengers and visitors are accommodated behind the windscreen where protection from inclement weather is the greatest. The previously shown interior-facing seating has been modified to provide a concrete ledge cast into the windscreen wall, instead offering a leaning surface for viewing the city skyline. Weather-protected seating is now furnished in the form of freestanding ipe wood benches that articulate the circulation of the covered area. Perimeter seating, previously shown as ipe wood, now exists as formed concrete with inset under-seat lighting. The ticket kiosk enclosures located on either end of the eastern edge of the shelter now feature monitors showing real-time ferry schedule information.

FERRY SHELTER - PLAN

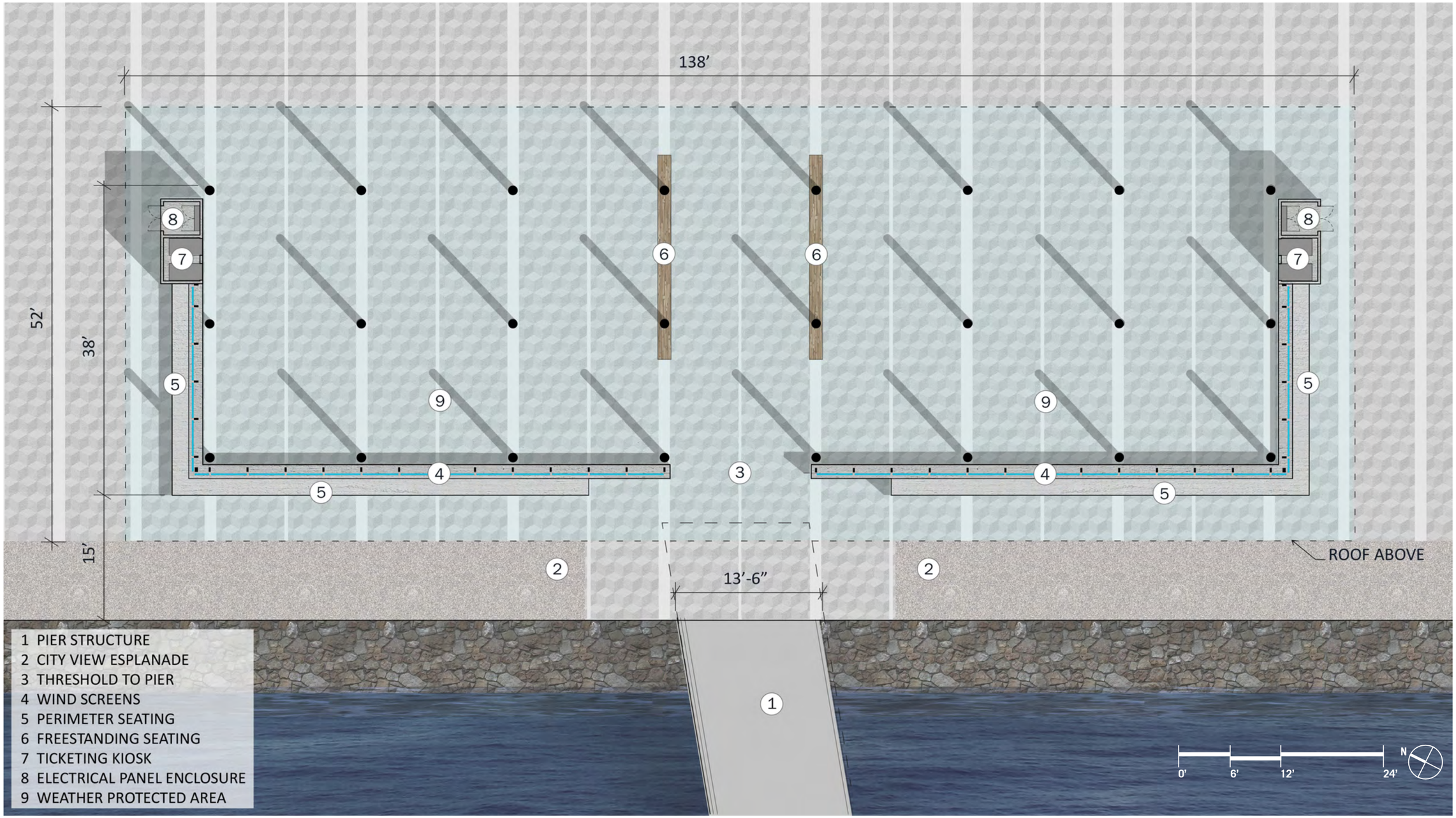


FIGURE 4.7 FERRY SHELTER ILLUSTRATIVE FLOOR PLAN

SUSTAINABILITY

FERRY SHELTER

Given that the Ferry Shelter is an open structure, it is by its nature very operationally sustainable, with energy consumption limited to high output LED recessed lighting in the shelter canopy and under the seating areas at the shelter perimeter, all concealed sources with full cut-off to limit light pollution during the evening hours.

The main structure and cladding materials have been specified for their high durability, low maintenance and resource efficiency. The long lifespan of the zinc roofing system will reduce material waste as its longevity is roughly double that of a typical metal roofing product. Underneath and creating the shelter's distinctive wood canopy, sustainably harvested ipe hardwood will be allowed to weather naturally. The low concrete wall which supports the laminated and fritted glass windscreen along the north, south and west sides of the shelter will be constructed of locally sourced aggregate and with low fly-ash. Lastly the kiosk enclosure system at each end of the shelter will utilize Trespa panels, which contain up to 70% of softwood cellulose fibers that originate from sustainable forests. Trespa significantly contributes to carbon sequestration due to its wood fiber content, high density and product longevity.

FIGURE 4.8 FERRY TERMINAL BIRD'S EYE VIEW

FIGURE 4.9 FERRY TERMINAL ARRIVAL VIEW

FIGURE 4.10 FERRY TERMINAL SECTION AT WINDSCREEN

FIGURE 4.11 FERRY TERMINAL VIEW FROM CROSSWALK

FIGURE 4.12 FERRY TERMINAL VIEW FROM PLAZA

4.2.4 BUILDING 1 PLAZA

OVERVIEW

Building 1 Plaza remains the context and forecourt for Historic Building 1, complementing and respecting the site history, celebrating breathtaking views, and enhancing the use and prominence of one of the most architecturally significant buildings on Treasure Island. Built on an existing parking lot, where the upper portion of the parking area covers an underground garage, the upper tier of the Building 1 runs parallel to the edge of the building, at which point the ground slopes eight feet down to Avenue of the Palms. The elevated plaza remains a world-class destination to enjoy expansive views towards the Bay Bridge across the San Francisco skyline towards the Golden Gate and hills of Marin beyond. The plaza acts as the civic focal point of Treasure Island, designating the site as an "urban hub" and linking the new Ferry Shelter up and through Historic Building 1 to Marina Plaza on the eastern side of the building, and through to the future retail street.

From the Waterfront Plaza, a broad central walkway flanked by historic sculptures is aligned with the axis of the building, drawing visitors towards the upper plaza. The space up towards the plaza is articulated by a grid of date palms that echo the symmetrical organization of the terraces and draw a clear connection to the axes of the building beyond. Where it meets Avenue of the Palms, the first terrace is a stormwater treatment basin filled with lush and productive plant life. Pedestrians continue along the entry towards a second terrace of soft planted lawn, then to a third, crushed stone plaza space with fixed urban benches.

PROGRAM AND ACCESS

Building 1 Plaza invites the public to spectacular views, and provides a range of settings for the user including lawns, benches, urban café tables and moveable chairs. The upper plaza provides a large flexible urban space for civic gatherings as well as a mix of seating for smaller gatherings or individual use, shaded by large umbrellas and palms to protect from glare and define and scale the space. At night, landscape lights will accent these strong geometries of the stairs and sloped walkways and highlight the grid of palm trees, while architectural accent lighting will illuminate the existing structure.

The primary pedestrian route is through the plaza along the walkway, connecting the Avenue of the Palms to the Ferry terminal. Additionally, accessible routes along the two historic walls connect the Avenue of the Palms to the building entrance. Vehicular access is provided via the U-shaped one-way drive aisle, while passenger drop-off is provided at the upper plaza and parallel parking is provided along a portion of the drive aisle. At the upper plaza, pedestrian and vehicular circulation is delineated by a detectable warning edge, while along the historic wall, the plaza is separated from the drive by a four inch curb. Service vehicles will access the basement through existing entries at the building, the entries of which will be re-aligned for safe entry from Clipper Cove Drive and California Avenue, respectively.

SUB-PHASE UPDATES

The organization and purposes of the Building 1 landscape have remained largely the same, emphasizing the strong symmetrical organization of the building and proposed landscape, along with flexible use. A few significant changes have occurred in this design development phase. Whereas the overstructure plaza formerly had a four inch curb to separate vehicular areas, it is now curbless with a detectable warning edge and bollards. This change accommodates the existing slab construction and retains the enhanced paving in that area, simultaneously providing a seamless pedestrian experience and calming traffic. This change serves to better protect the existing slab within the boundaries of the historic condition. In addition to the curb change, runnels are removed to simplify the conveyance of stormwater, and to eliminate redundancy along the historic walls. This removal accommodated the provision of new planters to buffer between pedestrian and vehicular areas.

In the northwest corner of the site, concrete is replaced with an expanded planting area, to guide pedestrian traffic through the northern garden and enhance the user's experience and safety. Nearby, a bike lane is added and cyclists are separated from the roadway with a planted buffer. This addition is coupled with a planting area along the northern sidewalks, to discourage pedestrians from jaywalking and to enhance the aesthetic value of the sidewalk area.

BUILDING 1 PLAZA

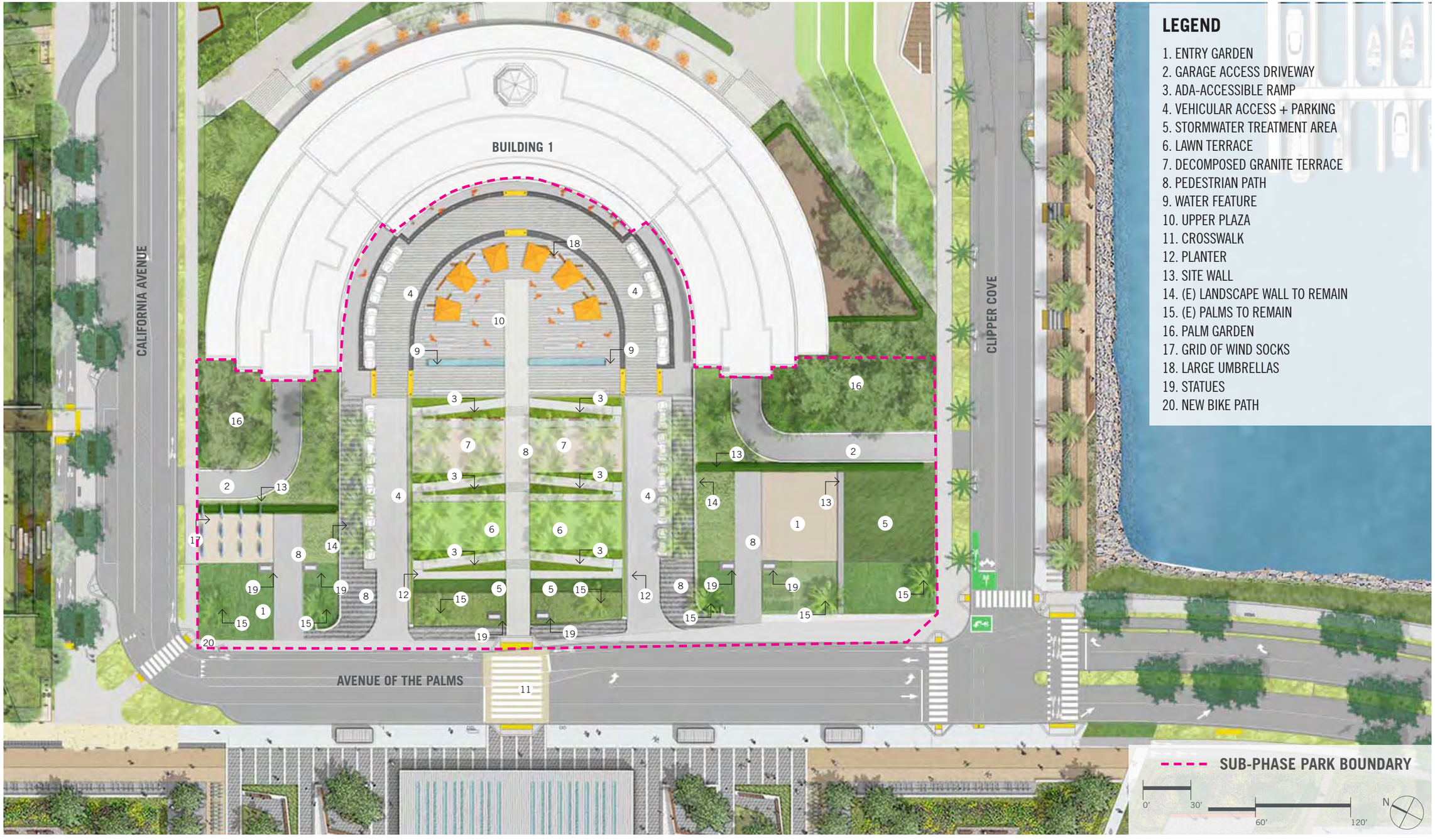


FIGURE 4.13 BUILDING 1 PLAZA ILLUSTRATIVE PLAN

SUSTAINABILITY

SOILS

The existing soil at Building 1 is to be retained and amended where possible to reduce site disturbance, preserve the existing microbiotic structure and subsequent benefits for existing flora, and to reduce the need for off-site import. A carefully designed biofiltration soil will be used in the stormwater garden at the front of the plaza to improve efficiency of the stormwater treatment at the basin. Sand-based structural soil will be used to support the hardscape areas, in order to improve the health and longevity of the plant material. In all instances where it is applicable and feasible, the existing topsoil will be reused on site.

PLANTING

Building 1 is surrounded by a landscape of mature palm trees along Avenue of the Palms, in addition to large eucalyptus, pine and cypress trees along the perimeter and throughout the site. Existing notable plantings are retained where possible to mitigate wind, offer shade, and frame the building. The existing trees add visual value, lend a mature character, decrease the need for imported plant material, and offer habitat at the site. The design preserves large palms along Avenue of the Palms, and anchors the plaza with a new palm grid. If possible, Canary Island Palms will be sourced from the existing island stock.

The planting is to be a selection of non-invasive, drought tolerant vegetation that require minimal irrigation. Placement of these species will enhance the seamless integration of the ground plane with the building, using sculptural massings of plants in the historic and art gardens to frame and scale the building. Additionally, planters along the edges of the sloped plaza orient to the façade of the building and reinforce the central focus of the terraces and plaza.

STORMWATER MANAGEMENT

The conveyance and treatment of stormwater are integrated directly into the geometry of the site layout, making use of the site condition to practically undergo treatment and narrate the story of water with stormwater planters. A gravity-drained system will run downhill to the west, spilling into a biofiltration swale located at the lowest terrace, and at the main pedestrian entrance for the plaza. Planting will be comprised of native and acclimated species that are adapted to the seasonal variation of rainfall, and will be composed of rushes, reeds, grasses and wildflowers, providing habitat for birds and insects. Along the landscape terraces, grasses replace existing impervious surfaces to reduce runoff volumes, while the remaining runoff is collected.

IRRIGATION

Irrigation water on the site will be provided by island-wide recycled water infrastructure. The need for irrigation will be decreased through the selection of non-invasive, drought tolerant vegetation and landscaping materials that require minimal irrigation. A high efficiency irrigation system, programmed to detect moisture and weather, will respond to need in real-time with a highly sensitive smart controller. An inline drip system will apply water directly to the soil, avoiding overspray and maintaining plant health.

FIGURE 4.14 BUILDING 1 PLAZA ENTRANCE VIEW

FIGURE 4.15 BUILDING 1 PLAZA VIEW

4.2.5 MARINA PLAZA

OVERVIEW

Considered key in the overall Treasure Island development, Marina Plaza retains its purpose as an area for large and small gatherings, as well as a central passage through the site. Located on the eastern side of Building I, the site transforms an existing parking lot and landscape buffer zone by negotiating the seven foot grade change along the main north-south axis of the site. On any given day, the site experiences large amounts of afternoon shade and wind. The design mitigates these site conditions optimizes usable space.

A generous open plaza unfolds at the rear doors of Building 1 to reinforce the central spine from the upper terrace, and is framed and defined by masses of Monterey Cypress on either side of the main stair. The design enhances the large expanse of blank façade on the back of Building 1 by providing open café seating along the perimeter of the building and streamlining access and entry points to the building.

At either side of the grade change, garden spaces anchor the axis in the north-south direction, drawing visitors from the street into the Marina Plaza. To the south, a large event space with stage and terraced lawn seating allows for views out to Clipper Cove and Yerba Buena Island, while a sunken terrace garden with ramp access provides a more intimate gathering space. To the north, a stormwater garden echoes the formal geometries of the event space and provides an intimate space for smaller gatherings. A combination of ramps and stairs flank these gardens, allowing easy access from the sidewalk to the main plaza space.

PROGRAM + ACCESS

Marina Plaza provides a number of opportunities for gathering, recreation, and entertainment while protecting existing mature vegetation, mitigating wind, and enhancing the use and prominence of the building. The event space provides a large, sunny area within broad terraced lawns with flexible recreational uses such as concerts and picnicking. Nearby, the sunken terrace garden provides a moment of respite under the canopy of trees, acting as a more intimate space, with flexible furnishing and stunning views out to Clipper Cove. Movable café tables along Building 1 extend the building program into the landscape, and provide elevated views over the plaza. The design considers the future development of the area, which envisions a patio with broad steps and café seating wrapping around the southern corner of the site adjacent to the event space providing another desirable area for outdoor dining with southern exposure.

Most pedestrian traffic will flow through Building I along the central circulation spine, with visitors coming from the Ferry Terminal through the doors to an overview of the Marina Plaza. Marina Plaza will be accessible from all four corners, with sloped ramps connecting the plaza to the sidewalk at north, south, and east edges of the site and extending from either side of the Building 1 doors to the main plaza space. Future connections are envisioned east towards Avenue C.

MARINA PLAZA

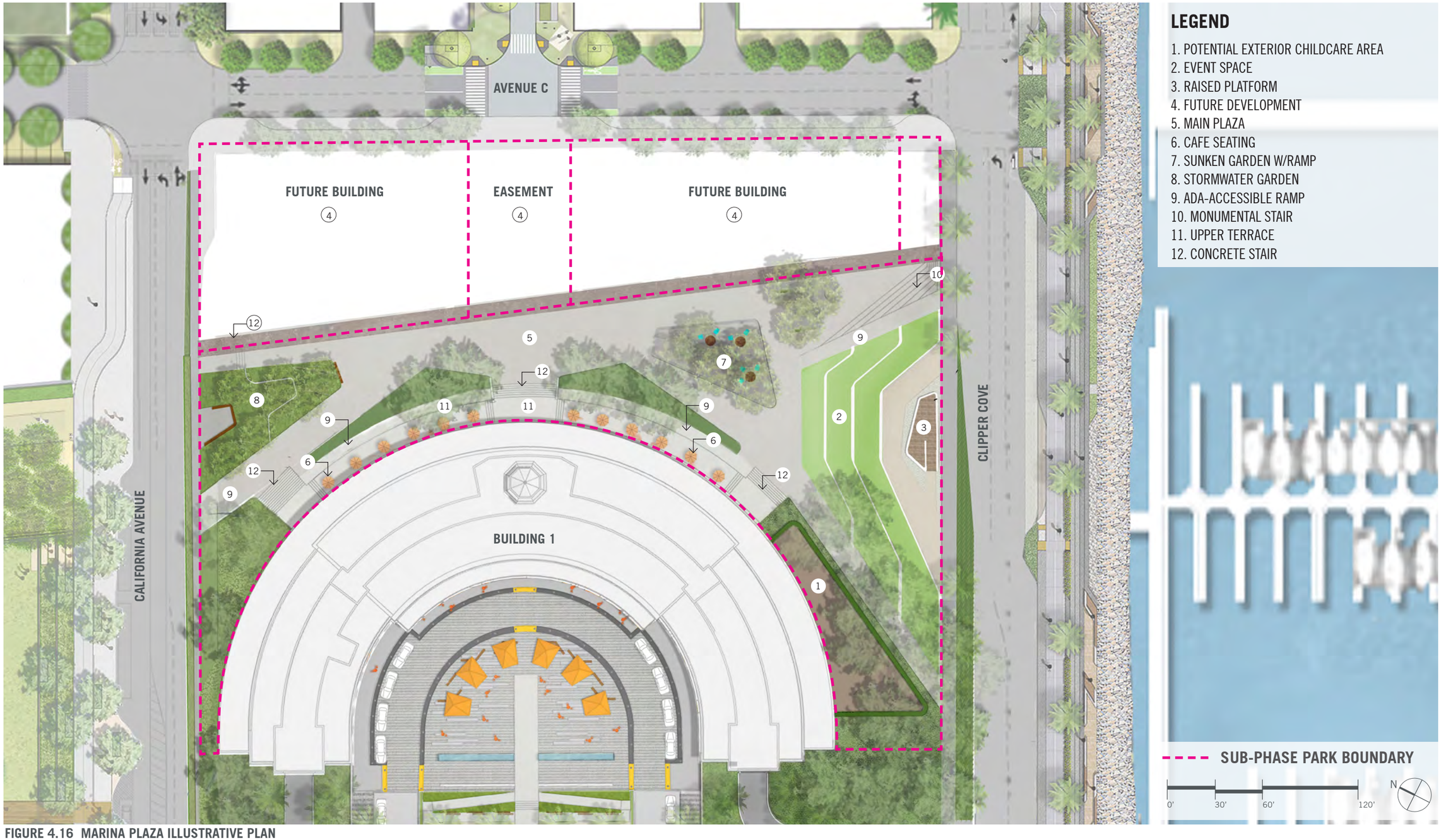


FIGURE 4.16 MARINA PLAZA ILLUSTRATIVE PLAN

SUB-PHASE UPDATES AND SUSTAINABILITY

SUB-PHASE UPDATES

Marina plaza retains its position as a focal point for the Treasure Island development, acting as the main connection between Building 1 and the future retail street, and providing north-south access from Clipper Cove to other island destinations. The stormwater garden at the northern edge of the plaza space has been simplified and retains its functional and programmatic purpose to filter water and provide more intimate garden space for visitors. The sunken garden adjacent to the event space has been modified to offer an accessible sloped walkway, retaining its function as a smaller intimate space with flexible seating, shaded by the filtered canopy. The raised platform, the focal point of the event space, has been modified to define the space and provide access via a sloped walkway. The plaza to the east of the parcel will now be developed during a later phase, and therefore has been removed. In addition to these changes, enhanced pavement is removed to simplify the hardscape palette.

SOILS

A carefully designed biofiltration soil will be used in the stormwater garden at the front of the plaza, to improve efficiency of the stormwater treatment at the basin. Sand-based structural soil will be used to support the hardscape areas, in order to improve the health and longevity of the plant material. In all instances where it is applicable and feasible, the existing topsoil will be reused on site

PLANTING

The building casts the northern portion of the site in the afternoon shade and can funnel the island's prevailing westerly wind through the plaza space. Trees are strategically placed to interrupt wind tunnel and provide shelter from the winds. Large eucalyptus, pine and cypress trees remain where possible to mitigate wind, offer shade, and add visual value. They lend mature character to Marina Plaza, offer habitat and decrease the need for imported plant material. Non-invasive, drought tolerant vegetation and landscaping materials that require minimal irrigation are to be used.

STORMWATER MANAGEMENT

A gravity-drained system will be conveyed to the north in the stormwater garden. The planting within the treatment area will be comprised of native and acclimated species that are adapted to the seasonal variation in rainfall and are composed of rushes, reeds, grasses and wildflowers, providing habitat for birds and insects. Landscape areas will replace existing impervious surfaces with permeable surface, and reducing runoff volumes. The majority of the stormwater will be treated on-site, while portions of the runoff will be directed to other stormwater treatment areas.

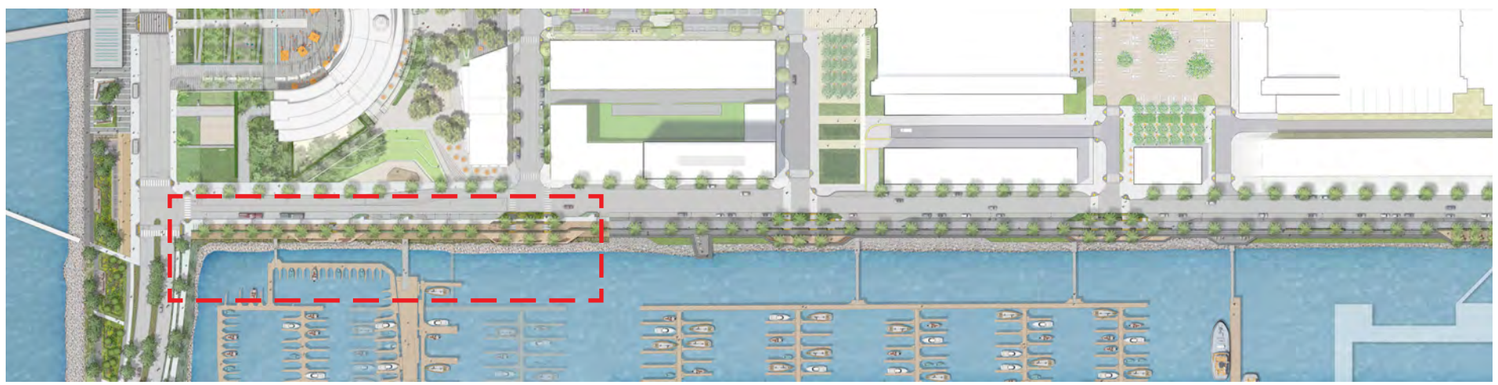
IRRIGATION

Irrigation water on the site will be provided by island-wide recycled water infrastructure. The need for irrigation will be decreased through the selection of non-invasive, drought tolerant vegetation that require minimal irrigation. A high efficiency irrigation system, programmed to detect moisture and weather, will respond to need in real-time with a highly sensitive controller. An inline drip system will apply water directly to the soil, avoiding overspray and maintaining plant health.

FIGURE 4.17 MARINA PLAZA SEATING AREA

FIGURE 4.18 MARINA PLAZA SOUTH BIRD'S EYE VIEW

4.2.6 CLIPPER COVE PROMENADE



OVERVIEW

On the south side of Treasure Island, the Clipper Cove Promenade will provide access along the marina waterfront, and create a linear open space oriented toward the water and marina activities. The promenade is part of the Bay Trail and will connect on either end to future continuations of the trail system. The promenade ranges in width from 35 to 40 feet and would include a designated two-way cycle track (a protected lane dedicated for bicycles) and a continuous pedestrian promenade. The surface of the promenade would be paved using different materials to visually differentiate the pedestrian zone from the cycle track. Palm trees and planting have been added in a band between the cycle track and the pedestrian promenade to further mark the separation. The proposed grades take into account sea level rise projections. Clipper Cove has reduced wave run-up due to its proximity to Yerba Buena island so the proposed grades are very similar to the existing condition.

Along the nearly half mile long promenade are a series of nodes which relate to the city grid. These areas have been identified for bulb outs in the Treasure Island Streetscape Master Plan to make crossing Clipper Cove Avenue more safe.

SUB-PHASE UPDATES

The extents of the Sub-Phase for the Clipper Cove Promenade are from Palm Ave to Avenue C. This first block of the project highlights some key revisions to ensure a successful, functional and beautiful promenade experience.

In addition to a waterside pedestrian promenade and a cycle track, a continuous sidewalk has been added along the south side of Clipper Cove Avenue. Designated automobile loading zones and short-term parking provide access to the waterfont and to the marina. Ample long-term parking is located nearby.

New bulb outs with access ramps ensure pedestrian safety and convenience. Pedestrian crossing points are located in key locations across the cycle track and have distinctive paving that give the pedestrian the right of way.

The cycle track is now depressed, except at the pedestrian crossing locations, another way to differentiate it from the pedestrian promenade. The median planting between the cycle track and the promenade now doubles as bioretention area, in addition to the planting zones in the bulb outs.

CLIPPER COVE PROMENADE

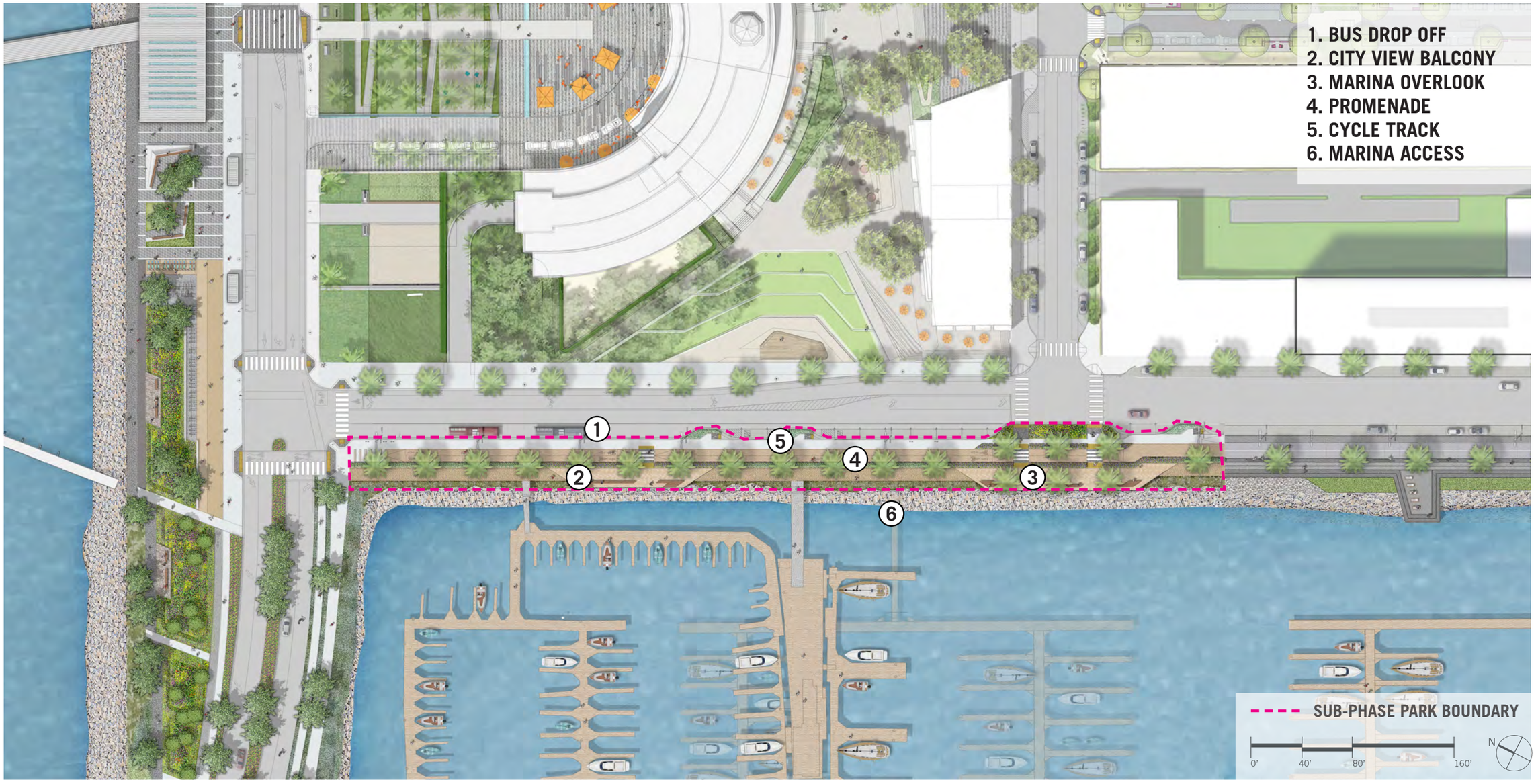


FIGURE 4.19 CLIPPER COVE PROMENADE ILLUSTRATIVE PLAN

SUSTAINABILITY

SOILS

The design requires various planting soils. The palms will be provided with a palm soil mix within planted areas and with a structural soil mis within the paving areas. The bioretention areas, at the bulb puts and median will perform with efficient percolation rates and filtration during storm events.

Other areas planted with groundcover and grasses will require planting soil of 24 inches deep. These softscape areas will be at grade and are not raised planters.

PLANTING

The planting palette is made up of California native and drought tolerant plants to promote efficient water use and watefront habitat. The shoreline edge will be vegetated with coastal native planting that includes small and medium shrubs. This zone is found between the edge of the promenade and the existing riprap where iceplant is currently found.

Large Mexican Fan Palms are proposed along the promenade to continue with the existing identity of the island. This species is also being proposed throughout Treasure Island in other park areas.

STORMWATER MANAGEMENT

The proposed landscape creates green nodes at the bulb outs and a bioretention zone in the promenade's median using native and adaptive planting species to manage the stormwater locally. These bioretention zones represent the majority of the planted areas on the promenade.

IRRIGATION

The irrigation system includes water efficient measures such as bubblers, subsurface drip irrigation, controllers, flow sensors and rain sensors. In addition, the irrigation system would switch to using recycled water once the service is available on Treasure Island. An adequate mulch layer with cover the irrigation lines, thus reducing evaporation.

FIGURE 4.20 CLIPPER COVE PROMENADE VIEW FROM AVENUE C

FIGURE 4.21 CLIPPER COVE PROMENADE VIEW TOWARDS THE WEST

4.2.7 CULTURAL PARK

OVERVIEW

A ‘cultural park’ seeks to reflect the values and desires of its place: protecting the history and heritage unique to its site; providing activities well-suited for its visitors; and offering opportunities for expression of the local neighborhood’s ever-evolving identity.

The Cultural Park will be a focal point and civic gathering space for the Treasure Island community, providing an idyllic setting for the existing Chapel, as well as a place of refuge in its urban context for both sightseers and Island dwellers alike. The Cultural Park offers flexible open spaces that will stand up to the evolving urban character of later development phases.

As part of a network of proximal open spaces, the Cultural Park shares visual and functional connections with Building 1 and Marina Plaza facilities across California Avenue, a proposed ferry terminal and its associated arrival plaza, and a Cityside Waterfront Park activating the length of the Cultural Park’s western edge, while anticipating the future development urban-scale residential and hotel buildings adjacent to the site. A coincidence of axial connections—north-south along Cityside Avenue, and east-west from the ferry gangway to future residential tower—locate the Cultural Park’s Chapel as central to the Island’s programmatic heart. A spectacular view of the San Francisco skyline, spanning from the Golden Gate to the Bay Bridges, is highlighted throughout the Park’s design.

This community park has great potential for any number of events and activities, given its flexible programming and streamlined functional adjacencies. Given the scale and openness of the central lawn and bosque areas, the Cultural Park can accommodate small or large events, performances, festivals, fitness events, or other local programs. This approach allows the Cultural Park to have the potential to continue its role as an evolving neighborhood’s central gathering place.

SUB-PHASE UPDATES

Further clarity on the functional details of the Cultural Park has streamlined the site’s amenities, fixtures, and materials, while keeping the intent of the initial design intact.

Program areas have adjusted in dimension as required for anticipated scale and use—the deck, in particular, has been modified to improve visitor access and conserve material resources. An iconic signage opportunity is now provided at the central walkway and Chapel entry, allowing the Cultural Park to further serve as a regional destination and community gathering place. Clusters of seating areas enliven the bosque and provide ample opportunities to enjoy the Cultural Park’s incredible views in both sun and shade, whether alone or in group.

The design configuration and material applications of site edges respond to evolving circulation networks, connecting the Cultural Park to the Shared Public Way, Waterfront Promenade, and cycleway and vehicular programs along California Avenue. The Cultural Park’s perimeter also accommodates anticipated future building phases and their requisite access criteria.

Surface materials, lighting, furnishings, and utilities have received careful consideration to ensure project-wide consistency, minimization of environmental impacts, and extended lifespans. Likewise, a greater specificity of plant species enhances the expansive, coastal character of the Park.

CULTURAL PARK

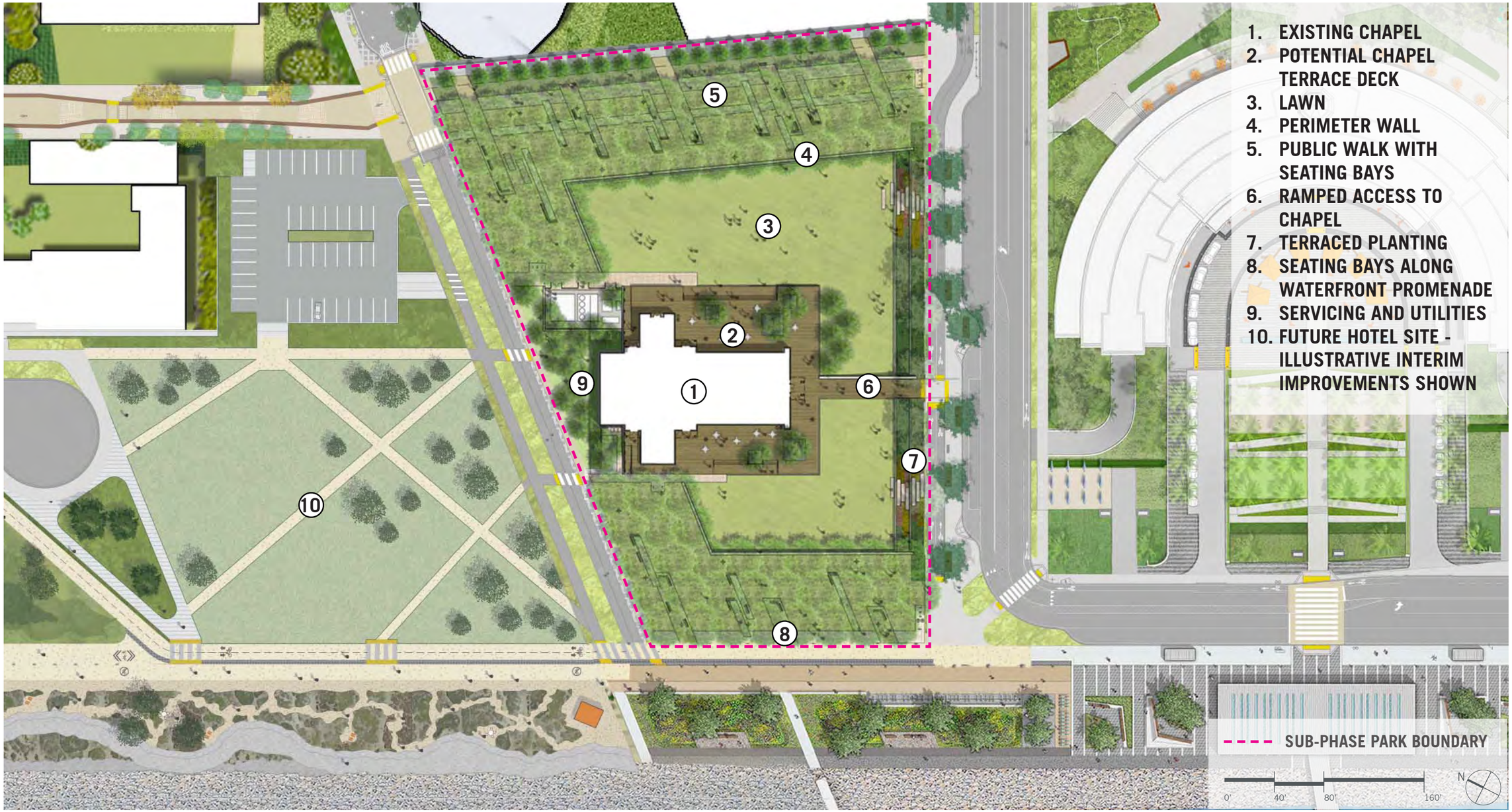


FIGURE 4.22 CULTURAL PARK ILLUSTRATIVE PLAN

SUSTAINABILITY

SOILS

Preliminary visual assessments have indicated that existing site soils contain beneficial organic content and are of a sandy constitution, which is ideal for optimal drainage. These soils will be protected during construction and supplemented with imported soils that achieve required quantities and levels of key chemicals and nutrients.

Uncompacted on-site and imported soils will be amended as necessary to provide a fertile, well-draining medium for vigorous plant growth.

PLANTING

A palette of California native and adaptive species that are well-suited for the waterfront climate informs plant selections across the site. Selected species are known to be tolerant of sea salt spray, low irrigation, minimal maintenance, and urban impact, yet achieve the beautifully windswept aesthetic of the Northern California coastline.

A formal bosque of *Melaleuca quinquenervia* (broad-leaved paperbark) trees encircles three of the site's four sides, while an informal clustering of evergreen *Cupressus macrocarpa* (Monterey cypress) trees lines the fourth, creating a sense of enclosure protected against prevailing winds. Filling the Park's central area is a flexible, open lawn—this feature offers spaces for active or passive recreation and small or large events. Broad terraces stepping down from California Avenue to the open lawn will be planted with drifts of hearty, low shrubs and groundcovers. These species are selected as companion plants to Monterey cypress to create a rich evergreen plant community evocative of the coastal bluffs to which the trees are endemic.

STORMWATER MANAGEMENT

All stormwater will be collected and treated on site. Porous surfaces—including decomposed granite, concrete unit pavers, and turf—cover the majority of the site, causing little to no impact to the broader watershed treatment area of 'Drainage Area B.'

IRRIGATION

Water-saving devices will be used throughout the irrigation system, including bubblers, low-flow drip lines, and minimal rotary spray. Irrigation lines connect to a civic water main in the right-of-way located behind the Chapel structure. The irrigation system is linked electronically to satellite weather data so that microclimate conditions can be monitored and water use adjusted accordingly. Water use can be further reduced or, in some areas, eliminated, after an appropriate establishment period.

FIGURE 4.23 CULTURAL PARK BIRD'S EYE VIEW

FIGURE 4.24 CULTURAL PARK VIEW FROM PUBLIC WALK

4.2.8 CITYSIDE WATERFRONT PARK

OVERVIEW

Situated on the Western edge of Treasure Island with dramatic views of the Bay Bridge, downtown San Francisco and the Golden Gate, the Cityside Park is envisioned as an iconic destination that will draw visitors and residents alike to walk, run, ride and linger along this spectacular waterfront. Beginning with creation of the island and the Golden Gate International Exposition, the western shore of the island was envisioned as a place of arrival and drama with the original ferry terminal and the 'Magic Carpet' gardens flanking the 'Portal of the Pacific' gateway and opening to the Tower of the Sun. With the onset of WWII and the transition from pageant to Naval Station the waterfront remained largely open and utilitarian. Today, the waterfront is defined by its rocky shore, a large lawn area, the Avenue of the Palms, parking areas, residential areas and unoccupied Navy buildings.

When complete, the entire Cityside Waterfront Park will be a 24 acre open space, 300-feet wide from the shore to Cityside Avenue and around three quarters of a mile in length. A concept design was developed for the entire park to inform the programming and design of the areas within Sub-Phases 1B, 1C and 1E, which includes the two southern-most blocks (6.3 Acres) and will mark the return and reinvention of the waterfront as a truly magical public space.

The Cityside Waterfront Park takes its cue from several of the Bay Area's most cherished waterfronts. Crissy Field in the Presidio National Park was also a former military base reimagined as a place that brings history, culture, ecology, and recreation together with the clarity and restraint that befits such an incredible setting. Legible at the urban scale but distinguished along its length by a variety of activities, the park is conceived as one

FIGURE 4.25 CITYSIDE WATERFRONT PARK ILLUSTRATIVE PLAN

landscape with many experiences. Envisioned as an open and gracious space with intimate moments of respite, the design is informed by rustic and urban qualities. Rustic in the sense that the character of the landscape is defined by its scale, its wind swept rugged shore and the goal of creating a landscape that is ecologically appropriate and sustainable. Urban in the sense that it is part of the City and needs to provide for a wide range of cultural, social and community activities and events and should reflect a contemporary vision of urban life.

A series of signature windrows extend from the waterfront promenade to the northeast through the Cityside neighborhood to the Urban Farm and parklands beyond. Oriented to deflect and reduce the prevailing northwesterly winds, the double rows of Blue Gum trees are both utilitarian and formal, structuring space, framing views and defining a series of large rooms, each of which has a specific program and identity. A row of palms flanks Cityside Avenue at the back edge of the park, recalling the historic Avenue of the Palms, while the waterside edge is defined by a generous promenade that undulates gently along the shore, providing a variety of experiences and subtle shifts of view as one moves along the waterfront. Small overlook areas with a variety of seating types are set within the coastal strand between the promenade and shore.

The first windrow space is envisioned as a flexible event plaza with a simple, open paved area and a double row of trees. The plaza will be designed to support small to medium sized events and will include site furnishings, lighting and seating areas along with power and water for events. Moving north, The Bowl is distinguished by a large open lawn with native coastal scrub plantings along its back edge. The scale and simplicity of the space will allow for a wide range of activities including light recreation, on-leash dog walking, picnicking, and larger community events and gatherings. A paved area situated along the promenade will provide a space for temporary stages, movie nights, etc. The second windrow plaza at the terminus of 6th street is programed as a BBQ and large group picnic area. Set in the lee of the windrow trees and adjacent to the lawn, the picnic plaza will include groups of picnic tables, BBQ facilities and seating areas with wonderful waterfront views.

SUB-PHASE UPDATES

The following updates, additions and revisions to the Cityside Park Design have been made based on comments received during the Major Phase Application review; development of the design and integration with shoreline design and geotechnical improvements. All of the programmatic elements and park circulation included as part of the Major Phase submittal have been retained and enhanced.

Stormwater Treatment: The most notable refinement is related to the integration and development of stormwater treatment requirements for the Cityside neighborhood. For more information regarding the function and design of the stormwater treatment areas refer to the description below and the Stormwater Control Plan submitted as an appendix to this Sub-Phase Application.

Promenade Overlook: A modest scaled overlook composed of a series of terraces has been added slightly north of the 4th Street event plaza where the promenade shifts closer to the waterfront. As a distinct element the overlook will be both a

FIGURE 4.26 CITYSIDE WATERFRONT PARK SUB-PHASE ILLUSTRATIVE PLAN

SUB-PHASE UPDATES AND SUSTAINABILITY

SUB-PHASE UPDATES CONT'D

destination and a landmark that defines space and frames views. At approximately six feet in height the overlook will create a wonderful spot for people watching, and an opportunity to get up above the promenade and the Bay.

Promenade Design: The width, layout and design of the waterfront promenade has been further refined and coordinated with the City's access coordinators. A dedicated bike path from the Waterfront Plaza will connect diagonally across the south edge of the park with the Class 1 bike path along Cityside Avenue and will be separated from the pedestrian zone by a contrasting and textured paving band. As part of the Bay Trail, the promenade will be a generous multi-use path that includes a mixed bike/ pedestrian zone and a dedicated pedestrian only zone. The areas will be demarcated with markers and signage integrated with the paving.

Shoreline Design: The shoreline design has been refined and coordinated to create a more intricate and inviting waterfront edge while addressing shoreline protection and engineering requirements. A small open area has been provided at the interface with the Waterfront Plaza to provide for a potential Bike Rental concession.

Infrastructure and Utilities: Screened utility areas have been incorporated in the vicinity of the 5th and 6th Street plaza areas to accommodate island-wide and park electrical services, irrigation equipment, sanitary, and stormwater infrastructure. The areas have been carefully integrated with the park design and will include a 5 – 7 foot mesh panel system that will screen and secure the utilities.

The Event Plaza, BBQ Plaza, site furnishings, lighting, signage and other park programs have been further developed and refined.

SUSTAINABILITY

In addition to the stormwater management functions described below, Cityside Park will contribute to the overall sustainability of Treasure Island by providing recreational and community space, reducing water use with the use of drought tolerant and climate adapted plant species and water efficient irrigation systems. The infrastructure plan includes provisions for recycled water for use in the landscape thereby eliminating the use of potable water for irrigation. The park is composed of a diverse palette of native species in combinations that are uniquely adapted to the soil and climate of Treasure Island and is designed to provide habitat for migratory song birds and pollinators. Long-term maintenance considerations including waste reduction and organic landscape management are an integral part of the design.

SOILS

Much of the park area is currently paved or includes existing structures and a modest amount of fill is required to establish final park elevations. Topsoil from the existing lawn area will be stripped, stockpiled and reused and new landscape soils will be provided as required for each planting area and type. The soils will be pre-blended and designed to reduce the need for future inputs or fertilizers. Refer to the soils plan included with the park design documents for more information regarding soil types and depths.

PLANTING

As the first of four phases within Cityside Waterfront Park this is an opportunity to showcase sustainable landscape planting strategies. The proposed design includes a range of plant typologies for people to use and experience, creating habitat for migratory birds, and filtering stormwater. Cityside Waterfront Park celebrates resiliency through the selection drought tolerant plants to reduce water consumption, native species that will attract butterflies and birds, and vegetation with manageable scale and habit that require little maintenance – all of which are potential public educational opportunities. Treasure Island's unique climate calls for corresponding plant species that will thrive in the conditions of wind, fog, and exposure to salt-spray. Climate adapted tree species including Monterey Cypress, Coast Live Oak, White Alder and Blue Gum are located strategically to block wind and frame views. The understory planting is divided into distinct zones based on proximity to the waterfront, use, and ecological benefit and maintenance requirements. Exemplary species for each zone are included in the technical appendix of the Sub-Phase application.

STORMWATER MANAGEMENT

A holistic design approach that includes a series of seasonal wetland/rain gardens has been carefully integrated into the back edge and southern area of the park. As a type of seasonal wetland the stormwater gardens will provide a naturalistic backdrop to the more formal and programed areas within the park and will create habitat for migratory songbirds and pollinators. Lift stations will lift the required treatment flows to the park elevation from the storm drain system. The treatment flows will then be distributed to two primary treatment areas and that are composed of a forebay distribution and flow control structure, a channel, and a series of biofiltration areas. Water will pool within the treatment areas for 24-48 hours and will filter through the soil profile and a sub-drainage system before flowing back to the storm drain system and discharging to the Bay. The stormwater gardens will be enclosed with a low 3-foot mesh panel fence system set within planting areas.

IRRIGATION

A new irrigation system will be provided throughout the park. The system will be designed to use recycled water and the majority of the system will utilize drip irrigation, with the exception being the recreational/event lawn. The system will utilize centrally controlled water efficient technology including soil moisture sensors and smart controllers to reduce and manage water use.

FIGURE 4.27 CITYSIDE WATERFRONT PARK VIEW TOWARDS BAY BRIDGE

5. UTILITIES

CONSISTENCY WITH ENTITLEMENT DOCUMENTS

The Utility systems included as part of this Sub-Phase Application 2 are consistent with previous entitlement documents and the Treasure Island/Yerba Buena Island Master Utility Plans, which are currently being reviewed by applicable City Agencies. The Utilities section of this Sub-Phase Application 2 includes 50% Construction Documents for all Utilities on Yerba Buena Island. Further information regarding phasing and interim utility improvements will be provided as part of subsequent improvement plan submittals.

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5.1 STORMWATER TREATMENT

All watershed areas will include centralized treatment areas where a single treatment feature treats storm water from the entire watershed including private parcels, city rights-of-way and TICD controlled property. The Marina Plaza, Cultural Park and the Ferry Plaza will provide private on-site treatment areas. Private vertical development and TIDA controlled property will not be required to implement any storm water treatment measures on their parcels because the storm water treatment is provided in designated off-parcel centralized treatment areas as approved by the SFPUC.

Storm drainage outfall C on Treasure Island will have treatment areas located in an area upstream and adjacent to the outfall. Centralized storm water treatment areas shown are conceptual only and will be further documented in the Project's Preliminary and Final Storm Water Control Plans. The Preliminary Stormwater Control Plan is included in this application as Appendix G.

The centralized treatment facilities will consist of a "treatment train" strategy in an urban park setting. The treatment train will consist of a swirl separator, a forebay, a vegetated swale, extended detention, and dispersed biotreatment areas. Landscaping will be selected for stormwater treatment, biological habitat benefits and aesthetics, while providing screening of the structural elements (primarily, the pump discharge location and the bioretention outlet structure).

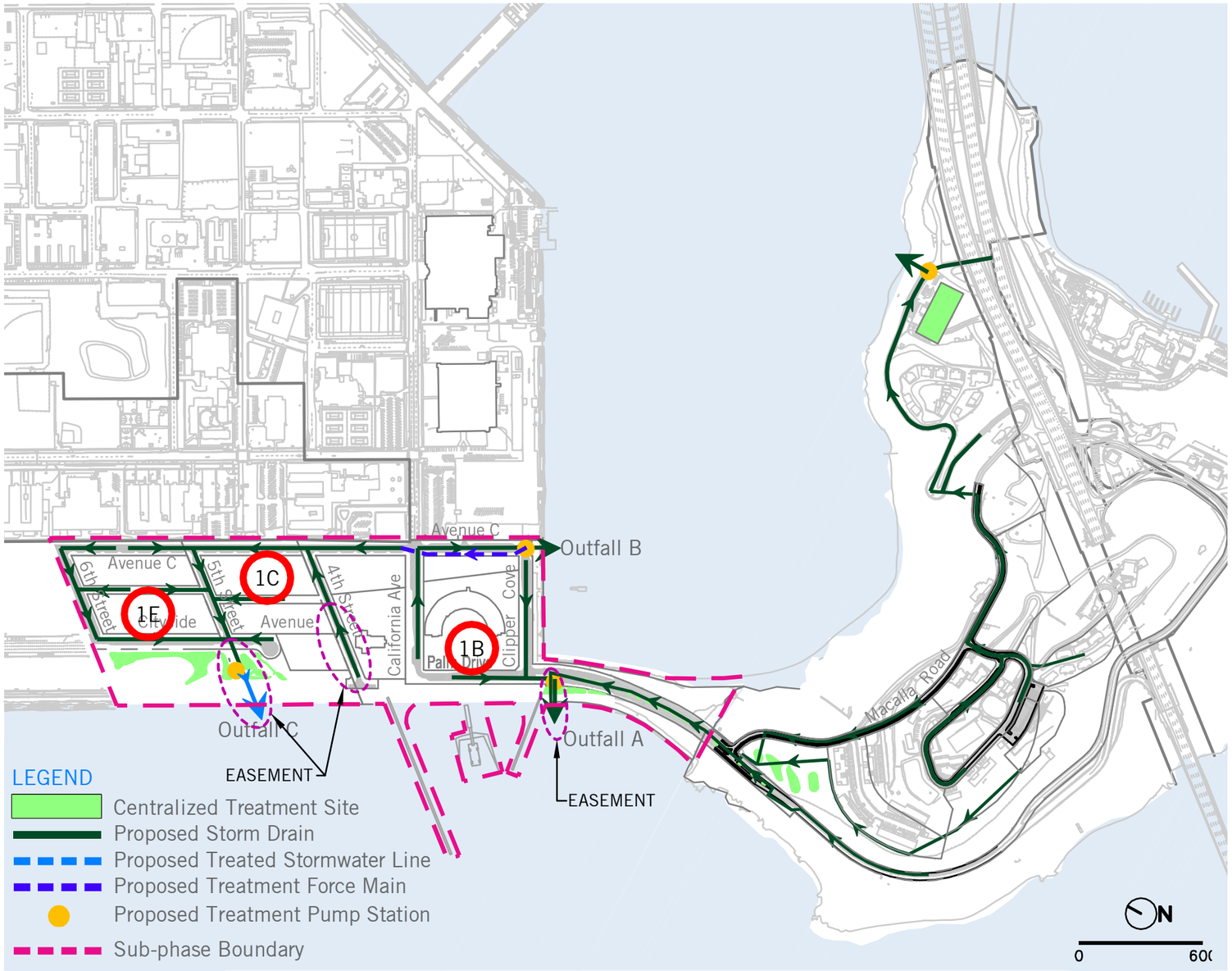

FIGURE 5.1 SUB-PHASE STORMWATER TREATMENT

5.2 STORM DRAIN

The proposed storm drain mains will be located in the street right-of-way except for the storm drain outfalls that pass through the parks and open spaces.

Existing storm drain mains will be demolished and removed as needed with Sub-Phases 1B, 1C and 1E. New outfalls will be constructed for the storm drain system for Sub-Phases 1B, 1C and 1E. Existing outfalls will be reconstructed as part of the shoreline protection.

The existing Job Corps stormwater system crosses their property line at several locations along their western and southern property line and connects to the existing TI system. The Project will coordinate with the Job Corps and re-connect their system at one location along Avenue C. The Project will then provide one of the following two alternatives for connecting the Job Corps stormwater system to the existing outfall along the western shoreline that currently serves the Job Corps site:

1. Install a new gravity line from the Job Corps connection point on Avenue C to the existing outfall. Installation of a stormwater lift station would be required to pump the drainage into the gravity line. The gravity line would be sized to match the existing drainage conditions on the Job Corps campus.
2. Install a new pump station at the connection point and provide a dedicated force main to a new San Francisco Bay Outfall. The pump station and force main would be designed to match the existing drainage conditions on the Job Corps campus.

Shared public ways are public streets which are designed as walking corridors with minimal vehicular traffic. The proposed storm drain lines through the shared public ways will only convey local drainage to storm drain mains located on the other public streets. No storm drain mains will convey drainage through the share public ways.

Treatment pump stations will be provided during Sub-Phases 1B, 1C and 1E at:

- Clipper Cove and Avenue C,
- At the west end of 5th Street in Cityside Park.

Treatment pump stations will pump pre-treatment stormwater flows to centralized bioretention areas located in the open space areas.

The following location will require a storm drain easement:

- 4th Street between the Shared Public Way and Palm Drive. This portion of 4th Street will be private until dedicated to PUC.
- West end of 5th Street in Cityside Park towards the outfall (Outfall C)
- West end of Treasure Island Road and the Ferry Plaza toward the outfall (Outfall A)

Proposed Changes to the 2011 Infrastructure Plan

- Section 12.3.1 – Treasure Island Stormwater Treatment Areas
  - The stormwater treatment areas have been updated per the Master Utility Plans.
- Figure 12.1, 4 – Proposed Stormwater Collection System
  - The system layout and stormwater treatment areas have been updated per the Master Utiltiy Plans.

STORM DRAIN

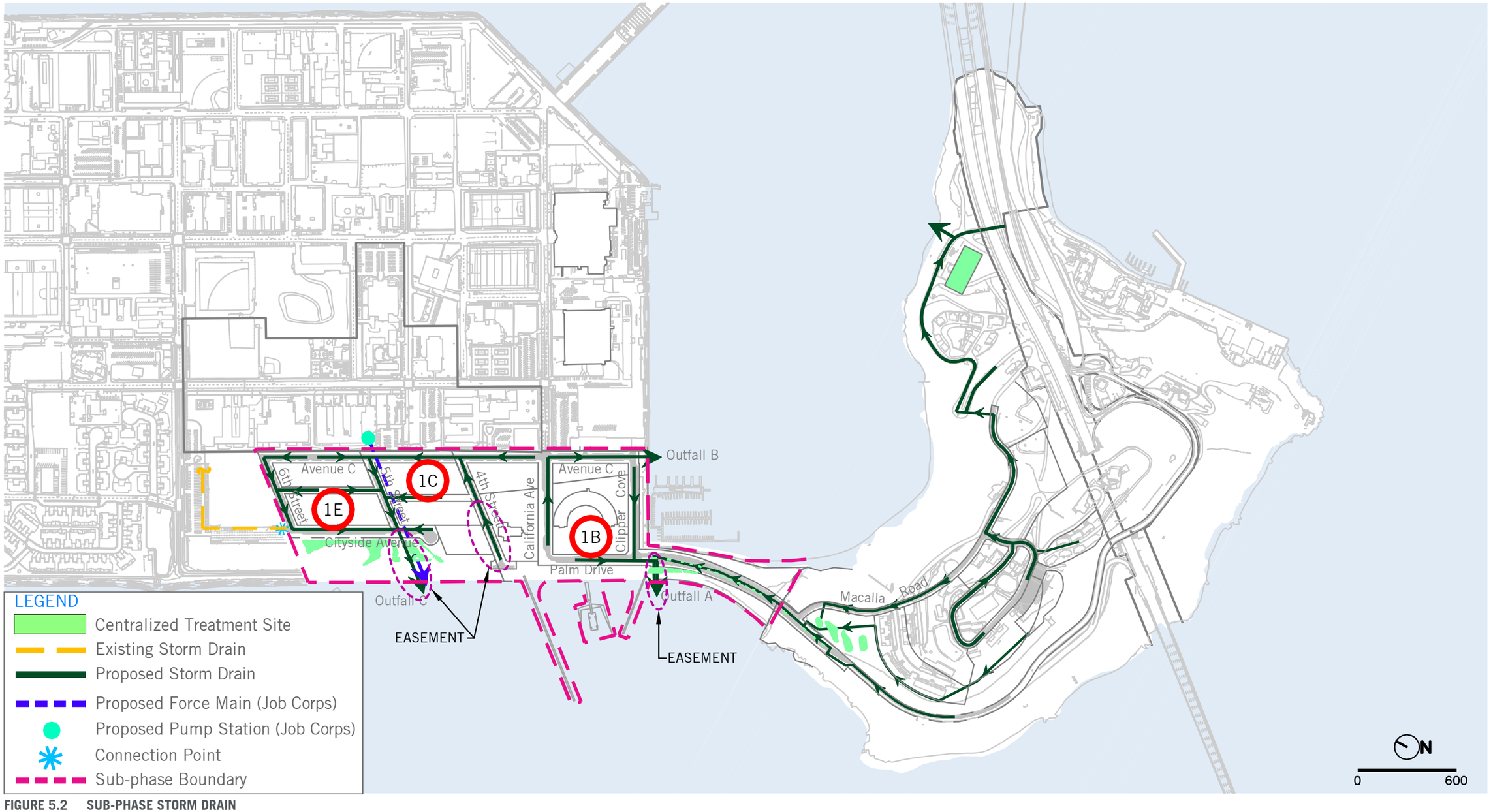

FIGURE 5.2 SUB-PHASE STORM DRAIN

5.3 SANITARY SEWER

The proposed sanitary sewer (SS) system will serve the sewer demands for the development. The existing SS mains and laterals within Sub-Phases 1B, 1C and 1E will be demolished.

The proposed SS system will allow for connection of select existing sewer facilities at the following locations:

- Connect to existing lateral from Island Center parcel in proposed California Avenue
- Connect to existing lateral from Building B1 in proposed California Avenue
- Connect to existing lateral from Job Corps in proposed Avenue F

Proposed lift stations will be located at the following locations:

- Intersection of proposed Cityside Avenue and proposed 5th Street

Proposed pump stations will be located at the following locations:

- In proposed 4th Street at the northeast area of the existing Chapel

An interim sewer force main will connect to the Sub-Phase force main on California Avenue and Avenue C and will be routed to the Wastewater Treatment Facility.

The following location will require an easement:

- 4th Street between the Shared Public Way and Palm Drive. This portion of 4th Street will be private until dedicated to PUC.

Proposed Changes to the 2011 Infrastructure Plan

- Section 10.2.2
  - The pump/lift station layouts have been adjusted based on conversations with the SFPUC.
- Section 10.2.2.2 – Wastewater System Design Criteria
  - The design criteria has been updated based on requests from the SFPUC
    - Velocity: Wastewater system velocity will be 2 feet per second during average dry weather flows.
    - Minimum Depth of Cover: Minimum depth of cover shall be 5 feet.
- Section 10.5
  - The proposed Sub-Phases 1B, 1C and 1E development will not utilize the existing Navy sewer system. A new interim force main will be constructed out to existing waste water treatment plant that will serve the proposed development.
  - The SFPUC will not be responsible for the existing Navy water mains that will remain after Sub-Phases 1B, 1C and 1E. TICD will coordinate with TIDA to determine what studies, if any, are required for the existing condition assessment of the existing water mains.
- Section 10.3 and Section 11.2.1 – Wastewater Treatment Wetlands
  - There are currently no plans to utilize wastewater treatment wetlands.
- Figure 10.1 – Proposed Wastewater Collection Systems
  - Based on continued conversations with SFPUC, the sanitary sewer system and pump station layouts have been updated per the Master Utility Plans.

SANITARY SEWER

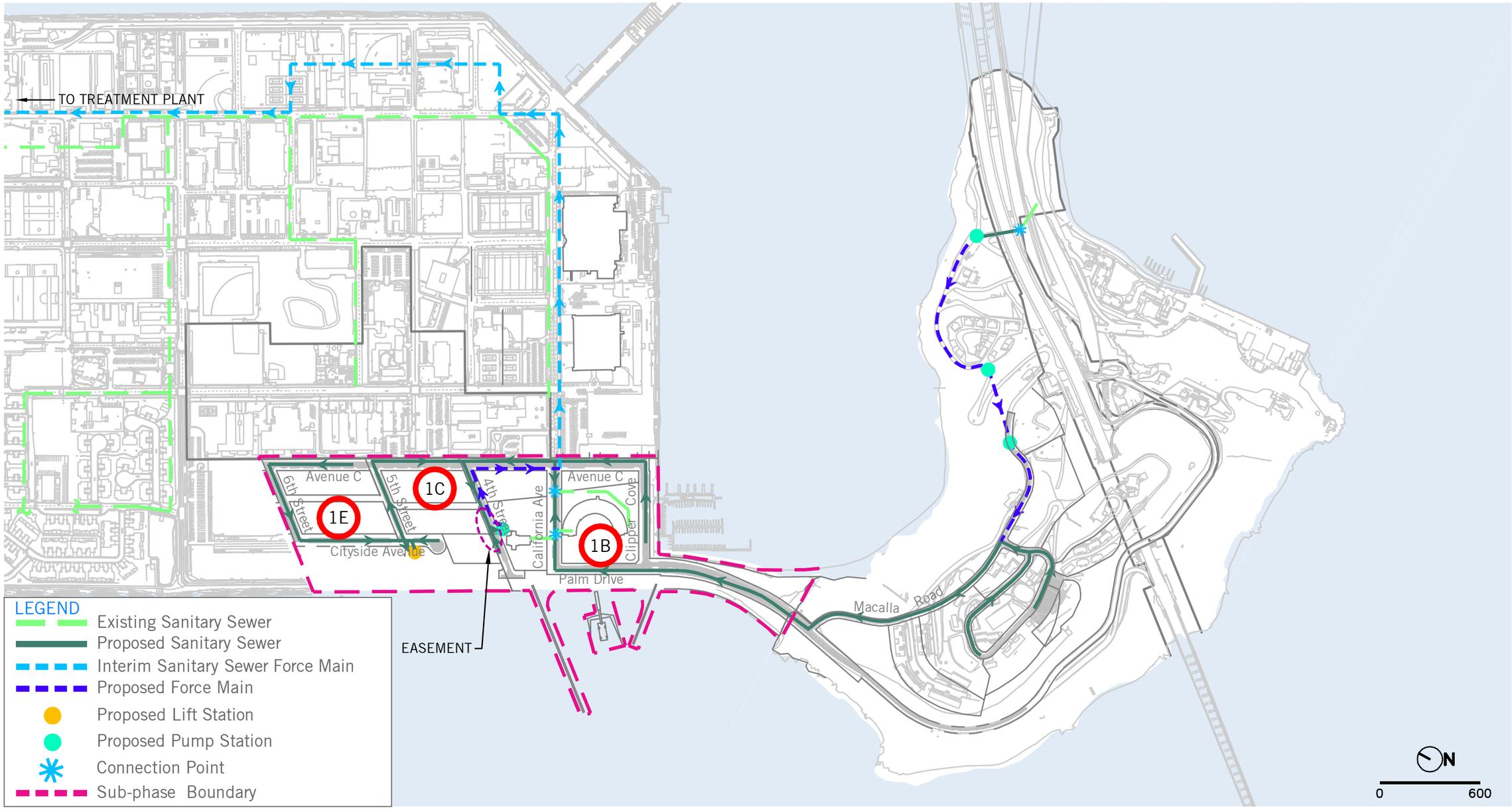

FIGURE 5.3 SUB-PHASE SANITARY SEWER

5.4 LOW PRESSURE WATER

The proposed low pressure water (LPW) system will serve the potable water demands and the fire flow demands for the development. LPW includes water tanks on YBI for service and fire protection on TI & YBI, and pumping facilities to serve YBI.

The existing LPW mains within Sub-Phases 1B, 1C and 1E will be demolished. A new private water main will be constructed on Job Corps property to continue water service for the existing buildings during construction and development of Treasure Island.

LPW facilities will be located within public right-of-way to allow for access and maintenance of facilities unless an alternative design is approved by SFPUC under hte Subdivision Regulations for Treasure Island and Yerba Buena Island. In every location where a SFPUC low pressure water main is located outside the public right-of-way, an easement will be dedicated for that low pressure water main. The SFPUC will only consent to such water main easement if the SFPUC determines that the proposed alignment and easement are appropriate based on the SFPUC policy.

The following locations will require an easement:

- 4th Street between the Shared Public Way and Palm Drive. This portion of 4th Street will be private until dedicated to PUC.

The proposed LPW system will allow for the connection of the existing LPW system at the following locations:

- Connect to the existing main on California Avenue and Avenue C
- Connect to the existing main on Clipper Cove and Avenue C
- Connect to the existing main on 6th Street and Cityside Avenue
- Connect to existing water lateral that provides water service to existing building B1 and Chapel

Connection of existing water system to the new LPW system will include meters and backflow devices.

Proposed Changes to the 2011 Infrastructure Plan

- Section 9.2.2.2 – Emergency Water Supply
  - The PUC had determined they do not need an emergency water supply from EBMUD and has removed the secondary line from the project.
- Section 9.2.3 – Proposed Potable Water Storage
  - The locations and configuration of the water storage tanks have been modified in coordination with the SFPUC due to seismic concerns at the existing water tank location on Macalla Road and separating the larger tank into three tanks for maintenance purposes.
- Section 9.5 – Phases for Potable Water System Construction
  - The current plan is to build the new development water storage tanks before Sub-Phases 1B, 1C and 1E development is complete.
  - The SFPUC will not be responsible for the existing Navy water mains that will remain after Sub-Phase 1B, 1C and 1E. TICD will coordinate with TIDA to determine what studies, if any, are required for the existing condition assessment of the existing water mains.
  - Figure 9.1 - The potable water distribution system has been updated per the Master Utility Plans

LOW PRESSURE WATER

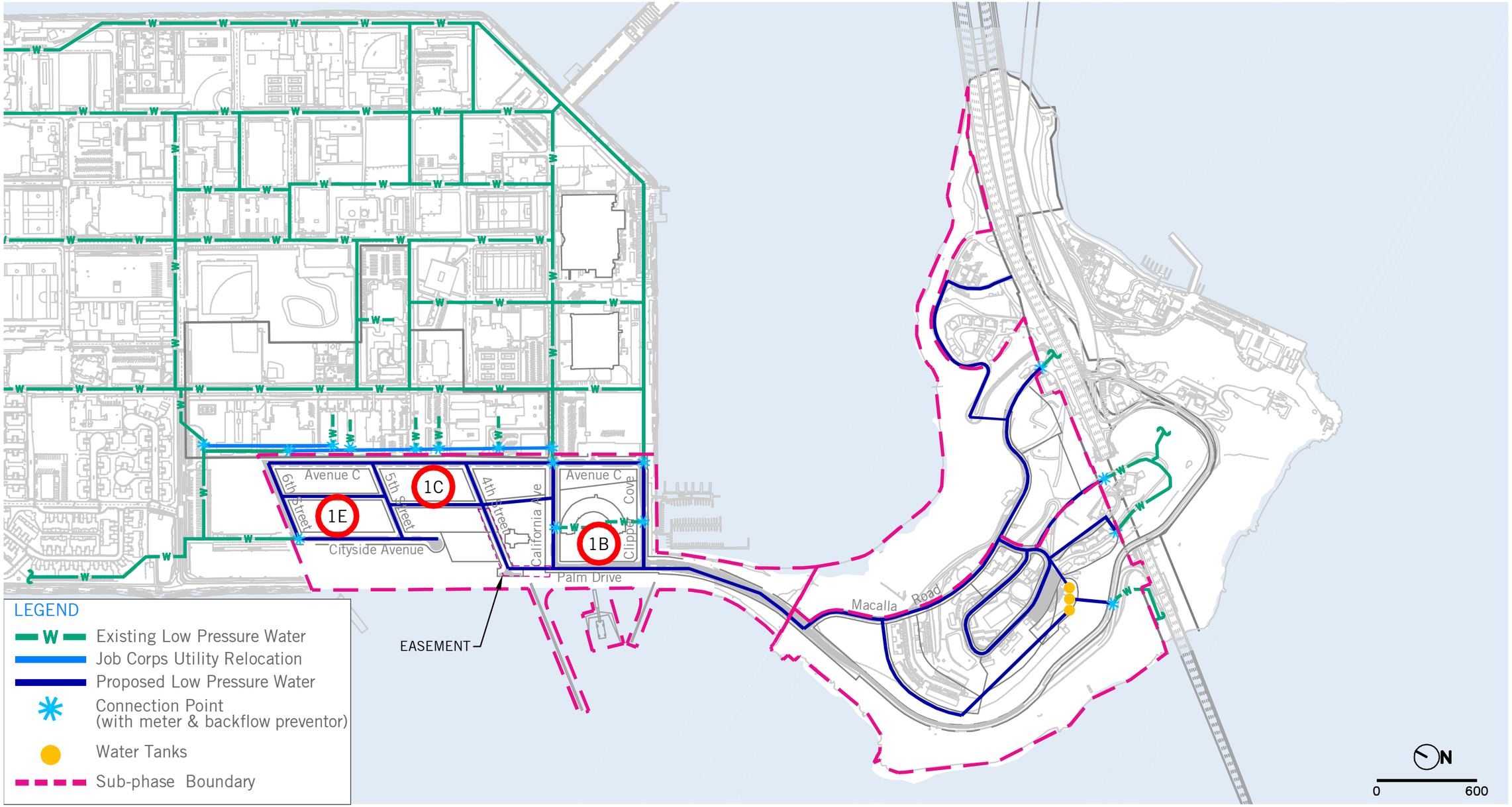

FIGURE 5.4 SUB-PHASE LOW-RESSURE WATER

5.5 RECYCLED WATER

The proposed recycled water (RW) system will be used on Treasure Island primarily for irrigation and toilet flushing.

The layout of the proposed RW system is generally within the proposed street right-of-way. Treasure Island has several different street sections, and RW mains will typically be located under street parking and occasionally under bulb-outs.

The City currently does not have an existing RW system to supply the Project with recycled water. The proposed RW Treatment Facility is subject to future negotiation and agreement between the SFPUC and TIDA.

Since the recycled water supply will not be available during the first phases of project development, the RW system will be served from interim connections to the new LPW system. A backflow device will be installed at each connection point to prevent backflow from the RW system to the LPW system.

The proposed RW system will include temporary connections to the new LPW system at the following locations:

- Connect at the intersection of proposed Cityside Avenue and proposed 5th Street
- Connect at the intersection of proposed California Avenue and proposed Palm Drive

Proposed Changes to the 2011 Infrastructure Plan

- Section 11.2.2– Supplemental Source for Fire Protection
  - The recycled water system will no longer be used as the source of supplemental fire water. The current plan requested by the SFFD is to use a wet standpipe system that will be charged using two fire boat manifolds that will pump sea water into the system.
- Section 11.2.4 – Proposed Recycled Water Storage and Pumps
  - The recycled water storage tanks will only be sized for 1 day of average daily demand. The tanks will no longer need to accommodate the 4-hours of fire flow.
- Section 11.2.5 – Proposed Recycled Water Distribution
  - The recycled water distribution system will no longer be sized using coincident fire flow demands or required fire flow pressures.
- Section 11.3 – Recycled Water Fire Protection
  - Recycled water will no longer be used for supplemental fire projection.
- Figure 11.1 – Proposed Recycled Water Distribution System
  - The recycled water fire hydrants have been removed from the project. The system layout has been updated per the Master Utility Plan.

RECYCLED WATER

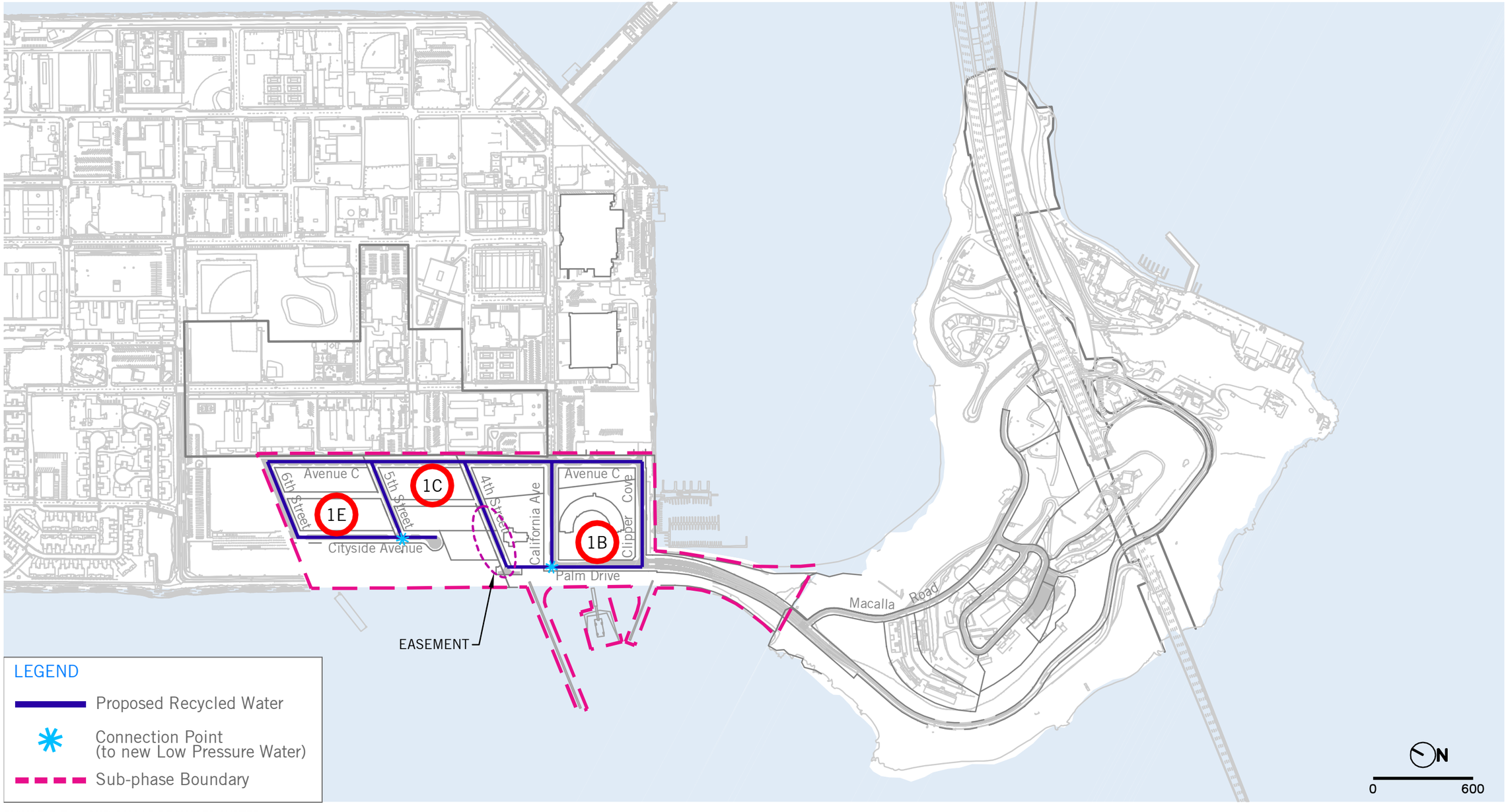

FIGURE 5.5 SUB-PHASE RECYCLED WATER

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5.6 SUPPLEMENTAL FIRE WATER SYSTEM

Emergency water supply system for Treasure Island will be supplied from a Wet Standpipe system. A fire boat will dock at the Ferry Plaza on Treasure Island and will connect to a fire boat manifold that will pressurize the standpipe system. They system will include five hydrants, placed one hydrant at each block along Avenue C and California Avenue, that will be identified as non-potable water.

Fire Boat Manifold will be located on the west end of California Avenue within the geotechnically improved portion of the shoreline. Design of the manifold will be coordinated with SFPUC and SFFD.

Proposed Changes to the 2011 Infrastructure Plan

- Section 9.2.2.2 – Emergency Water Supply
  - It is not intended to receive emergency water supply from EBMUD.

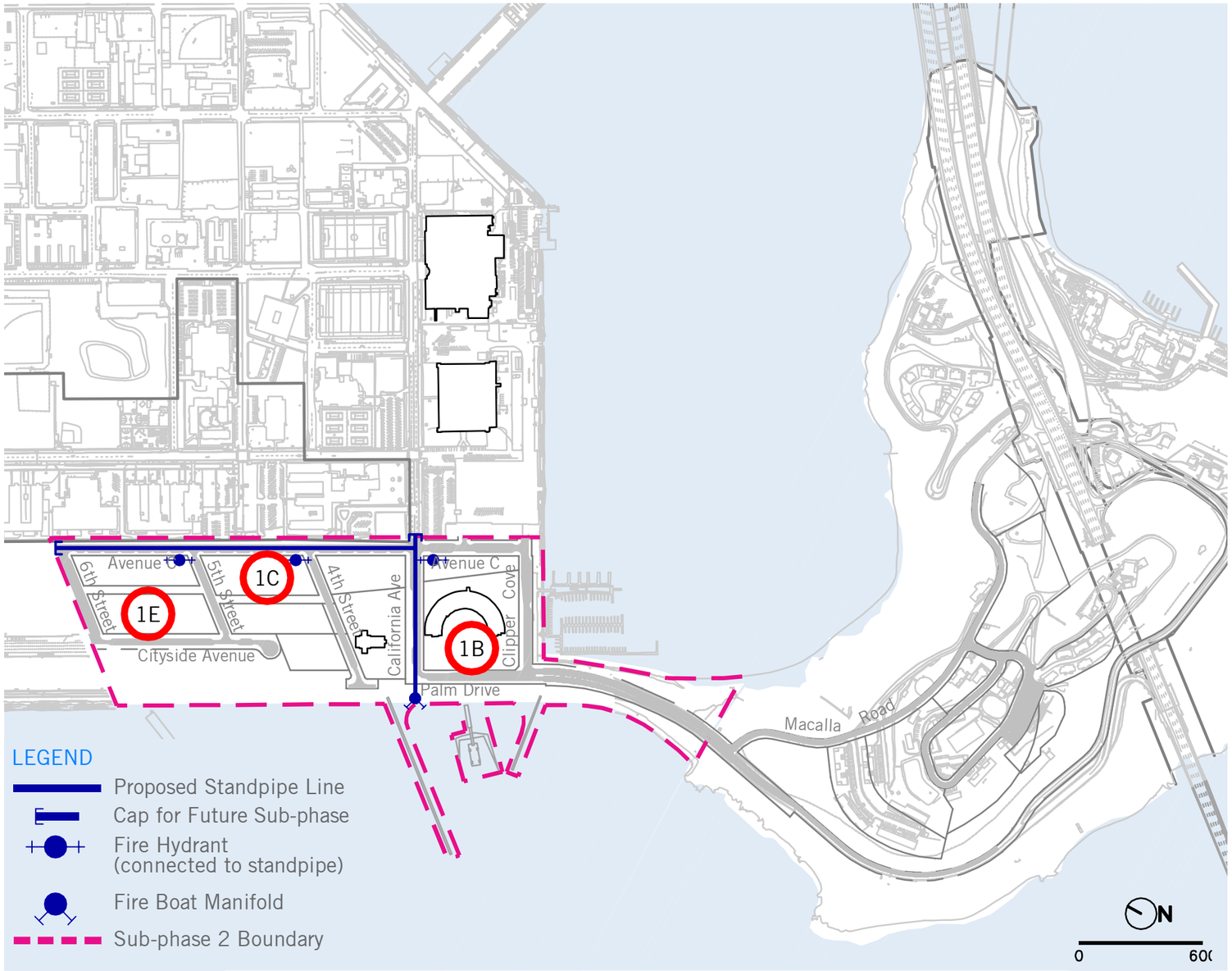


FIGURE 5.6 SUB-PHASE SUPPLEMENTAL FIRE WATER SYSTEM

5.7 JOINT TRENCH

A joint utility trench system is planned for the project and will include the following dry utilities: electric, gas, telephone, cable TV and other ancillary communication facilities required by SFPUC.

Joint utilities on site shall be placed in a common trench located in the franchised area, under the sidewalk for mechanical protection and will be installed to maintain utility standard clearances from wet utilities and other improvements. Vaults, boxes, manholes and enclosures housing equipment will be installed in the franchised area as well; their locations will be coordinated with wet utilities, other civil and architectural improvements and street lights. Joint utilities will be installed in Shared Public Ways.

The joint trench exhibit illustrates the general location of proposed joint trench facilities, an overhead line relocation and new switch gear at the eastern shore and identifies other joint utility source locations. General system elements for each dry utility are described briefly below.

Treasure Island is served by existing submarine cable from Oakland. These lines connect to existing switchgear in existing Building 3. This switchgear then feeds distribution on Treasure Island and a submarine cable to feed distribution facilities on Yerba Buena Island. As part of Sub-Phases 1B, 1C and 1E, new 15kV switchgear will be provided on the east side of the island to feed the new 12kV, 600 and 200 amp distribution system in the new development. This new switchgear will be fed from the existing submarine cable from Oakland. This new switchgear will remain until the next Sub-phase can be reviewed.

Electric facilities provided by either PG&E or SFPUC will include conduits, boxes, vaults, cables and devices including, but not limited to, switches transformers, capacitor banks and metering. The electric distribution system will consist of 600 and 200 amp 12 kV underground primary distribution circuits throughout the project. Transformers placed in strategic locations will supply residential, commercial and support facilities with secondary voltage below 600V.

Where feasible, equipment will be placed subsurface. In some areas, subsurface transformers may not be allowed due to water table and soil characteristics. This will be determined by the electric utility on a case by case basis. Transformers supplying electricity to residential and commercial customers may be located either in the franchise area or on private property assuming that adequate operating clearance and access is provided. In areas where subsurface transformers are not feasible pad mounted equipment may be necessary.

Existing natural gas service comes to Treasure Island through an existing 10-inch submarine gas pipeline from Oakland. This line terminates at a large PG&E meter and service lines radiate out from this meter to serve existing uses on TI and YBI. New gas distribution will be provided to serve the proposed development. Gas facilities provided by PG&E will consist of steel or plastic gas pipe, fittings, appurtenances and metering equipment.

Telephone and cable TV facilities provided by AT&T and Comcast will consist of conduits, boxes, vaults and amplifiers to facilitate the installation and operation of copper and fiber optic cables as proposed by the communication providers.

Joint Trench will be provided in streets and will be adjacent to proposed pump station locations. It is assumed that each pump station will connect to power available in joint trench and will have its own service point with a meter. Communication facilities will also be available adjacent to pump stations to allow for connection to the internet.

Street lighting systems will consist of steel conduits, boxes, wiring and lighting units. A lighting unit will consist of a foundation, pole, mast arm, luminaire(s) and photocell. The street lighting system will utilize LED type lighting and provide photometric and lighting characteristics that are defined in the Treasure Island & Yerba Buena Island Streetscape Master Plan.

JOINT TRENCH

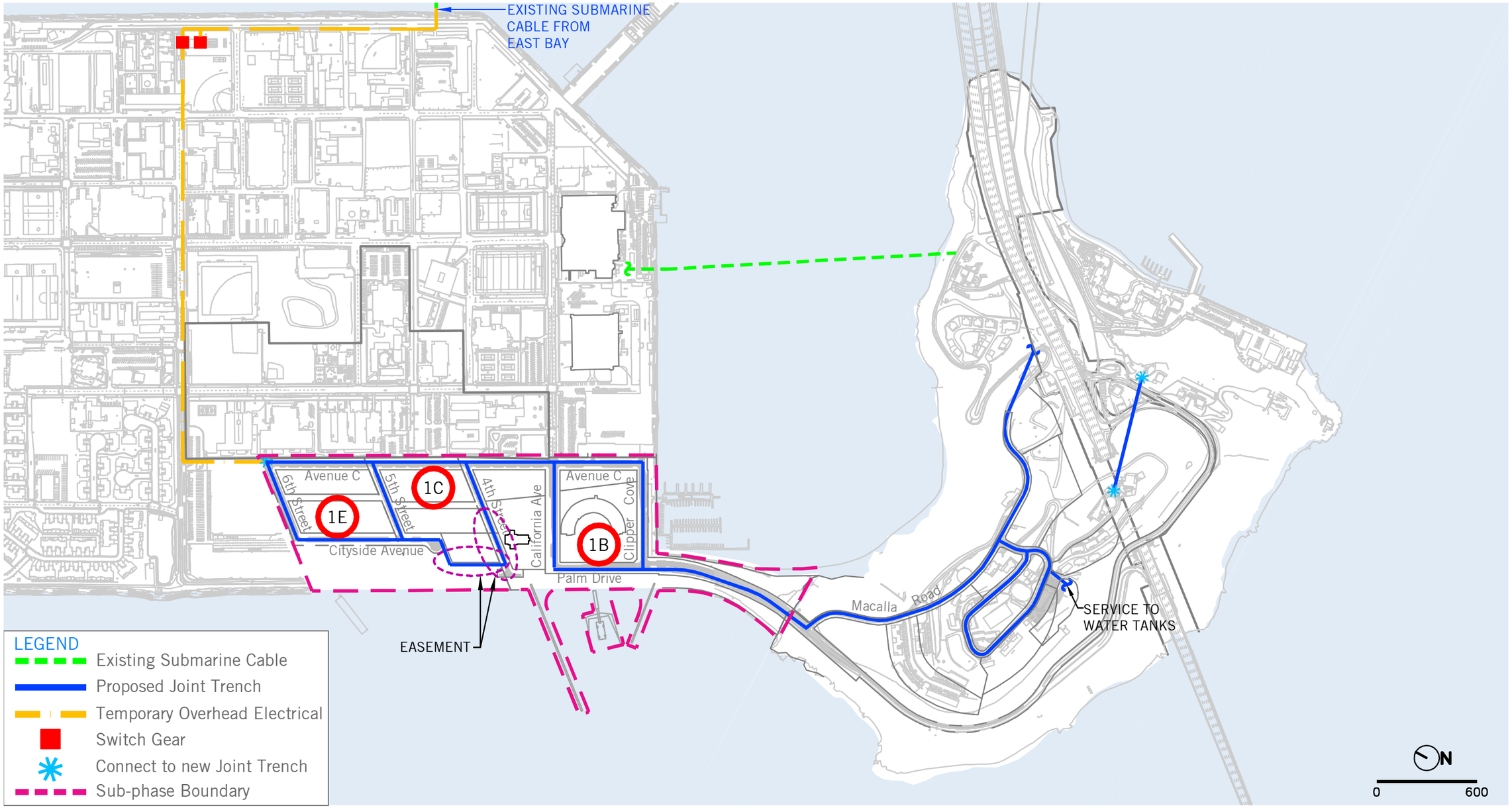


FIGURE 5.7 SUB-PHASE JOINT TRENCH

5.8 EXISTING SOILS AND GEOTECHNICAL MITIGATIONS

TREASURE ISLAND AND CAUSEWAY GEOTECHNICAL CONDITIONS

Treasure Island and the causeway connecting Treasure Island to Yerba Buena Island was constructed in the late 1930s by placing dredged sand fill over a sand shoal located north of Yerba Buena Island. From a geotechnical perspective, there are three primary issues for any new development at Treasure Island: liquefaction, settlement, and seismic stability.

Liquefaction of Sand Layers
The combined thickness of the sand shoal and the dredged sand fill ranges from about 30 to 45 feet. These sands are generally loose to medium dense and are susceptible to liquefaction and seismic recompression settlement.

Settlement of Young Bay Mud
Beneath the sands are layers of compressible Young Bay Mud that ranges in thickness across the site from approximately 20 to 140 feet. The Young Bay Mud is generally normally consolidated and the settlement rate due to the weight of the dredged sand fill is now small. However, increases in loads due to placement of new fill or the construction of buildings will initiate a new cycle of consolidation settlements. The Young Bay Mud is underlain by dense to very dense sands and stiff to hard clays, which extend to bedrock at depths of 180 to 270 feet.

Seismic Stability of Perimeter and Causeway
The perimeter of the island and the causeway connecting Treasure Island to Yerba Buena Island are susceptible to earthquake-induced lateral spreading due to liquefaction of the fill and shoal sands. In addition, deeper lateral deformations are expected within the underlying Young Bay Mud layer.

GEOTECHNICAL MITIGATION

Mitigation of Liquefaction and Lateral Spreading
Numerous ground improvement techniques are available to mitigate the potential for liquefaction and its consequences. The ground improvement techniques considered in Sub-Phase 1 include Vibro-compaction, Vibro-replacement with stone columns, and Deep Soil Mixing (DSM).

Mitigation of Young Bay Mud Consolidation Settlements -
Surcharging or preloading will be used both to speed primary consolidation under the weight of additional fill and to reduce the settlement caused by subsequent building loads. Surcharging will be coupled with the installation of pre-fabricated vertical drains, commonly known as wick drains, which allow excess pore pressures to drain laterally, shortening the drainage path and taking advantage of the fact that the horizontal permeability of soils is normally much greater than the vertical permeability. The rate of consolidation can be controlled by selecting the type of drain and the spacing between the drains. A horizontal drainage system will also be installed at the ground surface to collect and divert water expelled from the wicks.

Shoreline Stabilization
As discussed previously, the shoreline may be susceptible to earthquake-induced deformation and, possibly, deep-seated slope failures in areas of deep Young Bay Mud. Lateral spreading of the island perimeter will be mitigated using vibro replacement methods, or deep soil mixing to improve a zone around the island perimeter.

Causeway Stabilization
The issues potentially affecting the causeway are generally similar to those impacting the island perimeter. Lateral spreading will be mitigated using deep soil mixing to strengthen the causeway foundation soils. The causeway embankment soil will be removed approximately to Mean High Water (MHW) elevation and will placed back as engineered fill.

Based on historic and recent geotechnical field investigation, a conceptual geotechnical mitigation plan for Treasure Island Sub-Phase 1 is illustrated in Figure 5.8.

TREASURE ISLAND GEOTECHNICAL PHASING

The anticipated staging of the geotechnical mitigation techniques is generally described in the following sections and illustrated on the figures include in Appendix K.

Stage 1
Deep soil mixing will be performed along the western shoreline of the causeway and deep soil mixing with vibro-compaction will be performed along the western shore of Treasure Island. The deep soil mixing, along the western shoreline of the causeway, will require temporary excavation and shoring.

Stage 2
Deep soil mixing with vibro-compaction will be performed along the southern shoreline of Treasure Island. Vibro-compaction and placement of surcharge fill will be performed along potions of Clipper Cover and Palm Drives. Stone column construction will be performed along the western shoreline of Treasure Island, north of the Stage 1 area.

Stage 3
Vibro-compaction and placement of surcharge fill will be performed along the future 5th Avenue alignment and across the development area north of 5th Avenue. Deep soil mixing will be performed along the eastern shoreline of the causeway. The deep soil mixing, along the eastern shoreline of the causeway, will require temporary excavation and shoring.

Stage 4
Vibro-compaction and placement of surcharge fill will be performed across the development area south of 5th Avenue, east of Building 1, along California Avenue, and along the remaining portion of Palm Drive.

CONSTRUCTION STAGING

Construction staging areas will generally be located within the boundaries of the following two stages of geotechnical mitigation (e.g. construction staging for Stage 1 will generally occur within the Stage 2 and Stage 3 areas). Construction staging for Stage 4 will occur within the Stage 3 area.

TEMPORARY PARKING

Temporary parking will generally be located within the boundaries of the subsequent two stages of geotechnical mitigation (e.g. temporary parking for Stage 4 will generally occur within the Stage 3 and Stage 2 areas), as needed. Temporary parking for Stage 1 will occur within the Stage 3 area.

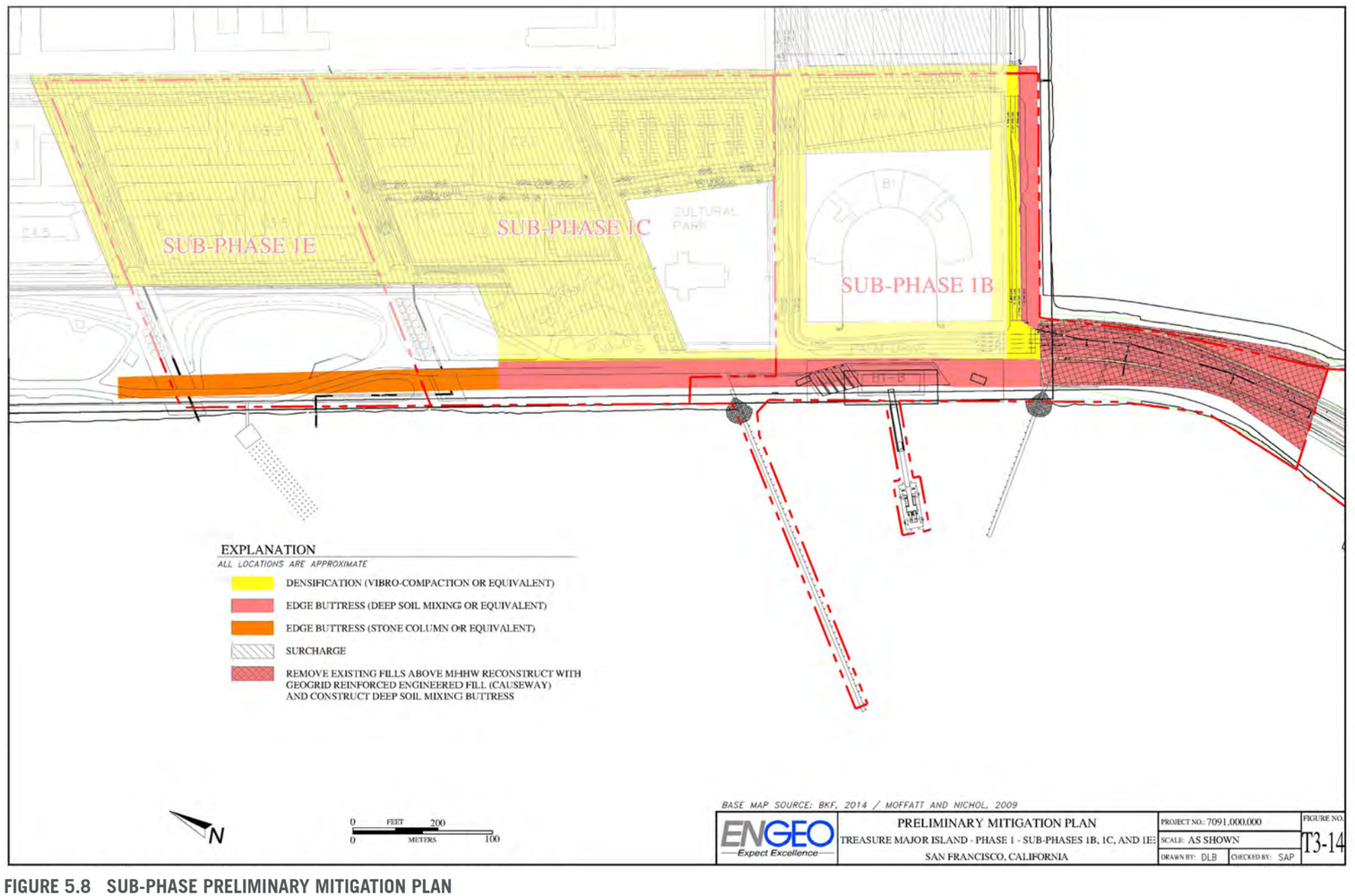


FIGURE 5.8 SUB-PHASE PRELIMINARY MITIGATION PLAN

6. APPENDICES

6.1 APPENDIX A: SUB-PHASE 1 MMRP

Treasure Island and Yerba Buena Island
Mitigation Monitoring Reporting Program

Mitigations Applicable to Major Phase 1

Implementation Status

Mitigation ID #	Mitigation Short Text	Action #	Action	EIR Mitigation Timing	IMPLEMENTATION Implementation Responsibility	Major Phase Implementation Status Notes
CULTURAL AND PALEONTOLOGICAL RESOURCES						
M-CP-1	Archaeological Testing Program	1	The archaeological consultant shall prepare and submit to the Environmental Review Officer ("ERO") for review and approval an Archaeological Testing Plan ("ATP") and then conduct the archaeological testing program in accordance with the ATP. The program will determine the presence or absence of archaeological resources and evaluate their significance.	Prior to commencement of soil-disturbing activities	Archaeological consultant	Archaeological Testing Plan for every Sub Phase to be submitted for approval to the City Environmental Review Officer prior to any work on site. Submission of testing plans for Sub Phase Applications 1 and 2 was completed on June 12, 2015.
	Re-design or data recovery program	2	Based on the archaeological testing program results, if the consultant finds the presence of significant archaeological resources, the ERO and consultants will determine if re-design or data recovery program is required.	Prior to commencement of soil-disturbing activities	Archaeological consultant	Report prepared during implementation of ATP will include determination if archaeological data recovery is appropriate. Archaeological Testing Plan implementation is estimated to occur in August and September 2015.
	Archaeological Monitoring Program (AMP)	3	The ERO and consultants will determine what project activities (in most cases, any soil disturbing activities) shall be archaeologically monitored and design an Archaeological Monitoring Program.	Prior to any demolition or removal activities, and during construction at any location	Project Sponsor and Archaeological consultant, in consultation with ERO	Archaeological Monitoring Program will establish schedules for any monitoring required prior to and during construction.
	Archaeological Monitoring Program (AMP)	4	Implement an Archaeological Monitoring Program.	Prior to any demolition or removal activities, and during construction at any location	Project Sponsor and Archaeological consultant, in consultation with ERO	Implement the Archaeological Monitoring Program for any monitoring required prior to and during construction.
	Archaeological Data Recovery Plan (ADRP)	5	Conduct Archaeological Data Recovery Program in accordance with the ADRP, to preserve the significant information the archaeological resource is expected to contain.	Prior to commencement of soils disturbing or removal activities, and during construction	Project Sponsor and Archaeological consultant, in consultation with ERO	ADRP will describe how the proposed data recovery program will preserve the significant resource.
	Human Remains and Associated or Unassociated Funerary Objects	6	Notify Coroner upon discovery and make all reasonable efforts to develop agreement for the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of any remains or funerary objects.	Throughout soils-disturbing activities.	Project Sponsor, Archaeological consultant, and Contractor, in consultation with ERO	Contractor to immediately notify Coroner in the event of any funerary object discovery.
	Final Archaeological Resources Report (FARR)	7	Prepare Final Archaeological Resources Report (FARR) about any discovered resource, including the historical significance and the methods employed in the testing/monitoring/data recovery program(s).	Upon completion of Construction	Project Sponsor and Archaeological consultant, in consultation with ERO	FARR to be prepared upon completion of construction at a given site.
M-CP-3	Paleontological Resources Monitoring and Mitigation Program (PRMMP)	1	Design a Paleontological Resources Monitoring and Mitigation Program	Prior to any demolition or removal activities, and during construction at any location on YBI	Project Sponsor, Paleotological consultant, and Contractor, in consultation with ERO	Design a Paleontological Resources Monitoring and Mitigation Program for YBI. Submission of PRMMP for Sub Phase Applications 1 is estimated to occur July 2015.
	Paleontological Resources Monitoring and Mitigation Program (PRMMP)	2	Implement a Paleontological Resources Monitoring and Mitigation Program	Throughout soils-disturbing activities on YBI.	Project Sponsor, Paleotological consultant, and Contractor, in consultation with ERO	Implement a Paleontological Resources Monitoring and Mitigation Program for YBI.
M-CP-6	Any alterations to and within Building 1's contributing landscape shall comply with Secretary's Standards	1	Ensure alterations and additions designed for Building 1's contributing landscape are consistent with the Secretary's Standards	During Design, prior to TIDA's approval of Design.	TIDA in consultation with qualified professional Preservation Architect, Architectural Historian, and/or Planner experienced with applying Secretary's Standards to adaptive reuse projects	During its design review process, TIDA to issue findings regarding landscape improvements contributing to Building 1.
M-CP-7	Any new free-standing construction west of Building 1 in its contributing landscape area shall comply with Secretary's Standards	1	Ensure design for new free-standing construction west of Building 1 in its contributing landscape areas is consistent with the Secretary's Standards	During Design, prior to TIDA's approval of Design.	TIDA in consultation with qualified professional Preservation Architect, Architectural Historian, and/or Planner experienced with applying Secretary's Standards to adaptive reuse projects	During its design review process, TIDA to issue findings regarding new structures proposed in landscape area west of Building 1.
M-CP-9	Documentation and interpretation of the Damage Control Trainer (housed in Building 341) must occur before it is demolished.	1	Prepare photographic and written dcumentation of the Damage Control Tower based on HABS and HAER guidelines.	Prior to any action to demolish or remove the Damage Control Tower	Project Sponsor and Architectural Historian Consultant	Following TIDA's approval of documentation, consultant to transmit it to SF History Center, TIDA, Planning Dept, and NWIC

					IMPLEMENTATION	
Mitigation ID #	**Mitigation Short Text**	**Action #**	**Action**	**EIR Mitigation Timing**	**Implementation Responsibility**	**Major Phase Implementation Status Notes**
	Documentation and interpretation of the Damage Control Trainer (housed in Building 341) must occur before it is demolished.	2	Provide a permanent display of interpretive materials concerning the history and architectural features of the Damage Control Tower	Prior to any action to demolish or remove the Damage Control Tower	TIDA to establish location(s), media, and characteristics of display. Project Sponsor and Architectural Historian Consultant to prepare display	Design interpretive display.
TRANSPORTATION						
M-TR-1	Construction Traffic Management Plan (CTMP)	1	Develop and implement a Construction Traffic Management Plan to minimize overall disruptions and ensure overall circulation is maintained to extent possible.	Prepare CTMP and submit for approval prior to construction of the first Sub-Phase of the first Major Phase, to be updated for each subsequent Sub-Phase	Project Sponsor and their Consruction Contractor(s)	Project Sponsors and their construction contractor(s) to prepare and implement CTMP, with update for each Sub-Phase. TIDA to coordinate with other City agencies. Contractors to disseminate appropriate info to employees and subcontractors.
	Once streets are accepted as City streets, additional coordination is required for temporary traffic and transportation changes	2	Once streets are accepted as City streets, coordinate through SFMTA's Interdepartmental Staff Committee on Traffic and Transportation (ISCOTT), and conduct public hearing. CMTP may be reviewed by SFMTA's Transportation Advisory Committee (TASC) to resolve internal differences.	Implement process as soon as any streets are accepted by City	Project Sponsor and their Consruction Contractor(s)	Project Sponsors and their construction contractor(s) to coordinate any temporary changes with ISCOTT after streets are accepted by City.
	Separate Traffic Management Plan (TMP) for Caltrans	3	Prepare separate Transportation Management Plan and contingency plans for construction activities conducted within Caltrans right-of-way	In advance of construction activities in Caltrans right-of-way	Construction contractors and permit applicants	Construction contractors and permit applicants to coordinate with Caltrans and submit Certification Checklist forms to Caltrans when appropriate
	Consultation with other Island users about transit route changes	4	Prior to development of CTMP, coordinateplan development with other Island users, including Job Corps and Coast Guard.	Coordinate preparation of CTMP (and its updates) with other Island users.	Project Sponsor	Project Sponsors and their construction contractor(s) to coordinate transit route changes with other agencies during preparation of CTMP (and subsequent updates).
	Notify vendors of special requirements for STAA trucks (largest commercial shipping trucks) larger than 65 feet	5	Notify vendors that STAA trucks larger than 65 feet exiting from the eastbound direction of the Bay Bridge may only use the off-ramp on the east side of YBI	When contracting with vendors	Construction contractor(s)	Construction contractor(s) to report vendor notifications to TIDA
M-TR-24	New Transit Only Lane only triggered by operational delays to Muni service	1	Upon installation of metering light on westbound on-ramp on east side of YBI or upon completion of 1,000 dwelling units (whichever comes first), TIMMA (TITMA) to monitor length and duration of potential queues and associated delays. Project Sponsor to provide Transit Only Lane if triggered by Muni delay impacts are observed at least 50% of the time over 6 months period during peak periods.	Commence monitoring upon installation of metering light on westbound on-ramp on east side of YBI or upon completion of 1,000 dwelling units, whichever occurs first. Continue throughout life of project.	TIMMA (formerly TITMA) to monitor. Project Sponsor and their Construction Contractor(s) to re-stripe for Transit Only Lane, if needed.	TIMMA to conduct monitoring upon trigger event and report quarterly to SFMTA, and then monthly if there are further triggers.
NOISE						
M-NO-1a	Implement noise control measures during construction.	1	Develop and implement noise measures for each construction permit and provide monthly report on measures implemented.	For each construction permit. Construction contractors to report on noise measures implemented on a monthly basis.	Construction contractor(s)	All feasible noise control measures should be implemented.
M-NO-1a	Designate a Noise Disturbance Coordinator during construction.	1	Designate a Noise Disturbance Coordinator during construction; all construction contractors shall work with the Coordinator and post construction schedule at noise-sensitive areas nearby.	Noise Disturbance Coordinator to be available throughout all construction phases until buildout is complete.	Construction contractor(s)	Noise Disturbance Coordinator must be empowered to address noise complaints.
M-NO-1b	Identify and implement noise-reducing pile driving techniques and noise shielding and muffling devices.	1	Use noise-reducing pile driving techniques if nearby structures are subject to pile driving noise and vibration. Within 48 hours prior to such activities, notify building owners and occupants within 500 feet of project site of dates, hours, and expected duration of those activities.	During construction of each phase, if pile driving is required.	Project Sponsor to report to agencies and notify persons within 500 feet. Construction contractor(s) to identify and implement noise-reducing techniques.	Equipment used shall employ state-of-the-art noise shielding and muffling devices.
M-NO-2	Vibro-Compaction Monitoring	1	Geotech engineer to conduct pre-construction assessment of existing subsurface conditions and structural integrity of buildings within 50' subject to impact or vibro-compaction activity impacts. Further monitoring may be required	Prior to commencement of construction with impact or vibro-compaction activities.	Project Sponsor and their Geotechnical Engineer(s)	Pre-construction assessment required prior to each use of impact or vibro-compaction methods.

					IMPLEMENTATION	
Mitigation ID #	**Mitigation Short Text**	**Action #**	**Action**	**EIR Mitigation Timing**	**Implementation Responsibility**	**Major Phase Implementation Status Notes**
M-NO-5	Mitigate traffic induced interior L_{max} noise levels in homes, schools, lodging.	1	Engage acoustical consultant to recommend traffic noise mitigating acoustical insulation or other equivalent measures. Provide post-construction monitoring to verify adequacy.	Prior to completion of design and issuance of building permits for each home, school or hotel.	Project Sponsor for each home, hotel or school.	Applicable for vertical development of homes, schools and hotels.
M-NO-6	Locate noise producing facilities away from noise sensitive receptors or require appropriate noise attenuating features.	1	Locate all utility and industrial stationary noise sources away from noise sensitive receptors and provide site and noise attenuation features during design. Monitor noise levels after installation to ensure compliance.	Site and noise attenuation features to be established during design of each noise source. Monitor within 3 months of installation of each noise source.	TIDA, in consultation with SFPUC, if appropriate.	Facilities such as pump stations, electric substation equipment, etc may be such noise sources.
AIR QUALITY						
M-AQ-1	Prepare and implement Construction Dust Control Plans	1	Incorporate all eight BAAQMD-identified construction mitigation measures into the required Construction Dust Control Plan.	Prepare and implement Dust Control Plans during each phase of site preparation and building construction.	Project Sponsors to create plan and their construction contractors to implement it.	Includes requirement to post publicly visible sign with contact info for any dust complaints.
M-AQ-2	Implement combustion emission reduction measures during construction activities.	1	Implement combustion emission reduction measures and submit quarterly reports regarding compliance through 2018 and annually thereafter.	Implement measures throughout construction and submitting quarterly and annual compliance reports.	Project Sponsors and their construction contractors.	Diesel powered generators for construction activities prohibited unless TIDA finds there are no other commercially available alternatives.
M-AQ-3	At submission of any Major Phase application, Air Quality consultant must review proposed development in that Major Phase along with existing uses and uses approved in prior Major Phases to determine whether the actual project phasing deviates materially from the representative phasing plan.	1	Review of phasing by Air Quality consultant prior to approval of each Major Phase application to confirm there will not be any additional significant impacts on any group of receptors.	Prior to submission of each Major Phase application	TIDA for horizontal construction or Planning Department for vertical construction outside Tidelands Trust Overlay Zone, and an air quality consultant.	There have been no changes in the proposed development for Major Phase 1 or existing uses; therefore, there are no potential impacts on any group of receptors for review by an Air Quality consultant.
M-AQ-4	Implement BAAQMD mitigation measures for projects that exceed construction thresholds that would be applicable to reducing PM2.5 emissions	1	Implement 13 additional construction mitigation measures to reduce construction emissions.	Implement during construction and submit quarterly reports regarding implementation.	TIDA shall require, and Project Sponsors and their construction contractors, shall implement	Measures are identified by BAAQMD as recommended for all projects regardless of whether threshholds are exceeded.
WIND AND SHADOW						
M-WS-3	Identify measures to reduce exposure to hazardous winds.	1	At least once a year, throughout construction, Wind Consultant shall visit site and identify measures to reduce exposure to potentially hazardous winds in publically accessible areas.	Implement during construction and submit annual reports regarding implementation.	Project Sponsor to retain consultant and annual assessments are sent to TIDA, DBI and Planning.	Site assessment to include design for all buildings approved or under construction.
	Identify measures to reduce exposure to hazardous winds.	2	Contractor shall develop safety plan to mitigate all wind-related risks.	Implement prior to issuance of building permit for each structure.	Project Sponsor and their Consruction Contractor(s)	Object is to minimize risks from stacked materials that can be picked up by strong winds and from light structures that could be detached.
	Ensure compliance with Wind Consultant measures by conditions of approval for all construction permits.	3	Ensure implementation of Wind Consultant's structural measures and precautions by conditions of approval for all construction permits.	Implement prior to issuance of site and building permits.	TIDA and Planning	Project sponsors and subsequent building developers must cooperate to implement measures.
	Maintain records for compliance with Wind Mitigation Measures.	4	TIDA shall maintain records of EIR technical memorandum, all written recommendations, reports of wind testing, and proof that mitigation measures were followed.	Implement throughout construction	TIDA	Planning will provide TIDA with all reports prepared for vertical development. TIDA shall document and maintain reports for horizontal and maintain reports for vertical.
M-WS-4	Identify and compare potential impacts of every proposed building relative to those described in EIR	1	If building design would cause new or increased wind hazard that would not be eliminated by design changes, additional wind tunnel testing may be needed.	Implement prior to approval of schematic design for every building.	Planning, Project Sponsors, Wind Consultant, and design consultants.	If wind consultant concludes building would cause increased or new wind hazard that cannot be eliminated by design modifications wind tunnel testing may be required. Ferry Shelter in Sub Phase Application 2 has been evaluated for

Mitigation ID #	Mitigation Short Text	Action #	Action	EIR Mitigation Timing	IMPLEMENTATION Implementation Responsibility	Major Phase Implementation Status Notes
	Wind tunnel testing is required if increased or new wind hazards are likely that will likely not be eliminated by design modifications.	2	If wind testing is required, it shall be performed for an area at least 3 blocks wide and several blocks deep, incldluing the test points tested in the EIR	Implement prior to approval of schematic design for every building.	Planning, Project Sponsors, Wind Consultant, and design consultants.	The goal is to cause no additional wind effects than identified by prior testing; it is not be expected that all the wind hazard(s) identified by prior testing will be eliminated.
	Maintain records for compliance with Wind Mitigation Measures.	3	TIDA shall maintain records of EIR technical memorandum, all written recommendations, reports of wind testing, and proof that mitigation measures were followed.	Implement prior to approval of schematic design for every building.	TIDA. Planning to provide copies of documentation to TIDA.	All constructed buildings must incorporate requisite design mitigations specified by wind consultant.
BIOLOGICAL RESOURCES						
M-BI-1a	Avoid disturbance of special-status plants on YBI	1	Qualified botanist shall conduct presence/absence survey for special-status plants in May or June prior to any construction on YBI and avoid disturbance or mortality. If not feasible, restore on site at 1:1 ratio in post-development open space.	Conduct survey in May or June prior to any construction on YBI	Project Sponsor, Qualified Botanist, and TIDA (to maintain copies of reports)	Surveys to be conducted in each construction area in May or June prior to any construction. 2015 survey was completed May 20, 2015 and issued to TIDA on June 17, 2015.
M-BI-1b	Conduct no activities within no-work buffer zone that could disrupt birds during breeding season.	1	Qualified biologist to conduct preconstruction surveys within 15 days prior to any work scheduled to occur February through May and within 30 days prior to any work scheduled to occur June through August 15th. No work will be allowed within buffer zones where there are active nests of protected birds until the young have fledged.	15 days prior to any work scheduled to occur February through May and within 30 days prior to any work scheduled to occur June through August 15th	Project Sponsor, Qualified Botanist, and TIDA (to maintain copies of reports)	Depending on species, input from CA Dept of Fish and Game and/or US Fish and Wildlife Service may be warranted.
M-BI-1c	Tree removal and building demo to occur during periods least likely to impact bats.	1	Prior to removal of trees or demolition of buildings, qualified bat biologist to conduct surveys for active day or night roosts. Found roosts to be made unsuitable habitat prior to tree removal or building demoand 100 foot no-distrubance buffer to be created.	Winter hibernacula and maternity roosts have overlapping sensitivity periods (only clear months are 15-Feb to 15-Apr), so survey is likely required prior to demo.	Project Sponsors, qualified bat biologist, and CDFG, if buffer is proposed to be reduced.	A reduced buffer could be provided for on a case by case basis by the bat biologist.
M-BI-1d	Off-leash dogs will be prohibited on YBI outside of designated, enclosed, off-leash dog parks. Feeding of feral cats prohibited on both islands.	1	Prepare rules, regulations, and covenants prior to each Major Phase and communicate to tenants and visitors, prior to occupation of new structures (ongoing).	Communications to tenants and visitors prior to occupation of new structures, and on-going.	Project Sponsors, TIDA and individual site developers.	All construction specs general conditions should include note that feeding of feral cats is prohibited and to include off-leash dog restriction for activities on YBI.
M-BI-1e	Employ specific noise and vibration mitigation measures during off-shore pile driving.	1	Monitor area during off-shore pile driving to ensure aquatic species are not impacted and that sound pressures 500 meters from source do not exceed 160 db. If either occurs, employ bubble curtains. In addition, 4 other mitigation measures must be employed.	During all off-shore pile driving activities	Project Sponsors and qualified marine biologist and acoustical consultant.	If marine mammals are observed within 1,000 feet of pile driving activities, allow them to exit before resuming pile driving.
M-BI-2a	Shoreline activities generally restricted to terrestrial and upper intertidal zones.	1	Minimize to extent possible activities in lower intertidal and near subtidal zones. No disturbance of rocks in lower intertidal zone outside of planned dredging areas.	During any construction conducted in and around the islands' rocky shoreline.	Project Sponsors, qualified marine biologist, and CDFG as necessary to establish limitations on construction actvities.	Related activities include geotech stabilization, shoreline heightening and repair, stormwater outfall improvements, and other shoreline activities.
M-BI-2b	Shoreline work limited to period between 1-Mar and 30-Nov	1	Construction on shoreline limited to between 1-Mar and 30-Nov to avoid disturbing herring spawning.	During any construction conducted in and around the islands' rocky shoreline.	Project Sponsors and qualified marine biologist	Related activities include geotech stabilization, shoreline heightening and repair, stormwater outfall improvements, and other shoreline activities.
M-BI-2c	Survey all eelgrass beds	1	Within 3-6 months of start of construction that may affect Submerged Aquatic Vegetation (SAV) beds, and not less than every 2 years thereafter, survey all eelgrass beds.	Within 3-6 months of start of any construction in SAV areas and not less than every 2 years thereafter.	Project Sponsors and qualified marine biologist and construction contractors.	Eelgrass beds occur in subtidal areas along northeast and east sides of TI and in Clipper Cove, adjacent to northeast shore of YBI.
	Conduct mandatory eelgrass bed training.	2	Conduct eelgrass bed environmental training for all TIDA staff in charge of overseeing construction, all contractors and subcontractors working or transporting materials or operating boats in Bay waters within 1/4 mile of TI/YBI.	Prior to any activities in SAV areas.	Project Sponsors and qualified marine biologist and construction contractors.	Eelgrass beds occur in subtidal areas along northeast and east sides of TI and in Clipper Cove, adjacent to northeast shore of YBI.
M-BI-4a	Ensure building design minimizes potential for bird strikes.	1	Incorporate design features into building facades and place new landscapes in such a way as to obscure habitat reflections, create perception of an unobstructed flight path, and minimize fatal collisions by birds.	Prior to issuance of building and site permits.	Project Sponsors, qualified biologists, architects, and building managers.	Design for vertical structures and their immediately adjacent landscaping; typically by vertical developers (also includes Ferry Shelter). Ferry Shelter has been designed to minimize potential for bird strikes.

					IMPLEMENTATION	
Mitigation ID #	**Mitigation Short Text**	**Action #**	**Action**	**EIR Mitigation Timing**	**Implementation Responsibility**	**Major Phase Implementation Status Notes**
	Ensure lighting design minimizes potential for bird strikes.	2	Incorporate lighting design features into buildings and landscapes in such a way as to reduce lighting usage, change light direction, and contain light.	Prior to issuance of building and site permits.	TIDA and Planning	Planning responsible for compliance on non-Trust property and TIDA responsible for compliance on Trust property. Lighting for Parks and Open Spaces in Sub Phase Applications 1 and 2 has been designed to minimize potential
	Minimize rooftop antennas and equipment.	3	Minimize number of and co-locate rooftop antennas and other rooftop equipment and do not include guy wires on monopole structures or antennas.	Prior to issuance of building and site permits.	TIDA and Planning	To be addressed for every building permit
	Educating Residents and Occupants	4	Provide educational materials to building tenants and occupants, hotel guests, and residents encouraging them to minimize light transmission from windows, especially during peak spring and fall migratory periods.	Prior to issuance of building permits. Educational materials to be reviewed and approved by TIDA prior to occupancy.	Planning for permits on non-Trust property and TIDA for permits on Trust property.	To be addressed for every building permit
	Documentation of Bird Strike mitigations	5	Building developers to provide written descriptions of measures and features to address potential bird impacts and biologist to prepare recommendations and memoranda to ensure potential for bird strikes is minimized.	Throughout vertical development	TIDA and Planning	TIDA to maintain records.
M-BI-8 (Variant B3 - southern breakwater constructed in later phase)	Survey construction area for eelgrass beds.	1	Survey construction area prior to initiation of any construction activities for the southern breakwater. If eelgrass has established beds that could be impacted by breakwater construction, restoration of offsite eelgrass beds or transplantation and establishment of offsite or onsite eelgrass beds with replacement ratio of 3:1 will be required.	Prior to initiation of southern breakwater in a later phase.	Project Sponsors, construction contractors, marine biologist, in consultation with ACOE, BCDC, NMFS, and CDFG where necessary.	If eelgrass beds are found, construction to be restricted to 1-Mar through 30-Nov with restoration or offsite eelgrass beds to occur immediately after breakwater construction.
	Survey construction area for protected fish species, and marine mammals.	2	Survey construction area prior to initiation of any construction activities for the southern breakwater. If breakwater could impact utilization of area by protected species, work to be conducted in manner to not adversely effect them.	Prior to initiation of southern breakwater in a later phase.	Project Sponsors, construction contractors, marine biologist, in consultation with NMFS.	Survey construction area prior to initiation of any construction activities for the southern breakwater.
M-BI-9 (Variant C2 - supplement firefighting water supply with Bay water)	Design and construct water intake pipe to prevent impingement of fish and macrovertebrates.	1	If firefighting water will be supplemented by Bay water, submit the final design of the Bay water intake pipe to NMF, CDFG, CA Water Board/SF, and BCDC.	Prior to issuance of permits to construct the bay water intake pipe.	TIDA and Project Sponsor's qualified marine biologist and engineering consultants.	One option is installing the pipe inside a screened subsea vault large enough to reduce water suction to acceptable levels.
GEOLOGY AND SOILS						
M-GE-5	Locate new improvements at YBI a minimum of 100 feet from top of existing slope along Macalla Road.	1	Locate new improvements at YBI a minimum of 100 feet from top of existing slope along Macalla Road unless a site-specific geotech slope stability evaluation indicates a static factor of safety of 1.5 and a seismic factor of safety of 1.1 will be implemented.	Prior to issuance of building permit for improvements or structures along Macalla Road.	Project Sponsor and geotech consultant	If geotech recommendations regarding slope stability have been identified for any YBI site that is within 100 feet from top of existing slope along Macalla Road, they must be incorporated into building specs.
HAZARDS AND HAZARDOUS MATERIALS						
M-HZ-1	Implement a Soil and Groundwater Management Plan (SGMP)	1	Construction specs must include implementation of SGMP prepared by qualified environmental consulting firm and reviewed and agreed to by DTSC and RWQCB.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	If additional remediation is necessary to meet proposed land use, it must be completed as directed by the responsible agency, DTSC or RWQCB, prior to commencement of construction activities. Project SGMP approval by regulatory agencies is anticipated by July 2015.
	SGMP: Soil Management Requirements	2	Comply with protocols for stockpiling, sampling, and transporting soil generated from on-site activities and for soil imported to the site for placement.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address stockpiling, on-site reuse, transport and disposal, and importation.
	SGMP: Groundwater Management Requirements	3	Comply with protocols for conducting dewatering activities and sampling and analysis requirements for groundwater extracted during dewatering activities.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address on-site reuse, discharge, pre-discharge treatment, and off-site transport.
	SGMP: Unknown contaminant/hazard contingency plan	4	Comply with contingency plan procedures in the event that unanticipated subsurface hazards or hazardous material releases are discovered during construction.	Prior to first Sub Phase Application approval and prior to issuance of building or grading permit for any parcel(s).	Project Sponsor for first Sub Phase to prepare doc and all subsequent Project Sponsors to prepare and follow parcel-specific plans.	Protocols address identifying potential contaminants, what to do if underground storage tank is encountered, emergency contact procedures, site controls and security procedures, sampling and analysis, and interim removal work.
M-HZ-8	Incorporate BMPs into construction specs	1	BMPs must be incorporated to minimize potential negative effects to groundwater and soils.	Prior to initiation of construction activities throughout construction.	Project Sponsors and their construction contractors.	BMPs to include handling of chemical products, fueling, containment of grease and oils, and disposal of fuel and chemical containers.

					IMPLEMENTATION	
Mitigation ID #	**Mitigation Short Text**	**Action #**	**Action**	**EIR Mitigation Timing**	**Implementation Responsibility**	**Major Phase Implementation Status Notes**
M-HZ-10	Vapor Barriers for enclosed structures within IR Sites 21 or 24	1	If vapor barriers are necessar,y building plans must include DTSC-approved vapor barriers beneath foundation.	Prior to issuance of a building permit for construction in IR Sites 21 and 24	Project Sponsors for buildings in IR Sites 21 and 24 and their construction contractors, in consultation with DTSC	Required prior to construction in IR Sites 21 and 24.
M-HZ-13	Voluntary Clean-Up Agreement (VCA) prior to reopening the presently closed elementary school	1	Prior to reopening the elementary school for elementary school use, TIDA or SFUSD shall enter into VCA with DTSC's School Property Evaluation and Cleanup Division.	Prior to reopening elementary school for elementary school use	TIDA or SFUSD to prepare and negotiate a VCA with DTSC	Site is near boundaries of Major Phase 4
I-GHG-1	Consider implementation of measures to reduce construction-related greenhouse gas (GHG) emissions	1	BAAQMD Guidance encourages Lead Agencies to incorporate best management practices for purposes of reducing construction-related GHG emissions.	Throughout construction	Project Sponsors and their construction contractors.	Measures to be considered include at least following %'s: use of alternatively fueled construction equipment for 15% of fleet, use of local building materials for 10% of construction materials, and recycle or reuse of 50% of construction and
IMPROVEMENTS						
I-RE-3a	If artificial turf is proposed, use latest SFRPD criteria at time of implementation	1	If used, design and build artificial turf fields using latest SFRPD criteria at time of implementation, including City's purchasing criteria	Prior to and during construction of recreational fields	Project Sponsors for any fields proposing artificial turf	TIDA to ensure appropriate materials are installed
I-RE-3b	If artificial turf is proposed, develop signage about hand washing before and after use and proper wound care.	1	If used, develop signage to educate athletes about importance of washing hands before and after field use and proper wound care for turf-related injuries	Signage to be installed prior to opening and maintained during operations	Project Sponsors in consultation with City Fields Foundation and SFDPH	TIDA to ensure signage is installed and maintained
I-RE-3c	If artificial turf is used develop air quality monitoring program for the turf fields.	1	If used, develop air quality monitoring program using methodology developed by Office of Environmental Health Hazard Assessment or US EPA.	During operation of recreational fields	Project Sponsors and air quality monitoring consultant in consultation with City Fields Foundation and SFDPH	Monitoring reports submitted to TIDA and SFDPH
M-NO-4	Operator of ferry service to ensure that its operations do not exceed SF Land Use Compatibility Guidelines for Community Noise standards	1	Ferry service operator to retain acoustical consultant to prepare a Ferry Terminal Noise Reduction Plan and comply with guidelines including reducing propulsion engine power to low when approaching and departing the terminal.	Prior to Ferry Terminal operation.	Ferry service operator	Implement prior to ferry service operation.
M-AQ-5	Ferries to meet CA Air Resources Board regulations	1	Ferry service must meet CARB regs and be equipped with diesel particulate filters or alternative technology to reduce diesel particulate emissions.	Prior to vessel selection or award of ferry service contract	WETA and WETA's ferry operator(s)	Implement prior to vessel selection or award of ferry service contract.
M-BI-4b	Implement operational adjustments to minimize impacts to rafting waterbirds	1	Ferry service to operate in reduced numbers and slower speeds during Dec and Jan or, to extent possible, maintain a buffer zone of 250 meters from areas of high-use by rafting waterbirds	During ferry operations in December and January each year.	WETA's ferry operator(s)	Implement during ferry operations in December and January each year.

6.2 APPENDIX B: SCHEDULE OF PERFORMANCE

EXHIBIT JJ
SCHEDULE OF PERFORMANCE

1/13/2015

Major Phase	Sub-Phase	Block	Parks & Open Space [1/]	Application Outside Date [2/]	Commencement Outside Date [2/]	Completion Outside Date [2/]
1				**2015**	**2017**	**2028**
	1-Y-A	1Y-2Y-3Y		2015	2017	2019
			YBI Hilltop Park 1		2020	2021
			YBI Hilltop Park 2		2023	2024
			YBI Open Space / HMP 1		2020	2022
	1-A	B2-B3-M1		2017	2019	2021
			Eastside Commons 1		2022	2023
			Clipper Cove Promenade 2		2022	2023
	1-B	B1		2016	2018	2020
			Building 1 Plaza		2021	2022
			Marina Plaza		2021	2022
			Clipper Cove Promenade 1		2021	2022
	1-C	C1-C2		2015	2017	2019
			Cityside Waterfront Park 1		2020	2021
			Cultural Park		2020	2021
	1-D	IC1-IC4		2018	2020	2022
			Eastside Commons 2		2023	2024
	1-E	C3		2019	2021	2023
			Cityside Waterfront Park 2		2024	2025
	1-F	E1-E2		2020	2022	2024
			Urban Farm 1		2026	2027
			Eastside Park 1		2025	2026
			Eastside Commons 3		2025	2026
	1-Y-B	4Y		2021	2023	2025
			YBI Beach Park		2026	2027
			YBI Open Space / HMP 2		2026	2028
2				**2021**	**2023**	**2030**
	2-A	E3-E4		2021	2023	2025
			Sailing Center Pad		2025	2025
			Eastside Park 2		2026	2027
			Eastside Commons 4		2026	2027
			Eastern Shoreline Park 1		2026	2027
			Clipper Cove Promenade 3		2026	2027
	2-B	C4		2022	2024	2026
			Cityside Waterfront Park 3		2027	2028
	2-C	E5-E6		2023	2025	2027
			Eastside Park 3		2028	2029
			Eastside Commons 5		2028	2029
			Eastern Shoreline Park 2		2028	2029
			Pier 1		2029	2030
3				**2024**	**2026**	**2033**
	3-A	E7-E8		2024	2026	2028
			Eastside Park 4		2029	2030
			Eastside Commons 6		2029	2030
			Eastern Shoreline Park 3		2029	2030
	3-B	C12-C13		2025	2027	2029
			Urban Farm 2		2031	2032
	3-C	IC1-IC4		2026	2028	2033
4				**2027**	**2029**	**2037**
	4-A	C5		2027	2029	2031
			Cityside Waterfront Park 4		2032	2033
			Sports Park		2033	2034
	4-B	C10-C11		2028	2030	2032
			Urban Farm 3		2034	2035
	4-C	C6		2029	2031	2033
			Cityside Waterfront Park 5		2034	2035
			Urban Farm 4		2035	2036
	4-D	C7-C8-C9		2030	2032	2034
			Cityside Waterfront Park 6		2035	2036
			Northern Shoreline Park / The Wilds / Environmental Center Pad		2036	2037

SCHEDULE OF PERFORMANCE

1/13/2015

Community Facility	Obligation	Building Permit / Trigger [3/]	Application Outside Date [4/]	Commencement Outside Date [4/]	Completion Outside Date [4/]
		A	B	C	D
Waterfront Plaza / Ferry Terminal Phase 1	Facility	100 du	+6mo	+12mo	+36mo
Police / Fire Station	Facility	2,500 du	+6mo	+12mo	+24mo
Retail - Final Grocery Store (15,000sf)	Facility	5,000 du	+6mo	+12mo	+24mo
Ferry Terminal Phase 2	Facility	As mutually agreed by WETA, Developer, and TIDA, after engaging in a meet and confer process described in the MOU between TIDA and WETA.			
WWTP / Recycled Water Plant / PUC 4-6 acres	Developable Pad	See PUC / TIDA WWTP MOA for timing of pad delivery.			
Sailing Center Pad	Developable Pad	Developer shall use commercially reasonable efforts to provide the Sailing Center Pad earlier if the Authority requests it and if the Treasure Island Sailing Center provides reasonable evidence that it will be ready to proceed with construction of the Sailing Center building at that earlier date.			
Environmental Center Pad	Developable Pad	Developer shall deliver the Environmental Center Pad commensurate with improvements for The Northern Shoreline Park and The Wilds			
Pier 1 / Eastern Shoreline Park 2	Improvements	Construction of these improvements may be deferred if the area is still needed for barging operations related to importing material for the site. In no case will the Completion Outside Date for these improvements be later than the Completion Outside Date of the last Sub-Phase.			
Buses for East Bay Service	Rolling Stock	Nine (9) Buses for East Bay Bus Service. First five (5) buses at inception of service, remaining four busses no earlier than the occupancy of the 5,000th residential unit.			
On -Island Shuttle Buses	Rolling Stock	Four (4) Shuttle Buses. Up to two (2) buses will be provided when the service initially begins, but no earlier than the occupancy of the three thousandth (3000th) unit, subject to the meet and confer process described in Exhibit N, Transportation Plan Obligations. The remaining two (2) buses will be provided as needed based on service schedules.			
Bicycle Lending Library	Rolling Stock	Purchase of bicycles and equipment to establish the bicycle lending library up to a maximum expediture of $110,000. Must be completed no later that the occupancy of the 1,000 residential unit.			

Financial Obligation	Obligation	Mechanism
Open Space Annual O&M Subsidy	$14.3 MM (NPV)	Max $1.5mil first 5 yrs, $3 mil per yr from Yr 6, subject to need per annual operating budget. See Financing Plan for amounts and schedule.
Transportation Annual Operating Subsidy	$30 MM (NPV)	Max $4 mil per year, subject to need per annual operating budget. See DDA for amounts and schedule.
Additional Transportation Subsity	$5 MM max	Five annual consecutive installments (max $1 mil per year) after the first certificate of occupancy (whether temp or final) has been issued for the 4,000th dwelling unit on the Project Site, payable within 90 days after request of SFCTA if transit report shows residential transit mode share is 50% or less.
Transportation Capital Contributions	$1.8 MM (NPV)	Used to purchase up to six (6) busses. Per-bus subsidy: the lesser of 20% of the cost of a Muni bus, or $300,000.
Community Center Space(s) Subsidy	$9.5 MM (NPV)	Space or susidy determination made at Major Phase Approval. Max $2.375 mil each Major Phase - subject to approved budget and program description.
Childcare Facility Subsidy	$2.5M (NPV)	Space or funding no later than the first approved Sub-Phase within Major Phase Three or 18 months before the existing facility is no longer operational due to development activity, whichever comes first.
Affordable Housing Subsidy	$98 MM max; $73.5 MM baseline	$17,500 per market rate unit at each lot sale. Trueups at 50% of TI land acreage make-up to 2,100 units and at 4,200 units land sales, credit for any payment made at 2,100 unit true-up. See Housing Plan for amounts and schedule.
School Improvement Payment	$5 MM (NPV)	Payment due at the start of refurbishment work on the school grounds for purposes of opening a K-8 school. See DDA for amounts and schedule.
Ramps / Viaduct SFCTA Soft Cost Reimbursement	$10 MM (NPV)	Annual schedule of payments. See TIDA / SFCTA MOA 3rd Amendment for amounts and schedule.
Import Fill	$1 MM	Payment due upon removal from stockpile at rate of $3.50 per CY or for any remaining in stockpile after 12/31/2015 in 3 equal annual installments. See TIDA / D.A. McCosker Agreement.

[1/] Horizontal obligations only, no vertical improvement or rehabilitation except as defined in Open Space Plan

[2/] All dates are subject to navy's environmental remediation efforts provided in the Navy MOA and land transfers from Navy and TIDA

[3/] Community Facility obligation is triggered by number of total building permits issued for residential dwelling units (shown in table above)

[4/] Timeframes are additive: Completion Outside Date = Date of Trigger (A) + (B) + (C) + (D)

6.3 APPENDIX C: SUB-PHASE HOUSING DATA TABLE

Major Phase	1
Sub-Phase	1B
Block	B1

	ALL LOTS		Market Rate Units														AUTHORITY UNITS	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
B1.1		0.50	Low Rise	50'	50'	100.00	50	45	5	For Sale								
B1.2		0.44	Low Rise	50'	50'		45	41	4	For Sale								
Block Subtotal		0.94				101.06	95	86	9									

Major Phase	1
Sub-Phase	1C
Block	C1

	ALL LOTS		Market Rate Units														AUTHORITY UNITS	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
C1.1		0.75	Tower	450'	450'	300.00	225	225	0	For Sale								
C1.2		0.81	Tower	450'	450'	277.78	225	225	0	For Sale								
Block Subtotal		1.56				288.46	450	450	0									

Major Phase	1
Sub-Phase	1C
Block	C2

	ALL LOTS		Market Rate Units														AUTHORITY UNITS	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
C2.1		1.24	Tower	350'	350'	258.87	321	300	21	For Sale								
C2.2		0.94	Mid-Rise	70'	70'	136.17	128	116	12	For Sale								
C2.3		1.16	Low Rise	60'	60'	93.10	108	98	10	For Sale								
C2.4		0.51	Tower	240'	240'	345.10	176	176	0	For Sale								
Block Subtotal		3.85				190.39	733	690	43									

Major Phase	1
Sub-Phase	1E
Block	C3

	ALL LOTS		Market Rate Units														AUTHORITY UNITS	
Residential Project Lot Number & Location	Lot Type (Authority, Auction, Other)	Acres	Anticipated Product Type (TH, Flat, Tower, etc.)	Max Bldg Ht Allowed	Anticipated Bldg Ht	Density (in DUA)	Total Developer Unit Count	Number Mkt Rt Units	Number Incl Units (Total)	Rental or For Sale	Number Incl Units @ 60% (Rental)	Number Incl Units @ 80% (For Sale)	Number Incl Units @ 90% (For Sale)	Number Incl Units @ 100% (For Sale)	Number Incl Units @ 110% (For Sale)	Number Incl Units @ 120% (For Sale)	Change to Size or Location?	Target Infrastructure Completion Date
C3.1	Authority	0.99																
C3.2	Authority	0.90																
C3.3		0.53	Townhome	40'	40'	54.72	29	29	0	For Sale								
C3.4		0.66	Low Rise	60'	60'	136.36	90	77	13	Rental								
C3.5		1.27	Tower	240'	240'	210.24	267	249	18	For Sale								
Block Subtotal		4.35				88.74	386	355	31									

	Total Residential Acreage	Total Authority Residential Acreage	Total Market Rate Residential Acreage	Total Developer Residential Units	Number Mkt Rt Units (For Sale)	Number Incl Units (For Sale)	Number Mkt Rt Units (Rental)	Number Incl Units (Rental)	Number Incl Units @ 60%	Number Incl Units @ 80%	Number Incl Units @ 90%	Number Incl Units @ 100%	Number Incl Units @ 110%	Number Incl Units @ 120%
Total for all Prior Approved Major Phases / Sub-Phases	10.7	1.89	8.81	1664	1504	70	77	13						
Total for this Major Phase / Sub-Phase (Acreage Excludes TI)	10.70	1.89	8.81	1664	1504	70	77	13						
Total of Prior Approved plus Proposed Major Phase / Sub-Phase	10.70	1.89	8.81	1664	1504	70	77	13						
Percentage for this Major Phase / Sub-Phase	% of Auth Land:	17.7%												
Cumulative Percentage	% of Auth Land:	17.7%	% Rental:	5.4%										

6.4 APPENDIX D: SUB-PHASE COST ESTIMATES

Item	1B,1C+1E	1YA+1YB
Grading		
Earthwork	$7,492,500	$994,500
Subtotal Grading	$7,492,500	$994,500
Street Improvements		
Streets & Roads	$10,532,750	$2,984,414
Streetscape	$4,830,117	$1,076,180
Subtotal Street Improvements	$15,362,867	$4,060,594
Storm Drain		
Storm Drain System	$10,104,141	$6,408,077
Subtotal Storm Drain	$10,104,141	$6,408,077
Sanitary Sewer		
Separated Sanitary Sewer System	$9,064,890	$4,563,910
Subtotal Sanitary Sewer	$9,064,890	$4,563,910
Water Supply (Low Pressure System)		
Low Pressure Water System	$3,158,036	$10,976,950
Subtotal Water Supply (Low Pressure)	$3,158,036	$10,976,950
Supplemental Water Supply System		
Supplemental Water Supply System	$700,640	-
Subtotal Supplemental Water Supply System	$700,640	$0
Recycled Water Supply		
Recycled Water Supply System	$1,908,858	-
Subtotal Recycled Water Supply	$1,908,858	$0
Electrical/Telecom/Gas		
Joint Trench	$3,376,800	$1,686,900
Subtotal Joint Trench	$3,376,800	$1,686,900
Geotechnical Mitigation		
Soil Stablization	$31,571,013	$1,689,017
Subtotal Geotechnical Mitigation	$31,571,013	$1,689,017
Parks & Open Space		
YBI Hilltop Park		$3,951,867
Waterfront Plaza	$3,319,113	
Ferry Causeway	$833,440	
Cultural Park	$3,300,025	
Cityside Waterfront Park	$4,443,174	
Cityside Stormwater	$201,452	
Building 1 Plaza	$8,039,182	
Marina Plaza	$3,990,024	
Clipper Cove Promenade	$1,016,861	
Clipper ROW	$173,319	
4th Street	$383,408	
Subtotal Parks & Open Space	$25,699,997	$3,951,867
Miscellaneous		
Ferry Improvements	$21,754,840	-
Demolition/Abatement/Environmental	$7,776,745	$3,792,179
Temporary Improvements	$431,265	-
General Transportation	$3,253,192	$1,029,954
General Conditions	$5,421,987	$1,716,591
Subtotal Misc.	$38,638,029	$6,538,724
Subtotal	$147,077,772	$40,870,539
5% Value Engineering Reduction	($7,353,889)	($2,043,527)
Total (To the nearest ($1,000)	$139,724,000	$38,827,000

6.5 APPENDIX E: CORPORATE GUARANTY

The Developer must provide a Guaranty to secure its obligations for each Sub-Phase no later than 30 days after approval of that Sub-Phase, the proposed form of which is included herein. For this Sub-Phase Application 2, the Developer proposes to provide a Corporate Guaranty equal to 125% of the cost of completion of the obligations. Prior to acceptance of TICD's Corporate Guaranty, TICD will assign its SP2 interests in the DDA to Treasure Island Series 1, LLC, who will execute the obligations and serve as the Developer for the Guaranty. Treasure Island Series 1, LLC is a wholly owned subsidiary of TICD

GUARANTY AGREEMENT
(TREASURE ISLAND/YERBA BUENA ISLAND)

This GUARANTY AGREEMENT (TREASURE ISLAND/YERBA BUENA ISLAND) (this "**Guaranty**") dated as of _____, 2015 (the "**Effective Date**"), is made by TREASURE ISLAND COMMUNITY DEVELOPMENT, LLC, a California limited liability company ("**Guarantor**"), to and for the benefit of the TREASURE ISLAND DEVELOPMENT AUTHORITY, a California non-profit public benefit corporation (the "**Authority**"). Unless otherwise defined in this Guaranty, all initially capitalized terms used in this Guaranty shall have the meanings given to them in the DDA (as defined below).

This Guaranty is made with reference to the following facts and circumstances:

RECITALS

A. The Authority and Treasure Island Series 1, LLC, a Delaware limited liability company ("**Developer**"), are parties to that certain Disposition and Development Agreement (Treasure Island/Yerba Buena Island) dated for reference purposes as of June 28, 2011 (including all incorporated exhibits thereto and as amended and may be further amended from time to time, the "**DDA**"), pursuant to that certain Assignment, Assumption and Release Agreement (Treasure Island/Yerba Buena Island), dated as of _____ __, 2015, by and among Developer, the Authority and Guarantor.

B. In accordance with the DDA, the Authority has given a Sub-Phase Approval dated _____, 2015 for the Sub-Phase commonly known as _____ (as more particularly described in the Sub-Phase Approval and Sub-Phase Application therefor, the "**Guaranteed Sub-Phase**").

C. Guarantor will derive material financial benefit from the DDA and the taking of actions in accordance with the DDA under which the obligation to provide this Guaranty arose. In accordance with section 26.4 of the DDA, Guarantor is willing to provide this Guaranty to the Authority.

AGREEMENT

ACCORDINGLY, in consideration of the matters described in the above Recitals, and for other good and valuable consideration, the receipt and sufficiency of which are mutually acknowledged, Guarantor agrees as follows:

1. Guaranty

1.1 Guaranty. Guarantor unconditionally and irrevocably guarantees to the Authority the due and punctual payment (and not merely the collectability) and performance of the Guaranteed Obligations (as defined below), as and when the same shall become due and/or payable, on the terms provided in this Guaranty. The Authority may make a claim under this Guaranty for payment and/or performance of the Guaranteed Obligations by Guarantor only

upon and during the continuance of an Event of Default by Developer under the DDA for failure to fulfill the Guaranteed Obligations. In addition, Guarantor shall pay, and upon the Authority's request shall reimburse the Authority promptly for, all costs and expenses actually incurred by the Authority to enforce the Authority's rights, powers or remedies under this Guaranty (including reasonable collection charges and Attorneys' Fees and Costs (as defined below)) (together with any late payment interest on amounts due as set forth below, the "**Reimbursement Amount**"). With respect to Guaranteed Obligations that constitute payment (i.e., not performance) obligations under the DDA, any amount due and payable by Guarantor under this Guaranty but not paid within sixty (60) days after receipt of the Authority's written demand therefor shall be accompanied by interest on such amounts at the lesser of ten percent (10%) per annum or the maximum amount permitted by law, calculated from the date of Guarantor's receipt of the Authority's written demand therefor through and including the date of payment of such amounts (calculated on the basis of a 365-day year and for the actual number of days elapsed). With respect to Guaranteed Obligations that constitute performance (i.e., not payment) obligations, to the extent that the Authority makes a claim under this Guaranty for performance of the Guaranteed Obligations the period for performance under the DDA shall be extended as reasonably necessary to permit Guarantor to undertake such performance in an orderly and timely manner.

1.2 Definition of Guaranteed Obligations. As used herein, "**Guaranteed Obligations**" means all of Developer's obligations under the DDA with respect to the Guaranteed Sub-Phase, including Developer's obligation to Complete all of the Infrastructure, Stormwater Management Controls, Required Improvements and Associated Public Benefits associated with that Sub-Phase, which obligations include but are not limited to all hard and soft costs relating to construction of such Infrastructure, Stormwater Management Controls, Required Improvements and Associated Public Benefits, and all work required to be performed by Developer to Complete such Infrastructure, Stormwater Management Controls, Required Improvements and Associated Public Benefits such as land assembly, mapping, and performance under the Land Acquisition Agreements, but excluding the payment of the Financial Obligations and all Indemnification obligations, each of which are secured by the applicable Base Security; provided, however, that under no circumstances shall the aggregate liability of Guarantor for the Guaranteed Obligations, excluding the Reimbursement Amount, exceed $ _____ **[*insert Sub-Phase Construction Secured Amount determined under section 26.4*]** (the "**Secured Amount**"). Without limiting the generality of the preceding sentence, to the extent the Guaranteed Obligations include a guaranty of performance, Guarantor shall not be obligated to incur obligations or spend funds for the Guaranteed Obligations that, in the aggregate (including payment obligations to the Authority for the Guaranteed Obligations), exceed the Secured Amount.

1.3 Acknowledgments by Guarantor. Guarantor acknowledges, confirms, and agrees that: (a) it has received fair and adequate consideration for its execution of this Guaranty; (b) it derived material financial benefit from the Authority's execution of the DDA and the Authority's actions under which the obligation to provide this Guaranty arose; and (c) there are no conditions to the full effectiveness of this Guaranty other than those expressly set forth in this Guaranty.

1.4 Independent Obligations; Continuing Guaranty. This Guaranty is a primary and original payment and performance obligation of Guarantor and is absolute, unconditional, continuing and irrevocable.

2. Waivers by Guarantor

2.1 Waivers. Guarantor hereby waives: (a) notice of acceptance of this Guaranty; (b) demand of payment, notice of nonperformance, notice of dishonor, presentation, protest, and indulgences and (except as specifically provided in this Guaranty) notices of any kind whatsoever; (c) any right to assert or plead any statute of limitations relating to this Guaranty and the DDA (and Guarantor agrees that any act that tolls any statute of limitations applicable to the DDA will operate similarly to toll the statute of limitations applicable to Guarantor's liability hereunder); (d) any right to require the Authority to proceed against Developer or any other person or entity liable to the Authority except to the extent expressly set forth in the DDA; (e) any right to require the Authority to apply to the cure of any default any letter of credit or other security it may hold under the DDA, except to the extent expressly set forth in the DDA; (f) until the Guaranteed Obligations have been satisfied in full, any right of subrogation; (g) any right to require the Authority to pursue or enforce any remedy that the Authority now has or may later have against Developer or any other person or entity; (h) any right to participate in any letter of credit or other security now or later held by the Authority; and (i) any defense that may arise by the reason of: (1) the incapacity, lack of authority, death, disability or other defense of Developer or any other person or entity; (2) the revocation or repudiation of this Guaranty by Guarantor; (3) failure of the Authority to file or enforce a claim against the estate (either in administration, bankruptcy or any other proceeding) of Developer or any others; (4) any election by the Authority in any proceeding instituted under the United States Bankruptcy Code, as amended (11 U.S.C. §§ 101, *et seq.*); (5) any borrowing or granting of a security interest under section 364 of the United States Bankruptcy Code; (6) the Authority's election of any remedy against Guarantor or Developer or any other party to the extent permitted hereunder or under the DDA; (7) the Authority's taking, modification, or releasing of any collateral or guarantees, or any failure to perfect any security interest in, or the taking of or failure to perfect any other action with respect to any collateral securing performance of obligations under the DDA; (8) any amendment or modification of the DDA or related documents, whether or not known or consented to by Guarantor; or (9) any offset by Guarantor against any obligation now or later owed to Guarantor by Developer or any other person or entity, it being the intention of this Guaranty that Guarantor remain liable to the full extent set forth in this Guaranty until the full performance of each and every term, condition and covenant of the DDA to be performed with respect to the Guaranteed Obligations, notwithstanding any act, omission or thing that might otherwise operate as a legal or equitable discharge of Guarantor. Without limiting the generality of the foregoing, Guarantor expressly waives any and all benefits under California Civil Code sections 2809, 2810, 2819, 2839, 2845, 2846, 2848, 2849, 2850, 2855, 2899 and 3433.

Without limiting the foregoing, Guarantor understands and acknowledges that if the Authority exercises any rights under the DDA or any related agreements, then the exercise of such rights could impair or destroy any ability that Guarantor may have to seek reimbursement, contribution or indemnification from Developer or others based on any right Guarantor may have of subrogation, reimbursement, contribution or indemnification for any amounts paid or cost

incurred by Guarantor under this Guaranty. Guarantor further understands and acknowledges that in the absence of this Section 2.1, such potential impairment or destruction of Guarantor's rights, if any, may entitle Guarantor to assert a defense to this Guaranty based on law or in equity, including, in the case of any real property security, section 580d of the California Code of Civil Procedure as interpreted in Union Bank v. Gradsky, 265 Cal. App. 2d 40 (1968). By executing this Guaranty, Guarantor freely, irrevocably, absolutely and unconditionally: (i) waives and relinquishes that defense and agrees that Guarantor will be fully liable under this Guaranty even though the Authority may exercise any right or remedy under the DDA, including any act judicially or nonjudicially against any real property security; (ii) agrees that Guarantor will not assert that defense in any action or proceeding which the Authority may commence to enforce this Guaranty; (iii) agrees that the rights and defenses waived by Guarantor under this Guaranty include any right or defense that Guarantor may have or be entitled to assert based on or arising out of law or equity, including any one or more of sections 580a, 580b, 580d or 726 of the California Code of Civil Procedure; (iv) waives notice of default, acceleration, protest or dishonor; (v) waives any notice of sale or other disposition of any security; (vi) waives notice of acceptance of this Guaranty and of the existence, creation or incurring of new or additional guaranteed obligations, and all other notices of any kind with respect to any Guaranteed Obligations except for any notice required to be given to Guarantor under this Guaranty; and (vii) agrees that the Authority relied on these waivers in entering into the DDA and taking the actions under which the obligation to provide this Guaranty arose and that these waivers are a material part of the consideration that the Authority is receiving in connection with such acts.

2.2 Waiver of Subrogation. Subject to the waivers set forth in Section 2.1, upon satisfaction in full of all of the Guaranteed Obligations, Guarantor shall be subrogated to the rights of the Authority against Developer or others with respect to the Guaranteed Obligations, and the Authority agrees to take such steps as Guarantor may reasonably request to implement such subrogation (provided Guarantor shall pay the Authority all costs actually incurred with respect thereto pursuant to the DDA and that the Authority shall not incur any liabilities in taking any such steps).

3. Consents by Guarantor

3.1 Consents; No Discharge of Obligations. Without releasing, discharging, impairing, or otherwise affecting any obligations of Guarantor under this Guaranty or the validity or enforceability of this Guaranty, the Authority, by action or inaction, in its sole and absolute discretion and without notice to Guarantor, may refuse or fail to enforce all or any portion of the Authority's rights, powers or remedies under this Guaranty, the DDA or any related documents. The Authority, in its sole and absolute discretion and without notice to Guarantor may additionally: (a) compromise, settle, extend the time for payment or performance of all or any part of the Guaranteed Obligations; and (b) deal in all respects with Guarantor as if this Guaranty were not in effect. It is the intent of Guarantor and the Authority that Guarantor shall remain liable for the payment and performance of the Guaranteed Obligations and all other obligations guaranteed hereby to the extent set forth herein, notwithstanding any act or thing that might otherwise operate as a legal or equitable discharge of a surety.

3.2 Payments to Other Persons. The Authority shall be under no obligation to marshal any assets in favor of Guarantor or against, or in payment or performance of, any or all of the Guaranteed Obligations. If all or any part of any payment to or for the benefit of the Authority in respect of the Guaranteed Obligations is invalidated, declared to be fraudulent or preferential, set aside, or required for any reason to be repaid or paid over to a trustee, receiver or other person (a "**trustee**") under any insolvency law or any other law or rule of equity (collectively, "**set aside**"), to the extent of that payment or repayment, the Guaranteed Obligations (or the part thereof) intended to have been satisfied shall be revived and continued in full force and effect as if that payment had not been made, and Guarantor shall be primarily liable for that obligation, provided that nothing hereunder shall preclude Guarantor from obtaining a refund from a trustee.

3.3 Additional Rights. This Guaranty is in addition to, and not in substitution for or in reduction of, any other guaranty by Guarantor, or any obligation of Guarantor under any other agreement or applicable law that may now or hereafter exist in favor of the Authority. Except as may be expressly provided to the contrary in the DDA, the liability of Guarantor under this Guaranty shall not be contingent upon the enforcement of any lien or realization upon the security, if any, the Authority may at any time possess with respect to the Guaranteed Obligations. Nothing herein shall limit the obligations of Developer or others under the DDA.

3.4 Recourse. The Authority shall have the right to seek recourse against Guarantor to the full extent provided for in this Guaranty, which right shall be absolute and shall not in any way be impaired, deferred, or otherwise diminished by reason of any inability of the Authority to claim any amount of such Guaranteed Obligation from Guarantor or Developer or others as a result of bankruptcy or otherwise, including any limitation on the Authority's claim from Guarantor or Developer or others under section 502(b)(6) of the United States Bankruptcy Code. No election to proceed in one form of action or proceeding, or against any person or entity, or on any obligation, will constitute a waiver of the Authority's right to proceed in any form of action or proceeding or against other persons or entities unless the Authority has expressly waived that right in writing.

4. Representations and Warranties of Guarantor

4.1 Representations and Warranties. Guarantor represents and warrants to the Authority that it has full power and authority to execute, deliver and perform its obligations under this Guaranty, and that execution, delivery and performance have been duly authorized by all requisite action on its part.

4.2 Independent Investigation. Guarantor represents and warrants to the Authority that Guarantor has performed its own independent investigation as to the matters covered by this Guaranty.

5. Termination of Guaranty

5.1 *Release/Termination*. (a) Partial Release. Upon request by Guarantor and approval by the Authority Director (which approval will not be unreasonably withheld,

conditioned or delayed), Guarantor's liability under this Guaranty shall be proportionately reduced upon partial satisfaction of the Guaranteed Obligations by an amount equal to the cost of specified components of the Guaranteed Obligations when such components are fulfilled, except to the extent Authority has received notice by Developer in accordance with section 16.5.4 of the DDA that the amount of the Guaranty is to be retained by the Authority to the extent necessary to satisfy the requirements for recordation of the Reverter Release.

(b) Termination. Guarantor's liability under this Guaranty shall be terminated, discharged and satisfied, and Guarantor shall be relieved of any and all further obligations under this Guaranty for the Guaranteed Obligations upon the complete satisfaction of the obligation secured thereby, as evidenced by the issuance of Developer's last Certificate of Completion with respect to the Guaranteed Sub-Phase, and payment in full of any then outstanding Reimbursement Amount related thereto in accordance with this Guaranty; provided, that (1) if the Authority records the Reversionary Quitclaim Deed with respect to the real property in the Guaranteed Sub-Phase, then this Guaranty shall be terminated as set forth in section 16.5.1(c) of the DDA, and (2) if the Authority terminates the DDA with respect to the Guaranteed Sub-Phase before the issuance of Developer's last Certificate of Completion for that Sub-Phase, then this Guaranty shall be terminated when the Guaranteed Obligations that relate to the period before such termination have been Completed (or, if applicable, upon and in accordance with a final, unappealable judicial determination). Guarantor's liability under this Guaranty shall also be terminated, discharged and satisfied in whole or in applicable part, and Guarantor shall be relieved of any and all further obligations under this Guaranty for all or the applicable part of the Guaranteed Obligations if Developer substitutes this Guaranty, or any portion thereof, with another form of Adequate Security that meets all of the requirements or Approvals needed for it to be Adequate Security as defined in the DDA.

5.2 Evidence of Termination. Following any such termination and upon Guarantor's request, the Authority shall confirm in writing the fact of termination of this Guaranty and promptly return this Guaranty to Guarantor (or, if requested by Guarantor, to Developer).

6. Notices

(a) A notice or communication under this Guaranty by either Guarantor or the Authority to the other shall be sufficiently given or delivered if given in writing and dispatched by hand, by registered or certified mail, postage prepaid, or by a recognized overnight carrier, such as Federal Express, addressed as follows:

(i) In the case of a notice or communication to the Authority:

Treasure Island Development Authority
c/o Office of Economic and Workforce Development
City Hall, Rm. 448
1 Dr. Carlton B. Goodlett Place
San Francisco, California 94102

Attn: Treasure Island Project Director
Facsimile: 415.554.6018

And to:

Office of the City Attorney
City Hall, Rm. 234
1 Dr. Carlton B. Goodlett Place
San Francisco, California 94102
Attn: Real Estate/Finance
Facsimile: 415.554.4755

(ii) In the case of a notice or communication sent to Guarantor:

Treasure Island Community Development, LLC
c/o Lennar Urban
One Sansome Street, Suite 3200
San Francisco, California 94104
Attn: Kofi Bonner

And to:

Treasure Island Community Development, LLC
c/o Wilson Meany Sullivan LLC
4 Embarcadero Ctr., Suite 3330
San Francisco, California 94111
Attn: Chris Meany

And to:

Paul Hastings LLP
55 Second Street, 24th Floor
San Francisco, California 94105
Attn: David A. Hamsher, Esq.
Facsimile: 415.856.7123

And to:

Gibson, Dunn & Crutcher
555 Mission Street, Suite 3000
San Francisco, CA 94105
Attn: Mary G. Murphy
Facsimile: (415) 374-8480

For convenience, copies of notices may also be given by facsimile.

Every notice pursuant to the terms of this Guaranty must be in writing and must state (or must be accompanied by a cover letter that states) substantially the following:

(b) the Section of this Guaranty pursuant to which the notice is given and the action or response required, if any;

(c) if applicable, the period of time within which the recipient of the notice must respond thereto;

(d) if approval is being requested, that it is a "Request for Approval under Guaranty Agreement"; and

(e) if it provides notice of a disapproval or an objection that requires reasonableness, specifically and with particularity the reasons therefor.

Any mailing address or facsimile number may be changed at any time by giving written notice of such change in the manner provided above at least ten (10) days before the effective date of the change. All notices under this Guaranty will be deemed given, received, made or communicated on the date personal receipt actually occurs or, if mailed or delivered by a recognized carrier, on the delivery date or attempted delivery date shown on the return receipt or in the records of such carrier, as applicable. Official or binding notice may not be given by facsimile. The effective time of a notice shall not be affected by the receipt, before receipt of the original, of a facsimile copy of the notice.

7. General Provisions

7.1 Successors and Assigns. This Guaranty will be binding upon, and inure to the benefit of, Guarantor and the Authority and their respective successors, heirs, administrators and assigns.

7.2 Amendments. This Guaranty may be amended or modified only by a written instrument executed by the Authority and Guarantor.

7.3 Waivers. No action taken pursuant to this Guaranty by the Authority shall be deemed to be a waiver by the Authority of Guarantor's compliance with any of the provisions hereof. No waiver by the Authority of any breach of any provision of this Guaranty shall be construed as a waiver by the Authority of any subsequent or different breach. No forbearance by the Authority to seek a remedy for noncompliance hereunder or breach by Guarantor shall be construed as a waiver by the Authority of any right or remedy with respect to such noncompliance or breach.

7.4 Continuation and Survival of Covenants. All covenants by Guarantor contained herein shall be deemed to be material and shall survive any termination of the DDA or a portion thereof if the Guaranteed Obligations have arisen and not been satisfied as of the date of any such termination.

7.5 Governing Law; Selection of Forum. This Guaranty shall be governed by and construed in accordance with the laws of the State of California. As part of the consideration for the DDA and the Authority's actions under which the obligation to provide this Guaranty arose, Guarantor agrees that all actions or proceedings arising directly or indirectly under this Guaranty may, at the sole option of the Authority, be litigated in courts located within the State of California, and Guarantor expressly consents to the jurisdiction of any such local, state or federal court, and consents that any service of process in such action or proceeding may be made by personal service upon Guarantor wherever Guarantor may then be located, or by certified or registered mail directed to Guarantor at the address set forth in this Guaranty for the delivery of notices.

7.6 Merger of Prior Agreements. Guarantor and the Authority intend that this Guaranty shall be the final expression of their agreement with respect to the subject matter hereof and may not be contradicted by evidence of any prior or contemporaneous oral or written agreements or understandings. Guarantor and the Authority further intend that this Guaranty shall constitute the complete and exclusive statement of its terms and that no extrinsic evidence whatsoever (including prior drafts or changes therefrom) may be introduced in any judicial, administrative or other legal proceeding involving this Guaranty.

7.7 Interpretation of Guaranty. Unless otherwise specified, whenever in this Guaranty reference is made to any Section, or any defined term, the reference shall be deemed to refer to the Section or defined term of this Guaranty. Any reference to a Section includes all subsections and subparagraphs of that Section. The use in this Guaranty of the words "including", "such as" or words of similar import when following any general term, statement or matter shall not be construed to limit such statement, term or matter to the specific items or matters, whether or not language of non-limitation, such as "without limitation" or "but not limited to", or words of similar import, is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such statement, term or matter. In the event of a conflict between the Recitals and the remaining provisions of the Guaranty, the remaining provisions shall prevail. Any titles of the several parts and Sections of this Guaranty are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of its provisions. The masculine, feminine or neutral gender and the singular and plural forms include the others whenever the context requires. References to days, months and years mean calendar days, months and years unless otherwise specified. References to any law, specifically or generally, will mean the law as amended, supplemented or superseded from time to time. The provisions of this Guaranty shall be construed as a whole according to their common meaning and not strictly for or against either Guarantor or the Authority in order to achieve the objectives and purposes of Guarantor and the Authority, regardless of who drafted this Guaranty.

7.8 Attorneys' Fees and Costs. Should either Guarantor or the Authority institute any action or proceeding in court to enforce any provision hereof or for damages by reason of an alleged breach of any provision of this Guaranty, the prevailing party shall be entitled to receive from the losing party court costs incurred by the prevailing party including expert witness fees and costs and expenses, travel time and associated costs; transcript preparation fees and costs; document copying expenses; exhibit preparation costs; carrier expenses and postage and

communications expenses; such amount as a court or other decision maker may adjudge to be reasonable attorneys' fees for the services rendered to the prevailing party in such action or proceeding; fees and costs associated with execution upon any judgment or order; and costs on appeal and any collection efforts (the "**Attorneys' Fees and Costs**"). For purposes of this Guaranty, the Attorneys' Fees and Costs shall include the fees and costs of in-house counsel for the City, the Authority and Guarantor based on the fees regularly charged by private attorneys with the equivalent number of years of professional experience in the subject matter area of the law for which the City's, the Authority's or Guarantor's in-house counsel's services were rendered who practice in the City and County of San Francisco in law firms with approximately the same number of attorneys as employed by the City, the Authority or Guarantor.

7.9 Severability. Invalidation of any provision of this Guaranty, or of its application to any person or entity, by judgment or court order, will not affect any other provision of this Guaranty or its application to any other person, entity or circumstance, and the remaining portions of this Guaranty shall continue in full force and effect, unless enforcement of this Guaranty as invalidated would be unreasonable or grossly inequitable under all the circumstances or would frustrate the purposes of this Guaranty.

7.10 Substitute Security. (a) Substitute Security. If at any time during the period this Guaranty is in effect, the Net Worth of Guarantor falls below Fifty Million Dollars ($50,000,000) (the "**Net Worth Requirement**"), or Guarantor causes or allows to occur a Significant Change (as defined in Section 7.10(b) below) (each, a "**Substitute Security Event**"), then Guarantor shall notify the Authority and Developer as soon as reasonably practicable. On each five (5) year anniversary of the Effective Date (as defined in the DDA; for avoidance of doubt such Effective Date is _____), the Net Worth Requirement shall be increased, automatically, by an amount equal to ten percent (10%) of the then current Net Worth Requirement. Upon the occurrence of a Substitute Security Event, Developer is required under section 26.3 of the DDA to supply the Authority with a substitute guaranty (in the form of this Guaranty), an unconditional letter of credit, or other form of security, in each case: (i) in favor of the Authority; (ii) in form and substance, and issued by persons or entities, reasonably satisfactory to the Authority (including satisfaction of the Net Worth Requirement); (iii) in the amount of one hundred percent (100%) of the Guaranteed Obligations up to the Secured Amount; and (iv) to remain in effect until the Guaranteed Obligations are fulfilled, but will be reduced from time to time, in accordance with the release provisions of Section 5.1(a) above ("**Substitute Security**"). If Developer does not supply the Authority with the Substitute Security within the time period required under the DDA, the Authority shall notify Guarantor and Guarantor shall provide such Substitute Security within ten (10) days after the Authority's notice. Failure of the Authority to give notice of Developer's failure to provide the Substitute Security shall not relieve Guarantor of its obligations hereunder. It shall be a default of Guarantor under this Guaranty, and a default of Developer under the terms of the DDA, if Guarantor fails to provide the Substitute Security within ten (10) days after the Authority's notice. The Authority's sole remedy against Guarantor for Guarantor's failure to provide the Substitute Security in the event Developer does not provide it as required under the DDA will be to require Guarantor to specifically perform its obligation to provide the Substitute Security in the Secured Amount and not to seek damages against Guarantor attributable to such failure;

however, this limitation on remedies shall apply only to Guarantor's failure to provide the Substitute Security in the event Developer fails to provide the Substitute Security as required under the DDA, not to the Authority's rights to enforce this Guaranty generally, and shall not limit the Authority's rights against Developer under the DDA. Upon the Developer or Guarantor providing the Substitute Security required under this Section 7.10(a), the Authority shall promptly return this Guaranty.

(b) Significant Change. For purposes of Section 7.10(a) above, "**Significant Change**" means (i) Guarantor files a petition for bankruptcy, or makes a general assignment for the benefit of its creditors, (ii) a receiver is appointed on account of Guarantor's insolvency, (iii) a writ of execution or attachment or any similar process is issued or levied against any bank accounts of Guarantor, or against any property or assets of Guarantor being used or required for use in the development of the Infrastructure or against any substantial portion of any other property or assets of Guarantor unless a writ of execution is dismissed within ninety (90) days and a writ of attachment is dismissed within thirty (30) days, (iv) a final non-appealable judgment is entered against Guarantor in an amount in excess of ten percent (10%) of Guarantor's Net Worth and Guarantor does not satisfy or bond the judgment within twenty (20) days, or (v) without the consent of Guarantor, an application for relief is filed against Guarantor under any federal or state bankruptcy law, unless the application is dismissed within ninety (90) days.

7.11 Counterparts. This Guaranty may be executed in two or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

7.12 No Third Party Beneficiaries. No person or entity other than the Authority and Guarantor shall have or acquire any right or action of any kind based upon the provisions of this Guaranty.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, Guarantor and the Authority, each being duly authorized, have executed and delivered this Guaranty as of the Effective Date.

GUARANTOR:

TREASURE ISLAND COMMUNITY DEVELOPMENT, LLC,
a California limited liability company

By: UST Lennar HW Scala SF Joint Venture,
a Delaware general partnership
its co-Managing Member

By: _____
Name: Kofi Bonner
Title: President

By: KSWM Treasure Island, LLC,
a California limited liability company
its co-Managing Member

By: WMS Treasure Island Development I, LLC,
a Delaware limited liability company
its Member

By: Wilson Meany Sullivan LLC,
a California limited liability company
its Sole Member and Manager

By: _____
Name: Christopher Meany
Title: Managing Member

[SIGNATURES CONTINUE ON NEXT PAGE]

LEGAL_US_W # 81979292

ACCEPTED AND AGREED:

APPROVED AS TO FORM:
DENNIS J. HERRERA, City Attorney

By: _____
Name: _____
Title: Deputy City Attorney

AUTHORITY:

TREASURE ISLAND DEVELOPMENT AUTHORITY,
a California non-profit public benefit corporation

By: _____
Name: _____
Title: Executive Director

LEGAL_US_W # 81979292

6.6 APPENDIX F: 50% INFRASTRUCTURE IMPROVEMENT PLANS

24” x 36” plan set and outline specifications delivered/available under separate cover. Digital file on enclosed DVD.

AGS
5 Freelon Street
San Francisco, CA 94107
(415) 777-2166
www.agsinc.com

TREASURE ISLAND SUB-PHASE 1B, 1C & 1E IMPROVEMENT PLANS

50% SUBMITTAL REQUIREMENTS CONTENT MATRIX

Team	Submittal Item	Plan Location
AGS	**Cover/Title Sheet**	Sheet C1.00-1T
BKF	**Stationing/Survey Control Sheets**	Sheets C1.09-1T - C1.14-1T
AGS	**Grading Plans**	
	o Contours	Sheets C2.00-1T - C2.02-1T
	o Top of Curbs	Sheets C3.00-1T - C3.24-1T
	o Limits of Grading	Sheets C2.00-1T - C2.02-1T
	o Conforms	Sheets C2.00-1T - C2.02-1T
	o Pad Grades	Sheets C2.00-1T - C2.02-1T
	o Heights & Types of Retaining Walls	Sheets C12.00-1T - C12.03-1T
	o Cut/Fill Chart (optional)	Not Included
	o Earthwork Quantities (optional)	Not Included
AGS	**Site Plan/Composite Utilities**	
	o Location of Lots	Sheets C2.00-1T - C2.02-1T
	o Property Lines (Names, Areas)	Sheets C2.00-1T - C2.02-1T
	o ROW Lines (Widths)	Sheets C3.00-1T - C3.24-1T
	o Landscaped Areas	Sheets L0.00-1T - L7.08-1T
	o Curblines (Return Radii)	Sheets C3.00-1T - C3.24-1T
	o Proposed Utilities	Sheets C4.00-1T - C4.02-1T Sheets C5.00-1T - C5.24-1T Sheets C6.00-1T - C6.24-1T
	o Existing Utilities	Sheets C4.00-1T - C4.02-1T
	o Connections between Existing & Proposed Utilities	Sheets C4.00-1T - C4.02-1T
	o Stormwater BMP	Sheets SW.00-1T - SW.04-1T
	o Erosion Control	Sheets C11.00-1T - C11.04-1T
	o Proposed Service Connection to Future Lots	Sheets C5.00-1T - C5.24-1T Sheets C6.00-1T - C6.24-1T Sheets JT1.0-1T - JT12.0-1T
	o Interim Facilities	Sheets C7.00-1T - C7.17-1T
	o Easements	Sheets C4.00-1T - C4.02-1T
AGS	**Street Cross-Sections**	Sheets C1.06-1T - C1.08-1T
	Existing Conditions/Demolition Sheet	Separate Submittal[i]
	Plan & Profile Sheets	
AGS	**Horizontal**	
	o ROW, Curblines,	Sheets C3.00-1T - C3.24-1T
	o Sidewalks	Sheets C3.00-1T - C3.24-1T
	o Gravity Flow Utilities (SS & SD)	Sheets C5.00-1T - C5.24-1T Sheets OF.00-1T - OF.02-1T
	o Pressure Flow Utilities (LPW & RW)	Sheets C6.00-1T - C6.24-1T
	o Joint Trench (Including Street Lights)	Sheets JT1.0-1T - JT12.0-1T
	o Joint Trench (DTIS)	Sheets DT1.0-1T - DT12.0-1T
	o Connections to Existing Utilities	Sheets C4.00-1T - C4.02-1T
	o Easements	Sheets C4.00-1T - C4.02-1T
	o ADA Access	Sheets C10.04-1T - C10.07-1T
	o Fire Hydrants	Sheets C6.00-1T - C6.24-1T

AGS
5 Freelon Street
San Francisco, CA 94107
(415) 777-2166
www.agsinc.com

AGS	**Vertical**	
	o Existing Centerline Profile	Sheets C3.00-1T - C3.24-1T
	o Proposed Street Centerline Profile	Sheets C3.00-1T - C3.24-1T
	o Elevations, Slopes, Vertical Curve Data	Sheets C3.00-1T - C3.24-1T
	o Retaining Wall Plan & Profile	Sheets C8.00-1T - C8.03-1T
AGS	**Details**	
	o Standard Details & Other Details (if available)	Sheets C10.00-1T - C10.11-1T
BKF/AGS	**Stormwater Treatment Plans**	Sheets SW.00-1T - SW.04-1T
BKF	**Pump/Lift Station Plans**	Sheets PS1.00-1T – PS2.00-1T
PSD	**Joint Trench & Power Plans**	
	o Joint Trench Location	Sheets JT1.0-1T - JT12.0-1T
	o JT & Power Box Locations	Sheets E1.0-1T - E11.0-1T
	o Emergency Service Fire/Police Pull Box (DTIS)	Sheets DT1.0-1T - DT12.0-1T
PSD	**Streetlight Plans**	
	o Preliminary Streetlight Locations	Sheets C3.00-1T - C3.24-1T
	o Preliminary Photometric Plan	Sheets PH1.0-1T - PH3.0-1T
CMG	**Landscape Plans**	
	o Landscaped Areas Identified	Sheets L1.00-1T - L1.25-1T
	o Widths of Landscape Areas	Sheets L1.00-1T - L1.25-1T
	o Width of Sidewalk Areas	Sheets L1.00-1T - L1.25-1T
	o Tree Locations	Sheets L4.00-1T - L4.26-1T
	o Special Paving Locations	Sheets L1.00-1T - L1.25-1T Sheets L7.01-1T - L7.02-1T
	o Street Furniture	Sheets L1.00-1T - L1.25-1T Sheets L7.06-1T - L7.07-1T
ALL	**Outline Specifications**	
	Backup Calculations and Reports	
BKF	o Preliminary Storm Water Control Plan	Sheets SW.00-1T - SW.04-1T
NGO	o Geotechnical Report	

[i] Refer to Treasure Island Sub-Phase 1B, 1C & 1E Demolition and Utility Relocation Plans

6.7 APPENDIX G: STORMWATER CONTROL PLAN

(Digital file of submittal on enclosed DVD)

Treasure Island and Yerba Buena Island

Major Phase 1

TI Sub-Phases 1B, 1C & 1E

YBI Sub-Phases 1YA & 1YB

Preliminary Stormwater Control Plan

June 29, 2015

Prepared for

TICD TREASURE ISLAND COMMUNITY DEVELOPMENT

Prepared by

Dr. Jeff Haltiner

CMG CONGER MOSS GUILLARD landscape architecture

BkF ENGINEERS / SURVEYORS / PLANNERS

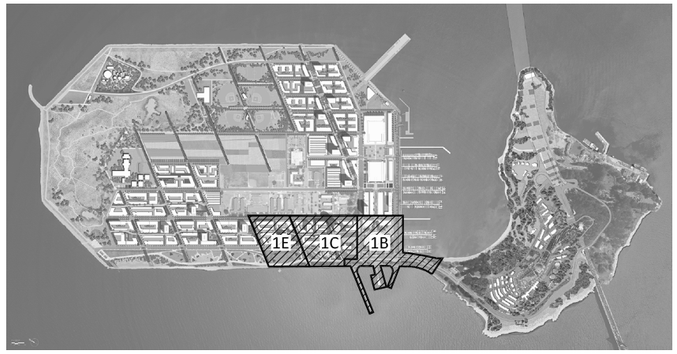
6.8 APPENDIX H: 100% DD PARKS AND OPEN SPACE

24” x 36” plan set, outline specifications, and material and color information delivered /available under separate cover. Digital file on enclosed DVD.

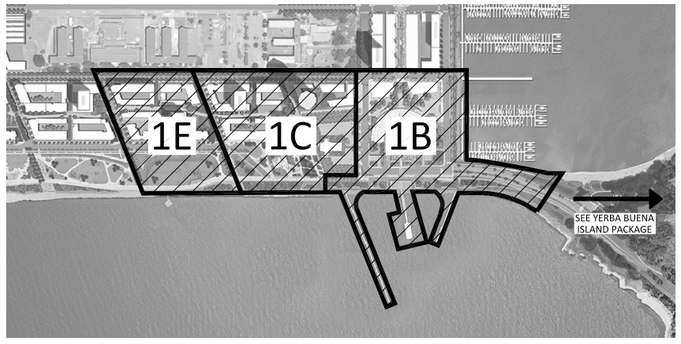
TREASURE ISLAND DEVELOPMENT AUTHORITY

TREASURE ISLAND
SUB-PHASE 1B, 1C & 1E

CITY OF SAN FRANCISCO COUNTY OF SAN FRANCISCO CALIFORNIA 94130



TREASURE AND YERBA BUENA ISLANDS



SUB PHASE 1B, 1C & 1E

PROJECT TEAM

DISCIPLINE/SCOPE	TEAM	ADDRESS & TELEPHONE NO.	CONTACT NAME
CLIENT			
	TREASURE ISLAND COMMUNITY DEVELOPMENT (TICD)	ONE SANSOME STREET, SUITE 3200, SAN FRANCISCO, CA, 94104. 415-344-8843	JULIAN PANCOAST
	TREASURE ISLAND COMMUNITY DEVELOPMENT (TICD)	FOUR EMBARCADERO CENTER, SUITE 3330, SAN FRANCISCO, CA, 94111. 415-905-5364	JAMES SUH
DESIGN TEAM			
LANDSCAPE ARCHITECT (PRIME)	CMG – CONGER MOSS GUILLARD	500 THIRD STREET. SUITE 215 SAN FRANCISCO, CA 94107. 415-495-3070	CHRIS GUILLARD
LANDSCAPE ARCHITECT – BUILDING ONE & MARINA PLAZAS	ACLA – ANDREA COCHRAN LANDSCAPE ARCHITECTURE	2325 THIRD STREET, #210, SAN FRANCISCO, CA, 94107. 415-503-0060	ANDREA COCHRAN
LANDSCAPE ARCHITECT – WATERFRONT PLAZA & CLIPPER COVE	AECOM	300 CALIFORNIA STREET, SUITE 400, SAN FRANCISCO, CA, 94104. 415-955-2916	BLAKE SANBORN
LANDSCAPE ARCHITECT – CULTURAL PARK	OCB – OFFICE OF CHERYL BARTON	146 ELEVENTH STREET, SAN FRANCISCO, CA, 94103. 414-551-0090	CHERYL BARTON
CIVIL ENGINEER	BKF ENGINEERS	255 SHORELINE DR., SUITE 200, REDWOOD CITY, CA 94065. 650-482-6401	TODD ADAIR
CIVIL ENGINEER	AGS ENGINEERS (JOINT VENTURE WITH BKF)	5 FREELON ST., SAN FRANCISCO, CA 94107. 415-777-8359	KEN LITLE
GEOTECHNICAL ENGINEER	ENGEO, INC.	2010 CROW CANYON PLACE, SUITE 250, SAN RAMON, CA 94583. 925-866-9000	URI ELIAHU
SHORELINE ENGINEER	MOFFATT & NICHOL	2185 N. CALIFORNIA BLVD., SUITE 500, WALNUT CREEK, CA 94596-3500. 925-944-5411	DILIP TRIVEDI
ARCHITECT	BCV ARCHITECTS	1527 STOCKTON ST., 4TH FLR, SAN FRANCISCO, CA, 94133. 415-398-6538	HANS BALDAUF
ARCHITECT	DILWORTH ELIOT STUDIOS	1066 HOWARD STREET SAN FRANCISCO, CA 94103 415.255.9740	AMY ELIOT
ARCHITECT	PAGE & TURNBULL	417 MONTGOMERY STREET SAN FRANCISCO, CA 94104 415.362.5154	JAY TURNBULL
JOINT TRENCH	POWER SYSTEMS DESIGN	2033 N. MAIN STREET, WALNUT CREEK, CA 94596 925.933.8485	GERALD JONES
PROGRAMMING & MANAGEMENT	MJM MANAGEMENT	706 MISSION ST, 8TH FLOOR SAN FRANCISCO, CA 94103 415.477.2600	MARY MCCUE
SIGNAGE DESIGN	HUNT DESIGN	25 N. MENTOR AVE, PASADENA, CA 91106 626.793.7847	WAYNE HUNT
CITY AGENCIES & PROJECT PARTNERS			
	TREASURE ISLAND DEVELOPMENT AUTHORITY (TIDA)	ONE AVENUE OF THE PALMS, SUITE 241, TREASURE ISLAND, SAN FRANCISCO, CA, 94130. 415-274-0662	BOB BECK
	TREASURE ISLAND CITIZENS ADVISORY BOARD		KAREN KNOWLES
	DEPARTMENT OF PUBLIC WORKS		BARBARA MOY
	SAN FRANCISCO PLANNING DEPARTMENT		JOSHUA SWITZKY
	SAN FRANCISCO PUBLIC UTILITIES COMMISSION		MARLA JUROSEK
	SAN FRANCISCO ARTS COMMISSION		JILL MANTON
	SAN FRANCISCO MUNICIPAL TRANSPORTATION AUTHORITY		PETER ALBERT
	TREASURE ISLAND MOBILITY MANAGEMENT AUTHORITY / SF COUNTY TRANSPORTATION AUTHORITY		SARAH FINE
	ALAMEDA–CONTRA COSTA TRANSIT		LINDA MORRIS
	SAN FRANCISCO FIRE DEPARTMENT		KETTY FEDIGAN
	TREASURE ISLAND CITIZENS ADVISORY BOARD		KAREN KNOWLES
	SF MAYOR'S OFFICE ON DISABILITY		CARLA JOHNSON
	SF BAY CONSERVATION & DEVELOPMENT COMMISION		ELLEN MIRAMONTES
	SF BAY TRAIL		MAUREEN GAFFNEY
	SF BIKE COALITION		JANICE LI
	WATER EMERGENCY TRANSPORTATION AUTHORITY (WETA)		MICHAEL GOUGHERTY

GENERAL DRAWING INDEX

SHEET ORDER			
AECOM	WATERFRONT PLAZA		
AECOM	CLIPPER COVE PROMENADE		
ACLA	BUILDING ONE PLAZA		
ACLA	MARINA PLAZA		
OCB	CULTURAL PARK		
CMG	CITYSIDE WATERFRONT PARK		
SHEET SERIES	SHEET CONTENT	CURRENT ISSUE DATE	100% DD
GENERAL SHEETS			
G0.00	COVER SHEET	06.25.2015	■
PARK LANDSCAPE DRAWINGS			
L0.00	DRAWING INDEX,NOTES, ABBREVIATIONS, LEGENDS, SURVEY	06.25.2015	■
L1.00	SITE PLANS	06.25.2015	■
L2.00	LAYOUT PLANS	06.25.2015	■
L3.00	GRADING PLANS	06.25.2015	■
L4.00	SOILS PLANS	06.25.2015	■
L5.00	PLANTING PLANS	06.25.2015	■
L6.00	IRRIGATION PLANS	06.25.2015	■
L7.00	SITE SECTIONS	06.25.2015	■
L8.00	DETAILS	06.25.2015	■
L9.00	3D GRAPHICS	06.25.2015	■
C	UTILITY PLANS	06.25.2015	■
E	ELECTRICAL PLANS	06.25.2015	■

TICD TREASURE ISLAND COMMUNITY DEVELOPMENT — TREASURE ISLAND DEVELOPMENT AUTHORITY

LICENSE STAMP

TREASURE ISLAND DEVELOPMENT AUTHORITY
TREASURE ISLAND
SUB-PHASE 1B, 1C & 1E
CITY OF SAN FRANCISCO COUNTY OF SAN FRANCISCO CALIFORNIA 94130

PARKS

100% DESIGN DEVELOPMENT

PROJECT NO. LEN1401 | DRAWN BY: | CHK'D | DATE: 06/25/2015

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

COVER SHEET - TI

SHEET TITLE

SCALE

G0.00

DRAWING NO.

NOT FOR CONSTRUCTION

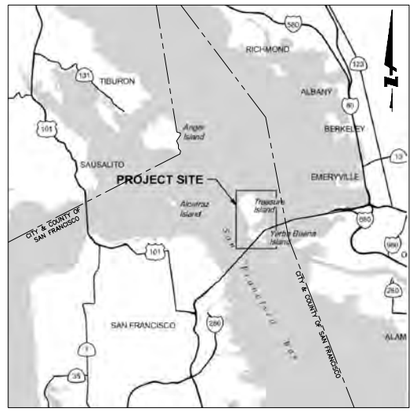
DRAWING NAME: Z:\LEN 1401 – Treasure Island MP1\01 CURRENT\01 Phase\03 SP1\01 CAD\04 Sheets\01_PARKS\G0.00 COVER SHEET.dwg
PLOT DATE: 06-22-15 PLOTTED BY: HWesterson

6.9 APPENDIX I: TENTATIVE TRANSFER MAP

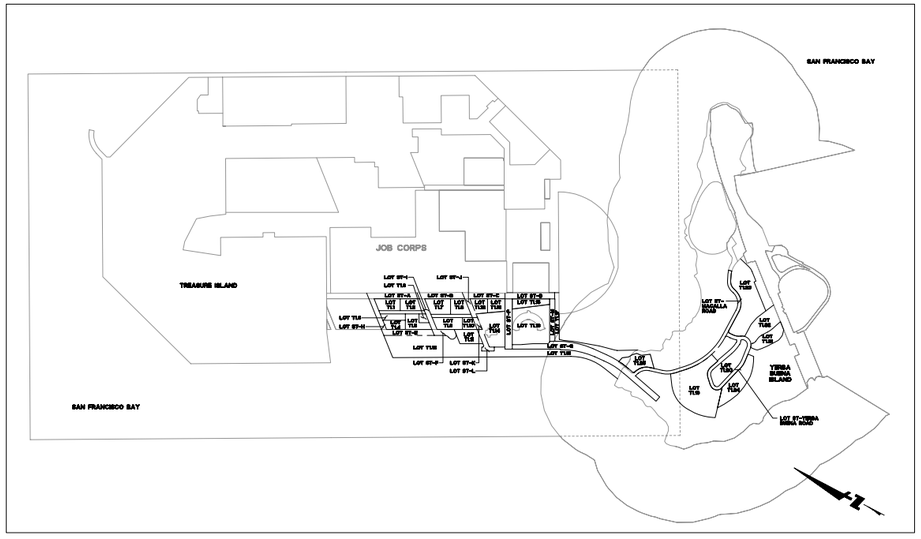
(Digital file of submittal on enclosed DVD)

TENTATIVE TRANSFER MAP – SUBPHASE 1
TREASURE ISLAND AND YERBA BUENA ISLAND
CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

SHEET INDEX



VICINITY MAP
NTS



SITE PLAN
SCALE: 1"=500'

GENERAL NOTES:

1. OWNER: TREASURE ISLAND DEVELOPMENT AUTHORITY
2. SUBDIVIDER: TREASURE ISLAND COMMUNITY DEVELOPMENT, LLC
   ONE SANSOME STREET, #3200
   SAN FRANCISCO, CA 94101
3. APPLICANT: TREASURE ISLAND COMMUNITY DEVELOPMENT, LLC
   ONE SANSOME STREET, #3200
   SAN FRANCISCO, CA 94101
4. CIVIL ENGINEER: BKF ENGINEERS,
   255 SHORELINE DRIVE, SUITE 200
   REDWOOD CITY, CA 94065
   (650) 482-6401
   TODD ADAIR, RCE 45428
5. GEOTECHNICAL ENGINEER: ENGEO, INC.,
   332 PINE STREET, SUITE 300
   SAN FRANCISCO, CA 94104
   (415) 284-9900
   STEFANOS PAPADPULOS
6. ACCESSORS PARCEL NO: TREASURE ISLAND AB 1939, LOT 001
   YERBA BUENA ISLAND AB 1939, LOT 002
7. SITE ADDRESS: TREASURE ISLAND AND YERBA BUENA ISLAND
8. DEVELOPED SITE AREA: TREASURE ISLAND: 45.69 ACRES
   YERBA BUENA ISLAND: 24.04 ACRES
9. IMPROVEMENTS: NO IMPROVEMENTS ARE TO BE MADE ASSOCIATED WITH THIS MAP. IMPROVEMENTS WILL BE DEFINED ON THE TREASURE ISLAND AND YERBA BUENA ISLAND TENTATIVE SUBDIVISION MAP AND CORRESPONDING SUBSEQUENT DOCUMENTS REFERRED TO THEREIN. NO DEVELOPMENT RIGHTS ARE CONFERRED BY EITHER THIS TENTATIVE MAP OR ANY SUBSEQUENT FINAL TRANSFER MAPS. NO FINAL TRANSFER MAPS WILL BE RECORDED UNLESS THEY ARE WITHIN AN APPROVED PHASE AND AN APPROVED INFRASTRUCTURE PLAN AND ARE DEEMED BY DPW TO BE CONSISTENT WITH SUCH APPROVALS.
10. ZONING CONFORMANCE: DEVELOPMENT OF THE PROPERTY SHALL BE IN CONFORMANCE WITH THE TREASURE ISLAND/YERBA BUENA ISLAND SPECIAL USE DISTRICT AND THE TREASURE ISLAND + YERBA BUENA ISLAND DESIGN FOR DEVELOPMENT APPROVED PURSUANT TO PLANNING COMMISSION MOTION NO. 18,300 AND BOARD OF SUPERVISORS FILE NOS. 110226 AND 1102891 (SEE PLANNING CODE § 249.52; 263.26)
11. BENCHMARK: VERTICAL DATUM
    POINT NO. 109: 3" DOMED BRASS DISK STAMPED "CCSF SURVEY MONUMENT I.S. 6914". IN CONCRETE SIDEWALK AT EAST END OF CHINA BASIN PARK, APPROXIMATELY 10' SOUTH OF NORTHERLY CURB LINE OF TERRY FRANCOIS BLVD (PROJECTED), 3' EASTERLY OF 1.5' HIGH CONCRETE WALL/BENCH DISPLAYING BASEBALL PLAQUES AND TILES.

    ELEVATION = 111.355' (NAVD88 HEIGHTS PER CCSF 2013 NAVD 88 DATUM 2ND ORDER LEVELING SURVEY)
12. REFERENCE DOCUMENTS: RECORD OF SURVEY MAP NO. _____
    RECORD OF SURVEY MAP NO. _____
13. DIMENSIONS: ALL DIMENSIONS SHOWN ARE PRELIMINARY AND SUBJECT TO FINAL DESIGN AND MAPPING.
14. TOPO: THE AERIAL TOPOGRAPHY IS BASED ON PHOTOGRAPHY BY GEOCADD SURVEYS DATED AUGUST 13, 2014 FOR TREASURE ISLAND AND AUGUST 26, 2014 FOR YERBA BUENA ISLAND.
15. PHASED FINAL MAP: THE APPLICANT HEREBY NOTIFIES THE CITY AND COUNTY OF SAN FRANCISCO THAT IT MAY FILE MORE THAN ONE PHASED FINAL TRANSFER MAP BASED ON THIS TENTATIVE TRANSFER MAP PURSUANT TO GOVERNMENT CODE SECTION 66456.1.

16. THE PARCELS DENOTED AS EXISTING ON SHEET 2 OF THIS MAP ASSUME COMPLETION OF BOTH THE PHASE 1 OF THE NAVY TRANSFER, RECORD OF SURVEY MAP _____ AND PHASE 1 OF THE STATE TRUST EXCHANGE. IF A FINAL TRANSFER MAP IS PROPOSED FOR RECORDATION PRIOR TO COMPLETION OF THE STATE TRUST EXCHANGE, ANY DEPICTION OF EXISTING PARCELS ON SUCH FINAL TRANSFER MAP WOULD REFLECT THE PARCEL STATUS PRIOR TO THE STATE TRUST EXCHANGE.

ENGINEER'S STATEMENT

THIS TENTATIVE TRANSFER MAP HAS BEEN PREPARED BY ME OR UNDER MY DIRECTION IN ACCORDANCE WITH STANDARD ENGINEERING PRACTICE.

TODD M. ADAIR, P.E.
PRINCIPAL
BKF ENGINEERS

REGISTERED PROFESSIONAL ENGINEER — TODD M. ADAIR — No. 45428 EXP. 12/31/16 — CIVIL — STATE OF CALIFORNIA

4/21/15
DATE

TENTATIVE TRANSFER MAP NO.

DRAWING NAME: J:\Sm\41\140015\DWG\TENTATIVE MAPS\Phase 1\Tentative Transfer Map\TI-TM01.dwg
PLOT DATE: 04-21-15 PLOTTED BY: kaya

BKF
255 SHORELINE DRIVE, SUITE 200
REDWOOD CITY, CA 94065
650/482-6300
650/482-6399 (FAX)
Berkeley/Fresno/Los Angeles

TENTATIVE TRANSFER MAP – SUBPHASE 1
TREASURE ISLAND AND YERBA BUENA ISLAND
COVER SHEET
CITY OF SAN FRANCISCO COUNTY OF SAN FRANCISCO CALIFORNIA

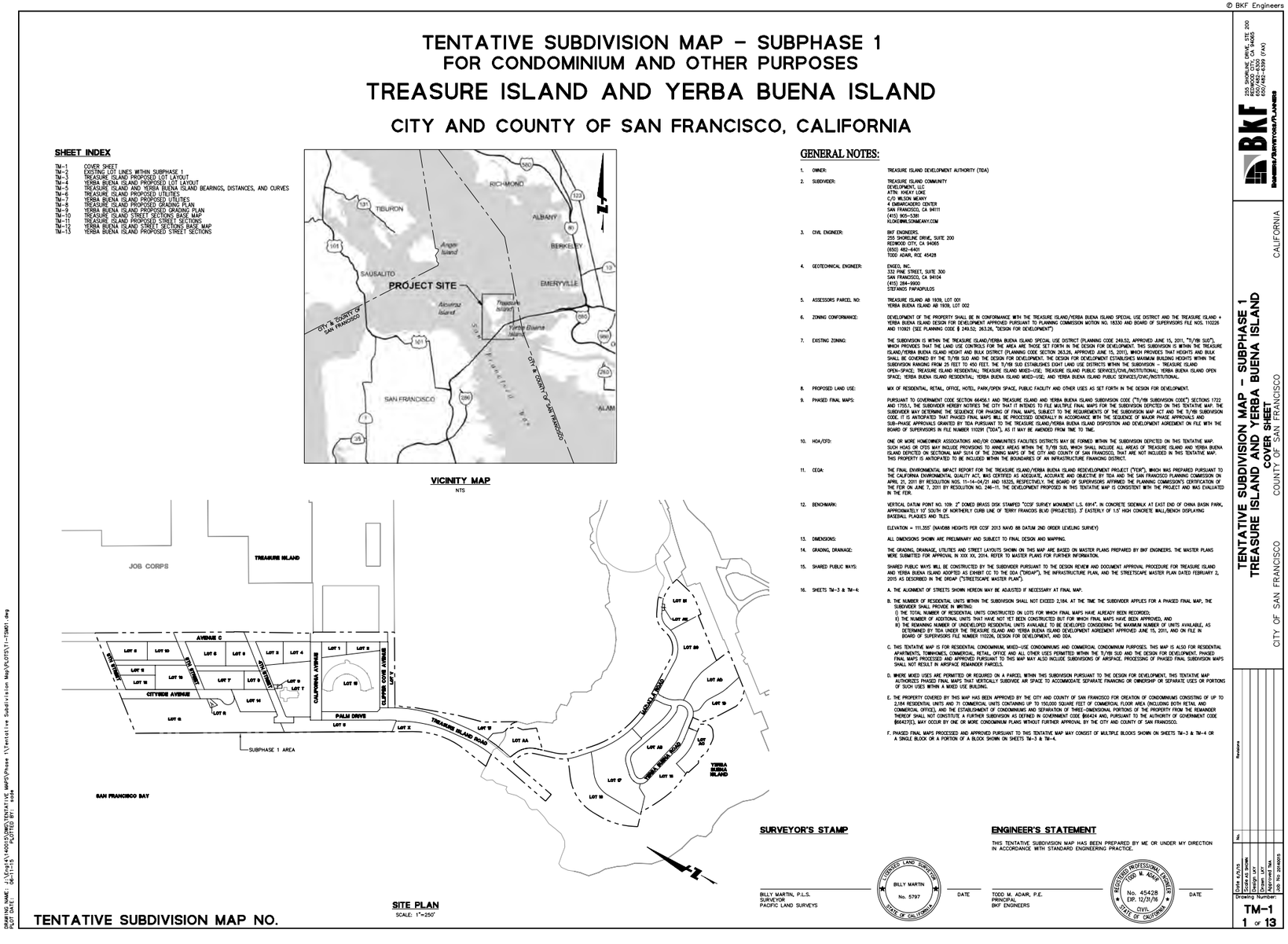
Revisions

No.	
Date	4/7/15
Scale	AS SHOWN
Design	JAT
Drawn	DJC
Approved	TMA
Job No.	20140015

Drawing Number:
TM-1
1 OF 8

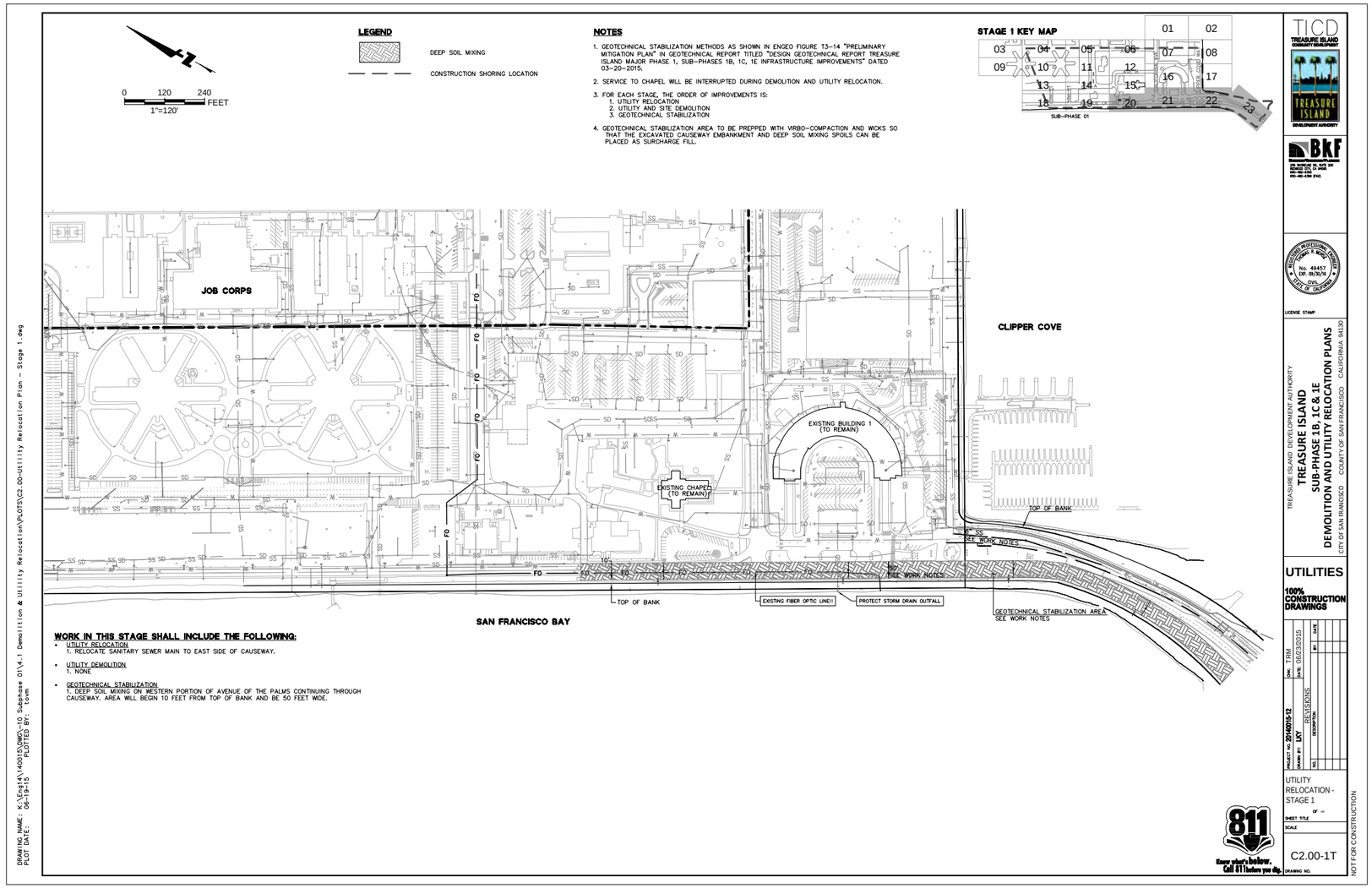
6.10 APPENDIX J: DRAFT TENTATIVE SUBDIVISION MAP

(Digital file of submittal on enclosed DVD)



6.11 APPENDIX K: UTILITY RELOCATION PLANS (FOR INFORMATION ONLY)

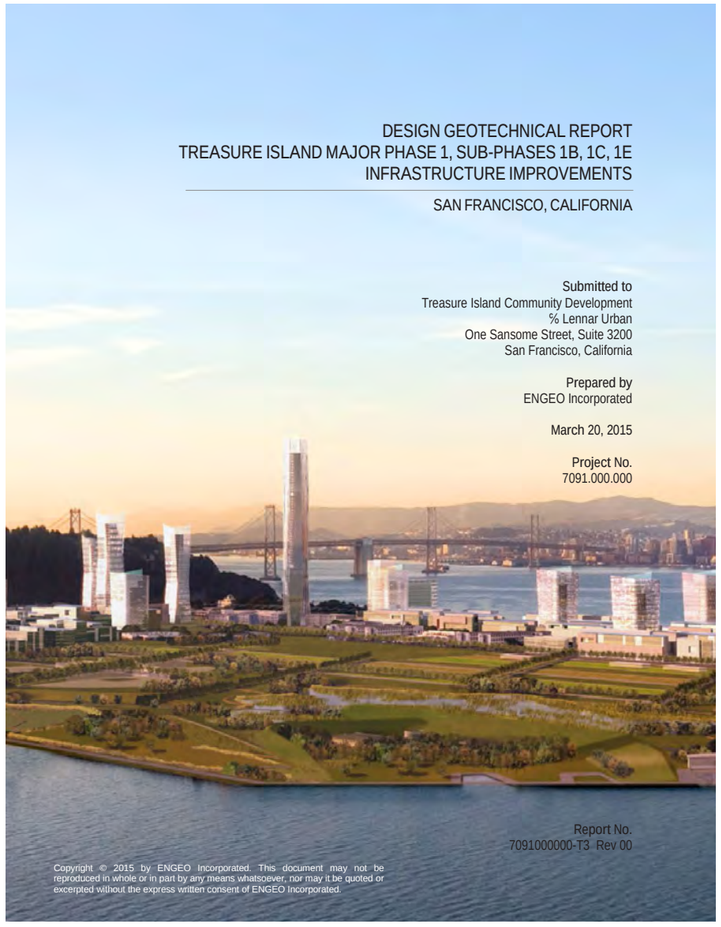
(Digital file on enclosed DVD)

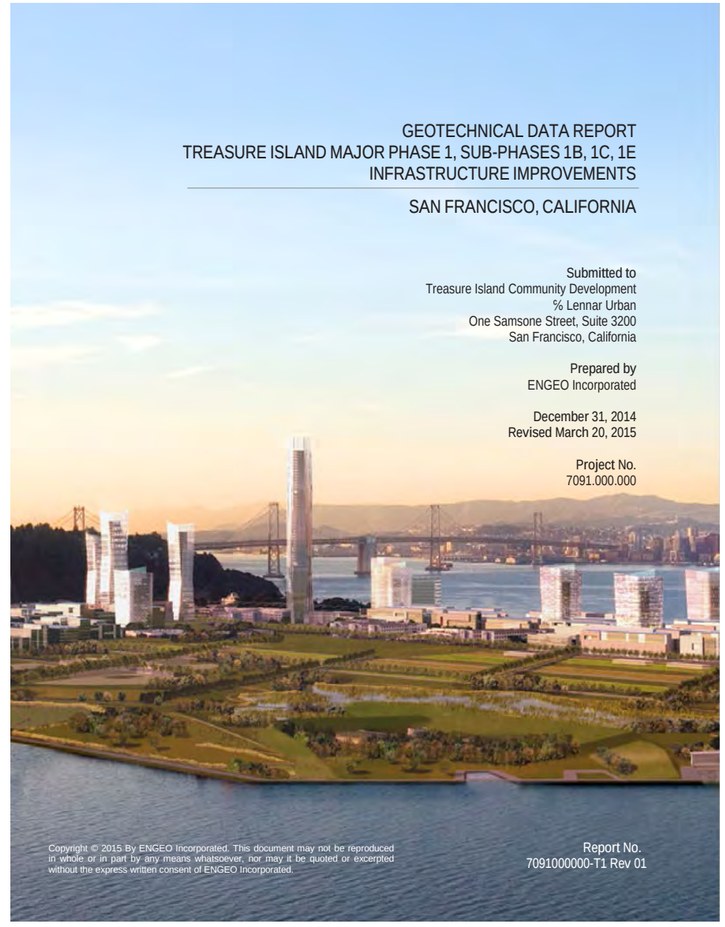


6.12 APPENDIX L: GEOTECHNICAL REPORTS (FOR INFORMATION ONLY)

Digital files for the following reports are available on the enclosed DVD:

1. Treasure Island Major Phase 1 Sub-Phase 1B-1C-1E Geotechnical Design Report, Draft, 3-20-15
2. Treasure Island Major Phase 1 Sub-Phase 1B-1C-1E Geotechnical Characterization Report, Final, 3-20-15
3. Treasure Island Major Phase 1 Sub-Phase 1B-1C-1E Geotechnical Data Report, Final, 3-20-15
4. Treasure Island Major Phase 1 Sub-Phase 1B-1C-1E Technical Memorandum No. 3, Supplemental Basis of Design, Response to ECRB Comments, 5-13-15





6.13 APPENDIX M: PRELIMINARY SHORELINE IMPROVEMENT PLANS (FOR INFORMATION ONLY)

(Digital file on enclosed DVD)